CS43131 High-Performance DAC with Integrated Headphone Drive and Impedance Detection Chip Scale Package

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

3.5mm Headphone Input Jack

3.5mm Headset Jack

On-Board Load

Interrupt LED

External Amplifier Power

DAC I2C Address

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

CS43131-WLCSP42

CS43131-CSP
3.5mm Headphone Input Jack

For external MCLK:
1) replace C8 with 0 Ohm resistor
2) remove R28
3) populate R39 with 0-ohms
USB Hub

For the 28-Pin package, the 3.3V 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 3.3V, 1.8V 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.
Power Options and Current Measurement

Hardware

Testpoints
Programmable Delay Reset

- Output valid at VDD of 0.8V (worst case)
- Release delay = 20 ms
- SENSE threshold (neg, typ) = 0.9175V x 1.0175 = 0.9336V
- SENSE threshold (pos, typ) = 0.9175V x 1.0375 = 0.9519V
- V_{IL} (max) = 0.3xVDD = 1.5V
- V_{IH} (min) = 0.7xVDD = 3.5V
- Internal pull-up resistance = 90kOhms typ

SENSE threshold (neg) = (10.2K/8.06K+1) x 0.405V = 0.9175V
SENSE threshold (pos, 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)