

ONE  
Little Bear

**DOUK AUDIO**  
MAKE HI-FI AFFORDABLE

MANUAL

### Warm tips

- It is best to use an independent USB power supply to connect to VFD253, don't share the same power adapter with audio source, otherwise common ground noise will easily occur.
- In spectrum display mode, it will automatically display time if there is no input. If time mode is selected manually, VFD253 will only display time.
- When there are two audio source input of both IN1 and IN2 channel at the same time, common ground noise may be generated due to different ground potentials of the two devices. The situation is rare, and you can add an audio isolation module before one of the audio source to avoid this. Connection: Audio player→audio isolation module→VFD253 (IN/IN2).
- In order to pursue the best display effect, we have made appropriate attenuation in the two frequency bands of 80-160. During the frequency sweep test, the display height of these two frequency bands will be lower.

### Introduction

1. VFD253 integrates multiple functions into a whole:

- As an audio spectrum analyzer: adopts dedicated green VFD display screen with 25 × 15 high resolution, guarantee the accuracy of each frequency band.
- As a Bluetooth receiver and audio switcher: with Bluetooth 5.0 and 3.5mm AUX input, works perfectly with your phone/PC/game player/amplifier/speaker etc.
- As a high-precision clock: using RX8025T built-in crystal oscillator whose clock accuracy is ±3ppm, year error within 1 minutes, very cool and interesting.

2. Wide frequency range & special AGC display: 80Hz-16KHz frequency sweep, high-precision display even can do frequency point test. Special AGC algorithm and customized output curve, ensure ideal visual effects even the input signal is in a small to large range, avoid that no display when input low and display in full screen when input high.

3. Many adjustable items & display effects: gain, brightness, falling speed of main light column, holding time and falling speed of the peak can be adjusted separately, 5 music spectrum display mode and 2 clock display mode, all settings with power-off memory function, no need to set again

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after restarting.

4. Attractive looking and convenient use: with remote control, easy to adjust all settings and see the music level status in real time and every slight change of sound can be shown clearly. CNC machined aluminum and transparent acrylic case, both solid and beautiful, compact design not occupy your desktop space.

### How to use

1. Connect the USB power supply, VFD253 will turn on automatically.
2. According to the audio source you want to connect, press the MODE key or MIC / audio source button on the remote control to select input channel (built-in MIC pick-up/bluetooth 5.0/IN1/IN2). (Note: The output audio signal is determined by the input audio source you choose, for example, if you choose Bluetooth input, OUT interface will output Bluetooth audio source, and if you choose MIC input VFD253 will continue to output the last connected audio source among Bluetooth / IN1 / IN2.)
3. Press +/- key on the panel or ↑ ↓ ↔ button on remote control to select different display modes.
4. You can set the VFD brightness or the falling time and holding time of the spectrum beam and peak to achieve the best effects.

### FAQ

Q: How to connect Bluetooth with mobile phone?

A: Turn on the bluetooth function of mobile phone, then search for bluetooth device, find and connect "BT-MUSIC"(without password); Press MODE on the front panel or audio source input button on the remote control to select the input source as "BT", and now you can play music through mobile phone, get the display spectrum and output audio signal to other devices from its "OUT" interface.

Q: How to set to MIC-pick up mode?

A: Press MODE on the front panel or MIC button on the remote control to select the input source as "MIC"

Q: How to turn on/off the spectrum display to smooth mode?

A: Press ↑ ↓ key on remote control to select mode 1(main beam mode), then press "⚙️" key to turn on/off smooth mode.

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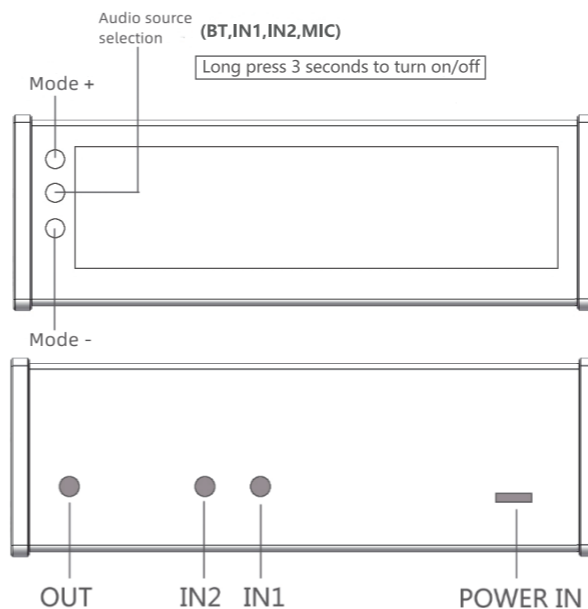
Q: When the music signal is too strong or too weak, the VFD screen display is not ideal, how to adjust the gain?

