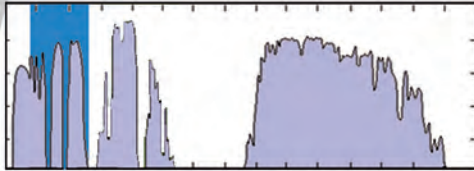


MCT 640 x 512 15 μ m PITCH SWIR IDCA

EXTENDED SWIR-MODULES

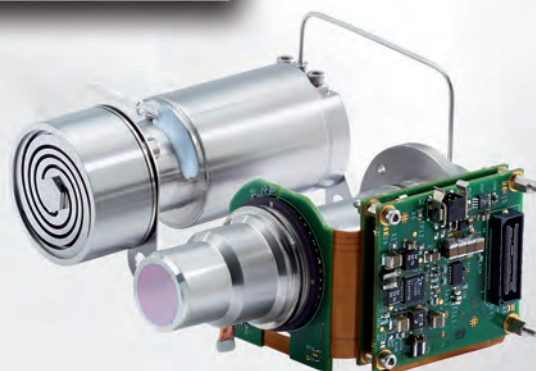
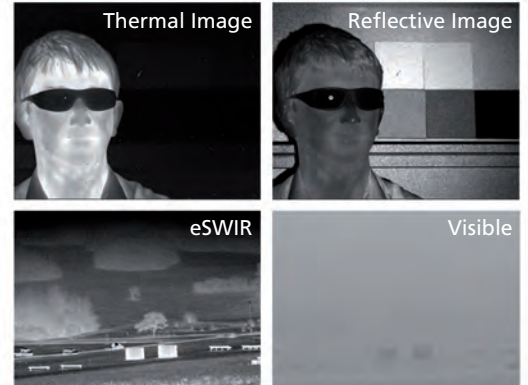
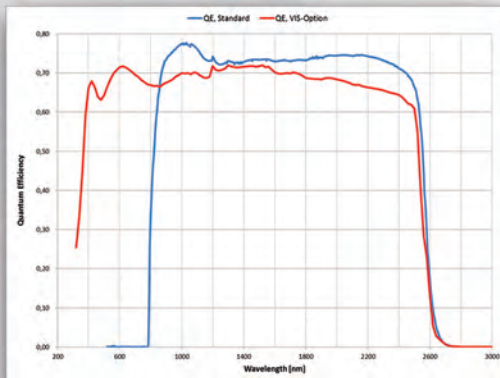


Supreme Night Vision with eSWIR

Coincidental thermal & reflective imaging

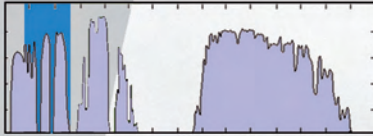
eSWIR Benefits

- Full 0.9 μ m to 2.5 μ m SWIR response (optionally 0.4 μ m to 2.5 μ m)
- Visualization of laser up to 2.5 μ m (not detectable by standard SWIR or I²)
- Sight through window glass
- Enhanced performance in fog and haze
- Reflected NIR-SWIR (Moon, Night-glow) with higher contrast
- Active illumination by „invisible“ light → out-of-band operation
Wavelength > 2 μ m is not detectable by standard SWIR or I²



MCT 640 x 512 15 μ m PITCH SWIR IDCA

EXTENDED SWIR-MODULES

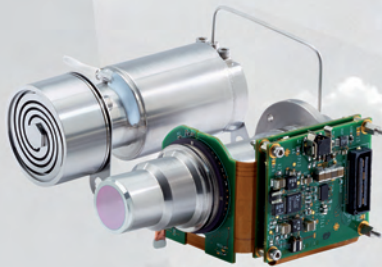


IR-Sensor

Material	HgCdTe
Format	640 x 512
Pixel pitch	15 μ m x 15 μ m
Detector spectral response	0.9 μ m - 2.5 μ m

ROIC

Technology	Si-CMOS
Input	Capacitance Transimpedance Amplifier (CTIA)
Operating modes	Snapshot, Rolling Frame
Read out modes	selectable ITR / IWR / Rolling Shutter
Windowing	programmable (any window in steps of 4 columns and 2 rows)
Charge handling capacity	~ 1.5Me ⁻ (Low Gain) ~ 0.1Me ⁻ (High Gain)



Command & Control Electronics

Type	CCE4K
Output video	CL LVDS 16bit (16bit ADC)
Input supply / control / synchronization	15VDC cooler, 5V CCE / RS-232, via CL / int., ext.
Power consumption	2W
Max. data rate	48MHz
Max. full frame rate	120Hz

Dewar / Cooler

Cold shield	F/2.0
Cooler	Single Piston Linear Cooler MCC030
Cooler electronics	external digital
FPA operating temperature	~ 175K
Cool down time*	8min.
Cooler power consumption	< 9W
MTTF cooler**	> 25000h
Total weight IDCA	< 1kg

* at ambient room temperature

** will depend on usage profile



Performance

Mean SNR (half well)	> 800 (Low Gain) > 180 (High Gain)
Typical array operability	> 99.5%

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