

Antenna Test Report


Report No.: TEOT2308000565E4

**Applicant Name: JTS PROFESSIONAL CO., LTD.
 Manufacturer Name: JTS PROFESSIONAL CO., LTD.**

**Product Name: Antenna
 Model Number: ANT-W4T**

**Measurements performed at
 SGS Taiwan Ltd.
 Hwaya District, Taiwan**

Issued Date: September 08, 2023

	Name	Date & Signature	Distribution
Prepared by:	Nandi Chen Sr. Engineer	 September 08, 2023	
Approved by:	Shawn Yen Supervisor	 September 08, 2023	

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Measurement System Information

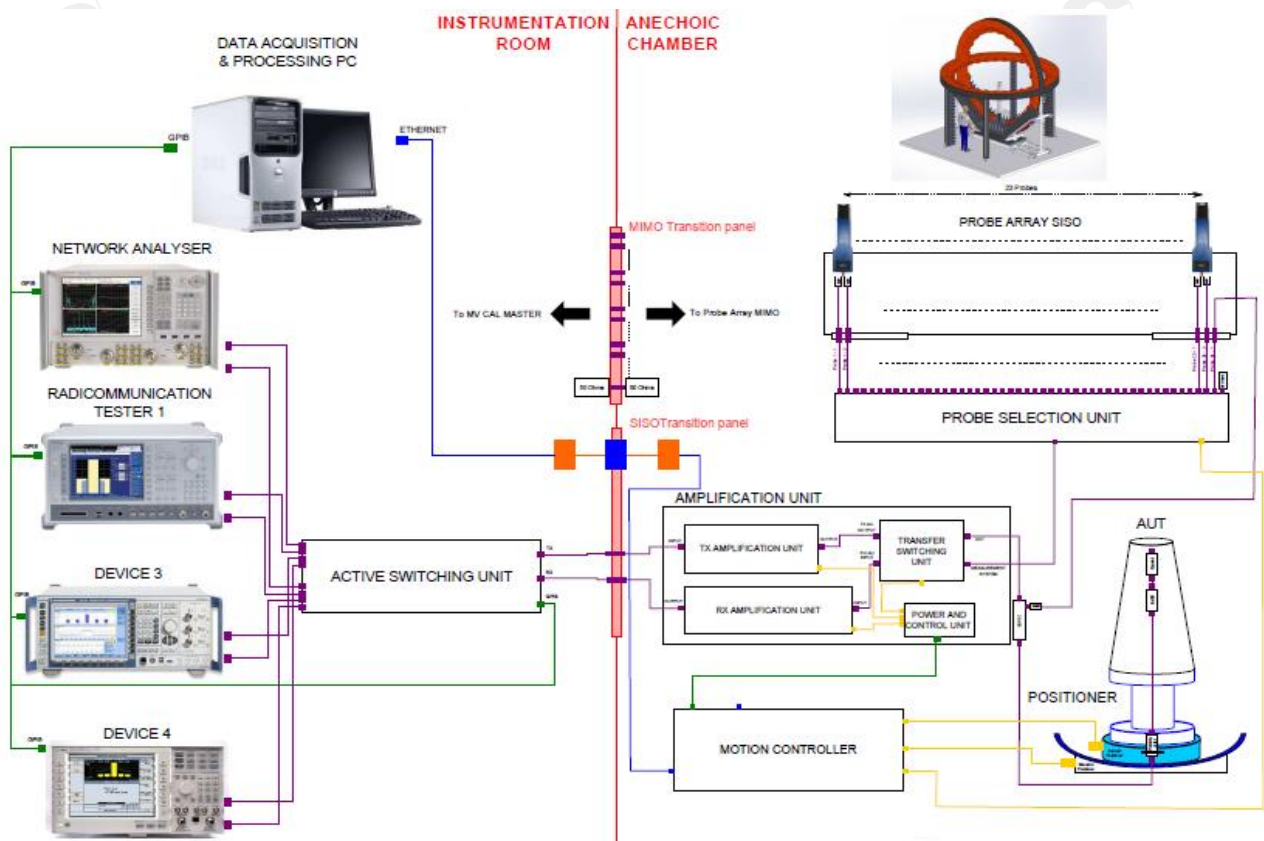
General Information

Testing Condition:

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

Measurement Facility:

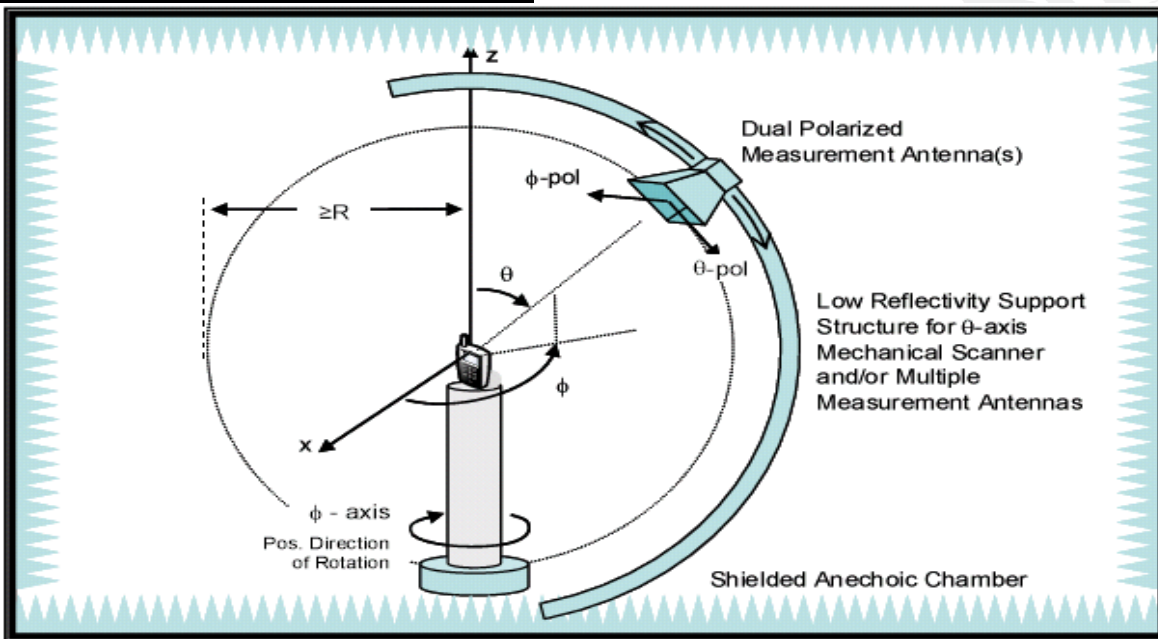
- Measurement Chamber: MVG 3D fully anechoic chamber and its measuring system (Stargate-24-L)
- Base Station Simulator: Anritsu MT8820C (or R&S CMU200)
- Network Analyzer: Agilent E5071C



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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.

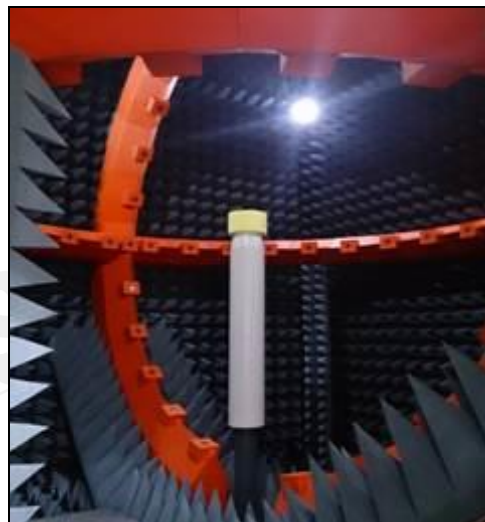
Typical Setup for MVG Stargate-24-L:



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 1st Rd., Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan 33383.

Details of Applicant:

Applicant's name:	JTS PROFESSIONAL CO., LTD.
Applicant's address:	No. 148, Gongye 9th Rd., Dali Dist., Taichung City 412037, Taiwan
Contact person:	Mina Chen
Telephone:	+886-4-2493-8803 ext568
Fax:	+886-4-2491-4890
E-mail:	minachen@jts.com.tw

Details of Manufacturer:

Applicant's name:	JTS PROFESSIONAL CO., LTD.
Applicant's address:	No. 148, Gongye 9th Rd., Dali Dist., Taichung City 412037, Taiwan
Contact person:	Mina Chen
Telephone:	+886-4-2493-8803 ext568
Fax:	+886-4-2491-4890
E-mail:	minachen@jts.com.tw

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Details of EUT:

Device Description:	Antenna
Device Manufacturer:	JTS PROFESSIONAL CO., LTD.
Device Model:	ANT-W4T
Hardware Version:	N/A
Software Version:	N/A
Frequency Point:	470.1MHz 、 539MHz 、 607.9MHz

Duration of Tests:

Sample Receive Date:	2023-08-30
Test Starting Date:	2023-08-31
Test Ending Date:	2023-08-31
Report Issued Date:	2023-09-08

Photographs of EUT:

Front View



Side View



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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
Dipole antenna	ETS-Lindgren	3126-700	2020/10/13	2023/10/12
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	2023/08/16	2024/08/15
Measurement software	MVG	SPM V1.9	N/A	N/A

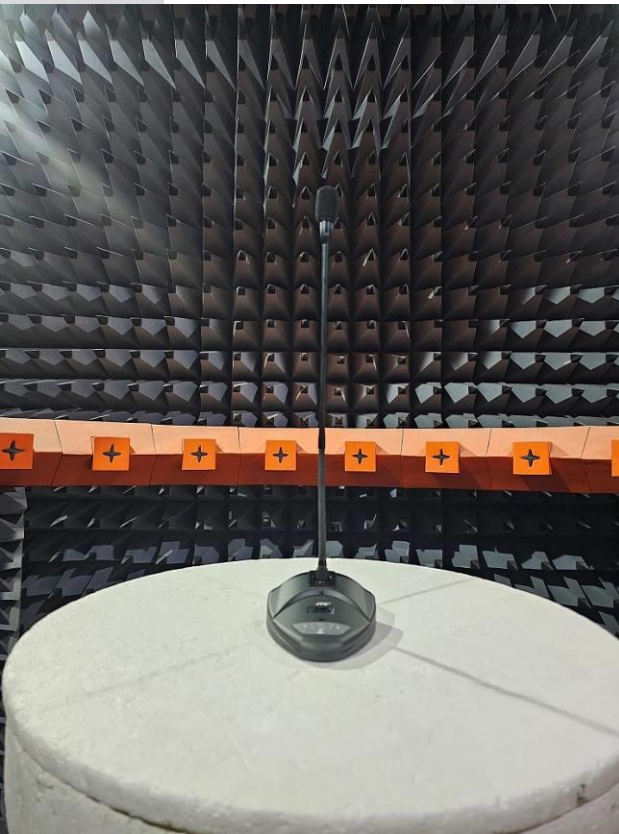
Reference Measurement Procedure

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.

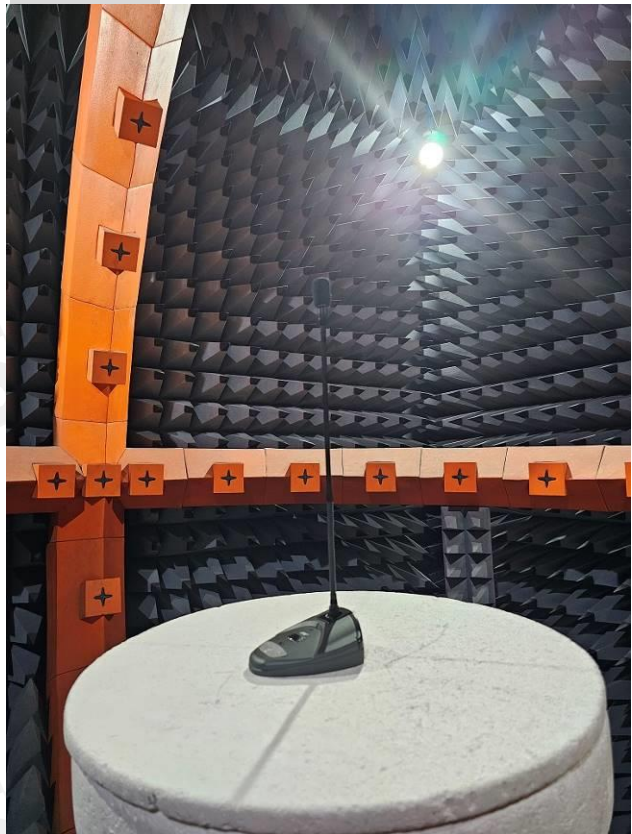
Antenna Gain and Efficiency

ANT-W4T			
Freq(MHz)	Peak. dBi	Efficiency	Average . dBi
470.10	-0.02	24.96%	-6.03
539.00	4.44	80.80%	-0.93
607.90	2.61	67.92%	-1.68

