# **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



# 7882A Multi-Conductor - Replaced by 2413





**Applicable Specifications and Agency Compliance (Overall)** 

**Applicable Standards & Environmental Programs** 

NEC/(UL) Specification:
CEC/C(UL) Specification:

For more Information please call

1-800-Belden1



## **General Description:**

CAT6 (250MHz), 4-Pair, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 23 AWG solid bare copper conductors, Dual FRPO/FEP insulation, tape separator, Ripcord, Flamarrest® jacket

copper conductors, Duai i in On Er insulatio	n, tape separator, reposta, reamainesto jacket
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 4 23   Solid   BC - Bare Copper	
4 23 Solid BC - Bale Copper	
Total Number of Conductors:	8
Insulation	
Insulation Material:	_
Insulation Material FRPO/FEP - Flame Retardant Polyolefin/Fluorinated Ethylene Propyle	
TREON LE - Hame Retaitant Folyolenin idonitated Ethylene Flopyk	
Outer Shield	
Outer Shield Material:  Outer Shield Material	
Unshielded	
Outer Jacket	
Outer Jacket Material:  Outer Jacket Trade Name Outer Jacket Material	
Flamarrest® LS PVC - Low Smoke Polyvinyl Chloride	
Outer Jacket Diameter:	
Nom. Dia. (in.)	
0.230	
Outer Jacket Ripcord:	Yes
Overall Cable	
Overall Cabling Fillers:	Center Tape
	<u> </u>
Overall Nominal Diameter:	0.230 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	
March and a LOb and a familiation (Occupilly	
Mechanical Characteristics (Overall)	
Operating Temperature Range:	-20°C To +60°C
Bulk Cable Weight:	28 lbs/1000 ft.
Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius/Minor Axis:	1.500 in.

CMP

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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):	03/18/2009
	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
	Other Specification:	Third party verified to Category 6
Fla	me Test	
	UL Flame Test:	NFPA 262 Plenum Flame Test (UL910)(FT6)
	CSA Flame Test:	FT6
Sui	tability	
	Suitability - Indoor:	Yes
	Suitability - Outdoor:	No
	Suitability - Aerial:	No
	Suitability - Burial:	No
	Sunlight Resistance:	No
	Oil Resistance:	No
	Non-halogenated:	No
Ple	num/Non-Plenum	
	Plenum (Y/N):	Yes
	Non-Plenum Number:	7881A

## **Electrical Characteristics (Overall)**

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15

Maximum Capacitance Unbalance:

Capacitance (pF/ft) 330.000

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

**VP (%)** 72

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) 8.2

Max. Operating Voltage - UL:

Voltage 300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
5

## **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	74.3	72.3	72.3	70.3	20.000	na

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4	3.800	65.3	63.3	61.5	59.5	23.000	na
8	5.300	60.8	58.8	55.4	53.4	24.500	na
10	6.000	59.3	57.3	53.3	51.3	25.000	na
16	7.600	56.2	54.3	48.7	46.7	25.000	na
20	8.500	54.8	52.8	46.3	44.3	25.000	na
25	9.500	53.3	51.3	43.8	41.8	24.300	na
31.25	10.700	51.9	49.9	41.2	39.2	23.600	na
62.5	15.400	47.4	45.4	32.0	30.0	21.500	na
100	19.800	44.3	42.3	24.5	22.5	20.100	na
155	25.200	41.5	39.5	16.3	14.3	18.800	na
200	29.000	39.8	37.8	10.8	8.8	18.000	na
250	32.800	38.3	36.3	5.5	3.5	17.300	na
300	36.400	37.1	35.1	0.7		16.800	na
350	39.800	36.1	34.1			16.300	na
400	43.000	35.3	33.3			15.900	na
500	48.900	33.8	31.8			15.200	na
550	51.800	33.2	31.2			14.900	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	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.7
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.8
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 15	37.9	34.9
62.5	100 ± 15	100 ± 15	31.9	28.9
100	100 ± 15	100 ± 15	27.8	24.8
155	100 ± 20	100 ± 15	23.9	20.9
200	100 ± 20	100 ± 15	21.8	18.8
250	100 ± 20	100 ± 15	19.8	16.8
300	100 ± 25	100 ± 15	18.3	15.3
350	100 ± 25	100 ± 15	16.9	13.9
400	100 ± 25	100 ± 15	15.8	12.8
500	100 ± 25	100 ± 15	13.8	10.8
550	100± 25	100 ± 15		

#### Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2-1, Category 6. US Patents 5424491, 5563377, 6570095 and 6998537.

#### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
100	1.11				

Revision Number: 0 Revision Date: 08-06-2013

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Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

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