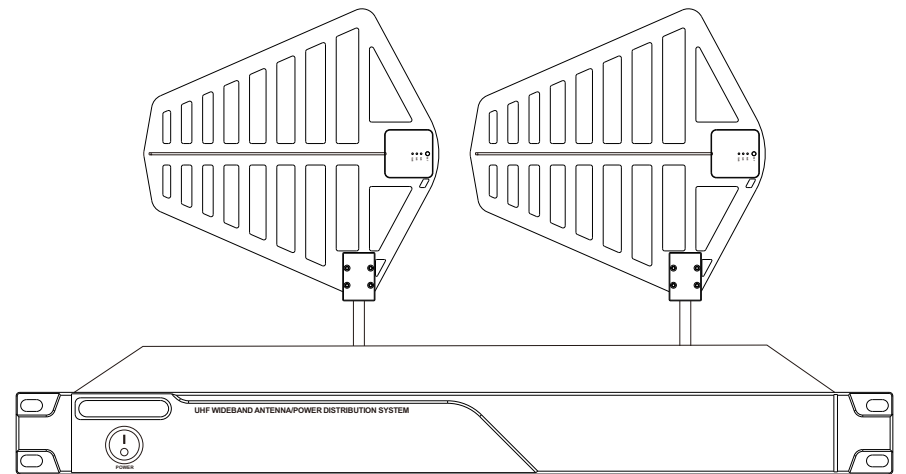



# Antenna Distribution System

## User Manual



Thank you for choosing our products  
Please read the manual carefully to get the best performance effect.

 CAUTIONS 

1. Turn off the Power before installing ,removing and wiring the equipment .  
Otherwise ,there will be a risk of electric shock.
2. Do not disassemble the machine, otherwise it will cause failure
3. Please use the unit within the following conditions(temperature,humidity ,  
vibration ,installation direction, environment ,etc .)Otherwise,there is a  
risk of fire or malfunction.
4. Do not block the ventilation holes of the equipment. Otherwise,there is a  
risk of fire or malfunction.
5. Please follow the standard of the machine connection, the specified  
power supply and construction method, and wire it correctly.Otherwise,  
there is a risk of electric shock, fire, or malfunction.
6. Do not let the broken wire, iron power, water inside the case.Otherwise ,  
there will be a risk of fire.
7. When disposing of the machine, please follow the local regulations,  
Properly handled according to industrial waste.
8. The equipment must be exposed to water droplets or water splashes.
9. The equipment should be connected to the grid power outlet with  
protective grounding.
10. If the power plug and appliance coupler are used as disconnect  
devices, the disconnect device should kept easy to operate(Such as  
knife switch or leakage switch)



## Technical Parameter

A. Antenna Distributor	
Input Impedance	50 Ω
Output Impedance	50 Ω
Input Socket	BNC
Output Socket	BNC
Gain	3dB
Bandwidth	500MHz
Power Supply	DC12V 3A
Weight	2000g
Size	45mm×480mm×160mm

B. Antenna Directional Receiving Board	
Frequency Range	450~950MHz
Attenuation	-4dB, ±1dB
Isolation	>-20dB
Impedance	50 Ω
Interface	BNC
Weight	200g
Size	39.5*46.8*10mm

C. Booster	
Input Impedance	50 Ω
Output Impedance	50 Ω
Input Socket	BNC
Output Socket	BNC
Gain	3dB、12dB
Bandwidth	500MHz
Power Supply	DC9V-DC12V 250MA
Weight	150g
Size	25mm×45mm×75mm

