

## 1212F 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, Riser-CMR, Premise Horizontal Cable, 24 AWG solid bare copper conductors, polyolefin insulation, overall Beldfoil® shield, PVC 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
PO - Polyolefin

#### 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 Material
PVC - Polyvinyl Chloride

#### Overall Cable

**Overall Nominal Diameter:** 0.260 in.

#### 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:** -20°C To +75°C

**Bulk Cable Weight:** 30 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 25 lbs.

**Min. Bend Radius/Minor Axis:** 1 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

**CEC/UL Specification:** CMR

**EU Directive 2011/65/EU (ROHS II):** Yes

**EU CE Mark:** Yes

**EU Directive 2000/53/EC (ELV):** Yes

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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, UL Verified to Category 5e

### Flame Test

UL Flame Test:	UL1666 Riser
CSA Flame Test:	FT4

### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Aerial:	No
Suitability - Burial:	No
Sunlight Resistance:	No

### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1213F

### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/ft)

15

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

### 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

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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	44.600	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
1212F 002A1000	1,000 FT	30.000 LB	RED		CAT5E+ 4PR F/UTP CMR RIB
1212F 002I000	1,000 FT	30.000 LB	RED		CAT5E+ 4PR F/UTP CMR REEL
1212F 003A1000	1,000 FT	30.000 LB	ORANGE		CAT5E+ 4PR F/UTP CMR RIB
1212F 003I000	1,000 FT	30.000 LB	ORANGE		CAT5E+ 4PR F/UTP CMR REEL
1212F 004A1000	1,000 FT	30.000 LB	YELLOW		CAT5E+ 4PR F/UTP CMR RIB
1212F 004I000	1,000 FT	30.000 LB	YELLOW		CAT5E+ 4PR F/UTP CMR REEL
1212F 005A1000	1,000 FT	30.000 LB	GREEN, DARK		CAT5E+ 4PR F/UTP CMR RIB
1212F 005I000	1,000 FT	30.000 LB	GREEN, DARK		CAT5E+ 4PR F/UTP CMR REEL
1212F 006A1000	1,000 FT	30.000 LB	BLUE, LIGHT		CAT5E+ 4PR F/UTP CMR RIB
1212F 006A500	500 FT	20.500 LB	BLUE, LIGHT	C	CAT5E+ 4PR F/UTP CMR RIB
1212F 006I000	1,000 FT	30.000 LB	BLUE, LIGHT		CAT5E+ 4PR F/UTP CMR REEL
1212F 008A1000	1,000 FT	30.000 LB	GRAY		CAT5E+ 4PR F/UTP CMR RIB
1212F 008I000	1,000 FT	30.000 LB	GRAY		CAT5E+ 4PR F/UTP CMR REEL
1212F 009A1000	1,000 FT	30.000 LB	WHITE		CAT5E+ 4PR F/UTP CMR RIB
1212F 009A500	500 FT	20.500 LB	WHITE	C	CAT5E+ 4PR F/UTP CMR RIB
1212F 009I000	1,000 FT	30.000 LB	WHITE		CAT5E+ 4PR F/UTP CMR REEL
1212F 010A1000	1,000 FT	30.000 LB	BLACK		CAT5E+ 4PR F/UTP CMR RIB
1212F 010I000	1,000 FT	30.000 LB	BLACK		CAT5E+ 4PR F/UTP CMR REEL

**Notes:**  
C = CRATE REEL PUT-UP.

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