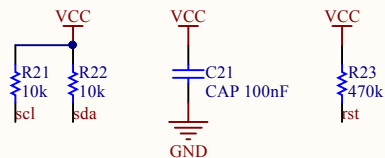
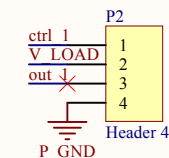
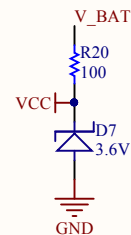


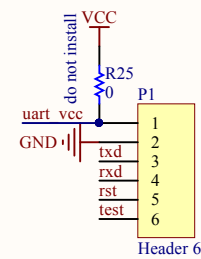
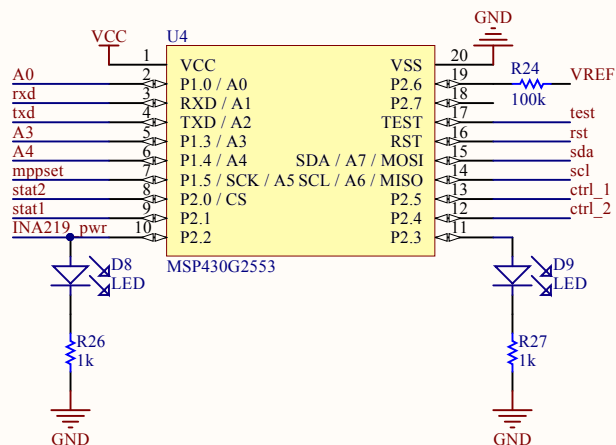
Decoupling



