SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

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FCC REPORT

Application No:	SZEM1610009257CR (SGS SH No.:SH1610006915CR)
Applicant:	Powervision Tech Inc.
Manufacturer:	Powervision Tech Inc.
Factory:	Huizhou BYD Electronic Co., Ltd
Product Name:	PowerEye Standard Controller
Model No.(EUT):	PEYSC10
Trade Mark:	PowerVision
FCC ID:	2AKBMPEYSC10
Standards:	47 CFR Part 15, Subpart C (2015)
Date of Receipt:	2016-10-31
Date of Test:	2016-11-29 to 2016-12-19
Date of Issue:	2016-12-20
Test Result:	**PASS ***

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

Authorized Signature:

Jack Zhang
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		2016-12-20		Original

Authorized for issue by:				
Tested By		Hank yan.		2016-12-19
		(Hank Yan) /Project Engineer		**Date**
Checked By		Eric Fu		2016-12-20
		(Eric Fu) /Reviewer		**Date**

3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203	ANSI C63.10 (2013)	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 (2013)	N/A
Field Strength of the Fundamental Signal	47 CFR Part 15, Subpart C Section 15.249 (a)	ANSI C63.10 (2013)	PASS
Spurious Emissions	47 CFR Part 15, Subpart C Section 15.249 (a)/15.209	ANSI C63.10 (2013)	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C Section 15.249(a)/15.205	ANSI C63.10 (2013)	PASS
20dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.215 (c)	ANSI C63.10 (2013)	PASS

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5 General Information

5.1 Client Information

Applicant:	Powervision Tech Inc.
Address of Applicant:	Room 301, Building A,No.9 Fulin Road, Chaoyang District, Beijing, 100107, China
Manufacturer:	Powervision Tech Inc.
Address of Manufacturer:	Room 301, Building A,No.9 Fulin Road, Chaoyang District, Beijing, 100107, China
Factory:	Huizhou BYD Electronic Co., Ltd
Address of Factory:	Xlangshui River, Economic Development Zone, Daya Bay, Huizhou, Guangdong, 516083,P.R.China

5.2 General Description of EUT

Product Name:	PowerEye Standard Controller
Model No.:	PEYSC10
Trade Mark:	PowerVision
Operation Frequency:	5745MHz to 5810MHz
Type of Modulation:	GFSK
Channel Spacing:	1MHz
Channel Numbers:	66
Sample Type:	Portable Device
Antenna Type:	Dipole Antenna
Antenna Gain:	2dBi
Power Supply:	DC 3.7V Li-ion Battery

Operation Frequency each of channel							
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
1	5745.00	18	5762.00	35	5779.00	52	5796.00
2	5746.00	19	5763.00	36	5780.00	53	5797.00
3	5747.00	20	5764.00	37	5781.00	54	5798.00
4	5748.00	21	5765.00	38	5782.00	55	5799.00
5	5749.00	22	5766.00	39	5783.00	56	5800.00
6	5750.00	23	5767.00	40	5784.00	57	5801.00
7	5751.00	24	5768.00	41	5785.00	58	5802.00
8	5752.00	25	5769.00	42	5786.00	59	5803.00
9	5753.00	26	5770.00	43	5787.00	60	5804.00
10	5754.00	27	5771.00	44	5788.00	61	5805.00
11	5755.00	28	5772.00	45	5789.00	62	5806.00
12	5756.00	29	5773.00	46	5790.00	63	5807.00
13	5757.00	30	5774.00	47	5791.00	64	5808.00
14	5758.00	31	5775.00	48	5792.00	65	5809.00
15	5759.00	32	5776.00	49	5793.00	66	5810.00
16	5760.00	33	5777.00	50	5794.00		
17	5761.00	34	5778.00	51	5795.00		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The Lowest channel(CH1)	5745MHz
The Middle channel(CH33)	5777MHz
The Highest channel(CH66)	5810MHz

5.3 Test Environment and Mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1005 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting with modulation.

5.4 Description of Support Units

The EUT has been tested independent unit.

5.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch,
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.
Tel: +86 755 2601 2053 Fax: +86 755 2671 0594
No tests were sub-contracted.

5.6 Test Facility

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

•CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

• Industry Canada (IC)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

5.10 Equipment List

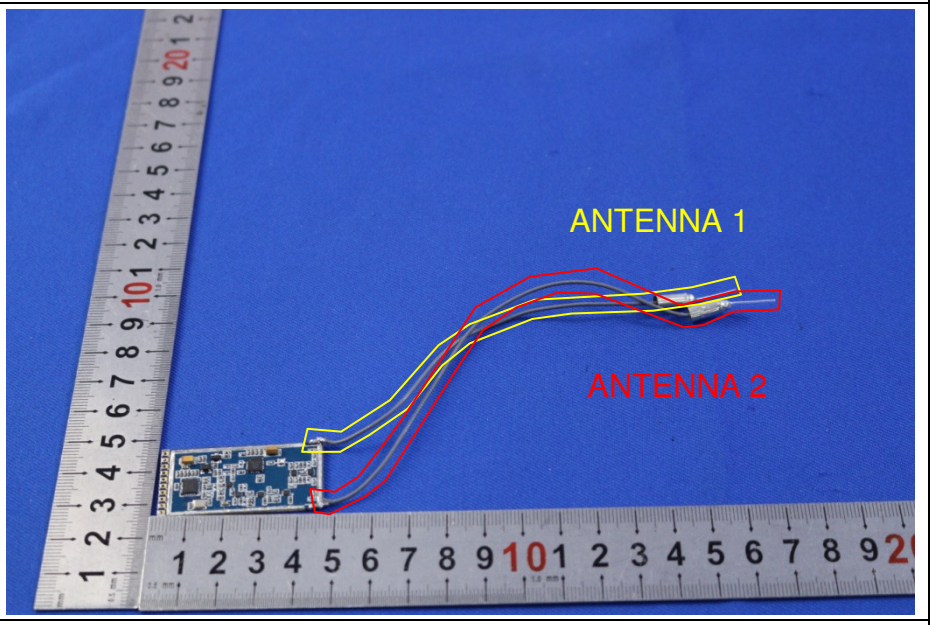
RF connected test						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. Date (yyyy-mm-dd)**	**Cal. Due date (yyyy-mm-dd)**
1	DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
3	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
4	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09

RE in Chamber						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy-mm-dd)**	**Cal.Due date (yyyy-mm-dd)**
1	10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2016-05-13	2017-05-13
2	EMI Test Receiver (9k-7GHz)	Rohde & Schwarz	ESR	SEM004-03	2016-04-25	2017-04-25
3	Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-18	2016-06-29	2019-06-29
4	Pre-amplifier	Sonoma Instrument Co	310N	SEM005-03	2016-07-06	2017-07-06
5	Loop Antenna	ETS-Lindgren	6502	SEM003-08	2015-08-14	2018-08-14

RE in Chamber						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy-mm-dd)**	**Cal.Due date (yyyy-mm-dd)**
1	3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2016-05-13	2017-05-13
2	EXA Spectrum Analyzer	Agilent Technologies Inc	N9010A	SEM004-09	2016-07-19	2017-07-19
3	BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
4	Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2016-10-09	2017-10-09
5	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
6	Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
7	Horn Antenna (26GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEM003-13	2015-02-12	2018-02-12
8	Low Noise Amplifier	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2016-10-09	2017-10-09
9	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A

6 Test results and Measurement Data

6.1 Antenna Requirement

Test Requirement:	47 CFR Part 15 Section 15.203
EUT Antenna:	
The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2dBi.	

