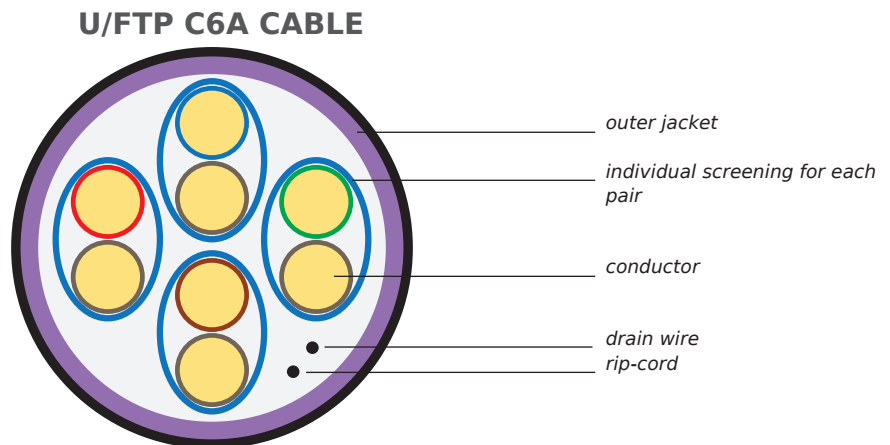


U/FTP 4 Pair PowerCat 6A LS0H, Euroclass B2ca -S1a, d1,a1, 500m reel, Violet >

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-Gigabyte 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 the latest ISO/IEC 11801 2nd Ed 2.2:2011 and ratified TIA 568-C.2 for the support of cat. 6A and 10GBASE-T.



FEATURES AND ADVANTAGES

Reaction to Fire Euroclass – B2ca -s1a d1 a1

Outstanding signal isolation

The cable is compliant with ISO/IEC 11801 Ed 2.2:2011 and TIA 568-C.2 and EN 50173:2011

Enhanced performance 4 pair U/FTP LS0H Cable

Resistant to alien crosstalk (Alien NEXT) and crosstalk (PS NEXT)

Color coded for ease of termination

RoHS compliant

Suitable for the most demanding PoE applications

www.molex.com/products/copper/cat6A/

U/FTP 4 Pair PowerCat 6A LS0H, Euroclass B2ca -S1a, d1,a1, 500m reel, Violet >

SPECIFICATIONS

Commercial Standards

TIA-568-C.2 for Category 6A;
ISO/IEC 11801 Ed.2.2: 2011;
EN 50173:2011;
IEC 60332-1 (single vertical cable);
IEC 60754 (halogen and acid materials);
IEC 61034 (no dense smoke)
RoHS compliant

Fire Propagation Tests

Eu Regulation 305/2011 (CPR)
EN 50575:2014+A:2016
Euroclass B2ca -s1a d1 a1 class
DoP no MLXCES-2017-C-024
located on the web:
<https://www.molexces.com/about-us/dop-certificates/>

Applications

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

Mechanical

Conductor size [mm]:
23 AWG (0.570±0,005)
Insulated conductor diameter [mm]:
1.350 ±0,05
Color code:
Blue x White, Orange x White, Green x White,
Brown x White
Pair number: 4
Outside cable diameter [mm]: 7.4±0,5
Individual pair shield:
Aluminum foil, providing 100% coverage, foil face out

Drain Wire: Yes
Overall shield: No

Temperature range [°C]

during installation: 0°C to +50°C
during operation: -20°C to +60°C
during storage: -20°C to +60°C

Acceptable bend radius

during installation: 8 x cable size
during operation: 4 x cable size
Pulling force: 100N max
Sheath: LS0H
Flame test: IEC 60332-1

Gas & smoke test:

IEC 60754 (halogen & acid gas) and IEC 61034 (dense smoke)

Sheath color LS0H: Violet RAL4005
Shipping weight [kg]: 28.5
Cable length tolerance: +/- 5%

Electrical

Characteristic Impedance [Ohm]:

100±15 @ 1-250 MHz
100±20 @ 250-500 MHz

DC Resistance [Ohm/100m]: 9,38 max.

Resistance unbalance [%]: 2% max.

Capacitance [nF/100m]: ≤ 5.6

Voltage rating [Vdc]: 72 max.

NVP: 74% - printed on a jacket

Delay Skew [nS/100m]: ≤45

Insulation Resistance [MegaOhm•Km]

5000 min. @ 500 Vdc

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/>

U/FTP 4 Pair PowerCat 6A LS0H, Euroclass B2ca -S1a, d1,a1, 500m reel, Violet >

TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

Frequency MHz	RL ≥dB	ATT ≤dB	NEXT ≥dB	PHASE DELAY ≤ns	TCL ≥dB	PS NEXT ≥dB	EL FEXT ≥dB	PS ELFEXT ≥dB	PS ANEXT ≥dB
1	20	2.1	74.3	570	40	72.3	68	65	67
4	23	3.8	65.3	552	40	63.3	56	53	67
8	24.5	5.3	60.8	546.7	40	58.8	49.9	46.9	67
10	25	5.9	59.3	545	40	57.3	48	45	67
16	25	7.5	56.2	543	38	54.2	43.9	40.9	67
20	25	8.4	54.8	542.1	37	52.8	42	39	67
25	24.3	9.4	53.3	541.2	36	51.3	40	37	67
31.25	23.6	10.5	51.9	540.4	35.1	49.9	38.1	35.1	67
62.5	21.5	15	47.4	538.6	32	45.4	32.1	29.1	65.6
100	20.1	19.1	44.3	537.6	30	42.3	28	25	62.5
200	18	27.6	39.8	536.5	27	37.8	22	19	58
250	17.3	31.1	38.3	536.3	26	36.3	20	17	56.5
300	16.8	34.3	37.1	536.1	25.2	35.1	18.5	15.5	55.3
500	15.2	45.3	33.8	535.6	23	31.8	14	11	52

ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00413-VL	0183020040	U/FTP 4 Pair PowerCat 6A LS0H, Euroclass B2ca -S1a, d1,a1, 500m reel, Violet

www.molex.com/products/copper/cat6A/