



Features and Benefits

Molex Premise Networks PowerCat STP C7 cable has been designed to support high speed data transmission systems. The cable is used to support a growing requirement for shielded cabling systems, offering enhanced EMC protection and improved Alien crosstalk performance. Available in PVC and LSZH sheaths the cable is a PIMF construction with an overall Al-laminated plastic foil and tinned drain wire.

- Category 7 Cable 4 Pair FTP PVC & LSZH
- Colour coded for ease of termination
- 1km reel

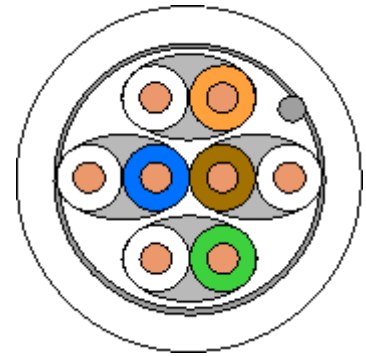
Technical Information

Mechanical:

Conductor Size: 23 AWG (0.56mm)
 Primary Insulation: Polyethylene
 Nominal O.D: 1.35mm
 Screen Material: Al-laminated plastic foil

Sheath Types: PVC and LSZH IEC60332.1
 Nominal O.D: 7.0mm
 Operating Temperature: -20° to 60°C
 NVP: 79%

Applicable Standards: EIA/TIA 568B 2.1
 ISO 11801:2002, IEC 61156-5



Electrical:

DC loop resistance: <math><165\Omega\text{km}</math>
 Resistance unbalance: <math><2\%</math>
 Insulation resistance (500v): $2000\text{M}\Omega\text{km}$
 Capacitance at 800Hz: nom .43nF/km
 Capacitance unbalance: <math><1500\text{ pF/km}</math>
 (pair to ground)
 Characteristic impedance: $(100 \pm 15)\Omega$
 (1-100 MHz)
 Characteristic impedance: $(100 \pm 22)\Omega$
 (1-250 MHz)
 Propagation delay: <math><427\text{ ns}/100\text{m}</math>
 Test Voltage (DC): 1000V

Transfer impedance: at 1MHz $\leq 50\text{ m}\Omega/\text{m}$
 at 10 MHz $\leq 100\text{ m}\Omega/\text{m}$
 at 30 MHz $\leq 200\text{ m}\Omega/\text{m}$
 at 100 MHz $\leq 1000\text{ m}\Omega/\text{m}$

Delay Skew: <math><12\text{ns}/100\text{m}</math>
 Shipping Weight: 1km reel 44kg

MOLEX PREMISE NETWORKS

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FEATURES AND SPECIFICATIONS



PowerCat STP C7 Cable

f (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS- ELFEXT (dB/100m)	Return loss (dB)
1	1.8	100	97	98	95	105	105	-
4	3.4	100	97	97	94	105	102	27
10	5.4	100	97	95	92	97	94	30
16	6.8	100	97	93	90	93	90	30
20	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100	17.4	100	97	83	80	77	74	30
125	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175	23.3	93	90	70	67	72	69	25
200	25	92	89	67	64	71	68	25
250	28.1	90	87	62	59	69	66	24
300	30.9	89	86	58	55	67	64	24
450	38.3	87	84	48	45	64	61	23
600	44.8	85	82	40	37	61	58	22

ORDERING INFORMATION

Order No.	Description
CAA-00280	PowerCat STP C7 Cable 1000m Reel PVC
CAA-00281	PowerCat STP C7 Cable 1000m Reel LSZH

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