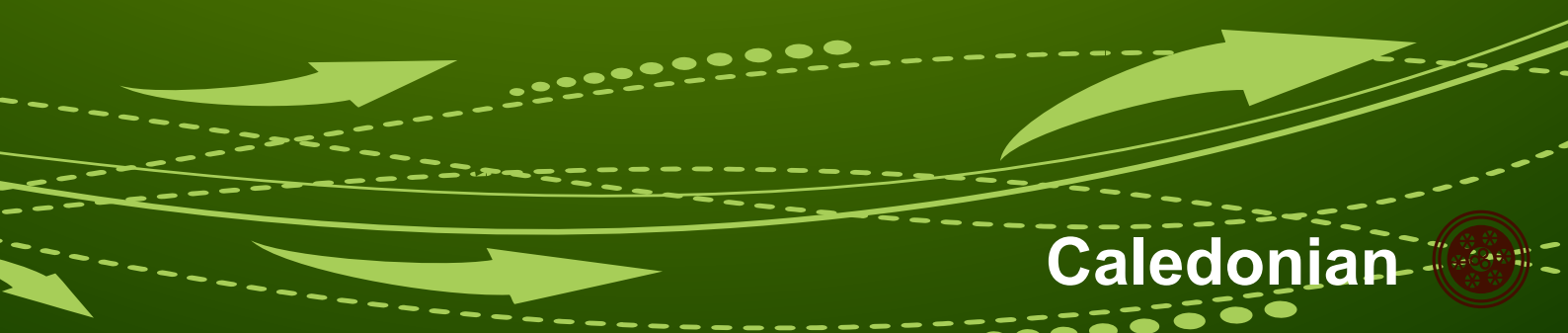




# Coaxial Cables

[www.caledonian-cables.co.uk](http://www.caledonian-cables.co.uk)  
[www.caledonian-cables.net](http://www.caledonian-cables.net)



**Caledonian**





# Company Profile

Caledonian, established in 1978, offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard, ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison, produces a wide range of cables for communication, power and electronics in its primary plants in UK, Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as Romania, Taiwan, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible, scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services, and vertically integrated with our E-commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning, we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.



# Our Certificate



## Registration Certificate

***This document certifies that the administration systems of  
Caledonian Cables Limited/Addison Technology Limited  
Pheonix Works, North Street, Lewes, E. Sussex, BN7 2QJ***

***have been assessed and approved by QAS-International  
to the following management systems, standards, and guidelines:***

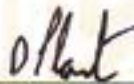
***ISO 9001 : 2000***

***With the permitted exclusion of clauses 7.3 Design and Development, 7.5.2 Validation of  
Processes for Production and Service Provision and 7.5.4 Customer Property***

***The approved administration systems apply to the following:***

***The manufacture and supply of electrical cables and  
ancillary power equipment to customers internationally.***

Original Approval	<u>6<sup>th</sup> September 1997</u>
Current Certificate	<u>7<sup>th</sup> February 2007</u>
Certificate Expiry	<u>7<sup>th</sup> February 2008</u>
Certificate Number	<u>A6211</u>



**On behalf of QAS-International**

[www.qas-international.com](http://www.qas-international.com)

This certificate remains valid while the holder maintains their administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS-International.

The holder is entitled to display the above registration mark for the duration of this certificate.

This certificate must be returned to QAS-International on reasonable request.

Issuing Office: QAS International Ltd, The Gig House, Malmesbury, Wilts. SN16 9AX, UK.

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## The Introduction of Coaxial Cables

A coaxial cable is one that consists of two conductors that share a common axis. The inner conductor is typically a straight wire, either solid or stranded and the outer conductor is typically a shield that might be braided or a foil.

Coaxial cable is a cable type used to carry radio signals, video signals, measurement signals and data signals. Coaxial cables exist because we can't run open-wire line near metallic objects (such as ducting) or bury it. We trade signal loss for convenience and flexibility. Coaxial cable consists of an insulated center conductor which is covered with a shield. The signal is carried between the cable shield and the center conductor. This arrangement give quite good shielding against noise from outside cable, keeps the signal well inside the cable and keeps cable characteristics stable.

Coaxial cables and systems connected to them are not ideal. There is always some signal radiating from coaxial cable. Hence, the outer conductor also functions as a shield to reduce coupling of the signal into adjacent wiring. More shield coverage means less radiation of energy (but it does not necessarily mean less signal attenuation).

**Here is a quick overview of common coaxial cable impedances and their main uses:**

**50 Ohms:** 50 ohms coaxial cable is very widely used with radio transmitter applications. It is used here because it matches nicely to many common transmitter antenna types, can quite easily handle high transmitter power and is traditionally used in this type of applications (transmitters are generally matched to 50 ohms impedance). In addition to this 50 ohm coaxial cable can be found on coaxial Ethernet networks, electronics laboratory interconnection (for example high frequency oscilloscope probe cables) and high frequency digital applications (for example ECL and PECL logic matches nicely to 50 ohms cable). Commonly used 50 Ohm constructions include RG-8 and RG-58.

**75 Ohms:** The characteristic impedance 75 ohms is an international standard, based on optimizing the design of long distance coaxial cables. 75 ohms video cable is the coaxial cable type widely used in video, audio and telecommunications applications. Generally all baseband video applications that use coaxial cable (both analogue and digital) are matched for 75 ohm impedance cable. Also RF video signal systems like antenna signal distribution networks in houses and cable TV systems are built from 75 ohms coaxial cable (those applications use very low loss cable types). In audio world digital audio (S/PDIF and coaxial AES/EBU) uses 75 ohms coaxial cable, as well as radio receiver connections at home and in car. In addition to this some telecom applications (for example some E1 links) use 75 ohms coaxial cable. 75 Ohms is the telecommunications standard, because in a dielectric filled line, somewhere around 77 Ohms gives the lowest loss. For 75 Ohm use common cables are RG-6, RG-11 and RG-59.

Typical coaxial cable constructions are:

**RG Coaxial Cables** are used as a connection cable in the high signal sequences of wireless and data communication systems where lower attenuation required, RF and microwave transmission, data transmission and instrumentation control. Some of these cables are based upon MIL-Spec designs and are often referred to by their RG type number. MIL-C-17 is the government specification document used to standardize coaxial cables. Other impedance cables are used for data transmission and instrumentation control. 50 ohms coaxial cables are used in most radio frequency and microwave transmission, local Area Network (LAN), computer and many instrumentation /control applications.

**Braided Coaxial Cable** is by far the most common type of closed transmission line because of its flexibility. It is a coaxial cable, meaning that both the signal and the ground conductors are on the same center axis. The outer conductor is made from fine braided wire, hence the name "braided coaxial cable". This type of cable is used in practically all applications requiring complete shielding of the center conductor. The effectiveness of the shielding depends upon the weave of the braid and the number of braid layers. One of the draw-backs of braided cable is that the shielding is not 100% effective, especially at higher frequencies. This is because the braided construction can permit small amounts of short wavelength (high frequency) energy to radiate. Normally this does not present a problem; however, if a higher degree of shielding is required, semirigid coaxial cable is recommended. In some high frequency flexible coaxial cables the outer shield consists if normal braids and an extra aluminium foil shield to give better high frequency shielding.

**Semi-rigid and Semi-flexible Coaxial Cable** uses a solid tubular outer conductor, so that all the RF energy is contained within the cable, are used in wireless communication, broadcast and military equipments for transmission of radio frequency signals. For applications using frequencies higher than 30 GHz a miniature semirigid cable is recommended.

**Leaky Coaxial Cables** allow radio, cellular and Wi-Fi communication in areas where free space electromagnetic radiation typically can't reach. These cables are used in tunnels, mines, large buildings or building complexes, alongside rail lines and in underground malls to facilitate greater wireless network coverage.

**50 Ohm RF Coaxial Cables** are transmission coaxial cables for GSM antennas, and the halogen-free cables are suitable for laid on hooks, and pulled through walls or through technical ducts.

**Trunk Cables** are used used in CATV-community antenna television, CCTV-closed-circuit television, and DBS-direct broadcasting satellite.

**BT3002 Coaxial Cables** are mainly used for indoor installation in the transmission equipments for the digital telephone exchange system. Due to their miniature size, they can also be used for other applications where high performance is essential.

# M17 /RG Coaxial Cables

## *MIL-C-17F 50Ohm*

RG 8 A/U

M17/74-RG 213(RG 213/U)

M17/28-RG 58(RG 58)

M17/155-RG 58(RG58 C/U)

M17/119-RG 174(RG 174A/U)

M17/75-RG 214(RG 214/U)

M17/84-RG 223(RG 223/U)

M17/60-RG 142(RG 142B/U)

M17/111-RG 303(RG 303/U)

M17/112-RG 304(RG 304/U)

M17/127-RG 393(RG 393/U)

M17/128-RG 400(RG400/U)

# MIL-C-17F Coaxial Cables

## RG 8 A/U

### Construction

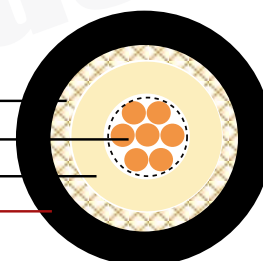
Inner conductor	Plain copper	7 x 0.72 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	192 x 0.2 mm
Shield coverage		98%
Sheath	PVC or LSZH	$\Phi 10.4 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	97 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.2 Ohm/Km
Outer conductor resistance	4.0 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Test/Operatig Voltage(max)	10KV/5KV
Copper Weight	84.3 Kg/Km
Cable weight (approx.)	171.5 Kg/Km
Screening effectiveness	100-900 MHz >55dB



Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric  
 PVC or LSZH sheath



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.5	1.37
100	6.7	2.04
200	9.9	3.02
400	14.3	4.36
500	16.1	4.91
600	17.8	5.43
860	22.1	6.74
1000	24.3	7.41

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>27dB

# MIL-C-17F Coaxial Cables

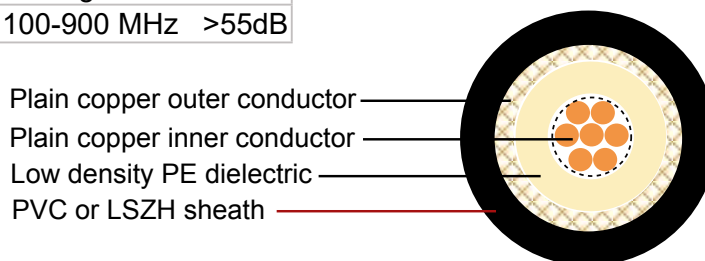
## M17/74 - RG 213 (RG 213/U)

### Construction

Inner conductor	Plain copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor	Plain copper	192 x 0.18 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.0 Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Test/Operatig Voltage(max)	10KV/5KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	76.9 Kg/Km
Cable weight (approx.)	163 Kg/Km
Screening effectiveness	100-900 MHz >55dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.5	1.37
100	6.7	2.04
200	9.9	3.02
400	14.3	4.36
500	16.1	4.91
600	17.8	5.43
860	22.1	6.74
1000	24.3	7.41

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>27dB

# MIL-C-17F Coaxial Cables

## RG 58/U

### Construction

Inner conductor	Plain copper	$\Phi 0.80 \pm 0.025$ mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor	Tinned copper	112 x 0.13 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	Nom.53±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	35.0 Ohm/Km
Outer conductor resistance	16.5 Ohm/Km
Test/Operatig Voltage(max)	5 KV/2 KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	18.7 Kg/Km
Cable weight (approx.)	39.9 Kg/Km
Screening effectiveness	100-900 MHz >55dB

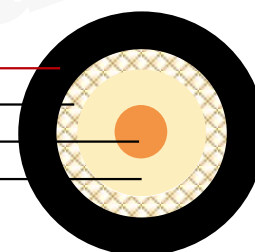


PVC or LSZH sheath

Tinned copper outer conductor

Plain copper inner conductor

Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.1	2.77
100	13.1	3.99
200	19.4	5.91
400	28.4	8.66
500	32.2	9.82
600	35.7	10.88
860	44.8	13.66
1000	49.0	14.94

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>25dB
600-900 MHz	>24dB



# MIL-C-17F Coaxial Cables

## M17/155-RG 58 (RG 58 C/U)

### Construction

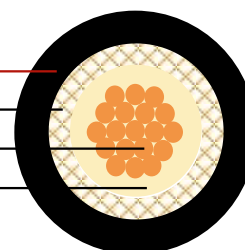
Inner conductor	Tinned copper	19 x 0.18 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield)	Tinned copper	112 x 0.13 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	37.5 Ohm/Km
Outer conductor resistance	16.5 Ohm/Km
Test/Operatig Voltage(max)	5 KV/2.5 KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	18.7 Kg/Km
Cable weight (approx.)	39.9 Kg/Km
Screening effectiveness	100-900 MHz >55dB



PVC or LSZH sheath  
 Tinned copper outer conductor  
 Tinned copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	10.8	3.29
100	16.0	4.88
200	24.0	7.32
400	37.7	11.49
500	41.3	12.59
600	49.7	15.15
860	64.2	19.57
1000	70.0	21.34

### Return Loss

30-300 MHz	>27dB
300-600 MHz	>23dB
600-900 MHz	>22dB

# MIL-C-17F Coaxial Cables

## M17/119-RG 174 (RG 174 A/U)

### Construction

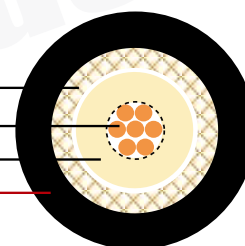
Inner conductor	Copper clad steel(CCS)	7 x 0.16 mm
Dielectric	Low density PE	$\Phi 1.50 \pm 0.08$ mm
Outer conductor (shield)	Tinned copper	64 x 0.10 mm
Shield coverage		88%
Sheath	PVC or LSZH	$\Phi 2.80 \pm 0.13$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	290 Ohm/Km
Outer conductor resistance	39.0 Ohm/Km
Test/Operatig Voltage(max)	4.5 KV/1.6 KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	5.9 Kg/Km
Cable weight (approx.)	12.5 Kg/Km
Screening effectiveness	100-900 MHz >50dB



Tinned copper shield  
 Copper covered steel inner conductor  
 Low density PE dielectric  
 PVC or LSZH sheath



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	17.5	5.34
100	25.8	7.87
200	38.2	11.65
400	54.9	16.74
500	63.1	19.24
600	68.6	20.91
860	81.2	24.76
1000	87.5	26.68

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>23dB
600-900 MHz	>20dB

# MIL-C-17F Coaxial Cables

## M17/75-RG 214 (RG214/U)

### Construction

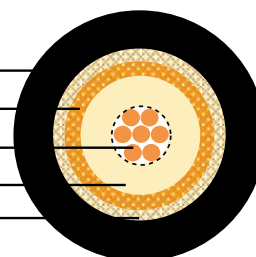
Inner conductor	Silver plated copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor(shield 1)	Silver plated copper	144 x 0.16 mm
Shield coverage		96%
Outer conductor(shield 2)	Silver plated copper	168 x 0.16 mm
Shield coverage		98%
Sheath	PVC or LSZH	$\Phi 10.8 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.0 Ohm/Km
Outer conductor resistance	3.1 Ohm/Km
Test/Operatig Voltage(max)	10.0 KV/5.0 KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	117.7 Kg/Km
Cable weight (approx.)	205.3 Kg/Km
Screening effectiveness	100-900 MHz >70dB



PVC or LSZH sheath  
 Silvered copper shield 1  
 Silvered copper inner conductor  
 Low density PE dielectric  
 Silvered copper shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.7	1.43
100	7.1	2.16
200	10.4	3.17
400	15.2	4.63
500	17.4	5.30
600	19.2	5.85
860	23.9	7.29
1000	26.2	7.99

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>29dB
600-900 MHz	>27dB



# MIL-C-17F Coaxial Cables

## M17/84-RG 223 (RG 223/U)

### Construction

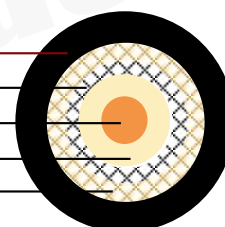
Inner conductor	Silver plated copper	$\Phi 0.90 \pm 0.025$ mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor(shield 1)	Silver plated copper	112 x 0.13 mm
Shield coverage		98%
Outer conductor(shield 2)	Silver plated copper	112 x 0.13 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 5.40 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	28 Ohm/Km
Outer conductor resistance	8.0 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/2.0 KV
Operating temperature range	-30 °C - +70 °C
Copper Weight	38.5 Kg/Km
Cable weight (approx.)	59.9 Kg/Km
Screening effectiveness	100-900 MHz >70dB



PVC or LSZH sheath  
 Silver copper shield1  
 Silver copper inner conductor  
 Low density PE dielectric  
 Silver copper shield2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.0	2.74
100	13.0	3.96
200	19.3	5.88
400	28.1	8.57
500	31.9	9.73
600	35.3	10.76
860	43.8	13.35
1000	48.5	14.79
3000	83.2	25.37
5000	109.9	33.51
11000	177.5	54.12

### Return Loss

30-300 MHz	>32dB
300-600 MHz	>28dB
600-900 MHz	>23dB

# MIL-C-17F Coaxial Cables

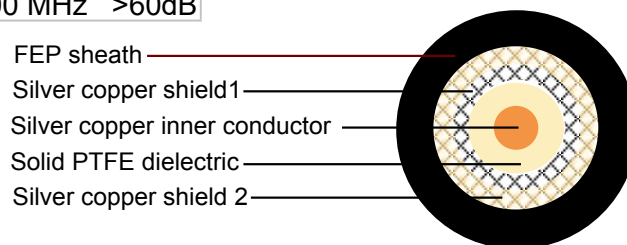
## M17/60-RG142 (RG 142 B/U)

### Construction

Inner conductor	Silver plated copper clad steel(SCCS)	Φ0.94 mm
Dielectric	Solid PTFE	Φ2.95 ± 0.05mm
Outer conductor(shield 1)	Silver plated copper	112 x 0.13 mm
Shield coverage		96%
Outer conductor(shield 2)	Silver plated copper	112 x 0.13 mm
Shield coverage		96%
Outer sheath	FEP	Φ4.95 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	95.4 pF/m
Velocity of propagation	70%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	63.3 Ohm/Km
Outer conductor resistance	7.5 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/1.9 KV
Operating temperature range	-55 °C - +200 °C
Copper Weight	47.0 Kg/Km
Cable weight (approx.)	80.0 Kg/Km
Screening effectiveness	100-900 MHz >60dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
100	12.8	3.90
200	17.7	5.40
400	25.9	7.90
700	35.1	10.70
900	40.4	12.32
1000	43.0	13.11
2000	63.3	19.30
3000	79.4	24.21
5000	107.0	32.62
8000	141.7	43.20

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>22dB

# MIL-C-17F Coaxial Cables

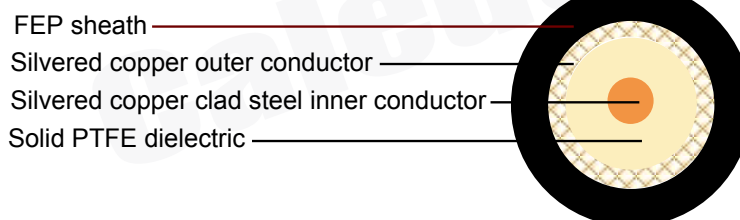
## M17/111-RG303 (RG303/U)

### Construction

Inner conductor	Silver plated copper clad steel (SCCS)	Φ0.94 mm
Dielectric	PTFE	Φ2.95 mm
Outer conductor (shield)	Silver plated copper	112 x 0.13 mm
Shield coverage		95%
Sheath	FEP	Φ4.32 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	63.5 Ohm/Km
Outer conductor resistance	7.5 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/1.9 KV
Operating temperature range	-55 °C - +200 °C
Copper Weight	- Kg/Km
Cable weight (approx.)	45 Kg/Km
Screening effectiveness	60 dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	8.9	2.71
100	12.8	3.90
200	18.4	5.61
400	25.8	7.87
700	36.1	11.01
900	41.0	12.50
1000	44.3	13.51
1500	52.3	15.95
2000	61.4	18.72
3000	82.0	25.00

### Return loss

30-300 MHz	>31dB
300-600 MHz	>26dB
600-900 MHz	>23dB

# MIL-C-17F Coaxial Cables

## M17/112-RG304 (RG 304/U)

### Construction

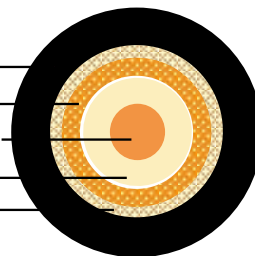
Inner conductor	Silver plated copper covered steel(SCCS)	Φ1.50 mm
Dielectric	Solid PTFE	Φ4.75 mm
Outer conductor(shield 1)	Silver plated copper	144 x 0.16
Shield coverage		95%
Outer conductor(shield 2)	Silver plated copper	144 x 0.16
Shield coverage		95%
Sheath	FEP	Φ7.10 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	96.5 pF/m
Velocity of propagation	70%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	36.2 Ohm/Km
Outer conductor resistance	4.3 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/3.0 KV
Operating temperature range	-55 °C - +200 °C
Copper weight	-Kg/Km
Cable weight (approx.)	130 Kg/Km
Screening effectiveness	80 dB



FEP sheath  
 Silver plated copper shield 1  
 Silvered copper covered steel inner conductor  
 Solid PTFE dielectric  
 Silver plated copper shield 2



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.6	1.71
100	8.5	2.59
200	13.5	4.12
400	18.0	5.49
700	24.9	7.59
900	27.9	8.51
1000	30.2	9.21
3000	56.8	17.32
5000	77.1	23.51
8000	114.8	35.00

### Return loss

30-300 MHz	>31dB
300-600 MHz	>27dB
600-900 MHz	>24dB

# MIL-C-17F Coaxial Cables

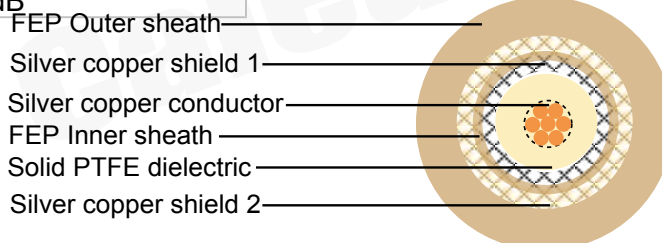
## M17/127-RG393 (RG 393/U)

### Construction

Inner conductor	Silver plated copper	7 x 0.79 mm
Dielectric	Solid PTFE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor(shield 1)	Silver plated copper	144 x 0.16 mm
Shield coverage		95%
Outer conductor(shield 2)	Silver plated copper	144 x 0.16 mm
Shield coverage		95%
Sheath	FEP	$\Phi 9.90$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	4.99Ohm/Km
Outer conductor resistance	4.0 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/2.5 KV
Operating temperature range	-55 °C - +200 °C
Copper weight	- Kg/Km
Cable weight (approx.)	240 Kg/Km
Screening effectiveness	80dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
100	6.6	2.01
200	9.7	2.96
400	14.3	4.36
900	22.1	6.74
1000	24.0	7.32
2000	34.4	10.49
3000	47.0	14.33
5000	65.0	19.82

### Return loss

30-300 MHz	>30dB
300-600 MHz	>28dB
600-900 MHz	>23dB



# MIL-C-17F Coaxial Cables

## M17/128-RG400 (RG 400/U)

### Construction

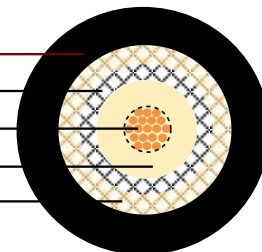
Inner conductor	Silver plated copper	19 x 0.20 mm
Dielectric	Solid PTFE	$\Phi 2.95 \pm 0.05$ mm
Outer conductor(shield 1)	Silver plated copper	112 x 0.13 mm
Shield coverage		95%
Outer conductor(shield 2)	Silver plated copper	112 x 0.13 mm
Shield coverage		94%
Sheath	FEP	$\Phi 4.90 \pm 0.13$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	12.6 Ohm/Km
Outer conductor resistance	7.5 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/1.9 KV
Operating temperature range	-55 °C - +200 °C
Copper weight	46 Kg/Km
Cable weight (approx.)	64 Kg/Km
Screening effectiveness	80 dB



FEP sheath  
 Silver copper shield1  
 Silver copper inner conductor  
 Solid PTFE dielectric  
 Silver copper shield 2



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	8.5	2.59
100	12.5	3.81
200	17.7	5.40
400	25.9	7.90
900	40.4	12.32
1000	43.0	13.11
2000	63.3	19.30
3000	79.4	24.21
5000	107.0	32.62
8000	141.7	43.20

### Return loss

30-300 MHz	>28dB
300-600 MHz	>25dB
600-900 MHz	>22dB

# **M17 /RG Coaxial Cables**

***MIL-C-17F 75Ohm***

M17/2 RG 6(RG 6 A/U)

M17/6-RG 11(RG 11 A/U)

M17/6-RG 12(RG 12 A/U)

M17/29-RG 59(RG 59 B/U)

M17/77-RG 216(RG216/U)

# MIL-C-17F Coaxial Cables

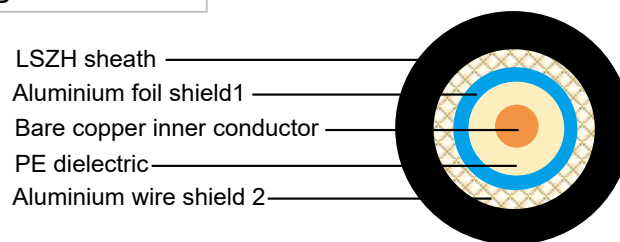
## M17/2-RG 6 (RG 6 A/U)

### Construction

Inner conductor	Copper clad steel(CCS)	$\Phi 0.72 \pm 0.025$ mm
Dielectric	Low density PE	$\Phi 4.70 \pm 0.10$ mm
Outer conductor(shield 1)	Silver plated copper	144 x 0.16 mm
Shield coverage		97%
Outer conductor(shield 2)	Plain copper	144 x 0.16 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 8.50 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	106 Ohm/Km
Outer conductor resistance	5.0 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/3.0 KV
Operating temperature range	-30 °C - +70 °C
Copper weight	46 Kg/Km
Cable weight (approx.)	64.6 Kg/Km
Screening effectiveness	>70 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.8	1.77
100	8.5	2.59
200	12.5	3.81
400	18.0	5.49
500	20.3	6.19
600	22.6	6.89
860	27.5	8.38
1000	30.4	9.27

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>22dB



# MIL-C-17F Coaxial Cables

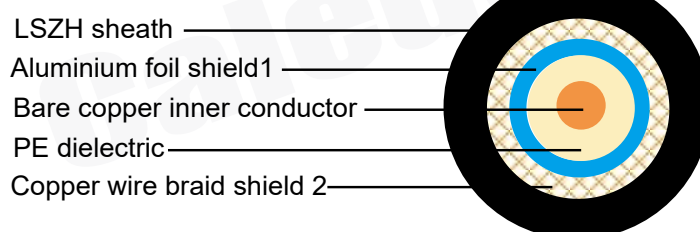
## M17/6-RG 11 (RG11A/U)

### Construction

Inner conductor	Tinned copper	7 x 0.40 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	192 x 0.18 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Test/Operatig Voltage(max)	8.0 KV/5.0 KV
Operating temperature range	-30 °C - +70 °C
Copper weight	57 Kg/Km
Cable weight (approx.)	145.2 Kg/Km
Screening effectiveness	>55 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.2	1.28
100	6.2	1.89
200	9.3	2.84
400	13.8	4.21
500	15.5	4.73
600	17.1	5.21
860	20.1	6.13
1000	23.4	7.13

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# MIL-C-17F Coaxial Cables

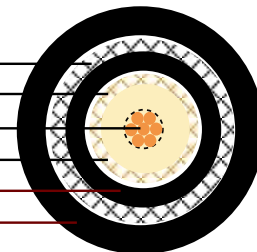
## M17/6-RG 12 (RG12A/U)

### Construction

Inner conductor	Tinned copper	7 x 0.40 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor(shield 1)	Plain copper	192 x 0.18 mm
Shield coverage		97%
Inner sheath	PVC	$\Phi 10.3 \pm 0.18$ mm
Outer conductor(shield 2)	Zinc-plated steel wire(FE-ZN)	144 x 0.24 mm
Shield coverage		85%
Outer sheath	PVC or LSZH	$\Phi 14.30 \pm 0.20$ mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Test/Operatig Voltage(max)	8.0 KV/5.0 KV
Operating temperature range	-30 °C - +70 °C
Copper weight	57 Kg/Km
Cable weight (approx.)	298.5 Kg/Km
Screening effectiveness	>70 dB



FE-ZN shield 2  
 Low density PE dielectric  
 Tinned copper inner conductor  
 Plain copper shield1  
 PVC inner sheath  
 PVC or LSZH outer sheath

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.2	1.28
100	6.2	1.89
200	9.3	2.84
400	13.8	4.21
500	15.5	4.73
600	17.1	5.21
860	21.1	6.43
1000	23.4	7.13

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# MIL-C-17F Coaxial Cables

## M17/29-RG 59 (RG 59 B/U)

### Construction

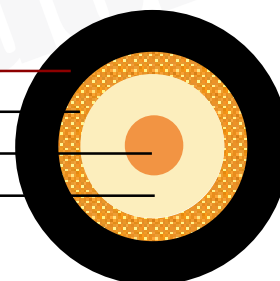
Inner conductor	Copper clad steel(CCS)	$\Phi 0.58 \pm 0.03$ mm
Dielectric	Low density PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	120 x 0.15 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 6.20 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	9.0 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/3.5 KV
Operating temperature range	-30 °C - +70 °C
Copper weight	22.4 Kg/Km
Cable weight (approx.)	55.8 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
Plain copper shield  
Copper clad steel inner conductor  
Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# MIL-C-17F Coaxial Cables

## M17/77-RG 216

### Construction

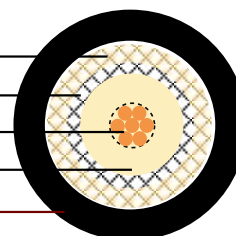
Inner conductor	Tinned copper	7 x 0.40 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor(shield 1)	Plain copper	216 x 0.16 mm
Shield coverage		97%
Outer conductor(shield 2)	Plain copper	192 x 0.16 mm
Shield coverage		96%
Outer sheath	PVC or LSZH	$\Phi 10.8 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	3.3 Ohm/Km
Test/Operatig Voltage(max)	5.0 KV/3.5 KV
Operating temperature range	-30 °C - +70 °C
Copper weight	97.3 Kg/Km
Cable weight (approx.)	187.0 Kg/Km
Screening effectiveness	>70 dB



Plain copper shield 2  
 Plain copper shield1  
 Tinned copper inner conductor  
 Low density PE dielectric  
 PVC or LSZH sheath



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.2	1.28
100	6.2	1.89
200	9.3	2.84
400	13.8	4.21
500	15.5	4.73
600	17.1	5.21
860	22.1	6.74
1000	23.4	7.13

