TEST REPORT

Applicant:	SHENZHEN DREAMLNK TECHNOLOGY CO.,LTD
Address of Applicant:	Block C 602, District A, Huameiju Business Center, Xinan Street, Baoan District, Shenzhen City, Guangdong, China
Manufacturer/Factory:	SHENZHEN DREAMLNK TECHNOLOGY CO.,LTD
Address of Manufacturer/Factory:	Block C 602, District A, Huameiju Business Center, Xinan Street, Baoan District, Shenzhen City, Guangdong, China

Equipment Under Test (EUT)

Product Name:	DL-CC1310-B Ultra-Low Power UART Wireless SoC Transceiver Module
Model No.:	DL-CC1310-B 868M/915M, DL-CC1310-B
Trade Mark:	DreamLNK®
FCC ID:	2ASHLDL-CC1310-B
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	March 06, 2023
Date of Test:	March 07, 2023-June 09, 2023
Date of report issued:	June 09, 2023
Test Result :	PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Luo
Laboratory Manager

This 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 compiler and approver.

2 Version

Version No.	Date	Description
00	*June 09, 2023*	*Original*

Prepared By: ***Date:*** *June 09, 2023*

Project Engineer

Check By: ***Date:*** *June 09, 2023*

Reviewer

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4 Test Summary

Test Item	Section	Result
Antenna Requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(2)(3)	Pass
Channel Bandwidth	15.247 (a)(1)(2)	Pass
Carrier Frequencies Separation	15.247 (a)(1)	Pass
Hopping Channel Number	15.247 (a)(1)(iii)	Pass
Dwell Time	15.247(a)(1)(i)	Pass
Radiated Emission	15.205/15.209	Pass
Band Edge	15.247(d)	Pass

Pass: The EUT complies with the essential requirements in the standard.

Remark： Test according to ANSI C63.10:2013.

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz-30MHz	3.1dB	(1)
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 General Description of EUT

Product Name:	DL-CC1310-B Ultra-Low Power UART Wireless SoC Transceiver Module
Model No.:	DL-CC1310-B 868M/915M, DL-CC1310-B
Test Model No.:	DL-CC1310-B 868M/915M
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The only difference is model name for commercial purpose.	
Serial No.:	DL35D0300001
Hardware version:	V1.1
Software version:	V1.13
Test sample(s) ID:	GTS2023030052-1
Sample(s) Status	Engineer sample
Operation Frequency:	905MHz ~924.44MHz
Channel numbers:	55
Modulation technology:	FHSS
Modulation type:	FSK
Antenna Type:	Glue stick Antenna
Antenna gain:	2dBi
Power supply:	DC 3.3V base plate power supply :INPUT DC 5V,OUTPUT DC3.3V

Operation Frequency each of channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	905	16	910.4	31	915.8	46	921.2
2	905.36	17	910.76	32	916.16	47	921.56
3	905.72	18	911.12	33	916.52	48	921.92
4	906.08	19	911.48	34	916.88	49	922.28
5	906.44	20	911.84	35	917.24	50	922.64
6	906.8	21	912.2	36	917.6	51	923
7	907.16	22	912.56	37	917.96	52	923.36
8	907.52	23	912.92	38	918.32	53	923.72
9	907.88	24	913.28	39	918.68	54	924.08
10	908.24	25	913.64	40	919.04	55	924.44
11	908.6	26	914	41	919.4		
12	908.96	27	914.36	42	919.76		
13	909.32	28	914.72	43	920.12		
14	909.68	29	915.08	44	920.48		
15	910.04	30	915.44	45	920.84		

The test frequencies are below:

Channel	Frequency(MHz)
The lowest channel	905
The middle channel	914.72
The Highest channel	924.44

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting mode. New battery used

5.3 Test Facility

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

● **FCC —Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen 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 files.

● **IC —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.4 Test Location

All other tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.5 Description of Support Units

None.

5.6 Deviation from Standards

None.

5.7 Abnormalities from Standard Conditions

None.

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	June 23, 2021	June 22, 2024
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	April 14, 2023	April 13, 2024
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Coaxial Cable	GTS	N/A	GTS213	April 21, 2023	April 20, 2024
8	Coaxial Cable	GTS	N/A	GTS211	April 21, 2023	April 20, 2024
9	Coaxial cable	GTS	N/A	GTS210	April 21, 2023	April 20, 2024
10	Coaxial Cable	GTS	N/A	GTS212	April 21, 2023	April 20, 2024
11	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 14, 2023	April 13, 2024
12	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 29, 2022	Nov. 28, 2023
13	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 14, 2023	April 13, 2024
14	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 14, 2023	April 13, 2024
15	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 30, 2022	Oct. 29, 2023
16	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 30, 2022	Oct. 29, 2023
17	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 13, 2023	March 12, 2024
18	Amplifier	/	LNA-1000-30S	GTS650	April 14, 2023	April 13, 2024
19	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS668	Dec. 20,2022	Dec.19,2023

Conducted Emission						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 14, 2023	April 13, 2024
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS639	April 18, 2023	April 17, 2024
7	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 14, 2023	April 13, 2024
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 14, 2023	April 13, 2024
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 14, 2023	April 13, 2024
10	Antenna end assembly	Weinschel	1870A	GTS560	April 14, 2023	April 13, 2024

RF Conducted Test:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 14, 2023	April 13, 2024
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 14, 2023	April 13, 2024
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 14, 2023	April 13, 2024
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 14, 2023	April 13, 2024
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 14, 2023	April 13, 2024
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 14, 2023	April 13, 2024
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 14, 2023	April 13, 2024
9	EXA Signal Analyzer	Keysight	N9010B	MY60241168	Nov. 04, 2022	Nov. 03, 2023

General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	April 18, 2023	April 17, 2024
2	Barometer	KUMAO	SF132	GTS647	April 19, 2023	April 18, 2024

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antenna is Glue stick antenna, reference to the appendix II for details.	

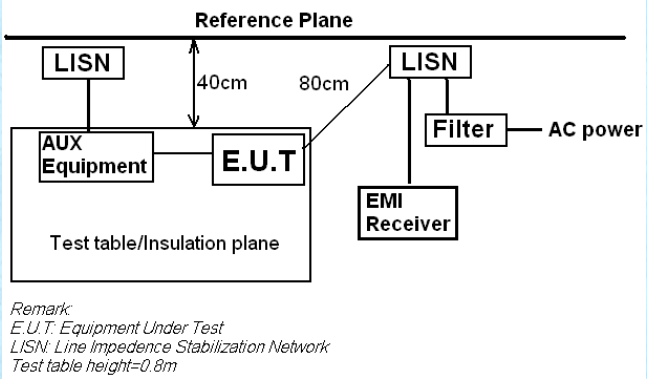
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test setup:



Test procedure:

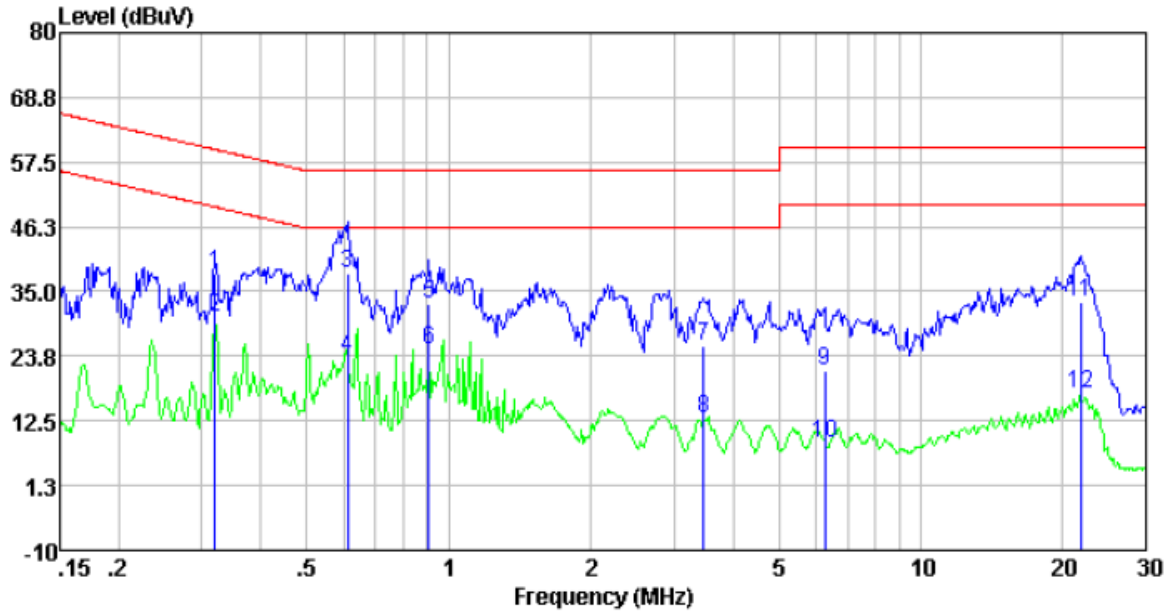
1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.
2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).
3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.

Test Instruments:	Refer to section 6.0 for details					
Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test results:	Pass					

Measurement data

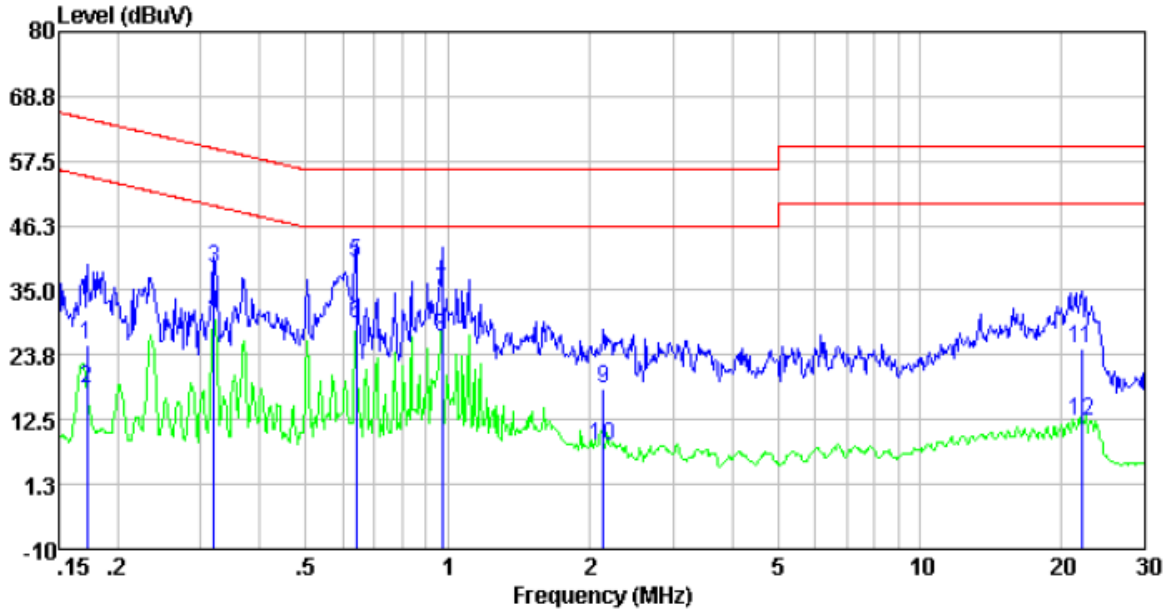
Pre-scan all test modes, found worst case at 915MHz, and so only show the test result of it

Line:



Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.32	28.21	9.98	0.01	38.20	59.71	-21.51	QP
0.32	20.54	9.98	0.01	30.53	49.71	-19.18	Average
0.61	28.19	9.96	0.02	38.17	56.00	-17.83	QP
0.61	13.62	9.96	0.02	23.60	46.00	-22.40	Average
0.91	22.87	9.96	0.03	32.86	56.00	-23.14	QP
0.91	14.79	9.96	0.03	24.78	46.00	-21.22	Average
3.47	15.88	9.75	0.06	25.69	56.00	-30.31	QP
3.47	3.09	9.75	0.06	12.90	46.00	-33.10	Average
6.25	11.54	9.72	0.08	21.34	60.00	-38.66	QP
6.25	-1.26	9.72	0.08	8.54	50.00	-41.46	Average
21.83	23.67	9.44	0.19	33.30	60.00	-26.70	QP
21.83	7.51	9.44	0.19	17.14	50.00	-32.86	Average

Neutral:

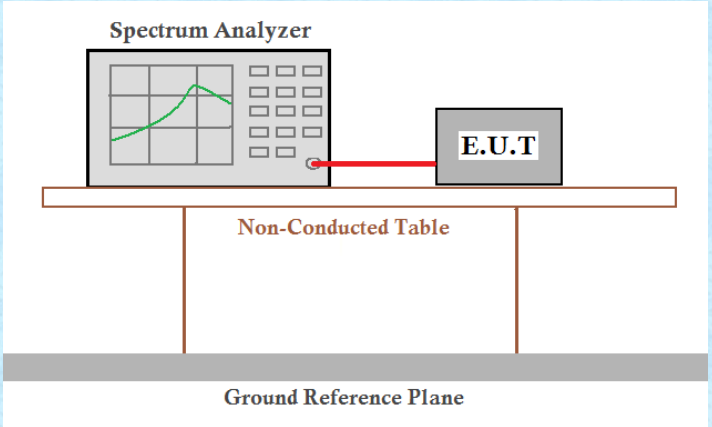


Freq	Reading level	LISN/ISN factor	Cable loss	Level	Limit level	Over limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.17	15.26	10.11	0.01	25.38	64.86	-39.48	QP
0.17	7.72	10.11	0.01	17.84	54.86	-37.02	Average
0.32	28.72	9.97	0.01	38.70	59.71	-21.01	QP
0.32	20.92	9.97	0.01	30.90	49.71	-18.81	Average
0.64	29.87	9.96	0.02	39.85	56.00	-16.15	QP
0.64	19.29	9.96	0.02	29.27	46.00	-16.73	Average
0.97	24.91	9.96	0.03	34.90	56.00	-21.10	QP
0.97	17.03	9.96	0.03	27.02	46.00	-18.98	Average
2.13	8.00	9.81	0.05	17.86	56.00	-38.14	QP
2.13	-1.77	9.81	0.05	8.09	46.00	-37.91	Average
22.06	15.26	9.42	0.19	24.87	60.00	-35.13	QP
22.06	2.70	9.42	0.19	12.31	50.00	-37.69	Average

Notes:

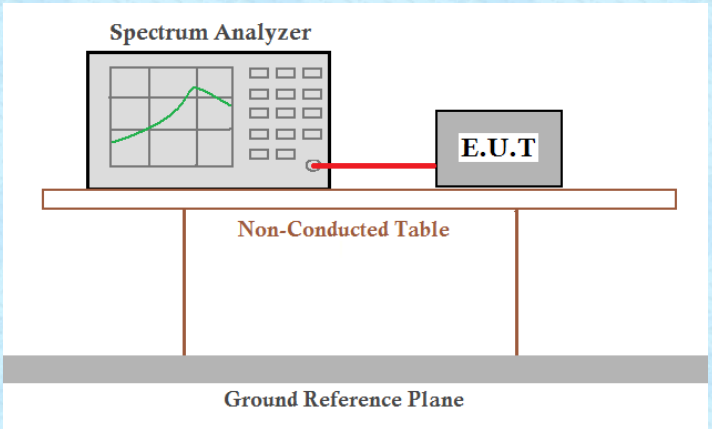
1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss*
4. *If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.*

7.3 Conducted Peak Output Power

Test Requirement:	FCC Part15 C Section 15.247(b)(2)(3)
Test Method:	ANSI C63.10:2013
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

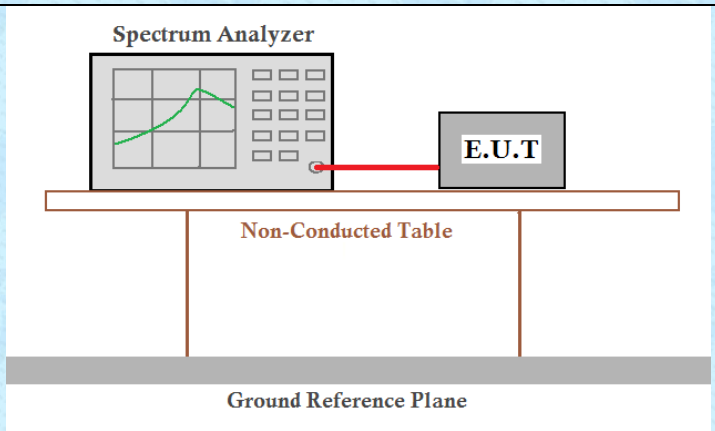
Measurement Data: The detailed test data see Appendix.

7.4 Channel Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)(2)
Test Method:	ANSI C63.10:2013
Limit:	N/A
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

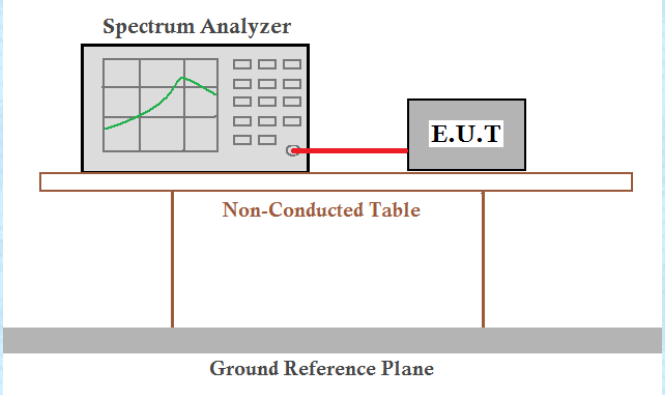
Measurement Data: The detailed test data see Appendix.

7.5 Carrier Frequencies Separation

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=100KHz, VBW=300KHz, detector=Peak
Limit:	0.025MHz or 20dB bandwidth (whichever is greater)
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

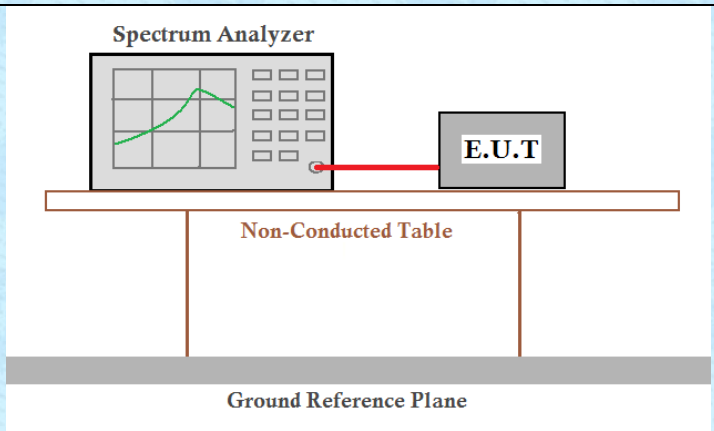
Measurement Data: The detailed test data see Appendix.

7.6 Hopping Channel Number

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)(iii)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=50kHz, VBW=150kHz, Frequency range=902MHz-928MHz, Detector=Peak
Limit:	Report for Use
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix.

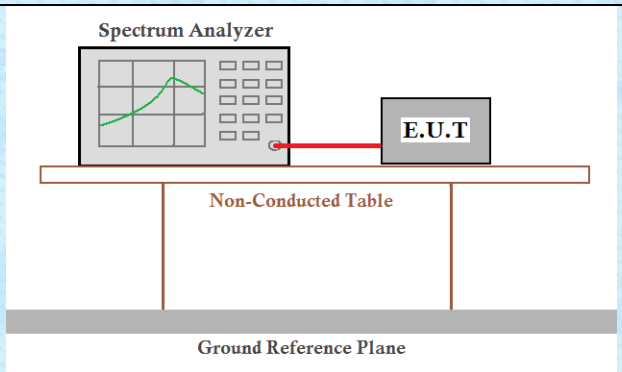
7.7 Dwell Time

Test Requirement:	FCC Part15 C Section 15.247(a)(1)(i)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=300KHz, VBW=300KHz, Span=0Hz, Detector=Peak
Limit:	0.4 Second
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix.

7.8 Spurious Emission

7.8.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=100kHz, VBW=300kHz, Detector=Peak
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix.

7.8.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10:2013
Test Frequency Range:	9kHz to 18GHz
Test site:	Measurement Distance: 3m

Receiver setup:

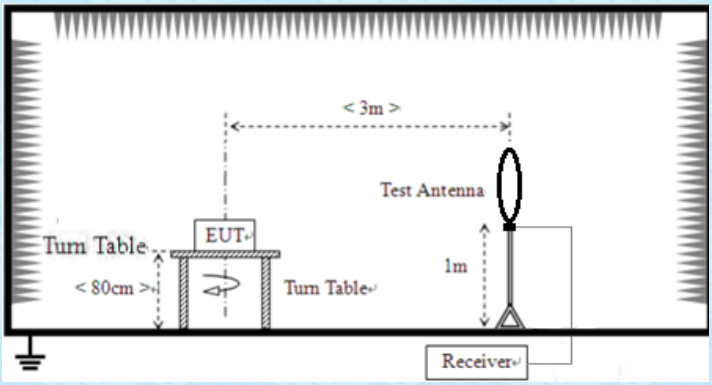
Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Limit:
(Spurious Emissions)

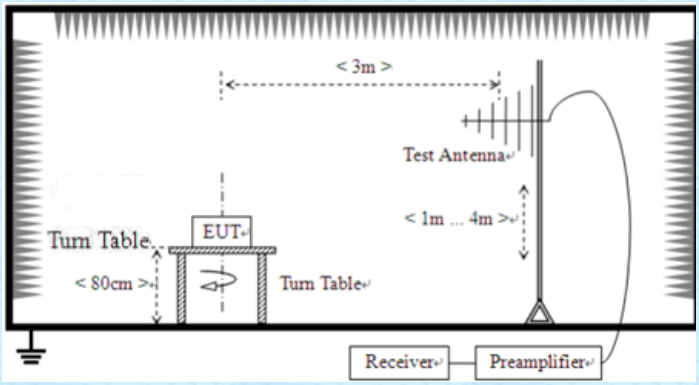
Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP/PK/AV	300m
0.490MHz-1.705MHz	24000/F(KHz)	QP	300m
1.705MHz-30MHz	30	QP	30m
30MHz-88MHz	100	QP	3m
88MHz-216MHz	150	QP	
216MHz-960MHz	200	QP	
960MHz-1GHz	500	QP	
Above 1GHz	500	Average	
	5000	Peak	

