



**Part Number:** 10GX63F

CAT6A 10GX Bonded-Pair, 4pr, F/UTP, LS-PVC Jkt, CMP

## Product Description

CAT6A (625MHz), 4-Bonded-Pair, F/UTP-foil shielded, Plenum-CMP, Premise Horizontal cable, 23 AWG solid bare copper conductors, FEP insulation, patented X-spline, Inner jacket, overall foil shield with drain wire, ripcord, Flamarrest® jacket

## Technical Specifications

### Product Overview

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 Plus
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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

#### Insulation

Material
FEP - Fluorinated Ethylene Propylene

Bonded-Pair:	Yes
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#### Color Chart

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

#### Inner Jacket Material

Material	Material Trade Name	Nominal Diameter	Ripcord
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.26 in	Yes

#### Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	26	Solid

#### Outer Jacket Material

Material	Material Trade Name	Nominal Diameter	Ripcord	Separator Material
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.310 in	Yes	Patented X-Spline Center Member

### Electrical Characteristics

#### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
82 Ohm/km	3 %	5 %

## Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
90 pF/100m	17 pF/ft

## Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 ns/100m	64 %

## High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. PSANEXT	Min. PSAACRF	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1 dB/100m	73.3 dB	71.2 dB	70.8 dB	68.8 dB	20.0 dB	100 ± 15 Ohm	105 ± 10 Ohm	77.0 dB	77.0 dB	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	64.3 dB	60.5 dB	58.8 dB	56.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	76.2 dB	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	59.8 dB	54.4 dB	52.7 dB	50.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	70.1 dB	40.0 dB	16.9 dB
10 MHz	5.9 dB/100m	58.3 dB	52.4 dB	50.8 dB	48.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	68.2 dB	40.0 dB	15.0 dB
16 MHz	7.5 dB/100m	55.2 dB	47.8 dB	46.7 dB	44.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	64.1 dB	38.0 dB	10.9 dB
20 MHz	8.4 dB/100m	53.8 dB	45.4 dB	44.8 dB	42.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	62.2 dB	37.0 dB	9.0 dB
25 MHz	9.4 dB/100m	52.3 dB	43.0 dB	42.8 dB	40.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	77.0 dB	60.2 dB	36.0 dB	7.0 dB
31.25 MHz	10.5 dB/100m	50.9 dB	40.4 dB	40.9 dB	38.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	77.0 dB	58.3 dB	35.1 dB	
62.5 MHz	15.0 dB/100m	46.4 dB	31.4 dB	34.9 dB	32.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	77.0 dB	52.3 dB	32.0 dB	
100 MHz	19.1 dB/100m	43.3 dB	24.2 dB	30.8 dB	28.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	72.5 dB	48.2 dB	30.0 dB	
200 MHz	27.6 dB/100m	38.8 dB	11.2 dB	24.8 dB	22.8 dB	18.0 dB	100 ± 22 Ohm	100 ± 10 Ohm	68.5 dB	42.2 dB	27.0 dB	
250 MHz	31.1 dB/100m	37.3 dB	6.3 dB	22.8 dB	20.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	66.5 dB	40.2 dB	26.0 dB	
300 MHz	34.3 dB/100m	36.1 dB	1.9 dB	21.3 dB	19.3 dB	16.8 dB	100 ± 32 Ohm	100 ± 10 Ohm	65.3 dB	38.7 dB	25.2 dB	
350 MHz	37.2 dB/100m	35.1 dB	-2.1 dB	19.9 dB	17.9 dB	16.3 dB	100 ± 32 Ohm	100 ± 10 Ohm	64.3 dB	37.3 dB	24.6 dB	
400 MHz	40.1 dB/100m	34.3 dB		18.8 dB	16.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	63.5 dB	36.2 dB	24.0 dB	
450 MHz	42.7 dB/100m	33.5 dB		17.7 dB	15.7 dB	15.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.7 dB	35.1 dB	23.5 dB	
500 MHz	45.3 dB/100m	32.8 dB		16.8 dB	14.8 dB	15.2 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.0 dB	34.2 dB	23.0 dB	
550 MHz	47.7 dB/100m	32.2 dB		14.9 dB	14.0 dB	14.9 dB	100 ± 32 Ohm	100 ± 10 Ohm	62.4 dB	34.4 dB		
600 MHz	50.1 dB/100m	31.6 dB			13.2 dB	14.7 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.8 dB	33.6 dB		
625 MHz	51.2 dB/100m	31.4 dB			12.9 dB	14.5 dB	100 ± 32 Ohm	100 ± 10 Ohm	61.6 dB	33.3 dB		
750 MHz	56.7 dB/100m	30.2 dB			11.3 dB	14.0 dB	100 ± 32 Ohm	100 ± 10 Ohm	60.4 dB	31.7 dB		
860 MHz	61.2 dB/100m	29.3 dB			10.1 dB	13.6 dB	100 ± 32 Ohm	100 ± 10 Ohm	59.5 dB	30.5 dB		

## Voltage

UL Voltage Rating
300 V RMS

## Temperature Range

Installation Temp Range:	0°C To +50°C
UL Temp Rating:	75°C
Storage Temp Range:	-20°C To +75°C
Operating Temp Range:	-20°C To +75°C

## Mechanical Characteristics

Bulk Cable Weight:	48 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius During Installation:	3.0 in
Min Bend Radius/Minor Axis:	1.2 in

## Standards

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class EA
CPR Euroclass:	Eca
Data Category:	Category 6A
ANSI Compliance:	S-116-732-2013 Category 6A, ANSI/NEMA WC-66 Category 6A
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6A
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Other Specification:	Verified Channel/Category 6A

## Applicable Environmental and Other Programs

Environmental Space:	Plenum
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2011-03-07
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

## Flammability, LSOH, Toxicity Testing

C(UL) Flammability:	FT6
UL Flammability:	NFPA 262 Plenum (UL 910)
CSA Flammability:	FT6
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	Yes
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## Part Number

Non-Plenum Number:	10GX62F
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## Variants

Item #	Color	UPC	Length	Footnote
10GX63F 0101000	Black	612825102526	1,000 ft	
10GX63F D151000	Blue	612825102472	1,000 ft	
10GX63F 0081000	Gray	612825102502	1,000 ft	C
4813 0051000	Green	612825153610	1,000 ft	
10GX63F 0021000	Red	612825102489	1,000 ft	
10GX63F 0091000	White	612825102519	1,000 ft	
10GX63F 0041000	Yellow	612825102496	1,000 ft	
4813 0041000	Yellow	612825153603	1,000 ft	

Footnote:	C - CRATE REEL PUT-UP.
Patent:	<a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a>

## Product Notes

Notes:	Values above 625 MHz are for Engineering Information Only. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0.
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## History

Update and Revision:	Revision Number: 0.376 Revision Date: 08-22-2019
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