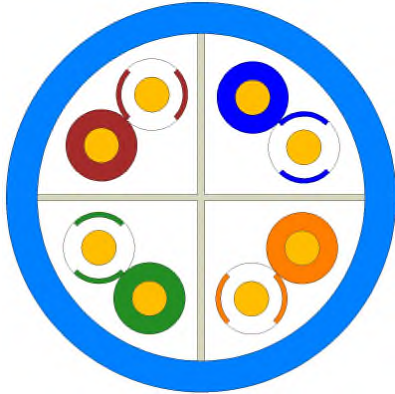


Unshielded Twisted Pair (UTP) Category 6

EIA/TIA 568-C.2
AS/NZS 11801.1

Cable Design



- Drawing not to scale -

- **Multi-pair construction**
- **Conductor:** Annealed solid copper wire 0.51mm diameter (24 AWG)
- **Insulation:** Polyethylene compound
- **Cabling element:** Twisted pair
- **Colour code:** See table 1
- **Stranding of pairs:** Stranded around cross web filler
- **Sheath:** Flame retardant PVC (75°C)

100Ω balanced UTP cable suitable for Local Area Network (LAN) cabling up to 250 MHz capable of supporting transmission rates of up to and including 10-Gigabit Ethernet. Cable is UL listed (see Note1).

Technical data

Number of Pairs		4
Cable nominal diameter	mm	5.6
Cable nominal weight	kg/km	40
Max. pulling tension	N	110
Min. bending radius	mm	50
Temperature range	°C	Installation 0 -> +50 Operation -20 -> +60

Note 1: Cable meets IEC 60332-1 "Test for vertical flame propagation for a single insulated wire or cable"

Identification

Sheath Colour:

The standard outer sheath colour is blue (RAL 5015).

Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows:

General Cable F Cat6 E179849 24AWG 4PR CMX 75C Listed (UL) Cat6 TIA-568-C.2 250MHz ##### *** METRES ==> <== *** METRES

Where:

= Production number
 *** METRES ==> | <== *** METRES = Metre Marking with cut line

Transmission characteristics								
Frequency [MHz]	Return Loss [dB/100m] Min	Attenuation [dB/100m] Max	NEXT [dB/100m] Min	PS NEXT [dB/100m] Min	ACRF [dB/100m] Min	PS ACRF [dB/100m] Min	Propagation Delay [ns/100m] Max	Propagation Delay Skew [ns/100m] Max
1.0	20+5log(f)	2.0	74.3	72.3	67.8	64.8	570	45
4.0		3.8	65.3	63.3	55.8	52.8	552	
10.0	25	6.0	59.3	57.3	47.8	44.8	545	
16.0		7.6	56.2	54.2	43.7	40.7	543	
20.0	25-7log(f/20)	8.5	54.8	52.8	41.8	38.8	542	
31.25		10.7	51.9	49.9	37.9	34.9	540	
62.5		15.4	47.4	45.4	31.9	28.9	539	
100		19.8	44.3	42.3	27.8	24.8	538	
200		29.0	39.8	37.8	21.8	18.8	537	
250		32.8	38.3	36.3	19.8	16.8	536	

Electrical characteristics	
DC resistance [Ω /100m]:	9.38 Max.
DC Resistance unbalance [%]:	5 Max.
Mutual capacitance @1kHz [nF/100m]:	5.6 Max.
Capacitance unbalance @1kHz, pair to ground [pF/100m]:	330 Max.

Note: All electrical characteristics are given at 20°C

Table 1. Colour code / Pair identification

Pair number	Insulation colour				
	Wire a	Wire b		Wire a	Wire b
1	Blue	White blue stripes (2)	3	Green	White green stripes (2)
2	Orange	White orange stripes (2)	4	Brown	White brown stripes (2)

Logistic

Packing:

Plastic reel in cardboard box – 350 x 335 x 370 mm

Delivery Lengths:

Standard delivery length is 305 metres

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