



Gigabit Series

Redline 1000MG
Redline 1000MGM

The Redline Gigabit Series of FSO products provides transmission speeds at Gigabit data rates while maintaining robust operation and carrier class availability. Our Gigabit FSO series is the product of choice for short to medium range connectivity for the following applications:

- Gigabit Ethernet data connectivity
- Voice Over IP connectivity
- IP video connectivity

SPECIFICATIONS OF THE REDLINE GIGABIT SERIES PRODUCTS

REDLINE 1000MG/MGM	
Transmission rates	1250 Mbps
Transmission standards	Gigabit Ethernet
Interface options	1000 Base-SX, 1000 Base-LX, 1000 Base-T

REDLINE 1000MG	
Deployment Range:	
3db/km = Light rain (5-10mm/hr) - Light haze - Scintillation	300 m (984 ft)
5db/km = Medium to heavy rain (15-20mm/hr) - Haze	300 m (984 ft)
10db/km = Heavy rain to cloudburst (45mm/hr) - Light snow - Light fog	300 m (984 ft)
17db/km = Cloudburst (100mm/hr) - Medium snow - Light fog	300 m (984 ft)
30db/km Extreme rain (135mm/hr) - Blizzard - Medium fog	280 m (919 ft)

REDLINE 1000MGM	
Deployment Range:	
3db/km = Light rain (5-10mm/hr) - Light haze - Scintillation	1650 m (5413 ft)
5db/km = Medium to heavy rain (15-20mm/hr) - Haze	1340 m (4396 ft)
10db/km = Heavy rain to cloudburst (45mm/hr) - Light snow - Light fog	960 m (3150 ft)
17db/km = Cloudburst (100mm/hr) - Medium snow - Light fog	720 m (2362 ft)
30db/km Extreme rain (135mm/hr) - Blizzard - Medium fog	500 m (1640 ft)

FIBER-OPTIC INTERFACE	
Interface type	1000 Base-SX (850 nm, Multi-mode fiber, SC connectors) 1000 Base-LX (1310 nm, Single-mode fiber, SC connectors)

MECHANICAL / ELECTRICAL / ENVIRONMENTAL	
Laser output power	30 mW
Receive aperture	12 cm (4.7 in), effective clear
Operating temperature	-25°C to 50°C
Dimensions (WxHxD)	24 cm x 19 cm x 46 cm (9.5 in x 7.5 in x 18 in)
Weight of head	7.5 kg (16.5 lbs)
Input voltage	48 VDC or 230 VAC
Power consumption	35 watt (Heaters 25 watt)

ELEMENT MANAGEMENT AND CONTROL	
Management interface	Ethernet (100 Base-T or 100 Base-FX connection)
SNMP	V.1 Agent
Installation control program	Web Interface
Management control	Web Interface, Email, 3rd party SNMP managers
Key parameters monitored	Receive signal strength, Power supply current and voltage, Laser powers, Internal temperature



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The Redline Gigabit Series consists of the following products:

Redline 1000MG:

Short Range FSO with deployment range of up to 300 m and transmission rate of 1250 Mbps

Redline 1000MGM:

Medium Range FSO with deployment range of up to 1650 m and transmission rate of 1250 Mbps

CERTIFICATIONS AND CLASSIFICATIONS

Laser safety	IEC 60825-1 Class1M
Electrical and EMC	EN 55024, EN 60950, EN 55022

ORDERING INFORMATION

FSO Terminals

	Part Number
Redline 1000MG: Short Range Gigabit FSO Transceiver with 1000 Base-SX Interface	MG-LK-1000
Redline 1000MG: Short Range Gigabit FSO Transceiver with 1000 Base-LX Interface	MG-LK-1000L
Redline 1000MGM: Gigabit FSO Transceiver with 1000 Base-SX Interface	MG-LK-1000M
Redline 1000MGM: Gigabit FSO Transceiver with 1000 Base-LX Interface	MG-LK-1000ML

Power Supplies

Power Supply: 230 VAC for Gigabit Series	MG-PSU-230
Power Supply: 48 VDC for Gigabit Series	MG-PSU-48

Interfaces

Intelligent 1000 Base-T to 1000 Base-FX (Multi-mode SC Fiber Convertor 850nm)	TFC-1000MSC
Intelligent 1000 Base-T to 1000 Base-FX (Single-mode SC Fiber Convertor 1300nm)	TFC-1000S20

Mounting Brackets

Pedestal mount for Gigabit Series (Roof mount)	MG-BR-PD
Rotated pedestal mount for Gigabit Series (Wall/Pole mount)	MG-BR-PDR