

## 3W/CH, Stereo, Filterless, Class-D Audio Power Amplifier

### www.datasheet4u.com **General Description**

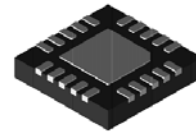
The CP2212 is a high efficiency, stereo, filterless, Class D audio power amplifier designed for demanding audio applications. It is capable of delivering 3W/CH of continuous average power to a 4Ω BTL load with less than 10% distortion (THD+N) from a 5V battery voltage. It operates from 2.5V to 5.5V.

Features like 90% efficiency, -80dB PSRR at 217Hz, improved RF-rectification immunity, the space-saving CSP16 and QFN20 packages, the advanced pop & click circuitry, a minimal count of external components and low-power shutdown mode make the CP2212 ideal for wireless handsets.

The CP2212 features independent shutdown controls for each channel. The gain can be selected to 6, 12, 18, or 24 dB utilizing the G0 and G1 gain select pins.



CSP16 Package  
1.95mm x 1.95mm  
-40°C ~ 85°C



QFN20 Package  
4mm x 4mm  
-40°C ~ 85°C

### Features

- Optimized PWM eliminates output Filter
- Efficiency with an 8Ω speaker at 400mW 90%
- Power output at 5.0V, 1%THD, 8 Ω 1.36W/CH
- Power output at 5.0V, 10%THD, 4 Ω 3W/CH
- Wide single supply voltage: 2.5V to 5.5V
- Independent shutdown control for each channel
- Selectable gain of 6, 12, 18, and 24 dB
- Quiescent current 4.5mA
- Shutdown current 0.1μA
- Improved PSRR -80dB
- Internally generated 300kHz switching frequency
- Fully differential design reduces RF rectification
- Integrated click-and-pop suppression circuitry
- Short circuit and thermal protection
- Available in space-saving packages: CSP16 & QFN20
- RoHS compliant and 100% lead(Pb)-free

### Applications

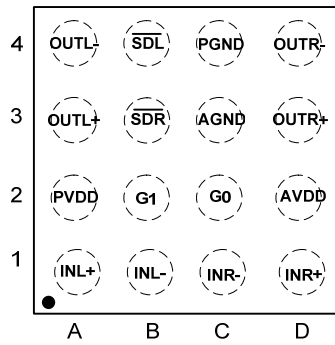
- Wireless handsets
- Portable audio devices
- PDAs
- Notebook computers

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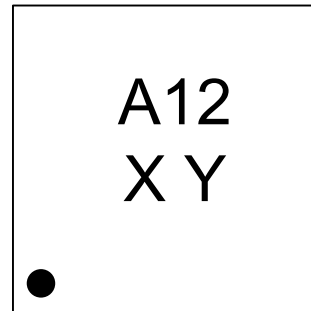
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### Pin Configurations

