DEKRA Testing and Certification (Suzhou) Co., Ltd.
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
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Test report No:
20B0050R-RF-US-P06V02

FCC&ISED TEST REPORT

Product Name	Ring Bridge
Trademark	Ring
Model and /or type reference	5C28S8
FCC ID	2AEUPRBBR003
IC	20271-RBBR003
Applicant´s name / address	Ring, LLC. 1523 26th St, Santa Monica, CA 90404
Factor´s name / address	AZ e-lite Pte Ltd 31 Ubi Road 1 Aztech Building 408694 Singapore
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 RSS-Gen Issue 5 / RSS-247 Issue 2
Verdict Summary	IN COMPLIANCE
Documented By	Kitty Li/Project Assistant
Reviewed by (name / position & signature)	Frank He/ Technical Supervisor
Approved by (name / position & signature)	Jack Zhang/ Supervisor
Date of issue	2021-02-03
Report template No	Template_FCC 15.247-RF-V1.0

INDEX

page

COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Nov. 02, 2020
Date (start test)	Nov. 11, 2020
Date (finish test)	Nov. 30, 2020

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	:	Equipment Under Test
QP	:	Quasi-Peak
CAV	:	CISPR Average
AV	:	Average
CDN	:	Coupling Decoupling Network
SAC	:	Semi-Anechoic Chamber
OATS	:	Open Area Test Site
BW	:	Bandwidth
AM	:	Amplitude Modulation
PM	:	Pulse Modulation
HCP	:	Horizontal Coupling Plane
VCP	:	Vertical Coupling Plane
U_N	:	Nominal voltage
*T*x	:	Transmitter
*R*x	:	Receiver
N/A	:	Not Applicable
N/M	:	Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
20B0050R-RF-US-P06V02	V1.0	Initial issue of report.	2020-11-30
20B0050R-RF-US-P06V02	V1.1	Page 1: Remove blank in IC ID; Page 7: Add information of power meter; Page 9: Add PMN, HVIN information; Page 9: Update information fot power supply. (The test report No.: 20B0050R-RF-US-P06V02 V1.1 is to place the test report No.: 20B0050R-RF-US-P06V02 V1.0, and test report 20B0050R-RF-US-P06V02 V1.0 is obsoleted.)	2021-01-14
20B0050R-RF-US-P06V02	V2.0	Page 1&9: Update product name and model. Section 4.1.4: Add test data of simultaneous transmission. (The test report No.: 20B0050R-RF-US-P06V02 V2.0 is to place the test report No.: 20B0050R-RF-US-P06V02 V1.1, and test report 20B0050R-RF-US-P06V02 V1.1 is obsoleted.)	2021-02-03

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with FCC 15.247.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
   - Chapter 1.1 General Description of the Item(s);
   - Chapter 1.2 Antenna Informaion.

USED EQUIPMENT

RF conducted test / TR8(Chamber details)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2020.08.15	2021.08.14
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2020.04.17	2021.04.16
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2020.08.15	2021.08.14
Power Meter	Keysight	N1912A	MY60300004	2020.11.14	2021.11.13
Power Sensor	Keysight	N1921A	MY60350003	2020.11.14	2021.11.13
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2020.08.13	2021.08.12
DEKRA test software	N/A	N/A	N/A	N/A	N/A

Radiated Emission(30MHz-1GHz) / AC3(Chamber details)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2019.12.28	2020.12.27
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2020.09.11	2021.09.10
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2020.08.13	2021.08.12
Coaxial Cable	Huber+Suhner	RG 214	AC2-C	2020.04.05	2021.04.04
DEKRA test software	N/A	N/A	N/A	N/A	N/A

Radiated Emission / AC5(1GHz-40GHz)(Chamber details)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Receiver	Agilent	N9038A	MY51210196	2020.04.18	2021.04.17
DRG Horn	ETS-Lindgren	3117	00123988	2020.09.21	2021.09.20
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170D	750	2019.01.05	2021.01.04
Pre-Amplifier	Schwarzbeck	BBV 9721	9721-024	2019.07.17	2021.07.16
Temperature/Humidity Meter	RTS	RTS-8S	AC5-TH	2020.08.13	2021.08.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2020.04.05	2021.04.04
DEKRA test software	N/A	N/A	N/A	N/A	N/A

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Test item	Uncertainty
AC Power Line Conducted Emission	± 2.92 dB
Peak Power Output	± 1.13 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 4.60 dB 200MHz~1GHz: 4.10 dB Vertical: 30MHz~200MHz: 4.80 dB 200MHz~1GHz: 4.10 dB
Radiated Emission(1GHz~26.5GHz)	Horizontal: 1GHz~18GHz: 5.00 dB Vertical: 1GHz~18GHz: 4.80 dB Horizontal: 18GHz~40GHz: 4.70 dB Vertical: 18GHz~40GHz: 4.60 dB
RF antenna conducted test	± 1.13 dB
Radiated Emission Band Edge	± 5.00 dB
DTS Bandwidth	± 279 Hz
Occupied Bandwidth	± 279 Hz
Power Density	± 1.13 dB

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

All information are form clinet.

Model / Type number ..... :	5C28S8
Trademark..... :	Ring
PMN ..... :	5C28S8-A
HVIN..... :	5C28S8-A
Firmware Version..... :	0.7.5-33
Manufacturer..... :	Ring, LLC.
Manufacturer Address..... :	1523 26th St, Santa Monica, CA 90404

Wireless specifiction ..... :	LoRa	
Operating frequency range(s) :	LoRa(FHSS) : 902.2MHz~927.8MHz :125KHz FSK #1: 902.2MHz~927.8MHz FSK #2: 902.4MHz~927.6MHz FSK #3: 902.5MHz~927.5MHz	
Modulation ..... :	LoRa/FSK	
Data Rate..... :	LoRa: DR0/1/2/3/4/5/6/7 FSK #1:50Kbps FSK #2:150Kbps FSK #3:250Kbps	
Number of channel..... :	LoRa(DTS): 129 FSK #1:129 FSK #2:64 FSK #3:51	
Device category ..... :	☐	Fixed point-to-point
	☐	Emit multiple directional beams, simultaneously or sequentially
	☒	Other cases

Rated power supply .....:	Voltage and Frequency	
	☐	AC: 220 - 240 V, 50/60 Hz
	☐	DC: 12 - 24 Vdc
	☐	Battery:
	☒	Adapter: 5V
Brand of adapter .....:	SUNUN	
Adapter model.....:	SA68-050100U	
Mounting position.....:	☐	Table top equipment
	☒	Wall/Ceiling mounted equipment
	☐	Floor standing equipment
	☐	Hand-held equipment
	☐	Other:

Note: This device does not belong to the HYBRID SYSTEM EQUIPMENT

1.2 Antenna Information

Antenna model / type number..... :	N/A			
Antenna serial number..... :	N/A			
Antenna Delivery ..... :	☒	1TX + 1RX		
	☐	2TX + 2RX		
	☐	Others:……		
Antenna technology ..... :	☒	SISO		
	☐	MIMO	☐	Basic
			☐	CDD
			☐	Sectorized
			☐	Beam-forming
Antenna Type..... :	☐	External	☐	Dipole
			☐	Sectorized
	☒	Internal	☒	PIFA
			☐	PCB
			☐	Metal Antenna
Antenna Gain ..... :	-1.0 dBi			

Note: The General Description of the Item and antenna information in clause 1 are provided and confirmed by the client.

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

Test Mode	Mode 1: Transmit by Lora with FHSS 125K bandwidth(902.2-927.8)
	Mode 2: Transmit by FSK with FHSS 50Kbps data rate(902.2-927.8)
	Mode 3: Transmit by FSK with FHSS 150Kbps data rate(902.4-927.6)
	Mode 4: Transmit by FSK with FHSS 250Kbps data rate(902.5-927.5)
	Mode 5: Simultaneous transmission

2.2 Support / Auxiliary equipment / unit / Test software for the EUT

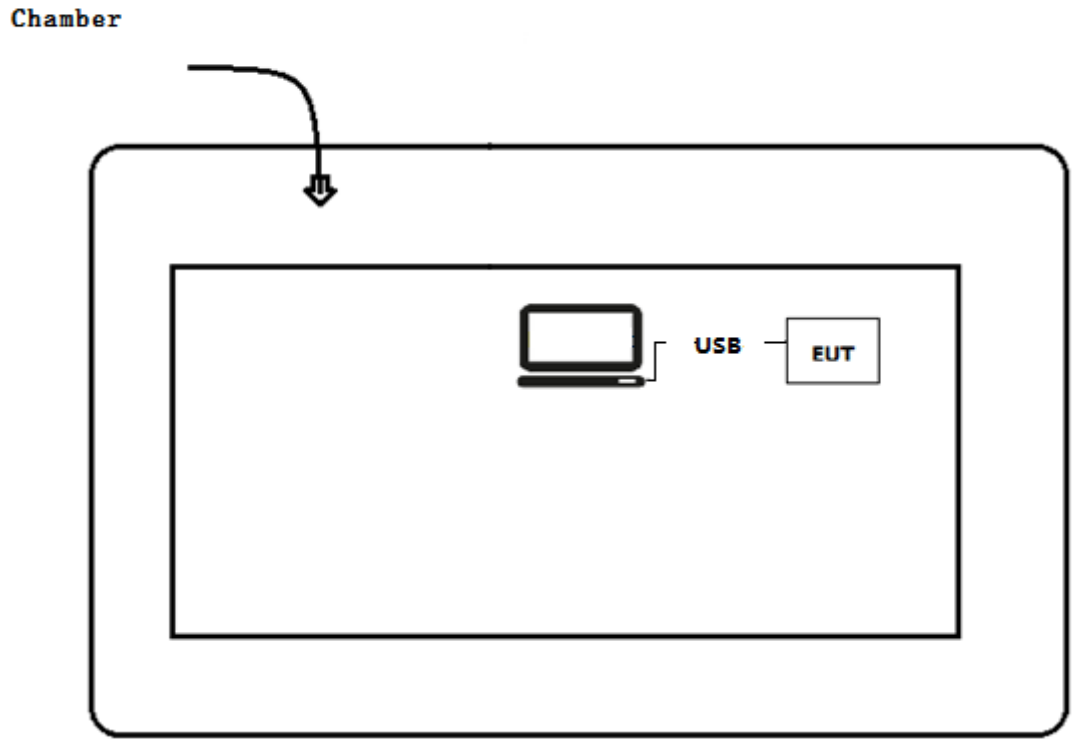
The EUT has been tested with the following auxiliary equipment / unit / software:

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	Think pad x220	Lenovo	Adapter
USB Control Cable	Serial to USB	N/A	N/A
software	Type / Version	Manufacturer	Supplied by
IPOP	V4.1	N/A	N/A

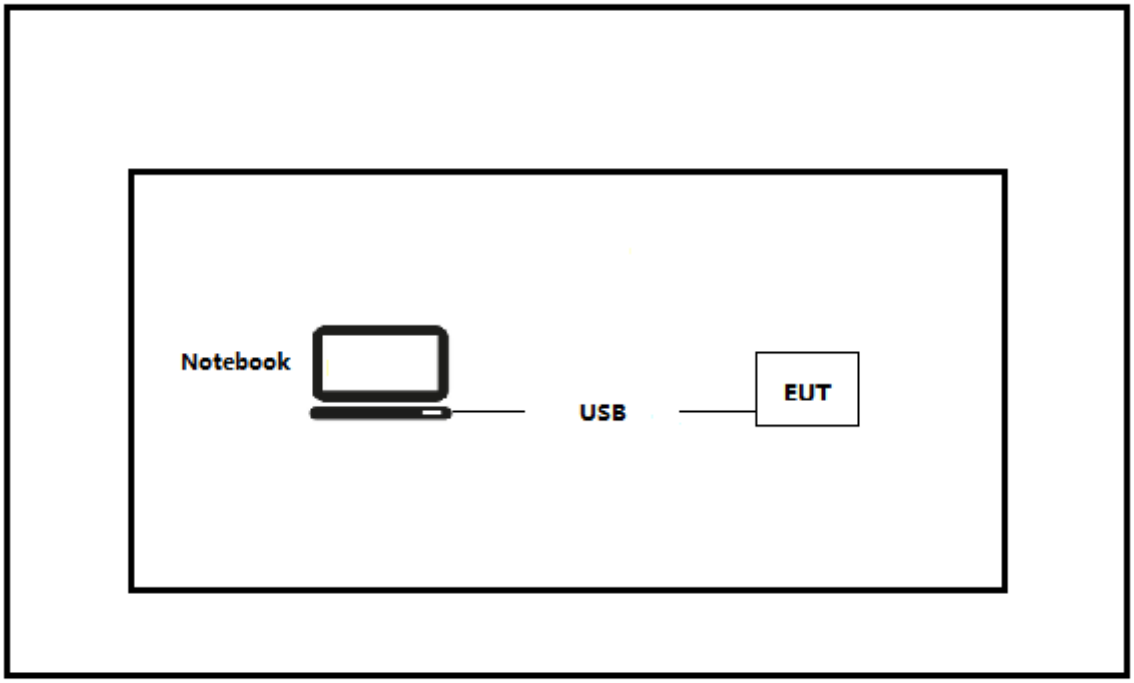
2.3 Test Configuration / Block diagram used for tests

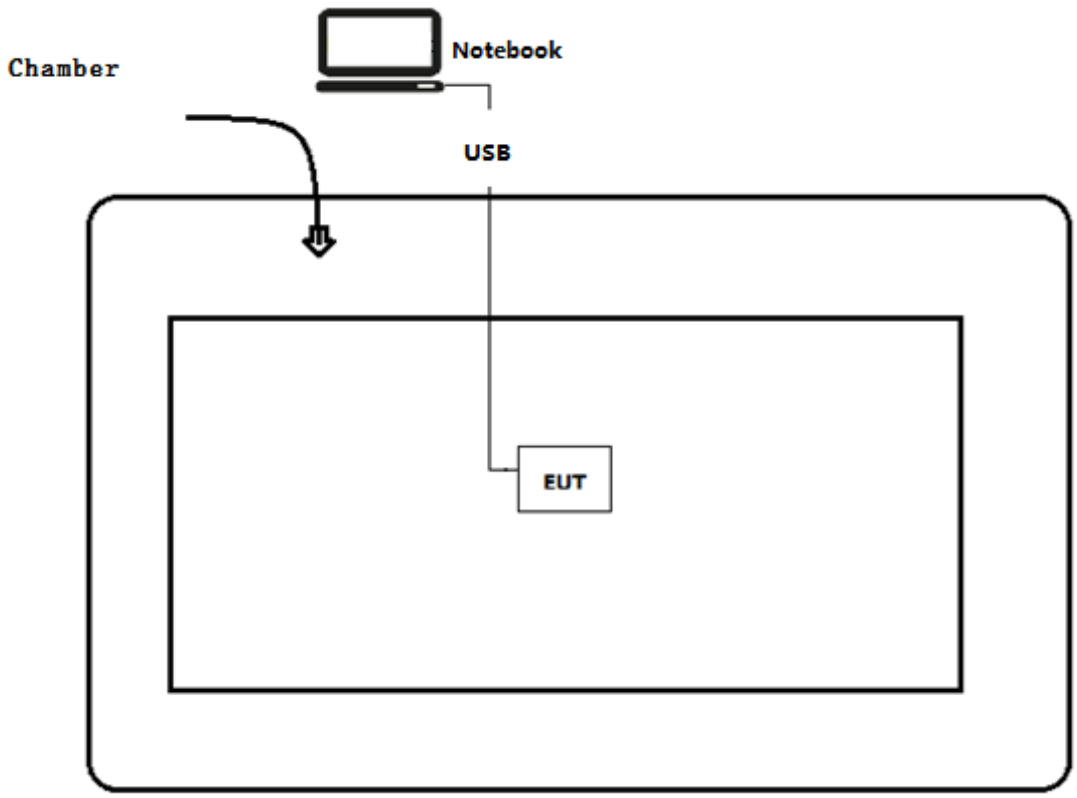
The following test setup / configuration / block diagram has been used during the tests:

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Conducted test



Test setup Diagram- Radiated test


2.4 Testing process

1	Setup the EUT as shown in Section 2.4.
2	Input the commands.
3	Configure the test mode, the test channel, and the data rate.
4	Start the continuous Transmitter.
5	Verify that the EUT works properly.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2020	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
RSS-Gen Issue 5 Amendment 1	2019	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 2	2017	Digital Transmission Systems (DTSs),Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

3.2 Overview of results

Requirement – Test case	Basic standard(s)	Verdict	Remark
Emissions in restricted frequency bands	FCC 15.247(d), 15.209	PASS	---
Radiated Emission Band Edge	FCC 15.247(d), 15.209	PASS	---
Fundamental emission output power	FCC 15.247(b)(3)	PASS	---

Note: This report is based on DEKRA report(NO.:2040170R-RF-US-P06V02), the Ring bridge LDO V2 is based on 5C28S8 and update PCB layout only, so we only test fundamental emission output power, radiated emission band edge and emissions in restricted frequency bands.

