

CHERUB

camera core component
for system integration

Extreme low latency
Thermal / EO fusion
Linux platform for camera controls
Improved DRI
3G-SDI and OLED output



Cherub is an extreme low latency fusion core, that fuses QVGA or VGA microbolometer with a color CMOS sensor. The versatile core is available with an OLED display for easy integration into handheld and wearable systems. A 3G-SDI version is available as well for integration into, for example, vehicle Local Situational Awareness Systems, surveillance sensor platforms or airborne systems. Embedded Linux takes care of all camera core controls and powerful FPGA processing guarantees extreme low latency of the fused video. FPGA processing also allows for video enhancement technologies like ShadowBoost™ and EASE™ to be integrated. Integration into wearables and sight systems is also possible due to the smart design

Key features

- Extreme low latency
- EO and IR fusion
- Very compact, modular
- Versatile design
- Embedded Linux

Applications

- Vehicle camera systems
- Surveillance systems
- Remote Weapon Stations
- ISTAR sensor platforms
- Wearables, binoculars, weapon sights etc.



ITS

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NIGHT VISION THERMAL IMAGING CAMERA DEVELOPMENT

EXTRAORDINARY CAMERA SYSTEMS

System basics

Camera type	Fusion core, day - low light and thermal
Sensor	Sony IMX 252 colour or monochrome
Microbolometer	ULIS PICO 384/640
OLED	Emagin SXGA OLED
Resolution	1280 x 1024 pixels
Spectral range	400 - 1100 nm + LWIR
Framerate	60Hz
CMOS detection limit colour	~0.5 mlux faceplate illumination (3 -5 mlux on scene with F1.8)
CMOS detection limit monochrome	~100 μ lux faceplate illumination (~1 mlux on scene with F1.8)

Input and output

Digital output	3G-SDI (SMPTE 424M compliant) /PAL/Custom specific
Interface	RS232, LVTTTL, LVDS

Features

Image enhancement	Powerful FPGA based digital image enhancement ShadowBoost™, EASE™, overlay, gamma, brightness, contrast enhancement etc.
NUC	Built in NUC, shutterless control of LWIR sensor
Digital smart fusion	Extreme low latency (< 1 line), multiple sensor settings.
Operating system	Embedded Linux, SDK available

Physical measures

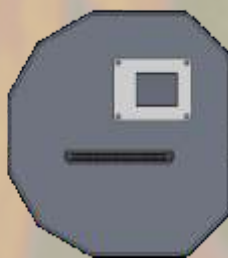
Dimensions	88mm diameter, 36mm height
Options	Tetherable sensors and OLED
Weight	~200 grams

Power

Input voltage	7-28Volt DC
Power consumption	~3 Watt

Environmental parameters

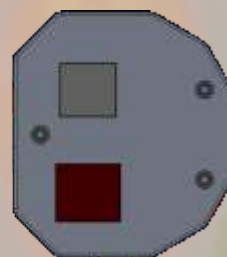
Operating temperature	-40°C to +60°C
Storage temperature range	-45°C to +85°C
Shock	MILSTD design
<i>Design and specifications are subject to change without notice</i>	



back



side



front