

Antenna Test Report

Report No.: EO/2012/30034
Test Plan: Non-compliance with ISO17025
Applicant Name: ARESON Technology Corp.
Manufacturer Name: Dong Guan Hong Sheng Electronic Corp.
Product Name: 2.4GHz Wireless mouse
Model Number: Meadline type antenna4
Measurements performed at
SGS Taiwan Ltd.
Taipei, Taiwan
Issued Date: April 27, 2012

	Name	Date & Signature	Distribution
Prepared by:	Dragon Wu Supervisor	<i>Dragon Wu</i> April 27, 2012	
Approved by:	Nick Hsu Supervisor	<i>Nick Hsu</i> April 27, 2012	

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Measurement System Information

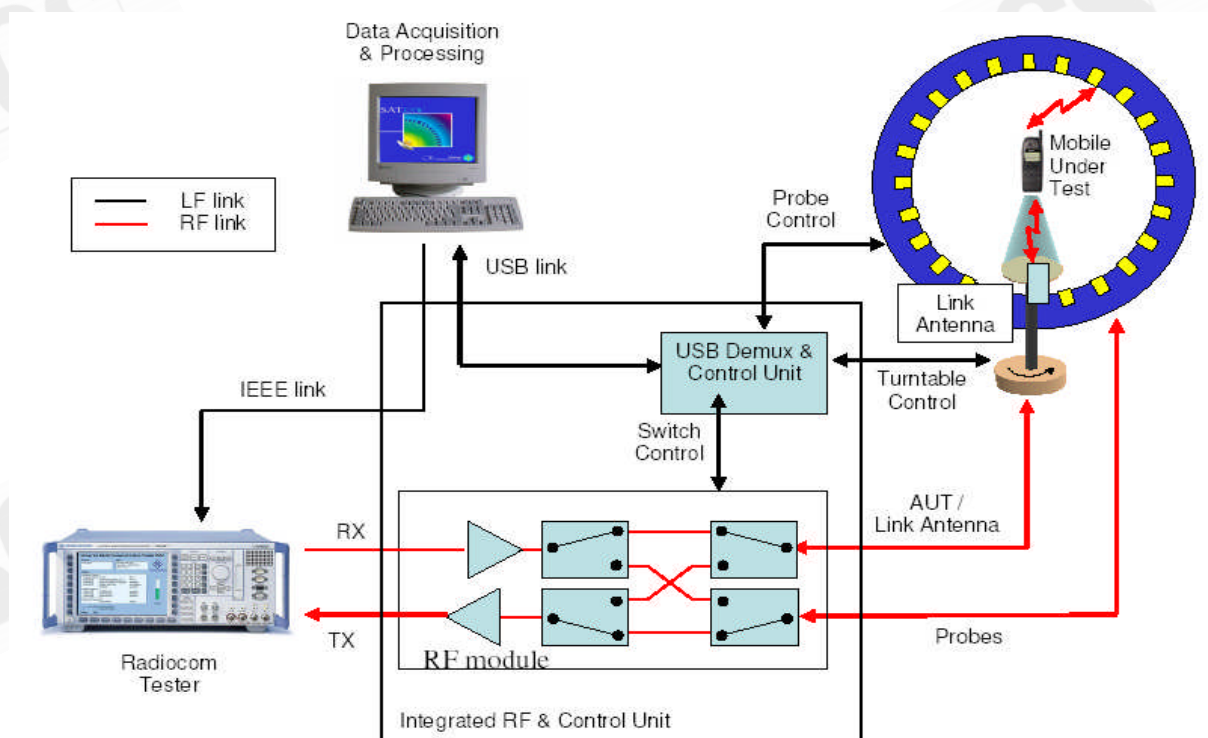
General Information

Testing Condition:

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

Measurement Facility:

- Measurement Chamber: Satimo 3D fully anechoic chamber and its measuring system (Stargate-24)
- Base Station Simulator: CMU200 (or Agilent E5515C)
- Network Analyzer: Agilent E5071C



