

## 4812 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, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, X Spline, Ripcord, PVC Jacket

### Usage (Overall)

Suitable Applications:

Premise Horizontal Cable, Gigabit Ethernet, 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
PO - Polyolefin

#### Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - 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)

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

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

Operating Temperature Range: -20°C To +60°C

Bulk Cable Weight: 31 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

## 4812 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E
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):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MIL Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	UL Verified to Category 6

**Applicable Patents:**

<b>Country</b>
www.belden.com/p

**Flame Test**

UL Flame Test:	UL1666 Vertical Riser
C(UL) Flame Test:	FT4
CSA Flame Test:	FT4

**Suitability**

Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Sunlight Resistance:	No

**Plenum/Non-Plenum**

Plenum (Y/N):	No
Plenum Number:	4813

### Electrical Characteristics (Overall)

**Nom. Mutual Capacitance:**

<b>Capacitance (pF/ft)</b>
15.500

Maximum Capacitance Unbalance (pF/100 m):	330
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**Nominal Velocity of Propagation:**

<b>VP (%)</b>
68.000

**Maximum Delay:**

<b>Delay (ns/100 m)</b>
538 @ 100MHz

**Max. Delay Skew:**

<b>Delay Skew (ns/100 m)</b>
25.000

**Maximum Conductor DC Resistance:**

<b>DCR @ 20°C (Ohm/100 m)</b>
6.600

**Max. Operating Voltage - UL:**

<b>Voltage</b>
300 V RMS

**Maximum DCR Unbalanced:**

<b>DCR Unbalance @ 20°C (%)</b>
3

### Electrical Characteristics-Premise (Overall)

**Premise Cable Electrical Table 1:**

<b>Freq. (MHz)</b>	<b>Max. Attenuation (dB/100 m)</b>	<b>Min. NEXT (dB)</b>	<b>Min. PSNEXT (dB)</b>	<b>Min. ACR (dB)</b>	<b>Min. PSACR (dB)</b>	<b>Min RL (dB)</b>
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## 4812 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

0.772	1.700	83	82	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
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 Information Only. Third party verified to ANSI/TIA-568-C.2, Category 6.

### Reference (Overall)

## 4812 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

Previous Part Number: 24586685, 24586685+US, 24586785, 24586785+US, 25086885, 25086885+US, 24586985, 24586985+US, 24586956, 24586956+US, 24586915, 24586915+US, 24586185, 24586385, 24586385+US, 24586315, 24586315+US, 24586451+US

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
4812 0021000	1,000 FT	31.000 LB	RED		CAT6E+ 4PR U/UTP CMR REEL
4812 0041000	1,000 FT	31.000 LB	YELLOW		CAT6E+ 4PR U/UTP CMR REEL
4812 0051000	1,000 FT	31.000 LB	GREEN, DARK		CAT6E+ 4PR U/UTP CMR REEL
4812 006A1000	1,000 FT	31.000 LB	BLUE, LIGHT		CAT6E+ 4PR U/UTP CMR RIB
4812 0061000	1,000 FT	31.000 LB	BLUE, LIGHT		CAT6E+ 4PR U/UTP CMR REEL
4812 0062500	2,500 FT	82.500 LB	BLUE, LIGHT		CAT6E+ 4PR U/UTP CMR REEL
4812 0081000	1,000 FT	31.000 LB	GRAY		CAT6E+ 4PR U/UTP CMR REEL
4812 009A1000	1,000 FT	31.000 LB	WHITE		CAT6E+ 4PR U/UTP CMR RIB
4812 0091000	1,000 FT	31.000 LB	WHITE		CAT6E+ 4PR U/UTP CMR REEL
4812 0103000	3,000 FT	102.000 LB	BLACK		CAT6E+ 4PR U/UTP CMR REEL

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