FCC Test Report

Report No.:AGC02294201003FE10

FCC ID	:	2AJGM-F19
PRODUCT DESIGNATION	:	Two-way radio
BRAND NAME	:	POFUNG, BAOFENG
MODEL NAME	:	F19, BF-T19, PR-19, 19E, AR19, VT-19
APPLICANT	:	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
DATE OF ISSUE	:	Dec. 18, 2020
STANDARD(S)	:	FCC Part 95 Rules
REPORT VERSION	:	V 1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Dec. 18, 2020	Valid	Initial release

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VERIFICATION OF COMPLIANCE

Applicant	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address	3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
manufacturer	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address	3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
Factory	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Address	3/F FULOK BLDG 131-133 WING LOK ST SHEUNG WAN, Hong Kong
Product Designation:	PO FUNG ELECTRONIC(HK) INTERNATIOANL GROUP COMPANY
Brand Name:	POFUNG, BAOFENG
Test Model	F19
Series Model	BF-T19, PR-19, 19E, AR19,VT-19
Difference Description	All the same except the model name
Deviation	No any deviation from the test method
Condition of Test Sample	Normal
Date of Test:	Oct. 28, 2020~Dec. 18, 2020
Test Result	PASS
Report Template	AGCRT-US-PTT/RF

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA 603. The sample tested as described in this report is in compliance with the FCC Rules Part 95 requirements. The test results of this report relate only to the tested sample identified in this report.

Prepared By

Donjon Huang
(Project Engineer)
Dec. 18, 2020

Reviewed By

Calvin Liu
(Reviewer)
Dec. 18, 2020

Approved By

Forrest Lei
Authorized Officer
Dec. 18, 2020

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TABLE OF CONTENTS

1. GENERAL INFORMATION 6
1.1 PRODUCT DESCRIPTION 6
1.2 RELATED SUBMITTAL(S)/GRANT(S) 8
1.3 TEST METHODOLOGY 8
1.4 ADDRESS OF THE TEST LABORATORY 8
1.5 TEST FACILITY 8
1.6 SPECIAL ACCESSORIES 9
1.7 EQUIPMENT MODIFICATIONS 9
1.8 ANTENNA REQUIREMENT 9
2. SYSTEM TEST CONFIGURATION 10
2.1 EUT CONFIGURATION 10
2.2 EUT EXERCISE 10
2.3 CONFIGURATION OF TESTED SYSTEM 10
2.4 MEASUREMENT UNCERTAINTY 11
3. SUMMARY OF TEST RESULTS 12
4. DESCRIPTION OF TEST MODES 14
5. FREQUENCY TOLERANCE 15
5.1 PROVISIONS APPLICABLE 15
5.2 MEASUREMENT PROCEDURE 15
5.3 TEST SETUP BLOCK DIAGRAM 16
5.4 TEST RESULT 17
6. EMISSION BANDWIDTH 18
6.1 PROVISIONS APPLICABLE 18
6.2 MEASUREMENT PROCEDURE 18
6.3 TEST SETUP BLOCK DIAGRAM 18
6.4 MEASUREMENT RESULT 20
7. UNWANTED RADIATION 22
7.1 PROVISIONS APPLICABLE 22
7.2 MEASUREMENT PROCEDURE 22
7.3 TEST SETUP BLOCK DIAGRAM 23
7.4 MEASUREMENT RESULTS: 24
7.5 EMISSION MASK PLOT 31
8. MAXIMUMN TRANSMITTER POWER 35
8.1 PROVISIONS APPLICABLE 35
8.2 TEST PROCEDURE 35

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8.3 TEST CONFIGURATION 35
8.4 TEST RESULT 37
9. MODULATION CHARACTERISTICS 38
9.1 PROVISIONS APPLICABLE 38
9.2 MEASUREMENT METHOD 38
9.3 MEASUREMENT RESULT 39
APPENDIX I: PHOTOGRAPHS OF SETUP 42
APPENDIX II: EXTERNAL VIEW OF EUT 43

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is a **Two-way radio** designed for voice communication. It is designed by way of utilizing the FM modulation achieves the system operating.
A major technical description of EUT is described as following:

Communication Type	Voice/Tone only
Product Designation	Two-way radio
Test Model	POFUNG, BAOFENG
Hardware Version	BF-T19-A21-V1.3
Software Version	V1.0.8
Modulation	FM
Channel Separation	12.5KHz
Emission Type	11K0F3E
Emission Bandwidth	10.58KHz
Maximum Transmitter Power	32.29dBm
Rated Output power	2W/0.5W (It was fixed by the manufacturer, any individual can't arbitrarily change it.)
Antenna Designation	Inseparable
Antenna Gain	1.5dBi
Power Supply	DC 3.70V
Limiting Voltage	DC 3.15V-4.26V
Operation Frequency Range and Channel	FRS: 462.5625MHz -462.7125MHz(2W) 467.5625MHz-467.7125MHz(0.5W) 462.5500MHz-462.7250MHz(2W) Test Channel :4, 11 and 19 channel
Frequency Tolerance	1.094ppm

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Channel List:

Operation Frequency Each of Channel					
FRS		FRS		FRS	
Channel	Frequency	Channel	Frequency	Channel	Frequency
1	462.5625 MHz	8	467.5625 MHz	15	462.5500 MHz
2	462.5875 MHz	9	467.5875 MHz	16	462.5750 MHz
3	462.6125 MHz	10	467.6125 MHz	17	462.6000 MHz
4	462.6375 MHz	11	467.6375 MHz	18	462.6250 MHz
5	462.6625 MHz	12	467.6625 MHz	19	462.6500 MHz
6	462.6875 MHz	13	467.6875 MHz	20	462.6750 MHz
7	462.7125 MHz	14	467.7125 MHz	21	462.7000 MHz
				22	462.7250 MHz

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1.2 RELATED SUBMITTAL(S)/GRANT(S)

This submittal(s) (test report) is intended for FCC ID: **2AJGM-F19**, filing to comply with the FCC Part 95 requirements.

1.3 TEST METHODOLOGY

The radiated emission testing was performed according to the procedures of TIA/EIA 603-E.

1.4 ADDRESS OF THE TEST LABORATORY

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

1.5 TEST FACILITY

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

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. 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 with Registration 975832.

IC-Registration No.: 24842

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.

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1.6 SPECIAL ACCESSORIES

Not available for this EUT intended for grant.

1.7 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

1.8 ANTENNA REQUIREMENT

This intentional radiator is designed with a permanently attached antenna of an antenna to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
For more information of the antenna, please refer to the APPENDIX II: PHOTOGRAPHS OF EUT.

