



**Product:** [2412](#)

DataTwist 2400 Cat 6+ Cable, U/UTP, PVC, 4 Pair, AWG 23, Riser

### 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

Suitable Applications:	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM
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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	Nominal Diameter	Ripcord	Separator Material
PVC - Polyvinyl Chloride	0.224 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
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	28.3 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

## Voltage

<b>UL Voltage Rating</b>
300 V RMS

## Temperature Range

Installation Temp Range:	0°C To +50°C
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:	22 lbs/1000ft
Max Recommended Pulling Tension:	25 lbs
Min Bend Radius During Installation:	2.25 in
Min Bend Radius/Minor Axis:	1.0 in

## Standards

NEC Articles:	800
NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
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

Environmental Space:	Riser
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
EU CE Mark:	Yes
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:	No
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

## Flammability, LSOH, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL 1666 Riser
CSA Flammability:	CMR FT 4
ISO/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
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

Footnote:	C - CRATE REEL PUT-UP.
Patent:	<a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a>

## 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: 0.474 Revision Date: 04-30-2020
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