

FCC/IC - TEST REPORTReport Number : **68.950.14.235.01** Date of Issue: Mar 05, 2015Model : Silent 1220, Silent 1420, S1094Product Type : SOUNDBARApplicant : Ningbo Somle Audio-Visual Technology Co.,LtdAddress : No.39, Lane150, Beihai Road, Jiangbei, Ningbo, ChinaTest Result : ☒ **Positive** ☐ **Negative**Total pages including
Appendices : 42

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park,
Nantou Checkpoint Road 2, Nanshan District,
Shenzhen City, 518052,
P. R. China

Telephone: 86 755 8828 6998
Fax: 86 755 8828 5299

Test Site 2

Company name: Audix Technology (shenzhen) Co.,Ltd
No. 6, Ke Feng Rd, 52 Block Shenzhen Science and Industry Park, Nantou,
Shenzhen, Guangdong, China.

Telephone: 86 755 2663 9496
Fax: 86 755 2663 2877

3 Description of the Equipment Under Test

Product:	SOUNDBAR
Model no.:	Silent 1220, Silent 1420, S1094
FCC ID:	2ACPUS1420
IC :	12178A-SBS1420
Options and accessories:	NIL
Rating:	AC 100-240V, 50-60Hz
RF Transmission Frequency:	2402-2480MHz
No. of Operated Channel:	79
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Duty Cycle:	33.8%
Antenna Type:	PCB Antenna
Antenna Gain:	-0.61dBi
Description of the EUT:	The Equipment Under Test (EUT) is a SOUNDBAR operated at 2.4GHz

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2014 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-Gen Issue 4 November 2014	General Requirements for the Certification of Radio Apparatus
RSS-210 Issue 8 December 2010	RSS-210 — Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

All the test methods were according to Public Notice DA 00-705 -Frequency Hopper Spread Spectrum Test Procedure released by FCC on March 30, 2000 and C63.10 (2013).

5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C, RSS-Gen, RSS-210					
Test Condition			Pages	Test Site	Test Result
§15.207	RSS-Gen A8.8	Conducted emission AC power port	10	Site 2	Pass
§15.247(b)(1)	RSS-210 A8.4	Conducted peak output power	13	Site 2	Pass
§15.247(a)(2)	RSS-210 A8.2(a)	6dB bandwidth	---	---	N/A
§15.247(a)(1)	RSS-210 A8.1(a) & RSS-Gen 6.6	20dB bandwidth and 99% Occupied Bandwidth	15	Site 2	Pass
§15.247(a)(1)	RSS-210 A8.1(b)	Carrier frequency separation	21	Site 2	Pass
§15.247(a)(1)(iii)	RSS-210 A8.1(d)	Number of hopping frequencies	23	Site 2	Pass
§15.247(a)(1)(iii)	RSS-210 A8.1(c)	Dwell Time	25	Site 2	Pass
§15.247(e)	RSS-210 A8.2(b)	Power spectral density*	---	---	N/A
§15.247(d)	RSS-210 A8.5	Spurious RF conducted emissions	28	Site 2	Pass
§15.247(d)	RSS-210 A8.5	Band edge	34	Site 2	Pass
§15.247(d) & §15.209 &	RSS-210 2.5 & RSS-Gen 6.13	Spurious radiated emissions for transmitter and receiver	39	Site 2	Pass
§15.203	RSS-Gen 8.3	Antenna requirement	See note 2		Pass

Note 1: N/A=Not Applicable.

Note 2: The EUT uses a PCB antenna, which gain is -0.61dBi. In accordance to §15.203, It is considered sufficiently to comply with the provisions of this section.

6 General Remarks

Remarks

<< Silent 1220 >> have the same electrical component and PCB layout with << Silent 1420 >> . The only difference is the colour and size.

Model No. << S1094 >> have the same electrical component and PCB layout with << Silent 1220 >> << Silent 1420 >> . The only difference is the colour, shape and size.

So tests are applied on Silent 1420, other models deem to fulfil the EMC requirement without further testing.

The EUT is a SOUNDBAR with Bluetooth function, the TX and RX frequency range is 2402MHz-2480MHz.

This submittal(s) (test report) is intended for FCC ID: 2ACPUS1420, IC: 12178A-SBS1420 complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules and RSS-210.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: Oct 23, 2014

Testing Start Date: Oct 24, 2014

Testing End Date: Mar 04, 2015

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Reviewed by:

Prepared by:

Tested by:



Phoebe Hu
EMC Project Manager



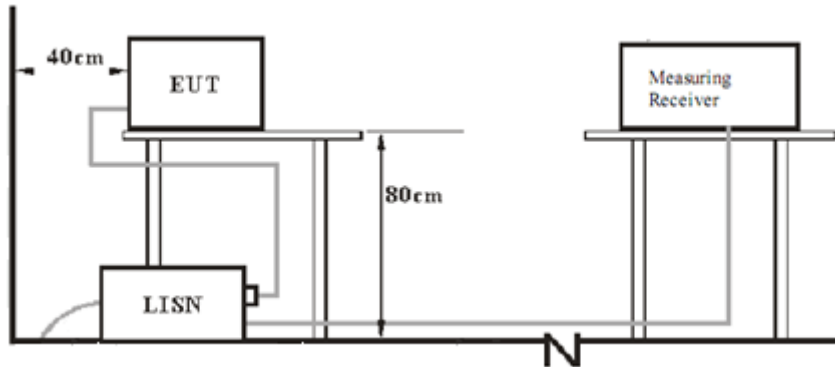
Calvin Weng
EMC Project Engineer



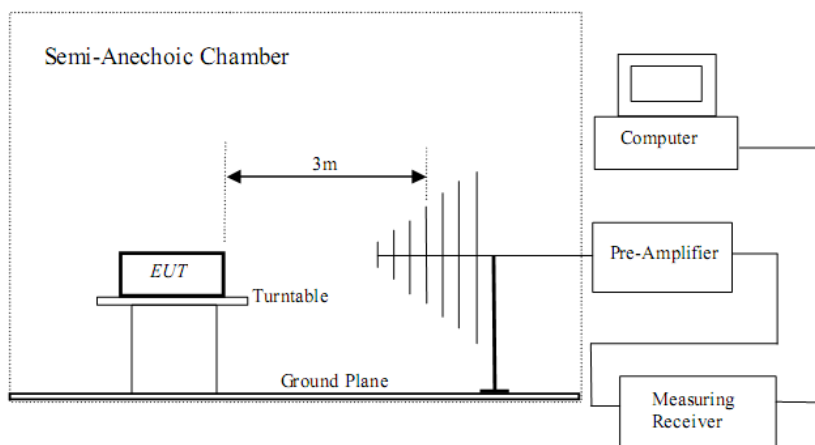
Leon Zhang
EMC Test Engineer

7 Test Setups

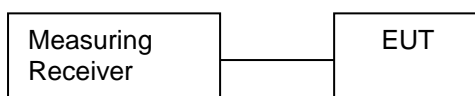
7.1 AC Power Line Conducted Emission test setups



7.2 Radiated test setups



7.3 Conducted RF test setups



8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
---	---	---	---

Test software: Bluetest3.exe, which used to control the EUT in continues transmitting mode

The system was configured to hopping mode and non-hopping mode.

Hopping mode: typical working mode (normal hopping status)

Non-hopping mode: The system was configured to operate at a signal channel transmitting. The test software allows the configuration and operation at the worst-case duty and the highest transmit power.

9 Technical Requirement

9.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

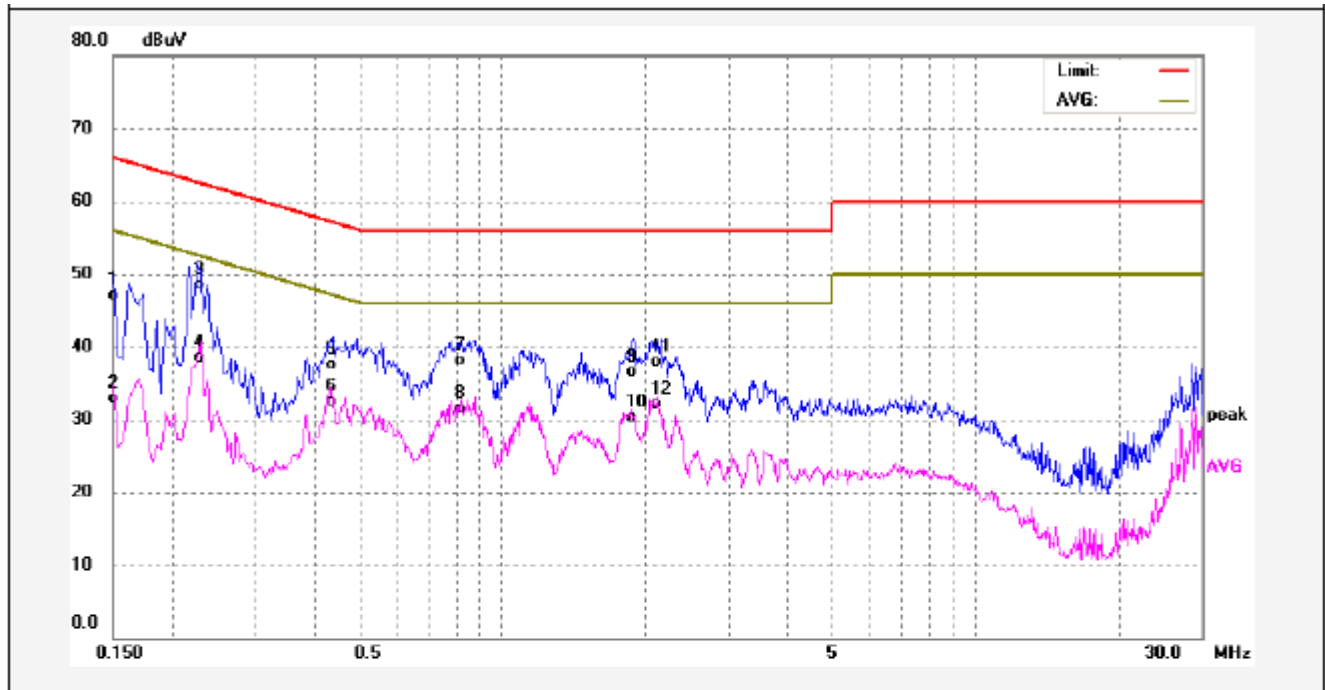
According to §15.207 & RSS-GEN A8.8, conducted emissions limit as below:

