

# **NETWORK CABLE**

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

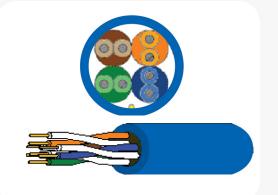
Ordering Information					
Part no.	Colour				
C6-305-SL/PVBLU	Blue				
C6-305-SL/PVGRY	Grey				
C6-305-SL/PVBLK	Black				
C6-305-SL/PVGRN	Green				
C6-305-SL/PVRD	Red				
C6-305-SL/PVWH	White				
C6-305-SL/PVPUR	Purple				
C6-305-SL/PVORG	Orange				
C6-305-SL/PVPNK	Pink				
C6-305-SL/PVYEL	Yellow				





# **Application**

For horizontal network and voice application in a structured cabling system, including digital video, broadband & baseband analog video.



## 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. 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	Туре		PE cross s eparator		
5 – JACKET	Type P Overall Diameter	r (mm)	VC 6.1 ± 0.3		

TECHNICAL DATA - PHYSIC	AL			
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 48hrs)		
4. Jacket				
Min. Tension str ength (psi)	2000	85% before aging (100 °C X 168 hrs)		
Min elongation (%)	100	50% before aging (100 °C X 168 hrs)		
5. Min. bending radius (mm)	50			
6. Max. pulling tension (lbs)	40			
7. Install ation temperature	-10 °C t o +60°C			
8. Operating temperature	-10 °C t o +60°C			

### PACKING:

305m cable roll packed in a Cardboard Pull Box

TECHNICAL DATA - ELECTRICAL				
1. Conductor resistance ( $\Omega/100$ m@ 20 °C)	Max.	9.5		
2. DC resistance unbalance (%)	Max.	4		
3. Pair-to-ground capacitance unbalance (pF/km)	Max.	1600		
4. Delay skew (ns/100m)	Max.	45	4 ≤ f ≤ 250MHz	
5. Insertion Loss (dB/100m)	Max.	1.82* √f + 0.0169* f +0.25/√f	1 ≤ f ≤ 250MHz	
6. Pair to Pair NEXT (dB/100m)	Min.	75.3 - 15 * log( f)	1 ≤ f ≤ 250MHz	
7. PowerSum pr-prNEXT (dB/100m)	Min.	72.3 - 15 * log( f)	1 ≤ f ≤ 250MHz	
8. ELFEXT (dB/100m)	Min.	68 - 20 * log(f)	1 ≤ f ≤ 250MHz	
9. PowerSum ELFEXT (dB/100m)	Min.	65 – 20 * log(f)	1 ≤ f ≤ 250MHz	
10 . Return Loss (dB)	Min.	20 + 5 * log(f)	1 ≤ f < 10MHz	
		25	10 ≤ f < 20MHz	
		25 - 7 * log(f / 20)	20 ≤ f ≤250MHz	
11 . Propagation Delay (ns/100m)	Max.	534 + 36 /√f	1 ≤ f ≤ 250MHz	
12 . Input Impedance (Ω)		100 ± 15 %	1 ≤ f ≤ 100MHz	
		100 ± 22%	100< f≤ 250MHz	

IEC 61156-5 ed2.0 Category 6 Horizontal cable parameters								
			Pair to Pair		Power Sum			
Freq. (MHz)	Ins. Loss (dB/100m)	RL (dB)	NEXT	ELFEXT	NEXT	ELFEXT	Po. Delay (ns/100)	
			(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  $20^{\circ}\text{C}$