

# Stub Loaded Helix (SLH) Antenna

The Stub Loaded Helix is a compact helix antenna with performance characteristics similar to a conventional helix but only one-quarter the size. This significant size reduction is obtained through a unique patented antenna geometry that maximized antenna performance and efficiency while minimizing size. The use of circular polarization minimizes multipath interference in many applications.

Virginia Tech Antenna Group

<http://antenna.ece.vt.edu>

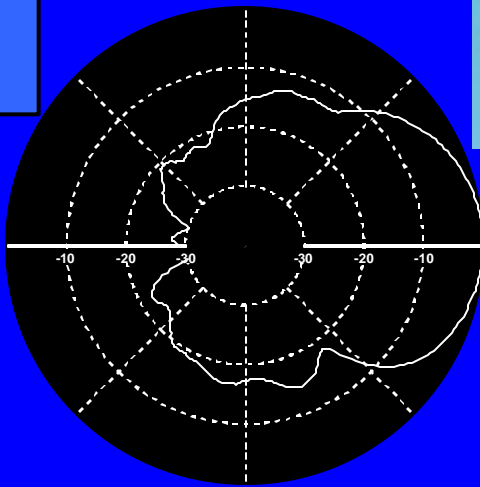
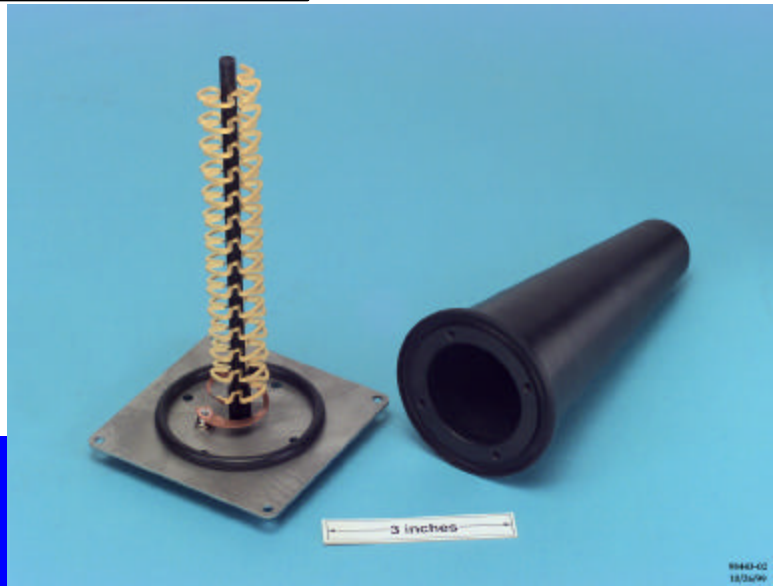
## Typical Specifications for 2.4 GHz WLAN SLH

- |                     |                    |
|---------------------|--------------------|
| • Frequency         | 2.2 – 2.6 GHz      |
| • VSWR              | < 2:1              |
| • Typical gain      | 10 dBic            |
| • Nominal impedance | 50 ohm             |
| • Size              | 3.75" x 3.75" x 6" |

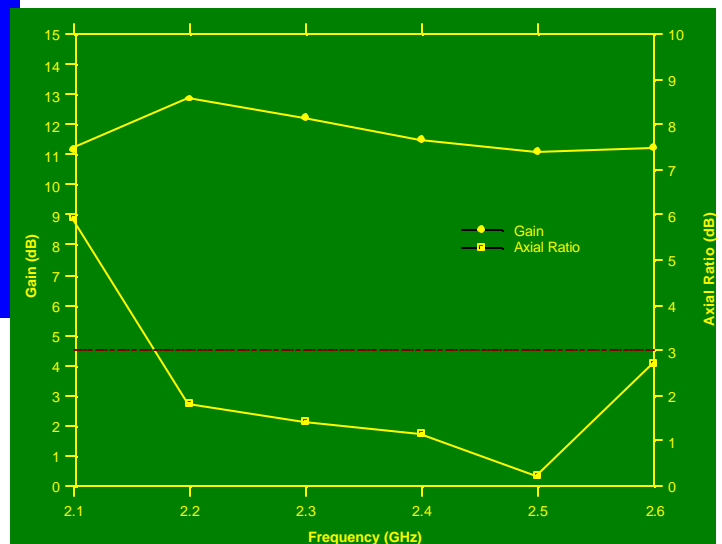
## Applications

- WLAN, 802.11
- Bluetooth
- Satellite communications
- PCS

Example 2.4 GHz  
 Wireless LAN SLH  
 antenna currently in  
 production



Measured pattern at 2.4 GHz



U.S. patent #5,986,621. Foreign patents applied for.  
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[www.vtip.org/licensing/disclosures/00-130.htm](http://www.vtip.org/licensing/disclosures/00-130.htm)  
 Inventors: R. Michael Barts (mbarts@vt.edu) and  
 Dr. Warren L. Stutzman (stutzman@vt.edu)

For more information, contact Michael J. Martin  
 at 540-951-9376 or mike@vtip.org  
[www.vtip.org](http://www.vtip.org)