

FCC PART 74

Measurement and Test Report

For

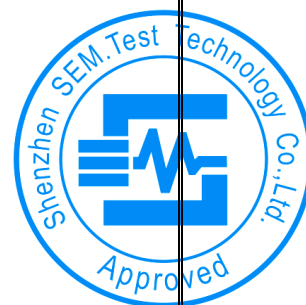
inMusic Brands, Inc.

200 Scenic View Drive, Cumberland, RI 02864, U.S.A

FCC ID: Y40-DA23MIC

FCC Rules:	<u>FCC Part 74</u>
Product Description:	<u>HANDHELD MICROPHONE</u>
Tested Model:	<u>DA23-MIC</u>
Report No.:	<u>STRD1703231I</u>
Tested Date:	<u>2017-03-29 to 2017-05-05</u>
Issued Date:	<u>2017-05-06</u>
Tested By:	<u>Iven Guo / Engineer</u>
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Prepared By:	

Iven Guo
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: inMusic Brands, Inc.
Address of applicant: 200 Scenic View Drive, Cumberland, RI 02864, U.S.A

Manufacturer: inMusic Brands, Inc.
Address of manufacturer: 200 Scenic View Drive, Cumberland, RI 02864, U.S.A

General Description of EUT	
Product Name:	HANDHELD MICROPHONE
Trade Name:	DENON PROFESSIONAL
Model No.:	DA23-MIC
Adding Model(s):	/
Rated Voltage:	AC 100-120/220-240V for Speaker; DC 3V for microphone
<i>Note: The test data is gathered from a production sample provided by the manufacturer.</i>	

Items	Description
RF Output Power:	Max. 11.82dBm (Conducted) Max. 11.57dBm (ERP)
Frequency Range:	584MHz - 594.85MHz
Modulation:	FM
Antenna Type:	Integral Antenna
Antenna Gain:	0 dBi
For more information refer to the circuit diagram form and the user's manual.	

The test data gathered are from a production sample, provided by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the inMusic Brands, Inc. in accordance with Part 74 Subpart H of the Federal Communication Commissions rules.

The objective is to determine compliance with the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which results in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

Measurements contained in this report were also conducted with ANSI/TIA-603-D: 2010, Telecommunications Industry Association Land Mobile FM or PM Communications Equipment Measurement and Performance Standards, ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices and ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Channel, Middle Channel and High Channel, accordingly in reference to the Operating Instructions.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology 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 and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components. The test software is started while the whole system is on.

Test Mode List		
Test Mode	Description	Remark
TM1	Transmitter	Low, Middle, High Channels

Test Conditions					
	Normal	LTLV	LTHV	HTHV	HTLV
Temperature (°C)	20	-30	-30	50	50
Voltage (V)	3.0	2.6	3.4	2.6	3.4

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	---	$\pm 1 \times 10^{-7}$
Frequency Stability	2.3%	$\pm 5\%$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	$\pm 2.88\text{dB}$
Transmitter Spurious Emissions	Radiated	$\pm 5.2\text{dB}$

1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2016-06-04	2017-06-03
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2016-06-04	2017-06-03
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2016-06-04	2017-06-03
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2016-06-04	2017-06-03
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2016-06-04	2017-06-03
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2016-06-04	2017-06-03
SEMT-1042	Horn Antenna	ETS	3117	00086197	2016-06-04	2017-06-03
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2016-06-04	2017-06-03
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2016-06-04	2017-06-03
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2016-06-04	2017-06-03
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2016-06-04	2017-06-03
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2016-06-04	2017-06-03

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§74.861(e)(1)(ii)	Output Power Measurement	Compliant
§74.861(e)(3)	Modulation Characteristics	Compliant
§74.861(e)(5)	Occupied Bandwidth Emission	Compliant
§74.861(e)(6)	Radiated Spurious Emission	Compliant
§2.1051	Spurious Emission at Antenna Port	Compliant
§74.86(e)(4)	Frequency Stability	Compliant

3. RF OUTPUT POWER

3.1 Standard Applicable

According to FCC 74.861(e)(1)(ii), for low power auxiliary station operating in the 470-608, and 614-698 MHz bands, the power of the measured unmodulated carrier power and the output of the transmitter power amplifier (antenna input power) may not exceed 250mW.

3.2 Test Procedure

1. The maximum peak output power was measured with a Spectrum Analyzer connected to the antenna terminal while EUT was operating in unmodulated situation.
2. Power was supplied to the battery input connector a power supply. The power supply was set for +3.0VDC. The Spectrum Analyzer was connected at antenna terminal to measure RF power of the carrier.
3. A Multimeter was connected in series with final RF Stage to measure the current; A Multimeter was used to measure final RF Stage supply voltage. Then the voltage v.s. current of the final RF Stage can be showed.

3.3 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

3.4 Test Result/Plots

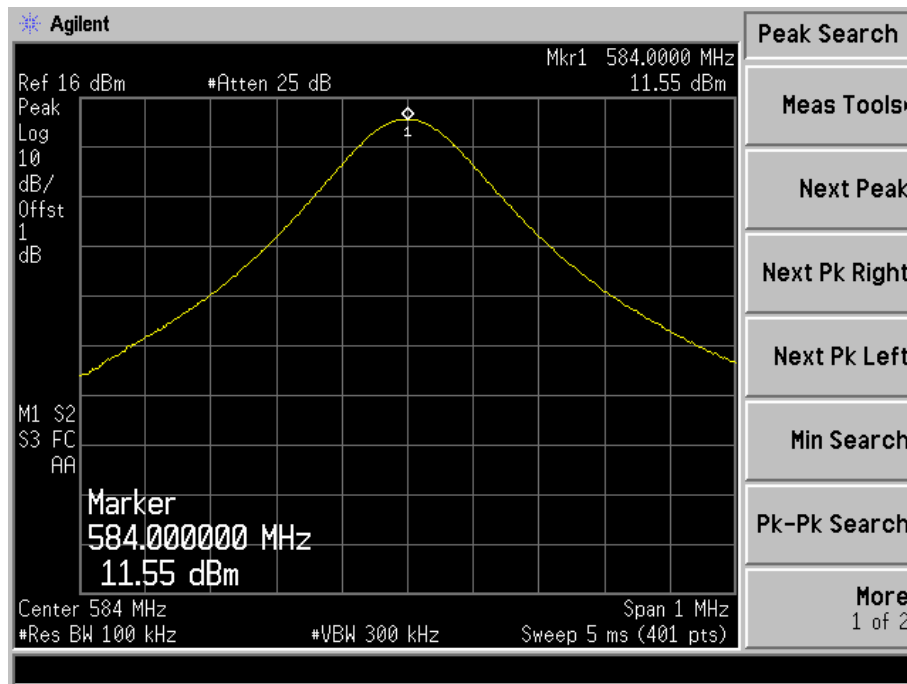
ERP power

Channel	Measured Value	Antenna Gain	ERP	Limit
	dBm	dBd	dBm	dBm
Low	11.21	0	11.21	24
Middle	11.19	0	11.19	24
High	11.57	0	11.57	24

