



## INTRODUCTION:

In the past, A professional electronic engineer design circuits need a universal bread board and a great quantity's logical devices. Only soldering each devices can make people feel so frustrated, not to say amended it when you made a mistake.

Now an electronic engineer can finished designed circuits easily by using CPLD / FPGA only amended on software and operated it via software. It is like made your own PC circuit device on the test table. It is not only learn new chip's techniques but it can also reduce PC board 's ALTERA then create a compact electronic product.

This board can accommodate renowned ALTERA and XILINX's CPLD/FPGA platform for user to study. Avoiding troubles of both soldering QFP chips and experimental layout. We had been approved by both IC vendors to use their development software. It will eliminate the hinder and stride enter domain CPLD/FPGA fields.

## FEATURES:

- Use CPLD/FPGA software and hardware to learn new logical IC design, in order to replace TTL/CMOS complicated hardware design.
- Use Graphic and VHDL ABEL AHDL to develop circuits.
- Use Print Port Download directly under original manufacturer development system.
- Programmed finished file to EPROM (FLASH) and operated it independently.
- Use WIN9X/ME/2000/NT/XP operating system
- Modular design.
- User can select the different chip board module to be purchases.
- Expensive chip can re-use.
- Without soldering QFP package and saving time.

## TECHNICAL SPECIFICATION:

- Support devices: ALTERA EPF10K10TC144 (144 pins) or Xilinx XCS10TQ144 (144 pins)
- 8x2 LED output LED
- 8x2 Logical input toggle
- Four pulse keystrokes producer (2 +ve pulses 2 -ve pulses)
- Six digits and seven nodes monitor.
- Red main power guiding lights.
- Built-in 10MHz oscillator.
- Built-in main power switch to exchange Adaptor with Extend Power Pin.
- 25pin D Type Connector (Printer Port Download FPGA).
- Supply: DC 9V Adaptor or Extend 5VDC Power Pin.
- Support ALTERA MAX +Plus II Baseline and XILINX Foundation's development system.

## SYSTEM CONTENT:

- Main kit with ALTERA or XILINX chip module (To specify during ordering).
- CD-ROM with development software, user guide & experiment guide.
- DB25-DB25 interface cable
- Power supply adapter

## EXPERIMENT CONTENT:

### Combined logic design, simulation and test:

1. Basic logic
2. Deducter
3. Decoder
4. Combined logic
5. Comparator
6. Multiplexer
7. Adder
8. Compiler
9. Demultiplexer

### Sequential logic circuit design simulation and test:

1. Flip-flop device
2. Shift register
3. Shift counter register
4. Synchronized counter
5. Non-Synchronized counter

### Thematic Application Test:

1. Digital clock
2. Counter
3. Electronic alarm clock
4. Traffic light control
5. Electronic dice
6. VHDL/AHDL design
7. Random design of expanded I/O Pin

### Application Program Range:

1. Fundamental logic
2. Digital circuit design
3. Digital System Design
4. Microprocessor Principle
5. CPLD/FPGA Chip Design

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