





U3 MICROPHONE WIRELESS SYSTEM

U3D DUAL WIRELESS SYSTEM FOR AUDIO

Manual

#### **CERTIFICATION**

This Class B digital apparatus complies with Canadian ICES-003.

IC Caution: RSS-Gen Issue 4 December 2014"&"CNR-Gen 4e Décembre 2014:

This device complies with Industry Canada licence-exempt RSS standard(s).

### 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 operation of the device.

#### **Radio Approvals:**

FCC Part 15.249, FCC Part 15 B, RSS-210 (Canada), EN 300 440 (Europe), EN 301.489 (Europe), Japan Radio 2.4GHz Band (Japan), MIC ARIB STD-T66 (Japan), California 65, CE.

#### **FCC CERTIFICATION**

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
  - INTERFERENCE, AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSEUNDESIRED OPERATION.

**Warning:** Changes or modifications not expressly approved in writing by Xvive may void the users authority to operate this equipment.

**RF Exposure Statement:** This transmitter must not be co-located or operated in conjunction with any other antennae or transmitter.

**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 installa-

tion. 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 the 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 Class B digital apparatus complies with Canadian ICES-003.



# CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



#### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT REMOVE SCREWS.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

#### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE APPLIANCE TO RAIN OR MOISTURE

CE

Hereby, SHENZHEN FZONE TECHNOLOGY CO., LTD, declares that this type of equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU

# SAFETY INSTRUCTIONS FOR LITHIUM-ION RECHARGEABLE BATTERIES

If abused or misused, the rechargeable batteries may leak. In extreme cases, they may even present a risk of explosion, fire, heat, smoke or gas. Xvive does not accept any liability for damagearising from abuse or misuse.

- Keep away from children.
- Only charge rechargeable batteries with chargers recommended by Xvive.
- Observe correct polarity.
- Pack/store charged rechargeable batteries so that the terminals cannot contact each other (danger of shorting out/fire hazard).
- · Do not expose to moisture.
- Switch rechargeable battery-powered products off after use.
- Only charge rechargeable batteries at ambient temperatures between 10°C/50°F and 40°C/104°F.
- When not using rechargeable batteries for extended periods of time, charge them regularly (about every three months).
- · Do not mutilate or dismantle.

- Do not heat above 60°C/140°F, e.g. do not expose to sunlight or throw into a fire.
- Immediately remove rechargeable batteries from obviously defective products.
- Do not continue to use defective rechargeable batteries.
- Only use rechargeable batteries specified by Xvive.
- Dispose of rechargeable batteries at special collection points or return them to your specialist dealer.
- Store the products in a cool and dry place at room temperature (approx. 20°C/68°F).
- Remove the rechargeable batteries if the products will not be used for extended periods of time.

# INFORMATION ABOUT COLLECTION AND DISPOSAL OF OLD ITEMS AND USED BATTERIES

These symbols on the products, packaging, or on any documents in the package mean it is incorrect to mix the used electrical and electronic products and batteries with general household garbage.

To protect our environment, please take old products and used batteries to proper collection places, and follow your national legislation and the Directives 2012/19/EU and 2006/66/EC.

To deal with these old products and batteries properly, please help to save valuable resources and prevent any possibility of side effects on human health and our environment due to the inappropriate disposal of the old products and used batteries.

You can contact your local authority for getting more helpful information on how to dispose the recycling and collection of the old products and batteries.

#### [For business users in the European Union]

If you want to discard electrical and electronic item, please contact your dealer or supplier for further information.

## [Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. Please contact your local authorities or dealer for more information on disposal of old items and used batteries.







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# IMPORTANT SAFETY INSTRUCTIONS PLEASE READ THESE INSTRUCTIONS AND KEEP THEM IN A SAFE PLACE





WARNING: BEFORE USING YOUR XVIVE U3/U3D MICROPHONE WIRELESS SYSTEM, CAREFULLY READ THE OPERATING INSTRUCTIONS.

- 1. Carefully observe all instructions in the U3/U3D manual
- Do not to perform service operations beyond those described in the U3/U3D Manual. Service is required when the apparatus was damaged in any way, such as:
  - liquid was spilled or objects were dropped into the device,
  - · the unit was exposed to rain or moisture,
  - the unit does not operate normally or significant changes in performance occur,
  - the unit is dropped or the housing is damaged.

- 3. Do not place near heat sources, such as radiators, heating ducts, or appliances which produce heat.
- 4. Guard the device against objects or liquids entering the device. Do not use or store the unit close to water.
- 5. Clean only with a damp cloth.
- Only use attachments/accessories specified by the manufacturer
- 7. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."

