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

No. 1 Workshop, M-10, Middle section, Science & Technology Park,

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TEST REPORT

Application No.:	SZEM1604002794CR
Applicant:	Guangdong Cheerson Hobby Technology Co., Ltd.
Manufacturer:	Guangdong Cheerson Hobby Technology Co., Ltd.
Factory:	Guangdong Cheerson Hobby Technology Co., Ltd.
Product Name:	UFO
Model No.(EUT):	CX-91
Add Model No.:	CX-91A,CX-91B,CX-91C,CX-91D,CX-92,CX-93,CX-94,CX-95,CX-96,CX-97, CX-98,CX-22,CX-36,CX-37,CX-38,CX-39,CX-50,CX-51,CX-52,6048F,6048S, CX-20,CX-10,CX-10A,CX-10C,CX-10W,CX-10D,CX-10DS,CX-12,CX-33,CX-35.
FCC ID:	2AD6LGC03249102
Standards:	47 CFR Part 15, Subpart C (2015)
Date of Receipt:	2016-04-27
Date of Test:	2016-05-06 to 2016-05-18
Date of Issue:	2016-05-27
Test Result:	**PASS ***

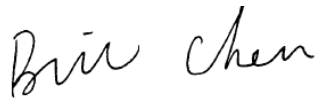
* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:

Jack Zhang
EMC Laboratory Manager

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		2016-05-18		Original

Authorized for issue by:				
Tested By		 **(Bill Chen) /Project Engineer**		2016-05-18 **Date**
Prepared By		 **(Joyce Shi) /Clerk**		2016-05-27 **Date**
Checked By		 **(Eric Fu) /Reviewer**		2016-05-27 **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)	PASS
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

4 Contents

5 General Information

5.1 Client Information

Applicant:	Guangdong Cheerson Hobby Technology Co., Ltd.
Address of Applicant:	Fengxin No.2 Road & Laimei Road Fengxin Industrial Zone Chenghai Shantou Guangdong province, China
Manufacturer:	Guangdong Cheerson Hobby Technology Co., Ltd.
Address of Manufacturer:	Fengxin No.2 Road & Laimei Road Fengxin Industrial Zone Chenghai Shantou Guangdong province, China
Factory:	Guangdong Cheerson Hobby Technology Co., Ltd.
Address of Factory:	Fengxin No.2 Road & Laimei Road Fengxin Industrial Zone Chenghai Shantou Guangdong province, China

5.2 General Description of EUT

Product Name:	UFO
Model No.:	CX-91
Frequency Range:	5.8GHz Wireless (5745MHz-5865MHz 20MHz steps)
Modulation Type	FM
Antenna Type:	Dedicated
Antenna Gain:	0.25dBi
Power Supply:	Remote control: 6.0VDC (1.5V x 4 "AAA" Size Batteries) Unmanned aerial vehicle (uav) adapter： MODEL：JHEE1500800 PRI：100-240V 50/60Hz SEC：15V 800mA Unmanned aerial vehicle (uav) Battery:DC 11.1V 1600mAh 5.8GHz Receiver: Rechargeable battery DC 3.7V 2000mAh 7.4Wh (charge by USB)

Remark:

Model No.: CX-91, CX-91A,CX-91B,CX-91C,CX-91D,CX-92,CX-93,CX-94,CX-95,CX-96,CX-97,CX-98,CX-22,CX-36,CX-37,CX-38,CX-39,CX-50,CX-51,CX-52,6048F,6048S,CX-20,CX-10,CX-10A,CX-10C,CX-10W,CX-10D,CX-10DS,CX-12,CX-33,CX-35.

Only the model CX-91 was tested, since the circuit design, PCB layout, electrical components used, internal wiring and functions were identical for the above models, only different on model No..

Operation Frequency each of channel			
Channel	Frequency	Channel	Frequency
1 CH	5745 MHz	5 CH	5825 MHz
2 CH	5765 MHz	6 CH	5845 MHz
3 CH	5785 MHz	7 CH	5865 MHz
4 CH	5805 MHz		

Using test software was control EUT work in continuous transmitter and receiver mode.and select test channel as below:

Channel	Frequency
The lowest channel (CH1)	5745MHz
The middle channel (CH4)	5805MHz
The highest channel (CH7)	5865MHz

5.3 Test Environment and Mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	55 % RH
Atmospheric Pressure:	1015 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with modulation.

5.4 Description of Support Units

The EUT has been tested independently.

5.5 Test Location

All tests were performed at:

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

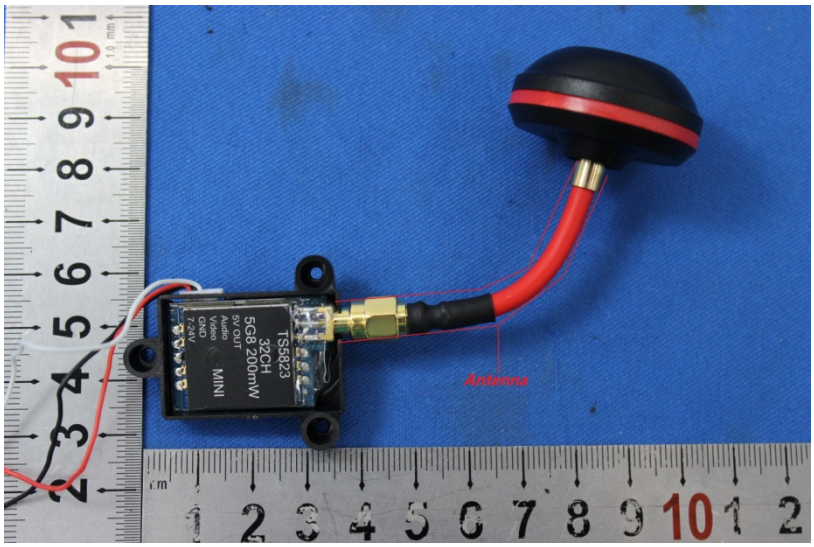
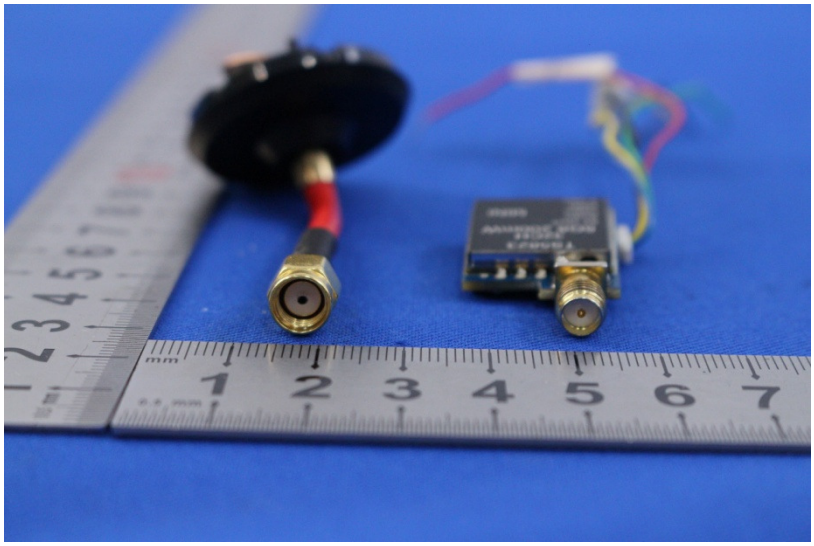
RE in Chamber						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal. date (yyyy-mm-dd)**	**Cal.Due date (yyyy-mm-dd)**
1	10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2015-08-01	2016-08-01
2	EMI Test Receiver (9k-3GHz)	Rohde & Schwarz	ESCI	SEM004-01	2016-04-25	2017-04-25
3	Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-17	2016-01-26	2017-01-26
4	Pre-amplifier	Sonoma Instrument Co	310N	SEM005-03	2016-04-25	2017-04-25
5	Loop Antenna	ETS-Lindgren	6502	SEM003-08	2015-08-14	2016-08-14

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	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEM004-04	2016-04-25	2017-04-25
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	2015-10-09	2016-10-09
5	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
6	Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-14	2014-11-24	2017-11-24
7	Low Noise Amplifier	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2015-10-09	2016-10-09
8	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A

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	2015-10-09	2016-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2015-10-17	2016-10-17
3	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
4	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2015-10-09	2016-10-09

6 Test results and Measurement Data

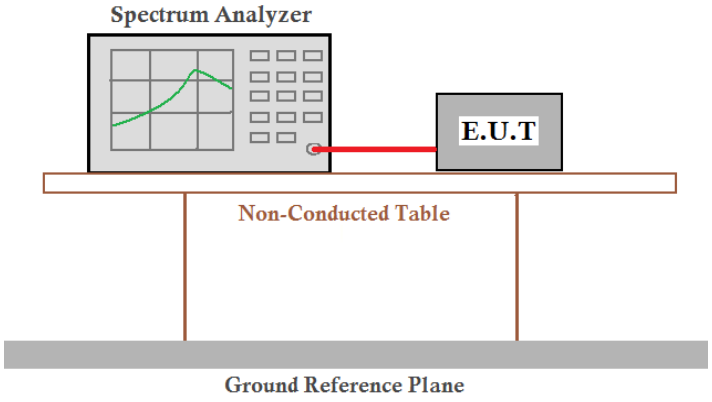
6.1 Antenna Requirement

Standard requirement:	47 CFR Part 15C Section 15.203
15.203 requirement: 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.	
EUT Antenna:	 
The antenna is connected to the main PCB board via antenna connector. It is reverse polarity SMA which is a unique (non-standard) antenna connector, so it does meet the standards15.203. The best	

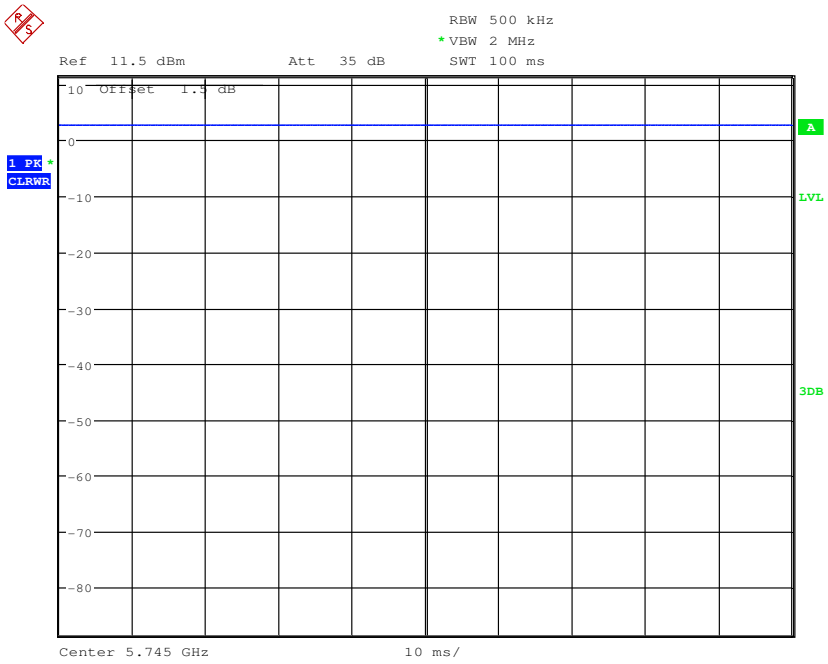
case gain of the antenna is 0.25dBi.

