

TEST REPORT

Reference No...... : WTX23X07151824W002
FCC ID..... : 2A3SYMBL01
Applicant : Hesung Innovation Limited
Address : Room 803, Chevalier House, 45-51 Chatham Road South, Tsim Sha Tsui,
Kowloon, Hong Kong, 999077
Manufacturer : Guangdong Migair Electric Science and Technology Industrial Company
Limited Beijiao First Branch
Address : No.6 Huancun Road, Guangjiao, Beijiao Town, Shunde, Foshan,
Guangdong, 528311
Product Name : WiFi Module
Model No...... : MBL01
Standards : FCC Part 15.247
Date of Receipt sample : 2023-07-12
Date of Test..... : 2023-07-12 to 2023-08-04
Date of Issue : 2023-08-04
Test Report Form No. : WTX_Part 15_247W
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

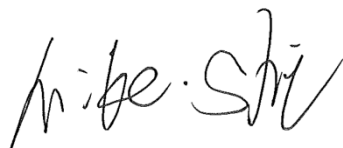
Waltek Testing Group (Shenzhen) Co., Ltd.

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Tested by:



Mike Shi

Approved by:



Silin Chen

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Report version

Version No.	Date of issue	Description
Rev.00	2023-08-04	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	WiFi Module
Trade Name:	
Model No.:	MBL01
Adding Model(s):	/
Rated Voltage:	DC5V
Power Adapter Model:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Bluetooth Version:	V4.0 (BLE mode)
Frequency Range:	2402-2480MHz
RF Output Power:	3.6dBm (Conducted)
Data Rate:	1Mbps
Modulation:	GFSK
Quantity of Channels:	40
Channel Separation:	2MHz
Type of Antenna:	Integral Antenna
Antenna Gain:	Antenna 1:2.99dBi Antenna 2:4.61dBi Antenna 3:5.1dBi Antenna 4:3.64dBi Antenna 5: 3.47dBi

1.2 Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.

558074 D01 15.247 Meas Guidance v05r02: Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating under section 15.247 of the Fcc rules.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A and the CAB identifier is CN0057.

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, with a duty cycle equal to 100%, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	BLE	Low:2402MHz, Middle:2440MHz,High:2480MHz Test for ANT1 model:HTF001S
TM2	BLE	Low:2402MHz, Middle:2440MHz,High:2480MHz Test for ANT2 model:HAF004S
TM3	BLE	Low:2402MHz, Middle:2440MHz,High:2480MHz Test for ANT3 model:HAF001S
TM4	BLE	Low:2402MHz, Middle:2440MHz,High:2480MHz Test for ANT4 model:HTF007S
TM5	BLE	Low:2402MHz, Middle:2440MHz,High:2480MHz Test for ANT5 model:HTF005S

Test Conditions	
Temperature:	22~25 °C
Relative Humidity:	45~55 %
ATM Pressure:	1019 mbar

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	Lenovo	E445	EB12648265

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	Conducted	$\pm 1.5\%$
Power Spectral Density	Conducted	$\pm 1.8\text{dB}$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	9-150kHz $\pm 3.74\text{dB}$
		0.15-30MHz $\pm 3.34\text{dB}$
Transmitter Spurious Emissions	Radiated	30-200MHz $\pm 4.52\text{dB}$
		0.2-1GHz $\pm 5.56\text{dB}$
		1-6GHz $\pm 3.84\text{dB}$
		6-26GHz $\pm 3.92\text{dB}$

1.7 Test Equipment List and Details

Fixed asset Number	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
WTXE1041A 1001	Communication Tester	Rohde & Schwarz	CMW500	148650	2023-02-25	2024-02-24
WTXE1005A 1005	Spectrum Analyzer	Agilent	N9020A	US471401 02	2023-02-25	2024-02-24
WTXE1084A 1001	Spectrum Analyzer	Agilent	N9020A	MY543205 48	2023-02-25	2024-02-24
WTXE1004A 1-001	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2023-02-25	2024-02-24
<input type="checkbox"/> Chamber A: Below 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2023-02-25	2024-02-24
WTXE1007A 1001	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/00 5	2023-02-25	2024-02-24
WTXE1007A 1001	Amplifier	HP	8447F	2805A034 75	2023-02-25	2024-02-24
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2024-03-19
WTXE1010A 1006	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2023-03-20	2026-03-19
<input type="checkbox"/> Chamber A: Above 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2023-02-25	2024-02-24
WTXE1007A 1001	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/00 5	2023-02-25	2024-02-24
WTXE1065A 1001	Amplifier	C&D	PAP-1G18	14918	2023-02-25	2024-02-24
WTXE1010A 1005	Horn Antenna	ETS	3117	00086197	2021-03-19	2024-03-18
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2021-03-19	2024-03-18
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2023-02-25	2024-02-24
<input type="checkbox"/> Chamber B: Below 1GHz						
WTXE1010A 1006	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2024-04-08
WTXE1038A 1001	Amplifier	Agilent	8447D	2944A101 79	2023-02-25	2024-02-24

WTXE1001A 1002	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2023-02-25	2024-02-24
<input checked="" type="checkbox"/> Chamber C:Below 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2023-02-25	2024-02-24
WTXE1010A 1013-1	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2024-05-27
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2024-03-19
WTXE1007A 1002	Amplifier	HP	8447F	2944A038 69	2023-02-25	2024-02-24
<input checked="" type="checkbox"/> Chamber C: Above 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2023-02-25	2024-02-24
WTXE1103A 1005	Horn Antenna	POAM	RTF-11A	LP228060 221	2023-03-10	2026-03-09
WTXE1103A 1006	Amplifier	Tonscend	TAP01018050	AP22E806 235	2023-02-25	2024-02-24
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2021-03-19	2024-03-18
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2023-02-25	2024-02-24
<input checked="" type="checkbox"/> Conducted Room 1#						
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2023-02-25	2024-02-24
WTXE1002A 1001	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2023-02-25	2024-02-24
WTXE1003A 1001	AC LISN	Schwarz beck	NSLK8126	8126-224	2023-02-25	2024-02-24
<input type="checkbox"/> Conducted Room 2#						
WTXE1001A 1004	EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2023-02-25	2024-02-24
WTXE1003A 1003	LISN	Rohde & Schwarz	ENV 216	100097	2023-02-25	2024-02-24

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing.

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§15.203; §15.247(b)(4)(i)	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	N/A
§15.207(a)	Conducted Emission	N/A
§15.247(e)	Power Spectral Density	N/A
§15.247(a)(2)	DTS Bandwidth	N/A
§15.247(b)(3)	RF Output Power	N/A
§15.209(a)	Radiated Emission	Compliant
§15.247(d)	Band Edge (Out of Band Emissions)	N/A

Class II Permissive Change: The device added five antennas that can be selected.

Note: Report is for Class II Permissive Change only. Updated test data include Antenna Requirement, Radiated Emission. Other test data refer to the original report WTX21F11126549E001, The original FCC ID issue date: 12/15/2021.

3. Antenna Requirement

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Evaluation Information

This product has an Integral Antenna, fulfill the requirement of this section.

