FCC Test Report

Product Name ： ASUS SRT-AC1900 Wireless Smart Router

Model No. ： SRT-AC1900

FCC ID. ： MSQ-SRTAC1900

Applicant ： ASUSTeK COMPUTER INC.

Address ： 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt ： 2015/05/04

Issued Date ： 2015/05/20

Report No. ： 1550110R-RFUSP01V00-A

Report Version ： V1.0

Test Report Certification

Issued Date : 2015/05/20
Report No. : 1550110R-RFUSP01V00-A

Product Name	:	ASUS SRT-AC1900 Wireless Smart Router
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	MAINTEK Computer(Suzhou) Co.,Lrd.
Model No.	:	SRT-AC1900
FCC ID.	:	MSQ-SRTAC1900
EUT Voltage	:	AC 100-240V, 50-60Hz
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2014
Test Result	:	Complied

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By :

(Carol Tsai / Engineering Adm. Specialist)

Reviewed By :

(Bruno Tsai / Engineer)

Approved By :

(Roy Wang / Director)

Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 3024**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 150981**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:http://www.quietek.com/english/about/certificates.aspx?bval=5
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.

TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory:

No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.

TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

TABLE OF CONTENTS

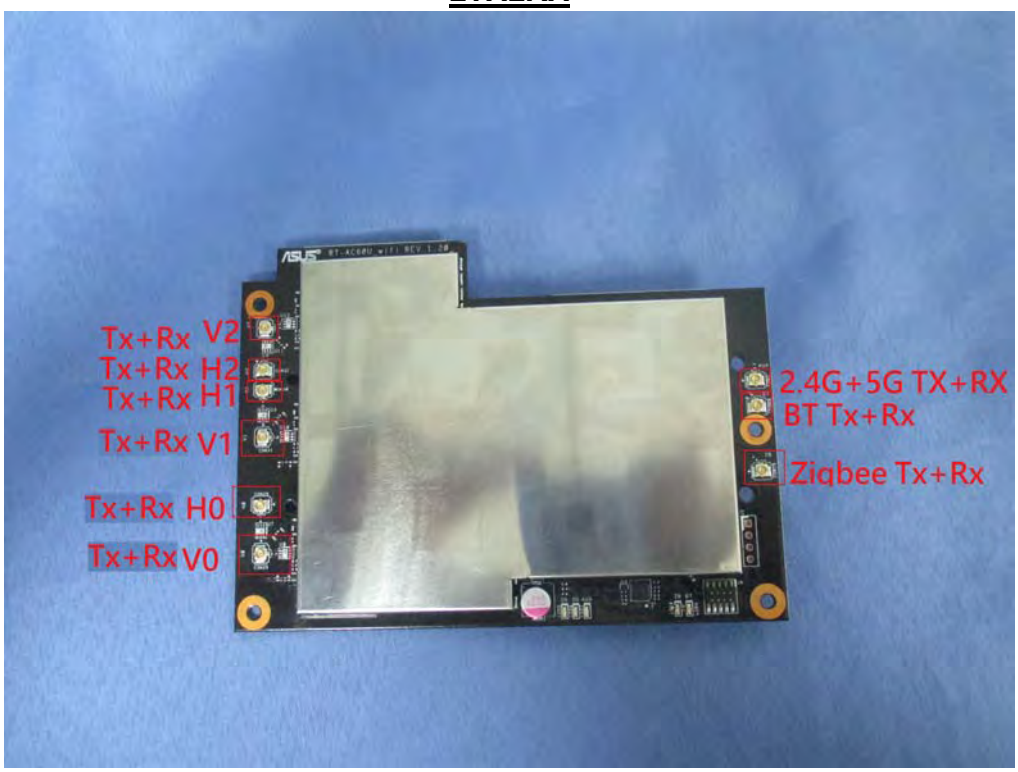
1. General Information

1.1. EUT Description

Product Name	ASUS SRT-AC1900 Wireless Smart Router
Trade Name	ASUS
Model No.	SRT-AC1900
Frequency Range/Channel Number	2402~2480MHz / 79 Channels
Type of Modulation	GFSK,π/4-DQPSK, 8-DQPSK
Antenna Type	PIFA Antenna
Antenna Gain	3.61dBi

Component	
LAN Cable	Non-Shielded, 1.8m, 2 PCS
Power Adatper	PIE, AD891M21 I/P: 100-240V~ 50/60Hz 0.8A O/P : 19V⎓1.75A Cable Out: Non-Shielded, 1.8m
Power Adatper	I.T.E., AD890326 I/P: 100-240V~ 50/60Hz 0.8A O/P : 19V⎓1.75A Cable Out: Non-Shielded, 1.8m
Power Adatper	Delta, ADP-33AW I/P: 100-240V~1A 50-60Hz O/P : 19V⎓1.75A Cable Out: Non-Shielded, 1.8m

1TX1RX


Tx+Rx V2
Tx+Rx H2
Tx+Rx H1
Tx+Rx V1
Tx+Rx H0
Tx+Rx V0
2.4G+5G TX+RX
BT Tx+Rx
Zigbee Tx+Rx

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 20	2422 MHz	Channel 40	2442 MHz	Channel 60	2462 MHz
Channel 01	2403 MHz	Channel 21	2423 MHz	Channel 41	2443 MHz	Channel 61	2463 MHz
Channel 02	2404 MHz	Channel 22	2424 MHz	Channel 42	2444 MHz	Channel 62	2464 MHz
Channel 03	2405 MHz	Channel 23	2425 MHz	Channel 43	2445 MHz	Channel 63	2465 MHz
Channel 04	2406 MHz	Channel 24	2426 MHz	Channel 44	2446 MHz	Channel 64	2466 MHz
Channel 05	2407 MHz	Channel 25	2427 MHz	Channel 45	2447 MHz	Channel 65	2467 MHz
Channel 06	2408 MHz	Channel 26	2428 MHz	Channel 46	2448 MHz	Channel 66	2468 MHz
Channel 07	2409 MHz	Channel 27	2429 MHz	Channel 47	2449 MHz	Channel 67	2469 MHz
Channel 08	2410 MHz	Channel 28	2430 MHz	Channel 48	2450 MHz	Channel 68	2470 MHz
Channel 09	2411 MHz	Channel 29	2431 MHz	Channel 49	2451 MHz	Channel 69	2471 MHz
Channel 10	2412 MHz	Channel 30	2432 MHz	Channel 50	2452 MHz	Channel 70	2472 MHz
Channel 11	2413 MHz	Channel 31	2433 MHz	Channel 51	2453 MHz	Channel 71	2473 MHz
Channel 12	2414 MHz	Channel 32	2434 MHz	Channel 52	2454 MHz	Channel 72	2474 MHz
Channel 13	2415 MHz	Channel 33	2435 MHz	Channel 53	2455 MHz	Channel 73	2475 MHz
Channel 14	2416 MHz	Channel 34	2436 MHz	Channel 54	2456 MHz	Channel 74	2476 MHz
Channel 15	2417 MHz	Channel 35	2437 MHz	Channel 55	2457 MHz	Channel 75	2477 MHz
Channel 16	2418 MHz	Channel 36	2438 MHz	Channel 56	2458 MHz	Channel 76	2478 MHz
Channel 17	2419 MHz	Channel 37	2439 MHz	Channel 57	2459 MHz	Channel 77	2479 MHz
Channel 18	2420 MHz	Channel 38	2440 MHz	Channel 58	2460 MHz	Channel 78	2480 MHz
Channel 19	2421 MHz	Channel 39	2441 MHz	Channel 59	2461 MHz		

Note:

1. This device is an ASUS SRT-AC1900 Wireless Smart Router including 5GHz a/n/ac (3x3) / 2.4GHz (1x1) transmitting and receiving function.
2. These test results on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a Bluetooth 2.0 in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 1550110R-RFUSP01V00 under Declaration of Conformity and The function BT 4.0 was measured and made a test report that the report number is 11550110R-RFUSP01V00-B under Declaration of Conformity.
5. The function of the 5GHz transmitting is measured and makes a test report of the report number: 1550110R-RFUSP28V00 & 1550110R-RFUSP56V00.

1.2. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-Test Mode	
TX	Mode 1: Tx-AD891M21 Mode 2: Tx-AD890326 Mode 3: Tx-ADP-33AW
Final Test Mode	
TX	Mode 1: Tx-AD891M21 Mode 2: Tx-AD890326 Mode 3: Tx-ADP-33AW

Emission	Mode 1	Mode 2	Mode 3
Conducted Emission	Yes	Yes	Yes
Peak Power Output	Yes	No	No
Radiated Emission	Yes	Yes	Yes
RF antenna conducted test	Yes	No	No
Band Edge	Yes	No	No
Number of hopping Frequency	Yes	No	No
Carrier Frequency Separation	Yes	No	No
Occupied Bandwidth	Yes	No	No
Dwell Time	Yes	No	No

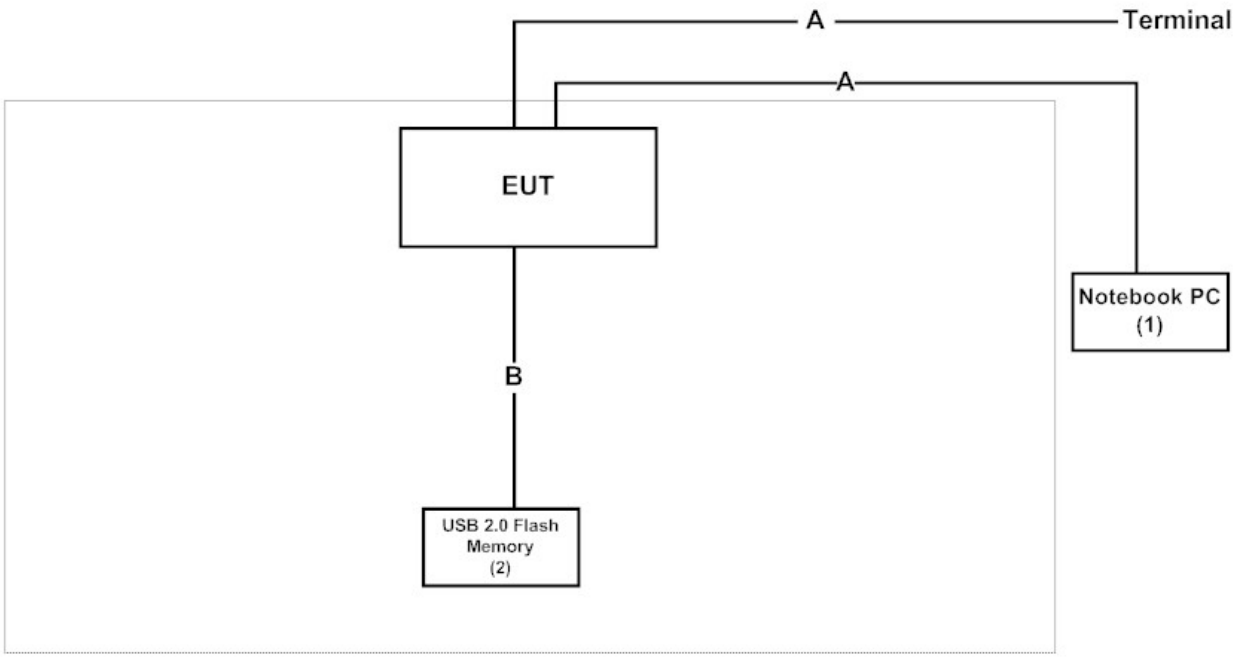
1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	Vostro3400	7F808N1	DoC	Non-Shielded, 1.8m
2	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 2.0m, 2 Pcs
B	USB 2.0 Flash Memory Cable	Non-Shielded, 1.8m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5
2	Execute the telnet command on the EUT
3	Configure the test mode, the test channel
4	“Start TX to start the continuous transmitting
5	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Number of hopping Frequency (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Carrier Frequency Separation (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Dwell Time (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

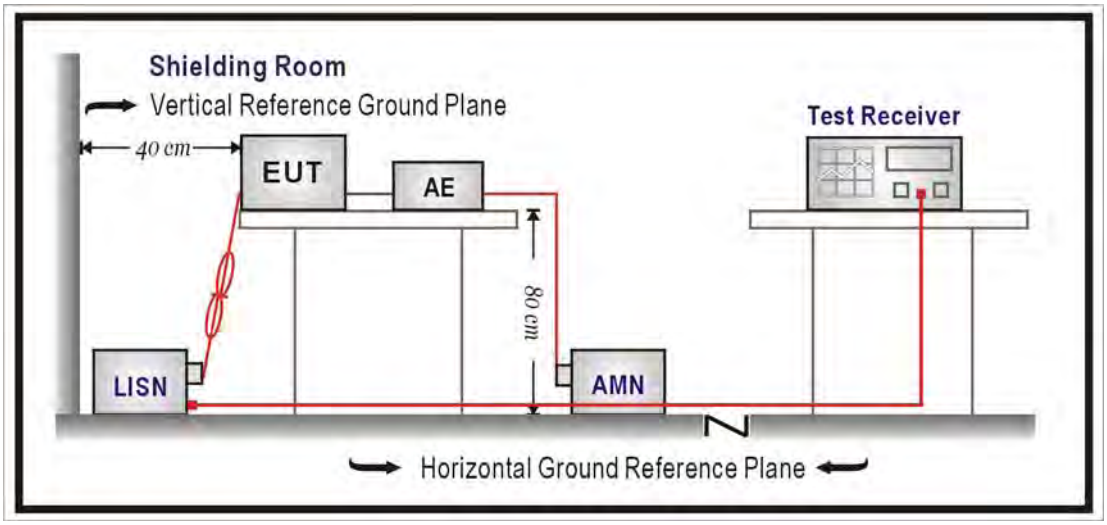
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2016/01/25
LISN	R&S	ENV216	100092	2015/08/24
Test Receiver	R&S	ESCS 30	825442/014	2015/07/13

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

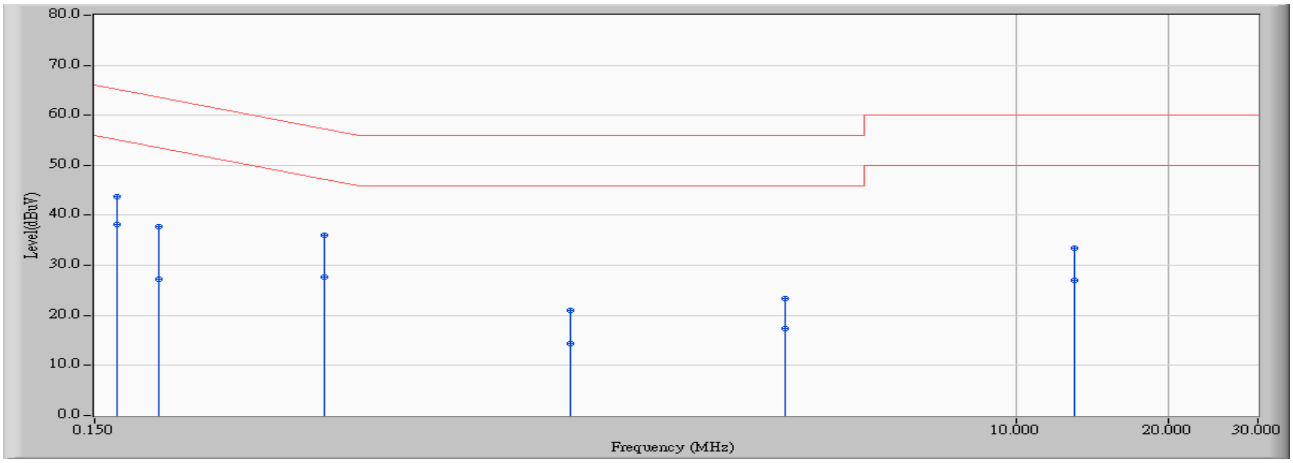
According to FCC Part 15 Subpart C Paragraph 15.207: 2014

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	**Time : 2015/05/19 - 14:19**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line1	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21**

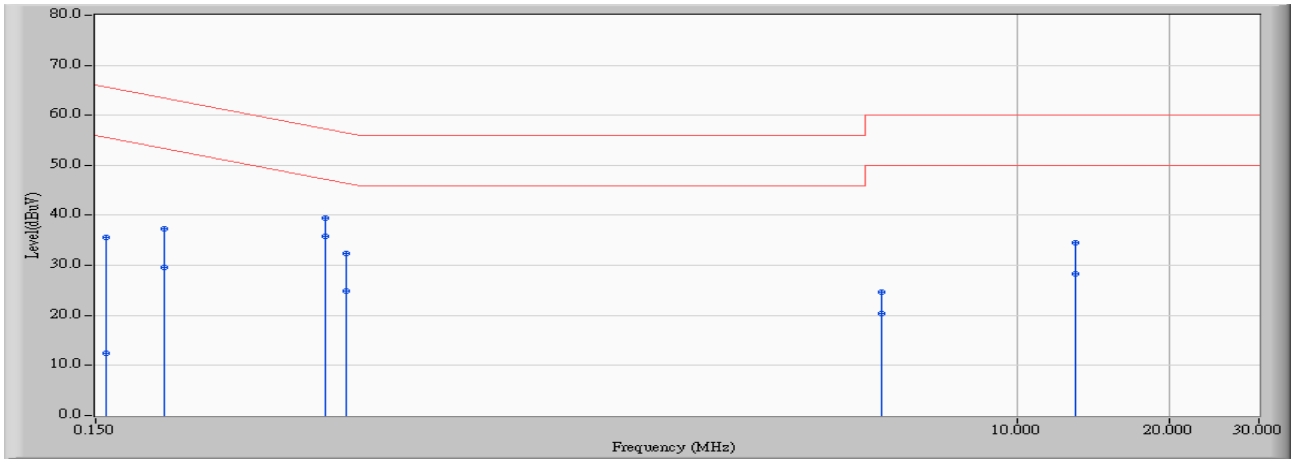


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.760	34.010	43.770	-21.407	65.177	QUASIPEAK
2	*	0.166	9.760	28.430	38.190	-16.987	55.177	AVERAGE
3		0.201	9.760	28.040	37.800	-25.779	63.578	QUASIPEAK
4		0.201	9.760	17.510	27.270	-26.309	53.578	AVERAGE
5		0.427	9.750	26.330	36.080	-21.224	57.304	QUASIPEAK
6		0.427	9.750	17.960	27.710	-19.594	47.304	AVERAGE
7		1.314	9.813	11.140	20.953	-35.047	56.000	QUASIPEAK
8		1.314	9.813	4.490	14.303	-31.697	46.000	AVERAGE
9		3.490	9.892	13.530	23.422	-32.578	56.000	QUASIPEAK
10		3.490	9.892	7.420	17.312	-28.688	46.000	AVERAGE
11		13.041	10.152	23.300	33.452	-26.548	60.000	QUASIPEAK
12		13.041	10.152	16.930	27.082	-22.918	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2015/05/19 - 14:21**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line2	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21**

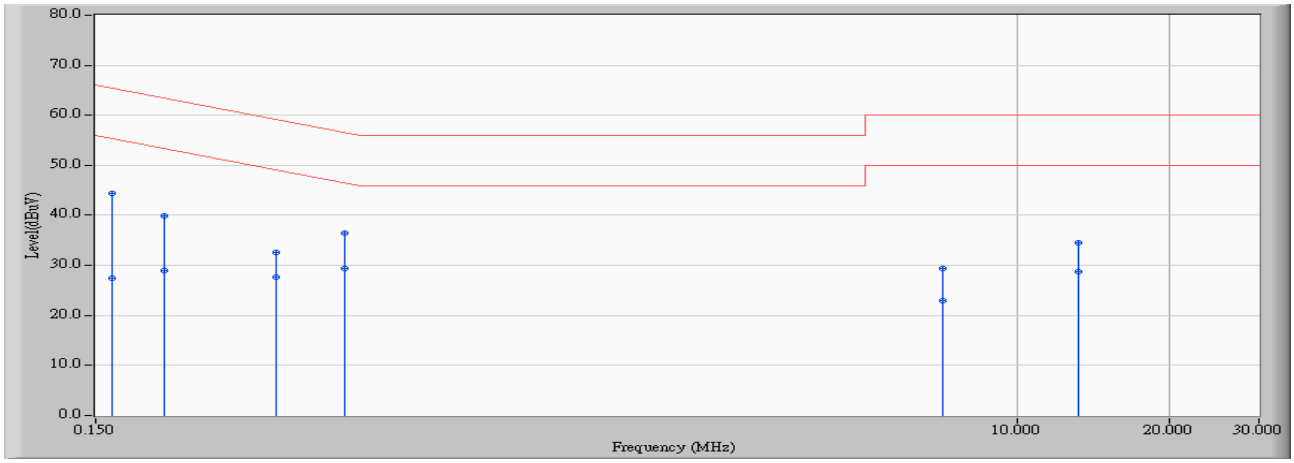


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	9.810	25.860	35.670	-29.908	65.578	QUASIPEAK
2		0.158	9.810	2.680	12.490	-43.088	55.578	AVERAGE
3		0.205	9.810	27.570	37.380	-26.038	63.418	QUASIPEAK
4		0.205	9.810	19.690	29.500	-23.918	53.418	AVERAGE
5		0.427	9.820	29.680	39.500	-17.804	57.304	QUASIPEAK
6	*	0.427	9.820	26.070	35.890	-11.414	47.304	AVERAGE
7		0.470	9.820	22.570	32.390	-24.118	56.508	QUASIPEAK
8		0.470	9.820	14.980	24.800	-21.708	46.508	AVERAGE
9		5.373	10.053	14.560	24.613	-35.387	60.000	QUASIPEAK
10		5.373	10.053	10.240	20.293	-29.707	50.000	AVERAGE
11		13.002	10.271	24.250	34.521	-25.479	60.000	QUASIPEAK
12		13.002	10.271	17.960	28.231	-21.769	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2015/05/19 - 16:51**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line1	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 2: Tx-AD890326**

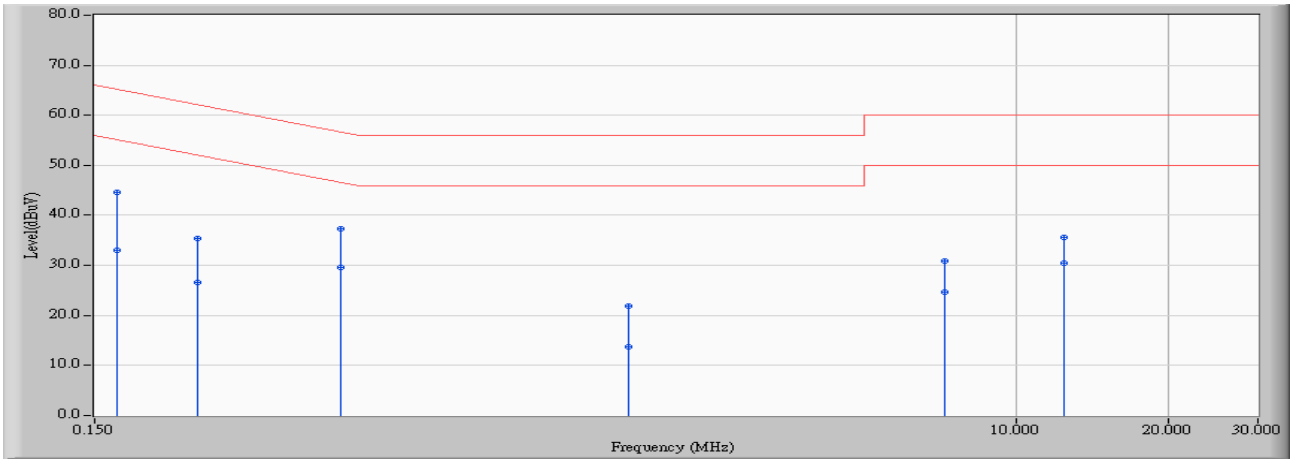


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	9.760	34.710	44.470	-20.905	65.375	QUASIPEAK
2		0.162	9.760	17.620	27.380	-27.995	55.375	AVERAGE
3		0.205	9.760	30.030	39.790	-23.629	63.418	QUASIPEAK
4		0.205	9.760	19.240	29.000	-24.419	53.418	AVERAGE
5		0.341	9.753	22.860	32.613	-26.556	59.169	QUASIPEAK
6		0.341	9.753	17.890	27.643	-21.526	49.169	AVERAGE
7		0.466	9.751	26.780	36.531	-20.047	56.578	QUASIPEAK
8	*	0.466	9.751	19.620	29.371	-17.207	46.578	AVERAGE
9		7.091	10.024	19.390	29.413	-30.587	60.000	QUASIPEAK
10		7.091	10.024	12.950	22.973	-27.027	50.000	AVERAGE
11		13.232	10.155	24.310	34.465	-25.535	60.000	QUASIPEAK
12		13.232	10.155	18.650	28.805	-21.195	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2015/05/19 - 16:49**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line2	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 2: Tx-AD890326**

