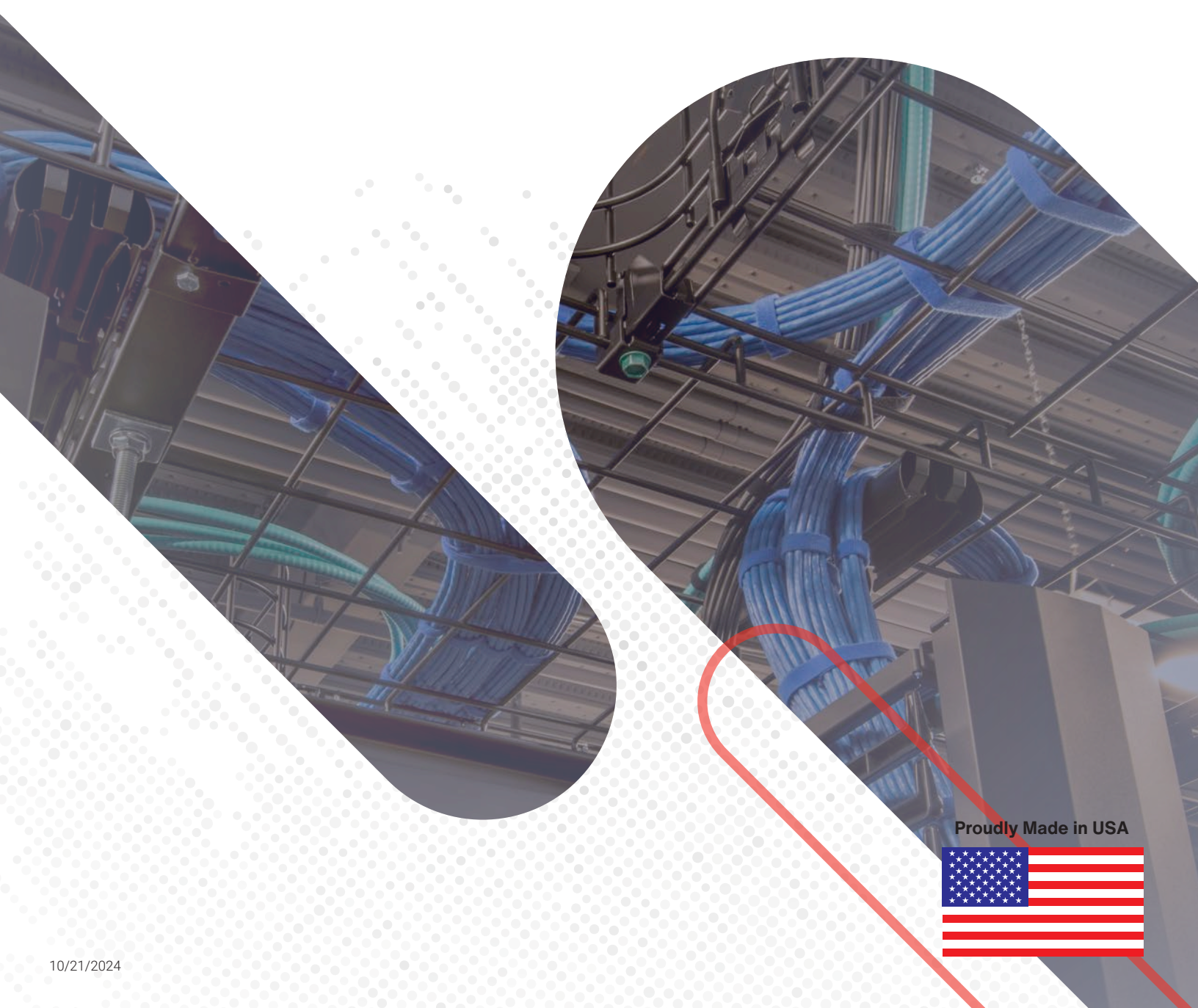


# PROTERIAL

## Copper Premise Cable Catalog



Proudly Made in USA



## Copper Premise Cable

Since 1986, Proterial Cable America has been developing technologically advanced copper and fiber optic communication cables. Our dedication to engineering perfection is evident in the consistent quality and performance of all the cable products we manufacture.

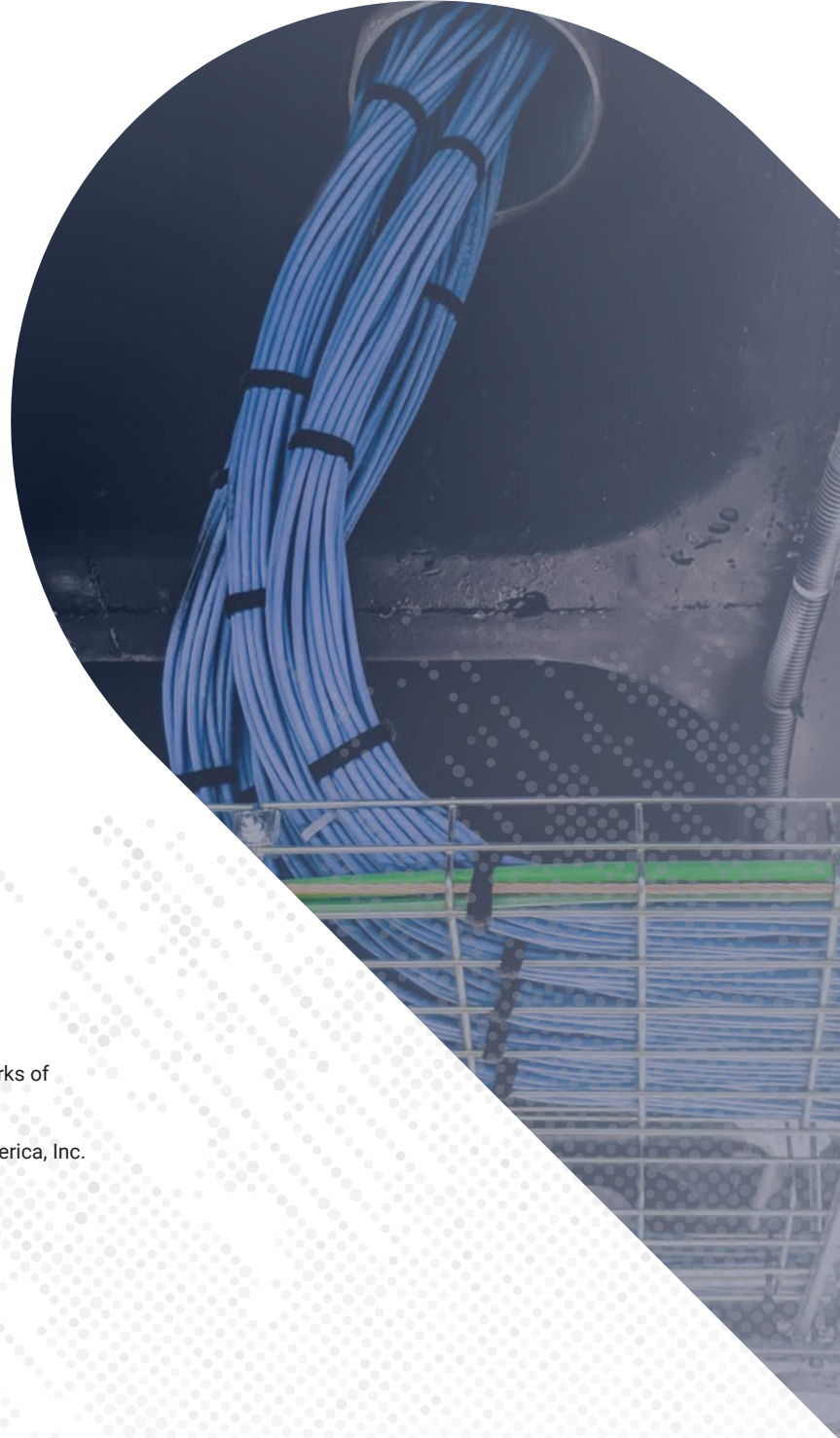
Through the development of high performance cable products, such as the world's first UL verified 10-gigabit Ethernet Category 6A cable, Proterial Cable has established itself as a leader in the industry. These products and the others found in this catalog are the result of Proterial Cable's relentless desire to manufacture the finest communication cables in the world. After using our products, we are confident you will agree.

**Trademarks Referenced In This Catalog:**

Power+™, Plus™, XS™, Supra™, Supra 10G™, Supra 10G-XE™ are trademarks of Proterial Cable America, Inc.

DryBit® and Nanocore® are registered trademarks of Proterial Cable America, Inc.

MTP® is a registered trademarks of US Conec Ltd.



# PROTERIAL

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# PROTERIAL

## Quality Products Made in America.

### Proterial's Manufacturing Advantage

We never stop innovating. Whether it's installing the very latest in cable manufacturing technology, or designing and building custom equipment for a one of a kind cable, we have the resources to maintain a technological edge over the competition. We're ISO certified 9001-2015, so you can be confident that all of our processes and materials are properly tracked and recorded.



### On-Site Copper Extrusion

The Manchester, New Hampshire facility is one of a handful of cable manufacturing facilities in the U.S. that performs on-site drawing of copper. When drawing copper, PCA starts with 13 AWG solid copper conductor on custom built deploying devices, called Stems. The copper is pulled into drawing mills where it is reduced to the appropriate size, conditioned in what is called the annealing process, then insulated with the appropriate insulation. This allows us to better control the performance of the primary conductors and maximize overall cable performance.

### Fully Compliant.

All the products manufactured within our facility are compliant to EU Directive 2011/65/ EU, also known as the Restriction of Hazardous Substances (RoHS3) which regulates the use of harmful materials such as lead, cadmium and mercury.

### Packaging Engineered for Easy-Payout

Our easy-payout boxes for Category 5e and Category 6 cables were designed with direct input and feedback from users.

Our boxes feature dual reinforced handles and have proven to be as durable as the cable they contain.



# PROTERIAL

## We Take the Worry out of Warranty.

### The Open System Architecture Solution

Open System Architecture (OSA) from Proterial Cable America (PCA) provides world class performance using virtually any combination of PCA verified cables with verified connective hardware in the design of the network. The ANSI/TIA-568.2-D standard specifies the performance requirements of all network components and defines interoperability base-line limits to ensure that combinations of cable with connectivity will meet or exceed the system's intended application.

By employing a Proterial OSA solution, end users have the freedom to choose from a wide range of quality connectivity products that best meet their specific needs and be confident that the chosen solution will support all applications designed to operate over that solution and be backed by our industry-leading lifetime warranty\*.

- Our open system architecture provides for standards-based verifiable cable performance
- Enables a range of connectivity options
- Opens up competitive solution offerings
- Delivers substantial benefits to the end user

### Cable Quality Matters.

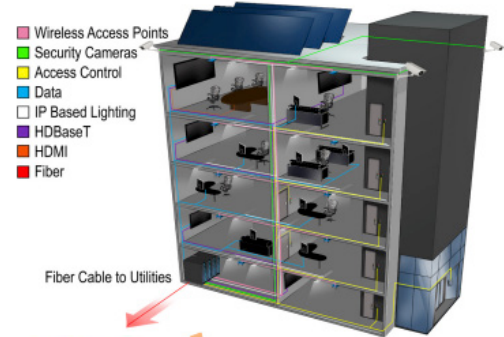
In cable based communication links, the cable determines the ultimate performance of that link, not the connectors.

With a growing list of applications for category cables, many of them critical to a facility's operations, selecting a high quality cable from an established manufacturer is imperative. Additionally, with an increase in counterfeit and unestablished brands flooding the market, it is important to protect your investment by sourcing only through trusted distribution channels.

- Cable is the highest cost component of passive infrastructures
- Cable determines margin of performance headroom in the link and channel
- Cable vendor should be the lead warranty provider

\*Lifetime Warranty available only through Proterial certified installers.

### Beyond-The-Link Building Systems



### We offer a Lifetime Warranty

### We are pleased to offer a lifetime warranty on all certified installations.

The lifetime warranty, which is only available through Proterial Cable Certified Installers, offers a product performance and application assurance warranty.

We guarantee that the solution will pass the appropriate category test for the life of the network as well as support all applications designed to operate over that solution. The warranty covers both the cables and all the connective hardware directly attached to our cable. This also includes any labor that could be associated with a warranty claim.

