Features and Benefits

C7 S/FTP Cable (each pair has individual shield plus common shield for the cable made of tinned copper braid) is a complementary product for shielded PowerCat 6 and PowerCat 6A (with limitations) systems.

The cable is suitable for horizontal cabling in high speed data transmission networks as well as vertical cablingfor data. Small outside diameter, high flexibility and superior electrical performance are key features of the product.

- Transmission performance C7 in a 1-600MHz range as per IEC 61156-5 (specified in ISO/IEC 11801 2nd edition, C6A in 1-500Mhz range as per ISO/IEC11801 Amd 2) and is tested in 1.2GHz range for reference.
- Provides significant margins for NEXT, PowerSum NEXT, PowerSum ELFEXT
- Alien NEXT is significantly reduced so it can be used for 10G Application
- Small outside diameter, high flexibility
- 1000m lengths on wooden, fully recyclable reels

Commercial Standards

IEC 61156-5 (specified in ISO/IEC 11801 2nd edition for catgory 7, ISO/IEC 11801 Amd 2 for C6A category), TIA/EIA 568B.2-1 for catgory 6, TIA-568-C.2 for catgory 6 and 6A , ISO 11801:2002, EN50173:2007, IEC 60332-1, IEC 60754 (gas) and IEC 61034 (smoke)

Fire Propagation Tests

Flame test for LS0H: IEC 60332-1
Gas & smoke test for LS0H: IEC 60754 (gas) and IEC 61034 (smoke)

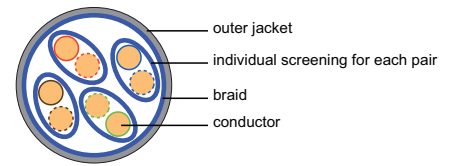## Technical Information

Mechanical Characteristics

Conductor size [mm]: 23 AWG (0.57mm)
Insulated conductor diameter [mm]: 1.0 nom OD
Colour code: Blue x White, Orange x White, Green x White, Brown x White
Pair number: 4
Outside cable diameter [mm]: 7.0 max
Individual pair shield: Aluminium foil, providing 100% coverage, foil face out
Drain Wire: None
Overall shield: Tinned copper braid
Temperature range
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: FR-PVC or LS0H
Sheath colour PVC: Gray RAL7035
Sheath colour LS0H: Violet RAL4005
Shipping weight [kg]: 48
Cable length tolerance: +/- 5%

Maximum Pulling Strength: 100N

Electrical/Optical Characteristics

Characteristic Impedance [Ω]: 100±5 @ 1-250 MHz
DC Resistance [Ω/Km]: 60 max.
Resistance unbalance [%]: 2% max.
Capacitance [pF/m]: 45 nom. @ 1 KHz
Cap. Unbalance (wire to ground) [pF/Km]: 1500 max. @ 1 KHz.
Voltage rating [Vdc]: 72 max.
NVP: 7 7-80% - printed on a jacket
Delay Skew [nS/100m]: 25nS/100m max. @ 1-1200 MHz
Insulation Resistance [MW•Km]: 5000 min. @ 500 Vdc
Coupling attenuation: 85 dB min @ 30-100 MHz
85-20Log(f/100) @100-600 MHz
Screening attenuation: 60dB min @ 30-600MHz
Transfer Impedance:
10mW/m max.@ 1-30MHz
30mW/m max.@ 30-100MHz

S/FTP C7+ Cable

- outer jacket
- individual screening for each pair
- braid
- conductor

FEATURES AND SPECIFICATIONS

molex

Category 7 S/FTP Cable, 1.2GHz, 4 Pairs, 23 AWG

Technical Information
Electrical/Optical Characteristics

Transmission Parameters

Transmission Properties and Electrical Specifications										
FREQ.	Insertion Loss	NEXT	PS NEXT	ELFEXT	PS ELFEXT	RL	TCL	EL-TCL	PS ANEXT	PS AFEXT
MHZ	dB/100m	dB	dB	dB/100m	dB/100m	dB	dB	dB	dB	dB
	Max	Min	Min	Min	Min	Min	Min	Min	Min	Min
1	NS	78.0	75.0	78.0	75.0	20.0	40.0	35.0	67.0	67.0
4	3.74	78.0	75.0	78.0	75.0	23.0	40.0	23.0	67.0	67.0
8	5.24	78.0	75.0	75.9	72.9	24.5	40.0	16.9	67.0	67.0
10	5.86	78.0	75.0	74.0	71.0	25.0	40.0	15.0	67.0	67.0
16	7.41	78.0	75.0	79.9	66.9	26.0	38.0	10.9	67.0	67.0
20	8.29	78.0	75.0	68.0	65.0	25.0	37.0	9.0	67.0	67.0
25	9.29	78.0	75.0	66.0	63.0	24.3	36.0	7.0	67.0	65.2
31.25	10.41	78.0	75.0	64.1	61.1	23.6	35.1	5.1	67.0	63.3
62.5	14.88	75.5	72.5	58.0	55.1	21.5	32.0	NS	67.0	57.3
100	19.02	72.4	69.4	54.0	51.0	20.1	30.0	NS	67.0	53.2
150	23.56	69.8	66.8	50.0	47.5	18.9	28.2	NS	67.0	49.7
200	27.47	67.9	64.9	48.0	45.0	18.0	27.0	NS	67.0	47.2
250	30.97	66.4	63.4	46.0	43.0	17.3	26.0	NS	67.0	45.2
300	34.19	65.2	62.2	44.5	41.5	17.3	NS	NS	67.0	43.7
400	40.01	63.4	60.4	42.0	39.0	17.3	NS	NS	67.0	41.2
500	45.26	61.9	58.9	40.0	37.0	17.3	NS	NS	67.0	39.2
600	50.10	60.7	57.7	38.4	35.4	17.3	NS	NS	65.8	37.6
700	54.63	59.7	56.7	37.1	34.1	16.6	NS	NS	64.8	36.3
800	58.92	58.9	55.9	35.9	32.9	16.1	NS	NS	64.0	35.1
1000	66.93	57.4	54.4	34.0	31.0	15.1	NS	NS	62.5	33.2
1200	74.36	56.2	53.2	32.4	29.4	14.3	NS	NS	61.3	31.6

Values above 600MHz are for reference only

ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-00357	Consult Molex	Category 7 S/FTP Cable, 1.2GHz, 4 Pairs 23AWG PVC - 1000m Reel, Grey
CAA-00358	Consult Molex	Category 7 S/FTP Cable, 1.2GHz, 4 Pairs 23AWG LS0H - 1000m Reel, Violet

MOLEX PREMISE NETWORKS