

The HDT-02 is the new H.264 multiband-multifunction transmitter developed by SVP Aerospace. It features H.264 – 4:2:2 encoding for HD and SD signals.

This small transmitter performs DVB-T, DVB-T2, DVB-S (optional) and DVB-S2 (optional) modulations. An L band IF output is available which enables to use the transmitter as a satellite encoder and modulator unit. It allows simultaneous terrestrial and satellite transmission and the ultra-wide frequency band is from 1.0 to 6.4 GHz.

The exceptional specifications of this transmitter make the HDT-02 suitable for: DNSG, as high-performance encoder, camera transmitter (using AB or V mount clamping system, optional), helicopter transmitter (with an amplifier) and operation in different countries (frequency range operation from 1 to 6.4 GHz with one transmitter alone).



FEATURES

- Ultra Wide RF: 1 to 6.4 GHz.
- 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 V.
- RTCA/DO-160 compliant.
- BISS-1 and BISS-E encryption.
- AES-128 and AES-256 encryption (optional).
- Remux (optional).
- KLV metadata embedded on SDI (optional).
- Zero microphony.

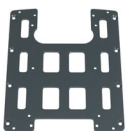
OPTIONS

- 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.

APPLICATIONS

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

ACCESSORIES



CLTX-01



CLTX-0210



GPS



CC-02



AVF



PA Ultralinear



RTC-03

CHARACTERISTICS

RF STAGE DVB-T2 & DVB-T

Frequency range:	1 GHz to 6.4 GHz.
Max. Output power:	100 mW (selectable from -5 to +20 dBm).

IF STAGE DVB-S2 & DVB-S (OPTIONAL)

Frequency band	L band
Output power level	-50 to +5 dBm
10 MHz Ref. Oscillator	0 dBm / High stability and low phase noise

IF STAGE (70 MHz) DVB-T2, DVB-T, DVB-S2 & DVB-S (OPTIONAL)

Frequency band:	70 MHz.
Output power level:	-10 dBm (DVB-S/S2) / -14 dBm (DVB-T/T2).

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.
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.
DVB-S (optional):	QPSK. Reed Solomon FEC: 1/2, 2/3, 3/4, 5/6, 7/8. Baud Rate: 31 Msymb/s.

VIDEO

Inputs:	3G-SDI SMPTE-425M-A. HD-SDI SMPTE-292M (299M). SD-SDI SMPTE-259M (272M). HDMI (1.4a). Composite video (PAL/NTSC).
Formats:	1080p – 23.98/24/25/29.97/30/50/59.94/60 Hz. 1080i – 50/59.94/60 Hz. 720p – 23.98/24/25/29.97/30/50/59.94/60 Hz. 576i – 50 Hz. 480i – 59.94 Hz.

AUDIO

Quantity:	SDI Embedded. HDMI Embedded.	AES Digital. Analogue.
Analogue:	2 Stereo / 4 Mono.	Phantom voltage.
SDI Embedded:	1 group (4 audio channels).	
AES Digital:	2 stereo channels.	

TEST SIGNALS

Video:	Bars with moving icon.
Audio:	4 Audio tones.

DATA CHANNELS

Number of Data Channels:	2.
Data Channel:	User data.
Data Channel rate:	1,200 to 230,400 bps.
GPS Channel:	Internal GPS data.
GPS Data Rate:	4,800 bps.

ASI

Input and Output:	ASI Transport Stream (EN50083-9).
Extra Feature:	Remux (optional).

ENCRYPTION

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

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.
Extra Feature:	KLV Metadata embedded on SDI (Optional).

CONTROL & MONITORIZATION

Control interfaces:	Front panel and display. Web browser. RTC-03 via cable.
Monitoring:	Encoding, modulation, frequency and output power, alarms, warnings and logbook.
Presets:	7 user defined presets.
Alarms:	Alarms and Measurements are sent via Radio to the receiver.

POWER SUPPLY

DC input:	8 to 36V And by batteries AB or V (mount clamping system optional).
Power Consumption:	16 W (12 V). 20 W (28 V).

