

TEST REPORT

Application No.: GZEM2601000080HS

Applicant: Guangdong Galanz Enterprises Co., Ltd.

Address of Applicant: No. 25 South Ronggui Avenue, Ronggui Street, Shunde District, Foshan City, Guangdong Province, China

Manufacturer: Guangdong Galanz Appliances Manufacturing Co., Ltd.

Address of Manufacturer: No. 3, East Xingpu Avenue, Maxin Industrial Zone, Huangpu Town, Zhongshan City, Guangdong Province, China

Factory: Guangdong Galanz Appliances Manufacturing Co., Ltd.

Address of Factory: No. 3, East Xingpu Avenue, Maxin Industrial Zone, Huangpu Town, Zhongshan City, Guangdong Province, China

Product Name: Microwave Oven

Model No.: D90D23ASPRIII-W7(L2), MS8636127995-01, MS*****-0* (*=represent number) ♣

♣ Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.

Trade Mark: Galanz, MAINSTAYS

Standard(s) : 47 CFR Part 18

Date of Receipt: 2026-01-05

Date of Test: 2026-01-12 to 2026-01-28

Date of Issue: 2026-02-09

Test Result:	Pass*
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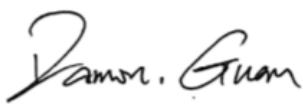
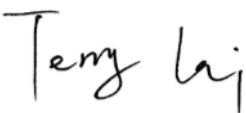
* In the configuration tested, the EUT complied with the standards specified above.



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Revision Record			
Version	Report No.	Date	Remark
01	GZEM260100008002	2026-02-09	Original

Authorized for issue by:			
			
		Damon Guan/Project Engineer	
Approved By			
		Terry Lai/Reviewer	



2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 18	FCC/OST MP-5:1986	18.307	Pass
Radiated Emissions (Magnetic field Strength)(9kHz-30MHz)		FCC/OST MP-5:1986	18.305(b)	Pass
Radiated Emissions (30MHz-1GHz)		FCC/OST MP-5:1986	18.305(b)	Pass
Radiated Emissions (above 1GHz)		FCC/OST MP-5:1986	18.305(b)	Pass
Output Power Measurement		FCC OST/MP-5:1986	FCC OST/MP-5:1986 Clause 4.3	Pass
Operating Frequency Measurement		FCC OST/MP-5:1986	18.301	Pass
Radiation Hazard Test		FCC OST/MP-5:1986	1 mW/cm ²	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

♣Declaration of EUT Family Grouping:

Model No.: D90D23ASPRIII-W7(L2), MS8636127995-01, MS*****-0* (*=represent number)

According to the declaration from the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference being the model name and trademark.

The trade mark for model D90D23ASPRIII-W7(L2) is Galanz.

The trade mark for models MS8636127995-01 and MS*****-0* (*=represent number) is MAINSTAYS.

Therefore only one model **D90D23ASPRIII-W7(L2)** was tested in this report.



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SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch EMC/RF/Power EEC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

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4 General Information

4.1 Details of E.U.T.

Power supply: AC 120V 60Hz

Test voltage: AC 120V 60Hz

Microwave frequency: 2450MHz±50MHz

Cable(s): About 1.0m x 3 wires unscreened AC mains cable.

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

1000mL of water in the beaker for power output and frequency measurement.

One of 700 and the other of 300mL of water for second and third harmonic radiation measurement.

700mL of water for all other measurement

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at Mains Terminals (150kHz-30MHz)	3.13dB (150kHz to 30MHz)
Radiated Emissions (Magnetic field Strength)(9kHz-30MHz)	± 3.12dB
Radiated Emissions (30MHz-1GHz)	4.61dB (30MHz-1GHz):3m; 4.38dB (30MHz-1GHz):10m
Radiated Emissions (above 1GHz)	4.72dB (1GHz-6GHz); 4.94dB (6GHz-18GHz)

Remark:

The U_{lab} (lab Uncertainty) is less than U_{CISPR} (CISPR Uncertainty) or U_{ETSI} (ETSI Uncertainty).

Emission decision rule:

- Compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit, marked as Pass in the report.
- Non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit, marked as Fail in the report.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663

Tel: +86 20 82155555

No tests were sub-contracted.



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SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch EMC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

● SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

● FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

● ISED (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

● VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

● CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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Guangzhou Branch EMC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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5 Equipment List

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Coaxial Cable	HangTianXing	BL03-NMNM-6.00M	EMC0107	2025-08-12	2026-08-11
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	2025-08-14	2028-08-13
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2025-08-13	2026-08-12
EMI Test Receiver (9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2025-11-18	2026-11-17
Test Software E3r	Audix	Ver.6.191211	GZE100-77	N/A	N/A
Artificial Mains Network (LISN)	AFJ Instruments	LT32C	EMC2046	2025-08-12	2026-08-11

Radiated Emissions (Magnetic field Strength)(9kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Amplifier(9k-1000MHz)	SONOMA	310	EMC2237	2025-11-25	2026-11-24
Active Loop Antenna-RED	ETS-Lindgren	6502	EMC2190	2024-04-16	2026-04-15
EMI Test Receiver (1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2229	2025-11-18	2026-11-17
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
966 Anechoic Chamber	Shenzhen C.R.T	CRTSGSSAC966	EMC2230	2025-03-22	2028-03-21
Coaxial Cable	Mirco-COAX UTIFLEX ve	LA2-C125-8000	EMC2239	2025-11-25	2026-11-24

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
966 Anechoic Chamber	Shenzhen C.R.T	CRTSGSSAC966	EMC2230	2025-03-22	2028-03-21
EMI Test Receiver(1Hz-8GHz)	Rohde & Schwarz	ESW8	EMC2229	2025-11-18	2026-11-17
Amplifier(9k-1000MHz)	SONOMA	310	EMC2237	2025-11-25	2026-11-24
Trilog Broadband Antenna (25MHz-2GHz)	Schwarzbeck Mess-Elektronik	VULB 9168	EMC2238	2025-03-24	2027-03-23
Coaxial Cable	Mirco-COAX UTIFLEX ve	LA2-C125-8000	EMC2239	2025-11-25	2026-11-24
Test Software E3	Audix	Ver.6.191211	GZE100-81	N/A	N/A



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Guangzhou Branch (EMC) EEC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

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Radiated Emissions (above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
1-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2025-08-11	2026-08-10
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2025-08-11	2026-08-10
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2024-08-19	2026-08-18
Horn Antenna (1-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2025-05-13	2027-05-12
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2025-08-12	2026-08-11
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2025-08-12	2026-08-11
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2023-12-23	2026-12-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Output Power Measurement					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Digital thermometer	FLUKE	51_2	EMC2200	2025-07-10	2026-07-09
Digital power analyzer for harmonics & flicker testing	EMTEST	DPA 500N	EMC2235	2025-11-18	2026-11-17
Programmable multifunctional ac/dc power source	EMTEST	NETWAVE 7-400	EMC2234	2025-11-18	2026-11-17
NET.Control	EMTEST	Ver 3.2.3	GZE100-80	N/A	N/A

Operating Frequency Measurement					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2025-08-11	2026-08-10
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2024-08-19	2026-08-18
Horn Antenna (1-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2025-05-13	2027-05-12
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2023-12-23	2026-12-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A



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Guangzhou Branch (EMC) EEC Laboratory

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
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Radiation Hazard Test					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Electric Field Probe(100KHz-3GHz)	WANDEL & GOLTERMANN	EMR-20	EMC0907	2025-05-14	2026-05-13

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2025-06-03	2026-06-02



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Guangzhou Branch (CMAA, CNAS, EEC Laboratory)

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中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
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Member of the SGS Group (SGS SA)

6 Emission Test Results

6.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

Test Requirement:	47 CFR Part 18
Test Method:	FCC/OST MP-5:1986
Test Engineer:	Sunny Yang
Limit:	
Frequency Range:	150kHz to 30MHz
0.15 to 0.5 MHz:	66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
0.5 to 5 MHz:	56dB(μV) quasi-peak, 46dB(μV) average
5 to 30 MHz:	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.1.1 E.U.T. Operation

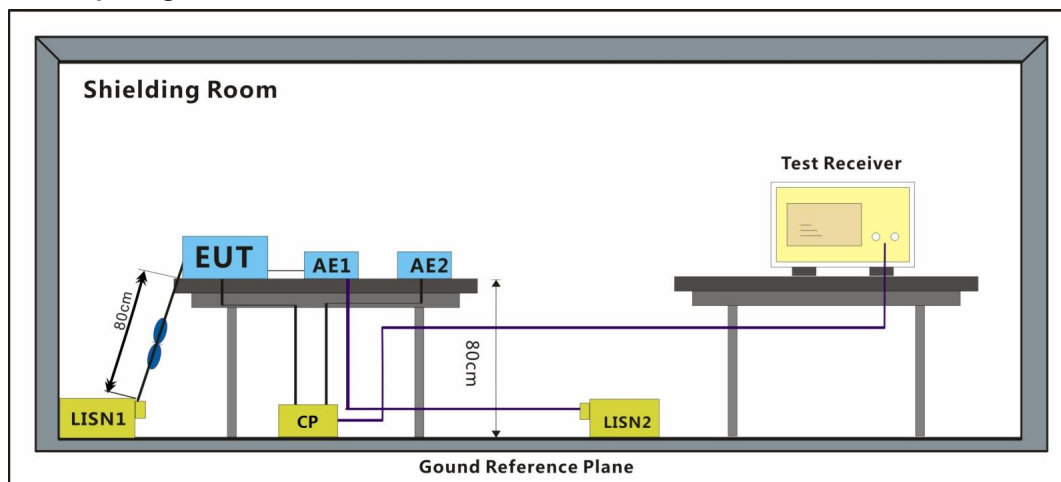
Operating Environment:

Temperature: 22.6 °C Humidity: 45.6 % RH Atmospheric Pressure: 1020 mbar

6.1.1 Test Mode Description

Pre-scan/	Mode	Description
Final test	Code	
Final test	00	Test the EUT in microwave mode with maximum power.
Pre-scan	01	Test the EUT in microwave mode with middle power.
Pre-scan	02	Test the EUT in microwave mode with lowest power.

