

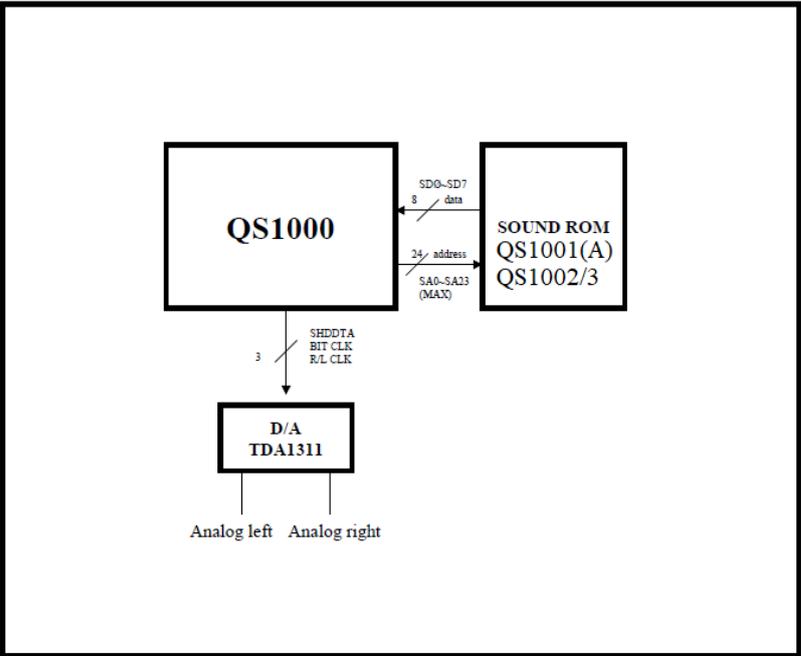
QDSP QS1001, QS1001A, QS1002, QS1003 application datasheet

ADMOS QDSP SOUND ROM – SOUND ROM FOR QS1000 soundchip
Internal design documentation – exported August 15th 2024

1. Introduction

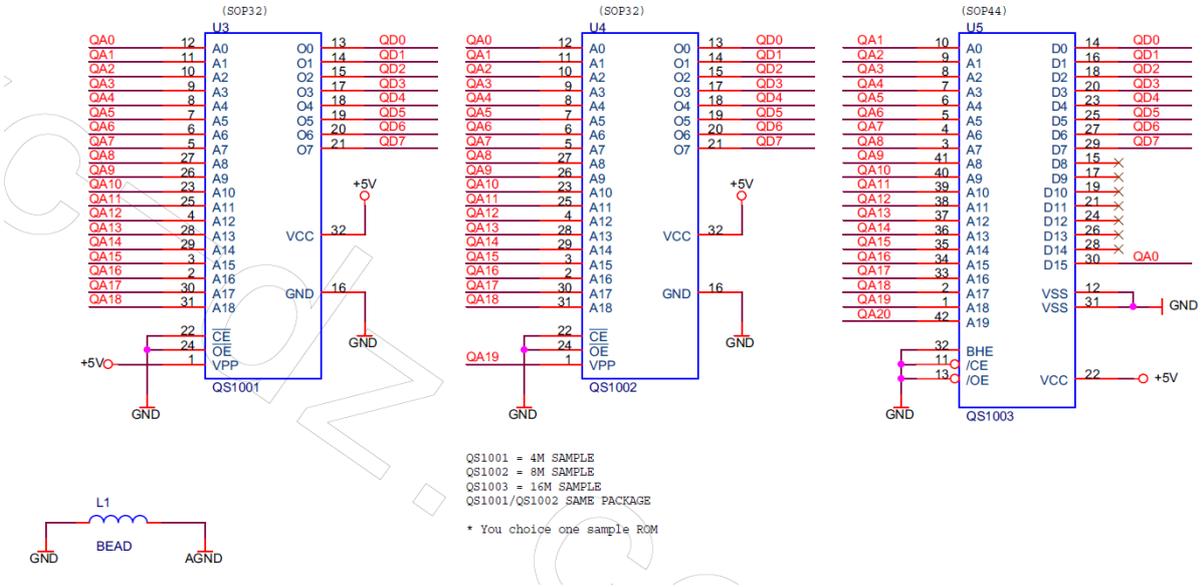
The QS1000 is a high performance digital signal processor, producing accurate, realistic musical sound. All the music synthesis algorithms are preset to make the most realistic acoustic sound and most control parameters can be changed during the creation of music according to the General MIDI specification. Also, built in HWASS proprietary decompression along with ATFA provides superb sound quality with compressed sound memory, thereby preserving sound quality and realism. The QS1000 is an ideal device to make sound generation (ex) Musical Instrument, Karaoke Machine, MIDI, Module, PC Sound card. ...etc). The QS1000 DSP is accompanied by a sound ROM. This document describes the available sound ROM options. See application block diagram below :

