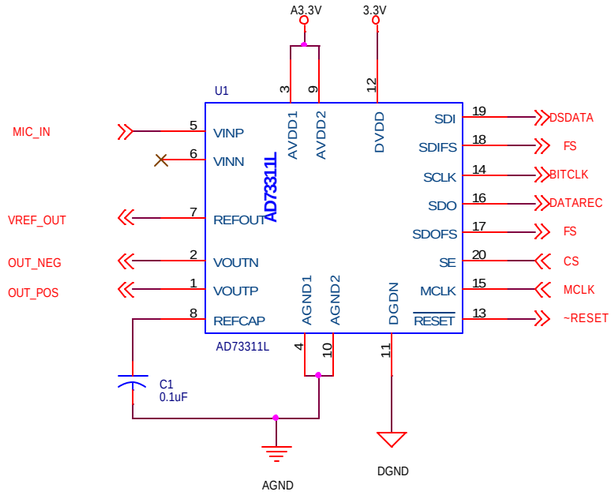
AD73311L - AUDIO CODEC

The AD73311L is a complete front-end processor for general purpose applications including speech and telephony. It features a 16-bit A/D conversion channel and a 16-bit D/A conversion channel. Each channel provides 70 dB signal-to-noise ratio over a voiceband signal bandwidth. The final channel bandwidth can be reduced, and signal-to-noise ratio improved, by external digital filtering in a DSP engine.

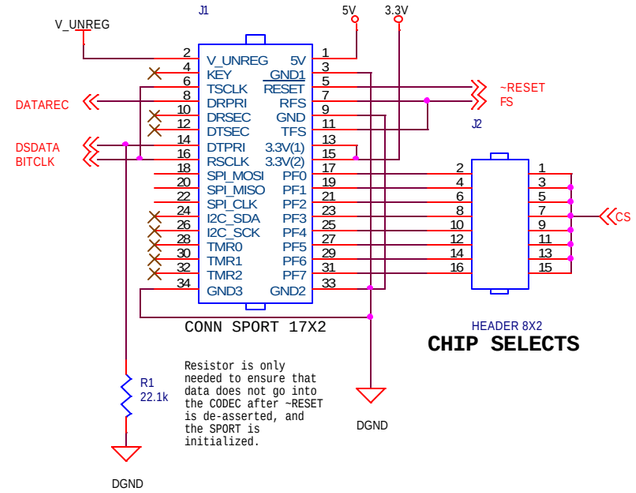
The AD73311L is suitable for a variety of applications in the speech and telephony area, including low bit rate, high quality compression, speech enhancement, recognition and synthesis. The low group delay characteristic of the part makes it suitable for single or multichannel active control applications.

The gains of the A/D and D/A conversion channels are programmable over 38 dB and 21 dB ranges respectively. An on-chip reference voltage is included to allow single upply operation. A serial port (SPORT) allows easy interfacing of single or cascaded devices to industry standard DSP engines, like the Blackfin.

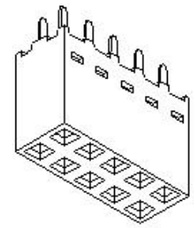
In this configuration, ithe input is set for single-ended mode, which allows the option of using the VINP as a seperate input, selected under software control. The output is differential analog output pair (VOUTP and VOUTN).



