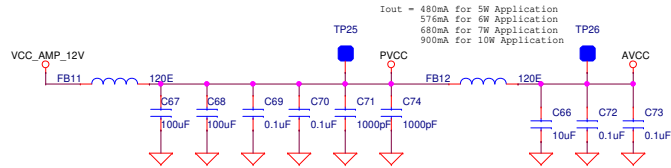


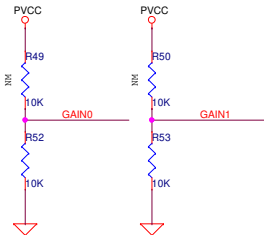
CLASS D POWER SUPPLY SECTION



CAD NOTE:
 - For PVCC Power rail Short pin no 15 and 16, 27 and 28
 - Make a 2 set of 100uF, 0.1uF, and 1000pF set and place at pin no 15 and 27
 - For the AVCC power rail each AVCC pin has one 0.1uF Cap.

6W POWER CONFIGURATION

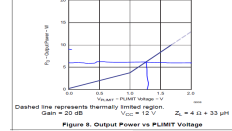
GAIN SETTING



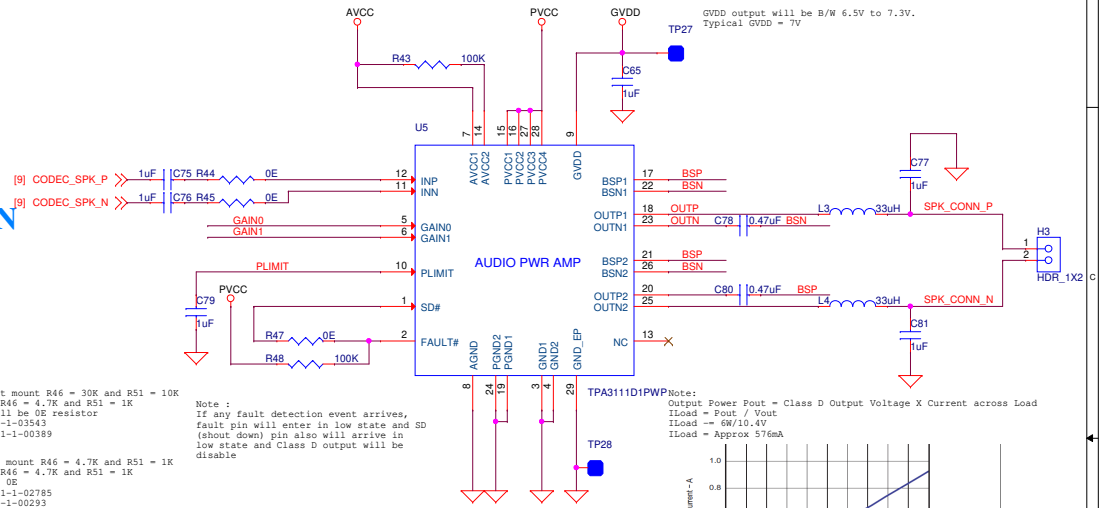
| GAIN0 | GAIN1 | AMP GAIN (DB) | INPUT IMPEDANCE (OHM) |
|-------|-------|---------------|-----------------------|
| 0 | 0 | 20 | 60 |
| 0 | 1 | 26 | 30 |
| 1 | 0 | 32 | 15 |
| 1 | 1 | 36 | 09 |

| TEST CONDITION | PLIMIT PIN VOLTAGE | OUTPUT POWER | OUTPUT VOLTAGE AMPLITUDE (Vp-p) |
|--|--------------------|--------------|---------------------------------|
| VCC = 12 V, VIN = 1 Vrms, RL = 4 Ohm, Gain = 20 dB | 1.75 | 10 | 15.3 |
| VCC = 12 V, VIN = 1 Vrms, RL = 4 Ohm, Gain = 20 dB | 1.2 | 5 | 10.3 |
| VCC = 12 V, VIN = 1 Vrms, RL = 4 Ohm, Gain = 20 dB | 1.3 | 6 | 10.4 |

Measurements were made using the TPA311D1 EVM



CLASS D AUDIO AMP SECTION



GVDD output will be B/W 6.5V to 7.3V.
 Typical GVDD = 7V

Note:
 If any fault detection event arrives, fault pin will enter in low state and SD (shout down) pin also will arrive in low state and Class D output will be disable

TPA311D1PWP Note:
 Output Power Pout = Class D Output Voltage X Current across Load
 ILoad = Pout / Vout
 ILoad = 6W/10.4V
 ILoad = Approx 576mA

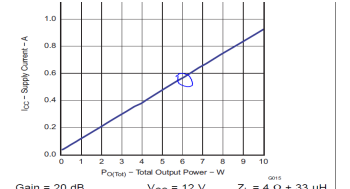


Figure 13. Supply Current vs Total Output Power

<Core Design>

| | |
|-------|-----------------------------|
| Title | <Title> |
| Size | Document Number |
| A3 | <Doc> |
| Date: | Thursday, February 10, 2022 |
| Sheet | 1 of 1 |