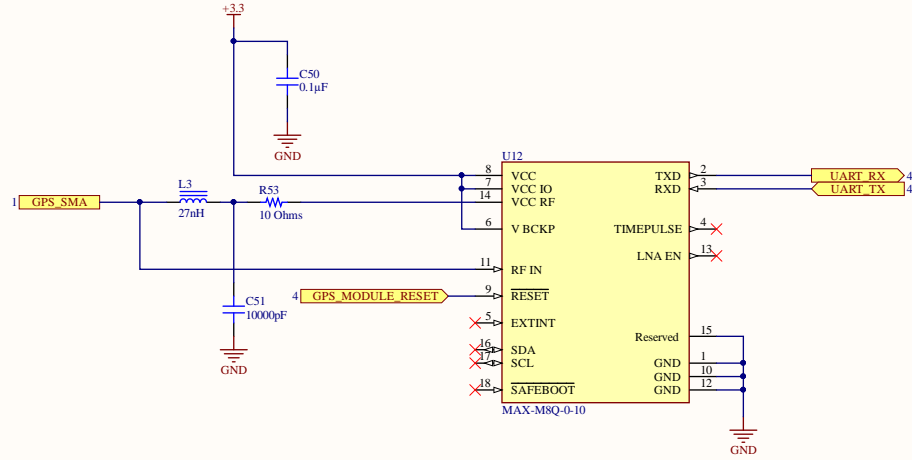


Pin Number	Pin Name	Configuration	Notes
15	PHYAD2	Pull Down (b0)	PHYAD[2:0]. Default. PHY Address set to 1
14	PHYAD1	Pull Down (b0)	
13	PHYAD0	Pull Up (b1)	
19	CONFIG2	Pull Down (b0)	CONFIG[2:0]. Config Mode set to MII interface
29	CONFIG1	Pull Down (b0)	
28	CONFIG0	Pull Down (b0)	
20	ISO	Pull Down (b0)	Default. Disable isolate mode
31	SPEED	Pull Up (b1)	Default. Enable 100Mbps
16	DUPLEX	Pull Down (b0)	Enable Full-Duplex
30	NWAYEN	Pull Down (b0)	Disable auto-negotiation
19	B-CAST_OFF	Pull Down (b0)	Default. Phy Address 0 set as broadcast PHY address
21	NAND_Tree#	Pull Up (b1)	Default. NAND Tree disabled



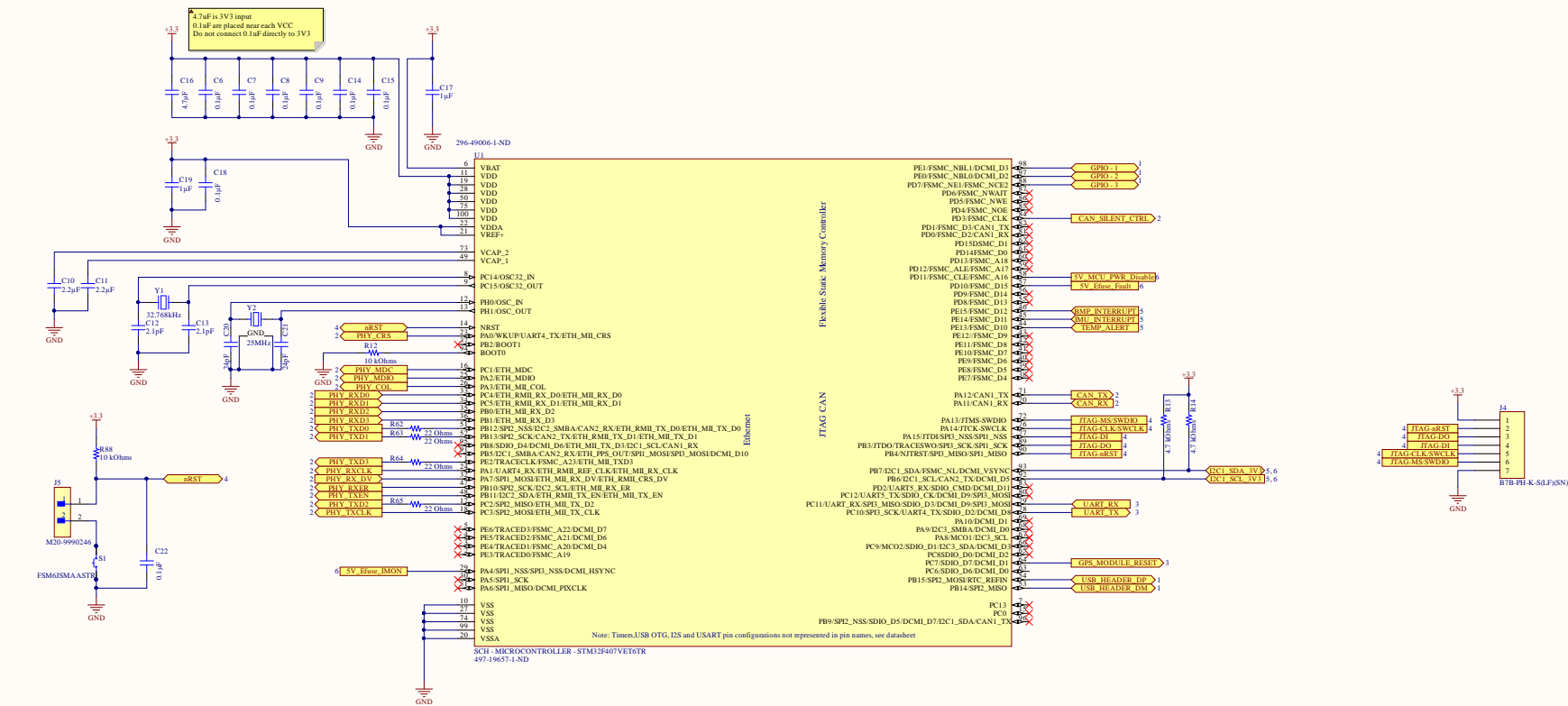
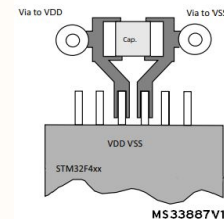
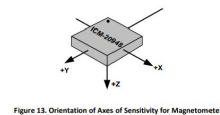
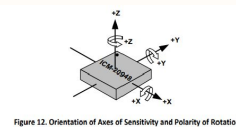
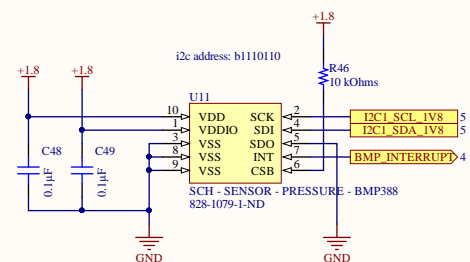
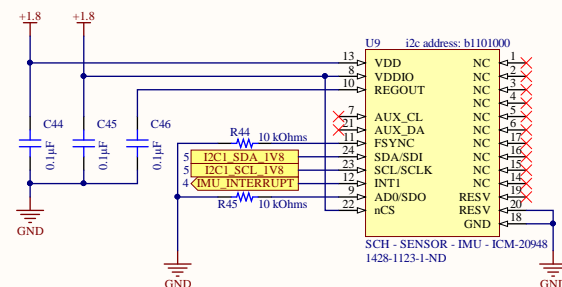
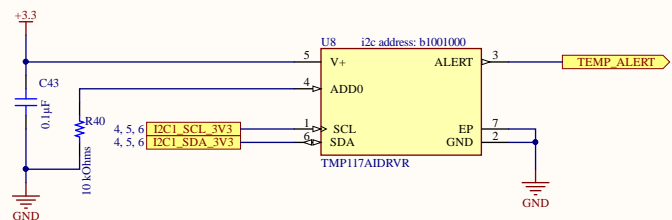
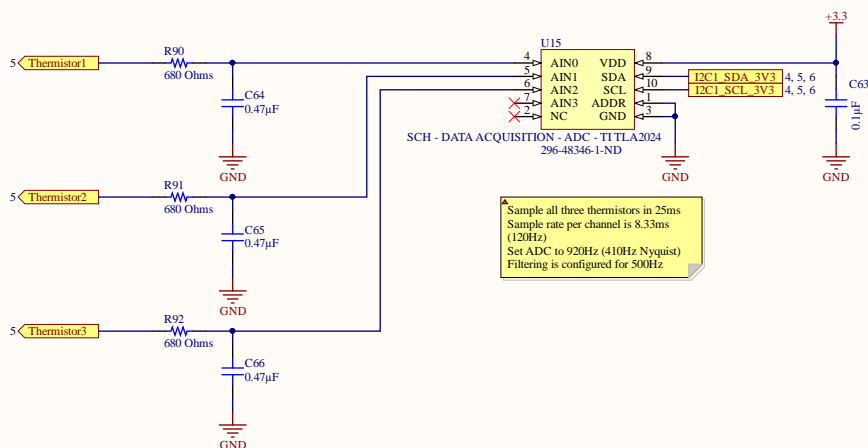
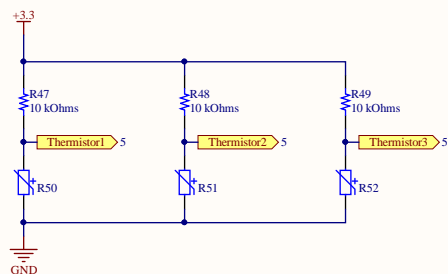
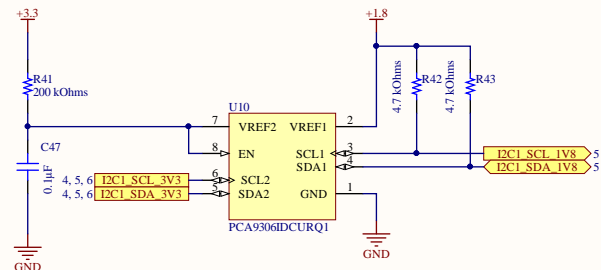
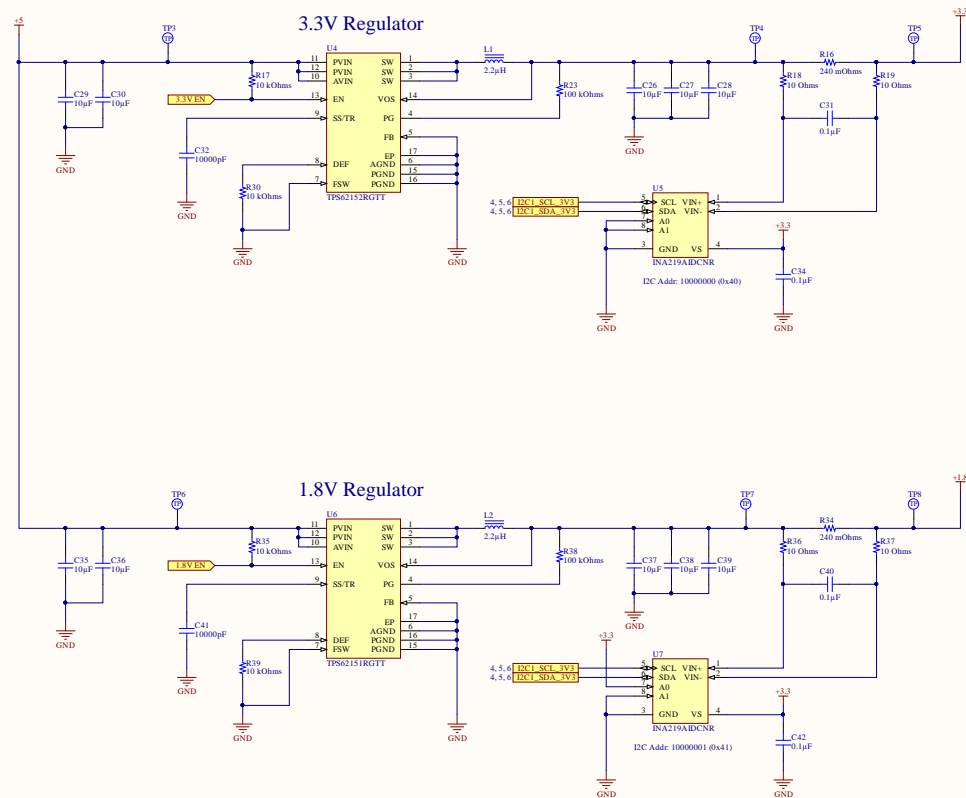


Table 6. Boot modes

BOOT mode selection pins	Boot mode	Alaising
BOOT1	BOOT0	
x	0	Main Flash memory
0	1	System memory
1	1	Embedded SRAM





Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	10µF	CAP CER 10UF 16V XSR 0805	C1, C2, C3, C4, C25, C26, C27, C28, C29, C30, C35, C36, C37	16	Yageo	C0805KKXSR7BB106	Volume Production	Digi-Key	311-1865-1-ND	0.288	4.61
