

Ogier Electronics

ESL2400 P-P Point-to-Point 24 GHz Link

The Ogier ESL2400 Ethernet wireless link has been designed to provide low latency wireless Ethernet connectivity for digital data, including I/P surveillance cameras in large-scale deployments. The ESL2400 provides a reliable, robust and cost effective solution for the transmission of CCTV IP video in point to point and point to multipoint configurations.

The system uses the 24 GHz licence-free band and proven design technology that is in service in a number of countries around the world. It is entering production and operational use with operators under all weather conditions and terrains. Although the equipment is aimed primarily at wide area CCTV Surveillance Systems, it can also be used for many other applications. These include E1 and T1 using multiplex equipment from established manufacturers.

The most important feature of the system is its compatibility with IPv4 and IPv6 the world standard for IP data transmission over fibre. The ESL2400 wireless solution is transparent and behaves identically to fibre.

Because of this, the system gives operators the opportunity to select the correct mix of peripheral equipment without being tied to a single supplier.

Low Cost

No Interference

High Performance

Licence Exempt

Easy to Install

High Reliability

Flexible Configurations

Open Standard Interface

Preliminary Technical Specification

Frequency Band	UK	24.15 - 24.25 GHz
	Export	24.00 - 24.25 GHz
Transmit EIRP	UK	20 dBm
	Export	Up to 60 dBm
Channel Bandwidth		5,10 or 20 MHz
Frequency Stability		<1ppm
Antennas		Internal flat-plate or 30 cm / 60 cm dishes
Beamwidths		Flat-plate <5 deg 30 cm dish <3 deg 60 cm dish <2 deg
Operating Range	UK	>5 km P2P
	Export	>20 km P2P
Raw data-rates		To 54 Mbps
Security		WEP, AES, TKIP, WPA
Power		P.O.E.
Temperature Range		-20 to +60 deg C
Connections		Buccaneer Ethernet



Ogier Electronics

ESL2400 P-M-P Point-to-MultiPoint 24 GHz Link

Low Cost

Scalable system from one or two transceivers to large, citywide installations. The infrastructure cost is committed as required, resulting in a system for future expansion. The low cost growth in capacity results in an affordable system for users to replace leased fibre links as well as users in the transport and industrial sectors.

High Performance

Compared to other licence-free equipments the 24 GHz system offered by Ogier provides robust and reliable data connection combined with greater security from interference due to the use of the high frequency.

High Availability

The specifications for the 24 GHz equipments give 99.99% availability assuming UK rain-fade statistics. In practice this yields a high system availability worldwide.

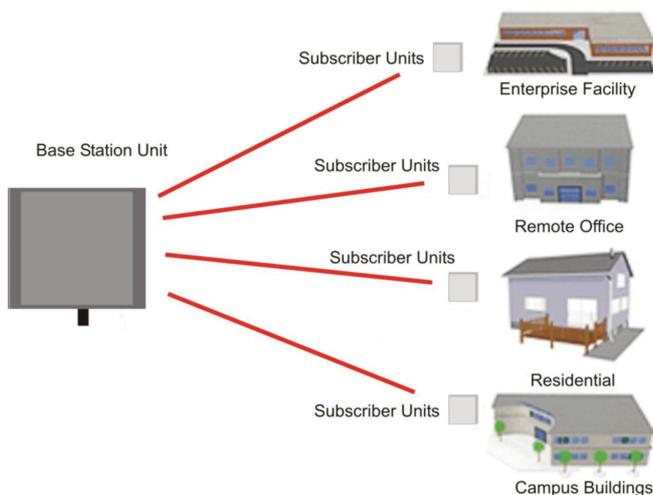
Flexible Configurations

The equipment is designed for simple ease of installation. In areas with ranges of less than 1 km and with a high number of cameras within a 90-degree sector, the Point to Multipoint provides a truly cost effective solution. Export equipments offer increased ranges of 2 km or more. The average data rate from each camera is 1 Mbps, and videos from up to 10 cameras can be received in the common receiver. For greater than 10 cameras, or with wider coverage exceeding 90 degrees, further sector access points are installed at the Collector Point.

For example an overseas system includes over 400 cameras taken back to nine collector points. These signals are transmitted via a high capacity microwave link, to 4 sub control rooms and a main control room. The high degree of flexibility allows ease of operation over large areas.

Overview

This equipment is ideally suited to the “first-hop” role in CCTV networks or for data distribution around large sites such as hospitals and universities. It provides sufficient capacity without being over-engineered or too complex. The equipment uses industry standard 802.11g protocol to provide high performance characteristics over ranges up to 2 km using built-in antennas.



Total Data per channel	54 Mbps
Usable Data per channel	25 Mbps
Bandwidth/channel	20 MHz
Total Bandwidth	200 MHz
Total Channels	10
Total Usable Data per sector	250 Mbps
With 4 x 90-degree sectors	1Gb

Ogier Electronics Limited

Sandridge Park, Porters Wood, St Albans, Herts, AL3 6PH, England

For more information please contact Jacqui Robbins

Tel +44 (0)1727 845547 Fax +44 (0)1727 852186

e-mail jacqui.robbs@ogierelectronics.com

www.ogierelectronics.com