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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<th>Name of the component</th>
<th>No. of Units required</th>
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<td>VIS-IR Detector with all required accessories</td>
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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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