

application report

Fiber Optic Cabling for Wind Power Applications

There are no typical installs when working outdoors.

Wind farms require rugged fiber optic cable that matches the terrain of the site. Mohawk products are developed and manufactured to fit the specialized environments of your installation. Our comprehensive line (see reverse side) of optical fiber cables includes:

- Harsh environment cable ranging from single-jacket, no armor to double-jacket, double-armor
- All-dielectric cable (suitable for rodent deterrence)
- Tight buffer indoor/outdoor cable



Demand for wind power is on the rise because it is clean, cost-effective, and immune to increases in fuel costs.

Wind power is sailing to national prominence by providing elegant solutions to the traditional problems of power generation. Clean, cost-effective, inexhaustible, and readily available, wind power addresses the issue of climate change and helps meet America's increasing demand for electricity.

Data Acquisition

Typically, fiber optic cable connects the Supervisory Control and Data Acquisition (SCADA) system to central monitoring equipment over long distances where copper is not effective. The SCADA system provides necessary data collection for monitoring the productivity of the wind turbine and the capacity for generating power individually and collectively.

See reverse side for Optical Characteristics. For more information about Mohawk fiber optic cable for wind power applications, please call 800-422-9961.



“Wind power is currently growing at a rate of 25% to 30% per year.”

- American Wind Energy Association (AWEA)

MOHAWK
Cabling Excellence for Open Architecture



Wind Energy Applications

Mohawk offers a full line of fiber optic cables to meet your wind power cabling applications. For more information, please call 800-422-9961.

Fiber Optic Cable Constructions

- Central Tube All Dielectric
- Central Tube Armored
- Central Tube Double Jkt/Armored
- Central Tube Double Jkt/Double Armored
- Stranded Loose Tube All Dielectric
- Stranded Loose Tube Armored
- Stranded Loose Tube Double Jkt/Double Armored
- Tight Buffer indoor/outdoor rated



Optical Characteristics

Meets or exceeds ISO/IEC 11801	OM1	OM1	OM2	OM3	OM3	
Grade	2	3	4	5	6	SM2
Glass Type	62.5/125 MM AdvanceLite	62.5/125 MM AdvanceLite	50/125 MM AdvanceLite	50/125 MM AdvanceLite	50/125 MM AdvanceLite	Single-Mode Enhanced ⁶
Part Number Code (X)	B	D	A	C	E	W
Operating Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	1310/1550
Min. OFL¹ Bandwidth (MHz-km)	200/500	200/500	500/500	1500/500	3000/500	—
Min. Laser² Bandwidth (MHz-km)	220/500	385/500	510/500	2000/500	4700/500	—
Max. Attenuation Loose Tube (dB/km)	3.25/1.0	3.25/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.40/0.30
Max. Attenuation Tight Buffered³ (dB/km)	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	0.80/0.50
100 Mbit Fast Ethernet Min. Link Length (meters S/L/E⁴)	300/2000	300/2000	300/2000	300/2000	300/2000	5000/—
1 Gigabit Ethernet Min. Link Length (meters S/L/E⁴)	300/550	500/1000	600/600	1000 ⁵ /600	1000 ⁵ /600	5000/—
10 Gigabit Ethernet Min. Link Length (meters S/L/E⁴)	33/300	33/300	82/300	300/300	550/300	10,000/40,000

¹ OFL – Overfilled Launch

² Effective Modal Bandwidth, determined by RML or DMD performance specifications

³ Max. Attenuation for Tight Buffered, Ribbon, Micro-Loose Tube & VersaLite Cables

⁴ S/L/E – Short wavelength (850 nm) / Long wavelength (1310 nm) / Extra long wavelength (1550 nm)

⁵ >2000 meters for engineered links

⁶ Low water peak Single-Mode suitable for CWDM use complies with ITU G.652.c/d