

MTV-HD3 RX

HD/SD Compact Digital Receiver

The Gigawave MTV-HD3 receiver is a one box unit; ideal for use in harsh RF environments where size and weight combined with Broadcast Quality performance is important. Using active signal “Maximum Ratio Combining” (MRC) the unit accepts signals from 2 antennas to significantly enhance the demodulated performance and increase the operating range.



Key Features

- DVB-T COFDM or ISDB-T
- Video picture monitoring on TFT screen
- Video plus 4 audios
- User data channel

Typical Applications

- Event Coverage
- Newsgathering
- Sports Coverage
- Airborne Operations
- Maritime Reconnaissance

Frequency bands

- 1.3 to 10GHz (other frequency bands to special order)

Tuning range

- 400MHz (modulation dependant, consult factory)

Frequency selection

- Up to 16 pre-set channels, or tuning in 1MHz steps via front panel control

Demodulation

- DVB-T 2k
- ISDB-T 2k, with time interleaving 110/220/440ms (option)

Demodulation Modes

- QPSK, 16QAM, 64QAM
- FEC: 1/2, 2/3, 3/4, 5/6, 7/8
- Guard interval: 1/32, 1/16, 1/8, 1/4

Bandwidth

- 6, 7, 8MHz

Noise figure and receiver threshold

- Noise figure: 3dB typical, 4dB max.
- Receiver threshold: -92dBm to BER 10-5 (nom. QPSK)

Data Rate

- 4.98 to 31.7Mbit/s

Decoding

- 4.2.0 and 4.2.2 broadcast quality video
- MPEG2
- H.264/MPEG4 and MPEG2, with automatic selection.

Video outputs

- SDI HD SMPTE-292M (299M)
- SDI SD SMPTE-259M (272M)
- Analogue Composite (CVBS), YUV and Y/C component
- HD down-converted to SD CVBS monitor

ASI outputs

- 2 x DVB ASI, 188 /204 outputs.

Video Formats

- 1080i: 1920 x 1080, 25 and 29.5Hz
- 720p: 1280 x 720, 50 and 59Hz
- 480i (NTSC): 720 x 480
- 576i (PAL): 720 x 576

Latency

- Automatic selection down to sub 1 frame (20ms), transmitter
- encoding profile dependant

Decryption

- BISS modes 1 and E (factory option)
- AES256 (factory option)

Genlock

- Genlock input, CVBS black/ burst or tri-level sync
- Genlock timing offset feature, +/- 18,926nS in 37nS steps

Audio outputs

- Digital: 2 stereo SDI embedded or AES/EBU
- Analogue: 4 x mono / 2 x stereo

User data output

- Selectable in the range 1200 to 230,400 baud

Monitoring

- Video picture monitoring on Full Colour TFT front panel display
- Comprehensive control and monitoring menu via front panel control
- Demodulator parameters
- RF Received signal level (dBm and bar graph)
- C/N, MER, BER (dB and bar graph)
- Summary front panel alarm/ comprehensive internal lock alarms

Remote control

- Comprehensive remote control and monitoring via Ethernet port / web browser interface.

Software upgrade

- USB upgrade port

Power Supply

- 10 - 32V DC.

Size and weight

- 76mm high x 179 wide x 275 deep, including connectors
- 2.9kg (6.4lbs)

Environmental

- Safe use: -20° to +50°C
- To spec: -10° to +45°C
- Altitude: 4500m
- Humidity: 95% long term

Mechanical Interface

- Standard wedge plate compatible with Gigawave interfaces.

