

**Part Number:** 7957A

Cat 5e 600V DataTuff®, (4 pr) 24 AWG Solid BC,  
PO/PVC, Foil+TC Braid Shld, EtherNet/IP, CMR

## Product Description

Four Cat 5e 24 AWG Bonded-Pairs solid bare copper conductors, polyolefin insulation, overall Beldfoil® (100%coverage) plus tinned copper braid shield (70% coverage), PVC jacket.

## Product Specifications

### Technical Specifications

<b>Suitable Applications:</b>	Industrial Ethernet Cable, Harsh Environments, Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, CMX - Outdoor, EtherNet/IP™
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## Construction and Dimensions

### Conductor:

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4
<b>Total Number of Conductors:</b>			8

### Insulation:

Material	Nominal Wall Thickness
PO - Polyolefin	0.01 in

### Color Chart 1:

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

### Outershield 1:

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	26	Solid mm
Braid	2	TC - Tinned Copper		70 %			

Outerjacket 1:

Material	Nominal Diameter
Industrial Grade PVC - Polyvinyl Chloride	0.33 in

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 @ 100MHz 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	
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	
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	
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	
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	
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	
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	
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	
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 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	95-107 Ohm
1 MHz											
4 MHz											
8 MHz											
10 MHz											
16 MHz											
20 MHz											
25 MHz											
31.25 MHz											
62.5 MHz											
100 MHz											

## Voltage:

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

## Use

Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	75 lbs

## Safety

CSA Flammability:	FT4
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UL Flammability:	UL1666 Riser
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## Temperature Range

Installation Temp Range:	-25°C To +75 °C
Operating Temp Range:	-40°C To +75°C

## Mechanical Characteristics

Min Bend Radius/Minor Axis:	1.32 in
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## Part Number

Plenum (Y/N):	No
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## Standards

ISO/IEC Compliance:	Other Standards
CA Prop 65 (CJ for Wire & Cable):	CA Prop 65 (CJ for Wire & Cable)
CEC/C(UL) Specification:	CEC/C(UL) Specification
MII Order #39 (China RoHS):	MII Order #39 (China RoHS)
Other Specification:	Other Specification
UL AWM Style:	AWM Specification
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)

## History

Notes:	US Patent #'s 5606151; 5734126. EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Not intended for 600 V eletrical power delivery.
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## Product Variants

Part Number	Color	Put-Up Type	Length
7957A 0021000	RED	Reel	1000 ft
7957A 0061000	BLUE	Reel	1000 ft
7957A 0081000	GRAY	Reel	1000 ft
7957A 0101000	BLACK	Reel	1000 ft
7957A 0102000	BLACK	Reel	2000 ft
7957A 1NH1000	TEAL	Reel	1000 ft

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