Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

10GX32 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable

For more Information
please call

1-800-Belden1

Description:

23 AWG solid bare copper conductors, twisted pairs, see color code chart (below), Jacket (yellow, blue, gray, white, green, or black).

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

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter:	0.295 in.

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:	40 lbs/1000 ft.
Max. Recommended Pulling Tension:	45 lbs.
Min. Bend Radius/Minor Axis:	2 in.
Min. Bend/Installation:	3.100 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
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):	12/09/2011
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
Other Specification:	Third Party Channel Verified to Category 6A

Applicable Patents:

Country	Patent
US	5606151
US	5734126
US	7772494
US	7838773
US	8030571

Flame Test

UL Flame Test:	UL1666 Riser
C(UL) Flame Test:	FT4
CSA Flame Test:	FT4
IEEE Flame Test:	1202

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	10GX33

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
17.000

Maximum Capacitance Unbalance (pF/100 m):	330

Nominal Velocity of Propagation:

VP (%)
64.000

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)
30.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
7.500

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:

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 verfied to TIA/EIA-568-C.2, Category 6A. 0.295" cable dimension per TIA 6@1 equivalent diameter.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX32 0041000	1,000 FT	40.000 LB	YELLOW	C	CAT6A 4PRB U/UTP CMR REEL
10GX32 0061000	1,000 FT	40.000 LB	BLUE, LIGHT	C	CAT6A 4PRB U/UTP CMR REEL
10GX32 0081000	1,000 FT	40.000 LB	GRAY	C	CAT6A 4PRB U/UTP CMR REEL
10GX32 0091000	1,000 FT	40.000 LB	WHITE	C	CAT6A 4PRB U/UTP CMR REEL

Notes:
C = CRATE REEL PUT-UP.

Revision Number: 3 Revision Date: 09-28-2012

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.