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2. SYSTEM TEST CONFIGURATION

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT EXERCISE

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.3 CONFIGURATION OF TESTED SYSTEM

Fig. 2-1 Configuration of Tested System

Table 2-1 Equipment Used in Tested System

Item	Equipment	Model No.	Identifier	Note
1	Two-way radio	F19	FCC ID: 2AJGM-F19	EUT
2	Adapter	Q5-0505-USBA	Input: 100-240V 50/60Hz, 0.3A Output: DC 5V 0.5A	Accessories
3	Battery	N/A	DC 3.7V 1200mA	Accessories

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2.4 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

- Uncertainty of Conducted Emission, Uc = ±3.2 dB
- Uncertainty of Radiated Emission below 1GHz, Uc = ±3.9 dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.8 dB
- Uncertainty of total RF power, conducted, Uc = ±0.8dB
- Uncertainty of spurious emissions, conducted, Uc = ±2.7dB
- Uncertainty of Occupied Channel Bandwidth: Uc = ±2 %
- Uncertainty of Frequency: Uc = ±2 %
- Uncertainty of FM deviation: Uc=±2 %
- Uncertainty of Audio Level: Uc=±0.98dB
- Uncertainty of Modulation Limiting: Uc=0.42 %
- Uncertainty of Transient Frequency Behavior: Uc=6.8%

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3. SUMMARY OF TEST RESULTS

FCC 47 CFR Part 95 Test Cases			
Test Item	**Test Requirement**	**Test Method**	**Result**
Maximum Transmitter Power	FCC 47 CFR Part 95.567 FCC 47 CFR Part 2.1046(a)	ANSI/TIA-603-E-2016	PASS
Modulation Limit	FCC 47 CFR Part 95.575 FCC 47 CFR Part 2.1047(a)(b)	ANSI/TIA-603-E-2016	PASS
Audio Frequency Response	FCC 47 CFR Part 95.575 FCC 47 CFR Part 2.1047(a)	ANSI/TIA-603-E-2016	PASS
Emission Bandwidth	FCC 47 CFR Part 95.573 FCC 47 CFR Part 2.1049	ANSI/TIA-603-E-2016	PASS
Emission Mask	FCC 47 CFR Part 95.579	ANSI/TIA-603-E-2016	PASS
Transmitter Radiated Spurious Emission	FCC 47 CFR Part 95.579	ANSI/TIA-603-E-2016	PASS
Spurious Emission On Antenna Port	FCC 47 CFR Part 95.579	ANSI/TIA-603-E-2016	N/A Note 1, 2
Frequency Stability	FCC 47 CFR Part 95.565 FCC 47 CFR Part 2.1055 (a)(1)	ANSI/TIA-603-E-2016	PASS

Note:
1) N/A: In this whole report not application.
2) The EUT is Integral Antenna.

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LIST OF EQUIPMENTS USED

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun. 09, 2020	Jun. 08, 2021
EXA Signal Analyzer	KEYSIGHT	N9020A	MY53300860	July 15, 2020	July 14, 2021
Horn antenna	SCHWARZBECK	BBHA9170	768	Oct. 09, 2019	Oct. 08, 2021
preamplifier	ETS	3117PA	00225134	Sep. 03, 2020	Sep. 02, 2022
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May. 17, 2019	May. 16, 2021
Broadband Preamplifier	SCHWARZBECK	BBV9718	9718-205	Jun. 09, 2020	Jun. 08, 2021
Double-Ridged Waveguide Horn	ETS	3117	00154520	Oct. 26, 2019	Oct. 25, 2021
SIGNAL	AGILENT	E4421B	MY43351603	Jun. 09, 2020	Jun. 08, 2021
ANTENNA	SCHWARZBECK	VULB9168	VULB9168-494	Jan. 09, 2019	Jan. 08, 2021
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.20, 2019	Sep.19, 2021
Modulation Domain Analyzer	HP	53310A	3121A02467	Aug. 26, 2020	Aug. 25, 2021
Small environmental tester	ESPEC	SH-242	93008290	Sep. 03, 2020	Sep. 02, 2022
RF Communication Test Set	HP	8920B	US35010161	Sep. 03, 2020	Sep. 02, 2021
Active loop antenna (9K-30MHz)	ZHINAN	ZN30900C	18051	Jun. 11, 2020	Jun. 10, 2021
Attenuator	Schaffner	58-30-33	ML030	Oct. 26, 2020	Oct. 25, 2021
RF Cable	R&S	1#	--	Each time	N/A
Fliter-UHF	Microwave	N25155M2	498705	May. 11, 2020	May. 10, 2021

Note: 8920B can generate audio modulation frequency.

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4. DESCRIPTION OF TEST MODES

RF TEST MODES

The EUT (**Two-way radio**) has been tested under normal operating condition. (FRS TX) are chosen for testing at each channel separation.

NO.	TEST MODE DESCRIPTION	CHANNEL SEPARATION
1	FRS TX CHANNEL 4	12.5 kHz
2	FRS TX CHANNEL 11	12.5 kHz
3	FRS TX CHANNEL 19	12.5 kHz

Note:

1. Only the result of the worst case was recorded in the report, if no other cases.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. Manufacturers use computer PC programming software to switch and operate frequency points, refer to the instructions for details

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5. FREQUENCY TOLERANCE

5.1 PROVISIONS APPLICABLE

Standard Applicable [Part 95.565]The carrier frequency stability is the ability of the transmitter to maintain an assigned carrier frequency.
FCC Part 95.565,
FRS: The carrier frequency tolerance shall be better than ±2.5 ppm.

5.2 MEASUREMENT PROCEDURE

5.2.1 Frequency stability versus environmental temperature

1. Setup the configuration per figure 1 for frequencies measurement inside an environment chamber, Install new battery in the EUT.
2. Turn on EUT and set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1KHz and Video Resolution Bandwidth to 1KHz and Frequency Span to 50KHz.Record this frequency as reference frequency.
3. Set the temperature of chamber to 50℃. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
4. Repeat step 2 with a 10℃ decreased per stage until the lowest temperature -30℃ is measured, record all measured frequencies on each temperature step.

5.2.2 Frequency stability versus input voltage

1. Setup the configuration per figure 1 for frequencies measured at temperature if it is within 15℃ to 25℃. Otherwise, an environment chamber set for a temperature of 20℃ shall be used. The EUT shall be powered by DC 3.70V.
2. Set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1 KHz and Video Resolution Bandwidth to 1KHz. Record this frequency as reference frequency.
3. Supply the EUT primary voltage at the operating end point which is specified by manufacturer and record the frequency.

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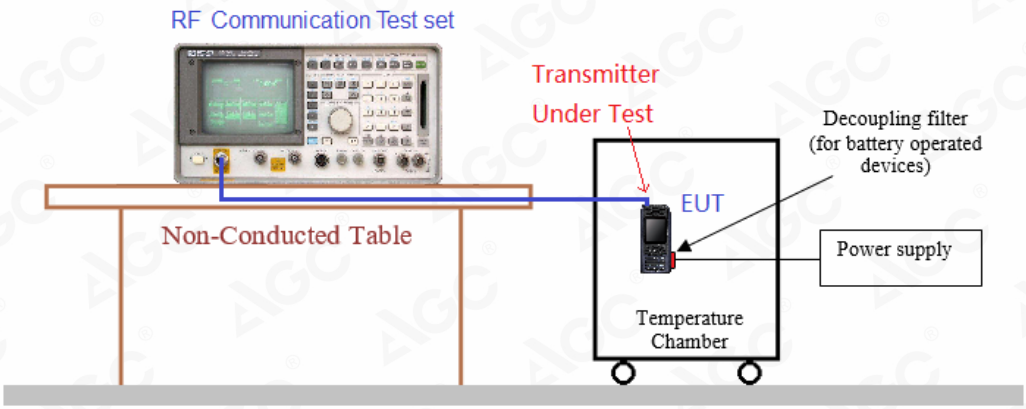
5.3 TEST SETUP BLOCK DIAGRAM