Test setup:

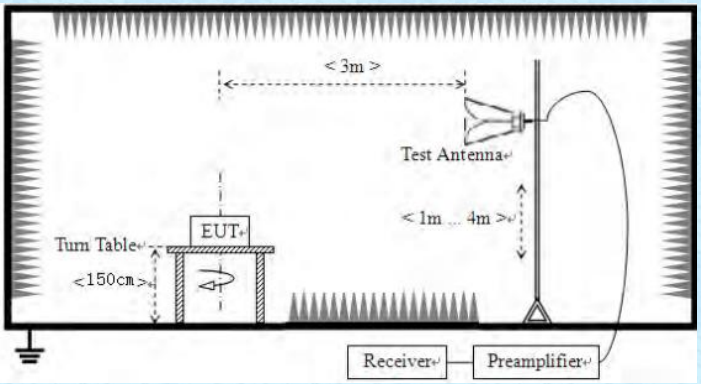
Below 30MHz



Below 1GHz



Above 1GHz



Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.					
Test Instruments:	Refer to section 5.8 for details					
Test mode:	Refer to section 5.2 for details					
Temp. / Hum.	Temp.:	25 °C	Humid.:	52%	Press.:	1 012mbar

Test results:	Pass
Test voltage:	DC 3.3V

Remark:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

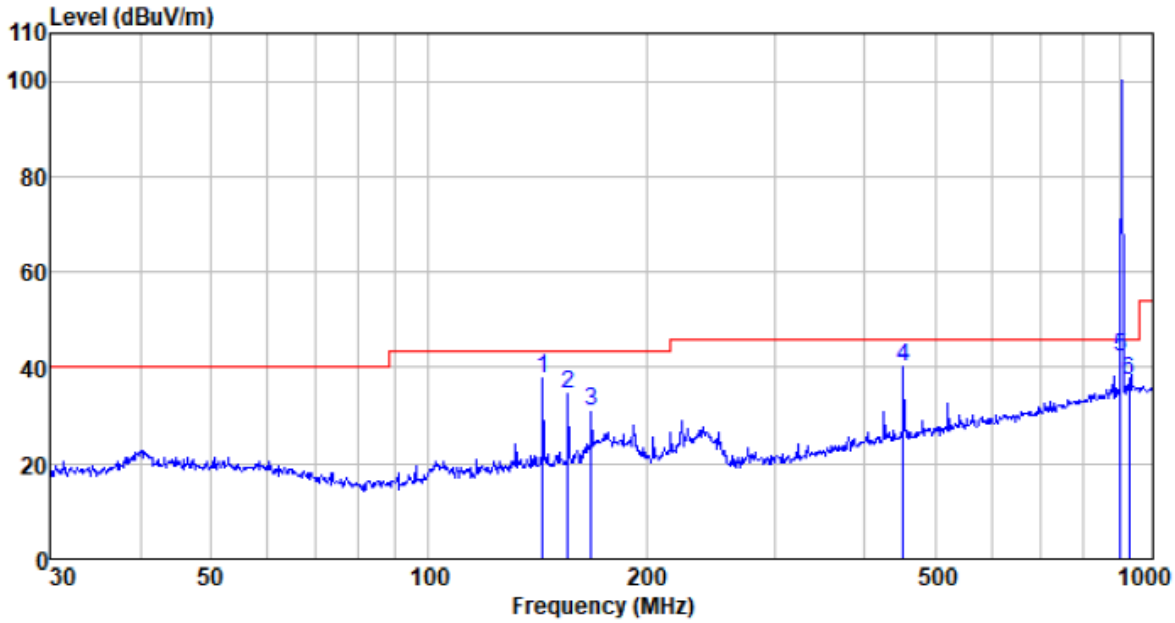
Measurement data:

- **Below 30MHz**

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

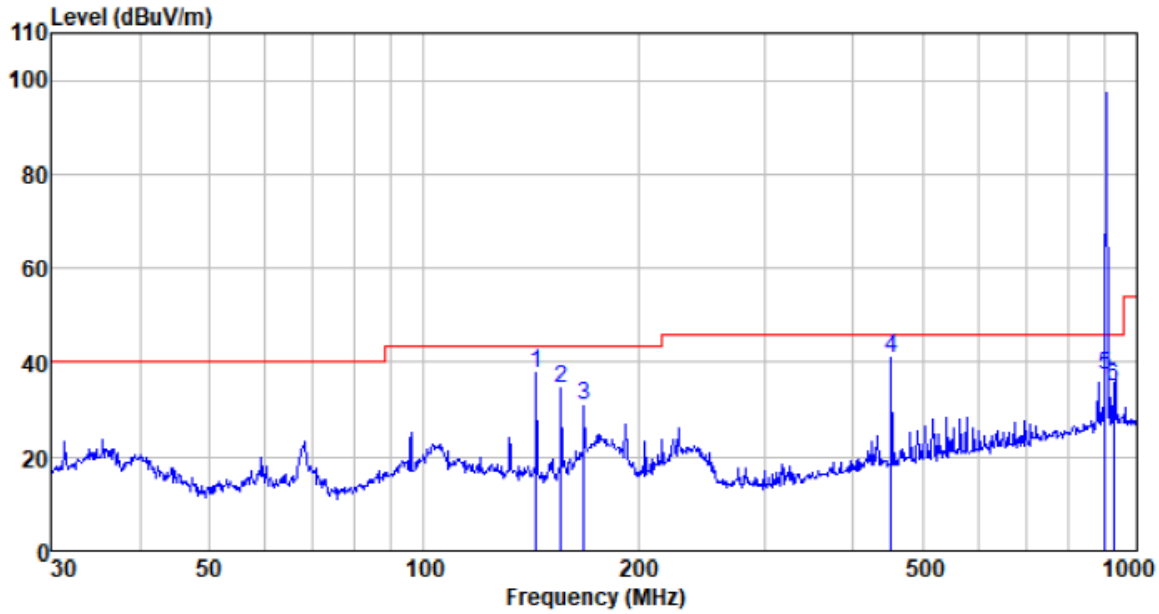
■ **30MHz ~ 1GHz**

Test channel:	Lowest	Polarization:	Horizontal



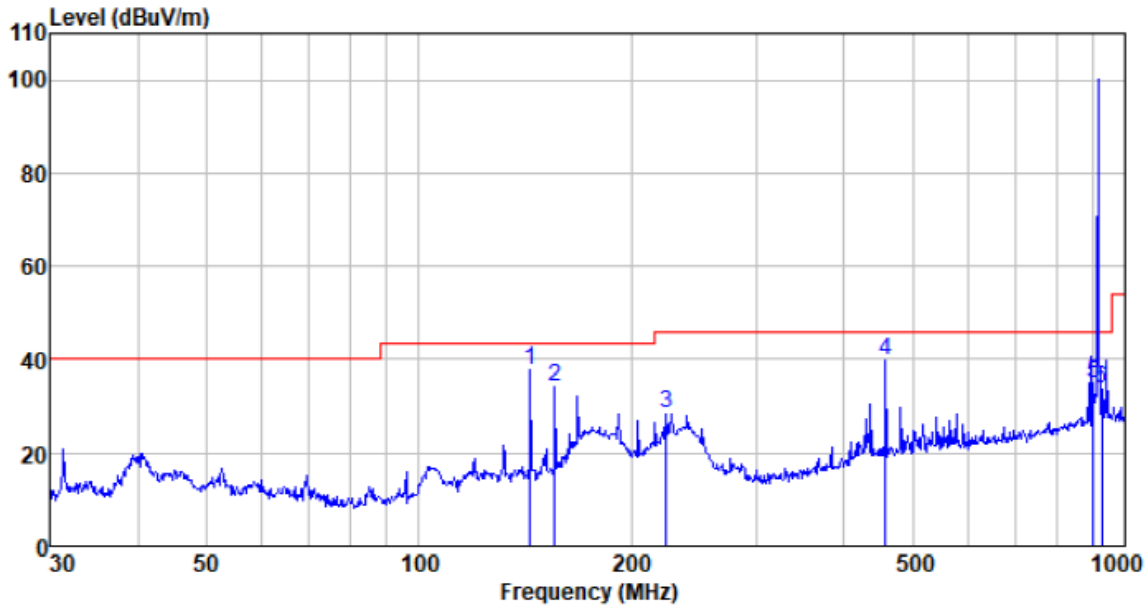
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.83	12.44	1.53	30.00	37.80	43.50	-5.70	QP
155.910	50.38	12.56	1.60	30.00	34.54	43.50	-8.96	QP
167.824	47.44	11.67	1.67	30.00	30.78	43.50	-12.72	QP
452.720	50.14	16.75	3.10	30.00	39.99	46.00	-6.01	QP
902.000	43.36	23.92	4.87	30.00	42.15	46.00	-3.85	QP
928.000	38.32	24.13	4.96	30.00	37.41	46.00	-8.59	QP

Test channel:	Lowest	Polarization:	Vertical



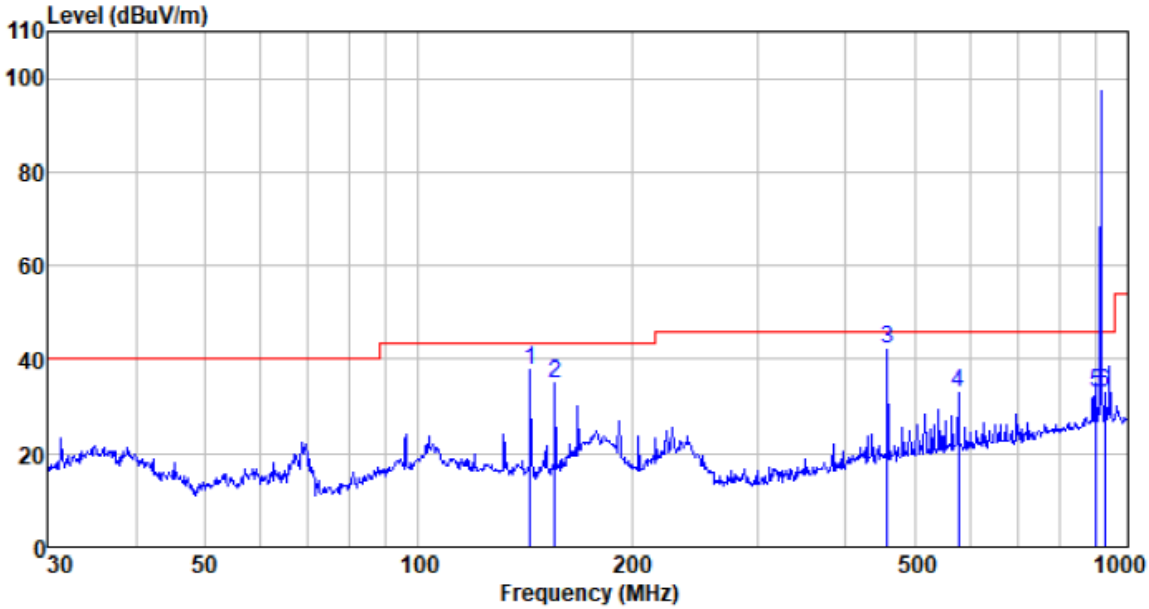
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.66	12.44	1.53	30.00	37.63	43.50	-5.87	QP
155.910	50.52	12.56	1.60	30.00	34.68	43.50	-8.82	QP
167.824	47.35	11.67	1.67	30.00	30.69	43.50	-12.81	QP
452.720	51.25	16.75	3.10	30.00	41.10	46.00	-4.90	QP
902.000	38.67	23.92	4.87	30.00	37.46	46.00	-8.54	QP
928.000	35.98	24.13	4.96	30.00	35.07	46.00	-10.93	QP

Test channel:	Middle	Polarization:	Horizontal



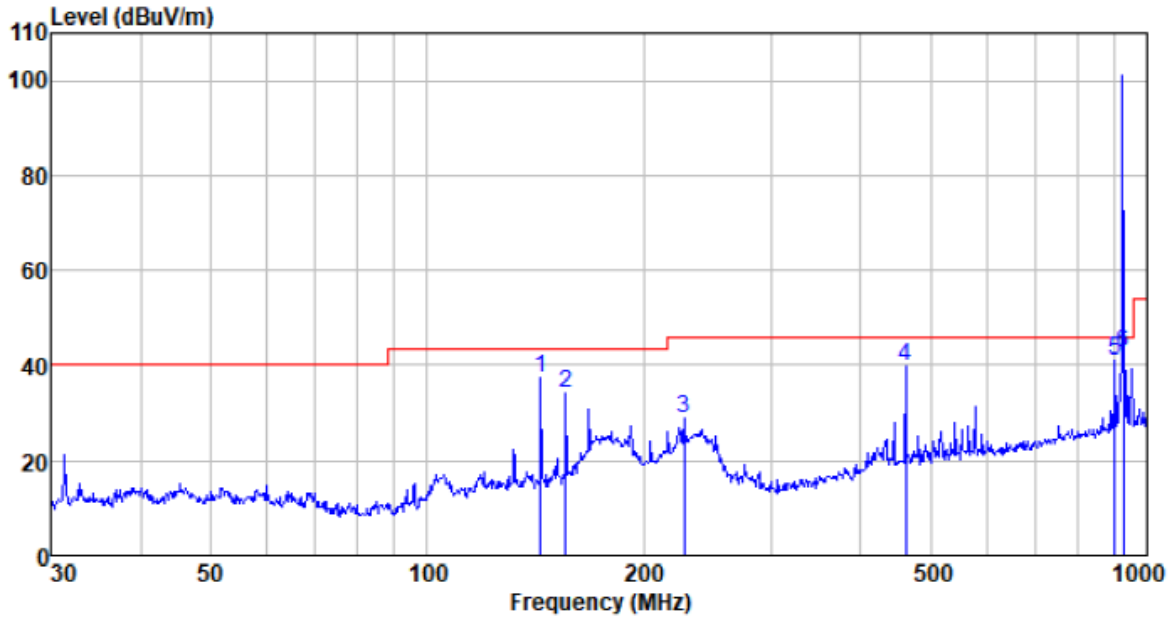
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.62	12.44	1.53	30.00	37.59	43.50	-5.91	QP
155.910	50.08	12.56	1.60	30.00	34.24	43.50	-9.26	QP
223.733	46.08	10.55	1.98	30.00	28.61	46.00	-17.39	QP
457.507	49.98	16.84	3.12	30.00	39.94	46.00	-6.06	QP
902.000	36.04	23.92	4.87	30.00	34.83	46.00	-11.17	QP
928.000	34.69	24.13	4.96	30.00	33.78	46.00	-12.22	QP

