

ANC241-8I2O

Antenna Combiner System

Appearance



- 1 DC power supply DC12V/5A input connector
- 2 Antenna Input Ports, Channels B. BNC connector for antennas.
- 3 Antenna Input Ports, Channels A. BNC connector for antennas.
- 4 RF output connector, Channels A and B

Features

The UHF antenna integration system with amplification function integrates the signal into 2 outputs to the wireless receiver through 8 antennas. It can independently amplify the RF signals of 8 antennas to compensate for the line loss of the antenna cable. The 8 antenna input connectors are equipped with a 12V150mA amplification voltage.

It can be used for various receivers to expand the coverage of signal reception, which will effectively avoid the problem of receiving dead spots that may be encountered on large stages or any venues.

The integrated 2 × 4 antenna input can use 8 antennas at the same time, simplifying the messy wiring.

The precision-made pure copper connector is anti-oxidation and anti-corrosion, with stable contact, and can work stably in different environments.

Function

Expandability: Supports expansion of 8 antennas. Supports cascading multiple antenna integrators to access more antennas.

Compatibility: Compatible with all wireless devices within the frequency range.

Low noise and intermodulation distortion: High signal-to-noise ratio and extremely low distortion. It can ensure maximum sensitivity and signal processing capabilities, providing the widest range of wireless signal coverage for wireless receivers.

Please follow the following guidelines:

If using extension cables for antennas installed in remote locations, use a series RF amplifier remote antenna extension cable that can achieve low loss within the UHF operating frequency.

Multiple transmitters are placed more than 3 meters [10 feet] away from the receiving antenna.

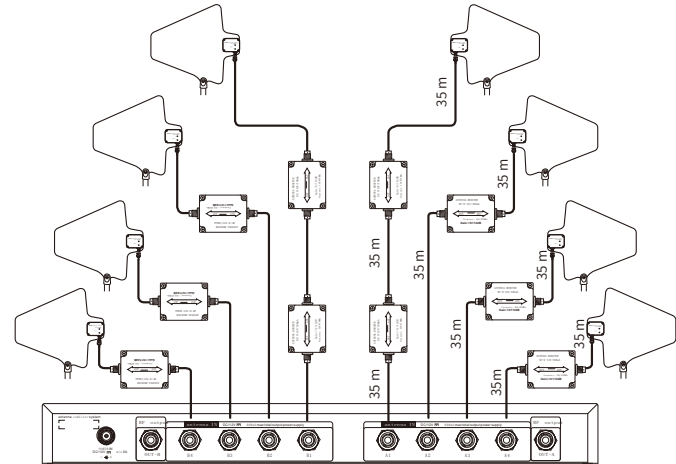
Series amplifier connection

For every 35 meters of cable, an amplifier must be connected in series to compensate for line loss. The amplifier is powered by the cable. Just pay attention to the input and output direction.

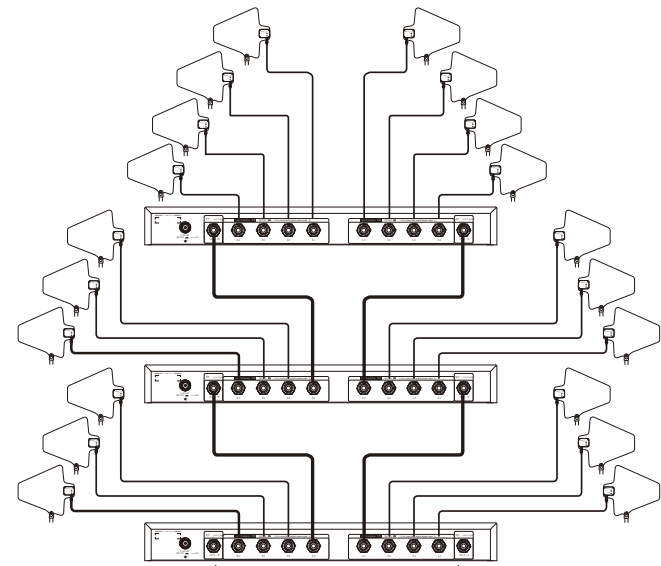
The 8 antenna ports of the integrator can provide 12V power to the outside.

The total number of amplifiers that can be connected in series to an integrator cannot exceed 24, otherwise the integrator will be damaged! Amplifiers exceeding the limit can be powered independently using a 12V adapter, with no limit on the number.

When the cable between the antenna and the amplifier or integrator reaches 35 meters, the antenna or amplifier gain should be adjusted to 10~12dB.



