

7852A Paired - Enhanced Category 6 Bonded-Pair Cable

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

23 AWG bonded-pairs solid bare copper conductors, plenum, FEP Teflon® insulation, patented e-spline center member, rip cord, see color code chart (below), Flamarrest® jacket (red, orange, yellow, green, blue, black, white, or gray).

SUITABLE APPLICATIONS:

Suitable Applications Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	23
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	3	White/Green Stripe & Green
2	White/Orange Stripe & Orange	4	White/Brown Stripe & Brown

OVERALL CABLING:

Overall Cabling Fillers E-Spline Center Member

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 No

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OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter	.218 x .290 in.
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MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	33.8 lbs/1000 ft.
Max. Recommended Pulling Tension	45 lbs.
Min. Bend Radius (Install)	0.25 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):	07/01/2006
TIA/EIA Specification	568-B.2-1 Category 6
Other Specification	UL Verified to Category 6

FLAME TEST:

UL Flame Test	NFPA 262
CSA Flame Test	FT6

PLENUM/NON-PLENUM:

Plenum (Y/N)	Y
Non-Plenum Number	7851A

ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz	15.5 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	65.6 pF/100 m
Nominal Velocity of Propagation	67 %
Maximum Delay (ns/100 m)	538 @ 100MHz ns/100 m
Maximum Delay Skew (ns/100m)	38 ns/100 m
Maximum Conductor DC Resistance @ 20 Deg. C	8.2 Ohms/100 m
Maximum DCR Unbalance @ 20 Deg. C	3 %
Max. Operating Voltage - UL	300 V RMS

ELECTRICAL CHARACTERISTICS - PREMISE:

Premise Cable Electricals Table 1 :	
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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	1.9	82.3	80.3	80.5	78.5	20.0	27.0
4	3.6	73.3	71.3	69.7	67.7	23.0	27.0
8	5.1	68.8	66.8	63.7	61.7	24.5	27.0
10	5.7	67.3	65.3	61.6	59.6	25.0	27.0
16	7.2	64.3	62.3	57.0	55.0	25.0	27.0
20	8.1	62.8	60.8	54.7	52.7	25.0	27.0
25	9.1	61.3	59.3	52.3	50.3	25.0	27.0
31.25	10.2	59.9	57.9	49.7	47.7	25.0	27.0
62.5	14.7	55.4	53.4	40.7	38.7	25.0	27.0
100	18.9	52.3	50.3	33.4	31.4	25.0	27.0
155	23.9	49.5	47.5	25.5	23.5	22.8	24.7
200	27.5	47.8	45.8	20.3	18.3	21.6	23.4
250	31.2	46.3	44.3	15.2	13.2	20.5	22.2
300	34.5	43.2	41.2	10.6	8.6	20.2	21.2
310	35.2	42.9	40.9	9.8	7.8	20.1	21.1
350	37.7	42.2	40.2	6.5	4.5	19.8	20.4
400	40.6	41.3	39.3	2.6	0.6	19.5	19.7
450	43.5	40.5	38.5	2.1	0.10	18.9	19.1
460	44.0	40.4	38.4	0	0	18.8	19.0
500	46.2	39.8	37.8			18.4	18.5
550	48.8	39.2	37.2			18.0	18.0
600	51.4	38.6	36.6			17.6	17.6

Premise Cable Electricals Table 2 :

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Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	100 ± 15	73.8	70.8
4	100 ± 12	100 ± 10.4	61.8	58.8
8	100 ± 12	100 ± 8	55.7	52.7
10	100 ± 12	100 ± 7.3	53.8	50.8
16	100 ± 12	100 ± 5.7	49.7	46.7
20	100 ± 12	100 ± 5	47.8	44.8
25	100 ± 15	100 ± 5	45.8	42.8
31.25	100 ± 15	100 ± 5	43.9	40.9
62.5	100 ± 15	100 ± 5	37.9	34.9
100	100 ± 15	100 ± 5	33.8	30.8
155	100 ± 15	100 ± 5	30.0	27.0
200	100 ± 15	100 ± 5	27.8	24.8
250	100 ± 20	100 ± 5	25.8	22.8
300	100 ± 20	100 ± 5	24.3	21.3
310	100 ± 20	100 ± 5	24.0	21.0
350	100 ± 22	100 ± 5	22.9	19.9
400	100 ± 22	100 ± 5	21.8	18.8
450	100 ± 22	100 ± 5	20.7	17.7
460	100 ± 22	100 ± 5	20.5	17.5
500	100 ± 22	100 ± 5	19.8	16.8
550	100 ± 22	100 ± 5	19.0	16.0
600	100 ± 22	100 ± 5	18.2	15.2

NOTES:

Notes	Belden IBDN. Jacket sequentially marked at 2 ft. intervals. US Patent #'s 6, 297, 454-B1; 5, 606, 151; 5, 734, 126; 5, 789, 711. Third party verified to TIA/EIA-568-B.2-1, Category 6.
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PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
7852A 0021000	4 PR #23 FEP FLRST	1000	40	RED	
7852A 0041000	4 PR #23 FEP FLRST	1000	40	YELLOW	C
7852A 004A1000	4 PR #23 FEP FLRST	A1000	43	YELLOW	
7852A 0051000	4 PR #23 FEP FLRST	1000	40	GREEN, DARK	C
7852A 005A1000	4 PR #23 FEP FLRST	A1000	43	GREEN, DARK	
7852A 0081000	4 PR #23 FEP FLRST	1000	37	GRAY	
7852A 008A1000	4 PR #23 FEP FLRST	A1000	43	GRAY	
7852A 0091000	4 PR #23 FEP FLRST	1000	40	WHITE	C
7852A 009A1000	4 PR #23 FEP FLRST	A1000	43	WHITE	

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7852A 0101000	4 PR #23 FEP FLRST	1000	40	BLACK	
7852A 010A1000	4 PR #23 FEP FLRST	A1000	43	BLACK	
7852A D151000	4 PR #23 FEP FLRST	1000	40	BLUE	C
7852A D15A1000	4 PR #23 FEP FLRST	A1000	43	BLUE	

C = CRATE REEL PUT-UP.

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