Comment	Description	Designator	Footprint	LibRef	Quantity
IPEX-U.FL-R	RF Antena	ANT1	IPEX Connector SMD	IPEX-U.FL-R	1
CR2032	CR2032 Battery	B1	CR2032-SMD-Thick	CR2032	1
LED-BLUE	Blue Light Emiter Diode	BOOT1, L1, L2	LED-0603-BLUE	LED-Blue	3
Buzzer	Voltage Rate 5V, Current 50mA	BZ1	AST0927MW-03TRQ	Buzzer	1
100nF	Ceramic Capacitor	C1, C2, C3, C4, C12, C13, C14, C18, C19, C20, C23	C0805	CAP-CER	11
1uF	Ceramic Capacitor	C5, C9, C10	C0805	CAP-CER	3
100uF	Ceramic Capacitor	C6	C0805	CAP-CER	1
1uF	Aluminum Capacitor	C7, C8	CAP-AL-4x5.4	CAP-ALU	2
10uF	Aluminum Capacitor	C11	CAP-AL-4x5.4	CAP-ALU	1
100nF	Ceramic Capacitor	C15, C22	C0603	CAP-CER	2
1uF	Ceramic Capacitor	C16, C21	C0603	CAP-CER	2
470uF	Aluminum Capacitor	C17	CAP-AL-4x5.4	CAP-ALU	1
1N4148WS	Small Signal Diode	D1, D2, D3, D4, D6, D7	SMA	1N4148WS	6
Schottky Diodes	Schottky diodes	D5	SMA	Diode_Schottky	1
MF-MSMFxx	MF-MSMF Series - PTC Resettable Fuses	F1	Fuse-1808	Fuse	1
KEYPAD	Connector 5 Pole	H1	XH-2.54-5P	CONN-5P	1
220VAC	Connector 5.08MM Pitch Vertical 2 Pole	H2	KF301-2-V	KF301-2-V	1
12VDC	Connector 5.08MM Pitch Vertical 2 Pole	H3	KF301-2-V	KF301-2-V	1
FAN	Connector 2 Pole	H4	XH-2.54-2P	CONN-2P	1
UART	Connector 4 Pole	H5	XH-2.54-4P	CONN-4P	1
IIC	Connector 4 Pole	H6	XH-2.54-4P	CONN-4P	1
RL1	Connector 5.08MM Pitch Vertical 2 Pole	H7	KF301-2-V	KF301-2-V	1
RL2	Connector 5.08MM Pitch Vertical 2 Pole	H8	KF301-2-V	KF301-2-V	1
RL3	Connector 5.08MM Pitch Vertical 2 Pole	H9	KF301-2-V	KF301-2-V	1
RL4	Connector 5.08MM Pitch Vertical 2 Pole	H10	KF301-2-V	KF301-2-V	1
IO17	Blue Light Emiter Diode	IO1	LED-0603-BLUE	LED-Blue	1
3V3	Blue Light Emiter Diode	L3	LED-0603-BLUE	LED-Blue	1
S8050	NPN Transistors 0.5A Collector to Emitter 25V	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	SOT-23	S8050	8
560R	Resistor	R1, R3, R5, R15, R16, R33, R34, R35, R36	R0603	Resistor	9
1K	Resistor	R2, R4, R6, R11, R14, R30, R37	R0603	Resistor	7
10K	Resistor	R7, R8	R0805	Resistor	2
10K	Resistor	R9, R10, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R31, R32	R0603	Resistor	15
5.1K	Resistor	R12, R13	R0603	Resistor	2
10R	Resistor	R17	R0603	Resistor	1
2K2	Resistor	R18	R0603	Resistor	1
HF46F	Relay 4 Pin	RL1, RL2, RL3, RL4	HF-46-X	HF46F	4
BOOT	Tactile Switch 2 pole	S1	BTN-SMD-3x6	Button-2P	1
EN	Tactile Switch 2 pole	S2	BTN-SMD-3x6	Button-2P	1
ANT	Test Point	TP1	Test Point	TestPoint	1
3V3	Test Point	TP2	Test Point	TestPoint	1
VBUS	Test Point	TP3	Test Point	TestPoint	1
TXD	Test Point	TP4	Test Point	TestPoint	1
RXD	Test Point	TP5	Test Point	TestPoint	1
SCL	Test Point	TP6	Test Point	TestPoint	1
SDA	Test Point	TP7	Test Point	TestPoint	1
RFM95/96/97/98	The RFM95/96/97/98(W) transceivers feature the LoRaTM long range modem that provides ultra-long range spread spectrum communication and high interference immunity whilst minimising current consumption.	U1	LORA RFM95/96/97/98W	RFM95/96/97/98 LORA Module	1
AMS1117	Regulator intergated chip	U2	SOT-223	AMS1117	1
CH340C	USB to UART bridge CH340-G-C-B	U3	SOP-16	CH340-16P	1
DS1307	Realtime Clock IC	U4	SOIC8	DS1307	1
AT24CxxD	I2C Serial EEPROM	U5	SOIC8	AT24CxxD	1
HLK-Hilink 24/12/5V 10W	Module AC to DC 220AC-24/12/5VDC 10W	U6	HLK-HiLink AC-DC 10W	HLK-Hilink 24/12/5V 10W	1
ESP32-WROOM-32	ESP32 powerful micro controller CHIP	U7	ESP32-WROOM-32	ESP32-WROOM-32	1
TYPE-C CONNECTOR	16P USB TYPE-C CONNECTOR	USB1	USB-C-H-K-16P	USB-C-F-16P	1
16Mhz	Crystall 3Pin Capacitor Intergrated	XTAL1	Crystal 5032	CRYSTAL-4P	1
32.768Khz	Crystall 2Pin Capacitor Intergrated	XTAL2	CRYSTAL DT38	CRYSTAL-2P	1
PHOTOCOUPLER	Photo-Coupler	Y1, Y2, Y3, Y4	SOP-4	PC817	4