



Product: [SPE405](#)

DataTuff Ind SPE 40m 1Gbps 100 Ohm 22AWG SFTP PVC

Product Description

DataTuff Industrial Single Pair Ethernet 40m 1Gbps 100 Ohm 22AWG (Solid) Bare Copper, Foam PE Insulation, Overall Beldfoil®+Tinned Copper Braid(80%) Shield, PVC Outer Jacket

Technical Specifications

Product Overview

Suitable Applications:	Noisy environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
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Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
22 AWG	Solid	BC - Bare Copper	1

Insulation

Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	0.069 in (1.8 mm)	White & Blue

Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	80%

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.201 in (5.11 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
54.3 Ohm/km	1,200 pF/km

Delay

Frequency	Max. Delay	Max. Delay Skew
100 MHz	538 ns/100m	25 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. RL (Return Loss) [dB]	Min. SRL (Structural Return Loss) [dB]	Min. TCL [dB]	Min. ELCTL [dB]	Max. Surface Transfer Impedance [mOhm/m]	Min. Coupling Attenuation [dB]
1	2.1 dB/100m	20		40	40	50	
4	3.7 dB/100m	23		40	28	76	
8	5.2 dB/100m	24.5		36.5	21.9	93	
10	5.8 dB/100m	25		35.0	20.0	100	
16	7.3 dB/100m	25		31.9	15.9	135	
20	8.2 dB/100m	25		30.5	14	155	

25	9.2 dB/100m	24.3		29	12	178	
30	10.1 dB/100m	23.8		27.8	10.5	200	85
60	14.3 dB/100m	21.7		23.3	5		85
100	18.5 dB/100m		20.1	20	5		85
200	26.5 dB/100m	18.0		15.5	5		79
250	29.7 dB/100m	17.3		14	5		77
300	32.7 dB/100m	16.8		12.8	5		75
350	35.4 dB/100m	16.3		11.8	5		74
400	38.0 dB/100m	15.9		11	5		73
450	40.4 dB/100m	15.5		10.2	5		72
500	42.8 dB/100m	15.2		9.5	5		71
550	45.0 dB/100m	14.9		8.9	5		70
600	47.1 dB/100m	14.7		8.3	5		69

Voltage

UL Voltage Rating	Voltage Rating
300 V (UL AWM 2095)	300 V (IEC 61156-11)

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C	-30°C To +80°C

Bend Radius

Installation Min.
2 in (51 mm)

Bulk Cable Weight:	10.9 lbs/1000ft
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Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	FT2, IEC 60332-1-2
AWM Compliance:	AWM 2095, AWM I A/B
IEEE Compliance:	IEEE 802.3bp
ISO/IEC Compliance:	IEC 61156-11
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
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History

Update and Revision:	Revision Number: 0.89 Revision Date: 01-20-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length
SPE405 0101000	Black	Reel	1,000 ft
SPE405 0061000	Blue, Light	Reel	1,000 ft

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