Features
- Encodes Analog, HDMI, or HD/SD-SDI video to ASI and/or IP
- Inputs: Component, Composite, HDMI, HD/SD-SDI video
- Supports EIA-708 closed caption insertion via HD-SDI (SMPTE 334)
- Outputs: ASI, IP (UDP/IP or RTP/IP)
- Low latency – 800 milliseconds
- Digital, Analog and Serial Digital embedded audio inputs
- 5.1 channel SPDIF audio optical input (pass through)
- Auto detection of video resolution
- Magnum chip based – results in incredible quality
- Simultaneous outputting of mirrored ASI streams or UDP/IP or RTP/IP transport stream
- CBR or VBR outputs
- Audio encoding: Dolby® Digital® (AC-3), MPEG-1 Layer II, AAC-LC, HE-AAC
- User selectable resolution and bit rate
- Resolutions: 480i, 480p, 576i, 576p, 720p, 1080i 25, 29.97/30, 50, 59.94/60
- Chroma format: 4:2:0
- Supports PAT, PMT, SDT, NIT, VCT (TVCT, CVCT) and a dynamic PSIP insertion ASI port
- Control and monitoring via web browser, front panel, or SNMP
- Supports closed captioning with CEA-708

Applications
- Encoding uncompressed Broadcast or Cable
- Distribution of video in any setting

Overview
MPEG-2 is now the de facto standard codec for Broadcast, Satellite, and Cable content distribution in many parts of the world. H.264 is the emerging standard for broadcast.

The Futura II ASI+IP™ is an affordable Broadcast oriented MPEG-2 or H.264 encoder that supports all of the standard broadcast formats used throughout the world, including all North American standards. It supports PSIP tables and has an ASI port for dynamic PSIP.

The unit supports HD-SDI, HDMI, YPbPr, and CVBS input and two identical ASI outputs, plus one IP output. The Futura II ASI+IP delivers MPEG-2 video at bit rates of 3.4 to 19.39 Mbps, and H.264 video at 2.5 to 19.39 Mbps.

Audio support includes Dolby® Digital® (AC-3), MPEG-1 Layer II, AAC-LC, and HE-AAC.

The Futura II ASI+IP is "Magnum Semi" chip based. Magnum Semiconductor created one of the best quality encoder chips. One look and you will be impressed.

Sample GUI

MPEG-2
Specifications

**Video Input**

Analog: Component (YPbPr), Composite (CVBS)
Level: 1 Vp-p

Digital: HDMI, SDI, HD-SDI
Passes through VBI, AFD, Bar Data, VANC
Levels: 1000 mVp-p (HDMI), 800mVp-p (SDI)

Resolutions:
- 480i 29.97/30, 576i 25, 720p 50/59.94/60
- 1080i 25, 29.97/30, 50, 59.94/60

Aspect Ratios: 16:9 (Digital only), 4:3

**Audio Input**

Analog: Input: One Stereo (Two channels)
Frequency Range: 20 Hz ~20 KHz
Impedance: 600 Ω/20 KΩ
Connector: Mini XLR

Digital: Inputs: AES-EBU, Embedded SDI/HDMI (2 stereo pairs, H.264 only)
Sampling Rate: 32, 44.1, 48 KHz
Connector: BNC (75Ω)/HDMI-19PIN

Optical Input: SPDIF (5.1 Channel) (pass through)

**Video Encoding**

Encoding: MPEG-2: HP@HL, MP@ML
MPEG-4: H.264 HP@L4, MP@L3

Encoding Rate: MPEG-2: 2~17.2 Mbps; MPEG-4 H.264: 0.5~17.2 Mbps

Chroma Format: 4:2:0

PSNR: 33 dB

Bit Rate Modes: CBR, VBR

Latency: 800 milliseconds

Closed Captioning: EIA-708, 608 in converts to 708

**Audio Encoding – One Audio Pair**

Sampling Rate: 32, 44.1, 48 KHz

Dolby® Digital® AC-3: 128, 192, 256, 384 Kbps

MPEG-1 Layer II: 192, 224, 256, 320, 384 Kbps

MPEG-4 AAC-LC: 32~384 Kbps

MPEG-4 HE-AAC v1: 32~192 Kbps

MPEG-4 HE-AAC v2: 32~96 Kbps

**Dynamic PSIP Input**

Transport Stream: One ASI port

Connector: BNC (75Ω)

Packet Format: 188 Bytes

Input Level: 800mV-p

**ASI Output**

Transport Stream: Two ASI ports

Connectors: BNC (75Ω)

TS Bit Rate: MPEG-2: 3.4~19.39 Mbps; MPEG-4 AVC: 2.5~19.39 Mbps

Packet Format: 188 Bytes

**IP Output**

Output: One port

Connector: RJ-45

Ethernet Type: 10/100/1000 Base-T

Format: UDP/IP, RTP/IP

IP Address Format: Multicast, Unicast

TS Bit Rate: MPEG-2: 3.4~19.39 Mbps; MPEG-4 AVC: 2.5~19.39 Mbps

TS Packet Rate: 188, 204 Bytes with FEC (2022-4)

**Ancillary Data Type Standards Used**

NTSC CC: CEA 608, ETSI TS 101 154 V1.9.1 and A/53 Part4 2009

XDS Data: 100/100 Base-T

DVT CC: CEA 708, ETSI TS 101 154 V1.9.1 and A/53 Part 4 2009

AFD and Bar Data: ETSI TS 101 154 V1.9.1 and A/53 Part 4 2009

VITC Data: SMPTE 12M including 12M-1 and 12M-2 (VANC)

**Ethernet**

Connector: RJ45

Interface Type: 10/100 Base-T

Protocols: SNMP

**Control and Monitoring**

Local: Front panel operation, LCD display

Remote: SNMP, HTTP (Web Interface)

LDC Video Dimensions (WxH): 1.6 x 1.2 inches (40.56 x 30.48 mm)

Preview: Pixels: 480 x 240 Format: SD (4:3)

**Physical and Power**

Power Supply: AC 90~230V, 50/60 Hz

Power Consumption: Max. 100W

Dimensions – WxHxD: 19 x 1.7 x 15 inches (482 x 44 x 383 mm)

Weight: 8.82 lbs (4 Kg)

Operating Temp.: 14 to 122 °F (-10~50°C)

Conformities: FCC, CE, LVDS, RoHS

**Regulatory Certificates**

**Ordering Info**

Futura II ASI+IP

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