

DA9070 FUEL GAUGE EVALUATION BOARD								
BILL OF MATERIALS						DATE : 07-31-2018	REV : 3	
Item	Reference	Qty	Part	PCB Footprint	Comments	PART_NUMBER	Manufacturer	Description
1	B1	4	RUBBER STAND	SJ61A3	-	SJ61A3	3M	BUMPER CYLIN 0.375" DIA BLK
2	C1,C30,C50,C66	4	1uF	C0402	-	GRM155R61A105KE15D	Murata	CAP CER 1UF 10V X5R 0402
3	C2,C73	2	4.7nF	C0402	DNL	GRM155R71E472KA01D	Murata	CAP CER 4700PF 25V X7R 0402
4	C3	1	0.1uF	C0402	DNL	GRM155R61H104KE14D	Murata	CAP CER 0.1UF 50V X5R 0402
5	C4,C5,C6,C7,C8,C10,C48,C104	8	1uF	C0402	-	GRM155R61E105KA12D	Murata	CAP CER 1UF 25V X5R 0402
6	C9,C14,C17,C18,C19,C20,C21,C22,C23,C24,C26,C27,C28,C29,C38,C39,C40,C41,C42,C43,C44,C45,C46,C47,C106	25	100nF	C0402	-	GRM155R71C104KA88D	Murata	CAP CER 0.1UF 16V X7R 0402
7	C11	1	10uF	C0603	-	GRM188R61E106MA73D	Murata	CAP CER 10UF 25V X5R 0603
8	C12	1	1uF	C0402	DNL	GRM155R61E105KA12D	Murata	CAP CER 1UF 25V X5R 0402
9	C13	1	22uF	CAP_EEV226M	-	EEV226M035A9DAA	KEMET	CAP ALUM 22UF 20% 35V SMD
10	C15,C54,C55,C56,C57	5	4.7uF	C0402	-	GRM155R61A475MEAAD	Murata	CAP CER 4.7UF 10V X5R 0402
11	C16	1	4.7uF	C0402	DNL	GRM155R61A475MEAAD	Murata	CAP CER 4.7UF 10V X5R 0402
12	C25,C31,C36	3	100nF	C0402	-	GRM155R71C104KA88D	Murata	CAP CER 0.1UF 16V X7R 0402
13	C32,C33	2	4.7uF	C0603	-	C1608X5R1E475K080AC	TDK	CAP CER 4.7UF 25V X5R 0603
14	C34	1	2.2uF	C0402	-	GRM155R61E225KE11D	Murata	CAP CER 2.2UF 25V X5R 0402
15	C35	1	2.2uF	C0402	DNL	GRM155R61E225KE11D	Murata	CAP CER 2.2UF 25V X5R 0402
16	C37	1	1nF	C0402	DNL	GRM155R71H102KA01D	Murata	CAP CER 1000PF 50V X7R 0402
17	C49	1	4.7uF	C0402	-	GRM155R61A475MEAAD	Murata	CAP CER 4.7UF 10V X5R 0402
18	C51,C52,C53,C101,C102	5	4.7uF	C0402	-	GRM155R61A475MEAAD	Murata	CAP CER 4.7UF 10V X5R 0402
19	C58,C61,C93	3	10uF	C0402	-	GRJ155R60J106ME11D	Murata	CAP CER 10UF 6.3V X5R 0402
21	C59,C60,C62,C63	4	10uF	C0402	DNL	0402ZD106MAT2A	AVX	CAP CER 10UF 10V X5R 0402
20	C64,C65,C91,C100	4	10uF	C0603	-	GRM188R61C106KAALD	Murata	CAP CER 10UF 16V X5R 0603
22	C67,C68,C69	3	1uF	C0402	-	GRM155R61A105KE15D	Murata	CAP CER 1UF 10V X5R 0402
23	C70,C71,C72	3	10uF	C0603	DNL	GRM188R61E106MA73D	Murata	CAP CER 10UF 25V X5R 0603
24	C74	1	4700pF	C0402	-	GRM155R71E472KA01D	Murata	CAP CER 4700PF 25V X7R 0402
