



**CoiNel Technology Solutions LLP**

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# **Cortex FLYER Base Board Overview**

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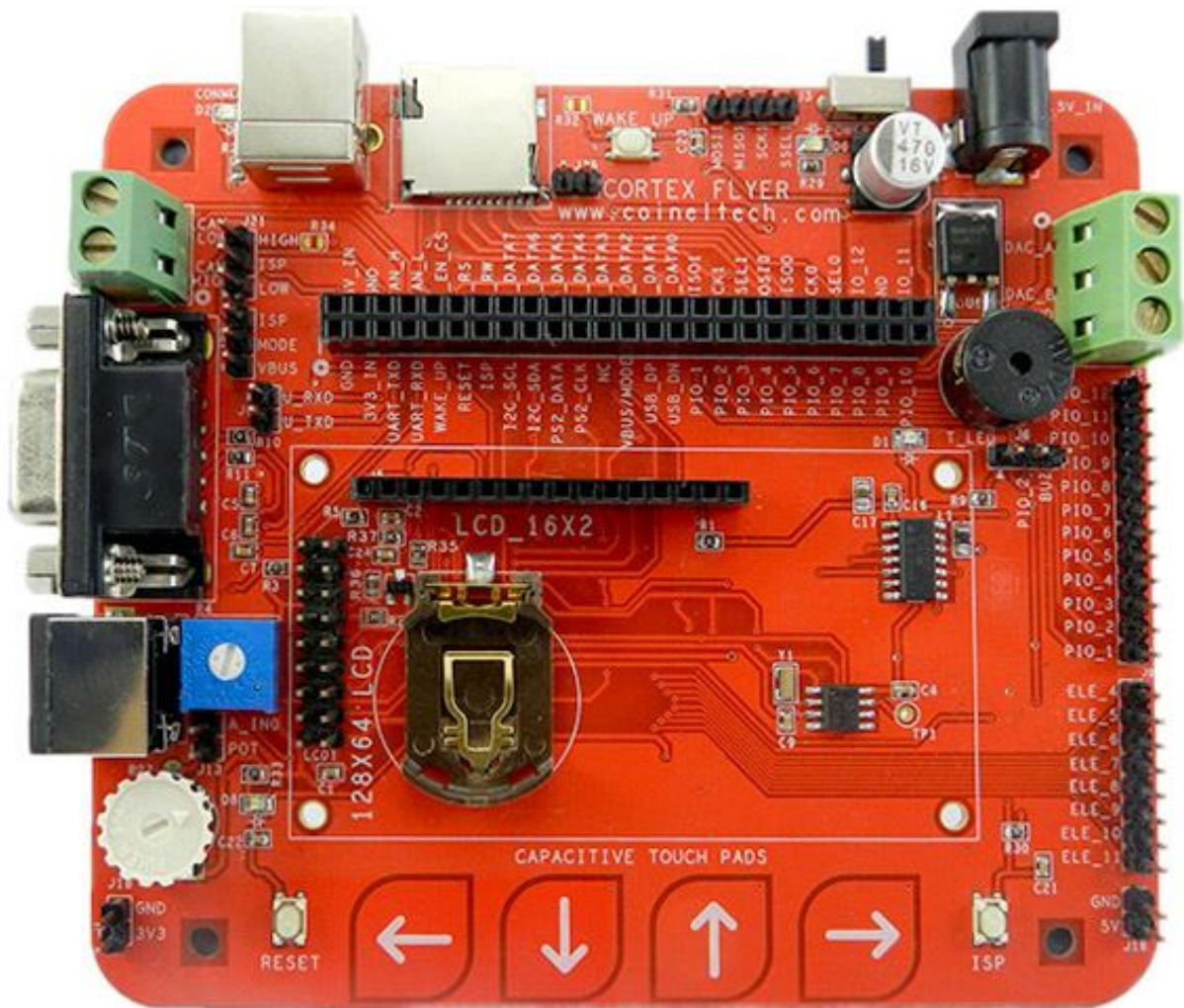
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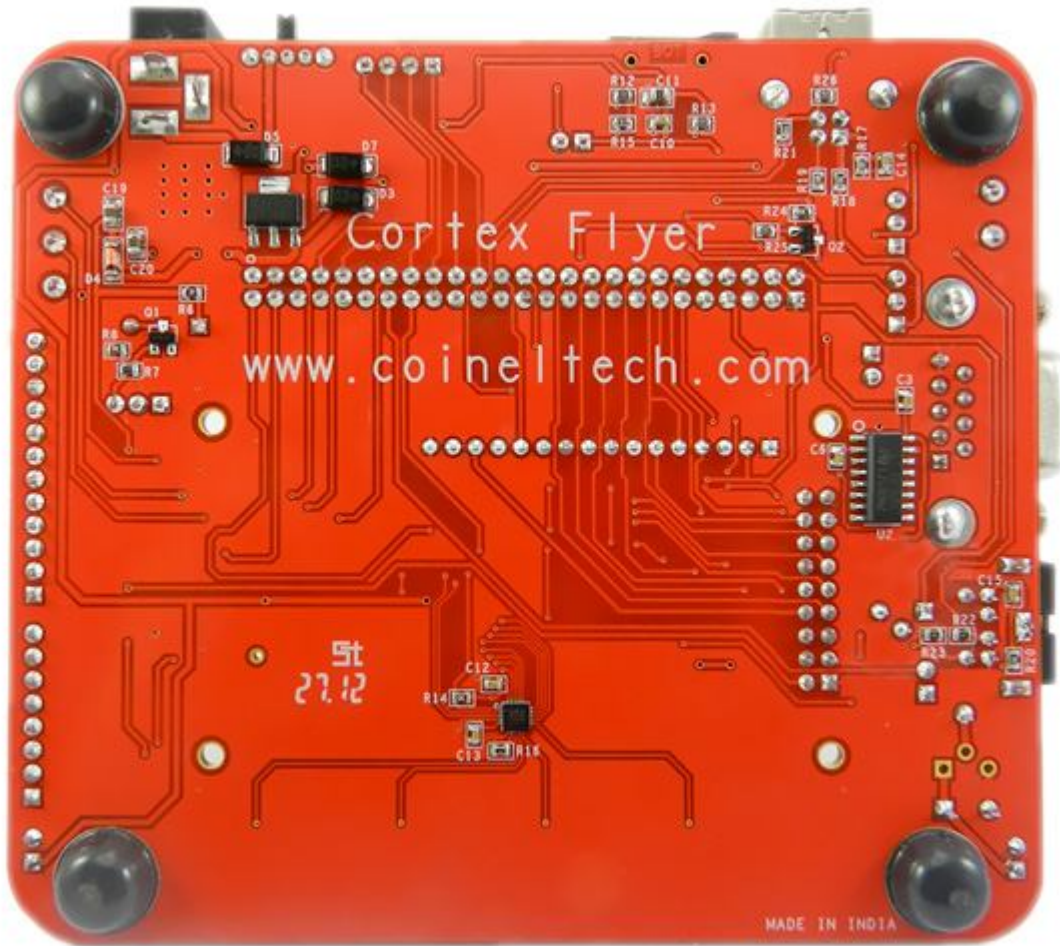
## 1. INTRODUCTION

