

PowerCat 6 U/UTP CMP/CMR REELEX 1000FT Cable >

The Molex PowerCat 6 U/UTP CMP/CMR REELEX cable is ideal for supporting high speed Gigabit Ethernet networks. This cable is a key component of the Molex PowerCat 6 end-to-end solution.

The cable is intended for high speed data applications including IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T.

FEATURES AND ADVANTAGES

ETL verified to TIA-568.2-D Category 6 standard

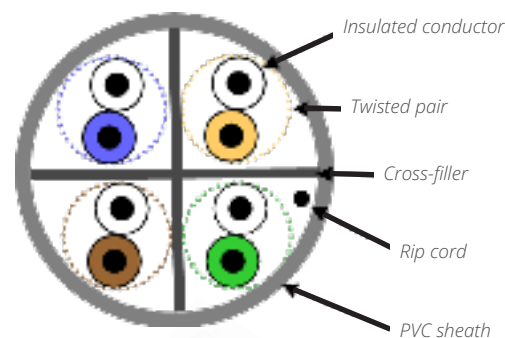
Electrical performance characteristics, including balance, guaranteed across entire frequency range

Cross filler provides improved electrical performance

Robust box design minimizes tangles during installation

RoHS compliant

23 AWG Copper Conductors



SPECIFICATIONS

Commercial Standards

North American: TIA-568.2-D Category 6

International: ISO/IEC 11801

Fire Propagation Tests

Riser:

UL 1666, CMR, IEC 332-1, C(UL)

Plenum: NFPA 262, CMP

Mechanical

Riser

Conductor: Bare Copper Wire 23 AWG

Cable Diameter in. (mm): 0.236 (6)

Nominal Cable Weight lb./kft. (kg/km): 24 (36)

Sheath: CAA-0181R: PVC CMR

Max Installation Tension lb. (N): 25 (110)

Min. bend radius in. (mm): 0.9 (24.0)

Plenum

Conductor: Bare Copper Wire 23 AWG

Insulation: Each conductor is insulated with solid high density polyethylene or FEP (only CMP cable). The diameter over the insulation is a maximum of 1.22mm.

Conductor size: 23 AWG

Cable Diameter in. (mm): 0.228 (5.8)

Sheath: CAA-0181P: PVC CMP. CAA-0181R: PVC CMR

Nominal Cable Weight lb./kft. (kg/km): 26lbs/kft (39kg/km)

Max Installation Tension lb. (N): 25 (110)

Min. bend radius in. (mm): 0.9 (24.0)

Pulling tension: 110 N (25 lbf)

Color Code

Pair 1: White/Blue

Pair 2: White/Orange

Pair 3: White/Green

Pair 4: White/Brown

Electrical

Mutual Capacitance: 5.6nF/100m nom

DC resistance unbalance: Max 5% at 20°C

DC Resistance max: 9.38Ω/100m Max.

Skew: 45ns/100m Max. Pair to Ground

Pair-to-Ground Unbalance: 330 pF/100m Max.

Nominal Velocity of Propagation (NVP):

Riser: 67%, Plenum: 69%

Temperature Rating

Installation: 0 °C to + 60 °C

Operation: -20 °C to +60 °C

www.molexces.com/products/copper/cat6/

PowerCat 6 U/UTP CMP/CMR REELEX 1000FT Cable >

SPECIFICATIONS (CONT.)

PoE

Our PowerCat 6 system is suitable for PoE applications as defined below:

IEEE 802.3bt from Type 1 to Type 4, and CISCO UPoE+

Notes:

For new installations of PoE Type 3 / Class 5 and above that wish to be eligible for the Molex 25 year Application Assurance Warranty, we require Category 6A cable to be used throughout.

To confirm your PoE / RP3 cabling design is eligible for the Molex 25 year Application Assurance Warranty, your design must be verified and validated with the Molex PoE Calculator. Read more <https://www.molexces.com/poe-calculator>

Molex recommends that the PoE feature on an individual switch port are power disabled prior to unplugging the associated powered Device.

Molex recommends that the full range of PowerCat 6 products be used in a system to maximize cabling and PoE performance. Details on Molex requirements for Warranty can be found at <https://www.molexces.com/about-us/our-warranty/>

Freq. (MHz)	Attenuation (dB/100m) Max.	NEXT (dB/100m) Min.	PSNEXT (dB/100m) Min.	ELFEXT (dB/100m) Min.	PSELFEXT (dB/100m) Min.	TCL (dB/100m) Min.	RL (dB/100m) Min.	P.Delay (ns/100m) Max.
1	2.0	74.3	72.3	67.8	64.8	40	20.0	570
4	3.8	65.3	63.3	55.8	52.8	40	23.0	552
8	5.5	60.8	58.8	49.7	46.7	40	24.5	547
10	6.0	59.3	57.3	47.8	44.8	40	25.0	545
16	7.6	56.2	54.2	43.7	40.7	38	25.0	543
20	8.5	54.8	52.8	41.8	38.8	37	25.0	542
25	9.5	53.3	51.3	39.8	36.8	36	24.3	541
31.25	10.7	51.9	49.9	37.9	34.9	35.1	23.6	540
62.5	15.4	47.4	45.4	31.9	28.9	32	21.5	539
100	19.8	44.3	42.3	27.8	24.8	30	20.1	538
200	29.0	39.8	37.8	21.8	18.8	27	18.0	537
250	32.8	38.3	36.3	19.8	16.8	26	17.3	536
300*	36.4	37.1	35.1	18.3	15.3	25	16.8	536
400*	43.0	35.3	33.3	15.8	12.8	24	15.9	536
500*	48.9	33.8	31.8	13.8	10.8	23	15.2	536

NOTE:

*Molex PowerCat 6 U/UTP CMP/CMR REELEX 1000FT Cable is guaranteed between 1 MHz and 250 MHz; any values above 250 MHz should be marked as reference only and not a part of the product guarantee.

*PSACR is guaranteed for Molex PowerCat 6 U/UTP CMP/CMR REELEX 1000FT Cable to 250 MHz. ACR and PSACR for the TIA specification are provided as calculation reference only.

www.molexces.com/products/copper/cat6/

PowerCat 6 U/UTP CMP/CMR REELEX 1000FT Cable >

ORDERING INFORMATION

Order No	SAP No	Description
CAA-0181P-02-RX	181740250	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT WHITE
CAA-0181P-08-RX	181740251	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT GRAY
CAA-0181P-0N-RX	181740252	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT ORANGE
CAA-0181P-BL-RX	181740253	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT BLUE
CAA-0181P-GR-RX	181740254	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT GREEN
CAA-0181P-PK-RX	181740255	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT PINK
CAA-0181P-PP-RX	181740256	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT PURPLE
CAA-0181P-RD-RX	181740257	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT RED
CAA-0181P-YL-RX	181740258	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMP RLX 1000FT YELLOW
CAA-0181R-02-RX	181740259	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT WHITE
CAA-0181R-04-RX	181740260	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT BLACK
CAA-0181R-08-RX	181740261	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT GRAY
CAA-0181R-BL-RX	181740262	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT BLUE
CAA-0181R-GR-RX	181740263	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT GREEN
CAA-0181R-YL-RX	181740264	CBL C6-ENHANCED U/UTP 4PR 23 AWG CMR RLX 1000FT YELLOW

NOTE: Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice.

www.molexces.com/products/copper/cat6/

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners. This information is correct at the time of publication, specifications are subject to change.