Prüfbericht-Nr.: *Test report No.:*	**50311410 002**	**Auftrags-Nr.:** *Order No.:*	168145514	Seite 1 von 24 *Page 1 of 24*
Kunden-Referenz-Nr.: *Client reference No.:*	N/A	**Auftragsdatum:** *Order date.:*	19.12.2019	
Auftraggeber: *Client:*	**Ring LLC** 1523 26th Street, Santa Monica, California 90404, United States			
Prüfgegenstand: *Test item:*	Ring Smart Lightbulb(PAR38)			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	5AT1S4 (White, Black) (Trademark: Ring)			
Auftrags-Inhalt: *Order content:*	FCC and IC approval			
Prüfgrundlage: *Test specification:*	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109 CFR47 FCC Part 2: Section 2.1091		RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 April 2018 ICES-003 Issue 6 January 2016 RSS-102 Issue 5 March 2015	

Wareneingangsdatum: *Date of receipt:*	19.12.2019	Please refer to photo documents
Prüfmuster-Nr.: *Test sample No.:*	A000956136-026 to 027	
Prüfzeitraum: *Testing period:*	19.12.2019 - 20.11.2019	
Ort der Prüfung: *Place of testing:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüfergebnis*: *Test result*:*	Pass	

geprüft von / *tested by:*

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
06.01.2020	Ryan Yang / Assistant Project Manager	

kontrolliert von / *reviewed by:*

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
06.01.2020	Winnie Hou / Technical Certifier	

Sonstiges / *Other:*

This test report is for approval of removing one FHSS technology and adding two different FHSS technologies based on test report 50311410001.

All changes are incorporated by software. It is Class II/C3PC permissive changes.

FCC ID: 2AEUPRB38001

IC: 20271-RB38001 HVIN: 5AT1S4

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged:*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhalt
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	1 = very good	2 = good	3 = satisfactory	4 = sufficient	5 = poor
	P(ass) = passed a.m. test specifications(s)		F(ail) = failed a.m. test specifications(s)	N/A = not applicable	N/T = not tested

Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 99% BANDWIDTH
RESULT: Pass

5.1.4 CONDUCTED SPURIOUS EMISSIONS
RESULT: Pass

5.1.5 RADIATED SPURIOUS EMISSION
RESULT: Pass

5.1.6 20DB BANDWIDTH
RESULT: Pass

5.1.7 CARRIER FREQUENCY SEPARATION
RESULT: Pass

5.1.8 NUMBER OF HOPPING FREQUENCY
RESULT: Pass

5.1.9 TIME OF OCCUPANCY
RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results of FHSS

Appendix C: Test Results of Radiated

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.
1F East & 2-4F, Cybio Technology Building No. 1, No. 16 Kejibei 2nd Road, High-Tech Industrial Park North Nanshan District, Shenzhen, 518057

FCC accredited testing laboratory: CN1260

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

TÜV Rheinland (Shenzhen) Co., Ltd.

Radio Spectrum Testing				
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Wireless Connectivity Tester	R&S	CMW270	101375	20.08.2020
Signal Analyzer	R&S	FSV 40	101441	20.08.2020
Vector Signal Generator	R&S	SMBV100A	263301	21.08.2020
Signal Generator	R&S	SMB100A	115186	21.08.2020
OSP	R&S	OSP 150	101017	20.12.2019
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	R&S	WMS32 (V10.40.10)	N/A	N/A
Power Meter	R&S	NRP2	107105	20.12.2019
Wideband Power Sensor	R&S	NRP-Z81	105350	20.12.2019
Spurious Emission				
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Signal Generator	R&S	SMB100A	180840	20.08.2020
Wideband Radio Communication Tester	R&S	CMW500	165339	20.08.2020
Signal Analyzer	R&S	FSV 40	101440	20.08.2020
System Controller Interface	R&S	SCI-100	S10010036	N/A
Filterbank	R&S	CDMA	100751	21.08.2020
Filterbank	R&S	GSM	100811	21.08.2020

OSP	R&S	OSP 120	102041	N/A
OSP	R&S	OSP 150	101385	N/A
Pre-amplifier	R&S	SCU08F1	08320030	20.08.2020
Amplifier	R&S	SCU-18F	180079	20.08.2020
Amplifier	R&S	SCU40A	100450	20.08.2020

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radio Frequency	±1 x 10-7
RF Power (conducted)	±2.5 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	±6 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	±6 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB
Radiated Emission (3m SAC), 30MHz to 1000MHz	± 4.52 dB
Radiated Emission (3m SAC), above 1000MHz	± 4.37 dB
Temperature	±1 °C
Humidity	±5 %
Voltage (DC)	±1 %
Voltage (AC, <10kHz)	±2 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 1F East & 2-4F, Cybio Technology Building No. 1, No. 16 Kejibei 2nd Road, High-Tech Industrial Park North Nanshan District, Shenzhen, 518057 is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Ring Smart Lightbulb(PAR38) which supports Bluetooth Low Energy and 902-928MHz ISM Band (DTS + FHSS) wireless technologies.

According to the declaration of the applicant, the electrical circuit design, PCB layout and components used are identical for all colours.

This test report is for approval of removing one FHSS technology and adding two different FHSS technologies based on test report 50311410 001. see below table for details:

Technology	Modulation	Operating Frequency (MHz)	Channel Number	Report No.
DTS #1 (BLE)	GFSK	2402.0 to 2480.0	40	50311410 001
DTS #2	LoRa DTS	902.5 to 926.5	31	50311410 001
DTS #3	LoRa DTS	903.0 to 914.2	7	50311410 001
DTS #4	LoRa DTS	923.3 to 926.9	7	50311410 001
FHSS #1	LoRa FHSS	902.3 to 926.7	62	50311410 001
FHSS #2	LoRa FHSS	902.2 to 927.8	129	50311410 002
FHSS #3	FSK FHSS	902.4 to 927.6	64	50311410 001
FHSS #4	FSK FHSS	902.2 to 927.8	129	50311410 001
FHSS #5	FSK FHSS	902.2 to 927.8	129	50311410 001
FHSS #6	FSK FHSS	902.5 to 927.5	51	50311410 002

All changes are incorporated by software. It is Class II/C3PC permissive changes.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Ring Smart Lightbulb(PAR38)
Type Designation	5AT1S4 (White, Black)
Trademark	Ring
FCC ID	2AEUPRB38001
IC	20271-RB38001
HVIN	5AT1S4
FVIN	Ver1.7.16-56
Operating Voltage	AC 120V@60Hz
Testing Voltage	AC 120V@60Hz

Technical Specification of DTS#1 (Bluetooth Low Energy)	
Operating Frequency	2402.0 to 2480.0 MHz
Type of Modulation	GFSK
Channel Number	40 channels
Channel Separation	2MHz
Antenna Type	Integral antenna
Antenna Gain1 of Bluetooth	3.63 dBi
Technical Specification of DTS#2	
Operating Frequency	902.5 to 926.5 MHz
Type of Modulation	LoRa DTS
Channel Number	31 channels
Channel Bandwidth	500 KHz
Channel Separation	800 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of DTS#3	
Operating Frequency	903.0 to 914.2 MHz
Type of Modulation	LoRa DTS
Channel Number	7 channels
Channel Bandwidth	500 KHz
Channel Separation	1.6 MHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of DTS#4	
Operating Frequency	923.3 to 926.9 MHz
Type of Modulation	LoRa DTS
Channel Number	7 channels
Channel Bandwidth	500 KHz
Channel Separation	600 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of FHSS#1	
Operating Frequency	902.3 to 926.7 MHz
Type of Modulation	LoRa FHSS
Channel Number	62 channels
Channel Bandwidth	250 KHz
Channel Separation	400 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi

Technical Specification of FHSS#2	
Operating Frequency	902.2 to 927.8 MHz
Type of Modulation	LoRa FHSS
Channel Number	129 channels
Channel Bandwidth	125 KHz
Channel Separation	200 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of FHSS#3	
Operating Frequency	902.4 to 927.6 MHz
Type of Modulation	FSK FHSS
Channel Number	64 channels
Data Rate	150 Kbps
Channel Separation	400 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of FHSS#4	
Operating Frequency	902.2 to 927.8 MHz
Type of Modulation	FSK FHSS
Channel Number	129 channels
Data Rate	50 Kbps
Channel Separation	200 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of FHSS#5	
Operating Frequency	902.2 to 927.8 MHz
Type of Modulation	FSK FHSS
Channel Number	129 channels
Data Rate	5 Kbps
Channel Separation	200 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi
Technical Specification of FHSS#6	
Operating Frequency	902.5 to 927.5 MHz
Type of Modulation	FSK FHSS
Channel Number	51 channels
Data Rate	250 Kbps
Channel Separation	500 KHz
Antenna Type	Integral antenna
Antenna Gain2	-1.52 dBi

Table 3: Operating Frequencies/Channels of EUT

Technology	Modulation	Channel Number	Channel Separation (MHz)	Channel Bandwidth (MHz)	Data Rate (Kbps)	Low CH (MHz)	Middle CH (MHz)	High CH (MHz)
DTS #1 (BLE)	GFSK	40	2.0	1	1000	2402.0	2440.0	2480.0
DTS #2	LoRa DTS	31	0.8	0.5	--	902.5	914.5	926.5
DTS #3	LoRa DTS	7	1.6	0.5	--	903.0	907.8	914.2
DTS #4	LoRa DTS	7	0.6	0.5	--	923.3	925.1	926.9
FHSS #1	LoRa FHSS	62	0.4	0.25	--	902.3	914.3	926.7
FHSS #2	LoRa FHSS	129	0.2	0.125	--	902.2	915.0	927.8
FHSS #3	FSK FHSS	64	0.4	--	150	902.4	914.8	927.6
FHSS #4	FSK FHSS	129	0.2	--	50	902.2	915.0	927.8
FHSS #5	FSK FHSS	129	0.2	--	5	902.2	915.0	927.8
FHSS #6	FSK FHSS	51	0.5	--	250	902.5	915.0	927.5

3.3 Independent Operation Modes

The basic operation modes are:

A. On, FHSS transmitting mode
   1. Low Channel
   2. Middle Channel
   3. High Channel

B. On, Transmitting on Hopping channel

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Block Diagram
- FCC/IC Label and Location Info
- Schematics
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all additional tests were performed on FHSS#2 & #6 of 5AT1S4 (Black) in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: Cables Used during Test

Port	Quantity	Length (m)	Connector	Type of Cable
--	--	--	--	--

Table 5: Auxiliary Equipment Used during Test

Name	Model	Manufacturer	S/N
--	--	--	--

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

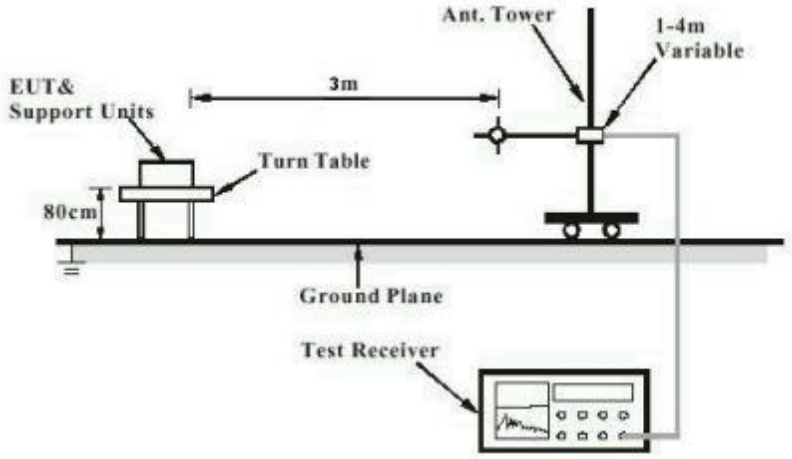


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

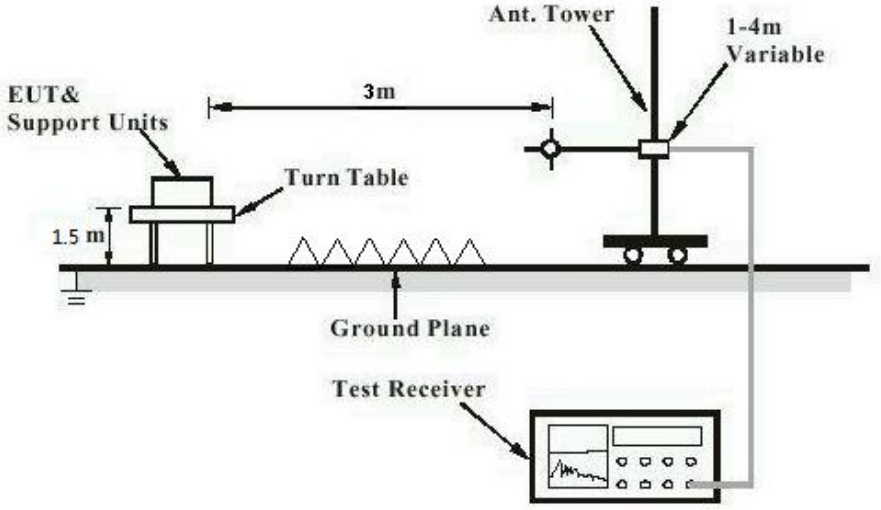


Diagram of Measurement Configuration for Mains Conduction Measurement

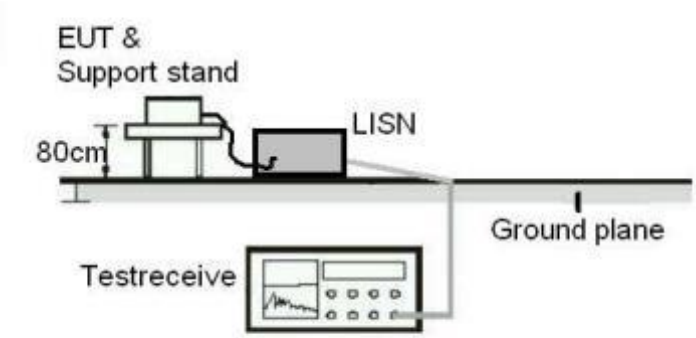
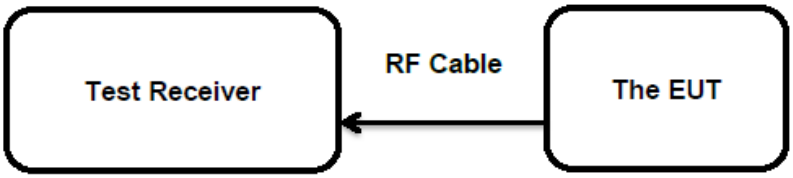


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has two internal antennas, the directional gain of antenna are 3.63 and -1.52 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(b)(2) RSS-247 Clause 5.4(a)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 1.0 Watts
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Peak Conducted Output Power

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
FHSS#2	Low CH	20.13	0.1030	< 1
	Middle CH	20.29	0.1069	
	High CH	20.54	0.1132	
FHSS#6	Low CH	20.51	0.1125	< 1
	Middle CH	20.32	0.1076	
	High CH	20.12	0.1028	

Note:
1) The cable loss is taken into account in results.
2) Antenna gain(G) of FHSS: -1.52 dBi,
e.i.r.p. = $P_{(Peak\ power)}$ + G, which is far below the 4 W

5.1.3 99% Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	RSS-Gen Clause 6.7
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 7: Test Result of 99% Bandwidth

Test Mode	Test Channel (MHz)	99% Bandwidth (MHz)	Limit
FHSS#2	Low CH	0.13	/
	Middle CH	0.13	
	High CH	0.13	
FHSS#6	Low CH	0.25	
	Middle CH	0.25	
	High CH	0.25	

For the measurement records, refer to the appendix B.

