

## Technical Specifications

**Product Line: 24-4P-L5-HT**

### Description

4 pair 24 AWG solid, twisted, and unshielded cable

NEC type CMR and CEC type CMR FT4. Third party verified to ANSI/TIA-568C Category 5e performance. Product manufactured compliant to the requirements of UL444 for installations and applications in accordance with NEC articles 725 and 800.

### Conductor

Cat 5e: 24 AWG

Solid annealed bare copper conductors

Diameter: 0.019" | 0.49mm

### Electrical

DC resistance:  $\leq 28.6 \Omega / 1000'$  |  $93.8 \Omega/KM$

DCR Unbalance:  $\leq 5.0\%$

Capacitance: 14.0 pF/FT | 45.9 pF/M

Impedance:  $100 \pm 15 \Omega$

Propagation Delay (Skew): 45ns/100m MAX

Velocity of Propagation: 70%

Voltage rating: 300V

Pair to ground capacitance Unbalance:  $\leq 330 \text{ pF}/100M$

Maximum current: 1.4A@25°C

### Insulation

High density polyethylene

Wall thickness: 0.0085" | 0.216mm

Diameter: 0.037" | 0.94mm

### Regulatory

ANSI/TIA-568C Category 5e

NEC: CMR 75°C

CEC: CMR FT4 60°C

EU RoHS 2002/95/EC Compliant

### Color Code

Pair 1: Orange, White/orange stripe

Pair 2: Blue, White/blue stripe

Pair 3: Green, White/green stripe

Pair 4: Brown, White/brown stripe

### Packages

Nested Box: 1000' | 305M

Weight: 24 Lbs/1000' | 36 Kg/KM

### Assembly

Pairs twisted in varying lay lengths with co-extruded like striped conductor

4 twisted pairs cabled in a left hand lay on a common axis

### Installation

Pull Tension: 25 Lbs | 111 N

Bend radius: 2.00" | 51mm unloaded

Bend radius: 4.00" | 102mm loaded

### Construct

Ripcord under jacket

### Applications

Riser LAN systems 10/100/1000BaseT

Riser Phone, Voice, Video over IP and security video

BALUN support and media infrastructure

Infrared, audio

### Shield

N/A

### Performance

LAN: 300 feet

Passive Baluns up to 2500 feet

### Jacket

Polyvinyl chloride

Colors: Black Blue, Gray, Green, Orange, Pink, Purple, Red, White, Yellow

Wall thickness: 0.020" | 0.51mm

Diameter: 0.200" | 5.10mm

### Final Outside Diameter (inches)

0.200

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Specification Revision Date:

05/10/2013

Category 5e Performance Chart

| FREQ<br>(MHz) | Insertion<br>Loss<br>(dB/100m) | NEXT<br>(dB) | PSNEXT<br>(dB) | ACR<br>(dB/100m) | PSACR<br>(dB/100m) | ELFEXT<br>(dB/100m) | PSELFEXT<br>(dB/100m) | RL<br>(dB) |
|---------------|--------------------------------|--------------|----------------|------------------|--------------------|---------------------|-----------------------|------------|
|               | Max.                           | Min.         | Min.           | Min.             | Min.               | Min.                | Min.                  | Min.       |
| 0.772         | 1.8                            | 67.0         | 64.0           | 65.2             | 62.2               | 66.0                | 63.0                  | 19.4       |
| 1.0           | 2.0                            | 65.3         | 62.3           | 63.3             | 60.3               | 63.8                | 60.8                  | 20.0       |
| 4.0           | 4.1                            | 56.3         | 53.3           | 52.2             | 49.2               | 51.7                | 48.7                  | 23.0       |
| 8.0           | 5.8                            | 51.8         | 48.8           | 46.0             | 43.0               | 45.7                | 42.7                  | 24.5       |
| 10.0          | 6.5                            | 50.3         | 47.3           | 43.8             | 40.8               | 43.8                | 40.8                  | 25.0       |
| 16.0          | 8.3                            | 47.2         | 44.2           | 39.0             | 36.0               | 39.7                | 36.7                  | 25.0       |
| 20.0          | 9.3                            | 45.8         | 42.8           | 36.5             | 33.5               | 37.7                | 34.7                  | 25.0       |
| 25.0          | 10.4                           | 44.3         | 41.3           | 33.9             | 30.9               | 35.8                | 32.8                  | 24.3       |
| 31.25         | 11.7                           | 42.9         | 39.9           | 31.2             | 28.2               | 33.9                | 30.9                  | 23.6       |
| 62.5          | 17.0                           | 38.4         | 35.4           | 21.4             | 18.4               | 27.8                | 24.8                  | 21.5       |
| 100.0         | 22.0                           | 35.3         | 32.3           | 13.3             | 10.3               | 23.8                | 20.8                  | 20.1       |
| 155.0         | 25.8                           | 35.0         | 31.0           | 9.2              | 5.2                | 28.5                | 26.0                  | 19.6       |
| 200.0         | 30.0                           | 33.0         | 28.5           | 3.0              | -1.5               | 24.6                | 22.4                  | 18.5       |
| 250.0         | 36.8                           | 29.3         | 26.3           | -7.5             | -10.5              | 15.8                | 12.8                  | 17.8       |
| 300.0         | 38.5                           | 29.0         | 25.8           | -9.5             | -12.7              | 14.0                | 11.8                  | 16.8       |
| 350.0         | 44.8                           | 27.1         | 24.1           | -17.7            | -20.7              | 12.9                | 9.9                   | 16.3       |