1. LCD connector pins
2. 13 pin Guitar connector
3. -7V power input
4. 5V voltage regulator
5. 7V power input
6. Ground Pin
7. Audio jack to guitar amp.
8. ADC
9. 3.3V voltage regulator
10. ADC test pins
11. Setting Push buttons (UP/DOWN)
12. LED indicator
13. Mode select
14. NXP AMR7 Processor
15. SDRAM
16. SD CARD Reader
17. Reset Button
18. Bluetooth Connectors
19. Power On LED
20. Boot pin selector
21. RS232 connector
22. Level Shifter
23. SDRAM test pins
1. **LCD connector pins**
Connector pins to LCD display module. Three digit display that indicates the note, time signature and BPM.

2. **13 pin guitar connector**
Connect guitar output here.

3. **-7V power input**
Connect -7V from power supply here.

4. **5V voltage regulator**
Regulate 7V input to 5V supply to ADC

5. **7V power input**
Connect 7V from power supply here

6. **Ground Pin**
Connects to power supply’s ground

7. **Audio jack to guitar amplifier**
Connects to guitar amp.

8. **ADC**
Analog to digital converter

9. **3.3V voltage regulator**
Regulates 7V to 3.3 voltage for digital components.

10. **ADC test pins**
Test pins for each of the 6 ADC inputs.

11. **Setting Push Buttons**
Left button to control numerator. Right button to control denominator of time signature.

12. **LED indicators**
Programmable LEDs. Default function for top 3 leds are for guitar tuning, flat, sharp, and in tune. Bottom 3 leds are for mode indication, streaming, write to SD Card, and converting.

13. **Mode select**
Toggles between all three modes mentioned above

14. **Processor**
Processing Unit.

15. **SDRAM**
128 MB SDRAM

16. **SDCard Reader**
SD Card for file storage.

17. **Reset Button**
Reset button for the board

18. **Bluetooth Connector**
Connect to Bluetooth module

19. **Power On LED**
Board power indicator

20. **Boot pin selector**
Switch to control boot from flash or flash programming.

21. **RS232 connectors**
Connects to RS232 compatible devices

22. **Level Shifter**
Level shifter for RS232 connectors

23. **SDRAM test pins**
Test pins for SDRAM control signals.