3.3 Test Facility

USA	**:**	**FCC Designation Number: CN1199**
Canada	**:**	**CAB identifier Number: CN0040**

4 TEST RESULTS

4.1 Emissions in restricted frequency bands	VERDICT: PASS

4.1.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.205; 15.209

Restricted Bands of operation for FCC

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 –16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975–12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675–12.57725	322 – 335.4	3600 – 4400	Above 38.6
13.36 – 13.41	--	--	--

Restricted Bands of operation for ISED

0.090 - 0.110	13.36 - 13.41	960 - 1427	9.0 - 9.2
0.495 - 0.505	16.42 - 16.423	1435 - 1626.5	9.3 - 9.5
2.1735 - 2.1905	16.69475 - 16.69525	1645.5 - 1646.5	10.6 - 12.7
3.020 - 3.026	16.80425 - 16.80475	1660 - 1710	13.25 - 13.4
4.125 - 4.128	25.5 - 25.67	1718.8 - 1722.2	14.47 - 14.5
4.17725 - 4.17775	37.5 - 38.25	2200 - 2300	15.35 - 16.2
4.20725 - 4.20775	73 - 74.6	2310 - 2390	17.7 - 21.4
5.677 - 5.683	74.8 - 75.2	2483.5 - 2500	22.01 - 23.12
6.215 - 6.218	108 - 138	2655 - 2900	23.6 - 24.0
6.26775 - 6.26825	149.9 - 150.05	3260 - 3267	31.2 - 31.8
6.31175 - 6.31225	156.52475 - 156.52525	3332 - 3339	36.43 - 36.5
8.291 - 8.294	156.7 - 156.9	3345.8 - 3358	Above 38.6
8.362 - 8.366	162.0125 - 167.17	3500 - 4400	--
8.37625 - 8.38675	167.72 - 173.2	4500 - 5150	--
8.41425 - 8.41475	240 - 285	5350 - 5460	--
12.29 - 12.293	322 - 335.4	7250 - 7750	--
12.51975 - 12.52025	399.9 - 410	8025 - 8500	--

12.57675 - 12.57725	608 - 614	--	--

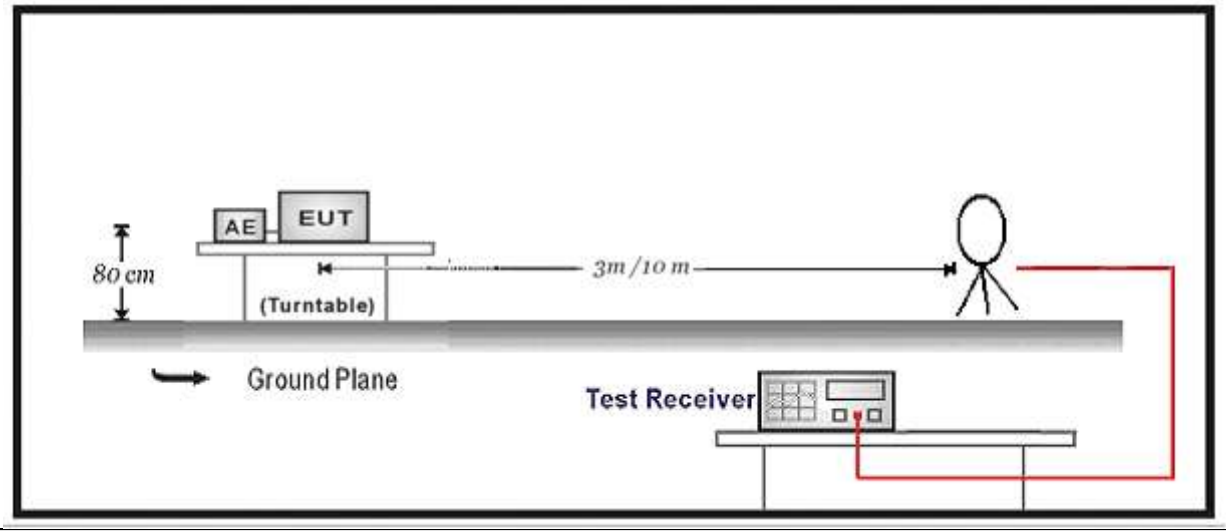
Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30(Note 1)
1.705 - 30	30	29.5	30(Note 1)
30 - 88	100	40	3(Note 2)
88 - 216	150	43.5	3(Note 2)
216 - 960	200	46	3(Note 2)
Above 960	500	54	3(Note 2)

Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

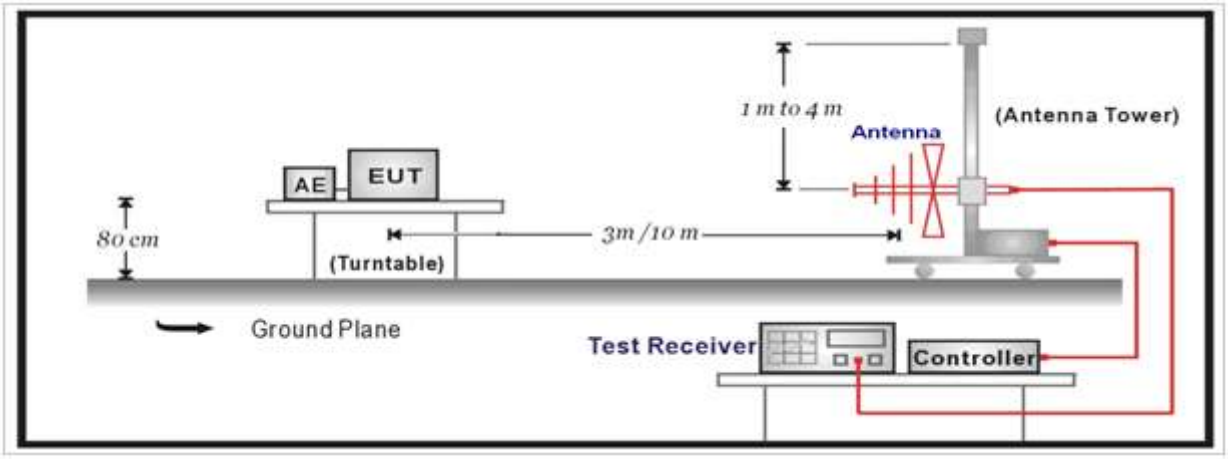
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.1.2 Test Setup

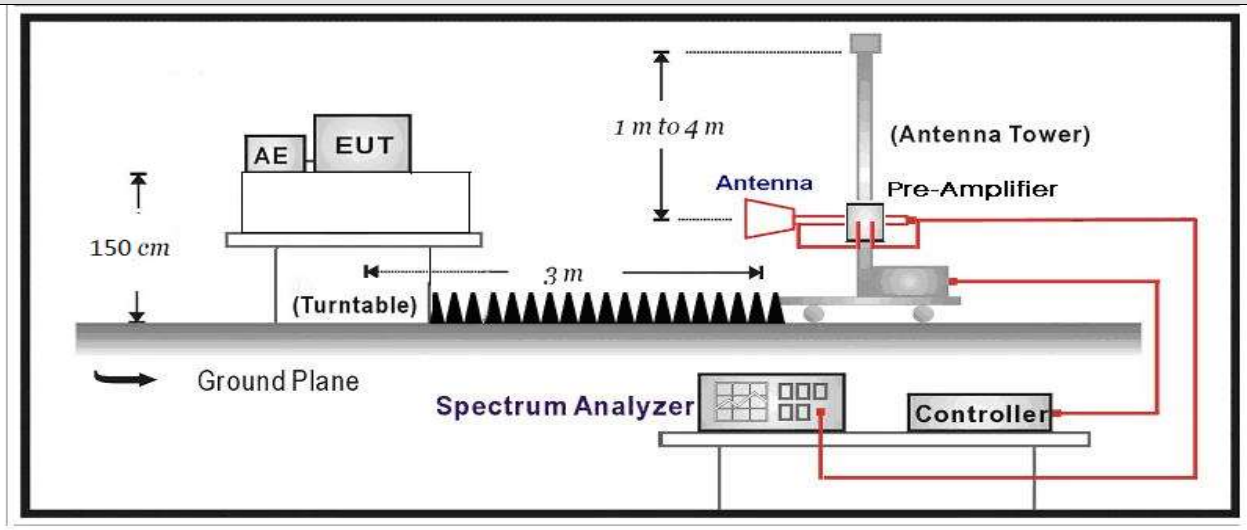
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:

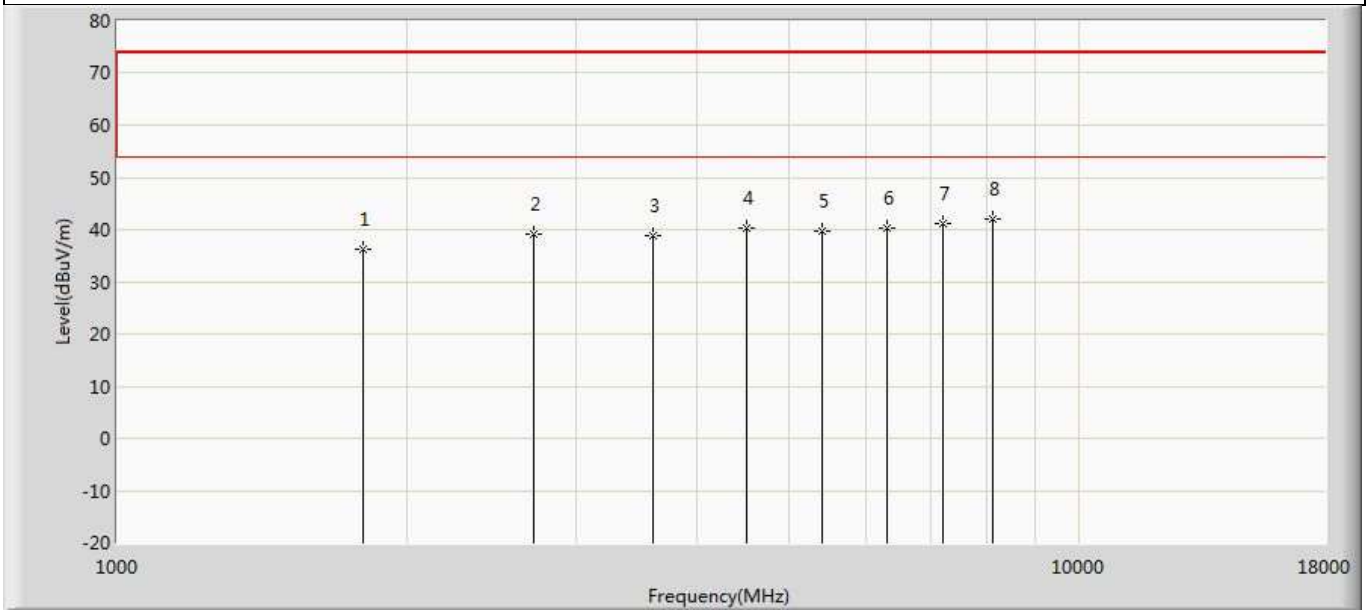


4.1.3 Test Procedure

	References Rule	Chapter	Description
☒	ANSI C63.10	11.12	Emissions in restricted frequency bands
	☒ ANSI C63.10	11.12.1	Radiated emission measurements
	☒ ANSI C63.10	6.3	Radiated spurious emission test
	☒ ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒ ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☒ ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	☐ ANSI C63.10	11.12.2	Antenna-port conducted measurements
	☐ ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	☐ ANSI C63.10	11.12.2.4	Peak power measurement procedure
	☐ ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐ ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	☐ ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	☐ ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

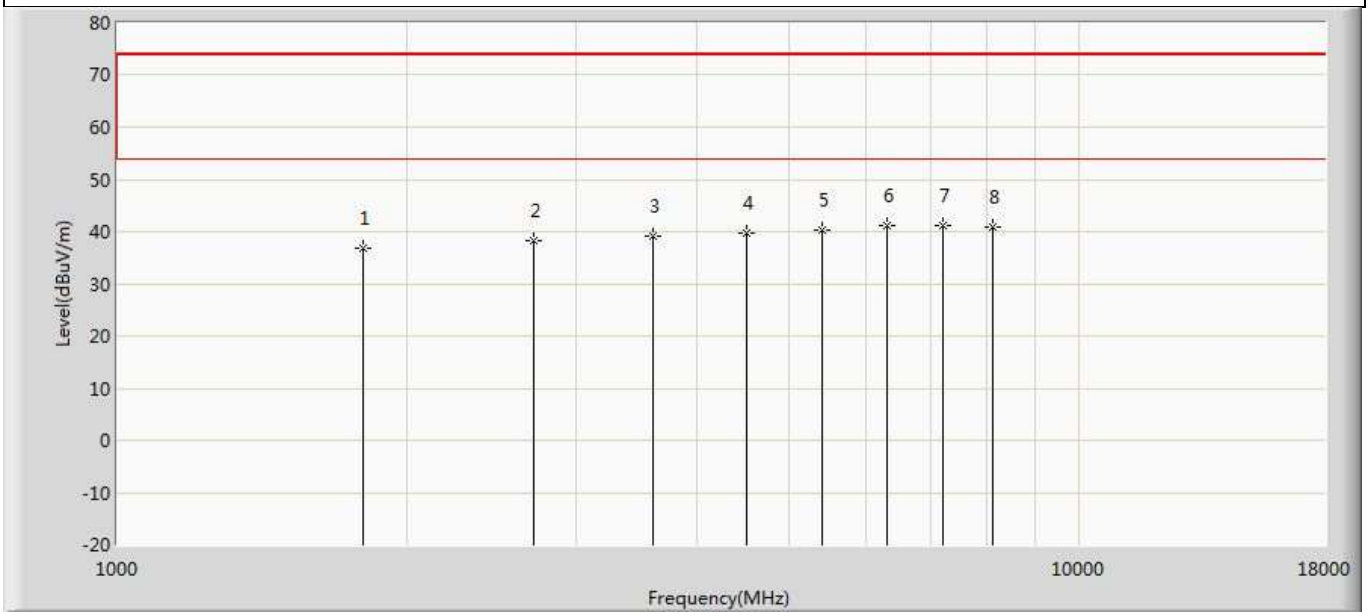
4.1.4 Test Data

Profile: 20B0050R	Page No.: 37
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 902.2MHz by Lora with FHSS 125K bandwidth	



