FCC PART 74 TEST REPORT
FCC ID:I4S-Y40UB7

Product：	Wireless Microphone
Trade Name：	N/A
Model Name：	UB-7(TRANSMITTER)
Serial Model：	PV WIRELESS TRANSMITTER
Report No.：	ISOT15070068E

Prepared for

Peavey Electronics Corporation

5022 Hartley Peavey Drive, Meridian, Mississippi, United States 39305

Prepared by

Shenzhen ISOTek Standards Technical Services Co.,Ltd.

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TEST RESULT CERTIFICATION

Applicant's name ..... Peavey Electronics Corporation

Address ..... 5022 Hartley Peavey Drive, Meridian, Mississippi, United States 39305

Manufacture's Name... Shenzhen Uniwisdom Technologies Co., Ltd.

Address ..... Bldg.91-94 3rd Industrial Zone，Lisonglang，GongmingTown，Bao'an District，Shenzhen，P.R.China

Product description

Product name ..... Wireless Microphone

Model and/or type reference ..... UB-7(TRANSMITTER)

Serial Model ..... PV WIRELESS TRANSMITTER

Standards ..... FCC Part 74 Subpart H,section 74.861 (2014-10)

Test procedure TIA/EIA-603C:2004

This device described above has been tested by ISOKek, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test .....:

Date (s) of performance of tests .....: 26 July. 2015 ~18 Aug. 2015

Date of Issue.....: 18 Aug. 2015

Test Result.....: **Pass**

Compiled by:	Approved by:
Lisa Huang/ Project Engineer	Richard Chen/ Manager

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC CFR47 Part 74			
Standard Section	Test Item	Judgment	Remark
74.861(e)(1)(ii)	RF Output Power	PASS	
2.1047(a)	Modulation Characteristics	PASS	
2.1049(c)(1)	Occupied Bandwidth	PASS	
2.1053 & 74.861(e)(6)	Radiated Emissions	PASS	
2.1051	Spurious emissions at antenna terminals	PASS	
2.1055(a)(1)	Frequencies Stability	PASS	

NOTE:

(1)” N/A” denotes test is not applicable in this Test Report

1.1 TEST FACILITY

Shenzhen ISOTek Standards Technical Services Co.,Ltd.
Add.: 13/F, HuaFengRui Building, XinHu Rd., XiXiang, Bao'an District,Shenzhen,China
FCC Registration No.: 918037; IC Registration Number:20400-1

1.2 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** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

<table>
<tr><td>Equipment</td><td>Wireless Microphone</td></tr>
<tr><td>Trade Name</td><td>N/A</td></tr>
<tr><td>Model Name</td><td>UB-7(TRANSMITTER)</td></tr>
<tr><td>Serial Model</td><td>PV WIRELESS TRANSMITTER</td></tr>
<tr><td>Model Difference</td><td>Only the model name is different.</td></tr>
<tr><td>Product Description</td><td>The EUT is a Wireless Microphone
<table><tr><td>Operation Frequency:</td><td>566.025~589.825 MHz</td></tr><tr><td>Modulation Type:</td><td>FM</td></tr><tr><td>Number Of Channel</td><td>16 CH</td></tr><tr><td>Antenna Designation:</td><td>Please see Note 3.</td></tr><tr><td>Antenna Gain (dBi)</td><td>1.0dBi</td></tr></table></td></tr>
<tr><td>Channel List</td><td>Please refer to the Note 2.</td></tr>
<tr><td>Ratings</td><td>DC 3.0V</td></tr>
<tr><td>Adapter</td><td>N/A</td></tr>
<tr><td>Battery</td><td>DC 1.5V*2 cell LR6</td></tr>
<tr><td>Connecting I/O Port(s)</td><td>Please refer to the User's Manual</td></tr>
<tr><td>Radio firmware Version</td><td>REV:00</td></tr>
<tr><td>Radio software Version</td><td>REV:01</td></tr>
<tr><td>Product Hardware Version</td><td>REV:00</td></tr>
<tr><td>Product Software Version</td><td>REV:01</td></tr>
</table>

Note:

1. For a more detailed features description, please refer to the manufacturer’s specifications or the User's Manual.

2.

Channel	Frequency (MHz)
0	566.025
1	567.150
2	568.600
3	570.400
4	571.600
5	573.200
6	575.150
7	576.325
8	578.100
9	579.000
A	581.350
B	583.750
C	585.125
D	587.000
E	588.125
F	589.825

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
A	N/A	N/A	Integration Antenna	N/A	1.0	Antenna

2.2 DESCRIPTION OF TEST MODES

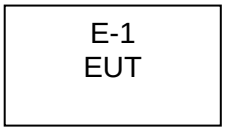
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH 0
Mode 2	CH 8
Mode 3	CH F

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH 0
Mode 2	CH 8
Mode 3	CH F

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Wireless Microphone	N/A	UB-7(TRANSMITTER)	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation &other conducted test test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Aglient	E4446A	US44300451	2015.07.06	2016.07.05	1 year
2	EMI Test Receiver	R&S	ESCI	101165	2015.07.06	2016.07.05	1 year
3	RF Communication Tester	HP	HP8920A	3438A05201	2015.05.04	2016.05.03	1 year
4	Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-438	2015.07.06	2016.07.05	1 year
5	Bilog Antenna	Schwarzbeck	VULB 9168	VULB9168-439	2015.07.06	2016.07.05	1 year
6	Horn Antenna	Schwarzbeck	BBHA 9170	9170-182	2015.07.06	2016.07.05	1 year
7	Horn Antenna	Schwarzbeck	BBHA 9170	9170-181	2015.07.06	2016.07.05	1 year
8	SIGNAL GENERATOR	AGILENT	E4438C	878743	2015.05.04	2016.05.03	1 year
9	Amplifier	Schwarzbeck	BBV9743	9743-019	2015.07.06	2016.07.05	1 year
10	Test Cable Below 1GHz	ATM	R-01	3564	2015.07.06	2016.07.05	1 year
11	Test Cable Above 1GHz	ATM	R-02	3565	2015.07.06	2016.07.05	1 year
	Test Cable	ATM	R-03	5623	2014.07.06	2015.07.05	1 year
12	Horn Antenna	Sunol Sciences	DRH-118	A052604	2015.07.06	2016.07.05	1 year
13	Horn Antenna	Sunol Sciences	DRH-118	A052605	2015.07.06	2016.07.05	1 year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

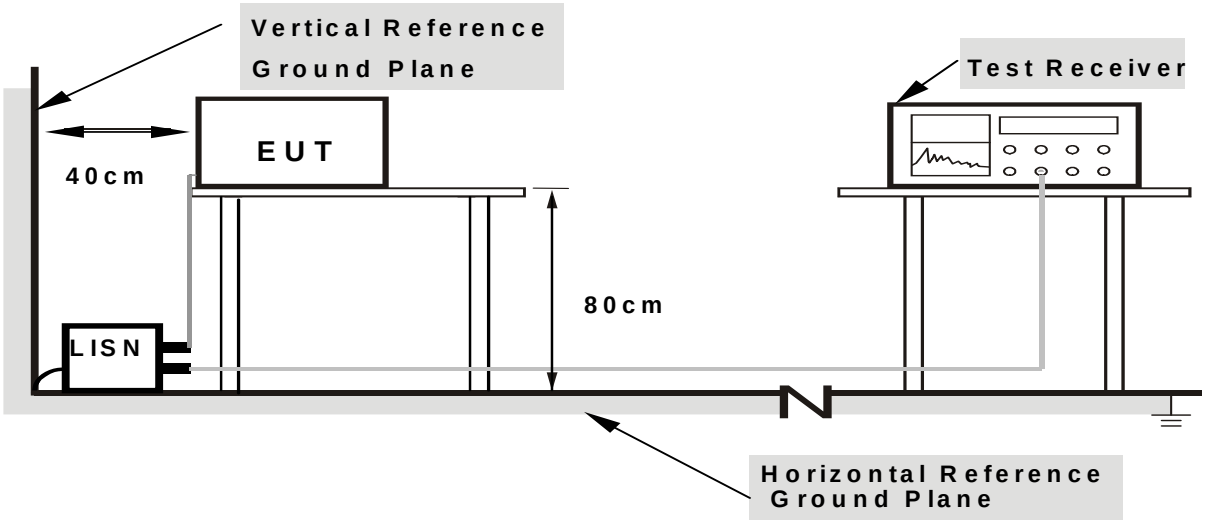
3.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

EUT：	Wireless Microphone	Model Name. ：	UB-7(TRANSMITTER)
Temperature：	26 ℃	Relative Humidity：	56%
Pressure：	1010hPa	Phase：	N/A
Test Voltage ：	N/A	Test Mode：	N/A

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 TEST REQUIREMENT: FCC CFR47 Part 2 Section 2.1053

TEST METHOD: Based on TIA/EIA-603-C-2004

LIMITS:

According to Part 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:

(i) 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.

(ii) 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.

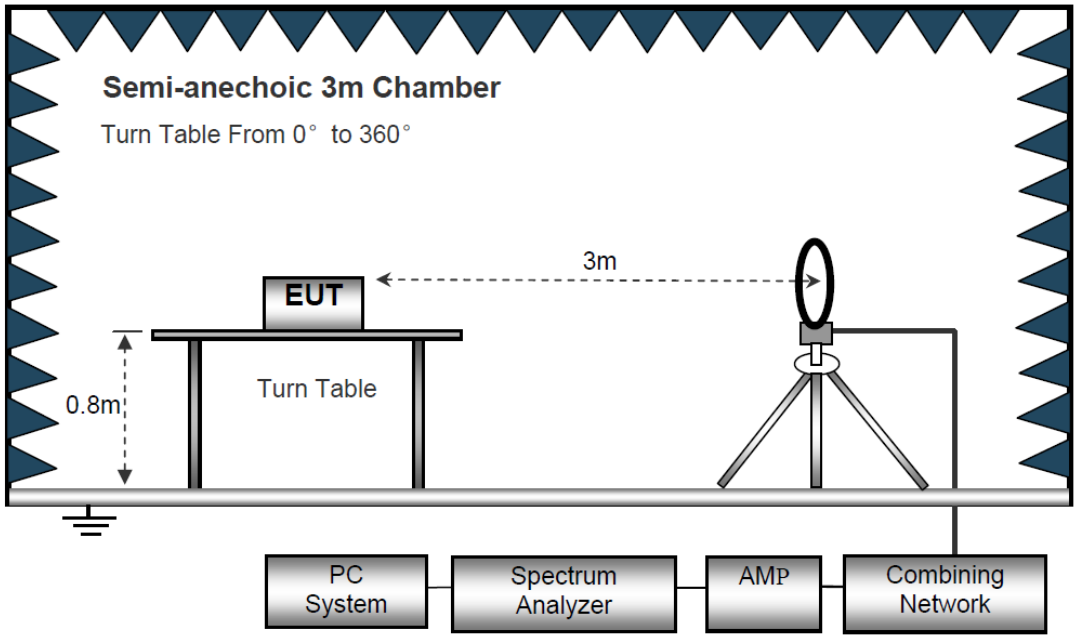
(iii) on any frequency removed from the operating frequency by more than 250 percent up to and the authorized bandwidth shall be attenuated below the un-modulated carrier by at least 43 + 10 Log (output power in watts)dB.

