COMMODITY CABLES, INC.

CAT6A 23AWG/4PAIR 10G CMP U/UTP
PART NO. 6ACMP234Rx

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.
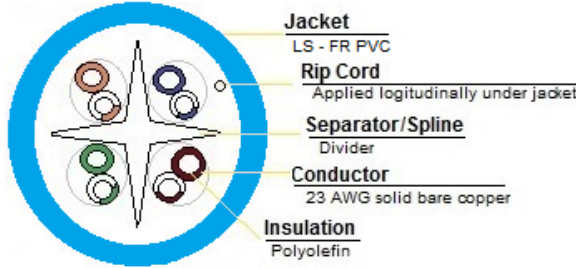
FEATURES AND BENEFITS

• Category 6A performs at improved specifications, particularly in the area of alien crosstalk. 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 (90^{0}C Plenum) for greater protection against increased operating temperatures and for high-wattage applications

• The internal separator optimizes each pair for superior electrical perfomance 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

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

Jacket — LS - FR PVC
Rip Cord — Applied logitudinally under jacket
Separator/Spline — Divider
Conductor — 23 AWG solid bare copper
Insulation — Polyolefin

PHYSICAL PROPERTIES

Conductor	Material	Bare copper
	Nominal Outside Diameter (mm)	4x2x0.58 (±0.005)
Insulation	Material	FEP
	Diameter (± 0.05mm)	1.05±0.03
Filler		Low Smoke
Construction		Unshielded/Plenum
Jacket	Material	LS-FR PVC
	AverageThickness (mm)	0.85
	Minimum Point Thickness (mm)	0.7
	Outside Diameter (±0.2mm)	8.2
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
250-650.0MHz Delay Skew (ns/100m)		≤45
Pair-to-Ground Capacitance Unbalance (Pf/100m)		≤330
Max. Conductor DC Resistance Unbalance (%)		9.38/100m
Max. Resistance Unbalance (%)		≤5
Max Mutual Capacitance		5.6nf/100m
Max DC Loop Resistance		19.25 I/100m
Min DC Insulation Resistance		150 ms2/km
Max Propagation Delay Skew		≤40
Before Aging	Tensile Strength (Mpa)	≥13.8
	Elongation (%)	≥75
After Aging	Tensile Strength (Mpa)	≤50
	Elongation (%)	≥75
Aging Period (°C x hrs)		100°C x 24h x 7d
Cold Bend (No Visible Crack)		-20±2°C
Temperature Range		-20^{0}C ~ +75^{0}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

*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*

CAT6A 23AWG/4PAIR 10G CMP U/UTP

PART NO. 6ACMP234Rx

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 Leverl 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	2.1	20.0	72.2	75.3	72.3	40.0	570.0	68.0	65.0
4	3.8	23.0	61.5	66.3	63.3	40.0	552.0	56.0	53.0
8	5.3	24.5	55.4	61.8	58.8	40.0	546.7	49.9	46.9
10	5.9	25.0	53.4	60.3	57.3	40.0	545.4	48.0	45.0
16	7.5	25.0	48.8	57.2	54.2	38.0	543.0	43.9	40.9
20	8.4	25.0	46.4	55.8	52.8	37.0	542.1	42.0	39.0
25	9.4	24.3	43.7	54.3	51.3	36.0	541.2	40.0	37.0
31.25	10.5	23.6	41.4	52.9	49.9	35.1	540.4	38.1	35.1
62.5	15.0	21.5	32.4	48.4	45.4	32.0	538.6	32.1	29.1
100	19.1	20.1	25.2	45.3	42.3	30.0	537.6	28.0	25.0
200	27.6	18	12.2	40.8	37.8	27.0	536.5	22.0	19.0
250	31.1	17.3	7.2	39.3	36.3	26.0	536.3	20.0	17.0
300	34.3	16.8	2.9	38.3	-	25.2	535.5	-	-
400	40	15.9	-	37.8	35	24.0	535	-	-
500	45.3	15.2	-	36.5	34.3	23.0	533	-	-
600	50.1	14.5	-	35	33.5	-	532	-	-
650	52.4	13.9	-	34.6	31.2	-	530	-	-

Electrical performance with frequency over 500MHz is only for reference

AVAILABLE JACKET COLORS		
STANDARD	BLUE	WHITE
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	

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