

Ogier Electronics

Multichannel Microwave Links

The World class ML Series of equipment transmits up to 19 real time video or TV channels over ranges of up to 60 km.

The transmissions are full resolution colour to broadcast quality irrespective of the number of channels or the range.

Applications

In CCTV and broadcast systems, the application is the transmission of video from many cameras simultaneously to a control room or studio, or the transmission from one control room to another.

In those cases where there is no line of sight from the cameras, the transmission can be via Single Channel links to a common collecting point where a Multichannel Link then combines and transmits all the videos to the control room.

In broadcast, there are also requirements to transmit from satellite terminals to studios and from studios to CATV head ends.

Up to 19 real time Videos

Ranges to 80 km

Broadcast Quality

Upgradeable in Service

Bi-directional Data and Audio

High Reliability

No Maintenance

Low Purchase & Operating Cost

Benefits

The equipment is considerably easier, quicker and more cost effective to install than fibre optic cable. In many terrains it is the only viable option. Despite this, the video quality is equal to the best fibre systems.

The Multichannel capability enables all the signals to be transmitted using a single antenna at either end, so simplifying the installation and reducing the cost when compared to clusters of Single Channel equipment.

The system is modular and can be expanded in service to increase the number of video channels. There is no down time, waste or disruption.

The performance is such that many Multichannels can be co-located to enable reception from all directions simultaneously. Up to 2,000 videos can be received at a single point.



Features

The system provides video quality to the highest outside broadcast standards. Multiple repeaters can be used to extend the range or to overcome obscuration without any discernible effects on the picture.

The equipment includes automatic gain and frequency controls in all the units and so avoids the need for any adjustment on installation or during its life.

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

The system includes EMC protection to permit operation in the presence of other emitters including radars, cellular telephones and high power transmitters without mutual interference .

Built-in test with LEDs on all modules as standard.

Options

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

Bi-directional video channels can be included in which multiple videos are transmitted in both directions. Additional data and audio channels can also be included.

Secure cut and rotate video encryption modules are available on any or all the video channels.

Enhanced performance options are available with appreciably higher specifications. Systems can be supplied for operation between -40C and +70C. Integrated digital alignment meters to aid installation, and built-in test can also be provided.

Different transmission frequencies are available to satisfy the Regulatory Authorities of most countries.

Ogier Electronics equipment is CE approved and is a supplier to major security and telecoms companies, local authorities, police, military and railway network operators world wide

Specifications

Specification	MPT 1425 Applies
Frequency Band	31 GHz in UK 5 GHz outside UK
Stability	Phase Locked to 40 ppm
Polarisation	Vertical and Horizontal
Range	0 to 10 km in UK 0 to 60 km outside UK
Carrier to Noise	21 dB
Signal to Noise	55 dB
Carrier to interference	28 dB
Number of Channels	Up to 19 video + 1 data
Antenna Size	15 to 120 cm diameter
Availability	99.95%
Modulation	FM, 28 MHz Bandwidth
Inputs/Outputs	PAL & NTSC 5.6 MHz 1 Volt p-p Data RS485/422 to 64 Kbps Simplex, Half or Full Duplex Audio 600 Ohms RCA
Video Quality	3% Differential Gain 3 Deg Differential Phase 3% Bar Amplitude Error 3% C/L Gain Inequality 3% C/L intermodulation 75 nS C/L Delay 3% Bar Tilt 3% 2T K 3% 2T P/B
Options	Additional data and audio Bi-directional video Cut and rotate video encryption Enhanced video specifications Alignment meters and BITE pr ETS 300 339 (1984)
EMC specification	
Power	100 - 250 Volts AC, 50 - 60 Hz
Temperature range	-20 to +60 C
Wind	Up to 200 Kph
Dimensions	5km Transceivers 39 dia x 40cm 10km Transceivers 70 dia x 60cm 40km Transceivers 1.3 dia x 1.5m Mod/Demod 50 x 40 x 25cm
Fixings	To 10 cm diameter poles
Connections	Power, Video and Telemetry
Life	15 Years
Maintenance	None Required
RF Hazard	None safe at all distances



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