

QMOD-HDMI 2 HDTV Modulator – IPTV Encoder

DATASHEET



The QMOD-HDMI 2 is a professional dual-channel frequency-agile RF Modulator / Encoder for distributing HD video content over CATV systems to an unlimited number of televisions or standalone HDTV Tuners. The unit is ideal for distributing live video from satellite receivers or cable boxes, or digital signage content from media players or PCs. Dual-channel operation is standard, creating two virtual programs on one physical RF channel. Encoding can be MPEG2 or H.264. The latest generation now has an adjustable RF output level up to 45 dBmV.

Dual hardware scalers accept content up to 1080p and compensate for non-broadcast and PAL frame rates. The QMOD-HDMI 2 can simultaneously output the content as a Multicast or Unicast IPTV stream. Options include easy front-panel setup, dual-language SAP audio, and Emergency Alert System. Dual unit rack mounting offers up to four programs per rack unit, with the ability to mix models to handle HDMI, SDI, Component, RGBHV and NTSC video sources.

FEATURES

- Two HDMI Inputs (Type A, Version 1.3) accept 480i/29.97Hz to 1080p 59.94/60Hz video and common PC resolutions
- Dual hardware scalers for resolution and frame rate conversion to standard HDTV formats
- Adjustable size and position enable precise formatting for edge-to-edge presentation
- Two Composite/CC video inputs for encoding, captioning, or EAS use
- Accepts embedded HDMI AC3 and PCM audio
- Two analog stereo and two SPDIF coaxial audio inputs
- MPEG2 or H.264 encoding selectable individually for each program
- MPEG2 output resolutions – 480i, 480p, 576i, 720p, 1080i, or auto
- H.264 output resolutions – 480i, 480p, 576i, 720p, 1080i, or auto; 1080p from a 1080p source
- Accepts analog stereo or PCM audio and encodes to AC3 with SAP dual-language capability
- Supports AC3 passthrough
- Embeds captioning from Line 21 data on composite video inputs
- Delivers fully agile QAM 64/256 digital cable channels 2-135 or 8VSB off-air channels 2-69
- Adjustable output level from 19-45 dBmV in 1dB steps
- Up to 268 HD Programs, 134 Channels per system
- Streams Multicast or Unicast IPTV from GigE Ethernet port
- Rack-mountable two across in 1RU
- Configuration and monitoring via front-panel or onboard Web pages
- Meets RoHS and California energy-saving standards

SPECIFICATIONS

Physical	8.5" [216mm] wide x 1.75" [44mm] height (1RU) x 6.0" [153mm] deep 1.5 lbs [0.68kg] 1RU Rack mounting for one or two units side-by-side (RKU, RK1, RK2EZ)
Video	Two HDMI receptacles, Type A, Version 1.3 Two RCA Composite video/CC inputs
Audio	Two RCA SPDIF coaxial inputs Two analog stereo 3.5mm TRS inputs
Encoding	H.264 or MPEG2 Profile: MP@HL for HD, MP@ML for SD, 1080i, 720p, 576i, 480p, and 480i output resolution MPEG2 Video Encoding bit rate 8-20 Mbps (1080i,720p); 6-16 Mbps (1080p); 4-8 Mbps (575i,480i) H.264 Video Encoding bit rate 5-10 Mbps (1080i,720p); 7.5-15 Mbps (1080p); 3-8 Mbps (480p); 2-4 Mbps (480i, 575i) Variable bit rate if set for IP output only PCM or MPEG1, Layer 2 audio encoded as AC3 SAP Dual-language capability, second audio track encoded as MPEG1, Layer 2 Dual-channel operation, two programs in MPEG2 or H.264 Transport Stream for QAM or IPTV output IPTV configurable as MPTS and SPTS, UDP or RTP
Modulation	Switchable 64/256 QAM, J83 Annex B, Interleaving Modes (128,1), MER 38 dB typical 8VSB off-air channels
Front Panel	LCD Text display, white text on blue background Setup and Select buttons Up, Down, Left, and Right navigation buttons Mini USB-B port virtual network adapter for Web page access and firmware updates
Ethernet	RJ-45 GigE Ethernet Connector for Web page access and firmware updates
EAS	Mini phoenix connector for contact closure or logic input to recall emergency alert video source
Standards	FCC Class B, ROHS, meets California standards
Power	2.1mm coaxial jack (inside center conductor positive), 1.5A maximum, 11.5 to 13.5 VDC, 12 VDC typical
Includes	PS12-2.0 Power Supply, 2A maximum, 12 VDC Two 3.5mm TRS phone plug to dual RCA Audio Cables RKU Universal Rack Mount Kit
Options	PS12-8Y power supply with Y cable may be ordered with every 3-4 modulators in lieu of PS12-2.0 power supplies RK1 Single Rack Kit, 1RU RK2EZ Dual Rack Kit, 1RU