

mvHYPERION



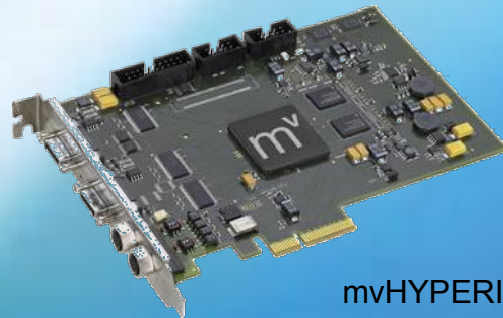
mvHYPERION frame grabber series

- ▶ Digital PCI Express® frame grabbers for applications in:
 - ▶ machine vision
 - ▶ broadcast
 - ▶ security
- ▶ Onboard EEPROM
- ▶ DMA controller with bus master feature
- ▶ Diverse image formats

- ▶ Windows[®] and Linux[®] drivers (mvIMPACT Acquire)
- ▶ free mvIMPACT Base image processing library

mvHYPERION-CLx

- Trigger/sync input opto-isolated, 5..24 V
- Switchable trigger and sync inputs between 2 V (TTL) and 12 V (PLC)
- Flash outputs opto-isolated, max. 30 V
- Power over CameraLink (PoCL)



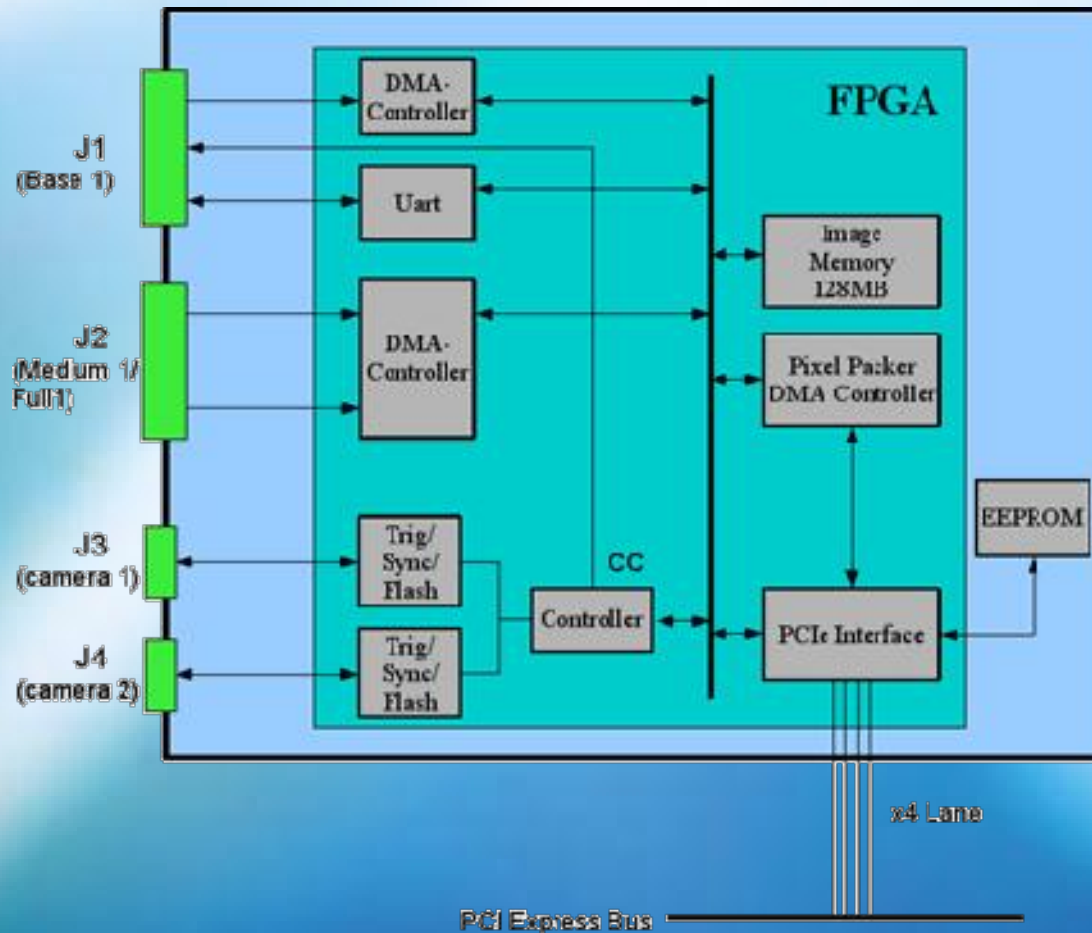
mvHYPERION-CLf



Model variants

Product	mvHYPERION			