3.2.2 DEVIATION FROM TEST STANDARD

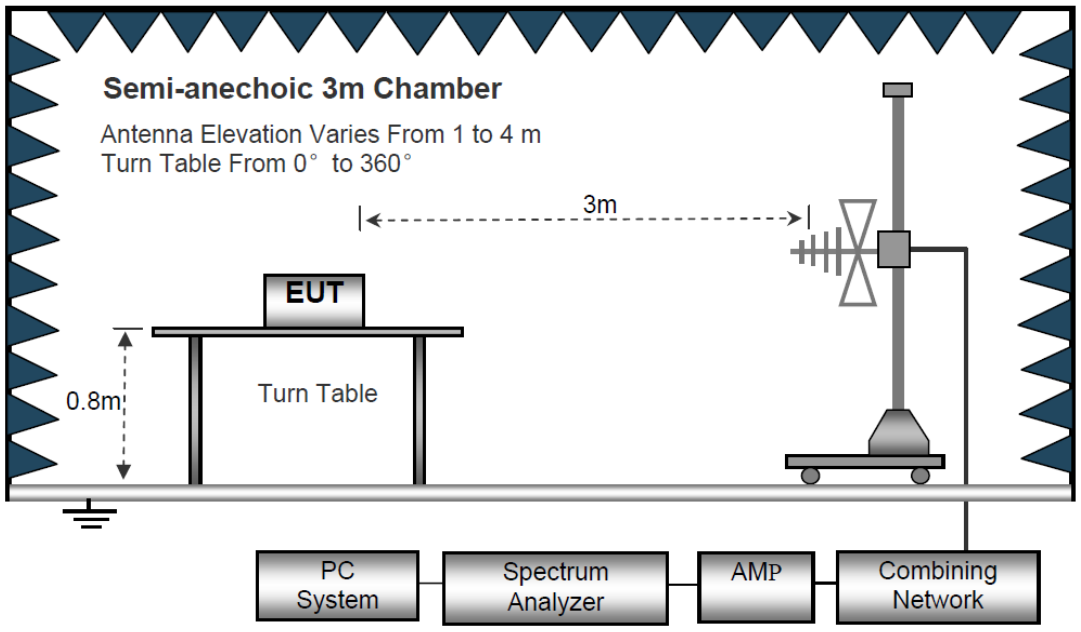
No deviation

3.2.3 TEST SETUP

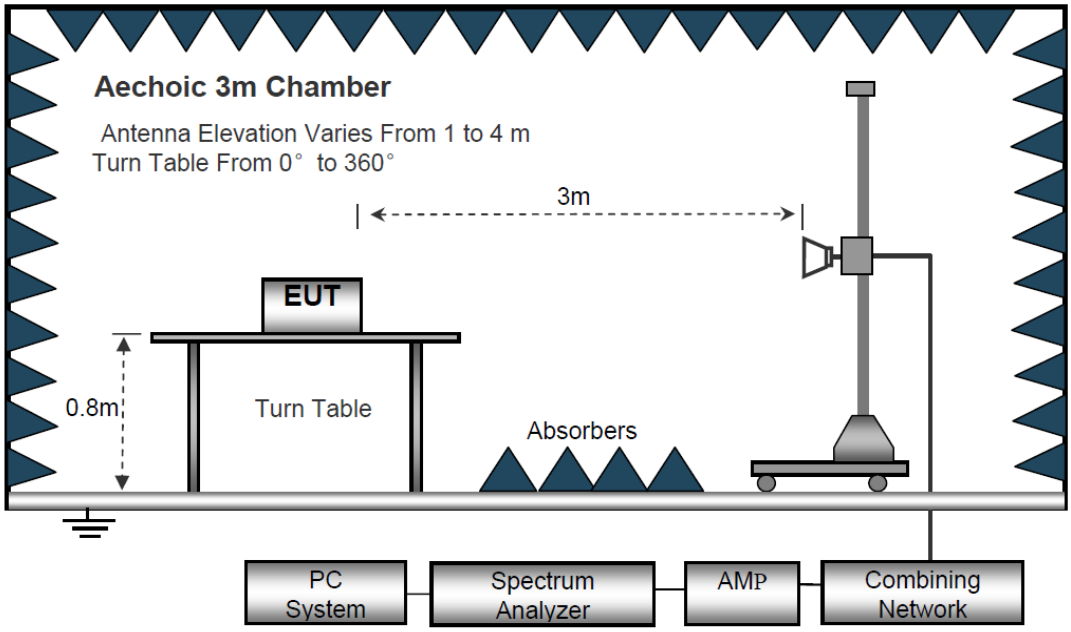
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.5 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

EUT：	Wireless Microphone	Model Name. ：	UB-7(TRANSMITTER)
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.6 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Remark
CH 0							
V	68.325	-50.42	25.86	-24.56	-13	-11.56	peak
V	119.655	-48.74	18.53	-30.21	-13	-17.21	peak
V	254.023	-48.97	24.18	-24.79	-13	-11.79	peak
V	484.615	-56.59	31.13	-25.46	-13	-12.46	peak
V	721.487	-58.56	34.22	-24.34	-13	-11.34	peak
H	56.261	-55.68	27.59	-28.09	-13	-15.09	peak
H	102.308	-52.41	17.47	-34.94	-13	-21.94	peak
H	211.441	-48.12	20.66	-27.46	-13	-14.46	peak
H	335.641	-52.10	25.02	-27.08	-13	-14.08	peak
H	754.020	-57.17	33.13	-24.04	-13	-11.04	peak
CH 8							
V	77.645	-52.48	29.61	-22.87	-13	-9.87	peak
V	254.023	-48.46	23.48	-24.98	-13	-11.98	peak
V	320.160	-49.15	25.55	-23.60	-13	-10.6	peak
V	484.615	-46.59	23.61	-22.98	-13	-9.98	peak
V	721.487	-58.45	30.51	-27.94	-13	-14.94	peak
H	102.308	-59.15	35.78	-23.37	-13	-10.37	peak
H	211.441	-52.48	27.53	-24.95	-13	-11.95	peak
H	335.641	-44.61	19.83	-24.78	-13	-11.78	peak
H	554.679	-51.82	25.55	-26.27	-13	-13.27	peak
H	896.023	-44.55	24.32	-20.23	-13	-7.23	peak
CH F							
V	144.078	-53.26	24.45	-28.81	-13	-15.81	peak
V	198.647	-58.61	26.15	-32.46	-13	-19.46	peak
V	306.417	-53.21	24.23	-28.98	-13	-15.98	peak
V	541.143	-55.36	31.05	-24.31	-13	-11.31	peak
V	754.203	-57.82	36.41	-21.41	-13	-8.41	peak
H	49.121	-64.31	28.14	-36.17	-13	-23.17	peak
H	102.470	-55.34	20.41	-34.93	-13	-21.93	peak
H	198.058	-58.05	26.15	-31.90	-13	-18.9	peak
H	284.789	-52.45	24.91	-27.54	-13	-14.54	peak
H	422.314	-55.39	29.64	-25.75	-13	-12.75	peak
Remark: Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit							

3.2.7 TEST RESULTS (ABOVE 1000 MHZ)

EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX		

Polar (H/V)	Frequency (MHz)	Meter Reading (dBm)	Factor (dB)	Emission Level (dBm)	Limits (dBm)	Margin (dB)	Detector Type
CH 0							
V	1132.04	-22.07	-2.88	-24.95	-13	-11.95	peak
V	1698.06	-30.35	-1.79	-32.14	-13	-19.14	peak
V	2764.08	-32.60	1.36	-31.24	-13	-18.24	peak
H	1132.04	-20.93	-2.87	-23.80	-13	-10.8	peak
H	1698.06	-23.35	-1.8	-25.15	-13	-12.15	peak
H	2764.08	-29.99	1.35	-28.64	-13	-15.64	peak
CH 8							
V	1156.26	-20.09	-2.55	-22.64	-13	-9.64	peak
V	1734.35	-33.81	1.37	-32.44	-13	-19.44	peak
V	2767.03	-27.08	1.35	-25.73	-13	-12.73	peak
H	1156.26	-25.49	-2.54	-28.03	-13	-15.03	peak
H	1734.35	-33.3	1.56	-31.74	-13	-18.74	peak
H	2767.03	-26.17	1.35	-24.82	-13	-11.82	peak
CH F							
V	1180.43	-19.64	-2.42	-22.06	-13	-9.06	peak
V	1770.73	-32.14	1.21	-30.93	-13	-17.93	peak
V	2787.05	-25.67	1.35	-24.32	-13	-11.32	peak
H	1180.43	-22.23	-2.26	-24.49	-13	-11.49	peak
H	1770.73	-33.08	1.27	-31.81	-13	-18.81	peak
H	2787.05	-25.7	1.35	-24.35	-13	-11.35	peak
Remark: Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit							

4. RF OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

Test requirement: FCC CFR47 Part 74 Section 74.861(e)(1)(ii),

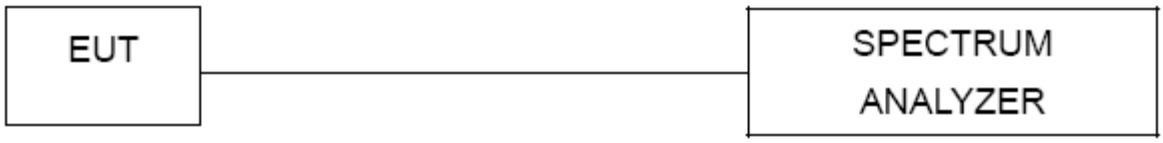
Test method: Based on TIA/EIA-603-C-2004

Limit: According to Part 74.861(e)(1)(ii), the output power shall not exceed 250mW (23.98 dBm).

4.1.1 TEST PROCEDURE

The maximum peak output power was measured with a spectrum analyzer connected to the antenna terminal (conducted measurement) while EUT was operating in normal situation.

