

FEATURES

- Real-time, secure, full-motion video over any digital or analog datalink
- H.264 video compression for full-motion video even at low bit rates (Optional MPEG-2)
- Multiple output interfaces (Pre-mod, UDP-IP, Synchronous Serial)
- MISB/STANAG Compliant
- Metadata Support (optional KLV Encoding)
- <100ms Latency
- Fully configurable network interface
- Data Rates from 64Kbps to 6Mbps
- Stereo/dual-channel audio inputs
- MPEG-1 Layer I/II Audio Compression
- RS-232 or Ethernet port configurable
- Compact, lightweight
- -20°C to +71°C Operation



Delta's Model 6005R H.264 Video Encoder provides for the transmission of full-motion video for ISR applications. Primarily designed for small aircraft, the 6005R is a rugged, compact unit with all the features of Delta's JITC certified video encoder products. These include video compression, metadata processing and transport stream multiplexing.

Utilizing MPEG-4 AVC (H.264) encoding, the 6005R provides flexibility for optimizing video performance for any given bit rate. User-configurable parameters permit the user to adjust the video/audio/data features in accordance with mission requirements.

The 6005R also provides a pre-mod output for direct connection to existing analog video transmitters (i.e. FM). The encoder, combined with the companion 6105 decoder, converts these analog video links to digital formats with network distribution capabilities and without the need to replace or modify the transmitters and receivers. Standard Ethernet and synchronous serial interfaces also make these units "drop-ins" for digital datalink applications.

The 6005R is built around an advanced, high-speed DSP media processor working with fully optimized codecs. It is compatible with other Delta products and can be easily integrated with other manufacturers' standards-compliant equipment. Delta's technology has been integrated, tested, and flown in numerous applications with various airborne platforms and is compatible with MISB and STANAG standards.

VIDEO

Input/Output Composite
Format NTSC/PAL
Connector 25p Pin, Micro-D

AUDIO

Ports Two
Channels None, Left, Right, Stereo
Format Single-ended Line Level
Levels 2.8Vp-p (1Vrms)
Impedance 10K Ohms
Connector 25p Pin Micro-D

METADATA INTERFACE

Protocol KLV/Clear
Format RS-232/Ethernet
Connector 25 Pin Micro-D

CONTROL

Ports Two
Format RS-232/TCP/IP
Protocol Delta's 3-character mnemonics

POWER

Encoder
Input 18-36VDC
Watts 4W
Connector 25 Pin, Micro-D

TRANSPORT STREAM I/O

Ports Three
Format PCM/RS-422/UDP/IP
Connector 25 Pin Micro-D

SIZE

Encoder 2" x 5" x 1"

VIDEO COMPRESSION

Algorithm H.264 /MPEG-4 AVC (Part 10)
Format H.264 Baseline/Main Profile
Resolutions D1/2CIF/CIF
GOP Structure Inter/Intra; I/IP

AUDIO COMPRESSION

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

TRANSPORT STREAM

Protocol ISO/IEC 13818-1
MPEG-2 Transport Stream
Video/Audio/Data
Data Rate 64Kbps to 6Mbps
Format 10/100 Ethernet IP
Configuration DHCP or Static Address
Selectable Ports
Unicast/Multicast

LATENCY

Encoder/Decoder <100ms

ENVIRONMENTAL (Encoder)

Temp/Alt (Op) DO-160D, Section 4, Category D2
-20°C to +71°C
Temp/Alt (Non-Op) DO-160D, Section 4, Category D2
-55°C to +85°C
Humidity DO-160D, Section 6, Category B
5%-95% RH, non-condensing
Vibration DO-160D, Section 8, Category S,
Figure 8-3, Profile M
Shock DO-160D, Section 7, Category A,
Figure 7-2, Operational
(6g, 11ms, sawtooth)

