

FS-S124F Antenna Test Report

Senao Networks, Inc.

Customer	Fortinet
Project	FS-S124F
Project Description	BLE antenna *1
Date	2023/08/31
Prepared by	Kenny
Checked	Tony
Report Version	A01

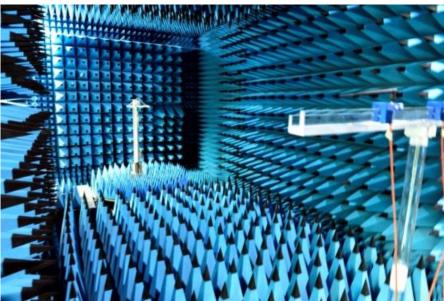


Antenna Development Resource

3D Anechoic Chamber - BWANT

- Size: 7.32M(L)x3.66M(W)X3.66M(H)
- Testing range from 400MHz to 7GHz
- Chamber Isolation: 10KHz to 10GHz >100dB (NSA 94-106)
- Calibration antenna: BWANT SD650 /SD740 /SD900 /SD1150 /SD1575 /SD1800 /SD2140 /SD2450 /SD3200 /SD3600 /SD4550 /SD5400 /HA-0508
- Calibration date: 2022/10/27
- Test software: BWANT 3D Passive





3D Anechoic Chamber

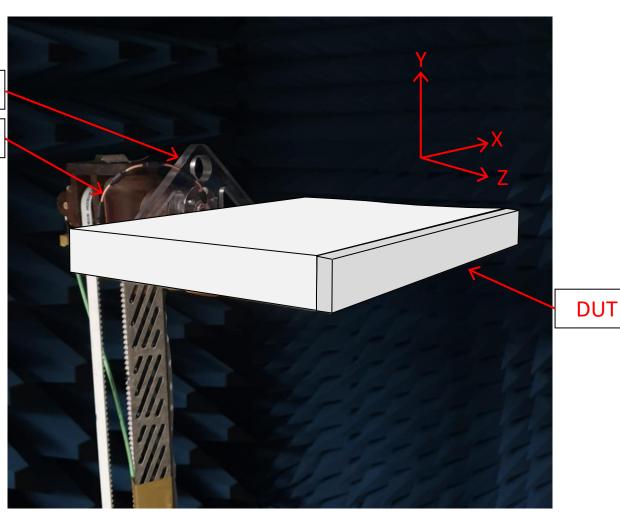


Antenna Testing Set Up

 The DUT is set up on the test fixture and the antenna is connected to the test cable to measure the antenna performance.



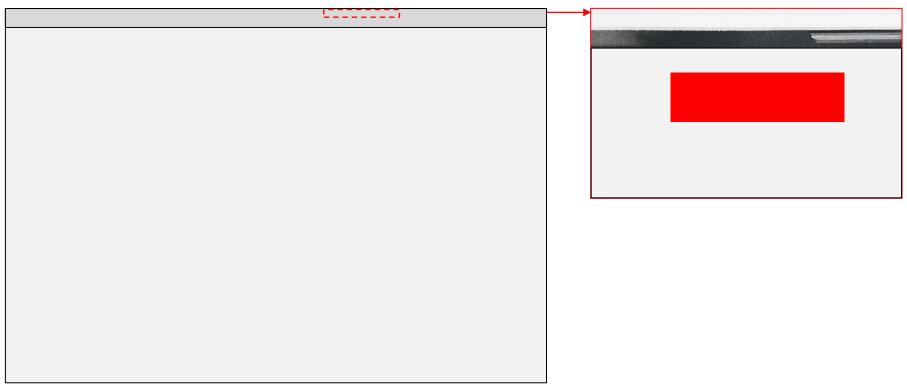
Testing cable



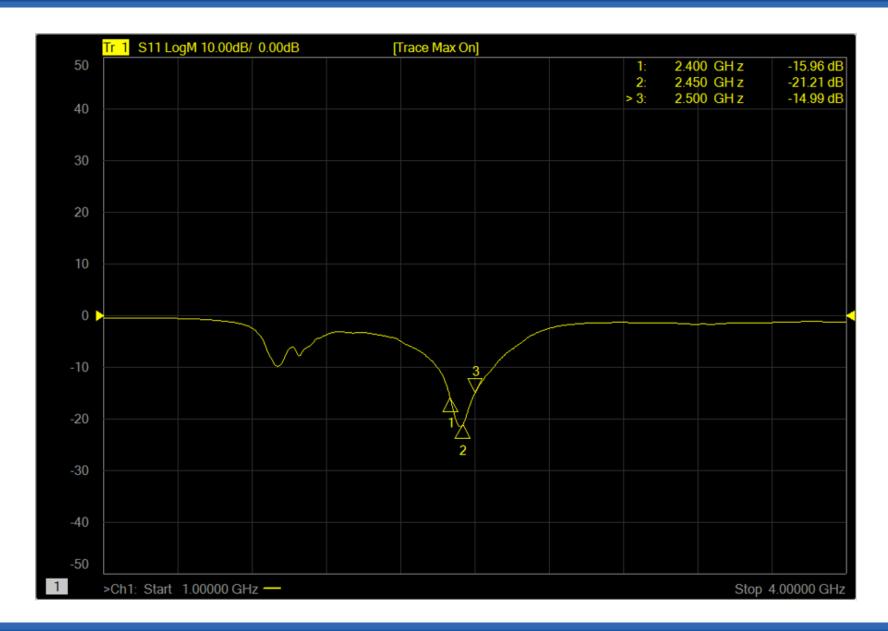


Placement and specification

BLE location

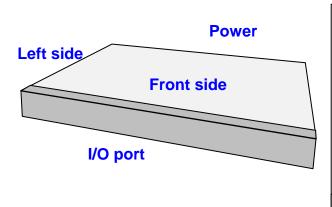


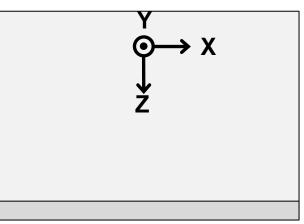
Ant No.	Brand	Antenna P/N	Operating Band	Ant Type	Material	Feeding	Dimension
BLE	Senao	7102A0676000	2400MHz ~ 2500 MHz	PIFA	PCB	Cable	50*15*1 mm ³



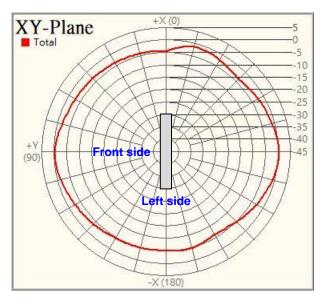


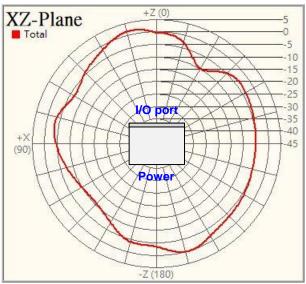
2D Radiation Pattern – BLE @ 2.45GHz

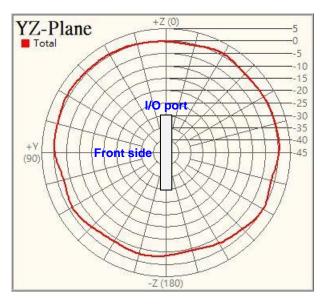




BLE







Antenna Efficiency and Gain

Antenna Performance						
Freq. (MHz)	BLE					
	Efficiency (%)	Peak Gain (dBi)				
2400	47.1	1.26				
2450	51.6	1.74				
2500	46.8	1.59				