FCC TEST REPORT

Product	:	Car FM Transmitter
Trade mark	:	N/A
Model/Type reference	:	Refer to Section 5.2
Serial Number	:	N/A
Report Number	:	EED32L00115903
FCC ID	:	2ATZS-BC42
Date of Issue	:	Jul. 29, 2019
Test Standards	:	47 CFR Part 15 Subpart C
Test result	:	PASS

Prepared for:

SHEN ZHEN LEADINWAY TECHNOLOGY CO., LTD
Room 201,Building A, No.1, Qingwan Road 1, Qianhai Shenzhen and Hongkong Cooperation Zone, Shenzhen China.

Prepared by:

Centre Testing International Group Co., Ltd.
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Tested By:	Jay Zheng	Compiled by:	Kevin Lan
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	Ware Xin		Kevin Yang
Date:	Jul. 01, 2019		

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Check No.: 3757565985

2 Version

Version No.	Date	Description
00	Jul. 29, 2019	Original

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 15.239 (a)	ANSI C63.10-2013	PASS
Spurious Emissions	47 CFR Part 15 Subpart C Section 15.239 (c)/15.209	ANSI C63.10-2013	PASS
20dB Bandwidth	47 CFR Part 15 Subpart C Section 15.239 (a)	ANSI C63.10-2013	PASS

Remark:
The tested sample(s) and the sample information are provided by the client.
Model No.:BC06B,BC06S,BC07,BC09,BC09B,BC11,BC11B,BC11N,BC12,BC13,BC14, BC15, BC16,BC17,BC18,BC19,BC20,BC21,BC22,BC23,BC24,BC25,BC26B,BC26BQ,BC27,BC28, BC29,BC29B,BC30B,BC30BQ,BC31,BC31Q,BC32,BC33,BC34,BC35B,BC36,BC36Q,BC37, BC37Q,BC38,BC39,BC40,BC41,BC41T,BC42T,BC43,BC44,BC45,BC46,BC47,BC48,BC49AQ, BC49BQ,BC50,BC51,BC52,BC53,BC54,BC55,BC56,BC57,BC58,BC59,BC60,BC61,BC62, BC63,BC64,BC65,BC66,BC67,BC68,BC69,BC70,BC71,BC72,BC73,BC74,BC75,BC76, BC77,BC78,BC79,BC80,BC81,BC82,BC83,BC84,BC85,BC86,BC87,BC88,BC89,BC90, BC91,BC92,BC93,BC94,BC95,BC96,BC97,BC98,BC99,BC100,FM12,FM12B,FM15,FM18, FM19,FM21,FM23,FM24,FM26,FM30,FM8112B,FM8116B,BA05,BA06A,BA06B,BA07,BA08, BA09,BA10,BT15,BT8117S,BT8112A,BT8115A,BT8121A,BT8128A,BT8118,DAB001, DAB002,DAB003,DAB004,DAB005,DAB006,DAB007,DAB008,DAB009,DAB010,HUD001, HUD002,HUD003,HUD004,HUD005,CH001,CH002,CH003,CH004,CH005
Only the model BC42 was tested, since the internal structure is identical, only the sales areas and model name are different.

4 Contents

5 General Information

5.1 Client Information

Applicant:	SHEN ZHEN LEADINWAY TECHNOLOGY CO., LTD
Address of Applicant:	Room 201,Building A, No.1, Qingwan Road 1, Qianhai Shenzhen and Hongkong Cooperation Zone, Shenzhen China.
Manufacturer:	SHEN ZHEN LEADINWAY TECHNOLOGY CO., LTD
Address of Manufacturer:	Room 201,Building A, No.1, Qingwan Road 1, Qianhai Shenzhen and Hongkong Cooperation Zone, Shenzhen China.
Factory:	SHEN ZHEN SAILING ELECTRONIC CO., LTD
Address of Factory:	Block 29, Baotian Industrial Zone, Chentian, Xixiang Town, Bao'an District, Shenzhen China.

5.2 General Description of EUT

Product Name:	Car FM Transmitter
Model No.(EUT):	BC06B,BC06S,BC07,BC09,BC09B,BC11,BC11B,BC11N,BC12,BC13, BC14,BC15,BC16,BC17,BC18,BC19,BC20,BC21,BC22,BC23,BC24, BC25,BC26B,BC26BQ,BC27,BC28,BC29,BC29B,BC30B,BC30BQ, BC31,BC31Q,BC32,BC33,BC34,BC35B,BC36,BC36Q,BC37,BC37Q, BC38,BC39,BC40,BC41,BC41T,BC42T,BC43,BC44,BC45,BC46,BC47, BC48,BC49AQ,BC49BQ,BC50,BC51,BC52,BC53,BC54,BC55,BC56,BC57,BC58,BC59,BC60,BC61,BC62,BC63,BC64,BC65,BC66,BC67,BC68,BC69,BC70,BC71,BC72,BC73,BC74,BC75,BC76,BC77,BC78,BC79,BC80,BC81,BC82,BC83,BC84,BC85,BC86,BC87,BC88,BC89,BC90,BC91,BC92,BC93,BC94,BC95,BC96,BC97,BC98,BC99,BC100,FM12,FM12B,FM15,FM18,FM19,FM21,FM23,FM24,FM26,FM30,FM8112B,FM8116B,BA05,BA06A,BA06B,BA07,BA08,BA09,BA10,BT15,BT8117S,BT8112A,BT8115A,BT8121A,BT8128A,BT8118,DAB001,DAB002,DAB003,DAB004,DAB005,DAB006,DAB007,DAB008,DAB009,DAB010,HUD001,HUD002,HUD003,HUD004,HUD005,CH001,CH002,CH003,CH004,CH005
Test Mode No.:	BC42
Trade Mark:	N/A
EUT Supports Radios application	BT4.2 Single mode: 2402MHz to 2480MHz
Power Supply:	DC 12V, DC 24V

