

# **R-14D**

## UHF 頻段分集式天綫分配系統

請注意在多系統應用時,對于每一個所需要的信號,必須有一個發射機一臺接收機組合(每部接收機應與一部發射機配合工作),并設定到一個單獨的頻率上工作。由于一些無綫頻率接近或位于UHF電視頻段內,在特定的地區衹有特定的頻率可用,并且,衹有某些頻率可以與其它UHF儀器靠在一起工作。

## 系統操作指南

可配合對應頻段的無綫系統工作,并且可以把多個相同頻段的 無綫系統連接一起使用。

各頻段的天綫分配器內設有兩組獨立分配部份,作分集式無綫系統的單一天綫信號處理。每部份包括一個天綫輸入綫路和四路的輸出,所有射頻端子為標準BNC接口,而系統已附有8條BNC-BNC射頻連接綫。

外接天綫可連接到遠距離的位置,但所傳送的UHF頻率信號亦會有所衰減,應使用有屏敝結構的同軸電纜;如連接超過8米距離時須使用最低損耗的連接綫,標準的RG-142規格同軸綫是一個合適的選擇。另外,并可把天綫安裝到前板面上。

可配套使用有源或無源天綫,兩個天綫輸入端口設有可開關 +8V直流供電,可供電給有源天綫或其他射頻設備使用,每端口可提供150mA電流。

在後面板上設有4組供電(由天綫分配器控制供電),每組可提供12V/800mA直流供電,作4臺接收機的電源供應,幷附有4條供電綫給接收機使用。

每組接收機的8V供電設有短路保護,外殼爲全金屬結構,可避 冤外間射頻幹擾。

#### 供雷連接

內置100-240V,50/60Hz的開關式電源供電設計, 幷會自動調節適應電壓, 不需特別設定。使用標準IEC-320連接綫,連接到供電輸入。

### 多系統使用技巧

- 1. 使用高效能的碱性電池,避免使用一般的碳性電池。
- 2. 接收機的放置位置應與發射機之間有最少的障礙物。能直接看到的爲最佳。
- 接收機與發射機之間有適當的距離,不應太遠,但亦不應太近,最小要有2米的距離。
- 4. 接收機的天綫應遠離其他任何金屬。
- 5. 接收機附近,不應有電腦或其他會產生射頻幹擾的儀器。
- 手持話筒的發射天綫內置于話筒底部,使用時應避冤握着話筒底部,減低發射效能。
- 7. 一臺接收機不能同時接收兩個發射機的信號。
- 8. 下列情况下應更改使用頻率 1)當接收到外來頻率幹擾、 2)當該頻率受限制而不可使用、3)使用于多頻段系統,而不 想相互幹擾。
- 接收機的音頻電平輸出控制不應調節過高,否則會對調音 臺輸入產生破聲及輸出失眞。但相反,如輸出過低便會減低 訊噪比,使噪聲增加。

調校適當的電平輸出方法,是先把調音臺調到一般使用電平,如0dB增益位置,再對話筒以可能的最高聲壓輸入,例如對着話筒大聲講話,然後調節輸出到最大而沒有失真及破聲的位置,便能提供最佳的輸出。

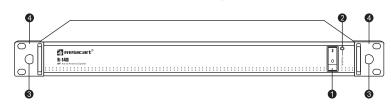
10. 發射機在使用完畢後,應馬上關掉電源。如長時間不會使用時,應把電池取出。

技術指標	
頻率節圍	500 ~ 900 MHz
放大增益	0 dB, ± 3dB典型
輸入/出阻抗	50 歐姆
頻寬	32MHz
天綫供電	DC12V中央點爲正極
接收機供電	每個天綫輸入端,最大電流爲150 mA
	DC12V中央點爲正極 (4組)
最大電流	800 mA/每組
電源	AC100-240V, 50/60 Hz,
尺寸(mm):	410(寬)x43(高)x206(深)
重量(kg):	約2.5