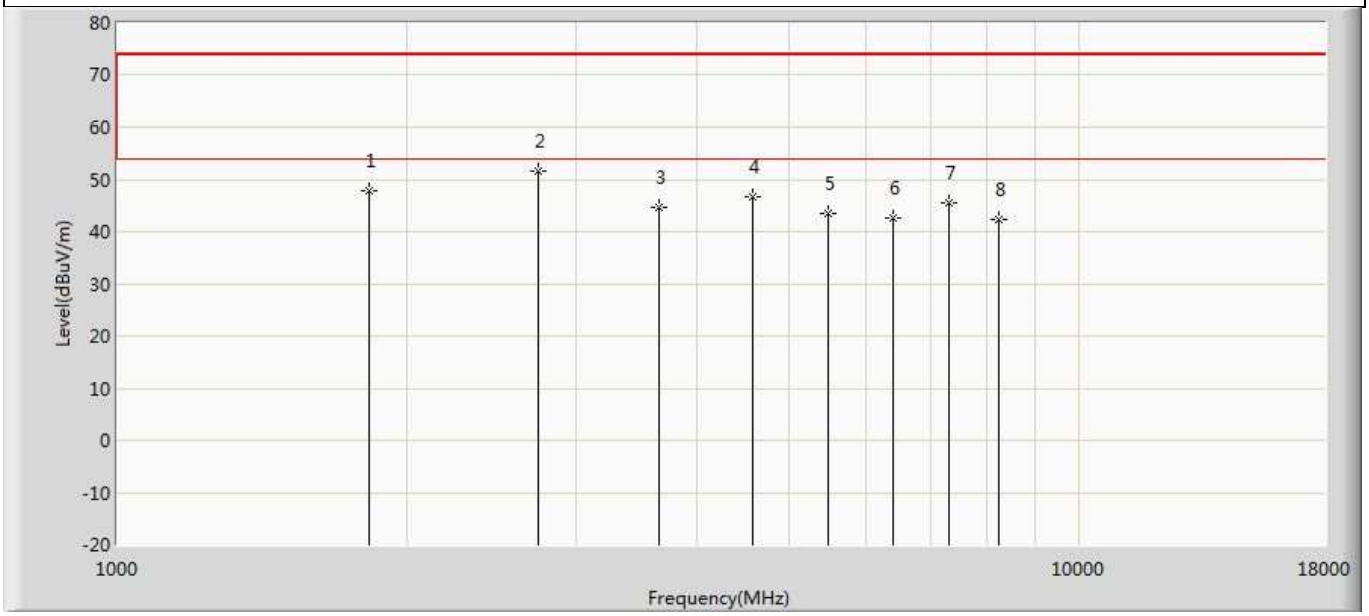
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	36.131	47.551	-37.869	74.000	-11.420	PK
2		2706.600	39.153	47.930	-34.847	74.000	-8.777	PK
3		3608.800	38.807	45.735	-35.193	74.000	-6.928	PK
4		4511.000	40.218	45.677	-33.782	74.000	-5.459	PK
5		5413.200	39.653	43.501	-34.347	74.000	-3.847	PK
6		6315.400	40.239	42.806	-33.761	74.000	-2.567	PK
7		7217.600	41.192	43.175	-32.808	74.000	-1.983	PK
8	*	8119.800	42.167	43.877	-31.833	74.000	-1.710	PK

Profile: 20B0050R	Page No.: 38
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 902.2MHz by Lora with FHSS 125K bandwidth	



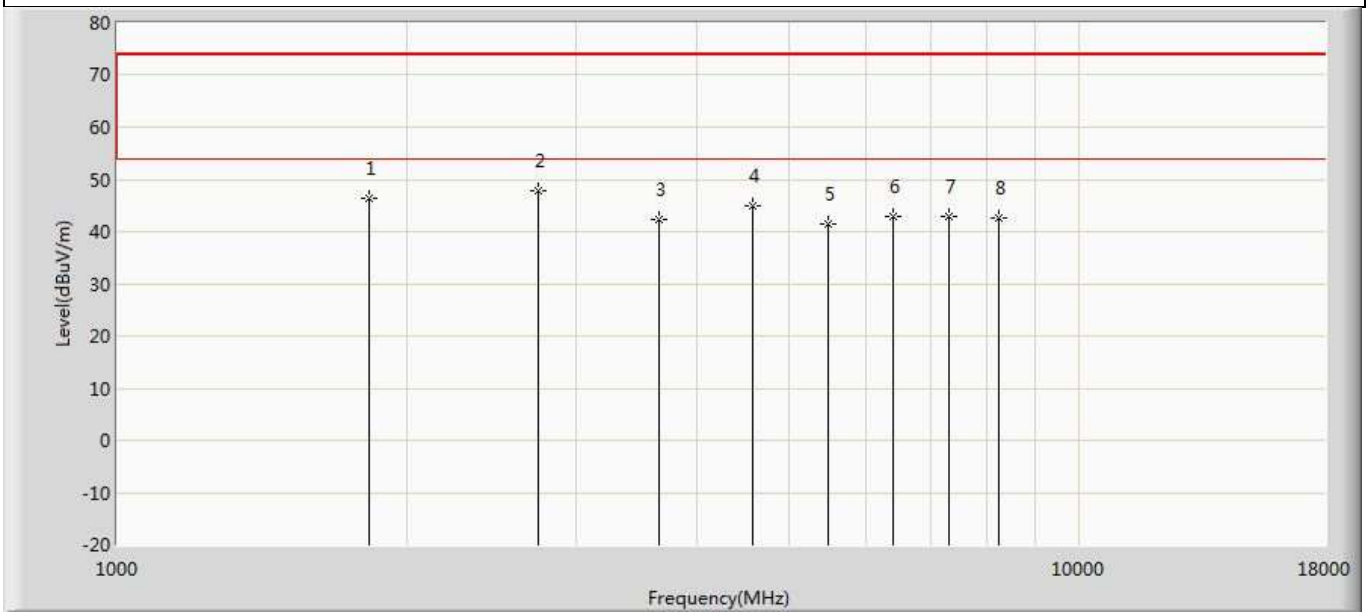
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	36.866	48.286	-37.134	74.000	-11.420	PK
2		2706.600	38.333	47.110	-35.667	74.000	-8.777	PK
3		3608.800	39.120	46.048	-34.880	74.000	-6.928	PK
4		4511.000	39.755	45.214	-34.245	74.000	-5.459	PK
5		5413.200	40.168	44.016	-33.832	74.000	-3.847	PK
6		6315.400	41.091	43.658	-32.909	74.000	-2.567	PK
7	*	7217.600	41.137	43.120	-32.863	74.000	-1.983	PK
8		8119.800	40.923	42.633	-33.077	74.000	-1.710	PK

Profile: 20B0050R	Page No.: 39
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 915MHz by Lora with FHSS 125K bandwidth	



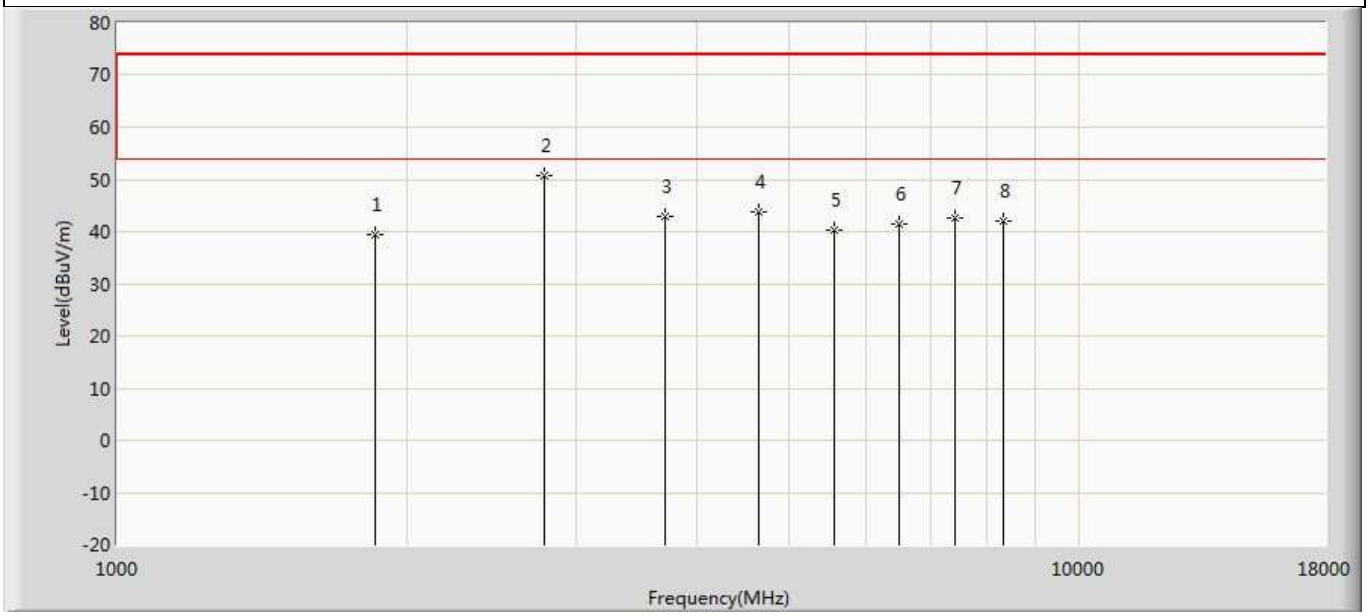
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	47.699	58.154	-26.301	74.000	-10.454	PK
2	*	2745.000	51.619	61.178	-22.381	74.000	-9.559	PK
3		3660.000	44.556	51.102	-29.444	74.000	-6.547	PK
4		4575.000	46.772	51.134	-27.228	74.000	-4.362	PK
5		5490.000	43.393	46.150	-30.607	74.000	-2.758	PK
6		6405.000	42.669	45.053	-31.331	74.000	-2.384	PK
7		7320.000	45.447	47.489	-28.553	74.000	-2.042	PK
8		8235.000	42.441	43.931	-31.559	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 40
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 915MHz by Lora with FHSS 125K bandwidth	



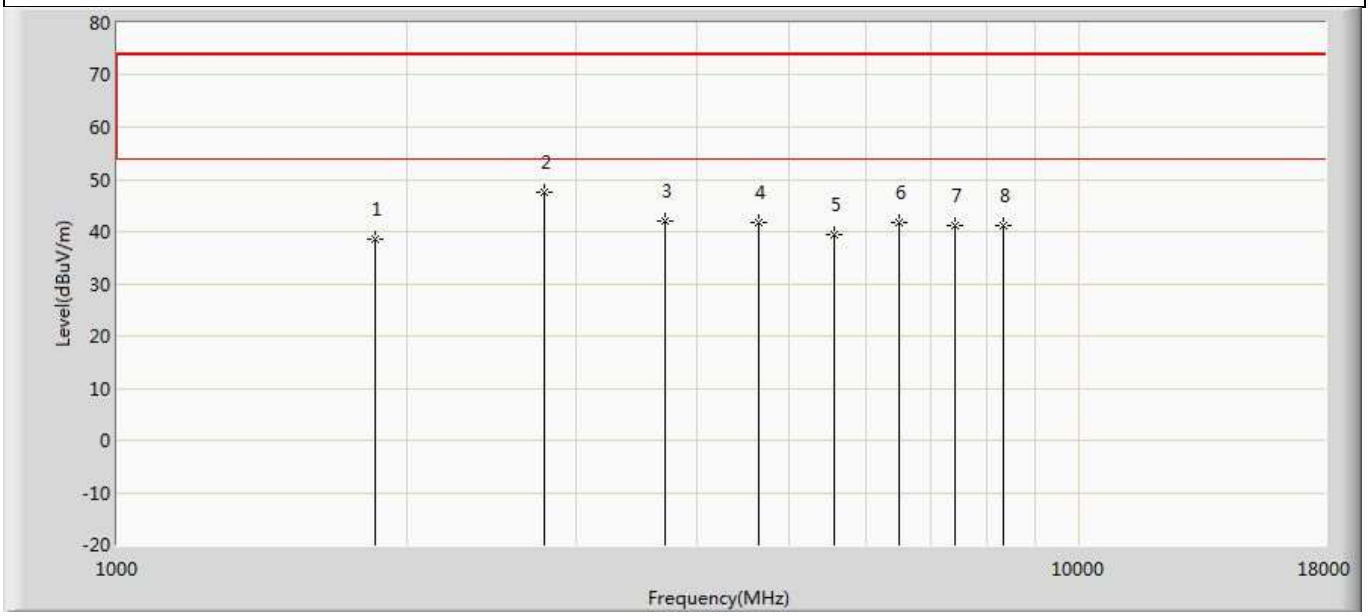
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	46.331	56.786	-27.669	74.000	-10.454	PK
2	*	2745.000	47.796	57.355	-26.204	74.000	-9.559	PK
3		3660.000	42.360	48.906	-31.640	74.000	-6.547	PK
4		4575.000	44.882	49.244	-29.118	74.000	-4.362	PK
5		5490.000	41.536	44.293	-32.464	74.000	-2.758	PK
6		6405.000	42.932	45.316	-31.068	74.000	-2.384	PK
7		7320.000	43.040	45.082	-30.960	74.000	-2.042	PK
8		8235.000	42.655	44.145	-31.345	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 41
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 927.8MHz by Lora with FHSS 125K bandwidth	



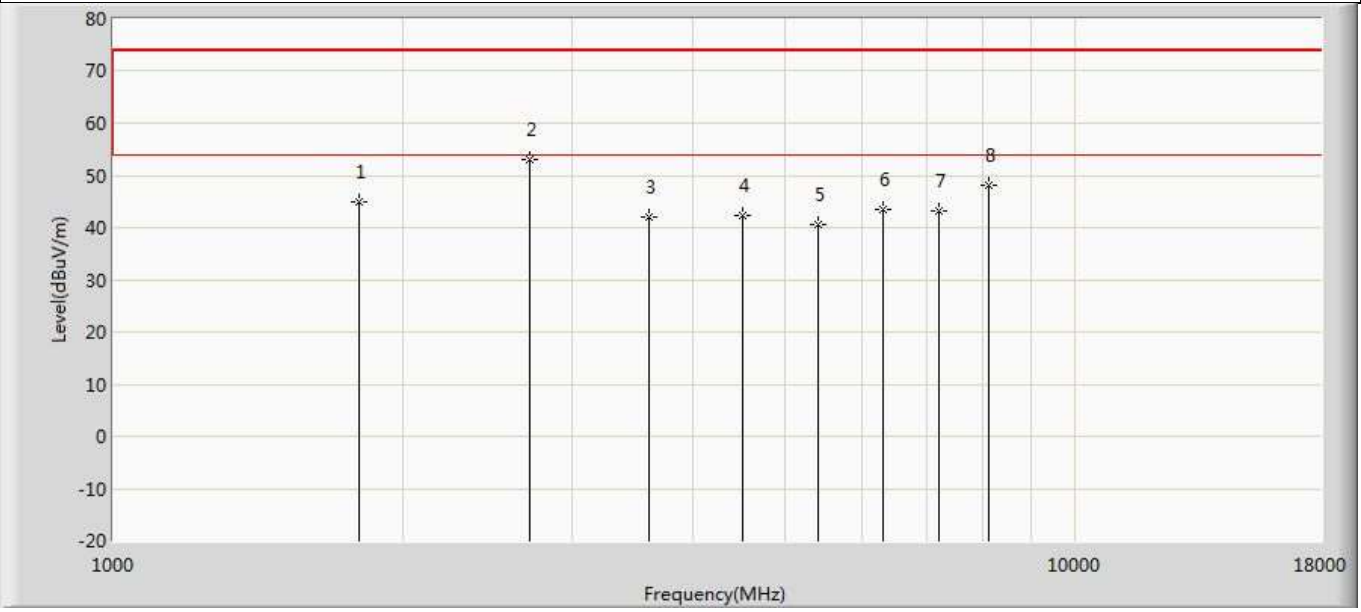
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.600	39.318	50.284	-34.682	74.000	-10.965	PK
2	*	2783.400	50.811	59.660	-23.189	74.000	-8.849	PK
3		3711.200	42.985	49.778	-31.015	74.000	-6.793	PK
4		4639.000	43.648	48.936	-30.352	74.000	-5.287	PK
5		5566.800	40.404	43.823	-33.596	74.000	-3.419	PK
6		6494.600	41.366	42.956	-32.634	74.000	-1.590	PK
7		7422.400	42.558	44.745	-31.442	74.000	-2.187	PK
8		8350.200	42.119	43.747	-31.881	74.000	-1.628	PK

Profile: 20B0050R	Page No.: 42
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 927.8MHz by Lora with FHSS 125K bandwidth	