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# M17 /RG Coaxial Cables

## *RG Type 50Ohm*

RG 58 ER

RG 58 CX

RG 174 UR

RG 213 BX

RG 213 TY

RG 214 PK

RG 223 FX

RG 223 RK

RG 58 URM(URM 76)

RG 58 U43(URM43)

RG 213 URM(URM67)



# RG Type 50 Ohm Coaxial Cables

## RG 58 ER

### Construction

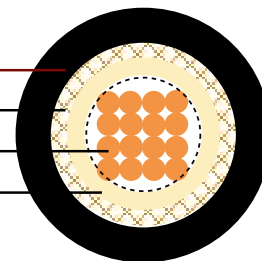
Inner conductor	Plain copper	16 x 0.18 mm
Dielectric	Low density PE	$\Phi 2.85 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	80 x 0.12 mm
Shield coverage		79%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	44 Ohm/Km
Outer conductor resistance	24 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	12.4 Kg/Km
Cable weight (approx.)	34.4 Kg/Km
Screening effectiveness	>50 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	9.8	2.99
100	14.1	4.30
200	20.6	6.28
400	30.4	9.27
500	34.8	10.61
600	38.7	11.80
860	47.9	14.60
1000	52.8	16.10

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>25dB
600-900 MHz	>22dB

# RG Type 50 Ohm Coaxial Cables

## RG 58 CX

### Construction

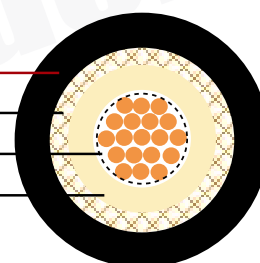
Inner conductor	Tinned copper	19 x 0.18 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield)	Tinned copper	140 x 0.10 mm
Shield coverage		93%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristic

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	37.5 Ohm/Km
Outer conductor resistance	17 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	14.9 Kg/Km
Cable weight (approx.)	37.1 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
Tinned copper shield  
Tinned copper inner conductor  
Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	9.7	2.96
100	13.9	4.24
200	20.4	6.22
400	30	9.15
500	34.2	10.43
600	37.9	11.55
860	46.9	14.30
1000	51.8	15.79

### Return Loss

30-300 MHz	>27dB
300-600 MHz	>23dB
600-900 MHz	>22dB

# RG Type 50 Ohm Coaxial Cables

## RG 174 UR

### Construction

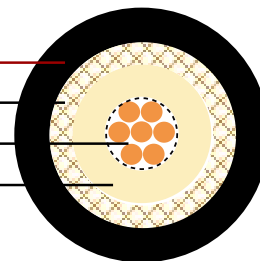
Inner conductor	Plain copper	7 x 0.16 mm
Dielectric	Low density PE	$\Phi 1.50 \pm 0.08$ mm
Outer conductor (shield)	Plain copper	64 x 0.10 mm
Shield coverage		88%
Sheath	PVC or LSZH	$\Phi 2.80 \pm 0.13$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	122 Ohm/Km
Outer conductor resistance	39 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	6.1 Kg/Km
Cable weight (approx.)	12.7 Kg/Km
Screening effectiveness	>50 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	17.7	5.40
100	26.0	7.93
200	38.5	11.74
400	55.3	16.86
500	63.6	19.39
600	69.2	21.10
860	81.9	24.97
1000	88.3	26.92

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>23dB
600-900 MHz	>20dB

# RG Type 50 Ohm Coaxial Cables

## RG 213 BX

### Construction

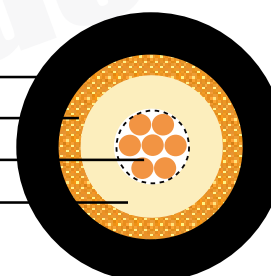
Inner conductor	Plain copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 6.50 \pm 0.15$ mm
Outer conductor (shield)	Plain copper	168 x 0.15 mm
Shield coverage		91%
Sheath	PVC or LSZH	$\Phi 9.50 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6 Ohm/Km
Outer conductor resistance	7 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	59.6 Kg/Km
Cable weight (approx.)	135.1 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.8	1.46
100	7.2	2.20
200	10.5	3.20
400	15.4	4.70
500	17.6	5.37
600	19.5	5.95
860	24.2	7.38
1000	26.5	8.08

### Return Loss

30-300 MHz	>27dB
300-600 MHz	>24dB
600-900 MHz	>23dB

# RG Type 50 Ohm Coaxial Cables

## RG 213 TY

### Construction

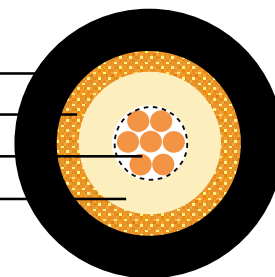
Inner conductor	Plain copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.08$ mm
Outer conductor (shield)	Plain copper	240 x 0.13 mm
Shield coverage		93%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.0 Ohm/Km
Outer conductor resistance	5.0 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	59.9 Kg/Km
Cable weight (approx.)	149.7 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.5	1.37
100	6.8	2.07
200	10.0	3.05
400	14.5	4.42
500	16.4	5.00
600	18.1	5.52
860	22.5	6.86
1000	24.7	7.53

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>27dB

# RG Type 50 Ohm Coaxial Cables

## RG 214 PK

### Construction

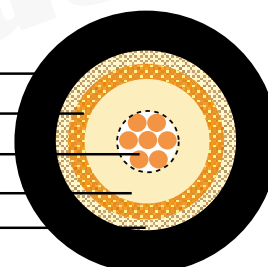
Inner conductor	Silver plated copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor(shield 1)	Silver plated copper	168 x 0.13 mm
Shield coverage		79%
Outer conductor(shield 2)	Silver plated copper	168 x 0.13 mm
Shield coverage		76%
Sheath	PVC or LSZH	$\Phi 10.8 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.0 Ohm/Km
Outer conductor resistance	3.8 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	75.2 Kg/Km
Cable weight (approx.)	167.6 Kg/Km
Screening effectiveness	>70 dB



PVC or LSZH sheath  
 Silvered copper shield 1  
 Silvered copper inner conductor  
 Low density PE dielectric  
 Silvered copper shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.8	1.46
100	7.2	2.20
200	10.5	3.20
400	15.4	4.70
500	17.6	5.37
600	19.5	5.95
860	24.2	7.38
1000	26.5	8.08

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>29dB
600-900 MHz	>27dB

# RG Type 50 Ohm Coaxial Cables

## RG 223 FX

### Construction

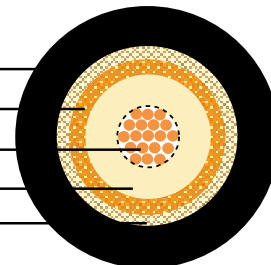
Inner conductor	Tinned copper	19 x 0.18 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor(shield 1)	Silver plated copper	112 x 0.13 mm
Shield coverage		98%
Outer conductor(shield 2)	Silver plated copper	112 x 0.13 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 5.40 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	37.5 Ohm/Km
Outer conductor resistance	8 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	32.7 Kg/Km
Cable weight (approx.)	54.2 Kg/Km
Screening effectiveness	>70 dB



PVC or LSZH sheath  
 Silvered copper shield 1  
 Tinned copper inner conductor  
 Low density PE dielectric  
 Silvered copper shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	9.7	2.96
100	13.9	4.24
200	20.4	6.22
400	30.0	9.15
500	34.2	10.43
600	37.9	11.55
860	46.9	14.30
1000	51.8	15.79

### Return Loss

30-300 MHz	>27dB
300-600 MHz	>23dB
600-900 MHz	>22dB

# RG Type 50 Ohm Coaxial Cables

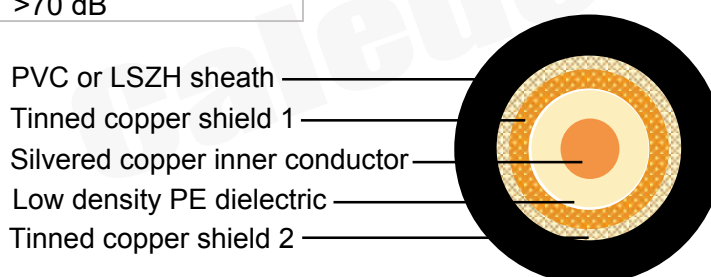
## RG 223 RK

### Construction

Inner conductor	Silver plated copper	0.9 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor(shield 1)	Tinned copper	112 x 0.10 mm
Shield coverage		85%
Outer conductor(shield 2)	Tinned copper	112 x 0.10 mm
Shield coverage		80%
Sheath	PVC or LSZH	$\Phi 5.40 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	28 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	22.7 Kg/Km
Cable weight (approx.)	46.3 Kg/Km
Screening effectiveness	>70 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.0	2.74
100	13.0	3.96
200	19.3	5.88
400	28.1	8.57
500	31.9	9.73
600	35.3	10.76
860	43.8	13.35
1000	48.5	14.79

### Return Loss

30-300 MHz	>32dB
300-600 MHz	>28dB
600-900 MHz	>23dB



# RG Type 50 Ohm Coaxial Cables

## RG 58 URM (URM76)

### Construction

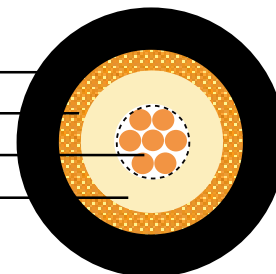
Inner conductor	Plain copper	7 x 0.32 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	96 x 0.12 mm
Shield coverage		86%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	32 Ohm/Km
Outer conductor resistance	17.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	15.4 Kg/Km
Cable weight (approx.)	36.9 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.4	2.87
100	13.5	4.12
200	19.9	6.07
400	29.2	8.90
500	33.2	10.12
600	36.8	11.22
860	45.6	13.90
1000	50.4	15.37

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>22dB

# RG Type 50 Ohm Coaxial Cables

## RG 58 U43(URM 43)

### Construction

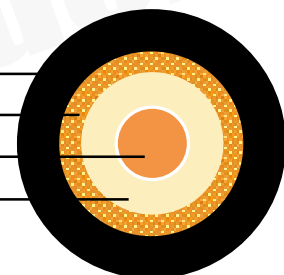
Inner conductor	Plain copper	0.90 mm
Dielectric	Low density PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	96 x 0.15 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	28 Ohm/Km
Outer conductor resistance	16.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	22.1 Kg/Km
Cable weight (approx.)	42.5 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.0	2.74
100	13.0	3.96
200	19.3	5.88
400	28.1	8.57
500	31.9	9.73
600	35.3	10.76
860	43.8	13.35
1000	48.5	14.79

### Return Loss

30-300 MHz	>32dB
300-600 MHz	>28dB
600-900 MHz	>23dB

# RG Type 50 Ohm Coaxial Cables

## RG 213 URM (URM 67)

### Construction

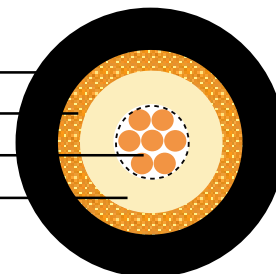
Inner conductor	Plain copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	192 x 0.18 mm
Shield coverage		98%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6.0 Ohm/Km
Outer conductor resistance	4.0 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	79.4 Kg/Km
Cable weight (approx.)	165.5 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.5	1.37
100	6.7	2.04
200	9.9	3.02
400	14.3	4.36
500	16.1	4.91
600	17.8	5.43
860	22.1	6.74
1000	24.3	7.41

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>27dB

# M17 /RG Coaxial Cables

## *RG Type 75Ohm*

RG 6

RG 6/U

RG 6/U4

RG 6/U6

RG 6 Quad Shield

RG 6 AX

RG 11

RG 11 AL

RG 11 AX

RG 11 URM = URM 57

RG 59 PK

RG 59 BX

RF 59 LL

RG 59 DS

RG 175 AF

# RG Type 75 Ohm Coaxial Cables

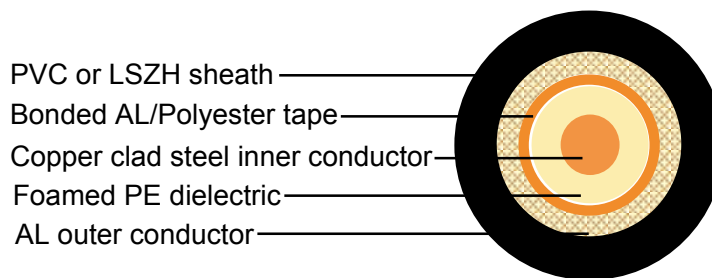
## RG 6

### Construction

Inner conductor	Copper clad steel (CCS)	Φ1.02 mm
Dielectric	Foam PE	Φ4.57 ± 0.20 mm
Tape shield(shield 1)	Bonded Aluminium/Polyester	
Shield coverage		100%
Outer conductor(shield 2)	Aluminium	96 x 0.12 mm
Shield coverage		82%
Sheath	PVC or LSZH	Φ6.91 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	54 pF/m
Velocity of propagation	83%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	21.7 Ohm/Km
Outer conductor resistance	24.1 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	45 Kg/Km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.0	1.5
100	6.7	2.0
200	9.5	2.9
400	14.1	4.2
700	19.9	6.0
900	23.2	7.0
1000	24.8	7.5
1350	29.9	9.0
1750	35.1	10.5
2150	37.9	11.4
2500	39.0	11.7



# RG Type 75 Ohm Coaxial Cables

## RG 6/U

### Construction

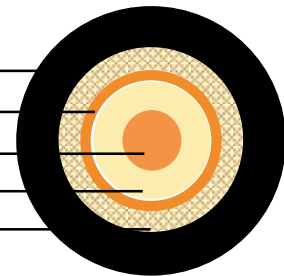
Inner conductor	Bare copper	Φ1.02 mm
Dielectric	Foam PE	Φ4.57 ± 0.20 mm
Tape shield(shield 1)	Aluminium foil	
Shield coverage		100%
Outer conductor(shield 2)	Aluminium	96 x 0.12 mm
Shield coverage		70%
Sheath	PVC or LSZH	Φ7.00 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	54 pF/m
Velocity of propagation	82%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	23.1 Ohm/Km
Outer conductor resistance	31Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	43 Kg/Km



PVC or LSZH sheath  
 Bonded AL/Polyester tape  
 Bare copper inner conductor  
 Foamed PE dielectric  
 AL outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.0	1.5
100	6.4	1.96
200	9.2	2.8
500	14.5	4.4
600	15.9	4.9
800	17.7	5.4
1000	21.9	6.7
1350	24.9	7.6
1750	29.0	8.8
2050	33.1	10.1
2400	36.4	11.1

# RG Type 75 Ohm Coaxial Cables

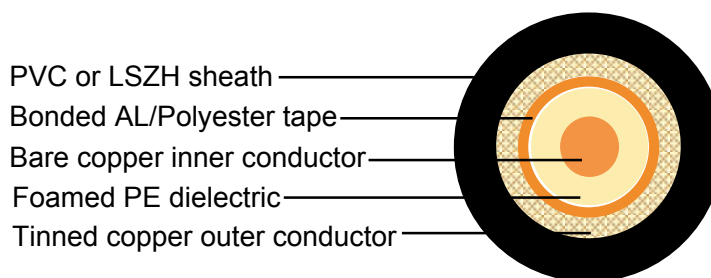
## RG 6/U4

### Construction

Inner conductor	Bare copper	Φ1.02 mm
Dielectric	Foam PE	Φ4.60 ± 0.20 mm
Tape shield(shield 1)	Aluminium foil	
Shield coverage		100%
Outer conductor(shield 2)	Tinned copper	64 x 0.12 mm
Shield coverage		60%
Sheath	PVC or LSZH	Φ6.80 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	53 pF/m
Velocity of propagation	83%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	23.1 Ohm/Km
Outer conductor resistance	28Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	46 Kg/Km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.5	1.4
100	6.2	1.9
200	8.9	2.7
500	15.1	4.6
600	16.8	5.1
800	19.0	5.8
1000	21.5	6.6
1350	24.9	7.6
1750	28.3	8.6
2150	31.1	9.5
2400	33.3	10.1

# RG Type 75 Ohm Coaxial Cables

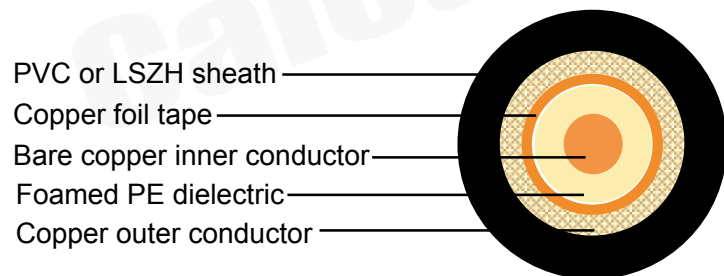
## RG 6/U6

### Construction

Inner conductor	Bare copper	Φ1.02 mm
Dielectric	Foam PE	Φ4.60 ± 0.20 mm
Tape shield(shield 1)	Copper foil	
Shield coverage		100%
Outer conductor(shield 2)	Copper	64 x 0.12 mm
Shield coverage		60%
Sheath	PVC or LSZH	Φ6.80 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	54 pF/m
Velocity of propagation	83%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	21.7 Ohm/Km
Outer conductor resistance	24.1 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	50 Kg/Km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.4	1.3
100	6.1	1.9
200	9.2	2.8
500	14.8	4.5
600	16.0	4.9
800	19.0	5.8
1000	20.5	6.2
1350	23.7	7.2
1750	27.1	8.3
2150	29.9	9.1
2400	31.7	9.7



# RG Type 75 Ohm Coaxial Cables

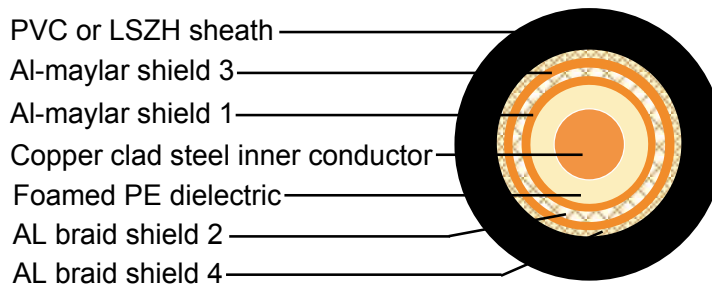
## RG 6 Quad Shield

### Construction

Inner conductor	Copper clad steel(CCS)	Φ1.02 mm
Dielectric	Foam PE	Φ4.60 ± 0.20 mm
Tape shield(shield 1)	Al-maylar	≥25%
Braid shield(shield 2)	Aluminium	80 x 0.12mm
Shield coverage		≥60%
Tape shield(shield 3)	Al-maylar	≥25%
Braid shieldr(shield 4)	Aluminium	64 x 0.12 mm
Shield coverage		≥40%
Sheath	PVC or LSZH	Φ7.55 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	54 pF/m
Velocity of propagation	82%
Insulation resistance	>5000 Mohm.Km
Conductor resistance	≤ 24.1 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	59.8 Kg/Km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.8	1.5
100	6.7	2.0
200	9.3	2.8
500	15.0	4.6
600	16.9	5.1
800	19.4	5.9
1000	21.6	6.6
1350	24.2	7.4
1750	28.0	8.4
2150	31.5	9.6
2400	32.8	10.0
3000	37.9	11.5

# RG Type 75 Ohm Coaxial Cables

## RG 6 AX

### Construction

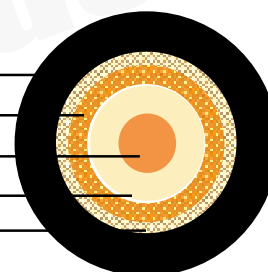
Inner conductor	Copper clad steel(CCS)	0.72 mm
Dielectric	Low density PE	$\Phi 4.70 \pm 0.10$ mm
Outer conductor(shield 1)	Silver plated copper	168 x 0.13 mm
Shield coverage		97%
Outer conductor(shield 2)	Plain copper	168 x 0.13 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 8.50 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	106 Ohm/Km
Outer conductor resistance	5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	50.5 Kg/Km
Cable weight (approx.)	112.4 Kg/Km
Screening effectiveness	>70 dB



PVC or LSZH sheath  
 Silvered copper shield 1  
 Copper clad steel inner conductor  
 Low density PE dielectric  
 Plain copper shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 m)
50	5.8	1.77
100	8.5	2.59
200	12.5	3.81
400	18.0	5.49
500	20.3	6.19
600	22.6	6.89
860	27.5	8.38
1000	30.4	9.27

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>22dB

# RG Type 75 Ohm Coaxial Cables

## RG 11

### Construction

Inner conductor	Copper clad steel(CCS)	1.63 mm
Dielectric	Low density PE	$\Phi 7.2 \pm 0.2$ mm
Tape shield	Aluminum foil	100%
Outer conductor (shield)	Aluminum wire	96 x 0.12 mm
Shield coverage		60%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm
Messenger(optional)	Galvanized steel	1.83mm / 2.77mm

\* Tri-shield and Quad-shield are both optional ,so is the messenger

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	53 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	13.5 Ohm/Km
Outer conductor resistance	24.1 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Cable weight (approx.)	116.4 -140.4Kg/Km

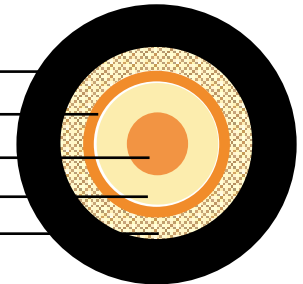
### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	3.1	0.95
100	4.2	1.28
250	6.8	2.07
300	7.5	2.29
350	7.9	2.41
400	8.5	2.59
450	9.1	2.77
500	9.5	2.90
550	10.1	3.08
600	10.5	3.20
750	12.1	3.69
860	13.2	4.02
1000	14.3	4.36
1450	18.6	5.67
2050	23.0	7.01

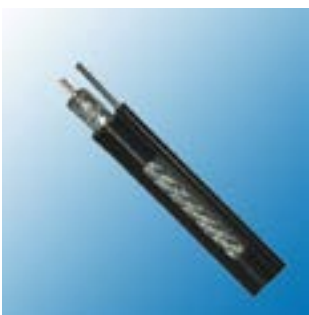
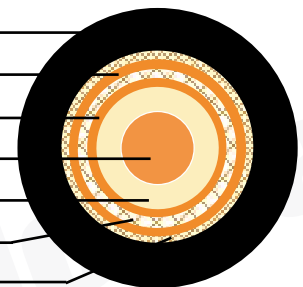
# RG Type 75 Ohm Coaxial Cables



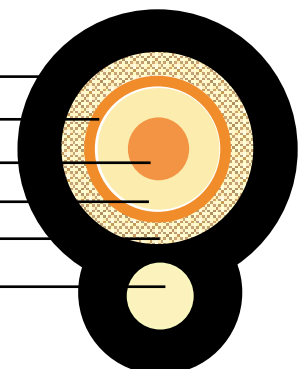
- PVC or LSZH sheath
- AL foil shield
- Copper clad steel inner conductor
- Foamed PE dielectric
- Tinned copper outer conductor



- PVC or LSZH sheath
- AL foil shield 3
- AL foil shield 1
- Copper clad steel inner conductor
- Low density PE dielectric
- AL braid shield 2
- AL braid shield 4



- PVC or LSZH sheath
- AL foil shield
- Copper clad steel inner conductor
- Foamed PE dielectric
- Tinned copper outer conductor
- Galvanized steel messenger



# RG Type 75 Ohm Coaxial Cables

## RG 11 AL

### Construction

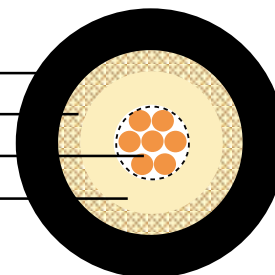
Inner conductor	Plain copper	7 x 0.40 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	112 x 0.15 mm
Shield coverage		64%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	10 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	27.8 Kg/Km
Cable weight (approx.)	118.2 Kg/Km
Screening effectiveness	>45 dB



PVC or LSZH sheath  
Plain copper outer conductor  
Plain copper inner conductor  
Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.4	1.34
100	6.4	1.95
200	9.7	2.96
400	14.3	4.36
500	16.1	4.91
600	17.9	5.46
860	22.0	6.71
1000	24.4	7.44

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# RG Type 75 Ohm Coaxial Cables

## RG 11 AX

### Construction

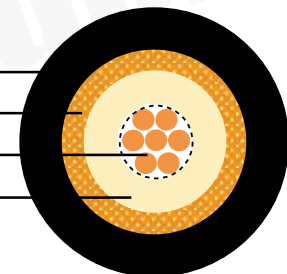
Inner conductor	Plain copper	7 x 0.40 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	240 x 0.15 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	49.8 Kg/Km
Cable weight (approx.)	140.2 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	4.2	1.28
100	6.2	1.89
200	9.2	2.80
400	13.8	4.21
500	15.5	4.73
600	17.1	5.21
860	21.1	6.43
1000	23.4	7.13

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# RG Type 75 Ohm Coaxial Cables

## RG 11URM (URM 57)

### Construction

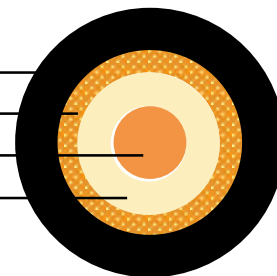
Inner conductor	Plain copper	1.15 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield)	Plain copper	192 x 0.18 mm
Shield coverage		97%
Sheath	PVC or LSZH	$\Phi 10.3 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	16.6 Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	58.3 Kg/Km
Cable weight (approx.)	146.7 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	3.8	1.16
100	5.5	1.68
200	8.2	2.50
400	12.0	3.66
500	13.6	4.15
600	15.0	4.57
860	18.8	5.73
1000	20.7	6.31

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>25dB

# RG Type 75 Ohm Coaxial Cables

## RG 59 PK

### Construction

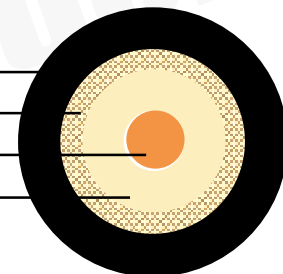
Inner conductor	Copper clad steel(CCS)	0.58 mm
Dielectric	Low density PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	120 x 0.10 mm
Shield coverage		77%
Sheath	PVC or LSZH	$\Phi 6.15 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	19.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	11.1 Kg/Km
Cable weight (approx.)	45.7 Kg/Km
Screening effectiveness	>50 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.6	2.32
100	11.1	3.38
200	16.2	4.94
400	23.2	7.07
500	26.2	7.99
600	29.3	8.93
860	35.5	10.82
1000	38.7	11.80

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB



# RG Type 75 Ohm Coaxial Cables

## RG 59 BX

### Construction

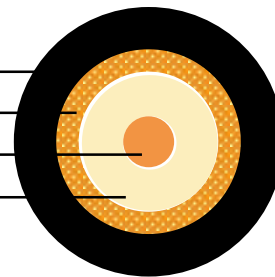
Inner conductor	Copper clad steel(CCS)	0.58 mm
Dielectric	Low density PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC or LSZH	$\Phi 6.20 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11.0 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	15.5 Kg/Km
Cable weight (approx.)	50.9 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.1	11.62

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB



# RG Type 75 Ohm Coaxial Cables

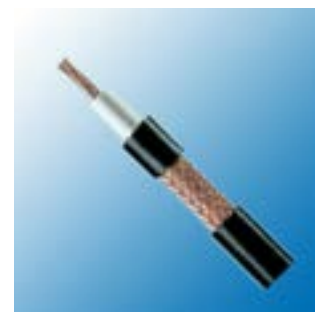
## RF 59 LL

### Construction

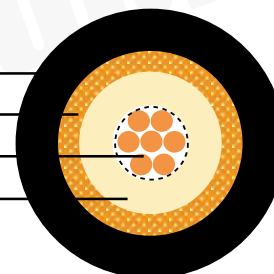
Inner conductor	Plain copper	7 x 0.25 mm
Dielectric	Foam PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	120 x 0.15 mm
Shield coverage		95%
Sheath	PVC or LSZH	$\Phi 6.15 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	49 Ohm/Km
Outer conductor resistance	9 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	23.8 Kg/Km
Cable weight (approx.)	53.0 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.1	2.16
100	10.1	3.08
200	14.0	4.27
400	20.2	6.16
500	23.6	7.20
600	26.2	7.99
860	32.2	9.82
1000	34.8	10.61

### Return Loss

30-300 MHz	>25dB
300-600 MHz	>24dB
600-900 MHz	>20dB

# RG Type 75 Ohm Coaxial Cables

## RG 59 DS

### Construction

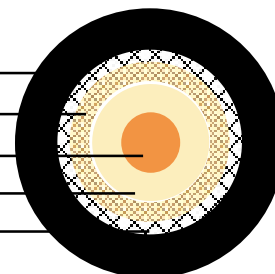
Inner conductor	Plain copper	0.6 mm
Dielectric	Low density PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor (shield 1)	Plain copper	120 x 0.12 mm
Shield coverage		86%
Outer conductor (shield 2)	Tinned copper	120 x 0.12 mm
Shield coverage		86%
Sheath	PVC or LSZH	$\Phi 6.10 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	62 Ohm/Km
Outer conductor resistance	8.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	29.9 Kg/Km
Cable weight (approx.)	59.8 Kg/Km
Screening effectiveness	>70 dB



PVC or LSZH sheath  
 Plain copper shield 1  
 Plain copper inner conductor  
 Low density PE dielectric  
 Tinned copper shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.2	2.20
100	10.5	3.20
200	15.5	4.73
400	22.3	6.80
500	25.1	7.65
600	28.0	8.54
860	33.9	10.34
1000	37.0	11.28

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# RG Type 75 Ohm Coaxial Cables

## RG 175 AF

### Construction

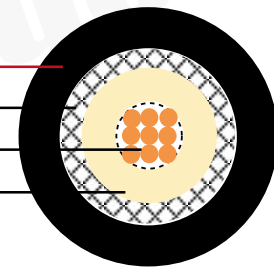
Inner conductor	Plain copper	9 x 0.10 mm
Dielectric	Foam PE	$\Phi 1.50 \pm 0.08$ mm
Outer conductor (shield)	Silver plated copper	72 x 0.10 mm
Shield coverage		90%
Sheath	PVC or LSZH	$\Phi 2.80 \pm 0.13$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	250 Ohm/Km
Outer conductor resistance	35 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	5.85 Kg/Km
Cable weight (approx.)	12.95 Kg/Km
Screening effectiveness	>50 dB



PVC or LSZH sheath  
 Silvered copper shield  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	19.2	5.85
100	27.9	8.51
200	40.7	12.41
400	59.2	18.05
500	67.5	20.58
600	72.6	22.13
860	91.1	27.77
1000	101.0	30.79

