

Multistandard PCI frame grabber - mvSIGMA-SLC

Discontinued



- 4 input multistandard gray scale/color frame grabber
- Fast switching between asynchronous cameras
- General purpose frame grabber with optimum features for surveillance applications
- Digital I/Os for alarm signals

The mvSIGMA-SLC is a frame grabber for standard color or gray scale video signals. Optimized teamwork of hard- and software allows fast switching between asynchronous cameras. In surveillance applications the digital I/Os match the need to connect alarm input and output devices to the system.

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- Features
- Product comparison mvDELTA / mvSIGMA
- Downloads

- Gray scale and color acquisition
- Automatic or fixed gain
- Hardware / software assisted fast input switching
- 4/4 digital I/O-signals
- Camera supply: 12 V, 700 mA or 1.5 A with add. internal power cable
- 4 gray, CVBS or YC inputs
- All TV standards supported
- Video signal termination can be switched off
- Standard MATRIX VISION connector for video inputs and digital I/O
- Opt. video out pass-through
- Permissible ambient temperature 0..50 °C

Host interface

- Scaler and color space conversion
- PCI DMA transfer in different pixel format

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	768 x 576 (50	768 x 576 (50	768 x 576 (50

					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
	Threshold programmable	-	-	-	= 1 DigIn trigger capable ja
Outputs	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
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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.

Drivers and applications for Windows 7, 8.1 (mvIMPACT Acquire)

Since version 2.10.1 of mvIMPACT Acquire the "Merge Modules for mvIMPACT Acquire" are available as a separate download.

For this reason the installation packages are smaller now. The Merge Modules are needed for private setup routines, which shall include mvIMPACT Acquire drivers. More details are available in the [mvIMPACT Acquire manuals](#).

Older driver versions

To be able to watch or download the drivers, you have to be [registered](#) or [logged in](#).

Drivers and applications for Linux 2.6 .. 3.x.x (mvIMPACT Acquire)

The frame grabber is supported by the Video4Linux driver. Here's a complete list:

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

Via command line you can load the frame grabber:

```
sudo rmmod bt878 bttv  
sudo modprobe bttv card=126
```

Additional packages for LabVIEW, DirectShow, VisionPro and 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 for Windows (deprecated)

mvSDK for Linux (deprecated)

Manuals

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

mvDELTA/mvSIGMA Technisches Handbuch / Technical Manual

Datasheets

Subject to change without notice, Date 09/2006