

Antenna Test Report

Report No.: EO/2011/90032

Test Plan: Non-compliance with ISO17025

Applicant Name: Meiloon Industrial Co., Ltd.

**Manufacturer Name: Meiloon Acoustic Equipments
(Dongguan) Co., Ltd.**

Product Name: Bluetooth Speaker

Model Number: RF-TRSPIPAD

Measurements performed at

SGS Taiwan Ltd.

Taipei, Taiwan

Issued Date: September 26, 2011

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Measurement System Information

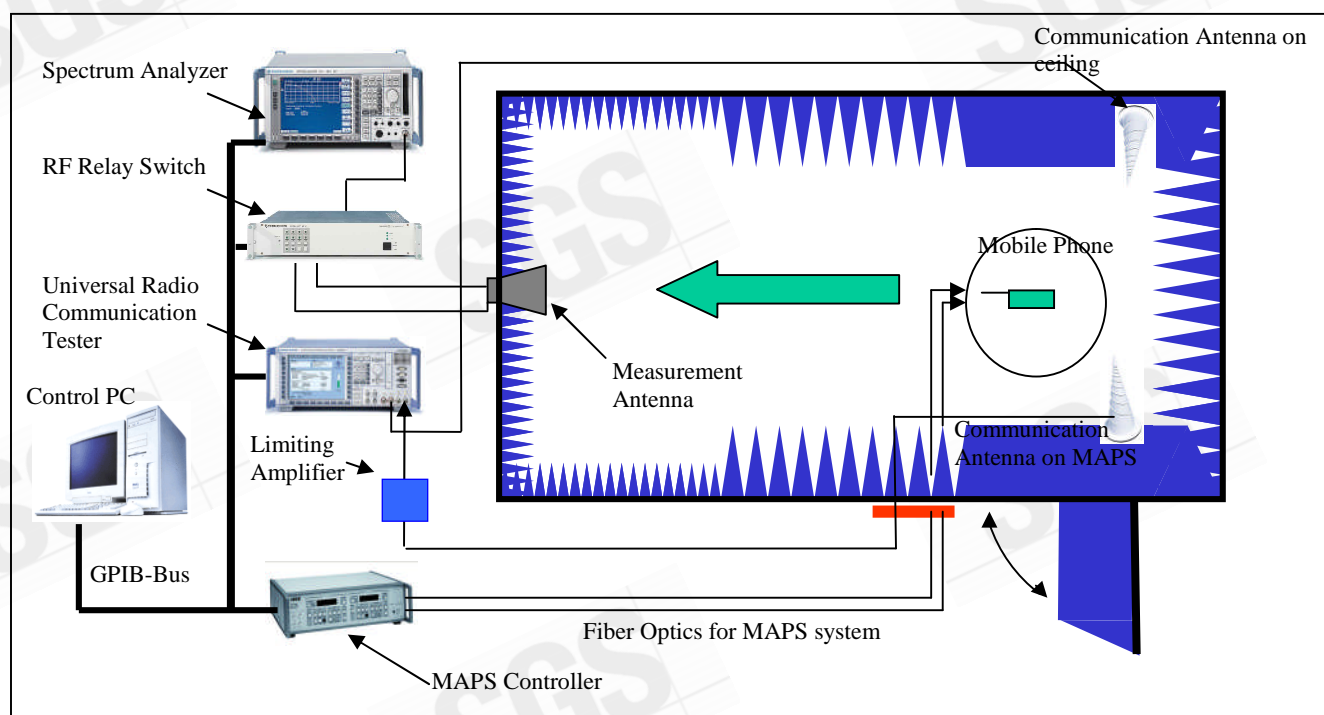
General Information

Testing Condition:

- Temperature: $25 \pm 3^{\circ}\text{C}$
- Humidity: $< 80\%$

Measurement Facility:

- Measurement Chamber: ETS-Lindgren 3D fully anechoic chamber and its measuring system (AMS-8500)
- Base Station Simulator: Agilent E5515C (or R&S CMU200)
- ETS-Lindgren EMCO-2090 Auxiliary Ports RF Relay Switches
- Spectrum Analyzer: Agilent E4405B
- Network Analyzer: Agilent E5071C