**CSP16 Package  
(Top View)**

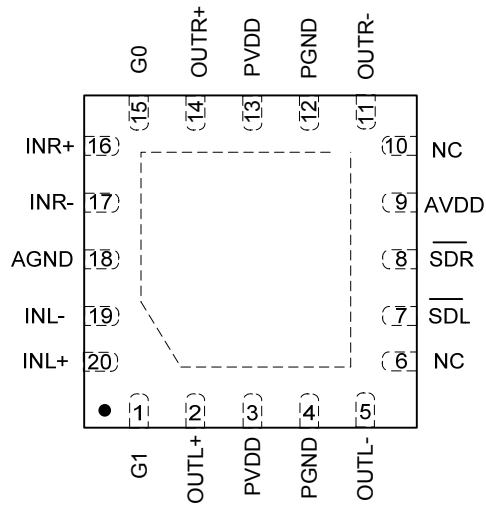


**CSP16 Marking**

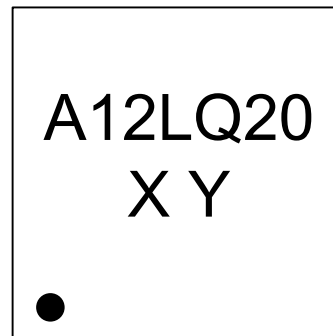


A12 - CP2212ITLX  
XY - Manufacture Date Code

**QFN20 Package  
(Top View)**



**QFN20 Marking**

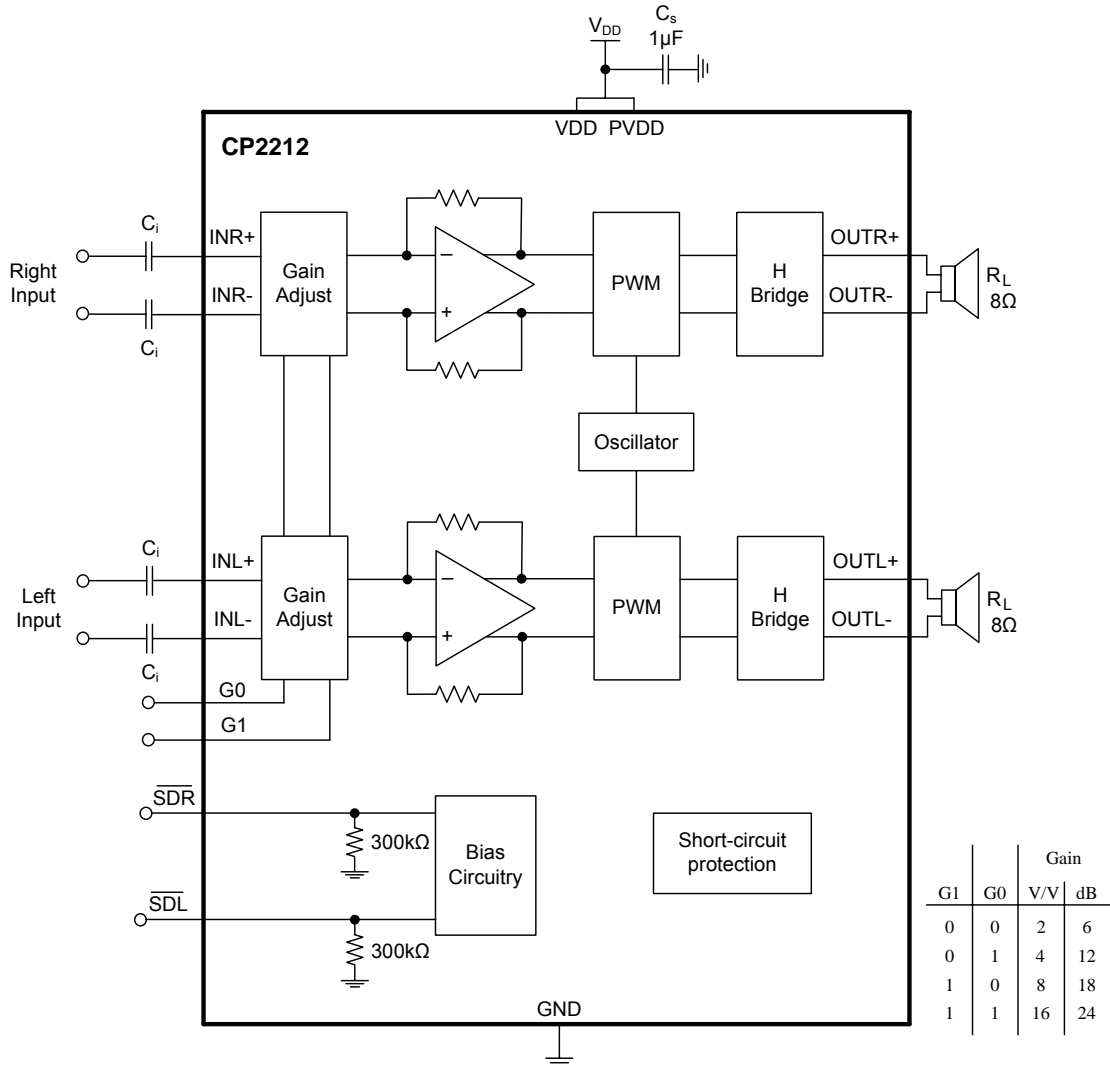


A12LQ20 - CP2212LQ20  
XY - Manufacture Date Code

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#### Typical Application

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