6.2 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)
Test Method:	ANSI C63.10: 2013
Test Site:	Below 1GHz: Measurement Distance: 10m (Semi-Anechoic Chamber) Above 1GHz: Measurement Distance: 3m (Full-Anechoic Chamber)

Limit: (Spurious Emissions)

Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Limit: (Field strength of the fundamental signal)

Frequency	Limit (dBuV/m @3m)	Remark
5725MHz-5875MHz	94.0	Average Value
	114.0	Peak Value

Test Setup:

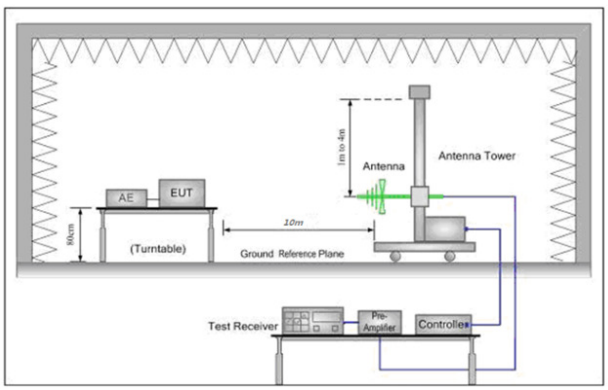


Figure 1. 30MHz to 1GHz

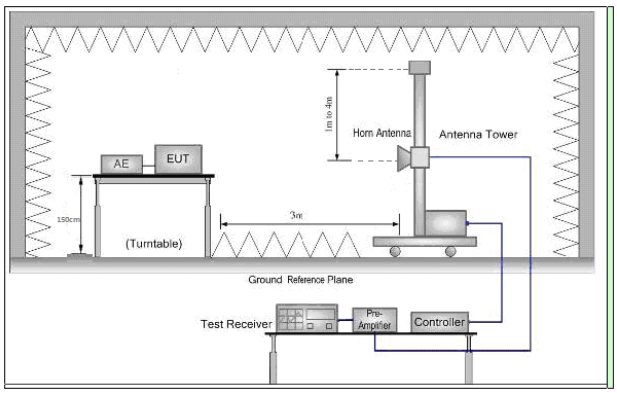


Figure 2. Above 1 GHz

Test Procedure:

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For 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 camber. The table was rotated 360 degrees to determine the position of the highest radiation. c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. h. Test the EUT in the lowest channel, the middle channel, and the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the Y axis positioning which it is the worst case. j. Repeat above procedures until all frequencies measured was complete.
Test Mode:	Transmitting with modulations
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass
Note:	The pretest was performed on both antennas and found that the data of antenna 1 is the worst. So only the data of the worst case is recorded in the report.

Measurement Data

6.2.1.1 Field Strength Of The Fundamental Signal

Peak value:

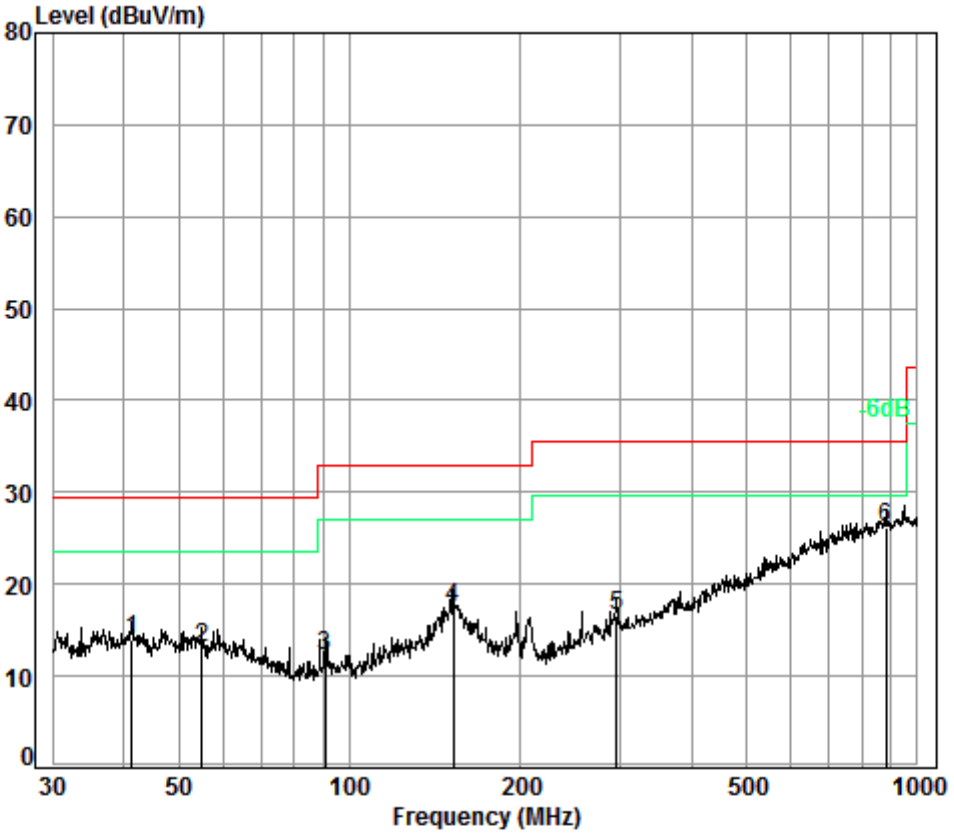
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5744.586	34.55	8.50	38.35	99.19	103.89	114	-10.11	Horizontal
5744.486	34.55	8.50	38.35	88.90	93.60	114	-20.40	Vertical
5776.485	34.57	8.53	38.34	98.86	103.62	114	-10.38	Horizontal
5776.525	34.57	8.53	38.34	90.59	95.35	114	-18.65	Vertical
5809.517	34.59	8.56	38.34	97.84	102.65	114	-11.35	Horizontal
5809.517	34.59	8.56	38.34	88.04	92.85	114	-21.15	Vertical

