

## 3612 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, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented 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
Polyolefin

#### Outer Shield

##### Outer Shield Material:

Outer Shield Material
Unshielded

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC	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

### Mechanical Characteristics (Overall)

**Storage Temperature Range:** -30°C To +75°C

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Installation Temperature Range:	+5°C To +50°C
Operating Temperature Range:	0°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	41.670 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:	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):	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

#### Applicable Patents:

Country	Patent
US	6074503
US	7663061
US	7977575
US	8563455

#### Flame Test

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

#### Suitability

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

#### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	3613

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/m)
50.8555

## 3612 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

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	46.5	46.5	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	40.1	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
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

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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
3612 003A1000	305 MT	13.154 KG	ORANGE	C	CAT6E 4PR U/UTP CMR RIB
3612 003U1000	305 MT	12.247 KG	ORANGE		CAT6E 4PR U/UTP CMR BOX
3612 004A1000	305 MT	13.154 KG	YELLOW	C	CAT6E 4PR U/UTP CMR RIB
3612 004U1000	305 MT	12.247 KG	YELLOW		CAT6E 4PR U/UTP CMR BOX
3612 0041000	305 MT	12.247 KG	YELLOW	C	CAT6E 4PR U/UTP CMR REEL
3612 0042500	762 MT	30.618 KG	YELLOW		CAT6E 4PR U/UTP CMR REEL
3612 005A1000	305 MT	13.154 KG	GREEN, DARK	C	CAT6E 4PR U/UTP CMR RIB
3612 005U1000	305 MT	12.247 KG	GREEN, DARK		CAT6E 4PR U/UTP CMR BOX
3612 0051000	305 MT	12.247 KG	GREEN, DARK	C	CAT6E 4PR U/UTP CMR REEL
3612 006A1000	305 MT	13.154 KG	BLUE, LIGHT	C	CAT6E 4PR U/UTP CMR RIB
3612 006U1000	305 MT	12.247 KG	BLUE, LIGHT		CAT6E 4PR U/UTP CMR BOX
3612 0061000	305 MT	12.247 KG	BLUE, LIGHT	C	CAT6E 4PR U/UTP CMR REEL
3612 0062500	762 MT	30.618 KG	BLUE, LIGHT		CAT6E 4PR U/UTP CMR REEL
3612 007A1000	305 MT	13.154 KG	VIOLET	C	CAT6E 4PR U/UTP CMR RIB
3612 007U1000	305 MT	12.247 KG	VIOLET		CAT6E 4PR U/UTP CMR BOX
3612 008A1000	305 MT	13.154 KG	GRAY	C	CAT6E 4PR U/UTP CMR RIB
3612 008U1000	305 MT	12.247 KG	GRAY		CAT6E 4PR U/UTP CMR BOX
3612 0081000	305 MT	12.247 KG	GRAY	C	CAT6E 4PR U/UTP CMR REEL
3612 009A1000	305 MT	13.154 KG	WHITE	C	CAT6E 4PR U/UTP CMR RIB
3612 009U1000	305 MT	12.247 KG	WHITE		CAT6E 4PR U/UTP CMR BOX
3612 0091000	305 MT	12.247 KG	WHITE	C	CAT6E 4PR U/UTP CMR REEL
3612 0092500	762 MT	30.618 KG	WHITE		CAT6E 4PR U/UTP CMR REEL
3612 010A1000	305 MT	13.154 KG	BLACK	C	CAT6E 4PR U/UTP CMR RIB

## METRIC MEASUREMENT VERSION

### 3612 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cable

3612 010U1000	305 MT	12.247 KG	BLACK		CAT6E 4PR U/UTP CMR BOX
3612 010I1000	305 MT	12.247 KG	BLACK	C	CAT6E 4PR U/UTP CMR REEL

**Notes:**

C = CRATE REEL PUT-UP.

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