

Application

- Audio player
- Bluetooth audio
- WiFi speaker

Specifications

Specifications	Parameters
Power amplifier chip	NS4168
Amplifier output power	1W(VDD=3.3V)
Headphone jack	3.5mm
Speaker interface	1.25mm-2P
Speaker power	1W
Net weight	18.6g
Gross weight	37g
Product size	24*48*18mm
Package size	54*54*20mm



EasyLoader

EasyLoader is a simple and fast program burner, which has a built-in product-related case program, which can be burned to the main control through simple steps to perform a series of functional verification.

[Download Windows Version Easyloader](#)

Description:

Related Links

- [Datasheet](#)
 - [NS4168](#)

Pin mapping

- TFCard

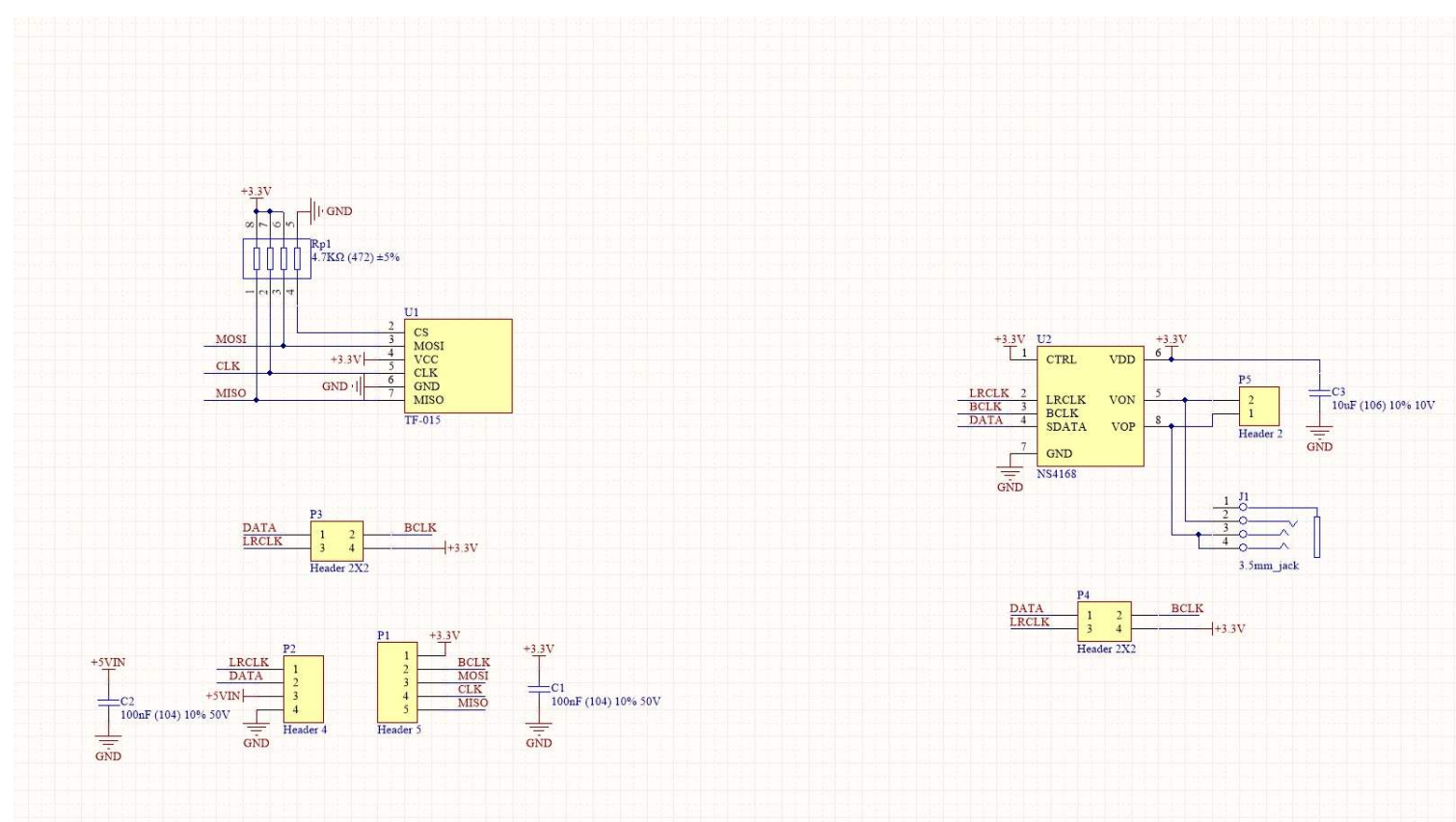
ATOM	G23	G33	G19
TFCard	SCK	MISO	MOSI

- NS4168

ATOM	G22	G21	G25
NS4168	BLCK	LRCLK	DATA

Schematic

NS4168 is a mono audio power amplifier(the right channel is used by default in the ATOM SPK hardware design)



Example

- [ATOM SPK Play RawPCM](#)
- [ATOM SPK Play MP3 From TFCard](#)

Use ATOM SPK to play RawPCM files or MP3, the case is suitable for master: ATOM Lite.

```
//Init I2S param(__rate: I2S sampling rate)
```

```
bool begin(int __rate = 44100);
```

```
//Play RawPCM param(__audioPtr: audio data pointer, __size: data length, freeFlag: whether to release the memory,  
__ticksToWait: allow the maximum duration of blocked playback)
```

```
size_t playRAW( const uint8_t* __audioPtr, size_t __size, bool __modal = false, bool freeFlag = true, TickType_t __ticksToWait =  
portMAX_DELAY );
```

```
//play Beep param(__freq: frequency, __timems: play market, __maxval: maximum volume, __modal: asynchronous or not)
```

```
size_t playBeep( int __freq = 2000, int __timems = 200, int __maxval = 10000, bool __modal = false );
```