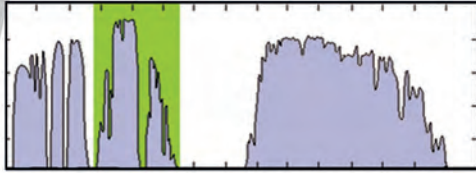


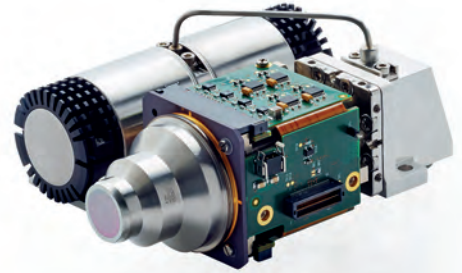


## HiPIR-HD720M - MCT MWIR 1280 x 720 12 $\mu$ m PITCH IDCA

HIGH PERFORMANCE HD MWIR-MODULES

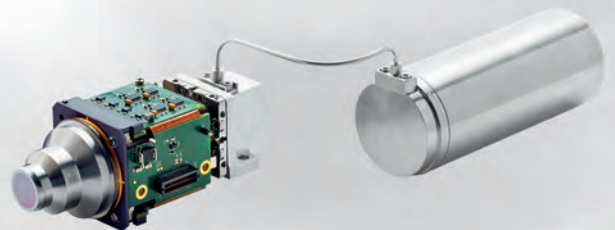


- High resolution in a compact configuration
- Same configuration for MWIR and LWIR modules available
- Various cooler options available
- Best suited for applications requiring 16:9 HD format:  
vehicle platforms, rotorcraft pilotage, surveillance



The HiPIR-HD720M offers ultimate high resolution true HD 16:9 format IR-imaging at 75Hz full frame rate. The small pixel size enables fast cool down times, and allows operation with power saving coolers like the AIM SX040. The integrated command and control electronics delivers 14bit resolution digital video data and provides a comprehensive system programming interface.

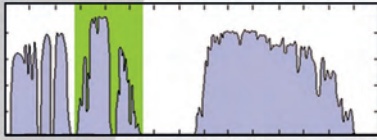
The modules are well suited for airborne and ground based applications like pilot sights or high performance surveillance sights, using 16:9 HD video format.





# HiPIR-HD720M - MCT MWIR 1280 x 720 12µm PITCH IDCA

HIGH PERFORMANCE HD MWIR-MODULES



## IR Sensor

Material	HgCdTe - Cadmium Mercury Telluride
Format	1280 x 720 (HD720)
Pixel pitch	12µm x 12µm
Detector spectral response	3.4µm - 5µm

## ROIC

Technology	Si-CMOS
Input	Direct charge injection
Operating mode	Snapshot
Readout modes	selectable ITR / IWR
Windowing	programmable (any window in steps of 8 columns and 1 row)
Charge handling capacity	~ 4.5Me <sup>-</sup> (IWR); ~ 6.5Me <sup>-</sup> (ITR)

## Command & Control Electronics

Type	CCE8K-small-HD
Output video	CL LVDS 16bit (14bit ADC)
Input supply / control / synchronization	5VDC / CL LVDS, UART LVTTL / Internal, external frame sync
Power consumption	~ 2.2W
Max. data rate	80 MHz (up to 120MHz on request)
Max. full frame rate	75Hz@CL base configuration (up to 120Hz on request)

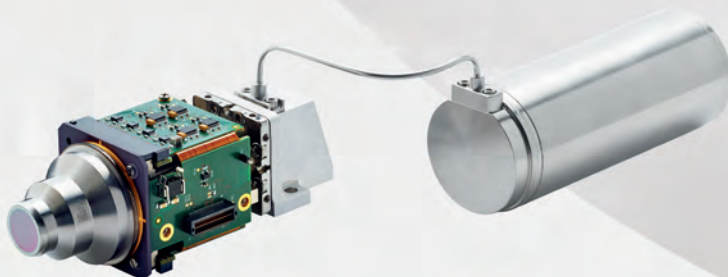
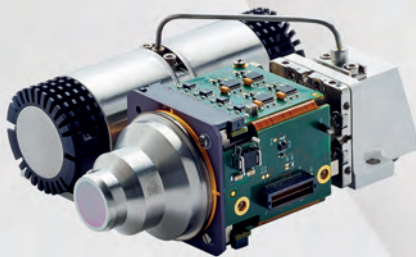
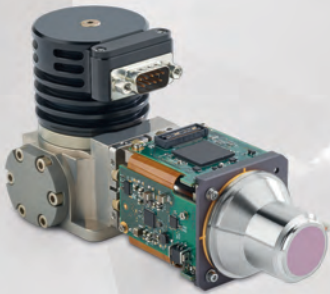
## Dewar / Cooler

Cooler options	SX095	SX040	K548
FPA operating temperature	~ 95K	~ 120K	~ 95K
Cool down time*	3.5min	5min	5min
Cooler power consumption DC*	12W	10W	8W
MTTF cooler**	> 18,000h	> 20,000h	> 10,000h
Cold shield	F/4.0, F/2.0 standard, others on request		
Total weight IDCA	1.2kg	1.0kg	0.8kg

\* at ambient room temperature  
 \*\* will depend on usage profile

## Performance

NETD (300K; half well)	~ 20mK
IETD	< 0.5 x NETD
Array operability	> 99.5%



**AIM Infrarot-Module GmbH**  
 Theresienstraße 2  
 74072 Heilbronn/Germany  
 Tel.: +49 7131 6212 -0  
 info@aim-ir.com  
 www.aim-ir.com