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Conducted Emission

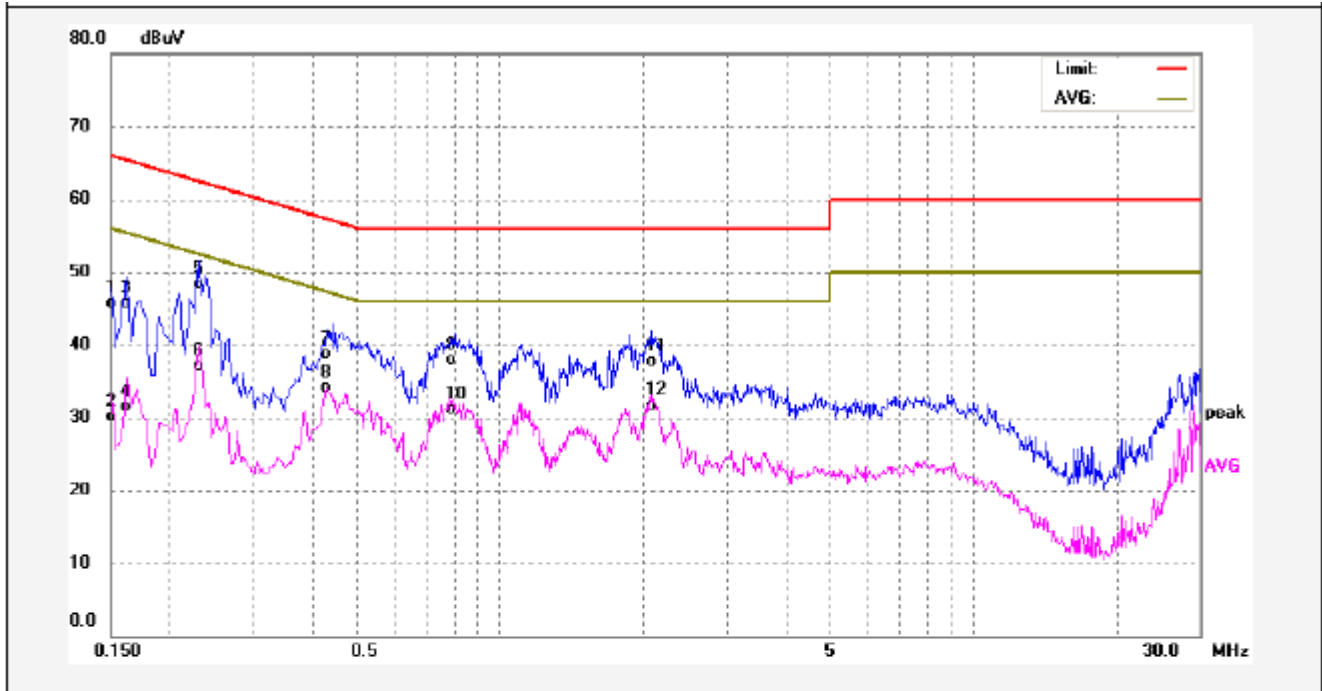
Product Type : SOUNDBAR
 M/N : Silent 1420
 Operating Condition : Transmitting
 Test Specification : Line
 Comment : AC 120V/60Hz



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	35.99	11.17	47.16	65.99	-18.83	QP	
2	0.1500	21.79	11.17	32.96	55.99	-23.03	AVG	
3	0.2260	37.19	11.30	48.49	62.59	-14.10	QP	
4	0.2260	27.14	11.30	38.44	52.59	-14.15	AVG	
5	0.4380	26.22	11.31	37.53	57.10	-19.57	QP	
6	0.4380	21.27	11.31	32.58	47.10	-14.52	AVG	
7	0.8260	26.87	11.27	38.14	56.00	-17.86	QP	
8	0.8260	20.22	11.27	31.49	46.00	-14.51	AVG	
9	1.8940	25.33	11.20	36.53	56.00	-19.47	QP	
10	1.8940	19.03	11.20	30.23	46.00	-15.77	AVG	
11	2.1099	26.73	11.20	37.93	56.00	-18.07	QP	
12	2.1099	20.82	11.20	32.02	46.00	-13.98	AVG	

Conducted Emission

Product Type : SOUNDBAR
 M/N : Silent 1420
 Operating Condition : Transmitting
 Test Specification : Neutral
 Comment : AC 120V/60Hz



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	34.51	11.17	45.68	65.99	-20.31	QP	
2	0.1500	19.02	11.17	30.19	55.99	-25.80	AVG	
3	0.1620	34.53	11.20	45.73	65.36	-19.63	QP	
4	0.1620	20.37	11.20	31.57	55.36	-23.79	AVG	
5	0.2300	36.96	11.30	48.26	62.45	-14.19	QP	
6	0.2300	25.73	11.30	37.03	52.45	-15.42	AVG	
7	0.4300	27.38	11.31	38.69	57.25	-18.56	QP	
8	0.4300	22.85	11.31	34.16	47.25	-13.09	AVG	
9	0.8020	26.64	11.29	37.93	56.00	-18.07	QP	
10	0.8020	19.73	11.29	31.02	46.00	-14.98	AVG	
11	2.0900	26.53	11.20	37.73	56.00	-18.27	QP	
12	2.0900	20.50	11.20	31.70	46.00	-14.30	AVG	

9.2 Conducted peak output power

Test Method

1. Use the following spectrum analyzer settings:
Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel
RBW > the 20 dB bandwidth of the emission being measured, VBW ≥ RBW,
Sweep = auto, Detector function = peak, Trace = max hold
2. Add a correction factor to the display.
3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power

Limits

According to §15.247 (b) (1) and RSS-210 A8.4, conducted peak output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

Conducted peak output power

Bluetooth Mode GFSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	3.58	Pass
Middle channel 2441MHz	4.18	Pass
High channel 2480MHz	4.05	Pass

Bluetooth Mode $\pi/4$ -DQPSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	3.60	Pass
Middle channel 2441MHz	4.21	Pass
High channel 2480MHz	4.13	Pass

Bluetooth Mode 8DPSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	3.63	Pass
Middle channel 2441MHz	4.24	Pass
High channel 2480MHz	4.27	Pass

9.3 20 dB bandwidth and 99% Occupied Bandwidth

Test Method

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Limit

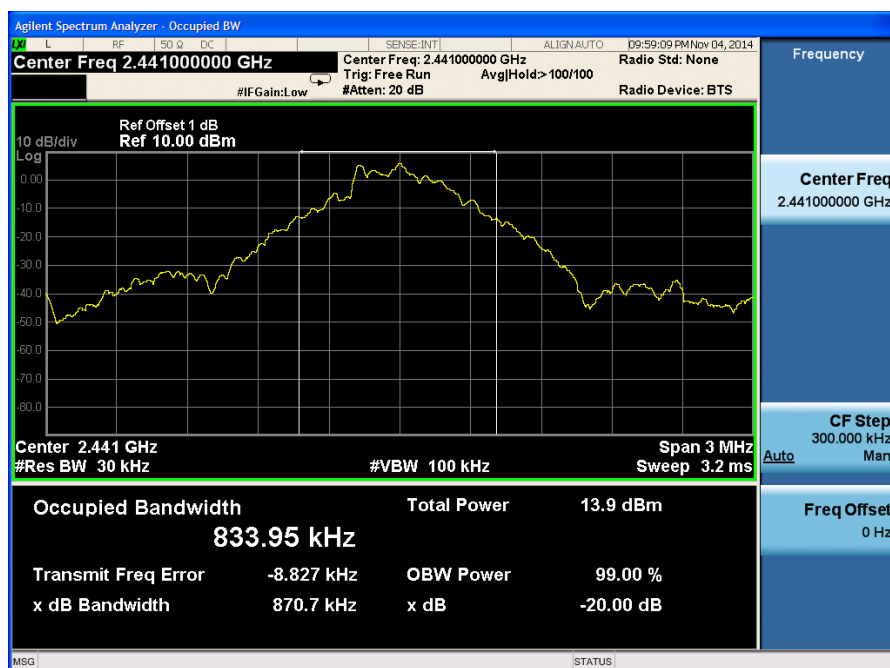
Limit [kHz]

N/A

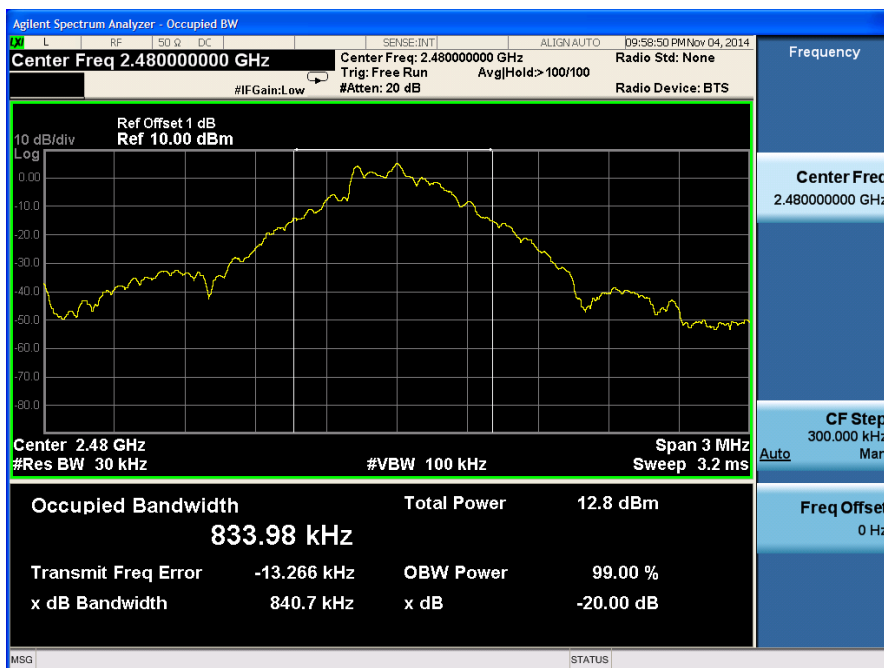
20 dB bandwidth and 99% Occupied Bandwidth

