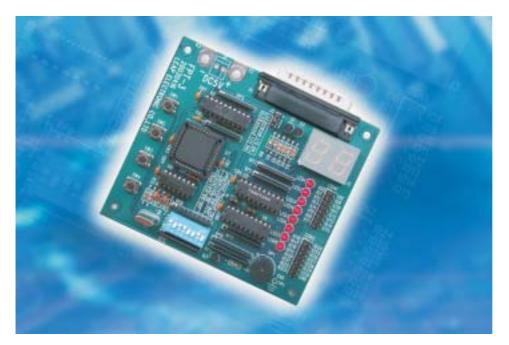
# FPT-3 CPLD/FPGA Simple Logic Circuit Design Board



**Features** 

- Exploit CPLD/FPGA hardware/ software development system to learn the newest design of logical IC to instead of the complex hardware design of TTL/CMOS.
- Capable to use Circuit Graphic and VHDL to develop hardware circuit.
- Directly download the designed program from the development system to CPLD via printer port to operate independently.

# **Specifications**

- Support Altera CPLD MAX7000S devices series
  - 1. EPM7064/32SLC44-10 (alternative)
  - 2. PLD on EEPROM structure

- 3. 5V working voltage
- 4. Support 1250 logic gates and 64 LCs
- 5. 32 I/O availably
- System clock: 1.8432MHz
- ISP programming interface

#### **Hardware**

- Dimension: 100 x 115 x 21.8 mm
- Weight: 500 g
- Input: 5V DC

#### **Input Unit**

- 1. 8 logic DIP switch
- 2. 4 sets of negative pulse press button

# **Output Unit**

- 1. 8 LED (low voltage drove)
- 2. Buzzer x 1

3. 2 digits 7 segment display (Common cathode: low voltage drove)

### **Experiment Content**

- Basic logic
  - 1. Logic experiment (DIP SW + LED)
  - 2. Relationship experiment (DIP SW + LED)
  - 3. Complier/Decoder
- Arithmetic logic circuit
  - 1. Adder
  - 2. Subtracter
  - 3. Multiplexer
- Frequency divide and count
  - 1. 7 segment display (Binary to Decimalism)
  - 2.8 LED (Binary to Decimalism)
  - 3. Frequency divide test (LED)
  - 4. All I/O test
  - 5. Upward counter
  - 6. Traffic light display
  - 7. Simple electric piano

# **Optional**

- ALTERA EPM7064SLC44-10
- ALTERA EPM7032SLC44-10