

Item #	*Ref Des	*Qty	Manufacturer
1	U1	1	TonTek
2	U2,U3	2	Nexperia
3	U4	1	Nexperia
4	U5	1	Nexperia
5	U6	1	Microchip Technology
6	U7, U12	2	Microchip Technology
7	U8	1	Microchip Technology
8	U9	1	Microchip Technology
9	U10	1	ETC
10	U11	1	Texas Instruments
11	D1,D2	2	Infineon Technologies
12	D3	1	Wurth Elektronik
13	X1	1	any
14	X2	1	any
15	X3	1	any
16	L1,L2	2	Bourns
17	C1,C2,C3,C9,C10,C7,C8	7	any
18	C5,C12	2	any
19	C22,C38	2	any
20	C6,C13,C20,C21,C23, C24,C25,C26,C27,C28,C30,C32,C3 3,C35	14	any
21	C29,C36,C37	3	r
22	C14	1	any
23	C11	1	any
24	C4	0	any
25	C15,C16,C17,C18,C19,C31,C34	7	any
26	R1,R5,R11,R13	4	any
27	R12,R14,R18,R19	4	any
28	R17	1	any
29	R3,R4,R7,R8,R15,R16	6	any
30	R2,R6,R9,R10,R20,R21,R22	7	any
31	Y3, Y7	2	CUI Devices
32	P1,P2,P3,P4	4	Amphenol Piher
33	J1	1	Amphenol Commercial Products
34	Y1, Y2	2	PEM

## OpenTheremin V4.1 BOM (Bill of Materials)

*Mfg Part #	Description / Value
TTP223E-BA6	TonTouch, key touch pad detector IC
74HC4060D	14-STG RC BINARY COUNTER
74HC74D	Flip-Flops DUAL D-TYPE POSITIVE EDGE-TRIG
HEF4069UBT	HEX INVERTER
MCP4921T-E/SN	DAC Sgl 12-bit SPI int
MCP4922T-E/SL	DAC Dual 12-bit SPI int
MCP6002T-I/SN	OpAmp Dual 1.8V 1MHz
ATMEGA328P-AU	8-bit Microcontrollers - MCU 32KB, 20MHz 1.8V-5.5V
CH340G	USB to serial chip
LP2985-33DBV	LDO Voltage Regulators 3.3V, 150-mA Low-Noise
BB 914 E6327	Varactor Diodes 50mA Silicn Variable Capacitance Diode
156125RB73000	Reverse SMD BiColor LED Blue / Red, WL-SBRW
Crystals 16.000MHz +/-30ppm 18pF	Crystals
Crystals 7.37280MHz +/-30ppm 18pF	Crystals
Crystals 12.000MHz +/-30ppm 18pF	Crystals
CC453232A-102KL	Coil, 1mH UH 10%, 40 Ohms
150pF 50V NPO 5%	Capacitor
470pF 50V NPO 5%	Capacitor
10nF 16 V X7R 5%	Capacitor
100nF 25V X7R 10%	Capacitor
10uF 6.3V X5R 10%	Capacitor
47pF 50V NPO 5%	Capacitor
10pF 50V NPO 5%	Capacitor
NOT ASSEMBLED	
22pF 16 V X7R 5%	Capacitor
4.7M OHM 1%	Resistor
470 OHM 1%	Resistor
10K OHM 1%	Resistor
100K OHM 1%	Resistor
2.2k OHM 1%	Resistor
SJ-3524-SMT-TR	Phone Connectors Audio Jacks, 3.5mm SMD
PS15NV60-103A3030-PM	SMD POT 10K OHM LINEAR
12401610E4#2A	USB_C_Receptacle_Amphenol_12401610E4-2A
SMTSOB-M3-2ET	BRASS SMT STANDOFF M3 L:2MM

23/08/21

*Package	Type	Your Instructions / Notes
SOT-23-6	SMD	
SOIC-16_N	SMD	
SOIC-14_N	SMD	
SOIC-14_N	SMD	
SOIC-08_N	SMD	
SOIC-14_N	SMD	CUSTOMER SUPPLIED PART
SOIC-08_N	SMD	
TQFP-32_7x7mm_P0.8mm	SMD	
SOIC-16_3.9x9.9mm_P1.27mm	SMD	
SOT-23-5	SMD	
SOT-23	SMD	
DualLED	SMD	
Crystal_HC49-SD_SMD 13.4 x 4.9 x 4.3mm	SMD	
Crystal_HC49-SD_SMD 13.4 x 4.9 x 4.3mm	SMD	
Crystal_HC49-SD_SMD 13.4 x 4.9 x 4.3mm	SMD	
COIL	SMD	
603	SMD	MUST BE C0G (NP0)
603	SMD	MUST BE C0G (NP0)
603	SMD	
603	SMD	
603	SMD	
603	SMD	MUST BE C0G (NP0)
603	SMD	MUST BE C0G (NP0)
603	SMD	
603	SMD	MUST BE C0G (NP0)
603	SMD	
603	SMD	
603	SMD	
603	SMD	
603	SMD	
603	SMD	
603	SMD	
PLUG3_5_SMD	SMD	
SMD POT	SMD	
USB_C_Receptacle	SMD	
Hardware	SMD	