



QMOD HDTV Modulators/IPTV Encoders



The next-generation QMOD HDTV Modulators/IPTV Encoders set a new standard for sports, motion and digital signage encoding. Dual hardware scalers accept content up to 1080p60, shapes digital signage for edge-to-edge presentation, and compensates for non-broadcast and PAL refresh rates. Able to deliver two HD programs in one channel, the Encoder/Modulators can also output the content as a Multicast or Unicast MPEG2/H.264 streams. Options include dual-language SAP audio, Dolby AC-3 pass-through, easy front-panel setup and EAS operation. Web setup, monitoring, and firmware updates are available via USB and Ethernet ports. Two-across mounting offers up to four programs per rack space, with the ability to mix models to handle HDMI, SDI, Component, RGBHV and NTSC video sources.

QMOD-HDMI RGB

- HDMI and one RGBHV/Component input
- Two Composite/CC video inputs for encoding, or captioning
- Two analog mini Stereo and two SPDIF coax audio inputs

QMOD-HDMI 2

- Two HDMI inputs
- Two Composite/CC video inputs for encoding, or captioning
- Two analog mini Stereo and two SPDIF coax audio inputs

QMOD-SDI HDMI

- SDI (up to 3G) 1080p60 to 480i inputs
- Two Composite/CC video inputs for encoding, or captioning
- Two analog mini Stereo and two SPDIF coax audio inputs

QMOD-SDI 2

- Two SDI (up to 3G) 1080p60 to 480i inputs
- Two Composite/CC video inputs for encoding, or captioning
- Two analog mini Stereo and two SPDIF coax audio inputs

QMOD-HDMI RGB

- HDMI and one RGBHV/Component input
- Two Composite/CC video inputs for encoding, or captioning
- Two analog mini Stereo and two SPDIF coax audio inputs

Shared Features

Encoding

- Hardware scalers up to 1080p60 content, in broadcast, VGA and PAL refresh rates, able to zoom, shrink and position content for edge-to-edge presentation, and can follow input resolution or scale video to a fixed resolution
- Create a high-definition dual program MPEG2/H.264 stream for broadcast over RF
- Encodes audio as AAC or AC-3, can create dual-language SAP audio for each program
- Decodes Line 21 captioning from composite video inputs

Output

- Delivers a fully agile QAM 64 single or QAM 256 dual program digital cable channel 2-135
- Up to 270 HD Programs and 135 Channels per system
- Streams MPTS/SPTS Multicast/Unicast IPTV from GigE Ethernet port
- Distributes channel over an on-site broadband cable system with adjustable output level to 29 dBmV, compatible with all cable format broadband systems

QMOD HDTV Modulators/IPTV Encoders

QMOD-HDMI RGB
Video HDMI (non-HDCP) 1080p60 to 480i
RGBHV/DB15 Component Inputs
Dual NTSC Video/CC Inputs
Audio HDMI Embedded PCM or AC-3
Dual SPDIF Coax, Stereo 3.5mm Inputs

QMOD-SDI HDMI
Video SDI 3G 1080p to 480i
HDMI, 1080p60 to 480i
Dual NTSC Video/CC
Audio SDI Embedded AES Audio and AC-3
HDMI Embedded PCM or AC-3
Dual SPDIF Coax, Stereo 3.5mm Inputs



QMOD-HDMI RGB
Video Dual HDMI inputs (non HDCP)
Dual NTSC Video/CC
Audio HDMI Embedded PCM or AC-3
Dual SPDIF Coax, Stereo 3.5mm Inputs

QMOD-SDI 2
Video Dual SDI Inputs: 3G/HD and SD-SDI
Dual NTSC Video/CC
Audio SDI Embedded AES Audio, Group 1-4
Dual SPDIF Coax, Stereo 3.5mm Inputs

QMOD-YPB 2
Video Dual YPbPr Inputs, 1080p60 to 480i
Dual NTSC Video/CC
Audio Dual SPDIF Coax, Stereo 3.5mm Inputs

Shared Features

- Physical** 8.5" [216mm] wide x 1.75" [44mm] height (1RU) x 6.0" [153mm] deep, 1.5 lbs [0.68kg]
Rack mounting for one or two units side-by-side (RK1, RK2)
- Scaling** Dual hardware scalers for HD, SD, PC and PAL resolutions
Accepts 1080p60 - 480i and VGA resolutions, 29.97 - 60 Hz US and PAL refresh rates
Edge to edge presentation with zoom, shrink and X/Y axis positioning
Auto-sync or scales to fixed output resolution, 1080p scaled to 1080i
- 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 10-20 Mbps, HD, 4-8 Mbps, 480i, variable bit rate if set for IP output only
H.264 video encoding bit rate 5-10 Mbps, 480i, or variable bit rate
SAP dual-language capability, second audio track is MPEG1, layer 2
Dual-channel operation, two programs in MPEG2 or H.264 transport stream for QAM for IPTV
- Modulation** Switchable 64/256 QAM, J83 Annex B, interleaving modes (128, 1), MER 38 dB typical
- Standards** FCC Class B, ROHS, meets California standards
- Front Panel** Setup, select and directional buttons for menu setup
Blue LCD 2 lines of 20 white characters each
- Power** 2.1mm coaxial jack (inside center conductor positive) 11.5 to 13.5 VDC, 12 VDC typical
- Ethernet** RJ-45 GigE ethernet connector for IP control, MPTS/SPTS Multicast/Unicast IPTV and internal web pages
- Includes** EAS closure inputs switch to emergency video and audio, PS12-2 power supply, 2.0A 12VDC/2-RC IR Remote
- Options** RK1 Single Rack Kit, RK2-F7 Dual Rack Kit