Simul-G is a resting ECG machine with facility of Measurement and Interpretation. It connects with PC through USB interface.

**Technical Specifications**

1. **Dimension and Weight**
   - Dimension (in mm) (L x B x H): 105X65X40 mm
   - Weight (in Kg): 150gm

2. **Environmental**
   - Operating Temp: -5 ºC to +50 ºC
   - Operating & Storage: 0 to 95% non-condensing

3. **Power supply**
   - Input: USB powered
   - Power consumption: < 10 Watt

4. **Performance**
   - Display: 1024 x 768 pixels,
   - Display area: 320 mm x 240 mm
   - Language: English
   - Alarm: Audio alarms for HR
   - QRS Beep: On each QRS

**Acquisition**

- Frequency response: 0.05 Hz to 150 Hz with notch at 50Hz
- Filter: DSP
- Input impedance: 10 MΩ
- Time constant: > 3.2 sec
- A/D conversion: 12 bit
- Noise: < 20µVp-p
- Leakage current: < 10 µA
- Patient isolation: Optical isolation.
- Gain: 5, 10 & 20 mm/mV selectable.
- CMRR: > 120 dB
- Sweep speed: 25.0 mm/S.
- Accuracy of HR: +/- 2 BPM.
Specifications

Product: Simul-G

Sampling Frequency : 250 samples per second simultaneous
Model : Model available with blue tooth facility

Storage : 12 lead unaveraged ECG, 10 second Rhythm strips of 12 leads, Medians after every 8 sec along with HR, BP and fiducial points, full disclosure of entire test
Leads-Off detection : Yes
Printout : Manual printing with grid On/Off facility, print Colour reports

5. Minimum Requirement of PC for Simul-G system:

1. Motherboard : Recommended
   Make : D-Link, ASUS, INTEL, HIS.
   Chipset : Intel, VIA.
   Speed : FSB, 400MHz. and onwards.

2. CPU : Recommended
   Make : Intel P-4, Speed 2.4 GHz. 400 FSB.

3. RAM : Recommended
   Make : Symtronics, Hyundai, Transcend.
   Size : 128 MB.
   Speed : 266MHz.

4. USB port : working USB port for Simul-G unit connection
5. VGA card : 64 bit, 2 MB memory PCI VGA card.
6. Monitor : 15” color monitor
7. SMPS : Recommended
   Make : Priya, Mercury, and Intex.
   Capacity: 300 Watt.
8. Hard disk : Recommended
   Make : Seagate.
   Size : Barracuda 40GB 7200 RPM.
   : Font - Small font.
   : Color - 16 bit hi color.
11. Mouse

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13. 1 KVA stabilizer.

14. CD ROM
   Make: LG. Samsung Sony, ASUS.
   Type: Speed 52X.

15. Printer
   Make: Recommended

16. Independent earthing connection

Detailed features

- **Acquisition**
  - Body level acquisition of 12 lead ECG
  - Simultaneous acquisition of 12 Leads of ECG @ 250 samples per second per channel with ADC resolution of 12-bit.
  - Frequency Response – DSP filter of 0.05 to 150Hz with notch at 50Hz
  - Leads-Off detection
  - Facility to store 12 lead Unaveraged ECG
  - Facility to Rerun test
  - Automatic detection of P+ start, P+ end, P – end, Q start, R Start, R end, S end, r’ end, s’ end, T Start, T End, U start, U end points on the median once.

- **Acquisition display**
  - Display of 4 seconds of ECG traces of 12 leads with standardization pulse and corresponding medians next to each lead
  - Display HR
  - Display long lead, QRS detection Lead, BP and gain
  - Leads-Off detection with a message indicating the lead during the test.

- **Acquisition settings**
  - Relearn the median template
  - Gain: 0.5, 1.0, 2.0 mV/cm
  - Facility to change long lead, QRS detection lead and amplify QRS lead

- **Review display modes**
  - Review data of selected patient
  - 12 medians screen: 12 medians are displayed with ST-level
  - Resting ECG display: 2.5 sec all leads with medians and 10 sec of long lead.
  - Zoom Median:
    - Display the amplitude in volts of all fiducial points
    - Displays following **ECG interpretation**
      1. Rhythm statements
         - Sinus Rhythm / Junctional or NonSinus Rhythm suspected / Sinus Bradycardia / Sinus Tachycardia
      2. PR interval statements
         - PR is normal / PR is long / PR is short
      3. QRS interval statements
         - Normal QRS Width / Wide QRS
      4. QT interval statements
         - Normal QT interval / QT Interval is prolonged / QT Interval - Little clinical significance

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5. QRS Axis statements
   a. QRS Axis is normal / Right axis deviation / Left axis deviation / QRS Axis is indeterminate
6. ST abnormalities statements
   a. Normal ST level / ST Elevation / ST Depression
7. T wave inversion
   a. Lead names of leads showing T wave inversion
8. ECG
   a. Normal ECG / ECG not normal / Otherwise normal ECG
      ▪ Facility to edit fiducial points (E, J, Post J) of selected median
      ▪ Display duration of P, Q, R, S, T in ms
      ▪ ST level and ST slope
      ▪ Display intervals of PQ, PR, QRS, QTC in ms and axes in degree of P, QRS and T
      ▪ Display RR interval and HR
      ▪ Facility to change P+ start, P+ end, P – end, Q start, R Start, R end, S end, r’ end, s’ end, T Start, T End, U start, U end points.

❖ Review settings
   o Grid/Graph/No grid option on all review screens
   o Facility to edit HR and BP of any stage
   o Facility to edit Patient Details
   o Create the bitmap (GIF) of the selected report/s and save at selected location
   o Facility to backup patient data and review saved data.
   o Facility to Edit interpretation
   o Facility select / deselect printing of interpretation

❖ Reports
   o Resting ECG report
   o 12 leads(All leads) measurement report with interpretation
   o 5 seconds ECG report

❖ Settings
   o Hospital details
   o Referring Doctor list
   o Standard comment
   o Simul-G system configuration
   o Printing details configuration

❖ Display
   o Resolution – 1024 X 768

*Due to our continuous product improvement programme, features can be enhanced