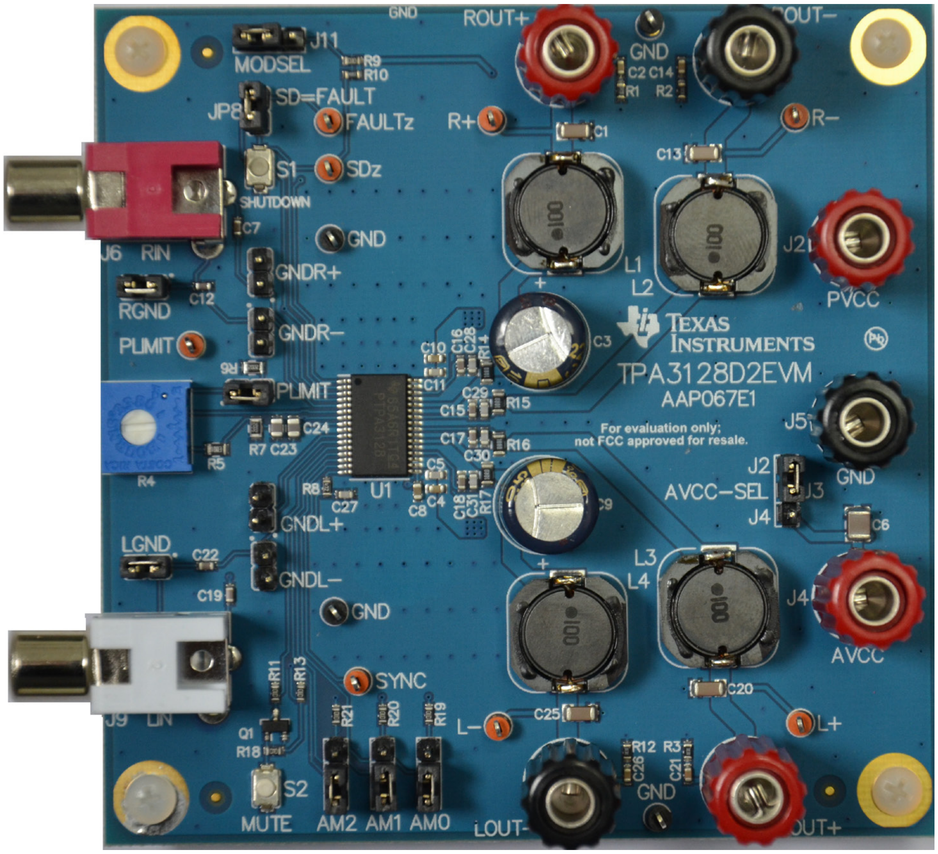
TPA3128D2EVM

Quick-Start Guide

Start Here

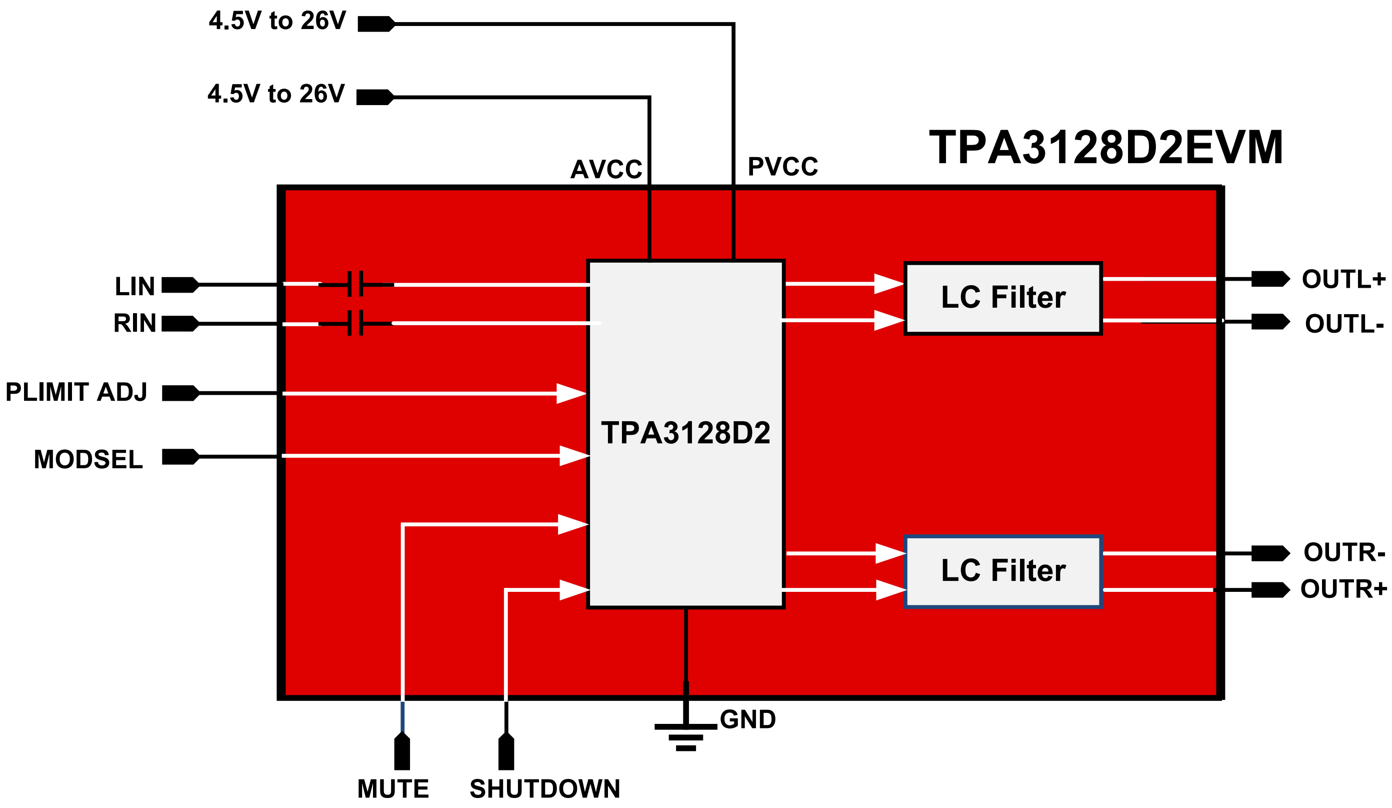


ti.com/tool/tpa3128D2EVM

Texas Instruments

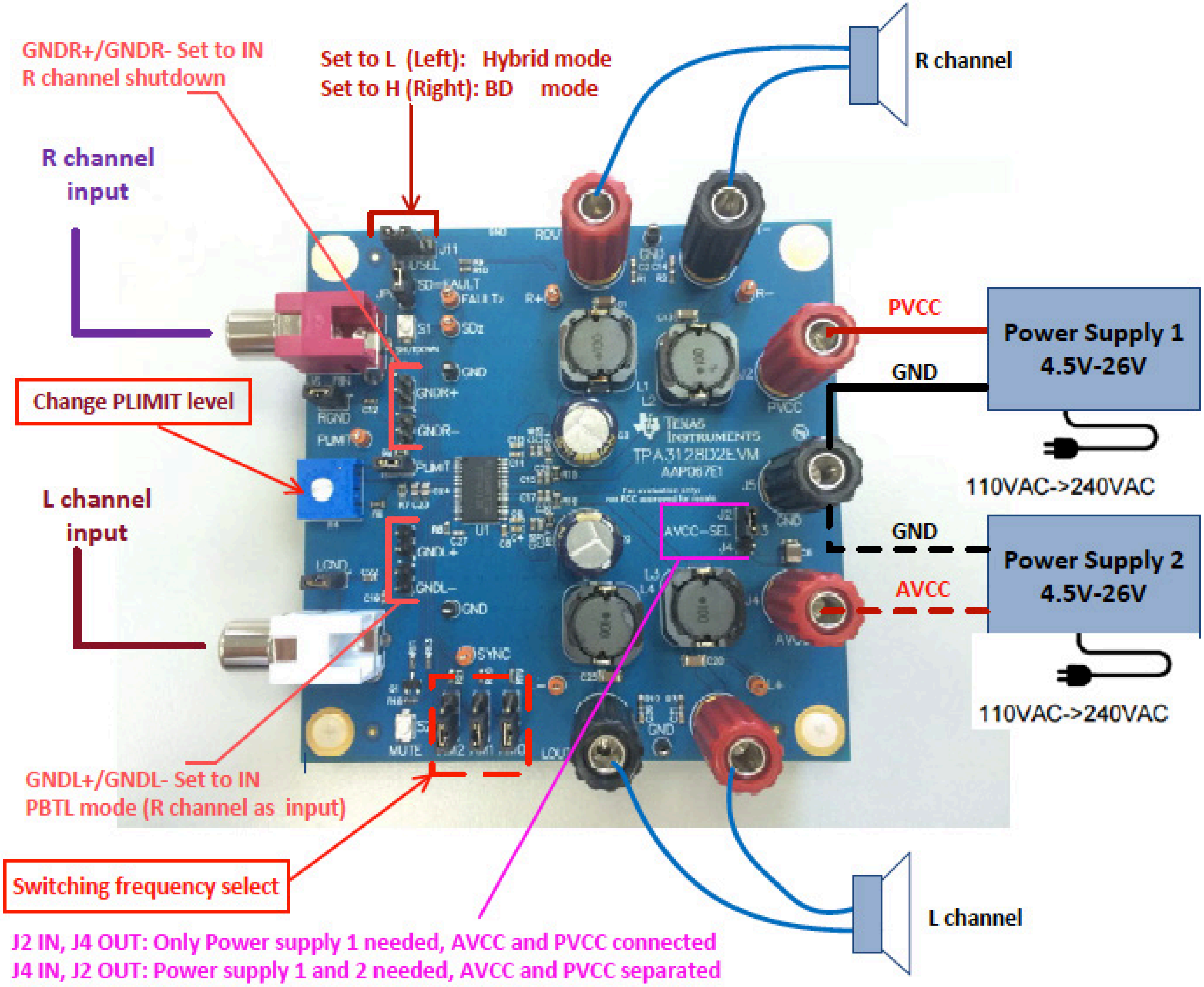
Evaluation Kit Features

- Very low idle current with LC filter =10uH+0.68uF
  <23mA@PVCC=24V
  <15mA@PVCC=12V
- Adaptive modulation schemes based on output power
- Supports separate AVCC and PVCC to save more power
- Supports stereo output, mono output, and PBTL configuration
- Wide supply voltage capabilities, from 4.5V to 26V
- Multiple switching frequencies, 300KHz to 1.2MHz
- 2× 30W/ch into 8Ω load <10%THD+N@PVCC=21VGNDLC



Getting Started

1. Order the TPA3128D2EVM from ti.com/tool/TPA3128D2EVM.
2. Connect the audio source, power supply, and speaker to the EVM as indicated.



GNDR+/GNDR- Set to IN
R channel shutdown

Set to L (Left): Hybrid mode
Set to H (Right): BD mode

Change PLIMIT level

GNDL+/GNDL- Set to IN
PBTL mode (R channel as input)

