



Part Number: 7927A

Cat 6 E-Spline Center DataTuff®, (4 pr) 23 AWG Solid BC, PO/PVC, CMR

Product Description

Four Cat 6 23 AWG Bonded-Pair solid bare copper conductors, polyolefin insulation, E-Spline center member, PVC jacket.

Product Specifications

Technical Specifications

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, 600 MHz Enhanced Category 6, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, RJ-45 Compatible
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Construction and Dimensions

Conductor:

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

Total Number of Conductors:	8
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Insulation:

Material
PO - Polyolefin

Color Chart 1:

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

Cabling 1:

Filler
E-Spline Center Member

Outershield 1:

Material
Unshielded

Outerjacket 1:

Material	Nominal Diameter	Ripcord
Industrial Grade PVC - Polyvinyl Chloride	251 x .339 in	Yes

Electrical Characteristics

Conductor DCR:

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

Capacitance:

Max. Capacitance Unbalance	Nom.Mutual Capacitance
65.6 pF/ft	15.5 pF/ft

Delay:

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
538 @ 100MHz ns/100m	38 ns/100m	67 %

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	1.9 db/100m	82.3 dB	80.3 dB	80.5 dB	78.5 dB	73.8 dB	70.8 dB	20 dB	27 dB	100 ± 12 Ohm	
4 MHz	3.6 db/100m	73.3 dB	71.3 dB	69.7 dB	67.7 dB	61.8 dB	58.8 dB	23 dB	27 dB	100 ± 12 Ohm	
8 MHz	5.1 db/100m	68.8 dB	66.8 dB	63.7 dB	61.7 dB	55.7 dB	52.7 dB	24.5 dB	27 dB	100 ± 12 Ohm	
10 MHz	5.7 db/100m	67.3 dB	65.3 dB	61.6 dB	59.6 dB	53.8 dB	50.8 dB	25 dB	27 dB	100 ± 12 Ohm	

16 MHz	7.2 db/100m	64.3 dB	62.3 dB	57 dB	55 dB	49.7 dB	46.7 dB	25 dB	27 dB	100 ± 12 Ohm	
20 MHz	8.1 db/100m	62.8 dB	60.8 dB	54.7 dB	52.7 dB	47.8 dB	44.8 dB	25 dB	27 dB	100 ± 12 Ohm	
25 MHz	9.1 db/100m	61.3 dB	59.3 dB	52.3 dB	50.3 dB	45.8 dB	42.8 dB	25 dB	27 dB	100 ± 15 Ohm	
31.25 MHz	10.2 db/100m	59.9 dB	57.9 dB	49.7 dB	47.7 dB	43.9 dB	40.9 dB	25 dB	27 dB	100 ± 15 Ohm	
62.5 MHz	14.7 db/100m	55.4 dB	53.4 dB	40.7 dB	38.7 dB	37.9 dB	34.9 dB	25 dB	27 dB	100 ± 15 Ohm	
100 MHz	18.9 db/100m	52.3 dB	50.3 dB	33.4 dB	31.4 dB	33.8 dB	30.8 dB	25 dB	27 dB	100 ± 15 Ohm	100 ± 5 Ohm
155 MHz	23.9 db/100m	49.5 dB	47.5 dB	25.5 dB	23.5 dB	30 dB	27 dB	22.8 dB	24.7 dB	100 ± 15 Ohm	100 ± 5 Ohm
200 MHz	27.5 db/100m	47.8 dB	45.8 dB	20.3 dB	18.3 dB	27.8 dB	24.8 dB	21.7 dB	23.4 dB	100 ± 15 Ohm	100 ± 5 Ohm
250 MHz	31.2 db/100m	46.3 dB	44.3 dB	15.2 dB	13.2 dB	25.8 dB	22.8 dB	20.5 dB	22.2 dB	100 ± 20 Ohm	100 ± 5 Ohm
300 MHz	34.5 db/100m	43.2 dB	41.2 dB	10.6 dB	8.6 dB	24.3 dB	21.3 dB	20.2 dB	21.2 dB	100 ± 20 Ohm	100 ± 5 Ohm
310 MHz	35.2 db/100m	42.9 dB	40.9 dB	9.8 dB	7.8 dB	24 dB	21 dB	20.1 dB	21.1 dB	100 ± 20 Ohm	100 ± 5 Ohm
350 MHz	37.7 db/100m	42.2 dB	40.2 dB	6.5 dB	4.5 dB	22.9 dB	19.9 dB	19.8 dB	20.4 dB	100 ± 22 Ohm	100 ± 5 Ohm
400 MHz	40.6 db/100m	41.3 dB	39.3 dB	2.6 dB	0.6 dB	21.8 dB	18.8 dB	19.5 dB	19.7 dB	100 ± 22 Ohm	100 ± 5 Ohm
450 MHz	43.5 db/100m	40.5 dB	38.5 dB	2.1 dB	0.1 dB	20.7 dB	17.7 dB	18.9 dB	19.1 dB	100 ± 22 Ohm	100 ± 5 Ohm
460 MHz	44 db/100m	40.4 dB	38.4 dB	0 dB	0 dB	20.5 dB	17.5 dB	18.8 dB	19 dB	100 ± 22 Ohm	100 ± 5 Ohm
500 MHz	46.2 db/100m	39.8 dB	37.8 dB			19.8 dB	16.8 dB	18.4 dB	18.5 dB	100 ± 22 Ohm	100 ± 5 Ohm
550 MHz	48.8 db/100m	39.2 dB	37.2 dB			19 dB	16 dB	18 dB	18 dB	100 ± 22 Ohm	100 ± 5 Ohm
600 MHz	51.4 db/100m	38.6 dB	36.6 dB			18.2 dB	15.2 dB	17.6 dB	17.6 dB	100 ± 22 Ohm	100 ± 5 Ohm
1 MHz											
4 MHz											
8 MHz											
10 MHz											
16 MHz											
20 MHz											
25 MHz											
31.25 MHz											
62.5 MHz											
100 MHz											
155 MHz											
200											
250											
300											
310											

350											
400											
450											
460											
500											
550											
600											

Voltage:

UL Voltage Rating
300 V RMS

Use

Suitability - Oil Resistance:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	45 lbs

Safety

C(UL) Flammability:	FT4
UL Flammability:	UL1666 Riser

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:	0.25 in
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Part Number

Plenum (Y/N):	No
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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)
NEC/(UL) Specification:	NEC/(UL) Specification
Other Specification:	Other Specification

UL AWM Style:	AWM Specification
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)

History

Notes:	Third party verified to TIA/EIA-568-B.2, Category 6. Operating temperature subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
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Product Variants

Part Number	Color	Put-Up Type	Length
7927A	BLACK	Reel	1000 ft
7927A			
7927A 0101000	BLACK	Reel	1000 ft
7927A	BLACK	Reel	2000 ft
7927A			
7927A 0102000	BLACK	Reel	2000 ft
7927A	BLACK	Reel	5000 ft
7927A	BLACK	Reel	5000 ft

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