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A

B


C

D

REV	Description	DATE
A	Initial version	1.2.2014
A1	Added revision table. Diode D1 changet for smaller one. Better routing of smps part of PCB.	16.3.2014

SHEET NAME	SHEET #
Cover sheet	1
Block schematics	2
Power suply	3
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Sensors	5
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Title					
Cover sheet					
Date	Project				
Rev	Engineer				
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U_power_supply
power_supply.SchDoc

VBAT

U_sensors
sensors.SchDoc

SCL
SDA

U_processor
processor.SchDoc

SCL
SDA

VBAT

SD_DO MISO
SD_DI MOSI
SD_SCK SCK
SD_CS SS

TXD0
RXD0

ADC_IN
S0
S1
S2
S3
S4
S5

PPM_IN

RS485_A RS485 A
RS485_B RS485 B

DRV0 FET0
DRV1 FET1

USB_DET USB DET
USB_N USB N
USB_P USB P

U_inout
inout.SchDoc

SCL
SDA
ANALOG

S0
S1
S2
S3
S4
S5

PPM

A
B

SD_DO
SD_CS
SD_DI
SD_SCK

GPS_RX
GPS_TX

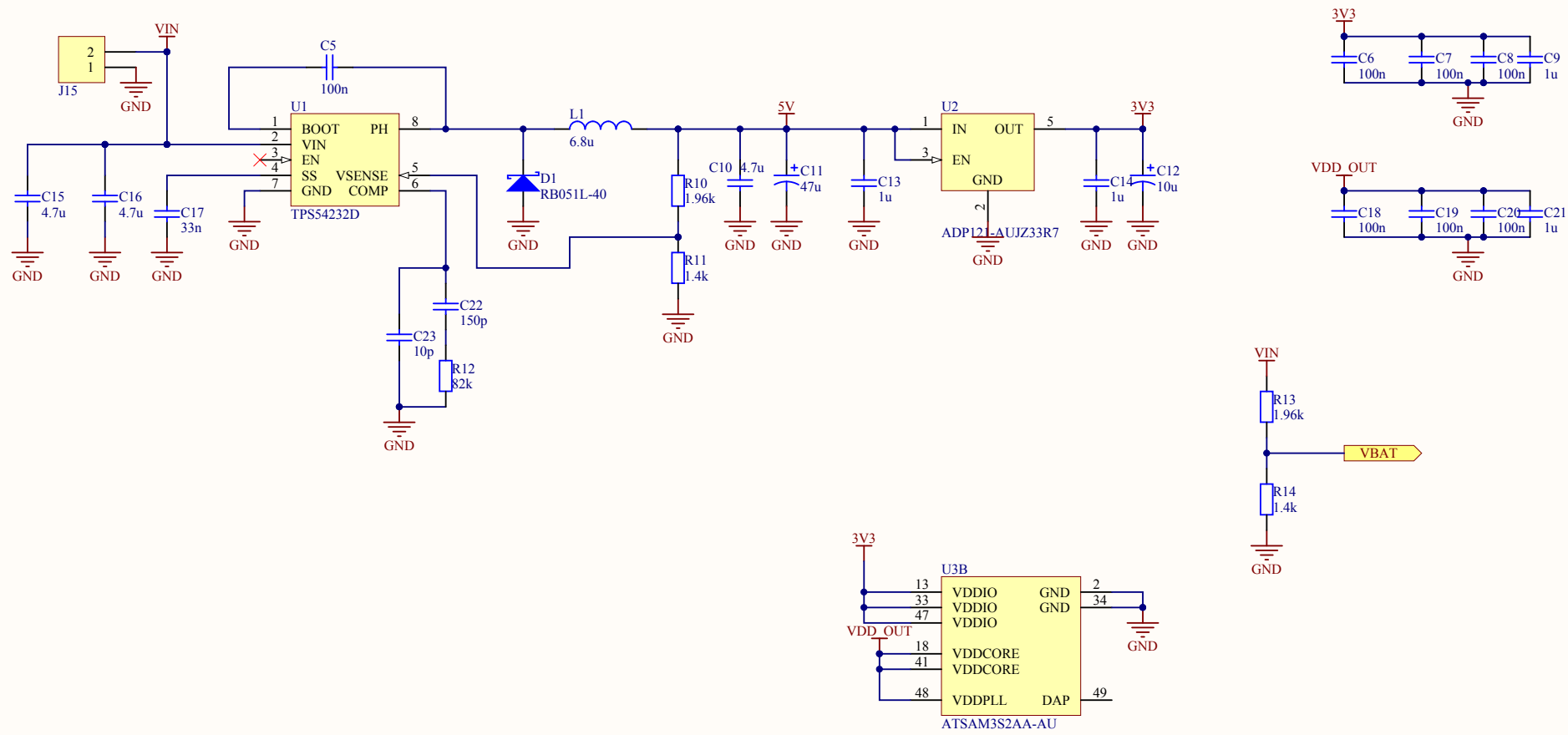
USB_CON
USB_N
USB_P


U_Cover
Cover.SchDoc



Title			
Block schematics			
Date		Project	
3/18/2014		Misty	
Rev		Engineer	Sheet
A		Matjaz Tome	2 of 6
Notes			





Title Power supply			
Date 3/18/2014	Project Misty		
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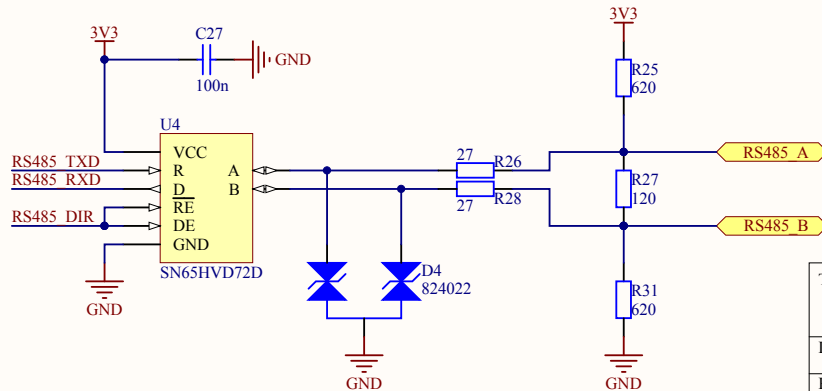
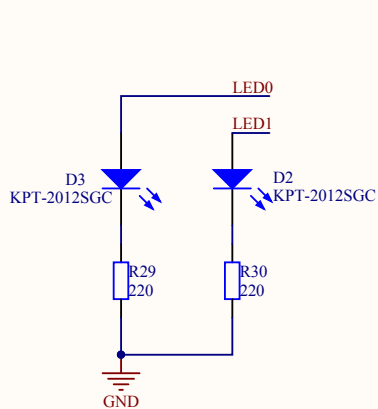
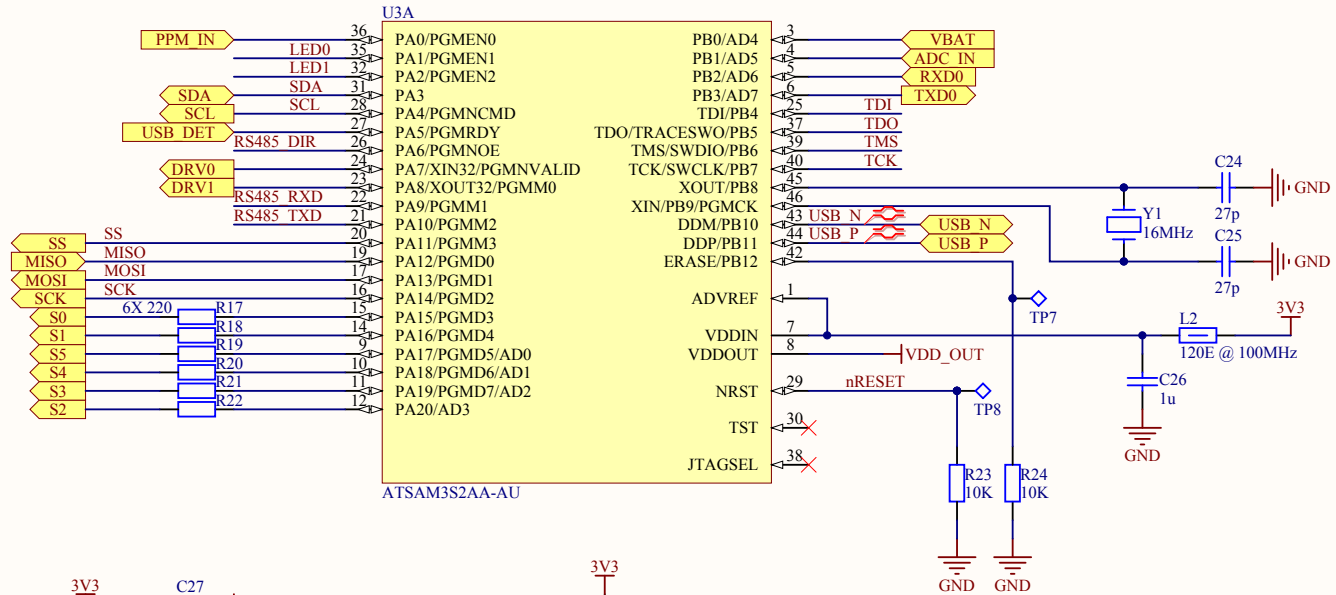
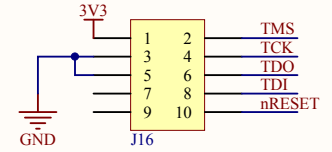
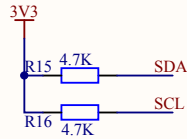
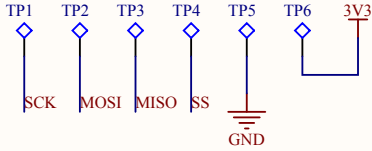