### Our Warranty Systems Feature:

- Compliance to TIA and ISO Cabling Standards
- Lifetime Product Performance Warranty
- Lifetime Applications Support Warranty
- Open Architecture Connectivity Specification
- One Point-of-Contact for all Warranty Features





### PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- UL Verified ANSI/TIA-568.2-D
- Low Smoke Plenum construction
- Guaranteed minimum performance
- Tested from 1 to 555 MHz
- No internal pair separator
- Standard Reelex™ package



### APPLICATIONS

- 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: 48 Reels  
CMP Carton Weight (lbs): 28.5  
CMP Product Weight (lbs): 25.24



### 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**  
**Plenum**  
-20°C to +90°C  
(-4°F to +194°F)  
**Riser**  
-20°C to +75°C  
(-4°F to +167°F)

\*weight may vary

### DIELECTRIC MATERIALS

#### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer  
**Overall Jacket:** Flame-retardant Thermoplastic

#### Riser

**Primary Insulation:** Polyolefin  
**Overall Jacket:** Flame-retardant Thermoplastic

### Cat 6 XS 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 |                              |
| <b>PLENUM</b> | 30237-8-XXY | 4          | 0.20                  | 5.08 | 25.24        | 11.45    | CMP (NFPA 262), CSA Type FT6 |

|               | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL) us Listed Type        |
|---------------|-------------|------------|-----------------------|------|--------------|----------|-----------------------------|
|               |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |                             |
| <b>*RISER</b> | 30238-8-XXY | 4          | 0.21                  | 5.33 | 23.12        | 10.5     | CMR (UL 1666), CSA Type FT4 |

### Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30237                | 8                 | XX           | Y         |

#### Jacket Colors (XX):

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| <b>BL</b> | <b>GR</b> | <b>YE</b> | <b>WH</b> |
| Blue      | Green     | Yellow    | White     |
| RAL 5012  | RAL 6032  | RAL 1032  | RAL 9003  |

\*Riser only available in Blue or White

#### Non-Stock Jacket Colors (XX):

|           |            |           |           |           |           |           |
|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| <b>PK</b> | <b>PG</b>  | <b>OR</b> | <b>RD</b> | <b>VI</b> | <b>GA</b> | <b>BK</b> |
| Pink      | Pale Green | Orange    | Red       | Violet    | Gray      | Black     |
| RAL 3015  | RAL 1000   | RAL 2012  | RAL 3001  | RAL 4005  | RAL 7037  | RAL 9005  |

#### Reel Type (Y):

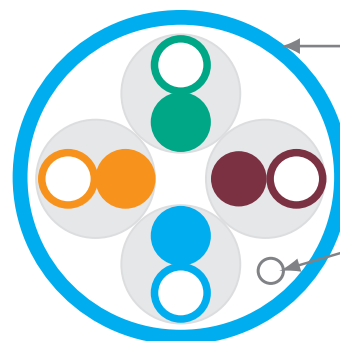


Reel 2: Reelex

Primary Insulation



24 AWG  
Bare Copper



Overall Jacket

Rip Cord pulled under Overall Jacket



## Cat 6 XS 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 | 31.9 | 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 |
| 300*        | -         | 36.4 | -    | 37.1 | -      | 35.1 | -    | -    | -     | -    | -    | 18.3 | -      | 15.3 | -           | 16.8 |
| 350*        | -         | 39.8 | -    | 36.1 | -      | 34.1 | -    | -    | -     | -    | -    | 16.9 | -      | 13.9 | -           | 16.3 |
| 400*        | -         | 43.0 | -    | 35.3 | -      | 33.3 | -    | -    | -     | -    | -    | 15.8 | -      | 12.8 | -           | 15.9 |
| 500*        | -         | 48.9 | -    | 33.8 | -      | 31.8 | -    | -    | -     | -    | -    | 13.8 | -      | 10.8 | -           | 15.2 |
| 555*        | -         | 52.0 | -    | 33.1 | -      | 31.1 | -    | -    | -     | -    | -    | 12.9 | -      | 9.9  | -           | 14.9 |

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

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (101 to 250 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω/100 meters @ 20°C                                 |
| 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<br>68%, Riser                                |
| 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   |
| 24 AWG      | 2.0  | 1.4  | 1.0  | 0.7   | 0.6   | 0.5   | 0.4    |

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.

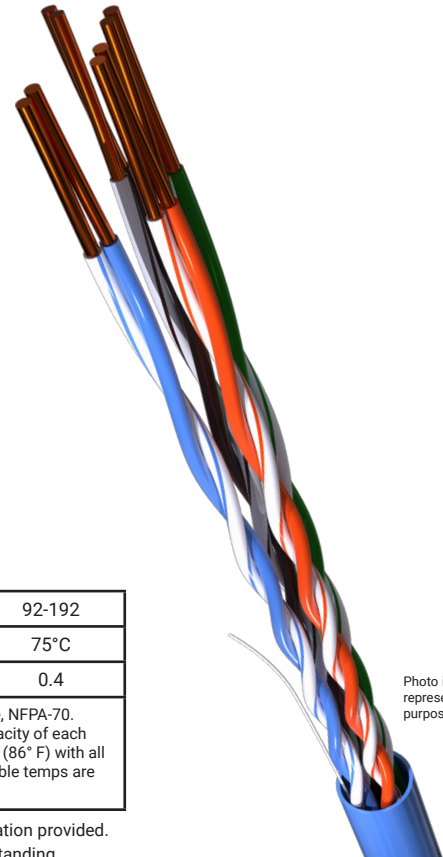


Photo is for representation purposes only.



## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- UL Verified ANSI/TIA-568.2-D
- Low Smoke Plenum construction
- Guaranteed minimum performance
- Enhanced performance beyond TIA Standard
- Tested from 1 to 555 MHz

## APPLICATIONS

- HDBase-T A & B
- 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)
- 100W PoE++ (IEEE 802.3bt Type 4)
- 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: 32 Reels  
CMP Carton Weight (lbs): 29.04  
CMP Product Weight (lbs): 25.74

\*weight may vary

| TIA Parameter | Guaranteed Headroom |
|---------------|---------------------|
| PSANEXT loss  | +3 dB               |
| PSACRF        | +3 dB               |
| NEXT loss     | +3 dB               |
| ACRF          | +3 dB               |

## 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)

## DIELECTRIC MATERIALS

### Plenum

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

### Riser

**Primary Insulation:** Polyolefin  
**Overall Jacket:** Flame-retardant thermoplastic  
**Star Filler:** Flame-retardant thermoplastic

## Cat 6 Plus Enhanced UTP Parts Specifications

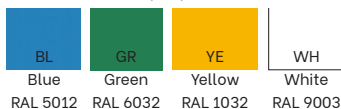
|               | Part Number | # of Pairs | Calculated Cable O.D. |     | Cable Weight |          | c(UL)us Listed Type          |
|---------------|-------------|------------|-----------------------|-----|--------------|----------|------------------------------|
|               |             |            | inches                | mm  | lbs/1000ft   | kg/305 m |                              |
| <b>PLENUM</b> | 30025-8-XXY | 4          | 0.20                  | 5.1 | 25.74        | 11.67    | CMP (NFPA 262), CSA Type FT6 |

|              | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL)us Listed Type          |
|--------------|-------------|------------|-----------------------|------|--------------|----------|------------------------------|
|              |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |                              |
| <b>RISER</b> | 30024-8-XXY | 4          | 0.23                  | 5.84 | 22.87        | 10.37    | CMP (NFPA 262), CSA Type FT6 |

## Building a Part Number

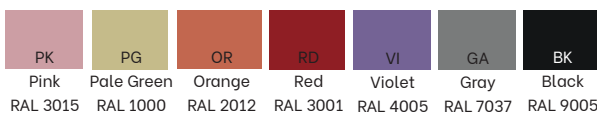
| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30025                | 8                 | XX           | Y         |

### Jacket Colors (XX):



\*Riser only available in Blue or White

### Non-Stock Jacket Colors (XX):

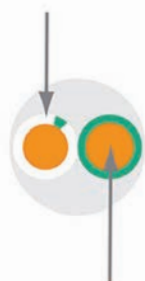


### Reel Type (Y):

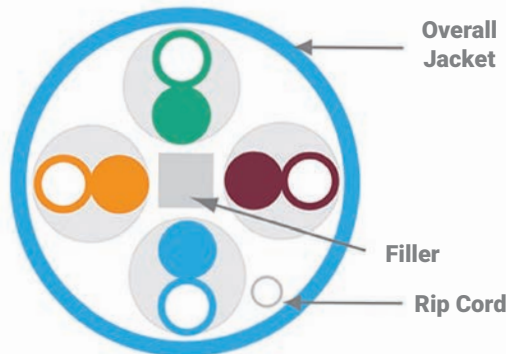


Reel 2: Reelex

### Primary Insulation



23 AWG  
Bare Copper





## Cat 6 Plus Enhanced 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 | 77.3 | 72.3   | 75.3 | 72.3 | 75.3 | 70.3  | 73.3 | 67.8 | 70.8 | 64.8   | 67.8 | 20.0        | 20.0 |
| 4           | 3.8       | 3.8  | 65.3 | 68.3 | 63.3   | 66.3 | 61.5 | 64.5 | 59.5  | 62.5 | 55.8 | 58.8 | 52.8   | 55.8 | 23.0        | 23.0 |
| 8           | 5.3       | 5.3  | 60.8 | 63.8 | 58.8   | 61.8 | 55.4 | 58.4 | 53.4  | 56.4 | 49.7 | 52.7 | 46.7   | 49.7 | 24.5        | 24.5 |
| 10          | 6.0       | 6.0  | 59.3 | 62.3 | 57.3   | 60.3 | 53.3 | 56.3 | 51.3  | 54.3 | 47.8 | 50.8 | 44.8   | 47.8 | 25.0        | 25.0 |
| 16          | 7.6       | 7.6  | 56.2 | 59.2 | 54.2   | 57.2 | 48.7 | 51.7 | 46.7  | 49.7 | 43.7 | 46.7 | 40.7   | 43.7 | 25.0        | 25.0 |
| 31.25       | 10.7      | 10.7 | 51.9 | 54.9 | 49.9   | 52.9 | 41.2 | 44.2 | 39.2  | 42.2 | 37.9 | 40.9 | 34.9   | 37.9 | 23.6        | 23.6 |
| 62.5        | 15.4      | 15.4 | 47.4 | 50.4 | 45.4   | 48.4 | 32.0 | 35.0 | 30.0  | 33.0 | 31.9 | 34.9 | 28.9   | 31.9 | 21.5        | 21.5 |
| 100         | 19.8      | 19.8 | 44.3 | 47.3 | 42.3   | 45.3 | 24.5 | 27.5 | 22.5  | 25.5 | 27.8 | 30.8 | 24.8   | 27.8 | 20.1        | 20.1 |
| 200         | 29.0      | 29.0 | 39.8 | 42.8 | 37.8   | 40.8 | 10.8 | 13.8 | 8.8   | 11.8 | 21.8 | 24.8 | 18.8   | 21.8 | 18.0        | 18.0 |
| 250         | 32.8      | 32.8 | 38.3 | 41.3 | 36.3   | 39.3 | 5.5  | 8.5  | 3.5   | 6.5  | 19.8 | 22.8 | 16.8   | 19.8 | 17.3        | 17.3 |
| 300*        | -         | 36.4 | -    | 40.1 | -      | 38.1 | -    | 3.7  | -     | 1.7  | -    | 21.3 | -      | 18.3 | -           | 16.8 |
| 350*        | -         | 39.8 | -    | 39.1 | -      | 37.1 | -    | -    | -     | -    | -    | 19.9 | -      | 16.9 | -           | 16.3 |
| 400*        | -         | 43.0 | -    | 39.3 | -      | 36.3 | -    | -    | -     | -    | -    | 18.8 | -      | 15.8 | -           | 15.9 |
| 500*        | -         | 48.9 | -    | 36.8 | -      | 34.8 | -    | -    | -     | -    | -    | 16.8 | -      | 13.8 | -           | 15.2 |
| 555*        | -         | 52.0 | -    | 36.1 | -      | 34.1 | -    | -    | -     | -    | -    | 15.9 | -      | 12.9 | -           | 14.9 |

\*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 250 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω/100 meters @ 20°C   |
| 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<br>68% Riser    |
| 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.