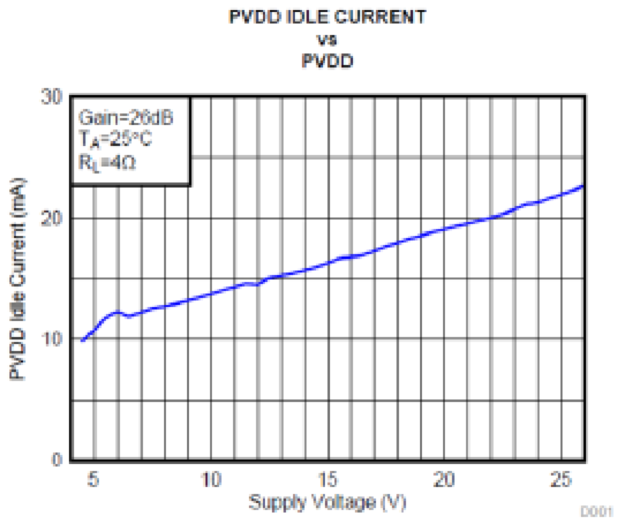
Switching frequency select

J2 IN, J4 OUT: Only Power supply 1 needed, AVCC and PVCC connected
J4 IN, J2 OUT: Power supply 1 and 2 needed, AVCC and PVCC separated

Features and Benefits

Ultra-low idle current

Use Hybrid mode to lower the idle power loss, and help to extend the battery life of Bluetooth/ wireless speakers and other battery powered audio systems.

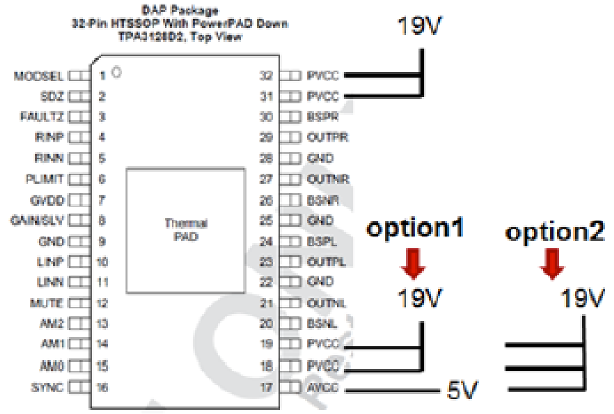


Adaptive modulation schemes

The adaptive modulation schemes minimize the average PVCC current, based on output power.

Save more power

Separate AVCC and PVCC will lower system power consumption.



Compare with Option2, Option 1 save power= (19-5)×4=56mW !

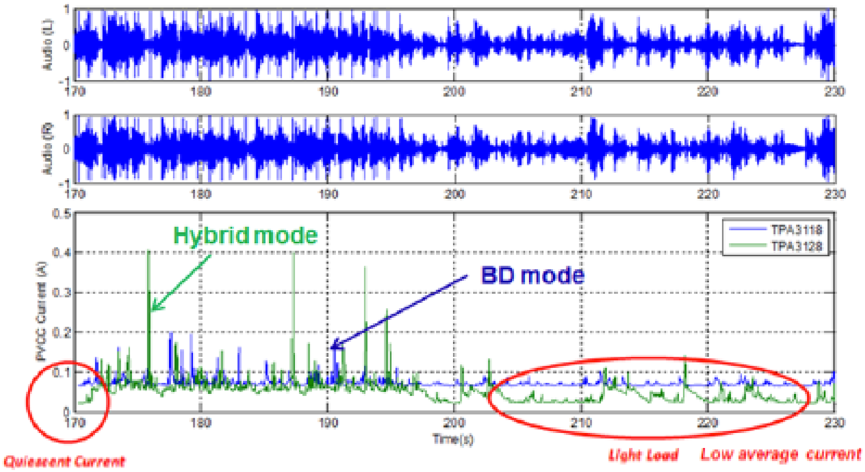
Save Power= (PVCC value – AVCC value) × 4mA

P2P compatible

Supports P2P with the **TPA3118D2**

Robust protection

Speaker protection includes power limiter and DC protection, thermal protection, plus pin-to-pin, pin-to-ground, and pin-to-power short circuit protection.



Music under Test: Toni Braxton - I Love Me Some Him 02:50-03:50

Design Resources and References

TI E2E™ Community

Engage in the

Audio Amplifiers Support Forum

Search for solutions, get help and share knowledge with fellow engineers

Available on: ti.com/product/tpa3128d2

- TPA3128D2 datasheet
- Complete TPA3128D2EVM User's Guide
- TPA3128D2EVM gerber with schematic and BOM

Get more information on TI's solutions for audio applications at ti.com/audio

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