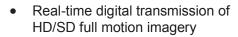


MODEL 6820R

2-CH HD/SD ENCODER

FEATURES



- H.264/MPEG-4 AVC (Part 10) Baseline/Main/High Profiles (Optional MPEG-2)
- HD/SD-SDI or Composite Video Input Interface
- 1080p/1080i/720p/480i/576i
- Primary/Secondary Video Encoding
- MPEG-2 compliant TS multiplexing
- Synchronous Serial or Ethernet TS Interfaces
- Fully configurable network interface
- Data Rates from 128Kbps to 25Mbps
- <50ms Encode Latency
- Stereo/dual-channel audio inputs per channel
- MPEG-1 Layer I/II Audio Compression
- Metadata Support
 - Synchronous VANC
 - Serial

ECHNICAL SPECIFICATIONS

- Ethernet
- Optional KLV Encoding
- MISB/STANAG Compliant
- IRIG-B Time Input (Optional)
- Serial or Ethernet port configurable
- Airborne Qualified Package



The Model 6820R 2-Channel Encoder is an HD/SD video encoder that compresses video and audio signals, multiplexing them with metadata and other system information for real-time video transmission applications. The 6820R is capable of simultaneously encoding two channels of video with resolutions up to 1080p. Utilizing the H.264 (MPEG-4 AVC Part 10) video compression algorithm, the encoder provides high quality video transmission at various resolutions and a wide range of bandwidths. The unit is built on an advanced multimedia architecture that extends encoding to multiple channels without increasing size and power. A "Primary/Secondary" encoding feature enables a second, lower resolution, lower bit rate copy of the video input to be independently configured and streamed simultaneously for a maximum of four streams.

Designed for any airborne application, and specifically military ISR missions, the 6820R is compliant with the full motion video standards developed by the US Government's Motion Imagery Standards Board (MISB). This includes compliance with the video compression, KLV metadata, and transport stream profiles required to ensure interoperability in US and Allied processing, dissemination, and exploitation (PED) systems. Full DO-160/MIL-810 environmental and EMI qualification ensures the 6820R meets flight-worthiness requirements.

The 6820R is easily integrated into any FMV system, providing for legacy composite or S-video inputs and all SMPTE standards. The unit provides Ethernet and synchronous serial transport interfaces along with multiformat metadata interfaces. Serial or Telnet control, and an easy to use web-GUI are provided for encoder set-up.

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2-CH HD/SD ENCODER

VIDEO INPUT

Ports Two independent inputs SD/HD/3G-SDI (SMPTE) or **Format**

Composite, Auto-detect format,

resolution, frame rate

Levels .3Vp-p; 75 Ohms/1Vp-p, 75 Ohms

VIDEO COMPRESSION

Algorithm H.264 /MPEG-4 AVC (Part 10)

Profile Baseline/Main/High

Resolutions 1080p/1080i/720p/480i/576i

Frame Rate 1-60

GOP Structure Inter/Intra; Variable Size

TRANSPORT STREAM

Ports Ethernet or RS-422 **Protocol** ISO/IEC 13818-1

MPEG-2 Transport Stream containing

Video/Audio/Data

128Kbps - 20Mbps **Data Rate**

Ethernet Protocol Transport Stream over UDP,

unicast or multicast

RS-422 Protocol Transport Stream over

synchronous serial interface

ETHERNET INTERFACE

10/100/1000 Base T, **Format**

Auto Sense Bitrate, Auto Detect

Duplex

Configuration **DHCP** or Static Address

METADATA INTERFACE

Ports Asynchronous serial (2), UDP (2),

SDI-VANC (2)

Format KLV or unformatted data

TIME INTERFACE

Ports 1PPS/IRIG-B, SDI-VANC

1PPS Levels 0-10Vp-p; 50 Ohms

CONTROL

Ports Asynchronous Serial (1), Telnet,

Web Browser

RS-232/RS-422 **Serial Levels**

Serial/Telnet Protocol Delta's 3-character command set

AUDIO INPUT

Ports Two independent stereo inputs

Format Balanced (Line Level) Levels 2.8Vp-p (1Vrms)

Impedance 10K Ohms

AUDIO COMPRESSION

Channels None, Left, Right, Stereo **Algorithm** MPEG-1 Layer I/II or ADPCM

Sample Rates

Lip synchronized with video Sync

LATENCY

Encoder <50ms (per channel)

Enc/Dec Tandem <100ms

ENVIRONMENTAL (DO-160D)

DO-160D, Section 4, Category D2 -Temp/Alt (Op)

55°C to +70°C

Temp/Alt (Non-Op) DO-160D, Section 4, Category D2 -

55°C to +85°C

DO-160D, Section 6, Category B Humidity

5%-95% RH, non-condensing

Vibration DO-160D, Section 8, Category S,

Figure 8-3, Profile M

DO-160D, Section 7, Category A, Shock

Figure 7-2, Operational (6g, 11ms,

sawtooth)

EMI

MIL-STD-461E CS101, CS114-116, RS103, RE102,

CE-102

DO-160E Section 18, AF Conducted

Susceptibility

Section 21, Conducted Emissions Section 22, Lightning Pin Injection

Level 3, Waveform 5A

POWER

Volts +28VDC Watts 20W

SIZE / WEIGHT

Chassis 2.5"H x 4.5"W x 7"D / 3.75 lbs.



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