5.3 Product Specification subjective to this standard

Frequency Range:	88-108MHz
Modulation Type:	FM
Number of Channels:	199
Channel Separation	100KHz
Antenna Type:	PCB antenna
Antenna Gain:	0dBi
Test voltage:	DC 12V, DC 24V
Sample Received Date:	May 23, 2019
Sample tested Date:	May 23, 2019 to Jul. 29, 2019

Operation Frequency each of Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	88.0MHz	48	92.7MHz	98	97.7MHz	148	102.7MHz
2	88.1MHz	49	92.8MHz	99	97.8MHz	149	102.8MHz
3	88.2MHz	50	92.9MHz	100	97.9MHz	150	102.9MHz
4	88.3MHz	51	93.0MHz	101	98.0MHz	151	103.0MHz
5	88.4MHz	52	93.1MHz	102	98.1MHz	152	103.1MHz
6	88.5MHz	53	93.2MHz	103	98.2MHz	153	103.2MHz
7	88.6MHz	54	93.3MHz	104	98.3MHz	154	103.3MHz
8	88.7MHz	55	93.4MHz	105	98.4MHz	155	103.4MHz
9	88.8MHz	56	93.5MHz	106	98.5MHz	156	103.5MHz
10	88.9MHz	57	93.6MHz	107	98.6MHz	157	103.6MHz
11	89.0MHz	58	93.7MHz	108	98.7MHz	158	103.7MHz
12	89.1MHz	59	93.8MHz	109	98.8MHz	159	103.8MHz
13	89.2MHz	60	93.9MHz	110	98.9MHz	160	103.9MHz
.....	.....	.....	.....	.....	.....	.....	.....
47	92.6MHz	97	97.6MHz	147	102.6MHz	201	108MHz

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	88MHz
The Middle channel	98MHz
The Highest channel	108MHz

5.4 Test Environment and Mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1008 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode

5.5 Description of Support Units

The EUT has been tested independently

5.6 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.

5.10 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9×10^{-8}
2	RF power, conducted	0.46dB (30MHz-1GHz)
		0.55dB (1GHz-18GHz)
3	Radiated Spurious emission test	4.3dB (30MHz-1GHz)
		4.5dB (1GHz-12.75GHz)
4	Conduction emission	3.5dB (9kHz to 150kHz)
		3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%

6 Equipment List

RF test system					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. Date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
Signal Generator	Keysight	E8257D	MY53401106	03-01-2019	02-28-2020
Spectrum Analyzer	Keysight	N9010A	MY54510339	03-01-2019	02-28-2020
Signal Generator	Keysight	N5182B	MY53051549	03-01-2019	02-28-2020
High-pass filter	Sinoscite	FL3CX03WG18NM12-0398-002	---	01-09-2019	01-08-2020
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-09-2019	01-08-2020
DC Power	Keysight	E3642A	MY54426035	03-01-2019	02-28-2020
PC-1	Lenovo	R4960d	---	03-01-2019	02-28-2020
BT&WI-FI Automatic control	R&S	OSP120	101374	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-2	15860006	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-1	15860004	03-01-2019	02-28-2020
RF control unit	JS Tonscend	JS0806-4	158060007	03-01-2019	02-28-2020
BT&WI-FI Automatic test software	JS Tonscend	JS1120-2	---	03-01-2019	02-28-2020
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	10-12-2018	10-11-2019

