

# SOLO4 – Robust Receiver

COFDM – Video, Audio Telemetry and IP Products

**COBHAM**

September 2011 Data Sheet

The most important thing we build is trust



SOLO4 Robust Receiver

The Robust SOLO4 Receiver from Cobham is a feature-rich, diversity input digital video receiver, equipped with two antenna inputs and internal down-converters (excluding UHF) to allow direct antenna connection. The Robust SOLO4 Receiver operates a maximum ratio combining digital diversity, ensuring video is recovered free from distortions typically associated with fading and multipath. The Robust SOLO4 Receiver is compatible with multiple COFDM transmission formats from 8MHz DVB-T to the unique 2.5 and 1.25MHz narrow band modes proprietary to Cobham Surveillance. Incorporating MPEG2 and MPEG4 video decoding, the Robust SOLO4 Receiver is suitable for all mission types with Cobham technology at its core.

The narrow bandwidth modulation offers unprecedented spectral efficiency, while also increasing the system sensitivity and therefore range. The Robust SOLO4 Receiver has comprehensive on screen display (OSD) diagnostic capability to show link quality and spectrum, enabling users to optimise transmission performance with one video, two voice and data channels.

Security of transmission is ensured by the use of ABS decryption as standard or, for greater security, optional AES128/256 bit decryption is available, subject to export controls.

The Robust SOLO4 Receiver is supplied in a sealed IP 67 rated aluminium enclosure.

#### Features:

- Fully featured 8/7/6/2.5MHz (1.25MHz option) Maximum ratio combining antenna diversity for fade and multipath elimination
- Comprehensive OSD diagnostics, including spectrum analyser
- Internal down-converters (Excluding UHF)
- Internal AES128/256bit decryption (option)
- IP interface board for streaming and networking (option)
- Very low video delay for real time applications.

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## Specification:

### Input

UHF Input 1	TNC
UHF Input 2	TNC
12V DC In	3 pin amphenol

### Output

Composite Video & Audio	7 pin amphenol
RS232 Control & Data	7 pin amphenol
Ethernet Port	4 pin amphenol

### RF

Frequency Bands	50 to 850 MHz 1.00 to 1.40 GHz 2.285 to 2.65 GHz 2.70 to 2.90 GHz 3.10 to 3.40 GHz
Tuning Steps	250 KHz

### Modulation

DVB-T Bandwidth	8/7/6MHz
DVB-T Guard	1/32, 1/16, 1/8, 1/4
DVB-T FEC	1/2, 2/3, 3/4, 5/6
DVB-T Modulation	QPSK, 16QAM, 64QAM
SOLO Bandwidth	2.5MHz (1.25MHz optional)
SOLO Guard	1/16, 1/8
SOLO FEC	1/3, 2/3
SOLO Modulation	QPSK, 16QAM
Sensitivity	-95 to -105dB

### Video

Line Standard	PAL/NTSC
Resolution	704, 528, 480, 352
Coding Mode	MPEG2 (MPEG4 optional)
Delay	43ms to 120ms depending on mode
Frame Rate	Full/Half/Quarter/Eighth (selectable)

### Audio

Output	Line Level
Sample Rate	32KHz, 16KHz, 8KHz
Bits per Sample	12 or 8 bit

### Data Interface

RS232 Data Output	1K2 to 115K2 baud switchable
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### Encryption

Format	ABS (standard) AES128/256 (optional)
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### Control

Remote Control	RS232 Control from PC GUI Application
Local Control	Front Panel 8 channel select, RF on/off, Range mode, Lock, Alarm
On Screen Display	Spectrum, RX SNR, RX Power

### Physical

Dimension Base Unit	L 240mm, W 147mm, H 43mm
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### Power

12V DC In	10 to 16V
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### Environment

Temperature Range	-20 to +50 deg C
Sealing	IP67

### Product Code:

SOL4RXR-005085
SOL4RXR-100140
SOL4RXR-225265
SOL4RXR-270290
SOL4RXR-310340

### Product Code Includes

1 x CA0219	Power Cable 2M
1 x CA0222	Control Cable 2M
1 x CA0221	Telemetry AV Cable 2M

### Accessory Options

SOL4TXR	Robust SOLO4 Transmitter
SOLAMP1W	Robust Clip-on 1W amplifier

### Licensing Options

NETCRXIPUP	(IP STREAMING OPTION)
RX-UN	Upgrade to MPEG4 Ultra-Narrowband 1.25 MHz
RX-UXN	Upgrade to MPEG4 Ultra Extreme Narrowband 625 kHz

Products are available to security users only, in licensed frequency bands. These products are not approved for use by unlicensed users.

Commercial products are available to unlicensed users - contact Cobham Tactical Communications and Surveillance direct for details.

All product specifications are subject to change without notice. Cobham Tactical Communications and Surveillance will not be liable for technical or editorial errors or omissions.

For further information please contact:

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