

# GenSPEED® 6500 Premium Category 6 Cable

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

## Standard Compliances

- ANSI/TIA 568-C.2
- ANSI/TIA 862 (Building Automation)
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2002/95/EC
- UL 444



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.

## GenSPEED® 6500 Electrical Performance

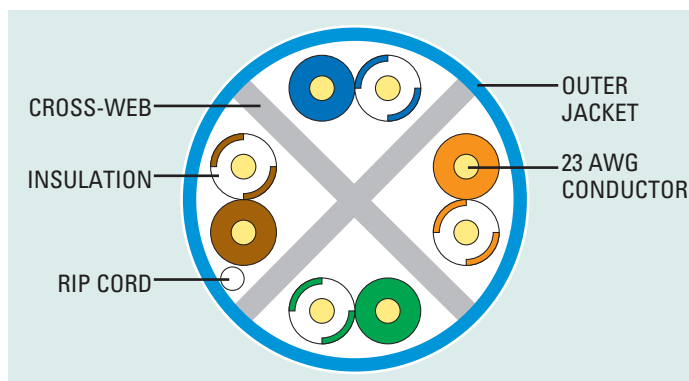
Frequency MHz	PSACR* (min)		ACR* (min)		Insertion Loss (max)		PSNEXT (min)		NEXT (min)	
	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2	Guaranteed	TIA 568-C.2
1	77.4	72.3	79.4	72.3	2.0	72.3	1.9	79.3	74.3	81.3
4	66.8	63.3	68.8	63.3	3.8	63.3	3.5	70.3	65.3	72.3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

<b>DC Resistance (max)</b> Ohms/100 m (328 ft) @ 20°C	8.9
<b>DC Resistance Unbalance (max)</b> Individual Pair %	3.0
<b>Delay Skew (max)</b> ns/100 m	45
<b>Nom. Velocity of Propagation</b> % Speed of Light	CMP: 72 CMR: 70
<b>Characteristic Impedance</b> Frequency (f):	Ohms 1-500 MHz 100 ± 15