5.1.4 Conducted Spurious Emissions

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	19.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

5.1.5 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	:	ANSI C63.10: 2013
Limits	:	FCC Part 15.209(a) RSS-Gen Table 5
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	Refer to test data
Input voltage	:	AC 120V@60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	22 ℃
Relative humidity	:	53 %
Atmospheric pressure	:	101 kPa

Remark:
Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix C.

5.1.6 20dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(1)(i) RSS-247 Clause 5.1(c)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 500KHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 8: Test Result of 20dB Bandwidth

Test Mode	Test Channel (MHz)	20dB Bandwidth (kHz)	Limit
FHSS#2	Low CH	152.8	< 500KHz
	Middle CH	152.8	
	High CH	152.0	
FHSS#6	Low CH	277.7	
	Middle CH	279.7	
	High CH	277.7	

For the measurement records, refer to the appendix B.

5.1.7 Carrier Frequency Separation

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(1) RSS-247 Clause 5.1(b)
Basic standard	:	ANSI C63.10: 2013
Limits	:	≥ 25kHz or 20dB bandwidth, whichever is greater
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	B
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 9: Test Result of Carrier Frequency Separation

Test Mode	Test Channel	Measured Channel Separation (kHz)	Limit (kHz)
FHSS#2	Low Channel	199.7	≥ 152.8
	Adjacency Channel		
	Middle Channel	199.7	
	Adjacency Channel		
	High Channel	199.7	
	Adjacency Channel		
FHSS#6	Low Channel	499.5	≥ 279.7
	Adjacency Channel		
	Middle Channel	499.5	
	Adjacency Channel		
	High Channel	499.5	
	Adjacency Channel		

For the measurement records, refer to the appendix B.

5.1.8 Number of Hopping Frequency

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.247(a)(1)(i) RSS-247 Clause 5.1(c)
Basic standard	:	ANSI C63.10: 2013
Limits	:	≥ 50 hopping frequencies
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	B
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 10: Test Result of Number of Hopping Frequency

Test Mode	Frequency Range	Measured Quantity of Hopping Channel	Limit
FHSS#2	902.2 MHz to 927.8 MHz	129	≥50
FHSS#6	902.5 MHz to 927.5 MHz	51	≥25

For the measurement records, refer to the appendix B.

5.1.9 Time of Occupancy

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.247(a)(1)(i) RSS-247 Clause 5.1(c)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 0.4s
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	19.12.2019
Input voltage	:	AC 120V@60Hz
Operation mode	:	B
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

Note:
Dwell time = Pulse width x Number of channels in Period

For details refer to following test result.

Table 11: Test Result of Time of Occupancy

Test Mode	Test Channel (MHz)	Pulse Width(ms)	Number of Channels	Period (S)	Measured Dwell Time(s)	Limit (s)
FHSS#2	Middle CH	340.00	1	20s	0.340	0.4s
FHSS#6	Middle CH	230.00	1	10s	0.230	0.4s

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

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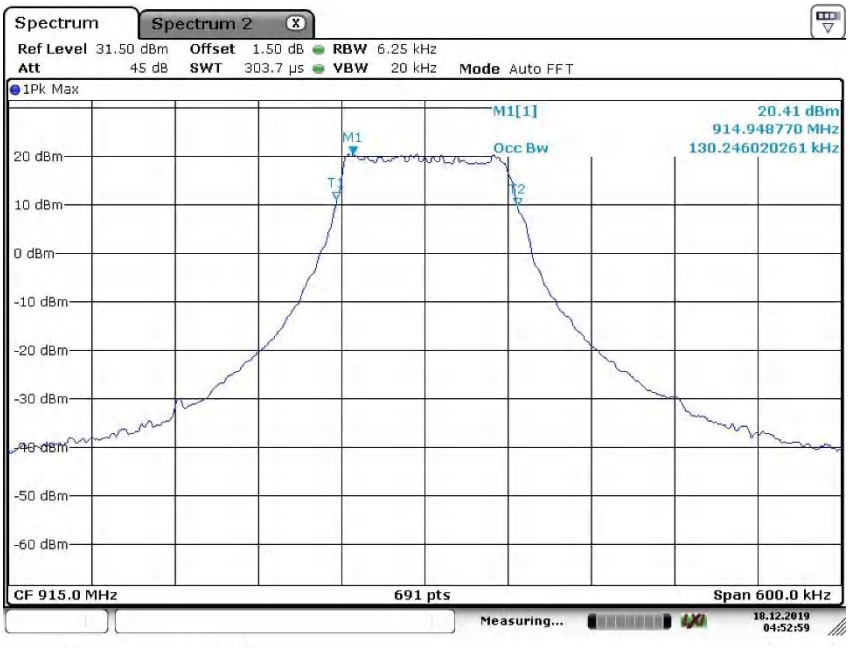
Appendix B.1: Test Results of 99% Bandwidth

FHSS#2 (Bandwidth: 125KHz)

