

Technical Specifications for Colour handheld structured blue light 3D Scanner (Annexure – F)

Sl#	Specification	Description
Hardware		
1	Light Source	Blue Light LED
2	Color Information	24 bits per pixel (bpp)
3	Texture Resolution	1.3 megapixels (mp)
4	Scanner Weight	Less than 1Kg.
5	Integration with Hardware	Integration with Tablet and laptop for outdoor / onsite scanning applications.
6	Scanning Operation	Scanning under ambient condition with consistent reliability and accuracy. Scanner should be ready for use within 5 min from plugging to the power and computer installed with the necessary software.
7	Battery Backup	Minimum one-hour backup
8	Data Acquisition Speed	10,00,000 points per second
9	3D point accuracy	0.05 mm
10	Motion Capture	Capability to scan moving object like a video camera with frame rate of 7 frames per second or better
11	Scanning Flat Geometries	Ability to capture flat parts
12	Light Source Safety	Scanner to have safe light source for scanning human body
13	Easy to use	Marker free scanning with no object preparation essential
14	Scanner Calibration	No calibration or minimum calibration requirement, should be easy to calibrate.
15	Tracking System	Usage of electromagnetic tracking is not preferred
16	Linear Field of View, H x W	Closest Range: 90 mm x 70 mm or less Furthest Range: 180mm x 140mm or bigger
17	Angular Field of view, H x W	30 x 21 degree or more
18	Interface	USB 2.0 and USB 3.0
19	Working Distance	Less than a meter
20	Power Consumption	12V, 24W
Software		
21	Output format	OBJ, PLY, WRL, STL, AOP, ASCII, Disney PTEX, E57, XYZRGB
22	Output format for measurement	CSV, DXF, XML
23	OS Support	Windows 10, 64 bit with Multi core processing
24	Scan Alignment	Software to support both manual and automatic align of surfaces, including flat surfaces. Software should automatically align with geometry as well as texture of part to be scanned.
25	User Friendliness	Software to support defeature tool to automatically erase imperfections and fill holes with one click operation. Software should be able to guide through the steps and analyze data to build the best possible scanned data. It must not require any net/server based processing at the OEM server for model processing.
26	Measurement Tools	Software to have measurement tools for Linear, geodesic, sections, distance maps, Volume measurements, annotations, DXF export

27	Noise Filter Features	Software to have customizable 3D noise filters. It should automatically delete the flat background on the scanned objects (i.e. base / noise), to minimize manual erasing process.
28	Software User Settings	Software to store different types of user settings and switch between them freely.
29	Software License	Must be perpetual
30	Warranty	Comprehensive warranty not less than one year to be provided in Kolkata by either the OEM or its authorized representative.

Terms and conditions:

1. These specifications identify the minimum requirements for the 3D Scanning and Imaging System intended to be procured.
2. **The agency must quote for 3 years post-warranty maintenance charges separately in BOQ.**
3. Other components, not identified or specified, which are necessary for the system to meet required functionality are understood to be proposed and provided by vendor.
4. The vendor has to state clearly those aspects of the products that are not compliant to specifications listed.
5. In the financial bid, costs of all the components have to be provided separately.
6. Only bids from vendors who have provided systems comparable in terms of the working principles, capacity and scope, and have well-established maintenance and repair services in India will be considered **(provide details)**.
7. The vendor must provide a Tender specific MAF from the OEM.
8. The technical proposal should contain the following:
 - a. Background of the company and the service offered in India for installation, maintenance and repair.
 - b. Details of the spare parts and AMCs.
 - c. Brochures of the device offered.