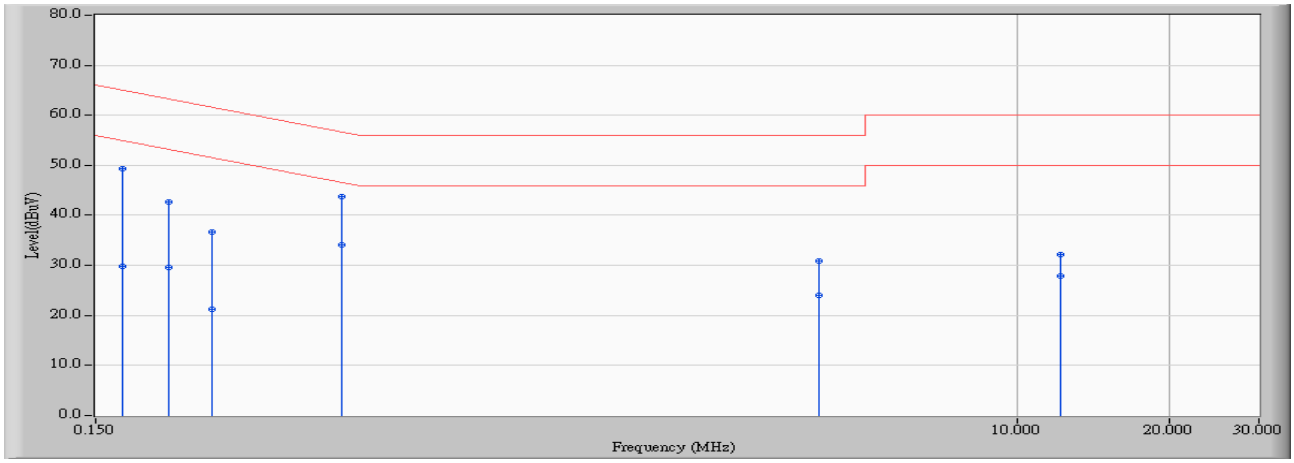


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.810	34.710	44.520	-20.657	65.177	QUASIPEAK
2		0.166	9.810	23.300	33.110	-22.067	55.177	AVERAGE
3		0.240	9.812	25.650	35.462	-26.640	62.102	QUASIPEAK
4		0.240	9.812	16.810	26.622	-25.480	52.102	AVERAGE
5		0.459	9.820	27.530	37.350	-19.368	56.718	QUASIPEAK
6	*	0.459	9.820	19.690	29.510	-17.208	46.718	AVERAGE
7		1.712	9.877	11.910	21.787	-34.213	56.000	QUASIPEAK
8		1.712	9.877	3.910	13.787	-32.213	46.000	AVERAGE
9		7.181	10.106	20.710	30.816	-29.184	60.000	QUASIPEAK
10		7.181	10.106	14.500	24.606	-25.394	50.000	AVERAGE
11		12.365	10.254	25.370	35.624	-24.376	60.000	QUASIPEAK
12		12.365	10.254	20.190	30.444	-19.556	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2015/05/19 - 15:32**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line1	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 3: Tx-ADP-33AW**

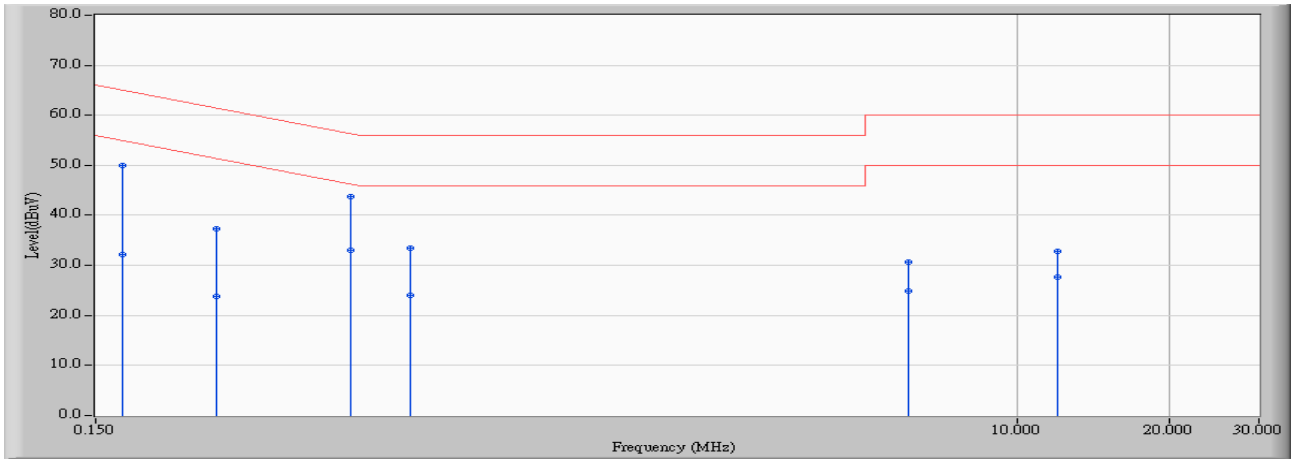


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.760	39.480	49.240	-15.743	64.983	QUASIPEAK
2		0.170	9.760	20.140	29.900	-25.083	54.983	AVERAGE
3		0.209	9.759	32.920	42.679	-20.582	63.261	QUASIPEAK
4		0.209	9.759	19.910	29.669	-23.592	53.261	AVERAGE
5		0.255	9.757	26.860	36.617	-24.960	61.577	QUASIPEAK
6		0.255	9.757	11.470	21.227	-30.350	51.577	AVERAGE
7		0.459	9.751	34.050	43.801	-12.917	56.718	QUASIPEAK
8	*	0.459	9.751	24.370	34.121	-12.597	46.718	AVERAGE
9		4.041	9.918	20.900	30.819	-25.181	56.000	QUASIPEAK
10		4.041	9.918	14.150	24.069	-21.931	46.000	AVERAGE
11		12.130	10.136	22.100	32.236	-27.764	60.000	QUASIPEAK
12		12.130	10.136	17.710	27.846	-22.154	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2015/05/19 - 15:33**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line2	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 3: Tx-ADP-33AW**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.810	40.120	49.930	-15.053	64.983	QUASIPEAK
2		0.170	9.810	22.280	32.090	-22.893	54.983	AVERAGE
3		0.259	9.813	27.430	37.243	-24.209	61.451	QUASIPEAK
4		0.259	9.813	14.060	23.873	-27.579	51.451	AVERAGE
5	*	0.478	9.820	34.000	43.820	-12.552	56.372	QUASIPEAK
6		0.478	9.820	23.180	33.000	-13.372	46.372	AVERAGE
7		0.630	9.833	23.690	33.523	-22.477	56.000	QUASIPEAK
8		0.630	9.833	14.110	23.943	-22.057	46.000	AVERAGE
9		6.060	10.073	20.700	30.773	-29.227	60.000	QUASIPEAK
10		6.060	10.073	14.720	24.793	-25.207	50.000	AVERAGE
11		11.955	10.242	22.470	32.713	-27.287	60.000	QUASIPEAK
12		11.955	10.242	17.400	27.643	-22.357	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Peak Power Output

3.1. Test Equipment

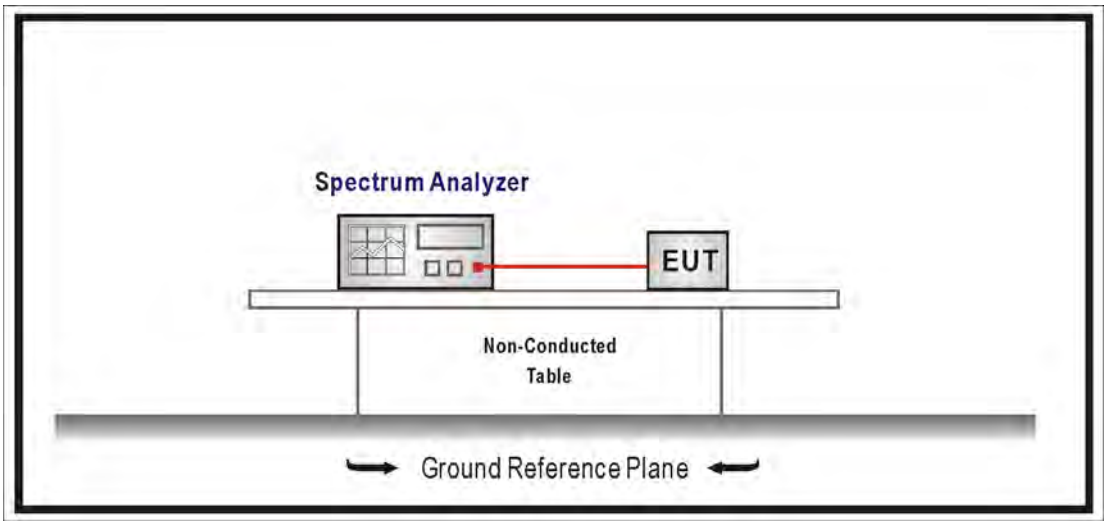
The following test equipment is used during the test:

Peak Power Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

3.4. Limits

For frequency hopping systems operating in the 902-928 MHz band: 1 Watt for systems employing at least 50 hopping channels; and, 0.25 Watts for systems employing less than 50 hopping channels.
For frequency hopping systems in the 2400-2483.5 MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1Watt.
For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

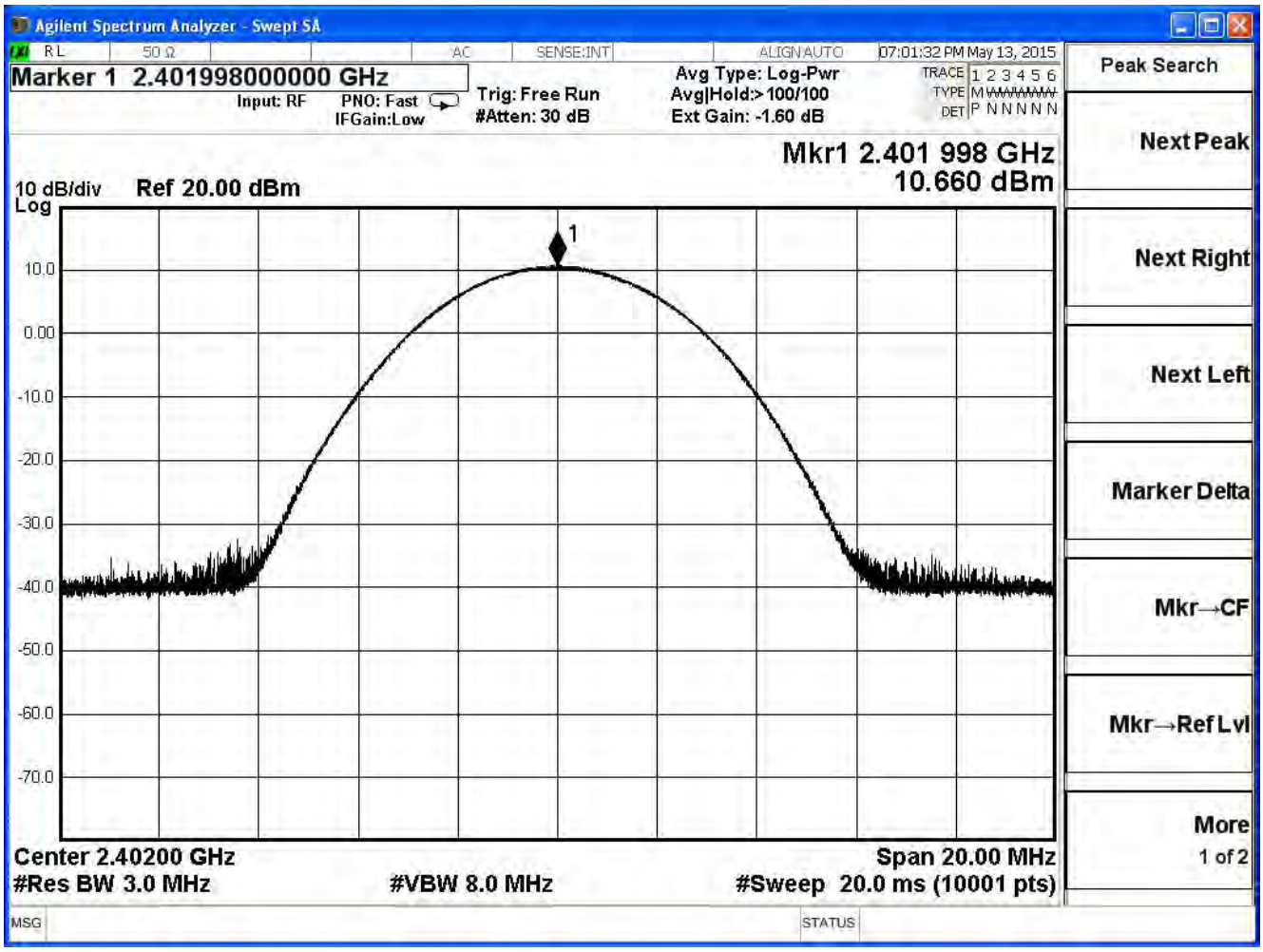
3.6. Test Result

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

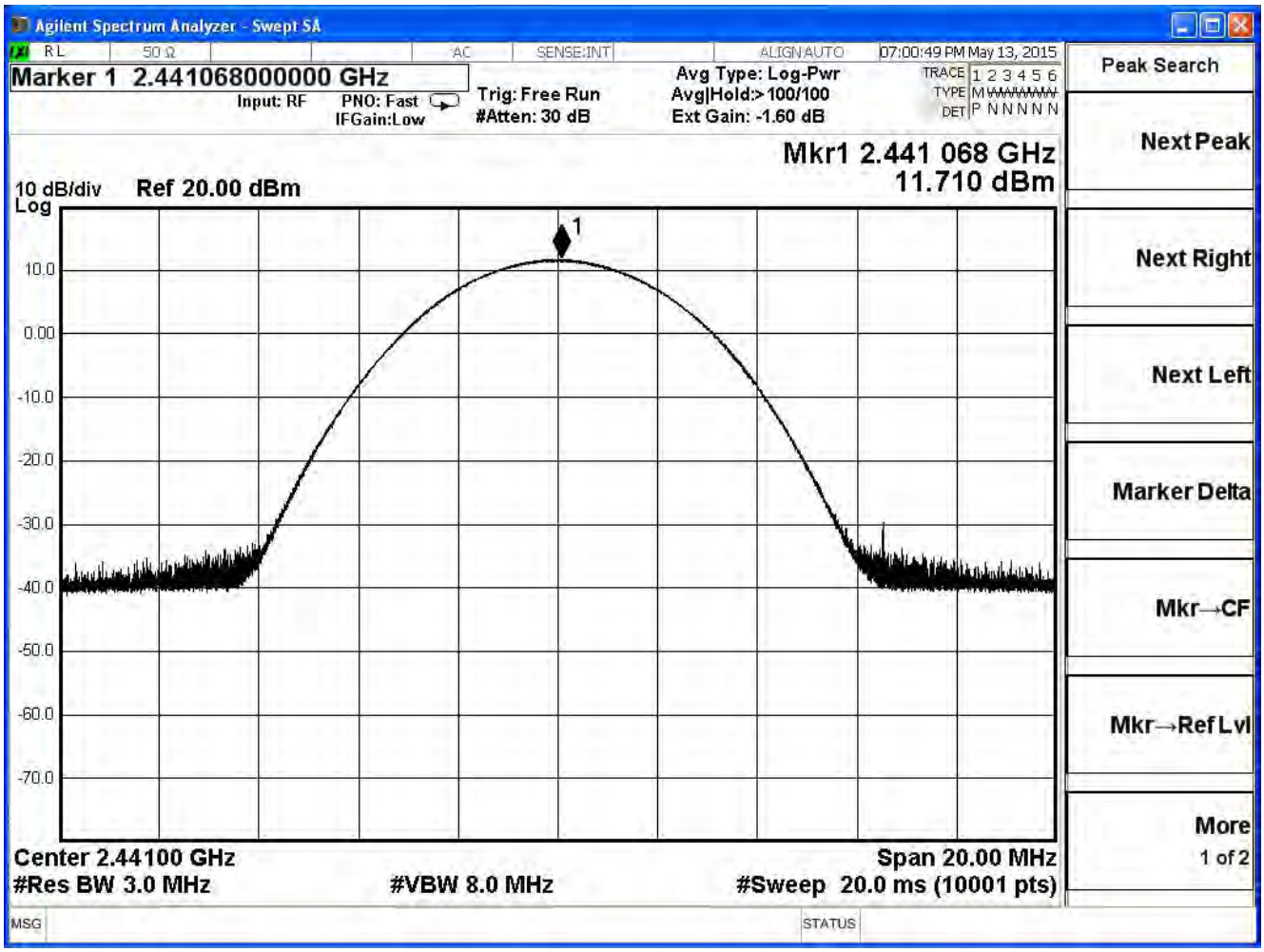
GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	10.660	30	Pass
39	2441	11.710	30	Pass
78	2480	12.134	30	Pass

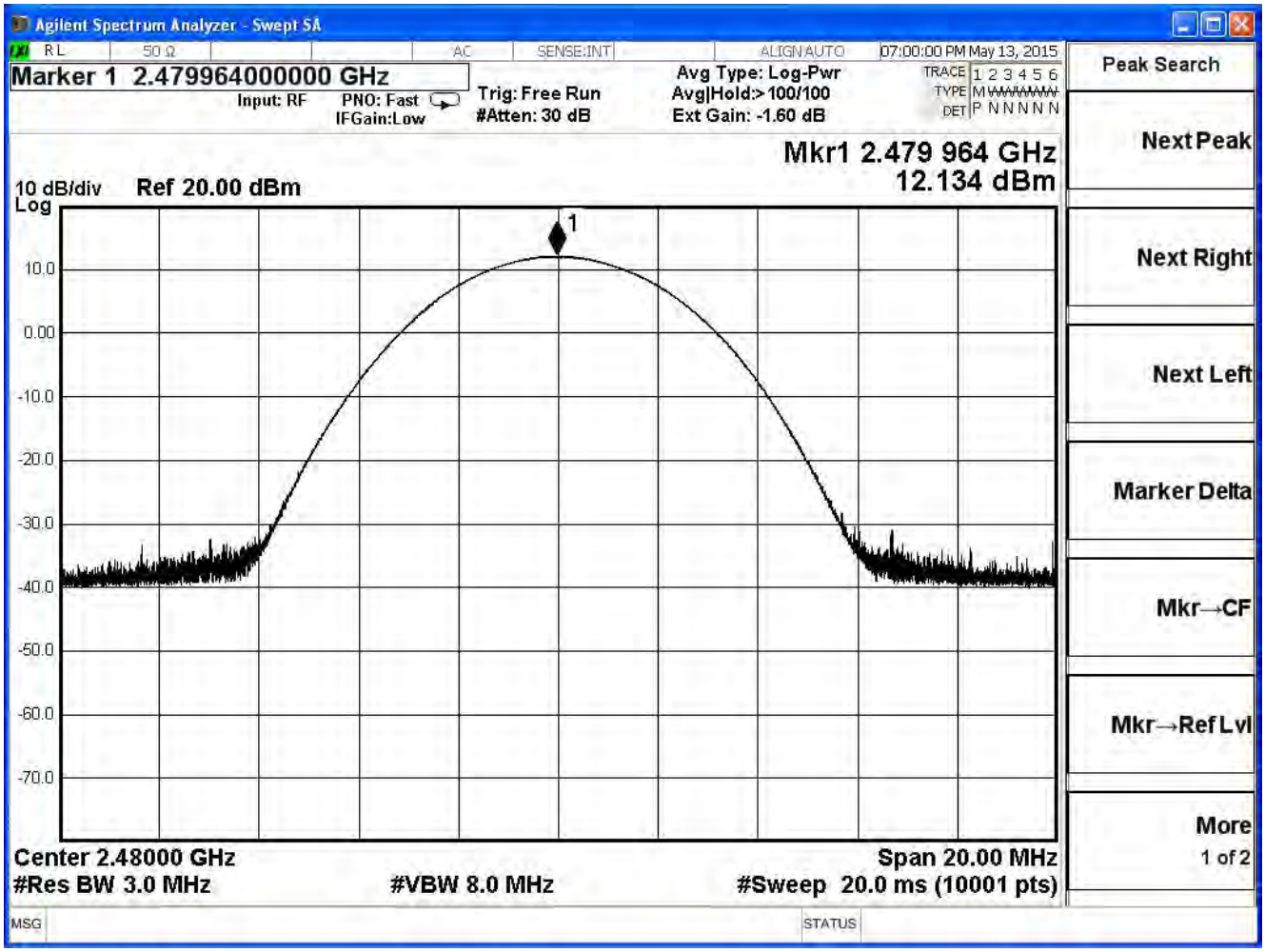
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:00:49 PM May 13, 2015
Marker 1 2.441068000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.441 068 GHz
11.710 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.44100 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

Channel 78

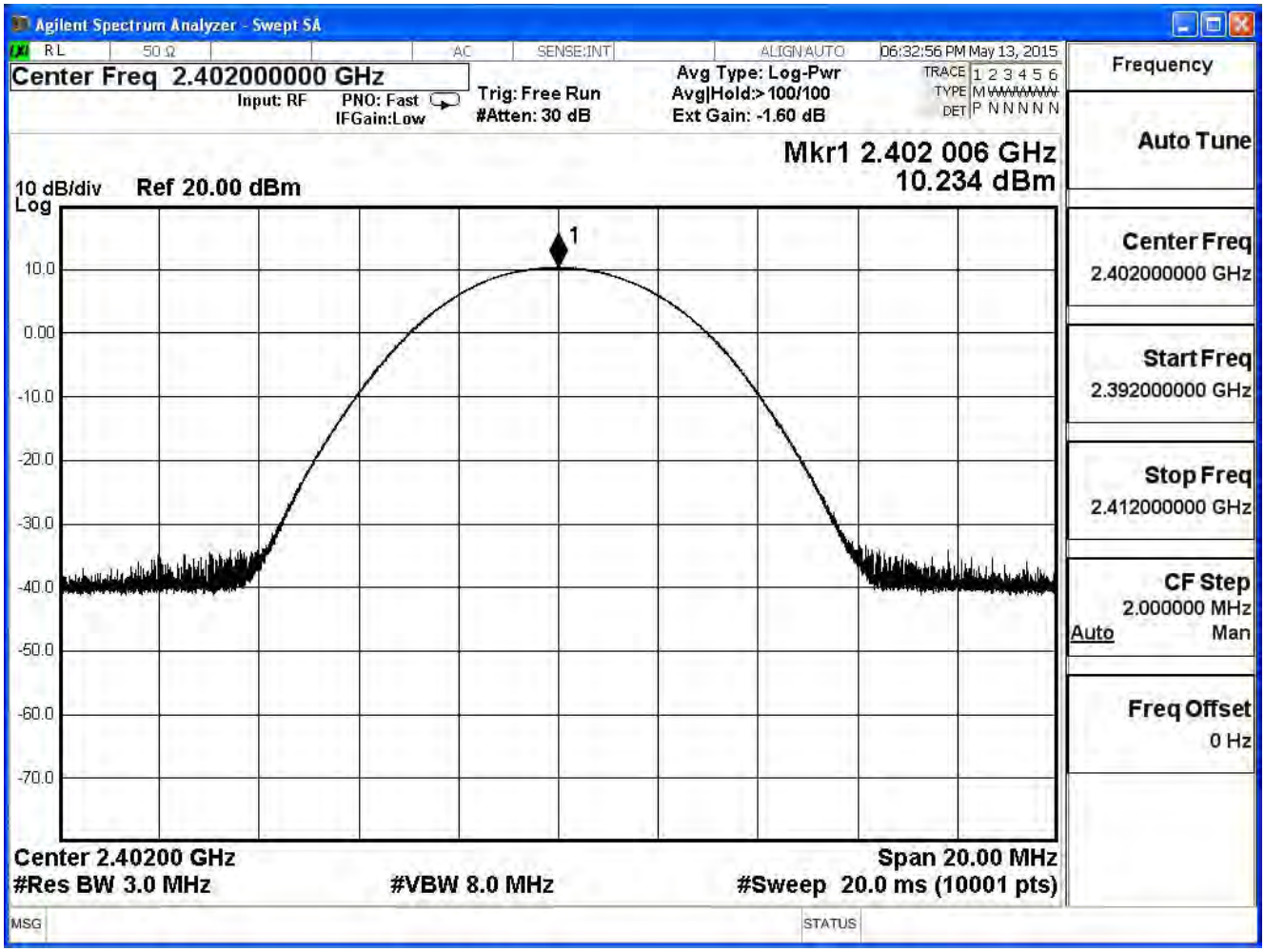

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:00:00 PM May 13, 2015
Marker 1 2.479964000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.479 964 GHz
12.134 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

