

Antenna Test Report

Report No.: E4/2014/C0003

Test Plan: Non-compliance with ISO17025

**Applicant Name: Q-LITE CO., LTD,
Manufacturer Name: Q-LITE CO., LTD,**

**Product Name: ION700 RT
Model Number: 503062**

**Measurements performed at
SGS Taiwan Ltd.
Taipei, Taiwan**

Issued Date: December 05, 2014

	Name	Date & Signature	Distribution
Prepared by:	Shawn Yen Engineer	 December 05, 2014	
Approved by:	Dragon Wu, Supervisor	 December 05, 2014	

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Measurement System Information

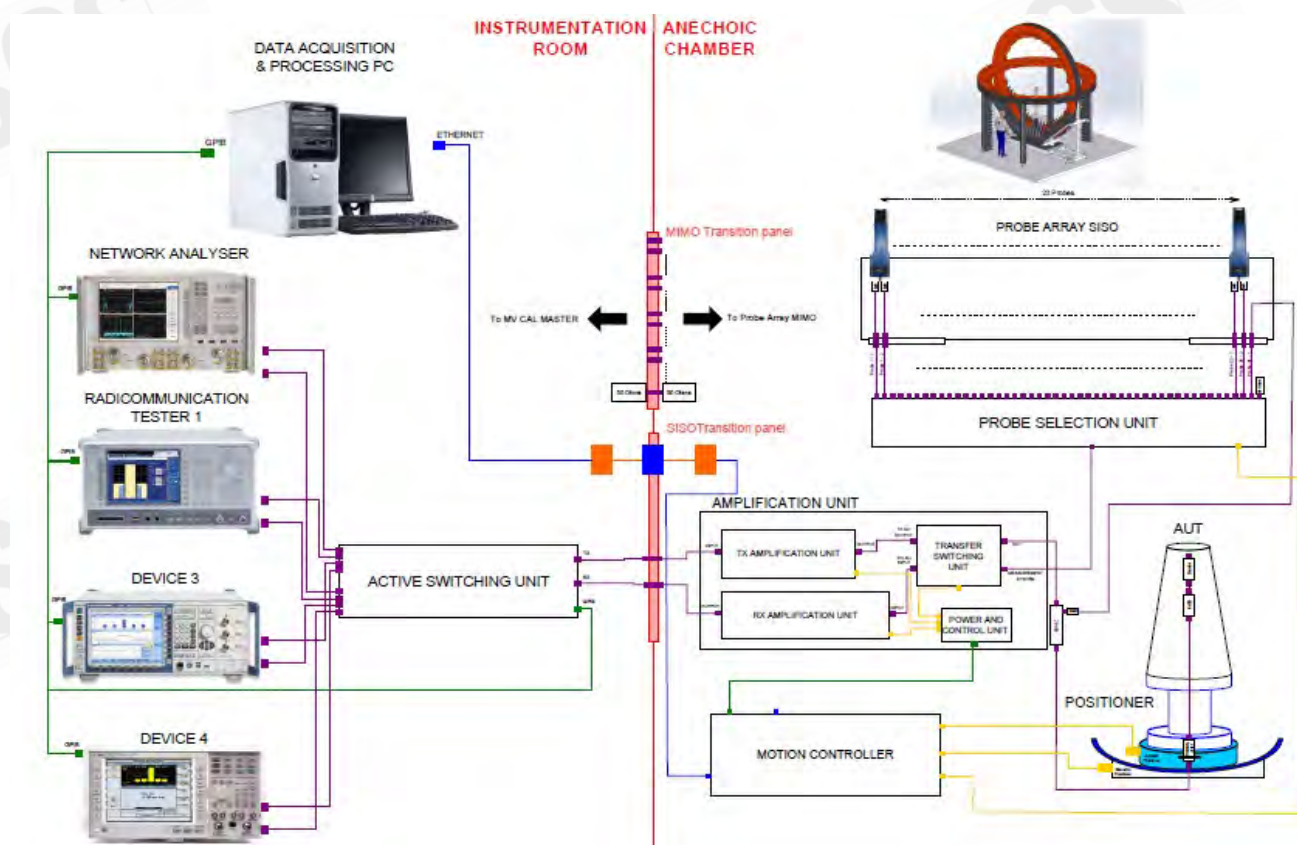
General Information

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-L)
- Base Station Simulator: Anritsu MT8820C (or R&S CMU200)
- Network Analyzer: Agilent E5071C



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台灣檢驗科技股份有限公司

No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279

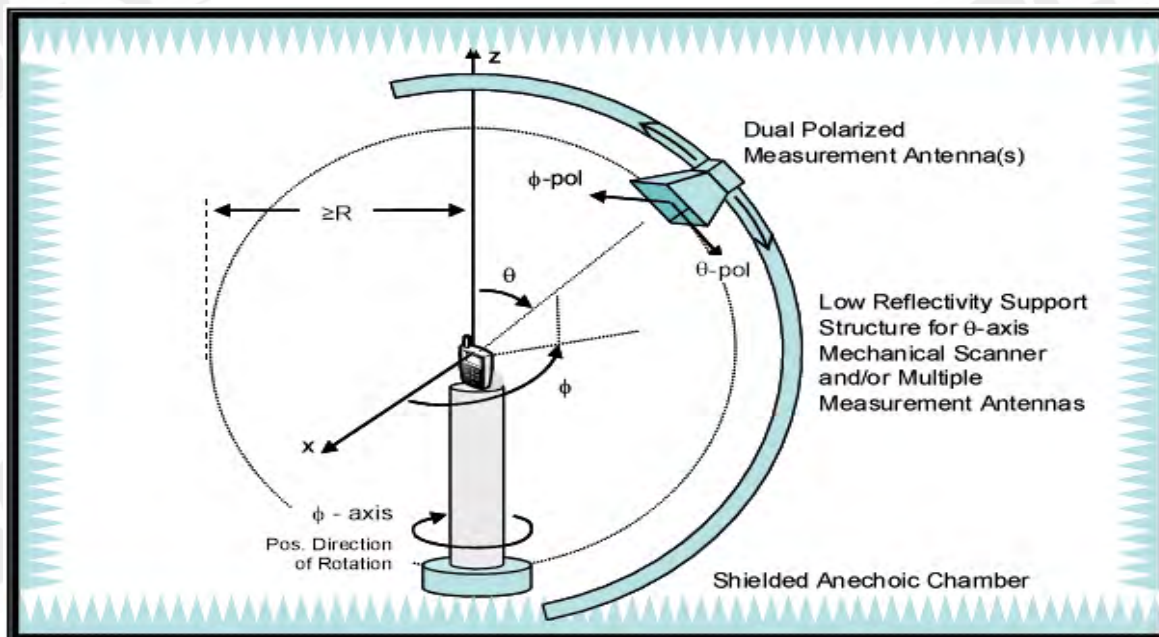
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Measurements are performed in a Satimo **Stargate-24-L** with the StarAct interface for a base station simulator. The **Stargate-24-L** has 23 probe antennas mounted with equal spacing on a circular arch. Electronic switching of the probe antennas 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 Satimo Stargate-24-L:



Instruments View



Inside View



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f (886-2) 2298-0488

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Testing Laboratory: Identification of the Responsible Test Laboratory.

- **OTA Laboratory:**
SGS Taiwan Ltd. Electronics & Communication 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., Guishan Township, Taoyuan County, Taiwan 33383.

Details of Applicant:

Applicant's name:	Q-LITE CO., LTD,
Applicant's address:	NO.223, Xiangshun 2nd Rd., Beitun District Taichung City(406), Taiwan R.O.C
Contact person:	Paul Chen, General manager
Telephone:	886-4-24392430
Fax:	886-4-24391707
E-mail:	paul@q-lite.com.tw

Details of Manufacturer:

Manufacturer's name:	Q-LITE CO., LTD,
Manufacturer's address:	NO.223, Xiangshun 2nd Rd., Beitun District Taichung City(406), Taiwan R.O.C
Contact person:	Paul Chen, General manager
Telephone:	886-4-24392430
Fax:	886-4-24391707
E-mail:	paul@q-lite.com.tw

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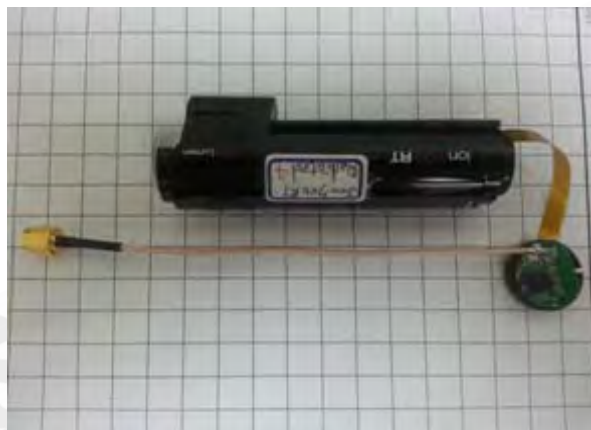
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Details of EUT:

Device Description:	ION700 RT
Device Manufacturer:	Q-LITE CO., LTD,
Device Model:	503062
Hardware Version:	4
Software Version:	0
IMEI:	N/A
FCC ID:	N/A
Frequency Range:	2400MHz ~ 2500MHz Step size: 10MHz
Antenna Type:	Internal antenna

Duration of Tests:

Sample Receive Date:	2014-12-03
Test Starting Date:	2014-12-03
Test Ending Date:	2014-12-03
Report Issued Date:	2014-12-05

Photographs of EUT:**Front View****Back View**

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List of Equipment

Equipment Summary Sheet

Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Universal Radio Communication tester	Anritsu	MT8820C	2014/10/06	2015/10/06
Network Analyzer	Agilent	E5071C	2014/05/23	2015/05/23
Dual Ridge Horn	Satimo	SH600	2014/02/10	2015/02/10
Stargate-24-L probe array	Satimo	Stargate-24-L	2013/12/16	2014/12/16
Measurement software	Satimo	SPM V1.3	N/A	N/A

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Antenna Gain and Efficiency

503062			
Freq(MHz)	Peak. dBi	Efficiency	Average . dBi
2400.00	2.10	40.07%	-3.97
2410.00	2.17	39.08%	-4.08
2420.00	2.25	39.76%	-4.01
2430.00	2.15	39.71%	-4.01
2440.00	2.09	40.81%	-3.89
2450.00	2.10	40.40%	-3.94
2460.00	2.34	41.29%	-3.84
2470.00	2.41	41.36%	-3.83
2480.00	2.42	42.14%	-3.75
2490.00	2.16	40.70%	-3.90
2500.00	1.88	40.00%	-3.98

Test Setup

Free Space - Front View



Free Space - Side View



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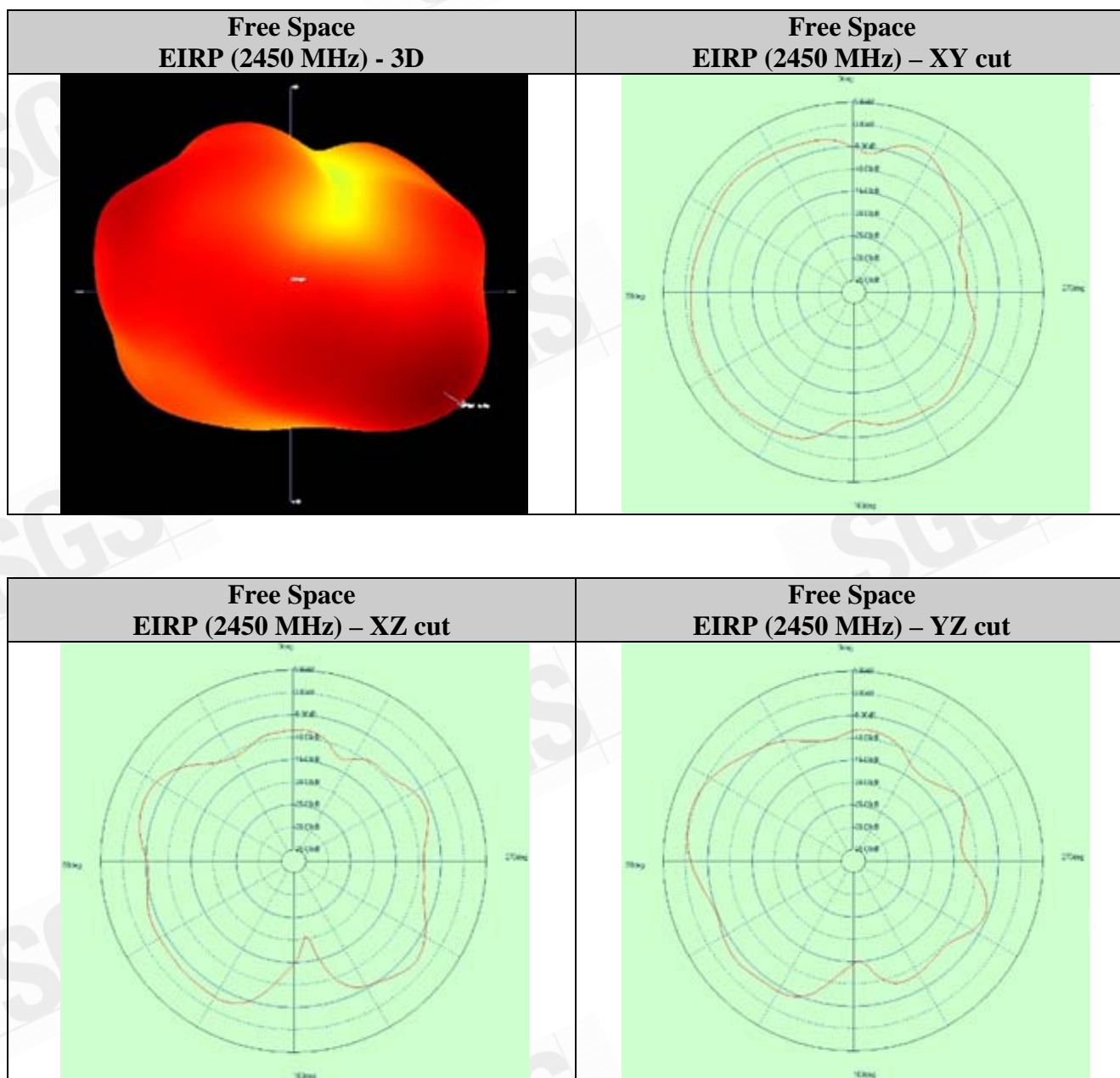
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Antenna 3D Plot Matrix

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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