



Part Number: 7962A

DataTuff® Cat 5e, (4 cond. quad) 22 AWG (19x34) TC, PO/FRPE/TPE, Foil+TC Braid Shld, PROFINET, CMR, CMX, PLTC, Oil Res I, Weld Spatter Res, 5M Flex

Product Description

Four Cat 5e 22 AWG symmetric quad stranded (19x34) tinned copper conductors, polyolefin insulation, FRPE bedding, Beldfoil® shield (100% coverage) plus tinned copper braid (85% coverage), industrial grade oil- and UV-resistant TPE jacket, PROFINET Type C, 5 million flex cycles.

Technical Specifications

Product Overview

Environmental Space:	Indoor
Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, Category 5e, ProfiNet, 100BaseTX, CMX - Outdoor, PLTC Listed, Approved for Cable Tray Use in Class 1, Division 2, Hazardous Areas and Non-hazardous Areas, Cable Trays, Raceways, Conduit and Supported by Messenger Wires, Approved for Outdoor Usage

Physical Characteristics (Overall)

Conductor

Stranding	Material
19x34	TC - Tinned Copper
Total Number of Pairs:	2
AWG Size:	22

Insulation

Material
PO - Polyolefin

Inner Jacket Material

Material	Nominal Diameter
FRPE - Flame Retardant Polyethylene	0.164 mm

Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %
Braid	Tinned Copper		85 %

Outer Jacket Material

Material	Nominal Diameter
Industrial Grade TPE - Thermoplastic Elastomer	0.272 in

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
5.7 Ohm/1000ft	3 %

Capacitance

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

Delay

Max. Delay	Nominal Velocity of Propagation (VP) [%]
552 ns/100m	70 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.1 dB/100m	65.3 dB	62.3 dB	63.2 dB	63.8 dB	60.8 dB	23 dB	100 ± 20.2 Ohm	105 ±10 Ohm
4 MHz	4.0 dB/100m	56.3 dB	53.3 dB	56.3 dB	51.7 dB	48.7 dB	23 dB	100 ± 14.2 Ohm	100 ±10 Ohm
8 MHz	5.6 dB/100m	51.8 dB	48.8 dB	46.2 dB	45.7 dB	42.7 dB	23 dB	100 ± 11.3 Ohm	100 ±10 Ohm
10 MHz	6.3 dB/100m	50.3 dB	47.3 dB	43.9 dB	43.8 dB	40.8 dB	25 dB	100 ± 11.3 Ohm	100 ±10 Ohm
16 MHz	8.0 dB/100m	47.3 dB	44.3 dB	35.2 dB	39.7 dB	36.7 dB	25 dB	100 ± 11.3 Ohm	100 ±10 Ohm
20 MHz	9.0 dB/100m	45.8 dB	42.8 dB	36.5 dB	37.7 dB	34.7 dB	25 dB	100 ± 11.3 Ohm	100 ±10 Ohm
25 MHz	10.1 dB/100m	44.3 dB	41.3 dB	34.2 dB	35.8 dB	32.8 dB	25.5 dB	100 ± 11.3 Ohm	100 ±10 Ohm
31.25 MHz	11.4 dB/100m	42.9 dB	39.9 dB	31.3 dB	33.9 dB	30.9 dB	23.6 dB	100 ± 13.2 Ohm	100 ±10 Ohm
62.5 MHz	16.5 dB/100m	38.4 dB	35.4 dB	21.6 dB	27.8 dB	24.8 dB	21.5 dB	100 ± 16.9 Ohm	100 ±10 Ohm
100 MHz	21.3 dB/100m	35.3 dB	32.3 dB	17.1 dB	23.8 dB	20.8 dB	20.1 dB	100 ± 20.0 Ohm	100 ±10 Ohm

Voltage

UL Voltage Rating
300V RMS

Temperature Range

Installation Temp Range:	-20°C To +60°C
UL Temp Rating:	75°C
Storage Temp Range:	-40°C To +80°C
Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	46 lbs/1000ft
Max Recommended Pulling Tension:	55 lbs
Min Bend Radius/Minor Axis:	2.560 in

Standards

NEC/(UL) Specification:	CMG, CMX-OUTDOOR, ITC, PLTC
CEC/C(UL) Specification:	CMG
ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.0:2002/A2:2010/C1:2011
Telecommunications Standards:	NEMA WC-63.1 Category 5e
Other Specification:	Oil Res II, Oil Res 60811-2-1, Weldsplatter Resistant

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2015/863/EU:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 Vertical Tray Flame Test
CSA Flammability:	FT4
IEEE Flammability:	1202

Part Number

Plenum (Y/N): No

Variants

Item #	Color
7962A.00305	GREEN
7962A.00610	GREEN
7962A 1SW1000	GREEN, RAL 6018
7962A 1SW2000	GREEN, RAL 6018

Product Notes

Notes: Operating Temperature subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Limits below 4 MHz are for information only.

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