

AC101 Audio CODEC

November 2013

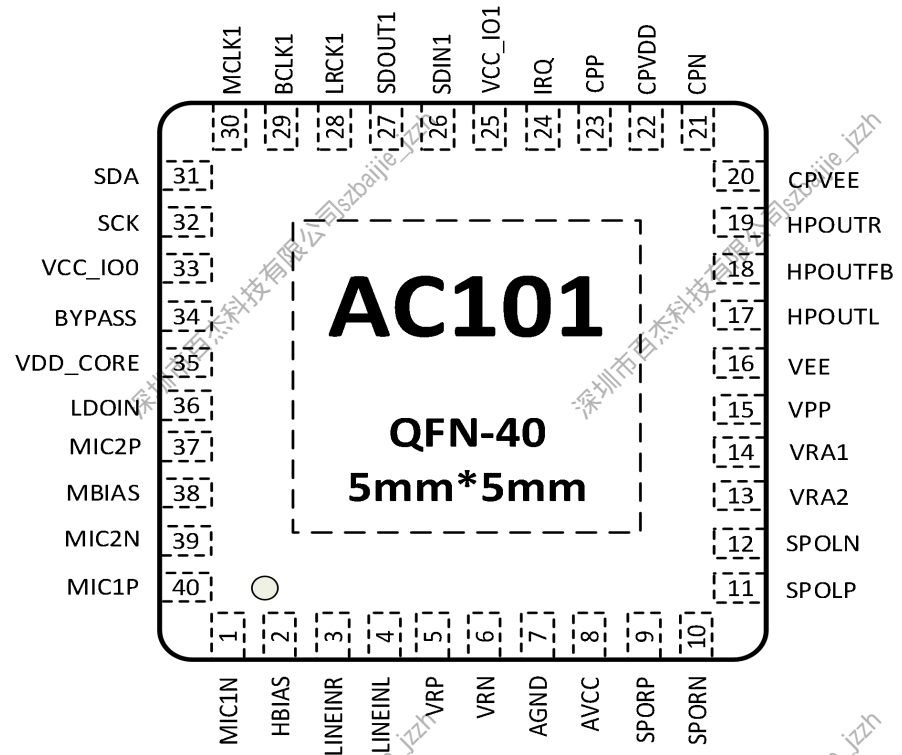


Introduction

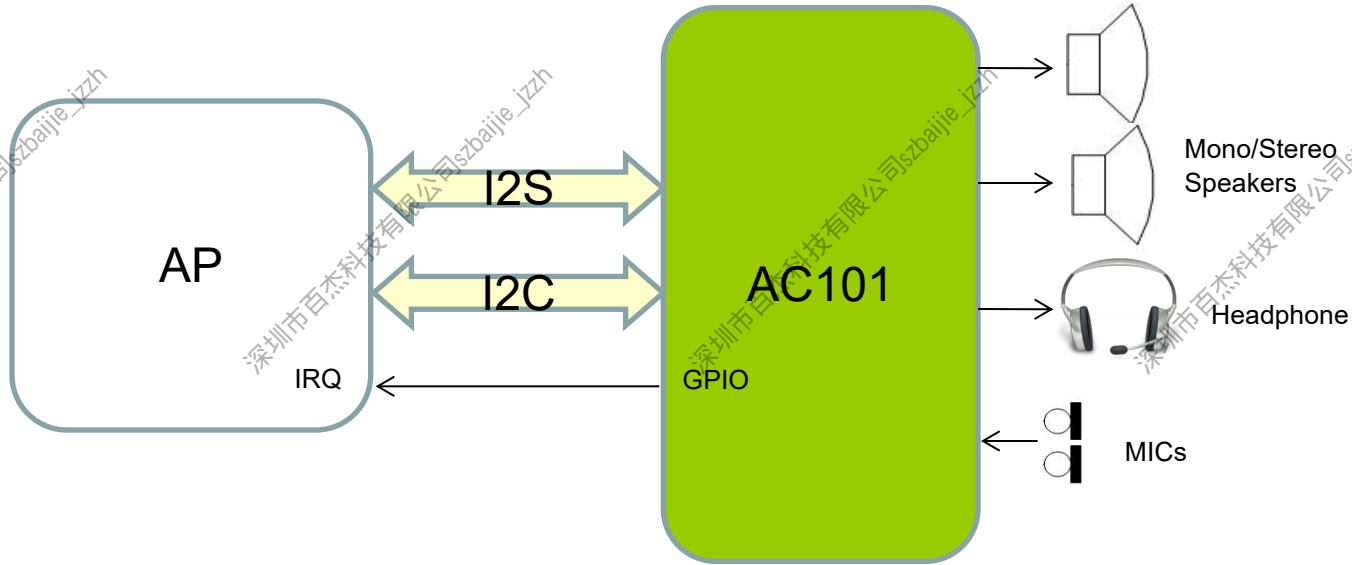


- Low power I2S codec for Mobile Devices

- Tablet
- Player
- Box



Applications



AC100T Feature Set



I2C+I2S Audio codec

- 2 ADCs and 2 DACs @ 24-bit processing with flexible DPLL clocking scheme
- Playback SNR 100 dBA and record SNR 95 dBA
- Sample rate: 8KHz ~ 192KHz
- Cap-free Headphone amp with Charge Pump driver
- Audio jack insert/ button press detection
- Support stereo digital microphone
- AGC for recording path and DRC for playback path
- Support RSB/TWI control interface