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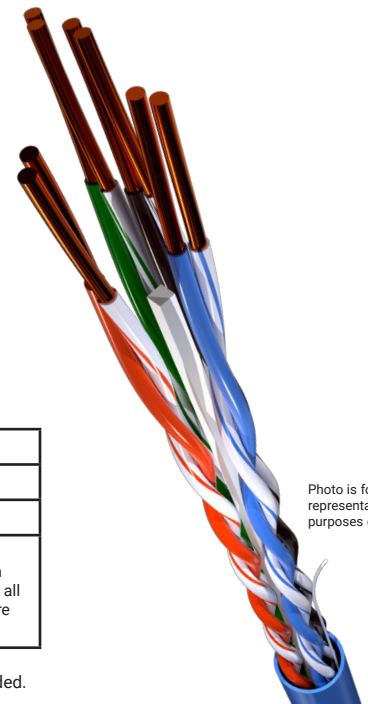


Photo is for representation purposes only.



## 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

## 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

## 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)

## DIELECTRIC MATERIALS

### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer

**Overall Jacket:** Low-smoke, flame-retardant thermoplastic

**Star Filler:** Plenum-rated polymer





## Cat 6 Shielded 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 |                              |
| <b>PLENUM</b> | 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  |

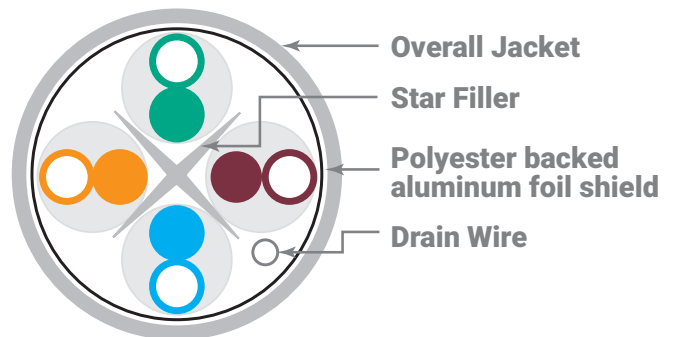
### Reel Type (Y):



### Non-Stock Jacket Colors (XX):

|   |   |   |   |  |   |   |
|---|---|---|---|--|---|---|
|  PK |  PG |  OR |  RD |  VI |  GA |  BK |
| Pink<br>RAL 3015  | Pale Green<br>RAL 1000  | Orange<br>RAL 2012  | Red<br>RAL 3001   | Violet<br>RAL 4005   | Gray<br>RAL 7037  | Black<br>RAL 9005   |

### Primary Insulation



## Cat 6 Shielded 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.

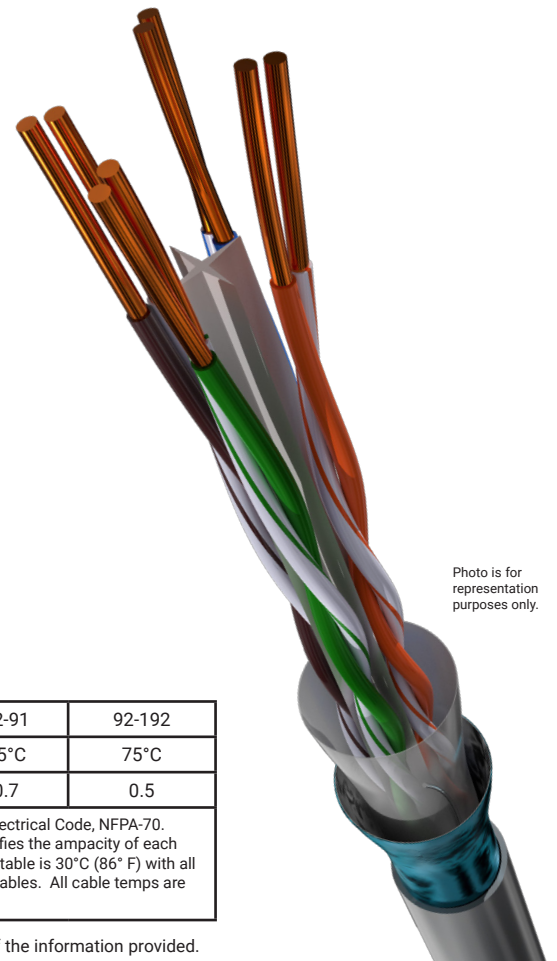


Photo is for representation purposes only.



### PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- UL Verified ANSI/TIA-568.2-D
- Low Smoke Plenum construction
- Tested from 1 to 660 MHz
- Small O.D. allows more cables per conduit
- Noise Control Barrier (NCB™) technology allows for a reduced outside diameter and electrical performance that is superior to discontinuous shield designs
- UL Tested (LP) for maximum power support

### APPLICATIONS

- HDBase-T A & B
- 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

### 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**  
**Plenum**  
-20°C to +90°C  
(-4°F to +194°F)

### DIELECTRIC MATERIALS

#### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer

**Overall Jacket:** Low-smoke, flame-retardant thermoplastic

**Star Filler:** Plenum-rated polymer

#### Riser

**Primary Insulation:** Polyolefin

**Overall Jacket:** Flame-retardant thermoplastic

**Star Filler:** Flame-retardant thermoplastic

### Cat 6A Supra 10G-XE UTP Part Specifications

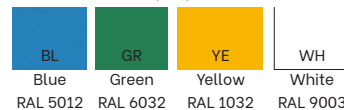
| PLENUM | Part Number | # of Pairs | Calculated Cable O.D. |       | Cable Weight |          | c(UL) us Listed Type         |
|--------|-------------|------------|-----------------------|-------|--------------|----------|------------------------------|
|        |             |            | inches                | mm    | lbs/1000ft   | kg/305 m |                              |
|        | 30303-8-XXY | 4          | 0.270                 | 6.858 | 40.34        | 18.29    | CMP (NFPA 262), CSA Type FT6 |

| RISER | Part Number | # of Pairs | Calculated Cable O.D. |       | Cable Weight |          | c(UL) us Listed Type         |
|-------|-------------|------------|-----------------------|-------|--------------|----------|------------------------------|
|       |             |            | inches                | mm    | lbs/1000ft   | kg/305 m |                              |
|       | 30304-8-XXY | 4          | 0.275                 | 6.985 | 39.02        | 17.70    | CMP (NFPA 262), CSA Type FT6 |

### Building a Part Number

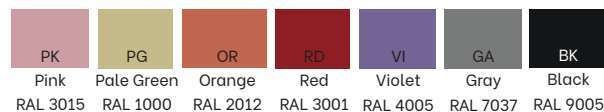
| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30303                | 8                 | XX           | Y         |

#### Jacket Colors (XX):



\*Riser only available in Blue or White

#### Non-Stock Jacket Colors (XX):

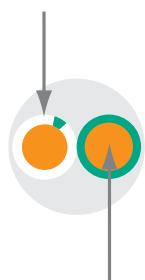


#### Reel Type (Y):

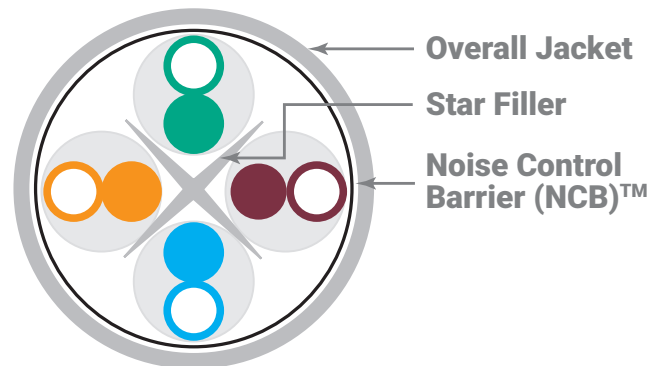


Reel 3: Reel

#### Primary Insulation



23 AWG  
Bare Copper



### Cat 6A Supra 10G-XE UTP Transmission Specifications

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

| Freq. (MHz) | Ins. Loss | NEXT | PSNEXT | ACR  | PSACR | ACRF | PSACRF | Return Loss | PSANEXT  | PSANEXT | PSAACRF  | PSAACRF |
|-------------|-----------|------|--------|------|-------|------|--------|-------------|----------|---------|----------|---------|
|             | Max.      | Min. | Min.   | Min. | Min.  | Min. | Min.   | Min.        | TIA Std. | Min     | TIA Std. | Min     |
| 1           | 2.1       | 74.3 | 72.3   | 72.2 | 70.2  | 67.8 | 64.8   | 20.0        | 67.0     | 73.0    | 67.0     | 73.0    |
| 4           | 3.8       | 65.3 | 63.3   | 61.5 | 59.5  | 55.8 | 52.8   | 23.0        | 67.0     | 73.0    | 66.2     | 72.2    |
| 8           | 5.3       | 60.8 | 58.8   | 55.4 | 53.4  | 49.7 | 46.7   | 24.5        | 67.0     | 73.0    | 60.1     | 66.1    |
| 10          | 5.9       | 59.3 | 57.3   | 53.4 | 51.4  | 47.8 | 44.8   | 25.0        | 67.0     | 73.0    | 58.2     | 64.2    |
| 16          | 7.5       | 56.2 | 54.2   | 48.8 | 46.8  | 43.7 | 40.7   | 25.0        | 67.0     | 73.0    | 54.1     | 60.1    |
| 20          | 8.4       | 54.8 | 52.8   | 46.4 | 44.4  | 41.8 | 38.8   | 25.0        | 67.0     | 73.0    | 52.2     | 58.2    |
| 25          | 9.4       | 53.3 | 51.3   | 44.0 | 42.0  | 39.8 | 36.8   | 2.3         | 67.0     | 73.0    | 50.2     | 56.2    |
| 31.25       | 10.5      | 51.9 | 49.9   | 41.4 | 39.4  | 37.9 | 34.9   | 23.6        | 67.0     | 73.0    | 48.3     | 54.3    |
| 62.5        | 15.0      | 47.4 | 45.4   | 32.4 | 30.4  | 31.9 | 28.9   | 21.5        | 65.6     | 71.6    | 42.3     | 48.3    |
| 100         | 19.1      | 44.3 | 42.3   | 25.2 | 23.2  | 27.8 | 24.8   | 20.1        | 62.5     | 68.5    | 38.2     | 44.2    |
| 155         | 24.1      | 41.4 | 39.4   | 17.4 | 15.4  | 24.0 | 21.0   | 18.8        | 59.6     | 65.6    | 34.4     | 40.4    |
| 200         | 27.6      | 39.8 | 37.8   | 12.2 | 10.2  | 21.8 | 18.8   | 18.0        | 58.0     | 64.0    | 32.2     | 38.2    |
| 250         | 31.1      | 38.3 | 36.3   | 7.3  | 5.3   | 19.8 | 16.8   | 17.3        | 56.5     | 62.5    | 30.2     | 36.2    |
| 300         | 34.3      | 37.1 | 35.1   | 2.9  | 0.9   | 18.3 | 15.3   | 16.8        | 55.3     | 61.3    | 28.7     | 34.7    |
| 350         | 37.2      | 36.1 | 34.1   | -    | -     | 16.9 | 13.9   | 16.3        | 54.3     | 60.3    | 27.3     | 33.3    |
| 400         | 40.1      | 35.3 | 33.3   | -    | -     | 15.8 | 12.8   | 15.9        | 53.5     | 59.3    | 26.2     | 32.2    |
| 500         | 45.3      | 33.8 | 31.8   | -    | -     | 13.8 | 10.8   | 15.2        | 52.0     | 58.0    | 24.2     | 30.2    |
| 555*        | 47.9      | 33.1 | 31.1   | -    | -     | 12.9 | 9.9    | 14.9        | 51.3     | 57.3    | 23.3     | 29.3    |
| 660*        | 52.8      | 32.0 | 30.0   | -    | -     | 11.4 | 8.4    | 14.4        | 50.2     | 56.2    | 21.8     | 27.8    |

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

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (100 to 250 MHz)<br>100 ± 25Ω (251 to 500 MHz) |
| Maximum Resistance Unbalance:          | 3%   |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 70% Plenum<br>68% Riser  |
| Voltage Rating:                        | 300 Volts  |
| LP Rating (UL) - CMP                   | 0.6 Amps/conductor   |

### CABLE AMPACITY CHART

| Bundle Size | 1    |      | 2-7  |      | 8-19 |      | 20-37 |      | 38-61 |      | 62-91 |      | 92-192 |      |
|-------------|------|------|------|------|------|------|-------|------|-------|------|-------|------|--------|------|
|             | 75°C | 90°C | 75°C | 90°C | 75°C | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C   | 90°C |
| 23 AWG      | 2.5  | 2.5  | 1.5  | 1.7  | 1.1  | 1.7  | 0.8   | 0.9  | 0.7   | 0.8  | 0.7   | 0.8  | 0.5    | 0.6  |

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.

