



Part Number: 7940A

Cat 6 DataTuff®, (4 pr) 23 AWG Solid BC, PO/PVC,
EtherNet/IP, CMR, CMX-Outdoor

Product Description

Four Cat 6 23 AWG solid bare copper conductors, bonded pair polyolefin Insulation, DATATUFF® PVC Jacket.

Product Specifications

Technical Specifications

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6
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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	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:

Material
Unshielded

Outerjacket 1:

Material	Material Trade Name	Nominal Diameter	Nominal Wall Thickness	Ripcord	Separator Material
Industrial Grade PVC - Polyvinyl Chloride	Datatuff®	0.25 in	0.03 in	Yes	Foamed Polyolefin Tape.
		0.25 in			

Print Legend:	7940A (DATATUFF(R) BY BELDEN LOGO) VERIFIED (UL) CAT6 4PR23 E108998(-PLANT IDENTIFIER) CMR-CMX OUTDOOR OR C(UL)CMG--ISO/IEC 11801 CAT 6--US PAT. 5,734,126--OIL/SUN RES FT4 IEEE 1202 (2 FT, 6 DIGIT SEQUENTIAL NUMBER) FT
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Electrical Characteristics

Conductor DCR:

Max. Conductor DCR	Max. DCR Unbalance
8.2 Ohm/1000ft	5 %

Capacitance:

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

Delay:

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
537 @ 100MHz ns/100m	45 ns/100m	72 %

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	74.3 dB	72.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	21 dB	na dB	100 ± 15 Ohm	
4 MHz	3.8 db/100m	65.3 dB	63.3 dB	61.5 dB	59.5 dB	55.8 dB	52.7 dB	24 dB	na dB	100 ± 15 Ohm	
8 MHz	5.3 db/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	25.5 dB	na dB	100 ± 15 Ohm	
10 MHz	6 db/100m	59.3 dB	57.3 dB	53.3 dB	51.3 dB	47.8 dB	44.8 dB	26 dB	na dB	100 ± 15 Ohm	
16 MHz	7.6 db/100m	56.2 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	26 dB	na dB	100 ± 15 Ohm	
20 MHz	8.5 db/100m	54.8 dB	52.8 dB	46.3 dB	44.3 dB	41.8 dB	38.8 dB	26 dB	na dB	100 ± 15 Ohm	
25 MHz	9.5 db/100m	53.3 dB	51.3 dB	43.8 dB	41.8 dB	39.8 dB	36.8 dB	25.3 dB	na dB	100 ± 15 Ohm	
31.25 MHz	10.7 db/100m	51.9 dB	49.9 dB	41.2 dB	39.2 dB	37.9 dB	34.9 dB	24.6 dB	na dB	100 ± 15 Ohm	
62.5 MHz	15.4 db/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.9 dB	28.9 dB	22.5 dB	na dB	100 ± 15 Ohm	
100 MHz	19.8 db/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	21.1 dB	na dB	100 ± 15 Ohm	100 ± 15 Ohm
155 MHz	25.2 db/100m	41.5 dB	39.5 dB	16.3 dB	14.3 dB	23.9 dB	20.9 dB	19.8 dB	na dB	100 ± 22 Ohm	100 ± 15 Ohm
200 MHz	29 db/100m	39.8 dB	37.8 dB	10.8 dB	8.8 dB	21.8 dB	18.8 dB	19 dB	na dB	100 ± 22 Ohm	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	18.3 dB	na dB	100 ± 32 Ohm	100 ± 15 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 MHz											
250 MHz											

Voltage:

UL Voltage Rating

300 V RMS

Use

Suitability - Oil Resistance:	Yes
Suitability - Aerial:	Yes
Suitability - Burial:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes
Max Recommended Pulling Tension:	40 lbs

Safety

C(UL) Flammability:	FT4
CSA Flammability:	FT4
IEEE Flammability:	1202
UL Flammability:	UL1666 Vertical Riser

Temperature Range

Installation Temp Range:	-20°C To +75 °C
Operating Temp Range:	-40°C To +75°C
Storage Temp Range:	-40°C To +75 °C

Mechanical Characteristics

Min Bend Radius/Minor Axis:	2.5 in
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Part Number

Plenum (Y/N):	No
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Standards

ISO/IEC Compliance:	Other Standards
Telecommunications Standards:	Telecommunications 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
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	EU CE Mark

History

Notes:	Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 6.
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Product Variants

Part Number	Color	Put-Up Type	Length
7940A 0061000	BLUE	Reel	1000 ft
7940A 0081000	GRAY	Reel	1000 ft
7940A 0101000	BLACK	Reel	1000 ft
7940A 0102000	BLACK	Reel	2000 ft
7940A 1NH1000	TEAL	Reel	1000 ft

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