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Cortex Flyer Base Board can be used as a peripheral connectivity board for various different PH (pluggable Header) Boards available for different microcontrollers. The PH Boards can be plugged in directly to the Cortex Flyer board. The PH Board has the connectivity for Debugging and Programming.

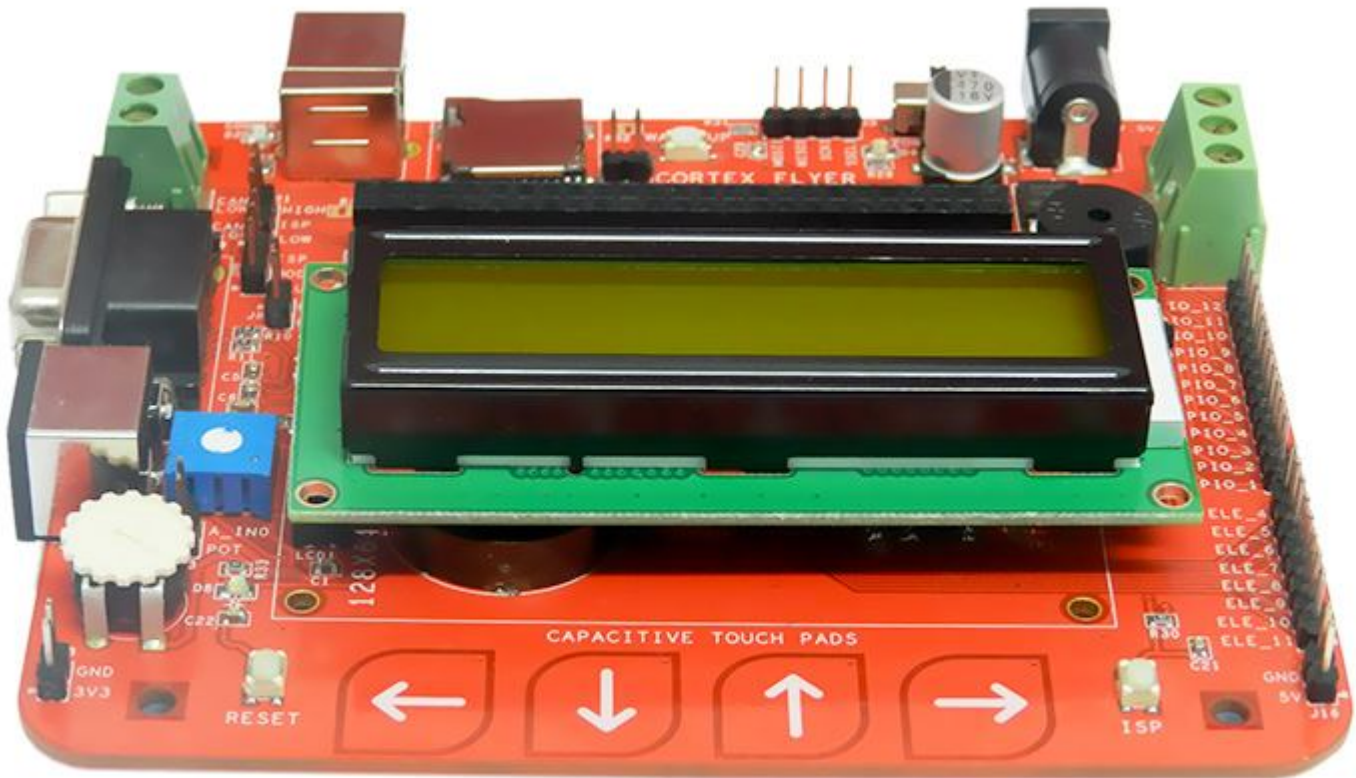


TOP View

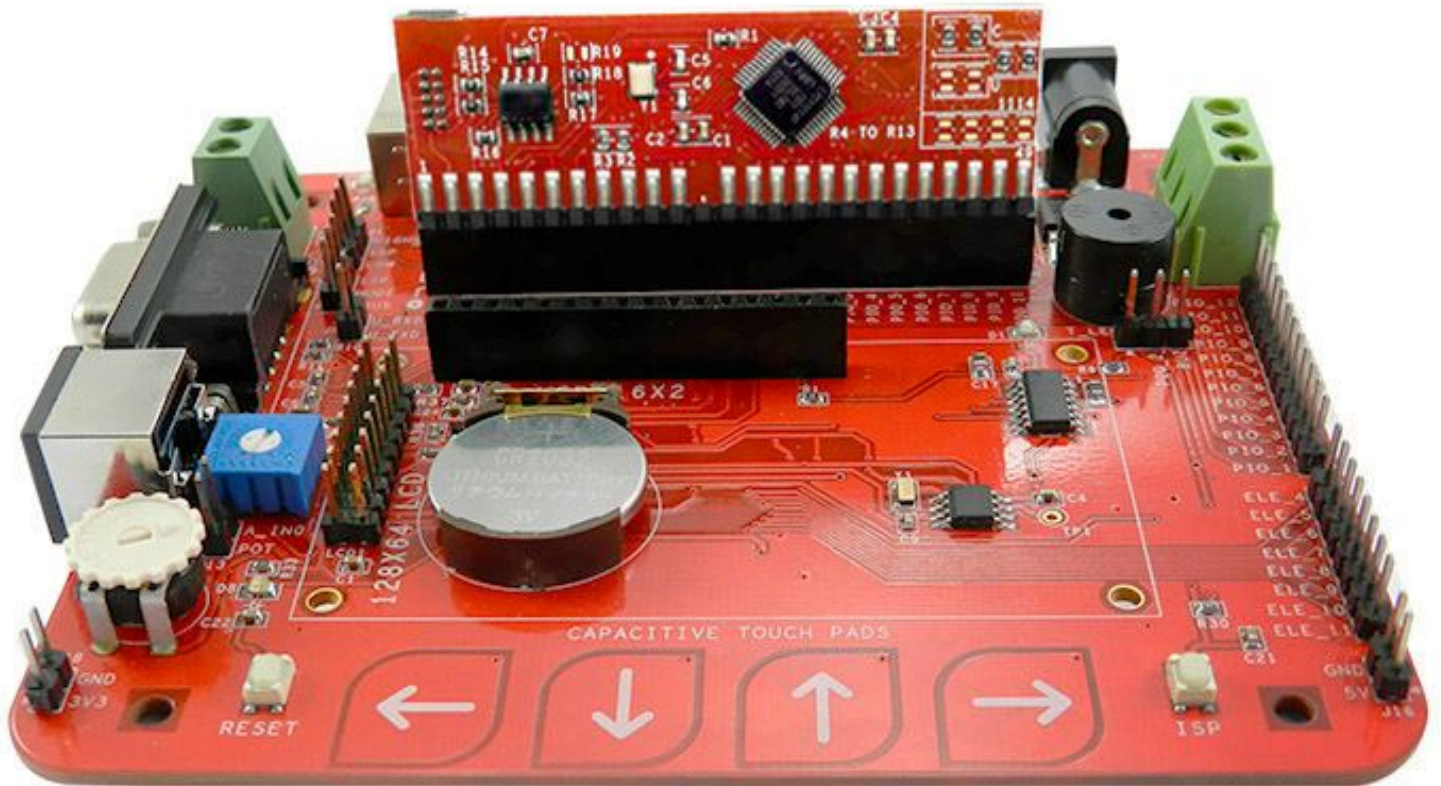


**Bottom View**





**Cortex Flyer Base Board with 16x2 Alphanumeric LCD Plugged**



**Cortex Flyer Base Board with PH Board Plugged.**

**Note:**

- PH Board is not the part of the Cortex Flyer Base Board package. You can choose them separately as per your requirements.
- You will also need to have CoiNel CoLinkEx Debugger to debug and program the PH Board. You can use standard 10 pin (1.27mm) SWD Programmers that support controllers selected also.

## 2. FEATURES

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### 2.1 Features of Cortex Flyer Base Board

- Capacitive Touch Pads (4 Nos). 8 more can be connected externally. 8 pins can also be used as IO. Interface: I2C
- Header option for 16x2 alphanumeric display Connection. Driver: HD44780
- Header option for 128x64 graphical LCD Connection. Part: TM12864H6CCOWA
- External RTC (DS1307) with CMOS Battery Connectivity option. Interface: I2C
- External DAC – 10 bit, 2 channel. Interface: SPI
- 12 GPIO Out Pins (Total Number of GPIO utilization depends on PH Board being used)
- On Board Test LED and Buzzer. Both connected to same GPIO. Jumper available to change settings.
- 4 pin 2.54 mm Berg Out for SPI
- Micro SD Card Connection Option. Interface: SPI
- USB Device Connectivity Option. This can be used with PH Boards that support USB.
- CAN PinOut. This can be used with PH Boards that support CAN.
- UART Output. RS232 via DB9 Connector. TTL via 2.54mm 2 pin Berg.
- PS2 Key Board Connectivity Option.
- POT interfaced to ADC.
- On board reset, ISP and wakeup switches.
- Jumper to select ISP option for UART/CAN/USB. ISP selection depends on PH Boards used.
- Onboard 5V and 3.3V regulators. 5V and 3.3V also taken out via berg.
- Can be powered by USB.



