

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 and GPS data can be transmitted over data channels.

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

The HDT-02 transmitter performs DVB-T2, DVB-T and ISDB-T (optional) 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.



H.264 4:2:2

DVB-T2

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-1 and 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

- ISDB-T Modulation
- KLV Metadata embedded on SDI
- 70 MHz output
- Remux
- AES 128 and AES 256 Encrypton
- V mount clamping system
- Anton-Bauer mount clamping system
- DVB-S/S2 modulator with 10 MHz

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).



ACCESSORIES



PA & PA Ultralinear Power Amplifiers

GPS-01 Antenna

RTC-03 Remote control

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) 3.0 to 4.0 GHz: +19 dBm 4.0 to 5.4 GHz: +11 dBm 5.4 to 6.4 GHz: +5 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

IF Stage (70 MHz)	DVB-T2, DVB-T, DVB-S2 and DVB-S (optional)
Frequency band:	70 MHz
Output power level:	-10 dBm (DVB-S/S2) / -14 dBm (DVB-T/T2)

Video	
Inputs:	3G-SDI SMPTE-425M-A (299M) HD-SDI SMPTE-292M (299M) SD-SDI SMPTE-259M (272M) HDMI (1.4a) CVBS
Formats:	1080p (1920 x 1080) - 23.98/24/25/ 29.97/30/50/59.94/60 Hz 1080i (1920x1080) - 50/59.94/60Hz 720p (1280x720) - 23.98/24/25/29.97/ 30/50/59.94/60 Hz 576i (720x576) - 50 Hz 480i (720x480) - 59.94 Hz

Audio	
Input:	SDI embedded / HDMI embedded AES Digital / Analogue
Analogue:	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	
Data channel:	User data
Data rate:	1,200 to 230,400 bps
GPS Data channel:	Internal GPS receiver

ASI	
Input and Output:	ASI Transport Stream (EN50083-9)

Test Signals	
Video:	Bars with moving icon
Audio:	4 Audio tones

Encoder	
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

Encryption	
BISS:	BISS-1 and BISS-E
AES:	AES 128 and AES 256 (optional)

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: 46.4 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
ISDB-T(optional):	COFDM 2K, 4K and 8K mode QPSK, 16QAM, 64QAM FEC: 1/2, 2/3, 3/4, 5/6, 7/8 IG: 1/4, 1/8, 1/16, 1/32 Bandwidth: 6, 7, 8 MHz Max bitrate: 31 Mbps
DVB-S2 (optional):	QPSK, 8PSK, 16APSK, 32APSK LDPC FEC: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 Max. Symbol Rate: 31 Msymb/s Max bit rate: 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

