

## 1303E Multi-Conductor - Category 6A Tactical Cable Upjacketed

For more Information  
please call

1-800-Belden1



### General Description:

Catsnake® Category 6A Patch S/FTP, 4-Unbonded Pairs, 24AWG Stranded Bare Copper Conductors, Foamed PE Insulation, Individually Shielded Pairs, Overall Tinned Copper Braid, PVC Inner and Outer Jackets

### Usage (Overall)

**Suitable Applications:** CAT 6a patch horizontal and building backbone, CobraNet, eSnake, Ethersound, Digital audio over Ethernet, 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM, HDBaseT

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	7x	BC - Bare Copper

**Total Number of Conductors:** 8

#### Insulation

Insulation Material:

Insulation Material	Dia. (in.)
FPE - Foamed Polyethylene	0.055

#### Inner Shield

Inner Shield Material:

Type	Inner Shield Material	Coverage (%)	Description
Tape	Aluminum/Polyester (Al out)	100.000	Each Pair Individually Shielded

Inner Shield Drain Wire AWG:

AWG	Stranding	Conductor Material
26	7x	Tinned Cu (one drain wire for 4 pairs)

#### Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PVC	0.284

#### Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	Tinned Copper	80.000

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Matte PVC

Outer Jacket Diameter:

Nom. Dia. (in.)
0.343

**Outer Jacket Ripcord:** No

#### Pair

Pair Color Code Chart:

Number	Color
1	White & Blue
2	White & Orange
3	White & Green
4	White & Brown

### Mechanical Characteristics (Overall)

**Installation Temperature Range:** +5°C To +50°C

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Operating Temperature Range:	-30°C To +60°C
Bulk Cable Weight:	55.780 lbs/1000 ft.
Max. Recommended Pulling Tension:	16.900 lbs.
Min. Bend Radius/Minor Axis:	3.430 in.
Min. Bend/Installation:	3.430 in.
Flex Cycle Rating:	2,000,000 cycles (see Notes below)

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

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):	05/17/2016
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
ANSI Specification:	ANSI/TIA/EIA 568-B.2-10 (2008)
Other Specification:	ISO/IEC 11801 2nd Edition (2002), ISO/IEC 11801 Amendment 2 (2010), EN 50173-1 (2002), EN 50173-1 Amendment 1 (2009), ANSI/TIA/EIA 568-B.2-10 (2008), IEC 60332-1

#### Applicable Patents:

Country
www.belden.com/p

#### Flame Test

IEC Flame Test:	60332-1
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#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Burial:	No
Sunlight Resistance:	Yes - Black only.
Oil Resistance:	No
Non-halogenated:	No

#### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)
100.000

#### Max. Mutual Capacitance:

Capacitance (pF/ft)
17.100

Maximum Capacitance Unbalance (pF/100 m):	160
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#### Nominal Velocity of Propagation:

VP (%)
77.000

#### Nominal Delay:

Freq. (MHz)	Delay (ns/ft)
1.000	1.737
4.000	1.682
10.000	1.661
16.000	1.655
31.200	1.646
62.500	1.643
100.000	1.640

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125.000	1.637
200.000	1.634
250.000	1.634
300.000	1.634
500.000	1.634

**Max. Delay Skew:**

Delay Skew (ns/100 m)
25.000

**Maximum Conductor DC Resistance:**

DCR @ 20°C (Ohm/100 m)
9.500

**Max. Operating Voltage - Other:**

Voltage	Description
72	VDC

**Max. Recommended Current:**

Description	Current
Each Conductor	1.5A

**Maximum DCR Unbalanced:**

Description	DCR Unbalance @ 20°C (%)
Conductor-to-Conductor	2.000
Pair-to-Pair	4.000

### 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)
1	2.500	75.3	72.3	72.8	69.8	20.000
4	4.600	66.3	63.3	61.7	58.7	23.000
10	7.100	60.3	57.3	53.2	50.2	25.000
16	9.000	57.2	54.2	48.3	45.3	25.000
31.2	12.600	52.9	49.9	50.4	47.3	23.600
62.5	18.000	48.4	45.4	30.4	27.4	21.500
100	23.000	45.3	42.3	22.3	19.3	20.100
125	25.800	43.8	40.8	18	15	19.400
200	33.100	40.8	37.8	7.7	4.7	18.000
250	37.300	39.3	36.3	2	-1	17.300
300	41.100	38.1	35.1	-3	-6	17.300
500	54.300	34.8	31.8	-19.5	-22.5	17.300

**Premise Cable Electrical Table 2:**

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 15	105 ± 10	68	65
4	100 ± 15	100 ± 15	56	53
10	100 ± 15	100 ± 15	48	45
16	100 ± 15	100 ± 15	43.9	40.9
31.2	100 ± 15	100 ± 10	38.1	35.1
62.5	100 ± 15	100 ± 10	32.1	9.1
100	100 ± 15	100 ± 10	28	25
125	100 ± 32	100 ± 10	26.1	23.1
200	100 ± 22	100 ± 10	22	19
250	100 ± 32	100 ± 10	20	17
300	100 ± 32	100 ± 10	18.5	15.5
500	100 ± 32	100 ± 10	14	11

**Premise Cable Electrical Table 4:**

Frequency (MHz)	Min. PSANEXT (dB)	Min. PSAACRF (dB)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	67.000	67.000	40.000	35.000
4.000	67.000	66.200	34.000	23.000
10.000	67.000	58.200	30.000	15.000
16.000	67.000	54.100	28.000	10.900
31.200	67.000	48.300	25.100	5.100
62.500	65.600	42.300	22.000	
100.000	62.500	38.200	20.000	
125.000	61.000	36.300	19.000	
200.000	58.000	32.200	17.000	
250.000	56.500	30.200	16.000	
300.000	55.300	28.700		
500.000	52.000	24.200		

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### Notes (Overall)

**Notes:** Outer shield (braid) is under inner jacket. Flex test: C-track, 100mm radius, 5 meter length, 3.5 meters/second

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1303E 0101000	1,000 FT	63.000 FT	BLACK		CATSNAKE CAT 6A S/FTP PVC
1303E 0101640	1,640 FT	0.000	BLACK		CATSNAKE CAT 6A S/FTP PVC
1303E 010500	500 FT	31.500 FT	BLACK		CATSNAKE CAT 6A S/FTP PVC

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