

Boss2 Manual

1. Features

- DAC CS43198 (192 kHz/32bit)
- DAC output is selectable (1.7Vrms or 2Vrms) .
- Sampling Frequency 44.1 kHz to 192 kHz range.
- Dual Ultra low Phase noise NDK SDA oscillators are used for master Clock generation.(MCLK)

2. Hardware Description:

RPI4, Boss2, Oled , Alu box and remote included .

1.



Front : IR sensor, OLED Display Switch, SD card



Side-1: RPI Power, HDMI connectors.



Rear side: RPI USB, Ethernet, 5V-DC in, RCA: RED-Right, Black - Left

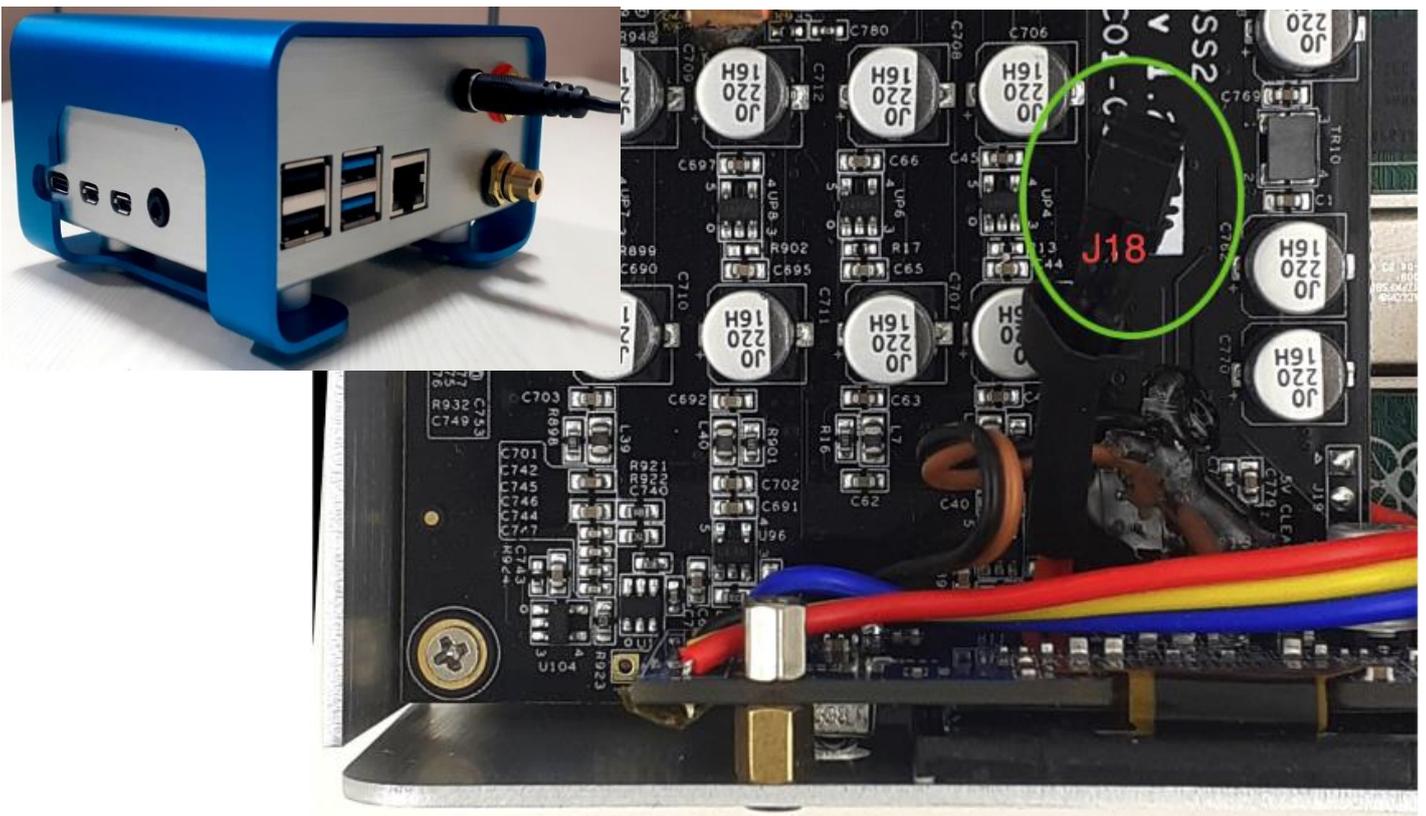
3.Power:

Boss2 support single and Dual Power adapters.

