

Carte d'acquisition multi-standard à faible coût - mvDELTA/mvDELTAe

Abandonné



- Carte d'acquisition multi-standard à faible coût
- 4 entrées couleur comp. / Noir et Blanc (4 connecteurs CINCH) ou 3 couleur comp. + 1 couleur Y/C
- Switch rapide entre les 4 entrées vidéo
- 4 modèles PCI / PCI express disponibles

La carte d'acquisition mvDELTA au format bus PCI et PCI Express®-bus est le produit le plus compact et le plus économique de la gamme MATRIX VISION. Néanmoins, sa qualité de fabrication et ses fonctionnalités en font l'outil idéal pour une grande variété de système d'acquisition et de visualisation d'images vidéo. Le logiciel d'interface, strictement compatible entre différentes cartes de la gamme MATRIX VISION facilite grandement le changement pour une carte plus performante, telle la mvSIGMA-SQ / -SQe.

/* */

- Caractéristiques
- Comp. de cartes "mvDELTA"
- Comp. de cartes "PCI-E"
- Téléchargem.

- 4 video inputs
- Fast input switching
- Grabs color and gray scale signals
- Variable scaling with horizontal and vertical interpolation
- Even/odd frames can be handled independend
- Text and graphics overlay over live video with DirectDraw
- Input connectors: 4 x Cinch + 1 x Y/C, alternativ 4 x BNC
- Supports all important 50/60 Hz video standards
- Programmable brightness, contrast, saturation and hue
- Pixel formats: RGB 8..32 bit, Y/C, 8 bit gray scale
- PCI DMA transfer to main or VGA memory
- Permissible ambient temperature 0..50 °C

Additional mvDELTAe features

- PCI Express® x1

Signal input

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Inputs	CVBS	4	4	4	16
	YC	1 + 3x CVBS	-	4	4
	Gray/VBS	4	4	4	16
	RGB	-	-	-	-
	Digital	-	-	-	-
Parallel acquisition inputs	Number	1	1	1	4
	RGB/ Multispectral	-	-	-	-
	Synchronous / asynchronous	-/-	-/-	-/-	yes / yes
A/D converter		8 bit	8 bit	8 bit	8 bit
Standards	CCIR-601, RS-170	yes	yes	yes	yes
	Variable/ Slow Scan	-	-	-	-
	PAL, NTSC, SECAM	yes	yes	yes	yes
Low pass filter (analog) switchable		-	-	-	-
Restart / Reset		-	-	-	-
Sensor geometry	Area	yes	yes	yes	yes
	Line	-	-	-	-
Termination	Ohm / switchable	75 / no	75 / no	75 / no	75 / no optional: yes
Coupling / Level		AC	AC	AC	AC
Offset		-	-	-	-
Analog Gain	Manual / AGC	yes / yes	yes / yes	yes / yes	yes / yes
Plug connector		4 x Cinch + 1 x Mini-DIN4	4 x BNC	D-Sub 26 + 1 x Cinch + 1 x Mini- DIN4	2x D-Sub 26

Resolution

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Digitalization	Pixel H x V	768 x 576 (50 Hz)	768 x 576 (50 Hz)	768 x 576 (50 Hz)	768 x 576 (50 Hz)
		640 x 480 (60 Hz)	640 x 480 (60 Hz)	640 x 480 (60 Hz)	640 x 480 (60 Hz)
Memory	Pixel H x V	0..768 x 0..576 (50 Hz)	0..768 x 0..576 (50 Hz)	0..768 x 0..576 (50 Hz)	0..768 x 0..576 (50 Hz)
		0..640 x 0..480 (60 Hz)	0..640 x 0..480 (60 Hz)	0..640 x 0..480 (60 Hz)	0..640 x 0..480 (60 Hz)

Pixel clock

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Frequency	with 50 Hz	17.7 MHz	17.7 MHz	17.7 MHz	17.7 MHz
	with 60 Hz	14.3 MHz	14.3 MHz	14.3 MHz	14.3 MHz

Digital ports

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Inputs	Ext. pixel clock	-	-	-	-
	HD, VD	-	-	1	-
	Trigger	-	-	-	4
					= 1 DigIn trigger capable

Outputs	Threshold programmable	-	-	-	ja
	General inputs	-	-	4	16
	TTL outputs	-	-	4	-
	Relay	-	-	-	-
	Highside drivers	-	-	-	8 (12 V) or ext. VDD > 12 V

Image processing processor

Family	mvDELTA		mvSIGMA	
Product	(Cinch)	BNC	SLC	SQ
Name	-	-	-	-

Bus

Family	mvDELTA		mvSIGMA	
Product	(Cinch)	BNC	SLC	SQ
System	PCI 32 bit / 33 MHz rev. 2.1	PCI 32 bit / 33 MHz rev. 2.1	PCI 32 bit / 33 MHz rev. 2.1	PCI 32 bit / 33 MHz rev. 2.1
Signal level	5V	5V	5V	3.3V or 5V
Transfer	DMA, 0-wait bursts, max. 132 MB/s	DMA, 0-wait bursts, max. 132 MB/s	DMA, 0-wait bursts, max. 132 MB/s	DMA, 0-wait bursts, max. 132 MB/s
CPCI version	-	-	-	-