6.2 Spurious Emissions

6.2.1 Duty Cycle

Test Requirement:	47 CFR Part 15C Section 15.35 (c)
Test Method:	ANSI C63.10:2013 11.6
Test Setup:	
Instruments Used:	Refer to section 5.10 for details
Limit:	N/A
Test Mode:	Transmitting mode
Test Results:	Pass

Test plot as follows:



6.2.2 Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.249 and 15.209
Test Method:	ANSI C63.10: 2013 11.12
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100 kHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

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-5875 MHz	94.0	Average Value
	114.0	Peak Value

Test Setup:	

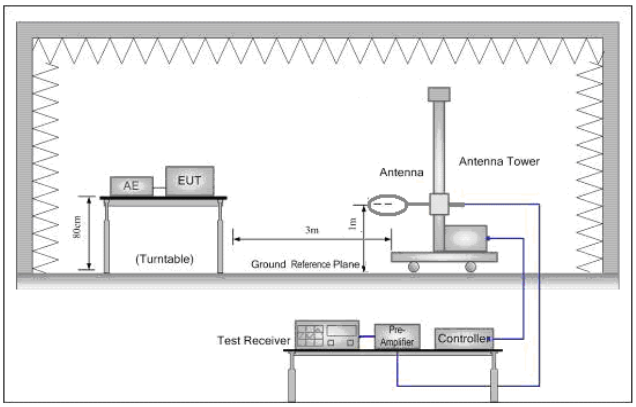


Figure 1. Below 30MHz

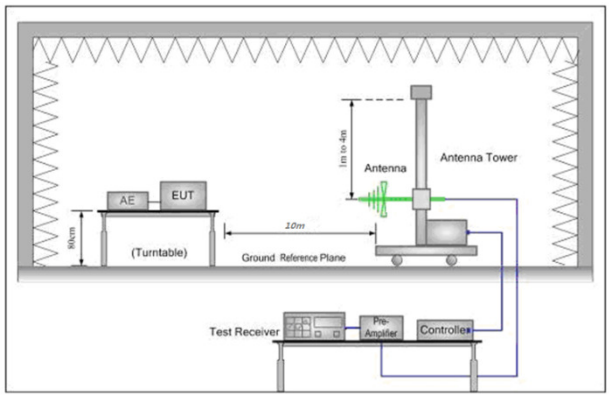


Figure 2. 30MHz to 1GHz

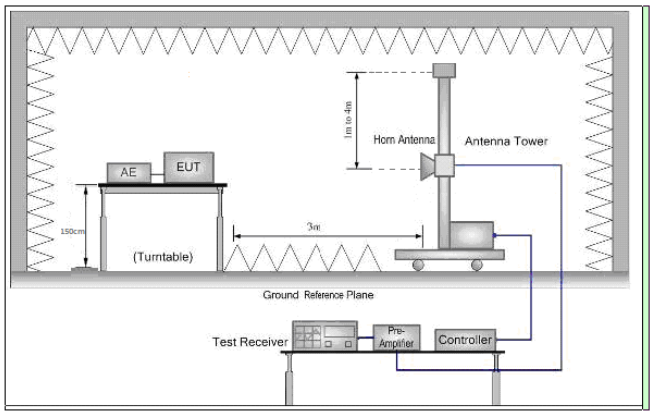


Figure 3. Above 1 GHz

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 3 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 semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation 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 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, the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it is worse case. j. Repeat above procedures until all frequencies measured was complete.
Instruments Used:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting mode,
Final Test Mode:	Pretest the EUT at Transmitting mode, found the Transmitting mode which it is worse case Only the worst case is recorded in the report.
Test Results:	Pass

Measurement Data

6.2.2.1 Field Strength Of The Fundamental Signal

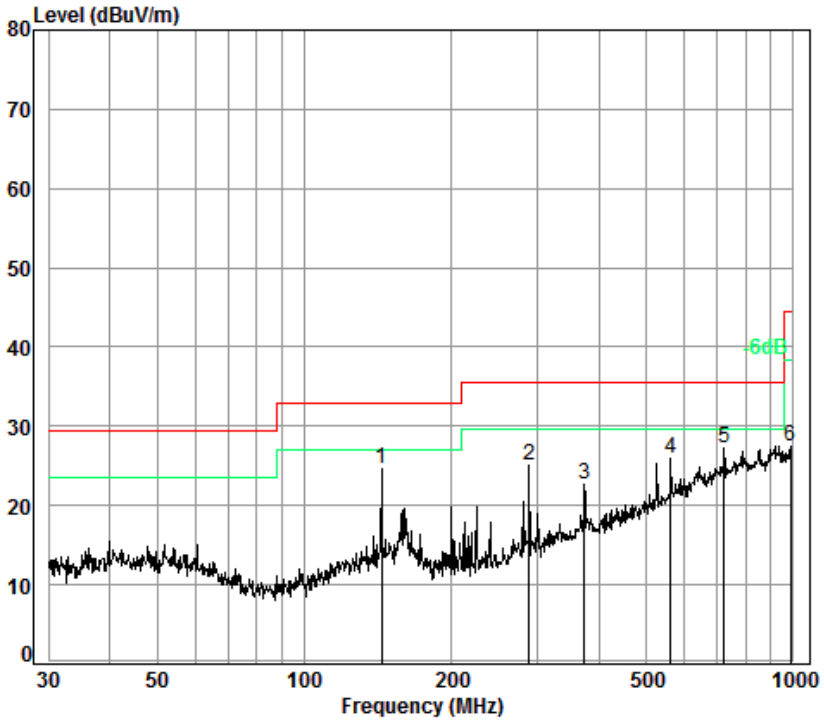
Peak value:

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
5745	34.23	8.5	38.92	89.74	93.55	114	-20.45	Horizontal
5745	34.23	8.5	38.92	88.98	92.79	114	-21.21	Vertical
5805	34.21	10.01	38.93	87.73	93.02	114	-20.98	Horizontal
5805	34.21	10.01	38.93	87.98	93.27	114	-20.73	Vertical
5865	34.36	8.62	38.94	89.61	93.65	114	-20.35	Horizontal
5865	34.36	8.62	38.94	89.83	93.87	114	-20.13	Vertical