6.1.2 Test Setup Diagram



6.1.3 Measurement Procedure and Data

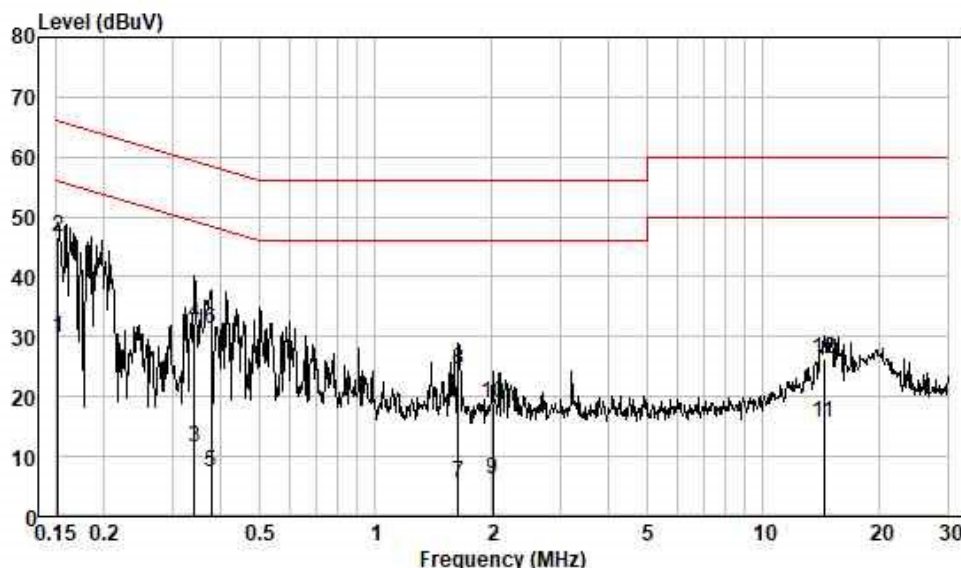
Frequency range: 150KHz-30MHz

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

The red line show in graphic is the limit in standard used in this section.

Measured Level = Read level + Cable Loss + LISN Factor

Test Mode: 00; Line: Live line

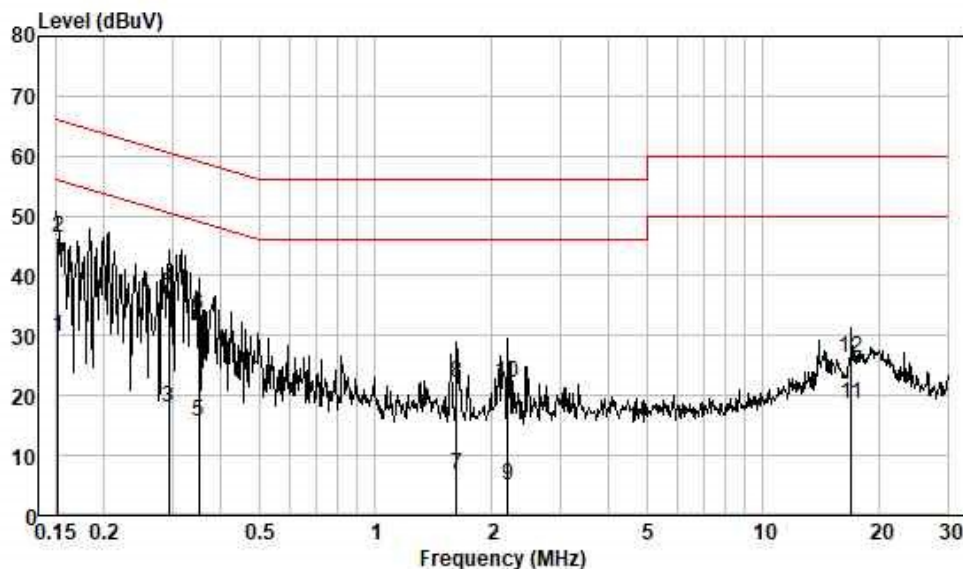


Pol : LINE
Mode :
Model :
Power :

	Freque	Read	Cable	LISN	Measured	Limit	Over	Remark
	MHz	Level	Loss	Factor	Level	Line	Limit	
		dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	20.16	0.04	9.57	29.77	55.91	-26.14	Average
2	0.152	37.06	0.04	9.57	46.67	65.91	-19.24	QP
3	0.341	1.82	0.05	9.58	11.45	49.18	-37.73	Average
4	0.341	22.59	0.05	9.58	32.22	59.18	-26.96	QP
5	0.377	-2.32	0.05	9.56	7.29	48.34	-41.05	Average
6	0.377	21.80	0.05	9.56	31.41	58.34	-26.93	QP
7	1.636	-3.98	0.11	9.60	5.73	46.00	-40.27	Average
8	1.636	14.90	0.11	9.60	24.61	56.00	-31.39	QP
9	2.012	-3.41	0.13	9.61	6.33	46.00	-39.67	Average
10	2.012	9.04	0.13	9.61	18.78	56.00	-37.22	QP
11	14.364	5.45	0.32	9.83	15.60	50.00	-34.40	Average
12	14.364	16.05	0.32	9.83	26.20	60.00	-33.80	QP



Test Mode: 00; Line: Neutral Line



Pol : NEUTRAL

Mode :

Model :

Power :

	Freque	Read	Cable	LISN	Measured	Limit	Over	Remark
	MHz	Level	Loss	Factor	Level	Line	Limit	
		dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	20.36	0.04	9.51	29.91	55.91	-26.00	Average
2	0.152	36.66	0.04	9.51	46.21	65.91	-19.70	QP
3	0.292	8.45	0.04	9.54	18.03	50.46	-32.43	Average
4	0.292	28.11	0.04	9.54	37.69	60.46	-22.77	QP
5	0.350	6.18	0.05	9.51	15.74	48.96	-33.22	Average
6	0.350	23.89	0.05	9.51	33.45	58.96	-25.51	QP
7	1.619	-2.83	0.11	9.53	6.81	46.00	-39.19	Average
8	1.619	12.36	0.11	9.53	22.00	56.00	-34.00	QP
9	2.190	-4.74	0.13	9.54	4.93	46.00	-41.07	Average
10	2.190	12.40	0.13	9.54	22.07	56.00	-33.93	QP
11	16.839	8.21	0.35	9.90	18.46	50.00	-31.54	Average
12	16.839	15.97	0.35	9.90	26.22	60.00	-33.78	QP



6.2 Radiated Emissions (Magnetic field Strength)(9kHz-30MHz)

Test Requirement: 47 CFR Part 18
 Test Method: FCC/OST MP-5:1986
 Test Engineer: Jarry Li
 Measurement Distance: 3 m
 Frequency Range: 9kHz to 30MHz
 Detector: Peak for pre-scan, Average for the final result
 (200Hz Resolution Bandwidth for 9kHz to 150kHz;
 9kHz Resolution Bandwidth for 150kHz to 30MHz)

Equipment:	Operating frequency:	RF Power generated by equipment (watts):	Limit dB(uV/m) average:
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	855.3	Limit= $20\lg(25*\text{SQRT}(\text{power}/500))+20\lg(300/3)=\mathbf{70.29}$ dBuV/m @ 3m distance.

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 21.5 °C

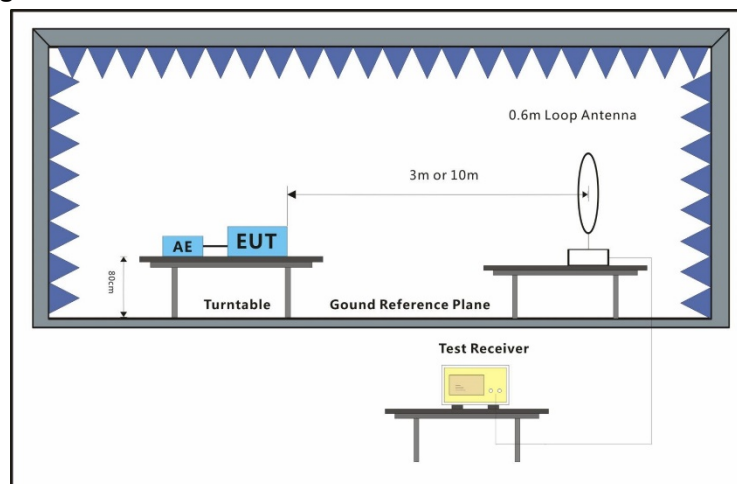
Humidity: 42.5 % RH

Atmospheric Pressure: 1020 mbar

6.2.2 Test Mode Description

Pre-scan/ Mode	Description
Final test Code	
Final test 00	Test the EUT in microwave mode with maximum power.
Pre-scan 01	Test the EUT in microwave mode with middle power.
Pre-scan 02	Test the EUT in microwave mode with lowest power.

