

## CAT 6 STP UNARMoured CABLE

WIAN provide an array of Cat6 STP Cables with different conductor sizes, tailored to meet every Ethernet requirement. Our Cat 6 Cables boast compatibility with data rates of up to 1 Gbps, making them the prime selection for LAN/WAN Solutions. Each cable comprises 8 copper conductors, with 2 conductors intricately twisted to forge a pair. The amalgamation of 4 pairs, sheathed with FR grade material, ensures unparalleled performance and durability

### Cross Section Drawing

Jacket

Pair Insulation

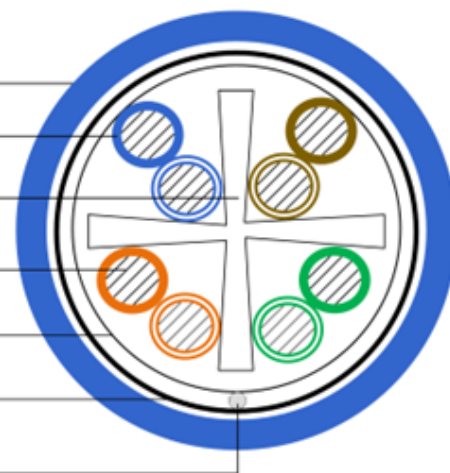
Isolator

Conductor

Tape

Shield

Drain Wire



- Cable Type : STP
- Category : Cat6
- No. of Pairs : 4

### Physical Construction:

|                       |                                             |
|-----------------------|---------------------------------------------|
| • Conductor Type      | Solid Bare Electrolytic Grade Copper        |
| • Conductor Size      | 23 AWG                                      |
| • Insulation          | Polyolefin                                  |
| • Insulation Diameter | 1.00 mm $\pm$ 0.20 mm                       |
| • Pairing             | Twisted into two core                       |
| • Shielding           | Polyester + Foil Mylar Tape (Covering 100%) |
| • Drain Wire          | ATC                                         |
| • Sheath              | LSZH with AR & AT Properties                |
| • Colour of Sheath    | As per requirements                         |
| • Cable Diameter      | 7.2 mm $\pm$ 0.5 mm                         |
| • Printing            | As per customer details                     |

### Electrical Properties:

|                                         |              |
|-----------------------------------------|--------------|
| • Conductor Resistance ( $\Omega$ /km)  | 93.8 (Max)   |
| • Mutual Capacitance (nF/100 M)         | 5.6 (Max)    |
| • Resistance Unbalance (%)              | 5 (Max)      |
| • Worst Delay Skew (ns/100 M)           | $\leq$ 45    |
| • NVP (%)                               | 69           |
| • Characteristic Impedance ( $\Omega$ ) | 100 $\pm$ 15 |

### Mechanical Properties:

|                            |                       |
|----------------------------|-----------------------|
| • Bending Radius           | ≤ 10 x Cable Diameter |
| • Installation Temperature | 0 to +50 °C           |
| • Operating Temperature    | -15 to +75 °C         |

### Pair Identification Colour Code:

|          |       |        |        |
|----------|-------|--------|--------|
| Pair#1-2 | White | Orange | Orange |
| Pair#3-6 | White | Green  | Green  |
| Pair#4-5 | White | Blue   | Blue   |
| Pair#7-8 | White | Brown  | Brown  |

### High Frequency Electrical Properties:

| Frequency | IL   | NEXT | PSNEXT | ACRF | PSACRF | RL   |
|-----------|------|------|--------|------|--------|------|
| (MHZ)     | dB   | dB   | dB     | dB   | dB     | dB   |
|           | Max  | Min. | Min.   | Min. | Min.   | Min  |
| 1         | 2.1  | 65.0 | 62.0   | 63.3 | 60.3   | 19.0 |
| 4         | 4.0  | 63.0 | 60.5   | 51.2 | 48.2   | 19.0 |
| 8         | 5.7  | 58.2 | 55.6   | 45.2 | 42.2   | 19.0 |
| 10        | 6.3  | 56.6 | 54.0   | 43.3 | 40.3   | 19.0 |
| 16        | 8.0  | 53.2 | 50.6   | 39.2 | 36.2   | 18.0 |
| 20        | 9.0  | 51.6 | 49.0   | 37.2 | 34.2   | 17.5 |
| 25        | 10.1 | 50.0 | 47.3   | 35.3 | 32.3   | 17.0 |
| 31.25     | 11.4 | 48.4 | 45.7   | 33.4 | 30.4   | 16.5 |
| 62.5      | 16.5 | 43.4 | 40.6   | 27.3 | 24.3   | 14.0 |
| 100       | 21.3 | 39.9 | 37.1   | 23.3 | 20.3   | 12.0 |
| 200       | 31.5 | 34.8 | 31.9   | 17.2 | 14.2   | 9.0  |
| 250       | 35.9 | 33.1 | 30.2   | 15.3 | 12.3   | 8.0  |

### Ref Standard:

ANSI/TIA-568.2-D

ISO/IEC 11801 2ND Edition

### Packing Standard:

- Packing Style : Wooden Reel
- Packing Length : Available in 305 meter length

Approved by -  
Technical Head