Bluetooth Mode GFSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	872.1	835.9	--	Pass
2441	870.7	834.0	--	Pass
2480	840.7	834.0	--	Pass

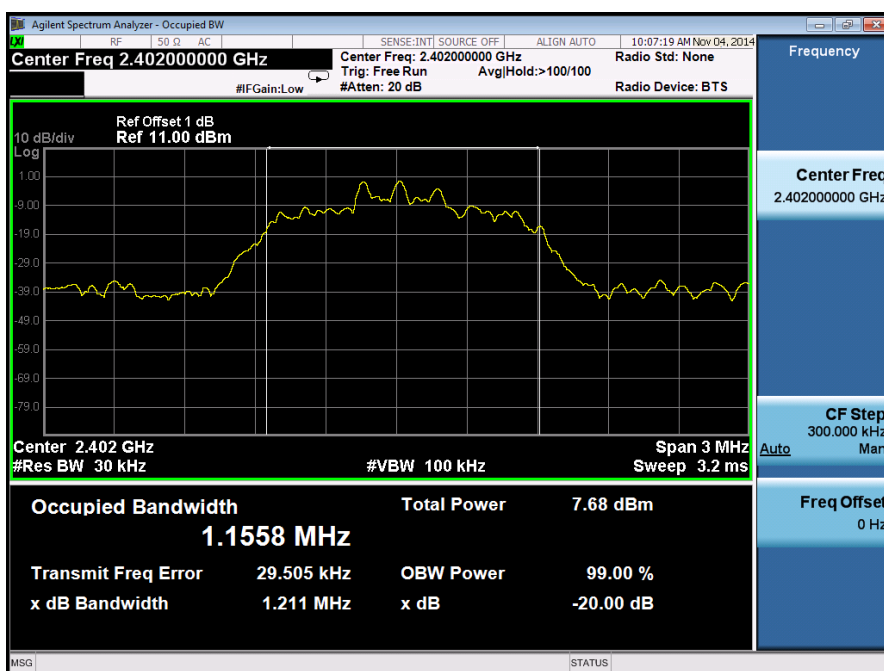


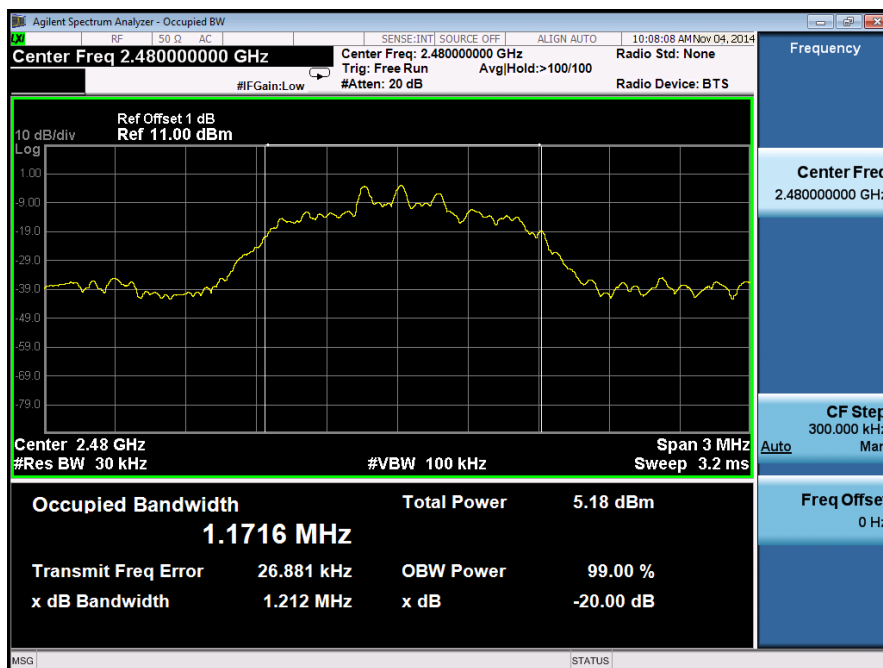
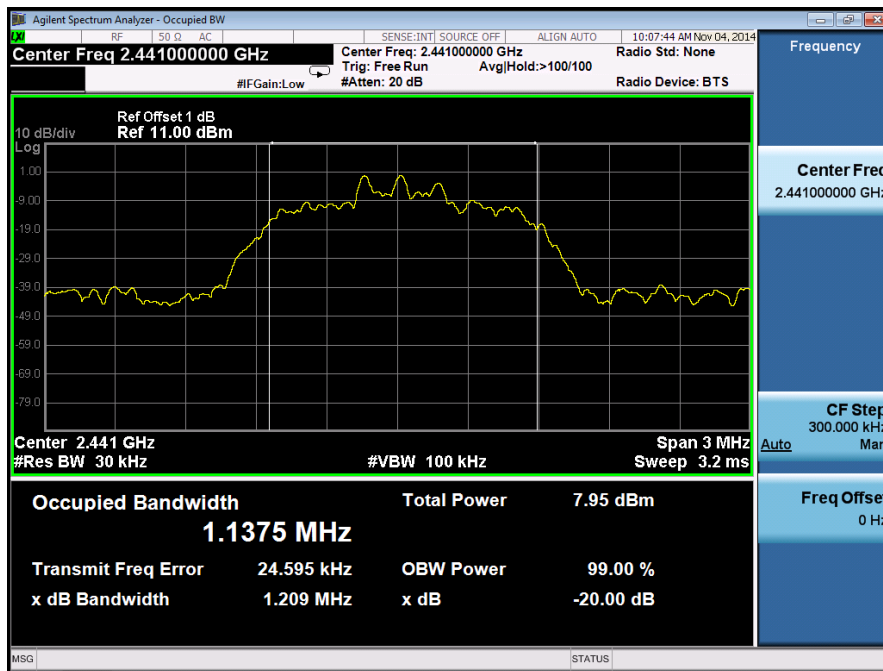
20 dB bandwidth and 99% Occupied Bandwidth



Bluetooth Mode $\pi/4$ -DQPSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1211	1155.8	--	Pass
2441	1209	1137.5	--	Pass
2480	1212	1171.6	--	Pass

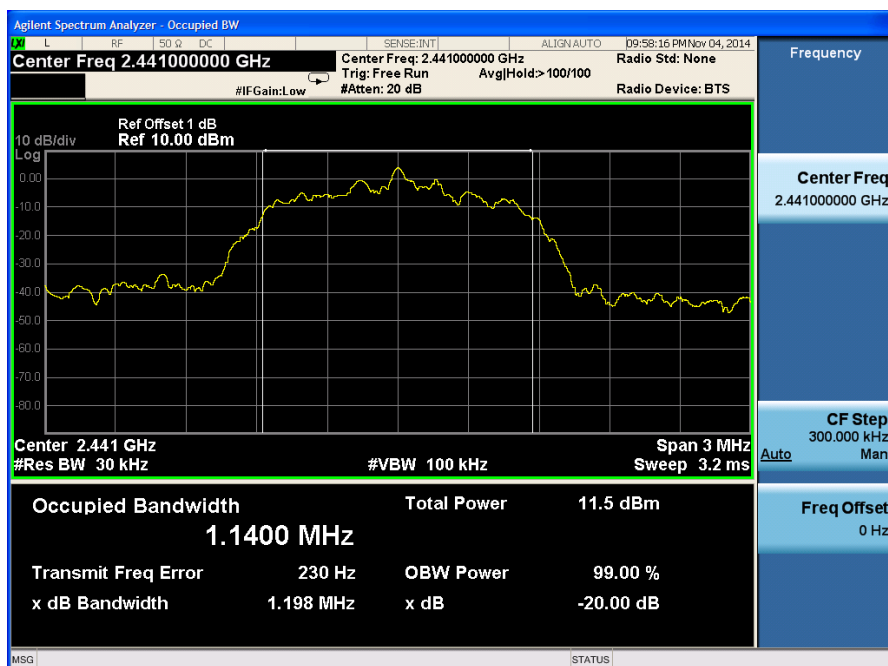
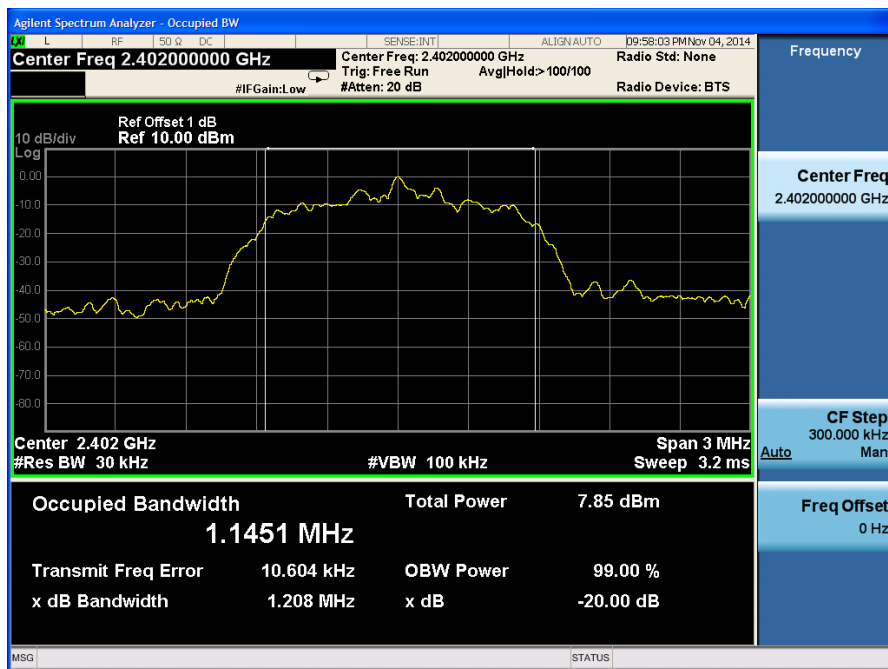


