

## DIGI WDS / ANTENNA DESIGN

PART NUMBER: WDS-ANT106

# ANTENNA LIBRARY LICENSE

Maximise your product's wireless performance with custom antenna design solutions

The antenna is the most common point of failure in a wireless design. When designed correctly, the antenna creates a high performance wireless product this is certification ready.

Antenna design is a very complex process that requires simulation tools and experienced RF antenna designers. Digi's Wireless Design Services has a state of the art RF testing lab along with experienced engineers that design hundreds of certification ready products each year.

Antenna design library license involves integrating a printed antenna from our design library into the customer's PCB. This option is not applicable to cellular designs. This option should only be considered for Bluetooth, Wi-Fi, ZigBee, GPS and other ISM band antennas. This is a cost effective solution for the customer since the manufacturing cost of a printed antenna is free. We will assist the customer with the integration of the antenna into their PCB design software and provide a recommended matching network to include in the design. Once the boards are manufactured, the customer should send two devices to Digi WDS so we can perform tuning and/or matching to ensure the antenna resonance is spot on. The antenna can easily be detuned when placed close to nearby conductors or dielectric materials, so this step is mandatory. This product provides a very low cost antenna solution and should only be sold as such. This product is not intended to provide an ideal antenna performance or squeeze an antenna into a small area.

Schedule time to complete is 2 weeks.

The customer should provide the following items:

1. Mechanical files
2. Schematics/PCB files
3. Bill of Materials
4. Device use cases
5. Datasheets for material properties
6. Two devices

The deliverables are as follows:

1. Help integrate PCB footprint into customers' CAD
2. Tune and/or match antenna on two alpha PCBs
3. Provide report
  - a. New antenna dimensions and/or matching network values
  - b. Return loss plot
  - c. Result analysis
4. Recommendations for next steps

For more information on how Digi WDS/Antenna Design can bring powerful, reliable connectivity to your assets, visit [www.digi.com/wds](http://www.digi.com/wds).

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