1. All resistance values are in ohms, 0.1 watt +/- 5%.
2. All capacitance values are in microfarads.
3. All crystal & oscillator values are in hertz.

**SCHEM, SOUND, PB 17"**
2/4/03
PCB SPECS

THICKNESS: 1.2 MM / 0.047 IN
1/2 OZ CU THICKNESS: 0.7 MILS
1.0 OZ CU THICKNESS: 1.4 MILS

IMPEDANCE: 50 OHMS +/- 10%
DIELECTRIC: FR-4
LAYER COUNT: 12
SIGNAL TRACE WIDTH: 4 MILS
SIGNAL TRACE SPACING: 4 MILS
PREPREG THICKNESS: 2-3 MILS

SEE PCB CAD FILES FOR MORE SPECIFIC INFO.

BOARD STACK-UP AND CONSTRUCTION

1. SIGNAL (1/3 OZ + COPPER PLATING)
2. PREPREG (3MIL)
3. LAMINATE (4MIL)
4. PREPREG (3MIL)
5. LAMINATE (4MIL)
6. PREPREG (2MIL)
7. LAMINATE (3MIL)
8. PREPREG (2MIL)
9. LAMINATE (4MIL)
10. PREPREG (3MIL)
11. LAMINATE (4MIL)
12. PREPREG (3MIL)
   GROUND (1/2 OZ)
   SIGNAL (1/2 OZ)
   SIGNAL (1/2 OZ)
   GROUND (1/2 OZ)
   SIGNAL (1/2 OZ)
   CUT POWER PLANE (1 OZ)
   CUT POWER PLANE (1 OZ)
   GROUND (1/2 OZ)
   SIGNAL (1/2 OZ)
   SIGNAL (1/2 OZ)
   GROUND (1/2 OZ)
   SIGNAL (1/3 OZ + COPPER PLATING)
SNAPPER (AUDIO CODEC W/ EQ)

PLACE THESE CAPS NEAR TAS3004

SNAPPER CONTROL

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www.vinafix.vn
PLACE C64 CLOSE TO PIN 6 AT U4 AND U5

BOOMER SPEAKER AMP

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SPEAKERS

BOOMER SPEAKER AMP

PLACE C64 CLOSE TO PIN 6 AT U4 AND U5
USE 10 MIL TRACKS FOR ANALOG SIGNALS.
<table>
<thead>
<tr>
<th>COLUMN</th>
<th>SIG_NAME</th>
<th>MIN_LINE_WIDTH</th>
<th>VOLTAGE</th>
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<td>AUDIO</td>
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**REVISION HISTORY**

- **REV. 4**
  - Added Op-AMP in Line-In Circuit
  - Changed Op-AMP Gain for Speaker
  - Fixed Over-Sensitive to 60 Hz Noise for Line-In Circuit
  - Repinned Out 30-Pin Connector
  - Changed Line-In and Line-Out Sense to Active Low
  - Released for DVT

- **REV. 3**
  - Swapped Right and Left Channel on Line-In and Line-Out Connector
  - Corrected Net Name, i.e. `+AUD_3V`
  - Released for EVT

- **REV. 2**
  - Corrected U2 Power/Gnd Pins
  - Changed Mute Polarity on Speaker and Headphone Amp
  - Reduced Turn-On Pop (R55/R59)

- **REV. 1**
  - Corrected Pcb Board Layout
  - Released for PVT

**SIGNAL CONSTRAINTS**

- **MIN_NECK_WIDTH**
  - Audio: 6
  - Microphone: 10

- **VOLTAGE**
  - AUDIO: 0V
  - Microphone: 3.3V
  - Power/Gnd: 0V

- **MIN_LINE_WIDTH**
  - Audio: 25
  - Microphone: 25
  - Power/Gnd: 25

- **NET_SPACING_TYPE**
  - Audio: 10
  - Microphone: 10
  - Power/Gnd: 10