Single PSU (default)

For single power J18 jumper must be closed as below picture .

Power required is 5V-3A and should be connected through back panel DC In connector .

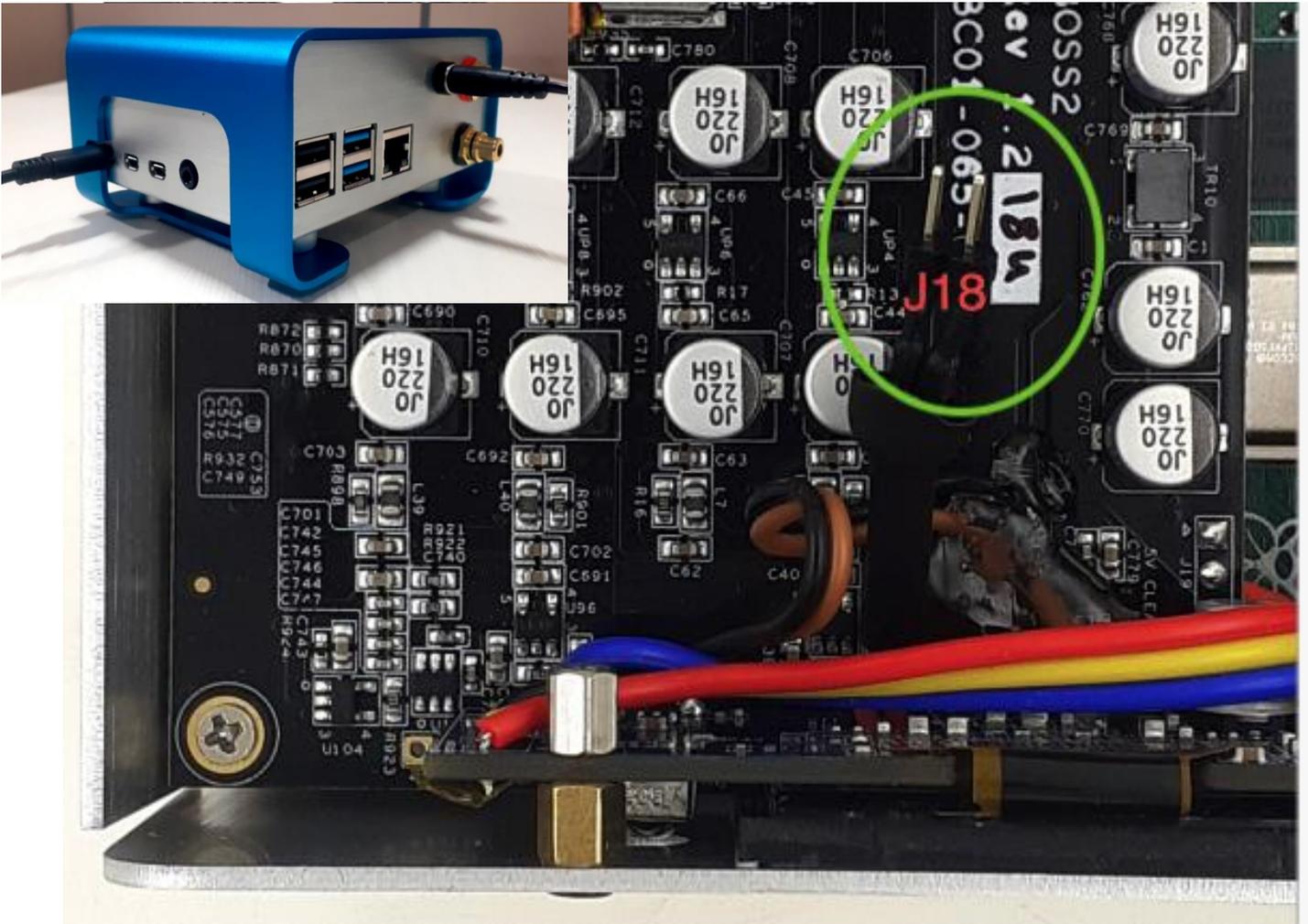


Dual Power Adapter:

For dual psu J18 jumper should be open , Power adapter interface should be as below Picture .