4. Field Strength of Spurious Emissions

4.1 Standard Applicable

According to §15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30dB instead of 20dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

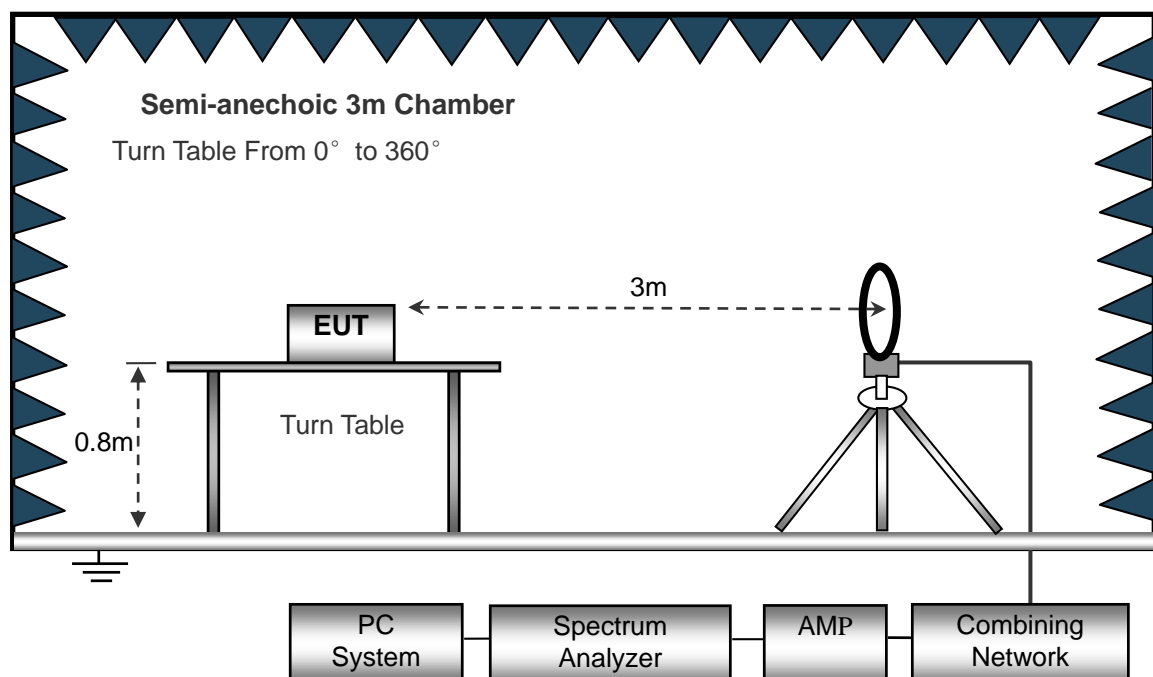
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

4.2 Test Procedure

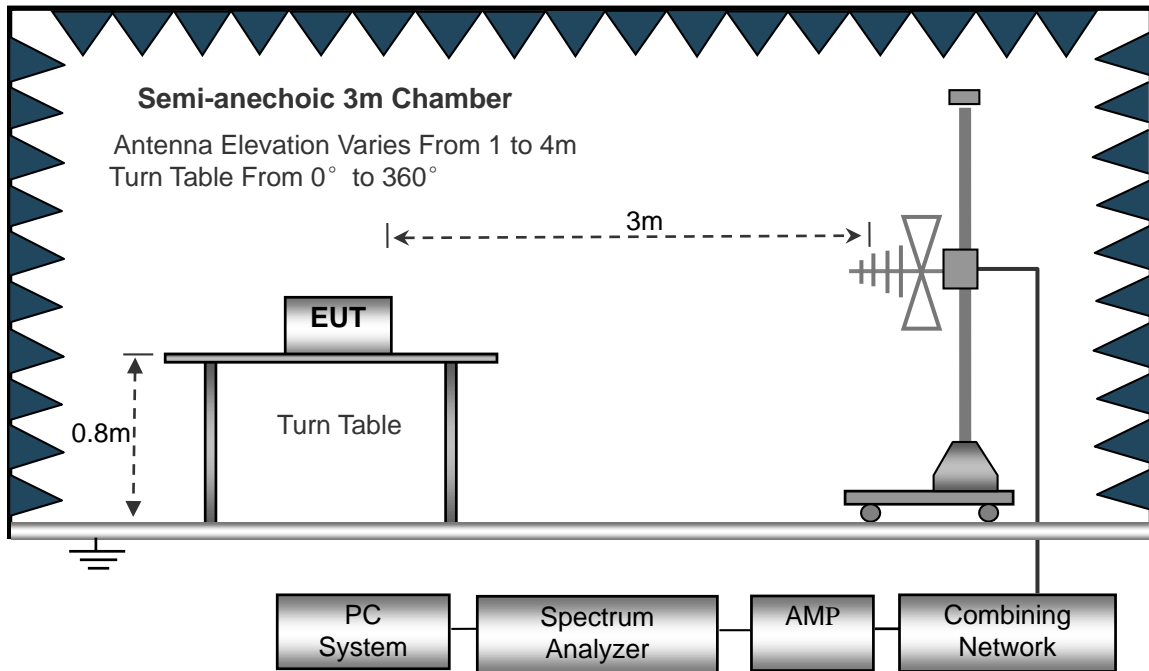
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

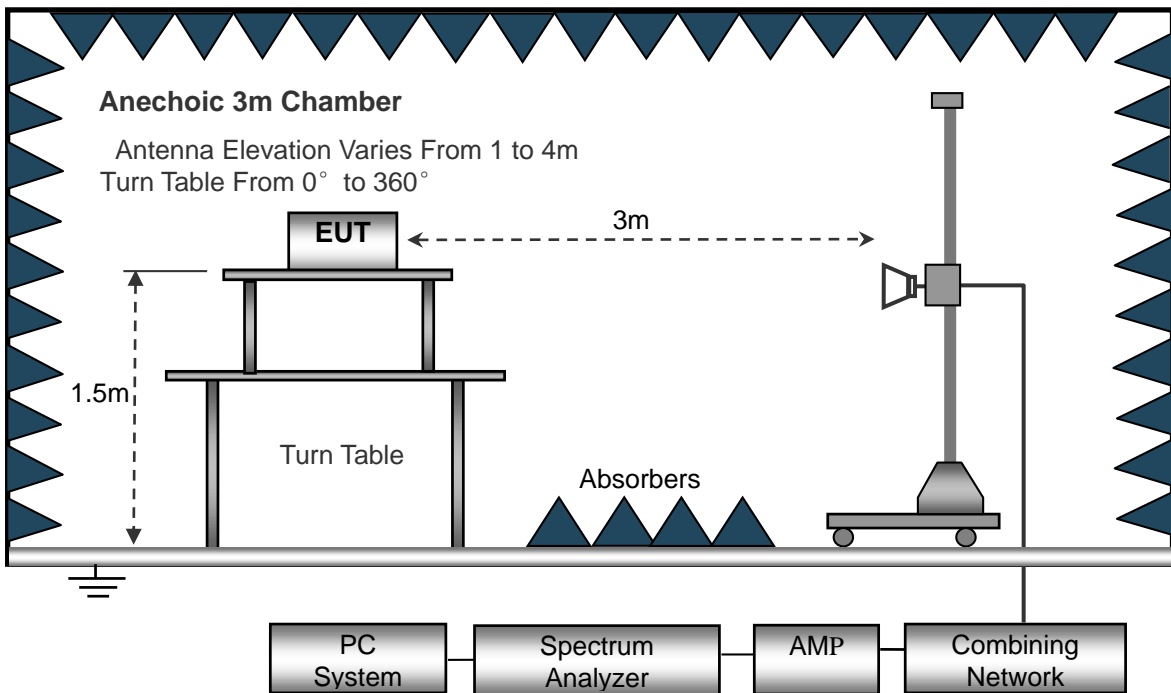
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30MHz to 1GHz.



The test setup for emission measurement above 1GHz.