25	C75	1	4700pF	C0402	DNL	GRM155R71E472KA01D	Murata	CAP CER 4700PF 25V X7R 0402
26	C76,C77,C78,C79,C81,C92,C94	7	2.2uF	C0402	-	C1005X5R1C225K050BC	TDK	CAP CER 2.2UF 16V X5R 0402
27	C80	1	2.2uF	C0402	-	C1005X5R1C225K050BC	TDK	CAP CER 2.2UF 16V X5R 0402

28	C82,C83	2	18pF	C0402	-	GRM1555C1H180JA01D	Murata	CAP CER 18PF 50V C0G/NP0 0402
29	C84,C85	2	18pF	C0402	-	GRM1555C1H180JA01D	Murata	CAP CER 18PF 50V C0G/NP0 0402
30	C86	1	3.3uF	C0402	-	C1005X5R0J335K050BC	TDK	CAP CER 3.3UF 6.3V X5R 0402
31	C87,C88,C89,C90	4	100nF	C0402	-	GRM155R71A104KA01D	Murata	CAP CER 0.1UF 10V X7R 0402
32	C95,C96	2	6pF	C0402	-	GRM1555C1H6R0BA01D	Murata	CAP CER 6PF 50V C0G/NP0 0402
33	C97	1	100nF	C0402	-	GRM155R61A104KA01D	Murata	CAP CER 0.1UF 10V X5R 0402
34	C98,C99	2	2700pF	C0402	-	GRM155R71H272KA01D	Murata	CAP CER 2700PF 50V X7R 0402
35	C103,C105	2	2.2uF	C0402	-	C1005X5R1C225K050BC	TDK	CAP CER 2.2UF 16V X5R 0402
36	C107	1	0.01uF	C0402	-	C0402C103J3RACTU	Kemet	CAP CER 10000PF 25V X7R 0402
37	D1	1	YELLOW	LED0603	-	APG1608SYKC/T	Kingbright	LED YELLOW CLEAR CHIP SMD
38	D2	1	RED	LED0603	-	KPG-1608SURKC-T	Kingbright	LED RED 0603 SMD
39	FB1,FB2	2	600 Ohm	FB0402	-	BLM15HG601SN1D	Murata	FERRITE BEAD 600 OHM 0402 1LN
40	FB3	1	220 OHM	FB0603	-	MPZ1608S221ATA00	TDK	FERRITE BEAD 220 OHM 0603 1LN
41	J1,J3,J4,J5,J21	5	TSW-104-07-G-S	CONN_100MIL_1X4	-	TSW-104-07-G-S	Samtec	CONN HEADER 4POS .100" SGL GOLD
42	J2	1	TSW-102-07-G-S	CONN_100MIL_1X2	Fit to J2:1-2	TSW-102-07-G-S	Samtec	CONN HEADER 2POS .100" SGL GOLD
43	J6	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J6:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
44	J7,J16	2	TSW-102-07-G-S	CONN_100MIL_1X2	-	TSW-102-07-G-S	Samtec	CONN HEADER 2POS .100" SGL GOLD
45	J8	1	USB - mini B	USB2_MINI_B_173	-	1734035-2	TE Connectivity	CONN MINI USB RCPT RA TYPE B SMD
46	J9	1	TSW-102-07-G-S	CONN_100MIL_1X2	Fit to J9:1-2	TSW-102-07-G-S	Samtec	CONN HEADER 2POS .100" SGL GOLD
47	J10	1	TSW-102-07-G-S	CONN_100MIL_1X2	Fit to J10:1-2	TSW-102-07-G-S	Samtec	CONN HEADER 2POS .100" SGL GOLD
48	J11	1	TSW-102-07-G-S	CONN_100MIL_1X2	Fit to J11:1-2	TSW-102-07-G-S	Samtec	CONN HEADER 2POS .100" SGL GOLD
49	J12	1	TSW-105-07-G-S	CONN_100MIL_1X5	Fit to J12:1-2	TSW-105-07-G-S	Samtec	CONN HEADER 5POS .100" SGL GOLD
