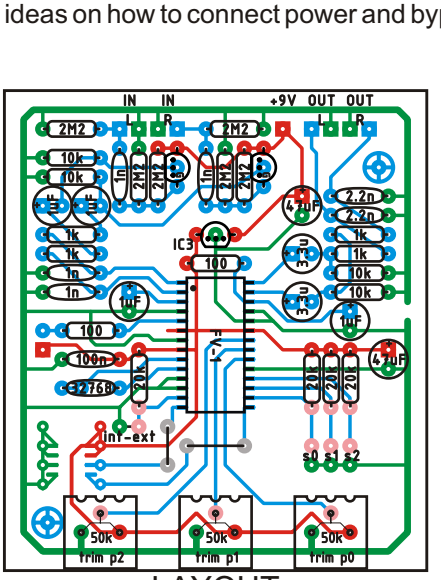
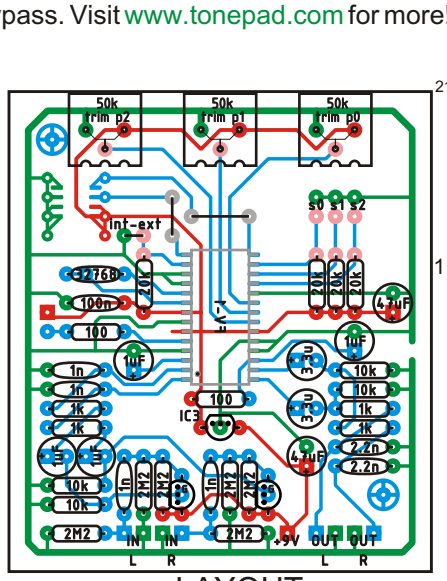
FraVerb (FV1)

Rev.1.Apr.23.2008

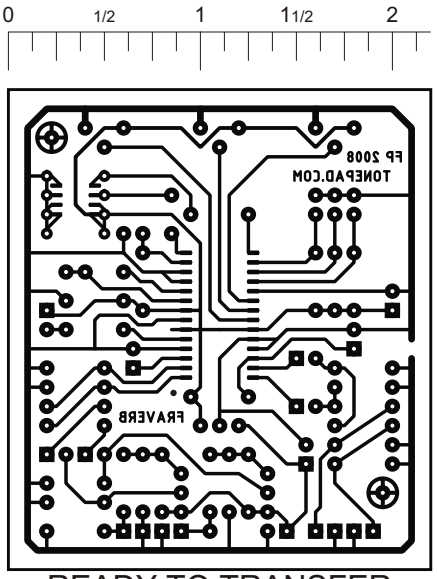
Layout for FV-1 digital processor IC by www.spinsemi.com which includes onboard effects like reverb, chorus, pitch shift, etc. The layout features the application circuit from the datasheet plus extra circuitry to make it more compatible with electric guitars and pedalboards: FET buffered inputs, 3.3v regulator and filter capacitors to provide the required power. According to datasheet, presets and effects of any kind can be created by using an external EEPROM, pads are provided for this purpose. Offboard wiring except for the potentiometers are not shown on the layout, view offboard wiring project for ideas on how to connect power and bypass. Visit www.tonepad.com for more!



LAYOUT
(seen from copper/fv1 side)



LAYOUT
(seen from component side)



READY TO TRANSFER
(single sided pcb toner transfer)

Parts List

Resistors
6 - 2M2 (2.2M)
4 - 1k
4 - 10k
4 - 20k
1 - 100ohm

Pots
3 - 50k (trim.)

Capacitors
4 - 1µF
2 - 3.3µF
2 - 0.047µF
2 - 47µF
1 - 100nF
2 - 2.2nF
2 - 1nF

Transistors &ICs
2 - 2N5457* (or other FET)
* watch FET pinout
1 - FV-1

Other
1 - LED
3 - jumpers
3 - SPST switches

Notes:
This project uses SMD part(s) soldered to the copper side of a single sided pcb. The rest of the parts are mounted thru hole as they normally are. Two layout images are provided: one looking at each side of the pcb.

FV1 can use an external memory for custom programmed algorithms to create digital effects, refer to the datasheet for more information. Pads provided on the layout require to solder EEPROM on copper side.

Schematic