Frequency :9kHz-30MHz
 RBW=10KHz,
 VBW =30KHz
 Sweep time= Auto
 Trace = max hold

Frequency :30MHz-1GHz
 RBW=120KHz,
 VBW=300KHz
 Sweep time= Auto
 Trace = max hold

Frequency :Above 1GHz
 RBW=1MHz,
 VBW=3MHz(Peak), 10Hz(AV)
 Sweep time= Auto
 Trace = max hold

Reference No.: WTX23X07151824W002

Detector function = peak

Detector function = peak, QP

Detector function = peak, AV

4.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit. The equation for margin calculation is as follows:

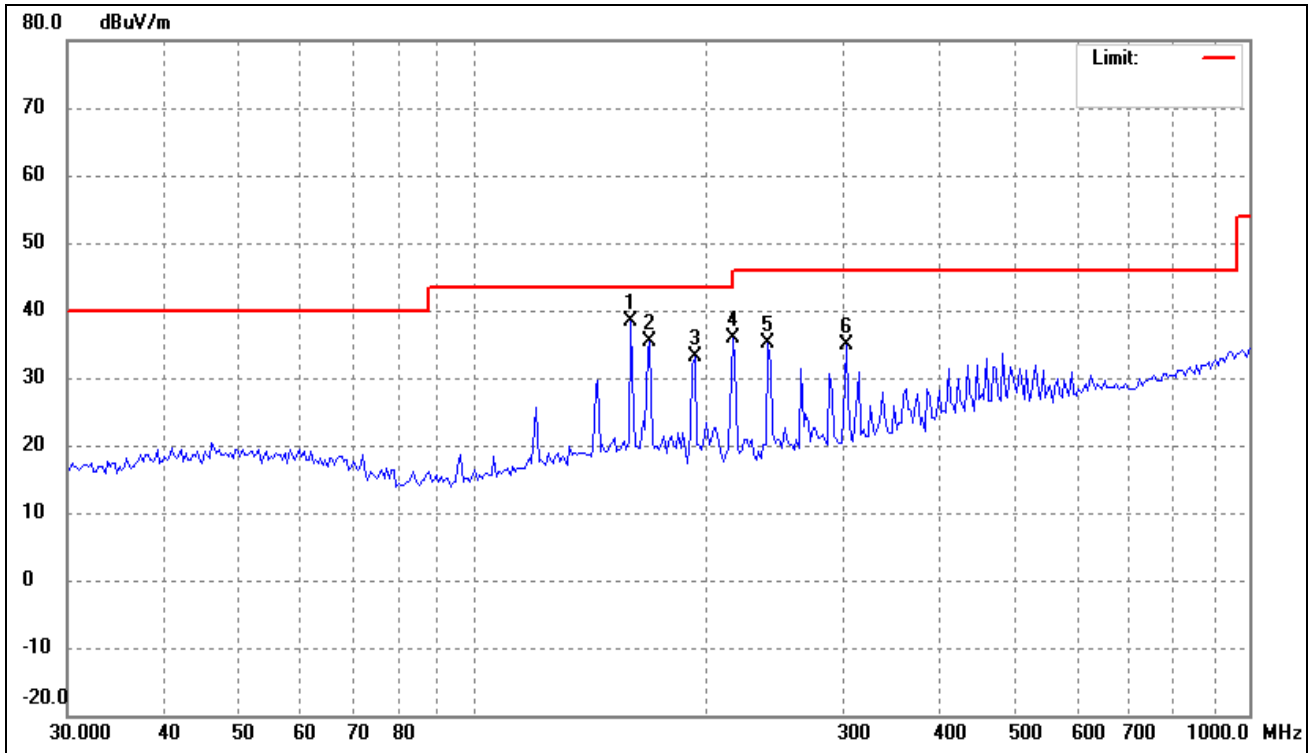
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

