

# MVID-541S

H.264 3G/HD-SDI Video/Audio Acquisition Module for the MnHSD-2000

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## Key Features

- 3G-SDI/HD-SDI video and audio acquisition module for Curtiss-Wright's Miniature Network High-Speed Data Acquisition Unit (MnHSD-2000)
- Accepts 1 video input:
  - + 3G-SDI (1080p/60)
  - + HD-SDI (720p/60)
- H.264/MPEG-4 AVC/MPEG-4 Part 10, Baseline Profile, up to 10 Mbps
- Time annotation with programmable screen location
- Resolution up to 1080p, capable of resolution decimation
- Accepts 1 audio input
  - + Stereo audio – up to 4 V<sub>p-p</sub>
  - + Low level mono audio – up to 4 V<sub>p-p</sub>
  - + High level mono audio – up to 40 V<sub>p-p</sub>
- Audio encoding options
  - + MPEG Audio layer 2 (MP2)
  - + MPEG Audio layer 3 (MP3)
  - + Linear PCM
- Multiple modules can be placed within a single stack
- Provides embedded timestamp into video stream
- Programmable using TTCWare™ software application

## Applications

- Data acquisition systems
- Safety of flight telemetry
- System integration

## Overview

The MVID-541S module set adds one channel of H.264 High Definition (HD) video/audio acquisition capability to Curtiss-Wright's MnHSD-2000. Effective video compression rate varies from 512Kbps to 10 Mbps. The compression rate is a function of user programmable video compression levels, and video resolution levels. One mono (low or high level) or one stereo audio channel can be acquired. Output frame rate can be decimated down to 1 frame per second, and output resolution can be re-sampled to a lower resolution. One mono (low or high level) or one stereo audio channel can be acquired. The compressed video and/or audio are multiplexed into an MPEG-2 transport stream. The module also provides time annotation overlay with programmable positioning.

# Specifications

## General

- Supply current: +5V @ 800 mA
- Power consumption: 4 Watts max
- Temperature:
  - + Operating Temperature: -31°F to +185°F (-35°C to +85°C) (box ambient temp)
  - + Storage Temperature: -67°F to +212°F (-55°C to +100°C)

## Dimensions and Mechanical

- Compatibility: Multiple MVID-541S modules can be used in the same stack
- Weight: 3.4 ounces not including mating connectors
- Unit connectors: J1 - MDM-25S; J2 - SMA socket
- Mating connectors: J1 - MDM25P-H006LA174; J2 -SPI9423

## Time Annotation Overlay

- Inputs: IEEE 1588 time with MnHSD-2000
- Selection: Enable/disable annotation, annotation position within the video frame

## Video Input

- Type:
  - + HD-SDI (SMPTE 292M) 720p/60
  - + 3G-SDI (SMPTE 424M) 1080p/60
- Impedance: 75W

## Video Compression

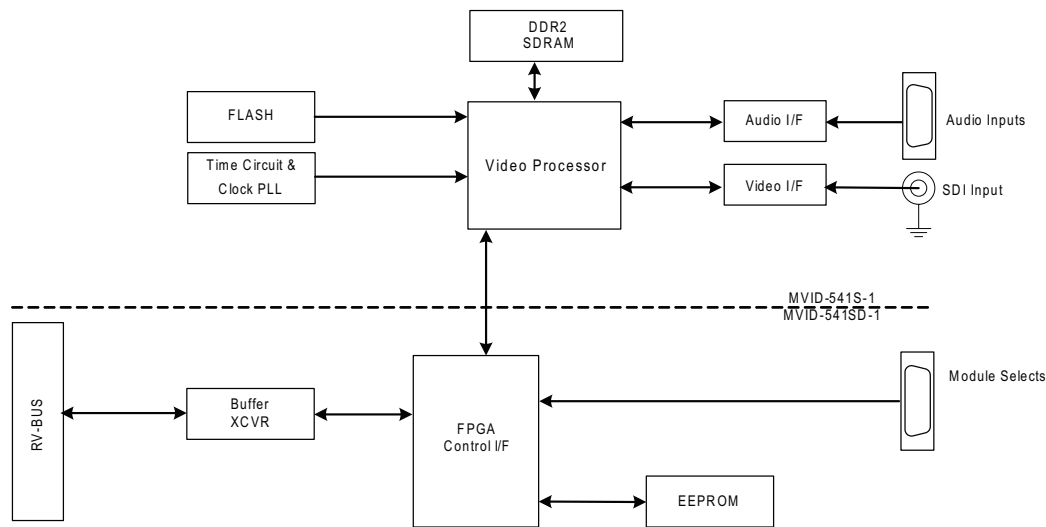
- Compression: ISO/IEC 14496-10 (H.264/AVC/MPEG-4 Part 10), Baseline Profile (BP) Level 4
- Resampling resolution: HD: from SIF (352x240) to 1080p (1920x1080)
- Frame rate:
  - + 720p: up to 20 fps
  - + 1080p: up to 10 fps
- Bitrate: Variable bitrate or Constant bitrate, up to 10 Mbps
- Payload: ISO/IEC 13818-1 (MPEG2 transport stream)

## Audio Input

- Inputs: Two mono audio or one stereo audio
- Characteristics:
  - + High or low-level input for mono
  - + High-level input: up to 40 V<sub>p-p</sub>
  - + Low-level input: up to 4 V<sub>p-p</sub>
- Compression:
  - + ISO/IEC 13818-3 (MPEG-2 audio layer 3)
- Bitrate: 32K to 192K bps
- Sample rate: 32K or 48K samples per second

# Ordering Information

Contact [Curtiss-Wright](http://Curtiss-Wright) for ordering information.



MVID-541S block diagram