★注意:打開天綫分配器機蓋時,可能會遭到電擊。維修工作請教于懂技術的維修工作人員。機器設備不能遭雨淋或放置于潮濕環境中。內部的電路已經得到精確的調整,以達到最佳的使用性能,并且能嚴格符合法規,不要試圖打開器材內部,否則將會使質量保證失效,并且可能導至不良運作。

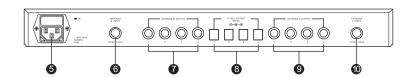
### 前面板控制和功能(圖1)

- 1. 供電開關:按下開關接通電源,再按一下可把電源關閉。。
- 2. 指示燈: 供電指示燈, 在開啓供電時會亮起。
- 3. 天綫安裝端: 可把天綫安裝到安裝架的圓孔上, 把天綫引接到前面板上。
- 4. 機架安裝套件: 可把接收器安裝到19"標準機架中。



#### 後面板控制和功能(圖2)

- 5. 電源輸入插座:標準IEC插座,能自動適應工作在100~240V-50/60Hz交流電源上。
- 6. 天綫輸入B接口:分配器天綫連接端子,可以直接連接天綫,也可以用一根天綫電纜延長距離。天綫接口中央接點可提供8V供電,可使用電流不高于150mA的有源天綫系統或天綫放大器。
- 7. 分配器輸出B接口:4組分配輸出端子,直接連接到無綫接收機。每組輸出 應獨立連接到的天綫端子,而沒有使用的端子無需要作終端負載處理。
- 8.4組供電輸出,每組可提供12V/800mA直流供電,為4臺接收機供應電源。 9.分配器輸出A接口:4組分配輸出端子,直接連接到無綫接收機。每組輸出
- 應獨立連接到的天綫端子,而沒有使用的端子無需要作終端負載處理。 10.天綫輸入A接口:分配器天綫連接端子,可以直接連接天綫,也可以用一根天綫電纜延長距離。天綫接口中央接點可提供8V供電,可使用電流不高于150mA的有源天綫系統或天綫放大器。





# **R-14D**

## **UHF Antenna Divider System**

Please be aware that when using multisystem, for each required signal, it is required that each transmitter must match a receiver (work together) and set to operate in a single and clear channel. For some wireless frequencies which are close to or in UHF TV frequencies, only specific frequencies are used in each place and only in some specific frequencies can the system work with other UHF equipments.

#### **Operating Guide**

It can work together with wireless systems under matching frequency band and it is able to be connected with multiple wireless systems under same frequency band.

For each frequency band, there are two independent division parts in the antenna divider and they are processed as a single antenna signal in the diversity wireless system. For each part, there is one antenna input channel and four output channels. All the RF connector has a standard BNC port, and 8 BNC-BNC RF connection cables are included already.

External antenna can be set at long distance position while some of the transmitting UHF frequency signals will loss. So shielded coaxial-cable should be used in such situation. If the distance is more than 8 meters, it is a must to use the lowest signal loss cable, such as standard RG-142 coaxial-cable. More over, the antennas can be set in the front panel.

It can be used to work with active antennas or passive antennas. Both antenna input connectors have DC +8v power supply (switchable, turn on or turn off), and it can provide power to active antennas or passive antennas. Each connector provides 150mA power.

In the rear panel, there are 4 sets of power supplies (controlled by antenna division) and each provides 12v/800mA DC. An R-14D is used as the power supply for 4 receivers and 4 power supply cables are included.

Short-circuit protecting design for each receiver and completely metal external case is able to resist external RF interference.

#### Power Supply Connection

Internal 100-240v, 50/60Hz switch type power supply can automatically adjust to proper voltage. No need to do special setup. A standard IEC-3200 cable is used.