	0.1µF	CAP CER 0.1UF 25V X7R 0603	C5, C6, C7, C8, C9, C14, C15, C18, C22, C23, C24, C31, C32	29	Samsung	CL10B104KABM9NC	New Product	Digi-Key	1276-6717-1-ND	0.0548	2.74
	2.2µF	CAP CER 2.2UF 16V XSR 0603	C10, C11	2	Taiyo Yuden	BMK107BJ225KA-T	Volume Production	Digi-Key	587-1430-1-ND	0.11	0.22
	2.2µF	CAP CER RF 2.2PF 50V +/-0.1 PFC	C12, C13	2	KEMET	CBR06C219B5GAC		Digi-Key	399-16153-1-ND	0.29	0.58
	4.7µF	CAP CER 4.7UF 16V XSR 0603	C16	1	TDK	C1608XR1C475K080AC	Volume Production	Digi-Key	445-7478-1-ND	0.3	0.3
	1µF	CAP CER 1UF 16V XSR 0603	C17, C19	2	Murata	GCM188R71C105KA64J	Volume Production	Digi-Key	490-12657-1-ND	0.22	0.44
	24µF	CAP CER 24UF 50V COG/NPO 0603	C20, C21, C60, C61	4	Samsung	CL10C240B8NNNC	Volume Production	Digi-Key	1276-1761-1-ND	0.1	0.4
	10000µF	CAP CER 10000PF 16V X7R 0603	C32, C41	2	KEMET	C0603S103K4RAC	Volume Production	Digi-Key	399-9135-1-ND	0.36	0.72
	1500µF	CAP CER 1500PF 25V X7R 0603	C33	1	Yageo	C0603JRX7R8BB152	Volume Production	Digi-Key	311-3996-1-ND	0.12	0.12
	10000µF	CAP CER 10000PF 10V U2J 0603	C51	1	KEMET	C0603C103J8IAC7867		Digi-Key	399-15350-1-ND	0.3	0.3
	22µF	CAP CER 22UF 10V XSR 0805	C54, C56, C58	3	Samsung	CL21A226KPLRNC	New Product	Digi-Key	1276-6786-1-ND	0.39	1.17
	0.47µF	CAP CER 0.47UF 16V XSR 0603	C64, C65, C66	3	KEMET	C0603C474K4PACTU	Volume Production	Digi-Key	399-7934-1-ND	0.15	0.45
