

PTP FSO Links



PTP SDH and IP/PDH Microwave solutions available too!



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UniFSO100 Digital Free-Space Optics (FSO) Link

- Full duplex
- 100 Mbps

- 100BaseT Interface
- 99.99 99.999% availability at recommended ranges

The UniFSO100 series of point-to-point Free Space Optics (FSO) products provides true 100Mbps full duplex optical wireless links that directly connect to any LAN switch, hub or card with a 100BaseT interface without the need of an extra media converter.

The VCSEL or Laser based products in the UniFSO100 series support communication ranges of up to 4Km (2.5miles) in fair weather conditions with high availability ranges of up to 1.25Km (0.8 mile) in most environments.

Common applications include: mobile backhaul infrastructure, competitive local access networks, ISP and WiFi backhaul, metropolitan video surveillance, wireless community systems and enterprise or campus networks.

System Features

All specifications subject to change without notice

General:

- Full duplex, true 100Mbps
- Simple, sturdy construct and operation, competitively priced
- A standard Indoor Unit (IDU) remotely monitors FSO head operation.
- IDU featuring dry contacts for interfacing to third party SNMP compliant equipment.
- Optional SNMP compliant Monitoring unit
- Fast, easy deployment and installation
- Powered by standard -48VDC

Power Supply:

 Power can be supplied through communications TP cable eliminating the need for remote AC power outlet at FSO head installation point.

Available FSO/WiFi Hybrid:

 This solution provides for up to 3km range high speed links (100 Mbps by the FSO link with WiFi backup) with 100% overall system availability. Data traffic is automatically switched to an WiFi backup should the FSO link become temporarily inoperable and automatically switches back once FSO service is restored.

Specifications

All specifications subject to change without notice

| System | | 400A | 400B | 500 | 700 | 1000 |
|-----------------------------|----------|-------------------|-------|-------|-------|--------|
| Recommended Range | 17 dB/Km | 250 m | 400 m | 600 m | 900 m | 1250 m |
| Recommended Range | 30 dB/Km | 200 m | 350 m | 450 m | 600 m | 830 m |
| Transmitter Beam Divergence | | 3 mRad (typical) | | | | |
| Receiver Field of View | | 10 mRad (typical) | | | | |

Payload

Protocol : Ethernet 100 Base-T (supports full duplex, non-autonegotiating)

Bit Rate 100 Mbps

Interface 100 Base-T RJ-45 non-autonegotiating

Bit Error Rate Less than 1E-9 (unfaded)

Mechanical / Environmental

Dimensions $(W \times D \times H) = 300 \times 300 \times 400 \text{ mm}$

Weight 15 Kg

Operating Temperature -20° to +70°C (standard); -40° to +70°C (optional)

Environmental 100% all-weather

Power Adaptors48V DCConnectorRJ-45

Diagnostic Indicators Link, RCV, XMT, PWR, SSI

^{*} Each link includes the following: 2 transceiver units, 2 power adaptors, 2 basic mounting kits, 2 pan and tilt units, 2 connection and monitoring boxes.

^{*} Minimum ranges apply to all models.