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Title Processor		
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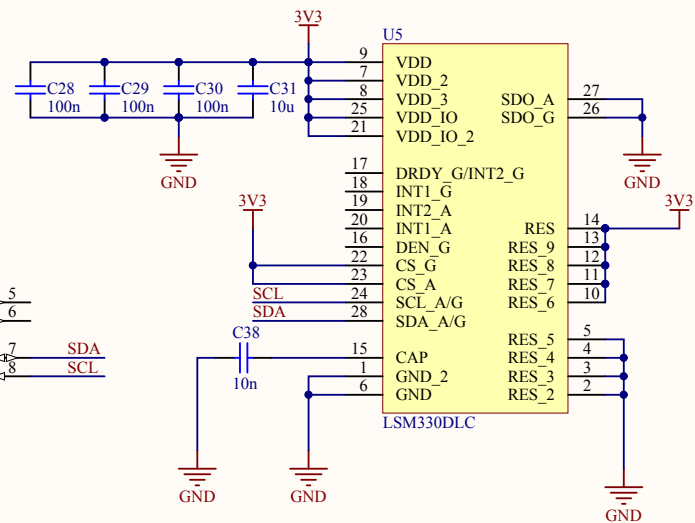
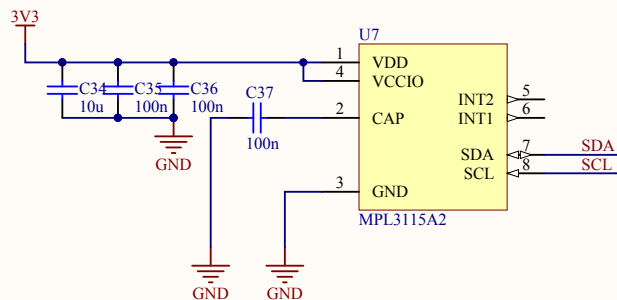
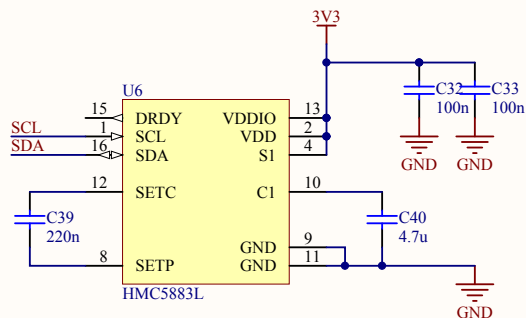
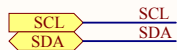


