FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

DEI Sales Inc., dba Polk Audio

SR1 Wireless Surrounds

Model Number: SR1 WIRELESS SURROUNDS

FCC ID : WLQSR1

Prepared for:	DEI Sales Inc., dba Polk Audio
	1 Viper Way Vista, California 92081, USA
Prepared By:	EST Technology Co., Ltd.
	San Tun Management Zone, Houjie District, Dongguan, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R1705059
Date of Test:	April 13 ~ May 06, 2017
Date of Report:	May 13, 2017

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Description Page

Test Report Verification

Applicant: **Address:**	DEI Sales Inc., dba Polk Audio 1 Viper Way Vista, California 92081, USA
Manufacturer **Address:**	DEI Sales Inc., dba Polk Audio 1 Viper Way Vista, California 92081, USA
E.U.T:	SR1 Wireless Surrounds
Model Number:	SR1 WIRELESS SURROUNDS
Power Supply:	DC 15V From Adapter Input AC 100-240V~50/60Hz
Test Voltage:	DC 15V From Adapter Input AC 120V/60Hz DC 15V From Adapter Input AC 240V/60Hz
Trade Name:	Polk Serial No.: ------
Date of Receipt:	April 01, 2017 Date of Test: April 13 ~ May 06, 2017
Test Specification:	FCC Rules and Regulations Part 15 Subpart C:2016 ANSI C63.10:2013
Test Result:	The device described above is tested by EST Technology Co., Ltd.. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. Date: May 13, 2017

Prepared by:	Reviewed by:	Approved by:
Amy / Assistant	Tony / Engineer	Iceman Hu / Manager

Other Aspects:

None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	SR1 Wireless Surrounds
FCC ID	:	WLQSR1
Model Number	:	SR1 WIRELESS SURROUNDS
Operation frequency	:	5743-5840 MHz
Number of channel	:	35
Antenna	:	PCB antenna Antenna A: 2.85 dBi gain Antenna B: 2.85 dBi gain Single input single output
Modulation	:	GFSK
Sample Type	:	Prototype production

2. SUMMARY OF TEST

2.1. Summary of test result

Description of Test Item	Standard	Results
Power Line Conducted Emissions	FCC Part 15C: 15.207 ANSI C63.10-2013	PASS
Radiated Emission Test	FCC Part 15C: 15.209 FCC Part 15C: 15.249 ANSI C63.10-2013	PASS
20 dB Bandwidth Test	FCC Part 15: 15.249 ANSI C63.10-2013	PASS
Band Edge Compliance Test	FCC Part 15: 15.215 ANSI C63.10-2013	PASS
Antenna requirement	FCC Part 15: 15.203	PASS
N/A is an abbreviation for Not Applicable.		

2.2. Test Facilities

EMC Lab : Certificated by CNAS, CHINA
Registration No.: L5288
Date of registration: December 07, 2015

Certificated by FCC, USA
Registration No.: 989591
Date of registration: November 15, 2016

Certificated by Industry Canada
Registration No.: 9405A-1
Date of registration: December 30, 2015

Certificated by VCCI, Japan
Registration No.: R-3663 & C-4103
Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany
Registration No.: UA 50195514 0001
Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen
Registration No.: SCN1017
Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO
Registration No.: 2011-RTL-L1-18
Date of registration: April 28, 2011

Certificated by Siemic, Inc.
Registration No.: SLCN021
Date of registration: November 8, 2011

Certificated by Nemko, Hong Kong
Registration No.: 175193
Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie District, Dongguan, Guangdong, China

2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for radio frequency	7×10-8
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB

Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2.4. Assistant equipment used for test

2.4.1. Adapter

M/N : MU021A150120
Input : AC 100-240V~50/60Hz 0.5A MAX
Output : DC 15V/1.2A

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 or 1.5 meter high above ground. EUT was be set into TX test mode by software before test.

(EUT: SR1 Wireless Surrounds)

2.6. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Mode	Channel	Frequency
TX	Low	5743MHz
	Middle	5792MHz
	High	5840MHz

2.7. Channel List for GFSK

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1	5743	2	5747
3	5751	4	5752
5	5755	6	5758
7	5759	8	5763
9	5767	10	5771
11	5772	12	5775
13	5778	14	5779
15	5783	16	5787
17	5791	18	5792
19	5795	20	5798
21	5799	22	5803
23	5807	24	5811
25	5812	26	5815
27	5818	28	5819
29	5823	30	5827
31	5831	32	5832
33	5835	34	5837
35	5840	--	----

2.8. Test Equipment

2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	June 25,16	1 Year
Artificial Mains Networ	Rohde & Schwarz	ENV216	101260	June 25,16	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	June 25,16	1 Year

2.8.2. For radiated emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	100004	June 25,16	1 Year
Spectrum Analyzer	Agilent	E4411B	MY50140697	June 25,16	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	June 28,16	3 Year
Signal Amplifier	Agilent	310N	187037	June 25,16	1 Year

2.8.3. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D 1002	June 28,16	3 Year
Signal Amplifier	SCHWARZBECK	BBV9718	9718-212	June 25,16	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	June 25,16	1 Year
RF Cable	Hubersuhner	RG 214/U	513423	June 25,16	1 Year

3. CONDUCTED EMISSION TEST

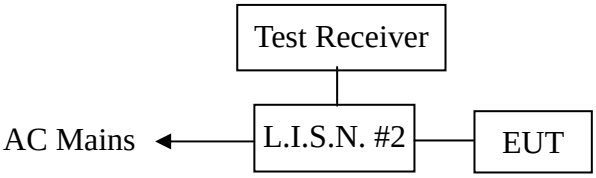
3.1. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.2. Block Diagram of Test Setup

Block diagram of connection between the EUT and simulators



3.3. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Please refer the block diagram of the test setup and photographs. Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10:2013 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

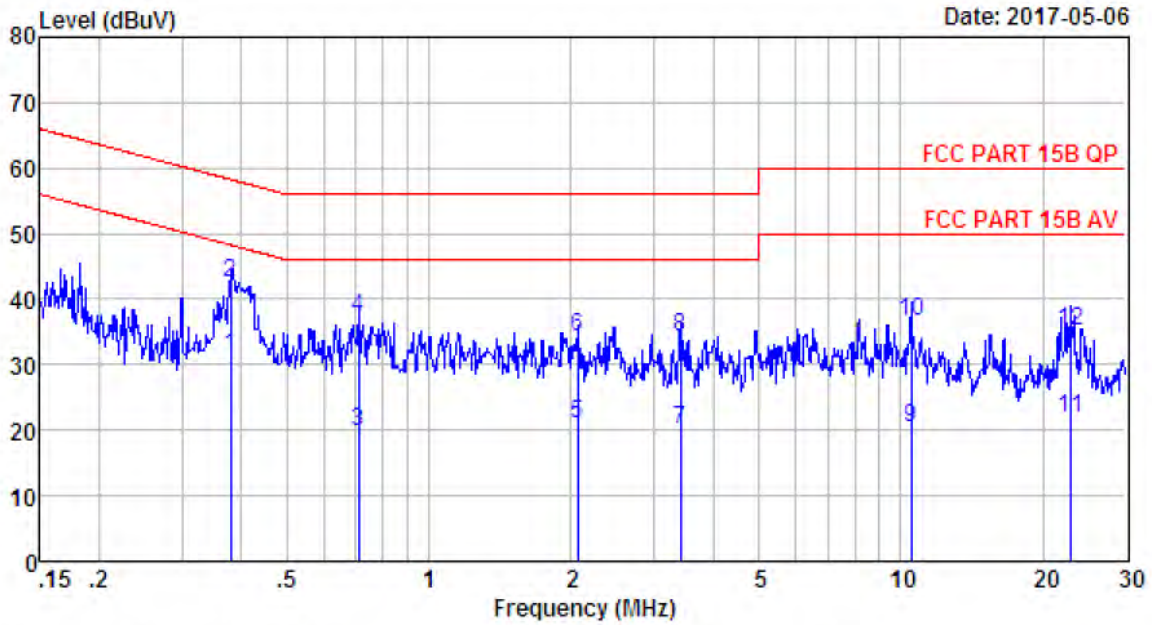
The frequency range from 150kHz to 30MHz is checked.

The test result are reported on Section 3.4.

3.4. Test Result

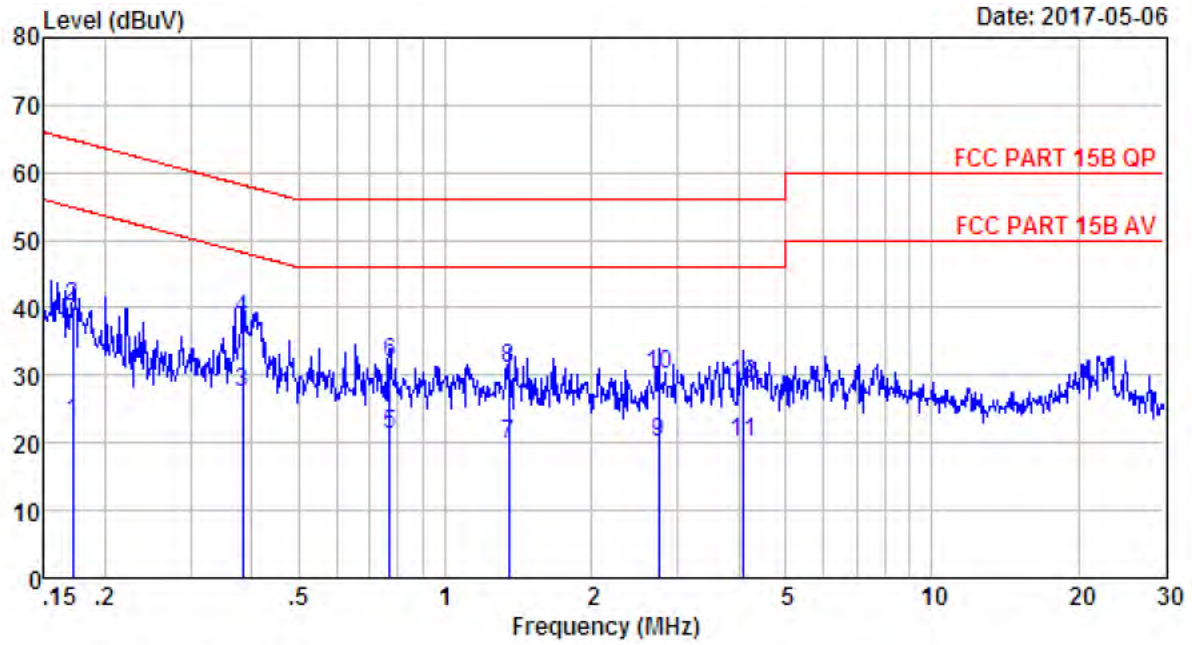
PASS. **(**All emissions not reported below are too low against the prescribed limits.)

3.5. Test Data



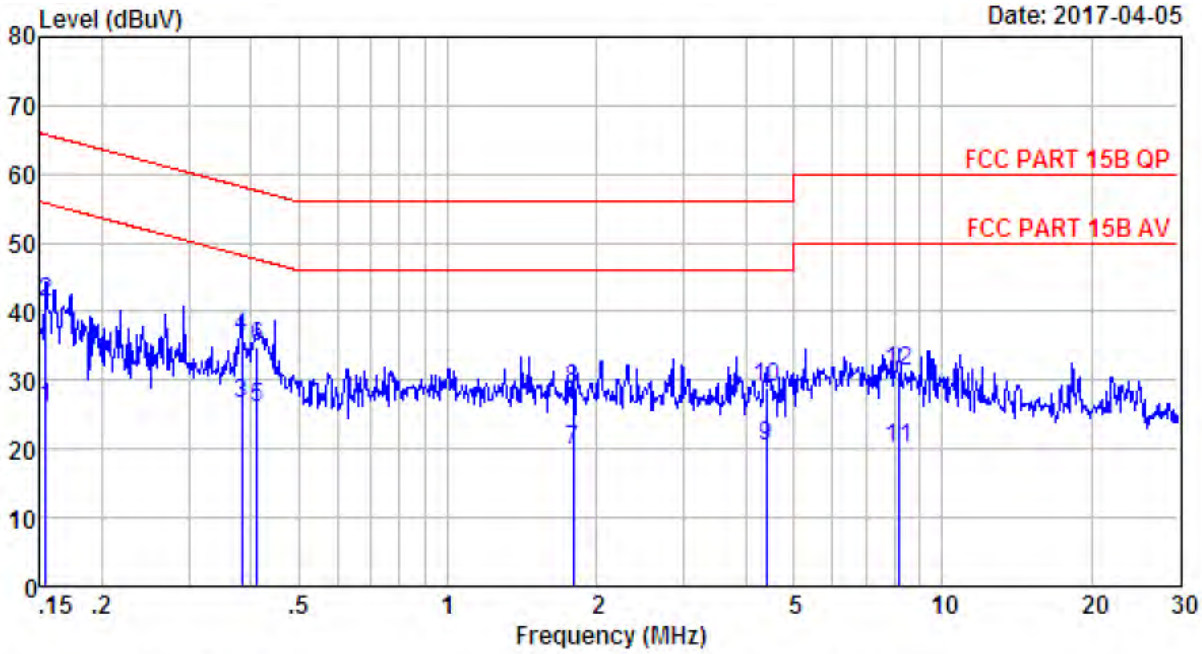
Site no : 844 Shield Room Data no. : 21
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit : FCC PART 15B QP
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.38	9.61	9.82	11.85	31.28	48.30	17.02	Average
2	0.38	9.61	9.82	23.17	42.60	58.30	15.70	QP
3	0.71	9.59	9.81	0.37	19.77	46.00	26.23	Average
4	0.71	9.59	9.81	17.69	37.09	56.00	18.91	QP
5	2.07	9.61	9.85	1.58	21.04	46.00	24.96	Average
6	2.07	9.61	9.85	14.70	34.16	56.00	21.84	QP
7	3.42	9.63	9.85	0.64	20.12	46.00	25.88	Average
8	3.42	9.63	9.85	14.90	34.38	56.00	21.62	QP
9	10.51	9.66	9.88	0.95	20.49	50.00	29.51	Average
10	10.51	9.66	9.88	17.08	36.62	60.00	23.38	QP
11	22.90	9.67	10.00	2.26	21.93	50.00	28.07	Average
12	22.90	9.67	10.00	15.44	35.11	60.00	24.89	QP



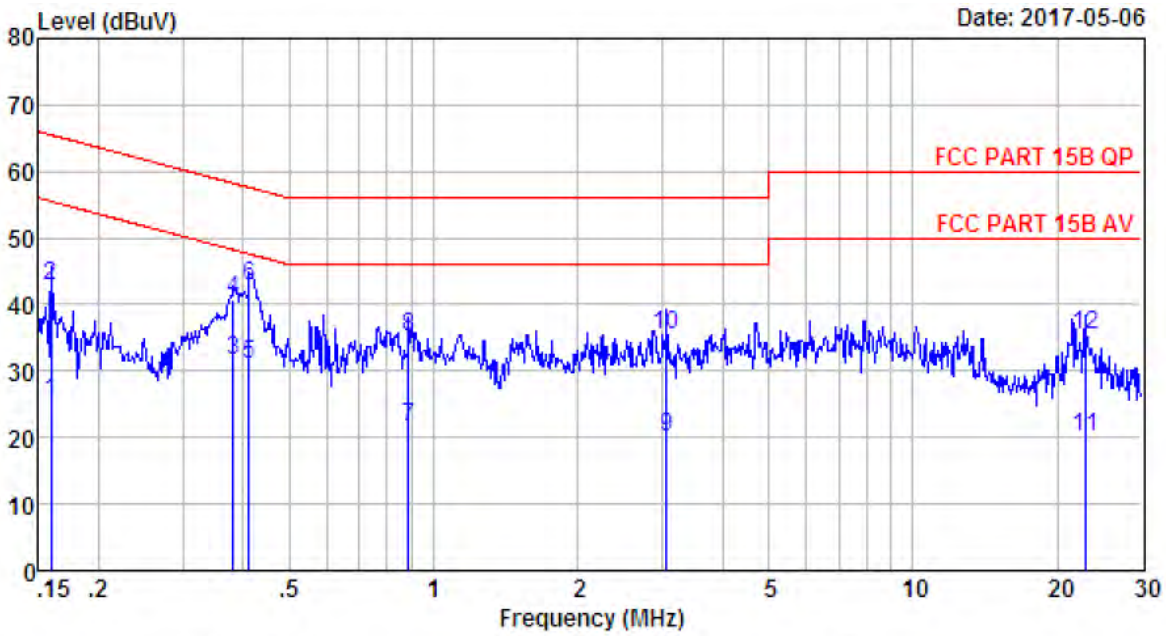
Site no : 844 Shield Room Data no. : 23
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL
Limit : FCC PART 15B QP
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.17	9.52	9.81	3.58	22.91	54.90	31.99	Average
2	0.17	9.52	9.81	20.84	40.17	64.90	24.73	QP
3	0.38	9.59	9.82	8.08	27.49	48.21	20.72	Average
4	0.38	9.59	9.82	18.99	38.40	58.21	19.81	QP
5	0.77	9.62	9.81	1.85	21.28	46.00	24.72	Average
6	0.77	9.62	9.81	12.38	31.81	56.00	24.19	QP
7	1.35	9.61	9.81	0.33	19.75	46.00	26.25	Average
8	1.35	9.61	9.81	11.44	30.86	56.00	25.14	QP
9	2.75	9.63	9.83	0.65	20.11	46.00	25.89	Average
10	2.75	9.63	9.83	10.58	30.04	56.00	25.96	QP
11	4.11	9.64	9.82	0.73	20.19	46.00	25.81	Average
12	4.11	9.64	9.82	9.29	28.75	56.00	27.25	QP



