Scientech 2123 PCM Generation & Demodulation using CODEC Chip is a stereo codec based PCM Generator and Demodulator training system. The system has on-board selectable clock source and analog signal source. The analog signal source generates sinusoidal signal. Various test points and connection sockets are provided for easy understanding of an audio CODEC. It also shows the effect of various sampling rates on coding of speech signal.

Coding seeks to minimize the number of bits in the digital representation of a signal without an objectionable loss of signal quality. High quality is attained at low bit rates by exploiting signal redundancy and certain types of coding distortion are imperceptible because they are masked by the signal.

Scope of Learning

• Study of PCM Generation and Demodulation of analog signal

• Study of PCM Generation and Demodulation of speech signal

Features

• On-board clock generation

• On-board signal generation

• Audio interface for PCM coding and decoding

• Low voltage requirement for operation

• Variable sampling rate as per system clock used

Technical Specifications

Audio codec	:	Stereo
Inputs	:	Single ended
Number of bits per channe	:	16 bits (Left and Right)
Sampling Rate	:	48, 24, 12 and 6 KHz
System clock	:	256 x (Sampling clock)
Clock Source	:	On-board
Analog Signal Source	:	Sinusoidal
Frequency	:	Up to 3.3 KHz
Amplitude	:	0 - 5 Vpp
Power Supply	:	110-220 V ± 10%, 50 /60 Hz
Dimensions (mm)	:	W 326 ´ D 252 ´ H 52
Weight	:	1.5 Kg approximately
Operating condition	:	0-40°C, 80% RH
Product Tutorial	:	Online on www.ScientechLearning.com
Included Accessories		
Patch cord 8"	:	8 nos.
Microphone	:	1 no
Ear Phone	:	1 no.

Simtel 11 - Digital Communication Interactive
Software (optional)
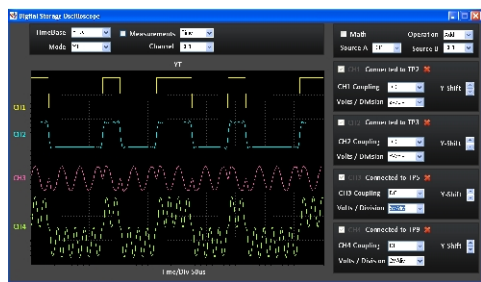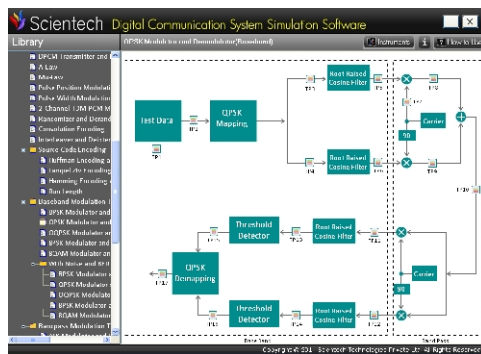
Topics

- Source: Signal Source, Pulse Generator, Data Generator, Delay
- Math Operations: Adder, Subtractor, Multiplier
- Natural and Flattop Sampling
- Line Encoding and Decoding
- Delta Modulator and Demodulator
- Adaptive Modulator and Demodulator
- Sigma Delta Modulation and Demodulation
- PCM Transmitter and Receiver
- DPCM Transmitter and Receiver
- DPCM Transmitter and Receiver
- A-Law and MU-Law
- Pulse Position Modulation and Demodulation
- Pulse width Modulation and Demodulation
- 2-Channel TDM-PCM Multiplexer

For more details refer Simtel 11 Catalog

Subject to Change