6.2.3 Test Setup Diagram



6.2.4 Measurement Procedure and Data

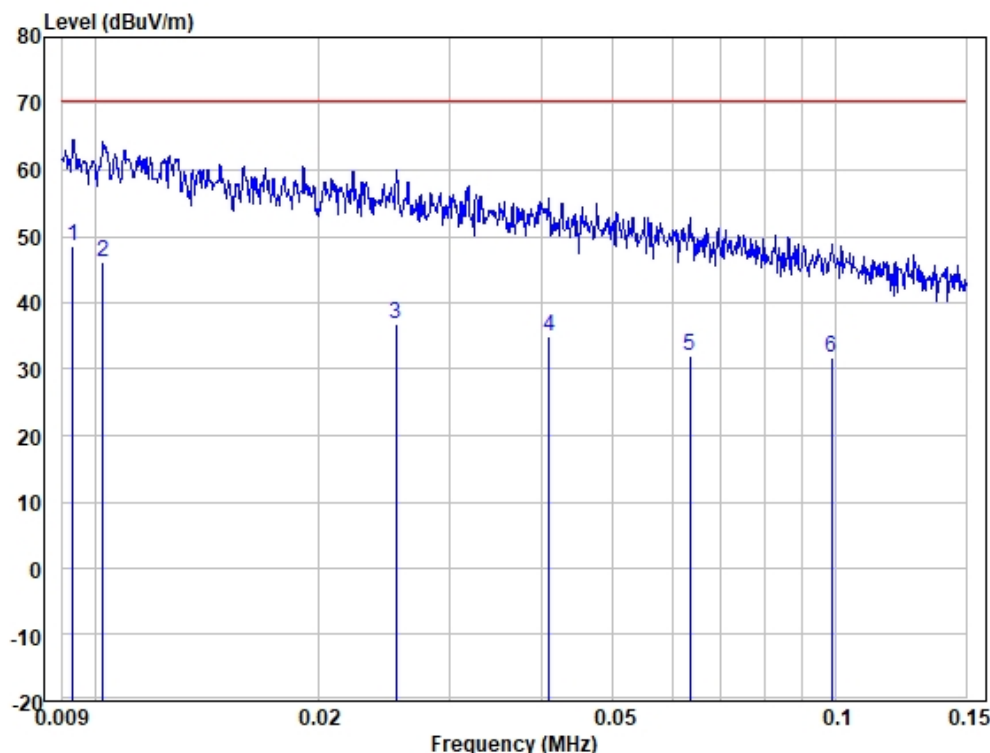
Frequency range: 9KHz-30MHz

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by loop antenna with 2 orthogonal polarities.

The red line show in graphic is the limit in standard used in this section.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal

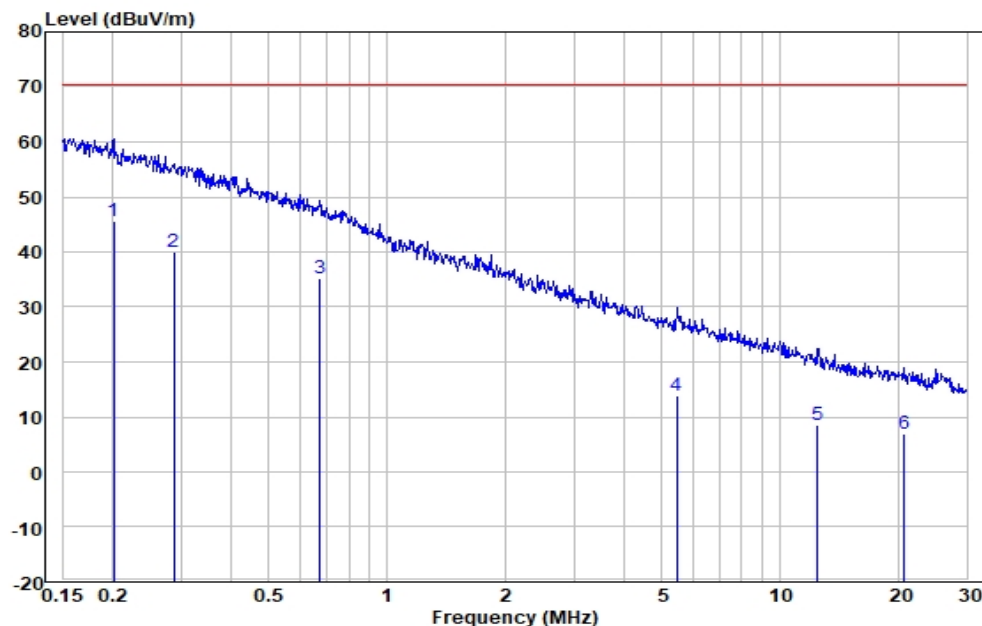


Site : 966 Chamber
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	0.009	57.82	21.76	0.04	31.00	48.62	70.29	-21.67	HORIZONTAL	Average
2	0.010	55.67	21.43	0.04	31.00	46.14	70.29	-24.15	HORIZONTAL	Average
3	0.025	51.68	16.16	0.04	31.00	36.88	70.29	-33.41	HORIZONTAL	Average
4	0.041	50.65	15.14	0.04	31.00	34.83	70.29	-35.46	HORIZONTAL	Average
5	0.063	48.03	14.82	0.04	31.00	31.89	70.29	-38.40	HORIZONTAL	Average
6	0.099	47.94	14.71	0.04	31.00	31.69	70.29	-38.60	HORIZONTAL	Average



Test Mode: 00; Polarity: Horizontal

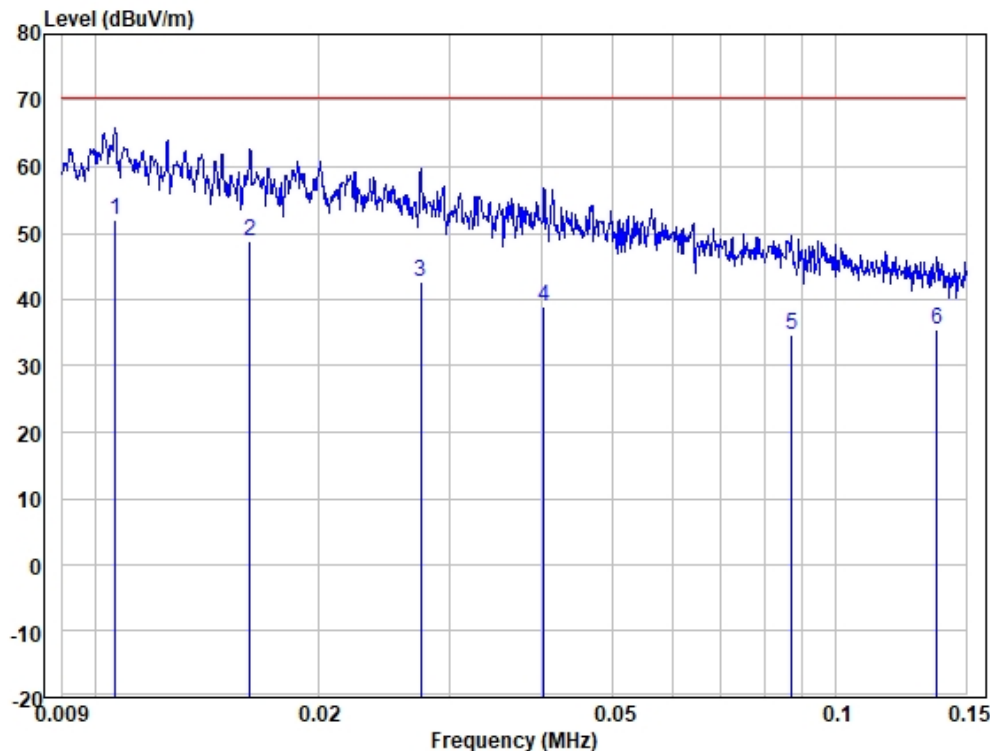


Site : 966 Chamber
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	0.202	61.91	14.67	0.04	31.00	45.62	70.29	-24.67	HORIZONTAL	Average
2	0.286	56.24	14.64	0.04	31.00	39.92	70.29	-30.37	HORIZONTAL	Average
3	0.675	51.97	14.13	0.04	30.90	35.24	70.29	-35.05	HORIZONTAL	Average
4	5.476	32.16	12.62	0.04	30.94	13.88	70.29	-56.41	HORIZONTAL	Average
5	12.449	28.58	10.82	0.04	31.00	8.44	70.29	-61.85	HORIZONTAL	Average
6	20.704	28.75	9.17	0.12	31.02	7.02	70.29	-63.27	HORIZONTAL	Average



Test Mode: 00; Polarity: Vertical

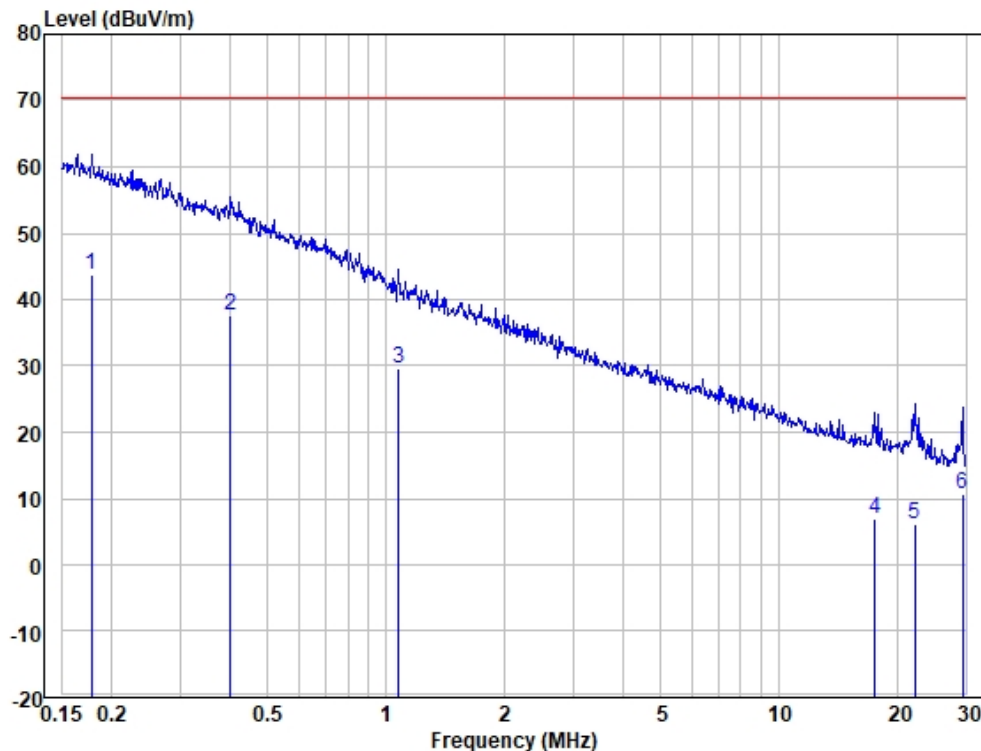


Site : 966 Chamber
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	0.011	61.64	21.29	0.04	31.00	51.97	70.29	-18.32	VERTICAL	Average
2	0.016	61.93	17.80	0.04	31.00	48.77	70.29	-21.52	VERTICAL	Average
3	0.027	57.72	15.90	0.04	31.00	42.66	70.29	-27.63	VERTICAL	Average
4	0.040	54.67	15.15	0.04	31.00	38.86	70.29	-31.43	VERTICAL	Average
5	0.087	51.02	14.48	0.04	31.00	34.54	70.29	-35.75	VERTICAL	Average
6	0.137	51.69	14.72	0.04	31.00	35.45	70.29	-34.84	VERTICAL	Average