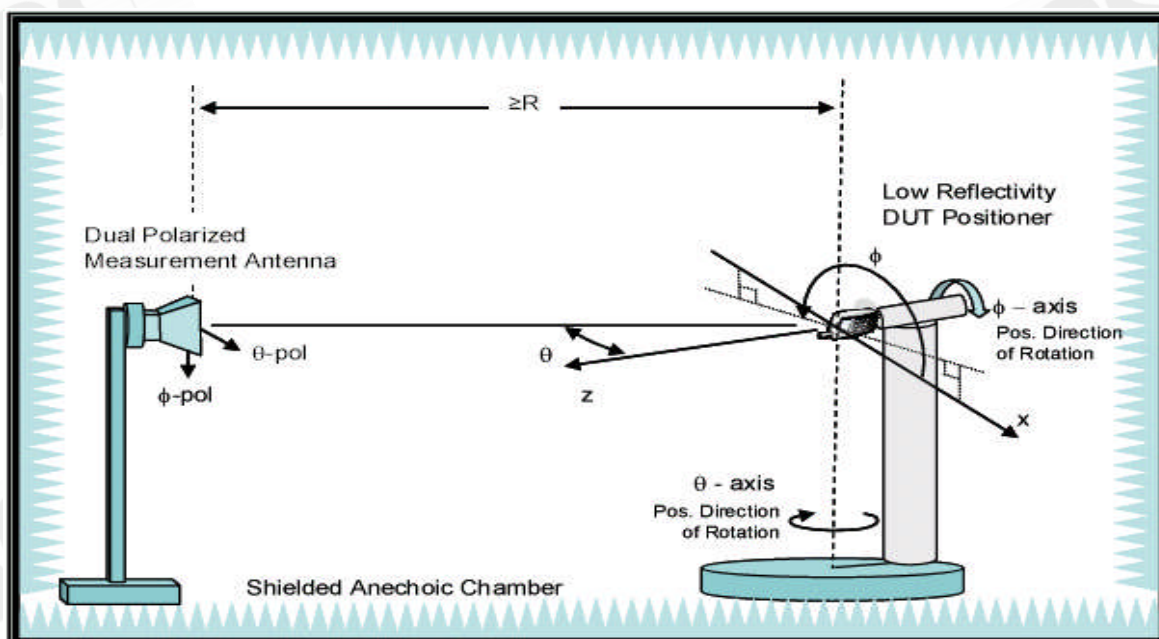


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Measurements are performed in a ETS-Lindgren **AMS-8500** 3D fully anechoic test system. The test system includes a high-performance RF-shielded, rectangular anechoic chamber, a Multi-Axis Positioning System (MAPS), and *EMQuest™* *EMQ-100* data acquisition and analysis software. The geometry of the setup is specified below for reference.

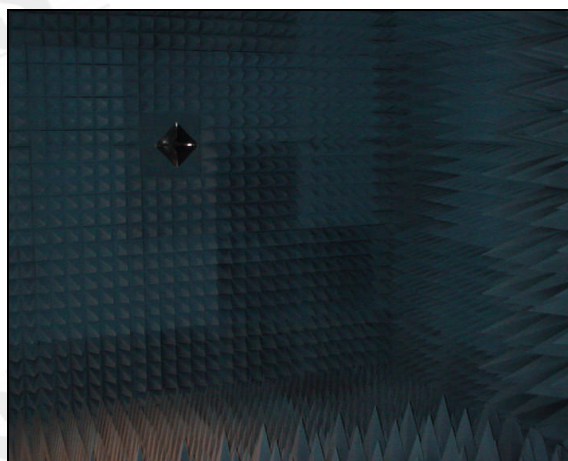
Typical Setup for ETS-Lindgren AMS-8500:



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>**Details of Applicant:**

Applicant's name:	Meiloon Industrial Co., Ltd.
Applicant's address:	No. 77, Lane 1775, Chuen-Ryh Road, Taoyuan City, Taiwan
Contact person:	Janice Yu, Deputy Manager
Telephone:	+886-3-3261611
Fax:	+886-3-3553556
E-mail:	janice.yu@meiloon.com

Details of Manufacturer:

Manufacturer's name:	Meiloon Acoustic Equipments (Dongguan) Co., LTD.
Manufacturer's address:	Feng Huang Gang Ind Estate, Tangxia Dongguan No.77, Yuanlin Road, Guangdong Province, China
Contact person:	N/A
Telephone:	+86 769 8685 6288
Fax:	+86 769 8685 6299
E-mail:	N/A