Model	-CLb	-CLe	-CLm	-CLf
PCI Express®	x1		x4	
Interfaces	1x BASE	2x BASE, 1x MEDIUM	2x BASE, 1x MEDIUM	1x BASE, 1x MEDIUM, 1x FULL
Peak data rate	250 MB/s (CL Clock: 85 MHz)		1 GB/s (CL Clock: 85 MHz)	
Contiuous data rate	approx. 200 MB/s		approx. 640 MB/s	
Payload size	up to 512 Bytes		up to 256 Bytes	
MiniCL interfaces	1	2	2	
Digital In/Out	1x 2/1	2x 2/1	2x 2/1	
Perm. ambient temp.	0..60°C		0..45°C	
Perm. storage temp.	-20..70°C		-20..70°C	

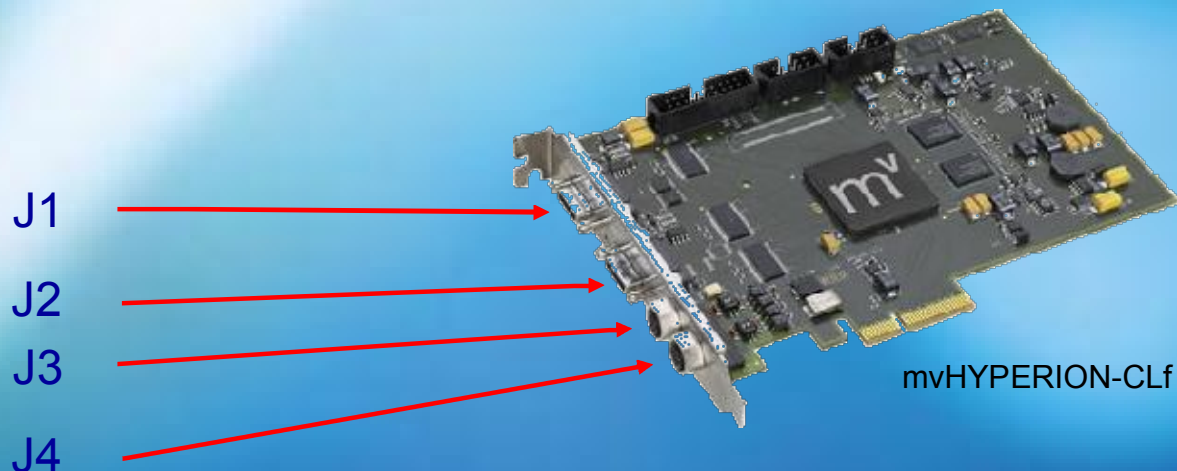
Block diagram



Interfaces

▶ Connectors

- ▶ J1: Camera 1 (BASE 1)
- ▶ J2: Camera 1 (MEDIUM 1) or Camera 1 (FULL 1)
- ▶ J3: Camera 1 Trigger/Sync/Strobe/Power
- ▶ J4: Camera 2 Trigger/Sync/Strobe/Power