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5.4 TEST RESULT

(1) Frequency stability versus input voltage (Supply nominal voltage is 3.70V)

Environment Temperature(℃)	Power (V)	Reference Frequency 462.6375MHz	467.6375MHz	462.6500 MHz	Limit: ppm
50	DC 3.70	0.859	0.653	0.649	±2.5for FRS
40	DC 3.70	0.515	0.645	0.623	
30	DC 3.70	0.944	0.690	0.946	
20	DC 3.70	1.040	0.794	0.641	
10	DC 3.70	1.034	0.977	0.680	
0	DC 3.70	0.694	1.036	1.094	
-10	DC 3.70	0.757	0.724	0.533	
-20	DC 3.70	0.761	0.971	0.712	
-30	DC 3.70	0.901	0.855	0.807	
Result	Pass				

(2) Frequency stability versus input voltage (Battery Fully Charged voltage is 4.26V)

Environment Temperature(℃)	Power (V)	Reference Frequency 462.6375MHz	467.6375MHz	462.6500 MHz	Limit: ppm
50	DC 4.26	0.781	0.911	0.546	±2.5for FRS
40	DC 4.26	0.572	0.445	0.929	
30	DC 4.26	0.784	0.527	0.526	
20	DC 4.26	0.671	0.810	0.932	
10	DC 4.26	0.920	0.785	0.922	
0	DC 4.26	0.988	0.596	0.826	
-10	DC 4.26	0.759	0.537	0.866	
-20	DC 4.26	0.973	0.940	0.973	
-30	DC 4.26	0.625	0.543	0.960	
Result	Pass				

(3) Frequency stability versus input voltage (Battery limiting voltage is 3.15)

Environment Temperature(℃)	Power (V)	Reference Frequency 462.6375MHz	467.6375MHz	462.6500 MHz	Limit: ppm
50	DC 3.15	0.506	0.915	0.484	±2.5for FRS
40	DC 3.15	0.895	0.649	0.537	
30	DC 3.15	0.816	0.870	0.397	
20	DC 3.15	0.758	0.924	0.645	
10	DC 3.15	0.519	0.843	0.394	
0	DC 3.15	0.636	0.372	0.305	
-10	DC 3.15	0.373	0.891	0.583	
-20	DC 3.15	0.610	0.676	0.457	
-30	DC 3.15	0.746	0.947	0.559	
Result	Pass				

Note: 1.Battery terminal voltage is declared and specified by the manufacturer.
2. All test values are in “ppm

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6. EMISSION BANDWIDTH

6.1 PROVISIONS APPLICABLE

FCC Part 95.573: FRS: The authorized bandwidth for an FRS unit is 12.5 kHz.
Occupied Bandwidth (Section 2.1049, 95.573): The EUT was connected to the audio signal generator and the spectrum analyzer via the main RF connector, and through an appropriate attenuator. The EUT was controlled to transmit its maximum power. Then the bandwidth of 99% power can be measured by the spectrum analyzer.

6.2 MEASUREMENT PROCEDURE

1). The EUT was modulated by 2.5 KHz Sine wave audio signal, The level of the audio signal employed is 16 dB greater than that necessary to produce 50% of rated system deviation. Rated system deviation is 2.5 kHz (12.5 kHz channel spacing).

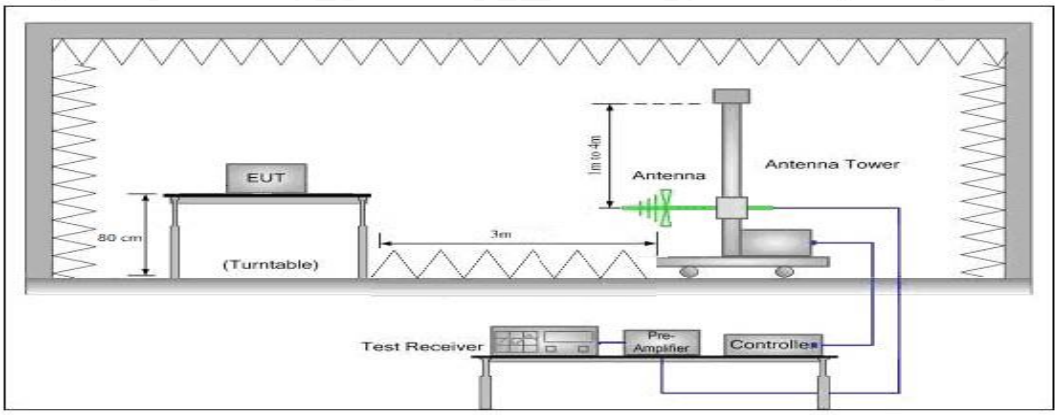
2). Set SPA Center Frequency = fundamental frequency, RBW=300Hz.VBW= 1KHz, Span =50 KHz.

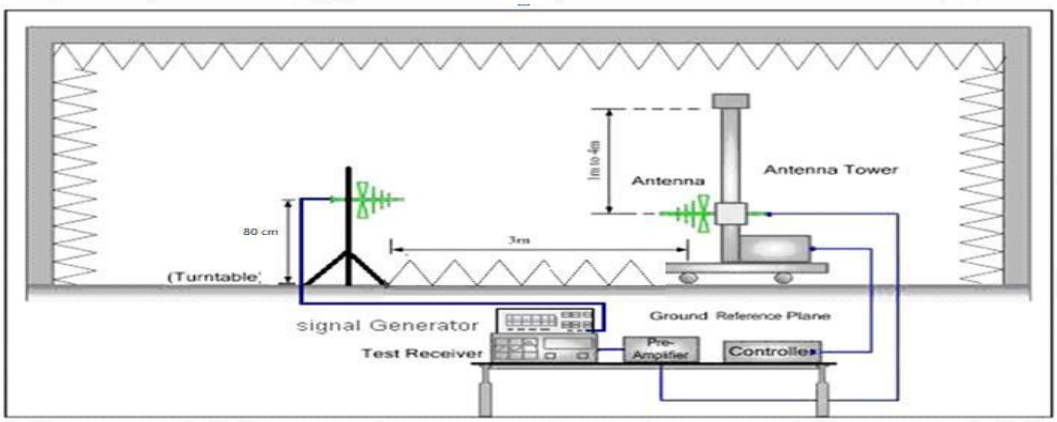
3). Set SPA Max hold. Mark peak, -26 dB.

