

### PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- UL Verified
- Low Smoke Plenum construction
- Tested from 1 to 660 MHz
- Small O.D. allows more cables per conduit
- Proven shield technology improves RFI and EMI performance

### TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +60°C  
(-40°F to +140°F)
- **Installation Temperature**  
0°C to +60°C  
(+32°F to +140°F)
- **Operation Temperature**  
-20°C to +75°C  
(-4°F to +167°F)

### APPLICATIONS

- 10 Gigabit Ethernet (IEEE 802.3an)
- 5 Gigabit Ethernet (IEEE 802.3bz)
- 2.5 Gigabit Ethernet (IEEE 802.3bz)
- Gigabit Ethernet (IEEE 802.3ab)
- 100 Mbps Ethernet (IEEE 802.3u)
- 1000 Mbps ATM
- 622 Mbps ATM
- 15W PoE (IEEE 802.3af)
- 30W PoE+ (IEEE 802.3at)
- 60W PoE++ (IEEE 802.3bt Type 3)
- 100W PoE++ (IEEE 802.3bt Type 4)

### PACKAGING

- 1,000 feet (305 m)
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12 Reels  
CMP Carton Weight (lbs): 43.64  
CMP Product Weight (lbs): 40.34

\*weight may vary

### DIELECTRIC MATERIALS

#### Plenum

- **Primary Insulation:** Plenum-rated fluoropolymer
- **Overall Jacket:** Low-smoke, flame-retardant thermoplastic
- **Star Filler:** Plenum-rated polymer

### Cat 6 F/UTP Part Specifications

| Part Number           | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL) us Listed Type         |
|-----------------------|------------|-----------------------|------|--------------|----------|------------------------------|
|                       |            | inches                | mm   | lbs/1000ft   | kg/305 m |                              |
| PLENUM<br>30154-8-XXY | 4          | 0.275                 | 6.98 | 40.33        | 18.29    | CMP (NFPA 262), CSA Type FT6 |

### Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30154                | 8                 | XX           | Y         |

#### Jacket Colors (XX):

| BL               | GR                | RD              | WH                |
|------------------|-------------------|-----------------|-------------------|
| Blue<br>RAL 5012 | Green<br>RAL 6032 | Red<br>RAL 3001 | White<br>RAL 9003 |

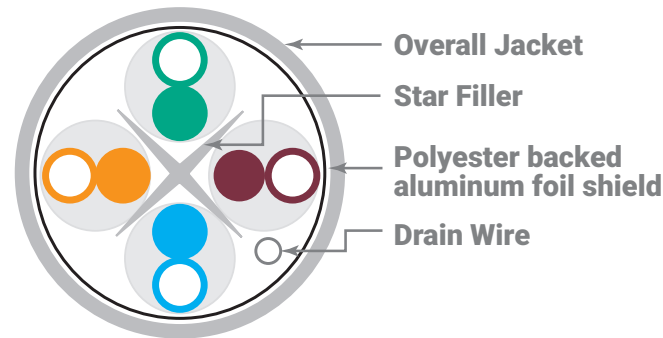
#### Reel Type (Y):



