

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
- Improved cable temperature rating (105°C Plenum, 75°C Riser) for greater protection against increased operating temperatures and for high-wattage applications
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Third-party verified for guaranteed performance

Applications

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

Standard Compliances

- ANSI/TIA 568.2-D
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- UL Listed CMR-LP (0.5A) for Non-Plenum*
- UL Listed CMP-LP (0.7A) 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)

* 0.5A is the ampacity rating of the cable, which equates to 100 watts using 50 volts over four pairs.

** 0.7A is the ampacity rating of the cable, which equates to 140 watts using 50 volts over four pairs.

CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Separator

- Cross-web

Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

Rip Cord

- Applied longitudinally under jacket

Color Code

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

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 +105

PART NUMBERS

Standard packaging: 1000' Spool

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.

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ELECTRICAL PERFORMANCE

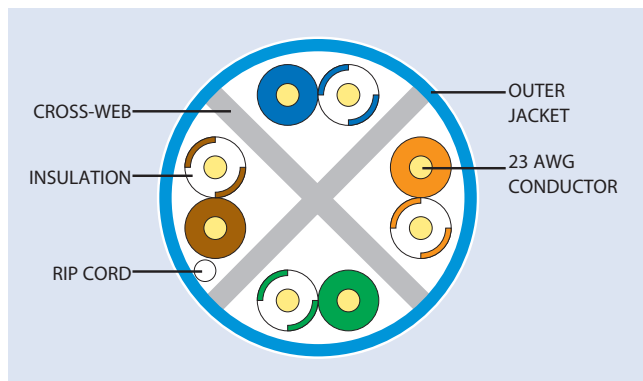
Frequency MHz	PSACR** (min)		ACR** (min)		Insertion Loss (min)		PSNEXT (min)		NEXT (min)	
	PG Guaranteed	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed
1	77.4	79.4	2.0	1.9	72.3	79.3	74.3	81.3		
4	66.8	68.8	3.8	3.5	63.3	70.3	65.3	72.3		
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 568.2-D

Frequency MHz	PSACRF (min)		ACRF (min)		Return Loss (min)		TCL (min)		ELTCTL (min)	
	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG Guaranteed	TIA 568.2-D	PG 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.

CROSS-SECTION



ELECTRICAL CHARACTERISTICS

	Max.	Nom.
DC Resistance Ohms/100 m (328 ft) @ 20°C	9.38	6.50
DC Resistance Unbalanced Individual Pair %	4.00	< 1
Delay Skew (Max) ns/100 m	45	35
Nom. Velocity of Propagation % Speed of Light	CMP: 72 CMR: 70	
Characteristic Impedance Frequency (f): 1-500 MHz	Ohms 100 ± 15	