

The new **HDR-108 Receiver** has been designed by SVP Aerospace to perform **DVB-T2**, **DVB-T** and **ISDB-T** demodulations.

It is a **H.264 and MPEG-2 HD/SD** professional broadcast quality decoder, based on NTT technology. Besides, it works in 4:2:2 with 10 bits. Ultra low latency (end-to-end) of less than one frame is achieved as long as it is used together with SVP transmitters.

The HDR-108 integrates COFDM demodulation and spatial diversity based on **MRC** technique (Maximum Ratio Combining), which reduces the effects of multipath and fading losses. This receiver developed by SVP Aerospace has several outputs: analogue video, Transport Stream over IP, 3G/SD/HD- SDI and HDMI. It offers the received signal in all the outputs simultaneously. The new HDMI output is particularly interesting to use with semiprofessional monitors.

ASI and Transport Stream over IP inputs enable its use as a standalone decoder and the ASI and the Transport Stream over IP outputs enable its use as a demodulator.



## FEATURES

- MRC Diversity 8 technique.
- NTT H.264 compression technology.
- Highest video quality available: 1080p/50-60, 3G-SDI.
- Lowest Delay in H.264: 33 ms.
- ASI and Transport Stream over IP
- Power supply range: 11 – 36 V and 100 – 240 V.
- HDMI.
- Integrated Autotracking Antenna controlled by GPS and Compass.
- BISS-1 and BISS-E encryption.

## OPTIONS

- Transport Stream over IP with FEC.
- AES-128 and AES-256 encryption.
- Integrated autotracking antenna controlled by GPS and Compass.
- KLV metadata GPS extractor for autotracking

## APPLICATIONS

- High-performance decoder.
- Fixed receiver in central receiver points.
- Airborne receiver installation possible.
- Portable receiver.
- Operation from 1.3 to 13 GHz (depending on the down-converter used).

## ACCESSORIES



IF DIST



AM



AS ANTENNAS



DC

## CHARACTERISTICS

### RF STAGE DVB-T2 AND DVB-T

|                      |                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------|
| IF Frequency range:  | 150 to 980 MHz.                                                                            |
| Tuning Step:         | 10 kHz.                                                                                    |
| Input level range:   | DVB-T2 @ 2 GHz: -20 to -102 dBm (4 Mbit/s).<br>DVB-T2 @ 5 GHz: -20 to -101 dBm (4 Mbit/s). |
| Diversity:           | 8 in DVB-T2, DVB-T and ISDB-T.                                                             |
| Diversity Technique: | MRC (Maximum Ratio Combining) Switching.                                                   |

### DEMODULATION

|         |                                                                                                                                                                                                         |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DVB-T:  | COFDM 2K and 8K mode.<br>QPSK, 16QAM, 64QAM.<br>FEC: 1/2, 2/3, 3/4, 5/6, 7/8.<br>IG: 1/4, 1/8, 1/16, 1/32.<br>Bandwidth: 5, 6, 7, 8 MHz.<br>Max bitrate: 31.67 Mbps.<br>Min bitrate: 1 Mbps.            |
| DVB-T2: | COFDM 2K, 4k, 8k, 8_ext.<br>QPSK, 16QAM, 64QAM, 256QAM.<br>Constellation rotation.<br>LDPC FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6.<br>IG: 1/4, 19/128, 1/8, 19/256, 1/16.<br>Bandwidth: 1.7, 5, 6, 7, 8 MHz. |
| ISDB-T: | COFDM 2K, 4K and 8K mode.<br>QPSK, 16QAM, 64QAM.<br>FEC: 1/2, 2/3, 3/4, 5/6, 7/8.<br>IG: 1/4, 1/8, 1/16, 1/32.<br>Bandwidth: 6, 7, 8 MHz.<br>Max bitrate: 31 Mbps.                                      |

### DECODER

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| H.264 – Profile:                     | Baseline, Main, High, High 422 (it supports 10 bits). |
| Audio decoder:                       | MPEG-1 Layer I/II.                                    |
| H.264 – Level:                       | 4.1 – 4.2.                                            |
| Max. input bitrate: H.264 – Latency: | 320 Mbps.<br>Low delay: 33 ms.                        |
| Genlock input:                       | Black burst or tri-level, Genlock loop.               |
| MPEG-2 – Profile:                    | 422P@HL, MP@HL, 422P@ML, MP@ML.<br>Latency: 33ms.     |

### VIDEO

|          |                                                                                                                                                                          |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outputs: | 2 x 3G-SDI, HD-SDI and SD-SDI.<br>HDMI (1.4).<br>1 x Composite video with Down Conversion (PAL/NTSC)                                                                     |
| Formats: | 1080p – 23.98/24/25/29.97/30/50/59.94/60 Hz.<br>1080i – 50/59.94/60 Hz.<br>720p – 23.98/24/25/29.97/30/50/59.94/60 Hz.<br>576i (PAL) – 50 Hz.<br>480i (NTSC) – 59.94 Hz. |

