

# GenSPEED® 10 MTP™ Category 6A Cable

## Features And Benefits

- 10 MTP™ unshielded-twisted pair (UTP) design performs like a shielded or foiled-twisted pair (STP/FTP) cable, providing industry-leading protection from external cable noise sources, also known as alien crosstalk (PSANEXT and PSAACRF)
- Mosaic Crossblock™ is a thin tape made up of individual metallic blocks separated by an insulating layer. Since there is no metal-to-metal contact, there is no path for current to flow longitudinally, and thus, no need for grounding
- The Internal Separator optimizes internal pair geometry to yield superior electrical performance and maintain flexibility. This unique cross-web stabilizes each pair to create a smaller, **round** cable profile
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Made in U.S.A.

## Applications

- IEEE 802.3 10G BASE-T, 100 BASE-T
- 100 BASE-TX, 10 BASE-T, 1000 BASE-TX
- 155 Mb/s ATM
- IEEE 802.3af for PoE
- IEEE 802.3at for PoE Plus
- ANSI X3.263: 100Mb/s

## Standard Compliances

- ANSI/TIA 568-C.2
- NEC/CEC Type CMR (6AL1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA262) 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
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

### Separator

- Cross-Web

### Jacket

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

## PHYSICAL DATA

|                                    | CMR (Non-Plenum) | CMP (Plenum) |
|------------------------------------|------------------|--------------|
| Nominal Cable Diameter (in)        | 0.305            | 0.300        |
| Nominal Cable Weight (lbs/1000 ft) | 40               | 44           |
| Minimum Bend Radius (in)           | 1.25             | 1.25         |
| Maximum Pulling Force (lbs)        | 40               | 40           |
| Temperature Rating (°C)            |                  |              |
| Installation:                      | 0 to +60         | 0 to +60     |
| Operation:                         | -20 to +75       | -20 to +75   |

## PART NUMBERS

Standard packaging: 1000' Spool

| Jacket Color | Spool            |              |
|--------------|------------------|--------------|
|              | CMR (Non-Plenum) | CMP (Plenum) |
| Blue         | 7133849          | 7131849      |
| White        | 7133850          | 7131850      |
| Yellow       | 7133852          | 7131852      |
| Gray         | 7133851          | 7131851      |
| Red          | 7133854          | 7131854      |
| Orange       | 7133856          | 7131856      |
| Green        | 7133853          | 7131853      |
| Black        | 7133858          | 7131858      |
| Pink         | 7133857          | 7131857      |
| Purple       | 7133855          | 7131855      |

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

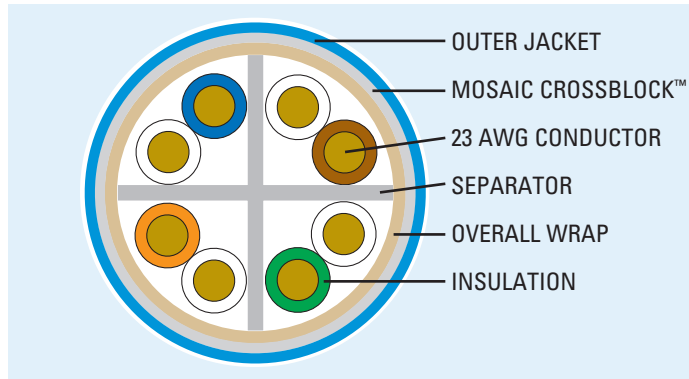
# An Unshielded 6A Cable That Performs Like a Shielded Cable

