

# CAT6 23AWG/4PAIR CMR 550MHz SHIELDED F/UTP

**PART NO. 6SHDCMRRX**

## DESCRIPTION

- 23 AWG 4 Pair F/UTP Category 6 cable tested to 550Mhz premium grade, high performance for top level network cabling for maximum headroom and bandwidth. Available in wood reel for easier installation.

## FEATURES AND BENEFITS

- Cross web filler for enhanced 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+
- 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

### Drain Wire

Used to ease termination of the cable shield for crimping or soldering

### Jacket

FR - PVC

### Aluminum Mylar Shield

Helps protect the data from any electromagnetic interference from outside source

### Polyester Tape

Wrap

### Separator/Spline

Divider

### Conductor

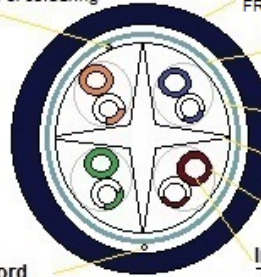
23 AWG solid bare copper

### Insulation

Polyolefin

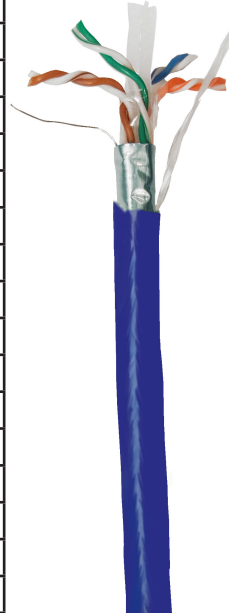
### Rip Cord

Applied longitudinally under jacket



## PHYSICAL PROPERTIES

Conductor	Material	Solid Bare Copper
	Diameter (mm)	0.565
Insulation	Material	HDPE
	Average Thickness (mm)	0.27
	Insulation Dia. (±0.05mm)	1.12
	Minimum point Thickness (mm)	0.17
Construction		Shielded/PVC
Twisting Lay Length		30 underneath
Cabling Lay Length (±20mm)		90
Jacket	Material	FR-PVC
	Average Thickness (mm)	0.55
	Minimum Point Thickness (mm)	0.43
	Outer Diameter (±0.5mm)	7.3
Rip Cord		Per Request
Put/UPs	Length	1000ft ± 4ft
	Weight	49 lbs/Reel
Voltage Rating (Max)		DC 300V



## ELECTRICAL CHARACTERISTICS

1.0 - 100.0MHz impedance (ohms)		100±15
1.0 - 100.0MHz 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 (%)	≥75
Aging Condition (xhrs)		100x240
Temperature Range		-20 ~ 75°C
Cold Bend (No Visible Crack)		-20±2°C



1000' Wood Reel  
Weight: 49 lbs.

## AVAILABLE CATEGORY 6 (PART NUMBERS)

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

\*All values in this specification are nominal and are subjective to tolerances of +/- 10 to 15%.  
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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

\*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	

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