



Product: [1583ENH](#)

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

Product Description

CAT5e (100MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 24 AWG solid bare copper conductors, Polyethylene insulation, LSZH jacket, RJ-45 compatible

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

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	PE - Polyethylene	0.9 mm

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

Color Chart

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

Cabling

Description
4 pairs twisted together

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
LSZH - Low Smoke Zero Halogen (Flame Retardant)	4.6 mm	0.3 mm

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 [%]
95 Ohm/km	4 %	2 %

Capacitance

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

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
40 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	2.1 dB/100m	65.3 dB	62.3 dB	63.2 dB	60.2 dB	64 dB	61 dB	20 dB	40 dB	35 dB
4 MHz	4 dB/100m	56.3 dB	53.3 dB	52.32 dB	49.3 dB	52 dB	49 dB	23 dB	34 dB	23 dB
10 MHz	6.3 dB/100m	50.3 dB	47.3 dB	44 dB	41 dB	44 dB	41 dB	25 dB	30 dB	15 dB
16 MHz	8 dB/100m	47.2 dB	44.2 dB	39.2 dB	36.2 dB	39.9 dB	36.9 dB	25 dB	28 dB	10.9 dB
20 MHz	9 dB/100m	45.8 dB	42.8 dB	36.8 dB	33.8 dB	38 dB	35 dB	25 dB	27 dB	9 dB
31.25 MHz	11.4 dB/100m	42.9 dB	39.9 dB	31.5 dB	28.5 dB	34.1 dB	31.5 dB	23.6 dB	25.1 dB	5.5 dB
62.5 MHz	16.5 dB/100m	38.4 dB	35.4 dB	21.9 dB	18.9 dB	28.1 dB	25.1 dB	21.5 dB	22 dB	
100 MHz	21.3 dB/100m	35.3 dB	32.3 dB	14 dB	11 dB	24 dB	21 dB	20.1 dB	20 dB	

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

General Electrical Parameters Notes: Reference standard: ISO/IEC 61156-5

Segregation class according EN50174-2: a

Current

Max. Recommended Current [A]
1.5 Amps per Conductor

Voltage

Voltage Rating [V]
72 V

Temperature Range

Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-30°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	28 kg/km
Max. Pull Tension:	65 N
Min. Bend Radius During Installation:	40 mm
Min Bend Radius During Operation:	20 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5, IEC 60754-1, IEC 60754-2
CPR Euroclass:	Dca-s2,d2,a1
GENELEC Compliance:	EN 50173-1
Data Category:	Category 5e
ANSI Compliance:	ANSI/TIA 568.2-D (2018)
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):	2004-01-01

Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
-------------------	---------------

Burning Load:	285 kJ/m
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:	60%

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
1583ENH.10U305	Black	UnReel	305 m	8719605002570
1583ENH.01305	Blue	Reel	305 m	8719605002433
1583ENH.01U305	Blue	UnReel	305 m	8719605002457
1583ENH.01500	Blue	Reel	500 m	8719605002440
1583ENH.011000	Blue	Reel	1,000 m	8719605125194
1583ENH.00B100	Gray, RAL 7032	Flat Box	100 m	8719605002419
1583ENH.00305	Gray, RAL 7032	Reel	305 m	8719605002389
1583ENH.00U305	Gray, RAL 7032	UnReel	305 m	8719605002426
1583ENH.00500	Gray, RAL 7032	Reel	500 m	8719605002402
1583ENH.001000	Gray, RAL 7032	Reel	1,000 m	8719605002372
1583ENH.003570	Gray, RAL 7032	Reel	3,570 m	8719605002396
1583ENH.02U305	Green	UnReel	305 m	8719605002464
1583ENH.04U305	Orange	UnReel	305 m	8719605002501
1583ENH.04500	Orange	Reel	500 m	8719605002495
1583ENH.07U305	Red	UnReel	305 m	8719605002549
1583ENH.07500	Red	Reel	500 m	8719605002532
1583ENH.05U305	Violet	UnReel	305 m	8719605002525
1583ENH.05500	Violet	Reel	500 m	8719605002518
1583ENH.09U305	White	UnReel	305 m	8719605002563
1583ENH.03U305	Yellow	UnReel	305 m	8719605002488
1583ENH.031000	Yellow	Reel	1,000 m	8719605002471

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: 0.260 Revision Date: 07-02-2021
----------------------	--------------------------------------------------

© 2021 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.