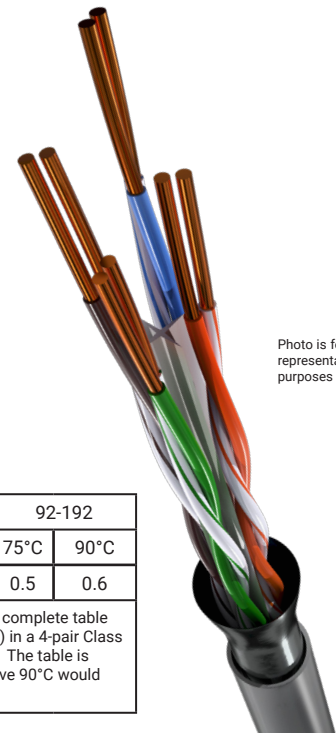


Photo is for representation purposes only.

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## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- UL Verified ANSI/TIA-568.2-D
- Low Smoke Plenum construction
- Tested from 1 to 660 MHz
- UL Tested (LP) for maximum power support

## APPLICATIONS

- HDBase-T A & B
- 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

## 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**  
**Plenum**  
-20°C to +90°C  
(-4°F to +194°F)

## DIELECTRIC MATERIALS

### Plenum

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

### Riser

**Primary Insulation:** Polyolefin  
**Overall Jacket:** Flame-retardant thermoplastic  
**Star Filler:** Flame-retardant thermoplastic

## Cat 6A Supra 10 Gigabit UTP Part Specifications

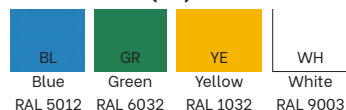
|               | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL) us Listed Type            |
|---------------|-------------|------------|-----------------------|------|--------------|----------|---------------------------------|
|               |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |                                 |
| <b>PLENUM</b> | 30218-8-XXY | 4          | 0.31                  | 7.87 | 47.25        | 21.43    | CMP (NFPA 262),<br>CSA Type FT6 |
|               |             |            |                       |      |              |          |                                 |

|              | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL) us Listed Type            |
|--------------|-------------|------------|-----------------------|------|--------------|----------|---------------------------------|
|              |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |                                 |
| <b>RISER</b> | 30222-8-XXY | 4          | 0.32                  | 8.13 | 36.72        | 16.65    | CMP (NFPA 262),<br>CSA Type FT6 |
|              |             |            |                       |      |              |          |                                 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30218                | 8                 | XX           | Y         |

### Jacket Colors (XX):



\*Riser only available in Blue or White

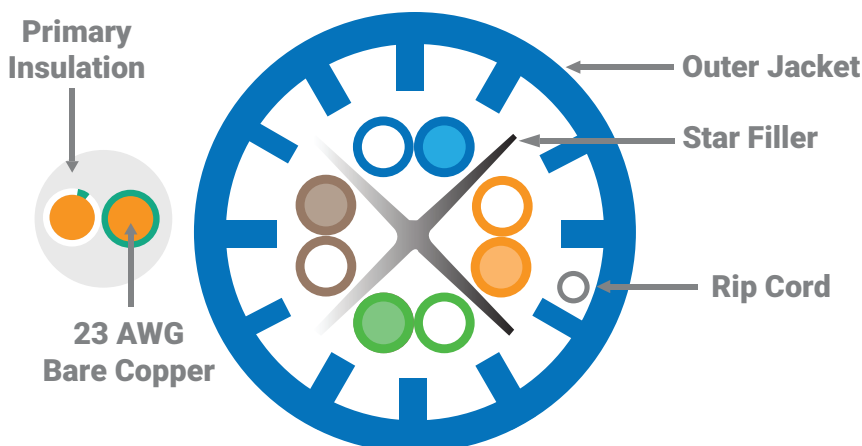
### Non-Stock Jacket Colors (XX):



### Reel Type (Y):



Reel 3: Reel



## Cat 6A Supra 10 Gigabit UTP Transmission Specifications

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

| Freq. (MHz) | Ins. Loss | NEXT | PSNEXT | ACR  | PSACR | ACRF | PSACRF | Return Loss | PSANEXT  | PSANEXT | PSAACRF |
|-------------|-----------|------|--------|------|-------|------|--------|-------------|----------|---------|---------|
|             | Max.      | Min. | Min.   | Min. | Min.  | Min. | Min.   | Min.        | TIA Std. | Min     | Min     |
| 1           | 2.1       | 74.3 | 72.3   | 72.2 | 70.2  | 67.8 | 64.8   | 20.0        | 67.0     | 73.0    | 67.0    |
| 4           | 3.8       | 65.3 | 63.3   | 61.5 | 59.5  | 55.8 | 52.8   | 23.0        | 67.0     | 73.0    | 66.2    |
| 8           | 5.3       | 60.8 | 58.8   | 55.4 | 53.4  | 49.7 | 46.7   | 24.5        | 67.0     | 73.0    | 60.1    |
| 10          | 5.9       | 59.3 | 57.3   | 53.4 | 51.4  | 47.8 | 44.8   | 25.0        | 67.0     | 73.0    | 58.2    |
| 16          | 7.5       | 56.2 | 54.2   | 48.8 | 46.8  | 43.7 | 40.7   | 25.0        | 67.0     | 73.0    | 54.1    |
| 20          | 8.4       | 54.8 | 52.8   | 46.4 | 44.4  | 41.8 | 38.8   | 25.0        | 67.0     | 73.0    | 52.2    |
| 25          | 9.4       | 53.3 | 51.3   | 44.0 | 42.0  | 39.8 | 36.8   | 2.3         | 67.0     | 73.0    | 50.2    |
| 31.25       | 10.5      | 51.9 | 49.9   | 41.4 | 39.4  | 37.9 | 34.9   | 23.6        | 67.0     | 73.0    | 48.3    |
| 62.5        | 15.0      | 47.4 | 45.4   | 32.4 | 30.4  | 31.9 | 28.9   | 21.5        | 65.6     | 71.6    | 42.3    |
| 100         | 19.1      | 44.3 | 42.3   | 25.2 | 23.2  | 27.8 | 24.8   | 20.1        | 62.5     | 68.5    | 38.2    |
| 155         | 24.1      | 41.4 | 39.4   | 17.4 | 15.4  | 24.0 | 21.0   | 18.8        | 59.6     | 65.6    | 34.4    |
| 200         | 27.6      | 39.8 | 37.8   | 12.2 | 10.2  | 21.8 | 18.8   | 18.0        | 58.0     | 64.0    | 32.2    |
| 250         | 31.1      | 38.3 | 36.3   | 7.3  | 5.3   | 19.8 | 16.8   | 17.3        | 56.5     | 62.5    | 30.2    |
| 300         | 34.3      | 37.1 | 35.1   | 2.9  | 0.9   | 18.3 | 15.3   | 16.8        | 55.3     | 61.3    | 28.7    |
| 350         | 37.2      | 36.1 | 34.1   | -    | -     | 16.9 | 13.9   | 16.3        | 54.3     | 60.3    | 27.3    |
| 400         | 40.1      | 35.3 | 33.3   | -    | -     | 15.8 | 12.8   | 15.9        | 53.5     | 59.3    | 26.2    |
| 500         | 45.3      | 33.8 | 31.8   | -    | -     | 13.8 | 10.8   | 15.2        | 52.0     | 58.0    | 24.2    |
| 555*        | 47.9      | 33.1 | 31.1   | -    | -     | 12.9 | 9.9    | 14.9        | 51.3     | 57.3    | 23.3    |
| 660*        | 52.8      | 32.0 | 30.0   | -    | -     | 11.4 | 8.4    | 14.4        | 50.2     | 56.2    | 21.8    |

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

### ELECTRICAL CHARACTERISTICS

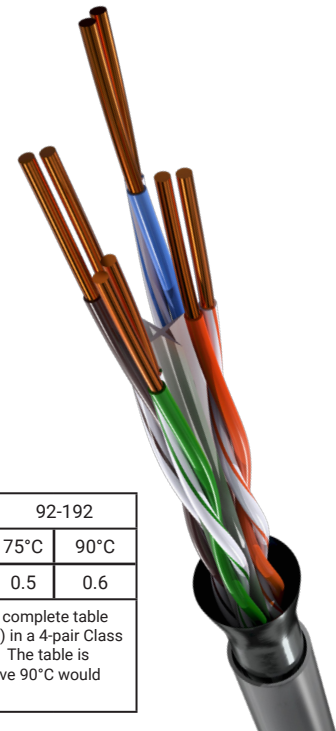
|  |  |
|--|--|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (100 to 250 MHz)<br>100 ± 25Ω (251 to 500 MHz) |
| Maximum Resistance Unbalance:          | 3%   |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 70% Plenum<br>68% Riser  |
| Voltage Rating:                        | 300 Volts  |
| LP Rating (UL) - CMP                   | 0.6 Amps/conductor   |

### CABLE AMPACITY CHART

| Bundle Size | 1    |      | 2-7  |      | 8-19 |      | 20-37 |      | 38-61 |      | 62-91 |      | 92-192 |      |
|-------------|------|------|------|------|------|------|-------|------|-------|------|-------|------|--------|------|
|             | 75°C | 90°C | 75°C | 90°C | 75°C | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C   | 90°C |
| 23 AWG      | 2.5  | 2.5  | 1.5  | 1.7  | 1.1  | 1.7  | 0.8   | 0.9  | 0.7   | 0.8  | 0.7   | 0.8  | 0.5    | 0.6  |

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.



## 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, EMI and alien crosstalk performance
- UL Tested (LP) for maximum power support.
- Supports up to 120 watts for Power Over Ethernet (PoE)

## APPLICATIONS

- HDBase-T A & B
- 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

## 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**  
**Plenum**  
-20°C to +75°C  
(-4°F to +167°F)

### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer

**Overall Jacket:** Low-smoke, flame-retardant thermoplastic

**Star Filler:** Plenum-rated polymer





## Cat 6A Supra 10G Shielded 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 |                              |
| <b>PLENUM</b> |            |                       |      |              |          |                              |
| 30233-8-XXY   | 4          | 0.275                 | 6.98 | 40.34        | 18.29    | CMP (NFPA 262), CSA Type FT6 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30233                | 8                 | XX           | Y         |

### Jacket Colors (XX):








|   |   |   |   |
|---|---|---|---|
|  |  |  |  |
| BL<br>Blue<br>RAL 5012  | GA<br>Gray<br>RAL 7037  | RD<br>Red<br>RAL 3001   | WH<br>White<br>RAL 9003   |

### Reel Type (Y):

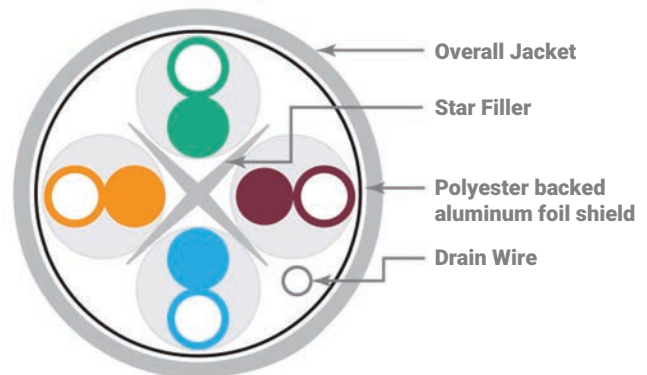
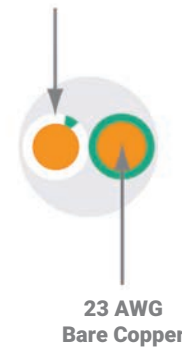


Reel 3: Reel

### Non-Stock Jacket Colors (XX):

|  |  |  |  |   |  |  |
|--|--|--|--|---|--|--|
|  |  |  |  |  |  |  |
| PK<br>Pink<br>RAL 3015   | PG<br>Pale Green<br>RAL 1000   | OR<br>Orange<br>RAL 2012   | RD<br>Red<br>RAL 3001  | VI<br>Violet<br>RAL 4005  | GA<br>Gray<br>RAL 7037   | BK<br>Black<br>RAL 9005  |

