

JDMWH200AA User's Manual

WHDI Video Transceiver System

User's Manual

Contents

1	IMPORTANT INFORMATION	2
2	INTRODUCTION	4
2.1	Overview	4
2.2	Main features.....	4
2.3	Packing Content	5
2.4	Functions	5
3	PRODUCT SPECIFICATIONS	6
4	SET-UP	6
4.1	WHDI Stick Transmitter Connections	6
4.2	Receiver Connections.....	7
5	WHDI Remote Control Instructions	7
5.1	Register or Add	7
5.2	Delete Transmitters	7
5.3	Modify source equipment name.....	7
5.4	Disconnect Network.....	8
5.5	Change Audio/Video interface or video source.....	8
5.6	Functions of the buttons on WHDI Remote Control.....	8
6	Upgrading Product Software.....	9
7	Troubleshooting	10
8	Warranty.....	10
9	Safety instructions.....	11
10	FCC ID warning.....	11
11	IC ID warning	12
12	Other information.....	12

1 IMPORTANT INFORMATION

Take time to read this user manual before using WHDI Stick (Transmitter) and Receiver. It contains important information and instructions regarding operating your wireless HD receiver and transmitter.

DFINE Technology Co., Ltd. guarantees warranty provided the product is handled properly for intended use, in accordance with its operating instruction, but may not apply to the below cases:

- Repairs or product modification and alterations have been executed by unauthorized service personnel.
- Damages caused by accidents including but not limited to lighting, water, fire, or moisture.
- Do not use provided power adapter with specific power rating not compliant in the attached label of power adapter.
- The model number on the product has been altered, deleted, removed or made illegible.

Safety Precautions



DANGER: Be careful with electricity.

- Power to the units must be switched off before any work is undertaken, such as any AV device connection or TV connection.
- Power outlet: To prevent electric shock, be sure the electrical plug used on the receiver's and transmitter's power cord matches the electrical outlet used to supply power to the receiver/transmitter.
- Power cord: Be sure the power cord is routed well so that it will not be stepped on or pinched by heavy items.
- Power overloading: Avoid overloading electrical outlets or extension cords which otherwise could result in electric shock or fire.
- Lighting stroke: To prevent lighting stroke or the device is not used for a long time, disconnect

the power switch.

- When the WHDI transceiver is not used, disconnect the power switch to prevent electric shock or fire.



WARNING:

- This product should not be exposed to dripping or splashing. Objects filled with liquids, such as vases, should not be placed on the product.
- Put the receiver/transmitter in a properly ventilated area, away from direct sunlight or any source of heat.
- Water Exposure: To reduce the risk of fire or electric shock, do not expose the receiver/transmitter to rain or moisture.

DECLARATION OF CONFORMITY

This device complies with Part 15C and Part 15E of FCC Rules.
Part 15: Subpart C—Radiated Emission Limits, Additional Provisions.
Part 15: Subpart E—Unlicensed National Information Infrastructure Devices.

This device complies with relative criteria CE certification.

EN 60950-1: 2006

Information technology

Equipment --- Safety ---

Part 1: General requirements

EN 300440-01 (V1.6.1)

Electromagnetic compatibility and Radio spectrum Matters (ERM);

Short range devices;

Radio equipment to be used in the 1 GHz to 40 GHz frequency range;

Part 1: Technical characteristics and test methods

EN 301489-03 (V1.4.1)

Electromagnetic compatibility and Radio spectrum Matters (ERM);

Electromagnetic Compatibility (EMC) standard for radio equipment and services;

Part 3: Specific conditions for Short-Range Devices (SRD)

Operating on frequencies between 9 kHz and 40 GHz

EN 301489-17(V2.1.1)

Electromagnetic compatibility and Radio spectrum Matters (ERM);

Electromagnetic Compatibility (EMC) standard for radio equipment;

Part 17: Specific conditions for Broadband Data Transmission Systems

EN 301893 (V1.5.1)

Broadband Radio Access Networks (BRAN);

5 GHz high performance RLAN;

Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive

TRADEMARK INFORMATION

- HDMI, the HDMI Logo and High-Definition Multimedia Interface are registered trademarks of HDMI Licensing LLC in America or other countries and regions.
- WHDI, the WHDI Logo and Wireless Home Digital Interface are registered trademarks of WHDI Licensing LLC in America or other countries and regions.

SPECIAL NOTICE:

Never use this product nearby an aircraft or medical facility. It will cause an interference and wrong effect on the operation.

Place the product carefully because wireless wave may cause the abnormal video and audio (noise, blocked image...etc.).