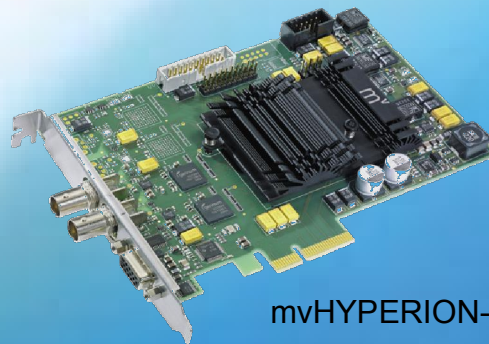


Features

- Parallel acquisition of 2 different asynchronous BASE sources possible
- Diverse data storage formats
- Serial interface (LVDS level) per channel
- Creation of 4 camera control signals and strobe output per channel with independent video timing generators
- Board sorts mixed image data with several taps

mvHYPERION-HD-SDI

- 2 channels with HD/SD-SDI standard or 1 channel with 3G-SDI on BNC connector
- RS485 interface for camera control, trilevel sync. output, dig. I/O and camera power supply via high density D-Sub connector

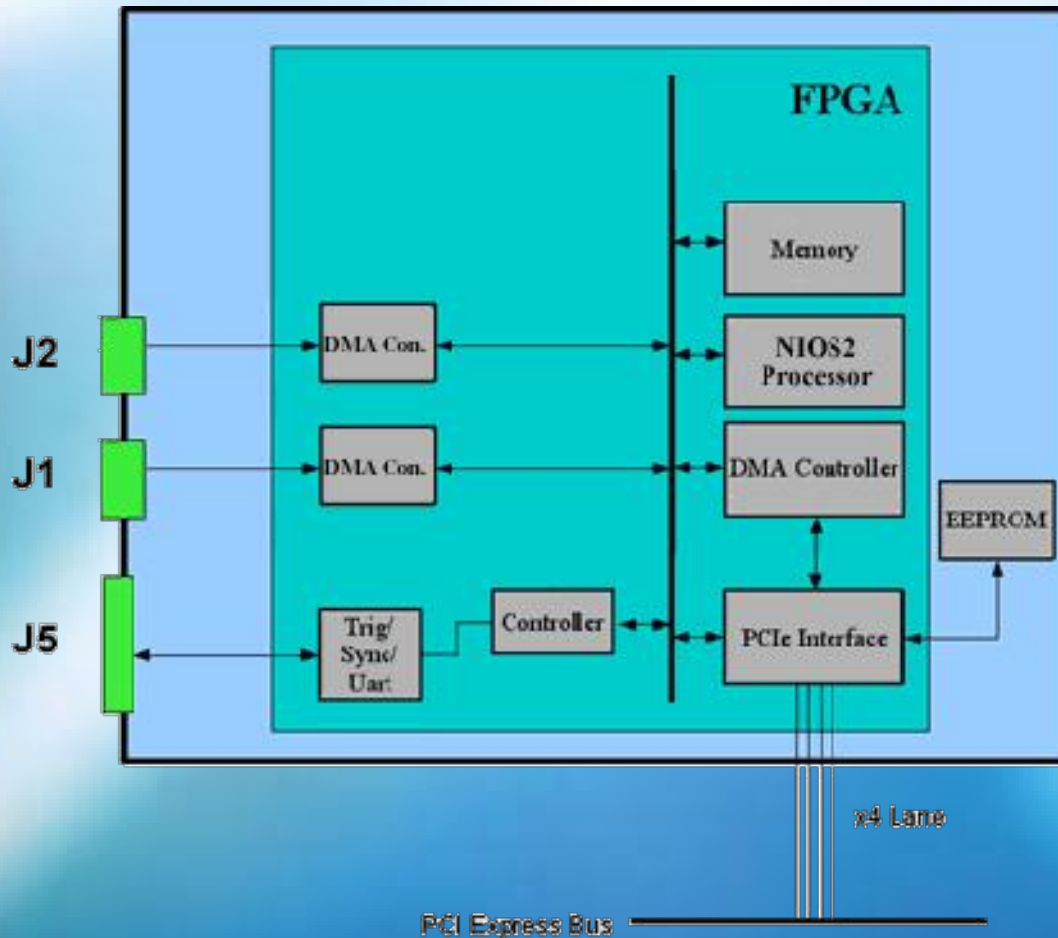


mvHYPERION-HD-SDI-2

Model variants

Product	mvHYPERION
Model	-HD-SDI-2
PCI Express®	x4
Interfaces	2 channels with HD/SD-SDI standard or 1 channel with 3G-SDI on BNC connector RS485 interface for camera control, trilevel sync. output, dig. I/O and camera power supply via High-Density D-Sub connector