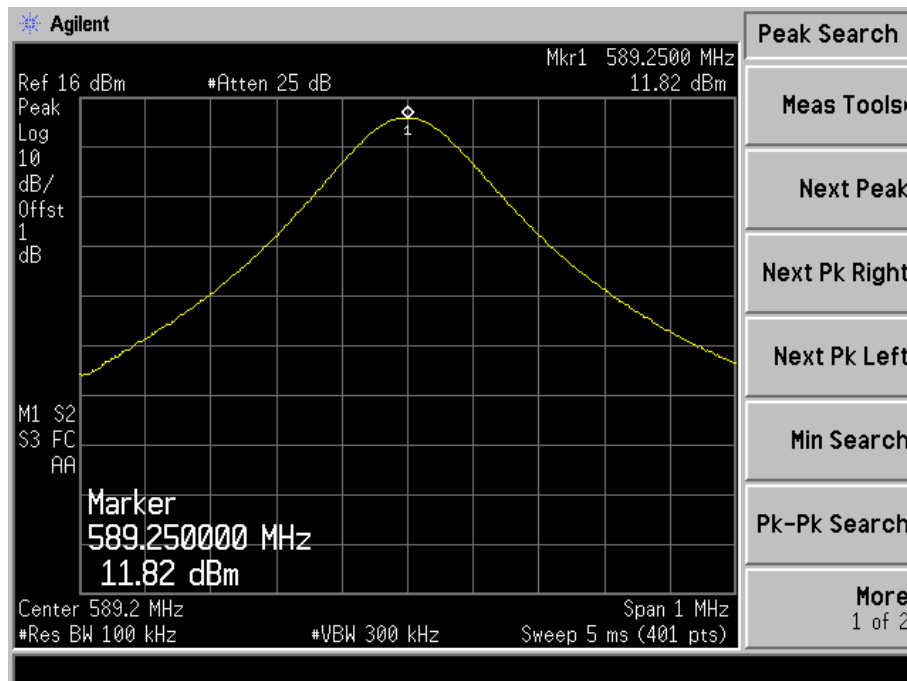
Conducted power

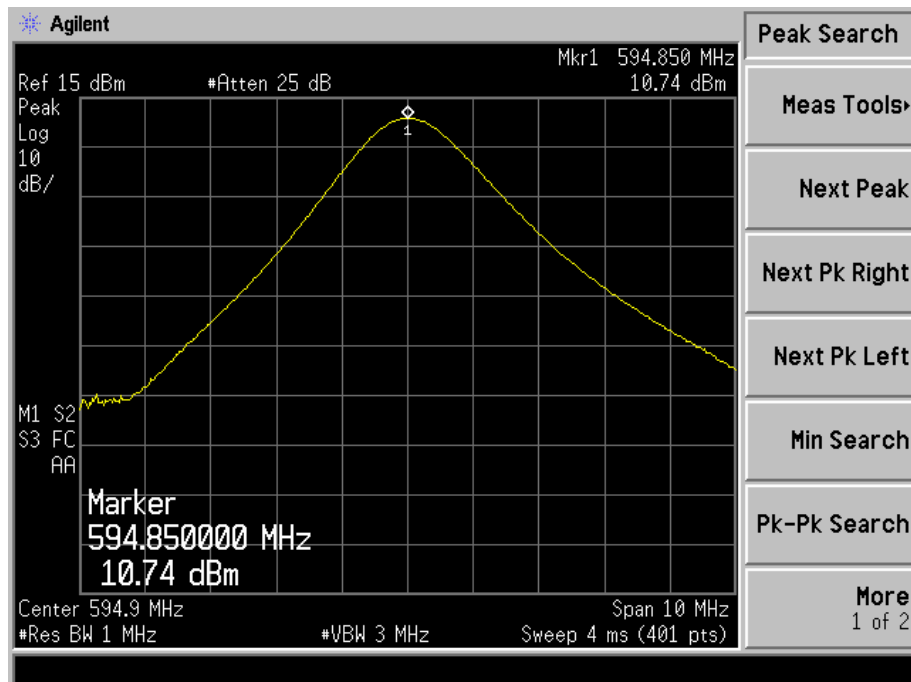
Channel	Frequency (MHz)	RF Stage Voltage (Vdc)	Collected Current (mA)	Output Power (dBm)	Limit (dBm)
Low	584.00	3.00	0.35	11.55	24
Middle	589.25	3.00	0.35	11.82	24
High	594.85	3.00	0.35	10.74	24

Low Channel (584.00MHz)



Middle Channel (589.25MHz)



High Channel (594.85MHz)

4. MODULATION CHARACTERISTICS

4.1 Standard Applicable

According to FCC 2.1047 (a), for Voice Modulated Communication Equipment, the frequency response of the audio modulating circuit over a range of 100Hz to 5000Hz shall be measured. For equipment required to have an audio low-pass filter, the frequency response of the filter or of all circuitry installed between the modulation limiter and the modulated stage shall be measured.

According to §74.861(e)(3), any form of modulation may be used. A maximum deviation of ± 75 kHz is permitted when frequency modulation is employed.

4.2 Test Procedure

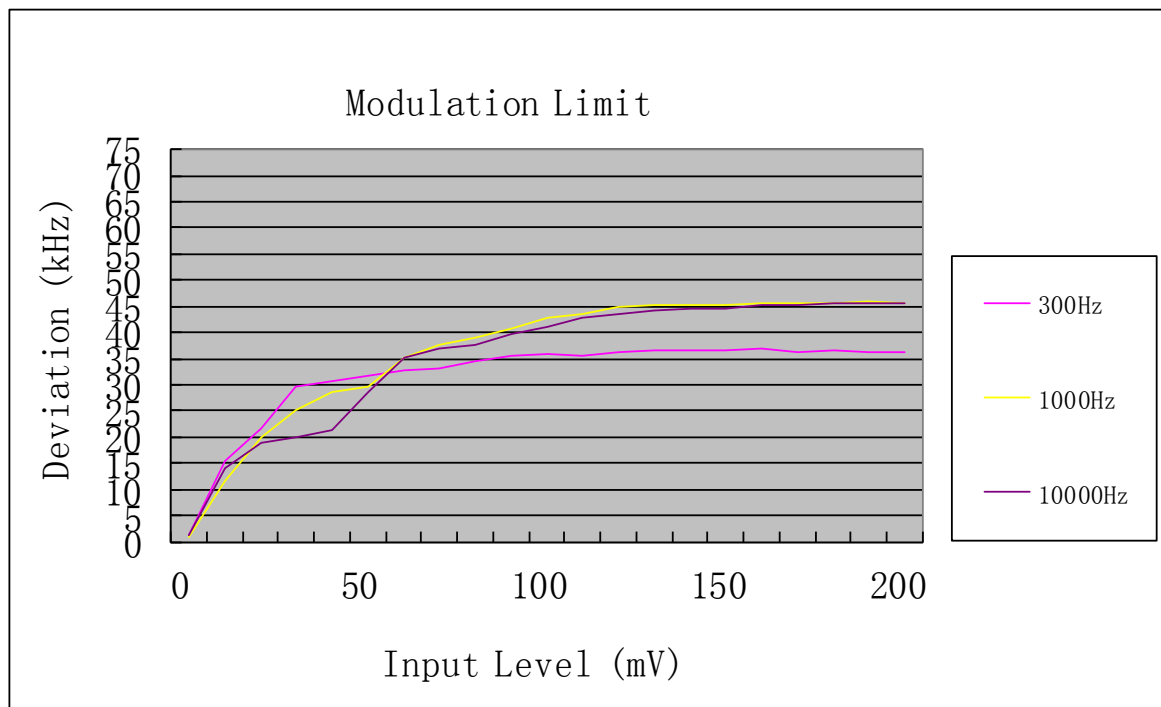
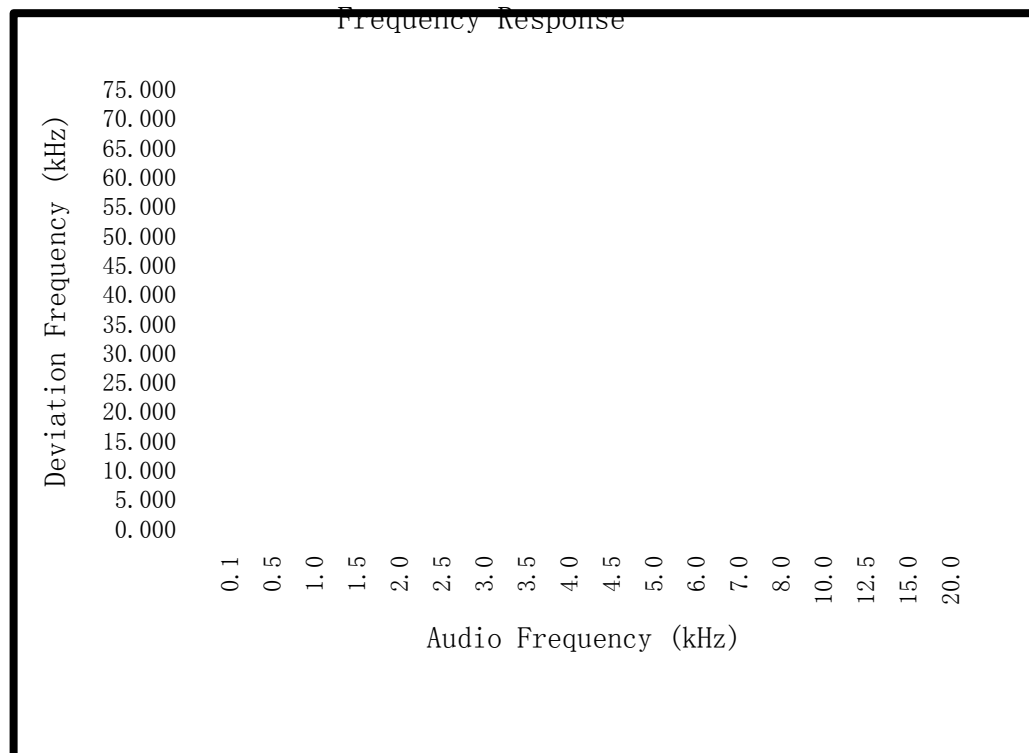
- 1) Position the EUT as shown in figure 1, adjust the audio input frequency to 100 Hz and the input level from 0V to maximum permitted input voltage with recording each carrier frequency deviation responding to respective input level.
- 2) Repeat step 1 with changing the input frequency for 100, 300, 1000, 2500 and 3000 Hz in sequence.

4.3 Environmental Conditions

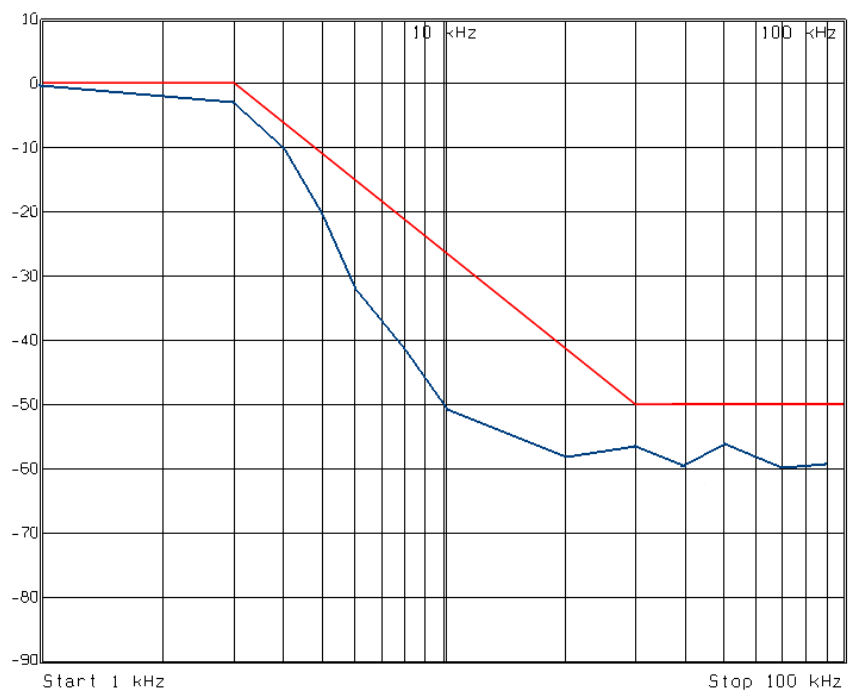
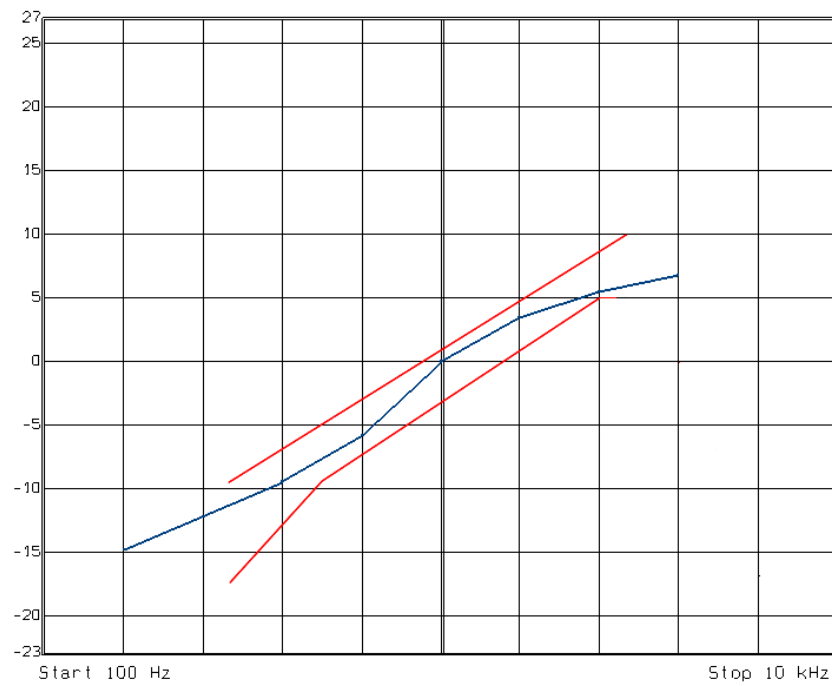
Temperature:	25 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