50	J13	1	TSW-105-07-G-S	CONN_100MIL_1X5	-	TSW-105-07-G-S	Samtec	CONN HEADER 5POS .100" SGL GOLD
51	J14	1	TSW-106-07-G-S	CONN_100MIL_1X6	Fit to J14:1-2	TSW-106-07-G-S	Samtec	CONN HEADER 6POS .100" SGL GOLD
52	J15	1	TSW-106-07-G-S	CONN_100MIL_1X6	Fit to J15:1-2	TSW-106-07-G-S	Samtec	CONN HEADER 6POS .100" SGL GOLD
53	J17	1	TSW-106-09-G-D	CONN_100MIL_2X6	-	TSW-106-09-G-D	Samtec	CONN HEADER 12POS .100" SGL GOLD
54	J18	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J18:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
55	J19	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J19:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
56	J20	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J20:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
57	J22	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J22:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
58	J23	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J23:2-3	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
59	J24	1	TSW-103-07-G-S	CONN_100MIL_1X3	Fit to J24:1-2	TSW-103-07-G-S	Samtec	CONN HEADER 3POS .100" SGL GOLD
60	J25	1	TSW-104-15-G-D	CONN_100MIL_2X8	Fit to J25:3-4	TSW-104-15-G-D	Samtec	CONN HEADER 8POS .100" SGL GOLD
61	J26	1	5103308-5	LOPRO_20POS	-	5103308-5	TE Connectivity	CONN HEADER LOPRO STR 20POS GOLD
62	J27	1	HDR_TH_3X1	HDR_TH2P5_3X1	-	B03B-WASK-1(LF)(SN)	JST	Wire-To-Board Connector, XA Series, 2.5 mm
63	LNK_J2,LNK_J6,LNK_J9,LNK_J10,LNK_J11	5	SHUNT	SHUNT	-	22-0692	Truconnect	Black Shunt for 2.54mm jumper

64	LNK_J12, LNK_J18, LNK_J19, LNK_J20, LNK_J22, LNK_J23, LNK_J25	7	SHUNT	SHUNT	-	22-3555	Truconnect	Blue Shunt for 2.54mm jumper
65	LNK_J14, LNK_J15, LNK_J24	3	SHUNT	SHUNT	-	22-3565	Truconnect	RED Shunt for 2.54mm jumper
66	L1, L3	2	1uH	L0603	DNL	LQM18PZ1R0MCHD	Murata	FIXED IND 1UH 950MA 290 MOHM
67	L2	1	4.7uH	L1008	-	1239AS-H-4R7M=P2	Murata	FIXED IND 4.7UH 1.5A 240 MOHM
68	L4, L20	2	2.2uH	L0806	-	DFE201610E-2R2M=P2	Murata	FIXED IND 2.2UH 1.7A 140 MOHM
69	L30	1	4.7uH	HTET2019FE	DNL	HTET2019FE-4R7MSR	Cyntec	HTET2019FE Series SMD Inductor
70	Q1, Q2	2	SSM6N43FU	SSM6N43FU_US6	-	SSM6N43FU, LF	TOSHIBA	MOSFET 2N-CH 20V 0.5A US6
71	RT1	1	10K	R0402	-	NCP15XH103F03RC	Murata	NTC THERMISTOR 10K OHM 1% 0402
