DATACOMM CATEGORY 6 UTP SOLID 4 PAIR CABLE

APPLICATION

The DATACOMM Category 6 U/UTP 24 AWG solid 4-pair U/UTP PVC cable meets performance standards and provides a considerable margin above all electrical transmission performance requirements. It has been tested to exceed TIA/EIA 568-B.2-1, EN 50173-1, and ISO/IEC 11801 Cat 6 standards.

The cable is rated for 250 MHz and supports Gigabit Ethernet, Power over Ethernet (PoE), and audio/visual (AV) as well as broadband video transmissions. This DATACOMMS cable has been designed and engineered to provide cost-effective, high-bandwidth transmission performance. It also features a central X-shaped polyethylene separator to maintain the geometry and performance of individual pairs, optimizing crosstalk performance.

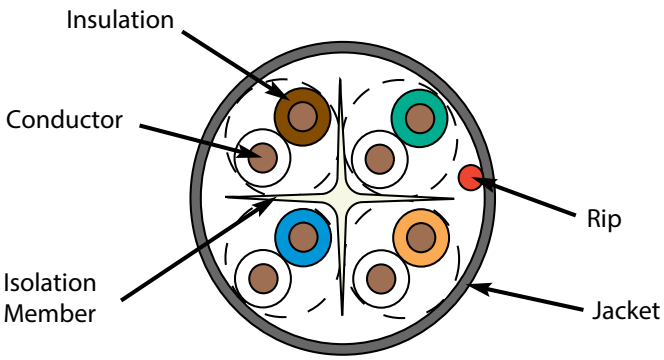
FEATURES AND BENEFITS

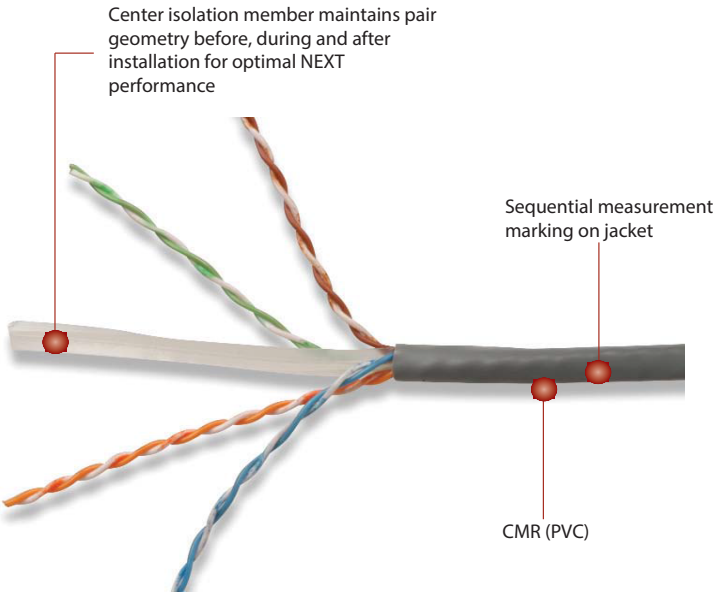
- Complies to Category 6 standard at 250 Mhz
- 24 AWG solid annealed solid pure copper wire
- 4 unshielded twisted pairs with no conductor screening
- Supports full Gigabit Ethernet on 90M Link & Channel

COMPLIANCE & STANDARDS

Designed, constructed and compliant to the following standards:

- ISO/IEC 11801 Class E, IEC 61156-5
- EN50173-1 and EN 50288-6-1
- ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Recommended for PoE++
- RoHS
- 1000BASE-T / 1000BASE-TX (Gigabit Ethernet).





PRODUCT INFORMATION

Part Number	Product Description
DCN6-UTP-PVC	Datacomm Category 6 UTP PVC Grey cable 305M reel box

The information provided in this document is subject to change without any prior notice.

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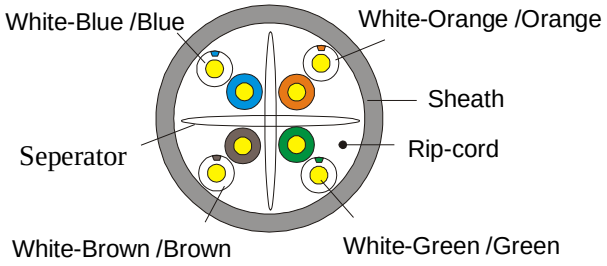
Content of the Data Sheet					
Sheath Printing	Datacomm Category 6 UTP PVC ANSI/TIA/EIA-568-b.2-1 and ISO/IEC 11801				
Category	U/UTP CAT6-4P-PVC				
Reference Standard	ISO/IEC11801、TIA-568-C.2				
Conductor	Material	SOLID-Bare Copper			
	Nom.O.D.(mm)	0.520	up	+0.005	
			down	-0.005	
Insulation	Material	HDPE			
	Diameter	0.93±0.05mm			
Sheath	Thickness	0.55±0.05 mm			
	External O.D.	5.6±0.4mm			
	Surface	Clean,Frap,Satiation			
	Material	PVC(complies RoHS)			
	Color	TBD			
Surface Printing	Letter height	3.0±0.3mm			
	Color	Black			
	Print error & Space	≤±0.5%，1m			
Core Color	1 White- Blue /Blue	2 White-Orange /Orange			
	3 White-Green /Green	4 White- Brown /Brown			
Packing	Wooden Tray & Carton				
Carton dimension	According to the requires				
Packing length	(305+1.5)m				
Rip-cord	Yes	Drain wire	No		
Sheath Physical Properties	Before Aging Tensile Strength (Mpa) ≥13.5 Elongation(%) ≥150				
	Aging Period (℃×hrs) 100℃×24h×7d				
	After Aging Tensile Strength(Mpa) ≥12.5 Elongation(%) ≥125				
	Cold bend(-20±2℃×4h) 8×Cable O.D.，No visible cracks				
Electrical Characteristics (20℃)	1.0-250.0MHz Impedance ((Ω) 100±15				
	1.0-250.0MHz Delay Skew (ns/100m) ≤45				
	DC Resistance (Ω/100m) max 9.5				
	DC Conductor Resistance Unbalance (%) max 5.0				



Technical Performance (100m):

Frequency (MHz)	RL ≥dB	ATT(20℃) ≤dB	NEXT ≥dB	PHASE DELAY ≤ns
1	20.0	2.03	74.3	570.00
4.0	23.0	3.78	65.3	552.00
8.0	24.5	5.32	60.8	546.73
10.0	25.0	5.95	59.3	545.38
16.0	25.0	7.55	56.2	543.00
20.0	25.0	8.47	54.8	542.05
25.0	24.3	9.51	53.3	541.20
31.25	23.6	10.67	51.9	540.44
62.5	21.5	15.38	47.7	538.55
100	20.1	19.80	44.3	537.60
200	18.0	28.98	39.8	536.54
250	17.3	32.85	38.3	536.27

Frequency (MHz)	PSNEXT ≥dB	ELFEXT ≥dB	PSELFEXT ≥dB
1	72.3	67.8	64.8
4	63.3	55.8	52.8
8	58.8	49.7	46.7
10	57.3	47.8	44.8
16	54.2	43.7	40.7
20	52.8	41.8	38.8
25	51.3	39.8	36.8
31.25	49.9	37.9	34.9
62.5	45.4	31.9	28.9
100	42.3	27.8	24.8
200	37.8	21.8	18.8
250	36.3	19.8	16.8

Acceptance criterion:According to FLUKE Permanent link test＜90m, pass

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