4.1.2 TEST SETUP



4.1.3 EUT OPERATION CONDITIONS

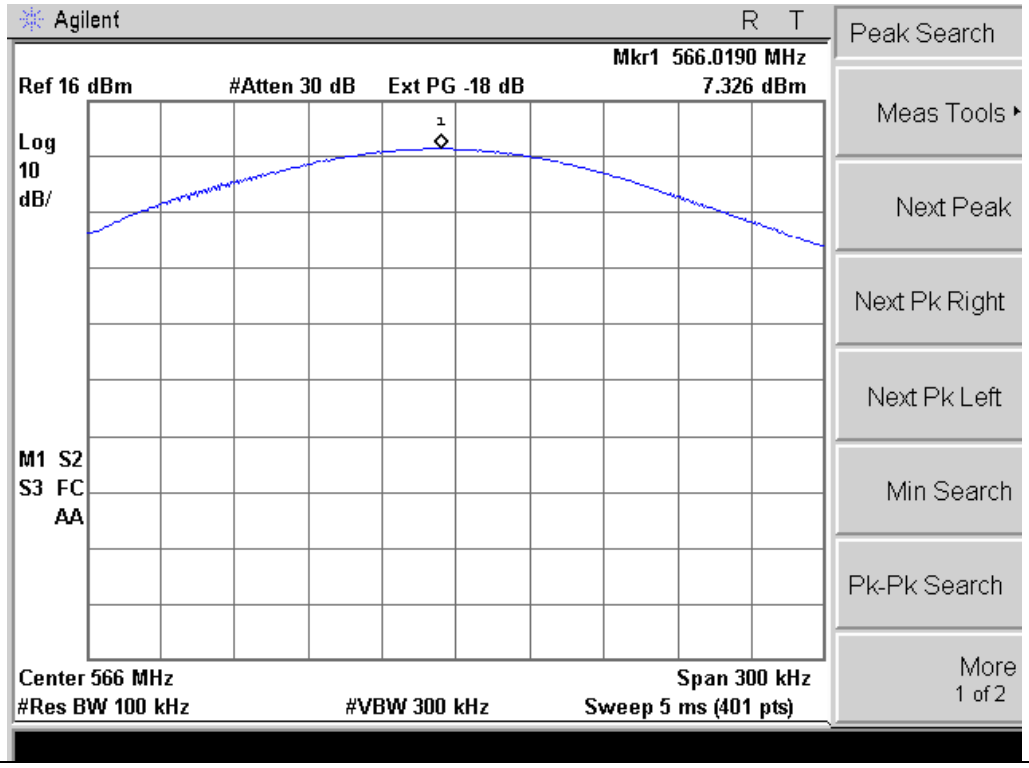
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.4 TEST RESULTS

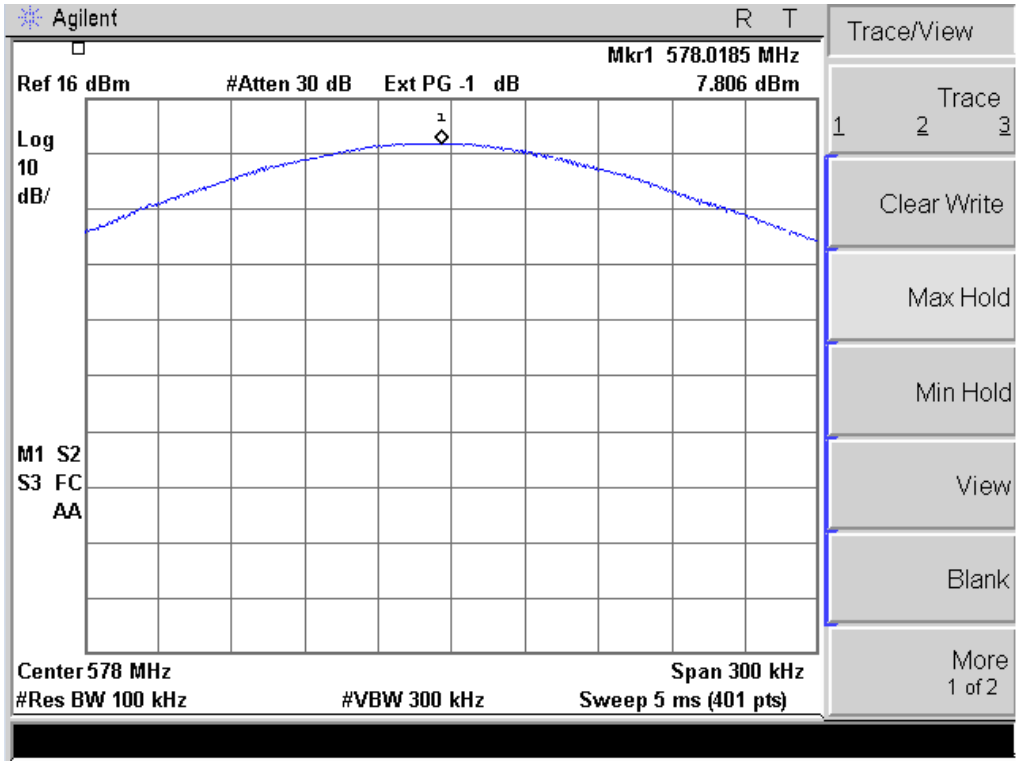
EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1015 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX Mode		

Test Channe	Frequency	Maximum Conducted Output Power	LIMIT
	(MHz)	(dBm)	dBm
CH 0	566.025	7.326	23.98
CH 8	578.100	7.806	23.98
CH F	589.825	7.328	23.98

CH0



CH 8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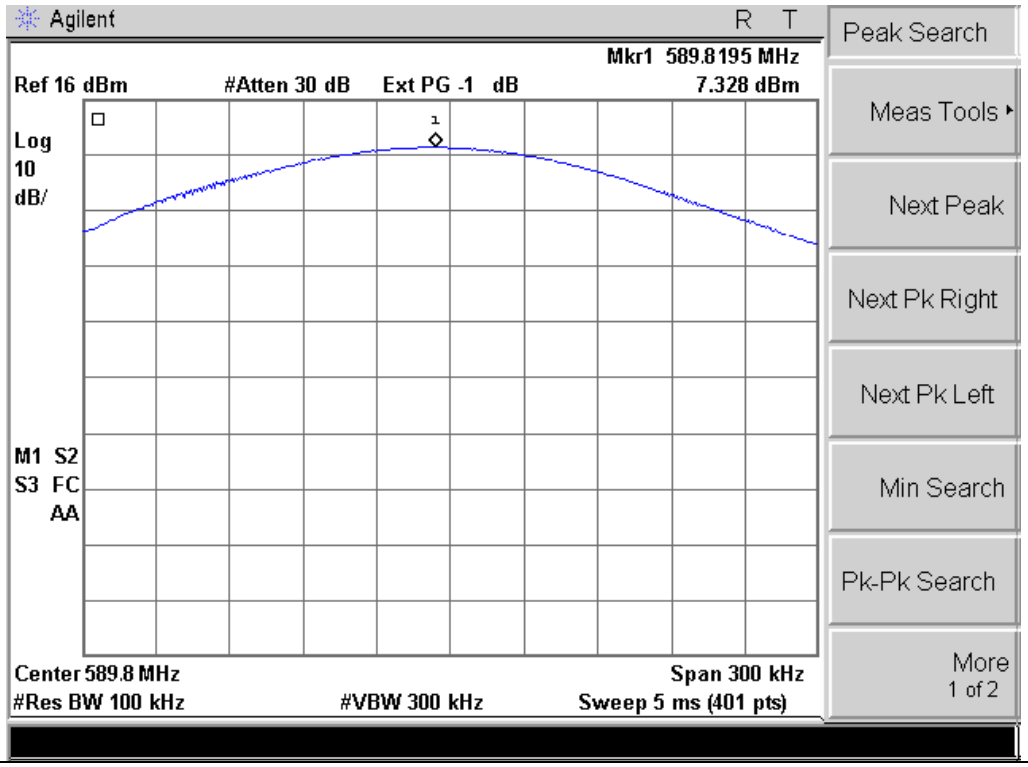
R T
Mkr1 578.0185 MHz
Ref 16 dBm
#Atten 30 dB
Ext PG -1 dB
7.806 dBm
Log
10
dB/
M1 S2
S3 FC
AA
Center 578 MHz
Span 300 kHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5 ms (401 pts)
Trace/View
Trace
1 2 3
Clear Write
Max Hold
Min Hold
View
Blank
More
1 of 2

CH F


Agilent
R T
Mkr1 589.8195 MHz
Ref 16 dBm
#Atten 30 dB
Ext PG -1 dB
7.328 dBm
Log
10
dB/
M1 S2
S3 FC
AA
Center 589.8 MHz
Span 300 kHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5 ms (401 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

5. MODULATION CHARACTERISTICS

5.1 APPLIED PROCEDURES / LIMIT

Test requirement: FCC CFR47 Part 2 Section 2.1047(a)
Test method: Based on TIA/EIA-603-C-2004
Requirement: According to Part 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.

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.

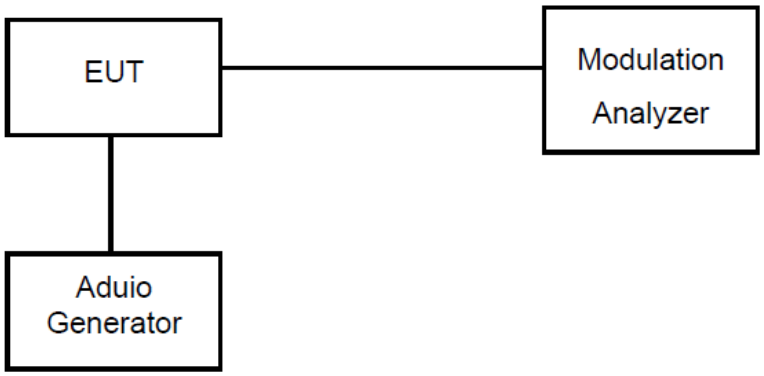
5.1.1 TEST PROCEDURE

(a) Test Configuration

(b) 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.

(C) Repeat step (b) with changing the input frequency for 100, 500, 1000, 2500 and 5000Hz in sequence.

