BELDEN

Product: SPE401 ⬈

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

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, LSZH Outer Jacket

Technical Specifications

Product Overview

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

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
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.201 in (5.11 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
54 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. TCL [dB]	Min. ELTCTL [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	23.3	40	28	75.9	
8	5.2 dB/100m	24.5	36.5	21.9	93.5	
10	5.8 dB/100m	25	35.0	20.0	100	
16	7.3 dB/100m	25	31.9	15.9	134.5	
20	8.2 dB/100m	25	30.5	14	154.9	

25	9.2 dB/100m	24.3	29	12	178.3	
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	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 21307)	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

Standards and Compliance

Environmental Suitability:	Indoor, Non-Halogenated
Flammability / Reaction to Fire:	FT2
AWM Compliance:	AWM 21307
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.

History

Update and Revision:	Revision Number: 0.41 Revision Date: 01-20-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length
SPE401 0101000	Black	Reel	1,000 ft
SPE401 0061000	Blue, Light	Reel	1,000 ft