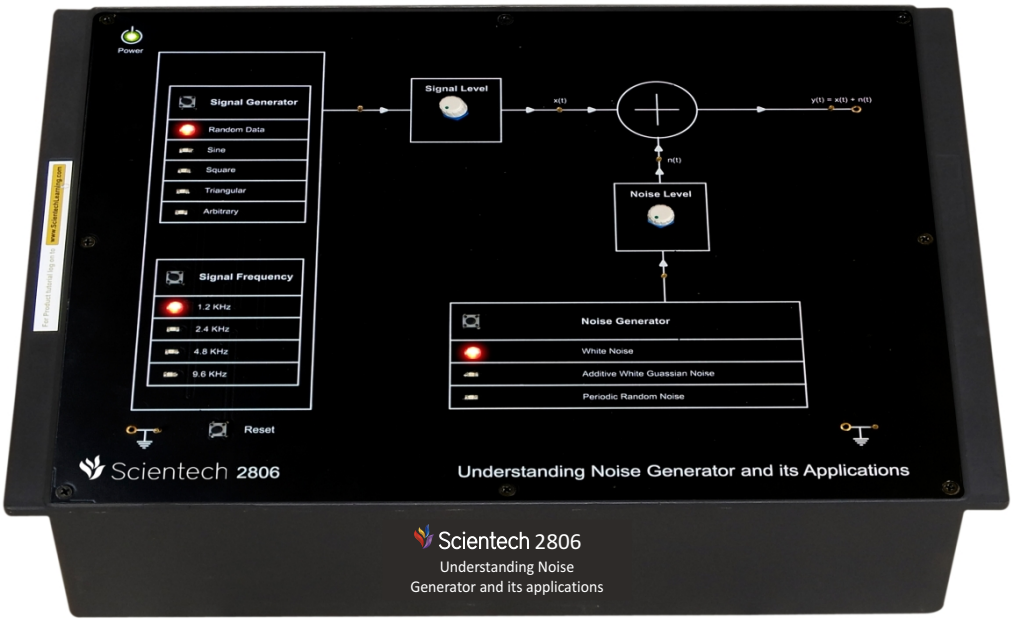
Scientech

Understanding Noise Generator and its applications

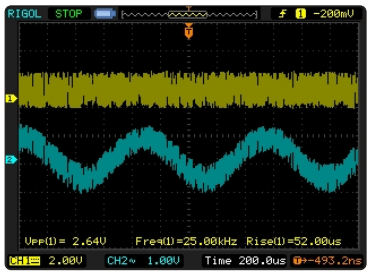
Scientech 2806



Scientech 2806 provides an extensive hands on learning on Noise Generator and its applications.

Features

- Detailed study & analysis of Signal with & without Noise.
- Complete study of mathematical equation y(t) = x(t) + n(t).
- Selectable Signal frequencies.
- On-board DDS Signal Generator for standard and arbitrary signals
- Can be issued just like a book for hands-on learning



Noisy output

Scope of Learning (Experimentation)

- Study of different types of Noise and their frequency spectrum

  White Noise

  Additive White Gaussian Noise

  Pseudo Random Noise

- Practical implementation of mathematical equation :

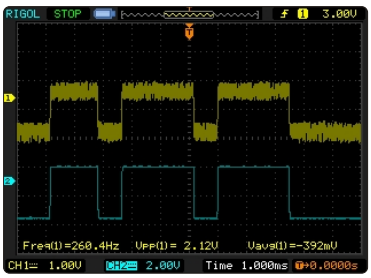
  y(t) = x(t) + n(t)

- Study and analysis of Signal to Noise ratio-

  By varying Noise amplitude

  By varying Signal amplitude

- Study and analysis of eye pattern with and without Noise.



Input Random Data with Noisy output

AWGN Noise

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Technical Specifications

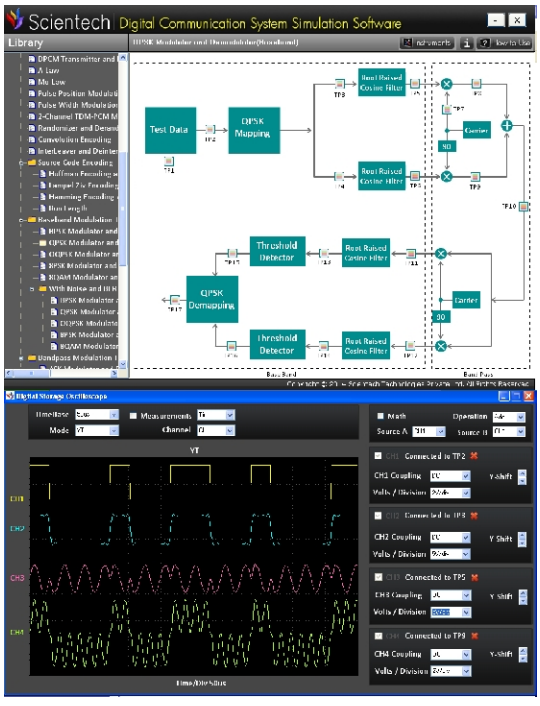
Noise generator	:	White Noise
		Additive White Gaussian Noise
		Periodic Random Noise
Internal Signal Generator	:	Direct Digital Synthesizer
Types of Signal	:	Sine, Square, Triangle, Arbitrary signals.
Frequency	:	1.2KHz, 2.4KHz, 4.8KHz, 9.6KHz
SMD LED Indicators	:	13nos for
		DDS Signal selection
		DDS Signal frequency selection
		Noise selection
Selection Mode	:	Push switches
Crystal Frequency	:	8MHz
Test Points	:	5 nos
Gain selection for Modulating Signal	:	10K potentiometer
Gain selection for Noise	:	10K potentiometer
Product Tutorial	:	Online on www.ScientechLearning.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 accessory	:	2mm Patch cord - 2nos

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

Designed and Manufactured in India by -

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