



## QMOD-SDI 1.5 HD-SDI Modulator



Employing a totally new HD encoding technology, the QMOD-SDI1.5 continues the QMOD™ track record for quality and innovation, setting a new benchmark for features and performance. In addition to standard SDI resolutions, the QMOD-SDI can accept 3G SDI and 60/30 Hz feeds from prosumer SDI sources. Users can upgrade operation for full scaling and dual-channel operation by entering optional upgrade key codes.

### Applications

*3G, HD-/SD-SDI  
HD/SD Cable Receivers  
HD/SD Satellite Receivers  
HD/SD Media Sources*

### Sources

- One HD-SDI input, 3G 1080p and 1080i/720p 59.94/60 Hz HD-SDI, and SD-SDI 480i widescreen/4:3 video; also accepts embedded 608/708 captioning and AC-3/AES audio
- One Component input, 1080i, 720p, 480p, 480i video
- One Composite video input for encoding, captioning, or EAS use
- Stereo, optical and coax audio inputs

### Encoding

- Creates a high-definition 720p/1080i MPEG-2 stream for broadcast
- Accepts stereo, PCM, or pass-through AC-3 audio, can create two MTS sub-channels for each input, supporting two languages each
- Includes captioning from Line 21 data on composite video inputs
- Flex encoding downscales 1080p to 1080i, allows use of 720p/1080p 60Hz sources, and compensates for 60/30 Hz sources such as consumer HD cameras
- QMOD Scaling upgrade allows full video up- and down-conversion
- QMOD 2-channel upgrade allows selection of inputs to create 2 HD channels

### Output

- Delivers a fully agile QAM 64/256 digital cable channel 2-135
- Up to 270 HD Programs/Channels per system
- Streams 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

### Operation

- Sets up with front-panel buttons and easy to use menus, including inputs, encoding, channel, and RF options.
- Onboard Web page for setup and monitoring
- Control with IP Telnet commands
- Saves power and rack space using efficient design
- Includes compact switching power supply
- Mounts in optional 1RU single (RK1) or dual (RK2EZ) 19" rack kits
- Meets RoHS safety and California energy standards

## QMOD-SDI1.5 HD-SDI Modulator



### Specifications

Feature	
<b>Physical</b>	8.5" [216mm] wide x 1.73" [62mm] height (1RU) x 6.0" [153mm] deep 1.5 lbs [0.68kg] +32° to 122° F operating temperature, convection cooled Rack mounting for one or two units side-by-side optional (RK1, RK2EZ)
<b>Encoding</b>	MPEG2 Profile:MP@HL for HD, MP@ML for SD 1080i, 720p, 480p, and 480i resolution Video Encoding bitrate 11, 13, 15, 18 or 25 Mbps AC-3 (Pass-through or stereo) or MPEG1, Layer 2 audio MTS Dual-language capability Full scaling for video up- and down-conversion with optional upgrade key Dual-channel operation with optional upgrade key
<b>Modulation</b>	Switchable 64/256 QAM, J83 Annex B, Interleaving Modes (128,1) MER 38 dB typical
<b>Compliance</b>	FCC Class B, ROHS, meets California standards
<b>Front Panel</b>	Select and directional buttons for menu setup Menu LCD, Blue with 2 lines of 20 white characters each
<b>Back Panel</b>	
<b>Power</b>	2.1mm coaxial jack (inside center conductor positive) 1.1A maximum, 11.5 to 13.5 VDC, 12 VDC typical
<b>EAS Control</b>	3 GPI Pins for momentary or latching control
<b>Ethernet</b>	RJ-45 GigE Ethernet connector for IP control, IPTV and internal Web page
<b>SDI Input</b>	BNC Female SD-SDI @ 270Mb/s, HD-SDI @ 1.485Gb/s, 3G SDI @ 2.970Gb/s Coax cable auto-equalizer for SD up to 460m, HD up to 230m (RG6) Resolutions 1080p at 59.94Hz, 1080i/720p at 59.94/60Hz, or SD 480i at 29.97Hz Video Format YCbCr 4:2:2 Accepts SDI embedded Stereo/AC-3 48KHz audio Widescreen option for 480i
<b>Analog Video</b>	Component: RCA Y, Pb, Pr (1080i/720p/480p/480i), 59.94/60/29.97/30 Hz S-Video: Y(Composite), C (Blue Pb) 480i, 29.97 Hz Composite Video: RCA female (480i), 29.97 Hz, supplies line 21 Captioning
<b>Audio Inputs</b>	Coax and optical SPDIF digital audio inputs Analog L and R: 2 stereo RCA jacks Inputs assignable to video inputs
<b>RF</b>	'F', female, 75 ohm impedance Agile, channels 2-135 (48-860 MHz), standard, HRC, or IRC spacing 6 MHz bandwidth fits any open channel without interference to adjacent channels 1 KHz resolution, +/- 30 ppm accuracy, +/- 35 ppm stability 29 dB typical output power, attenuated in 5 steps, approx 4 dB
<b>Includes</b>	Compact PS12-1.5 switching power supply, 1.5A 12 VDC, fits power strip Free option to include PS12-4Y power supply with every 2-3 modulators when ordered
<b>Options</b>	RK1 Single Rack Kit RK2EZ Dual Rack Kit Upgrade keys for dual-channel operation and scaling