

### PRODUCT HIGHLIGHTS

- RoHS 2 compliant
- Made in U.S.A.
- UL Verified
- Low Smoke Plenum construction
- Tested from 1 to 660 MHz
- Small O.D. allows more cables per conduit
- Proven shield technology improves RFI and EMI performance

### TEMPERATURE RANGE

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

### APPLICATIONS

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

### PACKAGING

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

\*weight may vary

### DIELECTRIC MATERIALS

#### Plenum

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

### Cat 6 F/UTP Part Specifications

Part Number	# of Pairs	Calculated Cable O.D.		Cable Weight		c(UL) us Listed Type
		inches	mm	lbs/1000ft	kg/305 m	
<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

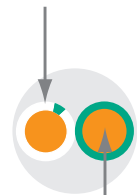
#### Jacket Colors (XX):

BL	GR	RD	WH
Blue RAL 5012	Green RAL 6032	Red RAL 3001	White RAL 9003

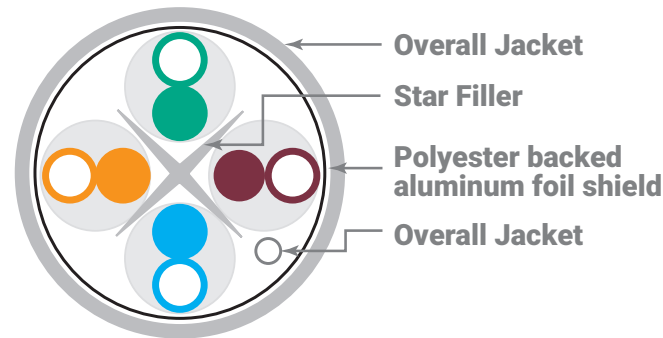
#### Reel Type (Y):



#### Primary Insulation



23 AWG Bare Copper



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

### Cat 6 F/UTP Transmission Specifications

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) 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.

