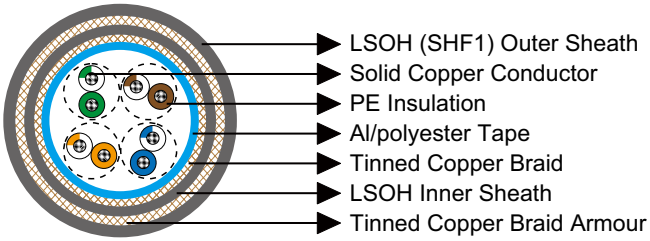
# Armoured Cat 5e SF/UTP 24AWG

## Application

These Cat5e SF/UTP cables are manufactured in accordance with IEC 61156-5 requirements, can support all Class D applications like Ethernet, Fast Ethernet, Gigabit Ethernet, suitable for basic voice and data installations up to 100MHz.

## Standards

- EN 50288
- ISO 11801
- IEC 61156-5
- IEC 60332-1
- IEC 60754-1/2
- IEC 61034




**Approvals:**
BV Certification(33493/B0 BV)

## Construction

- Conductors: Bare copper conductor.
- Insulation: PE.
- Twinning: Two coloured insulated conductors twisted together to form a pair.
- Overall Screen1: Al/polyester tape.
- Overall Screen2: Tinned copper wire braid.
- Inner Sheath: LSOH.
- Armour: Tinned copper wire braid.
- Outer Sheath: LSOH (SHF1).

## Core Identification

Pair 1: White/Blue, Blue
Pair 2: White/Orange, Orange
Pair 3: White/Green, Green
Pair 4: White/Brown, Brown

## Electrical Properties

| | | |
|---|---|---|
| Maximum Loop Resistance | Ω/km | 190 |
| Maximum Resistance Unbalance | | 2% |
| Minimum Insulation Resistance | MΩ.km | 1000 |
| Nominal Capacitance @800Hz | nF/km | 48 |
| Maximum Capacitance Unbalance (pair to ground) | pF/km | 1500 |
| Characteristic Impedance @1-100MHz | Ω | 100 ± 15 |
| Nominal Velocity of Propagation | | ca. 67% |
| Maximum Propagation Delay | ns/100 m | 535 |
| Maximum Delay Skew | ns/100 m | 20 |
| Maximum Transfer Impedance @1MHz | mΩ /m | 20 |
| Maximum Transfer Impedance @10MHz | mΩ /m | 20 |
| Maximum Transfer Impedance @30MHz | mΩ /m | 30 |
| Maximum Transfer Impedance @100MHz | mΩ /m | 60 |
| Minimum Coupling Attenuation | dB | 75 |

## Nominal Transmission Characteristics @20℃

| F | Attenuation | NEXT | PS-NEXT | ACR | PS-ACR | ELFEXT | PS-ELFEXT | Return Loss |
|---|---|---|---|---|---|---|---|---|
| MHz | dB/100m | dB | dB | dB/100m | dB/100m | dB/100m | dB/100m | dB |
| 1 | 1.9 | 71 | 68 | 69.1 | 66.1 | 68 | 65 | 20 |
| 4 | 3.7 | 62 | 59 | 58.3 | 55.3 | 56 | 53 | 23 |
| 10 | 6.0 | 56 | 53 | 50 | 47.0 | 48 | 45 | 25 |
| 16 | 7.6 | 53 | 50 | 45.4 | 42.4 | 44 | 41 | 25 |
| 20 | 8.5 | 51 | 48 | 42.5 | 39.5 | 42 | 39 | 25 |
| 31.2 | 10.7 | 49 | 46 | 38.3 | 35.3 | 38 | 35 | 24 |
| 62.5 | 15.7 | 44 | 41 | 28.2 | 25.3 | 32 | 29 | 22 |
| 100 | 19.8 | 41 | 38 | 21.2 | 18.2 | 28 | 25 | 20 |
| 125.0 | 22.3 | 40 | 37 | 17.7 | 14.7 | 26 | 23 | 19 |
| 155.5 | 24.2 | 38 | 35 | 13.8 | 10.8 | 24 | 21 | |
| 175.0 | 25.7 | 37 | 34 | 11.3 | 8.3 | 23 | 20 | |
| 200.0 | 27.5 | 36 | 33 | 8.5 | 5.5 | 22 | 19 | |
| 250.0 | 29.2 | 35 | 32 | 5.8 | 2.8 | 20 | 17 | |
| 300.0 | 32.0 | 34 | 31 | 2.0 | -1.0 | 16 | 13 | |

## Mechanical and Thermal Properties

Bending Radius: 8×OD (during installation); 4×OD (fixed installed)
Temperature Range: -20℃ ~ +60℃

## Dimensions and Weight

| Part No. | Construction No. of elements×No. of cores in element×Cross section(mm²) | Nominal Insulation Thickness mm | Nominal Sheath Thickness mm | | Nominal Overall Diameter mm | Nominal Weight kg/km |
|---|---|---|---|---|---|---|
| | | | Inner | Outer | | |
| MLN-SF/UTPCAT5E4P24 CWB | 4×2×24AWG | 0.25 | 0.74 | 1.22 | 10.5 | 173 |