

10GX52F Multi-Conductor - Category 6A F/UTP Unbonded-Pair Cable



For more Information
please call

1-800-Belden1



General Description:

CAT6A (625MHz), 4-Unbonded-Pair, F/UTP-Foil Shielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented X-Spline, Inner Jacket, Overall Foil Screen with Drain Wire, Ripcord, PVC 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, 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
PO - Polyolefin

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
PVC - Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (in.)
0.300

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
4	White/Brown Stripe & Brown

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

10GX52F Multi-Conductor - Category 6A F/UTP Unbonded-Pair Cable

Bulk Cable Weight:	38 lbs/1000 ft.
Max. Recommended Pulling Tension:	45 lbs.
Min. Bend Radius/Minor Axis:	1.200 in.
Min. Bend/Installation:	3 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/(UL) Specification:	CMR
EU Directive 2011/65/EU (ROHS II):	Yes
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
ANSI Specification:	ANSI/TIA 568-C.2 Category 6A

Applicable Patents:

Country

www.belden.com/p

Flame Test

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

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	10GX53F

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)

17.000

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

Nominal Velocity of Propagation:

VP (%)

64.000

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:

10GX52F Multi-Conductor - Category 6A F/UTP Unbonded-Pair Cable

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	45.5	25.000
25	9.400	52.3	43	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	15.530
500	45.300	32.8	N/A	15.200
550	47.700	32.2		14.900
600	50.100	31.6		14.700
625	51.200	30.2		14.500
750	56.700	29.3		14.000
860	61.200			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	66.200	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	50.200	26.000	

10GX52F Multi-Conductor - Category 6A F/UTP Unbonded-Pair Cable

300.000	65.300	38.700	25.200	
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.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
10GX52F 0021000	1,000 FT	41.000 LB	RED		CAT6A 4PR F/UTP CMR REEL
10GX52F 0041000	1,000 FT	41.000 LB	YELLOW		CAT6A 4PR F/UTP CMR REEL
10GX52F 0061000	1,000 FT	41.000 LB	BLUE, LIGHT		CAT6A 4PR F/UTP CMR REEL
10GX52F 0081000	1,000 FT	41.000 LB	GRAY		CAT6A 4PR F/UTP CMR REEL
10GX52F 0091000	1,000 FT	41.000 LB	WHITE		CAT6A 4PR F/UTP CMR REEL
10GX52F 0101000	1,000 FT	41.000 LB	BLACK		CAT6A 4PR F/UTP CMR REEL

Revision Number: 0 Revision Date: 03-28-2017

© 2017 Belden, Inc.
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein. All sales of Belden products are subject to Belden's standard terms and conditions of sale. Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).