

1 .2 Watt Audio Power Amplifier

● General Description

The PN4890 is an audio power amplifier primarily designed for demanding applications in mobile phones and other portable communication device applications. It is capable of delivering 1.2 watt of continuous average power to an 8Ω BTL load with less than 1% distortion (THD+N) from a 5V DC power supply.

The PN4890 does not require output coupling capacitors or bootstrap capacitors, and therefore is ideally suited for mobile phone and other low voltage applications where minimal power consumption is a primary requirement.

The PN4890 features a low-power consumption shutdown mode, which is achieved by driving the shutdown pin with logic low. Additionally, the PN4890 features an internal thermal shutdown protection mechanism.

● Key Specifications

PSRR at 217Hz, $V_{DD} = 5V$	65dB (typ.)
Power Output at 5.0V & 1% THD	1.2W (typ.)
Power Output at 3.3V & 1% THD	400mW (typ.)
Shutdown Current	0.1 μ A (typ.)

● Features

- | Ultra low current shutdown mode
- | BTL output can drive capacitive loads
- | Improved pop&click circuitry eliminates noises during turn-on and turn-off transitions
- | No output coupling capacitors, snubber networks or bootstrap capacitors required
- | Unity-gain stable
- | External gain configuration capability

● Applications

- | Mobile Phones
- | PDAs
- | Portable electronic devices

● Operating Ratings

Temperature Range	- 40 $^{\circ}$ C ~ 85 $^{\circ}$ C
Supply Voltage	2.3V \leq V_{DD} \leq 6.0V