	CUS08F30,H3F	DIODE SCHOTTKY 30V 800MA USC	D1, D3	2	Toshiba	CUS08F30,H3F	Volume Production	Digi-Key	CUS08F30H3FCT-ND	0.35	0.7
	Green	LED GREEN CLEAR CHIP SMD	D2, D5, D6, D8	4	Vishay Lite-On	LTST-C193K GKT-5A	Volume Production	Digi-Key	160-1828-1-ND	0.39	1.56
	PESD1CAN-UX	TVS DIODE 24V 50V SC70-3	D4	1	Nexperia	PESD1CAN-UX		Future Electronics	1104893	0.355	0.355
	1N4148W RHG	DIODE GEN PURP 100V 150MA SOD123	D7	1	Taiwan Semiconductor	1N4148W RHG		Digi-Key	1N4148WRHGTCT-ND	0.18	0.18
	0878332820		J1	1	Molex	0878332820	Volume Production	Digi-Key	WM20552-ND	3.08	3.08
	10118193-0001LF	CONN RCPT USB2.0 MICRO B SMD R/A	J2	1	Amphenol ICC	10118193-0001LF		Digi-Key	609-4616-2-ND	0.22783	273.4
	731000114	SMA Right-Angle PCB Jack Receptacle, Brass Body, G	J3	1	Molex	73100-0114	Volume Production				
	B7B-PH-K-(S/LF)(SN)	CONN HEADER VERT 7POS 2MM	J4	1	JST	B7B-PH-K-(S/LF)(SN)	Volume Production	Digi-Key	455-1709-ND	0.39	0.39
	M20-9990246	CONN HEADER VERT 2POS 2.54MM	J5	1	Harwin	M20-9990246	Volume Production	Newark	56K0146	0.024	0.024
	2.2µH	FIXED IND 2.2UH 2.9A 44 MOHM SMD	L1, L2	2	Bourns	SRN4018-2R2M	Volume Production	Digi-Key	SRN4018-2R2MCT-ND		
	27nH	FIXED IND 27NH 280MA 520 MOHM	L3	1	Murata	LOW15AN27NG00D	Volume Production	Digi-Key	490-6792-1-ND	0.16	0.16
	NTR4003NT1G	MOSFET N-CH 30V 500MA SOT-23	Q1	1	ON Semiconductor	NTR4003NT1G	Volume Production	Digi-Key	NTR4003NT1G05CT-ND		
