



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 and HDMI, 1080p60 to 480p input,
- 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-YPB 2

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

Shared Features

Encoding

- Hardware scalers accept 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-HDMI RGB

Video: HDMI (non-HDCP) 1080p60 to 480i
RGBHV/DB15 Component Inputs
Dual NTSC Video/CC inputs
Audio: HDMI embedded PCM and AC-3
Dual SPDIF coax, stereo 3.5mm inputs

QMOD-SDI HDMI

Video: SDI 3G 1080p60 to 480i
HDMI, 1080p60 to 480i
Dual NTSC Video/CC
Audio: SDI embedded AES audio and AC-3
HDMI embedded AC-3 or PCM
Dual SPDIF coax, stereo 3.5mm inputs



QMOD-HDMI 2

Video: Dual HDMI inputs (non HDCP)
Dual NTSC Video/CC
Audio: HDMI embedded PCM and 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, Groups 1-4
Dual SPDIF coax and stereo 3.5mm inputs

QMOD-YPB 2

Video: Dual YPbPr inputs, 1080p60 to 480i
Dual NTSC Video/CC
Audio: Dual SPDIF coax, stereo RCA 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, HD, 2-4 Mbps, 480i, or variable bit rate.
Converts PCM or MPEG1, Layer 2 audio to AC-3 or AAC
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 or IPTV output

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, 2.0 A 12VDC

Options RK1 Single Rack Kit, RK2-EZ Dual Rack Kit

All CR products feature a full three-year warranty.