



DELTA

Digital Video

Product and Capabilities Overview

Since 1976, Delta Digital Video has earned a reputation for delivering innovative and state-of-the-art solutions to address complex digital video applications in a cost-effective manner.

This overview provides a description of the technical capabilities of Delta Digital Video. The video compression and scan conversion products listed in this brochure are a sample of Delta Digital Video's offering. Please contact us for information on our latest products or to discuss a custom solution.

Applications:

- Intelligence, Reconnaissance & Surveillance (ISR)
- Flight Test
- Border Security
- Distance Learning
- Training & Simulation
- Depot Testing
- Mission Recording

Delta Digital Video is a recognized leader in the design and manufacture of video compression and scan conversion products. We are committed to providing high-quality products that offer outstanding value to our customers.

Rugged Video Encoders

Designed for airborne and ground-mobile environments — these products compress and multiplex payload video, audio, and metadata for real-time, low-latency transmission to remote hardware decoders or downstream exploitation systems. Compatible with aircraft and vehicle networks, the encoders support synchronous or asynchronous KLV metadata and Cursor on Target (CoT), and can be configured to convert sensor telemetry into KLV encoded metadata. DDV's encoders are MISB and MIL-STD-810/DO-160/MIL-STD-461/MIL-STD-704 compliant and several have been JITC certified. Our rugged encoders support single, or multi-channel, HD and SD video formats, and are integrated on UAS platforms supporting U.S. Air Force, Army and Navy programs.



- Model 6805R** H.264/HD/SD Video/Audio Encoder, Compact, Rugged, SDI/Composite
- Model 6810R** H.264/HD/SD Video/Audio Encoder, Rugged, SDI Composite/DVI-I
- Model 6820R** H.264/Dual-CH HD/SD Video, Rugged, SDI Composite
- Model 6840R** Multi-Channel H.264 HD/SD Video/Audio Encoder, Rugged, 1RU, SDI/Composite/S-Video

Video Encoders

Commercial/industrial encoders for ground environments — these products compress video and audio signals and multiplex them with metadata and other system information for real-time transmission and ground distribution over serial or Ethernet networks. DDV's design is based on high-performance Digital Signal Processors (DSP) providing high quality, low-latency transmission for any remote monitoring application. The encoders are easily integrated into most networks. They can be configured for MPEG-2 or H.264 compression and provide flexible features to optimize video performance at any bandwidth. These encoders are available in OEM module, rack mount or half-rack mount configurations.



- Model 6081H** H.264/HD/SD Video/Audio Encoder, Half-Rack Mount
- Model VHE96x** 9600 Series Encoder HD/SD/DVI Modules



Video Decoders

DDV decoders are companion devices to our encoders and are designed specifically for low latency applications. These products display decoded video for man-in-the-loop applications as well as forward the compressed data stream over Ethernet for further display and processing. DDV's decoders are compatible with the MPEG-2 and H.264 video compression algorithms. These decoders are available in OEM module, rack mount or half-rack mount configurations.



- Model 6181H** H.264 HD/SD Video/Audio Decoder, Half-Rack Mount
- Model VHD96x** 9600 Series Decoder HD/SD/DVI Modules
- Model VDE026** MPEG-2/H.264 Decoder Module



Our state-of-the-art products are backed by excellent support and superior customer service. At Delta Digital Video, we continually strive to be progressive and innovative leaders in our markets and provide solutions that allow our customers to successfully accomplish their objectives.

Video Codecs

DDV's video codecs provide a practical, cost-effective video-over-IP solution. They can be configured to encode or decode. These products provide flexibility in streaming and distribution of HD/SD video using the MPEG-2, MPEG-4 or H.264 video compression algorithms. They provide the same standards-compliant features of our encoders and decoders. A codec permits the integrator to provide an encode/decode solution using the same equipment at both ends, in either single or multi-channel configurations.

Model 4480 HD/SD Video Server/Decoder

Model 6850 Multi-Format HD/SD Codec

Model VHE/VHD96x 9600 Series Encoder/Decoder Modules



Video-To-Video Scan Conversion

Delta's Video Scan Converter technology provides the capability to convert between video signal formats in order to facilitate display or recording. Using an advanced scaling engine, multi-tap filtering, and horizontal and vertical interpolation, these products provide high quality conversion to/from RS-343, RS-170, PAL, HD, SD and xVGA video formats. OEM modules, rack mount, rugged and custom packages are available.

Model VTV/875R Video-to-Video Scan Converter, Rugged Family

Model VSC/900 Universal Video Format Converter, w/ Stroke and Mixing

Model VTV/890R Universal Video Scan Converter, Rugged

Model VSC/890H Universal Video Scan Converter, Half-Rack Mount Unit



Stroke-to-Raster Scan Converters

Delta's SSC family of Stroke-to-Raster scan converters provide for display, recording and transmission of stroke video on standard COTS equipment. These products are compatible with most XYZ vector outputs generated by random deflection devices, such as radar, sonar, HUD or spectrum analyzer. Some units provide for mixing of stroke with other video inputs. The combination of superior filtering techniques, high resolution sampling, and an advanced scaling engine ensures high-quality conversion of any stroke device.