### Primary Insulation





## Cat 6A Supra 10G Shielded F/UTP Transmission Specifications

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

| Freq. (MHz) | Ins. Loss | NEXT | PSNEXT | ACR  | PSACR | ACRF | PSACRF | Return Loss | PSANEXT  | PSANEXT | PSAACRF  | PSAACRF |
|-------------|-----------|------|--------|------|-------|------|--------|-------------|----------|---------|----------|---------|
|             | Max.      | Min. | Min.   | Min. | Min.  | Min. | Min.   | Min.        | TIA Std. | Min     | TIA Std. | Min     |
| 1           | 2.1       | 74.3 | 72.3   | 72.2 | 70.2  | 67.8 | 64.8   | 20.0        | 67.0     | 73.0    | 67.0     | 73.0    |
| 4           | 3.8       | 65.3 | 63.3   | 61.5 | 59.5  | 55.8 | 52.8   | 23.0        | 67.0     | 73.0    | 66.2     | 72.2    |
| 8           | 5.3       | 60.8 | 58.8   | 55.4 | 53.4  | 49.7 | 46.7   | 24.5        | 67.0     | 73.0    | 60.1     | 66.1    |
| 10          | 5.9       | 59.3 | 57.3   | 53.4 | 51.4  | 47.8 | 44.8   | 25.0        | 67.0     | 73.0    | 58.2     | 64.2    |
| 16          | 7.5       | 56.2 | 54.2   | 48.8 | 46.8  | 43.7 | 40.7   | 25.0        | 67.0     | 73.0    | 54.1     | 60.1    |
| 20          | 8.4       | 54.8 | 52.8   | 46.4 | 44.4  | 41.8 | 38.8   | 25.0        | 67.0     | 73.0    | 52.2     | 58.2    |
| 25          | 9.4       | 53.3 | 51.3   | 44.0 | 42.0  | 39.8 | 36.8   | 24.3        | 67.0     | 73.0    | 50.2     | 56.2    |
| 31.25       | 10.5      | 51.9 | 49.9   | 41.4 | 39.4  | 37.9 | 34.9   | 23.6        | 67.0     | 73.0    | 48.3     | 54.3    |
| 62.5        | 15.0      | 47.4 | 45.4   | 32.4 | 30.4  | 31.9 | 28.9   | 21.5        | 65.6     | 71.6    | 42.3     | 48.3    |
| 100         | 19.1      | 44.3 | 42.3   | 25.2 | 23.2  | 27.8 | 24.8   | 20.1        | 62.5     | 68.5    | 38.2     | 44.2    |
| 155         | 24.1      | 41.4 | 39.4   | 17.4 | 15.4  | 24.0 | 21.0   | 18.8        | 59.6     | 65.6    | 34.4     | 40.4    |
| 200         | 27.6      | 39.8 | 37.8   | 12.2 | 10.2  | 21.8 | 18.8   | 18.0        | 58.0     | 64.0    | 32.2     | 38.2    |
| 250         | 31.1      | 39.3 | 36.3   | 7.3  | 5.3   | 19.8 | 16.8   | 17.3        | 56.5     | 62.5    | 30.2     | 36.2    |
| 300         | 34.3      | 37.1 | 35.1   | 2.9  | 0.9   | 18.3 | 15.3   | 16.8        | 55.3     | 61.3    | 28.7     | 34.7    |
| 350         | 37.2      | 36.1 | 34.1   | -    | -     | 16.9 | 13.9   | 16.3        | 54.3     | 60.3    | 27.3     | 33.3    |
| 400         | 40.1      | 35.3 | 33.3   | -    | -     | 15.8 | 12.8   | 15.9        | 53.5     | 59.3    | 26.2     | 32.2    |
| 500         | 45.3      | 33.8 | 31.8   | -    | -     | 13.8 | 10.8   | 15.2        | 52.0     | 58.0    | 24.2     | 30.2    |
| 555*        | 47.9      | 33.1 | 31.1   | -    | -     | 12.9 | 9.9    | 14.9        | 51.3     | 57.3    | 23.3     | 29.3    |
| 660*        | 52.8      | 32.0 | 30.0   | -    | -     | 11.4 | 8.4    | 14.4        | 50.2     | 56.2    | 21.8     | 27.8    |

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

### ELECTRICAL CHARACTERISTICS

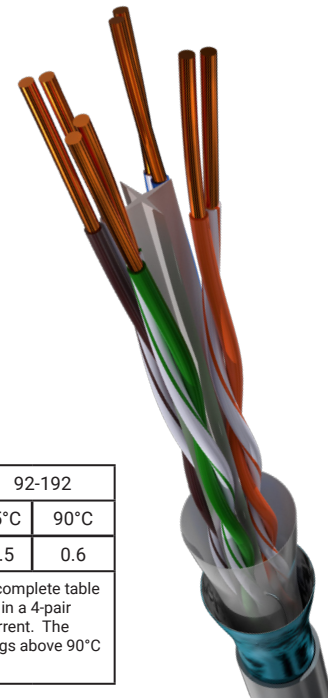
|  |  |
|--|--|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (100 to 250 MHz)<br>100 ± 25Ω (251 to 500 MHz) |
| Maximum Resistance Unbalance:          | 3%   |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 70%, Plenum  |
| Voltage Rating:                        | 300 Volts  |
| LP Rating (UL) - CMP                   | 0.6 Amps/conductor   |

### CABLE AMPACITY CHART

| Bundle Size | 1    |      | 2-7  |      | 8-19 |      | 20-37 |      | 38-61 |      | 62-91 |      | 92-192 |      |
|-------------|------|------|------|------|------|------|-------|------|-------|------|-------|------|--------|------|
|             | 75°C | 90°C | 75°C | 90°C | 75°C | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C  | 90°C | 75°C   | 90°C |
| 23 AWG      | 2.5  | 2.5  | 1.5  | 1.7  | 1.1  | 1.7  | 0.8   | 0.9  | 0.7   | 0.8  | 0.7   | 0.8  | 0.5    | 0.6  |

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.



## PRODUCT HIGHLIGHTS

- RoHS 3 compliant.
- Made in USA.
- Guaranteed minimum performance.
- Tested from 1 to 555 MHz.
- UL Verified ANSI/TIA-568.2-D Category 6.
- UL Verified (UL B627696) for long term water submersion.
- UL Listed for use in plenum areas.
- UV resistant jacket.
- Specifically designed for below-grade conduit or other environments where water is likely to infiltrate.
- Resistant to over 2,000 chemicals.
- No-gel construction simplifies termination.
- Drybit Barrier ensures optimum electrical performance even in harsh environments.
- Available in both UTP and FUTP.
- Standard jacket color is black.

## APPLICATIONS

- HDBase-T A & B
- 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)
- Unit/pallet: 12 Reels  
CMP Carton Weight (lbs): 23.66  
CMP Product Weight (lbs): 20.36

\*weight may vary

## 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**  
-40°C to +90°C  
(-40°F to +194°F)

### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer

**Overall Jacket:** Low-smoke, flame-retardant thermoplastic

**Star Filler:** Plenum-rated polymer

## Cat 6 DryBit<sup>®</sup> Indoor-Outdoor CMP Part Specifications

|                               | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL)us Listed Type                            |
|-------------------------------|-------------|------------|-----------------------|------|--------------|----------|--|
|                               |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |  |
| <b>PLENUM<br/>CMP<br/>UTP</b> | 30315-8-BK3 | 4          | 0.31                  | 7.87 | 54.7         | 24.8     | c(UL)us Listed Type CMP (UL 910), CSA Type FT6 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30315                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

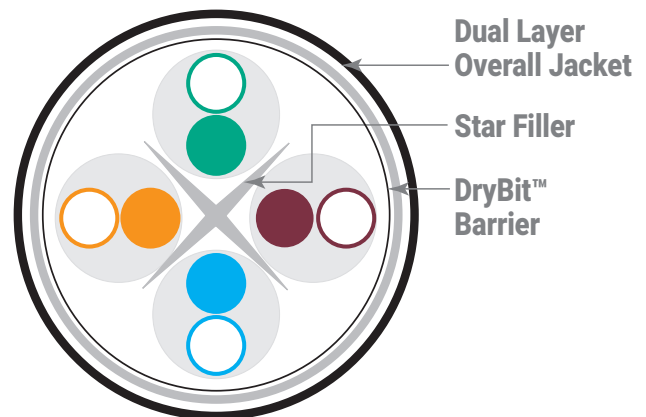


Reel 3: Reel

### Primary Insulation



23 AWG  
Bare Copper



## Cat 6 DryBit® Indoor-Outdoor CMP 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 | 31.9 | 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 |
| 300*        | -         | 36.4 | -    | 37.1 | -      | 35.1 | -    | -    | -     | -    | -    | 18.3 | -      | 15.3 | -           | 16.8 |
| 350*        | -         | 39.8 | -    | 36.1 | -      | 34.1 | -    | -    | -     | -    | -    | 16.9 | -      | 13.9 | -           | 16.3 |
| 400*        | -         | 43.0 | -    | 35.3 | -      | 33.3 | -    | -    | -     | -    | -    | 15.8 | -      | 12.8 | -           | 15.9 |
| 500*        | -         | 48.9 | -    | 33.8 | -      | 31.8 | -    | -    | -     | -    | -    | 13.8 | -      | 10.8 | -           | 15.2 |
| 555*        | -         | 52.0 | -    | 33.1 | -      | 31.1 | -    | -    | -     | -    | -    | 12.9 | -      | 9.9  | -           | 14.9 |



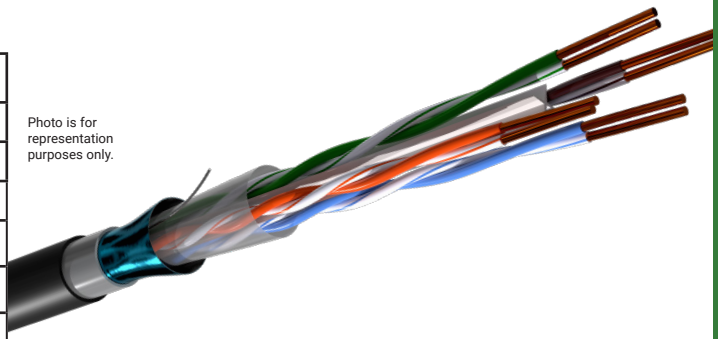
Photo is for representation purposes only.

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

### ELECTRICAL CHARACTERISTICS

|  |                            |
|--|----------------------------|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 250 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω/100 meters @ 20°C   |
| 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                  |

Photo is for representation purposes only.



### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 90°C | 90°C | 90°C | 90°C  | 90°C  | 90°C  | 90°C   |
| 23 AWG      | 2.5  | 1.7  | 1.2  | 0.9   | 0.8   | 0.8   | 0.6    |

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.

Installation Notes: To ensure safe operation, install cables according to all applicable local and national electrical codes.

During installation, take precautions to ensure any water present in pathway does not enter the open end of the cable. Water infiltration via the open ends of the cable will negatively impact cable performance and void any applicable product warranty.

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.





## PRODUCT HIGHLIGHTS

- RoHS 3 compliant.
- Made in USA.
- Guaranteed minimum performance.
- Tested from 1 to 660 MHz.
- UL Verified ANSI/TIA-568.2-D Category 6A.
- UL Verified (UL B627696) for long term water submersion.
- UL Listed for use in plenum areas.
- UV resistant jacket.
- Specifically designed for below-grade conduit or other environments where water is likely to infiltrate.
- Resistant to over 2,000 chemicals.
- No-gel construction simplifies termination.
- DryBit® Barrier ensures optimum electrical performance even in harsh environments.
- Available in both UTP and FUTP.



