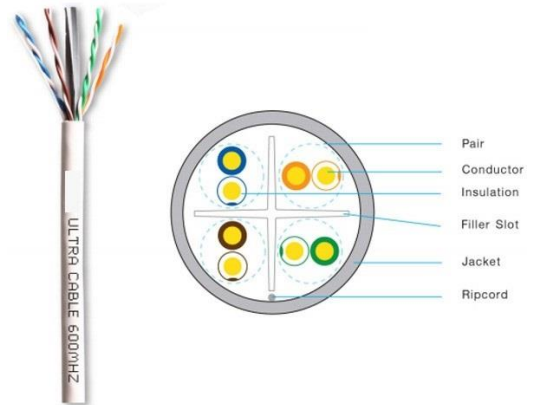




CAT6 UTP ULTRA (600MHz) w/Cross Filler, 23AWG, LSZH

FEATURES AND BENEFIT

This specification covers the general requirements for UTP cable used for indoor installation. Ultra Category 6 U/UTP cables compliant ISO/IEC 11801 Class E and ANSI/TIA-568.2-D requirements for category 6 performance. These cables are characterized to 600MHz, Power sum NEXT tested certified. The outer jacket material made from LSZH compound to reduces the amount toxic smoke and corrosive has emitted during burned, for users safety as well as increases the safety of firefighting operations.



APPLICATION

- Structure cabling for building backbone
- Structure cabling for horizontal
- 2.5G/5G BASE-T (IEEE 802.3bz)
- 10G BASE-T(IEEE 802.3an 10Gigabit Ethernet) *55m
- 1000 BASE-T (IEEE 802.3ab Gigabit Ethernet)
- 1000 BASE-TX (TIA/EIA-854)
- 100 BASE-TX (IEEE 802.3u Fast Ethernet)
- 10 BASE-T (IEEE 802.3i Ethernet)
- 52/155/622Mbps and 1.2Gbps ATM
- 4/16 Mbps Token Ring
- IEEE 802.3af (PoE), IEEE 802.3at (PoE+), IEEE 802.3bt (Type 4)
- TP-PMD, TPDDI, ISDN, CDDI, VoIP
- Ether CAT Industrial standard, HD Base T 2.0 standard
- Baseband, Broadband
- Digital and analog for data, video and audio application

STANDARD

- ANSI/TIA-568.2-D Category 6
- ANSI/TIA-568-C.2 Category 6
- ISO/IEC 11801:2017 class E
- EN 50173-1 Category 6
- EN 50288-6-1
- IEC 61156-5, IEC 60332-1
- IEC 60754-1, IEC 60754-2
- IEC 61034-1, IEC 61034-2
- ICEA S-102-700 Category 6
- ASTM D4566-98
- NEMA WC 66
- UL 444
- CSA 22.2 No.214
- ETL and 3P Verified to Category 6
- RoHS Compliant
- Intertek Certification no. 104047595CRT-001



CABLE CONSTRUCTION

Conductor	Material No. of Conductor Diameter	Solid bare copper 4 Pairs (8 wires) 23 AWG (0.57mm)
Insulation	Material Diameter	High Density polyethylene (HDPE) 1.00 ±0.02 mm
Ripcord		Under Jacket
Color code with Strip color	Pair 1 Pair 2 Pair 3 Pair 4	White with blue strip + Blue White with orange strip + range White with green strip + Green White with brown strip + Brown
Filler slot (Cross Filler)	Material	FR-PE
Jacket	Material Thickness Color	Lead free, FR-LSZH 0.51 ±0.02 mm White
Cable Diameter		6.0 ±0.2 mm
Marking		Black color in every 2 ft
Flame Rating		LSZH (Low Smoke Zero Halogen)

PERFORMANCE CHARACTERISTIC (meet or exceed ANSI/TIA-568.2-D Category 6)

