

10GX44 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable

For more Information
please call

1-800-Belden1

**General Description:**

Category 6A (625MHz), 4-Pair, U/UTP-Unshielded, Zero Halogen, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented Double-H spline, Ripcord, LSZH Jacket

Usage (Overall)**Suitable Applications:**

Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 10G Category 6A

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

Separator**Separator Material:**

RoundFlex H-Spline Center Member

Outer Shield**Outer Shield Material:**

Outer Shield Material
Unshielded

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material
LSZH - Low Smoke Zero Halogen

Overall Cable**Overall Nominal Diameter:**

7.493 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)**Operating Temperature Range:**

0°C To +75°C

Bulk Cable Weight:

59.528 Kg/Km

Max. Recommended Pulling Tension:

200.169 N

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Min. Bend Radius/Minor Axis:	50.800 mm
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Min. Bend/Installation:	76.200 mm
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Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

EU Directive 2011/65/EU (ROHS II):	Yes
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EU CE Mark:	Yes
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EU Directive 2000/53/EC (ELV):	Yes
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EU Directive 2002/95/EC (RoHS):	Yes
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EU RoHS Compliance Date (mm/dd/yyyy):	12/09/2011
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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Telecommunications Standards:	Category 6A - TIA 568.C.2
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Other Specification:	UL Channel Verified to Category 6A
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Applicable Patents:

Country

www.belden.com/p

Suitability

Suitability - Indoor:	Yes - Indoor
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Suitability - Outdoor:	No
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Suitability - Aerial:	No
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Suitability - Burial:	No
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Sunlight Resistance:	No - Indoor
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Non-Plenum Number:	10GX32
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Electrical Characteristics (Overall)**Nom. Mutual Capacitance:**

Capacitance (pF/m)

55.777

Maximum Capacitance Unbalance (pF/100 m):	50
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Nominal Velocity of Propagation:

VP (%)

64.000

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Typical Delay Skew:

Delay Skew (ns/m)

114.835

Max. Delay Skew:

Delay Skew (ns/100 m)

45.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

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24.608

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

2.000

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)
1	2.100	75.3	73.3	73.2	71.2	20.000
4	3.800	66.3	64.3	62.5	60.5	23.000
8	5.300	61.8	59.8	56.4	54.4	24.500
10	5.900	60.3	58.3	54.4	52.4	25.000
16	7.500	57.2	55.2	49.8	47.8	25.000
20	8.400	55.8	53.8	47.4	45.4	25.000
25	9.400	54.3	52.3	45.0	43.0	25.000
31.25	10.500	52.9	50.9	42.4	40.4	25.000
62.5	15.000	48.4	46.4	33.4	31.4	25.000
100	19.100	45.3	43.3	26.2	24.2	25.000
200	27.600	40.8	38.8	13.2	11.2	21.000
250	31.100	39.3	37.3	8.3	6.3	20.500
300	34.300	38.1	36.1	3.9	1.9	20.100
350	37.200	37.1	35.1	N/A	N/A	19.800
400	40.100	36.3	34.3	N/A	N/A	19.500
450	42.700	35.5	33.5	N/A	N/A	18.900
500	45.300	34.8	32.8	N/A	N/A	18.400
550	47.700	34.2	32.2	N/A	N/A	18.000
600	50.100	33.6	31.6	N/A	N/A	17.600
625	51.200	33.4	31.4	N/A	N/A	17.400
750	56.700	32.2	30.2	N/A	N/A	16.500
860	61.200	31.3	29.3	N/A	N/A	15.800

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 15	100 ± 15	70.8	68.8
4	100 ± 15	100 ± 10.4	58.8	56.8
8	100 ± 15	100 ± 8	52.7	50.7
10	100 ± 15	100 ± 7.3	50.8	48.8
16	100 ± 15	100 ± 5	46.7	44.7
20	100 ± 15	100 ± 5	44.8	42.8
25	100 ± 15	100 ± 5	42.8	40.8
31.25	100 ± 15	100 ± 5	40.9	38.9
62.5	100 ± 15	100 ± 5	34.9	32.9
100	100 ± 15	100 ± 5	30.8	28.8
200	100 ± 22	100 ± 5	24.8	22.8
250	100 ± 32	100 ± 5	22.8	20.8
300	100 ± 32	100 ± 5	21.3	19.3
350	100 ± 32	100 ± 5	19.9	17.9
400	100 ± 32	100 ± 5	18.8	16.8
450	100 ± 32	100 ± 5	17.7	15.7
500	100 ± 32	100 ± 5	16.8	14.8
550	100 ± 32	100 ± 5	16.0	14.0
600	100 ± 32	100 ± 5	15.2	13.2
625	100 ± 32	100 ± 5	14.9	12.9
750			13.3	11.3
860			12.1	10.1

Premise Cable Electrical Table 4:

METRIC MEASUREMENT VERSION

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Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	67.000	67.000	48.000	43.000
4.000	67.000	67.000	48.000	41.000
8.000	67.000	61.100	48.000	24.900
10.000	67.000	59.200	48.000	23.000
16.000	67.000	55.100	46.000	18.900
20.000	67.000	53.200	45.000	17.000
25.000	67.000	51.200	44.000	15.000
31.250	67.000	49.300	43.100	
62.500	66.600	43.300	40.000	
100.000	63.500	39.200	38.000	
200.000	59.000	33.200	35.000	
250.000	57.500	31.200	34.000	
300.000	56.300	29.700	33.200	
350.000	55.300	28.300	32.600	
400.000	54.500	27.200	32.000	
450.000	53.700	26.100	31.500	
500.000	53.000	25.200	31.000	
550.000	52.400	24.400		
600.000	51.800	23.600		
625.000	51.600	23.300		
750.000	50.400	21.700		
860.000	49.500	20.500		

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party channel verified to TIA/EIA-568-C.2, Category 6A. Category 6A. 0.295" cable dimension per TIA 6@1 equivalent diameter. Values above 625MHz are for Engineering Information Only.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX44 0061000	1,000 FT	34.000 LB	BLUE, LIGHT		CAT6A 4PRB U/UTP LSZH REEL
10GX44 0071000	1,000 FT	34.000 LB	VIOLET		CAT6A 4PRB U/UTP LSZH REEL
10GX44 0091000	1,000 FT	34.000 LB	WHITE		CAT6A 4PRB U/UTP LSZH REEL

Revision Number: 2 Revision Date: 02-27-2014

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