Test Mode: 00; Polarity: Vertical



Site : 966 Chamber
 Job :
 Model :
 Power :
 Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	0.178	60.12	14.68	0.04	31.00	43.84	70.29	-26.45	VERTICAL	Average
2	0.402	53.99	14.55	0.04	31.00	37.58	70.29	-32.71	VERTICAL	Average
3	1.077	47.11	13.35	0.04	30.90	29.60	70.29	-40.69	VERTICAL	Average
4	17.568	27.99	9.77	0.10	31.01	6.85	70.29	-63.44	VERTICAL	Average
5	22.180	28.76	8.39	0.12	31.02	6.25	70.29	-64.04	VERTICAL	Average
6	29.371	36.29	5.30	0.17	31.05	10.71	70.29	-59.58	VERTICAL	Average



6.3 Radiated Emissions (30MHz-1GHz)

Test Requirement: 47 CFR Part 18
 Test Method: FCC/OST MP-5:1986
 Test Engineer: Jarry Li
 Measurement Distance: 3 m
 Frequency Range: 30 MHz to 1 GHz
 Detector: Peak for pre-scan, average for the final result
 (120 kHz Resolution Bandwidth for 30 MHz to 1 GHz)

Equipment:	Operating frequency:	RF Power generated by equipment (watts):	Limit dB(uV/m) average:
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	855.3	Limit=20lg(25*SQRT(power/500))+20lg(300/3)= 70.29 dBuV/m @ 3m distance.

6.3.1 E.U.T. Operation

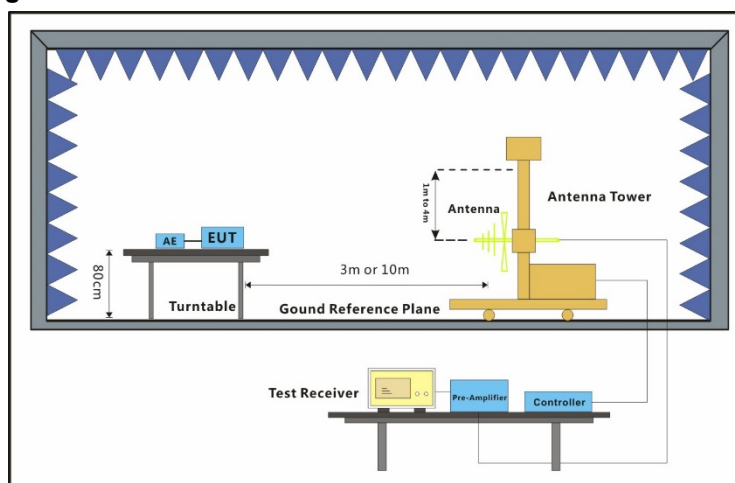
Operating Environment:

Temperature: 21.6 °C Humidity: 42.5 % RH Atmospheric Pressure: 1020 mbar

6.3.2 Test Mode Description

Pre-scan/ Mode	Description
Final test Code	
Final test 00	Test the EUT in microwave mode with maximum power.
Pre-scan 01	Test the EUT in microwave mode with middle power.
Pre-scan 02	Test the EUT in microwave mode with lowest power.

6.3.3 Test Setup Diagram



6.3.4 Measurement Procedure and Data

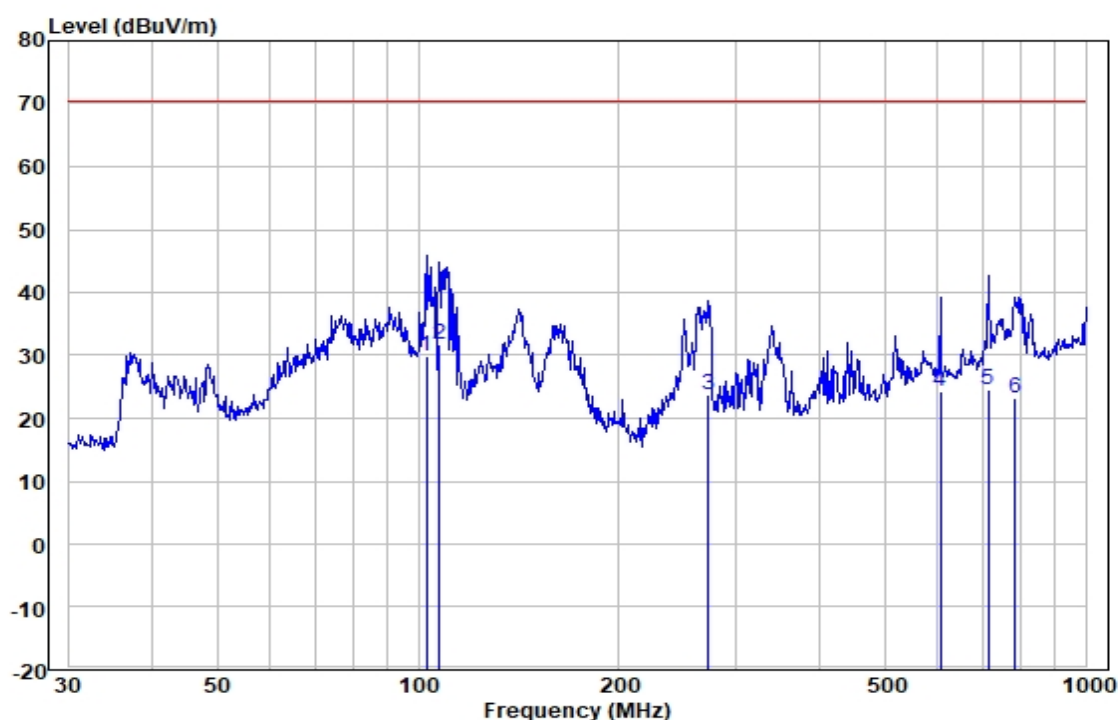
Frequency range: 30MHz-1GHz

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

The red line show in graphic is the limit in standard used in this section.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal

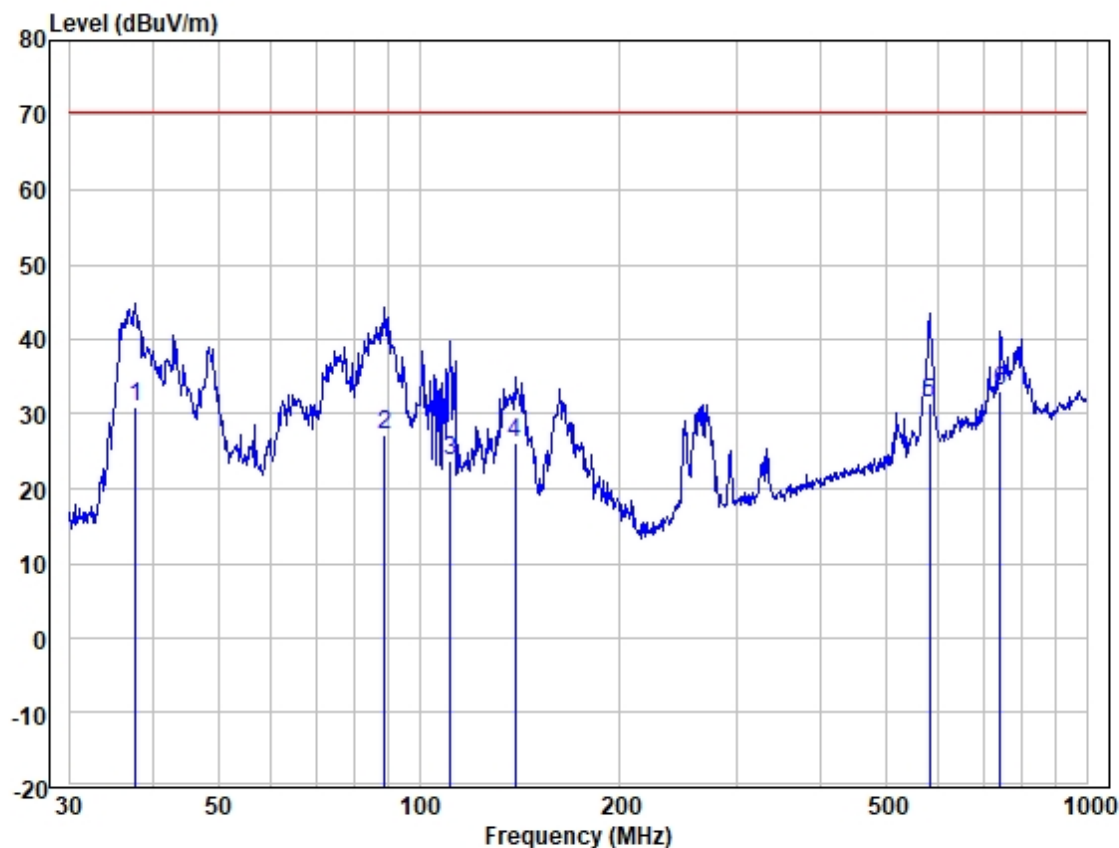


Site : 966 Chamber
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	103.080	45.36	15.19	0.67	31.40	29.82	70.29	-40.47	HORIZONTAL	Average
2	107.510	46.78	15.74	0.68	31.40	31.80	70.29	-38.49	HORIZONTAL	Average
3	272.278	35.51	18.43	1.18	31.50	23.62	70.29	-46.67	HORIZONTAL	Average
4	605.659	27.82	25.85	1.88	31.38	24.17	70.29	-46.12	HORIZONTAL	Average
5	714.173	26.25	27.27	2.07	30.98	24.61	70.29	-45.68	HORIZONTAL	Average
6	782.345	23.69	28.40	2.10	30.91	23.28	70.29	-47.01	HORIZONTAL	Average



