



Product: [2424](#) 

CAT6+ Horizontal, 4pr, UTP, LSZH Jkt

Product Description

CAT6+ (350MHz), 4-Pair, U/UTP-unshielded, Zero Halogen, Premise Horizontal cable, 23 AWG solid bare copper conductors, polyolefin insulation, patented tape separator, ripcord, LSZH jacket.

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, POE, POE+, 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
23	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	
Polyolefin	
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	Material Trade Name	Nominal Diameter	Ripcord	Separator Material
LSZH - Low Smoke Zero Halogen flame retardant	Haloarrest®	0.221 in	Yes	Dielectric Tape (Patented)

Electrical Characteristics

Conductor DCR

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

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
330 pF/100m	17 pF/ft

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	35 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]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.0 dB/100m	79.3 dB	77.3 dB	77.3 dB	75.3 dB	70.8 dB	67.8 dB	20.0 dB	100 ± 15	102 ± 15
4 MHz	3.7 dB/100m	70.3 dB	68.3 dB	66.5 dB	64.5 dB	58.8 dB	55.8 dB	23.6 dB	100 ± 15	100 ± 15
8 MHz	5.3 dB/100m	65.8 dB	63.8 dB	60.5 dB	58.5 dB	52.7 dB	49.7 dB	25.3 dB	100 ± 15	100 ± 15
10 MHz	5.9 dB/100m	64.3 dB	62.3 dB	58.4 dB	56.4 dB	50.8 dB	47.8 dB	26.0 dB	100 ± 15	100 ± 15
16 MHz	7.4 dB/100m	61.2 dB	59.2 dB	53.8 dB	51.8 dB	46.7 dB	43.7 dB	26.0 dB	100 ± 15	100 ± 15
20 MHz	8.3 dB/100m	59.8 dB	57.8 dB	51.4 dB	49.4 dB	44.8 dB	41.8 dB	26.0 dB	100 ± 15	100 ± 15
25 MHz	9.4 dB/100m	58.3 dB	56.3 dB	49.0 dB	47.0 dB	42.8 dB	39.8 dB	25.5 dB	100 ± 15	100 ± 15
31.25 MHz	10.5 dB/100m	56.9 dB	54.9 dB	46.4 dB	44.4 dB	40.9 dB	37.9 dB	25.0 dB	100 ± 15	100 ± 15
62.5 MHz	15.1 dB/100m	52.4 dB	50.4 dB	37.3 dB	35.3 dB	34.9 dB	31.9 dB	23.5 dB	100 ± 15	100 ± 15
100 MHz	19.3 dB/100m	49.3 dB	47.3 dB	30.0 dB	28.0 dB	30.8 dB	27.8 dB	22.5 dB	100 ± 15	100 ± 15
155 MHz	24.5 dB/100m	46.4 dB	44.4 dB	21.9 dB	19.9 dB	27.0 dB	24.0 dB	21.6 dB	100 ± 22	100 ± 15
200 MHz	28.2 dB/100m	44.8 dB	42.8 dB	16.6 dB	14.6 dB	24.8 dB	21.8 dB	21.0 dB	100 ± 22	100 ± 15
250 MHz	31.8 dB/100m	43.3 dB	41.3 dB	11.5 dB	9.5 dB	22.8 dB	19.8 dB	20.5 dB	100 ± 32	100 ± 15
300 MHz	35.2 dB/100m	42.1 dB	40.1 dB	6.9 dB	4.9 dB	21.3 dB	18.3 dB	20.1 dB	100 ± 32	100 ± 15
350 MHz	38.4 dB/100m	41.1 dB	39.1 dB	2.7 dB	0.7 dB	19.9 dB	16.9 dB	19.8 dB	100 ± 32	100 ± 15
400 MHz	41.5 dB/100m	40.3 dB	38.3 dB			18.8 dB	15.8 dB	19.5 dB	100 ± 32	100 ± 15
450 MHz	44.3 dB/100m	39.5 dB	37.5 dB			17.7 dB	14.7 dB	19.2 dB	100 ± 32	100 ± 15
500 MHz	47.1 dB/100m	38.8 dB	36.8 dB			16.8 dB	13.8 dB	19.0 dB	100 ± 32	100 ± 15
550 MHz	49.7 dB/100m	38.2 dB	36.2 dB			16.0 dB	13.0 dB	18.8 dB	100 ± 32	100 ± 15
Segregation class according EN50174-2:	a									

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	23 lbs/1000ft
Max. Pull Tension:	25 lbs
Min Bend Radius During Installation:	2.25 in
Min Bend Radius/Minor Axis:	1.0 in

Standards

NEC/(UL) Compliance:	N/A
IEC Compliance:	11801 ed 2.2 (2011) Class E
CPR Euroclass:	Eca
Data Category:	Category 6
ANSI Compliance:	S-116-732-2013 Category 6, ANSI/NEMA WC-66 Category 6
TIA/EIA Compliance:	ANSI/TIA-568-C.2 Category 6
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Third Party Performance Verification:	Category 6

Applicable Environmental and Other Programs

Environmental Space:	LSZH
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes

EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	No
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
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
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	2413

Part Number

Variants

Item #	Color	Putup Type	Length	UPC/EAN
2424.06305	Blue	Reel	305 m	8719605005038
2424 0061000	Blue	Reel	1,000 ft	612825061557
2424.08305	Gray	Reel	305 m	8719605005069
2424.07305	Purple	Reel	305 m	8719605005052
2424 0071000	Purple	Reel	1,000 ft	612825061540
2424.071000	Purple	Reel	1,000 m	8719605005045
2424.02500	Red	Reel	500 m	8719605005021
2424 0091000	White	Reel	1,000 ft	612825061564

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 from Max. Put-Up Length to 0.
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History

Update and Revision:	Revision Number: 0.353 Revision Date: 04-28-2020
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