Output processing

Family	mvDELTA		mvSIGMA		
Product	(Cinch)	BNC	SLC	SQ	
Scaling	only down-scaling max. 1:16	yes	yes	yes	yes
Filtering	2,3,4 or 5 tap vertical filter	yes	yes	yes	yes
Pixel formats	RGB (8 / 15 / 16 / 24 / 32 bit)	yes	yes	yes	yes
	YC (16 bit planary / packed)	yes	yes	yes	yes
	GRAY (8 bit)	yes	yes	yes	yes

Video output

Family	mvDELTA		mvSIGMA		
Product	(Cinch)	BNC	SLC	SQ	
Signal	RGB	-	-	-	-
	CVBS / YUV	-	-	yes (select. input signal)	-

Sync output

Family	mvDELTA		mvSIGMA		
Product	(Cinch)	BNC	SLC	SQ	
Signal	-	-	-	-	

Camera power supply

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Via PCI	12V	-	-	700mA	700mA
Via additional power plug	12V	-	-	1.5A	1.5A

Power requirements

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
PCI	5V	210mA	210mA	300mA	1.5A
	12V	-	-	50mA	200mA

Dimensions

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Board	Length (mm)	123	123	125	150
	Width (mm)	95	95	76	106

Ambient conditions

Family	mvDELTA		mvSIGMA	
Product	(Cinch)	BNC	SLC	SQ
Permissible ambient temperature	0 .. 50 °C	0 .. 50 °C	0 .. 50 °C	0 .. 50 °C
Permissible storage temperature	-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

Software

Family		mvDELTA		mvSIGMA	
Product		(Cinch)	BNC	SLC	SQ
Drivers	Windows®	XP / Vista / 7 (32 bit / 64 bit)	XP / Vista / 7 (32 bit / 64 bit)	XP / Vista / 7 (32 bit / 64 bit)	XP / Vista / 7 (32 bit / 64 bit)
	Linux®	yes	yes	yes	yes
	Twain	yes	yes	yes	yes

All data refer to the current revision.

Signal input

Family		mvDELTAe		mvSIGMA	mvHYPERI ON		
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 converter Standards	(bit)	8	8	8	-	-
	CCIR-601, yes	yes	yes	yes	-	-	-
	RS-170 Variable/ Slow Scan	-	-	-	-	-	-
	PAL, NTSC, yes	yes	yes	yes	-	-	-
	SECAM	-	-	-	-	-	-
Low pass filter (analog) switchable		-	-	-	-	-	-
Restart / Reset		-	-	-	yes	yes	yes
Sensor	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
				= 1 DigIn trigger capable			
	Threshold programmable	-	-	yes	no	no	no
	General inputs	-	-	16	2	4	4
Outputs	TTL outputs	-	-	-	-	-	-
	Relay	-	-	-	-	-	-
	Highside drivers	-	-	8 (12V) or ext. VDD > 12V	-	-	-
	General outputs	-	-	8	1	2	2

FPGA

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

Bus

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

Output processing

Family	mvDELTA		mvSIGMA	mvHYPERI ON		
Product Scaling	(Cinch)	BNC	SQe	CLb	CLm	CLf
	only down- scaling max.	only down- scaling max.	only down- scaling max.	-	-	-

Filtering		2,3,4 or 5 tap vertical filter	2,3,4 or 5 tap vertical filter	1:16 2,3,4 or 5 tap vertical filter	-	-	-
Pixel formats	RGB	8 / 15/ 16 / 24 / 32 bit	8 / 15/ 16 / 24 / 32 bit	8 / 15/ 16 / 24 / 32 bit	24 / 30 / 32 bit	24 / 30 / 32 bit	24 / 30 / 32 bit
	YC	16 bit planar / packed	16 bit planar / packed	16 bit planar / packed	-	-	-
	Gray	8 bit	8 bit	8 bit	8 / 10 / 12 / 14 / 16 bit	8 / 10 / 12 / 14 / 16 bit	8 / 10 / 12 / 14 / 16 bit

Video output

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

Sync output

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

Camera power supply

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

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		(Cinch)	BNC	SQe	CLb	CLm	CLf
Board	Length (mm)	123	123	170	147	155	155
	Width (mm)	95	95	111	95	111.5	111.5

Ambient conditions

Family	mvDELTA		mvSIGMA	mvHYPERI		
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

Software

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

All data refer to the current revision.

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](#).

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)

Cette carte d'acquisition est soutenue par Video4Linux. Ici, il y a une liste complète:

<http://www.mjmwired.net/kernel/Documentation/video4linux/CARDLIST.bttv>

Il est possible de charger la carte d'acquisition avec la ligne de commande:

```
sudo rmmod bt878 bttv  
sudo modprobe bttv card=7
```

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/>

mvSDK pour Windows (désapprouver)

mvSDK pour Linux (désapprouver)

Documentations

 [mvDELTA/mvSIGMA technical manual \(html\)](#)

mvDELTA/mvSIGMA Technisches Handbuch / Technical Manual

Brochures commerciales

Modifications possibles sans préavis, date 11/2006