



**Product:** [7969A](#)

DataTuff® 6, 4 Bonded-Pr #22 Sol BC, PP Ins, X-spline, PVC Jkt, PLTC, CMR, CMX Outdoor

## Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 22AWG (Solid) Bare Copper, PP Insulation, X-spline, PVC Outer Jacket, PLTC, CMR, CMX Outdoor

## Technical Specifications

### Product Overview

Suitable Applications:	power-limited tray, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
------------------------	--

### Construction Details

#### Conductor

AWG	Stranding	Material	Number of Pairs
22	Solid	BC - Bare Copper	4

#### Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
--------------	-----

#### Outer Jacket Material

Separator Material	Material	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®)	PVC - Polyvinyl Chloride	0.325 in	Yes

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance
93.8 Ohm/km	3%	330 pF/100m

#### Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
100 MHz	537 ns/100m	45 ns/100m	69%

#### High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [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. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2 dB/100m	74.3 dB	72.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	20 dB	100 ± 15	100 ± 15	40.0 dB	35.0 dB
4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	61.5 dB	59.5 dB	55.8 dB	52.7 dB	23 dB	100 ± 15	100 ± 15	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 15	100 ± 15	40.0 dB	16.9 dB
10 MHz	6 dB/100m	59.3 dB	57.3 dB	53.3 dB	51.3 dB	47.8 dB	44.8 dB	25 dB	100 ± 15	100 ± 15	40.0 dB	15.0 dB
16 MHz	7.6 dB/100m	56.2 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	25 dB	100 ± 15	100 ± 15	38.0 dB	10.9 dB
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	46.3 dB	44.3 dB	41.8 dB	38.8 dB	25 dB	100 ± 15	100 ± 15	37.0 dB	9.0 dB
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	43.8 dB	41.8 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15	100 ± 15	36.0 dB	7.0 dB
31.25 MHz	10.7 dB/100m	51.9 dB	49.9 dB	41.2 dB	39.2 dB	37.9 dB	34.9 dB	23.6 dB	100 ± 15	100 ± 15	35.1 dB	5.1 dB
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.9 dB	28.9 dB	21.5 dB	100 ± 15	100 ± 15	32.0 dB	
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	20.1 dB	100 ± 15	100 ± 15	30.0 dB	

155 MHz	25.2 dB/100m	41.5 dB	39.5 dB	16.3 dB	14.3 dB	23.9 dB	20.9 dB	18.8 dB	100 ± 20	100 ± 15	28.1 dB	
200 MHz	29 dB/100m	39.8 dB	37.8 dB	10.8 dB	8.8 dB	21.8 dB	18.8 dB	18 dB	100 ± 20	100 ± 15	27.0 dB	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	5.5 dB	3.5 dB	19.8 dB	16.8 dB	17.3 dB	100 ± 20	100 ± 15	26.0 dB	

## Voltage

<b>UL Voltage Rating</b>
300 V RMS

## Mechanical Characteristics

### Temperature

UL Rating	Operating	Installation	Storage
75°C	-40°C To +75°C	0°C To +60°C	-40°C To +75°C

### Bend Radius

<b>Installation Min.</b>
3.4 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	46 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Riser, Indoor, Outdoor, Sunlight Resistance
Flammability / Fire Resistance:	UL 1666 Riser CMR/CMX Outdoor
NEC / UL Compliance:	PLTC - CMR/CMX Outdoor
CEC / C(UL) Compliance:	CMR
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	Category 6 - TIA 568.2-D
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2017-07-10
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## Product Notes

Notes:	Jacket sequentially marked at 2 ft. intervals.
--------	--

## History

Update and Revision:	Revision Number: 0.21 Revision Date: 11-19-2020
----------------------	---

© 2020 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 here in 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 "ASIS" 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 all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information 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. The 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.