Audio I/O

■ Analogue Inputs:

- ⑩ 2x differential microphone inputs
- ⑩ 1x stereo or differential Line input

■ Digital I/O:

- ⑩ 1x I2C slave port
- ⑩ 1x I2S ports, TDM Mode
- ⑩ 1x digital MIC interface
- ⑩ 1x GPIO for IRQ

Analogue Outputs:

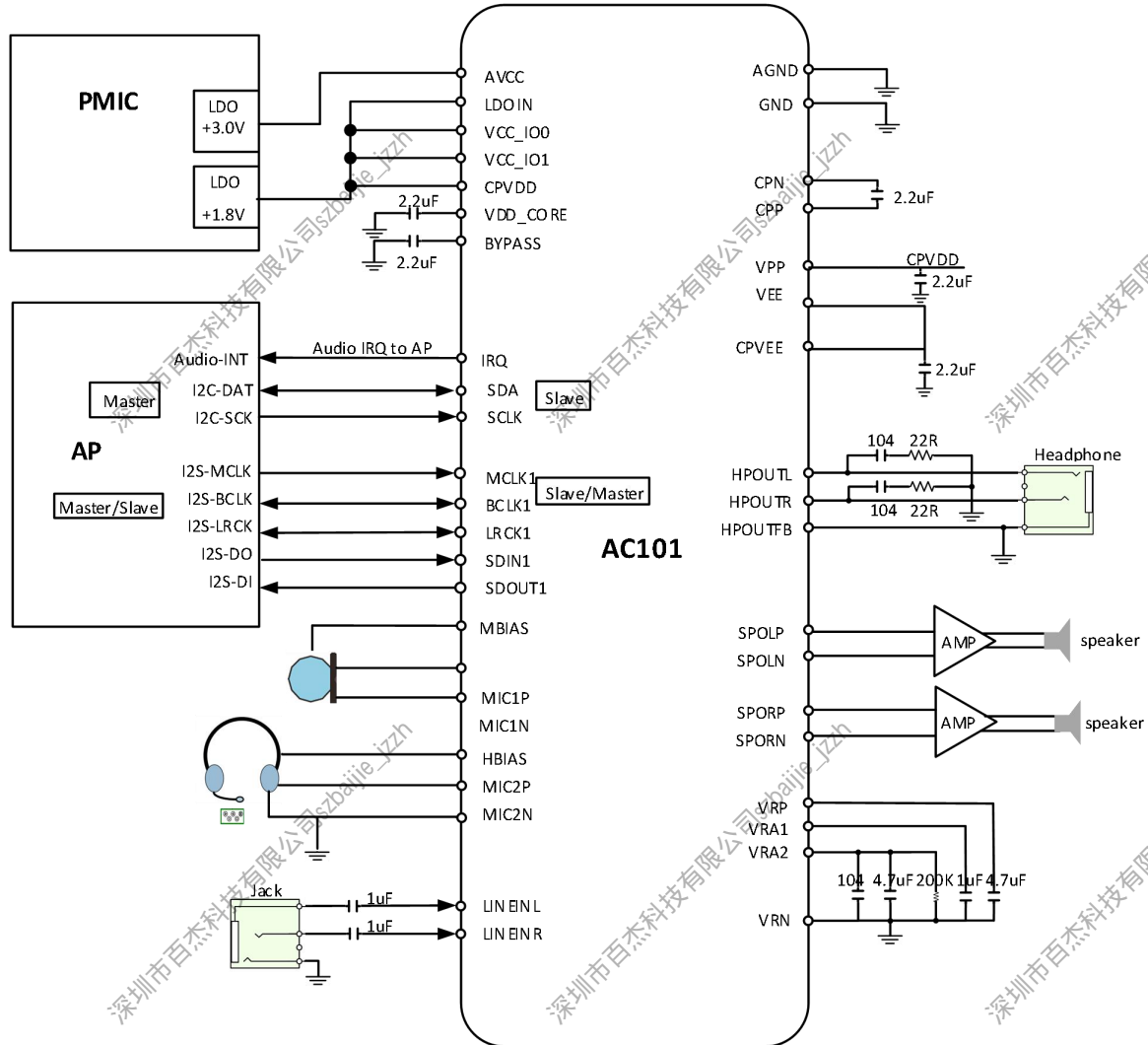
- 1x stereo headphone driver
- 1x differential earpiece driver
- 2x stereo or differential lineout to connect external speaker amplifier

