










WiFi Quad Relay Board Version 0.3 Bill of Materials

S.No	Name	Value/Part Number	Package/Pitch	Designator	Description	Quantity	Remark	Image
1	Terminal Block (Through Hole)	Two Pin	5mm pitch	AC IN	Two Pin 5mm Pitch Terminal Block	1		
2	Capacitor (SMD)	100uF	D case, 7343	C2, C4, C6	Tant Capacitor polarized	3	On pcb there will be dot,& dark orange line on capacitor (positive) should come on the side of this dot.	
3	Capacitor (SMD)	0.1uF	0805	C3, C5, C7, C11, C12	Nonpolarized Capacitor	5		
4	Capacitor (SMD)	22pF	0805	C8, C9	Nonpolarized Capacitor	2		
5	Capacitor (SMD)	10uF	0805	C10	Nonpolarized Capacitor	1		
6	Diode (SMD)	MBRS0540	SOD123	D2, D4, D6, D7, D10, D11	Diode	6	White line (cathode) of diode should come on the side of the dot.	
7	LED (SMD)	Green Colour	0805	D3, D5, D8, D9, D12, D13, D14	Green Colour LED	7		
8	Header (Through Hole)	6X2 Dual Row	2.54 mm pitch	J2	Header, 6-Pin, Dual row Male	1		
9	Header (Through Hole)	15X1 Single Row	2.54 mm pitch	J8, J7	Header, 15-Pin, Single row Male	2		
10	Terminal Block (Through Hole)	Three Pin	5mm pitch	J3, J4, J5, J6	Three Pin 5mm Pitch Terminal Block	4		
11	Transistor (SMD)	S8050	SOT-23	Q1, Q2	NPN transistor	2		
12	Transistor (SMD)	MMBT3904	SOT-23	Q3, Q4, Q5, Q6	NPN transistor	4		
13	Resistor (SMD)	221E	Resistor	R3	Resistor	1		
14	Resistor (SMD)	365E	Resistor	R4	Resistor	1		
15	Resistor (SMD)	470E	Resistor	R5, R6, R8, R17, R18	Resistor	5		
16	Resistor (SMD)	0E	Resistor	R7, R29	Resistor	2		
17	Resistor (SMD)	12K	Resistor	R9, R10, R11, R12, R13, R16, R19	Resistor	7		
18	Resistor (SMD)	220K	Resistor	R14	Resistor	1		
19	Resistor (SMD)	100K	Resistor	R15	Resistor	1		
20	Resistor (SMD)	680E	Resistor	R20, R21, R22, R23, R24, R25, R26, R27, R28, R30	Resistor	10		

21	Relay (Through Hole)	RWH SH 105D	RW/RWH Relay	RLY1, RLY2, RLY3, RLY4	Relay input 5VDC , Output upto 230V 5 Amps	4		
22	Tack Switch (SMD)	PTS820 J25 SMTR LFS	4mm pitch	S1 S2	PTS 820 Series Microminiature SMT Top Actuated	1		
23	Power Supply Module (Through Hole)	HLK-PM01		U1	AC To DC Power Supply 5V 3Watt	1		
24	Regulator (SMD)	LM317	SOT-223	U2	Regulator 1 Amp	1		
25	Wifi Module (SMD)	ESP12 E/F	ESP_12_E/F	U3	ESP-12 Wi-Fi Module by AI-Thinker	1		
26	USB-UART Converter (SMD)	CH340G	SOP-16	U4	CH340G USB to serial (UART) bridge	1		
27	USB Micro Connector (SMD, Through Hole)	USB_Micro_5S_B	USB_Micro_5S_B	U5	USB micro female SMT with 4 fixed foot	1		
28	Opto Coupler (Through Hole)	PC817A	DIP 4 Pin	U6, U7, U8, U9	Opto coupler for isolation	4		
29	CRYSTAL (SMD)	12.00MHz HC49/US	ABLS-12MHz	XT1	HC/49US (AT49) SMD LOW PROFILE CRYSTAL 11.5 x 4.7 x 4.2 mm	1		
30	Jumpers (Through Hole)	Sealed Jumper	2.54mm pitch			5		