### AUDIO

|               |                                                              |
|---------------|--------------------------------------------------------------|
| Output:       | HDMI Embedded.<br>SDI Embedded.<br>AES Digital.<br>Analogue. |
| Analogue:     | 2 Stereo / 4 Mono.                                           |
| SDI Embedded: | 1 group (4 audio channels).                                  |
| AES/EBU:      | 2 stereo channels.                                           |

### DATA CHANNELS

|               |                       |
|---------------|-----------------------|
| Data channel: | User data / GPS data. |
| Data rate:    | 1,200 to 57,600 bps.  |

### ASI & IP

|                     |                                                                                                                         |
|---------------------|-------------------------------------------------------------------------------------------------------------------------|
| Outputs and Inputs: | ASI Transport Stream (EN50083-9).<br>Transport Stream over IP (SMPTE2022/CoP3) – FEC<br>Max. TS packets / IP packet: 7. |
|---------------------|-------------------------------------------------------------------------------------------------------------------------|

### DECRYPTION

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

### CONTROL & MONITORIZATION

|                     |                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------|
| Control interfaces: | Front panel and display.<br>Web server.                                                                            |
| Monitoring:         | Serial Control.<br>Decoder parameters.<br>Demodulation parameters.<br>Frequency and input level.<br>MER, BER, C/N. |
| Audio & Video:      | Alarms, warnings, logbook and clock.<br>TFT Video screen 2»<br>2x Stereo loud-speakers.<br>Earphone output.        |

### AUTOTRACKING

|                  |                                               |
|------------------|-----------------------------------------------|
| Antenna control: | Local GPS, Remote GPS and Compass (optional). |
|------------------|-----------------------------------------------|

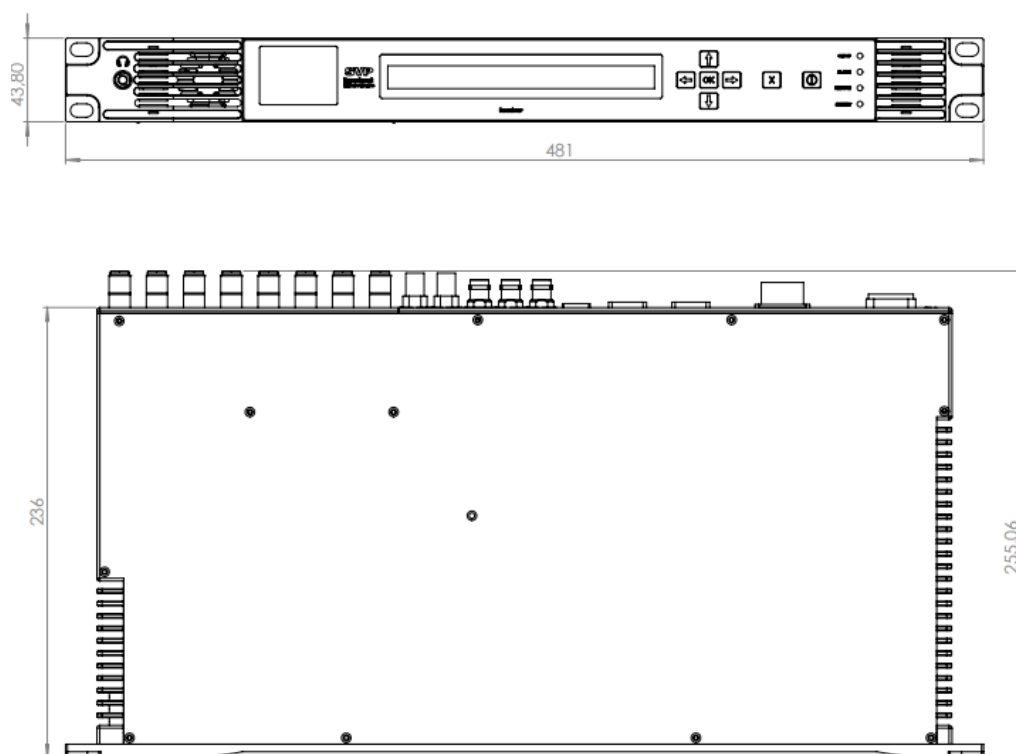
### POWER SUPPLY

|           |               |
|-----------|---------------|
| AC input: | 100 to 240 V. |
| DC input: | 11 to 36 V.   |

### MECHANICAL

|         |                 |
|---------|-----------------|
| Size:   | 1 RU rack size. |
| Weight: | 3.2 kg.         |

## MECHANICAL DIMENSIONS & HOW TO ORDER



**H D R - 1 0 8 - B A I T**

**B** = BNC (75Ω)  
**T** = TNC (50Ω)

IF connector type

**A** = AES  
**O** = No AES

AES Decryption

**I** = IP  
**O** = No IP

TS over IP  
input/output

**T** = Autotracking  
**O** = No Autotracking

Autotracking