

## General Notes

### Cut and Jumper Modification

This schematic shows cut and jumper modification to the Rev 1.1 design to improve decimal point performance for the Id/Vg display (page 4).

### Resistors

Unless otherwise specified, resistors are size 0805, 1/10W or 1/16W, and may be thick or thin film

Unless otherwise specified, actual value used may be a standard 5% or 1% value within 10% of value shown

### Capacitors

0.1uF capacitors are X7R ceramic 10V (or higher), 20% (or better), size 0805

22uF capacitors may be X5R ceramic or low-ESR tantalum 10V (or higher), 20%, size B/3528/3216/1210/1206

### Digital Panel Meters and Monitors

The digital panel meters should be Jewel BL-3x0302-01 (5V supply, 2V full scale, green 5V backlight)

The backlight timer provides approx. 2 minutes of backlight power

### Diodes and Transistor

All diodes except LEDs are 1N4148W, case size SOD-323

LEDs are red (other colors ok), 10 mA, T-1 with 0.465" (12mm) standoffs (CML 5310F series)

Transistor is type PZT2222ACT, case style SOT-223

### Circuit Board

The circuit board for this design is labeled "LNA Control Board v1.1" with date 2/22/08

This design is compatible with LNA Mother Board v1.1 and LNA Daughter Board v1.1a

The Vd and Vg monitor inputs should have gain = 1 (1V -> 1V); meter full scale reading is 19.99V

The Id monitor input should have gain = 100 Ohm (10mA -> 1V); meter full scale reading is 199.9mA

CSO Electronics Caltech

LNA Control Board

F. Rice

Rev 1.1 (Mod)

4/7/2010

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