Test channel:	Middle	Polarization:	Vertical



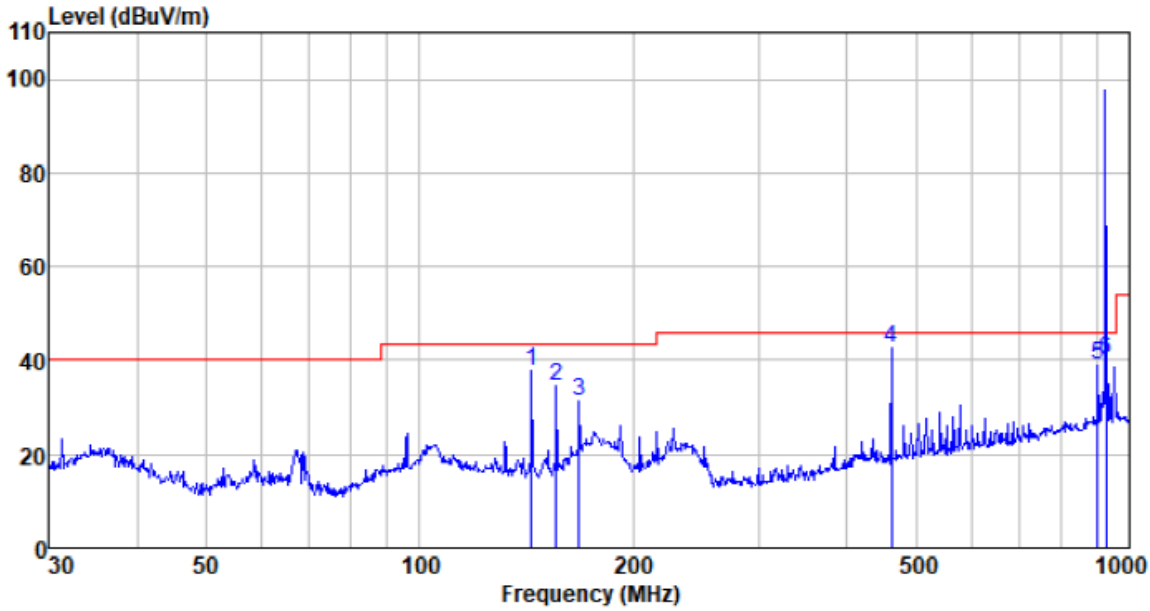
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.78	12.44	1.53	30.00	37.75	43.50	-5.75	QP
155.910	50.56	12.56	1.60	30.00	34.72	43.50	-8.78	QP
457.507	52.37	16.84	3.12	30.00	42.33	46.00	-3.67	QP
576.644	40.48	18.93	3.63	30.00	33.04	46.00	-12.96	QP
902.000	34.00	23.92	4.87	30.00	32.79	46.00	-13.21	QP
928.000	33.67	24.13	4.96	30.00	32.76	46.00	-13.24	QP

Test channel:	Highest	Polarization:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.26	12.44	1.53	30.00	37.23	43.50	-6.27	QP
155.910	49.78	12.56	1.60	30.00	33.94	43.50	-9.56	QP
227.691	46.08	10.81	2.01	30.00	28.90	46.00	-17.10	QP
462.346	49.54	16.93	3.14	30.00	39.61	46.00	-6.39	QP
902.000	42.14	23.92	4.87	30.00	40.93	46.00	-5.07	QP
928.000	43.52	24.13	4.96	30.00	42.61	46.00	-3.39	QP

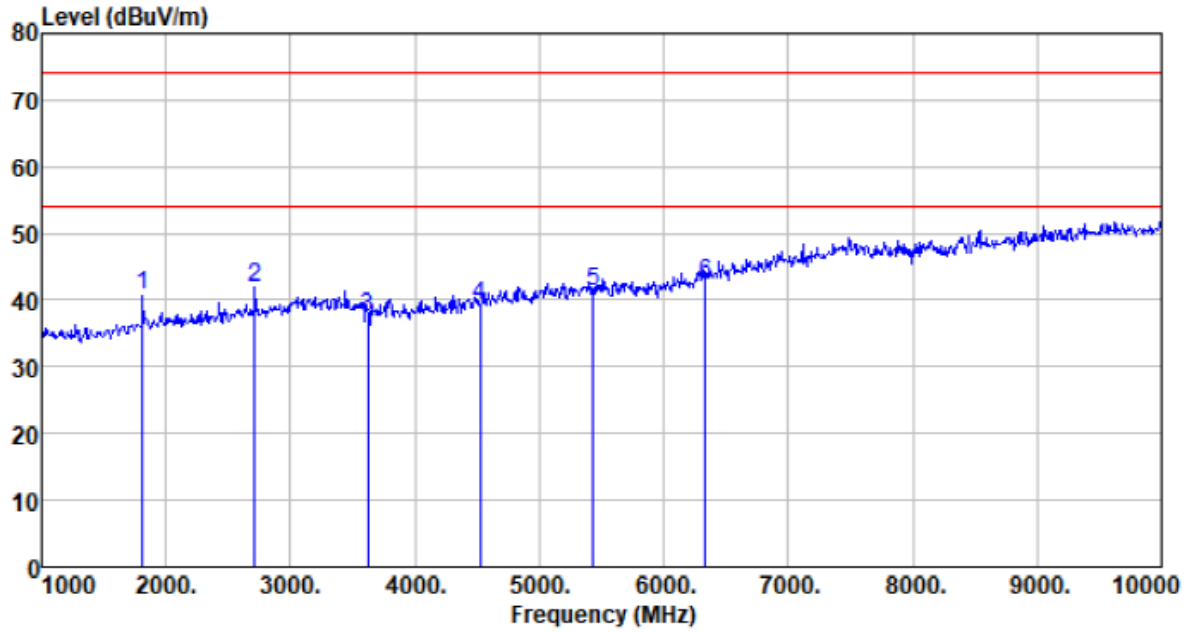
Test channel:	Highest	Polarization:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
143.830	53.97	12.44	1.53	30.00	37.94	43.50	-5.56	QP
155.910	50.47	12.56	1.60	30.00	34.63	43.50	-8.87	QP
167.824	47.97	11.67	1.67	30.00	31.31	43.50	-12.19	QP
462.346	52.56	16.93	3.14	30.00	42.63	46.00	-3.37	QP
902.000	40.35	23.92	4.87	30.00	39.14	46.00	-6.86	QP
928.000	41.28	24.13	4.96	30.00	40.37	46.00	-5.63	QP

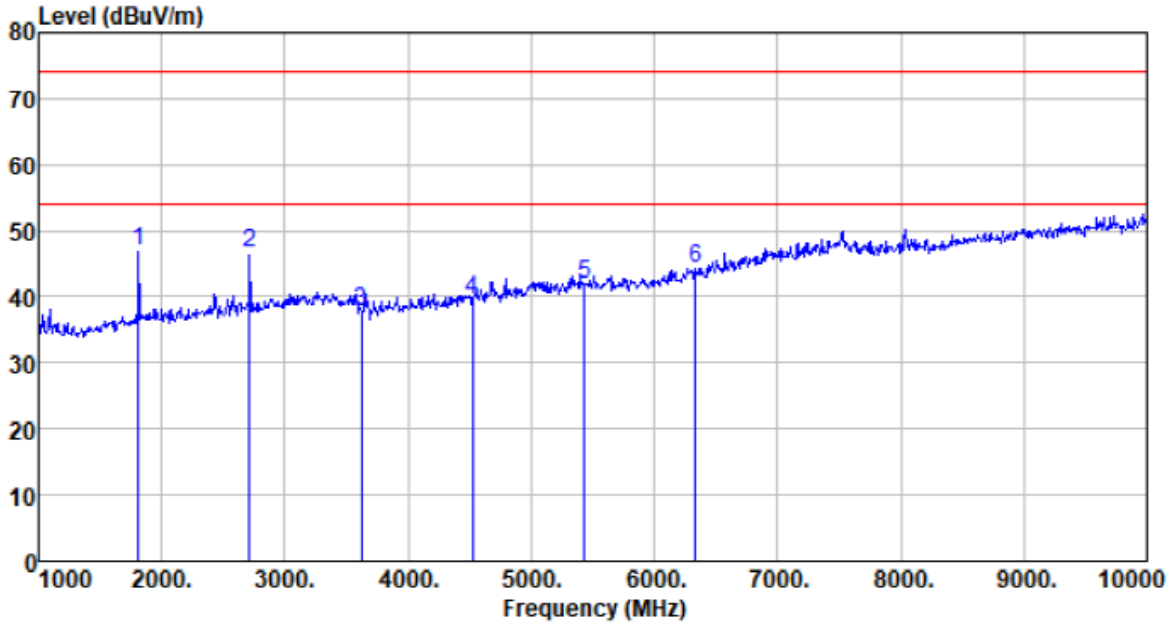
■ **Above 1GHz**

Test channel:	Lowest	Polarization:	Horizontal



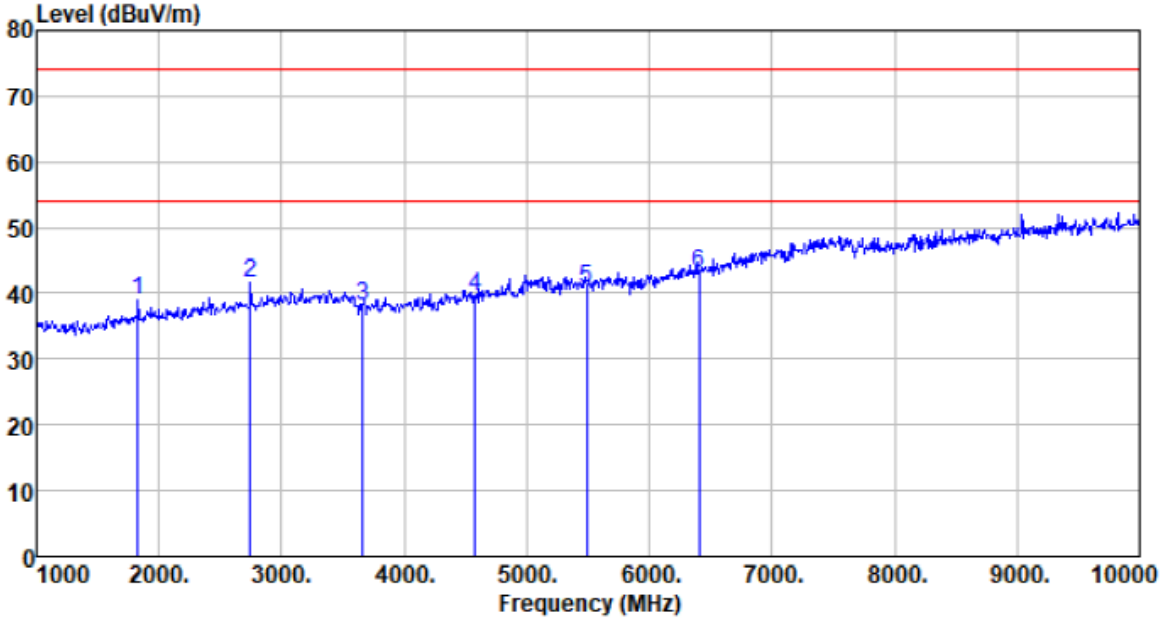
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1810.000	51.02	25.85	2.49	38.55	40.81	74.00	-33.19	Peak
2715.000	49.53	27.92	3.17	38.60	42.02	74.00	-31.98	Peak
3620.000	43.25	28.77	3.85	38.43	37.44	74.00	-36.56	Peak
4525.000	42.76	30.27	4.44	38.31	39.16	74.00	-34.84	Peak
5430.000	42.43	32.20	5.18	38.57	41.24	74.00	-32.76	Peak
6335.000	41.76	33.71	5.74	38.77	42.44	74.00	-31.56	Peak

Test channel:	Lowest	Polarization:	Vertical



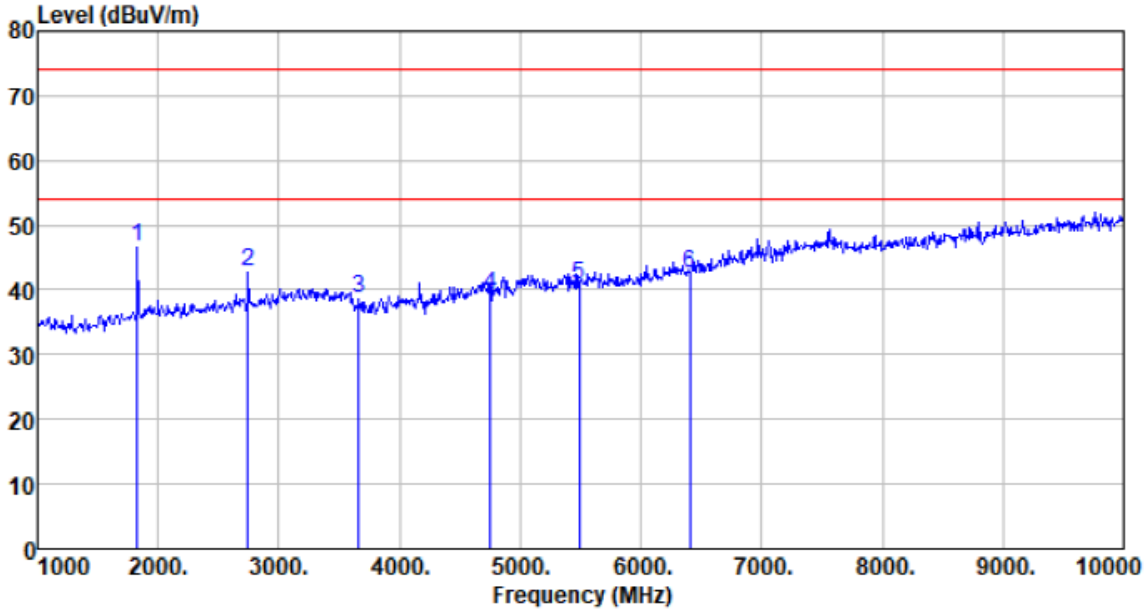
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1810.000	57.17	25.85	2.49	38.55	46.96	74.00	-27.04	Peak
2715.000	54.10	27.92	3.17	38.60	46.59	74.00	-27.41	Peak
3620.000	43.68	28.77	3.85	38.43	37.87	74.00	-36.13	Peak
4525.000	43.10	30.27	4.44	38.31	39.50	74.00	-34.50	Peak
5430.000	43.06	32.20	5.18	38.57	41.87	74.00	-32.13	Peak
6335.000	43.58	33.71	5.74	38.77	44.26	74.00	-29.74	Peak