TEST SETUP



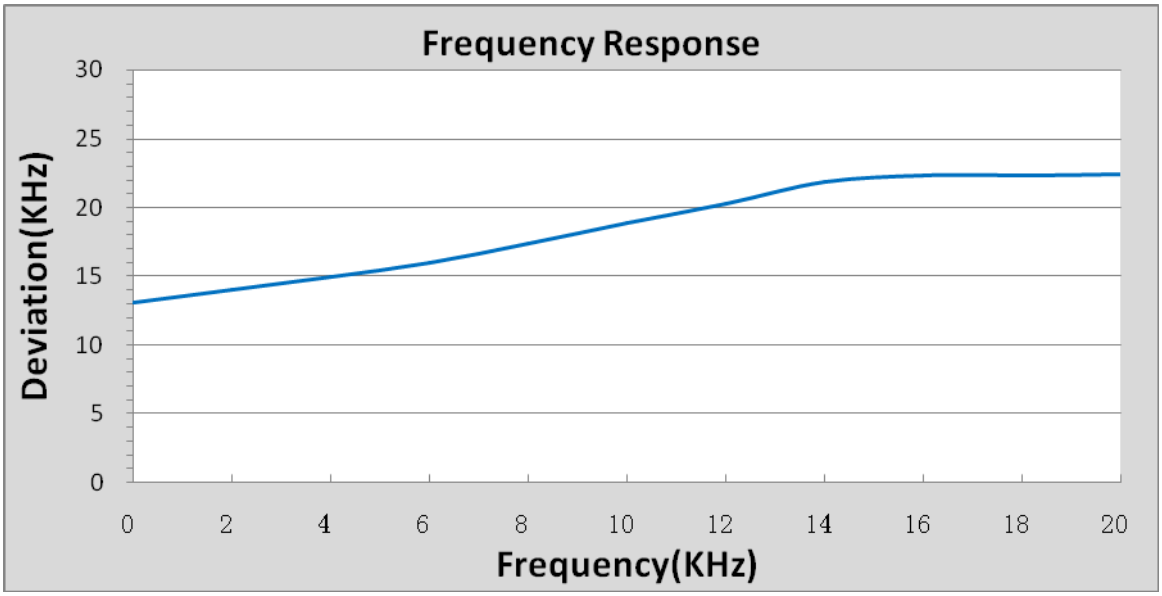
5.1.2 EUT OPERATION CONDITIONS

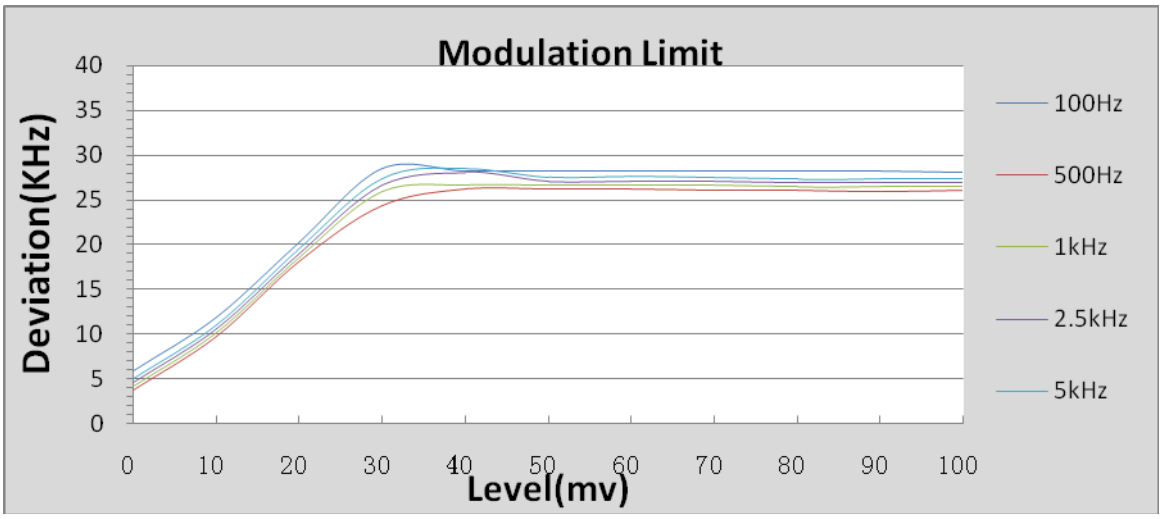
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.3 TEST RESULTS

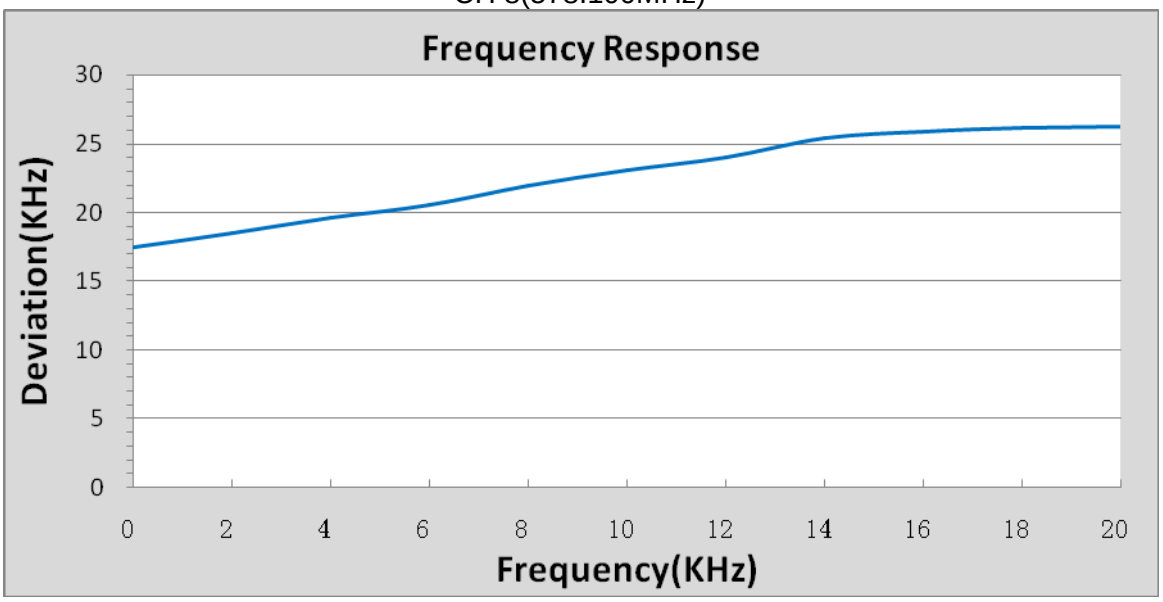
EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX Mode		

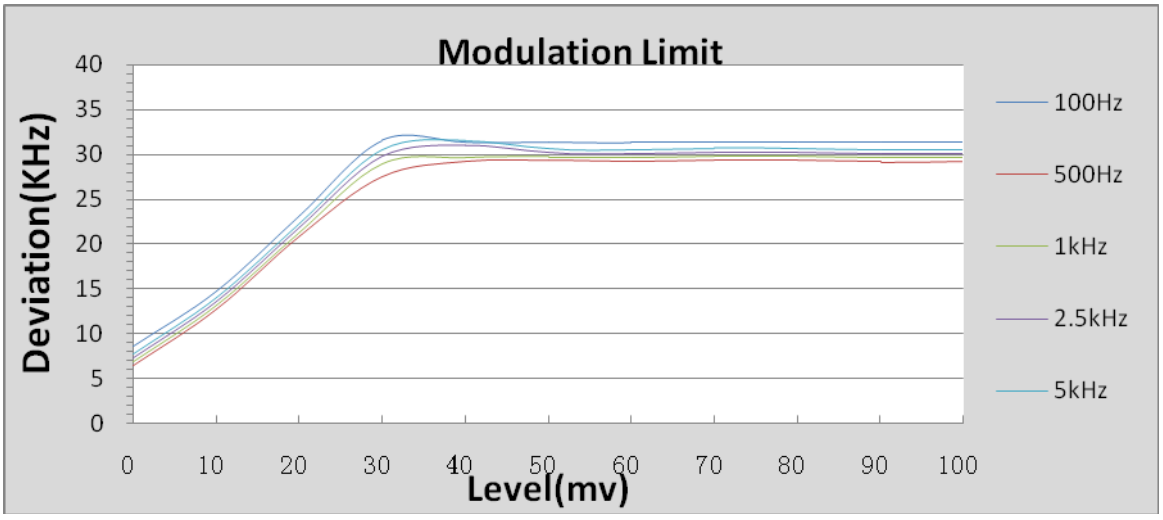
CH 0(566.025MHz)



