



## Category 6 Cables

### Applications:

10Base-T4, 100Base-TX, 100Base-VG-ANYLAN, 155MbpsATM, 622 Mbps ATM, 1000Base-T, 10GBase-T

### Standards:

ISO / IEC 11801, EN50173, TIA / EIA 568-B

### Product Construction Matrix:

	U/UTP	F/UTP	U/FTP	SF/UTP	S/FTP
Conductor	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper
Insulation	PE	PE	PE	PE	PE
Screen	Nil	Overall Aluminum Tape Screen	Individual Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid	Individual Aluminum Tape Screen & Overall Copper Wire Braid
Drain Wire	Nil	1/0.5 mm	1/0.5 mm	Nil	Nil
Jacket	PE/PVC/LSF/LSZH/LSFROH	PE/PVC/LSF/LSZH		PE/PVC/LSF/LSZH/LSFROH	

Remark: PE- Polyethylene; PVC- Polyvinyl Chloride; LSF- Low Smoke & Fume; LSZH- Low Smoke Zero Halogen; LSFROH-Low Smoke Flame Retardant Zero Halogen (to IEC60332-3C); PVC can be classified as CMX, CM, CMR and CMP


### Working Frequency:

1-250MHz

### Technical Parameters:

- ☆ Characteristic Impedance:  $100 \pm 15\Omega$  (1-250MHz)
- ☆ Nominal Velocity of Propagation (NVP): CMX, CM, CMR, LSZH 69%; CMP 72%
- ☆ Maximum Mutual Capacitance: 5.6nF/100m
- ☆ Maximum Capacitance Unbalance: 330pF/100m
- ☆ Maximum DC Resistance: 7.5 $\Omega$ /100m
- ☆ Maximum Resistance Unbalance: 3%
- ☆ Maximum Propagation Delay Skew: 30ns/100m (1-125MHz)
- ☆ Maximum Propagation Delay: 536ns/100m@100MHz
- ☆ Minimum Bending radius: 10 x Overall Diameter
- ☆ Maximum Pulling load: 80N
- ☆ Working Temperature: -20°C ~ +60°C
- ☆ Storage Temperature: -5°C ~ +50°C
- ☆ Flame Retardancy:
  - UL 1581 (CM Jacket); UL 1666 (CMR Jacket)
  - UL 910 (CMP Jacket); IEC 60332-1 (FRPVC & LSZH Jacket)
  - IEC 60332-1 & IEC 60332-3C (LSFROH Jacket)

### Product Certification:

E222756 



### □ Product Categories:

Construction	Conductor Diameter (mm)	Diameter Over Insulation (mm)	Pairs	Screen	Overall Diameter (mm)	Jacket
U/UTP	0.57/0.58	1.02	4	Nil	6.0	PVC/LSZH
U/UTP	0.57/0.58	1.02	4	Nil	6.5	LSFROH
U/UTP	0.57/0.58	1.02	4	Nil	6.2	PE
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.3	PVC/LSZH
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.5	PE
U/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen	7.5	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	6.6	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	7.1	LSFROH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.0	PVC/LSZH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.4	LSFROH

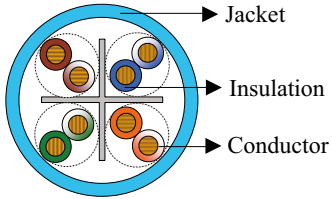
### □ Product Highlights:

- ☆ Provide excellent bandwidth beyond 250 MHz.
- ☆ Support 10 Gigabit Ethernet application.
- ☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
- ☆ Different jacket materials available for choice.
- ☆ Guaranteed ACR Value > 0dB @ 250MHz.
- ☆ Special purpose cables can be offered according to customer request.
- ☆ Different jacket color options available for choice.

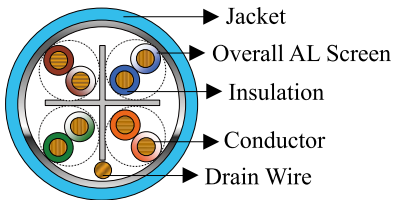
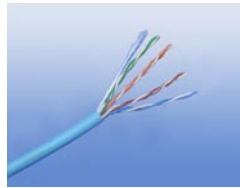
### □ Transmission Properties:

