

# Ogier Electronics

## Single Channel Microwave Video Links

The SL series of equipment enable video and TV to be transmitted over ranges of 600 metres to 80 km. The transmissions are full resolution, full frame rate colour to broadcast levels of quality. There are 3 basic equipment types; the Split Configuration, the Compact, and our latest SuperCompact that provides 2 way communications with all the electronics packaged within a 30 x 18 x 9 cm enclosure.

### Applications

The primary application of these links is in CCTV systems. However they are also used by broadcasters, nature conservation groups and in many other areas where high definition TV is required. Many options are possible including, for example, a second video in the Compact and Split Configuration equipment.

The equipment can be installed on CCTV camera columns to transmit directly to the control centre. Alternatively several links can transmit to a common collecting point from where a multichannel equipment can relay the signals onwards.

**SuperCompact & Compact - to 10 km**

**Split Configuration - to 80 km**

**Broadcast quality**

**Guaranteed interference free**

**5 GHz, 31 GHz and 58 GHz**

**Bi-directional Data and Audio options**

**Built in test**

**High reliability, no routine maintenance**

### Benefits

In almost all cases the equipment is easier, quicker and more cost effective to install than fibre optic cable. Despite this it provides a video quality equal to the best fibre solutions.

The SuperCompact series of equipment is the smallest of its type in the world and provides ranges up to 10 km whilst the Compact series uses a camera type housing to minimise the environmental impact. At the other extreme the Split Configuration equipment is supplied with a variety of antennas from 30 to 120 cm for ranges up to 80 km in all weathers.

The SL series are ideal solutions for permanent or temporary applications where high performance and evidential quality is required under all conditions.



## Features

The system transmits video to broadcast levels of quality. Because of this, multiple repeaters can be used to extend the range or to overcome obscuration without any discernible effects on the picture or the commands to the camera.

The equipment incorporates automatic gain and frequency control, which avoids the need for adjustment on installation or during life. All the units have built in test with status LEDs on the modules. The SuperCompact also includes a built-in signal strength indicator which enables the alignment to be performed with a simple multimeter.

The use of phase locked synthesisers and the latest MMIC technology allow operation in the harshest of environments without the need for any routine maintenance. This, together with 100% factory burn-in, has provided an unrivalled reliability record.

All the equipment includes EMC protection against surges, interference and lightning. The features include extensive filtering, precision enclosures and EM sealing. Because of this we can guarantee interference free operation, even in complex radio and radar environments.

## Options

Many options are available to enable the standard equipment to be configured to meet a number of different requirements.

Various data and audio options are available. Also, reverse video channels can be included to allow pictures to be transmitted in both directions. A second video channel can be included on all but the SuperCompact, and if required, all the videos can be encoded with secure, line cut and rotate encryption.

Hot climate versions are available in which the cooling is optimised for operation in 1 kW/square metre sunlight with ambients of up to 60C.



Ogier Electronics is accredited to ISO9001:2000 and is a supplier to security and telecoms companies, to the police, military and local government.

## Typical Specifications

Regulatory	EN 300 632 & MPT 1425
Video channels	1 (2 in some equipment)
Data or audio channels	1 (2 in some equipment)
Frequency	5, 31 or 58 GHz
Frequency stability	Phase locked to 30 ppm
Ranges:-	
58 GHz Compact	1 km
31 GHz Compact & SuperComp't	10 km
31 GHz Split Configuration	25 km
5 GHz Split Configuration	80 km
Availability	99.95%(UK conditions)
Antenna sizes:-	
58 GHz Compact	15 & 25 cm horns
31 GHz Compact & SuperComp't	15 cm horns & planar
31 GHz Split Configuration	30 & 60 cm dishes
5 GHz Split Configuration	30, 60 & 120 cm dishes
Antenna gains:-	
58 GHz Compact	37 & 42 dBi
31 GHz Compact & SuperComp't	32 & 28 dBi
31 GHz Split Configuration	36 & 42 dBi
5 GHz Split Configuration	31, 27 and 33 dBi
Transmit power	0 to +20 dBm
Polarisation	Vertical or horizontal
Receiver Noise Figure	4 to 6 dB
Carrier to Noise	18 dB
Carrier to interference	30 dB
Signal to Noise	55 dB
Modulation	Wideband FM, 10.5 MHz
Pre-emphasis	CCIR Rec 405-1
Tuner bandwidth	27 MHz
Video inputs/outputs	PAL or NTSC 5.6 MHz 1 Volt 75 ohm
Video Quality	6% Differential Gain 6 Deg Differential Phase 6% Bar Amplitude Error 6% C/L Gain Inequality 6% C/L Intermodulation 75 nS C/L Delay
Data inputs/outputs	RS485/422/232 19.2kbps
Audio option (instead of data)	0 dBm in 600 Ohms
Audio frequency response	50 to 10,000 Hz +/-3dB
Audio Signal to Noise	50 dB
Audio harmonic distortion	5% at 1 kHz and 0 dBm



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