

Request for Proposal (RFP) for the supply of VIS-IR Detector

Justification for the requirement of the items:

The detector mentioned in this RFP will be used for testing and calibration of various optical components including grating, filters, DBS etc.

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S. No	Name of the component	No. of Units required
1	VIS-IR Detector with all required accessories	1

Technical specifications of the Detector

Sensor Type	InGaAs PIN- Photodiode
Active Pixel	640×512
Pixel Pitch	15 μm × 15 μm
Active Area	9.6 mm × 7.68 mm
Spectral Response	0.4 μm to 1.7 μm
Noise (RMS)	< 195 electrons Low Gain, <50 electrons High Gain
Quantum Efficiency	Peak > 92% (>87% @ 1.064 μm , 82% @ 1.55 μm) \geq 40 % over the wavelength band 500 – 1200 nm
Pixel Well depth	Low Gain: 650Ke ⁻ , High Gain: 12 Ke ⁻
Pixel Operability	> 99.5%
Output Format	14 bit CameraLink (base configuration)
Exposure time	1 μs to 1/ frame rate
Shutter mode	Global Shutter
Frame Rate	Up to 120Hz programmable, 25 ns resolution
Optical Interface	C-mount or M42
Trigger Interface	Trigger IN and OUT - TTL compatible
Camera Power Consumption	\leq 3.5 W (TEC OFF, NUC ON),

	≤ 4W (TEC ON in ambient, NUC ON)
TE Cooling	Active
Image Correction	3 point NUC (offset, Gain and Dark current) + pixel correction
Functions	Exposure, Intelligent AGC, Non Uniformity correction, Gamma, Pk/Av, TEC, ROI

Additional Requirements:

- The vendor should supply all the relevant hardware and software required for operation of the detector.

Warranty:

All the supplied hardware should have a minimum warranty of 1 year from the date of installation/supply.

Expected deliverables:

1. As mentioned in **Table of Contents** that meets the **technical specifications**.
2. Soft copy and hard copy of all the relevant manuals, soft copy of all control software's should be supplied by the vendor at the time of delivery.
3. All the necessary controls, auxiliary hardware and software for the detector operation should be supplied by the vendor at the time of delivery.

Expected Delivery Schedule

4-6 Weeks

For any information/clarifications contact the following

Technical: "*shalabh.mishra@iiap.res.in*".

Administrative matters: "*purchase@iiap.res.in*".