

# GenSPEED® 6 Category 6 Cable

## Features And Benefits

- Unique separator design engineered for consistent electrical performance
- 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 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



## CONSTRUCTION

### Conductors

- 23 AWG solid bare annealed copper

### Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer/Dual-Layer Polyolefin

### Color Code

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

### Separator

- Divider

### 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)        | 0.205            | 0.200        |
| Nominal Cable Weight (lbs/1000 ft) | 28               | 28           |
| 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:                         | -20 to +75       | -20 to +75   |

## PART NUMBERS

Standard packaging: 1000' Pull-Pac® II

| Jacket Color | Pull-Pac® II     |              | Spool-Pac®       |              | Spool            |              |
|--------------|------------------|--------------|------------------|--------------|------------------|--------------|
|              | CMR (Non-Plenum) | CMP (Plenum) | CMR (Non-Plenum) | CMP (Plenum) | CMR (Non-Plenum) | CMP (Plenum) |
| Blue         | 7133800          | 7131800      | 7133840          | 7131840      | 7133860          | 7131860      |
| White        | 7133801          | 7131801      | 7133841          | 7131841      | 7133861          | 7131861      |
| Yellow       | 7133802          | 7131802      | 7133842          | 7131842      | 7133862          | 7131862      |
| Gray         | 7133803          | 7131803      | 7133843          | 7131843      | 7133863          | 7131863      |
| Red          | 7133804          | 7131804      | 7133844          | 7131844      | 7133864          | 7131864      |
| Orange       | 7133805          | 7131805      | 7133845          | 7131845      | 7133865          | 7131865      |
| Green        | 7133806          | 7131806      | 7133846          | 7131846      | 7133866          | 7131866      |
| Black        | 7133807          | 7131807      | 7133847          | 7131847      | 7133867          | 7131867      |
| Pink         | 7133808          | 7131808      | 7133848          | 7131848      | 7133868          | 7131868      |
| Purple       | 7133809          | 7131809      | 7133859          | 7131859      | 7133869          | 7131869      |

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.

Data subject to change without notice.

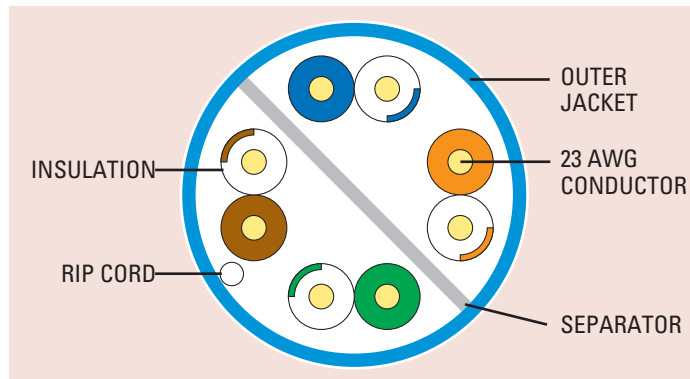
## GenSPEED® 6 Electrical Performance

## ANSI/TIA 568-C.2

| Frequency<br>MHz | PSACR*<br>(min) | ACR*<br>(min) | Insertion Loss<br>(max) | PSNEXT<br>(min) | NEXT<br>(min) | PSACRF<br>(min) | ACRF<br>(min) | Return Loss<br>(min) | TCL<br>(min) | ELTCTL<br>(min) |
|------------------|-----------------|---------------|-------------------------|-----------------|---------------|-----------------|---------------|----------------------|--------------|-----------------|
| 1                | 70.3            | 72.3          | 2.0                     | 72.3            | 74.3          | 64.8            | 67.8          | 20.0                 | 40.0         | 35.0            |
| 4                | 59.3            | 61.5          | 3.8                     | 63.3            | 65.3          | 52.8            | 55.7          | 23.0                 | 40.0         | 23.0            |
| 10               | 51.3            | 53.3          | 6.0                     | 57.3            | 59.3          | 44.8            | 47.8          | 25.0                 | 40.0         | 15.0            |
| 16               | 46.7            | 48.7          | 7.6                     | 54.2            | 56.2          | 40.7            | 43.7          | 25.0                 | 38.0         | 10.9            |
| 20               | 44.3            | 46.3          | 8.5                     | 52.8            | 54.8          | 38.8            | 41.7          | 25.0                 | 37.0         | 9.0             |
| 31.25            | 39.2            | 41.2          | 10.7                    | 49.9            | 51.9          | 34.9            | 37.9          | 23.6                 | 35.1         | —               |
| 62.5             | 29.9            | 32.0          | 15.4                    | 45.4            | 47.4          | 28.9            | 31.8          | 21.5                 | 32.0         | —               |
| 100              | 22.5            | 24.5          | 19.8                    | 42.3            | 44.3          | 24.8            | 27.8          | 20.1                 | 30.0         | —               |
| 150              | 14.9            | 16.9          | 24.7                    | 39.7            | 41.7          | 21.3            | 24.3          | 18.9                 | 28.2         | —               |
| 200              | 8.8             | 10.8          | 29.0                    | 37.8            | 39.8          | 18.8            | 21.8          | 18.0                 | 27.0         | —               |
| 250              | 3.5             | 5.5           | 32.8                    | 36.3            | 38.3          | 16.8            | 19.8          | 17.3                 | 26.0         | —               |
| 350              | —               | —             | 39.8                    | 34.1            | 36.1          | 13.9            | 16.9          | 16.3                 | —            | —               |
| 400              | —               | —             | 43.0                    | 33.3            | 35.3          | 12.8            | 15.8          | 15.9                 | —            | —               |
| 500              | —               | —             | 48.9                    | 31.8            | 33.8          | 10.8            | 13.8          | 15.2                 | —            | —               |

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

## GenSPEED® 6 CATEGORY 6 CROSS-SECTION



## ELECTRICAL CHARACTERISTICS

|                                                             |                    |
|-------------------------------------------------------------|--------------------|
| <b>DC Resistance</b> (max)<br>Ohms/100 m (328 ft) @ 20°C    | 8.9                |
| <b>DC Resistance Unbalance</b> (max)<br>Individual Pair %   | 3.0                |
| <b>Delay Skew</b> (max)<br>ns/100 m                         | 45                 |
| <b>Nom. Velocity of Propagation</b><br>% Speed of Light     | CMP: 70<br>CMR: 68 |
| <b>Characteristic Impedance</b><br>Frequency (f): 1-350 MHz | Ohms<br>100 ± 15   |