



mini-Nyx-S 384

Hyperspectral Smart IDCA

384 x 288 Extended Wavelength SWIR

- OEM integrated detector cooler assembly (IDCA)
- Extended SWIR (0.9 - 2.5um) MCT IRFPA
- AIRS customized optical interface, hyperspectral filter mounting and packaging
- Smart IDCA - A/D and uncorrected Camera Link video interface
- High data rates up to 450Hz full frame
- Designed for ease of integration into hyperspectral instruments, gimbal payloads, and other OEM systems

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AIRS Delivers Advanced Thermal Imaging

AIRS' integrated detector cooler assemblies (IDCA) offer medium and large format, high-performance SWIR, MWIR and LWIR imaging utilizing state of the art MCT and T2SLS IRFPAs. The sensitivity and resolution of the Nyx series can meet the most demanding imaging needs. AIRS and AIM are collaborating to leverage AIM's IRFPA and cryocooler capabilities into AIRS' advanced sensor products.

IR FOCAL PLANE ARRAY

Sensor Type	MCT
Array Format	384 (h) x 288 (v)
Pixel Pitch	24 μ m
IRFPA Spectral Band	Extended SWIR (0.9- 2.5 μ m)
FPA Operating Temperature	150°K typical

OPTICAL INTERFACE (CUSTOMIZABLE)

Cold shield	matched for system design
Cold Filter Bandpass	matched for system design
Hyperspectral options	order blocking/selecting filter mounted in dewar cold space to customer requirements

COOLER - INTEGRAL STIRLING

Integral Stirling	K561 or other
MTTF	> 10,000 hours
Split Stirling	Optional

READ OUT INTEGRATED CIRCUIT (ROIC)

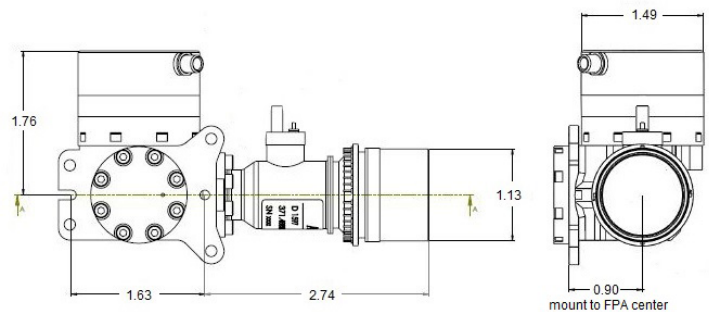
Modes	Snapshot in IWR (Integrate While Read or ITR (Integrated Then Read)
Input Stage	Capacitance Transimpedance Amplifier (CTIA)
Sub-frame capability	any size in steps 8 hor. and 1 vert row deselection for individual lines (e.g. spectral channels)
Outputs	8
Max. Full Frame Rate	450 Hz IWR (384x288) variable (higher) with windowing

ELECTRICAL

Voltage	12 VDC
Power Dissipation @ 25°C	6 W typical steady state

COMMAND AND CONTROL ELECTRONICS

Communications	RS-232
Video Output	Uncorrected Camera Link
A/D converter	16 bit
Frame Sync	External or Internal



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