

# SOLO6 – Dual Transmitter

COFDM – Video, Audio Telemetry and IP Products

**COBHAM**

September 2011 Data Sheet

The most important thing we build is trust



The SOLO6 Transmitter from Cobham Tactical Communications and Surveillance is a feature-rich COFDM digital video transmitter. The SOLO6 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/1.25MHz and unique 625kHz narrow bandwidth modes. For excellent image quality at shorter ranges the 8MHz DVB-T modulation can be employed.

The SOLO6 offers the capability to stream two video in several ways. Two video feeds can be streamed via Cobham's chaining interface over a single COFDM Transmitter, or there is the ability to switch allowing the best use of spectrum available for a particular operation. Two feeds can also be transmitted over two different frequency channels if required. SOLO6 supports MPEG2 and MPEG4 image compression which are user selectable feature.

The SOLO6 Transmitter has Cobham technology at its core and is ideal for establishing rugged wireless video links in all environments including mobile, rural and urban. 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 SOLO6 Transmitter is available in a variety of frequency bands from 300MHz to 5.0GHz.

Able to transmit images in a non-line of sight environment up to 1km depending on mode and frequency, the SOLO6 Transmitter can achieve further range with the 1W clip-on booster PA.

The SOLO6 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.

The SOLO6 transmitter is small, lightweight and weather proof. It is highly power efficient drawing only 4.3W at 12V and can run from batteries or mains using anywhere between 6-16V. This makes it ideal for indoor or outdoor deployments, used as a body worn application or mounted on any kind of vehicle, manned or unmanned, in any overt or covert applications.

# SOLO6 – Dual Transmitter

COFDM – Video, Audio Telemetry and IP Products

September 2011 Data Sheet

## Specification:

### Input

|                     |                           |
|---------------------|---------------------------|
| Composite Video 1   | 5 pin OB Lemo 1           |
| Audio 1.1           | 5 pin OB Lemo 1           |
| Audio 2.1           | 5 pin OB Lemo 1           |
| Composite Video 2   | 5 pin OB Lemo 2           |
| Audio 1.2           | 5 pin OB Lemo 2           |
| Audio 2.2           | 5 pin OB Lemo 2           |
| SVideo              | Hirose 16 pin 3500 series |
| RS232 Data          | Hirose 16 pin 3500 series |
| RS232 Control       | Hirose 16 pin 3500 series |
| General Purpose I/O | Hirose 16 pin 3500 series |
| Power               | 4 pin OB Lemo             |

### Output

|           |         |
|-----------|---------|
| RF Output | SMA x 2 |
|-----------|---------|

### RF

|                 |   |
|-----------------|---|
| Frequency Bands | 4.4 to 5GHz, (475)<br>1.6GHz to 2.5GHz (205)<br>1.0 to 1.5GHz, (125)<br>340 to 470MHz (038) |
| 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  |
| Mode 5 – Ultra X           | 625kHz, QPSK, FEC1/3, 300kb/s   |

### 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 – 384kbps<br>48kHz sampling |

### Data Interface

|                  |  |
|------------------|--|
| RS232 Data Input | 1K2 to 115K2 baud switchable                           |
| Encryption       |  |
| Format           | ABS 32 bit as standard<br>AES128 and AES256 (optional) |

### Control

|                |  |
|----------------|--|
| Remote Control | RS232 Control from PC GUI Application                                |
| Local Control  | Front Panel 16 channel select,<br>RF on/off, Range mode, Lock, Alarm |

### Physical

|           |                         |
|-----------|-------------------------|
| Dimension | L 102mm, W 71mm, H 32mm |
| Weight    | 425g                    |

### Power

|                   |                                       |
|-------------------|---------------------------------------|
| DC Input          | 5.9 to 16V Reverse Polarity Protected |
| Power Consumption | 3.9 W to 4.3W depending on mode       |

### Environment

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

### Product Codes:

|               |                                      |
|---------------|--------------------------------------|
| SOL6TX-208475 | Solo6 TX 1.65-2.50GHz / 4.50-5.00GHz |
| SOL6TX-208208 | Solo6 TX 1.65-2.50GHz / 1.65-2.50GHz |
| SOL6TX-125208 | Solo6 TX 1.00-1.50GHz / 1.65-2.5GHz  |
| SOL6TX-056208 | Solo6 TX 450-675MHz / 1.65-2.50GHz   |
| SOL6TX-056125 | Solo6 TX 450-675MHz / 1.00-1.50GHz   |
| SOL6TX-038208 | Solo6 TX 300-450MHz / 1.65-2.50GHz   |
| SOL6TX-125125 | Solo6 TX 1.00-1.50GHz / 1.00-1.50GHz |
| SOL6TX-038125 | Solo6 TX 300-450MHz / 1.00-1.50GHz   |
| SOL6TX-038308 | Solo6 TX 300-450MHz / 300-450MHz     |

### 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-UP6    | Upgrade from 2.5MHz to 1.25MHz          |
| TX-UPX6   | Upgrade from 1.25MHz to 625kHz          |
| AES128TX6 | AES SOL6 Transmitter 128 Bit encryption |
| AES256TX6 | AES SOL6 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.

