

# Shenzhen Yingtang Intelligent Industry Co., Ltd

## 15.6 Screen projection product specifications and operating instructions

**Product model: MR156TUS02**

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Table maker	Guo Fenghuang
Reviewer	Cheng Yang

## CATALOGUE

1、 Product Basic Function Description .....	1
2、 Wired signal supports device description .....	2
3、 Product startup instructions .....	3
4、 Product Physical Interface Description .....	4
5、 Product Physical Key Function Description .....	5
6、 Wireless screen mirroring operation method .....	7
7、 Wired screen casting operation method .....	9

# 1、Product basic function description

Main technical specifications of the product	
Hardware specifications	1xTYPEC interface, 1x4pin serial port interface, 1x headphone interface
Motherboard signal interface	TYPE-C+AUDIO OUT (wireless module supports wireless screen mirroring+TYPE-C screen mirroring)
audio interface	Built in speaker (3W * 2)/1x headphone jack
Video input resolution	1920*1080
Video output resolution	1080P
Wireless frame rate	1080P/60 frames per second
Screen resolution/refresh rate	1920*1080 / 60HZ
Maximum brightness of the screen	TYP: 280cd/M <sup>2</sup>
display scale	16: 9
Projection code	support
Simultaneously display the quantity of source devices	The biggest route
Number of simultaneous access sources	Maximum two routes
Wireless Transmission Protocol	miracast / airplay
Wireless transmission rate	72.2Mb/s
Wireless transmission distance	10 meters visible distance
Wireless transmission frequency band	2.4G/5.8G
Transmission delay	80ms-300ms
Customization of power on standby screen	support
temperature range	Working temperature: 0 ° C~+60 ° C

## 2、Description of devices supported by wired signals

Mobile phone series	VIVO mobile phone series	VIVO X100 series,
	Oppo mobile phone series	Reno series
	Huawei mobile phone series	Mate10.Mate10Pro.MateRs,Mate20.Mate20Pro.Mate20x.Mate20 Rs,.Mate30. Mate30EPro. Mate 30 Rs. Mate30 Pro, Mate 40. Mate40 E, Mate40 Pro, Mate40 Pro+, Mate40 RS Porsche, Mate Xs, Mate Xs 2, Mate50 series, P20 series, P30 series, P40 series, P50 series, Mate60 series
	Apple Phone Series	IPhone 15 Full Series
	Samsung phone series	S8, S8+ , s9, s9+, S10, S10+, S10 E, S20, S20+, S20 Ultra, S21, S21+, S21 Ultra,S21 FE, S22, S22+, S22 Ultra, Note8, Note9, Note10,Note10+, Note20, note20 Ultra, Fold1, Fold2, Fold3, Fold4, Flip3, Flip4
	Hammer Phone Series	R1, R2,Pro 2S, Pro3
	Nintendo	Switch series
	LG	G5
Notebook series	ASUS series	Asus Tianxuan series,
	Huawei series	Mate Book Series
	Lenovo series	Think Book14, Think Pad E Series
	Apple series	MacBook 12,MacBook Pro, MacBook Air, iPad Pro 2018
	Microsoft series	Surface Book2
	Dell series	Inspiron 14,
	hp series	Star Book Series
	Sony series	PS5

### 3 、 Product startup instructions

Input 100-240V-1.5A, 50-60Hz

Output 12V-5A 60W

Connect a 12V 5A 60W power adapter to 100-240V AC power, and it will automatically turn on when powered on.



## 4 、 Product physical interface description

The physical interface is shown in Figure 1, and the functional description of the physical interface is detailed in Table 1 Function Introduction Table.



Figure 1 Schematic diagram of physical interface

Serial number	Function Introduction
1	1 Serial port interface: 12V power supply, ground, TX, RX 2 Connect the treadmill serial port interface for communication and data transmission
2	1 Typec interface can be used for wired screen projection 2 Or it can be used to upgrade the firmware of the main chip
3	1. Earphone audio output interface

Table 1 Introduction to Physical Interface Functions

## 5 、 Product physical button function description

The schematic diagram of the physical buttons is shown in Figure 2, and the functional description of the physical buttons is detailed in Table 2 Function Introduction Table.