- 1) Place it on the table or desk steadily, don't try to move it when connected
- 2) This device should stay away from the refrigerator or other metal furniture.
- 3) Avoid narrow place

- This product has been tested and manufactured to comply with each country's safety rules. However, there is no guarantee that interference will not occur in a few particular installation. If the interference is happened, increase the separation distance between the transmitter and receiver.

- This product is susceptible to interference from 5GHz wireless device, such as router or other wireless device. For example, if you have an 802.11n router, configure it to use the 2.4 GHz band rather than the 5GHz band.

- Optimal Range between JDMWH200AA transmitter and receiver is between 1 meter and 10 meters.

2 INTRODUCTION

2.1 Overview

WHDI Stick can be inserted or embedded in PC, Blue-ray player, etc. It is more convenient to use. WHDI Stick can transmit HD video/audio signals to HDMI receiver and reveal all the contents on TV screen. Users can share e-mails, photos, and games with your family or colleagues.

Connect WHDI Stick to your multiple High-Definition devices such as Cable/ Satellite Box, HD Set-Top Box, Blue-Ray DVD Player, Game Console, and Media Center PC hidden in your cabinet behind your seating area; connect JDMWH200AA R to your HDTV set by HDMI cable, or any display like LCD, PDP or computer monitor with HDMI input interface. It solves the cluttered cables connection problem and let your room clean.

2.2 Main features

- Support 1080P high-definition video resolution;
- Support WHDI 1.0;
- Powered by mini-USB port;
- Over 10 meters whole-house range with no latency;
- FCC, CE, IC, RoHS, SRRC compliant;
- Working frequency range: 4.9GHz~ 5.9 GHz;
- Smart outfit and portable;
- Build in Omni-directional antennas.

2.3 Packing Content

Please check whether the following items are present in the package. If any items was missed or damaged, please call your distributor.

Main unit:

WHDI Stick and Receiver



Accessories:

1 USB A-Mini USB lead, 1 User manual, 1 Adaptor, 1 WHDI Remote Control



A-Mini USB cable



WHDI Remote Control



Adaptor



User's manual

2.4 Functions

1) WHDI Stick (Transmitter)



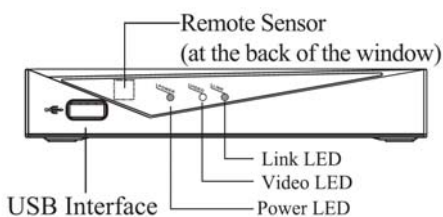
Register button

Status LED

Register button—used for register

Status LED—indicate working status

2) Receiver



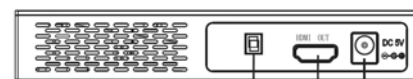
Link LED—indicate link status

Video LED—indicate video signal



USB Socket

USB Socket—used for power supply



Button

HDMI Interface

DC IN Jack

DC IN Jack -Power interface

HDMI Interface -HDMI output interface

Power LED-indicate power status

Button-standby button

3) LED indications

Operating State	WHDI Stick (Transmitter)	Receiver		
	Status	Power	Video	Link
Powered		○	○	
Add Device	●	○	○	
Normal operation	○	○		○

PS: ○ Green LED is normally on ● Green LED flashes

3 PRODUCT SPECIFICATIONS

Supported Video Resolution	1080p, 1080i, 720p	
HDMI Interface	Supports HDMI 1.3 Video Audio format and HDCP 2.0 with video encryption.	
Transmission Distance	10 meters line of sight (LOS)	
Operating Frequencies	4.9~ 5.9GHz	
Antenna	Omni-directional internal antennas.	
Power Supply	Mini USB to power supply	100~ 240V AC in, 5V 3A DC out Power Adaptor
Working Temperature	0°C ~ 50°C	
Dimensions	71(L)*33.5(W) *16(H)mm	146(L)*93(W)*25mm(H)

