

Sciencetech 2808 provides an extensive hands on learning on QPSK, OQPSK, DQPSK Modulator & Demodulator.

Features

- Personalized Learning platform
- On-board four variable line speed rates and single bit data pattern.
- On board DDS technology based Carrier Generator
- SMD LED indicators
- Can be issued just like a book for hands-on learning

Technical Specifications

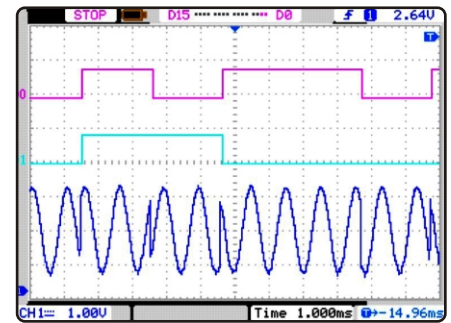
Modulation & Demodulation

Techniques	:	QPSK , OQPSK , DQPSK
Internal Data Generator	:	Digital data
Data Pattern	:	8-Bit , 16-Bit , 32-Bit , 64-Bit
Frequency	:	2KHz, 4KHz, 8KHz, 16KHz
Internal Carrier Generator	:	Direct Digital Synthesized
Carrier Signal	:	Sine, Cosine
SMD LED Indicators	:	25 nos. for Digital data selection, data frequency selection and technique selection
Number of Test Points	:	57 nos.
Crystal Frequency	:	8MHz
Selection Mode	:	Push switches
Dimensions (mm)	:	W 326 x D 252 x H 52
Power Supply	:	110V - 260V AC, 50/60Hz
Weight	:	1.5Kg (approximately)
Operating Condition	:	0-40°C, 85% RH
Product Tutorial	:	Online on www.SciencetechLearning.com
Included accessories	:	2mm Patchcord - 1no.

Scope of Learning (with experimentation)

Quadrature Phase Shift Keying Modulation and Demodulation Study and analysis of:

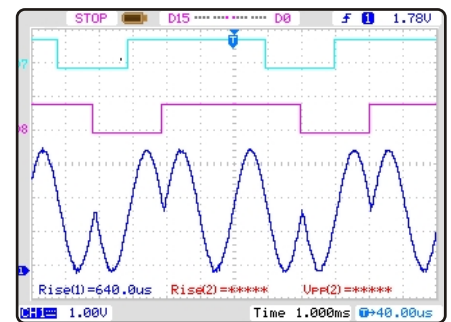
- QPSK Modulation and Demodulation with variable bit pattern and frequency.
- 2 bit encoding as I-Channel & Q-Channel encoding and decoding.
- Integrator and Comparator at the Demodulator end.



QPSK

Offset Quadrature Phase Shift Keying Modulation and Demodulation

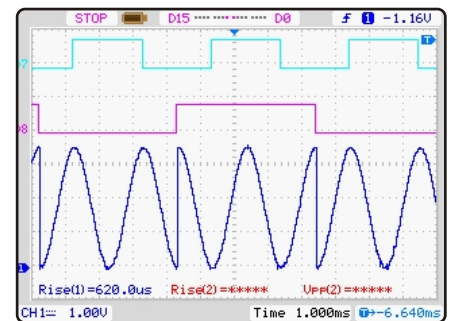
- OQPSK Modulation and Demodulation with variable bit pattern and frequency.
- 2 bit encoding as I-Channel & Q-Channel encoding and decoding.
- Offset encoding and decoding.
- Integrator and Comparator at the Demodulator end.



OQPSK (Q-Channel)

Differential Quadrature Phase Shift Keying Modulation and Demodulation

- DQPSK Modulation and Demodulation with variable bit pattern and frequency.
- 2 bit encoding as I-Channel & Q-Channel encoding and decoding.
- Differential encoding and decoding.
- Integrator and Comparator at the Demodulator end.



DQPSK (I-Channel)

Simtel 11 - Digital Communication Interactive Software (optional)

Topics

- Source: Signal Source, Pulse Generator, Data Generator, Delay
 - Math Operations: Adder, Subtractor, Multiplier
 - Natural and Flat-top Sampling
 - Line Encoding and Decoding
 - Delta Modulator and Demodulator
 - Adaptive Modulator and Demodulator
- For more details refer Simtel 11 Catalog

