

# BCT50U

Networking cable - CAT5E - U/UTP - flex 0.22 mm<sup>2</sup> - 24 AWG - HighFlex™

## Highlights:

- 24 AWG thin and dense stranded conductors
- Highflex™ solid & flexible jacket
- 7.6 mm (Ø) outer diameter

The BCT50U is a CAT5E networking cable featuring a Highflex™ outer jacket which is specifically designed for professional use in highly demanding applications. The conductor section of the BCT50U consists of 4 twisted pairs with stranded copper 24 AWG conductors. 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 and 1000Base-T gigabit networks.



## Properties:



## Inner Conductors:



## Usage:



## Physical Characteristics:

Inner conductor	Insulation	Material	HDPE 1 mm (Ø)
		Colours	Green / White & Green ; Blue / White & Blue ; Orange / White & Orange ; Brown / White & Brown
Inner jacket	Material		Durable PVC 6 mm (Ø)
Outer jacket	Material		Soft PVC 7.6 mm (Ø)
	Colours		Black
Type of cable			U/UTP CAT5E Networking cable
Inner conductor	Material		BC 7 x 0.2 mm (Ø) (OFC)
	Section		0.22 mm²
Separator			None
Inner conductor	American Wire Gauge		24 AWG
	Number of conductors		8 (4 pairs)
	Conductor twisting		Lay length ≤ 30 mm

## 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-EIA 568C.2

## Electrical Characteristics:

Max. conductor	DC resistance	140 (Ω / Km)
	DC resistance unbalanced	3 %
Dielectric strength		1.5 (KV / 1 min. DC)
Max. Delay / Skew		45 (ns / 100 m)
Nom. Velocity of propagation		65 %
Characteristic impedance		100 Ω ± 15 Ω
Nom. mutual capacitance		≤ 5.6 (nF / 100 m)
Pair to ground capacitance unbalance		≤ 330 (nF / 100 m)

## Mechanical Characteristics:

Temperature range	Fixed installation	- 20 °C till + 75 °C
	Flexible installation	- 15 °C till + 60 °C
Bending radius	Fixed installation	10 x outer diameter
	Flexible installation	12 x outer diameter

Variants:

- BCT50U/1 - 100 m wooden reel
- BCT50U/3 - 300 m wooden reel

Additional specifications:

Frequency (MHz)	Characteristic Impedance Upper limit - Zu (Ω)	Characteristic Impedance Lower limit - Zl (Ω)	ATT (dB/100m)	RL (dB Min)	NEXT (dB Min)	PS NEXT (dB Min)	ELFNEXT (dB Min)	PS ELFNEXT (dB Min)	PD (ns/100m Max)
1	-	-	2.4	20.0	65.3	62.3	63.8	60.8	570.0
4	115.2	86.8	4.9	23.0	56.3	53.3	51.7	48.7	552.0
8	112.6	88.8	6.9	24.5	51.8	48.8	45.7	42.7	546.7
10	111.9	89.4	7.8	25.0	50.3	47.3	43.8	40.8	545.4
16	111.9	89.4	9.9	25.0	47.2	44.2	39.7	36.7	543.0
20	111.9	89.4	11.1	25.0	45.8	42.8	37.7	34.7	542.0
25	112.9	88.5	12.5	24.2	44.3	41.3	35.8	32.8	541.2
31.25	114.1	87.7	14.1	23.3	42.9	39.9	33.9	30.9	540.4
62.5	118.3	84.5	20.4	20.7	38.4	35.4	27.8	24.8	538.6
100	121.9	82.0	26.4	19.0	35.3	32.3	23.8	20.8	537.6