

MGES 6000

HD/SD H.264 Broadcast Quality Encoding Blade



Advanced quad-channel encoding blade offers real-time AES 256/128-bit encryption, secondary stream functionality and best-in-class video compression of HD/SD-SDI, analog (composite), and HDMI signals.

The converged MGES 6000 blade encodes four high quality HD and SD sources, with the option of combining up to 13 blades for 52 encoded channels in a single platform. In addition to primary HD/SD streams, the MGES 6000 generates secondary streams that can range from very low bit rates to full HD resolution, doubling streaming capacity to 104 streams. Optibase Smoothing™ algorithm guarantees low jitter for flawless delivery of excellent video quality over any network.

The flexible MGES 6000 H.264 HD encoder offers a full range of bit rates and resolutions that make it ideal for enterprise, military, broadcast and Telco industry applications. It supports advanced audio formats such as Dolby 5.1 and Dolby 7.1, and encodes HDMI sources with protected and unprotected signals (HDCP).

Integrated AES-256 and 128-bit encryption assures secure delivery of Full Motion Video and IPTV content over IP. Seamless integration with the Optibase EZ TV Player enables end-to-end channel encryption as well as delivery of customized lineups of live and on-demand video content to every PC, TV and mobile devices throughout an organization or across the WAN.

MGES 6000 is fully supported by the Optibase Cluster Manager (CM) System, which provides global system monitoring and control, as well as automated N+K redundancy to ensure high availability operation 365x24x7.

MGES 6000 is available in the following configurations:

- 4 x High definition / Standard Definition
- 4 x Standard Definition
- 2 x High Definition + 2 x Standard Definition

All blade configurations are upgradable to 4x HD/SD with just a firmware upgrade, without replacing any hardware.

Benefits

- Up to 104 HD/SD main and secondary stream channels
- Superior video quality at all bit-rates, from low bit rate streaming to broadcast-quality delivery
- Real-time AES encryption secures content and metadata
- High availability for mission critical applications
- User-friendly GUI for easy configuration, monitoring and control
- Successfully deployed by broadcasters, governments, militaries and Fortune 500 companies

Key Features

- Bit rates: 150 Kbps - 15 Mbps
- Supports secondary stream capabilities for applications such as picture-in-picture (PiP)
- 256-bit encryption
- HD/SD-SDI, analog (composite), and HDMI inputs
- Support for Dolby 5.1 and 7.1
- Automated N+K redundancy

Technical Specifications

HD Encoding

Video Codec

- Conforms to ISO / IEC 14496-10 (H.264/AVC) High Profile Level 4.0
- 1920 x 1080 59.94i/60i/50i/30p
- 1280 x 720 59.94p/50p
- Chroma sampling: 4:2:0
- Encoding rate: 2 to 15 Mbps
- Aspect Ratios 16:9
- CBR Support
- Support downscaling from HD to SD (Including CIF and QCIF)

Audio Codec

- Up to 2 stereo pairs (embedded in SDI, Unbalanced in Analog)
- Sampling Frequencies: 48kHz
- AAC LC (32 to 384Kbps)
- MPEG 1 Layer 2 (32 to 384Kbps)
- Mono, stereo

SD Encoding

Video Codec

- Conforms to ISO / IEC 14496-10 (H.264/AVC) Baseline and Main Profile Level 3.0
- 720x480x29.97i
- 720x576x25i
- Chroma sampling: 4:2:0
- Encoding Rate: 150 Kbps to 6 Mbps
- Aspect Ratio: 4:3 and 16:9
- CBR Support
- Various downscaling options to as low as QCIF resolution

Audio Codec

- Up to 2 stereo pairs
- Sampling Frequencies: 48kHz
- 16bit support
- AAC LC (32 to 384Kbps)
- MPEG-1 Audio Layer 2 (56 to 384kbps)
- Mono, stereo

Closed Captioning

- CEA 608 from Line 21 and CEA 708 VANC extraction per SMPTE 334M

Inputs and Outputs

Video Inputs

- Up to 4 Serial Digital inputs, 75 Ohms BNC connectors (HD/SD-SDI Interface)
- Up to 4 Composite analog inputs, 75 Ohms BNC connectors (Analog Interface)

Audio Inputs

- Embedded audio up to 2 stereo pairs per video source
- Unbalanced analog audio (RCA connector) up to 2 stereo pairs per video source

Transport Outputs

- MPEG-2 Transport Stream over UDP/IP