BELDEN
SENDING ALL THE RIGHT SIGNALS

Part Number: 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

Environmental Space:	LSZH
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

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	8
Total Number of Pairs:	4
Conductor Size:	23 AWG

Insulation

Material
PO - 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	Haloarrest®	0.221 in	Yes	Patented Dielectric Tape

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	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.0 dB/100m	75.3 dB	75.3 dB	73.3 dB	73.3 dB	70.8 dB	67.8 dB	20.0 dB	100 ± 15 Ohm	102 ± 15 Ohm	40.0 dB	35.0 dB
4 MHz	3.7 dB/100m	66.3 dB	66.3 dB	62.5 dB	62.5 dB	58.8 dB	55.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	61.8 dB	61.8 dB	56.5 dB	56.5 dB	52.7 dB	49.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	16.9 dB
10 MHz	5.9 dB/100m	60.3 dB	60.3 dB	54.4 dB	54.4 dB	50.8 dB	47.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	40.0 dB	15.0 dB
16 MHz	7.4 dB/100m	57.2 dB	57.2 dB	49.8 dB	49.8 dB	46.7 dB	43.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	38.0 dB	10.9 dB
20 MHz	8.3 dB/100m	55.8 dB	55.8 dB	47.4 dB	47.4 dB	44.8 dB	41.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm	37.0 dB	9.0 dB
25 MHz	9.4 dB/100m	54.3 dB	54.3 dB	45.0 dB	45.0 dB	42.8 dB	39.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	36.0 dB	7.0 dB
31.25 MHz	10.5 dB/100m	52.9 dB	52.9 dB	42.4 dB	42.4 dB	40.9 dB	37.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm	35.1 dB	5.1 dB
62.5 MHz	15.1 dB/100m	48.4 dB	48.4 dB	33.3 dB	33.3 dB	34.9 dB	31.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	32.0 dB	
100 MHz	19.3 dB/100m	45.3 dB	45.3 dB	26.0 dB	26.0 dB	30.8 dB	27.8 dB	20.8 dB	100 ± 15 Ohm	100 ± 15 Ohm	30.0 dB	
155 MHz	24.5 dB/100m	42.4 dB	42.4 dB	17.9 dB	17.9 dB	27.0 dB	24.0 dB	19.5 dB	100 ± 22 Ohm	100 ± 15 Ohm	28.1 dB	
200 MHz	28.2 dB/100m	40.8 dB	40.8 dB	12.6 dB	12.6 dB	24.8 dB	21.8 dB	18.7 dB	100 ± 22 Ohm	100 ± 15 Ohm	27.0 dB	
250 MHz	31.8 dB/100m	39.3 dB	39.3 dB	7.5 dB	7.5 dB	22.8 dB	19.8 dB	18.0 dB	100 ± 32 Ohm	100 ± 15 Ohm	26.0 dB	
300 MHz	35.2 dB/100m	38.1 dB	36.1 dB	2.9 dB	0.9 dB	21.3 dB	18.3 dB	17.5 dB	100 ± 32 Ohm	100 ± 15 Ohm	25.2 dB	
350 MHz	38.4 dB/100m	37.1 dB	35.1 dB			19.9 dB	16.9 dB	17.0 dB	100 ± 32 Ohm	100 ± 15 Ohm	24.6 dB	
400 MHz	41.5 dB/100m	36.3 dB	34.3 dB			18.8 dB	15.8 dB	16.6 dB	100 ± 32 Ohm	100 ± 15 Ohm	24.0 dB	
450 MHz	44.3 dB/100m	35.5 dB	33.5 dB			17.7 dB	14.7 dB	16.2 dB	100 ± 32 Ohm	100 ± 15 Ohm	23.5 dB	
500 MHz	47.1 dB/100m	34.8 dB	32.8 dB			16.8 dB	13.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 15 Ohm	23.0 dB	
550 MHz	49.7 dB/100m	34.2 dB	32.2 dB			16.0 dB	13.0 dB	15.6 dB	100 ± 32 Ohm	100 ± 15 Ohm		

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 Recommended Pulling Tension:	25 lbs
Min Bend Radius/Minor Axis:	1.0 in
Min Bend Radius/Installation:	2.25 in

Standards

NEC/(UL) Specification:	N/A
ISO/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
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Third Party Performance Verification:	Category 6

Applicable Environmental and Other Programs

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
CA Prop 65 (CJ for Wire & Cable):	Yes
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, LS0H, Toxicity Testing

UL voltage rating:	300 V RMS

Plenum/Non-Plenum

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

Part Number

Non-Plenum Number:	2412

Variants

Item #	Color
2424.06305	Blue
2424.08305	Blue
2424 0061000	Blue
2424.07305	Purple
2424 0071000	Purple
2424.071000	Purple
2424.02500	Red
2424 0091000	White

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

Product Notes

Notes:	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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