



Product: [2424D](#)

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

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	Number of Pairs	Number of Element
Individual Pair	24 AWG	Solid	BC - Bare Copper	4	8

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)	5.5 mm (0.22 in)	Yes

Overall Cable Diameter (Nominal):	5.5 mm (0.22 in)
-----------------------------------	------------------

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km	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	

Table Notes: Limits below 4 MHz are for information only. Reference standard: IEC 61156-5

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.
22 mm (0.87 in)	44 mm

Max. Pull Tension: 80 N (18 lbf)

Bulk Cable Weight: 33 kg/km

Standards and Compliance

Environmental Suitability:	Indoor - Euroclass Eca
Flammability / Reaction to Fire:	IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
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, IEC 61034-2 - Smoke Density Min Transmittance = 60%
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
European Directive Compliance:	EU CE 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: 0.268 Revision Date: 04-12-2022

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
2424D.10305	Black	Reel	305 m	8719605005281
2424D.06305	Blue	Reel	305 m	8719605005144
2424D.06A305	Blue	Reel-in-Box	305 m	8719605005168
2424D.08A305	Gray	Reel-in-Box	305 m	8719605005236
2424D.K8A305	Gray	Reel-in-Box	305 m	8719605147820
2424D.08500	Gray	Reel	500 m	8719605005229
2424D.05305	Green	Reel	305 m	8719605005137
2424D.03305	Orange	Reel	305 m	8719605005113
2424D.07305	Purple	Reel	305 m	8719605005199
2424D.07A305	Purple	Reel-in-Box	305 m	8719605005212
2424D.071000	Purple	Reel	1,000 m	8719605005175
2424D.02A305	Red	Reel-in-Box	305 m	8719605005106
2424D.09A305	White	Reel	305 m	8719605005274
2424D.09500	White	Reel	500 m	8719605005267

2424D.091000	White	Reel	1,000 m	8719605005243
2424D.04305	Yellow	Reel	305 m	8719605005120

© 2022 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.