Test Mode: 00; Polarity: Vertical



Site : 966 Chamber
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	37.680	42.79	18.96	0.25	31.08	30.92	70.29	-39.37	VERTICAL	Average
2	88.964	44.30	13.73	0.63	31.35	27.31	70.29	-42.98	VERTICAL	Average
3	111.347	38.24	16.19	0.69	31.41	23.71	70.29	-46.58	VERTICAL	Average
4	139.361	37.98	18.69	0.79	31.43	26.03	70.29	-44.26	VERTICAL	Average
5	580.703	35.79	25.25	1.85	31.42	31.47	70.29	-38.82	VERTICAL	Average
6	742.259	34.44	27.60	2.08	30.95	33.17	70.29	-37.12	VERTICAL	Average



6.4 Radiated Emissions (above 1GHz)

Test Requirement: 47 CFR Part 18
 Test Method: FCC/OST MP-5:1986
 Test Engineer: Lin Liao
 Limit:
 Measurement Distance: 3 m
 Frequency Range: Above 1GHz
 Detector: Peak for pre-scan, Average for the final result
 (1MHz Resolution Bandwidth for 1000MHz Above)

Equipment:	Operating frequency:	RF Power generated by equipment (watts):	Limit dB(uV/m) average:
Any type unless otherwise specified (miscellaneous)	Any ISM frequency	855.3	Limit= $20\lg(25*\text{SQRT}(\text{power}/500))+20\lg(300/3)=\mathbf{70.29}$ dBuV/m @ 3m distance.

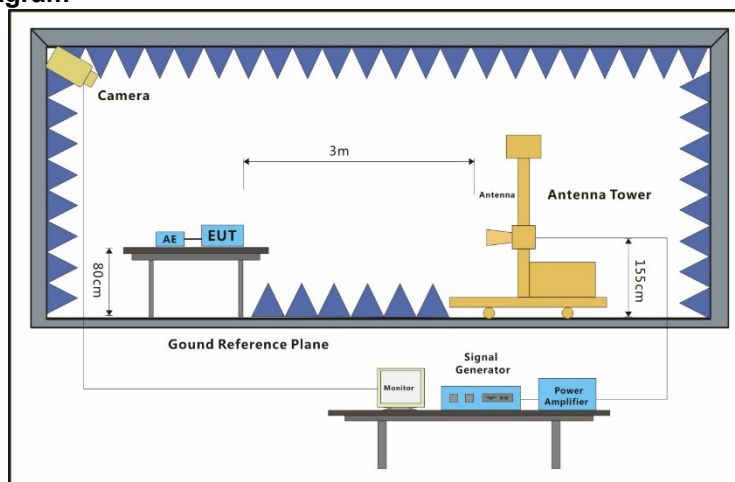
6.4.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.8 °C Humidity: 53.3 % RH Atmospheric Pressure: 1020 mbar

6.4.2 Test Mode Description

Pre-scan/ Mode	Final test Code	Description
Final test	00	Test the EUT in microwave mode with maximum power.
Pre-scan	01	Test the EUT in microwave mode with middle power.
Pre-scan	02	Test the EUT in microwave mode with lowest power.

6.4.3 Test Setup Diagram



6.4.4 Measurement Procedure and Data

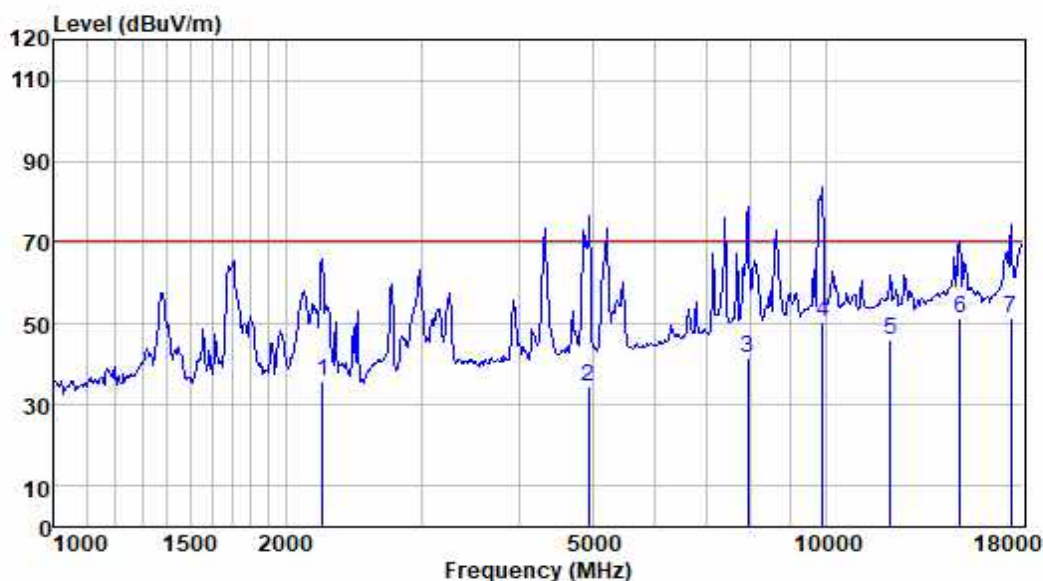
Frequency range: Above 1GHz

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

The red line show in graphic is the limit in standard used in this section.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

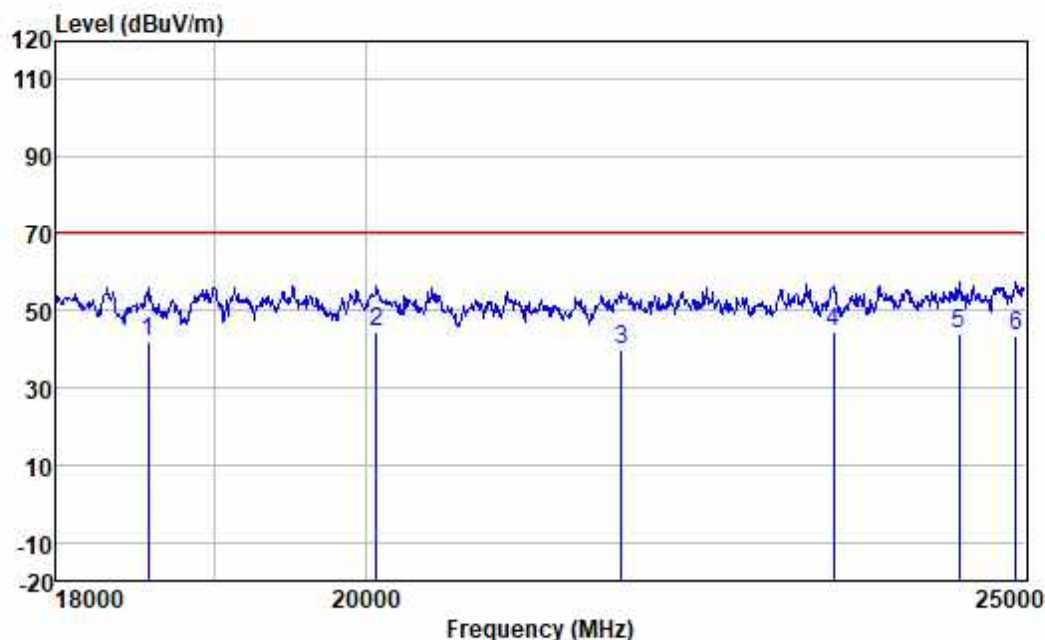
Test Mode: 00; Polarity: Vertical



	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2226.950	43.22	27.18	3.29	37.78	35.91	70.29	-34.38	VERTICAL	Average
2	4936.084	35.42	31.70	4.88	37.33	34.67	70.29	-35.62	VERTICAL	Average
3	7927.268	35.50	37.18	6.18	37.20	41.66	70.29	-28.63	VERTICAL	Average
4	9923.991	41.39	39.07	7.19	37.10	50.55	70.29	-19.74	VERTICAL	Average
5	12149.420	35.39	39.66	7.79	36.89	45.95	70.29	-24.34	VERTICAL	Average
6	14960.120	36.94	42.04	9.00	36.50	51.48	70.29	-18.81	VERTICAL	Average
7	17386.380	34.73	43.56	9.55	36.41	51.43	70.29	-18.86	VERTICAL	Average



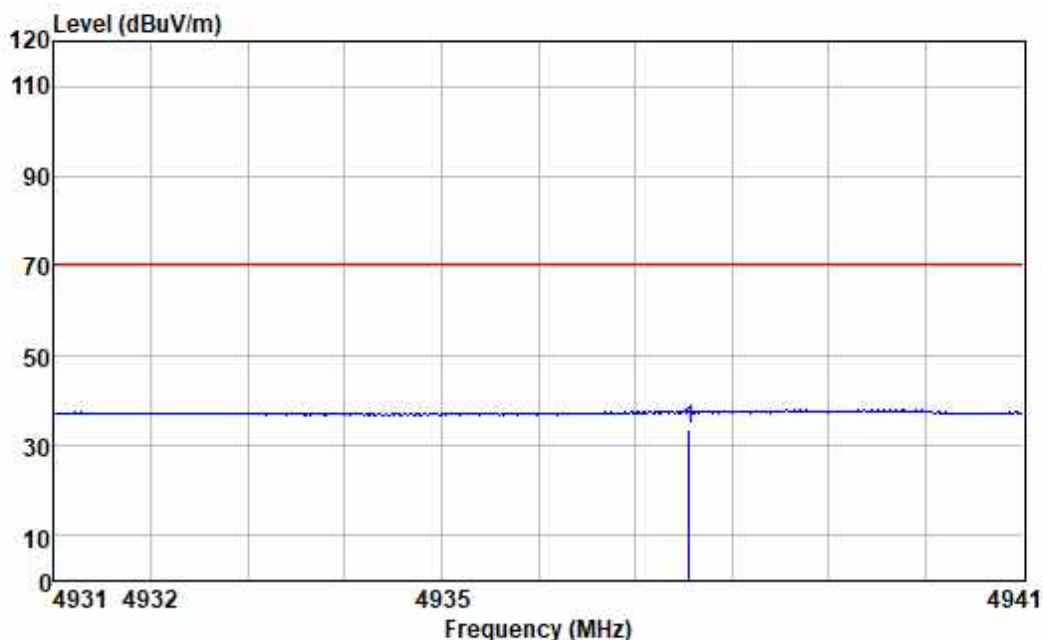
Test Mode: 00; Polarity: Vertical



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	18570.600	41.36	36.92	3.14	39.24	42.18	70.29	-28.11	VERTICAL Average
2	20067.600	44.69	37.12	2.99	40.40	44.40	70.29	-25.89	VERTICAL Average
3	21806.720	38.66	37.53	3.33	39.78	39.74	70.29	-30.55	VERTICAL Average
4	23433.360	40.57	38.59	3.38	38.04	44.50	70.29	-25.79	VERTICAL Average
5	24455.770	40.93	38.70	3.42	38.79	44.26	70.29	-26.03	VERTICAL Average
6	24926.200	41.09	39.15	3.38	40.04	43.58	70.29	-26.71	VERTICAL Average