power supply from battery, clamped

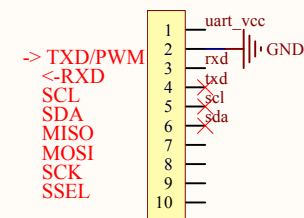


connection to output regulator



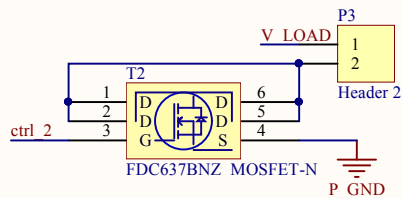
serial and programming interface

on bottom side, SMD pads, do not populate

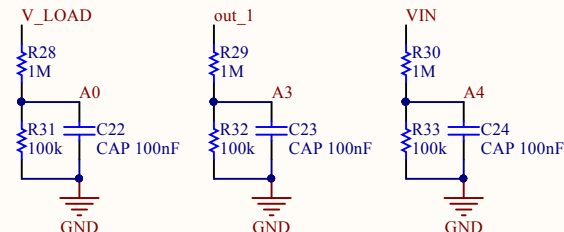


PoKeys extension pad

power mosfet for secondary load



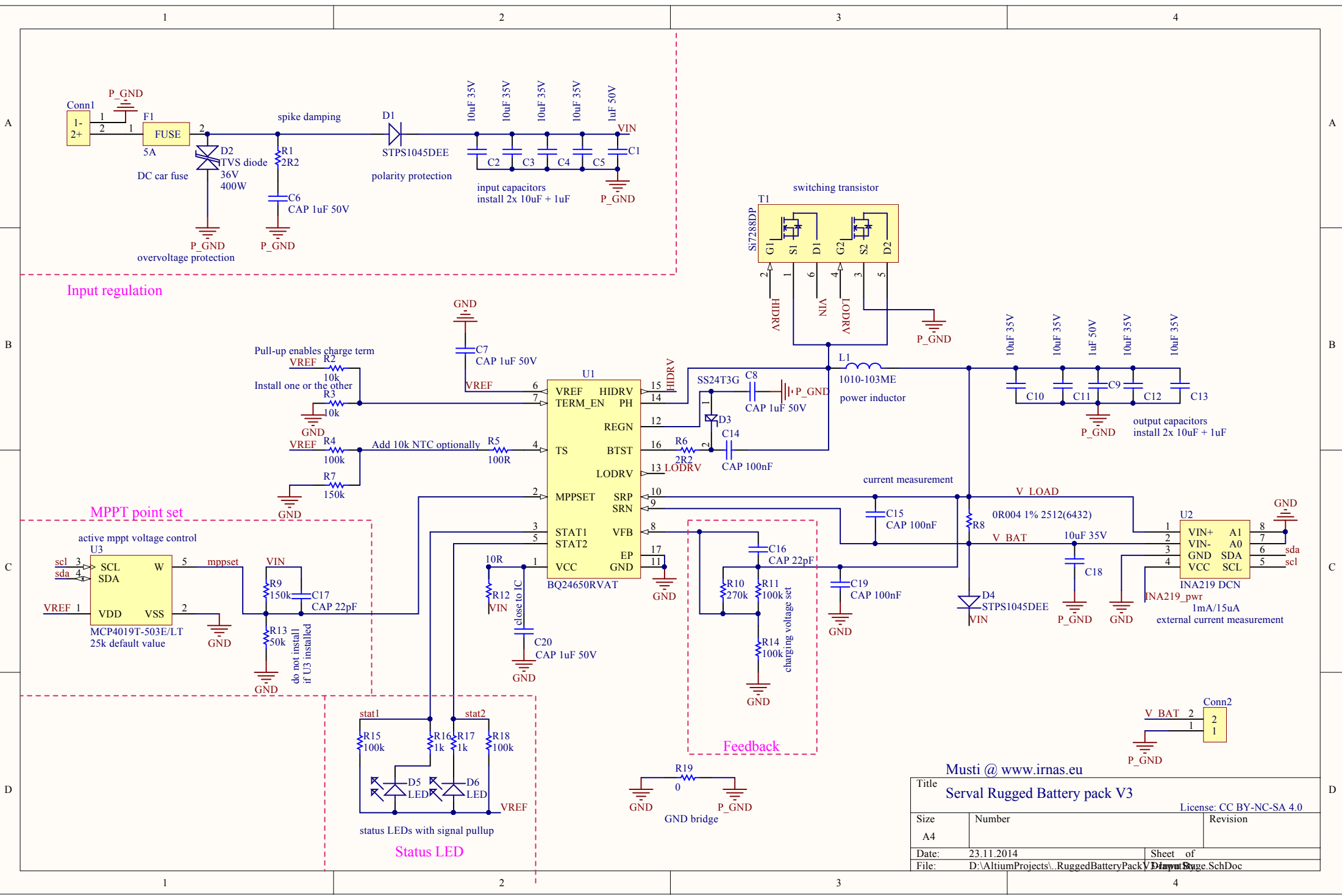
analog measurement channels

Musti @ www.irnas.eu

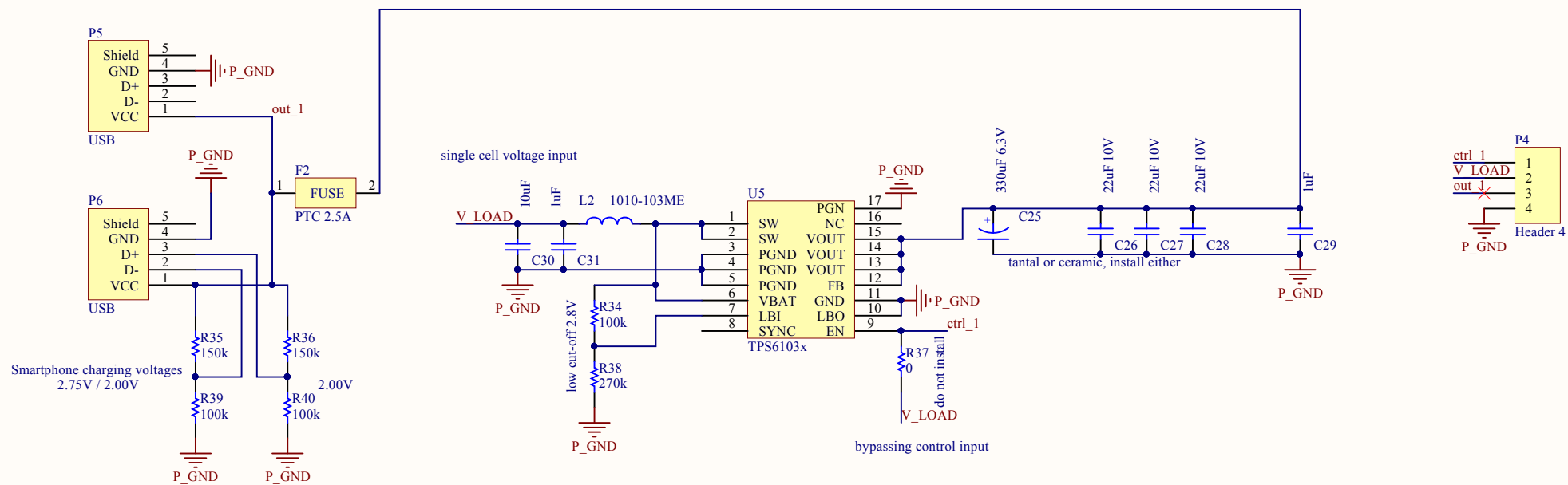
Serval Rugged Battery pack V3

License: CC BY-NC-SA 4.0

Size	Number	Revision
A4		
Date:	23.11.2014	Sheet of
File:	D:\AltiumProjects\...RuggedBatteryPackV3\Doc\Contrib\er.SchDoc	



Title			Musti @ www.irnas.eu	
Servo Rugged Battery pack V3			License: CC BY-NC-SA 4.0	
Size	Number		Revision	
A4				
Date:	23.11.2014		Sheet of	
File:	D:\AltiumProjects\...RuggedBatteryPackV3\...SchDoc		Printed on	



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Title		
Serval Rugged Battery pack V3		
License: CC BY-NC-SA 4.0		
Size	Number	Revision
A4		
Date:	23.11.2014	Sheet of
File:	D:\AltiumProjects\...RuggedBatteryPackV3\Output\B3.SchDoc	

Bill of Materials

<Parameter Title not found>

Source Data From: RuggedBatteryPackV3.PrjPcb
Project: RuggedBatteryPackV3.PrjPcb
Variant: None

