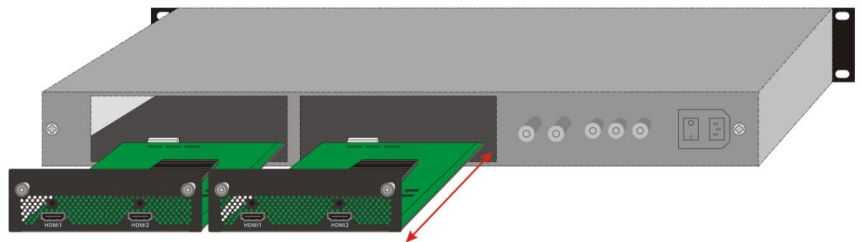




Encoder Modulator series products are all-in-one devices which integrate encoding and modulation to convert V/A signals into RF output. It is available with various interfaces to receive signal from different sources. To meet customers' various requirements, it is also equipped with 1 ASI input for remux, and output with 2 ASI ports and 1 UDP IP port. The signals source could be from satellite receivers, closed-circuit television cameras, Blue-ray players, and antenna etc. Its output signals are to be received by TVs, STB and etc with corresponding standard.

Encoder modulator (encodulator) adopts modular design. Its encoding section works as a standalone part to complete the video/audio compression. The encoding board is drawable, which greatly facilitates the change of encoding board (HDMI/CVBS/SDI/YPbPr/...) as needed.



Technical Specifications:

DVB-C

Standard J.83A (DVB-C), J.83B, J.83C
 MER≥43dB
 RF frequency: 30~960MHz, 1KHz step
 RF output level: -30~ -10dBm, 0.1db step
 Symbol rate: 5000-9000 Ksps
 J.83A:
 Constellation: 16/32/64/128/256QAM
 Bandwidth: 8M
 J.83B&J.83C:
 Constellation: 64/ 256QAM
 Bandwidth: 6M

ATSC

Standard ATSC A/53
 MER≥42dB
 RF frequency: 30~960MHz, 1KHz step
 RF output level: -26~-10dbm
 (81~97dbμV), 0.1db step
 Constellation: 8VSB

DVB-T

Standard: DVB-T COFDM
 Bandwidth: 6M, 7M, 8M
 Constellation: QPSK, 16QAM, 64QAM
 Code rate: 1/2, 2/3, 3/4, 5/6, 7/8.
 Guard Interval: 1/32, 1/16, 1/8, 1/4
 Transmission Mode: 2K, 8K
 MER≥42dB
 RF frequency: 30~960MHz, 1KHz step
 RF output level: -30~ -10dBm, 0.1db step

ISDB-T

Standard: ARIB STD-B31
 Bandwidth: 6M
 Constellation: DQPSK, QPSK, 16QAM, 64QAM
 Guard Interval: 1/32, 1/16, 1/8, 1/4
 Transmission Mode: 2K, 4K, 8K
 MER≥42dB
 RF frequency: 30~960MHz, 1KHz step
 RF output level: -30~ -10dBm, 0.1db step

Encoder Boards Supporting MPEG-2/H.264 HD/SD Video Compression

Single HDMI Channel



Video

Compression: MPEG2 & MPEG4 AVC/H.264
 Resolution: 1920*1080_60P, 1920*1080_50P, (-for MPEG4 AVC/H.264 only)
 1920*1080_60i, 1920*1080_50i,
 1280*720_60p, 1280*720_50P
 720*480_60i, 720*576_50i

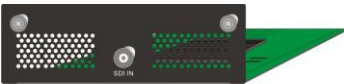
Dual HDMI Channels



Audio

Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, DD AC3 (Optional)
 Sample rate: 48KHz
 Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps

Single SDI Channel



Video

Compression: MPEG2 & MPEG4 AVC/H.264
 Resolution: 1920*1080_60P, 1920*1080_50P, (-for MPEG4 AVC/H.264 only)
 1920*1080_60i, 1920*1080_50i,
 1280*720_60p, 1280*720_50P
 720*480_60i, 720*576_50i

Dual SDI Channels



Audio

Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, DD AC3 (Optional)
 Sample rate: 48KHz
 Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps

Single HDMI/VGA Channel

Video

Compression: MPEG2 & MPEG4 AVC/H.264
 Resolution: 1920*1080_60P, 1920*1080_50P, (-for MPEG4 AVC/H.264 only)
 1920*1080_60i, 1920*1080_50i,
 1280*720_60p, 1280*720_50P
 720*480_60i, 720*576_50i

HDMI Section

Audio

Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC
 Sample rate: 48KHz
 Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps



VGA Section

Video

Compression: MPEG2 & MPEG4 AVC/H.264
 Interface: VGA(VGA/SVGA/XGA/UXGA/SXGA)
 Resolution: 1920*1080_60P, 1280*720_60P

Audio

Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC
 Interface: Unbalanced stereo analog audio
 Sample rate: 48KHz
 Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps

Encoder Boards Supporting MPEG-2/H.264 HD/SD Video Compression

3-in-1 HD Single Channel

HDMI Section



CVBS/YPbPr Section

Video	Compression: MPEG2 & MPEG4 AVC/H.264 Resolution: 1920*1080_60P, 1920*1080_50P, (-for MPEG4 AVC/H.264 only) 1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P
Audio	Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, DD AC3 (Optional) Sample rate: 48KHz Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps, 384kbps

Video	Compression: MPEG2 HD & MPEG4 AVC/H.264 HD Interface: YPbPr*1, CVBS*1 (RCA Type) Resolution: CVBS: 720x576_50i (PAL); 720x480_60i (NTSC) YPbPr: 1920*1080_60i, 1920*1080_50i; 1280*720_60p, 1280*720_50P
Audio	Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, DD AC3 (Optional) Interface: Unbalanced stereo analog audio Sample rate: 48KHz Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps, 384kbps

3-in-1 SD Dual Channel



Video	Compression: MPEG2 & MPEG4 AVC/H.264 Interface: YPbPr/CVBS/S-video*2 Resolution: 720*480_60i, 720*576_50i
Audio	Compression: MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC, DD AC3 (Optional) Interface: Unbalanced stereo analog audio (2*Stereo/4*Mono) Sample rate: 48KHz Bit rate: 64kbps, 96kbps, 128kbps, 192kbps, 256kbps, 320kbps