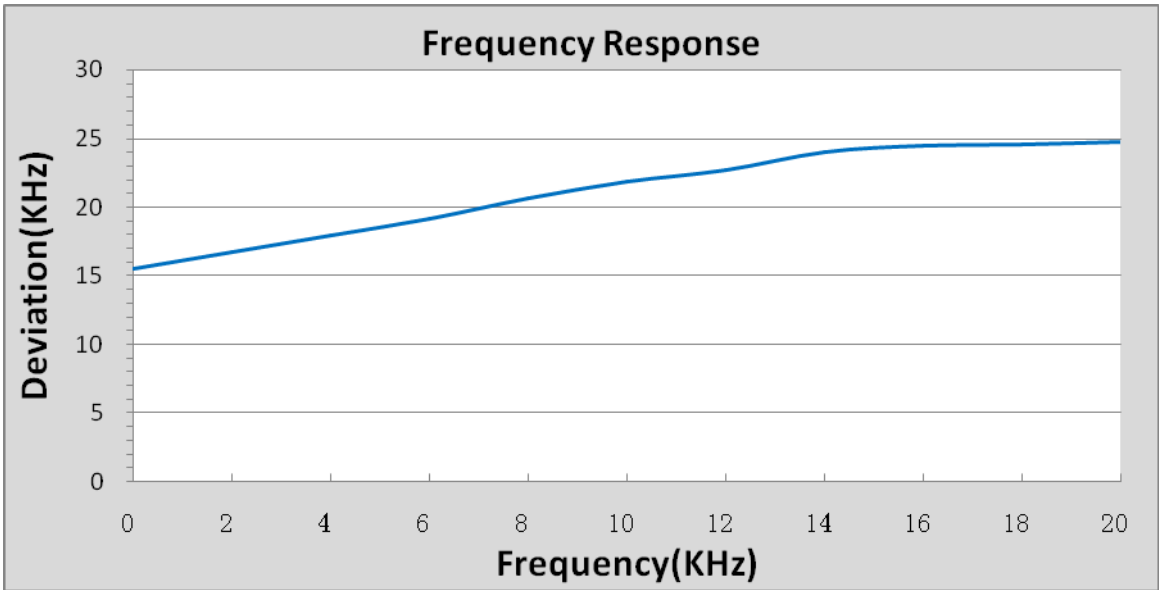


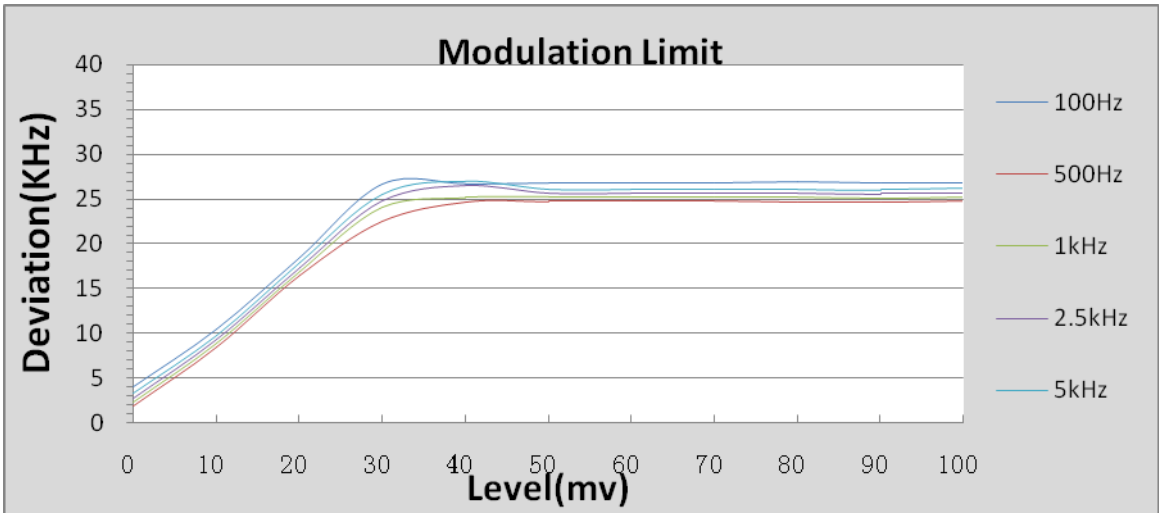
CH 8(578.100MHz)





CH F(589.825MHz)





6. OCCUPIED BANDWIDTH OF EMISSION

6.1 APPLIED PROCEDURES / LIMIT

Test requirement: FCC CFR47 Part 2 Section 2.1049©(1)
Test method: Based on TIA/EIA-603-C-2004
Limit: According to FCC 74.861 (e)(5), the frequency emission bandwidth shall not exceed 200 kHz.

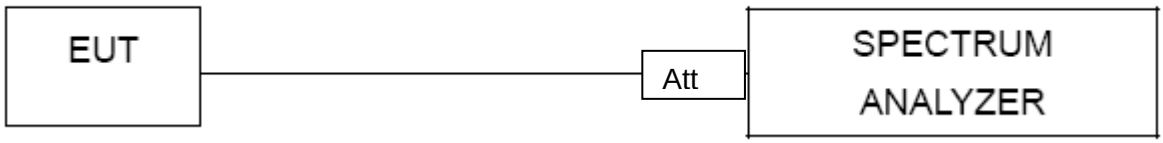
6.1.1 TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Turn on the EUT and set it to any one convenient frequency within its operating range.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

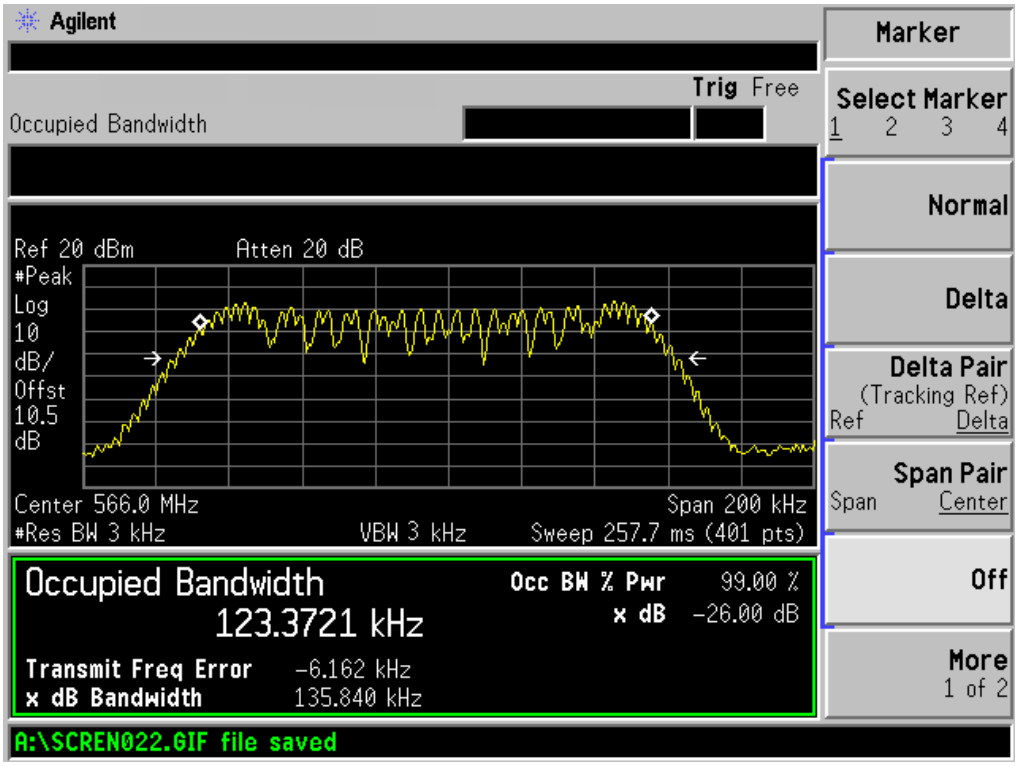
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

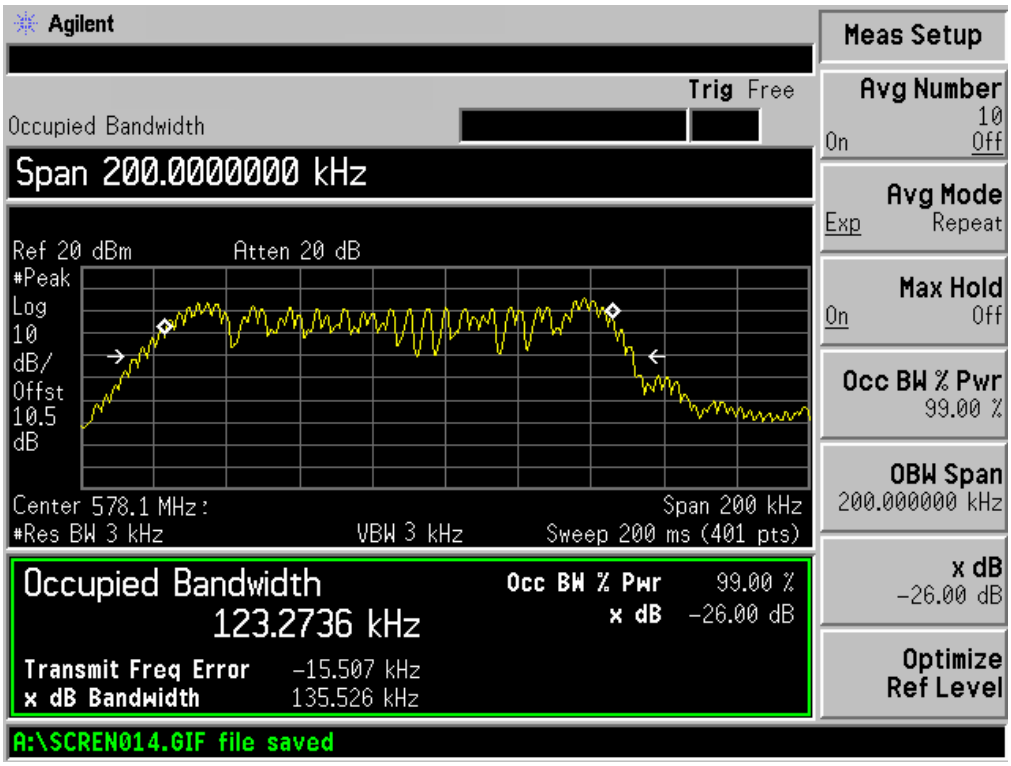
EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 3.0V
Test Mode ：	TX Mode		

Frequency MHz	99% Bandwidth (kHz)	Limit (kHz)	Result
566.025	123.3721	200	PASS
578.100	123.2736	200	PASS
589.825	123.2132	200	PASS

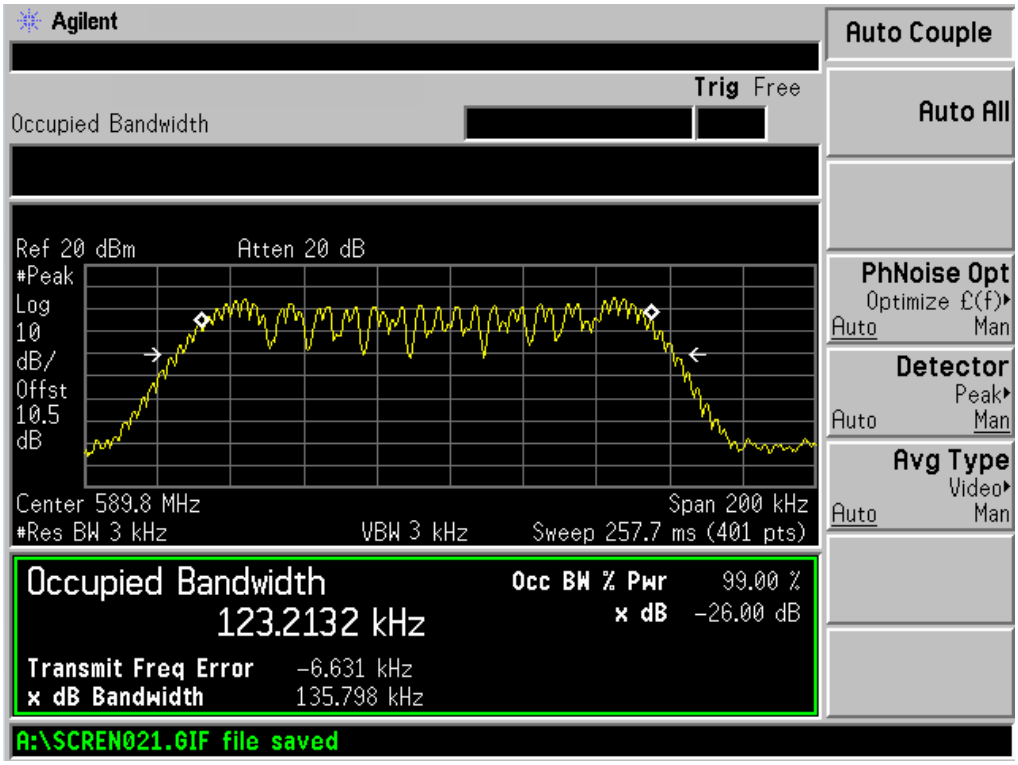
CH 0



CH 8


Agilent
Meas Setup
Trig Free
Avg Number
10
On Off
Occupied Bandwidth
Span 200.0000000 kHz
Avg Mode
Exp Repeat
Ref 20 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
10.5
dB
Max Hold
On Off
Occ BW % Pwr
99.00 %
Center 578.1 MHz
#Res BW 3 kHz
VBW 3 kHz
Span 200 kHz
Sweep 200 ms (401 pts)
OBW Span
200.000000 kHz
Occupied Bandwidth
123.2736 kHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
x dB
-26.00 dB
Transmit Freq Error -15.507 kHz
x dB Bandwidth 135.526 kHz
Optimize
Ref Level
A:\SCREN014.GIF file saved