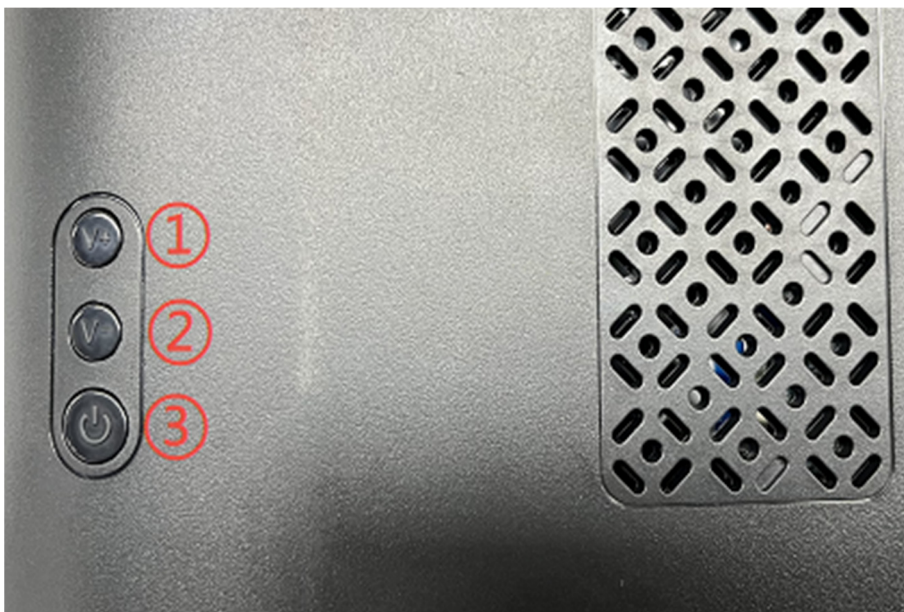


Figure 2 Schematic diagram of physical buttons

name	Function Introduction	Function Description
Button ①	Volume up key/UI switch	<p>1 、 Volume up (+) key</p> <p>2 、 Click button ① to bring up the volume adjustment menu. After waking up, you can use button ① to increase the volume and button ② to decrease the volume</p> <p>3 、 Long press button ① on the wireless UI interface to switch the UI</p>
Button ②	Volume down button	<p>1 、 Volume down (-) key</p> <p>2 、 Click button ② to activate the screen brightness adjustment button. After waking up, you can use button ① to adjust the screen brightness to become brighter, and button ② to adjust the screen</p>

		brightness to become darker
Button ③	Status bar/power on/off button	1 、 Clicking on the screen mirroring status button will wake up and close the status bar 2、 Long press the power on/off button

Table 2 Introduction to Physical Key Functions



## 6、Wireless screen mirroring operation method

1. Connect the projector to a 12V 2A DC power supply.
2. After connecting to the power supply, enter the wireless screen projection interface, and an SSID code will appear in the upper left corner of the interface.
3. After the SSID code appears, find the screen casting function in the settings of the screen casting device and turn it on. After turning it on, find the device with the same SSID code as the wireless screen casting and click to select screen casting, as shown in Figure 3 (note: if it is the first time connecting to an iPhone, you need to enter the four digit password that appears in the upper right corner of the wireless interface).  
As shown in Figure 4, wait for screen casting after completion.

