For external MCLK:
1) replace C1 with 0 Ohm resistor
2) remove R11
3) populate R10 with 0-ohms

populates R24 and R25 with 0-ohms for external VCP_FILT +/- supplies

External Amplifier Power

DAC I2C Address

3.5mm Headset Jack

Opamp and Headers for optional Opamp Daughter Card

On-Board Load

Interrupt LED
For external MCLK:
1) replace C38 with 0 Ohm resistor
2) remove R28
3) populate R39 with 0-ohms

For external VCP_FILT +/- supplies
populate R40 and R41 with 0-ohms for
external VCP_FILT +/- supplies

I2C Write/Read: 0x62/0x63
DAC I2C Address

External Amplifier Power

Interrupt LED

On-Board Load
For the 28-Pin package, the 3.3 V output from the external regulator has to be connected to VREG, VCC_A, and VCC_D. The VCC pin has to be left open with no connection.

From the external input 3.3 V, 1.8 V is internally generated for the chip's internal usage.

GANG must be pulled-up/down with 100K because pin becomes an output shortly after RESET.
Programmable Delay Reset

- Output valid at VDD of 5.8V (worst case)
- Release delay = 20ms
- SENSE threshold (pos, typ) = 2.97V x 1.0175 = 3.022V
- SENSE threshold (pos, max) = 2.97V x 1.0375 = 3.135V
- SENSE threshold (neg) = (14K/2.21K+1) x 0.405V = 2.97V
- RESET release delay = 20 ms
- RESET output valid at VDD of 0.8V (worst case)

5V INPUT

CS43198 3.6V and 1.8V LDO

1.8V LDO for board

POWER INDICATORS

OPAMP +/-4.2V

- 3.3V 1A BUCK
- EN has 790 kohm pullup to VIN
- VOUT = 5.875 *RB/(RB+RT)

1.0V 1A BUCK

EN has 790 kohm pullup to VIN

VOUT = 5.875 *RB/(RB+RT)

Programmable Delay Reset

- Output valid at VDD of 5.8V (worst case)
- Release delay = 20ms
- SENSE threshold (pos, typ) = 2.97V x 1.0175 = 3.022V
- SENSE threshold (pos, max) = 2.97V x 1.0375 = 3.135V
- SENSE threshold (neg) = (14K/2.21K+1) x 0.405V = 2.97V
- RESET release delay = 20 ms
- RESET output valid at VDD of 0.8V (worst case)
Power Options and Current Measurement

Hardware

Testpoints
**Programmable Delay Reset**

- RESET output valid at VDD of 0.8V (worst case)
- RESET release delay = 20 ms
- SENSE threshold (neg, typ) = 0.9175V x 1.0175 = 0.9336V
- SENSE threshold (pos, max) = 0.9175V x 1.0375 = 0.9519V
- RESET output valid at VDD of 0.8V (worst case)
- MR V_IL (max) = 0.3xVDD = 1.5V
- MR V_IH (min) = 0.7xVDD = 3.5V
- MR internal pull-up resistance = 90kOhms typ

**SENSE threshold calculation**

- SENSE threshold (neg) = \( \frac{(10.2K \text{ ohms}) + (8.06K \text{ ohms})}{10.2K \text{ ohms}} \times 0.405V = 0.9175V \)

**SENSE threshold (pos) calculation**

- SENSE threshold (pos, typ) = \( 0.9175V \times 1.0175 = 0.9336V \)
- SENSE threshold (pos, max) = \( 0.9175V \times 1.0375 = 0.9519V \)