



# Gryphon PVE-5

## HEVC 4K Contribution Video Encoder / DVB-S/DSNG/S2/S2X Modulator

High performance, ultra-low latency, professional HEVC 4K video encoder/modulator.



### VISION + INNOVATION

#### Purpose Built for Outside Broadcasting

More than 20 years of real world outside broadcasting experience went into the design of the **Gryphon PVE-5**. Earlier generations of DTVI's encoder family have been deployed in almost every country in the world, helping broadcast customers tackle the unique and demanding challenges of news and sports contribution. DTVI's **Gryphon PVE-5** Contribution Encoder builds upon those achievements while delivering new levels of performance including HEVC 4K, ultra-low latency (< 1 frame), and multi-channel encoding.

#### Breaking News Won't Wait, Why Should You

Setting up a video encoder can be challenging at the best of times. Errors made while configuring encoders with complex menu trees in the high-pressure environment of a major sports or news event can prevent live shots from getting through. **Gryphon PVE-5** has been designed to enable operators, who might not be experts in video compression, to set up contribution links quickly and easily – getting **on-the-air in less than 60 seconds**. Extremely intuitive menus and front panel controls allow operators to define and enable compression and modulation parameters with only minimal training. For users who prefer Web based control, the built-in Browser interface is equally intuitive and easy to use.

#### Ready to Grow with Your Business & Fully Robust and Customizable

At DTVI we understand that your needs may change over time. **Gryphon PVE-5's** flexible, software license-based architecture allows you to purchase only those features required today, and upgrade to a more advanced feature set such as DVB-S2X and 128APSK as your requirements evolve. With a highly flexible and functional modulator, and the ability to add features such as an internal multiplexer, BISS encryption, and advanced audio and video formats, the **Gryphon PVE-5** is capable of changing to meet your business needs.

#### Outstanding Compression Performance

While everything else is important, impressive audio and video quality is critical to successful broadcasting. The **Gryphon PVE-5** delivers industry leading video and audio compression quality with compression optimized for low latency News and Sports applications. Advanced features such as dynamic GOP; scene change; fade; and skin tone detection, allow for optimal picture quality. The **Gryphon PVE-5** is inherently a low delay encoder supporting 4:2:2 and 4:2:0 compression for interview transmissions, and single camera feeds can take advantage of extended GOP structures to provide outstanding video quality at industry leading low bit rates.

#### Reduce Bandwidth & Transmission Cost

The combination of DVB-S2/S2X modulation and **Gryphon PVE-5's** advanced HEVC compression allows operators to deliver outstanding audio and video feeds at a much reduced satellite bandwidth cost.

- Flexible HW/SW Licensable Architecture
- Hardware Fully Customizable
- Full IP / Multiple Ethernet Ports / Multiple ASI Ports
- Modulator up to 128APSK

### Features

- ✓ Professional HEVC 4K Encoder; One channel at 4K, or Four channel at 1080p
- ✓ Ultra-Low Latency (< 1 Frame)
- ✓ Multiple Standards: 4Kp60, 1080p60, 720p, 480
- ✓ ARQ, Transport Stream over IP (SPMTE-2022-1,2); ZIXI Coming Soon
- ✓ Best-in-Class HEVC, MPEG-4 and MPEG-2 4:2:0 & 4:2:2 Video Compression in 8 or 10 bits
- ✓ Flexible ASI Inputs / Outputs via BNC (Up to 4, Configurable I/O)
- ✓ Advanced Audio Compression for Up to 8 Pairs Embedded Audio inputs
- ✓ MPEG Layer 1 or AAC Audio Compression. Future Support for AC3, AC4
- ✓ AC-3 and Uncompressed Audio Pass Through
- ✓ Internal DVB-S/S2/S2X Modulator
- ✓ Up to 6 Ethernet Ports
- ✓ BISS Encryption
- ✓ Internal Multiplexer
- ✓ Dual, Redundant, Hot-Swappable Power Supplies
- ✓ User Interface designed specifically for outside broadcasting
- ✓ Feature set upgradable using software license keys
- ✓ DVB-CID compliant

March 2024. Specifications subject to change without notice.



