Arduino Nano 33 BLE

Designed for short range BT interactions and power savvy projects.

SKU: ABX00030

Overview

This compact and reliable NANO board is built around the NINA B306 module, based on Nordic nRF 52840 and containing a powerful Cortex M4F.

Its architecture, fully compatible with Arduino IDE Online and Offline, has a 9 axis Inertial Measurement Unit (IMU) and a reduced power consumption compared to other same size boards.

This allows the design of wearable devices and movement sensing projects that need to communicate to other devices at a close range. Arduino NANO 33 BLE is also ideal for automation projects thanks to the multiprotocol BT 5.0 radio.

Tech Specs

This board is based on the nRF 52840 microcontroller.

Clock	64MHz
Flash	1MB
RAM	256KB

Please note: Arduino Nano 33 BLE only supports 3.3V I/Os and is **NOT** 5V tolerant so please make sure you are not directly connecting 5V signals to this board or it will be damaged. Also, as opposed to Arduino Nano boards that support 5V operation, the 5V pin does NOT supply voltage but is rather connected, through a jumper, to the USB power input.

The Bluetooth is managed by a NINA B306 module.

The IMU is a **LSM9DS1** and it is managed through I2C.

The board has a two 15 pins connectors - one on each side -, pin to pin compatible with the original Arduino Nano.

Pin	Funcion	Type	Description
1	D13	Digital	GPIO
2	+3V3	Power Out	Internally generated power output to external devices
3	AREF	Analog	Analog Reference; can be used as GPIO
4	A0/DAC0	Analog	ADC in/DAC out; can be used as GPIO
5	A1	Analog	ADC in; can be used as GPIO
6	A2	Analog	ADC in; can be used as GPIO
7	A3	Analog	ADC in; can be used as GPIO
8	A4/SDA	Analog	ADC in; I2C SDA; Can be used as GPIO (*)
9	A5/SCL	Analog	ADC in; I2C SCL; Can be used as GPIO(*)
10	A6	Analog	ADC in; can be used as GPIO
11	A7	Analog	ADC in; can be used as GPIO
12	V_{USB}	Power In/Out	Normally NC; can be connected to V_{USB} pin of the USB connector by shorting a jumper
13	RST	Digital In	Active low reset input (duplicate of pin 18)
14	GND	Power	Power Ground
15	VIN	Power In	Vin Power input
16	TX	Digital	USART TX; can be used as GPIO
17	RX	Digital	USART RX; can be used as GPIO
18	RST	Digital	Active low reset input (duplicate of pin 13)
19	GND	Power	Power Ground
20	D2	Digital	GPIO
21	D3/PWM	Digital	GPIO; can be used as PWM
22	D4	Digital	GPIO
23	D5/PWM	Digital	GPIO; can be used as PWM
24	D6/PWM	Digital	GPIO; can be used as PWM
25	D7	Digital	GPIO
26	D8	Digital	GPIO
27	D9/PWM	Digital	GPIO; can be used as PWM
28	D10/PWM	Digital	GPIO; can be used as PWM
29	D11/MOSI	Digital	SPI MOSI; can be used as GPIO
30	D12/MISO	Digital	SPI MISO; can be used as GPIO

(*) As opposed to other Arduino Nano boards, pins A4 and A5 have an internal pull up and default to be used as an I^{2}C Bus so usage as analog inputs is not recommended. posed to Arduino Nano boards that support 5V operation, the 5V pin does NOT supply voltage but is rather connected, through a jumper, to the USB power input.

On the bottom side of the board, under the communication module, **debug signals** are arranged as 3x2 test pads with 100 mil pitch. Pin 1 is the bottom left one with the USB connector on the left and the test pads on the right.

Pin	Function	Type	Description
1	+3V3	Power Out	Internally generated power output to be used as voltage reference
2	SWD	Digital	nRF52480 Single Wire Debug Data
3	SWCLK	Digital In	nRF52480 Single Wire Debug Clock
5	GND	Power	Power Ground
6	RST	Digital In	Active low reset input

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bluetooth Development Tools - 802.15.1 *category:*

Click to view products by Arduino *manufacturer:*

Other Similar products are found below :

DA14580PRODTLKT 1628 SP14808ST MBH7BLZ02-EF-KIT CYBLE-014008-PROG FWM7BLZ20-EB-KIT SP14801-DUT ATSAMB11ZR-XPRO SKY66111-21EK1 SECO-RSL10-TAG-GEVB ENW89857AXKF 3026 MIKROE-2471 MOD-NRF8001 BLE-IOT-GEVB 450-0184 EKSHCNZXZ EVAL_PAN1026 EVAL_PAN1720 EVAL_PAN1740 2267 2479 2487 2633 STEVAL-IDB005V1D STEVAL-IDB001V1 MIKROE-2545 SIPKITSLF001 2995 STEVAL-IDB007V1M 2829 DFR0267 DFR0296 DFR0492 TEL0073 BM-70-CDB WSM-BL241-ADA-008DK STEVAL-BTDP1 ACD52832 TEL0095 ISP1507-AX-TB RN-4871-PICTAIL DA14695-00HQDEVKT-P DA14695-00HQDEVKT-U EVK-NINA-B112 EBSHJNZXZ EKSGJNZWY EKSHJNZXZ BMD-200-EVAL-S ACN BREAKOUT BOARD