

## Antenna Test Report

Report No.: TEOT2306000424E4

Applicant Name: QISDA CORPORATION  
Manufacturer Name: QISDA CORPORATION

Product Name: Bluetooth/WLAN Antenna Module  
Model Number: S4CWM-11WS-B255C

Measurements performed at  
SGS Taiwan Ltd.  
Hwaya District, Taiwan

Issued Date: August 08, 2023

	Name	Date & Signature	Distribution
Prepared by:	Nandi Chen Sr. Engineer	<i>Nandi Chen</i> August 08, 2023	
Approved by:	Shawn Yen Supervisor	<i>Shawn Yen</i> August 08, 2023	

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## Measurement System Information

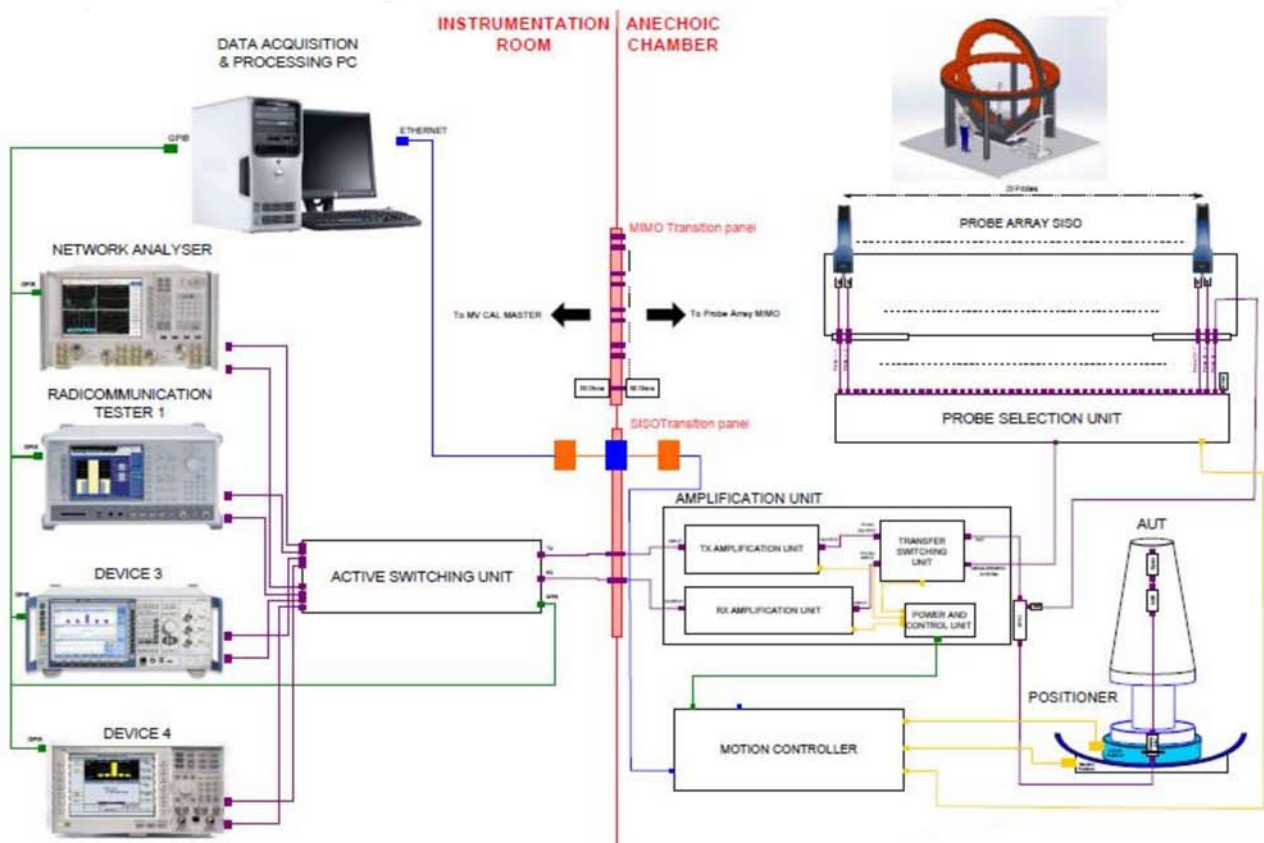
### General Information

#### Testing Condition:

- Temperature:  $22 \pm 3^\circ\text{C}$
- Humidity:  $< 80\%$

#### Measurement Facility:

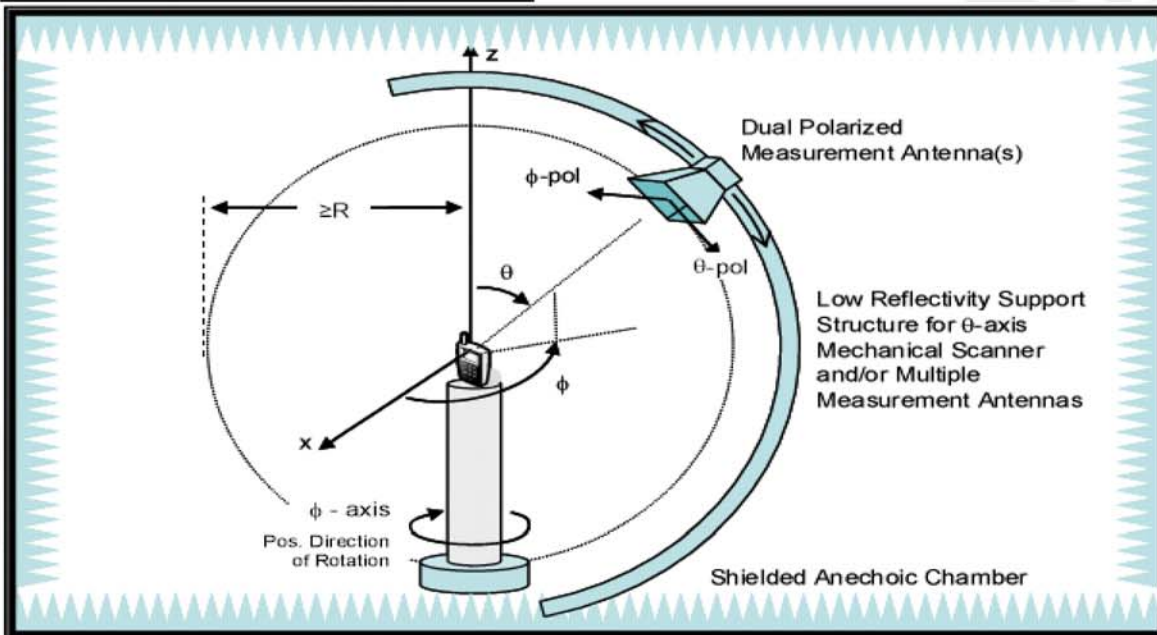
- Measurement Chamber: MVG 3D fully anechoic chamber and its measuring system (Stargate-24-L)
- Base Station Simulator: Anritsu MT8820C (or R&S CMU200)
- Network Analyzer: Agilent E5071C



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Measurements are performed in a MVG Stargate-24-L with the StarAct interface for a base station simulator. The **Stargate-24-L** has 23 probe antennas mounted with equal spacing on a circular arch. Electronic switching of the probe antennas provides outstanding measurement speed. The geometry of the setup, with only a Styrofoam column within 1.6 meters of the EUT, ensures minimum interference and low ripple on the measured radiation patterns. The DUT is placed on top of the pedestal, in the center of the system.

### Typical Setup for MVG Stargate-24-L:



### Instruments View



### Inside View



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### Testing Laboratory: Identification of the Responsible Test Laboratory.

- **OTA Laboratory:**  
**SGS Taiwan Ltd. Wireless Laboratory**  
 No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803.  
 Telephone: +886 2 2299 3279  
 Fax: +886 2 2298 0488  
 Internet: <http://www.tw.sgs.com>
  
- **Testing Location:**  
 No. 2, Keji 1<sup>st</sup> Rd., Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan 33383.