4.4 Test Results/Plots

Middle Channel (589.25MHz)



Audio Low Pass Filter Characteristic Curve



5. OCCUPIED BANDWIDTH

5.1 Standard Applicable

According to FCC 2.1049 (c) (1), for radiotelephone transmitter, other than single sideband or independent sideband transmitter, when modulated by a 2.5 kHz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation.

According to §74.861(e)(5), the operating bandwidth shall not exceed 200 kHz.

According to FCC 74.861(e)(6), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

1. On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB.
2. On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB.
3. On any frequency removed from the operating frequency by more than 250 percent up to and the authorized bandwidth shall be attenuated below the un-modulated carrier by at least 43 plus 10 Log (output power in watts) dB.

5.2 Test Procedure

According to TIA-603 for additional Test Set-Up procedures, the occupied bandwidth of emission was measured with a Spectrum Analyzer connected to the antenna terminal while EUT was operating in 2.5kHz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation. Then mark the -26dB Bandwidth and record it.

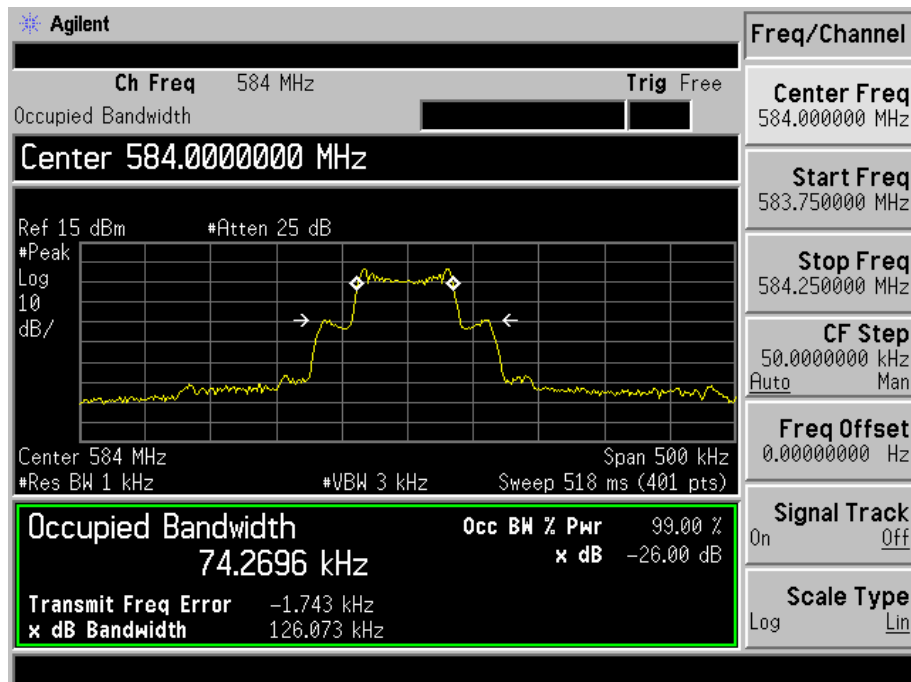
5.3 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

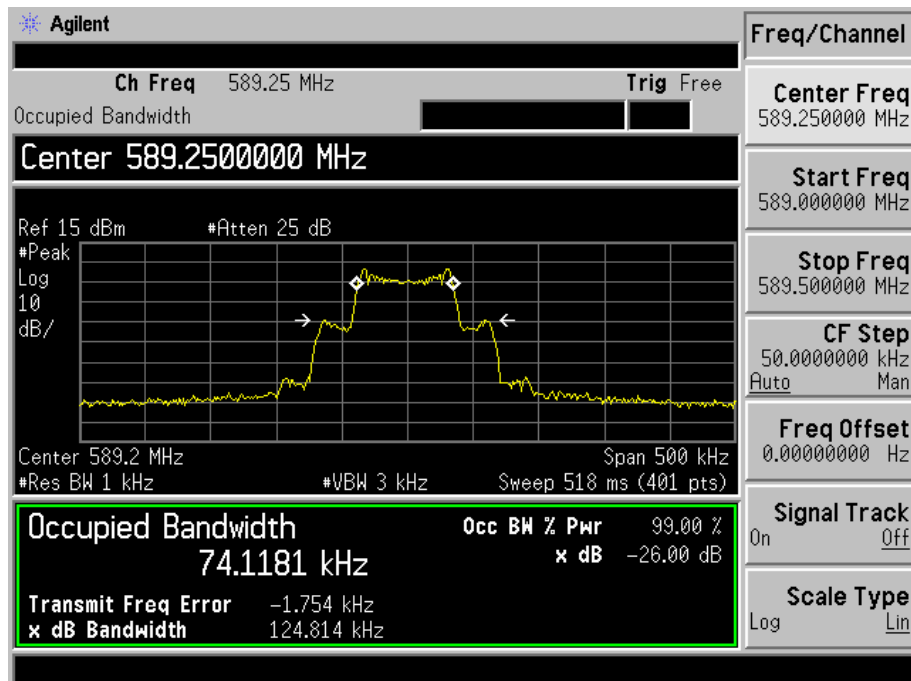
5.4 Test Results/Plots

Test Channel	Frequency (MHz)	-26dB Bandwidth (kHz)	99% Bandwidth (kHz)	Limit (kHz)
Low	584.00	126.073	74.2696	200
Middle	589.25	124.814	74.1181	200
High	594.85	126.675	75.4225	200

Low Channel (584.00MHz)



Middle Channel (589.25MHz)



The spectrum analyzer display shows a signal with a peak at 594.85 MHz. The display includes a grid, a yellow trace, and various measurement parameters.

Agilent

Ch Freq 594.85 MHz **Trig** Free

Occupied Bandwidth

Center 594.850000 MHz

Ref 15 dBm #Atten 25 dB

#Peak Log 10 dB/

Center 594.9 MHz Span 500 kHz

#Res BW 1 kHz #VBW 3 kHz Sweep 518 ms (401 pts)

Occupied Bandwidth 75.4225 kHz

Transmit Freq Error -1.666 kHz

x dB Bandwidth 126.675 kHz

Occ BW % Pwr 99.00 %

x dB -26.00 dB

Freq/Channel

Center Freq 594.850000 MHz

Start Freq 594.600000 MHz

Stop Freq 595.100000 MHz

CF Step 50.000000 kHz

Freq Offset 0.0000000 Hz

Signal Track On

Scale Type Log

Agilent Spectrum Analyzer - Swept SA

Center Freq 584.000000 MHz

PNO: Wide IF Gain: Low

Trig: Free Run #Atten: 20 dB

Avg Type: Log-Pwr AvgHold: 24/100

07:42:04 PM Apr 07, 2017

TRACE 1 2 3 4 5 6

TYPE M M M M M M M M

DET P P P P P P P P

Frequency

Auto Tune

Center Freq 584.000000 MHz

Start Freq 583.000000 MHz

Stop Freq 585.000000 MHz

CF Step 200.000 kHz

Auto Man

Freq Offset 0 Hz

10 dB/div Log

Ref 10.00 dBm

Trace 1 Pass

Center 584.000 MHz

#Res BW 1.0 kHz

#VBW 3.0 kHz

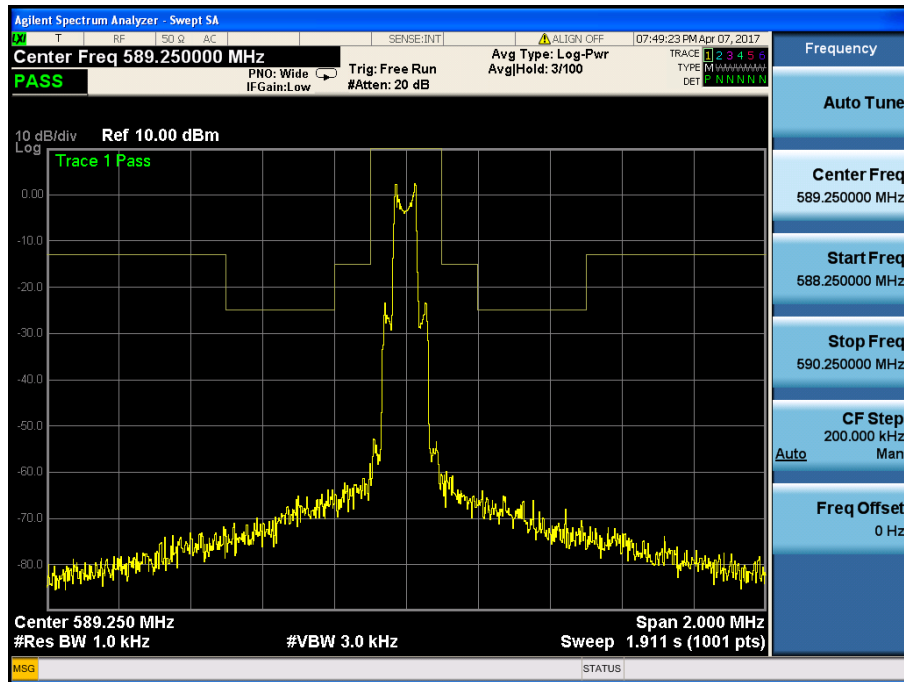
Span 2.000 MHz

Sweep 1.911 s (1001 pts)