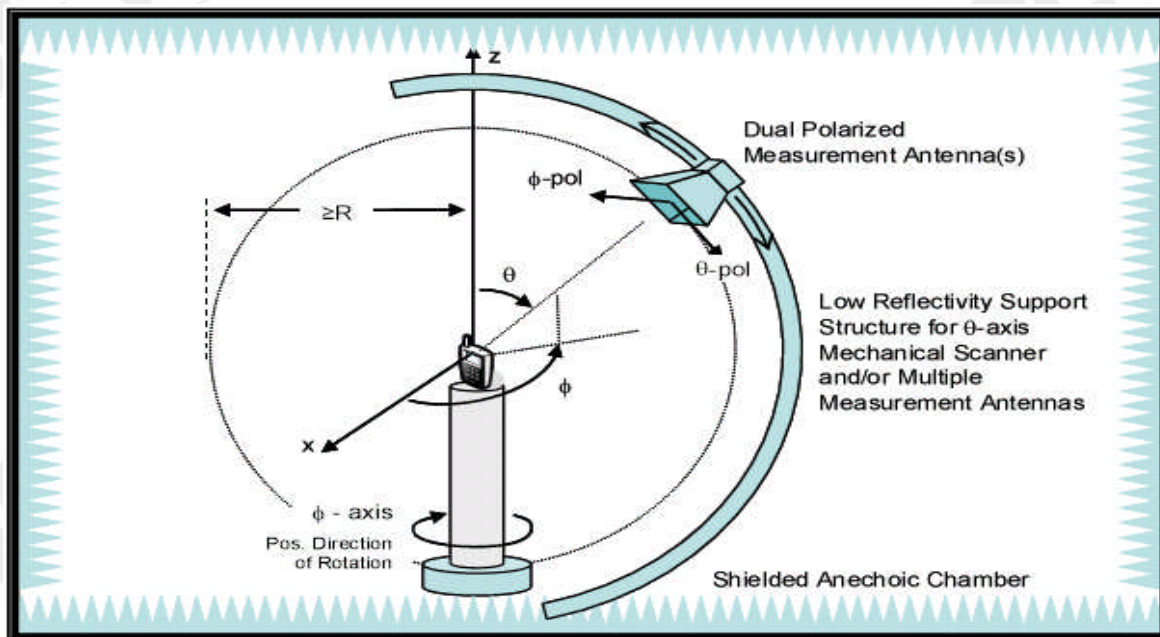
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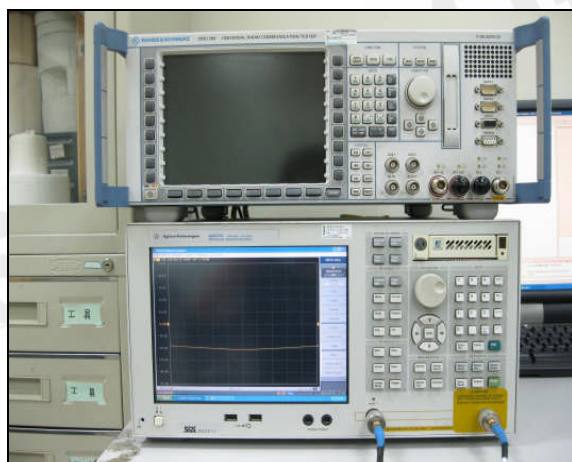
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Measurements are performed in a Satimo **Stargate-24** with the StarAct interface for a base station simulator. The **Stargate-24** has 23 probe antennas mounted with equal spacing on a circular arch. Electronic switching of the probe antennas provides outstanding measurement speed. The geometry of the setup, with only a Styrofoam column within 1.2 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.

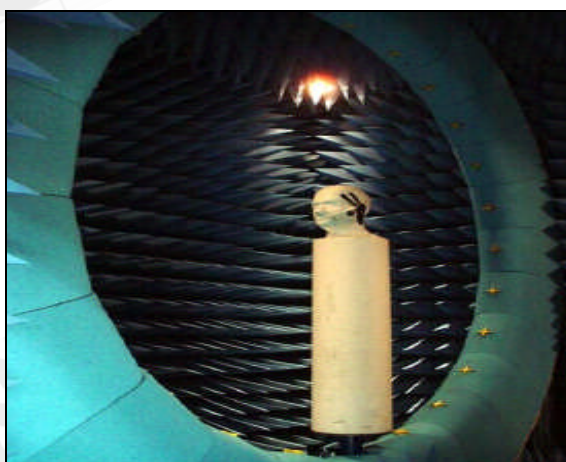
Typical Setup for Satimo Stargate-24:



Instruments View



Inside View



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Testing Laboratory: Identification of the Responsible Test Laboratory.

