

Reference	Qty	Value	Description
A1	1	RaspberryPi_Pico	MCU
C1,C2,C3,C5,C8,C10,C11,C15,C20,C27,C39	11	100n	Supply decoupling
C4,C6,C7,C9,C14,C19,C21,C26,C28,C29,C35	11	10u	Supply line smoothing, audio output coupling
C12,C13,C16,C17,C18,C22,C23,C24,C25,C30,C31,C32,C33,C34,C36,C37,C38	17	1n	1 nF audio filter capacitor
D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13,D15,D16,D17,D18,D19,D20,D21,D22,D23,D24	23	1N4148	General-purpose signal/rectifier diode
D14	1	5.6V 1N5338	5.6 V Zener Supply voltage protection
D25,D26	2	1N5818	Schottky Supply polarity protection
F1	1	1.1A 60R110XU	Overcurrent protection
J1,J2,J4,J22	4	Conn_01x04_Pin	Off-board connectors and jumpers
J7	1	Conn_01x10_Pin	
J8,J10,J13,J17	4	Conn_01x06_Pin	
J9,J12,J14,J15,J18	5	Conn_01x02_Pin	
J11	1	Conn_01x08_Pin	
JP1,JP2,JP3,JP4,JP7	5	Jumper_3_Open	
JP5.1, JP5.2	2	Jumper_2_Open	
J3	1	DE15_Socket_HD_MountingHoles	VGA output connector
J5	1	Micro_SD_Card_Det_Hirose_DM3AT	SD card memory storage
J6	1	Mini-DIN-6	PS/2 keyboard connector
J16	1	CUI/SameSky SJ1-3525	Stereo audio output connector
J19,J20	2	Conn_01x04_MountingPin	STEMMA QT connectors
J21	1	Barrel_Jack_Switch	DC power supply connector
Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9	9	2N7000	I2C and PS/2 level shifting. LCD backlight switch
R1,R6,R9,R12,R13,R14,R17,R18 (nom),R21,R22,R23,R24,R27,R58	14	220R	inc Rtune (220R nominal)
R2,R3,R4,R5,R7,R8,R10,R11,R15,R16,R19,R20,R25,R26,R29,R34,R35,R36,R37,R38,R39,R43,R49,R50,R51,R52,R53,R54,R55,R57,R60	31	10k	
R28,R45,R48	3	470R	
R30,R31,R32,R33,R40,R41,R42,R44,R46,R47,R56,R59	12	3k3	
RV1	1	10k	
U1	1	SN74LV4066ADR	VGA palette shifter
U2	1	LM4040LP-3	Analog voltage reference
U3,U6	2	PCF8574AP	I2C system configuration DIO. Internal LCD interface. Palette shifter +spare DIO
U4,U5	2	LD1117V33C	3.3 V linear regulator. Audio output/Analogue input circuits. Internal 3.3 V rail
U7,U8	2	MCP6489	Quad op-amp. Audio output filter. Analog input and ADC voltage reference output buffer
U9,U10	2	LM4871	Audio class AB output amplifier
U11	1	LM7805_TO220	Linear 5 V regulator. Input power regulation
Alternative: I/O protection zeners			
D9,D10,D11,D12,D13,D17,D20,D24	8	1N5226BTR	3.3 V Zener diode
D4,D5,D6,D7,D8,D15,D19,D21	8	DNF	
D1,D2,D3,D16,D18,D22,D23,	7	1N4148	General-purpose signal/rectifier diode