FREQ (MHz)	NEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	IL (dB/100m)	RL (dB/100m) Minimum Value/ Typical Value/ Standard Value	ACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	ELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSNEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value
1	77.3/87.0/74.3	2.0	20.0/21.5/20.0	75.2/85.0/72.2	68.8/80.0/67.8	75.3/85.0/72.3	73.2/83.0/70.2	65.8/70.0/64.8
4	68.3/77.0/65.3	3.8	23.0/24.7/23.0	64.4/73.0/61.4	56.8/66.0/55.8	66.3/74.0/63.3	62.5/71.0/59.5	53.8/63.0/52.8
8	63.8/72.0/60.8	5.3	24.5/25.5/24.5	58.4/67.0/55.4	50.7/61.0/49.7	61.8/70.0/58.8	56.5/65.0/53.5	47.7/58.0/46.7
10	62.3/70.0/59.3	6.0	25.0/28.0/25.0	56.3/64.0/53.3	48.8/57.0/47.8	60.3/68.0/57.3	54.3/62.0/51.3	45.8/54.0/44.8
16	59.2/66.0/56.2	7.6	25.0/28.0/25.0	51.6/59.0/48.6	44.7/52.0/43.7	57.2/64.0/54.2	49.6/57.0/46.6	41.7/49.0/40.7
20	57.8/65.0/54.8	8.5	25.0/28.0/25.0	49.3/57.0/46.3	42.8/50.0/41.8	55.8/63.0/52.8	47.3/55.0/44.3	39.8/47.0/38.8
25	56.3/63.0/53.3	9.5	24.3/27.0/24.3	46.8/54.0/43.8	40.8/47.0/39.8	54.3/61.0/51.3	44.8/52.0/41.8	37.8/44.0/36.8
31.25	54.9/61.0/51.9	10.7	23.6/26.5/23.6	44.1/51.0/41.1	38.9/45.0/37.9	52.9/59.0/49.9	42.1/49.0/39.1	35.9/42.0/34.9
62.5	50.4/57.0/47.4	15.4	21.5/24.6/21.5	34.9/42.0/31.9	32.9/38.0/31.9	48.4/55.0/45.4	32.9/40.0/29.9	29.9/35.0/28.9
100	47.3/53.0/44.3	19.8	20.1/23.7/20.1	27.4/33.0/24.4	28.8/34.0/27.8	45.3/51.0/42.3	25.4/31.0/22.4	25.8/31.0/24.8
200	42.8/48.0/39.8	29.0	18.0/22.2/18.0	13.6/21.0/10.6	22.8/27.0/21.8	40.8/46.0/37.8	11.6/19.0/8.6	19.8/24.0/18.8
250	41.3/46.0/38.3	32.8	17.3/21.6/17.3	8.3/14.0/5.3	20.8/24.0/19.8	39.3/44.0/36.3	6.3/12.0/3.3	17.8/21.0/16.8
300	37.1/45.0/37.1	36.4	16.8/20.7/16.8	0.5/11.0/0.5	18.3/23.0/18.3	35.1/43.0/35.1	-1.5/9.0/-1.5	15.3/20.0/15.3
350	36.1/44.0/36.1	39.8	16.3/20.3/16.3	-3.8/6.6/-3.8	16.9/21.0/16.9	34.1/42.0/34.1	-5.8/4.6/-5.8	13.9/18.0/13.9
400	35.3/43.0/35.3	43.0	15.9/16.8/15.9	-7.9/2.6/-7.9	15.8/20.0/15.8	33.3/41.0/33.3	-9.9/0.6/-9.9	12.8/17.0/12.8
450	34.5/42.0/34.5	46.3	15.5/16.5/15.5	-10.5/-1.1/-10.5	14.7/18.0/14.7	32.5/40.0/32.5	-12.5/-3.1/-12.5	11.7/15.0/11.7
500	33.8/41.0/33.8	48.9	15.2/16.1/15.2	-15.3/-6.2/-15.3	13.8/18.0/13.8	31.8/39.0/31.8	-17.3/-8.2/-17.3	10.8/15.0/10.8
550	33.2/41.0/33.2	51.8	14.9/15.7/14.9	-18.6/-12.0/-18.6	12.9/17.0/12.9	31.2/39.0/31.2	-20.6/-14.0/-20.6	9.9/13.0/9.9
600	32.4/33.0/32.4	54.5	14.7/15.0/14.7	-21.9/-21.0/-21.9	12.2/14.0/12.2	30.6/31.0/30.6	-23.9/-23.0/-23.9	9.2/11.0/9.2

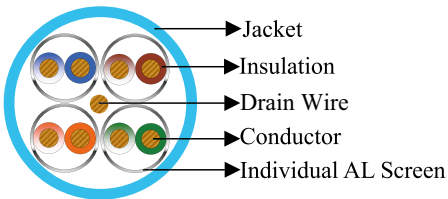
\*Data for 250MHz above are for reference only



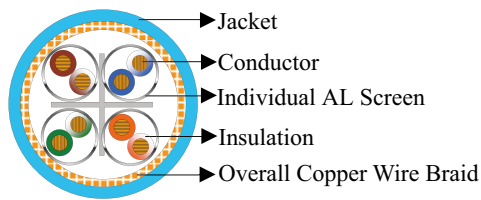
Cat6 U/UTP



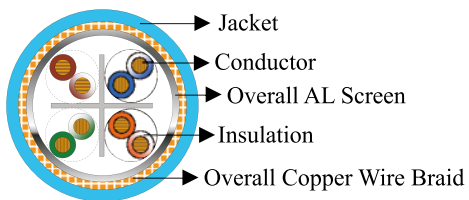
Cat6 F/UTP



Cat6 U/FTP



Cat6 S/FTP



Cat6 SF/UTP

