Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

7953T Multi-Conductor - Category 6 DataTuff® 600V AWM Rated Cables

For more Information
please call

1-800-Belden1

Description

23 AWG solid bare copper conductors, bonded pair PP insulation, LSZH spline center member, inner LSZH jacket , overall Beldfoil® Shield (100% coverage), LSZH jacket, LSZH overall jacket, sequential footage marking every two feet.

Usage (Overall):

Suitable Applications	Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, 250MHz Category 6

Physical Characteristics (Overall):

Conductor:

AWG

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
4	23	Solid	BC - Bare Copper	0.022

Total Number of Conductors	8

Ground Wire:

Ground Wire (Y/N)	N

Insulation:

Insulation Material

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PP - Polypropylene	0.010	0.043

Inner Jacket:

Inner Jacket Material

Inner Jacket Material	Nom Wall (in.)	Nom. Dia. (in.)
LSZH	0.015	0.264

Outer Shield:

Outer Shield Material

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil - Polyester Tape	100.000

Outer Shield Drain Wire AWG

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

Outer Jacket:

Outer Jacket Material

Layer #	Outer Jacket Material	Nom. Wall Thickness (in.)
1	LSZH	0.040
2	LSZH	0.060

Outer Jacket Diameter

Nom. Dia. (in.)
0.487

Outer Jacket Ripcord	No

Overall Cable:

Overall Cabling Fillers	X-Spline Center Member
Overall Nominal Diameter:	0.487 in.

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):

Storage Temperature Range	-30°C To +60°C
Installation Temperature Range	-30°C To +60°C
Operating Temperature Range	-30°C To +60°C
Bulk Cable Weight:	44 lbs/1000 ft.
Min. Bend Radius/Minor Axis:	4.900 in.
Min. Bend Radius (Continuous Flexing):	4.900 in.

Applicable Specifications and Agency Compliance (Overall):

Applicable Standards & Environmental Programs:

NEC/(UL) Specification	CMG-LS, CMX-Outdoor
CEC/C(UL) Specification	CMG
EU Directive 2011/65/EU (ROHS II)	Yes
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)	10/09/2009
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	Category 6 - TIA 568.C.2
Other Specification	UL Verified to Category 6

Flame Test:

UL Flame Test	UL1685 FT4 Loading, Limited Smoke
C(UL) Flame Test	FT4
IEEE Flame Test	1202

Suitability:

Suitability - Indoor	Yes
Suitability - Outdoor	Yes
Suitability - Aerial	Yes
Suitability - Burial	No
Sunlight Resistance	Yes
Oil Resistance	Yes (4hr @ 70C)

Plenum/Non-Plenum:

Plenum (Y/N)	No

Electrical Characteristics (Overall):

Nom. Mutual Capacitance

Capacitance (pF/ft)
15.000

Maximum Capacitance Unbalance (pF/100 m)	330

Nominal Velocity of Propagation

VP (%)

72.000

Maximum Delay

Delay (ns/100 m)
537 @ 100MHz

Max. Delay Skew

Delay Skew (ns/100 m)
45

Maximum Conductor DC Resistance

DCR @ 20°C (Ohm/100 m)
8.200

Max. Operating Voltage - UL

Voltage	Description
300 V RMS	
600 V RMS	Appliance Wiring Material

Maximum DCR Unbalanced

DCR Unbalance @ 20°C (%)
3.000

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	2.000	74.300	72.300	72.300	70.300	21.000	na
4	3.800	65.300	63.300	61.500	59.500	24.000	na
8	5.300	60.800	58.800	55.400	53.400	25.500	na
10	6.000	59.300	57.300	53.300	51.300	26.000	na
16	7.600	56.200	54.300	48.700	46.700	26.000	na
20	8.500	54.800	52.800	46.300	44.300	26.000	na
25	9.500	53.300	51.300	43.800	41.800	25.300	na
31.250	10.700	51.900	49.900	41.200	39.200	24.600	na
62.500	15.400	47.400	45.400	32.000	30.000	22.500	na
100	19.800	44.300	42.300	24.500	22.500	21.100	na
155	25.200	41.500	39.500	16.300	14.300	19.800	na
200	29.000	39.800	37.800	10.800	8.800	19.000	na
250	32.800	38.300	36.300	5.500	3.500	18.300	na

Premise Cable Electrical Table 2

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.800	64.800
4	100 ± 15	100 ± 15	55.800	52.700
8	100 ± 15	100 ± 15	49.700	46.700
10	100 ± 15	100 ± 15	47.800	44.800
16	100 ± 15	100 ± 15	43.700	40.700
20	100 ± 15	100 ± 15	41.800	38.800
25	100 ± 15	100 ± 15	39.800	36.800
31.250	100 ± 15	100 ± 15	37.900	34.900
62.500	100 ± 15	100 ± 15	31.900	28.900
100	100 ± 15	100 ± 15	27.800	24.800
155	100 ± 22	100 ± 15	23.900	20.900
200	100 ± 22	100 ± 15	21.800	18.800
250	100 ± 32	100 ± 15	19.800	16.800

Notes (Overall):

Notes	US Patent #'s 5, 606, 151; 5, 734, 126. Operating temperatures are subject to length de-rating. Cable passes -30C Cold Bend per UL 1581. NFPA 130 compliant.
Notes (Cont'd.)	T568A Plug Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604

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