DVB-T2/T/S2/S  Multiband Transmitter

The HDT-02 is the new multiband and multifunction transmitter developed by SVP Broadcast Microwave. The features of this equipment, achievable only by SVP, make this transmitter the most advanced that exist in the market today.

It features H.264 encoding for 3G, high definition (HD) and standard definition (SD) signals with ultra-low latency. H.264 transmission is possible using 40% lower bitrate than conventional MPEG-2 systems.

This new generation transmitter accepts analogue video, 3G/HD/SD-SDI and HDMI video input signals. Analogue, SDI embedded, HDMI embedded and AES audio inputs are available as standard. User data or GPS data can be transmitted over the data channel.

The ASI output enables the user to use the transmitter as a standalone encoder.

The HDT-02 transmitter performs DVB-T2 and DVB-T modulations. DVB-T enables compatibility with nearly all types of receivers. DVB-T2 modulation outperforms DVB-T modulation and offers a much higher data rate, which offers a higher signal quality and a much more robust signal than DVB-T, achieving longer and more complex links.

This transmitter performs DVB-S2 and DVB-S modulation (optional). An L band output is available, which enables the use of the transmitter as a satellite encoder and modulator.

This device has an exceptional RF performance with the highest bandwidth available.

Control, operation and monitoring of the HDT-02 transmitter is very friendly. All the parameters of the transmitter can be configured in the field. Furthermore, seven presets are configurable for quick equipment set up. A wide range of accessories allows the use of this equipment in many and different applications.

FEATURES
- Ultra Wide RF: 1.000 MHz to 6.400 MHz
- Terrestrial and satellite transmission
- Highest video quality available: 1080p/50, 1080p/60, 3G-SDI
- Lowest Delay in H.264: 33 ms
- Power supply range: 8 – 36 VDC
- RTCA/DO-160 compliant
- BISS-1and BISS-E
- Zero microphony
- Allows the control of PA series amplifiers
- Allows the remote control of BUC and SSPA for satellite applications
- H.264 4:2:2

OPTIONS
- Remote control through RTC-01 and RTC-02
- KLV Metadata embedded on SDI
- 70 MHz output
- Remux
- AES 128 and AES 256 Encryption
- V mount clamping system
- Anton-Bauer mount clamping system
- DVB-S/S2 modulator with 10 MHz
- Bidirectional camera control

APPLICATIONS
- High performance Encoder.
- Camera transmitter (using AB or V mount clamping system, optional).
- Helicopter transmitter (with Amplifier).
- Operation in different countries (not necessary to change RF module).

PA & PA Ultralinear Power Amplifiers  GPS-01 Antenna  RTC-01 and RTC-02 remote controls

www.svpbm.com
Characteristics

**RF Stage**
- **DVB-T2 and DVB-T**
  - Frequency band: 1.0 GHz to 6.4 GHz
  - Max. output power: 1.0 to 2.8 GHz: 20 dBm (selectable from -5 to +20 dBm)
  - IF Stage (L Band) **DVB-S2 and DVB-S (optional)**
  - Frequency band: L band
  - Output power level: -50 to +5 dBm
  - 10 MHz Ref. oscillator: High stability and low phase noise

**Modulation**
- **DVB-T2**: COFDM 1K, 2K, 4K mode
  - QPSK, 16QAM, 64QAM, 256QAM
  - Constellation rotation
  - LDPC FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
  - IG: 1/8, 1/16, 1/32
  - Bandwidth: 1.7, 5, 6, 7, 8 MHz
  - Max bitrate: 464 Mbps
- **DVB-T**: COFDM 2K mode
  - QPSK, 16QAM, 64QAM
  - FEC: 1/2, 2/3, 3/4, 5/6, 7/8
  - IG: 1/8, 1/16, 1/32
  - Bandwidth: 5, 6, 7, 8 MHz
  - Max bitrate: 31.67 Mbps
- **DVB-S2 (optional)**: QPSK, 8PSK, 16APSK, 32APSK
  - LDPC FEC: 1/4, 1/3, 2/3, 1/2, 2/3, 2/4, 2/5, 3/4, 4/5, 5/6, 6/7, 7/8
  - Max Symbol Rate: 31 Msymb/s
  - Max bitrate: 109 Mbps
- **DVB-S (optional)**: QPSK
  - Reed Solomon FEC: 1/2, 2/3, 3/4, 5/6, 7/8
  - Max Symbol Rate: 31 Msymb/s

**Audio**
- **Input**
  - 3G-SDI SMPTE-252M-A (299M)
  - HD-SDI SMPTE-292M (299M)
  - SD-SDI SMPTE-259M (222M)
  - HDMI (1.4a)
  - CVBS
- ** Formats**
  - 1080p (1920 x 1080) - 23.98/24/25/29.97/30/50/59.94/60 Hz
  - 1080i (1920 x 1080) - 50/59.94/60 Hz
  - 720p (1280 x 720) - 23.98/24/25/29.97/30/50
  - 576i (720 x 576) - 50 Hz
  - 480i (720 x 480) - 59.94 Hz

**Video**
- **Input**
  - SDI embedded / HDMI embedded
  - AES Digital / Analogue
- **Analogues**
  - 2 Stereo / 4 Mono
  - Line, Micro Dynamic or Micro with Phantom
- **SDI embedded**
  - 1 Group (4 audio channels)
  - AES/EBU:
  - 2 Stereo channels
- **Data Channels**
  - User data or GPS data
  - Data rate: 1,200 to 57,600 bps
  - ASI Transport Stream (EN50083-9)
- **Video compression**
  - H.264 / MPEG-4 Part 10
  - Profile: High, 422, High, Main
  - Level: 3.0, 3.1, 3.2 / 4.0, 4.1
  - Latency: Low delay: 33 ms
- **Audio compression**
  - MPEG-1 Layer II
  - Audio bit rate: 128, 192, 256 or 384 Kbps
  - Output bitrate: 1 Mbps - 100 Mbps

**Power Supply**
- **DC input**
  - 8 to 36 V
  - And by batteries Anton-Bauer or V
  - (mount clamping system optional)

**Control & Monitoring**
- **Control Interfaces**
  - Front panel and display
  - Web browser interface
  - RTC-01 and RTC-02 via cable
- **Presets**
  - 7 user defined presets
- **Monitoring**
  - Encoding, modulation, frequency and output power, alarms and warnings.

**Mechanical**
- **Size**
  - 123.5 x 48.4 x 208.1 mm
- **Weight**
  - 1 kg (2.2 lb) (without fastenings)

**Environmental**
- **Aeronautical**
  - RTCA / DO-160 compliant
- **Temperature range**
  - -30 to 50 °C
- **Consumption**
  - 16 W (12 V) / 20 W (28 V)
- **Height**
  - 4,500 m
Mechanical Dimensions
How to order

HDT-02 - ASRAGKC

A = Anton Bauer mount
V = V mount
O = No mount

Camera mount type

S = DVB-S/S2
O = No DVB-S/S2

DVB-S/S2 modulations with L band output

Remux function

AES Encryption

Integrated GPS receiver

SDI embedded KLV metadata

Remote Camera Control

R = Remux
A = AES
G = GPS
K = KLV
C = Remote Camera Control
O = No Remote Camera Control

HDT-02