



Part Number: 2412

CAT6+ Horizontal, 4pr, UTP, PVC Jkt, CMR

Product Description

CAT6+ (350MHz), 4-Pair, U/UTP-unshielded, Riser-CMR, Premise Horizontal cable, 23 AWG solid bare copper conductors, polyolefin insulation, tape separator, ripcord, PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Riser
Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM

Physical Characteristics (Overall)

Conductor

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

Total Number of Conductors:	8
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Insulation

Material
PO - Polyolefin

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 Shield Material

Material
N/A

Outer Jacket Material

Material	Nominal Diameter	Ripcord	Separator Material
PVC - Polyvinyl Chloride	0.216 in	Yes	Patented Dielectric Tape

Electrical Characteristics

Capacitance

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

Shielding:	UTP - Unshielded
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Construction and Dimensions

Total Number of Pairs:	4
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Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
7.8 Ohm/100m	3 %

Delay

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	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
4 MHz	3.7 dB/100m	66.3 dB	66.3 dB	62.6 dB	62.6 dB	58.8 dB	55.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
8 MHz	5.2 dB/100m	61.8 dB	61.8 dB	56.6 dB	56.6 dB	52.7 dB	49.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
10 MHz	5.8 dB/100m	60.3 dB	60.3 dB	54.5 dB	54.5 dB	50.8 dB	47.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
16 MHz	7.4 dB/100m	57.2 dB	57.2 dB	49.9 dB	49.9 dB	46.7 dB	43.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
20 MHz	8.3 dB/100m	55.8 dB	55.8 dB	47.5 dB	47.5 dB	44.8 dB	41.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
25 MHz	9.3 dB/100m	54.3 dB	54.3 dB	45.1 dB	45.1 dB	42.8 dB	39.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm
31.25 MHz	10.4 dB/100m	52.9 dB	52.9 dB	42.5 dB	42.5 dB	40.9 dB	37.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm
62.5 MHz	15.0 dB/100m	48.4 dB	48.4 dB	33.4 dB	33.4 dB	34.9 dB	31.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
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
155 MHz	24.6 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
200 MHz	28.3 dB/100m	40.8 dB	40.8 dB	12.5 dB	12.5 dB	24.8 dB	21.8 dB	18.7 dB	100 ± 22 Ohm	100 ± 15 Ohm
250 MHz	32.1 dB/100m	39.3 dB	39.3 dB	7.2 dB	7.2 dB	22.8 dB	19.8 dB	18.0 dB	100 ± 32 Ohm	100 ± 15 Ohm
300 MHz	35.6 dB/100m	38.1 dB	36.1 dB	2.5 dB	0.5 dB	21.3 dB	18.3 dB	17.5 dB	100 ± 32 Ohm	100 ± 15 Ohm
350 MHz	38.9 dB/100m	37.1 dB	35.1 dB	-1.8 dB	-3.8 dB	19.9 dB	16.9 dB	17.0 dB	100 ± 32 Ohm	100 ± 15 Ohm
400 MHz	42.0 dB/100m	36.3 dB	34.3 dB	-5.7 dB	-7.7 dB	18.8 dB	15.8 dB	16.6 dB	100 ± 32 Ohm	100 ± 15 Ohm
450 MHz	45.0 dB/100m	35.5 dB	33.5 dB	-9.5 dB	-11.5 dB	17.7 dB	14.7 dB	16.2 dB	100 ± 32 Ohm	100 ± 15 Ohm
500 MHz	47.9 dB/100m	34.8 dB	32.8 dB	-13.1 dB	-15.1 dB	16.8 dB	13.8 dB	15.9 dB	100 ± 32 Ohm	100 ± 15 Ohm
550 MHz	50.6 dB/100m	34.2 dB	32.2 dB	-16.4 dB	-18.4 dB	16.0 dB	13.0 dB	15.6 dB	100 ± 32 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
300V RMS

Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CMR
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	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 II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
Third Party Performance Verification:	Category 6
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CPR Euroclass:	Eca
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 6
Patent:	http://www.belden.com/p

Standards

ISO/IEC Compliance:	11801 ed 2.2 (2011) Class E
ANSI/TIA Category:	Category 6
ANSI Compliance:	S-116-732-2013 Category 6, ANSI/NEMA WC-66 Category 6
IEEE Specification:	POE per 802.3af & POE+ per 802.3at-2009
NEC Articles:	800
NEC/(UL) Specification:	CMR

Flame Test

C(UL) Flammability:	FT4
UL Flammability:	UL 1666 Riser

Safety

UL Voltage Rating:	300 V RMS
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Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

Mechanical Characteristics

Storage Temp Range:	-20°C To +75°C
Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-20°C To +75°C
Bulk Cable Weight:	22(lbs/1000ft)
Max Recommended Pulling Tension:	25(lbs)
Min Bend Radius/Minor Axis:	1.0(in)
Min Bend Radius/Installation:	2.25(in)

Temperature Range

UL Temp Rating:	75°C
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Plenum/Non-Plenum

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

History

Variants

Item #	Color
2412 0101000	BLACK
2412 010A1000	BLACK
2412 010U1000	BLACK
2412 0061000	BLUE
2412 0061400	BLUE
2412 0062500	BLUE
2412 0065000	BLUE
2412 006A1000	BLUE
2412 006U1000	BLUE

2412 0081000	GRAY
2412 008A1000	GRAY
2412 008U1000	GRAY
2412 0051000	GREEN
2412 005A1000	GREEN
2412 005U1000	GREEN
2412 003A1000	ORANGE
2412 003U1000	ORANGE
2412 007A1000	PURPLE
2412 007U1000	PURPLE
2412 002A1000	RED
2412 0091000	WHITE
2412 0092500	WHITE
2412 0095000	WHITE
2412 009A1000	WHITE
2412 009U1000	WHITE
2412 0041000	YELLOW
2412 0042500	YELLOW
2412 004A1000	YELLOW
2412 004U1000	YELLOW

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