DAUGHTER CARD CONNECTOR

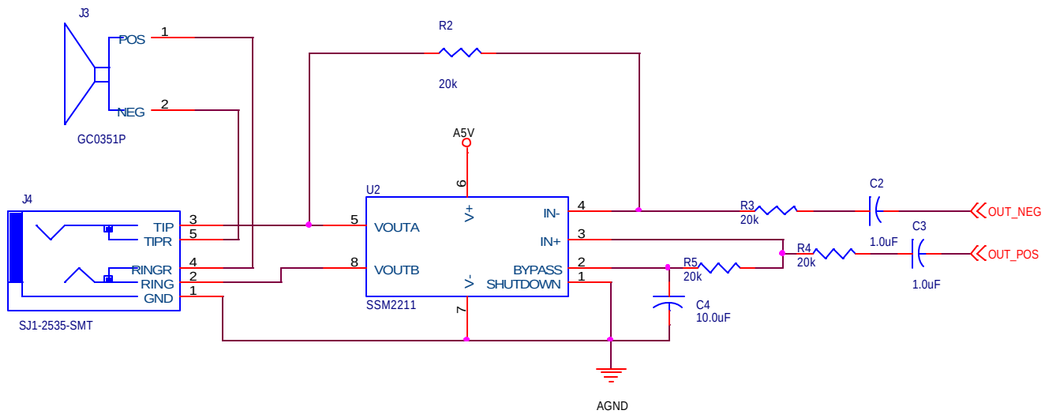


PIN 4 SHOULD BE KEYED
FEMALE CONNECTOR MOLEX SERIES 90151



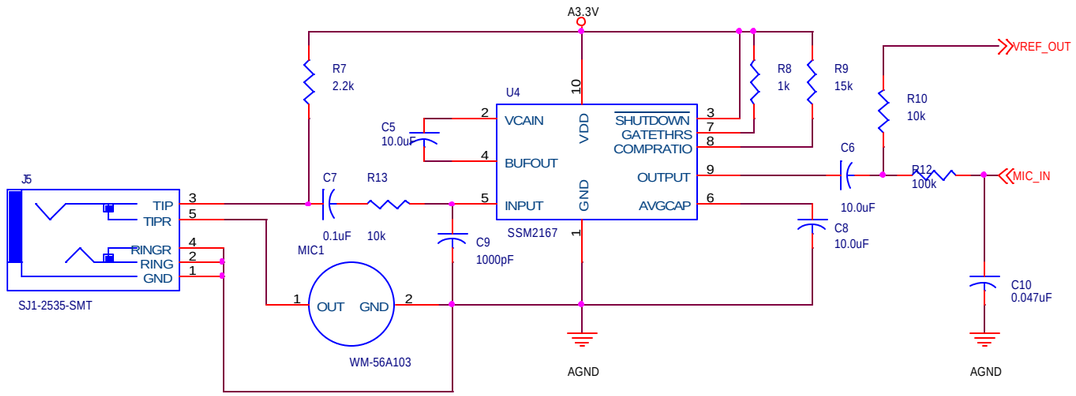
SSM2211 - AUDIO AMP

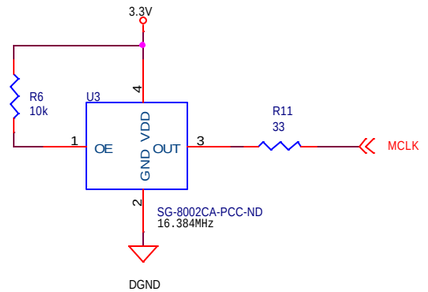
The SSM22113 is a high performance audio amplifier that delivers 1 W rms of low distortion audio power into a bridge-connected 8 ohm speaker load (or 1.5 W rms into 4 ohm load). It operates over a wide temperature range and is specified for single-supply voltages between 2.7 V and 5.5 V.



SSM2167 - Microphone Preamplifier with Variable Compression & Noise Gating

The SSM2167 is a complete and flexible solution for conditioning microphone inputs in personal electronics. It is excellent for improving vocal clarity in communications and public address systems. A low noise voltage controlled amplifier (VCA) provides a gain that is dynamically adjusted by a control loop to maintain a set compression characteristic. The compression ratio is set by a single resistor and can be varied from 1:1 to over 10:1 relative to the fixed rotation point. Signals above the rotation point are limited to prevent overload and to eliminate popping. A downward expander (noise gate) prevents amplification of background noise or hum. This results in optimized signal levels prior to digitization, thereby eliminating the need for additional gain or attenuation in the digital domain that could add noise or impair accuracy of speech recognition algorithms. The flexibility of setting the compression ratio and the time constant of the level detector, coupled with two values of rotation point, make the SSM2167 easy to integrate in a wide variety of microphone conditioning applications.