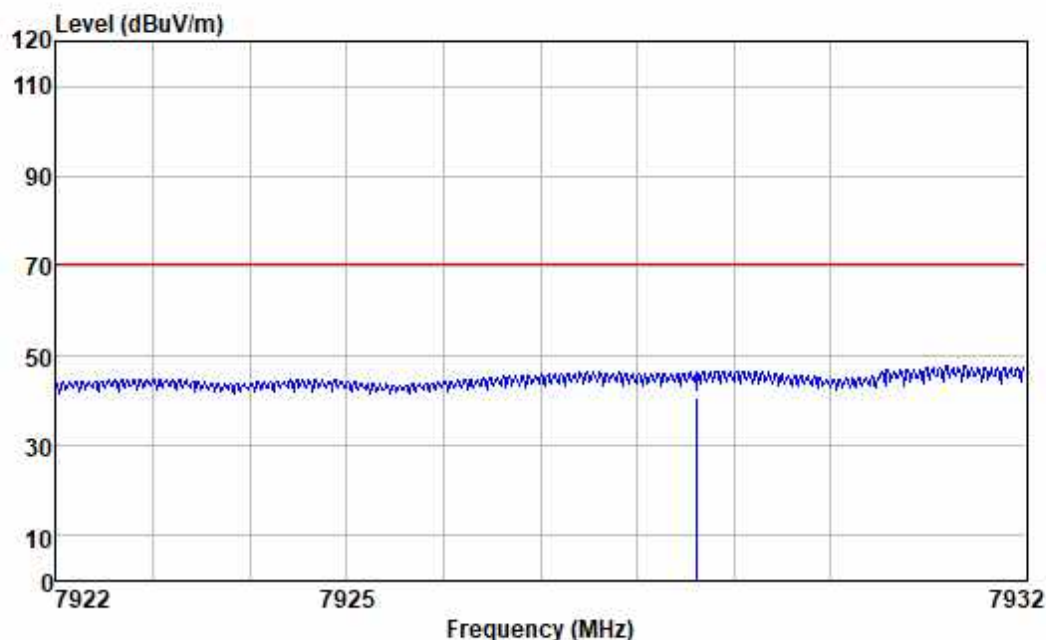
Test Mode: 00; Polarity: Vertical



	Freq	ReadAntenna Level	Cable Factor	Preamp Loss	Preamp Factor	Limit Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4937.558	34.48	31.70	4.88	37.33	33.73	70.29	-36.56	VERTICAL	Average



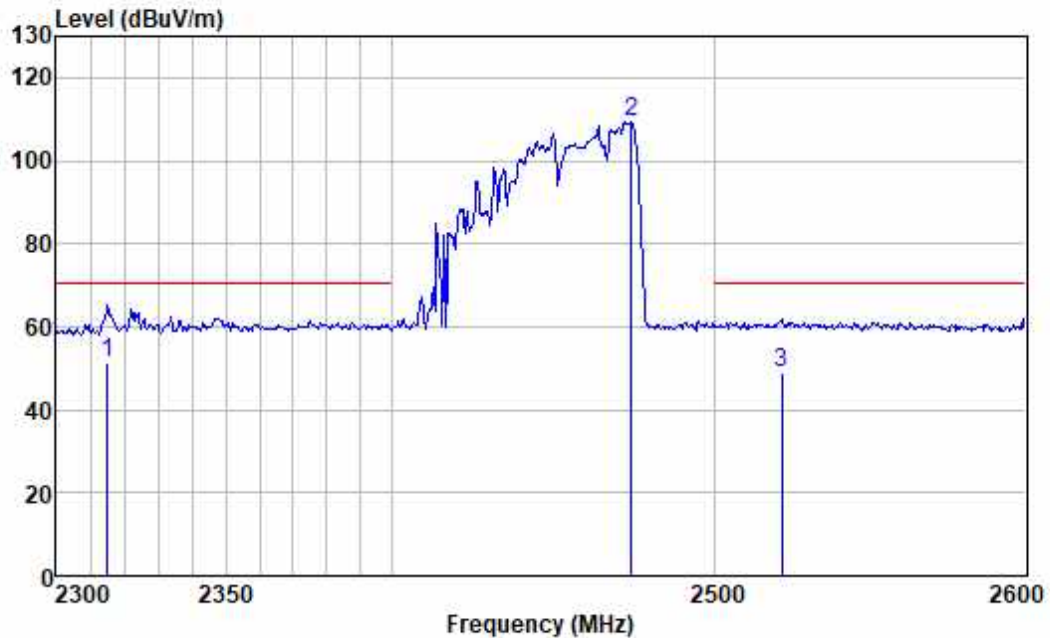
Test Mode: 00; Polarity: Vertical



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	7928.608	34.36	37.18	6.18	37.20	40.52	70.29	-29.77	VERTICAL	Average



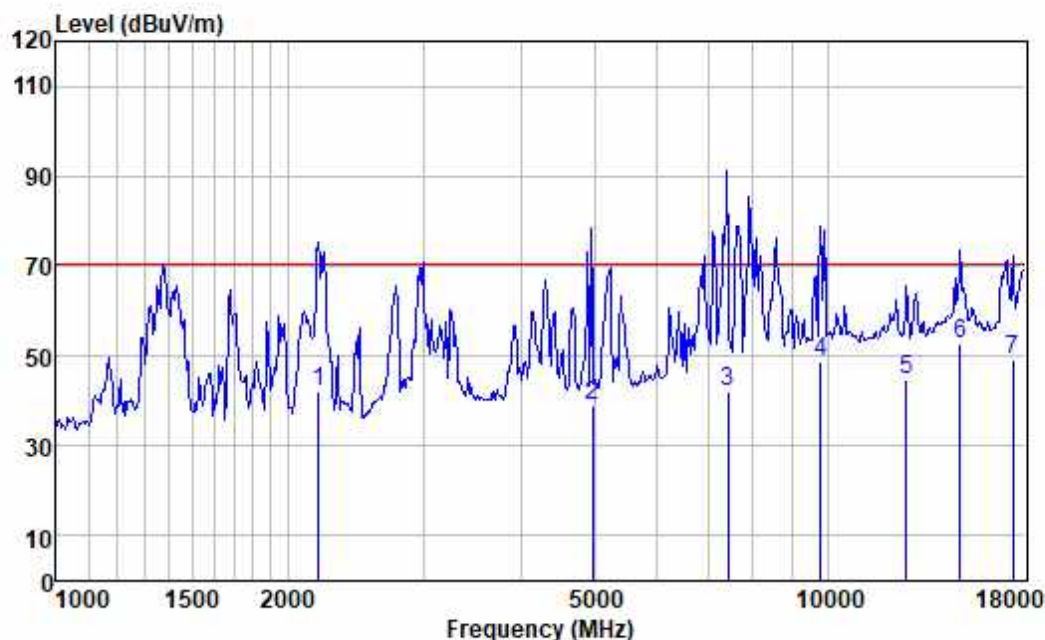
Test Mode: 00; Polarity: Vertical



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2314.994	20.30	27.49	3.40	0.00	51.19	70.29	-19.10	VERTICAL	Average
2	2473.749	78.01	27.74	3.48	0.00	109.23	-----	-----	VERTICAL	peak
3	2521.208	17.63	27.79	3.50	0.00	48.92	70.29	-21.37	VERTICAL	Average