Average value:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5744.586	34.55	8.50	38.35	87.69	92.39	94	-1.61	Horizontal
5744.486	34.55	8.50	38.35	77.81	82.51	94	-11.49	Vertical
5776.485	34.57	8.53	38.34	87.07	91.83	94	-2.17	Horizontal
5776.525	34.57	8.53	38.34	78.93	83.69	94	-10.31	Vertical
5809.517	34.59	8.56	38.34	86.34	91.15	94	-2.85	Horizontal
5809.517	34.59	8.56	38.34	76.14	80.95	94	-13.05	Vertical

6.2.2 Radiated emission below 1GHz

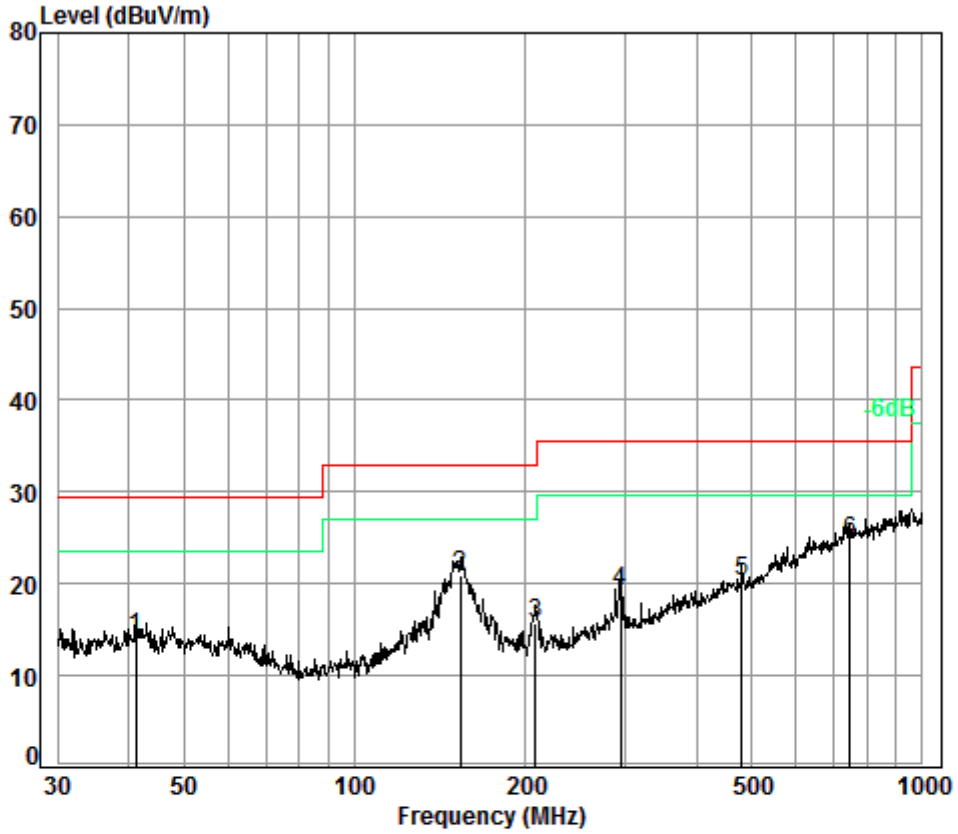
30MHz~1GHz (QP)		
Test mode:	Transmitting mode	Vertical



Condition: 10m Vertical
Job No. : 9257CR
Test Mode: TX Mode

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	41.42	6.80	13.20	32.99	26.91	13.92	29.50	-15.58
2	55.03	7.00	12.37	32.97	26.78	13.18	29.50	-16.32
3	90.54	7.20	8.73	32.83	29.13	12.23	33.00	-20.77
4	152.13	7.46	13.41	32.74	29.37	17.50	33.00	-15.50
5	295.15	8.04	12.54	32.60	28.55	16.53	35.60	-19.07
6 pp	881.41	9.50	21.98	32.52	27.25	26.21	35.60	-9.39

Test mode:	Transmitting mode	Horizontal



Condition: 10m HORIZONTAL
Job No. : 9257CR
Test Mode: TX Mode

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	41.28	6.80	13.21	32.99	27.19	14.21	29.50	-15.29
2	153.74	7.47	13.40	32.74	32.86	20.99	33.00	-12.01
3	208.58	7.64	9.50	32.69	31.20	15.65	33.00	-17.35
4	294.11	8.04	12.51	32.60	31.32	19.27	35.60	-16.33
5	480.53	8.50	16.53	32.60	27.77	20.20	35.60	-15.40
6 pp	744.87	9.20	20.71	32.60	27.29	24.60	35.60	-11.00

For frequencies below 1GHz, the test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$L_3 / L_{10} = D_{10} / D_3$

Note:

L_3: Level @ 3m distance. Unit: uV/m;

L_{10}: Level @ 10m distance. Unit: uV/m;

D_3: 3m distance. Unit: m

D_{10}: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
41.42	13.92	4.97	16.55	24.38	40.00	-15.62	V
55.03	13.18	4.56	15.20	23.64	40.00	-16.36	V
90.54	12.23	4.09	13.63	22.69	43.50	-20.81	V
152.13	17.50	7.50	25.00	27.96	43.50	-15.54	V
295.15	16.53	6.71	22.36	26.99	46.00	-19.01	V
881.41	26.21	20.44	68.14	36.67	46.00	-9.33	V
41.28	14.21	5.13	17.12	24.67	40.00	-15.33	H
153.74	20.99	11.21	37.36	31.45	43.50	-12.05	H
208.58	15.65	6.06	20.20	26.11	43.50	-17.39	H
294.11	19.27	9.19	30.65	29.73	46.00	-16.27	H
480.53	20.20	10.23	34.11	30.66	46.00	-15.34	H
744.87	24.60	16.98	56.61	35.06	46.00	-10.94	H

6.2.3Transmitter emission above 1GHz

Test plot as follows:

Frequency(MHz):	5745				Remark:		Peak	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8455.376	36.05	11.78	37.35	41.15	51.63	74.00	-22.37	Vertical
9918.646	37.58	12.67	36.84	38.89	52.30	74.00	-21.70	Vertical
11490.000	38.09	14.01	37.80	50.96	65.26	74.00	-8.74	Vertical
13292.500	38.68	15.63	39.66	38.04	52.69	74.00	-21.31	Vertical
15243.400	41.35	16.78	40.25	35.11	52.99	74.00	-21.01	Vertical
17234.730	43.08	19.50	37.98	28.95	53.55	74.00	-20.45	Vertical
7944.406	36.57	11.03	37.45	40.22	50.37	74.00	-23.63	Horizontal
9532.901	37.51	12.46	37.03	41.26	54.20	74.00	-19.80	Horizontal
11493.170	38.09	14.01	37.80	55.09	69.39	74.00	-4.61	Horizontal
13242.370	38.70	15.61	39.60	37.60	52.31	74.00	-21.69	Horizontal
14873.640	41.08	16.50	40.50	35.73	52.81	74.00	-21.19	Horizontal
17235.000	43.08	19.50	37.98	28.87	53.47	74.00	-20.53	Horizontal