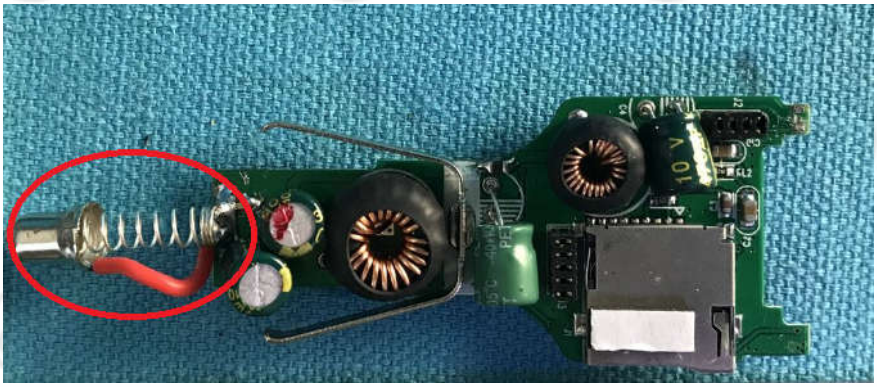
3M Semi/full-anechoic Chamber					
Equipment	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm-dd-yyyy)**	**Cal. Due date (mm-dd-yyyy)**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05-24-2019	05-22-2022
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	9163-401	12-21-2018	12-20-2019
Microwave Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Microwave Preamplifier	Tonscend	EMC051845SE	980380	01-16-2019	01-15-2020
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1869	04-25-2018	04-23-2021
Horn Antenna	ETS-LINDGREN	3117	00057410	06-05-2018	06-03-2021
Double ridge horn antenna	A.H.SYSTEMS	SAS-574	374	06-05-2018	06-04-2021
Pre-amplifier	A.H.SYSTEMS	PAP-1840-60	6041.6041	08-08-2018	08-07-2019
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04-25-2018	04-25-2021
Spectrum Analyzer	R&S	FSP40	100416	04-28-2019	04-26-2020
Receiver	R&S	ESCI	100435	05-20-2019	05-18-2020
Receiver	R&S	ESCI7	100938-003	11-23-2018	11-22-2019
Multi device Controller	maturo	NCD/070/10711112	---	01-09-2019	01-08-2020
LISN	schwarzbeck	NNBM8125	81251547	05-08-2019	05-06-2020
LISN	schwarzbeck	NNBM8125	81251548	05-08-2019	05-06-2020
Signal Generator	Agilent	E4438C	MY45095744	03-01-2019	02-28-2020
Signal Generator	Keysight	E8257D	MY53401106	03-01-2019	02-28-2020
Temperature/ Humidity Indicator	Shanghai qixiang	HM10	1804298	10-12-2018	10-11-2019
Communication test set	Agilent	E5515C	GB47050534	03-01-2019	02-28-2020
Cable line	Fulai(7M)	SF106	5219/6A	01-09-2019	01-08-2020
Cable line	Fulai(6M)	SF106	5220/6A	01-09-2019	01-08-2020
Cable line	Fulai(3M)	SF106	5216/6A	01-09-2019	01-08-2020
Cable line	Fulai(3M)	SF106	5217/6A	01-09-2019	01-08-2020
Communication test set	R&S	CMW500	104466	01-18-2019	01-17-2020
High-pass filter	Sinoscite	FL3CX03WG18NM12-0398-002	---	01-09-2019	01-08-2020
High-pass filter	MICRO-TRONICS	SPA-F-63029-4	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA09CL12-0395-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX01CA08CL12-0393-001	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA04CL12-0396-002	---	01-09-2019	01-08-2020
band rejection filter	Sinoscite	FL5CX02CA03CL12-0394-001	---	01-09-2019	01-08-2020

3M full-anechoic Chamber

Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
RSE Automatic test software	JS Tonscend	JS36-RSE	10166	06-20-2018 06-19-2019	06-19-2019 06-17-2020
Receiver	Keysight	N9038A	MY57290136	03-27-2019	03-25-2020
Spectrum Analyzer	Keysight	N9020B	MY57111112	03-27-2019	03-25-2020
Spectrum Analyzer	Keysight	N9030B	MY57140871	03-27-2019	03-25-2020
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-075	04-25-2018	04-23-2021
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04-25-2018	04-23-2021
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-25-2018	04-23-2021
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-25-2018	04-23-2021
Horn Antenna	Schwarzbeck	BBHA 9170	9170-829	04-25-2018	04-23-2021
Communication Antenna	Schwarzbeck	CLSA 0110L	1014	02-14-2019	02-12-2020
Biconical antenna	Schwarzbeck	VUBA 9117	9117-381	04-25-2018	04-23-2021
Horn Antenna	ETS-LINDGREN	3117	00057407	07-10-2018	07-08-2021
Preamplifier	EMCI	EMC184055SE	980596	05-22-2019	05-20-2020
Communication test set	R&S	CMW500	102898	01-18-2019	01-17-2020
Preamplifier	EMCI	EMC001330	980563	05-08-2019	05-06-2020
Preamplifier	Agilent	8449B	3008A02425	08-21-2018	08-20-2019
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-30-2019	04-28-2020
Signal Generator	KEYSIGHT	E8257D	MY53401106	03-01-2019	02-28-2020
Fully Anechoic Chamber	TDK	FAC-3	---	01-17-2018	01-15-2021
Filter bank	JS Tonscend	JS0806-F	188060094	04-10-2018	04-08-2021
Cable line	Times	SFT205-NMSM-2.50M	394812-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	394812-0003	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-2.50M	393495-0001	01-09-2019	01-08-2020
Cable line	Times	EMC104-NMNM-1000	SN160710	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-3.00M	394813-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMNM-1.50M	381964-0001	01-09-2019	01-08-2020
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	01-09-2019	01-08-2020
Cable line	Times	HF160-KMKM-3.00M	393493-0001	01-09-2019	01-08-2020

7 Test results and Measurement Data

7.1 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 integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.	