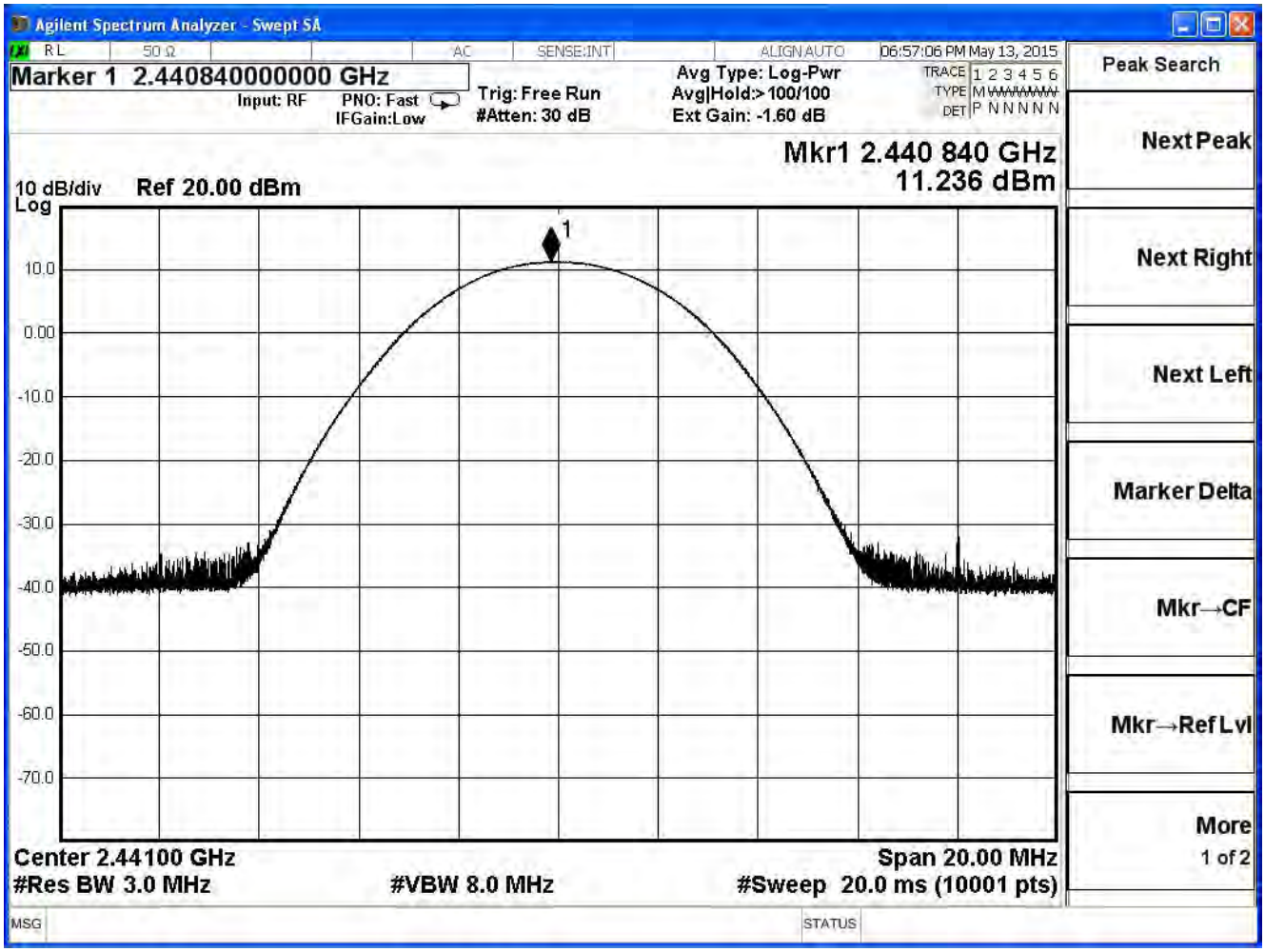
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	10.234	30	Pass
39	2441	11.236	30	Pass
78	2480	11.628	30	Pass

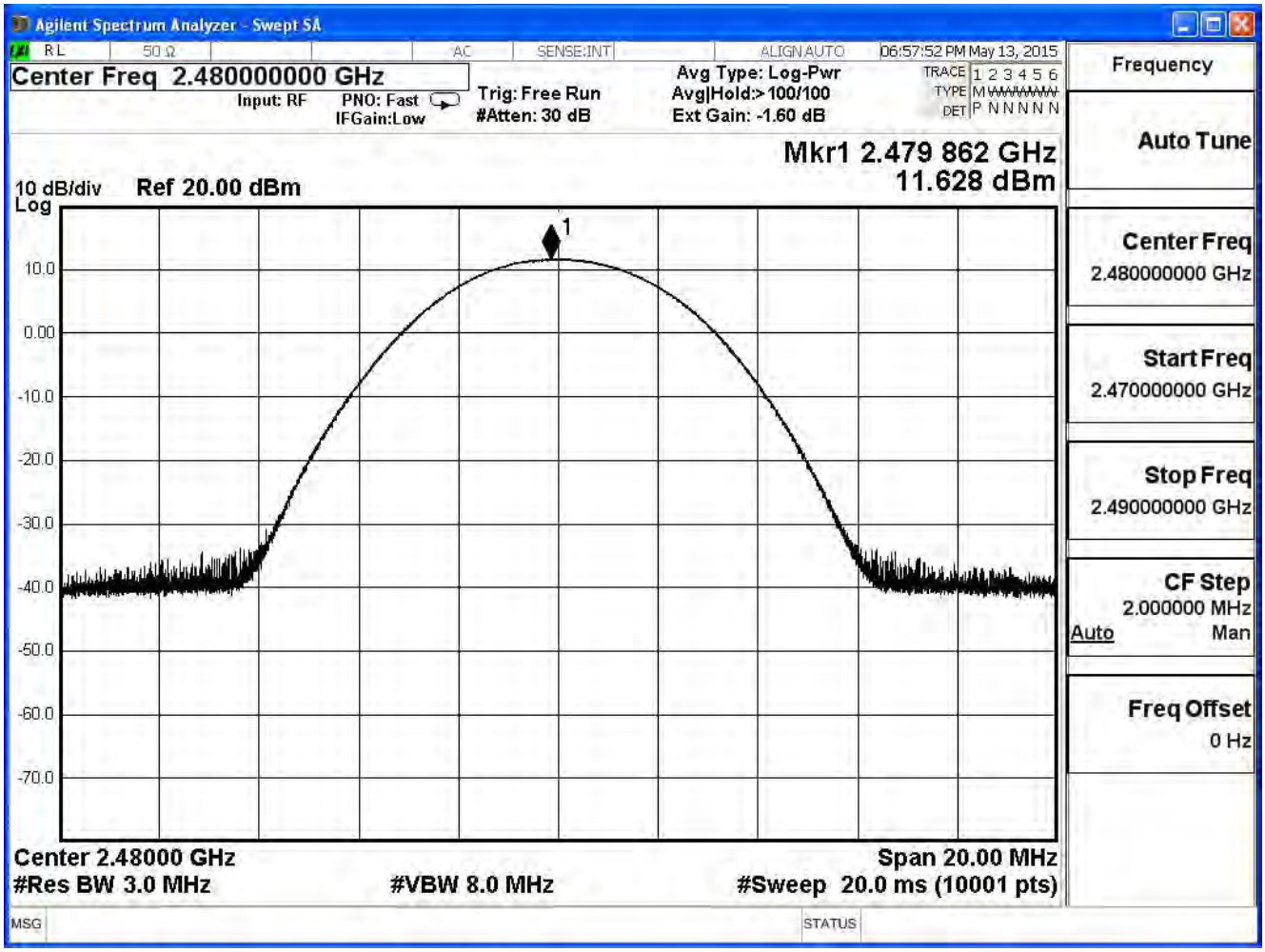
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:57:06 PM May 13, 2015
Marker 1 2.440840000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.440 840 GHz
11.236 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.44100 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

Channel 78

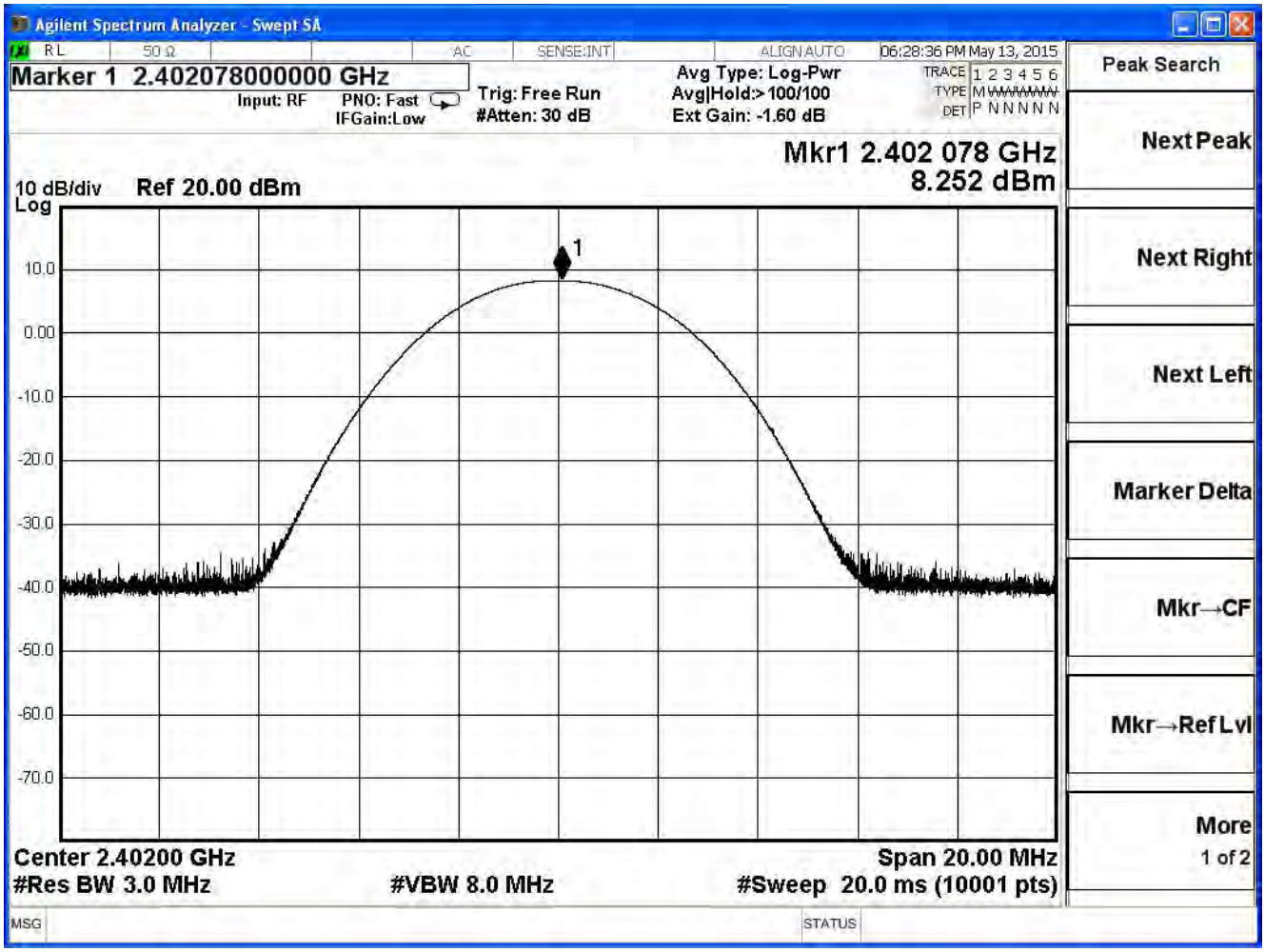

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:57:52 PM May 13, 2015
Center Freq 2.480000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.479 862 GHz
11.628 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.490000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

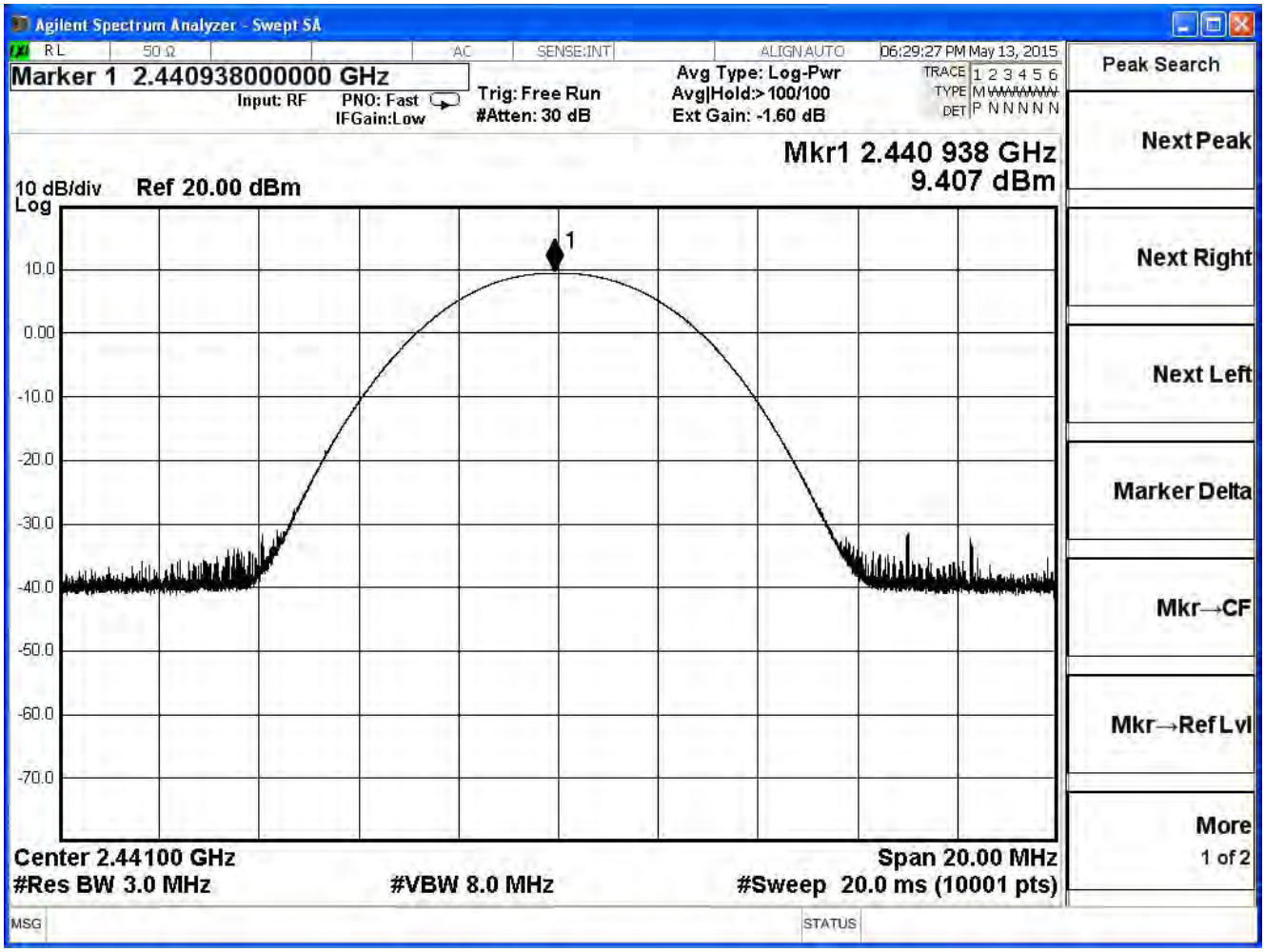
8-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	8.252	30	Pass
39	2441	9.407	30	Pass
78	2480	9.793	30	Pass

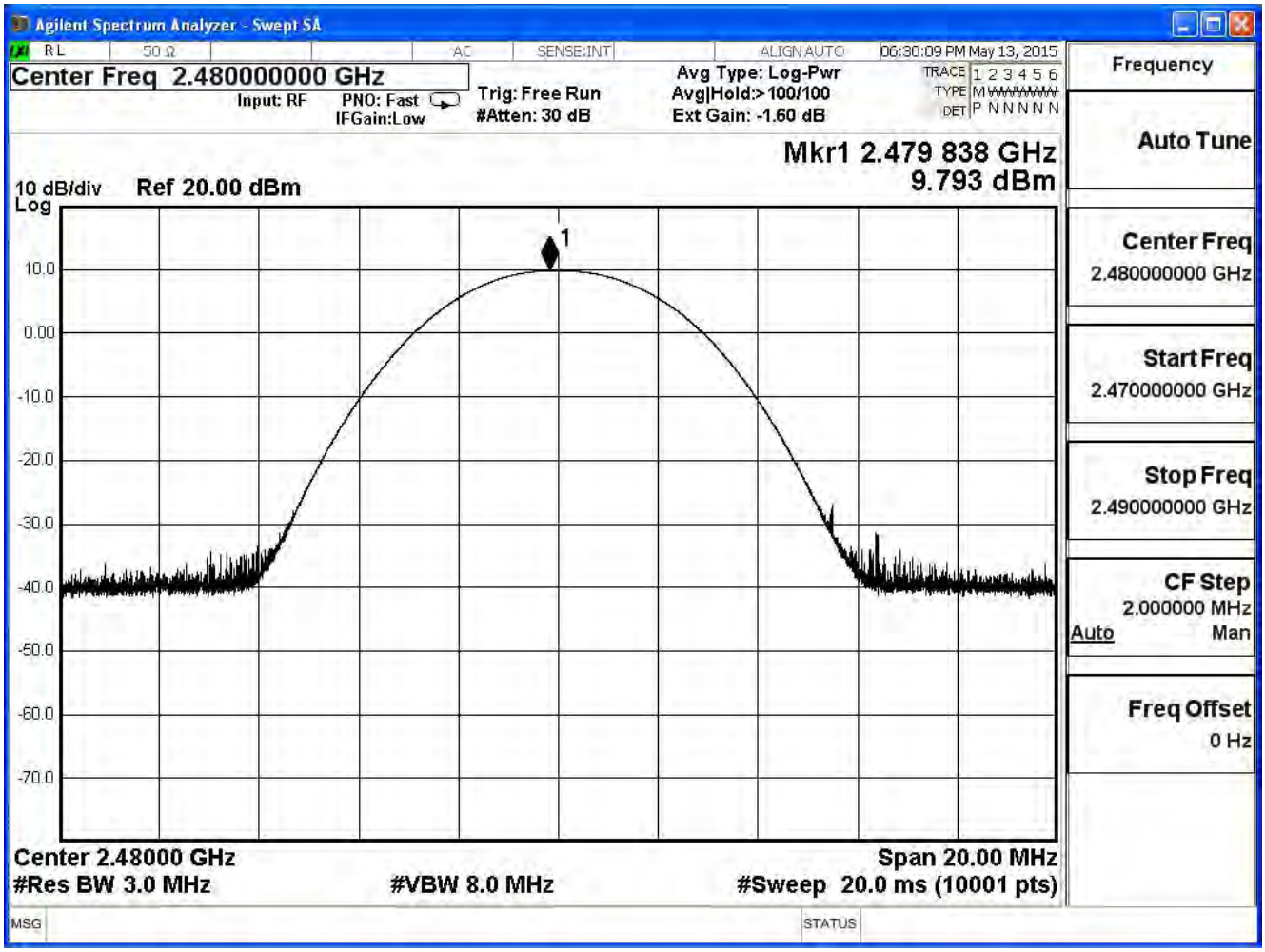
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:29:27 PM May 13, 2015
Marker 1 2.440938000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.440 938 GHz
9.407 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.44100 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

Channel 78


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:30:09 PM May 13, 2015
Center Freq 2.480000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.479 838 GHz
9.793 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 20.00 MHz
#Sweep 20.0 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.490000000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

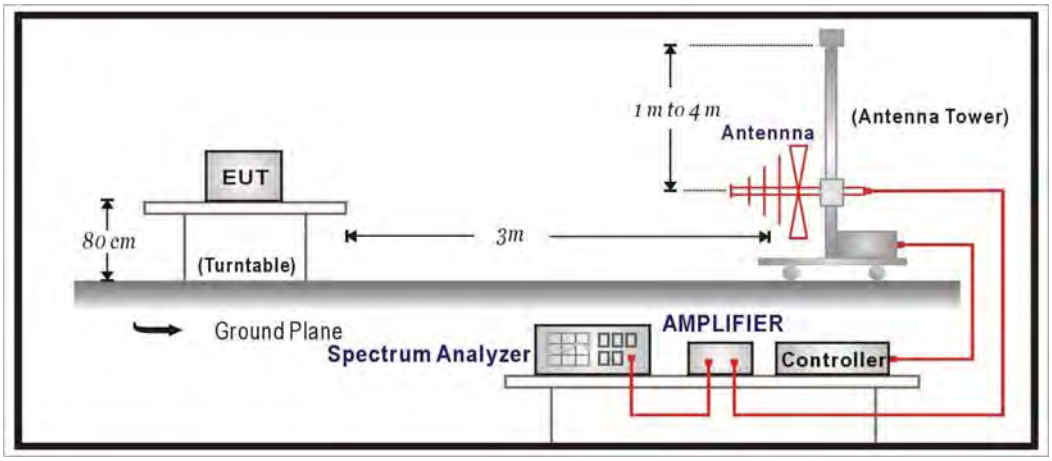
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2015/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2016/01/26
Pre-Amplifier	EMCI	EMC0031835	980233	2016/01/18
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2016/01/18
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2016/01/26