6.3 TEST SETUP BLOCK DIAGRAM

Radiation method:

Radiated Below1GHz





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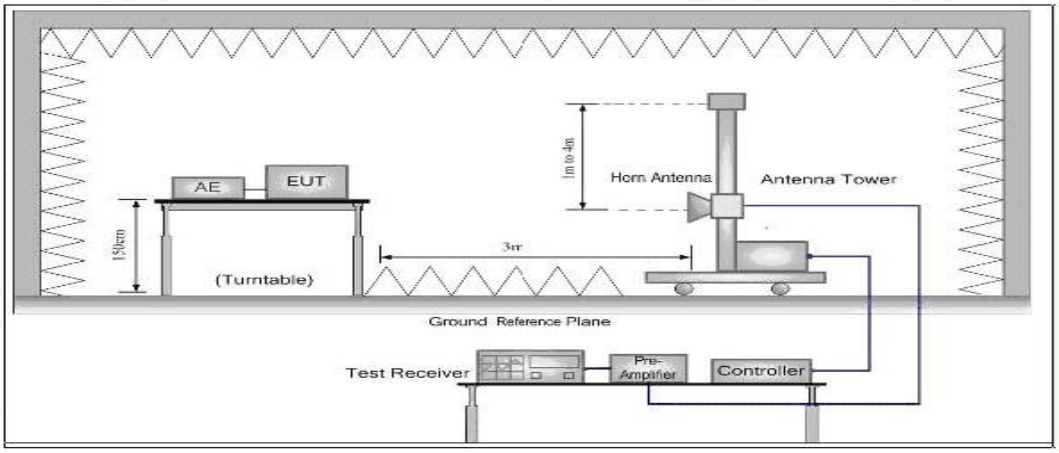
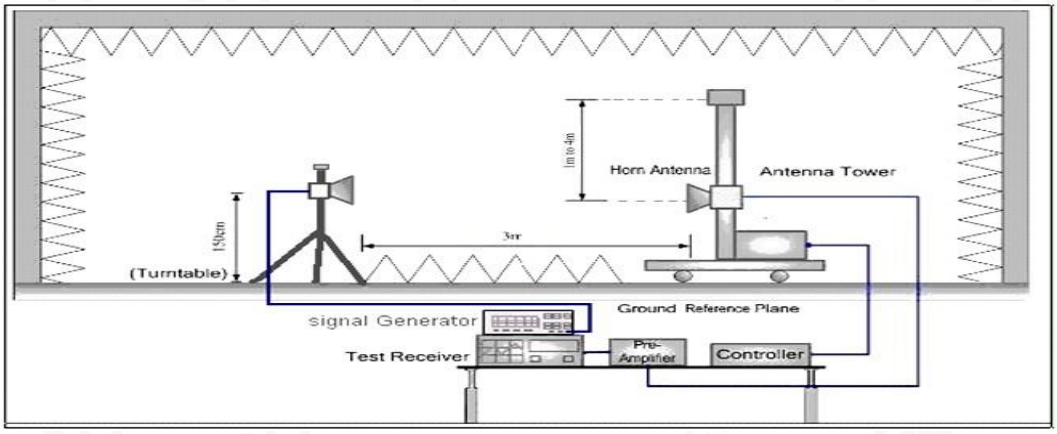
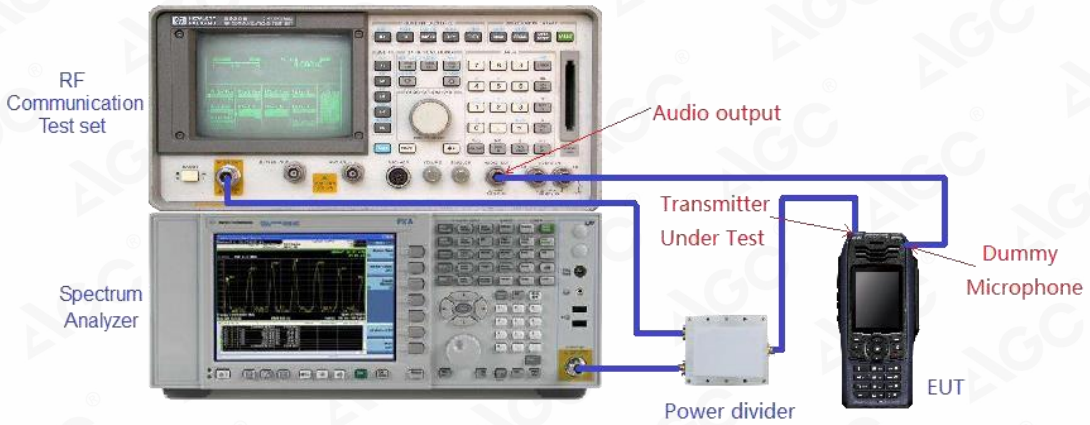
Radiated Above 1 GHz





Conduction method:



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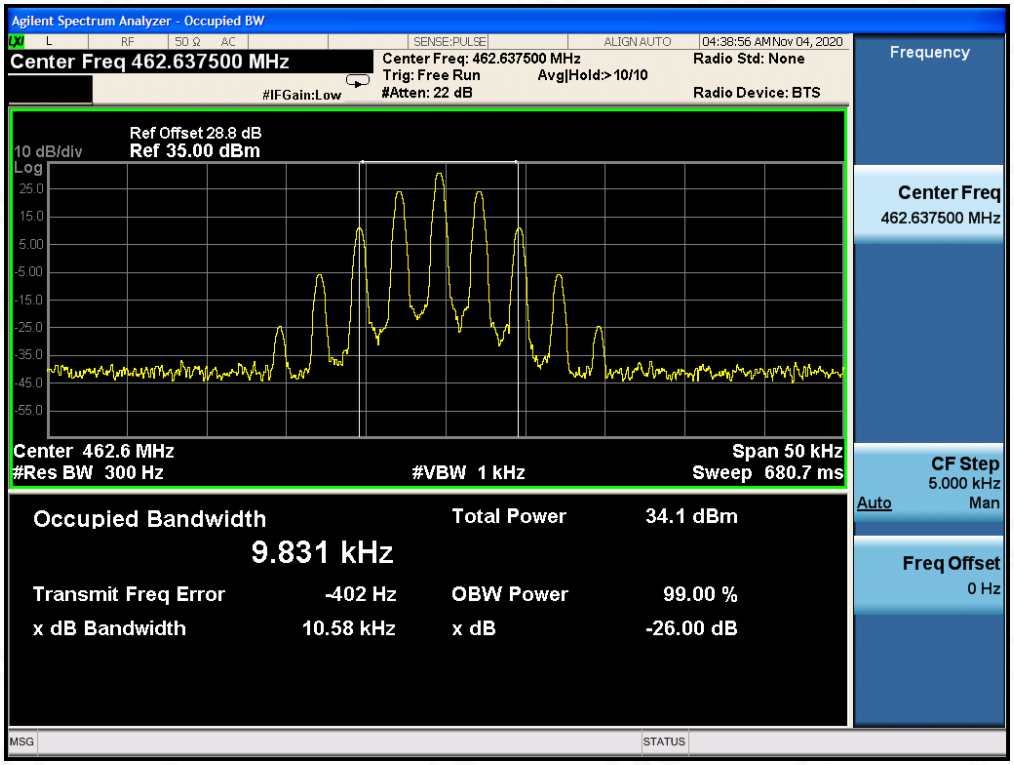
6.4 MEASUREMENT RESULT

Emission Bandwidth Measurement Result				
Operating Frequency	12.5 KHz Channel Separation			
	Occupied Bandwidth	Emission Bandwidth	Limits	Result
462.6375MHz	9.831 KHz	10.58 KHz	12.5 KHz	Pass
467.6375MHz	9.908 KHz	10.51 KHz	12.5 KHz	Pass
462.6500MHz	9.861 KHz	10.50 KHz	12.5 KHz	Pass

