

PAVExpress is a short range 100Mbps Fast Ethernet, point-to-point Free Space Optical (FSO) data transmission system which uses infrared laser technology to send and receive data, voice and video between line-of-sight link-heads up to 200 metres apart.

PAV Express combines the proven technological features of the digital PAVLight FSO system with the latest electronics to produce a short range, low cost link, which is lightweight and easy to install in just minutes.

- **Low Cost**
- **Class 1M Eye-Safe**
- **Express Installation – Point and Play**
- **100Mbps transmission speed**
- **RJ45 Connectivity**
- **Very High Security**
- **Compact Design**
- **Short Range Application - up to 200 metres**
- **Compact Electronics**
- **No indoor unit required**

Applications

Designed to provide 100Mbps connectivity up to 200 metres, PAVExpress is ideal for campus sites, business parks and city centre offices where it can overcome difficulties in planning permission and prohibitive installation costs.

Security

Using laser light as a transmission medium ensures that the link cannot be intercepted. In addition, interference commonly associated with radio systems does not impact PAVExpress.



PAVExpress link head

Connectivity

The connection between the PAVExpress link head and the users' hardware is via a balanced 120 Ohm UTP cable. An RJ45 cable from the customer switch plugs directly into the back of the link head.

Compact Electronics

With the transmitter, receiver and interface integrated onto a single PCB, the compact design ensures an unobtrusive and simple installation.

Installation

The simple alignment process means PAVExpress can be installed in minutes enabling a Point and Play system.

SNMP Management

The user can integrate PAVExpress into an SNMP Management system enabling its' status to be monitored using SNMP trap alarms. The signal level can also be monitored.

PAV

PAV's range of FSO systems use low power, eye-safe lasers to transmit and receive voice, data and video by line-of-sight up to a maximum distance of 4km, and data rates of up to 1 Gigabit per second. Visit www.pavdata.com for more information.

Specification for PAVExpress 100Mbps
Model PAVExpress Outdoor unit

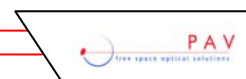
Performance	Effective Data Rate	100Mbps
	Range (metres)	200
	Bit Error Rate	>10E ⁻¹⁰
	MTBF (hours)	105,000
Transmitter	Number of Transmitters	1
	Light Source	Laser Diode
	Laser Class	1M
	Wavelength (nm)	910
	Output Power (mW)	25
	Nominal Ocular Hazard Distance (m)	0
Receiver	Beam Divergence (mrad)	11
	Detector Type	Pin Diode
	Field of View	15°
Interface	Sensitivity (dBm)	-35 to +20
	Presentation	UTP
	Connectors	RJ45
Power Supply	Cable	Shielded twisted pair
	Input Voltage	18V DC
	Power Consumption (Watts)	30
Environmental Information	Operating Temperature (°C)	-40 to +65
	Operating Humidity	95% (non condensing)
	Enclosure	IP65
Mechanical Design	Link Head Dimensions W x L x H (mm)	300 x 540 x 170
	Weight (kg)	4
Indicators	Indicator LEDs	Data input (Green)
		Data output (Orange)
		System Power (Red)
		Far End Receive (Orange)
		Near End Receive (Green)
		I.R. Detected (Yellow)

Equipment supplied per system

- 2 PAVExpress link heads
- 2 Sets of nuts and bolts
- 2 18V DC Power Supply Units
- 2 Beam Centralising Masks
- 1 Installation Guide

Optional equipment

- 2 Mounting Brackets
- 2 PAV Power Meters



PAV Data Systems maintain a continuous process of research and development, and as such, all specifications within this document are subject to change without notice.