



Product: [2412](#) 

Category 6+ Enhanced Cable, 4 Pair, U/UTP, CMR

Product Description

Category 6+ Enhanced Premise Horizontal Cable (350MHz), 4 Pair, 23 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC Jacket

Technical Specifications

Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents .

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
23 AWG	Solid	BC - Bare Copper	4

Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Dielectric Tape (Patented)	PVC - Polyvinyl Chloride	0.224 in (5.69 mm)	Yes

Overall Cable Diameter (Nominal): 0.224 in (5.69 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
78 Ohm/km	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	35 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	2.0 dB/100m	79.3	77.3	77.3	75.3	70.8	67.8	20.0	100 ± 15 Ohm	102 ± 15 Ohm
4	3.7 dB/100m	70.3	68.3	66.5	64.5	58.8	55.8	23.6	100 ± 15 Ohm	100 ± 15 Ohm
8	5.3 dB/100m	65.8	63.8	60.5	58.5	52.7	49.7	25.3	100 ± 15 Ohm	100 ± 15 Ohm
10	5.9 dB/100m	64.3	62.3	58.4	56.4	50.8	47.8	26.0	100 ± 15 Ohm	100 ± 15 Ohm
16	7.4 dB/100m	61.2	59.2	53.8	51.8	46.7	43.7	26.0	100 ± 15 Ohm	100 ± 15 Ohm
20	8.3 dB/100m	59.8	57.8	51.4	49.4	44.8	41.8	26.0	100 ± 15 Ohm	100 ± 15 Ohm
25	9.4 dB/100m	58.3	56.3	49.0	47.0	42.8	39.8	25.5	100 ± 15 Ohm	100 ± 15 Ohm
31.25	10.5 dB/100m	56.9	54.9	46.4	44.4	40.9	37.9	25.0	100 ± 15 Ohm	100 ± 15 Ohm
62.5	15.1 dB/100m	52.4	50.4	37.3	35.3	34.9	31.9	23.5	100 ± 15 Ohm	100 ± 15 Ohm

100	19.3 dB/100m	49.3	47.3	30.0	28.0	30.8	27.8	22.5	100 ± 15 Ohm	100 ± 15 Ohm
155	24.5 dB/100m	46.4	44.4	21.9	19.9	27.0	24.0	21.6	100 ± 22 Ohm	100 ± 15 Ohm
200	28.3 dB/100m	44.8	42.8	16.6	14.6	24.8	21.8	21.0	100 ± 22 Ohm	100 ± 15 Ohm
250	31.8 dB/100m	43.3	41.3	11.5	9.5	22.8	19.8	20.5	100 ± 32 Ohm	100 ± 15 Ohm
300	35.2 dB/100m	42.1	40.1	6.9	4.9	21.3	18.3	20.1	100 ± 32 Ohm	100 ± 15 Ohm
350	38.4 dB/100m	41.1	39.1	2.7	0.7	19.9	16.9	19.8	100 ± 32 Ohm	100 ± 15 Ohm
400	41.5 dB/100m	40.3	38.3			18.8	15.8	19.5	100 ± 32 Ohm	100 ± 15 Ohm
450	44.3 dB/100m	39.5	37.5			17.7	14.7	19.2	100 ± 32 Ohm	100 ± 15 Ohm
500	47.1 dB/100m	38.8	36.8			16.8	13.8	19.0	100 ± 32 Ohm	100 ± 15 Ohm
550	49.7 dB/100m	38.2	36.2			16.0	13.0	18.8	100 ± 32 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
300 V (CMR)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
1.0 in (25 mm)	2.25 in (57.2 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	22 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Riser, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, FT4, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMR
ICEA Compliance:	S-116-732-2013
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	2413

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.
--------	--

History

Update and Revision:	Revision Number: 0.577 Revision Date: 02-16-2022
----------------------	--

Variants

Item #	Color	Putup Type	Length	UPC
2412 0101000	Black	Reel	1,000 ft	612825061199
2412 010A1000	Black	Reel-in-Box	1,000 ft	612825061205
2412 010U1000	Black	UnReel	1,000 ft	612825062165
2412 0061000	Blue	Reel	1,000 ft	612825061045

2412 006A1000	Blue	Reel-in-Box	1,000 ft	612825061052
2412 006U1000	Blue	UnReel	1,000 ft	612825061236
2412 0061400	Blue	Reel	1,400 ft	612825061076
2412 0062500	Blue	Reel	2,500 ft	612825061069
2412 0065000	Blue	Reel	5,000 ft	612825062134
2412 0081000	Gray	Reel	1,000 ft	612825061168
2412 008A1000	Gray	Reel-in-Box	1,000 ft	612825061175
2412 008U1000	Gray	UnReel	1,000 ft	612825061243
2412 0051000	Green	Reel	1,000 ft	612825061083
2412 005A1000	Green	Reel-in-Box	1,000 ft	612825061090
2412 005U1000	Green	UnReel	1,000 ft	612825062127
2412 003A1000	Orange	Reel-in-Box	1,000 ft	612825061212
2412 003U1000	Orange	UnReel	1,000 ft	612825062103
2412 007A1000	Purple	Reel-in-Box	1,000 ft	612825061182
2412 007U1000	Purple	UnReel	1,000 ft	612825062141
2412 002A1000	Red	Reel-in-Box	1,000 ft	612825061229
2412 0091000	White	Reel	1,000 ft	612825061106
2412 009A1000	White	Reel-in-Box	1,000 ft	612825061113
2412 009U1000	White	UnReel	1,000 ft	612825061250
2412 0092500	White	Reel	2,500 ft	612825061120
2412 0095000	White	Reel	5,000 ft	612825062158
2412 0041000	Yellow	Reel	1,000 ft	612825061137
2412 004A1000	Yellow	Reel-in-Box	1,000 ft	612825061151
2412 004U1000	Yellow	UnReel	1,000 ft	612825062110
2412 0042500	Yellow	Reel	2,500 ft	612825061144

© 2022 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.