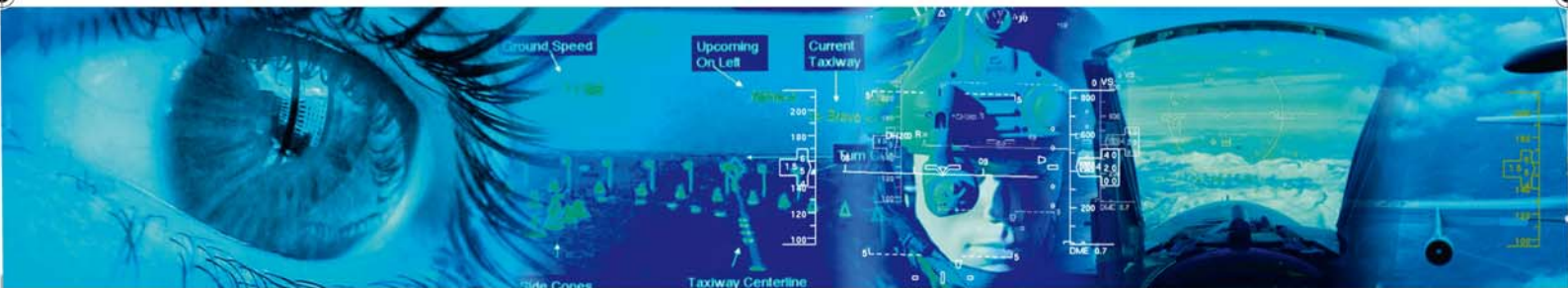


ICU

INTENSIFIED CAMERA UNIT



- Analog / digital camera
- Low power typ < 0.8 W
- Ultra low light level sensitivity < 1 μ lx
- Low weight < 100g
- Compact \varnothing 43x45 mm (module)
- Extended standard and optional digital functions



The ICU is a new generation of low light level, fully automatic, gated intensified CMOS camera. The detector combines exclusive and proprietary digital technology with powerful signal processing algorithms to optimize the real-time and dynamic imaging performance. This, together with its small package size and low power consumption makes for a powerful new tool to meet the demanding requirements of today's defence imaging systems.

The ICU provides exceptional video performance at illumination levels from full sunlight to overcast starlight and combines proprietary built-in protection of the image intensifier tube, unlike other intensified cameras in the world.

A suite of image-enhancing features including anti-blooming, noise reduction, image sharpening, real-time image defect photometric correction and dynamic contrast enhancement provide unique capabilities to maximize camera performance in all environmental conditions, from remote unlit terrain to urban zones.

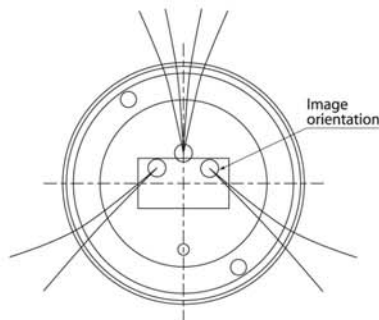
The 'snap-shot' and 'multi-frame' exposure modes make it ideal for under-cover surveillance operations and abandoned cameras for law enforcement and special operations where power consumption constraints are paramount

The ICU primarily targets Soldier Modernization Programs for helmet mounted systems, night vision vehicle driver's viewers, digital aviator's night vision goggles, UAV payloads, active laser gated systems for long range imaging, observation and surveillance systems for law enforcement.

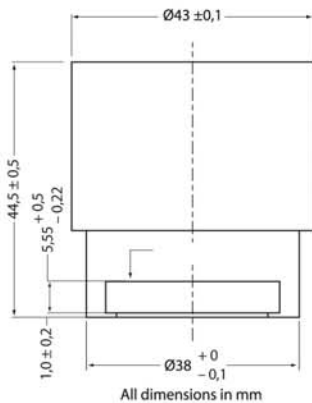
PHOTONIS
NIGHT VISION

ICU

INTENSIFIED CAMERA UNIT



Material: anodised AL 51 ST



PHOTONIS
NIGHT VISION

Video specifications

Module	ICU Compact	ICU High Resolution
Sensor active area	8.5 x 6.4 mm	14 x 10.5 mm
Imager	2/3" CMOS sensor	
Pixel & read-out mode	1280 x 1024 – interlaced	
Analog output	PAL (625 lines) or NTSC (525 lines) – composite video 75Ω imp.	
Video format	ITU-R BT.656-4	
Digital output	SDI – LVDS 270 Mbits/s	
Coding depth	8 / 10 bits	
Camera communication link	RS232 – 115.2 kbaud	

Camera main characteristics

TV resolution	640 TV lines at 10% contrast	640 TV lines at 20% contrast
Size (ø x L) without lens	ø43 x 45 mm	ø43 x 55 mm
Weight	< 100g	< 115 g
Spectral range	400 – 900 nm	
Interscene dynamic range	1 µlx to 100 000 lx	
Intrascene dynamic range	>35 dB	
Max gain	15mV/µlx (analog) - 0.35 µlx/LSB (digital)	
Min sensitivity	1 µlx face plate illumination	
Power consumption	Nominal 5V (4V – 6V) / 160 mA	
Shock	75g – 6ms	
Operating temperature	Full performance : -10°C to +50°C Reduced performance : -35°C to +65°C	
Storage temperature	-50°C to +70°C	

Standard features

- Autogating / 24h operations
- Automatic digital image correction
- Anti-blooming correction

Optional features

- Image sharpening
- Dynamic Contrast Enhancement (DCE)
- 2x digital zoom with full resolution
- Symbol insertion (real time text, graphics)
- Enhanced signal to noise at low light levels (down to 0.1 µlx)
- Snapshot mode (640x480 or 1.3Mpixel)
- Digital control package for external synchronization for laser gated imaging
- Extended intrascene dynamic range (85dB)
- C-mount adaptor / special connectors

Specifically designed for

- Helmet Mounted Application
- SMP
- C4I
- Law enforcement Surveillance
- Long range active imaging
- Avionics

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