

Cat 6 F/UTP PE Cable



Eland Product Group: **A8N**

APPLICATION

A 4 pair high performance cable that consists of twisted pair conductors, used mainly for data transmission. Category 6 supports a frequency range of up to 250MHz and is designed for transmission speeds of up to 1 gigabit per second (Gigabit Ethernet).

CONSTRUCTION

Conductor

Class 1 solid copper conductor

Insulation

HDPE (High Density Polyethylene)

Drain Wire

Tinned copper

Screen

Aluminium foil

Sheath

LDPE (Low Density Polyethylene)

CABLE STANDARDS

ISO/IEC 11801, TIA 568C - 2, YD/T1019



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 +50°C

Minimum Bending Radius

Fixed: 4 x overall diameter

Flexed: 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

● Black

DIMENSIONS

ELAND PART NO.	NO. OF PAIRS (23 AWG)	NOMINAL DIAMETER OVER INSULATION mm	NOMINAL OVERALL DIAMETER mm
A8NCAT6FTPPE	4	1.09	7.4

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	67.8	64.8	570
4	3.8	65.3	63.3	23	55.8	52.8	552
8	5.3	60.8	48.8	24.5	49.7	46.7	546.7
10	5.9	59.3	57.3	25	47.8	44.8	545.4
16	7.5	56.2	54.2	25	43.7	40.7	543
20	8.4	54.8	52.8	25	41.8	38.8	542.1
25	9.4	53.3	41.3	24.3	39.8	36.8	541.2
31.25	10.5	51.9	49.9	23.6	37.9	34.9	540.4
62.5	15	47.4	45.4	21.5	31.9	28.9	538.6
100	19.1	44.3	42.3	20.1	27.8	24.8	537.6
200	27.6	39.8	37.8	18	21.8	18.8	536.5
250	31.1	38.3	36.3	17.3	19.8	16.8	536.3

ELECTRICAL CHARACTERISTICS

ELAND PART NO.	VELOCITY OF PROPAGATION %	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	DC RESISTANCE OF CONDUCTOR UNBALANCE % max
A8NCAT6FTPPE	68	93.8	5