Frequency(MHz):	5745				Remark:		Average	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11490.000	38.09	14.01	37.80	31.14	45.44	54.00	-8.56	Vertical
11490.000	38.09	14.01	37.80	31.28	45.58	54.00	-8.42	Horizontal

Frequency(MHz):		5777			Remark:		Peak	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8203.654	36.35	11.39	37.38	41.60	51.96	74.00	-22.04	Vertical
9578.025	37.52	12.48	37.00	39.11	52.11	74.00	-21.89	Vertical
11554.000	38.16	14.08	37.87	55.08	69.45	74.00	-4.55	Vertical
13648.700	38.78	15.85	40.09	38.15	52.69	74.00	-21.31	Vertical
15402.590	41.38	16.93	40.09	35.03	53.25	74.00	-20.75	Vertical
17332.670	43.20	19.84	37.89	28.28	53.43	74.00	-20.57	Vertical
7899.514	36.54	11.01	37.49	41.56	51.62	74.00	-22.38	Horizontal
9363.361	37.26	12.27	37.11	39.59	52.01	74.00	-21.99	Horizontal
11554.000	38.16	14.08	37.86	56.59	70.97	74.00	-3.03	Horizontal
13765.210	38.92	15.98	40.23	37.85	52.52	74.00	-21.48	Horizontal
15711.130	41.31	17.23	39.78	34.00	52.76	74.00	-21.24	Horizontal
17332.670	43.20	19.84	37.89	28.68	53.83	74.00	-20.17	Horizontal

Frequency(MHz):		5777			Remark:		Average	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11554.000	38.16	14.08	37.86	31.39	45.77	54.00	-8.23	Vertical
11554.000	38.15	14.07	37.86	31.52	45.88	54.00	-8.12	Horizontal

Frequency(MHz):		5810			Remark:		Peak	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
8352.195	36.17	11.62	37.36	40.80	51.23	74.00	-22.77	Vertical
9779.120	37.56	12.59	36.91	38.78	52.02	74.00	-21.98	Vertical
11620.000	38.23	14.15	37.93	54.52	68.97	74.00	-5.03	Vertical
13700.360	38.84	15.91	40.15	37.83	52.43	74.00	-21.57	Vertical
15460.890	41.39	16.99	40.03	34.19	52.54	74.00	-21.46	Vertical
17431.170	43.32	20.18	37.81	28.07	53.76	74.00	-20.24	Vertical
8407.597	36.11	11.71	37.36	40.97	51.43	74.00	-22.57	Horizontal
9797.610	37.56	12.60	36.90	39.35	52.61	74.00	-21.39	Horizontal
11620.000	38.22	14.14	37.92	56.50	70.94	74.00	-3.06	Horizontal
13843.440	39.01	16.07	40.32	37.33	52.09	74.00	-21.91	Horizontal
15711.130	41.31	17.23	39.78	34.13	52.89	74.00	-21.11	Horizontal
17431.170	43.32	20.18	37.81	27.53	53.22	74.00	-20.78	Horizontal

Frequency(MHz):		5810			Remark:		Average	
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11620.000	38.23	14.15	37.93	32.03	46.48	54.00	-7.52	Vertical
11620.000	38.22	14.14	37.92	31.94	46.38	54.00	-7.62	Horizontal

Remark:
1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

2) Scan from 9kHz to 40GHz, The disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

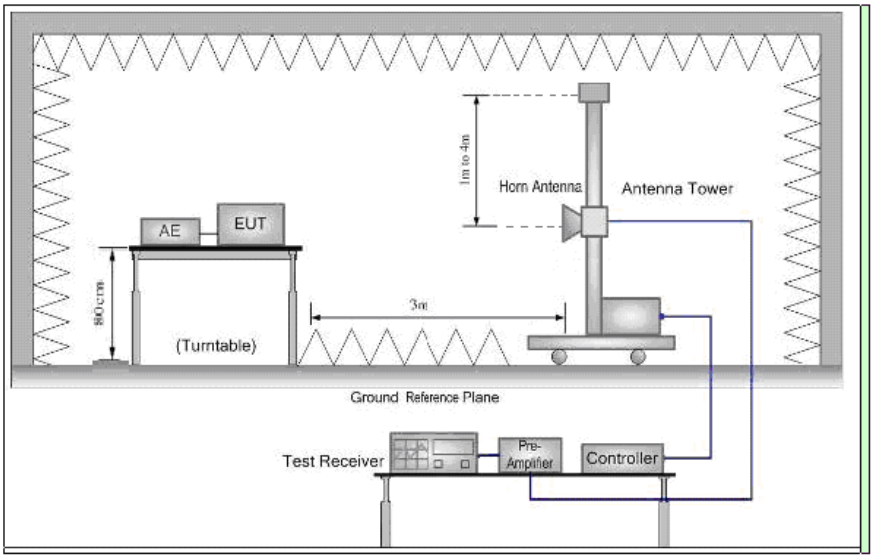
6.3 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15 Section 15.407(b)
Test Method:	ANSI C63.10: 2013
Test Site:	Measurement Distance: 3m (Full-Anechoic Chamber)

Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	54.0	Average Value
	74.0	Peak Value

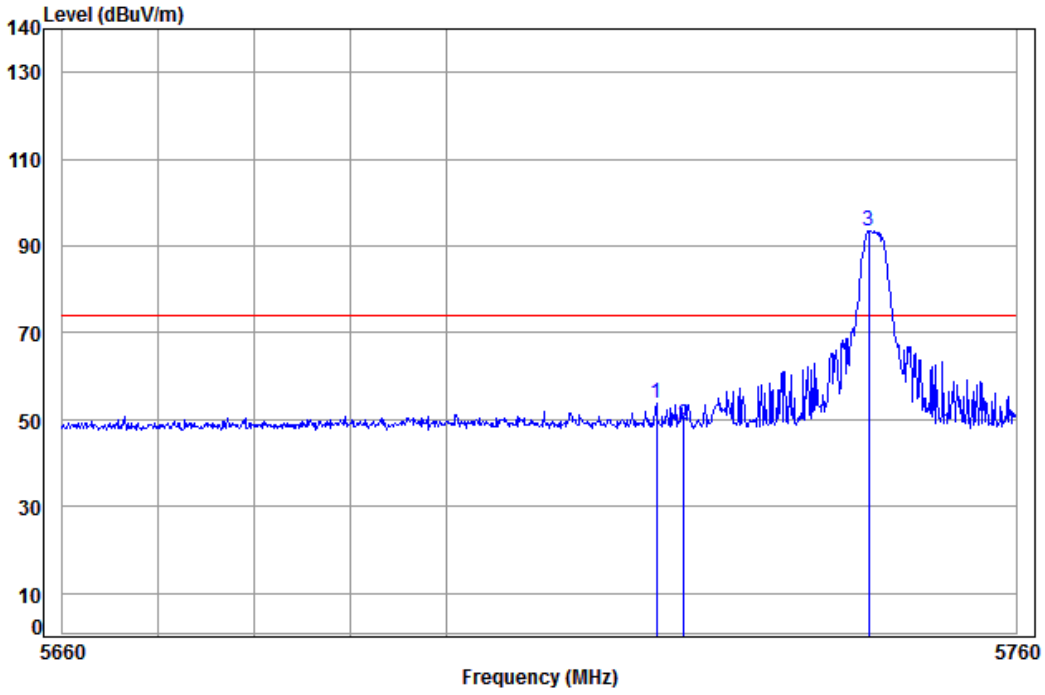
Test Setup:



Test Procedure:	a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. 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. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the outermost channels. h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the Y axis positioning which it is worse case. i. Repeat above procedures until all frequencies measured was complete.
Test Mode:	Transmitting with modulations.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass
Note:	The pretest was performed on both antennas and found that the data of antenna 1 is the worst. So only the data of the worst case is recorded in the report.

Test plot as follows:

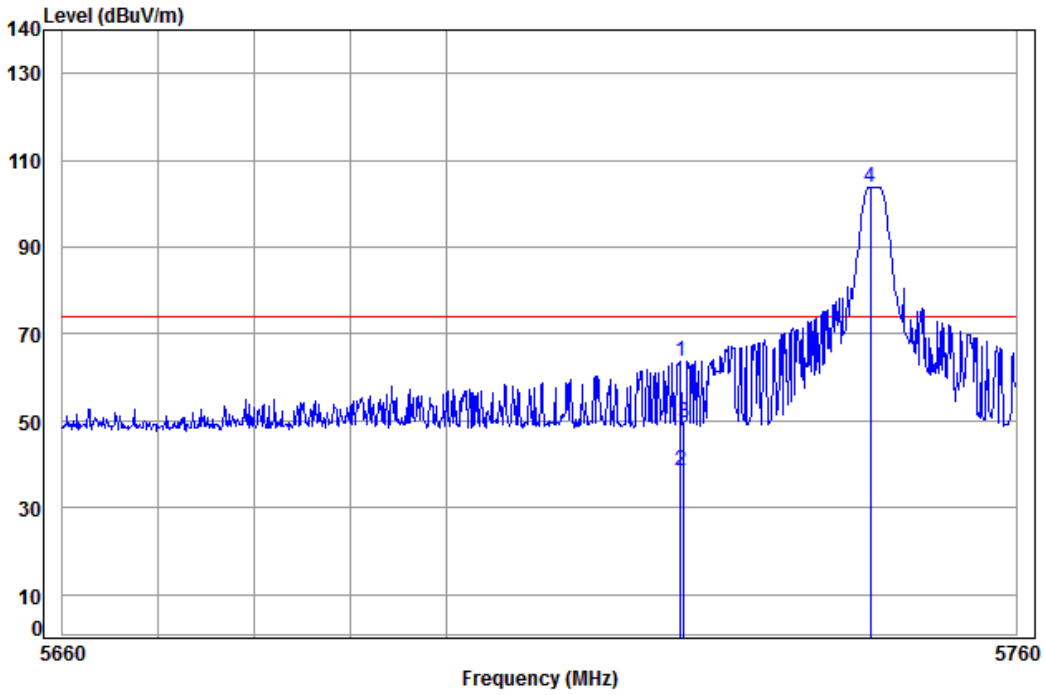
Frequency(MHz):	5745	Vertical



Condition: 3m VERTICAL
Job No: : 9257CR
Mode: : 5745 Band edge

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5722.094	8.48	34.54	38.36	49.07	53.73	74.00	-20.27
2	5725.000	8.48	34.54	38.35	44.29	48.96	74.00	-25.04
3 pp	5744.486	8.50	34.55	38.35	88.90	93.60	74.00	19.60

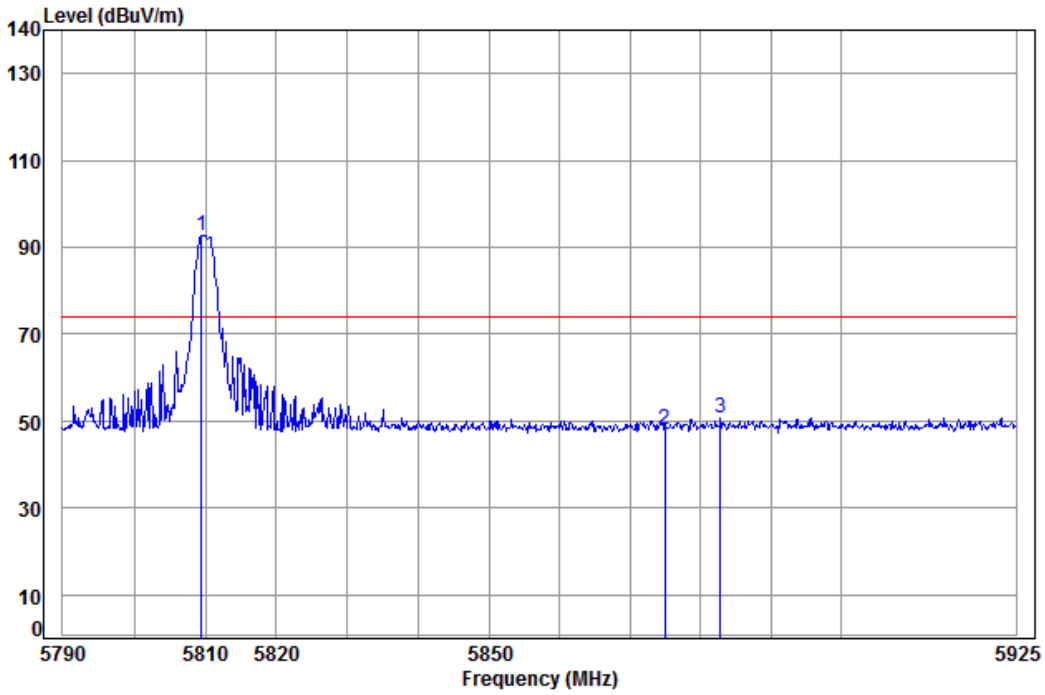
Frequency(MHz):	5745	Horizontal



Condition: 3m HORIZONTAL
Job No: : 9257CR
Mode: : 5745 Band edge

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5724.600	8.48	34.54	38.36	59.02	63.68	74.00	-10.32
2 av	5724.600	8.48	34.54	38.36	33.96	38.62	54.00	-15.38
3	5725.001	8.48	34.54	38.35	45.10	49.77	74.00	-24.23
4 pp	5744.586	8.50	34.55	38.35	99.19	103.89	74.00	29.89