Test Setup
Front View



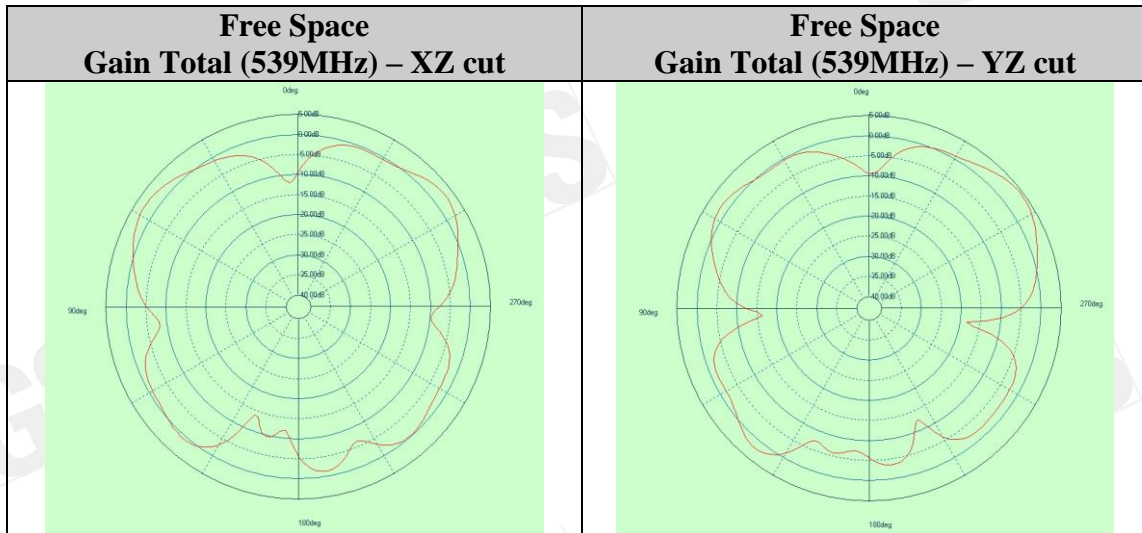
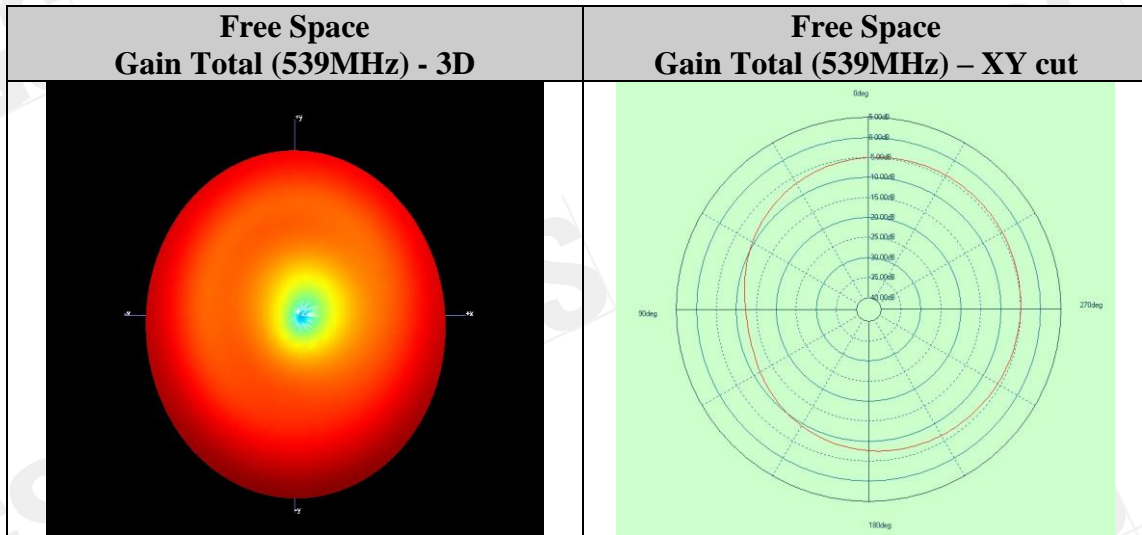
Side View



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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.



End of Report

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