

Key Features:

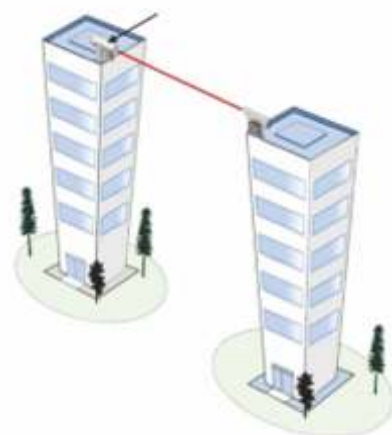
- Dynamic Beam Tracking system
- Automatic focusing adjustment
- Full duplex connectivity
- Industry standard interfaces
- Secure data transmission
- Fast deployment
- Built-in automatic failover
- License free operation
- Up to 2400 meter transmission

Applications:

Enterprise connectivity
Hospitals
Large industrial sites
Airfields
Campus links
Financial institutions
Universities
ISP's

Usage examples

Point to Point connectivity



Geodesy Laser FSO is a perfect solution to interconnect points with a full duplex network speed

Description

Imagine an outdoor wireless technology that offers full-duplex Gigabit Ethernet transmission.

A technology that can be installed license-free worldwide, and can be installed in less than a day.

A technology that offers high security and a fast, high Return on Investment (ROI).

That technology is Free Space Optics (FSO). GeoDesy FSO provides high-speed connections, across Enterprises and between cell-site towers; it is the best technology available.

FSO is a line-of-sight technology that uses invisible beams of light to provide optical bandwidth connections that can send and receive voice, video, and data information. Today, FSO technology—the foundation of GeoDesy FSO wireless offerings—has enabled the development of a new category of outdoor wireless products that can transmit voice, data, and video at bandwidths up to 1.25Gbps.

This optical connectivity doesn't require expensive Fibre-optic cable or securing spectrum licenses for radio frequency (RF) solutions. FSO technology requires light.

The use of light is a simple concept similar to optical transmissions using Fibre-optic cables; the only difference is the medium.

Light travels through air faster than it does through glass, so it is fair to classify FSO technology as optical communications at the speed of light. The all new AT 1200/2400 series of Free Space Optics data transmission systems provides many unique advantages, and among these is Auto Tracking.

This is an exclusive GeoDesy feature, which is now built-in to the GeoDesy AT product line. Auto Tracking maintains precise beam alignment despite even the slightest movement in the installation base, which can be caused by wind, temperature changes, traffic, or other environmental factors. With built-in Auto Tracking, GeoDesy AT optical beam axis will self-correct on a continual basis. Incorporating technology from GeoDesy's experience in developing FSO optical systems for the telecommunications market, the GeoDesy Auto Tracking feature is the most advanced available today in Free Space Optics. This critical feature maintains sensitive communications and is one of the reasons why GeoDesy is the leader in the Free Space Optics market.

Part Nr	Recommended maximum installation distance (Clear Weather)	Recommended maximum Installation distance (@17dB/km)
AT-P1200E1000TP *	1200 m	1200 m
PX-P2400E1000TP *	2400 m	1800 m

**GeoDesy FSO**

www.geodesy-fso.com

AT-1200/2400

Wireless

Electrical characteristics

Light source	LaserDiode
Laser diode power	1 or 2 x 25 mW
Detector	SiAPD Photodiode
Dynamic range	~42 dB
Bandwidth	1000Mbps full duplex
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Weight	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
Movement Tolerance	5 degrees circular

Environment

Operating temperature	-40 to +60 °C
Storage temperature	-60 to +80 °C
Humidity	95% non condensed

Wired

Network

Fast Ethernet Interface	1000 Base-T, RJ45 / FO <small>Optional</small>
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Power

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

YOUR GEODESY DISTRIBUTOR

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.