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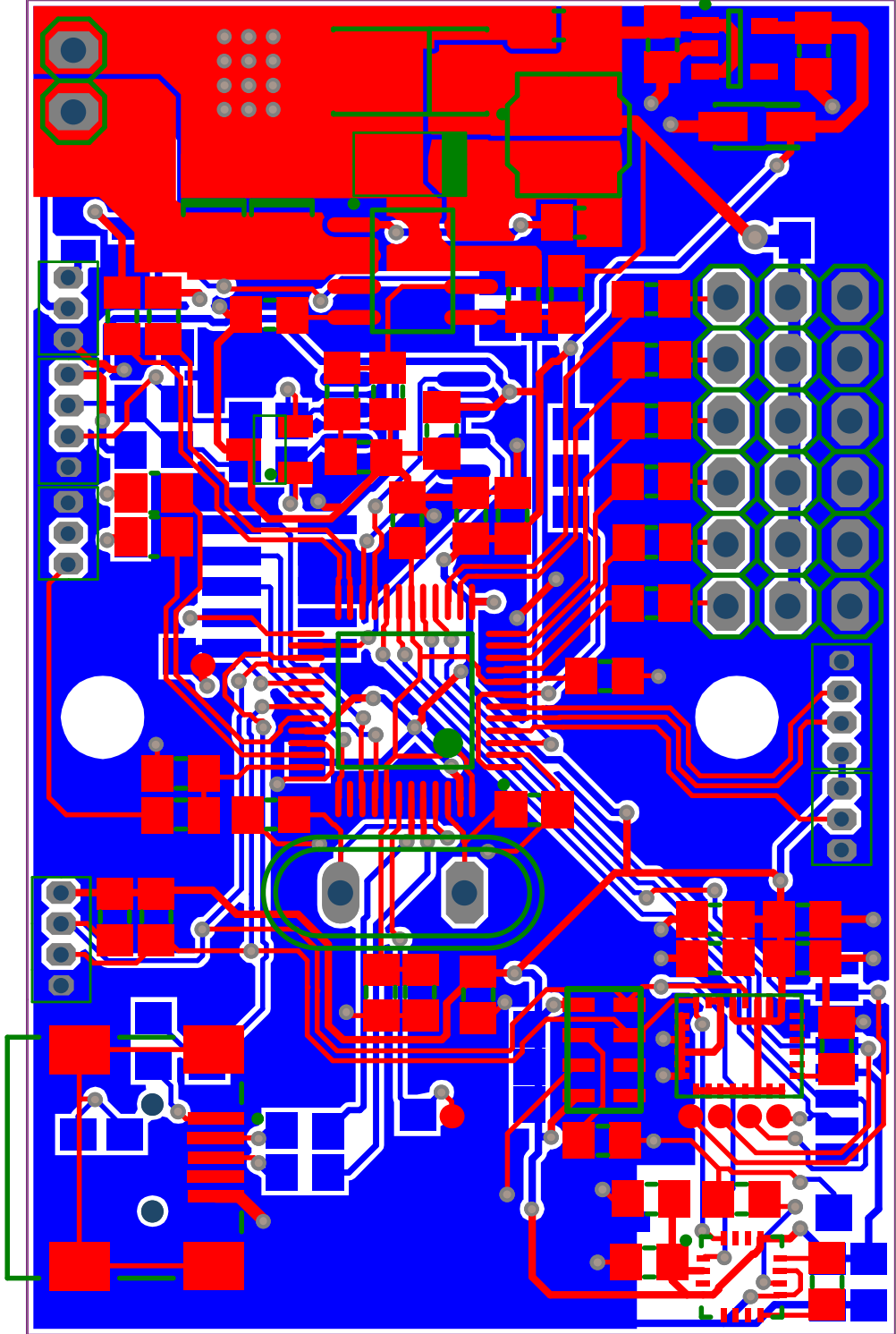