	50 Ohms	RES SMD 50 OHM 1% 1/10W 0603	R1, R6, R10, R11, R31	5	Vishay Dale	CRCW060350R0RKEA	Volume Production	Digi-Key	541-3318-1-ND		
	10 kOhms	RES 10K OHM 5% 1/10W 0603	R2, R3, R4, R5, R7, R8, R12, R17, R21, R22, R29, R30, R32	24	Stackpole Electronics	RMCF0603JT10K0	Volume Production	Digi-Key	RMCF0603JT10K0CT-ND	0.015	0.36
	590 Ohms	RES 590 OHM 1% 1/10W 0603	R9	1	Stackpole Electronics	RMCF0603T590R	Volume Production	Digi-Key	RMCF0603T590RCT-ND		
	4.7 kOhms	RES 4.7K OHM 1% 1/10W 0603	R13, R14, R42, R43	4	Stackpole Electronics	RMCF0603T4K70	Volume Production	Digi-Key	RMCF0603T4K70CT-ND	0.017	0.17
	0 Ohms	RES 0 OHM JUMPER 1/10W 0603	R15	1	SEI	RMCF0603ZT0R00		Digi-Key	RMCF0603ZT0R00CT-ND	0.1	0.1
	240 mOhms	RES 0.24 OHM 1% 1/2W 0805	R16, R34	2	Panasonic	ERJ-6D0FR24V	Volume Production	Digi-Key	P19293CT-ND	0.33	0.66
	10 Ohms	CRGCO 0603 10R 1%	R18, R19, R36, R37	4	TE Connectivity	CRGCO0603F10R		Digi-Key	A129664CT-ND	0.03	0.3
	140 kOhms	RES SMD 140K OHM 0.1% 1/10W 0603	R20	1	Yageo	RT0603BR E07140KL	Volume Production	Digi-Key	YAG4626CT-ND	0.38	0.38
	100 kOhms	RES SMD 100K OHM 5% 1/10W 0603	R23, R38	2	Yageo	RC0603JR-1010KL	Volume Production	Digi-Key	YAG2294CT-ND	0.1	0.2
	180 kOhms	RES 180K OHM 1% 1/10W 0603	R24	1	Stackpole Electronics	RMCF0603T180K	Volume Production	Digi-Key	RMCF0603T180KCT-ND	0.1	0.1
	7.15 kOhms	RES SMD 7.15K OHM 0.1% 1/5W 0603	R25	1	Panasonic	ERJ-PB3B7151V	New Product	Digi-Key	P20070CT-ND	0.23	0.23
