

The **HDV 3000** system is a video link, with HD quality and low delay, specially designed and developed for applications where it is necessary to transmit high quality video from an aircraft to ground from medium and long distances.

It consists of the following elements:

- Transmitter **HDVT-3000U**, board, of reduced size and weight.
- Base receiver for ground **HDVR-3000D**, diversity.
- If equipped, signal amplifier (from 3 to 10 W, for long distances) for the **HDVT-3000U** transmitter.

General characteristics:

- Very compact system
- Wide frequency range: 200-800 MHz
- High level MER
- Selection of the bandwidth 1-8 MHz
- Optional sending of embedded data
- Possibility of encryption
- Versatility in HDMI / CVBS video inputs
- Easy to use and configure
- Robust and reliable in long distance
- Up to 300 km range can be achieved depending on the antennas used and their situation.
- Low latency

HDVR-3000D

The **HDVR-3000D** is a "full HD" video receiver of the "diversity" type capable of decoding signals under the EN300 744 standard.

It incorporates both HDMI and CVBS video outputs.

The **HDVR-3000D** is designed under the concept of "spatial diversity" to improve the reception of signals in movement and minimize the multipath.

The receiver can be configured to a large extent through its **HDVR-3000RC** remote control or through a UART port.

It supports bandwidths from 1 to 8 MHz and its frequency range is 170 to 860 MHz.

General characteristics:

- Full receiver for digital video signals
- Decode "Full HD" / H264 / 1080
- Frequency between 170 and 860 MHz
- Two antenna ports with SMA connectors
- CVBS analog video output
- HDMI digital video output or OSD
- Scanning of automatic or manual channel
- Bandwidths from 1 to 8 MHz
- Decode the hidden data signals of the HDVT-3000U transmitter telemetry
- De-encrypts the signals encrypted by the **HDVT-3000U**

HDVT-3000U

The **HDVT-3000U** is a high definition (HD) video transmitter for long distance applications based on COFDM technology.

The video signal (HDMI or CVBS) is encoded with the standard H264 and modulated by the standard EN300-744 and transmitted to the air.

Its associated receiver is the **HDVR-3000D**.

General characteristics:

- Very compact system
- Wide frequency range: 200-800 MHz
- High level MER
- Selection of the bandwidth 1-8 MHz
- Optional sending of embedded data
- Possibility of encryption
- Versatility in HDMI / CVBS video inputs
- Easy to use and configure
- Robust and reliable in long distance
- Up to 300 km range can be achieved depending on the antennas used and their situation.
- Low latency

HDV 3000

HD VIDEO SYSTEM

SPECIFICATIONS

Sistema HDV-3000

| | |
|--------------------------|---|
| Video Input: | Video: CVBS, HDMI 1.3 Audio: Stereo line input |
| Video Compression: | Video: H264 Audio: MPEG |
| Resolution CVBS 720x576: | HDMI 1280x720 (x50I / 50P) 1280x720 (x60I / 60P) 1920x1080 (x24P) 1920x1080 (x50I / 50P) 1920x1080 (X60I / 60P) |
| Power: | 12V / 300mA |
| Dimensions: | 90x60x34 mm |
| Weight: | 200 g |
| Thermal range: | -10 ° ~ + 60 ° |
| Standard TV: | DVBT-EN300 744 |
| Connector RF: | SMA / 50Ω |
| Bandwidth: | 1 / 1.5 / 2 / 2.5 / 3/4/5/6/7/8 MHz |
| Constellation: | QPSK, 16QAM, 64QAM FFT 2K, 4K, 8K |
| FFT: | 2K, 4K, 8K |
| Redundancy: | 1/2, 2/3, 3/4, 5/6, 7/8 |
| Guard interval: | 1/4, 1/8, 1/16, 1/32 |
| Range in frequency: | 200-800 MHz |
| MER: | > 35 dB |
| Adjacent channel: | > 45 dB |
| Phase noise: | <-92dBc @ 10kHz |
| Carrier suppression: | > 42dB |

Specifications subject changes without notice

HDVR-3000D

Input: Video: CVBS, HDMI 1.3
 Audio: Stereo line input
Compression: Video: H264
 Audio: MPEG
Resolution: CVBS Demodulation
HDMI FFT
Power: 12V/300mA
Dimensions: 90x60x34 mm
Weight: 200 g
Thermal range: -10° ~ +60°
TV standard: DVBT-EN300 744
RF Connector: SMA / 50Ω
Bandwidth: 1 / 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 7 / 8 MHz
Constellation: QPSK, 16QAM, 64QAM
FFT: 2K, 4K, 8K
Redundancy: 1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval: 1/4, 1/8, 1/16, 1/32
Frequency range: 200-800 MHz
MER: >35 dB
Adjacent channel: >45 dB
Phase noise: < -92dBc @ 10kHz
Carrier suppression: >42dB

HDVT-3000U

Frequency: 170 – 862 MHz
Bandwidth: 1 / 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 7 / 8 MHz
Demodulation COFDM according to standard EN300.744: 2K, 4K, 8K
Constellation: QPSK, 16 QAM, 64 QAM
Guard Interval: 1/4, 1/8, 1/16, 1/32
Redundancy: 1/2, 2/3, 3/4, 5/6, 7/8
Performance

| Performance | Bandwidth | Sensitivity |
|------------------------|-----------|-------------|
| 2K, 16QAM, 2/3 // 1/8: | | |
| 1 MHz | | -99dBm |
| 1,5 MHz | | -98dBm |
| 2 MHz | | -96dBm |
| 2,5 MHz | | -95dBm |
| 3 MHz | | -95dBm |
| 4 MHz | | -94dBm |
| 5 MHz | | -92dBm |
| 6 MHz | | -91dBm |
| 7 MHz | | -90dBm |
| 8 MHz | | -90dBm |

VIDEO

Formats: MPEG4, MPEG2
Outputs: Digital HD / Analog CVBS
Aspect Ratio: 4:3 / 16:9

AUDIO

Decoder: MPEG-1, MP3, MPEG-2, MPEG-4
Sampling: 32 kHz, 44,1 kHz, 48 kHz
Output: Stereo line and HDMI
Power: 12VDC/450 mA
Dimensions: 210x200x40 mm
Weight: 400 g