

# SOLO4 - Receiver

COFDM – Video, Audio Telemetry and IP Products

**COBHAM**

September 2011 Data Sheet

The most important thing we build is trust



The SOLO4 Receiver from Cobham Tactical Communications and Surveillance is a feature-rich diversity input digital video receiver, equipped with two antenna inputs normally connected to external down-converters to allow antenna placement remote from the receiver housing. The SOLO4 Receiver operates a maximum ratio combining digital diversity, ensuring video is recovered free from distortions typically associated with fading and multipath. The 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 SOLO4 Receiver is suitable for all mission types, and has Cobham technology at its core.

The Cobham Surveillance narrow bandwidth modulation offers unprecedented spectral efficiency, while also increasing the system sensitivity and, therefore, range. The SOLO4 Receiver has comprehensive on screen display diagnostic capability to show link quality and spectrum, enabling users to optimise transmission performance.

The SOLO4 Receiver is equipped with video, two voice and data channels, and is designed for easy integration into command vehicle, briefcase or central receive applications.

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

#### Features:

- Fully featured 8/7/6/2.5MHz (1.25MHz optional)
- Maximum ratio combining antenna diversity for fade and multipath elimination
- Comprehensive on screen display (OSD) diagnostics for link analysis, including spectrum analyser
- External down-converters for convenient antenna placement
- Internal AES128/256bit encryption (option)
- Optional IP interface board for IP streaming and network connection
- Very low delay video operation for real time applications
- Optional 4-way diversity.

# SOLO4 - Receiver

COFDM – Video, Audio Telemetry and IP Products



September 2011 Data Sheet

## Specification:

### Down-converters

RF In	TNC
UHF Out	TNC

### Input

UHF Input 1	TNC
UHF Input 2	TNC
Power	4 pin OB Lemo

### Output

Composite Video	BNC
Stereo Line Level Audio	Lemo
Chaining Interface	Lemo
RS232 Data	Hirose
RS232 Control	Hirose

### RF

Frequency Bands	5.62 to 5.9GHz with DCB-550600, 4.5 to 5GHz with DCB-450500, 3.1 to 3.4GHz with DCB-300350, 2 to 2.5GHz with DCB-200250, 1.5 to 2GHz with DCB-150200, 1 to 1.5GHz with DCB-100150, 575 to 675MHz, 470 to 520MHz, 340 to 470MHz
Tuning Steps	250KHz

### 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 -104dB

### 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 and MPEG L1 and L2 48KHz
Bits per Sample	12 or 8 bit

### Data Interface

RS232 Data Output	1K2 to 115K2 baud switchable
-------------------	------------------------------

### Encryption

Format	ABS (standard) AES128/256 (optional)
--------	---

### 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 200mm, W 152mm, H 50mm
Base Unit inc. IP Interface	L 175mm, W 200mm, H 66mm
Down-converter	L 100mm, 45mm Diameter
Weight Base Unit	2.2kg
Down-converter	300g

### Power

DC Input	9 to 16V Reverse Polarity Protected
Power Consumption	10W depending on mode

### Environment

Temperature Range	-10 to +50 deg C
-------------------	------------------

## Product Code:

SOL4RX

### Product Code Includes

2 x CA0005	Down Converter RX TNC cable 3M
1 x CA0006	BNC Video lead 3M
1 x CA0023	PSU12V Power Block
1 x CA0063	Control Cable
1 x CA0067	Telemetry Audio Out Cable 3M

### Accessory Options

1 x Data Cable (optional)
---------------------------

### 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

For further information please contact:

### Cobham Tactical Communications and Surveillance

The Cobham Centre – Solent, Fusion 2  
1100 Parkway  
Solent Business Park  
Whiteley  
Hampshire, PO15 7AB  
England

T: +44 (0)1489 566 750  
F: +44 (0)1489 880 538  
css.sales@cobham.com

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.

