

DESCRIPTION

- 23 AWG 4 Pair U/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

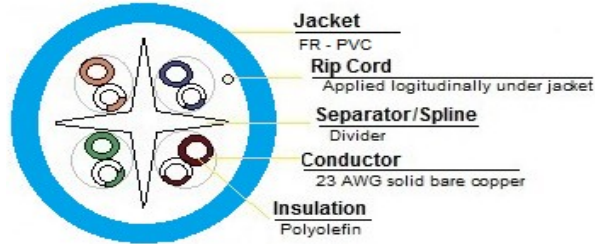
- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330 ft)
- Improved cable temperature rating (75°C Riser) for greater protection against increased operating temperatures and for high-wattage applications
- 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



PHYSICAL PROPERTIES

| | | |
|----------------------|-------------------------------|-------------------|
| Conductor | Material | Solid Bare Copper |
| | Nominal Outside Diameter (mm) | 0.57 |
| Insulation | Material | HDPE |
| | Diameter (± 0.05mm) | 1.03 |
| Filler | | Low Smoke |
| Construction | | CMR/Non-Plenum |
| Jacket | Material | FR - PVC |
| | Average Thickness (mm) | 0.8 |
| | Minimum Point Thickness (mm) | 0.7 |
| | Outside Diameter (±0.2mm) | 6.9 |
| Rip Cord: | | Yes |
| Drain Wire: | | No |
| Packing | Length | 1000ft ± 4ft |
| | Weight | 42 lbs/Reel |
| Voltage Rating (Max) | | DC 300V |



ELECTRICAL CHARACTERISTICS

| | | |
|--|------------------------|-------|
| 1.0 - 250.0MHz characteristic impedance (ohms) | 100Ω±15Ω | |
| 1.0 - 250.0MHz Delay Skew (ns/100m) | ≤45 | |
| Pair-to-Ground Capacitance Unbalance (Pf/100m) | ≤330 | |
| Max. Conductor DC Resistance 20 (ohms/km) | 9.38Ω/100m | |
| Resistance Unbalance (%) | ≤5 | |
| Max Mutual Capacitance | 5.6nF/100m | |
| Max DC Loop Resistance | 19.2Ω/100m | |
| Min DC Insulation Resistance | 150MΩ/Km | |
| Max Propagation Delay Skew | 2ns/ft, 40ns/100m | |
| Before Aging | Tensile Strength (Mpa) | ≥10.0 |
| | Elongation (%) | ≥100 |
| After Aging | Tensile Strength (Mpa) | ≥75 |
| | Elongation (%) | ≥50 |
| Aging Condition (xhrs) | 100°C x 24h x 7d | |
| Cold Bend (No Visible Crack) | -20±2°C | |
| Temperature Range | -20°C ~ +75°C | |
| Velocity of Propagation (%) NVP | 70% | |



1000' Wood Reel
Weight: 42 lbs.

AVAILABLE CATEGORY 6 (PART NUMBERS)

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

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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 | 2.0 | 20.0 | 72.3 | 74.3 | 72.3 | 40.0 | 570.0 | 67.8 | 64.8 |
| 4 | 3.7 | 23.0 | 61.5 | 65.3 | 63.3 | 40.0 | 552.0 | 55.8 | 52.8 |
| 8 | 5.2 | 24.5 | 55.5 | 60.8 | 58.8 | 40.0 | 546.7 | 49.7 | 46.7 |
| 10 | 5.9 | 25.0 | 53.4 | 59.3 | 57.3 | 40.0 | 545.4 | 47.8 | 44.8 |
| 16 | 7.4 | 25.0 | 48.8 | 56.2 | 54.2 | 38.0 | 543.0 | 43.7 | 40.7 |
| 20 | 8.3 | 25.0 | 46.5 | 54.8 | 52.8 | 37.0 | 542.1 | 41.8 | 38.8 |
| 25 | 9.3 | 24.3 | 44.0 | 53.3 | 51.3 | 36.0 | 541.2 | 39.8 | 36.8 |
| 31.25 | 10.4 | 23.6 | 41.5 | 51.9 | 49.9 | 35.1 | 540.4 | 37.9 | 34.9 |
| 62.5 | 14.9 | 21.5 | 32.5 | 47.4 | 45.4 | 32.0 | 538.6 | 31.9 | 28.9 |
| 100 | 19.0 | 20.1 | 25.3 | 44.3 | 42.3 | 30.0 | 537.6 | 27.8 | 24.8 |
| 155 | 24.0 | 18.8 | 17.5 | 41.4 | 39.4 | - | - | 24.0 | 21.0 |
| 200 | 27.5 | 18.0 | 12.3 | 39.8 | 37.8 | 27.0 | 536.5 | 21.8 | 18.8 |
| 250 | 31.0 | 17.3 | 7.4 | 38.3 | 36.3 | 26.0 | 536.3 | 19.8 | 16.8 |
| 300 | 34.2 | 16.8 | 3.0 | 37.1 | 35.1 | - | 536.1 | 18.3 | 15.3 |
| 350 | 37.2 | 16.3 | -1.0 | 36.1 | 34.1 | - | 535.9 | 16.9 | 13.9 |
| 400 | 40.0 | 15.9 | -4.7 | 35.3 | 33.3 | - | 535.8 | 15.8 | 12.8 |
| 450 | 42.7 | 15.5 | -8.2 | 34.5 | 32.5 | - | - | 14.7 | 11.7 |
| 500 | 45.3 | 15.2 | -11.4 | 33.8 | 31.8 | - | 535.6 | 13.8 | 10.8 |
| 550 | 45.3 | 15.2 | -11.4 | 33.8 | 31.8 | - | 353.5 | 13.8 | 10.8 |

Electrical performance with frequency over 500MHz is only for reference

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