

数字UHF 无线系统

Digital UHF Wireless System

通用接收机 说明书

DTR223-2MR 二通道 / DTR223-4MR 四通道

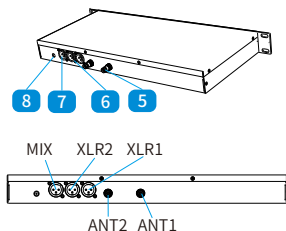
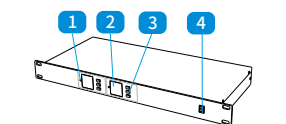
DT248R-2PE 二通道 / DT248R-4PE 四通道

DT248R-2ST 二通道

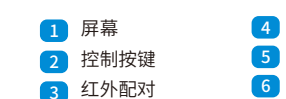
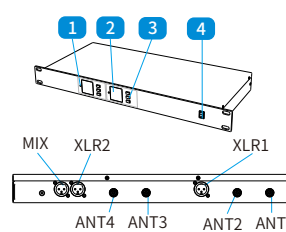
产品外观

DTR223-2MR 二通道接收机

DT248R-2PE 二通道接收机



DT248R-2ST 二通道接收机



- | | | |
|--------|------------------|------------|
| 1 屏幕 | 4 POWER 按键 | 7 MIX 音频输出 |
| 2 控制按键 | 5 BNC 天线接口 (1-2) | 8 电源接口 |
| 3 红外配对 | 6 音频输出(1-2) | |

使用说明

1. 无链接界面



2. 有链接界面



3. 概念说明

- 语音通信模式(RF Performance)：特性功能，需接收和发射同时设置相同的选项。HQ (Hi-quality, 高品质)，音质优异；HA (Hi-available, 高性能)，传输距离更远。默认为HQ模式。
- CH 和频率：通信信道，对应一个明确的通信频点。

4. 无线信道管理逻辑

本设备遵循“Group(组) - Channel(无线通道) - Frequency(频点)”逻辑。
Group(组)：系统内置若干个无线通道组(根据不同国家区域，不同Firmware版本有所区别)，每个组包括12个无线通道。
CH(无线通道)：每个无线通道绑定一个无线频点，同一Group下的无线频点为系统推荐频点，可以有效规避“互调干扰”。
Frequency(频点)：只能通过选择不同CH进行更改(最后一组除外)。Customized Group(自定义组)：最后一组为自定义频点组，本组频点可手工更改，需人工规避“互调干扰”。

5. 操作说明

- 配对：接收机进入“Pairing”状态，将发送端红外对频点对向接收机的红外对频点即可。发射端无需按键操作。
- 进入/切出配置状态：设备运行中，短按配置键，即可进入配置状态。短按配置键，切换配置项；短按上下键，修改选项。轮询各配置项后回到主页；无操作5秒后，自动退回主页。

6. 注意事项

- 各接收机型号皆区分不同工作频段，参见型号末尾数字。
- 劣质电源适配器可能导致杂音。

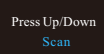
设置说明

1. 对频(Pair)



- 按上下键进入pairing状态。
- 系统会自动扫描，选择本Group的最佳频率。

2. 扫频(Scan)



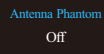
- 数值越小代表该频点无线环境越好，推荐使用低于-70dB的通道。

3. 语音通信模式(RF Performance)



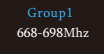
- HQ (Hi-quality 高品质)，高阶bit编码，音质优异；
- HA (Hi-available 高性能)，低阶bit编码，传输距离更远。

4. 外接天线供电(Antenna Phantom)



- 可通过BNC接口对外接天线供电：9V/150mA。

5. 工作频点分组(Group)



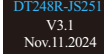
- 根据国家、软件版本、接收机频段，Group数量不同。

6. 频点(Frequency Channel)



- 本配置项可更改发射端的工作频点(Frequency)，提供12个选项。

7. 版本信息(Version Info.)



- 显示产品软件版本。

主要参数

通信模式	数字UHF无线通信
调制方式	PSK
传输频段	530~590MHz(5359) / 640~700MHz(6470) (根据地区不同有所差别)
频带宽带	60MHz(多滤波器自适应电路)
采样	48Khz
分集	DTR223-2MR/4MR：交互式真分集 DT248R-2PE/4PE：交互式真分集 DT248R-2ST：一主一备式真分集
传输距离	DTR223-2MR/4MR：50~70m DT248R-2PE/4PE：50~70m DT248R-2ST：70~90m (无干扰环境，根据不同发射端而异)
接收灵敏度	>-96dBm
综合S/N	DTR223-2MR/4MR：>105dB DT248R-2PE/4PE：>120dB DT248R-2ST：>120dB
动态范围	DTR223-2MR/4MR：105dB DT248R-2PE/4PE：>120dB DT248R-2ST：>120dB
综合T.H.D	<0.03% (@1KHz)
频率响应	20Hz~20KHz，衰减<3dB
相位响应	DTR223-2MR/4MR：- DT248R-2PE/4PE：30°~60° (20Hz~20KHz) DT248R-2ST：30°~60° (20Hz~20KHz)
延时	4ms
声学测量	DTR223-2MR/4MR：不支持 DT248R-2PE/4PE：支持 DT248R-2ST：支持
供电	12V/1A
尺寸	480*200*45mm(无天线)
质量	DTR223-2MR/4MR：2050g / 2150g DT248R-2PE/4PE：2050g / 2150g DT248R-2ST：2050g
工作温度范围	-10℃ ~ 45℃

