

Automotive External Amplifier

Increase your audio amplifier's power without increasing the size



Build a high-power car audio amplifier solution that delivers the capabilities of the [TPA32xx Ultra-HD Class-D amplifier family](#) based on [TI's 700 W Automotive Class-D Audio External Amplifier Reference Design](#). Discover how much power can be achieved on a surprisingly small solution size with full support of high resolution audio and industry leading THD+N performance.



Featured devices

TPA3251

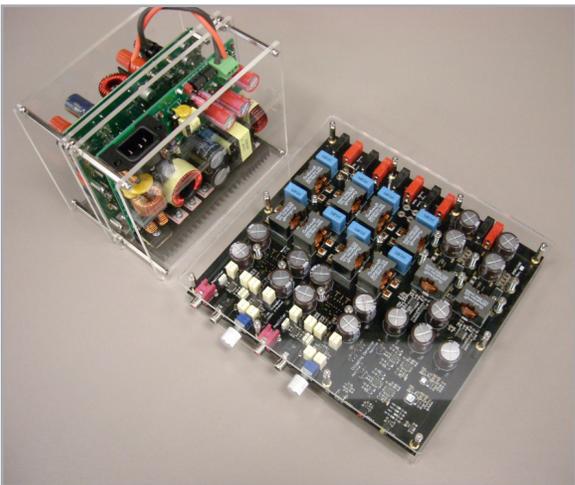
175 W Stereo / 350 W Mono PurePath™ Ultra-HD, Analog-In Class-D Amplifier

LM25122-Q1

Automotive grade, 3-42 V Wide V_{in} , synchronous boost controller with multiphase capability

