



DATASHEET



Key features

- Provides PTP communication @100Mbps
- Ethernet connectivity from 20m to 5000m
- Full duplex connectivity
- Industry standard interfaces
- Secure data transmission
- Quick installation and re-deployment
- Built-in signal monitoring
- License free operation

Geodesy FSO PX100 series of products provides reliable and secure point-to-point wire speed Fast Ethernet connectivity from 20 to 5000 meters. Due to its neutral environmental and health effects these units are suitable for indoor or outdoor application. PX100 series products feature industry standard interfaces and Power over Ethernet (PoE) interface with advanced Anypower technology, which allows operation both from standard PoE or HighPoE power sources. PX100 systems integrate enhanced device management platform.

Remote monitoring of the equipment through a standard web browser, SNMP manager, or GeoDesy monitoring software.

Because they use infrared light as a transmission medium, GeoDesy FSO systems do not require frequency licenses. The transmission is not effected by electro-magnetic interference. Due to the concentrated laser beam the PX100 products provide superb security, which fulfils the highest requirements.



Usage examples

PTP Geodesy PX 100 Series is a perfect solution to interconnect points with a full duplex 100Mbps speed

Part Nr	Recommended maximum installation distance (Clear Weather)	Recommended maximum Installation distance (@17dB/km)
PX-P0200E100TP *	200 m	200 m
PX-P0350E100TP *	350 m	350 m
PX-P0650E100TP *	650 m	650 m
PX-P1800E100TP **	1800 m	1700 m
PX-P3000E100TP ***	3000 m	2000 m
PX-P5000E100TP ****	5000 m	2500 m



Wireless

Electrical characteristics

Light source	LaserDiode
Laser diode power	35 mW
Detector	SiAPD Photodiode
Dynamic range	~42 dB
Bandwidth	100Mbps full duplex
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Weight	5-25 kgs
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Optical characteristics

Wavelength	785 nm
Beam divergence	1 mRad adjustable
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-40 to +60 °C
Storage temperature	-60 to +80 °C

Wired

Network

Fast Ethernet Interface	100 Base-T, RJ45
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Power

Internal PSU power	115/230 vAC ~50Wh
Power to the head	POE Compatible 48 vDC *,** 48vDC power supply ***,****

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GeoDesy FSO has 120 years experience of manufacturing surveying equipment from our base at the Hungarian Optical Works MOM. Here we combine traditional manufacturing techniques with the latest manufacturing technologies. Using our knowledge of high efficiency optical systems and precision mechanical manufacturing

GeoDesy have developed a range of high speed, low cost FSO products, becoming a leading player in the free space optical communication market. Our product range offers broadband, point to point connectivity enabling wireless networking over and above your current infrastructure, suitable for a wide range of applications.