Site no : 844 Shield Room Data no. : 17
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL
Limit : FCC PART 15B QP
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 240V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.15	9.47	9.81	6.69	25.97	55.78	29.81	Average
2	0.15	9.47	9.81	21.95	41.23	65.78	24.55	QP
3	0.38	9.59	9.82	7.08	26.49	48.21	21.72	Average
4	0.38	9.59	9.82	16.87	36.28	58.21	21.93	QP
5	0.41	9.59	9.82	6.46	25.87	47.59	21.72	Average
6	0.41	9.59	9.82	15.53	34.94	57.59	22.65	QP
7	1.79	9.62	9.81	0.31	19.74	46.00	26.26	Average
8	1.79	9.62	9.81	9.32	28.75	56.00	27.25	QP
9	4.41	9.65	9.84	0.81	20.30	46.00	25.70	Average
10	4.41	9.65	9.84	9.37	28.86	56.00	27.14	QP
11	8.15	9.68	9.87	0.64	20.19	50.00	29.81	Average
12	8.15	9.68	9.87	11.85	31.40	60.00	28.60	QP



Site no : 844 Shield Room Data no. : 19
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE
Limit : FCC PART 15B QP
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 240V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : TX Mode

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.61	9.81	6.02	25.44	55.52	30.08	Average
2	0.16	9.61	9.81	23.33	42.75	65.52	22.77	QP
3	0.38	9.61	9.82	12.11	31.54	48.25	16.71	Average
4	0.38	9.61	9.82	21.37	40.80	58.25	17.45	QP
5	0.41	9.61	9.82	11.45	30.88	47.59	16.71	Average
6	0.41	9.61	9.82	23.31	42.74	57.59	14.85	QP
7	0.88	9.62	9.82	2.05	21.49	46.00	24.51	Average
8	0.88	9.62	9.82	15.67	35.11	56.00	20.89	QP
9	3.06	9.63	9.85	0.59	20.07	46.00	25.93	Average
10	3.06	9.63	9.85	15.91	35.39	56.00	20.61	QP
11	22.90	9.67	10.00	0.26	19.93	50.00	30.07	Average
12	22.90	9.67	10.00	15.84	35.51	60.00	24.49	QP

4. RADIATED EMISSIONS

4.1. Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

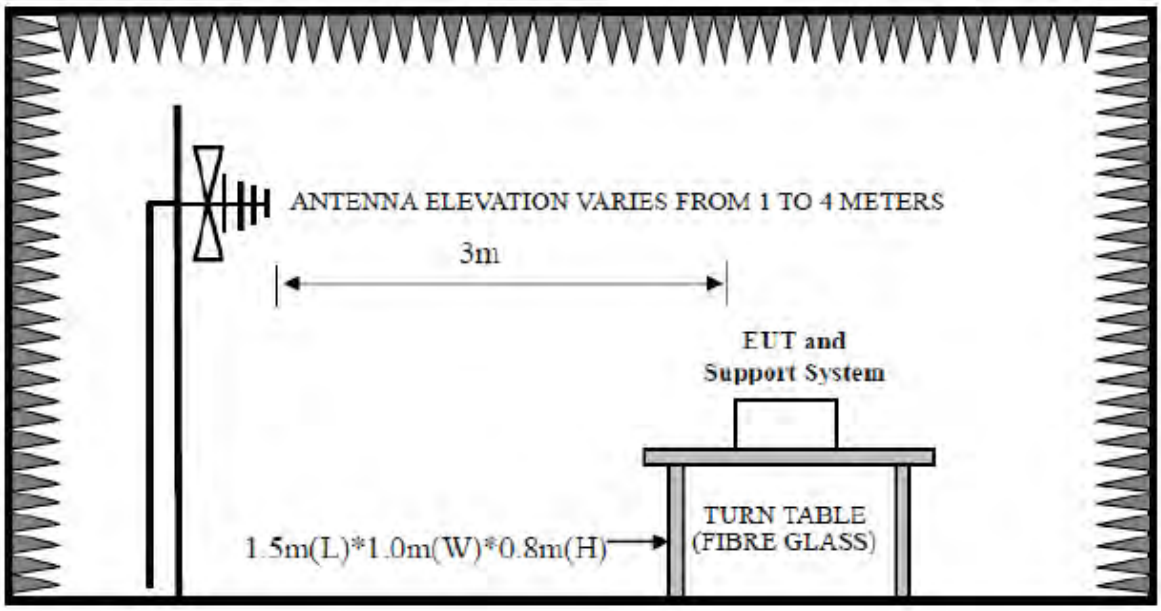
Remark：(1) Emission level dBμV = 20 log Emission level μV/m

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

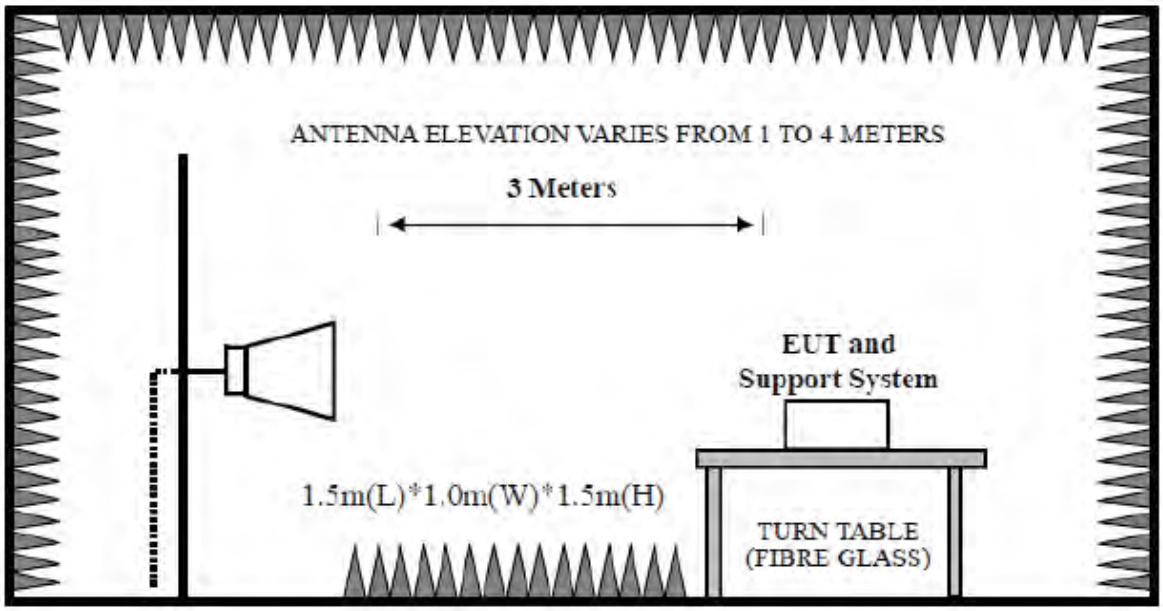
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system

4.2. Block Diagram of Test setup

30~1000MHz



Above 1GHz



4.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and wiich is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.

4.4. Test Result

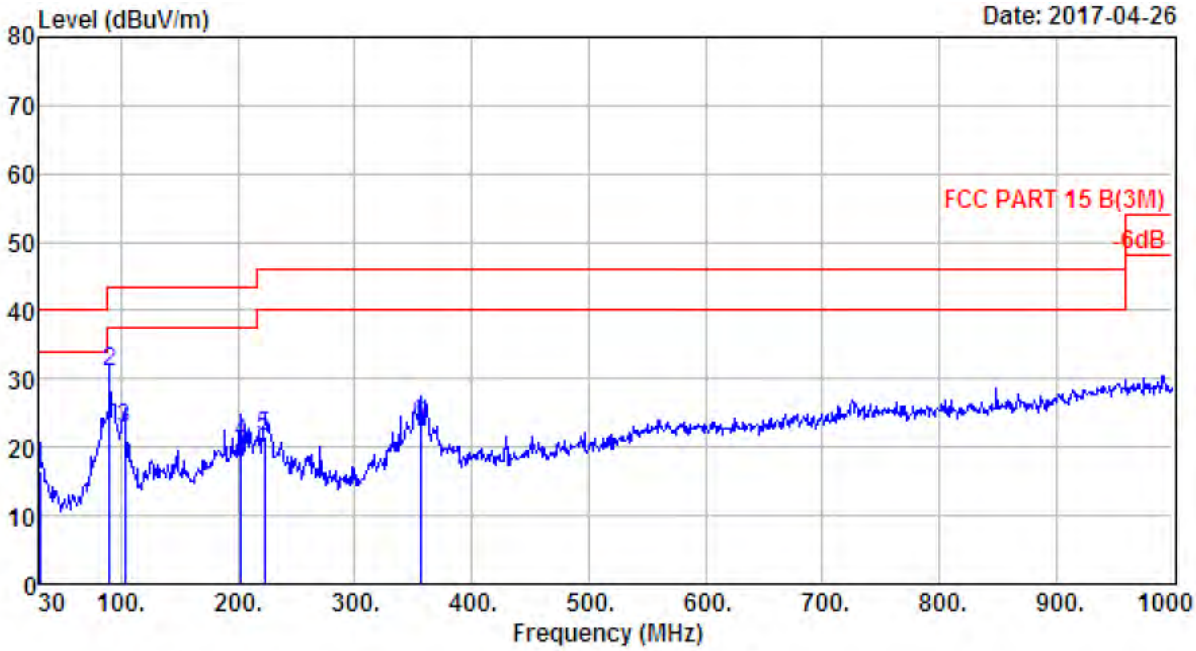
Pass

Note: 1、For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

2、The frequency 5743MHz 、5792MHz and 5840MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

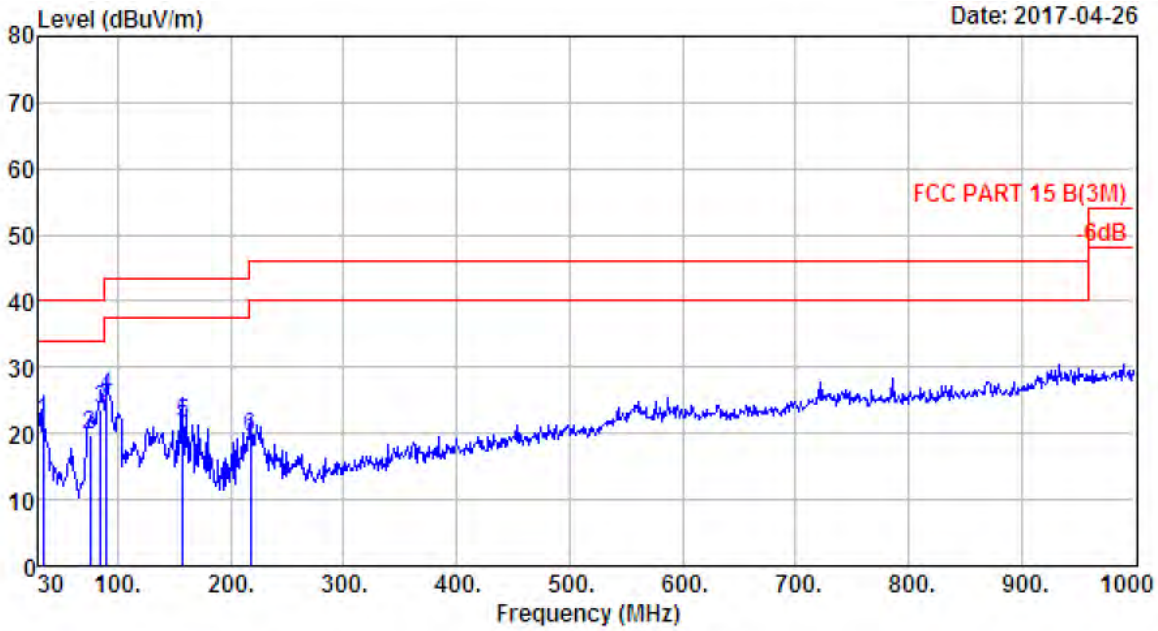
4.5. Test Data

30 MHz – 1000 MHz



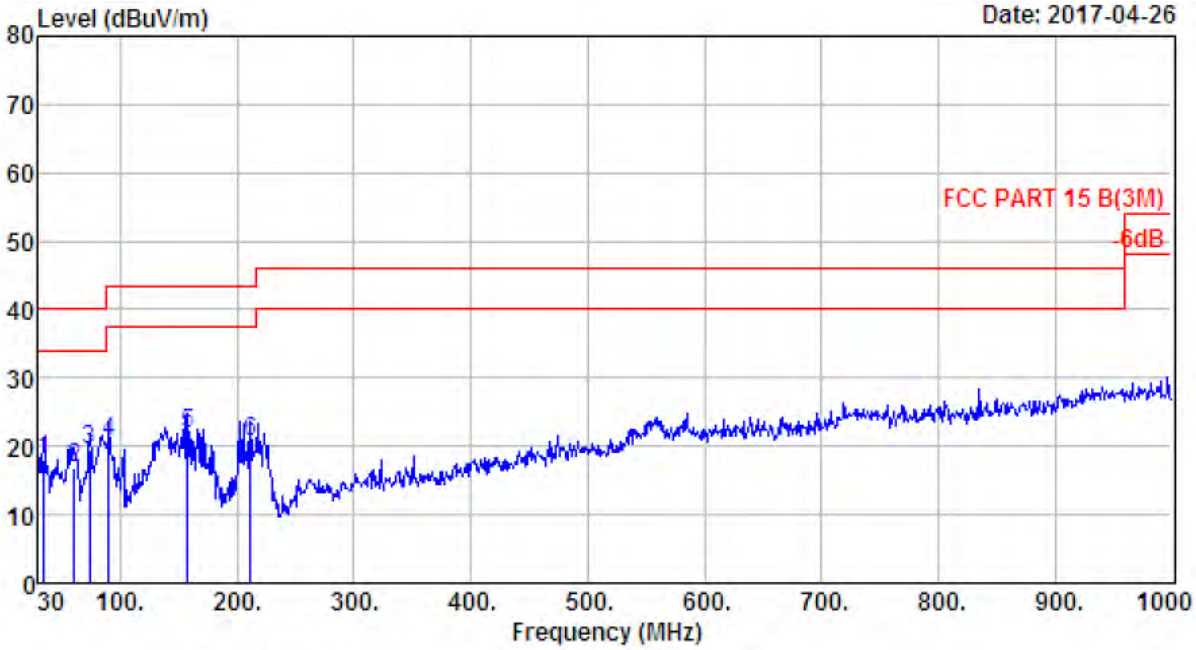

```
Site no.       : 1# 966 Chamber              Data no.  : 145
Dis. / Ant.    : 3m   27137                  Ant. pol. : HORIZONTAL
Limit          : FCC PART 15 B(3M)
Env. / Ins.    : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer       : Tony
EUT            : SR1 Wireless Surrounds
Power          : DC 15V From Adapter Input  AC 120V/60Hz
M/N            : SR1 WIRELESS SURROUNDS
Test Mode      : GFSK TX 5743MHz
                 Antenna A
```

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	-2.59	16.57	40.00	23.43	QP
2	90.14	8.38	1.33	21.23	30.94	43.50	12.56	QP
3	102.75	9.75	1.35	11.50	22.60	43.50	20.90	QP
4	202.66	7.83	1.84	11.10	20.77	43.50	22.73	QP
5	223.03	9.37	2.01	10.30	21.68	46.00	24.32	QP
6	355.92	14.46	2.56	6.34	23.36	46.00	22.64	QP



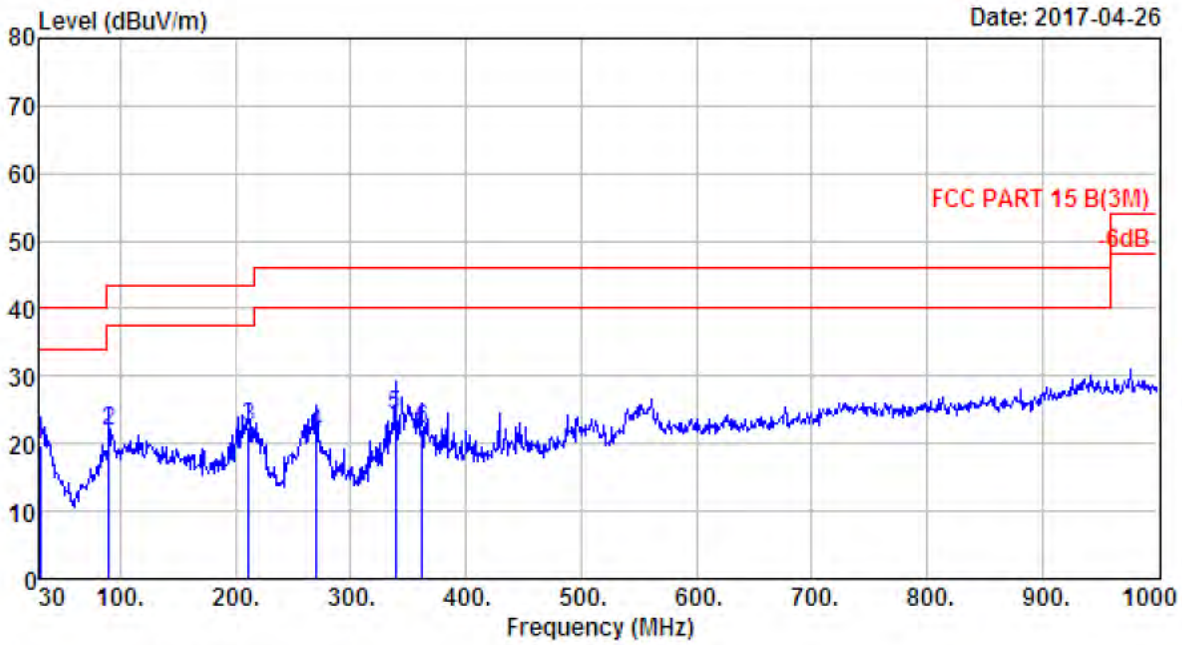
Site no. : 1# 966 Chamber Data no. : 146
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5743MHz
Antenna A