Low Channel

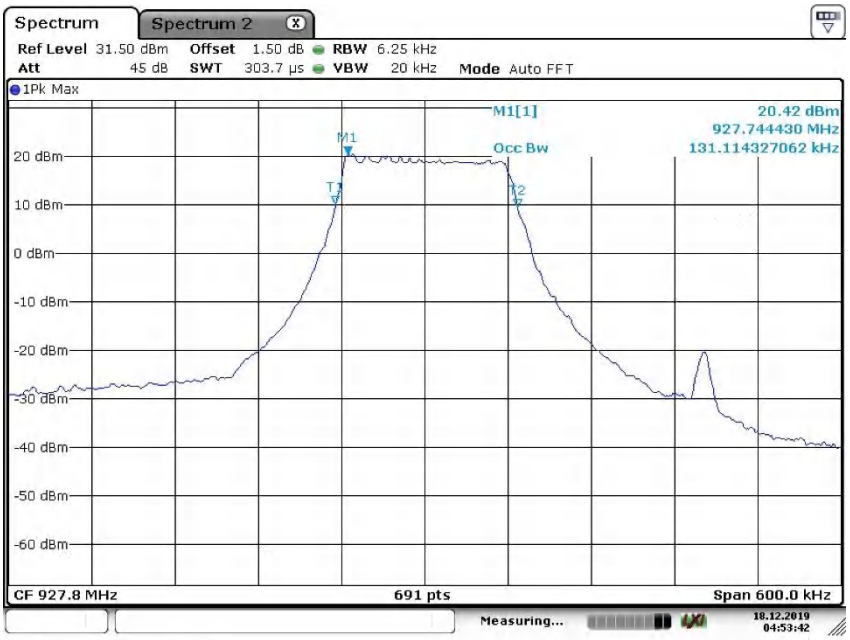
Date: 18.DEC.2019 04:49:14

Middle Channel

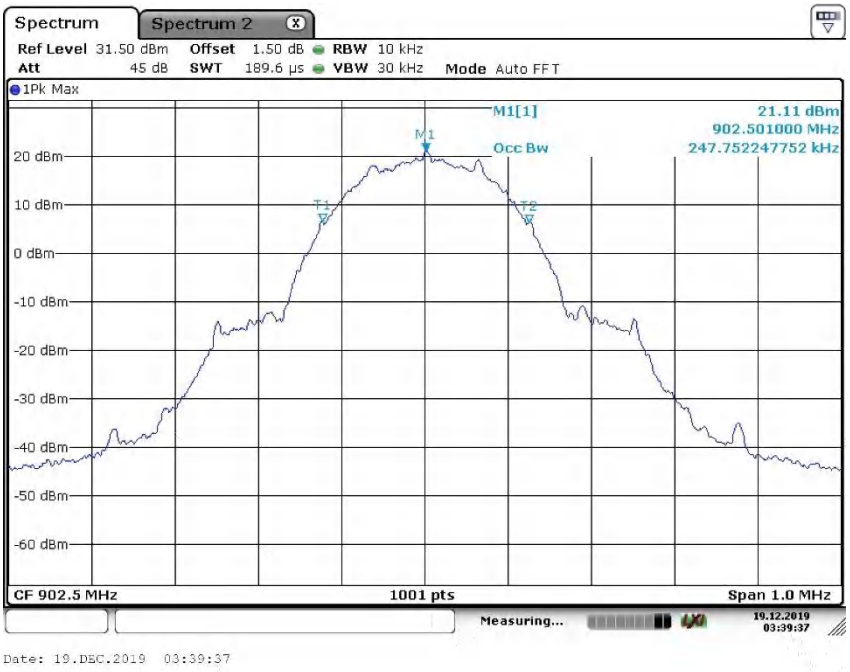


Date: 18.DEC.2019 04:52:58

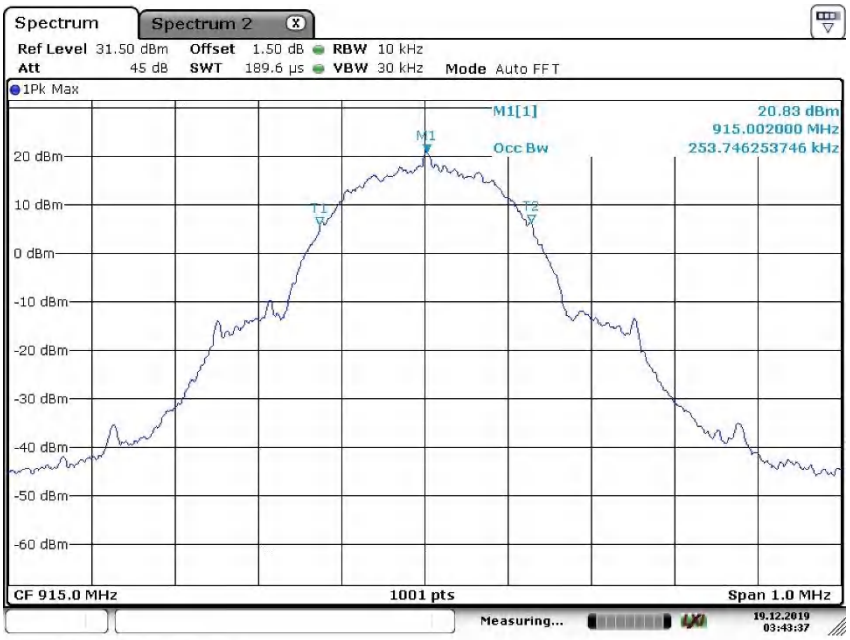
High Channel



FHSS#6 (DataRate: 250Kbps)
Low Channel

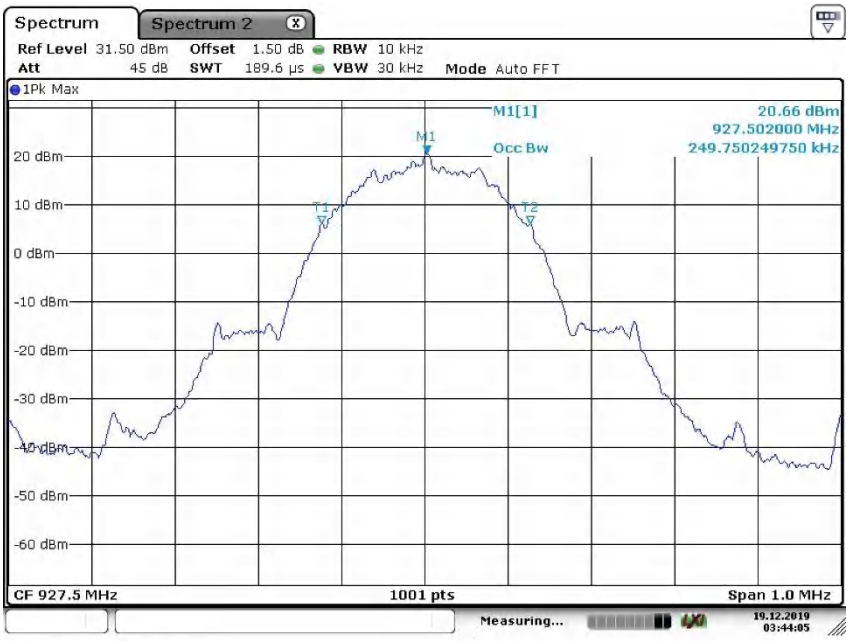


Middle Channel



Date: 19.DEC.2019 03:43:37

High Channel

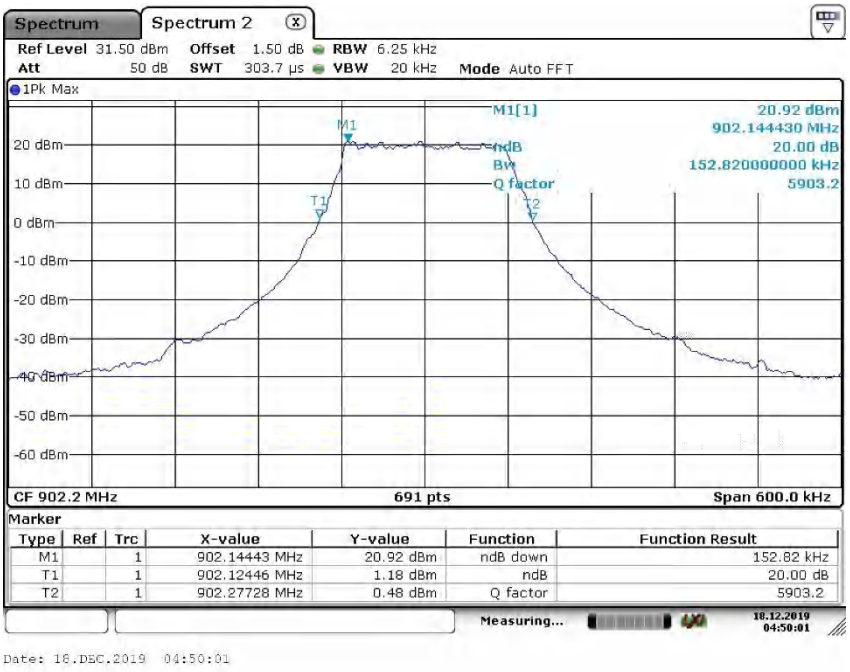


Date: 19.DEC.2019 03:44:05

Appendix B.2: Test Results of 20dB Bandwidth

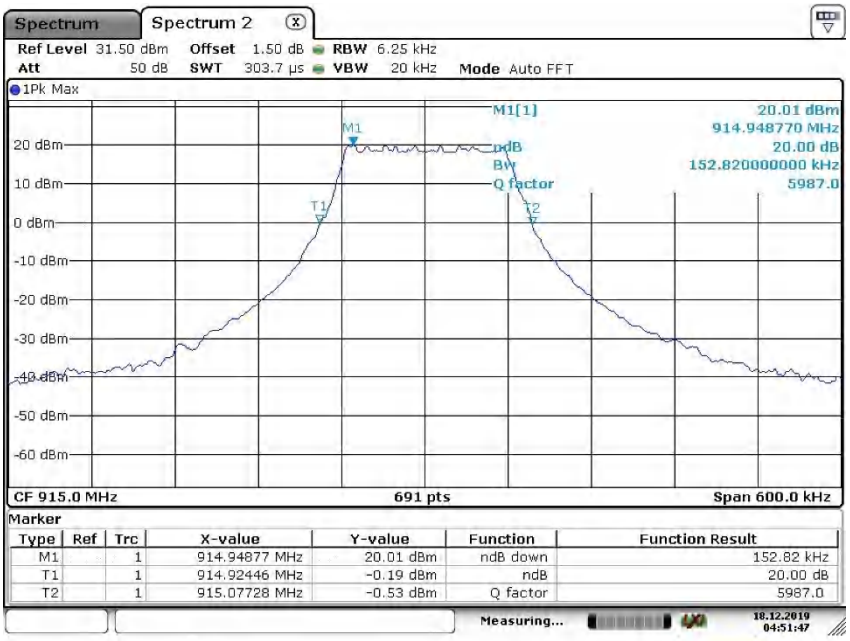
FHSS#2 (Bandwidth: 125KHz)

Low Channel



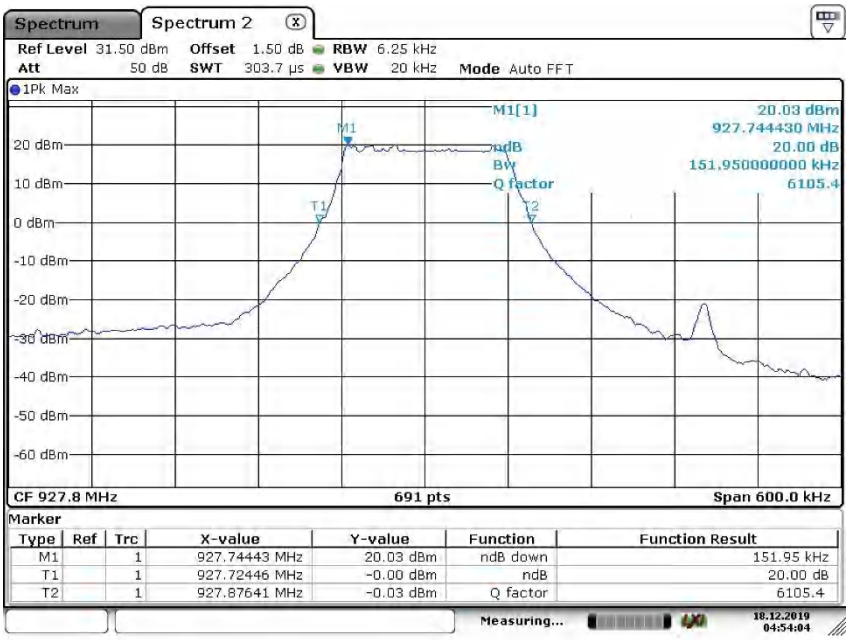
Date: 18.DEC.2019 04:50:01

Middle Channel

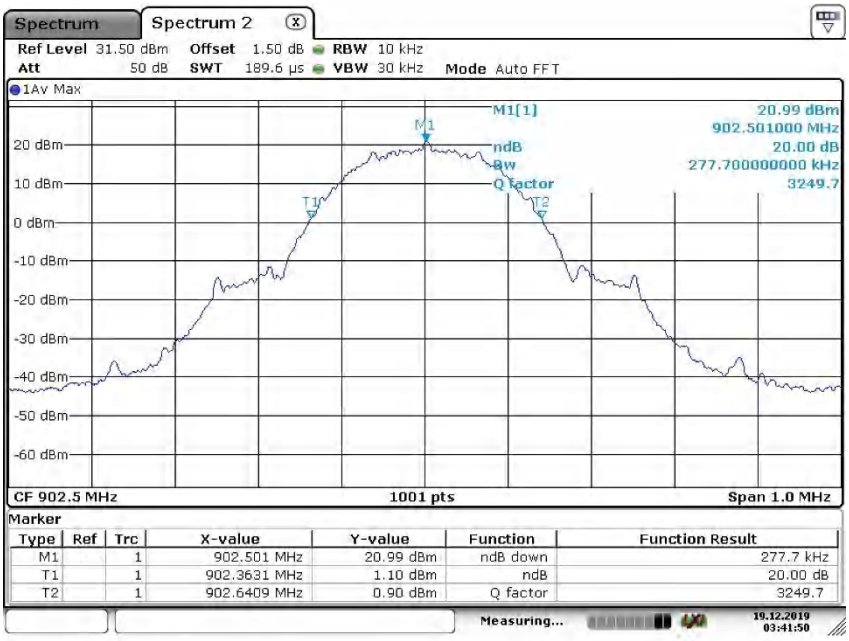


Date: 18.DEC.2019 04:51:46

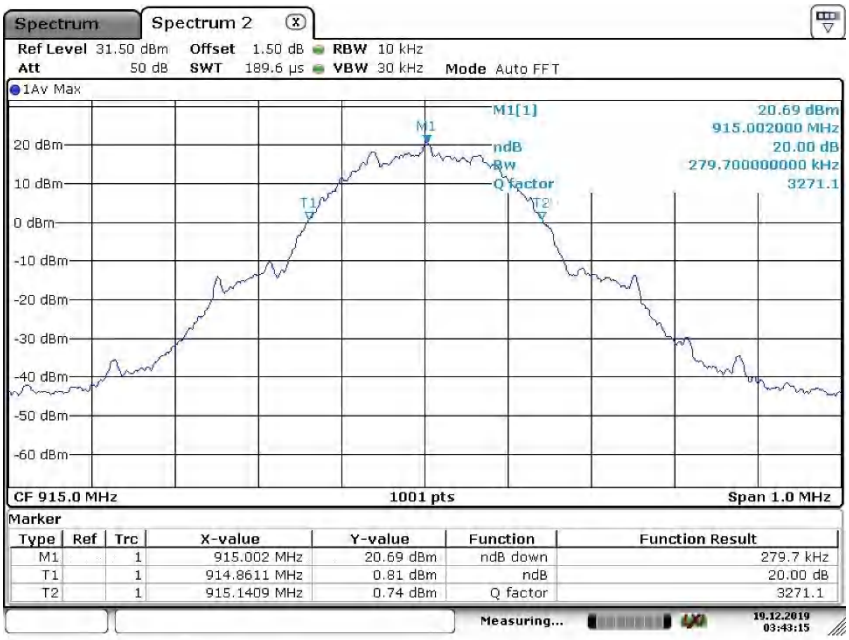
High Channel



FHSS#6 (DataRate: 250Kbps)
Low Channel

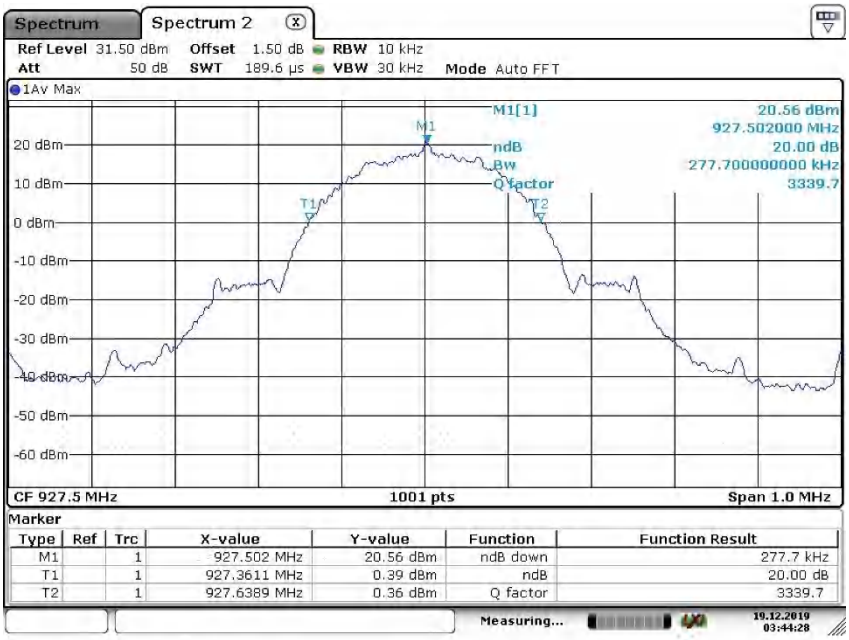


Middle Channel



Date: 19.DEC.2019 03:43:15

High Channel



Date: 19.DEC.2019 03:44:28

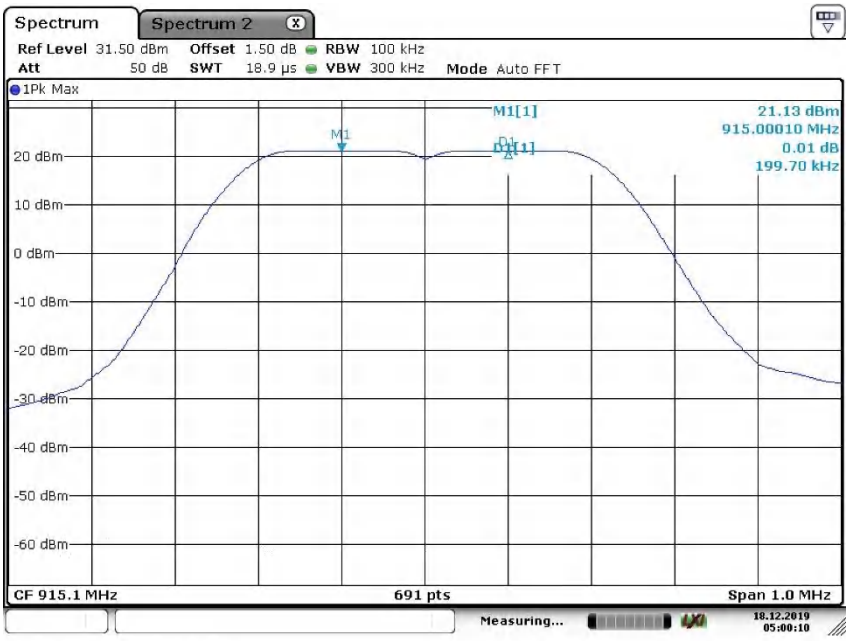
Appendix B.3: Test Results of Carrier Frequency Separation

FHSS#2 (Bandwidth: 125KHz)

