

SPECIFICATIONS FOR FT-IR SPECTROMETER

1.	Interferometer	Michelson Interferometer (fixed or dynamic alignment whichever is better)
2.	Beam splitter	KBr (Different available beam splitter and their ranges to be quoted optional).
3.	Optics	All should be effectively coated with suitable metals like gold or others to ensure high performance
4.	Detectors	Temperature stabilized room temperature DLTGS detector/ DTGS detector (different available detectors to be quoted as optional)
5.	Moisture protection	Suitable facility should be available for moisture protection
6.	Light source	long life laser source (different type of available sources may be quoted as optional)
7.	Wave No. range	8000-350 cm^{-1}
8.	Resolution	< 1 or better
9.	S/N ratio	40000: 1 or better in all wavelengths
10.	Wave Number Accuracy	< 0.01 cm^{-1} or better
11.	Automatic detection	Automatic component recognition during switching between modes and during exchange of optical components
12.	Upgradation	Additional output beam port for upgrading to microscope
13.	Desiccant	Rechargeable desiccant. Possible for monitoring desiccant status using software and manual method
14.	Accessories	<p>a) Transmittance mode- holder for pellets, liquid cell, gas cell.</p> <p>b) ATR – Diamond crystal for liquid and film, powder sample analysis (Ge and ZnSe accessories to be coated as optional)</p> <p>c) Imported KBr Dye (locally made dyes should not be supplied)</p> <p>d) KBr powder (IR spectroscopy grade) -100 g</p> <p>e) Pellet press</p> <p>f) Agate mortar and pestle</p>

		g) One pair of KBr window (extra)
15.	Software	<p>Windows based software. It should have the following features minimum</p> <ul style="list-style-type: none"> i. Both single and multiple spectral display ii. Scan time setting iii. Resolution setting iv. Display unit setting v. Data collection parameter setup vi. Automatic base line correction vii. ATR correction viii. Dispersion correction ix. Peak pick x. Library search xi. Should be compactable with commercially available library and user made library. xii. automatic instrument test xiii. multilevel user management xiv. GMP/GLP conforms.
16.	FTIR spectral library	<p>Standard FTIR library containing Drugs, Food additives, polymers and other compounds of forensic interest.</p> <p>Forensic Drug library should be included (like Toronto forensic or Georgia State Crime Lab Drug library)</p>
17.	Dehumidifier	Automatic dehumidifier with sensor
18.	Computer	PC with minimum core i3 processor or better, 4 GB RAM, 1TB HDD, key board, mouse and other accessories
19.	Printer	Suitable colour duplex Laser printer
20.	UPS	5 KVA UPS with minimum 1 hr backup
21.	Warranty	3 year service and replacement warranty for components

NOTE

1. All specification claims of the equipment offered should be substantiated with original brochures.
2. The list of existing users of the equipment quoted by the firm should be provided with contact address/ phone no:/ e – mail id etc.