



**Product:** [1212F](#)

CAT5e+ Horizontal, 4pr, F/UTP, PVC Jkt, CMR

## Product 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

## Technical Specifications

### Product Overview

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
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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Pairs
24	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 Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	24	7x32

#### Outer Jacket Material

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.260 in	No

### Electrical Characteristics

#### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
93.8 Ohm/km	3 %

#### Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
330 pF/100m	15 pF/ft

## Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	45 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	70.3 dB	68.3 dB	70.3 dB	66.3 dB	67.8 dB	64.8 dB	20.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	4.0 dB/100m	61.3 dB	59.3 dB	59.3 dB	55.3 dB	55.8 dB	52.8 dB	23.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
8 MHz	5.7 dB/100m	56.8 dB	54.8 dB	53.1 dB	49.1 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
10 MHz	6.4 dB/100m	55.3 dB	53.3 dB	50.9 dB	46.9 dB	47.8 dB	44.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
16 MHz	8.1 dB/100m	52.2 dB	50.2 dB	46.1 dB	42.1 dB	43.7 dB	40.7 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
20 MHz	9.1 dB/100m	50.8 dB	48.8 dB	43.7 dB	39.7 dB	41.8 dB	38.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 15 Ohm
25 MHz	10.2 dB/100m	49.3 dB	47.3 dB	41.1 dB	37.1 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 15 Ohm
31.25 MHz	11.4 dB/100m	47.9 dB	45.9 dB	38.5 dB	34.5 dB	37.9 dB	34.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 15 Ohm
62.5 MHz	16.4 dB/100m	43.4 dB	41.4 dB	29.0 dB	25.0 dB	31.9 dB	28.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 15 Ohm
100 MHz	21.0 dB/100m	40.3 dB	38.3 dB	21.3 dB	17.3 dB	27.8 dB	24.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 15 Ohm
155 MHz	26.6 dB/100m	37.4 dB	35.4 dB	12.8 dB	8.9 dB	24.0 dB	21.0 dB	18.8 dB	100 ± 22 Ohm	100 ± 15 Ohm
200 MHz	30.5 dB/100m	35.8 dB	33.8 dB	7.3 dB	3.3 dB	21.8 dB	18.8 dB	18.0 dB	100 ± 22 Ohm	100 ± 15 Ohm
250 MHz	34.4 dB/100m	34.3 dB	32.3 dB	1.9 dB		19.8 dB	16.8 dB	17.3 dB	100 ± 32 Ohm	100 ± 15 Ohm
300 MHz	38.0 dB/100m	33.1 dB	28.2 dB			18.2 dB	15.2 dB	16.8 dB	100 ± 32 Ohm	100 ± 15 Ohm
350 MHz	41.4 dB/100m	32.1 dB	27.2 dB			16.9 dB	13.9 dB	16.3 dB	100 ± 32 Ohm	100 ± 15 Ohm
400 MHz	44.6 dB/100m	31.3 dB	26.3 dB					15.9 dB		
450 MHz	47.6 dB/100m	30.5 dB	25.6 dB					15.5 dB		

## Voltage

UL Voltage Rating
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:	30 lbs/1000ft
Max Recommended Pulling Tension:	25 lbs
Min Bend Radius During Installation:	2.75 in
Min Bend Radius/Minor Axis:	2.25 in

## Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
ISO/IEC Compliance:	11801 ed 2.2 (2011) Class D
CPR Euroclass:	Eca
Data Category:	Category 5e
ANSI Compliance:	S-90-661-2012 Category 5e, ANSI/NEMA WC-63.1 Category 5e
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 5e
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3
Third Party Performance Verification:	Category 5e

## Applicable Environmental and Other Programs

Environmental Space:	Riser
EU Directive 2000/53/EC (ELV):	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):	2011-12-09
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, LS0H, Toxicity Testing

UL Flammability:	UL 1666 Riser
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

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

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC
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
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
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

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. 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: 0.361 Revision Date: 04-28-2020
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