

## **APPLICATION**

The DATACOMM Category 6 U/UTP 23 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.

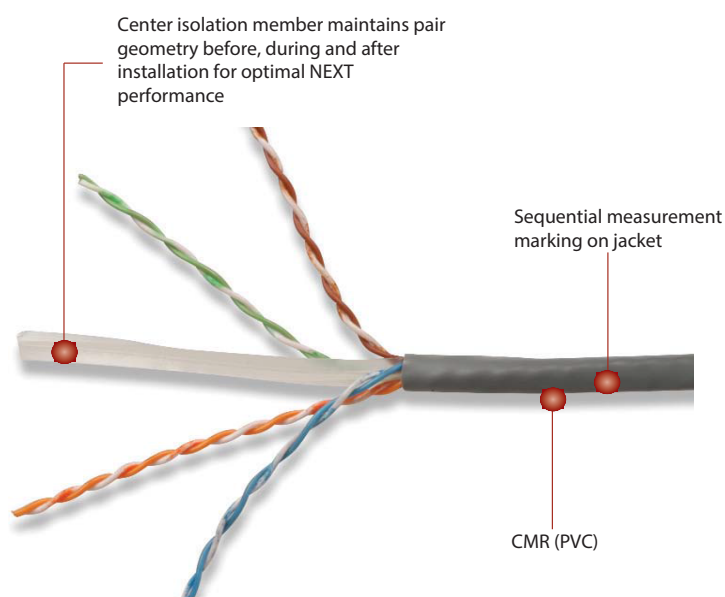
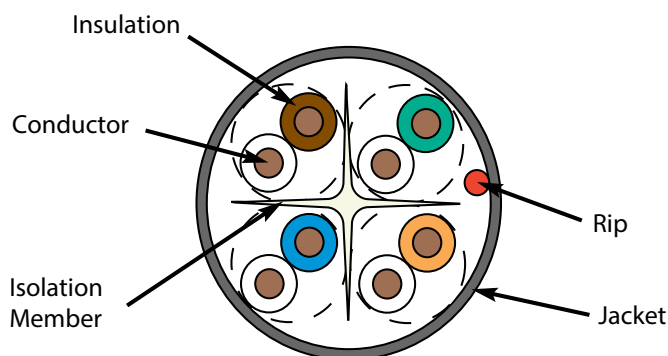
## **FEATURES AND BENEFITS**

- Complies to Category 6 standard at 250 Mhz
- 23 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:

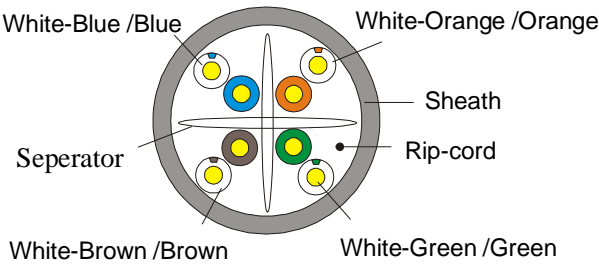
- ISO/IEC 11801 Class E, IEC 61156-5
- EN50173-1 and EN 50288-6-1
- ANSI/TIA 568.2-D
- Supports Gigabit Ethernet
- Recommended for PoE++
- RoHS
- 1000BASE-T / 1000BASE-TX (Gigabit Ethernet).



## **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.

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)	0.540	up				+0.005		
down		-0.005							
Insulation	Material	HDPE							
	Diameter	0.93±0.05mm							
Sheath	Thickness	0.55±0.05 mm		Technical Performance (100m):					
	External O.D.	5.6±0.4mm		Frequency (MHz)	RL ≥dB	ATT (20℃) ≤dB	NEXT ≥dB	PHASE DELAY ≤ns	
	Surface	Clean,Frap,Satiation		1	20.0	2.03	74.3	570.00	
	Material	PVC(complies RoHS)		4.0	23.0	3.78	65.3	552.00	
	Color	TBD		8.0	24.5	5.32	60.8	546.73	
Surface Printing	Letter height	3.0±0.3mm		10.0	25.0	5.95	59.3	545.38	
	Color	Black		16.0	25.0	7.55	56.2	543.00	
		Print error & Space	≤±0.5%, 1m		20.0	25.0	8.47	54.8	542.05
					25.0	24.3	9.51	53.3	541.20
Core Color	1 White- Blue /Blue	2 White-Orange /Orange		31.25	23.6	10.67	51.9	540.44	
	3 White-Green /Green	4 White- Brown /Brown		62.5	21.5	15.38	47.7	538.55	
Packing	Wooden Tray & Carton			100	20.1	19.80	44.3	537.60	
				200	18.0	28.98	39.8	536.54	
Carton dimension	According to the requires			250	17.3	32.85	38.3	536.27	
Packing length	(305+1.5)m			Frequency (MHz)	PSNEXT ≥dB	ELFEXT ≥dB	PSELFEXT ≥dB		
Rip-cord	Yes	Drain wire	No	1	72.3	67.8	64.8		
Sheath Physical Properties	Before Aging Tensile Strength (Mpa)		≥13.5	4	63.3	55.8	52.8		
	Elongation(%)		≥150	8	58.8	49.7	46.7		
	Aging Period (℃×hrs)		100℃×24h×7d	10	57.3	47.8	44.8		
	After Aging Tensile Strength(Mpa)		≥12.5	16	54.2	43.7	40.7		
	Elongation(%)		≥125	20	52.8	41.8	38.8		
	Cold bend(-20±2℃×4h)		8×Cable O.D., No visible cracks	25	51.3	39.8	36.8		
				31.25	49.9	37.9	34.9		
Electrical Characteristics (20℃)	1.0-250.0MHz Impedance ((Ω)		100±15	62.5	45.4	31.9	28.9		
	1.0-250.0MHz Delay Skew (ns/100m)		≤45	100	42.3	27.8	24.8		
	DC Resistance (Ω/100m) max		9.5	200	37.8	21.8	18.8		
	DC Conductor Resistance Unbalance (%)		max 5.0	250	36.3	19.8	16.8		
Acceptance criterion:According to FLUKE Permanent link test<90m, pass									