### Return Loss

30-300 MHz	>20dB
300-600 MHz	>20dB
600-900 MHz	>20dB

# M17 /RG Coaxial Cables

## *RG Type Low Loss 50Ohm*

RF 50 LTA

RF 195 LTA

RF 58 LAP

RF 58 LTA

RF 58 LL

RF 8 MINI

RF 240 LTA

RF 8 LAP

RH 100

RH 200 INT

RF 400 LTA

RF 400 LRP

RG 8 LRP

# RG Type Low Loss Coaxial Cables

## RF 50 LTA

### Construction

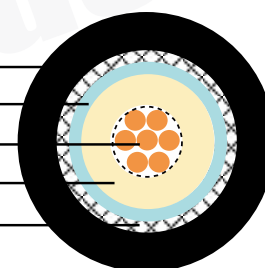
Inner conductor	Tinned copper	7 x 0.25 mm
Dielectric	Foam PE	$\Phi 2.00 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	48 x 0.12 mm
Shield coverage		64%
Sheath	PVC or LSZH	$\Phi 3.60 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	75%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	32.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	8.2 Kg/Km
Cable weight (approx.)	18.3 Kg/Km
Screening effectiveness	>75 dB



PVC or LSZH sheath  
 AL + polyester + AL tape  
 Tinned copper inner conductor  
 Foamed PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	13.0	3.96
100	17.3	5.27
400	35.0	10.67
600	43.3	13.20
860	52.7	16.07
1000	57.2	17.44
1750	76.7	23.38
2400	94.0	28.66

### Return Loss

30-300 MHz	>24dB
300-600 MHz	>21dB
600-900 MHz	>15dB

# RG Type Low Loss Coaxial Cables

## RF 195 LTA

### Construction

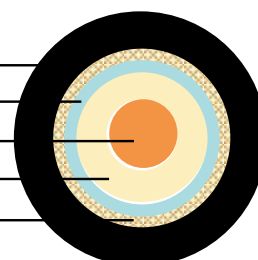
Inner conductor	Plain copper	0.95 mm
Dielectric	Foam PE	$\Phi 2.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.12 mm
Shield coverage		85%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	25.2 Ohm/Km
Outer conductor resistance	18.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	16.6 Kg/Km
Cable weight (approx.)	36.6 Kg/Km
Screening effectiveness	>80 dB



PVC or LSZH sheath  
 AL + polyester + AL tape  
 Plain copper inner conductor  
 Foamed PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	8.5	2.59
100	11.3	3.45
400	22.9	6.98
600	28.7	8.75
860	34.5	10.52
1000	37.5	11.43
1750	52.2	15.91
2400	64.0	19.51

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>19dB

# RG Type Low Loss Coaxial Cables

## RF 58 LAP

### Construction

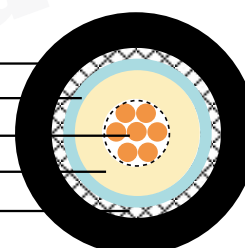
Inner conductor	Tinned copper	7 x 0.40 mm
Dielectric	Foam PE	$\Phi 3.10 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.10 mm
Shield coverage		72%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	20 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	15.3 Kg/Km
Cable weight (approx.)	33.9 Kg/Km
Screening effectiveness	>80 dB



PVC or LSZH sheath  
 AL + polyester + AL tape  
 Tinned copper inner conductor  
 Foamed PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	9.6	2.93
100	12.8	3.90
400	25.9	7.90
600	32.1	9.79
860	39.0	11.89
1000	42.4	12.93
1750	59.0	17.99
2400	72.3	22.04

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>22dB



# RG Type Low Loss Coaxial Cables

## RF 58 LTA

### Construction

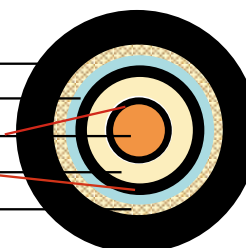
Inner conductor	Plain copper + black PE	1.00 mm
Dielectric	Gas injected foam PE + Carbon black PE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	64 x 0.15 mm
Shield coverage		73%
Sheath	PVC or LSZH	$\Phi 5.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	22.5 Ohm/Km
Outer conductor resistance	20.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	17.8 Kg/Km
Cable weight (approx.)	35.4 Kg/Km
Screening effectiveness	>80 dB



PVC or LSZH sheath  
 AL + polyester + AL tape  
 Plain copper+black PE inner conductor  
 Gas injected foam PE+black PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.3	2.23
100	9.8	2.99
400	19.7	6.01
600	24.9	7.59
860	30.1	9.18
1000	32.7	9.97
1750	45.8	13.96
2400	55.8	17.01

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>26dB
600-900 MHz	>20dB

# RG Type Low Loss Coaxial Cables

## RF 58 LL

### Construction

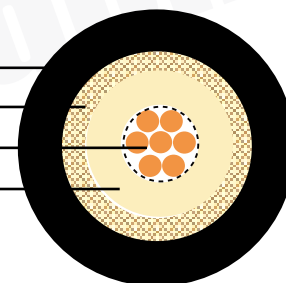
Inner conductor	Plain copper	7 x 0.50 mm
Dielectric	Foam PE	$\Phi 3.80 \pm 0.10$ mm
Outer conductor (shield)	Plain copper	144 x 0.12 mm
Shield coverage		94%
Sheath	PVC or LSZH	$\Phi 5.40 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	14 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	28.0 Kg/Km
Cable weight (approx.)	45.9 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Foamed PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.0	2.13
100	10.2	3.11
400	21.2	6.46
600	26.3	8.02
860	32.2	9.82
1000	35.1	10.70
1750	48.0	14.63
2400	58.2	17.74

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>22dB

# RG Type Low Loss Coaxial Cables

## RF 8 MINI

### Construction

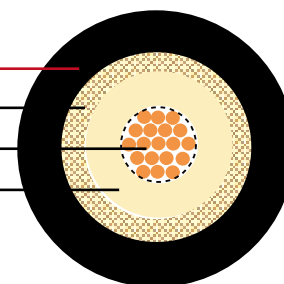
Inner conductor	Plain copper	19 x 0.28 mm
Dielectric	Foam PE	$\Phi 3.90 \pm 0.15$ mm
Outer conductor (shield)	Plain copper	128 x 0.12 mm
Shield coverage		88%
Sheath	PVC or LSZH	$\Phi 6.10 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	15.5 Ohm/Km
Outer conductor resistance	14 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	25.2 Kg/Km
Cable weight (approx.)	53.7 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper shield  
 Plain copper inner conductor  
 Foamed PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.2	2.20
100	10.5	3.20
400	22.2	6.77
600	27.6	8.41
860	33.9	10.34
1000	37.0	11.28
1750	51.6	15.73
2400	64.5	19.66

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>25dB
600-900 MHz	>23dB

# RG Type Low Loss Coaxial Cables

## RF 240 LTA

### Construction

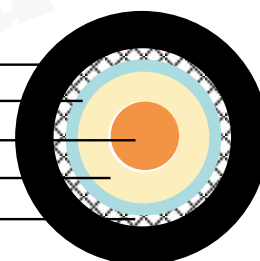
Inner conductor	Plain copper	1.40 mm
Dielectric	Foam PE	$\Phi 3.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	112 x 0.12 mm
Shield coverage		80%
Sheath	PVC or LSZH	$\Phi 6.10 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	11.5 Ohm/Km
Outer conductor resistance	14.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	25.9 Kg/Km
Cable weight (approx.)	52.6 Kg/Km
Screening effectiveness	>90 dB



PVC or LSZH sheath  
 AL+polyester +ALTape  
 Plain copper inner conductor  
 Foamed PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	5.7	1.74
100	7.8	2.38
400	16.2	4.94
600	20.0	6.10
860	24.2	7.38
1000	26.0	7.93
1750	36.0	10.98
2400	43.1	13.14

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>24dB
600-900 MHz	>19dB

# RG Type Low Loss Coaxial Cables

## RF 8 LAP

### Construction

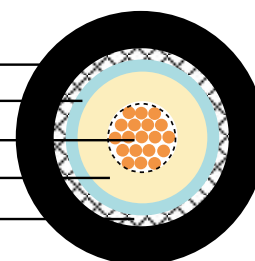
Inner conductor	Plain copper	19 x 0.28 mm
Dielectric	Foam PE	$\Phi 3.90 \pm 0.15$ mm
Outer conductor (shield 1)	Aluminium + polyester tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.10 mm
Shield coverage		80%
Sheath	PVC or LSZH	$\Phi 6.10 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	15.5 Ohm/Km
Outer conductor resistance	19 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	20.8 Kg/Km
Cable weight (approx.)	48.1 Kg/Km
Screening effectiveness	>80 dB



- PVC or LSZH sheath
- AL+polyester +ALtape
- Plain copper inner conductor
- Foamed PE dielectric
- Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.3	2.23
100	9.8	2.99
400	19.7	6.01
600	24.9	7.59
860	30.1	9.18
1000	32.9	10.03
1750	45.8	13.96
2400	55.8	17.01

### Return Loss

30-300 MHz	>26dB
300-600 MHz	>25dB
600-900 MHz	>23dB



# RG Type Low Loss Coaxial Cables

## RH 100

### Construction

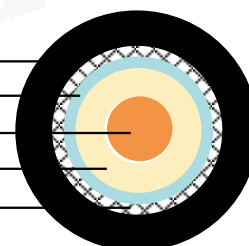
Inner conductor	Plain copper	2.5 mm
Dielectric	Aired PE	$\Phi 6.90 \pm 0.20$ mm
Outer conductor (shield 1)	Copper + polyester tape	
Shield coverage		100%
Outer conductor (shield 2)	Plain copper	96 x 0.12 mm
Shield coverage		50%
Sheath	PVC or LSZH	$\Phi 9.70 \pm 0.20$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.7 Ohm/Km
Outer conductor resistance	12.5 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	61.0 Kg/Km
Cable weight (approx.)	128.4 Kg/Km
Screening effectiveness	>75 dB



PVC or LSZH sheath  
 Copper+polyester tape  
 Plain copper inner conductor  
 Aired PE dielectric  
 Plain copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	2.5	0.76
100	3.6	1.10
400	7.9	2.41
600	10.1	3.08
860	12.1	3.69
1000	13.2	4.02
1750	18.7	5.70
2400	22.2	6.77

### Return Loss

30-300 MHz	>25dB
300-600 MHz	>22dB
600-900 MHz	>18dB

# RG Type Low Loss Coaxial Cables

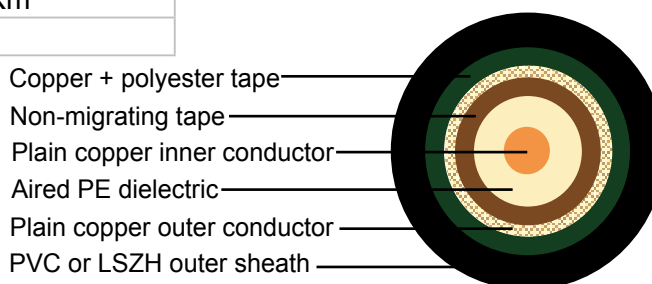
## RH 200 INT

### Construction

Inner conductor	Plain copper	2.5 mm
Dielectric	Aired PE	$\Phi 6.90 \pm 0.20$ mm
Outer conductor (shield 1)	Copper + polyester tape	
Shield coverage		100%
Outer conductor (shield 2)	Plain copper	192 x 0.15 mm
Shield coverage		96%
Tape	Non-migrating tape	h.27mm
Sheath	PVC or LSZH	$\Phi 10.30 \pm 0.20$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.7 Ohm/Km
Outer conductor resistance	5.5 Ohm/Km
Operating temperature range	-40 °C - +75 °C
Copper weight	88.5 Kg/Km
Cable weight (approx.)	148 Kg/Km
Screening effectiveness	>85 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	2.5	0.76
100	3.6	1.10
400	7.9	2.41
600	10.1	3.08
860	12.1	3.69
1000	13.2	4.02
1750	18.7	5.70
2400	22.2	6.77

### Return Loss

30-300 MHz	>25dB
300-600 MHz	>22dB
600-900 MHz	>18dB



# RG Type Low Loss Coaxial Cables

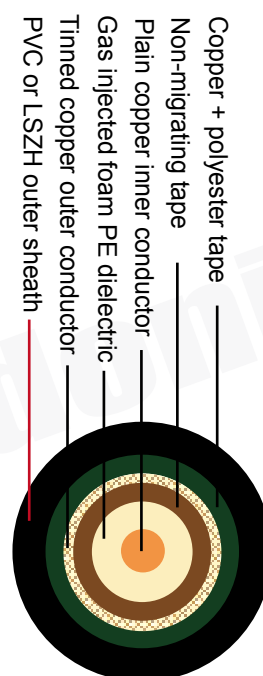
## RF 400 LTA

### Construction

Inner conductor	Plain copper	2.62 mm
Dielectric	Gas injected foam PE	$\Phi 7.20 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.15 mm
Shield coverage		70%
Tape	Non-migrating tape	h.27mm
Sheath	PVC or LSZH	$\Phi 10.30 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.2 Ohm/Km
Outer conductor resistance	7.5 Ohm/Km
Operating temperature range	-40 °C - +75 °C
Copper weight	71.0 Kg/Km
Cable weight (approx.)	122.1 Kg/Km
Screening effectiveness	>85 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	2.5	0.76
100	3.6	1.10
400	7.9	2.41
600	10.1	3.08
860	12.1	3.69
1000	13.2	4.02
1750	18.7	5.70
2400	22.2	6.77

### Return Loss

30-300 MHz	>29dB
300-600 MHz	>26dB
600-900 MHz	>24dB



# RG Type Low Loss Coaxial Cables

## RF 400 LRP

### Construction

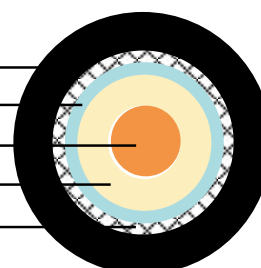
Inner conductor	Plain copper	2.62 mm
Dielectric	Gas injected foam PE	$\Phi 7.20 \pm 0.10$ mm
Outer conductor (shield 1)	Copper + polyester tape	
Shield coverage		100%
Outer conductor (shield 2)	Plain copper	96 x 0.15 mm
Shield coverage		56%
Sheath	PVC or LSZH	$\Phi 10.30 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	80 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.2 Ohm/Km
Outer conductor resistance	12.7 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	71.3Kg/Km
Cable weight (approx.)	137.7 Kg/Km
Screening effectiveness	>80 dB



- PVC or LSZH sheath
- Copper+polyester tape
- Plain copper inner conductor
- Gas injected foam PE dielectric
- Plain copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	2.5	0.76
100	3.6	1.10
400	7.9	2.41
600	10.1	3.08
860	12.1	3.69
1000	13.2	4.02
1750	18.7	5.70
2400	22.2	6.77

### Return Loss

30-300 MHz	>29dB
300-600 MHz	>26dB
600-900 MHz	>24dB



# RG Type Low Loss Coaxial Cables

## RG 8 LRP

### Construction

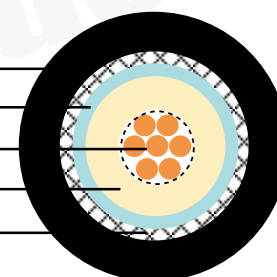
Inner conductor	Plain copper	7 x 0.75 mm
Dielectric	Low density PE	$\Phi 7.25 \pm 0.18$ mm
Outer conductor (shield 1)	Copper + polyester tape	
Shield coverage		100%
Outer conductor (shield 2)	Plain copper	128 x 0.10 mm
Shield coverage		57%
Sheath	PVC or LSZH	$\Phi 10.40 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	6 Ohm/Km
Outer conductor resistance	13 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	45.3 Kg/Km
Cable weight (approx.)	137.9 Kg/Km
Screening effectiveness	>80 dB



PVC or LSZH sheath  
 Copper+polyester tape  
 Plain copper inner conductor  
 Low density PE dielectric  
 Plain copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	3.7	1.13
100	5.4	1.65
400	11.7	3.57
600	14.6	4.45
860	18.1	5.52
1000	19.6	5.98
1750	28.8	8.78
2400	35.1	10.70

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>27dB
600-900 MHz	>23dB

# **M17 /RG Coaxial Cables**

## ***Broadcast 75Ohm***

RG 59 FX

RF 175 AF

SLS 28810

5 X SL 28810

8 X SL 28810

10 X SL 28810

SLS 37885

4 X SL 37885

5 X SL 37885

SLS 50755

SLS 64955

# Broadcast Coaxial Cables

## RG 59 FX

### Construction

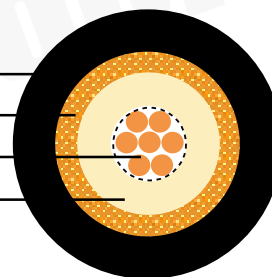
Inner conductor	Plain copper	7 x 0.20 mm
Dielectric	Low density PE	$\Phi 3.70 \pm 0.10$ mm
Outer conductor	Plain copper	160 x 0.10 mm
Shield coverage		92%
Sheath	PVC or LSZH	$\Phi 6.20 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	82 Ohm/Km
Outer conductor resistance	15 Ohm/Km
Operating temperature range	-30 °C - +70 °C
Copper weight	14.0 Kg/Km
Cable weight (approx.)	49.4 Kg/Km
Screening effectiveness	>55 dB



PVC or LSZH sheath  
 Plain copper outer conductor  
 Plain copper inner conductor  
 Low density PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	7.9	2.41
100	11.5	3.51
200	16.8	5.12
400	24.1	7.35
500	27.3	8.32
600	30.4	9.27
860	36.8	11.22
1000	40.1	12.23

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>25dB
600-900 MHz	>22dB

# Broadcast Coaxial Cables

## RF 175 AF

### Construction

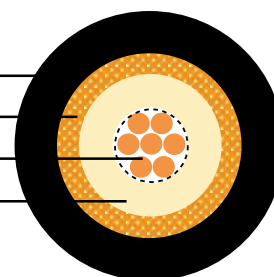
Inner conductor	Tinned copper	7 x 0.13 mm
Dielectric	Foam PE	$\Phi 1.70 \pm 0.10$ mm
Outer conductor	Tinned copper	80 x 0.10 mm
Shield coverage		92%
Sheath	PVC or LSZH	$\Phi 2.60 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	66%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	30.0 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	6.9 Kg/Km
Cable weight (approx.)	11.3 Kg/Km
Screening effectiveness	>50 dB



PVC or LSZH sheath  
 Tinned copper outer conductor  
 Tinned copper inner conductor  
 Foamed PE dielectric



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100ft)
50	11.7	3.57
100	15.8	4.82
200	24.6	7.50
400	36.5	11.13
500	41.3	12.59
600	44.7	13.63
860	53.8	16.40
1000	57.7	17.59

### Return Loss

30-300 MHz	>20dB
300-600 MHz	>18dB
600-900 MHz	>16dB

# Broadcast Coaxial Cables

## SLS 28810

### Construction

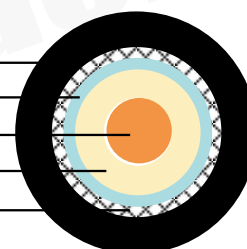
Inner conductor	Plain copper	0.6 mm
Dielectric	Gas injected foam PE	$\Phi 2.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.10 mm
Shield coverage		90%
Sheath	PVC	$\Phi 4.70 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	62 Ohm/Km
Outer conductor resistance	17.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	12.2 Kg/Km
Cable weight (approx.)	30.5 Kg/Km
Screening effectiveness	>85 dB



PVC sheath  
 AL+polyester+AL tape  
 Plain copper inner conductor  
 Gas injected foam PE dielectric  
 Tinned copper outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.3	2.23
230	14.7	4.48
470	21.4	6.52
860	30.0	9.15
1000	32.9	10.03
1350	38.2	11.65
1500	41.1	12.53
1750	44.1	13.45
2150	49.7	15.15
2400	53.6	16.34

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>27dB
860-2400 MHz	>21dB

# Broadcast Coaxial Cables

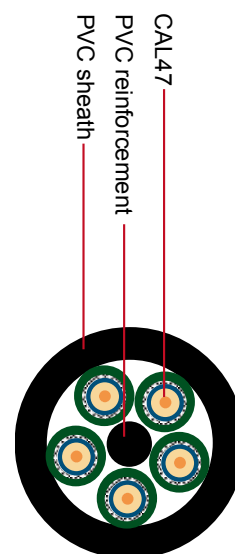
## 5 X SL 28810

### Construction

Inner conductor	Plain copper	0.6 mm
Dielectric	Gas injected foam PE	$\Phi 2.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.10 mm
Shield coverage		90%
Individual sheath	PVC	$\Phi 4.50 \pm 0.10$ mm
Overall sheath	PVC	$\Phi 14.20 \pm 0.40$ mm
Reinforcement	PVC	

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	62 Ohm/Km
Outer conductor resistance	17.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	61.0 Kg/Km
Cable weight (approx.)	192.7 Kg/Km
Screening effectiveness	>85 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.8	2.38
200	15.1	4.60
470	23.5	7.16
860	32.7	9.97
1000	35.6	10.85
1350	41.7	12.71
1500	44.8	13.66
1750	48.0	14.63
2150	54.2	16.52
2400	57.8	17.62

### Return Loss

30-300 MHz	>32dB
300-600 MHz	>27dB
600-900 MHz	>23dB

# Broadcast Coaxial Cables

## 8 X SL 28810

### Construction

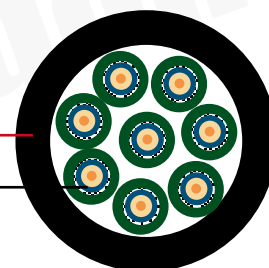
Inner conductor	Plain copper	0.6 mm
Dielectric	Gas injected foam PE	$\Phi 2.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.10 mm
Shield coverage		90%
Individual sheath	PVC	$\Phi 4.50 \pm 0.10$ mm
Overall sheath	PVC	$\Phi 18.00 \pm 0.80$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	62 Ohm/Km
Outer conductor resistance	17.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	92.6 Kg/Km
Cable weight (approx.)	371.6 Kg/Km
Screening effectiveness	>85 dB

PVC sheath

CAL47



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.3	2.23
200	13.7	4.18
470	21.4	6.52
860	30.0	9.15
1000	32.9	10.03
1350	38.2	11.65
1500	41.1	12.53
1750	44.1	13.45
2150	49.7	15.15
2400	53.6	16.34

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>27dB
860-2400 MHz	>21dB



# Broadcast Coaxial Cables

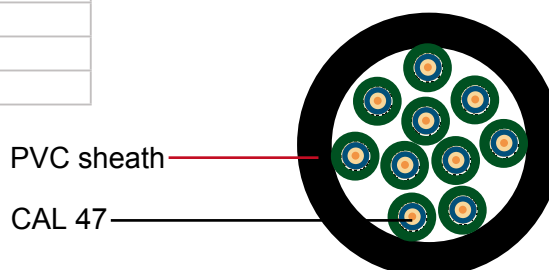
## 10 X SL 28810

### Construction

Inner conductor	Plain copper	0.6 mm
Dielectric	Gas injected foam PE	$\Phi 2.80 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	128 x 0.10 mm
Shield coverage		90%
Individual sheath	PVC	$\Phi 4.50 \pm 0.10$ mm
Overall sheath	PVC	$\Phi 22.00 \pm 0.50$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	62 Ohm/Km
Outer conductor resistance	17.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	122.0 Kg/Km
Cable weight (approx.)	533.3 Kg/Km
Screening effectiveness	>85 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.3	2.23
200	13.7	4.18
470	21.4	6.52
860	30.0	9.15
1000	32.9	10.03
1350	38.2	11.65
1500	41.1	12.53
1750	44.1	13.45
2150	49.7	15.15
2400	53.6	16.34

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>27dB
860-2400 MHz	>21dB

# Broadcast Coaxial Cables

## SLS 37885

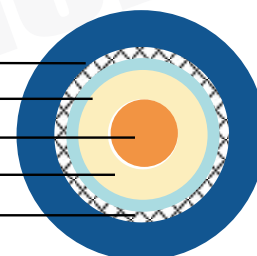
### Construction

Inner conductor	Plain copper	0.8 mm
Dielectric	Foam PE	$\Phi 3.65 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.15 mm
Shield coverage		88%
Sheath	PVC	$\Phi 5.90 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	35 Ohm/Km
Outer conductor resistance	12.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	21.8 Kg/Km
Cable weight (approx.)	49.5 Kg/Km
Screening effectiveness	>90 dB

PVC sheath  
 AL+polyester+AL tape  
 Plain copper inner conductor  
 Foamed PE dielectric  
 Tinned copper shield



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	6.0	1.83
230	12.5	3.81
470	18.2	5.55
860	25.5	7.77
1000	27.9	8.51
1350	32.6	9.94
1500	34.9	10.64
1750	37.6	11.46
2150	42.3	12.90
2400	45.4	13.84

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>30dB
860-2400 MHz	>26dB

# Broadcast Coaxial Cables

## 4 X SL 37885

### Construction

Inner conductor	Plain copper	0.8 mm
Dielectric	Foam PE	$\Phi 3.65 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.15 mm
Shield coverage		88%
Individual sheath	PVC(yellow green red blue)	$\Phi 5.90 \pm 0.10$ mm
Overall sheath	Black PVC	$\Phi 16.90 \pm 0.40$ mm
Reinforcement	PVC	5 x $\Phi 2.40 \pm 0.10$ mm

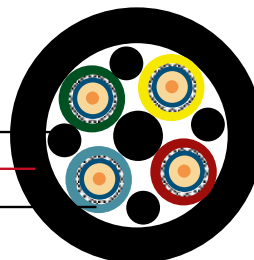
### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	35 Ohm/Km
Outer conductor resistance	12.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	87.2 Kg/Km
Cable weight (approx.)	340.1 Kg/Km
Screening effectiveness	>90 dB

PVC reinforcement

PVC sheath

CAL 59



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	6.0	1.83
200	11.6	3.54
470	18.2	5.55
860	25.5	7.77
1000	27.9	8.51
1350	32.6	9.94
1500	34.9	10.64
1750	37.6	11.46
2150	42.3	12.90
2400	45.4	13.84

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>30dB
860-2400 MHz	>26dB

# Broadcast Coaxial Cables

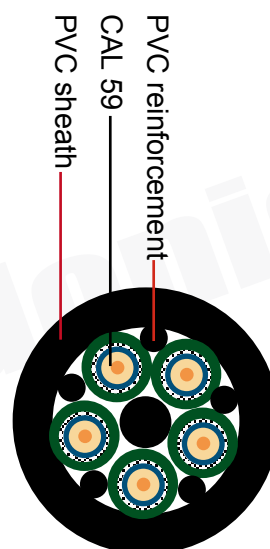
## 5 X SL 37885

### Construction

Inner conductor	Plain copper	0.8 mm
Dielectric	Foam PE	$\Phi 3.65 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.15 mm
Shield coverage		88%
Individual sheath	Green PVC	$\Phi 5.90 \pm 0.10$ mm
Overall sheath	Black PVC	$\Phi 19.40 \pm 0.50$ mm
Reinforcement 1	PVC	$\Phi 4.20 \pm 0.10$ mm
Reinforcement 2	PVC	5 x $\Phi 2.30 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	35 Ohm/Km
Outer conductor resistance	12.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	100.0 Kg/Km
Cable weight (approx.)	440.3 Kg/Km
Screening effectiveness	>90 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	6.0	1.83
200	11.6	3.54
470	18.2	5.55
860	25.5	7.77
1000	27.9	8.51
1350	32.6	9.94
1500	34.9	10.64
1750	37.6	11.46
2150	42.3	12.90
2400	45.4	13.84

### Return Loss

30-470 MHz	>32dB
470-860 MHz	>30dB
860-2400 MHz	>26dB

# Broadcast Coaxial Cables

## SLS 50755

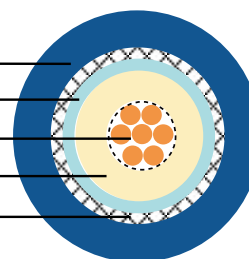
### Construction

Inner conductor	Plain copper	7 x 0.40 mm
Dielectric	Foam PE	$\Phi 4.95 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	96 x 0.15 mm
Shield coverage		71%
Sheath	Blue PVC	$\Phi 7.00 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	53 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance	13.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	24.6 Kg/Km
Cable weight (approx.)	56.25 Kg/Km
Screening effectiveness	>85 dB

PVC sheath  
 AL+polyester+AL tape  
 Plain copper inner conductor  
 Foam PE dielectric  
 Tinned copper shield



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.4	1.34
230	9.5	2.90
470	13.7	4.18
860	19.2	5.85
1000	21.0	6.40
1350	24.7	7.53
1500	26.6	8.11
1750	28.7	8.75
2150	32.4	9.88
2400	34.7	10.58

### Return Loss

30-470 MHz	>30dB
470-860 MHz	>26dB
860-2400 MHz	>22dB

# Broadcast Coaxial Cables

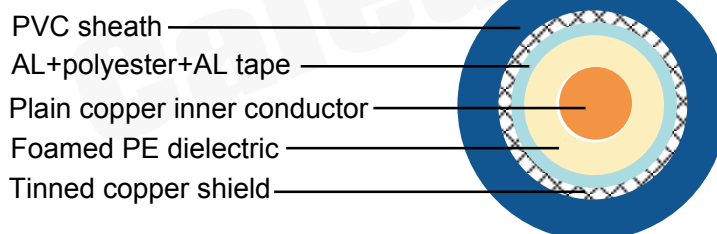
## SLS 64955

### Construction

Inner conductor	Plain copper	1.40 mm
Dielectric	Foam PE	$\Phi 6.4 \pm 0.10$ mm
Outer conductor (shield 1)	Aluminium + polyester + Aluminium tape	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	192 x 0.15 mm
Shield coverage		95%
Sheath	PVC	$\Phi 9.20 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	53 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	11.5 Ohm/Km
Outer conductor resistance	5.5 Ohm/Km
Operating temperature range	-25 °C - +80 °C
Copper weight	49.2 Kg/Km
Cable weight (approx.)	109.2 Kg/Km
Screening effectiveness	>84 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	3.4	1.04
200	7.4	2.26
470	10.7	3.26
860	14.8	4.51
1000	16.3	4.97
1350	19.4	5.91
1500	20.8	6.34
1750	22.5	6.86
2150	25.3	7.71
2400	27.0	8.23