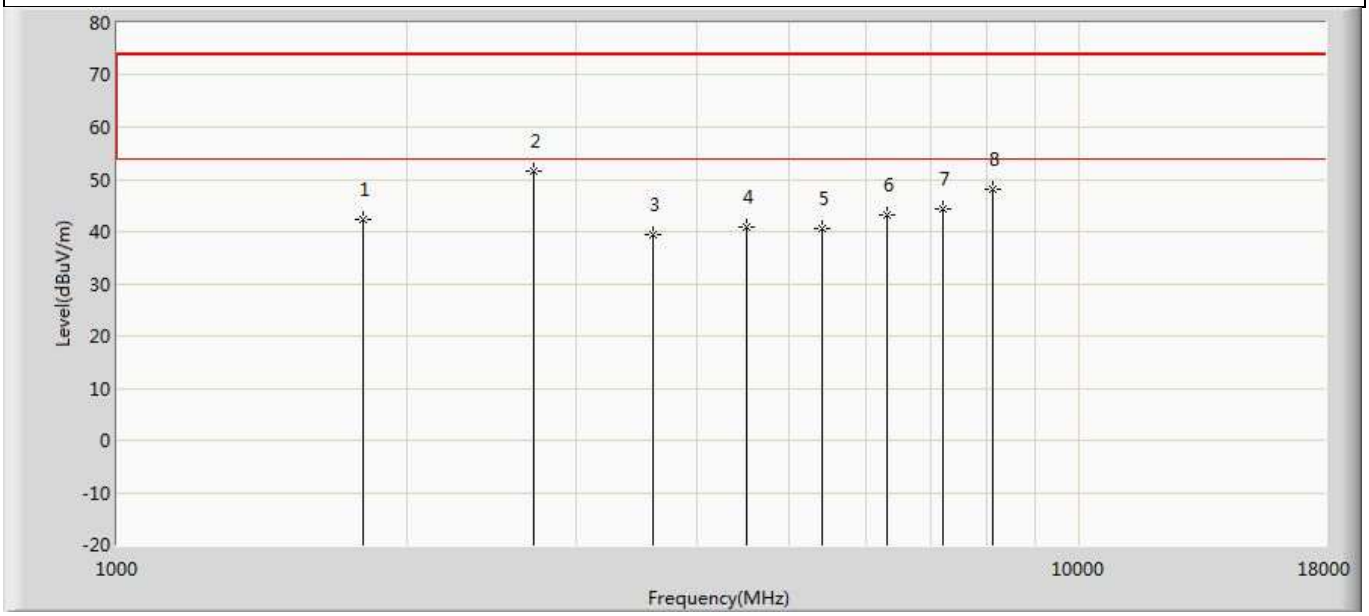
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.600	38.446	49.412	-35.554	74.000	-10.965	PK
2	*	2783.400	47.600	56.449	-26.400	74.000	-8.849	PK
3		3711.200	41.971	48.764	-32.029	74.000	-6.793	PK
4		4639.000	41.872	47.160	-32.128	74.000	-5.287	PK
5		5566.800	39.361	42.780	-34.639	74.000	-3.419	PK
6		6494.600	41.700	43.290	-32.300	74.000	-1.590	PK
7		7422.400	41.049	43.236	-32.951	74.000	-2.187	PK
8		8350.200	41.129	42.757	-32.871	74.000	-1.628	PK

Profile: 20B0050R	Page No.: 43
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 902.2MHz by FSK with FHSS 50Kbps data rate	



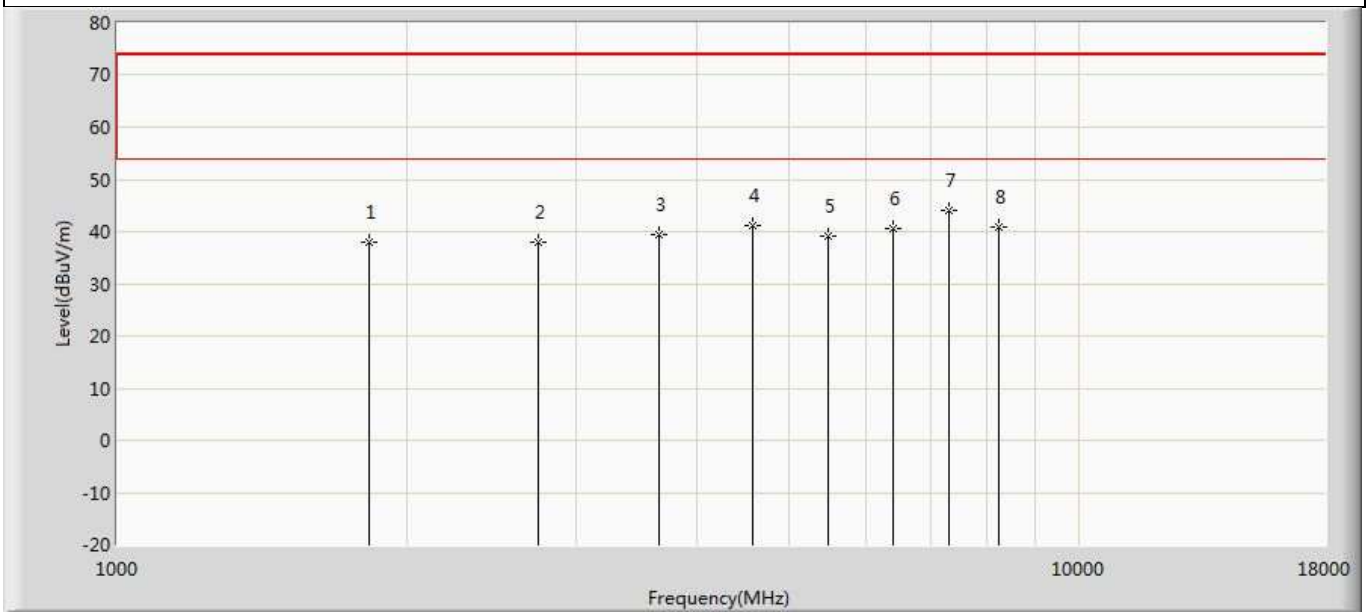
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	45.003	56.423	-28.997	74.000	-11.420	PK
2	*	2706.600	53.145	61.922	-20.855	74.000	-8.777	PK
3		3608.800	41.963	48.891	-32.037	74.000	-6.928	PK
4		4511.000	42.195	47.654	-31.805	74.000	-5.459	PK
5		5413.200	40.490	44.338	-33.510	74.000	-3.847	PK
6		6315.400	43.515	46.082	-30.485	74.000	-2.567	PK
7		7217.600	43.069	45.052	-30.931	74.000	-1.983	PK
8		8119.800	48.043	49.753	-25.957	74.000	-1.710	PK

Profile: 20B0050R	Page No.: 44
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 902.2MHz by FSK with FHSS 50Kbps data rate	



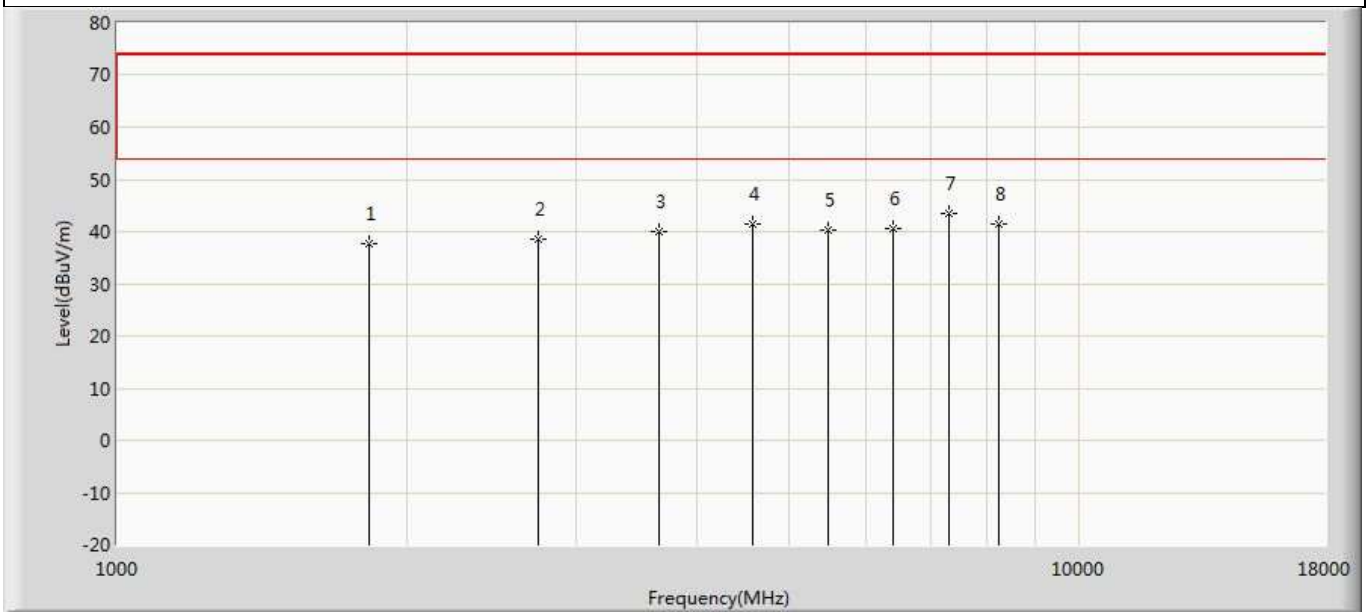
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	42.436	53.856	-31.564	74.000	-11.420	PK
2	*	2706.600	51.570	60.347	-22.430	74.000	-8.777	PK
3		3608.800	39.492	46.420	-34.508	74.000	-6.928	PK
4		4511.000	40.776	46.235	-33.224	74.000	-5.459	PK
5		5413.200	40.549	44.397	-33.451	74.000	-3.847	PK
6		6315.400	43.303	45.870	-30.697	74.000	-2.567	PK
7		7217.600	44.461	46.444	-29.539	74.000	-1.983	PK
8		8119.800	48.233	49.943	-25.767	74.000	-1.710	PK

Profile: 20B0050R	Page No.: 45
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 915MHz by FSK with FHSS 50Kbps data rate	



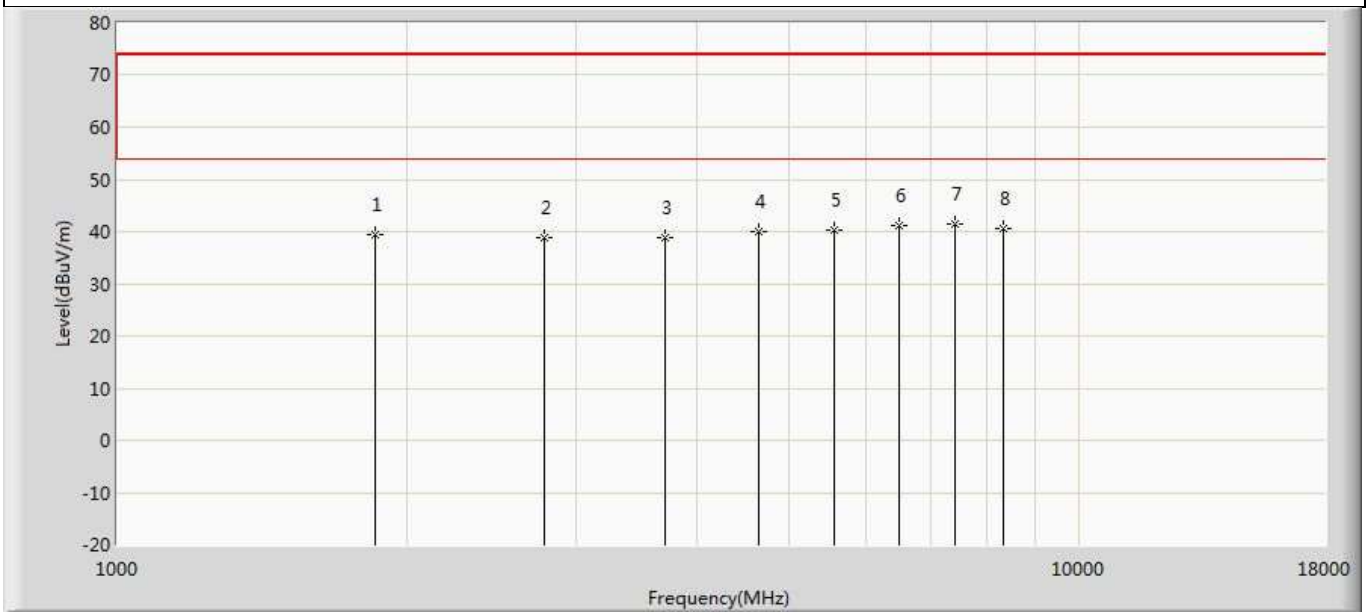
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	37.988	48.443	-36.012	74.000	-10.454	PK
2		2745.000	37.974	47.533	-36.026	74.000	-9.559	PK
3		3660.000	39.483	46.029	-34.517	74.000	-6.547	PK
4		4575.000	41.212	45.574	-32.788	74.000	-4.362	PK
5		5490.000	39.102	41.859	-34.898	74.000	-2.758	PK
6		6405.000	40.668	43.052	-33.332	74.000	-2.384	PK
7	*	7320.000	44.112	46.154	-29.888	74.000	-2.042	PK
8		8235.000	40.849	42.339	-33.151	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 46
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 915MHz by FSK with FHSS 50Kbps data rate	



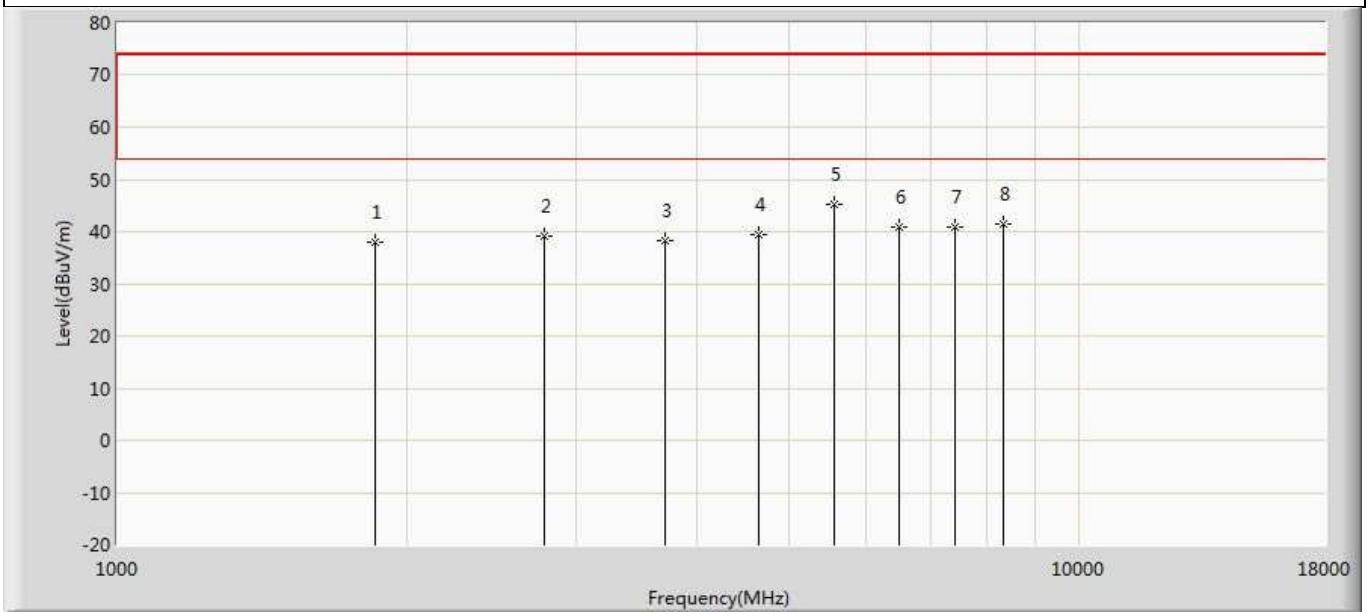
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	37.652	48.107	-36.348	74.000	-10.454	PK
2		2745.000	38.510	48.069	-35.490	74.000	-9.559	PK
3		3660.000	39.857	46.403	-34.143	74.000	-6.547	PK
4		4575.000	41.438	45.800	-32.562	74.000	-4.362	PK
5		5490.000	40.386	43.143	-33.614	74.000	-2.758	PK
6		6405.000	40.632	43.016	-33.368	74.000	-2.384	PK
7	*	7320.000	43.546	45.588	-30.454	74.000	-2.042	PK
8		8235.000	41.317	42.807	-32.683	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 47
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 927.8MHz by FSK with FHSS 50Kbps data rate	



