


ASH DATA CAT 6 F/UTP PVC or LSZH SHEATH COMMUNICATION LAN CABLES

APPLICATION:

-cables are intended to be used for low loss extended frequency data systems that operate up to 250 MHz, Suitable for building structured cabling supports IP-based security and building automation systems, F/UTP(Foiled Unshielded Twisted Pair Cable)

CONSTRUCTION DETAILS

Reference Standard	ANSI TIA 568-C.2 CAT 6 & ISO/IEC 11801, IEC-61156-5		
Conductor Material	Plain annealed Copper to ASTM B3,		
Conductor Size	23 AWG Solid conductors.		
Insulation	Extruded Polyethylene compound.		
Insulation color	Pair No.	Conductor	Conductor
		A	B
	1	White/Blue Strip	Blue
	2	White/Orange Strip	Orange
	3	White/Green Strip	Green
	4	White/Brown Strip	Brown
Pair formation	Two insulated conductors are uniformly twisted to form a pair, twisted with suitable lay.		
Assembly	Pairs twisted with staggered lay technique. Twisted pairs are assembled with a cradle separator.		
Overall Shield	Aluminum-Polyester (AL-PET foil) laminated tape with 100% coverage and suitable overlap, in contact with tinned copper drain wire. Drain wire Size: Circular tinned copper per ASTM B33, 24 AWG (solid).		
Outer Sheathing	Extruded Flame-Retardant Polyvinyl chloride (PVC) compound. Extruded Low Smoke Zero Halogen (LSZH) Flame Retardant compound. (Indoor application)		
Rip Cord	Yes, under sheath.		
Marking (Ink Jet Printing)	ASH DATA CAT 6 F/UTP 4P X 23 AWG CU/PE/PVC ANSI/TIA 568-C.2 ISO/IEC 11801 ASHCABLES MADE IN KSA (Year of Manufacturing)		
Cable Cross sectional drawing	Figure 1 		

ELECTRICAL PROPERTY

Conductor Size	23 AWG
Conductor DC Resistance @ 20°C	≤93.8 (Ω/km)
Resistance Unbalance (Max.)	2%
Capacitance conductor to conductor (Max.)	56 nF/km
Insulation Resistance (Min.)	5000 MΩ/Km (500 Volts / 1 Min.)
Dielectric Strength	1.7 kVDC for 2 Seconds
Nominal Velocity of Propagation	68%
Characteristic Impedance (MHz)	100 ± 15

DIMENSIONAL DATA SHEET

S/N	ASH CABLES ITEM CODE	SIZE	OUTER SHEATH THICKNESS NOM. (mm)	APPRX. CABLE DIAMETER (mm)	Approx. Cable Weight (kg/km)	Standard Length (feet/mts)
		No. of Pairs X size (AWG)				
1	D6A6-04P23AWG-UGRXA	4P X 23AWG	0.50	6.70	48	1000/305

Dimensions and Weights are subject for manufacturing Tolerance.
Diameter Tolerance: ± 1.0 mm

PERFORMANCE CHARACTERISTICS

Frequency (Mhz)	Max. Attenuation (dB/100m)	Return Loss (RL) dB (min)	NEXT LOSS (dB)(min)	PSNEXT LOSS (dB)(min)	ACRF (dB/100m)(min)	PSACRF (dB/100m)(min)	Propagation Delay ns/100m (Max)	TCL (dB) (Min.)
1	2.1	19.0	65.0	62.0	63.3	60.3	580	40.0
4	4.0	19.0	63.0	60.5	51.2	48.2	562	40.0
8	5.7	19.0	58.2	55.6	45.2	42.2	557	36.5
10	6.3	19.0	56.6	54.0	43.3	40.3	555	35.0
16	8.0	18.0	53.2	50.6	39.2	36.2	553	31.9
20	9.0	17.5	51.6	49.0	37.2	34.2	552	30.5
25	10.1	17.0	50.0	47.3	35.3	32.3	551	29.0
31.25	11.	16.5	48.4	45.7	33.4	30.4	550	27.6
62.5	16.5	14.0	43.4	40.6	27.3	24.3	549	23.1
100	21.3	12.0	39.9	37.1	23.3	20.3	548	20.0
200	31.5	9.0	34.8	31.9	17.2	14.2	547	15.5
250	35.9	8.0	33.	30.2	15.3	12.3	546	14.0

FLAME BEHAVIOUR, MECHANICAL & ENVIRONMENTAL PROPERTY

Operating Temperature	-20°C to 70°C
Bending Radius	8 X Cable Outer Diameter
Flame Retardance	Pass Flame retardant test requirement as per IEC:60332-1

PACKING

1000FT/305M Spool
Each spools/drum shall be marked with ASH cables standard practice.