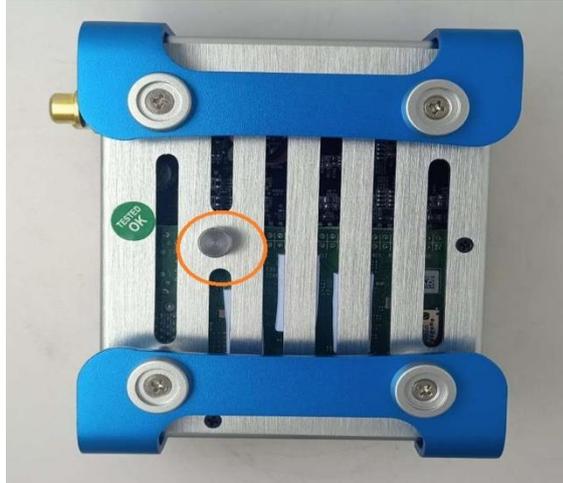
Power Adapter rating:

1. RPI USB type C rating: 5V 3A.
2. Back panel DC In Connector : 5V , 250ma (or higher).

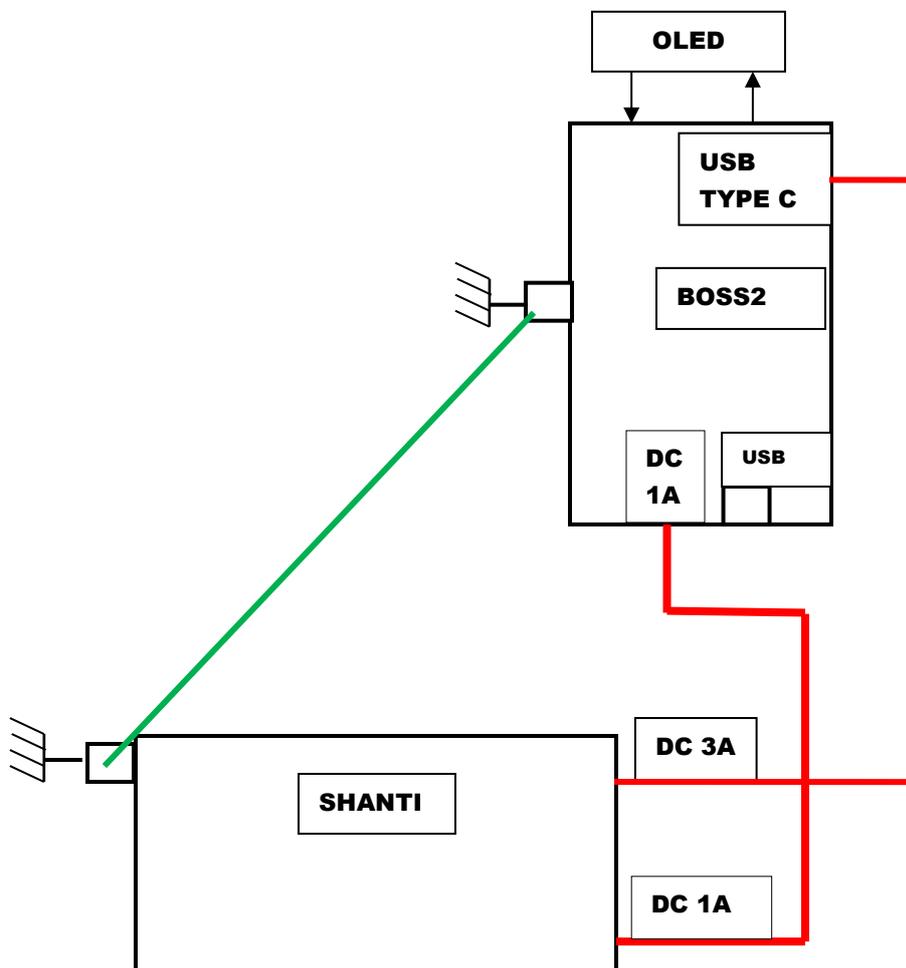


Earthing:

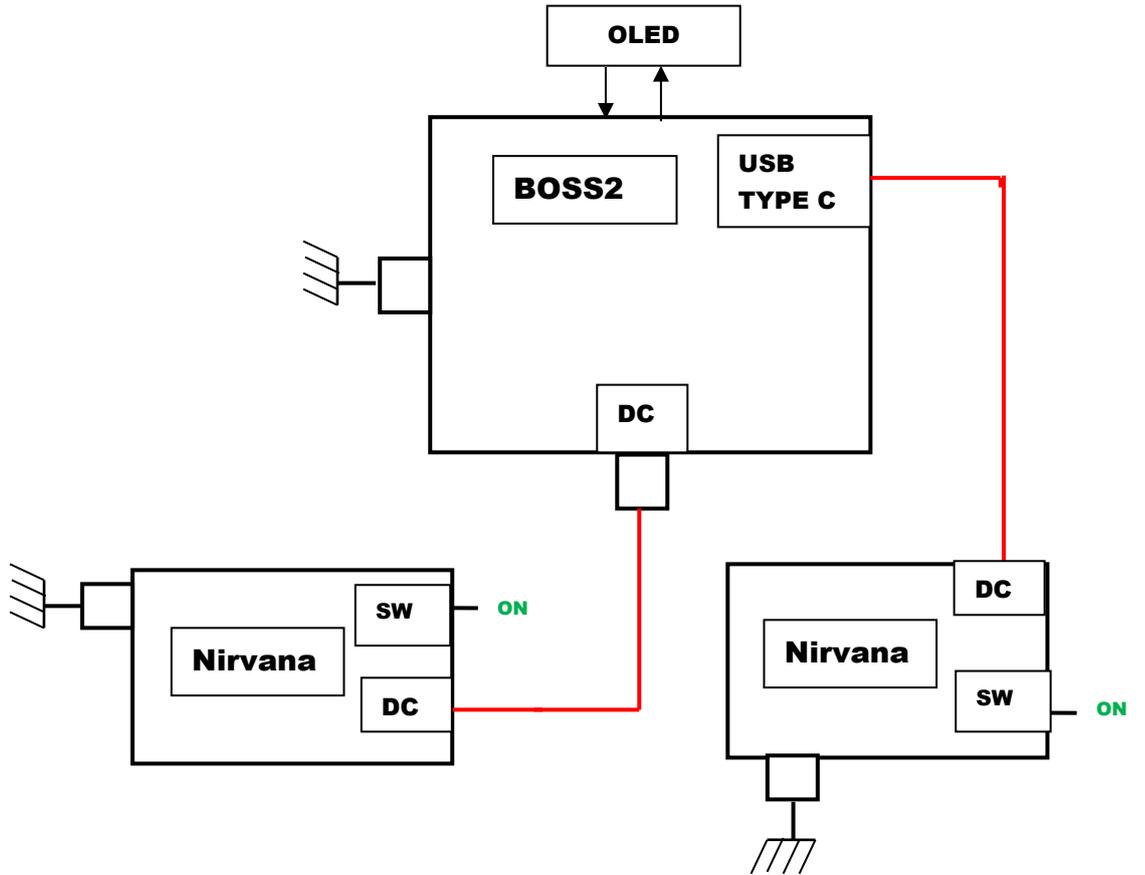
Protective earth wire should be connected bottom of metal box as below (to Shanti for example). You can earth the unit by using a Nirvana SMPS with earth switch on .



