



## PTP FSO Links



**PTP SDH and IP/PDH Microwave solutions** available too!



**Customer Support** - available 24-hours-a-day, 7-days-a-week.



## UniFSO155 Digital Free-Space Optics (FSO) Link

- Full duplex
- Up to 155 Mbps
- Extrenal MUX/Converters available
- Fiber Interface
- 99.99 – 99.999% availability at recommended ranges

**The UniFSO155** series of point-to-point Free Space Optics (FSO) products provides up to 155Mbps full duplex optical wireless links that connect to most common communication products using MM or SM FO interfaces. This makes the UniFSO155 an ideal last mile link for extending IP / E1 / PDH / SDH / SONET access and networks. This complemented by an appropriate range of off-the-shelf external MUX / Converters.

The VCSEL or Laser based products in the UniFSO155 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:

- Protocol agnostic, transparent communication
- Simple, sturdy construct and operation, competitively priced
- A standard Indoor Unit (IDU) remotely monitors FSO head operation.
- IDU featuring dry contacts for interfacing to BTUs and other 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 (100Mbps 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.

### Available external MUX / Converters:

- E1/T1, PRI
- 16 x E1/T1
- 100BaseT to 100BaseFX
- PDH 4 E1/T1
- PDH 16 E1/T1
- SDH 16 x E1/T1
- 4 x E1/T1 + Fast Ethernet (IP)

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# Specifications

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

## Payload

<b>Protocol</b>	Full duplex, Protocol Transparent
<b>Bit Rate</b>	155 Mbps
<b>Interface</b>	Fiber
<b>Bit Error Rate</b>	Less than 1E-9 (unfaded)

## Mechanical / Environmental

<b>Dimensions</b>	(W x D x H)	300 x 300 x 400 mm
<b>Weight</b>		15 Kg
<b>Operating Temperature</b>		-20° to +70°C (standard); -40° to +70°C (optional)
<b>Environmental</b>		100% all-weather
<b>Power Adaptors</b>		48V DC
<b>Connector</b>		SC or ST Multimode Standard, SC single mode available
<b>Diagnostic Indicators</b>		Link, RCV, XMT, PWR, SSI

\* The ranges for the products in the UniFSO155 series are given at 100Mbps. Ranges are expected to differ at other bit rates due to different bandwidth.

\* 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.