


USER MANUAL

Model:Fireduino

Brand:  Firefly

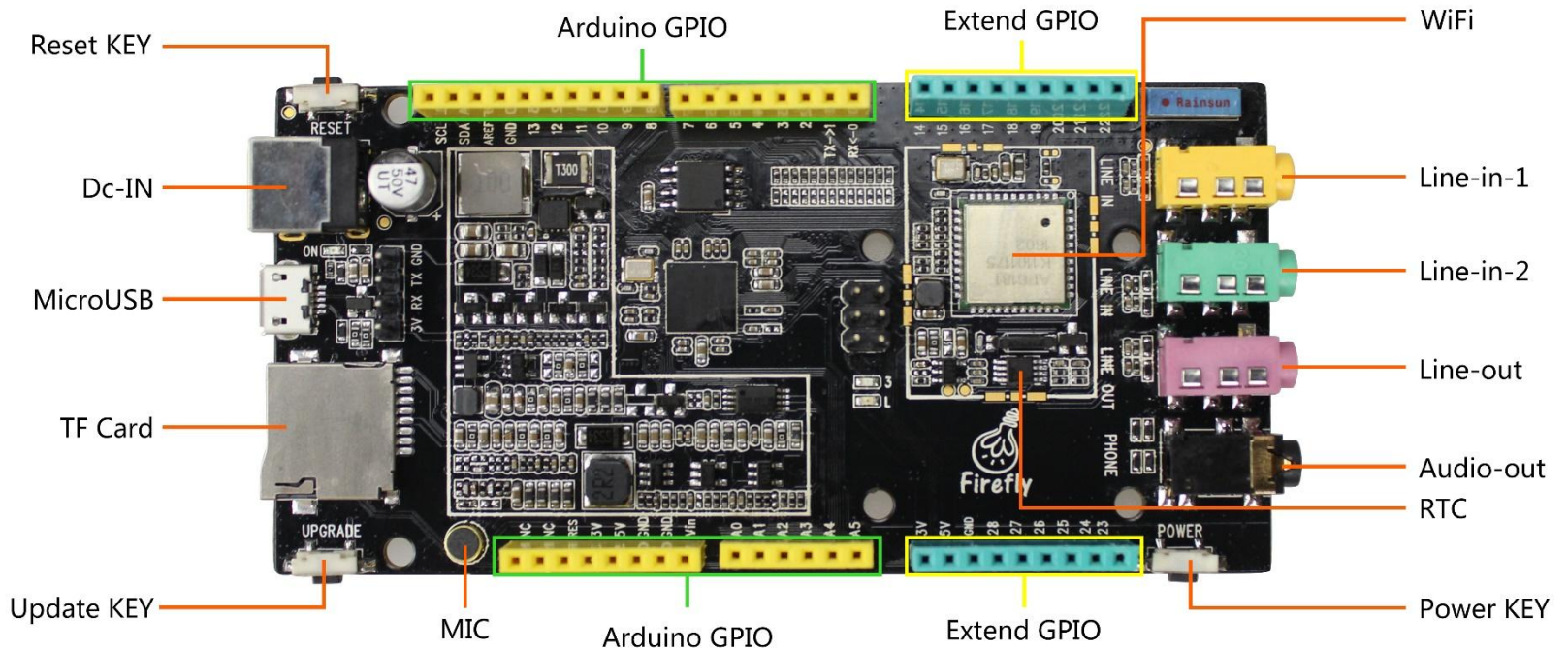
Product introduction

Fireduino have dual core NanoD-G processor, integrated high quality audio codec and the board supported WiFi module, can quickly build a IOT equipment prototype. And is compatible with the Arduino interface, using the Arduino IDE, let creative production becomes the simple humanity. Supporting Fireduino scratch pattern programming tools FireBlock, let zero programming based on easy to use Fireduino, is a good a customer education platform, is a source of creative prototype platform.

Hardware Specification

Hardware specifications

Soc	Rockchip NanoD (55nm HKMG Process)	Wireless	Wi-Fi (IEEE 802.11 b/g/n)
CPU	ARM® Cortex™-M3 Dual Core (SystemCore Max 250MHz , CalculateCore Max 500MHz)	RAM	<ul style="list-style-type: none"> • 320K IRAM and 256K DRAM (Sytem Core) • 128K IRAM and 256K DRAM (Calculate Core) • 64K always on SRAM
Codec	<ul style="list-style-type: none"> • 192K/24bit audio codec with earphone driver • H/W accelerator for lossless audio decoding, include APE/FLAC/OGG • H/W accelerator for MP3 decoding 	Audio Format	<ul style="list-style-type: none"> • Support MP3, WMA, APE, FLAC, AAC, OGG, AC3, WAV and other audio format decoding ; • Support Airplay, DLNA and other wireless audio functions
TF Card	Maximum can support 32 GByte	Storage	SPI Flash : 8MB
languages	C , C++	Software	Arduino IDE、 FireBlock graphics programming
USB	USB 2.0 OTG	KEY	RESET , POWER , UPGRADE
Power	5V , USB_VCC	Application	IOT



Function introduction

- 1.Reset Key** : System reset button ;
- 2.DC-IN** : System power supply, DC 5~12V input support ;
- 3.MicroUSB** : USB 2.0 OTG ;
- 4.TF Card** : SD Memory Card (MAX 32GB), the card to play music files, support MP3, WMA, APE, FLAC, AAC, OGG, AC3, WAV and other audio formats ;
- 5.Updat Key** : Firmware upgrade button ;
- 6.MIC** : Microphone recording ;
- 7.Arduino GPIO** : Arduino compatible interface / user defined interface, including DC_IN, 5V, 3V, ADC, IIC, IIS, UART, PWM, GPIO and other interfaces, scalable access sensor, LED brightness adjustment, intelligent furniture control ;
- 8.Extend GPIO** : LCD interface, the maximum support resolution of 400*400, compatible with 16/8 bit I8080 driver ;
- 9.WIFI** : WIFI audio player, 2.4GHz wireless network, AP6181 module, support IEEE802.11b/g/n protocol ;

Function introduction

10.Line-in-1/Line-in-2 : Two channel external audio source line tape input, the user can use AV audio line access external audio (DVD, mobile phones, MP3) recording can be applied to home theater, important meeting records and other applications ;

11.Line-out : Line recording output / playback ;

12.Audio-out : Audio output, Phone interface ;

13.RTC: Real-time clock chip hym8563, the user can according to the actual application of custom clock, such as calendar, special day, alarm, timing play music and practical function ;

14.Power Key: Power Key。

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.