

DESCRIPTION

This document contains detailed target specifications for the MA1241 Low Power Headphone Amplifier with Class-G headphone amplifier.

FEATURES

- **Functional Descriptions**

- Low Power High Efficiency Stereo Class-G Headphone Amplifier
 - ✓ 103dB SNR(6uVrms Output Noise) @ A-weighted, $R_L = 32\Omega$, $P_{OUT} = 25mW$
 - ✓ 110dB SNR(6uVrms Output Noise) @ A-weighted, $R_L = 600\Omega$, $V_{OUT} = 2V_{rms}$ with $V_{DD} = 3V$
 - ✓ 0.01%(80dB) THD @ $R_L = 32\Omega$, $P_{OUT} = 10mW$, $f_{IN} = 1kHz$
 - ✓ Max 2Vrms output drive into 600Ω with $V_{DD} = 3V$
 - ✓ Single power supply operation (1.6V ~ 3.0V)
 - ✓ Capacitor-free output drives with an integrated charge pump for a negative supply rail
 - ✓ Class-G operation for high operational power efficiency
 - ✓ Click and pop suppression
 - ✓ Ultra Low Current Shutdown Mode
 - ✓ Low Quiescent Current (1.6mA @ $V_{DD} = 1.8V$)
 - ✓ Over Current Protection
 - ✓ Thermal Shutdown Protection
 - ✓ Under-voltage Lockout Protection

- **Applications**

- Mobile audio products
- Wireless audio products

ORDERING INFORMATION

Customer Code	Internal Code	Package	Marking	Operating Temperature
TBD	MA1241X-001	16-QFN-0303	TBD	-40 to 85 °C
TBD	MA1241X-002	14-TSSOP	TBD	-40 to 85 °C

BLOCK DIAGRAM

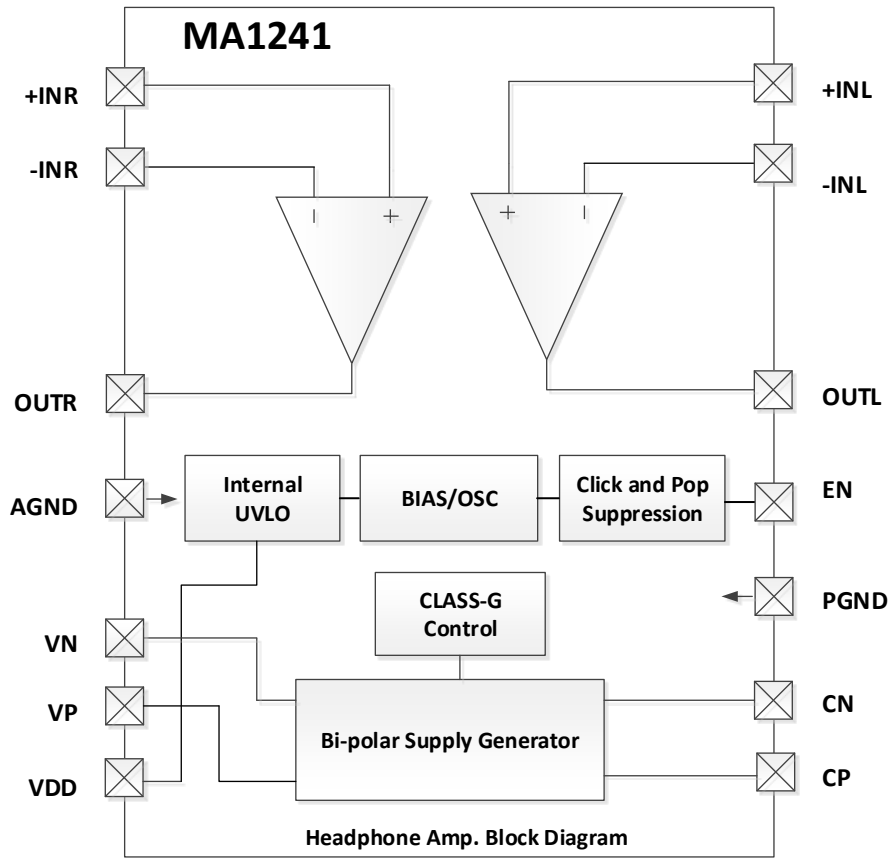


Figure 1. MA1241 Block Diagram