

Request for Proposal (RFP) for the supply of SWIR Detector

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S. No	Name of the component	No. of Units required
1	SWIR Detector system with all required accessories as per the RFP	1

Technical specifications of the Detector

Sensor Type	InGaAs
Pixel Array	640×512
Pixel Pitch	≤ 20μm
Spectral Response	0.8 μm to 1.7 μm
Read Noise (RMS)	< 200 electrons/pixel in Low Gain, <50 electrons/pixel in High Gain
Quantum Efficiency	≥ 60% (avg) in the response range ≥ 75% at 1.074 μm
Pixel Well depth (electrons)	≥ 2 M in Low Gain
Pixel Operability	> 99.5%
Output Format	14 bit/16 bit CameraLink (base configuration)
Minimum Exposure time	≤ 1 ms
Maximum Exposure time	≥ 1 s
Shutter mode	Global Shutter
Optical Interface	C-mount or M42
Trigger Interface	Trigger IN and OUT - TTL compatible
Cooling Mechanism	TE Cooling
Image Processing Functions	Automatic Gain Control and built-in non-uniformity corrections
Mode of Data Acquisition	Single Frame and Continuous

Additional Requirements:

- The vendor should supply all the relevant hardware and software required for operation of the detector.
- **The detector is intended to be used in Clean room environment ISO-Class 4. Hence, the standard protocols must be followed during packaging.**
- **Indian Agents, if any, should provide letter of authorization from the manufacturer.**

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.
4. All the conformance certificate specifying the performance of the detector must be sent to the purchaser in original.

Expected Delivery Schedule

4-6 Weeks

For any information/clarifications contact the following

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

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