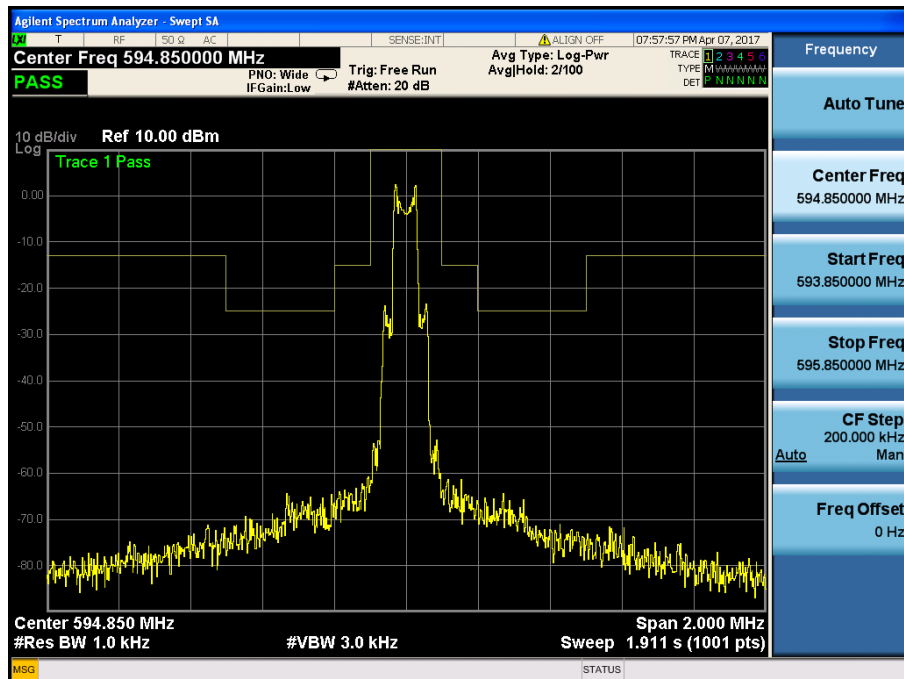
MSG

STATUS

Emission Mask (589.25MHz)



Emission Mask (594.85MHz)



6. RADIATED SPURIOUS EMISSION

6.1 Standard Applicable

According to FCC 2.1053, measurements shall be made to detect spurious emission that may be radiated directly from the cabinet, control circuits, power leads, or intermediated circuit elements under normal condition of installation and operation. Information submitted shall include the relative radiated power of spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from a halfwave dipole antenna.

According to FCC74.861 (e)(6), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

4. On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB.
5. On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB.
6. On any frequency removed from the operating frequency by more than 250 percent up to and the authorized bandwidth shall be attenuated below the un-modulated carrier by at least 43 plus 10 Log (output power in watts) dB.

6.2 Test Procedure

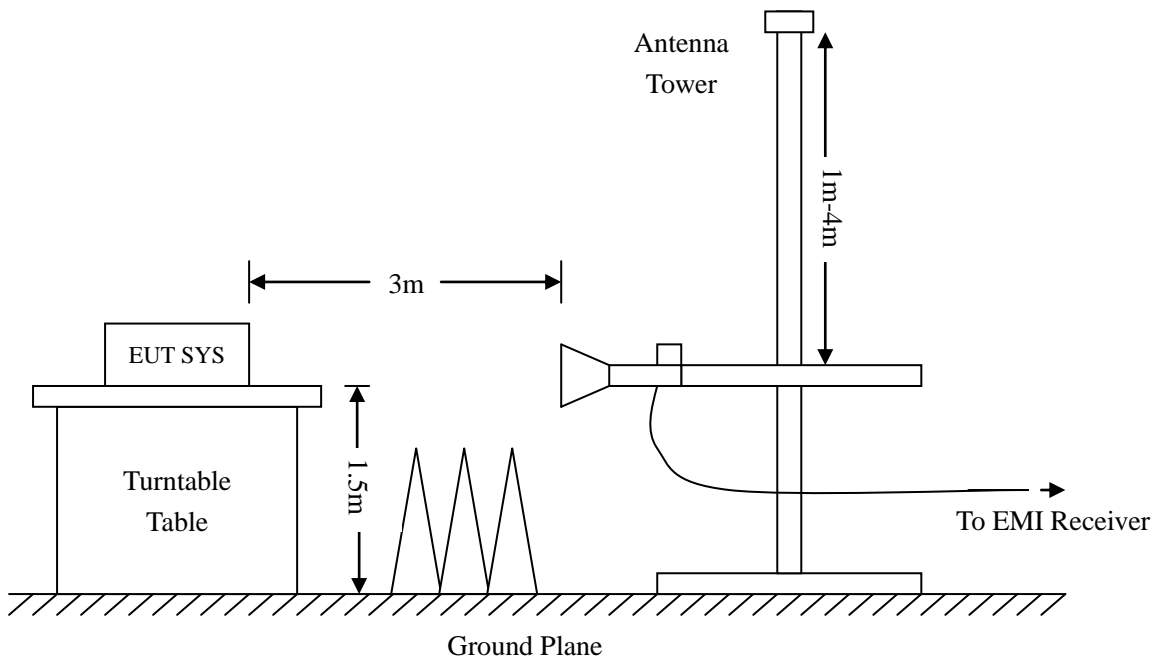
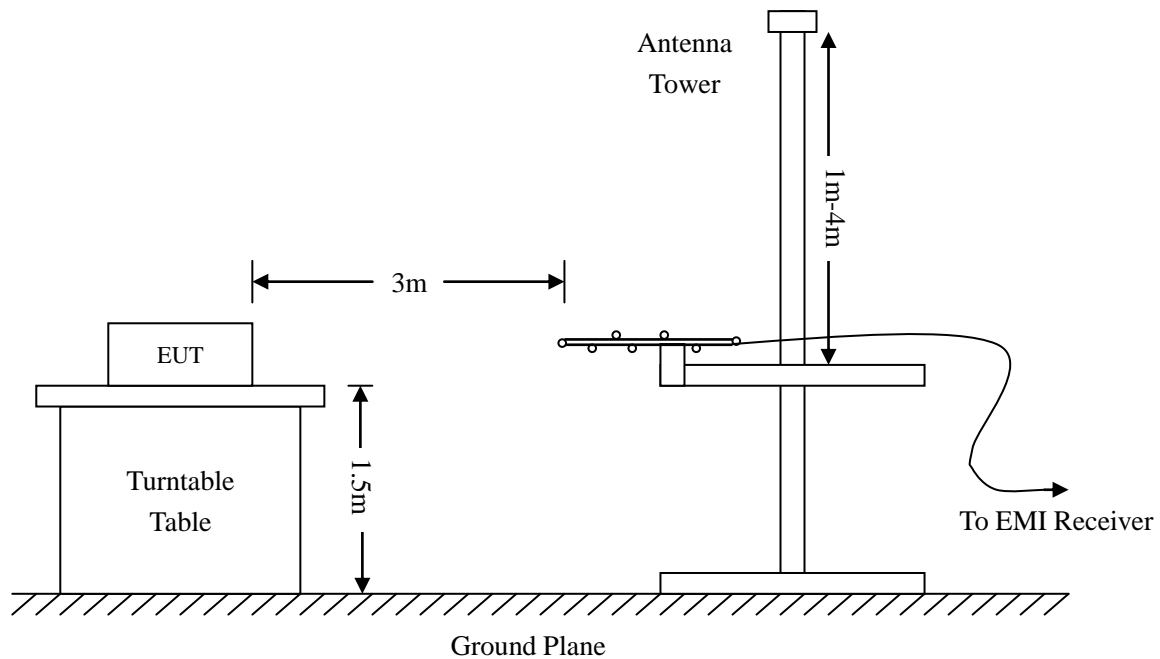
The setup of EUT is according with per TIA/EIA Standard 603 and ANSI C63.4-2014 measurement procedure.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious attenuation limit in dB = $43 + 10 \text{ Log}_{10} (\text{power in Watts})$



Frequency :9kHz-30MHz
 RBW=10KHz,
 VBW =30KHz
 Sweep time= Auto
 Trace = max hold
 Detector function = peak

Frequency :30MHz-1GHz
 RBW=120KHz,
 VBW=300KHz
 Sweep time= Auto
 Trace = max hold
 Detector function = peak, QP

Frequency :Above 1GHz
 RBW=1MHz,
 VBW=3MHz(Peak), 10Hz(AV)
 Sweep time= Auto
 Trace = max hold
 Detector function = peak, AV

