Quanti	ity Designator	Description	HTI Part Number	Digikey	Manufacturer #1	Manufacturer #2	Part Number #1	Part Number #2
	1 ANT1	Pulse W3008K Bluetooth Ceramic Chip Anter	nr 39-10007		Pulse		W3008K	
	1 ANT2	Pulse W3010E GPS Ceramic Chip Antenna	39-10008		Pulse		W3010E	
	15 C1, C4, C13, C14, C18, C25, C30, C31, C32, C40,	, (CAP,SMD,0.01uF,50V,10%,0402,Cer,X7R	31-10021	490-4762-2-ND	Murata	Taiyo Yuden	GRM155R71H103KA88D	UMK105B7103KV-F
	2 C2, C3	CAP CER 4.7UF 50V X7R 1210	31-10059	399-5612-2-ND	Kemet	Murata	C1210X475K5RACTU	GRM32ER71H475KA88L
	1 C5	CAP CER .47UF 25V 10% X7R 1206	31-10044	490-1784-1-ND	Murata	AVX	GRM319R71E474KA01D	12063C474KAT2A
	4 C6, C7, C8, C9	CAP CER 10UF 50V X7R 10% 2220	31-10058	445-3492-2-ND	TDK		C5750X7R1H106K	
	17 C10, C23, C39, C45, C49, C52, C84, C85, C88, C	9 CAP,SMD,0.1uF,16V,10%,0402,Cer,X7R	31-10002	490-3261-2-ND	Murata	Taiyo Yuden	GRM155R71C104KA88D	EMK105B7104KV-F
	2 C11, C17	CAP CER 2.2UF 10V 10% X7R 0805	31-10037	490-1696-1-ND	Murata	Taiyo Yuden	GRM21BR71A225KA01L	LMK212B7225KG-T
	2 C12, C20	CAP CER 47UF 16V X5R 1210	31-10013	490-3888-2-ND	Murata	Taiyo Yuden	GRM32ER61C476ME15L	EMK325BJ476MM-T
	4 C15, C99, C104, C105	CAP,100pF, 50V,0402,NPO, +/- 5%	31-10011	490-4756-2-ND	Murata	Taiyo Yuden	GRM1555C1H101JA01D	UMK105CG101JV-F
	1 C16	CAP CER 470PF 50V 5% COG 0603	31-10041	490-1443-1-ND	Murata	Taiyo Yuden	GRM1885C1H471JA01D	UMK107CG471JZ-T
	41 C19, C26, C27, C41, C47, C48, C55, C56, C57, C	51 CAP CER 56PF 50V 5% COG 0402	31-10032	490-1288-2-ND	Murata	Taiyo Yuden	GRM1555C1H560JD01D	UMK105CH560JV-F
	1 C21	CAP,SMD,1uF,100V,10%,1206,Cer,X7R	31-10012	490-3909-2-ND	Murata	Taiyo Yuden	GRM31CR72A105KA01L	HMK316B7105KL-T
	4 C22, C38, C44, C107	CAP CER 10UF 10V X7R 1206	31-10038	490-3371-1-ND	Murata	Taiyo Yuden	GRM31CR71A106KA01L	LMK316B7106KL-TD
	4 C24, C33, C87, C94	CAP CER 10UF 6.3V X7R 0805	31-10062	490-3904-1-ND	Murata	AVX	GRM21BR70J106KE76L	08056C106KAT2A
	2 C28, C29	CAP CER 2.2UF 6.3V X7R 10% 0603	31-10063	490-5316-1-ND	Murata	AVX	GCM188R70J225KE22D	06036C225KAT2A
	5 C34, C35, C37, C115, C116	CAP CERAMIC 15PF 50V COG 0402	31-10045	490-3117-1-ND	Murata	Taiyo Yuden	GJM1555C1H150JB01D	UMK105CG150JV-F
	1 C36	CAP CERAMIC 2.7PF 50V COG 0402	31-10074	490-3093-1-ND	Murata	Johanson	GJM1555C1H2R7CB01D	500R07S2R7CV4T
	1 C42	CAP CERAMIC 9PF 50V COG 0402	31-10047	490-3111-1-ND	Murata	Taiyo Yuden	GJM1555C1H9R0CB01D	UMK105 CG090CV-F
