



Product: [11872A](#)

DataTuff® 6, 4 Bonded-Pr #24 Sol BC, PO Ins, PVC Jkt, PVC Jkt, CMR

Request Sample

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, PVC Inner Jacket, PVC Outer Jacket, CMR

Technical Specifications

Product Overview

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

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
23	Solid	BC - Bare Copper	0.022 in	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Diameter	Nominal Wall Thickness
PO - Polyolefin	0.038 in	0.009 in

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

Color Chart

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

Inner Jacket

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	.365 x .165 in	Yes

Outer Shield

Material
No Shield

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord
PVC - Polyvinyl Chloride	.475 x .265 in	0.035 in	Yes

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
9 Ohm/1000ft	3 %

Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
49.2 pF/ft	15 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
510 ns/100m	25 ns/100m	70%

High Frequency

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
1 MHz	1.9 dB/100m	74.3 dB	72.3 dB	72.4 dB	70.4 dB	67.8 dB	64.8 dB	20 dB	100 ± 12 Ohm	100 ± 15 Ohm
4 MHz	3.7 dB/100m	65.3 dB	63.3 dB	61.6 dB	59.6 dB	55.7 dB	52.7 dB	23 dB	100 ± 12 Ohm	100 ± 15
8 MHz	5.3 dB/100m	60.3 dB	58.8 dB	55.5 dB	53.5 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 12 Ohm	100 ± 15
10 MHz	5.9 dB/100m	59.3 dB	57.3 dB	53.4 dB	51.4 dB	47.8 dB	44.8 dB	25 dB	100 ± 12 Ohm	100 ± 15
16 MHz	7.5 dB/100m	56.3 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	25 dB	100 ± 12 Ohm	100 ± 8
20 MHz	8.4 dB/100m	54.8 dB	52.8 dB	46.4 dB	44.4 dB	41.7 dB	38.7 dB	25 dB	100 ± 12 Ohm	100 ± 8
25 MHz	9.5 dB/100m	53.4 dB	51.4 dB	43.9 dB	41.9 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 8
31.25 MHz	10.6 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 Ohm	100 ± 8
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.8 dB	28.8 dB	21.5 dB	100 ± 15 Ohm	100 ± 8
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	21 dB	100 ± 15 Ohm	
155 MHz	25.1 dB/100m	41.5 dB	39.5 dB	16.3 dB	14.3 dB	23.9 dB	20.9 dB	21 dB	100 ± 15 Ohm	
200 MHz	29 dB/100m	39.9 dB	37.9 dB	10.8 dB	10 dB	21.7 dB	18.7 dB	21 dB	100 ± 15 Ohm	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	5.5 dB	3.5 dB	19.8 dB	16.8 dB	18 dB	100 ± 20 Ohm	
300 MHz	35.2 dB/100m	37.2 dB	34.2 dB	0.7 dB	0 dB	18.2 dB	15.2 dB	18 dB	100 ± 20 Ohm	
310 MHz	37.1 dB/100m	36.9 dB	34.9 dB	0 dB		17.9 dB	14.9 dB	18 dB	100 ± 20 Ohm	
350 MHz	39.8 dB/100m	36.2 dB	34.2 dB			16.9 dB	13.9 dB	17 dB	100 ± 22 Ohm	
400 MHz	43 dB/100m	35.3 dB	33.3 dB			15.7 dB	12.7 dB	14 dB	100 ± 32 Ohm	
500 MHz	49 dB/100m	33.8 dB	31.8 dB			13.8 dB	10.8 dB	14 dB	100 ± 32 Ohm	

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Installation Temperature Range:	-10°C To +75°C
UL Temp Rating:	60°C
Operating Temperature Range:	-25°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	59 lbs/1000ft
Max. Pull Tension:	45 lbs
Min. Bend Radius/Minor Axis:	0.1 in

Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMR
CPR Euroclass:	Eca
Data Category:	Category 6

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
-----------------------	-----

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Riser
IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
11872A 0101000	Black	Reel	1,000 ft	612825107989
11872A 0081000	Gray	Reel	1,000 ft	612825107972

Footnote:	C - CRATE REEL PUT-UP.
-----------	------------------------

Product Notes

Notes:	US Patent #'s 5, 606, 151; 5, 734, 126; 5, 821, 467 **Values above 350 MHz are information only
--------	---

History

Update and Revision:	Revision Number: 0.507 Revision Date: 05-05-2023
----------------------	--

© 2023 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[11872A 0101000](#)