The SOLO H.264 Transmitter from Cobham is a rugged, Standard or High Definition digital video transmitter, ideal for motorsport, airborne, sports, news links and law enforcement surveillance applications.

The H.264 Transmitter can operate in a variety of transmission bandwidths allowing the user to trade off image quality against range to suit all types of applications. Excellent range, performance and spectral efficiency are offered when operating in the optional narrow bandwidth mode, which combined with the ultra-efficient H.264 encoding allows true broadcast quality pictures to be transmitted in only 2.5MHz bandwidth. This enables users to maximise usage of limited RF spectrum as 2 or 3 cameras can occupy the bandwidth previously required by a single MPEG2 system. All modes of DVB-T modulation are also supported.

The increased compression and efficiency of the MPEG4 H.264 encoder offers users additional range with the added benefit of small size, low latency and low power consumption. In particular, HD transmission is possible using 40% lower bit-rates than conventional MPEG2 systems, enabling true HD transmission in a single 8MHz DVB-T channel whilst using robust modulation settings. Able to transmit images in a non-line of sight environment up to 1km depending on mode and frequency, the transmitter can achieve even further range with an optional clip-on booster PA.

Greater security of the transmission can be ensured using the optional internal AES128/256. The SOLO H.264 transmitter features mounting holes for bespoke applications and can be easily connected to any camera type. A range of camera brackets are available to facilitate easy mounting of the SOLO H.264 transmitter to satisfy many different camera styles.

For excellent range and coverage, the SOLO H.264 transmitter can be operated with the Cobham Pro-RXB receiver (see separate datasheet). The Pro-RXB receiver is available with 2-way, 4-way, 6-way and 8-way diversity.

Features:
- Low delay H.264 SD & HD encoding
- HD-SDI/SDI with embedded audio input
- Composite video input
- HDMI input with embedded audio input
- ASI input and output
- DVB-T 6/7/8MHz and optional narrowband modulation
- Low power consumption 10W
- Ultra lightweight 400g
**Specification:**

**Input**
- SD Composite Video BNC
- SD/HD-SDI BNC
- HDMI HDMI Type A
- ASI In SMB
- Balanced Stereo Audio 5 way OB Lemo
- RS232 (optional USB) Control 3 (6) way OB Lemo
- Power 4 way OB Lemo
- Data channel 4 way OB Lemo

**Output**
- RF (optional) SMA
- ASI Out SMB

**RF**
- Frequency Bands Frequencies available from 230MHz to 8.6GHz, see product codes
- Tuning Step Size 250kHz
- O/P Power 100mW

**DVB-T Modulation**
- DVB-T Bandwidth 8MHz, 7MHz and 6MHz modes
- DVB-T Guard 1/32, 1/16, 1/8, 1/4
- DVB-T FEC 1/2, 2/3, 3/4, 5/6, 7/8
- DVB-T Modulation QPSK, 16QAM, 64QAM
- DVB-T Bit-rates 3.6Mbps to 32Mbps

**SOLO Bandwidth (with TX-NBUP option)**
- SOLO Bandwidth 2.5MHz, 1.25MHz and 625kHz modes
- SOLO Guard 1/16, 1/8
- SOLO FEC 1/3, 2/3
- SOLO Modulation QPSK, 16QAM, BPSK, 8PSK
- SOLO Bit-rates 140kbps to 4.8Mbps

**Video**
- Video Input SD-SDI, HDMI, Composite
- Compression Type AVC/H.264/MPEG-4 Part 10
- SD Resolution modes 720x480i 59.94Hz, 720x576i 50Hz
- Other modes:
  - Horizontal downsampling of 3/4, 2/3, 1/2
  - Vertical downsampling of 1/2
  - Sub-frame rate of 1/2, 1/4, 1/8, 1/24
- Coding Mode High profile level 4.1, I/IP 4:2:0 Progressive or Interlaced (MBAFF)

**Data Interface**
- RS232 Data Input 1k2 to 115k2 baud switchable
- 7/8 bit, none/odd/even parity

**ASI**
- Mode Byte Mode

**Encryption**
- Type ABS 32bit as standard
- AES128/256 (optional)

**Control**
- Front Panel Integrated Field Controller 2 Buttons and OLED Screen
- Remote Control USB Control from PC GUI

**Physical**
- Dimensions L 130mm, W 80mm, H 30mm
- Weight Base Unit 370g

**Power**
- DC Input 6 to 17V Reverse Polarity
- Protected SD encoding - 9.6W HD encoding - 13.0W worse case with 100mW RF

**Environment**
- Temperature Range -10 to +50 °C
- Sealing Splash Proof
H.264 SD/HD COFDM Transmitter
COFDM - Video, Audio Telemetry and IP Products

October 2012 Data Sheet

Product Codes:
SOLH264TX-034047 Solo H.264 SD TX 340-470MHz 100mW
SOLH264TX-100150 Solo H.264 SD TX 1.0-1.5GHz 100mW
SOLH264TX-150200 Solo H.264 SD TX 1.5-2.0GHz 100mW
SOLH264TX-200250 Solo H.264 SD TX 2.0-2.5GHz 100mW
SOLH264TX-250300 Solo H.264 SD TX 2.5-3.0GHz 100mW
SOLH264TX-300350 Solo H.264 SD TX 3.0-3.5GHz 100mW
SOLH264TX-350400 Solo H.264 SD TX 3.5-4.0GHz 100mW
SOLH264TX-400450 Solo H.264 SD TX 4.0-4.5GHz 100mW
SOLH264TX-440500 Solo H.264 SD TX 4.4-5.0GHz 100mW
SOLH264TX-500550 Solo H.264 SD TX 5.0-5.5GHz 100mW
SOLH264TX-550600 Solo H.264 SD TX 5.5-6.0GHz 100mW
SOLH264TX-640700 Solo H.264 SD TX 6.4-7.0GHz* 100mW
SOLH264TX-700750 Solo H.264 SD TX 7.0-7.5GHz* 100mW
SOLH264TX-810860 Solo H.264 SD TX 8.1-8.6GHz 100mW

*= Currently under development

Product Code Includes
1 x CA0343  USB Control Cable
1 x CA0579  XLR Audio Input Cable
1 x CA0340  RS232 Data Input Cable
1 x CA0002  DC Power Input Cable
1 x CA0006  BNC Video Lead

Accessory Options
TX-VBAT  V-Mount Battery Plates
TX-ABBAT  AB Battery Plates
TX-PAGBAT  PAG Battery Plates
TX-HDUP  HD Encoder Upgrade
TX-RFUP-xxxxxx  RF Band Swap
HDTXBRAC-V  V-Mount Camera Bracket

Licensing Options
TX-NBUP  2.5MHz/1.25MHz/625kHz Narrowband Modulation
TX-HDUP  HD Encoder Upgrade
AES128TX  AES 128 Internal Encryption
AES256TX  AES 256 Internal Encryption