Occupied bandwidth of 462.6375MHz-2W



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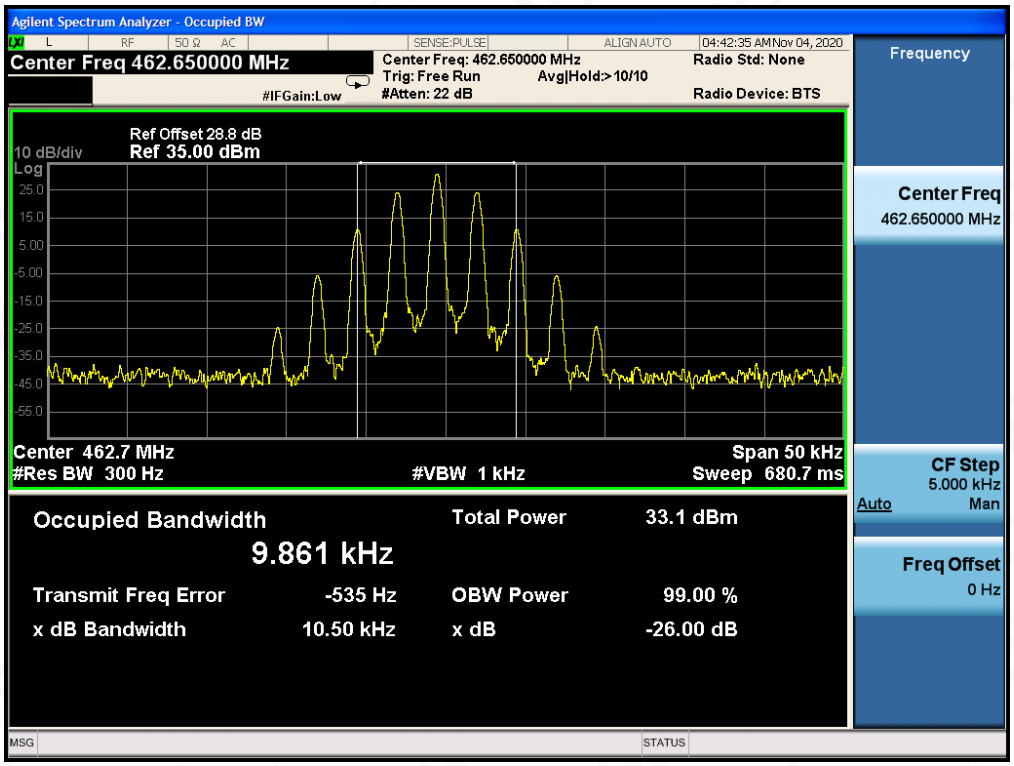
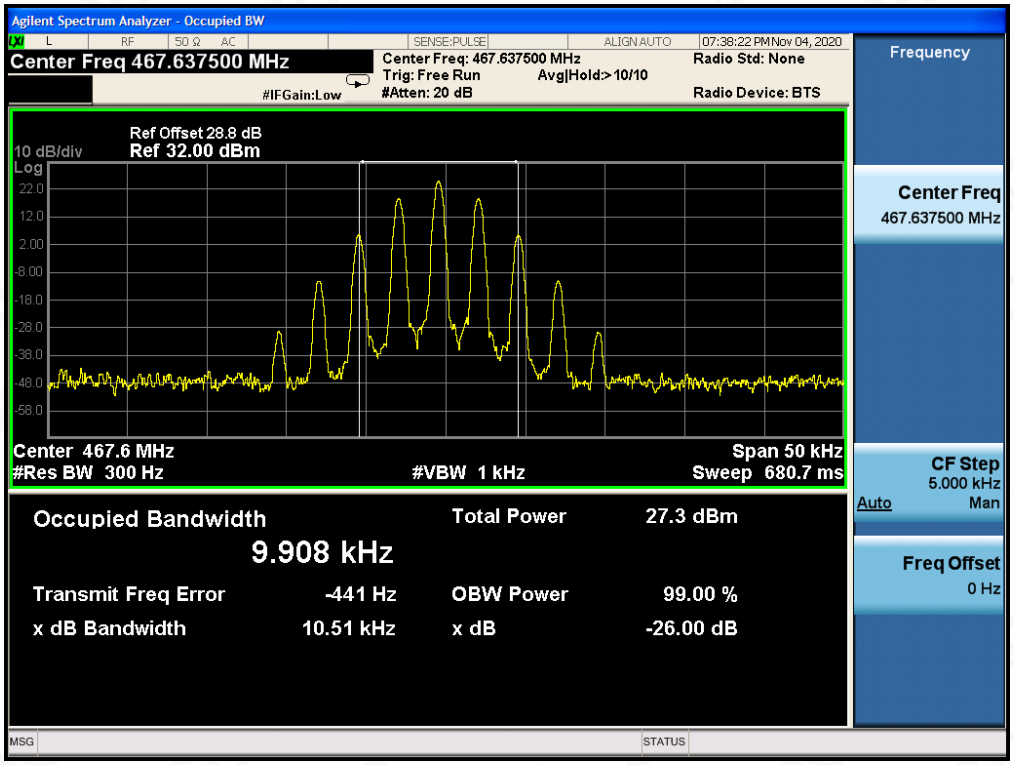
Occupied bandwidth of 462.6500MHz-2W



Occupied bandwidth of 467.6375MHz-0.5W



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7. UNWANTED RADIATION

7.1 PROVISIONS APPLICABLE

Standard Applicable [FCC Part 95.579]

According to FCC section 95.579, the unwanted emission should be attenuated below TP by at least 43+10 log(Transmit Power) dB.

7.2 MEASUREMENT PROCEDURE

(1)On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.

(2)The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.

(3)The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.

(4)The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.

(5)The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.

(6)The transmitter shall than be rotated through 360°in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

(7)The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.

(8)The maximum signal level detected by the measuring receiver shall be noted.

(9)The measurement shall be repeated with the test antenna set to horizontal polarization.

(10) Replace the antenna with a proper Antenna (substitution antenna).

(11)The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.

(12)The substitution antenna shall be connected to a calibrated signal generator.

(13)If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.

(14)The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.

(15)The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.

(16)The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.