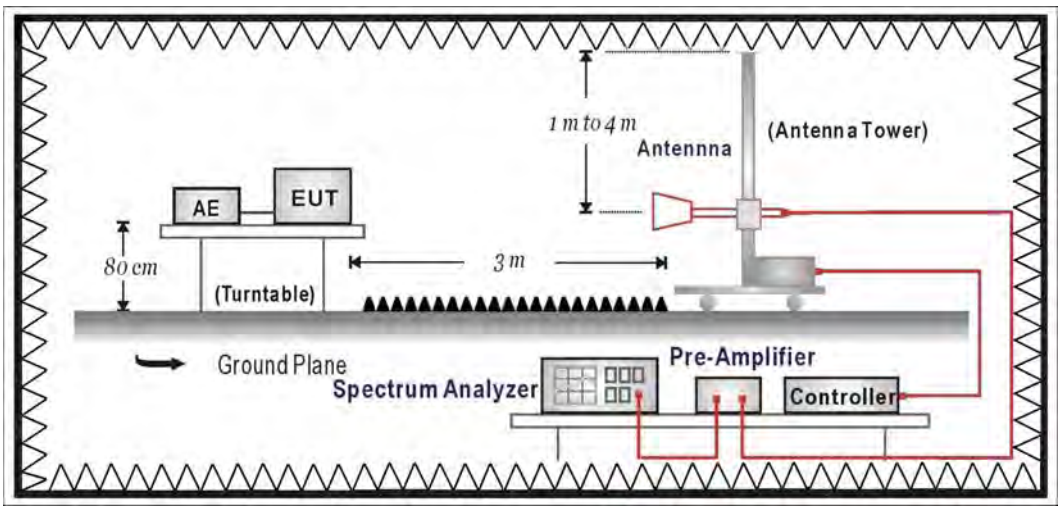
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10 on radiated measurement.
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

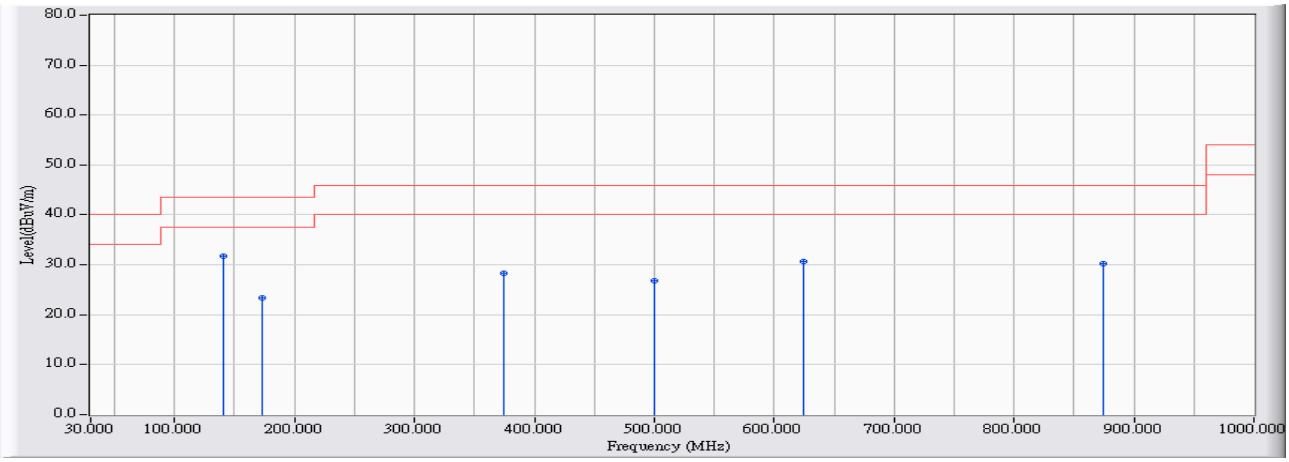
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

4.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2015/05/10 - 13:14**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2441MHz**

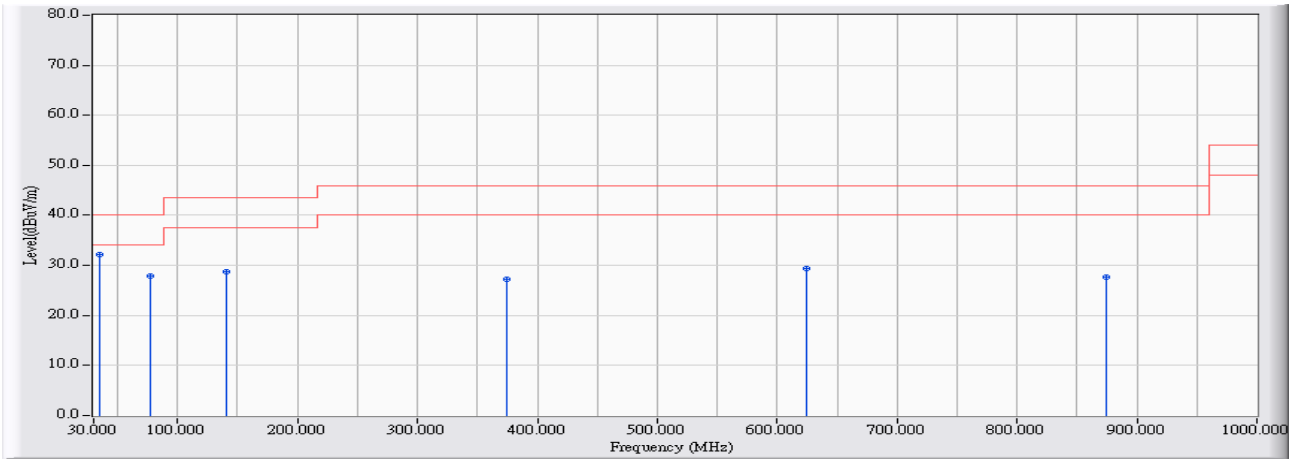


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	141.009	10.082	21.710	31.792	-11.708	43.500	QUASIPEAK
2		172.519	8.588	14.770	23.358	-20.142	43.500	QUASIPEAK
3		374.663	14.546	13.808	28.354	-17.646	46.000	QUASIPEAK
4		499.730	17.175	9.665	26.840	-19.160	46.000	QUASIPEAK
5		624.798	17.610	13.046	30.656	-15.344	46.000	QUASIPEAK
6		874.933	19.407	10.882	30.289	-15.711	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2015/05/10 - 13:33**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2441MHz**

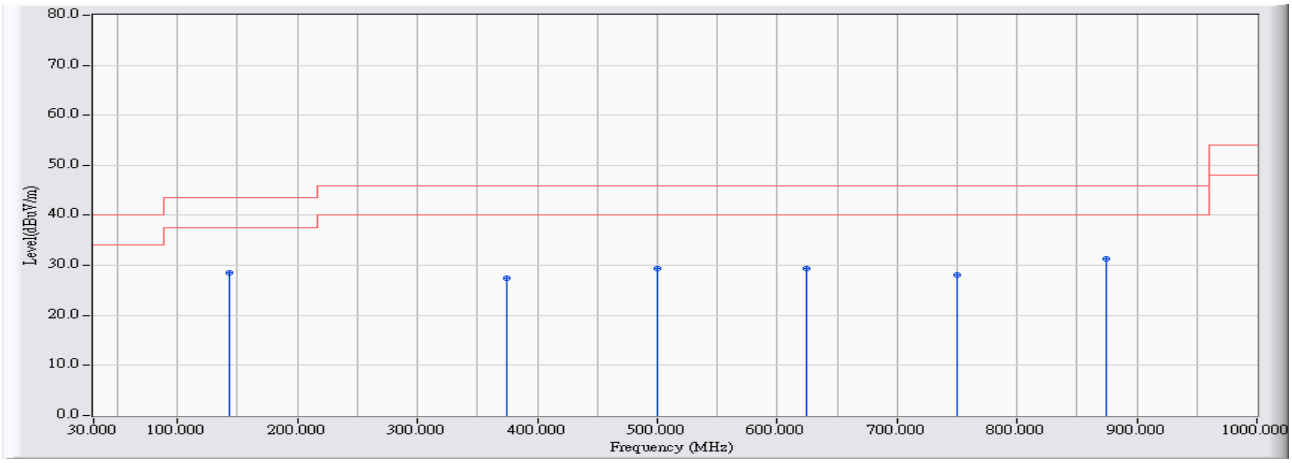


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	34.363	12.740	19.349	32.090	-7.910	40.000	QUASIPEAK
2		77.021	6.050	21.756	27.805	-12.195	40.000	QUASIPEAK
3		141.009	10.082	18.764	28.846	-14.654	43.500	QUASIPEAK
4		374.663	14.546	12.611	27.157	-18.843	46.000	QUASIPEAK
5		624.798	17.610	11.709	29.319	-16.681	46.000	QUASIPEAK
6		874.933	19.407	8.159	27.566	-18.434	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2015/05/09 - 18:48**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 2: Tx-AD890326 GFSK_2441MHz**

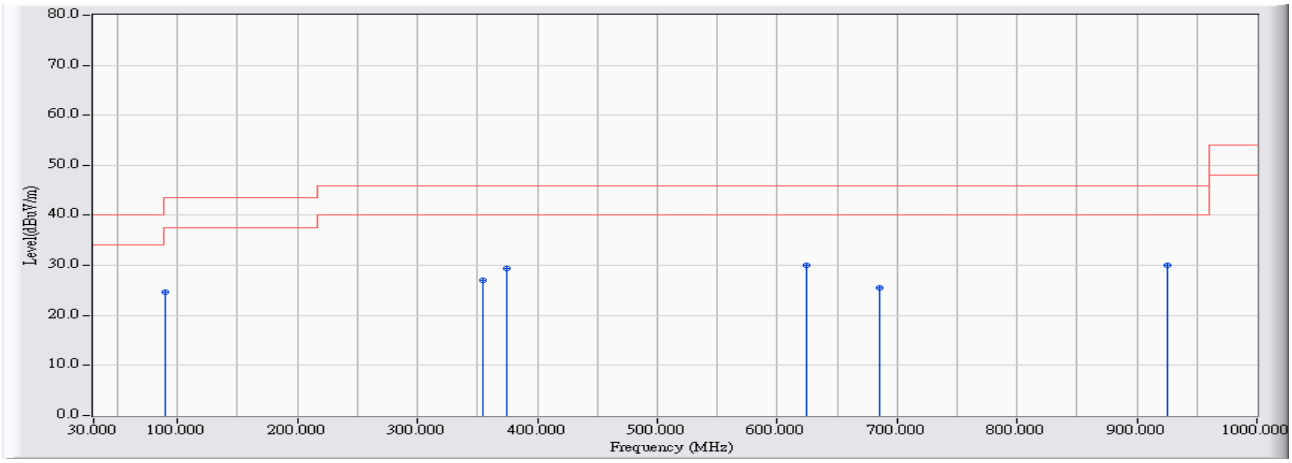


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		142.949	9.985	18.506	28.491	-15.009	43.500	QUASIPEAK
2		374.663	14.546	12.859	27.405	-18.595	46.000	QUASIPEAK
3		499.730	17.175	12.210	29.385	-16.615	46.000	QUASIPEAK
4		624.798	17.610	11.835	29.445	-16.555	46.000	QUASIPEAK
5		749.865	18.602	9.400	28.002	-17.998	46.000	QUASIPEAK
6	*	874.933	19.407	11.802	31.209	-14.791	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2015/05/09 - 20:08**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 2: Tx-AD890326 GFSK_2441MHz**

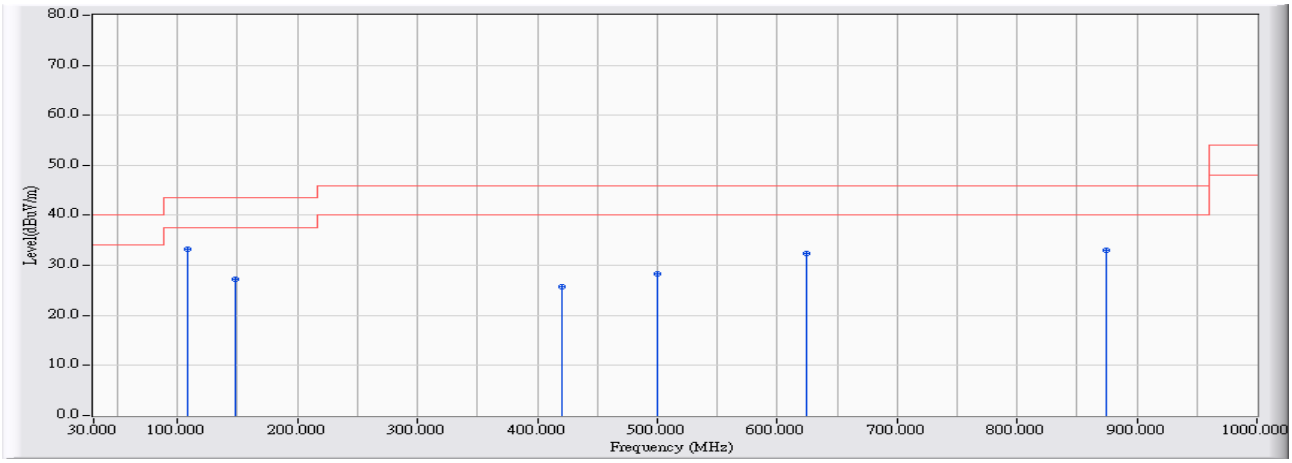


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.110	7.527	17.117	24.644	-18.856	43.500	QUASIPEAK
2		354.303	14.057	12.997	27.054	-18.946	46.000	QUASIPEAK
3		374.663	14.546	14.735	29.281	-16.719	46.000	QUASIPEAK
4	*	624.798	17.610	12.365	29.975	-16.025	46.000	QUASIPEAK
5		685.877	17.921	7.593	25.514	-20.486	46.000	QUASIPEAK
6		924.863	19.675	10.297	29.972	-16.028	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2015/05/09 - 08:02**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : RT-AC60U	**Note : Mode 3: Tx-ADP-33AW GFSK_2441MHz**

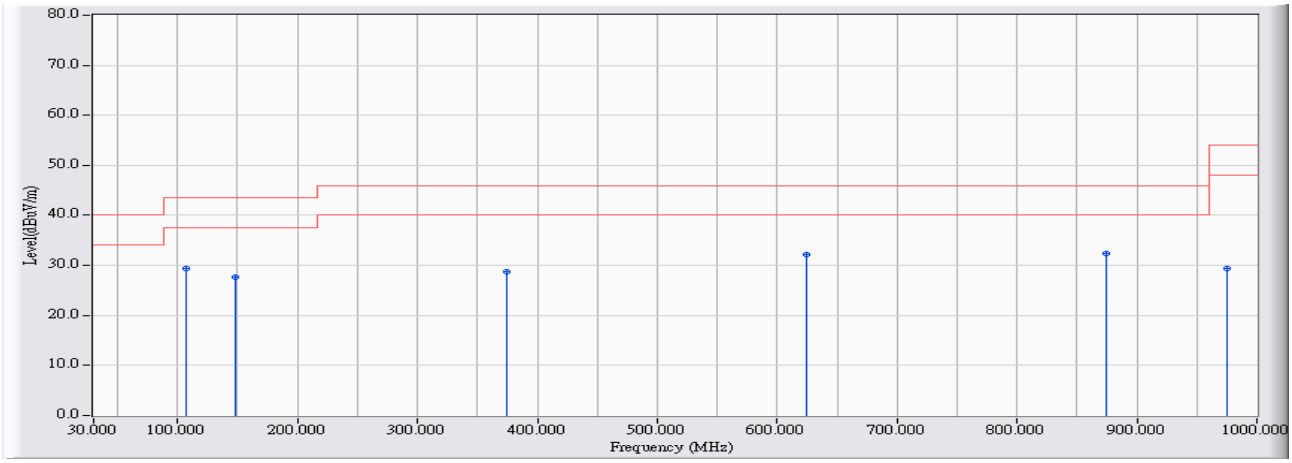


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	108.531	10.259	22.894	33.153	-10.347	43.500	QUASIPEAK
2		147.796	9.743	17.390	27.134	-16.366	43.500	QUASIPEAK
3		420.230	15.564	10.273	25.838	-20.162	46.000	QUASIPEAK
4		499.730	17.175	11.198	28.373	-17.627	46.000	QUASIPEAK
5		624.798	17.610	14.814	32.424	-13.576	46.000	QUASIPEAK
6		874.933	19.407	13.608	33.015	-12.985	46.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2015/05/09 - 07:34**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V/60Hz**
EUT : RT-AC60U	**Note : Mode 3: Tx-ADP-33AW GFSK_2441MHz**



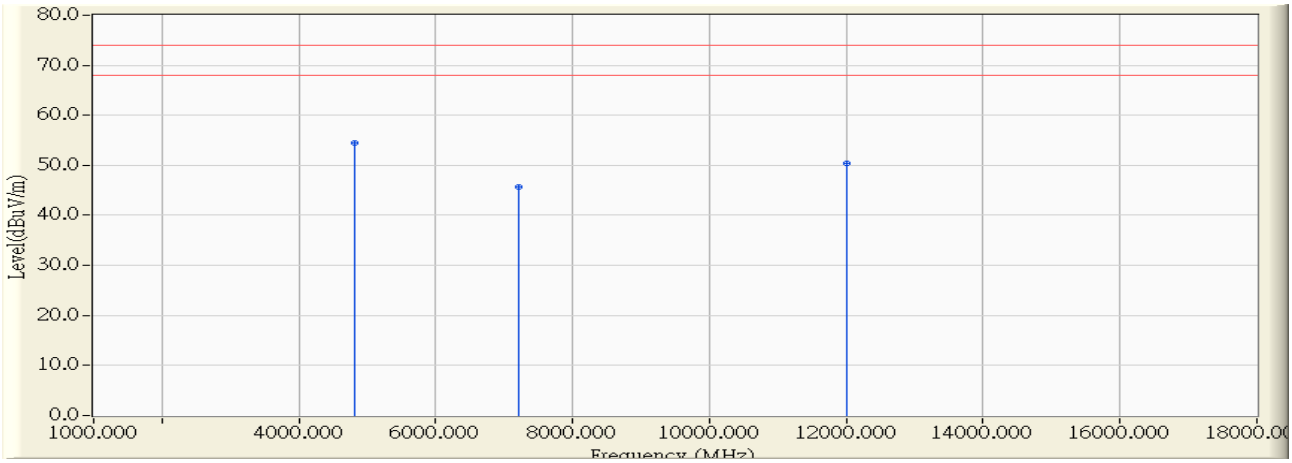
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		106.592	10.165	19.229	29.393	-14.107	43.500	QUASIPEAK
2		147.796	9.743	17.845	27.589	-15.911	43.500	QUASIPEAK
3		374.663	14.546	14.208	28.754	-17.246	46.000	QUASIPEAK
4		624.798	17.610	14.520	32.130	-13.870	46.000	QUASIPEAK
5	*	874.933	19.407	13.078	32.485	-13.515	46.000	QUASIPEAK
6		974.793	20.083	9.204	29.287	-24.713	54.000	QUASIPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Harmonic & Spurious:

Site : CB1	**Time : 2015/05/12 - 16:36**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

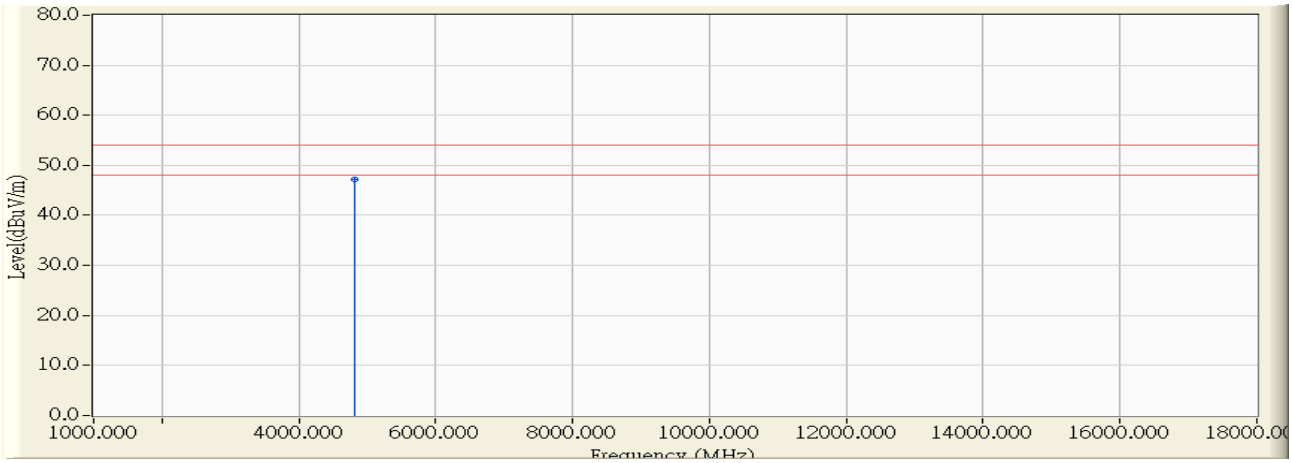


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.560	-1.625	56.190	54.565	-19.435	74.000	PEAK
2		7206.790	6.919	38.710	45.629	-28.371	74.000	PEAK
3		12010.164	11.617	38.830	50.447	-23.553	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 16:37**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

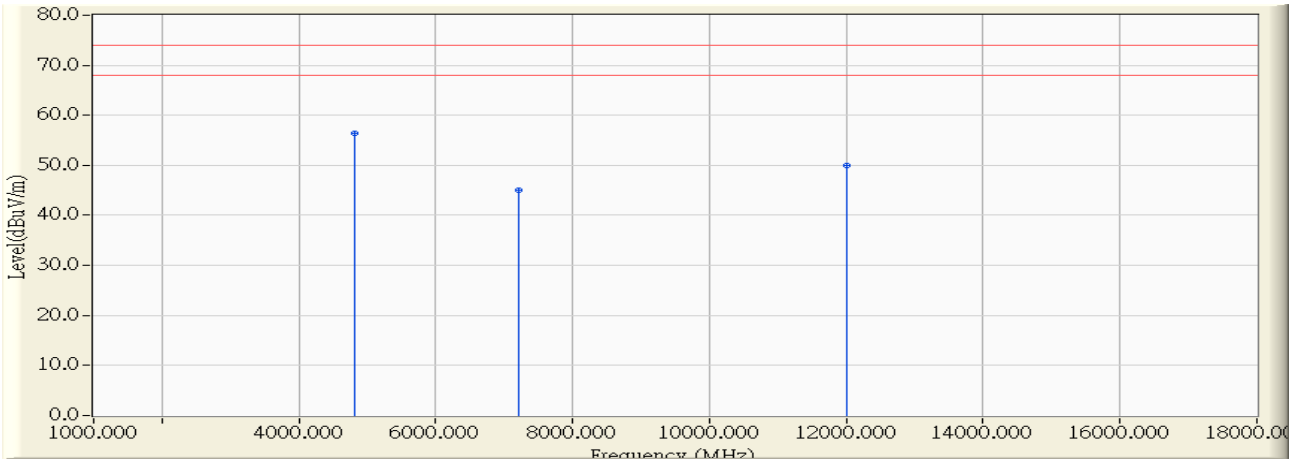


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.900	-1.624	48.780	47.156	-6.844	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 16:55**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

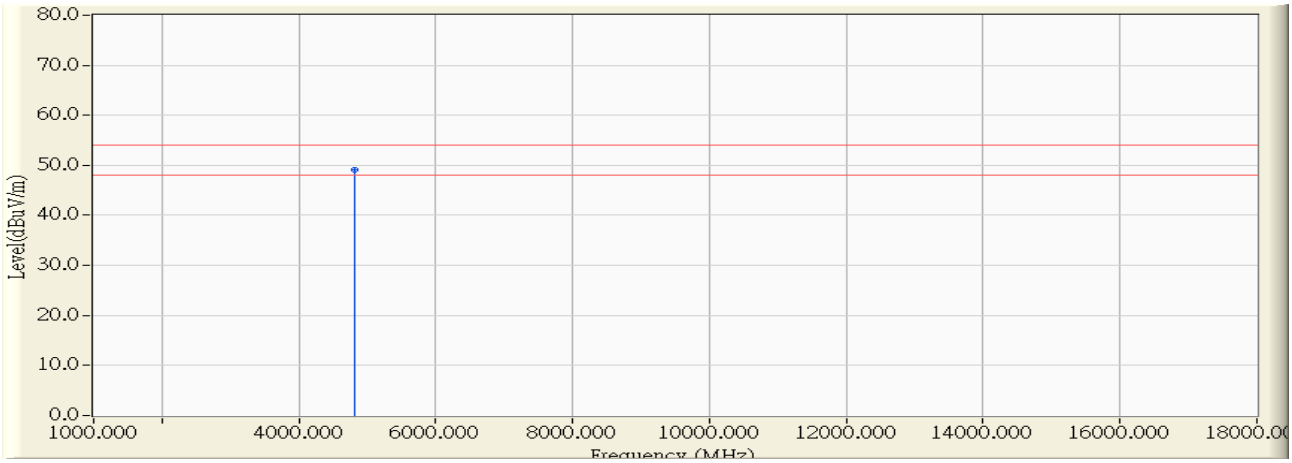


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.650	-0.676	57.180	56.504	-17.496	74.000	PEAK
2		7204.495	6.414	38.720	45.134	-28.866	74.000	PEAK
3		12008.795	11.144	38.830	49.974	-24.026	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 16:56**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

