

## Carte d'acquisition numérique PCI Express x4 - mvHYPERION-CLm

Abandonné





- Carte d'acquisition numérique PCI Express® x4
- Différentes interfaces pour caméras "CameraLink"
- Contrôles "Trigger" et "Flash" embarqués
- Modèles mvHYPERION-CLm/Cell pour les systèmes "Cell/B.E."

La carte d'acquisition mvHYPERION-CLm interface les caméras "CameraLink". Le format bus PCI Express® x4 autorise une bande [permanente](#) de capture d'image jusqu'à 620 MB/s. Une caméra "CameraLink" en mode FULL ou MEDIUM peut être connectée à la mvHYPERION-CLf. Il est également possible de piloter deux caméras en mode BASE.

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- Sommaire
- Caractéristiques
- Comp. de cartes d'acquisition "PCI-E"
- Dom. d'application

- Téléchargem.

Product	mvHYPERION-CLm
PCI Express®	x4
Interfaces	2x BASE, 1x MEDIUM
Continuous data rate	Approx. 620 MB/s
Payload size	Up to 256 Bytes
Max. CL data clock	85 MHz
Digital In/Out	2x 2/1
Permissible ambient temperature	0 bis 45 °C
Permissible storage temperature	-20 bis 70 °C
Supported standards	 

- 2-channel multistandard CameraLink frame grabber with PCI Express® (x4 Lane PCI-E)
- Parallel acquisition of two different asynchronous BASE sources possible
- Trigger/sync input opto-isolated, 5..24 V
- Switchable input threshold of trigger and sync inputs between 2 V (TTL) and 12 V (PLC)
- 2 MiniCL connectors
- 2 connectors for trigger + sync input, flash outputs and 12 V camera power
- Flash outputs opto-isolated, max. 30 V
- Retriggerable (asynchronous resetable)

- Bus master DMA controller
- Serial interface (LVDS level) per channel
- Diverse data storage formats
- Intelligent creation of four camera control signals and strobe output per channel with independent video timing generators
- E2PROM
- Power over CameraLink (PoCL)
- Supported CL spec.: 1.2

## Signal input

Family		mvDELTAe		mvSIGMA	mvHYPERION		
Product		(Cinch)	BNC	SQe	CLb	CLm	CLf
Inputs	CVBS	4	4	16	-	-	-
	YC	1 + 3 x CVBS	-	4	-	-	-
Parallel acquisition inputs	Gray/VBS	4	4	16	-	-	-
	RGB	-	-	-	-	-	-
	Digital	-	-	-	1	2	2
	Number	1	1	4	1	2	2
	RGB/ Multis- pectral	-	-	-	1	2	2
	Synchronous / asynchrono us	-/-	-/-	yes/yes	-	yes/yes	-/-
A/D	(bit)	8	8	8	-	-	-

Standards	CCIR-601, RS-170	yes	yes	yes	-	-	-
	Variable/ Slow Scan	-	-	-	-	-	-
	PAL, NTSC, SECAM	yes	yes	yes	-	-	-
Low pass filter (analog) switchable		-	-	-	-	-	-
Restart / Reset		-	-	-	yes	yes	yes
Sensor geometry	Area	ja	yes	yes	yes	yes	yes
	Line	-	-	-	yes	yes	yes
Termination	Ohm / switchable	75 / no	75 / no	75 / no	100 / no	100 / no	100 / no
Coupling / Level		AC	AC	AC	Digital differential / LVDS	Digital differential / LVDS	Digital differential / LVDS
Offset		-	-	-	-	-	-
Analog Gain	Manual / AGC	yes/yes	yes/yes	yes/yes	-	-	-
Plug connector		4 x Cinch + 1 x Mini-DIN4	4 x BNC	2x D-Sub 26	1 x MiniCL (1x BASE) 1x Binder 8pin	2 x MiniCL (2x BASE or 1x MED.) 2x Binder 8pin	2 x MiniCL (1x BASE or 1x MED. or 1x FULL) 2x Binder 8pin