(17)The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

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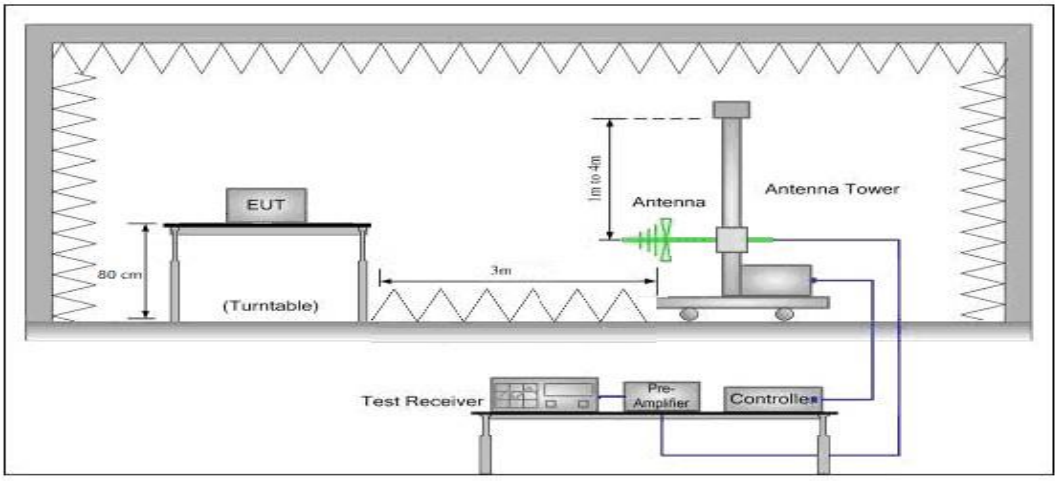
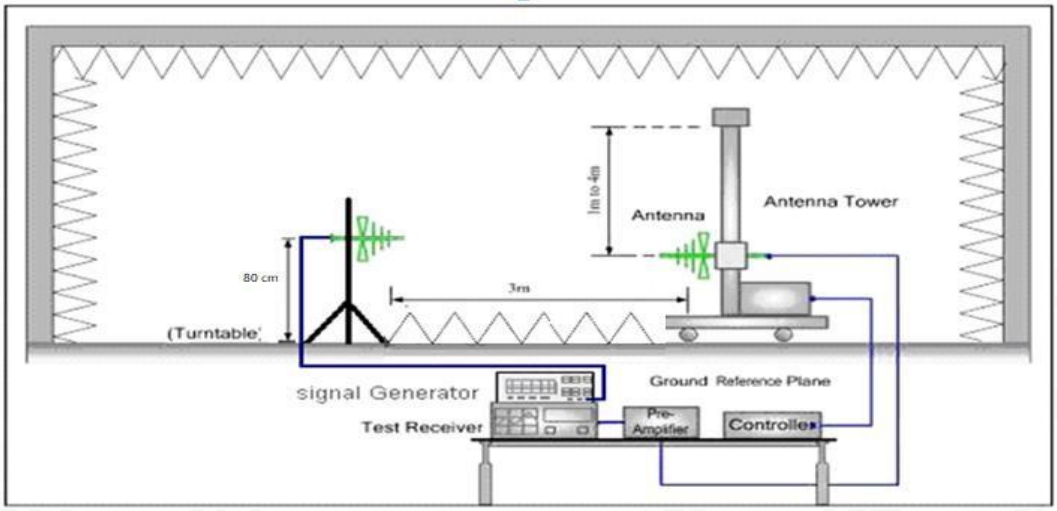
7.3 TEST SETUP BLOCK DIAGRAM

SUBSTITUTION METHOD: (Radiated Emissions)

Radiated Below1GHz





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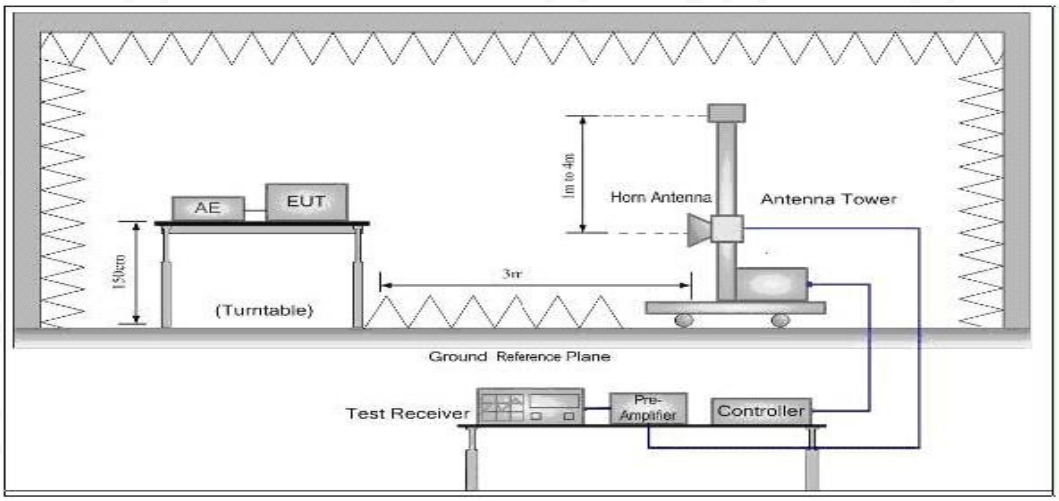
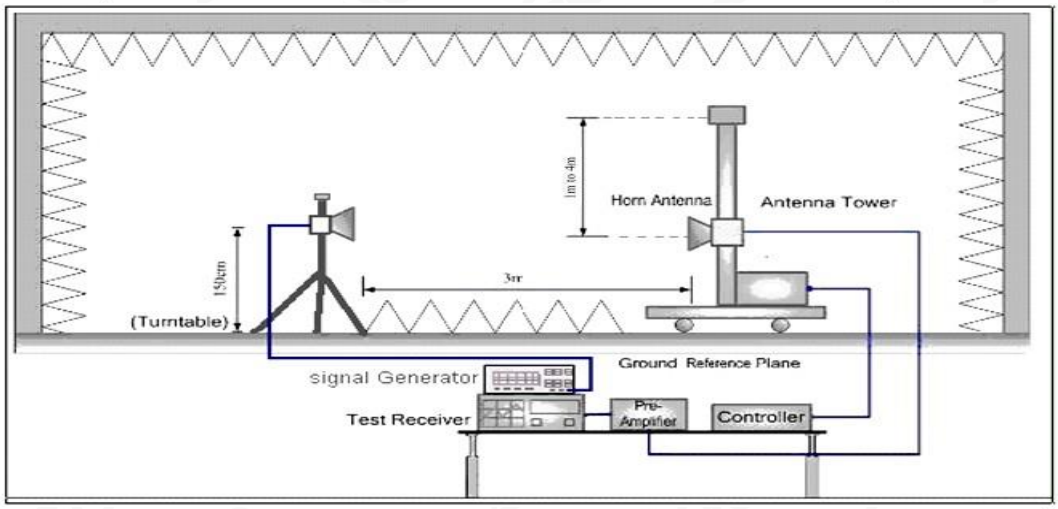
Radiated Above 1 GHz





7.4 MEASUREMENT RESULTS:

the unwanted emission should be attenuated below TP by at least 43+10 log(Transmit Power) dB

Limit: At least 43+10 log (P) =43+10log (2) =46.01(dBc) 33.01-46.01= -13dBm
At least 43+10 log (P) =43+10log (0.5) =39.99(dBc) 26.99-39.99= -13dBm

Note: The margin of the spurious emission results below 30MHz is less than 20dB. The default meets the requirements and only reflects the worst mode.