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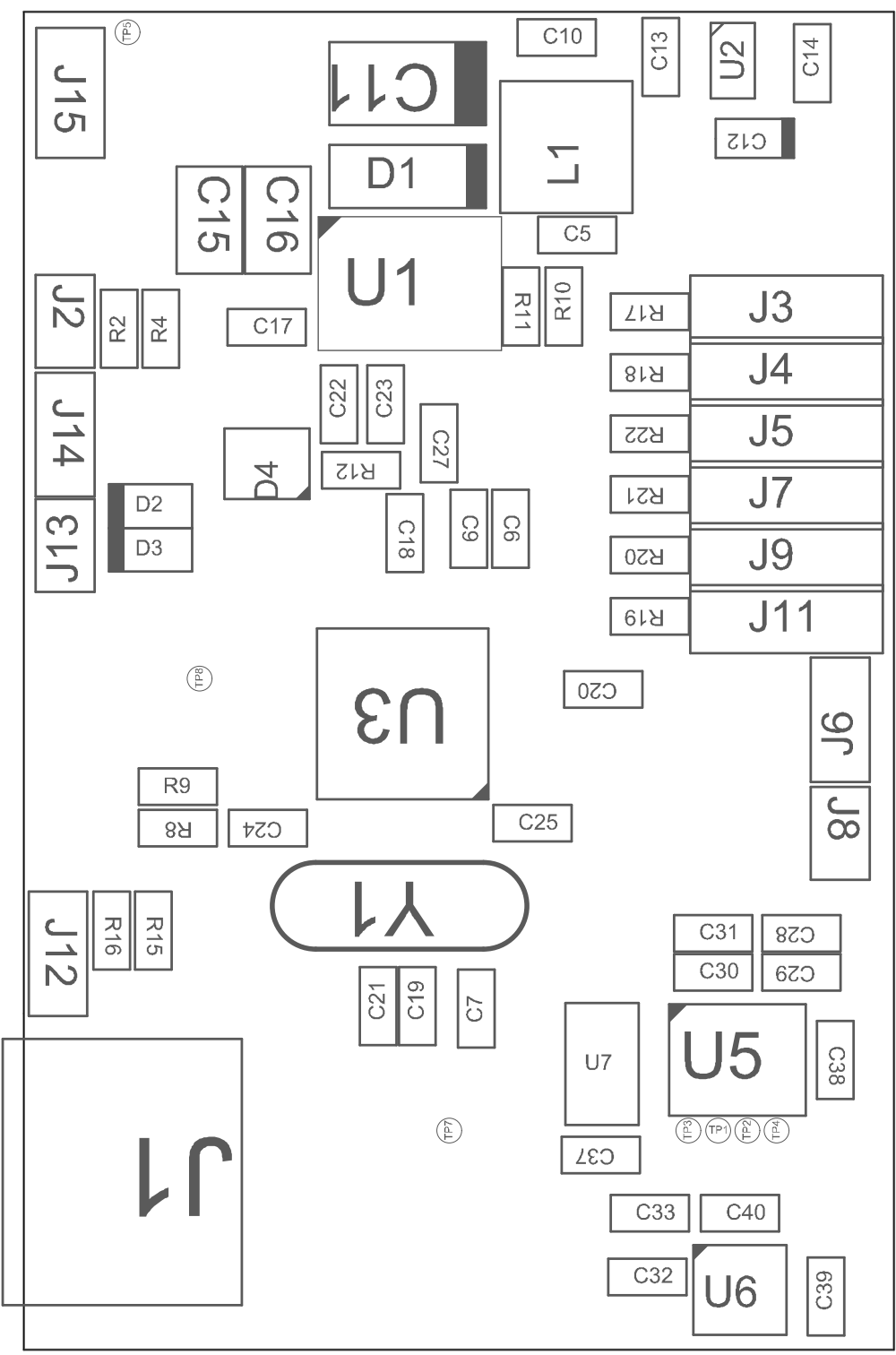