7.2 Radiated Emission

Test Requirement: 47 CFR Part 15C Section 15.239 and 15.209

Test Method: ANSI C63.10

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	120kHz	300kHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

Test Setup:

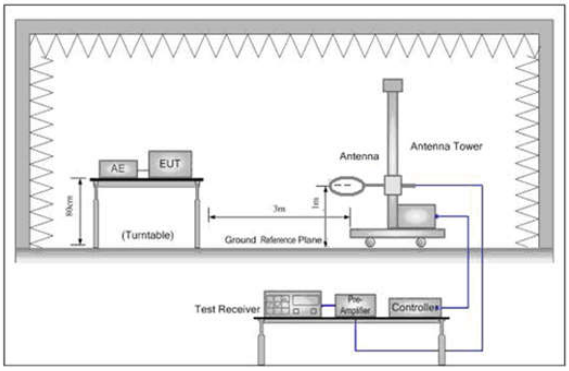


Figure 1. Below 30MHz

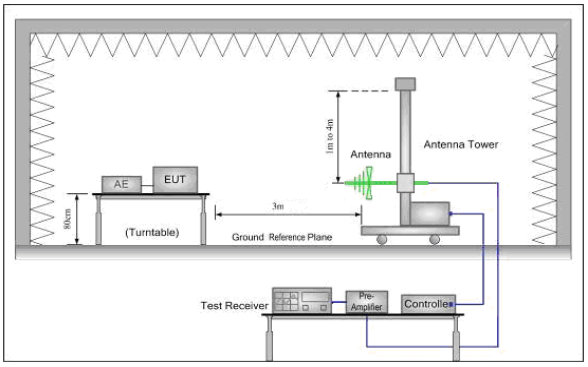


Figure 2. 30MHz to 1GHz

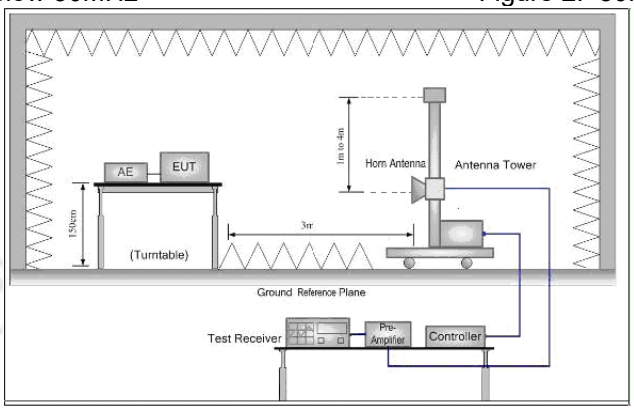


Figure 3. Above 1GHz

Test Procedure:

Below 1GHz test procedure as below:

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 (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.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. 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.

Above 1GHz test procedure as below:

g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).
h. Test the EUT in the lowest channel ,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.

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBμV/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-.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 (dBμV/m @3m)	Remark
88MHz-108MHz	48.0	Average Value
	68.0	Peak Value

Test Mode: Transmitting mode

Instruments Used: Refer to section 6 for details

Spurious Emissions

Channel:		88.1									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	88.1088	8.97	1.08	-32.09	63.20	41.16	68.00	26.84	Pass	H	PK
2	176.1936	8.79	1.56	-31.98	56.46	34.83	43.50	8.67	Pass	H	PK
3	503.9894	17.08	2.68	-31.92	36.89	24.73	46.00	21.27	Pass	H	PK
4	687.5318	19.70	3.14	-32.06	37.06	27.84	46.00	18.16	Pass	H	PK
5	815.9726	21.09	3.43	-31.95	39.98	32.55	46.00	13.45	Pass	H	PK
6	863.9924	21.67	3.53	-31.75	45.47	38.92	46.00	7.08	Pass	H	PK
7	63.0803	10.80	0.91	-32.04	40.22	19.89	40.00	20.11	Pass	V	PK
8	88.1088	8.97	1.08	-32.09	60.64	38.60	68.00	29.40	Pass	V	PK
9	176.1936	8.79	1.56	-31.98	53.65	32.02	43.50	11.48	Pass	V	PK
10	208.8859	11.13	1.71	-31.94	48.58	29.48	43.50	14.02	Pass	V	PK
11	625.0575	19.20	2.97	-31.98	35.28	25.47	46.00	20.53	Pass	V	PK
12	863.9924	21.67	3.53	-31.75	41.26	34.71	46.00	11.29	Pass	V	PK

