

INTELLIGENT

Analog power amplifiers



State-of-the-art high-efficiency class-AB analog and digital power amplifiers for a clean and powerful sound compatible with (H)EV automotive applications

ST's extensive portfolio of automotive power amplifiers includes class-AB devices as well as high-efficiency class-SB and class-SB-I power amplifiers. Embedded class-G controllers are also available to further improve power efficiency.

Compliant with the most recent requirements for green vehicles including electric and hybrid technologies, ST's intelligent power amplifiers supply the most complete diagnostics available on the market and ensure complete amplifier control through the digital I2C bus.

KEY FEATURES

- Analog or I²S / TDM digital input
- Compatibility (H)EV battery profiles
- Full I2C digital diagnostics
- Full fault protection against and misconnection
- Class-SB/SB-I with up to 50% less power dissipation compared to class-AB; Class-G with power dissipation close to class-D devices
- Automotive-grade EMC performance
- Superior audio performance

KEY BENEFITS

- (H)EV battery profile compliant
- Compatibility with existing products
- Superior diagnostics help build reliable applications

CLASS-SB/SB-I

- Smaller heatsink allowing smaller and lighter applications
- Contribution to emission reductions and environment protection
- Lower application cost compared to equivalent solutions

Class-G

- Embedded buck controller

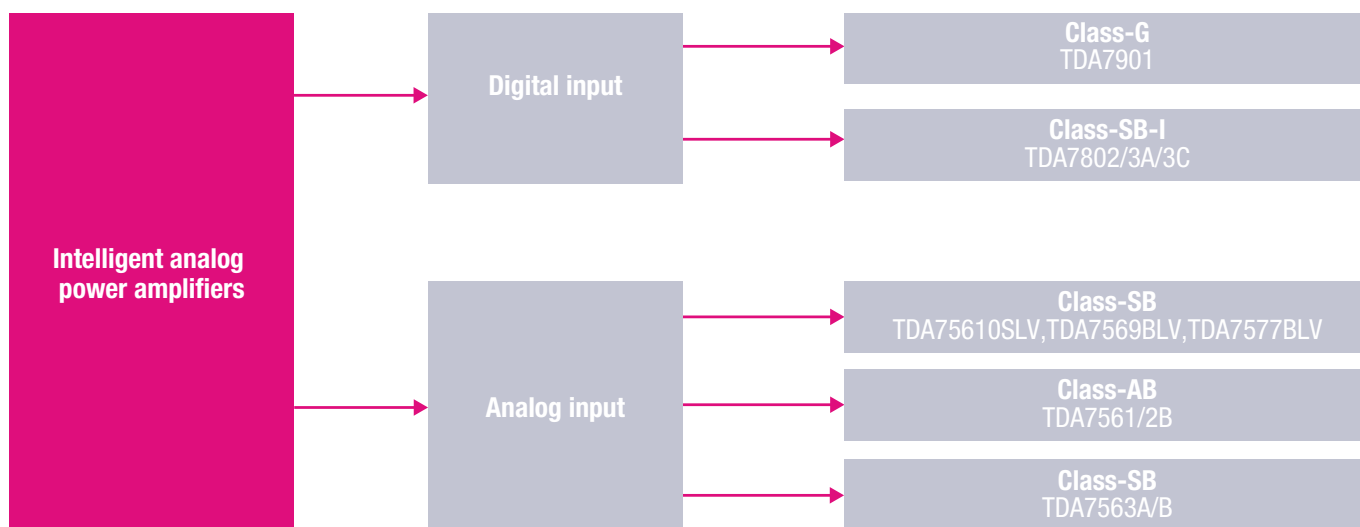
Digital input

- High noise-injection immunity / No need for DAC and input filters

Real-time load current monitor

- Advanced safety functions and load degradation compensation

Our offer at a glance



Full product support

Demonstration boards, technical documentation and relevant software are available for all automotive power amplifiers.

Device summary

Part number	Description
TDA7569BLV	4 x 50 W high-efficiency, class-SB power amplifier with full I2C diagnostics
TDA7569BDLV	4 x 50 W high-efficiency, class-SB differential input power amplifier with full I2C diagnostics
TDA75610SLV / EP	4 x 45 W high-efficiency, class-SB power amplifier with full I2C diagnostics
TDA75610DLV	4 x 45 W high-efficiency, class-SB differential input power amplifier with full I2C diagnostics
TDA7577BLV	2 x 50 W high-efficiency, class-SB dual bridge power amplifier with full I2C diagnostics
TDA7801	4 x 50 W digital input quad power amplifier with full I2C diagnostics
TDA7802	4 x 50 W high-efficiency, class-SB-I digital input power amplifier with full I2C diagnostics, start-stop compatible
TDA7561/2B	4 x 45 W power amplifier with full I2C diagnostics
TDA7563A/B	4 x 50 W class-SB power amplifier with full I2C diagnostics
TDA7803C	4 x 43 W high-efficiency, class-SB-I digital input power amplifier with full I2C diagnostics, start-stop compatible
TDA7808	4 x 43 W high-efficiency, class-SB-I digital input power amplifier, start-stop compatible
TDA7901 ¹	4 x 47 W high-efficiency, class-SB-I digital input power amplifier, start-stop compatible, load current monitor, Class-G integrated

Note: 1. Coming soon



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