### **Multisystem Setting**

- 1.Use high performance alkaline battery and avoid using common carbon battery.
- 2.Keep minimum barrier between the transmitter and the receiver. It is the best to keep them can directly see each other.
- 3. Proper distance should be kept between the transmitter and the receiver. Not to far nor to close. 2 meter at the minimum
- $4.\mbox{The}$  antenna of the receiver should be kept away from any metal.
- 5.Computer and any device with possibility to create RF interference should be kept away from the receiver.
- 6. The output antenna of the handheld microphone is internally placed in the bottom part of the microphone. So please avoid holding the bottom part of the microphone when using the microphone, to avoid reducing the output performance,
- 7.One receiver can not receiver the two transmitters' signal at the same time.
- 8.Frequency should be changed under the following situations: 1) when receiving external frequency interference 2) when current frequency is restricted and can not be used 3) to prevent inter-interference when using multisystem.
- 9. The receiver's audio SQ level should not be set at a too high level, or it will cause distortion to mixer. On the other hand, if the SQ level is set at a too low level, it will reduce the S/N ration and increase noise.

The proper way to set SQ level is: firstly, set the mixer's SQ level to normal level, such as 0 dB, then input the highest sound pressure to the microphone, such as loudly speak to the microphone then adjust the SQ level to the point which provides the loudest sound with no distortion, and then this is the very level to provide the best performance.

10. After using the transmitter, please turn off the power. If it won't be used for a long time, the batteries should be removed.

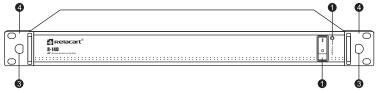
#### **Technical Specifications**

Frequency Range	600 - 800 MHz
Gain of Output	0 dB±3dB
Input Impedance	50Ω
Output Impedance	50Ω
Power Supply of Antenna	+8V DC, centre point is positive
	The Maximum Current is 150mA
	for each Antenna input
Power Supply of Receiver	+12V DC, centre point is positive
Maximum Current for each group	800mA
Power Supply	100—240V, AC 50/60 Hz
Dimension (mm)	421(W) X 43(H) X 206 (D)
Weight	2.3KG
Accessories	4 pcs DC power cords, 8 pcs X 0.5 m
	BNC-BNC connection wires

**Caution:** It might cause electric shock when opening the case of the antenna divider. The reparation must be done under skillful reparation specialist with specific knowledge. The device must be kept away from rain and moist environment. The internal electric circuits have been precisely adjusted to reach the best using performance and strictly match the working regulations. Please do not try to open the case, or the warranty will be lost and might cause bad operations.

#### Front Panel Control and Functions (Picture 1)

- 1. Power Switch: press to turn on the power then press again to turn off the power.
- 2.Indicator Light: the power supply indicator light. The light would be on when the power is on.
- 3. Antenna Installation Connector: Can install the antenna to the round hole of the installation rack and can connect the antenna to the front panel. Rack Installation Suit: Can install the receiver to 19"rack.



#### Rear Pane Control and Functions (Picture 2)

- 1.Power Input Socket : Standard IEC socket. It is able to automatically operate with AC current of 100~240V 50/60Hz.
- 2.The B Input Socket of The Antenna: the connector of the antenna divider and it can be used to directly connect antenna, or use an antenna extend cable to extend the length. The middle connector can provide DC 8 v power, can used in active antenna or antenna amplifier which power is no higher than 150mA.
- 3.The B Output Socket of the antenna divider: 4 sets of output connectors are directly connected to wireless receivers. Each set should be separately connected to antenna connector and if the connector is not used, there is no need to process. 4.4 Sets of Power Supplies: Each set can provide DC power of 12v/800mA. Supplies electricity to 4 receivers.
- 5.The A Input Socket of the antenna divider: 4 sets of output connectors are directly connected to wireless receiver. Each set should be separately connected to a antenna connector and if the connector is not used, there is no need to process.

The A Input Socket of the antenna: the connector of the antenna divider and it can be used to directly connect antenna, or use an antenna extend cable to extend the length. The middle connector can provide DC 8 v power, can used in active antenna or antenna amplifier which power is no higher than 150mA.