Remark:
The peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

6.2.2.2 Spurious Emissions

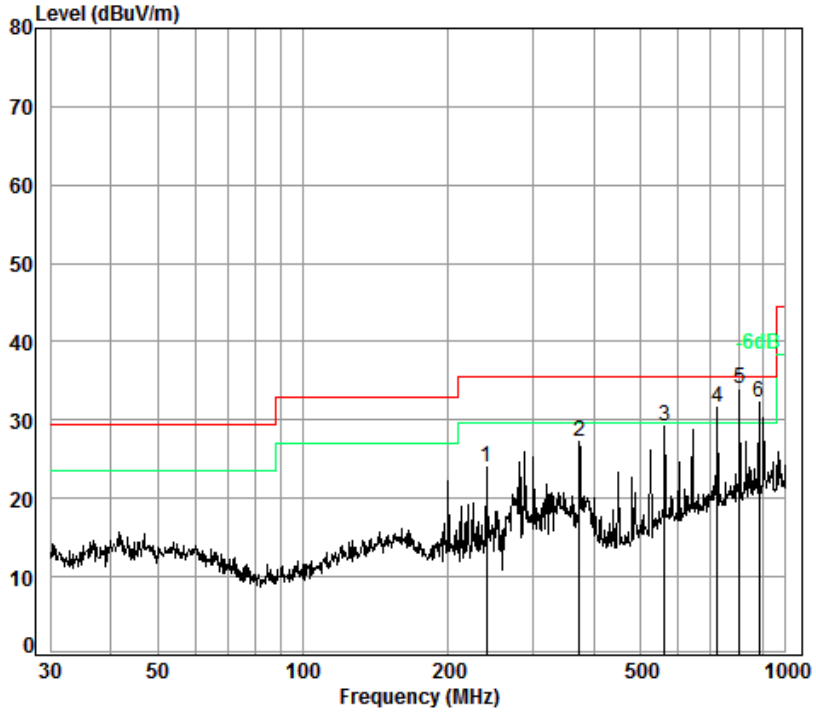
30MHz~1GHz		
Test mode:	Transmitting mode	Vertical



Condition: 10m Vertical
Job No. : 2795CR
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	143.83	7.42	13.01	32.75	37.06	24.74	33.00	-8.26
2	287.99	8.02	12.36	32.61	37.29	25.06	35.60	-10.54
3	374.62	8.30	14.38	32.60	32.62	22.70	35.60	-12.90
4	560.69	8.80	17.92	32.60	31.87	25.99	35.60	-9.61
5 pp	721.73	9.20	20.41	32.60	30.33	27.34	35.60	-8.26
6	986.07	9.60	22.83	32.50	27.59	27.52	44.40	-16.88

Test mode:	Transmitting mode	Horizontal



Condition: 10m Horizontal
Job No. : 2795CR
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	239.99	7.80	11.07	32.66	37.71	23.92	35.60	-11.68
2	374.62	8.30	14.38	32.60	37.26	27.34	35.60	-8.26
3	560.69	8.80	17.92	32.60	35.05	29.17	35.60	-6.43
4	721.73	9.20	20.41	32.60	34.68	31.69	35.60	-3.91
5 pp	801.79	9.30	21.24	32.60	36.00	33.94	35.60	-1.66
6	881.41	9.50	21.98	32.52	33.27	32.23	35.60	-3.37

Above 1GHz					
Test mode:	Transmitting	Test channel:	Lowest	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
3449.984	7.06	32.84	38.72	46.86	48.04	74	-25.96	Vertical
4805.903	6.42	34.71	39.24	46.60	48.49	74	-25.51	Vertical
7698.902	9.35	35.57	39.02	46.61	52.51	74	-21.49	Vertical
9545.682	10.02	37.20	37.97	43.26	52.51	74	-21.49	Vertical
11814.270	10.53	38.52	38.61	42.84	53.28	74	-20.72	Vertical
15401.870	12.98	39.32	41.13	41.86	53.03	74	-20.97	Vertical
3468.578	7.03	32.86	38.73	47.31	48.47	74	-25.53	Horizontal
4823.156	6.46	34.72	39.24	46.83	48.77	74	-25.23	Horizontal
7282.930	9.02	35.55	39.06	47.02	52.53	74	-21.47	Horizontal
9614.342	9.98	37.34	37.93	42.72	52.11	74	-21.89	Horizontal
11490.000	10.39	38.22	38.46	42.98	53.13	74	-20.87	Horizontal
17235.000	16.31	41.01	41.69	36.92	52.55	74	-21.45	Vertical

Test mode:	Transmitting	Test channel:	Middle	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
3382.653	7.19	32.74	38.69	46.21	47.45	74	-26.55	Vertical
4645.047	6.06	34.61	39.18	47.56	49.05	74	-24.95	Vertical
7322.183	9.08	35.50	39.06	46.40	51.92	74	-22.08	Vertical
9359.385	9.97	36.85	38.09	42.40	51.13	74	-22.87	Vertical
11610.000	10.42	38.28	38.50	42.08	52.28	74	-21.72	Vertical
17415.000	16.08	40.96	41.72	37.51	52.83	74	-21.17	Vertical
3394.796	7.17	32.77	38.69	46.52	47.77	74	-26.23	Horizontal
4754.514	6.31	34.67	39.22	46.49	48.25	74	-25.75	Horizontal
7852.148	9.39	35.70	39.01	43.37	49.45	74	-24.55	Horizontal
9443.610	10.02	37.02	38.03	42.34	51.35	74	-22.65	Horizontal
11610.000	10.42	38.28	38.50	40.63	50.83	74	-23.17	Horizontal
17415.000	16.08	40.96	41.72	37.12	52.44	74	-21.56	Horizontal

