

ANTENNA INTEGRATION AND MATCHING

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.

Standard antenna integration involves analyzing the product and making recommendations for an off-the-shelf antenna solution. We will assist the customer with antenna selection as well as placement and review their CAD files for proper implementation. When the PCBs are built, we will impedance match the antenna on the alpha board. This product will put the customer on the path of success so they can sail through certifications and optimize wireless performance. Standard pricing is intended for one radio only.

Schedule time to complete is 3 weeks. 2 weeks for initial review and recommendation. 1 week to match the antenna when the alpha boards arrive at Digi WDS.

The customer should provide the following items:

1. Mechanical files and/or device prototypes
2. Schematics/PCB files
3. Bill of Materials
4. Device use cases
5. Two devices (include batteries, production plastics, cables, etc.)
6. Cellular carrier(s) if applicable

The deliverables are as follows:

1. Antenna recommendations
2. Antenna locations
3. Design considerations (LCD, ground plane, battery, etc.)
4. Test/impedance matching considerations
5. Review implementation
6. Impedance match the antennas on the alpha board and provide matching network details (schematic/BOM)
7. 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.

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