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Details of EUT:

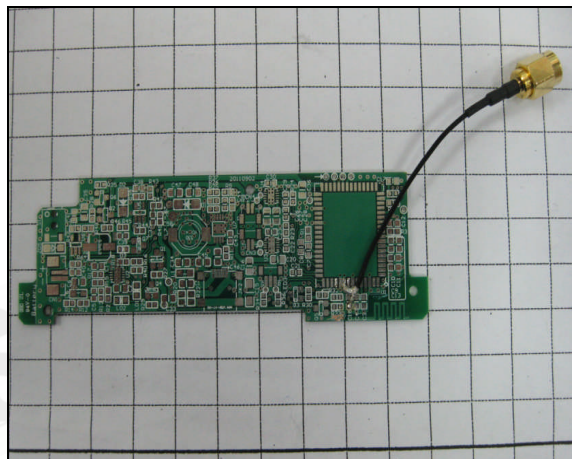
Device Description:	Bluetooth Speaker
Device Manufacturer:	Meiloon Industrial Co., Ltd.
Device Model:	RF-TRSPIPAD
Hardware Version:	NF2301
Software Version:	H17212-V135R11
IMEI:	N/A
FCC ID:	N/A
Frequency Range:	2400MHz ~ 2500MHz Step size: 10MHz
Antenna Type:	Internal antenna

Duration of Tests:

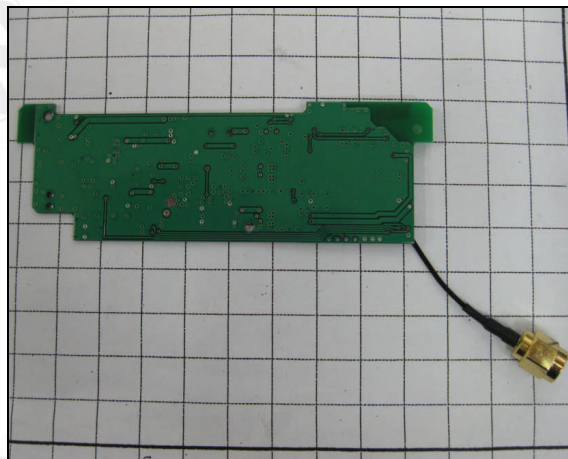
Sample Receive Date:	2011-09-26
Test Starting Date:	2011-09-26
Test Ending Date:	2011-09-26
Report Issued Date:	2011-09-26

Photographs of EUT:

Front View



Back View



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Antenna Gain and Efficiency

Test Results											
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-5.03	-4.74	-4.42	-4.17	-3.89	-3.68	-3.45	-3.15	-2.87	-2.65	-2.58
Peak EIRP (dBm)	-2.17	-1.84	-1.41	-0.88	-0.38	0.03	0.44	0.93	1.40	1.80	2.03
Directivity (dBi)	2.85	2.90	3.00	3.29	3.52	3.71	3.89	4.08	4.27	4.45	4.60
Efficiency (dB)	-5.03	-4.74	-4.42	-4.17	-3.89	-3.68	-3.45	-3.15	-2.87	-2.65	-2.58
Efficiency (%)	31.43	33.57	36.16	38.26	40.81	42.87	45.19	48.41	51.67	54.34	55.23
Gain (dBi)	-2.17	-1.84	-1.41	-0.88	-0.38	0.03	0.44	0.93	1.40	1.80	2.03
IIHPRP \pm Pi/4 (dBm)	-5.86	-5.58	-5.26	-5.02	-4.75	-4.54	-4.32	-4.02	-3.75	-3.54	-3.48
IIHPRP \pm Pi/6 (dBm)	-7.08	-6.80	-6.49	-6.26	-5.99	-5.78	-5.55	-5.26	-4.98	-4.77	-4.71
IIHPRP \pm Pi/8 (dBm)	-8.15	-7.87	-7.57	-7.33	-7.07	-6.87	-6.64	-6.35	-6.07	-5.85	-5.79
Upper Hem. PRP (dBm)	-8.11	-7.90	-7.65	-7.49	-7.30	-7.17	-7.01	-6.78	-6.55	-6.39	-6.37
Lower Hem. PRP (dBm)	-7.96	-7.61	-7.21	-6.89	-6.54	-6.26	-5.97	-5.62	-5.29	-5.03	-4.93