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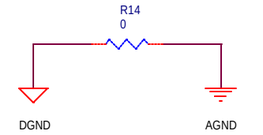
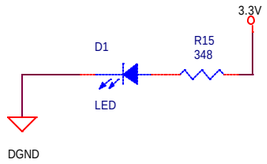
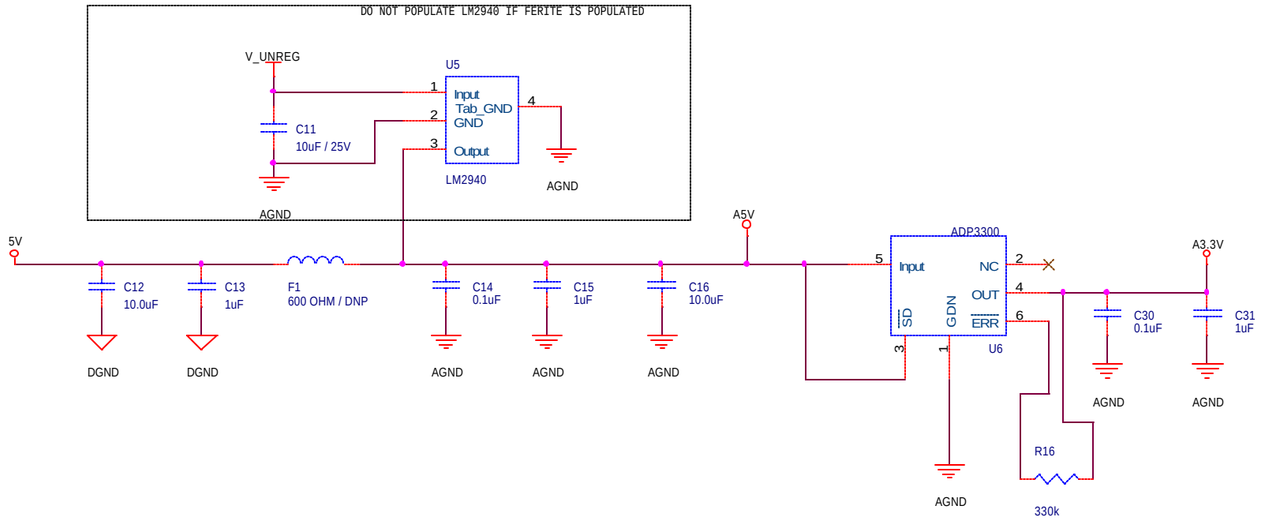
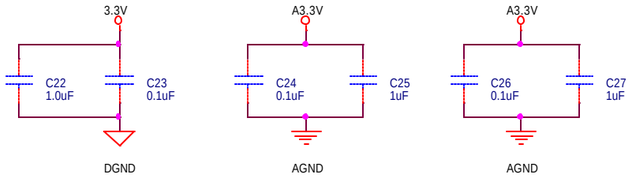


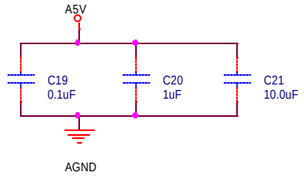


NOTE : The ADP3338 could be used if V_UNREG is under 8V. Since is can be over on this design, the LM2940 will be used. Note that the ADP3338 has a different pinout than the LM2940.

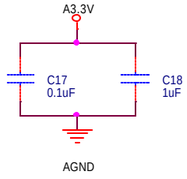




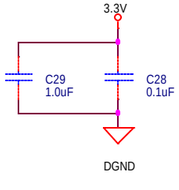
Near AD73311



Near SSM2211



Near SSM2167



NEAR CLOCK

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