Antenna Combiner



BCH Output Antenna Combiner ACH Output

Parameter

| Item | Value |
|---------------------------|--------------------------|
| Frequency Bands | 450MHz ~970MHz |
| Gain | 8dB(±3dB) |
| Interface | BNC:Input×8 /Output×2 |
| Antenna Amplifier Voltage | 12 V 2A(Total 150mA x 8) |
| Impedance | 50Ω |
| Power Supply | 12V / 5A |
| Dimensions | 480x210x45mm |

Notes

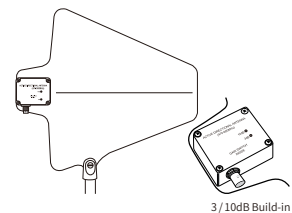
- First to Turn On** When the system is started up, turn this device on last; when the system is shut down, turn this device off last to avoid component damage.
- Last to Turn Off**

Accidentally connecting the center pin (power) of the cable to the cable housing (ground) may damage the internal components.

1. Do not use this device near water.
2. Wipe the device only with a dry cloth.
3. Do not block the ventilation openings.
4. Do not install this device near any heat source.
5. Do not defeat the safety purpose of the grounding type plug. A polarized plug has two blades, one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong is provided for your safety.
6. Protect the power cord from being walked on or pinched, particularly at plugs, receptacles, and the point where they exit from the device.
7. Use only connectors/accessories specified by the manufacturer.
8. Unplug this device during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.
10. Do not expose this device to dripping and splashing. Do not place objects filled with liquids (such as vases, etc.) on this apparatus.
11. The mains plug or appliance coupler should remain readily operable.
12. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
13. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.



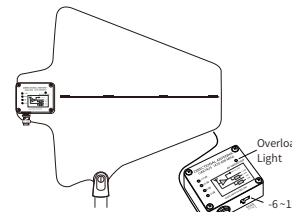
Functions have changed. Please visit the website (www.gaodimic.com) for the latest information. GAODIMIC®, iweex®, AT210Tech™, DT220Tech™, and iMeetingPlat™ are all brands of infoSVC LLC.



Active Directional Antenna

Parameters

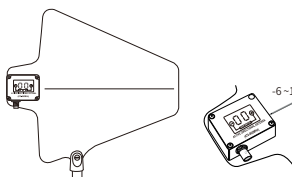
Frequency range 470~960Mhz
 Reception angle 70°
 Gain 3 / 10dB
 Interface BNC
 Impedance 50Ω
 Voltage 9 ~ 12V
 Dimensions 360x330x35mm



Active Directional Antenna with Overload Light

Parameters

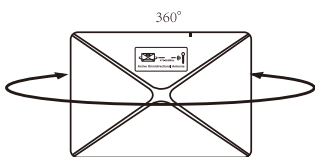
Frequency range 470~960Mhz
 Reception angle 70°
 Overload Value -5dB
 Gain -6 ~ 12dB
 Interface BNC
 Impedance 50Ω
 Voltage 9 ~ 12V
 Dimensions 360x330x35mm



Active Directional Antenna with 7 Levels Optional Gain

Parameters

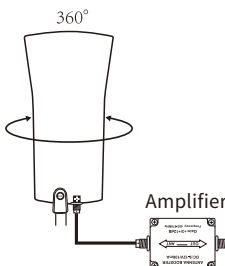
Frequency range 470~960Mhz
 Reception angle 360°
 Gain -6 ~ 12dB
 Interface BNC
 Impedance 50Ω
 Voltage 9 ~ 12V
 Dimensions 230x280x35mm



Active Omnidirectional Antenna

Parameters

Frequency range 470~960Mhz
 Reception angle 360°
 Gain 12dB
 Interface BNC
 Impedance 50Ω
 Voltage 9 ~ 12V
 Dimensions 230x160x32mm



Active Omnidirectional Antenna (Must supported by Amplifier)

Parameters

Frequency range 470~960Mhz
 Reception angle 360°
 Gain 0dB
 Interface BNC
 Impedance 50Ω
 Voltage 9 ~ 12V
 Dimensions 270x130x20mm

The log-periodic dipole array provides optimal reception while covering the desired coverage area. The integrated amplifier has two gain settings to compensate for different levels of coaxial cable signal loss.

Features

The low-noise signal amplifier compensates for the insertion loss of the coaxial cable. 9-15V DC voltage can be supplied by the receiver or antenna splitter. The threaded integrated bracket can be easily fixed to the microphone stand.

Installation

Use feeder or 50 ohm low-loss coaxial cable. If the cable is short, the gain setting should be reduced; if the cable is long, the gain setting should be increased. It should be noted that signal loss is not only related to the quality of the cable, but also to the length of the cable. A lightweight 50-foot cable may require higher gain than a 100-foot low-loss cable. Aim the antenna at the area to be covered.

