

Antenna Description

Beacon Pro

Date: 2026-03-05

Version: 1.0

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1 Antenna overview

The Beacon Pro contains these transmitters for which antenna details are provided here:

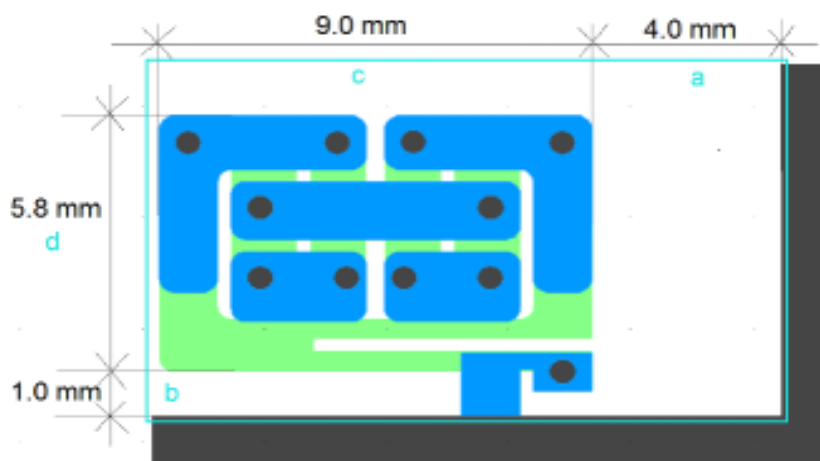
- Bluetooth Low Energy (BLE)
- Ultra-Wideband (UWB)

2 Antenna Details

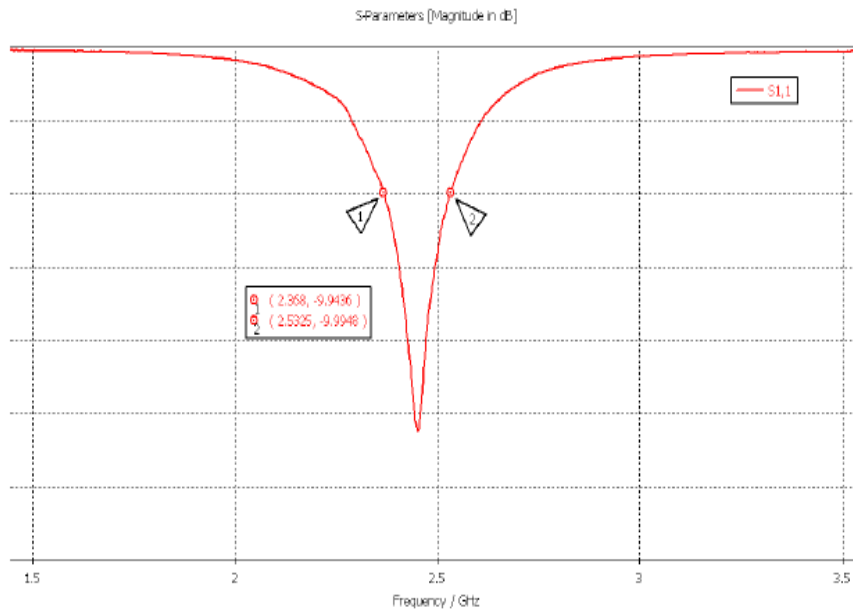
2.1 Bluetooth Low Energy

The Beacon Pro uses an integrated ZOR PCB antenna. The original reference design utilises a 1.6 mm substrate. All measurements and specifications provided here are those provided with the reference design.