Peak data rate	1 GB/s
Continuous data rate	approx. 640 MB/s
Payload size	up to 256 Bytes
Perm. ambient temp.	0..45°C
Perm. storage temp.	-20..70°C

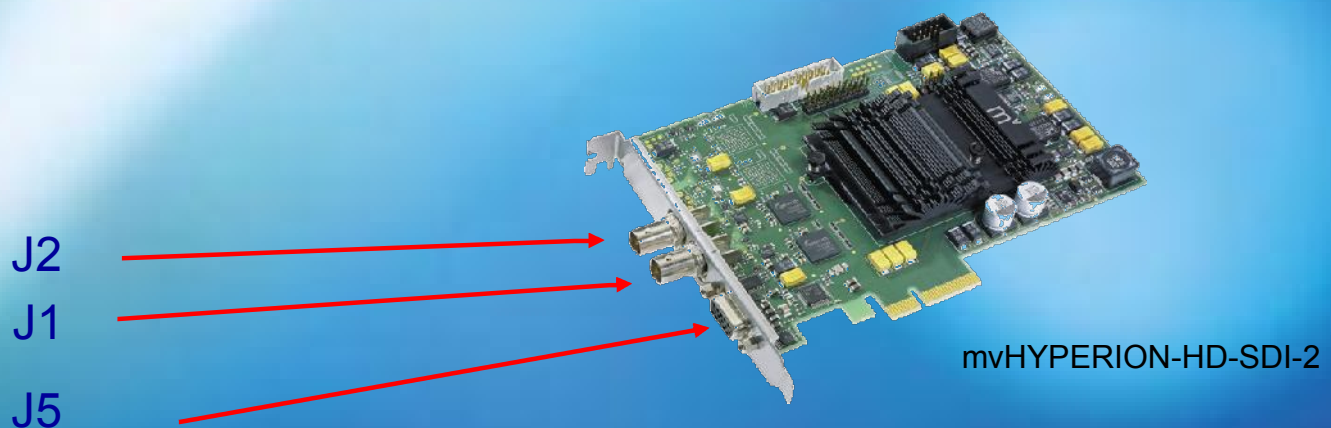
Block diagram



Interfaces

▶ Connectors

- ▶ J1: Camera 1 (3G/HD-SDI signal)
- ▶ J2: Camera 2 (3G/HD-SDI signal)
- ▶ J5: 15-pin D-Sub/HD connector



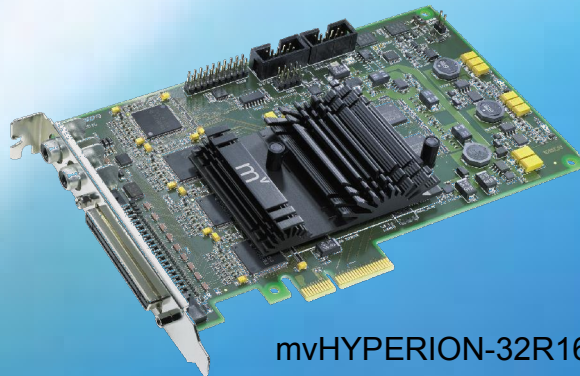
Supported signal formats

Acquisition of 2 independent standard HD-SDI signals or one standard 3G-SDI signal				
Max. channels	Format	Frequency (fps)	Timing	Data
2	1080p	23.98, 24, 25, 29.97, 30	SMPTE 274M (HD)	YUV4:2:2
1	1080p	50, 59.94, 60	SMPTE 425M (3G)	YUV4:2:2
2	720p	23.98, 24, 25, 29.97, 30, 50, 59.94, 60	SMPTE 296M (HD)	YUV4:2:2

