

Features and Benefits

Molex PowerCat 5e U/UTP Cable is ideal for supporting 1000BASE-T Ethernet networks.

Cable Features

- Specified and tested to 350 MHz
- ETL verified to TIA-568-C.2 and ISO/IEC 11801
- 1000 foot to 0 foot markers

Commercial Standards

North American: TIA-568-C.2
 Category 5e
 International: ISO/IEC 11801
 Category 5e
 European: EN 50173

Flame Rating

Non-plenum: UL 1666, CMR, CMG, IEC 332-1, C(UL)
 Plenum: NFPA 262, CMP

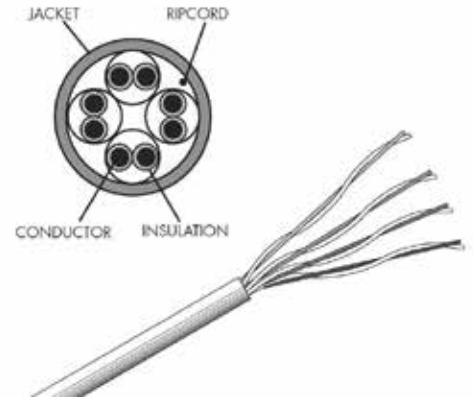
Applications

PowerCat 5e U/UTP Cable is intended for high speed data applications up to 350 MHz including:
 IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T 155 Mb/s ATM
 ANSI X3.263 100 Mb/s
 4/16 Mb/s Token Ring

Technical Information

Mechanical Characteristics

Materials
 0.52 mm (24 AWG), bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.



Pulling Tension: 110N (25 lbf)

Technical Data - Physical

	Non-Plenum	Plenum
Conductor diameter - in. (mm)	.022 (0.52)	.020 (0.52)
Cable diameter - in. (mm)	.187 (4.8)	.165 (4.2)
Nominal cable weight - lb./kft. (kg/km)	20 (30)	21 (31)
Max installation tension - lb. (N)	25 (110)	25 (110)
Min. bend radius - in. (mm)	1.0 (25.4)	1.0 (25.4)

Parametric Measurements

	Horizontal
Mutual Capacitance	4.4nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.
Skew	25 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max
Nominal Velocity of Propagation (NVP)	See cable jacket for NVP setting
Input Impedance (Ohms)	100Ω ± 14% 0.772-100 MHz 100Ω ± [14+15log (F/100)] 100-350 MHz

Temperature Rating

Installation: 0°C to +50°C
 Operation: -20°C to +60°C

Color Code

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

FREQ	SRL		RL		INSERTION LOSS		PS-NEXT		NEXT	
	(dB)		(dB)		(dB/100m)		(dB)		(dB)	
MHz	min.	typical	min.	typical	max.	typical	min.	typical	min.	typical
1	25.5	44.7	20.0	38.2	2.0	1.7	68.3	82.7	70.3	89.1
4	25.5	44.9	23.3	36.0	4.0	3.5	59.9	73.3	61.9	81.9
10	25.5	47.7	25.0	39.0	6.4	5.6	53.3	65.9	55.3	75.1
20	25.5	45.9	25.5	47.5	9.2	8.1	48.8	60.6	50.8	66.3
31.25	24.4	55.3	24.4	43.0	11.6	10.1	45.9	59	47.9	65
62.5	22.7	41.6	22.7	39.5	16.8	14.6	41.4	55.7	43.4	62.1
100	21.5	37.3	21.5	35.5	21.7	18.7	38.3	51.4	40.3	57.5
200	19.8	43.1	19.8	46.5	32.1	27.2	33.8	47.7	35.8	53.2
300	18.8	36.1	18.8	35.7	40.5	33.9	31.2	45.2	33.2	53.4
350	18.4	35.4	18.4	35.0	44.4	36.9	30.2	42.2	32.2	48.8
400	18.1	38.0	18.1	34.4	48.0	39.6	29.3	39.4	31.3	45.6
450	17.8	34.7	17.8	34.5	51.5	42.4	28.5	36.2	30.5	43.4

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.

FREQ	ACR		PS-ACR		ELFEXT		PS-ELFEXT	
	(dB@100m)		(dB@100m)		(dB)		(dB)	
MHz	min.	typical	min.	typical	min.	typical	max.	typical
1	68.3	83	66.3	80.8	66.8	86.2	63.8	77
4	57.3	71	55.3	69.6	54.7	73.2	42.7	64.8
10	48.9	61	46.9	59.8	46.8	65.5	44.8	57
20	41.6	55	39.6	52	40.7	60.8	38.7	51.5
31.25	36.3	50	34.3	48.1	36.9	56.6	34.9	47.8
62.5	26.6	42	24.6	40	30.8	50.5	28.8	42.1
100	18.6	33	16.6	31.2	26.8	45.5	24.8	38.5
200	3.7	21.2	1.7	18.4	20.7	44.7	17.7	37.4
300	-	9.6	-	8.3	17.2	38.1	14.2	31.9
350	-	4.9	-	1.9	15.9	36.4	12.9	30.6
400	-	-1.8	-	-4	14.7	33.4	11.7	27.5
450	-	-8.9	-	-10.6	13.7	36.7	10.7	28.3

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ORDERING INFORMATION**molex** **PowerCat 5e
U/UTP Cable**

Order No.	SAP No.	Description
CAA-0182R-BL	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMR, PVC - Blue
CAA-0182R-02	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMR, PVC - White
CAA-0182R-08	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMR, PVC - Light Gray
CAA-0182P-BL	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMP, PVC Alloy - Blue
CAA-0182P-02	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMP, PVC Alloy - White
CAA-0182P-08	Consult Molex	PowerCat 5e U/UTP Cable, 4 Pair, CMP, PVC Alloy - Light Gray

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

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