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PowerCat 6A
U/FTP Cable ❯

The PowerCat 6A Shielded Cable is a key component of the PowerCat 6A end-to-end solution.

Molex PowerCat 6A U/FTP Cable is specifically designed to support high speed data network applications such as 10-Gigabit Ethernet (10GBASE-T). The cable is constructed of 4 screened pairs and a drain wire. This cable minimizes alien crosstalk, provides excellent signal isolation and provides superior electromagnetic interference (EMI) protection.

Molex recommends that the full range of PowerCat 6A Shielded products be used in a system to maximize cabling performance. This system is compliant with ISO/IEC 11801 amendment 1 and TIA/EIA 56B.2-10 for the support of 10GBASE-T.

PowerCat 6A U/FTP Cable

FEATURES AND ADVANTAGES

Outstanding signal isolation
The cable is compliant with ISO/IEC 11801 amendment 2 and TIA/EIA 568-C.2
Enhanced performance 4 pair U/FTP LS0H cable
Resistant to alien crosstalk
Color coded for ease of termination

SPECIFICATIONS

Commercial Standards

ISO/IEC 11801 amendment 2:2010
TIA/EIA-568-C.2 Category 6A
IEC 61156-5
AS/CA S008:2020

RoHS compliant
REACH compliant

Fire Propagation Tests
IEC 60332-1

Applications
Category 6A U/FTP Cable is intended for high speed data applications up to 500MHz including:
IEEE 802.3 10GBASE-T 10Gb/s
IEEE 802.3 1000BASE-T 1Gb/s
IEEE 802.3bt (POE++)
TIA/EIA-854 1000BASE-TX 1Gb/s
ATM 155Mb/s 155Mb/s
ETL listed

Mechanical

Conductor Size: 23AWG
Primary Insulation: Polyolefin
Screen material: Laminated Aluminum
Sheath Type: LS0H
Nominal OD: 6.8mm +/- 0.4mm
NVP: 75-77%
Screen: Each pair enclosed in laminated aluminum foil
Drain Wire: Tin-coated copper
Pulling Force:
  Short Term: 400N
  Long Term: 100N
Short term. bend radius: 8 x OD mm
Long Term bend radius: 4 x OD mm

Operating Temperature
  Storage: -20˚C to +75˚C
  Operation: -20˚C to +60˚C

Electrical

Capacitance: 40 pF/m nom. @1 KHz.
DC Resistance: 72 Ω/Km max.
Insulation Resistance: 1000VDC/600VAC for 1 minute.
Propagation Delay: $514 + 36f1/2$ nS/100m max @1-500 MHz
Propagation Delay Skew: 45 nS/100 max @ 1-500 MHz
Mean Impedance: 100Ω ± 6 @ 1-500 MHz
Voltage Rating: 72V dc maximum
Resistance Unbalance: 2% max.
Coupling Attenuation: 45dB min @30-100 MHz 40-20 Log (f/100) @ 100-500 MHz

Physical

Weight per 500m reel: 30kg
Power: 96Watt

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SPECIFICATIONS (CONTINUED)

PoE

Our PowerCat 6A system is suitable for the most demanding PoE applications:

IEEE 802.3bt from Type 1 to Type 4, and CISCO UPoE+

HD Base-T PoH up to 100W

RP3 compliant as defined by EN 50174-2:2018, ISO/IEC 14763-2:2019 and AS/NZS 14763.2:2020

Notes:

For new installations of PoE Type 3 / Class 5 and above that wish to be eligible for the Molex 25 year Application Assurance Warranty, we require Category 6A cable to be used throughout.

To confirm your PoE / RP3 cabling design is eligible for the Molex 25 year Application Assurance Warranty, your design must be verified and validated with the Molex PoE Calculator. Read more https://www.molexces.com/poe-calculator

Molex recommends that the PoE feature on an individual switch port are power disabled prior to unplugging the associated powered Device.

Molex recommends that the full range of PowerCat 6A products be used in a system to maximize cabling and PoE performance

Details on Molex requirements for Warranty can be found at https://www.molexces.com/about-us/our-warranty/

TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

Frequency MHz	Insertion Loss dB/100m	NEXT dB	PSNEXT dB	ELFEXT dB	PSELFEXT dB	RL dB	DELAY nS/100m	TCL dB	EL-TCL dB	PS ANEXT dB	PS AACRF dB
1	2.0	74.3	72.3	67.8	64.8	20.0	570	40.0	35.0	67.0	67.0
10	5.9	59.3	57.3	47.8	44.8	25.0	545	40.0	15.0	67.0	58.2
20	8.3	54.8	52.8	41.8	38.8	25.0	542	37.0	9.0	67.0	52.2
25	9.3	53.3	51.3	39.8	36.8	24.3	541	36.0	7.0	67.0	48.7
30	10.2	52.1	50.1	38.3	35.3	23.8	541	35.2	5.5	67.0	48.7
62.5	14.9	47.4	45.4	31.9	28.9	21.5	539	32.0	NS	65.6	42.3
100	19.0	44.3	42.3	27.8	24.8	20.1	538	30.0	NS	62.5	38.2
200	27.5	39.8	37.8	21.8	18.8	18.0	537	27.0	NS	58.0	32.2
250	31.0	38.3	36.3	19.8	16.8	17.3	536	26.0	NS	56.5	30.2
300	34.2	37.1	35.1	18.3	15.3	16.8	536	25.2	NS	55.3	28.7
400	40.0	35.3	33.3	15.8	12.8	15.9	536	24.0	NS	53.5	26.2
500	45.3	33.8	31.8	13.8	10.8	15.2	536	23.0	NS	52.0	24.2

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ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-0322L-VL	183020011	PowerCat 6A U/FTP LS0H Cable 500m Violet
CAA-0322L-0K	183020032	PowerCat 6A U/FTP LS0H Cable 500m Yellow
CAA-0322L-BK	181740134	PowerCat 6A U/FTP LS0H Cable 500m Black
CAA-0322L-BL	183020024	PowerCat 6A U/FTP LS0H Cable 500m Blue
CAA-0322L-GR	183020025	PowerCat 6A U/FTP LS0H Cable 500m Green
CAA-0322L-0W	183020051	PowerCat 6A U/FTP LS0H Cable 500m White
CAA-0322L-GY	183020046	PowerCat 6A U/FTP LS0H Cable 500m Gray
CAA-0322L-LG	183020050	PowerCat 6A U/FTP LS0H Cable 500m Lime Green
CAA-0322L-OR	183020047	PowerCat 6A U/FTP LS0H Cable 500m Orange
CAA-0322L-PK	183020060	PowerCat 6A U/FTP LS0H Cable 500m Pink
CAA-0322L-RD	183020074	PowerCat 6A U/FTP LS0H Cable 500m Red

Standard stocked colors: Violet, Yellow, Black, Blue and Green.
Other colors are subject to availability and MOQ, for more information, contact Customer Service.

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