APPLICATION BLOCK DIAGRAM
(GM implement without recording function)

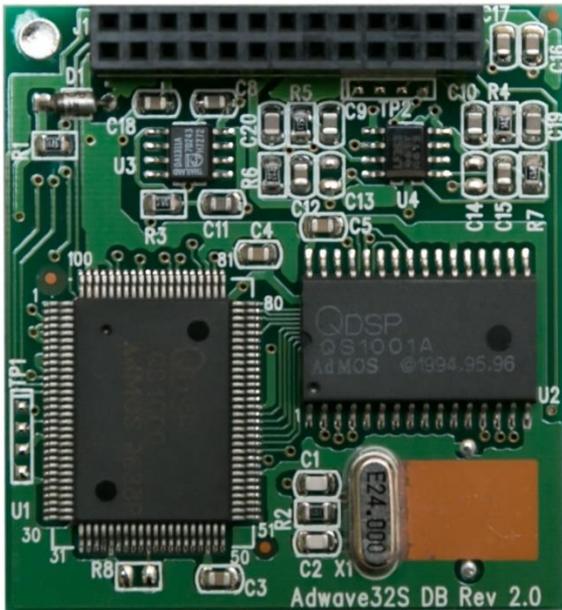


2. Part pinout

Part Nr	Footprint	ROM size
QS1001 / QS1001A	SOP32	4Mbit SAMPLE
QS1002	SOP32	8Mbit SAMPLE
QS1003	SOP44	16Mbit SAMPLE

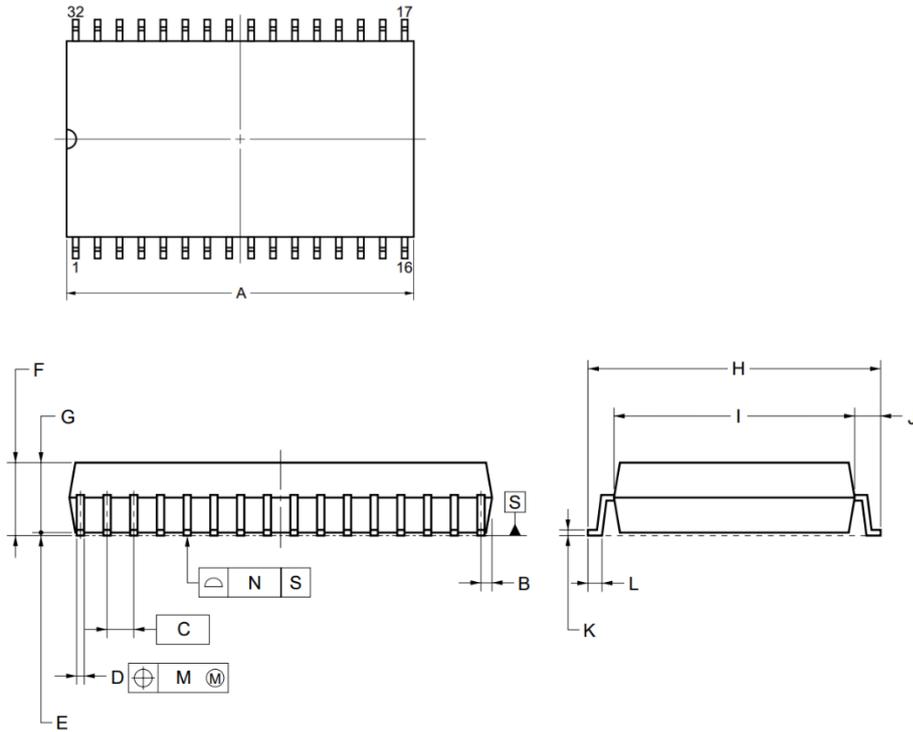


3. Typical application of QS1000 + QS1001A :



4. QS1001A SOP32 compatible footprint details

32-PIN PLASTIC SOP (13.34 mm (525))



ITEM	MILLIMETERS
A	20.61 MAX.
B	0.78 MAX.
C	1.27 (T.P.)
D	$0.40^{+0.10}_{-0.05}$
E	0.05 ± 0.05
F	2.85 MAX.
G	2.7
H	14.1 ± 0.3
I	11.3
J	1.4
K	$0.20^{+0.10}_{-0.05}$
L	0.8 ± 0.2
M	0.12
N	0.10
P	$5^\circ \pm 5^\circ$