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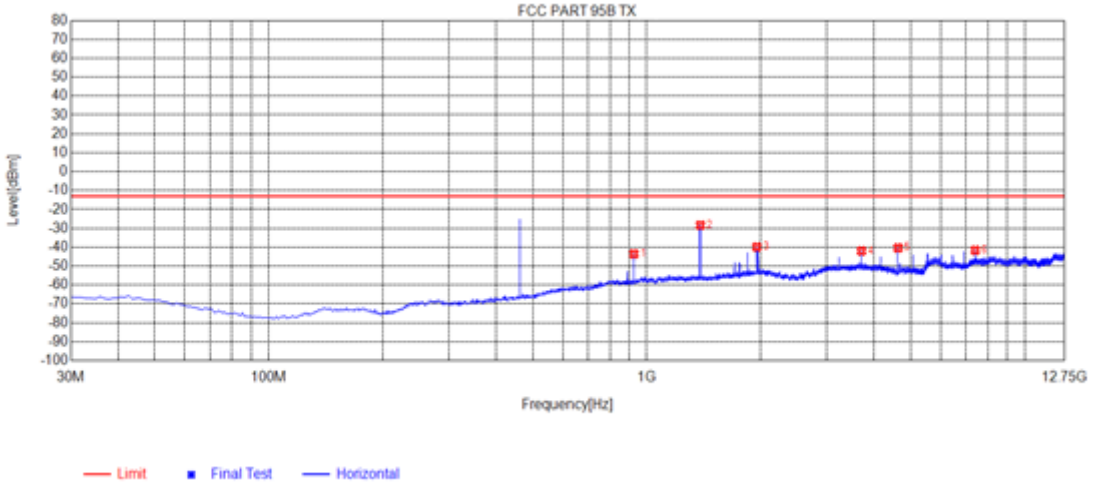
Measurement Result for 12.5 KHz Channel Separation @ 462.6375MHz-2W-Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	925.3100	-87.02	-43.53	-13.00	30.53	43.49	155	Horizontal
2	1387.7888	-24.91	-28.36	-13.00	15.36	-3.45	155	Horizontal
3	1956.5457	-40.10	-39.90	-13.00	26.90	0.20	314	Horizontal
4	3701.5952	-46.39	-41.98	-13.00	28.98	4.41	258	Horizontal
5	4626.4126	-43.93	-40.38	-13.00	27.38	3.55	201	Horizontal
6	7402.0402	-54.90	-41.63	-13.00	28.63	13.27	238	Horizontal

RESULT: PASS

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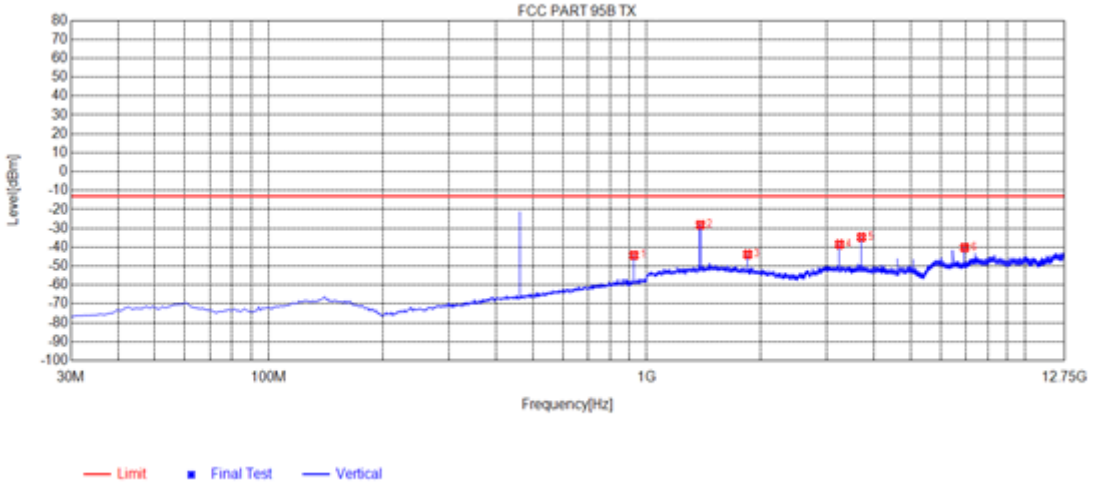
Measurement Result for 12.5 KHz Channel Separation @ 462.6375MHz-2W-Vertical



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	925.3100	-87.79	-44.22	-13.00	31.22	43.57	270	Vertical
2	1387.7888	-29.60	-28.19	-13.00	15.19	1.41	214	Vertical
3	1850.7851	-44.70	-43.77	-13.00	30.77	0.93	101	Vertical
4	3238.5989	-41.61	-38.47	-13.00	25.47	3.14	9	Vertical
5	3701.5952	-37.84	-34.69	-13.00	21.69	3.15	9	Vertical
6	6940.2190	-52.29	-40.19	-13.00	27.19	12.10	317	Vertical

RESULT: PASS

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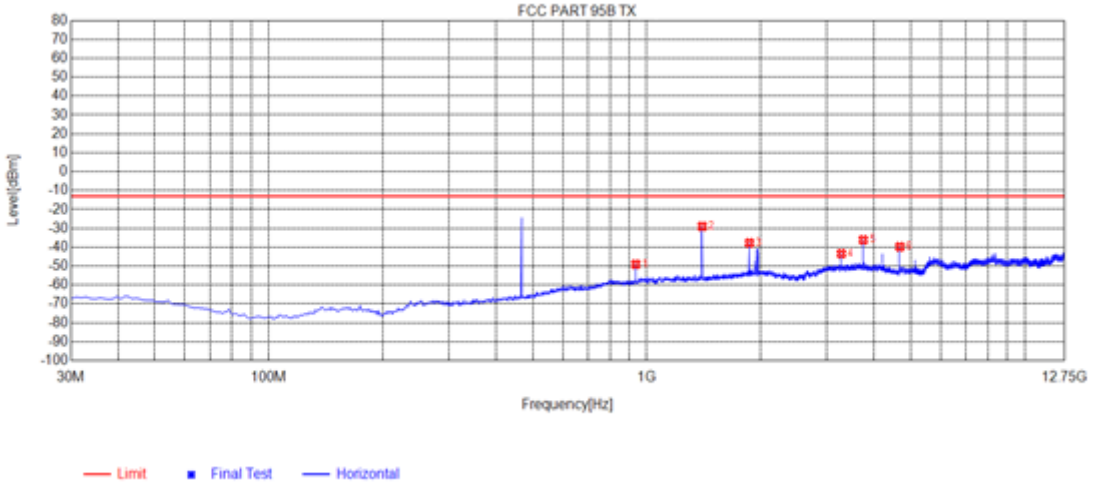
Measurement Result for 12.5 KHz Channel Separation @ 467.6375MHz-0.5W-Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	935.9800	-92.74	-49.02	-13.00	36.02	43.72	0	Horizontal
2	1403.0653	-25.57	-28.98	-13.00	15.98	-3.41	134	Horizontal
3	1870.7621	-37.30	-37.74	-13.00	24.74	-0.44	162	Horizontal
4	3273.8524	-47.20	-43.42	-13.00	30.42	3.78	350	Horizontal
5	3741.5492	-40.62	-36.16	-13.00	23.16	4.46	324	Horizontal
6	4676.9427	-43.37	-39.80	-13.00	26.80	3.57	190	Horizontal

