

FCC RADIO TEST REPORT

Applicant..... : Shenzhen Vollgo Technology co., Ltd

Address..... : No.1 Sanhe Road, Gaofeng Community Dalang Street, Longhua District,
Shenzhen, Guangdong, 518110 China

Manufacturer..... : Shenzhen Vollgo Technology co., Ltd

Address..... : No.1 Sanhe Road, Gaofeng Community Dalang Street, Longhua District,
Shenzhen, Guangdong, 518110 China

Factory..... : Shenzhen Vollgo Technology co., Ltd

Address..... : No.1 Sanhe Road, Gaofeng Community Dalang Street, Longhua District,
Shenzhen, Guangdong, 518110 China

Product Name..... : Wireless Module

Brand Name..... : Vollgo

Model No. : SI4463S9S-V1-C2A

FCC ID..... : 2AYT2-VG63S9SC2A

Measurement Standard..... : 47 CFR FCC Part 15, Subpart C (Section 15.249)

Receipt Date of Samples.... : January 28, 2021

Date of Tested..... : January 28, 2021 to February 06, 2021

Date of Report..... : February 24, 2021

This report shows that above equipment is technically compliant with the requirements of the standards above. All test results in this report apply only to the tested sample(s). Without prior written approval of Dongguan Nore Testing Center Co., Ltd, this report shall not be reproduced except in full.



Prepared by

Louisa Huang / Project Engineer



Ion Fan / Authorized Signatory

Table of Contents

1. Summary of Test Result.....	4
2. General Description of EUT	5
3. Test Channels and Modes Detail	7
4. Configuration of EUT	7
5. Modification of EUT	7
6. Description of Support Device.....	8
7. Test Facility and Location	9
8. Applicable Standards and References.....	9
9. Deviations and Abnormalities from Standard Conditions	10
10. Test Conditions	10
11. Measurement Uncertainty	10
12. Sample Calculations	11
13. Test Items and Results	12
13.1 Conducted Emissions Measurement	12
13.2 Radiated Spurious Emissions and Fundamental Emissions Measurement.....	18
13.3 20dB Bandwidth Measurement.....	46
13.4 Antenna Requirement	48
14. Test Equipment List.....	49

Revision History

[illegible]

1. Summary of Test Result

FCC Rules	Description of Test	Result	Remarks
§15.207 (a)	AC Power Conducted Emission	PASS	---
§15.249(a)	Field Strength Fundamental Emissions	PASS	---
§15.249(a),(d) 15.209, 15.205	Radiated Spurious Emissions	PASS	---
§15.215(c)	20dB Bandwidth	PASS	---
§15.203	Antenna Requirement	PASS	---

2. General Description of EUT

Product Information	
Product Name:	Wireless Module
Main Model Name:	SI4463S9S-V1-V2A
Additional Model Name:	N/A
Model Difference:	N/A
S/N:	20201000001
Brand Name:	Vollgo
Hardware Version:	V01
Software Version:	V01
Rating:	DC 3.3V
Typical arrangement:	Table-top
I/O Port:	N/A
Accessories Information	
Adapter:	N/A
Cable:	N/A
Other:	N/A
Additional Information	
Note:	N/A
Remark:	All the information above are provided by the manufacturer. More detailed feature of the EUT please refers to the user manual.

Technical Specification	
Frequency Range:	915-916MHz
Modulation Type:	2FSK
Number of Channel:	5 (refer to following channel list for details)
Channel Space:	250KHz
Antenna Type:	External antenna (refer to following antenna information for details)
Antenna Gain:	1.0 dBi and 2.0 dBi (refer to following antenna information for details)

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	915.00	---	---	---	---
1	915.25	---	---	---	---
2	915.50	---	---	---	---
3	915.75	---	---	---	---
4	916.00	---	---	---	---

Antenna Information					
Antenna	Manufacturer	M/N	Antenna type	Connection type	Gain
1	Shuodian	RF915-1	FPC	Soldering	1
2	Shuodian	RF915-2	FPC	Ipex-1	2

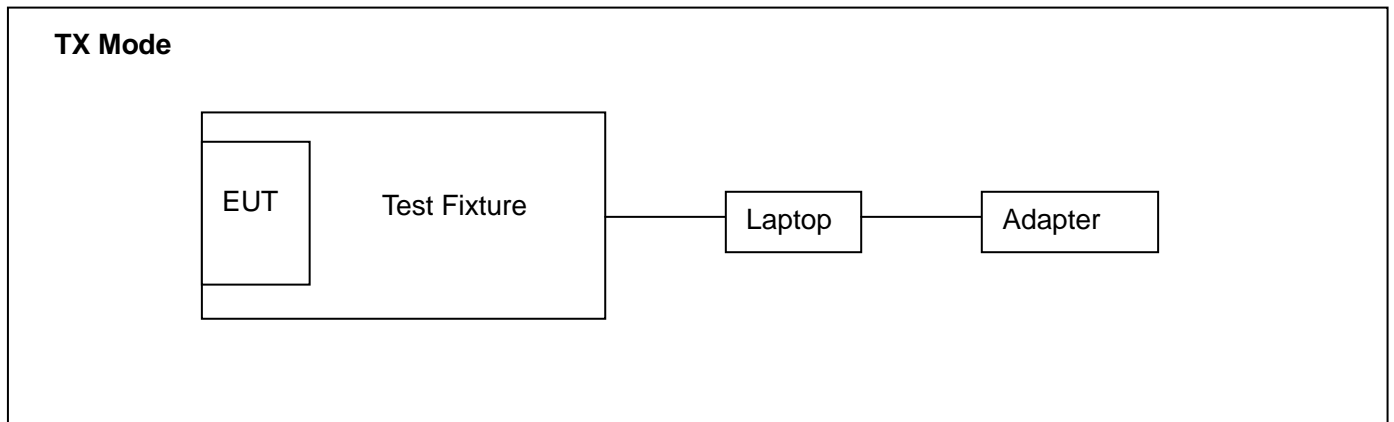
Note: Since the connection type of the two antennas is different, both of the antennas are considered and tested.

3. Test Channels and Modes Detail

Mode		Channel		Frequency (MHz)	Modulation	Data Rate (Kbps)
1	TX	Low	0	915.00	2FSK	10
		Mid	2	915.50	2FSK	10
		High	4	916.00	2FSK	10

Note: TX mode means that the EUT was programmed to be in continuously transmitting mode.

4. Configuration of EUT



5. Modification of EUT

No modifications are made to the EUT during all test items.

6. Description of Support Device

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Brand	M/N	S/N	Cable Specification	Remarks
1.	Laptop	HUAWEI	HBL-W19	M3VPM19C 05000965	Power cord, 1.15m, shielded	---
2.	Power supply (Laptop)	HUAWEI	HW-200325 CP0	N/A		---
3.	Test Fixture	Vollgo	---	---	USB Cable, 1.2m, shielded, with a ferrite core	Provided by the manufacturer

No.	Test Software	Modulation	Power Setting
1.	No test software was used. The test fixture used for testing.	2FSK	0x0b

7. Test Facility and Location

Test Site	:	Dongguan Nore Testing Center Co., Ltd. (Dongguan NTC Co., Ltd.)
Accreditations and Authorizations	:	<p>The Laboratory has been assessed and proved to be in compliance with CNAS/CL01</p> <p>Listed by CNAS, August 13, 2018</p> <p>The Certificate Registration Number is L5795.</p> <p>The Certificate is valid until August 13, 2024</p> <p>The Laboratory has been assessed and proved to be in compliance with ISO17025</p> <p>Listed by A2LA, November 01, 2017</p> <p>The Certificate Registration Number is 4429.01</p> <p>The Certificate is valid until December 31, 2021</p> <p>Listed by FCC, November 06, 2017</p> <p>Test Firm Registration Number is 907417</p> <p>Listed by Industry Canada, June 08, 2017</p> <p>The Certificate Registration Number is 46405-9743A</p> <p>The CAB identifier number is CN0015</p>
Test Site Location	:	Building D, Gaosheng Science and Technology Park, Hongtu Road, Nancheng District, Dongguan City, Guangdong Province, China

8. Applicable Standards and References

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

Test Standards:

47 CFR Part 15, Subpart C, 15.249

ANSI C63.10-2013

References Test Guidance:

N/A

9. Deviations and Abnormalities from Standard Conditions

No additions, deviations and exclusions from the standard.

10. Test Conditions

No.	Test Item	Test Mode	Test Voltage	Tested by	Remarks
1.	AC Power Conducted Emission	1	AC 120V /60Hz	Ray Ding	See note
2.	Radiated Spurious Emissions	1	AC 120V /60Hz	Ray Ding	See note
3.	Fundamental Emissions	1	AC 120V /60Hz	Ray Ding	See note
4.	20dB Bandwidth	1	AC 120V /60Hz	Ray Ding	See note
5.	Antenna Requirement	---	---	---	---

Note:

- The testing climatic conditions for temperature, humidity, and atmospheric pressure are within: 15~35°C, 30~70%, 86~106kPa
- Both vertical and horizontal directions of the external FPC antenna were considered and tested during radiated emission testing, and only the worst case of vertical direction was recorded.
- “*”: Test voltage AC 120V/60Hz was the input voltage of the auxiliary device.

11. Measurement Uncertainty

No.	Test Item	Frequency	Uncertainty	Remarks
1.	Conducted Emission	150KHz ~ 30MHz	±2.52 dB	---
2.	Radiated Emission Test	9kHz ~ 30MHz	±2.60 dB	---
		30MHz ~ 1GHz	±4.68 dB	---
		1GHz ~ 18GHz	±5.14 dB	---
		18GHz ~ 40GHz	±5.14 dB	---

Note:

- This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- The measurement uncertainty levels above are estimated and calculated according to CISPR 16-4-2.
- The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

12. Sample Calculations

Conducted Emission						
Freq. (MHz)	Reading Level (dBUV)	Correct Factor (dB)	Measurement (dBUV)	Limit (dBUV)	Over (dB)	Detector
0.1900	30.10	10.60	40.70	79.00	-38.30	QP
<p>Where,</p> <p>Freq. = Emission frequency in MHz</p> <p>Reading Level = Uncorrected Analyzer/Receiver reading</p> <p>Corrector Factor = Insertion loss of LISN + Cable Loss + RF Switching Unit attenuation</p> <p>Measurement = Reading + Corrector Factor</p> <p>Limit = Limit stated in standard</p> <p>Margin = Measurement - Limit</p> <p>Detector = Reading for Quasi-Peak / Average / Peak</p>						

Radiated Spurious Emissions and Restricted Bands						
Freq. (MHz)	Reading Level (dBUV)	Correct Factor (dB/m)	Measurement (dBUV/m)	Limit (dBUV/m)	Over (dB)	Detector
60.0700	45.88	-18.38	27.50	49.00	-21.50	QP
<p>Where,</p> <p>Freq. = Emission frequency in MHz</p> <p>Reading Level = Uncorrected Analyzer/Receiver reading</p> <p>Corrector Factor = Antenna Factor + Cable Loss - Pre-amplifier</p> <p>Measurement = Reading + Corrector Factor</p> <p>Limit = Limit stated in standard</p> <p>Over = Margin, which calculated by Measurement - Limit</p> <p>Detector = Reading for Quasi-Peak / Average / Peak</p>						

Note: For all conducted test items, the spectrum analyzer offset or transducer is derived from RF cable loss and attenuator factor. The offset or transducer is equal to the RF cable loss plus attenuator factor.

13. Test Items and Results

13.1 Conducted Emissions Measurement

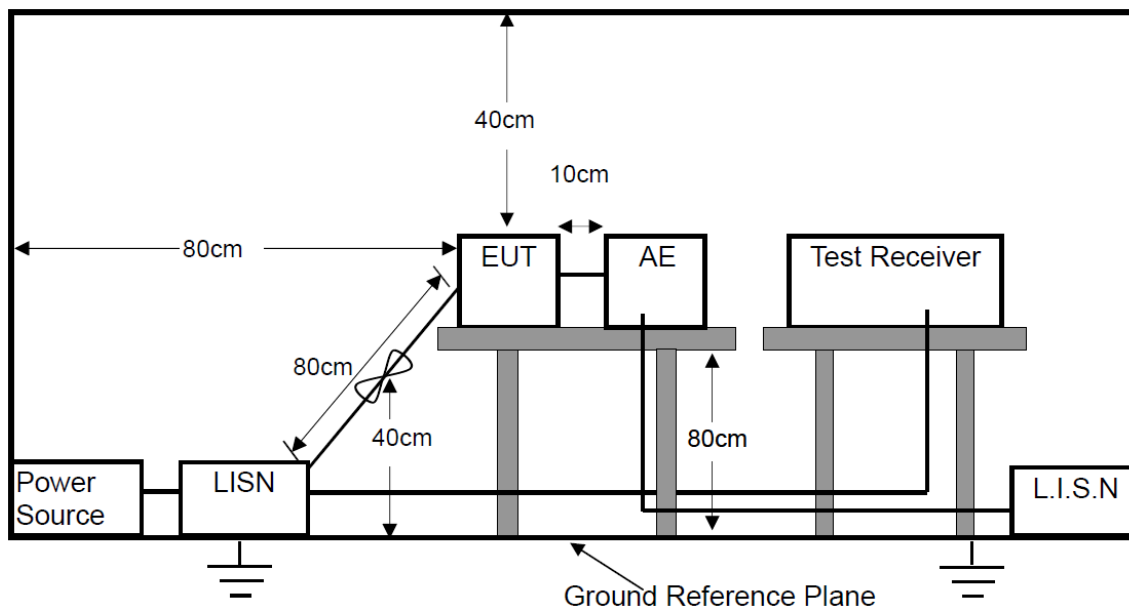
LIMIT

According to the requirements of FCC PART 15.207, the limits are as follows:

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

- Note:
1. If the limits for the average detector are met when using the quasi-peak detector, then the limits for the measurements with the average detector are considered to be met.
 2. The lower limit shall apply at the transition frequencies.
 3. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

- a. The EUT was placed on a wooden table 0.8m height from the metal ground plan and 0.4m from the conducting wall of the shielding room and it was kept at 0.8m from any other grounded conducting surface.
- b. All I/O cables and support devices were positioned as per ANSI C63.10.
- c. Connect mains power port of the EUT to a line impedance stabilization network (LISN).
- d. Connect all support devices to the other LISN and AAN, if needed.
- e. Scan the frequency range from 150KHz to 30MHz at both sides of AC line for maximum conducted interference checking and record the test data.

