



Sciencetech TechBooks are compact and user friendly learning platforms to provide a modern, portable, comprehensive and practical way to learn Technology. Each TechBook is provided with detailed Multimedia learning material which covers basic theory, step by step procedure to conduct the experiment and other useful information.

**Sciencetech TechBook 2110 PAM-PPM-PWM** are the basic Pulse Modulation Techniques. TechBook 2110 provides complete set up to the students for performing experiments on these techniques. They can study Sampling, Pulse Modulation, Demodulation & Signal reconstruction process. Separate circuits are provided for each technique. The learning material provides exhaustive technology details and experimental assistance.

### Features

- **PAM-PPM-PWM Modulation & Demodulation techniques, using Natural & Flat-top sampling**
- **Analog Sample, Sample & Hold and Flat-top outputs**
- **Selectable 4 different sampling pulse frequencies on board**
- **Voice communication using dynamic microphone & speaker**
- **On-board filter and AC amplifier**
- **8 Switched faults**

### Scope of Learning

- PAM using Natural & Flat Top sampling
- Sample, Sample & Hold & Flat-top outputs in PAM
- PPM using DC & AC modulating signals
- Pulse Position Demodulation
- Pulse Width Modulation & Demodulation

### Technical Specifications

#### Pulse Modulation Techniques

Pulse Amplitude Modulation

Pulse Width Modulation

Pulse Position Modulation

On-board Sampling : 8 KHz, 16 KHz,

Frequencies (Pulse) : 32 KHz, 64 KHz

#### On-board Generator

Sinewave : 1 KHz & 2 KHz (Gain adjustable)

Squarewave : 1KHz & 2 KHz

Low Pass Filter : 4<sup>th</sup> order BW filter

Voice communication : Voice link using dynamic MIC & speaker

AC Amplifier : With adjustable Gain Control

DC Output : 0-4 V (variable)

Switched Faults : 8 nos

Interconnections : 2mm banana sockets

Test Points : 29 nos

Power Consumption : 3 VA (approximately)

Product Tutorial : Online on [www.SciencetechLearning.com](http://www.SciencetechLearning.com)

Dimensions (mm) : W 340 x D 240 x H 100

Mains Supply : 110V - 260V AC, 50/60Hz

Weight : 1 Kg. (approximately)

Operating Conditions : 0-40°C, 85% RH

#### Included Accessories

Patch cord 16" : 5 nos.

Main cord : 1 no.

Head phone : 1 no.

Microphone : 1 no.