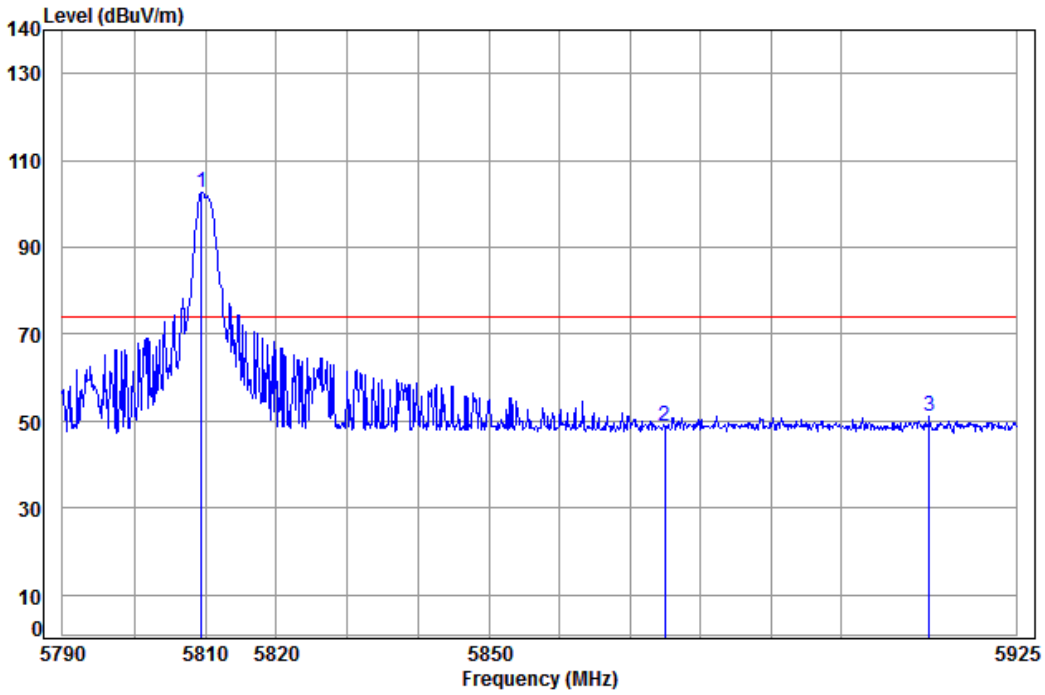
Frequency(MHz):	5810	Vertical



Condition: 3m VERTICAL
Job No: : 9257CR
Mode: : 5810 Band edge

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	pp 5809.517	8.56	34.59	38.34	88.04	92.85	74.00	18.85	
2	5874.958	8.63	34.63	38.33	43.08	48.01	74.00	-25.99	
3	5882.817	8.64	34.63	38.32	45.86	50.81	74.00	-23.19	

Frequency(MHz):	5810	Horizontal



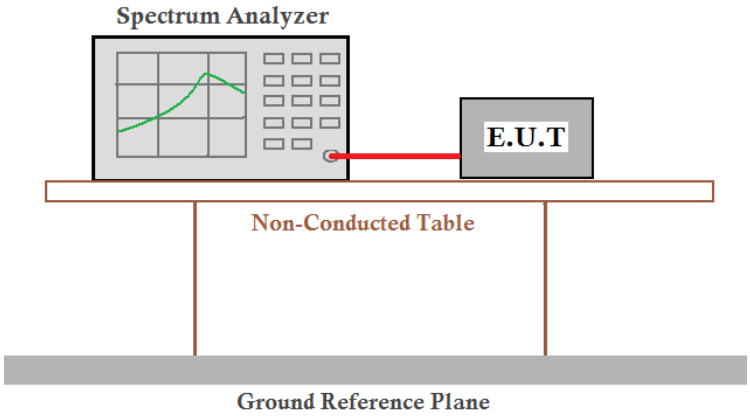
Condition: 3m HORIZONTAL
Job No: : 9257CR
Mode: : 5810 Band edge

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	pp 5809.517	8.56	34.59	38.34	97.84	102.65	74.00	28.65	
2	5874.958	8.63	34.63	38.33	43.98	48.91	74.00	-25.09	
3	5912.586	8.67	34.65	38.32	46.30	51.30	74.00	-22.70	

Note:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

6.4 20dB Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.215
Test Method:	ANSI C63.10:2013
Test Setup:	
Instruments Used:	Refer to section 5.10 for details
Test Mode:	Transmitting mode with modulation
Limit:	N/A
Test Results:	Pass

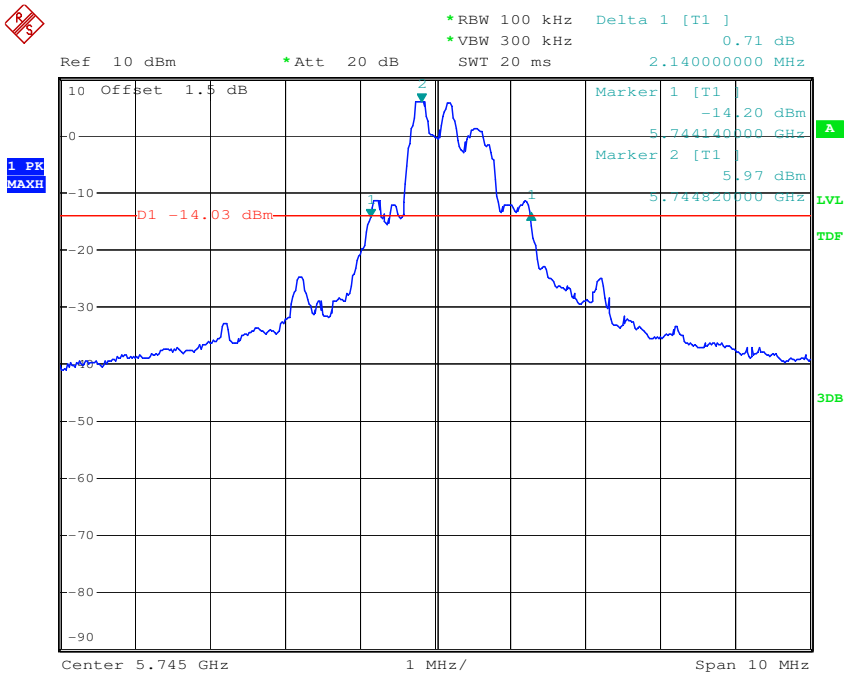
Measurement Data

Test channel	20dB bandwidth (MHz)		Results
	ANTENNA 1	ANTENNA 2	
Lowest	2.14	2.14	Pass
Middle	2.18	2.20	Pass
Highest	2.14	2.16	Pass

