Gen*SPEED*® 6 MAX™ Category 6 Cable (22 AWG)

The Most Versatile Cable in the Industry

Gen*SPEED* 6 MAX Category 6 (22 AWG) cables provide maximum versatility to challenging installations with a Plenum and Outside Plant cable option. The cable meets all Category 6 requirements under 100 meters with a certified LP listing of 0.7 A for MAX Plenum. 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.

MAX now available in Plenum and Outside Plant construction for longer runs to remote and outside applications.

- Temperature ratings of 105°C CMP and 80°C OSP, surpassing industry standards
- Made in the U.S.A.
- Available in longer-length packaging

Gen*SPEED* 6 (22 AWG) goes beyond the IEEE 802.3bt Type 4 standard of 100 W by supporting applications up to 140 W for even more coverage of high-wattage equipment.

- First to industry with UL listing CMP-LP (0.7 A)*
- MAX CMP is 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

- Prevents material degradation from elevated temperatures over extended periods
- Reduces impact of high-powered nonstandard PoE applications

*Power over extended distance (1 GB @ 200 m** and 10 Mbps @ 274 m**):*

MAX® Achieves 1G bps at 200 m and 10 Mbps at 274 m** 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 fewer labor hours and more savings

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

Cat6 MAX Plenum can contribute toward two LEED® points with EPDs and HPDs

	Part Number	Flame Rating	LP Listing	Temperature Rating	Weight (lbs)	1GB**	10Mbps**
MAX CMP	8131800	CMP	0.7 A	105°C	38	200 m	274 m
MAX OSP	8146100	OSP	N/A	80°C	40	200 m	274 m

*0.7 A is the ampacity rating of the cable, which equates to 140 watts using 50 volts over four pairs. Results may vary based on temperature and other external impacts.
**Maximum distance is sublect to change based on manufacturer's equipment and other environmental conditions.

Prysmian Group

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DAT-0005-0223

GenSPEED® 6 MAX™ Category 6 CMP Cable (22 AWG)

GenSPEED®

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-LP (0.7A) (NFPA 262)
- 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)

UL LISTED VERIFIED RoHS Compliant Directive 2011/65/EU Made in U.S.A.

CONSTRUCTION

Conductors
- 22 AWG solid bare annealed copper

Insulation
- Fluoropolymer

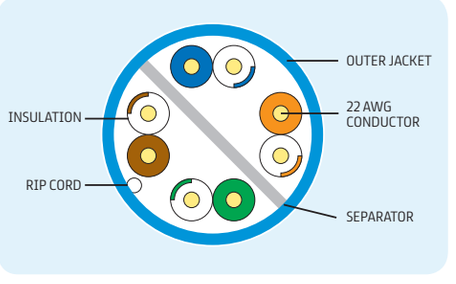
Color Code
- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

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 +105

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.
DC Resistance Ohms/100 m (328 ft) @ 20° C	9.38	6.5
DC Resistance Unbalanced Individual pair %	4.00	< 1
Delay Skew ns/100 m	45	35
Nom. Velocity of Propagation % speed of light	74	
Characteristic Impedance 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	23.9	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 350 MHz are for reference only.
*PSACR & ACR not specified in ANSI/TIA 568.2-D

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GenSPEED® 6 MAX™ Category 6 OSP Cable (22 AWG)

GenSPEED®

FEATURES AND BENEFITS

- Innovative cross-web design allowing for maximum pair separation, increasing key electrical performance parameters
- Gel-filled construction to prevent moisture migration in underground and wet applications
- Wide temperature range for extreme weather environments
- TRU-Mark® print legend contains footage markings from 1000' to 0'

APPLICATIONS

- IEEE 802.3: 1000 BASE-T, 100 BASE-TX, 10 BASE-T, PoE, PoE+
- ANSI/TIA 854: 1000 BASE-TX
- CDDI, Token Ring, ATM
- Digital Video
- Broadband and Baseband Analog Video
- Duct and Conduit Installations
- Supports the growth of higher-wattage devices (IT/IP, IoT, and IoE)

STANDARD COMPLIANCES

- ANSI/TIA 568.2-D
- UL 444
- RoHS Compliant Directive 2011/65/EU
- ANSI/TIA 862 (Building Automation)
- ICEA S-116-732
- ICEA S-102-700
- ISO/IEC 11801 Ed. 2.0 (Class E)
- Telcordia (Bellcore) Specification GR-421-CORE Water Penetration Requirement

CONSTRUCTION

Conductors
- 22 AWG solid bare annealed copper

Insulation
- Polyolefin

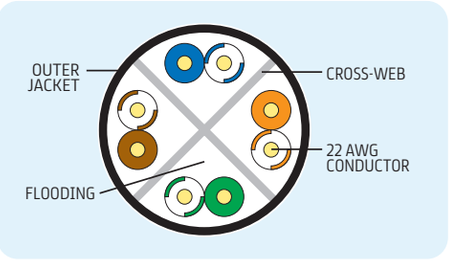
Color Code
- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

Separator
- Cross-web

Flooding Compound
- Waterproof gel

Jacket
- UV- and abrasion-resisant polyethylene

CROSS-SECTION



PHYSICAL DATA

Nominal Cable Diameter (in)	0.295
Nominal Cable Weight (lbs/1000 ft)	40
Minimum Bend Radius (in)	1.0
Maximum Pulling Force (lbs)	32
Temperature Rating (˚C)	
Installation:	-30 to +60
Operation:	-45 to +80

PART NUMBER

Standard packaging: 1000' Reel

Jacket Color	Part Number
Black	8146100

ELECTRICAL CHARACTERISTICS

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

ELECTRICAL PERFORMANCE

Frequency MHz	Insertion Loss (max)	NEXT (min)	Return Loss (min)
1	1.9	74.3	20.0
4	3.5	65.3	23.0
10	5.5	59.3	25.0
16	7.0	56.2	25.0
20	7.9	54.8	25.0
31.25	9.9	51.9	23.6
62.5	14.3	47.4	21.5
100	18.4	44.3	20.1
200	27.0	39.8	18.0
250	30.6	38.3	17.3

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20˚C.

RoHS Compliant Directive 2011/65/EU

Made in U.S.A.

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