Sensors Expo Demo
Revision: 0.01

Bill Of Materials

Item	Quantity	Reference	Part	PCB Footprint	DESCRIPTION	MFG1	MFG1_PART#	DISTR1	DISTR1_PART#	Note
1	1	B2	Li-Ion	100mil_VIA-2						DNP
2	1	C97	1.0pF	C0402	CAP CER 1PF 50V NP0 0402	Samsung	CL05C010CB5NNNC	Digi-Key	1276-1595-1-ND	
3	1	C99	1.2pF	C0402	CAP CER 1.2PF 50V .25PF 0402	Murata	GRM1555C1H1R2CA01D	Digi-Key	490-5927-1-ND	
4	1	C98	1.5pF	C0402	CAP CER 1.5PF 50V NP0 0402	Murata	GRM1555C1H1R5CA01D	Digi-Key	490-5891-1-ND	
5	1	C96	3.9pF	C0402	CAP CER 3.9PF 50V NP0 0402	Murata	GRM1555C1H3R9CA01D	Digi-Key	490-5940-1-ND	
6	4	C86,C87,C90,C	12pF	C0402	CAP CER 12PF 50V NP0 0402	Samsung	CL05C120JB5NNNC	Digi-Key	1276-1178-1-ND	
7	2	C102,C119	120pF	C0402	CAP CER 120PF 10V X7R 01005	Murata	GRM022R71A121KA01L	Digi-Key	490-8617-1-ND	
8	1	C93	1.0nF	C0402	CAP CER 1000PF 50V X7R 0402	Murata	GRM155R71H102KA01D	Digi-Key	490-1303-1-ND	
9	2	C94,C127	2.2nF	C0402	CAP CER 2200PF 50V 10% X5R 0402	Murata	GRM155R61H222KA01D	Digi-Key	490-8257-1-ND	
10	2	C105,C121	2200pF	C0402	CAP CER 2200PF 16V 10% X5R 0402	Murata	GRM155R61C222KA01D	Digi-Key	490-6311-1-ND	
11	1	C129	10nF	C0402	CAP CER 10000PF 16V 10% X5R 0402	Murata	GRM155R61C103KA01D	Digi-Key	490-6309-1-ND	
12	1	C95	47nF	C0402	CAP CER 0.047UF 16V X7R 0402	Kemet	C0402C473K4RACTU	Digi-Key	399-3519-1-ND	
13	12	C88,C89,C92,C	0.1uF	C0402	CAP CER 0.1UF 16V X5R 0402	Murata	GRM155R61C104KA88D	Digi-Key	490-5415-1-ND	
14	1	C125	0.33uF	C0402	CAP CER 0.33UF 10V X5R 0402	Murata	GRM155R61A334KE15D	Digi-Key	490-3263-1-ND	
15	11	C106,C110,C11	1uF	C0402	CAP CER 1UF 16V X5R 0402	Murata	GRM155R61C105KE01D	Digi-Key	490-10453-1-ND	
16	1	C122	2.2uF	C0402	CAP CER 2.2UF 16V X5R 0402	Murata	GRM155R61C225KE11D	Digi-Key	490-10695-1-ND	
17	3	C82,C83,C85	4.7uF	C0402	CAP CER 4.7UF 6.3V X5R 0402	Murata	GRM155R60J475ME47D	Digi-Key	490-5915-1-ND	
18	4	C101,C107,C11	10uF	C1206	CAP CER 10UF 10V X5R 1206	Murata	GRM31CR61A106KA01L	Digi-Key	490-1820-1-ND	
19	1	C84	100uF	C1206	CAP CER 100UF 6.3V X5R 1206	Taiyo Yuden	JMK316ABJ107ML-T	Digi-Key	587-3395-1-ND	
20	1	C100	DNP	C0402						DNP
21	1	C123	DNP	C0402	CAP CER 2.2UF 16V X5R 0402	Murata	GRM155R61C225KE11D	Digi-Key	490-10695-1-ND	DNP
22	2	D3,D4	LED	D0402	LED GREEN CLEAR 0402 SMD	Rohm	SML-P11MTT86	Digi-Key	511-1652-2-ND	
23	1	J10	1x8 HEADER	HDR_1X8_100	CONN HEADER 8 POS 2.54	Würth Elektronik	61300811121	Digi-Key	732-5321-ND	
24	1	L12	3.3nH	L0402	FIXED IND 3.3NH 550MA 160 MOHM	Taiyo Yuden	HK10053N3S-T	Digi-Key	587-1507-1-ND	
