# Category 6A UTP Giga*LAN 10*® Small Diameter

## Tested to 750 MHz



Incorporates FlexWeb™ technology, and a unique barrier tape technology that improves all cable-to-cable ANEXT performance parameters while delivering a compact 6A design. With a finished diameter of 0.265" Giga*LAN 10*® Small Diameter is one of the smallest and most flexible Category 6A cables available today. As always, Mohawk goes a step further to provide value. Giga*LAN 10*® Small Diameter is sweep tested to 750 MHz – with verified stability.

### Features:

- 25-Year Warranty*
- Sweep tested to 750 MHz for performance beyond 500 MHz – with verified stability
- Supports component compliant connectivity and full 100 m channel lengths
- Application – 10GBASE-T IEEE 802.3an; fully backwards compatible for 1000BASE-T, 100BASE-T and 10BASE-T applications. Supports 10G WiFi Access Points, PoE and PoE Plus
- Power Sum Alien Crosstalk – Fully component compliant

* Warranty available with MAC program.

| Mohawk Part No. | Cable Type | Dielectric Type | Jacket Type Diameter | | Weight | | Listings |
|---|---|---|---|---|---|---|---|
| | | | Inch | mm | lbs/M' | kg/km | |
| **M59155 Riser** | 4-pair 23 AWG UTP | Thermoplastic | White PVC .273 | 6.93 | 38 | 57 | CMR |
| **M59145 Plenum** | 4-pair 23 AWG UTP | FEP | White ThermoPlen®* .265 | 6.73 | 43 | 64 | CMP |

*Plenum rated Thermoplastic. For pair colors see chart A on page 52.

### Electrical Characteristics:

**Standards:**

Exceeds ANSI/TIA-568-C.2 Category 6A, ICEA S-90-661-1997 Category 6, ISO/IEC 11801 ed 2.0 AMEND 1 CLASS EA & IEC 61156-5 ed 2.0 Horizontal Cable

UL Temperature Rating 90°C

**Conductor DCR:**

Plenum 7.5 Ω/100 m (22.8 Ω/Mft) max
Riser 7.9 Ω/100 m (24.0 Ω/Mft) max

**DCR Unbalance:**

2% max (Conductor-Conductor)

4% max (Pair-Pair)

**Mutual Capacitance:**

56 pF/m nom

**Capacitance Unbalance Pair/Ground:**

90 pF/100 m max

**Characteristic Impedance:**

105 Ω ± 15% (0.772-2 MHz)

100 Ω ± 10% (>2-500 MHz)

**Input Impedance:**

100 Ω ± 15% (1-100 MHz)
100 Ω ± 22% (>100-200 MHz)
100 Ω ± 32% (>200-500 MHz)

**Propagation Delay:**

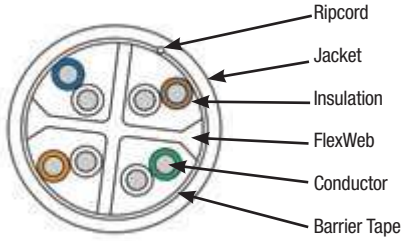
$534 + 36/\sqrt{f}$ ns/100 m max

**Delta Delay (Skew):**

45 ns/100 m max

**Nominal Velocity of Propagation (NVP):**

Plenum 69%
Riser 65%




**Jacket Colors for 4-pair Riser**

| Jacket Color | Mohawk # | Jacket Color | Mohawk # |
|---|---|---|---|
| White | **M59155** | Green | **M59160** |
| Blue | **M59156** | Red | **M59161** |
| Pink | **M59157** | Orange | **M59162** |
| Yellow | **M59158** | Black | **M59163** |
| Gray | **M59159** | Violet | **M59164** |

**Jacket Colors for 4-pair Plenum**

| Jacket Color | Mohawk # | Jacket Color | Mohawk # |
|---|---|---|---|
| White | **M59145** | Green | **M59150** |
| Blue | **M59146** | Red | **M59151** |
| Pink | **M59147** | Orange | **M59152** |
| Yellow | **M59148** | Black | **M59153** |
| Gray | **M59149** | Violet | **M59154** |

Custom colors available; please call (800) 422-9961

| FREQ (MHz) | Insertion Loss (dB/100 m) | NEXT (dB/ 100 m) | PS-NEXT (dB/ 100 m) | ACRF (dB/ 100 m) | PS-ACRF (dB/ 100 m) | Return Loss (dB) | Prop Delay (ns/ 100 m) | Alien Crosstalk | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | PS-ANEXT (dB/ 100 m) | PS-AACRF (dB/ 100 m) |
| | max | min | min | min | min | min | max | min | min |
| 1.0 | 2.1 | 75.3 | 73.3 | 71.8 | 68.8 | 20.0 | 570.0 | 74.5 | 74.5 |
| 4.0 | 3.8 | 66.3 | 64.3 | 59.8 | 56.8 | 23.0 | 552.0 | 74.5 | 73.7 |
| 10.0 | 5.9 | 60.3 | 58.3 | 51.8 | 48.8 | 25.0 | 545.4 | 74.5 | 65.7 |
| 16.0 | 7.5 | 57.2 | 55.2 | 47.7 | 44.7 | 25.0 | 543.0 | 74.5 | 61.6 |
| 20.0 | 8.4 | 55.8 | 53.8 | 45.8 | 42.8 | 25.0 | 542.0 | 74.5 | 59.7 |
| 31.25 | 10.5 | 52.9 | 50.9 | 41.9 | 38.9 | 23.6 | 540.4 | 74.5 | 55.8 |
| 62.5 | 14.9 | 48.4 | 46.4 | 35.9 | 32.9 | 21.5 | 538.6 | 73.1 | 49.8 |
| 100.0 | 19.0 | 45.3 | 43.3 | 31.8 | 28.8 | 20.1 | 537.6 | 70.0 | 45.7 |
| 250.0 | 30.8 | 39.3 | 37.3 | 23.8 | 20.8 | 17.3 | 536.5 | 64.0 | 37.7 |
| 350.0 | 36.9 | 37.1 | 35.1 | 20.9 | 17.9 | 16.3 | 536.1 | 61.8 | 34.8 |
| 500.0 | 44.8 | 34.8 | 32.8 | 17.8 | 14.8 | 15.2 | 535.6 | 59.5 | 31.7 |
| 600.0 | 49.5 | 33.6 | 31.6 | 16.2 | 13.2 | 14.7 | - | 58.3 | 30.1 |
| 750.0 | 56.0 | 32.2 | 30.2 | 14.3 | 11.3 | 14.0 | - | 56.9 | 28.2 |

Values above 500 MHz are for engineering information only.

c UL us or c ETL us Safety listed to NEC (NFPA 70) UL or ETL Verified to ANSI/TIA-568-C.2