

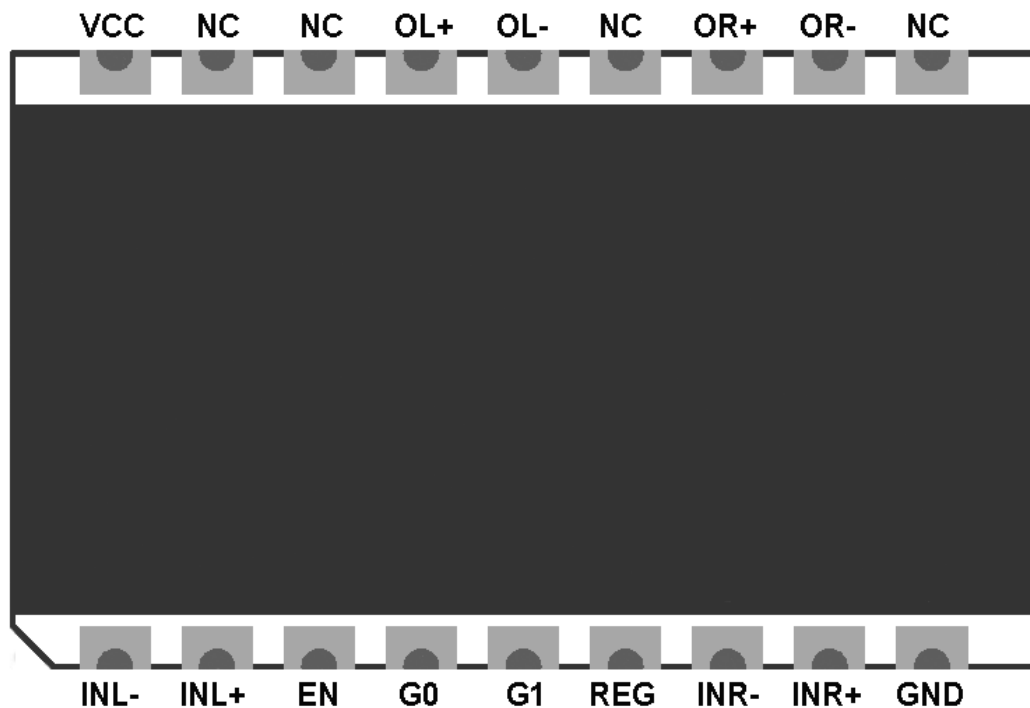
## General description

VMA2016 is a small size, low profile and high efficiency (up to 88%) stereo audio amplifier module. Output power is up to 10W per channel on 80hm load (THD = 10%). If the load is 160hm the maximum power can be up to 10W x 2. There's no noticeable heat even at the maximum output power.

## 1. Applications

- Portable audio
- Car audio
- Entertainment
- Desktop audio
- PC Audio
- Other high efficiency sound systems

## 2. Pinout



### Pin Description

Pin No.	Name	Function Description
1	INL-	Negative input of left channel
2	INL+	Positive input of left channel
3	EN	Enable, tide to VCC to enable the module
4	G0	Gain set bit 0



# VMA2016 10Wx2 Audio Amplifier

5	G1	Gain set bit 1
6	REG	Regulated voltage output for G0 and G1
7	INR-	Negative input of right channel
8	INR+	Positive input of right channel
9	GND	Power ground
11	OR-	Negative output of right channel
12	OR+	Positive output of right channel
14	OL-	Negative output of left channel
15	OL+	Positive output of left channel
18	VCC	10V-22V power input
10,13,16,17	NC	No Connection

### 3. Electrical Characteristics

Parameters	Value
Supply Voltage	10V-22V
Channels	2
Max power (THD+N = 10%)	5W x 2 for 4Ω load 10W x 2 for 8Ω load 15W x 2 for 16Ω load
Efficiency	88% max
Gain set	G1:G0=00 30dB G1:G0=01 13.2dB G1:G0=10 19.5dB G1:G0=11 16dB
THD+N	0.07%(4Wx2, 8Ω load)
SNR	>90dB
Vreg	6V
Input Impedance Rin	>10kΩ
Quiescent Current	24ma
Shutdown current	1uA

### 4. Reference Design

