



Title		Revision	
Size	Number		
A2			
Date:	12/19/2023	Sheet of	
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Comment	Description	Designator	Footprint	LibRef	Quantity
PWR2.5	Low Voltage Power Supply Connector	1	DCJACK	PWR2.5	1
12MHz	[NoValue] Surface Mount Quartz Crystal	12, 12M	HC49/4H_SMX	XTAL_HC49/4H_SMX	2
18.432MHz	Surface Mount Quartz Crystal	18	HC49/4H_SMX	HC49/4H_SMX	1
Jack_mono_ear	Jack Socket, 1/4" (6.5mm), Thru-Hole, Vertical, 2-Conductor Open Circuit	Audio In	AUDIOJACK_MANU	Phonejack2	1
Jack_stereo	Jack Socket, 1/4" (6.5mm), Thru-Hole, Vertical, 3-Conductor Open Circuit (Non-Normaling)	Audio out	AUDIOJACK_MANU	Phonejack3	1
220uF	Polarized Capacitor (Radial)	C1	smd_elec6mm	CapPol1	1
100nF	Capacitor (Semiconductor SIM Model), CAP0805 100nF	C2, C4, C16, C19, C22, C27, C28, C29, C30, C34, C36, C37	cap0603_manu3d	Cap Semi, Cap	12
10nF	Capacitor (Semiconductor SIM Model), CAP0805 10nF	C3, C24	cap0603_manu3d	Cap Semi	2
10uF/16v	Polarized Capacitor (Radial)	C5	smd_elec3.5mm	CapPol1	1
2u2	C33	C6, C7	cap0603_manu3d	Cap	2
2n2	C33	C8, C39	cap0603_manu3d	Cap	2
10uF	Capacitor (Semiconductor SIM Model)	C10, C11, C12, C13	SM0805	C	4
100uF	Capacitor (Semiconductor SIM Model)	C14, C15	cap0603_manu3d	Cap Semi	2
18pF	Capacitor (Semiconductor SIM Model), CAP0805 18pF	C17, C18, C32, C33	cap0603_manu3d	Cap Semi	4
10uF	CAP0805 10uF, CAP0805 18pF	C20, C21, C31	cap0603_manu3d	Cap Semi	3
1nF	CAP0805 1nF	C23, C25	cap0603_manu3d	Cap Semi	2
4.7uF	CAP0805 2U2	C26	cap0603_manu3d	Cap Semi	1
SW_PB	Switch	RST, OSD	LACTSWITCH160	SW_PB	2
BZ84C5V1		D1	SOT23	ZENER_SOT23	1
BAT54W5-7-F	Diodes Inc BAT54W5-7-F, SMT Schottky Switching Diode, 30V 200mA Sns, 2-Pin SOD-323	D2, D3	SOD2513X120N	BAT54W5-7-F	2
Header 2	Header, 2-Pin	FRASH, ON/OFF, VGA 5V	Pin_2v_2.56	Header 2	3
Connector 40X2		Expansion port	DIP80	Connector 40X2	1
PCM5102APWR	2VRMS DirectPath, 112dB Audio Stereo DAC with 32-bit, 384kHz PCM Interface	IC1	SOP65P640X120-20N	PCM5102APWR	1
USB		J1	Micro_usb_manu	USB	1
RGB	DS1038-15F8NSA74	J2	VGA	D Connector 15	1
JOYSTICK	DS1037-09M	Joy1, Joy2	DSUB1.385-24HR	D Connector 9	2
DUAL USB-A		JP1, JP2	USB_STACK	USB-A_DUAL	2
Header 6	Header, 6-Pin	JP7, JP8	HDR1X6	Header 6	2
BR		JTAG	Resistor_bridge	Res2	1
Inductor		L1, L2	RES0603_manu3d	Inductor	2
LED3	Typical BLUE SMD LED	POWER	LED0805_manu	LED3	1
CMPT004LSN-7		C1, C2	SOT23	MOUSE1_P	2
NMMS8550H		O3	SOT23	BC256AL	1
30K		R1, R5	RES0603_manu3d	RES	2
330R		R2	RES0603_manu3d	RES	1
100K		R3, R55	RES0603_manu3d	RES	2
6k8		R4, R6	RES0603_manu3d	RES	2
2K	1K	R7	RES0603_manu3d	Res2	1
20K	200R, 10K	R8, R12	RES0603_manu3d	Res2	2
22K	1K	R9, R13	RES0603_manu3d	Res2	2
470R	4k7	R10, R11	RES0603_manu3d	Res2	2
22R	510R, Resistor, RES0805 22R	R14, R68, R70, R71, R77	RES0603_manu3d	Res2, Res3	5
0	0603	R15	Resistor_bridge	Res2	1
220R	75R	R16, R79	RES0603_manu3d	Res2	2
110K	1K	R17	RES0603_manu3d	Res2	1
510R	510R, [NoValue]	R18, R20, R22, R24, R26, R28, R32, R34, R36, R40, R43, R45, R49, R51, R53, R56, R58, R60, R64, R66, R66, R67	RES0603_manu3d	Res2, RES	22
255R	255R	R19, R21, R23, R25, R27, R29, R33, R35, R37, R41, R44, R46, R50, R52, R54, R57, R59, R61	RES0603_manu3d	Res2	18
10K SM0603		R30	RES0603_manu3d	RES	1
Res3	Resistor, RES0805 22R	R31, R38, R42, R78	RES0603_manu3d	Res3	4
5k6		R39	RES0603_manu3d	RES	1
47K		R47	RES0603_manu3d	RES	1
2k7		R48	RES0603_manu3d	RES	1
10K		R62	RES0603_manu3d	RES	1
1k5	Resistor, RES0805 1k5	R63, R75, R76	RES0603_manu3d	Res3	3
4k7	Resistor, RES0805 4k7	R69, R72, R73, R82, R83, R84, R85	RES0603_manu3d	Res3	7
220	Resistor	R74	RES0603_manu3d	Res3	1
100R	75R	R80, R81	RES0603_manu3d	Res2	2
SW_PB	Switch	RESET	SWITCH1	SW_PB	1
ROJO	Typical RED, GREEN, YELLOW, AMBER GaAs LED	SD	LED0805R	LED2	1
SD_CARD		SD1	sdsocet	SD_CARD	1
Header 4	Header, 4-Pin	Serial port FPGA, Serial port MCU	HDR1X4	Header 4	2
NC522525N2T1G	Single OPEN DRAIN OUTPUT	T1	SOT99P275X110-5N	NC522525N2T1G	1
IRLML6402	HEXFET Power MOSFET	T2	SOT23_L	IRLML6302	1
NCP390LSNAJAT1G		U1	SOT23-4LEAD	NCP390LSNAJAT1G	1
FE2.1		U2	LQFP48	FE2.1	1
MAX3421E	MAX3421E	U3	LQFP15	MAX3421E	1
Connector 32x2		U4, U5	DIPx4	Connector 32x2	2
AT91SAM7S256-AU-001	AT91 ARM Thumb-based 32-bit Microcontroller, 256KB Flash, 64KB SRAM, 64-Pin LQFP, 11-ch, PDC, Industrial Grade (-40°C to 85°C), Pb-Free	U6	LQFP64_N	AT91SAM7S256-AU-001	1
GREEN		USB1, USB2, USB3, USB4	LED0805_manu	LED	4
LED3	Typical BLUE SMD LED	YELLOW	LED0805R	LED3	1