20 dB bandwidth and 99% Occupied Bandwidth

20 dB bandwidth and 99% Occupied Bandwidth

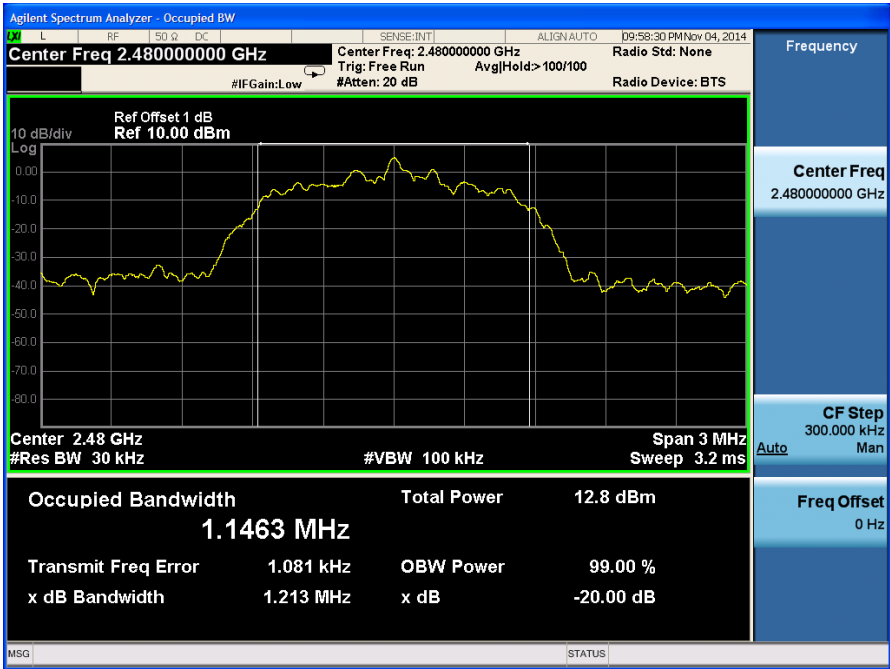
Bluetooth Mode 8DPSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1208	1145.1	--	Pass
2441	1198	1140.0	--	Pass
2480	1213	1146.3	--	Pass





20 dB bandwidth and 99% Occupied Bandwidth



9.4 Carrier Frequency Separation

Test Method

1. Use the following spectrum analyzer settings:
Span = wide enough to capture the peaks of two adjacent channels, $RBW \geq 1\%$ of the span, $VBW \geq RBW$, Sweep = auto, Detector function = peak
2. By using the Max-Hold function record the separation of two adjacent channels.
3. Measure the frequency difference of these two adjacent channels by spectrum analyzer marker function.
4. Repeat above procedures until all frequencies measured were complete.

Limit

Limit kHz
$\geq 25\text{kHz}$ or $2/3$ of the 20 dB bandwidth which is greater

GFSK Modulation Limit

Frequency MHz	2/3 of 20 dB Bandwidth kHz
2402	581.4
2441	580.5
2480	560.5

Carrier Frequency Separation

Test result: The measurement was performed with the typical configuration (normal hopping status), here GFSK modulation mode was used to show compliance.

GFSK Modulation test result

Frequency MHz	Carrier Frequency Separation kHz	Result
2402	1000	Pass
2441	1000	Pass
2480	1000	Pass



9.5 Number of hopping frequencies

Test Method

1. Use the following spectrum analyzer settings:
Span = wide enough to capture the peaks of two adjacent channels, $RBW \geq 1\%$ of the span, $VBW \geq RBW$, Sweep = auto, Detector function = peak
2. Set the spectrum analyzer on Max-Hold Mode, and then keep the EUT in hopping mode.
3. Record all the signals from each channel until each one has been recorded.
4. Repeat above procedures until all frequencies measured were complete.

Limit

Limit
number

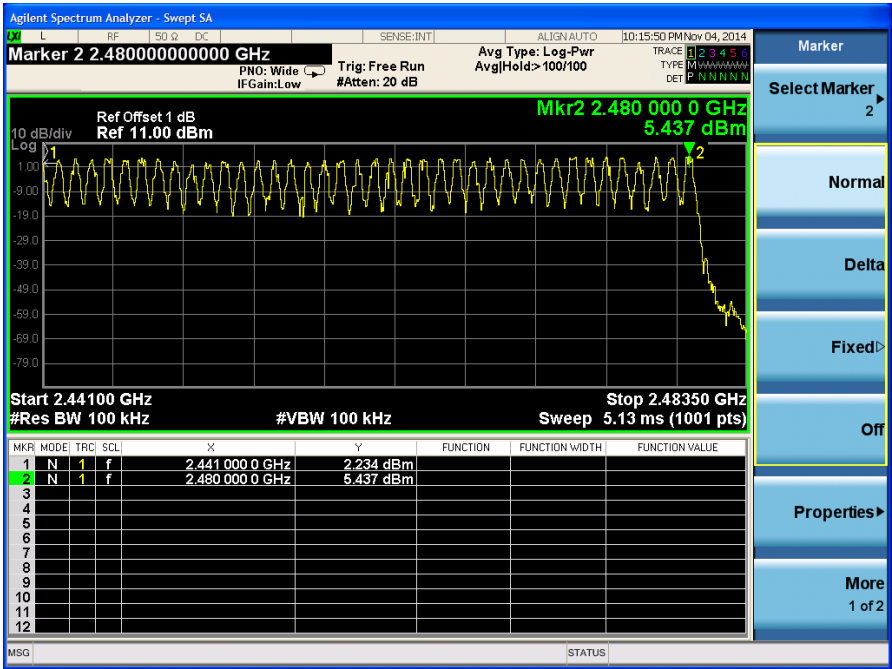
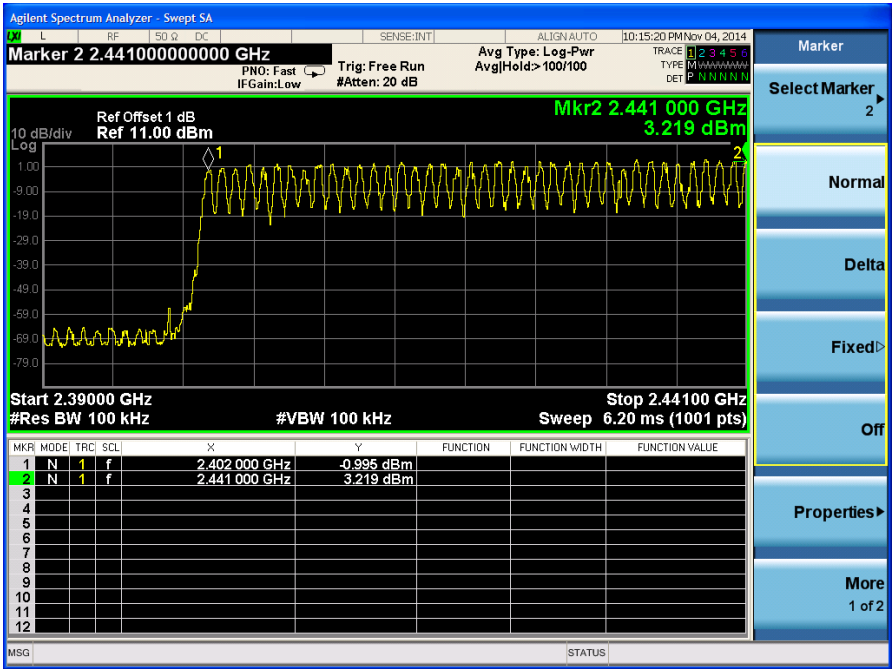
≥ 15



Number of hopping frequencies

Test result: The measurement was performed with the typical configuration (normal hopping status), and the total hopping channels is constant for the all modulation mode according with the Bluetooth Core Specification. Here GFSK modulation mode was used to show compliance.

Number of hopping frequencies	Result
79	Pass



9.6 Dwell Time

Test Method

1. Connect EUT antenna terminal to the spectrum analyzer with a low loss cable.
Equipment mode: Spectrum analyzer
2. RBW: 1MHz; VBW: 1MHz; SPAN: Zero Span
3. Adjust the center frequency of spectrum analyzer on any frequency be measured.
4. Measure the Dwell Time by spectrum analyzer Marker function.
5. Repeat above procedures until all frequencies measured were complete.

Limit

According to §15.247(a)(1)(iii) & RSS-210 A8.1(c) The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

Dwell Time

Dwell time

The maximum dwell time shall be 0,4 s.

According to the Bluetooth Core Specification, the worse result (DH5 mode) was reported to show compliance.

The Dwell Time = Burst Width * Total Hops. The detailed calculations are showed as follows:

The duration for dwell time calculation: 0.4 [s] * hopping number = 0.4 [s] * 79 [ch] = 31.6 [s*ch];

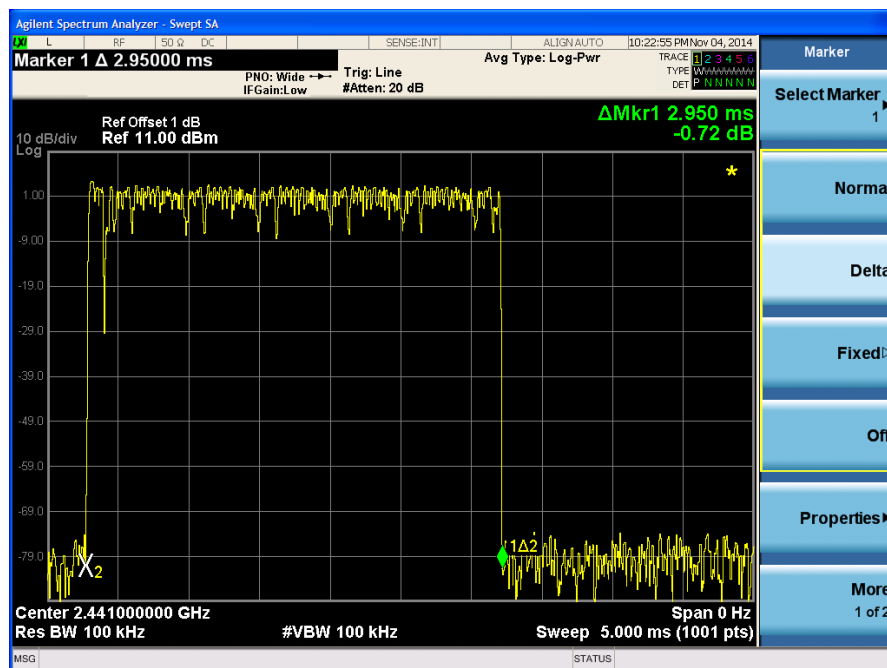
The burst width, which is directly measured, refers to the duration on one channel hop.

