

Intel® Edison Development Platform

Introduction

The Intel® Edison development platform is designed to lower the barriers to entry for a range of inventors, entrepreneurs, and consumer product designers to rapidly prototype and produce "Internet of Things" (IoT) and wearable computing products.

Intel® Edison Board for Arduino*

Supports Arduino Sketch, Linux, Wi-Fi, and Bluetooth.

Board I/O: Compatible with Arduino Uno (except 4 PWM instead of 6 PWM):

- 20 digital input/output pins, including 4 pins as PWM outputs.
- · 6 analog inputs.
- 1 UART (Rx/Tx).
- 1 I²C.
- 1 ICSP 6-pin header (SPI).
- Micro USB device connector OR (via mechanical switch) dedicated standard size USB host Type-A connector.
- Micro USB device (connected to UART).
- SD card connector.
- DC power jack (7 to15 VDC input).

Intel® Edison Breakout Board

Slightly larger than the Intel® Edison module, the Intel® Edison Breakout Board has a minimal set of features:

- Exposes native 1.8 V I/O of the Edison module.
- 0.1 inch grid I/O array of through-hole solder points.
- USB OTG with USB Micro Type-AB connector.
- · USB OTG power switch.
- · Battery charger.
- USB to device UART bridge with USB micro Type-B connector.
- DC power supply jack (7 to 15 VDC input).

Intel® IoT Analytics Platform

- Provides seamless Device-to-Device and Device-to-Cloud communication.
- Ability to run rules on your data stream that trigger alerts based on advanced analytics.
- Foundational tools for collecting, storing, and processing data in the cloud.
- Free for limited and noncommercial use.



PHYSICAL	
Form factor	Board with 70-pin connector
Dimensions	35.5 × 25.0 × 3.9 mm (1.4 × 1.0 × 0.15 inches) max
C/M/F	Blue PCB with shields / No enclosure
Connector	Hirose DF40 Series (1.5, 2.0, or 3.0 mm stack height)
Operating temperature	32 to 104°F (0 to 40°C)
EXTERNAL INTERFACES	
Total of 40 GPIOs, which can b	e configured as:
SD card	1 interface
UART	2 controllers (1 full flow control, 1 Rx/Tx)
I2C	2 controllers
SPI	1 controller with 2 chip selects
I2S	1 controller
GPIO	Additional 12 (with 4 capable of PWM)
USB 2.0	1 OTG controller
Clock output	32 kHz, 19.2 MHz
MAJOR EDISON COMPONEN	
SoC	22 nm Intel® SoC that includes a dual-core, dual-threaded Intel® Atom™ CPU at 500 MHz and a 32-bit
	Intel® Quark™ microcontroller at 100 MHz
RAM	1 GB LPDDR3 POP memory
	(2 channel 32bits @ 800MT/sec)
Flash storage	4 GB eMMC (v4.51 spec)
WiFi	Broadcom* 43340 802.11 a/b/g/n;
	Dual-band (2.4 and 5 GHz)
	Onboard antenna or external antenna (SKU configurations)
Bluetooth	Bluetooth 4.0
POWER	
Input	3.3 to 4.5 V
Output	100 ma @3.3 V and 100 ma @ 1.8 V
Power	Standby (No radios): 13 mW
	Standby (Bluetooth 4.0): 21.5 mW (BTLE in Q4-14)
	Standby (Wi-Fi): 35 mW
FIRMWARE + SOFTWARE	
CPU OS	Yocto Linux* v1.6
Development environments	Arduino* IDE
·	Eclipse supporting: C, C++, and Python
	Intel XDK supporting: Node.JS and HTML5
MCU OS	RTOS
Development environments	MCU SDK and IDE





Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

Contact your local Intel sales of fice or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725 or by visiting Intel's website at http://www.intel.com/design/literature.htm.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/products/processor_number for details.

Intel, the Intel logo, Atom, Pentium, Quark, and Xeon are trademarks of Intel Corporation in the United States and other countries.

*Other names and brands may be claimed as the property of others.





