

Part Number: 7958A

DataTuff® 5e, 4 Bonded-Pr #23 Sol BC, PO Ins, OS, PVC Jkt, CMR AWM 21047

Request Sample

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, CMR 600V AWM 21047

Technical Specifications

Product Overview

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, 200MHz Category 5e, Industrial Ethernet, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, CMX - Outdoor, RJ-45 Compatible*

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	24 AWG

Insulation

Material	Nominal Wall Thickness
PO - Polyolefin	0.01 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

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	24	7x32 mm

Outer Jacket Material

Material	Nominal Diameter	Ripcord
Industrial Grade PVC - Polyvinyl Chloride	0.275 in	No

Electrical Characteristics

Conductor DCR

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

Capacitance

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

Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
538 ns/100m	45 ns/100m	70 %

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]	Min. SRL (Structural Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2 dB/100m	65.3 dB	62.3 dB	63 dB	60 dB	63.8 dB	60.8 dB	20 dB	20 dB	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	4.1 dB/100m	56.3 dB	53.3 dB	51 dB	49 dB	51.7 dB	48.7 dB	23.6 dB	23.6 dB	100 ± 15 Ohm	100 ± 15
8 MHz	5.8 dB/100m	51.8 dB	48.8 dB	46 dB	43 dB	45.7 dB	42.7 dB	25.4 dB	25.4 dB	100 ± 15 Ohm	100 ± 15
10 MHz	6.5 dB/100m	50.3 dB	47.3 dB	43 dB	41 dB	43.8 dB	40.8 dB	26 dB	26 dB	100 ± 15 Ohm	100 ± 15
16 MHz	8.2 dB/100m	47.3 dB	44.3 dB	39 dB	36 dB	39.7 dB	36.7 dB	26 dB	26 dB	100 ± 15 Ohm	100 ± 15
20 MHz	9.3 dB/100m	45.8 dB	42.8 dB	36.5 dB	33.5 dB	37.7 dB	34.7 dB	26 dB	26 dB	100 ± 15 Ohm	100 ± 15
25 MHz	10.4 dB/100m	44.3 dB	41.3 dB	33.9 dB	30.9 dB	35.8 dB	32.8 dB	25.5 dB	25.5 dB	100 ± 15 Ohm	100 ± 15
31.25 MHz	11.7 dB/100m	42.9 dB	39.9 dB	31 dB	28 dB	33.9 dB	30.9 dB	25 dB	25 dB	100 ± 15 Ohm	100 ± 15
62.5 MHz	17 dB/100m	38.4 dB	35.4 dB	22 dB	19 dB	27.8 dB	24.8 dB	23.5 dB	23.5 dB	100 ± 15 Ohm	100 ± 15
100 MHz	22 dB/100m	35.3 dB	32.3 dB	14 dB	11 dB	23.8 dB	20.8 dB	22.5 dB	22.5 dB	100 ± 15 Ohm	
200 MHz	32.4 dB/100m		27.8 dB		1 dB		14.7 dB			100 ± 25 Ohm	

Voltage

UL Description	UL Voltage Rating
	300 V RMS
Appliance Wiring Material	600 V RMS

Temperature Range

Installation Temp Range:	-25°C To +75°C
UL Temp Rating:	60°C
Storage Temp Range:	-40°C To +75°C
Operating Temp Range:	-40°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	32 lbs/1000ft
Max Recommended Pulling Tension:	35 lbs
Min Bend Radius/Minor Axis:	0.5 in

Standards

NEC/(UL) Specification:	CMR, CMX-Outdoor, UL 444
CEC/C(UL) Specification:	CMR
UL AWM Style:	UL Style 21047
ISO/IEC Compliance:	ISO/IEC 11801 ed 2.1 (2008) Class D
CPR Euroclass:	Eca
Data Category:	Category 5e
Telecommunications Standards:	Category 5e - TIA 568.C.2
Other Specification:	NEMA WC-63.1 Category 5e, UL verified to Category 5e, Ethernet/IP™ Compliant

Applicable Environmental and Other Programs

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	UPC	Length	Footnote
7958A 0101000	Black	612825192084	1,000 ft	C
7958A 0102000	Black	612825192091	2,000 ft	
7958A 0061000	Blue	612825192060		C
7958A 0061000	Blue	612825192060	1,000 ft	C
7958A 0081000	Gray	612825192077	1,000 ft	C
7958A 0021000	Red	612825192053	1,000 ft	C
7958A 1NH1000	Teal	612825192107	1,000 ft	C

Footnote:	C - CRATE REEL PUT-UP.
Patent:	https://www.belden.com/resources/patents

Product Notes

Notes:	US Patent #'s 5,606,151; 5,734,126. EtherNet/IP is a trademark of ControlNet International, Ltd. under liscense by Open DeviceNet Vender Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. *Special RJ45 plug required. See WWW. BELDEN.COM - Tools - Connector Cross Reference. Not intended for 600 V eletrical power delivery.

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