Channel:		88.1									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	36.6937	11.24	0.67	-32.11	33.09	12.89	40.00	27.11	Pass	H	AV
2	88.1088	8.97	1.08	-32.09	58.65	36.61	48.00	11.39	Pass	H	AV
3	176.1936	8.79	1.56	-31.98	50.90	29.27	43.50	14.23	Pass	H	AV
4	503.9894	17.08	2.68	-31.92	32.17	20.01	46.00	25.99	Pass	H	AV
5	863.9924	21.67	3.53	-31.75	42.35	35.80	46.00	10.20	Pass	H	AV
6	912.0122	22.17	3.61	-31.46	36.23	30.55	46.00	15.45	Pass	H	AV
7	36.5967	11.21	0.67	-32.11	33.74	13.51	40.00	26.49	Pass	V	AV
8	53.1853	12.69	0.83	-32.10	33.26	14.68	40.00	25.32	Pass	V	AV
9	88.1088	8.97	1.08	-32.09	56.32	34.28	48.00	13.72	Pass	V	AV
10	176.1936	8.79	1.56	-31.98	49.19	27.56	43.50	15.94	Pass	V	AV
11	208.8859	11.13	1.71	-31.94	43.57	24.47	43.50	19.03	Pass	V	AV
12	863.9924	21.67	3.53	-31.75	36.88	30.33	46.00	15.67	Pass	V	AV

Channel:		98.1									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	36.6937	11.24	0.67	-32.11	34.98	14.78	40.00	25.22	Pass	H	PK
2	98.1008	10.70	1.15	-32.07	64.45	44.23	68.00	23.77	Pass	H	PK
3	196.1776	10.54	1.65	-31.96	46.65	26.88	43.50	16.62	Pass	H	PK
4	294.3514	13.09	2.04	-31.87	43.28	26.54	46.00	19.46	Pass	H	PK
5	815.9726	21.09	3.43	-31.95	40.57	33.14	46.00	12.86	Pass	H	PK
6	908.0348	22.15	3.60	-31.50	43.58	37.83	46.00	8.17	Pass	H	PK
7	30.8731	10.53	0.63	-32.11	39.60	18.65	40.00	21.35	Pass	V	PK
8	56.1926	12.21	0.85	-32.07	36.87	17.86	40.00	22.14	Pass	V	PK
9	98.1008	10.70	1.15	-32.07	69.43	49.21	68.00	18.79	Pass	V	PK
10	196.1776	10.54	1.65	-31.96	50.85	31.08	43.50	12.42	Pass	V	PK
11	208.8859	11.13	1.71	-31.94	48.09	28.99	43.50	14.51	Pass	V	PK
12	863.9924	21.67	3.53	-31.75	42.34	35.79	46.00	10.21	Pass	V	PK

Channel:		98.1									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	98.1008	10.70	1.15	-32.07	59.78	39.56	48.00	8.44	Pass	H	AV
2	196.1776	10.54	1.65	-31.96	45.42	25.65	43.50	17.85	Pass	H	AV
3	294.3514	13.09	2.04	-31.87	35.51	18.77	46.00	27.23	Pass	H	AV
4	503.9894	17.08	2.68	-31.92	35.14	22.98	46.00	23.02	Pass	H	AV
5	863.9924	21.67	3.53	-31.75	40.38	33.83	46.00	12.17	Pass	H	AV
6	912.0122	22.17	3.61	-31.46	37.98	32.30	46.00	13.70	Pass	H	AV
7	30.5821	10.52	0.63	-32.11	35.25	14.29	40.00	25.71	Pass	V	AV
8	54.3494	12.50	0.83	-32.08	33.57	14.82	40.00	25.18	Pass	V	AV
9	98.1008	10.70	1.15	-32.07	58.03	37.81	48.00	10.19	Pass	V	AV
10	196.1776	10.54	1.65	-31.96	43.86	24.09	43.50	19.41	Pass	V	AV
11	208.8859	11.13	1.71	-31.94	43.42	24.32	43.50	19.18	Pass	V	AV
12	863.9924	21.67	3.53	-31.75	35.36	28.81	46.00	17.19	Pass	V	AV

Channel:		107.9									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	36.6937	11.24	0.67	-32.11	35.27	15.07	40.00	24.93	Pass	H	PK
2	107.8988	10.92	1.23	-32.07	74.27	54.35	68.00	13.65	Pass	H	PK
3	119.9280	9.21	1.30	-32.07	50.02	28.46	43.50	15.04	Pass	H	PK
4	215.7736	11.31	1.75	-31.95	48.21	29.32	43.50	14.18	Pass	H	PK
5	815.9726	21.09	3.43	-31.95	41.46	34.03	46.00	11.97	Pass	H	PK
6	863.9924	21.67	3.53	-31.75	46.11	39.56	46.00	6.44	Pass	H	PK
7	54.3494	12.50	0.83	-32.08	37.85	19.10	40.00	20.90	Pass	V	PK
8	107.8988	10.92	1.23	-32.07	69.56	49.64	68.00	18.36	Pass	V	PK
9	208.8859	11.13	1.71	-31.94	48.42	29.32	43.50	14.18	Pass	V	PK
10	215.7736	11.31	1.75	-31.95	50.51	31.62	43.50	11.88	Pass	V	PK
11	863.9924	21.67	3.53	-31.75	39.74	33.19	46.00	12.81	Pass	V	PK
12	912.0122	22.17	3.61	-31.46	35.87	30.19	46.00	15.81	Pass	V	PK