### Details of Applicant:

<b>Applicant's name:</b>	<b>QISDA CORPORATION</b>
<b>Applicant's address:</b>	<b>NO. 157 &amp; 159, SHANYING RD., GUEISHAN DIST., TAOYUAN CITY 33341, TAIWAN, R.O.C.</b>
<b>Contact person:</b>	<b>Jim Chang</b>
<b>Telephone:</b>	<b>886-3-3598800*2797</b>
<b>Fax:</b>	<b>N/A</b>
<b>E-mail:</b>	<b>Jim.Chang@Qisda.com</b>

### Details of Manufacturer:

<b>Applicant's name:</b>	<b>QISDA CORPORATION</b>
<b>Applicant's address:</b>	<b>NO. 157 &amp; 159, SHANYING RD., GUEISHAN DIST., TAOYUAN CITY 33341, TAIWAN, R.O.C.</b>
<b>Contact person:</b>	<b>Jim Chang</b>
<b>Telephone:</b>	<b>886-3-3598800*2797</b>
<b>Fax:</b>	<b>N/A</b>
<b>E-mail:</b>	<b>Jim.Chang@Qisda.com</b>

## List of Equipment

### Equipment Summary Sheet

Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Network Analyzer	Agilent	E5071C	2023/01/16	2024/01/15
Sleeve Dipole	MVG	SD740	2022/01/07	2025/01/06
Dual Ridge Horn	MVG	SH800	2022/11/09	2023/11/08
Stargate-24-L probe array	MVG	Stargate-24-L	2022/08/26	2023/08/25
Measurement software	MVG	SPM V1.9	N/A	N/A

## Reference Measurement Procedure

The reference measurement procedure is described in SGS Working Instruction WI-TESP-EO-003 for OTA service, and MVG Support Document “SG24 active measurements user manual”. Measurements are made by placing the probe in contact with the sample and measuring the admittance or reflection coefficient with respect to the open-circuit end, using a network analyzer or equivalent instrumentation.