## ELECTRICAL PERFORMANCE

| Frequency<br>MHz | PSACR*<br>(min)                | ACR*<br>(min)                  | Insertion<br>Loss<br>(min) | PSNEXT<br>(min) | NEXT<br>(min)  | PSACRF<br>(min) | ACRF<br>(min)  | Return Loss<br>(min) | TCL<br>(min)   | PSANEXT<br>(min) |                             |                          | PSAACRF<br>(min) |                             |                          |
|------------------|--------------------------------|--------------------------------|----------------------------|-----------------|----------------|-----------------|----------------|----------------------|----------------|------------------|-----------------------------|--------------------------|------------------|-----------------------------|--------------------------|
|                  | General<br>Cable<br>Guaranteed | General<br>Cable<br>Guaranteed | TIA<br>568-C.2             | TIA<br>568-C.2  | TIA<br>568-C.2 | TIA<br>568-C.2  | TIA<br>568-C.2 | TIA<br>568-C.2       | TIA<br>568-C.2 | TIA<br>568-C.2   | General Cable<br>Guaranteed | General Cable<br>Typical | TIA<br>568-C.2   | General Cable<br>Guaranteed | General Cable<br>Typical |
| 1                | 70.2                           | 72.2                           | 2.1                        | 72.3            | 74.3           | 64.8            | 67.8           | 20.0                 | 40.0           | 67.0             | 73.0                        | 79.0                     | 67.0             | 73.0                        | 79.0                     |
| 4                | 59.5                           | 61.5                           | 3.8                        | 63.3            | 65.3           | 52.8            | 55.8           | 23.0                 | 40.0           | 67.0             | 73.0                        | 79.0                     | 66.2             | 72.2                        | 78.2                     |
| 10               | 51.4                           | 53.4                           | 5.9                        | 57.3            | 59.3           | 44.8            | 47.8           | 25.0                 | 40.0           | 67.0             | 73.0                        | 79.0                     | 58.2             | 64.2                        | 70.2                     |
| 16               | 46.8                           | 48.8                           | 7.5                        | 54.2            | 56.2           | 40.7            | 43.7           | 25.0                 | 38.0           | 67.0             | 73.0                        | 79.0                     | 54.1             | 60.1                        | 66.1                     |
| 20               | 44.4                           | 46.4                           | 8.4                        | 52.8            | 54.8           | 38.8            | 41.8           | 25.0                 | 37.0           | 67.0             | 73.0                        | 79.0                     | 52.2             | 58.2                        | 64.2                     |
| 31.25            | 39.4                           | 41.4                           | 10.5                       | 49.9            | 51.9           | 34.9            | 37.9           | 23.6                 | 35.1           | 67.0             | 73.0                        | 79.0                     | 48.3             | 54.3                        | 60.3                     |
| 62.5             | 30.4                           | 32.4                           | 15.0                       | 45.4            | 47.4           | 28.9            | 31.9           | 21.5                 | 32.0           | 65.6             | 71.6                        | 77.6                     | 42.3             | 48.3                        | 54.3                     |
| 100              | 23.2                           | 25.2                           | 19.1                       | 42.3            | 44.3           | 24.8            | 27.8           | 20.1                 | 30.0           | 62.5             | 68.5                        | 74.5                     | 38.2             | 44.2                        | 50.2                     |
| 150              | 16.0                           | 18.0                           | 23.7                       | 39.7            | 41.7           | 21.3            | 24.3           | 18.9                 | 28.2           | 59.9             | 65.9                        | 71.9                     | 34.7             | 40.7                        | 46.7                     |
| 200              | 10.2                           | 12.2                           | 27.6                       | 37.8            | 39.8           | 18.8            | 21.8           | 18.0                 | 27.0           | 58.0             | 64.0                        | 70.0                     | 32.2             | 38.2                        | 44.2                     |
| 250              | 5.2                            | 7.2                            | 31.1                       | 36.3            | 38.3           | 16.8            | 19.8           | 17.3                 | 26.0           | 56.5             | 62.5                        | 68.5                     | 30.2             | 36.2                        | 42.2                     |
| 300              | 0.9                            | 2.9                            | 34.3                       | 35.1            | 37.1           | 15.3            | 18.3           | 16.8                 | 25.2           | 55.3             | 61.3                        | 67.3                     | 28.7             | 34.7                        | 40.7                     |
| 400              | —                              | —                              | 40.1                       | 33.3            | 35.3           | 12.8            | 15.8           | 15.9                 | 24.0           | 53.5             | 59.5                        | 65.5                     | 26.2             | 32.2                        | 38.2                     |
| 500              | —                              | —                              | 45.3                       | 31.8            | 33.8           | 10.8            | 13.8           | 15.2                 | 23.0           | 52.0             | 58.0                        | 64.0                     | 24.2             | 30.2                        | 36.2                     |

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

## TYPICAL GenSPEED® 10 MTP™ CATEGORY 6A CROSS-SECTION

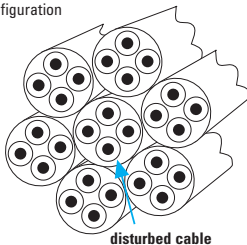


## ELECTRICAL CHARACTERISTICS

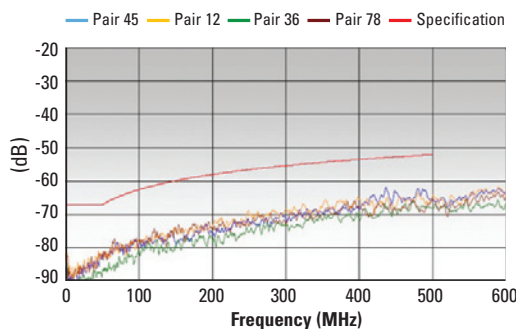
|                                                             |                  |
|-------------------------------------------------------------|------------------|
| <b>DC Resistance (max)</b><br>Ohms/100 m (328 ft) @ 20°C    | 8.9              |
| <b>DC Resistance Unbalanced (max)</b><br>Individual Pair %  | 4                |
| <b>Delay Skew (max)</b><br>ns/100 m                         | 35               |
| <b>Nom. Velocity of Propagation</b><br>% Speed of Light     | 70               |
| <b>Characteristic Impedance</b><br>Frequency (f): 1-500 MHz | Ohms<br>100 ± 15 |

## 4 PAIR CABLES: Bundles of 7 Test Results

Six-around-one  
configuration



### PSANEXT



### PSAACRF

