



The bioelectric potentials associated with muscle activity constitute the Electromyogram, abbreviated as EMG. Understanding of Electro-myograph, Sciencetech TechBook 2354A provides in-depth study and observation of electric potentials generated by the muscles.

**Sciencetech TechBook 2354A enables EMG** signals observation by affixing pre-gelled Ag-AgCl surface electrodes at the surface to the body near a muscle of interest. Thus EMG measurements are intended to obtain an indication of the amount of activity of a group of muscles, rather than of an individual muscle fiber.

Sciencetech TechBook 2354A also consists of built-in EMG Simulator to generate simulated EMG signals. This Simulator is provided for internal EMG analysis as on the educational level we cannot provide any invasive technique of penetrating needle electrode into the muscle. The Simulator gives the information about the 10 types EMG patterns viz. Normal EMG, Excited EMG, Raw EMG Data, 100Hz Filtered, 250Hz Filtered, 1 KHz filtered, EMG at 0.53Hz, EMG at 53Hz, Power Spectrum at 0.53Hz, Power Spectrum at 53Hz.

### Features

- Separate test-points to observe waveforms after each block
- Provides amplified real time EMG output
- Inbuilt EMG Simulator
- Provides information about 10 simulated EMG outputs
- Visible LED indication for all the simulated EMG outputs

### Scope of Learning

- Study of bioelectric potential generated by group of muscles.
- Study of real time analysis of EMG signal (Surface EMG).
- Understanding of different standard EMG wave patterns like,
  - Normal EMG
  - Excited EMG
  - Raw EMG
  - Filtered EMG etc.

### Technical Specifications

<b>CMRR</b>	: >100 dB
<b>Filter (Band Pass)</b>	: 1 Hz – 10 KHz
<b>Notch Filter</b>	: 50Hz
<b>Simulated EMG Indication</b>	: Visible LED
<b>Electrodes</b>	: Surface Electrodes (Ag-AgCl)
<b>Test Point</b>	: 6 nos.
<b>Dimensions (mm)</b>	: W 326 x D 252 x H 52
<b>Power supply</b>	: 110V - 260V AC, 50/60Hz
<b>Weight</b>	: 1.5 Kg. (approximately)
<b>Operating Condition</b>	: 0-40°C, 85% RH
<b>Product Tutorial</b>	: Online on <a href="http://www.SciencetechLearning.com">www.SciencetechLearning.com</a>
<b>Included Accessories</b>	: Power Supply 3 nos. BTN to 5 Pin DIN Cable, Disposable Electrodes - 50 nos.