



Technical Specifications

Product Line: 24-4P-L6

Description

4 pair 23 AWG solid, twisted, and unshielded cable

NEC type CMR and CEC type CMR FT4. 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: $\leq 20.3 \Omega / 1000'$ | $66.6 \Omega/KM$

DCR Unbalance: $\leq 5\%$

Capacitance: 14.0 pF/FT | 45.9 pF/M

Impedance: $100 \pm 15 \Omega$

Propagation Delay (Skew): $45\text{ns}/100\text{m MAX}$

Velocity of Propagation: 68%

Voltage rating: 300V

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

Maximum current: $1.4\text{A}@25^\circ\text{C}$

Insulation

Polyethylene

Wall thickness: $0.008"$ | 0.20mm

Diameter: $0.0386"$ | 0.98mm

Regulatory

ANSI/TIA-568-C Category 6

NEC: CMR 75°C

CEC: CMG 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

Reel: $1000'$ | 305M

Weight: $26 \text{ Lbs}/1000'$ | $39 \text{ Kg}/\text{KM}$

Assembly

Pairs twisted in varying lay lengths

Each pair in a polyethylene X separator interstice

Installation

Pull Tension: 25 Lbs | 111 N

Bend radius: $2.40"$ | 61mm unloaded

Bend radius: $4.80"$ | 122mm 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: Blue, Yellow, Gray, White

Wall thickness: $0.024"$ | 0.610mm

Diameter: $0.240"$ | 6.10mm

Final Outside Diameter (inches)

0.240





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Specification Revision Date:

May 22, 2010

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.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical	Min.	Typical
1.0	2.0	1.5	74.3	94.0	72.3	88.3	72.3	92.5	70.3	86.8	67.8	89.8	64.8	82.5	20.0	35.0
4.0	3.8	3.2	65.3	86.2	63.3	80.0	61.5	83.0	59.5	76.8	55.8	78.3	52.8	70.3	23.0	35.7
8.0	5.3	4.6	60.8	81.9	58.8	75.2	55.5	77.3	53.5	70.6	49.7	71.8	46.7	64.6	24.5	38.7
10.0	6.0	5.2	59.3	80.9	57.3	74.1	53.3	75.7	51.3	68.9	47.8	69.5	44.8	62.4	25.0	37.6
16.0	7.6	6.7	56.2	76.7	54.2	70.9	48.6	70.0	46.6	64.2	43.7	65.5	40.7	58.6	25.0	41.9
20.0	8.5	7.5	54.8	74.5	52.8	69.1	46.3	67.0	44.3	61.6	41.8	64.2	38.8	57.0	25.0	38.4
25.0	9.5	8.5	53.3	73.6	51.3	67.7	43.8	65.1	41.8	59.2	39.8	62.2	36.8	55.0	24.3	39.1
31.25	10.7	9.5	51.9	71.5	49.9	65.4	41.2	62.0	39.2	55.9	37.9	59.9	34.9	52.6	23.6	38.5
62.5	15.4	13.8	47.4	70.2	45.4	62.7	32.0	56.4	30.0	48.9	31.9	53.3	28.9	45.6	21.5	35.9
100.0	19.8	17.8	44.3	66.9	42.3	61.4	24.5	49.1	22.5	43.6	27.8	49.2	24.8	40.6	20.1	31.9
200.0	29.0	26.1	39.8	62.4	37.8	56.5	10.8	36.3	8.8	30.4	21.8	42.2	18.8	33.8	18.0	28.4
250.0	32.8	29.3	38.3	60.1	36.3	53.2	5.5	30.8	3.5	23.9	19.8	39.7	16.8	31.7	17.3	26.5
300.0		32.5		57.5		51.6		25.0		19.1		36.8		29.3		25.2
350.0		35.3		55.8		49.5		20.5		14.2		32.7		26.0		23.9
400.0		38.0		53.0		47.6		15.0		9.6		29.8		24.4		23.9
500.0		42.8		52.0		48.5		9.2		5.7		25.3		19.5		25.7
550.0		45.0		50.0		47.5		5.0		2.5		23.3		17.6		25.7
600.0		47.0		48.0		46.1		1.0		-0.9		19.6		13.7		24.0