A: Press ↑ ↓ key on the remote control to select display mode (mode 2-5), then press "⚙️" key to adjust 5 levels of gain, and the VFD screen will display the corresponding gain value number.(level 1 is minimum, level 5 is maximum)

Q: How to set the time?

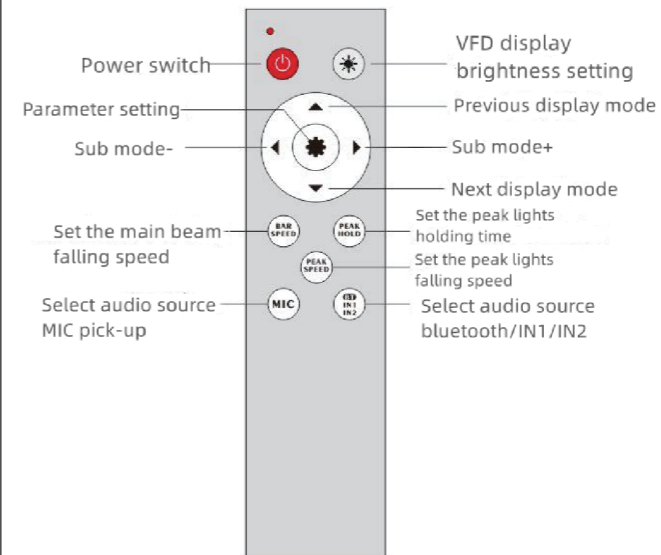
A: Set it to time display mode as Hours:Minutes:Seconds, then press "⚙️" key on remote control to enter time setting mode. Then you can press ↑ ↓ key to set the time, then press "⚙️" key to enter the next time setting option until you exit. (Note: only can set hours:minutes:seconds, no year/month/day setting and display function.)

### Front and back panel



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### Introduction of remote control



⚙️ Parameters setting: Different functions under different modes

1. Spectrum display mode(mode 2-5): set 5 levels of signal gain
2. Clock setting mode: set the time
3. Spectrum display mode(mode 1): turn on/off smooth function

### Parameters

Brand: Douk Audio

Model: VFD253

Display screen: VFD (Vacuum Fluorescent Display)

Resolution: 25 × 15

Frequency range supported: 80Hz-16KHz

Display item: music spectrum / clock

Audio signal input: Bluetooth 5.0 / 2 groups of 3.5mm AUX / MIC

Audio signal output: 1 group of 3.5mm AUX

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Work mode:

1. Auto mode (display music spectrum when music input, display clock mode when no music input for 5S)
  2. Clock display mode (always)  
Clock display: 2 kinds  
Music spectrum display: 5 kinds
  3. Spectrum display mode: 5 kinds (press up/down to cycle selection)+ 3~4 options in each mode (press left/right to select)
    - ① Main beam--middle to both side--main beam flips
    - ② Main beam+peak light--middle to both side+peak light--main beam flips+peak light
    - ③ Main beam+gap+peak light--middle to both side+gap+peak light--main beam flips+gap+peak light
    - ④ Main beam+peak light(move up)--middle to both side+gap+peak light(move up)--main beam flips+gap+peak light(move up)
    - ⑤ Peak light only
- Music display mode: AGC+customized output curve (Real output / Smooth output)

Adjustable items: main light column falling speed / peak holding time / peak falling speed

Brightness adjustment: 5 levels+auto adjustment

Gain adjustment: 5 levels

Power-off memory function: support

Remote control: support

Working voltage: DC 5V

Dimensions(W\*D\*H): 184\*75\*66mm / 7.24\*2.95\*2.60in

Net weight: 322g / 0.71lb

Package weight: 500g / 1.10lb

Packing List: 1\* VFD Spectrum 1\* USB Cable 1\* User Manual  
2\* Feet Pads 1\* Remote Control(without battery)

### Contact information

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