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# AH2301 BT/Wi-Fi Pattern Antenna Measurement Result

12-Jun-2023

# Equipment List and Test Method



**Test Date** : 12-Jun-2023

**Tester** : Ranadhir Chatterjee

## **Equipment List and EUT**

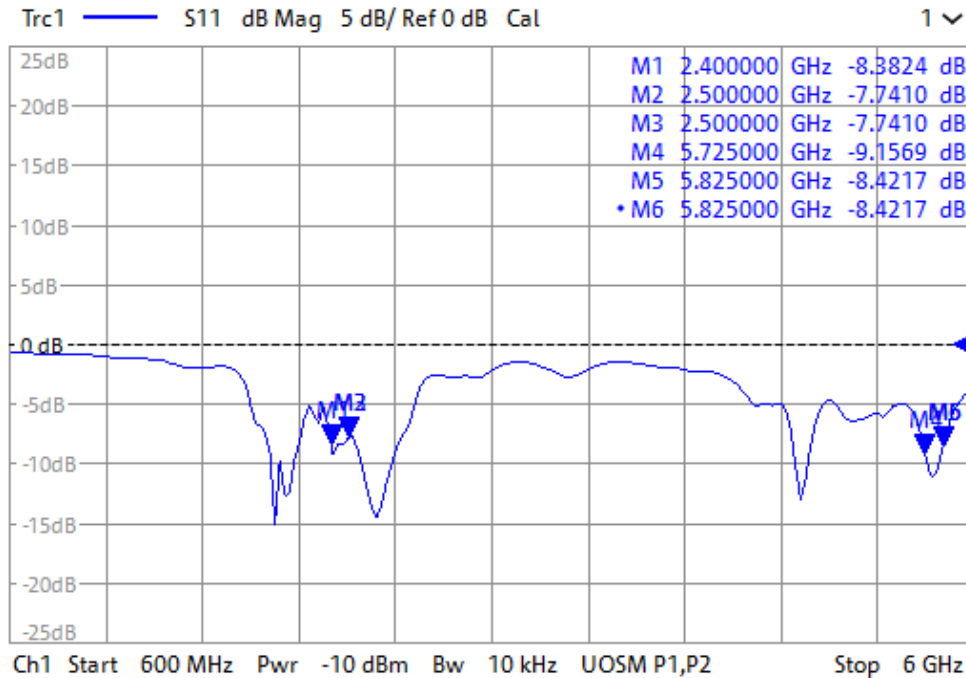
No.	Equipment	Brand	Model No.	Serial No.	Calibrated Date	Calibrated Until
1	Far Field Anechoic Chamber	NA	Indoor Lab	C234	9-Jun-2023	8-Jun-2024
2	Transmit Horn Antenna	ETS Lindgren	ETS 3115	29269/ETS3115	NA	NA
3	Reference Antenna	MVG	SH800	ANTMVG80001	NA	NA
4	Signal Generator	Keysight	N5182A	MY50143240	3-Feb-2023	3-Feb-2025
5	Signal Receiver	R&S	ESU 40	ESW44/103032	24-Aug-2022	23-Aug-2023
6	VNA	Keysight	5071C	MY46100455	11-Aug-2021	11-Aug-2023
7	EUT (Display Audio)	Panasonic	AH2301	1500033	NA	NA

## **Test Method / Standard**

Refer IEEE Recommended Practice for Antenna Measurements

Document No: IEEE Std 149™-2021

# Return Loss Measurement



The return loss measurement with the Pattern Antenna shows RL values for 2.4G band and 5G band

