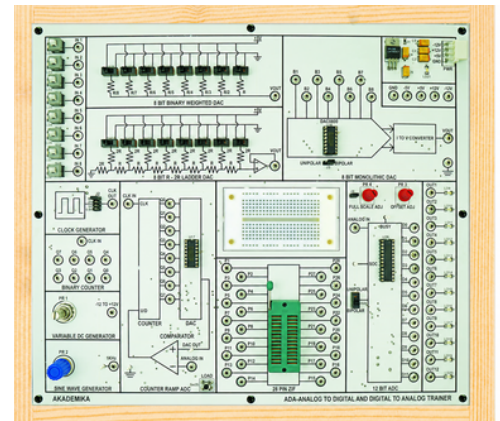


BEL-ADA

Analog To Digital And Digital To Analog Converter Trainer Kit



FEATURES

- Single board system
- IEEE symbol of all components provided on the PCB.
- 8-bit binary weighted and 8-bit ladder type DAC are constructed using discrete components
- 8-bit digital ramp ADC constructed using discrete components.
- 12-bit monolithic ADC having conversion time in the range of μs , industry standard pin out, wide input range
- All Components are visible clearly on the top of the PCB.
- Mobile based Interactive e-Manual

SPECIFICATIONS

On board components

Sine Wave Generator

- Amplitude : 0V to 5V
- Frequency : 1KHz

Variable DC Generator

- Voltage Range : -12V to +12V

Clock Generator

- Frequency range : 0.5Hz, 1Hz, 2Hz, 4Hz

Digital to Analog Converter

- 8 bit Binary weighed Resistor DAC
- 8 bit ladder type D to A converter
- 8 bit D to A converter using Monolithic IC

Analog to Digital Converter

- 8 bit discrete ADC
- 12 bit successive approximation monolithic ADC IC.
- **Binary counter** : 8 bit binary counter with external clock
- **Output** : 12 LED's to observed ADC output
- **Interconnection** : 2mm connectors
- **Power Supply** : -12V, +12V, +5V, GND

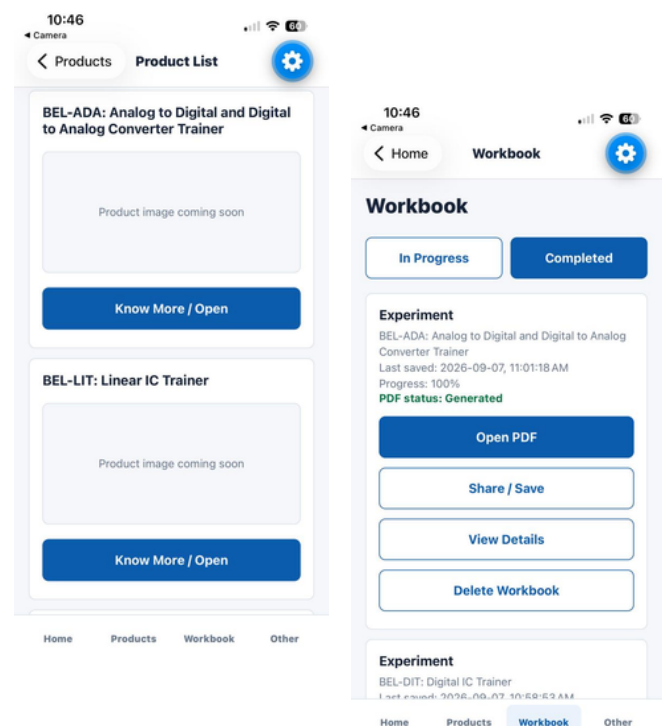
EXPERIMENTS

Analog to digital converter

- To study and measure resolution of ADC
- To measure the conversion time of the ADC
- To study full scale adjustment for unipolar and bipolar signals
- To study the working of ADC

Digital to analog converter

- To study and measure the resolution of DAC
- To study and measure the settling time of DAC
- To study the effect of settling time on DAC
- To study the working of DAC for various digital data pattern



Mobile based Interactive e- manual