

FEATURES

- Real-time digital transmission of HD/SD Full Motion Video (FMV)
- H.265 HEVC / H.264 AVC
- SD/HD/3G-SDI or Composite Video Input Interface
- 1080p/1080i/720p/480i/576i
- TS/UDP and RTSP/RTP/UDP Protocols
- MPEG-2 compliant TS multiplexing
- 10/100/1000 network interfaces
- Data Rates from 64Kbps to 20Mbps
- <50ms Encode Latency
- Stereo/dual-channel audio inputs
- MPEG-1 Layer II Audio Compression
- Metadata Support
 - ◆ Synchronous VANC
 - ◆ Serial
 - ◆ Ethernet
 - ◆ KLV Encoding
- MISB/STANAG Compliant
- IRIG-B/1PPS Time Input
- Serial or Ethernet port configurable
- Rugged, Industrial Package w/ Extended Temperature Operation



The Model 5584E 4-Channel H.265 Video 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 5584E is capable of simultaneously encoding four channels of video with resolutions up to 1080p. Utilizing the H.265 (HEVC) video compression algorithm, the encoder provides high quality video transmission at various resolutions and a wide range of bandwidths. The H.265 compression algorithm utilizes highly bit-efficient coding to provide encoded streams at nearly half the bandwidth of its H.264 (AVC) predecessor. The unit is built on an advanced, low-power multimedia architecture that provides the horsepower for the computationally intensive H.265 algorithm, providing bandwidth efficiency for multi-channel applications. This increased efficiency allows for more channels to be transmitted over a given bandwidth, better quality video for constrained bandwidth applications, or lower bandwidth operation to extend the limits of ISR operation and reduce storage size requirements. The 5584E also provides an H.264 mode to support legacy infrastructures while providing a future growth path to H.265.

The 5584E is a compact, industrial package utilizing conduction cooling for operation in less than ideal environments and 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.

The 5584E is easily integrated into any video network, providing support for legacy composite and all SDI standards. The unit provides Ethernet and synchronous serial transport interfaces along with multi-format metadata interfaces. Encoder set-up is accomplished via a serial port along with a second Ethernet port for Web or Telnet management.

VIDEO INPUT

Ports 4 independent inputs
Format SD/HD-SDI (SMPTE) or Composite (2x) , Auto-detect format, resolution, frame rate
Levels .3Vp-p; 75 Ohms/1Vp-p, 75 Ohms

VIDEO COMPRESSION

Algorithm H.265 HEVC / H.264 AVC
Profile CBP, MP, M10P / BP, MP, HP
Resolutions 1080p/1080i/720p/480i/576i
Frame Rate 1-60
GOP Structure Inter/Intra; Variable Size

TRANSPORT STREAM

Format Ethernet
Protocol ISO/IEC 13818-1
MPEG-2 Transport Stream containing Video/Audio/Data
Transport Stream over UDP, unicast or multicast
RTSP/RTP over UDP
Data Rate 64Kbps - 20Mbps

ETHERNET INTERFACE

Ports Two (Streaming & Management)
Format 10/100/1000 Base-T, Auto Sense Bitrate, Auto Detect Full Duplex
Configuration DHCP or Static Address

METADATA INTERFACE

Format Asynchronous serial (2), UDP, SDI-VANC (4)
Protocol KLV or unformatted data

TIME INTERFACE

Ports 1PPS/IRIG-B, SDI-VANC
1PPS Levels 0-10Vp-p; 50 Ohms

CONTROL

Ports Asynchronous Serial, Telnet/SSH, Web Browser (HTTP/HTTPS)
Serial Level RS-232

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
Sample Rates 48Ksps

LATENCY

Encoder <50ms (per channel)

ENVIRONMENTAL

Op Temperature -40°C - +71°C (Conduction Cooled)
Storage Temperature -55°C - +85°C
Humidity 5-95% Non-condensing
Altitude -2,000Ft to +50,000Ft

POWER

Volts +9VDC to +36VDC
Watts 15W

SIZE / WEIGHT

Chassis 1.745"H x 5.49"W x 6.04"D / 3.75lbs
44.55mm x 139.45mm x 153.42mm/1.7Kg