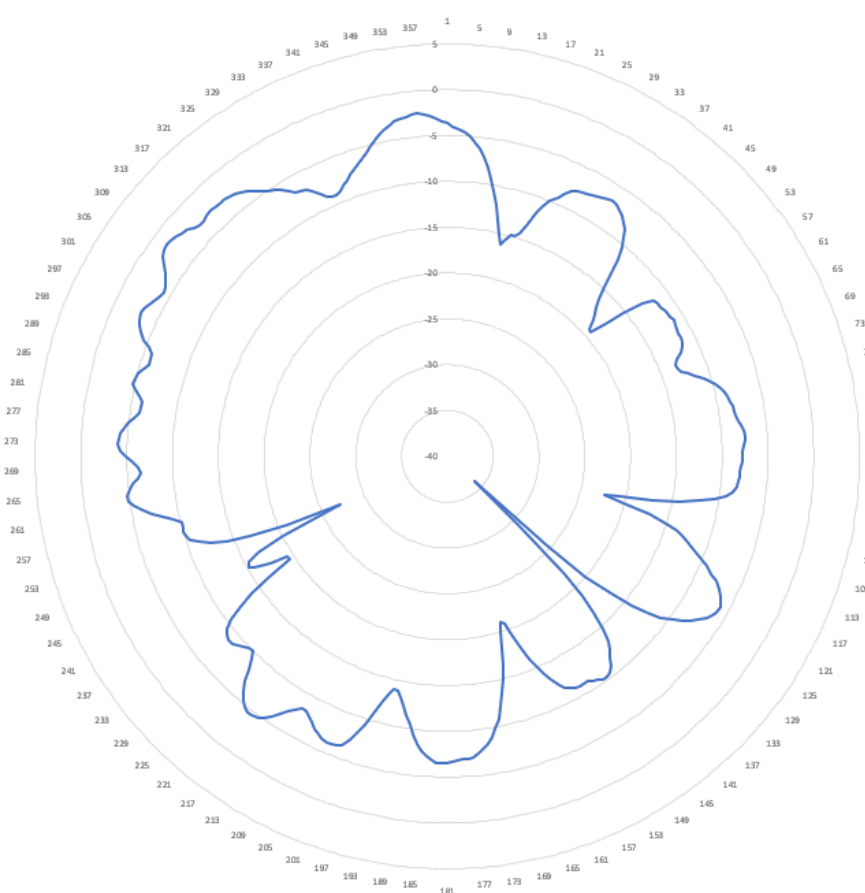
# Measured Radiation Pattern @2.4GHz



Radiation Pattern at 2.4GHz Phi 0



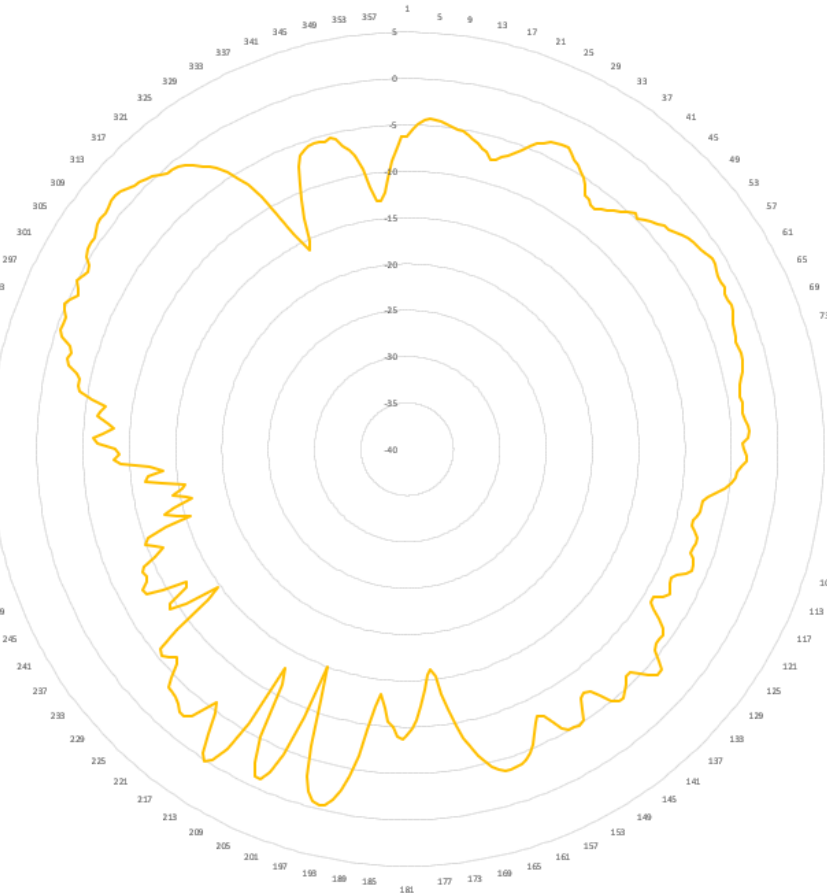
Radiation Pattern at 2.4GHz Theta 90



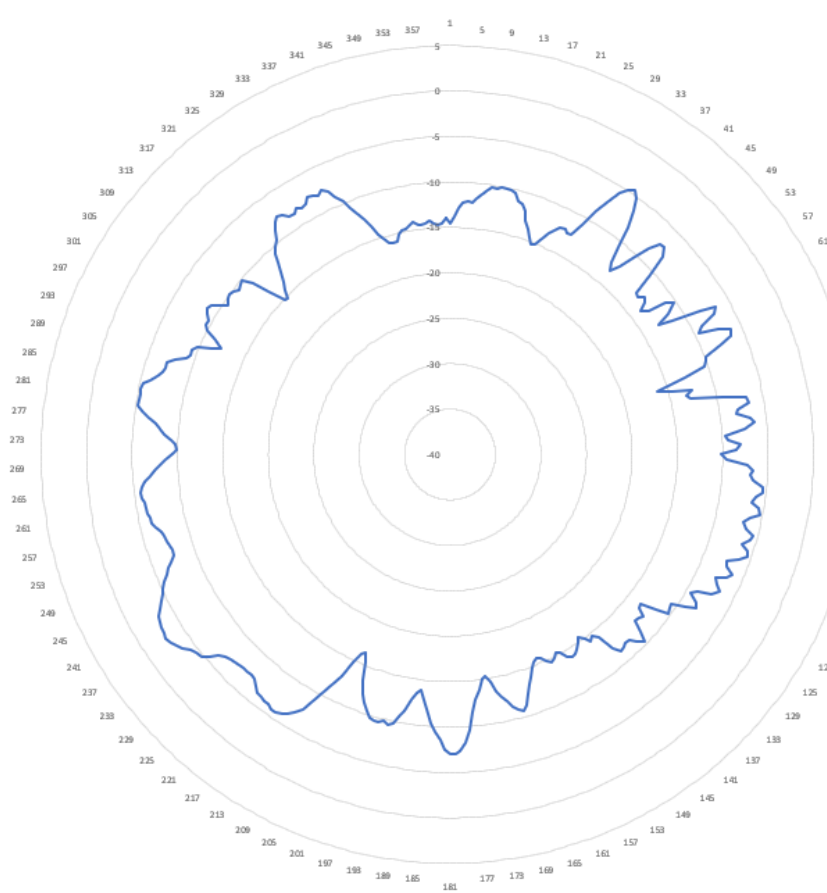
# Measured Radiation Pattern @5.85 GHz



Radiation Pattern at 5.85GHz Phi 0



Radiation Pattern at 5.85GHz Theta 90







## Pattern Antenna Gain

Peak Gain in dBi	
2.4GHz	5.85GHz
2.56	1.82

### Inference:

- The above mentioned gain values are calculated based on the radiation pattern measurement
- The pattern antenna gain values in both bands are better > 0dBi similar to the simulation results.



- **Return loss**
  - Return loss is getting better ( $>7\text{dB}$ ) in both 2.4G and 5G bands
  
- **Radiation Pattern**
  - Measurement is performed and peak gain at all frequency points in both band are observed above  $0\text{dBi}$  which is similar to the simulation results.



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