Subwoofer Test Generator
Jed Margolin

RefDes	Value	Description	Lead Spacing
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	1000pF	Capacitor, Monolithic Ceramic	0.1"
C9	0.1	Capacitor, Monolithic Ceramic	0.1"
C10	100uF	Capacitor, Electrolytic	0.2"
C11	0.1	Capacitor, Monolithic Ceramic	0.1"
C12	0.1	Capacitor, Monolithic Ceramic	0.1"
C13	10uF	Capacitor, Electrolytic	0.1"
C14	10uF	Capacitor, Electrolytic	0.1"
C15	0.1	Capacitor, Mylar 5%	0.3"
C16	0.1	Capacitor, Mylar 5%	0.3"
C17	10uF	Capacitor, Electrolytic	0.1"
C18	0.1	Capacitor, Monolithic Ceramic	0.1"
C19	10uF	Capacitor, Electrolytic	0.1"
C20	0.1	Capacitor, Monolithic Ceramic	0.1"
C21	1000uF	Capacitor, Electrolytic, 25V	0.2" (10x20)
C22	0.1	Capacitor, Monolithic Ceramic	0.1"

D1	LED	

LCD1   LCD1602   16 x 2 LCD Panel
16-position male pin header short 0.1"
16-position female header 0.1"
(4) nylon standoffs M3 x 10mm
(4) nylon washers
(4) M3 x 6 Screws

PB1   Push Button Switch, PCB, 6*6*4.3mm, 4-pin
PB2   Push Button Switch, PCB, 6*6*4.3mm, 4-pin
PB3   Push Button Switch, PCB, 6*6*4.3mm, 4-pin
PB4   Push Button Switch, PCB, 6*6*4.3mm, 4-pin

R1	220K	1/4W 5%
R2	10K	1/4W 5%
R3	47K	1/4W 5%
R4	47K	1/4W 5%
R5	100K	1/4W 5%
R6	100K	1/4W 5%
R7	6.2K	1/4W 5%
R8	6.2K	1/4W 5%
R9	18K	1/4W 5%
R10	1K	3362P Trimpot

R11	10	1/4W 5%
R12	100	1/4W 5%
R13	10K	3362P Trimpot
R14	100	1/4W 5%
R15	100	1/4W 5%

SW1	SPDT
SW2	SPDT
SW3	SPDT

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	5V Regulator TO220
U2	LD1117-3.3V	3.3V Regulator TO220
U3	TL062CP	OpAmp
U4	MSP430G2402	Microcontroller
U5	MCP4921	PDIP
Or		
U6	MCP4921	SOIC
U7	LM386N-1	Amplifier

IC Sockets with Machine-Tooled Pins
(3) or (2) 8-pin
(1) 20 pin

Standoffs for the board
(4) M3 x 18 Nylon Standoffs
(4) M3 x 6 Screws

J1	HDR-1x4
J2	HDR-1x6

(1)	Jumper plug (for /RST to /Reset)