



# TURBOWAVE

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## Patented Stub Loaded Helix Smart Antenna SLH10



### Features & Benefits

- Increases transmission range
- Suppresses multipath interference
- Circularly polarized
- Reduces need for line-of-sight
- Compact size makes it unobtrusive (6" long x 2" diameter)
- Multiple mounting and usage options (both external and internal)
- Penetrates structures and foliage
- Easy installation
- Robust radome protects antenna in harsh outdoor environments
- Competitively priced

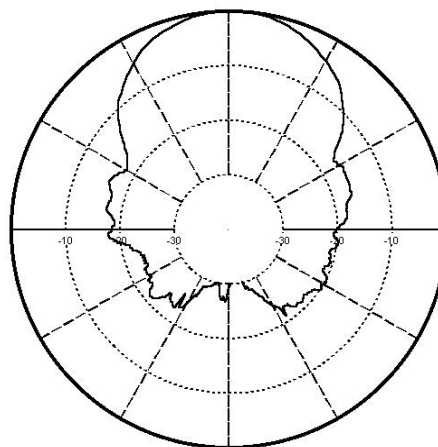
### Description

TurboWave's smart antennas are designed to increase transmission range and reduce multipath interference created by reflections from objects along the path of an access point. The SLH 10 antenna is designed for both indoor and outdoor usage.

TurboWave's SLH10 was specifically designed for high performance wireless networks and uses circular polarization rather than conventional linear polarization in order to reduce multipath interference. This antenna is an extremely efficient, high-gain antenna. Another advantage of TurboWave's Stub Loaded Helix Antenna is its size. The SLH 10 is only 6" long and 2" in diameter. But despite its size, the SLH 10 allows users to remain connected up to 20 miles away. The smaller size and wind loading also make it more robust in harsh outdoor environments.

## Specifications (SLH10)

Frequency Range	2.4 – 2.5 GHz
Peak Gain	10 dBic
Polarization	Right Hand Circular
Nominal Impedance	50 ohms
VSWR	< 2:1
R.F. Power Handling	10 Watts
Weight	< 1 lb.
Wind Loading	< 0.1 sq. ft.



The TurboWave SLH 10 antenna gain is about 10dB. Circularly polarization reduces multi-path interference better than any other type of polarization such as vertical or horizontal. This type of technology has been in use for years in the space program. Satellites today still use left and right hand circular polarization to penetrate the earth atmosphere at lower power. In essence, the stub performs as good as antennas twice its size and it penetrates structures better than any other type of antenna in the 2.4GHz frequency band.

Perhaps the SLH 10 biggest impact is its ease of deployment. Today if an antenna is installed for the 2.4Ghz frequency band it will need to be installed where there isn't a structure in close proximity behind it and most of the time this is at the apex of a residence or commercial structure. It must have clear line of sight. The antenna would have to be installed by an RF engineer or professionally trained RF installer. With the SLH 10 we are able to avoid a lot of the multipath interference from structures directly behind the antenna. This means that the antenna can be installed down low, close to a structure. Also because of the SLH 10 penetrates structures better than any other antenna on the market, eliminating the need for an RF installer, the customer does the indoor installation. This accelerates deployment, reduces time and money, not to mention the fact that the ability to penetrate structures means that fewer network nodes would have to be installed, further reducing the cost of the overall network infrastructure for both enterprise WLAN and wireless CAMPUS networks.

In summary, the SLH 10 allows for a simple installation without many of the limitations of linearly polarized antennas.