

# GenSPEED® 6500 Premium Category 6 Cable

## Signal Strength and Power

### Features and Benefits

- Designed and engineered with precision balance to offer ultimate headroom
- High-end optimized performance to support the most bandwidth-intense applications
- New and improved separator construction allowing for more pair separation
- Performance guaranteed to 350 MHz
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance
- Made in U.S.A.

### Applications

- IEEE 802.3: 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+
- ANSI/TIA 854: 1000 BASE-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video

### Standard Compliances

- ANSI/TIA 568-C.2
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- UL 444
- RoHS Compliant Directive 2011/65/EU
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ICEA S-102-700
- ISO/IEC 11801 Ed. 2.0 (Class E)



Data subject to change without notice.



### CONSTRUCTION

#### Conductors

- 23 AWG solid bare annealed copper

#### Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

#### Color Code

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

#### Separator

- Cross-web

#### Rip Cord

- Applied longitudinally under jacket

#### Jacket











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

### PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.260	0.255
Nominal Cable Weight (lbs/1000 ft)	32	31
Minimum Bend Radius (in)	1.0	1.0
Maximum Pulling Force (lbs)	50	50
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

### PART NUMBERS

Standard packaging: 1000' Spool-Pac®

Jacket Color	Spool-Pac®		Spool	
	CMR (Non-Plenum)	CMP (Plenum)	CMR (Non-Plenum)	CMP (Plenum)
 Blue	<b>7133930</b>	<b>7131930</b>	<b>7133970</b>	<b>7131970</b>
 White	<b>7133931</b>	<b>7131931</b>	<b>7133971</b>	<b>7131971</b>
 Yellow	<b>7133932</b>	<b>7131932</b>	<b>7133972</b>	<b>7131972</b>
 Gray	<b>7133933</b>	<b>7131933</b>	<b>7133973</b>	<b>7131973</b>
 Red	<b>7133934</b>	<b>7131934</b>	<b>7133974</b>	<b>7131974</b>
 Orange	<b>7133935</b>	<b>7131935</b>	<b>7133975</b>	<b>7131975</b>
 Green	<b>7133936</b>	<b>7131936</b>	<b>7133976</b>	<b>7131976</b>
 Black	<b>7133937</b>	<b>7131937</b>	<b>7133977</b>	<b>7131977</b>
 Pink	<b>7133938</b>	<b>7131938</b>	<b>7133978</b>	<b>7131978</b>
 Purple	<b>7133939</b>	<b>7131939</b>	<b>7133979</b>	<b>7131979</b>

Note: Bulk reels are available as a special request with a maximum allowable length of 3000 feet per reel. Minimum run and lead time may apply.

Non-stock items may be subject to minimum order quantities.

**ELECTRICAL PERFORMANCE**

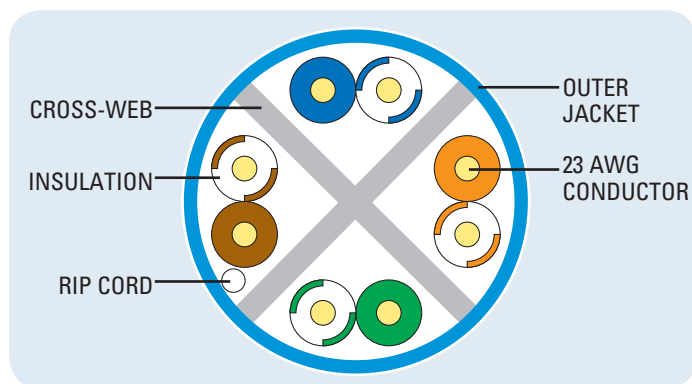
Frequency MHz	PSACR* (min)		ACR* (min)		Insertion Loss (max)		PSNEXT (min)		NEXT (min)	
	Guaranteed		Guaranteed		TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed
1	77.4		79.4		2.0	1.9	72.3	79.3	74.3	81.3
4	66.8		68.8		3.8	3.5	63.3	70.3	65.3	72.3
10	58.8		60.8		6.0	5.5	57.3	64.3	59.3	66.3
16	54.2		56.2		7.6	7.0	54.2	61.2	56.2	63.2
20	51.9		53.9		8.5	7.8	52.8	59.8	54.8	61.8
31.25	47.0		49.0		10.7	9.9	49.9	56.9	51.9	58.9
62.5	38.0		40.0		15.4	14.3	45.4	52.4	47.4	54.4
100	30.8		32.8		19.8	18.5	42.3	49.3	44.3	51.3
200	17.5		19.5		29.0	27.2	37.8	44.8	39.8	46.8
250	12.4		14.4		32.8	30.9	36.3	43.3	38.3	45.3
350	3.5		5.5		—	37.6	—	41.1	—	43.1
500	—		—		—	46.5	—	38.8	—	40.8

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C. Results beyond 350 MHz for reference only.  
\*PSACR & ACR not specified in ANSI/TIA 568-C.2

Frequency MHz	PSACRF (min)		ACRF (min)		Return Loss (min)		TCL (min)		ELTCTL (min)	
	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed
1	64.8	70.8	67.8	73.8	20.0	20.0	40.0	40.0	35.0	35.0
4	52.8	58.8	55.8	61.8	23.0	23.0	40.0	40.0	23.0	23.0
10	44.8	50.8	47.8	53.8	25.0	25.0	40.0	40.0	15.0	15.0
16	40.7	46.7	43.7	49.7	25.0	25.0	38.0	38.0	10.9	10.9
20	38.8	44.8	41.8	47.8	25.0	25.0	37.0	37.0	9.0	9.0
31.25	34.9	40.9	37.9	43.9	23.6	25.0	35.1	35.1	—	5.1
62.5	28.9	34.9	31.9	37.9	21.5	23.5	32.0	32.0	—	5.0
100	24.8	30.8	27.8	33.8	20.1	22.1	30.0	30.0	—	5.0
200	18.8	24.8	21.8	27.8	18.0	20.0	27.0	27.0	—	5.0
250	16.8	23.8	19.8	26.8	17.3	19.3	26.0	26.0	—	5.0
350	—	19.9	—	22.9	—	18.3	—	—	—	—
500	—	16.8	—	19.8	—	17.2	—	—	—	—

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C. Results beyond 350 MHz for reference only.

**GenSPEED® 6500 PREMIUM CATEGORY 6 CROSS-SECTION**



**ELECTRICAL CHARACTERISTICS**

	Max.	Nom.
<b>DC Resistance</b> Ohms/100 m (328 ft) @ 20°C	9.38	6.50
<b>DC Resistance Unbalance</b> Individual Pair %	4.00	< 1
<b>Delay Skew</b> ns/100 m	45	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	