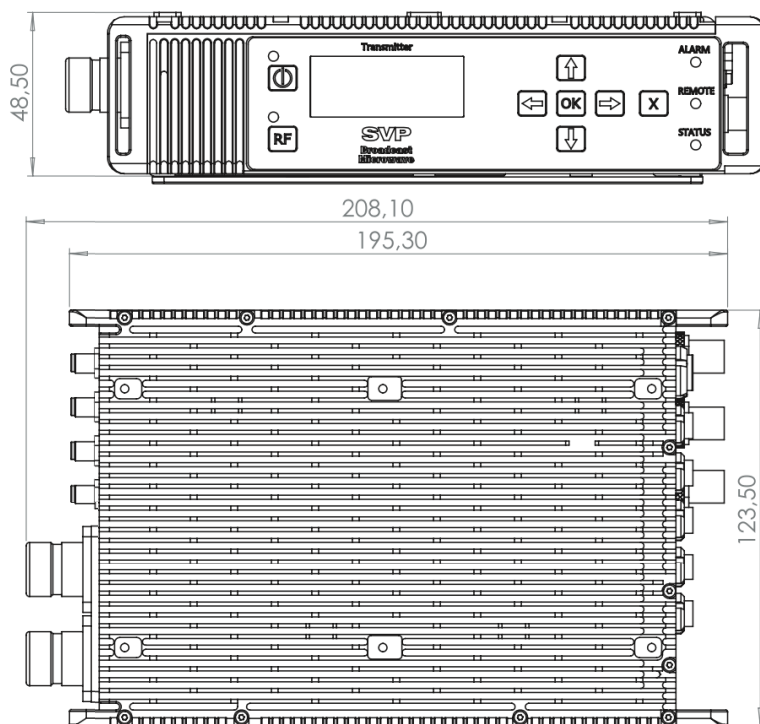
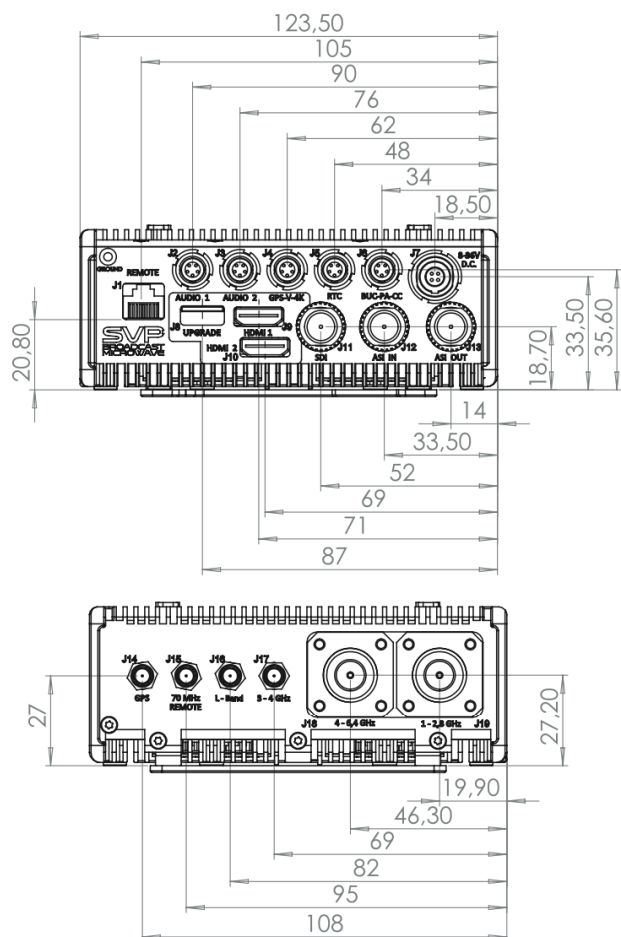
MECHANICAL

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

ENVIRONMENTAL

Temperature range:	-30 to 50°C.
Height:	4,500 m.
Humidity:	95%.
Aeronautical:	RTCA/DO-160 compliant.

MECHANICAL DIMENSIONS & HOW TO ORDER



HDT - 02 - A S R A G K

A = Anton Bauer Mount V = V Mount 0 = No Mount	S = DVB-S/S2 0 = No DVB-S/S2	R = Remux 0 = No Remux	A = AES 0 = No AES	G = GPS 0 = No GPS	K = KLV 0 = No KLV
Camera Mount Type	DVB-S/S2 Modulation with L Band Output	Remux Function	AES Encryption	Integrated GPS Receiver	SDI Embedded KLV Metadata