

DESCRIPTION

- 23 AWG 4 Pair F/UTP 10G Category 6A cable tested to ANSI/TIA 568-C.2 for 10Gbps @500Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in Wood Reel for easier installation.

FEATURES AND BENEFITS

- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330 ft)
- Cross web filler for enhanced performance
- Rugged jacket for outside plant applications
- UV resistant polyethylene jacket
- The internal separator optimizes each pair for superior electrical performance and maintains flexibility. This unique spline stabilizes each pair to create a smaller, round cable profile

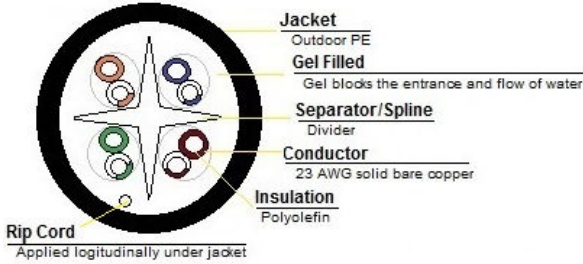
APPLICATIONS

- IEEE 802.3 10G Base-T, 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 Comply to 305/2011 & EN 50575:2014-09)
- RoHS Compliant Directive 2002/95/EG

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www.commoditycables.com


PHYSICAL PROPERTIES

| | | |
|----------------------|------------------------------|--------------------------|
| Conductor | Material | Solid Bare copper |
| | Nominal O. D. (mm) | 0.565 |
| Insulation | Material | HDPE |
| | Diameter (± 0.05mm) | 1.12 |
| Filler | | PE |
| Construction | | Direct Burial/Gel Filled |
| Jacket | Material | LDPE / UV Rated |
| | Average Thickness (mm) | 0.60 |
| | Minimum Point Thickness (mm) | 0.45 |
| | Outside Diameter (±0.4mm) | 7.1 |
| Rip Cord: | | Yes |
| Drain Wire: | | No |
| Packing | Length | 1000ft ± 4ft |
| | Weight | 35 lbs/Reel |
| Voltage Rating (Max) | | DC 300V |


ELECTRICAL CHARACTERISTICS

| | | |
|--|------------------------|-------------------|
| Characteristic Impedance (ohms) | 1.0 - 250.0MHz | 100Ω±15Ω |
| | 250.0 - 500.0MHz | 100Ω±22Ω |
| 1.0 - 500.0MHz Delay Skew (ns/100m) | | ≤45 |
| Pair-to-Ground Capacitance Unbalance (pF/100m) | | ≤330 |
| Max. Conductor DC Resistance Unbalance (%) | | ≤5 |
| Max. Resistance Unbalance (%) | | 9.38/100m |
| Nom. Mutual Capacitance | | 5.8nF/100m |
| Max DC Loop Resistance | | 19.0Ω/100m |
| Min DC Insulation Resistance | | 5000MΩ.km |
| Max Propagation Delay Skew | | ≤45ns/100m |
| Before Aging | Tensile Strength (Mpa) | ≥10.0 |
| | Elongation (%) | ≥350 |
| After Aging | Tensile Strength (Mpa) | - |
| | Elongation (%) | ≥300 |
| Aging Period (°C x hrs) | | 100°C x 24h x 10d |
| Cold Bend (No Visible Crack) | | -20±2°C |
| Temperature Range | | -40°C ~ +75°C |
| Velocity of Propagation (%) NVP | | 65% |



1000' Wood Reel
Weight: 35 lbs.

AVAILABLE CATEGORY 6A (PART NUMBERS)

| PVC | Plenum | Shielded | Shielded Plenum | Direct Burial | Shielded Direct Burial |
|------------|------------|------------|-----------------|--------------------|------------------------|
| 6ACMR234Rx | 6ACMP234Rx | 6ASHDCMRRx | 6ASHDCMPRx | 6AOUTG234RB | 6AOUTGSHDRB |

*All values in this specification are nominal and are subjective to tolerances of +/- 10 to 15%.
It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice*

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) |
|--------------------|------------------|------------|-------------|--------------|----------------|------------------|----------------|---------------------|----------------------|
| 1 | 3.0 | 19.1 | 72.2 | 65.0 | 62.0 | 40.0 | 521 | 64.2 | 61.2 |
| 4 | 3.5 | 21.0 | 61.5 | 64.1 | 61.8 | 40.0 | 504 | 52.1 | 49.1 |
| 8 | 5.0 | 21.0 | 55.4 | 59.4 | 57.0 | 40.0 | 500 | 46.1 | 43.1 |
| 10 | 5.5 | 21.0 | 53.4 | 57.8 | 55.5 | 40.0 | 498 | 44.2 | 41.2 |
| 16 | 7.0 | 20.0 | 48.8 | 54.6 | 52.2 | 38.0 | 496 | 40.1 | 37.1 |
| 20 | 7.8 | 19.5 | 46.4 | 53.1 | 50.7 | 37.0 | 495 | 38.2 | 35.2 |
| 25 | 8.8 | 19.0 | 43.7 | 51.5 | 49.1 | 36.0 | 495 | 36.2 | 33.2 |
| 31.25 | 9.8 | 18.5 | 41.4 | 50.0 | 47.5 | 35.1 | 494 | 34.3 | 31.3 |
| 62.5 | 14.0 | 16.0 | 32.4 | 45.1 | 42.7 | 32.0 | 492 | 28.3 | 25.3 |
| 100 | 18.1 | 14.0 | 25.2 | 41.8 | 39.3 | 30.0 | 491 | 24.2 | 21.2 |
| 200 | 26.1 | 11.0 | 12.2 | 36.9 | 34.3 | 27.0 | 490 | 18.2 | 15.2 |
| 250 | 29.5 | 10.0 | 7.2 | 35.3 | 32.7 | 26.0 | 490 | 16.2 | 13.2 |
| 300 | 32.7 | 9.2 | 2.9 | 34.0 | 31.4 | 25.2 | 490 | 14.6 | 11.6 |
| 500 | 43.8 | 8.0 | - | 26.7 | 23.8 | 23.0 | 490 | 10.2 | 7.2 |

Electrical performance with frequency over 500MHz is only for reference

AVAILABLE JACKET COLORS

| STANDARD | BLACK | |
|-------------------|-----------------------|-------|
| 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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