

# CATEGORY 6+ CABLE

# GenSPEED® 6500

## STANDARD COMPLIANCES

- ANSI/TIA/EIA-568-B.2-1 (Category 6)
- ANSI/TIA/EIA-862 (Building Automation)
- TIA/EIA-TSB-155 Draft
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- UL & c(UL) Type CMR (UL 1666) for Non-Plenum
- UL & c(UL) Type CMP (NFPA 262) for Plenum
- UL 444



## APPLICATIONS

- IEEE 802.3: 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
- ANSI/TIA/EIA-854: 1000BASE-TX
- 155 Mb/s, 1.2 Gb/s ATM
- ANSI X3.263: 100 Mb/s
- IEEE 802.3af DTE Power (PoE)
- 4/16 Mb/s Token Ring
- Digital Video
- Broadband and Baseband Analog Video

## CONSTRUCTION

### Conductors

- 23 AWG solid bare annealed copper

### Insulation

- Non-Plenum: Polyolefin
- Plenum: 3 pairs FEP/  
1 pair Polyolefin

### Separator

- Cross-web

### Color Code

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

### Rip Cord

- Applied longitudinally under jacket

### Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flexguard® Flame-Retardant PVC

## PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.248	0.235
Nominal Cable Weight (lbs/1000ft)	28	31
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	32	32
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-10 to +60	-10 to +60

## ELECTRICAL CHARACTERISTICS

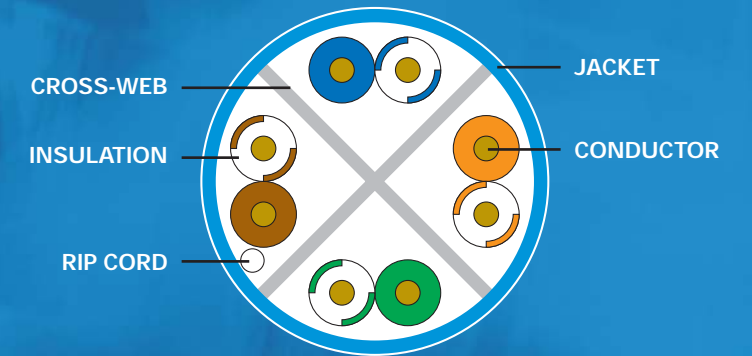
<b>DC Resistance (max)</b> Ohms/100m (328ft) @ 20°C	8.9
<b>DC Resistance Unbalance (max)</b> Individual Pair %	3.0
<b>Delay Skew (max)</b> ns/100m	35
<b>Nom. Velocity of Propagation</b> % Speed of Light	CMP: 72 CMR: 70
<b>Characteristic Impedance</b> Frequency (f): 1-500 MHz	Ohms 100 ± 15
<b>Input Impedance</b> Frequency (f):	Ohms
1-100 MHz	100 ± 15
100-350 MHz	100 ± 22
350-500 MHz	100 ± 32

# OPTIMALLY BALANCED PERFORMANCE GenSPEED® 6500

## FEATURES AND BENEFITS

- Innovative cross-web design allowing for maximum pair separation, increasing key electrical performance parameters
- Characterized and tested to 500 MHz
- Positive PSACR beyond 300 MHz for increased available bandwidth
- Enhanced signal-to-noise ratio, improving bit error rate
- Every master reel is tested for electrical performance compliance
- TRU-Mark™ print legend contains footage marking from 1000' to 0'
- Unique product-specific packaging for ease of identification
- UL verified for guaranteed performance
- Application assurance warranty

## GENSPEED 6500 CABLE CROSS-SECTION



## ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (max)	PSNEXT (min)	NEXT (min)	PSELFEXT (min)	ELFEXT (min)	Return Loss (min)	LCL (min)	ELTCTL (min)
1	74.3	76.3	2.0	76.3	78.3	71.8	74.8	20.0	50.0	35.0
4	63.6	65.6	3.7	67.3	69.3	59.7	62.7	23.0	44.0	23.0
10	55.5	57.5	5.8	61.3	63.3	51.8	54.8	25.0	40.0	15.0
16	50.8	52.8	7.4	58.2	60.2	47.7	50.7	25.0	38.0	10.9
20	48.5	50.5	8.3	56.8	58.8	45.7	48.7	25.0	37.0	9.0
31.25	43.4	45.4	10.5	53.9	55.9	41.9	44.9	23.6	35.1	5.1
62.5	34.3	36.3	15.1	49.4	51.4	35.8	38.8	21.5	32.0	-
100	26.9	28.9	19.4	46.3	48.3	31.8	34.8	20.1	30.0	-
200	13.4	15.4	28.4	41.8	43.8	25.7	28.7	18.0	27.0	-
250	8.1	10.1	32.2	40.3	42.3	23.8	26.8	17.3	26.0	-
300	3.4	5.4	35.7	39.1	41.1	22.2	25.2	16.8	25.2	-
350	-	1.1	39.0	38.1	40.1	20.9	23.9	16.3	24.6	-
400	-	-	42.1	37.3	39.3	19.7	22.7	15.9	24.0	-
500	-	-	48.0	35.8	37.8	17.8	20.8	15.2	23.0	-

Note: Values are expressed in dB per 100m (328ft.) length.

## PART NUMBERS

Standard packaging: 1000' Spool-Pac®

Jacket Color	Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
Blue	7133374	7131431	7133300	7131282
White	7133342	7131450	7133250	7131365
Yellow	7133289	7131379	7133614	7131648
Gray	7133329	7131456	7133204	7131475
Red	7133427	7131553	7133615	7131615
Orange	7133734	7131576		
Green	7133693	7131575		7131649
Black	7133735	7131742		
Pink	7133447	7131714		7131479
Purple	7133679	7131650	7133369	7131690

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Part number for a bulk reel is the corresponding spool part number with a .99 suffix. Minimum run and lead-time may apply.

Data subject to change without notice.