The maximum number of hopping channels in 31.6s for DH5=1600 / 6 / 79 *31.6=106.67

Test Result

Modulation	Mode	Reading (μs)	Total Hops	Test Result (ms)	Limit (ms)	Result
GFSK	DH5	2950	106.67	314.68	< 400	Pass
π/4-DQPSK	2DH5	2970	106.67	316.81	< 400	Pass
8-DPSK	3DH5	2970	106.67	316.81	< 400	Pass

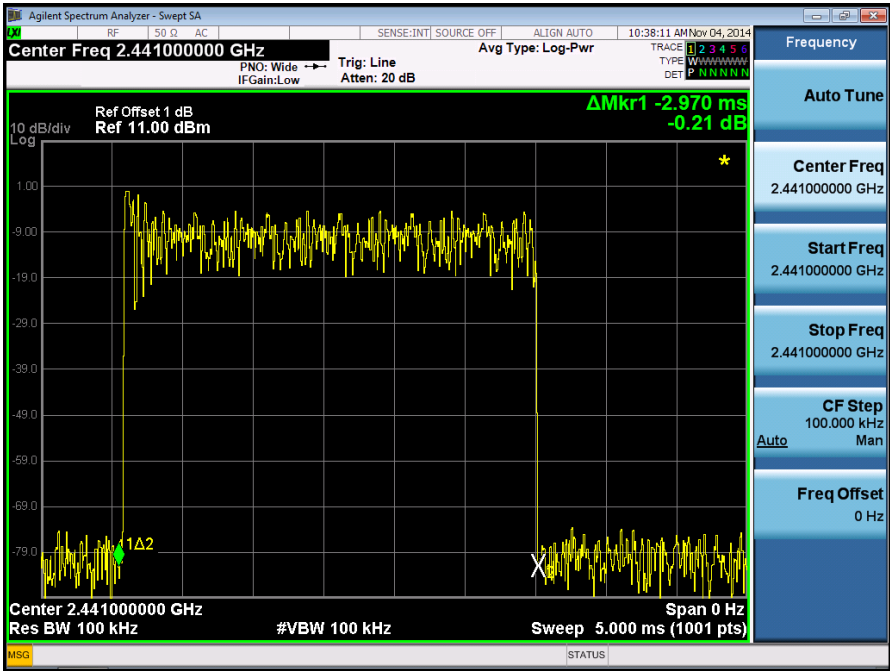
GFSK Modulation



DH5

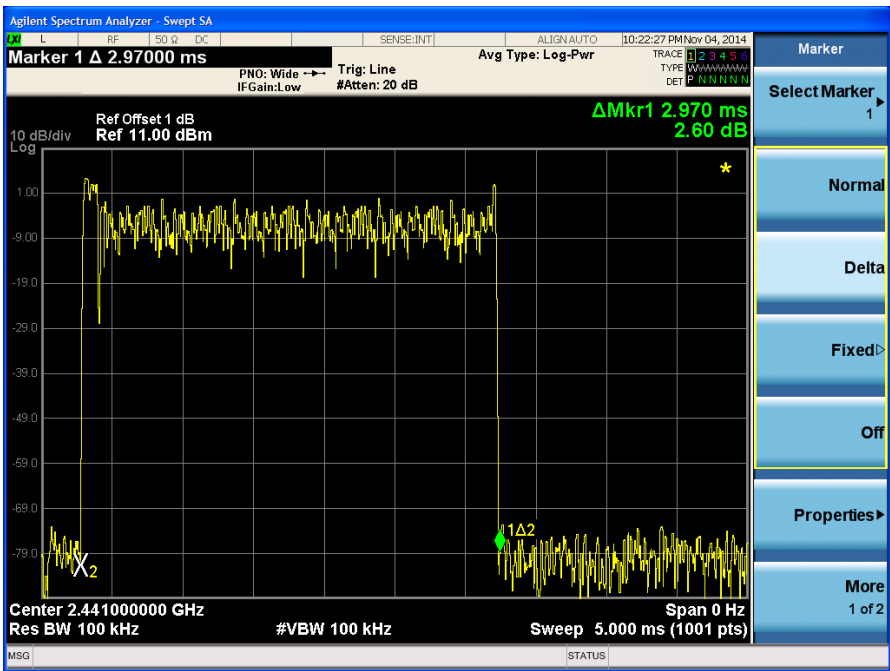


$\pi/4$ -DQPSK Modulation



2DH5

8-DPSK Modulation



3DH5

9.7 Spurious RF conducted emissions

Test Method

1. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz, VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
3. The level displayed must comply with the limit specified in this Section. Submit these plots.
4. Repeat above procedures until all frequencies measured were complete.

Limit

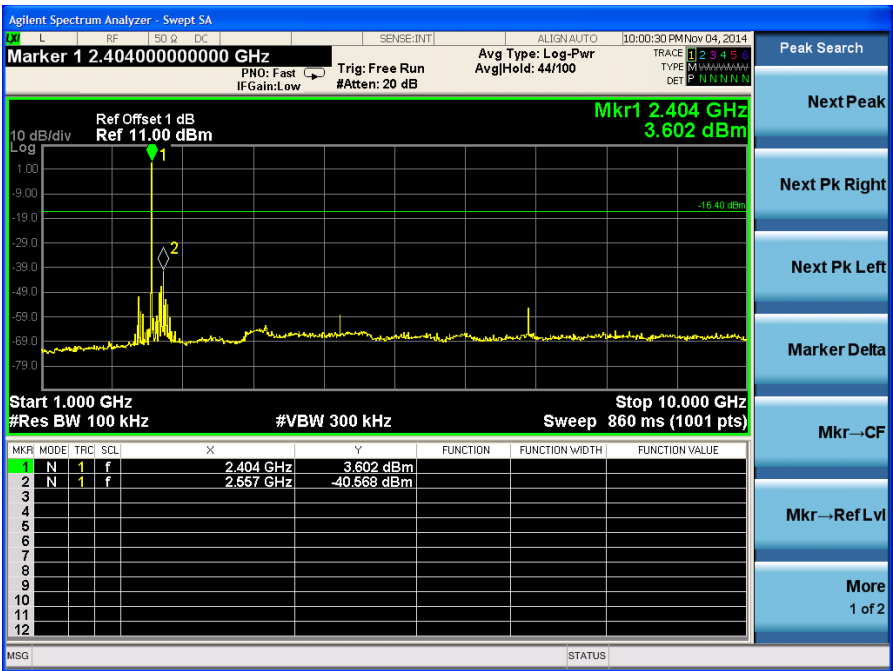
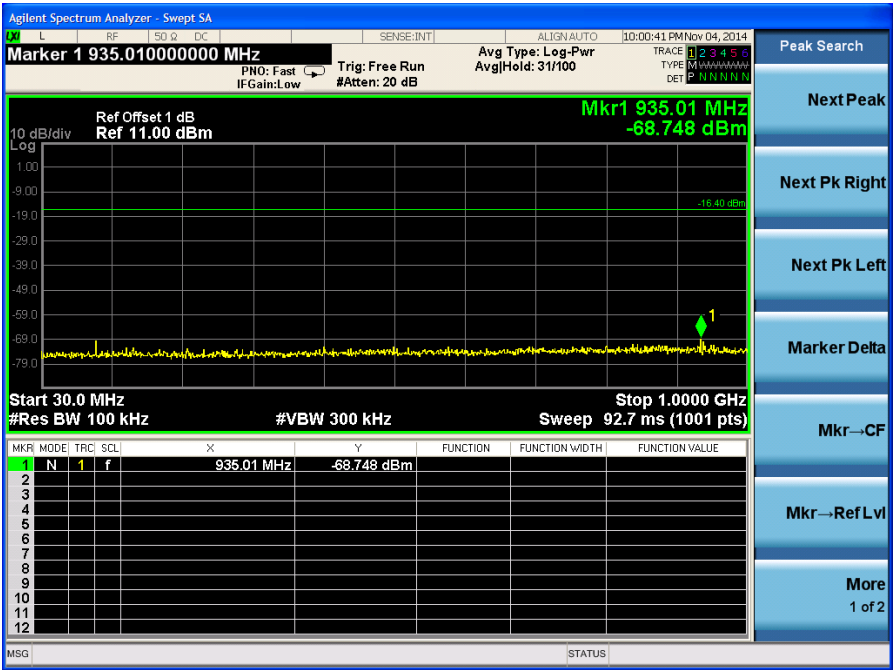
Frequency Range MHz	Limit (dBc)
30-25000	-20



Spurious RF conducted emissions

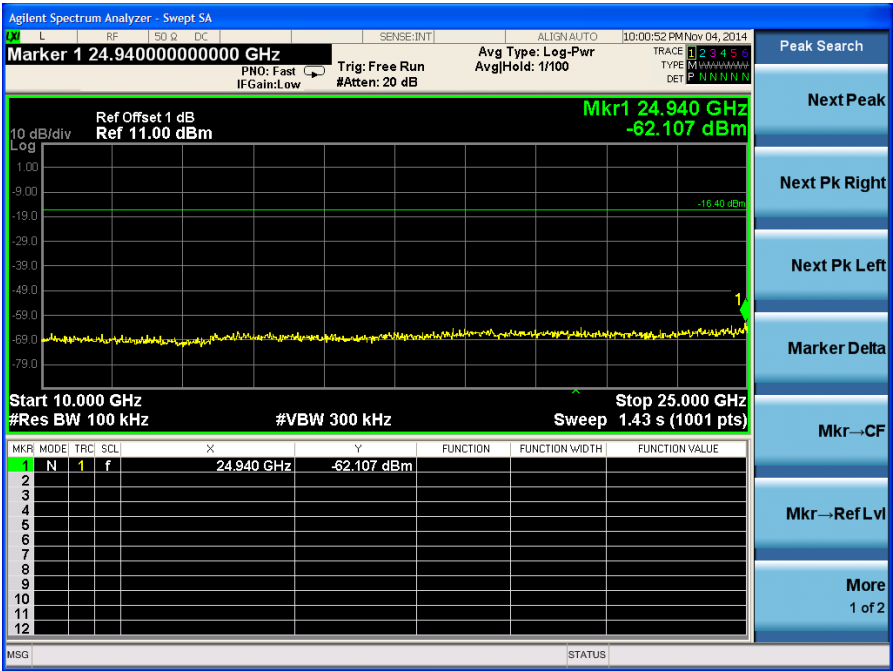
Only the worse case test result is listed in the report.