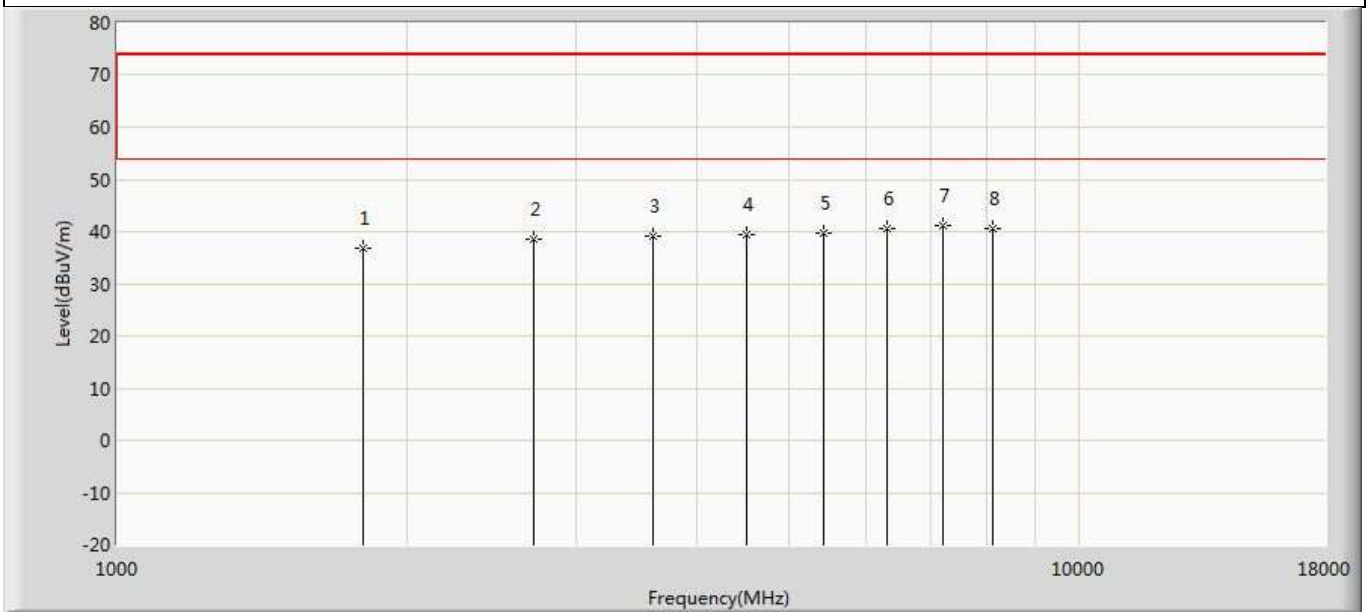
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.600	39.365	50.331	-34.635	74.000	-10.965	PK
2		2783.400	38.973	47.822	-35.027	74.000	-8.849	PK
3		3711.200	38.794	45.587	-35.206	74.000	-6.793	PK
4		4639.000	39.873	45.161	-34.127	74.000	-5.287	PK
5		5566.800	40.151	43.570	-33.849	74.000	-3.419	PK
6		6494.600	41.145	42.735	-32.855	74.000	-1.590	PK
7	*	7422.400	41.450	43.637	-32.550	74.000	-2.187	PK
8		8350.200	40.654	42.282	-33.346	74.000	-1.628	PK

Profile: 20B0050R	Page No.: 48
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 927.8MHz by FSK with FHSS 50Kbps data rate	



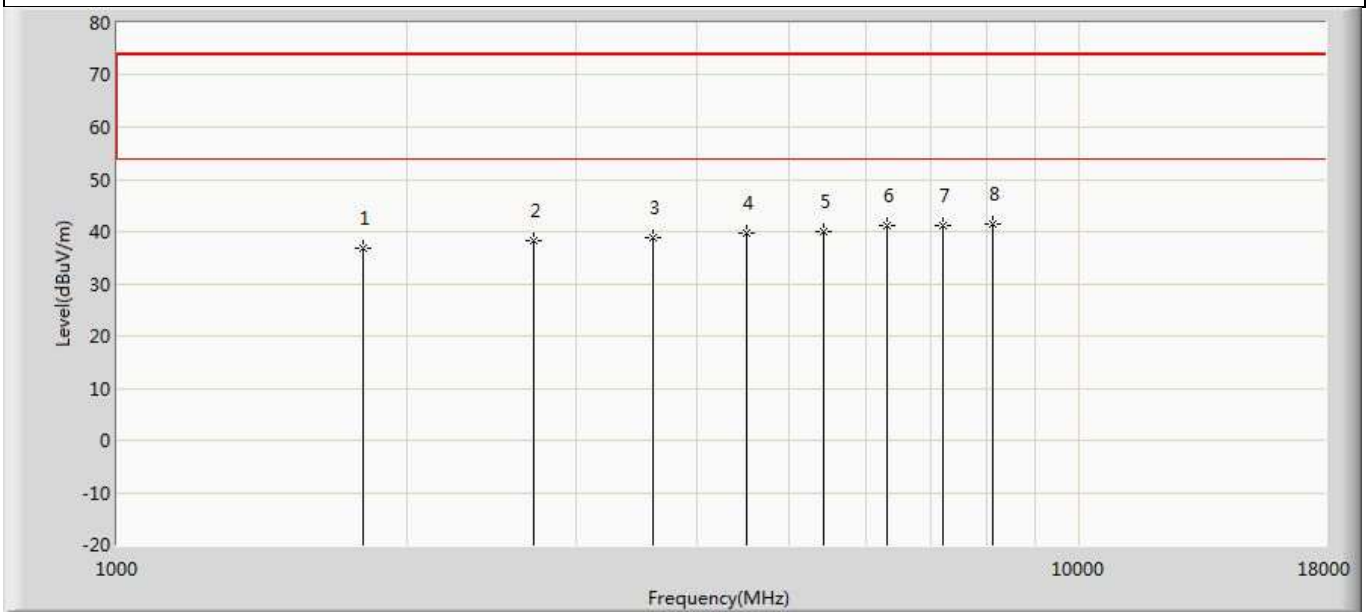
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.600	38.071	49.037	-35.929	74.000	-10.965	PK
2		2783.400	39.014	47.863	-34.986	74.000	-8.849	PK
3		3711.200	38.331	45.124	-35.669	74.000	-6.793	PK
4		4639.000	39.459	44.747	-34.541	74.000	-5.287	PK
5	*	5566.800	45.179	48.598	-28.821	74.000	-3.419	PK
6		6494.600	40.778	42.368	-33.222	74.000	-1.590	PK
7		7422.400	40.993	43.180	-33.007	74.000	-2.187	PK
8		8350.200	41.405	43.033	-32.595	74.000	-1.628	PK

Profile: 20B0050R	Page No.: 49
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 902.4MHz by FSK with FHSS 150Kbps data rate	



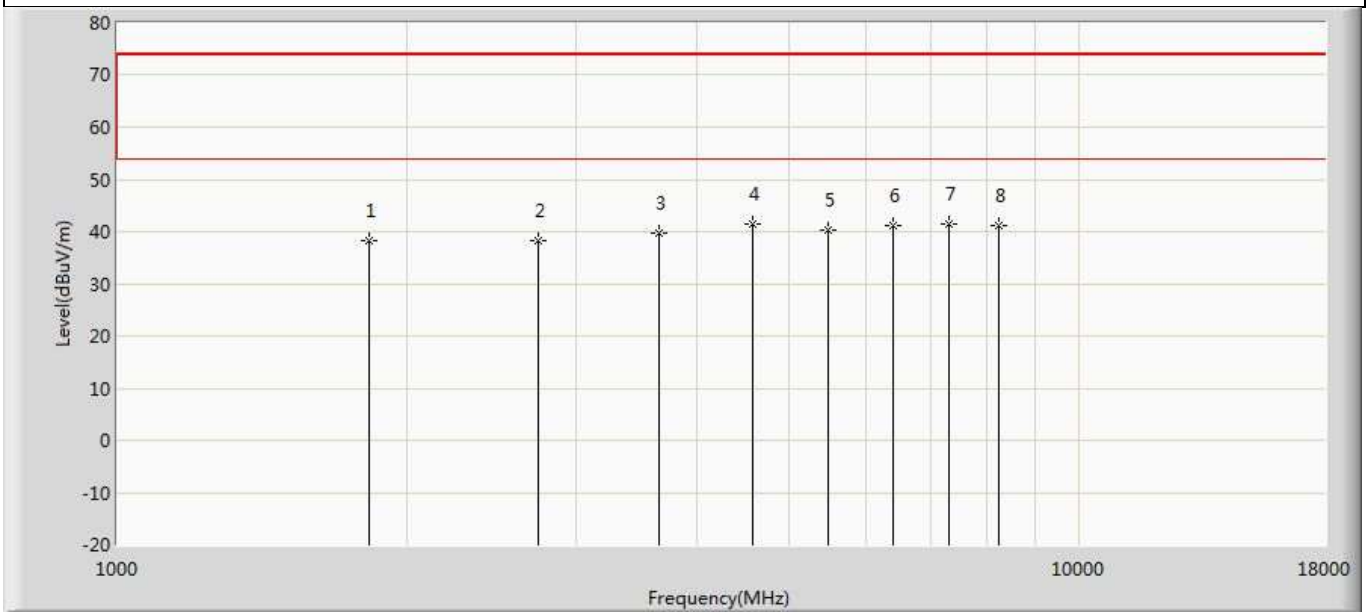
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.800	36.821	48.221	-37.179	74.000	-11.399	PK
2		2707.200	38.473	47.243	-35.527	74.000	-8.770	PK
3		3609.600	39.085	45.962	-34.915	74.000	-6.876	PK
4		4512.000	39.378	44.816	-34.622	74.000	-5.438	PK
5		5414.400	39.719	43.571	-34.281	74.000	-3.851	PK
6		6316.800	40.693	43.244	-33.307	74.000	-2.550	PK
7	*	7219.200	41.104	43.065	-32.896	74.000	-1.961	PK
8		8121.600	40.650	42.398	-33.350	74.000	-1.748	PK

Profile: 20B0050R	Page No.: 50
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 902.4MHz by FSK with FHSS 150Kbps data rate	



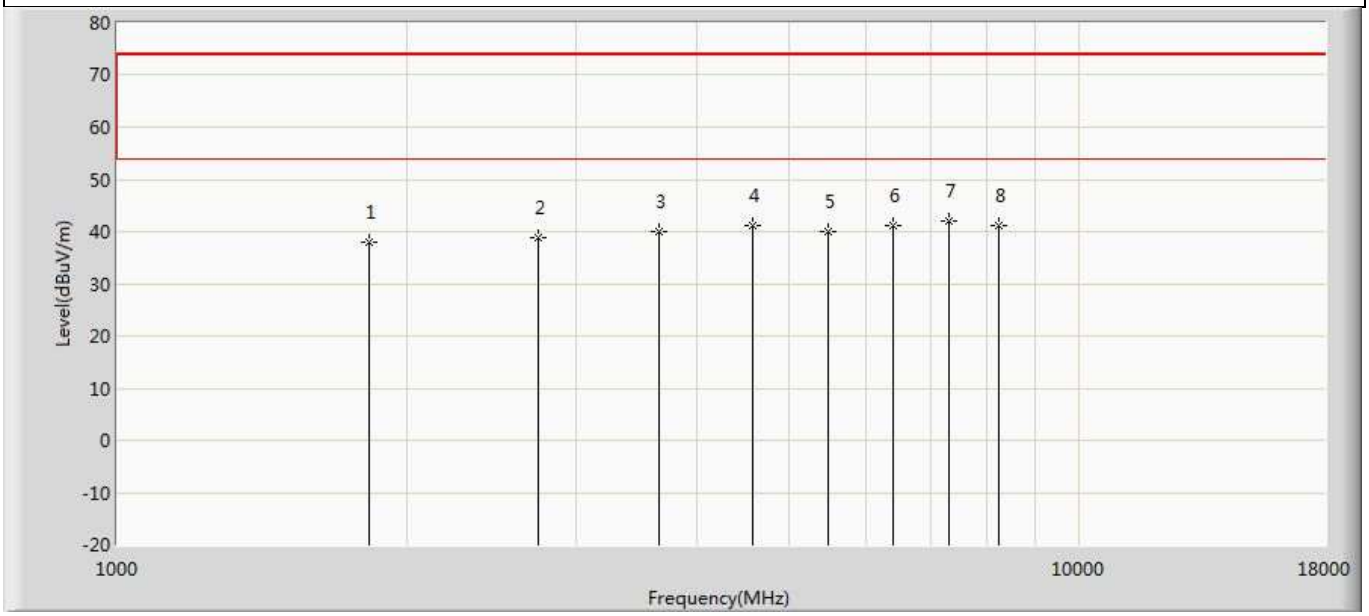
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.800	36.760	48.160	-37.240	74.000	-11.399	PK
2		2707.200	38.198	46.968	-35.802	74.000	-8.770	PK
3		3609.600	38.929	45.806	-35.071	74.000	-6.876	PK
4		4512.000	39.806	45.244	-34.194	74.000	-5.438	PK
5		5414.400	40.108	43.960	-33.892	74.000	-3.851	PK
6		6316.800	41.097	43.648	-32.903	74.000	-2.550	PK
7		7219.200	41.271	43.232	-32.729	74.000	-1.961	PK
8	*	8121.600	41.401	43.149	-32.599	74.000	-1.748	PK

Profile: 20B0050R	Page No.: 51
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 914.8MHz by FSK with FHSS 150Kbps data rate	



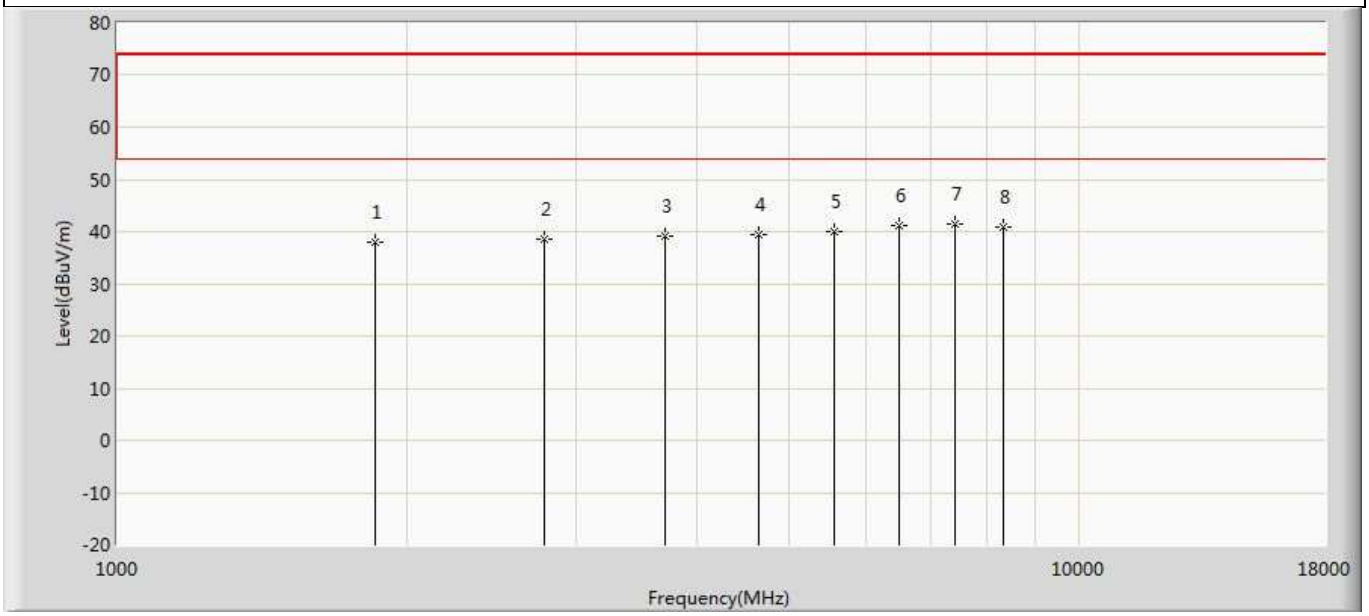
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1829.600	38.147	48.613	-35.853	74.000	-10.466	PK
2		2744.400	38.152	47.726	-35.848	74.000	-9.573	PK
3		3659.200	39.843	46.358	-34.157	74.000	-6.515	PK
4	*	4574.000	41.544	45.830	-32.456	74.000	-4.287	PK
5		5488.800	40.314	43.015	-33.686	74.000	-2.702	PK
6		6403.600	41.221	43.507	-32.779	74.000	-2.286	PK
7		7318.400	41.364	43.426	-32.636	74.000	-2.062	PK
8		8233.200	41.300	42.879	-32.700	74.000	-1.579	PK