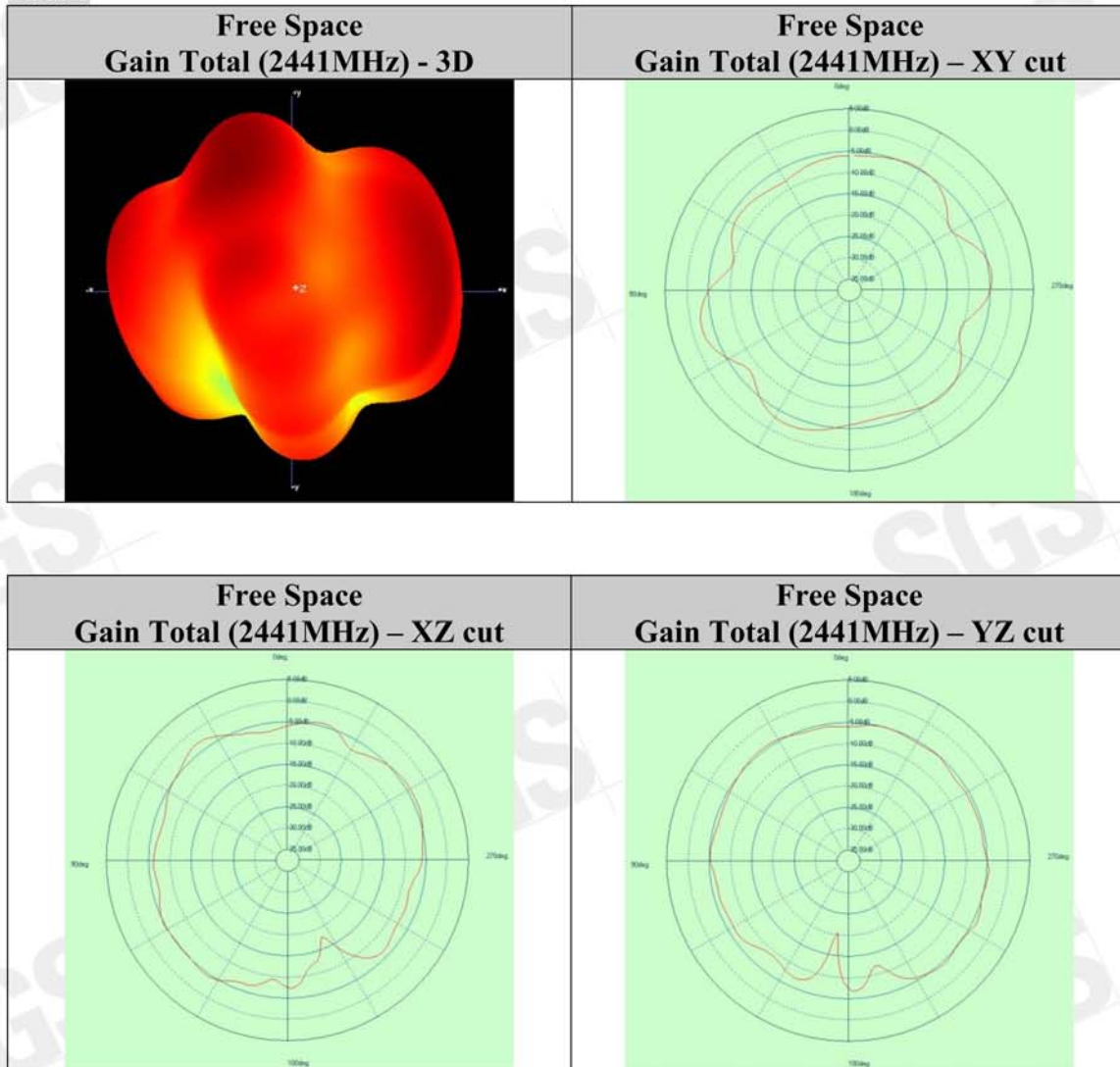
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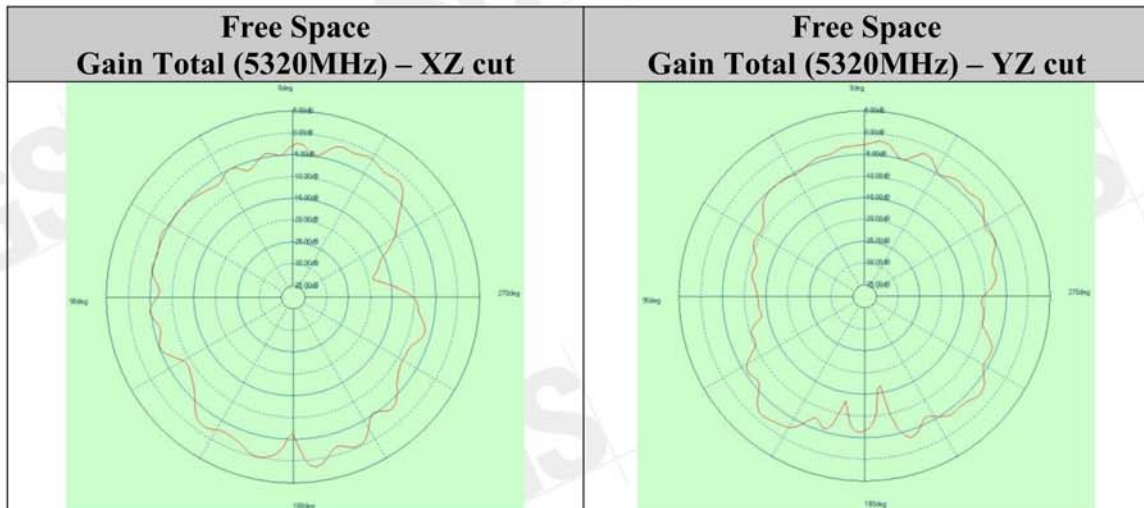
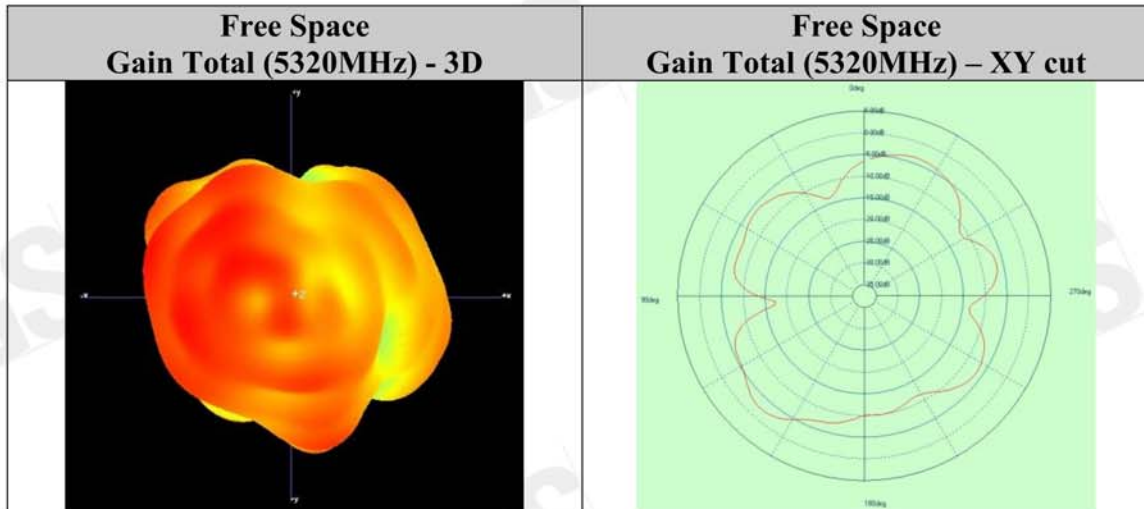
## Antenna 3D Plot Matrix