2402MHz

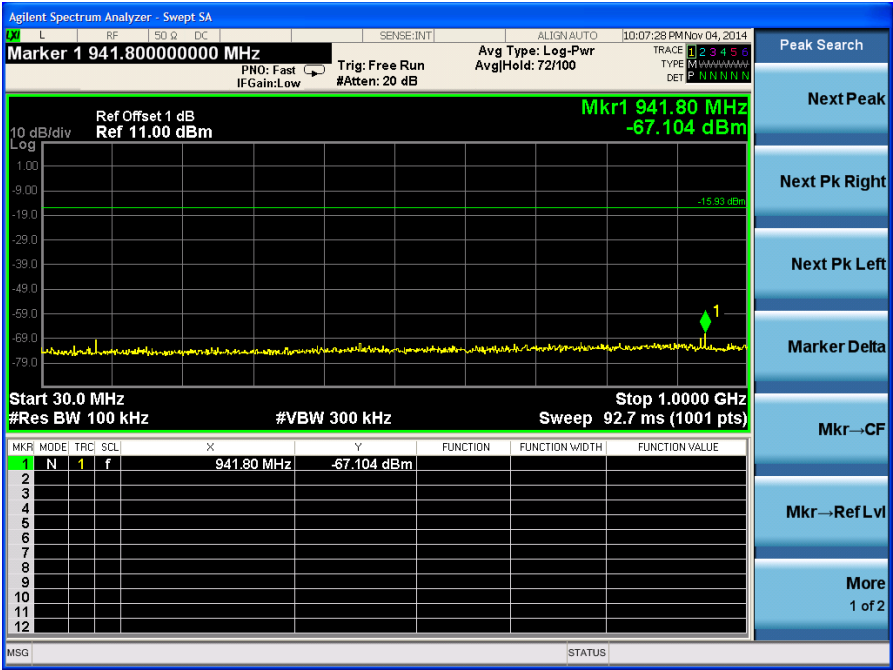




Spurious RF conducted emissions

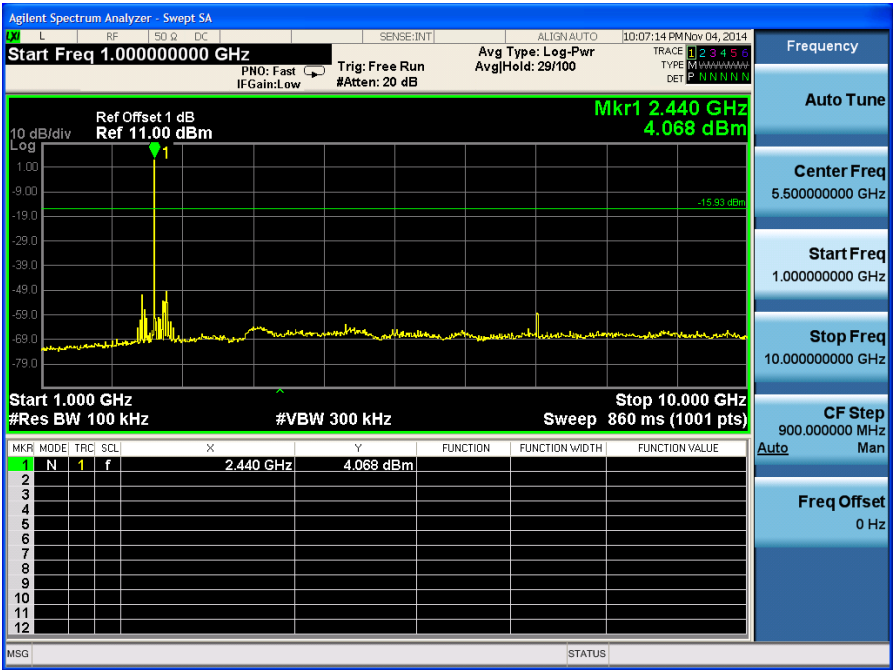


2441MHz





Spurious RF conducted emissions



Frequency

Auto Tune

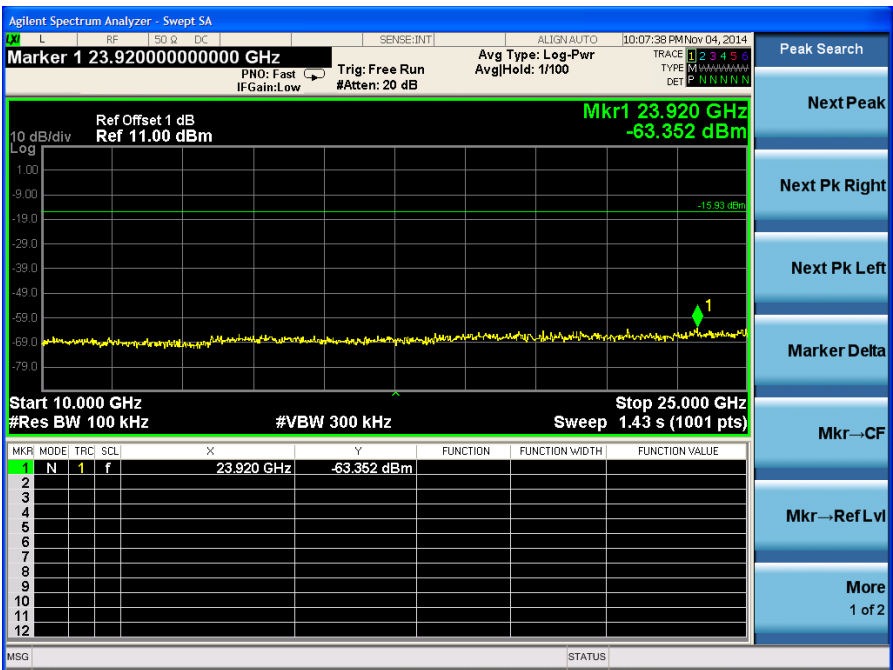
Center Freq
5.500000000 GHz

Start Freq
1.000000000 GHz

Stop Freq
10.000000000 GHz

CF Step
900.000000 MHz

Freq Offset
0 Hz



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

Mkr—CF

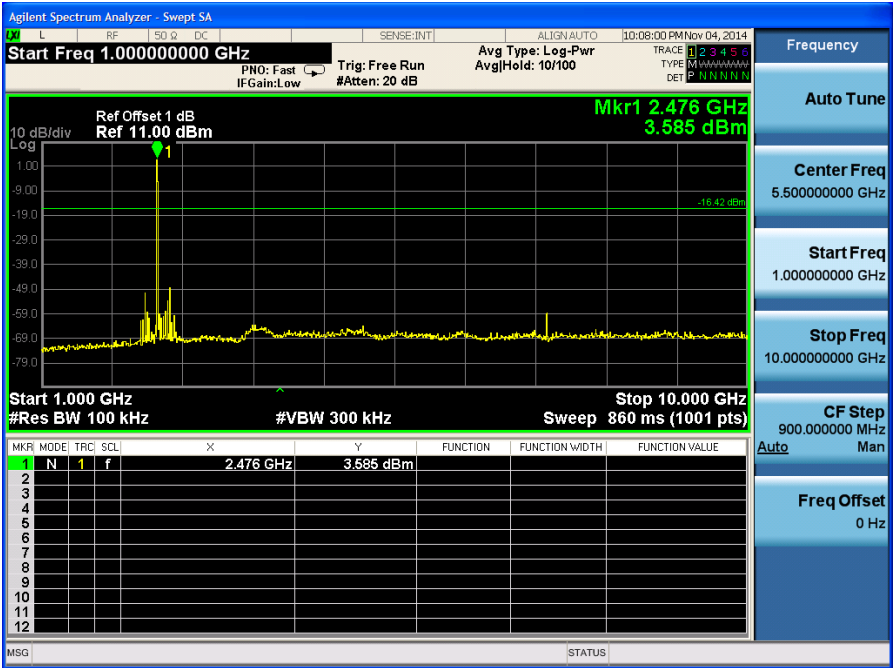
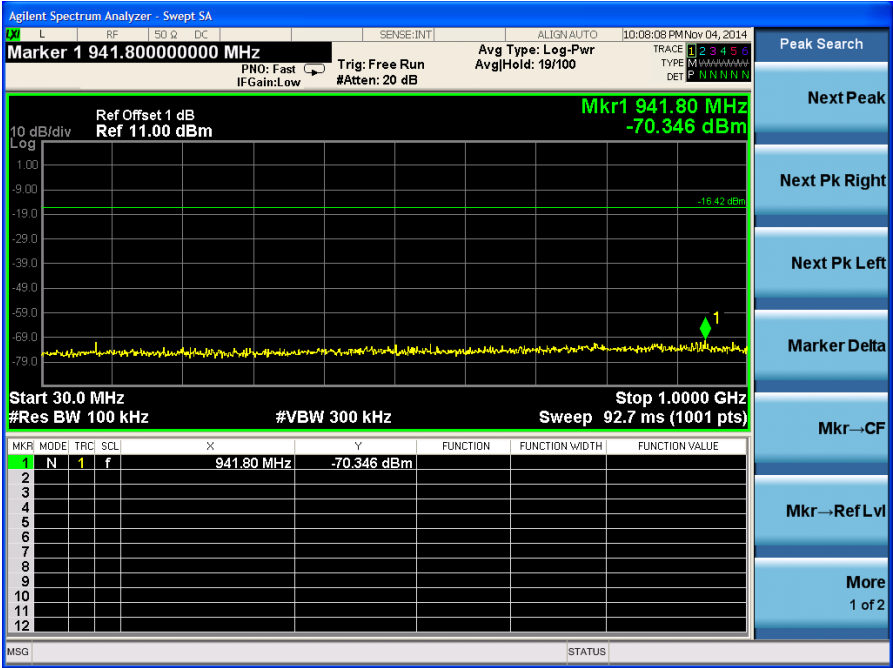
Mkr—Ref Lvl

