

Sciencetech 2611B Understanding Digital Logic Circuits is designed to fulfill requirement of performing experiments to study and understand the working principle and functioning of basic logic gates, universal gates and various logic circuits. Students can explore a wide variety of electronic concepts simply by making connections to the on board logic circuits indicated with their schematic/logic symbols. All connections and controls are clearly marked and conveniently located. It is very useful in digital electronics laboratories for performing digital experiments. It is also useful to build and test circuits as well as making projects related to digital electronics or when learning the subject.

Features

- Self contained & easy to operate
- Logic symbol/ Schematic Diagram indicated on board mimic
- On Board DC Power Supplies
- Onboard Pulse Generator (TTL)
- Pulser Switches
- 8 bit Data Switches (TTL)
- 8 bit bicolor LED display
- Logic Probe
- BCD to seven segment display
- Pullup Resistors

Digital Logic Circuits Experiment Platform comprises of following blocks :

- DC Power Supplies
- Pulser Switches
- Pulse Generator
- ZIF Sockets (20 pins)
- 8 bit Data Switches
- 8 bit bicolor LED display
- Logic Probe
- Digital display

Scope of Learning

Study the operation of :

- Logic AND gate and verify its Truth table
- Logic OR gate and verify its Truth table
- Logic NOT gate and verify its Truth table
- Logic NAND gate and verify its Truth table
- Logic NOR gate and verify its Truth table
- RS Flip-flop and verify its Truth table
- JK Flip-flop and verify its Truth table
- D Flip-flop and verify its Truth table
- Logic algebra
- Application of logic gate circuit
- Implementation of simple logic design
- Digital combinational logic circuits
- Application of D Flip-flops as Shift Register
- Application of JK Flip-flops as Up-Down Counter

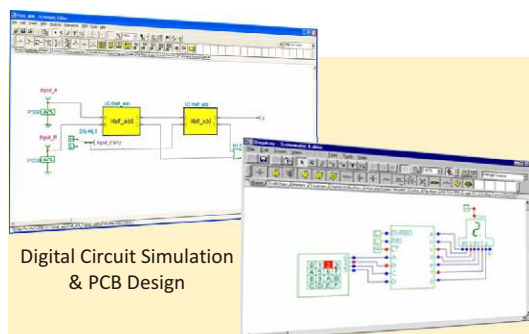
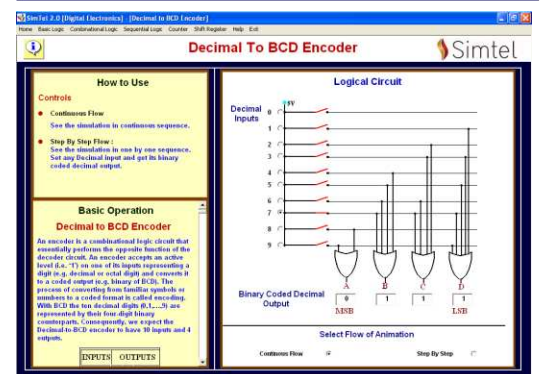
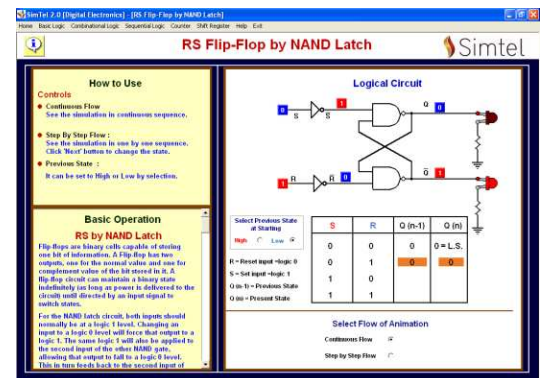
Technical Specifications

- DC Power Supplies** : + 5V, 1A;
+3V to +15V, 500 mA (variable)
- 3V to -15V, 500 mA (variable)
- Pulse Generator** : 1Hz to 1MHz in 6 steps (Variable in between the steps)
- Amplitude** : 5V (TTL)
- Duty Cycle** : 50 %, TTL output
- Pulser Switches** : 2 nos (Push to 'On')
- Data Switches** : 8 nos (Toggle switches) (TTL output)
- LED Display (Bicolor)** : 8 nos (TTL input)
- BCD to Seven Segment Display** : 2 nos
- Logic Probe** : Logic level indicator for TTL input 'H' = HIGH and 'L' = LOW
- ZIF Sockets** : 2 nos (20 pins)
- Breadboard (solderless)** : 175 mm x 61 mm (840 tie points)
- Weight** : 10 kgs approximately
- Dimensions (mm)** : W 450 x D 300 x H 100
- Operating Conditions** : 0-40^o C, 80% RH
- Mains Supply** : 110-220V ±10%, 50/60Hz
- Product Tutorial** : Online (on www.ScientechLearning.com)
- Included Accessories :**
 - Breadboard (solderless) : 1 no
 - Connecting wires : 30 nos
 - 2mm to 1mm patch cords : 15 nos
 - 2mm to 2mm patch cords : 40 nos
 - Mains cord : 1 no



Scientech 2611B

Screen shots of Simitel Digital Electronics (optional)



Digital Circuit Simulation & PCB Design

Tina Design Software (optional)

Enhance your Analysis with Tina Design Suite

Analyze circuit through more than 20 different analysis modes including DC Analysis, AC Analysis, Transient Analysis, Digital step by step analysis, Symbolic Analysis, Network Analysis, Noise Analysis, Tolerance Analysis, Optimization, etc.