TEST RESULTS

Pass

Please refer to following pages.

M/N: SI4463S9S-V1-V2A

Testing Voltage: AC 120V / 60Hz

Phase: L1

Detector: QP & AVG

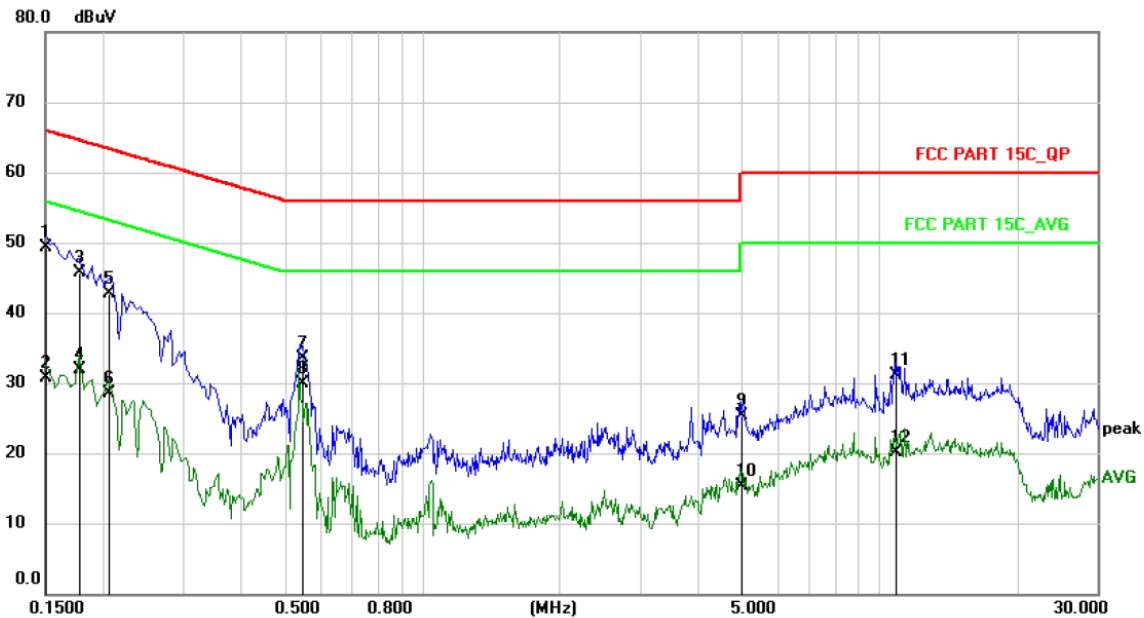
Test Mode: 1

Antenna: RF915-1

Conducted Emission Measurement

Date: 2021/2/5

Time: 13:48:51



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1500	38.80	10.60	49.40	66.00	-16.60	QP	
2	0.1500	20.10	10.60	30.70	56.00	-25.30	AVG	
3	0.1780	35.10	10.60	45.70	64.58	-18.88	QP	
4	0.1780	21.40	10.60	32.00	54.58	-22.58	AVG	
5	0.2072	32.20	10.60	42.80	63.32	-20.52	QP	
6	0.2072	17.90	10.60	28.50	53.32	-24.82	AVG	
7	0.5460	22.97	10.63	33.60	56.00	-22.40	QP	
8 *	0.5460	19.27	10.63	29.90	46.00	-16.10	AVG	
9	4.9979	14.59	10.71	25.30	56.00	-30.70	QP	
10	4.9979	4.69	10.71	15.40	46.00	-30.60	AVG	
11	10.8779	20.37	10.73	31.10	60.00	-28.90	QP	
12	10.8779	9.47	10.73	20.20	50.00	-29.80	AVG	

M/N: SI4463S9S-V1-V2A

Testing Voltage: AC 120V / 60Hz

Phase: N

Detector: QP & AVG

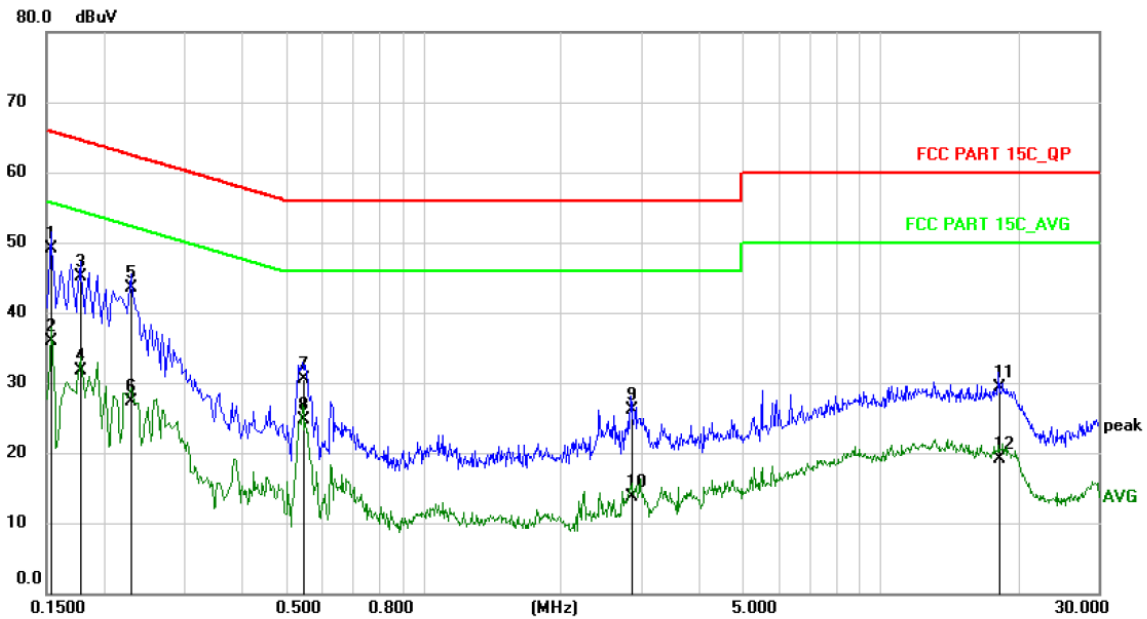
Test Mode: 1

Antenna: RF915-1

Conducted Emission Measurement

Date: 2021/2/5

Time: 13:53:32



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1539	38.60	10.60	49.20	65.79	-16.59	QP	
2	0.1539	25.30	10.60	35.90	55.79	-19.89	AVG	
3	0.1780	34.60	10.60	45.20	64.58	-19.38	QP	
4	0.1780	21.20	10.60	31.80	54.58	-22.78	AVG	
5	0.2300	32.90	10.60	43.50	62.45	-18.95	QP	
6	0.2300	16.80	10.60	27.40	52.45	-25.05	AVG	
7	0.5460	19.97	10.63	30.60	56.00	-25.40	QP	
8	0.5460	14.17	10.63	24.80	46.00	-21.20	AVG	
9	2.8460	15.39	10.71	26.10	56.00	-29.90	QP	
10	2.8460	2.99	10.71	13.70	46.00	-32.30	AVG	
11	18.2019	18.64	10.76	29.40	60.00	-30.60	QP	
12	18.2019	8.44	10.76	19.20	50.00	-30.80	AVG	

M/N: SI4463S9S-V1-V2A

Testing Voltage: AC 120V / 60Hz

Phase: L1

Detector: QP & AVG

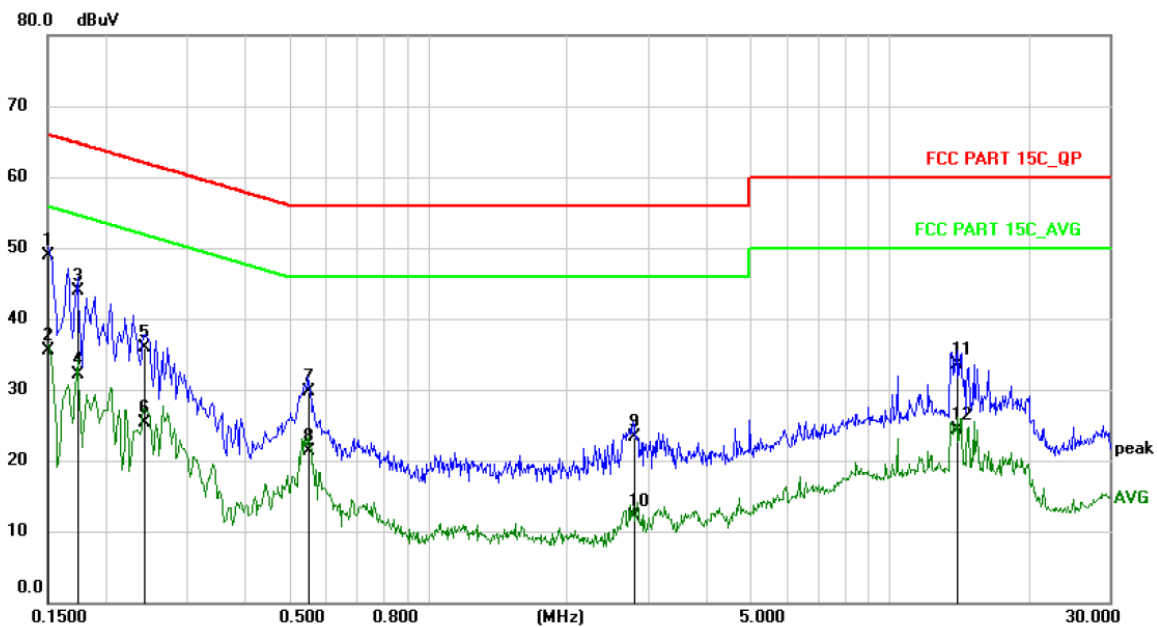
Test Mode: 1

Antenna: RF915-2

Conducted Emission Measurement

Date: 2021/2/5

Time: 14:23:43



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1500	38.30	10.60	48.90	66.00	-17.10	QP	
2	0.1500	25.00	10.60	35.60	56.00	-20.40	AVG	
3	0.1740	33.30	10.60	43.90	64.77	-20.87	QP	
4	0.1740	21.60	10.60	32.20	54.77	-22.57	AVG	
5	0.2420	25.30	10.60	35.90	62.03	-26.13	QP	
6	0.2420	14.70	10.60	25.30	52.03	-26.73	AVG	
7	0.5500	19.06	10.64	29.70	56.00	-26.30	QP	
8	0.5500	10.76	10.64	21.40	46.00	-24.60	AVG	
9	2.7820	12.69	10.71	23.40	56.00	-32.60	QP	
10	2.7820	1.49	10.71	12.20	46.00	-33.80	AVG	
11	14.0539	22.76	10.74	33.50	60.00	-26.50	QP	
12	14.0539	13.56	10.74	24.30	50.00	-25.70	AVG	

M/N: SI4463S9S-V1-V2A

Testing Voltage: AC 120V / 60Hz

Phase: N

Detector: QP & AVG

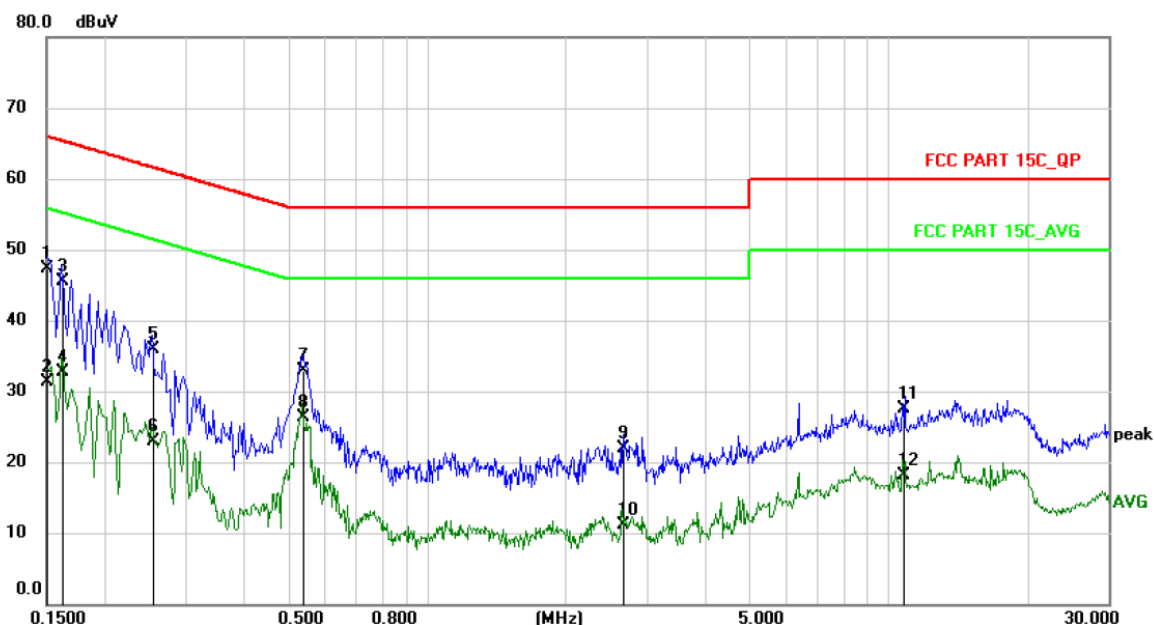
Test Mode: 1

Antenna: RF915-2

Conducted Emission Measurement

Date: 2021/2/5

Time: 14:30:12



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1 *	0.1500	36.80	10.60	47.40	66.00	-18.60	QP	
2	0.1500	20.80	10.60	31.40	56.00	-24.60	AVG	
3	0.1620	35.00	10.60	45.60	65.36	-19.76	QP	
4	0.1620	22.10	10.60	32.70	55.36	-22.66	AVG	
5	0.2540	25.30	10.60	35.90	61.63	-25.73	QP	
6	0.2540	12.30	10.60	22.90	51.63	-28.73	AVG	
7	0.5380	22.37	10.63	33.00	56.00	-23.00	QP	
8	0.5380	15.67	10.63	26.30	46.00	-19.70	AVG	
9	2.6540	11.19	10.71	21.90	56.00	-34.10	QP	
10	2.6540	0.49	10.71	11.20	46.00	-34.80	AVG	
11	10.7418	16.87	10.73	27.60	60.00	-32.40	QP	
12	10.7418	7.37	10.73	18.10	50.00	-31.90	AVG	

