

**TECHNICAL SPECIFICATIONS AND OTHER ALLIED REQUIREMENTS**

SI No.	Description of items	Quantity
PUR/128/ITG/MP/E/2021-22		
1	3D LIDAR : LASER – SAFE FOR EYE CHANNELS – 32 OR MORE PORT & CONNECTIVITY – USB, UDP AND TCP/IP (Detailed Specification as per Annexure- I)	1

**1. WARRANTY**

- 1.1. Comprehensive on-site warranty for a period of one year OR more must be provided to be effective from the date of successful completion of the job and final acceptance of the items / equipment at the user's laboratory / Institute.

**2. BID SECURING DECLARATION**

- 2.1. Bid Securing Declaration is to be furnished by Bidder in the prescribed format duly signed by the authorised person of Bidder. Offer received without the Bid Securing Declaration shall be rejected.

**3. MANUFACTURER'S AUTHORIZATION FORM**

- 3.1 Non-OEM Bidders must furnish the Manufacturer's Authorization Form (MAF) in CSIR prescribed Format failing which their offer will be rejected.

Annexure - I

Desired Specifications for 3D LIDAR

Laser Product	Safe for eye
Ports & Connectivity	USB, UDP and TCP/IP
Vertical channels	32 or more
Rotation rate/FPS	10 Hz to 20 Hz or wider (user programmable/selectable options)
Angular Resolution	Horizontal: 0.1° – 0.4° or wider (user programmable options) Vertical: 0.2° – 1.41°
Angular accuracy	Horizontal: $\pm 0.01^\circ$ or better Vertical: $\pm 0.01^\circ$ or better
Range Accuracy	Max 10 cm in worst cases Max 3 cm in best case
Horizontal FOV	360°
Vertical FOV	40° or more
Min Range	0.3 m or less
Max Range	20 m or more
Range Resolution	0.3 cm or less
Max Weight (without accessories)	1000 g
Dimension (without accessories)	Compact, suitable to install in space (5in X 5in X 5in)
Warranty (Year)	1 year or more
Operating Temperature	-20 °C to +55 °C
Operating Voltage	24 V/12 V
Software Supported	ROS, C++.
Ingress Protection	IP 66 / IP 66K or better

*Anand Kumar*

Signature of Indenter