

## Technical Specifications

**Product Line:** 24-8P-L6-SIAM

### Description

Dual 4 pair 23 AWG solid, twisted, and unshielded cable NEC type CMR and CEC type CMR FT4. Third party verified to ANSI/TIA-568 Category 6 performance. Product manufactured compliant to the requirements of UL444 for installations and applications in accordance with NEC article(s) 725 and 800.

### Conductor

23 AWG  
Solid annealed bare copper conductors  
Diameter: 0.023" | 0.58mm

### Electrical

DC resistance:  $\leq 20.3 \Omega / 1000'$  |  $66.6 \Omega/\text{KM}$   
DCR Unbalance:  $\leq 5.0\%$   
Capacitance:  $14.0 \text{ pF}/\text{FT}$  |  $45.9 \text{ pF}/\text{M}$   
Impedance:  $100 \pm 15 \Omega$   
Propagation Delay (Skew): 45ns/100m MAX  
Velocity of Propagation: 69%  
Voltage rating: 300V  
Pair to ground capacitance Unbalance:  $\leq 330 \text{ pF}/100\text{M}$   
Maximum current: 1.4A@25°C

### Insulation

High density polyethylene  
Wall thickness: 0.009" | 0.22mm  
Diameter: 0.041" | 1.03mm

### Regulatory

ANSI/TIA-568-D Category 6  
NEC: CMR 75°C  
CEC: CMG FT4 60°C  
EU RoHS III 2015/863/EU Compliant  
REACH (EC) No 1907/2006 Compliant

### Color Code

Note: Both cables use same code  
Pair 1: Blue, White/blue stripe  
Pair 2: Orange, White/orange stripe  
Pair 3: Green, White/green stripe  
Pair 4: Brown, White/brown stripe

### Packages

Reel: 1000' | 305M  
Weight: 60 Lbs/1000' | 90 Kg/KM

### Assembly

Pairs twisted in varying lay lengths with co-extruded like striped conductor  
Each pair in a polyethylene X separator interstice

### Installation

Pull Tension: 50 Lbs | 222 N  
Bend radius: 4.75" | 122mm unloaded  
Bend radius: 9.50" | 244mm loaded

### Construct

Ripcord under the jackets  
2 jacketed cables in parallel joined by a web

### Applications

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

### Shield

N/A

### Performance

LAN: 300 feet  
Passive Baluns up to 2500 feet

### Jacket

Flame rated polyvinyl chloride  
Colors: Blue, White  
Wall thickness: 0.020" | 0.50mm  
Cable diameter: 0.234 x 0.478" | 5.95 x 12.15mm

### Final Outside Diameter (inches)

0.234 x 0.478

Specification Revision Date:

May 21, 2007



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Cat6 Performance Data:

Frequency (MHz)	Insertion Loss Max. dB/100m	NEXT Min. dB/100m	PS.NEXT Min. dB/100m	ACR Min. dB/100m	PS.ACR Min. dB/100m	ACRF Min. dB/100m	PS.ACRF Min. dB/100m	RL Min. dB/100m	PropagationDelay Max. ns/100m	DelaySkew Max. ns/100m
1	2.03	74.30	72.30	72.27	70.27	67.80	64.80	20.00	570.00	45.00
4	3.78	65.27	63.27	61.49	59.49	55.76	52.76	23.01	552.00	
8	5.32	60.75	58.75	55.43	53.43	49.74	46.74	24.52	546.73	
10	5.95	59.30	57.30	53.35	51.35	47.80	44.80	25.00	545.38	
16	7.55	56.24	54.24	48.69	46.69	43.72	40.72	25.00	543.00	
20	8.47	54.78	52.78	46.31	44.31	41.78	38.78	25.00	542.05	
25	9.51	53.33	51.33	43.82	41.82	39.84	36.84	24.32	541.20	
31.25	10.67	51.88	49.88	41.21	39.21	37.90	34.90	23.64	540.44	
62.5	15.38	47.36	45.36	31.98	29.98	31.88	28.88	21.54	538.55	
100	19.80	44.30	42.30	24.50	22.50	27.80	24.80	20.11	537.60	
150	24.71	41.66	39.66	16.95	14.95	24.28	21.28	18.87	536.94	
200	28.98	39.78	37.78	10.80	8.80	21.78	18.78	18.00	536.55	
250	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.28	
300	36.43	37.14	35.14	0.71	-1.29	18.26	15.26	16.77	536.08	
350	39.79	36.14	34.14	-3.65	-5.65	16.92	13.92	16.30	535.92	
400	42.97	35.27	33.27	-7.70	-9.70	15.76	12.76	15.89	535.80	
450	46.01	34.50	32.50	-11.51	-13.51	14.74	11.74	15.53	535.70	
500	48.94	33.82	31.82	-15.12	-17.12	13.82	10.82	15.21	535.61	
550	51.76	33.19	31.19	-18.57	-20.57	12.99	9.99	14.92	535.54	

Values above 250MHz are for information only.

