



Product: [NH50106UFL](#)

DataTuff™ Industrial Ethernet CAT6 4x2x23AWG/1 U/FTP Fire Resistant (PH120)

Product Description

DataTuff™ Industrial Ethernet CAT6 4x2x23AWG/1 U/FTP Fire Resistant (PH120)

Technical Specifications

Product Overview

Suitable Applications:	This Category 6 Cable is a cable standard for Gigabit Ethernet, capable to continue transmitting data even when being directly attacked by fire.
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Construction Details

Conductor

Size	Stranding	Stranding Class	Material	No. of Pairs	No. of Elements
23	Solid	Class 1	BC - Bare Copper	4	8

Insulation

Material	Nom. Insulation Diameter	Color Code	Notes
PE - Polyethylene	1.58 mm (0.0622 in)	Blue & White with Blue Strips, Orange & White with Orange Strips, Green & White with Green Strips, Brown & White with Brown Strips	Fire Protection Barrier: Mica glass Tape(MGT), Twist Direction = S, 25% AL-mylar tape(Overlapping)

Inner Shield

Shield Type	Material	Drainwire Type	Notes
Tape	Bi-Laminate (Alum+Poly)	26 AWG (Solid) TC	All 4 Pairs laid up together & binded by Fire Protection Barrier: Mica Glass Tape(MGT)

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	10.80 mm (0.4252 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
73.2 Ohm/km (22.3 Ohm/1000ft)	100 Ohm

Delay

Max. Delay Skew
45 ns/100m
536 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	2.03 dB/100m	74.3	72.3	67.8	64.8	20
4	3.78 dB/100m	65.3	63.3	55.8	52.8	23
8	5.32 dB/100m	60.8	58.8	49.7	46.7	24.5
10	5.95 dB/100m	59.3	57.3	47.8	44.8	25
16	7.55 dB/100m	56.2	54.2	43.7	40.7	25
20	8.47 dB/100m	54.8	52.8	41.8	38.8	25

25	9.51 dB/100m	53.3	51.3	39.8	36.8	24.32
31.25	10.67 dB/100m	51.9	49.9	37.9	34.9	23.64
62.5	15.38 dB/100m	47.4	45.4	31.9	28.9	21.54
100	19.8 dB/100m	44.3	42.3	27.8	24.8	20.11
200	28.98 dB/100m	39.8	37.8	21.8	18.8	18
250	32.85 dB/100m	38.3	36.3	19.8	16.8	17.32

Mechanical Characteristics

Temperature

Operating
-40°C to + 80°C

Standards and Compliance

Environmental Suitability:	UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-22, IEC 60331-23, BS EN 50200 PH120
AWM Compliance:	AWM 21130
TIA/EIA Compliance:	EIA/TIA 568
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = 0.5 %, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
Other Standard Compliance(s):	BS EN 50289-4-16

Product Notes

Notes:	EN50200 Annex E
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History

Update and Revision:	Revision Number: 0.40 Revision Date: 04-29-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
NH50106UFL-C305	Blue, Light	Reel	305 m	8719605204660

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