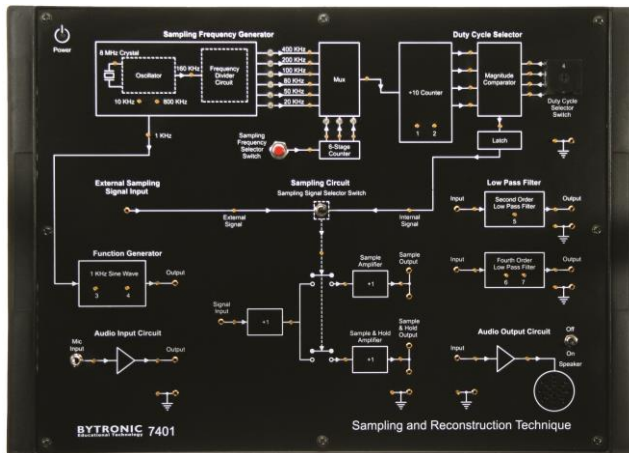


7401 – Sampling and Reconstruction Trainer



Key Features:

- Functional blocks indicated via on board mimics
- Crystal controlled pulse generator
- Demonstrates sampling and reconstruction as per Nyquist criterion
- 6 Selectable sampling Frequencies
- Sampling Pulse Duty Cycle Selectable
- Internal / External sampling input selectable
- Separate Sample and sample/hold outputs
- On-board 2nd order and 4th order low pass filters
- Test points

The unit is one of a range of digital communication trainers and provides all necessary inputs and connections for students to study signal sampling and reconstruction techniques.

Experiments

- Sampling and reconstruction of signal.
- The effect of II order and IV order low pass filter on reconstructed signal.
- The effect of sample amplifier and sample and hold amplifier on reconstructed signal.
- The Nyquist criteria for sampling and reconstruction of signal.
- The effect of sample /hold circuit on reconstructed signal
- Effect of sampling pulse duty cycle on the reconstructed signal in sample and sample hold output.
- Comparison responses of 2nd order and 4th order LPFs.
- Verification sampling and reconstruction data transmission scheme for

Specification

Crystal Frequency	8 MHz
Sampling Frequency	20, 50, 80, 100, 200 & 400 KHz (Switch Selectable)
On-Board Generator	Synchronised 1KHz Sine wave (5Vpp)
Duty cycle	0-90% in decade steps (Switch Selectable)
L. P. Filters	Butterworth 2 nd & 4 th order; Filter
Cut-off frequency	3.4 KHz
Test Points	50
Power	110-220V, 50Hz
Dimensions (mm)	W326, H52, D252
Weight	1.5Kg (approx.)

Ordering Information

Model Number:

7401

Consists of:

Sampling and reconstruction trainer

Manuals

Power Cord

Set of patch cables

Notes.

1. Specification is subject to change without notice.

2. All dimensions are in mm unless otherwise stated

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