

CATEGORY 6_A U/UTP CABLE

Technical Specification

Construction

Conductors	A single strand of 23AWG (0.56mm) solid copper
Insulation	Expanded Polyethylene
Cable	8 insulated wires formed into 4 pairs. Each pair is individually screened with an aluminised polyester tape. (The aluminium side of the tape is in continuous contact with the tinned copper drain wire)
Screen	An aluminised polyester tape screen applied with a 15% minimum overlap (The aluminium side is in continuous contact with the tinned copper drain wire.)
Sheath	A uniform layer of violet coloured low smoke zero halogen (LSZH) compound (RAL 4005)
Diameter	7.5mm ± 0.3mm

Electrical Properties at 20°C

Characteristic Impedance	(1-100MHz) (100 - 250MHz)	100 ± 15Ω 100 ± 18Ω
DC Loop Resistance		≤ 19.0Ω/100m
Resistance Unbalance		≤ 2%
Capacitance Unbalance to Earth		≤ 1600 pF/km
Delay Skew		≤ 40ns/100m @ 500MHz
Nominal Velocity of Propagation		78%
Propagation Delay (Nominal)		≤ 534ns/100m
Test Voltage (d.c. for 1 minute) Conductor/Conductor		1000V
Insulation Resistance (500V d.c)		≥ 500MΩ.km
Transfer Impedance		≥ 55dB

Mechanical Characteristics

Temperature Range

Operation	-20°C to +60°C
Installation	0°C to +50°C
Storage	-20°C to +70°C

Minimum Bend Radii

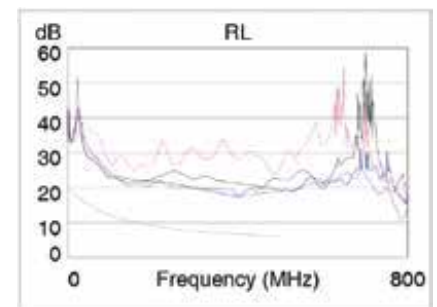
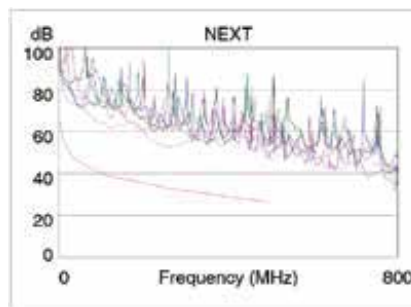
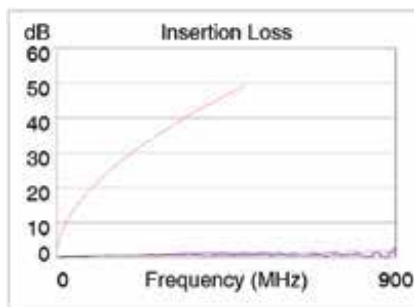
Installation	8 x cable diameter
Installed	4 x cable diameter

Maximum Tensile Force

During Installation	100N
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Transmission Line Performance at 20°C

FREQUENCY MHZ	ATTENUATION dB/100M	NEXT MIN dB	ACR MIN dB	PSNEXT MIN dB	ELFEXT MIN dB	PSELFEXT MIN dB	PSANEXT MIN dB	RETURN LOSS
1	1.8	95.0	93.2	95.0	68.0	65.0	-	-
4	3.8	66.3	62.5	66.3	58.0	55.0	76.5	23
10	5.9	60.3	54.4	60.3	50.0	47.0	72.5	25
20	8.4	55.8	47.4	55.8	44.0	41.0	69.5	25
62.5	15.0	48.4	33.4	48.4	34.1	31.1	64.5	21.5
100	19.1	45.3	26.2	45.3	30.0	27.0	62.5	20.1
250	31.1	39.3	8.2	39.3	22.0	19.0	56.5	17.3
500	45.3	34.8	-10.5	34.8	16.0	13.0	52.0	17.3



Ordering Information

Product Number	Description
UTP6A305PVC	Category 6 _A Unshielded Twisted Pair (U/UTP) PVC 23 AWG cable - 305m Box
UTP6A305LSZH	
UTP6A500PVC	
UTP6A500LSZH	