LT-125-USB

HD Video Acquisition and Compression Board

The LT-125-USB is a dual channel HD video capture module that compresses HDTV video in real-time without the use of host computer's CPU resources. The module is connected to a host system via high speed USB.

This dual channel framegrabber board captures video from digital (DVI or HDMI) and HD/SD-SDI video sources. In addition to external video sources, the LT-125-USB can compress from host internal video sources such as files or DirectShow devices including USB and FireWire cameras.

The LT-125-USB compresses video in compliance with the VC-1 (SMPTE-421M) or the H.264/MPEG-4 Part 10 standard.
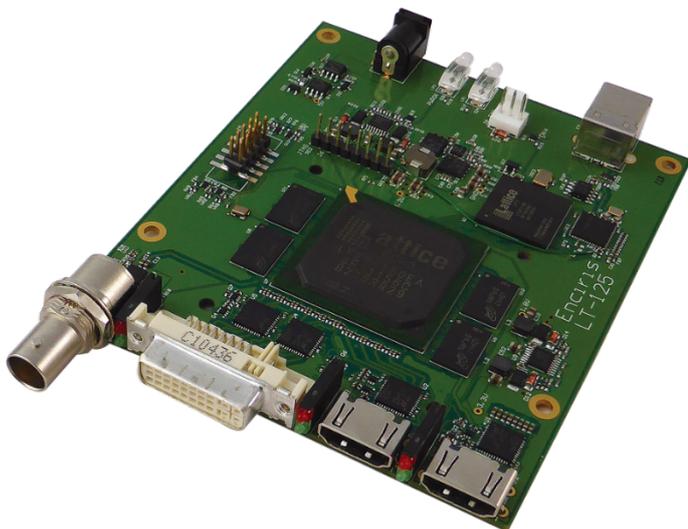
A loop-through HDMI output is also available.

This high performance board can compress 1080P/I at up to 60 frames per second (fps). At lower resolutions the maximum compression frame rate increases

Compressed bitrates can vary between 64Kbit/s and 80Mbit/s depending on resolution, frame rate and quality desired.
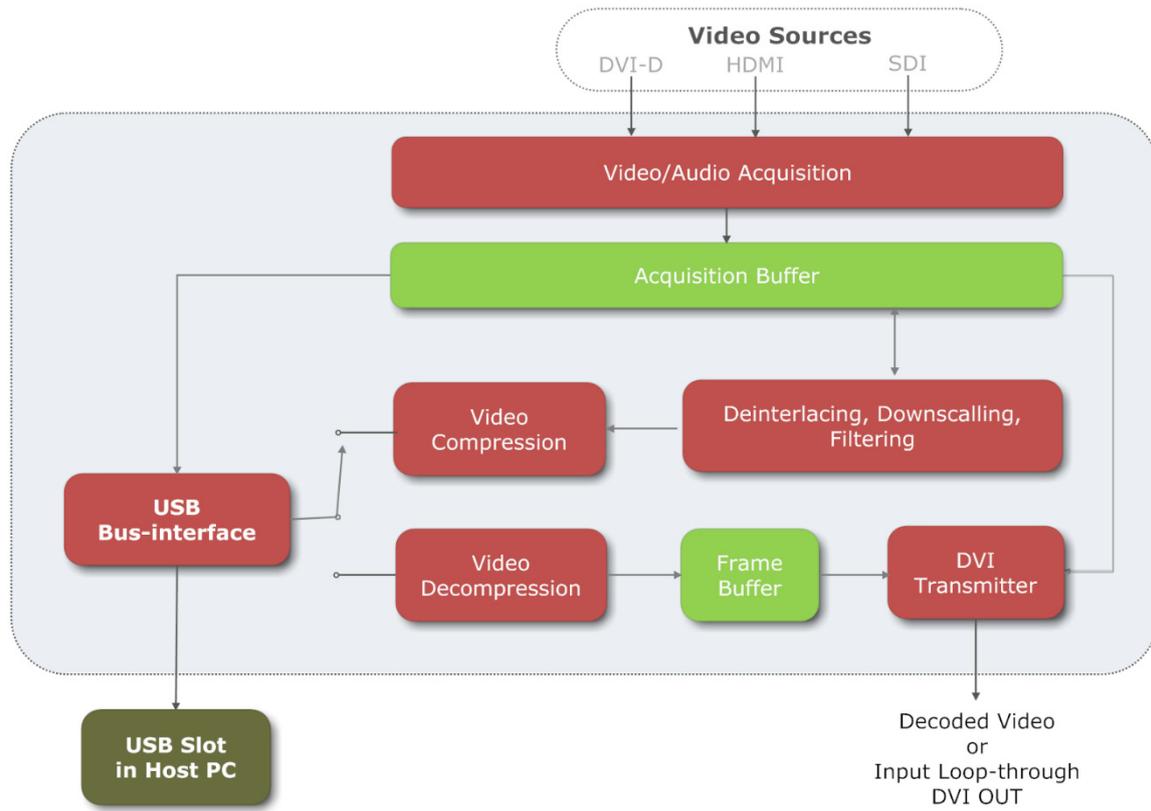
An uncompressed video capture function is also available for simultaneous snapshots or continuous raw video acquisition.

