

## Free space optics (FSO) CableFree SmartAgent Overview



### About Wireless Excellence

Founded in 1996 and with headquarters in Oxford UK, Wireless Excellence Limited is a leading designer and supplier of outdoor and indoor Broadband Wireless communication products.

With a complete range of solutions including Radio, Microwave, Millimeter-Wave, Free Space Optics, WiFi and 4G/LTE solutions, customers in over 80 countries have chosen Wireless Excellence as the “one stop shop” solution of choice for dependable wireless networking.

### About FSO

CableFree FSO Technology uses directional beams of Infrared light for communication and does not require RF spectrum to operate. Capacity up to 1.5 Gbps and distances of up to 4km are possible depending on region.

CableFree FSO links have been deployed in many countries including major telecom and corporate networks, and have many advanced features which increase flexibility, reliability, performance, management capability and total-cost-of-ownership.

## Description

CableFree FSO SmartAgent contains a high performance embedded computer running a sophisticated suite of software applications. SmartAgent adds significant value to a wireless installation by offering

- Local “indoor” management using RS232 or Ethernet from a laptop
- Centralized management over a LAN/WAN from a workstation or server
- “On-the-box” logging of performance, so a laptop/workstation need only be connected to download the logged files
- Compatible with LinkManager and ClusterManager GUI software
- Simple “at a glance” web based management with full GUI

CableFree SmartAgent performs historic logging of performance statistics on an in-built FLASH memory disk. Logging occurs continuously without need for user intervention or connection of a workstation or laptop. No external devices are needed to enable SmartAgent’s logging facilities.

Featuring twin Ethernet ports and twin serial ports, SmartAgent is ideal for managing up to two directly connected FSO units on the serial ports, and offering simultaneous local and remote Ethernet/IP management using the separate Ethernet ports, without causing interruption or downtime.

SmartAgent is fully resilient. In the case of power interruption or cable disconnection, SmartAgent restarts

smoothly and indicates graphically the period of outage on the graphs. A built-in watchdog function automatically resets the SmartAgent in case of any internal or unexpected error. The interface is available with copper twisted pair (RJ45) and a range of fibre optic interface options.

Software on SmartAgent is field-upgradeable by a simple file transfer procedure, remotely or locally. Additional software upgrades include SNMP trap support for alarms, and future features will include full MIB functionality. SmartAgent works well with the external CableFree LinkManager and ClusterManager management software.



## SmartAgent Features

- Advanced Management features
- Provides power to FSO outdoor units
- Real time and historic logging of statistics
- Ethernet/IP local & management of FSO links
- Web-based management
- Works with LinkManager™ and ClusterManager™
- Fully Extensible with upgrades for SNMP
- Connect one or two FSO links directly

## Applications

- Telecom service providers
- Enterprise LAN-LAN & Campus sites
- Centralised network management
- “Problem site” diagnosis

## Product Variants

Details	Order Code	Connections	System Supported
SmartAgent management unit supports up to 2 FSO links	SmartAgent	2x Twisted Pair RJ45, 1x FSO uplink, 1x RS232 serial for PC or second FSO uplink	Access, 622, Gigabit
SmartAgent SNMP trap extension software	SmartAgent-SNMP	Includes AlarmManager PC software	SmartAgent

## Specifications

Product Variant	SmartAgent-1
<i>Connectivity</i>	
Ethernet ports	2x 10/100Mbps RJ45
FSO Uplink Ports	1
Serial Ports	1 (can be used for 2 <sup>nd</sup> FSO uplink)
<i>Environmental</i>	
Power Consumption	15W for onboard CPU, up to 60W per FSO head unit attached
Operating Temperature	-20...+60 °C
<i>Protocols</i>	
HTTP	E-LinkManager and E-webmanager run directly from any web browser connected locally or remotely to the unit
CableFree-UDP	CableFree proprietary management system runs using UDP protocol transport
FTP	*Future support
WINS	Windows Workgroup
<i>Mechanical</i>	
Dimensions (mm)	420x220x44
Weight	2kg

## For More Information

Contact Wireless Excellence Limited for more information on our Management solutions and product details

T: +44 (0)870 495 9169  
E: sales@cablefree.net  
W: www.cablefree.net

Wireless Excellence Limited  
The Oxford Science Park,  
G6, Magdalen Centre  
Robert Robinson Avenue,  
Oxford OX4 4GA