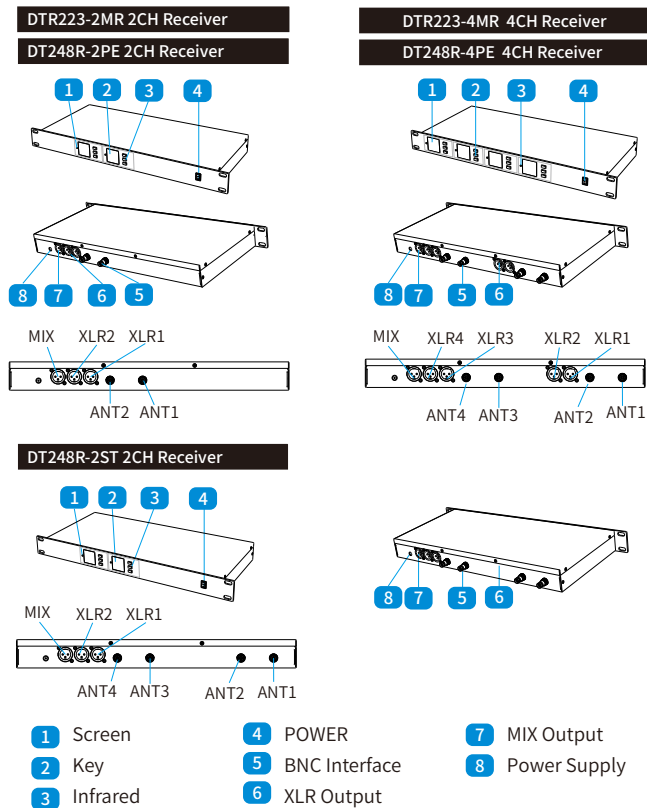
Digital UHF Wireless System Universal Receiver Manual

DTR223-2MR (2Channel) / DTR223-4MR (4Channel)

DT248R-2PE (2Channel) / DT248R-4PE (4Channel)

DT248R-2ST (2Channel)

Appearance



Instructions

1. Concept Description

- **Voice communication mode (RF Performance):** HQ (Hi-quality), excellent sound quality; HA (Hi-available performance), the transmission distance is longer. Must keep same option between TX and RX. The default is HQ mode.
- **CH & Frequency:** Each channel corresponds to a frequency.

2. Wireless Channel Management Logic

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

Group: The system has several channel groups (base on different region and firmware), 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 be changed by selecting a different CH (besides last group).

Customized Group: The last group is customized group, and frequency points of this group can be manually changed.

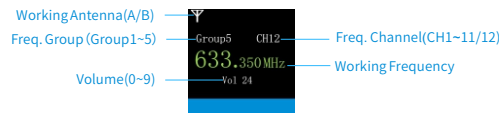
3. Instructions

- **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 operation is required on the transmitter.
- **Enter/exit configuration state.**
Short press the "Set" key to enter the configuration state.
Short press the "Set" key to switch items; and press the "Up" & "Down" key to modify the parameters.
After polling each items or after 5s of no operation, it will automatically exit.

4. Note

- Each receiver model operates on a different frequency band; please refer to the last digit of the model number.
- Inferior power adapters may cause noise.

5. Main (Without Linking)



6. Main (Without Linking)



Setting Instruction

1. Pair



- Press "up" or "down" to enter pairing mode.
- The system will automatically scan and select the optimal frequency from this group.

2. Scan



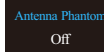
- The smaller the value, the better the wireless environment. Channels below -70dB is be recommended.

3. RF Performance



- HQ (Hi-quality), 24 bit with superior sound quality;
- HA (Hi-available), 16 bit for longer transmission distance.

4. Antenna Phantom



- Provide power supply for external antenna, with 9V 150mA DC.

5. Group



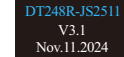
- The number of groups varies depending on the country, software version, and receiver frequency band.

6. Frequency Channel



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

7. Version Info.



- This item displays the product software version.

Parameters

Communication	Digital UHF Wireless Communication
Modulation	PSK
Band	530~590MHz (5359) / 640~700MHz(6470) (Different regions have different requirements.)
Bandwidth	60MHz (Adaptive Multi-Filter Circuit)
Sampling	48Khz
True Diversity	DTR223-2MR/4MR: Cross Backup Mode DT248R-2PE/4PE: Cross Backup Mode DT248R-2ST: Main + Standby Backup Mode
Transmission Distance	DTR223-2MR/4MR: 50~70m DT248R-2PE/4PE: 50~70m DT248R-2ST: 70~90m (varies depending on the wireless environment & TX.)
Sensitivity	>-96dBm
S/N	DTR223-2MR/4MR: >105dB DT248R-2PE/4PE: >120dB DT248R-2ST: >120dB
Dynamic Range	DTR223-2MR/4MR: 105dB DT248R-2PE/4PE: >120dB DT248R-2ST: >120dB
T.H.D	<0.03% (@1KHz)
Freq. Response	20Hz~20KHz, Attenuation<3dB
Phase Response	DTR223-2MR/4MR: - DT248R-2PE/4PE: 30°~60° (20Hz~20KHz) DT248R-2ST: 30°~60° (20Hz~20KHz)
Latency	4ms
Acoustics Measurement	DTR223-2MR/4MR: Not Supported DT248R-2PE/4PE: Supported DT248R-2ST: Supported
Power Supply	12V/1A
Dimension	480*200*45mm (Without antenna)
Weight	DTR223-2MR/4MR: 2050g / 2150g DT248R-2PE/4PE: 2050g / 2150g DT248R-2ST: 2050g
Working Temperature	-10°C ~ 45°C