Test mode:	Transmitting	Test channel:	Highest	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
3588.694	6.92	32.99	38.78	45.08	46.21	74	-27.79	Vertical
4513.773	5.76	34.44	39.14	46.88	47.94	74	-26.06	Vertical
7852.148	9.39	35.7	39.01	43.55	49.63	74	-24.37	Vertical
9409.829	10	36.96	38.05	42.31	51.22	74	-22.78	Vertical
11730	10.46	38.35	38.54	42.34	52.61	74	-21.39	Vertical
17595	15.86	40.91	41.75	37.2	52.22	74	-21.78	Vertical
3406.983	7.15	32.79	38.7	46.64	47.88	74	-26.12	Horizontal
4771.583	6.35	34.68	39.23	47.27	49.07	74	-24.93	Horizontal
7374.85	9.15	35.45	39.05	44.99	50.54	74	-23.46	Horizontal
9392.984	9.99	36.93	38.06	43.14	52	74	-22	Horizontal
11730	10.46	38.35	38.54	42.68	52.95	74	-21.05	Horizontal
17595	15.86	40.91	41.75	37.8	52.82	74	-21.18	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 .

3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

6.3 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205
Test Method:	ANSI C63.10: 2013 11.12
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit(band edge):	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

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:

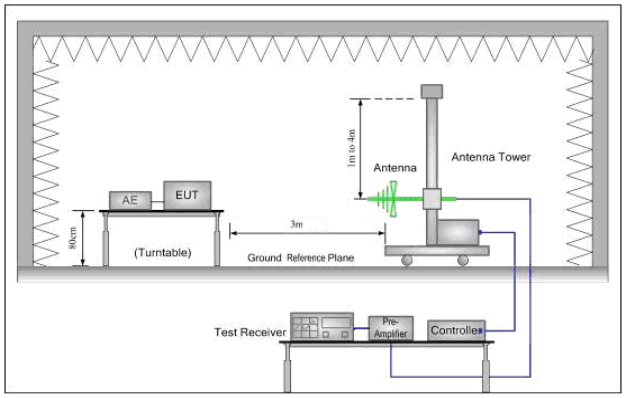


Figure 1. 30MHz to 1GHz

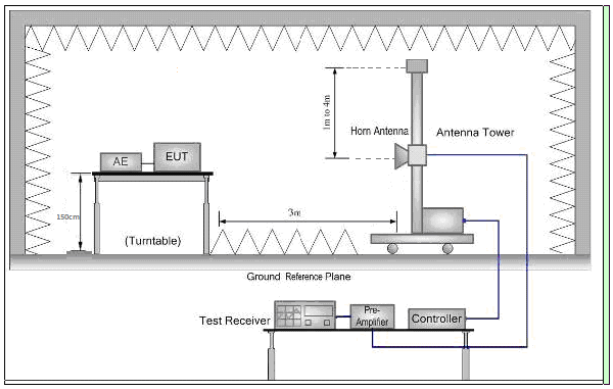
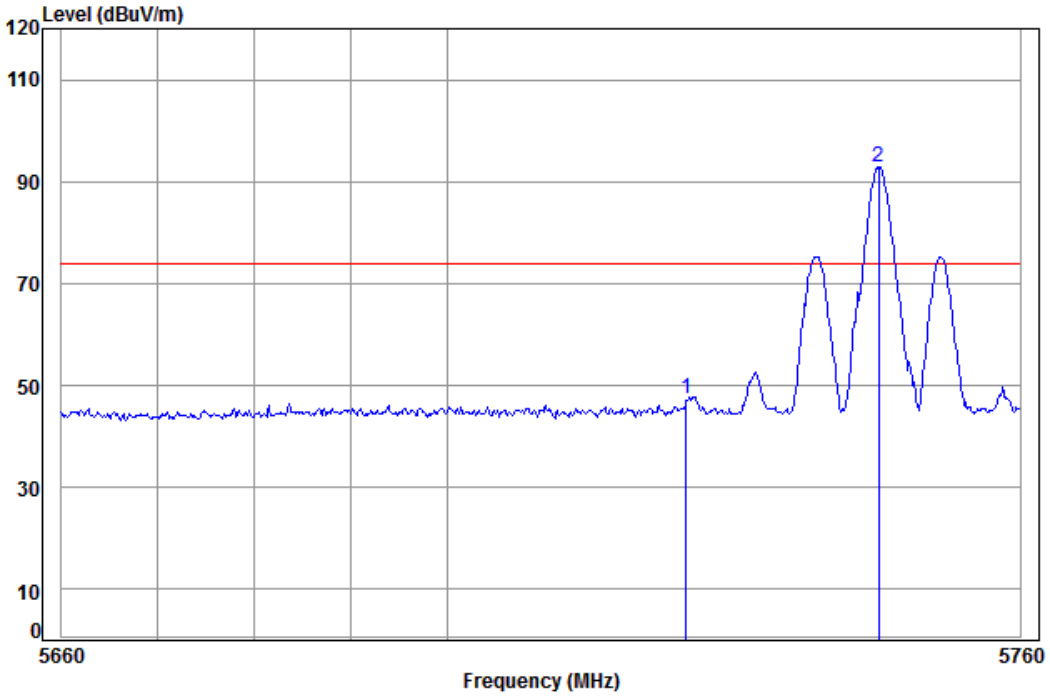


Figure 2. Above 1 GHz

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 3 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 semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. 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 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 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. 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 h. Test the EUT in the lowest channel , the Highest channel i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it is worse case.. j. Repeat above procedures until all frequencies measured was complete.
Instruments Used:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Pretest the EUT at Transmitting mode, found theTransmitting mode which it is worse case Only the worst case is recorded in the report.
Test Results:	Pass

