



 Hitachi Cable America Inc.

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Inspire the Next

Since 1986, Hitachi Cable America (HCA) has been developing and manufacturing technologically advanced cables at our Manchester, New Hampshire facility. Our Power+ composite cables, like all of our copper and fiber communication cables, are built to exceed the standards to which they are tested and will deliver maximum, consistent performance to the user. As a leader in the manufacture of high performance cables, HCA has also developed products for a wide range of industries and applications including oil & gas exploration, mining, cellular towers, robotics, endoscopy, supercomputing and more.

Other Products from Hitachi Cable America:

- Other Products from Hitachi Cable America
 - Shielded Category 5e, 6 & 6A Cables
 - Category 7, 7A & 8
- Fiber Optic Cables (indoor, outdoor, Indoor/outdoor)
 - NanoCore™ Fiber Optic Cables
 - Industrial Ethernet Cables
 - Coaxial & Mini-coaxial Cables
 - ChannelFlex™ Cabling System
 - Round & Ribbon Electronic Cables



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Power+™
Indoor/Outdoor
Composite Cables

Optical Fibers &
Copper Conductors



Power+™ Composite Indoor/Outdoor Cables

Composite Fiber Strands & Copper Conductors

Power+™ composite indoor/outdoor cables are the solution for applications where remote power and network connectivity are required and distance may be a factor. Power+ composite cables utilize fiber optic strands to provide the link to the network and a pair of stranded copper conductors to deliver power. The different constructions of Power+ composite cables address the variety of applications on the market. Power+ composite cables are ideal for long distance PTZ camera installations, Distributed Antenna Systems (DAS), and Passive Optical Networks (PON). Power+ composite cables are available with a plenum rating (OFCP) which makes them suitable for a wide variety of environments.



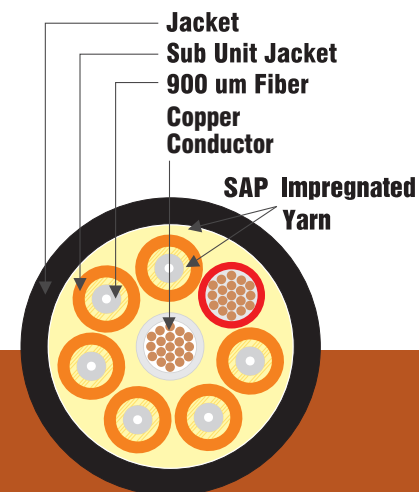
Designed for Long Distance Power over Ethernet (PoE) Applications

- Multimode and singlemode glass available (2, 6 & 12 strand).
- Two copper conductors per cable (choose from 12, 14, 16, 18, 20 & 22 gauges).
- Stranded copper conductors (7-19 strands) offer greater cable flexibility.
- Supports 6.49 watts of power (IEEE 802.3af up to 10,000 feet).
- Supports 12.95 watts of power (IEEE 802.3af up to 5,100 feet).
- Supports 25.5 watts of power (IEEE 802.3at up to 2,700 feet).

Cable Design allows Easy Termination and Wide Use

- UL Listed OFCP for use in plenum spaces.
- OSP rating permits use in outdoor and wet environments.
- Small outside diameters assist in installation.
- Tight buffered (900 micron) optical fibers reside inside individual aramid yarn filled subunits.
- Compatible with all LC and SC fiber optic connectors.
- Fiber optic glass options include OM1, OM2, OM3, OM4, OM5 & OS2.
- Mitigates temperature rise associated with cable bundles.

Made in U.S.A. at Manchester, NH facility



INDOOR/OUTDOOR Power+™ Composite

2, 6, 12-fiber Multimode and Singlemode

Product Highlights

- REACH & RoHS 2 compliant.
- Made in USA.
- Extending PoE and Limited Power SELV data transmission beyond 100 meters.
- Provides immunity from electro magnetic and radio frequency interference.
- Choice of separate power conductors eliminates concerns associated with heat generation and length derating calculations as required by TIA 568 and NEC.
- Plenum and outdoor rating permits use in a wide range of environments.
- Dry, super absorbent polymers (SAPs) eliminate water migration in cable interstices.
- Suitable for lashed aerial, duct underground conduit and indoor plenum applications.
- All multimode and singlemode cables (except OM1) utilize bend-insensitive optical fibers.
- Easy to strip and terminate.
- Lightweight, flexible aramid yarns throughout the design enhance strength.
- Each 900um buffered fiber resides in a 2mm subunit for easy termination to LC, SC connectors and more.

Options

- Available with 2, 6 or 12 strands of fiber.
- Available with 1 pair of 12, 14, 16, 18, 20 or 22 AWG stranded conductors.

Applications

- High noise areas and extended distance.
- Security CCTV Cameras.
- Wireless Access Points.
- Distributed Antenna Systems (DAS).
- Passive Optical Networks (PON).
- Ideal for all remote powered applications.

Standards

- NEC CL2P-OF rating, compliant with Class 2 SELV (Safety Extra Low Voltage).
- NFPA 262.
- ANSI/TIA 568-C.2.

