

## Technical Specifications

### Product Line: 24-4P-L7SH

#### Description

4 pair 23 AWG solid, twisted and individually shielded pair cable with an overall braided shield NEC type CM and CEC type CMG FT4. Third party verified to ISO 11801 Class F (Category 7) performance. Product manufactured compliant to the requirements of UL444 for installations and applications in accordance with NEC articles 725 and 800.

#### Conductor

23 AWG  
Solid annealed bare copper conductors  
Diameter: 0.023" | 0.59mm

#### Electrical

DC resistance:  $\leq 28.59 \Omega / 1000'$  |  $93.8 \Omega/KM$   
DCR Unbalance:  $\leq 2.0 \%$   
Capacitance:  $17.0 \text{ pF/FT}$  |  $56.0 \text{ pF/M}$   
Impedance:  $100 \pm 15 \Omega$   
Propagation Delay (Skew):  $25\text{ns}/100\text{m MAX}$   
Velocity of Propagation:  $74\%$   
Voltage rating:  $300\text{V}$   
Pair to ground capacitance Unbalance:  $\leq 330 \text{ pF}/100\text{M}$   
Maximum current:  $1.4\text{A}@25^\circ\text{C}$

#### Insulation

Foam polyethylene  
Wall thickness:  $0.016"$  |  $0.40\text{mm}$   
Diameter:  $0.055"$  |  $1.40\text{mm}$

#### Regulatory

ISO 11801 Class F (Category 7)  
NEC: CM  $75^\circ\text{C}$   
CEC: CMG FT4  $60^\circ\text{C}$   
EU RoHS-2 2011/65/EU 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

Reel:  $1000'$  |  $305\text{M}$   
Weight:  $50 \text{ Lbs}/1000'$  |  $75 \text{ Kg}/\text{KM}$

#### Assembly

Pairs twisted in varying lay lengths with co-extruded like striped conductor  
4 twisted shielded pairs cabled on a common axis  
overall braided shield over construction

#### Installation

Pull Tension:  $25 \text{ Lbs}$  |  $111 \text{ N}$   
Bend radius:  $3.15"$  |  $80\text{mm}$  unloaded  
Bend radius:  $6.30"$  |  $160\text{mm}$  loaded

#### Construct

Ripcord under jacket

#### Applications

LAN systems 10/100/1000/10G BaseT  
Phone, Voice, Video over IP and security video  
BALUN support and media infrastructure  
Infrared, audio  
HDBaseT 4K Video 30/60Hz+

#### Shield

Each pair aluminum/polyester tape foil out  
 $65\%$   $16/8/38$  AWG tinned copper braid overall shield  
 $26$  AWG solid tinned copper drain

#### Performance

LAN:  $300$  feet  
Passive Baluns up to  $2500$  feet

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<b>Jacket</b>	<b>Final Outside Diameter (inches)</b>
Flame rated polyvinyl chloride	0.315
Colors: Blue	
Wall thickness: 0.023"   0.59mm	
Diameter: 0.315"   8.00mm	

Specification Revision Date: July 22, 2014

### Category 7 Performance Chart

FREQ (MHz)	Attenuation (dB/100m)	NEXT (dB)	PSNEXT (dB)	ACR (dB/100m)	PSACR (dB/100m)	ELFEXT (dB/100m)	PSELFEXT (dB/100m)	RL (dB)
	Max.	Min.	Min.	Min.	Min.	Min.	Min.	Min.
4.0	3.7	78.0	75.0	74.3	71.3	78.0	75.0	23.0
8.0	5.2	78.0	75.0	72.8	69.8	75.9	72.9	24.5
10.0	5.9	78.0	75.0	72.1	69.1	74.0	71.0	25.0
16.0	7.4	78.0	75.0	70.6	67.6	69.9	66.9	25.0
20.0	8.3	78.0	75.0	69.7	66.7	68.0	65.0	25.0
25.0	9.3	78.0	75.0	68.7	65.7	66.0	63.0	24.3
31.25	10.4	78.0	75.0	67.6	64.6	64.1	61.1	23.6
62.5	14.9	75.5	72.5	60.6	57.6	58.1	55.1	21.5
100.0	19.0	72.4	69.4	53.4	50.4	54.0	51.0	20.1
150.0	23.6	69.8	66.8	46.2	43.2	50.2	47.2	18.8
200.0	27.5	67.9	64.9	40.4	37.4	48.0	45.0	18.0
250.0	31.0	66.4	63.4	35.4	32.4	46.0	43.0	17.3
300.0	34.2	65.2	62.2	31.0	28.0	44.5	41.5	17.3
600.0	50.1	60.7	57.7	10.6	7.6	38.4	35.4	17.3