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## Immediate Release

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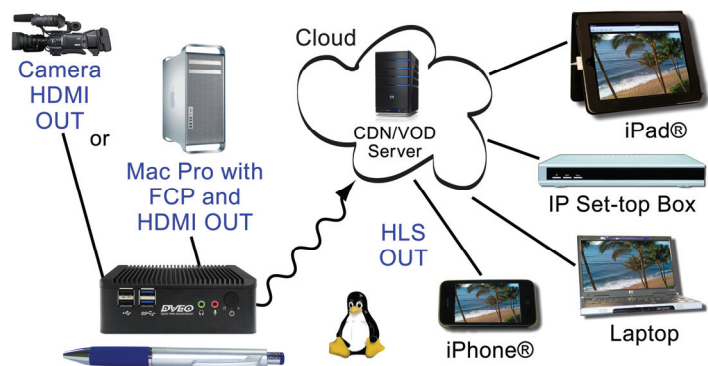
NAB Booth SU5724

# DVEO Introduces Palm-Sized H.264 HDMI Encoder and Decoder with End-to-End Latency of 400 Milliseconds

## Ministreamer™ HDMI/IP and Mini D-Streamer™ IP/HDMI to Debut at NAB 2017

**San Diego, California** -- DVEO®, a well respected supplier to leading telco TV/OTT and cable operators around the world, is now shipping miniature low latency H.264 HDMI encoders and decoders. The single-channel Ministreamer™ HDMI/IP and Mini D-Streamer™ IP/HDMI will make their debut in booth SU5724 at the NAB (National Association of Broadcasters) Show, April 24-27, in Las Vegas, Nevada.

"We shrank the products, and lowered the price and the latency," stated Laszlo Zoltan, Vice President of DVEO. "When used together, the Ministreamer HDMI/IP and Mini D-Streamer IP/HDMI have an end-to-end latency of 400 milliseconds. Both devices are 5.5 inches wide and weigh only 1.6 pounds, which makes them ideal for mobile and event streaming. And we can customize them if needed."

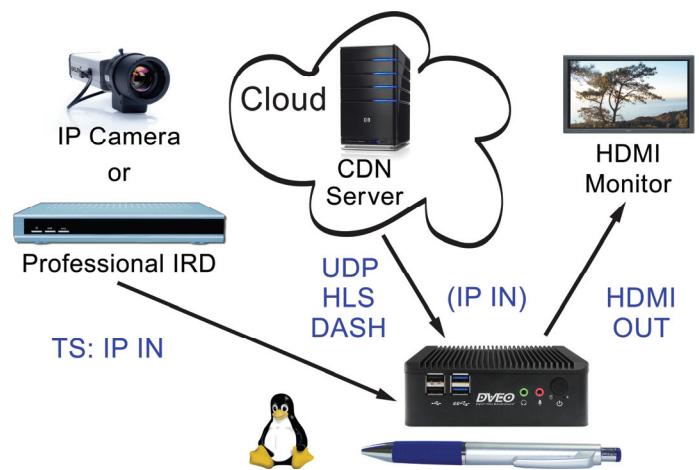


**Miniature Single Channel HDMI H.264 Encoder  
– Ministreamer™ HDMI/IP**

The Ministreamer HDMI/IP encodes a single IP stream at .1 to 60 Mbps. The H.264/AVC output can be scaled to any resolution up to 1080p 30/1080i 60. IP output protocols are DASH, HLS, UDP, RTP, and RTMP (Open Flash). The system can record and stream at the same time with the built-in 32 GB solid state drive inside the unit, or with any USB attached storage.

Audio output is AAC, MPEG Audio, or AC-3. The Ministreamer HDMI/IP also supports logo insertion, text overlay, and SCTE 35 compliant cue tone insertion ("ad markers") on the IP output. An optional SDI/HD-SDI input version, the Ministreamer HD-SDI/IP, is available.

The Mini D-Streamer IP/HDMI decoder supports HLS, HTTP, RTSP, HTML, or RTMP (pushed from Flash server) in and converts H.264/AVC or MPEG-2 compressed digital video and audio into professional digital HDMI output. This device decodes at .1 to 60 mbps. It has been tested for interoperability with third party encoders like Teradek™, Ateame®, Harmonic®, etc. It is ideal for receiving and decoding streaming video from remote sites, content delivery networks (CDNs), or IPTV compatible appliances or players.



**Miniature Single Channel H.264 Decoder  
– Mini D-Streamer™ IP/HDMI**

"The Mini D-Streamer IP/HDMI also makes a great Linux® set-top box," commented Laszlo Zoltan. "We can also add DOZER packet recovery to the device."

