

# TruLAN Cat 6 F/UTP Duct Grade Technical Datasheet

Part No: C6FD

**Description:** The TruLAN Cat 6 cable is the ideal choice for high speed data networks across a

home or building. Suitable for external applications and ducts.







# Construction

Conductor Bare Copper AWG 23(1)

Insulation Material High Density Polyethylene (HDPE)

Number of Pairs 4
Pair Identification TIA 568

Overall Screen Aluminium/Polyester
Drain Wire 24(1)AWG, Tinned Copper
Inner Sheath Material Polyvinyl Chloride (PVC), Grey

Outer Sheath Material Low Density Polyethylene (LDPE), Black

### **Electrical Characteristics**

Max. Conductor Resistance @ 20°C≤ 9.38 Ω/100mMax. Resistance Unbalanced≤ 2.5 %Nominal Impedance (1-100MHz) $100 \pm 15 Ω$ Insulation Resistance5000MΩ/kmMutual Capacitance≤ 5.6nF/100mCapacitance Unbalanced to Earth≤ 330 pF/100mNVP68.5 %

 Max. Delay Skew
 ≤ 45 nS/ 100m

 Voltage Rating EN 50525-1
 450/750V\*

 Test Voltage
 2.5kV (AC)

### **Physical Characteristics**

Overall Diameter  $10.2 \pm 0.3$ mm

Bend Radius Fixed 4 x OD, Flexing 8 x OD
Temperature Rating Fixed -20°C to 70°C, Flexing -10°C to 60°C

Weight 105 kg/km

### **Transmission Performance**

| Frequency   | 1    | 4    | 10   | 16   | 20   | 31.25 | 62.5 | 100  | 200  | 250  | 300  | 400  | 500  | MHz     |
|-------------|------|------|------|------|------|-------|------|------|------|------|------|------|------|---------|
| Attenuation | 1.9  | 3.5  | 5.5  | 7.0  | 7.9  | 10.0  | 14.4 | 18.6 | 27.4 | 31.1 | 34   | 41.1 | 47.1 | dB/100m |
| Return Loss | 19.1 | 21.0 | 21.0 | 20.0 | 19.5 | 18.5  | 16.0 | 14.0 | 11.0 | 10.0 | 9.2  | 8.0  | 7.0  | dB      |
| NEXT        | 65.0 | 64.1 | 57.8 | 54.6 | 53.1 | 50.0  | 45.1 | 41.8 | 36.0 | 35.3 | 34.0 | 31.9 | 30.4 | dB      |
| PS NEXT     | 62.0 | 61.8 | 55.5 | 52.2 | 50.7 | 47.5  | 42.7 | 39.3 | 34.3 | 32.7 | 31.4 | 29.3 | 27.6 | dB      |
| ACRF        | 64.2 | 52.1 | 44.2 | 40.1 | 38.2 | 34.3  | 28.3 | 24.2 | 18.2 | 16.2 | 14.6 | 12.1 | 10.2 | dB      |
| PSACRF      | 61.2 | 49.1 | 41.2 | 37.1 | 35.2 | 31.3  | 25.3 | 21.2 | 15.2 | 13.2 | 11.6 | 9.1  | 7.2  | dB      |

## **Standards**

RoHS2 Compliance Yes UV Resistance Good, ISO 4892-3†
CE Compliant LVD (2014/35/EU) Weather Resistance Good, ISO 4892-3†

Manufactured in accordance to TIA/EIA 568-C.2, ISO/IEC 11801

\*Suitable for installation where Band II 450/750v cables are present. Not suitable for connection to mains supply

†500 hour test duration, equivalent to 9-12 months of northern Europe climate.

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ISO 9001:2015 Certificate Number: DAS94272226/0/Q

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