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.88	16.11	0.70	4.97	21.78	40.00	18.22	QP
2	75.59	6.51	1.19	12.08	19.78	40.00	20.22	QP
3	85.29	7.72	1.18	14.66	23.56	40.00	16.44	QP
4	90.14	8.38	1.33	16.01	25.72	43.50	17.78	QP
5	158.04	10.48	1.64	9.36	21.48	43.50	22.02	QP
6	217.21	8.90	1.93	8.63	19.46	46.00	26.54	QP



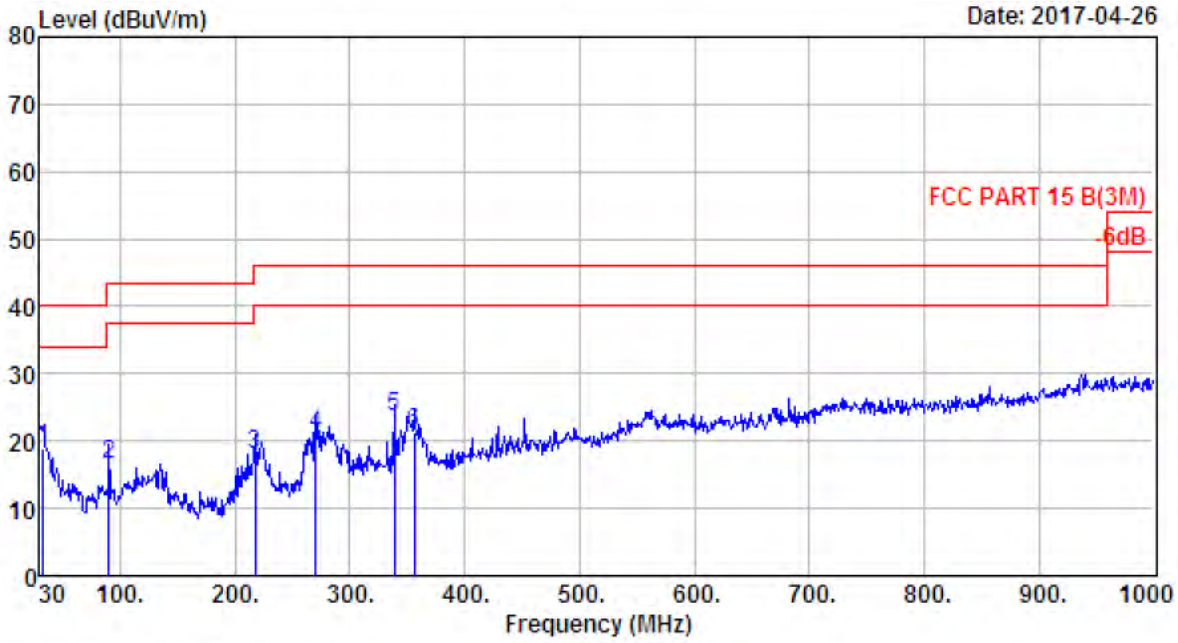

```
Site no.      : 1# 966 Chamber              Data no.  : 147
Dis. / Ant.   : 3m   27137                  Ant. pol. : VERTICAL
Limit         : FCC PART 15 B(3M)
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna A
```

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	1.61	17.88	40.00	22.12	QP
2	61.04	4.74	0.94	11.19	16.87	40.00	23.13	QP
3	73.65	6.22	1.15	12.05	19.42	40.00	20.58	QP
4	90.14	8.38	1.33	10.84	20.55	43.50	22.95	QP
5	158.04	10.48	1.64	9.81	21.93	43.50	21.57	QP
6	211.39	8.51	1.85	10.27	20.63	43.50	22.87	QP



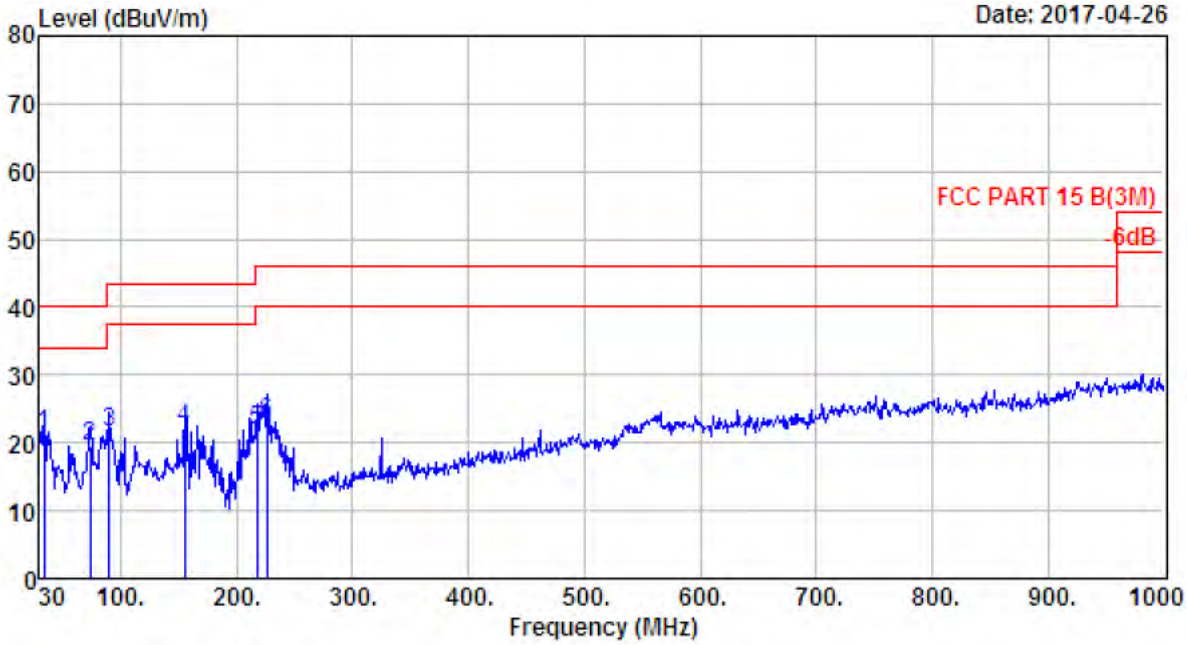
Site no. : 1# 966 Chamber Data no. : 148
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5792MHz
Antenna A

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	18.51	0.65	0.76	19.92	40.00	20.08	QP
2	90.14	8.38	1.33	12.24	21.95	43.50	21.55	QP
3	211.39	8.51	1.85	12.21	22.57	43.50	20.93	QP
4	270.56	12.53	2.27	6.81	21.61	46.00	24.39	QP
5	338.46	14.10	2.50	7.65	24.25	46.00	21.75	QP
6	361.74	14.53	2.63	4.84	22.00	46.00	24.00	QP



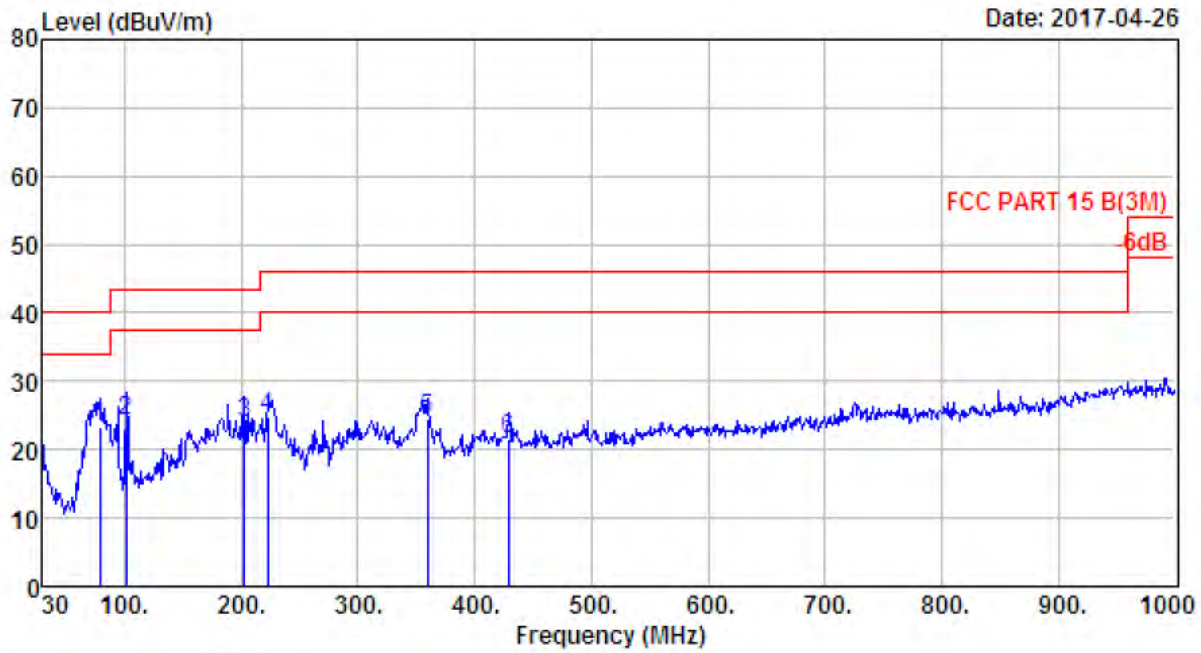
Site no. : 1# 966 Chamber Data no. : 149
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna A

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.91	16.62	0.69	1.71	19.02	40.00	20.98	QP
2	90.14	8.38	1.33	6.68	16.39	43.50	27.11	QP
3	217.21	8.90	1.93	7.06	17.89	46.00	28.11	QP
4	270.56	12.53	2.27	6.10	20.90	46.00	25.10	QP
5	338.46	14.10	2.50	6.92	23.52	46.00	22.48	QP
6	355.92	14.46	2.56	4.36	21.38	46.00	24.62	QP



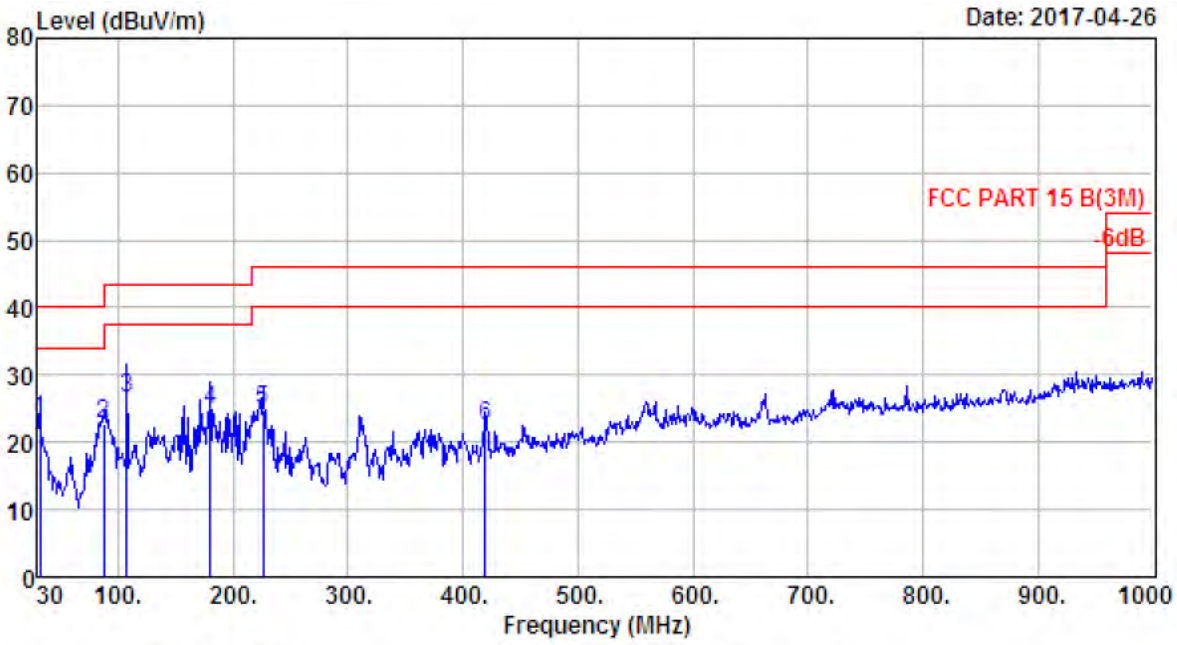
Site no. : 1# 966 Chamber Data no. : 150
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna A

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.88	16.11	0.70	4.34	21.15	40.00	18.85	QP
2	73.65	6.22	1.15	12.10	19.47	40.00	20.53	QP
3	90.14	8.38	1.33	11.72	21.43	43.50	22.07	QP
4	155.13	10.67	1.69	9.68	22.04	43.50	21.46	QP
5	217.21	8.90	1.93	10.99	21.82	46.00	24.18	QP
6	225.94	9.47	1.99	11.58	23.04	46.00	22.96	QP



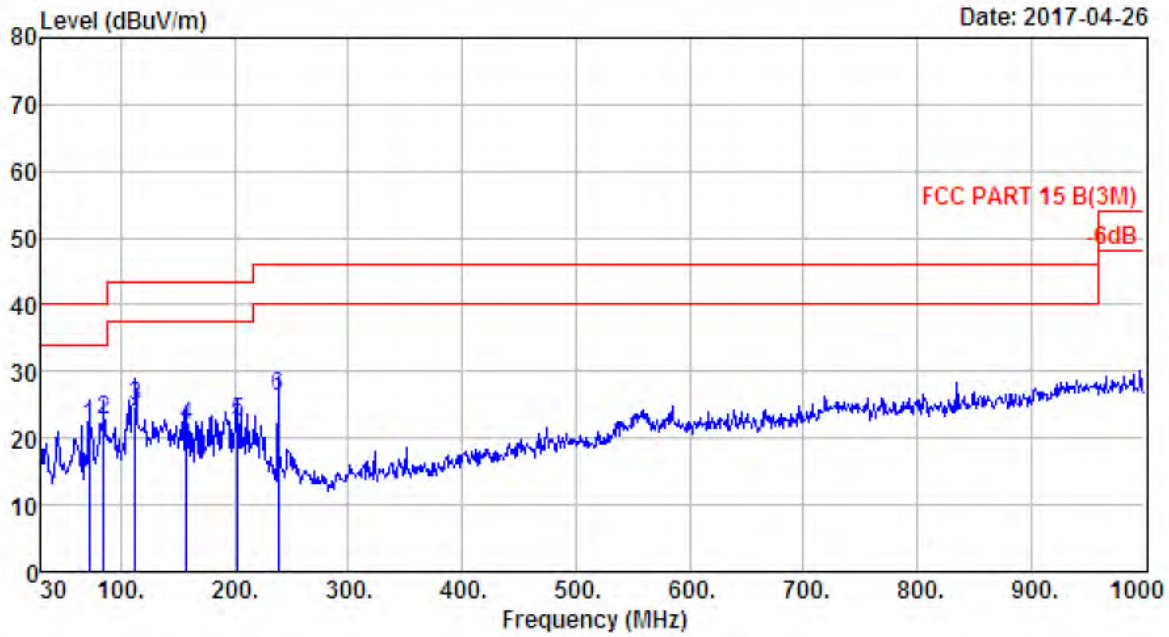
Site no. : 1# 966 Chamber Data no. : 163
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5743MHz
Antenna B

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	78.50	6.89	1.22	15.20	23.31	40.00	16.69	QP
2	101.78	9.65	1.31	13.37	24.33	43.50	19.17	QP
3	202.66	7.83	1.84	14.10	23.77	43.50	19.73	QP
4	223.03	9.37	2.01	13.30	24.68	46.00	21.32	QP
5	359.80	14.45	2.59	7.33	24.37	46.00	21.63	QP
6	428.67	16.08	2.85	2.51	21.44	46.00	24.56	QP



