

## 1533R Multi-Conductor - Category 5e Nonbonded-Pair Cable



For more Information  
please call

1-800-Belden1

**General Description:**

CAT5e (100MHz), 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, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 100MHz 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

**Outer Jacket Diameter:**

Nom. Dia. (in.)
0.260

**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:	1.100 in.
Min. Bend/Installation:	2.600 in.

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

NEC/(UL) Specification:	CMR, UL444
CEC/(UL) Specification:	CMR

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EU Directive 2011/65/EU (ROHS II):	Yes
Other Standards:	11801 Category 5
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):	01/01/2004
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:	568-B.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

### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1533P

### 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	2.0	65.3	62.3	60.3	60.3	20.0	23.0
4	4.1	56.3	53.3	49.2	49.2	23.0	23.0
8	5.8	51.8	48.8	43.0	43.0	24.5	24.5
10	6.5	50.3	47.3	40.8	40.8	25.0	25.0
16	8.2	47.3	44.3	36.0	36.0	25.0	25.0
20	9.3	45.8	42.8	33.5	33.5	25.0	25.0
25	10.4	44.3	41.3	30.9	30.9	24.3	24.3
31.25	11.7	42.9	39.9	28.2	28.2	23.6	23.6
62.5	17.0	38.4	35.4	18.4	18.4	21.5	21.5
100	22.0	35.3	32.3	10.3	10.3	20.1	20.1

#### Premise Cable Electrical Table 2:

Freq. (MHz) Input (Unfitted) Imp. (Ohms) Fitted Impedance Min. ELFEXT (dB) Min. PSELFEXT (dB)

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1	100 ± 15	100 ± 15	63.8	60.8
4	100 ± 15	100 ± 15	51.7	48.7
8	100 ± 15	100 ± 15	45.7	42.7
10	100 ± 15	100 ± 15	43.8	40.8
16	100 ± 15	100 ± 15	39.7	36.7
20	100 ± 15	100 ± 15	37.7	34.7
25	100 ± 15	100 ± 15	35.8	32.8
31.25	100 ± 15	100 ± 15	33.9	30.9
62.5	100 ± 15	100 ± 15	27.8	24.8
100	100 ± 15	100 ± 15	23.8	20.8

### 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
1533R F2VA1000	1,000 FT	35.000 LB	GRAY, DEC		CAT5E 4PR F/UTP CMR RIB
1533R F2V1000	1,000 FT	34.000 LB	GRAY, DEC	C	CAT5E 4PR F/UTP CMR REEL
1533R F2V1640	1,640 FT	57.400 LB	GRAY, DEC	C	CAT5E 4PR F/UTP CMR REEL
1533R 002A1000	1,000 FT	35.000 LB	RED	C	CAT5E 4PR F/UTP CMR RIB
1533R 002I1000	1,000 FT	34.000 LB	RED	C	CAT5E 4PR F/UTP CMR REEL
1533R 003A1000	1,000 FT	35.000 LB	ORANGE	C	CAT5E 4PR F/UTP CMR RIB
1533R 003I1000	1,000 FT	34.000 LB	ORANGE	C	CAT5E 4PR F/UTP CMR REEL
1533R 004A1000	1,000 FT	35.000 LB	YELLOW	C	CAT5E 4PR F/UTP CMR RIB
1533R 004I1000	1,000 FT	34.000 LB	YELLOW	C	CAT5E 4PR F/UTP CMR REEL
1533R 005A1000	1,000 FT	35.000 LB	GREEN, DARK	C	CAT5E 4PR F/UTP CMR RIB
1533R 005I1000	1,000 FT	34.000 LB	GREEN, DARK	C	CAT5E 4PR F/UTP CMR REEL
1533R 006A1000	1,000 FT	35.000 LB	BLUE, LIGHT		CAT5E 4PR F/UTP CMR RIB
1533R 006I1000	1,000 FT	34.000 LB	BLUE, LIGHT	C	CAT5E 4PR F/UTP CMR REEL
1533R 010A1000	1,000 FT	35.000 LB	BLACK		CAT5E 4PR F/UTP CMR RIB
1533R 010I1000	1,000 FT	34.000 LB	BLACK	C	CAT5E 4PR F/UTP CMR REEL

**Notes:**

C = CRATE REEL PUT-UP.

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