

Part Number: 7927A

DataTuff® 6, 4 Bonded-Pr #23 Sol BC, PO Ins, PVC Jkt, Oil- and Sun-Res CMR

Request Sample

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 23AWG (Solid) Bare Copper, PO Insulation, PVC Outer Jacket, Oil- and Sun-Res CMR

Technical Specifications

Product Overview

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

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	23 AWG

Insulation

Material
PO - Polyolefin

Bonded-Pair:	Yes

Color Chart

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

Outer Shield Material

Material
Unshielded

Outer Jacket Material

Material	Nominal Diameter	Ripcord
Industrial Grade PVC - Polyvinyl Chloride	0.304 in	Yes

Construction and Dimensions

Cabling

Filler
E-Spline Center Member

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 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	100 ± 15 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	100 ± 10.4
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	100 ± 8
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	100 ± 7.3
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	100 ± 5.7
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	100 ± 5
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	100 ± 5
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	100 ± 5
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 ± 5
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
550 MHz	48.8 dB/100m	39.2 dB	37.2 dB			19 dB	16 dB	18 dB	18 dB	100 ± 22 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	

Voltage

UL Voltage Rating
300 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:	33.5 lbs/1000ft
Max Recommended Pulling Tension:	45 lbs
Min Bend Radius/Minor Axis:	0.25 in

Standards

NEC/(UL) Specification:	CMR, UL 444
CEC/C(UL) Specification:	CMR
UL AWM Style:	UL Style 444 (300 V 75°C)
ISO/IEC Compliance:	ISO/IEC 11801 ed 2.1 (2008) Class E
CPR Euroclass:	Eca
Data Category:	Category 6
Telecommunications Standards:	Category 6 - TIA 568.C.2

Other Specification:	NEMA WC-63.1 Category 6,

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 - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL1666 Riser
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
7927A 0101000	Black	612825191445	1,000 ft	C
7927A 0102000	Black	612825191452	2,000 ft	C
7927A 0105000	Black	612825191469	5,000 ft	C

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

Product Notes

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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