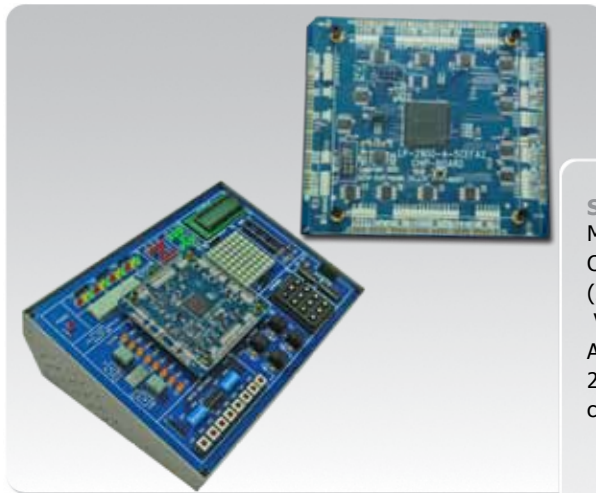


LP-2900+ CPLD/FPGA CHIP BOARD

CPLD/FPGA Digital Logic Circuit Design Experiment Kit

Introduction

Nowadays, CPLD and FPGA have been the first-choice components for the designers. It is suitable for the designers on application for communication, industrial automation, intelligent instrument, image processing, extensive engine control, etc. In order to allow users have excellent experimental platforms, LEAP series has provided platforms based on Altera or XILINX. Enabling engineers to realize the designs of logical circuit from experimental units.



Standard Accessories

Main unit.....x1
 CD.....x1
 (Included Altera Baseline V9.23 driver)
 AC power cord.....x1
 25-pin printer cable or USB cable.....x1

Test Content

Combinational logic design, simulation and test

- | | |
|------------------------|------------------|
| 1. Basic logic | 6. Multiplexer |
| 2. Subtractor | 7. Adder |
| 3. Decoder | 8. Encoder |
| 4. Combinational logic | 9. Demultiplexer |
| 5. Comparator | |

Sequential logic circuit design, simulation and test

- Flip-flop device
- Shift register
- Shift counter register
- Synchronized counter
- Asynchronous counter

Analog logic circuit design, simulation and test

- A/D converter
- D/A converter

Thematic Application Test

- 8 × 8 dual color spot array LED control test.
- Digital clock
- Counter
- Electronic alarm clock
- Traffic light control
- Electronic dice
- Keyboard scan
- LCD display control test
- A/D, D/A converter test
- Easy CPU design
- VHDL/AHDL design
- Matching 8051 thematic test

Specification

Communication	USB or Printer Port	Weight	3Kg
Power	100V AC~240V AC	Operating Altitude	up to 5000m
Frequency Range	50/60 Hz	Operating Humidity	90% (non-condensing)
Dimension	320 x 226 x 30/85mm	Temperature	+5°C ~ +45°C

Other Specifications

Chip Supported	ALTERA FLEX10K30ATC144 (TQFP-144) / 5CEFA2 F23C8N(BGA-484) XILINX XC2S50 (PQFP-208)	
Signal Generation Unit	1. Programmable frequency generator 2. Standard frequency 1K/10K/ 100K/1M/10MHz	
Logic Input Switch	1. 8 × 1 logic input original press point with light 2. 8 × 2 logic input Dip switch 3. 4 impulse press button generator (2 positive pulse; 2 negative pulse) 4. 3 × 4 array keyboard	
Output Unit	1. 8 × 8 dual color point array LED display 2. LCD 16 × 2 monitor 3. 6 digits 7 nodes monitor 4. 3 × 4 LED output 5. Buzzer output x 1 set	
Linear Unit	1. 8bit D/A converter x 2 sets 2. 8bit A/D converter x 1 set	
MPU unit	8051 and CPLD/FPGA match circuit test	

PC System Requirement

Operating System	Windows 98/2000/XP
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Application Program Range

- | | |
|--|----------------------------------|
| 1. Fundamental logic program | 5. VLSI design program |
| 2. Digital circuit design program | 6. CPLD/FPGA chip design program |
| 3. Digital system design circuit program | 7. 8051 single chip program |
| 4. Micro processor principle program | 8. Thematic preparation |