Power+™ Composite (I/O Plenum) (UL) OFCP c(UL) OFCP FT6

Power+™ FO Cable Part Numbers 22 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	5.8	62860-4	62861-4	62862-4	62863-4	62864-4	62859-4
6	8.0	62860-8	62861-8	62862-8	62863-8	62864-8	62859-8
12	10.2	62860-14	62861-14	62862-14	62863-14	62864-14	62859-14

Power+™ FO Cable Part Numbers 20 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	6.2	62866-4	62867-4	62868-4	62869-4	62870-4	62865-4
6	8.4	62866-8	62867-8	62868-8	62869-8	62870-8	62865-8
12	10.5	62866-14	62867-14	62868-14	62869-14	62870-14	62865-14

Power+™ FO Cable Part Numbers 18 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	6.8	62872-4	62873-4	62874-4	62875-4	62876-4	62871-4
6	8.4	62872-8	62873-8	62874-8	62875-8	62876-8	62871-8
12	10.2	62872-14	62873-14	62874-14	62875-14	62876-14	62871-14

Power+™ FO Cable Part Numbers 16 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	7.1	62878-4	62879-4	62880-4	62881-4	62882-4	62877-4
6	8.4	62878-8	62879-8	62880-8	62881-8	62882-8	62877-8
12	10.5	62878-14	62879-14	62880-14	62881-14	62882-14	62877-14

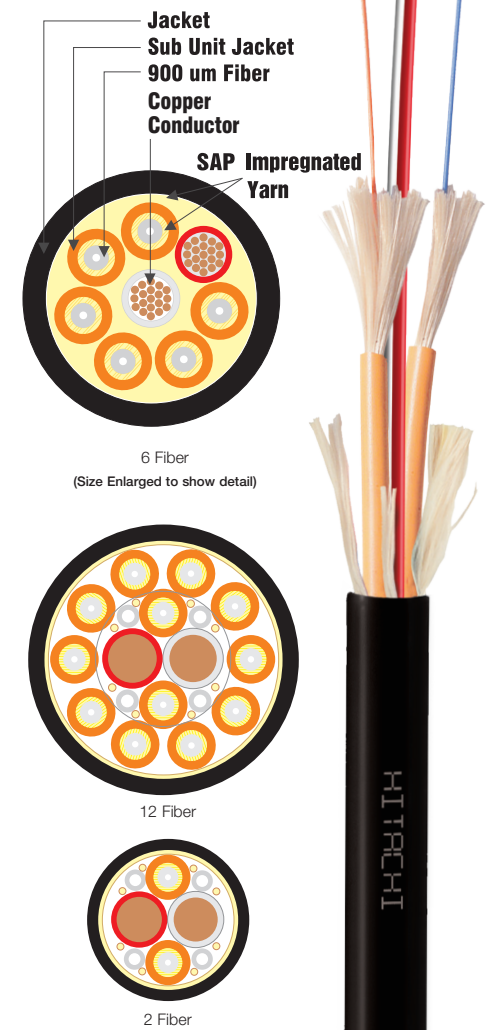
Power+™ FO Cable Part Numbers 14 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	7.4	62884-4	62885-4	62886-4	62887-4	62888-4	62883-4
6	9.2	62884-8	62885-8	62886-8	62887-8	62888-8	62883-8
12	10.8	62884-14	62885-14	62886-14	62887-14	62888-14	62883-14

Power+™ FO Cable Part Numbers 12 AWG

FIBERS	CABLE OD (mm)	62.5 UM OM1	50 UM OM2	50 UM OM3	50 UM OM4	50 UM OM5	8.3 UM OS2
2	7.7	62890-4	62891-4	62892-4	62893-4	62894-4	62889-4
6	10.1	62890-8	62891-8	62892-8	62893-8	62894-8	62889-8
12	11.3	62890-14	62891-14	62892-14	62893-14	62894-14	62889-14

Features



Optical Specifications

TIA/EIA-568-C.3 | ISO/IEC 11801, 2nd edition | Telcordia GR-409-CORE

Fiber type	Max. Attenuation (dB/km)		Min OFL Bandwidth (MHz-km)		Min EMBc Bandwidth (MHz-km)		Gb Ethernet distance (m)		10 Gb Ethernet distance (m)	
	850nm (MM)	1300nm (MM)	850nm (MM)	1300nm (MM)	850nm (MM)	1300nm (MM)	850nm (MM)	1300nm (MM)	850nm (MM)	1300nm (MM)
OM1	3.5	1.0	200	500	220	N/A	300	550	33	N/A
OM2	3.0	1.0	700	500	950	N/A	750	550	150	N/A
OM3	3.0	1.0	1500	500	2000	N/A	1000	550	300	N/A
OM4	3.0	1.0	3500	500	4700	N/A	1100	550	550	N/A
OM5*	3.0	1.0	3500	500	4700	N/A	1100	550	550	N/A
OS2	1310nm (SM)	1550nm (SM)	1310nm (SM)	1550nm (SM)	1310nm (SM)	1550nm (SM)	1310nm (SM)	1550nm (SM)	1310nm (SM)	1550nm (SM)
	0.5	0.5	N/A	N/A	N/A	N/A	> 25,000	> 40,000	10,000 - 25,000	40,000

*OM5 optical fiber tested by glass manufacturer and exceeds the requirements of all applicable industry standards. Hitachi Cable America reserves the right to revise any specifications.