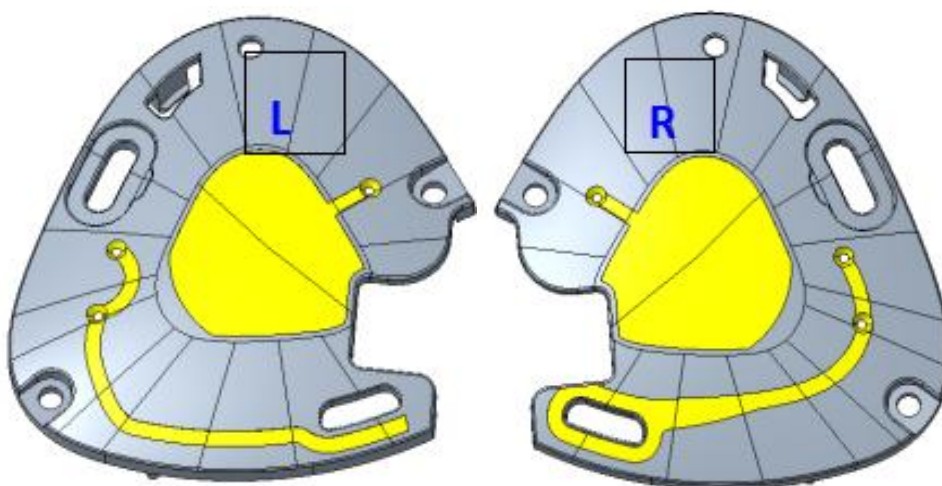




FPC Antenna Spec



Part name: Antenna_LDS

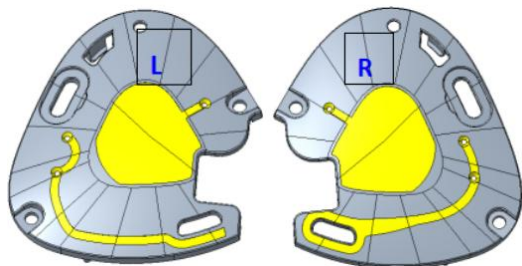
Client: Cleer

Date: 2025-02-17



1. Antenna Type

The antenna is LDS , attached to the outside of the mid- cover, and works in 2.4GHz ISM band, central frequency at 2.45GHz.



Antenna Type	FPC ANT	
Central Frequency	2.45GHz	
	L_Antenna	R_Antenna
Bandwidth	70MHz (Min)	80MHz (Min)
Return Loss	-9.4dB (Max)	-10.2dB (Max)
Peak Gain	-3.50dBi	-3.20dBi
Antenna Manufacturer	ATWE	

2. Test Lab

Test lab: ETS Microwave Chamber with 23 measurement antennas in Grandsun Electronics OTA Lab.

AMS-8923 Basics

Regular Chamber Size: 16ft L x 16ft W x 16ft H
(4.9m x 4.9m x 4.9m)

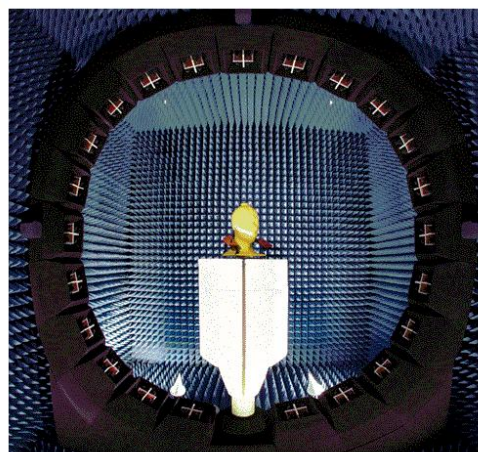
Test Distance: 1.95 meter

Frequency: 700MHz – 6GHz

Fully anechoic covered
with EHP-12 absorbers

Quiet Zone Diameter:

- 30cm
- 50cm
- per CTIA 3.2 versions

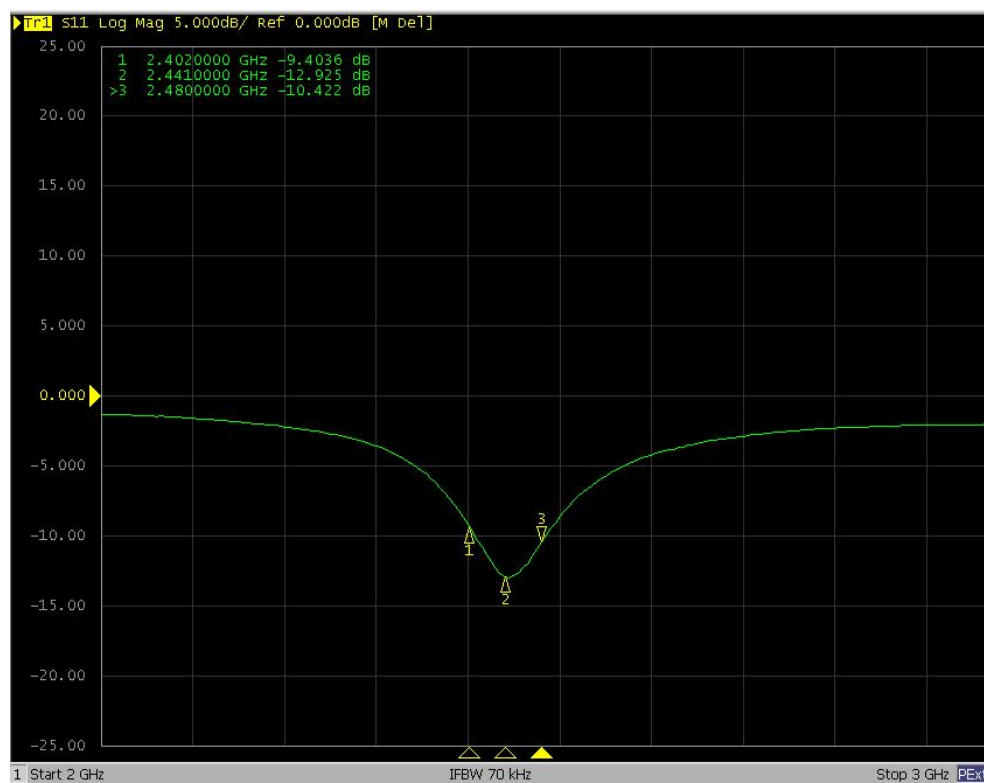
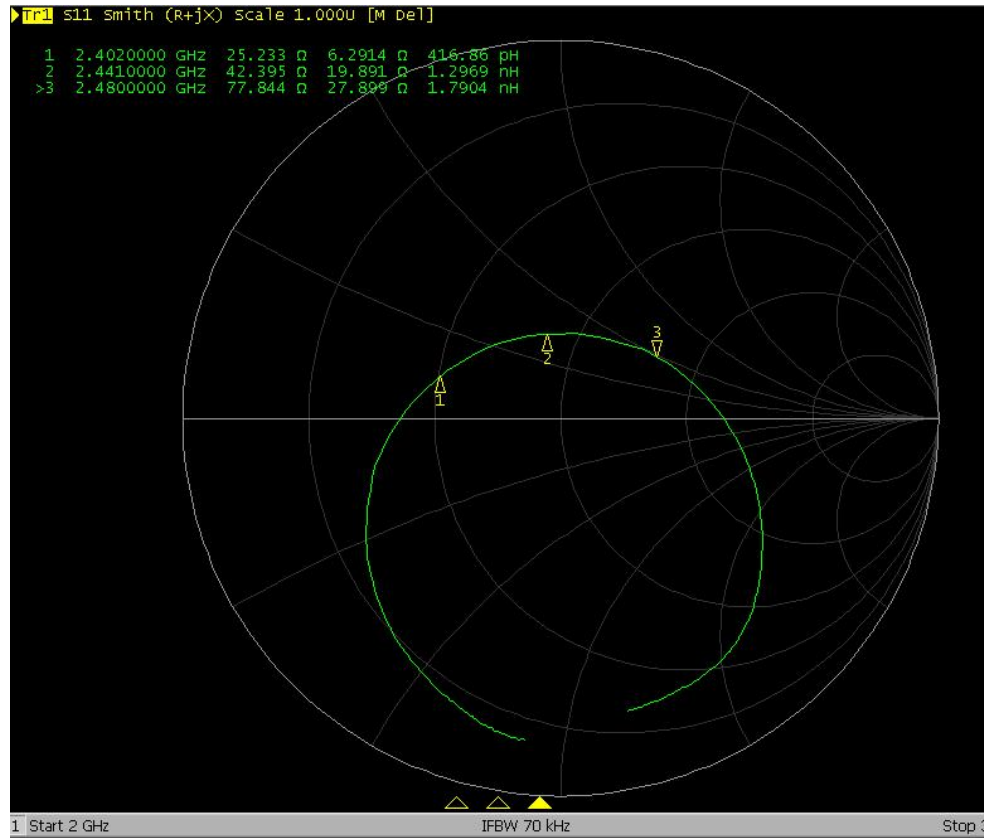


