

PowerCat 6A Unshielded LSOH Cable



The PowerCat 6A unshielded LSOH Cable is specifically designed to support high-speed data network applications such as 10GBASE-T. The innovative design includes a metal tape wrap around each pair, which provides excellent Alien Crosstalk defence. The low diameter of the cable allows for a higher cable density in containment, reducing cost. The product is 3rd party verified to ANSI/TIA-568.2-D and ISO 11801 Category 6A standards.

Features and Advantages

Supports up to 500 MHz frequency
Supports high-speed data applications

IEEE 802.3bt-2018
Power over
Ethernet compliant



**ANSI/TIA-568.2-D
and ISO 11801 Cat 6A
standard verified**
Ensures quality and
reliability of the cables

**No grounding or
bonding required**
Easy to install

Low overall cable diameter - 7mm (nom.)
Offers high cable density and low bend
radius, reducing the installation cost

6A Unshielded Cable

Markets and Applications

IT Infrastructure Solutions

- IT and Telecommunication
- Government and Education
- Financial
- Insurance
- Legal
- Healthcare

- Suitable for any high-speed data application up to 500MHz 10/100/10GBASE-T
- Backward compatible to legacy protocols and applications

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Specifications

REFERENCE INFORMATION

Commercial Standards:
 ANSI/TIA-568.2-D Cat 6A
 ISO 11801/IEC 11801 Ed 2.2
 IEC 61156-5
 IEEE 802.3bt-2018 - Amendment 2
 IEEE 802.3an 10GBASE-T
 3rd Party verified by Intertek ETL

Environmental Standards:
 RoHS compliant

Fire Propagation Tests:
 IEC 60332-1, IEC 60754-1&2,
 IEC 61034-2
 EN 50575:2014+A1:2016: EuroClass
 Dca-s2, d1, a1
 DoP No: MLXCES-2019-C-034

MECHANICAL

Tensile Strength: 150N max.

ELECTRICAL

DC Resistance: 77 Ohm/km max. (2% max. resistance unbalance)
 DC Loop Resistance: 154 Ohm/km max. (2% max. resistance unbalance)
 Voltage Rating: 72Vdc max.
 Delay Skew: 25nS/100m max.

PHYSICAL

Pair Count: 4
 Conductor: Solid annealed copper
 AWG: 23 (0.56mm)
 Insulation: LSOH
 Cable Diameter: 7.0mm nom.
 Bending Radius (min.): 8 x O.D.
 Weight (approx.): 25.5kg nominal/500m reel
 Sheath Colour: Blue RAL 5015
 Metal Wrap: Aluminium foil
 Operating Temperature: -20 to +60°C
 Installation Temperature: 0 to +50°C
 NVP: 75-77% nom.

ELECTRICAL AND TRANSMISSION PROPERTIES

| Frequency MHz | Insertion Loss | NEXT | PS NEXT | ACRF | PS ACRF | RL | Delay | TCL | EL-TCL | PS ANEXT | PSACRF |
|---------------|----------------|------|---------|---------|---------|------|--------|------|--------|----------|--------|
| | dB/100m | dB | dB | dB/100m | dB/100m | dB | nS/100 | dB | dB | dB | dB |
| | max. | min. | min. | min. | min. | min. | max. | min. | min. | min. | min. |
| 1 | 2.0 | 74.3 | 72.3 | 67.8 | 64.8 | 20.0 | 570.0 | 40.0 | 35.0 | 67.0 | 67.0 |
| 10 | 5.9 | 59.3 | 57.3 | 47.8 | 44.8 | 25.0 | 545.0 | 40.0 | 15.0 | 67.0 | 58.2 |
| 20 | 8.3 | 54.8 | 52.8 | 41.8 | 38.8 | 25.0 | 542.0 | 37.0 | 9.0 | 67.0 | 52.2 |
| 25 | 9.3 | 53.3 | 51.3 | 39.8 | 36.8 | 24.3 | 541.0 | 36.0 | 7.0 | 67.0 | 50.2 |
| 30 | 10.2 | 52.1 | 50.1 | 38.3 | 35.3 | 23.8 | 541.0 | 35.2 | 5.5 | 67.0 | 48.7 |
| 62.5 | 14.9 | 47.4 | 45.4 | 31.9 | 28.9 | 21.5 | 539.0 | 32.0 | NS | 65.6 | 42.3 |
| 100 | 19.0 | 44.3 | 42.3 | 27.8 | 24.8 | 20.1 | 538.0 | 30.0 | NS | 62.5 | 38.2 |
| 200 | 27.5 | 39.8 | 37.8 | 21.8 | 18.8 | 18.0 | 537.0 | 27.0 | NS | 58.0 | 32.2 |
| 250 | 31.0 | 38.3 | 36.3 | 19.8 | 16.8 | 17.3 | 536.0 | 26.0 | NS | 56.5 | 30.2 |
| 300 | 34.2 | 37.1 | 35.1 | 18.3 | 15.3 | 16.8 | 536.0 | 25.2 | NS | 55.3 | 28.7 |
| 400 | 40.0 | 35.3 | 33.3 | 15.8 | 12.8 | 15.9 | 536.0 | 24.0 | NS | 53.5 | 26.2 |
| 500 | 45.3 | 33.8 | 31.8 | 13.8 | 10.8 | 15.2 | 536.0 | 23.0 | NS | 52.0 | 24.2 |

Ordering Information

| Series No. | SAP No | Description |
|--------------------------|------------|--|
| CAA-00422-BL* | 1810000030 | PowerCat 6A Unshielded LSOH Cable Blue 500m reel |
| * Available in APAC only | | |
| CAA-00424-BL† | 1810000014 | PowerCat 6A Unshielded Dca-s2, d1, a1 Cable Blue 500m reel |
| † Available in EMEA only | | |

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