

# BCT65S

## HighFlex™ CAT6A S/FTP Networking cable



The BCT65S is a CAT6A networking cable featuring a HighFlex™ outer jacket which is specifically designed for professional use in highly demanding applications.

The conductor section of the BCT65S consists of 4 pairs with solid 24 AWG conductors which are individually shielded by an aluminum foil while the entire section is surrounded by an overall braiding. Due to the double shielding, better performance in terms of crosstalk and system noise is achieved resulting in a higher bandwidth and improved immunity against noise and interference caused by external devices.

The combination with hard and solid inner jacket materials and soft outer jacket materials provides great flexibility with a solid touch. Even after numerous times of winding and unwinding.

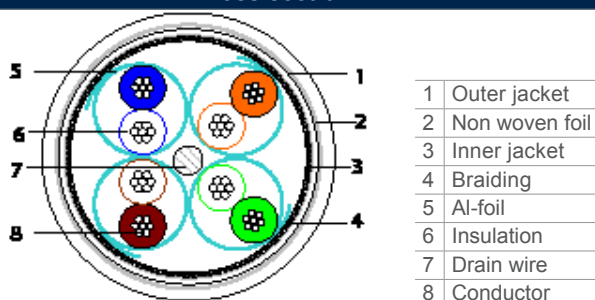
Supports 10Base-T, 100Base-TX, 1000Base-T and 10GBase-T gigabit.  
Supports Dante, Cobranet, Ethersound, HdbaseT and other AV network protocols



Physical Characteristics	
Type of cable	CAT6A S/FTP Networking cable
Inner conductor	BC 7 x 0.20 mm (OFC)
Inner conductor section	0.22 mm <sup>2</sup>
Number of conductors	8 (4 pairs)
Insulation	Foamed PE Ø 1.32 mm
Insulation colour	Blue & Blue / White Orange & Orange / White Green & Green / White Brown & Brown / White
Twisting lay length	≤ 30mm
Shielding 1	Individual Al-foil 100% coverage - 25% Overlap
Shielding 2	Braiding TC 10 x 12 x 0.08 mm > 80% coverage
Inner jacket	Hard PVC
Inner jacket dimensions	Ø 7.2 mm
Separator	Non woven foil
Outer jacket	Soft PVC
Outer jacket colour	Black
Outer jacket dimensions	Ø 8.7 mm
American Wire Gauge	24 AWG

Electrical Characteristics	
Dielectricum $\Sigma r$	Foamed PE
Max. conductor DC resistance	95 ( $\Omega$ /Km)
Max. conductor DC resistance unbal.	2%
Nom. mutual capacitance	□5.6 (nF/100m)
Pair to ground capacitance unbalance	□160 (pF/100m)
Nom. Velocity of propagation	74 %
Max. Delay / Skew	25 (ns/100m)
Dielectric strength	1.5 (KV/1min. DC)
Nom. shield DC resistance	( $\Omega$ /Km)
Characteristic impedance	100 $\Omega$ +/-15 $\Omega$
Voltage rating	72V

### Cross section



Standards & regulations	
RoHS2 compliant	According EU Directive 2011/65/EU
Reach compliant	According EC 1907/2006
Flammability test	According IEC 60332-1
Indoor / outdoor	Indoor
Cabling standard	ISO/IEC11801; IEC61156; UL444; ANSI/TIA-568-C.2

Mechanical Characteristics		
Temperature range	fixed installation	-20° C till +75° C
	flexible installation	-15° C till +60° C
Bending radius	fixed installation	10 x cable Ø OD
	flexible installation	12 x cable Ø OD

Ordering & packaging		
BCT65S/1	IEC 60332-1, Black	100 m wooden reel
BCT65S/3	IEC 60332-1, Black	300 m wooden reel

Recommended accessories & connections		
Ethercon male	Neutrik	NE8MX6 series
Ethercon chassis	Neutrik	NE8FDX series

# Additional specifications



Frequency	Characteristic Impedance Upper limit	Characteristic Impedance Lower limit	ATT	RL	NEXT	PS NEXT	ELFEXT (ACR-F)	PS ELFEXT (PS ACR-F)	PD
(MHz)	Zu ( $\Omega$ )	Zl ( $\Omega$ )	(dB/100m)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max)
4	115.2	86.8	4.6	23.0	66.3	63.3	56.0	53.0	552.0
8	112.6	88.8	6.4	24.5	61.8	58.8	49.9	46.9	546.7
10	111.9	89.4	7.1	25.0	60.3	57.3	48.0	45.0	545.4
16	111.9	89.4	9.0	25.0	57.2	54.2	43.9	40.9	543.0
20	111.9	89.4	10.1	25.0	55.8	52.8	42.0	39.0	542.0
25	113.2	88.3	11.3	24.2	54.3	51.3	40.0	37.0	541.2
31.25	114.6	87.2	12.6	23.3	52.9	49.9	38.1	35.1	540.4
62.5	120.2	83.2	18.0	20.7	48.4	45.4	32.1	29.1	538.6
100	125.3	79.8	23.0	19.0	45.3	42.3	28.0	25.0	537.6
200	135.7	73.7	33.1	16.4	40.8	37.8	22.0	19.0	536.5
250	140.0	71.4	37.3	15.6	39.3	36.3	20.0	17.0	536.3
300	139.8	71.5	41.1	15.6	38.1	35.1	18.5	15.5	536.1
400	139.8	71.5	48.1	15.6	36.3	33.3	16.0	13.0	535.8
500	139.8	71.5	54.3	15.6	34.8	31.8	14.0	11.0	535.6