

Specification of Wireless Telemetry system for Rodents

- Wireless system to record EEG and ECG from rodents
- The EEG channel on wireless should have band width of 0.1 to 100Hz per channel.
- The Gain on implants should be configurable from 1mv to 10mv input range.
- Implant should have battery life of not less than 6 (six) months.
- Weight of the implants should be less than 4 g.
- Volumetric size of the implant should be more than 1.5 cubic cm.
- Implant should be compatible with the very young rats.
- Implant should be reusable and can be disconnected while not in use
- Transmitter sensor should be supplied - 10 (ten) in quantity.
 - Four implants for two channel EEG with 2 and 5 mv range.
 - Four implants for two different channels for EEG and ECG- 1mv and 10mv input range.

The lead wire assembly for the above transmitter sensors should be additionally supplied (100 quantities).

- Electrodes should be Teflon insulated platinum material.
- System setup should consist of complete set of dual channel EEG, single channel ECG transmitters, and receivers having the capacity to take dual signal, faraday cage and hardware with recording & analysing software.
- System should have ECG and EEG analysis software.
- The hardware module should have 16 analogue input channels and 2 output channels with an electrode checker facility.
- Compatible software with latest version should be supplied along with the hardware unit for recording and analysis of the data.
- Software should have the capability to analyse PFT, PSD and histogram, to compute approximate entropy, delta power analysis, derived alpha RMS, derived EEG frequencies. Software should also be capable to remove EOG artefacts, ECG complex boundaries, to classify & detect heart beats.
- A high level transducer module should come with the hardware unit to interface between hardware unit and the recording part.
- The System should be upgradable to record Non invasive blood pressure and Laser Doppler blood flow from small animals.
- The Transmitter sensor should have facility to switch and disconnect from the subject.
- The device to activate or stop transmitter sensor should be supplied - 2 (two) in quantity.
- System should carry warranty of one year and should have minimum five years of CMC.

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

Technical Specifications of Non-invasive Blood Pressure Monitoring System for rat & mice.

The system should consists of the following items with features-

- Non-invasive Blood Pressure (BP) monitoring system for two rats and two mice simultaneously.
- System should consistently track the changes in systolic, diastolic, mean blood pressure & heart rate upto eight animals by using two separate cuffs.
- Operating mode of the system should be both manual and automatic with sampling rate of four milliseconds
- Method of pulse detection should be through pressurized cuff and palpation in twenty six reading time.
- Cuff sleeves for rat and mice of 100 pcs should come with the system.
- Range of BP and Heart rate should be of 20-300 ±1 mmHg and 1-900 bpm.
- Occluding Cuff and Sensing Cuff inflation pressure should be 45 to 300 and 5 to 100 mmHg respectively.
- The occluding cuff should be slightly bigger than the sensor cuff.
- The data should be transferrable and saved to PC through serial communication cable with 9 pin male to female connectors.
- Software should automatically show the summary of calculation which includes Systole, Diastole, Mean BP, Heart Rate, area test, signal strength, noise level, and overall quality of data in the form of color bar and tabulated form.
- Software should also display average systolic, diastolic blood pressure.
- The system should have four markers that appear on the occlusion pressure curve. The 'Systolic' and 'Diastolic' tags should mark the locations of the systolic and diastolic pressures in the displayed reading.
- The system should connect with the software through RS-232 serial port and power of the system should be 240 Volts AC.
- Animal warming chamber should come with the system and On & off control system through software should be present.

Technical specifications of analytical balance

The analytic balance should have the following main facilities-

- Weighing capacity: 30-100g
- Readability: 1 microgram
- Reproducibility: ± 2 microgram
- Linearity: ± 10 microgram
- Pan size: 30-50 mm
- Auto shutoff facility
- Easy to read Screen display
- Good protection with cover
- Highly accurate laboratory scales

Handwritten signature

Handwritten signature

Handwritten signature

Handwritten signature

Handwritten signature