Features

- ✓ H.264 or VC-1 HD video compression/decompression
- ✓ Real-time HD/SD video acquisition and compression
- ✓ Uncompressed video capture
- ✓ HDTV 1080p, 1080i, 720p, 576p, 576i, 480p, 480i compatible
- ✓ Very low compression latency
- ✓ SMPTE Compliant 3G/HD/SD-SDI
- ✓ USB bus support
- ✓ Synchronized audio capture
- ✓ Text overlay prior to compression
- ✓ IP or I only compression
- ✓ Bitrates from 64Kbit/s to 80Mbit/s
- ✓ Windows and DirectShow support
- ✓ Linux support
- ✓ Mac OS X support
- ✓ Solaris support

LT-125-USB Block Diagram

Video Sources
DVI-D   HDMI   SDI

Video/Audio Acquisition

Acquisition Buffer

Video Compression

Deinterlacing, Downscaling, Filtering

USB Bus-interface

Video Decompression

Frame Buffer

DVI Transmitter

USB Slot in Host PC

Decoded Video
or
Input Loop-through
DVI OUT

Key Features

- Dual channel compression/decompression or single channel 1080P60 compression/decompression.
- H.264 / MPEG-4 Part 10 High Profile level 5.0 or VC-1/SMPTE-421M advanced profile level 3 video compression/decompression.
- I only or IP compression with variable GOP size
- VBR (variable) and CBR (constant) bitrate control
- 1024x512 motion vector search range covered
- Bitrates from 64Kbit/s to 80Mbit/s
- 1 frame maximum latency (can be reduced to a few milliseconds under special circumstances)
- MPEG-TS on ASF container format
- 3G/HD/SD-SDI module
- USB host bus interface
- Simultaneous uncompressed video capture
- 2 channel audio capture from DVI/HDMI or SDI connector.
- Synchronized audio/video acquisition
- Advanced hardware deinterlacing
- Frame rate reduction feature available
- Video downscaling prior to compression
- Denoise filter prior to compression
- Text overlay prior to compression
- Bitrate reduction via monochrome mode when color is not needed
- Synchronization to external events
- Extensive Motion statistics for all frames
- Windows XP/Vista Win7, Windows 8 32bit/64 bit driver

- DirectShow support as well as simple SDK
- Linux support
- Mac OS X support
- Solaris support

Applications

- HDTV capture and storage
- Digital video recorders
- Video Medical systems
- Endoscopy DVR
- Video surveillance systems
- Internet broadcasting
- Teleconferencing
- Video over LAN
- Inspection systems
- Machine vision video recorders

Product Codes

- LT-125-USB

See Also

- LT-101-USB   USB only version of LT-101
- LT-101-PCI   PCI/USB version of LT-101