4.4 Summary of Test Results/Plots

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

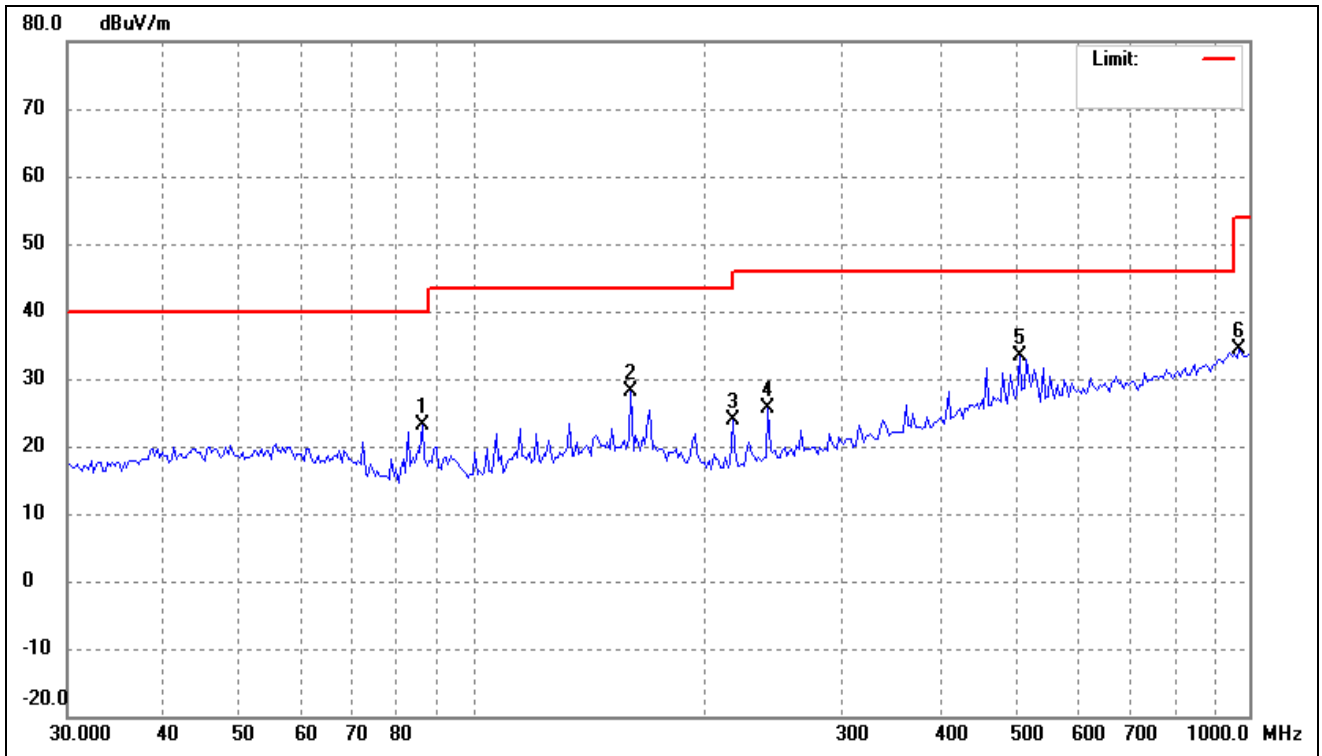
➤ Spurious Emissions Below 1GHz

Test mode:	TM1	Polarity:	Horizontal
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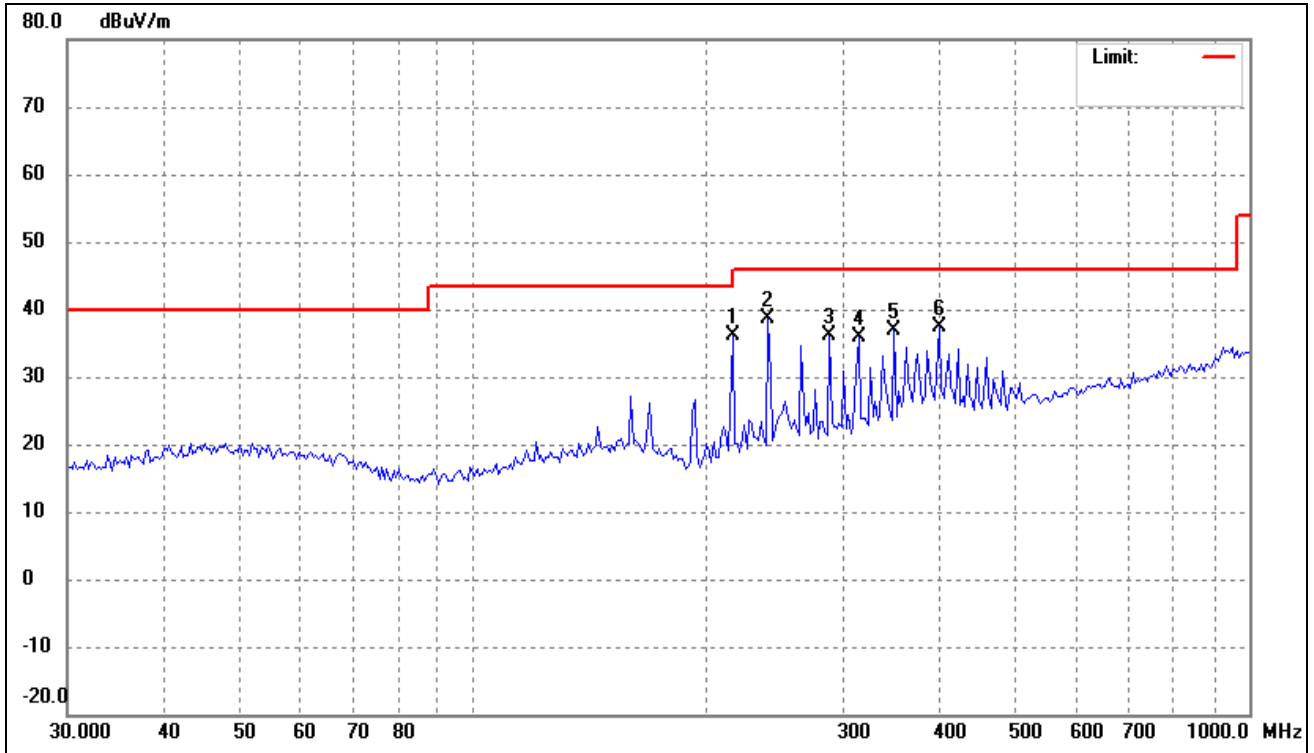
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	159.7586	47.06	-8.61	38.45	43.50	-5.05	-	-	peak
2	168.9970	44.17	-8.85	35.32	43.50	-8.18	-	-	peak
3	193.1366	44.75	-11.60	33.15	43.50	-10.35	-	-	peak
4	216.1197	47.95	-12.12	35.83	46.00	-10.17	-	-	peak
5	240.1442	45.78	-10.54	35.24	46.00	-10.76	-	-	peak
6	302.8193	42.95	-8.18	34.77	46.00	-11.23	-	-	peak

Test mode:	TM1	Polarity:	Vertical
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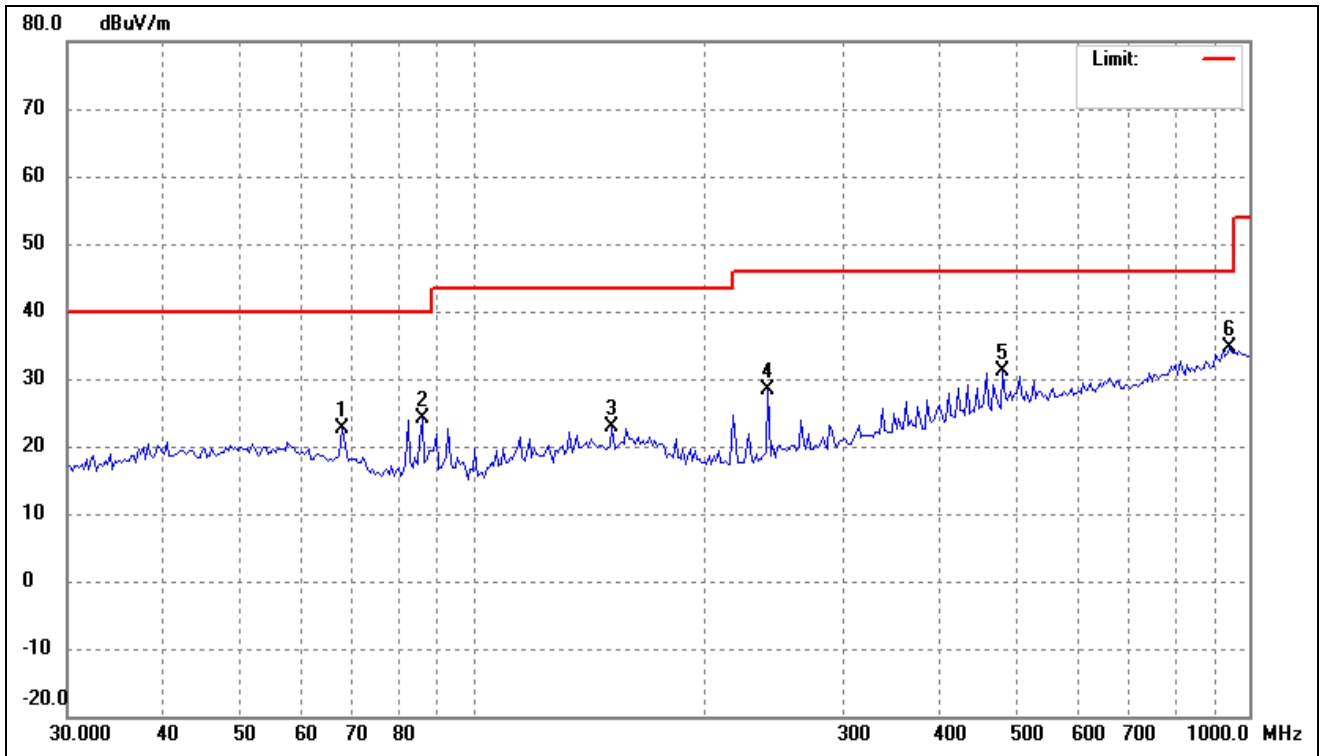
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	86.0796	36.21	-13.04	23.17	40.00	-16.83	-	-	peak
2	159.7586	36.66	-8.61	28.05	43.50	-15.45	-	-	peak
3	216.1197	36.10	-12.12	23.98	46.00	-22.02	-	-	peak
4	240.1442	36.10	-10.54	25.56	46.00	-20.44	-	-	peak
5	505.7891	37.10	-3.80	33.30	46.00	-12.70	-	-	peak
6	972.2827	32.04	2.27	34.31	54.00	-19.69	-	-	peak