	47.5 kOhms	RES 47.5K OHM 1% 1/10W 0603	R26	1	Stackpole Electronics	RMCF0603G47K5	Volume Production	Digi-Key	RMCF0603G47K5CT-ND	0.1	0.1
	150 kOhms	RES 150K OHM 1% 1/10W 0603	R27	1	Stackpole Electronics	RMCF0603G150K	Volume Production	Digi-Key	RMCF0603G150KCT-ND	0.1	0.1
	63.4 kOhms	RES 63.4K OHM 1% 1/10W 0603	R28	1	Stackpole Electronics	RMCF0603T63K4CT	Volume Production	Digi-Key	RMCF0603T63K4CT-ND	0.1	0.1
	32.4 kOhms	RES SMD 32.4K OHM 0.1% 1/5W 0603	R32	1	Panasonic	ERJ-PB3B3242V	New Product	Digi-Key	P20142CT-ND	0.23	0.23
	200 kOhms	RES 200K OHM 1% 1/10W 0603	R41	1	Stackpole Electronics	RMCF0603T200K	Volume Production	Digi-Key	RMCF0603T200KCT-ND	0.1	0.1
	10 kOhms	RES 10K OHM 0.1% 1/16W 0603	R47, R48, R49	3	Stackpole Electronics	RNCS0603BKE10K0	Volume Production	Digi-Key	RNCS0603BKE10K0CT-ND	0.45	1.35
	10 kOhms	SENSOR PTC 10KOHM 1% X1SON	R50, R51, R52	3	Texas Instruments	TMP6131DECR		Digi-Key	296-TMP6131DECRCT-ND	0.23	0.69
	10 Ohms	RES 10 OHM 1% 1/8W 0603	R53	1	Stackpole Electronics	RNCP0603T1D10R0	Volume Production	Digi-Key	RNCP0603T1D10R0CT-ND	0.1	0.1
	100 Ohms	RES 100 OHM 1% 1/10W 0603	R54	1	Stackpole Electronics	RMCF0603G100R	Volume Production	Digi-Key	RMCF0603G100RCT-ND	0.1	0.1
	1 kOhms	RES 1K OHM 1% 1/8W 0603	R57, R58, R73, R79, R80, R81, R82, R84, R85, R86, R87, R88	12	Stackpole Electronics	RNCP0603T1D1K00	Volume Production	Digi-Key	RNCP0603T1D1K00CT-ND	0.058	0.696
