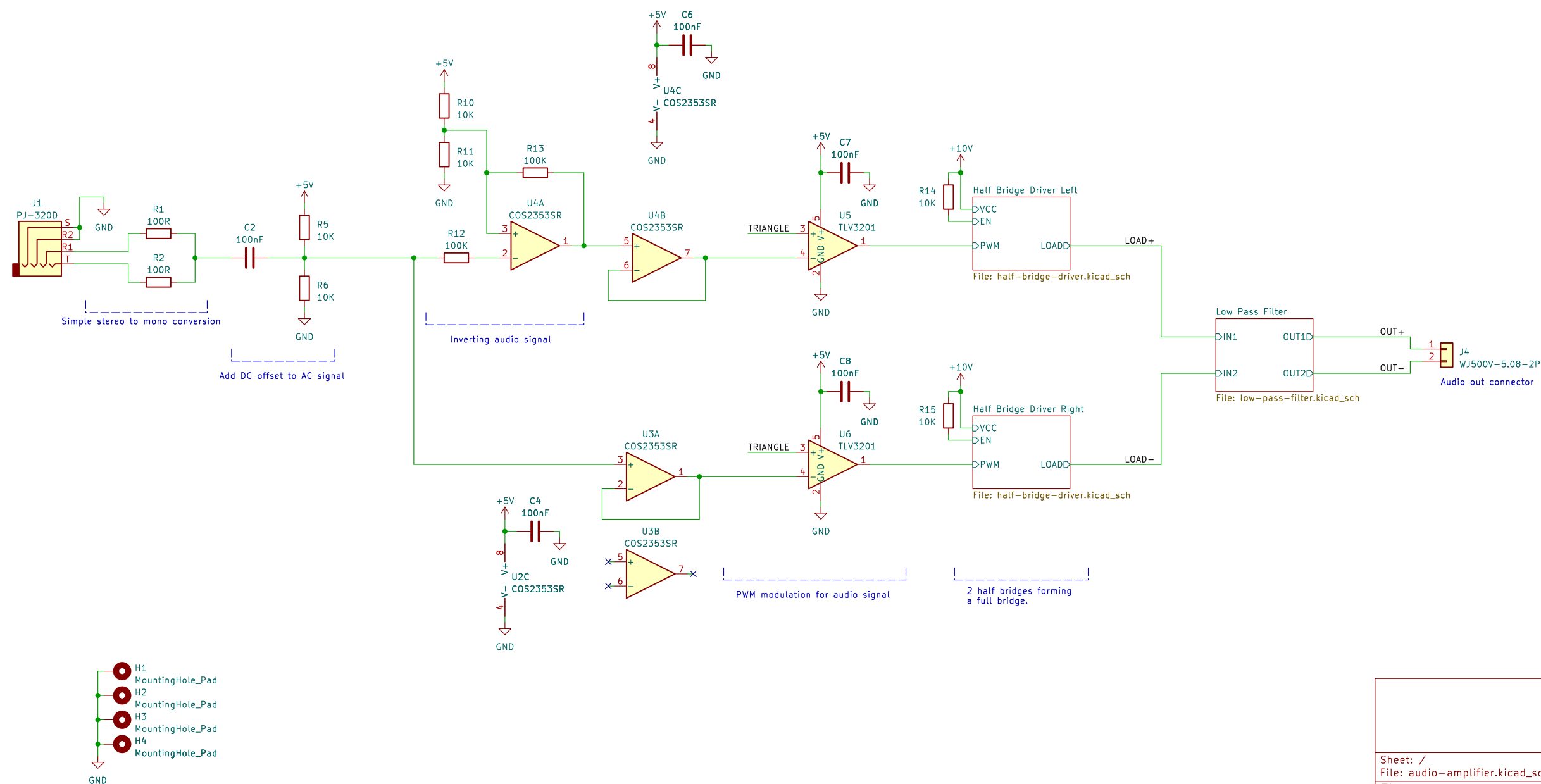
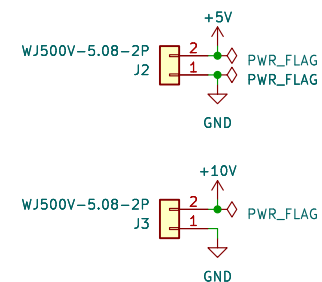
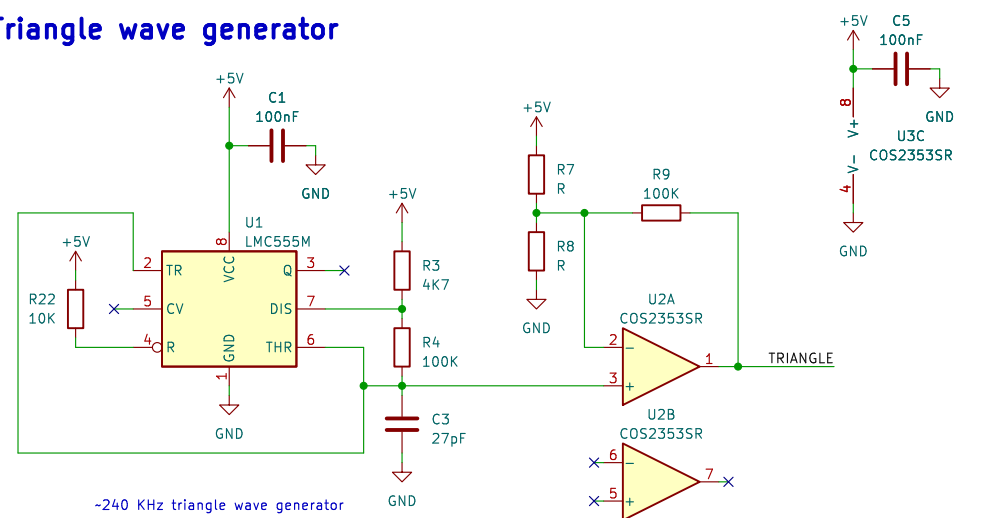


