

Satria™ DSNG Encoder

High Bit Rate 1080p SD or HD 4:2:0 and 4:2:2 MPEG-2 and H.264 DSNG Contribution Encoder with Built in Satellite Modulator. Features Magnum Semi Chip for Premium Quality at 150 ms Latency. Amazing Quality at Near Half the Price of Other Major Brands of Mezzanine Encoders. Component, Composite, HDMI, SD-SDI, and HD-SDI In and ASI or IP Out. Full Control from Front Panel Buttons and Included Alpha LCD. Video Preview via Built-in LCD Supports C, Ku, and Ka Bands. Audio Support Includes AAC and AC-3. Four Pairs of Audio Pass Through for Multi Language. Full Support for SNMP Management and 10/100 IP Output.



Features

- Inputs: Component, Composite, HDMI, HD/SD-SDI
- One additional ASI input for inserting externally generated PSIP into the transport stream
- Simultaneous Outputs:
 - One L-Band output (950~ 2150 MHz)
 - Two DVB-ASI outputs
 - One IP output (UDP/IP or RTP/IP)
- Ultra low latency – as low as 150 milliseconds
- Supports EIA-708 Closed caption insertion via HD-SDI (SMPTE 334)
- Supports up to 1080p
- Supports 4:2:0 (8 bit) and 4:2:2 (10 bit)
- Digital, Analog and SDI embedded audio (8 channel) inputs
- 5.1 channel Dolby® Digital® (AC-3) encoding support
- 7.1 channel SPDIF audio optical input (pass through)
- One additional ASI input for insertion of externally generated PSIP into the transport stream
- Provides internally generated PSI, PSIP, SI
- Control of frame rate
- Selectable MPEG-2 HD or H.264 HD real-time video encoding
- Dolby® Digital® (AC-3), MPEG-1 Layer II, AAC-LC, HE-AAC audio encoding
- Supports internally generated TVCT, CVCT, SDT, NIT
- Excellent IP converter integrated performance – Much lower latency and stable IP output
- Control and monitor via web browser, front panel, or SNMP
- 4 channel AES/EBU Digital Audio
- 4 stereo (8 channel) Analog input with D-sub type
- Integrated Advanced Scaler function
 - Control of frame rate, Image enhance
 - Phase Noise, Correction of Color, Control of Gamma
- DVB-S/S2 Modulation
- BISS mode-1 and BISS mode-E support
- Operates on either the C, Ku or Ka-bands
- Symbol Rate: 1 baud ~ 68 Mbaud

Overview

DSNG applications require robustness and compactness at the same time since DSNG equipment is installed in vehicles that travel to uplink events.

Designed for satellite news gathering (DSNG), the Satria™ is a contribution quality high end MPEG-2 and H.264 encoder with a built-in DVB-S-S2 modulator. It supports all of the standard broadcast formats used throughout the world, including all North American standards. The system supports PSIP tables and has an ASI port for dynamic PSIP.

The Satria supports HD-SDI, HDMI, YPbPr, and CVBS input. Simultaneous outputs are one L-Band and two identical ASI outputs, plus one IP output. It delivers MPEG-2 and H.264 video at bit rates of 2.5 to 55 Mbps. The system supports 4:2:0 (8 bit) and 4:2:2 (10 bit). Ten bit conversion results in richer color spaces and super crisp video.

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

The Satria is Magnum chip based. Magnum Semiconductor created one of the world's best quality encoder chips, according to many.

DVEO cares about ease of use. The operator console is intuitive and easy to use. An easy to use web interface is included.

Applications

- Satellite trucks
- Teleports
- Digital Satellite News Gathering
- Sports broadcasting

