



Product: [IEA006](#)

DataTuff® 6A, 4 Bonded-Pr #22 Sol BC, PO Ins, X-spline, PVC Jkt, OS, PVC Jkt, PLTC, CMR, CMX Outdoor

### Product Description

Industrial Ethernet Cat 6A, 4 Bonded-Pair 22AWG (Solid) Bare Copper, PO Insulation, X-spline, PVC Inner Jacket, Overall Beldfoil® Shield, PVC Outer Jacket, PLTC, CMR, CMX Outdoor

### Technical Specifications

#### Product Overview

Suitable Applications:	Industrial Ethernet Cat 6, 4 Bonded-Pair 22AWG (Solid) Bare Copper, PO Insulation, X-spline, PVC Inner Jacket, Overall Beldfoil®+Tinned Copper Braid(80%) Shield, PVC Outer Jacket, PLTC, CMR, CMX Outdoor
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#### Construction Details

##### Conductor

Size	Stranding	Material	No. of Pairs
22 AWG	Solid	BC - Bare Copper	4

##### Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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##### Inner Jacket

Separator	Material	Nom. Diameter	Ripcord
	PVC - Polyvinyl Chloride	0.305 in (7.75 mm)	Yes
Center Member (Patented X-Spline®)			

##### Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

##### Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.401 in (10.2 mm)	No

Overall Cable Diameter (Nominal):	0.401 in (10.2 mm)
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#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
56.5 Ohm/km (17.2 Ohm/1000ft)	330 pF/100m

##### Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	68%

##### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1	74.3	72.3	72.3	70.3	67.8	64.8	20.0	67.0	67.0	40.0	35.0
4	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0	67.0	66.2	40.0	23.0
8	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5			40	16.9
10	5.9	59.3	57.3	53.4	51.4	47.8	44.8	25.0	67.0	58.2	40.0	15.0
16	7.5	56.2	54.2	48.8	46.8	43.7	40.7	25.0			38.0	10.9
20	8.4	54.8	52.8	46.4	44.4	41.8	38.8	25.0	67.0	52.2	37.0	9.0
25	9.4	53.3	51.3	44.0	42.0	39.8	36.8	24.3	67.0	50.2	36.0	7.0
31.25	10.5	51.9	49.9	41.4	39.4	37.9	34.9	23.6	67.0	48.3	35.1	5.1
62.5	15.0	47.4	45.4	32.4	30.4	31.9	28.9	21.5			32.0	
100	19.1	44.3	42.3	25.2	23.2	27.8	24.8	20.1	62.5	38.2	30.0	
200	27.6	39.8	37.8	12.2	10.2	21.8	18.8	18.0			27.0	
250	31.1	38.3	36.3	7.3	5.3	19.8	16.8	17.3	56.5	30.2	26.0	
300	34.3	37.1	35.1	2.9	0.9	18.3	15.3	16.8	55.3	28.7	25.2	
350	37.2	36.1	34.1			16.9	13.9	16.3	54.3	27.3	24.6	
400	40.1	35.3	33.3			15.8	12.8	15.9	53.5	26.2	24.0	
450	42.7	34.5	32.5			14.7	11.7	15.5	52.7	25.1	23.5	
500	45.3	33.8	31.8			13.8	10.8	15.2	52.0	24.2	23.0	

#### Voltage

UL Voltage Rating
300 V (CMR), 600 V (AWM)

#### Mechanical Characteristics

#### Temperature

UL Temperature	Operating	Installation	Storage
75°C	-40°C To +75°C	-40°C To +75°C	-40°C To +60°C

#### Bend Radius

Installation Min.	Flexing Min.
2.4 in (61 mm)	4.8 in (120 mm)

Table Notes:	These cable are rated for both indoor and outdoor applications. For outdoor installations, the continuous flexing bend radius must be applied for outdoor use. Outdoor installations are susceptible to frequent movement due to environmental factors.
Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	70.3 lbs/1000ft (105 kg/km)

#### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 Flame only
CPR Compliance:	CPR Euroclass: Fca
NEC / UL Compliance:	Article 800, Article 725, PLTC - CMR/CMX Outdoor
AWM Compliance:	AWM 21047
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6A
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	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 system.
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#### History

Update and Revision:	Revision Number: 0.9 Revision Date: 07-02-2024
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