

# SeaVISION II

## Seatronics secure one-way digital link



The equipment provides a reliable, secure one-way digital link for video, audio and data over a range up to 38\* kilometres. The type of modulation used (COFDM) and the use of diversity reception make the link very resistant to multipath problems, giving excellent performance in mobile applications and normally difficult locations.

### Key Features

- L Band - 1.35 GHz to 1.45 GHz - 38km Range\*
- S Band - 2.35 GHz to 2.5 GHz - 24km Range\*
- C Band - 5.4 GHz to 5.6 GHz - 11km Range\*
- Dual diversity reception
- 2 x audio channels
- 1 x user data serial interface
- Resistant to multipath problems
- NEW - RF test feature

### Key Benefits

- 128 bit AES encryption can be ordered as an option
- Digital transmission
- Flexible transit and receive configurations available (multiple Tx to single Rx site)

### Specifications

<b>Product</b>	SeaVISION II
<b>Country of origin</b>	UK
<b>Manufacturer</b>	Seatronics

## Video encoding

<b>Compression standard</b>	MPEG 2
<b>Video input</b>	PAL, NTSC
<b>Resolution</b>	Horizontal 720 lines, Vertical PAL 576 (625 line) or NTSC 480 (525 line)
<b>Video bit rate</b>	3Mbps to 15Mbps
<b>Delay (1 TX and 1 RX)</b>	50ms maximum (depending on video bit rate)

## Audio

<b>Channels</b>	2 x mono
<b>Bit rate</b>	400kbps per channel
<b>Sampling frequency</b>	32kHz adaptive coding
<b>Channel cross talk @ 1kHz</b>	<60dB
<b>Channel phase response for 100Hz to 14kHz</b>	+2%

## User data interface

<b>Interface</b>	1200 to 38,400 baud RS232 1 start, 8 data and 1 stop bits, no parity
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## Modulation system

<b>COFDM modulation type</b>	QPSK or 16QAM
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## Encryption

<b>COFDM carrier use</b>	Data scrambled across carriers
<b>Service information</b>	Non-standard, prevents decoding by domestic DVB-T
<b>Key encryption</b>	Choice of ABS (standard), AES128 or AES256 (extra licence payable)

## TX RACK

<b>Occupied bandwidth</b>	6/7/8MHz (2.5MHz narrowband option)
<b>RF power output</b>	200mW max COFDM signal (adjustable to 10, 50 and 100mW)
<b>Output impedance</b>	50Ω
<b>Environmental</b>	Indoor operation, -20°C to +55°C 10% to 90% RH, non-condensing
<b>Weight</b>	1.0kg
<b>Power supply</b>	AC Mains, 100 - 240V AC, 50-60Hz, without adjustment DC output - 12V
<b>Profiles</b>	10, selected by front-panel button
<b>Dimensions</b>	180mm x 60mm x 120mm

## Power amplifier

<b>RF output</b>	1W max (COFDM data stream, 100mW drive in)
<b>RF output Impedance</b>	50Ω
<b>RF drive</b>	100mW max
<b>Power supply</b>	Phantom-powered by transmitter via download
<b>Gain</b>	10dB nominal
<b>Enclosure</b>	Mast mounting with Jubilee Clip
<b>Environmental</b>	Outdoor operation: IP67 rated, with sun shield -20°C to +55°C, 10% to 90% RH, non-condensing
<b>Dimensions</b>	183mm x 70mm x 60mm
<b>Weight</b>	1.5kg

## RX Rack

<b>No of tuners</b>	2
<b>Diversity technique</b>	MRC (maximal ratio combining)
<b>RF Input impedance</b>	75Ω (matches 75Ω output of downconverter)
<b>Environmental</b>	Indoor operation, -20°C to +55°C 10% to 90% RH, non-condensing
<b>Dimensions</b>	180mm x 60mm x 120mm
<b>Weight</b>	1kg
<b>Power supply</b>	AC mains, 100 - 240V AC, 50-60Hz, without adjustment DC output – 12V 18 Watt
<b>Profiles</b>	10, selected by front-panel button

## Downconverter

<b>Frequency of operation</b>	S band (versions for 1.2GHz - 3.6GHz)
<b>No of channels</b>	Single channel; two units required for diversity
<b>Antenna input impedance</b>	50Ω
<b>RF output impedance</b>	75Ω (matches 75Ω input of Rx rack)
<b>Gain</b>	33dB nominal fixed
<b>Power supply</b>	Phantom-powered by receiver via download
<b>Enclosure</b>	Mast mounting with Jubilee Clip
<b>Environmental</b>	Outdoor operation: IP67 rated -20°C to +55°C, 10% to 90% RH, non-condensing
<b>Dimensions</b>	129mm x 69mm x 52mm
<b>Weight</b>	0.75kg

## Shipping weights & dimensions

<b>TX system</b>	25Kg 80cm x 55cm x 30cm
<b>RX system</b>	23Kg 80cm x 55cm x 30cm