Amphenol

Datasheet

Amphenol B102C Antenna Test report

Document information

File Name	Amphenol_B102C_Antenna_Test_report
Manufacturer & Site	Amphenol Shanghai
Model No.	PBWV-00M-NRA-B
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Total Page	6

Revision History

Version	Date	Note
1.0	2023-04-06	Created

Aim of this Document

The aim of this document is to give a detailed test report of the B102C antenna.

Contents

1. Test overview

- Antenna Type: On-board PCB antenna
- Test lab: SG1 lab-Amphenol
- Manufacturer Address：
  Shanghai Amphenol Airwave Communication Electronics Co., Ltd.
  No 689 Shen Nan Road, Xin Zhuang Industry Park,

2. Test equipment and environment

Return loss is performed using a **KEYSIGHT Network Analyzer** and test in free space.
The efficiency of the antenna is measured in **Amphenol's 3D anechoic chamber** in Shanghai, China.
The chamber is a **Satimo Stargate 64 multi-probe system** capable of doing tests from 380MHz to 6GHz.
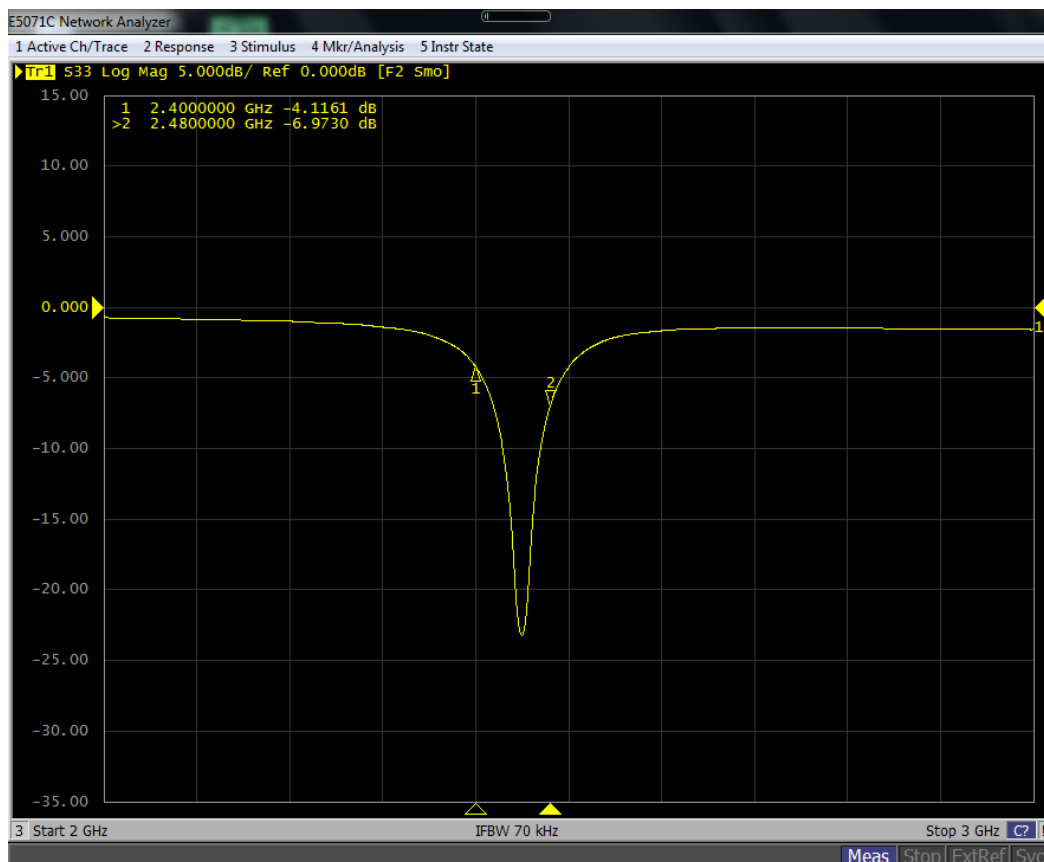The measurement results are calibrated using dipole standards.

2.1. Test equipment

|	Equipment	Calibrate date	Test Soft
For Return loss	KEYSIGHT E5071C	2022-10-10	-
For Radiation Pattern	Satimo Stargate 64 multi-probe system	2023-04-01	Satimo

3. Test result - Return Loss

3.1. Return loss of the B102C Antenna (Test in free space).

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S33 Log Mag 5.000dB/ Ref 0.000dB [F2 Smo]