### **U3D SET PRODUCT INTRODUCTION**

- Includes the U3 microphone wireless system (2 sets)
- The 2.4 GHz wireless band is ideal for wireless systems for dynamic microphones and PA wireless systems, and is approved for use worldwide.
- Less than 5 ms latency, simultaneous transmission on 6 channels
- wide frequency response range 20 Hz 20 kHz
- Range up to 27 m / 90 feet (actual range depends on RF signal absorption, reflection and interference)
  5 hours of battery life (rechargeable battery for both
- Transmitter & Receiver)

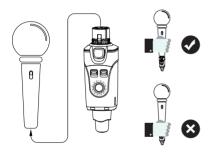
  Mic mode for microphones and Line mode for other audio
- Mic mode for microphones and Line mode for other audio gear such as mixers
- Works with XLR-output dynamic and battery-powered-condenser microphones
- High-resolution 24-bit / 48 kHz audio
- Dynamic range: 110 dB
- · Signal-to-noise ratio: 110 dB

- Two Transmitter + Receiver sets:
- For a stereo PA/DJ system with powered speakers, connect the left PA XLR output to the left speaker and the right output to the right speaker. For a dual mono setup, connect a transmitter to the PA/DJ XLR output, connect receivers to speaker one and speaker two, and set all three units to the same channel. Microphone application: connect two dynamic microphones to a mixer or another XLR-input audio device.
- The U3D is a simple, reliable, great-sounding and affordable wireless solution for taking the tangle and inconvenience of cables out of your PA/DJ sound system.

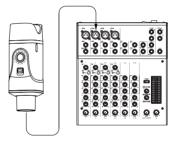
### **PACKAGE DETAILS**

U3 Transmitter2	2x
U3 Receiver ————————————————————————————————————	2x
USB Cable2	2x
XLR female to XLR male adapter1	х
Manual	х
Bag 2	2x

#### **QUICK START: MICROPHONE APPLICATIONS**



1. Plug the transmitter into your XLR dynamic microphone or battery-powered condenser microphone.



2. Plug the Receiver into the Mixer.

#### **QUICK START: MICROPHONE APPLICATIONS**



Turn transmitter and receiver on and check that they operate on the same channel.

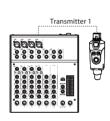


 The LED on the transmitter will be lit continuously after the connection was established successfully.

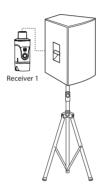


5. Check the connection by talking through the microphone.

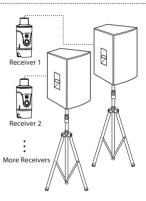
#### **QUICK START: MONO CONNECTION TO A POWERED SPEAKER**



 Connect the Transmitter to a Main or Aux XLR output of the mixer or other audio source.



2. Connect the Receiver to the XLR input of a powered PA loudspeaker or monitor.

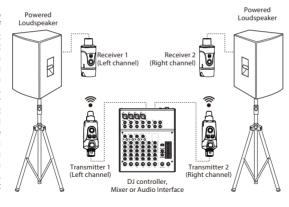


Set the Receiver to the same channel as the Transmitter. The Transmitter can be paired with two or more receivers, as long as they are all set to the same channel.

#### **OUICK START: TWO U3 SETS FOR STEREO / DUAL MONO PA APPLICATIONS**

#### For stereo PA/DJ systems,

connect Transmitter #1 to the left main XLR output of the mixer, and connect Receiver #1 to the XLR input of the left main loudspeaker. When you power them on, set them both to the same channel. Then, connect Transmitter #2 to the right main XLR output of the mixer, and connect Receiver #2 to the XLR input of the right main loudspeaker. When you power them on, set them both to the same channel. which must be a different channel than set #1.



#### For mono PA/DJ systems,

connect Transmitter #1 to the mono main XLR output of the mixer, and connect Receiver #1 to the XLR input of one of the main loudspeakers. When you power them on, set them both to the same channel. Then, connect Receiver #2 to the XLR input of the second main loudspeaker. When you power it on, set it to the same channel as set #1. Both speakers will receive the same mono signal.

# BASIC OPERATION U3 TRANSMITTER



- (1) Mic In: XLR microphone input jack
- Spring: circumferential spring provides ground connection to metal housing parts
- 3 Mic lock: secures transmitter to the microphone
- Input level switch: MIC = 0dB input LINE = -10dB input
- 5) Power switch: switches unit on/off
- (6) Channel status LED: indicates selected channel
- (7) Channel switch: selects channels 1-6
- 8 USB charging port
  - ) Power status LED: indicates power status: Led off = 100% ~ 30% Solid red = 29% ~ 11% Blinking red = less than 10%
- (10) Antenna.

# BASIC OPERATION U3 RECEIVER



- 1 XLR OUT: XLR microphone input jack
- 2 Power switch: switches the unit on and off
- 3 Channel status LED: indicates selected channel
- 4 Channel switch: selects channels 1-6
- (5) USB charging port
- (6) RF Status LED:

ON = Transmitter is on and link is established Flashing = Signal connection interference OFF = Transmitter off or not linked

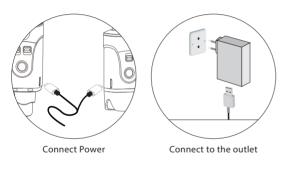
- Power status Led: indicates power status.
  Led off = 100% ~ 30%
  Solid red = 29% ~ 11%
  Blinking red = less than 10%
- 8) Antenna.

