

SOLO4 – Audio and Telemetry Receiver

COFDM – Video, Audio Telemetry and IP Products

COBHAM

June 2011 Data Sheet

The most important thing we build is trust

The SOLO4 Audio and Telemetry Receiver from Cobham Tactical Communications and Surveillance is a diversity COFDM receiver, designed specifically for the reception of audio and telemetry data. The SOLO4 Audio and Telemetry Receiver has Cobham technology at its core and can be configured into different user selectable bandwidths, to satisfy a variety of requirements. Bandwidths from 25 kHz to 125 kHz are available offering user capacity from 14 to 146kb/s. This capacity can be shared between audio and user RS232 telemetry data, in any combination. Additional bandwidths will be available in the future.

The SOLO4 Audio and Telemetry Receiver employs diversity reception and a unique narrow band COFDM modulation. It will receive telemetry data and audio in a non-line of sight environment up to 5km, depending on mode and frequency. The SOLO4 Audio and Telemetry Receiver is typically employed to provide talk back and also telemetry data for PTZ control in Cobham wireless video systems.

Security is ensured with AES128/256 bit encryption subject to export controls.

Supplied in a rugged, lightweight weather proof aluminium chassis, the SOLO4 Audio and Telemetry Receiver can be used in body-worn applications, or prolonged outdoor deployments.



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Specification:

Input

RF Input 1	SMA
RF Input 2	SMA
Power	4 pin OB Lemo

Output

Audio 1	5 pin OB Lemo
Audio 2	5 pin OB Lemo
GPIO	16 pin Hirose
RS232 Data	16 pin Hirose
RS232 Control	16 pin Hirose

RF

Frequency Bands	902.1 to 903.6MHz 868 to 870MHz 920 to 928MHz 458.5 to 459.5MHz (others available)
Input	Maximum Ratio Combining Diversity
Sensitivity	-110 to -120dBm depending on mode
Tuning Steps	12.5KHz

Demodulation

Bandwidth	75 to 125kHz (A model only) 25 to 125kHz
Carriers	99
Modulation	QPSK or 16QAM
FEC	1/2

Settings

Channel Spacing	25kHz	50kHz	75kHz
	100kHz	125kHz	
Bandwidth	20kHz	40kHz	60kHz
	80kHz	100kHz	
Bitrate QPSK	14kb/s	29kb/s	44kb/s
	58kb/s	73kb/s	
16QAM	28kb/s	58kb/s	88kb/s
	116kb/s	146kb/s	

Audio (A model only)

Output	Line Level or Headphone Level
Sample Rate	8kHz
Bits per Sample	24kbit (Toll) or 32kbit (Phone) Quality
Algorithm	G726

Encryption

Format	AES128/256 (optional)
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Data Interface

Format	RS232
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200 baud
Parity	None, Even, Odd switchable
Flow Control	XON/XOFF (optional)
IP Interface	RS232 style interface for IP Card

Control

Remote Control	RS232 Control from PC GUI Application
Local Control	Front Panel 8 channel select, RF on/off, Range mode, Lock, Alarm

Physical

Dimension Base Unit	L 102mm, W 71mm, H 22mm
Weight Base Unit	350g

Power

DC Input	5.9 to 16V Reverse Polarity Protected
Power Consumption	2.4W to 3W depending on mode

Environment

Temperature Range	-20 to +70 deg C
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Accessories Supplied

- 2 x LPRS Antenna
- 1 x SOLO 12V DC Power Lead Lemo-wire 2m
- 1 x 3rd Generation Man-worn Control Cable
- 1 x Telemetry Audio Out Cable OB(FGA) Lemo-phonon 3m
- 1 x 3rd Generation Data Cable

Product Code:

TELRX-092093	920 to 928MHz
TELRXA-092093	920 to 928MHz
TELRX-090090	902.1 to 903.6MHz
TELRXA-090090	902.1 to 903.6MHz
TELRX-086087	868 to 870MHz
TELRXA-086087	868 to 870MHz
TELRX-045045	458.5 to 459.5MHz
TELRXA-045045	458.5 to 459.5MHz

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