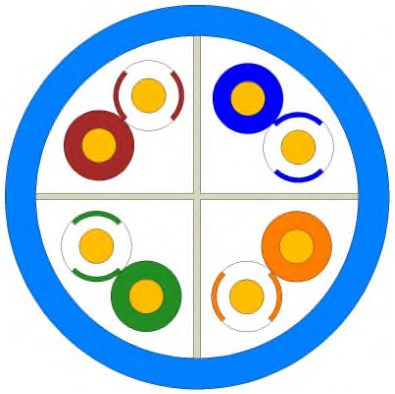
M@X6®

Unshielded Twisted Pair (UTP) Category 6

EIA/TIA 568-C.2
AS/NZS 11801.1
ACMA - AS/CA S008

Cable Design



Drawing not to scale -

- **Multi-pair construction**
- **Conductor:** Annealed solid copper wire 0.51mm diameter (24 AWG)
- **Insulation:** Polyethylene compound in compliance with AS1049
- **Cabling element:** Twisted pair
- **Colour code:** See table 1
- **Stranding of pairs:** Bunched around cross web filler
- **Sheath:** Flame retardant PVC (75°C) in compliance with AS 1049

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 verified (see *Note1*).

Technical data

Number of Pairs		**4**	
Cable nominal diameter	mm	6.0	
Cable nominal weight	kg/km	40	
Max. pulling tension	N	190	
Min. bending radius	mm	50	
Temperature range	°C	Installation 0 -> +50	Operation -20 -> +60

Note 1: Cable meets AS/NZS IEC 60332.1 "Test for vertical flame propagation for a single insulated wire or cable"

Identification

Sheath Colour:
The standard outer sheath colour is grey (RAL 7044). Alternative colour is blue (RAL 5019).

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

PRYSMIAN M@X6 4PR CATEGORY 6 VERIFIED (UL) E179849G UTP 24AWG TYPE CMX XXXX MM/YY T/N #### *****M

Where: XXXX = L4P6 *for cables with grey sheath,* L4P6BU *for blue sheath*

Transmission characteristics								
Frequency [MHz]	**Return Loss [dB] Min**	**Attenuation [dB/100m] Max**	**NEXT [dB] Min**	**PS NEXT [dB] 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.
Resistance unbalance [%]:	5 Max.
Mutual capacitance @1kHz [pF/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 reels and cardboard boxes – 270 x 300 x 310 mm (Red / White)

Delivery Lengths:
Standard delivery length is 305 metres