

Antenna Test Report

Report No. : TEOT2503000429E4

Applicant Name : DUCTECH Co., Ltd

Manufacturer Name : GOOD WAY TECHNOLOGY CO., LTD.

Product Name : AC REMOTE

Model Number : TE-ACRT

Measurements performed at
SGS Taiwan Ltd.

Hwaya District, Taiwan

Issued Date: April 29, 2025

	Name	Date & Signature	Distribution
Prepared by:	Nandi Chen Sr. Engineer	<i>Nandi Chen</i> April 29, 2025	
Approved by:	Shawn Yen Supervisor	<i>Shawn Yen</i> April 29, 2025	

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Revision Version

Report Number	Revision	Date	Memo
TEOT2503000429E4	00	2025/04/29	Initial creation of test report.

This test report contains a reference to the previous version test report that it replaces.

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Measurement System Information

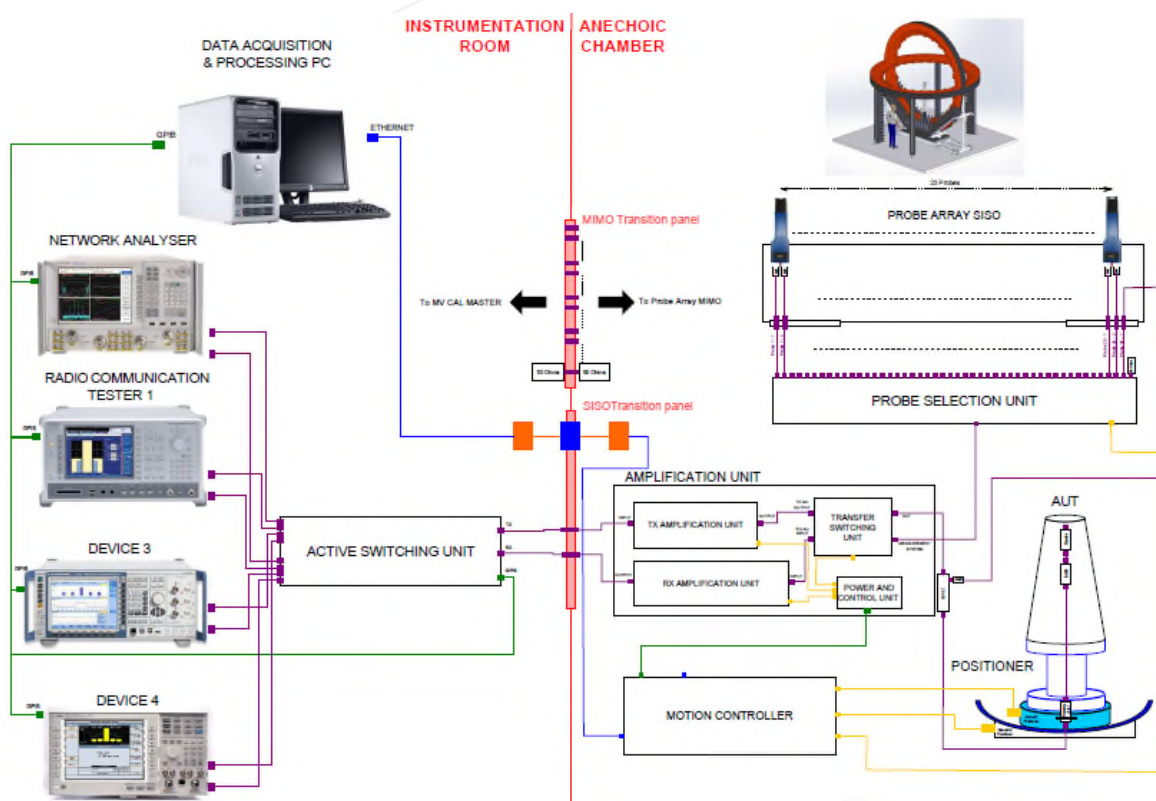
General Information

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)
- Network Analyzer: Agilent E5071C

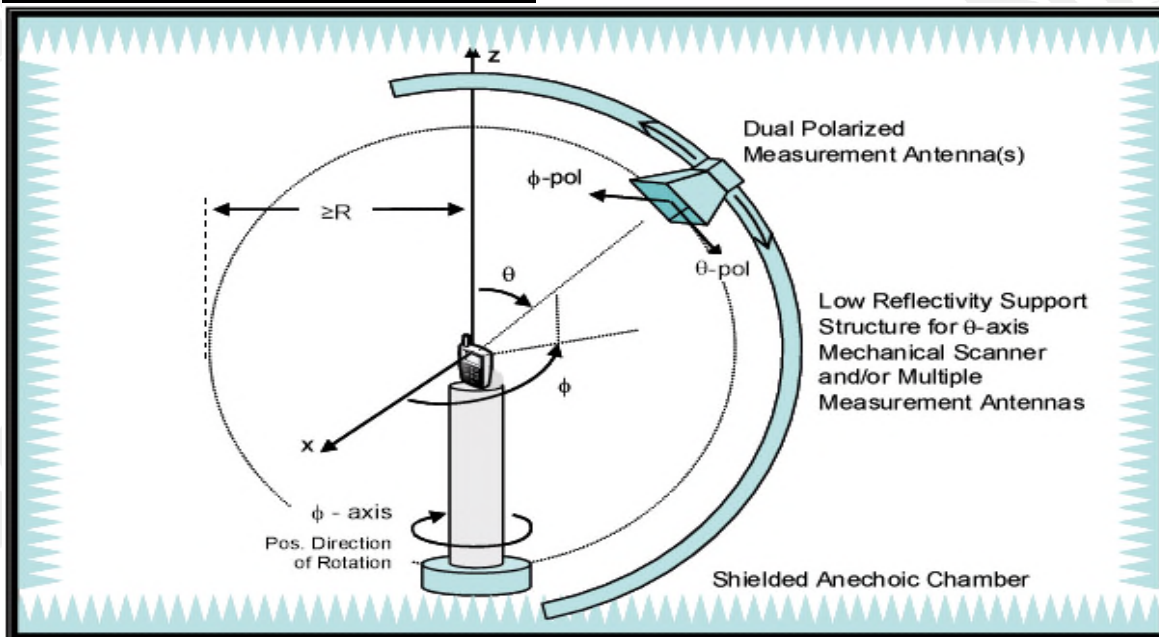


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Measurements are performed in a MVG **Stargate-24-L** with the StarAct interface for a base station simulator. The **Stargate-24-L** has 23 probe antennas mounted with equal spacing on a circular arch. Electronic switching of the probe antennas provides 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:	DUCTECH Co., Ltd
Applicant's address:	8F, No.202-16, Zhonghua Rd., Yongkang Dist., Tainan City 710, Taiwan
Contact person:	N/A
Telephone:	N/A
Fax:	N/A
E-mail:	N/A

Details of Manufacturer:

Applicant's name:	GOOD WAY TECHNOLOGY CO., LTD.
Applicant's address:	3F, No. 135, Ln. 235, Baociao Rd., Sindian Dist., New Taipei City 231, Taiwan
Contact person:	N/A
Telephone:	N/A
Fax:	N/A
E-mail:	N/A

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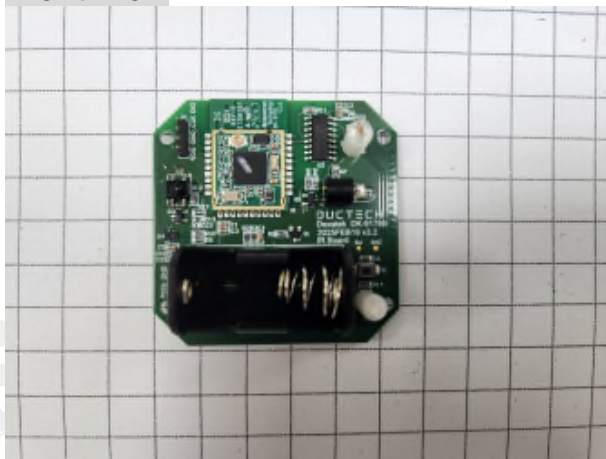
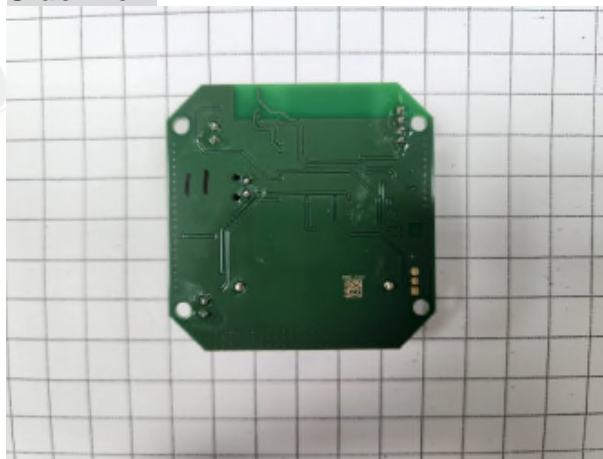
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Details of EUT:

Device Description:	AC REMOTE
Device Manufacturer:	DUCTECH Co., Ltd
Device Model:	TE-ACRT
Hardware Version:	N/A
Software Version:	N/A
Frequency Point:	2400 MHz ~ 2500 MHz, Step: 10MHz
Antenna Type:	PCB

Duration of Tests:

Sample Receive Date:	2025-03-26
Test Starting Date:	2025-04-11
Test Ending Date:	2025-04-11
Report Issued Date:	2025-04-29

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	2024/07/05	2025/07/04
Stargate-24-L probe array	MVG	Stargate-24-L	2024/08/14	2025/08/13
Measurement software	MVG	Wave Studio v23.3.2	N/A	N/A

Reference Measurement Procedure

The reference measurement procedure is described in SGS Working Instruction WI-TESP-EO-002 for OTA service. 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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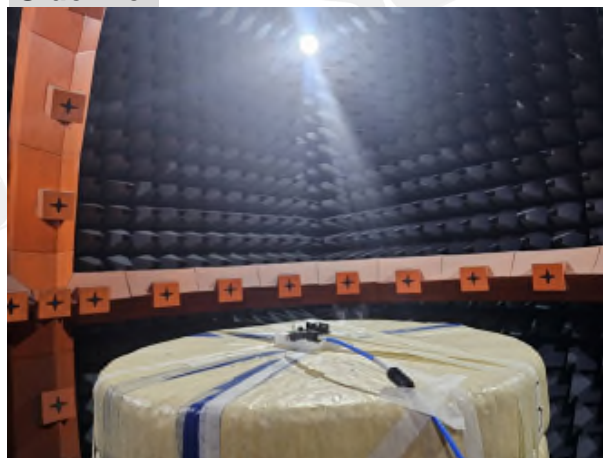
Antenna Gain and Efficiency

TR62000N1				
Frequency (MHz)	Efficiency (%)	Average Gain (dBi)	Peak Gain (dBi)	Directivity (dBi)
2400	38.37%	-4.16	0.52	4.68
2410	36.39%	-4.39	0.26	4.65
2420	34.99%	-4.56	0.08	4.64
2430	34.59%	-4.61	0.13	4.74
2440	33.88%	-4.70	0.06	4.76
2450	32.96%	-4.82	-0.03	4.79
2460	31.05%	-5.08	-0.33	4.74
2470	26.85%	-5.71	-0.97	4.75
2480	23.77%	-6.24	-1.43	4.80
2490	21.43%	-6.69	-1.83	4.86
2500	19.36%	-7.13	-2.22	4.91

Test Setup
Front View



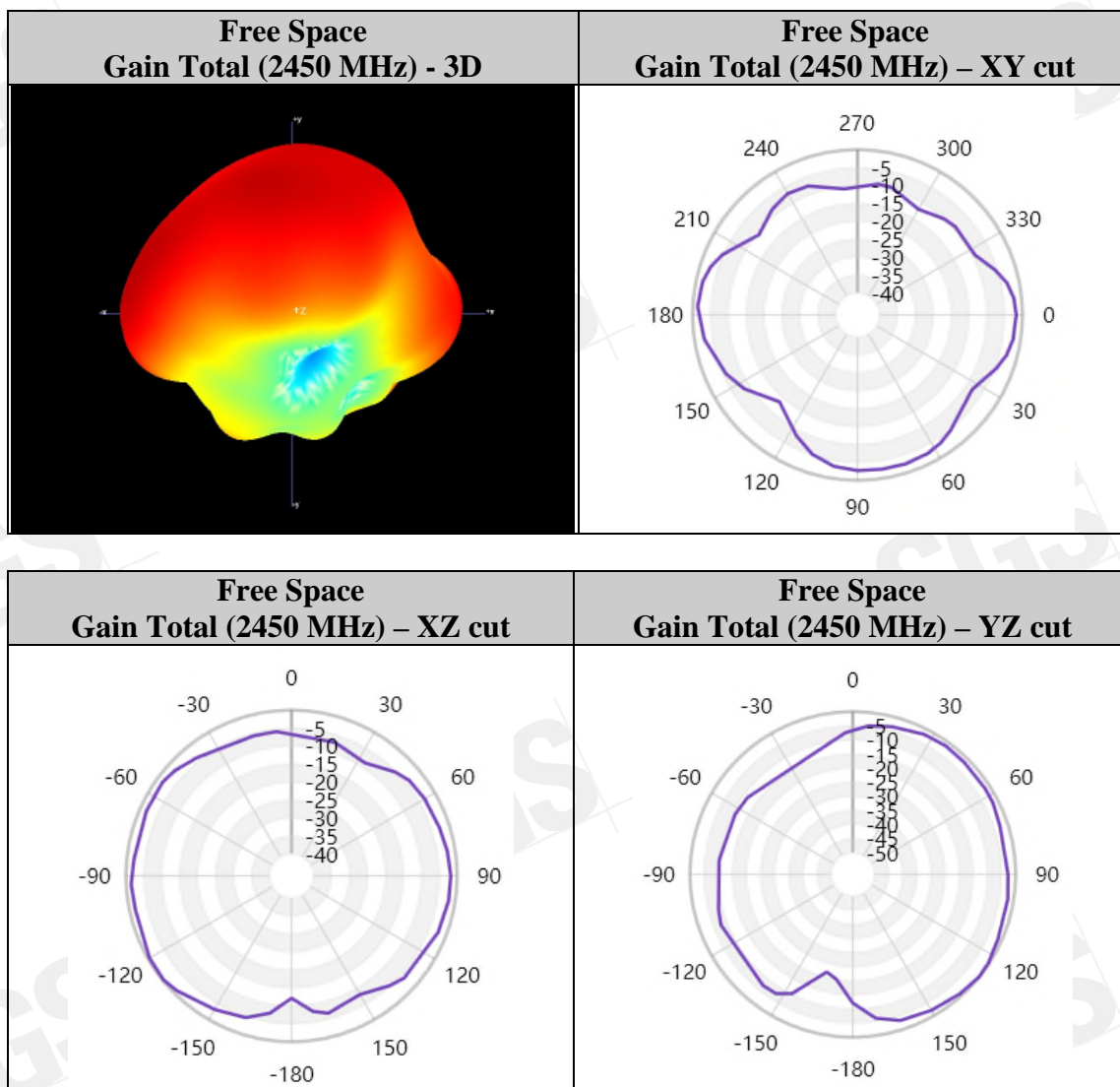
Side View



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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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