	1 C43	CAP CER 27PF 50V 5% COG 0402	31-10048	490-1284-1-ND	Murata	Taiyo Yuden	GRM1555C1H270JA01D	UMK105CH270JV-F
	3 C50, C53, C93	CAP CER 33PF 50V COG 0402	31-10043	490-3220-1-ND	Murata	Taiyo Yuden	GRM1555C1H330JA01D	UMK105CG330JV-F
	2 C51, C54	CAP CER 10PF 50V 5% COG 0402	31-10034	490-1278-1-ND	Murata	Taiyo Yuden	GRM1555C1H100JA01D	UMK105CG100DV-F
	1 C98	CAP CER 200PF 50V COG 0402	31-10052	490-3232-2-ND	Murata	Panasonic	GRM1555C1H201JA01D	ECU-E1H201JCQ
	1 C106	CAP CERAMIC 4.7PF 50V COG 0402	31-10071	490-3100-2-ND	Murata	Johanson	GJM1555C1H4R7CB01D	500R07S4R7BV4T
	1 C110	CAP CER 22000PF 16V X7R 0402	31-10050	490-3256-2-ND	Murata	Taiyo Yuden	GRM155R71C223KA01D	EMK105B7223KV-F
	1 D1	RECTIFIER GPP 50V 3A SMB	35-10015	S3AB-FDICT-ND	Diodes		S3AB-13-F	
	1 D2	DIODE SCHOTTKY 3A 60V SMA	35-10003	B360ADITR-ND	Diodes Inc.	Vishay	B360A-13-F	B360A-E3/61T
	2 D3, D4	DIODE SCHOTTKY 8V 50MA SC-79	35-10010	863-1109-2-ND	Skyworks		SMS3922-079LF	
	1 D5	LED GREEN CLEAR 0603 RT ANG SMD	46-10013	160-1478-2-ND	LiteOn		LTST-S270KGKT	
	1 D6	LED Yellow CLEAR 0603 RT ANG SMD	46-10014	160-1480-2-ND	LiteOn		LTST-S270KSKT	
	1 D7	LED RED CLEAR 0603 RT ANG SMD	46-10015	160-1479-1-ND	LiteOn	0.6	LTST-S270KRKT	DAC4CITOC
	1 D8	DIODE SW 75V 200MA HS SOT23	35-10009	568-1596-2-ND	NXP	OnSemi	BAS16,215	BAS16LT3G
	1 D9	LED 468NM RA BLUE CLEAR 0603 SMD	46-10016	160-1650-2-ND	LiteOn		LTST-S270TBKT	
	1 F1	PTC Fuse, 1A	44-10000	MF-SM100CT-ND	Bourns	Channel	MF-SM100-2	M4420C1204D 40
	2 FB1, FB5	FERRITE CHIP 390 OHM 2000MA 1206 FERRITE CHIP POWER 600 OHM SMD	49-10006	490-5229-2-ND 240-2371-2-ND	Murata	Steward TDK	BLM31PG391SN1L MI0603J601R-10	MI1206L391R-10
	3 FB2, FB3, FB4		49-10000 40-10037	NA	Steward	IDK	TFC-120-02-F-D-A-K-TR	MPZ1608S601A
	1 J1 2 J2, J3	Header, 6.35mm, 2 row, 20 pins per row Header 0.50 2 row 5 pins per row"	40-10037	NA NA	Samtec Samtec		TFC-105-02-F-D-A-K-TR	
	2 J2, J3 1 L1	INDUCTOR 10UH 900MA 1210 SMD	33-10018	587-2167-2-ND	Taiyo Yuden		BRL3225T100K	
	1 L2	INDUCTOR 100H 900MA 1210 SMD	33-10018	IHLP2525CZER100M11-ND	Vishay	Mag Layers	IHLP2525CZER100M11	MMD-06CZ-100M-V2-RU
	1 L3	INDUCTOR 22UH 250MA 1210	33-10003	490-4061-6-ND	Murata	Coilcraft	LQH32CN220K53L	ME3215-223KLC
	1 L4	INDUCTOR 15NH 460MA 0402	33-10011	490-1148-2-ND	Murata	Coilcraft	LQW15AN15NJ00D	0302CS-15NXJLW