Measurement Data

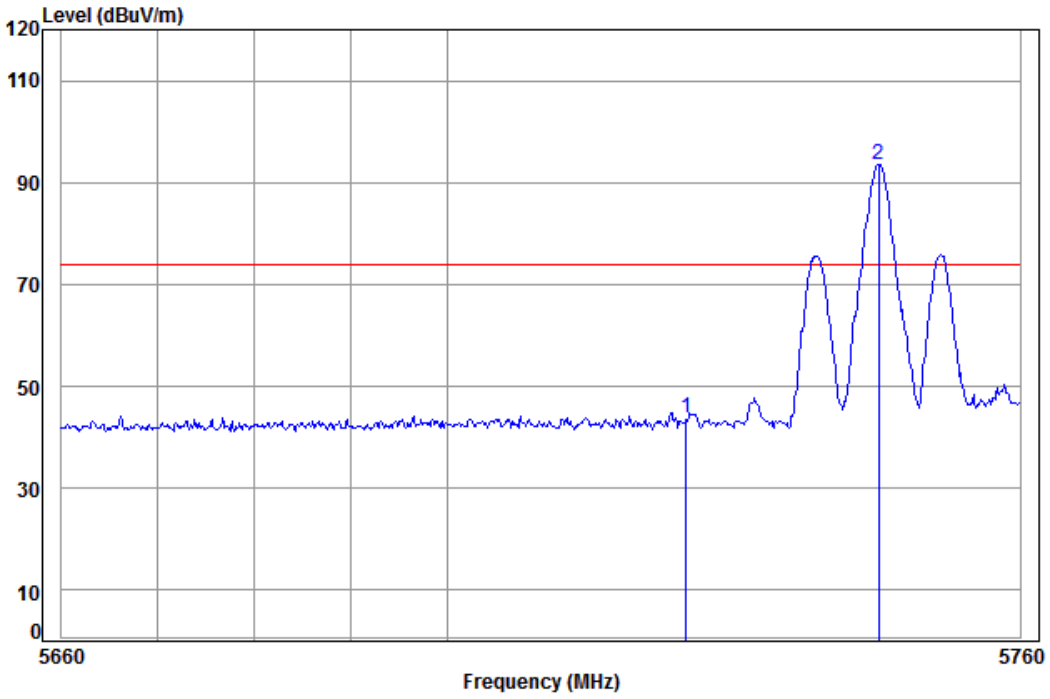
Band edge (Radiated Emission)						
Worse case mode:	Transmitting	Test channel:	Lowest	Remark:	Peak	Vertical



Condition: 3m Vertical
Job No: : 2795CR
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	5725.00	8.48	34.24	38.92	43.58	47.38	74.00	-26.62
2 pp	5745.19	8.50	34.23	38.92	88.98	92.79	74.00	18.79

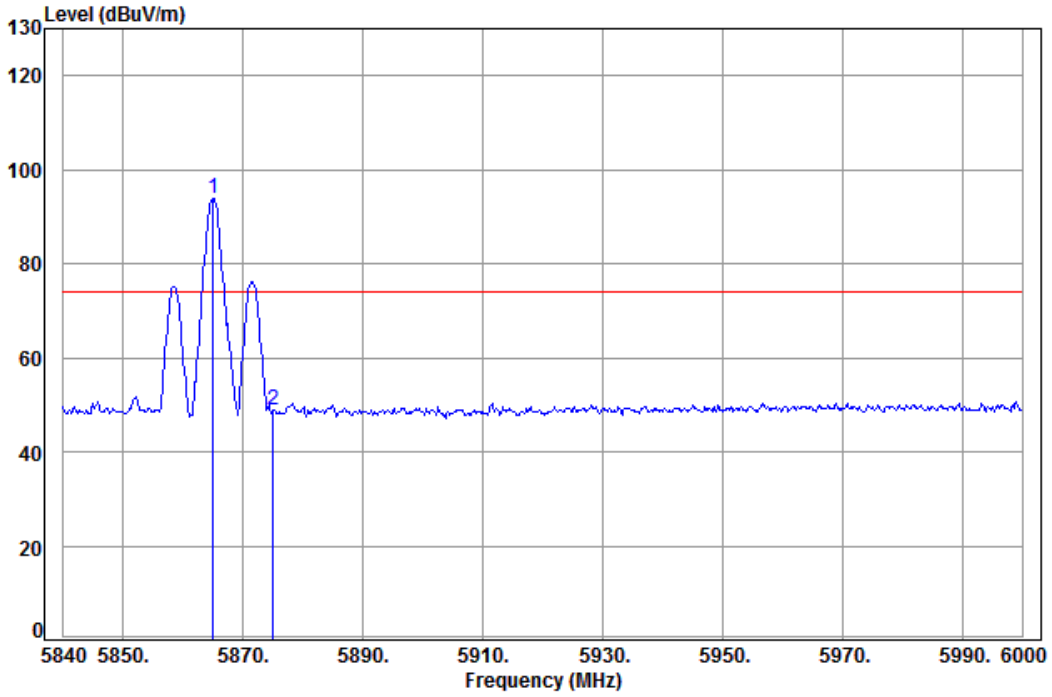
Worse case mode:	Transmitting	Test channel:	Lowest	Remark:	Peak	Horizontal



Condition: 3m Horizontal
Job No: : 2795CR
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	5725.00	8.48	34.24	38.92	40.09	43.89	74.00	-30.11
2 pp	5745.19	8.50	34.23	38.92	89.74	93.55	74.00	19.55