More
1 of 2



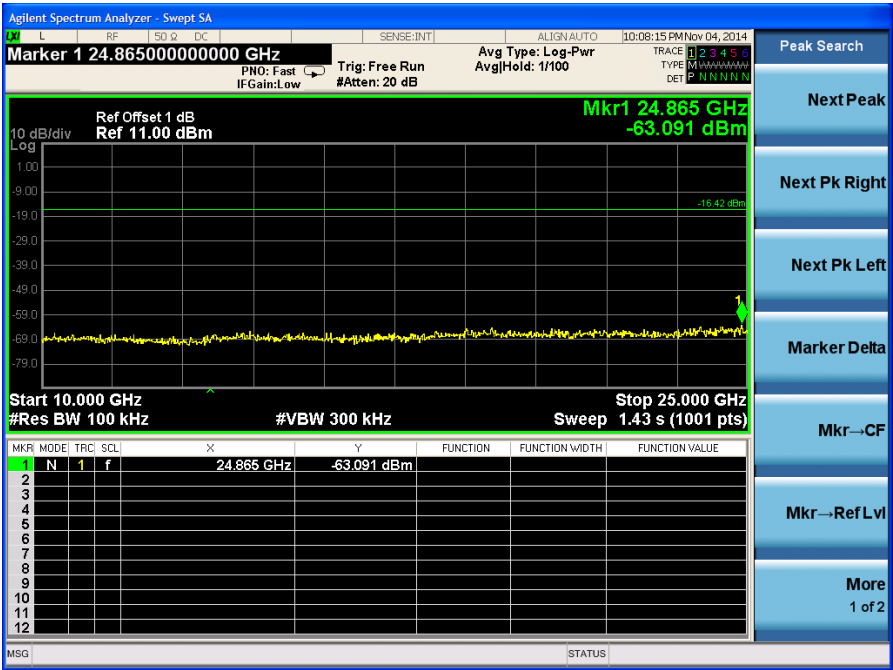
Spurious RF conducted emissions

2480MHz





Spurious RF conducted emissions



9.8 Band edge testing

Test Method

- 1 Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 kHz, VBW \geq RBW, Sweep = auto, Detector function = peak, Trace = max hold
- 2 Allow the trace to stabilize, use the peak and delta measurement to record the result.
- 3 The level displayed must comply with the limit specified in this Section. .
- 4 Repeat the test at the hopping off and hopping on mode, submit all the plots.

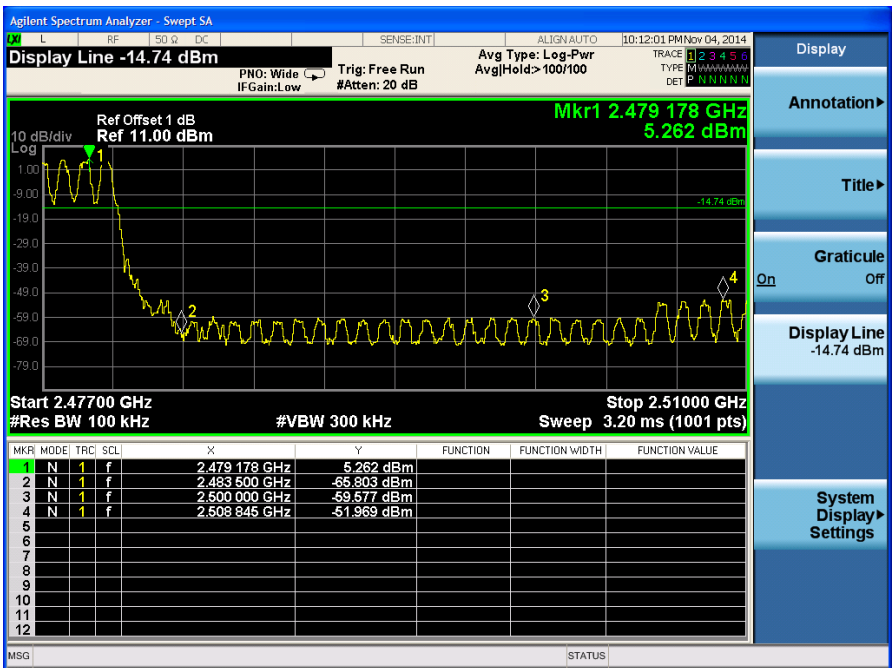
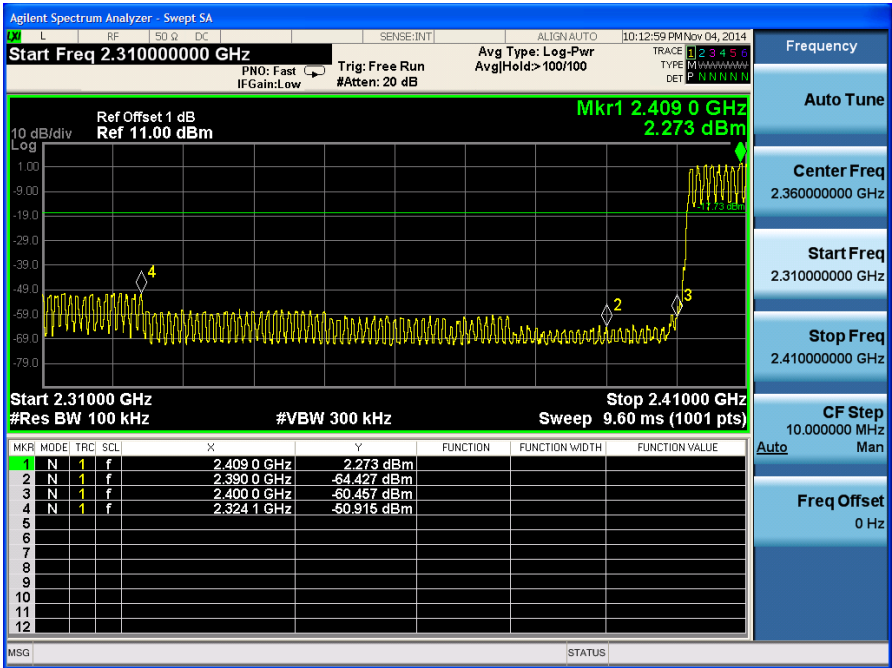
Limit:

According to §15.247(d) and RSS-210 A8.5, in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a) and RSS-Gen7.2.2, must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)) and RSS-Gen.



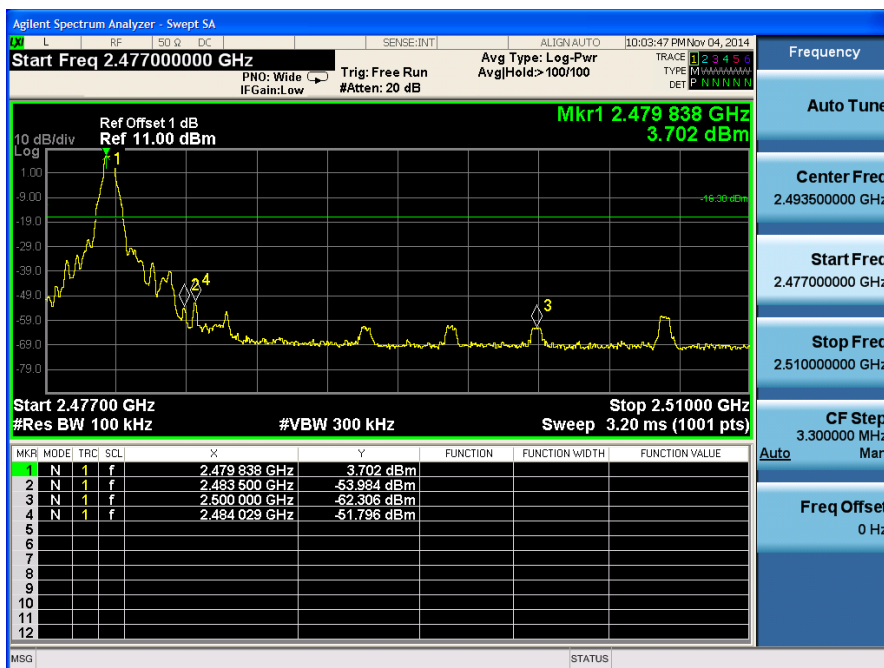
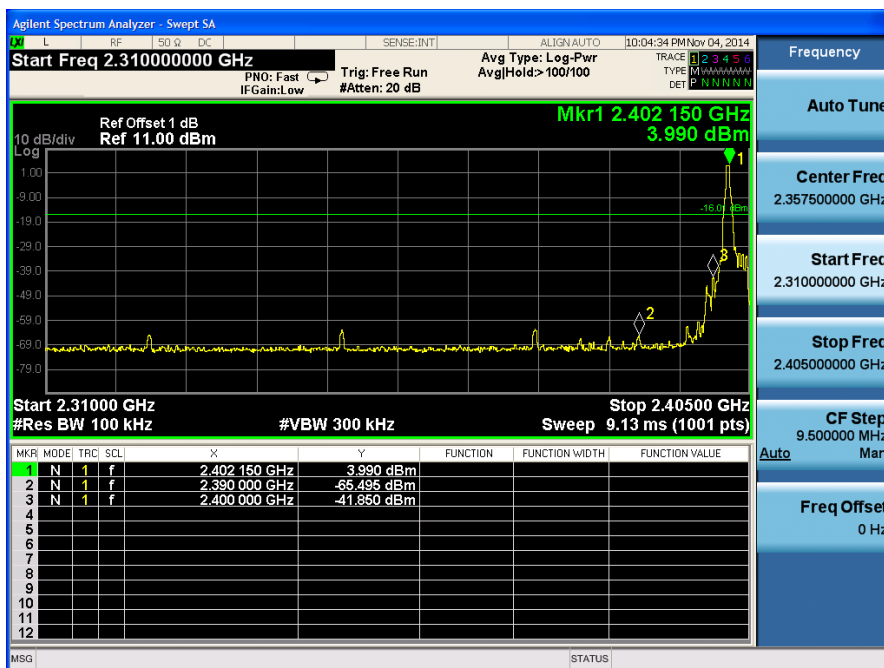
Band edge testing

