

## 7882A Multi-Conductor - Category 6 Unbonded-Pair Cables



### Description:

23 AWG solid bare copper conductors, Dual FRPO/FEP insulation, film tape separator, Flamarrest® jacket with ripcord, 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
4	23	Solid	BC - Bare Copper

#### Insulation

**Insulation Material:**

Insulation Material
FRPO/FEP - Flame Retardant Polyolefin/Fluorinated Ethylene Propylene

#### 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 Cabling

**Overall Cabling Fillers:** Center Tape

**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

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -20°C To +75°C

**Bulk Cable Weight:** 28 lbs/1000 ft.

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Max. Recommended Pulling Tension:	40 lbs.
Min. Bend Radius (Install)/Minor Axis:	0.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CMP
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):	10/13/2005
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.2-1 Category 6
Other Specification:	Third party verified to Category 6

#### Flame Test

UL Flame Test:	NFPA 262 Plenum Flame Test (UL910)(FT6)
CSA Flame Test:	FT6

#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	No

#### Plenum/Non-Plenum

Non-Plenum Number:	7881A
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### Electrical Characteristics (Overall)

#### Nom. Mutual Capacitance:

Capacitance (pF/ft)
15

#### Maximum Capacitance Unbalance:

Capacitance (pF/ft)
330.000

#### Nominal Velocity of Propagation:

VP (%)
72

Maximum Capacitance Unbalance (pF/100 m):	330
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#### 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

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**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
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. Values above 250 MHz are for Engineering Information Only. US Patents 5424491, 5563377, 6570095 and 6998537.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7882A D15A1000	1,000 FT	32.000 LB	BLUE		4 PR #23 FRPO/FEP FLRST
7882A D15I1000	1,000 FT	30.000 LB	BLUE	C	4 PR #23 FRPO/FEP FLRST
7882A 002A1000	1,000 FT	32.000 LB	RED		4 PR #23 FRPO/FEP FLRST
7882A 002I1000	1,000 FT	30.000 LB	RED	C	4 PR #23 FRPO/FEP FLRST
7882A 003A1000	1,000 FT	32.000 LB	ORANGE		4 PR #23 FRPO/FEP FLRST
7882A 003I1000	1,000 FT	30.000 LB	ORANGE	C	4 PR #23 FRPO/FEP FLRST

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7882A 004A1000	1,000 FT	32.000 LB	YELLOW		4 PR #23 FRPO/FEP FLRST
7882A 0041000	1,000 FT	30.000 LB	YELLOW	C	4 PR #23 FRPO/FEP FLRST
7882A 005A1000	1,000 FT	32.000 LB	GREEN, DARK		4 PR #23 FRPO/FEP FLRST
7882A 0051000	1,000 FT	30.000 LB	GREEN, DARK	C	4 PR #23 FRPO/FEP FLRST
7882A 007A1000	1,000 FT	33.000 LB	VIOLET		4 PR #23 FRPO/FEP FLRST
7882A 0071000	1,000 FT	31.000 LB	VIOLET	C	4 PR #23 FRPO/FEP FLRST
7882A 008A1000	1,000 FT	32.000 LB	GRAY		4 PR #23 FRPO/FEP FLRST
7882A 0081000	1,000 FT	30.000 LB	GRAY	C	4 PR #23 FRPO/FEP FLRST
7882A 009A1000	1,000 FT	33.000 LB	WHITE		4 PR #23 FRPO/FEP FLRST
7882A 0091000	1,000 FT	31.000 LB	WHITE	C	4 PR #23 FRPO/FEP FLRST
7882A 010A1000	1,000 FT	32.000 LB	BLACK		4 PR #23 FRPO/FEP FLRST
7882A 0101000	1,000 FT	30.000 LB	BLACK	C	4 PR #23 FRPO/FEP FLRST
7882A 877A1000	1,000 FT	32.000 LB	NATURAL		4 PR #23 FRPO/FEP FLRST
7882A 8771000	1,000 FT	30.000 LB	NATURAL	C	4 PR #23 FRPO/FEP FLRST

**Notes:**

C = CRATE REEL PUT-UP.

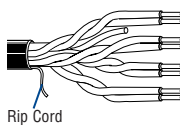
# DataTwist® 6 UTP Cable

TIA/EIA-568-B.2-1, Category 6 Nonbonded-Pair Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Max. DCR (Ω/100m)	Max. DCR Unbal. (%)	Max. Cap. Unbal. (pF/100m)	Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm										

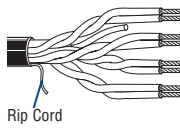
**23 AWG** Solid Bare Copper Conductors • Twisted Pairs • Central Rod Filler • Rip Cord • See Color Code Chart (below)

**Non-Plenum • Polyolefin Insulation • PVC Jacket** (Available in Red, Orange, Yellow, Green, Blue, Purple, Gray, White or Black)

 <p>Rip Cord</p>	<b>7881A</b>	NEC: CMR CEC: CMR	4	1000	304.8	30.0	13.6	.241	6.12	8.2	5.0	330	1	2.0	72.3	70.3	64.8	100±15	20.0
				A-1000	A-304.8	33.0	15.0						10	6.0	57.3	51.3	44.8	100±15	25.0
													20	8.5	52.8	44.3	38.8	100±15	25.0
													31.25	10.7	49.9	39.2	34.9	100±15	23.6
													62.5	15.4	45.4	30.0	28.9	100±15	21.5
													100	19.8	42.3	22.5	24.8	100±15	20.1
													200	29.0	37.8	8.8	18.8	100±22	18.0
													250	32.8	36.3	3.5	16.8	100±32	17.3

Jacket sequentially marked at 2 ft. intervals.  
Features Descending Length Marking.  
Third party verified to TIA/EIA-568-B.2-1, Category 6

**Plenum • Dual FRPO/FEP Insulation • Flamarrest® Jacket** (Avail. in Red, Orange, Yellow, Green, Blue, Purple, Gray, Natural or Black)

 <p>Rip Cord</p>	<b>7882A</b>	NEC: CMP CEC: CMP	4	1000	304.8	29.0	13.2	.224	5.69	8.2	5.0	330	1	2.0	72.3	70.3	64.8	100±15	20.0
				A-1000	A-304.8	32.0	14.5						10	6.0	57.3	51.3	44.8	100±15	25.0
													20	8.5	52.8	44.3	38.8	100±15	25.0
													31.25	10.7	49.9	39.2	34.9	100±15	23.6
													62.5	15.4	45.4	30.0	28.9	100±15	21.5
													100	19.8	42.3	22.5	24.8	100±15	20.1
													200	29.0	37.8	8.8	18.8	100±22	18.0
													250	32.8	36.3	3.5	16.8	100±32	17.3

Jacket sequentially marked at 2 ft. intervals.  
Features Descending Length Marking.  
Third party verified to TIA/EIA-568-B.2-1, Category 6

ACR = Attenuation Crosstalk Ratio • BC = Bare Copper • DCR = DC Resistance • ELFEXT = Equal Level Far-end Crosstalk • FEP = Fluorinated Ethylene Propylene • FRPO = Flame-retardant Polyolefin • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • UTP = Unshielded Twisted Pair(s)

For either T568-A or T568-B configurations.

**Color Codes: DataTwist 6**

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown