ATW-A49

UHF WIDEBAND LPDA ANTENNAS, 440-900 MHz

Audio-Technica ATW-A49 UHF wideband LPDA (Log Periodic Dipole Array) antennas provide enhanced signal pickup for UHF wireless systems operating over 440-900 MHz, a remarkable 2-to-1 frequency range. This bandwidth includes all UHF TV channels. Supplied in pairs, these directional antennas are ideal for extending the operating range and reliability of diversity UHF wireless systems. They also eliminate the need for multiple frequency-specific antennas.

The ATW-A49 is designed for applications requiring increased distance between the transmitter and the receiver - as in stadiums, concert tour venues, theater and large performance areas, or any area where line-of-sight may be obstructed. This ruggedly constructed paddle-style antenna is equally suited for installed and portable applications.

The antennas are compatible with virtually all UHF wireless receivers and provide a directional coverage pattern with a typical beamwidth of 90 degrees. They offer approximately 6 dB of RF gain improvement over standard receiver whip antennas. Antenna impedance is 50 ohms.

The antennas are constructed of industrial-grade copper-clad epoxy fiberglass. This heavy-duty, durable construction is engineered to resist the effects of corrosion, UV degradation and vibration, providing long life and stable performance under difficult operating conditions. High-quality, low-loss BNC connectors are positioned to minimize RF cable strain. The antennas are supplied completely assembled.

Location

For best performance, the antennas should be mounted:

- Above head-height,

- In direct line-of-sight to the likely transmitter location(s).

- At least 1m away from eash other, and

- At least 1m away from any large metal objects or sources of interference.

In addition, the length of RF cable run to the receiver should be minimized. Some experimentation with antenna positioning may be required to determine the best locations under typical conditions.

Important: While the antennas themselves are weather resistant, outdoor use should be temporary only and under dry conditions. Any moisture or corrosion in BNC cable connectors or associated cables can greatly affect RF performance at these frequencies.

SPECIFICATIONS

ANTENNA TYPE	Log Periodic Dipole Array (LPDA)
OPERATING BANDWIDTH	440 MHz - 900 MHz
GAIN	6 dB typical
IMPEDANCE	50 ohms typical
VSWR	≤ 1.7:1
POLAR PATTERN	Elliptical, 90° acceptance, typical
POLARZATION	Vertical (when mounted vertically)
NUNBER OF ELEMENTS	9
TERMINATION TYPE	Fixed right-angle BNC female Connector is positioned to minimize cable strain
WEIGHT	326 g
DIMENSIONS	268 mm L x 285 mm H x 25 mm D
MATERIAL	Copper-clad epoxy fiberglass
FINISH	Black matte
MOUNTING	⅝”-27 thread; adaptor can swivel 90°

Optional Accessories:

7.5RG58BNC	RG58-type antenna cable, 7.5m long, terminated with BNC connectors.
20RG8BNC	RG8-type antenna cable, 20m long, terminated with BNC connectors.
30RG8BNC	RG8-type antenna cable, 30m long, terminated with BNC connectors.
50RG8BNC	RG8-type antenna cable, 50m long, terminated with BNC connectors.
ATW-49CB	2-way active antenna broadband combiner kit.
ATW-49SP	2-way active antenna broadband splitter kit.
ATW-B80	UHF in-line +3dB / +10dB amplifiers.

Mounting

The ATW-A49 mounts to a ⅝”-27 thread fitting. The antenna mount is designed to allow for vertical tilt adjustment through a 90° range. Horizontal adjustment is accomplished by rotating the antenna in the mounting fitting. For portable applications, the antenna may be installed on a standard ⅝”-27 thread microphone stand.

Connections

After the antennas have been installed, connect them to the antenna inputs of either a wireless receiver or an antenna distribution system. Use RG58-type cable for cable lengths of up to 7.5m. For cable lengths greater than 7.5m, RG8-type low-loss RF cable is recommended. RG8-type cable lengths over 50m may cause significant signal loss. Because cable requirements vary considerably from one installation to another, RF cable are not included. High-quality, pre-terminated RF cables available from Audio-Technica will be found listed on the “Optional Accessories.”

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ATW-A49

UHF宽带对数周期偶极阵(LPDA)天线, 440-900 MHz

ATW-A49宽带LPDA(对数周期偶极阵-Log Periodic Dipole Array)天线，为UHF频段440-900MHz的无线系统提供2合1式的高增益的接收能力，而接收频带已覆盖整个UHF电视通道。对装式的定向天线设计，为分集式UHF无线系统提供理想的远距离和稳定的接收表现。另外，亦可作多通道无线系统的共用天线。

ATW-A49是设计于需要远距离接收和发射的应用，如体育场馆、演唱会、剧场、及大型演出场所；或一些会阻挡视线及接收的环境。另外，天线可轻易稳固的安装；同时亦可容易地拆除，方便携带。

该天线差不多可使用于所有UHF频段的无线接收机中，并提供90°角度固定频带中的定向覆盖接收。比较接收机附带的标准天线，ATW-A49可提供在50欧姆阻抗时约6dB的射频信号提升。

ATW-A49天线是以工业级标准的玻离钢及铜膜镀层构造，提供耐用、防腐蚀、抗紫外线、防震及轻型的特点，在不同环境下可作长时间及稳定的表现。而线整合的BNC端子提供了高质量及低抗阻抗的特性，并能减低连接线的拉力。

安装位置

为提供最好的表现，天线应安装于：

- 高于一般人头顶高度。
- 可直接看到发射机而无障碍物的位置。
- 旁边的物件应与天线有最小1米的距离。
- 与大型金属品或有干扰的信号源，应有最小1米的距离。

另外，连接到接收机的同轴电缆应尽量减短；而在许可情况下，可尝试把天线放置在不同位置以测试出最好的接收效果。

注意：天线会受到天气环境的影响，在户外使用时，请把天气放置在干固的位置，湿气及雨水会影响BNC端子及电缆的表现及安全。

技术指标

天线类型	对数周期偶极阵(LPDA)天线
工作频带	440 MHz - 900 MHz
增益	6 dB 典型
阻抗	50 欧姆 典型
电压驻波比	≤ 1.7 :1
指向性	椭圆形 90° 典型
指向极性	垂直（于垂直安装）
导波器段数	9段
连接端子	固定式直角 BNC母座，接头应设置在最小拉力位置。
重量	326 克
外形尺寸	268mm 长 x 285mm 高 x 25mm 厚
构造	玻离钢及铜膜镀层
涂层	暗黑色
支架	⅝”-27 支架接头，90°转向座

选择配件:

7.5RG58BNC	RG58 同轴电缆，7.5 米低，两端接上BNC端子。
20RG8BNC	RG8 同轴电缆，20 米长，两端接上BNC端子。
30RG8BNC	RG8 同轴电缆，30 米长，两端接上BNC端子。
50RG8BNC	RG8 同轴电缆，50 米长，两端接上BNC端子。
ATW-49CB	有源天线汇合器套件。
ATW-49SP	有源天线分线器套件。
ATW-B80	有源天线放大器。

支架

ATW-A49配置有⅝”-27支架接头，可作出90°水平转向，亦可水平旋转调节。在活动式应用时，可把天线安装在⅝”-27接头的话筒支架上。

连接端子

在天线安装完成后，可天线连接到接收机或天线分配器的天线输入端上。一般RG58型号同轴电缆最长可作7.5米距离连接，如高于此长度，请使用RG8型号同轴电缆，一般RG8型号同轴电缆最长可作50米距离连。由于每个使用的环境不同，天线不会附带连接电缆，有关可选配的连接电缆资料，请查看上方的“选择配件”。

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