Test channel:	Middle	Polarization:	Horizontal



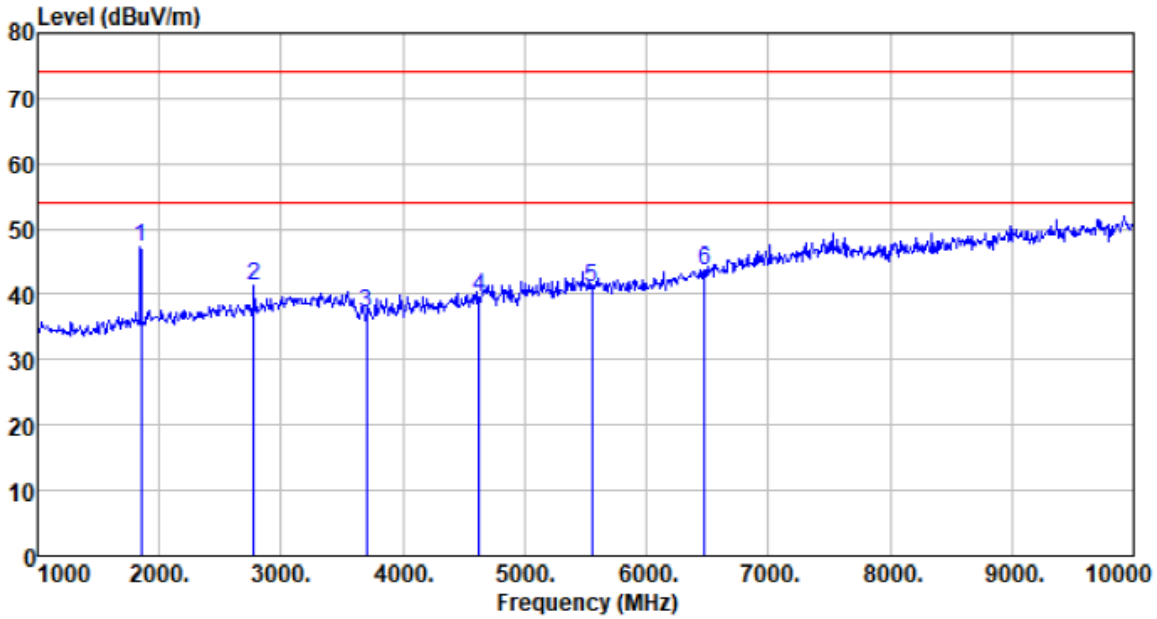
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1830.000	49.17	25.95	2.49	38.54	39.07	74.00	-34.93	Peak
2745.000	49.01	27.99	3.18	38.60	41.58	74.00	-32.42	Peak
3660.000	43.73	28.82	3.86	38.40	38.01	74.00	-35.99	Peak
4575.000	43.10	30.41	4.48	38.31	39.68	74.00	-34.32	Peak
5490.000	41.71	32.29	5.22	38.60	40.62	74.00	-33.38	Peak
6405.000	42.06	33.96	5.77	38.78	43.01	74.00	-30.99	Peak

Test channel:	Middle	Polarization:	Vertical



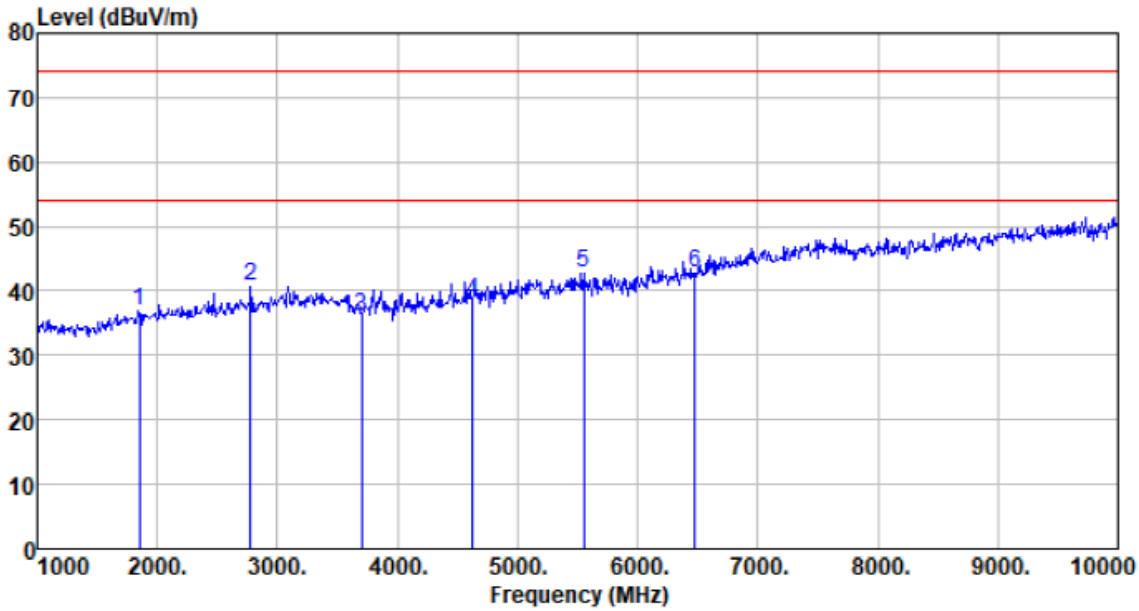
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1830.000	56.63	25.95	2.49	38.54	46.53	74.00	-27.47	Peak
2745.000	50.15	27.99	3.18	38.60	42.72	74.00	-31.28	Peak
3660.000	44.36	28.82	3.86	38.40	38.64	74.00	-35.36	Peak
4750.000	42.17	30.90	4.59	38.35	39.31	74.00	-34.69	Peak
5490.000	41.95	32.29	5.22	38.60	40.86	74.00	-33.14	Peak
6405.000	41.62	33.96	5.77	38.78	42.57	74.00	-31.43	Peak

Test channel:	Highest	Polarization:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1849.600	57.09	26.05	2.49	38.52	47.11	74.00	-26.89	Peak
2774.400	48.71	28.06	3.19	38.60	41.36	74.00	-32.64	Peak
3699.200	42.80	28.88	3.88	38.38	37.18	74.00	-36.82	Peak
4624.000	42.70	30.55	4.52	38.32	39.45	74.00	-34.55	Peak
5548.800	41.97	32.32	5.27	38.61	40.95	74.00	-33.05	Peak
6473.600	42.42	34.20	5.80	38.79	43.63	74.00	-30.37	Peak

Test channel:	Highest	Polarization:	Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
1849.600	46.83	26.05	2.49	38.52	36.85	74.00	-37.15	Peak
2774.400	48.20	28.06	3.19	38.60	40.85	74.00	-33.15	Peak
3699.200	41.66	28.88	3.88	38.38	36.04	74.00	-37.96	Peak
4624.000	41.51	30.55	4.52	38.32	38.26	74.00	-35.74	Peak
5548.800	43.79	32.32	5.27	38.61	42.77	74.00	-31.23	Peak
6473.600	41.59	34.20	5.80	38.79	42.80	74.00	-31.20	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

---End---