

Cat 6A U/FTP LSZH Cable



Eland Product Group: **A8N**

APPLICATION

A very high performance data cable designed for transmission speeds of up to 10GB per second. These cables allow the use of protocols supported by class E_A for the implementation of 10G Base-T. Cat 6A cables support frequency ranges up to 500MHz compatible with PoE & PoE+. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

CONSTRUCTION

Conductor

Class 1 solid copper conductor

Insulation

Polyethylene

Screen

Aluminium polyester tape covering each pair

Drain Wire

Tinned copper wire of 26AWG

Sheath

LSZH (Low Smoke Zero Halogen)

CABLE STANDARDS

TIA/EIA 568-B.10, IEC 61156-5, IEC 60332-1



The electrical and dimensional properties of this product are measured by the Technical and Quality Assurance department at the Eland Cables laboratory. Cable performance in respect of conductor resistance, construction quality (workmanship), dimensional consistency, and other parameters are verified to published standards and approved product drawings. Conformance to RoHS (Restriction of the use of Hazardous Substances) is determined and confirmed.

CHARACTERISTICS

Temperature Rating

Fixed: -20°C to +60°C

Minimum Bending Radius

8 x overall diameter

Core Identification

Pair 1: ● Blue ● White/Blue

Pair 2: ● Orange ● White/Orange

Pair 3: ● Green ● White/Green

Pair 4: ● Brown ● White/Brown

Sheath Colour

● Blue

DIMENSIONS

ELAND PART NO.	NO. OF PAIRS (23 AWG)	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km
A8NFORCE6ALS	4	1.33	7.3	48

PERFORMANCE CHARACTERISTICS

FREQUENCY MHz	ATTENUATION dB/100m	NEXT dB	PS-NEXT dB	RL dB	ELFEXT dB	PS-ELFEXT dB/100m	PHASE DELAY ns
1	2.1	74.3	72.3	20	68	65	570
4	3.8	65.3	63.3	23	56	53	552
8	5.3	60.8	58.8	24.5	49.9	46.9	546.7
10	5.9	59.3	57.3	25	48	45	545.4
16	7.5	56.2	54.2	25	43.9	40.9	543
20	8.4	54.8	52.8	25	42	39	542.1
25	9.4	53.3	51.3	24.3	40	37	541.2
31.25	10.5	51.9	49.9	23.6	38.1	35.1	540.4
62.5	15	47.4	45.4	21.5	32.1	29.1	538.6
100	19.1	44.3	42.3	20.1	28	25	537.6
200	27.6	39.8	37.8	18	22	19	536.5
250	31.1	38.3	36.3	17.3	20	17	536.3
300	34.3	37.1	35.1	16.8	18.5	15.5	536.1
500	45.3	33.8	31.8	15.2	14	11	535.6

ELECTRICAL CHARACTERISTICS AT 20°C

DELAY SHEW	≤ 45 ns/100m
VELOCITY OF PROPAGATION	68 %
MAXIMUM UNBALANCED-TO-GROUND CAPACITANCE	330 pf/100m
MAXIMUM DC RESISTANCE	9.38 ohms/100m
MAXIMUM DC CONDUCTOR RESISTANCE UNBALANCE	2 %