

CABLE SPECIFICATIONS

CAT 6+ U/UTP 4-pair Solid LAN Cable

CUTP6-G

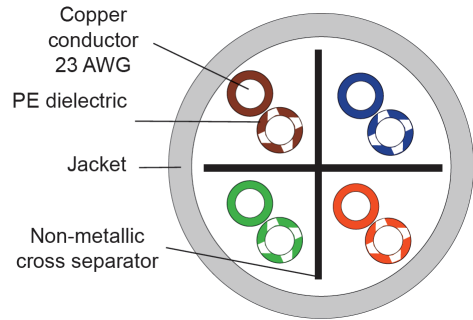
PART NUMBERS

Discription	Part No.
CAT 6+ U/UTP 4-pair Solid LAN Cable	CUTP6N-G
CAT 6+ U/UTP CM 4-pair Solid LAN Cable	CUTP6M-G
CAT 6+ U/UTP CMR 4-pair Solid LAN Cable	CUTP6R-G
CAT 6+ U/UTP LSZH 4-pair Solid LAN Cable	CUTP6Z-G

* Color for jacket: (E) Black, (W) White, (S) Grey, (G) Green, (L) Blue, (Y) Yellow, (O) Orange, (P) Purple, (C) Red
 x = Packaging: (B) Pull Box; (S) Reel
 Note: All packaging is 305 meters (1,000 ft.)

APPLICATION

IEEE 802.3: Gigabit Ethernet; 1000Base-T; 100Base-T; 10Base-T



STANDARDS COMPLIANCE

EIA/TIA 568-B.2-1 CAT 6
 ISO/IEC 11801 Class E
 IEC 61156-5
 EN50173
 RoHS Compliant

FIRE RATING

CUTP6R-G : IEC 60332-1 (vertical flame test)
 UL1581 FT2 (horizontal flame test)
 CUTP6N-G: IEC 60332-1 (vertical flame test)
 UL1581 FT2 (horizontal flame test)
 CUTP6M-G: IEC 60332-1 (vertical flame test)
 UL1581 FT2 (horizontal flame test) UL 444 CM
 CUTP6Z-G: IEC 60332-1 (vertical flame test)
 UL1581 FT2 (horizontal flame test)

Construction				
Conductor	Bare copper wire		23 AWG	
Insulation	Polyethylene		Ø 0.90 mm	
Twisting	4 twisted pairs, 2 single conductors paired Twisted pair color code: 1: Blue+White/Blue 2: Orange+White/Orange 3: Green+White/Green 4: Brown+White/Brown			
Cable lay-up	4 pairs with different pitches			
Outer jacket	UTP6R-M*x: CMR	UTP6N-M*x: PVC (lead free)	UTP6M-M*x:CM	UTP6Z-M*x:LSZH
Outer diameter	Ø 5.7 mm ± 0.2 mm (.224")			

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TECHNICAL SPECIFICATION

Mechanical Properties

Bending Radius	≥ 4xOD (without load)
Temperature range	during operation: -20° C ~ 75° C during installation 0° C ~ 60° C

Electrical Properties (-20 °C ± 5 °C)

DC resistance	Max. 9.38Ω/100m at 20° C
Resistance unbalance	Max. 2% at 20° C
Insulation resistance (500V)	Min. 5000 MΩ/Km at 20° C
Mutual capacitance	Nom. 5.1 nf/100m at 1kHz
Capacitance unbalance (pair to ground)	Max. 50 pf/100m at 1kHz
Characteristic impedance (1 - 100MHz)	(100±15) Ω
Nominal velocity of propagation	67%
Test voltage (DC, 1 min.)	1 kV/1 min.

Transmission characteristics acc. EIA/TIA 568-B.2-1 CAT 6 (20° C)

Freq. (MHz)	Impedance Ω	Attenuation (dB) max.	NEXT (dB) min.	PS-NEXT (dB) min.	ACR (dB) min.	PSACR (dB) min.	ELFEXT (dB) min.	PSELFEXT (dB) min.	Return Loss (dB) min.	Propagation Delay (ns) max.	Delay Skew (ns) max.
1	100 ± 15	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0	570.0	35
4		3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0	552.0	
8		5.3	60.8	58.8	55.5	53.5	49.7	46.7	24.5	546.7	
10		6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0	545.4	
16		7.6	56.3	54.3	48.7	46.7	43.7	40.7	25.0	543.0	
20		8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0	542.1	
25		9.5	53.4	51.4	43.9	41.9	39.8	36.8	24.3	541.2	
31.25		10.7	51.9	49.9	41.2	39.2	37.9	34.9	23.6	540.4	
62.5		15.4	47.4	45.4	32.0	31.0	31.9	28.9	21.5	535.9	
100		19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1	537.6	
200		29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0	536.6	
250		32.8	38.4	36.4	5.6	3.6	19.8	16.8	17.3	536.3	