CH F


Agilent
Auto Couple
Trig Free
Occupied Bandwidth
Auto All
Ref 20 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
10.5
dB
PhNoise Opt
Optimize £(f)
Auto Man
Detector
Peak
Auto Man
Avg Type
Video
Auto Man
Center 589.8 MHz
#Res BW 3 kHz
VBW 3 kHz
Span 200 kHz
Sweep 257.7 ms (401 pts)
Occupied Bandwidth
123.2132 kHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -6.631 kHz
x dB Bandwidth 135.798 kHz
A:\SCREN021.GIF file saved

7. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test requirement: FCC CFR47 Part 2 Section 2.1053, RSS-210 section 6

Test method: Based on TIA/EIA-603-C-2004

Limit: According to Part 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:

(i) 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.

(ii) 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.

(iii) 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 + 10 Log (output power in watts)dB.

7.1 TEST PROCEDURE

1. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable.Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
2. Set the SA on Max-Hold Mode, and then keep the EUT in transmitting mode. Record all the signals from each channel until each one has been recorded.
3. Set the SA on View mode and then plot the result on SA screen.
4. Repeat above procedures until all frequencies measured were complete.

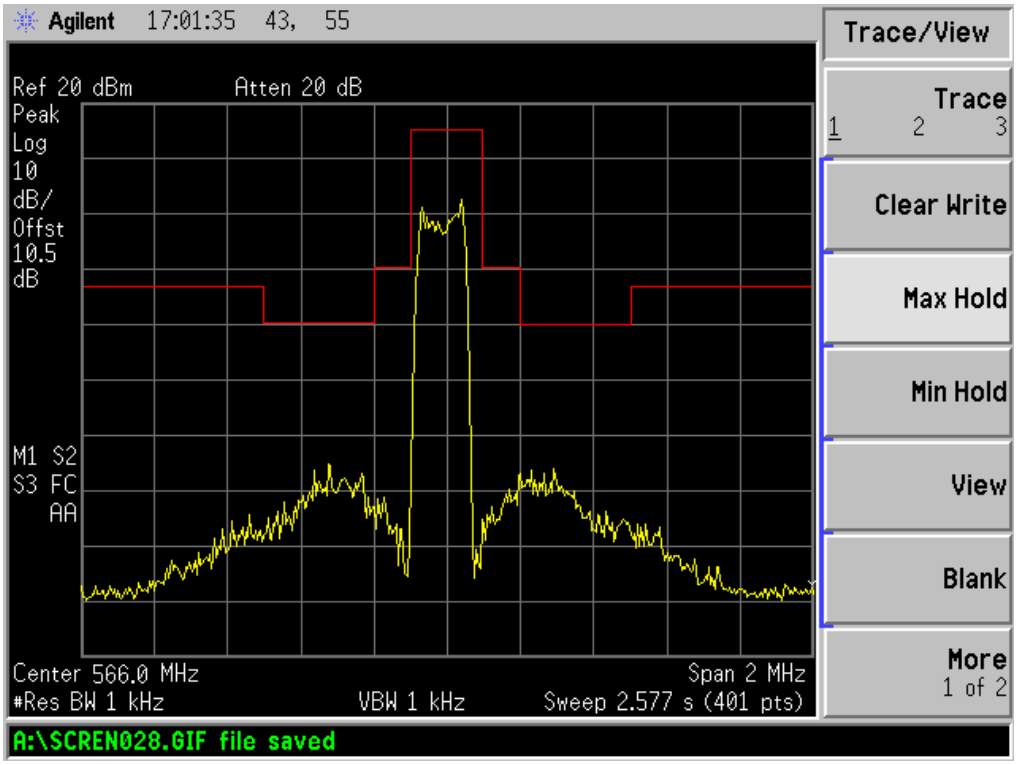
7.2 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

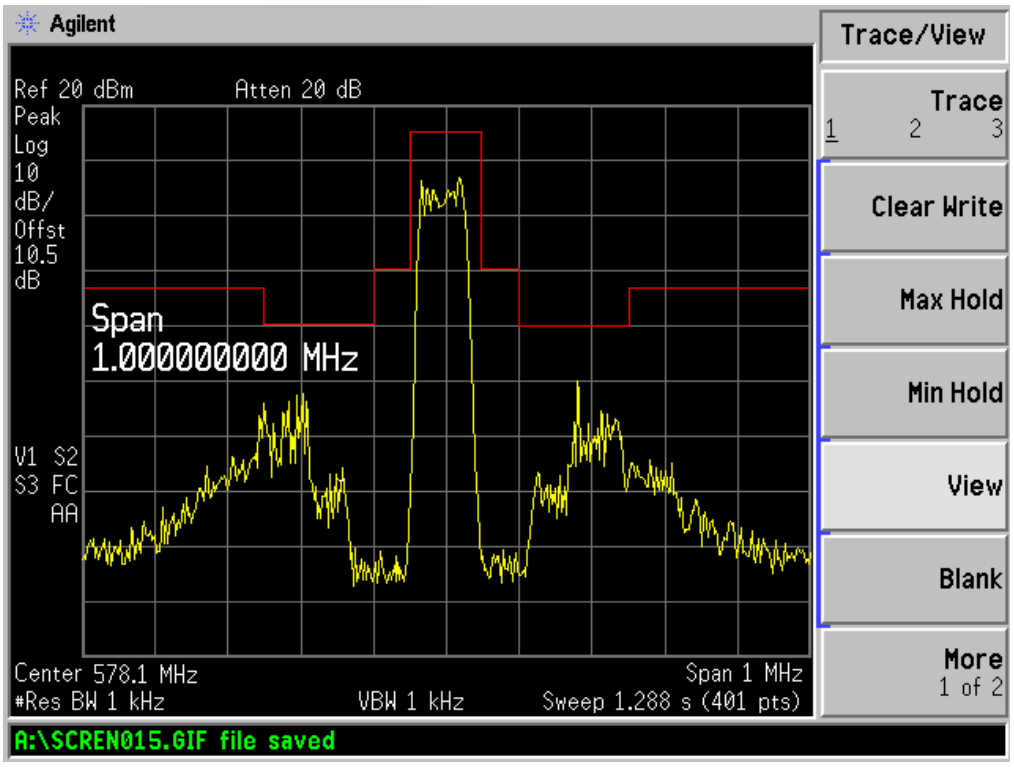
7.3 TEST RESULTS

EUT：	Wireless Microphone	Model Name ：	UB-7(TRANSMITTER)
Temperature：	25 ℃	Relative Humidity：	56%
Pressure：	1012 hPa	Test Voltage ：	DC 3.0V