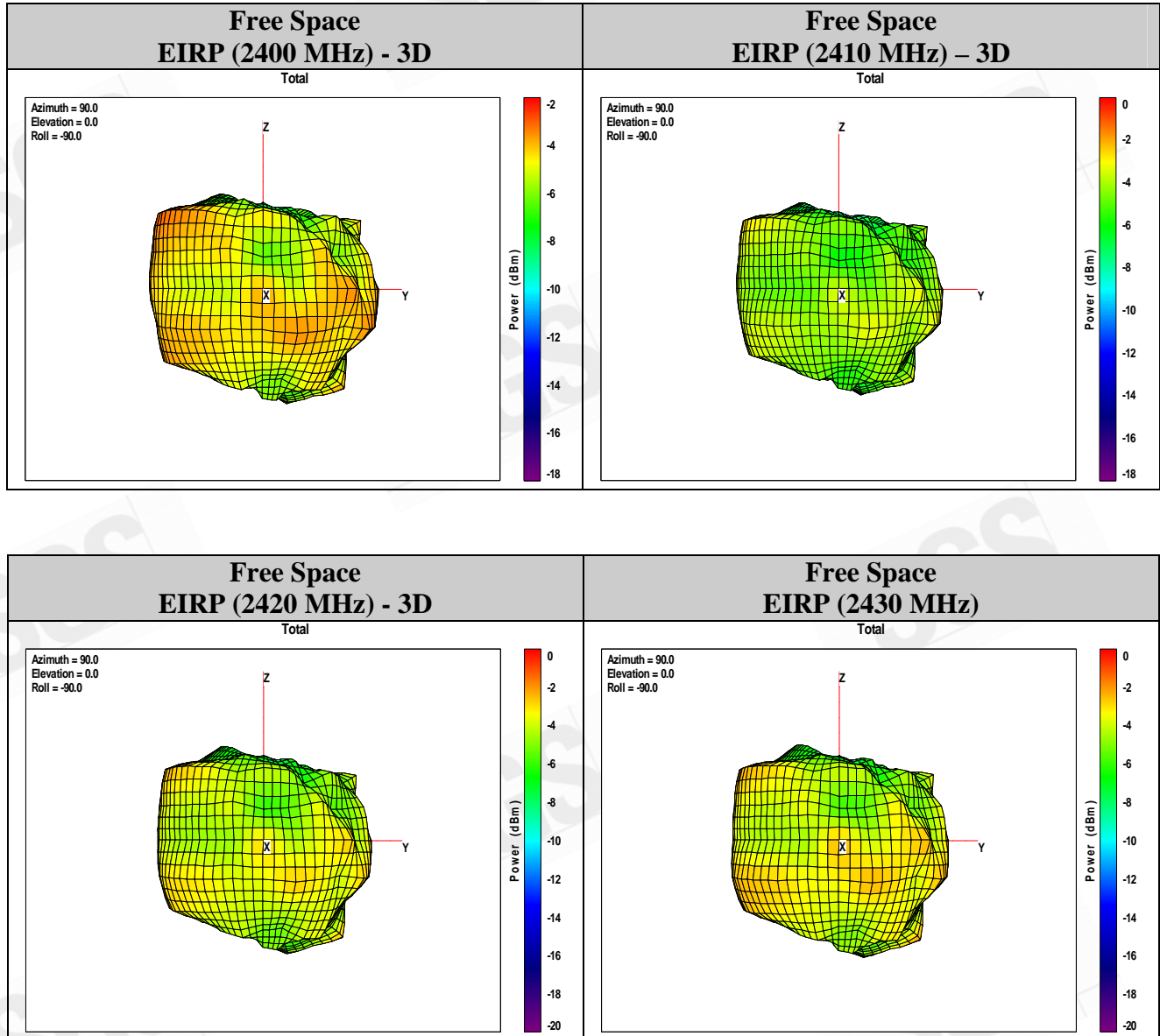
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Antenna 3D Plot Matrix

