

# CAT5E 24AWG/4PAIR CMP 350MHz U/UTP

**PART NO. 5ECMP150CO**



## DESCRIPTION

- 24 AWG 4Pair U/UTP Category 5E cable tested to 350 MHz. Available in Pull Box / Speed Bag

## FEATURES AND BENEFITS

- Structured Cabling for Ethernet Networks
- Unique pair twisting for balanced line signaling
- Performance guaranteed to 350 MHz
- Sequential footage markings
- Verified by third-party for guaranteed performance

## APPLICATIONS

- IEEE 802.3: 1000Base-T, 100 Base-TX, 10Base-T, PoE, PoE+
- 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                                | Copper            |
|                      | Nominal Outside Diameter (mm)           | 0.50              |
| Insulation           | Material                                | FEP               |
|                      | Diameter ( $\pm 0.05\text{mm}$ )        | 0.90              |
| Screen Material      |   | None              |
| Construction         |   | Unshielded/Plenum |
| Jacket               | Material                                | Low Smoke FR-PVC  |
|                      | Average Thickness (mm)                  | 0.45              |
|                      | Minimum Point Thickness (mm)            | 0.38              |
|                      | Outside Diameter ( $\pm 0.2\text{mm}$ ) | 4.9               |
| Rip Cord:            |   | 250D Nylon        |
| Drain Wire:          |   | None              |
| Packing              | Length                                  | 150ft/Coil        |
|                      | Weight                                  | 31 lbs            |
| Voltage Rating (Max) |   | 300V              |
| Flame Test Method    |   | CMP               |



## ELECTRICAL CHARACTERISTICS

|   |                        |                                |
|---|------------------------|--------------------------------|
| 1.0 - 250.0MHz characteristic impedance (ohms)        |                        | 100 $\pm$ 15                   |
| 250-650.0MHz Delay Skew (ns/100m)                     |                        | 45                             |
| Pair-to-Ground Capacitance Unbalance (Pf/100m)        |                        | 53                             |
| Max. Conductor DC Resistance Unbalance (%)            |                        | 3                              |
| Max. Resistance Unbalance (%)                         |                        | 5                              |
| 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) | $\geq 85\%$ of unaged          |
|   | Elongation (%)         | $\geq 50\%$ of unaged          |
| Aging Period ( $^{\circ}\text{C} \times \text{hrs}$ ) |                        | 100x240                        |
| Cold Bend (No Visible Crack)                          |                        | -40 $\pm$ 2 $^{\circ}\text{C}$ |
| Temperature Range                                     |                        | -25 ~ -75 $^{\circ}\text{C}$   |
| Velocity of Propagation (%) NVP                       |                        | 45                             |



6 Packs / 150' Speed Bag  
Weight: 31 lbs.

## AVAILABLE CATEGORY 6 (PART NUMBERS)

| PVC         | Plenum            | Shielded   | Shielded Plenum | Direct Burial | Shielded Direct Burial |
|-------------|-------------------|------------|-----------------|---------------|------------------------|
| 5ECMR150CO  | 5ECMP244Bx        | 5ESHDCMRBx | 5ESHDCMPBx      | 5EOUT244RB    | 5EOUTGSHDRB            |
| 5ECMR244Bx  | <b>5ECMP150CO</b> |            |                 | 5EOUTG244RB   | 5EOUTWSHDRB            |
| 5ECMR2425RG | 5ECMP2425RO       |            |                 | 5EOUTW244RB   | 5EOUTSHDDJRB           |
| 5ECMSTRxx   |                   |            |                 | 5EOUTA244RB   |                        |

Toll Free: (866) 945-5051  
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### 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<br>(MHz) | ATT<br>(dB/100m) | RL<br>(dB) | ACR<br>(dB) | Next<br>(dB) | PSNEXT<br>(dB) | TCL<br>(dB/100m) | PHASE<br>DELAY | ELFEXT<br>(dB/100m) | PSELFEXT<br>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                  |       |
| 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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\*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\*