6.3 Environmental Conditions

Temperature:	26° C
Relative Humidity:	52%
ATM Pressure:	1022 mbar

6.4 Summary of Test Results/Plots

According to the data below, the FCC Part 74.861 standards, and had the worst margin of:

-28.34 dB at 790.6188 MHz in the Vertical polarization Transmitting 594.85 MHz Mode, 30 MHz to 1 GHz

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

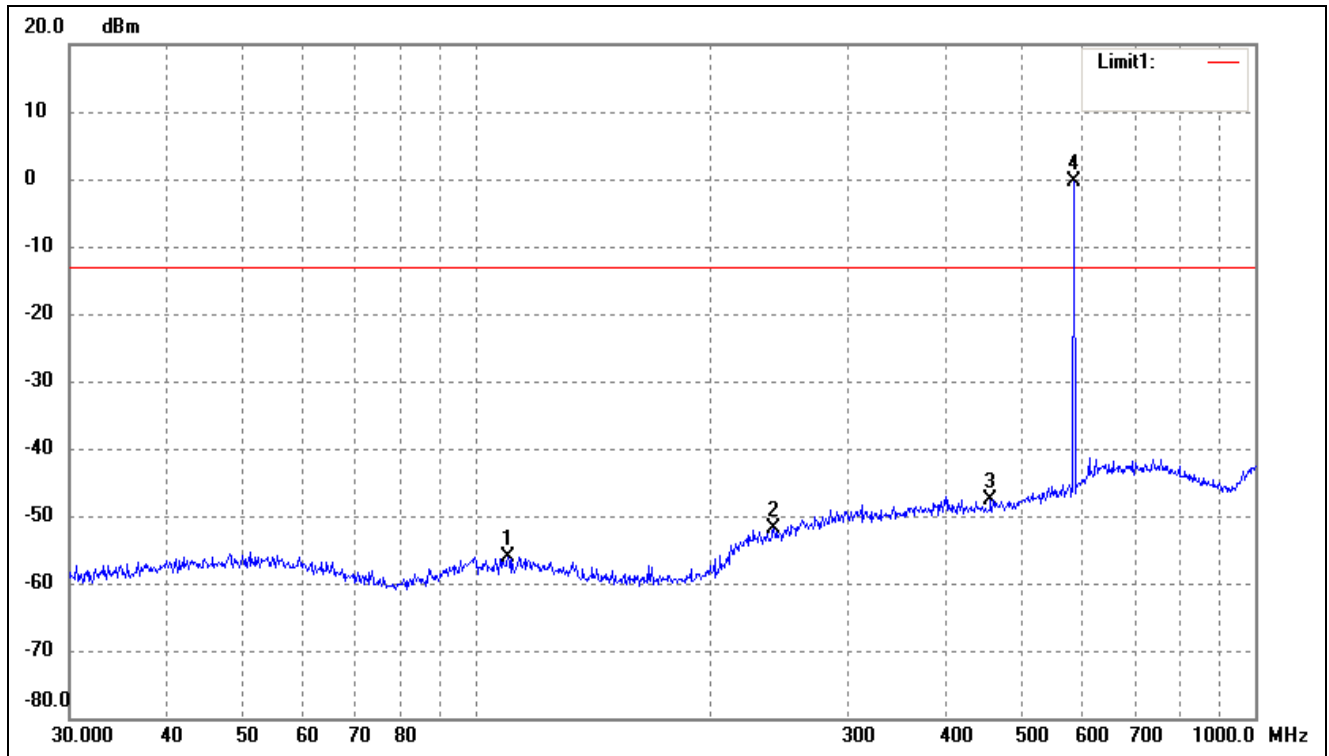
EUT: *HANDHELD MICROPHONE*

Tested Model: *DA23-MIC*

Operating Condition: *Transmitting Low Channel (584.00MHz)*

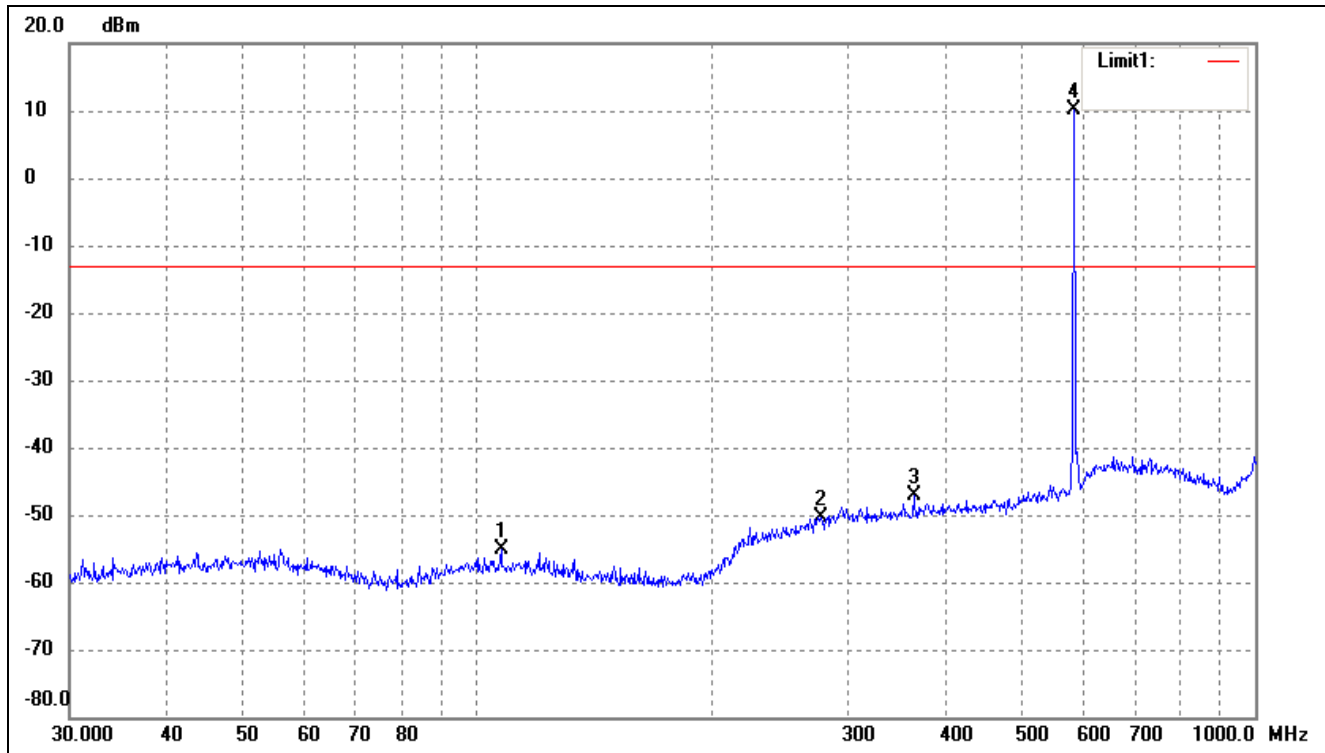
Comment: *AC 120V/60Hz, DC 3V*

Test Specification: *Horizontal*



No.	Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	109.7960	-72.76	16.66	-56.10	-13.00	-43.10	ERP
2	240.8304	-72.61	20.76	-51.85	-13.00	-38.85	ERP
3	457.5073	-72.29	24.76	-47.53	-13.00	-34.53	ERP
4	584.7894	-28.18	27.73	-0.45	/	/	ERP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	107.5101	-71.88	16.67	-55.21	-13.00	-42.21	ERP
2	277.0935	-73.11	22.72	-50.39	-13.00	-37.39	ERP
3	364.2595	-70.78	23.68	-47.10	-13.00	-34.10	ERP
4	584.7894	-17.49	27.73	10.24	/	/	ERP

