

# CAT5E 24AWG/4PAIR CMR 350MHz F/UTP SHIELDED

## PART NO. 5ESHDCMRBx

### 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

### Rip Cord

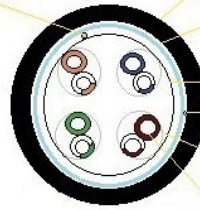
Applied longitudinally under jacket

### Conductor

24 AWG solid bare copper

### Insulation

Polyolefin



### DESCRIPTION

- 24 AWG 4Pair F/UTP Category 5E cable tested to 350 MHz. Aluminum Mylar Foil Shield. Available in Pull Box

### FEATURES AND BENEFITS

- Structured cabling for Ethernet Networks
- Foil shield reduces electromagnetic interference (EMI) for optimal performance
- Performance guaranteed to 350 MHz
- Sequential footage markings
- Verified by third-party for guaranteed performance

### APPLICATIONS

- IEEE 802.3 1000Base-T, 100Base-TX, 10Base-T, PoE, PoE+
- CDDI, Token Ring, ATM
- 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	Copper
	Nominal Outside Diameter (mm)	0.515
Insulation	Material	HDPE
	Diameter (± 0.05mm)	0.96
Screen Material		Al-Foil
Construction		CMR/Non-Plenum
Jacket	Material	FR-PVC
	Average Thickness (mm)	0.55
	Minimum Point Thickness (mm)	0.50
	Outside Diameter (±0.2mm)	5.7
Rip Cord:		250D Nylon
Drain Wire:		0.4 TC
Packing	Length	1000ft/Pull Box
	Weight	25 lbs
Voltage Rating (Max)		300V



### ELECTRICAL CHARACTERISTICS

1.0 - 250.0MHz characteristic impedance (ohms)		100±15
250-650.0MHz Delay Skew (ns/100m)		45
Pair-to-Ground Capacitance Unbalance (Pf/100m)		53
Max. Conductor DC Resistance Unbalance (%)		95
Max. Resistance Unbalance (%)		3
Max Mutual Capacitance		330
Max DC Loop Resistance		25
Min DC Insulation Resistance		-
Max Propagation Delay Skew		45
Before Aging	Tensile Strength (Mpa)	≥13.8
	Elongation (%)	≥100
After Aging	Tensile Strength (Mpa)	≥85% of unaged
	Elongation (%)	≥50% of unaged
Aging Period (°C x hrs)		100x240
Cold Bend (No Visible Crack)		-40±2°C
Temperature Range		-20 ~ 75°C
Velocity of Propagation (%) NVP		70



1000' Pull Box  
Weight: 25 lbs.

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



### AVAILABLE CATEGORY 5E (PART NUMBERS)

PVC	Plenum	Shielded	Shielded Plenum	Direct Burial	Shielded Direct Burial
5ECMR150CO	5ECMP244Bx	5ESHDCMRBx	5ESHDCMPBx	5EOUT244RB	5EOUTGSHDRB
5ECMR244Bx	5ECMP150CO			5EOUTG244RB	5EOUTWSHDRB
5ECMR2425RG	5ECMP2425RO			5EOUTW244RB	5EOUTSHDDJRB
5ECMSTRxx				5EOUTA244RB	

\*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\*

# CAT5E 24AWG/4PAIR CMR 350MHz F/UTP SHIELDED

**PART NO. 5ESHDCMRBX**

## 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	63.3	65.3	62.3	n/s	570.0	63.8	60.8
4	4.1	23.0	52.2	56.3	53.3	n/s	552.0	51.7	48.7
8	5.8	24.5	46.0	51.8	48.8	n/s	546.7	45.7	42.7
10	6.5	25.0	43.8	50.3	47.3	n/s	545.4	43.8	40.8
16	8.2	25.0	39	47.2	44.2	n/s	543.0	39.7	36.7
20	9.3	25.0	36.5	45.8	42.8	n/s	542.1	37.7	34.7
25	10.4	24.3	33.9	44.3	41.3	n/s	541.2	35.8	32.8
31.25	11.7	23.6	31.2	42.9	39.9	n/s	540.4	33.9	30.9
62.5	17.0	21.5	21.4	38.4	35.4	n/s	538.6	27.8	24.8
100	22	20.1	13.3	35.3	32.3	n/s	537.6	23.8	20.8
200	29.0	18.0	1.8	30.8	27.8	n/s	536.5	17.7	14.7
350	44.9	16.3	--	27.2	26.3	n/s	535	12.9	9.9

\*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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