

4813 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable



For more Information
please call

1-800-Belden1



General Description:

CAT6+ (600MHz), 4-Pair, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Dual FRPO/FEP insulation, Patented X-Spline, Ripcord, Flamarrest® Jacket

Usage (Overall)

Suitable Applications: Premise Horizontal Cable, Gigabit Ethernet, POE, POE+, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors: 8

Insulation

Insulation Material:

Insulation Material
FRPO/FEP - Flame Retardant Polyolefin/Fluorinated Ethylene Propylene

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (in.)
0.255

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Patented X-Spline Center Member

Pair

Pair Color Code Chart:

Number	Color
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Mechanical Characteristics (Overall)

Installation Temperature Range: +5°C To +50°C

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 34 lbs/1000 ft.

Max. Recommended Pulling Tension: 45 lbs.

Min. Bend Radius/Minor Axis: 1 in.

Min. Bend/Installation: 2.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

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NEC Articles:	800
CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	07/01/2006
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	C(UL)US CMP 90C OR (UL) CMP-LP (0.6A) OR CL3P-LP (0.6A)

Applicable Patents:

Country
www.belden.com/p

Flame Test

UL Flame Test:	NFPA 262
CSA Flame Test:	FT6

Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	4812

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15.5

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

VP (%)
70.000

Maximum Delay:

Delay (ns/100 m)
510.000

Max. Delay Skew:

Delay Skew (ns/100 m)
25.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
6.600

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
0.772	1.700	83.0	82.0	81.3	80.3	
1	1.900	81.3	80.3	79.4	78.4	20.000
4	3.500	72.3	71.3	68.8	67.8	23.000
8	4.900	67.8	66.8	62.8	61.8	24.500
10	5.500	66.3	65.3	60.8	59.8	25.000
16	7.000	63.2	62.2	56.3	55.3	25.000
20	7.800	61.8	60.8	54.0	53.0	25.000

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25	8.700	60.3	59.3	51.6	50.6	25.000
31.25	9.800	58.9	57.9	49.1	48.1	24.300
62.5	14.100	54.4	53.4	40.3	39.3	22.200
100	18.000	51.3	50.3	33.3	32.3	20.800
155	22.700	48.4	47.4	24.8	23.8	19.500
200	26.200	46.8	45.8	20.6	19.6	18.700
250	29.600	45.3	44.3	15.8	14.8	18.000
300	32.700	44.1	43.1	11.4	10.4	17.500
350	35.600	43.1	42.1	7.5	6.5	17.000
400	38.400	42.3	41.3	3.9	2.9	16.600
450	41.000	41.5	40.5	0.5	-0.5	16.200
500	43.600	40.8	39.8	-2.8	-3.8	15.900
550	46.000	40.2	39.2	-5.8	-6.8	12.900
600	48.400	39.6	38.6	-8.7	-9.7	12.700

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
0.772		102 ± 15	77.0	75.0
1	100 ± 15	100 ± 15	74.8	72.8
4	100 ± 15	100 ± 15	62.8	60.8
8	100 ± 15	100 ± 15	56.7	54.7
10	100 ± 15	100 ± 15	54.8	52.8
16	100 ± 15	100 ± 15	50.7	48.7
20	100 ± 15	100 ± 15	48.8	46.8
25	100 ± 15	100 ± 15	46.8	44.8
31.25	100 ± 15	100 ± 15	44.9	42.9
62.5	100 ± 15	100 ± 15	38.9	36.9
100	100 ± 15	100 ± 15	34.8	32.8
155	100 ± 22	100 ± 15	31.0	29.0
200	100 ± 22	100 ± 15	28.8	26.8
250	100 ± 32	100 ± 15	26.8	24.8
300	100 ± 32	100 ± 15	25.3	23.3
350	100 ± 32	100 ± 15	23.9	21.9
400	100 ± 32	100 ± 15	22.8	20.8
450	100 ± 32	100 ± 15	21.7	19.7
500	100 ± 32	100 ± 15	20.8	18.8
550	100 ± 32	100 ± 15	20.0	18.0
600	100 ± 32	100 ± 15	19.2	17.2

Premise Cable Electrical Table 4:

Frequency (MHz)	Min. TCL (dB)	Min. ELTCTL (dB)
0.772	40.000	37.200
1.000	40.000	35.000
4.000	40.000	23.000
8.000	40.000	16.900
10.000	40.000	15.000
16.000	38.000	10.900
20.000	37.000	9.000
25.000	36.000	7.000
31.250	35.100	
62.500	32.000	
100.000	30.000	
155.000	28.100	
200.000	27.000	
250.000	26.000	

Notes (Overall)

Notes: Belden IBDN. Jacket sequentially marked at 2 ft./1m intervals. Values above 600 MHz are for Engineering Informaton Only. Third party verified to ANSI/TIA-568-C.2, Category 6.

Reference (Overall)

Previous Part Number: 24587785, 24587785+US, 25087885, 25087885+US, 24587185, 24587185+US, 24587385, 24587385+US, 24587336, 24587336+US, 24587315, 24587485, 24587485+US, 24587451+US, 24587985, 24587985+US, 24587915, 24587915+US

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
4813 D15A1000	1,000 FT	37.000 LB	BLUE		CAT6E+ 4PR U/UTP CMP RIB

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4813 D151000	1,000 FT	37.000 LB	BLUE		CAT6E+ 4PR U/UTP CMP REEL
4813 0041000	1,000 FT	37.000 LB	YELLOW		CAT6E+ 4PR U/UTP CMP REEL
4813 0051000	1,000 FT	37.000 LB	GREEN, DARK		CAT6E+ 4PR U/UTP CMP REEL
4813 0081000	1,000 FT	37.000 LB	GRAY		CAT6E+ 4PR U/UTP CMP REEL
4813 009A1000	1,000 FT	37.000 LB	WHITE		CAT6E+ 4PR U/UTP CMP RIB
4813 0091000	1,000 FT	37.000 LB	WHITE		CAT6E+ 4PR U/UTP CMP REEL
4813 0092500	2,500 FT	87.500 LB	WHITE		CAT6E+ 4PR U/UTP CMP REEL
4813 0101000	1,000 FT	37.000 LB	BLACK		CAT6E+ 4PR U/UTP CMP REEL
4813 0103000	3,000 FT	108.000 LB	BLACK		CAT6E+ 4PR U/UTP CMP REEL

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