

Free Space Optics (FSO) CableFree Gigabit range Overview



About Wireless Excellence

Founded in 1996 and with headquarters in Oxford UK, Wireless Excellence Limited is a leading designer and supplier of outdoor and indoor Broadband Wireless communication products.

With a complete range of solutions including Radio, Microwave, Millimeter-Wave, Free Space Optics, WiFi and 4G/LTE solutions, customers in over 80 countries have chosen Wireless Excellence as the “one stop shop” solution of choice for dependable wireless networking.

About FSO

CableFree FSO Technology uses directional beams of Infrared light for communication and does not require RF spectrum to operate. Capacity up to 1.5 Gbps and distances of up to 4km are possible depending on region.

CableFree FSO links have been deployed in many countries including major telecom and corporate networks, and have many advanced features which increase flexibility, reliability, performance, management capability and total-cost-of-ownership.

System Features

- Full-duplex bandwidth from 1.5Mbps up to 1.5Gbps
- Range variants support links up to 2,000m
- Flexible plug-in interface modules
- Fibre interfaces with SC multi- or single mode options
- Automatic Transmit Power Control (ATPC)*

Applications

- Gigabit Ethernet LAN-LAN segments
- Last-mile network connections
- Storage Area Networks
- HDTV Outside Broadcast Links

Product Variants & Specs

System Variant	G200	G500	G700/G1000	G1500	G2000
<i>Performance</i>					
Range	200m	500m	700/1000m	1500m	2000m
Bandwidth	1.5Gbps	1.5Gbps	1.5Gbps	1.5Gbps	1.5Gbps
Power Consumption	40W	40W	45W	45W	45W
Operating Temperature	-20...+60 °C	-20...+60 °C	-20...+60 °C	-20...+60 °C	-20...+60 °C
ATPC	Yes	Yes	Yes	Yes	Yes
Optical Wavelength	780nm	780nm	780nm	780nm	780nm
Transmit Power	+14.8dBm	+14.8dBm	+19.0dBm	+19.0dBm	+19.0dBm
Number of Lasers	1	1	3	3	3
Beam width	8mRad	5mRad	8mRad	5mRad	<4mRad
Safety Classification	Class 1M (IEC)	Class 1M (IEC)	Class 1M (IEC)	Class 1M (IEC)	Class 1M (IEC)
Receiver Type	APD	APD	APD	APD	APD
<i>Mechanical</i>					
Dimensions (mm)	478x233x139	478x233x139	531x391x211	531x391x211	531x391x211
Weight	4.2kg	4.2kg	9.0kg	9.0kg	9.0kg

Accessories

Mounting Brackets	Wall, Roof, Pole, Tower or Tripod mount options available
Indoor unit	Indoor network termination and SNMP V2 management interface
Alignment kit	Display of Local & Remote signal levels
Management Suite	Full range of solutions including LinkManager™, AlarmView™, ClusterManager™, GSM modem

System Specifications

Environmental	IP65 weather-sealed unit
Power supply	options for 115V ac, 230V ac, 48V dc
Alignment	Mechanical sight, 10-stage RSSI meter, FM audio circuit & tones, handheld test set.

*Not applicable to "LH" system derivations

Part Numbers

Product Code	Description
GX00-1000-MMSC-ATPC	1.25Gbps, Multimode SC Interface, ATPC
GX00-1000-SMSC-ATPC	1.25Gbps, Singlemode SC Interface, ATPC
GX00-1000-MMSC-LH	1.25Gbps, Multimode SC Interface, No ATPC
GX00-1000-SMSC-LH	1.25Gbps, Singlemode SC Interface, No ATPC

X: Variable Value. 1, 4, 7, 15 or 20 specify range variant. For LH versions use 1, 4 or 7 only.

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