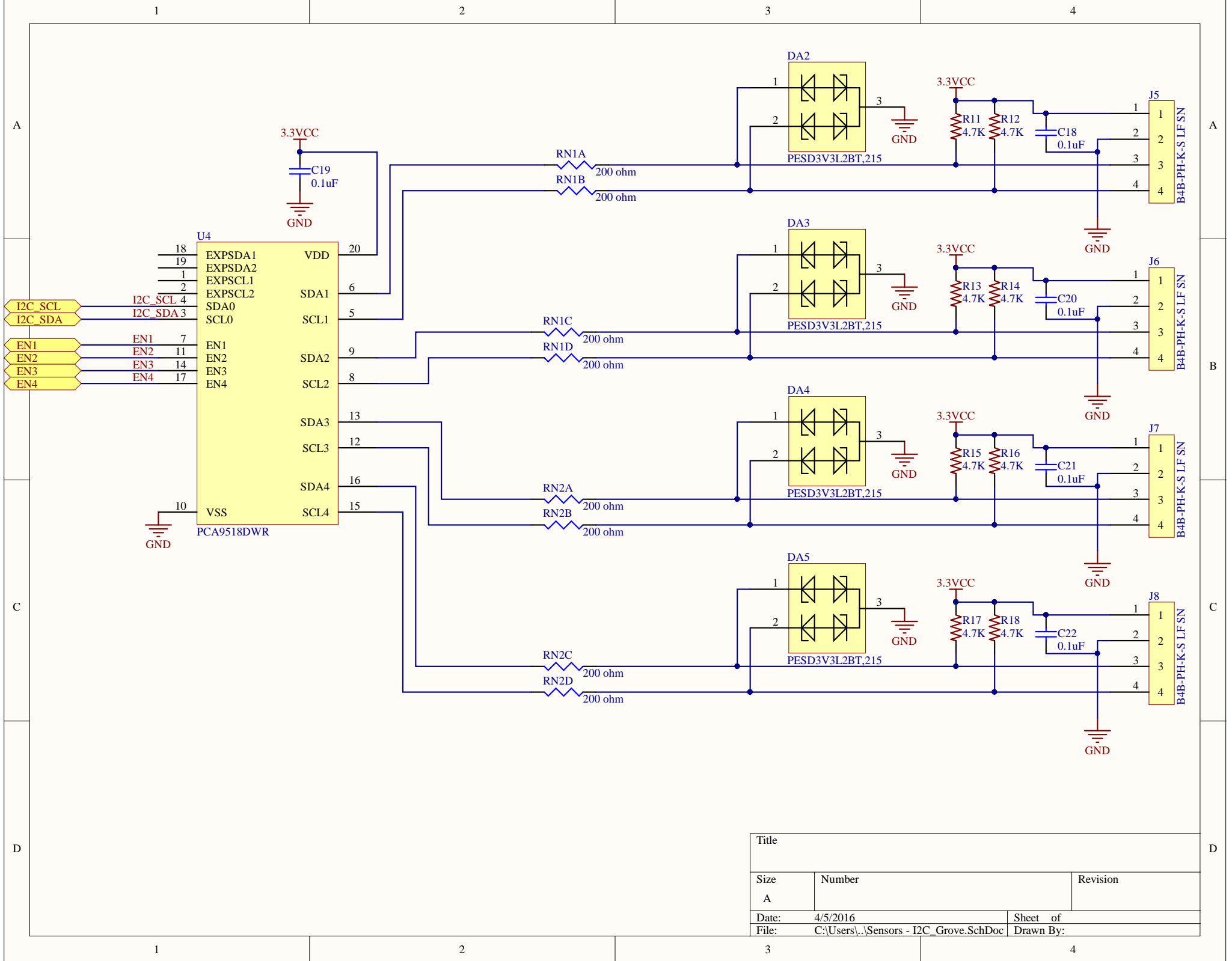


Title		
Size	Number	Revision
A		
Date:	4/5/2016	Sheet of
File:	C:\Users\...\WiFi - ESP8266 SoC.SchDoc	Drawn By:



Title		
Size A	Number	Revision
Date:	4/5/2016	Sheet of
File:	C:\Users\...\Sensors - UART Grove.SchDoc	Drawn By:



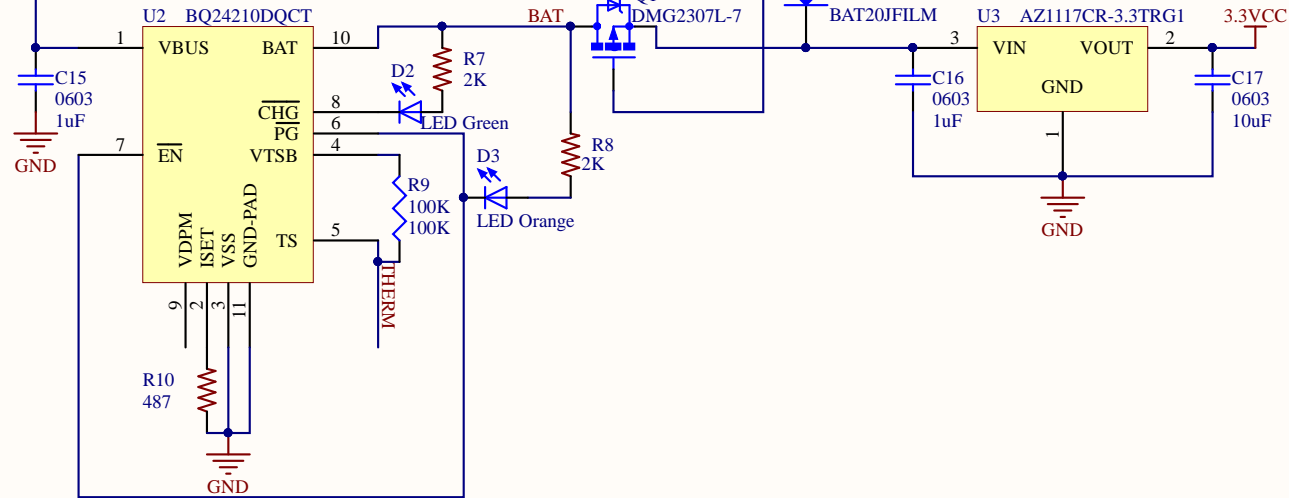
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Size	Number	Revision
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Date:	4/5/2016	Sheet of
File:	C:\Users\...\Sensors - I2C_Grove.SchDoc	Drawn By:

NOTE: Solar Power Input
J3

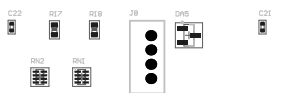
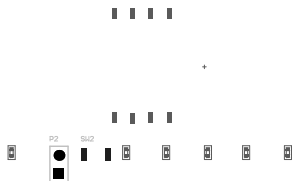
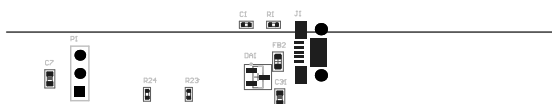
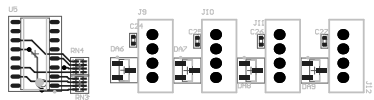
NOTE: 1 Cell LiPo Battery w/Thermistor
J4

S2B-PH-K-S(LF)(SN)

S3B-PH-K-S(LF)(SN)



Title		
Size	Number	Revision
A		
Date:	4/5/2016	Sheet of
File:	C:\Users\...\Power.SchDoc	Drawn By:



Item #	mn Name Error:Manufac	#Column Name Error:Manufacturer No	Quantity	#Column Name Error:Note	Designator	Description	Footprint	Comment	LibRef
1			1		C1	CAP CER 47PF 50V NP0 0402	C0402	0402	CL05C470FB5NNNC
2			2		C2, C3	CAP CER 18PF 50V NP0 0402	C0402	18pF	CL05C180GB5NNCNC
3			19		C4, C10, C11, C12, C13, C14, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30	CAP CER 0.1UF 10V X7R 0402	C0402	0.1uF	CL05B104JP5NNCNC
4			2		C5, C6	CAP CER 9PF 50V NP0 0402	C0402	9pF	CL05C090CB5NNNC
5			4		C7, C15, C16, C17	CAP CER 1UF 25V X5R 0402, CAP CER 1UF 25V X5R 0402, CAP CER 1UF 25V X5R 0402, CAP CER 10UF 6.3V X5R 0603	C0603	0603	CL05A105KA5NQNC, CL05A105KA5NQNC, CL05A105KA5NQNC, CL10A106K08NNNC
6			2		C8, C9	CAP CER 2.2UF 6.3V X5R 0402	C0402	2.2uF	CL05A225K05NSNC
7			1		C31	CAP CER 10000PF 10V U2J 0603	C0603	0.01uF	GRM1857U1A103JA44D
8			1		C32	CAP CER 4.7UF 6.3V X5R 0402	C0402	4.7uF	CL05A475K05NRNC
9			1		D1	DIODE SCHOTTKY 23V 1A SOD323	BAT20JFILM - DIOM1712X11N	BAT20JFILM	BAT20JFILM
10			1		D2	LED GREEN CLEAR 0603 SMD	LED0603, GREEN	LED Green	LTST-C191KGKT
11			1		D3	LED ORANGE CLEAR 0603 SMD	LED0603, ORANGE	LED Orange	LTST-C191KFKT
12			1		DA1	TVS DIODE 5V3WM 28VC SOT23	SOT95P230X110-3N	PESD5VOL2BT,215	PESD5VOL2BT,215
13			8		DA2, DA3, DA4, DA5, DA6, DA7, DA8, DA9	TVS DIODE 3.3VWM 26VC SOT23	SOT95P230X110-3N	PESD3V3L2BT,215	PESD3V3L2BT,215
14			1		FB1	FERRITE BEAD 600 OHM 0402 1LN	BLM15HG601SN1D	BLM15HG601SN1D	BLM15HG601SN1D
15			1		FB2	FERRITE BEAD 30 OHM 0603 1LN	MI0603K300R-10	MI0603K300R-10	MI0603K300R-10
16			1		IC1	ESP8266 ESP-02	ESP8266 ESP-02	ESP8266 ESP-02	ESP8266 ESP-02
17			1		J1	Micro USB Jack B	Micro USB Circular Holes Only	DX4R005J91R5100	Micro USB
18			1		J2	20021121-00010C4LF ARM Cortex JTAG	FTSH-105-XX-X-DV	20021121-00010C4LF	20021121-00010C4LF
19			1		J3	CONN HEADER PH SIDE 2POS 2MM	S2B-PH-K-S(LF)(SN)	S2B-PH-K-S(LF)(SN)	S2B-PH-K-S(LF)(SN)
20			1		J4	CONN HEADER PH SIDE 2POS 2MM	S3B-PH-K-S(LF)(SN)	S3B-PH-K-S(LF)(SN)	S3B-PH-K-S(LF)(SN)
21			8		J5, J6, J7, J8, J9, J10, J11, J12	CONN HEADER PH TOP 4POS 2MM	B4B-PH-K-S(LF)(SN)	B4B-PH-K-S LF SN	B4B-PH-K-S LF SN
22			1		P1	Header, 3-Pin	HDR1X3	Header 3	Header 3
23			1		P2	Header, 2-Pin	HDR1X2	Header 2	Header 2
24			1		Q1	MOSFET P-CH 30V 2.5A SOT-23	DMG2307L-7 - SOT92P240X102-3N	DMG2307L-7	DMG2307L-7
25			1		R1	RES SMD 1M OHM 1% 1/16W 0402	R0402	1M	RC1005F105CS
26			8		R2, R3, R4, R5, R19, R20, R21, R22	RES SMD 1K OHM 1% 1/16W 0402	R0402	1k	RC1005F102CS
27			1		R6	RES SMD 10K OHM 1% 1/16W 0402	R0402	10K	RC1005F103CS
28			2		R7, R8	RES SMD 2K OHM 1% 1/8W 0805	R0805	ERJ-6ENF2001V	ERJ-6ENF2001V
29			1		R9	Standin 0402	R0402	100K	Standin 0402
30			1		R10	RES SMD 487 OHM 1% 1/16W 0402	R0402	RC1005F4870CS	RC1005F4870CS
31			8		R11, R12, R13, R14, R15, R16, R17, R18	RES 0603 4.7K 100mW 1%	R0603	4.7K	ERJ3EKF4701V
32			2		R23, R24	RES SMD 22 OHM 0.1% 1/16W 0402	R0402	22r	1879208-9
33			1		R25	RES SMD 47K OHM 1% 1/16W 0402	R0402	47K	RC1005F473CS
34			4		RN1, RN2, RN3, RN4	RES ARRAY 4 RES 200 OHM 0804	EXB-NBV201JX - CAC-50P200X100-8N	200 ohm	EXB-NBV201JX
35			2		SW1, SW2	SWITCH TACTILE SPST-NO 0.05A 12V	B3U-1000P	B3U-1000P	B3U-1000P
36			1		U1		STM32F446RET6 - TSQFP50P1200X1200X160-64N	STM32F446RET6 - TQFP64	STM32F446RET6
37			1		U2	IC BATT CHARGER LI-ION 10W/SON (VBUS and Solar Voltaic Cell)	bq24210 - QFN50P300X200X90-10N	BQ24210DQCT	BQ24210DQCT
38			1		U3	IC REG LDO 3.3V 0.8A SOT89	AZ1117CR-3.3TRG1 - 150P410X1160-3N	AZ1117CR-3.3TRG1	AZ1117CR-3.3TRG1
39			1		U4	IC EXPANDABLE SCH I2C HUB 20SOIC	PCA9518DWR	PCA9518DWR	PCA9518DWR
40			1		U5	Dual 4-channel analog multiplexer/demultiplexer	74HC4052	74HC4052	74HC4052
41			1		X1	32.768kHz ±20ppm Crystal 9pF 70 kOhm -40°C ~ 85°C Surface Mount 2-SMD	ABS07-32.768KHZ-9-T	ABS07-32.768KHZ-9-T	ABS07-32.768KHZ-9-T
42			1		X2	8MHz ±20ppm Crystal 18pF 200 Ohm 20° C ~ 70°C Surface Mount 4-SMD, No Lead (DFN, LCC)	ABM3B8.000MHZB2T	8MHZ	ABM3B8.000MHZB2T