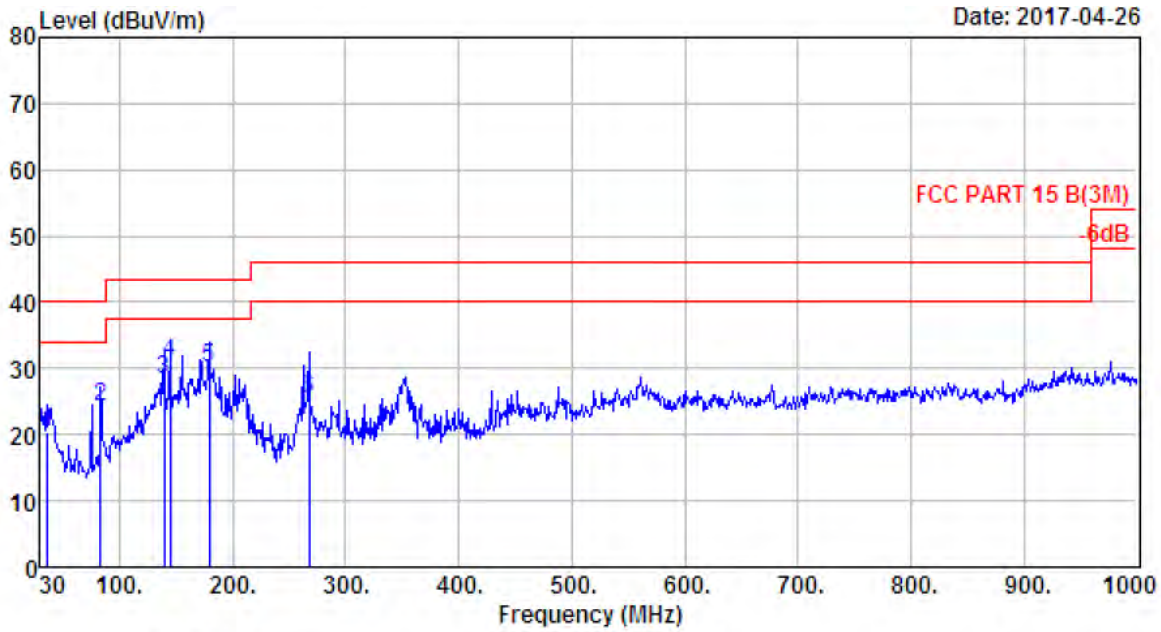
Site no. : 1# 966 Chamber Data no. : 164
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5743MHz
Antenna B

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.94	17.14	0.69	5.44	23.27	40.00	16.73	QP
2	87.23	7.97	1.30	13.59	22.86	40.00	17.14	QP
3	107.60	10.24	1.39	14.96	26.59	43.50	16.91	QP
4	180.35	8.95	1.70	14.14	24.79	43.50	18.71	QP
5	225.94	9.47	1.99	13.46	24.92	46.00	21.08	QP
6	418.97	16.30	2.72	3.34	22.36	46.00	23.64	QP



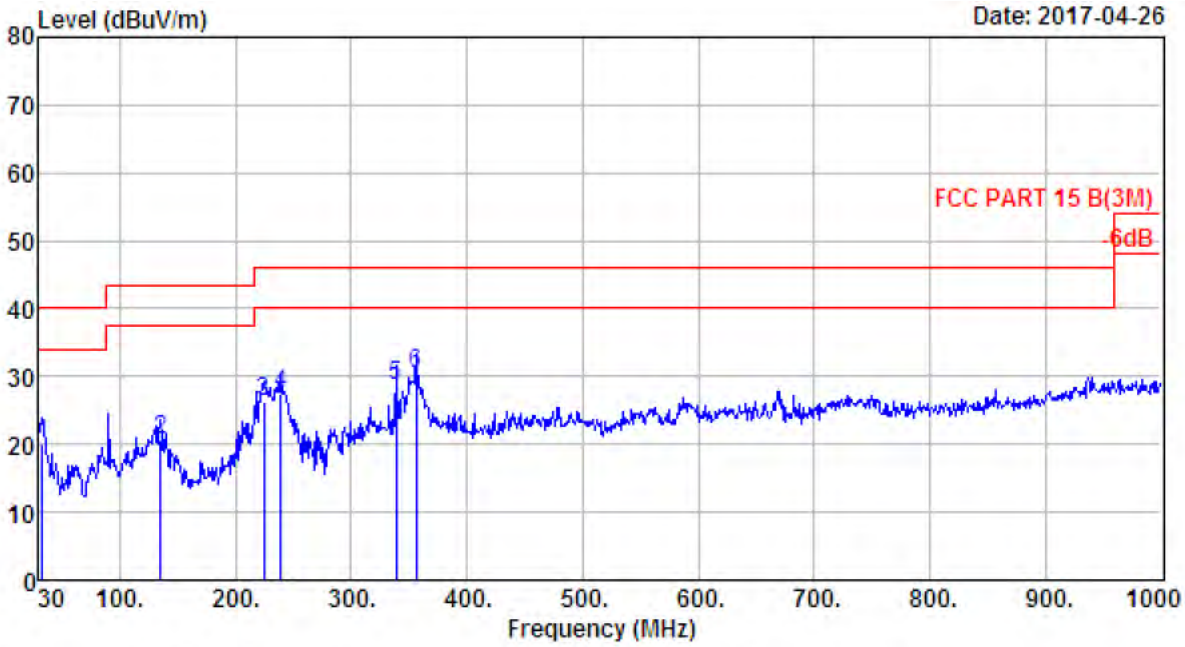

```
Site no.      : 1# 966 Chamber              Data no.  : 165
Dis. / Ant.   : 3m   27137                  Ant. pol. : VERTICAL
Limit         : FCC PART 15 B(3M)
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna B
```

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	71.71	6.03	1.08	14.71	21.82	40.00	18.18	QP
2	85.29	7.72	1.18	13.78	22.68	40.00	17.32	QP
3	112.45	10.68	1.43	12.69	24.80	43.50	18.70	QP
4	158.04	10.48	1.64	9.81	21.93	43.50	21.57	QP
5	202.66	7.83	1.84	12.87	22.54	43.50	20.96	QP
6	238.55	10.11	2.10	14.00	26.21	46.00	19.79	QP



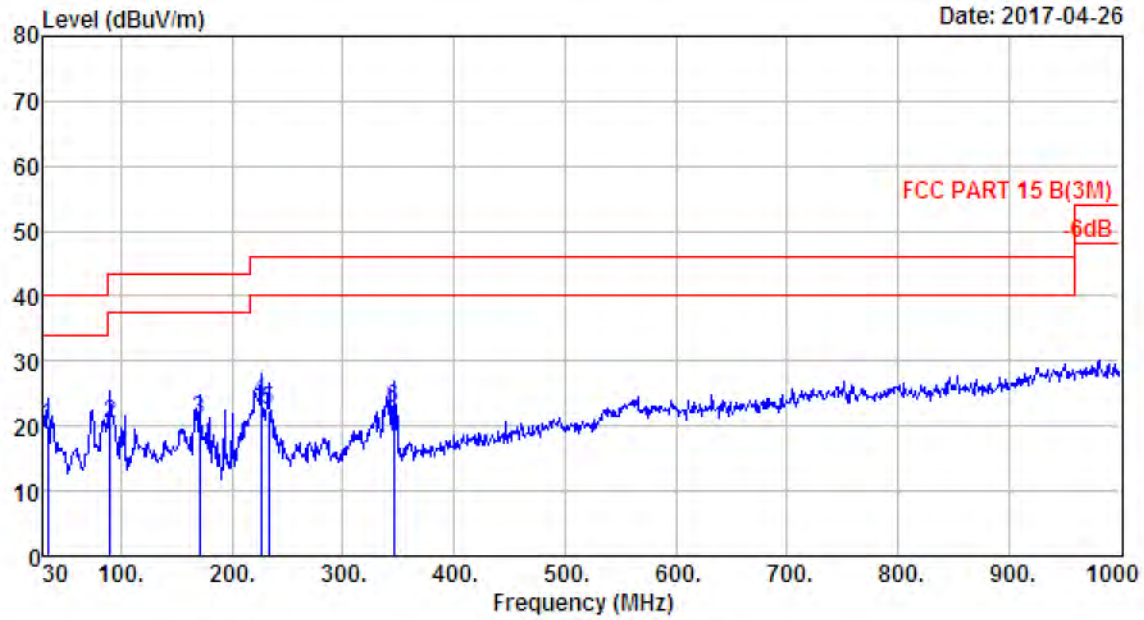
Site no. : 1# 966 Chamber Data no. : 166
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5792MHz
Antenna B

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.79	14.52	0.78	5.09	20.39	40.00	19.61	QP
2	83.35	7.47	1.23	15.57	24.27	40.00	15.73	QP
3	139.61	11.43	1.51	15.45	28.39	43.50	15.11	QP
4	144.46	11.26	1.54	18.23	31.03	43.50	12.47	QP
5	179.38	8.96	1.72	19.34	30.02	43.50	13.48	QP
6	267.65	12.71	2.26	10.52	25.49	46.00	20.51	QP



Site no. : 1# 966 Chamber Data no. : 167
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna B

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.91	16.62	0.69	2.71	20.02	40.00	19.98	QP
2	134.76	11.37	1.57	7.64	20.58	43.50	22.92	QP
3	224.00	9.42	2.01	14.88	26.31	46.00	19.69	QP
4	239.52	10.22	2.11	15.10	27.43	46.00	18.57	QP
5	338.46	14.10	2.50	11.92	28.52	46.00	17.48	QP
6	355.92	14.46	2.56	13.36	30.38	46.00	15.62	QP



Site no. : 1# 966 Chamber Data no. : 168
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna B

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	33.88	16.11	0.70	3.34	20.15	40.00	19.85	QP
2	90.14	8.38	1.33	10.72	20.43	43.50	23.07	QP
3	170.65	9.16	1.69	10.01	20.86	43.50	22.64	QP
4	225.94	9.47	1.99	12.58	24.04	46.00	21.96	QP
5	232.73	9.59	2.08	10.91	22.58	46.00	23.42	QP
6	345.25	14.32	2.54	5.98	22.84	46.00	23.16	QP

Above 1GHz

```
Site no.      : 1# 966 Chamber              Data no.  : 51
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5743MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.39	45.52	74.00	28.48	Peak
2	5743.00	32.27	12.05	32.54	71.42	83.20	94.00	10.80	Average
3	5743.00	32.27	12.05	32.54	84.05	95.83	114.00	18.17	Peak
4	6134.00	33.08	12.15	32.13	35.23	48.33	74.00	25.67	Peak
5	11486.00	39.21	10.93	34.55	31.62	47.21	74.00	26.79	Peak
6	17229.00	40.58	10.90	33.55	29.14	47.07	74.00	26.93	Peak
7	17711.00	43.62	11.04	35.92	29.74	48.48	74.00	25.52	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 52
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5743MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.10	45.23	74.00	28.77	Peak
2	5743.00	32.27	12.05	32.54	74.02	85.80	94.00	8.20	Average
3	5743.00	32.27	12.05	32.54	86.51	98.29	114.00	15.71	Peak
4	11030.00	39.50	11.27	33.71	28.17	45.23	74.00	28.77	Peak
5	11486.00	39.21	10.93	34.55	31.84	47.43	74.00	26.57	Peak
6	17229.00	40.58	10.90	33.55	30.19	48.12	74.00	25.88	Peak
7	17541.00	41.95	10.84	35.44	31.53	48.88	74.00	25.12	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 53
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5080.00	31.59	12.49	32.14	33.22	45.16	74.00	28.84	Peak
2	5792.00	32.36	12.07	32.47	72.71	84.67	94.00	9.33	Average
3	5792.00	32.36	12.07	32.47	84.83	96.79	114.00	17.21	Peak
4	10180.00	38.42	11.49	32.11	30.53	48.33	74.00	25.67	Peak
5	11584.00	39.10	11.01	34.74	30.91	46.28	74.00	27.72	Peak
6	17376.00	41.17	10.85	34.50	30.94	48.46	74.00	25.54	Peak
7	18000.00	46.45	11.38	27.85	19.50	49.48	74.00	24.52	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 54
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.05	45.18	74.00	28.82	Peak
2	5792.00	32.36	12.07	32.47	70.37	82.33	94.00	11.67	Average
3	5792.00	32.36	12.07	32.47	82.53	94.49	114.00	19.51	Peak
4	8004.00	37.01	11.40	31.22	31.83	49.02	74.00	24.98	Peak
5	11584.00	39.10	11.01	34.74	29.73	45.10	74.00	28.90	Peak
6	17229.00	40.58	10.90	33.55	30.45	48.38	74.00	25.62	Peak
7	18000.00	46.45	11.38	27.85	20.37	50.35	74.00	23.65	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 55
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5840MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5165.00	31.65	12.39	32.16	33.27	45.15	74.00	28.85	Peak
2	5840.00	32.46	12.08	32.40	69.27	81.41	94.00	12.59	Average
3	5840.00	32.46	12.08	32.40	81.00	93.14	114.00	20.86	Peak
4	6134.00	33.08	12.15	32.13	35.02	48.12	74.00	25.88	Peak
5	11680.00	38.98	11.09	34.93	33.11	48.25	74.00	25.75	Peak
6	17520.00	41.79	10.82	35.34	29.37	46.64	74.00	27.36	Peak
7	17983.00	46.28	11.36	28.32	19.72	49.04	74.00	24.96	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 56
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5840MHz
                Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.05	45.18	74.00	28.82	Peak
2	5840.00	32.46	12.08	32.40	73.71	85.85	94.00	8.15	Average
3	5840.00	32.46	12.08	32.40	84.96	97.10	114.00	16.90	Peak
4	8004.00	37.01	11.40	31.22	30.86	48.05	74.00	25.95	Peak
5	11680.00	38.98	11.09	34.93	30.01	45.15	74.00	28.85	Peak
6	17520.00	41.79	10.82	35.34	30.73	48.00	74.00	26.00	Peak
7	17830.00	44.78	11.18	32.59	26.27	49.64	74.00	24.36	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 41
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5743MHz
                Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	32.80	44.93	74.00	29.07	Peak
2	5743.00	32.27	12.05	32.54	75.02	86.80	94.00	7.20	Average
3	5743.00	32.27	12.05	32.54	87.21	98.99	114.00	15.01	Peak
4	10180.00	38.42	11.49	32.11	29.08	46.88	74.00	27.12	Peak
5	11486.00	39.21	10.93	34.55	31.51	47.10	74.00	26.90	Peak
6	17229.00	40.58	10.90	33.55	31.58	49.51	74.00	24.49	Peak
7	18000.00	46.45	11.38	27.85	21.56	51.54	74.00	22.46	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 42
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5743MHz
                Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5454.00	31.83	12.05	32.53	34.03	45.38	74.00	28.62	Peak
2	5743.00	32.27	12.05	32.54	71.03	82.81	94.00	11.19	Average
3	5743.00	32.27	12.05	32.54	81.40	93.18	114.00	20.82	Peak
4	11200.00	39.39	11.14	34.03	31.22	47.72	74.00	26.28	Peak
5	11486.00	39.21	10.93	34.55	31.89	47.48	74.00	26.52	Peak
6	17229.00	40.58	10.90	33.55	30.23	48.16	74.00	25.84	Peak
7	17796.00	44.45	11.14	33.54	29.18	51.23	74.00	22.77	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 43
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	32.86	44.99	74.00	29.01	Peak
2	5792.00	32.36	12.07	32.47	70.71	82.67	94.00	11.33	Average
3	5792.00	32.36	12.07	32.47	77.88	89.84	114.00	24.16	Peak
4	6134.00	33.08	12.15	32.13	34.17	47.27	74.00	26.73	Peak
5	11584.00	39.10	11.01	34.74	28.05	43.42	74.00	30.58	Peak
6	17376.00	41.17	10.85	34.50	27.84	45.36	74.00	28.64	Peak
7	17949.00	45.95	11.32	29.27	21.23	49.23	74.00	24.77	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

```
Site no.      : 1# 966 Chamber              Data no.  : 44
Dis. / Ant.   : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit         : FCC PART 15 PEAK 5.8
Env. / Ins.   : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer      : Tony
EUT           : SR1 Wireless Surrounds
Power         : DC 15V From Adapter Input  AC 120V/60Hz
M/N           : SR1 WIRELESS SURROUNDS
Test Mode     : GFSK TX 5792MHz
                Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5080.00	31.59	12.49	32.14	33.37	45.31	74.00	28.69	Peak
2	5792.00	32.36	12.07	32.47	73.87	85.83	94.00	8.17	Average
3	5792.00	32.36	12.07	32.47	85.22	97.18	114.00	16.82	Peak
4	7426.00	36.56	11.60	31.95	30.69	46.90	74.00	27.10	Peak
5	11584.00	39.10	11.01	34.74	26.50	41.87	74.00	32.13	Peak
6	17376.00	41.17	10.85	34.50	28.65	46.17	74.00	27.83	Peak
7	17915.00	45.62	11.28	30.22	21.17	47.85	74.00	26.15	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

Site no. : 1# 966 Chamber Data no. : 45
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4995.00	31.54	12.59	32.00	33.04	45.17	74.00	28.83	Peak
2	5840.00	32.46	12.08	32.40	75.66	87.80	94.00	6.20	Average
3	5840.00	32.46	12.08	32.40	88.53	100.67	114.00	13.33	Peak
4	7885.00	36.78	11.45	31.33	32.03	48.93	74.00	25.07	Peak
5	11680.00	38.98	11.09	34.93	32.05	47.19	74.00	26.81	Peak
6	17520.00	41.79	10.82	35.34	29.25	46.52	74.00	27.48	Peak
7	17983.00	46.28	11.36	28.32	19.57	48.89	74.00	25.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : 1# 966 Chamber Data no. : 46
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4944.00	31.47	12.37	31.96	33.27	45.15	74.00	28.85	Peak
2	5840.00	32.46	12.08	32.40	70.47	82.61	94.00	11.39	Average
3	5840.00	32.46	12.08	32.40	82.14	94.28	114.00	19.72	Peak
4	6134.00	33.08	12.15	32.13	35.20	48.30	74.00	25.70	Peak
5	11680.00	38.98	11.09	34.93	27.82	42.96	74.00	31.04	Peak
6	17520.00	41.79	10.82	35.34	25.07	42.34	74.00	31.66	Peak
7	17745.00	43.95	11.08	34.97	25.21	45.27	74.00	28.73	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