Acquisition of up to 2 non-standard HD/3G-SDI signals				
Max. channels	Format	Frequency (fps)	Timing	Data
2	1080p	23.98, 24, 25, 29.97, 30	SMPTE 274M (HD)	RAW10Bit, RAW12Bit
2	1080p	50, 59.94, 60	SMPTE 425M (3G)	RAW10Bit, RAW12Bit
2	720p	23.98, 24, 25, 29.97, 30, 50, 59.94, 60	SMPTE 296M (HD)	RAW10Bit, RAW12Bit
2	720p	100, 119.88, 120	HD non-standard timing	YUV4:2:2, RAW10Bit

mvHYPERION-32R16

- 32 video inputs, 2:1 multiplexed to 16 channels
- video inputs on RS485 via high density connector
- 2 audio inputs via Cinch

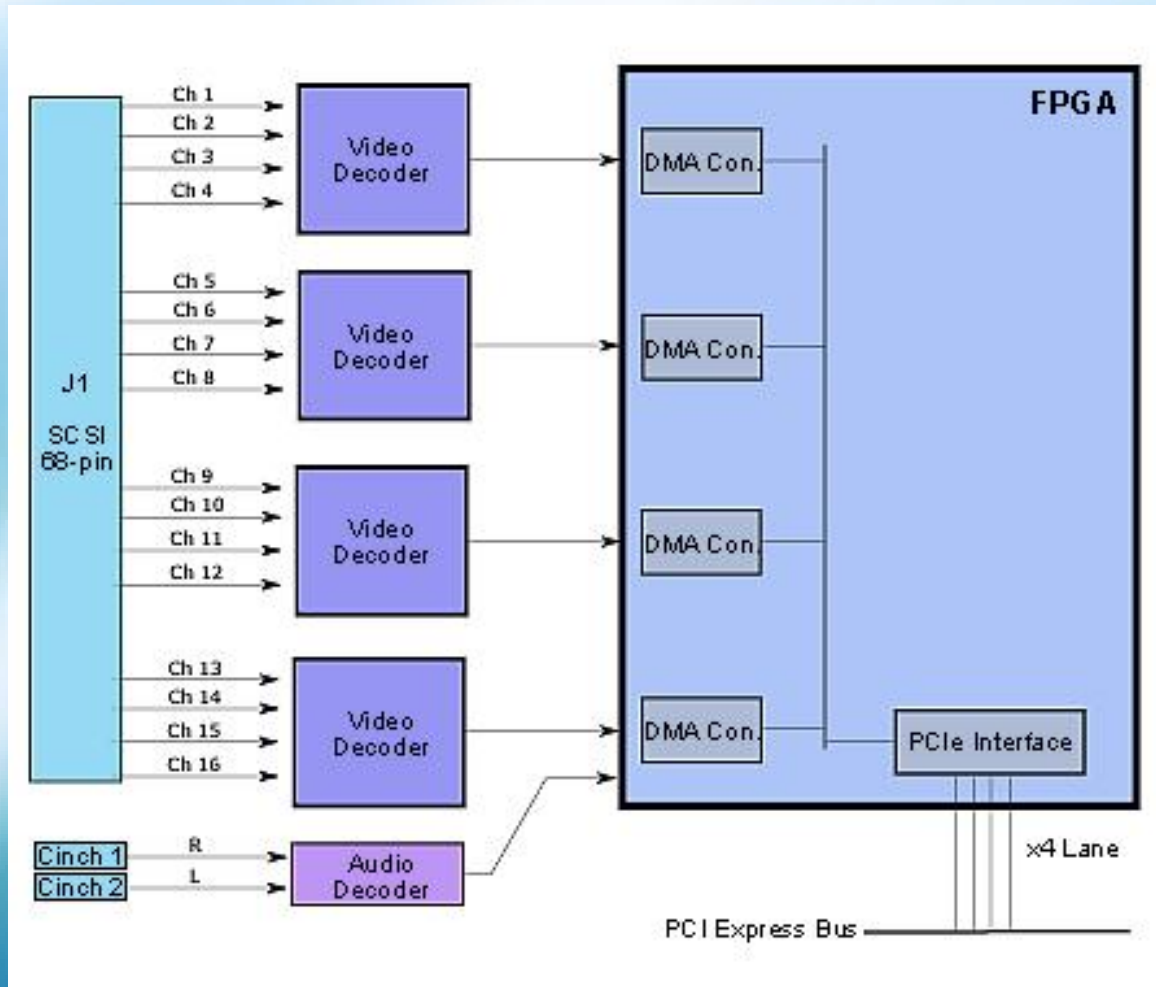


mvHYPERION-32R16

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Product	mvHYPERION