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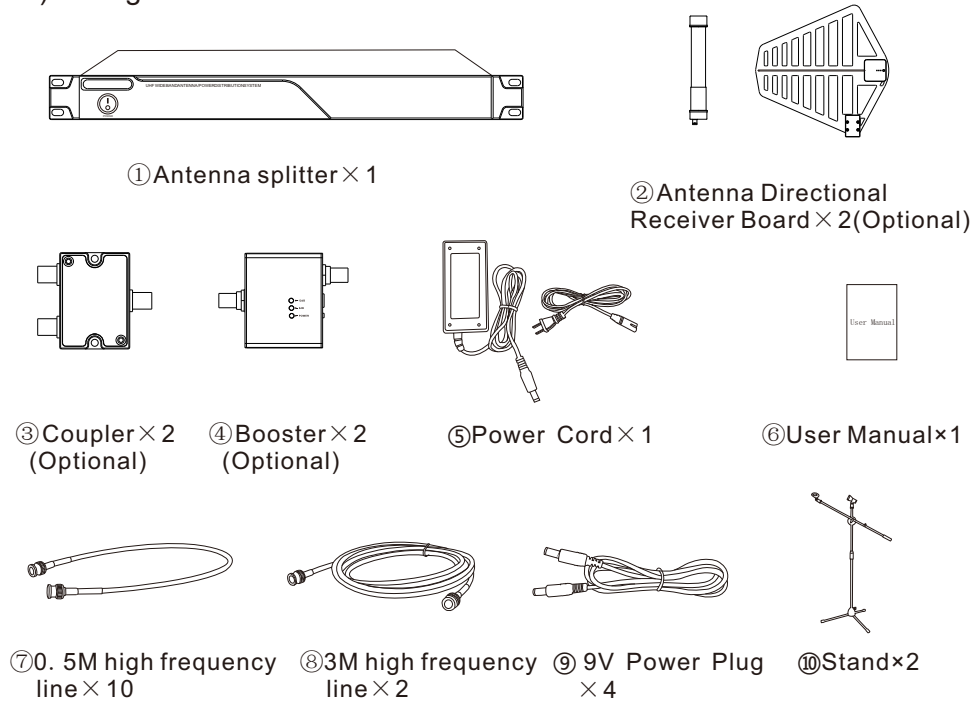
# 1. System Introduction

## 1) Introduction

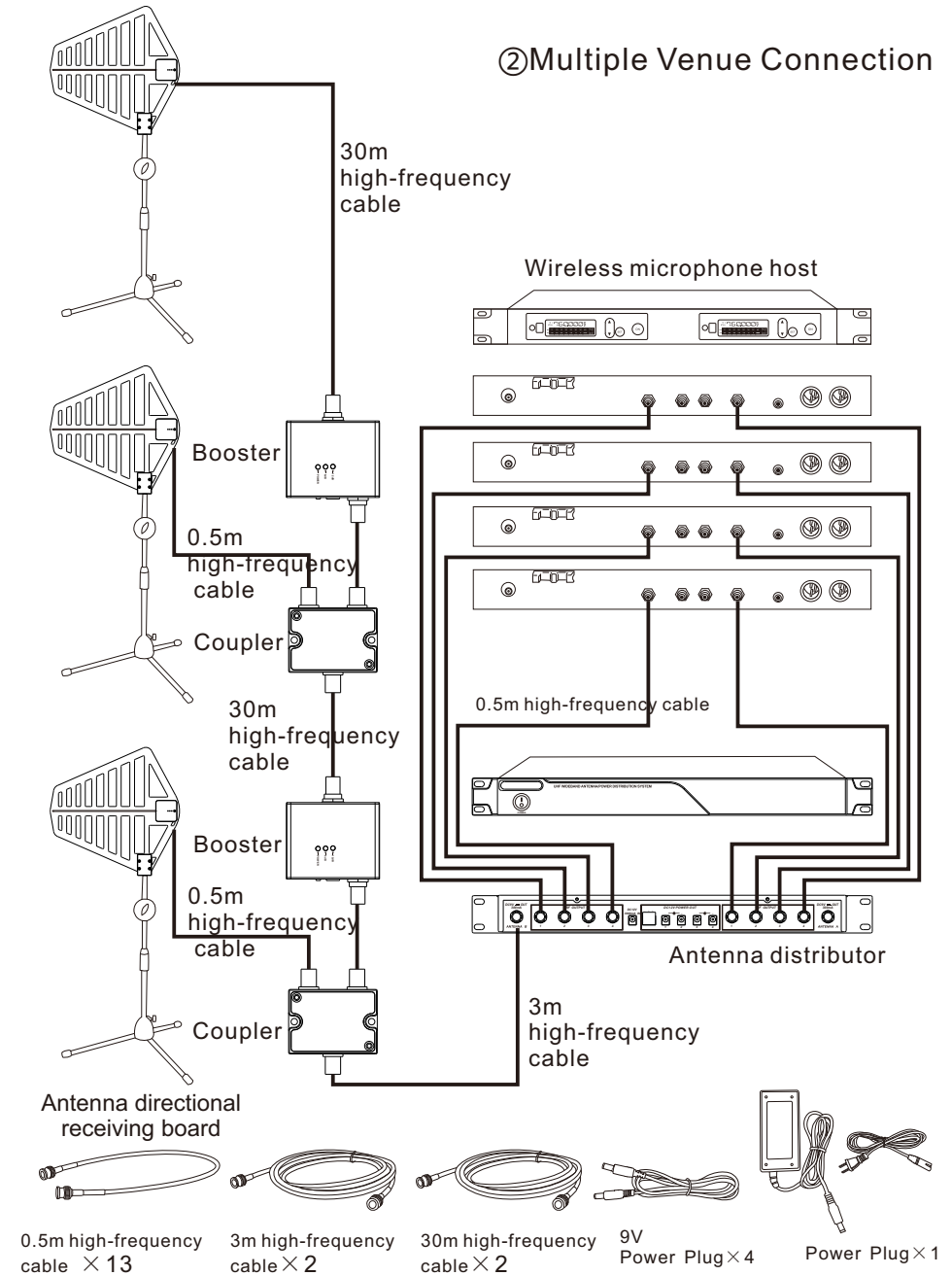
This system adopts high-quality high-frequency circuit, low-noise broadband circuit amplification design. There is a higher channel separation. The product is equipped with 8-channel low-loss antenna distribution, which can realize 4. The set of single-channel automatic selection receivers share a pair of antennas, and there are two kinds of multi-channel power distribution. Equipped with a socket to effectively increase the receiving distance and make the project installation more convenient and simple.

