

Product: 1303E

CATSNAKE Category 6A Cable, 4 Pair, S/FTP, PVC PVC upjacketed

Product Description

CATSNAKE Category 6A Cable, 4 Pair, S/FTP, PVC PVC upjacketed

Technical Specifications

Product Overview

Suitable Applications:	Field deployable CAT6a patch horizontal and building backbone cable; AVB, Dante, CobraNEt, eSnake, Ethersound, Digital audio over Ethernet; Support current and future Category 6A and 6 applications, such as: 10GBase - T(10 Gigabit Ethernet), 1000 Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM; Compatible connectors Belden R301601 000S1 (T568A) and R301602 000S1 (T568B)

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Individual Shielded Pair	24 AWG	7x32	BC - Bare Copper	4	8

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Shielded Pair	PE - Polyethylene (Foam)	1.4 mm (0.055 in)	White & Blue, White & Orange, White & Green, White & Brown

Cable Core

Description
4 shielded pairs twisted together

Inner Shield

Element	Shield Type	Material	Coverage
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)	100%

Table Notes:	Aluminum facing outside

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Braid	Tinned Copper (TC)	80%	26 AWG (7x34) TC

Outer Jacket

Layer	Separator	Material	Nom. Diameter
1		PVC - Polyvinyl Chloride	7.2 mm (0.28 in)
2	non-Woven Tape	PVC - Polyvinyl Chloride	8.7 mm (0.34 in)

Table Notes:	Matte Finish, Rugged Sheath
Overall Cable Diameter (Nominal):	8.7 mm (0.34 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
95 Ohm/km	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

Delay

Max. Delay Skew	Nom. Velocity of Prop.
25 ns/100m	77%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	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	2.5 dB/100m	75.3	72.3	72.8	69.8	68	65	20	67	67	40	35
4	4.6 dB/100m	66.3	63.3	61.7	58.7	56	53	23	67	66.2	34	23
10	7.1 dB/100m	60.3	57.3	53.2	50.2	48	45	25	67	58.2	30	15
16	9 dB/100m	57.2	54.2	48.3	45.3	43.9	40.9	25	67	54.1	28	10.9
31.2	12.6 dB/100m	52.9	49.9	50.4	47.3	38.1	35.1	23.6	67	48.3	25.1	5.1
62.5	18 dB/100m	48.4	45.4	30.4	27.4	32.1	9.1	21.5	65.6	42.3	22	
100	23 dB/100m	45.3	42.3	22.3	19.3	28	25	20.1	62.5	38.2	20	
125	25.8 dB/100m	43.8	40.8	18	15	26.1	23.1	19.4	61	36.3	19	
200	33.1 dB/100m	40.8	37.8	7.7	4.7	22	19	18	58	32.2	17	
250	37.3 dB/100m	39.3	36.3	2	-1	20	17	17.3	56.5	30.2	16	
300	41.1 dB/100m	38.1	35.1	-3	-6	18.5	15.5	17.3	55.3	28.7		
500	54.3 dB/100m	34.8	31.8	-19.5	-22.5	14	11	17.3	52	24.2		

Table Notes:	Reference standard: IEC 61156-6

Transfer Impedance

Frequency	Max. Transfer Impedance
1 Mhz	Max. 50 mOhm/m
10 Mhz	Max. 100 mOhm/m
30 Mhz	Max. 200 mOhm/m
100 Mhz	Max. 1000 mOhm/m

Transfer Impedance Class:	Grade 2
Screening Class:	Type Ib
Table Notes:	Coupling Attenuation

Voltage

Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-30°C to +60°C	0°C To +50°C	-30°C To +60°C

Trailing/Flexing Properties

Motion	Number of Cycles	Radius	Speed	Acceleration	Traverse Length
Trailing/Bending	2,000,000	80 mm	5 m/s	5 m/s²	5 m

Table Notes:	Drag chain test

Bend Radius

Stationary Min.	Installation Min.
32 mm (1.3 in)	64 mm

Max. Pull Tension:	75 N (17 lbf)
Bulk Cable Weight:	83 kg/km

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	IEC 60332-1-2
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-6
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = c

European Directive Compliance:	EU CE Mark, REACH
UK Regulation Compliance:	UKCA Mark

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: 0.541 Revision Date: 02-03-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC/EAN
1303E.00305	Black	Reel	305 m	8719605000941
1303E 010500	Black	Reel	500 ft	612825381839
1303E.00500	Black	Reel	500 m	8719605000958
1303E 0101000	Black	Reel	1,000 ft	612825381822
1303E 0101640	Black	Reel	1,640 ft	612825381815

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