

## 1213F Multi-Conductor - Enhanced Category 5e Nonbonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT5e+ (350MHz), 4-Pair, F/UTP-Foil shielded, Plenum-CMP, Premise Horizontal Cable, 24 AWG solid bare copper conductors, FEP insulation, overall Beldfoil® shield, Flam arrest® jacket, RJ-45 compatible

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, Gigabit Ethernet, HDBaseT, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 100 MHz Category 5e

### Physical Characteristics (Overall)

#### Conductor

**AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	24	Solid	BC - Bare Copper

**Total Number of Conductors:** 8

#### Insulation

**Insulation Material:**

Insulation Material
FEP - Fluorinated Ethylene Propylene

#### Outer Shield

**Outer Shield Material:**

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

**Outer Shield Drain Wire AWG:**

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

#### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Trade Name	Outer Jacket Material
Flam arrest®	LS PVC - Low Smoke Polyvinyl Chloride

#### Overall Cable

**Overall Nominal Diameter:** 5.969 mm

#### Pair

**Pair Color Code Chart:**

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

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** 0°C To +75°C

**Bulk Cable Weight:** 50.599 Kg/Km

## 1213F Multi-Conductor - Enhanced Category 5e Nonbonded-Pair Cable

Max. Recommended Pulling Tension:	111.205 N
Min. Bend Radius/Minor Axis:	25.400 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes
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):	12/09/2011
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 5e - TIA 568.C.2
ANSI Specification:	ANSI/TIA 568-C.2 Category 5e
Other Specification:	NEMA WC-63.1 Category 5e

#### Flame Test

UL Flame Test:	NFPA 262
CSA Flame Test:	FT6

#### Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	1212F

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/m)  
49.215

Maximum Capacitance Unbalance (pF/100 m): 330

#### Nominal Velocity of Propagation:

VP (%)  
70

#### Maximum Delay:

Delay (ns/100 m)  
538 @ 100MHz

#### Max. Delay Skew:

Delay Skew (ns/100 m)  
45

#### Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)  
9.38

#### Max. Operating Voltage - UL:

Voltage  
300 V RMS

#### Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)  
3

## 1213F Multi-Conductor - Enhanced Category 5e Nonbonded-Pair Cable

### 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)	Min. SRL (dB)
1	2.000	70.3	68.3	70.3	66.3	20.000	23.0
4	4.000	61.3	59.3	59.3	55.3	23.000	23.0
8	5.700	56.8	54.8	53.1	49.1	24.500	24.5
10	6.400	55.3	53.3	50.9	46.9	25.000	25.0
16	8.100	52.2	50.2	46.1	42.1	25.000	25.0
20	9.100	50.8	48.8	43.7	39.7	25.000	25.0
25	10.200	49.3	47.3	41.1	37.1	24.300	24.3
31.25	11.400	47.9	45.9	38.5	34.5	23.600	23.6
62.5	16.400	43.4	41.4	29.0	25.0	21.500	21.5
100	21.000	40.3	38.3	21.3	17.3	20.100	20.1
155	26.600	37.4	35.4	12.8	8.9	18.800	
200	30.500	35.8	33.8	7.3	3.3	18.000	
250	34.400	34.3	32.3	1.9		17.300	
300	38.000	33.1	28.2			16.800	
350	41.400	32.1	27.2			16.300	
400	44.500	31.3	26.3			15.900	
450	47.600	30.5	25.6			15.500	

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.8
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.8
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 15	37.9	34.9
62.5	100 ± 15	100 ± 15	31.9	28.9
100	100 ± 15	100 ± 15	27.8	24.8
155	100 ± 22	100 ± 15	24.0	21.0
200	100 ± 22	100 ± 15	21.8	18.8
250	100 ± 32	100 ± 15	19.8	16.8
300	100 ± 32	100 ± 15	18.2	15.2
350	100 ± 32	100 ± 15	16.9	13.9