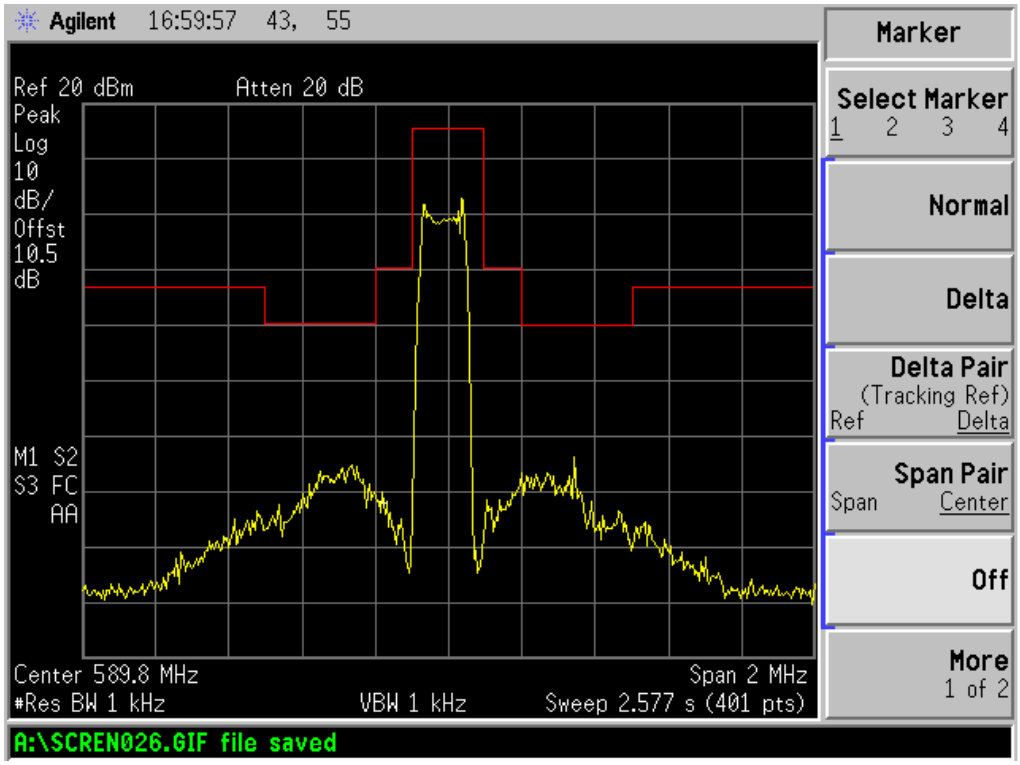
Emission Mask
CH 0



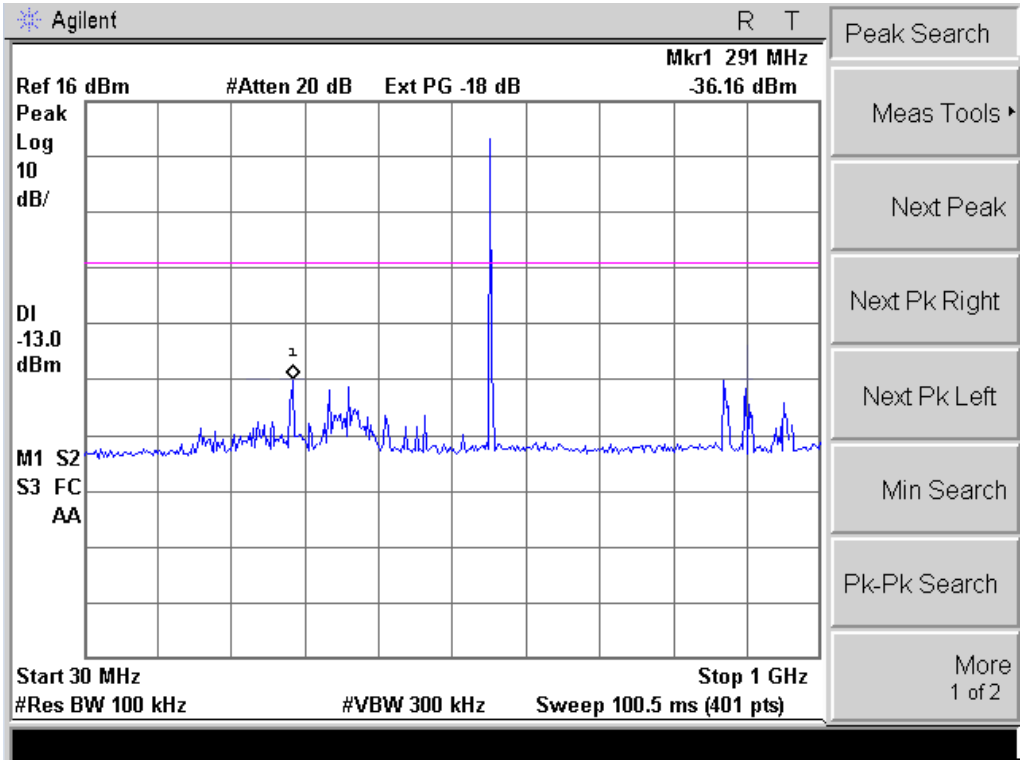
CH 8

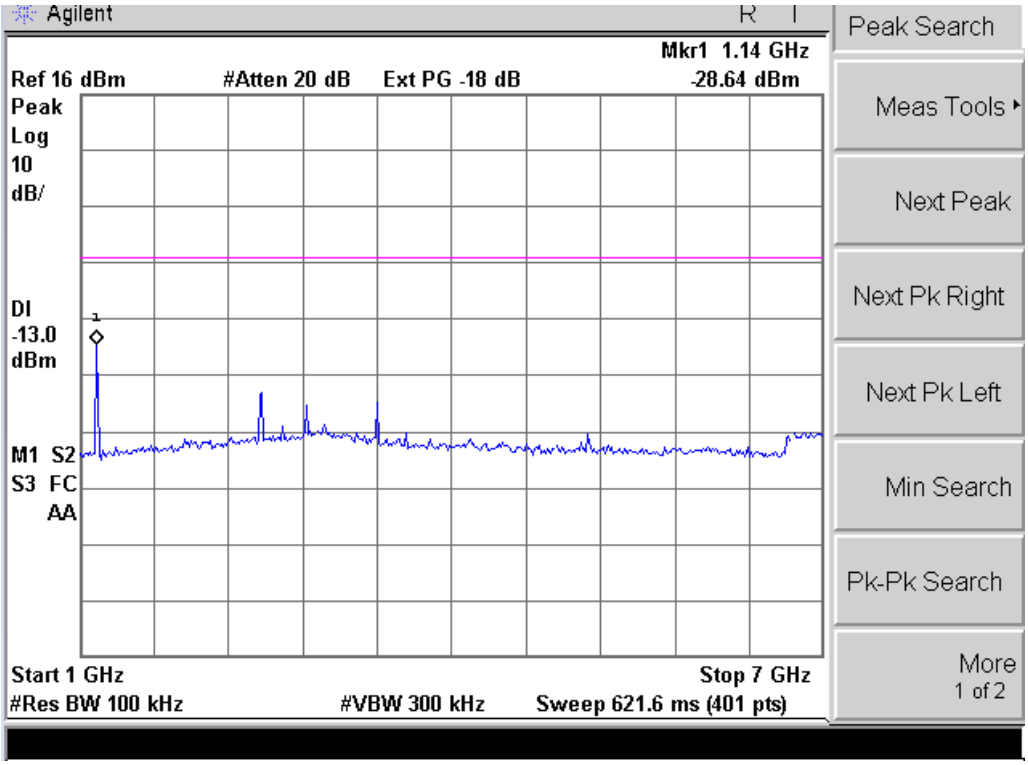

Agilent
Ref 20 dBm
Atten 20 dB
Peak
Log
10
dB/
Offst
10.5
dB
Span
1.000000000 MHz
V1 S2
S3 FC
AA
Center 578.1 MHz
#Res BW 1 kHz
VBW 1 kHz
Span 1 MHz
Sweep 1.288 s (401 pts)
A:\SCREN015.GIF file saved
Trace/View
Trace
1 2 3
Clear Write
Max Hold
Min Hold
View
Blank
More
1 of 2

CH F

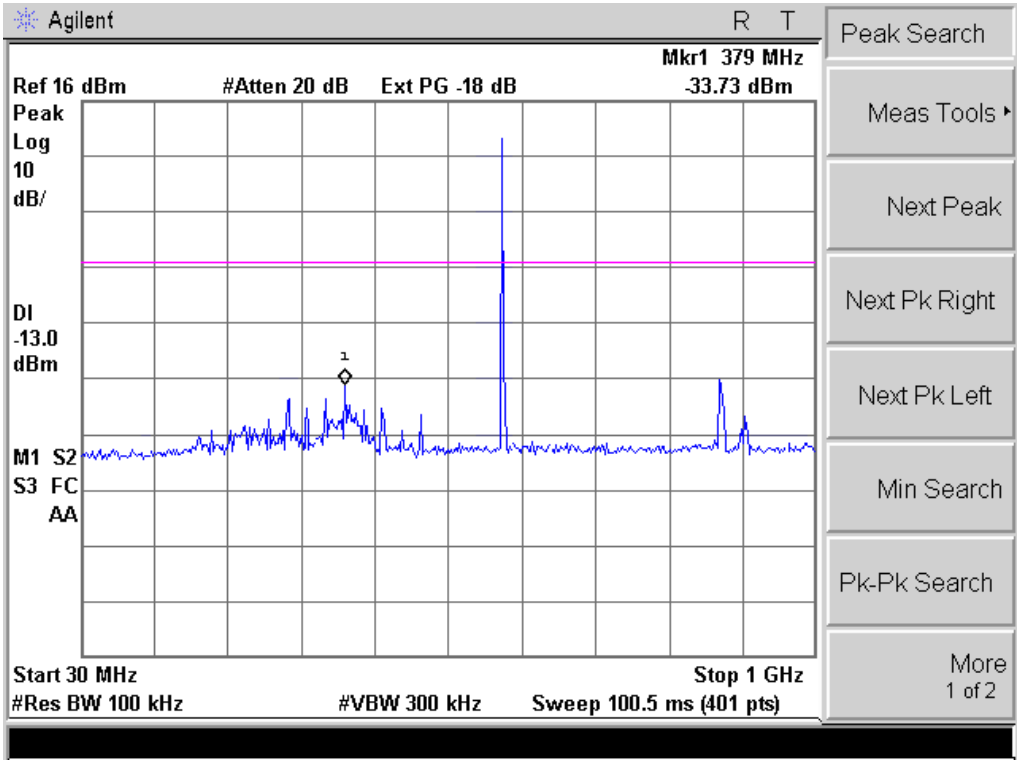

Agilent 16:59:57 43, 55
Ref 20 dBm
Atten 20 dB
Peak
Log
10
dB/
Offst
10.5
dB
M1 S2
S3 FC
AA
Center 589.8 MHz
#Res BW 1 kHz
VBW 1 kHz
Span 2 MHz
Sweep 2.577 s (401 pts)
A:\SCREN026.GIF file saved
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2

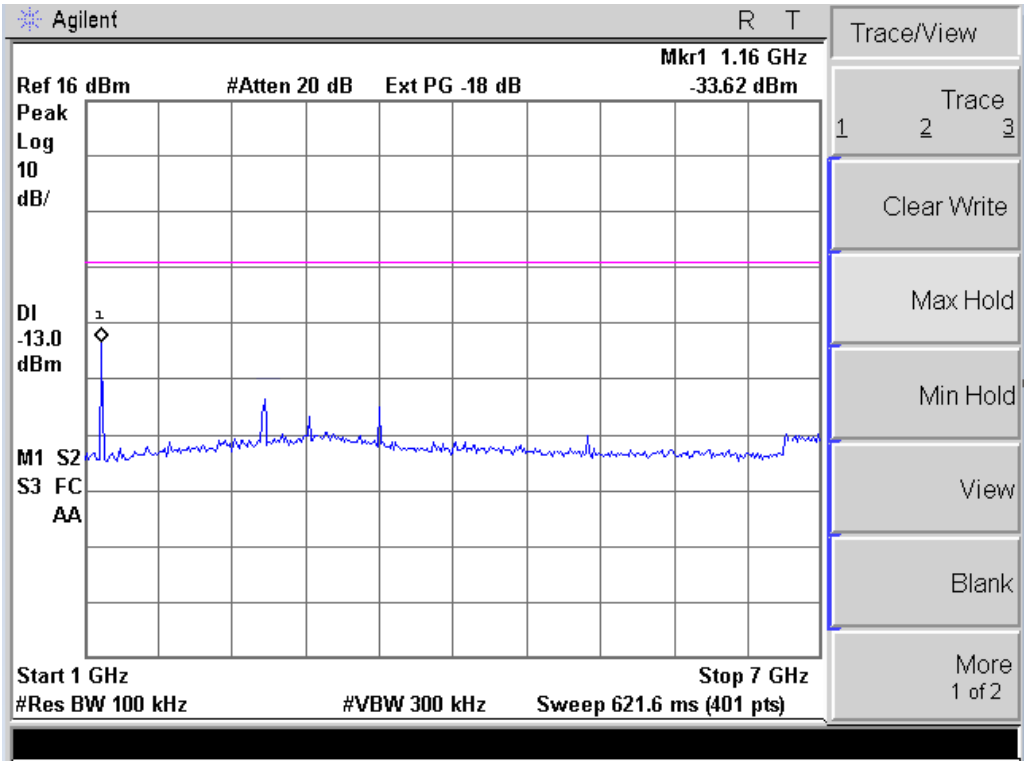
CH 0(566.025MHz)



