

HERO 4K

4K HEVC DECODER

ME
MEDIAEXCEL
EXCELLENCE IN TRANSCODING

4K | **HEVC**
ULTRAHD | H.265 - HIGH EFFICIENCY VIDEO CODING



Media Excel's 4K Ultra HD HEVC Decoders opens the next level of video experiences for customers of premium broadcast, cable and satellite, mobile and OTT/TVE services. The HERO 4K Decoder meets and exceeds the rigorous demands required for UHD/HEVC elevated processing power, using reduced bandwidth transport capacity while providing superior 4K video quality and 60fps motion fluency. HERO 4K Decoder enables production-ready highly available 4K HEVC workflows and is standards compliant and field proven.

Increasingly more operators worldwide trust their most valuable Live content to Media Excel's HERO 4K Encoder/Decoder pair for pristine video quality without compromises. The combined result of 4K pixel density, 60 fps motion fluency and 10-bit color depth is an unmatched viewing experience.

RELATED PRODUCTS

- **HERO 8400.E 4K ENCODER**
4K HEVC Encoder/Transcoder for Live & File.
- **HERO 8400.D 4K DECODER**
4K HEVC Decoder.
- **HERO MANAGEMENT**
Centralized network management solution.

KEY FEATURES

- Pristine video quality and motion fluency
- 60fps 4K Ultra HD decoding
- HEVC/H.265 main and main-10 profiles (4:2:0 and 4:2:2)
- AVC/H.264 BL, MP & HP up to level 5.2
- Unique temporal scalability feature (50/60 and 25/30 fps)
- Single cable 12G SDI output
- GigE and DVB-ASI ingest options
- Standards-compliant and field-proven implementation
- Input, service and platform level failover

HERO 4K DECODER

HERO 4K Decoder is ideal for contribution and point-to-point live content transport, as well as for end-to-end Quality Control applications. It supports Main and Main-10 profiles and up to 4:2:2 chroma sampling. Ingest is through GigE (or DVB-ASI optionally) and output is through a single 12G SDI port (or 4 3G-SDI ports optionally). This efficient, yet flexible, configuration enhances the use cases and overall effectiveness of the product.

HERO 4K Decoder features a fully redundant chassis and Media Excel's state-of-the-art video processing technologies to deliver highly available services for mission-critical applications.

HERO 4K Decoder supports both Satellite and IP delivery networks and ensures redundancy across multiple delivery paths to bridge the migration gap from current satellite distribution to tomorrow's ip delivered CDN and Cloud services.

The HERO 4K Encoder/Decoder solution is a proven, reliable, scalable solution that substantially enhances Quality of Experience for the most demanding yet most profitable audience segments, improving the operator's bottom line and market position.

HERO 4K DECODER TECHNICAL SPECIFICATIONS

INPUT

PORTS

- Gigabit ethernet (up to 4 ports)
- Fibre channel interface *
- DVB-ASI *

AUDIO/VIDEO CODECS

- H.265/HEVC Main and Main-10
- H.265/HEVC Main-10 4:2:2 *
- H.264/AVC BL/MP/HP up to level 5.2
- MPEG-2 MP/HP (4:2:2, 4:2:0)
- PCM
- MPEG-1 Audio Layers I, II & III
- AAC/AAC-HE (MPEG-2, MPEG-4)
- MULTI-CHANNEL AAC (5.1) *
- AC-3 (DD), E-AC-3 (DD+)

FORMATS & FRAME RATES

- 2160p, 1080i, 720p
- 576i PAL, 480i NTSC
- 4:3 and 16:9 aspect ratio
- 23.98, 24, 25, 50 Hz
- 29.97, 30, 59.94, 60 Hz

TRANSPORTS

- MPEG-2 TS via DVB-ASI or RTP/UDP *
- MPEG-2 TS FEC ProMPEG (SMPTE 2022)
- HLS, RTMP
- Virtual playlist/playlist
- Dual/redundant GigE/ASI input
- On-the-fly format detection & change
- Service/PID filtering
- BISS-1/BISS-E *

PROCESSING 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
- De-blocking & noise reduction filters
- Content adaptive de-interlacing
- Frame scaling with anti-aliasing options
- Smoothness/Sharpness control
- Frame Cropping
- Graphic overlay (4 layers with alpha color)
- Virtual playlist/playlist support
- Timecode burn-in
- EIA 608/708, OP-47, DVB-Sub burn-in

VIDEO

- Frame rates (Hz): 1 – 60
- Rate control: CBR, VBR, ABR
- Statistical rate control
- Progressive and interlaced encoding
- High quality frame rate conversion
- Low latency mode
- Temporal scalability feature

AUDIO

- Pass-through option
- Re-sampling, down-mix processing
- Multiple audio tracks/languages
- Dynamic audio normalization
- Loudness management

OUTPUT

PORTS

- Quad 3G-SDI (Level A, B)
- HDMI 2.0 *
- 8 channels embedded in SDI
- 2 channels embedded in HDMI

FORMATS & FRAME RATES

- 2160p
- 1080i, 720p
- 576i PAL, 480i NTSC
- Resolution up/down conversion
- 23.98, 24, 25, 50 Hz
- 29.97, 30, 59.94, 60 Hz
- Frame rate up/down conversion

MANAGEMENT

MANAGEMENT/CONTROL

- Central management
- Web-based management console
- SOAP/XML & REST APIs
- LDAP-based multi-tier user authentication
- Batch, secure remote firmware upgrade
- Configurable audio/visual alarms
- Automatic load balancing

- Service and platform level failover options
- N+M, N+1, 1:1 redundancy options
- SNMP v.2 traps/alarms
- NMS/CMS integration hooks
- NIC bonding/teaming & VLAN support
- Task scheduler
- NAS integration (NFS, SAMBA, HTTP)

SYSTEM CONFIGURATION TABLE

MODEL	SUPPORTED PROFILES
HERO.8400.DT	4K/UHD up to 60 fps HEVC Main and Main-10 4:2:0 8/10-bit
HERO.8400.DF	4K/UHD up to 60 fps HEVC Main and Main-10 4:2:0/4:2:2 8/10-bit

CHASSIS

FORM FACTOR

- 1U standard 19" wide (rack mount)
- 23" (58cm) deep

POWER SUPPLY

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

DISPLAY & INTERFACE

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

REDUNDANCIES

- Redundant SSD *
- Dual hot-swappable power supply
- Up to 4 GigE ports (teaming/bonding)

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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