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

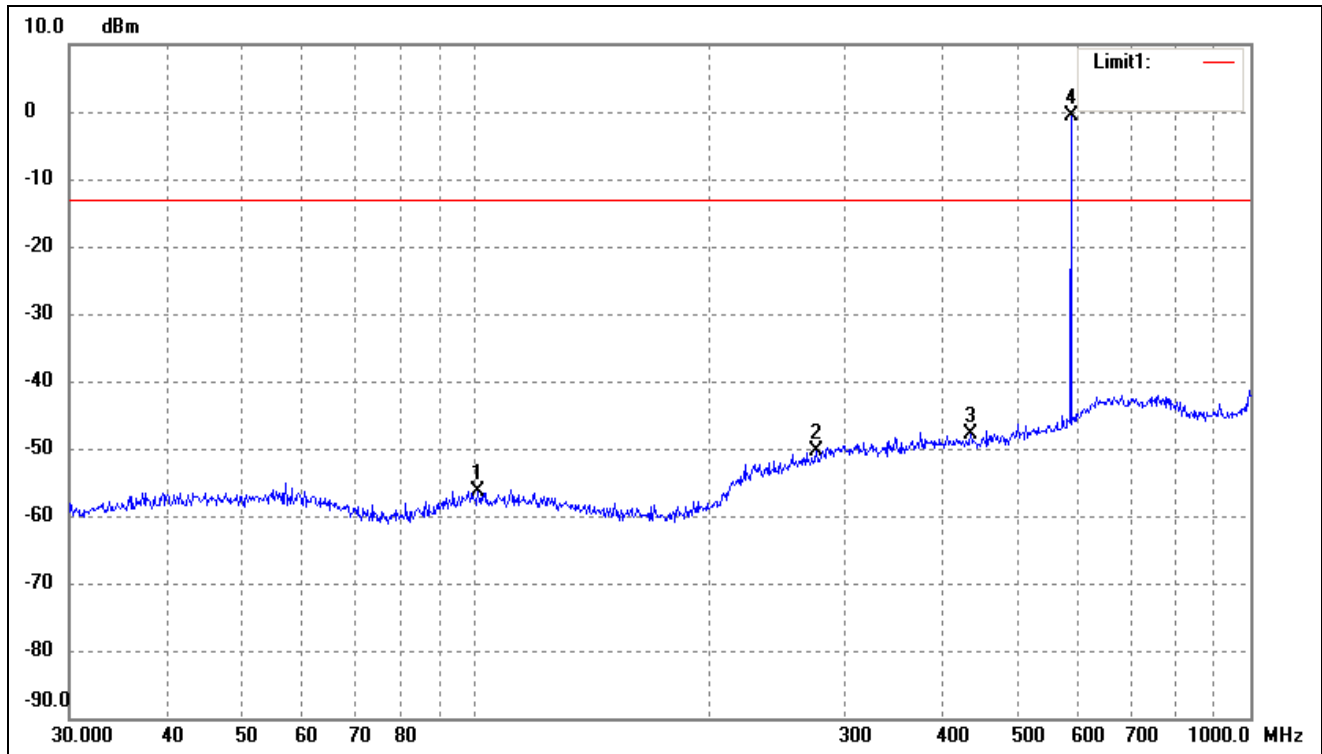
EUT: *HANDHELD MICROPHONE*

Tested Model: *DA23-MIC*

Operating Condition: *Transmitting Middle Channel (589.25MHz)*

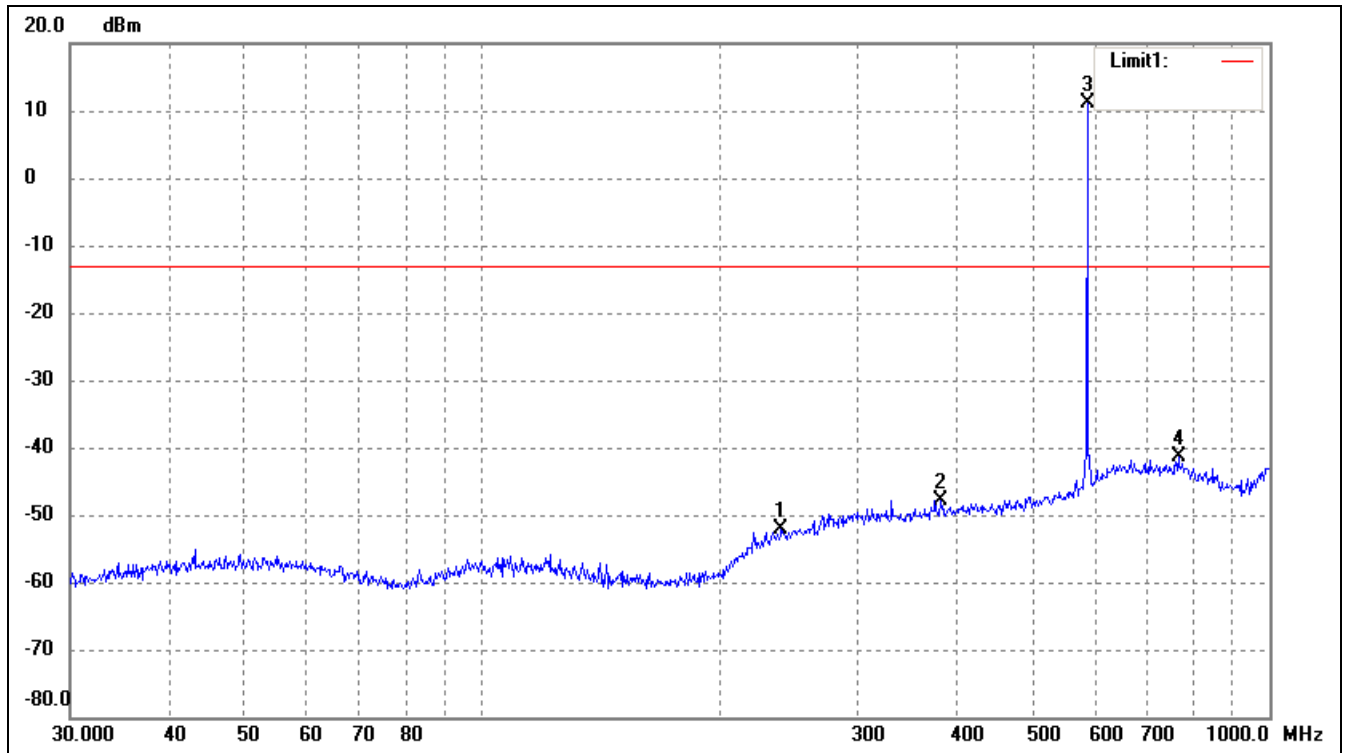
Comment: *AC 120V/60Hz, DC 3V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	
1	100.9339	-73.10	16.72	-56.38	-13.00	-43.38	ERP
2	275.1570	-72.89	22.59	-50.30	-13.00	-37.30	ERP
3	435.5898	-72.03	24.15	-47.88	-13.00	-34.88	ERP
4	586.8437	-28.67	28.12	-0.55	/	/	ERP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	239.9874	-72.88	20.73	-52.15	-13.00	-39.15	ERP
2	382.5879	-71.54	23.71	-47.83	-13.00	-34.83	ERP
3	586.8437	-16.88	28.12	11.24	/	/	ERP
4	766.0571	-71.08	29.59	-41.49	-13.00	-28.49	ERP