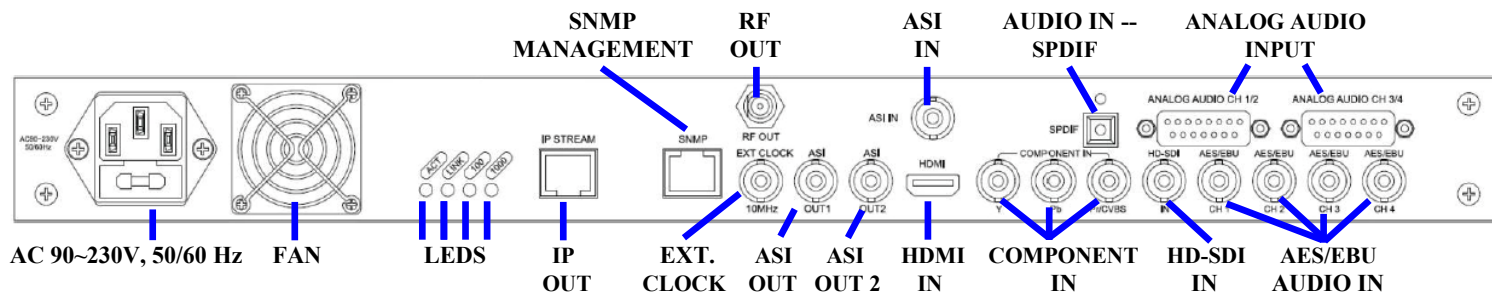


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Rear View



Specifications

Video Input

Analog:	Component (YPbPr), Composite (CVBS); Level: 1 Vp-p
Digital:	HDMI, SDI, HD-SDI Levels: 1000 mVp-p (HDMI), 800mVp-p (SDI)
Resolutions:	480i29.97, 576i25, 720p50/59.94, 1080i25/29.97, 1080p25/29.97
Aspect Ratios:	16:9 (Digital only), 4:3

Audio Input

Analog:	Inputs: Four Stereo (Eight channels) Frequency Range: 20 Hz ~20 KHz Impedance: 600 Ω/20 KΩ Connector: D-SUB 15pin x 2
Digital:	Inputs: 4 AES-EBU, Embedded SDI/HDMI (4 Stereo 8 Channel) Sampling Rate: 32, 44.1, 48 KHz Connector: BNC (75Ω)/HDMI-19PIN
Optical Input:	SPDIF (7.1 Channel) (pass through)

Video Encoding

Encoding:	MPEG-2: HP@HL, MP@HL, MP@ML MPEG-4: H.264 HP@L4, MP@L3
Encoding Rate:	MPEG-2: 1.6~50 Mbps MPEG-4 H.264: 0.6~50 Mbps
Chroma Formats:	4:2:0 (8 bit), 4:2:2 (10 bit)
PSNR:	38 dB
Bit Rate Modes:	CBR, VBR
Latency:	150 milliseconds
Closed Captioning:	EIA-708, 608 in converts to 708

Audio Encoding

Input Sampling Rate:	32, 44.1, 48 KHz
Output Sampling Rate:	48 KHz
Encoding:	MPEG-1 Layer II (2 ch): AC-3 (2ch); AC-3 Pro (2ch, 5.1ch) AAC LC (2ch, 5.1ch): HE-AAC v1 (5.1ch); HE-AAC v2 (2ch)
Audio Mix:	4 Stereo (8 channel) or 5.1ch
Dolby® Digital® AC-3:	128, 192, 256, 384 Kbps
Dolby® Digital® AC-3 Pro:	96, 112, 128, 160, 192, 224, 256, 320, 384 Kbps
MPEG-1 Layer II:	64, 96, 112, 128, 160, 192, 224, 256, 320, 384 Kbps
MPEG-4 AAC-LC:	32, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320, 384 Kbps
MPEG-4 HE-AAC v2:	32, 48, 56, 64, 80, 96 Kbps
Dolby® Digital® AC-3 Pro 5.1:	224, 256, 320, 384, 448, 576, 640 Kbps
AAC LC 5.1:	96, 112, 128, 160, 192, 224, 256, 320, 384 Kbps
HE AAC v1 5.1:	96, 112, 128, 160, 192, 224, 256 Kbps
Dolby E-Pass Through	*Under the audio input source of Dolby-E only
Delay	-100 ~ 400 ms

Dynamic PSIP Input

Transport Stream:	One ASI port
Connector:	BNC (75Ω)
Packet Format:	188 Bytes
Input Level:	800mVp-p

ASI Output

Transport Stream:	Two ASI ports
Connectors:	BNC (75Ω)
TS Bit Rate:	MPEG-2: 2.5~60 Mbps; MPEG-4 AVC: 2.5~55 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: 2.5~55 Mbps; MPEG-4 AVC: 2.5~55 Mbps
TS Packet Rate:	188, 204 Bytes

DVB-S

Mode Code:	QPSK, 8PSK, 16QAM
Roll-Off:	0.05 ~ 0.35
BISS:	Mode (1, E Injected, E Buried)
Symbol Rate:	1 ~ 68 Mbauds

DVB-S2

Mode Code:	QPSK, 8PSK, 16APSK, 32APSK
Roll-Off:	0.05 ~ 0.35
BISS:	Mode (1, E Injected, E Buried)
Symbol Rate:	1 ~ 68 Mbauds
Pilot Insertion Operating Mode:	CCM only
Frame Type:	Normal / Short

RF

Reverse Spectrum Tilt Correction:	-0.040 ~ 0.040 dB/MHz
Carrier Modulator Out Level:	-35.00 ~ +5.00 dBm
L-Band:	950 ~ 2150 MHz

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)
LCD Video Preview:	Dimensions (WxH): 1.6 x 1.2 inches (40.56 x 30.48 mm) 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 Temperature:	14 to 122 °F (-10~50°C)

Conformities:



Ordering Info

Satria DSNG Encoder