



Sciencetech 2805 provides an extensive hands on learning on Digital Companding A-Law and  $\mu$ -Law.

### Features

- Compression and Decompression of data on same board
- On-board DDS Signal Generator
- Can be issued just like a book for hands-on learning

### Scope of Learning (Experimentation)

A-Law and  $\mu$ -Law Companding

Study and analysis of

- A-law Compression
- $\mu$ -law Compression
- A-law Decompression
- $\mu$ -law Decompression

### Technical Specifications

**Compression and Decompression**

**Techniques**

: A-Law,  $\mu$ -Law

**Signal Generator**

: Direct Digital Synthesizer Generated Sine wave  
14 Bit data input through Dip switch.

**SMD LED Indicators**

: 73nos, for

Dip based input data Compressed output Decompressed output Technique selection

**Crystal Frequency**

: 8MHz

**Test Points**

: 37nos

**Product Tutorial**

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

**Dimensions (mm)**

: W 326 x D 252 x H 52

**Power Supply**

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

**Weight**

: 1.5Kg (Approximately)

**Operating Conditions**

: 0-40°C, 85% RH

**Included accessories**

: 2mm Patch cord - 2nos

FRC Cable 16 pins -1no.

### Simtel 11 - Digital Communication Interactive Software (optional)



### Software program windows:

Simtel Digital communication is a handy module which assist user to understand concepts of digital communication. It simplifies the distinction between Analog & Digital Communication.

### Topics Covered:

- Signals basics
- Sampling & Reconstruction
- Time Division Multiplexing
- Pulse Code Modulation / Demodulation
- Linear / Adaptive Modulation
- Line Coding and Data Formatting: Unipolar NRZ-L, Unipolar NRZ-M, Unipolar RZ, Polar NRZ-L, Polar NRZ-M, Polar RZ, Polar Manchester, Biphasic Manchester, Differential Manchester, Bipolar NRZ-L, Bipolar RZ, Bipolar RB, Bipolar AMI
- Carrier Modulation Techniques: ASK, FSK, PSK, DPSK
- Advanced Digital Modulation Techniques: QPSK, DQPSK, OQPSK, Pi/4 QPSK, 8-QAM, 16-QAM, MSK Modulation

