

# INDOOR TYPE CAT-6A F/UTP 500 MHZ LSZH CABLE

## 1. CABLE CONSTRUCTION



### Conductor

Annealed Copper  
Conductor

### Insulation

Solid PE Insulation.

### Stranding

Insulated wires are twisted in pairs,  
Polyester, & Tinned Copper Ground Wire

### Screen

Al-Pet Foiled

### Separator

The pairs are twisted together with a  
star separator.

### Color Code of Conductors

Blue/White-Blue; Orange/White-Orange;  
Green/White-Green; Brown/White-Brown.

### Outer Sheath

HFFR/LSZH

#### Note:

It can be produced different colors upon on customer demand.

## The Length Marking on Cable as Below:

The following designations shall be applied in a continuous row to the outer sheath so that they are clearly legible over the entire length of the cable.

TURKUAZ CABLE 2021 CAT 6A F/UTP 500 MHz LSZH ANSI/TIA 568-C.2 ISO/IEC 11801 IEC 61156-5 XXXX MT

## The Packing and Marking as Below:

Shipment will be done with 500 -1000 meters non-returnable non-fumigated wooden drums or 305 meters packages with protection.

The cable drums are labeled as:

- Manufacturer Name and year of Manufacturing (TURKUAZ CABLE 2021)
- Name of Customer
- CAT 6A F/UTP LSZH
- Gross Weight .....kg
- Net Weight.....kg
- Length.....meter
- Drum Numbers for each drums or package numbers for each packages.

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## 2. APPLICATION

F/UTP Cable (Foiled Unshielded Twisted Pair Cable), which is used in a horizontal or vertical configuration, it constitutes the base of a voice, data, network to very high rate.

Performances of this cable exceed the current standards, its use with connectors ensure conformity with Class E channel.

So this cable is used for transmission of digital and analogue voice, data and signals. It can transmit:

10 BASE-T (IEEE 802.3) Ethernet  
100 BASE-T (IEEE 802.3 U) Fast Ethernet  
100 BASE-TX (IEEE 802.3 U) Fast Ethernet  
1000 BASE-T (IEEE 802.3 AB) 1Gigabit Ethernet  
1000 BASE-TX (IEEE 802.3 AB) 10Gigabit Ethernet  
100 VG-AnyLAN (IEEE 802.12)  
4/16 Mbps Token Ring (IEEE 802.5)  
100 Mbps CDDI  
155 Mbps ATM  
500 Mbps ATM  
10Gbit Ethernet

## 3. ELECTRICAL CHARACTERISTICS

| Conductor Resistance Nom (Ω/Km) | Resistance Unbalance Max (%) | Capacitance unbalance: pair-to-ground Max. (pF/100m) | Insulation Resistance 500V DC (MΩ) | Mutual Capacity Max (nF/Km) | Velocity of Propagation | Dielectric Strength (V) | Impedance (Ω)       |
|---------------------------------|------------------------------|------------------------------------------------------|------------------------------------|-----------------------------|-------------------------|-------------------------|---------------------|
| Max. 93.8                       | 2.0                          | 330                                                  | 5000                               | 56                          | %65-67                  | 1200                    | 100±15<br>1-500 Mhz |

## 4. MECHANICAL CHARACTERISTICS

| Bending Radius (mm) | Operating Temperature (°C) |
|---------------------|----------------------------|
| 8xD                 | -20°C ~ +60°C              |

## 5. STANDARDS OF CABLE

| International Standards                      |
|----------------------------------------------|
| ANSI/TIA-568-C.2<br>IEC-61156-5<br>IEC-11801 |

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## 6. TRANSMISSION CHARACTERISTICS

| Frequency (MHz) | Insertion Loss dB/100m (Max) | Return Loss (RL) dB (min) | NEXT dB (Min) | PS NEXT dB (Min) | ACRF dB/100m (Min) | PSACRF dB/100m (Min) | Propagation Delay ns/100m (Max) | TCL dB (Min.) |
|-----------------|------------------------------|---------------------------|---------------|------------------|--------------------|----------------------|---------------------------------|---------------|
| 1               | 2.3                          | 19.0                      | 65.0          | 62.0             | 63.3               | 60.3                 | 580                             | 40.0          |
| 4               | 4.2                          | 19.0                      | 63.0          | 60.5             | 51.2               | 48.2                 | 562                             | 40.0          |
| 8               | 5.8                          | 19.0                      | 58.2          | 55.6             | 45.2               | 42.2                 | 557                             | 36.5          |
| 10              | 6.5                          | 19.0                      | 56.6          | 54.0             | 43.3               | 40.3                 | 555                             | 35.0          |
| 16              | 8.2                          | 18.0                      | 53.2          | 50.6             | 39.2               | 36.2                 | 553                             | 31.9          |
| 20              | 9.2                          | 17.5                      | 51.6          | 49.0             | 37.2               | 34.2                 | 552                             | 30.5          |
| 25              | 10.2                         | 17.0                      | 50.0          | 47.3             | 35.3               | 32.3                 | 551                             | 29.0          |
| 31.25           | 11.5                         | 16.5                      | 48.4          | 45.7             | 33.4               | 30.4                 | 550                             | 27.6          |
| 62.5            | 16.4                         | 14.0                      | 43.4          | 40.6             | 27.3               | 24.3                 | 549                             | 23.1          |
| 100             | 20.9                         | 12.0                      | 39.9          | 37.1             | 23.3               | 20.3                 | 548                             | 20.0          |
| 200             | 30.1                         | 9.0                       | 34.8          | 31.9             | 17.2               | 14.2                 | 547                             | 15.5          |
| 250             | 33.9                         | 8.0                       | 33.1          | 30.2             | 15.3               | 12.3                 | 546                             | 14.0          |
| 300             | 37.4                         | 7.2                       | 31.7          | 28.8             | 13.7               | 10.7                 | 546                             | 12.8          |
| 400             | 43.7                         | 6.0                       | 28.7          | 25.8             | 11.2               | 8.2                  | 546                             | 11.0          |
| 500             | 49.3                         | 6.0                       | 26.1          | 23.2             | 9.3                | 6.3                  | 546                             | 9.5           |

Delay skew  $\leq 45\text{ns}/100\text{m}$  (1-500MHz.)

## 7. CORE IDENTIFICATION

| Per Number | Conductor Diameter (mm) | Outer Diameter (mm) | Average Weight (kg/km) | Packing/Drum Size (m) |
|------------|-------------------------|---------------------|------------------------|-----------------------|
| 4 Pair     | 0.550 $\pm$ 0,01        | 7.5 $\pm$ 0,3       | 55 $\pm$ 2             | 305/500/1000          |

### NOTES:

It is suitable for analog and digital signal transmission up to 500 Mbit/sec.