2412F

Part Number: 2412F

Enhanced Category 6 Nonbonded-Pair ScTP Cable

Product Description

CAT6+ (350MHz), 4-Pair, F/UTP-Foil Shielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented X-Spline, Overall Beldfoil Shield, PVC Jacket

Product Specifications

Technical Specifications

Product Description

Application

Suitable Applications:	Networking Horizontal Cable, HDBaseT, 1000Base-T (Gigabit Ethernet), 100Base-T (Fast Ethernet), 10Base-T (Ethernet), 100BaseVG, ANYLAN, 155ATM, 622ATM, ANSI.X3.263 FDDI TP-PMD, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 250 MHz Category 6

Classification

Construction and Dimensions

Conductor:

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

Conductor

Insulation:

Material

PO - Polyolefin

Insulation

Color Chart 1:

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

InnerShield

Cabling1

Outershield 1:

Type	Material	Material Trade Name	Coverage	Drainwire Material	Drainwire AWG	Drainwire ConstructionNXD
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	24	Solid mm

Outerjacket 1:

Material	Nominal Diameter	Ripcord	Separator Material
PVC - Polyvinyl Chloride	0.29 mm	Yes	Polyester Tape
	0.29 in		

OuterJacket1

OuterJacket2

Part Number

Static Ground

Tracer

Electrical Characteristics

Conductor DCR:

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

Capacitance:

Max. Capacitance Unbalanced	Nominal Mutual Capacitance
66 pF/m	14 pF/ft

General Electrical Parameters

Delay:

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP)
100 MHz	537 ns/100m	30 ns/100m	68 ns/100m

High Freq:

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT	Min. PSNEXT	Min. ACR	Min. PSACR	Min. ACRF (ELFEXT)	Min. PSACRF (PSELFEXT)	Min. RL (Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. TCL	Min. ELTCTL
1 MHz	2 db/100m	75.3 dB	73.3 dB	73.3 dB	72.3 dB	70.8 dB	67.8 dB	20 dB	100 ± 15 Ohm	100 ± 15 Ohm	40 dB	35 dB
4 MHz	3.7 db/100m	66.3 dB	64.3 dB	62.6 dB	61.6 dB	58.8 dB	55.8 dB	23 dB	100 ± 15 Ohm	100 ± 15 Ohm	40 dB	23 dB
8 MHz	5.2 db/100m	63.3 dB	61.3 dB	58.1 dB	57.1 dB	52.7 dB	49.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	40 dB	17 dB
10 MHz	5.8 db/100m	61.8 dB	59.8 dB	56 dB	55 dB	50.8 dB	47.8 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm	40 dB	15 dB
16 MHz	7.4 db/100m	58.6 dB	56.6 dB	51.2 dB	50.2 dB	46.7 dB	43.7 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm	38 dB	10.9 dB
20 MHz	8.3 db/100m	57.1 dB	55.1 dB	48.8 dB	47.8 dB	44.8 dB	41.8 dB	25 dB	100 ± 15 Ohm	100 ± 15 Ohm	37 dB	9 dB
25 MHz	9.3 db/100m	55.5 dB	53.5 dB	46.3 dB	45.2 dB	42.8 dB	39.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm	36 dB	7.1 dB
31.25 MHz	10.4 db/100m	54 dB	52 dB	43.6 dB	42.6 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 db/100m	49.1 dB	47.1 dB	34.1 dB	33.1 dB	34.9 dB	31.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm	32 dB	
100 MHz	19.3 db/100m	45.8 dB	43.8 dB	26.5 dB	25.5 dB	30.8 dB	27.8 dB	20.8 dB	100 ± 15 Ohm	100 ± 15 Ohm	30 dB	
200 MHz	28.3 db/100m	40.9 dB	38.9 dB	12.6 dB	11.6 dB	24.8 dB	21.8 dB	18.7 dB	100 ± 22 Ohm	100 ± 15 Ohm	27 dB	
250 MHz	32.1 db/100m	39.3 dB	37.3 dB	7.2 dB	6.2 dB	22.8 dB	19.8 dB	18 dB	100 ± 32 Ohm	100 ± 15 Ohm	26 dB	
300 MHz	35.6 db/100m	38.1 dB	36.1 dB	2.5 dB	1.5 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			19.9 dB	16.9 dB	17 dB	100 ± 32 Ohm	100 ± 15 Ohm		
400 MHz	42 db/100m	36.3 dB	34.3 dB			18.8 dB	15.8 dB	16.6 dB	100 ± 32 Ohm	100 ± 15 Ohm		
450 MHz	45 db/100m	35.5 dB	33.5 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			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 dB	13 dB	15.6 dB	100 ± 32 Ohm	100 ± 15 Ohm		

Voltage:

UL Voltage Rating
300V RMS

Coupling Attenuation

Screening

Transfer Impedance

Use

Max Recommended Pulling Tension:	25 lbs

Material

Safety

C(UL) Flammability:	FT4
CSA Flammability:	FT4
UL Flammability:	UL1666 Riser

Temperature Range

Installation Temp Range:	0˚C To +60 ˚C
Operating Temp Range:	-20˚C To +75˚C
Storage Temp Range:	-20˚C To +75 ˚C

Mechanical Characteristics

Bend Radius

Min Bend Radius/Minor Axis:	3 in

Crush Resistance

Connectors

Stripping Performance

EU Directive

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes

Part Number

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

Applicable Patents

Country:	US
Patent:	7663061

Standards

ISO/IEC Compliance:	11801 ed 2.1 (2008) Class E
Telecommunications Standards:	ANSI/TIA/EIA 568 C.2 Category 6
CA Prop 65 (CJ for Wire & Cable):	Yes
CEC/C(UL) Specification:	CMR
MII Order #39 (China RoHS):	Yes
NEC/(UL) Specification:	CMR

Contact Information

PHONE_NUM:	1-800-Belden1

History

Usage

Put Ups and Colors

Notes:	Jacket sequentially marked at 2 ft. intervals. Third party Verified to ANSI/TIA-568-C.2, Category 6. Values above 350 MHz are for Engineering Information Only.

Product Variants

Part Number	Put-Up Type	Length
2412F 0021000	Reel	1000 ft
2412F 0031000	Reel	1000 ft
2412F 0041000	Reel	1000 ft
2412F 0051000	Reel	1000 ft
2412F 0061000	Reel	1000 ft
2412F 006A500	Reel-in-Box	500 ft
2412F 0081000	Reel	1000 ft
2412F 0091000	Reel	1000 ft
2412F 009A500	Reel-in-Box	500 ft
2412F 0101000	Reel	1000 ft

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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor?s inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden?s knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This 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.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.