Cable Maintenance

Avoid sharp bends or kinks in the cable. Do not use temporary clamps (such as nails) to bend and change the shape of the cable. Do not use in outdoor permanent installations. Do not expose to extremely high humidity.

Antenna Placement

Antennas should be mounted at least four feet apart from each other. Adjust the antenna position so that there are no obstructions (including the audience) in the line of sight of the transmitter. The antenna should be kept away from large metal objects. Important: Before using the wireless system for a lecture or performance, conduct a walk-through test to check the signal coverage. Experiment with various antenna placements to find the best placement. "Blind spots" should be marked according to actual conditions; and the speaker or performer should be prompted to avoid these areas.

Gain Setting

The gain can only be set to compensate for the calculated cable signal loss. Excessive gain actually reduces the reception range and the number of available channels. The receiver can provide the best performance when the sum of the signal gain and the cable loss is equal to 0dB. Greater gain will only amplify all signals in the RF range, including interfering signals and ambient RF noise. It does not selectively increase the transmitter's signal. The lowest gain setting that can obtain the best RF signal reception effect from the transmitter should be used according to the data displayed on the receiver RF indicator or level meter. If the antenna's HF Overload indicator is on, the gain should be reduced. For applications with a cable length of 6 meters or less and the distance between the transmitter and the antenna is less than 30 meters, a 3 dB Gain setting.

Recommended gain setting

When the distance between the antenna and the transmitter exceeds 30 meters, the gain value should be set according to the cable type using the following data sheet.

Note:

For installations where the distance between the antenna and the transmitter is less than 30 meters, the gain setting should be reduced by one level.

Build-in Gain Settings Reference

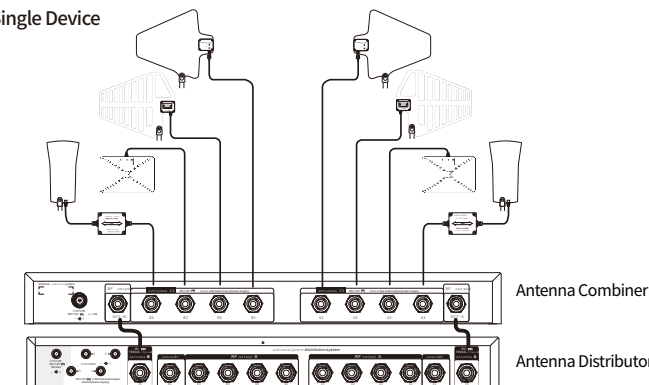
| Length | Recommend Value |
|-----------|-----------------|
| 3 M | -3 ~ -6dB |
| 3~6 M | 3dB |
| 10 ~ 15M | 6dB |
| 20~25 M | 9dB |
| 30 ~ 35 M | 12dB |

External Gain Settings Reference

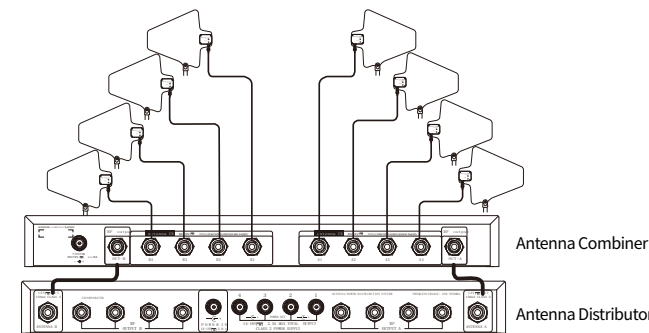
| Length | Recommend Value |
|-----------|-----------------|
| 3 M | -3 ~ -6dB |
| 3~6 M | 3dB |
| 10 ~ 15M | 6dB |
| 20~25 M | 9dB |
| 30 ~ 35 M | 12dB |

Connection Instructions

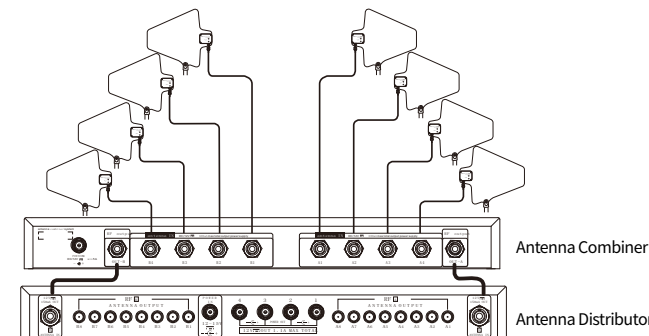
Single Device



Wiring diagram of integrator and 10-channel antenna distributor



Wiring diagram of integrator and 8-channel antenna distributor



Wiring diagram of integrator and 16-channel antenna distributor