	1 L5	Inductor, 1000uH, 40mA	33-10012	587-2041-2-ND	Taiyo Yuden	Concrare	LB3218T102K	030203 1311/3111
	1 MTG1	AT100 PS Shield Fence	51-10031	307 2041 2 140	Laird		HUG-LT10AM4731F	
	1 MTG2	GSM Shield Top	51-10031		Laird		HUG-LT10AM4731C	
	1 MTG3	AT100 BT Shield Fence	51-10033		Laird		HUG-LT10AM4732F	
	1 MTG4	AT100 GPS BT Shield Top	51-10034		Laird		HUG-LT10AM4732C	
	7 Q1, Q3, Q4, Q5, Q6, Q10, Q11	Transistor, NPN, SC-75	36-10000	BC847BTT1GOSTR-ND	OnSemi	NXP	BC847BTT1	BC847BT
	1 Q2	MOSFET P-CH 12V 6A SSOT-6	36-10005	FDC606PTR-ND	Fairchild	Vishay	FDC606P	SI3473DV-T1-E3
	3 Q7, Q8, Q9	MOSFET N-CH 60V 115MA SOT-323	36-10006	2N7002WCT-ND	Fairchild	OnSemi	2N7002W	2N7002WT1G
	14 R1, R5, R8, R18, R19, R23, R24, R28, R33, R38,		32-10088	311-100KJTR-ND	Yageo	Rohm	RC0402JR-07100KL	MCR01MZPJ104
	1 R2	RES 15K OHM 1/10W 5% 0603 SMD	32-10083	311-15KGCT-ND	Yageo	Rohm	RC0603JR-0715KL	MCR03EZPJ153

1 R3	RES 40.2K OHM 1/16W 1% SMD 0402	32-10087	9T04021A4022FBHF3-ND	Yageo	Rohm	RC0402FR-0740K2L	MCR01MZPF4022
1 R4	RES 402K OHM 1/16W 1% 0402 SMD	32-10110	P402KLTR-ND	Yageo	Panasonic	9RC0402FR-07402KL	ERJ-2RKF4023X
10 R6, R11, R21, R25, R26, R47, R49, R51, R59, R6	•	32-10092	311-24KJTR-ND	Yageo	Rohm	RC0402JR-0724KL	MCR01MZPJ243
3 R7, R22, R44	RES 1.00M OHM 1/16W 1% 0402 SMD	32-10086	311-1.00MLRTR-ND	Yageo	Rohm	RC0402FR-071ML	MCR01MZPF1004
7 R9, R30, R35, R36, R41, R42, R43	RES 10K OHM 1/16W 5% 0402 SMD	32-10076	311-10KJCT-ND	Yageo	Rohm	RC0402JR-0710KL	MCR01MZPJ103
2 R10, R32	RES 100 OHM 1/10W 5% 0603 SMD	32-10078	311-100GCT-ND	Yageo	Rohm	RC0603JR-07100RL	MCR03EZPJ101
1 R12	RES 768K OHM 1/16W 1% 0402 SMD	32-10107	311-768KLRTR-ND	Yageo	Rohm	RC0402FR-07768KL	MCR01MZPF7683
1 R13	RES 2.0K OHM 1/16W 5% 0402 SMD	32-10095	311-2.0KJRTR-ND	Yageo	Rohm	RC0402JR-072KL	MCR01MZPJ202
1 R14	RES 68 OHM 1/10W 5% 0603 SMD	32-10144	P68.0HTR-ND	Panasonic	Yageo	ERJ-3EKF68R0V	RC0603FR-0768RL
1 R15	RES,SMD,249Kohms,1/16W,1%,0402	32-10032	541-249KLTR-ND	Vishay	Yageo	CRCW0402249KFKED	RC0402FR-07249KL
2 R16, R17	RES 2.2 OHM 1/16W 5% 0402 SMD	32-10081	311-2.2JRCT-ND	Yageo	Vishay	RC0402JR-072R2L	CRCW04022R20JNED
1 R20	RES 47K OHM 1/16W 5% 0402 SMD	32-10079	311-47KJCT-ND	Yageo	Rohm	RC0402JR-0747KL	MCR01MZPJ473
3 R27, R29, R55	Res, 0 ohm 0402	32-10030	311-0.0JRTR-ND	Yageo	Rohm	RC0402JR-070RL	MCR01MZPJ000
1 R31	RES 75 OHM 1/16W 5% 0402 SMD	32-10094	311-75JTR-ND	Yageo	Rohm	RC0402JR-0775RL	MCR01MZPJ750