ETS-LINDGREN



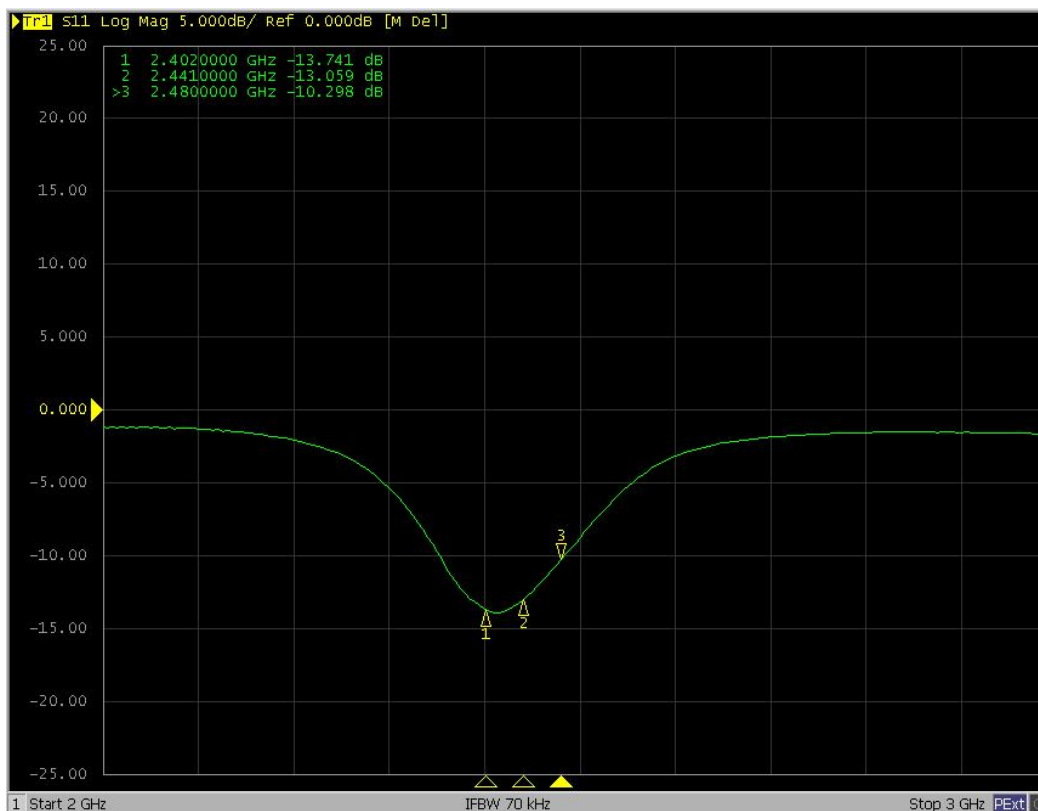
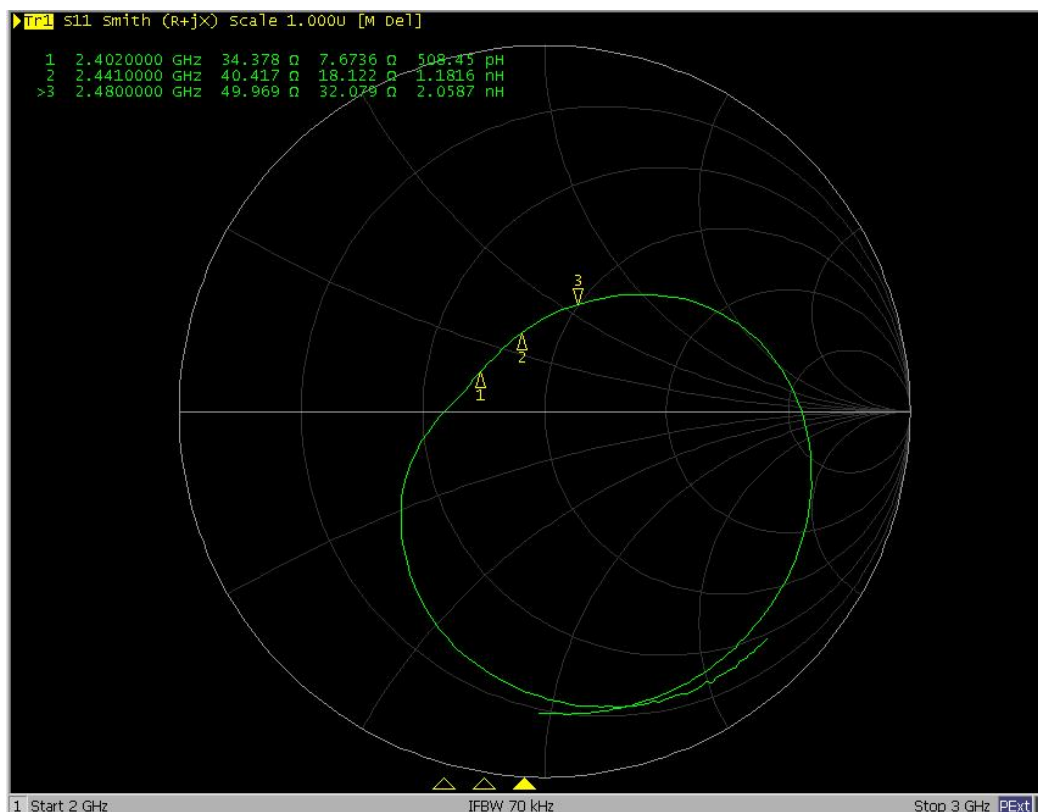
3. Passive test -S11