18000MHz – 25000MHz

Pass

Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

5. 20 DB BANDWIDTH

5.1. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

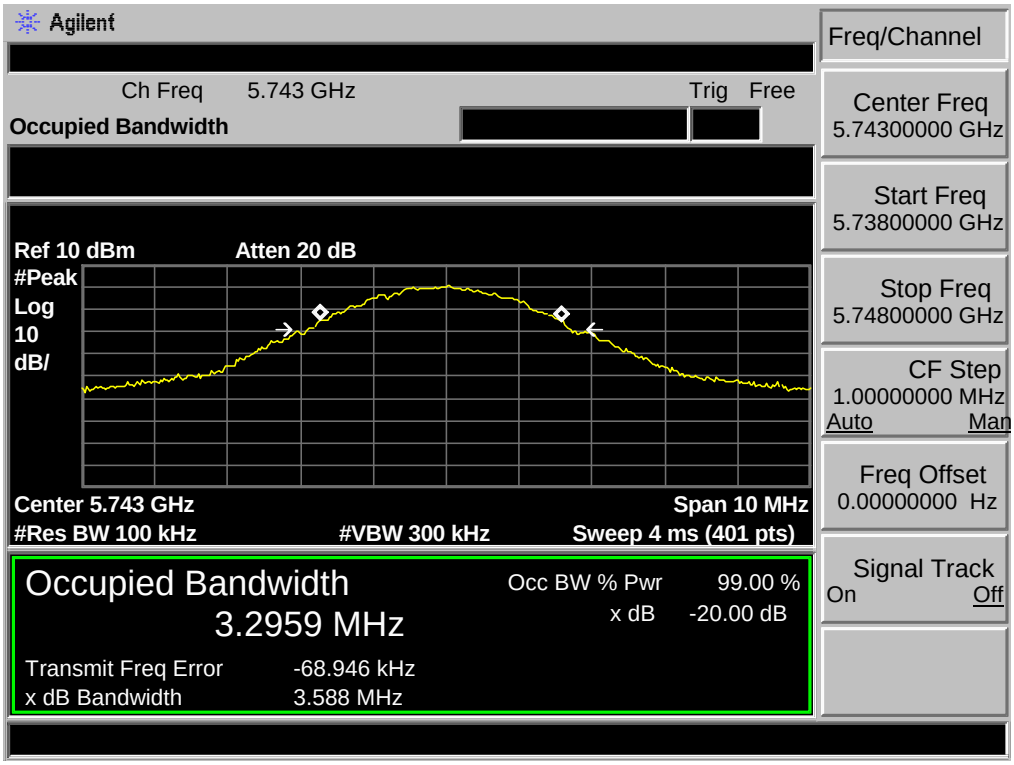
5.2. Test Result

EUT: SR1 Wireless Surrounds M/N: SR1 WIRELESS SURROUNDS				
Test date: 2017-04-20		Test site: RF site		Tested by: Tony Tang
Mode	Freq (MHz)	20dB Bandwidth (MHz)	Limit (kHz)	Conclusion
Antenna A				
TX	5743	3.588	/	PASS
	5792	3.560	/	PASS
	5840	3.450	/	PASS
Antenna B				
TX	5743	3.475	/	PASS
	5792	3.576	/	PASS
	5840	3.520	/	PASS

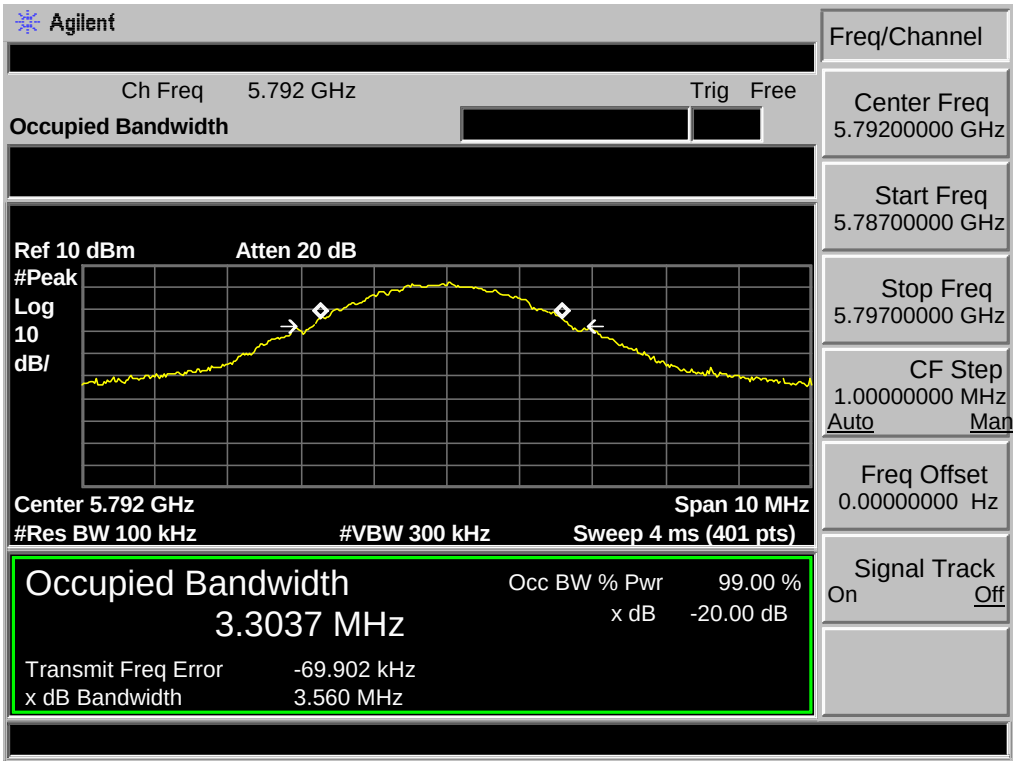
5.3. Test Data

Antenna A

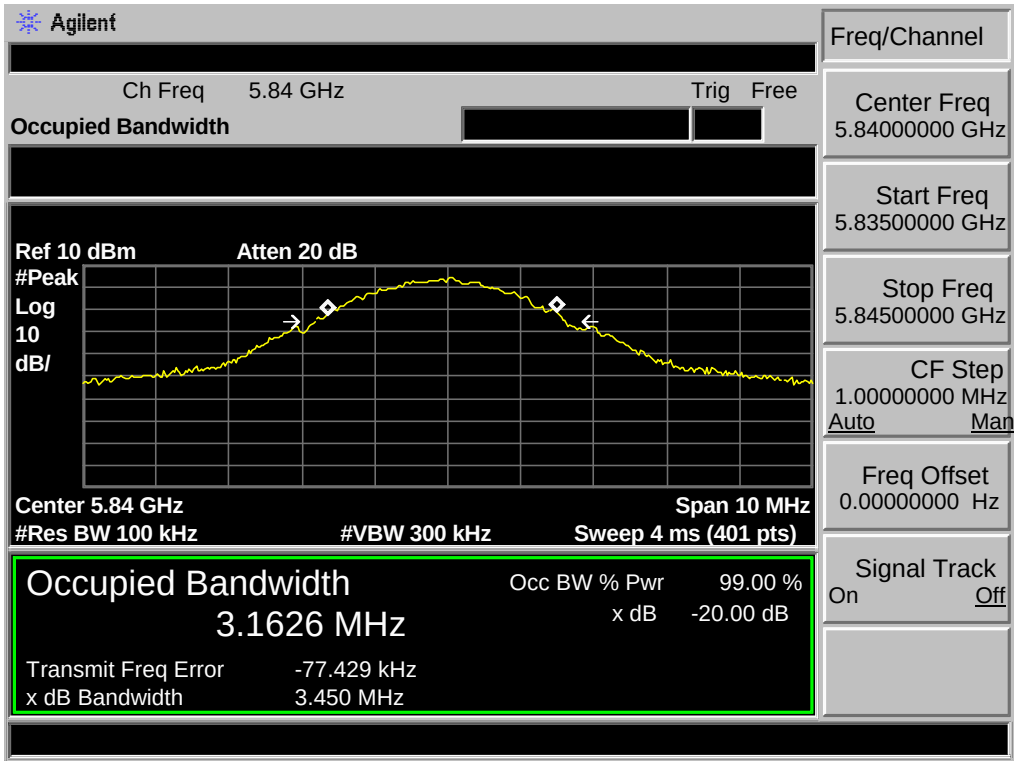
TX 5743 MHz



TX 5792 MHz

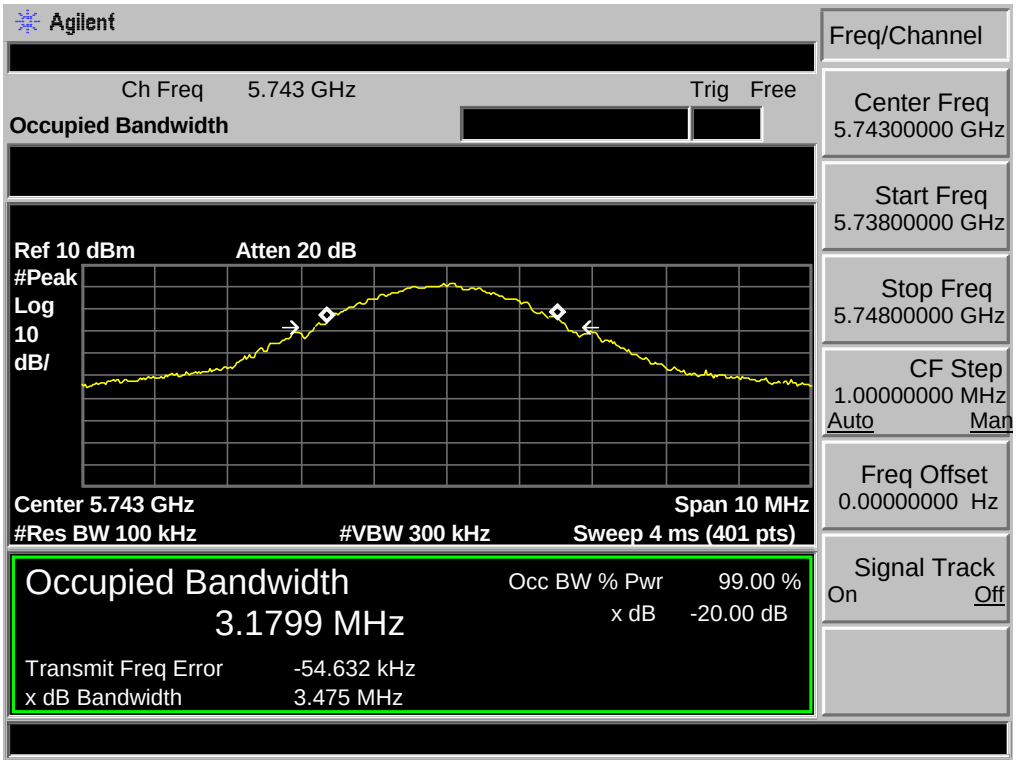


TX 5840MHz

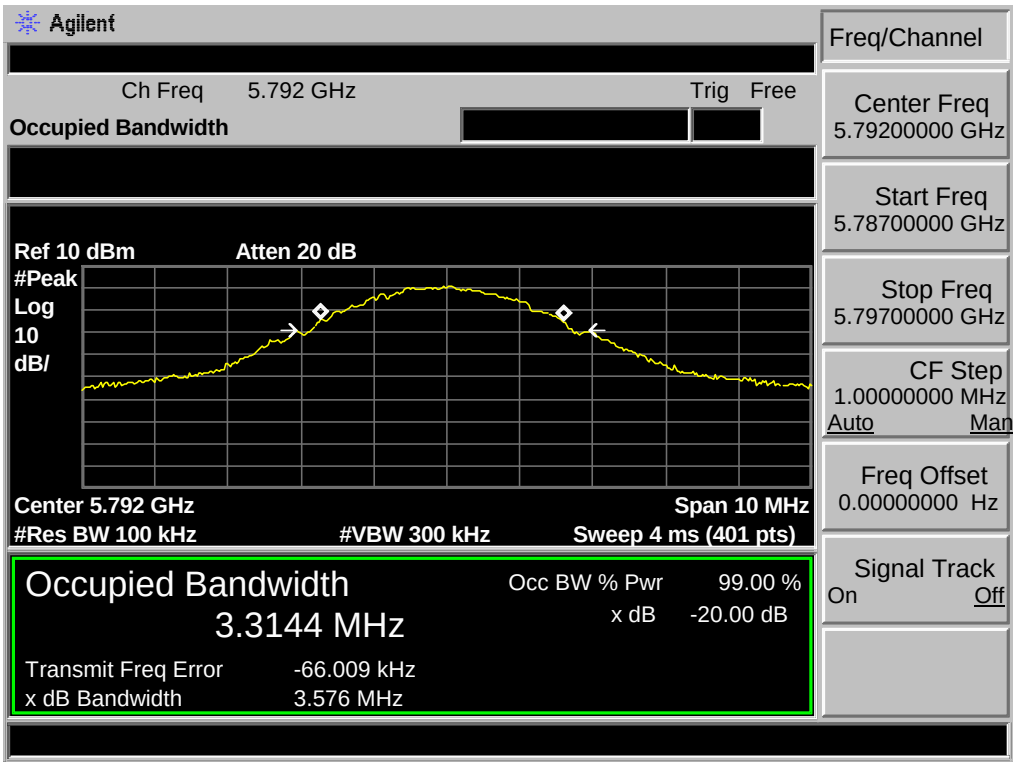

Agilent
Freq/Channel
Ch Freq 5.84 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.84000000 GHz
Start Freq
5.83500000 GHz
Stop Freq
5.84500000 GHz
CF Step
1.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 5.84 GHz
Span 10 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4 ms (401 pts)
Occupied Bandwidth
3.1626 MHz
Occ BW % Pwr 99.00 %
x dB -20.00 dB
Transmit Freq Error -77.429 kHz
x dB Bandwidth 3.450 MHz

Antenna B

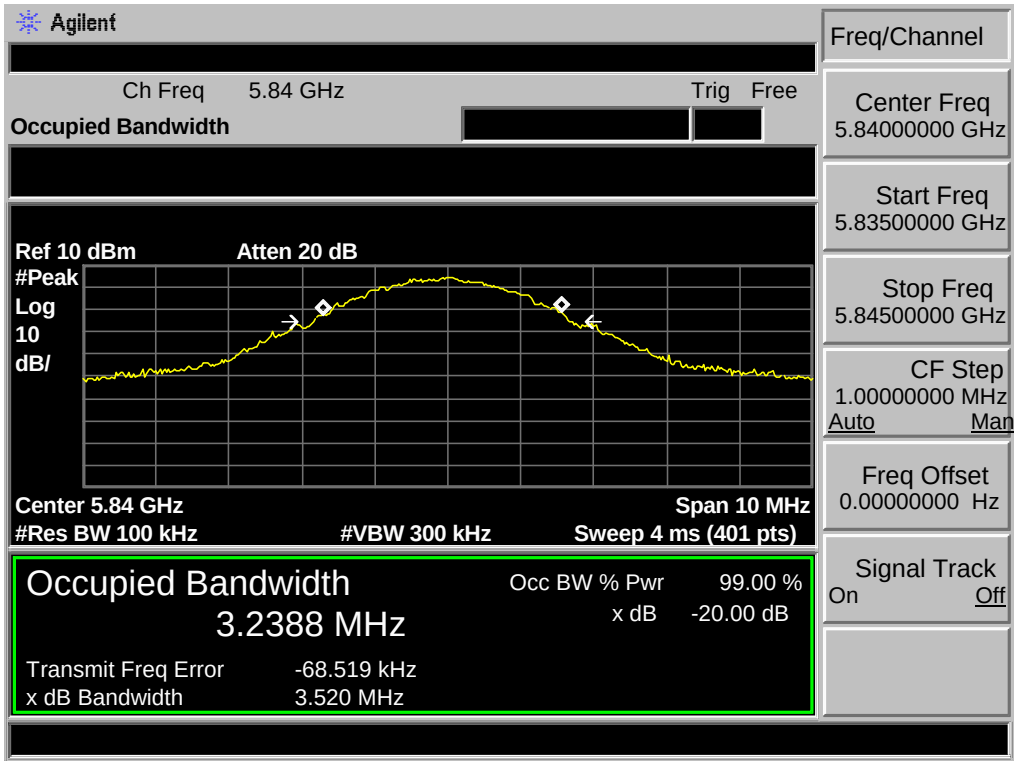
TX 5743 MHz



TX 5792 MHz

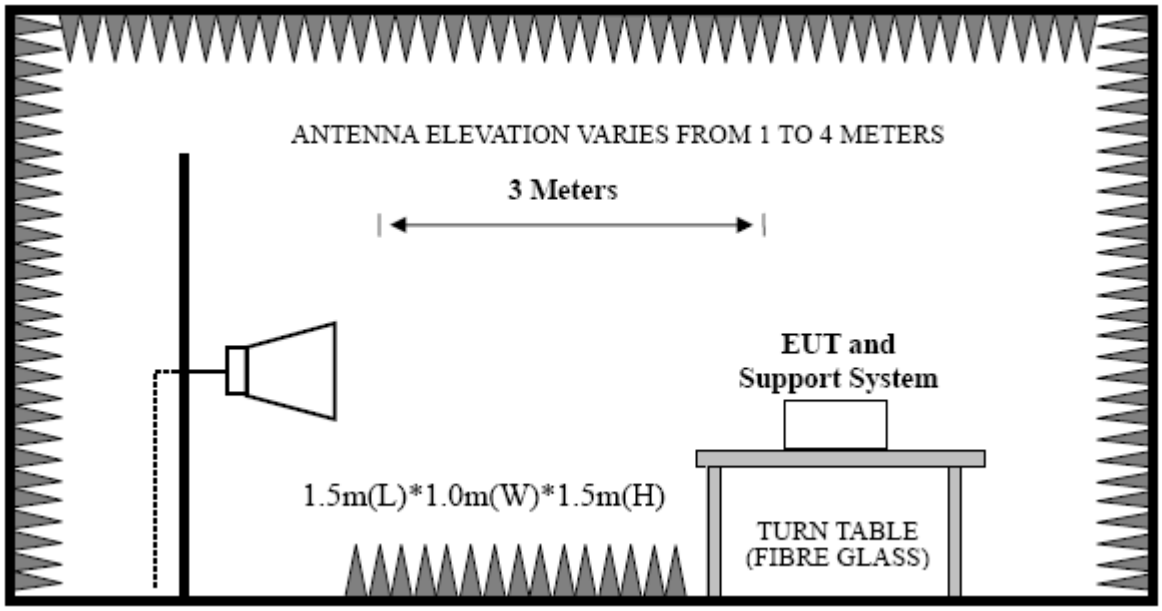


TX 5840MHz


Agilent
Freq/Channel
Ch Freq 5.84 GHz
Trig Free
Occupied Bandwidth
Center Freq
5.84000000 GHz
Start Freq
5.83500000 GHz
Stop Freq
5.84500000 GHz
CF Step
1.00000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 10 dBm
Atten 20 dB
#Peak
Log
10
dB/
Center 5.84 GHz
Span 10 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 4 ms (401 pts)
Occupied Bandwidth
3.2388 MHz
Occ BW % Pwr 99.00 %
x dB -20.00 dB
Transmit Freq Error -68.519 kHz
x dB Bandwidth 3.520 MHz

6. BAND EDGE COMPLIANCE

6.1. Block Diagram of Test setup



6.2. Test Procedure

EUT was placed on a turn table, which is 1.5 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

Peak : RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto.

