

The UDT-04 is the new high power Airborne transmitter developed by SVP Aerospace. Its characteristics, achievable only by SVP, make this transmitter the most advanced in the market today.

It features HEVC, H.264 and Mpeg-2 encoding for 12G, HD and SD signals with ultra-low latency. HEVC allows the same video quality, reducing file sizes by up to 50% compared to its predecessor, the H.264.

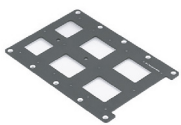
Among the improvements of this new transmitter is the ability to transmit one 4K UHD signal with HDR at 10-bit 4:2:2 quality or 4 simultaneous 1080p50/59HD signals.

The transmission is generally carried out using DVB-T2 modulation, since it is a reliable, secure and private network, it is the most used by our users. It also allows us to make high- capacity links in any scenario, reaching distances of more than 150km of coverage.

Optionally, the system includes a bi-directional 4G radio. Our bidirectional algorithm encrypts the data, adds a VPN and splits it into packets. The packets are transmitted via Cellular network to their destination where they are received, recombined and decrypted. This function can be used to control the Airborne camera from ground, or send information to the personel onboard. In caso of needed, it can be used to transmit video in areas where we don't have DVB-T2 coverage.

The combination of these two technologies offers a very reliable and versatile equipment in any scenario.

ACCESSORIES



CLTX-04



1500



GPS



Arinc Front Hook



RTC-04



FEATURES

- DVB-T2 modulation.
- Transmission of true 4K UHD signals in 12G.
- Bi-directional data channel.
- High linearity.
- Isolator for protection against high VSWR.

OPTIONS

- Remux.
- AES-128 and AES-256 Encryptions.
- Internal GPS Receiver.
- KLV Metadata.
- Clamping compatible with ARINC 404.
- Remotely controllable via ARINC 429.
- Transmission of 4 simultaneous videos up to 1080p50.
- Transmission for UHD signal.
- 4G Bi-directional data radio.

APPLICATIONS

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

CHARACTERISTICS

RF STAGE

Frequency range:	1,250 to 1,600 MHz. 1,700 to 2,200 MHz. 1,900 to 2,500 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. 6,400 to 7,000 MHz.
Max. Output power:	10 W (1,300 to 1,600 MHz). 10 W (1,700 to 2,200 MHz). 15 W (1,900 to 2,500 MHz). 15 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). 10 W (6,400 to 7,000 MHz).
Protection capabilities:	Short circuit. Reverse power. Overvoltage.

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.

VIDEO

Inputs:	1 x 12G-SDI. 4 x 3G, HD, SD-SDI (optional).
Formats:	2160p – 23.98/24/25/29.97/30/50/59.94 /60 Hz. 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:	16 channels (8 pairs).
Analogue Input:	2 pair Line / Mic Level.
Formats:	Embedded or Analogue.
Analogue Max. Level:	24dBu (Balanced).
Phantom Power:	48V Phantom Power.

TEST SIGNALS

Video:	Bars.
Audio:	16 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.
Remux (Optional):	ASI Remux.
TS over IP:	Output (Optional)

ENCRYPTION

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

ENCODER

Video compression:	HEVC, H.264 and MPEG2.
Profile:	4:2:2/4:2:0, 8/10-bit.
Latency:	UHD 59p = 66ms. UHD 50p = 75ms. 1 Mbps – 90 Mbps.
Output Bitrate:	FHD 59p = 55ms. FHD 50p = 70ms. FHD 59i = 83ms. FHD 50i = 98ms.
Encoder+Decoder:	
Audio Encoder:	MPEG-1 Layer1, MPEG-1 Layer2 and AAC-LC.

CONTROL & MONITORIZATION

Control interfaces:	Front panel and display. Web browser. RTC-03.
Monitoring:	Encoding, modulation, frequency and output power, alarms, warnings.
Presets:	7 user defined presets.

POWER SUPPLY

DC input:	9 to 36V.
Power Consumption:	130 W.

