

Four Days in May 2022 Buildathon BOM
Parts for building @ FDIM
in suggested assembly order

.1uf .2" spacing capacitor (mount from underside of board between the 2 14 pin DIP IC sockets)

18pin DIP IC socket @ U1 match orientation of socket with silk screen

14pin DIP IC socket QTY=2 @ U2 & U3 match orientation of socket with silk screen

8pin DIP IC socket @ U4 match orientation of socket with silk screen

2X7X.1" male header connector @ OUTPUT POWER

2x7x.1" female header connector @ LPF BAND MODULE

1x3x.1" SIP socket @ XTAL cut from 1x6 socket strip

1x2x.1" SIP socket @ M cut from remainder of 1x6 socket strip

1x2x.2" 2 pos. screw terminal block @ J2

Stereo Jack @ J3

5 pin mini-DIN Jack @ KYBD

RCA jack @ J5

4.7K resistors (YEL/VIO/RED) QTY=4 @ 4.7K

180 ohm resistor (BRN/GRY/BRN) @ 180

470 ohm resistors (YEL/VIO/BRN) QTY=2 @ 470

1K resistors (BRN/BLK/RED) QTY=5 @ 1K & 4 @ U1 hairpin designators

LEDs green red & yellow @ diode markers on U1 pins 13, 15 & 17

.1uf (104) QTY=5 @ .1

47 pf (470) @ 47

.33uf (334) @ .33

1.0uf electrolytic capacitor @ C

2N4403 transistor @ 2N4403

LM2932AT-5 5 volt regulator @ VR1

22uh (RED/RED/BLK) @ L-BAND

SN74500 @ U2

SN74LS03 [NOT SN74S05!] @ U3

7.114 Crytal @ XTAL

.1" shorting jumpers QTY=3 @ 2g, 3g & 4g

10K thumbwheel potentiometer @ OP

.2" tactile switch @ PB

small length of hookup wire on main pcb between MK & MK

Lil' Squall low pass filter band module component side facing J5 antenna jack
2x7x.1" right angle male header @ J1 on Lil' Squall LPF pcb
330pf capacitor (331) QTY=2 @ C1 & C5 on Lil' Squall LPF pcb
150pf capacitor (151) @ C2 on Lil' Squall LPF pcb
47pf capacitor 47 @ C3 on Lil' Squall LPF pcb
680pf capacitor (681) @ C4 on Lil' Squall LPF pcb
.82uh axial choke (GRAY/RED/SLVR) @ L1 on Lil' Squall LPF pcb
1.2uh axial choke (BRN-RED-GOLD) @ L2 on Lil' Squall LPF pcb

Parts for building @ home

PCB mod: cut trace on the underside of the pcb from S1 on the 6.8uh choke to J5 antenna jack. Cut the trace twice once close to J5 and again close to S1

LM386 amplifier chip @ U4 & match orientation of chip with IC socket
10 ohm resistor (BRN/BLK/BLK) @ 10
270K resistor (RED/VIO/YEL) @ 270K
.01uf capacitor (103) QTY=2 @ .01
100uf electrolytic capacitor @ 100u + lead near 270K resistor
220uf electrolytic capacitor @ 220u + lead near 10 ohm resistor
10uf electrolytic capacitor @ 10u + lead near pin1 on LM386
5uf (4.7uf?) electrolytic capacitor @ 5u + lead near 4148 diodes
1N4148 diodes QTY=2 @ 4148
2x1x.1" male header @ NOT 20m
.1" shorting jumper @ NOT 20m
Stereo Jack @ J1 Phones
10k verticle potentiometer @ 10K box
6.8uh axial choke (BLU/GRY/BLK) @ P1 & P2
2 turns of magnet wire around the body of the 6.8uh choke
2x266pf polyvaricon capacitor (mounted from underside using 2 2.5mm screws)
Knob on polyvaricon cap using 2.5mm screw & 1/4" x 1/4" nylon spacer

add jumper to underside of the board from S1 on the 6.8uh choke to pin1 of the LPF band module (right above LPF silk screen designator)