

# TrueNet™ Category 6\* (C6T)



## HIGHWIRE PLATINUM HIGH PERFORMANCE UTP COPPER TWISTED PAIR CABLE

(\*For Proposed Category 6 under evaluation)

- =====  
**Description** : 4 Pair Unshielded Twisted Pair (UTP) Category 6\* specifications with TrueNet technology  
**Part Number** : TN6TR-GYRB  
**Packaging** : Reel-in-a-Box  
**Standard Length** : 305m per Box  
**Application** : This C6T cable is tested for Power Sum NEXT, ELFEXT, Delay Skew, Propagation Delay and any other criteria as specified in the emerging standard.  
 This C6T cable is based upon a patent-pending technology called TrueMatch™. This product design and manufacturing innovation fine-tunes each cable pair to achieve an operating impedance of 100±3 ohms. Applications can include Voice, ISDN, 10Base-T (IEEE802.3), Broadband & Baseband Video, ATM155 and 622 Mbps, 100Mbps TPDDI, 100VG-AnyLAN (IEEE 802.12), Fast and Gigabit Ethernet, 1.2 Gbps ATM.

### Cable Data

- |               |   |   |
|---------------|---|---|
| Conductor:    | 4 Twisted Pairs of 24AWG (or better)<br>Solid bare copper wire c/w rip Cord | Operating Environment: Indoor<br>Operating Temperature: -20 +60°C |
| Insulation:   | 100% FEP  | Core Colors (nom. OD: 0.52mm)                                     |
| Flame Rating: | UL (CM), CMR/MPR optional   | Pair 1: Blue - White/Blue   |
| Sheath:       | Flame Retardant PVC   | Pair 2: Orange - White/Orange                                     |
| Color Coding: | Tight Lay System  | Pair 3: Green - White/Green                                       |
|               |   | Pair 4: Brown - White/Brown                                       |

### Electrical Performance

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|---|--|-----------------------------------|
| Standards:                              | TIA /EIA 568-A, ISO/IEC 11801Cat 5<br>TIA/EIA Cat 6 Draft 6, EN50173, UL | Velocity of propagation: 73%      |
| Differential Characteristic Impedance*: | 5 Ohms   | Propagation Delay: 501ns/100m     |
|   |  | Delay Skew: 25ns/100m             |
|   |  | Operating Voltage (Max): 300 VDC  |
| Insulation Resistance (Min):            | 500 Megohms/1000 ft.   | DC Resistance: 28.6 ohms/1000 ft. |
|   |  | Mutual Capacitance: 14pF/ft       |

### Typical Cable Performance\*

FREQUENCY (MHz)	IMPEDANCE Ohms	ATTENUATION (dB)	RETURN LOSS (dB)	ATTENUATION-TO-NEXT RATIO		NEXT		ELFEXT	
				Pair-To-Pair dB/100m	PowerSum dB/100m	Pair-To-Pair dB/100m	PowerSum dB/100m	Pair-To-Pair dB/100m	PowerSum dB/100m
16	100±5	7	45.6	70.9	64.6	77.9	71.6	68.8	62.3
31.25	100±4	9.9	42.3	66.1	57.8	76.1	67.7	62.4	55.6
62.5	100±3	14.3	42.8	55.2	46.6	69.5	63	56.7	49.8
100	100±3	18.4	39.4	49.5	42.6	69.9	61.1	52.2	45.6
200	100±3	26.7	40.4	35.8	28.9	62.4	55.6	45.1	38.5
250	100±3	30.5	41.9	31.1	23.1	61.7	53.7	41.5	34.1
300	100±3	33.8	40.1	27.2	19.7	60.9	53.6	38.2	31.2
350	100±3	36.7	40.4	20.2	12	56.8	48.7	37	29.7
400	100±3	39.3	39.8	16.9	9.4	56.2	48.8	33.4	25.9
550	100±3	47.1	38	5.4	-2.4	52.4	44.6	25.1	18.3

\* For sample measurement