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# HERO HEVC ENCODER

## HIGH-QUALITY LOW-BITRATE POINT-TO-POINT VIDEO ENCODER



Media Excel's HERO HEVC Encoder-Decoder product line is ideal for point-to-point video distribution. Offering professional quality and proven reliability HERO Encoder product line is the perfect solution for content gathering, head-end feeds, confidence feeds with the flexibility to deliver high quality video anywhere you need. Content distributors, aggregators, broadcasters and operators can capture, contribute and distribute live video content with confidence and efficiency.

Paired with Media Excel's HERO Transcoder product line, HERO Encoder product line leverages Media Excel's 15+ years of leadership in encoding/decoding technologies to provide an ecosystem-wide video delivery solution.

### PRODUCT LINES

- > **HERO 5000E HEVC**  
HEVC low-bitrate contribution/distribution encoder for IP/ASI networks.
- > **HERO 5000D HEVC**  
Multi-channel multi-format contribution/distribution decoder for IP/ASI networks.
- > **NETWORK MANAGEMENT SYSTEM (HMS)**  
Central configuration & monitoring platform for contribution, distribution and multi-screen transcoding services.

### APPLICATIONS

- > NEWS GATHERING
- > CONTENT AGGREGATION
- > TELEPORT SERVICES
- > DIGITAL TURN-AROUND
- > IPTV & OTT CONTRIBUTION
- > REGIONAL DISTRIBUTION

### KEY FEATURES

- > Up to Full HD video
- > HEVC hierarchical encoding
- > Superior bandwidth efficiency
- > Highest video quality across the delivery chain
- > Enhanced error resilience and recovery
- > Superior performance and scalability

### HERO 5000E HEVC

#### Point-to-Point HEVC Encoder for IP & ASI Networks

HERO 5000E HEVC is an encoder platform specifically designed for efficient point-to-point distribution over IP & ASI networks. It delivers HEVC video for SD or HD workflows at a fraction of the bitrate used by AVC/H.264 or MPEG-2 workflows.

HERO 5000E HEVC relies on a fully redundant 1RU chassis and Media Excel's state-of-the-art video processing technologies to deliver highly available services for mission-critical applications. The Web-based management and configuration interface provides full control of the operating needs, while the front panel LCD and keypad enable quick access to pre-configured profiles.

Further, FEC Pro MPEG support enables delivery over unreliable transports and HERO 5000E HEVC's exceptional encoding efficiency dramatically reduces bandwidth utilization. Those features reduce the overall operating expenditure of contribution/distribution services considerably.

Despite the high-end feature-set and modular yet robust design, HERO 5000E HEVC encoder remains very cost-effective and affordable. Finally, its software-based architecture and abundant processing capacity makes it field-upgradable and future-proof.

## HERO 5000E HEVC - ENCODER

### INPUT

#### VIDEO

- SD-SDI (SMPTE 259M) 625/525
- 10-bit SD SDI (SMPTE 259M) 625/525
- 10-bit HD SDI (SMPTE 292M)
- HDMI (Type A) \*
- Component Video (3 BNCs)
- S-Video, Composite NTSC/PAL
- MPEG-2, AVC/H.264 over TS/IP/GigE \*
- Sync Input, Black-burst/Tri-level
- Sampling 4:2:2

#### HD FORMAT

- 720p50, 720p59.94, 720p60
- 1080p23.98, 1080p24, 1080p25
- 1080p29.97, 1080p30
- 1080i50, 1080i59.94, 1080i60

### OUTPUT

#### VIDEO

- HEVC/H.265 4:2:0 8-bit
- SD: 0.1 – 6Mbps
- HD: 0.5 – 20Mbps

#### HD FORMAT

- 720p50, 720p59.94, 720p60
- 1080p23.98, 1080p24, 1080p25
- 1080p29.97, 1080p30
- 1080i50, 1080i59.94, 1080i60

#### TRANSPORT

- MPEG-2 TS over UDP, unicast/multicast
- SPTS MPEG-2 TS over DVB-ASI \*
- MPEG-2 TS, DVB, ATSC
- FEC ProMPEG (SMPTE 2022) \*
- VBR or CBR (null padding)

#### AUDIO

- 8 channels embedded in SDI
- 2 channels embedded in HDMI
- 2 channels unbalanced AES/EBU
- 4 channels balanced analog (1/4")
- 4 channels MPEG-1, AAC, AC-3 in TS/IP \*
- Sampling 48kHz/24bit

#### SD FORMAT

- 625/25 PAL
- 525/23.98 NTSC
- 525/29.97 NTSC

#### AUDIO

- Dolby E/AC3/AC3+ (Pass-through)
- AAC-LC/AAC-HE (MPEG-2, MPEG-4)
- Multi-channel AAC (5.1) \*
- MPEG-1 Layer I & II