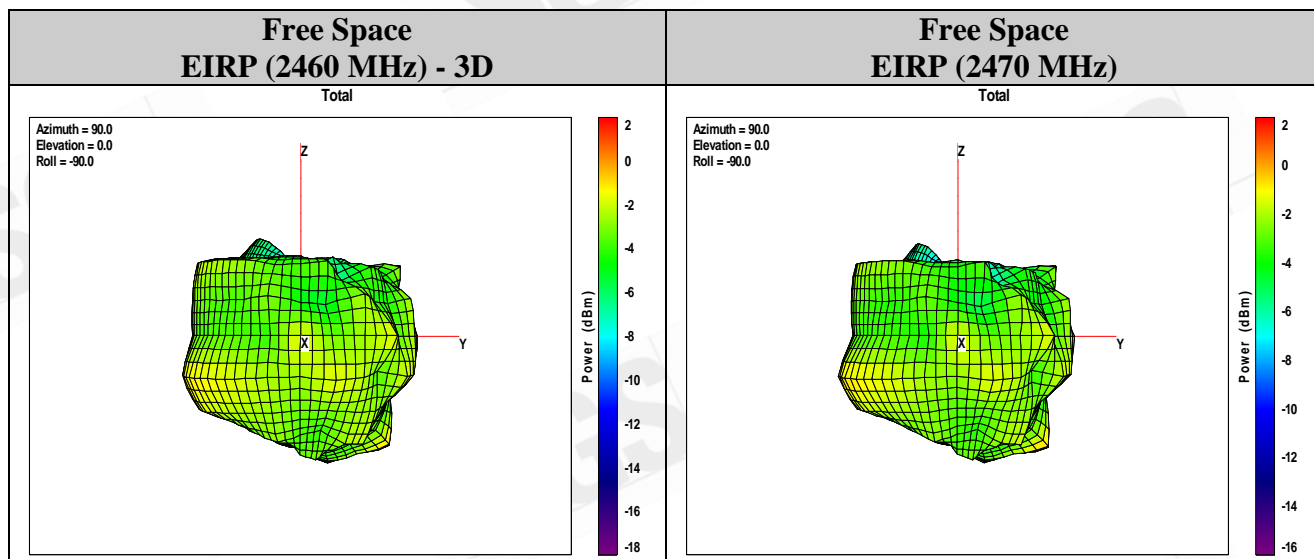
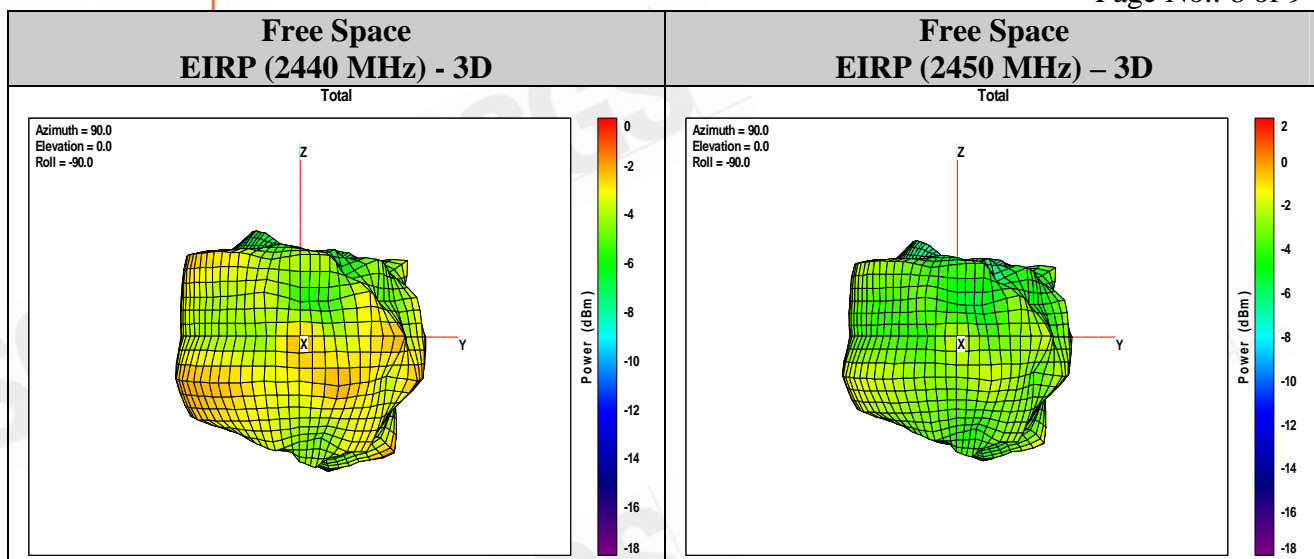
All plots in this section show the total EIRP ($EIRP_{\theta} + EIRP_{\phi}$) with the +x-axis pointing out of the page, +y-axis pointing right, and +z-axis pointing up.



