

## IRADK Board - Bill Of Materials

Item No.	Reference	Description	Manufacturer	Part Number	Housing	Temp. diapason	Quantity
1	U1	Microcontroller PIC16F873	Microchip - PIC16F873-20I/SP	PIC16F873-20I/SP	DIP-28	Min. -40°C / Max +85°C	1
2	U2	Quad comparator LM339	Texas Instruments	LM339AD	SOIC-14	Min. 0°C / Max +70°C	1
3	U4	Voltage Reguator 7815	ST Microelectroncs	L7815CV	TO-220	Min. 0°C / Max +150°C	1
4	U5	PWM controller UC3842	Freescale Semiconductor	UC3842AD	SOIC-14	Min. 0°C / Max +70°C	1
5	U6	Voltage regulator 7805	ST Microelectroncs	L7805CV	TO-220	Min. 0°C / Max +150°C	1
6	OP1,OP2	Optocoupler SFH618A-3	Vishay Telefunken	SFH618A-3	DIP-4		2
7	Q1	Power module IRAMS10UP60A	International Rectifier	IRAMS10UP60A		Min. -40°C / Max +150°C	1
8	Q2	IRFR420 MOSFET 500V 3.3A	International Rectifier	IRFR420APBF	DPAK (TO-252)		1
9	D3,D5,D7,D9,D10,D14	Diode 100V 0,1A LL4148	Philips	PMLL4148L	SOD-80C		6
10	D1,D11	Zener diode 30V 0,5W		MMSZ5256B-7	SOD-123		2
11	D16,D15	Zener diode 5V1 0,5W		MMSZ5231B-7-F	SOD-123		2
12	D12	Zener diode 4V3 0,5W		MMSZ5229B-7-F	SOD-123		1
13	D8,D13	Ultrafast diode 600V 1A STAA106U	ST Microelectroncs	STTA106U	SMB		2
14	D17	Bridge rectifier 500V 8A	International Rectifier	KBPC608			1
15	D6	LED 3mm red					1
16	D4	LED 3mm green					1
17	D2	LED 3mm yellow					1
18	QZ1	Crystal 20 MHz	C-Mac Frequency Product	LF A147K	HC-49/4H	Min. -20°C / Max +70°C	1
19	C46	Capacitor MKP X2 10nF 275VAC	Vishay	F1772-310-2030			1
20	C13,C40,C41	Capacitor 0,1uF 630 VDC 250VAC	Epcos	B32652A6104J		Min. -55°C / Max +100°C	3
21	C1,C5,C11	Electrolytic capacitor 22uF 63V	Multicom	MCGPR63V226M6.3X11		Min. -40°C / Max +85°C	3
22	C21	Electrolytic capacitor low ESR 100uF 40V	Vishay DC Components	2222 165 57101		Min. -40°C / Max +125°C	1
23	C20,C23,C29,C35	Electrolytic capacitor 100uF 25V	Elna	RE3-25V101M		Min. -40°C / Max +85°C	4
24	C37,C42	Electrolytic capacitor 470uF 200V	Panasonic	EETED2D471CA		Min. -40°C / Max +105°C	2