## 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)
- Unit/pallet: 12 Reels  
CMP Carton Weight (lbs): 23.66  
CMP Product Weight (lbs): 20.36

\*weight may vary



## TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +70°C  
(-40°F to +158°F)
- **Installation Temperature**  
0°C to +60°C  
(+32°F to +140°F)
- **Operation Temperature**  
-40°C to +75°C  
(-40°F to +167°F)

### Plenum

**Primary Insulation:** Plenum-rated fluoropolymer

**Overall Jacket:** Low-smoke, flame-retardant thermoplastic

**Star Filler:** Flame-retardant thermoplastic

## Cat 6A DryBit® Indoor-Outdoor CMP Part Specifications

|                               | Part Number | # of Pairs | Calculated Cable O.D. |      | Cable Weight |          | c(UL)us Listed Type                            |
|-------------------------------|-------------|------------|-----------------------|------|--------------|----------|--|
|                               |             |            | inches                | mm   | lbs/1000ft   | kg/305 m |  |
| <b>PLENUM<br/>CMP<br/>UTP</b> | 30323-8-BK3 | 4          | 0.31                  | 7.87 | 54.7         | 24.8     | c(UL)us Listed Type CMP (UL 910), CSA Type FT6 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30323                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

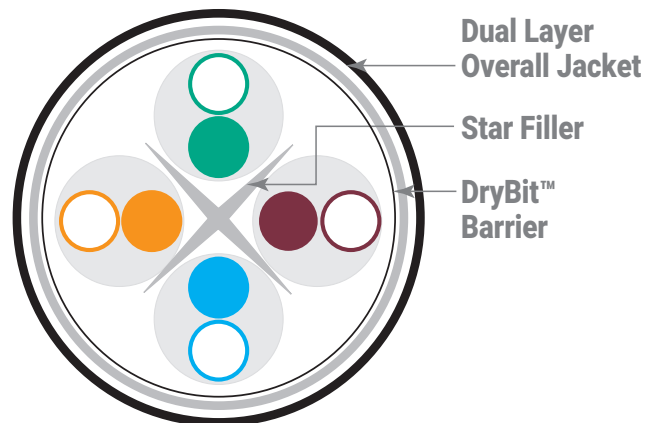


Reel 3: Reel

### Primary Insulation



23 AWG  
Bare Copper



## Cat 6A DryBit® Indoor-Outdoor CMP Transmission Specs

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

| Freq. (MHz) | Ins. Loss | NEXT | PSNEXT | ACR  | PSACR | ACRF | PSACRF | Return Loss | PSANEXT  | PSANEXT | PSAACRF  | PSAACRF |
|-------------|-----------|------|--------|------|-------|------|--------|-------------|----------|---------|----------|---------|
|             | Max.      | Min. | Min.   | Min. | Min.  | Min. | Min.   | Min.        | TIA Std. | Min     | TIA Std. | Min     |
| 1           | 2.1       | 74.3 | 72.3   | 72.2 | 70.2  | 67.8 | 64.8   | 20.0        | 67.0     | 73.0    | 67.0     | 73.0    |
| 4           | 3.8       | 65.3 | 63.3   | 61.5 | 59.5  | 55.8 | 52.8   | 23.0        | 67.0     | 73.0    | 66.2     | 72.2    |
| 8           | 5.3       | 60.8 | 58.8   | 55.4 | 53.4  | 49.7 | 46.7   | 24.5        | 67.0     | 73.0    | 60.1     | 66.1    |
| 10          | 5.9       | 59.3 | 57.3   | 53.4 | 51.4  | 47.8 | 44.8   | 25.0        | 67.0     | 73.0    | 58.2     | 64.2    |
| 16          | 7.5       | 56.2 | 54.2   | 48.8 | 46.8  | 43.7 | 40.7   | 25.0        | 67.0     | 73.0    | 54.1     | 60.1    |
| 20          | 8.4       | 54.8 | 52.8   | 46.4 | 44.4  | 41.8 | 38.8   | 25.0        | 67.0     | 73.0    | 52.2     | 58.2    |
| 25          | 9.4       | 53.3 | 51.3   | 44.0 | 42.0  | 39.8 | 36.8   | 2.3         | 67.0     | 73.0    | 50.2     | 56.2    |
| 31.25       | 10.5      | 51.9 | 49.9   | 41.4 | 39.4  | 37.9 | 34.9   | 23.6        | 67.0     | 73.0    | 48.3     | 54.3    |
| 62.5        | 15.0      | 47.4 | 45.4   | 32.4 | 30.4  | 31.9 | 28.9   | 21.5        | 65.6     | 71.6    | 42.3     | 48.3    |
| 100         | 19.1      | 44.3 | 42.3   | 25.2 | 23.2  | 27.8 | 24.8   | 20.1        | 62.5     | 68.5    | 38.2     | 44.2    |
| 155         | 24.1      | 41.4 | 39.4   | 17.4 | 15.4  | 24.0 | 21.0   | 18.8        | 59.6     | 65.6    | 34.4     | 40.4    |
| 200         | 27.6      | 39.8 | 37.8   | 12.2 | 10.2  | 21.8 | 18.8   | 18.0        | 58.0     | 64.0    | 32.2     | 38.2    |
| 250         | 31.1      | 38.3 | 36.3   | 7.3  | 5.3   | 19.8 | 16.8   | 17.3        | 56.5     | 62.5    | 30.2     | 36.2    |
| 300         | 34.3      | 37.1 | 35.1   | 2.9  | 0.9   | 18.3 | 15.3   | 16.8        | 55.3     | 61.3    | 28.7     | 34.7    |
| 350         | 37.2      | 36.1 | 34.1   | -    | -     | 16.9 | 13.9   | 16.3        | 54.3     | 60.3    | 27.3     | 33.3    |
| 400         | 40.1      | 35.3 | 33.3   | -    | -     | 15.8 | 12.8   | 15.9        | 53.5     | 59.3    | 26.2     | 32.2    |
| 500         | 45.3      | 33.8 | 31.8   | -    | -     | 13.8 | 10.8   | 15.2        | 52.0     | 58.0    | 24.2     | 30.2    |
| 555*        | 47.9      | 33.1 | 31.1   | -    | -     | 12.9 | 9.9    | 14.9        | 51.3     | 3       | 23.3     | 29.3    |
| 660*        | 52.8      | 32.0 | 30.0   | -    | -     | 11.4 | 8.4    | 14.4        | 50.2     | 56.2    | 21.8     | 27.8    |



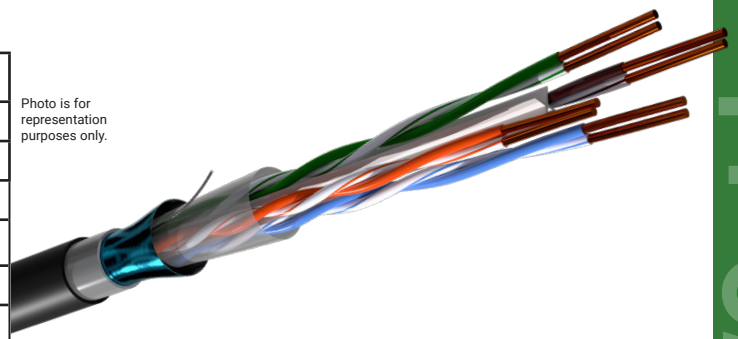
Photo is for representation purposes only.

\*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 250 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω/100 meters @ 20°C   |
| 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                  |

Photo is for representation purposes only.



### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 90°C | 90°C | 90°C | 90°C  | 90°C  | 90°C  | 90°C   |
| 23 AWG      | 2.5  | 1.7  | 1.2  | 0.9   | 0.8   | 0.8   | 0.6    |

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.

Installation Notes: To ensure safe operation, install cables according to all applicable local and national electrical codes.

During installation, take precautions to ensure any water present in pathway does not enter the open end of the cable. Water infiltration via the open ends of the cable will negatively impact cable performance and void any applicable product warranty.

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## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- Cable Rated for Outdoor Use
- Suitable for direct burial, lashed aerial, duct and underground conduit applications
- Cable core is filled with non-conductive, water-blocking gel
- Tested from 1 to 400 MHz.
- Rugged black polyolefin jacket
- UV resistant jacket

## APPLICATIONS

- HDBase-T A & B (Cat 6)
- 5 Gigabit Ethernet (IEEE 802.3bz)(Cat 6)
- 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 foot (305 m) reels
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12 Reels

\*weight may vary

## TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +70°C  
(-40°F to +158°F)
- **Installation Temperature**  
-20°C to +70°C  
(-4°F to +158°F)
- **Operation Temperature**  
-40°C to +70°C  
(-40°F to +158°F)

## Cat 5e Outside Plant 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 |                      |
| <b>OUTDOOR F/UTP</b> | 30145-8-XXY | 4          | 0.23                  | 5.8 | 25.75        | 11.68    | PO, CSA Type FT6     |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30145                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