### Return Loss

30-470 MHz	>29dB
470-860 MHz	>27dB
860-2400 MHz	>23dB

# M17 /RG Coaxial Cables

## *Hybrid 75Ohm*

Twin RG 6

Twin RG 59

RG175 + 3 x 0.22mm<sup>2</sup>

RG175 + 2 x 0.22mm<sup>2</sup> + 2 x 0.5mm<sup>2</sup>

RG175 + 4 x 0.22mm<sup>2</sup> + 2 x 0.75mm<sup>2</sup>

RG175 + 2 x 0.75mm<sup>2</sup>+ 10 x 0.5mm<sup>2</sup>

RG59 + 2 x 0.5mm<sup>2</sup>

RG59 + 2 x 0.75mm<sup>2</sup>

RG59 + 2 x 1.00mm<sup>2</sup>

RG59 + 2 x 1.5mm<sup>2</sup>

RG59 + 2 x 0.75mm<sup>2</sup>+ 2 x 0.22mm<sup>2</sup>

RG59 + 2 x 1.50mm<sup>2</sup>+ 2 x 0.25mm<sup>2</sup>

RG59 + 2 x 1.50mm<sup>2</sup>+ 2 x 1.00mm<sup>2</sup>

RG59 + 2 x 2.50mm<sup>2</sup>+ 2 x 0.22mm<sup>2</sup>

RG59 + 2 x 0.75mm<sup>2</sup>+10x 0.50mm<sup>2</sup>

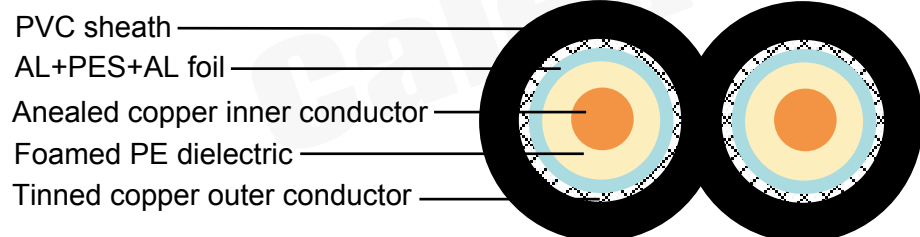
## Twin RG 6

### Construction

Inner conductor	Anealed copper	Φ1.02 mm
Dielectric	Foam PE	Φ4.57 mm
Outer conductor (shield 1)	Al-PES-Al foil	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	
Shield coverage		60%
Sheath	PVC	Φ6.8 - 13.9mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	57 pF/m
Velocity of propagation	78%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	11.5 Ohm/Km
Outer conductor resistance	5.5 Ohm/Km
Operating temperature range	-40 °C - +70 °C
Cable weight (approx.)	100 Kg/Km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
200	9.9	3.02
500	15.2	4.63
860	20.7	6.31
1000	22.5	6.86
1500	27.0	8.23
2000	30.8	9.39
2400	34.1	10.40
3000	39.0	11.89



# Hybrid Coaxial Cables

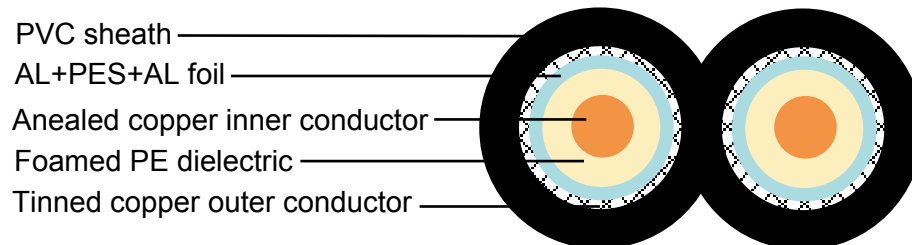
## Twin RG 59

### Construction

Inner conductor	Anealed copper	0.81 mm
Dielectric	Foam PE	Φ3.6 mm
Outer conductor (shield 1)	Al-PES-Al foil	
Shield coverage		100%
Outer conductor (shield 2)	Tinned copper	
Shield coverage		60%
Sheath	PVC	Φ5.9 - 12.7mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	57 pF/m
Velocity of propagation	78%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	11.5 Ohm/Km
Outer conductor resistance	5.5 Ohm/Km
Operating temperature range	-40°C - +70 °C
Cable weight (approx.)	75 Kg/Km



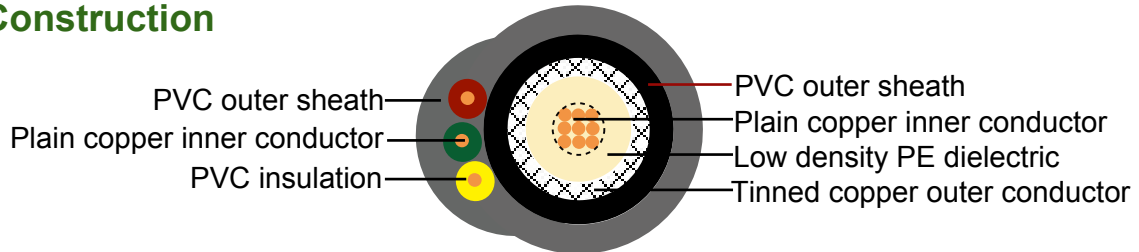
### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
200	12.4	3.78
500	18.8	5.73
860	25.3	7.71
1000	27.6	8.41
1500	34.1	10.40
2000	40.4	12.32
2400	44.8	13.66
3000	50.1	15.27

# Hybrid Coaxial Cables

## CK175/C3:RG175AF + 3 x 0.22mm<sup>2</sup>

### Construction



Inner conductor1	Plain copper	9 x 0.10 mm
Dielectric	Low density PE	Φ1.50 ± 0.08 mm
Outer conductor	Tinned copper	72 x 0.10 mm
Shield coverage		90%
Sheath	PVC	Φ2.80 ± 0.13 mm
Inner conductor 2	Plain copper	3 x 0.22 mm <sup>2</sup>
Insulated cores 2	PVC(Green +Yellow + Red)	3 x Φ1.00 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ5.30 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	250 Ohm/Km
Outer conductor resistance	35 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance	82 Ohm/Km
Test/Operatig Voltage(max)	1.2 KV/0.25 KV
Copper weight	11.85 Kg/Km
Cable weight (approx.)	43.2 Kg/Km
Screening effectiveness	>50 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	19.2	5.85
100	27.9	8.51
200	40.7	12.41
400	59.2	18.05
500	67.5	20.58
600	72.6	22.13
860	91.1	27.77
1000	101.0	30.79

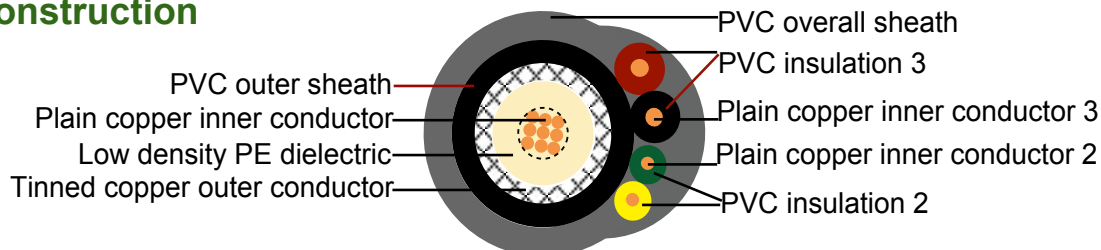
### Return Loss

30-300 MHz	>20dB
300-600 MHz	>20dB
600-900 MHz	>20dB

# Hybrid Coaxial Cables

## CK175/F2C2:RG175AF + 2 x 0.22mm<sup>2</sup> + 2 x 0.5mm<sup>2</sup>

### Construction



Inner conductor 1	Plain copper	9 x 0.10 mm
Dielectric	Low density PE	Φ1.50 ± 0.08 mm
Outer conductor	Tinned copper	72 x 0.10 mm
Shield coverage		90%
Sheath	PVC	Φ2.80 ± 0.13 mm
Inner conductor 2	Plain copper	2 x 0.22 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.00 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 0.50 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.50 ± 0.10 mm
Overall sheath	PVC	Φ6.20 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	250 Ohm/Km
Outer conductor resistance	35 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.22 mm <sup>2</sup> - 0.50 mm <sup>2</sup>	82Ohm/Km - 39 Ohm/Km
Test/Operatig Voltage(max)	1.2 KV/0.25 KV
Copper weight	18.85 Kg/Km
Cable weight (approx.)	61.55 Kg/Km
Screening effectiveness	>50 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	19.2	5.85
100	27.9	8.51
200	40.7	12.41
400	59.2	18.05
500	67.5	20.58
600	72.6	22.13
860	91.1	27.77
1000	101.0	30.79

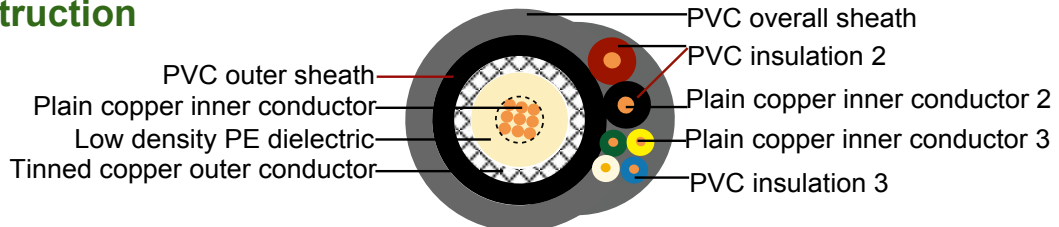
### Return Loss

30-300 MHz	>20dB
300-600 MHz	>20dB
600-900 MHz	>20dB

# Hybrid Coaxial Cables

## CK175/H2C4:RG175AF + 4 x 0.22mm<sup>2</sup> + 2 x 0.75mm<sup>2</sup>

### Construction



Inner conductor 1	Plain copper	9 x 0.10 mm
Dielectric	Low density PE	Φ1.50 ± 0.08 mm
Outer conductor(shield)	Tinned copper	72 x 0.10 mm
Shield coverage		90%
Sheath	PVC	Φ2.80 ± 0.13 mm
Inner conductor 2	Plain copper	4 x 0.22 mm <sup>2</sup>
Insulated cores 2	PVC	4 x Φ1.00 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 0.75 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.70 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ7.00 ± 0.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	250 Ohm/Km
Outer conductor resistance	35 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.22 mm <sup>2</sup> / 0.75 mm <sup>2</sup>	82Ohm/Km/26 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	27.45 Kg/Km
Cable weight (approx.)	82.75 Kg/Km
Screening effectiveness	>50 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	19.2	5.85
100	27.9	8.51
200	40.7	12.41
400	59.2	18.05
500	67.5	20.58
600	72.6	22.13
860	91.1	27.77
1000	101.0	30.79

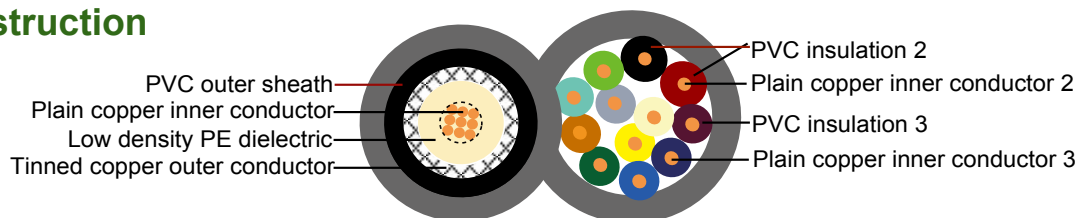
### Return Loss

30-300 MHz	>20dB
300-600 MHz	>20dB
600-900 MHz	>20dB

# Hybrid Coaxial Cables

## CK175/H2F10:RG175AF + 2 x 0.75mm<sup>2</sup>+ 10 x 0.5mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	9 x 0.10 mm
Dielectric	Low density PE	Φ1.50 ± 0.08 mm
Outer conductor (shield)	Tinned copper	72 x 0.10 mm
Shield coverage		90%
Sheath	PVC	Φ2.80 ± 0.13 mm
Inner conductor 2	Plain copper	2x 0.75 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.70 ± 0.10 mm
Inner conductor 3	Plain copper	10 x 0.5 mm <sup>2</sup>
Insulated cores 3	PVC	10 x Φ1.50 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ9.90 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	250 Ohm/Km
Outer conductor resistance	35 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.50 mm <sup>2</sup> /0.75 mm <sup>2</sup>	39Ohm/Km/26 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	64.45 Kg/Km
Cable weight (approx.)	172.65 Kg/Km
Screening effectiveness	>50 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	19.2	5.85
100	27.9	8.51
200	40.7	12.41
400	59.2	18.05
500	67.5	20.58
600	72.6	22.13
860	91.1	27.77
1000	101.0	30.79

### Return Loss

30-300 MHz	>20dB
300-600 MHz	>20dB
600-900 MHz	>20dB

# Hybrid Coaxial Cables

## CK 059/F2:RG59BX + 2 x 0.5mm<sup>2</sup>

### Construction

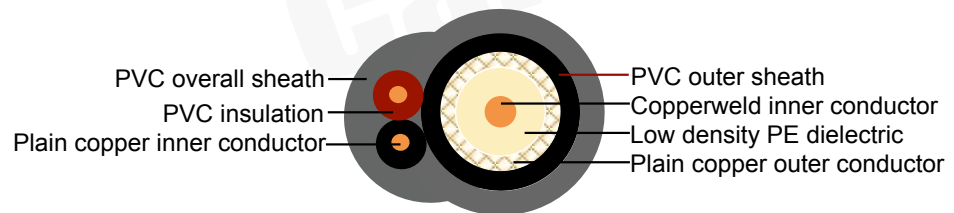
Inner conductor1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor (shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2 x 0.50 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.50 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ10.30 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance	39 Ohm/Km
Test/Operatig Voltage(max)	1.2 KV/0.25 KV
Copper weight	24.5 Kg/Km
Cable weight (approx.)	142.8 Kg/Km
Screening effectiveness	>55 dB



### Attenuation



Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

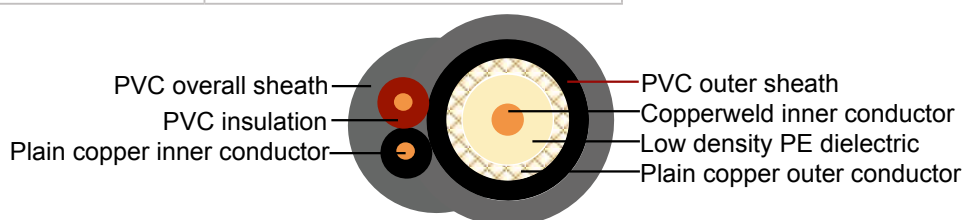
## CK 059/H2:RG59BX + 2 x 0.75mm<sup>2</sup>

### Construction

Inner conductor1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2 x 0.75 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.70 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ10.30 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance	26 Ohm/Km
Test/Operatig Voltage(max)	2 KV/0.3 KV
Copper weight	29.1 Kg/Km
Cable weight (approx.)	147.6 Kg/Km
Screening effectiveness	>55 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

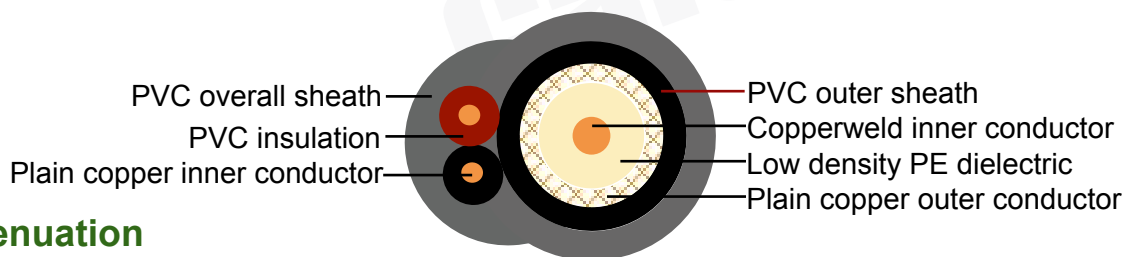
## CK 059/K2:RG59BX + 2 x 1.00mm<sup>2</sup>

### Construction

Inner conductor1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2 x 1.00 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ2.40 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ10.90 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance	18 Ohm/Km
Test/Operatig Voltage(max)	2 KV/0.3 KV
Copper weight	33.5 Kg/Km
Cable weight (approx.)	166.0 Kg/Km
Screening effectiveness	>55 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB



# Hybrid Coaxial Cables

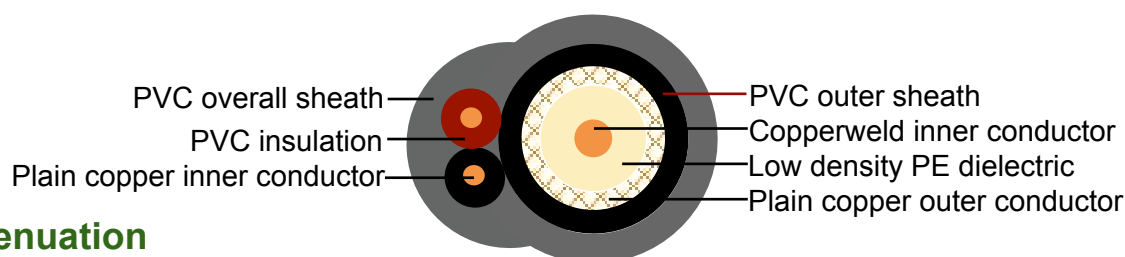
## CK 059/M2:RG59BX + 2 x 1.50mm<sup>2</sup>

### Construction

Inner conductor1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2 x 1.50 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ2.60 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ11.490 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance	12 Ohm/Km
Test/Operatig Voltage(max)	2 KV/0.3 KV
Copper weight	42.1 Kg/Km
Cable weight (approx.)	186.9 Kg/Km
Screening effectiveness	>55 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

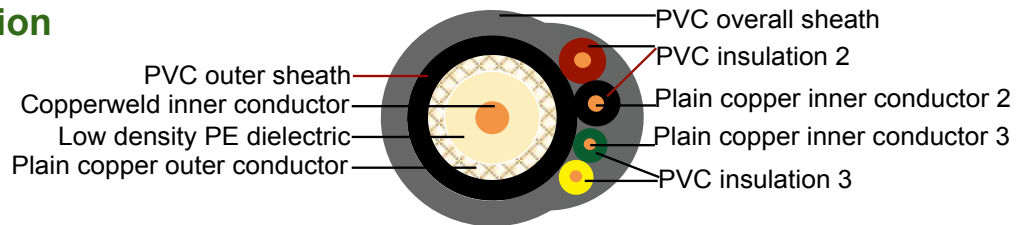
### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

## CK 059/H2C2:RG59BX + 2 x 0.75mm<sup>2</sup>+ 2 x 0.22mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor (shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2x 0.75 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.70 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 0.22 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.00 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ10.40 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.22 mm <sup>2</sup> / 0.75 mm <sup>2</sup>	82 Ohm/Km /26 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	33.1 Kg/Km
Cable weight (approx.)	153.4 Kg/Km
Screening effectiveness	>55 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

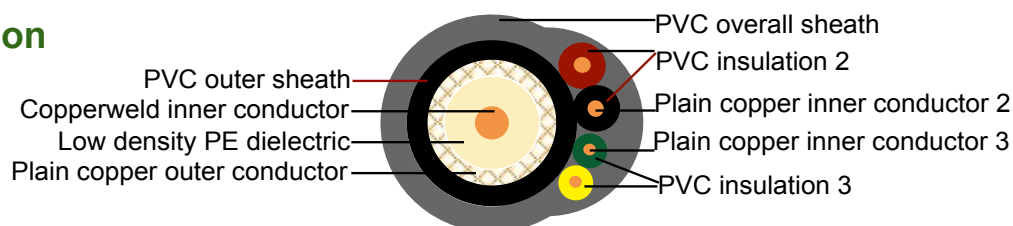
### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

## CK 059/M2D2:RG59BX + 2 x 1.5mm<sup>2</sup>+ 2 x 0.25mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2x 1.5 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ2.60 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 0.25 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.15 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ10.90 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.25 mm <sup>2</sup> /1.50 mm <sup>2</sup>	75 Ohm/Km / 12 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	33.1 Kg/Km
Cable weight (approx.)	153.4 Kg/Km
Screening effectiveness	>55 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

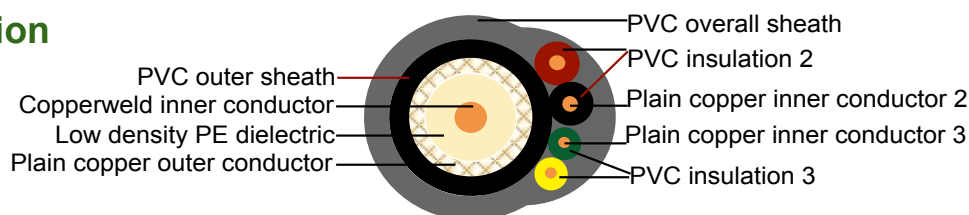
### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

## CK 059/M2K2:RG59BX + 2 x 1.5mm<sup>2</sup>+ 2 x 1.00mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2x 1.50 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ2.60 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 1.00 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.70 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ12.00 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 1.00 mm <sup>2</sup> / 1.50 mm <sup>2</sup>	18 Ohm/Km/12 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	60.1 Kg/Km
Cable weight (approx.)	220.7 Kg/Km
Screening effectiveness	>55 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

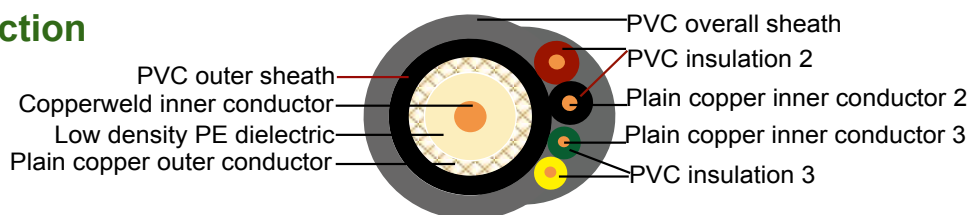
### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

## CK 059/S2C2:RG59BX + 2 x 2.5mm<sup>2</sup>+ 2 x 0.22mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2x 2.50 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ3.40 ± 0.10 mm
Inner conductor 3	Plain copper	2 x 0.22 mm <sup>2</sup>
Insulated cores 3	PVC	2 x Φ1.00 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ12.00 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.22 mm <sup>2</sup> / 2.50 mm <sup>2</sup>	82 Ohm/Km/8 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	63.5 Kg/Km
Cable weight (approx.)	221.4 Kg/Km
Screening effectiveness	>55 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

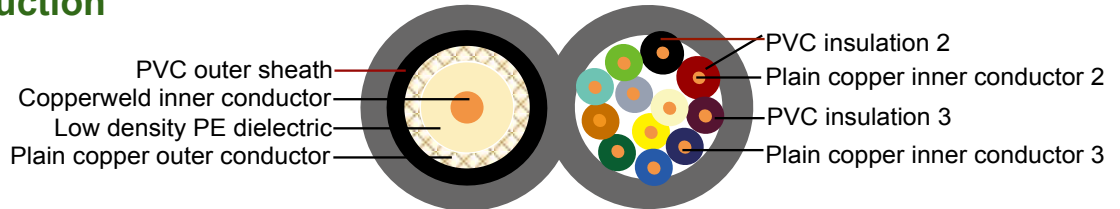
### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Hybrid Coaxial Cables

## CK 059/H2F10:RG59BX + 2 x 0.75mm<sup>2</sup>+ 10 x 0.5mm<sup>2</sup>

### Construction



Inner conductor 1	Copper covered steel(CCS)	0.58 mm
Dielectric	Low density PE	Φ3.70 ± 0.10 mm
Outer conductor(shield)	Plain copper	180 x 0.10 mm
Shield coverage		94%
Sheath	PVC	Φ6.20 ± 0.10 mm
Inner conductor 2	Plain copper	2x 0.75 mm <sup>2</sup>
Insulated cores 2	PVC	2 x Φ1.70 ± 0.10 mm
Inner conductor 3	Plain copper	10 x 0.50 mm <sup>2</sup>
Insulated cores 3	PVC	10 x Φ1.50 ± 0.10 mm
Overall sheath	PVC/LSOH	Φ12.80 ± 0.30 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>2000 Mohm.Km
Inner conductor resistance	158 Ohm/Km
Outer conductor resistance	11 Ohm/Km
Operating temperature range	-25°C - +80 °C
Cores resistance 0.50 mm <sup>2</sup> - 0.75 mm <sup>2</sup>	39 Ohm/Km - 26 Ohm/Km
Operatig Voltage(max)	0.25 KV/0.3 KV
Test Voltage	1.2 KV/2.0 KV
Copper weight	74.1 Kg/Km
Cable weight (approx.)	254.9 Kg/Km
Screening effectiveness	>55 dB

### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	7.4	2.26
100	10.7	3.26
200	15.7	4.79
400	22.7	6.92
500	25.7	7.84
600	28.7	8.75
860	34.8	10.61
1000	38.0	11.59

### Return Loss

30-300 MHz	>31dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Triaxial Cables

Tri-RG179

Tri-RG180

Tri-RG316

Tri-RG393

Tri-RG400

Tri-RG403

CTX 41

CTX 44 Flex

CTX 47 Flex

CTX 64

CTX 65 Flex

CTX 80 Flex

## Tri-RG179

### Construction

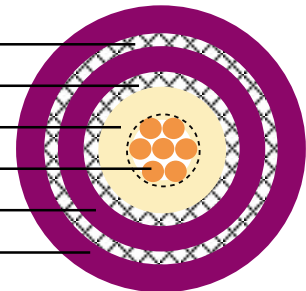
Inner conductor	Silver plated copper covered steel (SCCS)	7 x 0.10 mm
Dielectric	Solid PTFE	$\Phi 1.60 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper (0.1mm)	$\Phi 2.15 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 2.55 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper (0.1mm)	$\Phi 3.15 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 3.6 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	63 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	800.5 Ohm/Km
Outer conductor resistance	27.9 Ohm/Km
Operatig Voltage(max)	0.9 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	31 Kg/Km
Screening effectiveness	>60 dB



- Silvered copper outer conductor 2
- Silvered copper outer conductor 1
- Solid PTFE dielectric
- Silvered copper inner conductor
- FEP inner sheath
- FEP outer sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	28	8.5
200	39	11.9
400	56	17.1
900	85	25.9
1200	98	29.9
1500	110	33.5
1800	121	36.9
2000	128	39.0
2500	144	43.9



# Triaxial Cables

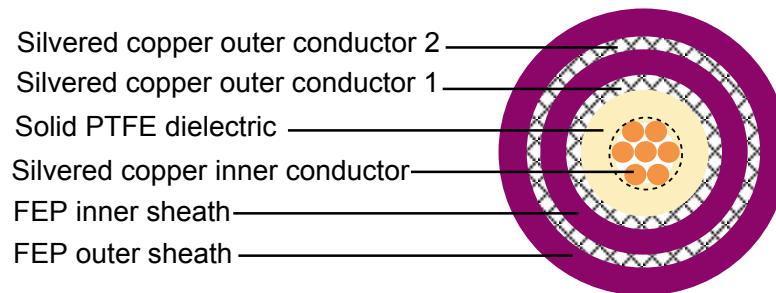
## Tri-RG180

### Construction

Inner conductor	Silver plated copper covered steel (SCCS)	7 x 0.10 mm
Dielectric	Solid PTFE	$\Phi 2.60 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper (0.1mm)	$\Phi 3.15 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 3.60 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper (0.13mm)	$\Phi 4.40 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 4.80 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	Nom.95±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	800.5 Ohm/Km
Outer conductor resistance	27.9 Ohm/Km
Operatig Voltage(max)	1.0 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	53 Kg/Km
Screening effectiveness	>60 dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	21	6.4
200	30	9.1
400	43	13.1
900	65	19.8
1200	76	23.2
1500	85	25.9
1800	94	28.7
2000	99	30.2
2500	111	33.8

## Tri-RG316

### Construction

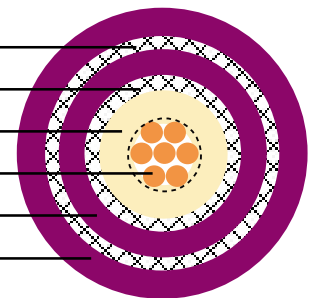
Inner conductor	Silver plated copper covered steel (SCCS)	7 x 0.17 mm
Dielectric	Solid PTFE	$\Phi 1.52 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper( 0.1mm)	$\Phi 2.05 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 2.50 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper(0.1mm)	$\Phi 3.15 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 3.60 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operatig Voltage(max)	1.0 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	31 Kg/Km
Screening effectiveness	>60 dB



- Silvered copper outer conductor 2
- Silvered copper outer conductor 1
- Solid PTFE dielectric
- Silvered copper inner conductor
- FEP inner sheath
- FEP outer sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	27	8.2
200	38	11.6
400	54	16.5
900	82	25.0
1200	95	29.0
1500	106	32.3
1800	117	35.7
2000	124	37.8
2500	139	42.4

# Triaxial Cables

## Tri-RG393

### Construction

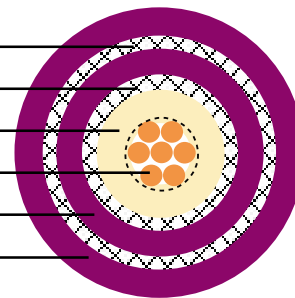
Inner conductor	Silver plated copper	7 x 0.80 mm
Dielectric	Solid PTFE	$\Phi 7.25 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper (0.16mm)	$\Phi 7.95 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 9.00 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper (0.2mm)	$\Phi 9.90 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 11.10 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operatig Voltage(max)	4.4 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	290 Kg/Km
Screening effectiveness	>60 dB



- Silvered copper outer conductor 2
- Silvered copper outer conductor 1
- Solid PTFE dielectric
- Silvered copper inner conductor
- FEP inner sheath
- FEP outer sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	7	2.1
200	10	3.0
400	14	4.3
900	22	6.7
1200	25	7.6
1500	29	8.8
1800	32	9.8
2000	34	10.4
2500	39	11.9



## Tri-RG400

### Construction

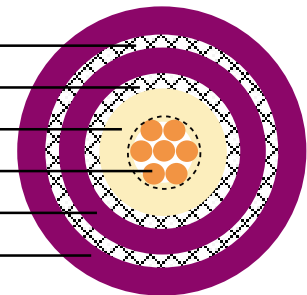
Inner conductor	Silver plated copper	19 x 0.20 mm
Dielectric	Solid PTFE	$\Phi 2.95 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper(0.13mm)	$\Phi 3.55 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 4.30 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper (0.13mm)	$\Phi 4.90 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 5.70 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50 $\pm$ 3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operatig Voltage(max)	1.8 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	78 Kg/Km
Screening effectiveness	>60 dB



- Silvered copper outer conductor 2
- Silvered copper outer conductor 1
- Solid PTFE dielectric
- Silvered copper inner conductor
- FEP inner sheath
- FEP outer sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	15	4.6
200	22	6.7
400	31	9.4
900	47	14.3
1200	55	16.8
1500	62	18.9
1800	68	20.7
2000	72	21.9
2500	81	24.7

# Triaxial Cables

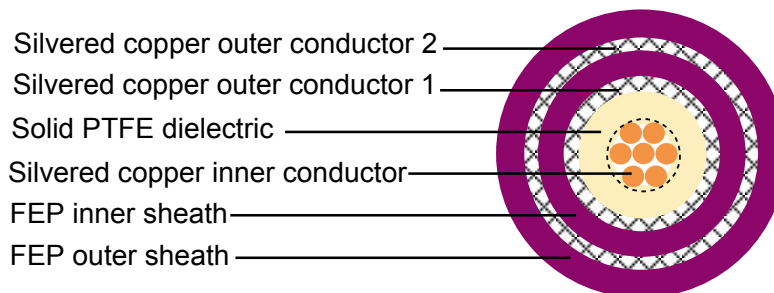
## Tri-RG403

### Construction

Inner conductor	Silver plated copper covered steel(SCCS)	7 x 0.10 mm
Dielectric	Solid PTFE	$\Phi 0.84 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper (0.1mm)	$\Phi 1.30 \pm 0.10$ mm
Inner sheath	FEP	$\Phi 1.90 \pm 0.10$ mm
Outer conductor (shield 2)	Silver plated copper (0.1mm)	$\Phi 2.35 \pm 0.10$ mm
Outer sheath	FEP	$\Phi 2.95 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operatig Voltage(max)	0.5 KV
Test Voltage	
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	21 Kg/Km
Screening effectiveness	>60 dB

