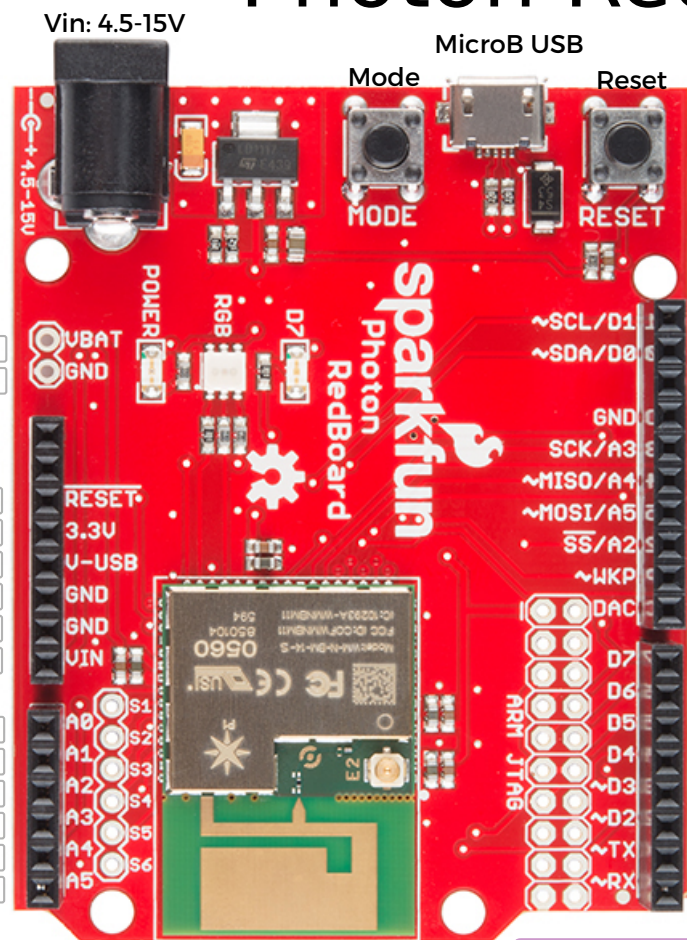


Photon Redboard (DEV-13321)

Name	JTAG
Power	I2S
GND	PWM
Control	Serial
DAC	Misc
Arduino pins 5V tolerant as digital pins	
Arduino pins 3.3V only	



To switch into safe, and DFU modes: Hold Reset and Mode, release Reset, release Mode when in desired state (purple=safe mode, yellow=DFU mode)
For listening mode, hold Mode for 4-5 seconds until RGB LED flashes blue.

VBAT	VBAT
GND	GND

RESET	RESET
3.3V	3.3V
4.8V	V-USB
GND	GND
GND	GND
Vin	VIN

A0	A0
A1	A1
SS (SPI1)	A2
DAC2	A3
MISO(SPI1)	A4
MOSI(SPI1)	A5

currently not implemented	S1
currently not implemented	S2
currently not implemented	S3
currently not implemented	S4
currently not implemented	S5
currently not implemented	S6

SCL/D1	D1	PWM	SCL(I2C1)	CAN TX
SDA/DO	DO	PWM	SDA(I2C1)	

GND	GND		
SCK/A3	A3	SCK(SPI1)	DAC2
MISO/A4	A4	PWM	MISO(SPI1)
MOSI/A5	A5	PWM	MOSI(SPI1)
SS/A2	A2	SS(SPI1)	
WKP	A7	PWM	
DAC	A6	DAC1	

D7	D7	JTAG TMS	
D6	D6	JTAG TCK	LED
D5	D5	JTAG TDI	I2S WS
D4	D4	JTAG TDO	I2S SCK
D3	D3	JTAG TRST	PWM
D2	D2	I2S SD	PWM
TX	TX	PWM	UART1
RX	RX	PWM	UART1

JTAG Header	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20

1: 3.3V 2: NC
3: D3 (TRST) 4: GND
5: D5 (TDI) 6: GND
7: D7 (TMS) 8: GND
9: D6 (TCK) 10: GND
11: GND 12: GND
13: D4 (TDO) 14: GND
15: RST 16: GND
17: NC 18: GND
19: NC 20: GND

Power
VCC: 3.3V @ 800mA
V-USB: 4.8V @ 500mA
Vin: 4.5-15V
Typical current consumption of P1: 80mA
Required available current: 600mA
Serial
Serial1 for pins labeled RX/TX
Serial for USB serial

Particle's P1 Module - ARM Cortex M3
Broadcom BCM43362
802.11b/g/n
12-bit ADC
STM32F205 120Mhz ARM Cortex M3
1MB flash + 1MB external SPI flash
128KB RAM
1MB external SPI flash

LEDs	Cyan-Breathing: Connected to Wifi and Particle Cloud
Power: Red	Cyan-Blinking: Connecting to Particle Cloud
D7: User	Green-Blinking: Connecting to WiFi
RCB: Status	Blue-Blinking: Listening mode (waiting for WiFi info)
	Magenta -Blinking: Receiving new application or firmware over-the-air
	Magenta-Breathing: Connected in safe mode
	White-Breathing: WiFi module is off
	Yellow-Blinking: DFU mode

