

CAT6 23AWG/4PAIR CMP 600MHz U/UTP

PART NO. 6CMP234BX

DESCRIPTION

- 23 AWG 4 Pair U/UTP Category 6 cable tested to 600Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in Pull Box for easier installation.

FEATURES AND BENEFITS

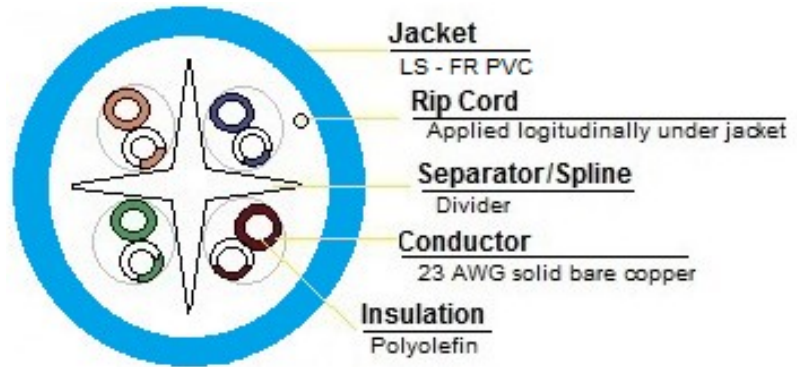
- Cross separator design engineered for consistent electrical performance.
- Improved cable temperature rating (90°C Plenum) for greater protection against increased operating temperatures.
- Sequential footage markings
- Verified by third-party for guaranteed performance

APPLICATIONS

- IEEE 802.3 1000Base-T, 100Base-Tx 10Base-T, PoE, PoE+
- ANSI/TIA 854: 1000Base-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

STANDARD COMPLIANCES

- ANSI/TIA 568-C.2
- ANSI/TIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class EI)
- ICEA 8-102-700 (Category 6 or 5E)
- REACH Compliant
- CPR Compliant (Fully Complies to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG



PHYSICAL PROPERTIES

| | | |
|----------------------------|------------------------------|-------------------|
| Conductor | Material | Solid Bare Copper |
| | Conductor Diameter (mm) | 0.550 |
| Insulation | Material | Teflon |
| | Average Thickness (mm) | 0.20 |
| | Insulation Dia. (±0.05mm) | 0.95 |
| | Minimum point Thickness (mm) | 0.15 |
| Construction | | Unshielded/Plenum |
| Twisting Lay Length | | 30 Underneath |
| Cabling Lay Length (±20mm) | | 100 |
| Jacket | Material | LS-FR-PVC |
| | Average Thickness (mm) | 0.43 |
| | Minimum Point Thickness (mm) | 0.38 |
| | Outer Diameter (±0.5mm) | 5.6 |
| Rip Cord | | Yes |
| Put/UPS | Length | 1000ft ± 4ft |
| | Weight | 32 lbs/Pull Box |
| Voltage Rating (Max) | | DC 300V |
| Flame Test Method | | CMP |



ELECTRICAL CHARACTERISTICS

| | | |
|--|------------------------|----------------|
| 1.0 - 250.0MHz characteristic impedance (ohms) | | 100±15 |
| 1.0 - 250.0MHz Delay Skew (ns/100m) | | ≤45 |
| Pair-to-Ground Capacitance Unbalance (pF/100m) | | ≤330 |
| Max. Conductor DC Resistance 20°C (ohms/100m) | | 9.38 |
| Resistance Unbalance (%) | | ≤5 |
| Before Aging | Tensile Strength (Mpa) | ≥13.8 |
| | Elongation (%) | ≥100 |
| After Aging | Tensile Strength (Mpa) | ≥85% of unaged |
| | Elongation (%) | ≥50% of unaged |
| Aging Condition (xhrs) | | 100x240 |
| Cold Bend (-20±2°Cx4hrs) | | No Crack |
| Temperature Range | | -20°C ~ 75°C |



1000' Pull Box
Weight: 32 lbs.

AVAILABLE CATEGORY 6 (PART NUMBERS)

| PVC | Plenum | Shielded | Shielded Plenum | Direct Burial | Shielded Direct Burial |
|-----------|------------------|-----------|-----------------|---------------|------------------------|
| 6CMR244Bx | 6CMP234Bx | 6SHDCMRRx | 6SHDCMPRx | 6OUT234RB | 6OUTGSHDRB |
| 6CMR234Bx | | | | 6OUTG234RB | 6OUTWSHDRB |
| | | | | 6OUTW234RB | |
| | | | | 6OUTA234RB | |

*All values in this specification are nominal and are subjective to tolerances of +/- 10 to 15%.

