

Features and Benefits

Molex PowerCat 5e F/UTP Cable is a premium shielded cabling solution designed for high performance where signal isolation is required.

Cable Features

- Full duplex operation capable over four cable pairs
- 1000 foot to 0 foot markers
- Specified and tested to 100 MHz
- Cat. 5e Compliance

Commercial Standards

TIA/EIA-568-C.2:2009 cat. 5e,
 EN 50173-1:2011 Class D,
 ISO/IEC 11801:2010 (Ed 2.2) Class D,
 IEC 61156-5, EN 50288-2-1

Flame Rating

Non-plenum: UL 1666, CMR, CMG,
 IEC 332-1, UL 1581, CM
 Plenum: NFPA 262

Applications

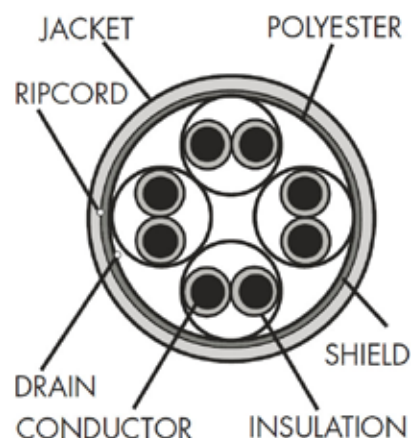
PowerCat 5e F/UTP Cable is intended for high speed data applications including:
 ATM 155 Mb/s
 FDDI/CDDI 100 Mb/s
 Ethernet 100BASE-T, 100BASE-TX,
 10BASE-T and Token Ring

Technical Information

Mechanical Characteristics

Materials
 0.54 mm (24 AWG), bare copper wire insulated with foam polyethylene (non-plenum) or foam FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the center. The cable is shielded with an overall polyester aluminum foil with solid tinned copper drain wire and is jacketed with flame-retardant PVC.

Pulling Tension: 110N (25 lbf)



Technical Data - Physical

	Non-Plenum	Plenum
Conductor diameter - in. (mm)	.021 (0.54)	.021 (0.55)
Cable diameter - in. (mm)	.24 (6.10)	.22 (5.60)
Nominal cable weight - lb./kft. (kg/km)	29 (43.5)	29 (43.5)
Max installation tension - lb. (N)	25 (110)	25 (110)
Min. bend radius - in. (mm)	2.0 (50.8)	2.0 (50.8)

Parametric Measurements

	Horizontal
Mutual Capacitance	5.6nF/100 m nom.
DC resistance	9.4 Ohms/100 m max.
Skew	45 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.
Nominal Velocity of Propagation (NVP)	70% Non-Plenum; 72% Plenum
Characteristic Impedance (Ohms)	100Ω ± 15 1-100 MHz

Temperature Rating

Installation: 0°C to +50°C
 Operation: -10°C to +60°C

Color Code

- Pair 1: White/Blue
- Pair 2: White/Orange
- Pair 3: White/Green
- Pair 4: White/Brown

MOLEX PREMISE NETWORKS

Americas
 Tel: 630 969 4550
 www.molexpn.com

EMEA
 Tel: 44 (0)2392 205800
 www.molexpn.co.uk

APAC
 Tel: 61 3 9971 7111
 www.molexpn.com.au

Electrical/Optical Characteristics

HORIZONTAL									
FREQ	SRL (dB)	RL (dB)	INSERTION LOSS (Attenuation) (dB)	PS-NEXT (dB)	NEXT (dB)	ACR (dB)	PS-ACR (dB)	ELFEXT (dB)	PS-ELFEXT (dB)
MHz	min.	min.	max.	min.	min.	min.	min.	min.	min.
1	25.0	20.0	2.0	62.3	65.3	63.3	60.3	63.8	60.8
4	25.0	25.0	4.1	53.3	56.3	52.2	49.2	51.8	48.8
10	25.0	25.0	6.5	47.3	50.3	43.8	40.8	43.8	40.8
16	25.0	25.0	8.2	44.2	47.2	39.0	36.0	39.7	36.7
20	25.0	25.0	9.3	42.8	45.8	36.5	33.5	37.8	34.8
31.25	23.6	23.6	11.7	39.9	42.9	31.2	28.2	33.9	30.8
62.5	21.5	21.5	17.0	35.4	38.4	21.4	18.2	27.9	24.9
100	20.1	20.1	22.0	32.3	35.3	13.3	10.3	23.8	20.8

IMPORTANT: Molex performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the tables of data shown which are presented to demonstrate our guarantees at “representative” frequencies.

ORDERING INFORMATION

Order No.	SAP No.	Description
CAA-0185R-08	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMR, FRPVC - Gray
CAA-0185R-RD	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMR, FRPVC - Red
CAA-0185R-04	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMR, FRPVC - Black
CAA-0185P-08	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMP, FRPVC - Gray
CAA-0185P-RD	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMP, FRPVC - Red
CAA-0185P-04	Consult Molex	PowerCat 5e F/UTP Cable, 4 Pair, CMP, FRPVC - Black

NOTE: Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice. Part numbers listed are for reels.

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