

Technical Specifications for ECG with spirometry

A portable ECG hyphenated with spirometer is required for intended use of measurement of electrocardiogram and pulmonary function test in a single instrument.

General

- The instrument should be capable to analyse and interpret the measurement through inbuilt software.
- The results should be archive in printable format as well as transferable to PC/laptop/USB in user-friendly mode.
- The instrument should be provided with rechargeable lithium polymer battery and it should have battery backup up to 3 hours or more.
- It should be equipped with LCD colour display with minimum resolution of 800 x 600 pixel or better.
- It should be functional with wide ambient conditions such as temperature range between 10-40°C or better; humidity range between 10 – 95% or better.
- The instrument should have equipped with in-built Indian prediction values.

ECG specs

- It should be 12 lead ECG.
- It should be capable of ECG measurement with detailed interpretation report.
- It should have internal memory to store ECG record up to 350 or better.
- It should have sampling frequency of 4000 samples/second/channel or better.
- It should have defibrillation protection up to 5000 VDC or better.

Spirometer specs

- The spirometer should be based on pneumotacho sensor.
- It should be equipped with Indian, ECCS etc. predictable norms.
- It should have inbuilt system to interpret results.
- It should be capable to perform in-built calibration.
- It should follow ATS/ERS standards.
- It should be equipped to perform the analysis with readily available disposable mouth piece and filters.
- It should be able to measure FVC, FEV1, FEV1/FVC, FEF 25-75%, PEFR, MV, MVV, pre and post-test inspiratory as well as expiratory measurements.
- It should be able to provide flow volume and volume time graph.

