

10GX53F Multi-Conductor - Enhanced Category 6A F/UTP Non-Bonded Pair Cable



For more Information
please call

1-800-Belden1



General Description:

CAT6A (625MHz), 4 Unbonded Pairs, F/UTP-Foil Shielded, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, FEP Insulation, Patented EquiSpline™, Overall Foil Screen with Drain Wire, Ripcord, Flamarrest® 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, 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

Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum-Polyester Tape	100.000

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire	Conductor Material
26	7x#34	Tinned Copper	

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Flamarrest (R) PVC - Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (mm)
6.985

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Patented EquiSpline

Pair

Pair Color Code Chart:

Number	Color
1	Blue & White
2	Orange & White
3	Green & White
4	Brown & White

Mechanical Characteristics (Overall)

Storage Temperature Range: -20°C To +75°C

Installation Temperature Range: -5°C To + 50°

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 56.552 Kg/Km

Max. Recommended Pulling Tension: 200.169 N

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Min. Bend Radius/Minor Axis:	38.100 mm
Min. Bend/Installation:	69.850 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	ISO/IEC 11801 ed 2 Amendment 2:2010 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):	03/27/2014
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
ANSI Specification:	ANSI/TIA 568-C.2 Category 6A
Other Specification:	C(UL)US CMP 105C OR (UL) CMP-LP (0.7A) OR CL3P-LP (0.7A)

Applicable Patents:

Country
www.belden.com/p

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:	10GX52F

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)
55.777

Maximum Capacitance Unbalance (pF/100 m):	90
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Nominal Velocity of Propagation:

VP (%)
68.000

Maximum Delay:

Delay (ns/100 m)
538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)
45.000

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
8.200

Max. Operating Voltage - UL:

METRIC MEASUREMENT VERSION

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Voltage
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	45.4	25.000
25	9.400	52.3	43.0	24.300
31.25	10.500	50.9	40.4	23.600
62.5	15.000	46.4	31.4	21.500
100	19.100	43.3	24.2	20.100
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	N/A	16.300
400	40.100	34.3	N/A	15.900
450	42.700	33.5	N/A	15.500
500	45.300	32.8	N/A	15.200
550	47.700	32.2	N/A	14.900
600	50.100	31.6	N/A	14.700
625	51.200	31.4	N/A	14.500
750	56.700	30.2	N/A	14.000
860	61.200	29.3	N/A	13.600

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	68.8
4	100 ± 15	100 ± 15	56.8
8	100 ± 15	100 ± 15	50.7
10	100 ± 15	100 ± 15	48.8
16	100 ± 15	100 ± 15	44.7
20	100 ± 15	100 ± 15	42.8
25	100 ± 15	100 ± 15	40.8
31.25	100 ± 15	100 ± 10	38.9
62.5	100 ± 15	100 ± 10	32.9
100	100 ± 15	100 ± 10	28.8
200	100 ± 22	100 ± 10	22.8
250	100 ± 32	100 ± 10	20.8
300	100 ± 32	100 ± 10	19.3
350	100 ± 32	100 ± 10	17.9
400	100 ± 32	100 ± 10	16.8
450	100 ± 32	100 ± 10	15.7
500	100 ± 32	100 ± 10	14.8
550	100 ± 32	100 ± 10	14.0
600	100 ± 32	100 ± 10	13.2
625	100 ± 32	100 ± 10	12.9
750	100 ± 32	100 ± 10	11.3
860	100 ± 32	100 ± 10	10.1

Premise Cable Electrical Table 4:

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	77.000	77.000	40.000	35.000
4.000	77.000	76.200	40.000	23.000
8.000	77.000	70.100	40.000	16.900
10.000	77.000	68.200	40.000	15.000
16.000	77.000	64.100	38.000	10.900
20.000	77.000	62.200	37.000	9.000
25.000	77.000	60.200	36.000	7.000
31.250	77.000	58.300	35.100	
62.500	77.000	52.300	32.000	
100.000	72.500	48.200	30.000	
200.000	68.500	42.200	27.000	
250.000	66.500	40.200	26.000	

METRIC MEASUREMENT VERSION

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300.000	65.300	38.700	25.300	
350.000	64.300	37.300	24.600	
400.000	63.500	36.200	24.000	
450.000	62.700	35.100	23.500	
500.000	62.000	34.200	23.000	
550.000	62.400	34.400		
600.000	61.800	33.600		
625.000	61.600	33.300		
750.000	60.400	31.700		
860.000	59.500	30.500		

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party channel verified to TIA/EIA-568-C.2, Category 6A. Data above 625 MHz For Information Only.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX53F D151000	1,000 FT	41.000 LB	BLUE		CAT6A 4PR F/UTP CMP REEL
10GX53F 0041000	1,000 FT	41.000 LB	YELLOW		CAT6A 4PR F/UTP CMP REEL
10GX53F 0081000	1,000 FT	41.000 LB	GRAY		CAT6A 4PR F/UTP CMP REEL
10GX53F 0091000	1,000 FT	41.000 LB	WHITE		CAT6A 4PR F/UTP CMP REEL
10GX53F 0101000	1,000 FT	41.000 LB	BLACK		CAT6A 4PR F/UTP CMP REEL

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