## Resolution

Family	mvDELTAe		mvSIGMA	mvHYPERION		
Product	(Cinch)	BNC	SQe	CLb	CLm	CLf

Digitalization	Pixels H x V	768 x 576 (50 Hz) 640 x 480 (60 Hz)	768 x 576 (50 Hz) 640 x 480 (60 Hz)	768 x 576 (50 Hz) 640 x 480 (60 Hz)	-	-	-
Memory	Pixels H x V	0..768 x 0..576 (50 Hz) 0..640 x 0..480 (60 Hz)	0..768 x 0..576 (50 Hz) 0..640 x 0..480 (60 Hz)	0..768 x 0..576 (50 Hz) 0..640 x 0..480 (60 Hz)	64K x unlimited	64K x unlimited	64K x unlimited

## Pixel clock

Family		mvDELTA		mvSIGMA	mvHYPERI ON		
Product		(Cinch)	BNC	SQe	CLb	CLm	CLf
Frequency	with 50 Hz	17.7 MHz	17.7 MHz	17.7 MHz	-	-	-
	with 60 Hz	14.3 MHz	14.3 MHz	14.3 MHz	-	-	-
	External	-	-	-	CL clock: 85 MHz	CL clock: 85 MHz	CL clock: 85 MHz

## Digital ports

Family		mvDELTA		mvSIGMA	mvHYPERI ON		
Product		(Cinch)	BNC	SQe	CLb	CLm	CLf
Inputs	Ext. pixel clock	-	-	-	1	2	2
	HD, VD	-	-	-	1	2	2
	Trigger	-	-	4	1	2	2

	Threshold pr-	-	yes	no	no	no
	ogrammable					
Outputs	General	-	16	2	4	4
	inputs					
	TTL outputs	-	-	-	-	-
	Relay	-	-	-	-	-
	Highside	-	-	8 (12V)	-	-
	drivers		or ext. VDD			
			> 12V			
	General	-	8	1	2	2
	outputs					

FPGA

Family	mvDELTA		mvSIGMA	mvHYPERI		
	(Cinch)	BNC	SQe	CLb	CLm	CLf
Product	-	-	-	yes	yes	yes
FPGA						

Bus

Family	mvDELTA		mvSIGMA	mvHYPERI		
	(Cinch)	BNC	SQe	CLb	CLm	CLf
Product	PCI Express	PCI Express	PCI Express	PCI Express	PCI Express	PCI Express
System	x1	x1	x1	x1	x4	x4
Transfer	up to 200	up to 200	up to 200	up to 200	up to 620	up to 620

## Output processing

Family		mvDELTA		mvSIGMA	mvHYPERI		
		(Cinch)	BNC	SQe	ON	CLb	CLm CLf
Product		only down-	only down-	only down-	-	-	-
Scaling		scaling max.	scaling max.	scaling max.			
		1:16	1:16	1:16			
Filtering		2,3,4 or 5	2,3,4 or 5	2,3,4 or 5	-	-	-
		tap vertical	tap vertical	tap vertical			
		filter	filter	filter			
Pixel	RGB	8 / 15/ 16 /	8 / 15/ 16 /	8 / 15/ 16 /	24 / 30 / 32	24 / 30 / 32	24 / 30 / 32
formats		24 / 32 bit	24 / 32 bit	24 / 32 bit	bit	bit	bit
	YC	16 bit planar	16 bit planar	16 bit planar	-	-	-
		/ packed	/ packed	/ packed			
	Gray	8 bit	8 bit	8 bit	8 / 10 / 12 /	8 / 10 / 12 /	8 / 10 / 12 /
					14 / 16 bit	14 / 16 bit	14 / 16 bit

## Video output

Family		mvDELTA		mvSIGMA	mvHYPERI		
		(Cinch)	BNC	SQe	ON	CLb	CLm CLf
Product							
Signal	RGB	-	-	-	-	-	-
	CVBS, YC	-	-	-	-	-	-

### Sync output

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product	(Cinch)	BNC	SQe	CLb	CLm	CLf
Signal	-	-	-	-	-	-

### Camera power supply

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product	(Cinch)	BNC	SQe	CLb	CLm	CLf
Via PCI-E 12V	-	-	700mA	700mA	700mA	700mA
Via 12V	-	-	1.5A	2A	2A	2A
additional power plug						

### Power requirements

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product	(Cinch)	BNC	SQe	CLb	CLm	CLf
PCI-E 3.3V	0.15A	0.15A	0.15A	1A	1A	1A
12V	0.2A	0.2A	0.6A	0.05A	0.05A	0.05A



