# Amplifier Selection Help

I. Introduction

With our program, we recommend a 3 amp models, for users to choose. Namely 8002, HX8358, HK9108 three. This 3 amp models, covering a number of low-voltage power supply, drive a small speaker occasions. At the same time large shipments of chips, price and performance we recommend all markets are very appropriate

# Second, the details

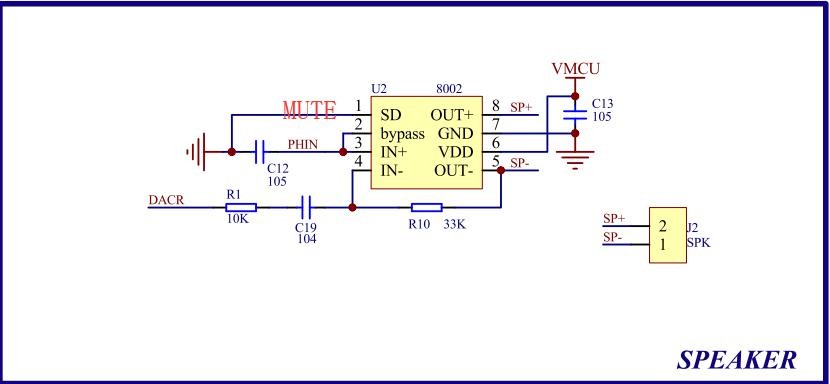
## Comparison of three amplifier

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| **Concept Note** | **1, we can understand being divided into class AB amplifier and Class D**  **2, AB class amplifier, called the analog amplifier, the advantage of the small interfering others. The disadvantage is severe fever**  **3, class D amplifier, called digital amplifier, the advantage of heat, high efficiency. Foreign interference drawback is little freshman, usually interfere with radio**  **For general applications, we recommend using Class D** |
| 8002 | Pros: cheap, abundant supply on the market, easy to use, almost all manufacturers are compatible with each other drawback: Because it is class AB, so powerful chip heating, power vacuity, there is long-term risks  Package: SOP8 |
| HX8358 | Pros: Class D amplifier, good performance. Wide voltage input, 7V achieve real power, full power, and anti-breaking sound drawbacks: high unit price. Price 0.35  Package: SOP8 large pad with heat |
| HK9108 | Advantages: Class D amplifier, performance, cost appropriate, 0.27  Cons: only supports up to 6V power supply, no anti-breaking sound. 5W maximum power will  Package: SOP8 large pad with heat |

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| Selection Description: This three amplifiers are powered 5V, you can view detailed specifications  Here we recommend the use of HK9108, because of continuous music playback, select the most appropriate category D |
| 1, if the general case of music, or a 5V battery, better quality requirements, it is recommended HK9108 |
| 2, If it must be cheaper, performance requirements, and is not a long-term player, you can select 8002, this is a classic |
| 3, if the requested wide voltage input, and for sound quality requirements, it is recommended to use HX8358 |

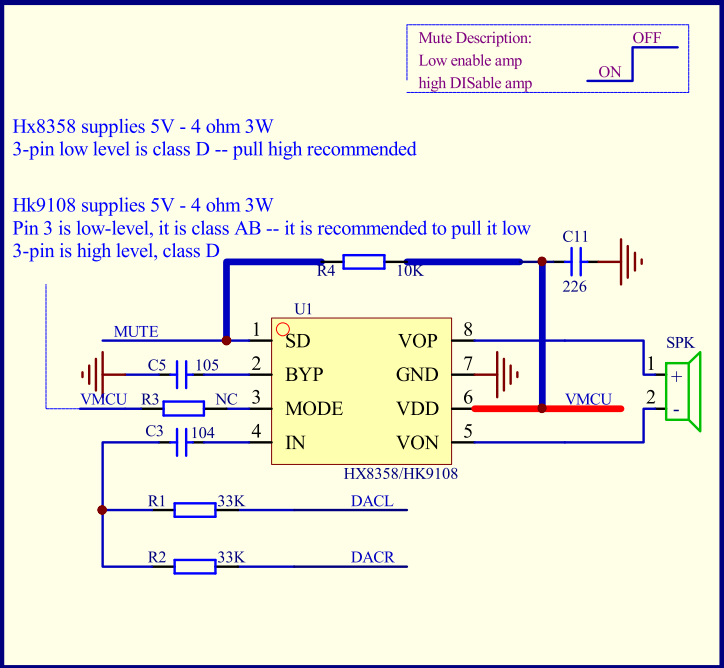
If you need a stereo, it is recommended to use two power amplifier chip used in combination.

* 1. PA Application Circuit 8002



The first leg to control the opening and closing of ports PA

## PA HX8035 application circuit



* 1. PA HK9108 application circuit

The only difference HX8358, lies 3 feet

Features HK9108 third leg as follows: a detailed reference manual can

和HX8358唯一的区别，就在于第3脚

HK9108的第3脚的特点如下：详细的可以参考手册

|  |  |  |  |
| --- | --- | --- | --- |
| **Pin Number** | **Pin Name** | **IO** | **Features** |
| 1 | SD | I | Shutdown control. High off, low open |
| 2 | BYPASS | IO | Internal common-mode reference voltage to the capacitor Shimoji |
| 3 | MODE | I | Mode switching. High in the D, low class AB floating default class AB |
| 4 | IN | I | An analog input terminal, an inverting |
| 5 | OVN | O | The negative output terminal |
| 6 | VDD | IO | Positive power supply terminal |
| 7 | GND | IO | Negative Power Supply |
| 8 | OVP | O | Output upright pole |