### Notes (Overall)

**Notes:** Shield is bonded to jacket inner wall for electrical stability. RJ-45 Compatible. Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2, Category 5e.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1213F D15A1000	1,000 FT	36.000 LB	BLUE		CAT5E+ 4PR F/UTP CMP RIB
1213F D15A500	500 FT	19.500 LB	BLUE		CAT5E+ 4PR F/UTP CMP RIB
1213F D15Z1000	1,000 FT	36.000 LB	BLUE		CAT5E+ 4PR F/UTP CMP
1213F D15Z500	500 FT	19.500 LB	BLUE		CAT5E+ 4PR F/UTP CMP
1213F D151000	1,000 FT	32.000 LB	BLUE	C	CAT5E+ 4PR F/UTP CMP REEL
1213F D15500	500 FT	16.000 LB	BLUE		CAT5E+ 4PR F/UTP CMP REEL
1213F 002A1000	1,000 FT	36.000 LB	RED		CAT5E+ 4PR F/UTP CMP RIB
1213F 0021000	1,000 FT	32.000 LB	RED	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 003A1000	1,000 FT	36.000 LB	ORANGE		CAT5E+ 4PR F/UTP CMP RIB
1213F 003Z1000	1,000 FT	36.000 LB	ORANGE		CAT5E+ 4PR F/UTP CMP
1213F 0031000	1,000 FT	32.000 LB	ORANGE	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 004A1000	1,000 FT	36.000 LB	YELLOW		CAT5E+ 4PR F/UTP CMP RIB
1213F 004Z1000	1,000 FT	36.000 LB	YELLOW		CAT5E+ 4PR F/UTP CMP
1213F 0041000	1,000 FT	32.000 LB	YELLOW	C	CAT5E+ 4PR F/UTP CMP REEL

## METRIC MEASUREMENT VERSION

### 1213F Multi-Conductor - Enhanced Category 5e Nonbonded-Pair Cable

1213F 005A1000	1,000 FT	36.000 LB	GREEN, DARK		CAT5E+ 4PR F/UTP CMP RIB
1213F 005Z1000	1,000 FT	36.000 LB	GREEN, DARK		CAT5E+ 4PR F/UTP CMP
1213F 0051000	1,000 FT	32.000 LB	GREEN, DARK	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 008A1000	1,000 FT	36.000 LB	GRAY		CAT5E+ 4PR F/UTP CMP RIB
1213F 008Z1000	1,000 FT	36.000 LB	GRAY		CAT5E+ 4PR F/UTP CMP
1213F 0081000	1,000 FT	32.000 LB	GRAY	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 009A1000	1,000 FT	36.000 LB	WHITE		CAT5E+ 4PR F/UTP CMP RIB
1213F 009A500	500 FT	19.500 LB	WHITE		CAT5E+ 4PR F/UTP CMP RIB
1213F 009Z1000	1,000 FT	36.000 LB	WHITE		CAT5E+ 4PR F/UTP CMP
1213F 009Z500	500 FT	19.500 LB	WHITE		CAT5E+ 4PR F/UTP CMP
1213F 0091000	1,000 FT	32.000 LB	WHITE	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 010A1000	1,000 FT	36.000 LB	BLACK		CAT5E+ 4PR F/UTP CMP RIB
1213F 010Z1000	1,000 FT	36.000 LB	BLACK		CAT5E+ 4PR F/UTP CMP
1213F 010Z250	250 FT	9.250 LB	BLACK		CAT5E+ 4PR F/UTP CMP
1213F 010Z500	500 FT	19.500 LB	BLACK		CAT5E+ 4PR F/UTP CMP
1213F 0101000	1,000 FT	32.000 LB	BLACK	C	CAT5E+ 4PR F/UTP CMP REEL
1213F 010501	500 FT	17.500 LB	BLACK		CAT5E+ 4PR F/UTP CMP REEL

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 3      Revision Date: 01-19-2015

© 2020 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 herein 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 "AS IS" 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 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 2014/35/EU).