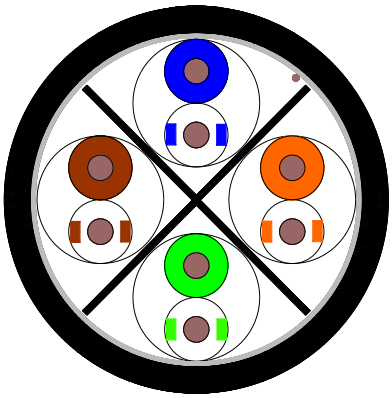
# M@X6A®

## Overall Foil Shielded Twisted Pair (F/UTP) Category 6A - Outdoor

**EIA/TIA 568-C.2**
**AS/NZS 3080**
**ACMA - AS/CA S008**

## Cable Design



- Drawing not to scale -

- **Multi-pair construction**
- **Conductor:** Annealed solid copper wire 0.57mm diameter (23 AWG)
- **Insulation:** Polyethylene compound in compliance with AS 1049
- **Cabling element:** Twisted pair
- **Colour code:** See table 1
- **Stranding of pairs:** Stranded around cross web filler
- **Longitudinal water tightness:** Jelly filled interstices
- **Drain wire:** Tinned cooper wire
- **Foil screen:** Aluminium / Polyethylene terephthalate tape
- **Sheath:** UV stabilised Polyethylene in compliance with AS 1049. Ripcord provided beneath the sheath for easy removal

100Ω balanced UTP cable suitable for Local Area Network (LAN) cabling up to 500 MHz capable of supporting transmission rates of up to and including 10-Gigabit Ethernet. Overall foil shielded for protection against EMI.

### Technical data

| **Number of Pairs** | | **4** | |
|---|---|---|---|
| Cable nominal diameter | mm | 8.0 ± 0.5 | |
| Cable nominal weight | kg/km | 65 | |
| Max. pulling tension | N | 110 | |
| Min. bending radius | mm | 8 x Cable OD | |
| Temperature range | °C | Installation 0 -> +50 | Operation -15 -> +60 |

## Identification

**Sheath Colour:**
The standard outer sheath colour is black.

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

```
PRYSMIAN M@X6A 4PR CATEGORY 6A F/UTP OUTDOOR 23AWG L4P6AOJ MM/YY T/N #### *****M >> | << *****M
```

*Where:*

| | |
|---|---|
| MM/YY | = Month/Year of manufacture |
| #### | = Job Numbers |
| *****M >> \| << *****M | = Metre Marking with cut line |

| Transmission characteristics | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency [MHz]** | **Return Loss [dB] Min** | **Insertion Loss [dB/100m] Max** | **NEXT [dB] Min** | **PS NEXT [dB] Min** | **ACRF [dB] Min** | **PS ACRF [dB] Min** | **Propagation Delay Skew [ns/100m] Max** |
| 1.0 | 20 | 2.1 | 74.3 | 72.3 | 67.8 | 64.8 | 45 |
| 4.0 | 23 | 3.8 | 65.3 | 63.3 | 55.8 | 52.8 | |
| 10.0 | 25 | 5.9 | 59.3 | 57.3 | 47.8 | 44.8 | |
| 16.0 | 25 | 7.5 | 56.2 | 54.2 | 43.7 | 40.7 | |
| 20.0 | 25 | 8.4 | 54.8 | 52.8 | 41.8 | 38.8 | |
| 31.25 | 23.6 | 10.5 | 51.9 | 49.9 | 37.9 | 34.9 | |
| 62.5 | 21.5 | 15.0 | 47.4 | 45.4 | 31.9 | 28.9 | |
| 100 | 20.1 | 19.1 | 44.3 | 42.3 | 27.8 | 24.8 | |
| 200 | 18.0 | 27.6 | 39.8 | 37.8 | 21.8 | 18.8 | |
| 250 | 17.3 | 31.1 | 38.3 | 36.3 | 19.8 | 16.8 | |
| 500 | 15.2 | 45.3 | 33.8 | 31.8 | 13.8 | 10.8 | |

*Note: Propagation delay performance has been traded-off for protection against water penetration (filling jelly)*

| Electrical characteristics | |
|---|---|
| DC resistance [Ω/100m]: | 9.38 Max. |
| Resistance unbalance [%]: | 4 Max. |
| Mutual capacitance @1kHz [nF/100m]: | 6.5 Max. |
| Capacitance unbalance @1kHz, pair to ground [pF/100m]: | 330 Max. |
| *Note: All electrical characteristics are given at 20°C* | |

**Water penetration**

5 metre sample length, 1m water height, no water leakage after 24 hours. Tested as per IEC 60794-1-22-F5B.

## 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 | 4 | Brown | White brown stripes (2) |

## Logistic

**Packing:**

Plywood drums

**Delivery Lengths:**

Standard delivery length is 500 metres