4 SET-UP

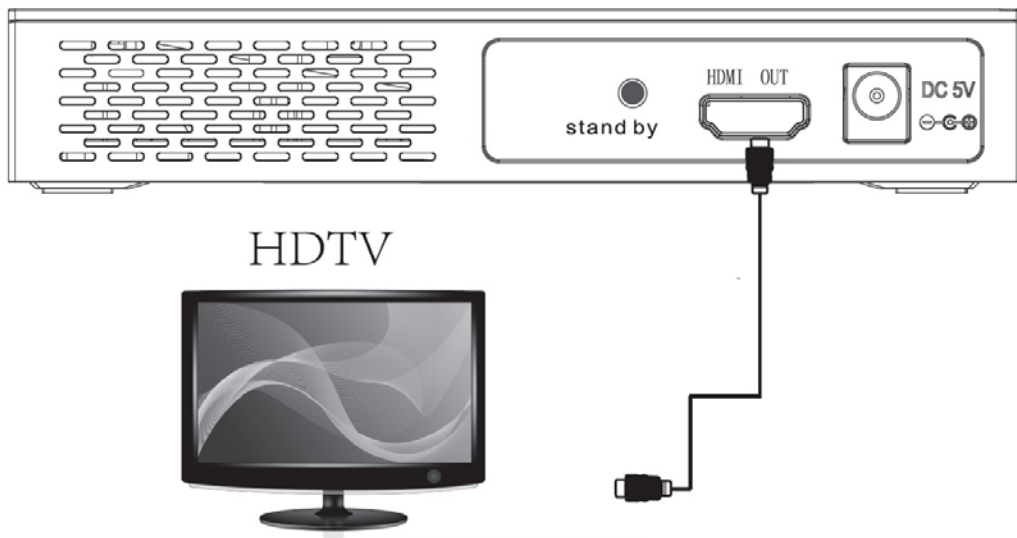
4.1 WHDI Stick Transmitter Connections



- Connect the HDMI interface of WHDI Stick to HDMI device (notebook, PS3, etc.)
- Connect USB Socket to USB Cable, plug it into the USB interface of PC to power supply

PS: Set the PC pixel format to FULL RGB mode.

4.2 Receiver Connections



- Connect your HD display (LCD, HDTV etc.) to the Receiver using an HDMI lead.
- Connect the power interface to the power adaptor (5V 3A) to power supply.

5 WHDI Remote Control Instructions

5.1 Register or Add

- Connect WHDI Stick (Transmitter) and Receiver to source equipment and display equipment separately.
- Using WHDI Remote Control at the Receiving end - Press "Menu" or "Add"; choose "Add video source" in "Setup" interface
- "Activate registration of video transmitter unit" reveals on the display screen
- Short press (within 1s) Register button of WHDI Stick, Status LED flickers
- After searching the Transmitter, the display equipment will reveal confirm information
- Using WHDI Remote Control to press OK
- The register state will be revealed on the display equipment
- After about 30 seconds the register finishes
- Network will be connected automatically and transmit audio and video signals after registration.
- No more than 8 transmitters can be added as the above procedures

5.2 Delete Transmitters

- Press "Source" to check the Transmitter
- Press "Delete" or "Menu" to select "Remove video source"
- Select the device to be deleted and press "OK"
- After deleting the device, press "Source" to ensure the device is no more exist
- Other devices can be also deleted as the above procedures

5.3 Modify source equipment name

- Press "Menu" to select "Modify video source name" on the screen
- Select the source to be modified and press Up and Down button to modify
- Press the Right and Left button to select characters to be modified; pay attention the name of