25	1	L10	4.7nH	L0402	FIXED IND 4.7NH 300MA 240 MOHM	Johanson	L-07C4N7SV6T	Digi-Key	712-1417-1-ND	
26	1	L9	15nH	L0603	FIXED IND 15NH 300MA 450 MOHM	Johanson	L-14C15NJV4T	Digi-Key	712-1436-1-ND	
27	1	L11	27nH	L0402	FIXED IND 27NH 300MA 460 MOHM	Murata	LQG15HS27NJ02D	Digi-Key	490-2628-1-ND	
28	1	L13	4.7uH	INDM3838X165	FIXED IND 4.7UH 1.2A 105 MOHM	Würth Elektronik	744031004	Digi-Key	732-1008-1-ND	
29	1	L14	4.7uH	INDM3735X180	Ind Power Shielded 4.7uH 20% 100KHz Ferrite 2A T/R	Murata	1231AS-H-4R7M=P3	Mouser	81-1231AS-H-4R7MP3	
30	1	L8	10uH	L0805	FIXED IND 10UH 150MA 360 MOHM	Taiyo Yuden	LBR2012T100K	Digi-Key	587-2045-1-ND	
31	2	TEST1_N,P23	TP_TH_63MIL_RED	TP_TH	TEST POINT PC MULTI PURPOSE RED	Keystone Electronics	5010	DIGIKEY	5010K-ND	
32	3	Q4,Q5,Q6	RE1C002UNTCL	EMT3	MOSFET N-CH 20V 0.2A EMT3	Rohm	RE1C002UNTCL	Digi-Key	RE1C002UNTCLCT-ND	
33	8	Q7,Q8,Q9,Q10	EM6K1T2R	ROHM_EM6K1_SOT-416	MOSFET 2N-CH 30V .1A EMT6	Rohm	EM6K1T2R	Digi-Key	EM6K1T2RCT-ND	
34	4	R77,R89,R143,	0	R0402	RES SMD 0.0OHM JUMPER 1/16W 0402	Rohm	MCR01MRTJ000	Digi-Key	RHM0.0CECT-ND	
35	15	R100,R103,R10	22	R0402	RES SMD 22 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ220	Digi-Key	RHM22CECT-ND	
36	15	R99,R102,R105	36	R0402	RES SMD 36 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ360	Digi-Key	RHM36CECT-ND	
37	2	R72,R74	43	R0402	RES SMD 43 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ430	Digi-Key	RHM43CECT-ND	
38	1	R73	56	R0402	RES SMD 56 OHM 1% 1/16W 0402	Rohm	TRR01MZPF56R0	Digi-Key	RHM56BHCT-ND	
39	15	R98,R101,R104	180	R0402	RES SMD 180 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ181	Digi-Key	RHM180CECT-ND	
40	2	R91,R92	200	R0402	RES SMD 200 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ201	Digi-Key	RHM200CEDKR-ND	
41	1	R145	430	R0402	RES SMD 430 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ431	Digi-Key	RHM430CECT-ND	
42	1	R146	510	R0402	RES SMD 510 OHM 5% 1/16W 0402	Rohm	MCR01MRTJ511	Digi-Key	RHM510CECT-ND	
43	1	R149	1k	R0402	RES SMD 1K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ102	Digi-Key	RHM1.0KCECT-ND	
44	1	R90	2k	R0402	RES SMD 2K OHM 1% 1/16W 0402	Rohm	MCR01MRTF2001	Digi-Key	RHM2KCDCT-ND	
45	4	R153,R154,R15	2.2k	R0402	RES SMD 2.2K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ222	Digi-Key	RHM2.2KCECT-ND	
46	4	R79,R87,R148,	4.7k	R0402	RES SMD 4.7K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ472	Digi-Key	RHM4.7KCECT-ND	
47	15	R75,R76,R80,R	10k	R0402	RES SMD 10K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ103	Digi-Key	RHM10KCEDKR-ND	
