MODEL 6020R

H.264 VIDEO / AUDIO ENCODER, AIRBORNE

TECHNICAL SPECIFICATIONS

FEATURES

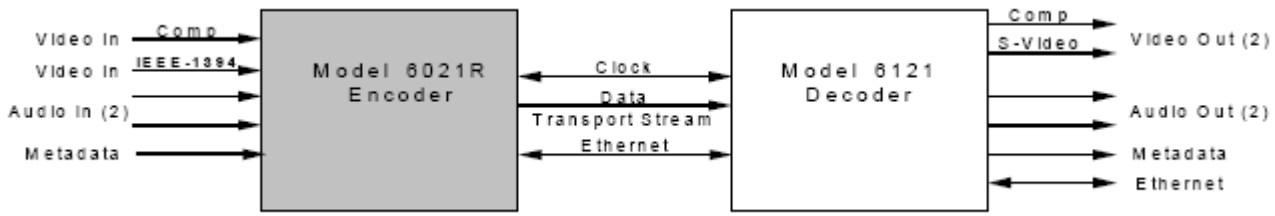
- Real-time digital transmission of high quality video
- H.264 Baseline/Main Profile (ISO/IEC 14496-10)
- Video, audio, and data multiplexing
- NTSC/PAL
- Data rates from 64k to 6Mbps
- Low latency modes
- Multiple resolutions
- Stereo audio
- Synchronized Metadata
- Compact, flightworthy package

MODEL 6020R ENCODER

Delta's Model 6020R is an airborne encoder that compresses video and audio signals, multiplexing them with metadata and other system information for transmission to a remote decoder unit. The 6020R uses the H.264 (MPEG-4 Part 10) video compression algorithm to provide high-quality video even with large compression ratios. The H.264 standard is the latest compression algorithm and is designed to facilitate the transmission of full resolution, full frame rate, motion imagery in less bandwidth than its predecessors (Wavelet/MJPEG/MPEG-2).

The 6020R is easily integrated into most airborne telemetry systems. The standards-compliant transport stream is output on a synchronous serial interface (RS-422) or ethernet port (10/100 Base-T) for direct connection to the data link or recorder. The transport stream can be applied to one of Delta's H.264 decoders or played through an H.264-compliant software decoder.

Control of video, audio, and system parameters permit the user to optimize video performance for any given bandwidth. Control is provided through a Windows application via an RS-232 port or the embedded Web server.



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MODEL 6020R

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VIDEO INPUT

Ports	Two
Input 1	
Format	NTSC/PAL Composite
Levels	Comp: 1.0Vp-p/75 Ohms
Connector	TNC
Input 2	
Format	IAW 1394-based Camera Specification, Version 1.3
Connector	Circular MIL

VIDEO COMPRESSION

Algorithm (2)	ISO/IEC 14496-10 H.264 Baseline/Main Profile ISO/IEC 13818-2 MPEG-2 MP@ML
Modes	H.264: I-Only/IP MPEG-2: I-Only/IP/IPB
Resolution	D1/2CIF/CIF
Frame Rate	1-30 (25 for PAL)

MULTIPLEX

Protocol	ISO/IEC 13818-1 MPEG-2 Transport Stream Video/Audio/Data

TRANSPORT STREAM

Ports	Two
Interface 1	Synchronous Serial(RS-530)
Levels	RS-422
Data Rate	64Kb to 10Mbps
Connectors	Circular MIL
Interface 2	10/100 Ethernet IP
Format	UDP/IP
Data Rate	64Kb to 10Mbps
Configuration	DHCP or Static Address Selectable Ports Unicast/Multicast
Connector	Circular MIL

METADATA (USER DATA)

Levels	RS-232
Connector	Circular MIL

AUDIO INPUT

Ports	One
Channels	None, Left, Left and Right*
Format	Balanced (Line Level)
Levels	2.8Vp-p (1Vrms)
Impedance	10K Ohms
Gain	0 to 64 db*
Connector	Circular MIL

AUDIO COMPRESSION

Algorithm	ADPCM
Sample Rates	8K/16K/32Ksps
Synchronization	Lip synchronized with video

CONTROL

Ports	Two
Port 1	
Protocol	Windows Application
Levels	RS-232C
Connector	Circular MIL
Port 2	
Protocol	TCP/IP
Platform	Windows
Connector	Circular MIL

ENVIRONMENTAL

Temperature	-40°C To +85°C
Vibration	MIL-STD-810F, Method 514.5
Shock	MIL-STD-810F, Method 516.5
Humidity	MIL-STD-810F, Method 507.4
EMI/EMC	MIL-STD-461

POWER

Voltage	+28VDC (IAWMIL-STD-704/641)
Power	7 Watts
Connector	Circular MIL

SIZE

Dimensions:	1.6”H x 4.5”W x 7”D
Weight:	2.1 lbs.

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