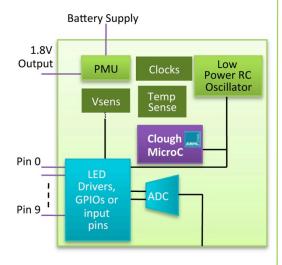


Dio Features

- ARM M0 32-Bit MCU
- 160kB Flash / 8kB SRAM
- (1) 8-10 bit ADC
- (10) Digital GPIOs
- (2) LED drivers
- Red LED
- Blue LED
- Low Battery Detection
- Temp Sensor
- 30MHz RC Oscillator
- 10kHz Auxiliary Clock (<1uA)
- (3) 32-bit Timers
- Watchdog Timer



Recommended Applications

- Internet of Things (IoT)
- Wearable products
- Mobile Embedded
- Industrial and Scientific Telemetry
- Medical and consumer embedded applications

iND80210 - "Dio"

32-Bit ARM M0 uController and Wireless Transmitter

Device Description

Dio is the simplest, lowest cost member of indie's general purpose microcontroller product line. It consists of a highly integrated 32-bit general purpose ARM M0-based microcontroller, clocking at up to 20MHz. It is intended to support a wide array of high performance, low cost embedded applications. Examples of intended applications include the Internet of Things (IoT), the wearables market, mobile embedded applications, and industrial and scientific monitoring.

The iND80200 integrates 160kB of flash RAM and 8kB of SRAM on-die for feature-rich applications or applications requiring redundancy of data storage.

iND80200 also integrates multiple clocking options including a high accuracy (1%) 30MHz RC oscillator and low power (<1uA) 10kHz auxiliary clock. It also contains (3) 32-bit timers, and a watchdog timer for high performance, low power designs.

Dio integrates multiple types of I/O to provide flexibility in the types of applications it can support. There are 10 digital GPIOs - two of these GPIOs can drive LEDs, one of which is suitable to drive a blue LED as it is attached to an integrated charge-pump circuit. The iND80200 also contains an 8-10 bit ADC (SAR architecture) with 12 channels and can access a PTAT circuit for battery and temperature monitoring.

Dio integrates a power management block including on-chip regulators and can be powered from a voltage range of 2.2V to 3.2V. The on-chip power management also produces a regulated 1.8V supplied to an external pin.

All of these features are packaged in a low cost, 4x4mm 20 pin QFN package and the product is suitable for applications from -40C to +85C.

Ordering Information

Device Ordering Name	Platform	Temp Range	Package	Pins
iND80200 Dio	General purpose and HV/Auto uC applications	-40C to +85C	4x4 mm QFN	20 Pins @ 0.50 mm Pitch