GFSK Modulation Test Result:
Hopping on mode:



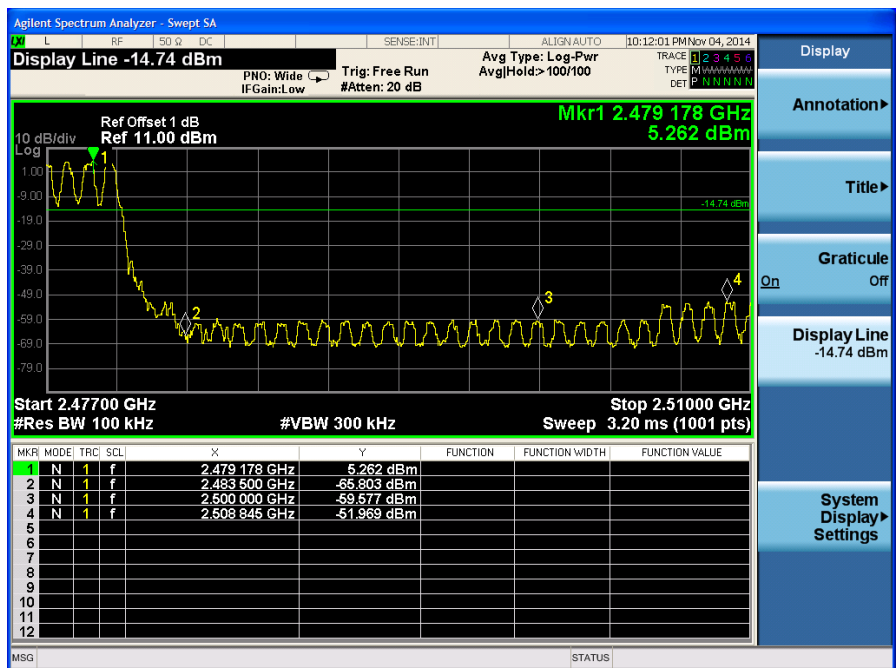
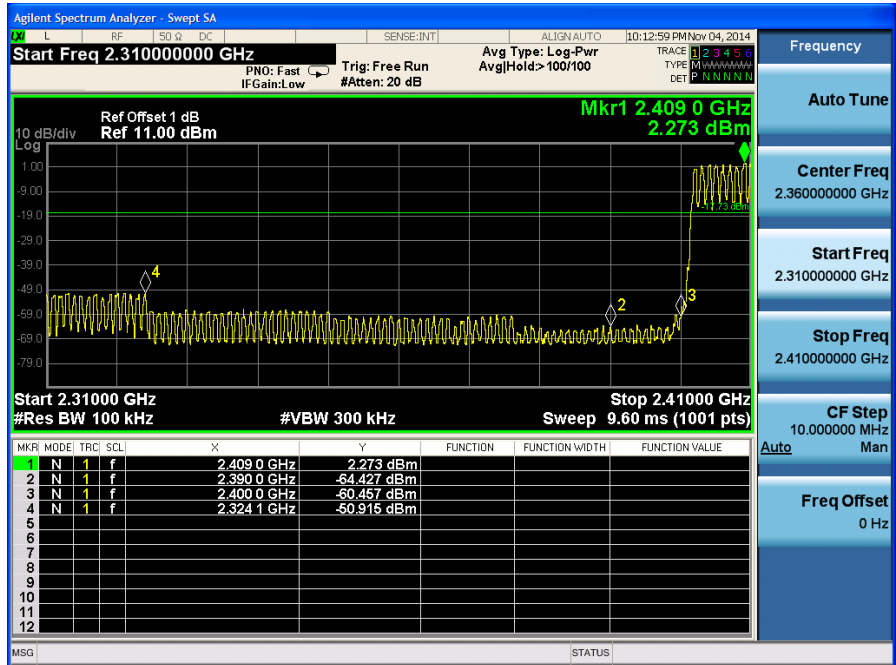
Band edge testing

Hopping off mode:



Band edge testing

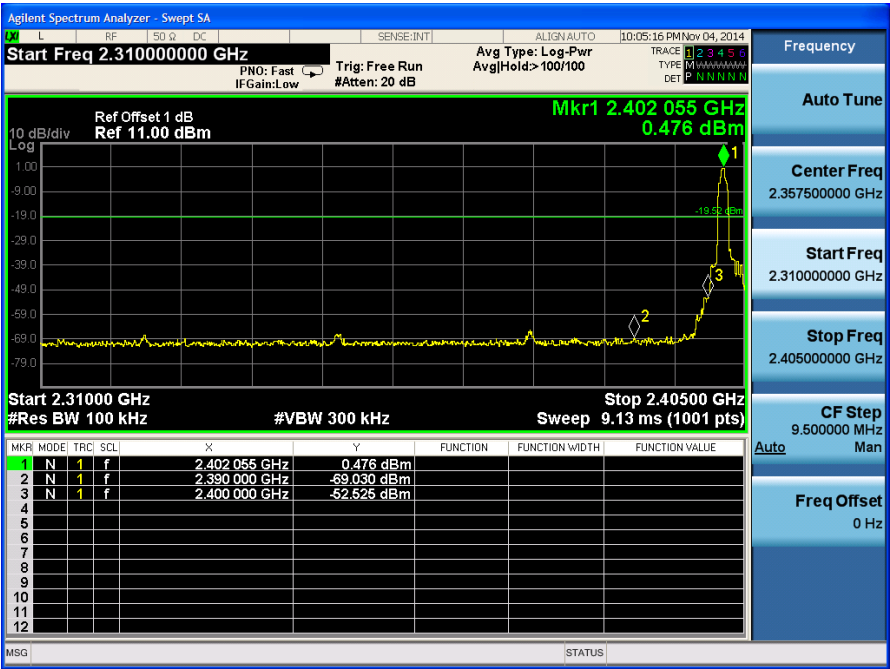
8DPSK Modulation Test Result:
Hopping on mode:





Band edge testing

Hopping off mode:



9.9 Spurious radiated emissions for transmitter and receiver

Test Method

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
3. Use the following spectrum analyzer settings:
Span = wide enough to fully capture the emission being measured, RBW = 1 MHz for $f \geq 1\text{GHz}$, 100 kHz for $f < 1\text{GHz}$, VBW \geq RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Follow the guidelines in ANSI C63.4-2009 with respect to maximizing the emission by rotating the EUT, adjusting the measurement antenna height and polarization, etc.
The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, submit this data. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
5. Set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the duty cycle per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{duty cycle}/100\text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

Limit

According to part 15.247(d), the radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dB μ V/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Spurious radiated emissions for transmitter and receiver

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

The only worse case test result is listed in the report.

Transmitting spurious emission test result as below:

Bluetooth Mode GFSK Modulation 2402MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dBuV/m		dBuV/m	
505.3	36.17	Horizontal	46	QP	9.83	Pass
507.2	37.69	Vertical	46	QP	8.31	Pass
*4804	54.41	Horizontal	74	PK	19.59	Pass
*4804	54.93	Vertical	74	PK	19.07	Pass
*4804	44.99	Horizontal	54	AV	9.01	Pass
*4804	45.51	Vertical	54	AV	8.49	Pass

Bluetooth Mode GFSK Modulation 2441MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dBuV/m		dBuV/m	
*4882	55.96	Horizontal	74	PK	18.04	Pass
*4882	57.11	Vertical	74	PK	16.89	Pass
*4882	46.54	Horizontal	54	AV	7.46	Pass
*4882	47.69	Vertical	54	AV	6.31	Pass

Bluetooth Mode GFSK Modulation 2480MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dBuV/m		dBuV/m	
*4960	51.54	Horizontal	74	PK	22.46	Pass
*4960	55.02	Vertical	74	PK	18.98	Pass
*4960	42.12	Horizontal	54	AV	11.88	Pass
*4960	45.6	Vertical	54	AV	8.4	Pass

Remark:

- (1) AV Emission Level= PK Emission Level+20log(duty cycle)
- (2) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (3) “*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

10 Test Equipment List

List of Test Instruments

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE	
CE	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.04, 15	<input checked="" type="checkbox"/>
	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Nov.04, 15	<input checked="" type="checkbox"/>
	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.07, 15	<input type="checkbox"/>
	RF Cable	3D-2W	Fujikura	LISN Cable 1#	May.07, 15	<input checked="" type="checkbox"/>
	Coaxial Switch	MP59B	Anritsu	M55367	May.07, 15	<input checked="" type="checkbox"/>
	Passive Probe	ESH2-Z3	Rohde & Schwarz	299.7810.52	May.07, 15	<input type="checkbox"/>
	Pulse Limiter	ESH3-Z2	Rohde & Schwarz	100341	May.07, 15	<input type="checkbox"/>
C	Spectrum	Agilent	E4446A	US44300459	May.08, 15	<input checked="" type="checkbox"/>
RE < 1 GHz	Test Receiver <1GHz	Rohde & Schwarz	ESVS10	834468/011	May.07, 15	<input checked="" type="checkbox"/>
	Amplifier < 1 GHz	HP	8447D	2648A04738	May.07, 15	<input checked="" type="checkbox"/>
	HF Cable	Hubersuhne	Sucoflex104	Room 2	May.08, 15	<input checked="" type="checkbox"/>
	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.25, 15	<input checked="" type="checkbox"/>
RE > 1 GHz	Spectrum > 1GHz	Agilent	E4446A	US44300459	May.08, 15	<input checked="" type="checkbox"/>
	Horn Antenna	EMCO	3115	9607-4877	Jun. 24, 15	<input checked="" type="checkbox"/>
	Amp > 1 Ghz	HP	8449B	3008A08495	May.08, 15	<input checked="" type="checkbox"/>
	HF Cable	Hubersuhne	Sucoflex104	Room1	May.08, 15	<input checked="" type="checkbox"/>

C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth
- 20dB bandwidth and 99% Occupied Bandwidth
- Carrier frequency separation
- Number of hopping frequencies
- Dwell Time
- Power spectral density*
- Spurious RF conducted emissions
- Band edge

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-18000MHz	Horizontal: 4.89dB; Vertical: 4.88dB;
Uncertainty for Conducted Emission 9kHz-150KHz	3.88dB