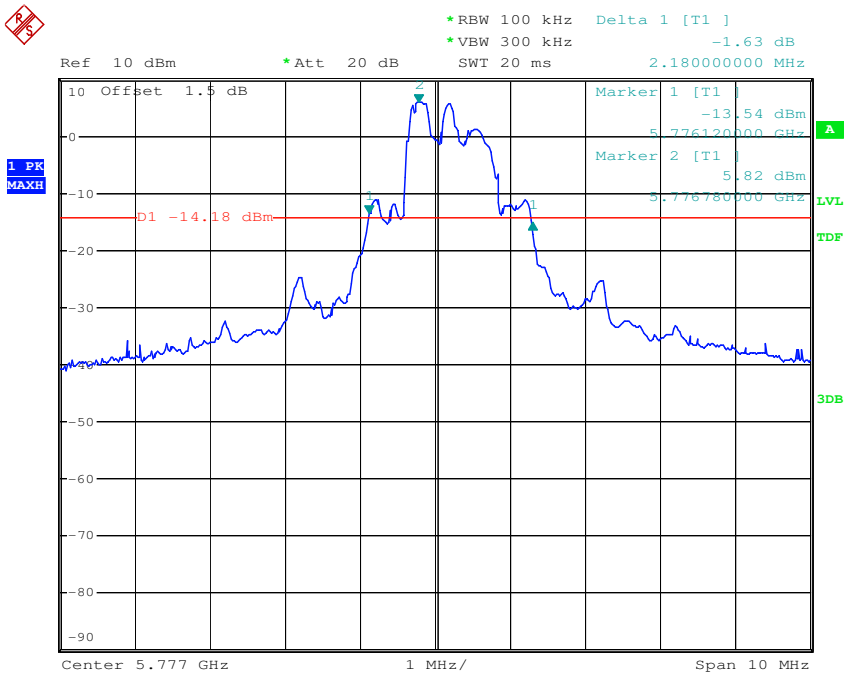
Test plot as follows:

ANTENNA 1

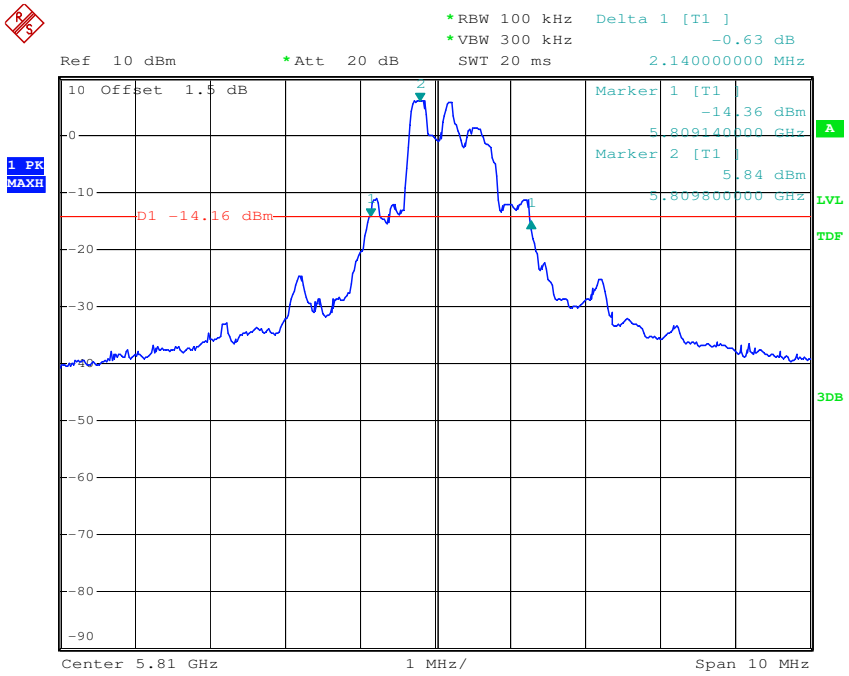
Test channel:	Lowest



Test channel:	Middle

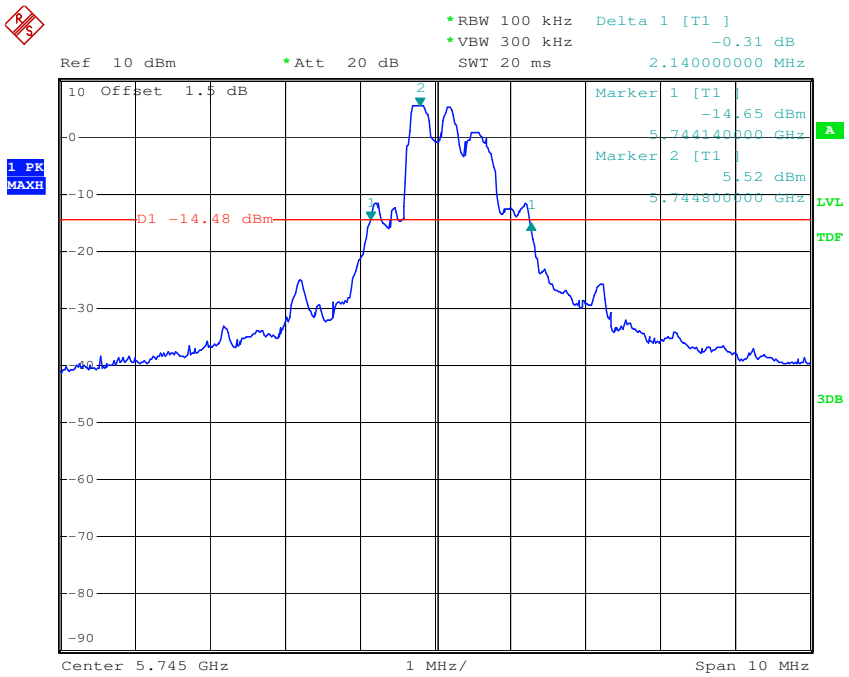


Test channel:	Highest

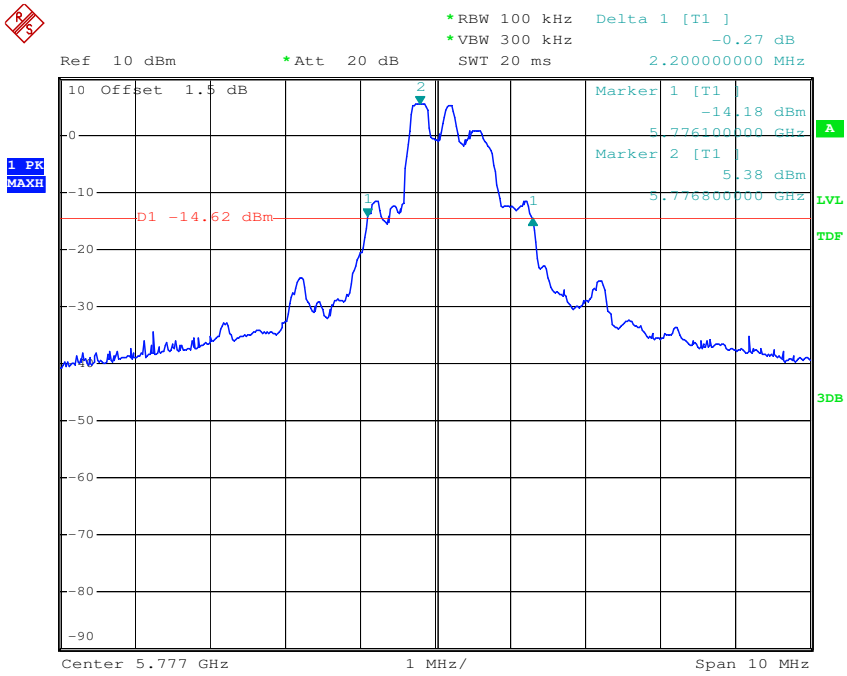


ANTENNA 2

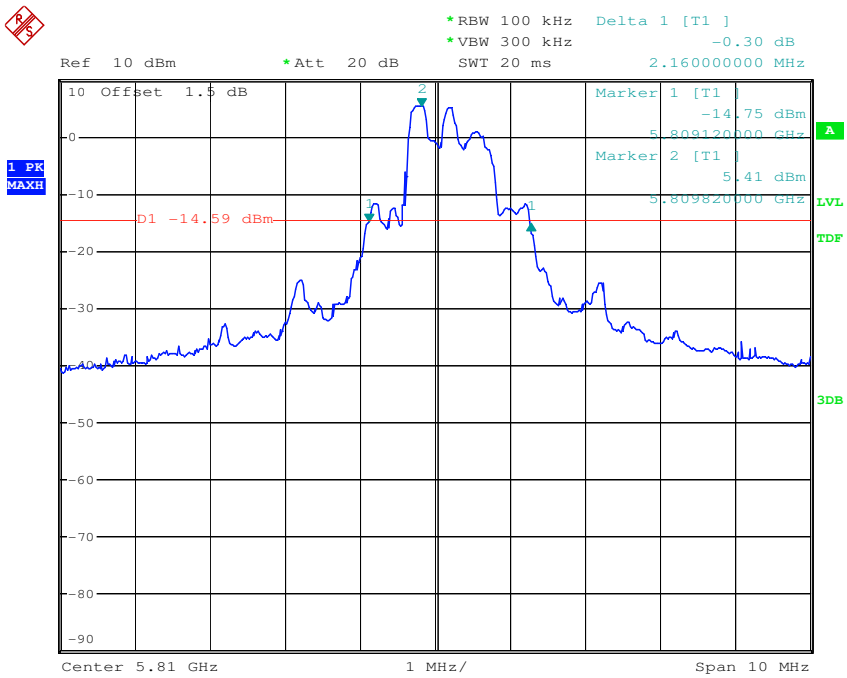
Test channel:	Lowest



Test channel:	Middle



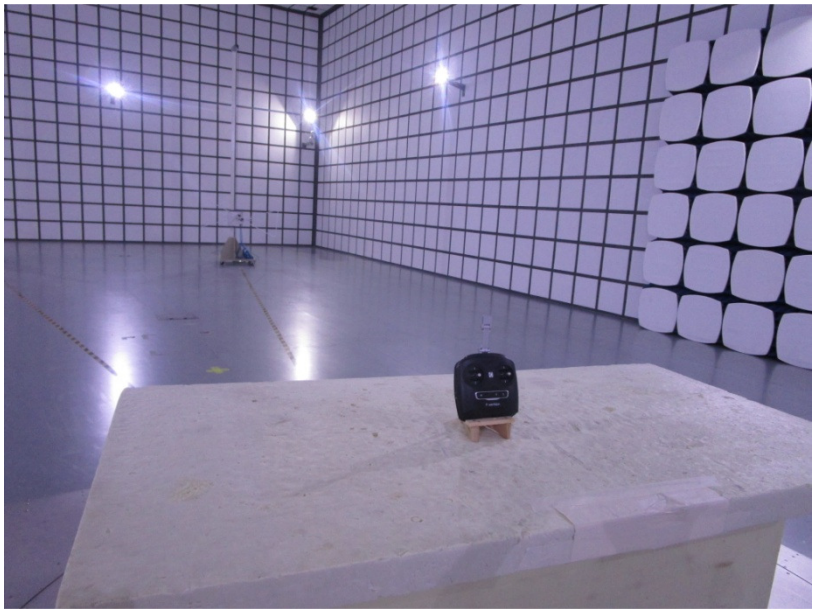
Test channel:	Highest

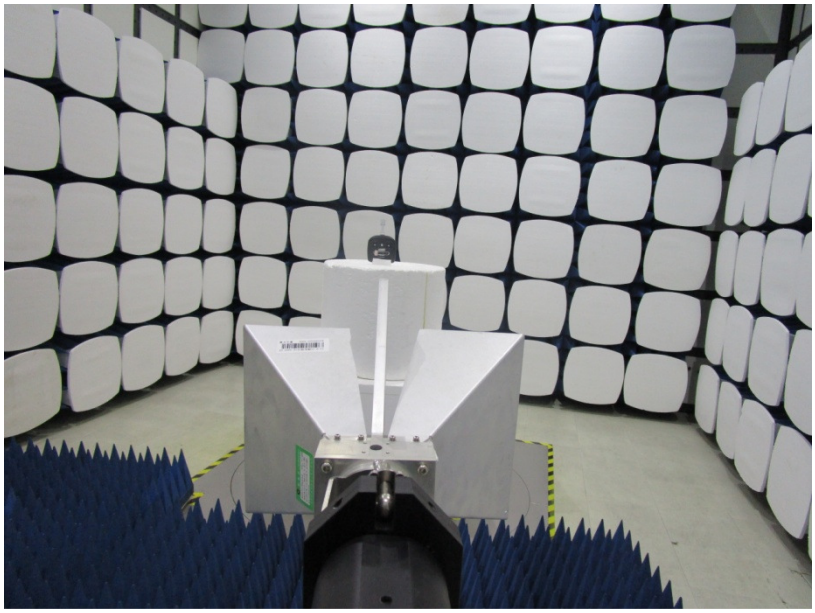


7 Photographs - EUT Test Setup

Test model No.: PEYSC10

7.1 Radiated Spurious Emission





8 Photographs - EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for SZEM1610009257CR.