

- ◆ The AD52070 has **low idle current mode** for battery-powered audio system and helps to extend the battery life.
- ◆ The AD52070 advanced oscillator/PLL circuit employs a multiple switching frequency option to **avoid AM interferences**, which is achieved together with an option of either master or slave option, making it possible to synchronize multiple devices.
- ◆ The **Automatic Gain Control (AGC)** is enabled to prevent output signal from distortion when the input signal exceeds a threshold level.
- ◆ The **Power-limit control** can provide further limit output power level of amplifier

AD52070 Package

E-TSSOP-28

Output	SNR	Vn	Rdson	Efficiency	VDD	Idle Current
30Wx2	108dB	65uV	90mΩ	92%	4.5-26V	<23mA

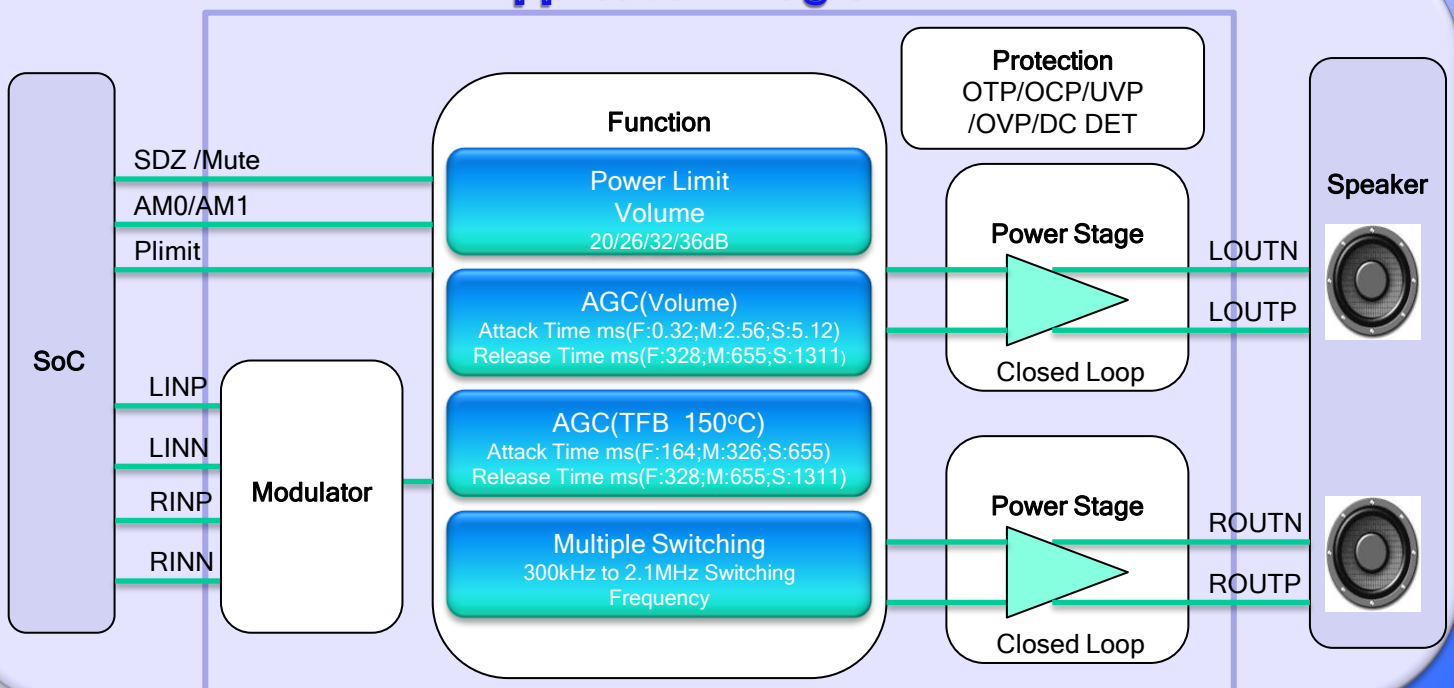
Application

Specifications and Features

- ▶ AI Speaker
- ▶ BT Speaker
- ▶ Wireless Speaker
- ▶ Powered Speaker

- ▶ **Louder Speaker Output Power**
 - 30W/CH into 8Ω <1% THD+N@24V
 - 30W/CH into 4Ω <1% THD+N@18V
- ▶ **Multiple Switching Frequencies**
 - AM Avoidance
 - 300kHz to 2.1MHz Switching Frequency
 - Master/Slave Synchronization
- ▶ **Speaker protection**
 - Automatic Gain Control (AGC)
 - Adjustable power limit function
- ▶ **Four selected gain**
 - 20/26/32/36dB
- ▶ **Energy Saving Class-D Operation**
 - Low Idle Current <23mA
- ▶ **Protection**
 - Thermal fold-back(TFB)
 - DC detect for speaker
 - Short Circuit
 - UVP Under-Voltage Detection
 - OVP Over-Voltage Detection

Application Diagram



Class-D Amplifiers - Selected Products

Product ID	Ch	VDD (V)	Power (W)	Load (ohm)	Package	Features	Status
AD51050-26QH14NRR	1	4.5~14.4	8	8/4	E-TSSOP-14L	Analog In 26dB gain Filter-Free	MP
AD52050B-26QG28NRR	2	8~14.4	15	8/4	E-TSSOP-28L	Analog In 26dB gain Power Limit P2P solution	MP
AD52058-26QG28NRR	2	4.5~14.4	15	8/4	E-TSSOP-28L	Analog In 26dB gain Power Limit P2P solution	MP
AD52066B-26QG28NRT	2	2.9~12	7	8/4	E-TSSOP-28L	Analog In 26dB gain Filter-Free Booster	MP
AD52067-26QG28NRT	2	2.9~12	15	8/4	E-TSSOP-28L	Analog In 26dB gain Filter-Free Booster	MP
AD52070-QG28NRR	2	4.5~26	30	8/4/2	E-TSSOP-28L	Analog In Four gain Power Limit AGC AM Avoidance	2020/Q2
AD52090-QG28NRR	2	4.5~26	30	8/4/2	E-TSSOP-28L	Analog In Four gain Power Limit P2P solution	MP
AD52110-QG28NRR	2	8~26	20	8/4	E-TSSOP-28L	Analog In Four gain Power Limit Filter-Free Mute/SD P2P solution	MP
AD52117-QG28NRR	2	4.5~26	20	8/4	E-TSSOP-28L	Analog In Four gain Power Limit Filter-Free Mute/SD P2P solution	MP
AD53060-LG48NRY	4	4.5~20	2x25W 15Wx2+30W 15Wx4	8/4	E-LQFP-48L	Analog In 26dB gain Power Limit	MP
AD92580C-QG24NAT	2	5~26	20	8	E-TSSOP-24L	PWM input	MP

Ordering Information

Product ID	Package	Packing	Comments
AD52070-QG28NRR	E-TSSOP 28L	2500 Units / Reel 1 Reels / Small Box	Green