

2412 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cables



For more Information
please call

1-800-Belden1

**General Description:**

23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Tape Separator, Ripcord, PVC Jacket.

Usage (Overall)

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

Physical Characteristics (Overall)**Conductor****AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors: 8

Insulation**Insulation Material:**

Insulation Material
PO - Polyolefin

Outer Shield**Outer Shield Material:**

Outer Shield Material
Unshielded

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (in.)
0.225

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Dielectric Tape

Overall Cabling Separator Thickness: 0.010 in.

Pair**Pair Color Code Chart:**

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

Mechanical Characteristics (Overall)

Storage Temperature Range: -20°C To +75°C

Installation Temperature Range: +5°C To +50°C

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Operating Temperature Range:	0°C To +75°C
Bulk Cable Weight:	24 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	0.900 in.
Min. Bend/Installation:	2.250 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 6 - TIA 568.C.2
Other Specification:	Third party verified to Category 6

Applicable Patents:

Country	Patent
US	6570095
US	6998537
US	7179999
US	7977575

Flame Test

UL Flame Test:	UL1666 Vertical Riser
C(UL) Flame Test:	FT4
CSA Flame Test:	FT4

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
17.000

Maximum Capacitance Unbalance (pF/100 m):	330
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Nominal Velocity of Propagation:

VP (%)
70

Maximum Delay:

Delay (ns/100 m)
537 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

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45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

8.2

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

5

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
0.772	1.800	77.0	75.0	75.2	73.2	
1	2.000	75.3	73.3	73.3	71.3	20.000
4	3.700	66.3	64.3	62.6	60.6	23.000
8	5.200	63.3	61.3	58.1	56.1	24.500
10	5.800	61.8	59.8	56.0	54.0	25.000
16	7.400	58.6	56.6	51.2	49.2	25.000
20	8.300	57.1	55.1	48.8	46.8	25.000
25	9.300	55.5	53.5	46.3	44.3	24.300
31.25	10.400	54.0	52.0	43.6	41.6	23.600
62.5	15.000	49.1	47.1	34.1	32.1	21.500
100	19.300	45.8	43.8	26.5	24.5	20.800
155	24.500	42.7	40.7	18.2	16.2	19.500
200	28.300	40.9	38.9	12.6	10.6	18.700
250	32.100	39.3	37.3	7.2	5.2	18.000
300	35.600	38.1	36.1	2.5	-0.5	17.500
350	38.900	37.1	35.1	-1.7	-3.7	17.000
400	42.000	36.3	34.3	-5.7	-7.7	16.600
450	45.000	35.5	33.5	-9.5	-11.5	16.200
500	47.900	34.8	32.8	-13.0	-15.0	15.900
550	50.600	34.2	32.2	-16.4	-18.4	15.600

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
0.772		102 ± 15	73.0	70.0
1	100 ± 15	102 ± 15	70.8	67.8
4	100 ± 15	100 ± 15	58.8	55.8
8	100 ± 15	100 ± 15	52.7	49.7
10	100 ± 15	100 ± 15	50.8	47.8
16	100 ± 15	100 ± 15	46.7	43.7
20	100 ± 15	100 ± 15	44.8	41.8
25	100 ± 15	100 ± 15	42.8	39.8
31.25	100 ± 15	100 ± 15	40.9	37.9
62.5	100 ± 15	100 ± 15	34.9	31.9
100	100 ± 15	100 ± 15	30.8	27.8
155	100 ± 22	100 ± 15	27.0	24.0
200	100 ± 22	100 ± 15	24.8	21.8
250	100 ± 32	100 ± 15	22.8	19.8
300	100 ± 32	100 ± 15	21.3	18.3
350			19.9	16.9
400			18.8	15.8
450			17.7	14.7
500			16.8	13.8
550			16.0	13.0

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Notes (Overall)

Notes: Jacket sequentially marked at 2 ft./1m intervals. Third party verified to ANSI/TIA-568-C.2, Category 6. Values above 300 MHz are for Engineering Information Only.

Reference (Overall)

Previous Part Number:

24566415, 25066515T, 24566745, 24566745T, 24566745T+HU, 24566736T, 24566715, 24566715T, 25066885, 25066885T, 25066815T, 24566945, 24566945T, 24566945T+HU, 24566931, 24566931T, 24566931T+HU, 24566936T, 24566915, 24566915T, 24566915T+HU, 24566015, 24566015T, 24566P15, 24566P15T, 24566185, 24566185T, 24566185T+HU, 24566115T, 24566345, 24566345T, 24566345T+HU, 24566336T, 24566315, 24566315T, 24566315T+HU, 24566485, 24566485T, 24566415T, 24566415T

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2412 002A1000	1,000 FT	26.000 LB	RED	C	CAT6+ 4PR U/UTP CMR RIB
2412 003A1000	1,000 FT	26.000 LB	ORANGE		CAT6+ 4PR U/UTP CMR RIB
2412 004A1000	1,000 FT	26.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR RIB
2412 004I1000	1,000 FT	24.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR REEL
2412 0042500	2,500 FT	60.000 LB	YELLOW		CAT6+ 4PR U/UTP CMR REEL
2412 005A1000	1,000 FT	26.000 FT	GREEN, DARK		CAT6+ 4PR U/UTP CMR RIB
2412 005I1000	1,000 FT	24.000 LB	GREEN, DARK		CAT6+ 4PR U/UTP CMR REEL
2412 006A1000	1,000 FT	26.000 FT	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR RIB
2412 006U1000	1,000 FT	24.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR BOX
2412 006I1000	1,000 FT	24.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL
2412 006I400	1,400 FT	0.000	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL
2412 0062500	2,500 FT	60.000 LB	BLUE, LIGHT		CAT6+ 4PR U/UTP CMR REEL
2412 007A1000	1,000 FT	26.000 FT	VIOLET		CAT6+ 4PR U/UTP CMR RIB
2412 008A1000	1,000 FT	26.000 FT	GRAY		CAT6+ 4PR U/UTP CMR RIB
2412 008U1000	1,000 FT	24.000 LB	GRAY		CAT6+ 4PR U/UTP CMR BOX
2412 008I1000	1,000 FT	24.000 LB	GRAY		CAT6+ 4PR U/UTP CMR REEL
2412 009A1000	1,000 FT	26.000 FT	WHITE		CAT6+ 4PR U/UTP CMR RIB
2412 009U1000	1,000 FT	24.000 LB	WHITE		CAT6+ 4PR U/UTP CMR BOX
2412 009I1000	1,000 FT	24.000 LB	WHITE		CAT6+ 4PR U/UTP CMR REEL
2412 0092500	2,500 FT	60.000 LB	WHITE		CAT6+ 4PR U/UTP CMR REEL
2412 010A1000	1,000 FT	26.000 FT	BLACK		CAT6+ 4PR U/UTP CMR RIB
2412 010U1000	1,000 FT	24.000 LB	BLACK		CAT6+ 4PR U/UTP CMR BOX
2412 010I1000	1,000 FT	24.000 LB	BLACK		CAT6+ 4PR U/UTP CMR REEL

Notes:

C = CRATE REEL PUT-UP.

Test Reports

a) UL

- i) UL Test Reports are available on-line through the UL Client Document Access web portal.
- ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CSA

- i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
- ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

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