



## PWS Helical Antenna

Originally designed for use in military and satellite communications, Professional Wireless has spent years of R&D refining the Helical Antenna for use in entertainment and sporting events. In fact, the PWS Helical Antenna has been battle tested at the NFL's "Big Game" for years.

The PWS Helical Antenna is part of a new generation of antennas that provide greater bandwidth, longer range gain and more flexibility in wireless communications. Unlike the traditional whip antenna, which transmits or receives signals in a single polarization, the helical antenna distributes signals multi-dimensionally. The circular motion of the RF field emitted by the helical antenna reduces the risk of drop-outs and guarantees the strongest possible signal for receiving and transmitting.

This antenna is particularly useful in large-scale events, where it is virtually impossible to control the orientation of both the sending and receiving ends of communication.

It can be used in a couple of different ways – as an In-Ear Monitor transmitter antenna or with a receiver for wireless microphones.

Typically, performing artists wear a receiver that includes a ¼ wave whip antenna. Any movement can result in a lower quality transmission. With the helical antenna, radio frequency transmits through 360 degrees polarization, providing crystal clear reception in the artists' ear no matter how much they move or where they go on the stage.

The same applies when an artist is using a wireless microphone. A helical antenna can be used with the receiver for greater performance no matter how much the handheld microphone is moved around.



Unparalleled drop-out free RF performance for In-Ear Monitors and Wireless Mics, delivering more than double the range over other antennas

### TWO Helical MODELS AVAILABLE

- HA-8089 for 460-900 MHZ
- HA-8241 for 900-1200 MHZ

Both models have right hand polarization. Left Hand polarization available by special order.

### BENEFITS

- Greater bandwidth
- Greater gain
- More flexibility
- Uni-directional antenna
- Crystal clear audio transmissions

### FOR MORE INFORMATION

- [www.professionalwireless.com/helical](http://www.professionalwireless.com/helical)

PWS HELICAL ANTENNAS  
AT WORK:

**ENGINEERING DATA SPECIFICATIONS**

HA-8089	HA-8241
<b>RF Frequency Range / Bandwidth</b>	
460 - 900 MHz	900 - 1200 MHz
<b>Beamwidth</b>	
60 degrees	65 degrees
<b>Antenna Gain</b>	
14 dBi (on axis)	10 dBi (on axis)
<b>Impedance</b>	
50 ohms	50 ohms
<b>Front-to-Back Ratio / Rear Rejection</b>	
30 dB	30 dB
<b>DC/AC Power Source</b>	
Not required	Not required
<b>RF Connector</b>	
BNC female, right angle	BNC female, right angle
<b>Dual Mounting Adapter</b>	
5/8"-27 U.S. standard	5/8"-27 U.S. standard
3/8"-16 European standard	3/8"-16 European standard
<b>Construction Material</b>	
Clear Polycarbonate plastic	Clear Polycarbonate plastic
<b>Net Weight</b>	
3 lbs 11 oz [1.7 kg]	2.75 lbs [ 1.25 kg]
<b>Shipping Weight</b>	
5 lbs [2.3 kg]	4 lbs [1.8 kg]
<b>Dimensions</b>	
14 x 14 x 14 in [35.5 x 35.5 x 35.5 cm]	12 x 12 x 12 in [30.5 x 30.5 x 30.5 cm]
<b>Estimated Operating Temperature</b>	
-30 degrees F to 180 degrees F [-34 degrees C to 80 degrees C]	



Even better with  
**PWS 9046**  
Low Loss Cable!



For More Information Contact Our  
Sales Department at:  
**407-240-2880**

9401 American Eagle Way, Suite 100  
Orlando, FL 32837

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