

# LP-2900/LP-ARM9-2410-KIT

ARM Design & Experiment Platform

/ Bring You into SOC and Embedded World/

## Introduction

LP-2900 + LP-ARM9-2410 utilize ARM9-32bits chip for learning RISC Microprocessor. It's no need the complex operation system and difficult development process, directly enter CPU command and I/O interface control learning. Let you easily enter SOC and embedded world.

## Features

- Support Samsung S3C24C10 x 32-bits RISC Microprocessor which is under SARM920T frame.
- Use Xilinx Spartan-3E FPGA XC3S250E PQFP208 which contains 250,000 logic gate counts. Let you process ARM+FPGA experiments or topic research.
- Modular design, able to change other CUP boards for learning
- Provide BootLoader function, able to use C or Assembly for writing Language, via the cable to download to the LP-2900 platform for experiment and verification.
- Able to connect to PC via RS-232 interface. Use the simple terminal program for control and process program download and execute.
- Able to download the program and programming on the NOR Flash Memory on the LP-2900 platform for stand-alone operation.
- Provide JTAG interface, when writing the program, able to use ADS or RealView for single step trace and debug.
- Provide logic analyzer interface, able to view the SPI, I2C, UART and PWM waveform for analysis. If you use Leaptronix LA or PLA, you can view the protocol decoder as well.
- If you already have LP-2900, you just purchase LP-ARM9-2410 module for upgrade to ARM9 training kit



### Standard Accessories

- LP-2900 platform.....x1
- LP-ARM9-2410-KIT module .....x1
- CD.....x1 (Demo program and user's manual are included)
- USB to RS-232 cable.....x1
- Power cable.....x1

### Related Products

- LP-ARM9-SOCIO module
- FPGA module

## Specifications

CPU	SAMSUNG S3C24C10x
FPGA	XILINX XC3S250E PQFP208
Communication	RS-232 / JTAG
Power	100V AC~240V AC (Auto-Switching)
Frequency Range	50/60Hz
Dimension	32cm x 22.6cm x 3.0/8.56cm
Weight	3.5Kg
Operation Altitude	Up to 5000m
Operation Humidity	20% to 70% (non-condensing)
Operation Temperature	+5°C ~ +45°C

## Experimental Contents

ARM SOC Unit	1. Establish development environment and procedure	
	2. C and Assembly compile and example.	
	3. Bootloader utility and example.	
	4. SOC peripheral experiment	
Memory Unit	1. I <sup>2</sup> C EEPROM	2. SPI FLASH
	3. NAND FLASH	4. NOR FLASH
Output Unit	1. 8x8 two colors dot matrix LED x 1	2. LCD16 x 2 display x 1
	3. 6 digit, 7 segment display x 1	4. 3 x 4 LED output
	5. Buzzer x 1	
Linear Unit	1. 8 bit D/A converter x 2	2. 8 bit A/D converter x 1

## Recommended Bundling Instruments

- Leaptronix LA-2025 / LA-2050 / PLA-1016 / PLA-2532