Creation Date: 23.11.2014 15:53:37
Print Date: 23-Nov-14 3:53:46 PM

Footprint	Comment	LibRef	Designator	Description	Quantity
CAPC0805(2012)145_L1206	1uF 50V	CMP-1036-04761-1	C1, C9	CAP 1uF 50V ±10% 0805 (2012 Metric) Thickness 1.45mm SMD	2
	10uF 35V	CMP-1038-02235-1	C2, C3, C4, C5, C10, C11, C12, C13, C18	CAP 10uF 35V ±20% 1210 (3225 Metric) Thickness 2.1mm SMD	9
CAPC0805(2012)145_L0603	CAP 1uF 50V	CMP-1036-04761-1	C6, C7, C8, C20	CAP 1uF 50V ±10% 0805 (2012 Metric) Thickness 1.45mm SMD	4
	CAP 100nF	CMP-1035-02584-1	C14, C15, C19, C21, C22, C23, C24	CAP 100nF 50V ±10% 0603 (1608 Metric) Thickness 1mm SMD	7
0603	CAP 22pF	CMP-1035-02584-1	C16, C17	CAP 100nF 50V ±10% 0603 (1608 Metric) Thickness 1mm SMD	2
Capacitor D case1206	330uF 6.3V	Capacitor Tantal	C25	T491D226K035AT capacitor	1
	22uF 10V	CMP-1038-02235-1	C26, C27, C28	CAP 10uF 35V ±20% 1210 (3225 Metric) Thickness 2.1mm SMD	3
RESC2012X06N	1uF	CMP-1038-02235-1	C29, C31	CAP 10uF 35V ±20% 1210 (3225 Metric) Thickness 2.1mm SMD	2
RESC2012X06N	10uF	CMP-1038-02235-1	C30	CAP 10uF 35V ±20% 1210 (3225 Metric) Thickness 2.1mm SMD	1
MKDSN 2,5/2-5,08 and powercon	PowerScrewTerminal	PowerScrewTerminal	Conn1		1
MKDSN 2,5/2-5,08	PowerScrewTerminal	PowerScrewTerminal	Conn2		1
PowerFLAT-3.3x3.3-8	STPS1045DEE	Rectifier_diode	D1, D4	Diode rectifier STPS1045DEE	2
SMB	TVS diode	TVS diode	D2	TVS bidirectional diode	1
SOT23	SS24T3G	Schottky diode	D3	Schottky diode	1
0603	LED	LED	D5, D6, D8, D9	LED diode	4
DIOMELF3517N	3.6V	Zener	D7	Zener 3.6V	1
FUSE CLIP3550	5A	Fuse	F1	1A fuse	1
1210	PTC 2.5A	Fuse	F2	1A fuse	1
XAL1010-coilcraft	1010-103ME	Inductor	L1	Coilcraft XAL	1
XAL7070-332	1010-103ME	Inductor	L2	Coilcraft XAL	1
HDR1X6	Header 6	Header 6	P1	Header, 6-Pin	1
HDR1X4	Header 4	Header 4	P2, P4	Header, 4-Pin	2
HDR1X2	Header 2	Header 2	P3	Header, 2-Pin	1
USB A THT	USB	USB	P5, P6	USB A standard receptacle	2
8-188275-0	PoKeys extension pad	1-215079-0	PoExtensionIn1	Micro-Match female PCB connector 10 Positions THT	1
RESC0603(1608)_L	100R	CMP-1012-00026-1	R1, R6	100R 0.1W 5% 0603 (1608 Metric) SMD	2
RESC0603(1608)_L	10k	CMP-1012-00026-1	R2, R3, R21, R22	10R 0.1W 5% 0603 (1608 Metric) SMD	4
RESC0603(1608)_L	100k	CMP-1012-00026-1	R4, R11, R14, R15, R18, R24, R31, R32, R33, R34, R39, R40	10R 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD	12
RESC0603(1608)_L	100R	CMP-1012-00026-1	R5	100R 0.1W 5% 0603 (1608 Metric) SMD	1
RESC0603(1608)_L	150k	CMP-1012-00026-1	R7, R9, R35, R36	10R 0.1W 5% 0603 (1608 Metric) SMD, 100k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD	4
RESC2512(6432)_M	0R004 1%	CMP-1018-00510-1	R8	0R004 1W 1% 2512 (6432 Metric) SMD	1
RESC0603(1608)_L	270k	CMP-1012-00026-1	R10, R38	1k 0.1W 5% 0603 (1608 Metric) SMD	2
RESC0603(1608)_L	10R	CMP-1012-00026-1	R12	10R 0.1W 5% 0603 (1608 Metric) SMD	1
RESC0603(1608)_L	50k	CMP-1012-00026-1	R13	100k 0.1W 5% 0603 (1608 Metric) SMD	1
RESC0603(1608)_L	1k	CMP-1012-00026-1	R16, R17, R26, R27	1k 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD	4
RESC0603(1608)_L	0	CMP-1012-00026-1	R19, R25, R37	100R 0.1W 5% 0603 (1608 Metric) SMD, 10R 0.1W 5% 0603 (1608 Metric) SMD, 1k 0.1W 5% 0603 (1608 Metric) SMD	3
RESC0603(1608)_L	100	CMP-1012-00026-1	R20	10R 0.1W 5% 0603 (1608 Metric) SMD	1
RESC0603(1608)_L	470k	CMP-1012-00026-1	R23	10R 0.1W 5% 0603 (1608 Metric) SMD	1
RESC0603(1608)_L	1M	CMP-1012-00026-1	R28, R29, R30	10R 0.1W 5% 0603 (1608 Metric) SMD	3
PowerPAK SO-8	Si7288DP	Si7288DP	T1	Vishay Siliconix Si7288DP New Product Document Number: 65366 S09-2113-Rev. A, 12-Oct-09 www.vishay.com 1 Dual N-Channel 40-V (D-S) MOSFET	1
SuperSOT-6	FDC637BNZ	FDC637BNZ	T2	FDC637BNZ 5A	1
RVA16-2140X2140TP	MOSFET-N BQ24650RVAT	MOSFET-N BQ24650RVAT	U1	High Efficiency Synchronous Switch-Mode Charger Controller- Solar Battery Charger, 5 V, -40 to 85 degC, 16-pin VQFN (RVA), Green (RoHS & no Sb/Br)	1
DCN-SOT23-8	INA219 DCN	INA219 DCN	U2		1
SC70-LT5_M	MCP4019T-503E/LT	CMP-0188-00765-2	U3	7-Bit Single I2C Digital POT with Volatile Memory, 5-pin SC70, Extended Temperature, Tape and Reel	1
PW020	MSP430G2553	MSP430G2553	U4	MSP430G2553	1
PWP	TPS6103x	TPS6103x	U5	TPS6103x step-up regulator	1
					100

Approved	Notes