Channel:		107.9									
NO	Freq. [MHz]	Ant Factor [dB]	Cable loss [dB]	Pream gain [dB]	Reading [dBμV]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Result	Polarity	Remark
1	36.5967	11.21	0.67	-32.11	30.59	10.36	40.00	29.64	Pass	H	AV
2	107.8988	10.92	1.23	-32.07	60.30	40.38	48.00	7.62	Pass	H	AV
3	119.9280	9.21	1.30	-32.07	45.94	24.38	43.50	19.12	Pass	H	AV
4	215.7736	11.31	1.75	-31.95	42.65	23.76	43.50	19.74	Pass	H	AV
5	323.7454	13.72	2.13	-31.80	34.67	18.72	46.00	27.28	Pass	H	AV
6	863.9924	21.67	3.53	-31.75	41.40	34.85	46.00	11.15	Pass	H	AV
7	36.4997	11.18	0.67	-32.11	35.33	15.07	40.00	24.93	Pass	V	AV
8	53.1853	12.69	0.83	-32.10	34.57	15.99	40.00	24.01	Pass	V	AV
9	107.8988	10.92	1.23	-32.07	58.72	38.80	48.00	9.20	Pass	V	AV
10	208.8859	11.13	1.71	-31.94	44.22	25.12	43.50	18.38	Pass	V	AV
11	215.7736	11.31	1.75	-31.95	44.59	25.70	43.50	17.80	Pass	V	AV
12	903.5724	22.12	3.60	-31.54	36.10	30.28	46.00	15.72	Pass	V	AV

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 - Correct Factor

   Correct Factor = *Preamplifier Factor– Antenna Factor–Cable Factor*

2) *Scan from 9kHz to 1GHz, the disturbance above 1GHz and below 9KHz 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.*

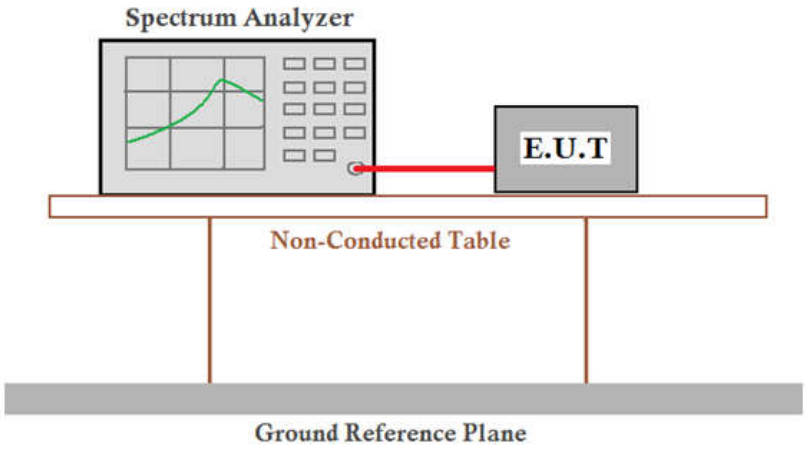
7.3 20dB Bandwidth

Test Requirement: 47 CFR Part 15C Section 15.239 (a)

Test Method: ANSI C63.10

Limit: Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz.

Test Setup:



Test Mode: Transmitting mode

Instruments Used: Refer to section6 for details

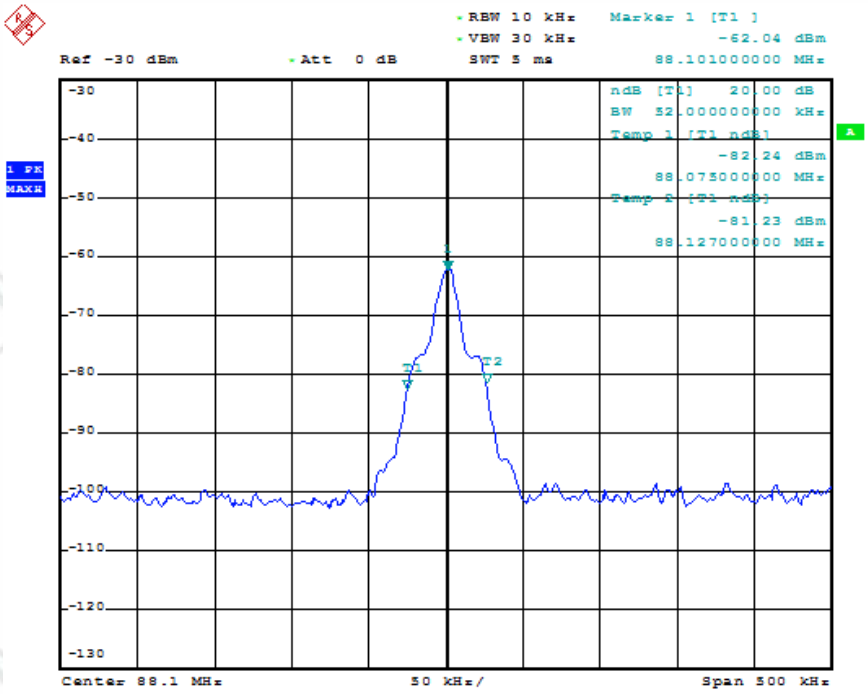
Test Results: Pass

Measurement Data

Test channel	Lower Frequency point (MHz)	Upper Frequency point (MHz)	20dB bandwidth(kHz)	Limit(kHz)
Lowest	88.075	88.127	52	200
Middle	98.075	98.127	52	200
Highest	107.875	107.927	52	200