25	C10,C14,C15	Capacitor 22p			SMD 0805		3
26	C4,C8	Capacitor 68p			SMD 0805		2
27	C7,C9	Capacitor 100p			SMD 0805		2
28	C17	Capacitor 680p			SMD 0805		1
29	C27,C36	Capacitor 1n			SMD 0805		2
30	C33	Capacitor 3n3			SMD 0805		1
31	C38	Capacitor 10n			SMD 0805		1
32	C43,C44	Capacitor 22n			SMD 0805		2
33	C34,C45	Capacitor 47n			SMD 0805		2
34	C2,C3,C6,C12,C16,C18,C19,C22,C24,C28,C30,C31,C32,C39	Capacitor 100n			SMD 0805		14
35	R58	Resistor 0R68 3W 5%	Welwyn	W31-R68 JI	Axial	Min. -55°C / Max +155°C	1
36	R14	Resistor 2R2 0,6W 1%	Phoenix Passive Components	MRS25 2R2 1%	Axial	Min. -55°C / Max +155°C	1
37	R41	Resistor 8R2 0,6W 1%	Phoenix Passive Components	MRS25 8R2 1%	Axial	Min. -55°C / Max +155°C	1
38	R51,R53	Resistor 82K 0,6W 1%	Phoenix Passive Components	MRS25 82K 1%	Axial	Min. -55°C / Max +155°C	2
39	R30,R31,R32	Resistor 75K 0,6W 1%	Phoenix Passive Components	MRS25 75K 1%	Axial	Min. -55°C / Max +155°C	3
40	R29	Resistor 12 0.125W			SMD 0805		1
41	R11	Resistor 100 0.125W			SMD 0805		1
42	R37	Resistor 220 0.125W			SMD 0805		1
43	R18	Resistor 390 0.125W			SMD 0805		1
44	R39	Resistor 910 0.125W			SMD 0805		1
45	R7,R17,R19,R21,R23,R43,R44	Resistor 1K 0.125W			SMD 0805		7
46	R24,R28	Resistor 1K5 0.125W			SMD 0805		2
47	R2,R5,R8,R12	Resistor 2K2 0.125W			SMD 0805		4
48	R4,R13	Resistor 3K3 0.125W			SMD 0805		2
49	R42	Resistor 3K9 0.125W			SMD 0805		1
50	R3,R6,R9,R10,R49,R52	Resistor 4K7 0.125W			SMD 0805		6
51	R50	Resistor 5K6 0.125W			SMD 0805		1
52	R1	Resistor 7K5 0.125W			SMD 0805		1
53	R22,R27	Resistor 8K2 0.125W			SMD 0805		2
54	R20	Resistor 9K1 0.125W			SMD 0805		1
55	R15,R40,R56,R57	Resistor 10K 0.125W			SMD 0805		4
56	R16,R33	Resistor 15K 0.125W			SMD 0805		2
57	R26	Resistor 22K 0.125W			SMD 0805		1
58	R38	Resistor 47K 0.125W			SMD 0805		1

59	R54	Resistor 100K 0.125W			SMD 0805		1
60	R46,R47,R48	Resistor 200K 0.125W			SMD 0805		3
61	R36	Resistor 680K 0.125W			SMD 0805		1
62	R45,R55	Thermistor NTC 1R0 16A	Epcos	B57364S109N		Min. -55°C / Max +155°C	2
63	R25	Trimmer 20K 0,5W	Bourns	3386F-1-203LF	PCB Mount	Min. -55°C / Max +125°C	1
64	F1	Fuse 5x20mm 4A 250VAC	Schurter	343.123	5x20mm		1
65	EMI1	Coupled inductor 2x2mH 3A	Schaffner	RN114-3.0/02	RN114	Min. -25°C / Max +125°C	1
66	L1	Inductor 2700uH 560mA	API Delevan	4590-275K			1
67	RV1	MO Varistor 275V	Epcos	S20K275			1
68	J1	Connector D-sub 9p F	Tyco Electronics / AMP	1-1634584-2		Min. -55°C / Max +105°C	1
69	J2	Strip Connector 10p	Molex	90120-0770		Min. -55°C / Max +125°C	1
70	J3	Strip Connector 12p	Molex	90120-0772		Min. -55°C / Max +125°C	1
71	J4	Connector 7p M (PCB)	Weid Muller	SL 5.08/7/90B		Min. -50°C / Max +100°C	1
72		Connector 7p F (wire)	Weid Muller	BLZ 5.08/7		Min. -50°C / Max +100°C	1
73	S1	Square Key Switch	Bourns	7906H-001-000		Min. -20°C / Max +70°C	1
74	S2	Switch10(4) 250VAC	Arcoelectric Switches	H8600VBAAA		Min. 0°C / Max +90°C	1
75		Fuse holder 5x20mm	Wickmann	521			2
76		DIP 28P					1
77		rubber foot ø10x4mm					4