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

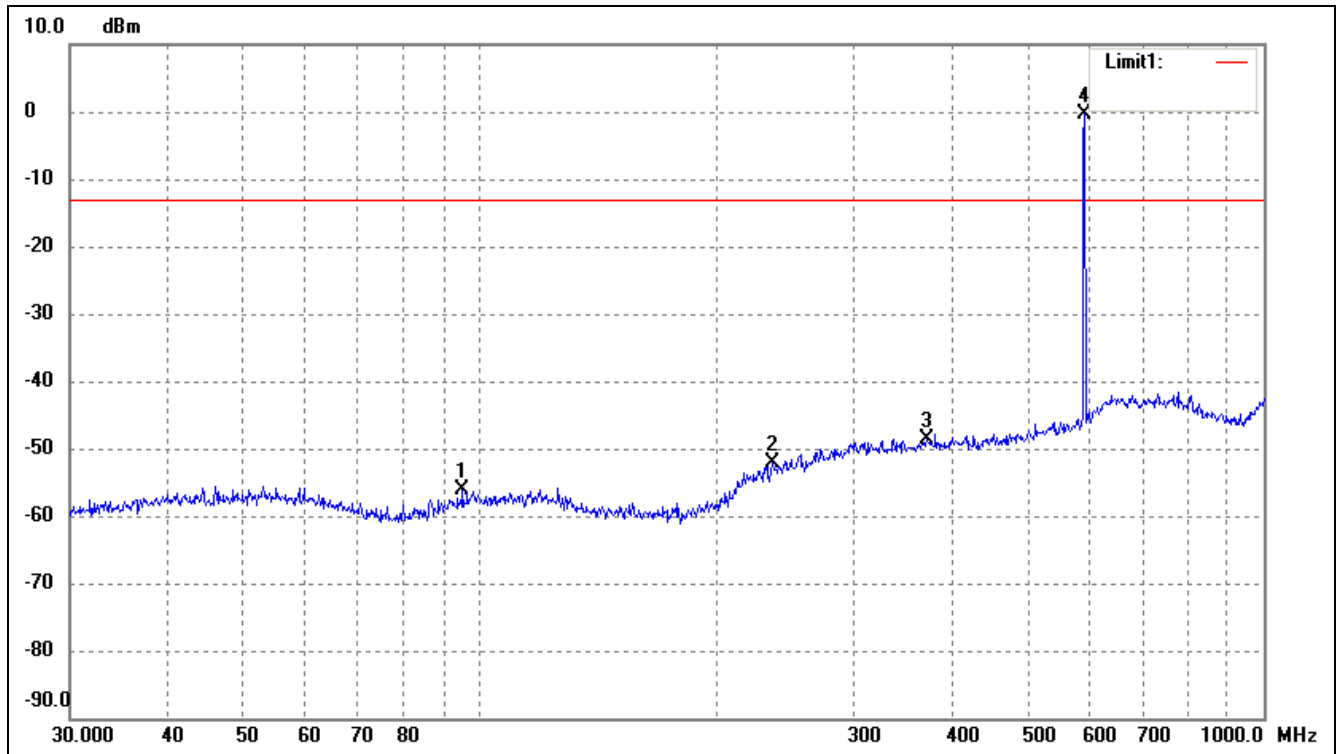
EUT: *HANDHELD MICROPHONE*

Tested Model: *DA23-MIC*

Operating Condition: *Transmitting High Channel (594.85MHz)*

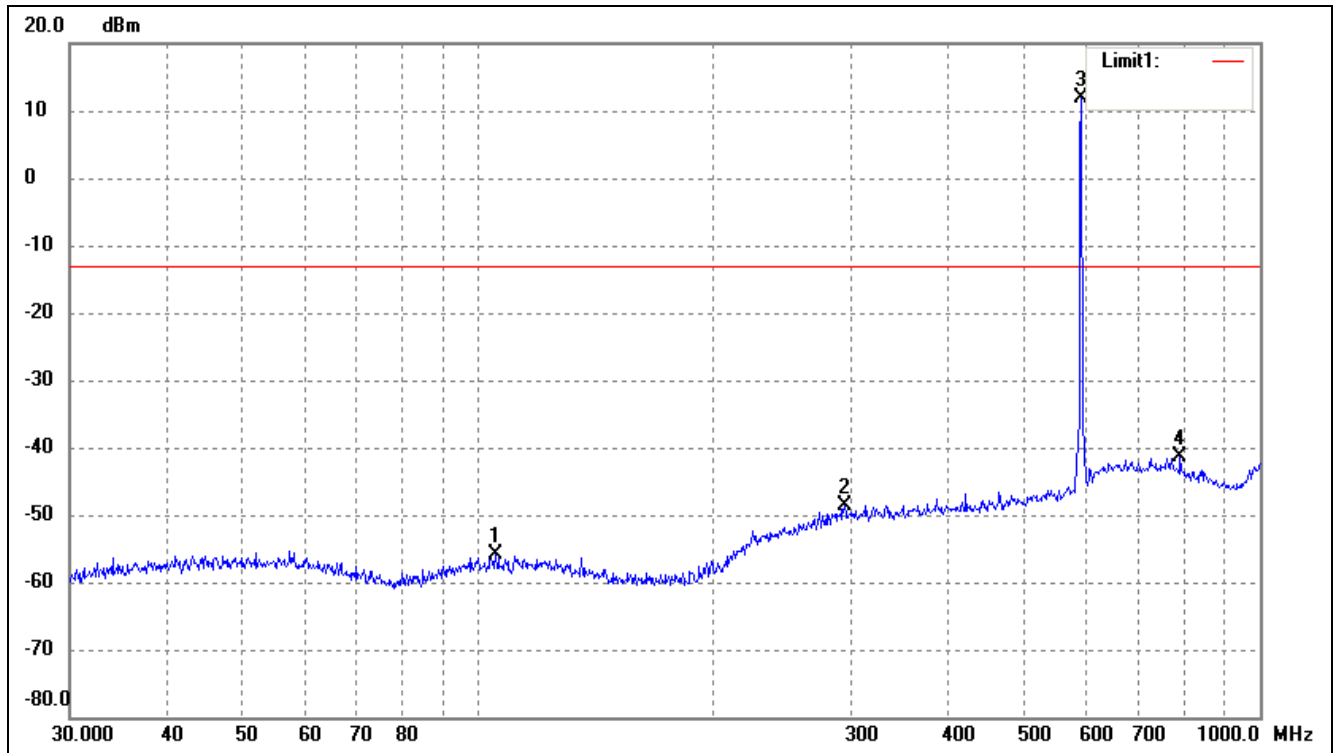
Comment: *AC 120V/60Hz, DC 3V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	
1	95.0930	-72.16	16.00	-56.16	-13.00	-43.16	ERP
2	236.6447	-72.53	20.52	-52.01	-13.00	-39.01	ERP
3	372.0045	-72.35	23.64	-48.71	-13.00	-35.71	ERP
4	590.9737	-29.24	28.87	-0.37	/	/	ERP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
1	105.2718	-72.66	16.69	-55.97	-13.00	-42.97	ERP
2	294.1137	-72.16	23.54	-48.62	-13.00	-35.62	ERP
3	590.9737	-17.08	28.87	11.79	/	/	ERP
4	790.6188	-69.67	28.33	-41.34	-13.00	-28.34	ERP

Spurious Emission Above 1GHz

Frequency	SG Reading	Angle	Height	Polar	Correct (dB)	Result dBm	Limit dBm	Margin dB
MHz	dBm	Degree	Meter	H/V				
Low Channel (584.00MHz)								
1168.00	-37.12	216	1.6	H	8.42	-28.70	-13	-15.70
1168.00	-32.51	260	1.5	V	8.42	-24.09	-13	-11.09
1752.00	-34.08	220	1.5	H	9.18	-24.90	-13	-11.90
1752.00	-30.55	272	1.7	V	9.18	-21.37	-13	-8.37
2336.00	-42.17	226	1.8	H	11.98	-30.19	-13	-17.19
2336.00	-41.43	128	1.6	V	11.98	-29.45	-13	-16.45
Middle Channel (589.25MHz)								
1178.50	-37.65	220	1.4	H	8.41	-29.24	-13	-16.24
1178.50	-34.68	303	1.4	V	8.41	-26.27	-13	-13.27
1767.75	-34.02	155	1.5	H	9.23	-24.79	-13	-11.79
1767.75	-29.69	201	1.3	V	9.23	-20.46	-13	-7.46
2357.00	-42.55	136	1.6	H	11.6	-30.95	-13	-17.95
2357.00	-44.08	205	1.4	V	11.6	-32.48	-13	-19.48
High Channel (594.85MHz)								
1189.70	-37.34	287	1.6	H	8.4	-28.94	-13	-15.94
1189.70	-33.61	258	1.7	V	8.4	-25.21	-13	-12.21
1784.55	-36.63	266	1.5	H	9.32	-27.31	-13	-14.31
1784.55	-31.41	220	1.6	V	9.32	-22.09	-13	-9.09
2379.40	-42.50	220	1.4	H	12.01	-30.49	-13	-17.49
2379.40	-43.94	206	1.6	V	12.01	-31.93	-13	-18.93

Note: Testing is carried out with frequency rang 30MHz to the tenth harmonics, which above 4th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

7. SPURIOUS EMISSION AT ANTENNA TERMINAL

7.1 Standard Applicable

According to §2.1051, the radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in §2.1049 as appropriate.

According to FCC74.861 (e)(6), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

On any frequency removed from the operating frequency by more than 250 percent up to and the authorized bandwidth shall be attenuated below the un-modulated carrier by at least 43 plus 10 Log (output power in watts) dB.

7.2 Test Procedure

Connect a suitable artificial antenna properly, set the Low, Middle and High Transmitting Channel, observed the spurious emissions from antenna port, and then mark the higher-level emission for comparing with the FCC rules.

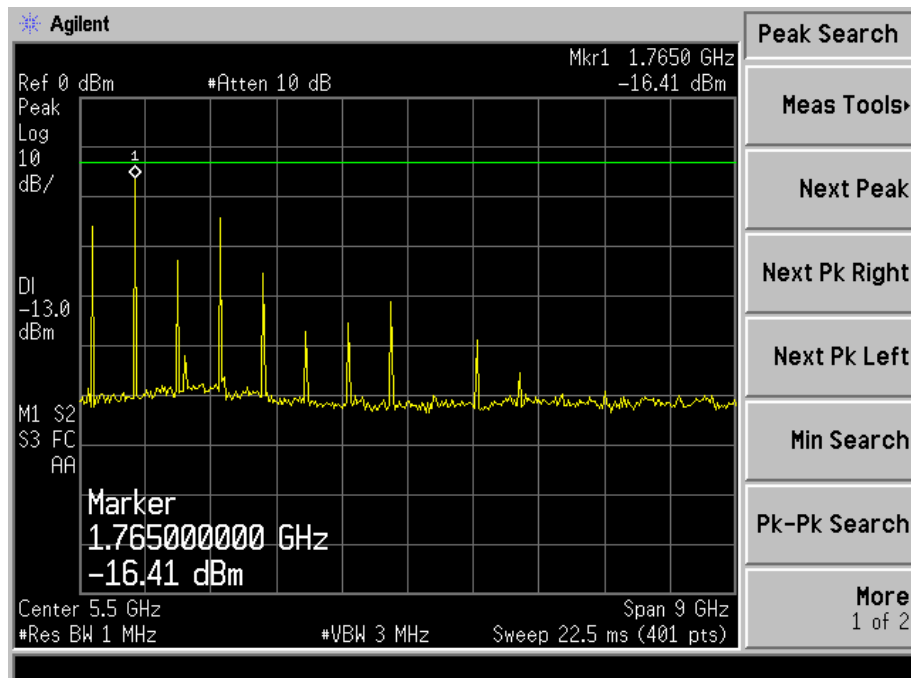
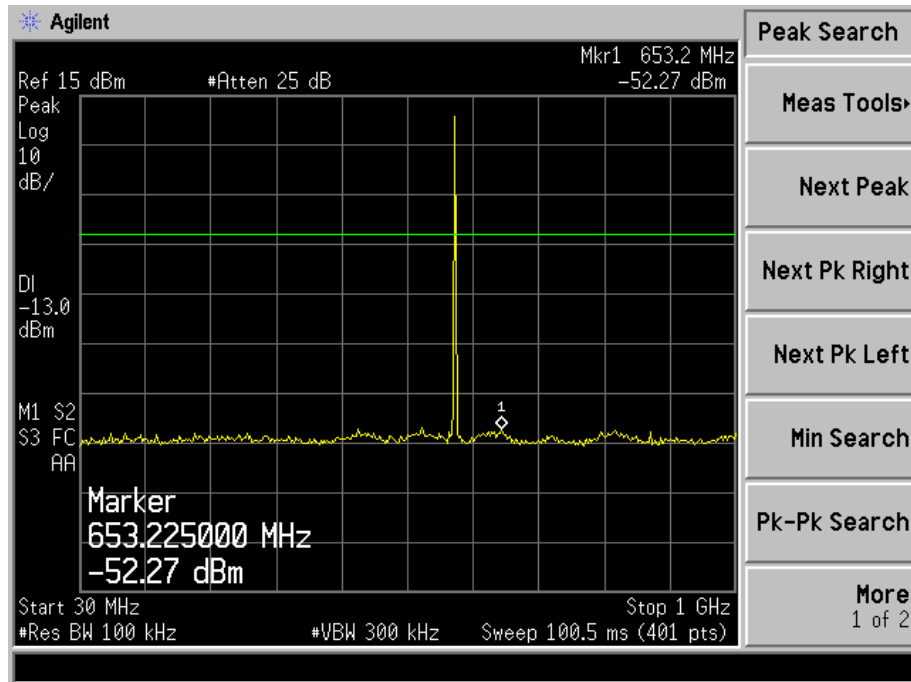
7.3 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

