

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



## STANDARD

- ANSI/TIA-568-C.2 Category 6
- ISO/IEC 11801:2017 Class E
- EN 50173-1 Category 6
- ICEA S-102-700 Category 6
- EN 50288-6-1, 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 TIA-568-C.2 CAT 6
- UL E197771, INTERTEK, RoHS Compliant

## APPLICATION

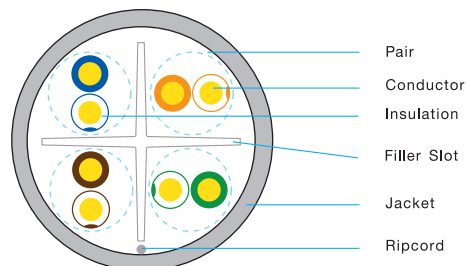
- 10GBASE-T ( IEEE 802.3an 10Gigabit Ethernet \*55m )
- 1000 BASE-T ( IEEE 802.3ab Gigabit Ethernet )
- 100 BASE-TX ( IEEE 802.3u Fast Ethernet )
- 10 BASE-T ( IEEE 802.3 Ethernet )
- 155/622Mbps and 1.2Gbps ATM
- 4/16 Mbps Token Ring
- POE, POE+ ( IEEE 802.3af, IEEE 802.3at )
- TP-PMD, TPDDI, ISDN, VoIP
- Analog & Digital Voice, Digital & Analog Video

## 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 Bare Copper
<b>Insulation</b>	CM, CMR, LSZH : HDPE CMP : FEP
<b>Filler Slot</b>	: FRPE
<b>Ripcord</b>	: Under Jacket
<b>Jacket</b>	CM, CMR : FR-PVC CMP : FR-PVC (Low Smoke) 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	32.0	42.9	10.9	43.2	6.5	21.2	18.0	17.3
300	36.4	41.5	4.9	40.7	1.9	18.5	15.6	16.8
400	43.0	38.5	-	37.5	-	16.5	13.7	15.9
550	51.8	36.7	-	34.5	-	13.5	10.7	14.9
600	54.5	36.5	-	34.5	-	13.0	10.0	14.7

## MECHANICAL PROPERTIES

### Minimum Bending Radius

Install	8 X Cable Diameter
After Install	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	6.4	White	305m/Pull Box
US-9116LSZH	LSZH	23AWG Solid Bare Copper	FR-LSZH	6.4	White	305m/Pull Box
US-9116P	CMP	23AWG Solid Bare Copper	FR-PVC(LS)	5.8	White	305m/Pull Box
US-9116CM	CM	23AWG Solid Bare Copper	FR-PVC	6.4	White	305m/Pull Box
US-9126	CM	24AWG Stranded Bare Copper	FR-PVC	5.4	Blue	305m/Pull Box