## Dimensions

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product Board	(Cinch)	BNC	SQe	CLb	CLm	CLf
Length (mm)	123	123	170	147	155	155
Width (mm)	95	95	111	95	111.5	111.5

## Ambient conditions

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product	(Cinch)	BNC	SQe	CLb	CLm	CLf
Permissible ambient temperature	0 .. 50 °C	0 .. 50 °C	0 .. 50 °C	0 .. 45 °C	0 .. 45 °C	0 .. 45 °C
Permissible storage temperature	-20 .. 70 °C	-20 .. 70 °C	-20 .. 70 °C	-20 .. 70 °C	-20 .. 70 °C	-20 .. 70 °C
Relative humidity	10-90%, non-condensing	10-90%, non-condensing	10-90%, non-condensing	10-90%, non-condensing	10-90%, non-condensing	10-90%, non-condensing

## Software

Family	mvDELTA	mvSIGMA	mvHYPERI ON
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Product	(Cinch)	BNC	SQe	CLb	CLm	CLf
Drivers	Windows®	XP / Vista / 7 (32 bit / 64 bit (WOW64))	XP / Vista / 7 (32 bit / 64 bit (WOW64))	XP / Vista / 7 (32 bit / 64 bit (WOW64))	XP / Vista / 7 (32 bit / 64 bit (WOW64))	XP / Vista / 7 (32 bit / 64 bit (WOW64))
	Linux®	yes	yes	yes	yes	yes
	Twain	yes	yes	yes	yes	yes

All data refer to the current revision.

Area/Application	32R16	HD-SDI	CLx
<b>Industrial Image Processing</b>			
▶ 2D/3D measurement	■□□	■□□	■□□
▶ OCR, Pattern recognition	■□□	■□□	■□□
▶ control, robotics	■□□	■□□	■□□
▶ visualisation	■□□	■□□	■□□
▶ line camera applications	□□□	□□□	■□□
<b>Security</b>			
▶ object surveillance	■□□	■□□	■□□
▶ traffic surveillance	■□□	■□□	■□□
▶ compressed recording	■□□	■□□	■□□
▶ Video sensoric	■□□	■□□	■□□
<b>Microscopy/Diagnostic</b>			
▶ light microscopy	■□□	■□□	■□□
▶ laser scan systems	□□□	□□□	■□□
▶ electron microscopy	□□□	□□□	■□□
<b>Medicine</b>			
▶ visual dignostic	■□□	■□□	■□□
▶ laboratory systems	■□□	■□□	■□□
<b>Image Capture/Recording</b>			
▶ document line scanner	□□□	□□□	■□□
▶ high res area cameras	□□□	□□□	■□□
▶ broadcasting	■□□	■□□	□□□
<span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> optimum usage due to special features <span style="color: blue;">■</span> very suitable <span style="color: blue;">■</span> suitable			


mvHYPERION - application areas

Pilotes et applications pour Windows 7, 8.1 (mvIMPACT Acquire)


Depuis la version 2.10.1 de mvIMPACT Acquire, les "Merge Modules for mvIMPACT Acquire" sont disponibles en téléchargement séparé. Pour cette raison, les pilotes sont plus petits. Les "Merge Modules" ont besoin pour créer des séquences de configuration privés avec les pilotes "mvIMPACT Acquire". Plus de détails sont disponibles dans le [manuel mvIMPACT Acquire](#).

 [mvHYPERION x86 2.45.0.msi](#) | 97,580.0 kB

mvHYPERION 32 Bit Windows (7, 8.1, 10)

 [mvHYPERION x86\\_64 2.45.0.msi](#) | 116,536.0 kB

mvHYPERION-CLm/-CLf 64 Bit Windows (7, 8.1, 10)

 [mvIMPACT Acquire.history](#) | 924.2 kB

mvIMPACT Acquire History-Datei / mvIMPACT Acquire history file

## **Versions antérieures des pilotes**

Pour visualiser ou télécharger les pilotes, vous devez être [enregistré](#) ou [connecté](#).