Low Channel

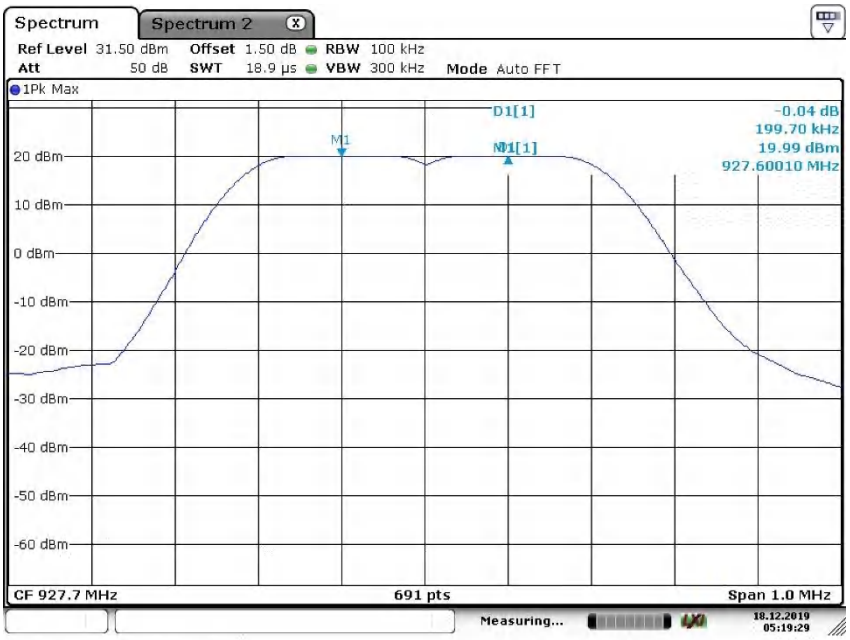
Date: 18.DEC.2019 04:58:09

Middle Channel

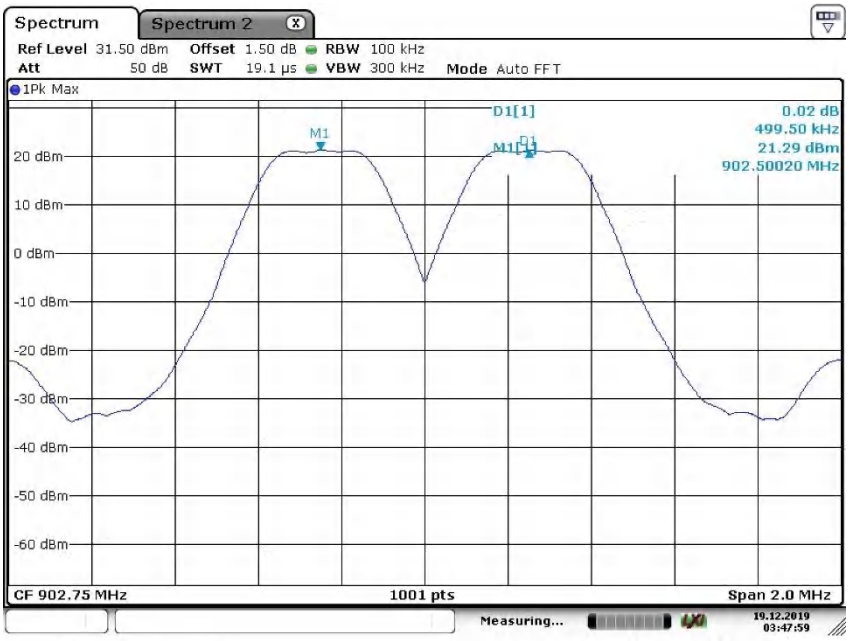


Date: 18.DEC.2019 05:00:10

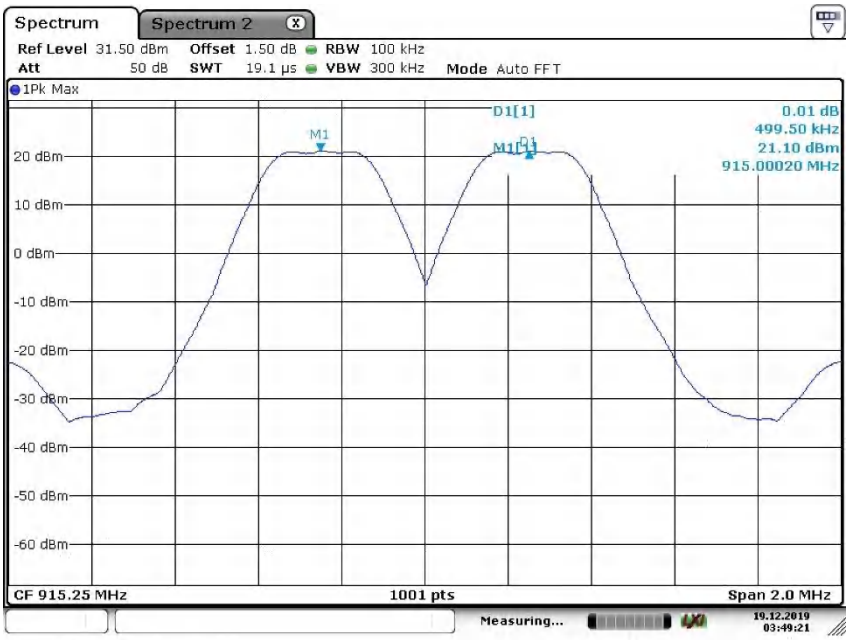
High Channel



FHSS#6 (DataRate: 250Kbps)
Low Channel

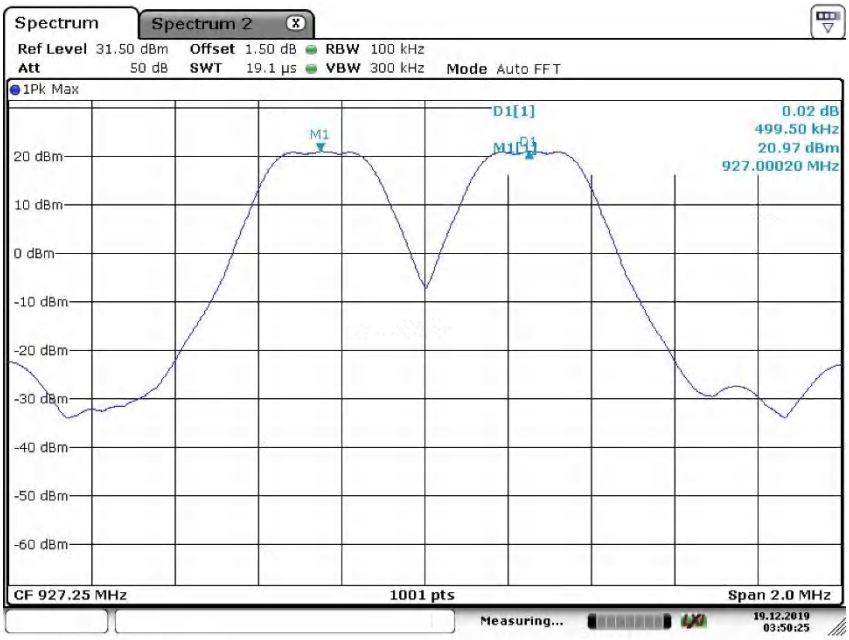


Middle Channel



Date: 19.DEC.2019 03:49:21

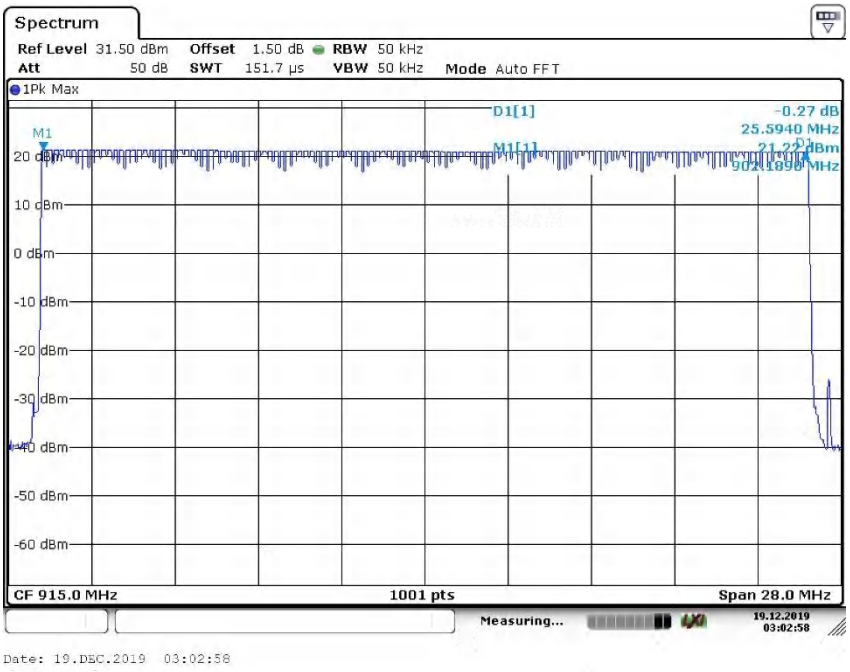
High Channel



Date: 19.DEC.2019 03:50:25

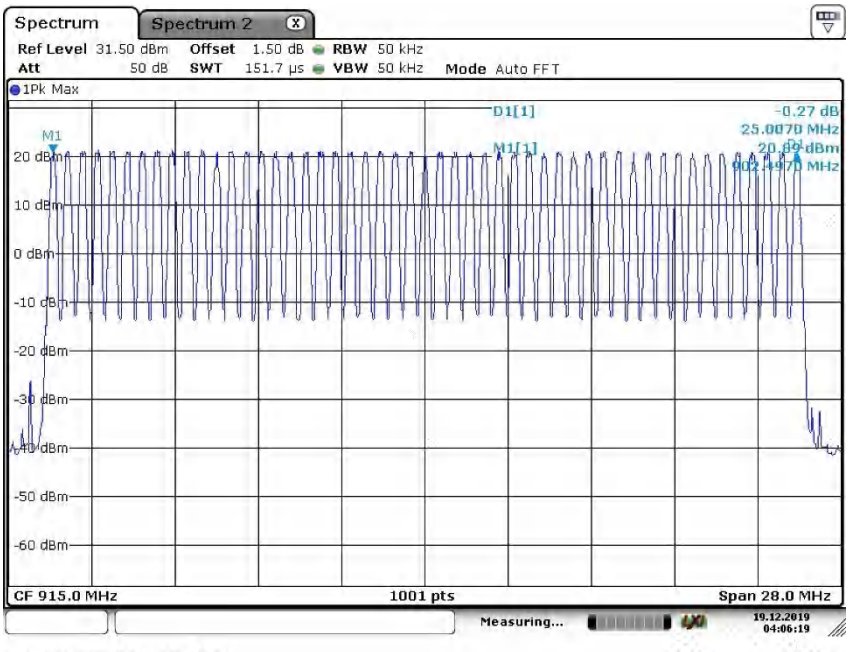
Appendix B.4: Test Results of Number of Hopping Frequency

FHSS#2 (Bandwidth: 125KHz)
All hopping channels



Date: 19.DEC.2019 03:02:58

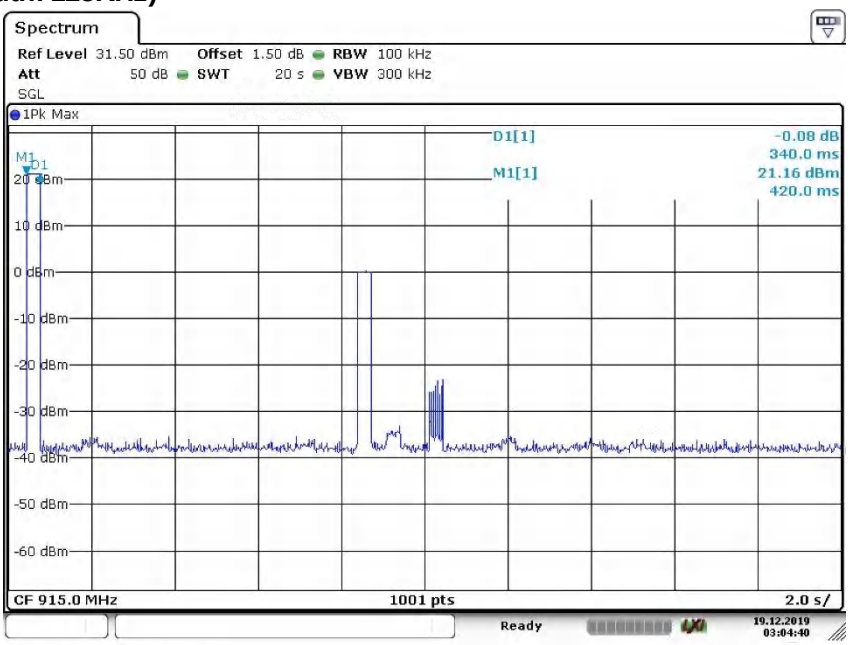
FHSS#6 (DataRate: 250Kbps)
All hopping channels



Date: 19.DEC.2019 04:06:19

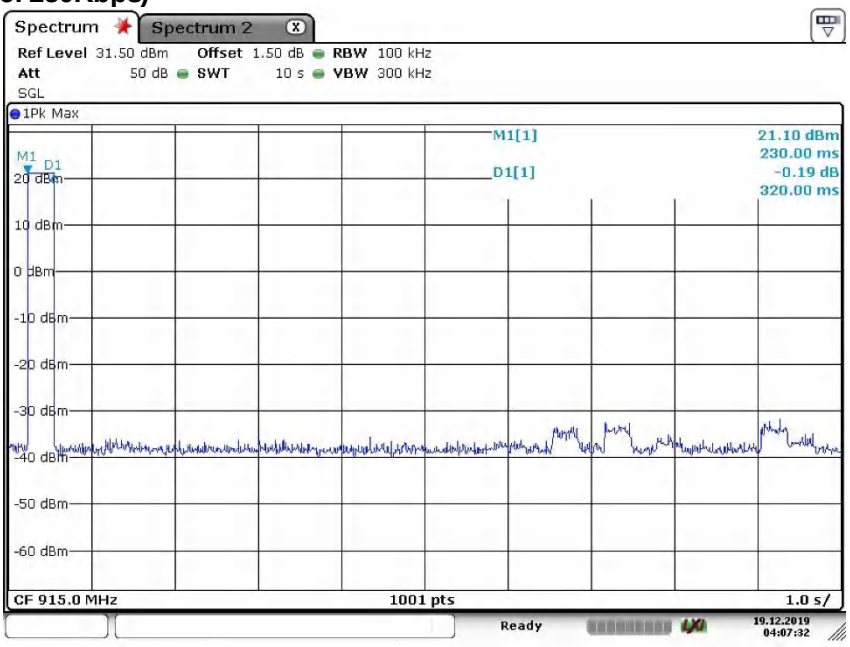
Appendix B.5: Test Results of Time of Occupancy

FHSS#2 (Bandwidth: 125KHz)