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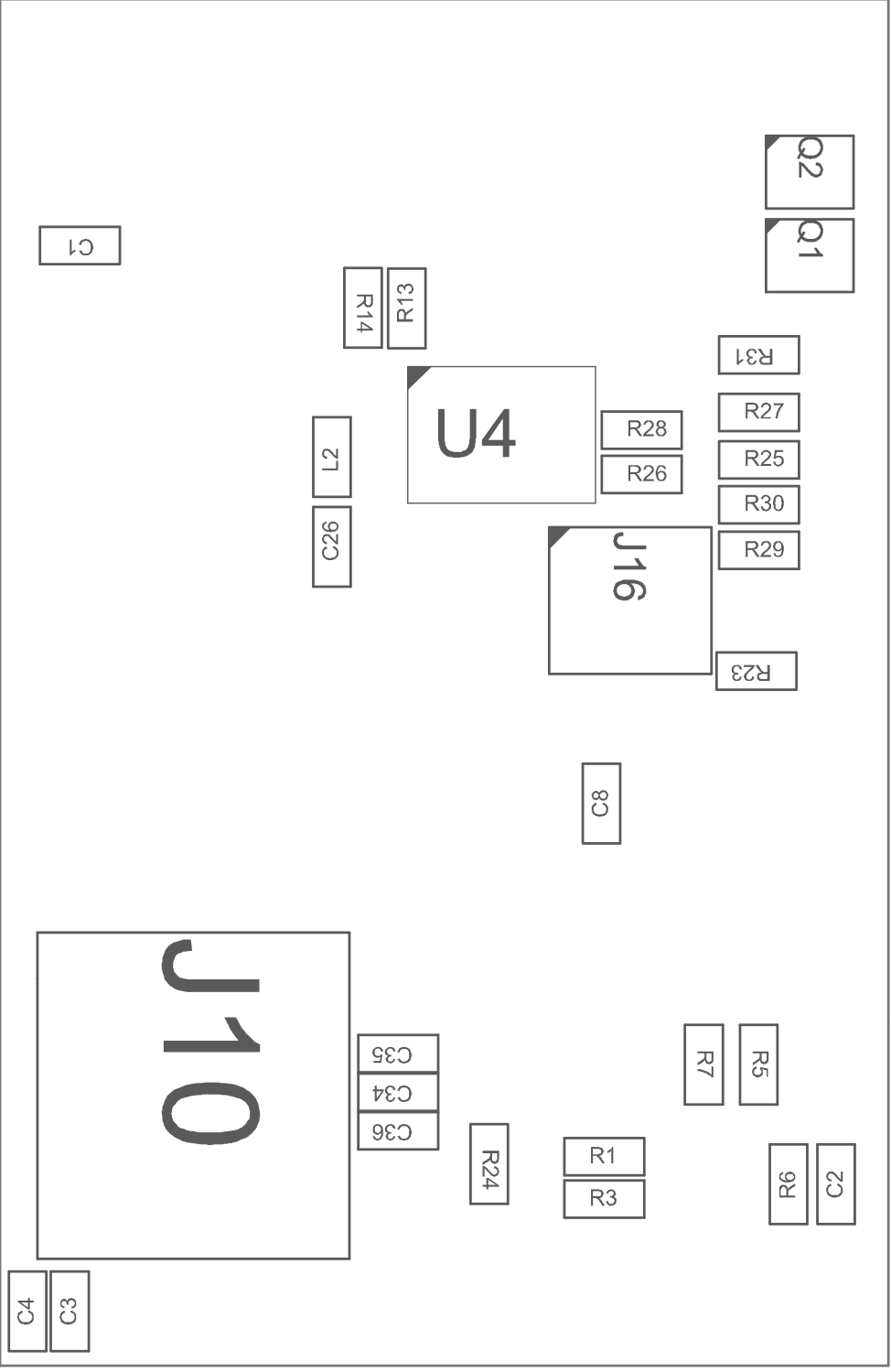