The system consists of an antenna splitter and 2 antenna directional receiving boards, a 12V 3A power plug composition, and equipped with 2 antenna gainers, 2 pieces 3-meter high-frequency cable, 10 pieces 0.5m high-frequency cable, and user manual.

## 2) Configuration

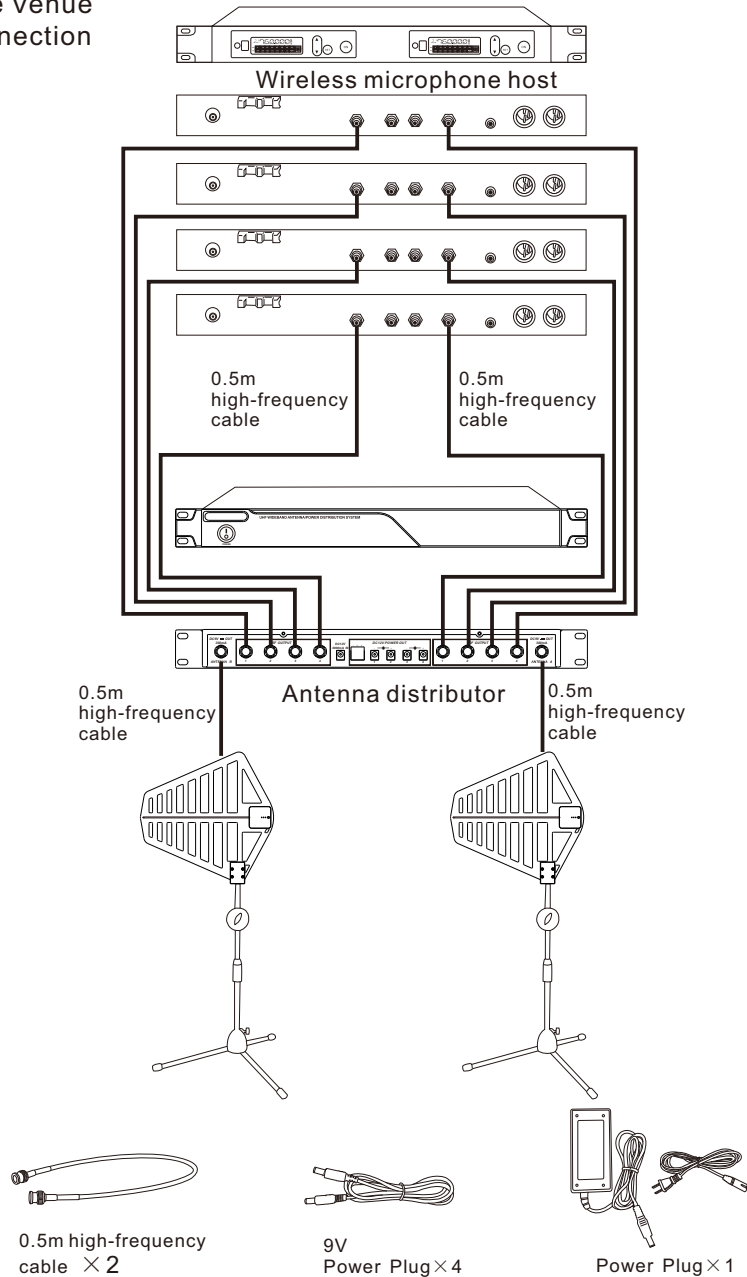


# 6. Wiring Diagram



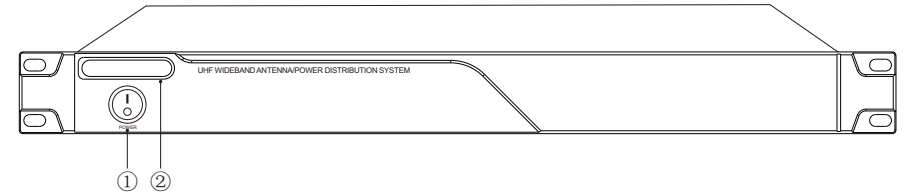
## 6. Wiring Diagram

### ① Single Venue Connection



## 2. Antenna Splitter

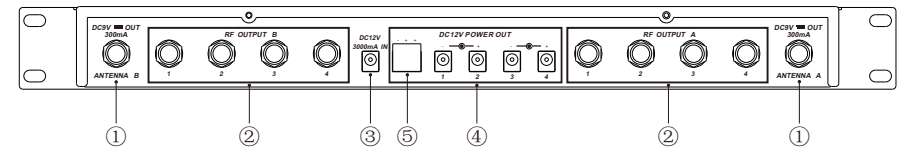
### Front Panel



① Power Switch

② LOGO and Model number

### Rear Panel



① Antenna input socket ( Built-in 9V power 250mA)

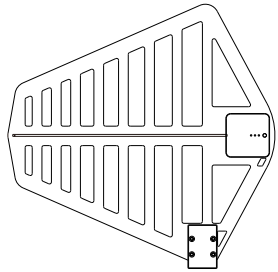
② Antenna distribution output port

③ 12V 3A power adapter socket

④ 4 way power distribution connector

⑤ 2 way + 12V Power output terminal

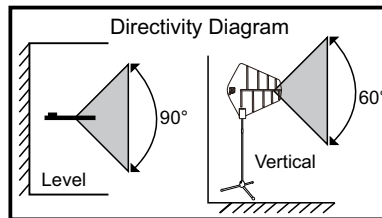
### 3. Antenna Directional Receiver Board



Active Directional Antenna

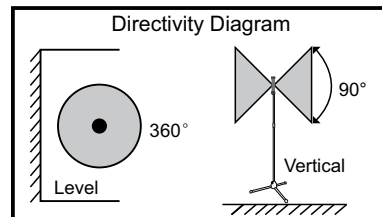
#### Technical Parameter

Antenna type: Log-periodic directivity (LPDA)  
 Frequency range: 450-950MHz  
 Connector type: TNC  
 Impedance: 50Ω  
 Signal gain: +15dB  
 Directivity: Horizontal 90° Vertical 60°  
 Directional polarity: Vertical polarization  
 Dimensions: (L)290x(w)260x(D)28 mm



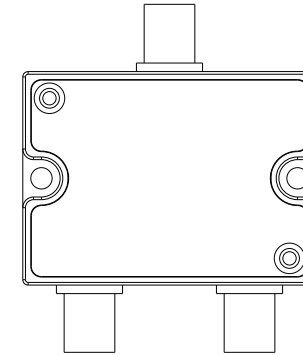
#### Technical Parameter

Antenna type: Omnidirectional dipole  