Date: 19.DEC.2019 03:04:40

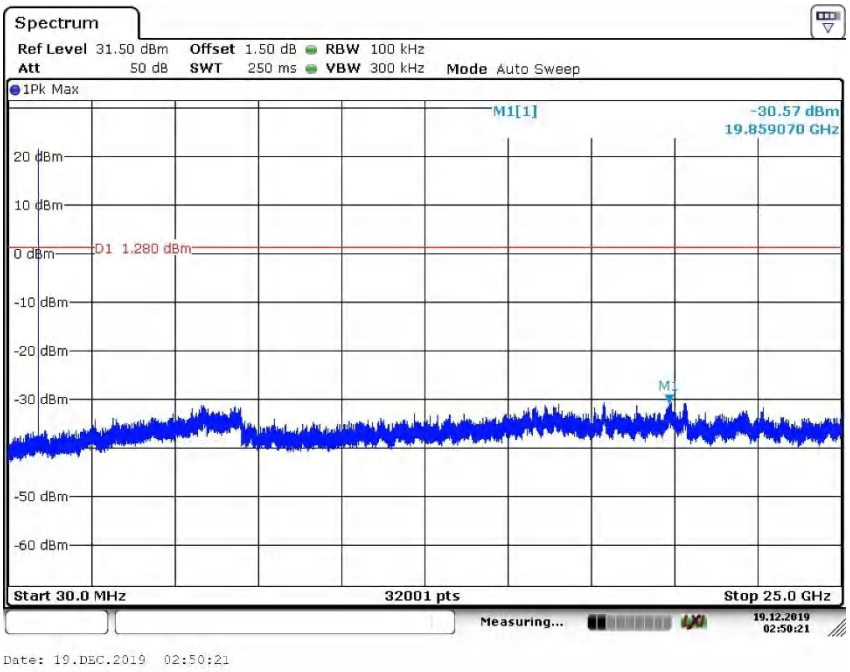
FHSS#6 (DataRate: 250Kbps)



Date: 19.DEC.2019 04:07:32

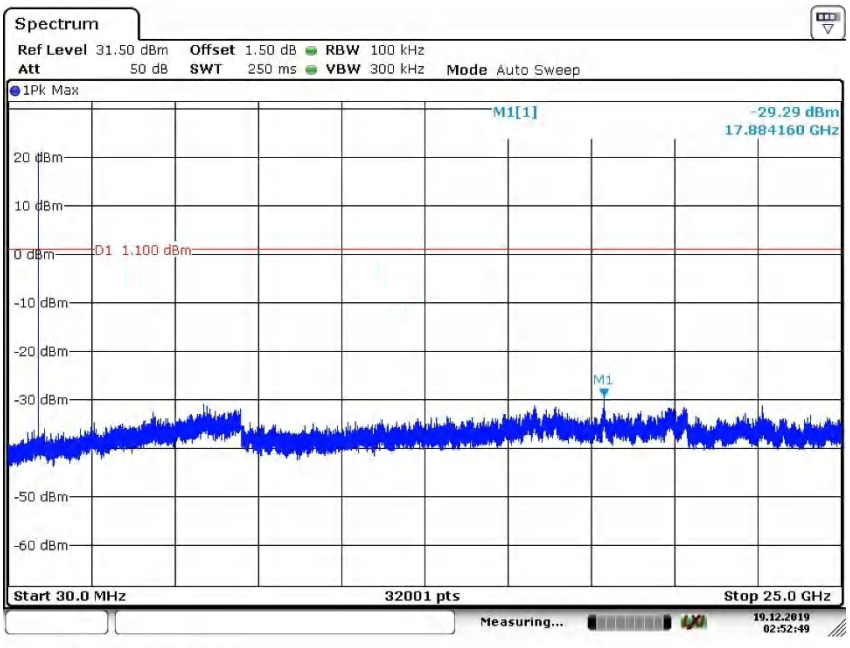
Appendix B.6: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

FHSS#2 (Bandwidth: 125KHz)
Low Channel



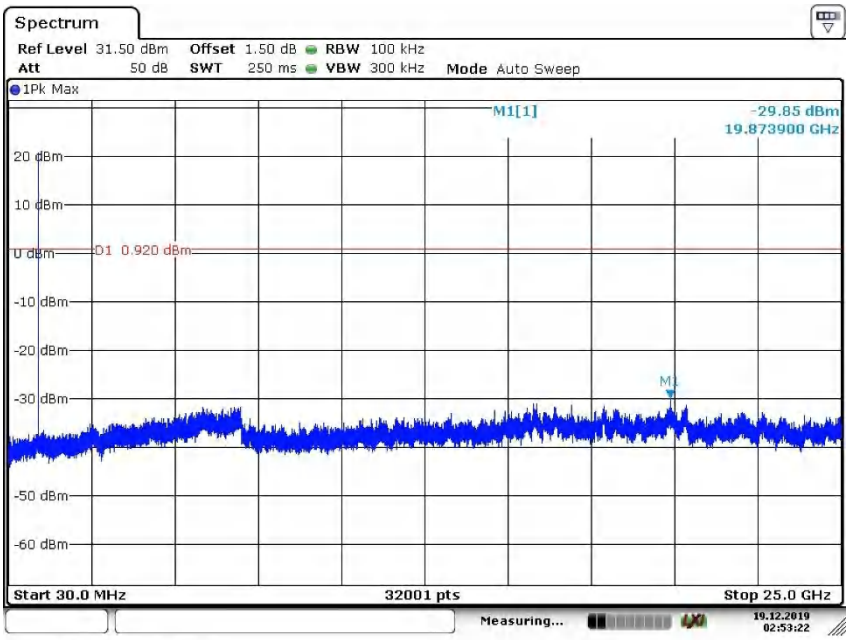
Date: 19.DEC.2019 02:50:21

Middle Channel



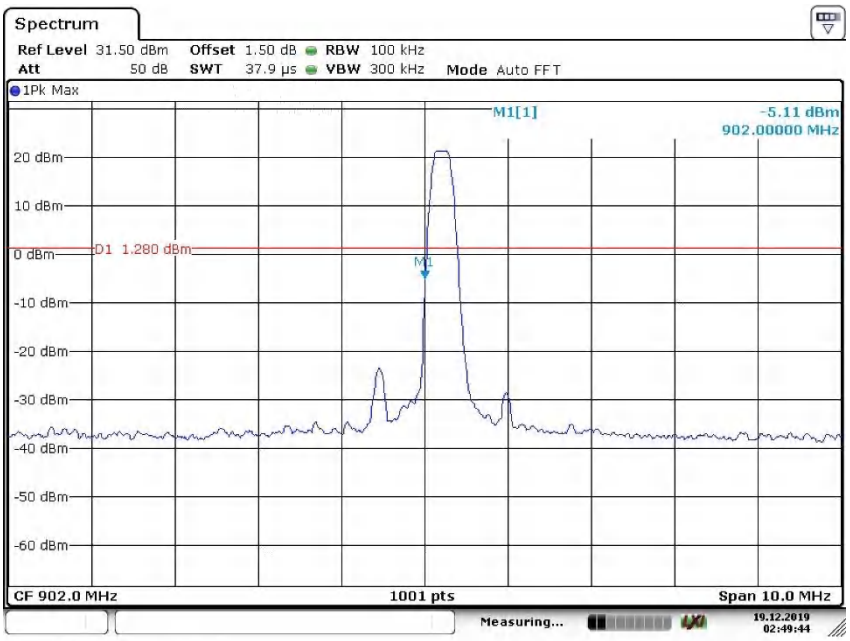
Date: 19.DEC.2019 02:52:49

High Channel



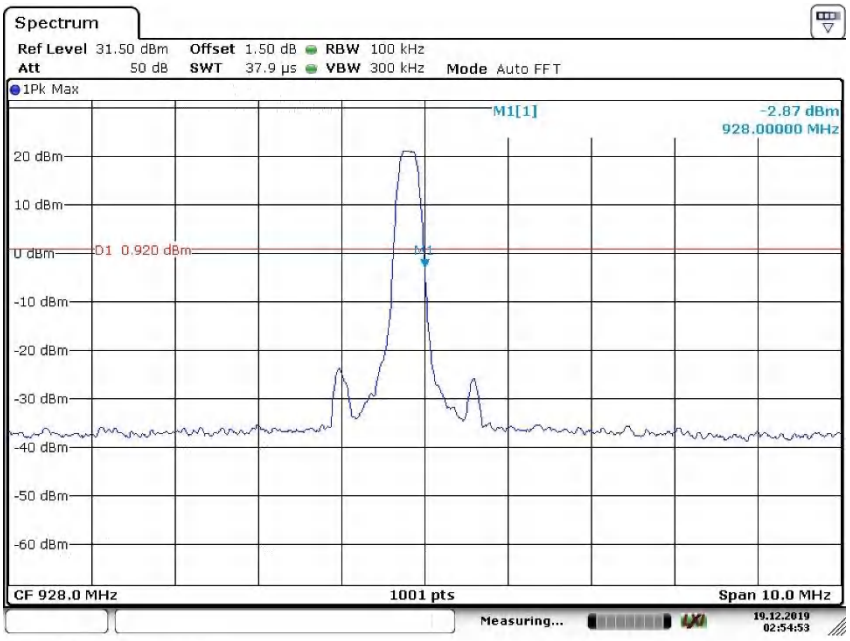
Date: 19.DEC.2019 02:53:22

Band Edge, Low Channel



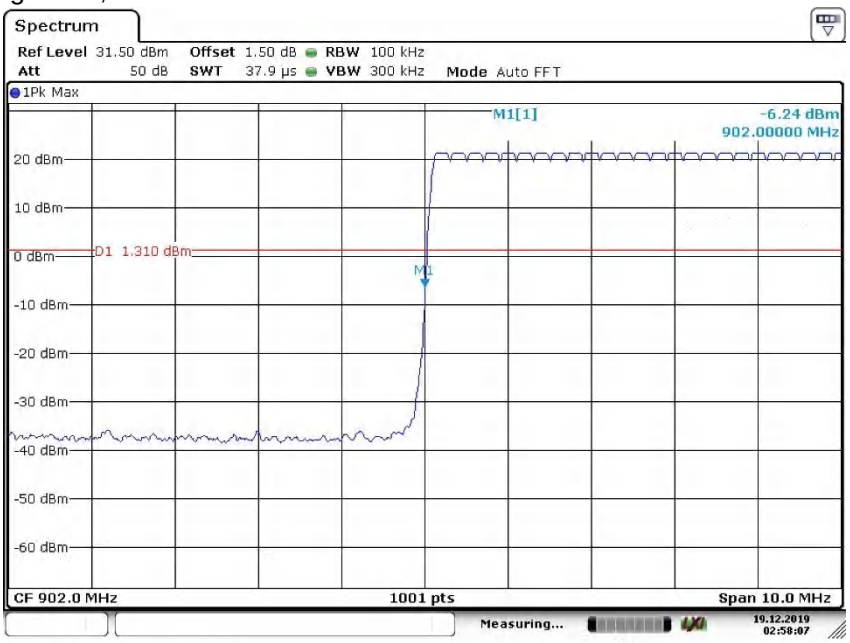
Date: 19.DEC.2019 02:49:44

Band Edge, High Channel



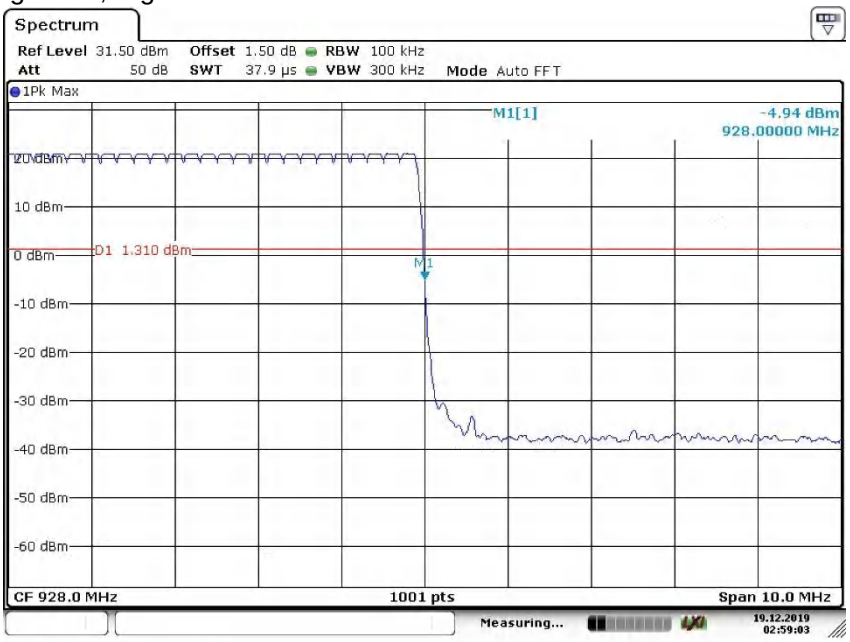
Date: 19.DEC.2019 02:54:53

Band Edge, Hopping Mode, Low Channel



Date: 19.DEC.2019 02:58:07

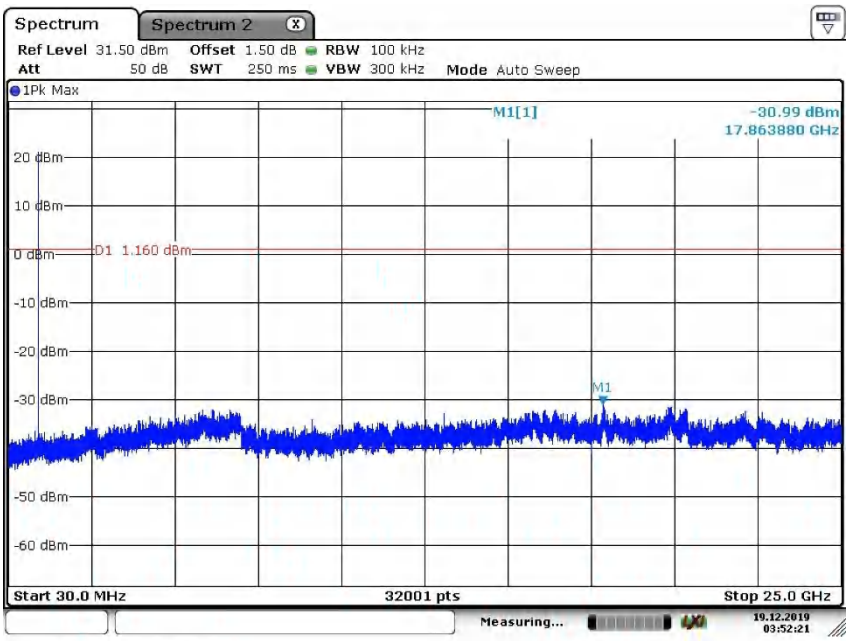
Band Edge, Hopping Mode, High Channle



Date: 19.DEC.2019 02:59:03

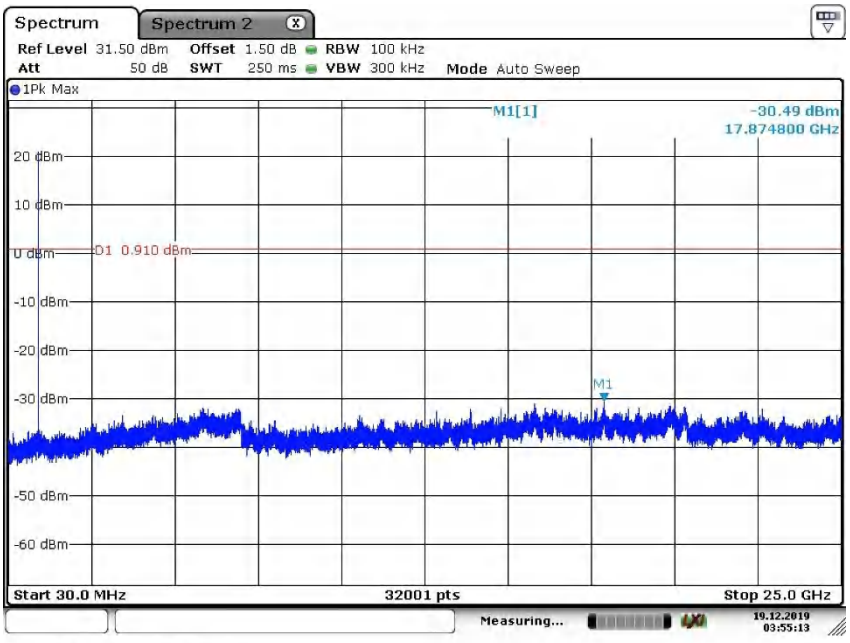
FHSS#6 (DataRate: 250Kbps)

