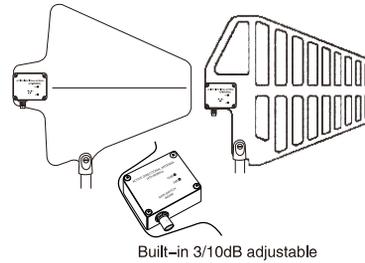


ANT241 Series

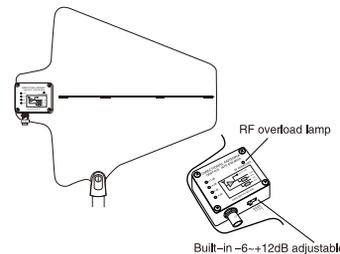
Active Antenna



Built-in 3/10dB adjustable  
 Active Directional Antenna  
 Built-in, two-stage adjustable

**Technical parameters:**

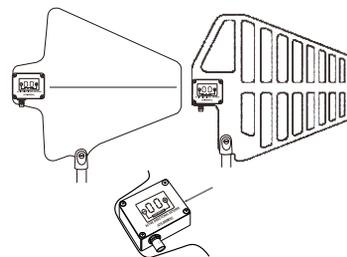
- Frequency range: 470MHz-960MHz
- Receiving angle: 70°
- Gain: Built-in 3dB/10dB ADJ
- Connect: BNC
- Impedance: 50 Ω
- Voltage: 9-12V
- Size: 360x330x35mm



Built-in -6--+12dB adjustable  
 Active Directional Antenna  
 External 4-stage gain adjustable  
 with RF overload lamp

**Technical parameters:**

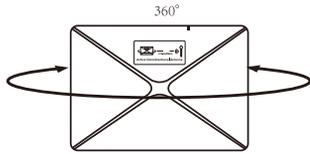
- Frequency range: 470MHz-960MHz
- Receiving angle: 70°
- RF overload lamp threshold: -5dBm
- Gain: External -6dB--+12dB ADJ
- Connect: BNC
- Impedance: 50 Ω
- Voltage: 9-12V
- Size: 360x330x35mm



Built-in -6--+12dB adjustable  
 Active Directional Antenna  
 External 7-stage adjustable

**Technical parameters:**

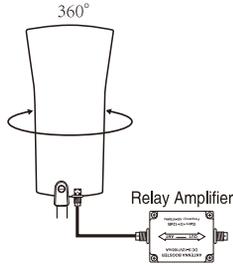
- Frequency range: 470MHz-960MHz
- Receiving angle: 70°
- Gain: External -6dB--+12dB ADJ
- Connect: BNC
- Impedance: 50 Ω
- Voltage: 9-12V
- Size: 320x280x35mm



Active Omnidirectional Antenna

### Technical parameters:

- Frequency range: 470MHz~960MHz
- Receiving angle: 360°
- Gain: 12dB
- Connect: BNC
- Impedance: 50 Ω
- Voltage: 9~12V
- Size: 230x160x32mm



### Technical parameters:

- Frequency range: 470MHz~960MHz
- Receiving angle: 360°
- Gain: 0dB
- Connect: BNC
- Impedance: 50 Ω
- Voltage: 9~12V
- Size: 270x130x20mm

Passive Omnidirectional Antenna  
(It needs to be connected with relay amplifier)

## General Description

The uses a log periodic dipole array to offer enhanced reception when directed toward the desired coverage area. An integrated amplifier and four gain settings compensate for varying degrees of coaxial cable signal loss. The can be mounted on a microphone stand, suspended from the ceiling, or mounted to a wall using the integrated swivel adapter bracket.

### Features

- Low-noise signal amplifier compensates for insertion loss in coaxial cable
- Compatible with wireless receivers and antenna distribution systems that provide 10–15 V DC bias
- Integrated threaded adapter mounts easily to microphone stands
- Quality, ruggedness, and reliability

## Installation

- Connect the antenna to the receiver or distribution system using antenna cables (or any 50 ohm, low-loss coaxial cable).
- The antenna only operates with receivers or distribution systems that provide 10–15 V DC bias.
- Lower the gain setting for short cable runs, or increase gain for longer runs. Note that the quality of the cable, not just the length, contributes to signal loss. A lighter-grade 50 foot cable may require more gain than a 100 foot, low-loss cable. Contact the cable manufacturer for cable loss specifications.
- Direct the antenna toward the intended coverage area.
- Do not use this antenna for transmitting (such as with PSM transmitters)

## Cable Maintenance

To maintain top performance for antenna cables:

- Avoid sharp bends or kinks in the cables.
- Do not deform cables with makeshift clamps, such as bending a nail over the cable.
- Do not use in permanent outdoor installations.
- Do not expose to extreme moisture.

## Antenna Placement

Use the following guidelines when mounting antennas:

- Antennas and receivers must be from the same band.
- Mount antennas at least four feet apart.
- Position antennas so there is nothing obstructing a line of sight to the transmitter (including the audience).
- Keep antennas away from large metal objects.

## Setting Gain

The gain setting should only be used to compensate for the calculated cable signal loss. Additional signal gain does not mean better RF performance. Too much gain actually reduces reception range and the number of available channels. This is because receivers are optimized to deliver the best performance when the sum of signal gain and cable loss equals 0 dB. Additional gain just amplifies everything in the RF range—including interference and ambient RF noise. It cannot selectively increase the signal from the transmitter.

- Use the lowest gain setting necessary to achieve good reception of the transmitter RF signal, as indicated on the receiver's RF LED or meter.
- Only increase the gain setting to compensate for the calculated cable loss.
- The -6 dB gain setting can be useful for applications with short cable runs (25 feet or less) and where the distance between the transmitter and antenna is less than 100 feet.

## Recommend Gain Settings

Use the following chart as a guideline for setting gain based on cable type where the distance from the antenna to the transmitter is greater than 100 feet.

**NOTE:** For installations where the antenna is less than 75 feet from the transmitter, lower the gain setting one step.

Built-in 3dB/10dB ADJ Setting	
Cable Length	Gain Setting
3~15M	3 dB
20~35M	10 dB

External-6dB ~ +12dB ADJ Setting	
Cable Length	Gain Setting
3M	-3~-6dB
3~6M	3 dB
10~15M	6 dB
20~25M	9 dB
30~35M	12 dB