



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

CAT5e+ Horizontal, 4pr, UTP, LSZH Jkt

## Product Description

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

## Technical Specifications

### Product Overview

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422
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### 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	
PE - Polyethylene	
Bonded-Pair:	N/A

#### Color Chart

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

#### Outer Jacket

Material	Material Trade Name	Nominal Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Haloarrest®	0.193 in	Yes

### Electrical Characteristics

#### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
89 Ohm/km	3 %

#### Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
330 pF/100m	15 pF/ft

#### Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	25 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]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 15 Ohm	100 ± 15 Ohm
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	100 ± 22 Ohm	100 ± 15 Ohm
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	100 ± 22 Ohm	100 ± 15 Ohm
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	100 ± 32 Ohm	100 ± 15 Ohm
300 MHz	38.0 dB/100m	33.1 dB	32.1 dB	1.9 dB		18.3 dB	16.3 dB	14.4 dB	100 ± 32 Ohm	100 ± 15 Ohm
350 MHz	41.4 dB/100m	32.1 dB	31.1 dB			16.9 dB	14.9 dB	13.8 dB	100 ± 32 Ohm	100 ± 15 Ohm
400 MHz	44.6 dB/100m	31.3 dB	30.3 dB			15.8 dB	13.8 dB	13.3 dB	100 ± 32 Ohm	100 ± 15 Ohm
450 MHz	47.7 dB/100m	30.5 dB	29.5 dB			14.7 dB	12.7 dB	12.8 dB	100 ± 32 Ohm	100 ± 15 Ohm

## Voltage

<b>UL Voltage Rating</b>
300 V RMS

## Temperature Range

Installation Temperature Range:	+5°C To +50°C
Non-UL Temp Rating:	+75°C
Storage Temperature Range:	-20°C To +75°C
Operating Temperature Range:	-20°C To +75°C

## Mechanical Characteristics

Bulk Cable Weight:	25 lbs/1000ft
Max. Pull Tension:	25 lbs
Min. Bend Radius During Installation:	2.0 in
Min. Bend Radius/Minor Axis:	1.0 in

## Standards

ISO/IEC Compliance:	11801 ed 2.2 (2011) Class D
CPR Euroclass:	Eca
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:	IEEE 802.3bt Type 1, Type 2, Type 3
Other Specification:	Verified Category 5e

## Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Eca
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	Yes
EU CE Mark:	No
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10

MII Order #39 (China RoHS):	Yes
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## 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
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

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

## Related Part Numbers

Non-Plenum Number:	1212
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## Variants

Item #	Color	Put-Up Type	Length	UPC/EAN
1224.08U305	Gray	UnReel	305 m	8719605000682
1224.07U305	Purple	UnReel	305 m	8719605000675
1224.007U1000	Purple	UnReel	1,000 ft	612825061526
1224.09U305	White	UnReel	305 m	8719605000705
1224.09500	White	Reel	500 m	8719605000699

## 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. Print Includes Descending Footage/Meter Markings.
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## History

Update and Revision:	Revision Number: 0.513 Revision Date: 03-04-2023
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