Low Channel



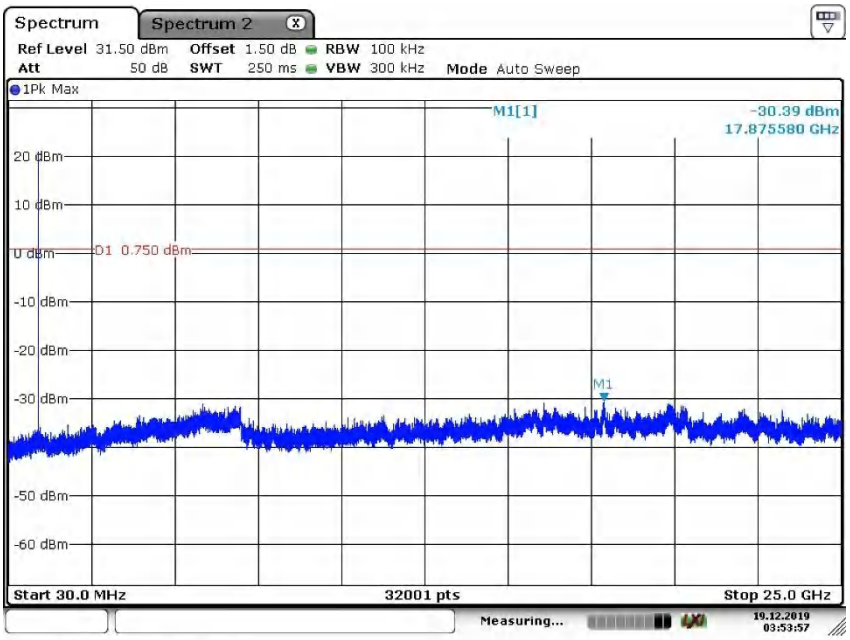
Date: 19.DEC.2019 03:52:22

Middle Channel



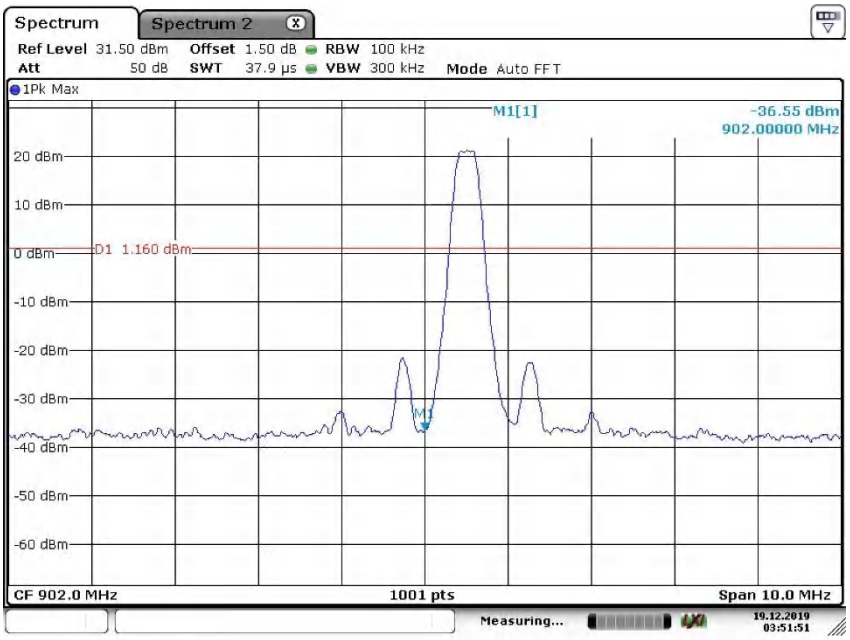
Date: 19.DEC.2019 03:55:13

High Channel



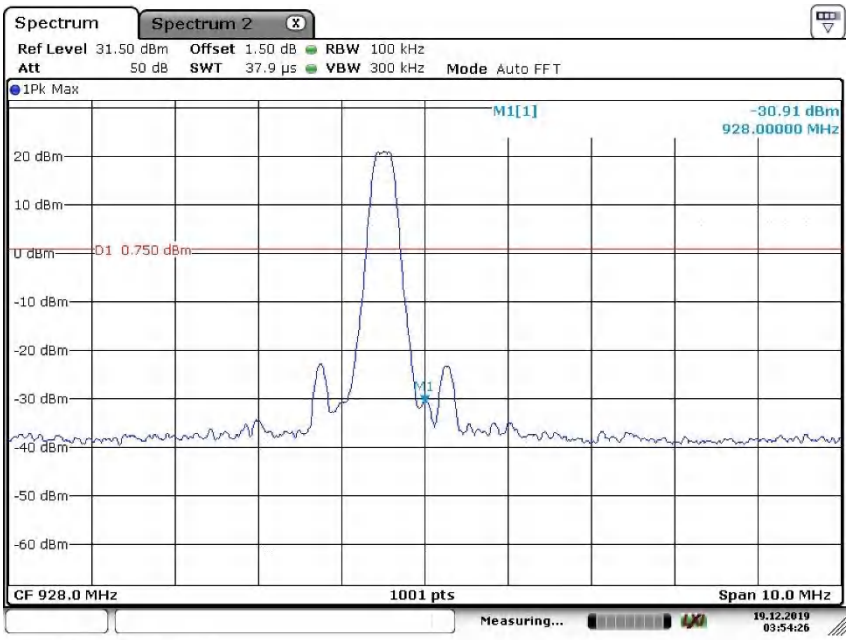
Date: 19.DEC.2019 03:53:57

Band Edge, Low Channel



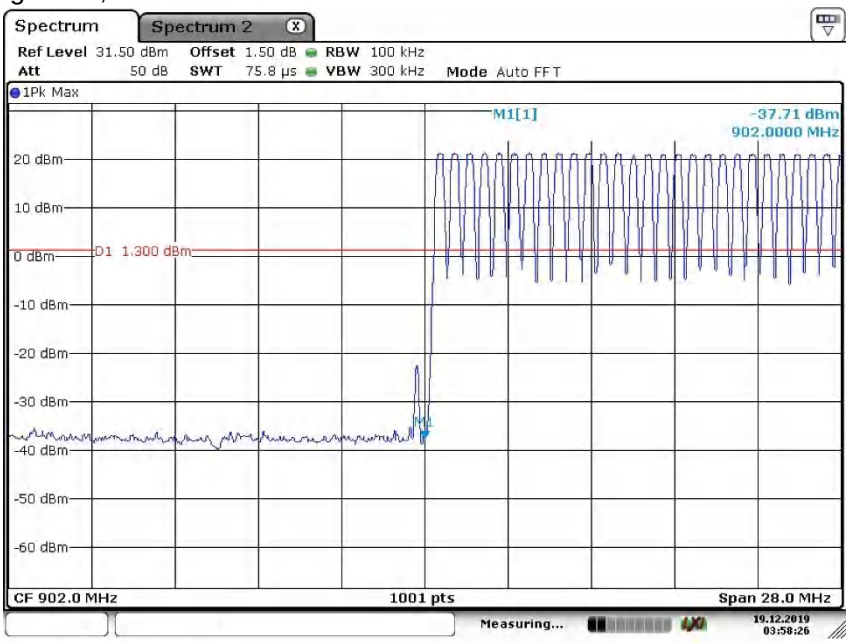
Date: 19.DEC.2019 03:51:51

Band Edge, High Channel



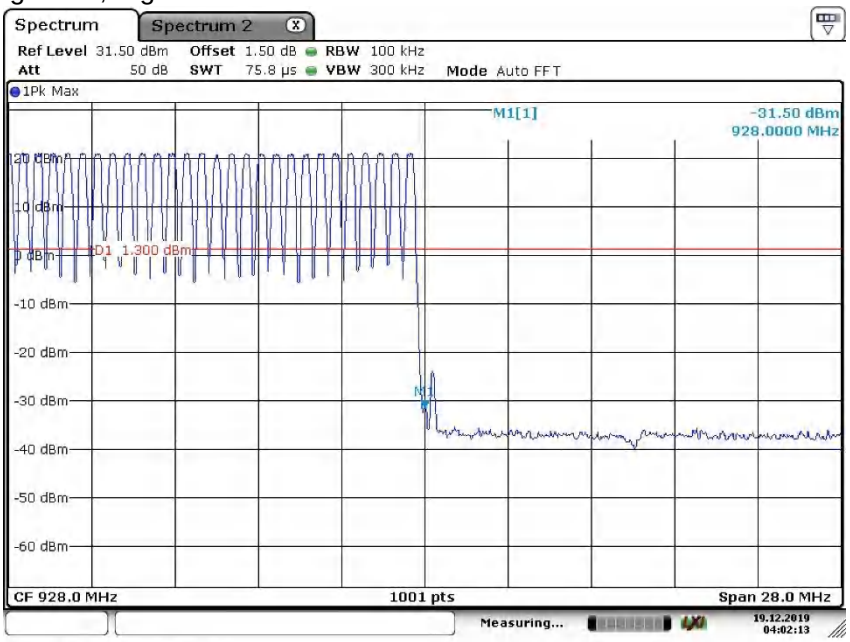
Date: 19.DEC.2019 03:54:26

Band Edge, Hopping Mode, Low Channel



Date: 19.DEC.2019 03:58:26

Band Edge, Hopping Mode, High Channle



Date: 19.DEC.2019 04:02:13

Appendix C: Test Results of Radiated

APPENDIX C: TEST RESULTS OF RADIATED 1

APPENDIX C.1: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS & BAND EDGE 2
FHSS#2 (BANDWIDTH: 125KHZ) 2
30 MHz to 1GHz 2
1GHz to 18GHz 6
FHSS#6 (DATARATE: 250KBPS) 12
30 MHz to 1GHz 12
1GHz to 18GHz 16

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

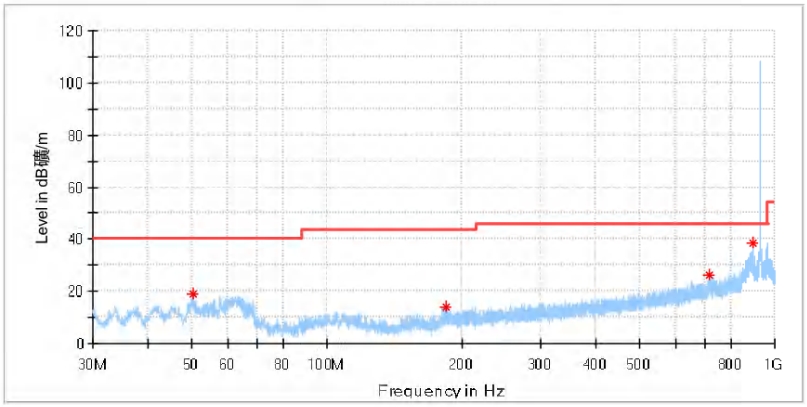
Appendix C.1: Test Results of Radiated Spurious Emissions & Band Edge

FHSS#2 (Bandwidth: 125KHz)
30 MHz to 1GHz

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Low CH_902.2MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
50.224500	18.90	---	40.00	21.10	100.0	H	177.0	-18.6
185.248500	13.71	---	43.50	29.79	100.0	H	201.0	-20.3
716.032500	25.96	---	46.00	20.04	100.0	H	169.0	-8.2
895.773500	38.65	---	46.00	7.35	100.0	H	95.0	-5.4

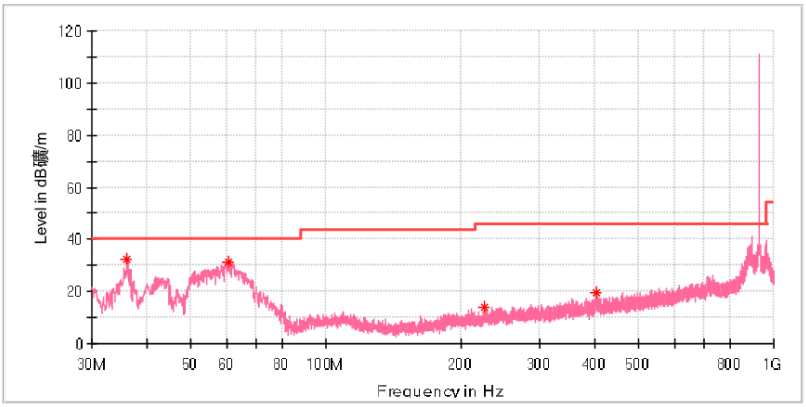
18/12/2019 5:25:06 PM

Test 2 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Low CH_902.2MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