Frequency (MHz)	Insertion Loss (dB/100m)	NEXT (dB)		ACR-N (dB)		PS NEXT (dB)		PS ACR-N (dB)		ACR-F (dB)		PS ACR-F (dB)		RL (dB)	
		Max.	min	nom	min	nom	min	nom	min	nom	min	nom	min	nom	min
0.772	1.8	79.0	82	77.2	80.2	77.0	79.0	75.2	77.2	70.0	73	67.0	69	-	-
1	2.0	78.0	81.0	76.0	79.3	76.0	78.0	73.5	75.8	69.0	72.0	66.0	68.0	20.0	28.0
4	3.8	69.8	72.8	66.0	69.0	67.0	69.0	62.7	65.0	56.6	59.5	53.5	55.5	23.5	31.0
8	5.3	65.4	68.4	60.1	62.8	63.4	65.4	57.1	58.8	51.0	53.1	48.0	50.0	24.5	32.5
10	6.0	63.8	66.8	57.8	61.1	61.2	63.2	54.5	56.8	48.5	51.5	46.4	48.4	25.0	33.0
16	7.6	60.0	63.0	52.4	55.7	58.9	60.9	49.9	52.2	45.0	48.0	42.2	44.2	25.0	33.0
20	8.5	59.0	61.0	50.5	53.3	57.0	59.0	48.0	49.8	42.5	45.5	4.1	42.1	25.0	33.0
25	9.5	57.5	60.5	48.0	51.3	56.8	58.8	44.9	47.2	41.0	44.0	37.7	39.7	24.3	32.3
31.25	10.7	56.0	59.0	45.3	46.2	54.0	56.0	42.8	44.7	38.5	41.5	25.6	37.6	23.6	31.6
62.5	15.4	50.5	53.5	35.1	38.4	52.2	54.2	33.0	35.0	33.0	36.0	29.5	31.5	21.5	29.5
100	19.8	47.5	50.5	27.7	30.9	49.8	51.8	25.6	27.8	28.5	31.5	25.8	27.8	20.1	28.1
200	24.7	44.4	47.4	15.4	18.0	45.0	47.0	12.3	13.9	22.5	25.5	21.7	23.7	18.0	26.0
250	28.9	42.9	45.9	10.9	13.1	43.2	45.2	6.5	8.6	21.2	24.2	18.0	20.0	17.3	25.3
300	32.8	41.5	43.5	4.9	6.5	40.7	42.7	1.9	4.0	18.5	21.5	15.6	17.6	16.8	24.8
350	36.4	39.5	42.5	1.0	3.1	38.5	40.5	-	-	17.5	20.5	14.5	16.5	16.3	24.3
400	39.7	38.5	41.5	-	-	37.5	39.5	-	-	16.5	19.5	13.7	15.7	15.9	23.9
450	42.9	38.0	41.0	-	-	36.5	38.5	-	-	15.5	18.5	12.8	14.8	15.5	23.5
500	46.0	37.5	40.5	-	-	35.5	37.5	-	-	14.5	17.5	11.5	13.5	15.2	23.2
550	48.9	36.7	39.7	-	-	34.5	36.5	-	-	13.5	16.5	10.7	12.7	14.9	22.9
600	51.1	36.5	39.5	-	-	34.5	36.5	-	-	13.0	15.0	10.0	12.0	14.7	22.7

NAP

ELECTRICAL CHARACTERISTIC

Impedance	100 ± 5 Ohms, 1 MHz to 600 MHz
Mutual Capacitance	≤ 5.6 nF Max / 100m
Capacitance, Unbalance	≤ 160 pF Max / 100m
DC Resistance	≤ 6.658 ohm Max./100m
DC Resistance, Unbalance	≤ 5% Max.
Dielectric Strength	≤ 1 kV/min
Insulated Resistance	≥ 5000 MΩ/km
AC leakage current through overall jacket	≤ 10mA (1.5 kV AC)
Spark Test	2.5 kV DC
Propagation Delay	≤ 536 ns/100m Max @600MHz
Delay Skew	≤ 30 ns Max
NVP	69%

PHYSICAL PROPERTIES

Tensile Strength	110 N (25 lbf)
Ultimate Breaking Strength	>400 N (90lbf)
Min. Bending Radius	4 X Cable Diameter
Temperature	Installation/Operation -20°C to 75°C
	Storage -20°C to 80°C