3.1 L Antenna





3.2 R Antenna





4. Passive Efficiency and Gain

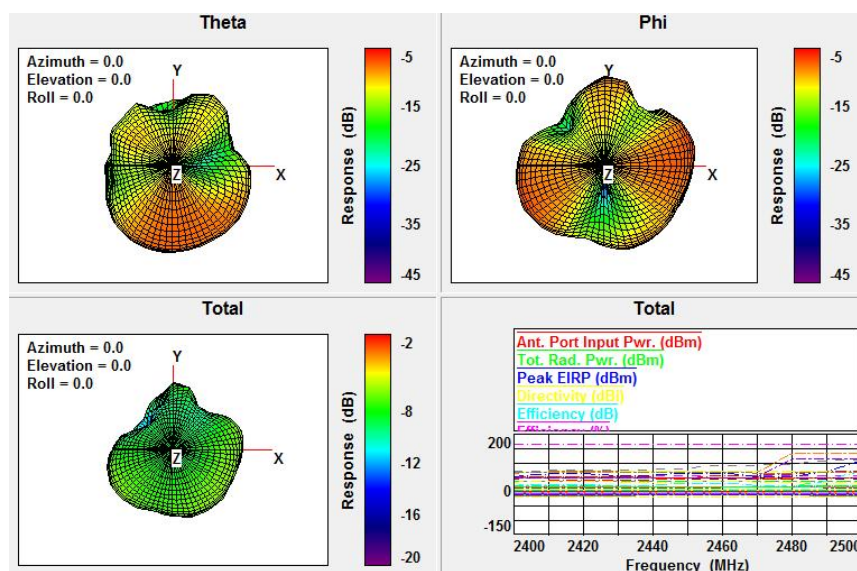
	Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490
L Antenna	Efficiency/%	18.73	19.36	19.53	19.33	19.83	20.31	20.24	20.52	19.92	19.47
	Gain/dBi	-3.82	-3.68	-3.64	-3.65	-3.48	-3.52	-3.55	-3.50	-3.68	-3.79
R Antenna	Efficiency/%	20.72	21.45	21.53	21.01	21.25	21.34	20.75	20.73	19.95	19.06
	Gain/dBi	-3.42	-3.31	-3.20	-3.51	-3.40	-3.25	-3.46	-3.40	-3.65	-3.72

【Remark】 2402-2480MHz Peak Gain -3.50 dBi(L) / -3.20 dBi(R)

5. Passive Test Graph

L_Antenna

Passive graph



R_Antenna

Passive graph

