


**Product:** [1224D](#) 



DataTwist 1200 Cat 5e Cable, U/UTP, LSZH, 4 Pair, AWG 24, Indoor CPR Dca

## Product Description

CAT5e+ (350MHz), 4-Pair, U/UTP-unshielded, Zero Halogen, Premise Horizontal cable, 24 AWG solid bare copper conductors, polyolefin insulation, ripcord, LSZH jacket.

## Technical Specifications

### Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> .

### Physical Characteristics (Overall)

#### Conductor

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

Conductor Count:	8
Total Number of Pairs:	4

#### Insulation

Material	Nominal Diameter
PO - Polyolefin	0.95 mm

Bonded-Pair:	N/A
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#### Color Chart

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

#### Outer Jacket Material

Material	Nominal Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.9 mm	Yes

### Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
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### 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

## Delay

<b>Max. Delay Skew</b>
25 ns/100m

## 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]
1 MHz	2.0 dB/100m	70.3 dB	69.3 dB	68.3 dB	67.3 dB	67.8 dB	65.8 dB	20.0 dB
4 MHz	4.0 dB/100m	61.3 dB	60.3 dB	57.3 dB	56.3 dB	55.8 dB	53.8 dB	23.0 dB
8 MHz	5.7 dB/100m	56.8 dB	55.8 dB	51.1 dB	50.1 dB	49.7 dB	47.7 dB	24.5 dB
10 MHz	6.4 dB/100m	55.3 dB	54.3 dB	48.9 dB	47.9 dB	47.8 dB	45.8 dB	25.0 dB
16 MHz	8.1 dB/100m	52.2 dB	51.2 dB	44.1 dB	43.1 dB	43.7 dB	41.7 dB	25.0 dB
20 MHz	9.1 dB/100m	50.8 dB	49.8 dB	41.7 dB	40.7 dB	41.8 dB	39.8 dB	25.0 dB
25 MHz	10.2 dB/100m	49.3 dB	48.3 dB	39.1 dB	38.1 dB	39.8 dB	37.8 dB	24.3 dB
31.25 MHz	11.4 dB/100m	47.9 dB	46.9 dB	36.4 dB	35.4 dB	37.9 dB	35.9 dB	23.6 dB
62.5 MHz	16.4 dB/100m	43.4 dB	42.4 dB	27.0 dB	26.0 dB	31.9 dB	29.9 dB	21.5 dB
100 MHz	21.0 dB/100m	40.3 dB	39.3 dB	19.3 dB	18.3 dB	27.8 dB	25.8 dB	20.1 dB
155 MHz	26.6 dB/100m	37.4 dB	36.4 dB	10.9 dB	9.9 dB	24.0 dB	22.0 dB	18.8 dB
200 MHz	30.5 dB/100m	35.8 dB	34.8 dB	5.3 dB	4.3 dB	21.8 dB	19.8 dB	18.0 dB
250 MHz	34.4 dB/100m	34.3 dB	33.3 dB	-0.1 dB	-1.1 dB	19.8 dB	17.8 dB	17.3 dB
300 MHz	38.0 dB/100m	33.1 dB	32.1 dB	1.9 dB		18.3 dB	16.3 dB	14.4 dB
350 MHz	41.4 dB/100m	32.1 dB	31.1 dB			16.9 dB	14.9 dB	13.8 dB
400 MHz	44.6 dB/100m	31.3 dB	30.3 dB			15.8 dB	13.8 dB	13.3 dB
450 MHz	47.7 dB/100m	30.5 dB	29.5 dB			14.7 dB	12.7 dB	12.8 dB

Segregation class according EN50174-2:

a

## Current

<b>Max. Recommended Current [A]</b>
1.5 Amps per Conductor

## Temperature Range

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

## Mechanical Characteristics

Bulk Cable Weight:	30 kg/km
Max. Pull Tension:	80 N
Min Bend Radius During Installation:	40 mm
Min Bend Radius During Operation:	20 mm

## Standards

NEC/(UL) Compliance:	N/A
IEC Compliance:	ISO/IEC 11801-1
CPR Euroclass:	Dca-s2,d2,a1
CENELEC Compliance:	EN 50173-1
Data Category:	Category 5e
ANSI Compliance:	S-90-661-2012 Category 5e, ANSI/NEMA WC-63.1 Category 5e
TIA/EIA Compliance:	ANSI/TIA-568-C.2 Category 5e
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3

## Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Dca
EU RoHS Compliance Date (yyyy-mm-dd):	2017-06-30
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes

Suitability - Non-Halogenated:	Yes
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

## Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
Burning Load:	300 kJ/m
IEC 60754-1 (EN50267-1)- Halogen Amount:	Zero
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH:	4.3

## Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1213

## Part Number

Non-Plenum Number:	1212
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## Variants

Item #	Color	Putup Type	Length	EAN
1224D.08U305	Gray	Unreel	305 m	8719605140906

## Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 350 MHz are for Engineering Information Only.
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## History

Update and Revision:	Revision Number: 0.77 Revision Date: 09-17-2020
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