

VS1011A TO VS1011B MIGRATION CHECKLIST

CHANGE HISTORY VS1011A to VS1011B

New ROM code

- accepts Wav files which have header size different than 16 bytes
- plays IMA ADPCM mono
- CLOCKF register is written in software reset (bug fix)

Latchup improvement

- added substrate contacts near IO structures for better latchup immunity

Faster operation

- memory (RAM, ROM) changed for faster operation

IO pins

- New bonding pads. New pins have slightly more drive strength.

REQUIRED CONSIDERATIONS

- No issues when timing is as specified in VS1011 data sheet (Chapter 5).

RECOMMENDED IMPROVEMENTS

Minimizing power consumption

- VS1011B can operate from a lower digital supply voltage (DVDD) than VS1011A.
- Schottky diode can be used to lower the voltage of DVDD in case regulator voltage can not be changed
- see below typical measurement data in room temperature when playing 128 kbits/s bitstream with Fclk=28.6MHz master clock.

