



US-9106A

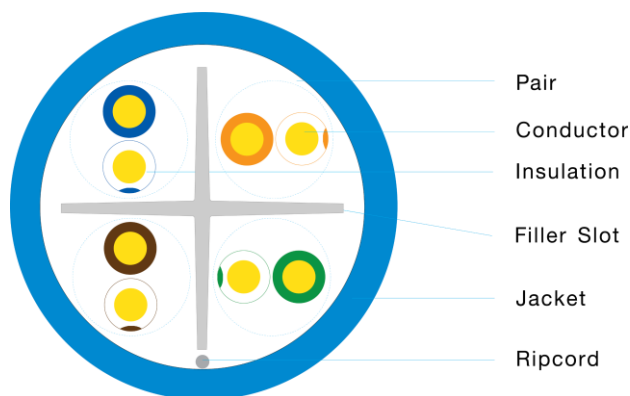
US-9106A-1



### Scope of Applications

This specification covers the general requirements for UTP cable used for indoor horizontal installation. LINK Category 6 U/UTP cables compliant with ISO/IEC 11801 Class E and ANSI/TIA-568.2-D requirements for category 6 performance. These cables are characterized to 250MHz, Powersum NEXT tested. The cable covered under UL certification which the UL mark E197771 appearing on the cable jacket.

### Drawing



### Technical Standards

- 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
- ICEA S-102-700 Category 6
- ASTM D4566-98
- NEMA WC 66
- UL 1685
- UL 444
- CSA 22.2 No.214
- UL Verified to Category 6
- RoHS Compliant
- Approvals UL listed file no. E197771



## Cable Construction

<b>Conductor</b>	<b>Material</b>	Solid bare copper
	<b>No. of Conductor</b>	4 Pairs (8 wires)
	<b>Diameter</b>	24 AWG
<b>Insulation</b>	<b>Material</b>	High Density Polyethylene (HDPE)
	<b>Diameter</b>	0.96 ±0.02 mm
<b>Insulated Conductor Color Code</b>	<b>Pair 1</b>	White-Blue / Blue
	<b>Pair 2</b>	White-Orange / Orange
	<b>Pair 3</b>	White- Green / Green
	<b>Pair 4</b>	White-Brown / Brown
<b>Rip cord</b>		Under Jacket
<b>Filler Slot (Cross Filler)</b>	<b>Material</b>	FRPE
<b>Jacket</b>	<b>Material</b>	Lead free, FR-PVC
	<b>Thickness</b>	0.50 ±0.02 mm
	<b>Color</b>	Blue
<b>Cable Diameter</b>		5.7 ±0.2 mm
<b>Marking</b>	<b>Pkg. 1000Ft (305 m)</b>	Black color in every 2 ft
	<b>Pkg. 100 m</b>	Black color in every meter
<b>Flame Rating</b>		CM

## Electrical Characteristic

<b>Impedance</b>	100 ± 15 Ohms, 1 MHz to 250 MHz
<b>Mutual Capacitance</b>	≤ 5.6 nF Max / 100m
<b>Capacitance, Unbalance</b>	≤ 160 pF Max / 100m
<b>DC Resistance</b>	≤ 9.38 ohm Max./100m
<b>DC Resistance, Unbalance</b>	≤ 3% Max.
<b>Dielectric Strength</b>	≤ 1 kV/min
<b>Insulated Resistance</b>	≥ 5000 MΩ/km
<b>AC leakage current through overall jacket</b>	≤ 10mA (1.5 kV AC)
<b>Spark Test</b>	2.5 kV DC
<b>Propagation Delay</b>	≤ 536 ns/100m Max @250MHz
<b>Delay Skew</b>	≤ 45 ns Max
<b>NVP</b>	69%

## Physical Properties

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



## 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)	
		min	nom	min	nom	min	nom	min	nom	min	nom	min	nom	min	nom
1	2.0	73.5	76.5	72.2	75.2	76.0	78.0	73.5	75.8	69.0	72.0	66.0	68.0	20.0	28.0
4	3.8	63.9	66.9	60.6	63.6	67.0	69.0	62.7	65.0	56.5	59.5	53.5	55.5	23.0	31.0
8	4.9	59.6	62.6	55.4	58.4	63.4	65.4	57.1	58.8	51.0	53.1	48.0	50.0	24.5	32.5
10	5.6	58.8	61.8	53.3	56.3	61.2	63.2	54.5	56.8	48.5	51.5	46.4	48.4	25.0	33.0
16	7.6	56.0	59.0	48.4	51.4	58.9	60.9	49.9	52.2	45.0	48.0	42.2	44.2	25.0	33.0
20	8.5	54.2	57.2	46.3	49.3	57.0	59.0	48.0	49.8	42.5	45.5	40.1	42.1	25.0	33.0
25	8.9	53.0	56.0	43.1	46.1	56.8	58.8	44.9	47.2	41.0	44.0	37.7	39.7	24.3	32.3
31.25	10.0	51.3	54.3	40.7	43.7	54.0	56.0	42.8	44.7	38.5	41.5	35.6	37.6	23.6	31.6
62.5	15.4	47.4	50.4	32.3	35.3	52.2	54.2	33.0	35.0	33.0	36.0	29.5	31.5	21.5	29.5
100	17.4	42.6	45.6	24.5	27.5	49.8	51.8	25.6	27.8	28.5	31.5	25.8	27.8	20.1	28.1
200	29.0	39.3	42.3	10.4	13.4	45.0	47.0	12.3	13.9	23.5	25.5	21.7	23.7	18.0	26.0
250	32.8	37.8	40.8	5.1	8.1	43.2	45.2	6.5	8.6	22.8	24.8	18.0	20.0	17.3	25.3

## Applications

- Structure cabling for horizontal
- 2.5G/5G BASE-T (IEEE 802.3bz)
- 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 (Type4)
- TP-PMD, TPDDI, ISDN, CDDI, VoIP
- EtherCAT Industrial standard, HDBaseT 2.0 standard
- Baseband, Broadband
- Digital and analog for data, video and audio application

## Order Information

Part number	Description	Color	Length	Package
US-9106A	Category 6, 4 Pairs, U/UTP Cable, 24AWG, CM, 250MHz	Blue	305 m	Pull Box.
US-9106A-1	Category 6, 4 Pairs, U/UTP Cable, 24AWG, CM, 250MHz	Blue	100 m	Easy Box

\*Other jacket color available on request

Specifications subject to change without notice.

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