

H.264 - 4:2:2 DVB-T2/T Receiver

The new HDR-70 is a digital HD portable receiver designed by SVP Broadcast Microwave to perform DVB-T, DVB-T2, ISDB-T, DVB-S (optional) and DVB-S2(optional).The HDR-70 is a two-box system with 70 MHz intermediate frequency. It consists of a control unit and one or more RF heads connected with triax cable. The distance between the control unit and the RF heads can be up to 600 m. The control unit has available a 70 MHz input connection through which it is possible to receive the signal from the RF head via a triax cable. Besides, this control unit has another input connector in which the signal is received in the L band for DVB-S and DVB-S2.

It is an H.264 and MPEG2 HD/SD professional broadcast quality decoder, based on NTT technology. Also, 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.

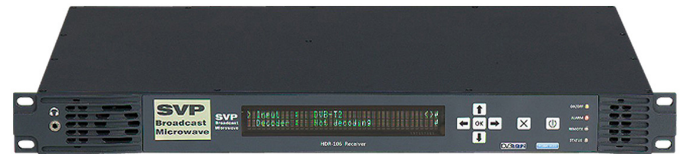
This receiver developed by SVP Broadcast Microwave has several outputs: analogue video, Transport Stream over IP, 3G/HD/SD-SDI and HDMI outputs. It offers the received signal in all outputs simultaneously.

ASI and Transport Stream over IP inputs enable the use of this receiver as a standalone decoder, and also the ASI and the Transport Stream over IP outputs enable to use the receiver as a demodulator.

It incorporates a complete Autotracking system by GPS and remote polarization control.



Duplexor SCDA



Internal Unit



External Unit

H.264 4:2:2

DVB-T2

FEATURES

- Frequency bands: 2, 4, 6, 7 and 10 GHz
- NTT-NEL H.264 compression technology
- Highest video quality available
- Lowest Delay in H.264: 33 ms
- Power supply: 100 - 265 VAC & 20 - 36 VDC
- BISS-1 and BISS-E encryption
- ASI and Transport Stream over IP with FEC input and output
- HDMI output
- Integrated autotracking system by GPS: Sectorial and 2 axis positioner
- Remote Polarization Control

OPTIONS

- DVB-S2 and DVB-S compliant
- IP input/output
- AES 128 and AES 256

APPLICATIONS

- Portable and Point-to-Point radio link
- SNG
- High performance decoder
- IP networks

Characteristics

RF stage	DVB-T2 and DVB-T
Frequency Bands:	2 GHz, 4 GHz, 6 GHz, 7GHz and 10 GHz
Tuning Step:	10 kHz
Input Level Range:	-20 to -99 dBm
IF Frequency:	70 MHz

Demodulation

DVB-T2:	COFDM 1k, 2k, 4k, 8k, 8k ext QPSK, 16 QAM, 64 QAM, 256 QAM LDPC FEC: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 IG: 1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128 Time Interleaving Bandwidth: 1.7, 5, 6, 7, 8 MHz Max. bit rate: 49.9 Mbps
DVB-T:	COFDM 2k and 8k mode QPSK, 16 QAM, 64 QAM FEC: 1/2, 2/3, 3/4, 5/6, 7/8 IG: 1/4, 1/8, 1/16, 1/32 Bandwidth: 5, 6, 7, 8 MHz Max. bit rate: 31.67 Mbps
ISDB-T:	COFDM 2k, 4k and 8k mode QPSK, 16 QAM, 64 QAM 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. bit rate: 31 Mbps
DVB-S2/S (optional):	DVB-S: QPSK DVB-S2: QPSK, 8PSK, 16APSK, 32APSK LDPC FEC (DVB-S2): 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 FEC (DVB-S): 1/2, 2/3, 3/4, 5/6, 7/8 Max. bit rate: 108.9 Mbps

Decoder

H.264:	Profile: Baseline, Main, High, High 422 (supports 10 bits) Level: 4.1 - 4.2 Latency: 33 ms and Standard Delay
MPEG-2:	Profile: 422P@HL, MP@HL, 422P@ML, MP@ML
Audio Decoder:	MPEG-1 Layer I/II
Max. Input Bitrate:	320 Mbps
Genlock input:	Black burst or tri-level, Genlock loop

Decryption

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

Data Channels

Data channel:	User data or GPS data
Data rate:	1.200 to 57.600 bps

ASI and IP

Outputs and Inputs:	ASI Transport Stream (EN50083-9) Transport Stream over IP (Optional) SMTP2022/CoP3) - FEC
Max. TS packets / IP packet:	7

Video

Outputs:	1xComposite video (PAL/NTSC) 2xSD-SDI, HD-SDI and 3G-SDI HDMI (1.4)
Formats:	1080p (1920x1080) - 23,98/ 24/ 25/ 29.97/30/ 50/ 59,94/ 60 Hz 1080i (1920x1080) - 50/ 59,94/60 Hz 720p (1280x720) - 23,98/ 24/ 25/ 29.97/30/ 50/ 59,94/ 60 Hz 576i (720x576) - 50 Hz 480i (720x480) - 59,94 Hz

Audio

Output	HDMI/ SDI Embedded/ AES Digital/ Analogue
Analogue:	2 Stereo/ 4 Mono
SDI embedded:	1 group (4 audio channels)
AES/EBU:	2 stereo channels

Control & Monitorization

Control Interfaces:	Front panel and display Web server SNMP
Monitoring:	Decoder parameters Demodulation parameters Frequency and input level MER, BER, C/N Alarms, warning and logbook
Video & Audio:	TFT Video screen 2" 2x Stereo loudspeakers Earphone output

Antenna Control

Parabolic:	Autotracking with positioner in 2 axis Remote Polarization Control
Multisector:	Autotracking with panel switching

Power supply

AC input:	90 to 240 V
DC input:	20 to 36 V

Mechanical

Control unit: (IDU)	Size: 1 RU, 240 mm depth Weight: 3 kg
RF head: (ODU)	Size: 185.5 x 79 x 333 mm Weight: 4,4 kg
Temperature range:	-30 to 50 °C

How to order

HDR-70-XXX-YYY

(H.264 & Mpeg-2 – 4:2:2 DVB-T/T2 Portable Receiver)

Optional features *

000: Default	140: S2+IP	146: S2+AES+AUT
135: S2	141: S2+AUT	147: S2+IP+AUT
136: AES	142: AES+IP	148: AES+IP+AUT
137: IP	143: AES+AUT	149: S2+ AES+IP+AUT
138: AUT	144: IP+AUT	
139: S2+AES	145: S2+AES+IP	

* RX Frequency Ranges (YYY)

02G: 2.000 to 2.400 MHz	07G: 6.800 7.400 MHz
04G: 4.400 to 4.900 MHz	10G: 10.150 to 10.650 MHz
06G: 6.280 to 6.900 MHz	

Application example:

Point to Point Reception:

HDR-70-000	HDR-70-137	HDR-70-142
HDR-70-135	HDR-70-139	HDR-70-145
HDR-70-136	HDR-70-140	

News Gathering:

HDR-70-000	HDR-70-141	HDR-70-145	HDR-70-148
HDR-70-137	HDR-70-143	HDR-70-146	HDR-70-149
HDR-70-138	HDR-70-144	HDR-70-147	

*S2: DVB-S/S2 modulations
 AES: AES128/AES256 Decryptions
 IP: TS over IP input/output
 AUT: Autotracking

Design and specifications are subject to changes without prior notice 03/16