	240 Ohms	RES 240 OHM 5% 1/10W 0603	R59, R60	2	Stackpole Electronics	RMCF0603JT240R	Volume Production	Digi-Key	RMCF0603JT240RCT-ND	0.015	0.15
	22 Ohms	RES 22 OHM 1% 1/10W 0603	R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72	15	Stackpole Electronics	RMCF0603T22R0	Volume Production	Digi-Key	RMCF0603T22R0CT-ND	0.017	0.255
	6.49 kOhms	RES 6.49K OHM 1% 1/8W 0603	R72	1	Stackpole Electronics	RNCP0603T D6K49	Volume Production	Digi-Key	RNCP0603T D6K49CT-ND	0.1	0.1
	680 Ohms	RES 680 OHM 1% 1/10W 0603	R90, R91, R92	3	Stackpole Electronics	RMCF0603T680R	Volume Production	Digi-Key	RMCF0603T680RCT-ND	0.017	0.17
	FSM6J5MAASTR	SWITCH TACTILE SPST-NO 0.05A 24V	S1	1	TE Connectivity AM	FSM6J5MAASTR	Volume Production	Digi-Key	450-2138-1-ND		
	2.5mm_SMD_TestPoint		TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8	8							
	SCH - MICROCONTROLLER - STM32F407VET6TR		U1	1	STMicroelectronics	STM32F407VET6TR	Not Recommended for New	Digi-Key	497-19657-1-ND		
	SCH - POWER - EFUSE - TPS25942A		U2	1	Texas Instruments	TPS25942ARVCR	Volume Production	Digi-Key	296-40735-1-ND		
	TPD4S012DRYR	USB ESD Solution with Power Clamp, 4 Channels, -4	U3	1	Texas Instruments	TPD4S012DRYR	Volume Production	RSCcomponents	7099076P	0.583	29.15
	TPS62152RGTT	Buck Step Down Regulator with 3 to 17 V Input and 3	U4	1	Texas Instruments	TPS62152RGTT	Volume Production	Arrow Electronics	TPS62152RGTT	1.99	1.99
