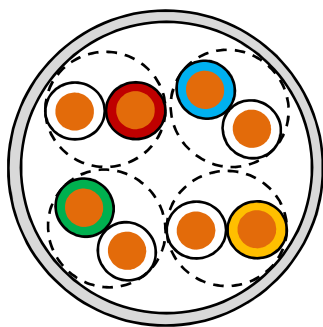




## CAT5e 4P 24AWG CMR

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### APPLICATIONS

IEEE 802.3: 1000Base-T; 100Base-T; 10Base-T  
IEEE 802.5: 4/6 Mbps Token Ring  
Gigabit Ethernet

### STANDARDS COMPLIANCE

TIA/EIA 568-C.2  
ISO/IEC 11801  
UL 444 UL# E356794  
NEMA WC-66  
KS C 3342

### FIRE RATING

CMR: UL 1666

### CONSTRUCTION

|                |                                                                                                                                                                                   |           |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Conductor      | Bare copper wire                                                                                                                                                                  | 24 AWG    |
| Insulation     | Polyethylene                                                                                                                                                                      | Ø 0.87 mm |
| Twisting       | 4 twisted pairs, 2 single conductors paired<br>Twisted pair color code:<br>1: Blue + White/Blue      2: Orange + White/Orange<br>3: Green + White/Green    4: Brown + White/Brown |           |
| Cable lay-up   | 4 pairs with different pitches                                                                                                                                                    |           |
| Outer jacket   | CMR                                                                                                                                                                               |           |
| Outer diameter | 5.0 mm ± 0.5 mm                                                                                                                                                                   |           |



## CAT5e 4P 24AWG CMR

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### MECHANICAL PROPERTIES

Bending Radius:  $\geq 4 \times OD$  (without load)  
Temperature range: during operation:  $-20^{\circ}\text{C} \sim 75^{\circ}\text{C}$   
during installation:  $0^{\circ}\text{C} \sim 60^{\circ}\text{C}$

### ELECTRICAL PROPERTIES (at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ )

DC resistance : Max.  $9.38 \Omega / 100 \text{ m}$  at  $20^{\circ}\text{C}$   
Resistance unbalance : Max. 5 % at  $20^{\circ}\text{C}$   
Mutual capacitance: Max.  $5.6 \text{ nf} / 100 \text{ m}$  at  $1 \text{ kHz}$   
Cap. unbalance to ground: Max.  $330 \text{ pf} / 100 \text{ m}$  at  $1 \text{ kHz}$   
Nominal velocity of propagation: 67 %

### TRANSMISSION CHARACTERISTICS ACC. TIA/EIA 568-C CAT 5e ( $20^{\circ}\text{C}$ )

| Freq. | RL   | IL   | NEXT | PS-NEXT | ACRF | PS-ACRF | delay | skew |
|-------|------|------|------|---------|------|---------|-------|------|
| MHz   | dB   | dB   | dB   | dB      | dB   | dB      | ns    | ns   |
|       | Min. | Max. | Min. | Min.    | Min. | Min.    | Max.  | Max. |
| 1     | 20.0 | 2.0  | 65.3 | 62.3    | 63.8 | 60.8    | 570   | 45   |
| 4     | 23.0 | 4.1  | 56.3 | 53.3    | 51.8 | 48.7    | 552   | 45   |
| 8     | 24.5 | 5.8  | 51.8 | 48.8    | 45.7 | 42.7    | 547   | 45   |
| 10    | 25.0 | 6.5  | 50.3 | 47.3    | 43.8 | 40.8    | 545   | 45   |
| 16    | 25.0 | 8.2  | 47.3 | 44.3    | 39.7 | 36.7    | 543   | 45   |
| 20    | 25.0 | 9.3  | 45.8 | 42.8    | 37.8 | 34.7    | 542   | 45   |
| 25    | 24.3 | 10.4 | 44.3 | 41.3    | 35.8 | 32.8    | 541   | 45   |
| 31.25 | 23.6 | 11.7 | 42.9 | 39.9    | 33.9 | 30.9    | 540   | 45   |
| 62.5  | 21.5 | 17.0 | 38.4 | 35.4    | 27.9 | 24.8    | 539   | 45   |
| 100   | 20.1 | 22.0 | 35.3 | 32.3    | 23.8 | 20.8    | 538   | 45   |
| 200   | 18.0 | 32.5 | 30.8 | 27.8    | 17.8 | 14.8    | 536   | 45   |
| 350   | 16.3 | 44.9 | 27.2 | 24.1    | 12.9 | 9.9     | 536   | 45   |