13.2 Radiated Spurious Emissions and Fundamental Emissions Measurement

LIMIT

Frequency range MHz	Distance Meters	Field Strengths Limit (15.209)	
		$\mu\text{V/m}$	
0.009 ~ 0.490	300	2400/F(kHz)	
0.490 ~ 1.705	30	24000/F(kHz)	
1.705 ~ 30	30	30	
30 ~ 88	3	100	
88 ~ 216	3	150	
216 ~ 960	3	200	
Above 960	3	500	
Frequency range MHz	Distance Meters	Field Strengths Limit (15.249)	
		mV/m (Field strength of fundamental)	$\mu\text{V/m}$ (Field strength of Harmonics)
902 ~ 928	3	50	500
2400 ~ 2483.5	3	50	500
5725 ~ 5875	3	50	500
24000 ~ 24250	3	250	2500

Remark: (1) Emission level (dB) μV = 20 log Emission level $\mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

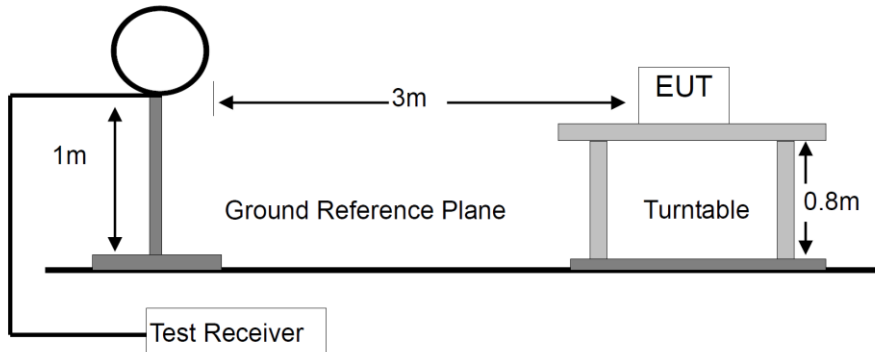
(3) As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

(4) The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.

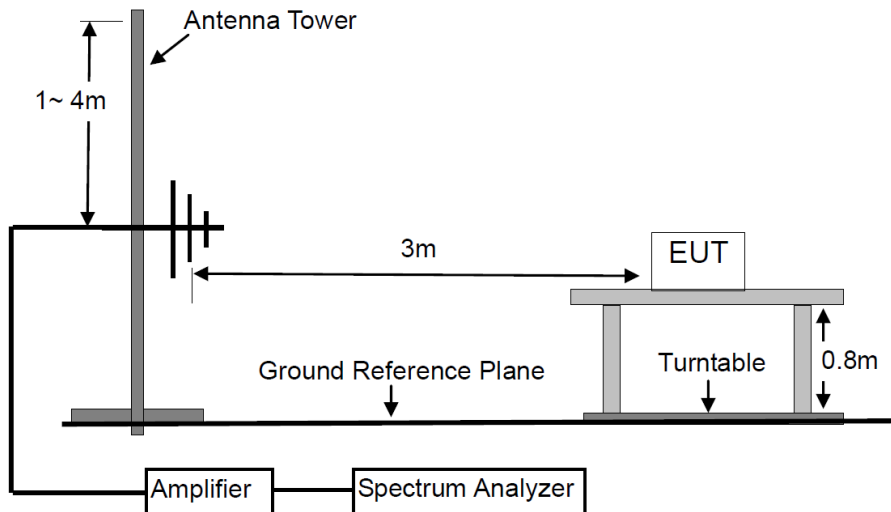
(5) §15.249(d) specifies that emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general field strength limits listed as below, whichever is less stringent. If the emissions which fall in the restricted bands, as defined in §15.205 comply with radiated emission limits specified in §15.209.

BLOCK DIAGRAM OF TEST SETUP

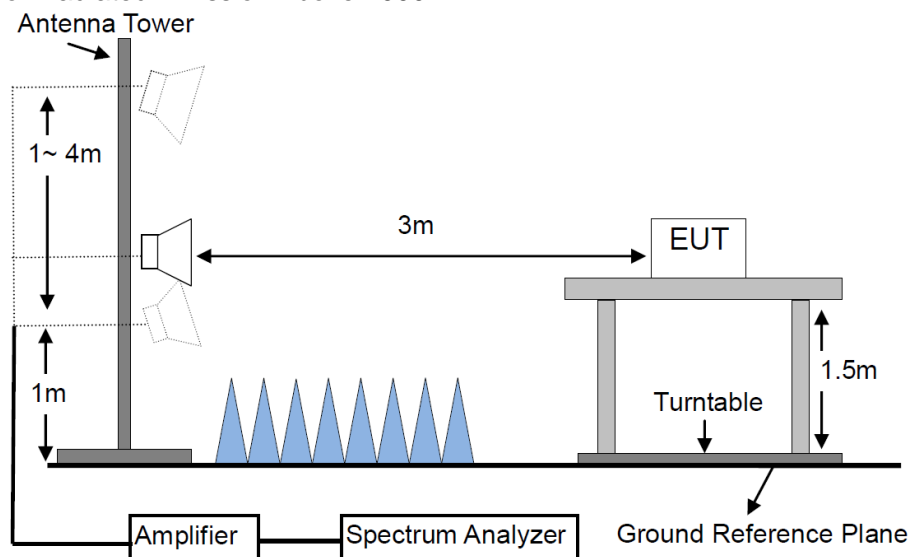
For Radiated Emission below 30MHz



For Radiated Emission 30-1000MHz



For Radiated Emission Above 1000MHz.



TEST PROCEDURES

- a. Below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi- anechoic chamber room.
- b. For the radiated emission test above 1GHz:
The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter full anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to peak detect function and specified bandwidth with maximum hold mode.
- f. A Quasi-peak measurement was then made for that frequency point for below 1GHz test. PK and AV for above 1GHz emission test.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Band (MHz)	Detector	Resolution Bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	3 MHz
	Average	1 MHz	10 Hz

TEST RESULTS

PASS

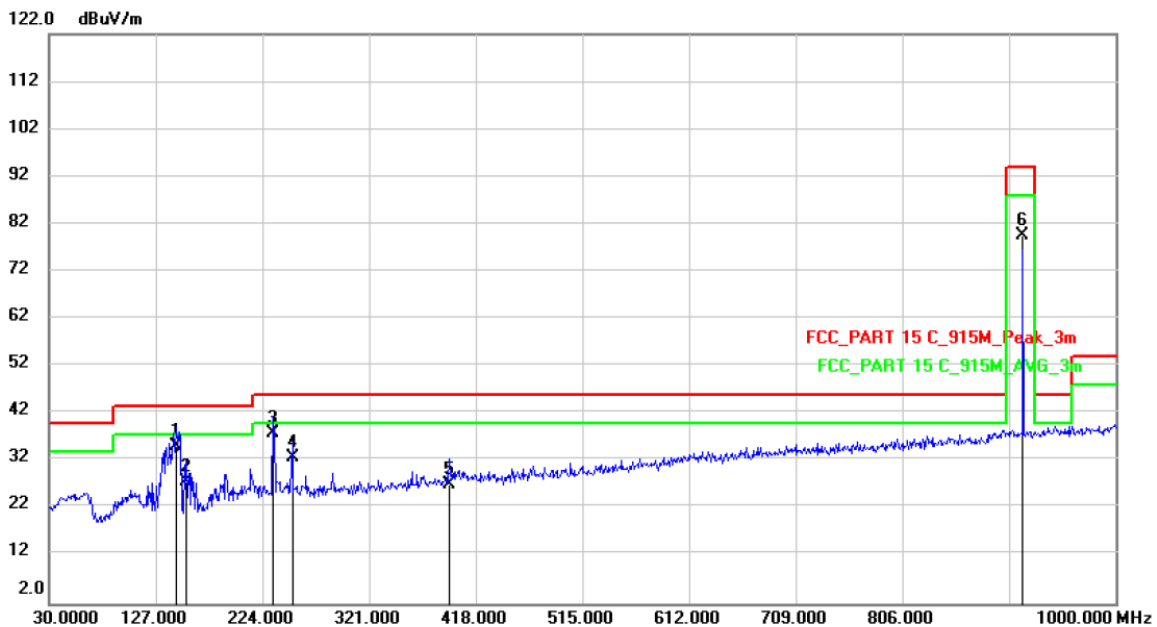
Please refer to the following pages.

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 16:25:13



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	145.4299	18.87	16.23	35.10	43.50	-8.40	QP	
2	155.1300	11.14	16.46	27.60	43.50	-15.90	QP	
3 *	233.7000	17.84	20.06	37.90	46.00	-8.10	QP	
4	251.1600	12.04	20.56	32.60	46.00	-13.40	QP	
5	393.7500	3.63	23.57	27.20	46.00	-18.80	QP	
6	915.0000	46.59	33.06	79.65	93.98	-14.33	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

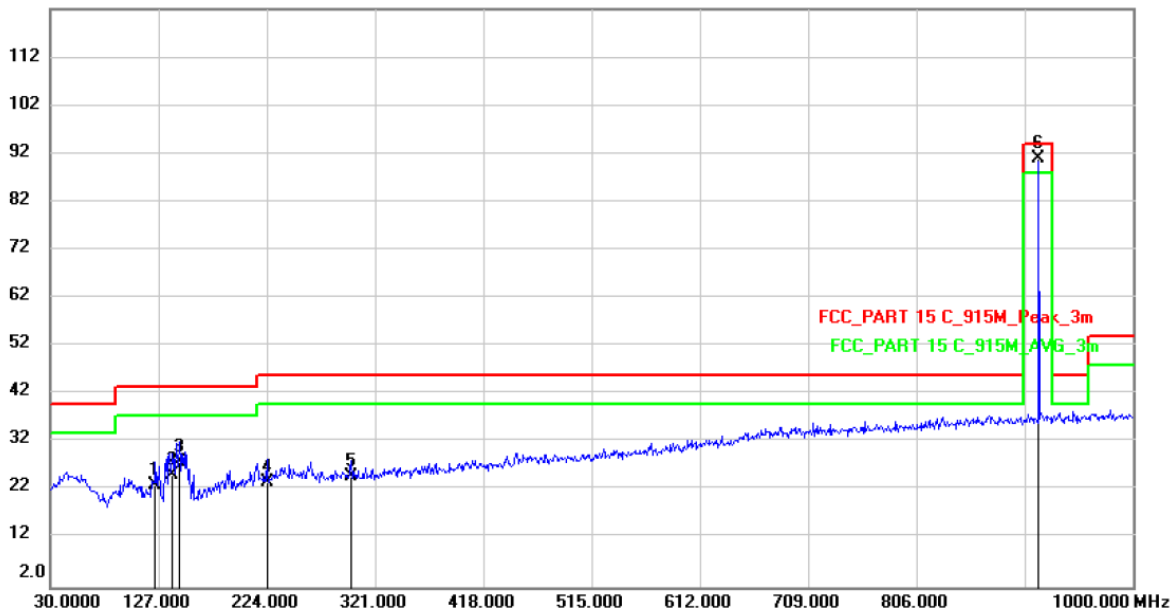
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 16:19:21

122.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		124.0900	7.02	16.08	23.10	43.50	-20.40	QP	
2		139.6100	9.46	15.74	25.20	43.50	-18.30	QP	
3		145.4299	12.37	15.53	27.90	43.50	-15.60	QP	
4		224.0000	5.14	18.66	23.80	46.00	-22.20	QP	
5		299.6600	4.60	20.40	25.00	46.00	-21.00	QP	
6	*	915.0000	59.02	31.82	90.84	93.98	-3.14	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