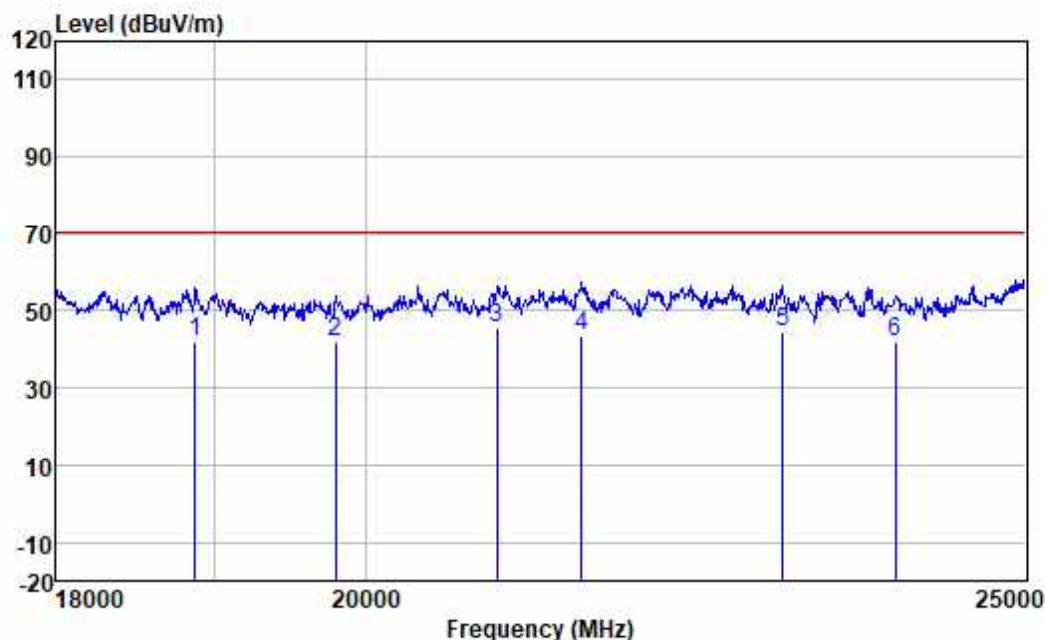
Test Mode: 00; Polarity: Horizontal



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2188.663	49.63	27.02	3.24	37.79	42.10	70.29	-28.19	HORIZONTAL	Average
2	4953.519	39.87	31.74	4.89	37.32	39.18	70.29	-31.11	HORIZONTAL	Average
3	7428.935	36.81	36.57	6.02	37.18	42.22	70.29	-28.07	HORIZONTAL	Average
4	9809.916	39.89	38.95	7.14	37.10	48.88	70.29	-21.41	HORIZONTAL	Average
5	12651.130	34.22	39.29	8.00	36.86	44.65	70.29	-25.64	HORIZONTAL	Average
6	14873.890	38.19	42.10	8.90	36.51	52.68	70.29	-17.61	HORIZONTAL	Average
7	17386.380	32.61	43.56	9.55	36.41	49.31	70.29	-20.98	HORIZONTAL	Average



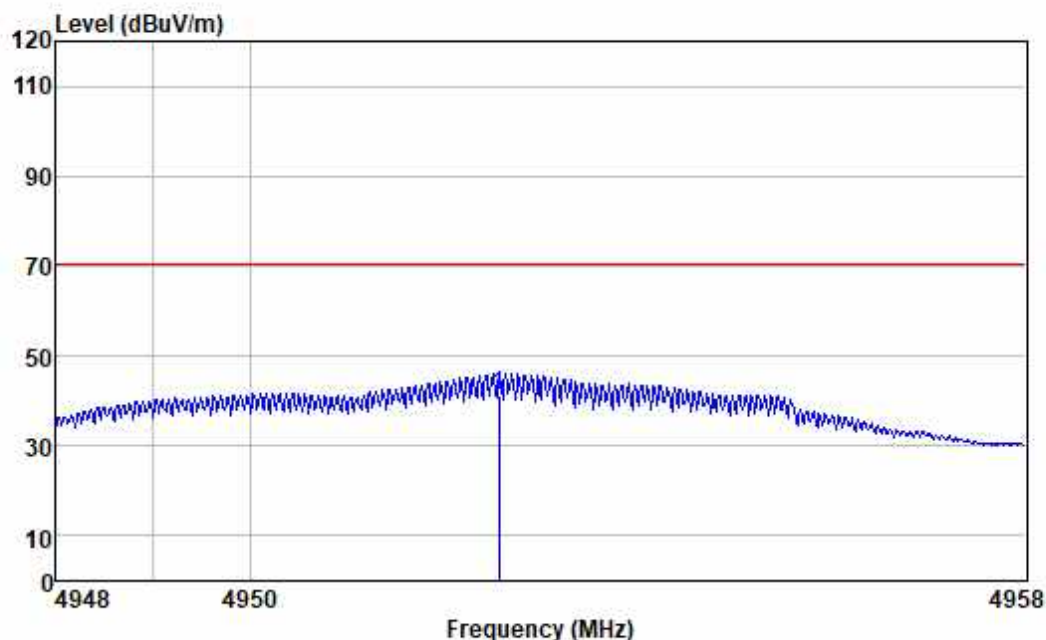
Test Mode: 00; Polarity: Horizontal



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	18871.940	41.10	37.06	3.20	39.29	42.07	70.29	-28.22	HORIZONTAL	Average
2	19792.630	42.37	37.03	3.02	40.32	42.10	70.29	-28.19	HORIZONTAL	Average
3	20901.920	43.38	37.64	3.21	38.83	45.40	70.29	-24.89	HORIZONTAL	Average
4	21514.980	42.21	37.60	3.28	39.37	43.72	70.29	-26.57	HORIZONTAL	Average
5	23028.900	41.00	38.50	3.33	38.17	44.66	70.29	-25.63	HORIZONTAL	Average
6	23931.240	37.62	38.69	3.45	37.80	41.96	70.29	-28.33	HORIZONTAL	Average



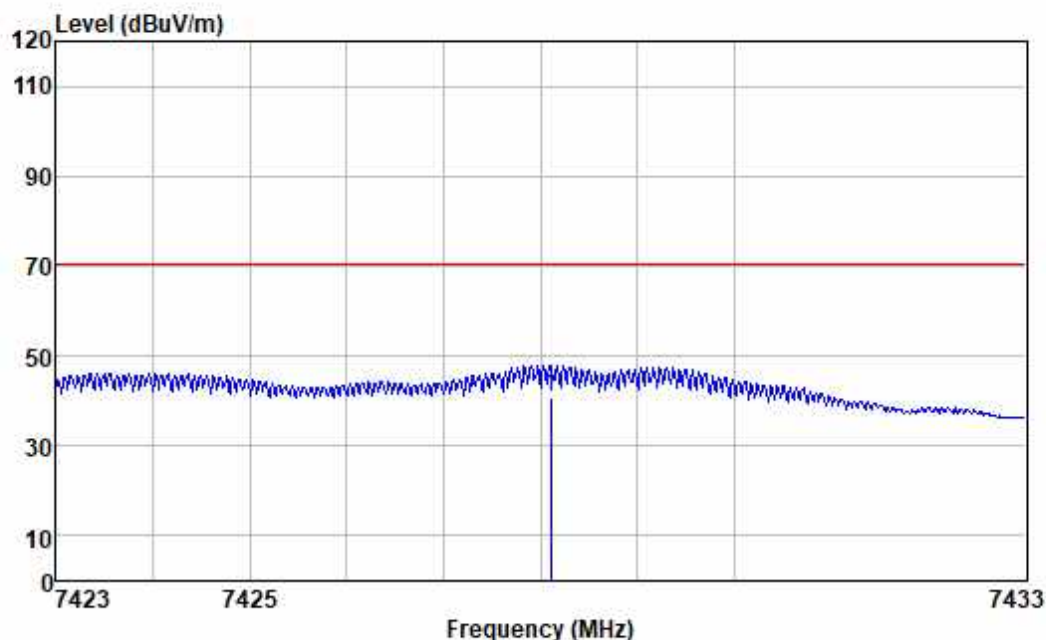
Test Mode: 00; Polarity: Horizontal



	ReadAntenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	Remark
1 4952.567	41.72	31.74	4.89	37.32	41.03	70.29	-29.26	HORIZONTAL Average



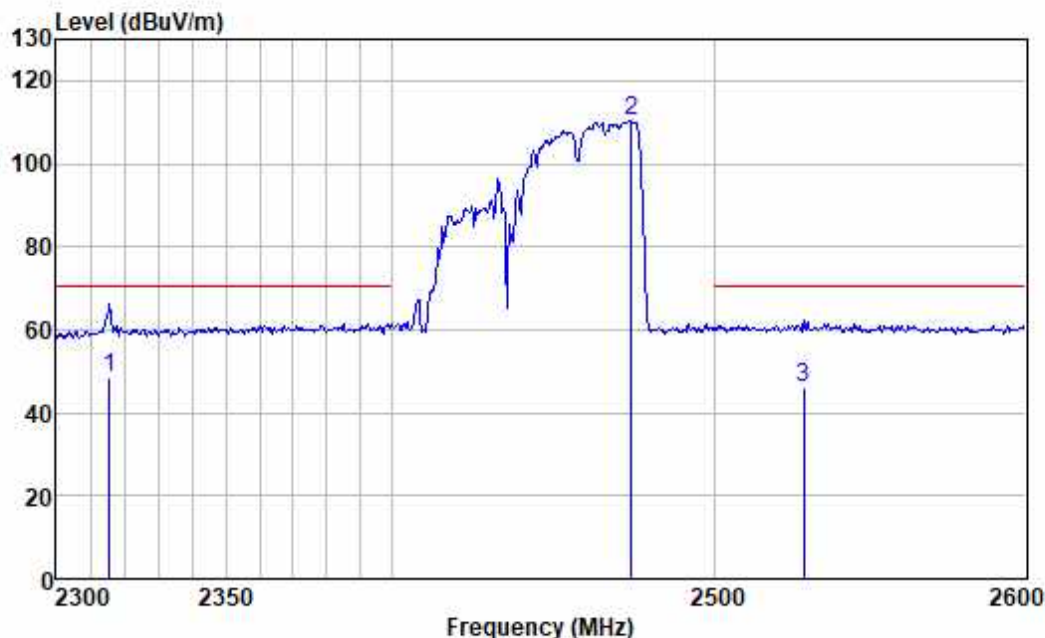
Test Mode: 00; Polarity: Horizontal



	ReadAntenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	Remark
1 7428.108	35.53	36.57	6.02	37.18	40.94	70.29	-29.35	HORIZONTAL Average



Test Mode: 00; Polarity: Horizontal



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2315.562	17.54	27.49	3.40	0.00	48.43	70.29	-21.86	HORIZONTAL	Average
2	2473.749	79.11	27.74	3.48	0.00	110.33	-----	-----	HORIZONTAL	peak
3	2528.328	14.95	27.80	3.50	0.00	46.25	70.29	-24.04	HORIZONTAL	Average



6.5 Output Power Measurement

Test Requirement: 47 CFR Part 18
 Test Method: FCC OST/MP-5:1986
 Test Engineer: Luffy Chen
 Limit:

Power output Measurement:

Formula:

$$P = \frac{4,187 \cdot m_w (T_2 - T_1) + 0,55 \cdot m_c (T_2 - T_0)}{t}$$

NOTE :

P is the microwave power output, in watts
 m_w is the mass of the water, in grams
 m_c is the mass of the container, in grams
 T₀ is the ambient temperature, in degrees Celsius
 T₁ is the initial temperature of the water, in degrees Celsius
 T₂ is the final temperature of the water, in degrees Celsius
 t is the heating time, in seconds, excluding the magnetron filament heating-up time.

