

Audio Tone Burst Generator using AD9833 by Jed Margolin 10/08/2021

Bill of Materials

Board: gen9833-r3

<u>RefDes</u>	<u>Value</u>	<u>Description</u>	<u>Lead Spacing</u>
C1	470uF	Capacitor, Electrolytic	0.2"
C2	0.1	Capacitor, Monolithic Ceramic	0.1"
C3	0.1	Capacitor, Monolithic Ceramic	0.1"
C4	10uF	Capacitor, Electrolytic	0.1"
C5	0.1	Capacitor, Monolithic Ceramic	0.1"
C6	0.1	Capacitor, Monolithic Ceramic	0.1"
C7	10uF	Capacitor, Electrolytic	0.1"
C8	0.1	Capacitor, Monolithic Ceramic	0.1"
C9	100uF	Capacitor, Electrolytic	0.2"
C10	0.1	Capacitor, Monolithic Ceramic	0.1"
C11	0.1	Capacitor, Monolithic Ceramic	0.1"
C12	1000pF	Capacitor, Mylar 5%	0.1"
C13	0.1	Capacitor, Monolithic Ceramic	0.1"
C14	0.1	Capacitor, Monolithic Ceramic	0.1"
C15	0.1	Capacitor, Monolithic Ceramic	0.1"
C16	1000pF	Capacitor, Mylar 5%	0.3"
C17	1000pF	Capacitor, Mylar 5%	0.3"
C19	0.1	Capacitor, Monolithic Ceramic	0.1"
C20	0.1	Capacitor, Monolithic Ceramic	0.1"
C21	1000uF	Capacitor, Electrolytic	0.2"
C22	10uF	Capacitor, Electrolytic	0.1"
C23	10uF	Capacitor, Electrolytic	0.1"
C24	0.1	Capacitor, Monolithic Ceramic	0.1"
C25	10uF	Capacitor, Electrolytic	0.1"
D1		Green LED	

J1	HDR-1x4	Male Pin Header (Launchpad Development)	From 40-pin snappable male header
J2	HDR-1x6	Male Pin Header (Outputs)	
J3	HDR-1x7	Female Header (For AD9833)	Cut from 16-pin female
J4	HDR-1x2	Male Pin Header (Sync to 'Scope)	

LCD1 LCD1602

16-position male pin header short 0.1" (LCD1602)

16-position female header 0.1" (PCB)

(4) nylon standoffs M3 x 10mm

eBay

(4) nylon washers M3 x 6 x 1

eBay

(4) M3 x 6 screws

eBay

PB1 Push Button Switch, PCB, 6*6*4.3mm, 4-pin

eBay

PB2 Push Button Switch, PCB, 6*6*4.3mm, 4-pin

eBay

PB3 Push Button Switch, PCB, 6*6*4.3mm, 4-pin

eBay

PB4 Push Button Switch, PCB, 6*6*4.3mm, 4-pin

eBay

R1	220K	1/4W 5%	RES400
R2	680	1/4W 5%	RES400
R3	330	1/4W 5%	RES400
R4	200	3362P Trimpot	3362P
R5	100	1/4W 5%	RES400
R6	100K	1/4W 5%	RES400
R7	100K	1/4W 5%	RES400
R8	10K	1/4W 5%	RES400
R9	47K	1/4W 5%	RES400
R10	10K	1/4W 5%	RES400
R11	10K	1/4W 5%	RES400
R12	10K	1/4W 5%	RES400
R13	1K	3362P Trimpot	3362P
R14	10	1/4W 5%	RES400
R15	10K	1/4W 5%	RES400

R16	3.3K	1/4W 5%	RES400
R17	220	1/4W 5%	RES400
R18	10K	1/4W 5%	RES400
R19	10K	3362P Trimpot	3362P
R20	100	1/4W 5%	RES400

SW1	SPDT	eBay
SW2	SPDT	eBay
SW3	SPDT	eBay

The SPDT switch pins are on 0.1" centers.

They are really inexpensive on eBay where they are called

"SS12D00G3 2 Position SPDT 1P2T 3 Pin PCB Panel Slide Switch".

U1	7805	5.0V Regulator T0220
U2	LM317AT	Voltage Regulator, Adjustable
U3	TL082CP	Dual Op Amp
U4	MSP430G2402IN20	Microcontroller (8K Program Memory)
or	MSP430G2302IN20	Microcontroller (4K Program Memory)
U5	LM386N-1	Amplifier

AD9833 Module

IC Sockets with Machine-Tooled Pins

(2) 8-pin	For TL082CP and LM386N-1
(1) 20 pin	For MSP430G2402

Standoffs for the board

(4) M3 x 18 Nylon Standoffs	eBay
(4) M3 x 6 Screws	eBay