

## ONLINE GAMMA RAY IMAGING CAMERA

(Qty. 02Nos.)

### a. General Specification and features.

#### FEATURES

- Complete tool for in situ gamma imaging, saving time, cost and does. Real-time acquisition and immediate display. Very light weight. Excellent spatial resolution for localization of gamma-ray emitters. High detection sensitivity even at low energies. Fully decontaminate able. Battery or AC powered. Remote control and operation. Single Ethernet cable between tablet PC and camera (up to 80 m long)
- Flashlight and Handle.
- Nuclide Identification.
- Automatic Laser Meter.
- Motorized tripod including New pan & Tilt, tripod cable and case for remote operations and panoramic automatic mode.
- High detection sensitivity even at low energies.
- Wide dose rate range ( 1  $\mu$ Sv/hr to 10 m Sv/hr or better)
- The system should be quoted

#### PHSICAL CHARACTERICS

- Energy range-30 keV to 3 MeV.
- Pixelized CdTe detector with 256 X 256 acquisition matrix Detector sensitivity.
- Less than 30 seconds to detect Cs-137 generating 2 $\mu$ Sv/h incremental dose-rate above background at position.
- Field of view. 48.8° with rank 13 /2 mm thickness blue mask. 46.4° with rank 7 /4 mm thickness yellow mask. 41.4° with rank 7 /8 mm thickness red mask spatial resolution. 2.5° with rank 13 /2 mm thickness blue mask. 6.0° with rank 7 / 4 mm thickness yellow mask. 5.0° with rank 7 / 8 mm thickness red mask
- Maximum dose rate (Cs-137). Performance linear up to 10 Sv/h (1000 R/h). Battery life-up to 4 hours per replaceable batteries.

#### ENVIROMENTAL CHARACTERISTICS

- Operating temperature. -10 °C to 45 °C (14 °F to 113 °F)
- Humidity. 0 to 93% at 35 °C
- Power supply-choice of : direct power supply 100-260 v, 47-63 Hz. Rechargeable battery. Power over Ethernet (POE) Communication 10 /100 Mbps Ethernet.

**Note:- Spares:-** Spare parts, connectors for maintenance up to five years should also be quoted. *item wise*

Sr. #	Description
01	<p data-bbox="208 159 1433 240">Monitor to be equipped with approx. 15 inch touch screen with password protection Minimum Detection limit: 1Bq/cm<sup>2</sup> (Cs-137, Co-60)</p> <p data-bbox="208 289 352 321"><b><u>Features:</u></b></p> <ul data-bbox="231 378 1380 1450" style="list-style-type: none"> <li>• Simultaneous check of <math>\beta</math> (beta) and <math>\gamma</math> (gamma) contamination.</li> <li>• Capable to measure alpha, beta radiation in gamma field.</li> <li>• Monitoring of gamma background and real time compensation.</li> <li>• Color display of the contaminated area with audible signal and extent of the contamination.</li> <li>• Measurement results can be shown in cps, dpm, Bq, nCi, Bq/cm<sup>2</sup> or kBq/cm<sup>2</sup></li> <li>• User selectable display of measurement unit</li> <li>• Audible indication of pulses (for detachable clothes probe)</li> <li>• Audible indication if the measurement is interrupted.</li> <li>• Attached with mobile garment probe.</li> <li>• Spare parts kit for five years (list of parts with price should be quoted separately).</li> <li>• Detailed circuit diagrams, service/maintenance manual. All Documentations should be in English Language includes description, function and detailed specification of each component.</li> <li>• Algorithm to measure contamination/ activity must be well defined in user manual of the system, clearly indicating how the measurement process of contamination is being completed.</li> <li>• Factory test report in English language should be provided with system</li> <li>• All relevant software involved for smooth operation</li> <li>• Main Power Supply: 220/230V AC 50/60 Hz.</li> <li>• Storage temperature -20°C to 55°C</li> <li>• Operation temperature +5°C to 45°C</li> <li>• Relative humidity 85% on annual average</li> </ul>