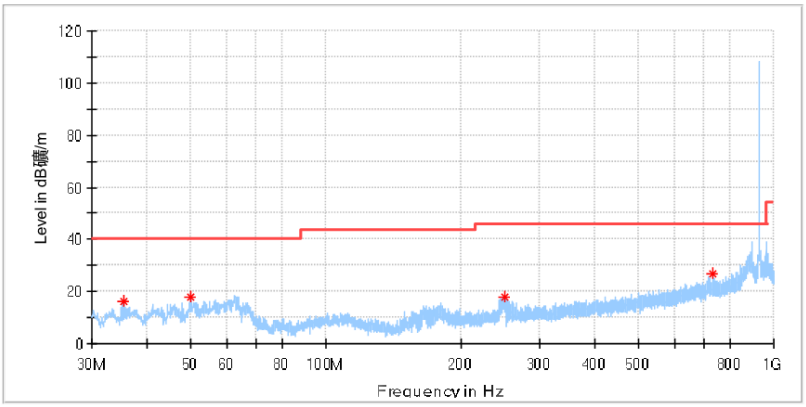
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.014000	32.48	---	40.00	7.52	100.0	V	281.0	-21.8
60.797500	31.40	---	40.00	8.60	100.0	V	150.0	-19.5
225.358000	14.18	---	46.00	31.82	100.0	V	52.0	-18.6
403.013500	19.59	---	46.00	26.41	100.0	V	29.0	-14.0

Test 3 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K High CH_927.8MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

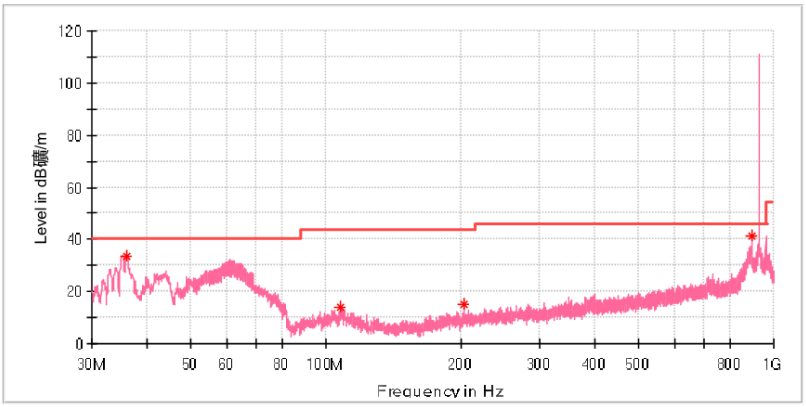
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
35.286500	16.01	---	40.00	23.99	100.0	H	61.0	-22.1
49.982000	17.93	---	40.00	22.07	100.0	H	225.0	-18.6
250.044500	17.77	---	46.00	28.23	100.0	H	44.0	-17.7
729.418500	26.94	---	46.00	19.06	100.0	H	11.0	-7.9

Test 4 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K High CH_927.8MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
35.917000	33.66	---	40.00	6.34	100.0	V	22.0	-21.9
108.085000	14.08	---	43.50	29.42	100.0	V	252.0	-19.3
203.339000	15.01	---	43.50	28.49	100.0	V	236.0	-19.3
895.773500	41.24	---	46.00	4.76	100.0	V	219.0	-5.4

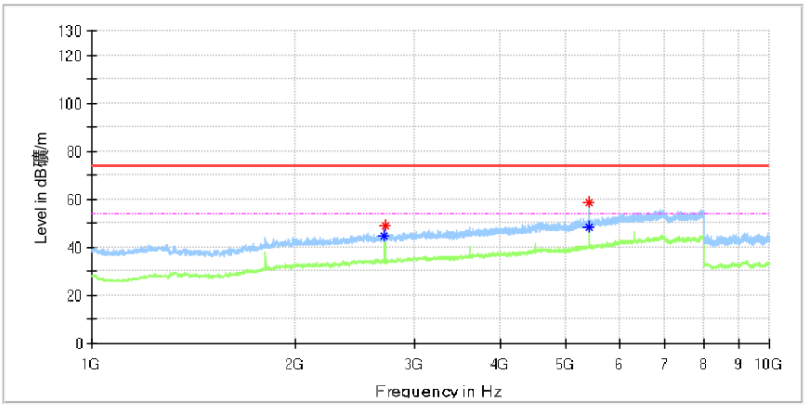
1GHz to 18GHz

Test 1 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Low CH_902.2MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2706.162500	---	44.98	54.00	9.02	100.0	H	79.0	7.5
2707.000000	49.20	---	74.00	24.80	100.0	H	79.0	7.6
5412.125000	---	48.57	54.00	5.43	100.0	H	283.0	13.5
5412.962500	58.35	---	74.00	15.65	100.0	H	302.0	13.5

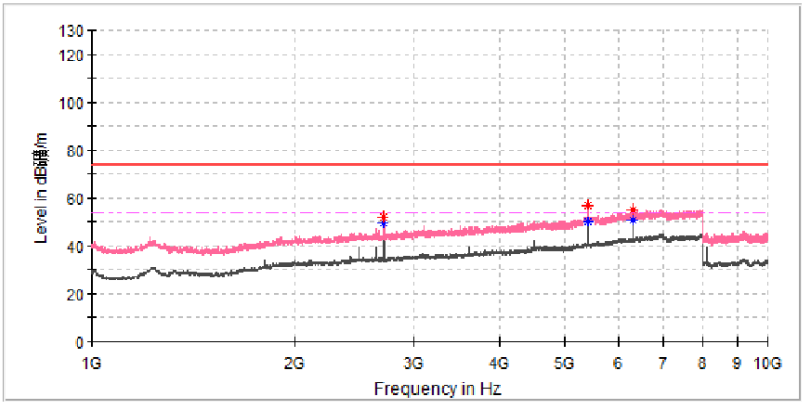
18/12/2019 4:08:28 PM

Test 2 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Low CH_902.2MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

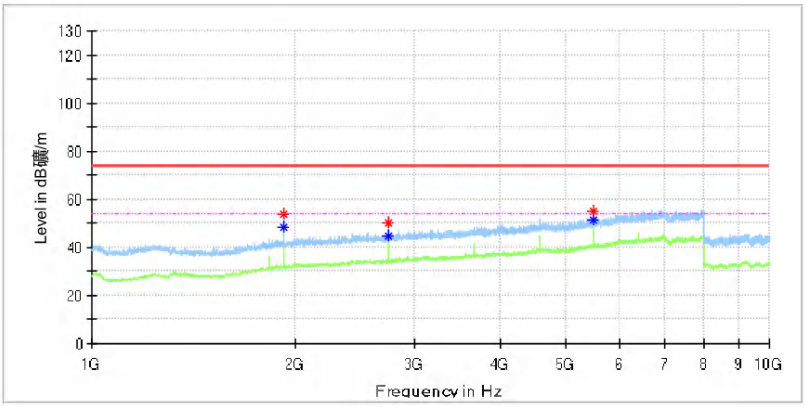
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2706.162500	52.10	---	74.00	21.90	100.0	V	32.0	7.5
2706.162500	---	49.64	54.00	4.36	100.0	V	32.0	7.5
5413.800000	---	50.84	54.00	3.16	100.0	V	164.0	13.5
5413.800000	56.93	---	74.00	17.07	100.0	V	164.0	13.5
6314.950000	55.19	---	74.00	18.81	100.0	V	258.0	15.9
6314.950000	---	50.51	54.00	3.49	100.0	V	258.0	15.9

Test 3 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Mid CH_915MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

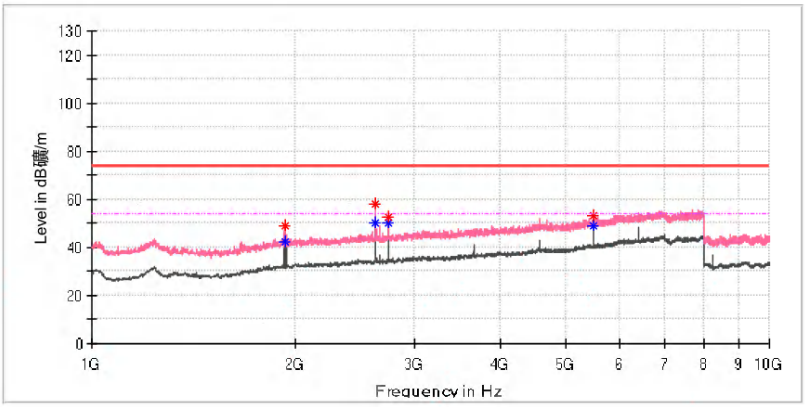
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1921.425000	53.78	---	74.00	20.22	100.0	H	327.0	5.6
1921.425000	---	48.35	54.00	5.65	100.0	H	327.0	5.6
2744.687500	---	44.77	54.00	9.23	100.0	H	91.0	7.8
2744.687500	50.31	---	74.00	23.69	100.0	H	91.0	7.8
5490.012500	---	50.80	54.00	3.20	100.0	H	308.0	13.7
5490.012500	55.18	---	74.00	18.82	100.0	H	308.0	13.7

Test 4 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K Mid CH_915MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

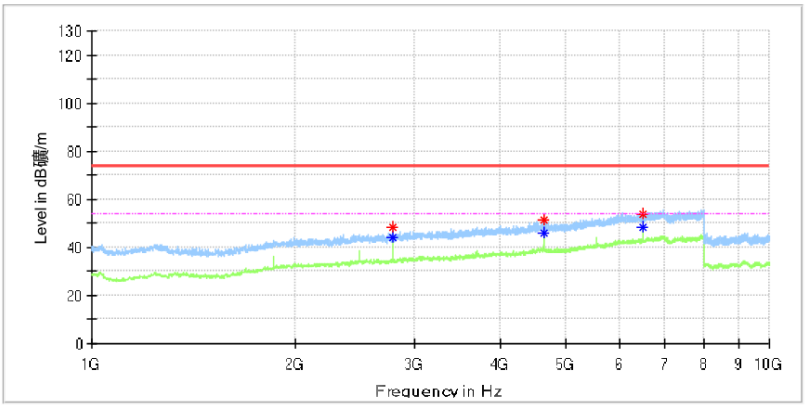
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1924.775000	49.05	---	74.00	24.95	100.0	V	268.0	5.6
1925.612500	---	42.11	54.00	11.89	100.0	V	268.0	5.6
2619.900000	---	50.07	54.00	3.93	100.0	V	79.0	7.5
2620.737500	57.87	---	74.00	16.13	100.0	V	79.0	7.5
2744.687500	---	49.92	54.00	4.08	100.0	V	41.0	7.8
2744.687500	52.60	---	74.00	21.40	100.0	V	41.0	7.8
5490.012500	---	48.80	54.00	5.20	100.0	V	277.0	13.7
5490.012500	53.48	---	74.00	20.52	100.0	V	277.0	13.7

Test 5 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K High CH_927.8MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

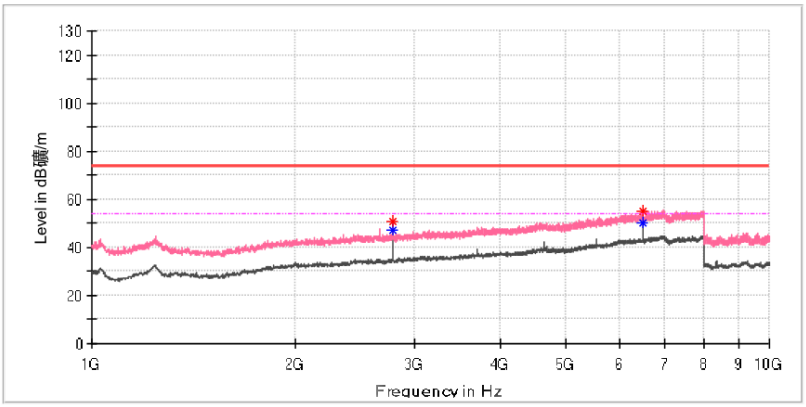
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2783.212500	48.23	---	74.00	25.77	100.0	H	217.0	7.9
2783.212500	---	44.01	54.00	9.99	100.0	H	217.0	7.9
4639.112500	51.30	---	74.00	22.70	100.0	H	255.0	12.0
4639.112500	---	45.90	54.00	8.10	100.0	H	255.0	12.0
6495.012500	54.03	---	74.00	19.97	100.0	H	41.0	16.2
6495.012500	---	48.44	54.00	5.56	100.0	H	41.0	16.2

Test 6 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	Lora FHSS 125K High CH_927.8MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2783.212500	50.86	---	74.00	23.14	100.0	V	17.0	7.9
2783.212500	---	47.31	54.00	6.69	100.0	V	17.0	7.9
6495.012500	55.19	---	74.00	18.81	100.0	V	8.0	16.2
6495.012500	---	50.36	54.00	3.64	100.0	V	8.0	16.2

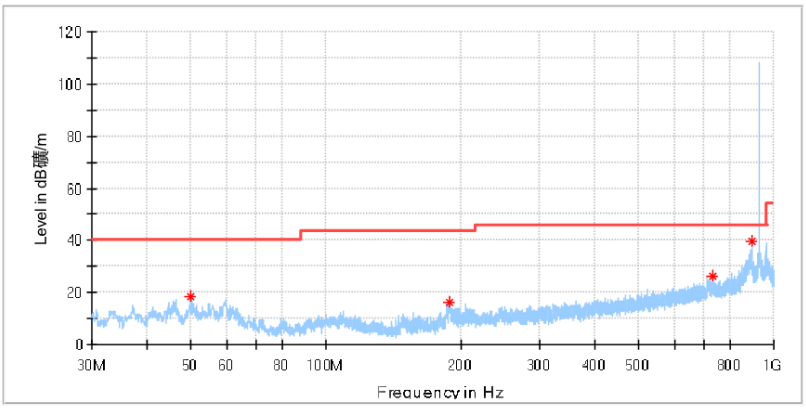
FHSS#6 (DataRate: 250Kbps)
30 MHz to 1GHz