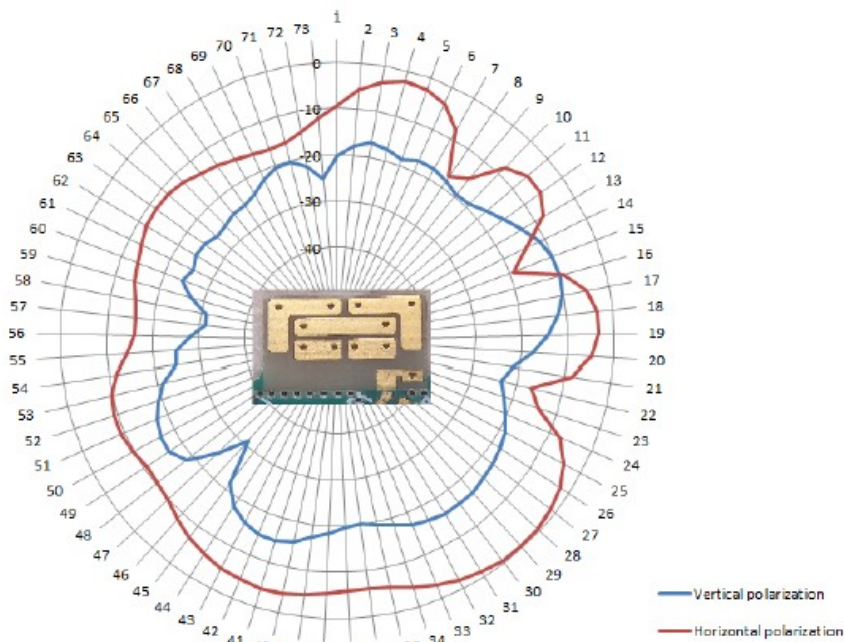
Bluetooth Antenna PCB layout:



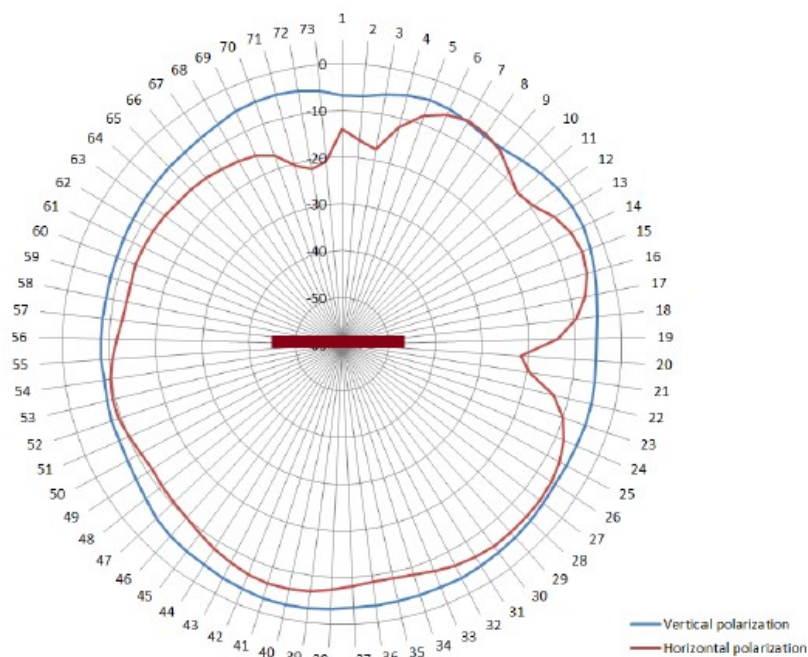
Return loss vs frequency plot:



Horizontal Radiation Pattern:

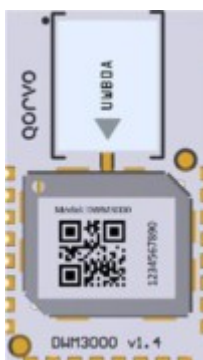


Vertical radiation pattern



2.2 Ultra-Wideband

The Ultra wideband module uses an on-board ceramic monopole antenna.



The radiation patterns for the antenna shown below are taken from the DWM3000 module data sheet and were measured for the module development kit.

Please refer to chapter 5 of the DWM3000 module data sheet for more information.