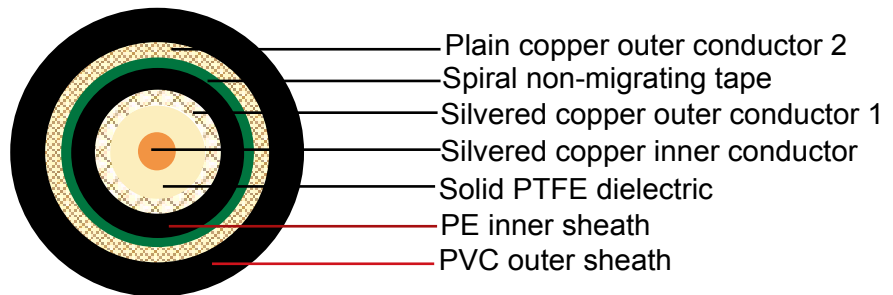


### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	50	15.2
200	67	20.4
400	95	29.0
900	145	44.2
1200	165	50.3
1500	185	56.4
1800	204	62.2
2000	215	65.5
2500	240	73.2



## CTX 41



### Construction

Inner conductor	Silver plated copper	1.00 mm
Dielectric	Foam PE	$\Phi 4.10 \pm 0,10$ mm
Outer conductor (shield 1)	Silver plated copper	168 x 0.13 mm
Shield coverage		95%
Inner sheath	PE	$\Phi 6.60 \pm 0,10$ mm
Tape	Spiral non-migrating tape	h. 20 mm
Outer conductor (shield 2)	Plain copper	192 x 0.15 mm
Shield coverage		94%
Outer sheath	PVC/LSOH	$\Phi 8.50 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	22.5 Ohm/Km
Outer conductor resistance1	7.0 Ohm/Km
Outer conductor resistance2	7.5 Ohm/Km
Operating temperature range	-25°C - +80 °C
Copper weight	63.3 Kg/Km
Cable weight (approx.)	111.2 Kg/Km
Screening effectiveness	>70 dB

### Attenuation

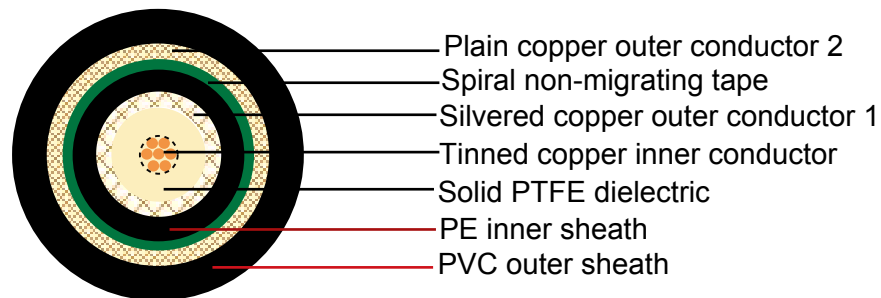
Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	5.2	1.6
100	7.6	2.3
200	10.8	3.3
400	16.0	4.9
500	18.6	5.7
600	20.8	6.3
860	25.6	7.8
1000	28.0	8.5

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>29dB
600-900 MHz	>28dB

# Triaxial Cables

## CTX 44 FLEX



### Construction

Inner conductor	Tinned copper	7 x 0.35 mm
Dielectric	Foam PE	Φ4.40 ± 0.10 mm
Outer conductor (shield 1)	Silver plated copper	168 x 0.12 mm
Shield coverage		94%
Inner sheath	PE	Φ6,60 ± 0.10 mm
Tape	Spiral non-migrating tape	h. 20 mm
Outer conductor (shield 2)	Plain copper	168 x 0.15 mm
Shield coverage		93%
Outer sheath	PVC	Φ9.00 ± 0.10 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	22.5 Ohm/Km
Outer conductor resistance1	8.5Ohm/Km
Outer conductor resistance2	6.0 Ohm/Km
Operating temperature range	-30°C - +70 °C
Copper weight	58.7 Kg/Km
Cable weight (approx.)	115.1 Kg/Km
Screening effectiveness	>70 dB

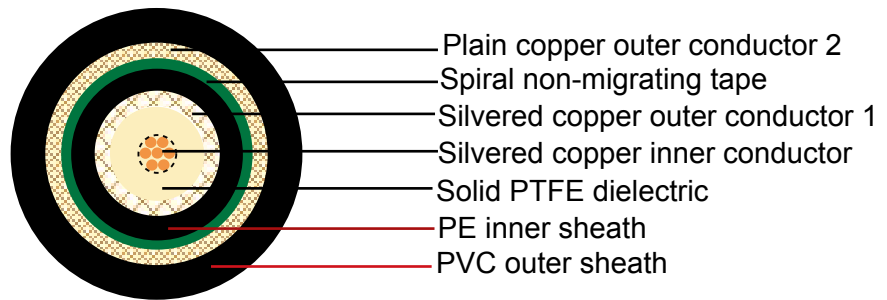
### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	5.5	1.7
100	8.1	2.5
200	11.4	3.5
400	17.1	5.25
500	20.0	6.1
600	22.3	6.8
860	27.4	8.4
1000	29.9	9.1

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>25dB
600-900 MHz	>23dB

## CTX 47 FLEX



### Construction

Inner conductor	Silver plated copper	7 x 0.40 mm
Dielectric	Foam PE	$\Phi 4.70 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper	168 x 0.13 mm
Shield coverage		94%
Inner sheath	PE	$\Phi 6.60 \pm 0.10$ mm
Tape	Spiral non-migrating tape	h. 20 mm
Outer conductor (shield 2)	Plain copper	192 x 0.15 mm
Shield coverage		94%
Outer sheath	PVC/LSOH	$\Phi 8.70 \pm 0.10$ mm

### Electrical & Mechanical Characteristics

Impedance	75 $\pm$ 5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	20.5 Ohm/Km
Outer conductor resistance1	7.3Ohm/Km
Outer conductor resistance2	7.5 Ohm/Km
Operating temperature range	-25°C - +80 °C
Copper weight	64.5 Kg/Km
Cable weight (approx.)	116.1 Kg/Km
Screening effectiveness	>70 dB

### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	5.2	1.6
100	7.7	2.3
200	10.9	3.3
400	16.3	5.0
500	19.0	5.8
600	21.2	6.5
860	26.1	8.0
1000	28.5	8.7

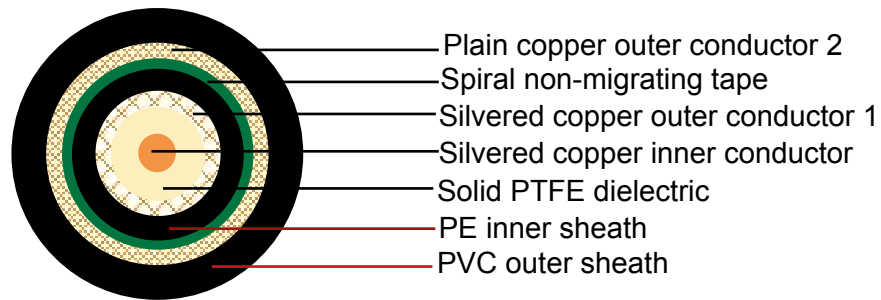
### Return Loss

30-300 MHz	>27dB
300-600 MHz	>23dB
600-900 MHz	>20dB



# Triaxial Cables

## CTX 64



### Construction

Inner conductor	Silver plated copper	1.40 mm
Dielectric	Foam PE	$\Phi 6.40 \pm 0.10$ mm
Outer conductor (shield 1)	Silver plated copper	216x 0.13 mm
Shield coverage		92%
Inner sheath	PE	$\Phi 8.60 \pm 0.10$ mm
Tape	Spiral non-migrating tape	h. 27 mm
Outer conductor (shield 2)	Plain copper	216 x 0.16 mm
Shield coverage		92%
Outer sheath	PVC/LSOH	$\Phi 11.00 \pm 0.18$ mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	11.5 Ohm/Km
Outer conductor resistance1	6 Ohm/Km
Outer conductor resistance2	5.8 Ohm/Km
Operating temperature range	-25°C - +80 °C
Copper weight	88.1 Kg/Km
Cable weight (approx.)	169.25 Kg/Km
Screening effectiveness	>70 dB

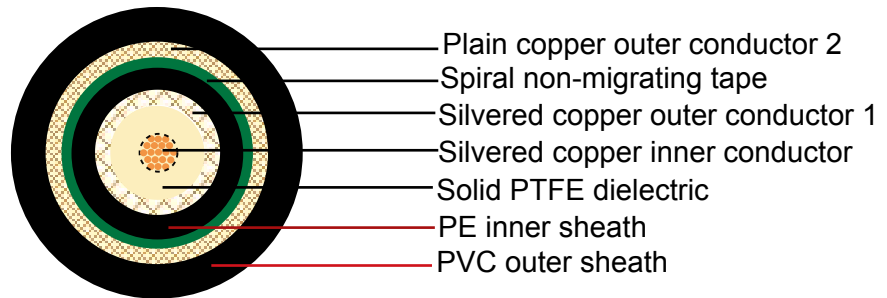
### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	3.7	1.1
100	5.4	1.6
200	8.2	2.5
400	12.1	3.7
500	13.8	4.2
600	15.6	4.8
860	18.8	5.7
1000	20.6	6.3

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>28dB
600-900 MHz	>26dB

## CTX 65 FLEX



### Construction

Inner conductor	Silver plated copper	19 x 0,28 mm
Dielectric	Foam PE	Φ6,50 ± 0,10 mm
Outer conductor (shield 1)	Silver plated copper	216x 0,13 mm
Shield coverage		92%
Inner sheath	PE	Φ8,70 ± 0,10 mm
Tape	Spiral non-migrating tape	h. 27 mm
Outer conductor (shield 2)	Plain copper	216 x 0,16 mm
Shield coverage		92%
Outer sheath	PVC/LSOH	Φ11.00 ± 0,18 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	15.5 Ohm/Km
Outer conductor resistance1	6.5 Ohm/Km
Outer conductor resistance2	5.8 Ohm/Km
Operating temperature range	-25°C - +80 °C
Copper weight	85.2 Kg/Km
Cable weight (approx.)	165.95 Kg/Km
Screening effectiveness	>70 dB

### Attenuation

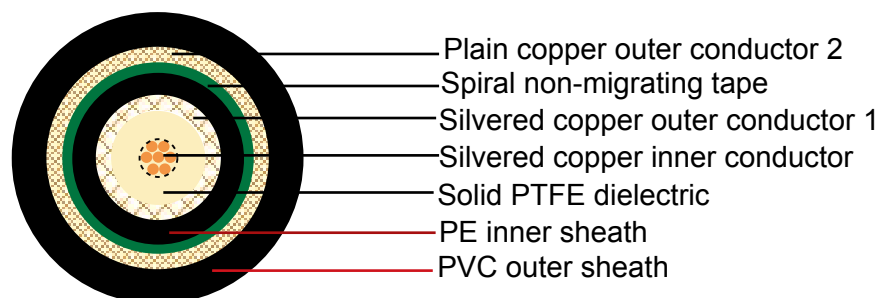
Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	4.4	1.3
100	6.2	1.9
200	9.1	2.8
400	13.3	4.1
500	15.2	4.6
600	17.1	5.2
860	20.6	6.3
1000	22.4	6.8

### Return Loss

30-300 MHz	>28dB
300-600 MHz	>25dB
600-900 MHz	>23dB

# Triaxial Cables

## CTX 80 FLEX



### Construction

Inner conductor	Silver plated copper	7 x 0,65 mm
Dielectric	Foam PE	$\Phi 8.00 \pm 0,10$ mm
Outer conductor (shield 1)	Silver plated copper	216x 0,15 mm
Shield coverage		92%
Inner sheath	PE	$\Phi 10.00 \pm 0,10$ mm
Tape	Spiral non-migrating tape	h. 27 mm
Outer conductor (shield 2)	Plain copper	216 x 0,18 mm
Shield coverage		90%
Outer sheath	PVC/LSOH	$\Phi 13.00 \pm 0,30$ mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	56 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	8.0 Ohm/Km
Outer conductor resistance1	5.0 Ohm/Km
Outer conductor resistance2	3.5 Ohm/Km
Operating temperature range	-30°C - +70 °C
Copper weight	117.6 Kg/Km
Cable weight (approx.)	224.35 Kg/Km
Screening effectiveness	>70 dB

### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
50	3.4	1.0
100	5.1	1.6
200	7.5	2.3
400	10.9	3.3
500	12.4	3.8
600	14.2	4.3
860	17.0	5.2
1000	18.8	5.7

### Return Loss

30-300 MHz	>30dB
300-600 MHz	>28dB
600-900 MHz	>24dB

# Mininature Coaxial Cables

0.81 mm Mini-Coax

1.13 mm Mini-Coax

1.32 mm Mini-Coax

1.37 mm Mini-Coax

1.48 mm Mini-Coax

RG174 Mini-Coax

RG178 Mini-Coax

RGD178 Mini-Coax

RG179 Mini-Coax

RG316 Mini-Coax

# Mininature Coaxial Cables

## 0.81 mm Mini-Coax

### Construction

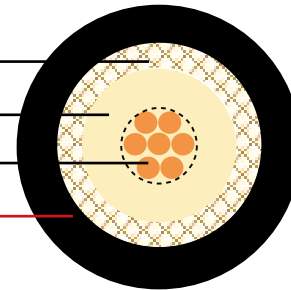
Inner conductor	Silver plated copper	7 x 0.05 mm
Dielectric	PFA	Φ0.40 mm
Outer conductor	Silver plated copper	0.05 mm
Shield coverage		95%
Sheath	PFA	Φ0.81 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	96 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +180 °C
Test insulation voltage	1000V



Silver plated annealed copper outer conductor  
PFA dielectric  
Silvered copper inner conductor  
PFA sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
1000	320	97.5
2000	400	121.9
3000	580	176.8
4000	650	198.1
5000	740	225.6
6000	940	286.5



# Mininature Coaxial Cables

## 1.13 mm Mini-Coax

### Construction

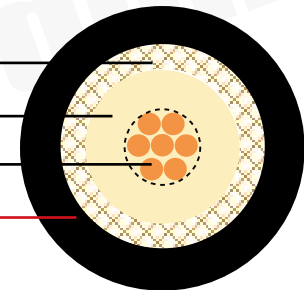
Inner conductor	Silver plated annealed copper	7 x 0.08 mm
Dielectric	PFA	Φ0.68 mm
Outer conductor	Silver plated annealed copper	0.05 mm
Shield coverage		95%
Sheath	PFA	Φ1.13 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	95.6 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +180 °C
Test insulation voltage	1000V



Silver plated annealed copper outer conductor  
PFA dielectric  
Silvered copper inner conductor  
PFA sheath



### Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
1000	230	70.1
2000	310	94.5
3000	390	118.9
4000	460	140.2
5000	510	155.4
6000	580	176.8

# Mininature Coaxial Cables

## 1.32 mm Mini-Coax

### Construction

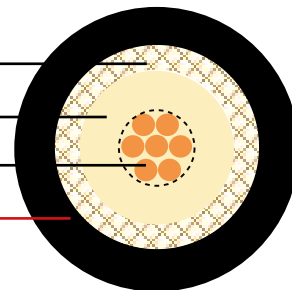
Inner conductor	Silver plated annealed copper	7 x 0.08 mm
Dielectric	PFA	Φ0.66 mm
Outer conductor	Silver plated annealed copper	0.05 mm
Shield coverage		91-93%
Sheath	PFA	Φ1.32 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	100 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +180 °C
Test insulation voltage	1000V



Silver plated annealed copper outer conductor  
 PFA dielectric  
 Silvered copper inner conductor  
 PFA sheath



### Attenuation

Frequency (GHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
1000	230	70.1
2000	330	100.6
3000	400	121.9
4000	460	140.2
5000	510	155.4
6000	560	170.7

# Mininature Coaxial Cables

## 1.37 mm Mini-Coax

### Construction

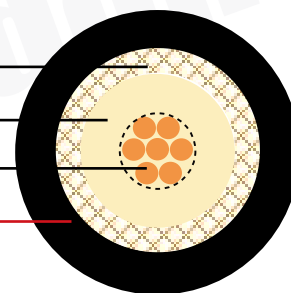
Inner conductor	Silver plated annealed copper	7 x 0.102 mm
Dielectric	PFA	Φ0.89 mm
Outer conductor	Silver plated annealed copper	0.05 mm
Shield coverage		95%
Sheath	PFA	Φ1.37 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	96 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +180 °C
Test insulation voltage	1KV



Silver plated annealed copper outer conductor  
PFA dielectric  
Silvered copper inner conductor  
PFA sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
1000	160	48.8
2000	230	70.1
3000	290	88.4
4000	340	103.6
5000	400	121.9
6000	430	131.1



# Mininature Coaxial Cables

## 1.48 mm Mini-Coax

### Construction

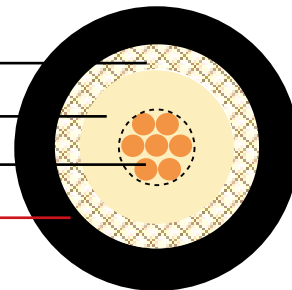
Inner conductor	Silver plated annealed copper	7 x 0.102 mm
Dielectric	PFA	Φ0.86 mm
Outer conductor	Silver plated annealed copper	0.08 mm
Shield coverage		95%
Sheath	PFA	Φ1.48 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	96 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +180 °C
Test insulation voltage	1KV



Silver plated annealed copper outer conductor  
PFA dielectric  
Silvered copper inner conductor  
PFA sheath



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
1000	155	47.2
2000	255	77.7
3000	360	109.7
4000	410	125.0
5000	460	140.2
6000	550	167.6

# Mininature Coaxial Cables

## RG174 Mini-Coax

### Construction

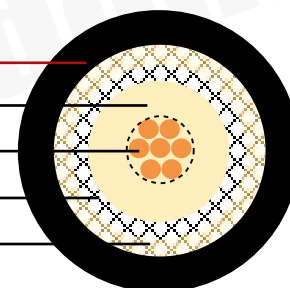
Inner conductor	Copper clad steel(CCS)	7 x 0.16 mm
Dielectric	Solid PE	Φ1.52 mm
Outer conductor (shield 1)	Silver plated copper	0.1mm
Outer conductor (shield 2)	Silver plated copper	0.1mm
Sheath	PVC	Φ2.80 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	101 pF/m
Velocity of propagation	66%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-40°C - +85 °C
Cable weight (approx.)	12 kg/km



PVC sheath  
 Solid PE dielectric  
 Copper covered steel inner conductor  
 Silvered copper outer conductor1  
 Silvered copper outer conductor2



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	28	8.5
200	40	12.2
400	58	17.7
900	90	27.4
1200	106	32.3
1500	119	36.3
1800	130	39.6
2000	138	42.1
2500	155	47.2

# Mininature Coaxial Cables

## RG178 Mini-Coax

### Construction

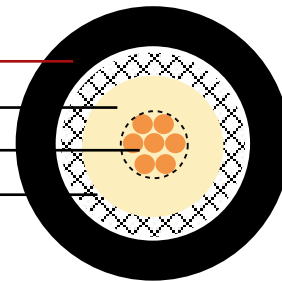
Inner conductor	Silver plated copper	7 x 0.10 mm
Dielectric	PTFE	Φ0.84 mm
Outer conductor	Silver plated copper	0.10 mm
Shield coverage		95%
Sheath	FEP	Φ1.75 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	7.8 kg/km



FEP sheath  
PTFE dielectric  
Silvered copper inner conductor  
Silvered copper outer conductor



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	46	14.0
200	65	19.8
400	93	28.3
900	140	42.7
1200	162	49.4
1500	182	55.5
1800	200	61.0
2000	211	64.3
2500	236	71.9

# Mininature Coaxial Cables

## RGD178 Mini-Coax

### Construction

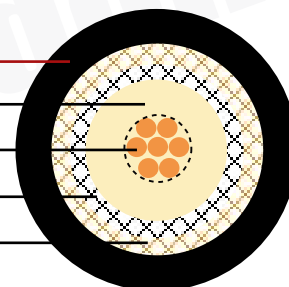
Inner conductor	Silver plated copper	7 x 0.10 mm
Dielectric	Solid PTFE	Φ0.84 mm
Outer conductor (shield 1)	Silver plated copper	0.10 mm
Outer conductor (shield 2)	Silver plated copper	0.10 mm
Sheath	FEP	Φ2.25 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	14 kg/km



FEP sheath  
Solid PTFE dielectric  
Silvered copper covered steel inner conductor  
Silvered copper outer conductor1  
Silvered copper outer conductor2



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	46	14.0
200	65	19.8
400	93	28.3
900	140	42.7
1200	162	49.4
1500	182	55.5
1800	200	61.0
2000	211	64.3
2500	236	71.9

# Mininature Coaxial Cables

## RG179 Mini-Coax

### Construction

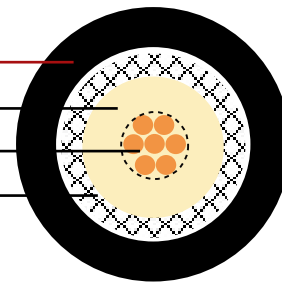
Inner conductor	Silver plated copper	7 x 0.10 mm
Dielectric	Solid PTFE	Φ1.60 mm
Outer conductor	Silver plated copper	0.10 mm
Sheath	FEP	Φ2.50 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	63 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	15 kg/km



FEP sheath  
PTFE dielectric  
Silvered copper inner conductor  
Silvered copper outer conductor



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	28	8.5
200	39	11.9
400	56	17.1
900	85	25.9
1200	98	29.9
1500	110	33.5
1800	121	36.9
2000	128	39.0
2500	144	43.9

# Mininature Coaxial Cables

## RG316 Mini-Coax

### Construction

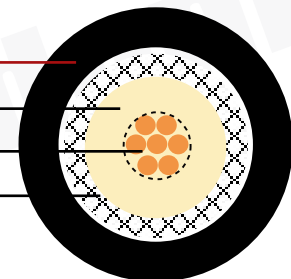
Inner conductor	Silver plated copper	7 x 0.18 mm
Dielectric	Solid PTFE	Φ1.56 mm
Outer conductor	Silver plated copper	0.10 mm
Sheath	FEP	Φ2.45 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	94 pF/m
Velocity of propagation	70%
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +200 °C
Cable weight (approx.)	15 kg/km



FEP sheath  
PTFE dielectric  
Silvered copper inner conductor  
Silvered copper outer conductor



### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
100	27	8.2
200	38	11.6
400	54	16.5
900	82	25.0
1200	95	29.0
1500	106	32.3
1800	117	35.7
2000	124	37.8
2500	139	42.4

# 50Ohm RF Coaxial Cables

ACCL(ALMR)100

ACCL(ALMR)195

ACCL(ALMR)200

ACCL(ALMR)240

ACCL(ALMR)300

ACCL(ALMR)400

ACCL(ALMR)500

ACCL(ALMR)600

3D-FB

5D-FB

7D-FB

8D-FB

10D-FB

12D-FB

# 50 Ohm RF Coaxial Cables

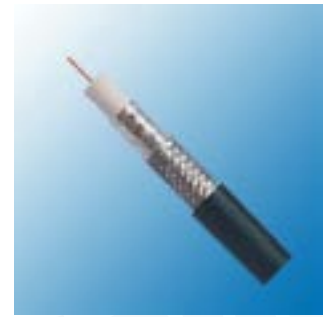
## ACCL(ALMR)100

### Construction

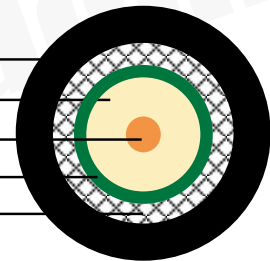
Inner conductor	Solid copper	0.46 mm
Dielectric	Foam /Solid PE	Φ1.52 mm
Shield	Bonded aluminium foil	Φ1.65 mm
Outer conductor	Tinned copper braid	Φ2.11 mm
Sheath	PVC/PE	Φ2.79 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	101.1 pF/m
Velocity of propagation	70%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	266 Ohm/Km
Outer conductor resistance	31.2 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	14 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminium inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	12.9	3.9
50	16.7	5.1
150	29.4	9.0
220	35.8	10.9
450	51.9	15.8
900	74.9	22.8
1500	98.7	30.1
1800	109.0	33.2
2000	115.5	35.2
2500	130.6	39.8
3000	143.8	43.8
5800	210.3	64.1



# 50 Ohm RF Coaxial Cables

## ACCL(ALMR)195

### Construction

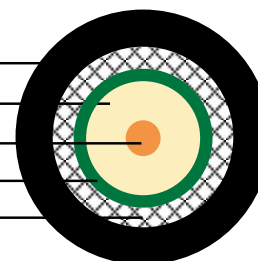
Inner conductor	Solid copper	Φ3.61 mm
Dielectric	Foam /Solid PE	Φ9.40 mm
Shield	Bonded aluminium foil	Φ9.55 mm
Outer conductor	Tinned copper braid	Φ10.3 mm
Sheath	PVC/PE	Φ12.7 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	79.7 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	24.94 Ohm/Km
Outer conductor resistance	16.08 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	25 mm



PVC/PE sheath  
Foamed/solid PE dielectric  
Solid copper/copper clad aluminum inner conductor  
Bonded aluminium foil  
Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	6.5	2.0
50	8.4	2.6
150	14.6	4.5
220	17.7	5.4
450	25.5	7.8
900	36.5	11.1
1500	47.7	14.5
1800	52.5	16.0
2000	55.4	16.9
2500	62.4	19.0
3000	67.5	20.6
5800	93.0	28.3

# 50 Ohm RF Coaxial Cables

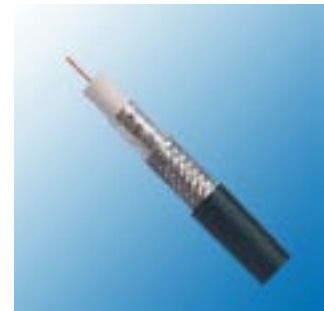
## ACCL(ALMR)200

### Construction

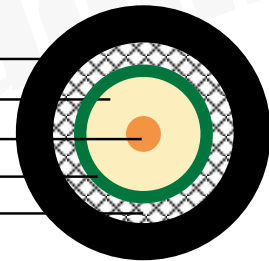
Inner conductor	Solid copper	Φ1.12 mm
Dielectric	Foam /Solid PE	Φ2.95 mm
Shield	Bonded aluminium foil	Φ3.07 mm
Outer conductor	Tinned copper braid	Φ3.66 mm
Sheath	PVC/PE	Φ4.95 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	80.3 pF/m
Velocity of propagation	83%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	17.6 Ohm/Km
Outer conductor resistance	16.1 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	27 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminium inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	5.8	1.8
50	7.5	2.3
150	13.1	4.0
220	15.9	4.8
450	22.8	6.9
900	32.6	9.9
1500	42.4	12.9
1800	46.6	14.2
2000	49.3	15.0
2500	55.4	16.9
3000	60.0	18.3
5800	86.5	26.4

# 50 Ohm RF Coaxial Cables

## ACCL(ALMR)240

### Construction

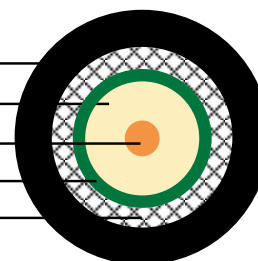
Inner conductor	Solid copper	Φ1.42 mm
Dielectric	Foam /Solid PE	Φ3.81 mm
Shield	Bonded aluminium foil	Φ3.94 mm
Outer conductor	Tinned copper braid	Φ4.50 mm
Sheath	PVC/PE	Φ6.01 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	79.4 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	10.5 Ohm/Km
Outer conductor resistance	12.76 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	30 mm



PVC/PE sheath  
Foamed/solid PE dielectric  
Solid copper/copper clad aluminum inner conductor  
Bonded aluminium foil  
Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	4.4	1.3
50	5.7	1.7
150	9.9	3.0
220	12.0	3.7
450	17.3	5.3
900	24.8	7.6
1500	32.4	9.9
1800	35.6	10.9
2000	37.7	11.5
2500	42.4	12.9
3000	46.5	14.2
5800	66.8	20.4



# 50 Ohm RF Coaxial Cables

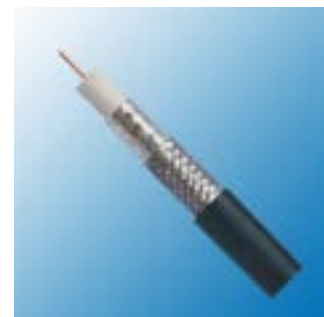
## ACCL(ALMR)300

### Construction

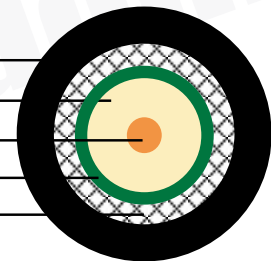
Inner conductor	Solid copper	Φ1.78 mm
Dielectric	Foam /Solid PE	Φ4.83 mm
Shield	Bonded aluminium foil	Φ4.98 mm
Outer conductor	Tinned copper braid	Φ5.72 mm
Sheath	PVC/PE	Φ7.62 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	78.8 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	7.01 Ohm/Km
Outer conductor resistance	7.26 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	38 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminium inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	3.5	1.1
50	4.5	1.4
150	7.9	2.4
220	9.6	2.9
450	13.8	4.2
900	19.9	6.1
1500	26.0	7.9
1800	28.7	8.7
2000	30.3	9.2
2500	34.2	10.4
3000	37.5	11.4
5800	54.2	16.5

# 50 Ohm RF Coaxial Cables

## ACCL(ALMR)400

### Construction

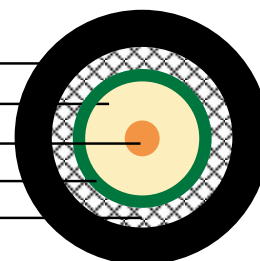
Inner conductor	Solid copper	Φ2.74 mm
Dielectric	Foam /Solid PE	Φ7.24 mm
Shield	Bonded aluminium foil	Φ7.39 mm
Outer conductor	Tinned copper braid	Φ8.13 mm
Sheath	PVC/PE	Φ10.29 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	101.1 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	2.92 Ohm/Km
Outer conductor resistance	5.41 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	51mm



PVC/PE sheath  
Foamed/solid PE dielectric  
Solid copper/copper clad aluminum inner conductor  
Bonded aluminium foil  
Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	2.2	0.7
50	2.9	0.9
150	5.0	1.5
220	6.1	1.9
450	8.9	2.7
900	12.8	3.9
1500	16.8	5.1
1800	18.6	5.7
2000	19.6	6.0
2500	22.2	6.8
3000	24.8	7.6
5800	35.5	10.8