the video source should not be blank

- Press "OK" after finishing modification

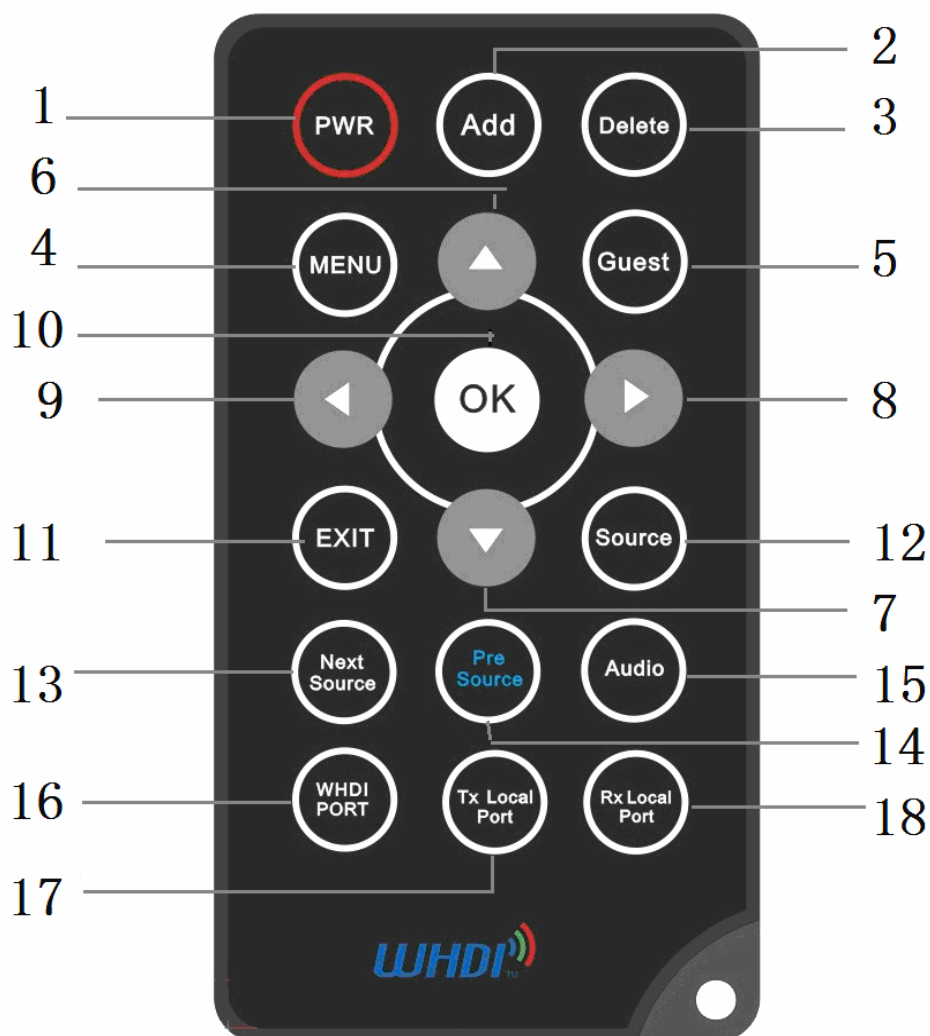
5.4 Disconnect Network

- Press "Menu" to select "Disconnect Wireless link"
- Press "OK" to ensure disconnection
- Network disconnect when "Wireless off" reveals on the screen

5.5 Change Audio/Video interface or video source

- Press "Source" to ensure at least two video sources exist when the device is normally connected and audio and video transmit fluently
- Press "Next Source" to change to next video source
- Press "Pre Source" to change to previous video source

5.6 Functions of the buttons on WHDI Remote Control



Item	Key	Function
1	PWR	Standby key; available to Transmitter and Receiver
2	Add	To add video source to device list; available to Receiver

3	Delete	To delete Receiver from device list or delete character of the device name; available to Receiver
4	MENU	Menu; available to Receiver
5	Guest	Temporary visit key; available to Receiver
6	△	To up; available to Receiver
7	▽	To down; available to Receiver
8	▷	To the right; available to Receiver
9	◁	To the right; available to Receiver
10	OK	To confirm; available to Receiver
11	Exit	To back/exit; available to Receiver
12	Source	To list all the video source; available to Receiver
13	Next Source	To select next video source; available to Receiver
14	Pre Source	To select previous video source; available to Receiver
15~18		Not available

6 Upgrading Product Software

- 1) Open Bootloader Manager; connect WHDI Stick to PC by USB cable
- 2) Connect WHDI Stick power adaptor; the device information will be revealed on the software when the device is successfully connected
- 3) Click [Browse] button in "Update APP Area", then choose the file to be updated; press [Upgrade APP], after system upgrade success, there will pop-up a dialog box to inform update is complete.
- 4) If fail to upgrade or appear related failure information, please check USB cable is connected normally and upgrade again after the power is normal.
- 5) Use the same method to upgrade MAC; Click [Browse] button in "Update Mac Area", then choose the file to be updated; press [Upgrade MAC], after system upgrade success, there will pop-up a dialog box to inform update is complete.
- 6) If fail to upgrade or appear related failure information, please check USB cable is connected normally and upgrade again after the power is normal.

PS:1) Before using BootloaderManager to upgrade system,please install software driver first;

2) software upgrading should follow strict steps: Open Bootloader Manager→using USB cable to connect WHDI Stick and PC(connect mini usb cable to power supply);otherwise BootloaderMnanger can not search the device successfully;

3) The specific installation method and detailed use process of Bootloader Manager. Please refer to WHDI Video Transmitter Bootloader Manager Software User Manual. Software and User's Manual can be downloaded at our website: www.dfine-whdi.com.

7 Troubleshooting

Before following the troubleshooting guide below please make sure that your WHDI Stick, Receiver and attached equipment (HD source and display) are all properly connected, switched on and not in Standby Mode.

