Condor VC100x

H.264 Compatible Video Capture XMC with up to 4 Video Inputs

Condor VC100x Features

- H.264/AVC baseline, main or high profile up to L4.1 or MJPEG
- Four Composite video inputs (NTSC/PAL/SECAM)
- Two SD/HD-SDI on HD-BNC
- XMC form factor
- Low power (less than 10W)
- 2 channels up to 1080p30 or 4 channels of TV (Composite)
- Interlaced video support
- 2 Stereo audio inputs
- Data streaming over TCP/IP (Optional)
- Convection/Conduction cooled

Markets

- Military/Avionics/Industrial
- Embedded Systems
- UAV

Platforms

- Linux/Windows 7 on x86 based Single Board Computers
- VME, ATCA, cPCI
- VxWorks on x86 and PowerPC

The Condor VC100x is a rugged high Definition (HD) or standard definition (SD) video capture and H.264/MJPEG compression card. This XMC form factor card is designed for use in various applications such as surveillance, image detection, video recording, unmanned vehicles (UAV) and other camera based video recording/analysis applications. It's relatively low power requirements (typical - 7W) make it ideal for applications in UAVs, etc.

The Condor VC100x supports up to 4 Composite video inputs or 2 SD/HD-SDI video inputs. Various input formats (NTSC/PAL/SECAM/SD-SDI/HD-SDI/3G-SDI) are selectable through an API.

The Condor VC100x does H.264 encoding in hardware to minimize CPU usage. Video data is captured and stored to files locally or streamed to a remote location. This data is available to customer applications for processing, analysis or display on a local graphics card. The Condor VC100x XMC configuration also supports transfer of the video stream via UDP or TCP/IP for remote display of captured data while keeping latency low.

An API is provided to manage captured video data. Condor VC100x is available in various levels of ruggedization and has convection or conduction cooled variants.

The product comes with Tech Source's commitment of availability for up to 7 years. This comes with the legendary support of our seasoned team members, who may offer immediate assistance to troubleshoot and resolve any technical challenges.

While Linux and Windows 7 drivers are available by default, other real time operating systems (RTOS) such as VxWorks may be supported as per customer requirements.
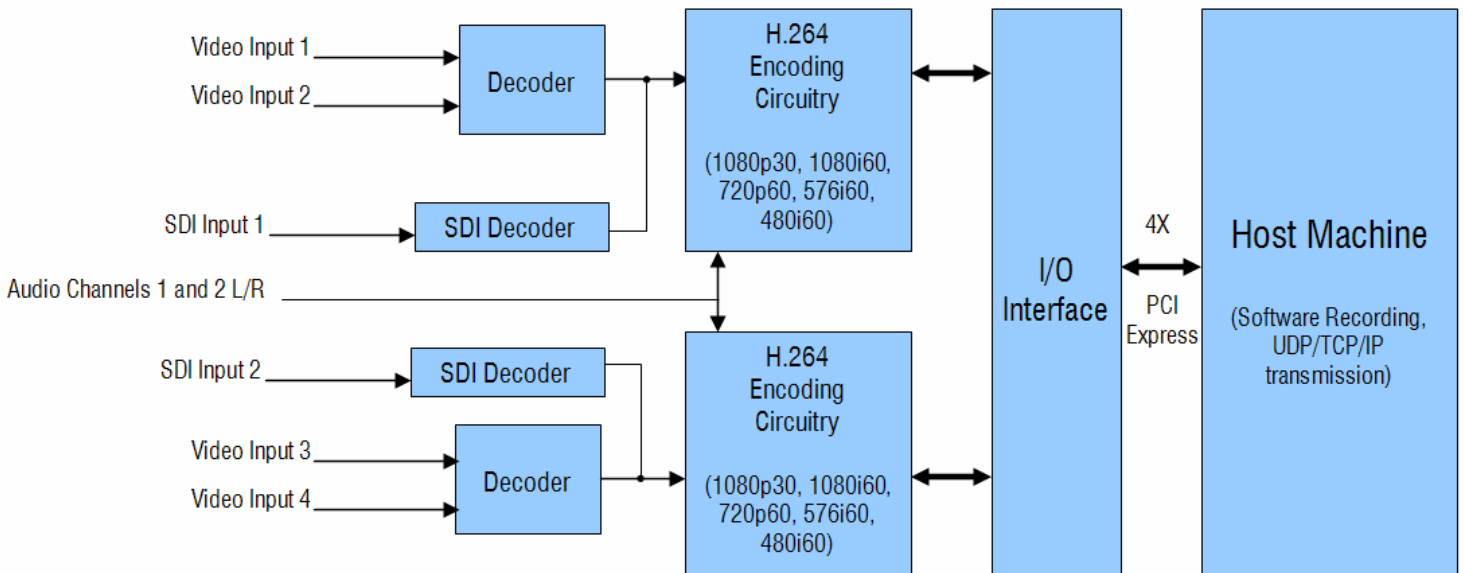
Tech Source has provided video solutions for over 25 years and has always met customer needs with long term commitment and support.

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Condor VC100x Specifications

Interface	XMC form factor, 4 Lane PCI Express Interface
Capture format	H.264/AVC Baseline, Main or High Profile up to L4.1
Video Inputs	Four Composite Video (NTSC/PAL/SECAM), D-SUB 15 pin –front, 75 Ω
	Two (SD/HD-SDI), HD-BNC-front, Interfaces: SMPTE 292M(HD), SMPTE 259M-C(SD). 1 HD can be combined with 2 Composite inputs, 75 Ω
Audio Inputs	Two SDI audio inputs (SMPTE 272M-C and SMPTE 299M), Two stereo line inputs, 20 kΩ
Resolutions	2 channels of up to 1080p30 or 1080i60 for HD, or 4 channels of 480i/576i for SD
Power Rating	Max 10 Watts
Operating Temperature	0°C to 55°C (Standard)
	-40°C to 70°C (Rugged Convection Cooled)
	-40°C to 85°C (Rugged Conduction Cooled)
Non-operating Temperature	-40°C to 85°C (Standard)
	-55°C to 105°C (Rugged Convection Cooled)
	-55°C to 105°C (Rugged Conduction Cooled)
Vibration	0.04 g²/Hz, 5-2K Hz (Standard)
	0.1 g²/Hz, 5-2K Hz (Rugged)
Shock	20g peak (Standard), 40g peak (Rugged)
Conformal Coating	Available (Standard with conduction cooled version)
Humidity	90% without condensation, 95% (For Rugged)
Dimensions and Weight	149mm x 74mm (Convection, Front IO), 143.75mm x 74mm (Conduction); 4.0 oz
Software/Platform Support	Linux or Windows 7
	RTOS support—VxWorks & Integrity (Others as needed)
	x86 (now), PowerPC (Future)

Condor VC100x Block Diagram

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