

10GX33 Multi-Conductor - Enhanced Category 6A Bonded-Pair Cable



For more Information
please call

1-800-Belden1



Description:

23 AWG solid bare copper bonded-pair conductors, FEP insulation, patented H-spline center member, rip cord, Flamarrest® jacket.

Usage (Overall)

Suitable Applications: Premise Horizontal Cable, 10 Gigabit Ethernet, 100BaseTX, 100BaseVG 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

Insulation

Insulation Material:

Insulation Material
FEP - Fluorinated Ethylene Propylene

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Ripcord: Yes

Overall Cabling

Overall Cabling Fillers: H-Spline Center Member

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)

Storage Temperature Range: -10°C To +60°C

Installation Temperature Range: 0°C To +60°C

Operating Temperature Range: 0°C To +60°C

Bulk Cable Weight: 40 lbs/1000 ft.

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Max. Recommended Pulling Tension: 45 lbs.

Min. Bend Radius (Install)/Minor Axis: 3 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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): 08/20/2008

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

Flame Test

UL Flame Test: UL1661 Riser

CSA Flame Test: FT4

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: No

Suitability - Burial: No

Sunlight Resistance: No

Oil Resistance: No

Non-halogenated: No

Plenum/Non-Plenum

Plenum (Y/N): Yes

Non-Plenum Number: 10GX32

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)

17.000

Nominal Velocity of Propagation:

VP (%)

68.000

Maximum Capacitance Unbalance (pF/100 m): 330

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

35.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

7.500

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9.380

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Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
4.000

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	73.3	71.3	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	24.300
31.25	10.500	52.9	50.9	42.4	40.4	23.600
62.5	15.000	48.4	46.4	33.4	31.4	21.500
100	19.100	45.3	43.3	26.2	24.2	20.100
200	27.600	40.8	38.8	13.2	11.2	18.000
250	31.100	39.3	37.3	8.3	6.3	17.300
300	34.300	38.1	36.1	3.9	1.9	16.800
350	37.200	37.1	35.1	N/A	N/A	16.300
400	40.100	36.3	34.3	N/A	N/A	15.900
450	42.700	35.5	33.5	N/A	N/A	15.500
500	45.300	34.8	32.8	N/A	N/A	15.200
550	47.700	34.2	32.2	N/A	N/A	14.900
600	50.100	33.6	31.6	N/A	N/A	14.700
625	51.200	33.4	31.4	N/A	N/A	14.500

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	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 ± 15	40.9	38.9
62.5	100 ± 15	100 ± 15	34.9	32.9
100	100 ± 22	100 ± 15	30.8	28.8
200	100 ± 22	100 ± 15	24.8	22.8
250	100 ± 32	100 ± 15	22.8	20.8
300	100 ± 32	100 ± 15	21.3	19.3
350	100 ± 32	100 ± 15	19.9	17.9
400	100 ± 32	100 ± 15	18.8	16.8
450	100 ± 32	100 ± 15	17.7	15.7
500	100 ± 32	100 ± 15	16.8	14.8
550	100 ± 32	100 ± 15	16.0	14.0
600	100 ± 32	100 ± 15	15.2	13.2
625	100 ± 32	100 ± 15	14.9	12.9

Premise Cable Electrical Table 3:

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAELFEXT (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1	67	67	40	35
4	67	67	40	23
8	67	61.1	40	16.9
10	67	59.2	40	15

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16	67	55.1	38	10.9
20	67	53.2	37	9
25	67	51.2	36	7
31.25	67	49.3	35.1	
62.5	66.6	43.3	32	
100	63.5	39.2	30	
200	59	33.2	27	
250	57.5	31.2	26	
300	56.3	29.7		
350	55.3	28.3		
400	54.5	27.2		
450	53.7	26.1		
500	53.0	25.2		
550	52.4	24.4		
600	51.8	23.6		
625	51.6	23.3		

Notes (Overall)

Notes: Belden IBDN. Jacket sequentially marked at 2 ft. intervals. US Patent #'s 6297454-B1; 5606151; 5734126; 5789711.

Notes (Cont'd.): 0.295" cable dimension per UL 6@1 equivalent diameter.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX33 D151000	1,000 FT	48.000 LB	BLUE	C	4 PR #23 FEP FLRST
10GX33 0041000	1,000 FT	48.000 LB	YELLOW	C	4 PR #23 FEP FLRST
10GX33 0081000	1,000 FT	48.000 LB	GRAY	C	4 PR #23 FEP FLRST
10GX33 0091000	1,000 FT	48.000 LB	WHITE	C	4 PR #23 FEP FLRST

Notes:
C = CRATE REEL PUT-UP.

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