

Unshielded Twisted Pair (UTP) Enhanced Category 5

**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:** Bunched
- **Sheath:** Flame retardant PVC (75°C)

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

Technical data

Number of Pairs		4
Cable nominal diameter	mm	4.9
Cable nominal weight	kg/km	31
Max. pulling tension	N	110
Min. bending radius	mm	40
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 Cat5e E179849 24AWG 4PR CMX 75C Listed (UL) Cat5e
TIA-568-C.2 100MHz ##### *** METRES ==> | <== *** METRES

Where:

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

Transmission characteristics								
Frequency [MHz]	Return Loss [dB/100m]	Attenuation [dB/100m]	NEXT [dB/100m]	PS NEXT [dB/100m]	ACRF [dB/100m]	PS ACRF [dB/100m]	Propagation Delay [ns/100m]	Propagation Delay Skew [ns/100m]
	Min	Max	Min	Min	Min	Min	Max	Max
1.0	20+5log(f)	2.0	65.3	62.3	63.8	60.8	570	45
4.0		4.1	56.3	53.3	51.8	48.8	552	
10.0	25	6.5	50.3	47.3	43.8	40.8	545	
16.0		8.2	47.2	44.2	39.7	36.7	543	
20.0	25-7log(f/20)	9.3	45.8	42.8	37.8	34.8	542	
31.25		11.7	42.9	39.9	33.9	30.9	540	
62.5		17.0	38.4	35.4	27.9	24.9	539	
100		22.0	35.3	32.3	23.8	20.8	538	

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:

Fibreboard 'easy-pull' dispenser cartons (Reellex) – 350 x 350 x 215 mm

Delivery Lengths:

Standard delivery length is 305 metres

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