

Product: 74031NH

DataTuff Ind SPE 40mGb 22AWG SO SF/UTP LSZH

Product Description

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Technical Specifications

Product Overview

Suitable Applications:	Mass transit platforms, 1 single pair Ethernet up to 600 MHz

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
22	Solid	BC - Bare Copper	1

Conductor Count:	2

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	1.75 mm

Color Chart

Color
White & Blue

Cabling

Filler
Yes

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	5.10 mm

Construction and Dimensions

Min Elongation at Breakof Conductors:	8 %
Min Elongation at Breakof Jacket:	100 MPa
Min Tensile Strength of Jacket:	9 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]

54.3 Ohm/km at 20°C	2 %

Capacitance

Max. Capacitance Unbalance
1,200 pF/km

Dielectric Strength:	2 kVac/1 min
Insulation Resistance:	5000 MOhm*km

Impedance

Nominal Characteristic Impedance
100 Ohm

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. RL (Return Loss) [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.1	20 dB	40 dB	40 dB
4 MHz	3.7	23 dB	40 dB	28 dB
10 MHz	5.8	25 dB	35 dB	20 dB
20 MHz	8.2	25 dB	30.5 dB	14 dB
30 MHz	10.1	23.76 dB	27.8 dB	10.5 dB
100 MHz	18.5	20.1 dB	20 dB	5 dB
600 MHz	47.1	17.3 dB	8.3 dB	5 dB
1000 MHz				

Voltage

Non-UL Voltage Rating
300 V

Temperature Range

Operating Temp Range:	-30°C To +80°C

Mechanical Characteristics

Cold Bend Test:	No Crack
Hygroscopicity:	Weight increasing not exceed 1% (for 3hrs)
Wicking:	The filter paper shall not wet (for 6 hrs)

Standards

UL AWM Style Compliance:	AWM 21307
ISO/IEC Compliance:	IEC 61156-11, UL 758

Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT2
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	10
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	60

Part Number

Variants

Item #	Color	Put-Up Type	Length
74031NH 0101000	Black	Reel	1,000 ft
74031NH-C500	Blue, Light	Reel	500 m
74031NH 0061000	Blue, Light	Reel	1,000 ft

History

Update and Revision:	Revision Number: 0.44 Revision Date: 07-12-2021

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