

DVB-T2/T Aircraft Transmitter

The HDT-04 is the new high power transmitter developed by SVP Broadcast Microwave which is an excellent, reliable and comfortable solution for a wide variety of applications. The features of this equipment, achievable only by SVP, make this transmitter the most advanced that exist in the market today.

This device performs DVB-T, DVB-T2 and ISDB-T (optional) modulations and H.264 - 4:2:2 encoding for HD and SD signals. Moreover, it provides an output power of 10 W in the frequency ranges of 2,010 to 2,390 MHz, 2,300 to 2,700 MHz, 4,400 to 5,000 MHz and 5,000 to 5,300 MHz and 5 W in 3,300 to 3,600 MHz frequency range.

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

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

Thanks to these features, it expands the possibilities of COFDM digital links in the market by using linearization technology to minimize distortion and providing superior signal quality for complex multicarrier modulations.

Control, operation and monitoring of the HDT-04 transmitter are very friendly. All the parameters of the transmitter can be configured in the field. A wide range of accessories allows the use of this equipment in many different applications.

For applications of high security, the HDT-04 transmitter has the option of AES-128 and AES-256 encryption.



H.264 4:2:2

DVB-T2

FEATURES

- Frequency bands: 2, 3, 4 and 5 GHz
- Output power: 10W (2, 4 and 5GHz) or 5W (3GHz)
- Highest video quality available: 1080p/50, 1080p/60, 3G-SDI
- Lowest Delay in H.264: 33 ms
- Power supply range: 12 – 36 VDC
- Terrestrial and satellite transmission
- BISS-1, BISS-E Encryption
- Ultra high linearity
- Isolator for protection against high VSWR
- RTCA/DO-160 compliant
- ARINC 400 compatible
- H.264 4:2:2

OPTIONS

- AES-128 and AES-256 Encryptions
- ISDB-T with interlaced
- KLV Metadata
- Remux

APPLICATIONS

- Aircraft Downlink System
- News Gathering Vans
- Satellite News Gathering
- Motorbikes
- Ships



ACCESSORIES



RTC-01 Remote Control



RTC-02 Remote Control



GPS-01 Antenna

Characteristics

RF Stage DVB-T2 and DVB-T

Frequency band:	2.01 to 2.39 GHz or 2.3 to 2.7 GHz 3.3 to 3.6 GHz 4.4 to 5.0 GHz 5.0 to 5.3 GHz
Max. Output Power:	10 W (in 2, 4 and 5 GHz) 5 W (in 3 GHz)
Harmonic suppression:	60 dB
Protection capabilities:	Reverse DC, High RF Reverse

Video

Inputs:	3G-SDI SMPTE-425M-A (299M) HD-SDI SMPTE-292M (299M) SD-SDI SMPTE-259M (272M) HDMI (1.4a) Composite video (PAL/NTSC)
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 or GPS data
Data rate:	1.200 to 57.600 bps

ASI

Input and Output:	ASI Transport Stream (EN50083-9)
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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, BISS-E
AES:	AES-128 and AES-256 (optional)



Modulation

DVB-T2:	COFDM 1K, 2K 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, 6, 7, 8 MHz Max. bit rate: 46 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 bit rate: 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 Max. Symbol Rate: 31 Msymb/s

*ISDB-T with interlaced (optional)

Control & Monitorization

Control Interfaces:	Front panel & display SNMP Web browser interface RTC-02
Presets:	7 user defined presets
Monitoring:	Encoding, modulation, frequency and output power, alarms, warnings and logbook

