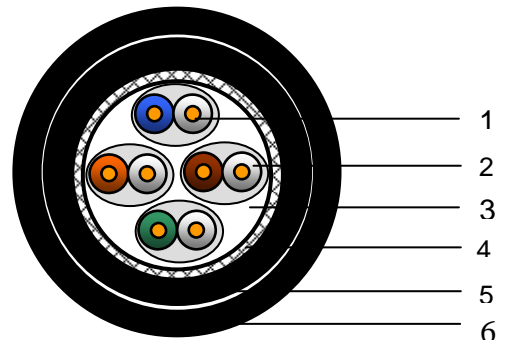


1303E

Catsnake® Cable
Cat 6A S/FTP PVC PVC
2013-04-18 v1



Applications

- Field deployable CAT6a patch horizontal and building backbone cable
- CobraNet, eSnake, Ethersound, Digital audio over Ethernet
- Support current and future Category 6A and 6 applications, such as:
10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM
- Compatible connectors Belden R301601 000S1 (T568A) and R301602 000S1 (T568B)

General standards

- International standard: ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard: EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)
- U.S. Standard: ANSI/TIA/EIA 568-B.2-10 (2008)

Construction & Dimensions

1. Conductor	
Material	Stranded bare copper ETP
Diameter	AWG 24/7
2. Insulation	
Material	Foamed polyethylene
Nominal diameter over insulation	1.4 mm
3. Cable core	
Pair	2 twisted insulated conductors with overall foil
Foil	Laminated aluminium-polyester Aluminium facing outside
Number of shielded pairs	4, all twisted together with AWG 26 tinned copper drain wire
Colour code pair 1	White / Blue
Colour code pair 2	White / Orange
Colour code pair 3	White / Green
Colour code pair 4	White / Brown
4. Braid	
Material	Solid tinned copper
Coverage	≥ 80%
5. Inner jacket	
Material	Matte rugged PVC
Diameter	7.2 ± 0.3 mm
Colour	Black (RAL 9005)
6. Outer jacket	
Foil under jacket	Non woven foil
Material	Matte rugged PVC
Diameter	8.7 ± 0.3 mm

Colour Black
Standard text (+ batch code and length indication per meter):

BELDEN 1303E - -CATSNAKE- - S/FTP CAT6A 4PR AWG24 PVC PVC ISO/IEC 11801 EN50173 VERIFIED 100 OHM Dwwyyddd hh:mm

Electrical characteristics

Reference standard : ISO/IEC 61156-6 edition 2.0 (2009)

Low frequency and D.C. (at 20°C)	Specification	Unit
D.C. resistance conductor	< 9,5	Ω/100m
Resistance unbalance: within a pair / between pairs	< 2 / < 4	%
Insulation resistance	≥ 5000	MΩ.km
Dielectric strength conductor-conductor and conductor-screen (2 sec.)	2.5	kV DC
Mutual capacitance	< 56	nF/km
Capacitance unbalance pair to ground	< 1600	pF/km
Nominal velocity of propagation (for information only)	0.77	c
Delay skew (differential delay)	≤ 25	ns/100m
Transfer impedance according IEC 61156-5	Grade 2	
Coupling attenuation according IEC 61156-5	Type II	

High frequency (at 20°)														
TYPE	1*	4	10	16	31.2	62.5	100	125	200	250	300	500		MHz
Attenuation	2.5	4.6	7.1	9.0	12.6	18.0	23.0	25.8	33.1	37.3	41.1	54.3		dB/100m
NEXT	75.3	66.3	60.3	57.2	52.9	48.4	45.3	43.8	40.8	39.3	38.1	34.8		dB/100m
PS NEXT	72.3	63.3	57.3	54.2	49.9	45.4	42.3	40.8	37.8	36.3	35.1	31.8		dB/100m
ACR	72.8	61.7	53.2	48.3	50.4	30.4	22.3	18.0	7.7	2.0	-3.0	-19.5		dB/100m
PS ACR	69.8	58.7	50.2	45.3	47.3	27.4	19.3	15.0	4.7	-1.0	-6.0	-22.5		dB/100m
ACR-F	68.0	56.0	48.0	43.9	38.1	32.1	28.0	26.1	22.0	20.0	18.5	14.0		dB/100m
PS ACR-F	65.0	53.0	45.0	40.9	35.1	9.1	25.0	23.1	19.0	17.0	15.5	11.0		dB/100m
Return Loss	20.0	23.0	25.0	25.0	23.6	21.5	20.1	19.4	18.0	17.3	17.3	17.3		dB/100m
TCL level 1	40.0	34.0	30.0	28.0	25.1	22.0	20.0	19.0	17.0	16.0				dB/100m
EL TCTL	35.0	23.0	15.0	10.9	5.1									dB/100m
PS ANEXT	67.0	67.0	67.0	67.0	67.0	65.6	62.5	61.0	58.0	56.5	55.3	52.0		dB/100m
PS AACR-F	67.0	66.2	58.2	54.1	48.3	42.3	38.2	36.3	32.2	30.2	28.7	24.2		dB/100m
Impedance upper limit	122.2	115.2	111.9	111.9	114.1	118.3	121.9	123.9	128.8	131.5	131.6	131.6		Ω
Impedance lower limit	81.8	86.8	89.4	89.4	87.7	84.5	82.0	80.7	77.6	76.0	76.0	76.0		Ω
Propagation delay	570	552	545	543	540	539	538	537	536	536	536	536		ns/100m

NOTE: Limits below 4MHz are for information only.

Mechanical characteristics

	Specification	Unit
Elongation at break of the conductors	10	%
Minimum elongation at break of the insulation	≥ 100	%
Minimum elongation at break of the sheath	≥ 100	%
Tensile strength of sheath	> 9	MPa

Environmental and overall characteristics

	Specification	Unit
Maximum operating voltage (for all temperatures cable is intended to be used)	72	V D.C.
Maximum continuous current per conductor (@25°C)	1.5	A
Temperature rating installation	0 / 50	°C
Temperature rating operation	- 30 / 60	°C
Total cable weight	83	kg/km
Minimum bending radius (during operation and installation)	35 / 70	mm
Maximum pulling strength	75	N
Burning load	900	kJ/m
Fire performance according IEC 60332-1	Pass	



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.