

# GenSPEED® 6 EfficienCMAX® Category 6 Cable (22 AWG)

The Most Versatile Cable in the Industry

GenSPEED®

GenSPEED 6 EfficienCMAX Category 6 (22AWG) cable provides maximum versatility to challenging installations. The cable meets all Category 6 requirements under 100 Meters with a certified LP listing of 0.6A. It also provides power and bandwidth at extended distances beyond the IEEE standard. The same industry-trusted high powered PoE cable that has been in the market since 2015 is now guaranteed to meet your extended distance needs.

**GenSPEED 6 (22 AWG) goes beyond the IEEE 802.3bt Type 4 standard of 100 W by supporting applications up to 120 W for even more coverage of high-wattage equipment.**

- First to Industry with UL Listing CMP-LP (0.6A)\*
- Constructed of 100% fluoropolymer insulation for higher protection

**Large-Gauge Conductors for High-Powered Applications**

- Reduced heat generation
- Higher maximum current carrying capabilities
- Improved attenuation performance

**Higher Protection against increased operating temperatures**

- Rated to 90°C surpassing the industry standard of 60°C
- Prevents material degradation from elevated temperatures over extended periods
- Reduces impact of high-powered non-standard PoE applications

**Power over Extended Distance (1GB @ 200m and 10Mbps @ 274m):**

**EfficienCMAX® Achieves 1Gbps at 200m and 10Mbps at 274m to Meet Growing Demand for Higher Bandwidth for Camera Applications.**

**Power Digital IP Based Cameras with Extended Distance Capabilities, such as:**

- Up to 4K image resolution
- Distributed artificial intelligence (DAI)
- Secure data transmission
- Two Way Audio

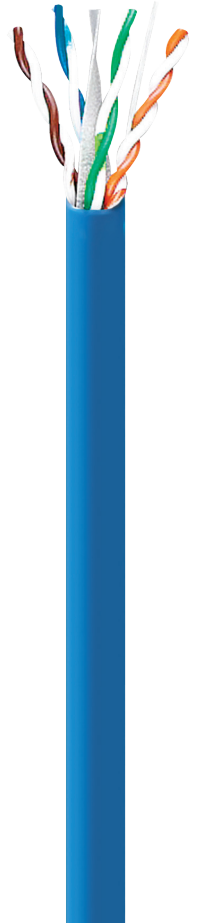
**Save on Unnecessary Materials No Longer Needed With a Long Distance Cable Installation**

- Fewer number of terminations results in lower connectivity costs
- Save on power equipment, including, booster boxes and media converters

**Longer Runs Mean Less Labor Hours and More Savings**

- Run continuous lengths over 100m previously restricted for PoE applications
- Decrease potential points of failure
- Increased flexibility for complex installations

**Can contribute toward Two LEED® points with EPD's and HPD's**



FEATURING  
**EFFICIENCMAX**  
technology to support PoE applications



\* 0.6A is the ampacity rating of the cable, which equates to 120 watts using 50 volts over four pairs.

**General Cable**

A Brand of Prysmian Group

**Prysmian Group**

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DAT-0005-0820

## FEATURES & BENEFITS

- 100% fluoropolymer insulation construction
- Performance guaranteed to 350 MHz
- Guaranteed 7% Insertion Loss improvement over Category 6 industry standard, substantially increasing headroom of ACR and PSACR
- TRU-Mark® print legend contains footage markings from 1000' to 0'
- Made in U.S.A.

## APPLICATIONS

- IEEE 802.3: 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+
- ANSI/TIA 854: 1000 BASE-TX
- Digital Video
- Broadband and Baseband Analog Video
- CDDI, Token Ring, ATM
- Supports the growth of higher-wattage devices (IT/IP, IoT, and IoE)
- Compatible with new higher-speed, higher-power USB 3.1 SuperSpeed

## STANDARD COMPLIANCES

- ANSI/TIA 568.2-D
- TIA TSB-184:2009
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2011/65/EU
- UL 444
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ICEA S-102-700
- ISO/IEC 11801 Ed. 2.0 (Class E)



## CONSTRUCTION

### Conductors

- 22 AWG solid bare annealed copper

### Insulation

- Fluoropolymer

### Color Code

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

### Separator

- Divider

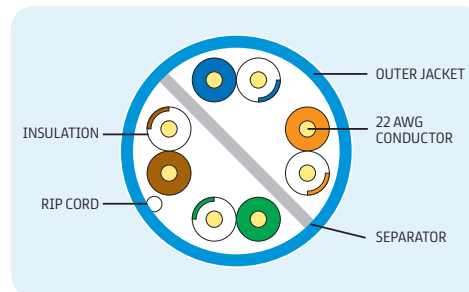
### Rip Cord

- Applied longitudinally under jacket

### Jacket

- Low-smoke, flame-retardant PVC

## Cat 6 (22 AWG) CROSS-SECTION



## PHYSICAL DATA

Nominal Cable Diameter (in)	0.245
Nominal Cable Weight (lbs/1000 ft)	38.0
Minimum Bend Radius (in)	1.0
Maximum Pulling Force (lbs)	32
Temperature Rating (°C)	
Installation:	0 to +60
Operation:	-20 to +90

## PART NUMBERS

Standard Packaging: 1000' Pull-Pac® II

Jacket Color	Part Number
Blue	8131800
White	8131801
Yellow	8131802
Gray	8131803
Red	8131804
Orange	8131805
Green	8131806

## ELECTRICAL CHARACTERISTICS

	Max.	Nom.
<b>DC Resistance</b> Ohms/100 m (328 ft) @ 20° C	9.38	6.5
<b>DC Resistance Unbalanced</b> Individual Pair %	4.00	< 1
<b>Delay Skew</b> ns/100 m	45	35
<b>Nom. Velocity of Propagation</b> % Speed of Light	74	
<b>Characteristic Impedance</b> Frequency (f): 1-350 MHz	Ohms 100 ± 15	

## ELECTRICAL PERFORMANCE

Frequency MHz	PSACR* (min)	ACR* (min)	Insertion Loss (max)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)	TCL (min)
1	70.4	72.4	1.9	72.3	74.3	64.8	67.8	20.0	40.0
4	59.8	61.8	3.5	63.3	65.3	52.8	55.7	23.0	40.0
10	51.8	53.8	5.5	57.3	59.3	44.8	47.8	25.0	40.0
16	47.2	49.2	7.0	54.2	56.2	40.7	43.7	25.0	38.0
20	44.9	46.9	7.9	52.8	54.8	38.8	41.7	25.0	37.0
31.25	40.0	42.0	9.9	49.9	51.9	34.9	37.9	23.6	35.1
62.5	31.1	33.1	14.3	45.4	47.4	28.9	31.8	21.5	32.0
100	25.9	25.9	18.4	42.3	44.3	24.8	27.8	20.1	30.0
150	16.7	18.7	23.0	39.7	41.7	21.3	24.3	18.9	28.2
200	10.8	12.8	27.0	37.8	39.8	18.8	21.8	18.0	27.0
250	5.7	7.7	30.6	36.3	38.3	16.8	19.8	17.3	26.0
350	—	—	37.0	34.1	36.1	13.9	16.9	16.3	—
400	—	—	40.0	33.3	35.3	12.8	15.8	15.9	—
500	—	—	45.5	31.8	33.8	10.8	13.8	15.2	—

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20°C. Results beyond 350MHz are for reference only.  
\*PSACR & ACR not specified in ANSI/TIA 568.2-D