No Video	<ol style="list-style-type: none">1. Check the status of the Link LED, and check if the HD Media player works normally2. Check the interface and HDMI lead are undamaged and plugged into the correct socket3. Make sure that signals can be transmitted from WHDI Stick and the HDMI interface is plugged into the correct output socket4. Make sure that it is the Receiver that is correctly connected to the HDTV display5. Make sure that the device is working within the supported transmission distance, if beyond the distance, please make them closer and reconnect
Power LED OFF	<ol style="list-style-type: none">1. Make sure the power is connected, and check the power adaptor output 5V/3A DC2. Make sure the power can work normally
Receiver Video LED flashes	<ol style="list-style-type: none">1. Make sure audio and video signals can be transmitted from the source successfully2. Make sure the Receiver is successfully connected to display equipment3. Make sure that the device is working within the supported transmission distance, if beyond the distance, please make them closer and reconnect
Receiver video LED abnormal	<ol style="list-style-type: none">1. Make sure audio and video signals can be transmitted from the source successfully; if no problem, there must be something wrong with the LED2. Check the interface and HDMI lead are undamaged and plugged into the correct socket if no video source3. Make sure that the device is working within the supported transmission distance, if beyond the distance, please make them closer and reconnect
Bad Picture	<ol style="list-style-type: none">1. Make sure the picture of HD source is normal2. Check HDMI leads of Receiver, HD source and display are undamaged and connected correctly3. Make sure that the device is working within the supported transmission distance, if beyond the distance, please make them closer and reconnect
Bad Audio/No Audio	<ol style="list-style-type: none">1. Make sure that the source is outputting supported audio formats2. Make sure there is no 4.9~5.9GHz devices within 1m of the Receiver3. Restart the audio source and reconnect the WHDI Stick and source
Other Issues/Unresolved Issues	If any other issue occurs, try restarting the WHDI Stick and Receiver to reestablish a connection.

8 Warranty

- The Transceiver and power adapter is under warranty for one year, remote control, and other accessories for six months

- Any problem of the Transceiver occurs within seven days after purchasing, Were it not for the artificial damage, and without any ware of the device, users can detect the device at Dfine customer service center with original commercial invoice and warranty card. The transceiver can be returned, replaced or repaired after confirming the problem.
- Any problem of the Transceiver occurs within eight to fifteen days after purchasing, Were it not for the artificial damage, and without any ware of the device, users can detect the device at Dfine customer service center with original commercial invoice and warranty card. The transceiver can be replaced or repaired after confirming the problem.
- Were it not for the artificial damage, and under warranty, and if the device still cannot work after repairing two times, users can replace the transceiver of the same model.
- Were it not for the artificial damage, material and maintenance fees are free under warranty.

9 Safety instructions

Do not use close to metal furniture such as refrigerators, washing machines, etc. and any combustible or explosive things, neither. Place on a stable surface and make sure connecting wires are routed to minimize the chance of accidents.

Avoid exposing your equipment to harsh conditions such as wet or damp places, high humidity, strong vibration, extremely high or low temperatures, strong sunlight and places that are very dusty.

Only use the DC power adaptors supplied, if they must be replaced make sure the replacements have the same output rating of 5V 3A DC.

Do not cover or place heavy objects on the units. Make sure there is sufficient clearance around to allow adequate ventilation. Never push objects into holes or ventilation slots.

To save power, please turn OFF the switches on the power adaptor leads or unplug the power adaptors from the power sockets when you are not using the equipment.

Restart the equipment if it is damaged in any way or if it does not work normally. And if it still cannot work, please power off and get expert advice. Do not open the equipment and repair by yourself.

Cleaning: disconnect the mains supply and use only a lightly dampened soft cloth. Do not use chemical solvents or strong detergents as these may damage the cosmetic finish.

- To prevent electric shock, do not remove any cover.
- Any maintenance should ask professional engineer for help
- Do not expose this equipment to dripping or splashing liquids.
- Never allow a naked flame on or nearby
- This product is not a toy. Do not let young children play with the equipment.

10 FCC Statement

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.

Exposure to Radio Frequency Energy:

The product is designed to comply with the FCC's RF exposure guidelines. To maintain compliance for body-worn operation, this radio has been tested and meets the FCC RF exposure guidelines.

Changes or modifications to this unit not expressly approved by Dfine Technology Co., Ltd. could void your right to operate this unit. Your radio is set up to transmit a regulated signal on an assigned frequency. It is against the law to alter or adjust the settings inside the product to exceed those limitations.

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.

11 IC Statement

Disclaimer:

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired.

12 Other information

We suggest you should read this user manual carefully before using our product.

If any problems occur while using our product, you can contact us:

E-mail: support@dfine-whdi.com

Tel: +86-028-85306133