

The HDT-04 is the new high power transmitter developed by SVP Aerospace. An excellent, reliable and comfortable solution for a wide variety of applications.

This device performs DVB-T, DVB-T2 and ISDB-T (Optional) modulations and H.264 - 4:2:2 encoding for HD and SD signals. It is available in different frequency bands.

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

Control, operation and monitoring of the HDT-04 transmitter is very friendly. All the parameters can be configured in the field. A wide range of accessories allow the use of this equipment in many different applications. It is especially designed for audio-visual broadcasting and surveillance applications where KLV metadata monitoring is needed.

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



## ACCESSORIES



CLTX-04



1500



GPS



Arinc Front Hook



RTC-03

## FEATURES

- Auxiliary RF output to external PA
- Remux (optional)
- AES-128 and AES-256 encryption (optional)
- KLV metadata embedded on SDI (optional)
- Remotely controllable via ARINC 429 (optional)
- Clamping compatible with ARINC 404 (optional)
- High linearity
- Power supply range: 9-36 VDC
- Isolator for protection against high VSWR

## OPTIONS

- Remote control through RTC-03
- AES-128 and AES-256 Encryptions
- KLV Metadata
- Remux
- Internal GPS Receiver
- ISDB-T

## APPLICATIONS

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

## Characteristics

### RF STAGE

Frequency ranges	1,700 to 2,200 MHz 2,010 to 2,390 MHz 2,300 to 2,700 MHz 3,300 to 3,600 MHz 4,400 to 5,000 MHz 5,000 to 5,300 MHz
Max. Output power	10 W (1,700 to 2,200 MHz) 15 W (2,010 to 2,390 MHz) 10 W (2,300 to 2,700 MHz) 10 W (3,300 to 3,600 MHz) 10 W (4,400 to 5,000 MHz) 5 W (5,000 to 5,300 MHz)
Output impedance	50 ohm
Protection capabilities	Short circuit Reverse power Overvoltage

### TEST SIGNALS

Video	Bars with moving icon
Audio	4 Audio tones

### DATA CHANNELS

Number of Data Channels <sup>2</sup>	
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

### CONTROL & MONITORIZATION

Control interfaces	Front panel and display ARINC 429 (Optional) Web browser RTC-03
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	9 to 36V
Power Consumption	100 W

### MECHANICAL

Size (WxHxD)	123.5 x 121.22 x 228.5 mm
Weight	3.3 kg

### ENVIRONMENTAL

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

### MODULATION

DVB-T2	COFDM 1K, 2K, 4K 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 bit rate: 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

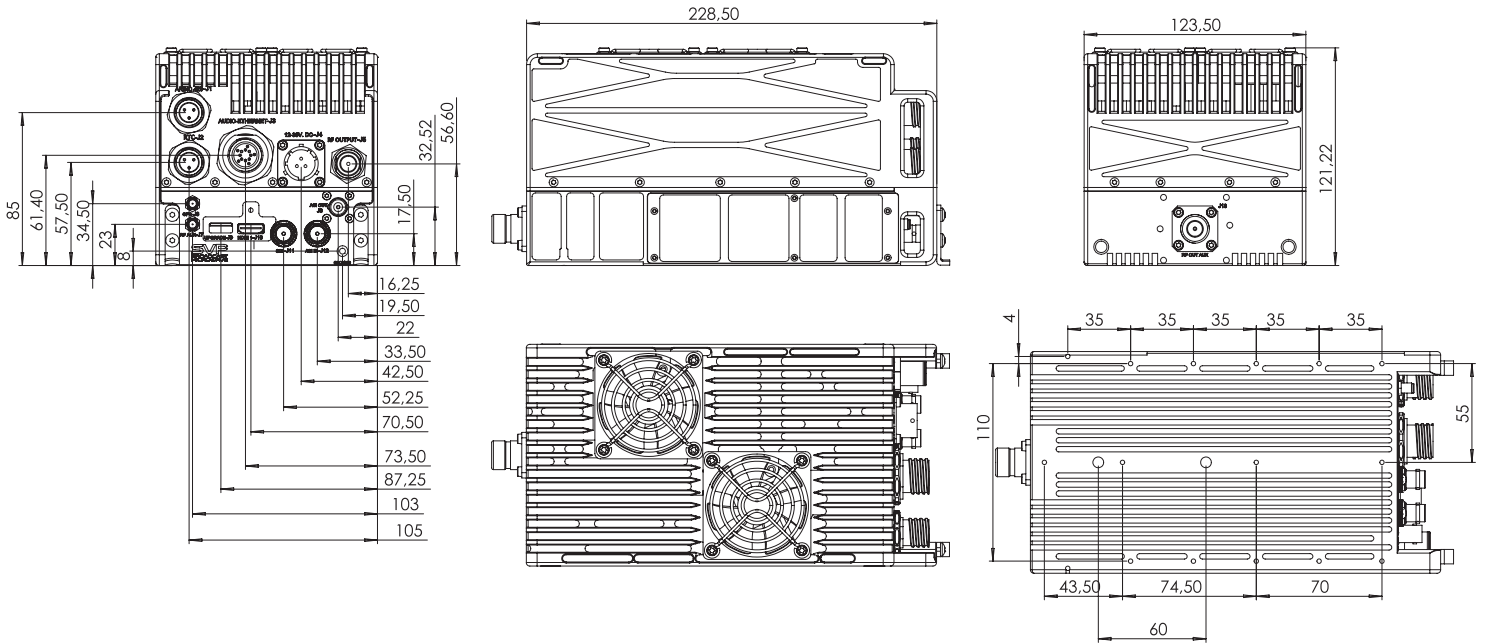
### VIDEO

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

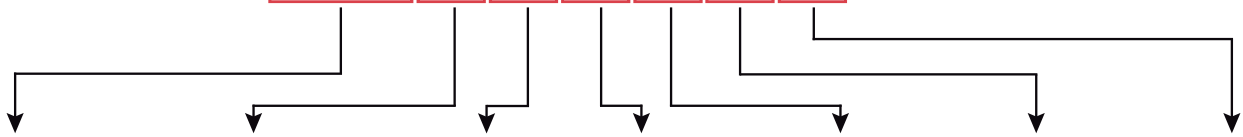
### AUDIO

Inputs	SDI Embedded HDMI Embedded AES Digital Analogue
Analogue	2 Stereo / 4 Mono Micro or Line Level Phantom voltage
SDI Embedded AES Digital	1 group (4 audio channels) 2 stereo channels

## Mechanical Dimensions & How to order :



HDT - 04 - **2024** **R** **A** **G** **K** **H** **I**



1722 = 1700-2200 MHz  
 2024 = 2010-2390 MHz  
 2327 = 2300-2700 MHz  
 3336 = 3300-3600 MHz  
 4450 = 4400-5000 MHz  
 5053 = 5000-5300 MHz

TX Frequency Range

**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

**H** = HOOK  
**0** = No HOOK

Arinc Front Hook

**I** = ISDB-T  
**0** = No ISDB-T

ISDB-T Modulation