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www.commoditycables.com



ELECTRICAL PERFORMANCE

ACRF - Attenuation to Crosstalk Ratio - Far End (dB/100m)

NEXT - Near End Crosstalk (dB/100m)

ACR - Attenuation to Crosstalk Ratio (dB/100m)

PSNEXT - Power Sum Near End Crosstalk (dB/100m)

ELFEXT - Equal Level Far End Crosstalk (dB/100m)

PSELFEXT - Power Sum Equal Level Far End Crosstalk (dB/100m)

RL - Return Loss (dB)

TCL - Transverse Conversion Loss (dB/100m)

ATT - Attenuation (dB/100m)

| FREQUENCY (MHz) | ATT (dB/100m) | RL (dB) | ACR (dB) | Next (dB) | PSNEXT (dB) | TCL (dB/100m) | PHASE DELAY | ELFEXT (dB/100m) | PSELFEXT dB/100m) |
|--------------------|------------------|------------|-------------|--------------|----------------|------------------|----------------|---------------------|----------------------|
| 0.772 | 1.8 | 20 | 74.2 | 76.0 | 74.0 | 40.0 | - | - | - |
| 1 | 2.0 | 21 | 72.3 | 74.3 | 72.3 | 40.0 | 570.0 | 67.8 | 64.8 |
| 4 | 3.8 | 23.4 | 61.5 | 65.3 | 63.3 | 40.0 | 552.0 | 55.7 | 52.8 |
| 8 | 5.3 | 24.6 | 55.4 | 60.8 | 58.8 | 40.0 | 546.7 | 49.7 | 46.7 |
| 10 | 6.0 | 25 | 53.3 | 59.3 | 57.3 | 40.0 | 545.4 | 47.8 | 44.8 |
| 16 | 7.6 | 25 | 48.6 | 56.2 | 54.2 | 38.0 | 543.0 | 43.7 | 40.7 |
| 20 | 8.5 | 25 | 46.2 | 54.8 | 52.8 | 37.0 | 542.1 | 41.7 | 38.8 |
| 25 | 9.5 | 24.3 | 43.7 | 53.3 | 51.3 | 36.0 | 541.2 | 39.8 | 36.8 |
| 31.25 | 10.7 | 23.6 | 41.1 | 51.9 | 49.9 | 35.1 | 540.4 | 37.9 | 34.8 |
| 62.5 | 15.7 | 21.5 | 31.7 | 47.4 | 45.4 | 32.0 | 538.6 | 31.8 | 28.9 |
| 100 | 19.8 | 20.1 | 24.1 | 44.3 | 42.3 | 30.0 | 537.6 | 27.8 | 24.8 |
| 200 | 29.0 | 18 | 10.0 | 39.8 | 37.8 | 27.0 | 536.5 | 21.8 | 18.8 |
| 250 | 32.8 | 17.3 | 4.6 | 38.3 | 36.3 | 26.0 | 536.3 | 19.8 | 16.8 |
| 300 | 36.4 | 16.8 | 0.7 | 37.1 | 35.1 | - | 536.1 | 18.3 | 15.3 |
| 350 | 39.8 | 16.3 | - | 36.1 | 34.1 | - | 535.9 | 16.9 | 13.9 |
| 400 | 43.0 | 15.9 | - | 35.3 | 33.3 | - | 535.8 | 15.8 | 12.8 |
| 500 | 48.9 | 15.2 | - | 33.8 | 31.8 | - | 535.6 | 13.8 | 10.8 |
| 550 | 51.8 | 14.9 | - | 33.2 | 31.2 | - | 535.5 | 13.0 | 10.0 |
| 600 | 54.2 | 14.7 | - | 32.9 | 30.9 | - | 535.4 | 12.2 | 9.2 |

Electrical performance with frequency over 250MHz is only for reference

AVAILABLE JACKET COLORS

| STANDARD | BLUE | WHITE | GRAY |
|-------------------|-----------------------|--------|--------|
| | BLACK | RED | GREEN |
| | YELLOW | ORANGE | PURPLE |
| | PINK | | |
| SPECIAL | Per Customer Request* | | |
| INSULATION COLORS | | | |
| PAIR 1 | BLUE | | WHITE |
| PAIR 2 | ORANGE | | WHITE |
| PAIR 3 | GREEN | | WHITE |
| PAIR 4 | BROWN | | WHITE |

JACKETS ABBREVIATION

| | | |
|--------|----|--|
| Black | B | Last alphabetical character of each part number indicates the color code that the Jacket is available in. For example Part # 6CMR244Bx ("x" indicates all the colors to the left are available for this product. |
| White | W | |
| Gray | G | |
| Blue | O | |
| Yellow | Y | |
| Green | V | |
| Orange | OR | |
| Purple | P | |
| Red | R | |
| Pink | PI | |

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