Profile: 20B0050R	Page No.: 52
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 914.8MHz by FSK with FHSS 150Kbps data rate	



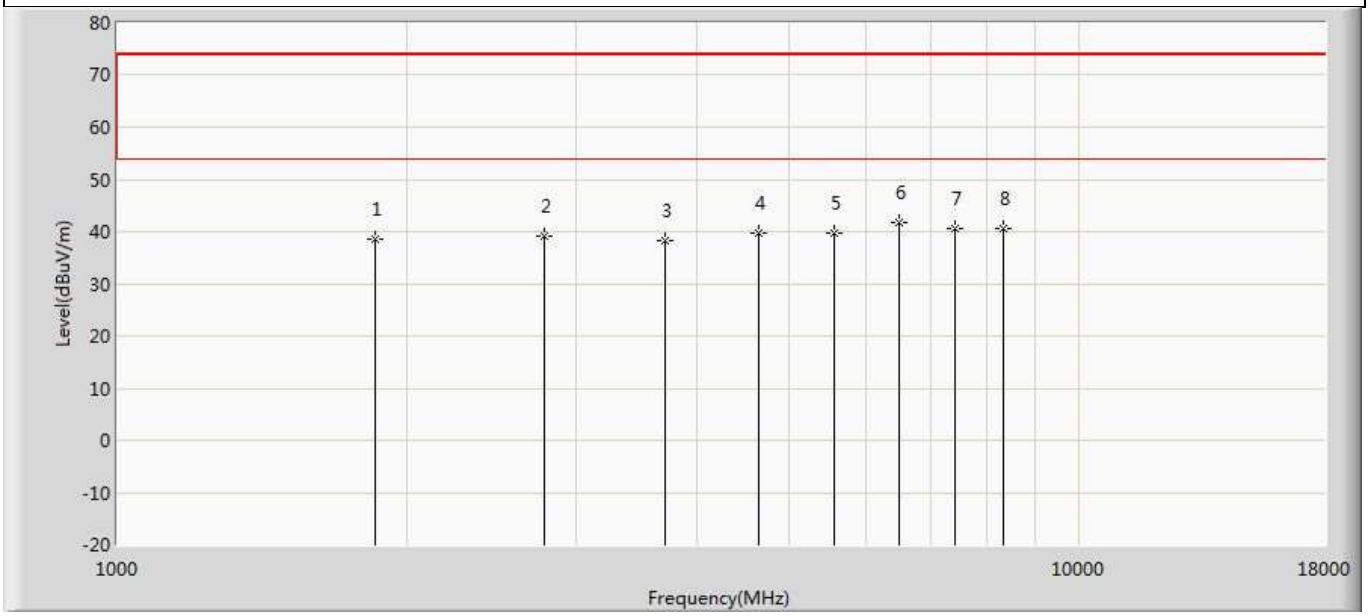
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1829.600	38.103	48.569	-35.897	74.000	-10.466	PK
2		2744.400	38.697	48.271	-35.303	74.000	-9.573	PK
3		3659.200	40.009	46.524	-33.991	74.000	-6.515	PK
4		4574.000	41.204	45.490	-32.796	74.000	-4.287	PK
5		5488.800	39.896	42.597	-34.104	74.000	-2.702	PK
6		6403.600	41.221	43.507	-32.779	74.000	-2.286	PK
7	*	7318.400	42.119	44.181	-31.881	74.000	-2.062	PK
8		8233.200	41.261	42.840	-32.739	74.000	-1.579	PK

Profile: 20B0050R	Page No.: 53
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 927.6MHz by FSK with FHSS 150Kbps data rate	



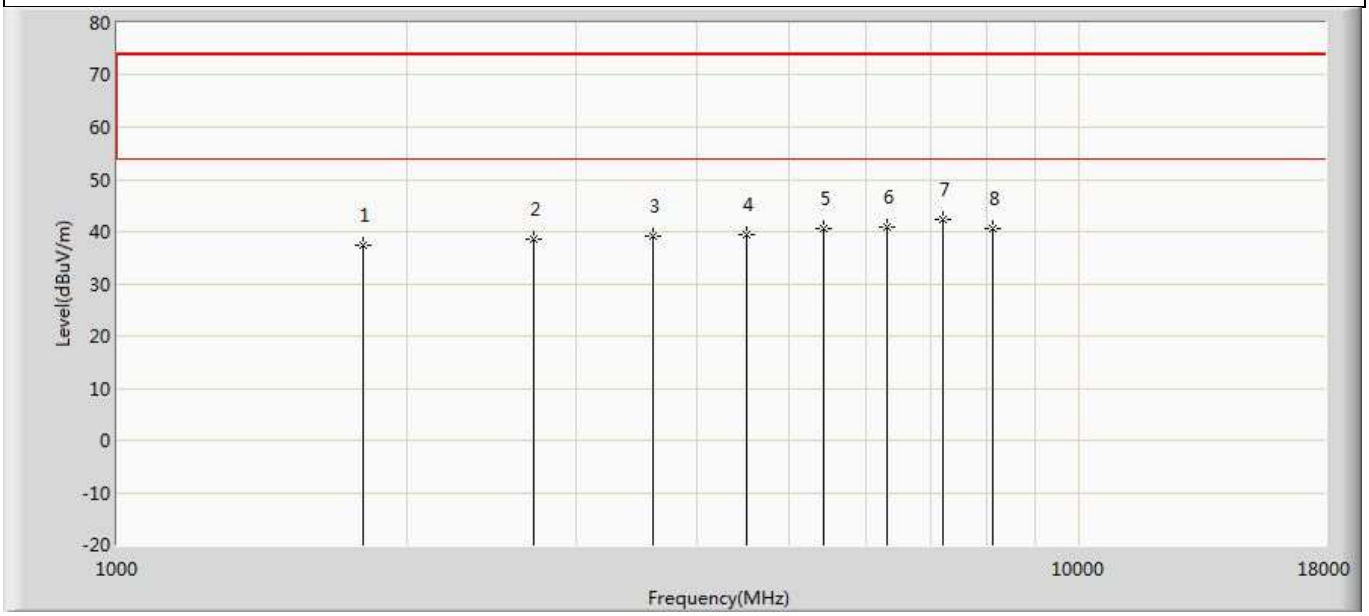
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.200	37.961	48.944	-36.039	74.000	-10.982	PK
2		2782.800	38.481	47.339	-35.519	74.000	-8.858	PK
3		3710.400	39.002	45.770	-34.998	74.000	-6.768	PK
4		4638.000	39.435	44.785	-34.565	74.000	-5.350	PK
5		5565.600	39.984	43.433	-34.016	74.000	-3.448	PK
6		6493.200	41.287	42.764	-32.713	74.000	-1.477	PK
7	*	7420.800	41.522	43.770	-32.478	74.000	-2.248	PK
8		8348.400	40.965	42.605	-33.035	74.000	-1.640	PK

Profile: 20B0050R	Page No.: 54
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 927.6MHz by FSK with FHSS 150Kbps data rate	



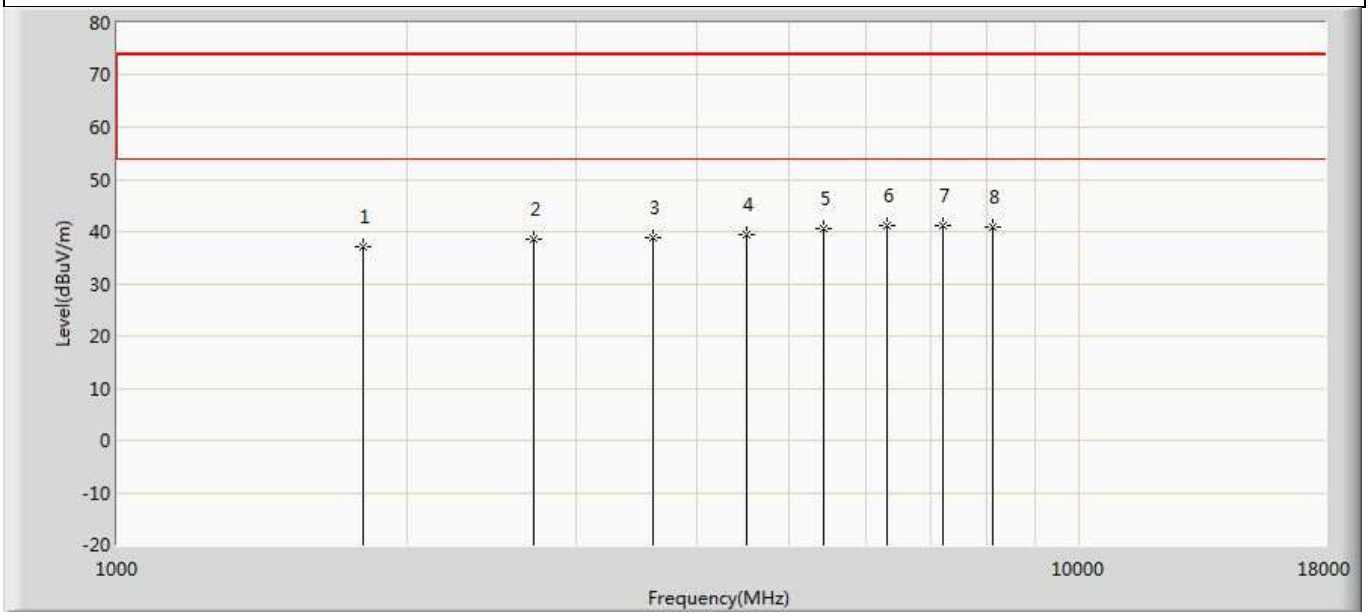
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.200	38.605	49.588	-35.395	74.000	-10.982	PK
2		2782.800	39.139	47.997	-34.861	74.000	-8.858	PK
3		3710.400	38.296	45.064	-35.704	74.000	-6.768	PK
4		4638.000	39.815	45.165	-34.185	74.000	-5.350	PK
5		5565.600	39.599	43.048	-34.401	74.000	-3.448	PK
6	*	6493.200	41.723	43.200	-32.277	74.000	-1.477	PK
7		7420.800	40.619	42.867	-33.381	74.000	-2.248	PK
8		8348.400	40.452	42.092	-33.548	74.000	-1.640	PK

Profile: 20B0050R	Page No.: 55
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 902.5MHz by FSK with FHSS 250Kbps data rate	



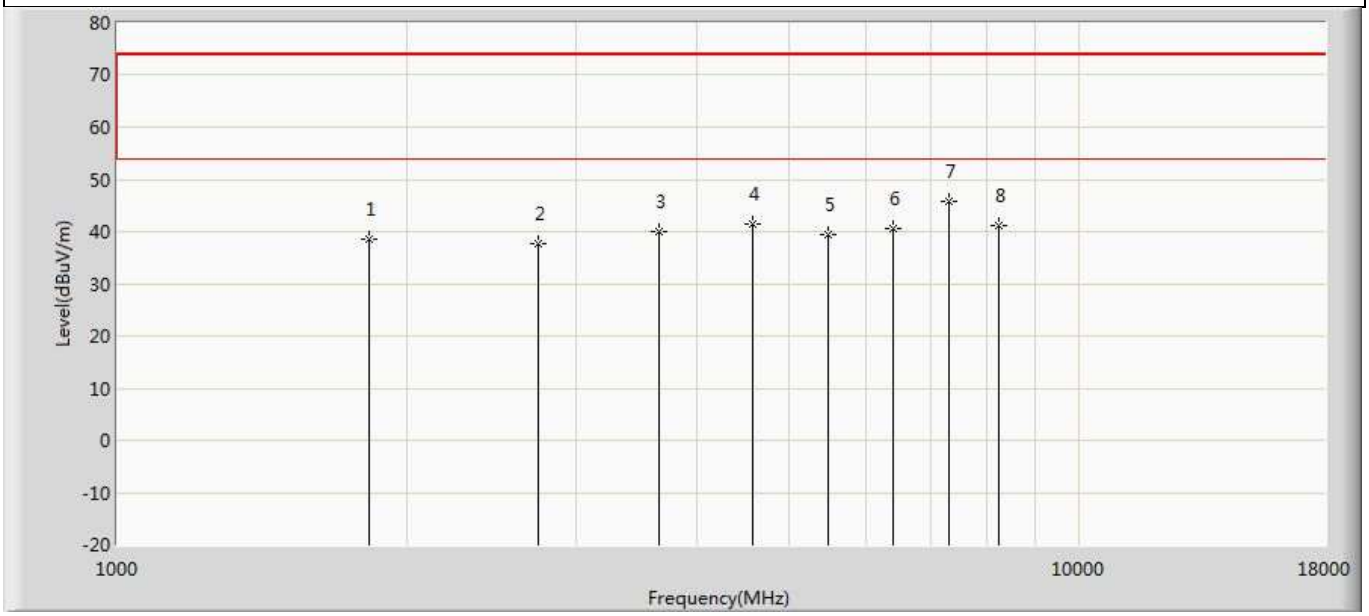
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1805.000	37.421	48.811	-36.579	74.000	-11.391	PK
2		2707.500	38.629	47.396	-35.371	74.000	-8.766	PK
3		3610.000	39.236	46.087	-34.764	74.000	-6.851	PK
4		4512.500	39.364	44.792	-34.636	74.000	-5.428	PK
5		5415.000	40.698	44.552	-33.302	74.000	-3.854	PK
6		6317.500	40.755	43.297	-33.245	74.000	-2.543	PK
7	*	7220.000	42.250	44.199	-31.750	74.000	-1.949	PK
8		8122.500	40.454	42.221	-33.546	74.000	-1.767	PK

Profile: 20B0050R	Page No.: 56
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 902.5MHz by FSK with FHSS 250Kbps data rate	



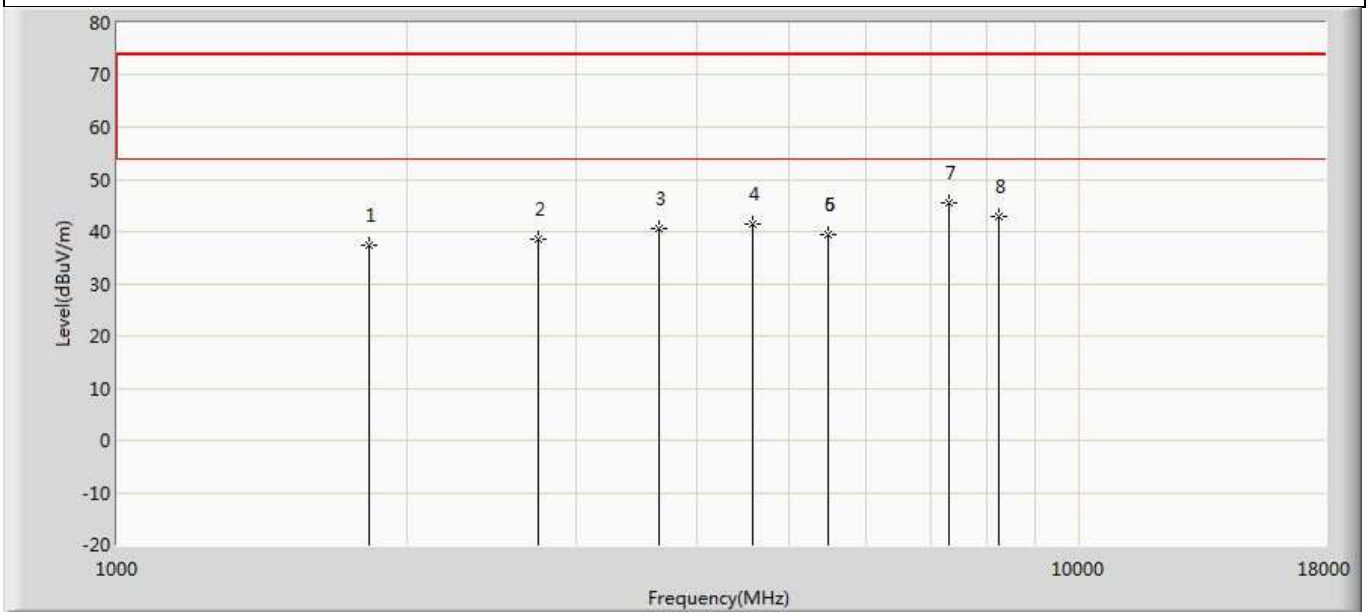
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1805.000	37.208	48.598	-36.792	74.000	-11.391	PK
2		2707.500	38.529	47.296	-35.471	74.000	-8.766	PK
3		3610.000	38.982	45.833	-35.018	74.000	-6.851	PK
4		4512.500	39.428	44.856	-34.572	74.000	-5.428	PK
5		5415.000	40.602	44.456	-33.398	74.000	-3.854	PK
6		6317.500	41.139	43.681	-32.861	74.000	-2.543	PK
7	*	7220.000	41.256	43.205	-32.744	74.000	-1.949	PK
8		8122.500	41.010	42.777	-32.990	74.000	-1.767	PK