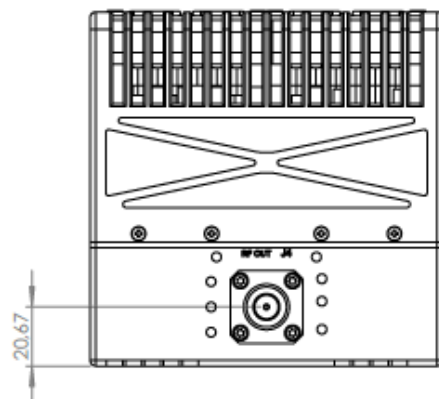
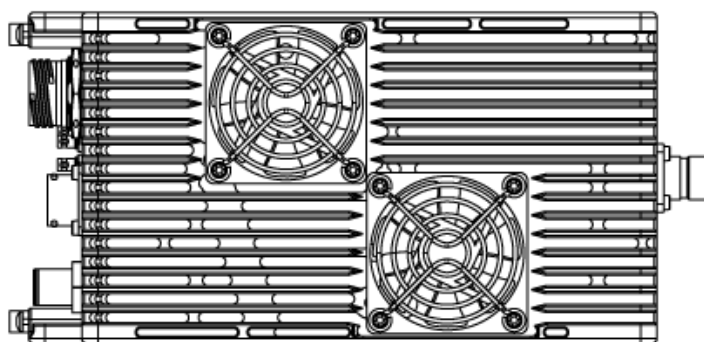
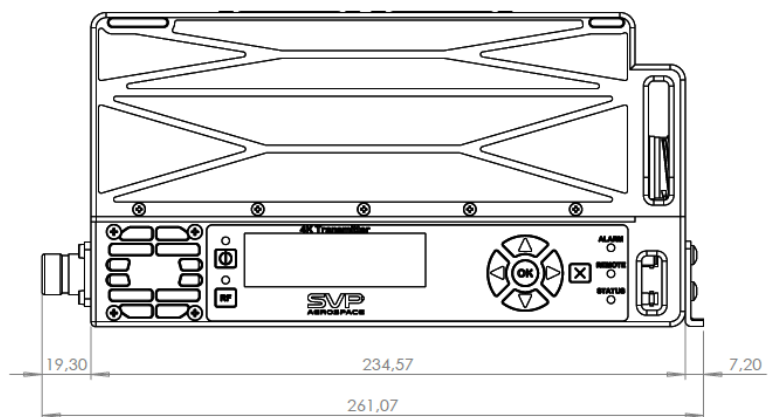
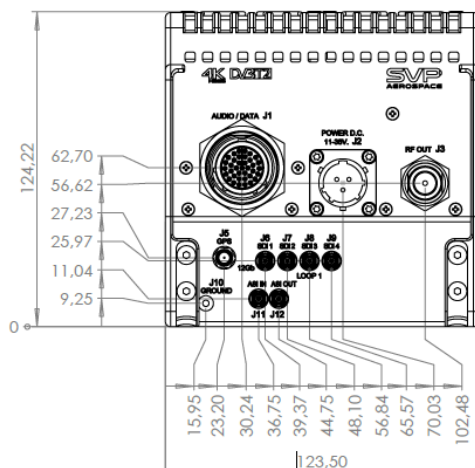
MECHANICAL

Size (WxHxD):	123.5 x 124.22 x 224.57 mm.
Weight:	3.3 kg.

ENVIRONMENTAL

Temperature range:	-20 to 50°C.
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MECHANICAL DIMENSIONS & HOW TO ORDER



UDT-04-2024-RAGKHAQI-UHD

TX Frequency range

- 1316 = 1250 – 1600 MHz
- 1722 = 1700 – 2200 MHz
- 1925 = 1900 – 2500 MHz
- 2327 = 2300 – 2700 MHz
- 3336 = 3300 – 3600 MHz
- 4450 = 4400 – 5000 MHz
- 5053 = 5000 – 5300 MHz
- 6470 = 6400 – 7000 MHz

R = Remux
0 = No Remux

A = AES
0 = No AES

G = GPS
0 = No GPS

K = KLV
0 = No KLV

H = HOOK
0 = No HOOK

A = ARINC 429
0 = No ARINC 429

Q = Quad Mode
0 = No Quad Mode

IP = TS Over IP
Output
0 = No IP

UHD = UHD & HD support
HD = Only HD

Video Format Option

*Only available on UHD option