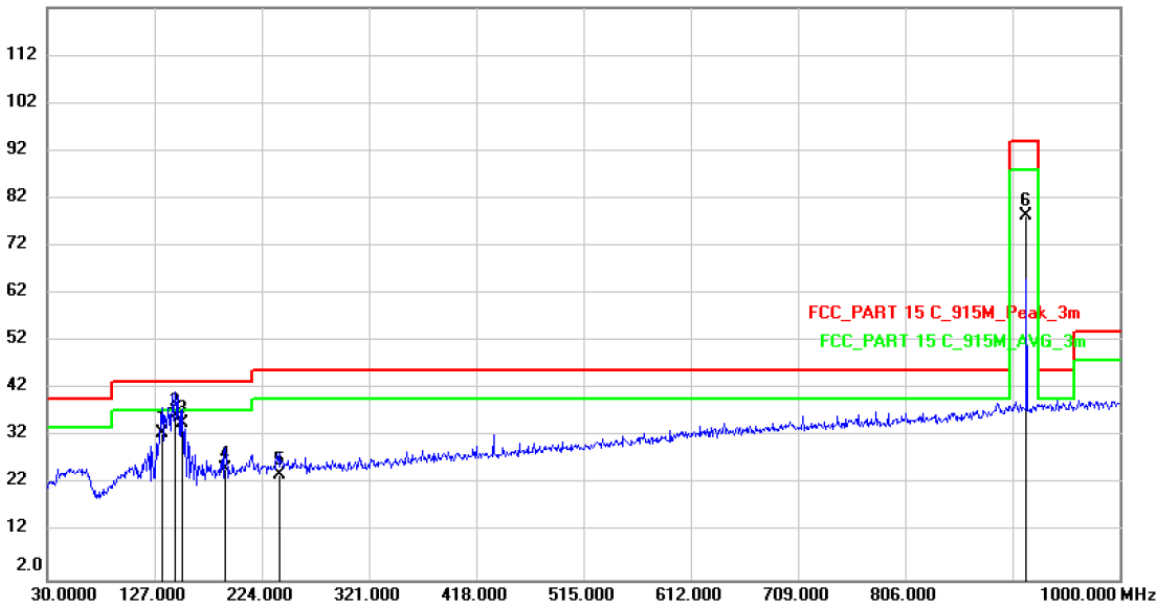
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 16:06:49

122.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		133.7899	16.35	16.55	32.90	43.50	-10.60	QP	
2	*	145.4299	19.97	16.23	36.20	43.50	-7.30	QP	
3		152.2200	18.33	16.37	34.70	43.50	-8.80	QP	
4		191.0200	6.37	18.73	25.10	43.50	-18.40	QP	
5		239.5200	3.75	20.25	24.00	46.00	-22.00	QP	
6		915.5000	45.41	33.07	78.48	93.98	-15.50	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

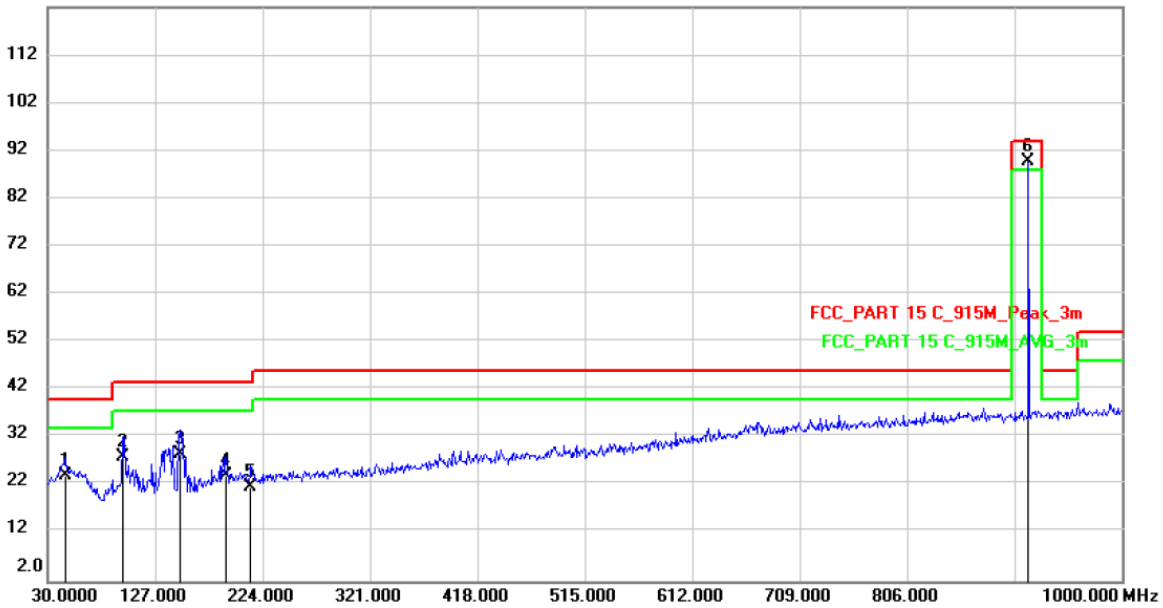
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 16:14:18

122.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		45.5200	4.39	19.81	24.20	40.00	-15.80	QP	
2		97.9000	9.23	18.67	27.90	43.50	-15.60	QP	
3		149.3100	13.18	15.32	28.50	43.50	-15.00	QP	
4		191.0200	6.33	17.87	24.20	43.50	-19.30	QP	
5		213.3300	3.26	18.34	21.60	43.50	-21.90	QP	
6	*	915.5000	58.04	31.83	89.87	93.98	-4.11	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

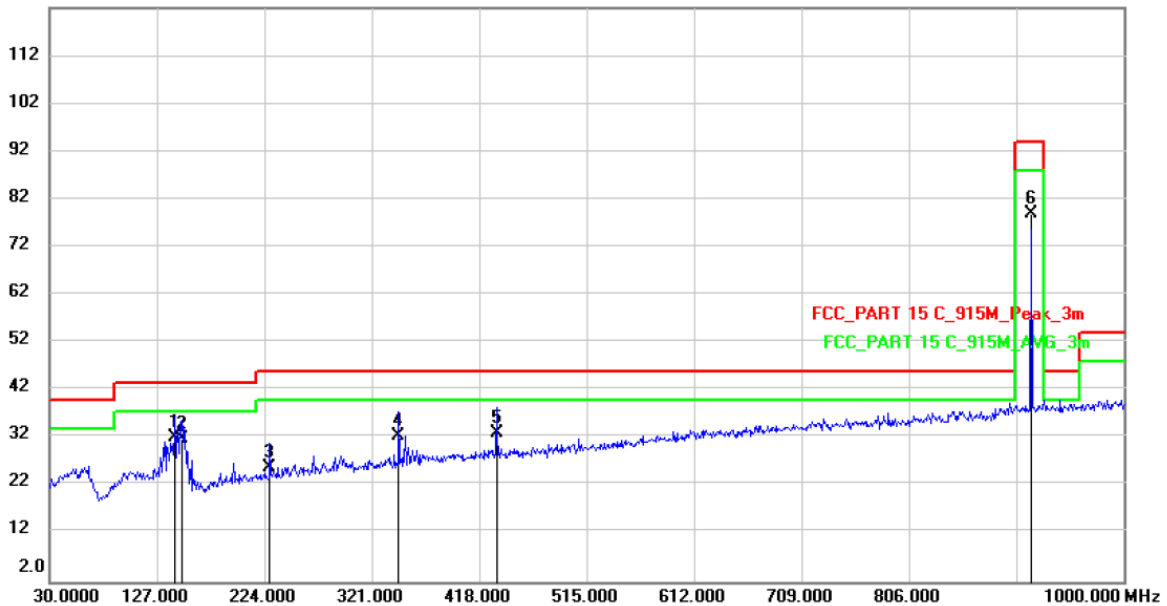
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 15:58:03

122.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	143.4900	15.87	16.23	32.10	43.50	-11.40	QP	
2		149.3100	15.72	16.28	32.00	43.50	-11.50	QP	
3		228.8500	6.03	19.87	25.90	46.00	-20.10	QP	
4		345.2500	9.73	22.67	32.40	46.00	-13.60	QP	
5		433.5200	8.88	24.22	33.10	46.00	-12.90	QP	
6		916.0000	45.83	33.07	78.90	93.98	-15.08	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

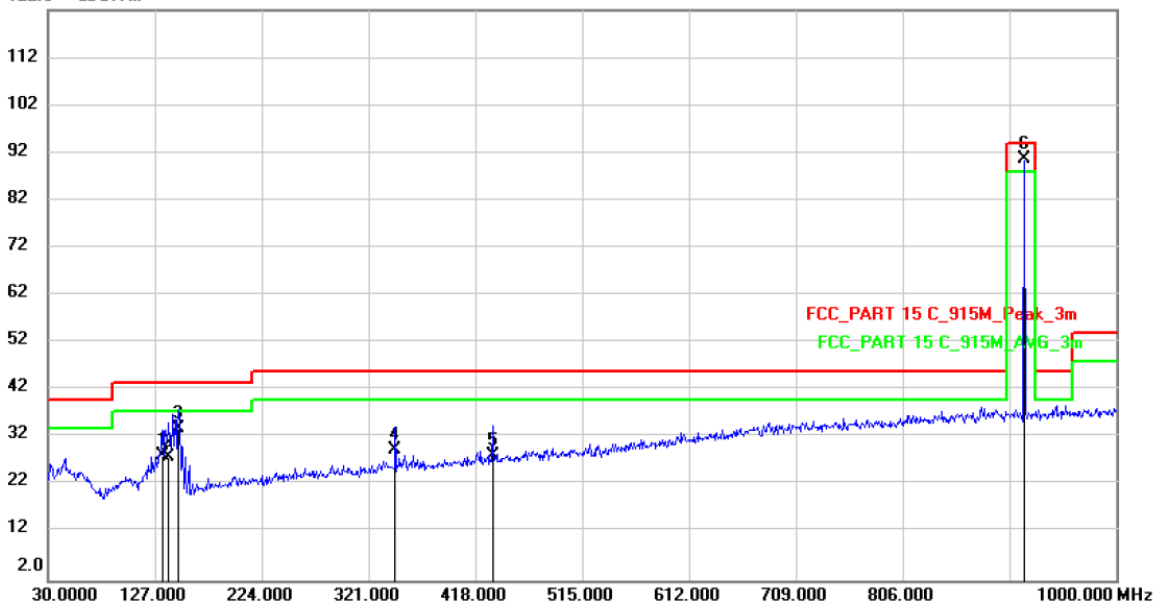
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 15:52:07

122.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		133.7899	12.29	15.91	28.20	43.50	-15.30	QP	
2		139.6100	12.16	15.74	27.90	43.50	-15.60	QP	
3		148.3400	18.63	15.37	34.00	43.50	-9.50	QP	
4		345.2500	7.83	21.67	29.50	46.00	-16.50	QP	
5		433.5200	4.88	23.22	28.10	46.00	-17.90	QP	
6	*	916.0000	58.73	31.83	90.56	93.98	-3.42	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

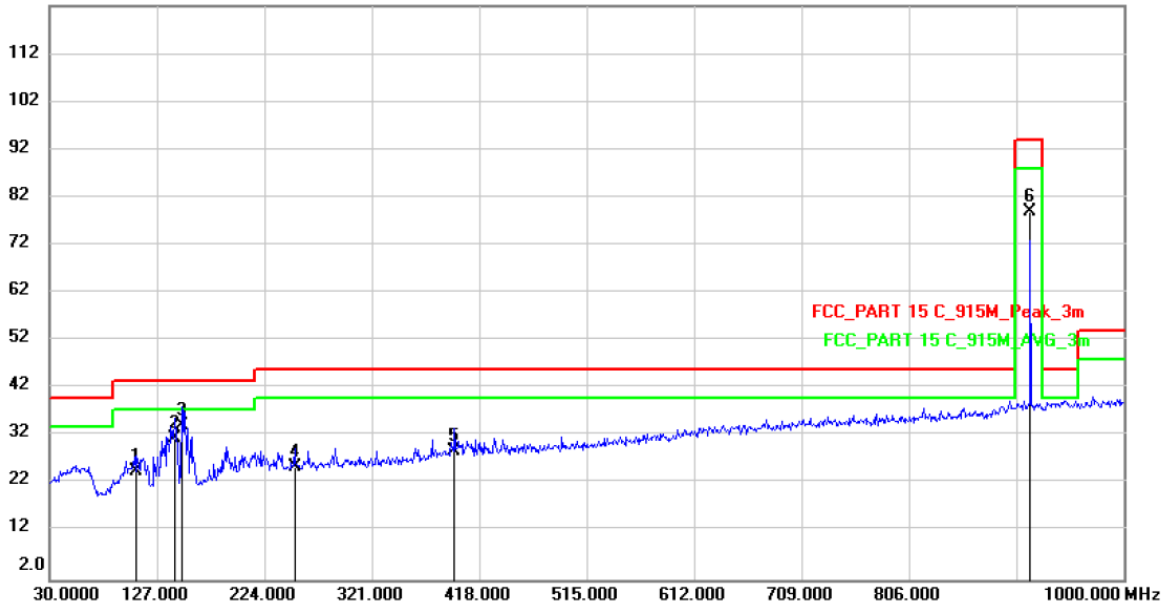
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:40:22

122.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		108.5700	4.99	19.81	24.80	43.50	-18.70	QP	
2		143.4900	15.37	16.23	31.60	43.50	-11.90	QP	
3	*	149.3100	17.92	16.28	34.20	43.50	-9.30	QP	
4		251.1600	5.04	20.56	25.60	46.00	-20.40	QP	
5		395.6900	5.39	23.61	29.00	46.00	-17.00	QP	
6		915.0000	45.90	33.06	78.96	93.98	-15.02	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