72	R1	1	14K	R0402	DNL	RC0402FR-0714KL	Yageo	RES SMD 14K OHM 1% 1/16W 0402
73	R2, R3	2	10	R0402	-	RC0402FR-0710RL	Yageo	RES SMD 10 OHM 1% 1/16W 0402
74	R4, R5	2	10	R0402	-	RC0402FR-0710RL	Yageo	RES SMD 10 OHM 1% 1/16W 0402
75	R6, R7	2	0	R0603	-	CRCW0603000020EAC	Vishay Dale	RES 0 OHM JUMPER 1/10W 0603
76	R8	1	3.3K	R0805	-	RC0805FR-073K3L	Yageo	RES SMD 3.3K OHM 1% 1/8W 0805
77	R9	1	62	R0603	-	RC0603JR-0762RL	Yageo	RES SMD 62 OHM 5% 1/10W 0603
78	R10	1	1M	R0402	-	RC0402FR-071ML	Yageo	RES SMD 1M OHM 1% 1/16W 0402
79	R11	1	154	R0805	-	RC0805FR-07154RL	Yageo	RES SMD 154 OHM 1% 1/8W 0805
80	R12	1	1k	R0402	-	RC0402FR-071KL	Yageo	RES SMD 1K OHM 1% 1/16W 0402
81	R13, R74	2	14K	R0402	-	RC0402FR-0714KL	Yageo	RES SMD 14K OHM 1% 1/16W 0402
82	R14, R52, R56	3	100k	R0402	-	RC0402FR-07100KL	Yageo	RES SMD 100K OHM 1% 1/16W 0402
83	R15, R22, R23, R24, R25, R26, R31, R67, R68, R69, R70, R71	12	SHORT	R0603_SHORT	DNL, pcb short	-	-	-
84	R16	1	5.1k	R0402	-	RC0402FR-075K1L	Yageo	RES SMD 5.1K OHM 1% 1/16W 0402
85	R17	1	10K	R0402	-	ERA-2AEB103X	Panasonic	RES SMD 10K OHM 0.1% 1/16W 0402
86	R27	1	1	R0805	DNL	CRT0805-CY-1R00ELF	Bourns Inc.	RES SMD 1 OHM 0.25% 1/8W 0805
87	R28, R29, R50, R51	4	2.2k	R0402	-	RC0402FR-072K2L	Yageo	RES SMD 2.2K OHM 1% 1/16W 0402
88	R32, R33	2	2.2k	R0402	DNL	RC0402FR-072K2L	Yageo	RES SMD 2.2K OHM 1% 1/16W 0402
89	R34, R35, R36, R37, R38, R39, R41, R42, R66	9	10k	R0402	-	RC0402FR-0710KL	Yageo	RES SMD 10K OHM 1% 1/16W 0402
90	R40	1	10k	R0402	DNL	RC0402FR-0710KL	Yageo	RES SMD 10K OHM 1% 1/16W 0402
91	R46, R47, R54, R58	4	0R	R0402	-	RC0402JR-070RL	Yageo	RES SMD 0 OHM JUMPER 1/16W 0402
92	R53	1	1.8K	R0402	-	RC0402FR-071K8L	Yageo	RES SMD 1.8K OHM 1% 1/16W 0402
93	R55	1	68k	R0402	-	RC0402FR-0768KL	Yageo	RES SMD 68K OHM 1% 1/16W 0402
94	R57	1	75	R0402	-	RC0402FR-0775RL	Yageo	RES SMD 75 OHM 1% 1/16W 0402
95	R59	1	12K	R0402	-	RC0402FR-0712KL	Yageo	RES SMD 12K OHM 1% 1/16W 0402
96	R60, R61, R62, R63	4	33	R0402	-	RC0402FR-0733RL	Yageo	RES SMD 33 OHM 1% 1/16W 0402
97	R64	1	100m	R1206	-	CRM1206-FX-R100ELF	Bourns Inc.	RES 0.1 OHM 1% 1/2W 1206

98	R65	1	300	R0603	-	TRR03E2PF3000	Rohm	RES SMD 300 OHM 1% 1/10W 0603
99	R72	1	30.9	R1210	-	ERJ-14NF30R9U	Panasonic	RES SMD 30.9 OHM 1% 1/2W 1210