Title Sensors		
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Part Number	Description	Comment	Designator	Value	Voltage	Tolerance	Quantity	Case	Technology	Dealer	Dealer number
RSC0003	ceramic X7R SMD capacitor smd 0805 4.7u 16V	4.7u	C1, C10, C40	4.7u	16V	10%	3	0805	SMT	Farnell	2118133
RSC0005	ceramic X7R SMD capacitor smd 0805 4.7n 250V	4.7n	C2	4.7n	250V	10%	1	0805	SMT	Farnell	1779491
RSC0000	ceramic X7R SMD capacitor smd 0805 100n 50V	100n	C3, C5, C6, C7, C8, C18, C19, C20, C27, C28, C29, C30, C32, C33, C35, C36, C37	100n	50V	10%	17	0805	SMT	Farnell	1414664
VSC0000	ceramic Y5V SMD capacitor smd 0805 1u 25V	1u	C4, C9, C13, C14, C21, C26	1u	25V	+80 - 20%	6	0805	SMT	Farnell	1759429
CST0002	tantalum SMD capacitor 47u 20V C case	47u	C11	47u	20	10	1	C	SMT	Farnell	1793891
CST0000	tantalum SMD capacitor 10u 20V A case	10u	C12	10u	20	20	1	A	SMT	Farnell	2112919
VSC0002	ceramic Y5V SMD capacitor smd 1210 4.7u 50V	4.7u	C15, C16	4.7u	50V	+80 - 20%	2	1210	SMT	Farnell	1759471
RSC0002	ceramic X7R SMD capacitor smd 0805 33n 50V	33n	C17	33n	50V	10%	1	0805	SMT	Farnell	1414688
GSC0002	ceramic C0G SMD capacitor smd 0805 150p 50V	150p	C22	150p	50V	5%	1	0805	SMT	Farnell	1414669
GSC0003	ceramic C0G SMD capacitor smd 0805 10p 50V	10p	C23	10p	50V	5%	1	0805	SMT	Farnell	1414654
GSC0001	ceramic C0G SMD capacitor smd 0805 27p 50V	27p	C24, C25	27p	50V	5%	2	0805	SMT	Farnell	1414683
VSC0001	ceramic Y5V SMD capacitor smd 0805 10u 6.3V	10u	C31, C34	10u	6.3V	+80 - 20%	2	0805	SMT	Farnell	1759136
RSC0004	ceramic X7R SMD capacitor smd 0805 10n 50V	10n	C38	10n	50V	10%	1	0805	SMT	Farnell	1414662
RSC0006	ceramic X7R SMD capacitor smd 0805 220n 50V	220n	C39	220n	50V	10%	1	0805	SMT	Farnell	1288261
XDS0002	Shotkey diode 3A 40V	RB051L-40	D1				1	SOD106	SMT	Farnell	1680016
XXL0000	Green led SMD 0805	KPT-2012SGC	D2, D3				2	0805	SMT	Farnell	2099239
DTV0000	TVS Diode Array	824022	D4				1	SOT23	SMT	Farnell	1748618
XCX0001	CONNECTOR, MINI USB B, SMD, 5WAY		J1				1		SMT	Farnell	2293774
XCH0008	Header starait 1.27mm 3 way		J2, J8, J13				3		THT		
XCH0001	Header starait 2.54mm 3 way		J3, J4, J5, J7, J9, J11				6		THT	Farnell	1248150
XCH0007	Header starait1.27mm 4 way		J6, J12, J14				3		THT		
XMC0000	Micro SD card connector	SD card	J10				1		SMT	Farnell	2293708