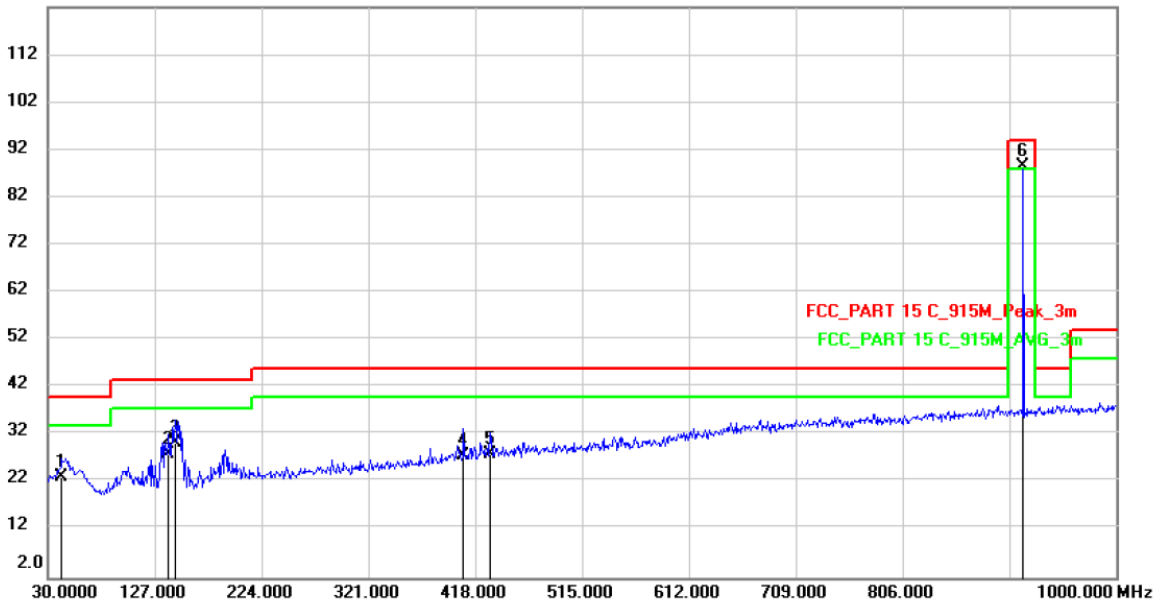
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:34:59

122.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		42.6100	3.46	19.64	23.10	40.00	-16.90	QP	
2		139.6100	12.16	15.74	27.90	43.50	-15.60	QP	
3		145.4299	14.97	15.53	30.50	43.50	-13.00	QP	
4		407.3299	4.96	22.84	27.80	46.00	-18.20	QP	
5		431.5800	4.81	23.19	28.00	46.00	-18.00	QP	
6	*	915.0000	56.82	31.82	88.64	93.98	-5.34	QP	

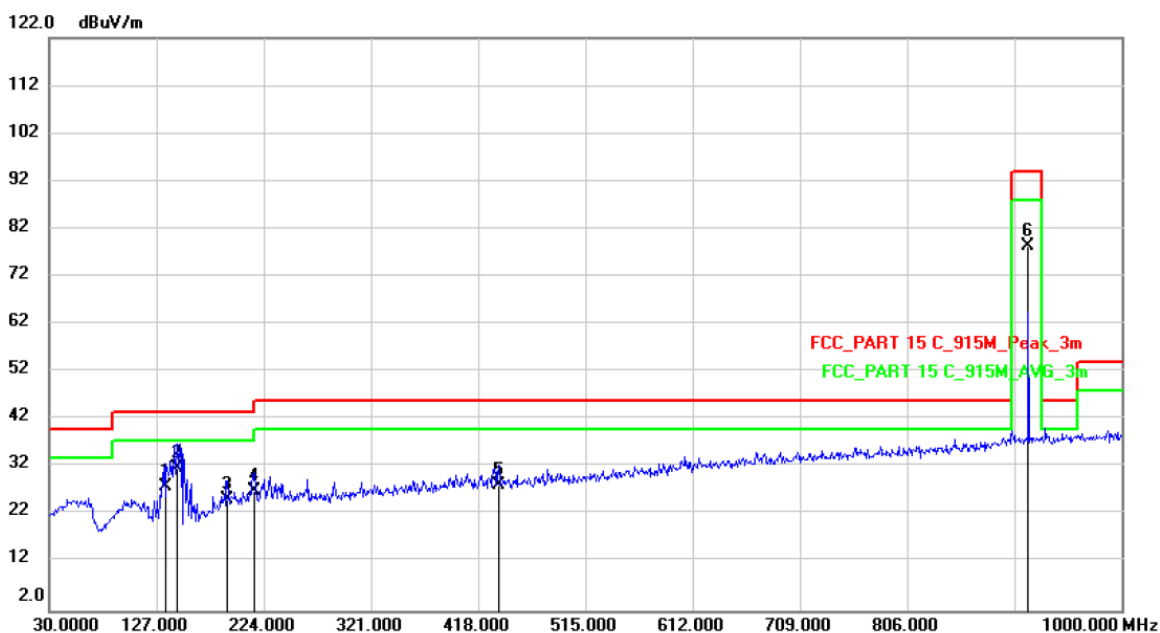
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:22:25



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		135.7300	11.54	16.46	28.00	43.50	-15.50	QP	
2	*	145.4299	15.67	16.23	31.90	43.50	-11.60	QP	
3		191.0200	6.47	18.73	25.20	43.50	-18.30	QP	
4		215.2700	7.72	19.38	27.10	43.50	-16.40	QP	
5		436.4300	4.04	24.26	28.30	46.00	-17.70	QP	
6		915.5000	45.13	33.07	78.20	93.98	-15.78	QP	

Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

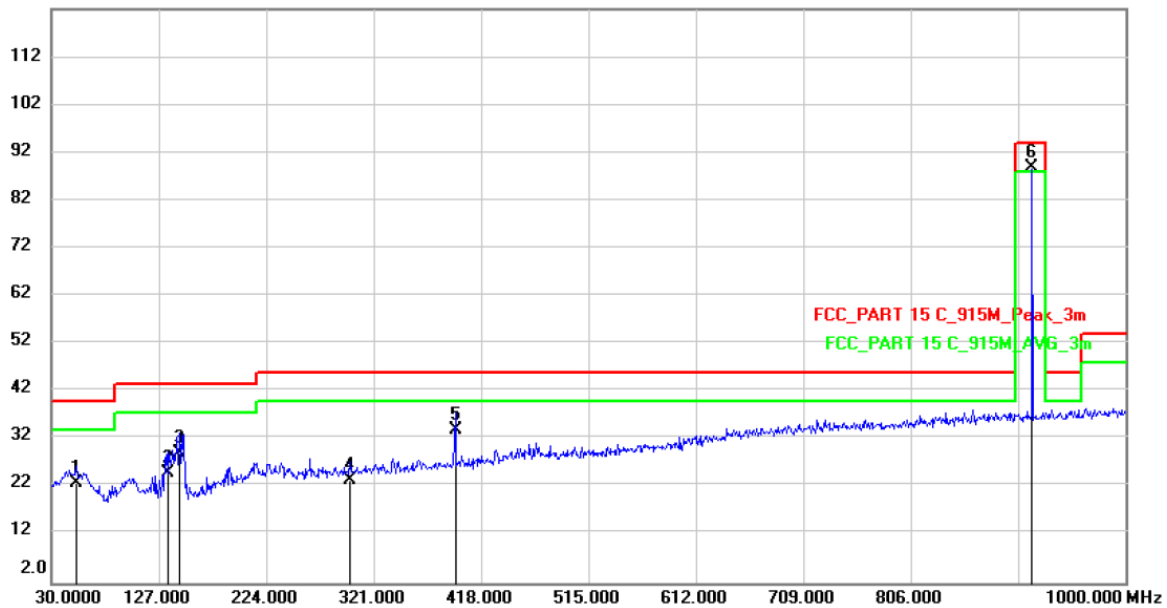
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:29:53

122.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		52.3100	2.72	20.08	22.80	40.00	-17.20	QP	
2		135.7300	9.03	15.87	24.90	43.50	-18.60	QP	
3		145.4299	13.77	15.53	29.30	43.50	-14.20	QP	
4		299.6600	3.10	20.40	23.50	46.00	-22.50	QP	
5		394.7200	11.41	22.59	34.00	46.00	-12.00	QP	
6	*	915.5000	57.02	31.83	88.85	93.98	-5.13	QP	

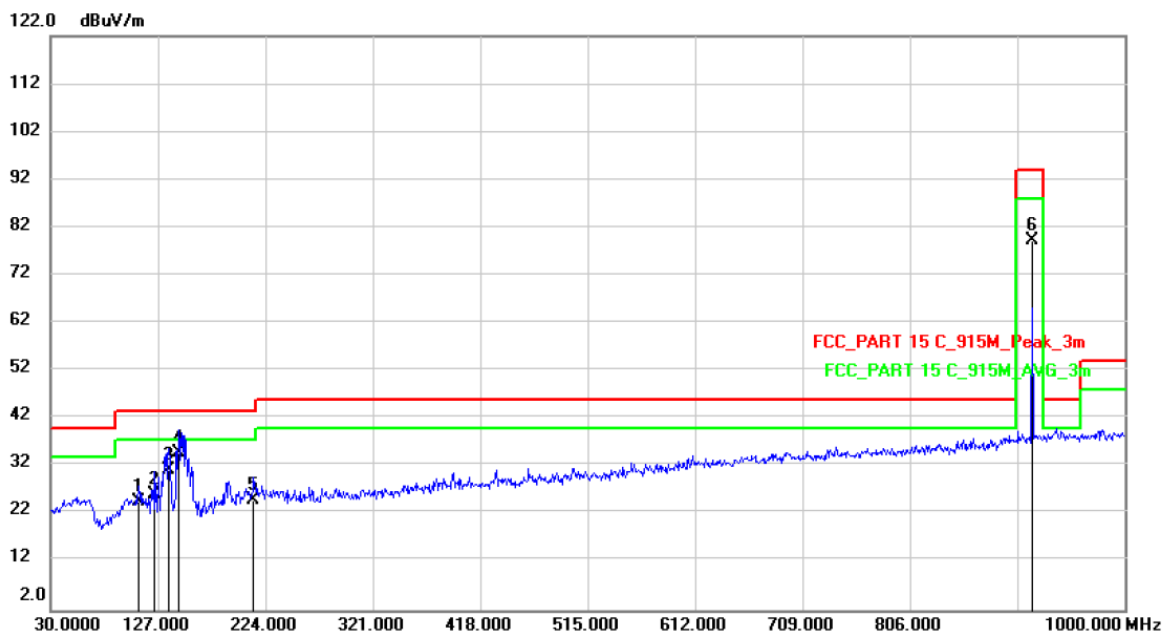
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: QP
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:16:22



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		109.5400	4.80	19.80	24.60	43.50	-18.90	QP	
2		124.0900	8.70	17.40	26.10	43.50	-17.40	QP	
3		136.7000	14.78	16.42	31.20	43.50	-12.30	QP	
4	*	145.4299	18.57	16.23	34.80	43.50	-8.70	QP	
5		213.3300	5.66	19.34	25.00	43.50	-18.50	QP	
6		916.5800	46.16	33.07	79.23	93.98	-14.75	QP	

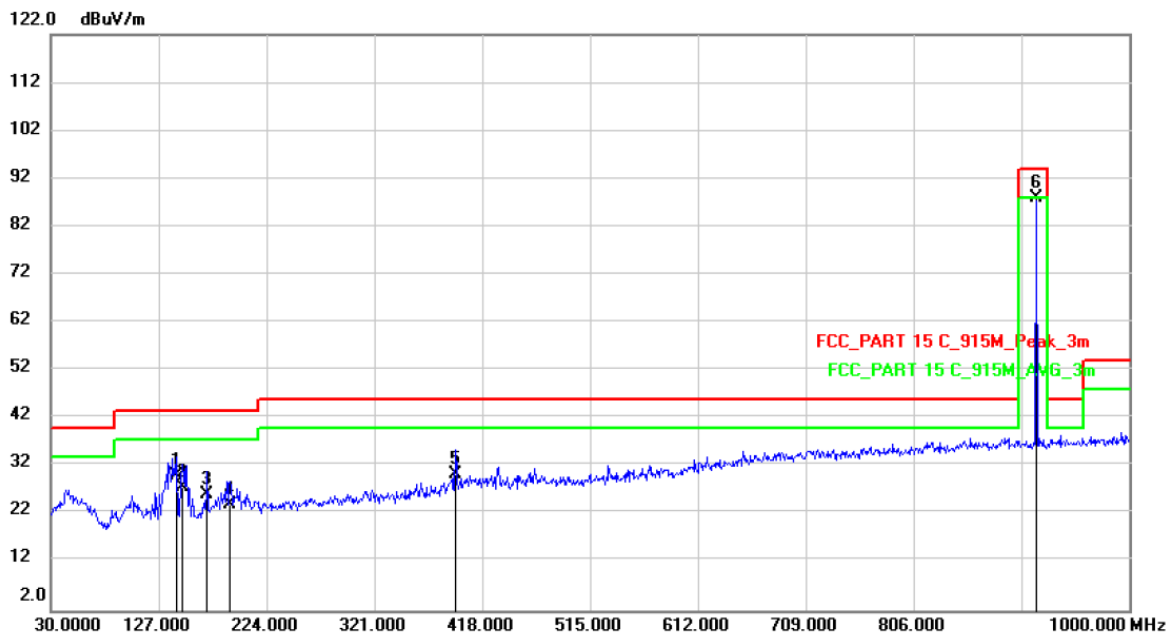
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: QP
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/4

Time: 17:10:44



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		142.5200	14.36	15.64	30.00	43.50	-13.50	QP	
2		148.3400	12.23	15.37	27.60	43.50	-15.90	QP	
3		170.6500	9.48	16.82	26.30	43.50	-17.20	QP	
4		191.0200	6.23	17.87	24.10	43.50	-19.40	QP	
5		393.7500	7.83	22.57	30.40	46.00	-15.60	QP	
6	*	916.0000	56.00	31.83	87.83	93.98	-6.15	QP	