Performance

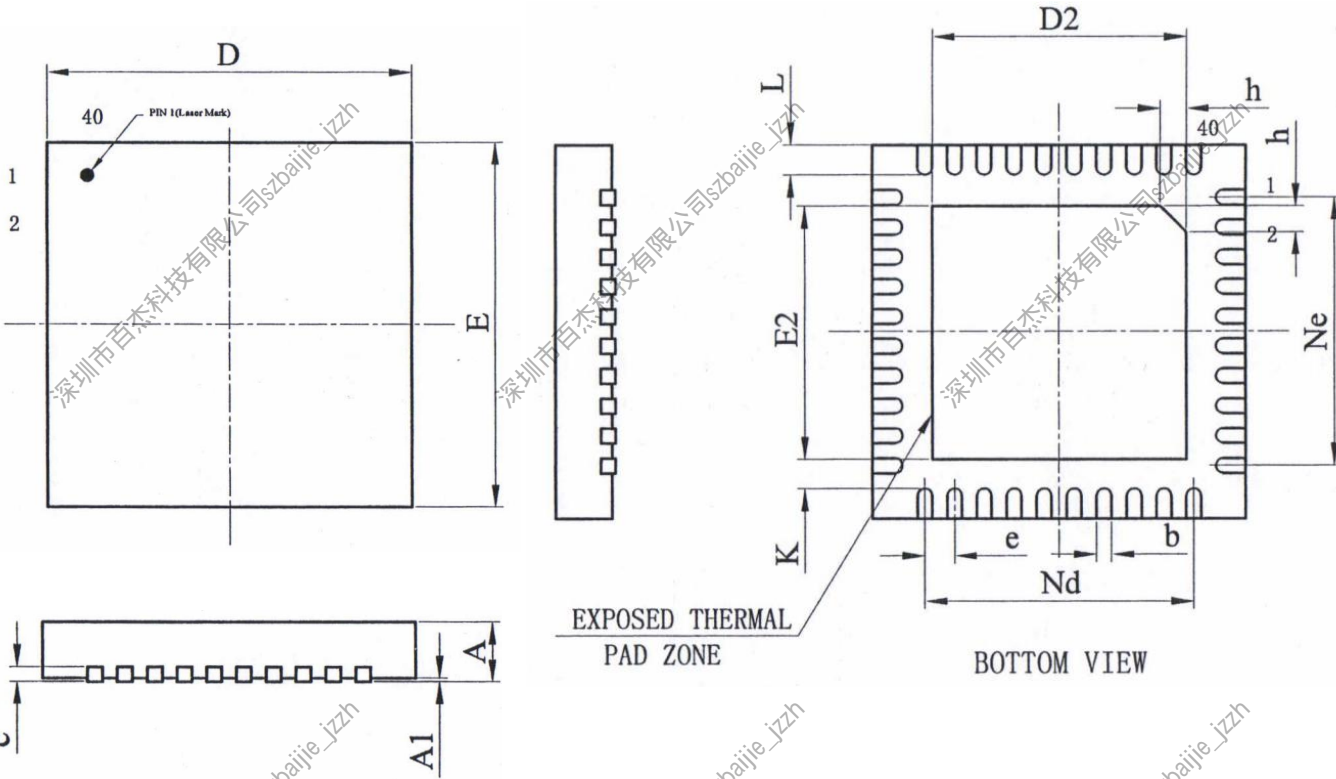


FEATURE	Performance
Line-In to ADC: SNR THD+N	95 dB -85 dB
Mic-in to ADC: SNR (PGA=0db) THD+N(PGA=0db) SNR (PGA=39db) THD+N(PGA=39db)	96 db -85 dB 81 dB -76 dB
DAC to ear-out: SNR THD+N	101 dB -84dB
DAC to HP @ 32 Ohm: SNR THD+N (Po=5mW) Crosstalk	100 dB -84 dB -88dB
Playback Power (DAC to HP only): typical	18mW
Standby Power : typical	0.3mW

Typical Application



Package



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.70	0.75	0.80
A1	—	0.02	0.05
b	0.15	0.20	0.25
c	0.18	0.20	0.25
D	4.90	5.00	5.10
D2	3.30	3.40	3.50
e	0.40BSC		
Nd	3.60BSC		
E	4.90	5.00	5.10
E2	3.30	3.40	3.50
Ne	3.60BSC		
L	0.35	0.40	0.45
K	0.20	--	--
h	0.30	0.35	0.40
L/F载体尺寸 (mil)	150*150		

Thank you

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