

### 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

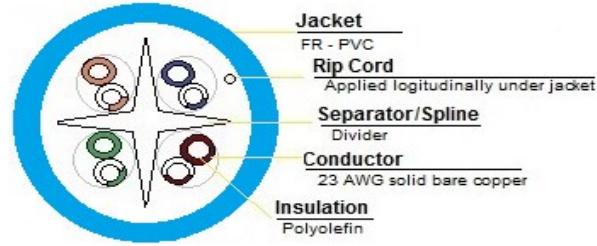
- Category 6A performs at improved specifications, particularly in the area of alien cross-talk. Category 6A make use of their higher standards by allowing full 10GBASE-T transmission speeds of up to 10Gbps, at 500MHz of signal bandwidth, over 100 meters (330 ft)
- Improved cable temperature rating (75°C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

Toll Free: (866) 945-5051  
Local: (770) 945-5051  
Fax: (770) 945-9582  
www.commoditycables.com



### AVAILABLE CATEGORY 6 (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	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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