#### 8.8 Version Info.



• This item displays the product software version.

#### **Parameters**

Communication mode	UHF band radio digital communication
Modulation	Pi/4 DQPSK
Band	510~590, 668~698 MHz (Varies depending on region)
RF Output	<18dBm
Distance	DTR223-1\DTR223-1T:100m DTR223-2\DTR223-4:70m DTR223-2ST\DTR223-4ST:80m (related to signal absorption, reflection, interference, and selection)
Freq. Response Attenuation	<2dB (20Hz~20KHz)
S/N	DTR223-1 (Single CH.):>96dB DTR223-1T (Single CH.):>105dB DTR223-2 (Dual CH.):>96dB DTR223-4 (Four CH.):>96dB DTR228-2ST (Dual CH. True Diversity):>105dB DTR228-4ST (Four CH. True Diversity):>105dB
T.H.D	<0.03% (@1KHz)
Time Delay	4.17ms
Number of channels	80MHz+30Mhz
Endurance	DTR223-1(Single CH.):>18h DTR223-1T(Single CH.):>18h
Power Supply	DTR223-1:18650 Build-in Li Battery (3.7V) *2 DTR223-1T:18650 Build-in Li Battery (3.7V) *2 DTR223-2:DC12V/1A/8W DTR223-4: DC12V/1A/12W DTR228-2ST:DC12V/1A/12W DTR228-4ST:DC12V/2A/26W
Weight/Size	TR223-1:35*100*142mm/334g DTR223-1T:35*100*142mm/334g DTR223-2:480*200*45mm/2080g DTR223-4:480*200*45mm/2174g DTR223-2ST:480*200*45mm/2120g DTR223-4ST:480*200*88mm/3500g

# **Optional Receiving End Description**

DTR22X series products are recommended to be used together with our brand's DTT22X series and DWM22X series transmitter products.

• The equipment is compatible with previous models, but using recommended products can ensure that all performance is fully demonstrated.

# **Logical Topology**





DT220 TECH is the logo of iweex®'s fourth-generation digital U-band wireless technology. DT220 TECH For the specific excellent wireless audio indicators of the technology, please visit the official website for details.



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240715-V2





# **Digital UHF Wireless System Universal Receiver Manual**

DTR223-1T / 1TE (Single Channel / Single Channel) DTR223-2 / 2ST (Dual Channel / Dual Channel True Diversity) DTR223-4 / 4ST (Four-Channel / Four-Channel True Diversity)

#### Features -

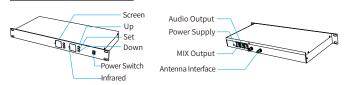
- Digital audio system. Anti-interference, anti-crosstalk, high fidelity, high signalto-noise ratio, excellent wireless transmission distance.
- 500Mhz+600Mhz dual-band; excellent performance when speaking in multiple
- DTR series universal receiver, can be used with a variety of transmitters.
- 20~20KHz full audio range, frequency response deviation <2dB.
- 20~20KHz full audio range, phase deviation is +30°~-60°, can be used for sound field testing.

## Appearance





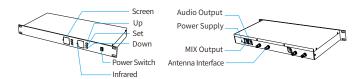
#### DTR228-2 Dual Channel Receiver

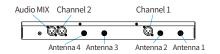


Audio MIX Channel 2 Channel 1

Antenna 2 Antenna 1

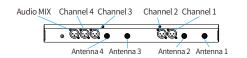
#### DTR228-2ST Dual Channel Receiver - True Diversity



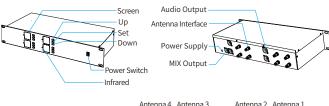


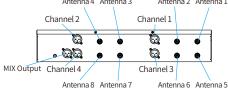
#### DTR223-4 Four Channel Receiver





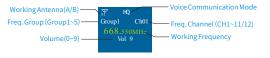
#### DTR223-4ST Four Channel Receiver - True Diversity





# Instructions

#### 1. Main (Without Linking)



#### 2. Main (Without Linking)

Signal Strength

Working Antenna (A/B)