OPA1662-Q1

Automotive SoundPlus™ low-power, noise and distortion audio op amp



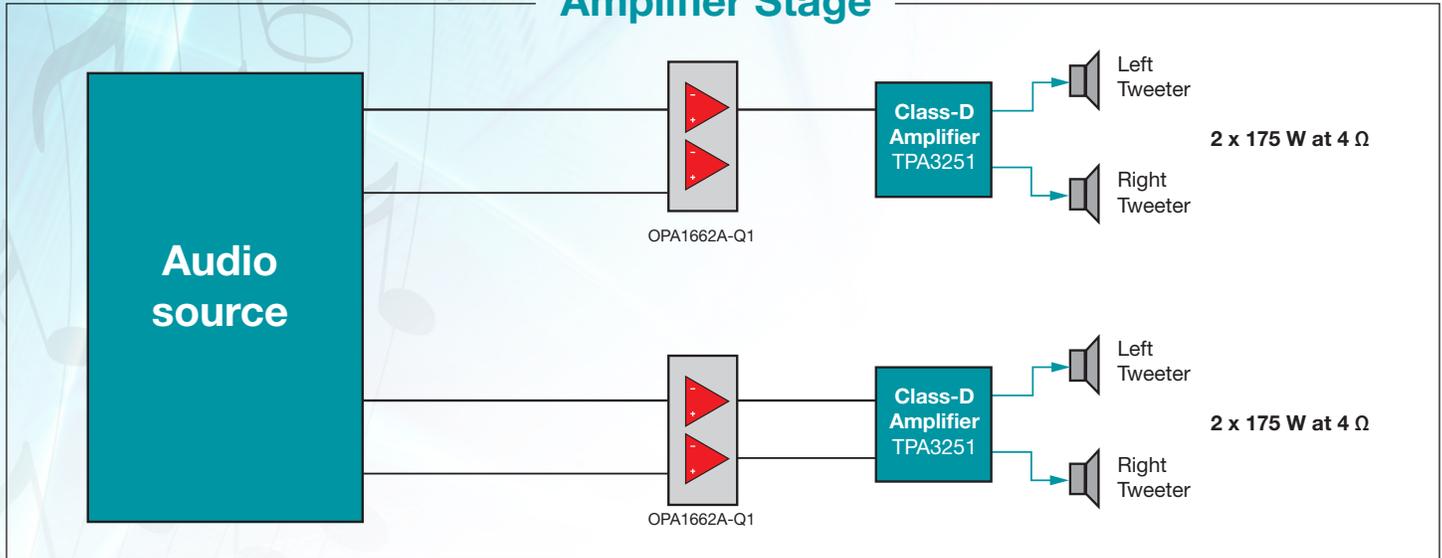
Application features

- Easily integrated into automotive systems with 50 V load dump and integrated protection system
- Ultra-HD audio for the best quality sound of any integrated Class-D amplifier
- 100 kHz bandwidth, which enables support for high resolution audio files and formats
- Low noise, which eliminates the “hiss” or “buzz” sounds

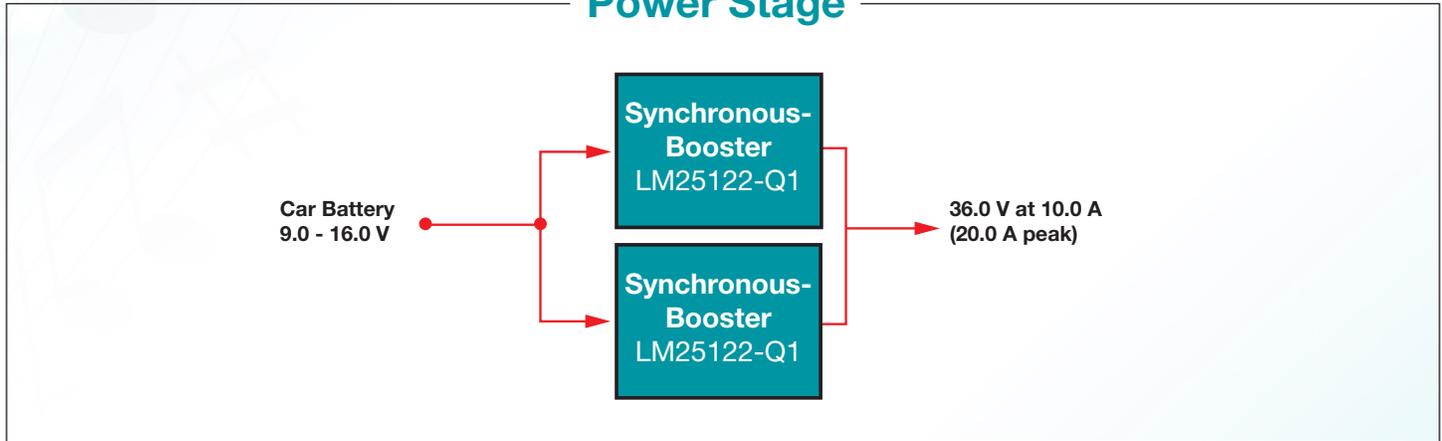
For more information please visit: ti.com/highpoweraudio

Select the best output power level for your project. The TPA32xx family features Class-D amplifier with capabilities from 35W to 315W Stereo / 650W Mono per device.

Amplifier Stage



Power Stage



TPA32xx High-Power, High-Performance Class-D Amplifiers

	TPA3244	TPA3245	TPA3250	TPA3251	TPA3255
Max Power to BTL/ Ch (W)	110	145	130	220	315
Max Power to PBTL (W)	160	230	190	355	605
Min Supported BTL Load (Ω)	4	3	4	3	4
Power Stage Supply Max (V)	31.5	31.5	38	38	53.5
Thermal Pad Location	Bottom	Top	Bottom	Top	Top
Package	44HTSSOP ²	44HTSSOP ¹	44HTSSOP ²	44HTSSOP ¹	44HTSSOP ¹
Dimensions	6.1 x 14 mm				

¹ Pad-Up, pin-compatible package. ² Pad-Down, pin-compatible package. Power numbers taken at 10% THD+N.



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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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