Test mode:	TM2	Polarity:	Horizontal
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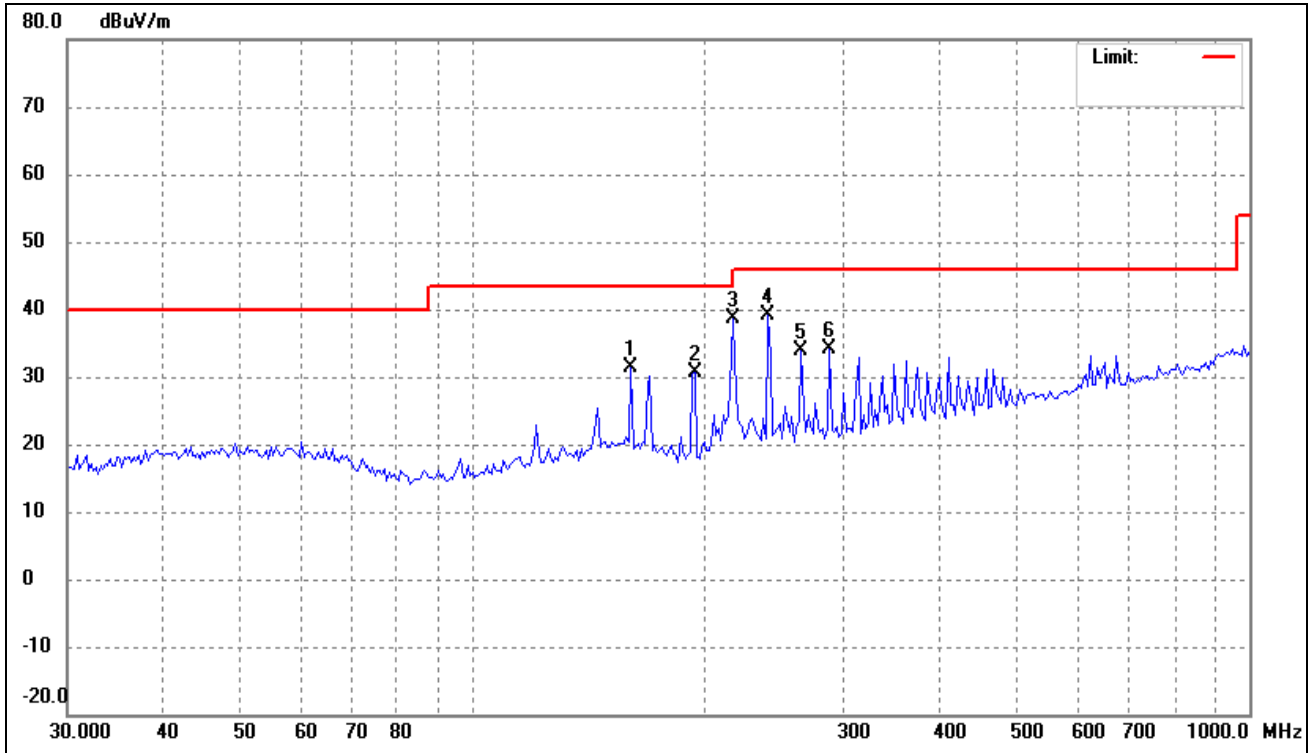
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	216.1197	48.21	-12.12	36.09	46.00	-9.91	-	-	peak
2	240.1442	49.08	-10.54	38.54	46.00	-7.46	-	-	peak
3	288.2840	44.68	-8.66	36.02	46.00	-9.98	-	-	peak
4	313.6483	43.80	-7.87	35.93	46.00	-10.07	-	-	peak
5	348.5145	44.09	-7.14	36.95	46.00	-9.05	-	-	peak
6	398.2962	43.44	-5.99	37.45	46.00	-8.55	-	-	peak

Test mode:	TM2	Polarity:	Vertical
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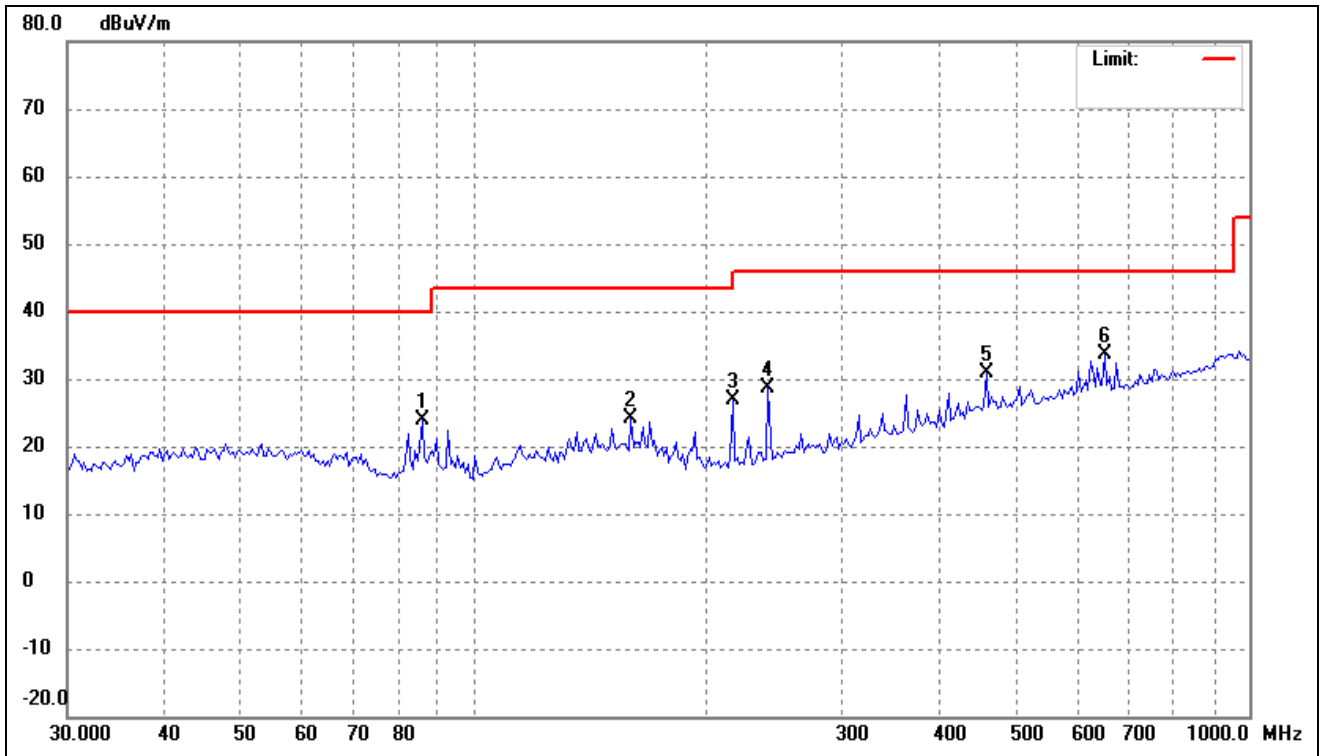
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	67.7856	33.01	-10.36	22.65	40.00	-17.35	-	-	peak
2	86.0796	37.14	-13.04	24.10	40.00	-15.90	-	-	peak
3	151.0252	31.55	-8.61	22.94	43.50	-20.56	-	-	peak
4	240.1442	38.96	-10.54	28.42	46.00	-17.58	-	-	peak
5	481.5112	35.23	-4.15	31.08	46.00	-14.92	-	-	peak
6	945.3336	32.36	2.15	34.51	46.00	-11.49	-	-	peak

Test mode:	TM3	Polarity:	Horizontal
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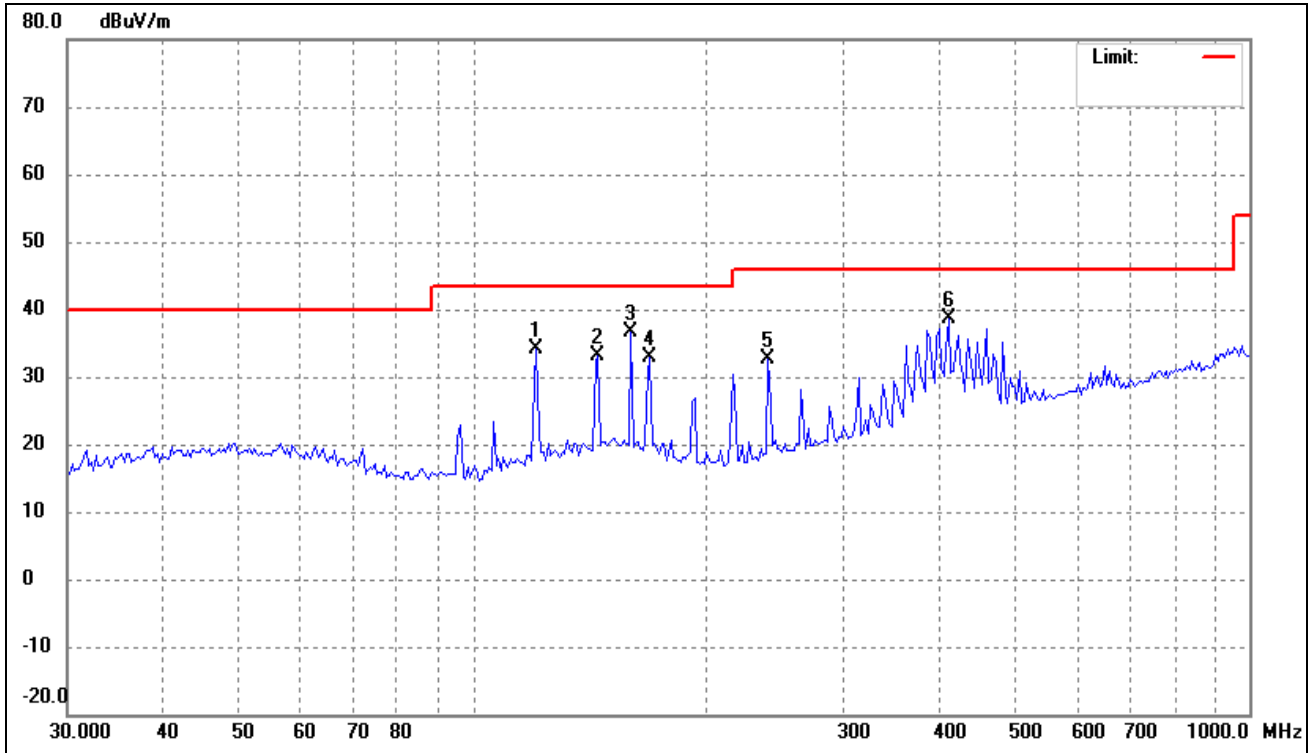
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	159.7586	40.10	-8.61	31.49	43.50	-12.01	-	-	peak
2	193.1366	42.11	-11.60	30.51	43.50	-12.99	-	-	peak
3	216.1197	50.80	-12.12	38.68	46.00	-7.32	-	-	peak
4	240.1442	49.78	-10.54	39.24	46.00	-6.76	-	-	peak
5	264.9709	43.41	-9.55	33.86	46.00	-12.14	-	-	peak
6	288.2840	42.69	-8.66	34.03	46.00	-11.97	-	-	peak