Pilotes et applications pour Linux 2.6 - 3.x.x (mvIMPACT Acquire)

 [install mvHYPERION](#) | 38.4 kB

Linux Installer Skript für mvHYPERION devices / Linux installer script for mvHYPERION devices

 [mvHYPERION x86 ABI2 2.38.0.tgz](#) | 11,114.7 kB

mvHYPERION 32 Bit Linux

**Official support for Linux 32-bit x86/i386 systems has ended. If a newer version for this architecture is required please get in contact with the [support team](#).**

 [mvHYPERION x86\\_64 ABI2 2.45.0.tgz](#) | 13,729.4 kB

mvHYPERION 64 Bit Linux

 [mvIMPACT Acquire.history](#) | 924.2 kB

mvIMPACT Acquire History-Datei / mvIMPACT Acquire history file

## Versions antérieures des pilotes

Pour visualiser ou télécharger les pilotes, vous devez être [enregistré](#) ou [connecté](#).

Logiciels additionnels pour NeuroCheck, LabVIEW, DirectShow, VisionPro et Halcon

Since version 1.10.69, the **DirectShow®** driver is part of the mvIMPACT Acquire installation package.

Since version 1.10.85, an interface to **VisionPro®** (Cognex) will be installed automatically when installing an MSI based mvIMPACT Acquire driver package.

mvIMPACT Acquire bindings for **HALCON** are available on MVTec's website:


<http://www.halcon.de/download/>

 [LabVIEW acquire-x86-1.6.8](#) | 9,028.0 kB

32 Bit mvIMPACT Acquire Binding für LabVIEW ab Version 6.1 / 32 Bit mvIMPACT Acquire binding for LabVIEW 6.1 or greater

 [LabVIEW acquire-x86 64-1.6.8](#) | 10,980.0 kB

64 Bit mvIMPACT Acquire Binding für LabVIEW ab Version 6.1 / 64 Bit mvIMPACT Acquire binding for LabVIEW 6.1 or greater

 [LabVIEW acquire.history](#) | 7.2 kB

32 Bit LabView Binding History-Datei / 32 Bit LabView binding history file

Firmware

Le Firmware ne peut être utilisé qu'avec les cartes d'acquisition camera link!

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.85](#) | 862.7 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.85

Bug fix: Corrected sporadic horizontal image shift in Linescan Medium Mode.

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.84](#) | 865.3 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.84

Bug fix: Corrected Frame-Start trigger mode for area scan cameras.

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.83](#) | 856.5 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.83

Bug fix: Fixed overtriggering problem of the input in combination with a special linescan mode (FrameStart-Trigger=>FrameValid/RisingEdge, FrameStop-Trigger=>FrameValid/FallingEdge); Optimized automatic compensation of a phase error between Base, Medium, and Full channel.

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.82](#) | 868.8 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.82

Bug fix: Horizontal jitter in linescan trigger mode fixed; HRTC starting problem fixed

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.79](#) | 859.4 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.79

Bug fix: Line scan acquisition with TriggerControl-FrameStop fixed

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.78](#) | 849.0 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.78

New feature: ExpandLineValid feature implemented

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.77](#) | 847.1 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.77

Bug fix: "Raw Line Acquisition Mode" is working again

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.76](#) | 843.2 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.76

Bug fix: Removed sporadic horizontal offset (linescan mode)

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.74](#) | 865.3 kB



Firmware mvHYPERION-CLb/-CLm/-CLf v.74

Bug fix: Loss of first line after "Request" (linescan cameras)

 [Firmware mvHYPERION-CLb/-CLm/-CLf v.72](#) | 847.2 kB

Firmware mvHYPERION-CLb/-CLm/-CLf v.72

Documentations

 [mvHYPERION technical manual \(html\)](#)

mvHYPERION Technisches Handbuch / Technical Manual

 [mvHYPERION technical manual \(chm\)](#) | 2,722.9 kB

mvHYPERION Technisches Handbuch / Technical Manual

[Hinweis](#) / [Note](#)

 [mvHYPERION technical manual \(pdf\)](#) | 2,693.2 kB

mvHYPERION Technisches Handbuch / Technical Manual

 [mvIMPACT Acquire API C++](#) | 10,452.7 kB

mvIMPACT Acquire API C++ Handbuch / Manual


 [mvIMPACT Acquire API C](#) | 4,076.6 kB

mvIMPACT Acquire API C Handbuch / Manual

 [mvIMPACT Acquire API .NET](#) | 7,724.7 kB

mvIMPACT Acquire API .NET Handbuch / Manual

Brochures commerciales

 [mvHYPERION-Series e 2016-07 MR](#) | 4,661.5 kB

Datenblatt / Datasheet mvHYPERION

Modifications possibles sans préavis, date 10/2011