Belden



Product: 2424DB

DataTwist 2400 Category 6+ Cable, 4 Pair, U/UTP, LSZH, Indoor CPR B2ca

Product Description

Category 6 Enhanced Premise Horizontal Cable (350MHz), 4-Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Polyethylene Insulation, LSZH Jacket

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6 and 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs
Individual Pair	24 AWG	Solid	BC - Bare Copper	4

Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Pair	PE - Polyethylene	1 mm (0.039 in)	White/Blue & Blue, White/Orange & Orange, White/Green & Green, White/Brown & Brown

Cable Core

Description
4 pairs twisted together

Outer Jacket

Material	Nom. Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.1 mm (0.24 in)	Yes

Overall Cable Diameter (Nominal):	6.1 mm (0.24 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km (28.6 Ohm/1000ft)	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

Delay

Max. Delay Skew	Nom. Velocity of Prop.
35 ns/100m	70%

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. TCL [dB]	Min. ELTCTL [dB]
1	2 dB/100m	75.3	73.3	73.3	71.3	70.8	67.8	20	40	35
4	3.7 dB/100m	66.3	64.3	62.6	60.6	58.8	55.8	23	40	23
10	5.8 dB/100m	61.8	59.8	56	54	50.8	47.8	25	40	15
16	7.4 dB/100m	58.6	56.6	51.2	49.2	46.7	43.7	25	38	10.9
20	8.3 dB/100m	57.1	55.1	48.8	46.8	44.8	41.8	25	37	9
31.2	10.4 dB/100m	54	52	43.6	41.6	40.9	37.9	23.6	35.1	5.1
62.5	15 dB/100m	49.1	47.1	34.1	32.1	34.9	31.9	21.5	32.6	

100	19.3 dB/100m	45.8	43.8	26.5	24.5	30.8	27.8	20.8	30	
200	28.3 dB/100m	40.9	38.9	12.6	10.6	22.8	21.8	19.5	27	
250	32.1 dB/100m	39.3	37.3	7.2	5.2	22.8	19.8	18	26.0	
300	35.6 dB/100m	38.1	36.1	2.5	0.5	21.3	18.3	17.5	25.2	
350	38.8 dB/100m	37.1	35.1			19.9	16.9	17.0	24.6	

High Frequency Table Notes:	Limits below 4MHz are for information only.

Voltage

Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

Operating	Installation
-20°C to +75°C	0°C To +50°C

Bend Radius

Stationary Min.	Installation Min.
25 mm (0.98 in)	50 mm

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	52 kg/km

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass B2ca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: B2ca-s1a,d1,a1; CPR UKCA Class: B2ca-s1a,d1,a1
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = a
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3, IEC 61034-2 - Smoke Density Min. Transmittance = 80%
European Directive Compliance:	EU CE Mark
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: 0.202 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
2424DB.06305	Blue	Reel	305 m	8719605133960
2424DB.06500	Blue	Reel	500 m	8719605142375
2424DB.08305	Gray	Reel	305 m	8719605142382
2424DB.08500	Gray	Reel	500 m	8719605142399
2424DB.04500	Yellow	Reel	500 m	8719605144973

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