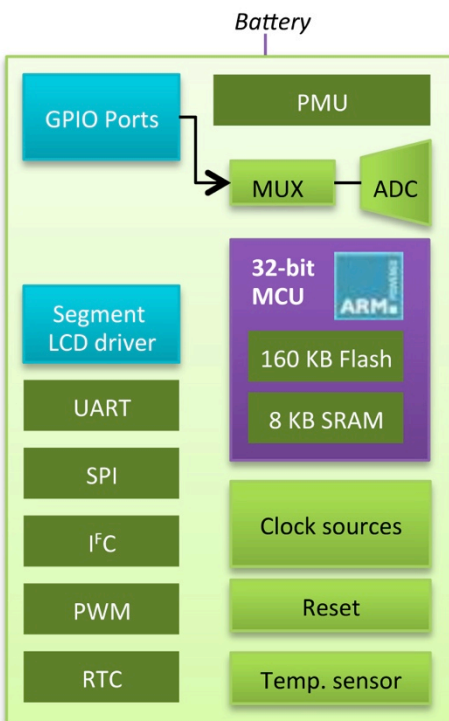


## Gray Features

- ARM M0 32-Bit MCU
- 160kB Flash RAM
- 8kB SRAM
- 4 x 30 LCD segment display
- Integrated PMIC
- 18 GPIO control pins
- RTC with Date/Time/Alarm
- 12MHz RC Oscillator
- Buffered 32.768 kHz Clock
- 10kHz Auxiliary Clock
- UART, I<sup>2</sup>C, SPI and PWM interfaces
- 3V Battery or USB Powered



## Recommended Applications

- IoT and wearables
- Embedded mobile
- Consumer products
- Scientific and Industrial

## iND81202 - “Gray”

### General Purpose ARM M0 uC with LCD Driver

#### Device Description

The iND81202 is a member of the general purpose microcontroller family of products from indie. It is a highly integrated 32-bit general purpose ARM M0 based microcontroller which clocks at up to 20MHz. This line of products is low-cost enough to compete with the 8-bit microcontroller market segment and provides a path for partners to begin transition to 32-bit wide applications.

Gray features a high performance 32-bit wide ARM M0 core with 160kB of flash RAM and 8kB of SRAM. A real time clock (RTC), 12MHz RC oscillator, 32kHz sleep mode clock, 10kHz auxiliary clock, and watchdog timer are all fully integrated on die for high performance, low power design.

The iND81202 includes integrated power management and is capable of running entirely off either a 3V battery or the integrated USB port. An integrated charge pump is capable of generating 4.5V from the battery and supplies power to the LCD. No other components are required for power regulation of the IC, creating an efficient, low cost design.

Gray also integrates an LCD driver to provide a flexible visual display option for various applications needs. The driver can program up to 120 display elements in a 4 x 30 LCD segment display for feature-rich measurement readouts.

The iND81202 also easily interfaces to any other discrete SoCs through standardized UART, I<sup>2</sup>C, SPI, and PWM interfaces and provides 18 GPIO controls to interface with other on-board components.

Gray is packaged in a low cost 8x8mm BGA with 120 pins and can be operated from -40C to +85C.

#### Ordering Information

Device Ordering Name	Platform	Temp Range	Package	Pins
iND81202 Gray	Commercial and Home medical appliances	-40 C to +85C	8x8 mm BGA	120 Pins @ 0.65 mm Pitch