All plots in this section show the Gain Total with the +x-axis pointing right, +y-axis pointing up, and +z-axis pointing out of the page.

### ANT1

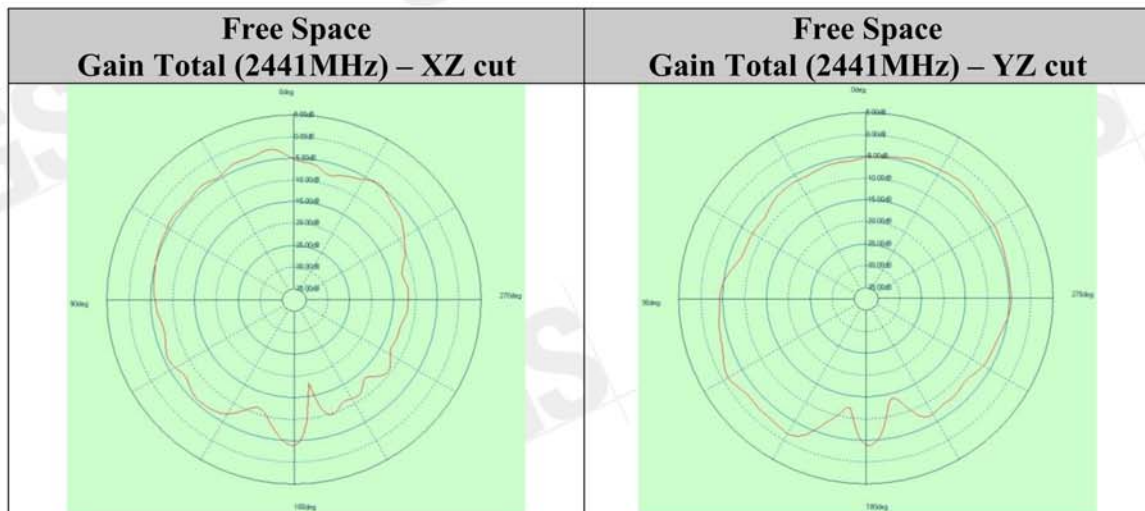
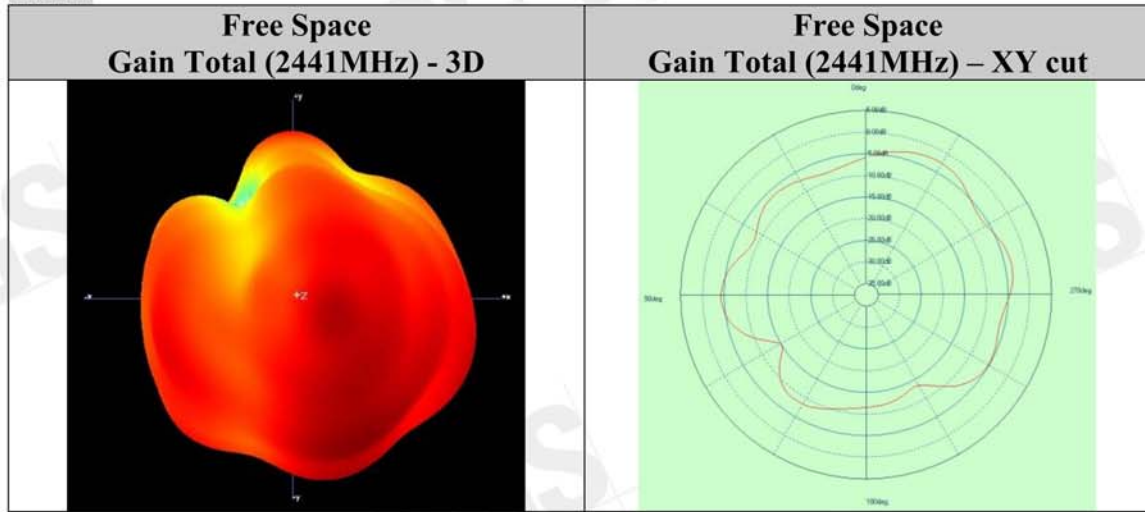


