



GeoDesy FSO

simplifying networks

## LICENCE-FREE OPERATION

No need to obtain frequency licenses for the operators of laser based wireless cabling solutions.

## COST-EFFECTIVE

Installation is a ONE-TIME investment with no recurring costs. Eliminates lease line costs.

## INVESTMENT PROTECTION

Industry standard network interfaces and a clear upgrade path for higher bandwidth protects your investment in GeoDesy FSO solutions.

## EYE SAFETY

GeoDesy FSO systems are designed and manufactured for eye-safe operation in compliance with the relevant EN, IEC and US standards. This ensures safe deployment and operation of GeoDesy FSO products.



## technology at work for you

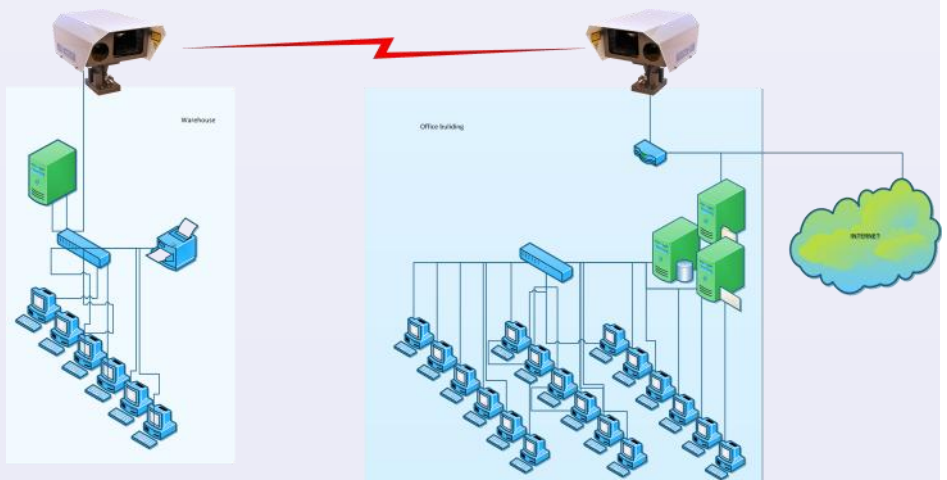
### CONNECTING YOUR BUSINESS WITHOUT BOUNDRIES

GeoDesy Product line offers a flexible point to point connection at real wirespeed. No tricks with the bandwidth, no compression. The latency is lower than the radio technology, and there are no health concerns. Easily redeployable, and there are no interference nor channel selection issues, no crosstalk problems. The system is safe to use even in crowded areas due to the concentrated transmission. The use of the latest innovative technology achievements turns the unit into the highest power budget FSO systems available on the market.

## flexible solutions for your business needs

### OUR MISSION IS YOUR TRANSMISSION

Geodesy offers products for every need. The configuration of the systems can be flexibly configured.





GeoDesy has a 120 years heritage of manufacturing surveying equipments from the Hungarian Optical Works MOM. Combining the traditional manufacturing standards with the latest manufacturing methods. To apply the knowledge of high efficiency optical systems and high precision mechanical manufacturing, through the latest acquisition GeoDesy has purchased the know-how from a technology leader FSO manufacturer, in 2006. In the past years as a developer and manufacturer GeoDesy has brought a whole new line of products to the market and created a new meaning of free space optical communication. The new product range which is individual on the market, has integrated management, and POE feature. The use of the systems is easier than ever SNMP helps the system administrators to control and monitor the data flow. From installation distances of 20 meters up to 5 kms with a wide bandwidth from 100 Mbps to 1.25 Gbps.

GeoDesy offers broadband, point to point connectivity enabling wireless networking over and above your current infrastructure. The GeoDesy-FSO technology gives you high security, scalability and superior price to performance value and has been successfully deployed for a wide range of applications across sectors as diverse as SP's, ISP's, Health, Education, Finance, Retail, and Industry. Geodesy FSO products provide reliable and secure point-to-point wire speed connectivity from 20 to 5000 meters. Due to the light weight and size the products are ideal both for indoor or outdoor application. All products feature Power over Ethernet (PoE) interface with advanced Anypower technology, which allows operation both from standard PoE or HighPoE power sources. The systems integrate an enhanced device management platform and the possibility of remote monitoring of the equipment through a standard web browser or SNMP manager. Because they use 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 products provide superb security, which fulfils the highest requirements.

## **FLEXIBILITY**

GeoDesy FSO systems are divided into distance ranges – customers select the system that matches their needs. They can be deployed in a wide variety of network architecture applications, including point-to-point, ring architecture and mesh systems.

## **SECURE DATA TRANSMISSION**

GeoDesy FSO free space transmission is one of the safest transmission methods. Direct interception is virtually impossible with the concentrated beam and physical placement of the equipment

## **EXCELLENT PRICE/PERFORMANCE**

GeoDesy FSO systems have outstanding low cost per bit ratios - are among the best in the industry.

## **NO INTERFERENCE**

Use of infrared light for communication means no interference issues.

## **HIGH BANDWIDTH, HIGH SPEED**

Optical free space data transmission matches the bandwidth and speed of fixed optical fibre.



## Electrical characteristics

Light source	LaserDiode
Laser diode power	4x35mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	100 Mbps
Management	Web based SNMP compatible in-band management
System latency	<50ns

## Physical characteristics

Head housing	Aluminium Alloy
Weight	15 kgs
Dimensions (with cover and alignment Unit, mm)	560x324x298

## Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

## Environment

Operating temperature	-40 to +60 °C
Storage temperature	-60 to +80 °C
Humidity	95% non condensed
Laserhead protection rating	IP65
Power supply protection rating:	IP65

## Power

Power Required	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	2 x 48VDC

## Fade Margin @ 3000m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	30 dB
Medium visibility (Fog 10dB/Km Rain ~30mm/h)	16 dB

## Order Information

Product Code	Description
PX-P2200E100TP	PX-2200 link 100BaseTX Ethernet IF 1800-2200m distance. POE power supply, installation kit, SNMP web management included.
PX-P2600E100TP	PX-2600 link 100BaseTX Ethernet IF 2200-2600m distance. POE power supply, installation kit, SNMP web management included.
PX-P3000E100TP	PX-3000 link 100BaseTX Ethernet IF 2600-3000m distance. POE power supply, installation kit, SNMP web management included.

Your Geodesy FSO distributor:



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