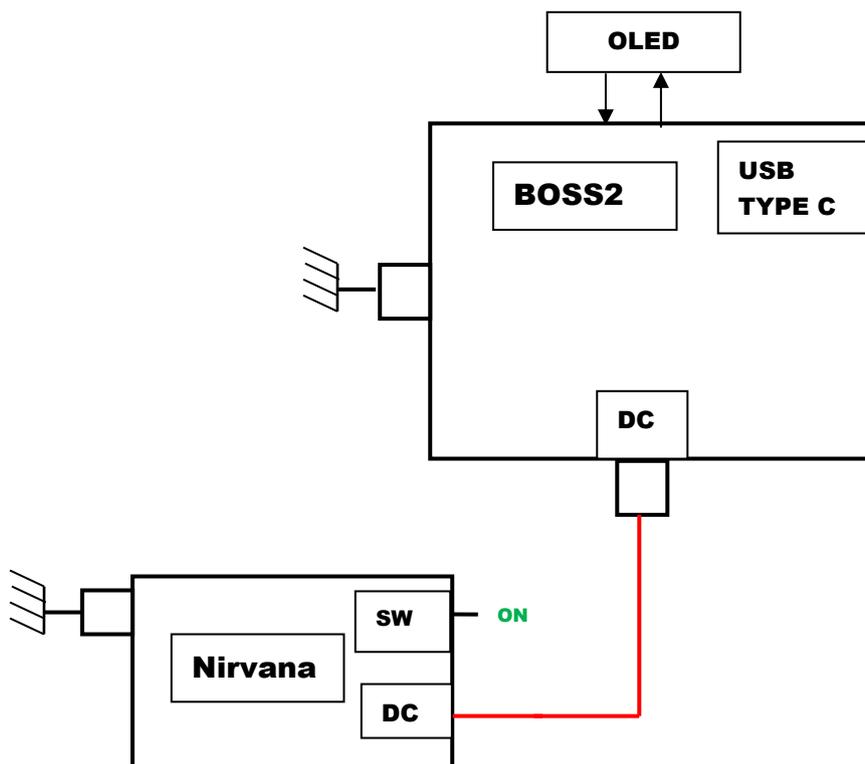
Connection between BOSS2 and Shanti (Dual Power)



Connection between BOSS2 and Nirvana(Dual Power)



Connection between BOSS2 and Nirvana(Single Power)



Software Boss2 Driver and Configuration :

Boss2 dac Driver is included on RPI 5.4.77 kernel onwards. In some players (Moode and more) Boss2 is configurable through GUI.

Manually configuring Boss2-DAC .

Check for allo-boss2-dac dtbo

Goto /boot/overlays/

Check for allo-boss2-dac-audio.dtbo file.

If Present edit the /boot/config.txt file and add/replace dtoverlay with dtoverlay=allo-boss2-dac-audio

Front panel Display/OLED configuration:

Boss2 player Front Panel Display (OLED) application is based on Python and need to install on respective OS. Installation steps refer below link.

http://3.230.113.73:9011/Allocom/Boss2/Boss2_oled_install_steps

Boss2 Player User settings can set through Front panel buttons or IR Remote

Front Panel Buttons: Left, OK/M, Right, Up (+), Down (-)

Buttons:

UP/Down Buttons – Volume Control

LEFT/RIGHT Buttons – MENU navigation

CENTRE or OK Button – By default MUTE/UNMUTE, selection button on MENU

NOTE: In IR separate button for MUTE

MENU:

SYSINFO – system information

HV-EN - High Voltage Enable/Disable – RMS (1.7 or 2.0 Volt) voltage setting.

ON – 2.0 Volt

OFF – 1.7 Volt

FILTER – Filter selection

PHCOMP – phase-compensation Enable/Disable

HP-FIL – High Pass Filter Enable/Disable

DE-EMP – De Emphasis Enable/Disable

NON-OS – NonOversampling Enable/Disable

F-SPEED – Filter Roll-off Interpolation Selection – FAST/SLOW

Default SCREEN

Shows volume level, playing bit rate, sample rate, mute state
