

## Technical Specifications

### Product Line: 24-4P-P-L6SH

#### Description

4 pair 23 AWG solid, twisted, and shielded cable NEC type CMP and CEC type CMP FT6. Third party verified to ANSI/TIA-568C Category 6 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: 0.0226" | 0.574mm

#### Electrical

DC resistance:  $\leq 28.60 \Omega / 1000'$  |  $93.8 \Omega/KM$   
DCR Unbalance:  $\leq 5.0\%$   
Capacitance:  $17.0 \text{ pF/FT}$  |  $56.0 \text{ pF/M}$   
Impedance:  $100 \pm 15 \Omega$   
Propagation Delay (Skew): 45ns/100m MAX  
Velocity of Propagation: 71%  
Voltage rating: 300V  
Pair to ground capacitance Unbalance:  $\leq 330 \text{ pF/100M}$   
Maximum current: 1.4A@25°C

#### Insulation

Fluorinated ethylene propylene  
Wall thickness: 0.0115" | 0.2921mm  
Diameter: 0.045" | 1.138mm

#### Regulatory

ANSI/TIA-568-C Category 6  
NEC: CMP 75°C  
CEC: CMP FT6 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

Reel: 1000' | 305M  
Weight: 36 Lbs/1000' | 54 Kg/KM

#### Assembly

Pairs twisted in varying lay lengths  
Each pair in a fluoropolymer X separator interstice

#### Installation

Pull Tension: 25 Lbs | 111 N  
Bend radius: 2.90" | 74mm unloaded  
Bend radius: 5.80" | 148mm loaded  
Plenum cable should be conditioned at room temperature for 24 hours prior to installation and never installed below 32°F | 0°C ambient temperature

#### Construct

100% Polyester tape binder

#### Applications

Plenum LAN systems 10/100/1000BaseT  
Plenum Phone, Voice, Video over IP and security video  
BALUN support and media infrastructure  
Infrared, audio

#### Shield

100% aluminum/polyester tape foil in  
24 AWG solid tinned copper drain

#### Performance

LAN: 300 feet  
Passive Baluns up to 2500 feet

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### Jacket

Plenum rated polyvinyl chloride  
 Colors: White, Yellow  
 Wall thickness: 0.023" | 0.584mm  
 Diameter: 0.290" | 7.37mm

### Final Outside Diameter (inches)

0.290

Specification Revision Date:

August 5, 2013

### Category 6 Performance Chart

FREQ (MHz)	Insertion Loss (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.
1.0	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4.0	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0
8.0	5.3	60.8	58.8	55.5	53.5	49.7	46.7	24.5
10.0	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16.0	7.6	56.2	54.2	48.6	46.6	43.7	40.7	25.0
20.0	8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0
25.0	9.5	53.3	51.3	43.8	41.8	39.8	36.8	24.3
31.25	10.7	51.9	49.9	41.2	39.2	37.9	34.9	23.6
62.5	15.4	47.4	45.4	32.0	30.0	31.9	28.9	21.5
100.0	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
155.0	25.2	41.4	39.4	16.2	14.2	24.0	21.0	18.8
200.0	29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0
250.0	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3
300.0	36.4	37.1	35.1	0.7	-1.3	18.3	15.3	16.8
350.0	39.8	36.1	34.1	-3.7	-5.7	16.9	13.9	16.3
400.0	43.0	35.3	33.3	-7.7	-9.7	15.8	12.8	15.9
500.0	48.9	33.8	31.8	-15.1	-17.1	13.8	10.8	15.2
555.0	52.0	33.1	31.1	-18.9	-20.9	12.9	9.9	14.9