ATW-A49S

UHF Wideband Directional LPDA Antenna (Single)

Features

- **Enhanced signal pickup**
- **Wideband (440-900 MHz) operation**
- **6 dB RF gain improvement**
- **90 degree beamwidth**
- **Rugged industrial grade copper-clad epoxy fiberglass construction**
- **Low-loss BNC-BNC connector positioned to minimize cable strain**
- **Adjustable mount fits standard 5/8"-27 microphone stand threads**

Description

The ATW-A49S is a wideband directional log periodic dipole array (LPDA) antenna designed for enhanced signal transmission for UHF wireless in-ear monitoring (IEM) systems operating throughout a wide band range (440-900 MHz). This directional antenna is ideal for extending the operating range and reliability of UHF wireless IEM systems for large-scale installations and stage applications. When used in a multi-system IEM application with appropriate antenna combining system, it eliminates the need for multiple frequency-specific antennas.

Compatible with virtually all UHF wireless IEM transmitters, the ATW-A49S provides a directional coverage pattern with a typical beamwidth of 90 degrees. The antenna offers approximately 6 dB of RF gain improvement over standard receiver whip antennas and is designed to match standard 50 ohm impedance IEM transmitter outputs and receiver inputs.

High-quality low-loss BNC-type connectors are positioned to minimize RF cable strain even when used with large-diameter cables. Designed to mount to a standard 5/8"-27 microphone thread fitting, the antenna includes an adjustable mount to allow for horizontal and vertical adjustment for accurate positioning.

Constructed of industrial-grade copper-clad epoxy fiberglass, the antenna is engineered to resist the effects of corrosion, UV degradation and vibration providing long life and stable performance under difficult operating conditions. The antenna is supplied and is completely assembled.

Architect's and Engineer's Specifications

The wideband directional antenna shall be designed to be used with wireless in-ear monitor (IEM) transmitters. It shall conform to the log periodic dipole array design providing enhanced signal pickup for UHF wireless systems operating within a frequency range of 440-900 MHz and shall offer an RF gain improvement of at least 6 dB over standard transmitter whip antennas. The antenna shall be matched to an impedance of 50 ohms and terminate in a standard BNC-type connector oriented to provide minimal RF cable strain. The antenna shall be designed for portable or permanent installation in indoor or outdoor locations and shall include an integral mount, allowing for adjustment in the vertical and horizontal planes for accurate positioning. It shall be constructed of heavy-duty copper-clad epoxy fiberglass with a low reflective black finish. The antenna shall mount to standard 5/8"-27 threads and come completely assembled.

The Audio-Technica ATW-A49S is specified.

Specifications

Antenna type	Log Periodic Dipole Array (LPDA)
Operating bandwidth	440-900 MHz
Gain	6 dB typical*
Impedance	50 ohms typical*
VSWR	≤ 1.7:1*
Polar pattern	Elliptical, 90° acceptance, typical
Polarization	Vertical (when mounted vertically)
Number of elements	9
Maximum power input	Not specified (intended as receive antenna only)
Termination type	Fixed right-angle BNC female. Connector is positioned to minimize cable strain
Weight	326 g (11.5 oz)
Dimensions	268 mm (10.55") L x 285 mm (11.22") H x 25 mm (0.98") D
Material	Copper-clad epoxy fiberglass
Finish	Black matte
Mounting	5/8"-27 thread; adaptor can swivel 90°

* Within specified bandwidth

In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

Specifications are subject to change without notice.

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