



SA-3223 RF Power test_Chamber (24V)_改善版_with cable

2023-04-13

No. 588, Sec. 3, Zhongzheng E. Rd., Wuquan Vil., Dayuan Dist., Taoyuan City 33755, Taiwan (R.O.C.)



Test conditions:

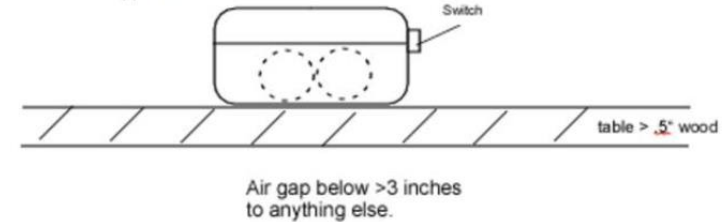
Attached is a 4 configuration test that will inform the effects of being next to Dishwashers and furnaces and the effect if the device was mounted on metal.

These tests will show if and how much the antenna system may be disrupted by these common metal structures unique to our applications space.

Please have Dexatek take pictures of each configuration. The network analyzer shall be set to > 10dBm output power.

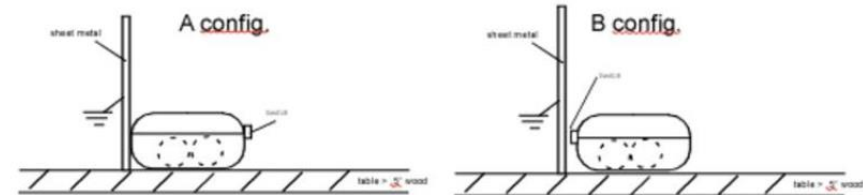
WLD3 S11 Antenna Parasitic Environments testing

Test 1. Bench mark S11(channel 1, 6, 11) in the below situation with batteries present and covers snapped.



Test 2. A. Bring in grounded sheet metal piece to emulate metal kick panel found common with dishwasher 6" x 36" and capture effect on S11 for channel's 1, 6, 11.

B. Reverse the orientation of WLD such that switch is near sheet metal; capture S11 channel's 1, 6, 11.

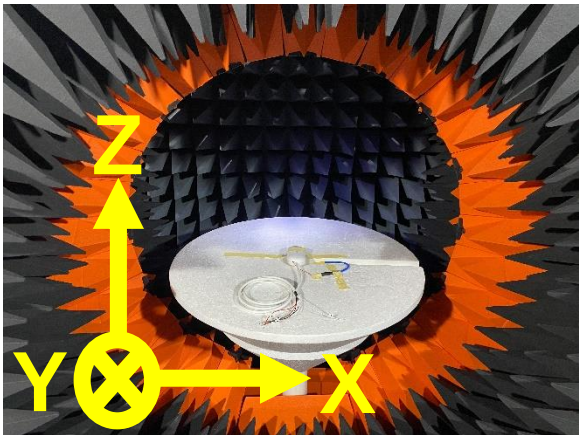
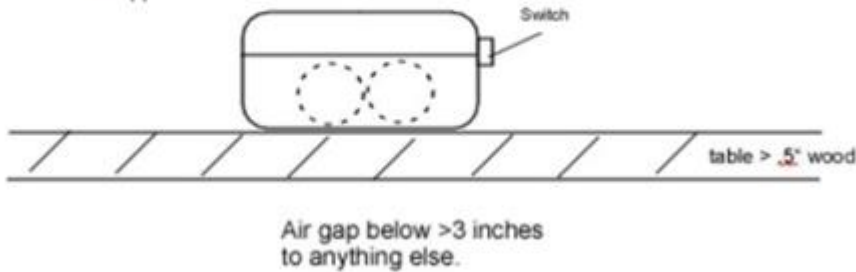


Test 3 Place grounded sheet metal between WLD3 and wood surface. The sheet metal surface shall be 2ft x 2ft minimum. Capture S11 on channel's 1, 6, 11.



TEST 1:

Test 1. Bench mark S11(channel 1 , 6, 11) in the below situation with batteries present and covers snapped.