# 50 Ohm RF Coaxial Cables

## ACCL(ALMR) 500

### Construction

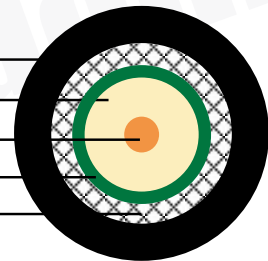
Inner conductor	Solid copper	Φ3.61 mm
Dielectric	Foam /Solid PE	Φ9.4 mm
Shield	Bonded aluminium foil	Φ9.55 mm
Outer conductor	Tinned copper braid	Φ10.3 mm
Sheath	PVC/PE	Φ12.7 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	77.1 pF/m
Velocity of propagation	86%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	2.69 Ohm/Km
Outer conductor resistance	4.2 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	64 mm



PVC/PE sheath  
Foamed/solid PE dielectric  
Solid copper/copper clad aluminum inner conductor  
Bonded aluminium foil  
Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	1.8	0.5
50	2.3	0.7
150	4.0	1.2
220	4.9	1.5
450	7.1	2.2
900	10.3	3.1
1500	13.6	4.1
1800	15.0	4.6
2000	15.9	4.8
2500	18.0	5.5
3000	19.7	6.0
5800	29.1	8.9

# 50 Ohm RF Coaxial Cables

## ACCL(ALMR) 600

### Construction

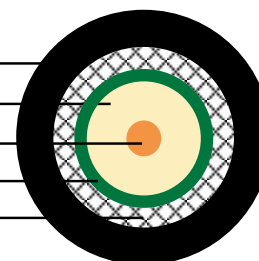
Inner conductor	Solid copper	Φ4.47 mm
Dielectric	Foam /Solid PE	Φ11.56 mm
Shield	Bonded aluminium foil	Φ11.71 mm
Outer conductor	Tinned copper braid	Φ12.50 mm
Sheath	PVC/PE	Φ14.99 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76.8 pF/m
Velocity of propagation	87%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.7 Ohm/Km
Outer conductor resistance	3.9 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	75 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminum inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Max. Attenuation(dB/100ft)
30	1.4	0.4
50	1.8	0.5
150	3.2	1.0
220	3.9	1.2
450	5.6	1.7
900	8.2	2.5
1500	10.9	3.3
1800	12.1	3.7
2000	12.8	3.9
2500	14.5	4.4
3000	15.7	4.8
5800	23.8	7.3

# 50 Ohm RF Coaxial Cables

## 3D-FB

### Construction

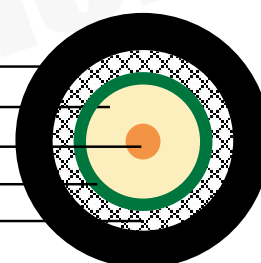
Inner conductor	Bare copper/Copper clad steel	Φ1.07 mm
Dielectric	Foam /Solid PE	Φ3.0±0.02 mm
Shield	Bonded aluminium foil	Φ3.2 mm
Outer conductor	Tinned copper braid	Φ3.6 mm
Shield coverage		85%
Sheath	PVC/PE	Φ5.4 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	82 pF/m
Velocity of propagation	81%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	19.2(65.2) Ohm/Km
Outer conductor resistance	16.3 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	27 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminum inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	10.4	3.2
150	13.0	4.0
280	17.5	5.3
350	19.5	5.9
400	21.0	6.4
800	30.0	9.1
900	31.6	9.6
1200	37.0	11.3
1500	41.5	12.6
1800	45.6	13.9
1900	46.9	14.3
2000	48.2	14.7
2200	50.6	15.4
2500	54.1	16.5



# 50 Ohm RF Coaxial Cables

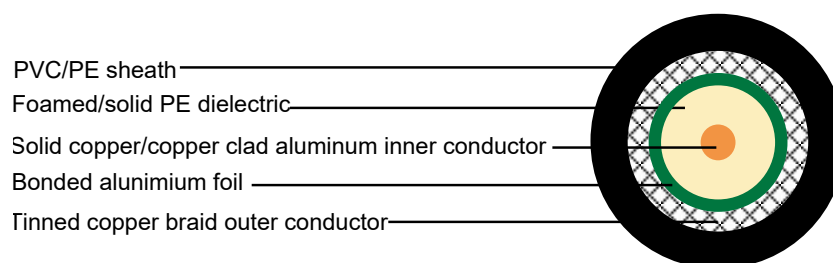
## 5D-FB

### Construction

Inner conductor	Bare copper/Copper clad steel	Φ1.8 mm
Dielectric	Foam /Solid PE	Φ5.0±0.02 mm
Shield	Bonded aluminium foil	Φ5.2 mm
Outer conductor	Tinned copper braid	Φ5.7 mm
Shield coverage		85%
Sheath	PVC/PE	Φ7.5 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	82 pF/m
Velocity of propagation	82%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	6.8(10.5) Ohm/Km
Outer conductor resistance	14.1 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	38 mm



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	6.3	1.9
150	7.8	2.4
280	10.8	3.3
350	12.1	3.7
400	13.0	4.0
800	18.9	5.8
900	20.2	6.2
1200	23.7	7.2
1500	26.8	8.2
1800	29.7	9.1
1900	30.6	9.3
2000	31.5	9.6
2200	33.3	10.1
2500	35.8	10.9

# 50 Ohm RF Coaxial Cables

## 7D-FB

### Construction

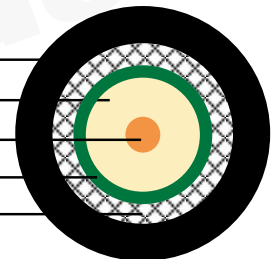
Inner conductor	Bare copper/Copper clad steel	Φ2.6 mm
Dielectric	Foam /Solid PE	Φ7.3±0.02 mm
Shield	Bonded aluminium foil	Φ7.5 mm
Outer conductor	Tinned copper braid	Φ8.0 mm
Shield coverage		85%
Sheath	PVC/PE	Φ9.8 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	82 pF/m
Velocity of propagation	82%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.3(5.0) Ohm/Km
Outer conductor resistance	9.3 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	49 mm



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminum inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	4.3	1.3
150	5.3	1.6
280	7.3	2.2
350	8.3	2.5
400	9.0	2.7
800	13.1	4.0
900	14.2	4.3
1200	16.7	5.1
1500	19.0	5.8
1800	21.2	6.5
1900	21.8	6.6
2000	22.5	6.9
2200	23.8	7.3
2500	25.7	7.8

# 50 Ohm RF Coaxial Cables

## 8D-FB

### Construction

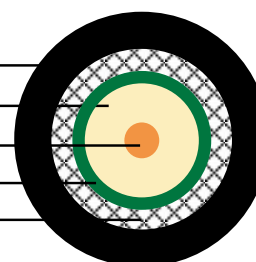
Inner conductor	Bare copper/Copper clad aluminium	Φ2.8 mm
Dielectric	Foam /Solid PE	Φ7.8±0.02 mm
Shield	Bonded aluminium foil	Φ8.0 mm
Outer conductor	Tinned copper braid(16x9x0.15mm)	Φ8.6 mm
Shield coverage		85%
Sheath	PVC/PE	Φ10.6 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	82 pF/m
Velocity of propagation	84%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	2.4(4.4) Ohm/Km
Outer conductor resistance	9.4 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	52 mm
Screening effectiveness	≥90 dB
Return loss	≥20 dB



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminum inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	4.1	1.2
150	5.1	1.6
280	7.1	2.2
350	8.1	2.5
400	8.7	2.7
800	12.9	3.9
900	13.8	4.2
1200	16.3	5.0
1500	18.6	5.7
1800	20.8	6.3
1900	21.5	6.6
2000	22.1	6.7
2200	23.5	7.2
2500	25.4	7.7



# 50 Ohm RF Coaxial Cables

## 10D-FB

### Construction

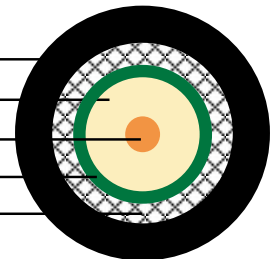
Inner conductor	Bare copper/Copper clad aluminium	Φ3.5 mm
Dielectric	Foam /Solid PE	Φ10.0±0.02 mm
Shield	Bonded aluminium foil	Φ10.2 mm
Outer conductor	Tinned copper braid(24x7x0.15mm)	Φ10.8 mm
Shield coverage		85%
Sheath	PVC/PE	Φ13.0 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	84 pF/m
Velocity of propagation	80%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.8(2.8) Ohm/Km
Outer conductor resistance	6.4 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	65 mm
Screening effectiveness	≥90 dB
Return loss	≥20 dB



PVC/PE sheath  
 Foamed/solid PE dielectric  
 Solid copper/copper clad aluminum inner conductor  
 Bonded aluminium foil  
 Tinned copper braid outer conductor



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	3.2	1.0
150	4.1	1.2
280	5.6	1.7
350	6.3	1.9
400	7.0	2.1
800	10.2	3.1
900	11.0	3.4
1200	13.1	4.0
1500	15.3	4.6
1800	16.8	5.1
1900	17.4	5.3
2000	18.0	5.5
2200	18.8	5.7
2500	22.5	6.3

# 50 Ohm RF Coaxial Cables

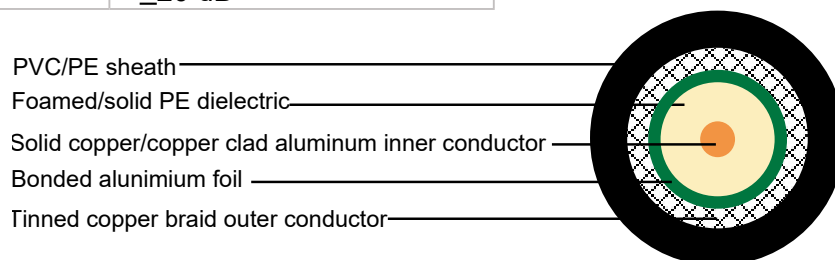
## 12D-FB

### Construction

Inner conductor	Bare copper/Copper clad aluminium	Φ4.4 mm
Dielectric	Foam /Solid PE	Φ12.4±0.02 mm
Shield	Bonded aluminium foil	Φ12.6 mm
Outer conductor	Tinned copper braid(24x7x0.15mm)	Φ13.2 mm
Shield coverage		85%
Sheath	PVC/PE	Φ15.6 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	83 pF/m
Velocity of propagation	81%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.2(1.8) Ohm/Km
Outer conductor resistance	4.5 Ohm/Km
Operating temperature range	-40°C - +85 °C
Min.bending radius	78 mm
Screening effectiveness	≥90 dB
Return loss	≥20 dB



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100	2.7	0.8
150	3.6	1.0
280	4.6	1.4
350	5.2	1.6
400	6.0	1.7
800	8.5	2.6
900	9.3	2.8
1200	10.8	3.3
1500	12.3	3.7
1800	13.7	4.2
1900	14.2	4.3
2000	14.6	4.5
2200	14.9	4.5
2500	16.6	5.1



# Semi-rigid Coaxial Cables

SR034

SR047/M17

SR086 /M17

SR086-25

SR086-75

SR090-25

SR141

SR141-25

SR141-35

SR141-75

SR250

SR250-75

# Semi-rigid Coaxial Cables

## SR034

### Construction

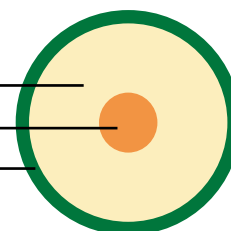
Inner conductor	Silver plated copper clad steel(SCCS)	Φ0.20 mm
Dielectric	PTFE	Φ0.66 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ0.86 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, silver plated(SP)	

### Electrical & mechanical properties

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	3.0 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	112	34.1
1000	159	48.5
5000	362	110.3
10000	520	158.5
20000	752	229.2

# Semi-rigid Coaxial Cables

## SR047/M17

### Construction

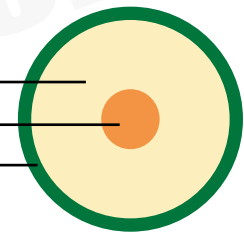
Inner conductor	Silver plated copper clad steel	Φ0.28 mm
Dielectric	PTFE	Φ0.92 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ1.20 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	-
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	4.2 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	79	24.1
1000	113	34.4
5000	259	78.9
10000	374	114.0
20000	544	165.8



# Semi-rigid Coaxial Cables

## SR086 /M17

### Construction

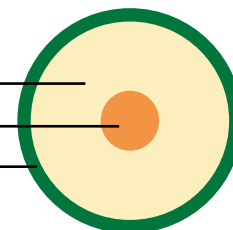
Inner conductor	Silver plated copper clad steel	Φ0.51 mm
Dielectric	PTFE	Φ1.67 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ2.20 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	7.63 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	45	13.7
1000	64	19.5
5000	151	46.0
10000	222	67.7
20000	329	100.3

# Semi-rigid Coaxial Cables

## SR086-25

### Construction

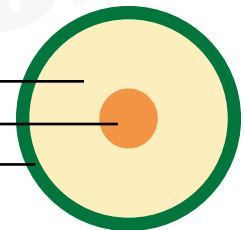
Inner conductor	Silver plated copper clad steel	Φ0.92 mm
Dielectric	PTFE	Φ1.68 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ2.20 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	Nom.25 Ohm
Nominal capacitance	189.6 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	7.63 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	59	18.0
1000	84	25.6
5000	197	60.0
10000	287	87.5
20000	423	128.9

# Semi-rigid Coaxial Cables

## SR086-75

### Construction

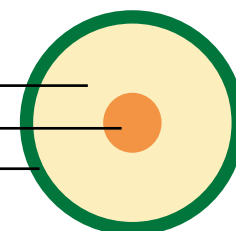
Inner conductor	Silver plated copper clad steel	Φ0.30 mm
Dielectric	PTFE	Φ1.68 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ2.20 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	75±5 Ohm
Nominal capacitance	63 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	7.63 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	48	14.6
1000	68	20.7
5000	160	48.8
10000	234	71.3
20000	347	105.8

# Semi-rigid Coaxial Cables

## SR090-25

### Construction

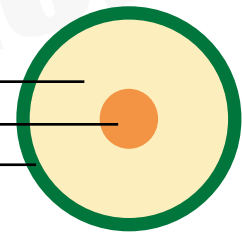
Inner conductor	Silver plated copper clad steel	Φ1.02 mm
Dielectric	PTFE	Φ1.85 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ2.20 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	Nom.25 Ohm
Nominal capacitance	190.4 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	8.02 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	53	16.2
1000	76	23.2
5000	177	53.9
10000	258	78.6
20000	381	116.1

# Semi-rigid Coaxial Cables

## SR141

### Construction

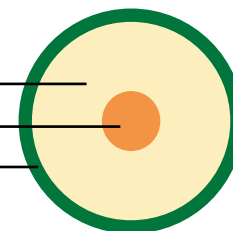
Inner conductor	Silver plated copper clad steel	Φ0.93 mm
Dielectric	PTFE	Φ3.00 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ3.58 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	50±3 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	12.5 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	26	7.9
1000	38	11.6
5000	91	27.7
10000	137	41.8
20000	209	63.7

# Semi-rigid Coaxial Cables

## SR141-25

### Construction

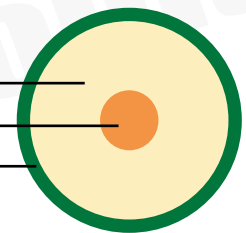
Inner conductor	Silver plated copper clad steel	Φ1.63 mm
Dielectric	PTFE	Φ2.98 ± 0.1 mm
Outer conductor	Seamless bare copper tube	Φ3.58 ± 0.1 mm

### Electrical & mechanical properties

Impedance	Nom.25 Ohm
Nominal capacitance	190.4 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	12.5 mm



PTFE dielectric  
Silvered copper clad steel inner conductor  
Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	34	10.4
1000	48	14.6
5000	115	35.1
10000	170	51.8
20000	257	78.3

# Semi-rigid Coaxial Cables

## SR141-35

### Construction

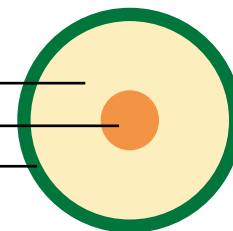
Inner conductor	Silver plated copper clad steel	Φ1.29 mm
Dielectric	PTFE	Φ2.98 ± 0.1 mm
Outer conductor	Seamless bare copper tube	Φ3.68 ± 0.1 mm

### Electrical & mechanical properties

Impedance	Nom.35 Ohm
Nominal capacitance	136 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	12.5 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	29	8.8
1000	41	12.5
5000	99	30.2
10000	148	45.1
20000	225	68.6



# Semi-rigid Coaxial Cables

## SR141-75

### Construction

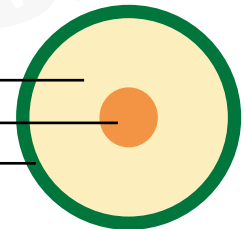
Inner conductor	Silver plated copper clad steel	Φ0.51 mm
Dielectric	PTFE	Φ2.98 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ3.58 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	75±5 Ohm
Nominal capacitance	68.5 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	12.5 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	28	8.5
1000	40	12.2
5000	97	29.6
10000	145	44.2
20000	221	67.4



# Semi-rigid Coaxial Cables

## SR250

### Construction

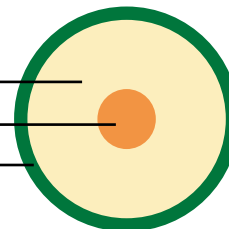
Inner conductor	Silver plated copper clad steel	Φ1.65 mm
Dielectric	PTFE	Φ5.31 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ6.35 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	50±3 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	22.3 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	16	4.9
1000	23	7.0
5000	58	17.7
10000	89	27.1

# Semi-rigid Coaxial Cables

## SR250-75

### Construction

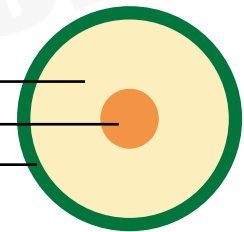
Inner conductor	Silver plated copper clad steel	Φ0.94 mm
Dielectric	PTFE	Φ5.44 ± 0.1 mm
Outer conductor	type1: Seamless bare copper tube	Φ6.35 ± 0.1 mm
	type2: Seamless copper tube, tin plated(TP)	
	type3: Seamless copper tube, Silver plated(SP)	

### Electrical & mechanical properties

Impedance	75±5 Ohm
Nominal capacitance	63.5 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-55°C - +125 °C
Outer conductor integrity temperature	175°C
Min.bending radius	22.3 mm



PTFE dielectric  
 Silvered copper clad steel inner conductor  
 Seamless bare copper tube



### Attenuation

Frequency(MHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
500	4	1.2
1000	24	7.3
5000	60	18.3
10000	93	28.3
20000	147	44.8

# Semi-flexible Coaxial Cables

SF047

SF047-FEP

SF086(Flexible RG 405)

SF086C(Flexible RG 405)

SF086-FEP

SF086C-FEP

SF141(Flexible RG 402)

SF141C(Flexible RG 402)

SF141-FEP

SF141C-FEP

SF250(Flexible RG 401)

SF250-FEP

# Semi-flexible Coaxial Cables

## SF047

### Construction

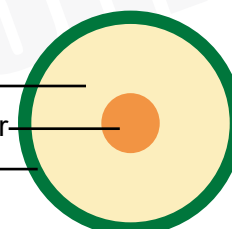
Inner conductor	Silver plated copper clad steel	Φ0.29 mm
Dielectric	Solid PTFE	Φ0.94 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ1.19 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	82	25
1	118	36
5	269	82
10	420	128
20	578	176

# Semi-flexible Coaxial Cables

## SF047-FEP

### Construction

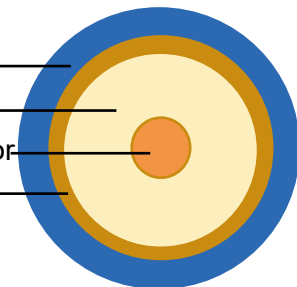
Inner conductor	Silver plated copper clad steel	Φ0.29 mm
Dielectric	Solid PTFE	Φ0.94 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ1.19 ± 0.10mm
Shield coverage		100%
Sheath	FEP	Φ1.60 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



FEP Sheath  
 Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	82	25
1	118	36
5	269	82
10	420	128
20	578	176

# Semi-flexible Coaxial Cables

## SF086 (Flexible RG 405)

### Construction

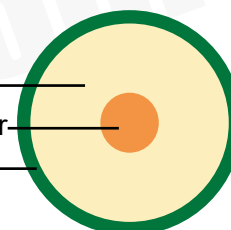
Inner conductor	Silver plated copper clad steel	Φ0.51 mm
Dielectric	Solid PTFE	Φ1.68 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ2.20 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	49	15.0
1	67	20.0
5	164	50.0
10	246	75.0
20	360	110.0

# Semi-flexible Coaxial Cables

## SF086C (Flexible RG 405)

### Construction

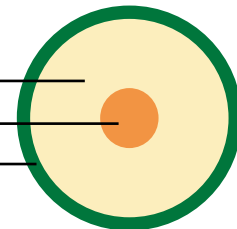
Inner conductor	Silver plated copper	Φ0.51 mm
Dielectric	Solid PTFE	Φ1.68 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ2.20 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



Solid PTFE Dielectric  
Silvered Copper Inner Conductor  
Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	49	15.0
1	67	20.0
5	164	50.0
10	246	75.0
20	360	110.0



# Semi-flexible Coaxial Cables

## SF086-FEP

### Construction

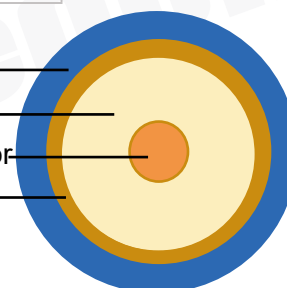
Inner conductor	Silver plated copper clad steel	Φ0.51 mm
Dielectric	Solid PTFE	Φ1.68 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ2.20 ± 0.10 mm
Shield coverage		100%
Sheath	FEP	Φ2.69 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



FEP Sheath  
 Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	49	15.0
1	67	20.0
5	164	50.0
10	246	75.0
20	360	110.0



# Semi-flexible Coaxial Cables

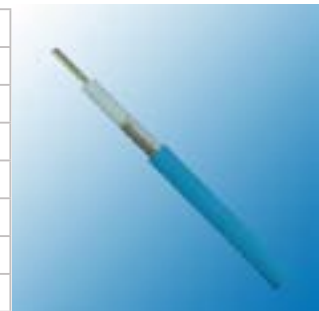
## SF086C-FEP

### Construction

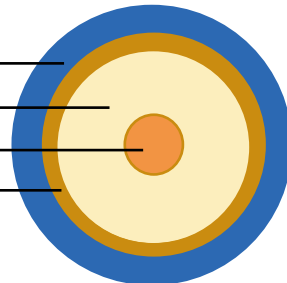
Inner conductor	Silver plated copper	Φ0.51 mm
Dielectric	Solid PTFE	Φ1.68 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ2.20 ± 0.10 mm
Shield coverage		100%
Sheath	FEP	Φ2.69 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	4 mm



FEP Sheath  
 Solid PTFE Dielectric  
 Silvered Copper Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	49	15.0
1	67	20.0
5	164	50.0
10	246	75.0
20	360	110.0

# Semi-flexible Coaxial Cables

## SF141 (Flexible RG 402)

### Construction

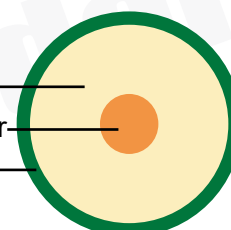
Inner conductor	Silver plated copper clad steel	Φ0.91 mm
Dielectric	Solid PTFE	Φ2.98 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ3.58 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.9KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	8 mm



Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	26	8.0
1	39	12.0
5	99	30.0
10	152	46.0
20	239	73.0

# Semi-flexible Coaxial Cables

## SF141C (Flexible RG 402)

### Construction

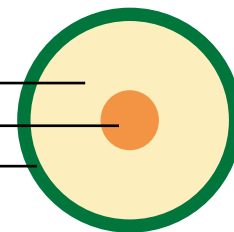
Inner conductor	Silver plated copper	Φ0.91 mm
Dielectric	Solid PTFE	Φ2.98 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ3.58 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.9KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	8 mm



Solid PTFE Dielectric —————  
 Silvered Copper Inner Conductor —————  
 Tin Dipped Copper Braid Outer Conductor —————



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	26	8.0
1	39	12.0
5	99	30.0
10	152	46.0
20	239	73.0



# Semi-flexible Coaxial Cables

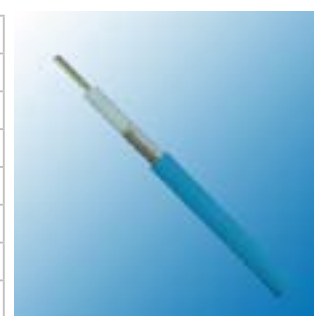
## SF141-FEP

### Construction

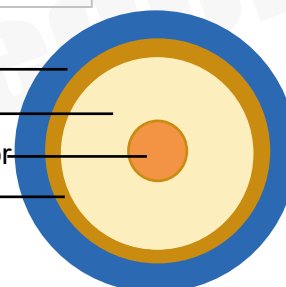
Inner conductor	Silver plated copper clad steel	Φ0.91 mm
Dielectric	Solid PTFE	Φ2.98 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ3.58 ± 0.10 mm
Shield coverage		100%
Sheath	FEP	Φ4.10 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.9KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	8 mm



FEP Sheath  
 Solid PTFE Dielectric  
 Silvered Copper Clad Steel Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	26	8.0
1	39	12.0
5	99	30.0
10	152	46.0
20	239	73.0

# Semi-flexible Coaxial Cables

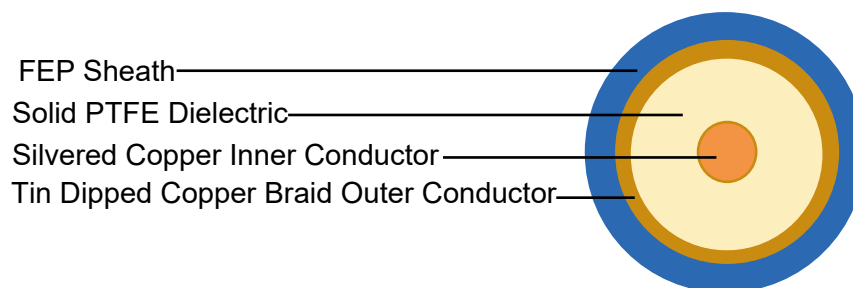
## SF141C-FEP

### Construction

Inner conductor	Silver plated steel	Φ0.91 mm
Dielectric	Solid PTFE	Φ2.98 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ3.58 ± 0.10 mm
Shield coverage		100%
Sheath	FEP	Φ4.10 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	1.9KV
Operating temperature range	-65°C - +165 °C
Min.bending radius	8 mm



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	26	8.0
1	39	12.0
5	99	30.0
10	152	46.0
20	239	73.0



# Semi-flexible Coaxial Cables

## SF250 (Flexible RG 401)

### Construction

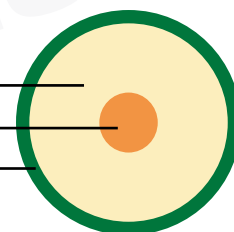
Inner conductor	Silver plated copper	Φ1.63 mm
Dielectric	Solid PTFE	Φ5.30 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ6.35 ± 0.10 mm
Shield coverage		100%

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	3.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	30 mm



Solid PTFE Dielectric  
 Silvered Copper Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	17	5
1	25	8
5	63	19
10	103	31
20	154	47

# Semi-flexible Coaxial Cables

## SF250-FEP

### Construction

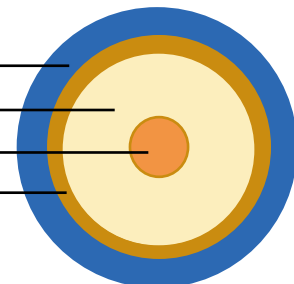
Inner conductor	Silver plated copper	Φ1.63 mm
Dielectric	Solid PTFE	Φ5.30 ± 0.10 mm
Outer conductor	Tin Dipped Copper Braid	Φ6.35 ± 0.10 mm
Shield coverage		100%
Sheath	FEP	Φ7.0 mm

### Electrical & Mechanical Characteristics

Impedance	50±2 Ohm
Nominal capacitance	95.1 pF/m
Velocity of propagation	-
Insulation resistance	- Mohm.Km
Inner conductor resistance	- Ohm/Km
Outer conductor resistance	- Ohm/Km
Max.operating voltage	3.5KV
Operating temperature range	-55°C - +155 °C
Min.bending radius	30 mm



FEP Sheath  
 Solid PTFE Dielectric  
 Silvered Copper Inner Conductor  
 Tin Dipped Copper Braid Outer Conductor



### Attenuation

Frequency(GHz)	Max. Attenuation(dB/100m)	Max. Attenuation(dB/100ft)
0.5	17	5
1	25	8
5	63	19
10	103	31
20	154	47

# 50Ohm Wideband Coaxial Cables

RF42(1-5/8")

RF32(1-1/4")

RF22(7/8")

RF16(5/8")

RF12(1/2")

RF8(3/8")

RF6(1/4")



# Wideband Coaxial Cables

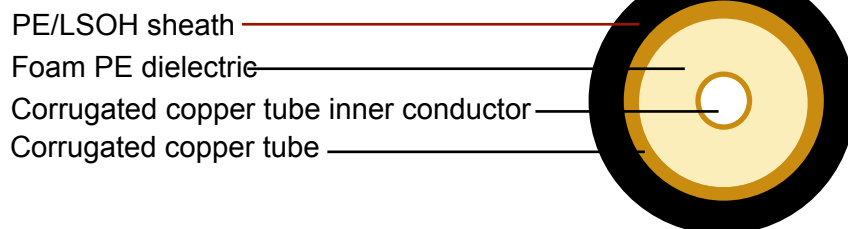
## RF42(1-5/8")

### Construction

Inner conductor	Corrugated copper tube	Φ17.4 mm
Dielectric	Foam PE	Φ42.8 mm
Outer conductor	Corrugated copper	Φ46.5 mm
Sheath	PE/LSOH	Φ49.5 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.82 Ohm/Km
Outer conductor resistance	0.43 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	11 KV
Cable weight (approx.)	1340kg/km
Operating Frequency Band	1 – 2700 MHz
Screening effectiveness	>120dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	0.20	0.06	1500	3.10	0.94
100	0.67	0.20	1700	3.35	1.02
150	0.83	0.25	1800	3.47	1.06
200	0.98	0.30	1900	3.66	1.12
300	1.22	0.37	2000	3.71	1.13
450	1.53	0.47	2100	3.82	1.16
500	1.63	0.50	2200	3.93	1.20
700	1.97	0.60	2300	4.05	1.23
800	2.13	0.65	2500	4.27	1.30
900	2.28	0.69	2700	4.48	1.37
1000	2.43	0.74			

