



**Product:** <u>1533R</u> ☑

Category 5e Cable, 4 Pair, F/UTP, CMR

## **Product Description**

Category 5e Premise Horizontal Cable (100MHz), 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+, Po
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> .

#### **Construction Details**

#### Conductor

Size	Stranding	Material	Number of Pairs
24 AWG	Solid	BC - Bare Copper	4

#### Insulation

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

## Outer Shield

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

#### **Outer Jacket**

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.260 in (6.60 mm)	No
Overall Cable Diameter (Nominal):	0.260 in (6.60 mm)	

## **Electrical Characteristics**

## Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km	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)	Max./Min. Fitted Impedance
1	2.0 dB/100m	65.3	62.3	63.3	60.3	63.8	60.8	20.0	100 ± 15 Ohm	100 ± 15 Ohm
4	4.1 dB/100m	56.3	53.3	52.2	49.2	51.8	48.8	23.0	100 ± 15 Ohm	100 ± 15 Ohm
8	5.8 dB/100m	51.8	48.8	46.0	43.0	45.7	42.7	24.5	100 ± 15 Ohm	100 ± 15 Ohm
10	6.5 dB/100m	50.3	47.3	43.8	40.8	43.8	40.8	25.0	100 ± 15 Ohm	100 ± 15 Ohm
16	8.2 dB/100m	47.2	44.2	39.0	36.0	39.7	36.7	25.0	100 ± 15 Ohm	100 ± 15 Ohm

20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.8	34.8	25.0	100 ± 15 Ohm	100 ± 15 Ohm
25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	24.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25	11.7 dB/100m	42.9	39.9	31.2	28.2	33.9	30.9	23.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5	17.0 dB/100m	38.4	35.4	21.4	18.4	27.9	24.9	21.5	100 ± 15 Ohm	100 ± 15 Ohm
100	22.0 dB/100m	35.3	32.3	13.3	10.3	23.8	20.8	20.1	100 ± 15 Ohm	100 ± 15 Ohm
155	28.1 dB/100m	32.4	29.4	4.4	1.4	20.0	17.0	18.8		
200	32.4 dB/100m	30.8	27.8			17.8	14.8	18.0		

## Voltage

UL Voltage Rating 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.
1.0 in (25 mm)	2.25 in (57.2 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, FT4, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMR
ICEA Compliance:	S-90-661-2012
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
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	1533P

## **Product Notes**

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 100 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: 0.423 Revision Date: 12-15-2021

#### Variants

Item #	Color	Putup Type	Length	UPC
1533R 0101000	Black	Reel	1,000 ft	612825117582
1533R 010A1000	Black	Reel-in-Box	1,000 ft	612825117575
1533R 0061000	Blue	Reel	1,000 ft	612825117568
1533R 006A1000	Blue	Reel-in-Box	1,000 ft	612825117551
1533R F2V1000	Gray	Reel	1,000 ft	612825117452
1533R F2VA1000	Gray	Reel-in-Box	1,000 ft	612825117445
1533R F2V1640	Gray	Reel	1,640 ft	612825117469
1533R 0051000	Green	Reel	1,000 ft	612825117544

	1533R 005A1000	Green	Reel-in-Box	1,000 ft	612825117537
	1533R 0031000	Orange	Reel	1,000 ft	612825117506
	1533R 003A1000	Orange	Reel-in-Box	1,000 ft	612825117490
	1533R 0021000	Red	Reel	1,000 ft	612825117483
	1533R 002A1000	Red	Reel-in-Box	1,000 ft	612825117476
	1533R 0041000	Yellow	Reel	1,000 ft	612825117520
	1533R 004A1000	Yellow	Reel-in-Box	1,000 ft	612825117513

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