Chimera-RM
Professional Video Encoder/Satellite Modulator

CHIMERA-RM IS IDEAL FOR:

Live IP streaming of Community Events

Satellite Fly-Away Systems

Mobile and Airborne Encoding

Compact car-based DSNG solutions

Disaster Recovery of fully compliant ATSC

Anywhere that Space and Portability are at a Premium

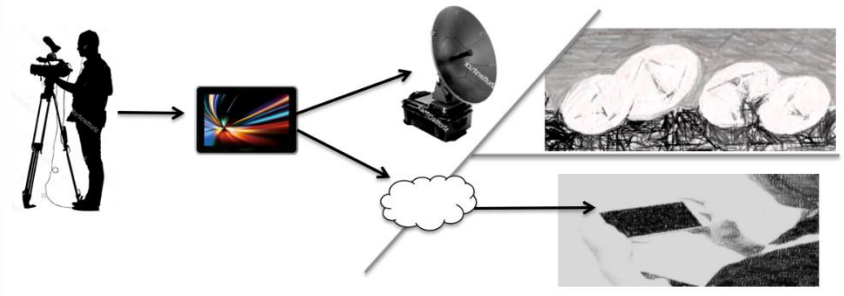
More than twenty years of terrestrial and satellite broadcasting experience went into the design of the **Chimera-RM** video encoder. **Chimera-RM** addresses the need for a flexible and easy to use video encoder that meets the changing requirements of TV broadcasters. It contains all the features necessary to stream to Facebook Live or YouTube live one day, transmit a RF modulated carrier in a satellite fly-away pack supporting a remote shot the next, while at the same time providing peace of mind that it can be used in an emergency to get your station back on the air – with dynamic PSIP – if needed.

Chimera-RM is a powerful and flexible encoder in a compact, portable form factor that allows two encoders to be mounted side by side in just 1RU with optional rack mount kit. Licenses are available to support Dynamic PSIP & AAC Audio, BISS encryption, Recording, Decoding, and Transcoding.

Chimera-RM is small enough to fit into a backpack, yet powerful enough to encode, decode, transcode, record and stream via IP and satellite simultaneously.

- **Live Video Transmission**
  - **Satellite Modulator**
  - **TSoIP/DVB-ASI**
  - **RTMP/DASH/HTML5**
- **Multiplexing of video, audio & data**
- **Remote or Local Management**

Made in the USA



VISION + INNOVATION

March 2024. Specifications subject to change without notice.

DTV Innovations | 2402 Millennium Dr. | Elgin, IL 60124 | ☎+1 847.919.3550 | www.dtvinnovations.com

Chimera-RM
Professional Video Encoder/Satellite Modulator

- Compact & Lightweight
- HD-SDI, HDMI, & ASI Inputs
- ASI, IP & Satellite outputs
- Dynamic PSIP support
- Value Priced
- RTMP/DASH/HTML5 Streaming
- SMPTE-2022 FEC on TSoIP Output
- DVB-S/S2/S2X & CID Modulator
- BISS Encryption
- ATSC & DVB Compliant

Specifications

Video & Audio Encoding

- MPEG-2 & H.264/AVC
- SD & HD (525i, 625i, 720p, 1080i & 1080p30)
- 8-bit 4:2:0
- Encoded bitrate from 256 kbps to 80 Mbps
- 150 to 650 ms latency
- 8 stereo pairs of MPEG-1 Layer II Audio
- AAC-LC & HE-AAC audio encoding

Inputs & Outputs

- HD-SDI - 75 Ω BNC & HDMI 1.4a inputs (one active)
- Embedded audio
- MPEG-TS over ASI – BNC connectors, 75 Ω
- MPEG-TS (RTP/UDP – SMPTE-2022) over IP
- RTMP or DASH (HTML5) Internet streaming
- BISS Mode 0, 1, E

RF Outputs

- L-Band: 950 to 2,150 MHz, 1 Hz steps
  N 50 Ω +7 dBm to -35 dBm, 0.1 dB steps
- IF-Band: 50 MHz to 180 MHz, 1 Hz steps
  BNC 75 Ω +5 dBm to -35 dBm, 0.1 steps
- SNR > 40 dB @ 0 dBm – 16 APSK – 30 Mbaud
- Shoulders rejection < -50 dB @ 0 dBm & f/fn=1.5 for roll off of 20%
- Spurious: < -65 dBc @ 0 dBm for 50 to 180 or 950 to 2,150 MHz -60 dBc outside the useful band
- Switchable 10 MHz insertion on L-Band RF output:
  - @1 Hz < -85 dBc/Hz
  - @10 Hz < -115 dBc/Hz
  - @100 Hz < -140 dBc/Hz
  - @1 kHz < -145 dBc/Hz
  - @10 kHz < -150 dBc/Hz
  - @1 MHz < -150 dBc/Hz

EAS Support

- Support both Trilithic Easycap and Digital Alert System's DASDEC and EAS Net

Clock & Synchronization

- Internal 10 MHz reference frequency
  - High Stability: ±5 ppb over 0° to 70° C
  - Aging: ±0.05 ppb/day, ±7.5 ppb/year
- External 10 MHz input for RF synchronization

Modulation

- DVB-S / DSNG:
  - Outer/Inner FEC: Reed Solomon/Viterbi
  - QPSK: 1/2, 2/3, 3/4, 5/6, 7/8
  - 8PSK: 2/3, 5/6, 8/9
  - 16QAM: 3/4, 7/8
- DVB-S2:
  - Outer/Inner FEC: BCH/LDPC
  - QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
  - 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
  - 16APSK
  - 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
  - PL Scrambling codes [0, 264143]
  - Supported DVB modes:
    - CCM: Constant Coding & Modulation
    - VCM: Variable Coding & Modulation
    - *SeamlessACM*: Adaptive Coding & Modulation
  - DVB-S2 Short (16 200) or Normal (64 800) frames
  - Pilots ON or OFF
  - Variable symbol from 0.05 to 72 Mbaud, 1 Baud steps
- DVB-S2x Broadcast & DSNG profiles:
  - Same specifications as defined for DVB-S2
  - New constellation for DSNG profile: 64APSK
  - All new linear MODCOD for QPSK/8PSK/16APSK/32APSK/64APSK
- DVB-CID compliance (ETSI TS 103 129)

Physical

- Power Supply: 12VDC – 60W Max
- Dimensions: 15"x 8.5"x 1.75" (WxDxH)
- Weight 2.5 kg
- Temperature: 0° to 50° C

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