

# CAT6 23AWG/4PAIR CMR 600MHz U/UTP

**PART NO. 6CMR234BX**

## 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 (75°C Riser) 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
	Diameter (mm)	0.550
Insulation	Material	HDPE
	Average Thickness (mm)	0.22
	Insulation Dia. (±0.05mm)	0.98
	Minimum point Thickness (mm)	0.17
Construction		CMR/Non-Plenum
Twisting Lay Length		30 Underneath
Cabling Lay Length (±20mm)		100
Jacket	Material	FR - PVC
	Average Thickness (mm)	0.55
	Minimum Point Thickness (mm)	0.43
	Outer Diameter (±0.5mm)	6.0
Rip Cord		Yes
Put/UPS	Length	1000ft + 4ft
	Weight	29 lbs/Pull Box
Voltage Rating (Max)		DC 300V
Flame Test Method		CMR



## 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: 29 lbs.

## AVAILABLE CATEGORY 6 (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
6CMR244Bx	6CMP234Bx	6SHDCMRRx	6SHDCMPRx	6OUT234RB	6OUTGSHDRB
<b>6CMR234Bx</b>				6OUTG234RB	6OUTWSHDRB
				6OUTW234RB	
				6OUTA234RB	

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\*

Toll Free: (866) 945-5051  
Local: (770) 945-5051  
Fax: (770) 945-9582  
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	

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



\*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\*