



CAT6 U/UTP PE CABLE

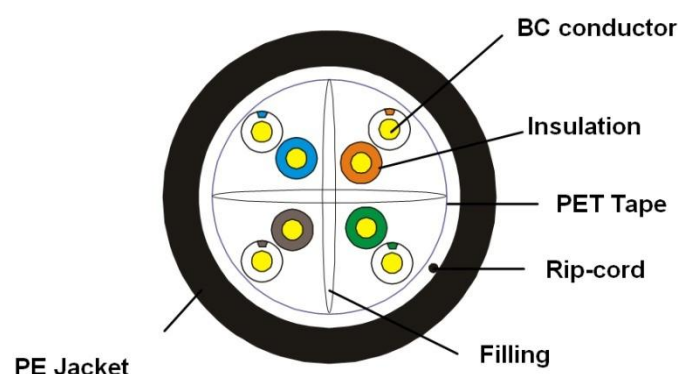
STRUCTURE DIAGRAM & DESCRIPTION



D-CONNECT Category 6 cables well exceeds ANSI/TIA and ISO/IEC category 6/class E requirements for Category 6 performance. They comply with all of the performance requirements for current and proposed applications. D-CONNECT Category 6 cables are manufactured and tested to the Category 6 performance standards defined by the standards bodies.

FEATURES

- This cable well exceeds the requirements of ANSI/TIA-568-C.2, ISO/IEC 11801 Class E, ISO/IEC 61156-5, EN50173, and RoHS Compliant Standards
- Operates at bandwidth of 250MHz
- Optimum support for Gigabit Ethernet
- Support superior electrical performance for optimum applications
- Supports IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-T (Fast Ethernet), and 10BASE-T applications
- Backward compatible with Category 5 and 5e components
- Includes non-metallic cross separator allowing for stronger signal strength and less vulnerability to noise interference, leads to maintaining and enhancing the cables performance
- Supports Power over Ethernet (PoE) applications defined by IEEE 802.3af (PoE) and 802.3at (PoE+) standards





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STANDARDS REFERENCE

- ANSI/TIA-568-C.2 Cat 6
- ISO/IEC 11801 Class E
- ISO/IEC 11801-4:2017
- IEC 61156-5
- EN50173
- RoHS Compliant
- PoE standards: IEEE 802.3af, 802.3at, 802.3bt, Cisco UPoE and Power over HDBaseT™ (PoH) up to 100 watts
- For 100 W applications - Up to 160 cables in a bundle

APPLICATION

- IEEE 802.3: Gigabit Ethernet
- 1000BASE-T
- 100BASE-T
- 10BASE-T
- IEEE 802.3 at (PoE)
- IEEE 802.3 at PoE+
- 622 Mbps ATM
- 155 Mbps ATM
- Composite Video

TRANSMISSION CHARACTERISTICS

TECHNICAL PERFORMANCE (100m)

Frequency (MHz)	RL≥dB	ATT(20°C) ≤dB	NEXT≥dB	PHASE DELAY≤ns	PSNEXT ≥dB	ELFEXT ≥dB	PSELFEXT ≥dB
1	20.0	2.03	74.3	570.00	72.3	67.8	64.8
4.0	23.0	3.78	65.3	552.00	63.3	55.8	52.8
8.0	24.5	5.32	60.8	546.73	58.8	49.7	46.7
10.0	25.0	5.95	59.3	545.38	57.3	47.8	44.8
16.0	25.0	7.55	56.2	543.00	54.2	43.7	40.7
20.0	25.0	8.47	54.8	542.05	52.8	41.8	38.8
25.0	24.3	9.51	53.3	541.20	51.3	39.8	36.8
31.25	23.6	10.67	51.9	540.44	49.9	37.9	34.9
62.5	21.5	15.38	47.7	538.55	45.4	31.9	28.9
100	20.1	19.80	44.3	537.60	42.3	27.8	24.8
200	18.0	28.98	39.8	536.54	37.8	21.8	18.8
250	17.3	32.85	38.3	536.27	36.3	19.8	16.8



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SPECIFICATIONS

Conductor	Material	SOLID-Bare Copper		
	Nom. O.D. (mm)	0.550	Up	+0.005
			Down	-0.005
Insulation	Material	HDPE		
	Diameter	0.95±0.05mm		
Color	A. Blue, White-Blue	B. Orange, White-Orange		
	C. Green, White-Green	D. Brown, White-Brown		
Shield	PET Tape			
Sheath	Thickness	0.55±0.05 mm		
	External O.D.	6.3±0.5 mm		
	Surface	Clean, Frap, Satiation		
	Material	LDPE(complies RoHS)		
	Color	Black		
Rip-Cord	Yes			

ELECTRICAL CHARACTERISTICS

Mutual Capacitance	< 5.6nF/100m
Capacitance Unbalance	330pF/100m
Insulation resistance	500 MΩ Minimum
Voltage Rating	72 Vdc max
Nominal velocity of propagation (NVP)	69%
Dielectric Strength	2.5 KV DC for 2 sec
Electrical Characteristics (20°C)	1.0-250.0MHz Impedance (Ω) 100±15
	1.0-250.0MHz Delay Skew (ns/100m) ≤45
	DC Resistance (Ω/100m) max 9.38
	DC Conductor Resistance Unbalance (%) max 5.0



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MECHANICAL PROPERTIES

Bending Radius(min.): Installation		<4 X Cable Diameter at $-20^{\circ}\text{C} \pm 1^{\circ}\text{C}$	
Bending Radius (min.): Operation		<4 X Cable Diameter at $-20^{\circ}\text{C} \pm 1^{\circ}\text{C}$	
Pulling Force		11.5Kg	
Temperature Range	Operating temperature	$-20^{\circ}\text{to} +70^{\circ}\text{C}$	
	Storage temperature	$0^{\circ}\text{to} +60^{\circ}\text{C}$	
	Installation temperature	$0^{\circ}\text{to} +50^{\circ}\text{C}$	
Out Jacket Physical Properties		Before Aging Tensile Strength (Mpa)	≥ 10.0
		Elongation (%)	≥ 350
		Aging Period ($^{\circ}\text{C} \times \text{hrs}$)	$100^{\circ}\text{C} \times 24\text{h} \times 10\text{d}$
		After Aging Elongation (%)	≥ 300
		Cold bend ($-20 \pm 2^{\circ}\text{C} \times 4\text{h}$)	No visible cracks
Flame Properties: CM Available Cable Color: Gray & Blue * Other colors are also available according to customer requirements Cable Wt. per Box (Cable 305m): 12 Kgs			

PACKING

Packing	Wooden Tray & Carton
Carton dimension	According to the requires
Packing length	$305 \pm 1.5\text{m}$

ORDERING INFORMATION

Part Number	Description
CC-C6-UUTP-PE-305-GY	CAT6, UTP, 4P, Horizontal Cable, 23 AWG, PE, Grey, 305m Box
CC-C6-UUTP-PE-305-BL	CAT6, UTP, 4P, Horizontal Cable, 23 AWG, PE, Blue, 305m Box

The **D-CONNECT** System Warranty provides a 25-year product and applications assurance of compliance with the industry performance standard appropriate to the class of cabling installed. The warranty may be applied for by an accredited **D-CONNECT** Partner who has designed, supplied and installed the said system.



Website: www.tnstechltd.com