Test 1 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Low CH_902.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.982000	18.68	---	40.00	21.32	100.0	H	246.0	-18.6
189.274000	15.99	---	43.50	27.51	100.0	H	126.0	-19.9
729.952000	25.96	---	46.00	20.04	100.0	H	4.0	-7.9
895.870500	39.78	---	46.00	6.22	100.0	H	126.0	-5.4

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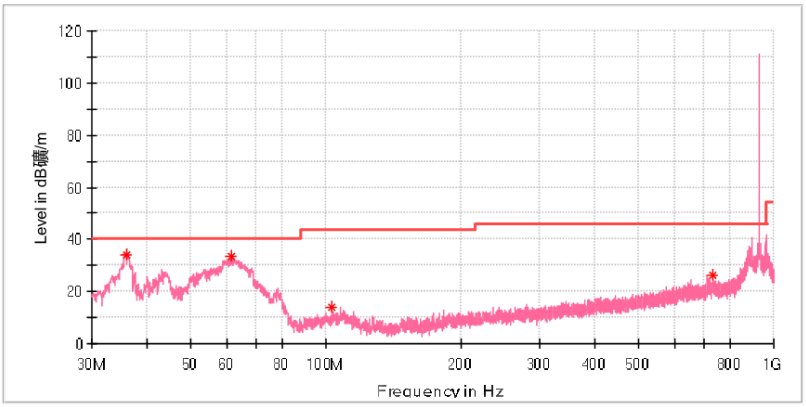
Test 2 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Low CH_902.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

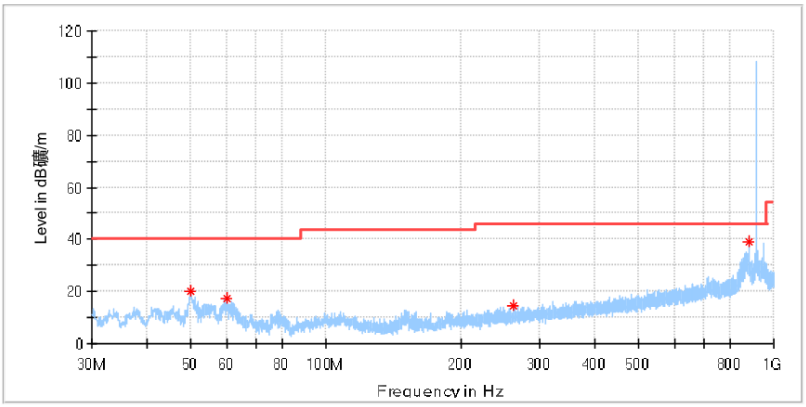
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
35.771500	33.98	---	40.00	6.02	100.0	V	167.0	-21.9
61.331000	33.37	---	40.00	6.63	100.0	V	126.0	-19.6
103.089500	13.99	---	43.50	29.51	100.0	V	216.0	-19.2
728.642500	26.06	---	46.00	19.94	100.0	V	167.0	-7.9

Test 3 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K High CH_927.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

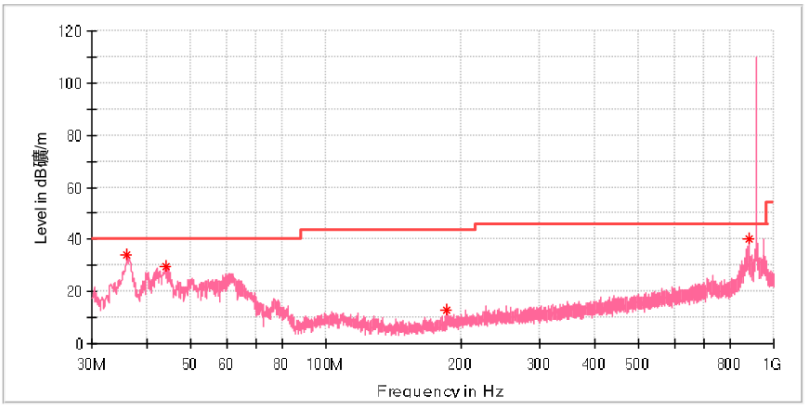
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.982000	20.10	---	40.00	19.90	100.0	H	211.0	-18.6
59.973000	17.35	---	40.00	22.65	100.0	H	113.0	-19.3
261.684500	14.72	---	46.00	31.28	100.0	H	72.0	-17.4
883.018000	38.97	---	46.00	7.03	100.0	H	145.0	-5.5

Test 4 / 4

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K High CH_927.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.014000	34.08	---	40.00	5.92	100.0	V	217.0	-21.8
44.065000	29.83	---	40.00	10.17	100.0	V	258.0	-19.3
186.558000	12.65	---	43.50	30.85	100.0	V	135.0	-20.2
883.018000	40.26	---	46.00	5.74	100.0	V	85.0	-5.5

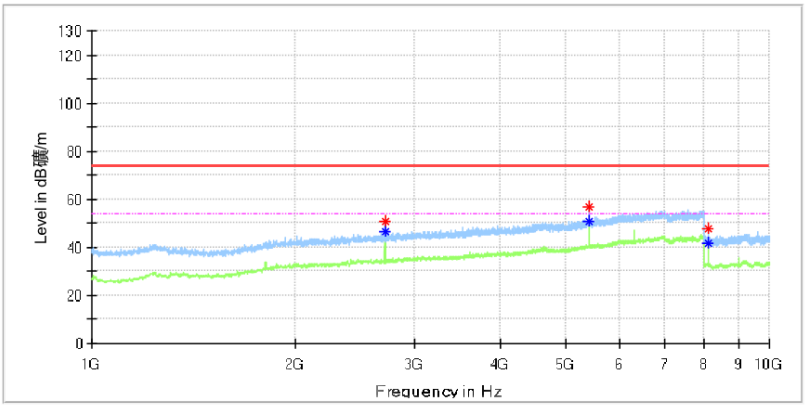
1GHz to 18GHz

Test 1 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Low CH_902.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2707.000000	---	46.46	54.00	7.54	100.0	H	69.0	7.6
2707.837500	50.83	---	74.00	23.17	100.0	H	69.0	7.6
5414.637500	---	50.66	54.00	3.34	100.0	H	229.0	13.5
5414.637500	56.68	---	74.00	17.32	100.0	H	229.0	13.5
8122.000000	---	41.50	54.00	12.50	100.0	H	307.0	8.6
8123.000000	47.73	---	74.00	26.27	100.0	H	307.0	8.6

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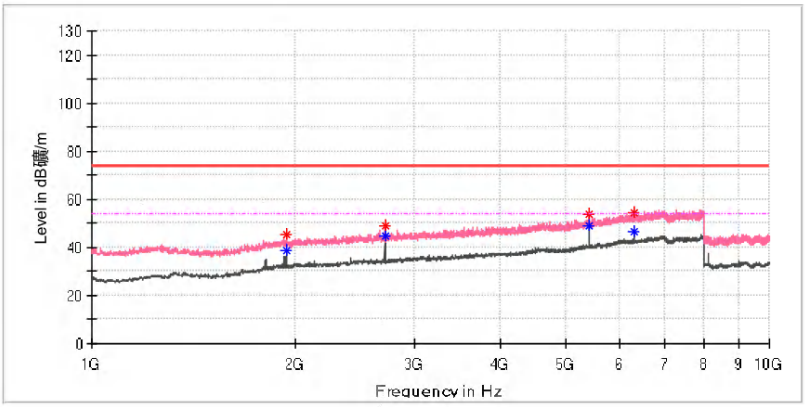
Test 2 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Low CH_902.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

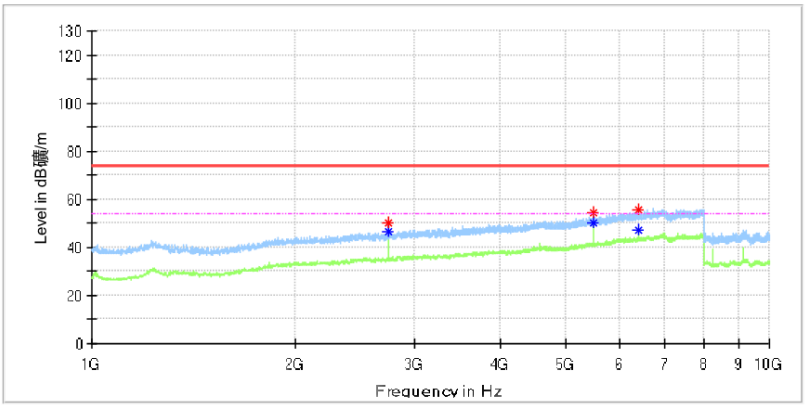
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1935.662500	---	38.85	54.00	15.15	100.0	V	118.0	5.6
1935.662500	45.32	---	74.00	28.68	100.0	V	118.0	5.6
2707.000000	---	44.51	54.00	9.49	100.0	V	353.0	7.6
2707.000000	48.69	---	74.00	25.31	100.0	V	353.0	7.6
5414.637500	53.58	---	74.00	20.42	100.0	V	90.0	13.5
5415.475000	---	48.85	54.00	5.15	100.0	V	146.0	13.5
6317.462500	---	46.50	54.00	7.50	100.0	V	71.0	15.9
6317.462500	54.25	---	74.00	19.75	100.0	V	71.0	15.9

Test 3 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Mid CH_915MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

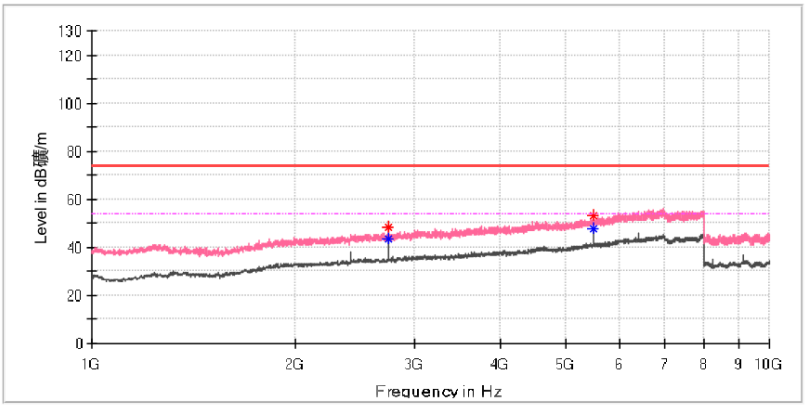
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2744.687500	---	46.65	54.00	7.35	100.0	H	58.0	7.8
2744.687500	50.03	---	74.00	23.97	100.0	H	58.0	7.8
5490.012500	54.70	---	74.00	19.30	100.0	H	199.0	13.7
5490.012500	---	50.01	54.00	3.99	100.0	H	199.0	13.7
6404.562500	55.76	---	74.00	18.24	100.0	H	4.0	16.1
6405.400000	---	47.35	54.00	6.65	100.0	H	356.0	16.1

Test 4 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K Mid CH_915MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

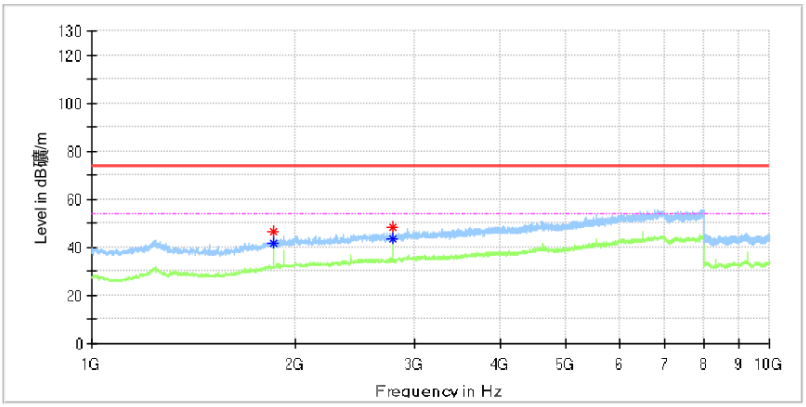
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2744.687500	48.46	---	74.00	25.54	100.0	V	330.0	7.8
2744.687500	---	43.81	54.00	10.19	100.0	V	330.0	7.8
5490.012500	---	47.65	54.00	6.35	100.0	V	198.0	13.7
5490.012500	53.03	---	74.00	20.97	100.0	V	198.0	13.7

Test 5 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K High CH_927.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

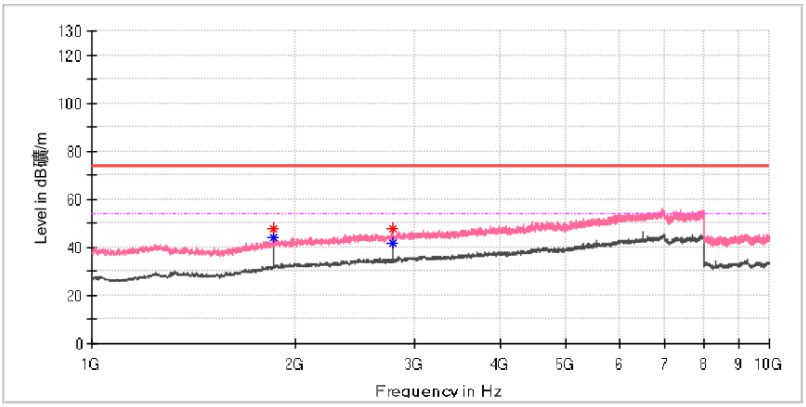
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1854.425000	---	41.64	54.00	12.36	100.0	H	31.0	5.0
1854.425000	46.35	---	74.00	27.65	100.0	H	31.0	5.0
2781.537500	48.10	---	74.00	25.90	100.0	H	59.0	7.9
2782.375000	---	43.79	54.00	10.21	100.0	H	59.0	7.9

Test 6 / 6

Test Report

EUT Information

EUT Name:	Ring Smart Lightbulb(PAR38)
Model:	PAR38
Test Mode:	FSK 250K High CH_927.5MHz
Test Voltage::	DC 5V From USB
Remark:	Temp 22 Humi:45%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1854.425000	---	43.86	54.00	10.14	100.0	V	300.0	5.0
1854.425000	47.96	---	74.00	26.04	100.0	V	300.0	5.0
2782.375000	---	41.79	54.00	12.21	100.0	V	215.0	7.9
2782.375000	47.99	---	74.00	26.01	100.0	V	215.0	7.9