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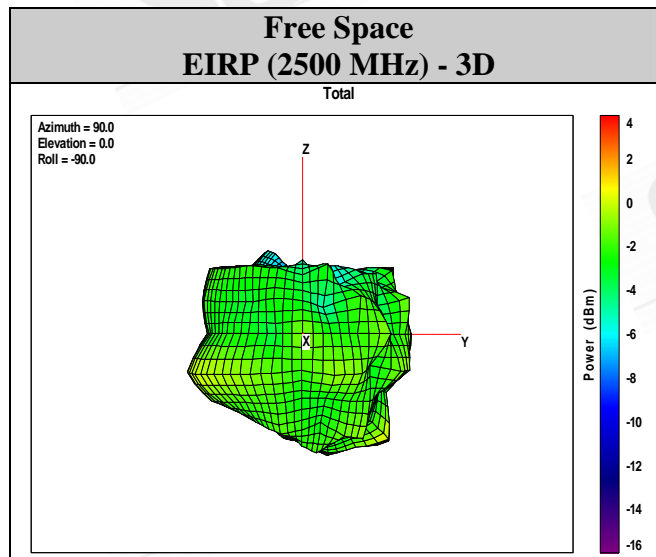
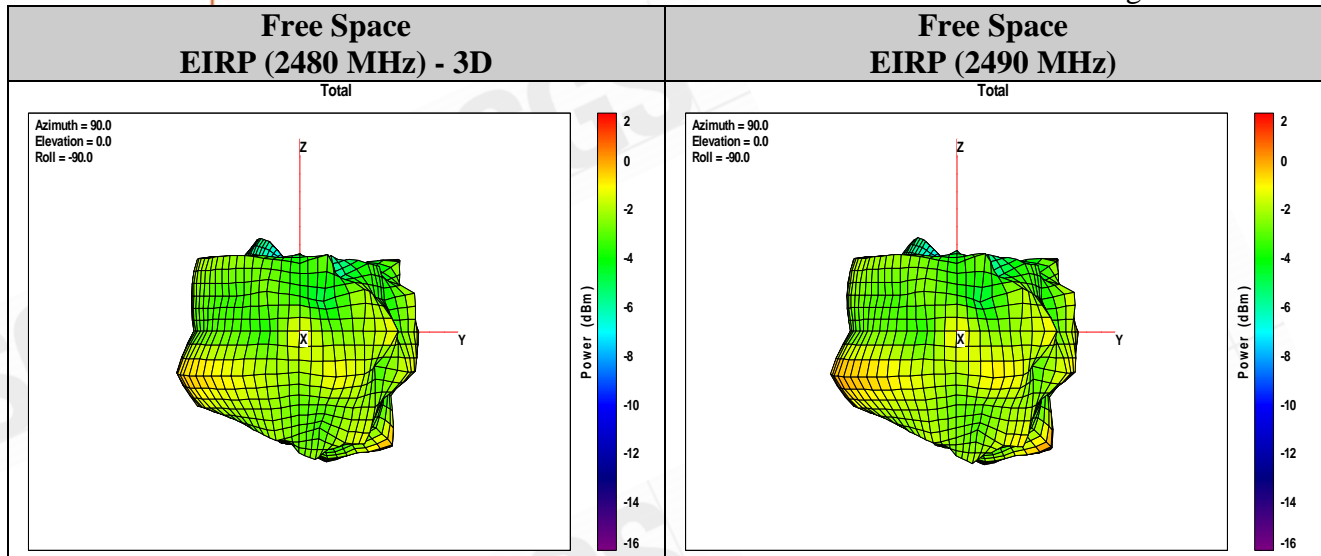
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End of Report

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