48	2	R88,R144	39k	R0402	RES SMD 39K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ393	Digi-Key	RHM39KCECT-ND	
49	2	R70,R71	51k	R0402	RES SMD 51K OHM 1% 1/16W 0402	Rohm	MCR01MRTF5102	Digi-Key	RHM51KCDCT-ND	
50	2	R78,R147	56k	R0402	RES SMD 56K OHM 5% 1/16W 0402	Rohm	MCR01MRTJ563	Digi-Key	RHM56KCECT-ND	
51	22	UART_TX1,UA	TEST POINT R	TP_R						DNP. Not component
52	1	SW1	EVP-BB2A1B000	SW_PANASONIC_EVPBB_53H	SWITCH TACTILE SPST-NO 0.02A 15V	Panasonic	EVP-BB2A1B000	Digi-Key	P17066CT-ND	
53	1	U23	USBmicroB	FCI_10118194-0001LF	CONN USB MICRO B RECPT SMT R/A	FCI	10118194-0001LF	Digi-Key	609-4618-1-ND	
54	1	U24	nRF51422	48-VFQFN	IC SOC 2.4GHZ 256K FLASH 48QFN	Nordic Semiconductor	NRF51422-QFAA-R7	Digi-Key	1490-1030-1-ND	
55	1	U25	ANT2012LL13R2400A	YAGEO_ANT2012	PIFA CHIP ANTENNA 2.4GHZ	Yageo	ANT2012LL13R2400A	Digi-Key	311-1534-1-ND	
56	1	U26	SMLVN6RGB	ROHM_SMLVN6RGB1W1	LED RGB DIFFUSED 6SMD	Rohm	SMLVN6RGB1W1	Digi-Key	846-1187-1-ND	
57	2	U27,U50	BD8306MUV	VQFN016V3030	IC REG BUCK BOOST ADJ 2A 16VQFN	Rohm	BD8306MUV-E2	Digi-Key	BD8306MUV-E2CT-ND	
58	2	U28,U29	BH1745	WSON008X2120	IC COLOR SENSOR DGTL 8WSON	Rohm	BH1745NUC-E2	Digi-Key	BH1745NUC-E2CT-ND	
59	1	U30	Left Servo	100mil_Via3	Custom Part DO NOT POPULATE					DNP
60	1	U31	Right Servo	100mil_Via3	Custom Part DO NOT POPULATE					DNP
61	1	U32	STBC08	DFN6	IC BATT CHRGR LI-ION 800MA DFN6	STMicroelectronics	STBC08PMR	Digi-Key	497-5808-1-ND	
62	1	U33	BM1383	CLGA12V025M	Pressure Sensor IC	Rohm	BM1383GLV	TBD	TBD	
63	1	U34	KX122	LGA12R50P_200X200X90	ACCELEROMETER TRI-AXIS 12LGA	Kionix	KX122-1037	Digi-Key	1191-1041-1-ND	
64	16	U35,U36,U37,U	SMLP34RGB2W	ROHM_SMLP34	LED RGB DIFFUSED 0404 SMD	Rohm	SMLP34RGB2W3	Digi-Key	SMLP34RGB2W3CT-ND	
65	1	U52	ML620Q504H	TQFP50P900X900X120-48	IC MCU 16BIT 64KB FLASH 48TQFP	Rohm	ML620Q504H-NNNTBWABL	Digi-Key	ML620Q504H-NNNTBWABLCT-ND	
66	1	U53	KXG03	LGA16R50P_300X300X90	TRI-AXIS GYROSCOPE/TRI-AXIS ACC	Kionix	KXG03-1034-FR	Digi-Key	1191-1043-1-ND	
67	1	U54	KX022	LGA12S50P_200X200X90	ACCELEROMETER TRI-AXIS 12LGA	Kionix	KX022-1020-FR	Digi-Key	1191-1038-1-ND	
68	1	Y4	16MHz	NDK_NX2520SA	CRYSTAL 16.0000MHZ 8PF SMD	NDK	NX2520SA-16MHZ-STD-CSW-5	Digi-Key	644-1169-1-ND	
69	1	Y5	32.768kHz	EPSON_FC-135R	CRYSTAL 32.7680KHZ 6.0PF SMT	Epson	FC-135R 32.7680KA-E3	Digi-Key	SER4074CT-ND	
70	2	J11,J13	HDR_1X2_2P54MM	HDR_1X2_2P54MM						DNP. Not component
71	46	TP48,TP49,TP5	TP_300X150	TP_300X150						DNP. Not component