Input Power Measurement:

The EUT was set up according to the MP-5 for input power measurement, the input power and current was measured using a power analyzer. Water load in a beaker was located in the center of the oven and the microwave oven was set to maximum power.

Base on the measured input power it was found that the microwave oven can operating as the user manual's specifications.

6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.4 °C Humidity: 52.6 % RH Atmospheric Pressure: 1020 mbar

6.5.2 Test Mode Description

Pre-scan/ Mode	Description
Final test Code	
Final test 00	Test the EUT in microwave mode with maximum power.
Pre-scan 01	Test the EUT in microwave mode with middle power.
Pre-scan 02	Test the EUT in microwave mode with lowest power.



6.5.3 Measurement Procedure and Data

Output Power Data

Mass of water (g)	Mass of the container (g)	Ambient temperature (°C)	Initial temperature (°C)	Final temperature (°C)	Heating time (s)	Power output (W)
1001	474	20.2	10.2	20.2	49	855.3

Input Power Data

Input Voltage (V)	Input Current (A)	Power Factor	Measured input power (W)	Rated input power (W)
120.3	11.86	0.926	1321	1350



6.6 Operating Frequency Measurement

Test Requirement: 47 CFR Part 18
 Test Method: FCC OST/MP-5:1986
 Test Engineer: Lin Liao
 Limit:
 Frequency Range: 2400-2500 MHz
 Detector: Average for the final result for outside ISM band(2450MHz±50MHz)
 Outside band limit: (a) ISM equipment operation on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.
 (b) The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

RF Power generated by equipment(watts)	Field strength Limit(uV/m) @300m
Below 500	25
500 or more	25*SQRT(power/500)

Power =855.3 W according to clause 6.1.2

Limit=20lg(25*SQRT(power/500))+20lg(300/3)=70.29dBuV/m @ 3m distance.

ISM band: ISM equipment may be operated on any frequency above 9 kHz.
 And the frequency band 2400-2500MHz is allocated for use by ISM equipment.

(§18.301)

ISM frequency	Tolerance
6.78MHz	±15.0kHz
13.56MHz	±7.0kHz
27.12MHz	±163.0kHz
40.68MHz	±20.0kHz
915MHz	±13.0MHz
2450MHz	±50.0MHz
5800MHz	±75.0MHz
24125MHz	±125.0MHz
61.25GHz	±250.0MHz
122.5GHz	±500.0MHz
245.00GHz	±1.0GHz



6.6.1 E.U.T. Operation

Operating Environment:

Temperature: 21.8 °C Humidity: 53.3 % RH Atmospheric Pressure: 1020 mbar

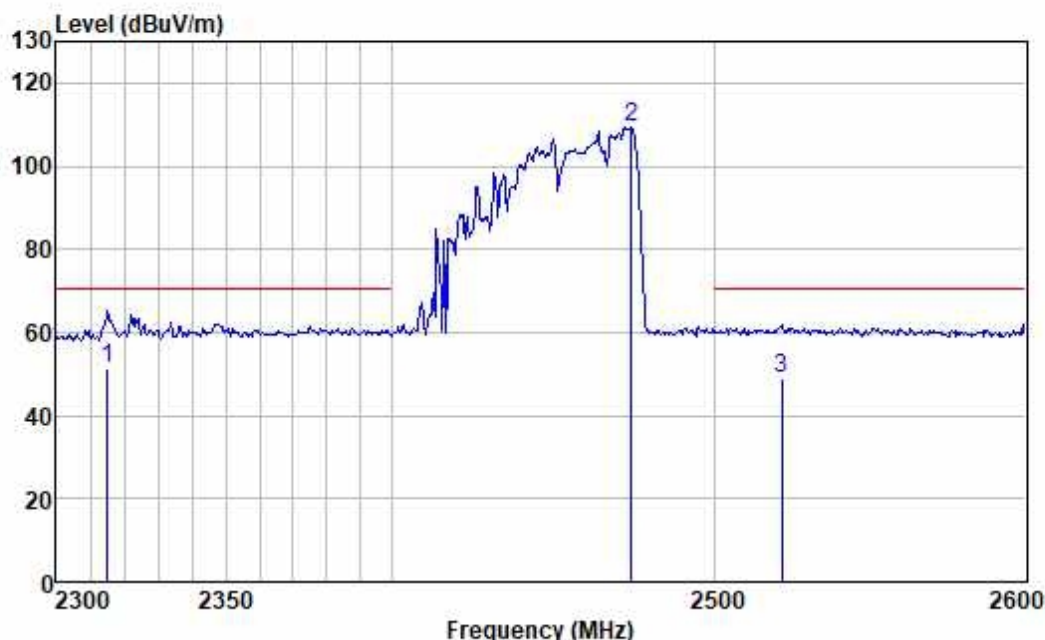
6.6.2 Test Mode Description

Pre-scan/	Mode	Description
Final test	Code	
Final test	00	Test the EUT in microwave mode with maximum power.
Pre-scan	01	Test the EUT in microwave mode with middle power.
Pre-scan	02	Test the EUT in microwave mode with lowest power.

6.6.3 Measurement Procedure and Data



Test Mode: 00; Polarity: Vertical



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2314.994	20.30	27.49	3.40	0.00	51.19	70.29	-19.10	VERTICAL	Average
2	2473.749	78.01	27.74	3.48	0.00	109.23	-----	-----	VERTICAL	peak
3	2521.208	17.63	27.79	3.50	0.00	48.92	70.29	-21.37	VERTICAL	Average

The variation of frequency with time

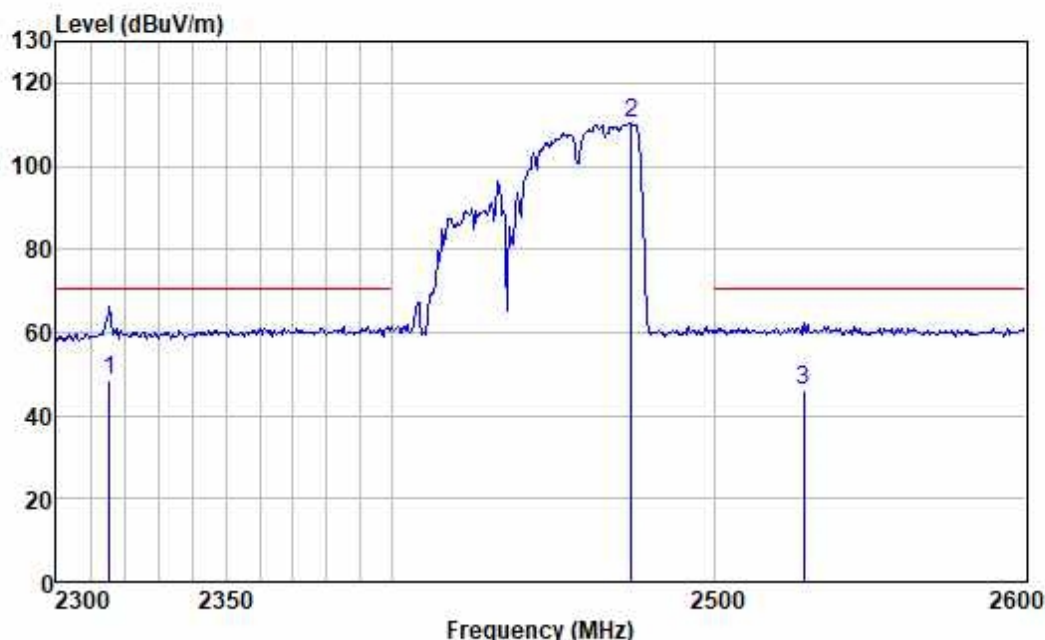
The operating frequency was measured using a spectrum analyzer, the supply voltage was setting at the rated AC voltage, measured was start with EUT at room temperature, the operating frequency was monitored until the water load was reduced to 20 percent of the original quantity.

Test record was found the worst situation is when the water load is reduced to 20 percent of the original quantity.

ISM frequency(MHz)	Tolerance(MHz)	Measurement Data(MHz)
2450	±50	2473.749



Test Mode: 00; Polarity: Horizontal



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	Remark
1	2315.562	17.54	27.49	3.40	0.00	48.43	70.29	-21.86	HORIZONTAL Average
2	2473.749	79.11	27.74	3.48	0.00	110.33	-----	-----	HORIZONTAL peak
3	2528.328	14.95	27.80	3.50	0.00	46.25	70.29	-24.04	HORIZONTAL Average

The variation of frequency with line voltage.

The operating frequency was measured using a spectrum analyzer, the supply voltage was setting at the rated AC voltage, measured was start with EUT at room temperature. The EUT was started to warm by at least 10 minutes, the operating frequency was monitored as the rated voltage was varied from 80% to 125%.

Test record was found the worst situation is when the line voltage is 125% of rated AC voltage.

ISM frequency(MHz)	Tolerance(MHz)	Measurement Data(MHz)
2450	±50	2473.749



6.7 Radiation Hazard Test

Test Requirement: 47 CFR Part 18
 Test Method: FCC OST/MP-5:1986
 Test Engineer: Jarry Li

6.7.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.6 °C Humidity: 42.3 % RH Atmospheric Pressure: 1020 mbar

6.7.2 Test Mode Description

Pre-scan/ Mode	Description
Final test Code	
Final test 00	Test the EUT in microwave mode with maximum power.
Pre-scan 01	Test the EUT in microwave mode with middle power.
Pre-scan 02	Test the EUT in microwave mode with lowest power.

6.7.3 Measurement Procedure and Data

Maximum measure level (mW/cm ²)	Limit (mW/cm ²)	Test Result
0.1842	1	PASS



7 Test Setup Photo

Refer to Appendix - Test Setup Photo for GZEM260100008002



8 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZEM2601000080HS

- End of the Report -