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STANDARD FEATURES AND SOFTWARE LICENSABLE OPTIONS		HARDWARE OPTIONS	
<b>ASI Input/Output</b>	<ul style="list-style-type: none"> <li>Up to 4x DVB-ASI on BNC (configurable Input / Output)</li> </ul>	<b>Satellite Modulator</b>	<ul style="list-style-type: none"> <li>1 to 68 MSymbol/s in DVB-S</li> <li>1 to 45 MSymbol/s in DVB-S2</li> <li>1 to 45 MSymbol/s in DVB-S2X</li> </ul>
<b>Ethernet Output</b>	<ul style="list-style-type: none"> <li>Up to 6x 100/1000 Base-T RJ-45 (MPEG TS over IP)</li> <li>SMPTE 2022-1,-2</li> <li>ZIXI</li> <li>ARQ</li> </ul>	GRYPVE-HW-IM-MOD	<ul style="list-style-type: none"> <li>IF   70/140 MHz 0 to 25 dBm</li> <li>L-Band High Stability   950 to 2,050 MHz</li> <li>DVB-S, S2, S2X</li> <li>QPSK, 8PSK, 16QAM, 16APSK, 32APSK, 64APSK, 128APSK</li> <li>DVB-CID ETSI TS 103 129 (2013-05)</li> <li>Rear rack mount support kit</li> </ul>
<b>Video Inputs</b>	<ul style="list-style-type: none"> <li>SD Digital – SDI (SMPTE 259M)</li> <li>HD Digital – HDSDI (SMPTE 292M)</li> </ul>	GRYPVE-HW-RMK	
<b>Video</b>	<ul style="list-style-type: none"> <li>HEVC 4K, MPEG-2/MPEG-4 SD 4:2:0               <ul style="list-style-type: none"> <li>o HDR</li> </ul> </li> </ul>	<b>STATUS AND CONTROL INTERFACES</b>	
GRYPVE-5-VF-MPEG-2-4:2:2 GRYPVE-5-VF-HD GRYPVE-5-VF-1080P GRYPVE-5-VF-2160P	<ul style="list-style-type: none"> <li>MPEG-2 4:2:2</li> <li>HD (720P &amp; 1080i)</li> <li>High Definition (1080P50/60)</li> <li>4K (2160P50/60)</li> </ul>	<ul style="list-style-type: none"> <li>Integrated web browser</li> <li>Front panel with full control</li> </ul>	
<b>Video Compression</b> 100 kb/s to 40 Mb/s		<b>POWER REQUIREMENTS</b>	
GRYPHON-VC-MAIN GRYPHON-VC-MAIN10 GRYPHON-VC-MAIN422_10	<ul style="list-style-type: none"> <li>HEVC Main Profile (8-bit, 420)</li> <li>HEVC Main10 Profile (8/10 bit, 420)</li> <li>HEVC Main422_10 Profile (8/10-bit, 400/420/422)</li> </ul>	<b>Input Rating</b>	100 to 127 VAC, 6.3 A 200 to 240 VAC, 3.2 A 50 to 60 Hz (Rating for each AC PSU)
<b>VBI Support</b>	<ul style="list-style-type: none"> <li>Embedded Closed Captioning EIA608 and 708</li> </ul>	<b>PHYSICAL PARAMETERS</b>	
<b>Audio Inputs</b>	<ul style="list-style-type: none"> <li>Embedded: SMPTE 272M</li> </ul>	<b>Chassis</b>	1 RU rackmount ears included
<b>Audio Compression</b>	<ul style="list-style-type: none"> <li>MPEG-1 Layer II (32-384 kb/s)</li> <li>AC3 5.1 Pass Through (32-640 kb/s)</li> <li>SMPTE 302M Pass Through</li> </ul>	<b>Dimensions (H, W, D)</b>	4.5 cm x 48 cm x 55.9 cm (1.75" x 19" x 22")
GRYPVE-AAC	<ul style="list-style-type: none"> <li>AAC-LC (16-576 kb/s)</li> <li>HE-AAC V1 and V2 (16-128 kb/s)</li> </ul>	<b>Weight (including modulator)</b>	10.9 kg (24 lbs.)
<b>Audio Channels standard</b>	<ul style="list-style-type: none"> <li>Two compressed audio pairs</li> </ul>	<b>ENVIRONMENTAL CONDITIONS</b>	
<b>Additional Audio Channels</b> GRYPVE-SW-AUD-2P	<ul style="list-style-type: none"> <li>Additional compressed audio pairs up to 8 pairs total</li> </ul>	<b>Operating Temperature</b>	0 to 50 C (32 to 122 F)
<b>Transport Stream Re-Multiplexer</b> GRYPVE-SW-MUX	<ul style="list-style-type: none"> <li>ASI input for internal multiplexing (200 kb/s – 80 Mb/s)</li> </ul>	<b>Storage Temperature</b>	-20 to 70 C (-4 to 158 F)
<b>BISS Conditional Access</b> GRYPVE-SW-BISS	<ul style="list-style-type: none"> <li>Basic Interoperable Scrambling System Conditional Access- Modes 0, 1, and E</li> </ul>	<b>Humidity</b>	Up to 90% humidity



Made in USA

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