



## GAMMA (v3.0F) DIY BUILD GUIDE

This build guide assumes the user has basic knowledge of through hole components, soldering skills and various tools required to Do-It-Yourself. Assemble at your own risk and have fun.

### STEP BY STEP

1. Populate all resistors and ferrite beads. Solder and clip leads.
2. Populate all diodes, taking care to align the black band on the diode with the stripe shown on the PCB. Solder and clip leads.
3. Populate all of the ceramic capacitors. Solder and clip leads.
4. Populate all of the ICs, taking care that the notch at the top of the IC lines up with the notch shown on the PCB. Solder leads.
5. Populate the IDC power connector, taking care to line up the notch on the part with the notch shown on the PCB. Hold the connector in place while soldering.
6. Populate the electrolytic capacitors, taking care to line up the black stripe on the caps with the outlined via on the PCB. Solder and clip leads.
7. Place each the of the jacks into the board and install the faceplate. Finger tighten each nut in place to ensure the jacks are straight. Solder them once you are satisfied.
8. Carefully check the solder of each component for bridges and any solder joints that may have been missed. Clean excess flux with alcohol. You may now test it your work.

## BILL OF MATERIALS

### Resistors

<input type="checkbox"/> 14x	499R
<input type="checkbox"/> 16x	1K
<input type="checkbox"/> 8x	1.5K
<input type="checkbox"/> 2x	4.99K
<input type="checkbox"/> 4x	100K

### Ferrite Beads

<input type="checkbox"/> 2x	68R
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### Diodes

<input type="checkbox"/> 2x	1N4001
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### Ceramic Capacitors

<input type="checkbox"/> 10x	100nF (104)
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### Integrated Circuits

<input type="checkbox"/> 3x	LM6172
<input type="checkbox"/> 2x	LT1256
<input type="checkbox"/> 2x	TL431

### Electrolytic Capacitors

<input type="checkbox"/> 2x	10uF/25v
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### Other Parts

8x	PJ302M Jacks
8x	3.5mm nuts
1x	2x5 Polarized IDC Power Header
1x	10-16 Ribbon Cable
1x	GAMMA PCB
1x	GAMMA Faceplate