For point-to-point or point-to-multipoint applications, DVEO's patented DOZER™ ARQ (Automatic Repeat Request) Automated Packet Recovery protocol can be added to the Ministreamer™ HDMI/IP and Mini D-Streamer™ IP/HDMI, ensuring packet loss free real-time video delivery over IP networks including wireless and the Internet.

The fanless Linux® based systems are manageable from anywhere via the web GUI, which includes some scheduling. The software is scanned for vulnerabilities and open ports.

*DVEO, Mini D-streamer, and Ministreamer are trademarks of Computer Modules, Inc.  
All other trademarks and registered trademarks are the properties of their respective owners.*

## **Supplemental Information for Press Release**

### **Features – Ministreamer HDMI/IP:**

- Inputs: One HDMI input
- Optional SDI/HD-SDI input version available
- Supports stream archiving
- Outputs: One encoded output up to 1080p30/1080i 60
- IP output protocols: UDP, RTP, DASH, HTTP Live (HLS), RTMP (Open Flash)
- Supports logo insertion, text overlay, and SCTE 35 compliant cue tone insertion ("ad markers") on IP output
- Web GUI is manageable from anywhere – includes some scheduling
- Able to upconvert incoming SD streams to HD, and scale down
- Tested with leading CDNs (Verizon®, Akamai®, Tulix™, Ustream®, etc.)
- Supports Octoshape™, Akamai® BCC, and Verizon® upLynk natively
- Supports H.264 High Profile @ Level 4.0 (HP@L4)
- Supports 1080i, 1080p, 720p, 576i, 480i, 480p, CIF, QCIF, qHD, H.264up and many others, and custom resolutions
- Supports 50 HLS users natively. Optional built-in server supports 1,000+ simultaneous HLS, DASH, and/or RTMP users.
- Support for Variable Bit Rate (VBR) encoding maximizes adaptive streaming video quality and bandwidth efficiency
- Tested to work with ATLAS™, Wowza®, and Adobe® Flash® media servers
- Tested compatible with major brands of IP devices including Amino™, Roku®, Dune HD™, Telergy, Android™, and Apple iPad® and iPhone®
- Tested compatible with major brands of professional H.264 decoders and video servers
- SNMP, REST, SOAP support for remote management and monitoring
- Supports DOZER™ protocol option

### **Features – Mini D-Streamer IP/HDMI:**

- Supports both HD and SD H.265/HEVC and H.264/MPEG-4 AVC or MPEG-2 decoding
- Input: Bursty or smooth IP (H.265, H.264, or MPEG-2)
- Output: HDMI
- Security scanned for vulnerabilities
- IP Input protocols: HTTP Live (HLS), UDP, RTP, RTSP, HTTP, RTMP (pushed from Flash server)
- Supports H.264 High Profile @ Level 4.0 (HP@L4)
- Supports MPEG-2
- Supports 1080i, 1080p (30 fps), 720p, 480i, 480p, CIF, QCIF, qHD, H.264up and many others, and custom resolutions

- Supports HDTV output formats SMPTE-274M/SMPTE-296M-2001, ITU-R BT.656
- Color Space: 4:2:0 for H.264
- Audio Input: AAC, MPEG Audio, or AC-3
- Audio Output: Embedded
- Remote GUI includes some scheduling
- Can be used to store or time-delay incoming stream with optional storage add-on
- SNMP, REST, SOAP support for remote management and monitoring
- Processor Supports Octoshape™ Client on GUI
- Supports DOZER™ protocol option

**Suggested Retail Prices:**

Mini D-Streamer IP/HDMI: \$1,995 U.S.

Mini D-Streamer IP/HDMI+DOZER: \$2,895 U.S.

Ministreamer HDMI/IP: \$1,995 U.S.

Ministreamer HDMI/IP+DOZER: \$2,895 U.S.

Ministreamer HD-SDI/IP: \$2,095 U.S.

Ministreamer HD-SDI/IP+DOZER: \$2,995 U.S.

**About DVEO®**

DVEO is a well established, privately held entity headquartered in San Diego, California, since 2001. DVEO develops and sells broadcast quality video encoding and streaming products, media servers and ad insertion solutions to leading Telco TV/OTT and cable operators around the world. The DVEO solutions enable multi-screen service delivery to any device, anytime, anywhere in the world. Deployment models include turnkey installations and cloud-based service delivery. All solutions are built on Linux OS and Intel Xeon-based platforms to ensure 24x7 reliability, and feature DVEO-developed software for maximum flexibility and upgradability, ensuring long term investment protection. These ultra-reliable products are matched by valuable pre-sales consultancy, outstanding post-sales service and support, and -- not least -- unusual affordability.

For more information on DVEO, please contact Rebecca Gray at +1 (858) 613-1818 or [rebecca@dveo.com](mailto:rebecca@dveo.com). To download the DVEO press releases and product images, visit the news section at [www.dveo.com](http://www.dveo.com).

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