

## **QMOD-SDI1.5 HD-SDI Modulator**

### **Applications**

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



### **Sales Support**

Need help integrating HDTV localcasting for your application? Our Sales Support staff will be happy to work with you, providing expert integration assistance and a complete systems proposal.

### **Tech Support**

Need tech help? Give us a call. Our tech support staff are experts in the integration industry. We research solutions in the proposal stage, advise on programming requirements, and resolve installation issues.

Our job is to make our solutions work seamlessly with your system, performing as promised.

### **Related Products**

QMOD-HDMI1.5  
QMOD-YPB2  
QCA9-33 Active Combiner  
QDA4-45 Amp Combiner  
232-ATSC+1 Tuner  
ATSC+SDI Tuner  
Display Express Systems

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.

### **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

### Warranty

All CR products feature a full two-year warranty.

