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*Vipera 640/384*

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*Basic specifications*

<i>Hardware</i>		
Focal Plane Array	Lynred PICO640	17um 640x480, < 50mK
	Lynred PICO384	17um 384x288, < 60mK
FPGA	Intel Cyclone V	5CEBA4F1717N
Memory	ISSI LPDDR2, 256Mb	IS43LD16160B-3BLI
Boards	6-layers plated through	No buried / blind vias
Interface cabling	Samtec Tiger Eye	FMTP-10-D-3.85-01
Communication	Asynchronous serial	115200-8-N-1
Flash memory	FPGA configuration, OSD	2 configurations min.
<i>Firmware</i>		
Native resolution	640 x 480	120Hz max, Tc < 12ms
Readout	Full 640 x 480	60fps @ 14 bit max
Formatting, option 1	Monochrome 16-bit	LVDS @ 480Mbps
Formatting, option 2	False color scheme, 8-bit, 4:2:2	LVDS @ 480Mbps
Genlock	Internal PLL-lock	30 / 60 fps
<i>Processing</i>		
Non-uniformity correction	Shutterless	System
Dynamic Range Mapping	Threshold / gain	Serial port
Symbology insertion	Graphics (reticle) / text, menus	Serial port
DC calibration	Lens replacement	Serial port
Barrel distortion correction	Lens specific, HFOV based	Factory calibrated
<i>Power, interfacing</i>		
Main supply	3.3V – DC	1,5-2 Watt
Genlock, serial port	1.8V	2.5V tolerant
Video output	LVDS	1 pair
Video clock input	phase locked strobe clock	27MHz
<i>Mechanical</i>		
External dimension	Anodized aluminium	35 x 35 x 25 mm (TBC)
Optional optics		
	Ophir	35mm f/1.2
	Ophir	7.5mm f/1.4
	Ophir	16.7mm f/1.25