

Measurement report of chip antenna design

For 致伸(嘉光代理)

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1. Abstract:

This measurement report includes antenna return loss and radiation pattern for AT3216-B2R7HAA

Antenna Type: Chip Antenna

In accordance with report QEC-2507095, please conduct efficiency testing on the provided sample after replace the bottom cover.

Note that the bottom cover material has been updated: the previous version is fiberglass + carbon fiber, while the new version is fiberglass only.

2. Conclusion and suggestion:

2.1 Antenna gain :

Gain Table

Unit in dBi	XY-plane		XZ-plane		YZ-plane		Efficiency
	Peak	Avg.	Peak	Avg.	Peak	Avg.	
@2400MHz	1.36	-2.98	0.88	-3.30	0.32	-3.34	49.62%
@2440MHz	1.76	-2.82	1.31	-3.22	0.17	-3.25	51.18%
@2480MHz	1.65	-3.14	1.28	-3.65	-0.02	-3.57	47.31%

2.2 Summary :

The antenna gains with phantom hand are listed on the above table.

3. Radiation pattern and measurement results : Shown as page5~7

3. Measurement results:

A. Instrument setup

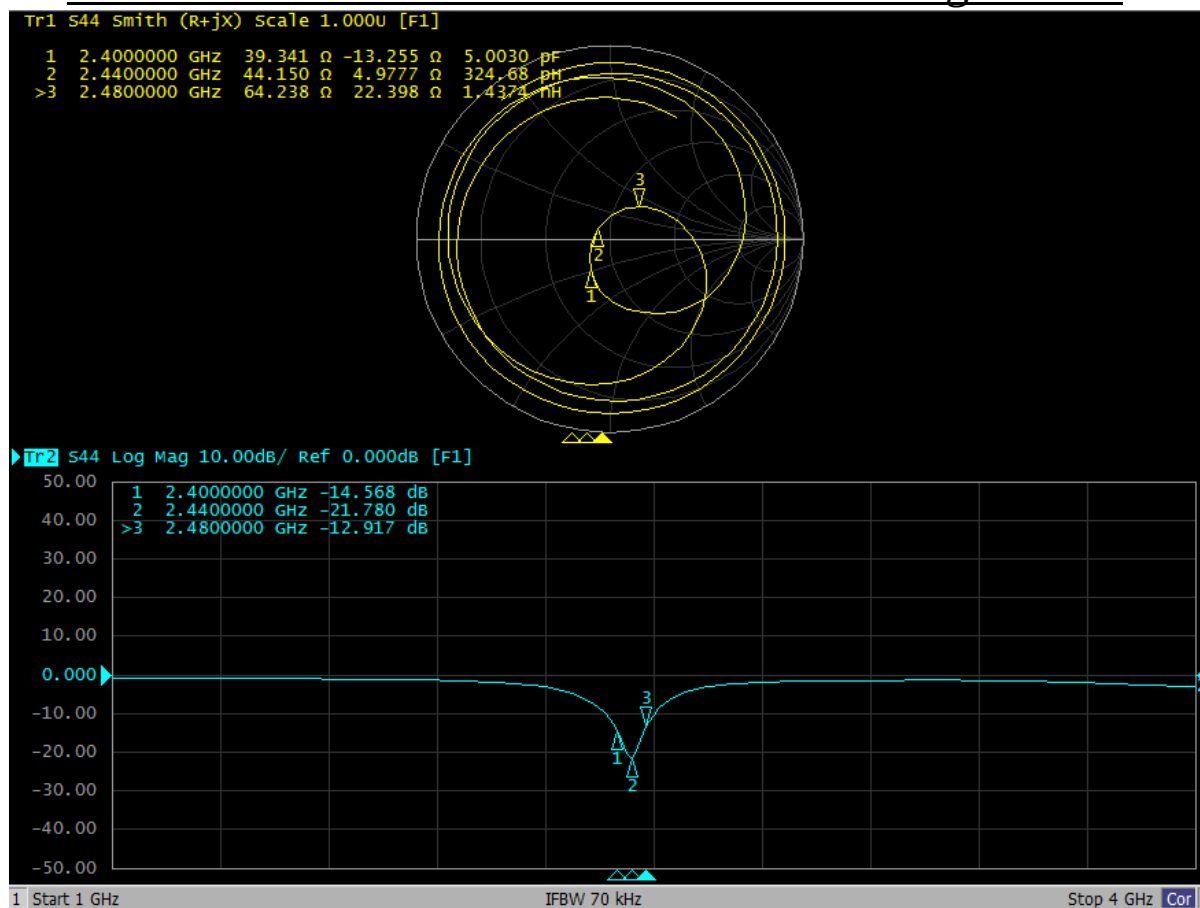
▲ Return Loss / VSWR:

- ◆ Instrument : Keysight ENA series network analyzer-E5071C
- ◆ Calibration method: Auto Port extension – Ecal

▲ 3D Radiation Pattern:

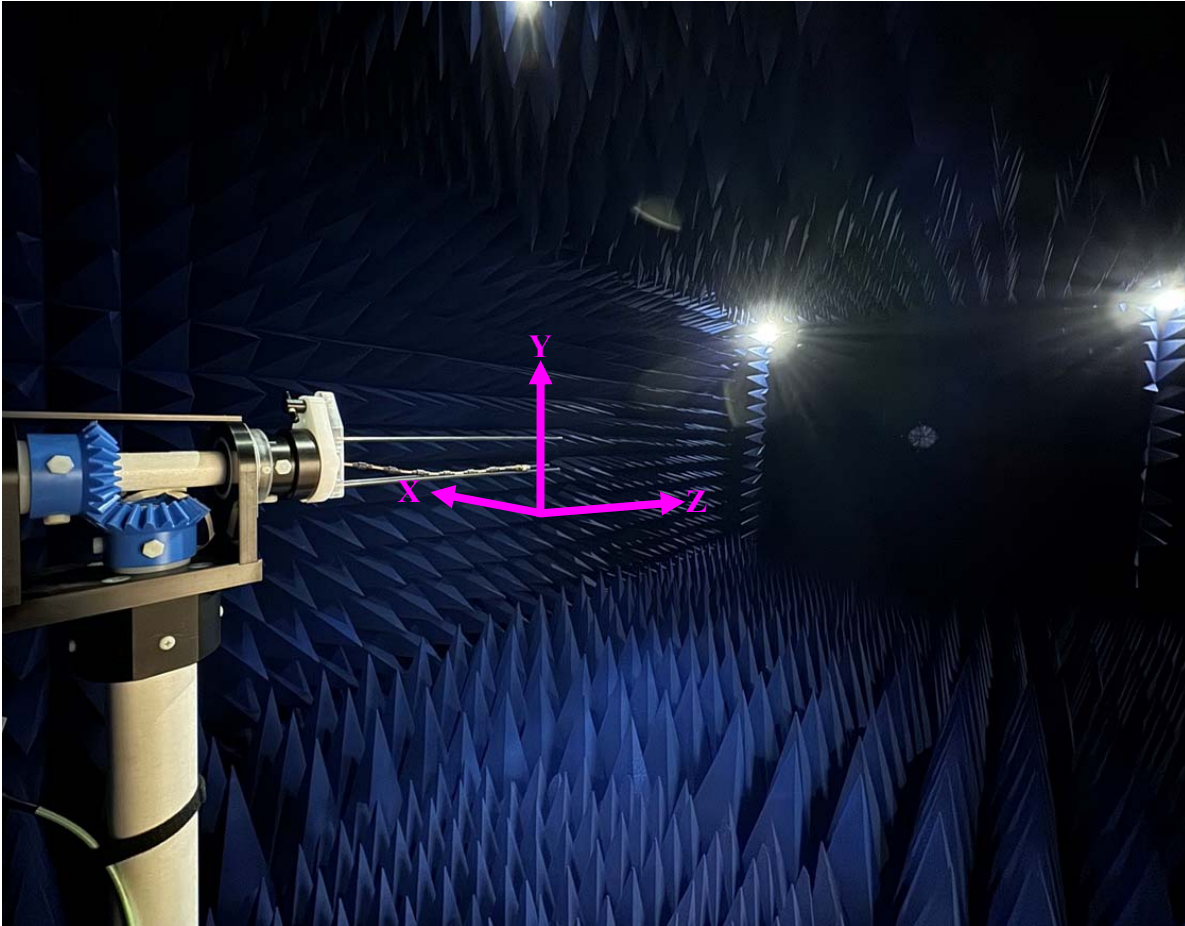
- ◆ BWant MS10 far field antenna measurement system