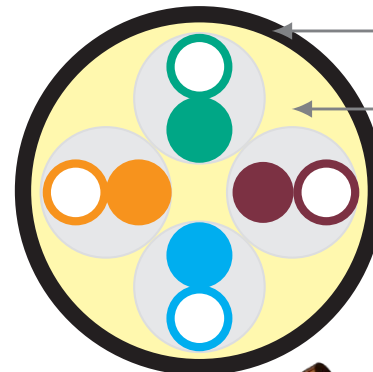


Reel 3: Reel

### Primary Insulation

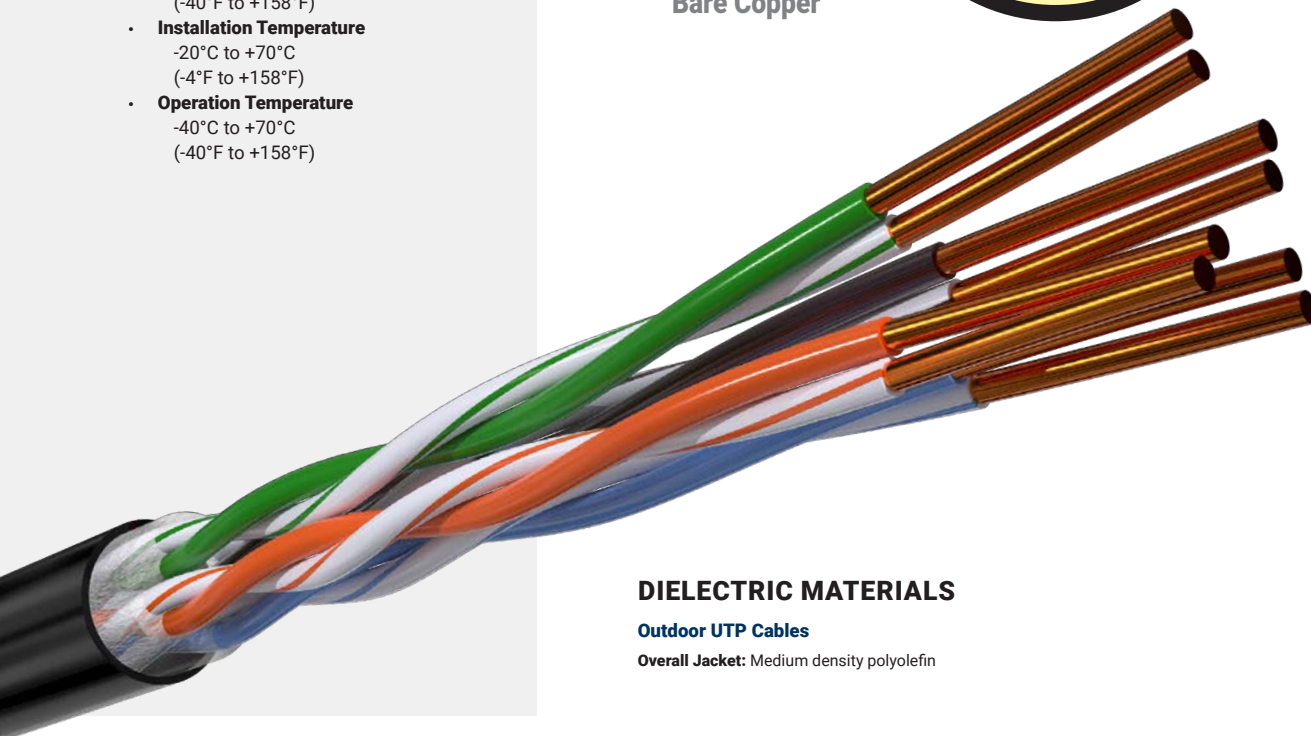


24 AWG Bare Copper



Rugged Polyolefin Overall Jacket

Non-conductive, water-blocking gel



## DIELECTRIC MATERIALS

Outdoor UTP Cables

Overall Jacket: Medium density polyolefin



## Cat 5e Outside Plant UTP Transmission Specifications

ANSI/TIA-568.2-D Category 5e 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  | 65.3 | 65.3 | 62.3   | 62.3 | 63.3 | 63.3 | 60.3  | 60.3 | 63.8 | 63.8 | 60.8   | 60.8 | 20.0        | 20.0 |
| 4           | 4.1       | 4.1  | 56.3 | 56.3 | 53.3   | 53.3 | 52.2 | 52.2 | 49.2  | 49.2 | 51.8 | 51.8 | 48.8   | 48.8 | 23.0        | 23.0 |
| 8           | 5.8       | 5.8  | 51.8 | 51.8 | 48.8   | 48.8 | 46.0 | 46.0 | 43.0  | 43.0 | 45.7 | 45.7 | 42.7   | 42.7 | 24.5        | 24.5 |
| 10          | 6.5       | 6.5  | 50.3 | 50.3 | 47.3   | 47.3 | 43.8 | 43.8 | 40.8  | 40.8 | 43.8 | 43.8 | 40.8   | 40.8 | 25.0        | 25.0 |
| 16          | 8.2       | 8.2  | 47.2 | 47.2 | 44.2   | 44.2 | 39.0 | 39.0 | 36.0  | 36.0 | 39.7 | 39.7 | 36.7   | 36.7 | 25.0        | 25.0 |
| 31.25       | 11.7      | 11.7 | 42.9 | 42.9 | 39.9   | 39.9 | 31.2 | 31.2 | 28.2  | 28.2 | 33.9 | 33.9 | 30.9   | 30.9 | 23.6        | 23.6 |
| 62.5        | 17.0      | 17.0 | 38.4 | 38.4 | 35.4   | 35.4 | 21.4 | 21.4 | 18.4  | 18.4 | 27.9 | 27.9 | 24.9   | 24.9 | 21.5        | 21.5 |
| 100         | 22.0      | 22.0 | 35.3 | 35.3 | 32.3   | 32.3 | 13.3 | 13.3 | 10.3  | 10.3 | 23.8 | 23.8 | 20.8   | 20.8 | 20.1        | 20.1 |
| 155*        | -         | 28.1 | -    | 32.4 | -      | 29.4 | 4.4  | 4.4  | 1.4   | 1.4  | -    | 20.0 | -      | 17.0 | -           | 18.8 |
| 200*        | -         | 32.4 | -    | 30.8 | -      | 27.8 | -    | -    | -     | -    | -    | 17.8 | -      | 14.8 | -           | 18.0 |
| 250*        | -         | 36.9 | -    | 29.3 | -      | 26.3 | -    | -    | -     | -    | -    | 15.8 | -      | 12.8 | -           | 17.3 |
| 400*        | -         | 48.5 | -    | 26.3 | -      | 23.3 | -    | -    | -     | -    | -    | 11.8 | -      | 8.8  | -           | 15.9 |
| 555*        | -         | 52.0 | -    | 33.1 | -      | 31.1 | -    | -    | -     | -    | -    | 12.9 | -      | 9.9  | -           | 14.9 |

All values are dB/100m.

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedance:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 15Ω (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): | 63%  |
| Voltage Rating:                        | 300 Volts  |

### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 60°C | 60°C | 60°C | 60°C  | 60°C  | 60°C  | 60°C   |
| 24 AWG      | 2.0  | 1.0  | 0.8  | 0.6   | 0.5   | 0.4   | 0.3    |

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 90c would deliver additional power handling capacity.

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Photo is for representation purposes only.



## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- Cable Rated for Outdoor Use
- Suitable for direct burial, lashed aerial, duct and underground conduit applications
- Tested from 1 to 660 MHz.
- Cable core is filled with non-conductive, water-blocking gel
- Rugged black polyolefin jacket
- UV resistant jacket

## APPLICATIONS

- HDBase-T A & B (Cat 6)
- 5 Gigabit Ethernet (IEEE 802.3bz)(Cat 6)
- 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 foot (305 m) reels
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12 Reels

\*weight may vary

## TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +70°C  
(-40°F to +158°F)
- **Installation Temperature**  
-20°C to +70°C  
(-4°F to +158°F)
- **Operation Temperature**  
-40°C to +70°C  
(-40°F to +158°F)

## Cat 6 Outside Plant 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 |                      |
| <b>OUTDOOR UTP</b> | 30180-8-XXY | 4          | 0.270                 | 6.858 | 34.65        | 15.72    | PO, CSA Type FT6     |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30180                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

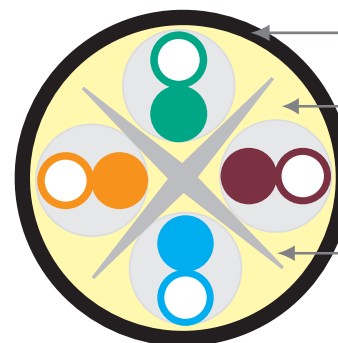


Reel 3: Reel

### Primary Insulation



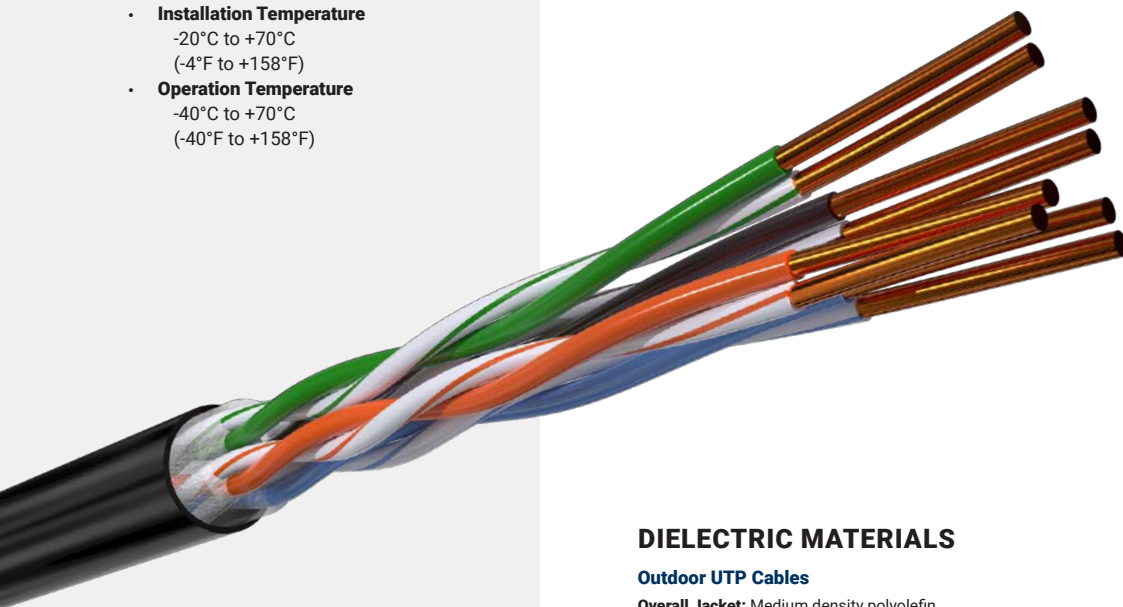
24 AWG  
Bare Copper



Rugged Polyolefin  
Overall Jacket

Non-conductive,  
water-blocking gel

Star Filler



## DIELECTRIC MATERIALS

**Outdoor UTP Cables**

**Overall Jacket:** Medium density polyolefin





## Cat 6 Outside Plant 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 |
| 155         | 25.2      | 25.2 | 41.1 | 41.1 | 39.4   | 39.4 | 16.3 | 16.3 | 14.3  | 14.3 | 24.0 | 24.0 | 21.0   | 21.0 | 18.8        | 18.8 |
| 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 |

All values are dB/100m.

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedence:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 15Ω (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): | 67%  |
| Voltage Rating:                        | 300 Volts  |

### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 60°C | 60°C | 60°C | 60°C  | 60°C  | 60°C  | 60°C   |
| 24 AWG      | 2.5  | 1.0  | 0.8  | 0.6   | 0.5   | 0.5   | 0.3    |

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 90c would deliver additional power handling capacity.

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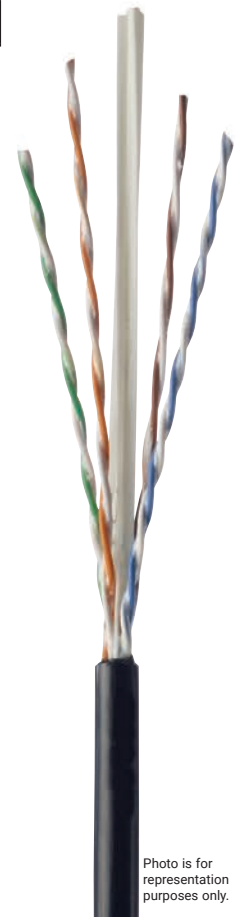


Photo is for representation purposes only.



## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- Cable Rated for Outdoor Use
- Suitable for direct burial, lashed aerial, duct and underground conduit applications
- Cable core is filled with non-conductive, water-blocking gel
- Tested from 1 to 660 MHz.
- Rugged black polyolefin jacket
- UV resistant jacket
- Proven shield technology improves RFI and EMI performance

## 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 foot (305 m) reels
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12 Reels
- CMP Carton Weight (lbs): 47.0
- CMP Product Weight (lbs): 43.7

\*weight may vary, call for CMR information

## TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +70°C  
(-40°F to +158°F)
- **Installation Temperature**  
-20°C to +70°C  
(-4°F to +158°F)
- **Operation Temperature**  
-40°C to +70°C  
(-40°F to +158°F)

## Cat 6A Shielded Outside Plant F/UTP Single Jacket

|                      | Part Number | # of Pairs | Calculated Cable O.D. |       | Cable Weight |          | c(UL) us Listed Type         |
|----------------------|-------------|------------|-----------------------|-------|--------------|----------|------------------------------|
|                      |             |            | inches                | mm    | lbs/1000ft   | kg/305 m |                              |
| <b>OUTDOOR F/UTP</b> | 30348-8-XXY | 4          | 0.320                 | 8.128 | 40.6         | 18.4     | CMP (NFPA 262), CSA Type FT6 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30348                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

