Electric Imp - a WiFi enabled Development Platform

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Description

What is the electric imp? In essence, the Imp provides an easy, integrated way to connect almost any hardware device both to other devices and to internet services. It's more than just a WiFi card, or even a WiFi module with processing built in - it's an integrated platform that deals with the drudgery of connectivity, allowing you to concentrate on the application instead of the mechanics.

The Electric Imp is a WiFi enabled development platform powered by a Cortex-M3 processor core, the dimension is 32 x 24 x 2.1mm in a SD card form factor.

The Electric Imp API provides a set of classes and global objects with which imp code may access local hardware and remote cloud functionality. This API augments the Squirrel Standard Library, which provides generic functionality. For more general information about the Squirrel language see Learning Squirrel.

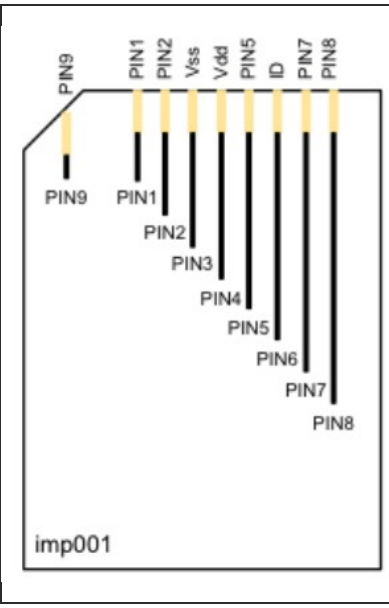
An April breakout board will be strongly recommended to go with Electric Imp.

FEATURES

- 802.11 b/g/n WiFi
- 20MHz 11n channels, 1 x 1
- +16.75dBm max output power (802.11b)
- -97dBm typical sensitivity (1Mbps)
- Integrated antenna with 2.5dBi max gain

• Robust embedded operating system with fail-safe firmware updates
  • Virtual machine for vendor firmware
• Embedded bi-color red/greenLED for status indication
• Embedded phototransistor for our patent-pending BlinkUp optical configuration technology
• 6 user selectable I/Os
  • GPIO, PWM, Analog input & output
  • SPI (2 channels), UART (3 channels), I2C (2 channels)
• Low power 6uA sleep mode
• FCC, CE, IC C-Tick certified

Pin assignments and description



Pin Number	Pin Name	Description
3	Vss	Ground
4	VDD	Power input
1,2,5,7,8&9	PIN1,2,5,7,8&9	I/O, please refer to Pin mux table
6	ID	Connects to the Atmel ATSHA ID chip

Pin mux

In addition to acting as a GPIO, each pin on the imp001 can be configured to one of several specialized functions. While pins may only have one function at a time, they may be reconfigured during run-time to change function as needed. For example, a pin may first be configured as a DAC and then reconfigured as an ADC. Additionally, not all the pins in a hardware function need to be assigned to that function. For example, pins 8 and 9 could be used as UART and pins 1 and 2 could be used as I2C.

All I/O pins are initially tri-stated.

The imp001 can be woken from low power sleep mode with a rising edge on PIN1. If this signal is pulsed, the minimum pulse width is 20ms.

Pin	GPIO	UART	I2C	SPI	DAC	ADC	PWM	Pulse Count	Wake
PIN1	Yes	U1-CTS, U3-TX	I1-SCL	SPI1-SCLK	Yes	Yes	Yes	Yes	Yes
PIN2	Yes	U1-RTS, U3-RX	I1-SDA	SPI2-MISO		Yes	Yes		
PIN5	Yes	U2-TX		SPI2-SCLK	Yes	Yes	Yes		
PIN7	Yes	U2-RX		SPI2-MOSI		Yes	Yes		
PIN8	Yes	U1-TX	I2-SCL	SPI1-MOSI		Yes	Yes		
PIN9	Yes	U1-RX	I2-SDA	SPI1-MSO		Yes	Yes		

RESOURCES

• Electric Imp Site
• Electric Imp Wiki
• Squirrel Language Site
• Datasheet

Any further questions, please view the Electric Imp forum .

Technical Details

Dimensions	60mm x 90mm x 7mm
Weight	G.W 5g
Battery	Exclude

ECCN/HTS

ECCN	Not Available
HSCODE	8517629200

Certification

RoHSCompliant

Reviews

Nice

April 16,2018 by Anonymous User

Was this review helpful ?

0

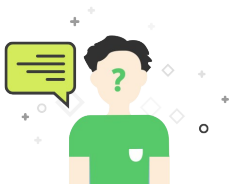
March 24,2018 by cm

Was this review helpful ?

0

Questions and Answers

Have a question about this? Ask people who



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