Model	-32R16
PCI Express®	x4
Interfaces	32 video inputs on high density connector Audio inputs on Cinch RS485 interface for remote controlled Pan Tilt Zoom (PTZ) camera control on high density connector
Peak data rate	1 GB/s
Continuous data rate	approx. 332 MB/s
Payload size	up to 256 Bytes
Image format	YUV 4:2:2 packed/planar
Standards	PAL/NTSC, 50/60 Hz interlaced
Misc.	16 x live color video channels with full resolution
Perm. ambient temp.	0..45°C
Perm. storage temp.	-20..70°C

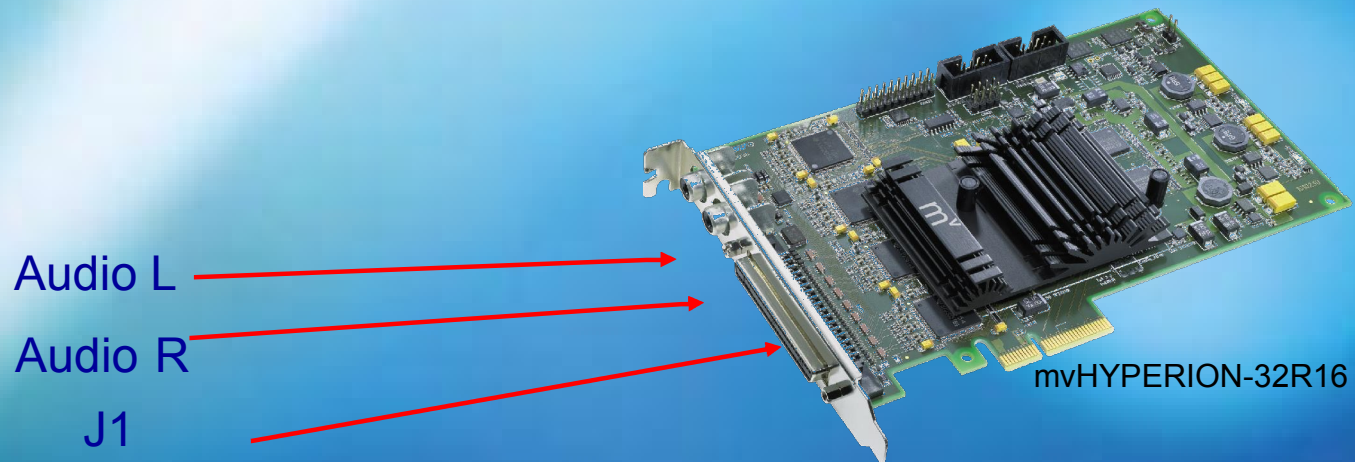
Block diagram



Interfaces

▶ Connectors

- ▶ Audio L
- ▶ Audio R
- ▶ J1: Video / RS485



Fragen?

Do you have any questions?