 Frequency range: 450-950mHz graded  
 Connector type: TNC  
 Impedance: 50Ω  
 Feed: +8V to +12V 75 mA  
 Signal gain: +15dB  
 Directivity: Horizontal 360° Vertical 90°  
 Directional polarity: Vertical polarization  
 Dimensions: (L) 300x(D) 45 mm



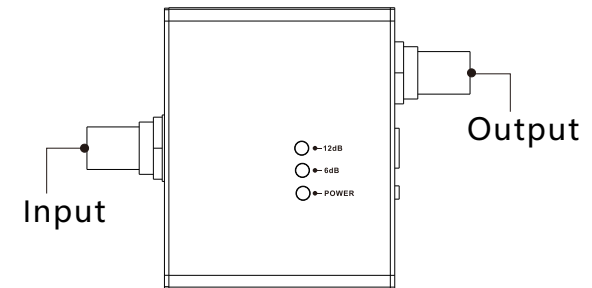
Active Omni-directional Antenna

### 4. Coupler



The coupler can split one RF signal into two RF signal outputs, or combine two RF signals into one RF signal output. It is an ideal antenna system accessory. The frequency range of the coupler is 450-950MHz, input and output: attenuation -4dB.

### 5. Booster



The booster is to compensate for signal insertion loss in the cable that connects the antenna to the receiver (or antenna distribution system). It is not intended to increase the reception range of the antenna.

Trying to "boost" the signal beyond standard levels will only result in circuit overload and reduced performance. Excessive gain will actually reduce the reception range and the number of available channels. This is because all signals in the RF range are amplified, including interfering signals and ambient RF noise. The correct signal circuit gain plus cable loss equals 0dB, and the receiver can provide optimal performance.

※If the cable is shorter, set the gain switch to +6dB; if the cable is longer, set the gain switch to +12dB. (All the settings are base on actual debugging)