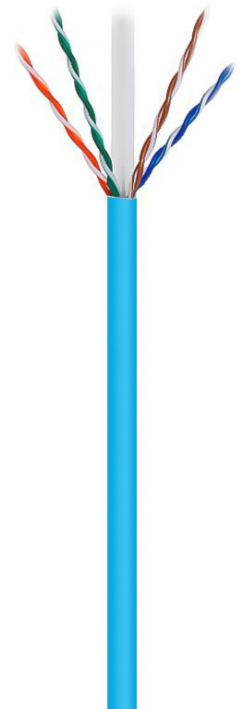


## NETWORK CABLE

# 305m 23AWG PVC Solid CAT6 Network Cable - U-UTP / 4 Pair

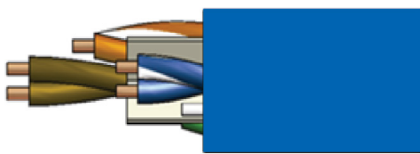


### Ordering Information

Part no.	Colour
C6-305-SL/PVBLU	Blue
C6-305-SL/PVGRY	Grey
C6-305-SL/PVBLK	Black
C6-305-SL/PVGRN	Green
C6-305-SL/PVRD	Red
C6-305-SL/PVWH	White
C6-305-SL/PVPUR	Purple
C6-305-SL/PVORG	Orange
C6-305-SL/PVPNK	Pink
C6-305-SL/PVYEL	Yellow

## Application

For horizontal network and voice application in a structured cabling system , including IEEE802.3 1000 Base-T, 100 Base-Tx, 10 Base-T, 1000 Base-Tx (ANSI/TIA/EIA-854-2001), 155Mb/s ATM, 4/16 Mb/s Token ring etc..



## Construction

Solid bare copper conductors insulated with polyolefin. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4 pairs insulated conductors Overall jacket with PVC compound.

### REFERENCE STANDARDS

REQUIREMENTS AS PER ANSI/TIA/EIA, ISO/IEC, AND CENELEC EN STANDARDS. ANSI/TIA/EIA 568-B.2-1 CAT.6, ISO/IEC 11801 CLASS E, 2ND EDITION IEC 61156-6, CENELEC EN 50173-1 CENELEC EN 50288-5-1, CENELEC EN 50288-5-2, FLAME RETARDANCY IS VERIFIED ACCORDING TO IEC 60332-1-2. WE IMPLEMENTED ROHS COMPLIANCE FOR THE REQUIREMENT OF EUROPEAN UNION ISSUED DIRECTIVE 2002/95/EC.

### COMPLIANCE

Delta EC, ETL, RCM

### CABLE DESCRIPTION

1 – CONDUCTOR	Size Type Diameter (mm)	23AWG Solid bare copper 0.55± 0.01
2 – INSULATION	Type Diameter (mm) Min. thickness (mm)	PE 0.973± 0.05 0.186

## CABLE DESCRIPTION

3 – PAIRS	Color code	Pair 1 - Pair 2 - Pair 3 - Pair 4 -	Blue / White – blue strip Orange / White – orange strip Green / White – green strip Brown / White – brown strip
4 – CENTRAL ELEMENT	Type		PE cross separator
5 – JACKET	Type P Overall Diameter (mm)		VC 6.1 ± 0.3

## TECHNICAL DATA – PHYSICAL

1. Cold Blend Test	-20 ± 2°C X 4 hrs no. crack		
2. Dielectric strength	AC 1.7 KV for 2S.		
3. Insulation	Before Aging	After aging	
Min. Tension strength (psi)	2400	75% before aging (100 °C X 4 8hrs)	
Min elongation (%)	300	75% before aging (100 °C X 4 8hrs)	
4. Jacket			
Min. Tension strength (psi)	2000	85% before aging (100 °C X 1 68 hrs)	
Min elongation (%)	100	50% before aging (100 °C X 1 68 hrs)	
5. Min. bending radius (mm)	50		
6. Max. pulling tension (lbs)	40		
7. Installation temperature	-10 °C to +60°C		
8. Operating temperature	-10 °C to +60°C		

## PACKING :

305m cable roll packed in a Cardboard Pull Box

## TECHNICAL DATA - ELECTRICAL

1. <b>Conductor resistance</b> ( $\Omega/100m @ 20^\circ C$ )	Max.	9.5	
2. <b>DC resistance unbalance</b> (%)	Max.	4	
3. <b>Pair-to-ground capacitance unbalance</b> (pF/km)	Max.	1600	
4. <b>Delay skew</b> (ns/100m)	Max.	45	$4 \leq f \leq 250MHz$
5. <b>Insertion Loss</b> (dB/100m)	Max.	$1.82 \cdot \sqrt{f} + 0.0169 \cdot f + 0.25 / \sqrt{f}$	$1 \leq f \leq 250MHz$
6. <b>Pair to Pair NEXT</b> (dB/100m)	Min.	$75.3 - 15 \cdot \log(f)$	$1 \leq f \leq 250MHz$
7. <b>PowerSum pr-pr NEXT</b> (dB/100m)	Min.	$72.3 - 15 \cdot \log(f)$	$1 \leq f \leq 250MHz$
8. <b>ELFEXT</b> (dB/100m)	Min.	$68 - 20 \cdot \log(f)$	$1 \leq f \leq 250MHz$
9. <b>PowerSum ELFEXT</b> (dB/100m)	Min.	$65 - 20 \cdot \log(f)$	$1 \leq f \leq 250MHz$
10. <b>Return Loss</b> (dB)	Min.	$20 + 5 \cdot \log(f)$	$1 \leq f < 10MHz$
		25	$10 \leq f < 20MHz$
		$25 - 7 \cdot \log(f / 20)$	$20 \leq f \leq 250MHz$
11. <b>Propagation Delay</b> (ns/100m)	Max.	$534 + 36 / \sqrt{f}$	$1 \leq f \leq 250MHz$
12. <b>Input Impedance</b> ( $\Omega$ )		$100 \pm 15\%$	$1 \leq f \leq 100MHz$
		$100 \pm 22\%$	$100 < f \leq 250MHz$

## IEC 61156-5 ed2.0 Category 6 Horizontal cable parameters

Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	Pair to Pair		Power Sum		Po. Delay (ns/100)
			NEXT	ELFEXT	NEXT	ELFEXT	
			(dB/100m) (		dB/100m)		
	Max.	Min.	Min.	Min.	Min.	Min.	Max.
1	2.1	20	75.0	68.0	72.3	65.0	570.0
4	3.8	23	66.3	56.0	63.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

Note1: All tests include 401 points swept frequency measurements.

Note2: All electrical characteristics are given at 20°C