

# LPC2148

# ARM7 EMBEDED TRAINER KIT

BS-LPC 2148 Kit, is s single board microcontroller Trainer kit based on High speed 32-bit MCU from NXP. It integrates on board SERIAL/USB Ports, Buzzer, Temperature sensor interface,Output LEDs, Input Switchs,Relays, BI-Directional Stepper Motor Interface, Matrix keys, an ADC input and DAC Output and 16 x 2 LCD Display to create a stand-alone versatile test platform.



#### Features

- CPU: LPC 2148 Microcontroller
- PC USB Interface
- ISP Programming facility

# **Special Features**

- ON Board BI-Directional Stepper Motor Interface
- ZIG BEE PROTOCOL ((Range-400ft (120m))

### **Experiments**

## ADC

 Measurement of conversion time, measurement of actual throughput of ADC and effect of resolution ADC in Applications

#### DAC

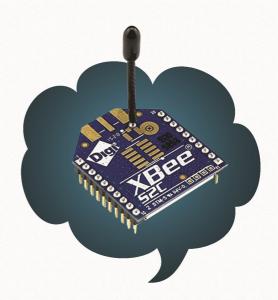
• Measurement of selling time and Different waveform selection

#### STEPPER MOTOR

• Study of type of operation modes of stepper motor like two phase drive, wave drive, Half step drive

#### **INTERRUPT**

• Study of Interrupt using internal of device



# **Other Experiments**

- ► 8 No's of Digital Input Switches
- ▶ 8 no's of Digital Output LEDs
- ► 16 x 2 LCD Display
- ► 6 no's of Seven segment displays for RTC Applications
- ► RTC interface using I2C
- ▶ 4 x 4 Matrix Keys
- ► 2 No's of Relay with output is terminated in connector.
- ► Buzzer is terminated in connector
- I<sup>2</sup>C compatible
  - 24LS256 EEPROM
  - DS1307 RTC with suitable battery
    - Temperature sensor LM35 interface
    - 24 I/O Lines Provided on a 3Nos. of 10 pin FRC connector