

SOLO4 - Transmitter

COFDM – Video, Audio Telemetry and IP Products

COBHAM

September 2011 Data Sheet

The most important thing we build is trust

The SOLO4 Transmitter from Cobham Tactical Communications and Surveillance is a feature-rich COFDM digital video transmitter. The SOLO4 Transmitter can operate in a variety of transmission bandwidths allowing the user to trade off image quality against range to suite all types of missions. Excellent range, performance and spectral efficiency are offered when operating in the unique 2.5MHz and 1.25MHz narrow bandwidth modes. For excellent image quality at shorter ranges the 8MHz DVB-T modulation can be employed. The SOLO4 Transmitter is the first to offer this choice in one product. MPEG2 and MPEG4 image compression is also a user selectable feature.

The SOLO4 Transmitter has Cobham technology at its core and is ideal for establishing rugged wireless video links in all environments including mobile and urban environments. Security is ensured with built-in 32 bit ABS encryption or, for greater security, AES128/256 bit encryption is also available, subject to export controls. The SOLO4 Transmitter is available in a variety of frequency bands from 300MHz to 5.9GHz.

Able to transmit images in a non-line of sight environment up to 1km depending on mode and frequency, the SOLO4 Transmitter can achieve further range with the clip-on booster PA.

The SOLO4 Transmitter is typically used as a stand-alone uni-directional video link, however if a bi-directional system is required, it can be deployed in conjunction with the SOLO Telemetry system.

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



SOLO4 - Transmitter

COFDM – Video, Audio Telemetry and IP Products



September 2011 Data Sheet

Specification:

Input

Composite Video	5 pin OB Lemo
Audio 1	5 pin OB Lemo
Audio 2	5 pin OB Lemo
SVideo	Hirose 16 pin 3500 series
RS232 Data	Hirose 16 pin 3500 series
RS232 Control	Hirose 16 pin 3500 series
Chaining I/O	Hirose 16 pin 3500 series
General Purpose I/O	Hirose 16 pin 3500 series
Power	4 pin OB Lemo

Output

RF Output	SMA
-----------	-----

RF

Frequency Bands	8.1GHz to 8.6GHz 5.5GHz to 6.0GHz, 4.4GHz to 5.0GHz, 3.0GHz to 3.5GHz, 2.5GHz to 3.0GHz, 2.3GHz to 2.7GHz, 1.5GHz to 2GHz 1.0GHz to 1.5GHz, 340MHz to 470MHz
Power	100mW
Power Control	30dB in 1dB steps
Tuning Steps	250KHz

Modulation

Bandwidths (DVB-T or SOLO)	8/7/6/2.5MHz (1.25MHz optional)
Default Modes:	
Mode 1 - Short Range	2.5MHz, 16QAM, FEC2/3, 4.8Mb/s
Mode 2 - Normal Range	2.5MHz, QPSK, FEC2/3, 2.4Mb/s
Mode 3 - Long Range	2.5MHz, QPSK, FEC1/3, 1.2Mb/s
Mode 4 - Ultra Long Range	(1.25MHz, QPSK, FEC1/3, 600kb/s optional)

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

Input	Line Level or Microphone
Sample Rate NICAM	32KHz, 16KHz, 8KHz switchable
Bits per Sample NICAM	12 or 8 bit switchable
MPEG L2 or L2	64kbits – 384kpbs 48KHz sampling

Data Interface

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

Encryption

Format	ABS 32 bit as standard AES128 and AES256 (optional)
--------	--

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	L 102mm, W 71mm, H 22mm
Weight	350g

Power

DC Input	5.9 to 16V Reverse Polarity Protected
Power Consumption	4.8 to 6W depending on mode

Environment

Temperature Range	-20 to +70 deg C
-------------------	------------------

Product Codes:

SOL4TX-810860	Solo4 TX 8.10-8.60GHz
SOL4TX-560600	Solo4 TX 5.60-6.00GHz
SOL4TX-440500	Solo4 TX 4.40-5.00GHz
SOL4TX-300350	Solo4 TX 3.00-3.50GHz
SOL4TX-250300	Solo4 TX 2.50-3.00GHz
SOL4TX-230270	Solo4 TX 2.30-2.70GHz
SOL4TX-200250	Solo4 TX 2.00-2.50GHz
SOL4TX-150200	Solo4 TX 1.50-2.00GHz
SOL4TX-100150	Solo4 TX 1.00-1.50GHz
SOL4TX-034047	Solo4 TX 340-470MHz

Product Code Includes

1 x CA0002	SOLO 12V DC Power Lead Lemo-wire 3m
1 x CA0063	3rd Generation Man-worn Control Cable
1 x CA0122	3rd Generation Bodycam AV Cable Lemo-BNC/Phono 2m

Accessory Options

None

Licensing Options

TX-UP	Upgrade from 2.5MHz to 1.25MHz
TX-UPX	Upgrade from 1.25MHz to 625kHz
AES128TX	AES Transmitter 128 Bit encryption
AES256TX	AES Transmitter 256 Bit encryption

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.