#### Primary Insulation



23 AWG Bare Copper



Overall Jacket

Star Filler

Polyester backed aluminum foil shield

Drain Wire

### Cat 6 F/UTP Transmission Specifications

ANSI/TIA-568.2-D Category 6 Verified  
ISO/IEC 11801, 2nd ed. Class EA Compliant

| Freq. (MHz) | Ins. Loss |      | NEXT |      | PSNEXT |      | ACR  |      | PSACR |      | ACRF |      | PSACRF |      | Return Loss |      |
|-------------|-----------|------|------|------|--------|------|------|------|-------|------|------|------|--------|------|-------------|------|
|             | Std.      | Max. | Std. | Min. | Std.   | Min. | Cal. | Min. | Cal.  | Min. | Std. | Min. | Std.   | Min. | Std.        | Min. |
| 1           | 2.0       | 2.0  | 74.3 | 74.3 | 72.3   | 72.3 | 72.3 | 72.3 | 70.3  | 70.3 | 67.8 | 67.8 | 64.8   | 64.8 | 20.0        | 20.0 |
| 4           | 3.8       | 3.8  | 65.3 | 65.3 | 63.3   | 63.3 | 61.5 | 61.5 | 59.5  | 59.5 | 55.8 | 55.8 | 52.8   | 52.8 | 23.0        | 23.0 |
| 8           | 5.3       | 5.3  | 60.8 | 60.8 | 58.8   | 58.8 | 55.4 | 55.4 | 53.4  | 53.4 | 49.7 | 49.7 | 46.7   | 46.7 | 24.5        | 24.5 |
| 10          | 6.0       | 6.0  | 59.3 | 59.3 | 57.3   | 57.3 | 53.3 | 53.3 | 51.3  | 51.3 | 47.8 | 47.8 | 44.8   | 44.8 | 25.0        | 25.0 |
| 16          | 7.6       | 7.6  | 56.2 | 56.2 | 54.2   | 54.2 | 48.7 | 48.7 | 46.7  | 46.7 | 43.7 | 43.7 | 40.7   | 40.7 | 25.0        | 25.0 |
| 31.25       | 10.7      | 10.7 | 51.9 | 51.9 | 49.9   | 49.9 | 41.2 | 41.2 | 39.2  | 39.2 | 37.9 | 37.9 | 34.9   | 34.9 | 23.6        | 23.6 |
| 62.5        | 15.4      | 15.4 | 47.4 | 47.4 | 45.4   | 45.4 | 32.0 | 32.0 | 30.0  | 30.0 | 31.9 | 21.9 | 28.9   | 28.9 | 21.5        | 21.5 |
| 100         | 19.8      | 19.8 | 44.3 | 44.3 | 42.3   | 42.3 | 24.5 | 24.5 | 22.5  | 22.5 | 27.8 | 27.8 | 24.8   | 24.8 | 20.1        | 20.1 |
| 200         | 29.0      | 29.0 | 39.8 | 39.8 | 37.8   | 37.8 | 10.8 | 10.8 | 8.8   | 8.8  | 21.8 | 21.8 | 18.8   | 18.8 | 18.0        | 18.0 |
| 250         | 32.8      | 32.8 | 38.3 | 38.3 | 36.3   | 36.3 | 5.5  | 5.5  | 3.5   | 3.5  | 19.8 | 19.8 | 16.8   | 16.8 | 17.3        | 17.3 |
| 350*        | -         | 39.8 | -    | 36.1 | -      | 34.1 | -    | -    | -     | -    | 16.9 | -    | 13.9   | -    | 16.3        | -    |
| 555*        | -         | 52.0 | -    | 33.1 | -      | 31.1 | -    | -    | -     | -    | 12.9 | -    | 9.9    | -    | 14.9        | -    |
| 660*        | -         | 57.7 | -    | 32.0 | -      | 30.0 | -    | -    | -     | -    | 11.4 | -    | 8.4    | -    | 14.4        | -    |

\*Frequencies beyond the TIA and ISO requirements are for information only. All values are dB/100m.

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedance:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (101 to 250 MHz) |
| Maximum Resistance Unbalance:          | 5%   |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 70%, Plenum  |
| Voltage Rating:                        | 300 Volts  |

### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 75°C | 75°C | 75°C | 75°C  | 75°C  | 75°C  | 75°C   |
| 23 AWG      | 2.5  | 1.5  | 1.1  | 0.8   | 0.7   | 0.7   | 0.5    |

The table above is derived from the one approved by the National Fire Protection Agency and used in the National Electrical Code, NFPA-70. The complete table can be found in sections 725.144 and 800 Communication Circuits of the code. The table identifies the ampacity of each conductor (in amperes) in a 4-pair Class 2 or Class 3 data cable. Ambient temperature used for development of the table is 30°C (86°F) with all conductors in all cables carrying current. The table is based on 60°C (140°F), 75°C (167°F) and 90°C (194°F) rated cables. All cable temps are operational temp ratings. Cables with temp ratings above 90°C would deliver additional power handling capacity.

Proterial Cable America, Inc. is continuously improving the performance of our products and the accuracy of the information provided. Due to this, we reserve the right to modify, revise, correct, or change products without notice. Thank you for your understanding.

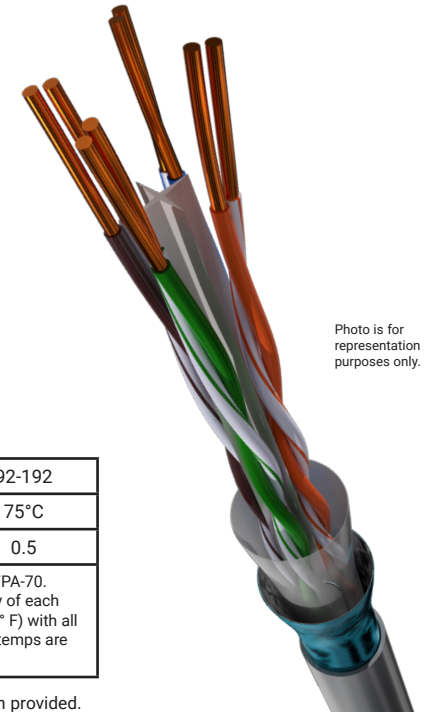


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