

**OMEGA TYPE VLSI - 1021** Training board provides on "all in one circuit development platform that is ideally suited to students and learning engineers at all levels." The trainer board is fully compatible with all versions of the Xilinx ISE tools.

**OBJECTS:**

Logic designs, Simulation and test of

- 01 Basic Logic Gates
- 02 Decoder
- 03 Multiplexer
- 04 Adder
- 05 Subtractor
- 06 Parity Checker
- 07 Parity Generator
- 08 Flip-Flop (D,T,SR,JK,MS)
- 09 Shift Register
- 10 Serial Register
- 11 Serial Adder
- 12 Shift Counter Register
- 13 4 Bit Counter
- 14 Up Counter
- 15 Frequency Divider
- 16 Divide by 100 (8/5/4/2) Counter.

**FEATURES:-**

**FPGA & CPLD Trainer consist of the following built in parts :**

- 01 A Xilinx 95108 CPLD with 108 macro cells and a 50000 gates
- 02 140 user I / O signals to different peripherals and some left for user to configure custom designs
- 03 JTAG - Programmable XCFOIS platform flash ROM stores FPGA configurations indefinitely
- 04 A 50 MHz oscillator and a socket for a second oscillator
- 05 All I / O signals have ESD and short circuit protection
- 06 A JTAG based programming port using a standard parallel cable
- 07 96 Input/Output Signal Routed to three standard 40 pin expansion connector

**INPUT - OUTPUT DEVICES CONSISTS OF :**

- 01 8 Input Logic switches
- 02 8 DIP switches for input stimulus
- 03 4 push buttons for Input stimulus
- 04 One manual pulsar



- 05 Clock divider two-357.9545 KHz, 35.795 KHz(Selectable)
- 06 8 Output selection LED's
- 07 4 Digit Seven segment display
- 08 LCD display
- 09 Buzzer output
- 10 RS - 232 interface
- 11 15 I/O on Breadboard for External Circuit
- 12 6V DC at 1Amp adaptor
- 13 Ps2 Port
- 14 VGA Port

**LIST OF ACCESSORIES:**

- 01 Xilinx ISE Web Pack with Installation manual (Provided it is freely downloadable)
- 02 Model Sim Starter Edition with Installation manual (Provided it is freely downloadable)
- 03 Video Demo DVD which includes sessions of
  - 3.1 Schematic Editor.
  - 3.2 Basic features of Model Sim Simulator.
  - 3.3 How to Use ISE & Web Pack tools.
  - 3.4 Downloading Designs to Digilent board using ISE & Web Pack tools.
- 04 User Manual.

**OTHER APPARATUS REQUIRED**

- 01 PC with Window XP and Internet connection at the time of Installation.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

**OMEGA ELECTRONICS**