

## Features and Benefits

C7 S/FTP Cable is a complementary product for shielded PowerCat 6A system.

Category 7 S/FTP cable is specifically designed to support high speed data network applications. The cable is constructed of 4 screened pairs and a tin/copper braid. This cable minimises alien crosstalk, provides excellent signal isolation and provides superior electromagnetic interference (EMI) protection.

- 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
- Low outside diameter, high flexibility
- Colour code for ease of termination
- Reaction to Fire Euroclass: Dca-s1,d1,a1

## Commercial Standards

IEC 61156-5 (specified in ISO/IEC 11801 2nd edition  
ISO/IEC 11801 Amd 2)  
RoHS compliant

## Fire Propagation Tests

EU Regulation 305/2011 (CPR)  
EN 50575:2014+A:2016  
Euroclass Dca-s1a,d1,a1  
DoP No: MLXCES-2017-C-013 located on web  
<http://www.molexces.co.uk/about-us/our-compliance/cpr/dop-certificates/>

## Technical Information

### Mechanical Characteristics

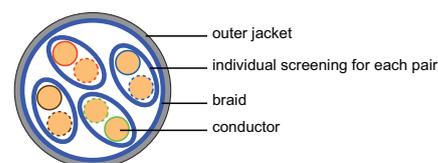
Conductor size [mm]: 23 AWG  
(0.57mm)  
Insulated conductor diameter [mm]:  
1.0 nom OD  
Pair number: 4  
Outside cable diameter [mm]: 7.0 nom.  
Individual pair shield:  
Aluminium foil, providing 100% coverage, foil face out  
Drain Wire: None  
Overall shield: Tinned copper braid  
Temperature range  
during installation: 0°C to +50°C  
during operation: -20°C to +60°C  
during storage: -20°C to +75°C  
Acceptable bend radius  
during installation: 8 x cable size  
during operation: 4 x cable size  
Pulling force: 100N max  
Sheath: L50H  
Sheath colour L50H: Violet RAL4005  
Shipping weight : 58kg  
Cable length tolerance: +/- 5%

Maximum Pulling Strength: 150N

### Electrical/Optical Characteristics

Mean Impedance: 100±5 Ohm @  
1-1200 MHz  
Vp 75-77% nom.  
Capacitance: 40 pF/m nom @ 1kHz  
Capacitance unbalance to ground:  
1.6 pF/m max.  
@ 1 kHz  
Insulation Resistance: 0.5 GOhm  
km min.  
DC Resistance: 77 Ohm/km max.  
(2% max. resistance unbalance).  
DC Loop Resistance: 154 Ohm/km  
max. (2% max. resistance unbalance)  
Coupling attenuation: IEC 61156-5  
TYPE I  
Transfer Impedance: IEC 61156-5  
Grade 1  
Voltage rating: 72Vdc max.  
Phase delay: 534+36/f<sup>1/2</sup> nS/100m  
max. @ f=1-1200 MHz  
Delay Skew: 15 nS/100m max.

S/FTP C7+ Cable



## MOLEX CONNECTED ENTERPRISE SOLUTIONS

**Americas**  
Tel: 630 969 4550  
[www.molexces.com](http://www.molexces.com)

**EMEA**  
Tel: 44 (0)2392 205800  
[www.molexces.co.uk](http://www.molexces.co.uk)

**APAC**  
Tel: 61 3 9971 7111  
[www.molexces.com](http://www.molexces.com)

**Technical Information**  
Electrical/Optical Characteristics

**Transmission Parameters**

Transmission Properties @ 20C - Conforming to IEC 61156-5 Category 7																
FREQ	Insertion Loss		NEXT		PS NEXT		ELFEXT		PS ELFEXT		RL		TCL	EL-TCTL	PS ANEXT	PS AFEXT
MHz	Db/100M		dB		dB		dB/100m		dB/100m		dB		dB	dB	dB	dB
	Max	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Min	Min	Min
1	2.06	1.8	78.0	100	75.0	97	78.0	105	75.0	103	20.0	23	40.0	35.0	67.0	67.0
10	5.86	5.4	78.0	100	75.0	97	74.0	85	71.0	83	25.0	30	40.0	15.0	67.0	67.0
25	9.29	8.7	78.0	100	75.0	97	66.0	77	63.0	75	24.3	30	36.0	7.0	67.0	65.2
31.25	10.41	9.6	78.0	100	75.0	97	64.1	75	61.1	73	23.6	28	35.1	5.1	67.0	63.3
62.5	14.88	13.7	75.5	100	72.5	97	58.0	69	55.1	67	21.5	28	32.0	NS	67.0	57.3
100	19.02	17.4	72.4	100	69.4	97	54.0	65	51.0	63	20.1	25	30.0	NS	67.0	53.2
250	30.97	28.1	66.4	90	63.4	87	46.0	57	43.0	55	17.3	25	26.0	NS	67.0	53.2
300	34.19	30.9	65.2	89	62.2	86	44.5	55	41.5	53	17.3	25	NS	NS	67.0	45.2
400	40.01	35.0	63.4	88	60.4	85	42.0	53	39.0	51	17.3	23	NS	NS	67.0	41.2
500	45.26	40.0	61.9	86	58.9	83	40.0	50	37.0	48	17.3	23	NS	NS	67.0	39.2
600	50.10	44.8	60.7	85	57.7	82	38.4	49	35.4	47	17.3	23	NS	NS	65.8	37.6
700	NS	48.0	NS	84	NS	81	NS	48	NS	46	NS	23	NS	NS	64.8	36.3
800	NS	51.0	NS	83	NS	80	NS	47	NS	45	NS	23	NS	NS	64.0	35.1
1000	NS	58.4	NS	82	NS	79	NS	45	NS	43	NS	20	NS	NS	62.5	33.2
1200	NS	68.0	NS	70	NS	69	NS	40	NS	38	NS	18	NS	NS	NS	NS

Values above 600MHz are for reference only

**ORDERING INFORMATION**

Order No.	SAP No.	Description
CAA-00358	183530002	Category 7 S/FTP LS0H Cable Dca-s1a,d1,a1 violet 1000m reel

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**Declaration of Performance****DoP No:****MLXCES-2017-C-013****Unique Identification code & description of the product type:****CAA-00358****183530002****S/FTP C7 LSZH****Intended use:**

Data communications cable for use in construction works subject to reaction to fire requirements.

**Manufacturer:**

Molex Connected Enterprise Solutions Sp. z.o.o.

83-112 Lubiszewo

ul. Tczewska 2 Rokitki

Poland

**Assessment and Verification of Consistency of Performance (AVCP) system:**

AVCP:3

**Harmonised Standard**

EN 50575:2014+A1:2016

**Notified Product Certification Body Name and Reference No.**

CEIS:1722

**Declared Performance:**

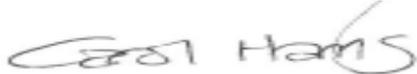
Reaction to Fire Euroclass:

**Dca,s1a,d1,a1**

Dangerous Substances: No Performance Declared.

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No. 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Name: Carol Harris  
Position: Product Manager  
Place: UK  
Date: 1-6-2017

Web address of the DoP : <http://www.molexc.es.com/about-us/our-compliance/cpr/>

English