- **OTA Laboratory:**
SGS Taiwan Ltd. Electronics & Communication Laboratory
5F, No.134, Wu Kung Road, Wuku Industrial zone, Taipei County, Taiwan 248, R.O.C.
Telephone: +886 2 2299 3279
Fax: +886 2 2298 0488
Internet: <http://www.tw.sgs.com>
- **Testing Location:**
5F, No.134, Wu Kung Road, Wuku Industrial zone, Taipei County, Taiwan 248, R.O.C.

Details of Applicant:

Applicant's name:	ARESON Technology Corp.
Applicant's address:	11F, No.646, Sec.5, Chongsin Rd., San Chung Dist., New Taipei City 241, Taiwan (R.O.C)
Contact person:	Kevin Hsu
Telephone:	2999-0505#321
Fax:	2999-0606
E-mail:	Kevin@areson.com.tw

Details of Manufacturer:

Manufacturer's name:	Dong Guan Hong Sheng Electronic Corp.
Manufacturer's address:	No.28, Sha-Wu S.Ave., Sha-Wu, Tang-Xia, Dong Guan Guan-Dong China 523725
Contact person:	Kevin Hsu
Telephone:	2999-0505
Fax:	2999-0606
E-mail:	Kevin@areson.com.tw

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Details of EUT:

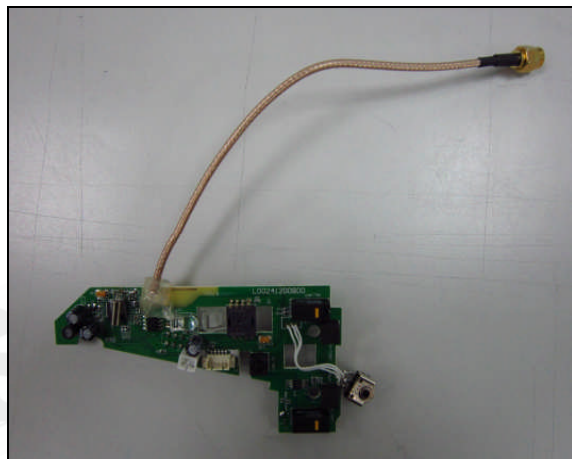
Device Description:	2.4GHz Wireless mouse
Device Manufacturer:	ARESON Technology Corp.
Device Model:	Meadline type antenna4
Hardware Version:	Ver00
Software Version:	Version430D
IMEI:	N/A
FCC ID:	N/A
Frequency Range:	2400MHz ~ 2500MHz Step size: 10MHz
Antenna Type:	Internal antenna

Duration of Tests:

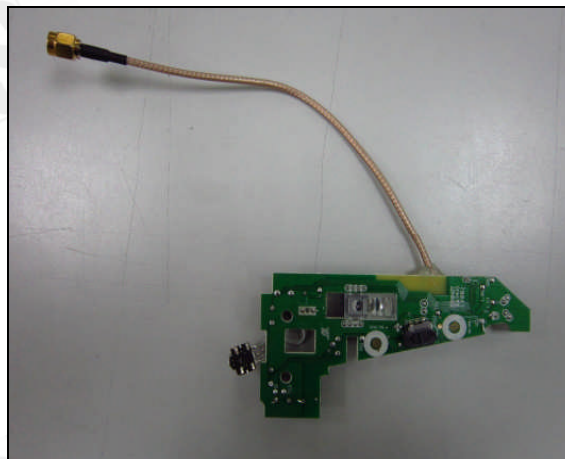
Sample Receive Date:	2012-04-26
Test Starting Date:	2012-04-26
Test Ending Date:	2012-04-26
Report Issued Date:	2012-04-27

Photographs of EUT:

Front View



Back View



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Equipment Summary Sheet

Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Universal Radio Communication tester	Rohde & Schwarz	CMU200	2012/04/09	2013/04/09
Network Analyzer	Agilent	E5071C	2012/01/11	2013/01/11
Dual Ridge Horn	Satimo	SH800	2012/03/22	2013/03/22
Stargate-24 probe array	Satimo	Stargate-24	2011/08/20	2012/08/20
Measurement software	Satimo	SPM 1.3.2.1	N/A	N/A

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Antenna Gain and Efficiency

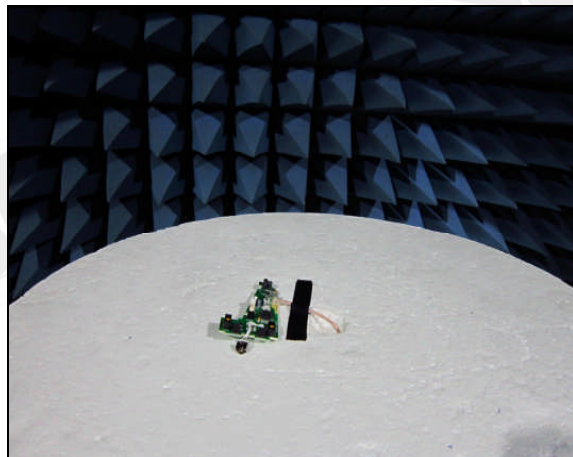
Wireless mouse			
Frequency	Peak. dBi	Efficiency	Average . dBi
2400000000	-0.10	30.37%	-5.18
2410000000	-0.14	30.04%	-5.22
2420000000	-0.11	30.27%	-5.19
2430000000	-0.04	30.36%	-5.18
2440000000	-0.08	30.22%	-5.20
2450000000	0.01	30.08%	-5.22
2460000000	-0.05	30.46%	-5.16
2470000000	-0.16	29.49%	-5.30
2480000000	-0.15	29.36%	-5.32
2490000000	-0.09	29.44%	-5.31
2500000000	-0.09	28.90%	-5.39

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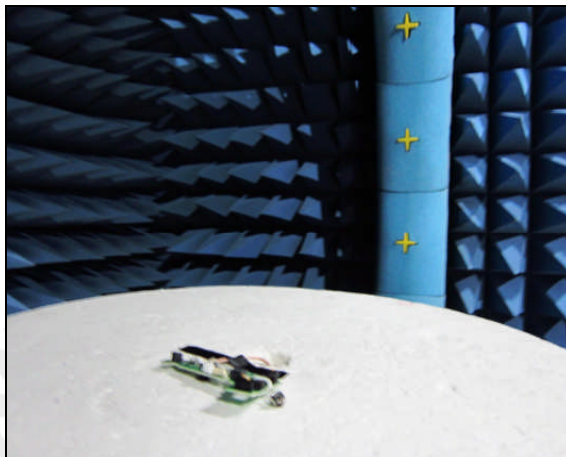
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Free Space - Front View



Free Space - Side View



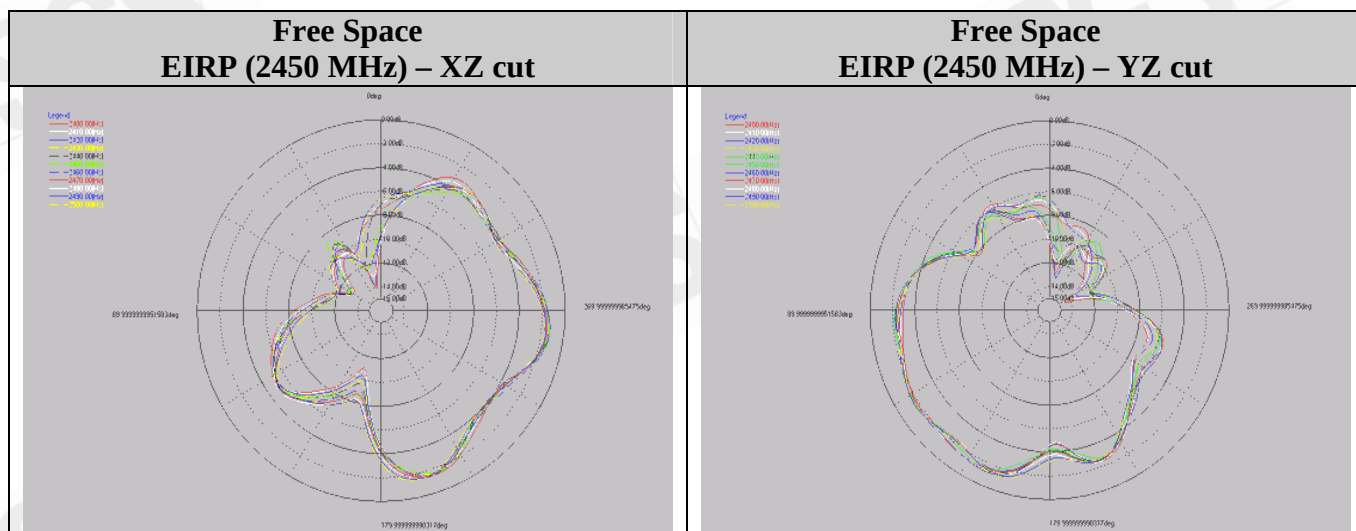
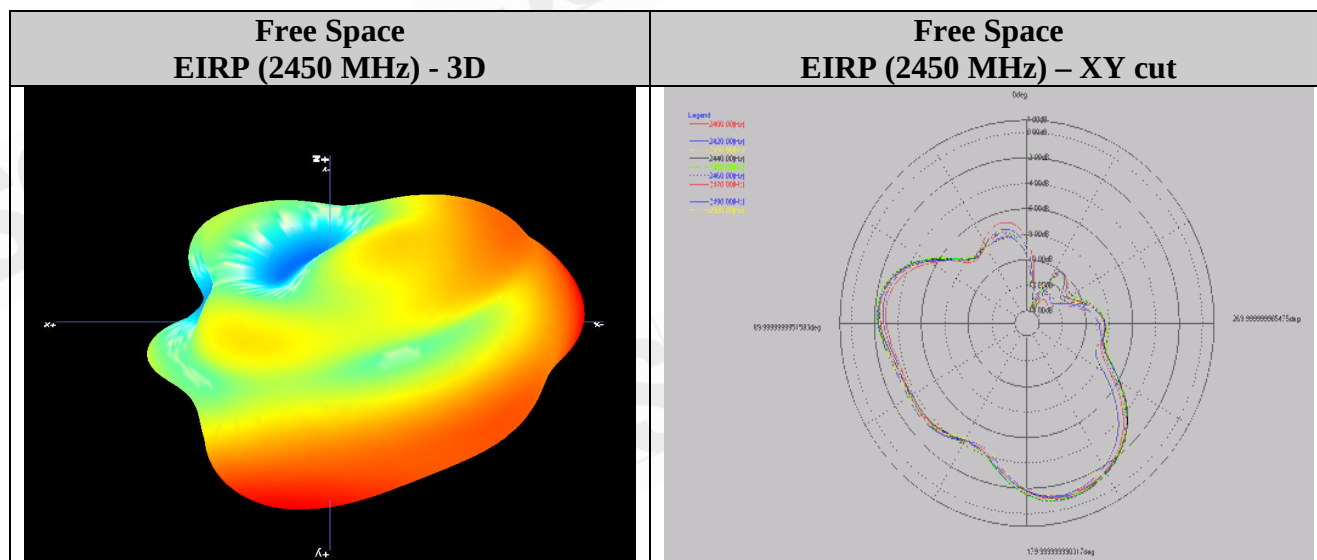
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Antenna 3D Plot Matrix

All plots in this section show the total EIRP ($EIRP_{\theta} + EIRP_{\phi}$) with the +x-axis pointing out of the page, +y-axis pointing right, and +z-axis pointing up.



End of Report

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