

camera core component
for system integration

PULSATRIX CORE

DIGITAL NIGHT VISION TO THE LIMIT

Image intensifier based
Ultra sensitive
Wide dynamic range (140dB)
High frame rates (<100 Hz)
High level tube protection
1280x1024 digital output or PAL

Pulsatrix Core is the number one choice for photon starved applications where high quality video is demanded. Specially designed for system integrators to be used as component in a camera system. At night, during the darkest conditions, the military-standard image intensifier amplifies the little light which is available to deliver video of high contrast and rich in detail. Even by starlight the core does not introduce motion blur. There is no temporal integration nor high exposure times. Pulsatrix Core is small and features a low power consumption.

See the unseen! Best in class!

Key features

- Ultra sensitive night time operation
- Integrated video processing
- Small form factor, low power consumption

Applications

- Vehicle situational awareness
- Driver visual enhancement
- Midlife upgrades and retrofits
- Sights
- Security and surveillance



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NIGHT VISION THERMAL IMAGING CAMERA DEVELOPMENT

EXTRAORDINARY CAMERA SYSTEMS

System basics

Type	Image Intensifier based, monochrome, high sensitive core
Sensor	WDR CMOS
Image intensifier	Photonis XR5 (other types on request)
Resolution	1280x1024 8 bit digital output and PAL 720 x 576 (interlaced)
Dynamic range	Ultra-high dynamic range: 140 dB, high contrast
Spectral range	400 - 1000 nm
Frame rate	Digital: max 100 Hz; Analog: PAL 25 Hz
Detection limit	<1 μ Lux @ 2850 K, full frame rate
EBI (equivalent background illumination)	<0,25 μ Lux
Image intensifier control	Closed loop, integrated digital control
Optical format	1 inch, 18 mm diagonal

Input and output

Connector (I/O)	Hirose DF12 connector
Output	PAL analog video and BT.656 8 bit, LVDS and LV-CMOS
Interface	Asynchronous serial interface (for settings)

Features

Image enhancement	Powerful, FPGA based, digital image enhancement: anti-blooming, noise reduction, image sharpening, contrast enhancement, etc.
Image intensifier protection	Closed loop image intensifier control to preserve sensitivity and contrast Protected with ITS' Virtual Iris™ technology
Overlay	E.g. reticule, bearing, range, etc.

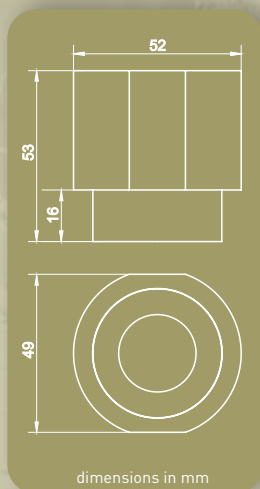
Physical dimensions

Size and weight	Diameter: 52 mm; length: 53 mm; 166 gram
Power	
Input voltage	5 Volt DC, 2 Watt

Environmental parameters

Operating and storage temperature	-20°C to +60°C, -35°C to +60°C
Shock	75 g - 6 ms

ITS offers full technical and mechanical support
Output formats and connectors on request



Designs and specifications are subject to change without notice.