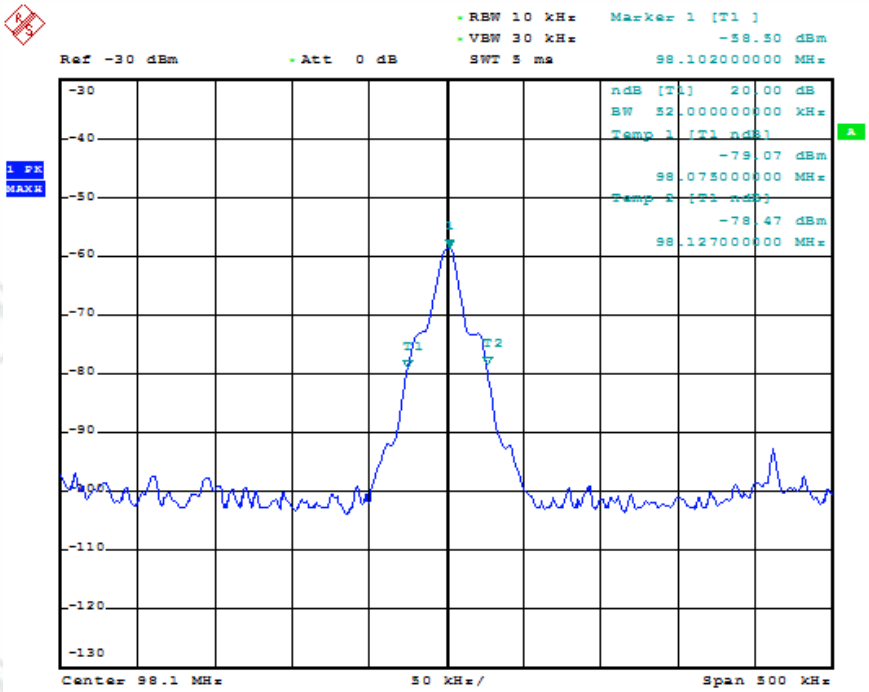
Test plot as follows:

Test channel:	Lowest



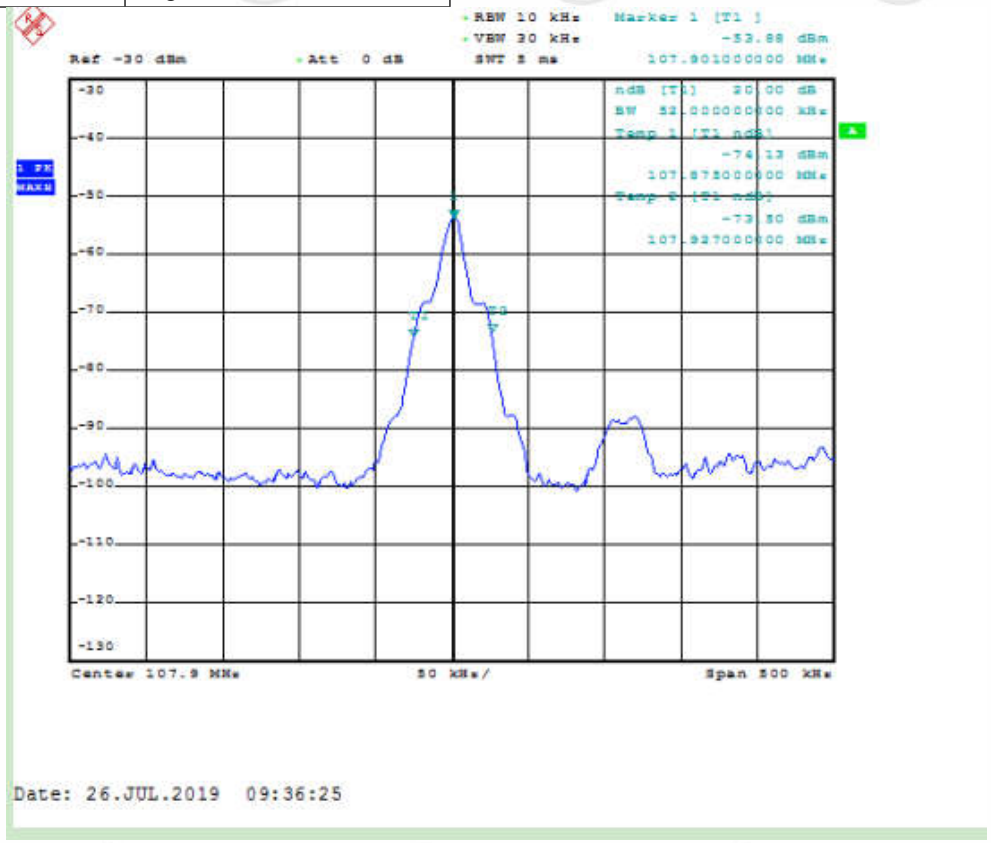
Date: 26.JUL.2019 09:33:24

Test channel:	Middle



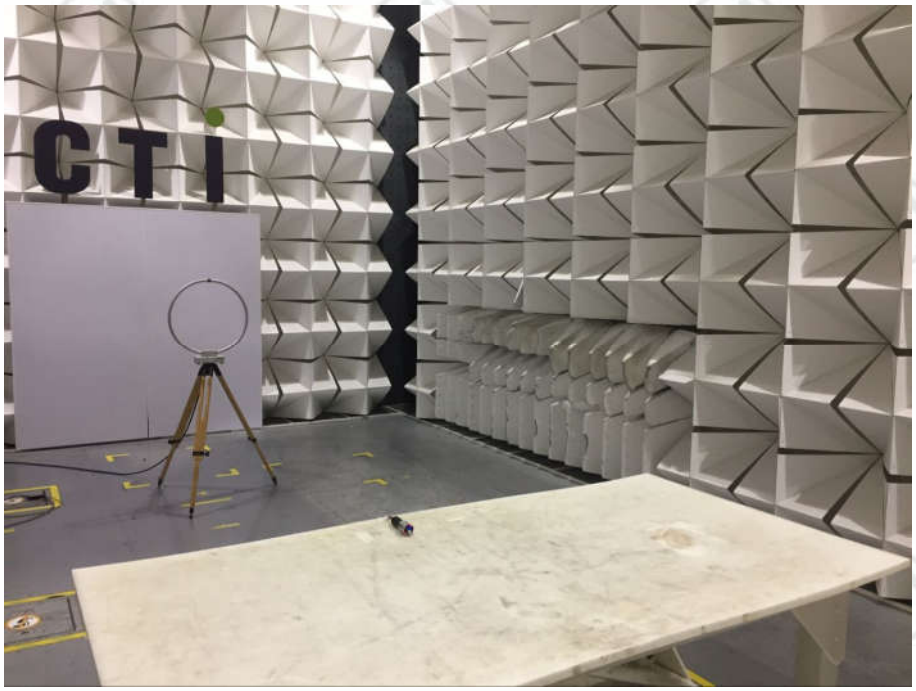
Date: 26.JUL.2019 09:34:34

Test channel:	Highest

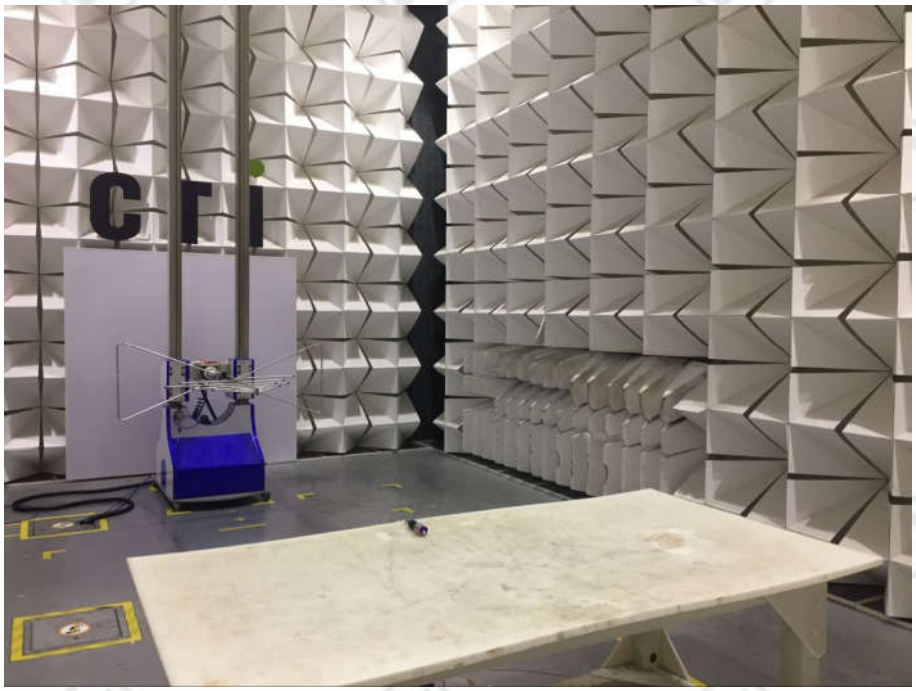


APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

Test Model No.: BC42



Radiated spurious emission Test Setup-1(Below 30MHz)



Radiated spurious emission Test Setup-2(30MHz-1GHz)

Radiated spurious emission Test Setup-3(Above 1GHz)

APPENDIX 2 PHOTOGRAPHS OF EUT

Refer to Report No. EED32L00115901 for EUT external and internal photos.

*** End of Report ***