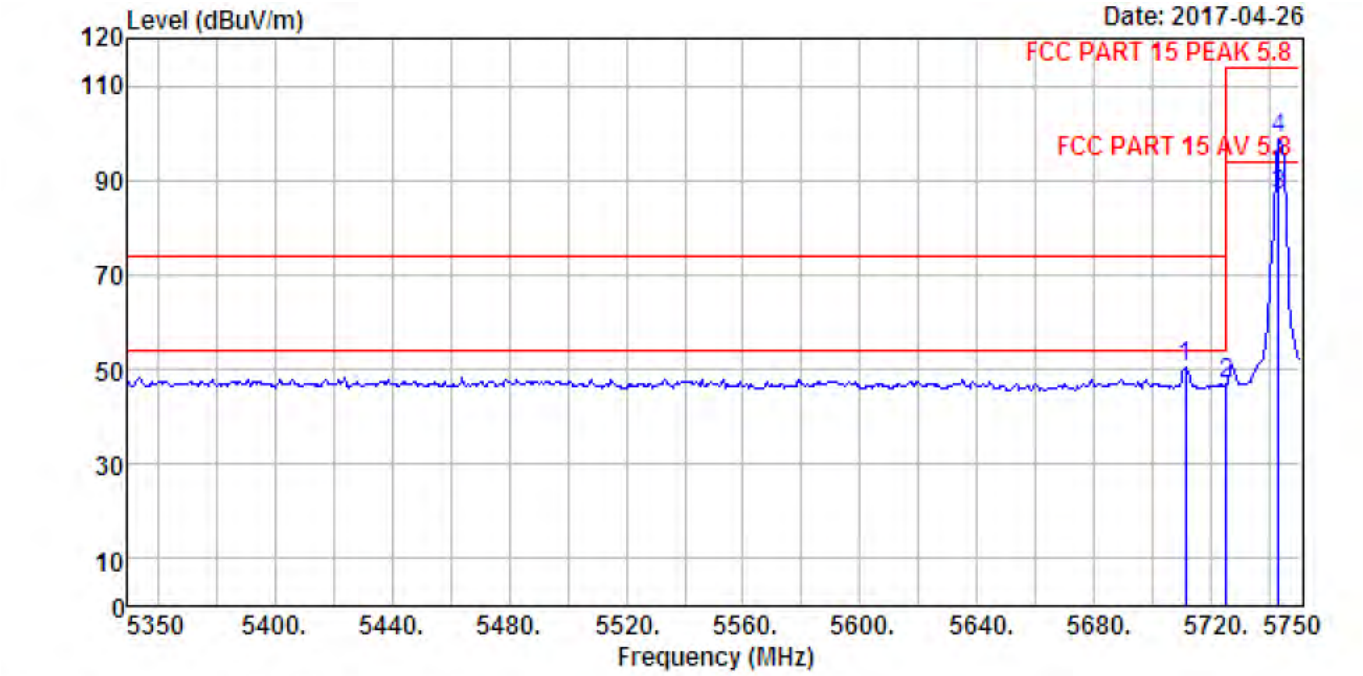
AV : RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto .

6.3. Test Result

Pass.

Note: If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

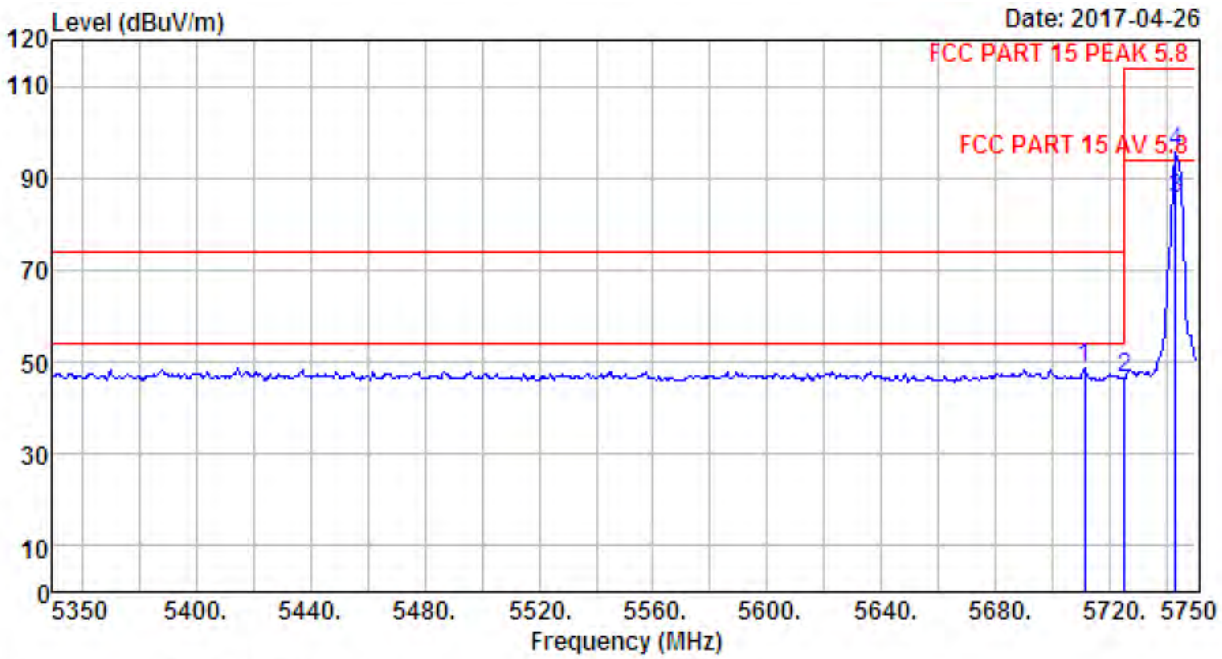
6.4. Test Data




```
Site no.       : 1# 966 Chamber              Data no.  : 57
Dis. / Ant.    : 3m   ANT 1-18G              Ant. pol. : VERTICAL
Limit          : FCC PART 15 PEAK 5.8
Env. / Ins.    : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer       : Tony
EUT            : SR1 Wireless Surrounds
Power          : DC 15V From Adapter Input  AC 120V/60Hz
M/N            : SR1 WIRELESS SURROUNDS
Test Mode      : GFSK TX 5743MHz
                 Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5710.80	32.24	12.04	32.56	38.83	50.55	74.00	23.45	Peak
2	5725.00	32.24	12.05	32.56	35.02	46.75	74.00	27.25	Peak
3	5742.80	32.27	12.05	32.54	74.86	86.64	94.00	7.36	Average
4	5742.80	32.27	12.05	32.54	87.15	98.93	114.00	15.07	Peak

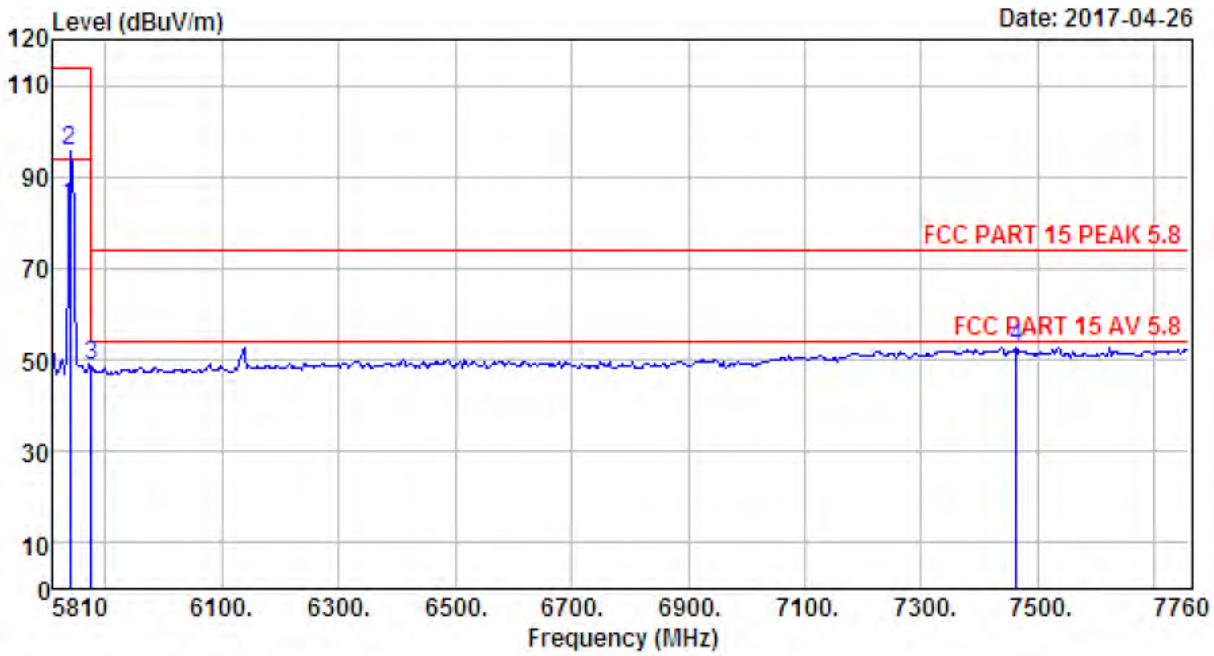
```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```




```
Site no.       : 1# 966 Chamber              Data no.  : 58
Dis. / Ant.    : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit          : FCC PART 15 PEAK 5.8
Env. / Ins.    : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer       : Tony
EUT            : SR1 Wireless Surrounds
Power          : DC 15V From Adapter Input  AC 120V/60Hz
M/N            : SR1 WIRELESS SURROUNDS
Test Mode      : GFSK TX 5743MHz
                 Antenna A
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5710.80	32.24	12.04	32.56	37.06	48.78	74.00	25.22	Peak
2	5725.00	32.24	12.05	32.56	34.76	46.49	74.00	27.51	Peak
3	5742.80	32.27	12.05	32.54	73.87	85.65	94.00	8.35	Average
4	5742.80	32.27	12.05	32.54	83.70	95.48	114.00	18.52	Peak

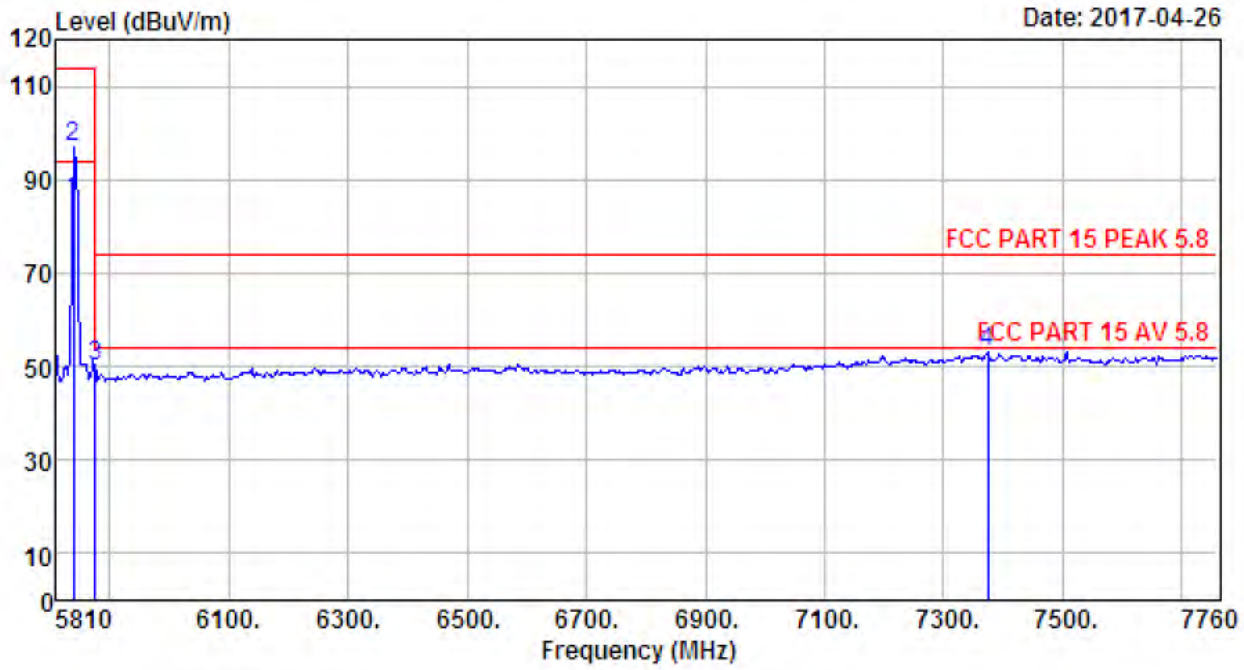
```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```



Site no. : 1# 966 Chamber Data no. : 59
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna A

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5839.25	32.46	12.08	32.40	71.44	83.58	94.00	10.42	Average
2	5839.25	32.46	12.08	32.40	83.32	95.46	114.00	18.54	Peak
3	5875.00	32.53	12.09	32.36	36.35	48.61	74.00	25.39	Peak
4	7463.60	36.52	11.61	31.91	36.69	52.91	74.00	21.09	Peak

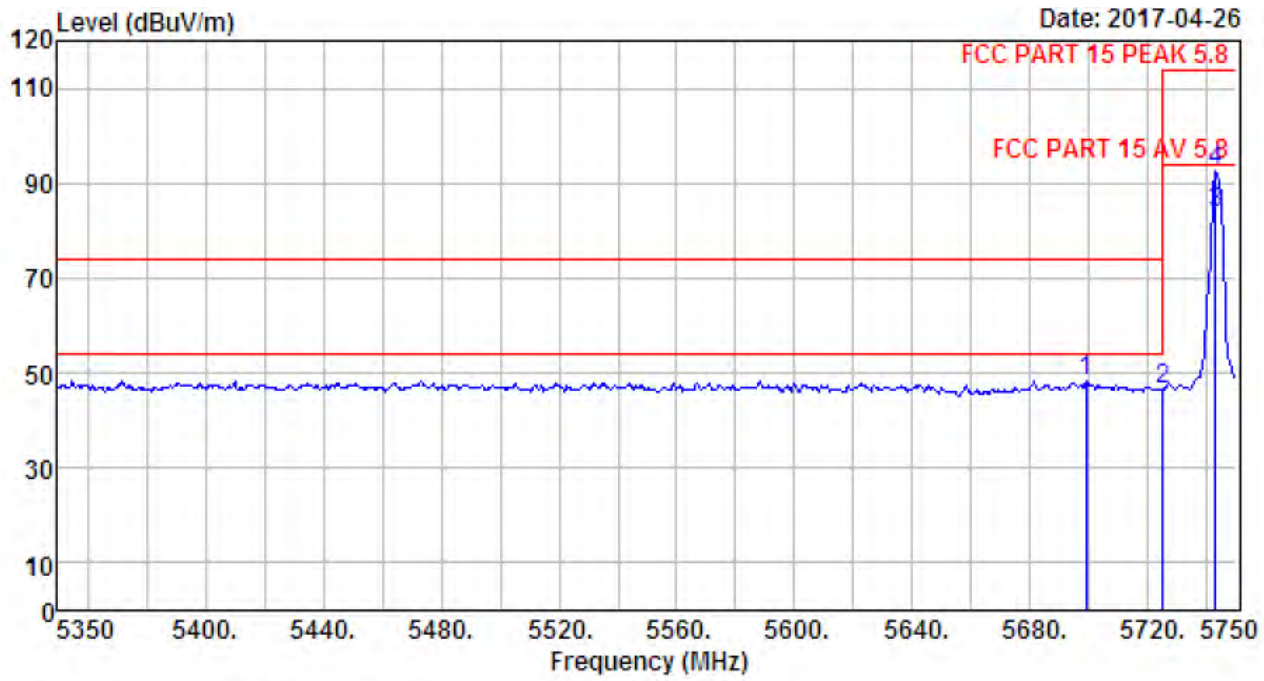
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 Chamber Data no. : 60
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna A