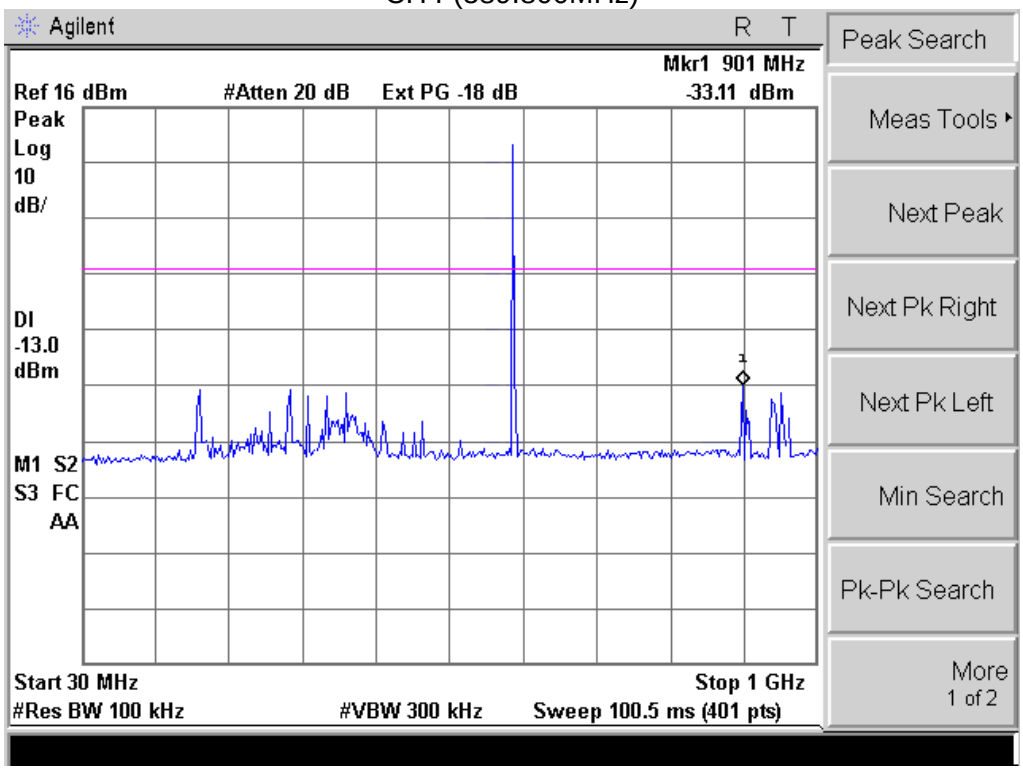


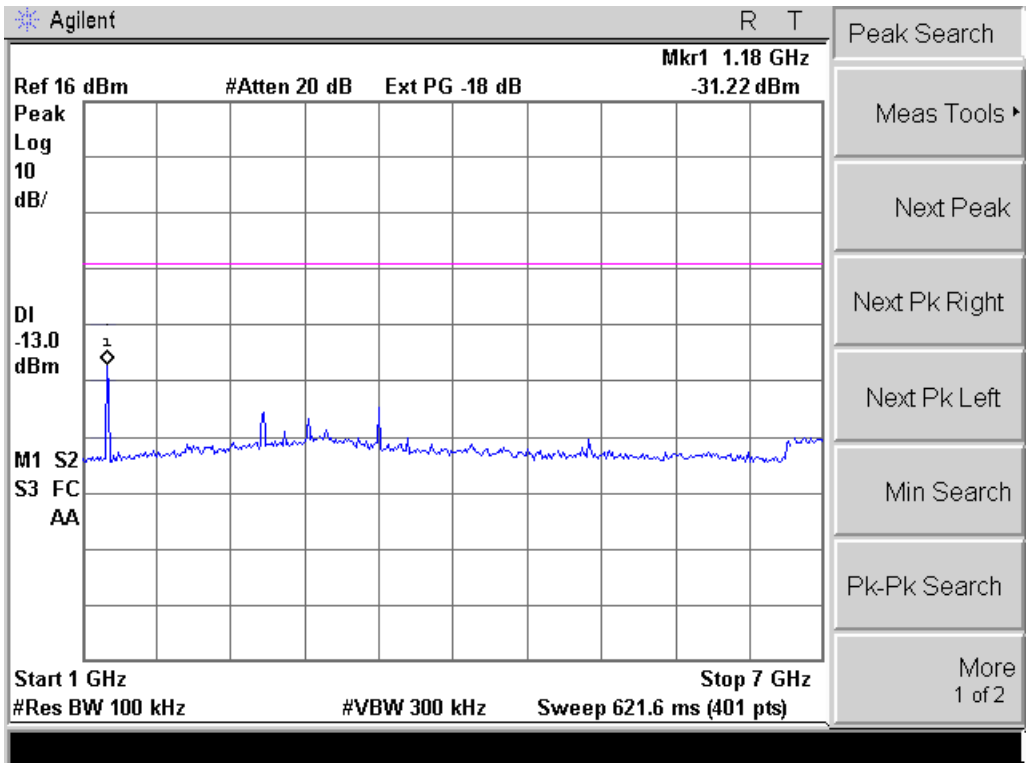
CH 8(578.100MHz)





CH F(589.800MHz)



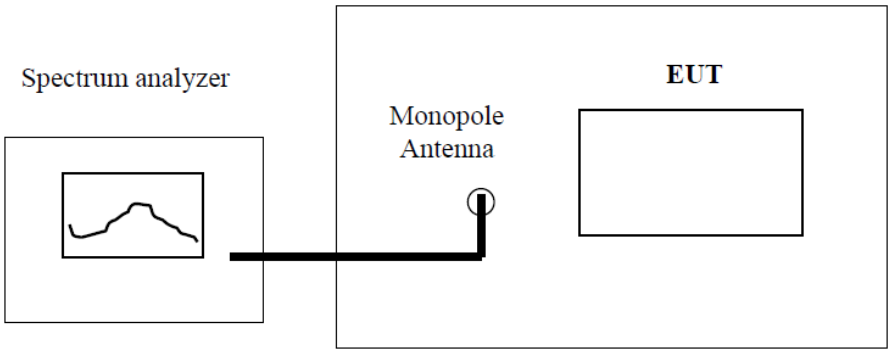


8. FREQUENCY STABILITY

8.1 STANDARD REQUIREMENT

Test requirement: FCC CFR47 Part 2 Section 2.1055(a)(a)
Test method: Based on TIA/EIA-603-C-2004
Limit: According to FCC 74.86(e)(4), the frequency tolerance of the transmitter shall be 0.005 percent.

8.2 TEST CONFIGURATION



8.3 TEST PROCEDURE

A) Frequency stability versus input voltage

1. Setup the configuration per figure 1 for frequencies measured at an environmental chamber whose temperature is set to 20 ºC. Install new batteries in the EUT.
2. Set SA center frequency to the EUT operation frequency. Then set SA RBW to 30 kHz, VBW to 100kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

B) Frequency stability versus environmental temperature

1. Setup the configuration per figure 1 for frequencies measured at an environmental chamber, Install new batteries in the EUT.
2. Turn on EUT and set SA center frequency to the EUT operation frequency, then set SA RBW to 30kHz, VBW to 100kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. Set the temperature of chamber to 50ºC. 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 10ºC decreased per stage until the lowest temperature -30ºC is measured, record all measurement frequencies.

8.4 TEST RESULT

CH 0(566.025MHz)

a) Frequency stability versus input voltage

Power Supply	Reference Frequency (MHz)	Environment Temperature (ºC)	Frequency Measured	Frequency Tolerance (%)
DC 2.55V	566.025	20	566.030	0.00085
DC 3.45V	566.025	20	566.026	0.00021

b) Frequency stability versus environmental temperature

Environment Temperature(ºC)	Power Supply	Frequency Deviation measured with time Elapse(30 minutes)	
		MHz	%
50	DC 3.0V	566.030	0.00080
40	DC 3.0V	566.027	0.00036
30	DC 3.0V	566.029	0.00076
20	DC 3.0V	566.027	0.00028
10	DC 3.0V	566.029	0.00070
0	DC 3.0V	566.025	0.00001
-10	DC 3.0V	566.023	0.00029
-20	DC 3.0V	566.020	0.00085
-30	DC 3.0V	566.026	0.00012

CH 8(578.100MHz)

a) Frequency stability versus input voltage

Power Supply	**Reference Frequency (MHz)**	**Environment Temperature (ºC)**	**Frequency Measured**	**Frequency Tolerance (%)**
DC 2.55V	578.100	20	578.099	0.00014
DC 3.45V	578.100	20	578.099	0.00021

b) Frequency stability versus environmental temperature

Environment Temperature(ºC)	**Power Supply**	**Frequency Deviation measured with time Elapse(30 minutes)**	
		MHz	**%**
50	DC 3.0V	578.103	0.00055
40	DC 3.0V	578.101	0.00016
30	DC 3.0V	578.099	0.00026
20	DC 3.0V	578.095	0.00089
10	DC 3.0V	578.094	0.00098
0	DC 3.0V	578.105	0.00086
-10	DC 3.0V	578.095	0.00082
-20	DC 3.0V	578.097	0.00056
-30	DC 3.0V	578.099	0.00013

CH F(589.825MHz)

a) Frequency stability versus input voltage

Power Supply	Reference Frequency (MHz)	Environment Temperature (ºC)	Frequency Measured	Frequency Tolerance (%)
DC 2.55V	589.825	20	589.826	0.00018
DC 3.45V	589.825	20	589.825	0.00005

b) Frequency stability versus environmental temperature

Environment Temperature(ºC)	Power Supply	Frequency Deviation measured with time Elapse(30 minutes)	
		MHz	%
50	DC 3.0V	589.820	0.00080
40	DC 3.0V	589.822	0.00056
30	DC 3.0V	589.822	0.00050
20	DC 3.0V	589.831	0.00098
10	DC 3.0V	589.820	0.00092
0	DC 3.0V	589.827	0.00030
-10	DC 3.0V	589.821	0.00061
-20	DC 3.0V	589.828	0.00051
-30	DC 3.0V	589.822	0.00051

9. EUT TEST PHOTO