

BL1-D1024E-40 BL1-D752E-40	BL1-D1024E-80	BL1-D1024E-160
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Image Sensor	
Image sensor	Photonfocus A1024B (2. generation)
Technology	CMOS active pixel
Scanning system	Progressive scan
Optical format / diagonal	1" / 15.42 mm (BL1-D752E-40: 2/3" / 10.12 mm)
Resolution	1024 x 1024 pixels (BL1-D752E-40: 752 x 582 pixels)
Pixel size	10.6 μm x 10.6 μm
Active optical area	10.9 mm x 10.9 mm (BL1-D752E: 8.0 mm x 6.2 mm)
Random noise	< 0.5 DN RMS @ 8 bit / gain = 1
Fixed pattern noise (FPN)	< 1.0 DN RMS @ 8 bit / gain = 1 / offset correction on
Dark current	2 fA / pixel @ 30 °C
Full well capacity	200 ke ⁻
Spectral range	400 nm ... 900 nm
Responsivity	120 x 10 ³ DN / (J/m ²) @ 610 nm / 8 bit / gain = 1 (approximately 350 DN / (lux s) @ 610 nm / 8 bit / gain = 1)
Optical fill factor	35 %
Dynamic range	Up to 120 dB with LinLog [®]
Colour format	Monochrome
Characteristic curve	Linear, LinLog [®] , Skimming
Shutter mode	Global shutter
Read out mode	Sequential exposure Sequential read out or simultaneous read out (read out during exposure)

Board Level Cameras			
Exposure time	10 μs ... 0.41 s / 25 ns steps	10 μs ... 0.83 s / 50 ns steps	10 μs ... 0.41 s / 25 ns steps
Frame rate CL	37 fps (OEM-D752E-40: 87 fps)	75 fps	150 fps
Frame rate USB	Up to 37 fps (OEM-D752E-40: 87 fps) (mode & bitdepth dependent)	-	-
Pixel clock	40 MHz	40 MHz	80 MHz
Camera taps	1		2
Greyscale resolution		12 bit / 10 bit / 8 bit	
Analogue gain		1	
Digital gain		1 or 2 or 4	
Configuration interface	CL SERIAL (9600 baud)	CL SERIAL (9600 baud or 57600 baud, user selectable)	
Trigger modes		• Free running (non triggered) • Interface trigger • I/O trigger	
Features		• (Multiple) Regions of interest (ROI/MROI) • On-camera shading correction • Decimation in x (only BL1-D752E-40 and BL1-D1024E-40) and y direction • Look-up Table • Image information • Skimming • LinLog [®] • Trigger input • Strobe output	
Interface	CameraLink [®] base or USB 2.0 configuration		CameraLink [®] base configuration
Operating temperature		0°C – +50 °C	
Power supply		+12 V DC (+/-10 %)	
Power consumption	1.6 W (CL) / 3.0 W (USB 2.0)	3.0 W	3.2 W
Lens mount		C-Mount (CS-Mount optional)	
Dimensions	46 x 46 x 33 mm ³ (CL) 46 x 46 x 44 mm ³ (USB 2.0)	46 x 46 x 40 mm ³	
Mass	110 g		120 g
Conformity		RoHS / WEEE	

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