XCH0000	Header starait 2.54mm 2 way		J15				1		THT	Farnell	1248140
XCH0006	Header strait 1.27mm 5way X 2		J16				1		SMD	Farnell	1022310
XXI0001	SMD inductor 6.8uH, 2.5A	6.8u	L1	6.8u		20%	1	5mmX5mm	SMT	Farnell	2292530
XFB0000	Ferrite bead, 0.15Ohm, 200mA, 0805, 120E @ 100MHz	120E @ 100MHz	L2				1	0805	SMT	Farnell	1515617
XMN0001	60V 1.2A N-mosfet	ZXMN6A07FTA	Q1, Q2				2	SOT23	SMT	Farnell	9525769
XRS0005	resistor smd 0805 27R 5% 0.125w	27	R1, R3, R26, R28	27		5%	4	0805	SMT	Farnell	2073712
XRS0007	resistor smd 0805 220R 5% 0.125w	220	R2, R4, R17, R18, R19, R20, R21, R22, R29, R30	220		5%	10	0805	SMT	Farnell	2073693
XRS0003	resistor smd 0805 4.7k 5% 0.125w	4.7K	R5, R8, R15, R16	4.7K		5%	4	0805	SMT	Farnell	2073784
XRS0010	resistor smd 0805 1M 5% 0.125w	1M	R6	1M		5%	1	0805	SMT	Farnell	2073615
XRS0012	resistor smd 0805 6.8k 5% 0.125w	6.8k	R7, R9	6.8k		5%	2	0805	SMT	Farnell	2073829
YRS0003	resistor smd 0805 1.96k 1% 0.125w	1.96k	R10, R13	1.96k		1%	2	0805	SMT	Farnell	2141807
YRS0004	resistor smd 0805 1.4k 1% 0.125w	1.4k	R11, R14	1.4k		1%	2	0805	SMT	Farnell	2141799
XRS0009	resistor smd 0805 82k 5% 0.125w	82k	R12	82k		5%	1	0805	SMT	Farnell	2073852
XRS0001	resistor smd 0805 10k 5% 0.125w	10K	R23, R24	10K		5%	2	0805	SMT	Farnell	2073612
XRS0014	resistor smd 0805 620 5% 0.125w	620	R25, R31	680		5%	2	0805	SMT	Farnell	9334734
XRS0013	resistor smd 0805 120 5% 0.125w	120	R27	120		5%	1	0805	SMT	Farnell	2073628
XXC0000	testpoint 1mm diameter	testpoint	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8				8				
XSW0002	2A, 28V, 1MHz, STEP DOWN DC/DC CONVERTER WITH ECO-MODE™	TPS54232D	U1				1	SOIC8	SMT	Farnell	1694430
XLR0002	150 mA, Low Quiescent Current, CMOS Linear Regulator	ADP121-AUJZ33R7	U2				1	SOT23	SMT	Farnell	2074869
XAM0000	Cortex M3 ARM microcontroller	ATSAM3S2AA-AU	U3				1	TQFP48	SMT	Farnell	1841652
XLD0000	250 kbps RS485 trasceiver	SN65HVD72D	U4				1	SOIC8	SMT	Farnell	2335547
XSE0003	Tri-Axis Gyroscope and Tri-Axis Accelerometer	LSM330DLC	U5				1	LGA28	SMT	Farnell	2295820
XSE0004	Three-Axis Digital magnetometer	HMC5883L	U6				1	QFN16	SMT	Farnell	1971743
XSE0001	I2C Precision Altimeter	MPL3115A2	U7				1	LGA8	SMT	Farnell	2009084
XXC0001	Crystal 16Mhz	16MHz	Y1	16MHz			1	HC49/U	THT	Farnell	1640875