Test mode:	TM3	Polarity:	Vertical
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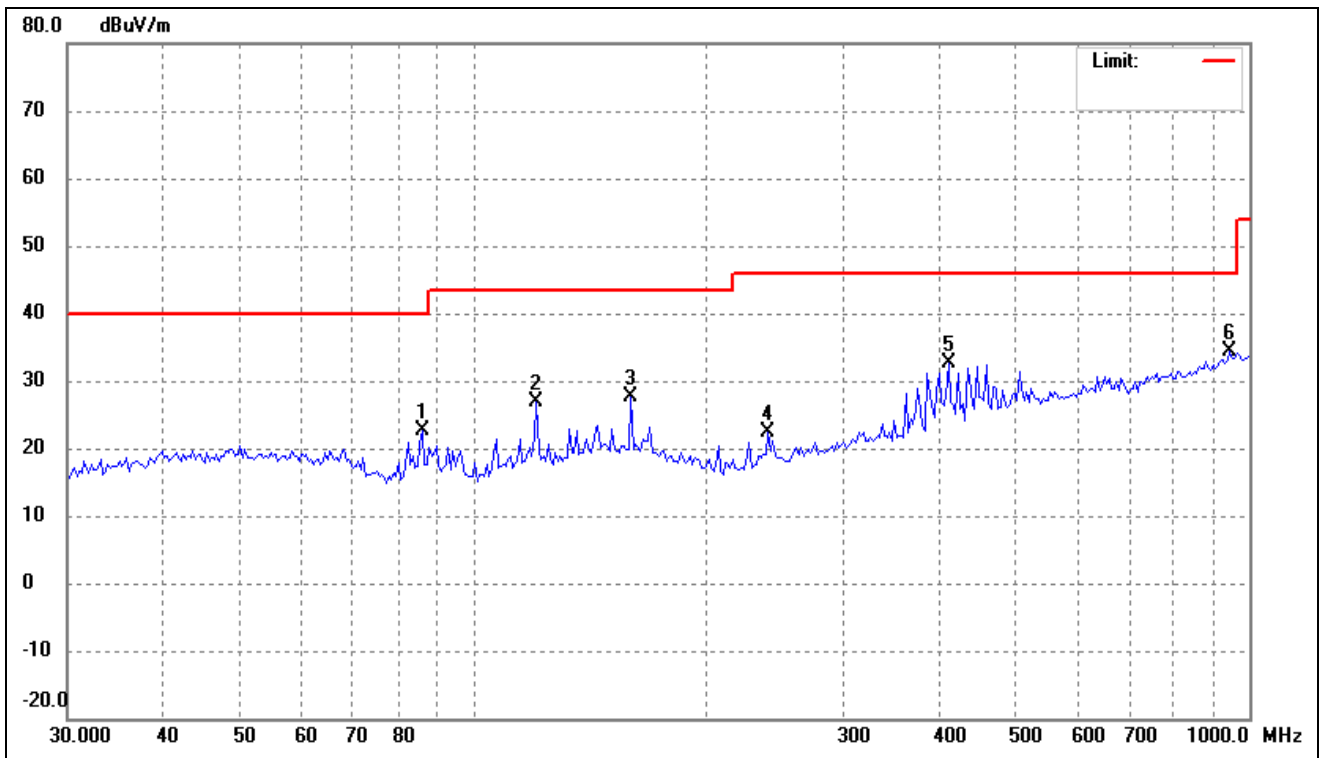
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	86.0796	37.02	-13.04	23.98	40.00	-16.02	-	-	peak
2	159.7586	32.68	-8.61	24.07	43.50	-19.43	-	-	peak
3	216.1197	38.89	-12.12	26.77	46.00	-19.23	-	-	peak
4	240.1442	39.08	-10.54	28.54	46.00	-17.46	-	-	peak
5	458.3987	35.39	-4.47	30.92	46.00	-15.08	-	-	peak
6	651.3831	34.92	-1.30	33.62	46.00	-12.38	-	-	peak

Test mode:	TM4	Polarity:	Horizontal
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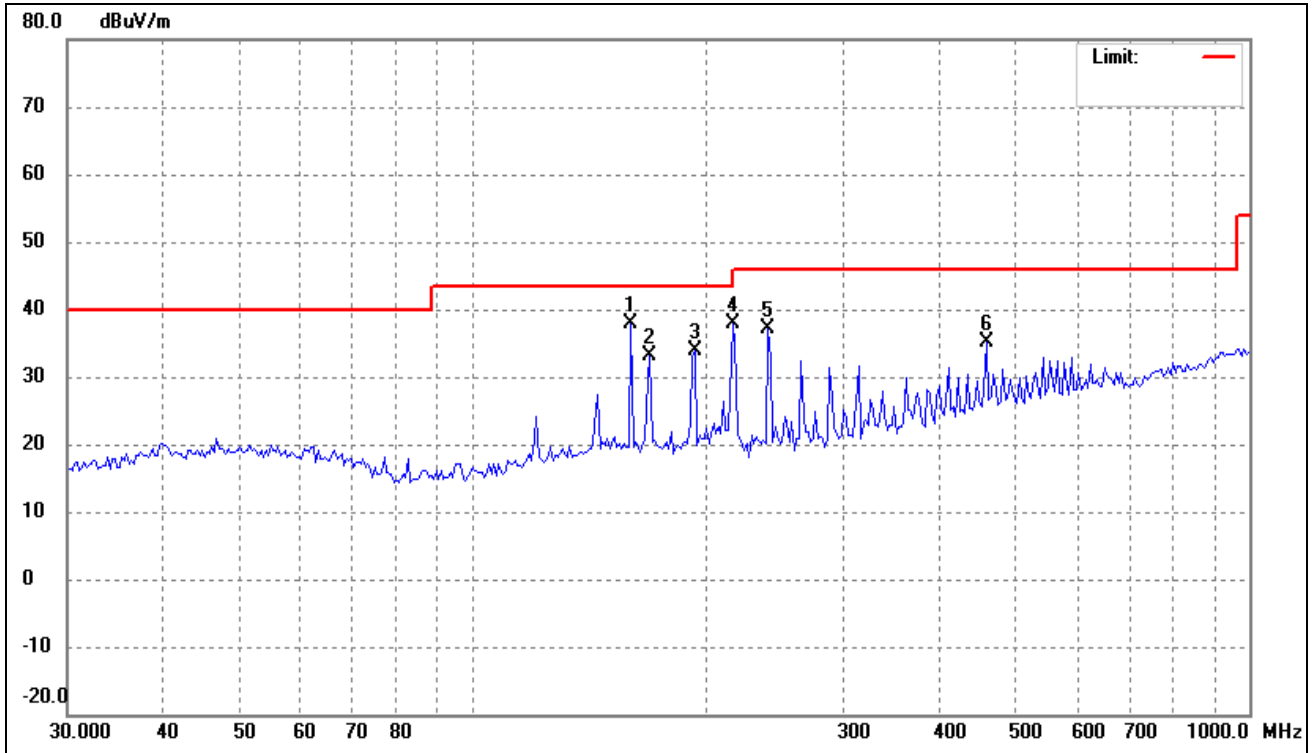
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	120.6118	44.55	-10.49	34.06	43.50	-9.44	-	-	peak
2	144.7899	42.20	-9.03	33.17	43.50	-10.33	-	-	peak
3	159.7586	45.27	-8.61	36.66	43.50	-6.84	-	-	peak
4	168.9970	41.69	-8.85	32.84	43.50	-10.66	-	-	peak
5	240.1442	43.16	-10.54	32.62	46.00	-13.38	-	-	peak
6	409.6506	44.21	-5.70	38.51	46.00	-7.49	-	-	peak

