

Technical Specifications of MICRO ATR- FTIR**Bidder Eligibility Criteria-I**

Sl. No	Bidder Eligibility Criteria-I	Complied / Not Complied	Reference Page No.	Remarks, If any
1	The bidder/OEM should have supplied at least 5 similar items to IITs, NITs, IISERs, CSIR Labs or other Govt. R&D organizations in the last 10 years, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.			
2	Company should be registered in India for last 3 years. Proof of company registration should be enclosed.			
3	The bidder should have 5 Crores turnover in any one of the last 3 Financial Year.			

Technical Specifications II

The instrument facilitates quick and effective collect micron sized samples characteristics - physical and chemical to characterize compound distributions and physical properties from materials in complex matrices, while providing the speed, sensitivity and resolution of traditional infrared microscopy without the use of FTIR.

Sl. NO	SPECIFICATIONS		Complied / Not Complied	Reference, Page. No.
1	FTIR General Parameters	Spectral range MID IR: 7500 – 450 cm-1 or better Far-IR: 700-50cm-1 or better Dynamically Aligned Inferometer Mid IR and Far IR range beam splitter 10 years warranty Laser He-Ne laser sources with 10 years warranty		
2	Imaging/Mapping	FTIR imaging system should have Transmission, Reflectance, and ATR imaging modes. High-resolution color digital camera USB with 1024 × 768 low-noise CCD. Real time 500 μm field of view.		
3	Detector	DTGS or Single element MCT and Linear Array detector. Additional detectors could also be quoted for microscopic applications for the samples of size down to 50 μm.		
4	Minimum detectable size range	50 μm or less (default) 3 μm (using other accessories)		
5	ATR accessory	Yes (optional feature)		

6	ATR crystal	Micro-Attenuated Total Reflection (ATR) with Germanium (Ge)		
7	Motorised stage	Automated High speed with joystick		
8	Automated	Yes		
9	Wavelength range	7800-600cm-1		
10	Signal to noise @ 25 µm	Better than 500:		
11	Modes of analysis	Transmission, reflection and micro-ATR mode		
12	Time taken for the analysis of 1.2 x1.2mm	20 seconds or less		
13	Stage speed	10 steps /sec or better		
14	Inferometer speed	150spectra/sec or better		
15	Spatial Resolution	25 um or better		
16	Spectral resolution	16cm-1 or better		
17	Libraries	Licensed copy with minimum10,000 General spectra & minimum 4,000 spectra for Polymer, Additives, Plasticizers libraries FTIR spectra should be supply along with instrument. No-pirated libraries will be accepted. Library upgradation should also be provided for 5years after installation free of cost.		
18	Other Accessories	All the pre requisition for installation like Branded PC of suitable configuration along with 2 nos. of 27" inch monitor, laser printer, required UPS etc. should be supplied along with system		
	Terms and Conditions			
1	The equipment must have one year warranty & Extended warranty for 2 years. Quote AMC for 2 years optional.			
2	Necessary training and installation to be provided.			

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified)