

Measurement System Information

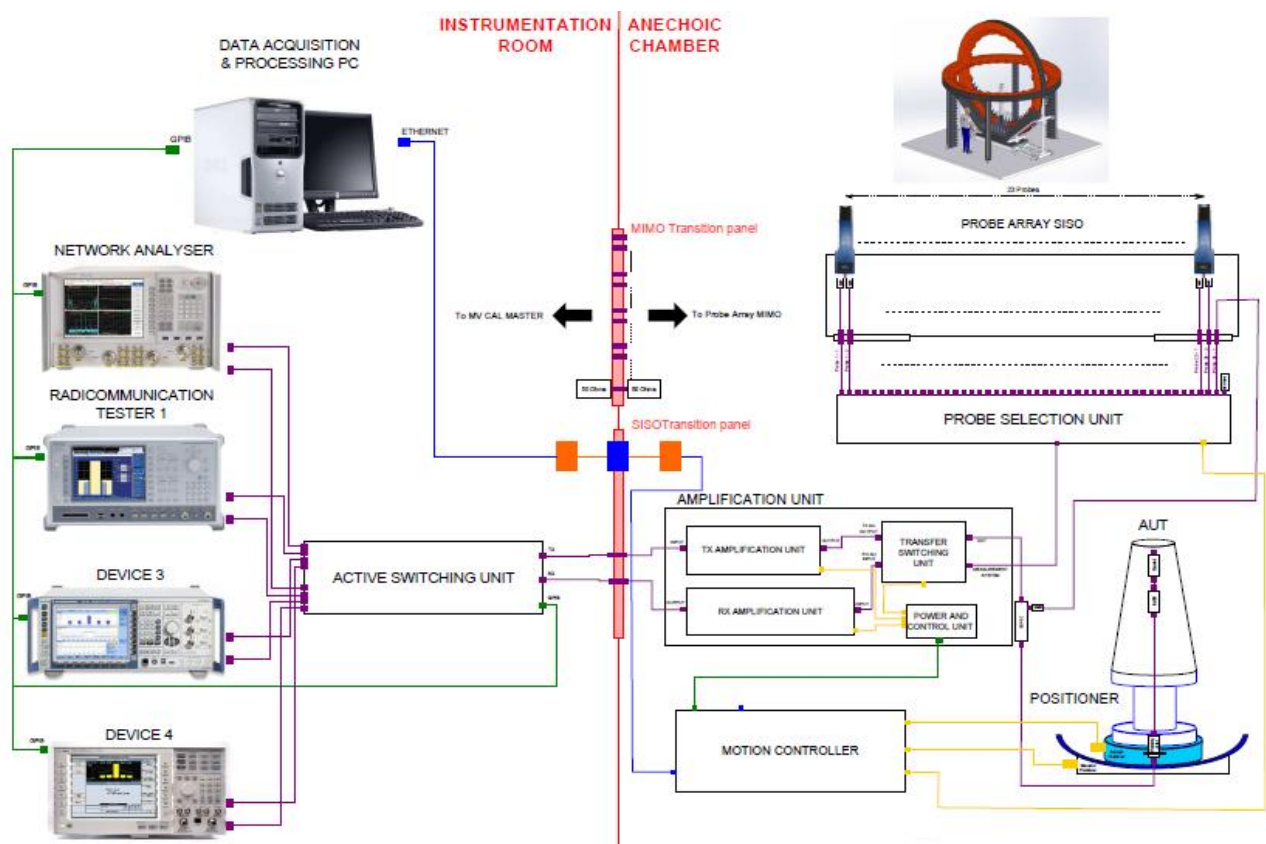
General Information

Testing Condition:

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

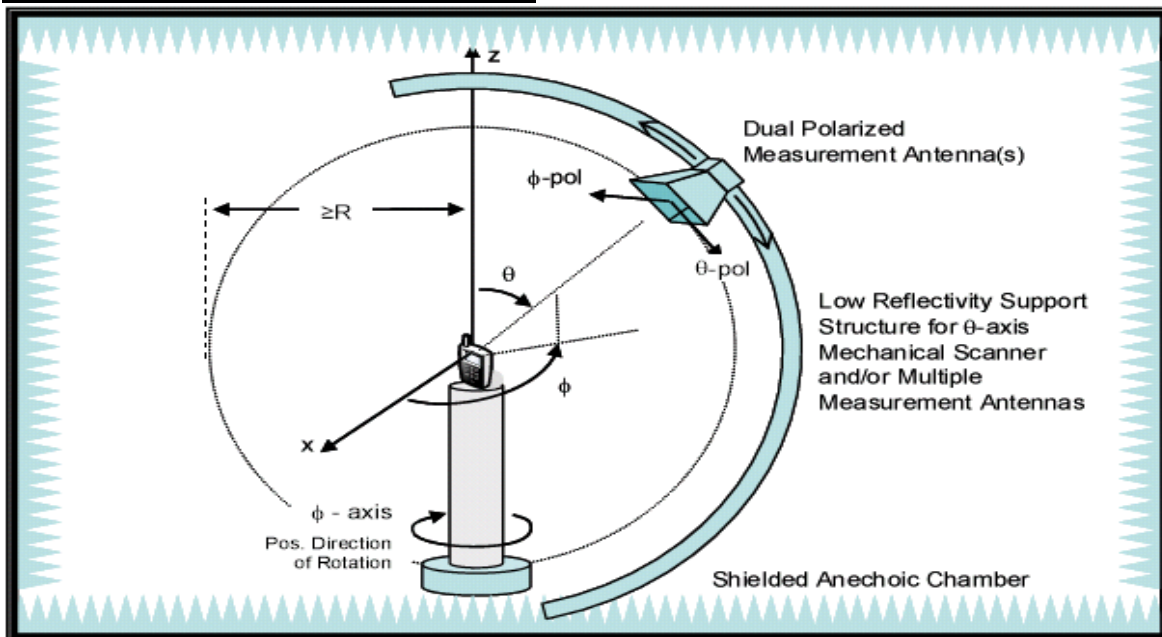
Measurement Facility:

- 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



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.

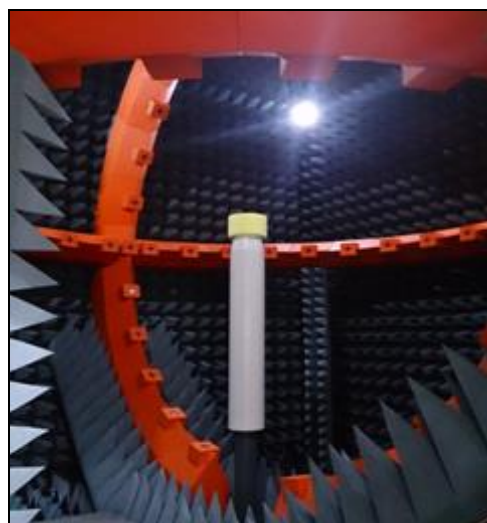
Typical Setup for MVG Stargate-24-L:



Instruments View



Inside View



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

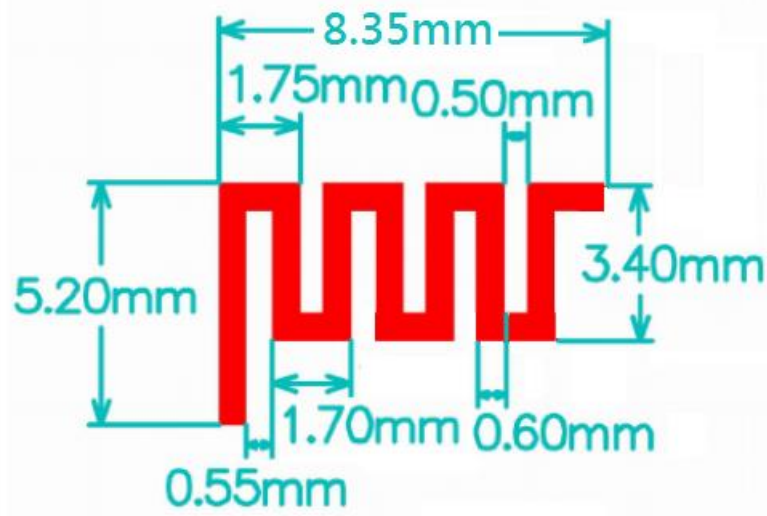
Fax: +886 2 2298 0488

Internet: <http://www.tw.sgs.com>

- **Testing Location:**

No. 2, Keji 1st Rd., Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan 33383.

Antenna Size

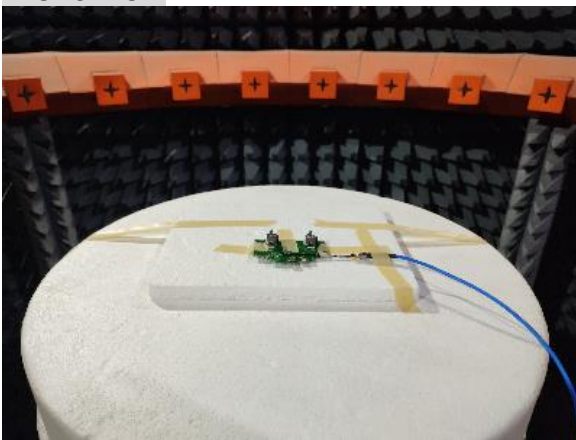


Antenna Gain and Efficiency

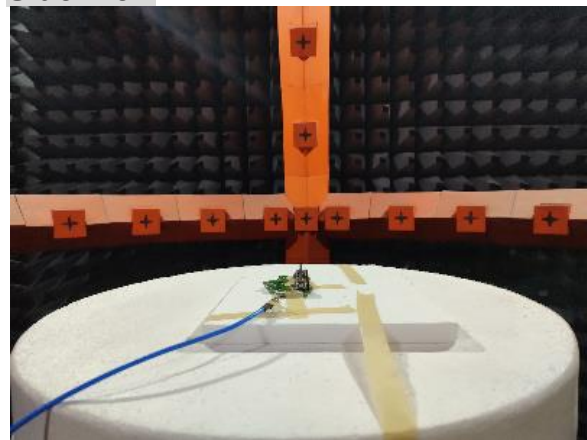
Freq(MHz)	Peak Gain. dBi	Efficiency	Average . dBi
2400.00	-1.73	19.03%	-7.21
2410.00	-1.84	19.16%	-7.18
2420.00	-1.74	19.74%	-7.05
2430.00	-1.16	22.68%	-6.44
2440.00	-0.68	25.10%	-6.00
2450.00	-0.53	27.35%	-5.63
2460.00	-0.58	28.68%	-5.42
2470.00	-0.17	31.61%	-5.00
2480.00	0.04	32.16%	-4.93
2490.00	0.03	31.82%	-4.97
2500.00	0.22	32.71%	-4.85

Test Setup

Front View

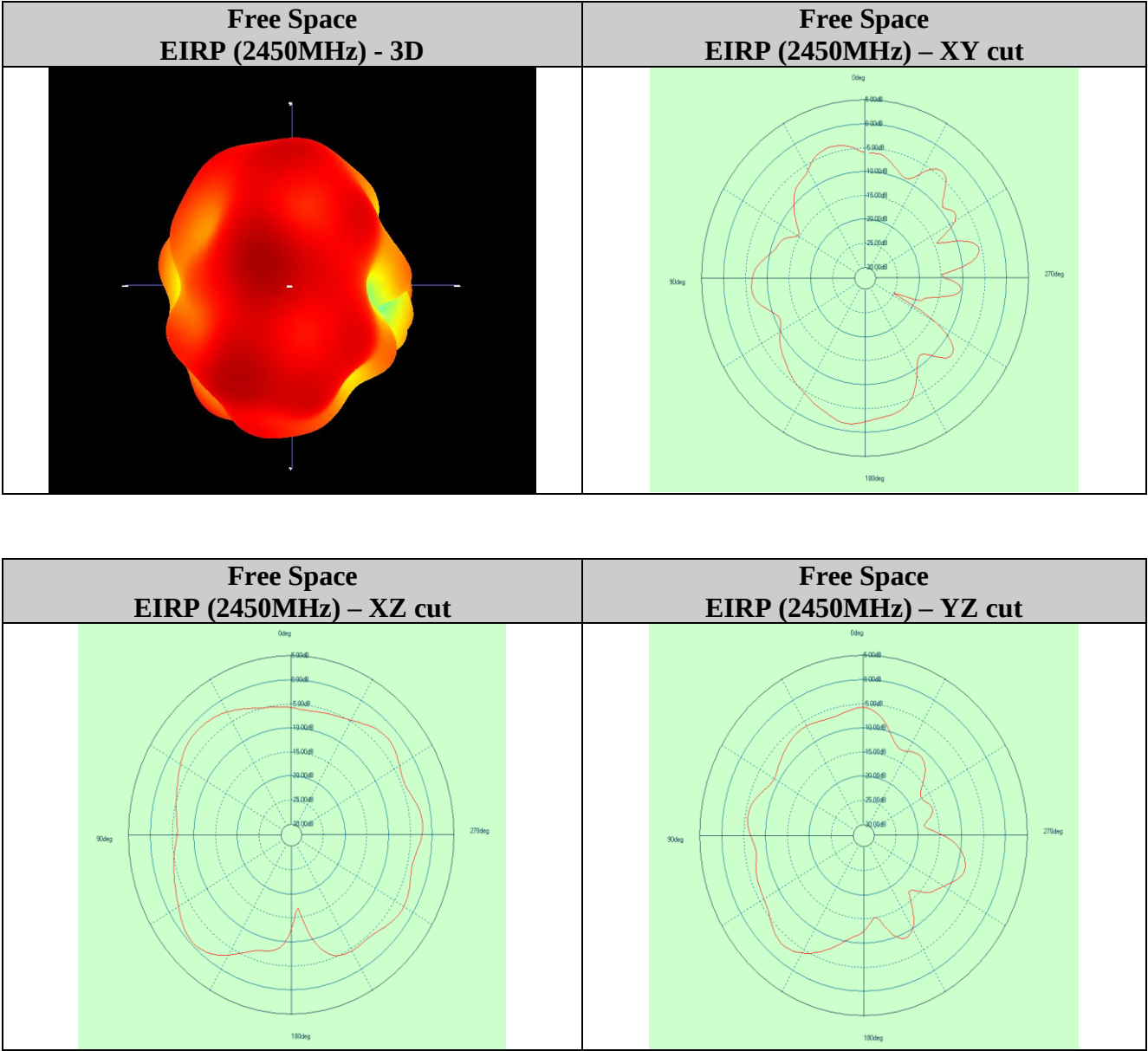


Side View



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