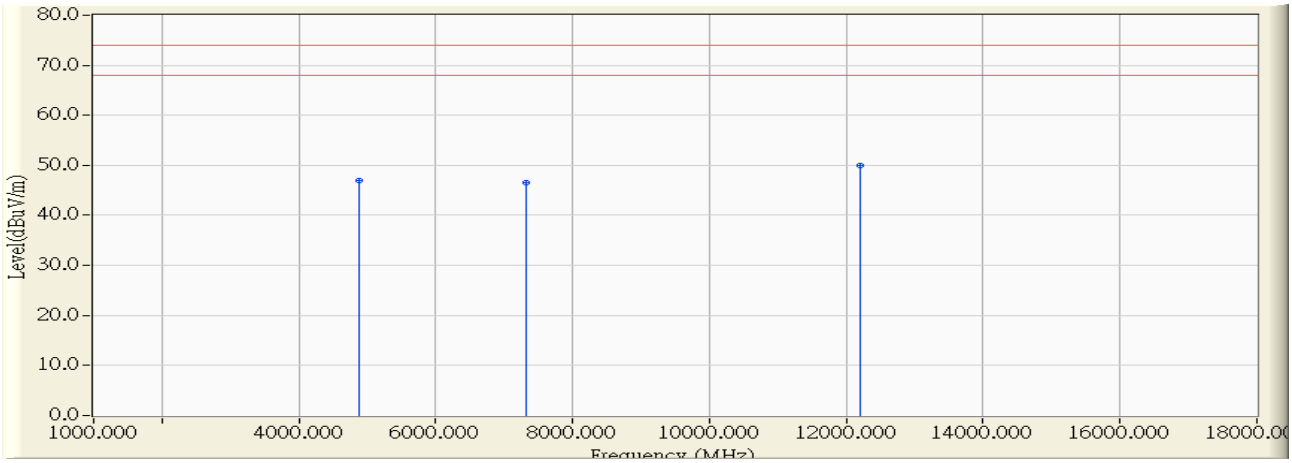


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.950	-0.677	49.730	49.054	-4.946	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 17:10**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2441MHz**

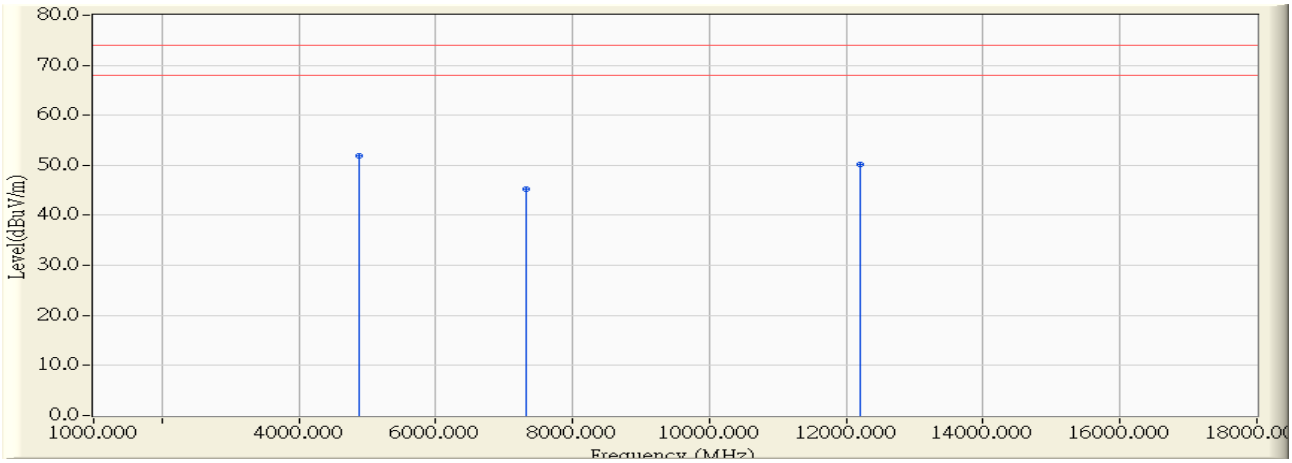


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4882.204	-1.433	48.350	46.917	-27.083	74.000	PEAK
2		7320.760	7.165	39.380	46.545	-27.455	74.000	PEAK
3	*	12208.130	11.427	38.650	50.077	-23.923	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 17:16**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2441MHz**

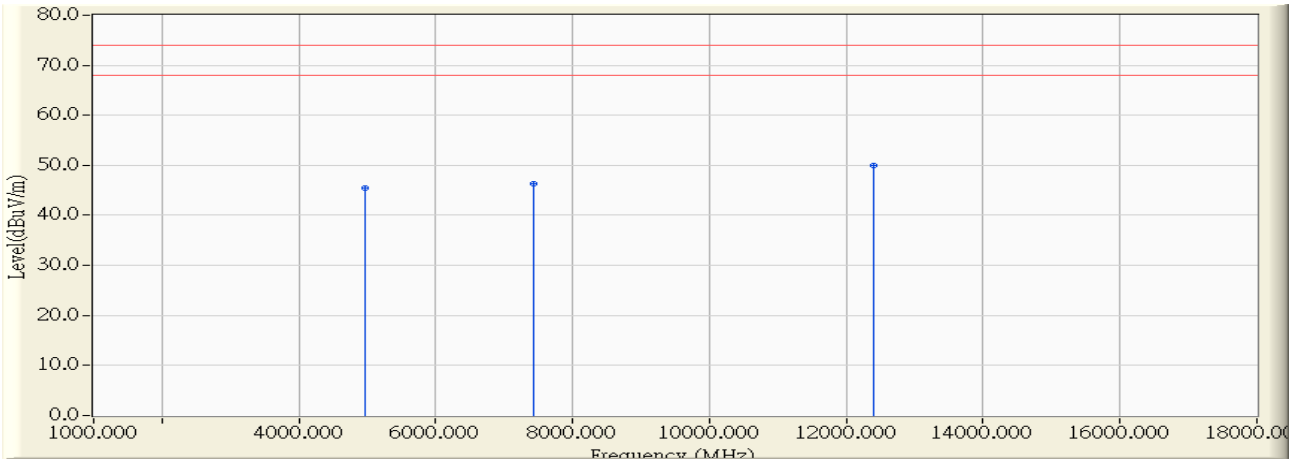


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4882.230	-0.681	52.550	51.869	-22.131	74.000	PEAK
2		7323.554	6.671	38.520	45.191	-28.809	74.000	PEAK
3		12203.430	11.152	38.980	50.132	-23.868	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 17:35**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**

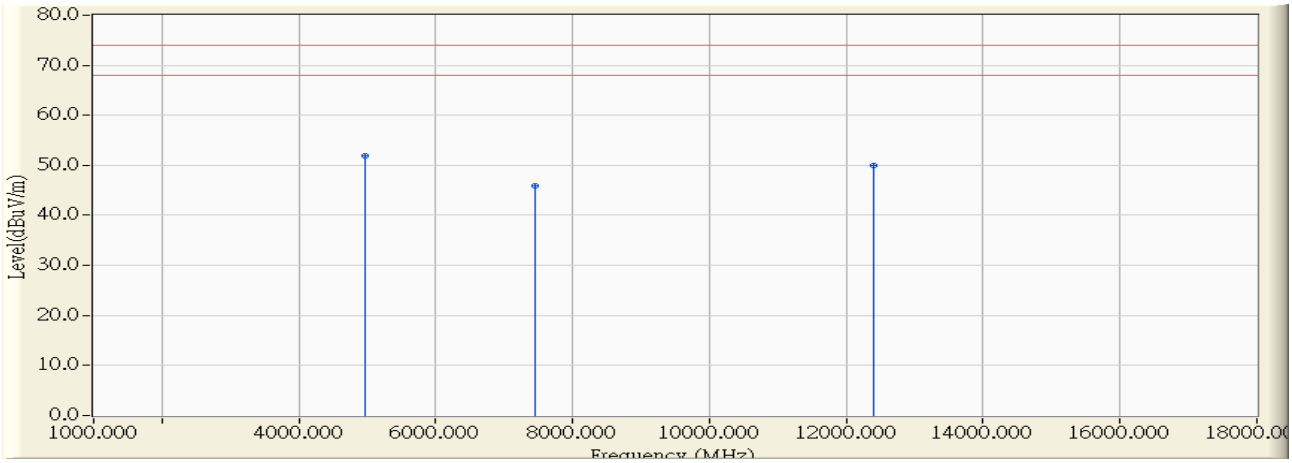


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4959.770	-1.245	46.680	45.436	-28.564	74.000	PEAK
2		7438.880	7.421	39.000	46.421	-27.579	74.000	PEAK
3	*	12400.554	11.244	38.740	49.983	-24.017	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2015/05/12 - 17:43**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120 V / 60 Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.229	-0.686	52.600	51.914	-22.086	74.000	PEAK
2		7441.689	6.926	38.960	45.887	-28.113	74.000	PEAK
3		12395.152	11.161	38.760	49.921	-24.079	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipment is used during the test:

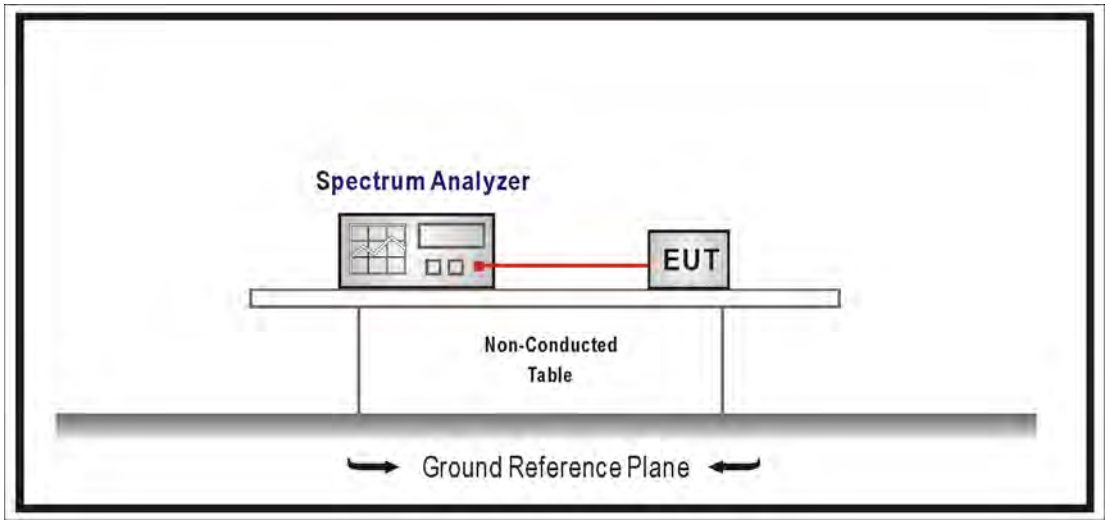
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band 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 an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

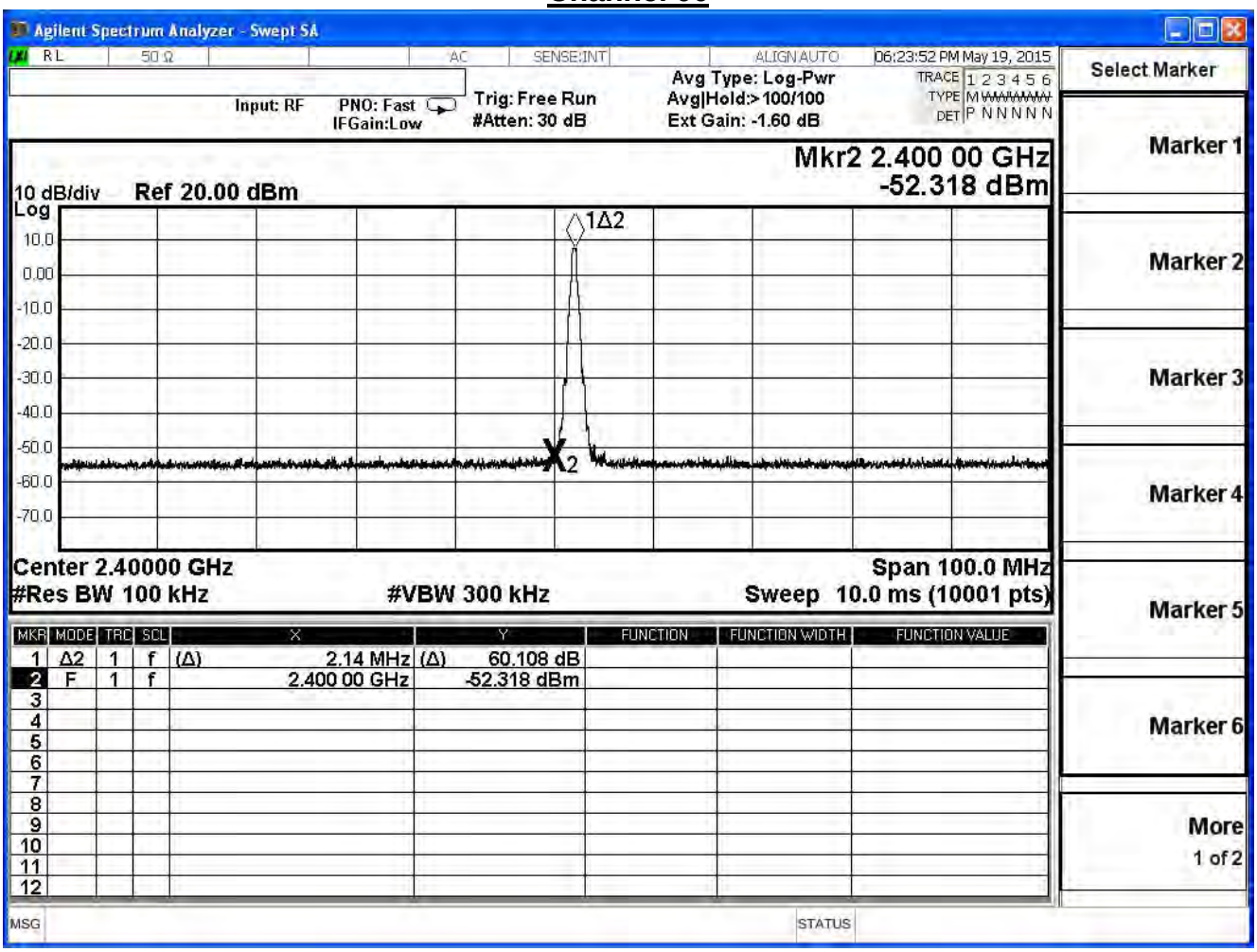
5.6. Test Result

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

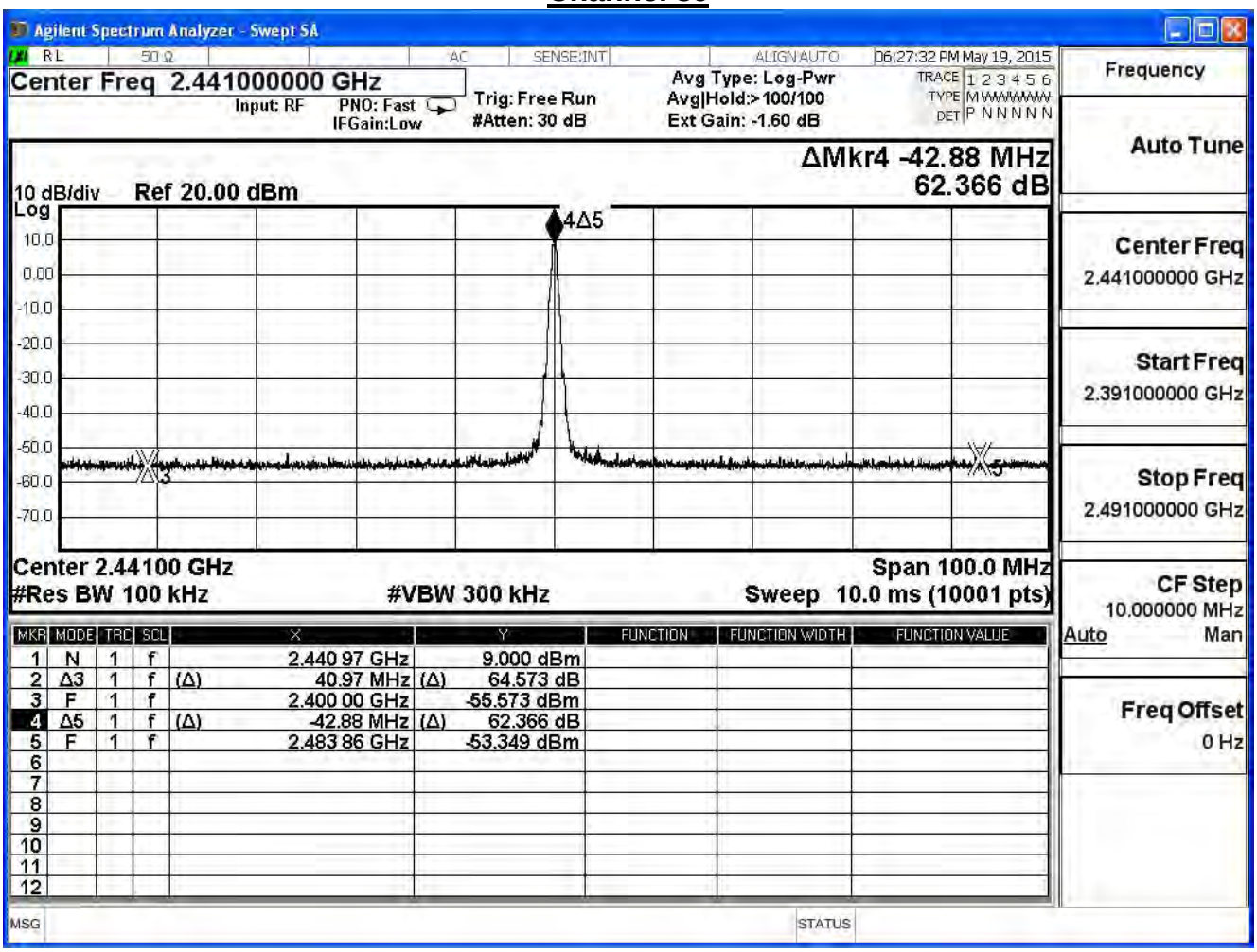
GFSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
0	2402	60.108	≧20	Pass
39	2441	62.366	≧20	Pass
78	2480	59.958	≧20	Pass

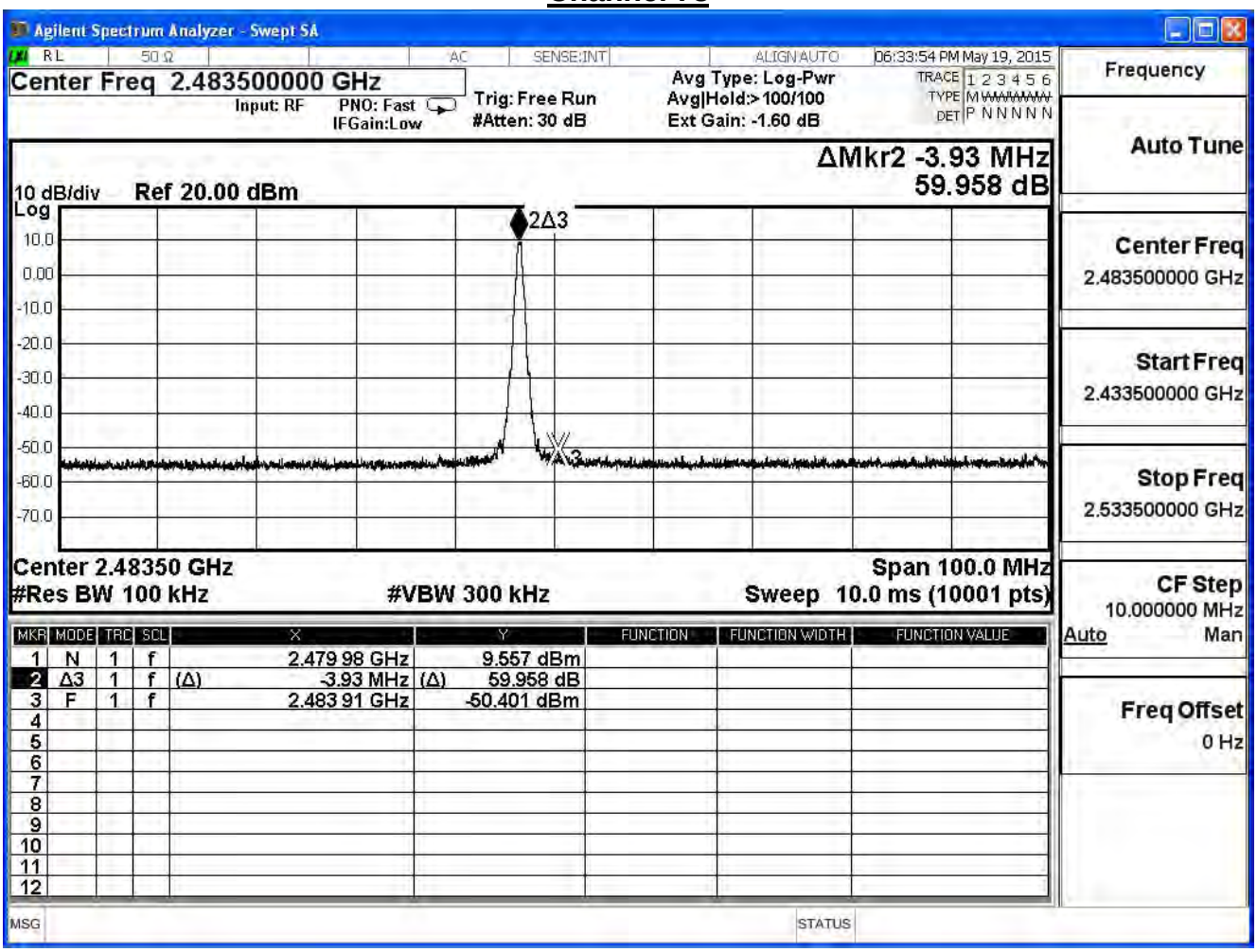
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:27:32 PM May 19, 2015
Center Freq 2.441000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
ΔMkr4 -42.88 MHz
62.366 dB
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.44100 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.440 97 GHz 9.000 dBm
2 Δ3 1 f (Δ) 40.97 MHz (Δ) 64.573 dB
3 F 1 f 2.400 00 GHz -55.573 dBm
4 Δ5 1 f (Δ) -42.88 MHz (Δ) 62.366 dB
5 F 1 f 2.483 86 GHz -53.349 dBm
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.391000000 GHz
Stop Freq
2.491000000 GHz
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 78

