

# Glass Break Detector demonstrator - Bill of Material



Number	Reference	Part	Description	Package	Manufacturer	Data Sheet	
1	1	U1	RL78 I1D R5F117GCGFB	16-bit MCU RL78/I1D	QFPP 48 pins	Renesas Electronics	
2	1	AC-903A-RPA	BUZZER-AC-903Q-P6	Buzzer		Advanced Acoustic Technology Corporation (www.aatc.com.tw)	
3	1	ABM-707-RC	ABM-707-RC	Electret Microphone		Pro - Signal	ABM-707-RC.pdf
4	1	CN01,CN02	2X13 pin header 2.54mm	Male Header	0.1inch (2.54mm) spacing	Common	
5	1	C1	0.47uF C0603	Chip Capacitor	603	Common	
6	13	C2,C3,C8,C9,C10,C11,C14, C15,C20,C21,C22,C23,C46	0.1uF C0603	Chip Capacitor	603	Common	
7	2	C4,C5	20p C0603	Chip Capacitor	603	Common	
8	2	C6,C7	10pF C0603	Chip Capacitor	603	Common	
9	1	C12	10uF C0805	Chip Capacitor	805	Common	
10	1	C13	1uF C0603	Chip Capacitor	603	Common	
11	5	C16,C19,C35,C36,C47	1nF C0603 (=1000pF)	Chip Capacitor	603	Common	
12	2	C17,C18	220pF C0603	Chip Capacitor	603	Common	
13	1	C48	4.7nF C0603	Chip Capacitor	603	Common	
14	1	C49	33pF C0603	Chip Capacitor	603	Common	
15	NO	DNIJ5,DNI_J6,DNI_J7,DNI_J8,DNI_J9, DNI_J10, DNI_J11,DNI_J12,DNI_J13, DNI_J14,DNI_J15,DNI_J16,DNI_J17, DNI_J18,DNI_J19,DNI_J20, DNI_J21,DNI_J22,DNI_J23,DNI_J24	1X2P254	Male Header	0.1inch (2.54mm) spacing	Common	
16	NO	DNI_J1,DNI_J2,DNI_J3,DNI_J4	1X12P254	Male Header	0.1inch (2.54mm) spacing	Common	
17	1	D1	LS4148 SMD-D	Diode	3.7mm x 1.6mm	Digikey (Vishay)	
18	2	JP10,JP11	VR-3362P-B	Potentiometer	6.99mm x 6.6mm	Digikey (Bourns)	
19	3	J1,J2,J3	CON2 2P254	Male Header	0.1 inch (2.54mm) spacing	Common	
20	1	J9	2X6 female header P254VD	Female Header	0.1 inch (2.54mm) spacing	Common	
21	1	L1	BLM41PG750S L1806	Inductor	1806	Digikey (Murata)	
22	2	Q1,Q3	SSM3J114TU-S323	P-Channel MOSFET Transistor	S323	Digikey (Toshiba)	
23	1	Q2	Q-2N3904S -S23	Bipolar Tansistor (2N3904)	S23	Common	
24	4	R1,R3,R21,R78	10K R0603	Chip Resistor	603	Common	
25	4	R2,R22,R31,R32	1K R0603	Chip Resistor	603	Common	
26	2	R4,R5	DNI_10 DNI=NO	Chip Resistor	603	Common	
27	1	R6	200 R0603	Chip Resistor	603	Common	
28	1	R7	100 R0603	Chip Resistor	603	Common	
29	2	R8,R12	47K R0603	Chip Resistor	603	Common	
30	9	R9,R10,R11,R14,R15,R16,R17,R18,R76	4.7M R0603	Chip Resistor	603	Common	
31	1	R13	4.3M R0603	Chip Resistor	603	Common	
32	1	R19	500K R0603	Chip Resistor	603	Common	
33	1	R20	2K2 R0603	Chip Resistor	603	Common	
34	1	R33	270K R0603	Chip Resistor	603	Common	
35	4	R42,R46,R47,R48	Not mounted	Chip Resistor	603	Common	
36	1	R74	180K R0603	Chip Resistor	603	Common	
37	1	R75	150K R0603	Chip Resistor	603	Common	
38	1	R77	100K R0603	Chip Resistor	603	Common	
39	1	R79	200K R0603	Chip Resistor	603	Common	

40	1	SW1	SW-90-3.85mm SW-0770	Pushbutton Switch		Switronic	
41	1	Y1	FL 20MHz CRYSTAL-250200-3	20MHZ Crystal	2.5mm x 2.0mm	find replacement Digikey	
42	1	Y2	32.768KHZ CRYSTAL-320150-X	32768HZ Resonator	3.2mm x 1.5mm	find replacement Digikey	
43	1	bat	BAT-BH123A	CR123 Battery Holder		Digikey (Memory Protection Devices)	

Note: All Chip Capacitors and Chip Resistors are 5% tolerance except for resistors marked as 1%

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