(RFT23) Request for Proposal (RFP) for the supply of VIS-IR Detector

Name of the proposal:
Supply of VIS-IR Detector : The detector mentioned in this RFP will be used for testing and calibration of various optical components including grating, filters, DBS etc.

Table of Contents/index:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of the component</th>
<th>No. of Units required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VIS-IR Detector with all required accessories</td>
<td>1</td>
</tr>
</tbody>
</table>

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)
  ≥ 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  
≤ 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

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