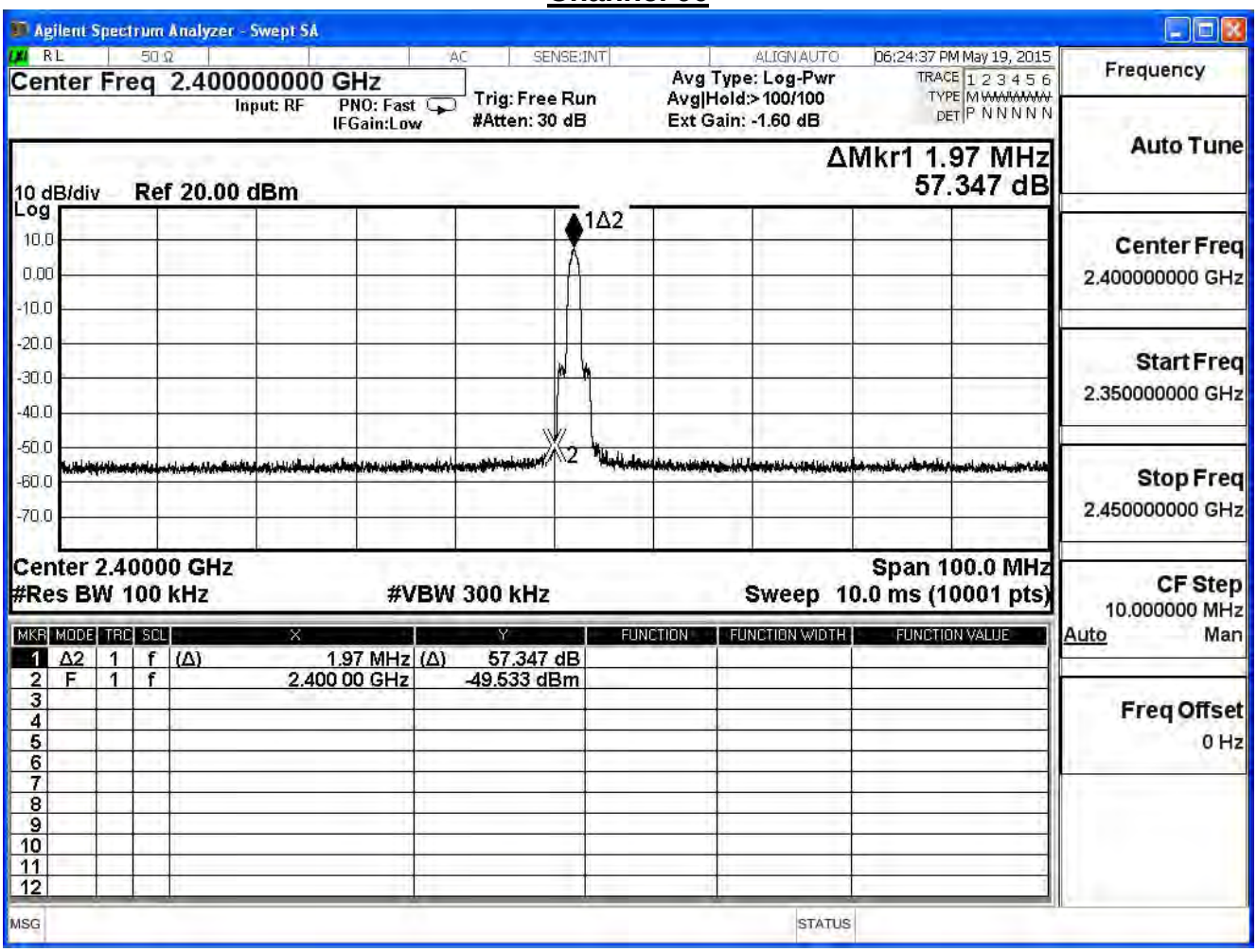

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:33:54 PM May 19, 2015
Center Freq 2.483500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
ΔMkr2 -3.93 MHz
59.958 dB
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.479 98 GHz 9.557 dBm
2 Δ3 1 f (Δ) -3.93 MHz (Δ) 59.958 dB
3 F 1 f 2.483 91 GHz -50.401 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.483500000 GHz
Start Freq
2.433500000 GHz
Stop Freq
2.533500000 GHz
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

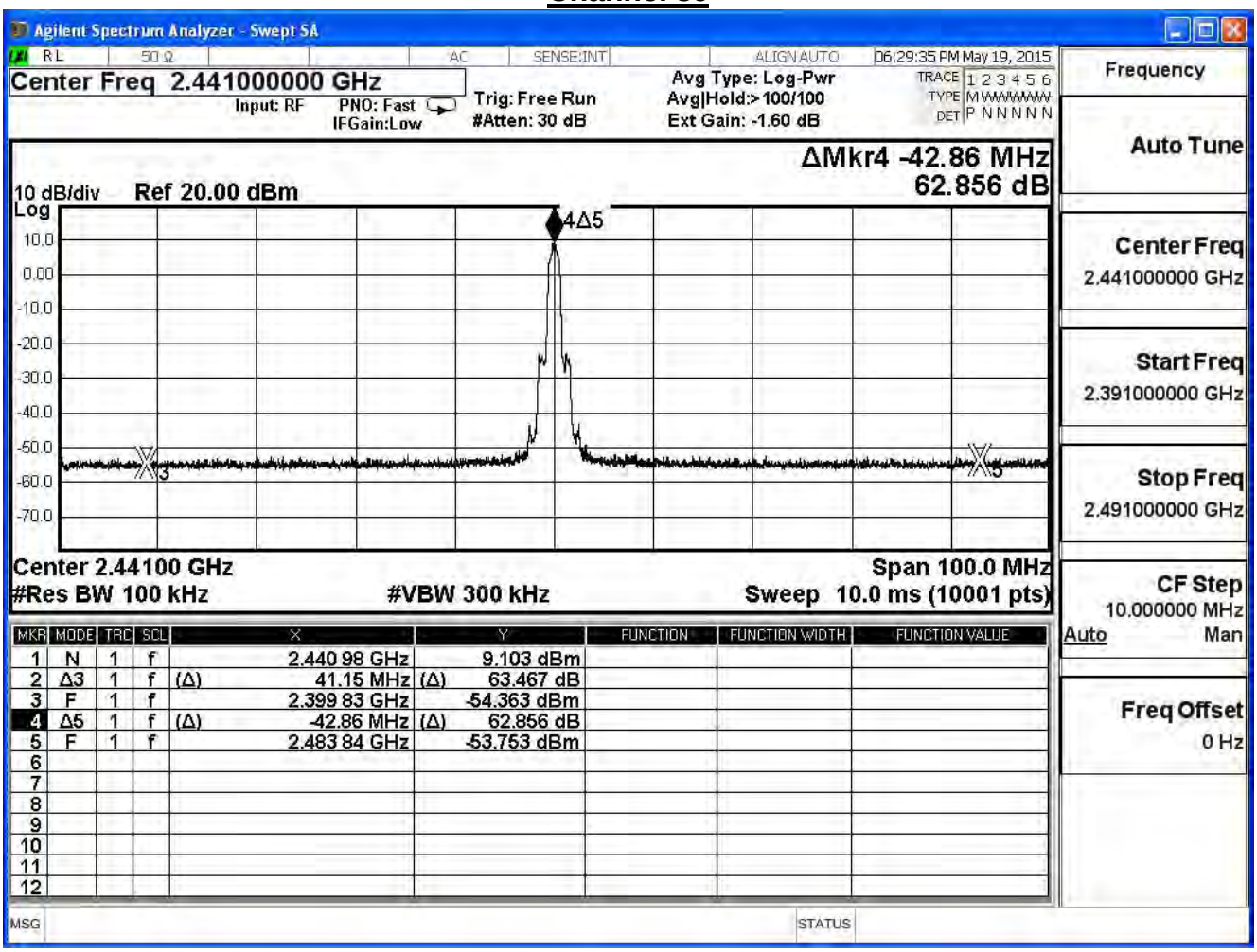
π/4-DQPSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
0	2402	57.347	≧20	Pass
39	2441	62.856	≧20	Pass
78	2480	62.170	≧20	Pass

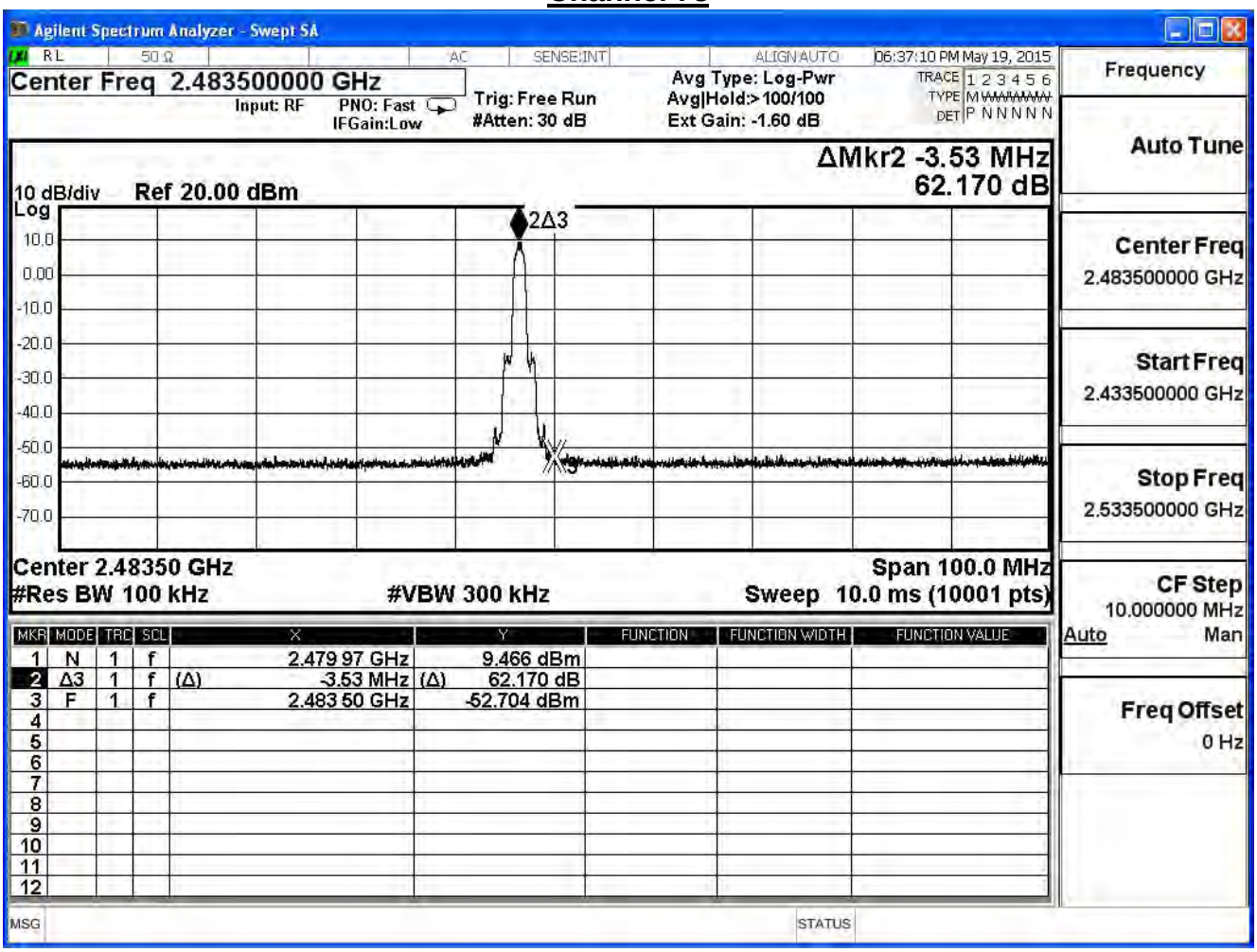
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:29:35 PM May 19, 2015
Center Freq 2.441000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
ΔMkr4 -42.86 MHz
62.856 dB
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.44100 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.440 98 GHz 9.103 dBm
2 Δ3 1 f (Δ) 41.15 MHz (Δ) 63.467 dB
3 F 1 f 2.399 83 GHz -54.363 dBm
4 Δ5 1 f (Δ) -42.86 MHz (Δ) 62.856 dB
5 F 1 f 2.483 84 GHz -53.753 dBm
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.391000000 GHz
Stop Freq
2.491000000 GHz
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 78

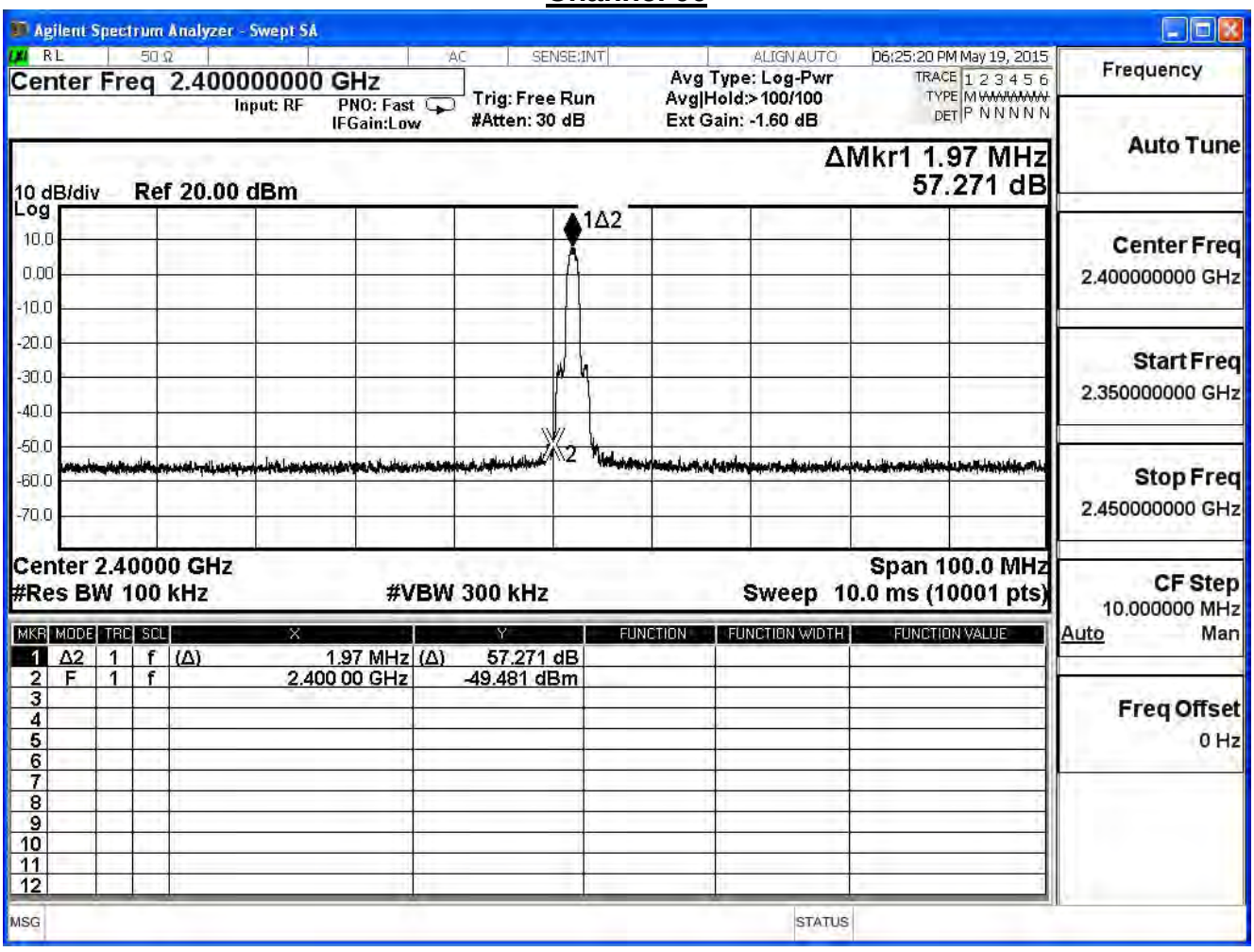

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:37:10 PM May 19, 2015
Center Freq 2.483500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
ΔMkr2 -3.53 MHz
62.170 dB
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.479 97 GHz 9.466 dBm
2 Δ3 1 f (Δ) -3.53 MHz (Δ) 62.170 dB
3 F 1 f 2.483 50 GHz -52.704 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.483500000 GHz
Start Freq
2.433500000 GHz
Stop Freq
2.533500000 GHz
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

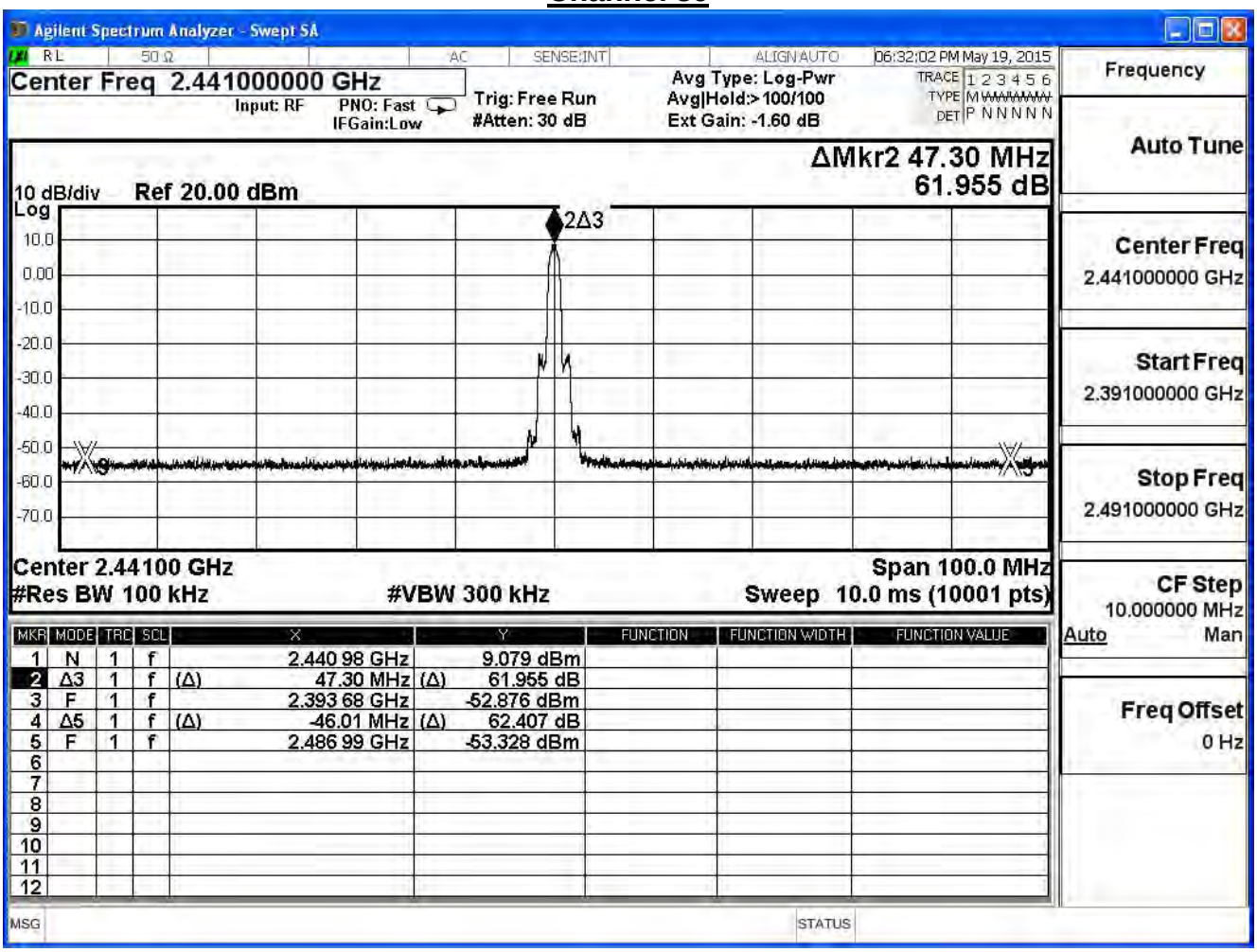
8-DQPSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
0	2402	57.271	≧20	Pass
39	2441	61.955	≧20	Pass
78	2480	62.247	≧20	Pass

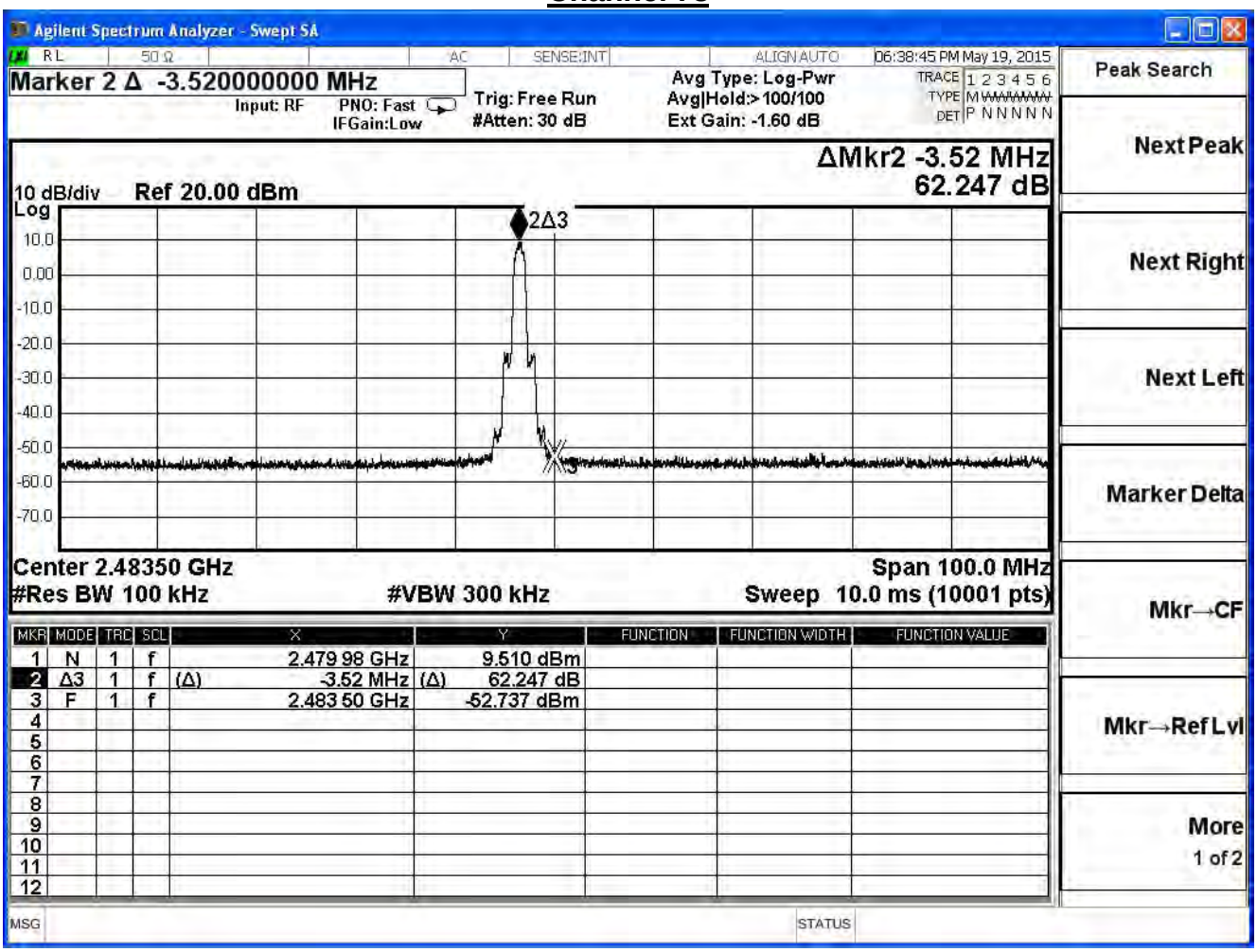
Channel 00



Channel 39

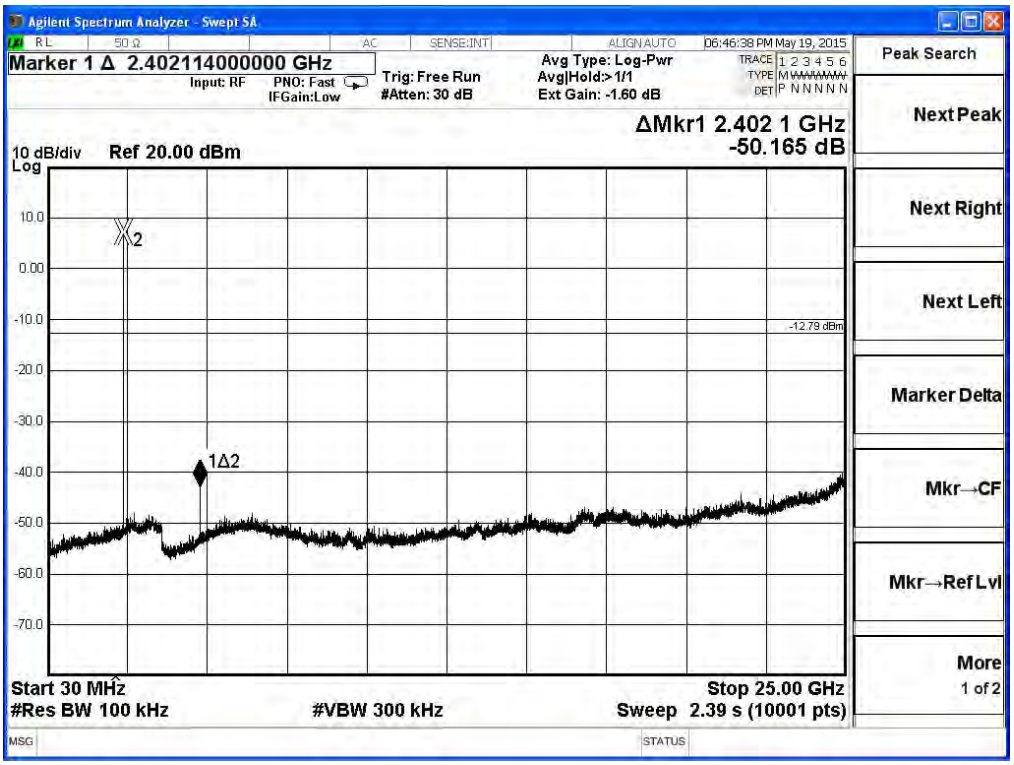

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
06:32:02 PM May 19, 2015
ΔMkr2 47.30 MHz
61.955 dB
10 dB/div
Ref 20.00 dBm
Log
2Δ3
Center 2.44100 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
1 N 1 f 2.440 98 GHz 9.079 dBm
2 Δ3 1 f (Δ) 47.30 MHz (Δ) 61.955 dB
3 F 1 f 2.393 68 GHz -52.876 dBm
4 Δ5 1 f (Δ) -46.01 MHz (Δ) 62.407 dB
5 F 1 f 2.486 99 GHz -53.328 dBm
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.391000000 GHz
Stop Freq
2.491000000 GHz
CF Step
10.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Channel 78