RESULT: PASS

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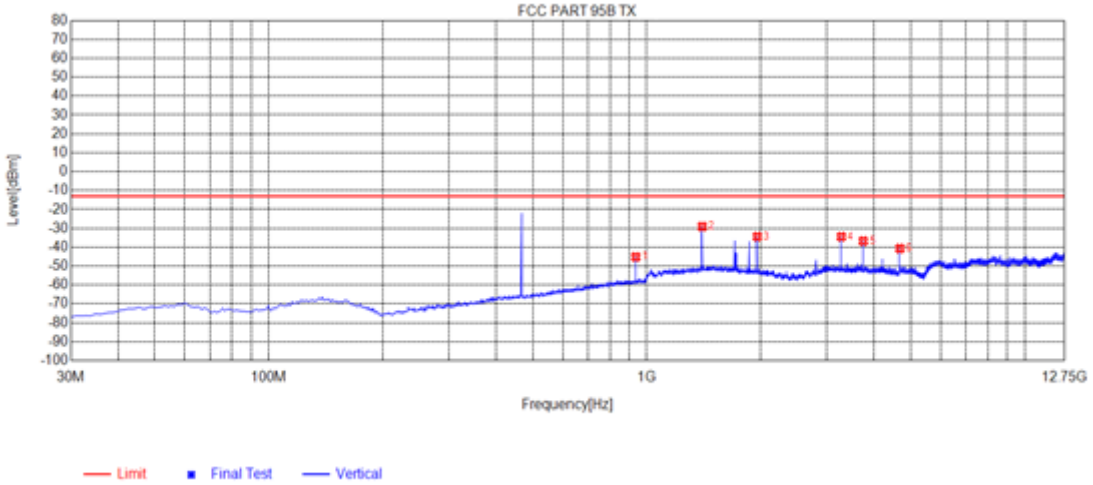
Measurement Result for 12.5 KHz Channel Separation @ 467.6375MHz-0.5W-Vertical



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	935.9800	-88.84	-45.16	-13.00	32.16	43.68	1	Vertical
2	1403.0653	-30.60	-29.08	-13.00	16.08	1.52	186	Vertical
3	1962.4212	-34.92	-34.38	-13.00	21.38	0.54	9	Vertical
4	3273.8524	-37.56	-34.43	-13.00	21.43	3.13	360	Vertical
5	3741.5492	-39.90	-36.73	-13.00	23.73	3.17	354	Vertical
6	4676.9427	-44.05	-40.69	-13.00	27.69	3.36	354	Vertical

RESULT: PASS

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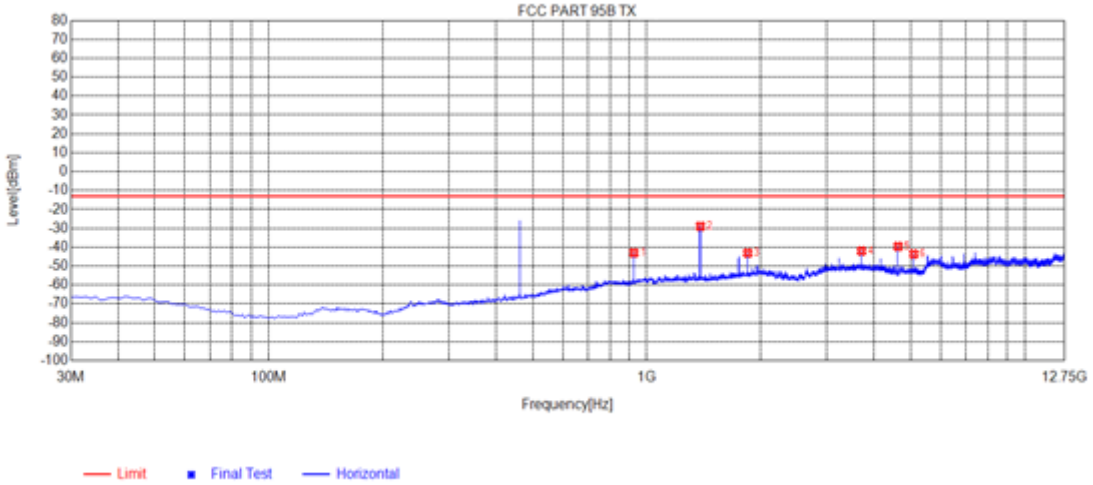
Measurement Result for 12.5 KHz Channel Separation @ 462.6500MHz-2W-Horizontal



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	925.3100	-86.45	-42.96	-13.00	29.96	43.49	156	Horizontal
2	1387.7888	-25.50	-28.95	-13.00	15.95	-3.45	128	Horizontal
3	1850.7851	-42.48	-43.07	-13.00	30.07	-0.59	166	Horizontal
4	3701.5952	-46.41	-42.00	-13.00	29.00	4.41	259	Horizontal
5	4626.4126	-43.17	-39.62	-13.00	26.62	3.55	193	Horizontal
6	5089.4089	-48.28	-43.61	-13.00	30.61	4.67	101	Horizontal

RESULT: PASS

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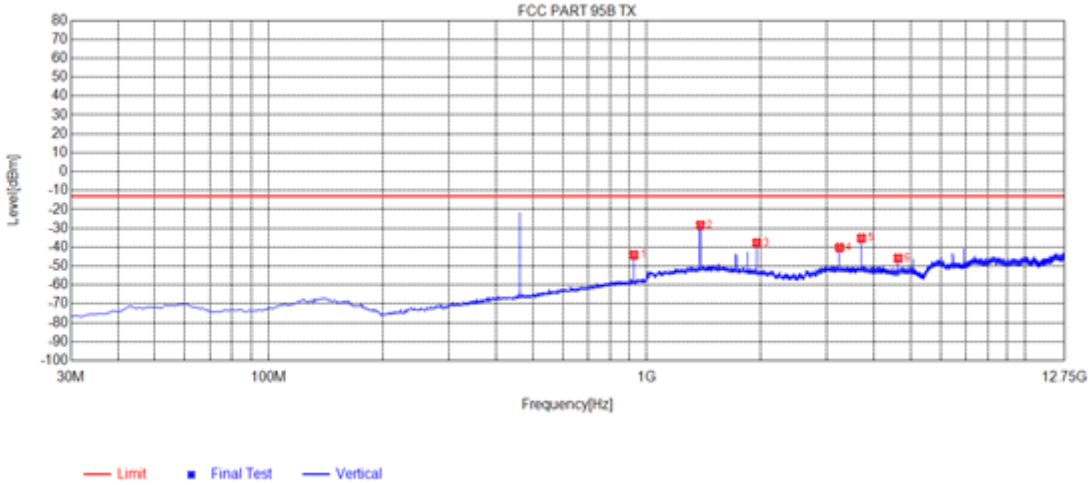
Measurement Result for 12.5 KHz Channel Separation @ 462.6500MHz-2W -Vertical



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	925.3100	-87.65	-44.08	-13.00	31.08	43.57	325	Vertical
2	1387.7888	-29.73	-28.32	-13.00	15.32	1.41	196	Vertical
3	1956.5457	-38.28	-37.72	-13.00	24.72	0.56	9	Vertical
4	3238.5989	-43.36	-40.22	-13.00	27.22	3.14	9	Vertical
5	3701.5952	-38.40	-35.25	-13.00	22.25	3.15	1	Vertical
6	4626.4126	-49.12	-45.85	-13.00	32.85	3.27	93	Vertical

RESULT: PASS

Note:
1. Factor=Antenna Factor + Cable loss. (Below 1GHz)
2. Factor=Antenna Factor+ Cable loss-Pre-amplifier.(Above 1 GHz)
3. Margin=Limit- Level

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