Triangle wave generator

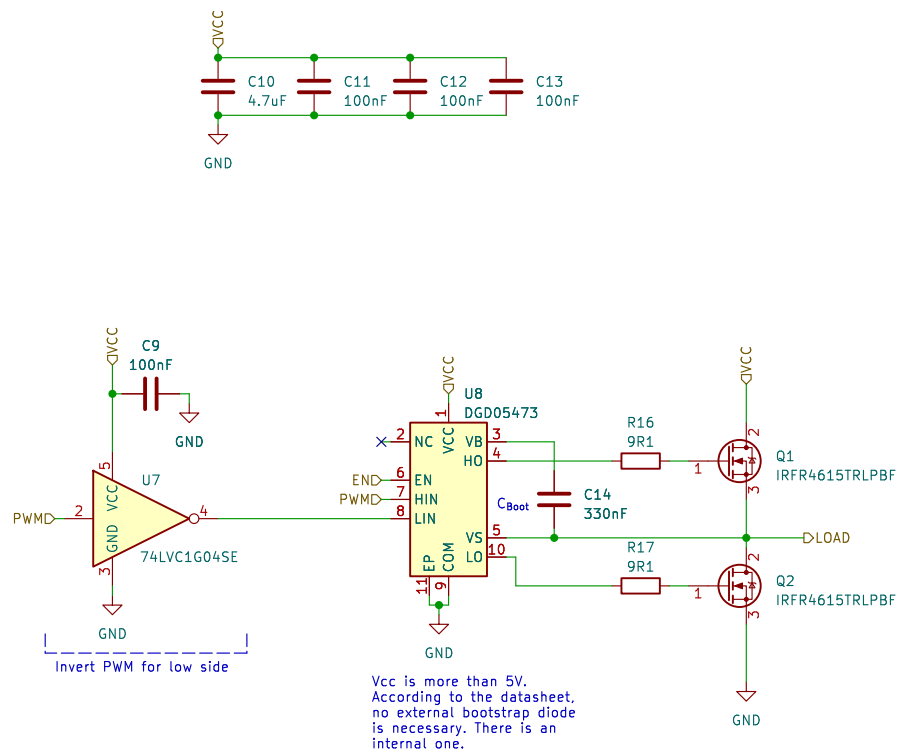


Sheet: /
File: audio-amplifier.kicad_sch

Title:

Size: A3	Date:
KiCad E.D.A. kicad 7.0.1	

Rev:
Id: 1/4



<https://www.ti.com/lit/an/slva887/slva887.pdf>

According to the application note of TI, the bootstrap capacitor should be more than 10x the gate charge. Gate charge can be obtained from the datasheet of the MOSFET.

$$V_{Q1g} = V_{cc} - V_{BootDiode} = 10 \text{ V} - 1.2 \text{ V} = 8.8 \text{ V}$$

$$C_g = Q_g / V_{Q1g} = 26 / 8.8 = 29 \text{ nF}$$

So C_{Boot} Should be more than 290 nF

Sheet: /Half Bridge Driver Left/
File: half-bridge-driver.kicad_sch

Title:

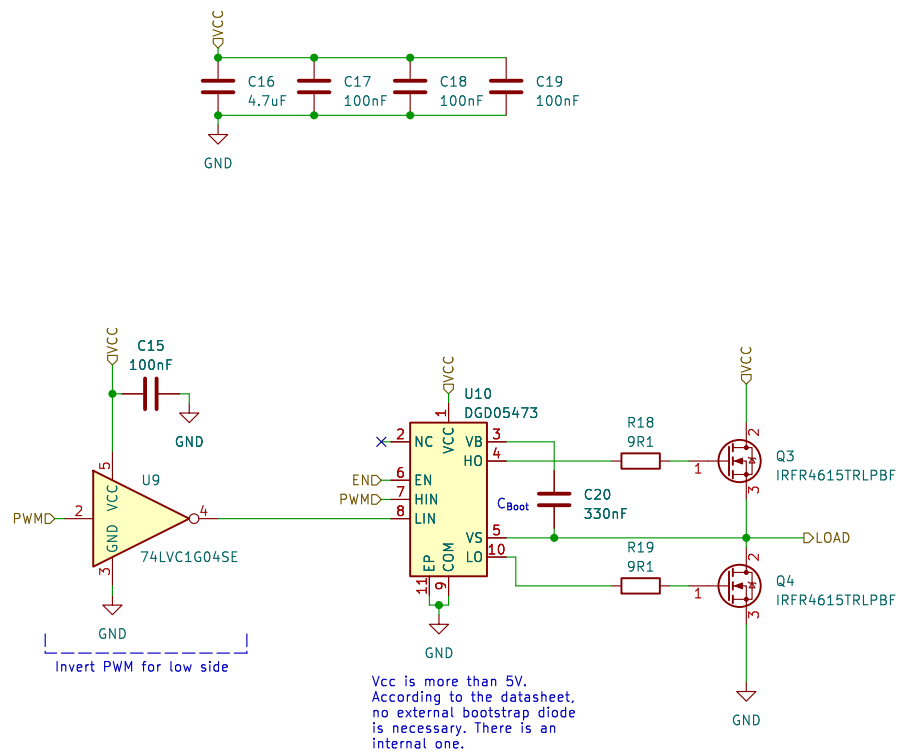
Size: A4

Date:

KiCad E.D.A. kicad 7.0.1

Rev:

Id: 2/4



<https://www.ti.com/lit/an/slua887/slua887.pdf>

According to the application note of TI, the bootstrap capacitor should be more than 10x the gate charge. Gate charge can be obtained from the datasheet of the MOSFET.

$$V_{Q1g} = V_{cc} - V_{BootDiode} = 10 \text{ V} - 1.2 \text{ V} = 8.8 \text{ V}$$

$$C_g = Q_g / V_{Q1g} = 26 / 8.8 = 29 \text{ nF}$$

So C_{Boot} Should be more than 290 nF

Sheet: /Half Bridge Driver Right/
File: half-bridge-driver.kicad_sch

Title:

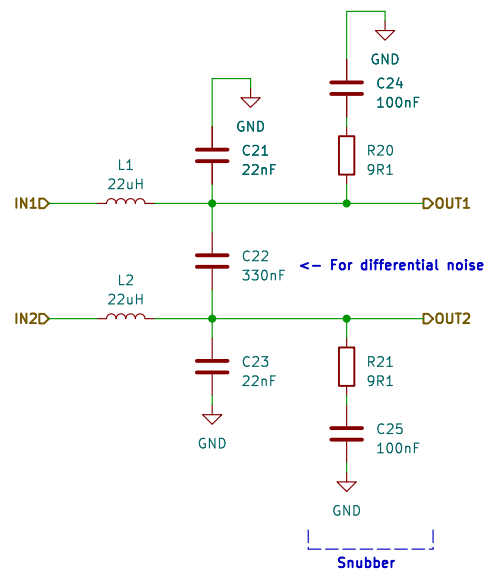
Size: A4

Date:

KiCad E.D.A. kicad 7.0.1

Rev:

Id: 4/4



Low pass filter with snubber circuit.
Snubber is required to dampen the gain at ~100 KHz.
 $F_c = \sim 44 \text{ KHz}$

Sheet: /Low Pass Filter/
File: low-pass-filter.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad 7.0.1

Rev:

Id: 4/4