DELTA
Digital Video

MODEL 6850
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.

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