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5839.25	32.46	12.08	32.40	73.25	85.39	94.00	8.61	Average
2	5839.25	32.46	12.08	32.40	84.89	97.03	114.00	16.97	Peak
3	5875.00	32.53	12.09	32.36	37.77	50.03	74.00	23.97	Peak
4	7373.90	36.57	11.59	31.98	37.05	53.23	74.00	20.77	Peak

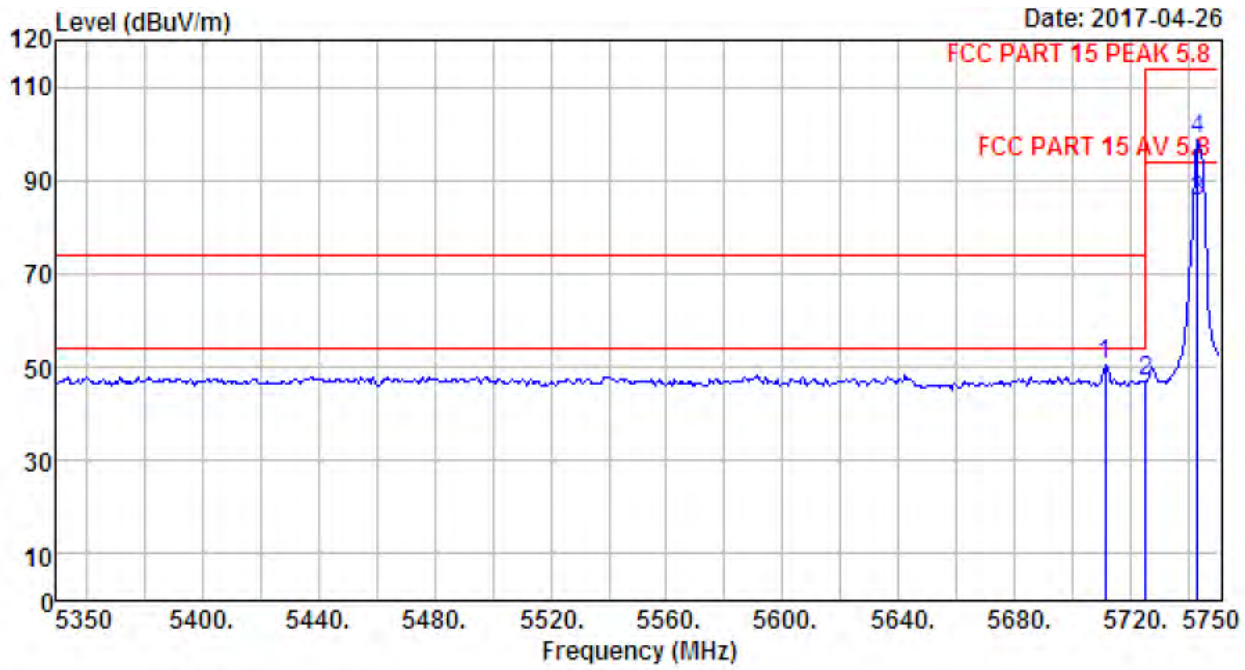
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.




```
Site no.       : 1# 966 Chamber              Data no.  : 47
Dis. / Ant.    : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit          : FCC PART 15 PEAK 5.8
Env. / Ins.    : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer       : Tony
EUT            : SR1 Wireless Surrounds
Power          : DC 15V From Adapter Input  AC 120V/60Hz
M/N            : SR1 WIRELESS SURROUNDS
Test Mode      : GFSK TX 5743MHz
                 Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5698.80	32.20	12.04	32.59	36.82	48.47	74.00	25.53	Peak
2	5725.00	32.24	12.05	32.56	34.77	46.50	74.00	27.50	Peak
3	5742.80	32.27	12.05	32.54	71.74	83.52	94.00	10.48	Average
4	5742.80	32.27	12.05	32.54	80.69	92.47	114.00	21.53	Peak

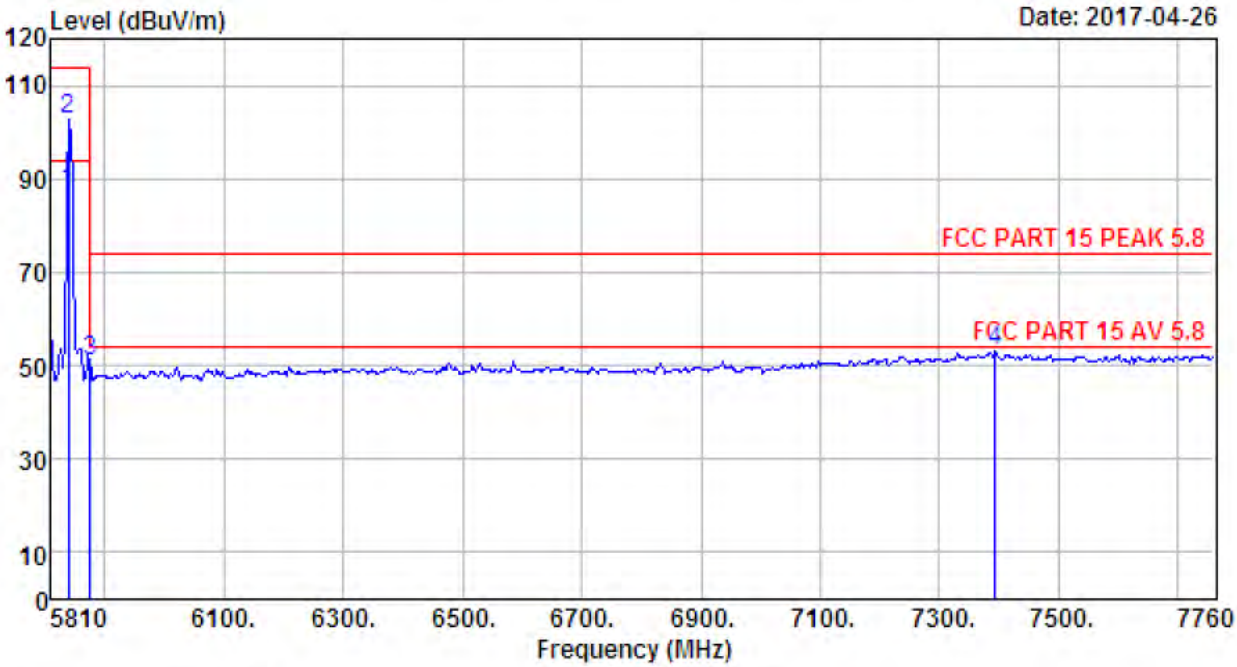
```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```



Site no. : 1# 966 Chamber Data no. : 48
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5743MHz
Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5710.80	32.24	12.04	32.56	38.74	50.46	74.00	23.54	Peak
2	5725.00	32.24	12.05	32.56	35.16	46.89	74.00	27.11	Peak
3	5742.80	32.27	12.05	32.54	73.75	85.53	94.00	8.47	Average
4	5742.80	32.27	12.05	32.54	87.00	98.78	114.00	15.22	Peak

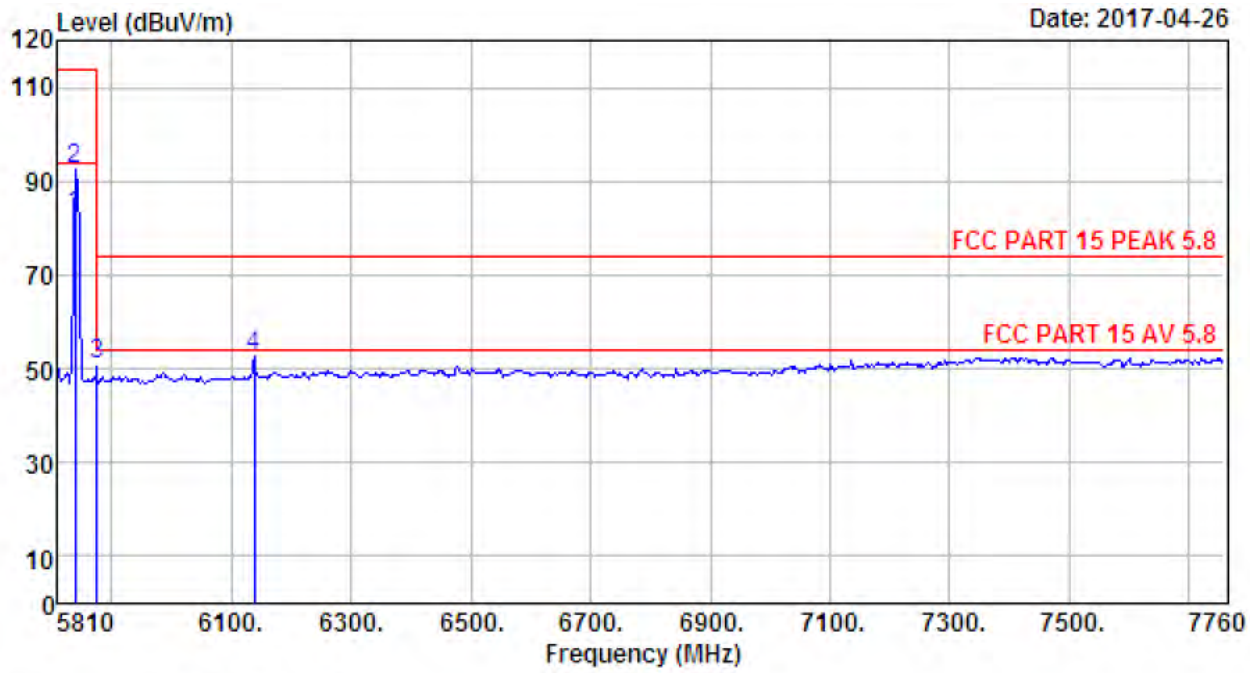
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 1# 966 Chamber Data no. : 49
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL
Limit : FCC PART 15 PEAK 5.8
Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : SR1 Wireless Surrounds
Power : DC 15V From Adapter Input AC 120V/60Hz
M/N : SR1 WIRELESS SURROUNDS
Test Mode : GFSK TX 5840MHz
Antenna B

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5839.25	32.46	12.08	32.40	75.19	87.33	94.00	6.67	Average
2	5839.25	32.46	12.08	32.40	90.60	102.74	114.00	11.26	Peak
3	5875.00	32.53	12.09	32.36	38.61	50.87	74.00	23.13	Peak
4	7393.40	36.57	11.59	31.97	36.83	53.02	74.00	20.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.




```
Site no.       : 1# 966 Chamber              Data no.  : 50
Dis. / Ant.    : 3m   ANT 1-18G              Ant. pol. : HORIZONTAL
Limit          : FCC PART 15 PEAK 5.8
Env. / Ins.    : Temp:23.6';Humi:56%;Press:101.52kPa
Engineer       : Tony
EUT            : SR1 Wireless Surrounds
Power          : DC 15V From Adapter Input  AC 120V/60Hz
M/N            : SR1 WIRELESS SURROUNDS
Test Mode      : GFSK TX 5840MHz
                 Antenna B
```

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5839.25	32.46	12.08	32.40	70.45	82.59	94.00	11.41	Average
2	5839.25	32.46	12.08	32.40	80.35	92.49	114.00	21.51	Peak
3	5875.00	32.53	12.09	32.36	38.61	50.87	74.00	23.13	Peak
4	6137.60	33.08	12.15	32.13	39.54	52.64	74.00	21.36	Peak

```
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
         2. The emission levels that are 20dB below the official
            limit are not reported.
```

7. ANTENNA REQUIREMENTS

7.1. Limit

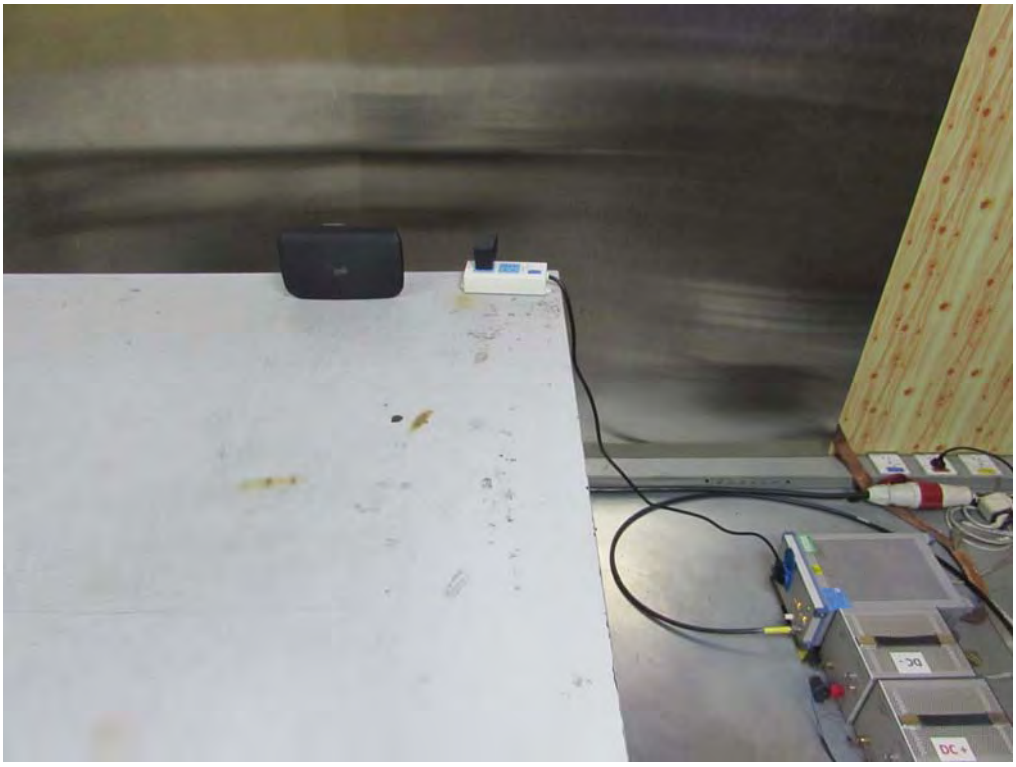
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.249 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

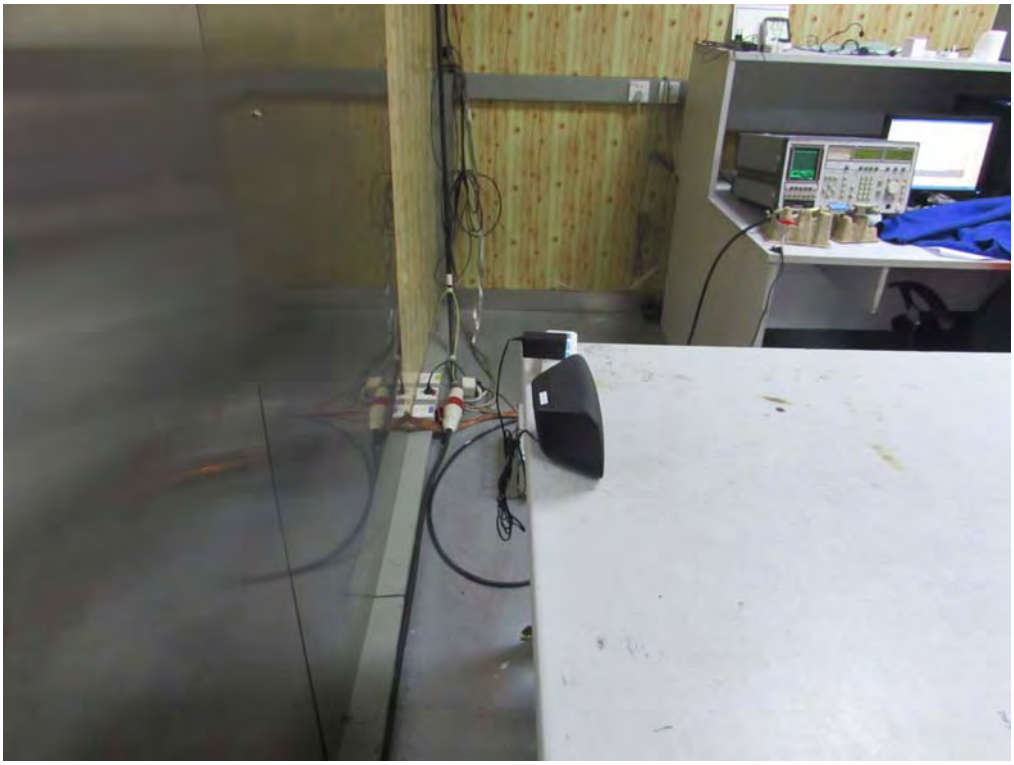
7.2. Result

The antennas used for this product are PCB Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2.85dBi.