### Return Loss

806-960 MHz	24.3dB
1700-2000 MHz	24.3dB



# Wideband Coaxial Cables

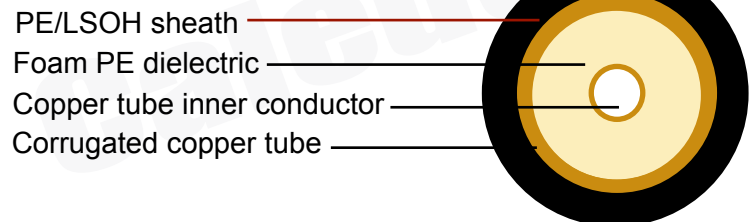
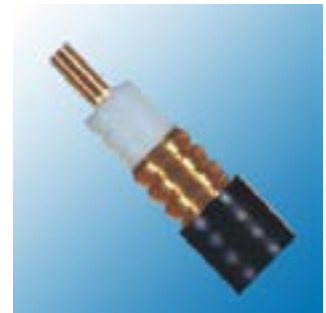
## RF32(1-1/4")

### Construction

Inner conductor	Copper tube	Φ13.1 mm
Dielectric	Foam PE	Φ32.8 mm
Outer conductor	Corrugated copper	Φ36.0 mm
Sheath	PE/LSOH	Φ38.6 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.76 Ohm/Km
Outer conductor resistance	0.60 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	9 KV
Cable weight (approx.)	940 kg/km
Operating Frequency Band	1 – 3300 MHz
Screening effectiveness	>120dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	0.24	0.08	1250	3.19	1.06
100	0.79	0.26	1500	3.55	1.18
150	0.98	0.33	1700	3.83	1.28
200	1.15	0.38	1800	3.96	1.32
300	1.43	0.48	2000	4.22	1.41
450	1.78	0.59	2100	4.34	1.45
500	1.89	0.63	2200	4.47	1.49
700	2.29	0.76	2300	4.59	1.53
800	2.47	0.82	2500	4.83	1.61
900	2.63	0.88	2700	5.06	1.69
1000	2.80	0.93	3000	5.40	1.80

### Return Loss

806-960 MHz	24.29dB
1700-2000 MHz	24.29dB

# Wideband Coaxial Cables

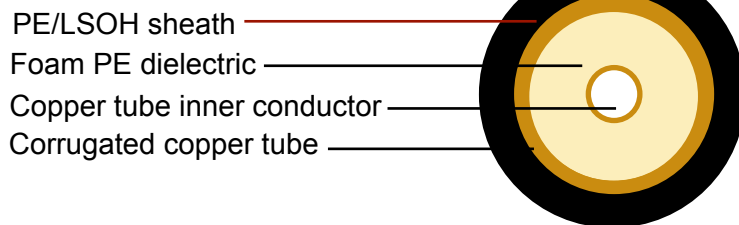
## RF22(7/8")

### Construction

Inner conductor	Copper tube	Φ9.0 mm
Dielectric	Foam PE	Φ22.3 mm
Outer conductor	Corrugated copper tube	Φ24.9 mm
Sheath	PE/LSOH	Φ27.5 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	75 pF/m
Velocity of propagation	89%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.05 Ohm/Km
Outer conductor resistance	1.18 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	6 KV
Cable weight (approx.)	490 kg/km
Operating Frequency Band	1 – 5000 MHz
Screening effectiveness	>120dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	0.37	0.11	1700	5.57	1.70
100	1.19	0.36	1800	5.75	1.75
150	1.48	0.45	2000	6.11	1.86
200	1.72	0.52	2100	6.29	1.92
300	2.13	0.65	2200	6.46	1.97
450	2.65	0.81	2300	6.63	2.02
500	2.81	0.86	2500	6.97	2.12
700	3.38	1.03	2700	7.29	2.22
800	3.63	1.11	3000	7.76	2.37
900	3.87	1.18	3400	8.37	2.55
1000	4.12	1.26	4000	9.24	2.82
1500	5.18	1.58	5000	10.59	3.23

### Return Loss

806-960 MHz	24.3dB
1700-2000 MHz	24.3dB



# Wideband Coaxial Cables

## RF16(5/8")

### Construction

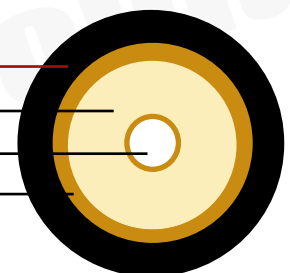
Inner conductor	Copper clad Aluminium	Φ7.11 mm
Dielectric	Foam PE	Φ18.03 mm
Outer conductor	Corrugated copper	Φ19.81 mm
Sheath	PE/LSOH	Φ22.10 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.72 Ohm/Km
Outer conductor resistance	1.38 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	5 KV
Cable weight (approx.)	401 kg/km
Operating Frequency Band	1 – 6100 MHz
Screening effectiveness	>120dB



PE/LSOH sheath  
Foam PE dielectric  
Copper clad Aluminium inner conductor  
Corrugated copper tube



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	0.48	0.15	1700	7.29	2.22
100	1.55	0.47	1800	7.54	2.30
150	1.92	0.59	2000	8.02	2.45
200	2.24	0.68	2100	8.25	2.52
300	2.78	0.85	2200	8.48	2.59
450	3.46	1.05	2300	8.70	2.65
500	3.66	1.12	2500	9.15	2.79
700	4.41	1.34	2700	9.57	2.92
800	4.75	1.45	3000	10.20	3.11
900	5.06	1.54	4000	12.14	3.70
1000	5.38	1.64	5000	13.94	4.25
1500	6.78	2.07	6000	15.63	4.77

### Return Loss

806-960 MHz	24.3dB
1700-2000 MHz	24.3dB

# Wideband Coaxial Cables

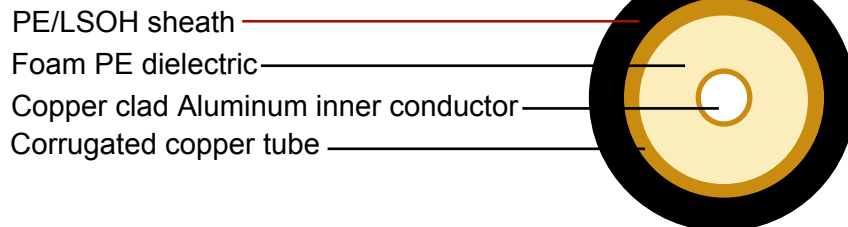
## RF12(1/2")

### Construction

Inner conductor	Copper clad Aluminium	Φ4.83 mm
Dielectric	Foam PE	Φ12.95 mm
Outer conductor	Corrugated copper	Φ13.97 mm
Sheath	PE/LSOH	Φ15.88 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.48 Ohm/Km
Outer conductor resistance	1.90 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	4 KV
Cable weight (approx.)	220 kg/km
Operating Frequency Band	1 – 8800 MHz
Screening effectiveness	>120dB



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	0.67	0.20	1800	10.06	3.07
100	2.17	0.66	2000	10.67	3.25
150	2.67	0.81	2100	10.96	3.34
200	3.10	0.95	2200	11.25	3.43
300	3.84	1.17	2300	11.54	3.52
450	4.75	1.45	2500	12.09	3.69
500	5.02	1.53	2700	12.63	3.85
700	6.01	1.83	3000	13.41	4.09
800	6.46	1.97	4000	15.82	4.82
900	6.86	2.09	5000	18.01	5.49
1000	7.28	2.22	6000	20.06	6.12
1500	9.09	2.77	8000	23.82	7.26
1700	9.74	2.97	8800	25.24	7.70

### Return Loss

806-960 MHz	24.3dB
1700-2000 MHz	24.3dB



# Wideband Coaxial Cables

## RF8(3/8")

### Construction

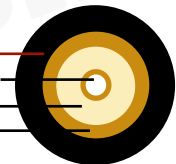
Inner conductor	Copper clad Aluminium	Φ3.05 mm
Dielectric	Foam PE	Φ8.64 mm
Outer conductor	Corrugated copper	Φ9.65 mm
Sheath	PE/LSOH	Φ11.18 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.48 Ohm/Km
Outer conductor resistance	2.85 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	4 KV
Cable weight (approx.)	120 kg/km
Operating Frequency Band	1 – 13 GHz
Screening effectiveness	>120dB



PE/LSOH sheath  
Copper clad Aluminum inner conductor  
Foam PE dielectric  
Corrugated copper tube



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	1.06	0.32	2000	16.97	5.17
100	3.42	1.04	2100	17.44	5.32
150	4.22	1.29	2200	17.91	5.46
200	4.90	1.49	2300	18.37	5.60
300	6.06	1.85	2500	19.26	5.87
450	7.51	2.29	2700	20.12	6.13
500	7.95	2.42	3000	21.38	6.52
700	9.52	2.90	4000	25.26	7.70
800	10.23	3.12	5000	28.81	8.78
900	10.87	3.31	6000	32.12	9.79
1000	11.55	3.52	8000	38.24	11.66
1500	14.45	4.41	8800	40.55	12.36
1700	15.49	4.72	10000	43.89	13.38
1800	15.99	4.88	12000	49.21	15.00

### Return Loss

806-960 MHz	23dB
1700-2000 MHz	23dB

# Wideband Coaxial Cables

## RF6(1/4")

### Construction

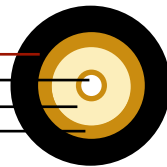
Inner conductor	Copper clad Aluminium	Φ2.54 mm
Dielectric	Foam PE	Φ6.89 mm
Outer conductor	Corrugated copper	Φ7.87 mm
Sheath	PE/LSOH	Φ8.89 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76.8 pF/m
Velocity of propagation	86%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	5.15 Ohm/Km
Outer conductor resistance	4.00 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Test voltage	4 KV
Cable weight (approx.)	90 kg/km
Operating Frequency Band	1 – 15.8 GHz
Screening effectiveness	>120dB



PE/LSOH sheath  
Copper clad Aluminium inner conductor  
Foam PE dielectric  
Corrugated copper tube



### Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)	Frequency (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
10	1.25	0.38	2100	20.56	6.27
100	4.05	1.23	2200	21.10	6.43
150	4.99	1.52	2300	21.64	6.60
200	5.80	1.77	2500	22.69	6.92
300	7.17	2.19	2700	23.70	7.23
450	8.88	2.71	3000	25.17	7.67
500	9.39	2.86	4000	29.72	9.06
700	11.24	3.43	5000	33.87	10.33
800	12.08	3.68	6000	37.74	11.51
900	12.84	3.91	8000	44.89	13.69
1000	13.64	4.16	8800	47.58	14.51
1500	17.04	5.20	10000	51.48	15.70
1700	18.27	5.57	12000	57.66	17.58
1800	18.86	5.75	140000	63.55	19.38
2000	20.00	6.10	158000	68.65	20.93

### Return Loss

806-960 MHz	23dB
1700-2000 MHz	23dB

# 50Ohm Leaky Coaxial Cables

LCX42(1-5/8")R

LCX32(1-1/4")R

LCX22(7/8")R

LCX12(1/2")R

LCX42(1-5/8") L

LCX32(1-1/4") L

LCX22(7/8") L

LCX12(1/2") L

LCX8(3/8") L



# Leaky Coaxial Cables

## LCX42(1-5/8") R

### Construction

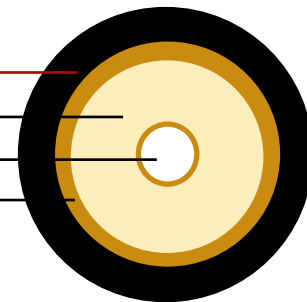
Inner conductor	Helical copper tube	Φ17.4 mm
Dielectric	Foam PE	Φ43.0 mm
Outer conductor	Overlapping copper foil	Φ43.8 mm
Sheath	PE/LSOH	Φ48.3 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.85 Ohm/Km
Outer conductor resistance	1.0 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	1000kg/km/1150kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Helical copper tube inner conductor  
 Overlapping copper foil



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
75	0.83	0.25
150	0.95	0.29
450	1.90	0.58
800	2.80	0.85
900	3.20	0.98

# Leaky Coaxial Cables

## LCX32(1-1/4") R

### Construction

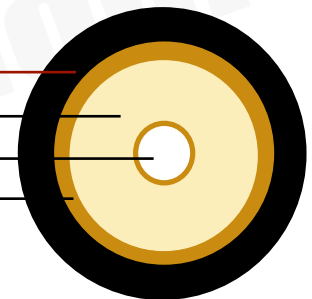
Inner conductor	Smooth copper tube	Φ13.0mm
Dielectric	Foam PE	Φ32.8 mm
Outer conductor	Overlapping copper foil	Φ33.6 mm
Sheath	PE/LSOH	Φ38.2 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.7 Ohm/Km
Outer conductor resistance	1.7 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	840kg/km/970kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Smooth copper tube inner conductor  
 Overlapping copper foil



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	1.00	0.30
150	1.35	0.41
450	2.30	0.70
800	4.00	1.22
900	4.35	1.33

# Leaky Coaxial Cables

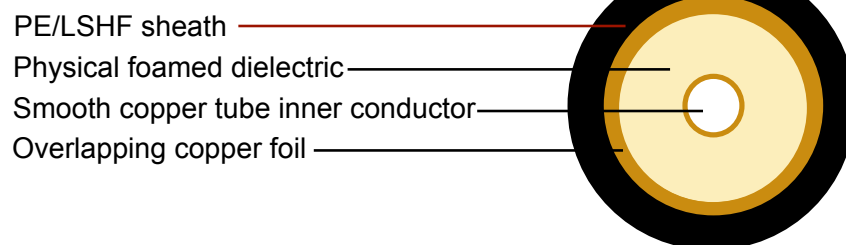
## LCX22(7/8") R

### Construction

Inner conductor	Smooth copper tube	Φ9.0 mm
Dielectric	Foam PE	Φ22.5 mm
Outer conductor	Overlapping copper foil	Φ22.8 mm
Sheath	PE/LSOH	Φ27.2 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	89%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.2 Ohm/Km
Outer conductor resistance	2.8 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	420kg/km/480kg/km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	1.20	0.37
150	1.80	0.55
450	3.30	1.01
800	5.10	1.55
900	5.50	1.68



# Leaky Coaxial Cables

## LCX12(1/2") R

### Construction

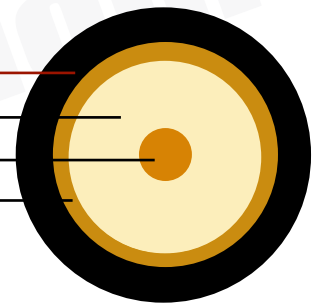
Inner conductor	Copper-clad Aluminium or copper	Φ4.8 mm
Dielectric	Foam PE	Φ12.3 mm
Outer conductor	Overlapping copper foil	Φ13.8 mm
Sheath	PE/LSOH	Φ15.7 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.48 Ohm/Km
Outer conductor resistance	3.40 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	190kg/km/230kg/km



PE/LSHF sheath  
Physical foamed dielectric  
Copper-clad AL inner conductor  
Overlapping copper foil



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
150	3.3	1.01
450	5.9	1.80
800	8.4	2.56
900	9.1	2.77

# Leaky Coaxial Cables

## LCX42(1-5/8") L

### Construction

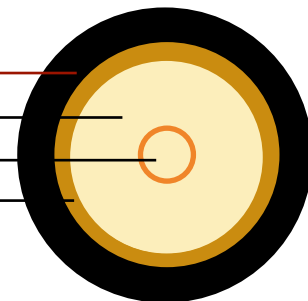
Inner conductor	Helical copper tube	Φ17.4 mm
Dielectric	Foam PE	Φ42.8 mm
Outer conductor	Corrugated copper tube and slot	Φ46.5 mm
Sheath	PE/LSOH	Φ49.5 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.85 Ohm/Km
Outer conductor resistance	0.60 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	1290kg/km/1430kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Helical copper tube inner conductor  
 Corrugated copper tube and slot



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	0.6	0.18
150	0.8	0.24
450	1.9	0.58
800	2.6	0.79
900	2.7	0.82
1800	4.4	1.34
2200	5.1	1.55
2400	5.5	1.68



# Leaky Coaxial Cables

## LCX32(1-1/4") L

### Construction

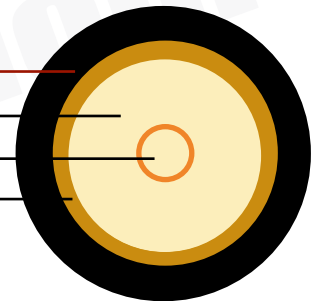
Inner conductor	Smooth copper tube	Φ13.0 mm
Dielectric	Foam PE	Φ33.0 mm
Outer conductor	Corrugated copper tube and slot	Φ36.0 mm
Sheath	PE/LSOH	Φ38.6 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	89%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.7 Ohm/Km
Outer conductor resistance	0.7 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	1050kg/km/1150kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Smooth copper tube inner conductor  
 Corrugated copper tube and slot



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	0.8	0.24
150	1.1	0.34
450	2.5	0.76
800	3.3	1.01
900	3.5	1.07
1800	5.0	1.52
2200	5.9	1.80
2400	6.5	1.98

# Leaky Coaxial Cables

## LCX22(7/8") L

### Construction

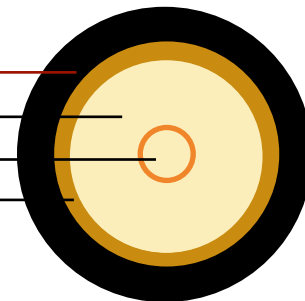
Inner conductor	Smooth copper tube	Φ9.0 mm
Dielectric	Foam PE	Φ22.5 mm
Outer conductor	Corrugated copper tube and slot	Φ24.9 mm
Sheath	PE/LSOH	Φ27.7 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.0 Ohm/Km
Outer conductor resistance	1.2 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	520kg/km/570kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Smooth copper tube inner conductor  
 Corrugated copper tube and slot



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	1.2	0.37
150	1.7	0.52
450	3.1	0.95
800	4.3	1.31
900	4.6	1.40
1800	4.9	1.49
2200	7.8	2.38
2400	8.6	2.62



# Leaky Coaxial Cables

## LCX12(1/2") L

### Construction

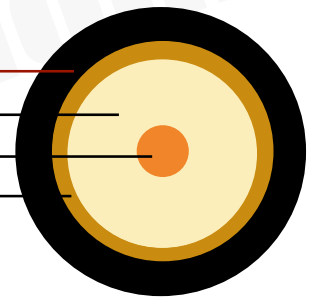
Inner conductor	Copper clad Aluminium or copper	Φ4.8 mm
Dielectric	Foam PE	Φ12.3 mm
Outer conductor	Corrugated copper tube and slot	Φ13.8 mm
Sheath	PE/LSOH	Φ15.7 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.48 Ohm/Km
Outer conductor resistance	2.10 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	230kg/km/260kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Copper clad AL inner conductor  
 Corrugated copper tube and slot



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	2.0	0.61
150	2.9	0.88
450	5.3	1.62
800	7.3	2.23
900	7.9	2.41
1800	12.0	3.66
2200	13.5	4.12
2400	14.1	4.30



# Leaky Coaxial Cables

## LCX8(3/8") L

### Construction

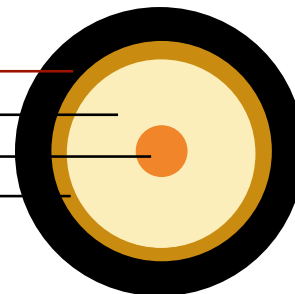
Inner conductor	Copper clad Aluminium or copper	Φ3.1 mm
Dielectric	Foam PE	Φ8.35 mm
Outer conductor	Corrugated copper tube and slot	Φ9.5 mm
Sheath	PE/LSOH	Φ11.2 mm

### Electrical & Mechanical Characteristics

Impedance	50±3 Ohm
Nominal capacitance	76 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.1 Ohm/Km
Outer conductor resistance	3.1 Ohm/Km
Installation temperature range	-40°C - +60 °C
Operating temperature range	-55°C - +85°C
Cable weight (approx.)	140kg/km /160kg/km



PE/LSHF sheath  
 Physical foamed dielectric  
 Copper clad AL inner conductor  
 Corrugated copper tube and slot



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
75	3.3	1.01
150	4.5	1.37
450	7.5	2.29
800	10.5	3.20
900	11.0	3.35
1800	15.8	4.82



# 75Ohm Trunk Coaxial Cables

AQR1125

AQR860

AQR715

AQR540

AQR320

# Trunk Coaxial Cables

## AQR1125

### Construction

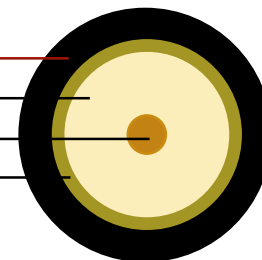
Inner conductor	Copper-clad Aluminium wire	Φ6.68 mm
Dielectric	Foam PE	Φ25.58 mm
Outer conductor	Welding solid aluminum tube	Φ27.46 mm
Sheath	PE/LSOH	Φ31.12 mm
Messenger		optional

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	87%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	0.76 Ohm/Km
Outer conductor resistance	0.61 Ohm/Km
Installation temperature range	-40°C - +85°C
Operating temperature range	-40°C - +85°C
Screening effectiveness	135 dB
Cable weight (approx.)	506 kg/km



PE/LSOH sheath  
Foam dielectric  
Copper clad AL inner conductor  
Welding solid aluminum tube



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
5	0.23	0.07
55	0.76	0.23
250	1.77	0.54
300	1.94	0.59
350	2.13	0.65
400	2.30	0.70
450	2.46	0.75
500	2.62	0.80
550	2.76	0.84
600	2.96	0.90
750	3.31	1.01
865	3.64	1.11
1000	3.94	1.20

### Return Loss

5-30 MHz	≥30dB
30-470 MHz	≥30dB
470-1000 MHz	≥30dB



# Trunk Coaxial Cables

## AQR860

### Construction

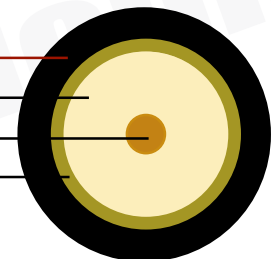
Inner conductor	Copper-clad Aluminium wire	Φ5.16 mm
Dielectric	Foam PE	Φ20.03 mm
Outer conductor	Welding smooth aluminum tube	Φ21.84 mm
Sheath	PE/LSOH	Φ24.38 mm
Messenger		optional

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.90 Ohm/Km
Outer conductor resistance	1.06 Ohm/Km
Installation temperature range	-40°C - +85°C
Operating temperature range	-40°C - +85°C
Screening effectiveness	135 dB
Cable weight (approx.)	316 kg/km



PE/LSOH sheath  
Foam dielectric  
Copper clad AL inner conductor  
Welding solid aluminum tube



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
5	0.30	0.09
50	1.05	0.32
250	2.30	0.70
300	2.49	0.76
350	2.72	0.83
400	2.89	0.88
450	3.12	0.95
500	3.28	1.00
550	3.48	1.06
600	3.61	1.10
750	4.07	1.24
865	4.36	1.33
1000	4.72	1.44

### Return Loss

5-30 MHz	≥30dB
30-470 MHz	≥30dB
470-1000 MHz	≥30dB

# Trunk Coaxial Cables

## AQR715

### Construction

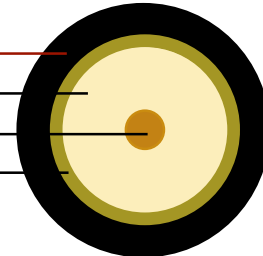
Inner conductor	Copper-clad Aluminium wire	Φ4.22 mm
Dielectric	Foam PE	Φ17.42 mm
Outer conductor	Welding smooth aluminum tube	Φ18.16 mm
Sheath	PE/LSOH	Φ19.94 mm
Messenger		optional

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	1.91 Ohm/Km
Outer conductor resistance	1.37 Ohm/Km
Installation temperature range	-40°C - +85°C
Operating temperature range	-40°C - +85°C
Screening effectiveness	135 dB
Cable weight (approx.)	215 kg/km



PE/LSOH sheath  
Foam dielectric  
Copper clad AL inner conductor  
Welding solid aluminum tube



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
5	0.36	0.11
50	1.18	0.36
250	2.66	0.81
300	2.92	0.89
350	3.18	0.97
400	3.44	1.05
450	3.67	1.12
500	3.90	1.19
550	4.10	1.25
600	4.30	1.31
750	4.89	1.49
865	5.31	1.62
1000	5.74	1.75

### Return Loss

5-30 MHz	≥30dB
30-470 MHz	≥30dB
470-1000 MHz	≥30dB



# Trunk Coaxial Cables

## AQR540

### Construction

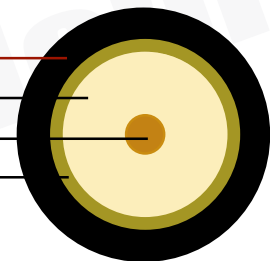
Inner conductor	Copper-clad Aluminium	Φ3.15 mm
Dielectric	Foam PE	Φ13.05 mm
Outer conductor	Welding solid aluminum tube	Φ13.72 mm
Sheath	PE/LSOH	Φ15.49 mm
Messenger		optional

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	88%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	3.43 Ohm/Km
Outer conductor resistance	1.92 Ohm/Km
Installation temperature range	-40°C - +85°C
Operating temperature range	-40°C - +85°C
Screening effectiveness	135 dB
Cable weight (approx.)	136 kg/km



PE/LSOH sheath  
Foam dielectric  
Copper clad AL inner conductor  
Welding solid aluminum tube



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
5	0.46	0.14
50	1.54	0.47
250	3.38	1.03
300	3.71	1.13
350	4.03	1.23
400	4.33	1.32
450	4.59	1.40
500	4.89	1.49
550	5.12	1.56
600	5.38	1.64
750	6.07	1.85
865	6.56	2.00
1000	7.12	2.17

### Return Loss

5-30 MHz	≥30dB
30-470 MHz	≥30dB
470-1000 MHz	≥30dB

# Trunk Coaxial Cables

## AQR320

### Construction

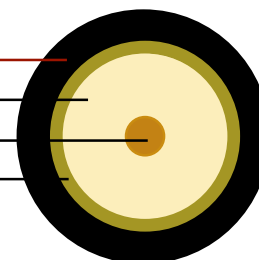
Inner conductor	Copper-clad Aluminium wire	Φ1.80 mm
Dielectric	Foam PE	Φ7.47 mm
Outer conductor	Welding solid aluminum tube	Φ8.13 mm
Sheath	PE/Flame retardant PE	Φ10.03 mm
Messenger		optional

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	87%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	10.6 Ohm/Km
Outer conductor resistance	3.25 Ohm/Km
Installation temperature range	-40°C - +85°C
Operating temperature range	-40°C - +85°C
Screening effectiveness	135 dB
Cable weight (approx.)	70 kg/km



PE/LSOH sheath  
Foam dielectric  
Copper clad AL inner conductor  
Welding solid aluminum tube



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
5	0.79	0.24
55	2.76	0.84
250	6.10	1.86
300	6.69	2.04
350	7.38	2.25
400	7.81	2.38
450	8.27	2.52
500	8.92	2.72
550	9.35	2.85
600	9.78	2.98
750	10.96	3.34
865	11.87	3.62
1000	12.76	3.89

### Return Loss

5-30 MHz	≥30dB
30-470 MHz	≥30dB
470-1000 MHz	≥30dB



# BT3002 Coaxial Cables

BT3002 Single Core

BT3002 8 Core

BT3002 16 Core



# BT 3002 Coaxial Cables

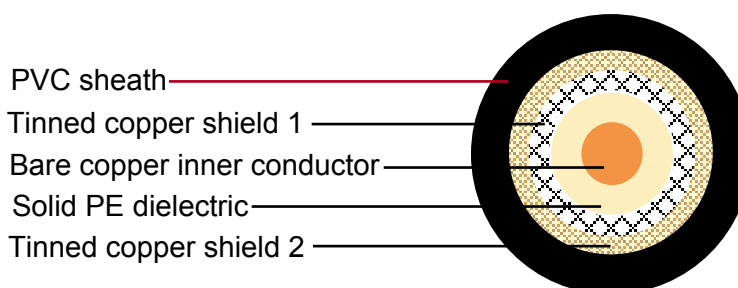
## BT3002 Single Core

### Construction

Inner conductor	Bare copper	Φ0.31 mm
Dielectric	Solid PE	Φ1.95 mm
Outer conductor (shield 1)	Tinned copper braid	Φ2.35 mm
Shield coverage 1		91%
Outer conductor (shield 2)	Tinned copper braid	Φ2.75 mm
Shield coverage 2		90%
Sheath	PVC/LSOH	Φ3.55 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	66 pF/m
Velocity of propagation	67%
Insulation resistance	>5000 Mohm.Km
Max. conductor resistance	236 Ohm/Km
Rated temperature	70°C
Cable weight (approx.)	28.4kg/km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
1	2.3	0.7
4	4.5	1.4
5	4.8	1.5
17	9.2	2.8
70	18.7	5.7
100	22.5	6.9
200	32.0	9.8

# BT 3002 Coaxial Cables

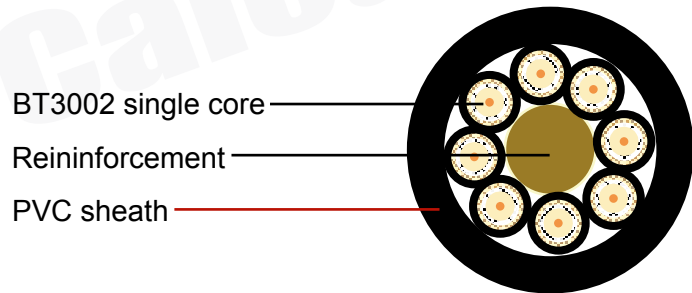
## BT3002 8 Core

### Construction

Inner conductor	Bare copper	Φ0.31 mm
Dielectric	Solid PE	Φ1.95 mm
Outer conductor (shield 1)	Tinned copper braid	Φ2.35 mm
Shield coverage 1		91%
Outer conductor (shield 2)	Tinned copper braid	Φ2.75 mm
Shield coverage 2		90%
Inner sheath	PVC(8 x single core)	Φ13.45 mm
Outer sheath	PVC	Φ16.0 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	66 pF/m
Velocity of propagation	67%
Insulation resistance	>5000 Mohm.Km
Max. conductor resistance	236 Ohm/Km
Rated temperature	70°C
Cable weight (approx.)	335kg/km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
1	2.3	0.7
4	4.5	1.4
5	4.8	1.5
17	9.2	2.8
70	18.7	5.7
100	22.5	6.9
200	32.0	9.8

# BT 3002 Coaxial Cables

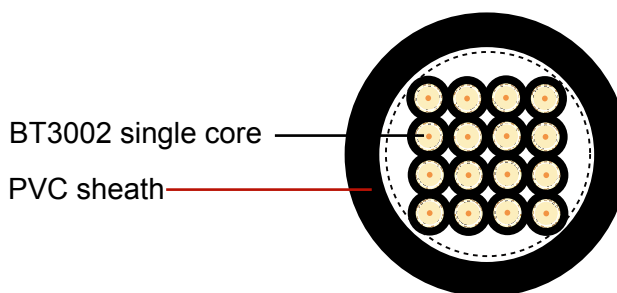
## BT3002 16 Core

### Construction

Inner conductor	Bare copper	Φ0.31 mm
Dielectric	Foam/Solid PE	Φ1.95 mm
Outer conductor (shield 1)	Tinned copper braid	Φ2.35 mm
Shield coverage 1		91%
Outer conductor (shield 2)	Tinned copper braid	Φ2.75 mm
Shield coverage 2		90%
Inner sheath	PVC(16 x single core)	Φ16.8 mm
Outer sheath	PVC	Φ21.0 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	66 pF/m
Velocity of propagation	67%
Insulation resistance	>5000 Mohm.Km
Max. conductor resistance	236 Ohm/Km
Rated temperature	70°C
Cable weight (approx.)	500kg/km



