Media Excel’s portable HERO Intelligence Encoder (HERO IE) is a multi-channel, multi-format, encoding solution designed for remote location, high quality and mission critical Intelligence, Surveillance & Reconnaissance HEVC/AVC encoding applications.

**APPLICATIONS**
- INTELLIGENCE
- SURVEILLANCE
- RECONNAISSANCE
- MEDICAL
- REGIONAL CONTRIBUTION
- CONTENT AGGREGATION

**RELATED PRODUCTS**
- **HERO 5000IE INTELLIGENCE ENCODER**
  Intelligence, Surveillance & Reconnaissance HEVC/AVC encoder.
- **HERO 5000L LIVE ENCODER/TRANSCODER**
  Multiscreen Encoder/Transcoder for Live.
- **HERO 5000C CLOUD TRANSCODER**
  HERO virtualized software running on your hardware for Live and VoD cloud transcoding services.
- **HERO MANAGEMENT**
  Centralized network management solution.

**KEY FEATURES**
- HEVC & AVC encoding up to 1080p
- Superior video quality and compression efficiency
- Proven & reliable multi-channel, multi-rate solution
- Compact/portable form factor with redundant PSU
- Uncompressed and compressed inputs
- 2 HD HEVC Channels per 1RU platform
- Local & remote monitoring and control
- JITC MISP Lab certified for:
  - MISP Version 5.5, up to MISM Level 14
  - up to 1080p H.264 High Profile
  - Asynchronous & synchronous metadata

**HERO INTELLIGENCE ENCODER**

For those special operations that require pushing out live content to multiple devices and formats, look to an encoding platform with the pedigree to handle multiple sensor feeds with pristine quality and real-time video performance. With its HD HEVC AND AVC ENCODING CAPABILITIES, HERO IE is the best platform to handle the challenges of remote ISR/ISTAR live encoding applications. It has all the high-end features and comprehensive workflow necessary to get the live signal from the sensor output to local and global ISR teams on any device and any format using the MOST EFFICIENT COMPRESSION STANDARD FOR YOUR EXISTING TRANSPORT PIPELINES. HERO IE leverages Media Excel’s 15 years of leadership in encoding/decoding technologies for high-end defense and civilian deployments worldwide.

With its exceptional quality and proven reliability, HERO IE is the perfect solution for:
- Single or multiscreen field-operation content encoding
- Delivery of high quality video, with lowest latency and superior bandwidth efficiency anywhere you need
**HERO INTELLIGENCE TECHNICAL SPECIFICATIONS**

**INPUT**

- **PORTS**
  - HD/SD-SDI (up to 8 ports)
  - SDI HD/SD
  - 2 AV2
  - MPEG-2 TS via DVB-ASI or RTP/UDP
  - MPEG-2 TS FEC ProMPEG SMPTE 2022
  - RTMP
  - HLS
  - Virtual Playout: 3GP, AVI, DNxHD, DVCPRO, FLV/F4V, IMX, MXF, MPEG, MOV, MP4, ProRes, TS, WMV, XDCAM, JPEG, PNG

- **CODECS/FORMATS**
  - H.264/AVC
  - MPEG-2
  - PCM
  - MPEG-1 Audio Layers I, II & III
  - AAC/AAC-HE (MPEG-2, MPEG-4)
  - AC-3 (DD), E-AC-3 (DD+)

**OUTPUT**

- **STREAMS**
  - Apple HTTP Adaptive (HLS)
  - Adobe RTMP
  - Microsoft Smooth Streaming
  - MPEG-DASH
  - RTP/RTSP ISMA, 3GPP, 3GPP6 multi-rate

**NETWORK**

- Gigabit ethernet (up to 6 ports)

**ENCODING & TRANSCODING FEATURES**

**PRE-PROCESSING**

- Automatic & manual Program selection
- Aspect ratio detection (AFD, V-index, WSS)
- VBI black-out control
- Contrast/Brightness/Gamma control
- Audio gain control
- Error concealment logic
- De-blocking & noise reduction filters
- Content adaptive de-interlacing
- Frame scaling with anti-aliasing options
- Smoothness/Sharpness control
- Cropping per output
- Graphic overlay (4 layers with alpha color)
- Virtual playout/playlist support (file & live)
- Timecode burn-in
- EIA 608/708, OP-47, DVB-Sub burn-in

**POST-PROCESSING**

- Adaptive/multi-rate output
- NTP-synced, GOP-aligned outputs
- Multiple audio tracks/languages output
- Multiple publishing points for redundancy
- Auto-generation/retrieval of DRM keys
- Network traffic shaping/smoothing
- Aspect ratio adaptation
- Streaming & recording modes
- WebDAV/FTP/HTTP support
- R-sync/reverse-proxy support
- CDN authentication and publishing
- PlayReady v.2, AES & CENC encryption
- DRM/CA KMS integration

**MANAGEMENT/CONTROL**

- Central management of Live & File flows
- Web-based management console
- SOAP/XML & REST APIs
- LDAP-based multi-tier user authentication
- Batch, secure remote firmware upgrade
- LDAP-based template/relay & VLAN support
- Task scheduler
- NAS integration (NFS, SAMBA)

**MEDIASERVERS/OVPs**

- Adobe Media Server - Primetime
- Microsoft Windows Media Server (IIS)
- MediaMelon SmartServe
- iStreamPlanet, Kaltura, Brightcove
- PlayReady v.2, Google Widevine, Vualto

**CDNs**

- Akamai, EdgeCast, Level3, Octoshape, Limelight Networks

**DRM/CAS/KMS**

- BuyDRM, CoreTrust, Irdeto, Verimatrix
- Apple HLS native AES-128, Microsoft PlayReady v.2, Google Widevine, Vualto

**CHASSIS**

- Form Factor
  - 1U standard 19” wide (rack mount)
  - 1.75” (44mm) high x 16.9” (429mm) deep
  - 16.5 lbs (7.5 kg)

- Power Supply
  - Auto-switch AC 90-264V (47-63Hz) 400W

**SYSTEM CONFIGURATION TABLE**

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<th>CHANNELS</th>
<th>ENCODING</th>
<th>A/V INPUT</th>
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**RE赃DUNDANCIES**

- Redundant SSD
- Dual hot-swappable power supply
- Up to 6 GigE ports (teaming/bonding)

**CERTIFICATIONS & COMPLIANCE**

- FCC Class A
- CE/ROHS S-compliant
- WEEE-compliant
- EN61326-2-2 EN50322/24
- EN60950-2000
- UL 60950-1
- UL 60950-1

**CONTACT INFORMATION**

- Phone: +1.512.502.0034
- Email: info@mediaexcel.com
- Website: www.mediaexcel.com