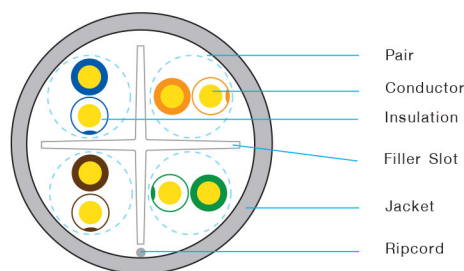


# Category 6 Ultra (600MHz) U/UTP Cables



## STANDARD

- ANSI/TIA-568.2-D Category 6
- ISO/IEC 11801:2017 Class E
- EN 50173-1 Category 6
- ICEA 5-102-700 Category 6
- EN 50288-6-1, EN 50288-6-2, NEMA WC 66
- IEC 61156-5, ASTM D4566-98, IEC 60332-1-2
- UL Listed CM, CMR, CMP and LSZH
- ETL and 3P Verified to Category 6
- UL E197771, INTERTEK, RoHS Compliant



## APPLICATION

- Structure cabling for horizontal and building backbone
- 10G BASE-T (IEEE 802.3an) \*55m
- 2.5G/5G BASE-T (IEEE 802.3bz)
- 10/100/1000 BASE-T (IEEE 802.3i/u/ab)
- IEEE 802.3af/at (PoE/PoE+)
- 52/155/622 Mbps and 1.2 Gbps ATM
- 4/16 Mbps Token Ring
- TP-PMD, TPDDI, ISDN, CDDI, VoIP
- HD BaseT 2.0 standard, Baseband, Broadband
- Digital & Analog for data, video and audio application

## ELECTRICAL CHARACTERISTICS

|                                 |                            |
|---------------------------------|----------------------------|
| <b>Impedance</b>                | : 100±5Ω, 1 MHz to 600 MHz |
| <b>Mutual Capacitance</b>       | : 5.6 nFMax / 100m         |
| <b>Capacitance, Unbalance</b>   | : 160 pF Max / 100m        |
| <b>DC Resistance</b>            | : 6.65 ohm Max/100m        |
| <b>DC Resistance, Unbalance</b> | : 5% Max.                  |
| <b>Insulated Resistance</b>     | : 5000 MΩ/Km               |
| <b>Dielectric Strength</b>      | : 1kV/min                  |
| <b>Propagation Delay</b>        | : 536 ns/100m Max @600MHz  |
| <b>Delay Skew</b>               | : 30 ns Max                |

## CONSTRUCTION / MATERIAL

|                    |  |
|--------------------|--|
| <b>Conductor</b>   | : 23AWG Solid or Stranded Bare copper                          |
| <b>Insulation</b>  | CM, CMR, LSZH : HDPE<br>CMP : FEP                              |
| <b>Filler Slot</b> | : FRPE   |
| <b>Ripcord</b>     | : Under Jacket   |
| <b>Jacket</b>      | CM, CMR : FR-PVC<br>CMP : FR-PVC (Low Smoke)<br>LSZH : FR-LSZH |

| FREQUENCY (MHZ) | INSERTION LOSS (dB/100m) | NEXT MIN.(dB) | ACR-N MIN.(dB) | PS NEXT MIN.(dB) | PS ACR-N MIN.(dB) | ACR-F MIN.(dB/100m) | PS ACR-F MIN.(dB/100m) | RL MIN.(dB) |
|-----------------|--------------------------|---------------|----------------|------------------|-------------------|---------------------|------------------------|-------------|
| 1               | 2.0                      | 78.0          | 76.0           | 76.0             | 73.5              | 69.0                | 66.0                   | 20.0        |
| 31.25           | 10.7                     | 56.0          | 45.3           | 54.0             | 42.8              | 38.5                | 35.6                   | 23.6        |
| 62.5            | 15.4                     | 50.5          | 35.1           | 52.2             | 33.0              | 33.0                | 29.5                   | 21.5        |
| 100             | 19.8                     | 47.5          | 27.7           | 49.8             | 25.6              | 28.5                | 25.8                   | 20.1        |
| 155             | 25.1                     | 45.0          | 19.7           | 47.2             | 17.2              | 25.0                | 23.0                   | 18.8        |
| 200             | 29.0                     | 44.4          | 15.4           | 45.0             | 12.3              | 22.5                | 21.7                   | 18.0        |
| 250             | 28.69                    | 42.9          | 10.9           | 43.2             | 6.5               | 21.2                | 18.0                   | 17.3        |
| 300             | 32.8                     | 41.5          | 4.9            | 40.7             | 1.9               | 18.5                | 15.6                   | 16.8        |
| 400             | 39.7                     | 38.5          | -              | 37.5             | -                 | 16.5                | 13.7                   | 15.9        |
| 550             | 48.9                     | 36.7          | -              | 34.5             | -                 | 13.5                | 10.7                   | 14.9        |
| 600             | 51.1                     | 36.5          | -              | 34.5             | -                 | 13.0                | 10.0                   | 14.7        |

## MECHANICAL PROPERTIES

### Minimum Bending Radius

Installation 8 X Cable Diameter  
Operation 4 X Cable Diameter

### Tensile Strength

110 N (25lbf)

### Ultimate Breaking Strength

>400 N (90lbf)

### Installation / Operating temperature

-20°C to 60°C

### Storage Temperature

-20°C to 80°C

| Part No.    | UL/NEC Flame Rating | Conductor                  | Jacket  | Diameter (mm.) | Color | Packaging     |
|-------------|---------------------|----------------------------|---------|----------------|-------|---------------|
| US-9116     | CMR                 | 23AWG Solid Bare Copper    | FR-PVC  | 6.0            | White | 305m/Pull Box |
| US-9116LSZH | LSZH                | 23AWG Solid Bare Copper    | FR-LSZH | 6.0            | White | 305m/Pull Box |
| US-9126LSZH | LSZH                | 24AWG Stranded Bare Copper | FR-LSZH | 6.15           | White | 305m/Reel     |