Power Supply

DC input:	12 to 36 V
Power Consumption:	100 W

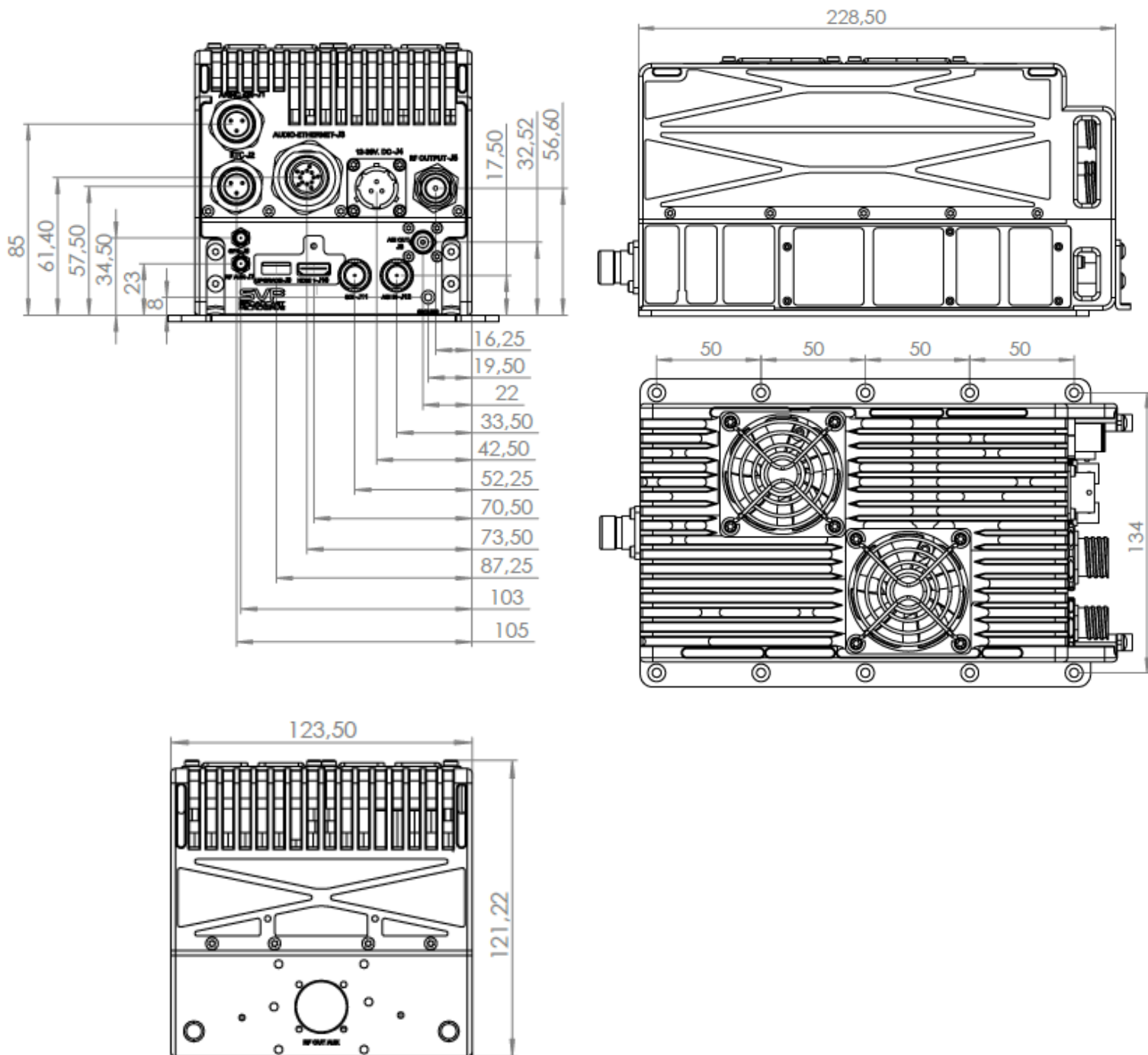
Mechanical

Size (W x H x D)	123,5 x 122,5 x 228,5 mm
Weight	3,3 kg

Environmental

Temperature range:	-20 to 50 °C
Aeronautical:	RTCA DO-160 compliant

Mechanical Dimensions



How to order

HDT-04-2024-RAGK

2024 = 2000 – 2400 MHz
2327 = 2300 - 2700 MHz
3336 = 3300 – 3600 MHz
4450 = 4400 – 5000 MHz
5053 = 5000 – 5300 MHz

TX Frequency rage

R = Remux
0 = No Remux

Remux function

A = AES
0 = No AES

AES
Encryption

G = GPS
0 = No GPS

Integrated
GPS receiver

K = KLV
0 = No KLV

SDI embedded
KLV metadata