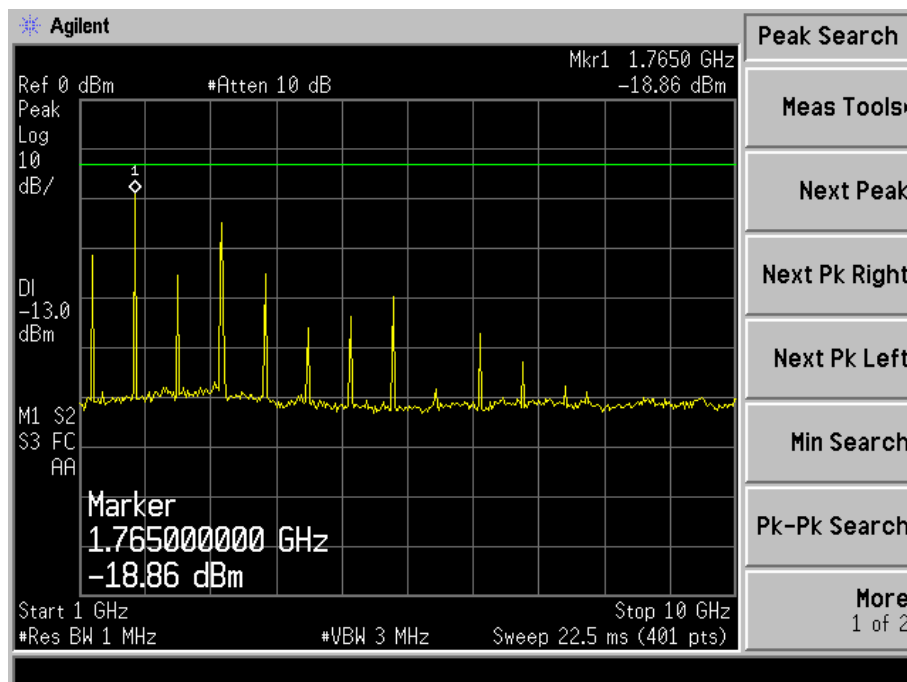
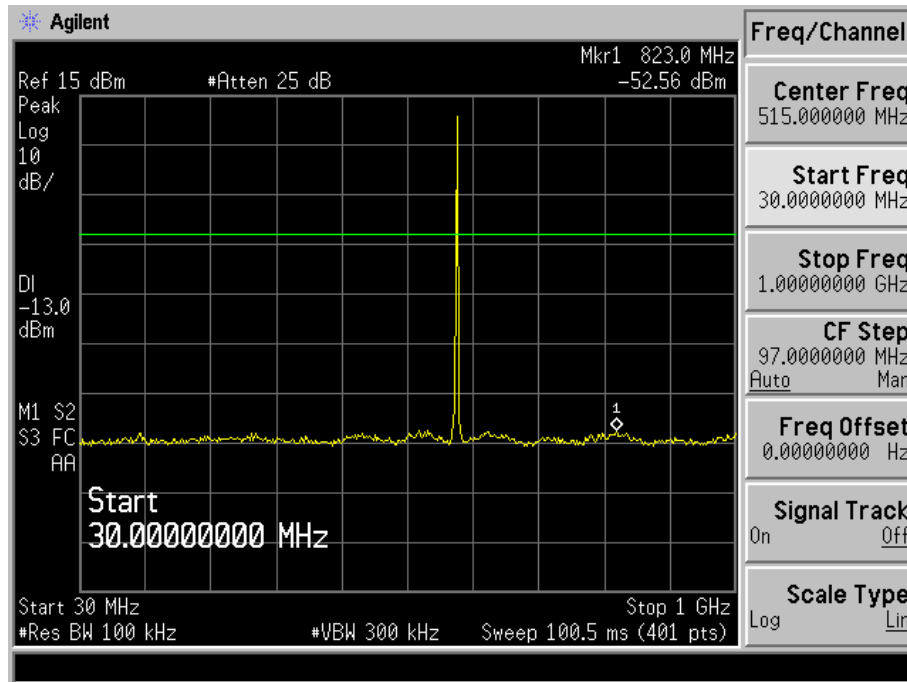
7.4 Summary of Test Results/Plots

Refer to the attached plots.

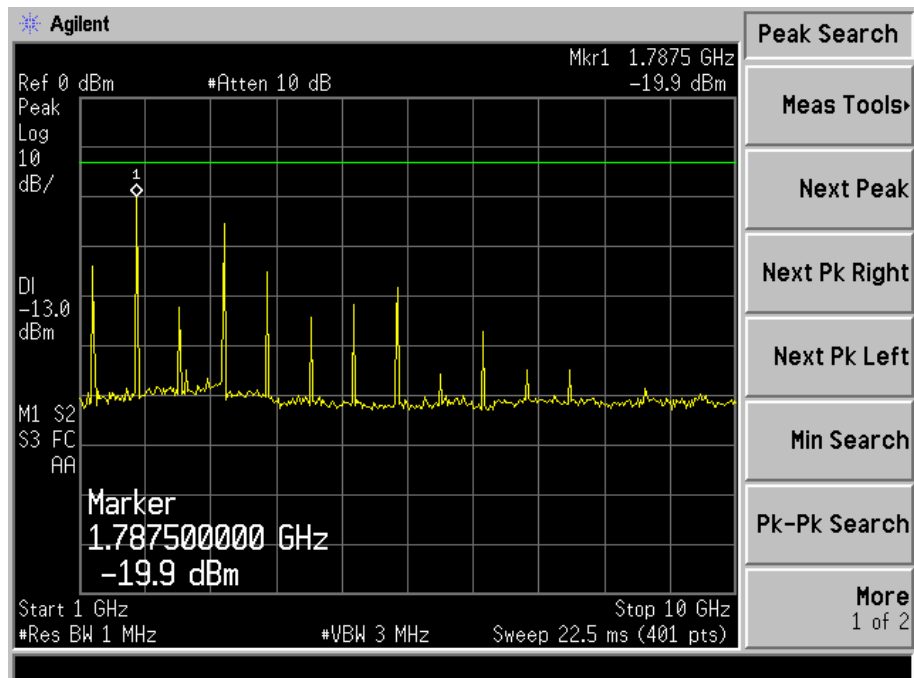
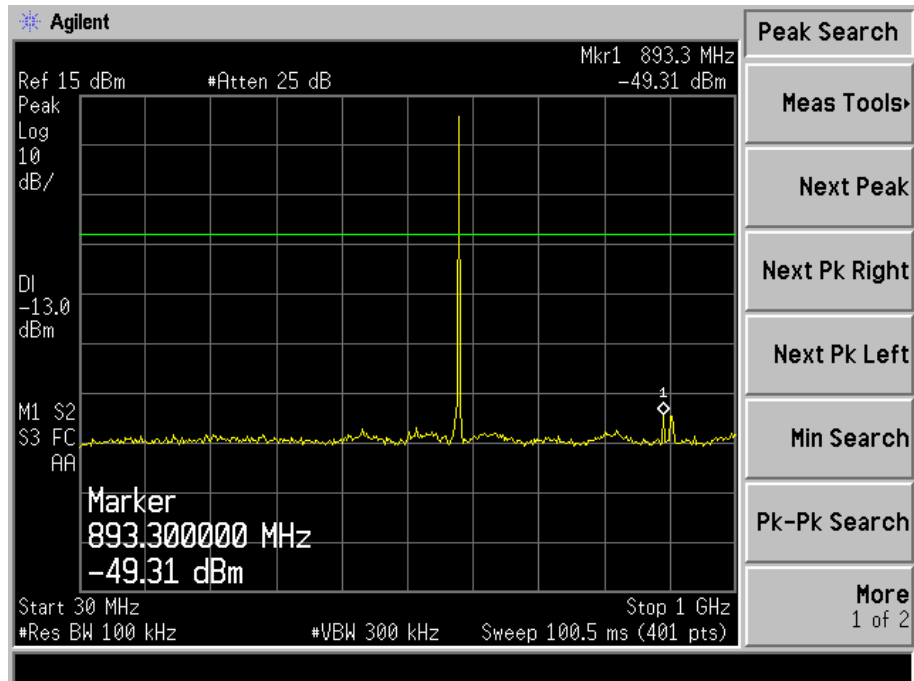
Low Channel



Middle Channel



High Channel



8. FREQUENCY STABILITY

8.1 Standard Applicable

According to FCC 2.1055(a)(1), the frequency stability shall be measure with variation of ambient temperature from -30°C to $+50^{\circ}\text{C}$, and according to FCC 2.1055(d)(2), the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point which is specified by the manufacturer.

According to FCC 74.861, the frequency tolerance of the transmitter shall be 0.005 percent.

8.2 Test Procedure

1. Setup the configuration of the ambient temperature form -30°C to 50°C with sufficient time. And measure the different power of the EUT with an artificial power from highest to end point voltage.
2. Set frequency counter center frequency to the right frequency needs to be measured.

8.3 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

8.4 Test Results/Plots

Test conditions		Frequency Error		
		584.0 MHz	589.25 MHz	594.85 MHz
T _{min} (-30°C)	V _{min} (2.6V)	583.9975	589.2475	594.8475
	V _{max} (3.4V)	583.9963	589.2416	594.8413
T(-20°C)	V _{nom} (3.0V)	583.9927	589.2437	594.8427
T(-10°C)	V _{nom} (3.0V)	583.9919	589.2466	594.8431
T(0°C)	V _{nom} (3.0V)	583.9935	589.2457	594.8406
T(10°C)	V _{nom} (3.0V)	583.9961	589.2431	594.8459
T _{nom} (20°C)	V _{nom} (3.0V)	583.9983	589.2439	594.8438
T(30°C)	V _{nom} (3.0V)	583.9905	589.2402	594.8467
T(40°C)	V _{nom} (3.0V)	583.9939	589.2427	594.8421
T _{max} (50°C)	V _{min} (2.6V)	583.9957	589.2459	594.8409
	V _{max} (3.4V)	583.9963	589.2411	594.8415
Max. frequency error (ppm)		-16.27	-16.63	-15.80
Limit (ppm)		±50ppm		
End Point		DC 3.0V		

***** END OF REPORT *****