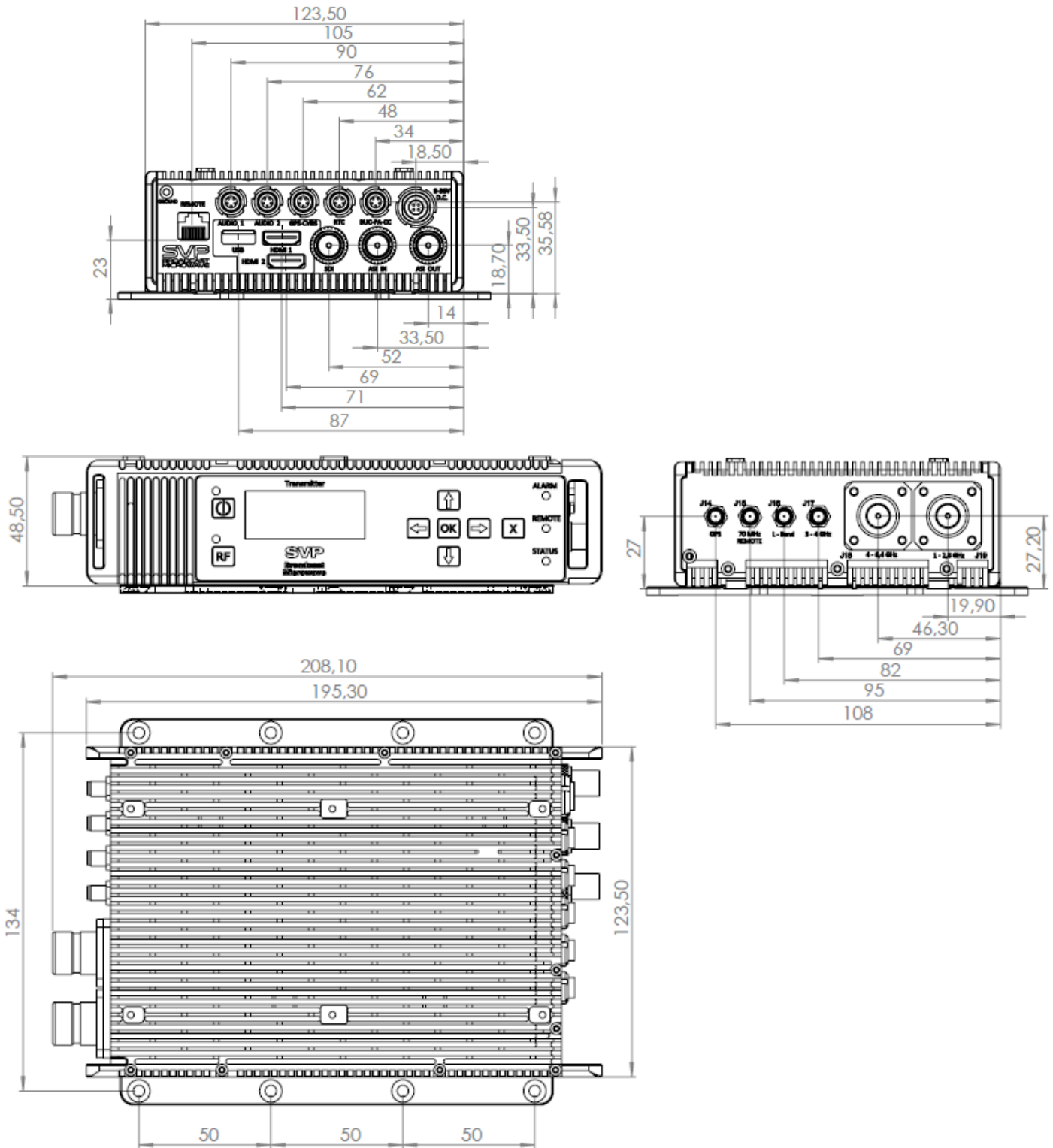
Control & Monitorization	
Control Interfaces:	Front panel and display Web browser interface RTC-03 via cable
Presets:	7 user defined presets
Monitoring:	Encoding, modulation, frequency and output power, alarms and warnings.

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

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

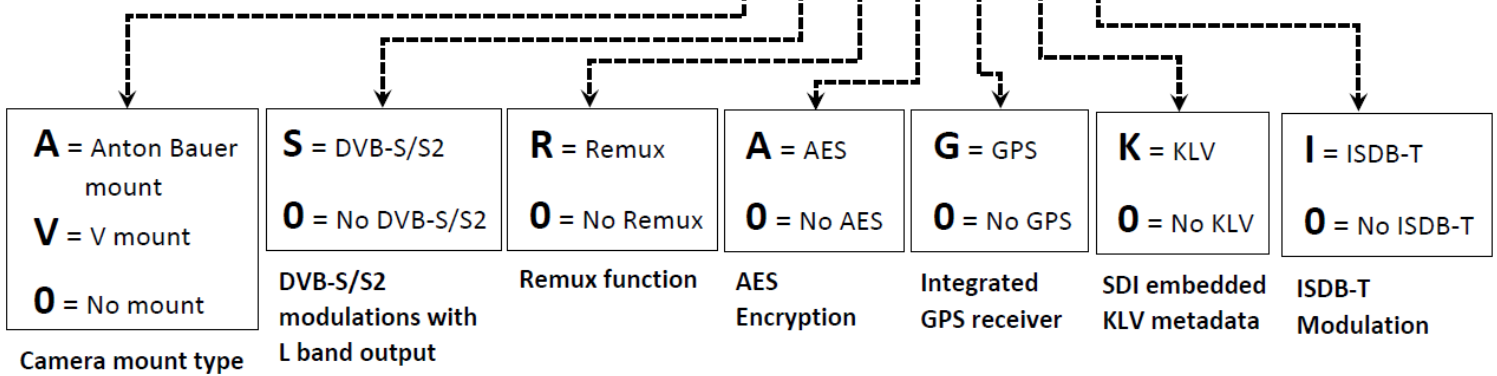
Environmental	
Aeronautical:	RTCA / DO-160 compliant
Temperature range:	-30 to 50 °C
Consumption:	16 W (12 V) / 20 W (28 V)
Height:	4.500 m
Humidity:	95%

Mechanical Dimensions



How to order

HDT-02-ASRAGKI



Design and specifications are subject to changes without prior notice. 03/21