



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**

**Powai, Mumbai 400076.**

**Ref No.(PR No.) 1000046423**

**(Rfx No.) 6100002084**

**Technical Specifications**

**Item Description :** Add on component Integration of Galvano System for Existing Laser Scribing Workstation  
(Qty: 1 Set ) Set-up for the existing Laser Scribing Workstation

<b>Sr. No</b>	<b>Item Description</b>	<b>Detailed Technical Specification</b>	<b>Technical Compliance (Yes / No)</b>	<b>Additional Information ( if any )</b>
1	Integration of Galvano System for Existing Laser Scribing Workstation	1. Laser Wavelength: 532 nm and 1064 nm  2. Laser Parameters for P1, P2, P3 Scribing: The parameters below are intended for a maximum 150 mm x 150 mm substrate.  3. Nanosecond (ns) Laser Parameters: a. Pulse Duration: 10-20 ns (depending on your laser source). b. Repetition Rate (Frequency): 10-130 kHz. c. Scan Speed: Upto 2000 mm/s. d. Spot Size (Beam Diameter): 20-40 $\mu\text{m}$ . Require 2-3 Objective lenses for different spot diameter for ablation. e. Beam Overlap: 60-80% to ensure smooth and continuous cutting. f. Positional accuracy: $\pm 10 \mu\text{m}$ (over a 150 mm x 150 mm scanning field)		

		<p>g. Focus control: software controllable (as per existing setup).</p> <p>h. Software Interface: It should be like a Ezcad interface (attached photo). CAD file supportable.</p> <p>i. Hatching: Hatching option with various controllable (attached photo).</p> <p>j. New and existing software must be compatible with each other. (focusing laser with camera, cross inspect, scribe inspect, capturing image, etc. functionalities as per current system)</p> <p>4. Specific Adjustments for Scribing Stages: Vacuum Suction of ablated material has to be redesigned for Galvano laser</p>		
2	Warranty of the system	1 year on the setup		



