

## MULTI-FORMAT HD/SD CODEC



### FEATURES

- Real-time streaming of up to two HD or SD video channels
- H.264/MPEG-4 AVC ( Part 10 )
- SMPTE/DVI/Composite Support
- 1080p/1080i/720p/480i/p/VESA Compatible; 1-60fps
- MISB/STANAG-compliant MPEG-2 TS multiplexing
- Synchronous serial or Ethernet TS Interfaces
- Fully configurable network interface
- Data Rates from 256Kbps to 20Mbps
- <50ms Encode Latency; <100ms Encode/Decode Latency
- Stereo/dual-channel audio inputs
- MPEG-1 Layer I/II Audio Compression
- Metadata Support in compliance with SMPTE and MISB/STANAG standards ( optional KLV Encoding )
- IRIG-B Time-stamping and Overlay; GPS ( 1pps ) Input
- Front Panel, Serial, or Web Control

The Model 6850 provides flexibility in streaming and distribution of HD/SD video. Utilizing the MPEG-4 AVC (H.264) algorithm, the 6850 provides real-time encoding/decoding for networked applications.

The advanced H.264 compression algorithm provides high quality video encoding at relatively low bit rates, for both HD and SD. Combined with flexible, user-configurable interfaces and the ability to process two channels simultaneously, including simultaneous encode and decode, the 6850 provides flexibility for integrators in military, distance learning, and broadcast applications. The unit is built around an advanced, System-on-Chip (SoC), designed to deliver high quality, compressed video in a wide range of network bandwidths. Low-latency modes ensure true real-time performance for mission critical and live event systems.

The 6850 is compliant with the MPEG-2 Transport layer (ISO-13818-1) for video, audio, and data multiplexing and transmission. The unit provides stereo audio compression in accordance with MPEG-1/Layer II compression algorithm. Synchronous and asynchronous metadata support (KLV and CoT) is a key feature, especially for intelligence, surveillance, and reconnaissance applications. The transport stream can be applied to another 6850 or any compliant hardware or software decoder.

The decoder function allows the integrator to provide an encode/decode solution using the same equipment at both ends. The decoder is a full-featured companion to the encoder, providing simultaneous decoding of two channels, including audio. The decoder has the added feature of restoring SDI-embedded metadata in accordance with SMPTE and MISB standards.

**VIDEO INPUT**

**Ports** Five  
**Format** HD-SDI/DVI/xVGA/YPrPb/CVBS  
**Connector** BNC/DVI/BNC/BNC

**VIDEO OUTPUT**

**Ports** Five  
**Format** HD-SDI/xVGA/YPrPb/CVBS  
**Connector** BNC/DVI/BNC/BNC

**VIDEO COMPRESSION**

**Algorithm** H.264 /MPEG-4 AVC ( Part 10 )  
**Format** H.264 Baseline/Main Profile up to L4.2  
**Resolutions** 1080p/1080i/720p/480i/p/VESA  
**Frame Rate** 1-60fps  
**GOP Structure** Inter/Intra; Variable Size incl. Infinite

**TRANSPORT STREAM**

**Ports** Two  
**Protocol** ISO/IEC 13818-1  
 MPEG-2 Transport Stream  
 Video/Audio/Data  
**Data Rate** 1Mbps to 20Mbps  
**Format** 10/100/1000 Ethernet IP  
**Configuration** DHCP or Static Address  
 Selectable Ports  
 RTP/UDP/IP  
 RTSP  
 Auto Sense Full/Half Duplex  
 Unicast/Multicast  
**Connector** RJ-45  
**Format** RS-422  
**Configuration** Clock/Data  
**Connector** DB-25

**Time Synchronization**

**Ports** Two  
**Protocol** IRIG-106 DC; GPS ( 1PPS)

**AUDIO INPUT/OUTPUT**

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

**AUDIO COMPRESSION**

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

**METADATA INTERFACE**

**Ports** One  
**Protocol** KLV/Clear  
**Format** SDI/Serial/Ethernet  
**Connector** BNC/RJ-45/DB-9S

**LATENCY**

**Encoder/Decoder** 100ms

**CONTROL**

**Ports** Three  
**Format** Front Panel/RS-232/TCP/IP  
**Protocol** Delta 's 3-character mnemonics

**ENVIRONMENTAL**

**Operating temperature range:** 0°C to +60°C

**Non-operating temperature range:** -55°C to + 85°C

**Non-operating / operating relative humidity** 95% Non-condensing

**POWER**

**Input** 96-240VAC  
**Watts** 20W  
**Connector** Standard IEC-320

**SIZE**

**Chassis** 1RU 19 " x 12 " x 1.75 "  
**Weight** 6 lbs.