#### **SPECIFICATIONS**

	U3 MICROPHONE WIRELESS SYSTEM
Transmission bandwidth	2400 – 2483.5 MHz
Working range	Up to 27 m / 90 feet. Actual range depends on RF signal absorption, reflection and interference.
Audio frequency response	20 Hz - 20 kHz (-3 dB). Depending on microphone type or input signal.
Dynamic range	110 dB
Battery life	Up to 5 hours
RF sensitivity	-88 dBm
Total harmonic distortion	0.2%
RF output power	10 mW E.I.R.P. max
Operating temperature range	-18°C to 57°C. Battery characteristics may limit this range.
Number of channels	Up to 6 channels.

	U3 TRANSMITTER	U3 RECEIVER
Dimensions	31 X 29 X 98 mm	31 X 29 X 98 mm
Weight	93 g	92 g
Housing	Molded plastic and cast metal	Molded plastic and cast metal
Battery	3.7 V rechargeable Li-lon, 860 mA	3.7 V rechargeable Li-lon, 860 mA
Impedance	Input 15 kΩ (1 KHz)	Output 470 Ω (1 KHz)
Audio input connector	Balanced XLR male input	
Audio output connector		Balanced XLR female output
Maximum input level	Mic mode: 2.8 Vp-p Line mode: 7 Vp-p	
Maximum output level		2.8 Vp-p
Gain adjustment range	Two modes: Mic 0 dB, Line -10 dB	
Battery life	Up to 5 hours	Up to 5 hours
Supported microphone types	XLR dynamic microphone and battery-powered condenser microphones.	
Antenna impedance	50 Ω	50 Ω
Antenna type	1/4 wave sleeve dipole, non-removable	1/4 wave sleeve dipole, non-removable
Number of antennae	1	2

#### **BATTERIES AND CHARGING**



CHARGING TIMES	BATTERY LIFE
15 minutes	30 minutes
30 minutes	1 hour
1 hour	2 hours
2,5 hours	5 hours

Always store the U3 at room temperature. When storing the unit, please check the battery state regularly and charge if necessary.

#### Note:

Turn off the power switch while charging. Please do not use the U3 when charging. This may reduce battery life.

#### 2.4 GHz WIRELESS OVERVIEW AND INTERFERENCE

The U3 operates in the 2.4 GHz ISM band, the same band used by Wi-Fi, Bluetooth, and other wireless systems. 2.4 GHz is an open band and as such does not require a license to operate worldwide.

## Tips and Methods to improve the performance of the wireless system

- Keep more than 3 meters distance between the U3 receiver and other transmitters such as Wi-Fi routers.
- If you experience interference from Wi-Fi devices in the vicinity, try changing to a different channel on the U3 transmitter and receiver.
- 3) If necessary, shorten the distance between the U3 receiver and transmitter.

#### 2.4 Ghz Frequency Tables

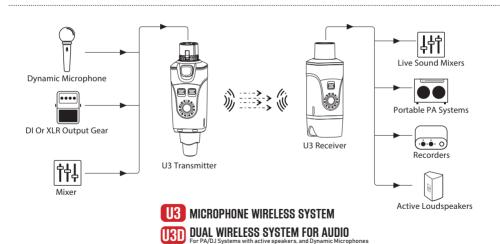
CHANNEL 1	2402 MHz, 2480 MHz, 2482 MHz
CHANNEL 2	2408 MHz, 2472 MHz, 2474 MHz
CHANNEL 3	2416 MHz, 2464 MHz, 2466 MHz
CHANNEL 4	2434 MHz, 2440 MHz, 2442 MHz
CHANNEL 5	2427 MHz, 2448 MHz, 2450 MHz
CHANNEL 6	2422 MHz, 2456 MHz, 2458 MHz

U2 channels 1-4 use the same frequencies as U3/U3C/U4 channels 1-4. A maximum of six U2/U3/U3C and U4 sets can be used at the same time.

### **TROUBLESHOOTING**

ISSUE	SOLUTION
No sound	Make sure that the U3 Transmitter and Receiver are set to the same channel.
	Check that the U3 Receiver's RF LED is on.
	$\bullet \ \text{Check that the microphone is properly connected to the U3 Transmitter, and turned on if necessary}$
	• Check that the Transmitter and Receiver power switches are both turned on.
	• Note: Receivers can be paired with only one Transmitter at a time.
Distortion or weak sound	Make sure the input/gain mode is correctly set to "Line"
	(for an audio device such as a mixer) or "Mic" (for a microphone).
	• Adjust the output signal from the transmitting device (turn up if too faint, turn down if distorting)
Signal instability: RF LED flickering, or off completely	See "Tips and methods to improve wireless system performance" on page 17
Unable to switch the channel	$\bullet  \text{The channel switch locks after 15 seconds. Double-click the channel button to unlock and reset.} \\$
Multiple connect	One transmitter can connect with two or more receivers; but receivers can only accept signal from one transmitter.

#### **APPLICATION OVERVIEW**





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Note: The manufacturer reserves the right to change these specifications without notice.