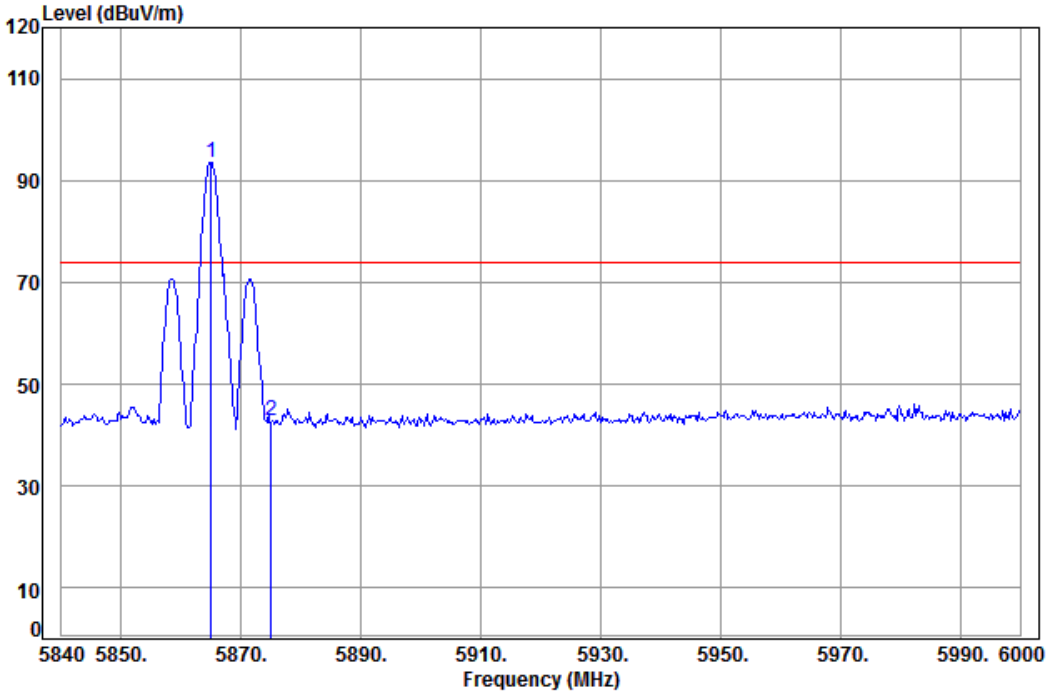
Worse case mode:	Transmitting	Test channel:	Highest	Remark:	Peak	Vertical



Condition: 3m Vertical
Job No: : 2795CR
Mode: : 5865 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 pp	5864.96	8.62	34.36	38.94	89.83	93.87	74.00	19.87
2	5875.00	8.63	34.39	38.94	44.88	48.96	74.00	-25.04

Worse case mode:	Transmitting	Test channel:	Highest	Remark:	Peak	Horizontal



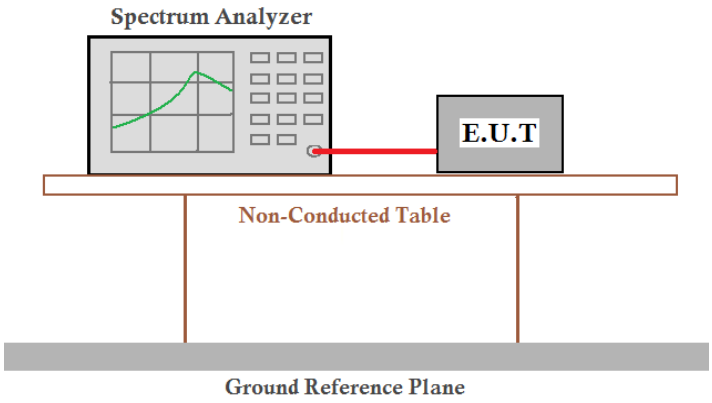
Condition: 3m Horizontal
Job No: : 2795CR
Mode: : 5865 Band edge

	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 pp	5864.96	8.62	34.36	38.94	89.61	93.65	74.00	19.65
2	5875.00	8.63	34.39	38.94	38.91	42.99	74.00	-31.01

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

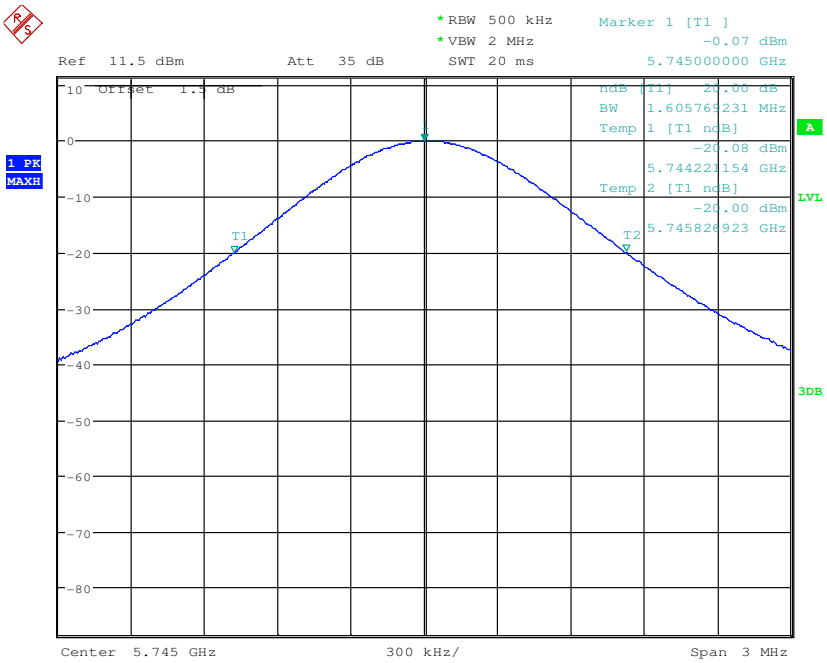
Test Requirement:	47 CFR Part 15C Section 15.215
Test Method:	ANSI C63.10:2013 11.8
Test Setup:	
Instruments Used:	Refer to section 5.10 for details
Test mode:	Transmitting mode
Limit:	N/A
Test Results:	Pass