	INA219AIDCNR	Zero-Drift, Bi-directional Current / Power Monitor, 3	U5, U7	2	Texas Instruments	INA219AIDCNR	Volume Production	RSCcomponents	8253088	2.49	12.44
	TPS62151RGTT	Buck Step Down Regulator with 3 to 17 V Input and 3	U6	1	Texas Instruments	TPS62151RGTT	Volume Production	Digi-Key	296-30008-1-ND	1.97	1.97
	TMP117AIDRV	TEMPERATURE SENSOR	U8	1	Texas Instruments	TMP117AIDRV		Arrow Electronics	1TMP117AIDRV	6.58	6.58
	SCH - SENSOR - IMU - ICM-20948		U9	1	TDK InvenSense	ICM-20948		Digi-Key	1428-1123-1-ND	10.47	10.47
	PCA930AIDCURO1	Automotive Catalog Dual Bidirectional I2C Bus and S	U10	1	Texas Instruments	PCA930AIDCURO1	Volume Production	Arrow Electronics	PCA930AIDCURO1	0.8861	0.8861
	SCH - SENSOR - PRESSURE - BMP388		U11	1	Bosch Tools	BMP388		Digi-Key	828-1079-1-ND	3.99	3.99
	MAXM8Q-0-10	RF RCVR GNSS/GPS 1.575GHZ 18LC	U12	1	u-blox	MAX-M8Q-0		Digi-Key	672-MAX-M8Q-OCT-ND	21	21
	SCH - INTERFACE - CAN - TI TCAN1051V		U13	1	Texas Instruments	TCAN1051VDRQ1		Digi-Key	296-44228-1-ND		
	KS28081MNXIA-TR	IC TRANSCEIVER FULL 1/1 32OFN	U14	1	Microchip	KS28081MNXIA-TR	Volume Production	Digi-Key	576-4172-6-ND	1.44	1.44
	SCH - DATA ACQUISITION - ADC - TI TLA2024		U15	1	Texas Instruments	TLA20241RUGT		Digi-Key	296-48346-1-ND	2.16	2.16
	32.768kHz	IOT 32.768KHZ XTAL	Y1	1	Abracon	ABS07-166-32.768KHZ-T		Digi-Key	535-14514-1-ND		
	25MHz	CRYSTAL 25.000MHZ 18PF SMD	Y2, Y3	2	Epson	TSX-3225 25.000MHZ0P-C0		Digi-Key	SER4212CT-ND		