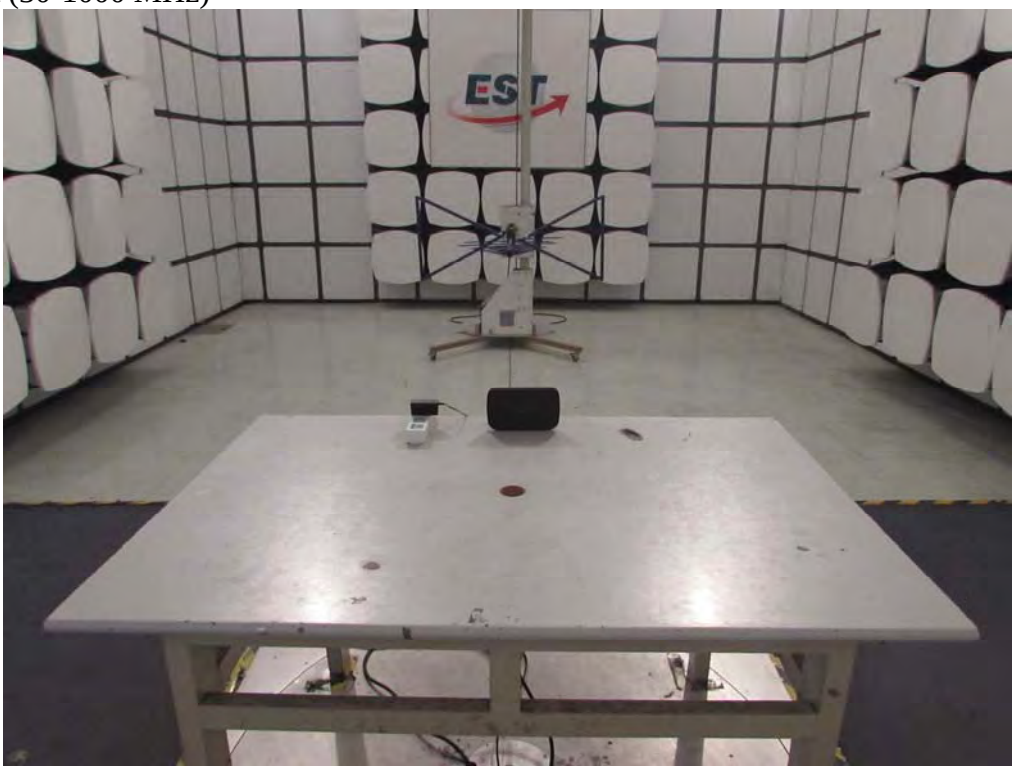
8. TESTSETUP PHOTO

Conducted Test

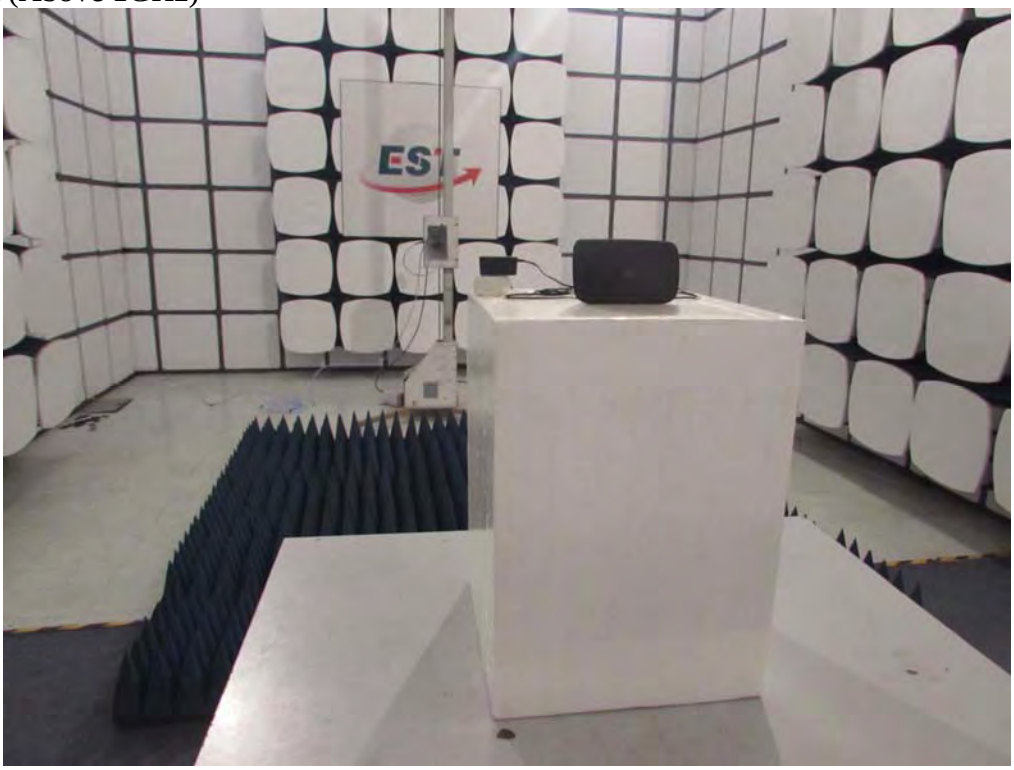




Radiated Test (30-1000 MHz)



Radiated Test (Above 1GHz)



9. PHOTO OF EUT

External Photos

M/N: SR1 WIRELESS SURROUNDS

External Photos

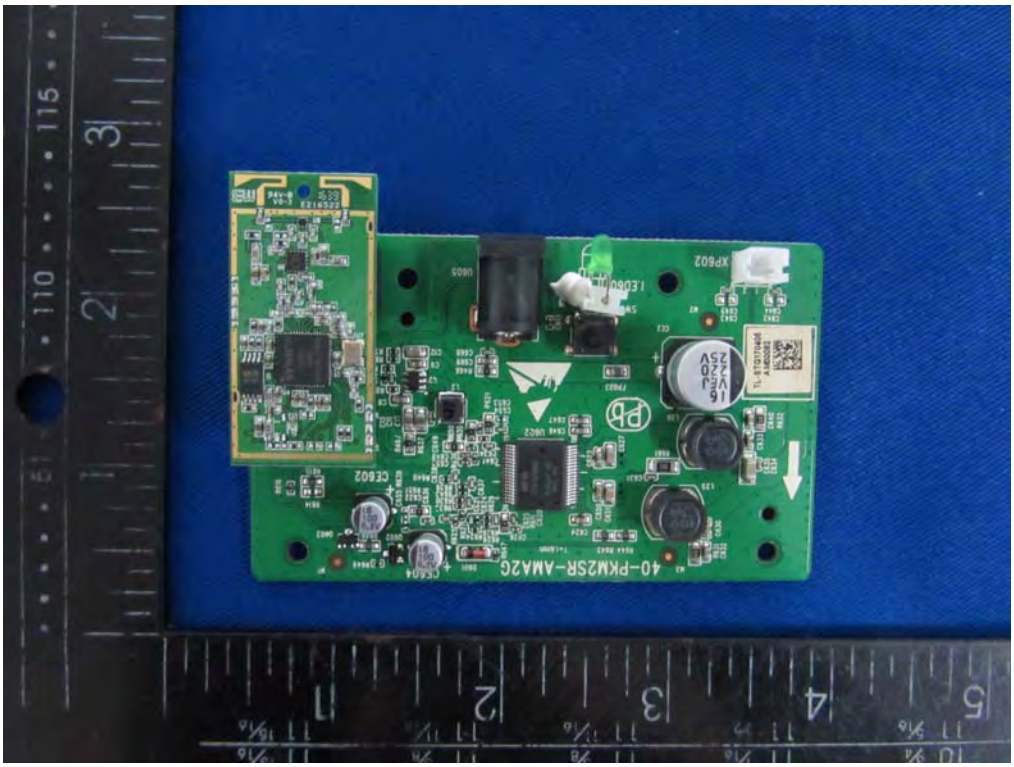
M/N:SR1 WIRELESS SURROUNDS

External Photos

M/N: SR1 WIRELESS SURROUNDS

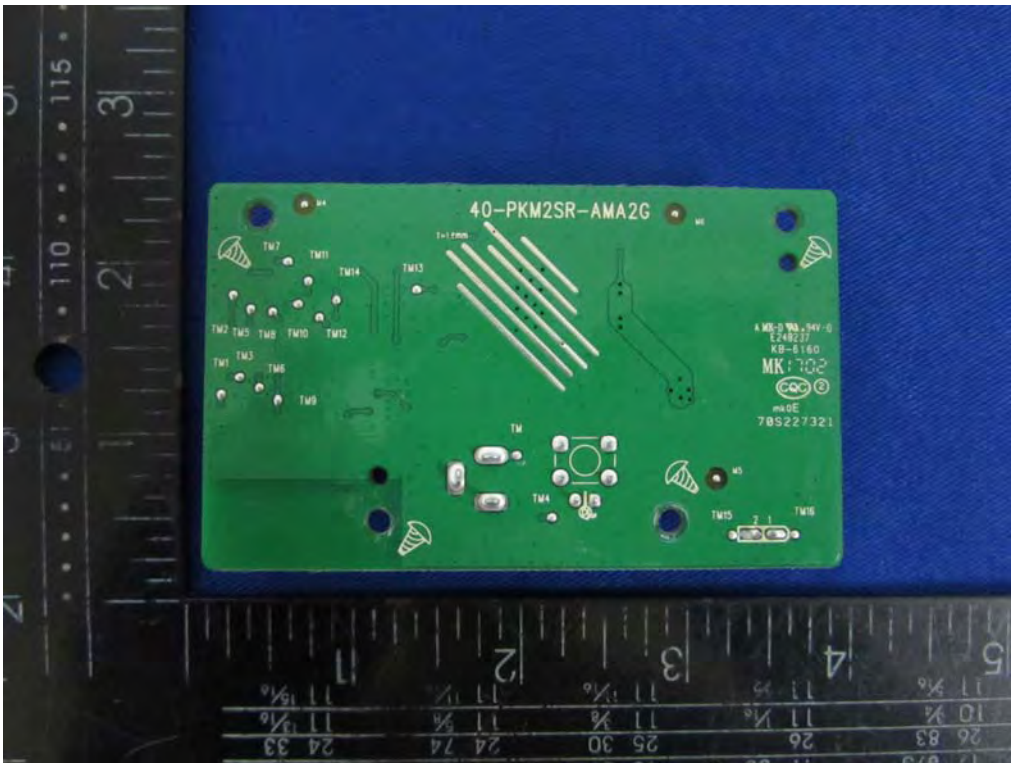
Internal Photos

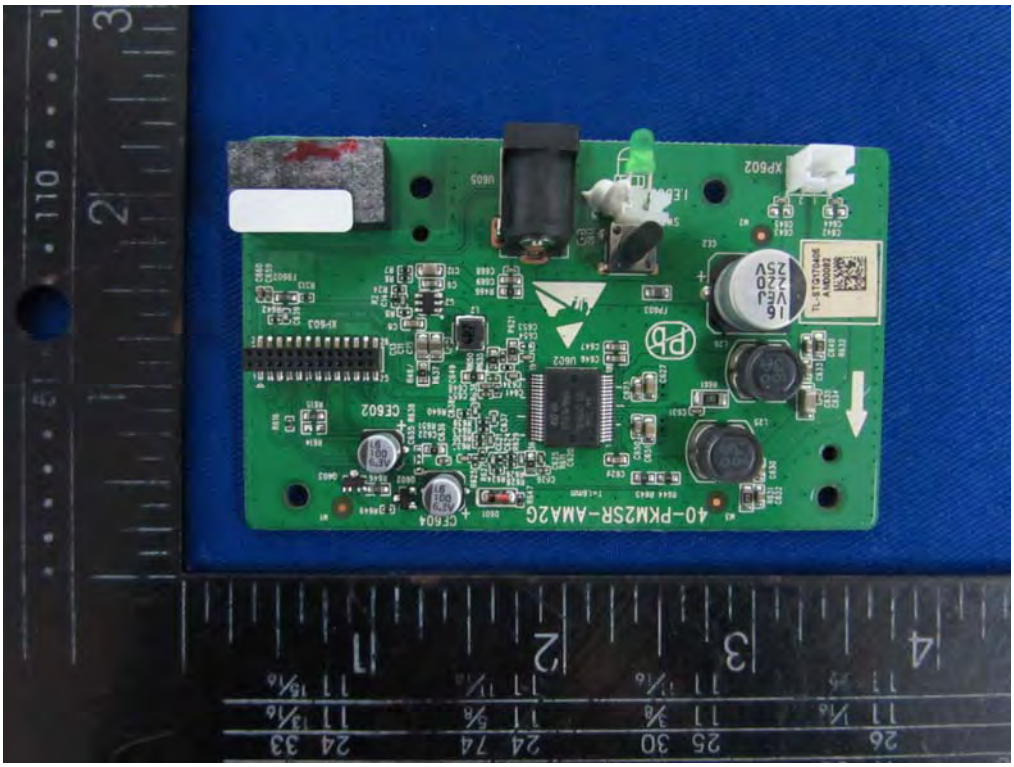
M/N: SR1 WIRELESS SURROUNDS



Internal Photos

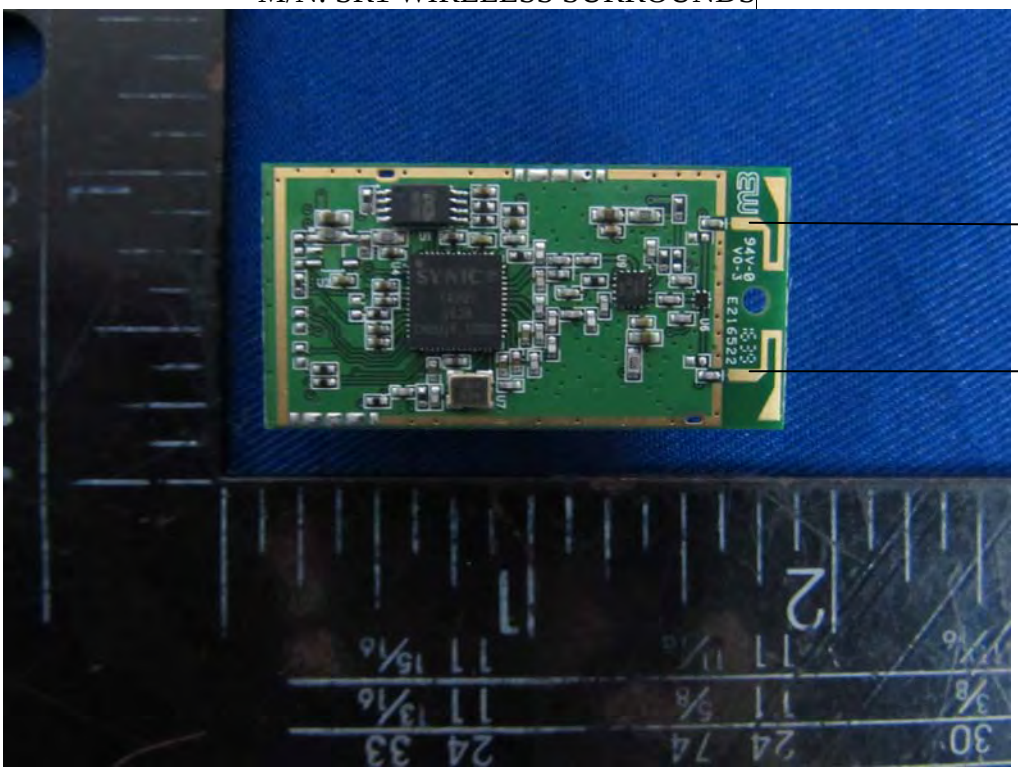
M/N: SR1 WIRELESS SURROUNDS

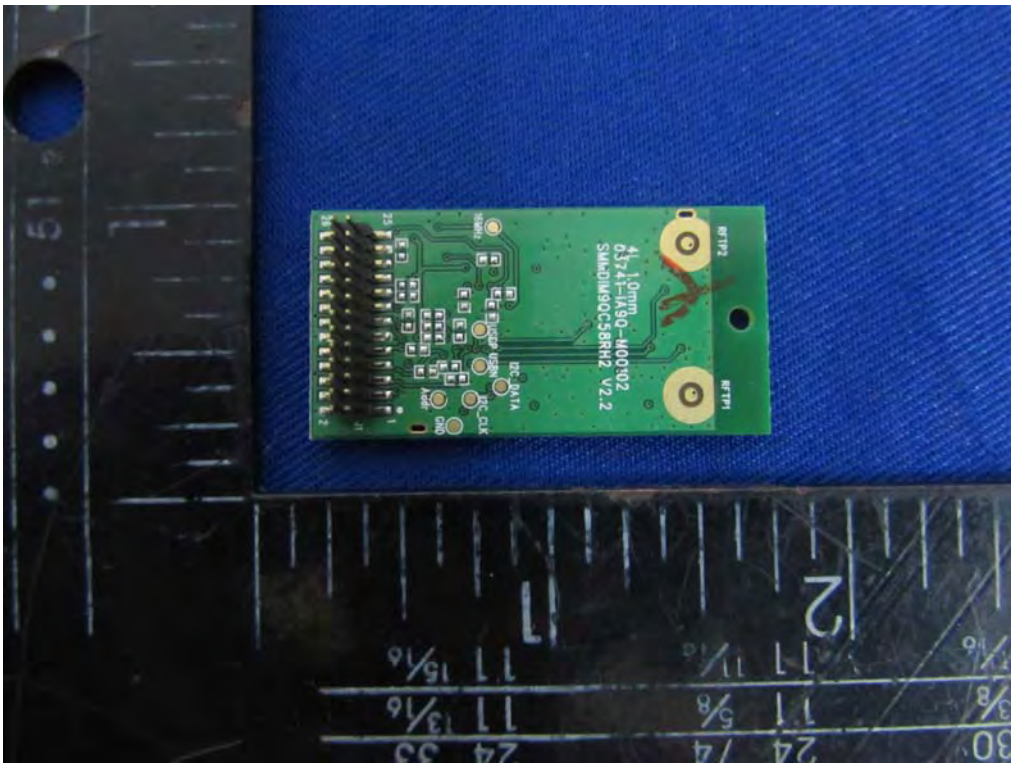




Internal Photos

M/N: SR1 WIRELESS SURROUNDS





Adapter Photos