Measurement Data

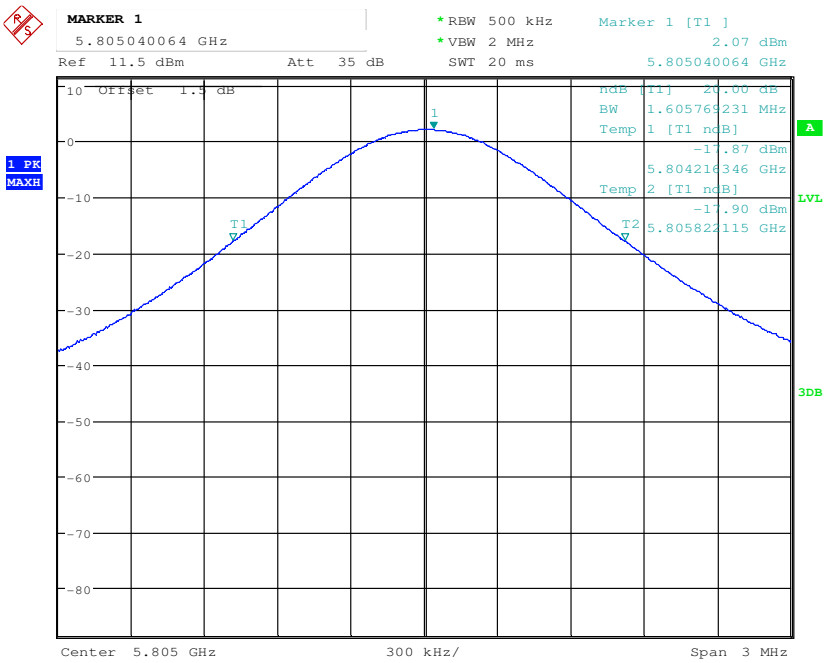
Test channel	20dB bandwidth (MHz)	Results
Lowest	1.61	Pass
Middle	1.61	Pass
Highest	1.61	Pass

Test plot as follows:

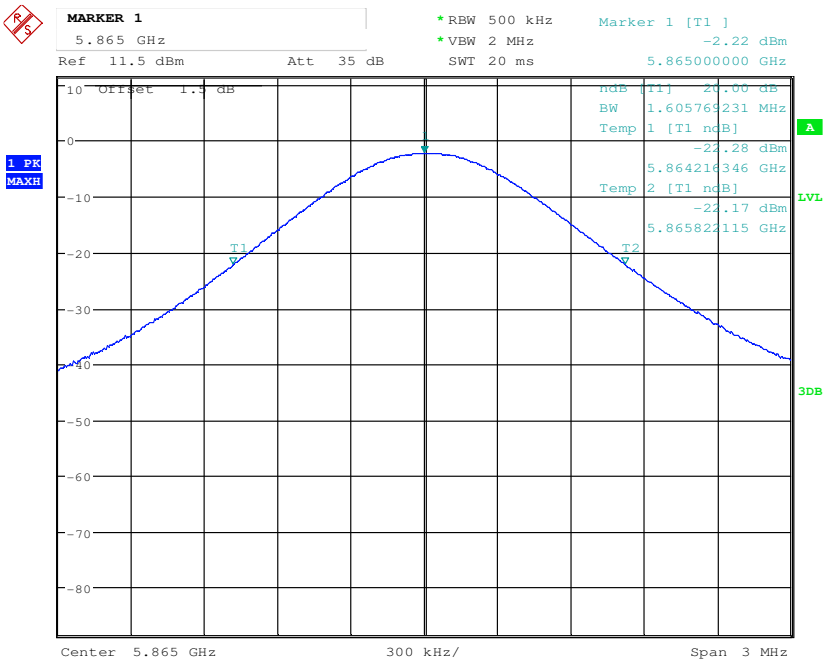
Test channel:	Lowest



Test channel:	Middle



Test channel:	Highest

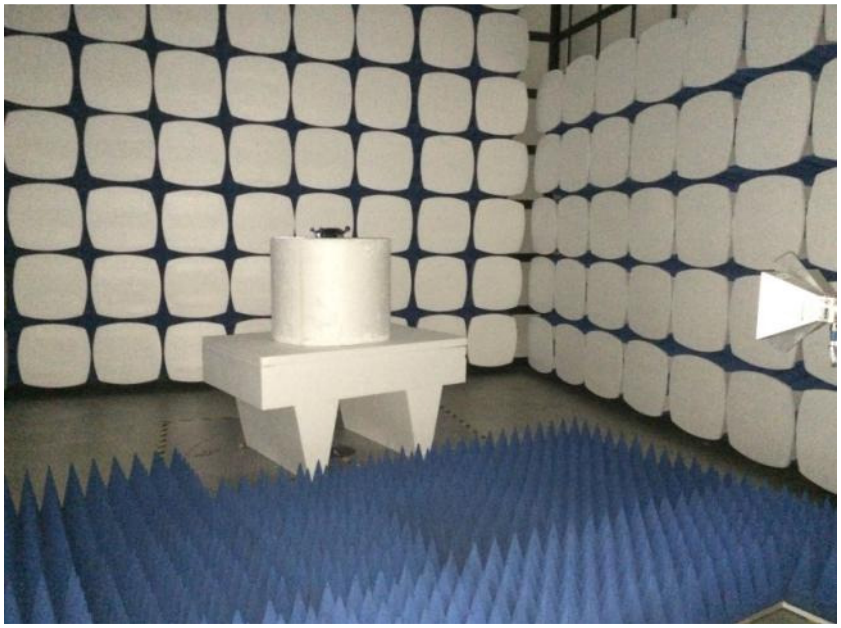


7 Photographs

Test Model No.: CX-91

7.1 Radiated Emission Test Setup

7.2 Radiated Spurious Emission Test Setup



7.3 EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for SZEM1604002795CR.