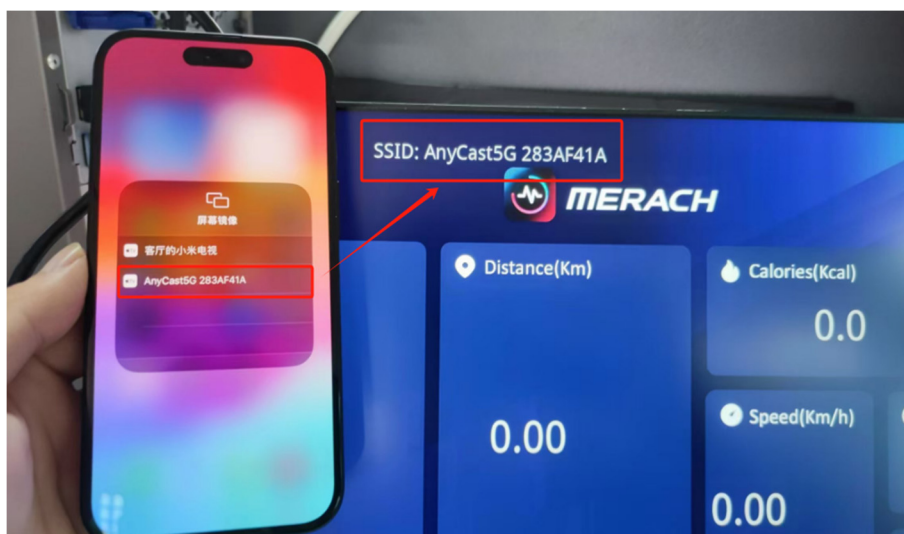


Figure 3

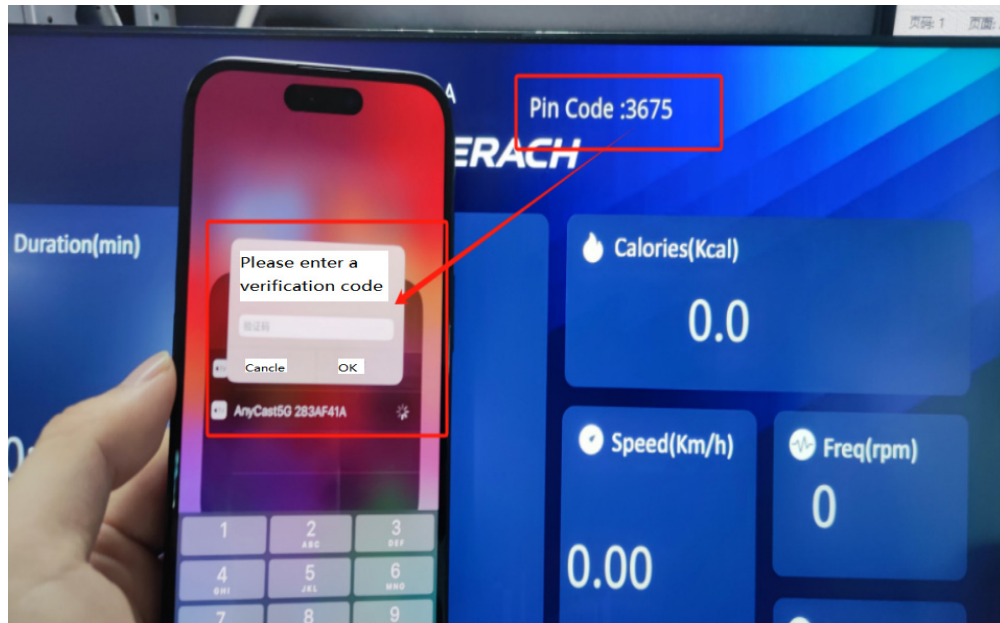


Figure 4

## 7、Wired screen casting operation method

1. Prepare a TYPEC data cable with data transmission capabilities (note: the data cable needs to support data transmission up to 40Gbps bandwidth and also support equivalent video expansion capabilities) as shown in Figure 5.



Figure 5

2. Connect the mobile phone/tablet end to the Type-C port and the other end to the TYPEC interface of this product. The product end interface is shown in Figure 6 (note: if the power supply capability of the screen projection device is weak, at least 12V 2A power supply needs to be used on the serial port interface). After all devices are connected, as shown in Figure 7, the screen projection operation can be performed on the mobile phone/tablet end.



Figure 6

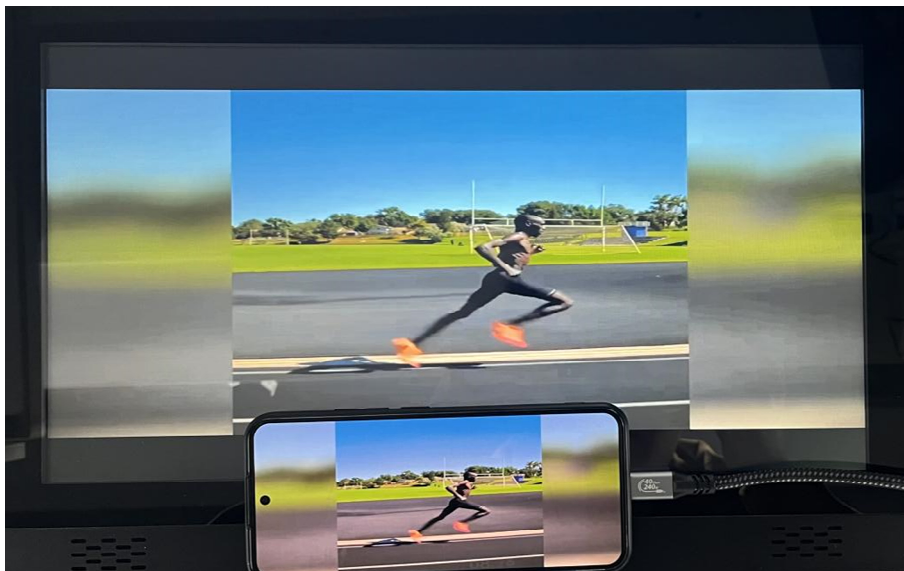


Figure 7 Wired screen projection connection diagram

## **FCC Radiation Exposure Statement:**

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.

## **FCC Warning**

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.

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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.