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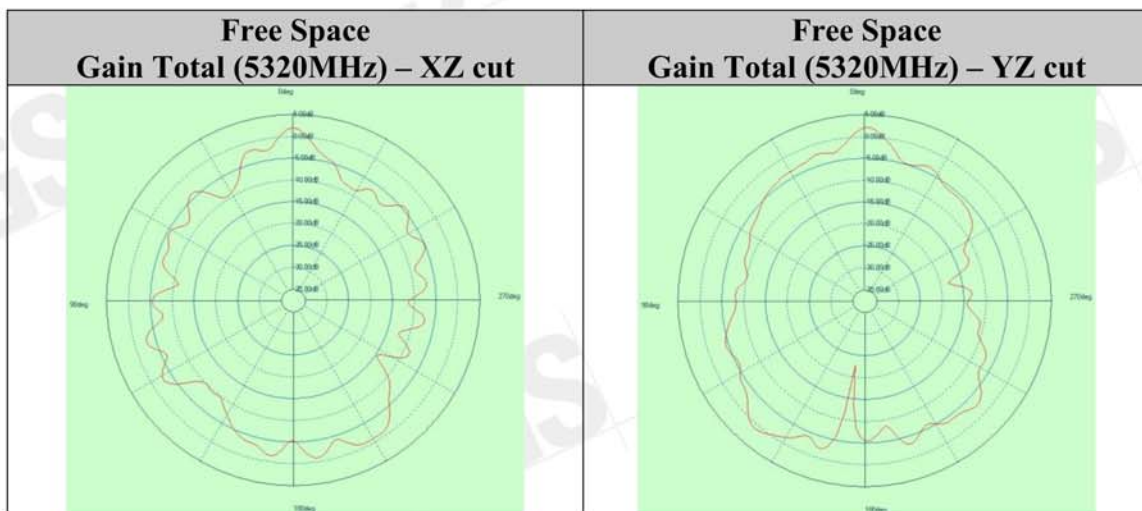
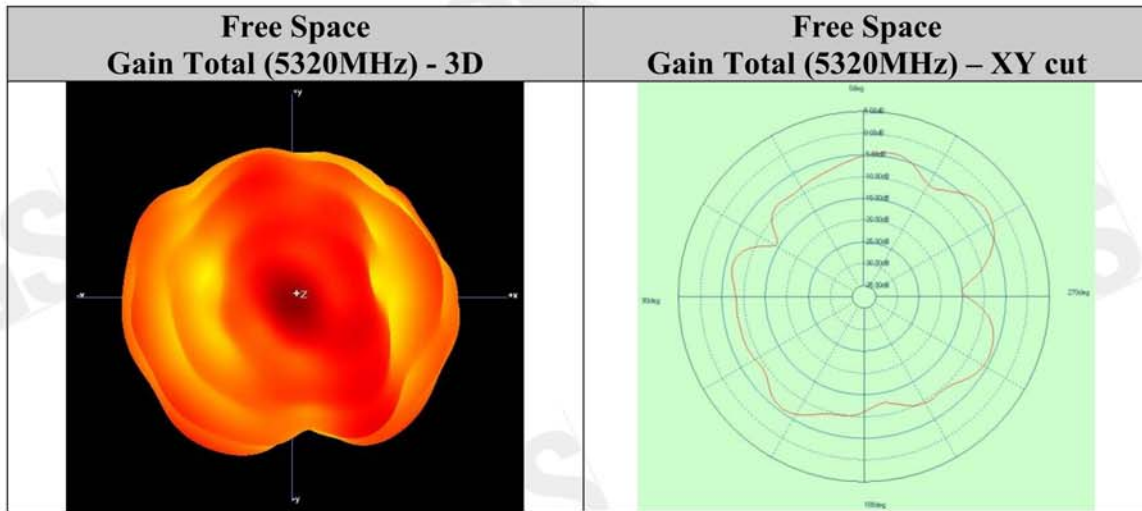
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**ANT2**



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**End of Report**

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