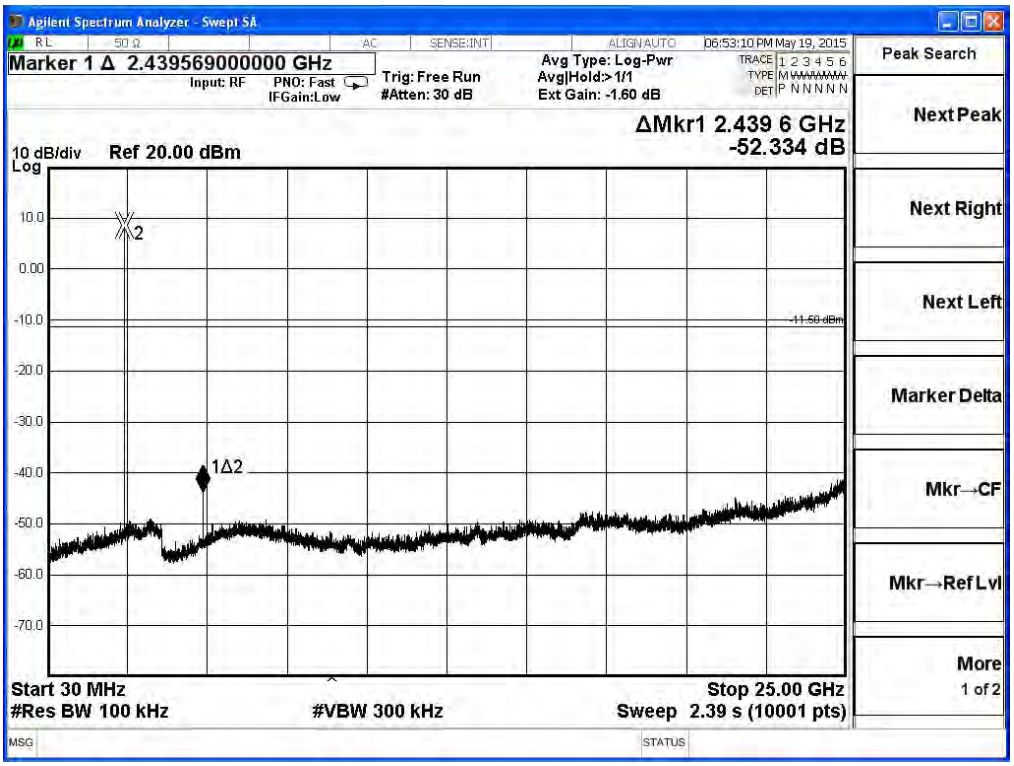

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:38:45 PM May 19, 2015
Marker 2 Δ -3.520000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
ΔMkr2 -3.52 MHz
62.247 dB
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.0 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.479 98 GHz 9.510 dBm
2 Δ3 1 f (Δ) -3.52 MHz (Δ) 62.247 dB
3 F 1 f 2.483 50 GHz -52.737 dBm
4
5
6
7
8
9
10
11
12
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

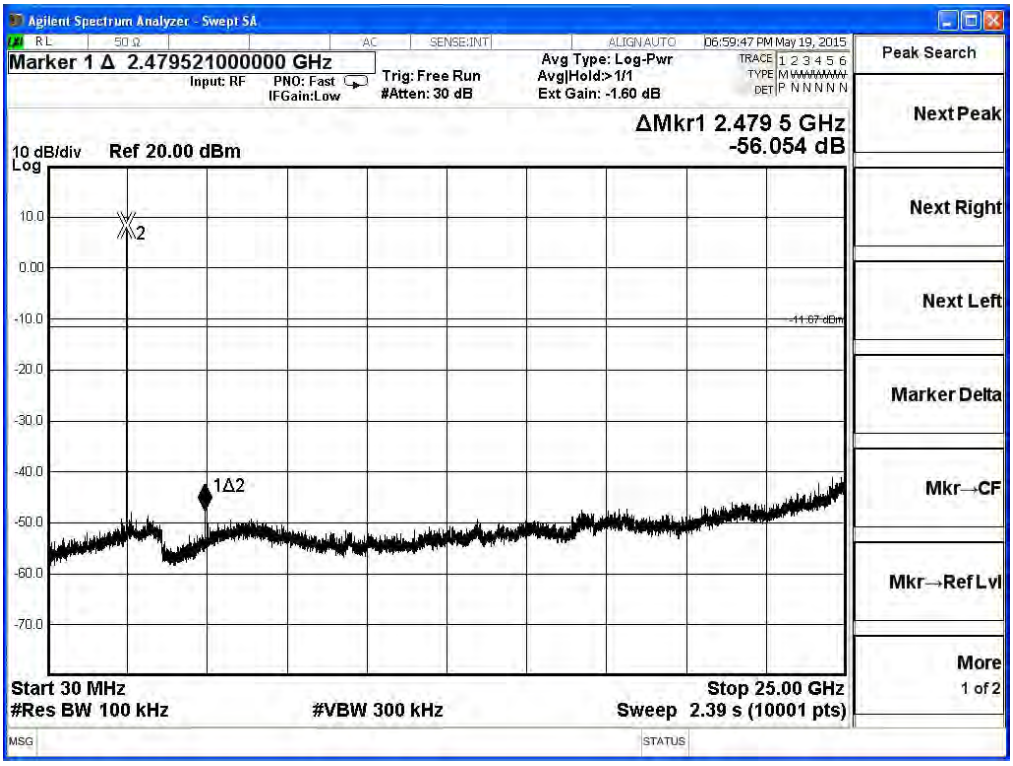
Channel 00 (30MHz-25GHz)- GFSK



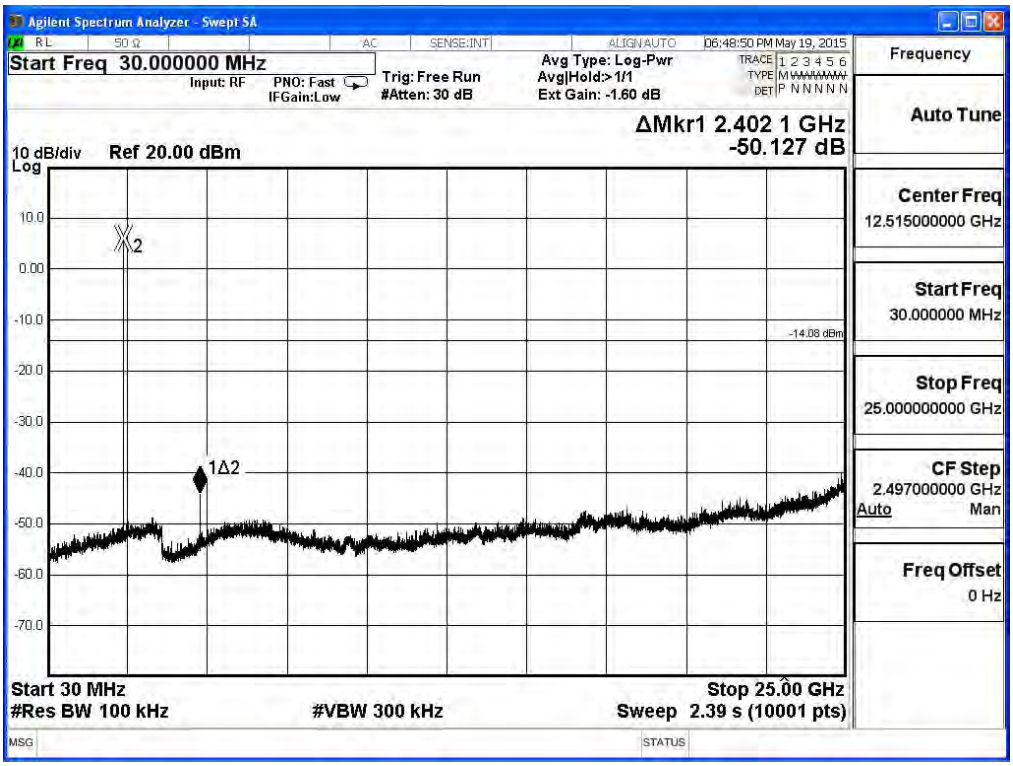
Channel 39 (30MHz-25GHz)- GFSK



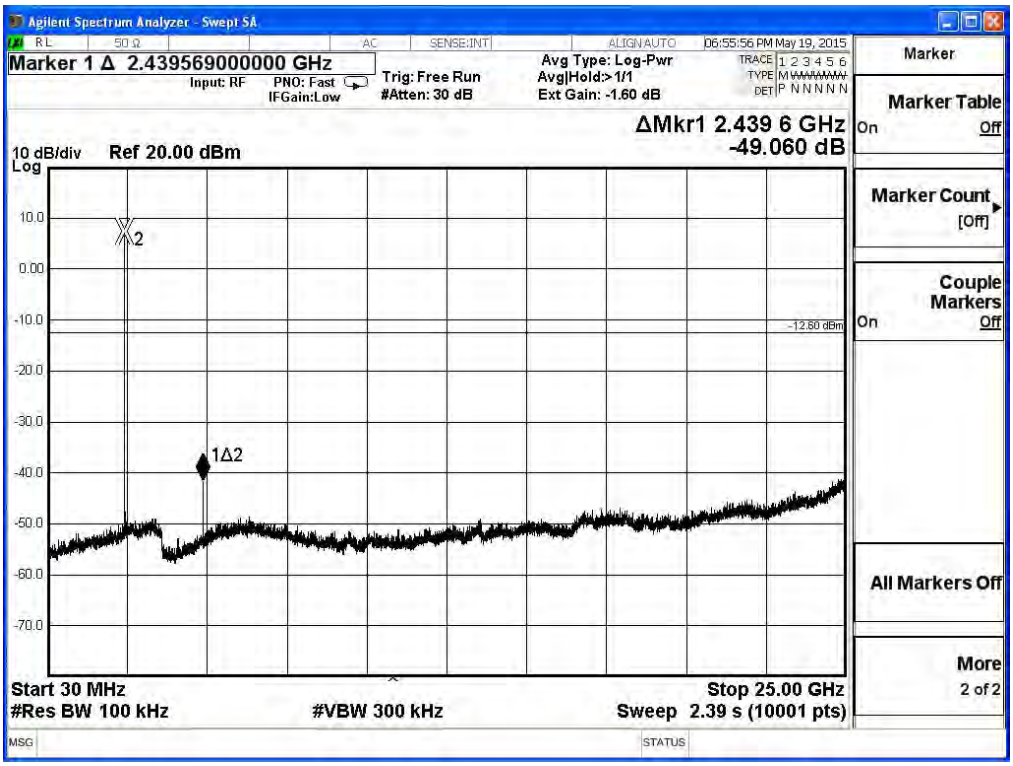
Channel 78 (30MHz-25GHz)- GFSK



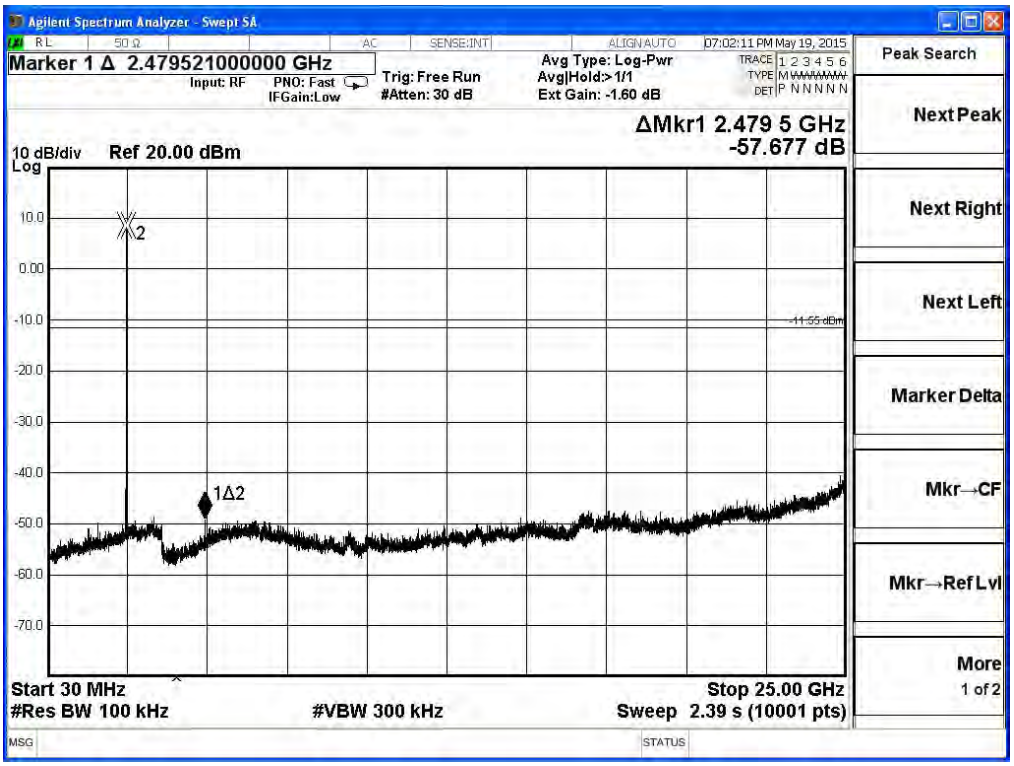
Channel 00 (30MHz-25GHz)- π/4-DQPSK



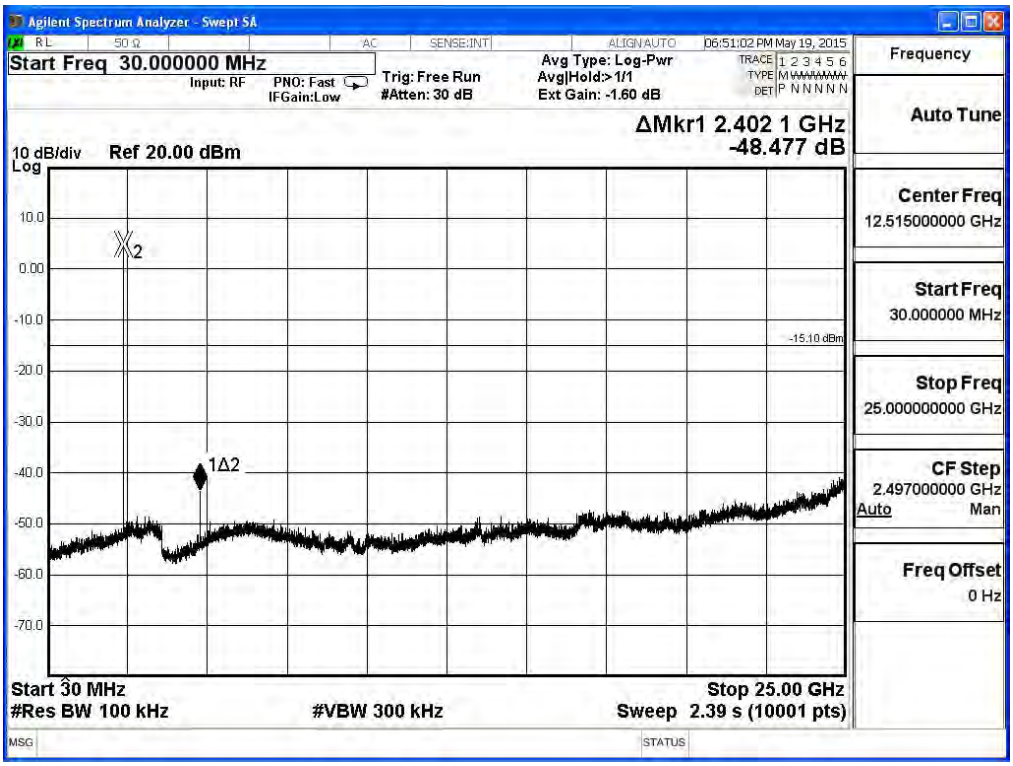
Channel 39 (30MHz-25GHz)- π/4-DQPSK



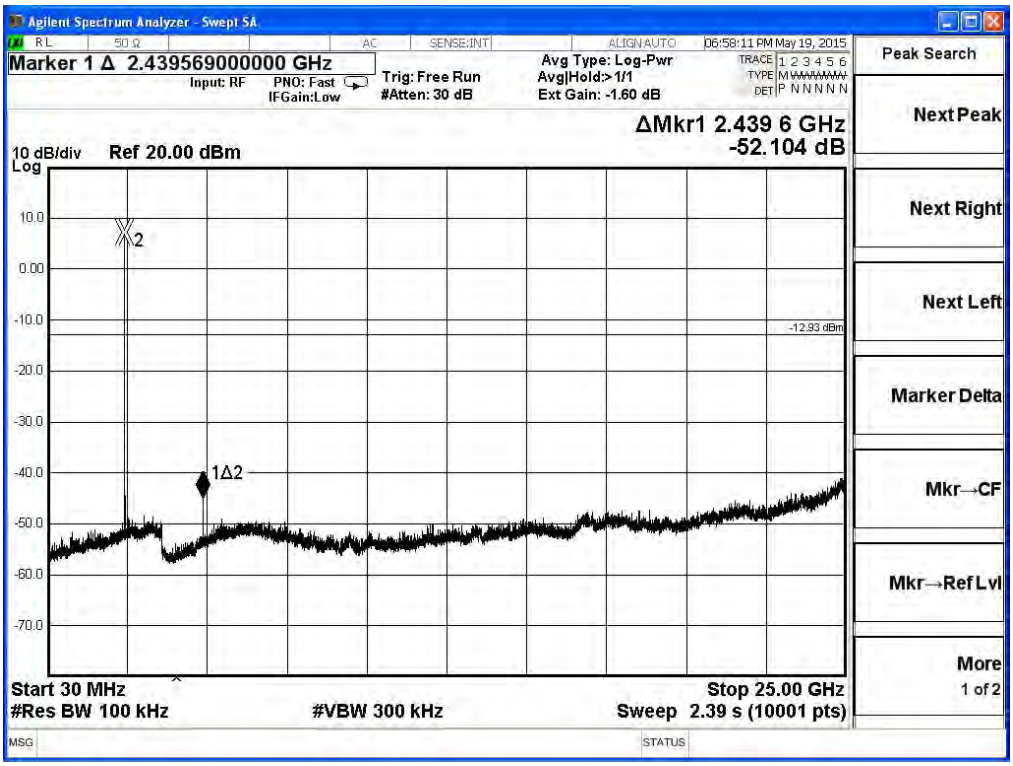
Channel 78 (30MHz-25GHz)- π/4-DQPSK



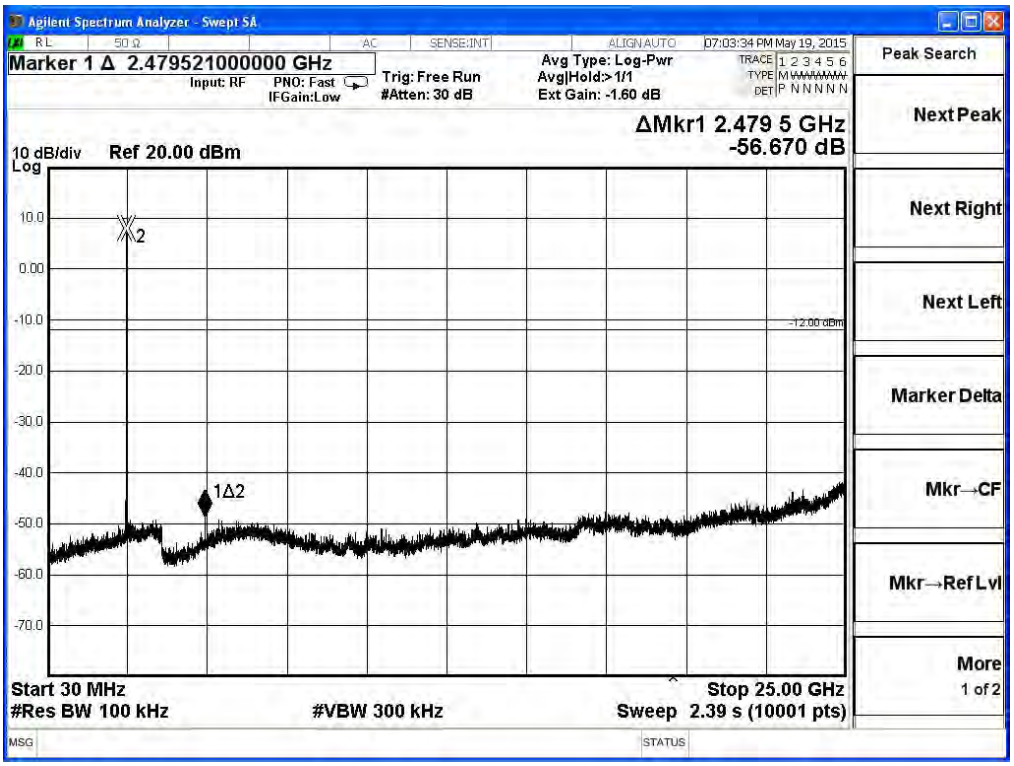
Channel 00 (30MHz-25GHz)- 8-DQPSK



Channel 39 (30MHz-25GHz)- 8-DQPSK



Channel 78 (30MHz-25GHz)- 8-DQPSK



6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

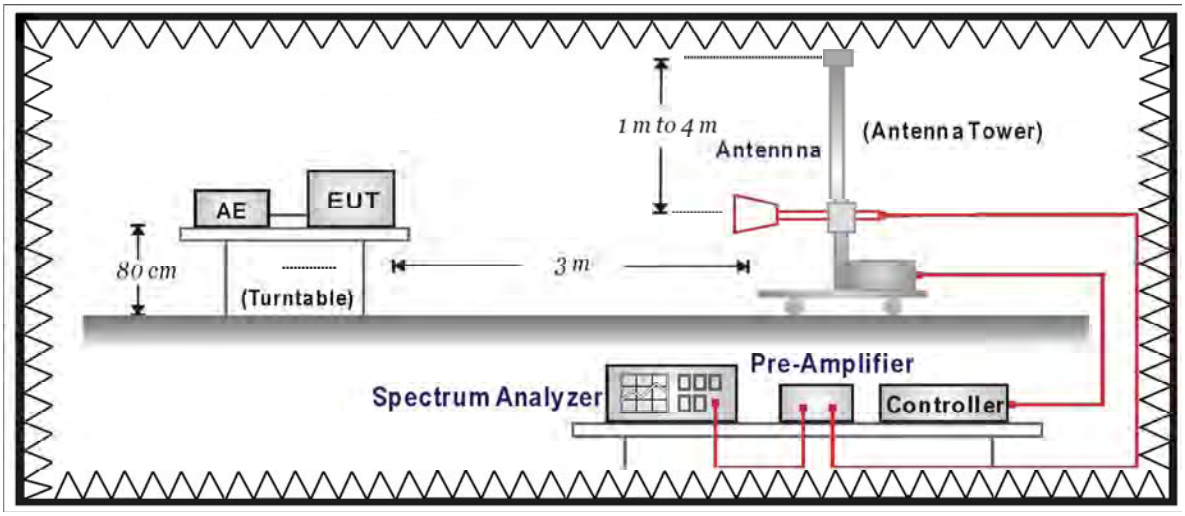
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2016/01/26
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2016/01/26