Test mode:	TM4	Polarity:	Vertical
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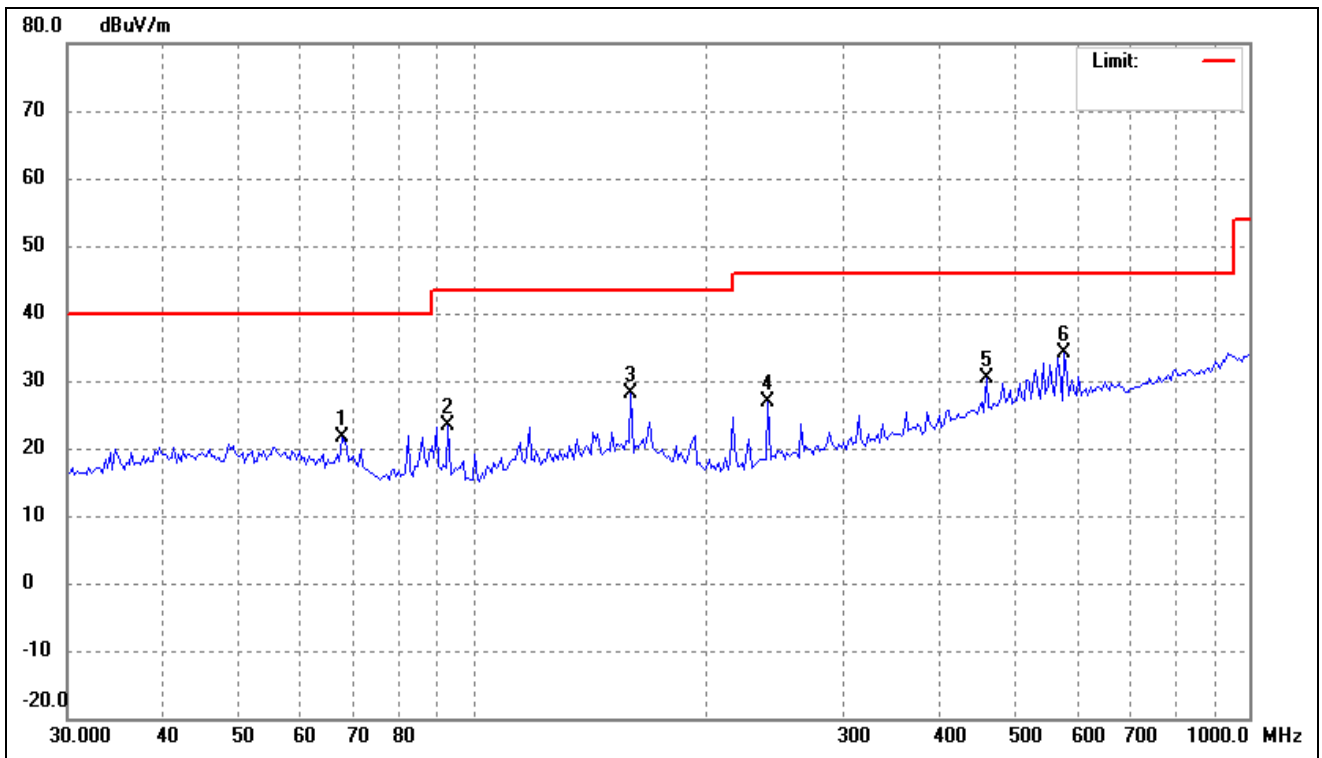
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	86.0796	35.69	-13.04	22.65	40.00	-17.35	-	-	peak
2	120.6118	37.32	-10.49	26.83	43.50	-16.67	-	-	peak
3	159.7586	36.32	-8.61	27.71	43.50	-15.79	-	-	peak
4	240.1442	32.93	-10.54	22.39	46.00	-23.61	-	-	peak
5	409.6506	38.24	-5.70	32.54	46.00	-13.46	-	-	peak
6	945.3336	32.26	2.15	34.41	46.00	-11.59	-	-	peak

Test mode:	TM5	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	159.7586	46.54	-8.61	37.93	43.50	-5.57	-	-	peak
2	168.9970	41.86	-8.85	33.01	43.50	-10.49	-	-	peak
3	193.1366	45.36	-11.60	33.76	43.50	-9.74	-	-	peak
4	216.1197	49.95	-12.12	37.83	46.00	-8.17	-	-	peak
5	240.1442	47.62	-10.54	37.08	46.00	-8.92	-	-	peak
6	458.3987	39.54	-4.47	35.07	46.00	-10.93	-	-	peak

Test mode:	TM5	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (-)	Height (cm)	Remark
1	67.7856	31.88	-10.36	21.52	40.00	-18.48	-	-	peak
2	92.9974	36.31	-12.93	23.38	43.50	-20.12	-	-	peak
3	159.7586	36.76	-8.61	28.15	43.50	-15.35	-	-	peak
4	240.1442	37.50	-10.54	26.96	46.00	-19.04	-	-	peak
5	458.3987	34.95	-4.47	30.48	46.00	-15.52	-	-	peak
6	578.0359	36.32	-2.19	34.13	46.00	-11.87	-	-	peak

Remark: '-Means' the test Degree and Height are not recorded by the test software and only show the worst case in the test report.