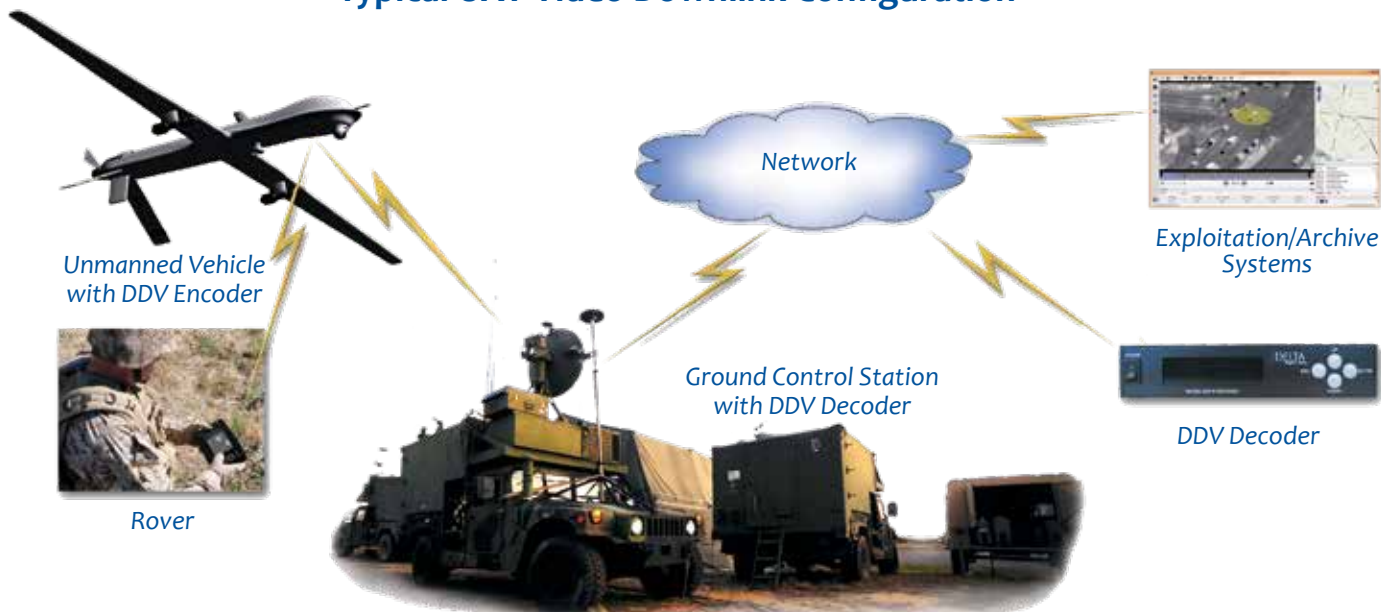
Model SSC/924 Stroke-to-Raster Scan Converter, 1RU Rack Mount

Model SSC/300 Stroke-to-Raster Scan Converter, Rugged

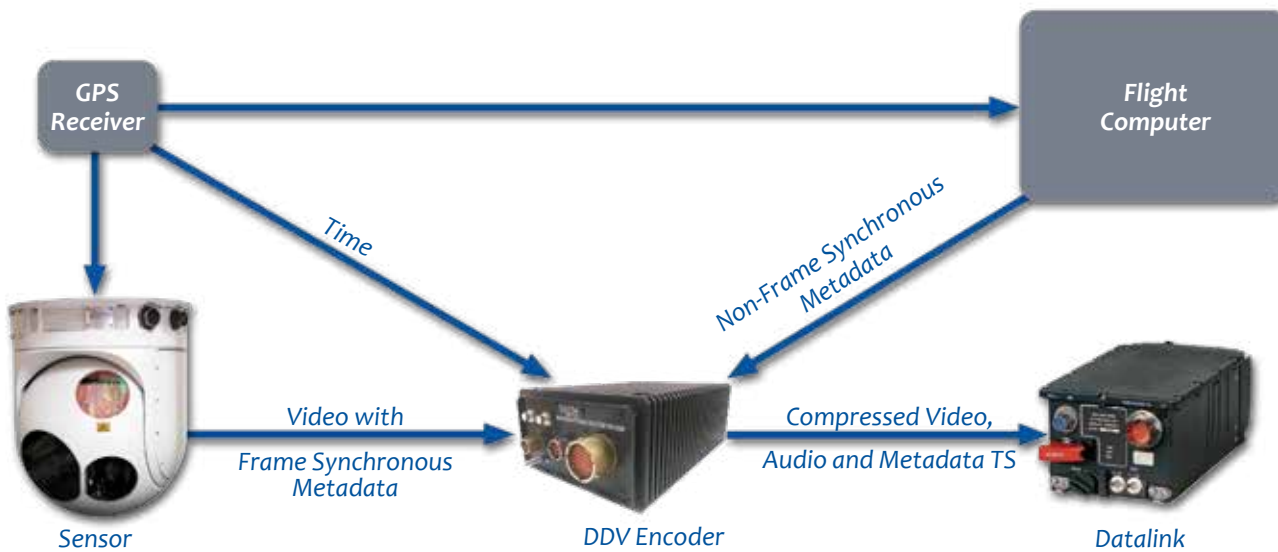
Model VSC/900 Universal Video Format Converter/Mixer. 1RU Rack Mount



Typical UAV Video Downlink Configuration



Typical UAV Encoder Configuration



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