100	R73	1	0	R0402	-	ERJ-2GE0R00X	Panasonic	RES SMD 0 OHM JUMPER 1/10W 0402
101	R75	1	3.6K	R0402	-	ERA-2AEB362X	Panasonic	RES SMD 3.6k OHM 0.1% 1/16W 0402
103	S1,S50	2	SPST-NO	SW_SPST_EVP	-	EVP-AA202K	Panasonic	SWITCH TACTILE SPST-NO 0.02A 15V
104	TP1,TP6,TP10	3	AGND	TP_BLUE	-	5127	Keystone Electronics	TEST POINT PC MULTI PURPOSE BLUE
107	TP4,TP21	2	PGND	TP_BLUE	-	5127	Keystone Electronics	TEST POINT PC MULTI PURPOSE BLUE
108	TP12	1	5V_EXT	TERMINAL_1573	-	1573-2	Keystone	TERM TURRET SINGLE L=4.72MM TIN
109	TP13	1	PGND	TERMINAL_1573	-	1573-2	Keystone	TERM TURRET SINGLE L=4.72MM TIN
121	TP26	1	VBATP_SNS	TP_RED	-	5010	Keystone Electronics	TEST POINT PC MULTI PURPOSE RED
122	TP27	1	VBATN_SNS	TP_BLACK	-	5011	Keystone Electronics	TEST POINT PC MULTI PURPOSE BLK
132	U1	1	SIP32102DB	SIP32102DB	-	SIP32102DB-T1-GE1	Vishay	IC BI-DIR BATT SWITCH WCSP12
133	U2	1	DA9070	DA9070_42WLCSP	-	DA9070	Dialog Semiconductor	DA9070 WLCSP42
134	U3	1	AD7685	AD7685_10MSOP	-	AD7685CRMZ	Analog Devices	IC ADC 16BIT PSEUDO-DIFF 10-MSOP
135	U4	1	AD7687	AD7687_10MSOP	-	AD7687BRMZ	Analog Devices	IC ADC 16BIT 250KSPS 10-MSOP
136	U5	1	LTC2941	LTC2941_6DFN	-	LTC2941IDCB#TRMPBF	Linear Technology	IC BATTERY MONITOR LI-ION 6DFN
137	U6	1	DA9231	DA9231_WLCSP12	-	DA9231AB-0TP0B	Dialog Semiconductor	DA9231 WLCSP12
138	U7	1	FT4232HQ-R	FT4232H_64QFN	-	FT4232HQ-REEL	FTDI	IC USB HS QUAD UART/SYNC 64-QFN
139	U8	1	STM32L151	STM32L1_64WLCSP	-	STM32L151RDY6TR	STMicroelectronics	IC MCU 32BIT 384KB FLASH 64WLCSP
140	U9	1	INA225	INA225_8MSOP	-	INA225AIDGKT	Texas instruments	IC MONITOR PWR/CUR BIDIR 8MSOP
141	U10	1	AP7312-1833W6-7	AP7312_SOT26	-	AP7312-1833W6-7	Diodes Incorporated	IC REG LINEAR 1.8V/3.3V SOT26
142	U11	1	TC1240A	TC1240A_SOT23	-	TC1240AECCTR	Microchip Technology	IC REG SWITCHD CAP 2VIN SOT23A
143	U12	1	LP2985AIM5	LP2985AIM5_SOT23	-	LP2985AIM5-2.5/NOPB	TI	IC REG LINEAR 2.5V 150MA SOT23-5
144	U13	1	LP2980AIM5	LP2980AIM5_5SOT23	-	LP2980AIM5-5.0/NOPB	Texas Instruments	IC REG LINEAR 5V 50MA SOT23-5
145	U14	1	TPD3E001	TPD3E001_5SOT23	-	TPD3E001DRLR	TI	TVS DIODE 5.5V SOT5
146	Y1,Y2	2	12MHZ	FA-238V_4SMD	-	FA-238V 12.0000MB-W3	EPSON	CRYSTAL 12.0000MHZ 12PF SMD
147	Y3	1	32.768KHZ	CM8V-T1A_2SMD	-	CM8V-T1A-32.768kHz-6pF	Micro Crystal	Crystals 32.768 kHz 6.0 pF +/-20 PPM -40/+85C