B. AT3216-B2R7HAA Return loss with matching circuits



C. Antenna radiation pattern

◆ Scanning direction



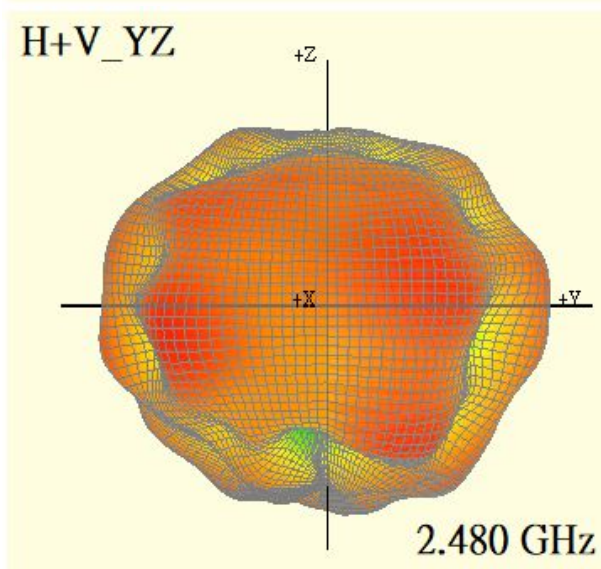
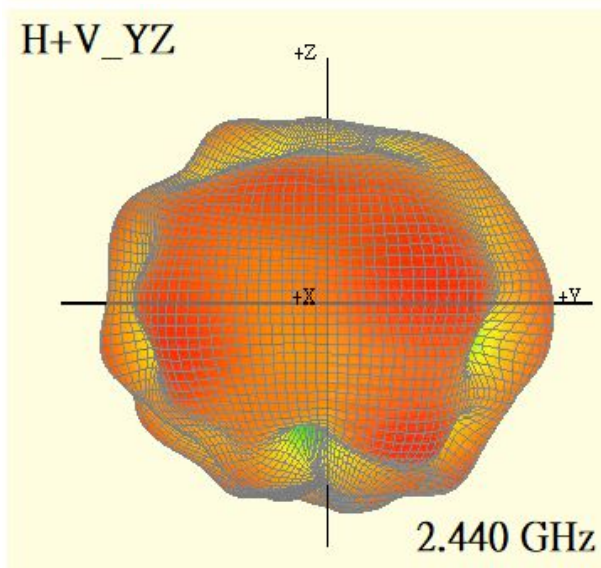
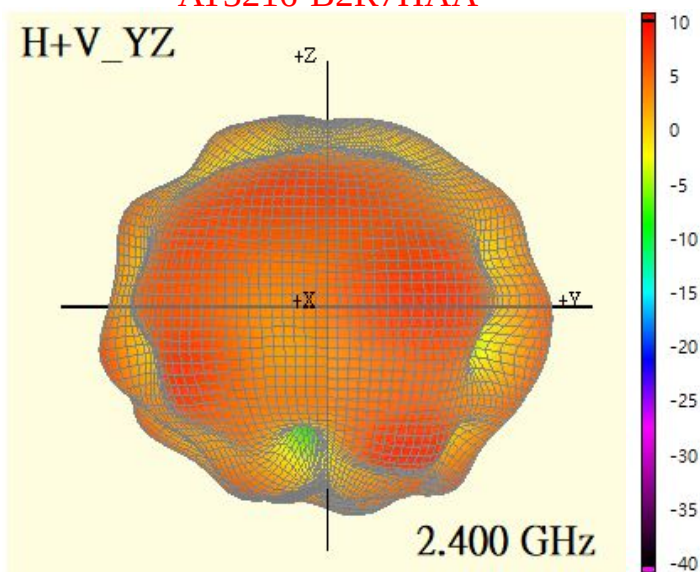
◆ Plane definition

XY-plane	Theta=90°
XZ-plane	Phi=0°
YZ-plane	Phi=90°

◆ 3D Radiation Pattern

AT3216-B2R7HAA

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AT3216-B2R7HAA Radiation Pattern

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