

WOLF

Wireless Optical Link Field System

WOLF is a free space optical communications system. It offers a versatile and secure solution for high-speed data transmission in the field. Its portable nature, easy setup, low power consumption, and resistance to interference and detection makes it an ideal choice for various applications requiring reliable and covert communication capabilities.

Wolf comprises of two units which are quick and easy to set up with audio-guided alignment and use of point-to-point optical transmission. Ultra-low power consumption means that units can be powered by a laptop USB port, or standard power banks. The system is Class 1 (eye-safe) and uses a standard gigabit ethernet interface, allowing high speed transfer of data between user-specified data sources.

This discrete method of data transfer does not use radio frequency emission and it undetectable by visual optics or night vision equipment alongside being difficult to jam or imitate. It is further resilient to electromagnetic interference and RF 'quiet'. Data transfer is performed over an uncongested and unlicensed spectrum.

Features and Benefits

- Portable
- Simple and easy to use
- Low power consumption: <2 W
- 1 Gigabit Ethernet
- Simple alignment: Novel audio alignment system
- Up to 500m range
- Light weight and portable: Approximately 1 kg
- Eye safe Class 1 (IEC 60825-1:2014 standard)
- Discrete data transfer: difficult to detect or interrupt
- WOLF delivered world-first demonstration of laser-controlled drone



Free Space Optics

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24/10/2023 V2.3
Ref: AVDS 05

Related Products



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Technical Specifications

Communication Range:	Min: 0.5 m Max: 500 m (depending on atmospheric conditions and line-of-site visibility)
Data Rate:	1 Gbps (bidirectional)
Beam Divergence:	Adjustable, typically <1 mrad
Beam Diameter:	Adjustable, typically 50 cm at 500 m range
Laser Type:	1550 nm semiconductor
Acquisition Latency:	<1 ms
Operating Temperature:	-10°C to +50°C
Power Requirements:	Minimum USB Type 1 - (5 V, 0,5 A)
Power Consumption:	2 Watts
Weight (Per Unit):	1.3 kg (Head only)
Sealing:	IP65

System Components

1. Transmitter Unit (WOLF-FSO-1550X-TX)
2. Transmitter Unit (WOLF-FSO-1550X-RX)
3. USB Cable (x2)
4. Ethernet Cable (x2)
5. User Manual
6. Headphones (x2)
7. Armoured Case

Optional Accessories

1. Pan / Tilt Geared head and Tripod
2. Power Bank



Cable Assembly



Consultancy



Training



Online Shop

Specification may be changed without notice due to technical advances or component changes © 2023