Antenna Efficiency



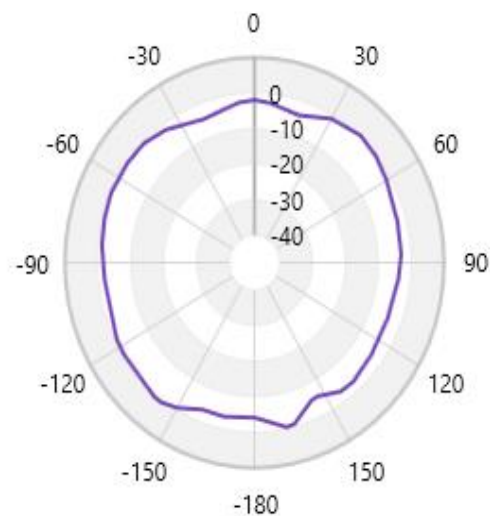
Frequency	Gain	Efficiency	Efficiency(%)
2402MHz	2.35	-2.83	52
2412MHz	2.73	-3.06	54
2437MHz	2.94	-2.96	56
2462MHz	2.99	-2.94	56
2480MHz	2.9	-2.89	52

Antenna 2D Radiation Pattern

2437MHz_Z-Y



— 90° 2437.00 MHz E Total



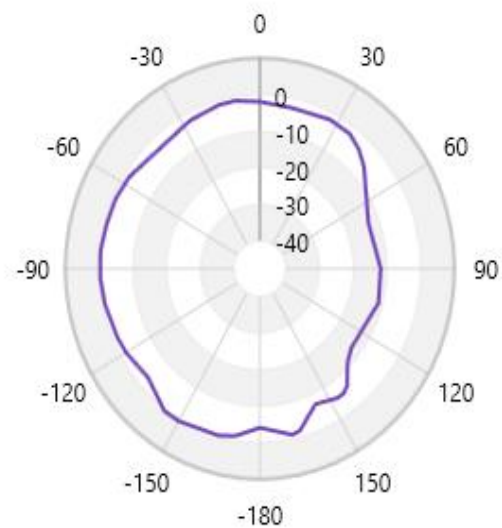
Elevation (°)

Antenna 2D Radiation Pattern

2437MHz_Z-X



— 0° 2437.00 MHz E Total



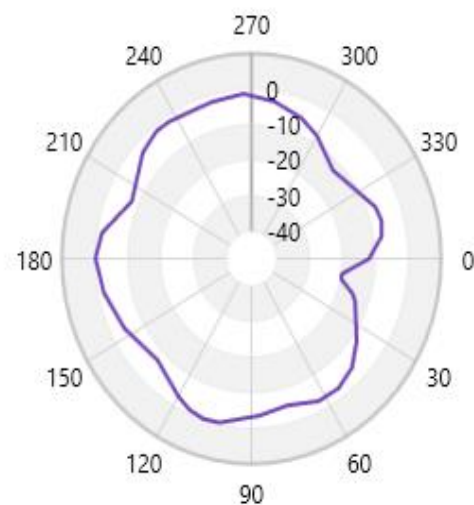
Elevation (°)

Antenna 2D Radiation Pattern

2437MHz_X-Y



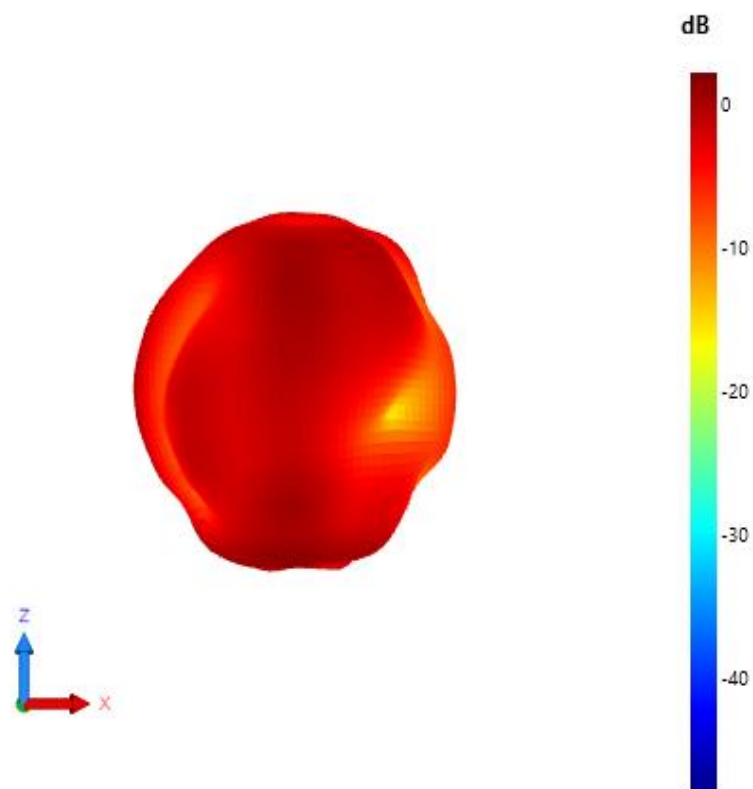
— 90° 2437.00 MHz E Total



Azimuth (°)

Antenna 3D Radiation Pattern

2437MHz





Thank You!

