

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

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)
- Digital Video
- Broadband and Baseband Analog Video
- Draft IEEE 802.3at for PoE Plus

Standard Compliances

- ANSI/TIA/EIA 568 B.2-1 (Category 6)
- ANSI/TIA/EIA 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	0.250
Nominal Cable Weight (lbs/1000ft)	30	32
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	7133930	7131930	7133970	7131970
White	7133931	7131931	7133971	7131971
Yellow	7133932	7131932	7133972	7131972
Gray	7133933	7131933	7133973	7131973
Red	7133934	7131934	7133974	7131974
Orange	7133935	7131935	7133975	7131975
Green	7133936	7131936	7133976	7131976
Black	7133937	7131937	7133977	7131977
Pink	7133938	7131938	7133978	7131978
Purple	7133939	7131939	7133979	7131979

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.

Signal Strength and Power

GenSPEED® 6500 Electrical Performance

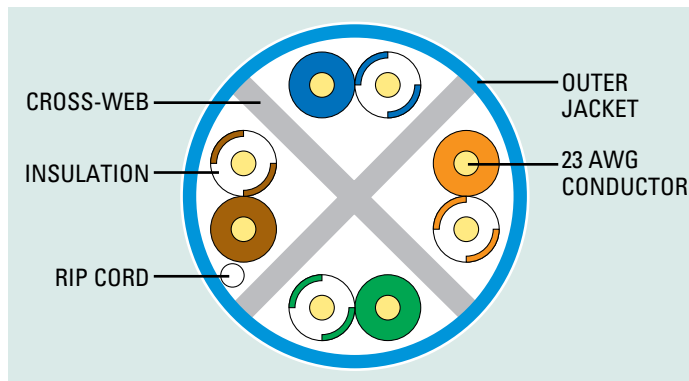
Frequency MHz	PSACR (min)		ACR (min)		Attenuation (max)		PSNEXT (min)		NEXT (min)	
	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed
1	70.3	77.4	72.3	79.4	2.0	1.9	72.3	79.3	74.3	81.3
4	59.3	66.8	61.5	68.8	3.8	3.5	63.3	70.3	65.3	72.3
10	51.3	58.8	53.3	60.8	6.0	5.5	57.3	64.3	59.3	66.3
16	46.7	54.2	48.7	56.2	7.6	7.0	54.2	61.2	56.2	63.2
20	44.3	51.9	46.3	53.9	8.5	7.8	52.8	59.8	54.8	61.8
31.25	39.2	47.0	41.2	49.0	10.7	9.9	49.9	56.9	51.9	58.9
62.5	29.9	38.0	32.0	40.0	15.4	14.3	45.4	52.4	47.4	54.4
100	22.5	30.8	24.5	32.8	19.8	18.5	42.3	49.3	44.3	51.3
200	8.8	17.5	10.8	19.5	29.0	27.2	37.8	44.8	39.8	46.8
250	3.5	12.4	5.5	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 100m (328 ft.) length. Results beyond 350 MHz for reference only.

Frequency MHz	PSELFEXT (min)		ELFEXT (min)		Return Loss (min)		LCL (min)		ELTCTL (min)	
	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	Guaranteed	TIA 568 B.2-1	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	55.7	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	41.7	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	5.1
62.5	28.9	34.9	31.8	37.9	21.5	23.5	32.0	32.0	5.0	5.0
100	24.8	30.8	27.8	33.8	20.1	22.1	30.0	30.0	5.0	5.0
200	18.8	24.8	21.8	27.8	18.0	20.0	27.0	27.0	5.0	5.0
250	16.8	22.8	19.8	25.8	17.3	19.3	26.0	26.0	5.0	5.0
350	—	19.9	—	22.9	—	18.3	—	—	—	—
500	—	16.8	—	19.8	—	17.2	—	—	—	—

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

GenSPEED® 6500 PREMIUM CATEGORY 6 CROSS-SECTION



ELECTRICAL CHARACTERISTICS

DC Resistance (max) Ohms/100m (328ft) @ 20°C	8.9
DC Resistance Unbalance (max) Individual Pair %	3.0
Delay Skew (max) ns/100m	45
Nom. Velocity of Propagation % Speed of Light	CMP: 72 CMR: 70
Characteristic Impedance Frequency (f):	Ohms 1-500 MHz 100 ± 15
Input Impedance Frequency (f):	Ohms 1-100 MHz 100 ± 15 100-350 MHz 100 ± 22 350-500 MHz 100 ± 32