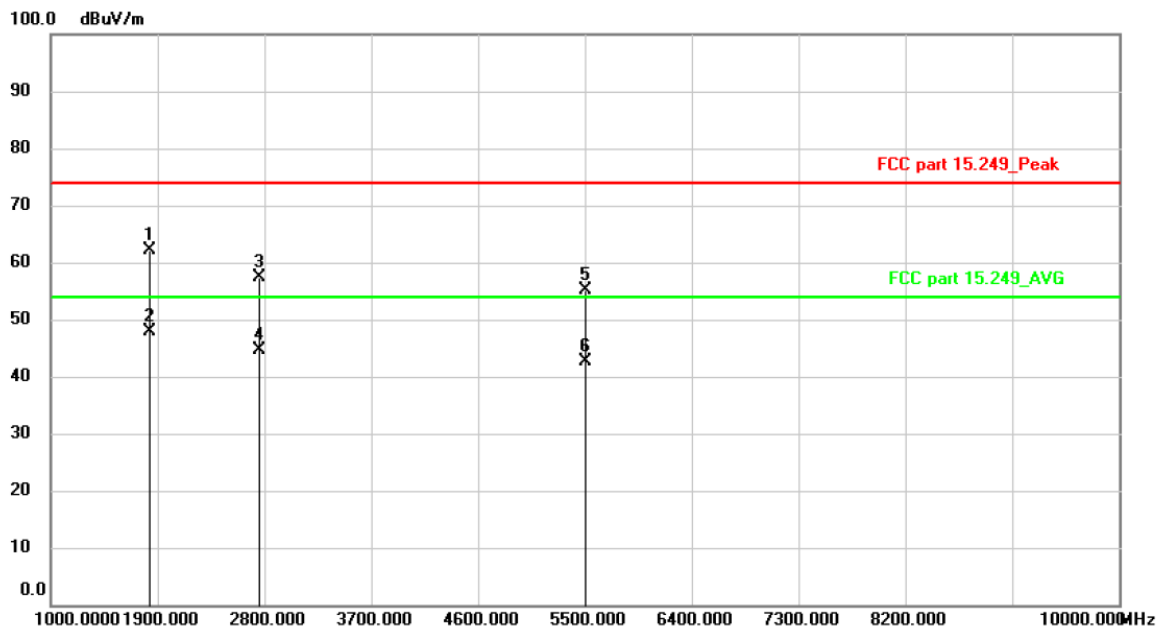
Note: Below 30MHz, the emissions are lower than 20dB below the allowable limit.

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 20:59:08



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		1830.000	65.33	-3.10	62.23	74.00	-11.77	peak	
2	*	1830.000	51.08	-3.10	47.98	54.00	-6.02	AVG	
3		2745.000	56.24	1.26	57.50	74.00	-16.50	peak	
4		2745.000	43.30	1.26	44.56	54.00	-9.44	AVG	
5		5490.000	48.27	6.80	55.07	74.00	-18.93	peak	
6		5490.000	35.89	6.80	42.69	54.00	-11.31	AVG	

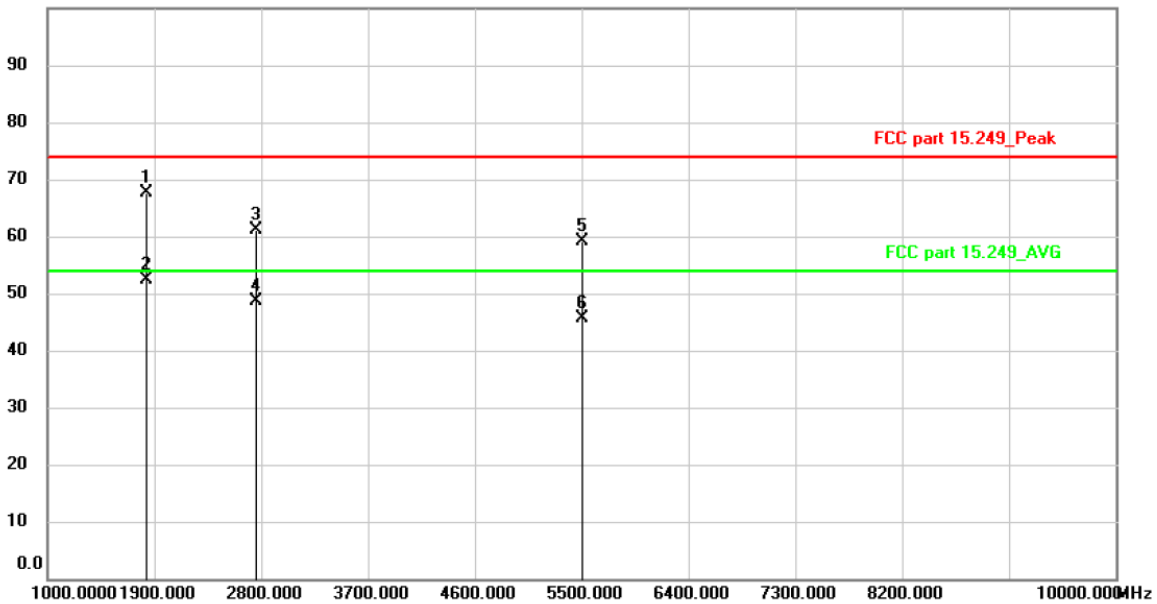
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 21:14:13

100.0 dBuV/m



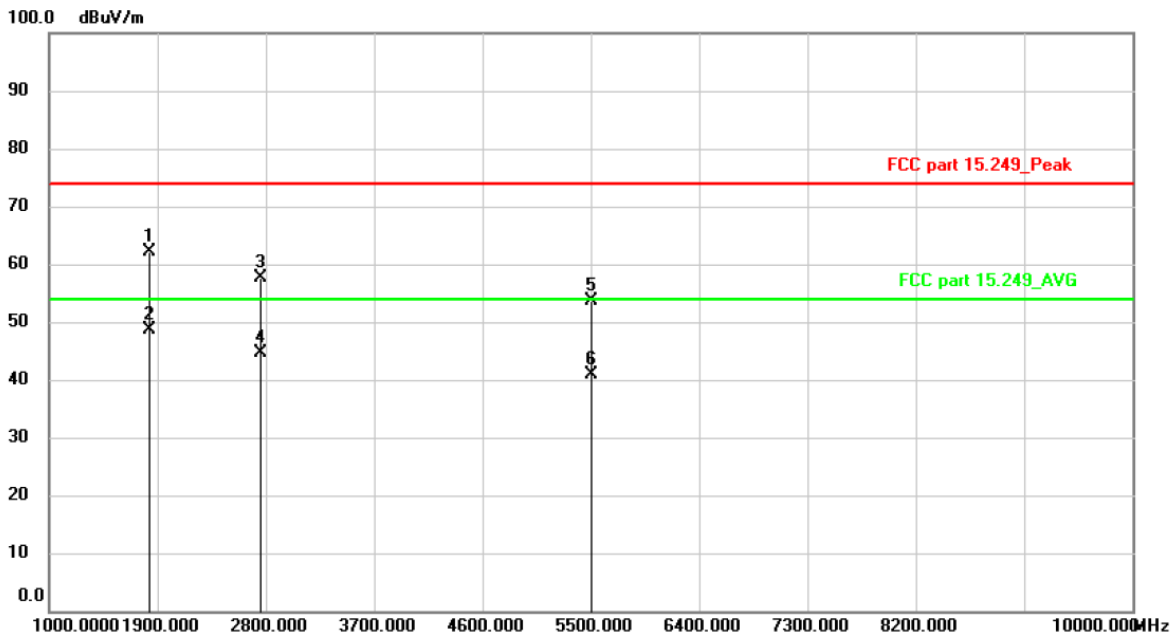
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1		1830.000	70.66	-3.10	67.56	74.00	-6.44	peak	
2	*	1830.000	55.45	-3.10	52.35	54.00	-1.65	AVG	
3		2745.000	59.78	1.26	61.04	74.00	-12.96	peak	
4		2745.000	47.38	1.26	48.64	54.00	-5.36	AVG	
5		5490.000	52.28	6.80	59.08	74.00	-14.92	peak	
6		5490.000	38.76	6.80	45.56	54.00	-8.44	AVG	

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 21:23:15



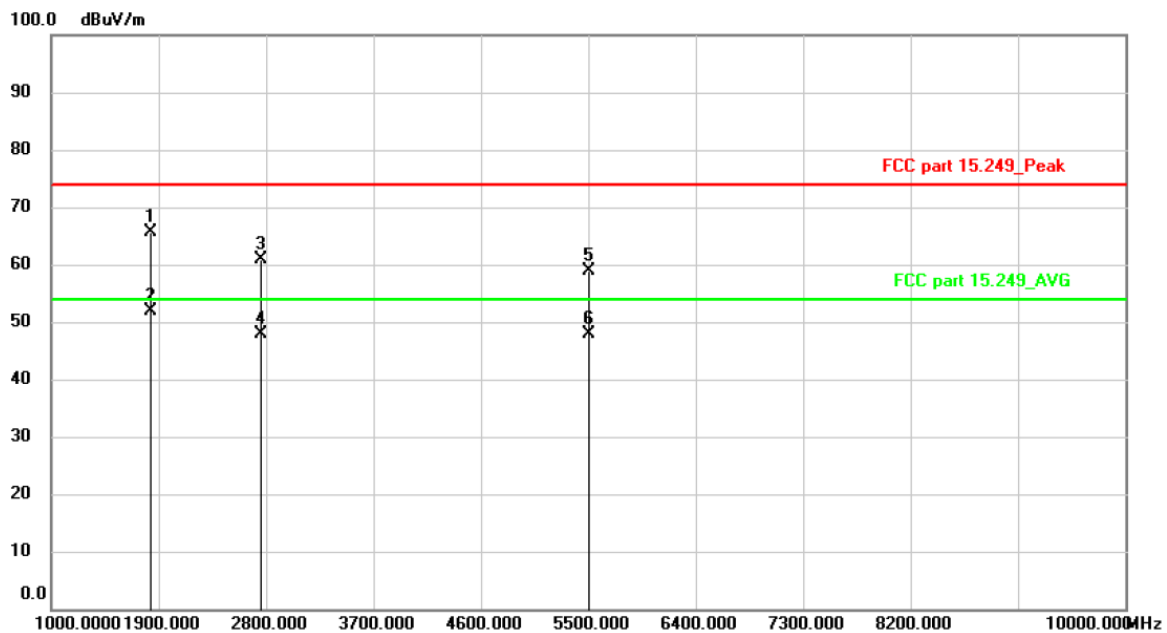
No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	1831.000	65.18	-3.09	62.09	74.00	-11.91	peak	
2 *	1831.000	51.62	-3.09	48.53	54.00	-5.47	AVG	
3	2746.500	56.29	1.27	57.56	74.00	-16.44	peak	
4	2746.500	43.42	1.27	44.69	54.00	-9.31	AVG	
5	5493.000	46.75	6.80	53.55	74.00	-20.45	peak	
6	5493.000	34.04	6.80	40.84	54.00	-13.16	AVG	

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 21:29:08



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1831.000	68.67	-3.09	65.58	74.00	-8.42	peak	
2	*	1831.000	55.05	-3.09	51.96	54.00	-2.04	AVG	
3		2746.500	59.51	1.27	60.78	74.00	-13.22	peak	
4		2746.500	46.63	1.27	47.90	54.00	-6.10	AVG	
5		5493.000	52.19	6.80	58.99	74.00	-15.01	peak	
6		5493.000	41.03	6.80	47.83	54.00	-6.17	AVG	

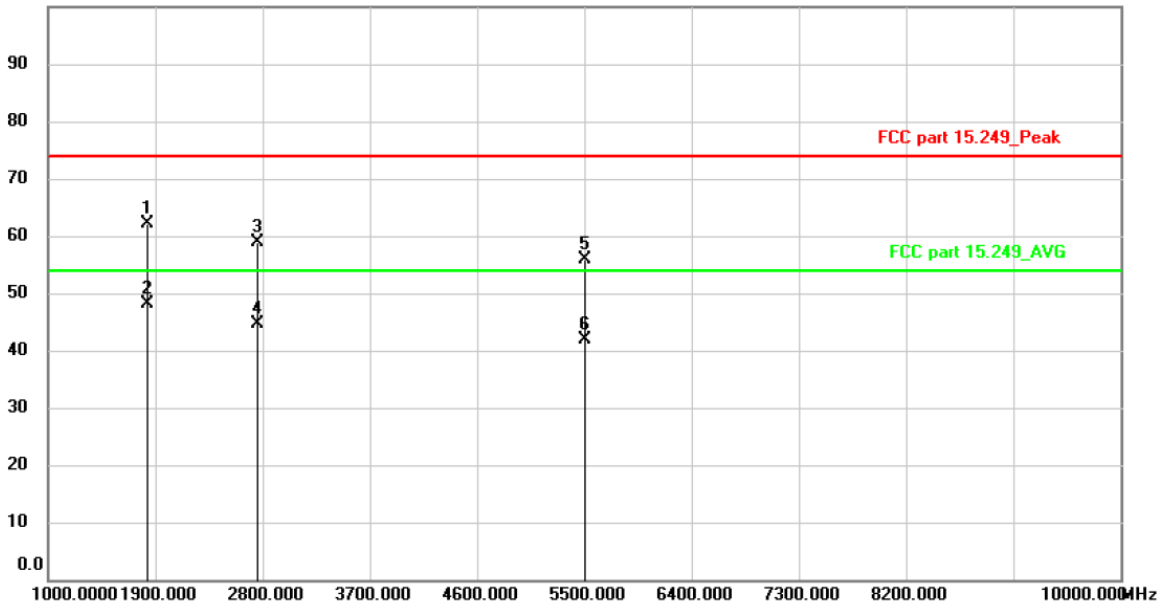
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 21:43:57

