

NETWORK CABLE

305m 24AWG PVC Solid CAT5e Network Cable - U-UTP / 4 Pair



Ordering Information

Part no.	Colour
C5-305-SL/PVBLU	Blue
C5-305-SL/PVGRY	Grey

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

COMPLIES WITH ALL CATEGORY 5E REQUIREMENTS AS PER ANSI/TIA-568-B.2 CATE 5E, ISO/IEC 11801 (CLASS D) & CEN/LEC EN50173-1 STANDARDS. CONFORMS TO IEC 61156-5, CEN/LEC EN 50288-3-1 HORIZONTAL CABLE. FLAME RETARDANCY IS VERIFIED IN ACCORDANCE TO IEC 60332-1. ROHS COMPLIANCE FOR THE REQUIREMENT OF EUROPEAN UNION ISSUED DIRECTIVE 2002/95/EC. CERTIFIED TO AS/ACIF S008:2011

COMPLIANCE

Delta EC, ETL, RCM

CABLE DESCRIPTION

1 – CONDUCTOR	Size Type Diameter (mm)	24AWG Solid bare copper 0.49 ± 0.01
2 – INSULATION	Type Diameter (mm) Min. thickness (mm)	PE 0.86 ± 0.05 0.15

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 – JACKET	Type Overall Diameter (mm)		PVC 5.0 ± 0.3

TECHNICAL DATA – PHYSICAL

1. Col d bend test	-20 ± 2°C X 4 hrs no. crack		
2. Dielectric strength	AC 1.2 KV/min.		
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. Tensions trength (psi)	2000	85% before aging (100 °C X 1 68hrs)	
Min elongation (%)	100	50% before aging (100 °C X 1 68hrs)	
5. Min. bending radius (mm)	40		
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 (Ω /100m @ 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	$4 \leq f \leq 100\text{MHz}$
5. Insertion Loss (dB/100m)	Max.	$1.967 \cdot \sqrt{f} + 0.023 \cdot f + 0.1/\sqrt{f}$	$1 \leq f \leq 100\text{MHz}$
6. Pair to Pair NEXT (dB/100m)	Min.	$65.3 - 15 \cdot \log(f)$	$1 \leq f \leq 100\text{MHz}$
7. PowerSum pr-prNEXT (dB/100m)	Min.	$62.3 - 15 \cdot \log(f)$	$1 \leq f \leq 100\text{MHz}$
8. ELFEXT (dB/100m)	Min.	$64 - 20 \cdot \log(f)$	$1 \leq f \leq 100\text{MHz}$
9. PowerSum ELFEXT (dB/100m)	Min.	$61 - 20 \cdot \log(f)$	$1 \leq f \leq 100\text{MHz}$
10. Return Loss (dB)	Min.	$20 + 5 \cdot \log(f)$ 25 $25 - 7 \cdot \log(f / 20)$	$1 \leq f < 10\text{MHz}$ $10 \leq f < 20\text{MHz}$ $20 \leq f \leq 100\text{MHz}$
11. Propagation Delay (ns/100m)	Max.	$534 + 36 / \sqrt{f}$	$1 \leq f \leq 100\text{MHz}$
12. Input Impedance (Ω)		$100 \pm 15 \%$	$1 \leq f \leq 100\text{MHz}$

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)		
M	ax.	Min.	Min.	Min.	Min.	Max.	
1	2.1	20	65.3	64.0	62.3	61.0	570.0
4	4.1	23	56.3	52.0	53.3	49.0	552.0
10	6.5	25	50.3	44.0	47.3	41.0	545.4
16	8.3	25	47.2	39.9	44.2	36.9	543.0
20	9.3	25	45.8	38.0	42.8	35.0	542.0
31.25	11.7	23.6	42.9	34.1	39.9	31.1	540.4
62.5	17.0	21.5	38.4	28.1	35.4	25.1	538.6
100	22.0	20.1	35.3	24.0	32.3	21.0	537.6

Note1: All tests include 401 points swept frequency measurements.

Note2: All electrical characteristics are given at 20°C