



Features Summary

C6A 500MHz U/FTP Cable (each pair has individual shield) is a part of shielded PowerCat 6A system. Products meets requirements of Cat. 6A/Class Ea in a 1-500MHz range as per IEC 61156-5 (ISO/IEC 11801 2nd edition).

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 minimises 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 maximise cabling performance. This system is compliant with ISO/IEC 11801 2nd edition and TIA-568-C.2 for the support of Cat. 6A and 10GBASE-T.

Cable is CPR compliant for Class B2ca -s1a, d1, a1 class. Outer jacket is made of un-flammable, high quality compound with reduced heat release and flame spread as well as reduced smoke production, acidity and flaming droplets.

Small outside diameter, high flexibility and superior electrical performance are key features of the product. Cable is delivered in 1000m lengths on wooden, fully recyclable reels for ease of installation. Indoor use only

Standards:

- EN 50173-1:2007
- ISO/IEC 11801-Ammendment 2: 2008 „Amendment 2 to ISO/IEC 11801: Information technology-Generic cabling for customer premises”
- ISO/IEC 61156-5
- EN 50288-4
- EN 50575:2014+A1:2016

Mechanical parameters:

Conductor size [mm]: 23 AWG (0.55±0,005)
 Insulated conductor diameter [mm]: 1.330 ±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: Aluminium foil, providing 100% coverage, foil face out
 Drain Wire: Yes
 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: CPR compliant for Class B2ca -s1a, d1, a1 class compound

Electrical parameters:

Characteristic Impedance [Ohm]: 100±15 @ 100-250 MHz
 100±22 @ 250-500 MHz
 DC Resistance [Ohm/100m]: 9,38 max.
 Resistance unbalance [%]: 2% max.
 Capacitance [pF/m]: 45 nom. @ 1 KHz
 Voltage rating [Vdc]: 72 max.
 NVP: printed on a jacket
 Delay Skew [nS/100m]: 45nS/100m max. @ 1-500 MHz
 Insulation Resistance [MegaOhm·Km]: 5000 min. @ 500 Vdc



Technical Performance (100m):				
Frequency (MHz)	RL ≥dB	ATT ≤dB	NEXT ≥dB	PHASE DELAY ≤ns
1	20.0	—	74.3	570
4.0	23.0	3.8	65.3	552
8.0	24.5	5.3	60.8	547
10.0	25.0	5.9	59.3	545
16.0	25.0	7.5	56.2	543
20.0	25.0	8.4	54.8	542
25.0	24.3	9.4	53.3	541
31.25	23.6	10.5	51.9	540
62.5	21.5	15.0	47.4	539
100	20.1	19.1	44.3	538
200	18.0	27.6	39.8	537
250	17.3	31.1	38.3	536
300	16.8	34.3	37.1	536
400	15.9	40.1	35.3	536
500	15.2	45.3	33.8	536

Technical Performance (100m):			
Frequency (MHz)	PSNEXT ≥dB	ELFEXT ≥dB	PSELFEXT ≥dB
1	64.8	64.8	72.3
4	52.8	52.8	63.3
8	6.7	46.7	58.8
10	44.8	44.8	57.3
16	40.7	40.7	54.2
20	38.8	38.8	52.8
25	36.8	36.8	51.3
31.25	34.9	34.9	49.9
62.5	28.9	28.9	45.4
100	24.8	24.8	42.3
200	18.8	18.8	37.8
250	16.8	16.8	36.3
300	15.3	15.3	35.1
400	12.8	12.8	33.3
500	10.8	10.8	31.8

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