100.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1832.000	65.13	-3.08	62.05	74.00	-11.95	peak	
2	*	1832.000	51.18	-3.08	48.10	54.00	-5.90	AVG	
3		2748.000	57.62	1.27	58.89	74.00	-15.11	peak	
4		2748.000	43.26	1.27	44.53	54.00	-9.47	AVG	
5		5496.000	48.98	6.80	55.78	74.00	-18.22	peak	
6		5496.000	35.03	6.80	41.83	54.00	-12.17	AVG	

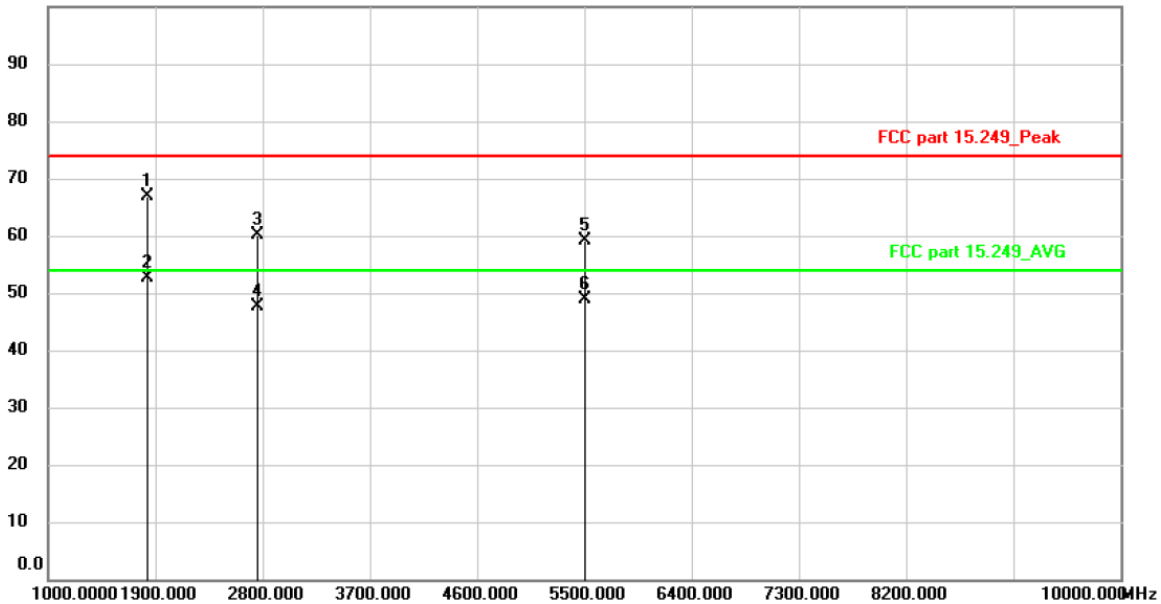
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-1	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/2

Time: 21:49:24

100.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1832.000	70.03	-3.08	66.95	74.00	-7.05	peak	
2	*	1832.000	55.82	-3.08	52.74	54.00	-1.26	AVG	
3		2748.000	58.97	1.27	60.24	74.00	-13.76	peak	
4		2748.000	46.29	1.27	47.56	54.00	-6.44	AVG	
5		5496.000	52.23	6.80	59.03	74.00	-14.97	peak	
6		5496.000	42.09	6.80	48.89	54.00	-5.11	AVG	

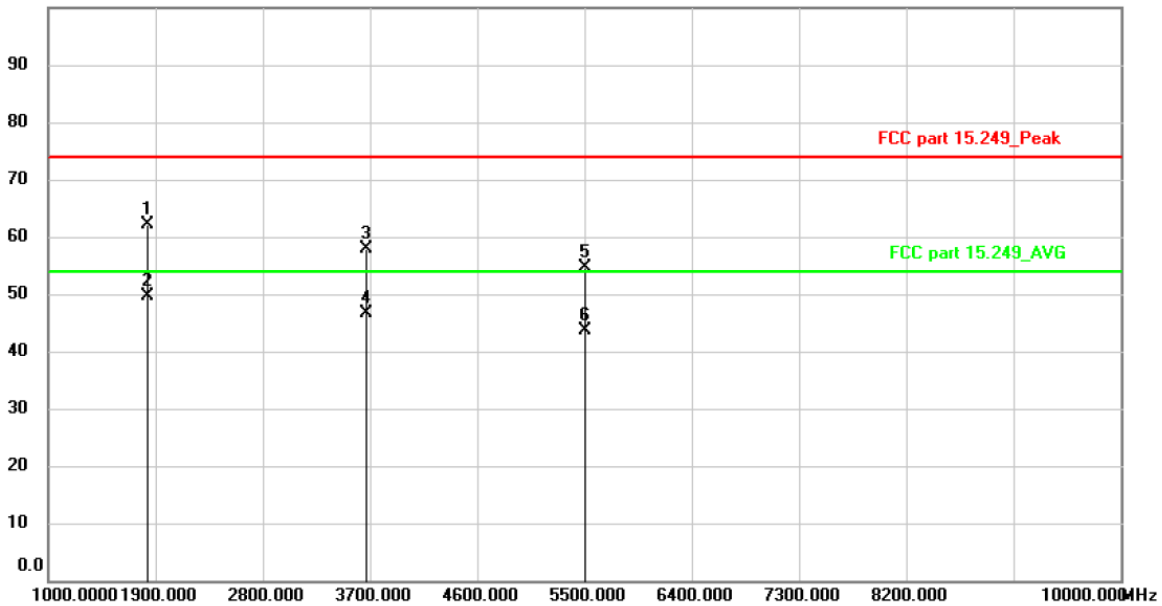
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 12:42:33

100.0 dBuV/m



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		1830.000	65.30	-3.10	62.20	74.00	-11.80	peak	
2	*	1830.000	52.85	-3.10	49.75	54.00	-4.25	AVG	
3		3660.000	54.77	3.06	57.83	74.00	-16.17	peak	
4		3660.000	43.60	3.06	46.66	54.00	-7.34	AVG	
5		5490.000	47.90	6.80	54.70	74.00	-19.30	peak	
6		5490.000	36.72	6.80	43.52	54.00	-10.48	AVG	

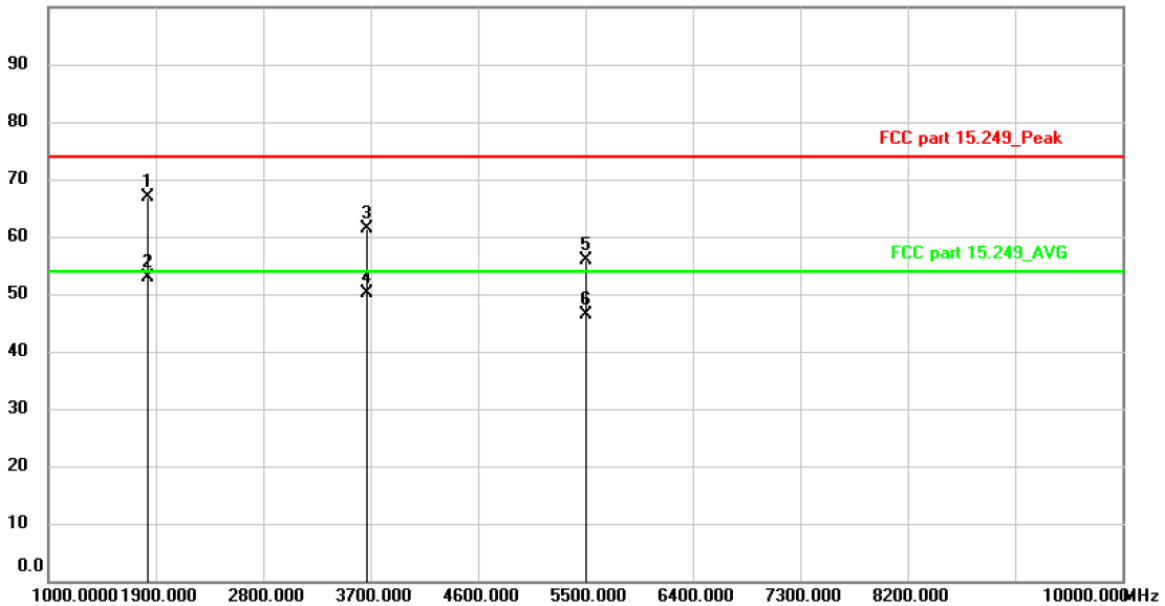
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (915.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 12:49:07

100.0 dBuV/m



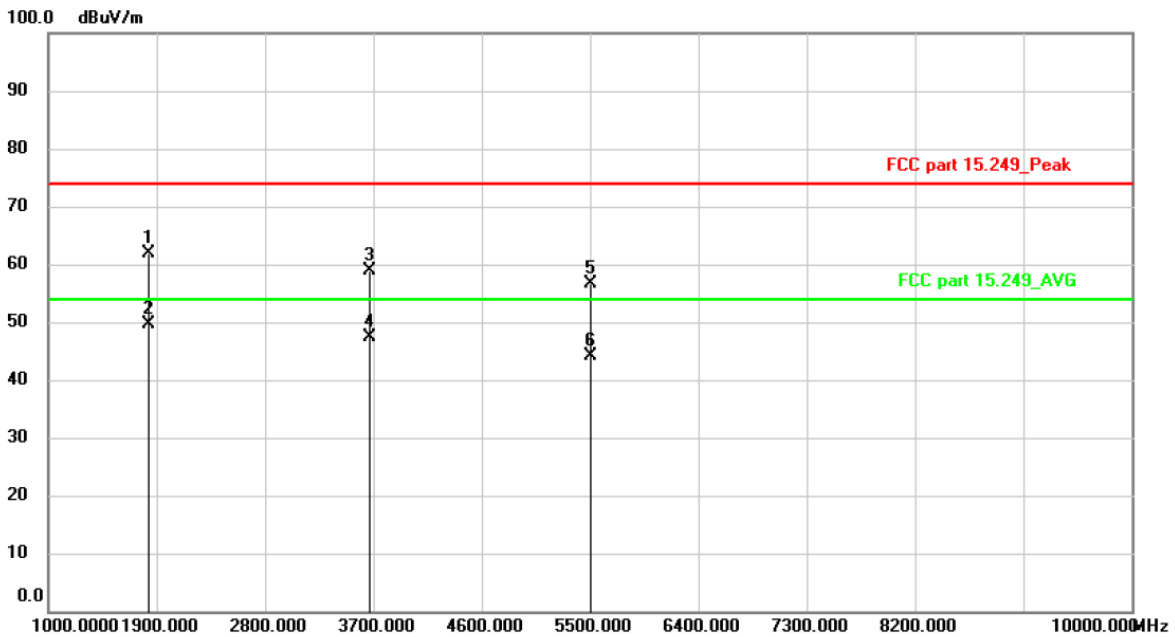
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1830.000	69.94	-3.10	66.84	74.00	-7.16	peak	
2	*	1830.000	56.05	-3.10	52.95	54.00	-1.05	AVG	
3		3660.000	58.21	3.06	61.27	74.00	-12.73	peak	
4		3660.000	47.01	3.06	50.07	54.00	-3.93	AVG	
5		5490.000	48.99	6.80	55.79	74.00	-18.21	peak	
6		5490.000	39.49	6.80	46.29	54.00	-7.71	AVG	

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 12:56:33



No. Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	1831.000	65.07	-3.09	61.98	74.00	-12.02	peak	
2 *	1831.000	52.79	-3.09	49.70	54.00	-4.30	AVG	
3	3662.000	55.85	3.06	58.91	74.00	-15.09	peak	
4	3662.000	44.37	3.06	47.43	54.00	-6.57	AVG	
5	5493.000	49.74	6.80	56.54	74.00	-17.46	peak	
6	5493.000	37.26	6.80	44.06	54.00	-9.94	AVG	

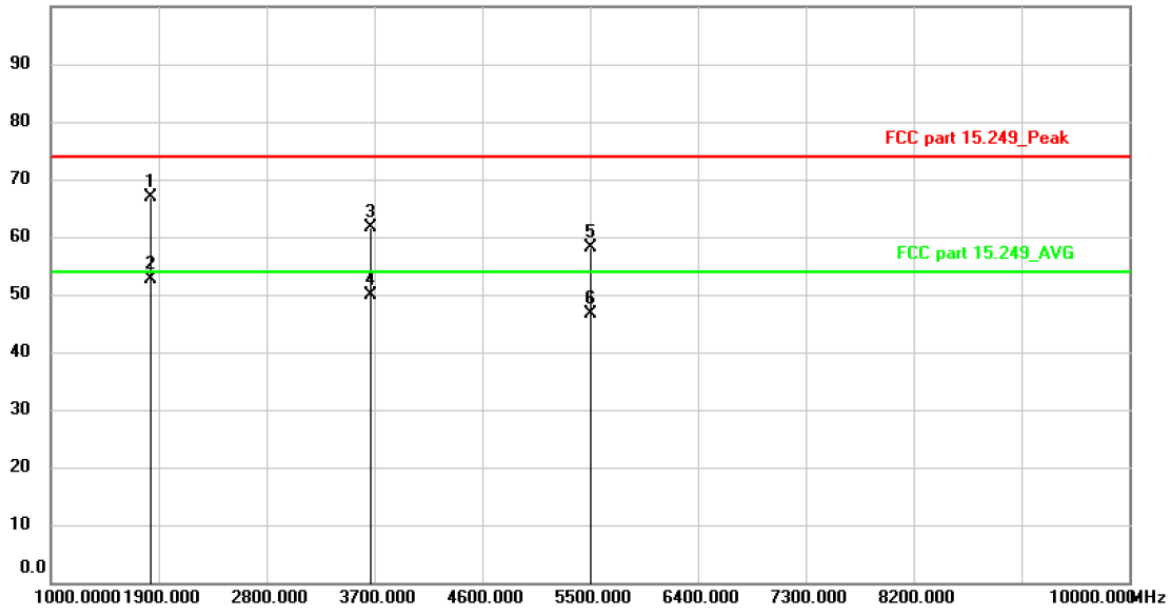
M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (915.5 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 13:03:07