1	2.4000000 GHz	-4.1161 dB
>2	2.4800000 GHz	-6.9730 dB

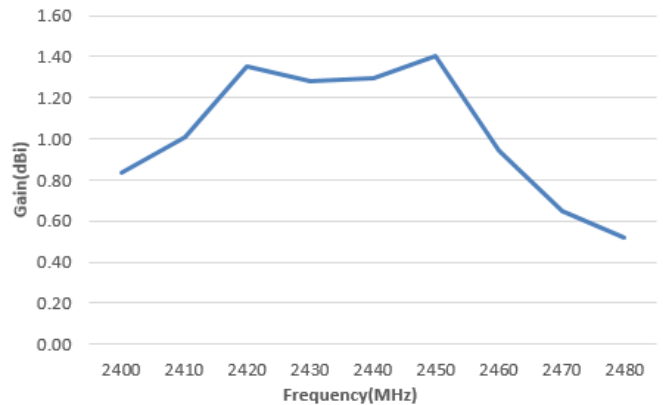3 Start 2 GHz   IFBW 70 kHz   Stop 3 GHz C? !

3.2. Test result – Efficiency & Peak Gain

Efficiency and Peak Gain of B102C Antenna.

Module put on a 100*100mm ground, with 20*6mm clearance in the middle edge for antenna.
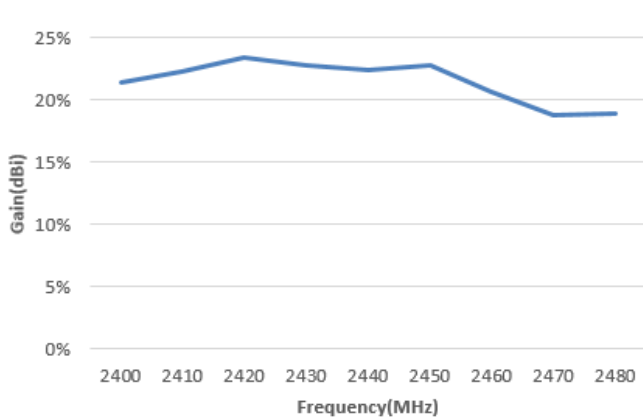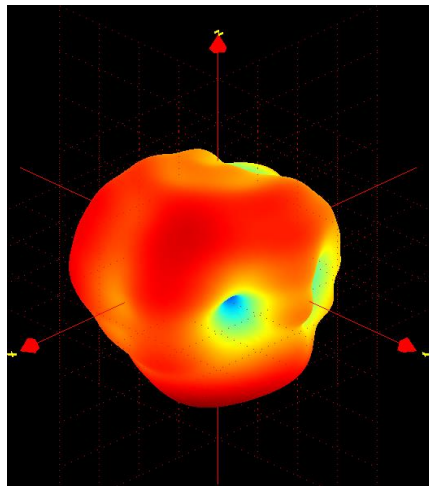

Maximum Efficiency at 2420 MHz 23%

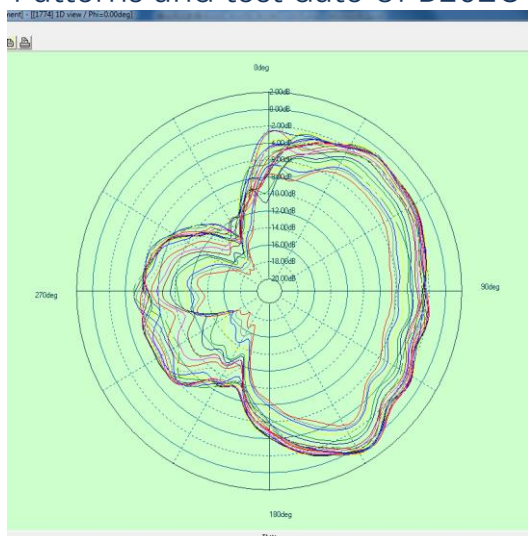Maximum Peak Gain at 2450 MHz 1.40 dBi

3.3. Test result – 3D & 2D Radiation Patterns
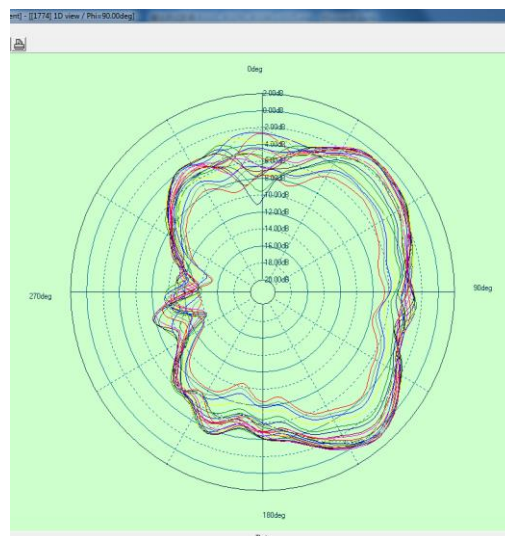
3D Patterns of B102C Antenna.

@ 2420MHz

2D Patterns and test date of B102C Antenna.

Phi=0

Phi=90