

## Technical specification

### Low Volume sample analysis Spectrophotometer

- **A spectral scanning unit for UV-visible-NearIR wavelength range , with dedicated cuvette port (with no extra attachments ) and should able to read 96 & 384 microwell plate format .**
- **Should work as a standalone system without computer and also able to run with computer controlled software.**
- **Analysis Software supplied should be supplied with unlimited user license.**
- Instrument should able to read at least 16 low volume samples of 2µl-10µl using low volume analysis plate in case of DNA/RNA purity & concentration check in directly with standalone mode .
- System should able to run in stand-alone mode using 7 inch or more touch screen for quick usage.
- The instrument should have a memory of 99 inbuilt protocols in stand-alone mode
- Communication options : 4 USB ports to PC and other data transfer devices , 1 ethernet port
- Access data via cloud based capabilities , wired or wireless network connection .
- Instrument is able to provide the wavelength range from **200nm to 1000nm** with 1 nm steps.
- Spectral scanning speed : 10 sec from 200 to 1000 nm with 1 nm steps per sample.
- In case asked , company should arrange for the demonstration of the quoted model .
- Performance Specifications : **Bandwidth: < 2.5 nm or better and Xenon flash lamp life should be for 10 million 96 well microplates.**
- The instrument should have inbuilt **incubation** and **linear shaking** options for longer kinetic assays etc.
- Incubation **temperature: from ambient +2 °C to +45 °C.**
- Spectral scanning speed 200 to 1000nm should be 10 sec . or less.
- Measurement speed should be 6 sec. for 96 well and 10 sec. for 384 well plate
- The instrument should have minimum 2 USB ports, one for the easy data transfer and another to connect printer direct to the unit. Able to connect wi-fi dongle.
- System should have Power Save function for reduced energy consumption when the instrument is 'on' but not in use.
- Visualize data in both numerical mode and heat-map/virtual image of plate.
- **Instrument should be either CE mark or Europe regulations from a govt. or private notified body.**
- **Multiple Software should have language versions: English, German, French, Spanish, Portuguese, Russian, Chinese and Japanese for multi students usage.**

### Data Analysis Software:

- Software should allow multiple absorbance /photometry steps in a single program for differentially analysis assays, including plate out option during the program to add required compounds and then continue the program for further analysis .
- Database based software to run backups of all data, restore back up data (in case of hardware failure of original computer).
- Spectral scanning of all 96 samples or 384 samples should be able to view in single graph plot.
- Data export can be .pdf,, excel ,xml and note format.