Group1

668.550MHz

Vol 9

Transmitter Info. Bar

Tx: 9.48V

Transmitter phantom power status

#### 3. Concept Description

- Status: When there is no signal reception, the receiver screen displays a blue background; if a signal is received, the screen background turns black.
- Pairing: Automatic pairing function.
- Voice communication mode (RF Performance): Feature function, the same options need to be set for both reception and transmission. HQ (Hi-quality, high quality), voice uses high bit encoding, excellent sound quality; HA (Hiavailable, high performance), uses low bit encoding, and the transmission distance is longer. The transmitter needs to support this configuration, otherwise the default is HO mode.
- CH & Frequency point: Communication channel, corresponding to a communication frequency point.
- Antenna and signal strength: The antenna that the receiver receives the signal, and the strength of the received signal.
- Volume scroll bar: The real-time status of the volume of the received signal, and the strength of the volume received by the receiver.

#### 4. Wireless Channel Management Logic

This device follows the "Group - Channel - Frequency" logic.

Group: The system has 5 channel groups, and of 12 channels for each group.
CH (wireless channel): Each channel is bound to a wireless frequency point, and the wireless frequency points under the same group are recommended, which can avoid "intermodulation interference" effectively.

**Frequency:** can only be changed by selecting a different CH (except for Group 5). **Group 5:** The frequency points of this group can be manually changed.

• The transmitter and receiver must be set to the same Group and CH for work.

### 5. Rear Interface Description

- The audio MIX interface is a mixing interface and is a XLR standard interface.
- Audio 1~4 corresponds to audio channels 1~4 respectively and is a XLR standard interface.
- The back antennas 1~8 correspond to audio channels 1~8 respectively and are BNC standard interfaces.

#### 6. Power Description

- If the power transformer is unstable, it will affect the performance of the receiver. Please use the original power supply for operation.
- Working power supply for 2-channel and 4-channel receivers: 12V&1A.
- Working power supply for 4-channel receiver (true diversity): 12V&2A. If the rated power does not meet the standard, the performance of the device will be affected.

#### 7. Instructions

- Paring: The receiver enters the "Paring" state, and the infrared binding point
  of the transmitter is aligned with the infrared binding point of the receiver.
   No button operation is required on the transmitter.
- Enter/exit configuration state.

When the device is running, short press the "Set" key to enter the configuration state.

Short press the "Set" key to switch configuration items; and press the "Up" & "Down" key to modify the parameters.

Short press the "Set" key to switch out after polling each configuration item; after 5 seconds of no operation, it will automatically exit.

#### 8. Setup Instructions

#### 8.1 Pair



- This configuration provides the pairing function. Press the up and down keys to enter the pairing state.
- After the pairing is completed, if the transmitter turns on the voice, it will automatically return to the main.

#### 8.2 Scan

- Wireless environment scanning. Press the up and down keys to enter.
- The device will scan the 12 frequency in the group.
- The smaller the value, the better the wireless environment at that frequency. Channels above -50dB are not recommended. Channels below -70dB indicate that there is no wireless signal interference.





#### 8.3 Group



 This configuration item can change the grouping of the working frequency points, 1~5 group IDs

#### 8.4 Frequency Channel



 This item can change the transmitter's Working Frequency, providing 12 options.

#### 8.5 TX RF Power



- This item can change the transmitter's transmit RF Power, providing three options: High, Middle, and Low.
- Increasing TX RF Power will brings the risk of interference.
- This setting is automatically synchronized to the transmitter through pairing.

#### 8.6 TX Volume Offset



- This item can change the voice signal gain (Volume) of the transmitter, providing"-18dB~+18dB" 37 options.
- Increasing TX Volume will bring the risk of howling.
- This setting is automatically synchronized to the transmitter through pairing.

#### 8.7 RF Performance

- Voice communication mode: HQ (Hi-quality), voice uses high bit encoding, excellent sound quality; HA (Hi-available), uses low bit encoding, longer transmission distance.
- This setting automatically synchronizes to the transmitter by pairing.





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