

CMOS Camera

# MV-D752E SERIES

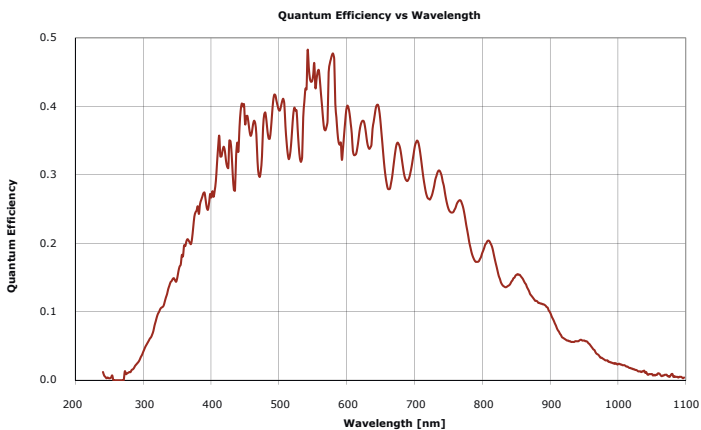
CCIR camera with proprietary Photonfocus sensor

## Features

- Photonfocus A1024B CMOS image sensor
- 752 x 582 pixel resolution
- Dynamic range up to 120 dB via LinLog®
- Up to 87 fps @ full resolution
- Global shutter
- Monochrome
- Extended features
- CameraLink® and USB 2.0 interface
- 12 bit greyscale resolution



## Spectral response of the Photonfocus A1024B CMOS image sensor



MV-D752E-40-CL-12

MV-D752E-40-U2-12

## Image Sensor

Image sensor	Photonfocus A1024B (2. Generation)
Technology	CMOS active pixel (APS)
Scanning system	Progressive scan
Optical format / diagonal	2/3" (10.12 mm diagonal)
Resolution	752 x 582 pixels
Pixel size	10.6 µm x 10.6 µm
Active optical area	8.0 mm x 6.2 mm
Dark current	2 fA/pixel @ 30°C
Full well capacity	~200 ke <sup>-</sup>
Spectral range	400 to 900 nm
Responsivity	120 x 10 <sup>3</sup> DN / (J/m <sup>2</sup> ) @ 610 nm / 8 bit / gain = 1 (approximately 350 DN / (lux s) @ 610 nm / 8 Bit / gain = 1)
Quantum Efficiency	45 % @ 550 nm
Optical fill factor	35 % (geometrical)
Dynamic range	60 dB in linear mode; 120 dB with LinLog®
Colour format	Monochrome
Characteristic curve	Linear, LinLog®, Skimming
Shutter mode	Global shutter
Read out mode	Sequential read out

## Camera

Exposure time	10 µs ... 0.41 s / 25 ns steps
Frame rate	87 fps
Pixel clock	40 MHz
Camera taps	1
Greyscale resolution	8 bit / 10 bit / 12 bit
Fixed pattern noise (FPN)	< 1 DN RMS @ 8 bit / gain = 1 / offset correction ON
Analogue gain	1
Digital gain	1 / 2 / 4
Configuration interface	CL SERIAL (9600 Baud)
Trigger modes	<ul style="list-style-type: none"> <li>Free running (non triggered)</li> <li>Interface trigger</li> <li>External trigger input</li> </ul>
Features	<ul style="list-style-type: none"> <li>Region of Interest (ROI)</li> <li>16 Multiple ROI (MROI)</li> <li>Decimation X and Y</li> <li>Image correction</li> <li>Look-up table (LUT)</li> <li>Constant frame rate</li> <li>Image information</li> <li>Extended trigger input and strobe output functionality</li> </ul>
Interface	CameraLink® Base   USB 2.0
Operating temperature	0°C ... +60°C
Power supply	+12 V DC (±10%)
Power consumption	1.6 W   3.0 W
Lens mount	C-Mount (CS-Mount optional)
Dimensions	55 x 55 x 32 mm <sup>3</sup>   55 x 55 x 49 mm <sup>3</sup>
Mass	200 g   210 g
Conformity	CE / RoHS / WEEE
Specials	Adjustable backfocus; Opto-isolated I/Os

## Software

Camera control	PFRemote™ graphical user interface (GUI) and PFLib (SDK) USB 2.0: MicroDisplay (GUI) and PFLib (SDK)
OS	CL: win2k; winxp; winvista; other OS (Linux, QNX, etc) on request USB 2.0: win2k; winxp

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