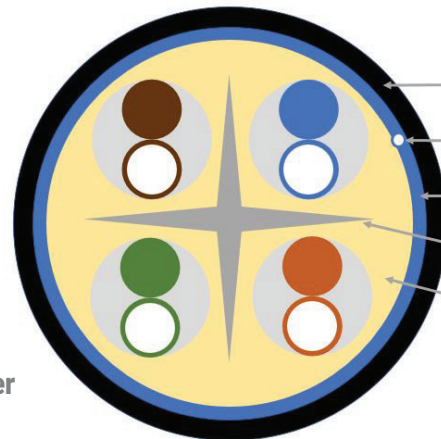


Reel 3: Reel

### Primary Insulation



24 AWG  
Bare Copper



Rugged Polyolefin Jacket

Drain Wire

Polyester backed aluminum foil shield  
Star Filler

Non-conductive, water-blocking gel

## DIELECTRIC MATERIALS

### Outdoor F/UTP Cables

**Primary Insulation:** Polyolefin and/or Fluoropolymer

**Overall Jacket:** Medium density polyolefin



## Cat 6A Shielded Outside Plant F/UTP Single Jacket

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

| Frequency (MHz) | Insertion Loss Max. (dB/100m) | NEXT Loss Min. (dB / 100 m) |      | ACR Min. (dB / 100 m) |      | ACRF Min. (dB / 100 m) |      | Return Loss Min. (dB/100m) | Delay Max. (ns/100m) |
|-----------------|-------------------------------|-----------------------------|------|-----------------------|------|------------------------|------|----------------------------|----------------------|
|                 |                               | WP                          | PS   | WP                    | PS   | WP                     | PS   |                            |                      |
| 1               | 2.1                           | 74.3                        | 72.3 | 72.2                  | 70.2 | 67.8                   | 64.8 | 20.0                       | 599                  |
| 4               | 3.8                           | 65.3                        | 63.3 | 61.5                  | 59.5 | 55.8                   | 52.8 | 23.0                       | 580                  |
| 8               | 5.3                           | 60.8                        | 58.8 | 55.4                  | 53.4 | 49.7                   | 46.7 | 24.5                       | 574                  |
| 10              | 5.9                           | 59.3                        | 57.3 | 53.4                  | 51.4 | 47.8                   | 44.8 | 25.0                       | 573                  |
| 16              | 7.5                           | 56.2                        | 54.2 | 48.8                  | 46.8 | 43.7                   | 40.7 | 25.0                       | 570                  |
| 20              | 8.4                           | 54.8                        | 52.8 | 46.4                  | 44.4 | 41.8                   | 38.8 | 25.0                       | 569                  |
| 25              | 9.4                           | 53.3                        | 51.3 | 44.0                  | 42.0 | 39.8                   | 36.8 | 24.3                       | 568                  |
| 31.25           | 10.5                          | 51.9                        | 49.9 | 41.4                  | 39.4 | 37.9                   | 34.9 | 23.6                       | 567                  |
| 62.5            | 15.0                          | 47.4                        | 45.4 | 32.4                  | 30.4 | 31.9                   | 28.9 | 21.5                       | 565                  |
| 100             | 19.1                          | 44.3                        | 42.3 | 25.2                  | 23.2 | 27.8                   | 24.8 | 20.1                       | 564                  |
| 155             | 24.1                          | 41.4                        | 39.4 | 17.4                  | 15.4 | 24.0                   | 21.0 | 18.8                       | 564                  |
| 200             | 27.6                          | 39.8                        | 37.8 | 12.2                  | 10.2 | 21.8                   | 18.8 | 18.0                       | 563                  |
| 250             | 31.1                          | 38.3                        | 36.3 | 7.3                   | 5.3  | 19.8                   | 16.8 | 17.3                       | 563                  |
| 300             | 34.3                          | 37.1                        | 35.1 | 2.9                   | 0.9  | 18.3                   | 15.3 | 16.8                       | 563                  |
| 350             | 37.2                          | 36.1                        | 34.1 | -                     | -    | 16.9                   | 13.9 | 16.3                       | 563                  |
| 400             | 40.1                          | 35.3                        | 33.3 | -                     | -    | 15.8                   | 12.8 | 15.9                       | 563                  |
| 500             | 45.3                          | 33.8                        | 31.8 | -                     | -    | 13.8                   | 10.8 | 15.2                       | 562                  |
| 555*            | 47.9                          | 33.1                        | 31.1 | -                     | -    | 12.9                   | 9.9  | 14.9                       | 562                  |
| 660*            | 52.8                          | 32.0                        | 30.0 | -                     | -    | 11.4                   | 8.4  | 14.4                       | 562                  |

### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedance:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (100 to 250 MHz)<br>100 ± 25Ω (251 to 500 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω /100 Meters @ 20°C  |
| Maximum Resistance Unbalance:          | 3%   |
| Maximum Mutual Capacitance:            | 5.6 nF/100 Meters @ 1 kHz  |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 67%  |

### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 60°C | 60°C | 60°C | 60°C  | 60°C  | 60°C  | 60°C   |
| 23 AWG      | 2.5  | 1.2  | 0.8  | 0.6   | 0.5   | 0.5   | 0.4    |

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 90c would deliver additional power handling capacity.



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## PRODUCT HIGHLIGHTS

- RoHS 3 compliant
- Made in U.S.A.
- Suitable for direct burial, lashed aerial, duct and underground conduit applications
- Tested from 1 to 660 MHz.
- Cable core is filled with non-conductive, water-blocking gel
- Rugged black polyolefin jacket
- UV resistant jacket.
- Proven shield technology improves RF and EMI performance

## 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 foot (305 m) reels
- Reverse sequential footage markings standard on each 1,000 foot package
- Unit/pallet: 12

## TEMPERATURE RANGE

- **Storage Temperature**  
-40°C to +70°C  
(-40°F to +158°F)
- **Installation Temperature**  
-20°C to +70°C  
(-4°F to +158°F)
- **Operation Temperature**  
-40°C to +70°C  
(-40°F to +158°F)

## Cat 6A Shielded Outside Plant F/UTP Dual Jacket

|                      | Part Number | # of Pairs | Calculated Cable O.D. |       | Cable Weight |          | c(UL)us Listed Type         |
|----------------------|-------------|------------|-----------------------|-------|--------------|----------|-----------------------------|
|                      |             |            | inches                | mm    | lbs/1000ft   | kg/305 m |                             |
| <b>OUTDOOR F/UTP</b> | 30287-8-XXY | 4          | 0.360                 | 9.144 | 56.87        | 25.8     | PO (NFPA 262), CSA Type FT6 |

## Building a Part Number

| Base Part Number Ex. | No. of Conductors | Jacket Color | Reel Type |
|----------------------|-------------------|--------------|-----------|
| 30287                | 8                 | XX           | Y         |

### Jacket Colors (XX):



### Reel Type (Y):

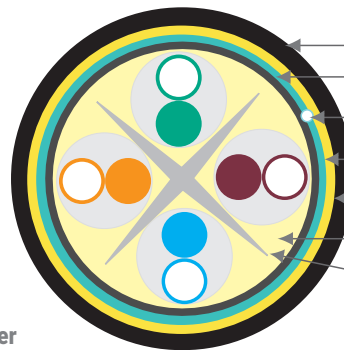


Reel 3: Reel

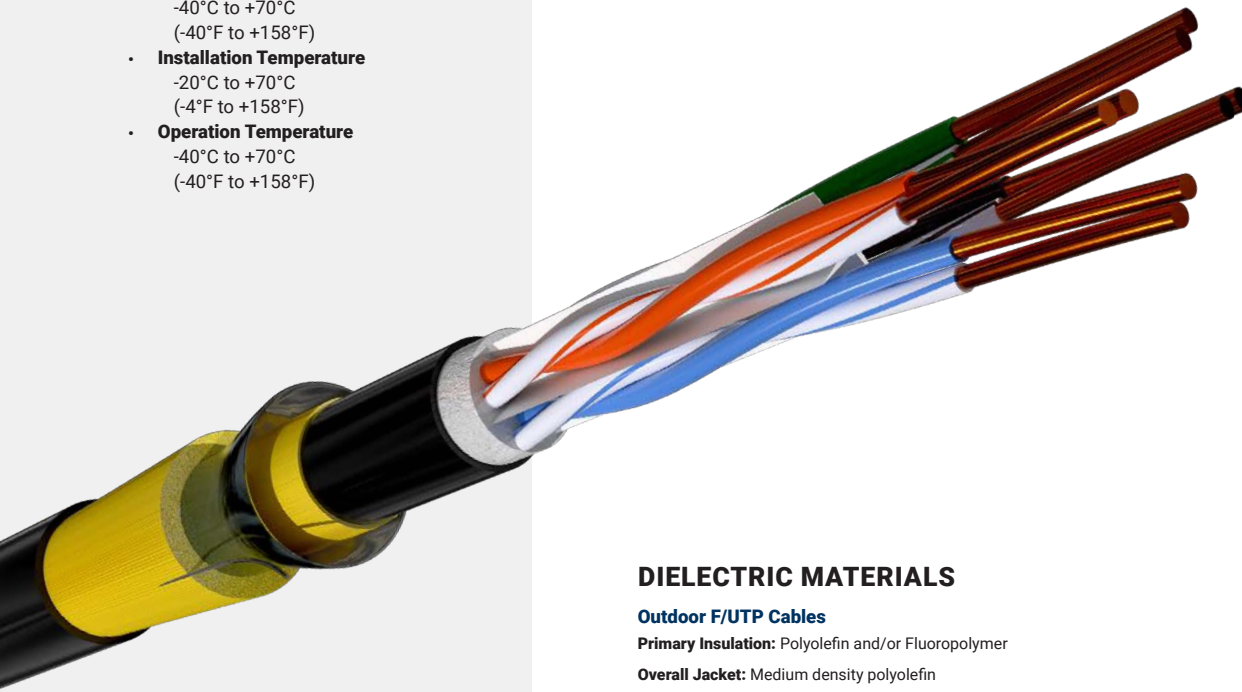
### Primary Insulation



24 AWG  
Bare Copper



- Rugged Polyolefin Jacket
- Polyolefin Inner Jacket
- Drain Wire
- Polyester backed aluminum foil shield
- SAP Impregnated Aramid Yarns
- Non-Conductive/Water-blocking Gel
- Star Filler



## DIELECTRIC MATERIALS

### Outdoor F/UTP Cables

**Primary Insulation:** Polyolefin and/or Fluoropolymer

**Overall Jacket:** Medium density polyolefin



## Cat 6A Shielded Outside Plant F/UTP Dual Jacket

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

| Frequency (MHz) | Insertion Loss Max. (dB/100m) | NEXT Loss Min. (dB / 100 m) |      | ACR Min. (dB / 100 m) |      | ACRF Min. (dB / 100 m) |      | Return Loss Min. (dB/100m) | Delay Max. (ns/100m) |
|-----------------|-------------------------------|-----------------------------|------|-----------------------|------|------------------------|------|----------------------------|----------------------|
|                 |                               | WP                          | PS   | WP                    | PS   | WP                     | PS   |                            |                      |
| 1               | 2.1                           | 74.3                        | 72.3 | 72.2                  | 70.2 | 67.8                   | 64.8 | 20.0                       | 599                  |
| 4               | 3.8                           | 65.3                        | 63.3 | 61.5                  | 59.5 | 55.8                   | 52.8 | 23.0                       | 580                  |
| 8               | 5.3                           | 60.8                        | 58.8 | 55.4                  | 53.4 | 49.7                   | 46.7 | 24.5                       | 574                  |
| 10              | 5.9                           | 59.3                        | 57.3 | 53.4                  | 51.4 | 47.8                   | 44.8 | 25.0                       | 573                  |
| 16              | 7.5                           | 56.2                        | 54.2 | 48.8                  | 46.8 | 43.7                   | 40.7 | 25.0                       | 570                  |
| 20              | 8.4                           | 54.8                        | 52.8 | 46.4                  | 44.4 | 41.8                   | 38.8 | 25.0                       | 569                  |
| 25              | 9.4                           | 53.3                        | 51.3 | 44.0                  | 42.0 | 39.8                   | 36.8 | 24.3                       | 568                  |
| 31.25           | 10.5                          | 51.9                        | 49.9 | 41.4                  | 39.4 | 37.9                   | 34.9 | 23.6                       | 567                  |
| 62.5            | 15.0                          | 47.4                        | 45.4 | 32.4                  | 30.4 | 31.9                   | 28.9 | 21.5                       | 565                  |
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| 155             | 24.1                          | 41.4                        | 39.4 | 17.4                  | 15.4 | 24.0                   | 21.0 | 18.8                       | 564                  |
| 200             | 27.6                          | 39.8                        | 37.8 | 12.2                  | 10.2 | 21.8                   | 18.8 | 18.0                       | 563                  |
| 250             | 31.1                          | 38.3                        | 36.3 | 7.3                   | 5.3  | 19.8                   | 16.8 | 17.3                       | 563                  |
| 300             | 34.3                          | 37.1                        | 35.1 | 2.9                   | 0.9  | 18.3                   | 15.3 | 16.8                       | 563                  |
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| 400             | 40.1                          | 35.3                        | 33.3 | -                     | -    | 15.8                   | 12.8 | 15.9                       | 563                  |
| 500             | 45.3                          | 33.8                        | 31.8 | -                     | -    | 13.8                   | 10.8 | 15.2                       | 562                  |
| 555*            | 47.9                          | 33.1                        | 31.1 | -                     | -    | 12.9                   | 9.9  | 14.9                       | 562                  |
| 660*            | 52.8                          | 32.0                        | 30.0 | -                     | -    | 11.4                   | 8.4  | 14.4                       | 562                  |



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### ELECTRICAL CHARACTERISTICS

|  |  |
|--|--|
| Input Impedance:                       | 100 ± 15Ω (1.0 to 100 MHz)<br>100 ± 20Ω (100 to 250 MHz)<br>100 ± 25Ω (251 to 500 MHz) |
| Maximum Conductor Resistance:          | 9.38 Ω /100 Meters @ 20°C  |
| Maximum Resistance Unbalance:          | 3%   |
| Maximum Mutual Capacitance:            | 5.6 nF/100 Meters @ 1 kHz  |
| Maximum Capacitance Unbalance:         | 330 pF/100 meters  |
| Maximum Delay Skew:                    | 45 ns/100 meters   |
| Nominal Velocity Of Propagation (Nvp): | 67%  |

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

### CABLE AMPACITY CHART

| Bundle Size | 1    | 2-7  | 8-19 | 20-37 | 38-61 | 62-91 | 92-192 |
|-------------|------|------|------|-------|-------|-------|--------|
| Cable Temp  | 60°C | 60°C | 60°C | 60°C  | 60°C  | 60°C  | 60°C   |
| 23 AWG      | 2.5  | 1.2  | 0.8  | 0.6   | 0.5   | 0.5   | 0.4    |

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## Notes



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## Notes



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**Performance Cable Division**

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