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation(dB/100ft)
1	2.3	0.7
4	4.5	1.4
5	4.8	1.5
17	9.2	2.8
70	18.7	5.7
100	22.5	6.9
200	32.0	9.8

# **CT Series Coaxial Cables British Type**

CT 100

CT 125

CT 165

# CT Series Coaxial Cables

## CT 100

### Construction

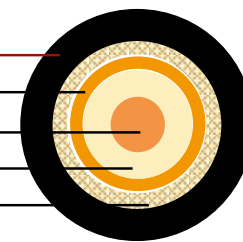
Inner conductor	Bare copper	Φ1.00 mm
Dielectric	Foam PE	Φ4.60 mm
Outer conductor (shield 1)	Copper Foil	Φ4.75 mm
Shield coverage 1		Φ100%
Outer conductor (shield 2)	Bare copper braid	96x0.10 mm
Shield coverage 2		55%
Sheath	PVC/LSOH	Φ6.55 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	21.4 Ohm/Km
Outer conductor resistance	- Ohm/Km
Rated temperature	70°C
Operating voltage	30 V
Cable weight (approx.)	57 kg/km
Screening effectiveness	≥75 dB (30-1000MHz) ≥65 dB (1000-2150MHz)



PVC/LSOH sheath  
 Bare copper foil shield 1  
 Bare copper inner conductor  
 Foam PE dielectric  
 Bare copper braid shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.6	1.40
100	6.5	1.98
200	9.5	2.90
460	15.0	4.57
860	19.5	5.95
1000	21.5	6.55
1750	29.0	8.84
2150	32.5	9.91

### Return Loss

5-470 MHz	≥23dB
470-860 MHz	≥20dB
860-2150 MHz	≥18dB

# CT Series Coaxial Cables

## CT 125

### Construction

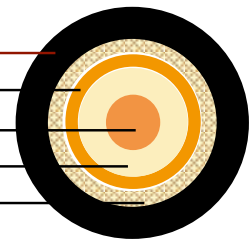
Inner conductor	Bare copper	Φ1.25 mm
Dielectric	Foam PE	Φ5.50 mm
Outer conductor (shield 1)	Copper Foil	Φ5.65 mm
Shield coverage 1		100%
Outer conductor (shield 2)	Bare copper braid	96x0.10 mm
Shield coverage 2		60%
Sheath	PVC/LSOH	Φ7.80 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	12.8 Ohm/Km
Outer conductor resistance	- Ohm/Km
Rated temperature	70°C
Operating voltage	30 V
Cable weight (approx.)	65 kg/km
Screening effectiveness	≥75 dB (30-1000MHz) ≥65 dB (1000-2150MHz)



PVC/LSOH sheath  
Bare copper foil shield 1  
Bare copper inner conductor  
Foam PE dielectric  
Bare copper braid shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	3.5	1.07
100	5.0	1.52
200	7.5	2.29
460	11.5	3.51
860	15.5	4.73
1000	17.0	5.18
1750	22.0	6.71
2150	26.0	7.93

### Return Loss

5-470 MHz	≥23dB
470-860 MHz	≥20dB
860-2150 MHz	≥18dB

# CT Series Coaxial Cables

## CT 165

### Construction

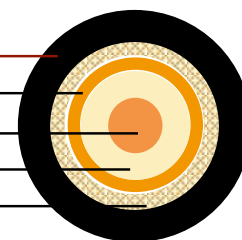
Inner conductor	Bare copper	Φ1.63 mm
Dielectric	Foam PE	Φ7.20 mm
Outer conductor (shield 1)	Copper Foil	Φ7.39 mm
Shield coverage 1		100%
Outer conductor (shield 2)	Bare copper braid	96x0.10 mm
Shield coverage 2		55%
Sheath	PVC/LSOH	Φ10.10 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	8.45 Ohm/Km
Outer conductor resistance	- Ohm/Km
Rated temperature	70°C
Operating voltage	30 V
Cable weight (approx.)	116 kg/km
Screening effectiveness	≥75 dB (30-1000MHz) ≥65 dB (1000-2150MHz)



- PVC/LSOH sheath
- Bare copper foil shield 1
- Bare copper inner conductor
- Foam PE dielectric
- Bare copper braid shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	3.0	0.91
100	4.0	1.22
200	6.0	1.83
460	9.0	2.74
860	12.5	3.81
1000	13.5	4.12
1750	19.0	5.79
2150	22.0	6.71

### Return Loss

5-470 MHz	≥23dB
470-860 MHz	≥20dB
860-2150 MHz	≥18dB

# TV Coaxial Cables France Type

19 VATC

17 VATC

KX 6

KX 8



# TV Coaxial Cables

## 19 VATC

### Construction

Inner conductor	Bare copper/Copper clad steel(CCS)	Φ1.02 mm
Dielectric	Foam PE	Φ4.60 mm
Outer conductor (shield 1)	Aluminum Foil	Φ4.75 mm
Shield coverage 1		100%
Outer conductor (shield 2)	Aluminum wire braid (Type 1)	64x0.12 mm
Shield coverage 2		45%
Outer conductor (shield 2)	Aluminum wire braid (Type 2)	48x0.12 mm
Shield coverage 2		35%
Sheath	PVC/FR-PVC	Φ6.80 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	21.4 Ohm/Km
Outer conductor resistance	- Ohm/Km
Rated temperature	70°C
Cable weight (approx.)	- kg/km
Screening effectiveness	≥70 dB (5-1000MHz)



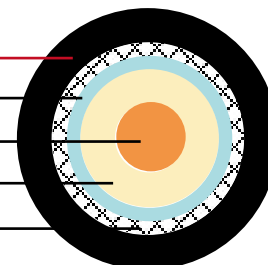
PVC or FR-PVC sheath

Aluminum foil shield 1

Bare copper inner conductor

Foam PE dielectric

Aluminum braid shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	4.6	1.40
100	7.1	2.16
200	9.0	2.74
400	13.0	3.96
800	19.0	5.79
950	20.9	6.37
1350	25.5	7.77
1750	29.6	9.02
2150	33.4	10.18
3000	40.6	12.38

### Return Loss

5-1000 MHz	≥22dB
1000-2000 MHz	≥20dB

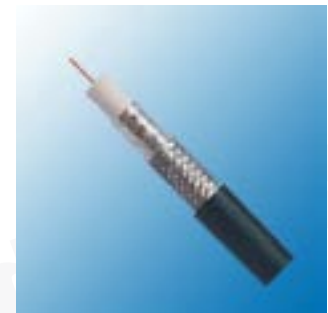
## 17 VATC

### Construction

Inner conductor	Bare copper/Copper clad steel(CCS)	Φ1.13 mm
Dielectric	Foam PE	Φ4.80 mm
Outer conductor (shield 1)	Aluminum Foil	Φ4.95 mm
Shield coverage 1		100%
Outer conductor (shield 2)	Aluminum wire braid (Type 1)	64x0.12 mm
Shield coverage 2		45%
Outer conductor (shield 2)	Aluminum wire braid (Type 2)	48x0.12 mm
Shield coverage 2		35%
Sheath	PVC/FR-PVC	Φ6.80 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	50 pF/m
Velocity of propagation	85%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	16.8 Ohm/Km
Outer conductor resistance	- Ohm/Km
Operating temperature range	-25°C - 75°C
Cable weight (approx.)	- kg/km
Screening effectiveness	≥70 dB (5-1000MHz)



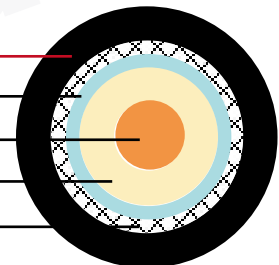
PVC or FR-PVC sheath

Aluminum foil shield 1

Bare copper inner conductor

Foam PE dielectric

Aluminum braid shield 2



### Attenuation

Frequency(MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
50	3.7	1.13
100	5.5	1.68
200	8.1	2.47
400	11.7	3.57
800	17.0	5.18
950	18.7	5.70
1350	22.8	6.95
1750	26.4	8.05
2150	29.8	9.09
3000	36.2	11.04

### Return Loss

5-470 MHz	≥25dB
470-3000 MHz	≥20dB

# TV Coaxial Cables

## KX 6

### Construction

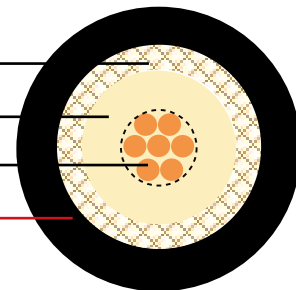
Inner conductor	Bare copper	7 x 0.2 mm
Dielectric	Solid PE	Φ3.70 mm
Outer conductor shield	Bare copper /Copper clad Aluminum(CCA)	96x0.10 mm
Shield coverage		80%
Sheath	PVC/FR-PVC	Φ10.10 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	87.5 Ohm/Km
Outer conductor resistance	21.0 / 32.5 Ohm/Km
Rated temperature	70°C
Cable weight (approx.)	- kg/km



Bare copper outer conductor  
 Solid PE dielectric  
 Bare copper inner conductor  
 PVC or FR-PVC sheath



### Attenuation

For bare copper braid			For CCA braid		
Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
10	5.0	1.52	-	-	-
50	8.1	2.47	50	8.1	2.47
100	13.0	3.96	100	13.0	3.96
200	18.5	5.64	200	18.5	5.64
400	22.5	6.86	400	22.5	6.86
850	34.5	10.52	850	34.5	10.52
950	37.5	11.43	950	37.5	11.43
1000	45.0	13.72	-	-	-

### Return Loss

5-1000 MHz ≥20dB



## KX 8

### Construction

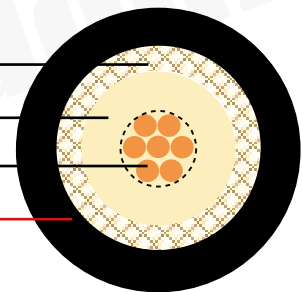
Inner conductor	Bare copper	7 x 0.4 mm
Dielectric	Solid PE	Φ7.25 mm
Outer conductor shield	Bare copper /Copper clad Aluminum(CCA)	192 x 0.10 mm
Shield coverage		80%
Sheath	PVC/FR-PVC	Φ10.20 mm

### Electrical & Mechanical Characteristics

Impedance	75±5 Ohm
Nominal capacitance	67 pF/m
Velocity of propagation	66%
Insulation resistance	>5000 Mohm.Km
Inner conductor resistance	22.2 Ohm/Km
Outer conductor resistance	15.5 / 16.5 Ohm/Km
Operating temperature range	-25°C - 75°C
Screening effectiveness	65dB(100-3000MHz)
Cable weight (approx.)	- kg/km



Bare copper outer conductor  
 Solid PE dielectric  
 Bare copper inner conductor  
 PVC or FR-PVC sheath



### Attenuation

For bare copper braid			For CCA braid		
Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
10	2.9	0.88	10	2.9	0.88
50	4.5	1.37	50	4.5	1.37
100	6.6	2.01	100	6.6	2.01
200	10.9	3.32	200	11.9	3.63
400	13.8	4.21	400	14.8	4.51
850	23.6	7.20	850	24.6	7.50
950	26.8	8.17	950	27.8	8.48
1000	27.5	8.38	1000	28.5	8.69

### Return Loss

5-470 MHz	≥25dB
470-3000 MHz	≥20dB

# Reference Notes

Ordering Code

Insulation & Sheath Material Options

Armouring Options

Fire Performance Standard

## Ordering Code

### CCA – B-CD-EFGH-IJ

#### A - Cable Series.

FCX = FIRECOAX

#### B - Standard

RG6 = RG 6 equivalent; FRRG6 = Fire Resistant RG 6 equivalent

#### C - Screen Type

BC = Bare Copper Braided; TC = Tinned Copper Braid;  
Aluminium = Aluminium/Polyester Tape;

#### D - Screen Level

60 = 60%; 80 = 80%

#### E- Bedding/Inner Jacket

Y = PVC; 2Y = PE; H = LSOH;

#### F - Armouring

SWA = Steel Wire Armouring; STA = Steel Tape Armouring; SWB = Steel Wire Braiding;  
DSTA = Double Steel Tape Armouring

#### G - Sheathing

Y = PVC; Yu = Flame Retardant PVC; Yv = PVC with reinforced sheath; 2Y = PE; H = LSOH;

#### H - Conductor Construction

7(0.14) = 7/0.14mm

#### I - Fire Propagation Level ( Option )

1 = IEC 332-1; 3C = IEC 60332 = 3C; 3A = 60332-3A

#### J - Fire Resistant Level ( Option )

331 = IEC 331; 6386CWZ = BS 6387 CWZ

### For Example:

#### CCFCX-RG6-Aluminium100/TC61-H(SWA)H-1/0.95-3A

FIRECOAX Series, RG6, 100% Aluminium/Polyester tape + 61% Tinned Copper Braid, LSOH Bedding, Steel Wire Armoured, LSOH Sheathed, 1/0.95mm, fire propagation to IEC 332-3A

## Insulation & Sheath Material Options

### Polyvinyl Chloride(PVC)

PVC is the most widely used material throughout the cable industry because of its good mechanical and electrical properties, combined with cheap cost. The three most common materials used are PVC(-20°C to 80°C), PVC105°C(-20°C to 105°C), PVCAF which is flame retardant (oxygen index>32% and halogen content<18 %.)

### Polyethylene (PE)

PE has excellent insulation characteristics and is used for data and RF transmission. It is very resistant to water penetration and thus used as sheath for outdoor/underground cables. It has three major types, ie. Low, (LDPE) medium (MDPE) and high (HDPE). Generally speaking, the higher the density, the better the mechanical performance. Cellular polyethylene has even lower Nominal capacitance than solid PE and is used for low loss data cable.

### Fluoropolymer (PTFE/FEP/PFA/ETFE)

The three most common materials used are Polytetrafluorethylene (PTFE) (-80°C to 260°C), Flurethylene-propylene (FEP)(-80°C to 260°C), Polyfluoroalkoxy (PFA)(-80°C to 260°C) and Ethylenetetrafluorethylene(ETFE)(-80°C to 155°C),These materials are usually used in aerospace industry where wide temperature range is required.

### Low Smoke Halogen Free(LSOH)

It is a flame retardant compound designed to reduce both the spread of fire and the volume of toxic gas and smoke during a fire. It is usually used in Mass Transit Railway, banking and high rise building.



## Armouring Options

Metallic armour are used when cables have to be installed direct buried, or if mechanical protection is required. Following points must be considered:

- Required tensile load
- Expected pressure on cable during service
- Protection against rodent
- Protection against accidental damage
- Minimum required bending radius



**SWA**



**GSWB**

**SWA:** single layer of galvanized steel wires, with diameters according to relevant standards, coverage min. 90%. This armour assures a very good mechanical protection and tensile strength. An additional counterspiral tape increases solidity, if required.

**GSWB:** galvanized steel wire braid, diameter of wire: 0.20 – 0.25 – 0.30 – 0.40 mm, with coverage of > 80%. It assures a good mechanical resistance, allowing a lower bending radius compared to other armour. It is preferable when there is movement or vibration.

For special application is possible to use stainless steel, tinned copper or special alloy wires.



**GSTA**



**GSFA**

**GSTA:** galvanized steel tape armour, composed by two tapes with overlapped edge; thickness of each tape: 0.20 – 0.30 – 0.40 mm, according to cable diameter. It grants a coverage > 100%. Very good crush resistance, but fair tensile strength. Brass tape of minimum thickness 0.075 mm can be used for special applications.

**GSFA:** galvanized steel flat armour. It is composed by flat wire of thickness 0.6 mm or 0.8 mm, it is similar to SWA, but with higher mechanical protection.



## Fire Performance Standard

At present, in cable industry, Fire Retardant, Low Smoke Halogen Free (LSZH), Low Smoke Fume (LSF) and Fire Resistant cables are all described as Fire survival Cables.

### □ Flame Retardant

Fire retardant cables are designed for use in fire situations where the spread of flames along a cable route needs to be retarded. Due to relative low cost, fire retardant cables are widely used as fire survival cables. No matter the cables are installed in single wire or in bundles, during a fire, the flame spread will be retarded and the fire will be confined to a small area, thus reducing the fire hazard due to fire propagation.

### □ Low Smoke & Halogen Free & Fire retardant ( LSZH)

LSZH cables are not only characterized by the fire retardant performance but also by the halogen free properties, thus offering low corrosivity and toxicity. During a fire, the LSZH cables will emit less smoke and acid gases which may damage the human being and expensive equipment. Compared with normal PVC cables, LSZH cables outperform by their fire retardancy, low corrosivity and low smoke emission properties, however, normal PVC cables have better mechanical and electrical properties.

### □ Low Smoke Fume (LSF)

The low halogen content and low corrosivity of low smoke fume cables lies somewhat in between their of fire retardant cables and LSZH cables. LSF cables also contain halogen but the content is much less than that of PVC cables. LSF cables are designed to reduce the spread of fire, toxic gases and smoke during fire. The LSF cables are usually manufactured from flame retardant PVC blended with HCL additive and smoke absorbent. These materials help improve the fire performance of the LSF cables.

### □ Fire Resistant (FR)

Fire resistant cables are designed to maintain circuit integrity of those vital emergency services during the fire. The individual conductors are wrapped with a layer of fire resisting mica/glass tape which prevents phase to phase and phase to earth contact even after the insulation has been burnt away. The fire resistant cables exhibit same performance even under fire with water spray or mechanical shock situation.

### □ Fire Performance Class

The main concerns for the cables in their fire survival properties are their flame spread, smoke characterization and gas toxicity. In American fire standard, the concern lies more on the first two and it differs from the European standard which concerns all these aspects. In USA, it is believed that the fire hazard is mainly due to CO toxic gas emitted and the heat release during the conversion of CO to CO<sub>2</sub> during the fire. Therefore, to control the heat release is the most important concern for reducing the fire hazard. However, in European countries, halogen content, the corrosivity of the gases, the smoke density and the toxicity of the gas are equally important factors affecting the safety and survival of human during a fire.

## IEC Standard for Flame Retardancy

The European Electrical Committee categorizes the fire performance of the cables into three classes, namely IEC 60332-1, IEC 60332-2, IEC 60332-3. IEC 60332-1 and IEC 60332-2 are used to assess the flame propagation characteristics of a single wire. IEC 60332-3 is used to assess the flame propagation characteristics of bundled cables. Comparatively speaking, IEC 60332-3 for bundled cables is more demanding than IEC 60332-1 for single wires.

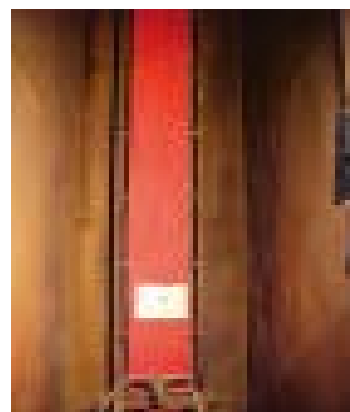
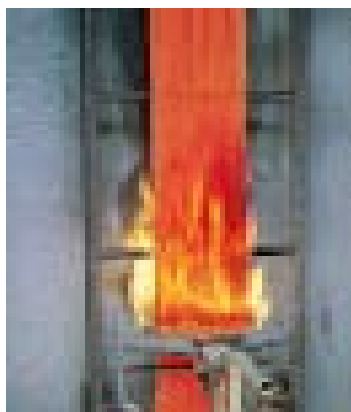
### □ IEC 60332-1/BS 4066-1 (Flame Test On Single Vertical Insulated Wires/Cables)

This test details a method of test for the assessment of the flame propagation characteristics of a single wire or cable. In this test, a 60cm cable sample is fixed vertically inside a metallic box and a 175mm long flame is applied at 45mm from a gas burner placed at 450mm from the top at the upper portion. The specimen is deemed to have passed this test, if after burning has ceased, the charred or affected position does not reach within 50mm of the lower edge of the top clamp which is equivalent to 425mm above the point of flame application. The test method is not suitable for the testing of some small wires due to the melting of the conductors during the time of application of the flame.



### □ IEC 60332-3/BS 4066-3 (Flame Test On Bunched Wires/Cables)

IEC60332-3C describes a method of type approval testing to define the ability of bunched cables to resist fire propagation. In this test, a cable specimen, consisting of number of 3.5m length of cables are fixed to a vertical ladder tray where they are applied with a flame from a gas burner for a specified times under controlled air flow. Four categories (A, B, C & D) are defined and distinguished by test duration and the volume of non metallic material of the sample under test. The cable specimen is deemed to have met the requirements of the standard if, after burning has ceased, the extent of charred or affected portion does not reach a height exceeding 2.5m above the bottom edge of the burner.



## UL Standard for Fire Retardancy

### □ **CMP (Plenum Flame Test/ Steiner Tunnel Test)**

Plenum rated cables meet the NFPA -262 standard (formerly known as UL910) which provides the most stringent requirement of all the tests. Cable samples on a horizontal tray in a tunnel type of chamber are burned at 87.9KW (300,000 BTU/Hr) for 20 minutes. To qualify for a plenum rating the cable specimen must have the flame spread of less than 5 feet or 1.5 meters with a smoke density during the test of (a) 0.5 peak and 0.15 maximum average. The CMP cables are usually installed in air ventilation ducts and air returns widely used in Canada and USA. The fire retardant properties of CMP cables are much better than that of normal LSZH cables complying with IEC 60332-1 and IEC 60332-3.

### □ **CMR (Riser Flame Test)**

Riser rated cables meets UL1666. Cable samples on a vertical shaft are burned at 154.5KW (527,500 BTU/Hr) for 30 minutes. To qualify for a riser rating, cable specimen must have the flame spread of less than 12 feet beyond the ignition point. This test does not look at the smoke density or toxicity. Riser rated cables are suitable for vertical shafts not defined as an environmental air plenum.

### □ **CM (Vertical Tray Flame Test)**

General purpose cables meet UL 1581. Cable samples on a 8 feet vertical tray are burned at 20KW (70,000 BTU/Hr) for 20 minutes. The cable specimen is deemed to pass the test if the flame spread will not extend to the upper portion and extinguish by itself. UL 1581 is similar to IEC 60332-3C except for that the number of testing samples is different. This test does not look at the smoke density or toxicity. The CMG cables are usually used in runs penetrating single floor. These cables cannot be installed in vertical pathways.

### □ **CMG (Vertical Tray Flame Test)**

These general purpose cable also meet UL1581. CM and CMG are similar and both are recognized in Canada and USA. This test does not look at the smoke density or toxicity. The CMX cables are usually used in runs penetrating single floor. The cables cannot be installed in vertical pathways.

### □ **CMX (Vertical Wire Flame Test)**

The restricted cables meet UL1581 Limited-use. The test consists of 25 feet long ventilated tunnel. The cable specimen is placed on a ladder inside the tunnel and the flame of 30,000 BTU/Hr is applied to the cable 15 seconds on and 15 seconds off five times for a total exposure to the flame of 1 minute and 15 seconds. To qualify for this test, after the test flame is removed the cable specimen can flame for not more than 60 seconds and the charred portion will not exceed by 25%. UL 1581 VW-1 is similar to IEC 60332-1 except for the difference in the time for flame applied. This test does not look at the smoke density or toxicity. The CMG cables are suitable for use in dwellings and for use in raceway. These cables cannot be installed in bundles and must be protected in metal conduit. This type of cable is chosen as the minimum requirement for commercial installations.

## Standard for Fire Resistance

Fire resistant cables are designed for maintaining circuit integrity during a fire. The IEC and the BS adopted two different standards, namely the IEC 60331 and BS 6387. Comparatively speaking, the fire performance requirement for BS 6387 is more demanding.

### □ IEC60331 Fire Resistance Test

A cable sample is placed over a gas burner and connected to an electrical supply at its rated voltage. Fire is applied for a period of 3 hours. The temperature on the cable is between 750°C and 800°C. After 3 hours, the fire and the power is switched off. 12 hours later, the cable sample is reenergized and must maintain its circuit integrity.



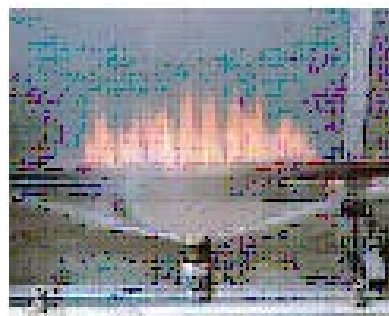
### □ BS6387 Fire Resistance Test

BS6387 specifies the performance requirements for cables required to maintain circuit integrity under fire conditions. It details the following methods to categorize the cables according to cable withstand capacities.

Resistance to fire alone - the cables is tested by gas burner flame while passing a current at its rate voltage. Four survival categories are defined Cat A (3 hours at 650°C) ,Cat B (3 hours at 750°C), Cat C (3 hours at 950°C), and Cat S (20 minutes at 950°C).

Resistance to fire with water spray - a new sample of cable is exposed to flame at 650°C for 15 minutes while passing a current at its rated voltage and then the spray is turned on to give exposure to both fire and water for a further 15 minutes. A single survival category W is defined if the cables surpassed the testing requirement.

Resistance to fire with mechanical shock - the final requirement is mechanical shock damage. A fresh sample is mounted on a backing panel in an S bend and is exposed to flames while the backing panel is stuck with a steel bar with the same diameter as the cables under test every 30 seconds for 15 minutes. The cables will be tested under the following temperatures: X ( 650°C/15min ), Y( 750°C/15min ) and Z ( 950°C/15min ). The highest standard for BS 6387 is CWZ.



## Standard for Halogen & Smoke Emission, Corrosivity & Toxicity

### □ IEC 60754-1/BS6425-1 (Emission Of Halogens)

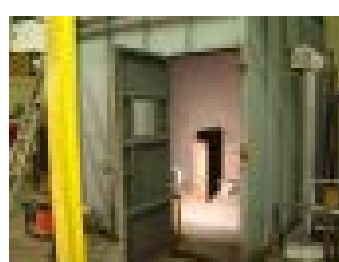
This specifies a test for determination of the amount of halogen acid gas other than the hydrofluoric acid evolved during combustion of compound based on halogenated polymers and compounds containing halogenated additives taken from cable constructions. Halogen includes Fluorine, Chlorine, Bromine, Iodine and Astatine. All these elements are toxic by their nature. In this test, when the burner is heated to 800°C, 1g sample is placed inside and the HCL is absorbed into water inside the chamber fed with air flow. The water is then tested with its acidity. If the hydrochloric acid yield is less than 5 mg/g, the cable specimen is categorized as LSZH. If the hydrochloric acid yield lies between 5mg/g to 15mg/g, the cable specimen is categorized as LSF. IEC60754-1 cannot be used for measuring the exact HCL yield if the yield is less than 5mg/g. This test cannot determine if the cable is 100% halogen free or not. To determine if the cable specimen is 100% halogen free or not, IEC60754-2 has to be employed.

### □ IEC 60754-2 (Corrosivity)

This test specifies a method for the determination of degree of acidity of gases evolved during combustion of the cable specimen by measuring its pH and conductivity. The specimen is deemed to pass this test if the pH value is not less than 4.3 when related to 1 litre of water and conductivity is less than 10us/min. When the HCL yield lies between 2mg/g and 5mg/g, a cable specimen can pass IEC 60754-1 but its pH value will likely be less than 4.3 and therefore cannot pass the IEC 60754-2 test.

### □ IEC 61034-1/ASTM E662 (Emission of Smoke)

This specifies a test for determination of smoke density. The 3 metre cube test measures the generation of smoke from electric cables during fire. A light beam emitted from a window is projected across the enclosure to a photo cell connected to a recorder at the opposite window. The recorder is adjusted to register from 0% for complete obscuration to 100% luminous transmissions. A 1 metre cable sample is placed in the centre of the enclosure and is applied with a fire. The minimum light transmission is recorded. The result is expressed as percentage of light transmitted. The specimen is deemed to pass this test (IEC61034-1 & 2) if the value is greater than 60% .The higher the light transmittance, the less smoke emitted during a fire.



## □ ISO4589-2/BS2863 (Oxygen Index LOI)

This is a test for assessing the oxygen index of the material in accordance with the test method specified in ASTM D2863-95 (Measuring the minimum oxygen concentration to support candle-like combustion of plastics). At room temperature when the oxygen content in the air exceeds the oxygen index, the material will burn by itself automatically. The higher the oxygen index, the more retardant the cable will be. For example, if the oxygen index of a material is 21%, it means that the material will burn by itself even at room temperature because at room temperature the normal oxygen content is 21%. In general, the oxygen index of a LSZH cables ranges from 33% to 42%.

## □ ISO4589-3/BS2782.1 (Temperature Index TI)

This is a test for assessing the performance of a material when it is tested in accordance with BS2782 Part 1 Method 143A and 143B. The oxygen index of a material will drop when the temperature rises. When the temperature rises and the oxygen index drops to 21%, the material will burn automatically. This temperature is defined as temperature index. For example, the temperature index of coal is 50%. When the temperature climbs to 150°C, its oxygen index drop to 21% and the coal will burn by itself automatically. The temperature index of the coal will then be defined as 150°C. In general, the temperature index of LSZH cables ranges from 250°C to 300°C.

## □ ES713 (Toxicity Index)

This is a test defined by Naval Engineering Standard which is directed at the analysis of a specified set of gaseous species which are commonly present in the combustion products of materials used in military application and which may cause lethality at the time of a fire. In this test a 1g cable specimen is completely burnt inside a sealed chamber of volume 0.7-1m<sup>3</sup> using a burner fed with air and gas to give a non-luminous flame. The resulting chamber atmosphere is quantitatively analysed for a specified set of gases. For each gas, the measured concentration (C<sub>i</sub>) is scaled up for 100g and the concentration is recalculated as though the combustion products is diffused into a volume of exactly 1m<sup>3</sup>. The resulting concentration (C<sub>8</sub>) is expressed as the ratio of critical factor (C<sub>f</sub>) which is equal to the concentration of this gas considered fatal to human for 30 minutes exposure. The ratio C<sub>8</sub>/C<sub>f</sub> are summed for all gases detected to give the toxicity index. The higher the toxicity index, the more toxic the cable materials are. In general, the toxicity index of LSZH materials are less than 5. LSZH cable will also emit toxic CO and if the cable materials contains P, N and S, the toxic gases generated will even be greater. Thus LSZH cables cannot be categorized as toxic free. CM, CMR and CMP cables in general contains halogen elements which are essential for passing the strict fire retardancy testing. For example, CMP cables are made from FEP which contains Fluorine and are much toxic than normal LSZH cables.





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