100.0 dBuV/m



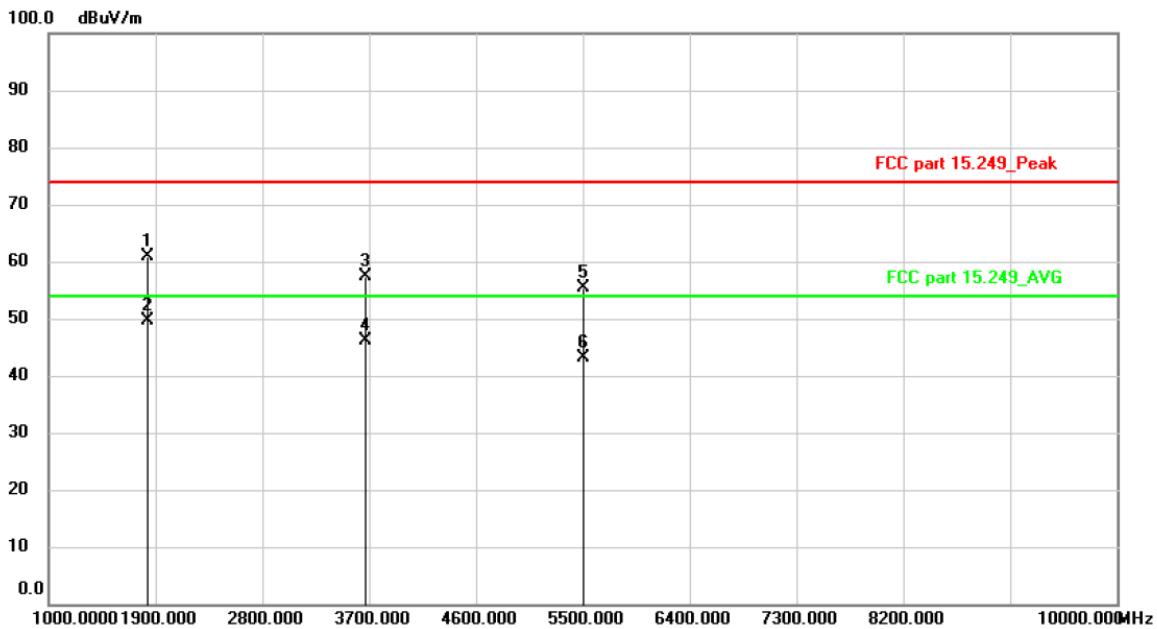
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1831.000	69.95	-3.09	66.86	74.00	-7.14	peak	
2	*	1831.000	55.73	-3.09	52.64	54.00	-1.36	AVG	
3		3662.000	58.47	3.06	61.53	74.00	-12.47	peak	
4		3662.000	46.74	3.06	49.80	54.00	-4.20	AVG	
5		5493.000	51.45	6.80	58.25	74.00	-15.75	peak	
6		5493.000	39.76	6.80	46.56	54.00	-7.44	AVG	

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Horizontal	Detector: Peak+AVG
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 13:10:33



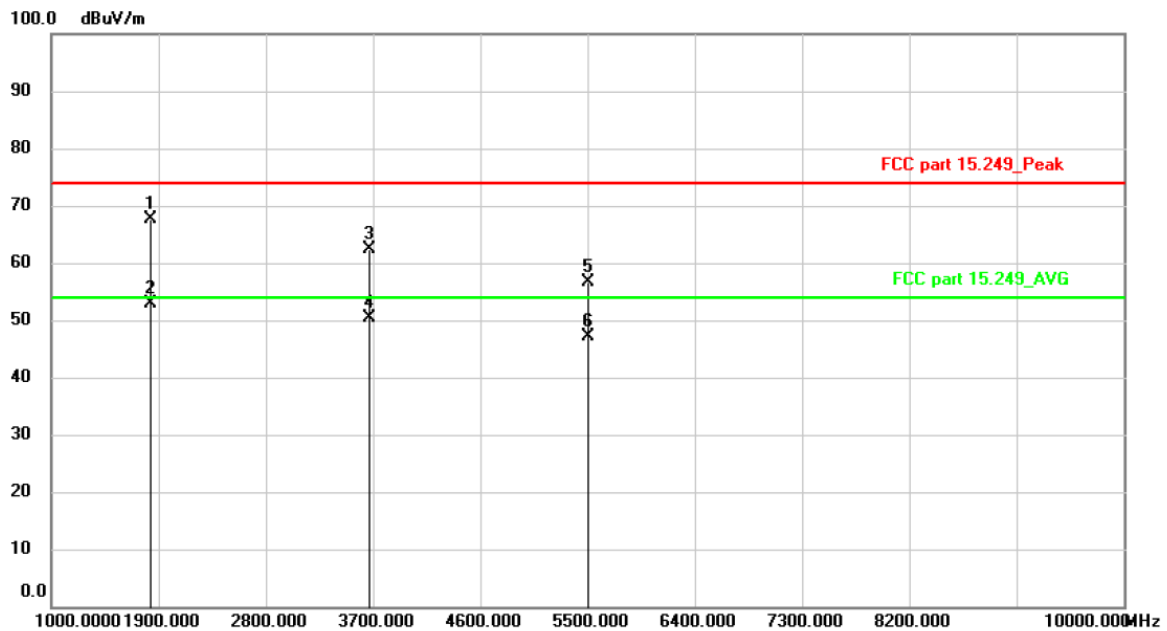
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1832.000	64.04	-3.08	60.96	74.00	-13.04	peak	
2	*	1832.000	52.81	-3.08	49.73	54.00	-4.27	AVG	
3		3664.000	54.25	3.07	57.32	74.00	-16.68	peak	
4		3664.000	43.04	3.07	46.11	54.00	-7.89	AVG	
5		5496.000	48.46	6.80	55.26	74.00	-18.74	peak	
6		5496.000	36.33	6.80	43.13	54.00	-10.87	AVG	

M/N: SI4463S9S-V1-C2A	Testing Voltage: AC 120V / 60Hz
Polarization: Vertical	Detector: Peak+AVG
Test Mode: 1 (916.0 MHz)	Distance: 3m
Antenna: RF915-2	Antenna Direction: Vertical

Radiated Emission Measurement

Date: 2021/2/3

Time: 13:17:07



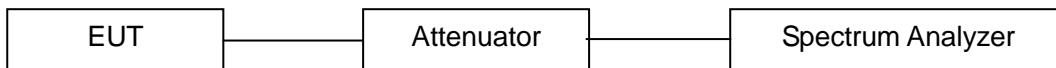
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1832.000	70.83	-3.08	67.75	74.00	-6.25	peak	
2	*	1832.000	56.07	-3.08	52.99	54.00	-1.01	AVG	
3		3664.000	59.41	3.07	62.48	74.00	-11.52	peak	
4		3664.000	47.25	3.07	50.32	54.00	-3.68	AVG	
5		5496.000	49.94	6.80	56.74	74.00	-17.26	peak	
6		5496.000	40.35	6.80	47.15	54.00	-6.85	AVG	

13.3 20dB Bandwidth Measurement

LIMIT

There is no limit.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

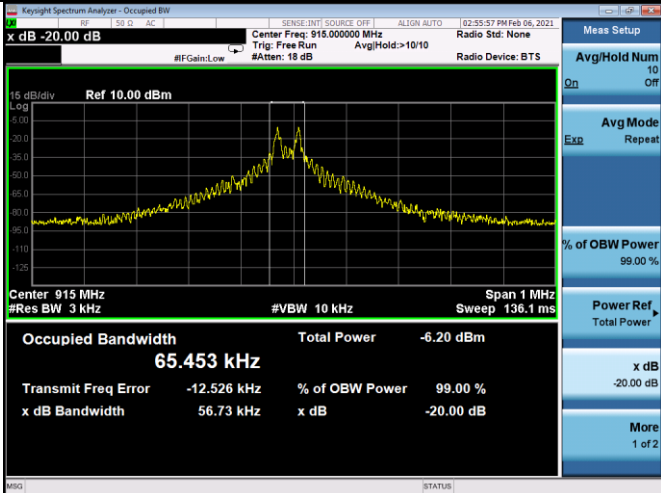
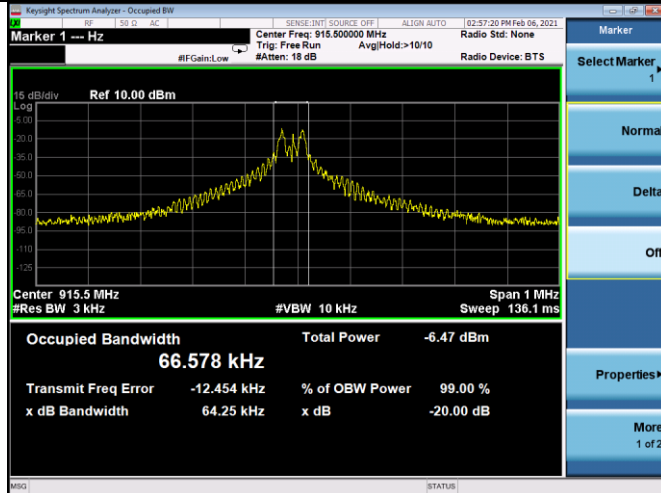
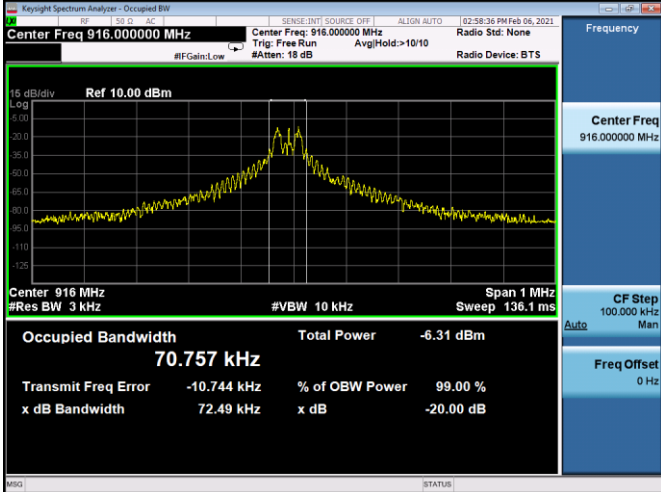
The 20dB bandwidth of the emission was contained within the frequency band designated which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over excepted variations in temperature and supply voltage were considered, FCC Rule 15.215(c):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was chosen so that the display was a result of the tested channel modulation. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. Use the spectrum 20dB down delta function to measure the bandwidth.

TEST RESULTS

PASS

Please refer to the following table.

2FSK				
Channel	Frequency (MHz)	Data Rate (Kbps)	20dB Bandwidth (KHz)	Result
0	915.00	10	56.73	PASS
2	915.50	10	64.25	PASS
4	916.00	10	72.49	PASS
915MHz		915.5MHz		
				
916MHz		----		
		<p>---</p>		

13.4 Antenna Requirement

STANDARD APPLICABLE

According to of FCC part 15C section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

ANTENNA CONNECTED CONSTRUCTION

The EUT is a limited single-modular transmitter with external FPC antenna that no antenna other than furnished by the responsible party shall be used with the device, and the best case gain of the antenna is 2.0dBi, therefore, the antenna is consider meet the requirement.

14. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 13, 2020	1 Year
2.	Antenna	Schwarzbeck	VULB9162	9162-010	Mar. 23, 2020	1 Year
3.	Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 13, 2020	1 Year
4.	Spectrum Analyzer	Keysight	N9020A	MY54200831	Mar. 13, 2020	1 Year
5.	Spectrum Analyzer	Rohde & Schwarz	FSV40	101094	Mar. 13, 2020	1 Year
6.	Horn Antenna	Schwarzbeck	BBHA9170	9170-172	Mar. 22, 2019	2 Year
7.	Power Sensor	DARE	RPR3006W	15I00041SNO 64	Mar. 13, 2020	1 Year
8.	Communication Tester	Rohde & Schwarz	CMW500	149004	Mar. 13, 2020	1 Year
9.	Horn Antenna	COM-Power	AH-118	071078	Mar. 23, 2020	1 Year
10.	Pre-Amplifier	HP	HP 8449B	3008A00964	Mar. 13, 2020	1 Year
11.	Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 13, 2020	1 Year
12.	Loop Antenna	Schwarzbeck	FMZB 1513	1513-272	Mar. 23, 2020	1 Year
13.	Test Receiver	Rohde & Schwarz	ESCI	101152	Mar. 14, 2020	1 Year
14.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Mar. 13, 2020	1 Year
15.	L.I.S.N	Rohde & Schwarz	ESH2-Z5	893606/014	Mar. 13, 2020	1 Year
16.	RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Mar.13, 2020	1 Year
17.	Temperature & Humidity Chamber	REMAFEE	SYHR225L	N/A	Mar. 13, 2020	1 Year
18.	DC Source	Maynuo	MY8811	N/A	Mar. 13, 2020	1 Year
19.	Temporary antenna connector	TESCOM	SS402	N/A	N/A	N/A
20.	Chamber	SAEMC	9*7*7m	N/A	Jun. 20, 2019	2 Year
21.	Test Software	EZ	EZ_EM C	N/A	N/A	N/A

Note: For photographs of EUT and measurement, please refer to appendix in separate documents.

---End---