# Cat 6 F/UTP LSZH Cable

Eland Product Group: A8N

## APPLICATION

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).

## CHARACTERISTICS

**Minimum Bending Radius**
8 x overall diameter

## CONSTRUCTION

**Conductor**
Solid bare copper conductor

**Insulation**
HDPE (High Density Polyethylene)

**Screen**
Mylar + Aluminium foil/Mylar

**Drain Wire**
Tinned copper

**Sheath**
LSZH (Low Smoke Zero Halogen)

**Core Identification**
Pair 1: Blue White/Blue
Pair 2: Orange White/Orange
Pair 3: Green White/Green
Pair 4: Brown White/Brown

**Sheath Colour**
Violet
Other colours available upon request

## STANDARDS

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

## THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.

## SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability

## REGULATORY COMPLIANCE

This cable is compliant with European Reglation EN 50575, the Construction Products Regulation.

This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

## DIMENSIONS

| ELAND PART NO. | NO. OF PAIRS (23 AWG) | NOMINAL DIAMETER OF CONDUCTOR mm | | NOMINAL DIAMETER OVER INSULATION mm | NOMINAL SHEATH THICKNESS mm | NOMINAL OVERALL DIAMETER mm |
|---|---|---|---|---|---|---|
| | | +0.005 UP | -0.005 DOWN | | | |
| A8NFORCE6FTPLS | 4 | 0.565 | | 1.12 | 0.55 | 7.4 |

### Physical Properties of Sheath

| BEFORE AGING | | AGING PERIOD C°×hrs | AFTER AGING PERIOD | |
|---|---|---|---|---|
| TENSILE STRENGHT (Mpa) | ELONGATION (%) | | TENSILE STRENGHT (Mpa) | ELONGATION (%) |
| ≥10.0 | ≥125 | 100°×24h×7d | ≥8.0 | ≥100 |

## PERFORMANCE CHARACTERISTICS

| FREQUENCY MHz | RL dB | ATTENUATION dB | NEXT dB | DELAY ns | PS-NEXT dB | ELFEXT dB | PSELFEXT dB |
|---|---|---|---|---|---|---|---|
| 1 | 20.0 | - | 74.3 | 570.00 | 72.3 | 68.0 | 65.0 |
| 4.0 | 23.0 | 3.78 | 65.3 | 552.00 | 63.3 | 56.0 | 53.0 |
| 8.0 | 24.5 | 5.32 | 60.8 | 546.73 | 58.7 | 49.9 | 46.9 |
| 10.0 | 25.0 | 5.95 | 59.3 | 545.38 | 57.3 | 48.0 | 45.0 |
| 16.0 | 25.0 | 7.55 | 56.2 | 543.00 | 54.2 | 43.9 | 40.9 |
| 20.0 | 25.0 | 8.47 | 54.8 | 542.05 | 52.8 | 42.0 | 39.0 |
| 25.0 | 24.3 | 9.51 | 53.3 | 541.20 | 51.3 | 40.0 | 37.0 |
| 31.25 | 23.6 | 10.67 | 52.0 | 540.44 | 49.9 | 38.1 | 35.1 |
| 62.5 | 21.5 | 15.38 | 47.4 | 538.55 | 45.4 | 32.1 | 29.1 |
| 100 | 20.1 | 19.80 | 44.3 | 537.60 | 42.3 | 28.0 | 25.0 |
| 200 | 18.0 | 28.98 | 39.8 | 536.54 | 37.8 | 22.0 | 19.0 |
| 250 | 17.3 | 32.85 | 38.3 | 536.27 | 36.3 | 20.0 | 17.0 |

## ELECTRICAL CHARACTERISTICS AT 20°C

| IMPEDANCE (1-250MHz) Ω | DELAY SHEW (1-250MHz Ω | MAXIMUM CAPACITANCE (UNBALANCED TO GROUND) ns/100m | MAXIMUM DC RESISTANCE AT 20°C Ω/100m | MAXIMUM DC CONDUCTOR RESISTANCE UNBALANCE % |
|---|---|---|---|---|
| 100±15 | ≤45 | 330 | 9.5 | 5.0 |





UK T 020 7241 8787 | F 020 7241 8700 | sales@elandcables.com | www.elandcables.com
International T +44 20 7241 8740 | F +44 20 7241 8700 | international@elandcables.com