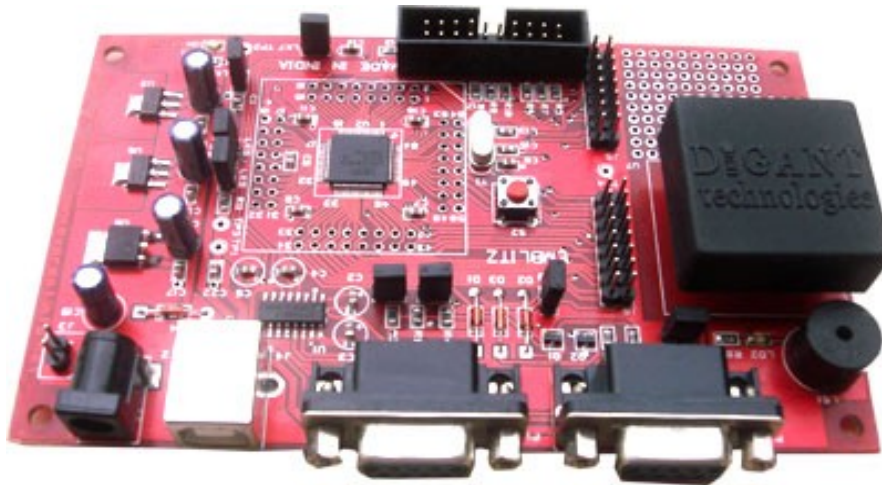


## ARM-BASED RFID PROJECT KIT

Product No : Ec 95825



### Board Features

- Processor: LPC2129
- 2xSerial ports(One for ISP and other for Serial Communication)
- 12.00 MHz crystal
- Inbuilt Reset Circuit with a switch on board.
- RESET circuit can be controlled externally by Philips ISP utility via RS232.
- Dual Power supply (either through USB or using external power adapter).
- Status LED for power supply.
- Three on-board voltage regulators 1.8V, 3.3V and 5V with up to 800mA current Extension headers for all  $\mu$ C ports PCB.
- 32 bit general purpose I/O pins(P0.8-P23 & P1.16-P1.31) are connected to external Connectors to facilitate easy system expansion.
- On-board RFID Reader Module with built-in antenna in minimized form factor, designed to work on the industry standard carrier frequency of 125 kHz
- Buzzer for audible indication
- A prototyping area is provided for interfacing the controller chip to any of the small peripherals mentioned below:
  - LCD Interfaces
  - LED Interface
  - 7 segment display
  - Matrix Keyboard Interface
  - Stepper Motor Interface
  - CAN Ports

### LPC2129 Chip Features:

- 16/32-bit ARM7TDMI-S microcontroller
- 16 kB on-chip RAM,256 kB Flash Program Memory supports upto 60 MHz frequency.
- In-System Programming (ISP) and In-Application Programming (IAP) via on-chip boot-loader software.
- On-chip Embedded-ICE-RT, Embedded Trace Macrocell debugger
- Two interconnected CAN interfaces with advanced acceptance filters.
- Four channel 10-bit A/D converter with conversion time as low as 2.44 ms.
- Multiple serial interfaces including two UARTs (16C550),
- Fast I2C (400 kbits/s) and two SPIs

- Phase-Locked Loop with settling time of 100 ms.
- Vectored Interrupt Controller with configurable priorities and vector addresses.
- Two 32-bit timers (with four capture and four compare channels), PWM unit (six outputs), Real Time Clock and Watchdog.
- Up to forty-six 5V tolerant general purpose I/O pins.
- Up to nine edge or level sensitive external interrupt pins available.
- On-chip crystal oscillator with an operating range of 1 MHz to 30 MHz.
- Two low power modes: Idle and Power-down.
- Processor wake-up from Power-down mode via external interrupt.
- Individual enable/disable of peripheral functions for power optimization.
- CPU operating voltage range of 1.65V to 1.95V(1.8 V  $\pm$  0.15 V).
- I/O power supply range of 3.0 V to 3.6 V (3.3 V  $\pm$  10 %) with 5 V tolerant I/O pads.

### System Requirement:

#### Hardware requirements:

- A PC with serial (RS232) port. If serial port is not available, a USB to serial converter (Ec95829) can be purchased from us.
- A USB port to provide power supply for the board.

#### Software requirements:

- MS Windows 98/ME/NT/2000/2003/XP/Vista

### Contents of Kit:

- RFID-ARM Project Board
- JTAG Wiggler with 20 pin data cable
- USB cable
- Serial cable
- Parallel cable
- 1 Software CD containing  $\mu$ Vision Keil IDE, GNU Toolchain, JTAG debugger, Philips ISP Utility, all necessary documentation including Schematic of the Board, User Guide for the board, Quick Start Guide, Data Sheets, and reference manuals, Example codes and Case Studies
- 10 Nos.of RFID Tags
- Extra jumpers

