

3613 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable



For more Information
please call

1-800-Belden1

**General Description:**

CAT6+ (400MHz), 4-Pair, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Dual FRPO/FEP Insulation, Patented X-Spline Center Member, Rip Cord, Flamarrest® 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
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	Nom. Wall Thickness (mm)
Flamarrest(R)	LS PVC - Low Smoke Polyvinyl Chloride	0.432

Outer Jacket Diameter:

Nom. Dia. (mm)
5.969

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Patented X-Spline Center Member

Overall Nominal Diameter: 5.969 mm

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

3613 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

Mechanical Characteristics (Overall)

Storage Temperature Range:	-20°C To +75°C
Installation Temperature Range:	+5°C To +50°C
Operating Temperature Range:	0°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	47.622 Kg/Km
Max. Recommended Pulling Tension:	200.169 N
Min. Bend Radius/Minor Axis:	19.050 mm
Min. Bend/Installation:	57.150 mm

Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
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):	04/03/2009
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:	6

Applicable Patents:

Country	Patent
US	5563377
US	6074503
US	7663061
US	7977575
US	8536455

Flame Test

UL Flame Test:	NFPA 262
C(UL) Flame Test:	FT6

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	3612

3613 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

50.8555

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

VP (%)

70.000

Maximum Delay:

Freq. (MHz) Delay (ns/100 m)

100.000 537.600

Typical Delay Skew:

Delay Skew (ns/m)

114.835

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

7.700

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3.000

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	1.800	81.0	81.0	79.2	79.2	
1	2.000	79.3	79.3	77.3	77.3	20.000
4	3.700	70.3	70.3	66.6	66.6	23.000
8	5.200	65.8	65.8	60.6	60.6	24.500
10	5.800	64.3	64.3	58.5	58.5	25.000
16	7.400	61.2	61.2	53.9	53.9	25.000
20	8.300	59.8	59.8	51.5	51.5	25.000
25	9.300	58.3	58.3	49.1	49.1	24.300
31.25	10.400	56.9	56.9	46.5	46.5	23.600
62.5	15.000	52.4	52.4	37.4	37.4	21.500
100	19.300	49.3	49.3	30.0	30.0	20.800
155	24.600	46.4	46.4	21.8	21.8	19.500
200	28.300	44.8	44.8	16.5	16.5	18.700
250	32.100	43.3	43.3	11.2	11.2	18.000
300	35.600	42.1	42.1	6.5	6.5	17.500
350	38.900	41.1	41.1	2.3	2.3	17.000
400	42.000	38.3	38.3	-3.7	-3.7	16.600
450	45.000	37.5	37.5			16.200
500	47.900	36.8	36.8			15.900
550	50.600	36.2	36.2			15.600
600	53.300	35.6	35.6			15.400
650	55.900	35.1	35.1			15.100

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Min. ACRF (dB)	Min. PSACRF (dB)
.772		75.0	73.0
1	100 ± 15	72.8	70.8
4	100 ± 15	60.8	58.8
8	100 ± 15	54.7	52.7

3613 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

10	100 ± 15	52.8	50.8
16	100 ± 15	48.7	46.7
20	100 ± 15	46.8	44.8
25	100 ± 15	44.8	42.8
31.25	100 ± 15	42.9	40.9
62.5	100 ± 15	36.9	34.9
100	100 ± 15	32.8	30.8
155	100 ± 22	28.9	26.9
200	100 ± 22	26.8	24.8
250	100 ± 32	24.8	22.8
300	100 ± 32	23.3	21.3
350	100 ± 32	21.9	19.9
400	100 ± 32	20.8	18.8
450	100 ± 32	19.7	17.7
500	100 ± 32	18.8	16.8
550	100 ± 32	18.0	16.0
600	100 ± 32	17.2	15.2
650	100 ± 32	16.5	14.5

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: Jacket sequentially marked at 2 ft./1m intervals. Third party verified to ANSI/TIA-568-C.2 Category 6. Values above 400 MHz are for engineering information only.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3613 D15A1000	305 MT	14.515 KG	BLUE		CAT6E 4PR U/UTP CMP RIB
3613 D15U1000	305 MT	13.608 KG	BLUE		CAT6E 4PR U/UTP CMP BOX
3613 D15I1000	305 MT	13.608 KG	BLUE		CAT6E 4PR U/UTP CMP REEL
3613 D152500	762 MT	31.752 KG	BLUE		CAT6E 4PR U/UTP CMP REEL
3613 002A1000	305 MT	14.515 KG	RED		CAT6E 4PR U/UTP CMP RIB
3613 003A1000	305 MT	14.515 KG	ORANGE		CAT6E 4PR U/UTP CMP RIB
3613 003U1000	305 MT	13.608 KG	ORANGE		CAT6E 4PR U/UTP CMP BOX
3613 003I1000	305 MT	13.608 KG	ORANGE		CAT6E 4PR U/UTP CMP REEL
3613 004A1000	305 MT	14.515 KG	YELLOW		CAT6E 4PR U/UTP CMP RIB
3613 004U1000	305 MT	13.608 KG	YELLOW		CAT6E 4PR U/UTP CMP BOX
3613 004I1000	305 MT	13.608 KG	YELLOW		CAT6E 4PR U/UTP CMP REEL
3613 0042500	762 MT	31.752 KG	YELLOW		CAT6E 4PR U/UTP CMP REEL
3613 005A1000	305 MT	14.515 KG	GREEN, DARK		CAT6E 4PR U/UTP CMP RIB
3613 005U1000	305 MT	13.608 KG	GREEN, DARK		CAT6E 4PR U/UTP CMP BOX
3613 005I1000	305 MT	13.608 KG	GREEN, DARK		CAT6E 4PR U/UTP CMP REEL
3613 0052500	762 MT	31.752 KG	GREEN, DARK		CAT6E 4PR U/UTP CMP REEL
3613 007A1000	305 MT	14.515 KG	VIOLET		CAT6E 4PR U/UTP CMP RIB
3613 007U1000	305 MT	13.608 KG	VIOLET		CAT6E 4PR U/UTP CMP BOX

METRIC MEASUREMENT VERSION

3613 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

3613 008A1000	305 MT	14.515 KG	GRAY	CAT6E 4PR U/UTP CMP RIB
3613 008U1000	305 MT	13.608 KG	GRAY	CAT6E 4PR U/UTP CMP BOX
3613 0081000	305 MT	13.608 KG	GRAY	CAT6E 4PR U/UTP CMP REEL
3613 009A1000	305 MT	14.515 KG	WHITE	CAT6E 4PR U/UTP CMP RIB
3613 009U1000	305 MT	13.608 KG	WHITE	CAT6E 4PR U/UTP CMP BOX
3613 0091000	305 MT	13.608 KG	WHITE	CAT6E 4PR U/UTP CMP REEL
3613 0092500	762 MT	31.752 KG	WHITE	CAT6E 4PR U/UTP CMP REEL
3613 010A1000	305 MT	14.515 KG	BLACK	CAT6E 4PR U/UTP CMP RIB
3613 010U1000	305 MT	13.608 KG	BLACK	CAT6E 4PR U/UTP CMP BOX
3613 0101000	305 MT	13.608 KG	BLACK	CAT6E 4PR U/UTP CMP REEL
3613 0102500	762 MT	31.752 KG	BLACK	CAT6E 4PR U/UTP CMP REEL
3613 012A1000	305 MT	14.515 KG	PINK	CAT6E 4PR U/UTP CMP RIB

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