1 R34	RES 1M OHM 1/8W .1% 0805 SMD	32-10100	P1MDATR-ND	Panasonic		ERA-6AEB105V	
1 R37	RES 200K OHM 1/8W .1% 0805 SMD	32-10101	P200KDATR-ND	Panasonic		ERA-6AEB204V	
1 R45	RES 200K OHM 1/16W 5% 0402 SMD	32-10096	311-200KJRTR-ND	Yageo	Rohm	RC0402JR-07200KL	MCR01MZPJ204
1 R46	RES 165 OHM 1/10W 5% 0603 SMD	32-10145	P165HTR-ND	Panasonic	Yageo	ERJ-3EKF1650V	RC0603FR-07165RL
1 R48	RES 374 OHM 1/10W 5% 0603 SMD	32-10147	P374HTR-ND	Panasonic	Yageo	ERJ-3EKF3740V	RC0603FR-07374RL
1 R50	RES 255 OHM 1/10W 5% 0603 SMD	32-10146	P255HTR-ND	Panasonic	Yageo	ERJ-3EKF2550V	RC0603FR-07255RL
1 R52	RES 47 OHM 1/2W 5% 1210 SMD	32-10098	P47VTR-ND	Panasonic	Stackpole	ERJP-14J470U	RMC 1/4 47 5% R
1 RF1	Balanced Filter for Bluetooth CSR BC5	48-10005	NA	Soshin Electric		DBF81F107	
1 RV1	VARISTOR TVS ESD 34VDC, 1200A	34-10004	478-2534-1-ND	AVX		VJ15MA0340KBA	
1 SE1	FW, U5, AT-100 GPS Board CSR Bluetooth, 30	- 08-10009		HTI			
1 SE2	FW, U9, AT-100 GPS Board ATTINY, 30-10034	08-10008		HTI			
1 U1	LIC OPAMP DUAL 1A PREC SOT23-8	30-10067	AD8502ARJZ-REEL7TR-ND	Analog Devices		AD8502ARJZ-REEL7	
1 U2	IC, Switching Regulator	30-10028	LT3480IMSE#TRPBF-ND	LinearTech		LT3480IMSE#TRPBF	
1 U3	IC REG LDO 250MA 12-DFN	30-10060	LT3012BEDE#TRPBF-ND	Linear Tech		LT3012BEDE#TRPBF	
1 U4	IC VOLT REF FGA LV 3.3V SOT-23	30-10113	ISL60002DAH333Z-TKTR-ND	Intersil		ISL60002DAH333Z-TK	
1 U5	IC Bluetooth Module BC5 MM 8MBit FLASH		NA	CSR		BC57H687C-GITM-E4	
1 U7	IC, GPS Module SirfStarIV	30-10075	NA	Sierra Wireless		XM0110	
1 U8	IC 8-BIT TRNSLTR 15KV ESD 20-QFN	30-10035	296-21528-2-ND	TI		TXB0108RGYR	
1 U9	IC, Microcontroller, ATTINY88	30-10034	ATTINY88-MU-ND	Atmel		ATTINY88-MU	
1 U10	IC, Thermistor	30-10021	MCP9700AT-E/LTTR-ND	Microchip		MCP9700ATELT	
1 U11	IC, Accelerometer, 3-axis	30-10003	NA	Analog Devices		ADXL345BCCZ	
1 U12	IC COMPARATOR OPEN-DRAIN SC70-5	30-10069	ADCMP370AKSZ-REEL7TR-ND	Analog Devices		ADCMP370AKSZ-REEL7	
1 U13	IC AMP CMOS PREC LP SC70-5	30-10068	AD8500AKSZ-REEL7TR-ND	Analog Devices		AD8500AKSZ-REEL7	
1 U14	IC POT DGTL 256-TAP I2C 8-TDFN	30-10063	MAX5419LETA+T-ND	Maxim		MAX5419LETA+T	
1 U15	Electromagnetic Buzzers	42-10002	445-4832-2-ND	TDK	RDI	SDR08540M3-01	DMT-8540-3V-NL
1 Y1	CRYSTAL 26MHZ 8PF 10ppm stab 10ppm tol 3	3.37-10006		Abracon	Epson	ABM8-26.000MHz-8-D-1-U-T	TSX-3225 26.0000MF18X-AJ