

**1590A Paired - Category 5e Unbonded-Pair Cable**

 	<p><b>For more information please call</b> <b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Related Documents : No. 8 for DataTwist Cables (Modified Western Electric).pdf</b></p>
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**Description:**

24 AWG solid bare copper conductors, plenum, FEP Teflon® insulation, twisted pairs, rip cord, see color code chart (below), Flamarrest® jacket (natural or blue).

**SUITABLE APPLICATIONS:**

Suitable Applications Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422

**PHYSICAL CHARACTERISTICS:**

**CONDUCTOR:**

Number of Pairs	2
Total Number of Conductors	4
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

**INSULATION:**

Insulation Material FEP - Fluorinated Ethylene Propylene

**Pair Color Code Chart :**

Number	Color	Number	Color
1	White/Blue Stripe & Blue	2	White/Orange Stripe & Orange

**OUTER SHIELD:**

Outer Shield Material Unshielded

**OUTER JACKET:**

Outer Jacket Material Trade Name	Flamarrest®
Outer Jacket Material	LS PVC - Low Smoke Polyvinyl Chloride
Outer Jacket Ripcord	Yes

**OVERALL NOMINAL DIAMETER:**

Overall Nominal Diameter .165 in.

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### MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	21 lbs/1000 ft.
Max. Recommended Pulling Tension	13 lbs.
Min. Bend Radius (Install)	0.7 in.

### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

NEC/(UL) Specification	CMP, UL444
CEC/C(UL) Specification	CMP
EU CE Mark (Y/N)	Yes
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2005
TIA/EIA Specification	568-B.2 Category 5e
Other Specification	NEMA WC-63.1 Category 5e, UL verified to Category 5e

#### FLAME TEST:

UL Flame Test	NFPA 262
CSA Flame Test	FT4, FT6

#### PLENUM/NON-PLENUM:

Plenum (Y/N)	Y
Non-Plenum Number	1588A, 1588R

### ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz	14 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	330 pF/100 m
Nominal Velocity of Propagation	72 %
Maximum Delay (ns/100 m)	538 @ 100MHz ns/100 m
Maximum Delay Skew (ns/100m)	45 ns/100 m
Maximum Conductor DC Resistance @ 20 Deg. C	9.38 Ohms/100 m
Maximum DCR Unbalance @ 20 Deg. C	5 %
Max. Operating Voltage - UL	300 V RMS

### ELECTRICAL CHARACTERISTICS - PREMISE:

Premise Cable Electricals Table 1 :	
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## 1590A Paired - Category 5e Unbonded-Pair Cable

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min. Return Loss (dB)	Min. Structural Return Loss (dB)
1	2.0	65.3	62.3	63.0	60.3	20.0	23.0
4	4.1	56.3	53.3	51.0	49.2	23.0	23.0
8	5.8	51.8	48.8	46.0	43.0	24.5	24.5
10	6.5	50.3	47.3	43.0	40.8	25.0	25.0
16	8.2	47.3	44.3	39.0	36.0	25.0	25.0
20	9.3	45.8	42.8	36.5	33.5	25.0	25.0
25	10.4	44.3	41.3	33.9	30.9	24.3	24.3
31.25	11.7	42.9	39.9	31.0	28.2	23.6	23.6
62.5	17.0	38.4	35.4	22.0	19.0	21.5	21.5
100	22.0	35.3	32.3	14.0	10.3	20.1	20.1
155	28.1	32.5	29.5	4.4	1.4	15.8	
200	32.0	30.8	27.8	4.0	1.0	15.0	

Premise Cable Electricals Table 2 :

Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
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	24.9
100	100 ± 15	100 ± 15	23.8	20.8
155	100 ± 25	100 ± 15	19.9	16.9
200	100 ± 25	100 ± 15	17.7	14.7

**NOTES:**

Notes

Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2, Category 5e.

**PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
1590A 8771000	2 PR #24 FEP FLMRST	1000	16	NATURAL	C
1590A D151000	2 PR #24 FEP FLMRST	1000	16	BLUE	

C = CRATE REEL PUT-UP.

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