#### SD FORMAT

- 576i PAL
- 480i NTSC
- PiP or lower resolutions also available

#### Configurable PMT/PAT

- Configurable PMT/PAT
- SCTE-35 insertion \*
- Dual/redundant GigE/ASI output

### PROCESSING

#### VIDEO HEVC

- HM11 compliant
- Configurable GOP length
- Deblocking & SAO loop filters
- Hierarchical coding
- Perceptual rate control
- CBR, VBR and Capped VBR
- Scene change detection

#### AUDIO

- Re-sampling, down-mix options
- Audio level monitoring
- Audio gain control
- Dynamic audio normalization
- Multiple audio tracks/languages

#### PRE/POST-PROCESSING

- Content adaptive de-interlacing
- De-blocking & noise reduction filters
- VBI black out
- Frame cropping
- Frame scaling with anti-aliasing options
- Contrast/Brightness/Gamma control
- Smoothness/Sharpness control
- Aspect ratio detection & adaptation
- Graphic/Logo overlay with alpha color

### MANAGEMENT

#### CONFIGURATION

- Embedded Web Server
- Front panel with LCD/Keypad
- Import/Export/Backup of configuration

### CHASSIS

#### FORM FACTOR

- 1U standard 19" wide (rack mount)
- 1.75" (44mm) high x 27" (68cm) deep
- 24lb (11kg)

#### POWER SUPPLY

- Auto-switch AC 90-264V (47- 63Hz)
- 600w

#### ENVIRONMENTAL

- Operating temp: 0 to 50° C (32 to 122° F)
- Storage temp: -20 to 65° C (-5 to 150° F)
- Humidity: 5 to 90 %
- Shock: 10G / 11ms in all axis
- Vibration: 0.8G / 5 to 100 Hz

#### MONITORING

- SNMP (MIB v.2) with traps/alarms
- Configurable audio visual alarms
- Remotely upgradable

#### REDUNDANCIES

- Redundant HDD \*
- Dual hot-swappable power supply \*
- 4 GigE ports with teaming/bonding

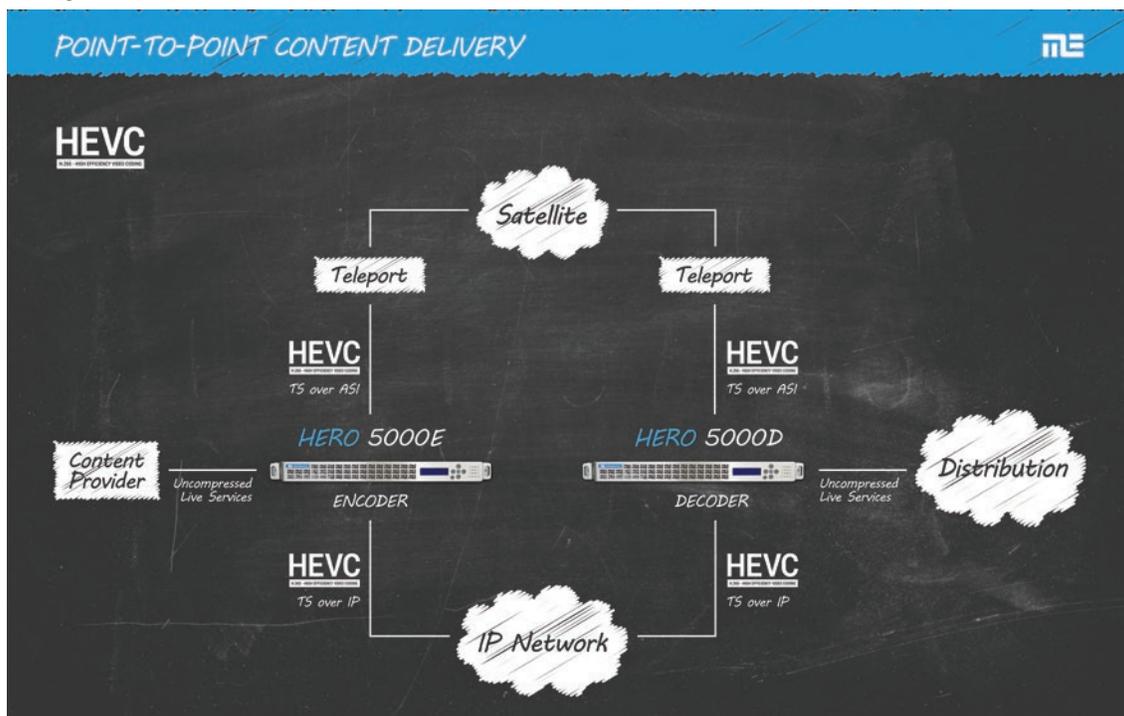
#### DISPLAY & INTERFACE

- 32-character liquid crystal display (LCD) control panel (2x16) with backlight

#### CERTIFICATIONS & COMPLIANCE

- FCC Class A
- CE/RoHS 5-compliant
- WEEE-compliant
- EN61000-6-2 EN55022/24 EN60950:2000
- UE 89/336/EEC, UE 73/23/EEC

\* Option available in specific models only.  
- Specifications subject to change without notice.



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