➤ Spurious Emissions Above 1GHz

Test Mode:TM1

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2402MHz							
4804	54.70	-3.59	51.11	74	-22.89	H	PK
4804	47.18	-3.59	43.59	54	-10.41	H	AV
7206	48.87	-0.52	48.35	74	-25.65	H	PK
7206	41.59	-0.52	41.07	54	-12.93	H	AV
4804	51.40	-3.59	47.81	74	-26.19	V	PK
4804	42.90	-3.59	39.31	54	-14.69	V	AV
7206	49.90	-0.52	49.38	74	-24.62	V	PK
7206	42.57	-0.52	42.05	54	-11.95	V	AV
Middle Channel-2440MHz							
4880	53.15	-3.59	49.56	74	-24.44	H	PK
4880	46.11	-3.59	42.52	54	-11.48	H	AV
7320	48.38	-0.52	47.86	74	-26.14	H	PK
7320	40.21	-0.52	39.69	54	-14.31	H	AV
4880	51.68	-3.59	48.09	74	-25.91	V	PK
4880	44.45	-3.59	40.86	54	-13.14	V	AV
7320	52.29	-0.52	51.77	74	-22.23	V	PK
7320	42.77	-0.52	42.25	54	-11.75	V	AV
High Channel-2480MHz							
4960	55.24	-3.41	51.83	74	-22.17	H	PK
4960	46.83	-3.41	43.42	54	-10.58	H	AV
7440	52.42	-0.42	52.00	74	-22.00	H	PK
7440	40.54	-0.42	40.12	54	-13.88	H	AV
4960	53.72	-3.41	50.31	74	-23.69	V	PK
4960	47.39	-3.41	43.98	54	-10.02	V	AV
7440	51.84	-0.42	51.42	74	-22.58	V	PK
7440	41.27	-0.42	40.85	54	-13.15	V	AV

Test Mode:TM2

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2402MHz							
4804	52.62	-3.59	49.03	74	-24.97	H	PK
4804	47.70	-3.59	44.11	54	-9.89	H	AV
7206	50.22	-0.52	49.70	74	-24.30	H	PK
7206	40.34	-0.52	39.82	54	-14.18	H	AV
4804	50.23	-3.59	46.64	74	-27.36	V	PK
4804	43.63	-3.59	40.04	54	-13.96	V	AV
7206	48.59	-0.52	48.07	74	-25.93	V	PK
7206	42.49	-0.52	41.97	54	-12.03	V	AV
Middle Channel-2440MHz							
4880	53.56	-3.59	49.97	74	-24.03	H	PK
4880	47.58	-3.59	43.99	54	-10.01	H	AV
7320	48.85	-0.52	48.33	74	-25.67	H	PK
7320	41.71	-0.52	41.19	54	-12.81	H	AV
4880	52.65	-3.59	49.06	74	-24.94	V	PK
4880	44.47	-3.59	40.88	54	-13.12	V	AV
7320	51.24	-0.52	50.72	74	-23.28	V	PK
7320	42.83	-0.52	42.31	54	-11.69	V	AV
High Channel-2480MHz							
4960	54.74	-3.41	51.33	74	-22.67	H	PK
4960	44.85	-3.41	41.44	54	-12.56	H	AV
7440	50.14	-0.42	49.72	74	-24.28	H	PK
7440	39.62	-0.42	39.20	54	-14.80	H	AV
4960	53.87	-3.41	50.46	74	-23.54	V	PK
4960	48.62	-3.41	45.21	54	-8.79	V	AV
7440	50.06	-0.42	49.64	74	-24.36	V	PK
7440	43.32	-0.42	42.90	54	-11.10	V	AV

Test Mode:TM3

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2402MHz							
4804	53.19	-3.59	49.60	74	-24.40	H	PK
4804	46.73	-3.59	43.14	54	-10.86	H	AV
7206	49.13	-0.52	48.61	74	-25.39	H	PK
7206	41.86	-0.52	41.34	54	-12.66	H	AV
4804	49.19	-3.59	45.60	74	-28.40	V	PK
4804	42.99	-3.59	39.40	54	-14.60	V	AV
7206	51.38	-0.52	50.86	74	-23.14	V	PK
7206	43.12	-0.52	42.60	54	-11.40	V	AV
Middle Channel-2440MHz							
4880	53.47	-3.59	49.88	74	-24.12	H	PK
4880	46.35	-3.59	42.76	54	-11.24	H	AV
7320	49.47	-0.52	48.95	74	-25.05	H	PK
7320	41.45	-0.52	40.93	54	-13.07	H	AV
4880	53.03	-3.59	49.44	74	-24.56	V	PK
4880	44.49	-3.59	40.90	54	-13.10	V	AV
7320	51.90	-0.52	51.38	74	-22.62	V	PK
7320	42.34	-0.52	41.82	54	-12.18	V	AV
High Channel-2480MHz							
4960	55.70	-3.41	52.29	74	-21.71	H	PK
4960	45.78	-3.41	42.37	54	-11.63	H	AV
7440	52.73	-0.42	52.31	74	-21.69	H	PK
7440	41.90	-0.42	41.48	54	-12.52	H	AV
4960	54.81	-3.41	51.40	74	-22.60	V	PK
4960	47.50	-3.41	44.09	54	-9.91	V	AV
7440	50.38	-0.42	49.96	74	-24.04	V	PK
7440	42.63	-0.42	42.21	54	-11.79	V	AV

Test Mode:TM4

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2402MHz							
4804	54.96	-3.59	51.37	74	-22.63	H	PK
4804	47.63	-3.59	44.04	54	-9.96	H	AV
7206	48.70	-0.52	48.18	74	-25.82	H	PK
7206	41.00	-0.52	40.48	54	-13.52	H	AV
4804	52.31	-3.59	48.72	74	-25.28	V	PK
4804	43.53	-3.59	39.94	54	-14.06	V	AV
7206	50.13	-0.52	49.61	74	-24.39	V	PK
7206	43.36	-0.52	42.84	54	-11.16	V	AV
Middle Channel-2440MHz							
4880	52.49	-3.59	48.90	74	-25.10	H	PK
4880	46.35	-3.59	42.76	54	-11.24	H	AV
7320	48.89	-0.52	48.37	74	-25.63	H	PK
7320	41.03	-0.52	40.51	54	-13.49	H	AV
4880	51.03	-3.59	47.44	74	-26.56	V	PK
4880	44.59	-3.59	41.00	54	-13.00	V	AV
7320	51.32	-0.52	50.80	74	-23.20	V	PK
7320	43.39	-0.52	42.87	54	-11.13	V	AV
High Channel-2480MHz							
4960	55.08	-3.41	51.67	74	-22.33	H	PK
4960	46.55	-3.41	43.14	54	-10.86	H	AV
7440	52.40	-0.42	51.98	74	-22.02	H	PK
7440	40.90	-0.42	40.48	54	-13.52	H	AV
4960	53.07	-3.41	49.66	74	-24.34	V	PK
4960	46.44	-3.41	43.03	54	-10.97	V	AV
7440	51.59	-0.42	51.17	74	-22.83	V	PK
7440	40.29	-0.42	39.87	54	-14.13	V	AV

Test Mode:TM5

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2402MHz							
4804	53.58	-3.59	49.99	74	-24.01	H	PK
4804	46.75	-3.59	43.16	54	-10.84	H	AV
7206	50.80	-0.52	50.28	74	-23.72	H	PK
7206	40.16	-0.52	39.64	54	-14.36	H	AV
4804	50.57	-3.59	46.98	74	-27.02	V	PK
4804	44.44	-3.59	40.85	54	-13.15	V	AV
7206	48.16	-0.52	47.64	74	-26.36	V	PK
7206	43.43	-0.52	42.91	54	-11.09	V	AV
Middle Channel-2440MHz							
4880	53.15	-3.59	49.56	74	-24.44	H	PK
4880	46.76	-3.59	43.17	54	-10.83	H	AV
7320	49.10	-0.52	48.58	74	-25.42	H	PK
7320	40.76	-0.52	40.24	54	-13.76	H	AV
4880	53.29	-3.59	49.70	74	-24.30	V	PK
4880	44.36	-3.59	40.77	54	-13.23	V	AV
7320	51.70	-0.52	51.18	74	-22.82	V	PK
7320	42.93	-0.52	42.41	54	-11.59	V	AV
High Channel-2480MHz							
4960	55.74	-3.41	52.33	74	-21.67	H	PK
4960	44.57	-3.41	41.16	54	-12.84	H	AV
7440	50.95	-0.42	50.53	74	-23.47	H	PK
7440	38.75	-0.42	38.33	54	-15.67	H	AV
4960	53.55	-3.41	50.14	74	-23.86	V	PK
4960	49.40	-3.41	45.99	54	-8.01	V	AV
7440	51.01	-0.42	50.59	74	-23.41	V	PK
7440	43.87	-0.42	43.45	54	-10.55	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

APPENDIX PHOTOGRAPHS

Please refer to "ANNEX"

**** END OF REPORT ****