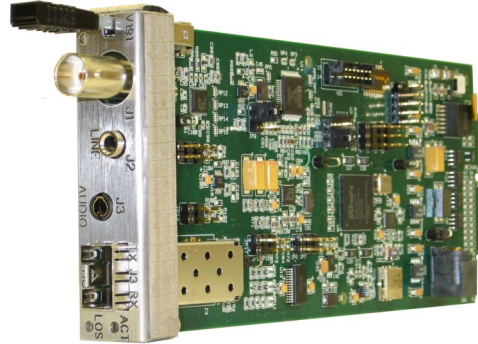


## 9600 SERIES: HD/SD-SDI VIDEO ENCODER MODULE

# TECHNICAL SPECIFICATIONS

### FEATURES

- Real-time, high-quality encoding of full motion video for video-over-IP applications
- Standards-based, H.264 algorithms (HP/MP/BP)
- Resolutions up to 1080p
- Supports HD/SD-SDI Formats
- Transmit video at rates as low as 64Kbps, up to 10Mbps
- RTP/UDP and TS/UDP Protocols
- Video/Audio/Data multiplexing IAW MPEG-2 Transport Standard
- MISB-Compliant
- Fully configurable network interface
- Latency <100ms
- Stereo/dual-channel audio inputs
- MPEG-1 Layer II Audio Compression
- Ethernet User Data
- IRIG-B Overlay
- Remote Set-up via Switch/Control Module
- Multi-channel Packaging



The Model VHE963 HD/SD-SDI Video Encoder Module is part of Delta's 9600 Series Video Processing Chassis. The module is a network appliance designed to compress HD/SD-SDI video for transmission over IP networks. The VHE963 provides a practical, cost-effective means to add High Definition (HD) and legacy Standard Definition (SD) sensors to new or existing IP networks. The module can be combined with other 9600 series modules in the video processing chassis to support video-over-IP applications with diverse video sources. Delta's Video Processing Chassis supports encoding and decoding of HD/SD-SDI, Composite, and DVI/HDMI video formats for ground stations, operations centers, or classrooms.

Utilizing industry-standard H.264 compression, along with flexible adjustments for video resolutions, compression parameters, and network settings, the VHE963 can be configured to deliver high-quality video over any network. The unit is easily configured via the Ethernet port. Audio and user-data channel multiplexing provide for single-stream transmission. The VHE963 is compliant with most off-the-shelf video players.

## 9600 SERIES: HD/SD-SDI VIDEO ENCODER MODULE

### VIDEO INPUT

**Ports** One  
**Format** HD/SD-SDI  
**Connector** BNC

### VIDEO COMPRESSION

**Algorithm** H.264  
**Format** HP/MP/BP  
**Resolutions** 1080p/720p/1080i/480i/576i  
**Scaling** HH/HV/HH-HV  
**Frame Rate** 25/29.97/30/50/59.94/60  
**GOP Structure** Inter/Intra; Infinite/Variable Size

### TRANSPORT STREAM

**Ports** One  
**Protocol** MPEG-2 Transport Stream  
RTP  
**Data Rate** 64Kbps to 10Mbps  
**Format** 10/100 Ethernet IP  
**Configuration** DHCP or Static Address  
Selectable Ports  
Auto Sense Full/Half Duplex  
Unicast/Multicast

### USER DATA INTERFACE

**Ports** One  
**Protocol** Clear/KLV  
**Format** Ethernet

### CONTROL

**Ports** One  
**Format** TCP/IP  
**Protocol** Delta 's 3-character mnemonics/HTML

### AUDIO INPUT

**Ports** One  
**Channels** None, Left, Right, Stereo  
**Format** Balanced (Line Level)  
**Levels** 2.8Vp-p (1Vrms)  
**Impedance** 10K Ohms  
**Connector** 3.5mm

### AUDIO COMPRESSION

**Algorithm** One  
**Format** MPEG-1 Layer I/II  
**Sample Rates** 8K/16Ksps  
**Sync** Lip synchronized with video

### ENVIRONMENTAL

**Temp (Op)** -20°C to +60°C  
**Temp (Storage)** -55°C to +85°C  
**Humidity** 5%-95% RH, non-condensing

### POWER

**Volts** +12VDC  
**Watts** 7W

### SIZE

**Chassis** Compatible with 9600 VPC ( 16-Slot ) & 9680 VPC ( 8-Slot )

