

## 10GX63F Multi-Conductor - Enhanced Category 6A F/UTP Bonded-Pair Cable



For more Information  
please call

1-800-Belden1



### Description:

23 AWG Solid Bare Copper Bonded-Pair Conductors, Polyolefin Insulation, X-Spline Center Member, Inner Jacket, F/UTP Overall Foil Screen with Drain Wire, Rip Cord, PVC Jacket.

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, 10 Gigabit Ethernet, 100Base TX, 100Base VG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio AES51, RS-422, Noisy Environments, PoE

### 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
FEP

#### Inner Jacket

**Inner Jacket Material:**

Inner Jacket Material
PVC

**Inner Jacket Ripcord:** Yes

#### Outer Shield

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire	Conductor Material
26	Solid		Tinned Copper

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
Flamarrest (R) PVC - Polyvinyl Chloride

**Outer Jacket Diameter:**

Nom. Dia. (mm)
7.493

**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

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4	White/Brown Stripe & Brown
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### Mechanical Characteristics (Overall)

Storage Temperature Range:	-20°C To +80°C
Installation Temperature Range:	+5°C To +50°C
Operating Temperature Range:	-10°C To +75°C
Bulk Cable Weight:	66.969 Kg/Km
Max. Recommended Pulling Tension:	200.169 N
Min. Bend Radius/Minor Axis:	30.480 mm
Min. Bend/Installation:	76.200 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class EA
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):	03/07/2011
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 6A - TIA 568.C.2

#### Applicable Patents:

Country	Patent
US	5486649
US	5606151
US	5734126
US	7663061

#### Flame Test

UL Flame Test:	NFPA 262 Plenum Flame Test (UL910)(FT6)
C(UL) Flame Test:	FT6
CSA Flame Test:	FT6

#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Burial:	No
Sunlight Resistance:	No
Non-halogenated:	No

#### Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	10GX62F

## 10GX63F Multi-Conductor - Enhanced Category 6A F/UTP Bonded-Pair Cable

### Electrical Characteristics (Overall)

**Nom. Mutual Capacitance:**

<b>Capacitance (pF/m)</b>
55.777

**Maximum Capacitance Unbalance (pF/100 m):** 90

**Nominal Velocity of Propagation:**

<b>VP (%)</b>
64.000

**Maximum Delay:**

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

**Max. Delay Skew:**

<b>Delay Skew (ns/100 m)</b>
45.000

**Maximum Conductor DC Resistance:**

<b>DCR @ 20°C (Ohm/100 m)</b>
8.200

**Max. Operating Voltage - UL:**

<b>Voltage</b>
300 V RMS

### Electrical Characteristics-Premise (Overall)

**Premise Cable Electrical Table 1:**

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.100	73.3	71.2	20.000
4	3.800	64.3	60.5	23.000
8	5.300	59.8	54.4	24.500
10	5.900	58.3	52.4	25.000
16	7.500	55.2	47.8	25.000
20	8.400	53.8	45.5	25.000
25	9.400	52.3	43.0	25.000
31.25	10.500	50.9	40.4	25.000
62.5	15.000	46.4	31.4	25.000
100	19.100	43.3	24.2	25.000
200	27.600	38.8	11.2	18.000
250	31.100	37.3	6.3	17.300
300	34.300	36.1	1.9	16.800
350	37.200	35.1	-2.1	16.300
400	40.100	34.3	N/A	15.900
450	42.700	33.5	N/A	15.530
500	45.300	32.8	N/A	15.200
550	47.700	30.2	N/A	14.920
600	50.100	29.6	N/A	14.700
625	51.200	29.4	N/A	14.500

**Premise Cable Electrical Table 2:**

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	70.8	68.8
4	100 ± 15	100 ± 15	58.8	56.8
8	100 ± 15	100 ± 15	52.7	50.7
10	100 ± 15	100 ± 15	50.8	48.8
16	100 ± 15	100 ± 15	46.7	44.7
20	100 ± 15	100 ± 15	44.8	42.8
25	100 ± 15	100 ± 15	42.8	40.8
31.25	100 ± 15	100 ± 10	40.9	38.9
62.5	100 ± 15	100 ± 10	34.9	32.9

## METRIC MEASUREMENT VERSION

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100	100 ± 15	100 ± 10	30.8	28.8
200	100 ± 22	100 ± 10	24.8	22.8
250	100 ± 32	100 ± 10	22.8	20.8
300	100 ± 32	100 ± 10	21.3	19.3
350	100 ± 32	100 ± 10	19.9	17.9
400	100 ± 32	100 ± 10	18.8	16.8
450	100 ± 32	100 ± 10	17.7	15.7
500	100 ± 32	100 ± 10	16.8	14.8
625	100 ± 32	100 ± 10	14.9	12.9

**Premise Cable Electrical Table 4:**

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	67.000	81.000	40.000	35.000
4.000	67.000	81.200	40.000	23.000
8.000	67.000	75.100	40.000	16.900
10.000	67.000	73.200	40.000	15.000
16.000	67.000	69.100	38.000	10.900
20.000	67.000	67.200	37.000	9.000
25.000	67.000	65.200	36.000	7.000
31.250	67.000	63.300	35.100	
62.500	67.000	57.300	32.000	
100.000	63.500	53.200	30.000	
200.000	60.600	47.200	27.000	
250.000	59.000	45.200	26.000	
300.000	56.300	43.700	25.300	
350.000	55.300	42.300	24.600	
400.000	54.500	41.200	24.000	
450.000	53.700	40.100	23.500	
500.000	53.000	39.200	23.000	
550.000	52.400	38.400		
600.000	51.800	37.600		
625.000	51.600	37.300		

### Notes (Overall)

**Notes:** Jacket sequentially marked at 2 ft. intervals.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX63F D151000	305 MT	21.773 KG	BLUE		CAT6A 4PRB F/UTP CMP REEL
10GX63F 0041000	305 MT	21.773 KG	YELLOW		CAT6A 4PRB F/UTP CMP REEL
10GX63F 0081000	305 MT	21.773 KG	GRAY	C	CAT6A 4PRB F/UTP CMP REEL
10GX63F 0091000	305 MT	21.773 KG	WHITE		CAT6A 4PRB F/UTP CMP REEL
10GX63F 0101000	305 MT	21.773 KG	BLACK		CAT6A 4PRB F/UTP CMP REEL

**Notes:**

C = CRATE REEL PUT-UP.

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**METRIC MEASUREMENT VERSION**

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