



Title		
Size	Number	Revision
A2		
Date: 30/10/2025	Sheet of	
File: C:\Users\front-end.SchDoc		Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
1K		1k, R8, R9	RES_ERJU08J274V	ERJU08J274V	3
		1.2k, 1.2k, 1.2k, 1.2k, 150r, 150r, 470r, 470r, R1	RES_ERJU08J274V	ERJU08J274V	9
LQM21PN3R3MGRD	0805 Multilayer Type (Ferrite Core) for Power lines	1.6u, 1.6u, 1u, LG1, Lhd1, Lhd2, LSP1, LSP2	INDC2012X100N	LQM21PN3R3MGRD	8
Cap Pol3	Polarized Capacitor (Surface Mount)	1.8n, 1.8n, 1uF, 1uF, 100n, 100n, 100n, 220n, 220n, 220n, 220n 430p, 430p, C8, CF9, CF10, CF11, CF11, CF12, chd1, chd2	C0805	Cap Pol3	22
ERJU08J154V	1206 anti-sulfurated resistor 1206 Anti- Sulfurated	5k, 5k, 10k, 10k, 100r, 100r, R8, R9, RD1, RD1, Rhd1, Rhd2	RES_ERJU08J154V	ERJU08J154V	12
PT01-D120D-B104	10 mm, Vertical, Linear, 100 kÙ, Through Hole, D-cut Rotary Potentiometer	10k	TRIM_PT01-D120D-B104	PT01-D120D-B104	1
PCM1808PWRG4	99dB SNR Stereo ADC With Single-Ended Inputs 14-TSSOP -40 to 85	ADC1	SOP65P640X120-14N	PCM1808PWRG4	1
Header 2	Header, 2-Pin bat, IO-in, SP1		HDR1X2	Header 2	3
TL072CDT	Dual Low-Noise JFET- Input General-Purpose Operational Amplifier 8 SOIC 0 to 70	BBA1	SOIC127P600X175-8N	TL072CDT	1
Cap Semi	Capacitor (Semiconductor SiM Model)	CA1, CA2, CA3, CA4, CA5, CAu1, CAu2, CLO1, CLO2	C1206	Cap Semi	9
LED2	Typical RED, GREEN, YELLOW, AMBER GaAs LED	CRG, STDBY	3.2X1.6X1.1	LED2	2
PT8211	8 Pin, DIP, 300mil	dac1	SOP8-6.0-4.9X3.9	PT8211	1
D Tunnel1	Tunnel Diode - RLC Model	DB1, DG1	3.2X1.6X1.1	D Tunnel1	2
PEC11R-4215F-S0024	Incremental Encoder, 12 Mm, Contact Rating 10 Ma - 5 Vdc	XDCCR_PEC11R-4215F- S0024	S0024	PEC11R-4215F-S0024	1
SJ-3523-SMT	3.50mm (0.141, 1/8, Mini Plug).- Headphone Phone Jack Stereo (3 Conductor, TRS) Connector Solder headphones, IQ		CUI_SJ-3523-SMT	SJ-3523-SMT	2
Header 3	Header, 3-Pin J1		HDR1X3	Header 3	1
PJ-050AH	2.0 x 6.0 mm, 5.0 A, Horizontal, Through Hole, Pick-n-Place Top, De Power Jack Connector	J1	CUI_PJ-050AH	PJ-050AH	1
SI5351A-B-GT	I2C Prog, Any Frequency, Any Output, Xtal Ref, 3- Output LVCMOS Clock Gen	Io1	SOP50P490X110-10N	SI5351A-B-GT	1
Header 14	Header, 14-Pin P1		HDR1X14	Header 14	1
PAM8403DR	Amplifier IC 2-Channel Stereo, Class D 16- SOP	PAM8403	SOIC127P605X150-16N	PAM8403DR	1
boot	Switch Pushbutton,Tac tile,SPST,Thru Hole,Vertical,6MM,Blac k,TE Connectivity FSMBJH	prg	SW_FSM8JH	FSM8JH	1
Header 6H	Header, 6-Pin, Right Angle	PRG	HDR1X6H	Header 6H	1
MMBT3904	BJT, SOT-23, 40V, 200mA, NPN, 0.35W, 150°C	QA1, QA2	TRANS_MMBT3904	MMBT3904	2
Component_1	RF-transformer	rf-tr1, rf-t2, rf-tr3, rf- tr4, rf-tr5	RF-transformer	Component_1	5
Component_1	Ring1, Ring2	SA1	TRANS_BFP183E7764HT	Component_1	2
FSM8JH	Switch Pushbutton,Tac tile,SPST,Thru Hole,Vertical,6MM,Blac k,TE Connectivity FSMBJH	RST, S1, S2, S3	SW_FSM8JH	FSM8JH	4
EG1247	Slide Switch SPDT Through Hole, Right Angle	S1	SW_EG1247	EG1247	1
60312242114510	RF COAX CONN, SMA JACK, 50 OHM, PCB,	sma?	60312242114510	60312242114510	1
TP4056	Complete single cell Li- ion battery with a constant current / constant voltage linear charger	TP4056	SOP127P600X175-9N	TP4056	1
AP2111H-3.3TRG1	Voltage Regulators, LDO, 600mA CMOS LDO 50mA 3.3V 250mV/ 3.3TRG1	U1	SOT230P700X180-4N	AP2111H-3.3TRG1	1
MC78M05ABDTG	Bluetooth, WiFi 802.11b/g/n, Bluetooth v4.2 +EDR, Class 1, 2 and 3 Transceiver Module, 2.4GHz - 2.5GHz Antenna Not Included, U.FL Surface Mount	U2	VREG_MC78M05ABDTG	MC78M05ABDTG	1
ESP32-WROOM-32	Bluetooth, WiFi 802.11b/g/n, Bluetooth v4.2 +EDR, Class 1, 2 and 3 Transceiver Module, 2.4GHz - 2.5GHz Antenna Not Included, U.FL Surface Mount	UC1	MODULE_ESP32- WROOM-32	ESP32-WROOM-32	1
UJC-HP-3-SMT-TR		usbc	CUI_UJC-HP-3-SMT-TR	UJC-HP-3-SMT-TR	1
ABM8-25.000MHZ-10- D1G-T	25 MHz A±10ppm Crystal 10pF 50 Ohms 4- SMD, No Lead	Y2	Xtal_ABM8-25.000MHz- 10-D1G-T	ABM8-25.000MHz-10- D1G-T	1