Profile: 20B0050R	Page No.: 57
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 915MHz by FSK with FHSS 250Kbps data rate	



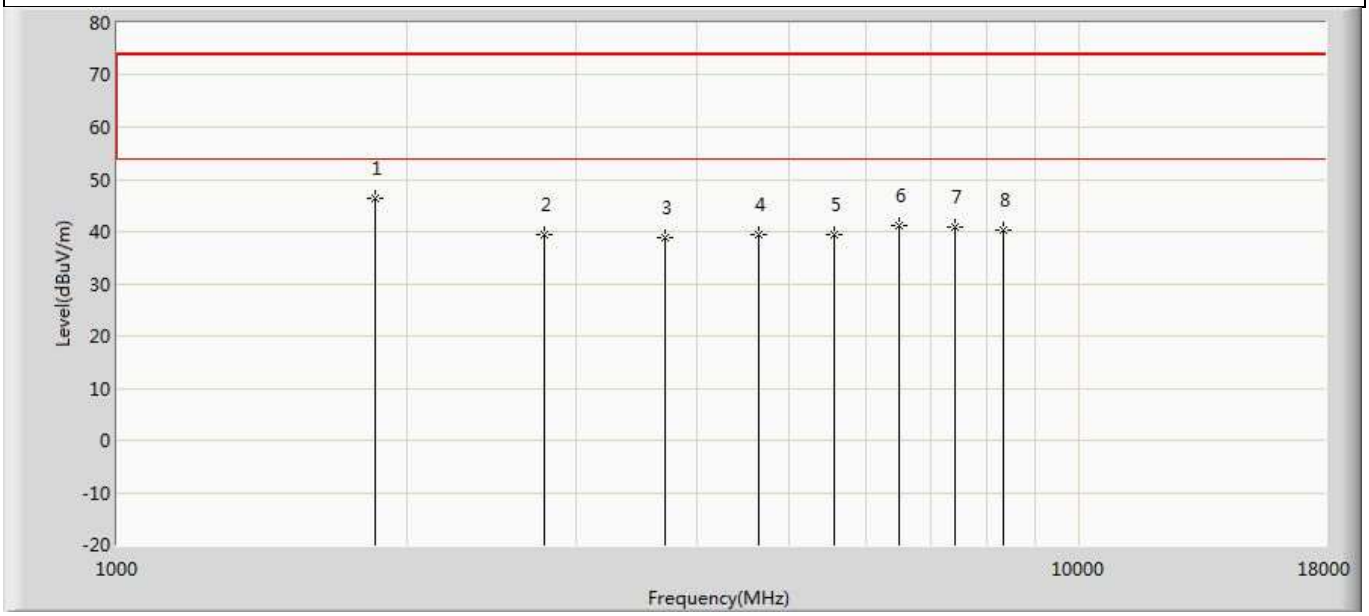
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	38.482	48.937	-35.518	74.000	-10.454	PK
2		2745.000	37.763	47.322	-36.237	74.000	-9.559	PK
3		3660.000	39.877	46.423	-34.123	74.000	-6.547	PK
4		4575.000	41.415	45.777	-32.585	74.000	-4.362	PK
5		5490.000	39.320	42.077	-34.680	74.000	-2.758	PK
6		6405.000	40.510	42.894	-33.490	74.000	-2.384	PK
7	*	7320.000	45.940	47.982	-28.060	74.000	-2.042	PK
8		8235.000	41.079	42.569	-32.921	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 58
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 915MHz by FSK with FHSS 250Kbps data rate	



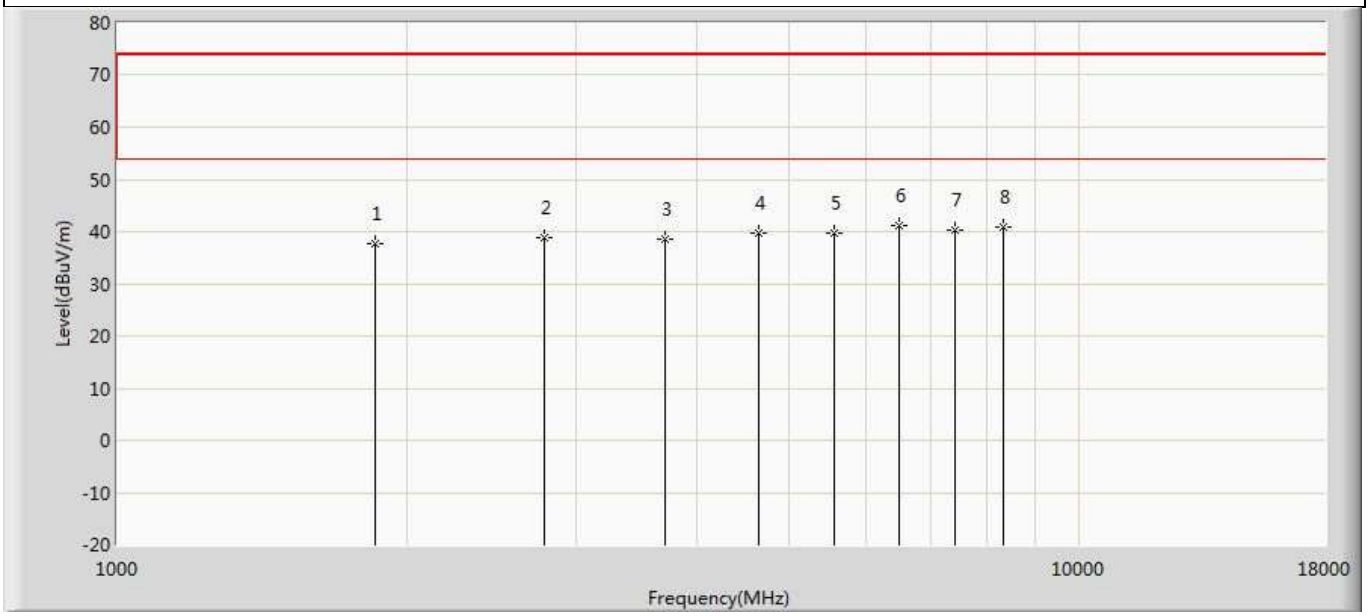
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1830.000	37.506	47.961	-36.494	74.000	-10.454	PK
2		2745.000	38.565	48.124	-35.435	74.000	-9.559	PK
3		3660.000	40.464	47.010	-33.536	74.000	-6.547	PK
4		4575.000	41.483	45.845	-32.517	74.000	-4.362	PK
5		5490.000	39.522	42.279	-34.478	74.000	-2.758	PK
6		5490.000	39.522	42.279	-34.478	74.000	-2.758	PK
7	*	7320.000	45.447	47.489	-28.553	74.000	-2.042	PK
8		8235.000	42.918	44.408	-31.082	74.000	-1.490	PK

Profile: 20B0050R	Page No.: 59
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 927.5MHz by FSK with FHSS 250Kbps data rate	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	1855.000	46.409	57.401	-27.591	74.000	-10.992	PK
2		2782.500	39.475	48.337	-34.525	74.000	-8.862	PK
3		3710.000	38.760	45.515	-35.240	74.000	-6.755	PK
4		4637.500	39.395	44.729	-34.605	74.000	-5.334	PK
5		5565.000	39.393	42.857	-34.607	74.000	-3.464	PK
6		6492.500	41.256	42.677	-32.744	74.000	-1.421	PK
7		7420.000	40.778	43.057	-33.222	74.000	-2.279	PK
8		8347.500	40.375	42.022	-33.625	74.000	-1.646	PK

Profile: 20B0050R	Page No.: 60
Engineer:Yingfeiwang	
Site: AC5	Time: 2020/11/26 - 19:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 4:Transmit at 927.5MHz by FSK with FHSS 250Kbps data rate	

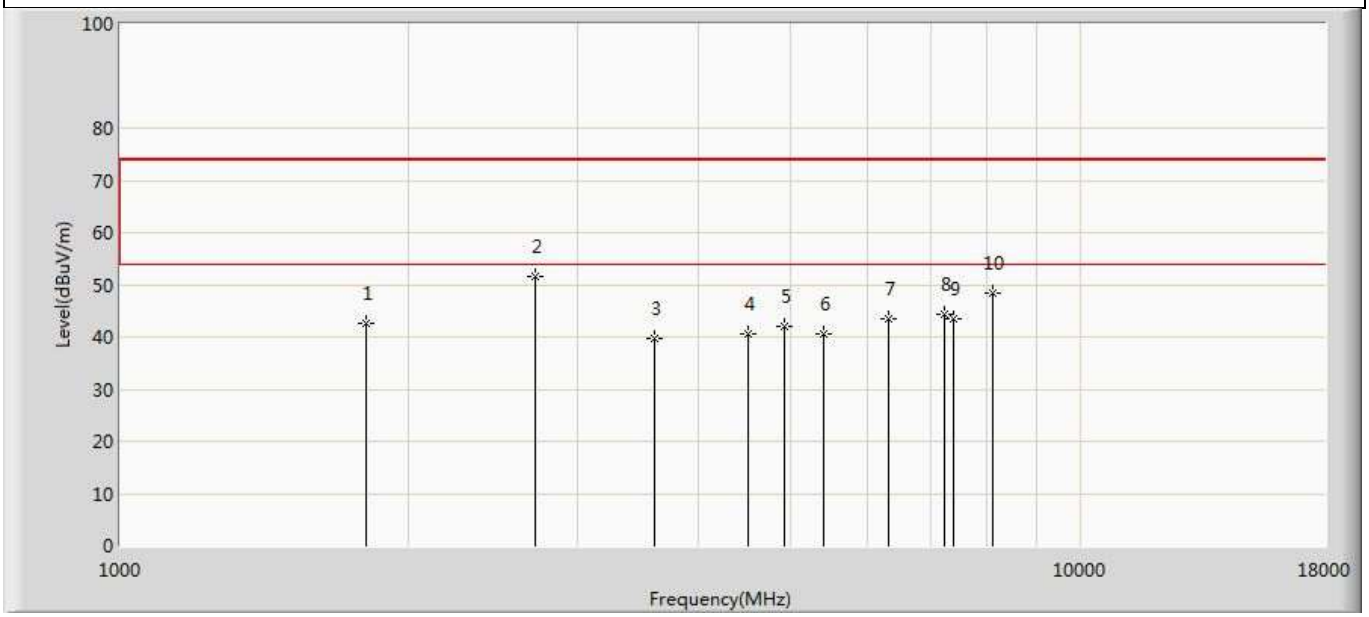


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1855.000	37.581	48.573	-36.419	74.000	-10.992	PK
2		2782.500	38.782	47.644	-35.218	74.000	-8.862	PK
3		3710.000	38.497	45.252	-35.503	74.000	-6.755	PK
4		4637.500	39.605	44.939	-34.395	74.000	-5.334	PK
5		5565.000	39.660	43.124	-34.340	74.000	-3.464	PK
6	*	6492.500	41.180	42.601	-32.820	74.000	-1.421	PK
7		7420.000	40.289	42.568	-33.711	74.000	-2.279	PK
8		8347.500	40.973	42.620	-33.027	74.000	-1.646	PK

Remark	1. " * ", means this data is the worst emission level. 2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp). 3. The test frequency range, 9kHz~30MHz and Above 18GHz worst case are at least 6dB below the limits, therefore no data appear in the report. 4. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed. 5.Tne No. 1 is non-restricted bands, so the limit is Fundamental emission down 20dB, and then we evaluated each channel, it is complice with the RSE requirements.

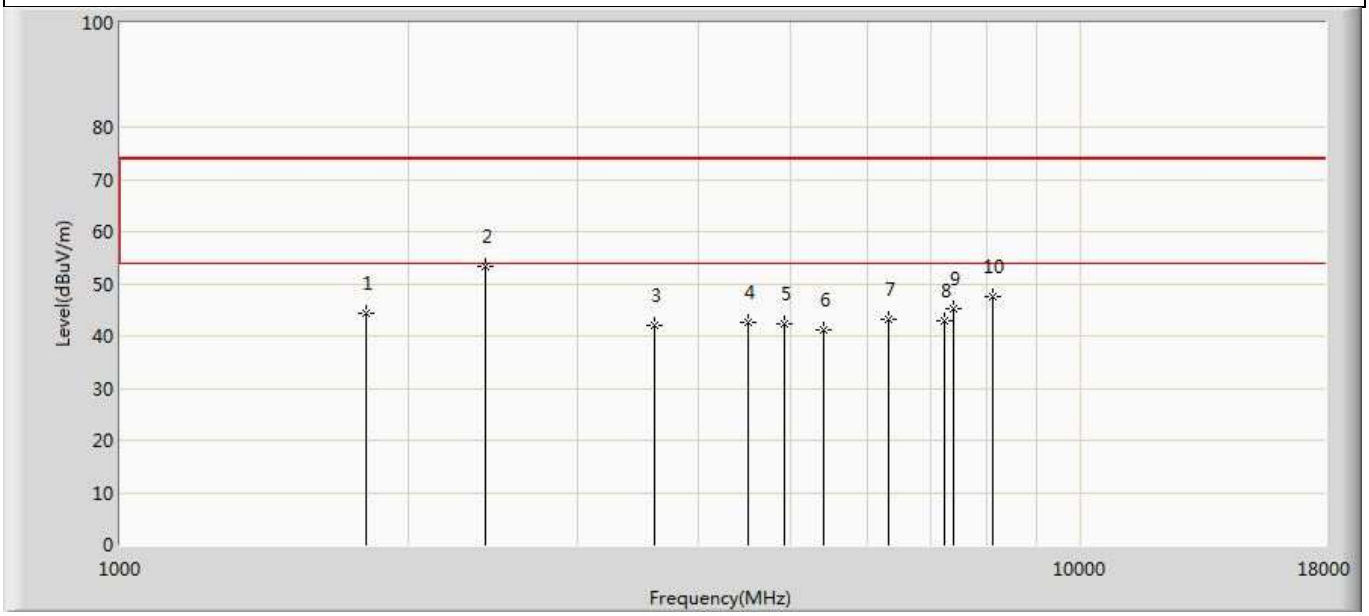
The worst case of simultaneous transmission:

Profile: 20B0050R	Page No.: 69
Engineer: Tim.Cao	
Site: AC5	Time: 2021/02/03 - 18:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 5: Simultaneous transmission	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	42.513	53.933	-31.487	74.000	-11.420	PK
2	*	2706.600	51.468	60.245	-22.532	74.000	-8.777	PK
3		3608.800	39.842	46.770	-34.158	74.000	-6.928	PK
4		4511.000	40.698	46.157	-33.302	74.000	-5.459	PK
5		4926.000	41.936	46.530	-32.064	74.000	-4.594	PK
6		5413.200	40.681	44.528	-33.319	74.000	-3.847	PK
7		6315.400	43.520	46.096	-30.480	74.000	-2.576	PK
8		7217.600	44.394	46.377	-29.606	74.000	-1.983	PK
9		7386.000	43.408	45.315	-30.592	74.000	-1.907	PK
10		8119.800	48.354	50.064	-25.646	74.000	-1.710	PK

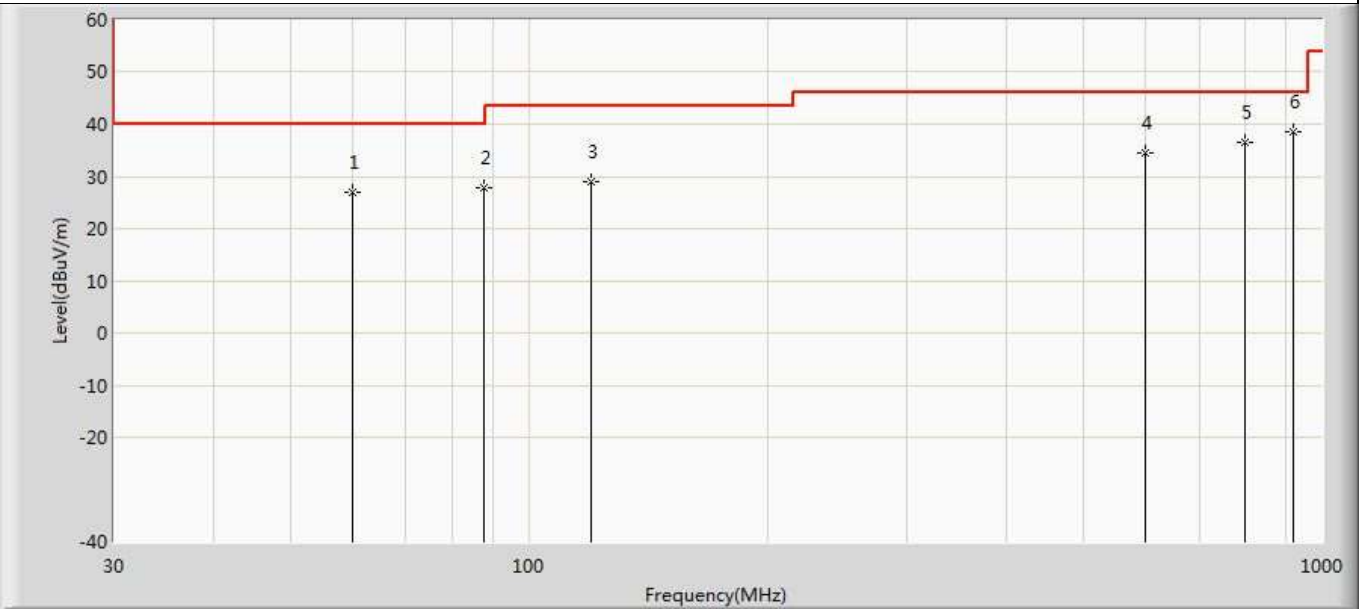
Profile: 20B0050R	Page No.: 70
Engineer: Tim.Cao	
Site: AC5	Time: 2021/02/03 - 18:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 5: Simultaneous transmission	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		1804.400	44.366	55.786	-29.634	74.000	-11.420	PK
2	*	2406.600	53.242	62.019	-20.758	74.000	-8.777	PK
3		3608.800	42.031	48.959	-31.969	74.000	-6.928	PK
4		4511.000	42.673	48.132	-31.327	74.000	-5.459	PK
5		4924.000	42.185	46.836	-31.815	74.000	-4.651	PK
6		5413.200	41.149	44.996	-32.851	74.000	-3.847	PK
7		6315.400	43.054	45.630	-30.946	74.000	-2.576	PK
8		7217.600	42.758	44.741	-31.242	74.000	-1.983	PK
9		7386.000	45.227	47.134	-28.773	74.000	-1.907	PK
10		8119.800	47.614	49.324	-26.386	74.000	-1.710	PK

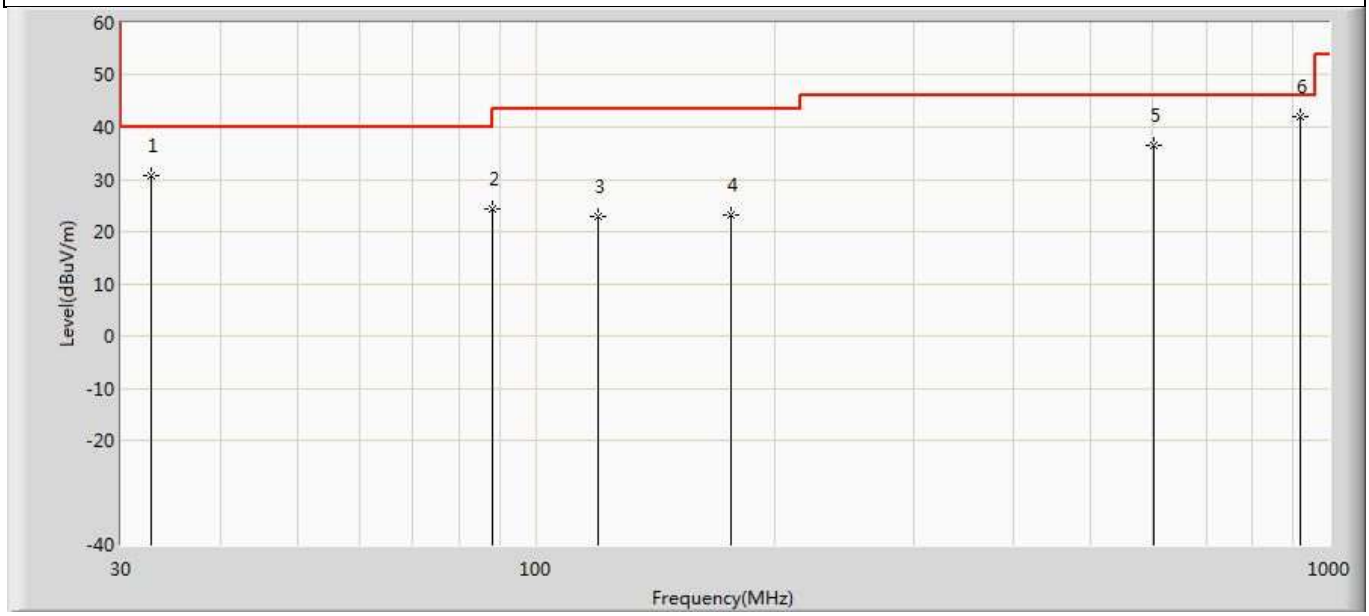
The worst case of Radiated Emission below 1GHz:

Profile: 20B0050R	Page No.: 11
Engineer: Neil	
Site: AC2	Time: 2020/11/27 - 09:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Vertical
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		60.070	26.935	10.745	-13.065	40.000	16.190	QP
2		87.957	27.920	11.281	-12.080	40.000	16.638	QP
3		119.967	29.027	8.339	-14.473	43.500	20.687	QP
4		599.996	34.369	6.770	-11.631	46.000	27.599	QP
5		800.059	36.654	5.515	-9.346	46.000	31.139	QP
6	*	920.096	38.419	6.682	-7.581	46.000	31.737	QP

Profile: 20B0050R	Page No.: 12
Engineer: Neil	
Site: AC2	Time: 2020/11/27 - 09:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Horizontal
EUT: Ring bridge LDO V2	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		32.789	30.816	3.774	-9.184	40.000	27.042	QP
2		88.200	24.454	10.620	-19.046	43.500	13.834	QP
3		119.967	22.897	6.346	-20.603	43.500	16.550	QP
4		175.985	23.309	6.351	-20.191	43.500	16.958	QP
5		600.117	36.625	7.694	-9.375	46.000	28.931	QP
6	*	919.975	41.962	9.443	-4.038	46.000	32.519	QP

Remark	1. " * ", means this data is the worst emission level. 2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp). 3. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.

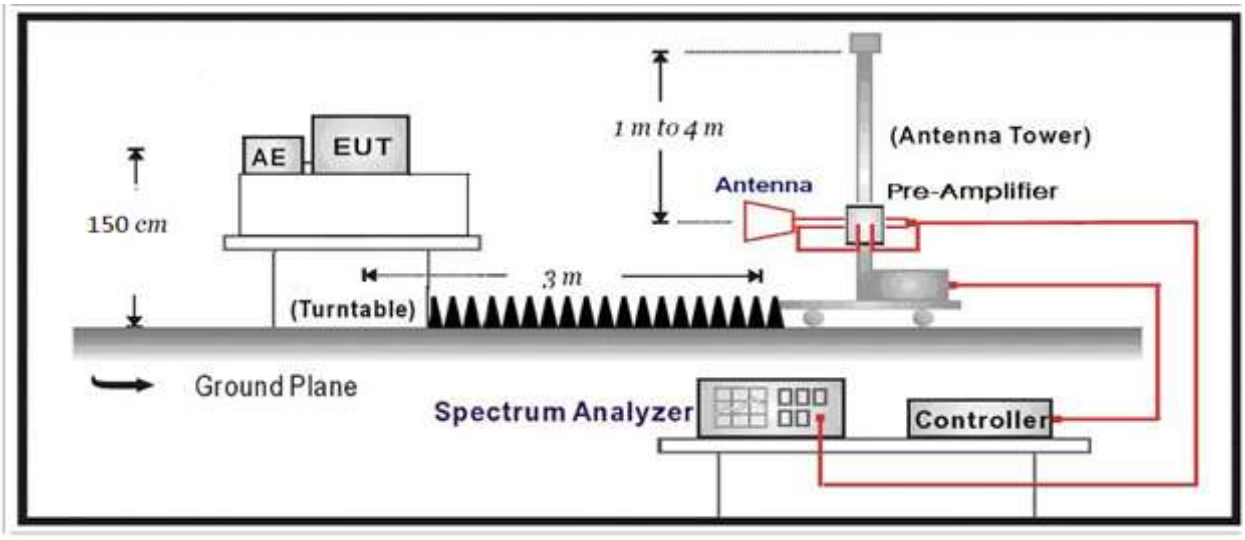
4.2 Radiated Emission Band Edge	VERDICT: PASS

4.2.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d) , 15.205, 15.209			
Frequency bands (MHz)	Detector	Limit (dBμV/m)	RBW (MHz)	Distance (m)
2310-2390 2483.5-2500	PK	74	1	3
	AV	54	1	3
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.				

4.2.2 Test Setup

Above 1GHz Test Setup:



4.2.3 Test Procedure

	References Rule	Chapter	Description
☒	ANSI C63.10	6.10	Band-edge testing
	☒ ANSI C63.10	6.10.5	Restricted-band band-edge measurements
	☐ ANSI C63.10	6.10.6	Marker-delta method
☒	ANSI C63.10	11.12	Emissions in restricted frequency bands
	☒ ANSI C63.10	11.12.1	Radiated emission measurements
	☒ ANSI C63.10	6.3	Radiated spurious emission test
☐	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
☐	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
☒	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
	☐ ANSI C63.10	11.12.2	Antenna-port conducted measurements
	☐ ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	☐ ANSI C63.10	11.12.2.4	Peak power measurement procedure
	☐ ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐ ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	☐ ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	☐ ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

4.2.4 Test Data

Remark	No restricted band in the range ± 2 channel bandwidths of the Band-edges of the specified emission band! (608 MHz – 614 MHz and 960 MHz – 1240 MHz).

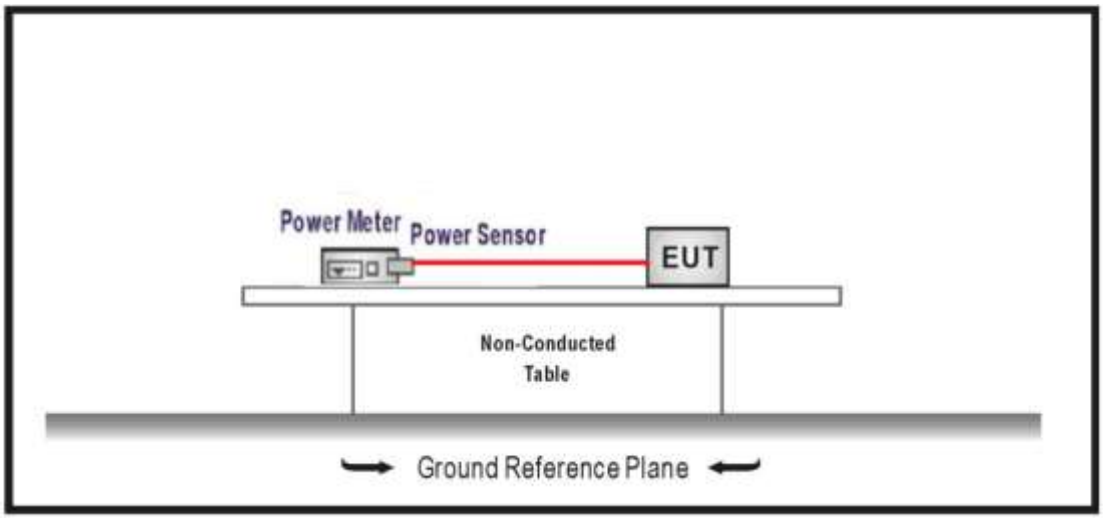
4.3 Fundamental emission output power	VERDICT: PASS

4.3.1 Limit

Standard			FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX ＜6dBi		Pout≤30dBm
☐	GTX ＞6dBi		
	☐	Non-Fix point-point	Pout≤30-(GTX -6)
	☐	Fix point-point	Pout≤30-[(GTX-6)]/3
	☐	Point-to-multipoint	Pout≤30-(GTX-6)
	☐	Overlap Beams	Pout≤30-[(GTX-6)]/3
	☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
	☐	single directional beam	Pout≤30-[(GTX-6)]/3+8dB
☒	For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels		

Note 1 : GTX directional gain of transmitting antennas.
Note 2 : Pout is maximum peak conducted output power .

4.3.2 Test Setup



4.3.3 Test Procedure

	References Rule	Chapter	Description
☒	ANSI C63.10	11.9	Fundamental emission output power
	☐ ANSI C63.10	11.9.1	Maximum peak conducted output power
	☐ ANSI C63.10	11.9.1.1	RBW ≥ DTS bandwidth
	☐ ANSI C63.10	11.9.1.2	Integrated band power method
	☐ ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method
	☒ ANSI C63.10	11.9.2	Maximum conducted (average) output power
	☒ ANSI C63.10	11.9.2.2	Measurement using a spectrum analyzer (SA)
	☒ ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle≥98%)
	☐ ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle≥98%)
	☒ ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle≤98%)
	☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle≤98%)
	☐ ANSI C63.10	11.9.2.2.4	Method AVGSA-3
	☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
	☒ ANSI C63.10	11.9.2.3	Measurement using a power meter (PM)
	☒ ANSI C63.10	11.9.2.3.1	Method AVGPM
	☐ ANSI C63.10	11.9.2.3.2	Method AVGPM-G
☒	ANSI C63.10	7.8.5	Output power test procedure for frequency-hopping spread-spectrum (FHSS) devices

4.3.4 Test Data

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	E.I.R.P (dBm)	Conducted Limit (dBm)	E.I.R.P Limit (dBm)	Result
1	001	902.2	19.23	18.23	30.00	36.00	Pass
	065	915.0	19.19	18.19	30.00	36.00	Pass
	129	927.8	19.22	18.22	30.00	36.00	Pass
2	001	902.2	19.24	18.24	30.00	36.00	Pass
	065	915.0	19.22	18.22	30.00	36.00	Pass
	129	927.8	19.22	18.22	30.00	36.00	Pass
3	001	902.4	20.48	19.48	30.00	36.00	Pass
	032	914.8	20.54	19.54	30.00	36.00	Pass
	064	927.6	20.50	19.50	30.00	36.00	Pass
4	001	902.5	20.35	19.35	30.00	36.00	Pass
	026	915.0	20.53	19.53	30.00	36.00	Pass
	051	927.5	20.43	19.43	30.00	36.00	Pass

4.4 Test setup photo and EUT Photo	VERDICT: PASS

Remark: The test setup photo and EUT Photo please see appendix.

The End