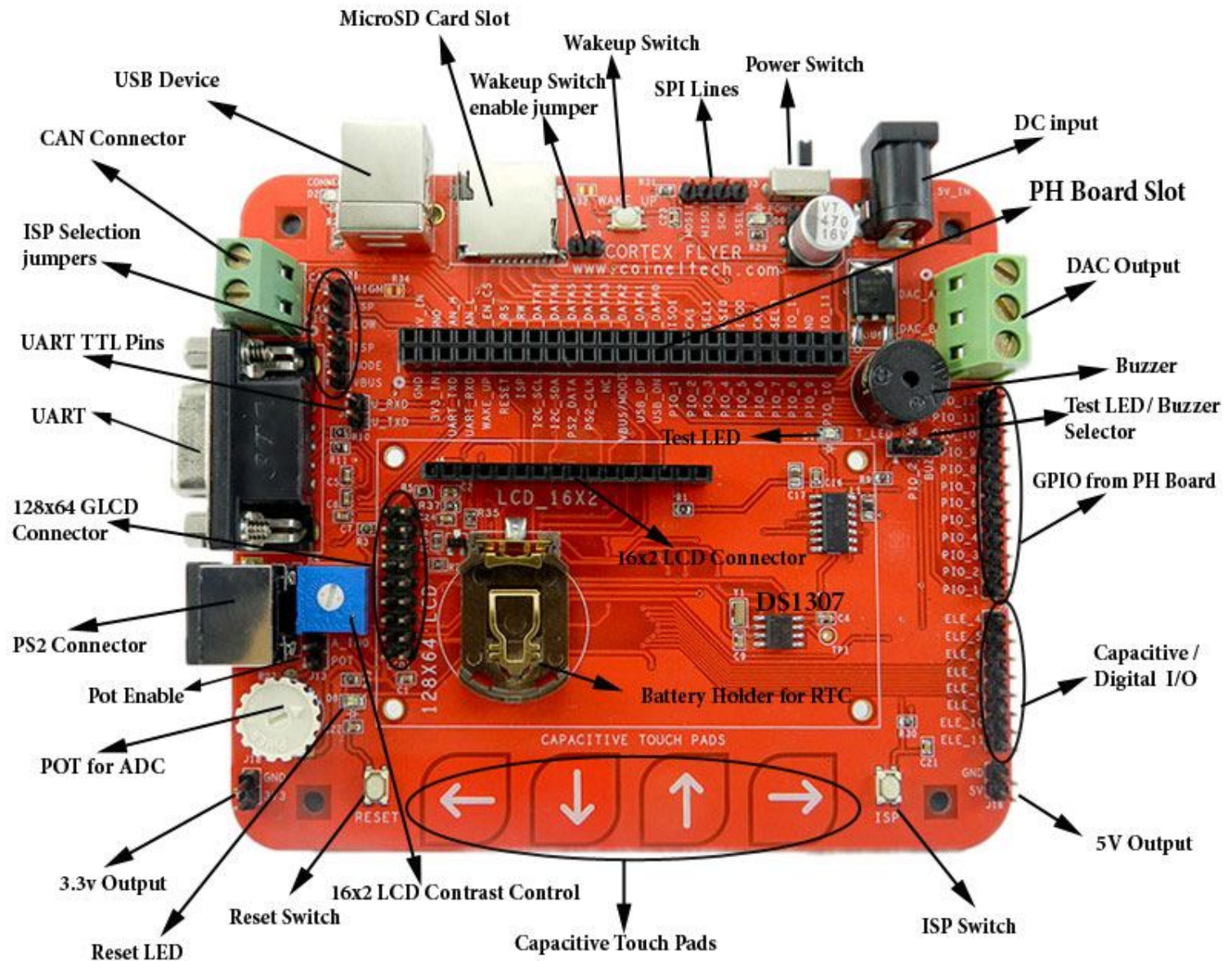
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## 2.2 PH Board Options.

The Board currently supports the following PH Boards.

- Cortex M0 based LPC1114 PH Board.
- Cortex M0 based LPC11U24 PH Board.
- Cortex M0 based LPC11C14 PH Board.
- Cortex M3 based LPC1343 PH Board.

The PH Boards can be debugged/programmed using CoiNel ARM CoLinkEx Debugger. You can also use other standard SWD Debuggers like ULink, JLink etc that use the standard 10 pin Header connectivity and support the above mentioned cores.



**Note:** The complete details on working and description are given in the user manual

## After-sale Support

We have special Technical Support Engineers to provide support and consultation in forms of telephone, E-mail and so on.

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Technical Support E-mail: [support@coineltech.com](mailto:support@coineltech.com)

Technical Discussion Forum: [www.coineltech.com/forums](http://www.coineltech.com/forums)

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