



Product: [2425D](#)

DataTwist 2400 Cat 6+ Cable, U/UTP, LSZH, 4 Pair, AWG 24, Indoor CPR Eca

Product Description

CAT6+ (300MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, LSZH Jacket (passes bundle flame test IEC60332-3-25)

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
------------------------	---

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Element	Type	Material	Nominal Diameter
Individual pair	Dielectric	Polyethylene	1 mm

Bonded-Pair:	No
--------------	----

Color Chart

Number	Color
Pair 1	White/Blue & Blue
Pair 2	White/Orange & Orange
Pair 3	White/Green & Green
Pair 4	White/Brown & Brown

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness	Ripcord
LSZH / FRNC	6.6 mm	0.3 mm	1.15 mm	Yes

Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	9 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
93.8 Ohm/km	4 %	2 %

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
25 ns/100m	70 %

High Freq

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 MHz	2 dB/100m	75.3 dB	73.3 dB	73.3 dB	71.3 dB	70.8 dB	67.8 dB	20 dB	40 dB	35 dB
4 MHz	3.7 dB/100m	66.3 dB	64.3 dB	62.6 dB	60.6 dB	58.8 dB	55.8 dB	23 dB	40 dB	23 dB
10 MHz	5.8 dB/100m	61.8 dB	59.8 dB	56 dB	54 dB	50.8 dB	47.8 dB	25 dB	40 dB	15 dB
16 MHz	7.4 dB/100m	58.6 dB	56.6 dB	51.2 dB	49.2 dB	46.7 dB	43.7 dB	25 dB	38 dB	10.9 dB
20 MHz	8.3 dB/100m	57.1 dB	55.1 dB	48.8 dB	46.8 dB	44.8 dB	41.8 dB	25 dB	37 dB	9 dB
31.2 MHz	10.4 dB/100m	54 dB	52 dB	43.6 dB	41.6 dB	40.9 dB	37.9 dB	23.6 dB	35.1 dB	5.1 dB
62.5 MHz	15 dB/100m	49.1 dB	47.1 dB	34.1 dB	32.1 dB	34.9 dB	31.9 dB	21.5 dB	32.6 dB	
100 MHz	19.3 dB/100m	45.8 dB	43.8 dB	26.5 dB	24.5 dB	30.8 dB	27.8 dB	20.8 dB	30 dB	
200 MHz	28.3 dB/100m	40.9 dB	38.9 dB	12.6 dB	10.6 dB	22.8 dB	21.8 dB	19.5 dB	27 dB	
250 MHz	32.1 dB/100m	39.3 dB	37.3 dB	7.2 dB	5.2 dB	22.8 dB	19.8 dB	18 dB	26.0 dB	
300 MHz	35.6 dB/100m	38.1 dB	36.1 dB	2.5 dB	0.5 dB	21.3 dB	18.3 dB	17.5 dB	25.2 dB	
350 MHz	38.8 dB/100m	37.1 dB	35.1 dB			19.9 dB	16.9 dB	17.0 dB	24.6 dB	

High Freq Table Note: Limits below 4 MHz are for information only. Reference standard: ISO/IEC 61156-5 ed. 2.0 (2009)

General Electrical Parameters Notes: Reference standard: ISO/IEC 61156 - 5 ed. 2.0 (2009)

Segregation class according EN50174-2: a

Current

Max. Recommended Current [A]
1.5 A

Voltage

Voltage Rating [V]
72 V

Temperature Range

Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	52 kg/km
Max Recommended Pulling Tension:	80 N
Min Bend Radius During Installation:	52 mm
Min Bend Radius During Operation:	26 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CPR Euroclass:	Eca
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 6
ANSI Compliance:	ANSI/TIA 568.2-D (2018)
IEEE Specification:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU RoHS Compliance Date (yyyy-mm-dd):	2005-09-30

Flammability, LSOH, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1-2 and IEC 60332-3-25
Burning Load:	600 kJ/m
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color	Length
2425D.061000	Blue	1,000 m
2425D.06305	Blue	305 m
2425D.06500	Blue	500 m
2425D.K6305	Blue	305 m
2425D.K6500	Blue	500 m
2425D.08500	Gray	500 m
2425D.08305	Gray	305 m
2425D.K8500	Gray	500 m
2425D.071000	Purple	1,000 m
2425D.07305	Purple	305 m

Patent:	https://www.belden.com/resources/patents
---------	---

History

Update and Revision:	Revision Number: 0.203 Revision Date: 09-17-2019
----------------------	--

© 2019 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.