



Product: [1212F](#)

Category 5E+ Cable, 4 Pair, F/UTP, CMR



### Product Description

Category 5E+ Premise Horizontal Cable (350MHz), 4 Pair, 24 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, Riser-CMR, PVC Jacket

### Technical Specifications

#### Product Overview

Suitable Applications:	Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE, Noisy Environments
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#### Construction Details

##### Conductor

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

##### Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

##### Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Polyester + Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

##### Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.260 in (6.60 mm)

Overall Cable Diameter (Nominal):	0.260 in (6.60 mm)
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#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	330 pF/100m

##### Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100m	45 ns/100m	70%

##### High Frequency

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) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	70.3	68.3	70.3	66.3	67.8	64.8	20.0	100 ± 15	100 ± 15
4	4.0 dB/100m	61.3	59.3	59.3	55.3	55.8	52.8	23.0	100 ± 15	100 ± 15
8	5.7 dB/100m	56.8	54.8	53.1	49.1	49.7	46.7	24.5	100 ± 15	100 ± 15
10	6.4 dB/100m	55.3	53.3	50.9	46.9	47.8	44.8	25.0	100 ± 15	100 ± 15
16	8.1 dB/100m	52.2	50.2	46.1	42.1	43.7	40.7	25.0	100 ± 15	100 ± 15
20	9.1 dB/100m	50.8	48.8	43.7	39.7	41.8	38.8	25.0	100 ± 15	100 ± 15

25	10.2 dB/100m	49.3	47.3	41.1	37.1	39.8	36.8	24.3	100 ± 15	100 ± 15
31.25	11.4 dB/100m	47.9	45.9	38.5	34.5	37.9	34.9	23.6	100 ± 15	100 ± 15
62.5	16.4 dB/100m	43.4	41.4	29.0	25.0	31.9	28.9	21.5	100 ± 15	100 ± 15
100	21.0 dB/100m	40.3	38.3	21.3	17.3	27.8	24.8	20.1	100 ± 15	100 ± 15
155	26.6 dB/100m	37.4	35.4	12.8	8.9	24.0	21.0	18.8	100 ± 22	100 ± 15
200	30.5 dB/100m	35.8	33.8	7.3	3.3	21.8	18.8	18.0	100 ± 22	100 ± 15
250	34.4 dB/100m	34.3	32.3	1.9		19.8	16.8	17.3	100 ± 32	100 ± 15
300	38.0 dB/100m	33.1	28.2			18.2	15.2	16.8	100 ± 32	100 ± 15
350	41.4 dB/100m	32.1	27.2			16.9	13.9	16.3	100 ± 32	100 ± 15
400	44.6 dB/100m	31.3	26.3					15.9		
450	47.6 dB/100m	30.5	25.6					15.5		

#### Voltage

<b>UL Voltage Rating</b>
300 V (CMR)

### Mechanical Characteristics

#### Temperature

UL Temperature	Operating	Installation	Storage
75°C	-20°C To +75°C	0°C To +50°C	-20°C To +75°C

#### Bend Radius

Stationary Min.	Installation Min.
2.25 in (57.2 mm)	2.75 in (69.9 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	30 lbs/1000ft

### Standards and Compliance

Environmental Suitability:	Riser, Indoor
Sustainability:	Product Lens™, Environmental Product Declaration (EPD) Available
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMR
ICEA Compliance:	S-90-661
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3
NEMA Compliance:	NEMA WC-63.1
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
Third Party Performance Verification:	Category 5e
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	1213F

### 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. Shield is Bonded to Jacket Inner Wall for Electrical Stability. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0.
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### History

Update and Revision:	Revision Number: 0.527 Revision Date: 04-29-2024
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### Part Numbers

#### Variants

Item #	Color	Putup Type	Length	UPC	Footnote
1212F 0101000	Black	Reel	1,000 ft	612825108658	

1212F 010A1000	Black	Reel-in-Box	1,000 ft	612825108641	
1212F 006A500	Blue	Reel-in-Box	500 ft	612825108573	C
1212F 0061000	Blue	Reel	1,000 ft	612825108580	
1212F 006A1000	Blue	Reel-in-Box	1,000 ft	612825108566	
1212F 0081000	Gray	Reel	1,000 ft	612825108603	
1212F 008A1000	Gray	Reel-in-Box	1,000 ft	612825108597	
1212F 0051000	Green	Reel	1,000 ft	612825108559	
1212F 005A1000	Green	Reel-in-Box	1,000 ft	612825108542	
1212F 0031000	Orange	Reel	1,000 ft	612825108511	
1212F 003A1000	Orange	Reel-in-Box	1,000 ft	612825108504	
1212F 0021000	Red	Reel	1,000 ft	612825108498	
1212F 002A1000	Red	Reel-in-Box	1,000 ft	612825108481	
1212F 009A500	White	Reel-in-Box	500 ft	612825108627	C
1212F 0091000	White	Reel	1,000 ft	612825108634	
1212F 009A1000	White	Reel-in-Box	1,000 ft	612825108610	
1212F 0041000	Yellow	Reel	1,000 ft	612825108535	
1212F 004A1000	Yellow	Reel-in-Box	1,000 ft	612825108528	

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