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

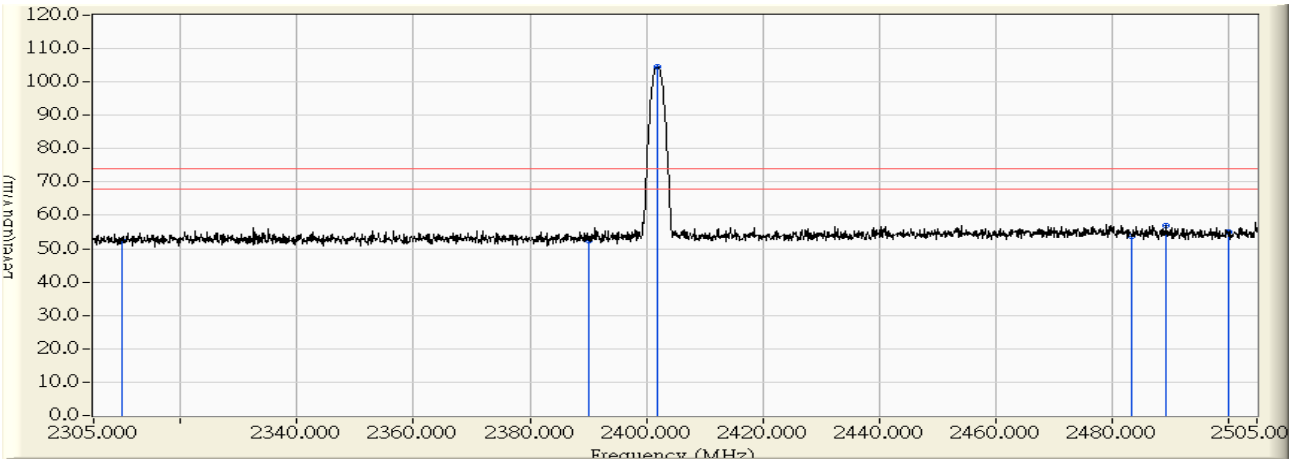
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

6.6. Test Result

Site : CB1	**Time : 2015/05/12 - 20:07**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

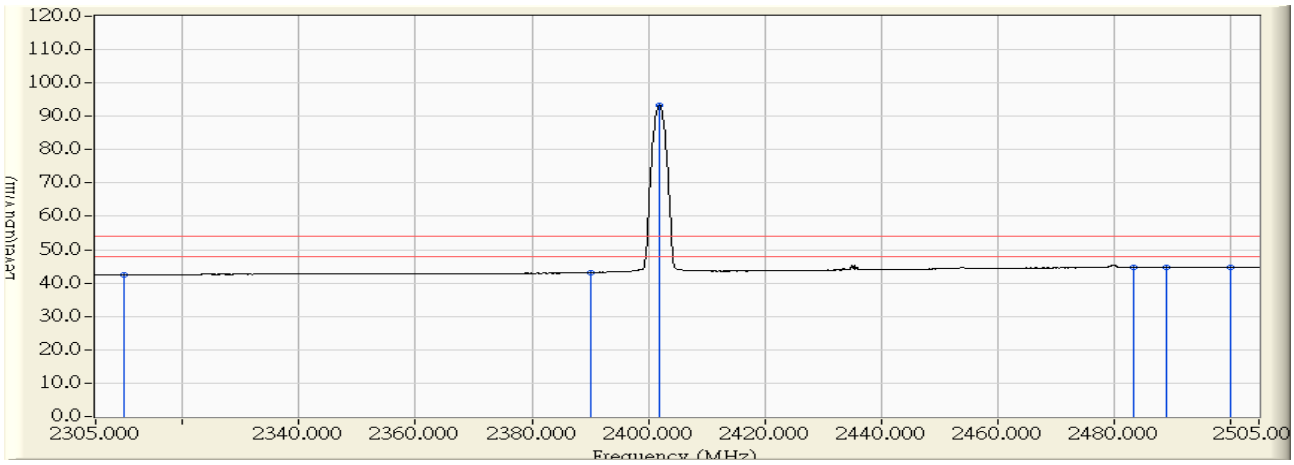


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.899	23.696	52.594	-21.406	74.000	PEAK
2		2390.000	29.768	22.817	52.585	-21.415	74.000	PEAK
3	*	2402.051	29.899	74.499	104.398	30.398	74.000	PEAK
4		2483.500	30.738	22.951	53.690	-20.310	74.000	PEAK
5		2489.408	30.743	26.157	56.900	-17.100	74.000	PEAK
6		2500.000	30.740	24.201	54.940	-19.060	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:08**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

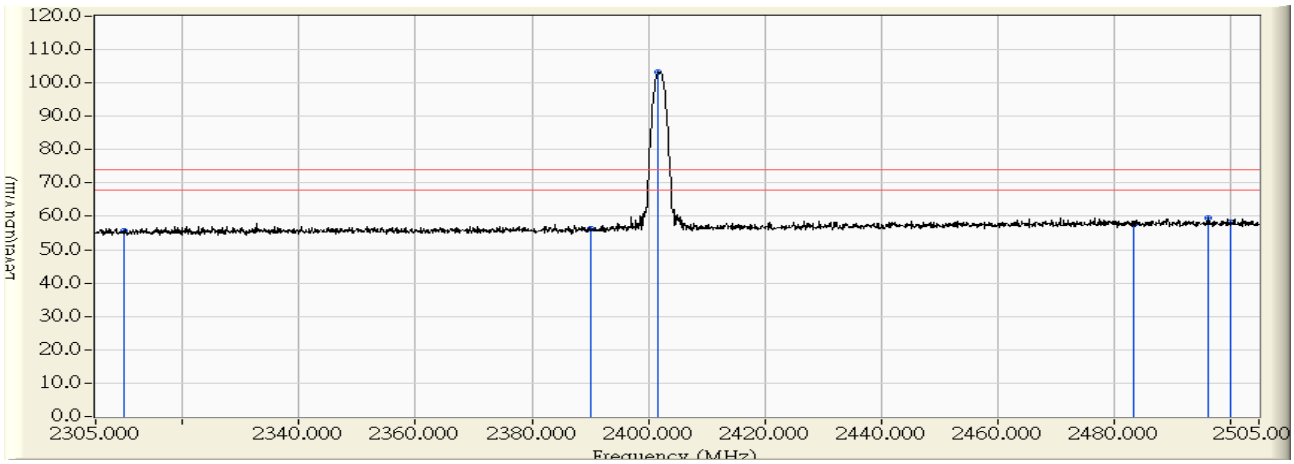


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.899	13.603	42.501	-11.499	54.000	AVERAGE
2		2390.000	29.768	13.367	43.135	-10.865	54.000	AVERAGE
3	*	2401.852	29.897	63.423	93.320	39.320	54.000	AVERAGE
4		2483.500	30.738	13.949	44.688	-9.312	54.000	AVERAGE
5		2489.008	30.743	14.017	44.760	-9.240	54.000	AVERAGE
6		2500.000	30.740	13.904	44.643	-9.357	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:14**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

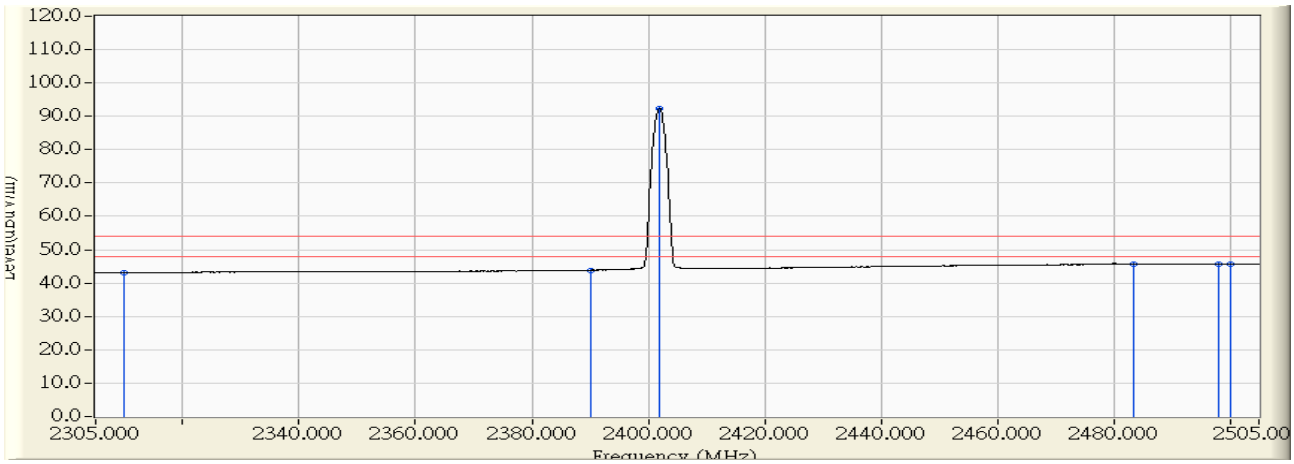


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.553	26.009	55.561	-18.439	74.000	PEAK
2		2390.000	30.582	25.570	56.152	-17.848	74.000	PEAK
3	*	2401.752	30.733	72.409	103.142	29.142	74.000	PEAK
4		2483.500	31.739	25.988	57.728	-16.272	74.000	PEAK
5		2496.404	31.774	27.728	59.502	-14.498	74.000	PEAK
6		2500.000	31.774	26.304	58.077	-15.923	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:15**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2402MHz**

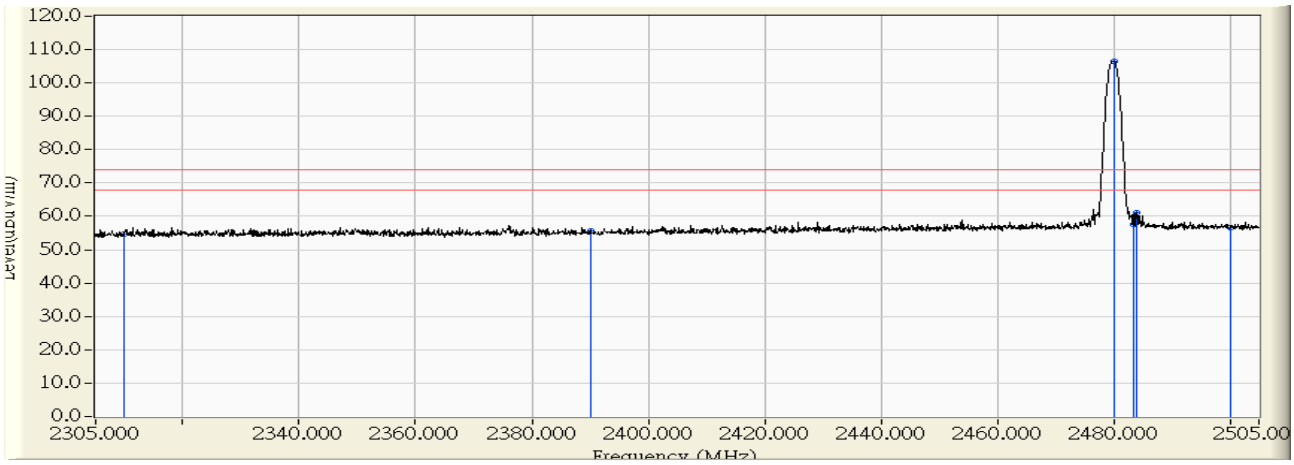


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.553	13.562	43.114	-10.886	54.000	AVERAGE
2		2390.000	30.582	13.273	43.855	-10.145	54.000	AVERAGE
3	*	2401.852	30.735	61.645	92.380	38.380	54.000	AVERAGE
4		2483.500	31.739	13.937	45.677	-8.323	54.000	AVERAGE
5		2498.003	31.773	14.008	45.782	-8.218	54.000	AVERAGE
6		2500.000	31.774	13.886	45.659	-8.341	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:24**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**

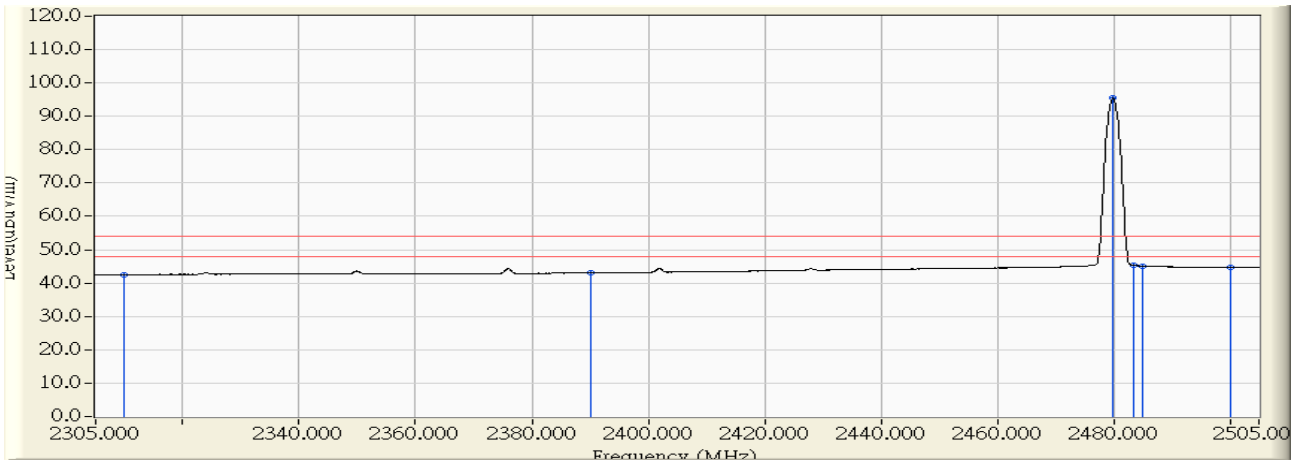


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.899	25.691	54.589	-19.411	74.000	PEAK
2		2390.000	29.768	25.767	55.535	-18.465	74.000	PEAK
3	*	2480.112	30.736	75.785	106.521	32.521	74.000	PEAK
4		2483.500	30.738	26.785	57.524	-16.476	74.000	PEAK
5		2483.910	30.740	30.456	61.195	-12.805	74.000	PEAK
6		2500.000	30.740	25.858	56.597	-17.403	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:25**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**

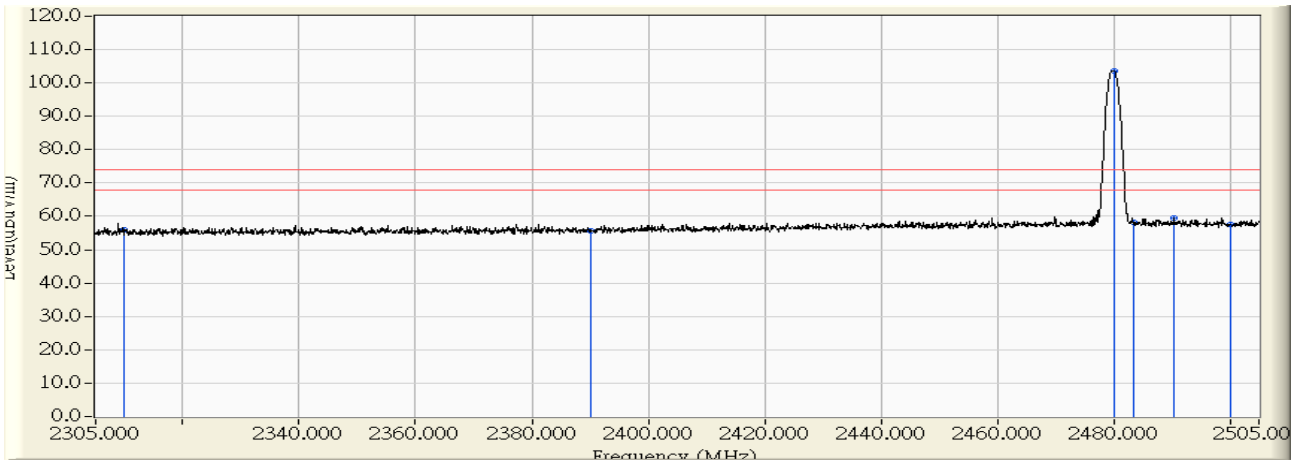


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	28.899	13.587	42.485	-11.515	54.000	AVERAGE
2		2390.000	29.768	13.255	43.023	-10.977	54.000	AVERAGE
3	*	2479.912	30.736	64.666	95.402	41.402	54.000	AVERAGE
4		2483.500	30.738	14.602	45.341	-8.659	54.000	AVERAGE
5		2484.910	30.740	14.335	45.075	-8.925	54.000	AVERAGE
6		2500.000	30.740	14.032	44.771	-9.229	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:35**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**

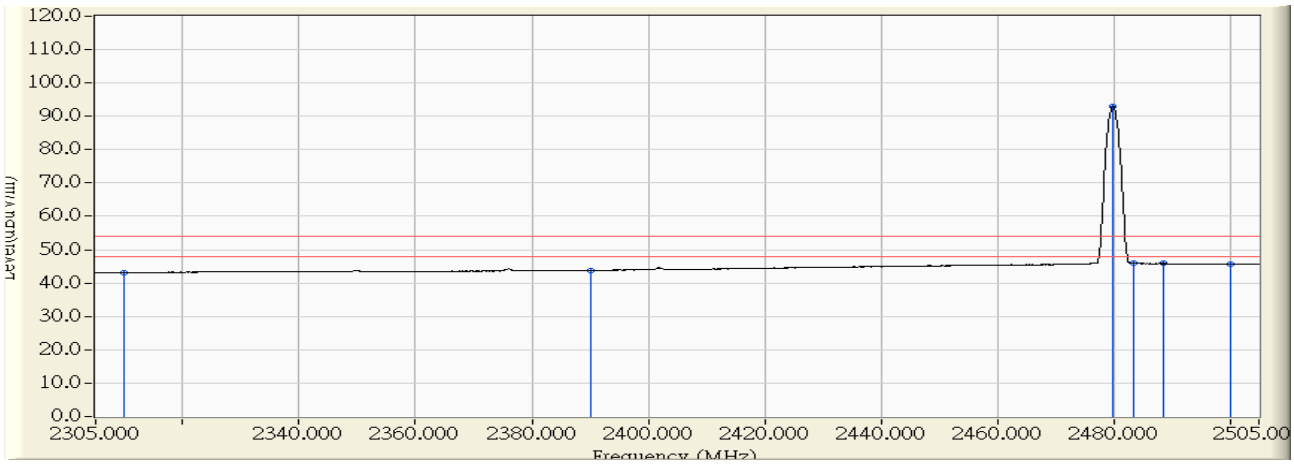


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.553	26.490	56.042	-17.958	74.000	PEAK
2		2390.000	30.582	25.170	55.752	-18.248	74.000	PEAK
3	*	2480.112	31.730	72.022	103.753	29.753	74.000	PEAK
4		2483.500	31.739	26.549	58.289	-15.711	74.000	PEAK
5		2490.507	31.759	27.866	59.625	-14.375	74.000	PEAK
6		2500.000	31.774	25.945	57.718	-16.282	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2015/05/12 - 20:36**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ASUS SRT-AC1900 Wireless Smart Router	**Note : Mode 1: Tx-AD891M21 GFSK_2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.553	13.568	43.120	-10.880	54.000	AVERAGE
2		2390.000	30.582	13.219	43.801	-10.199	54.000	AVERAGE
3	*	2479.912	31.730	61.341	93.071	39.071	54.000	AVERAGE
4		2483.500	31.739	14.209	45.949	-8.051	54.000	AVERAGE
5		2488.508	31.754	14.099	45.853	-8.147	54.000	AVERAGE
6		2500.000	31.774	13.973	45.746	-8.254	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

7. Number of hopping frequency

7.1. Test Equipment

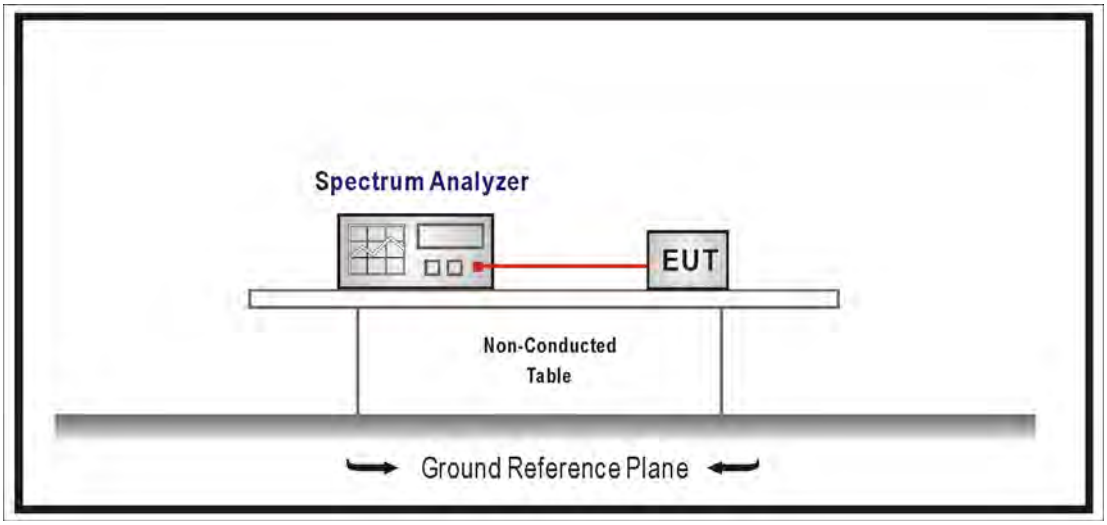
The following test equipment is used during the test:

Number of hopping frequency / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

For frequency hopping systems operating in the 2400-2483.5 MHz bands, which use fewer than 75 hopping frequencies, may employ intelligent hopping techniques to avoid interference to other transmissions. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 non-overlapping channels are used.

For frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.

7.4. Test Procedures

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements ,

Span = the frequency band of operation ,RBW ≥ 1% of the span , VBW ≥ RBW ,

Sweep = auto, Detector function = peak, Trace = max hold.

7.5. Test Specification

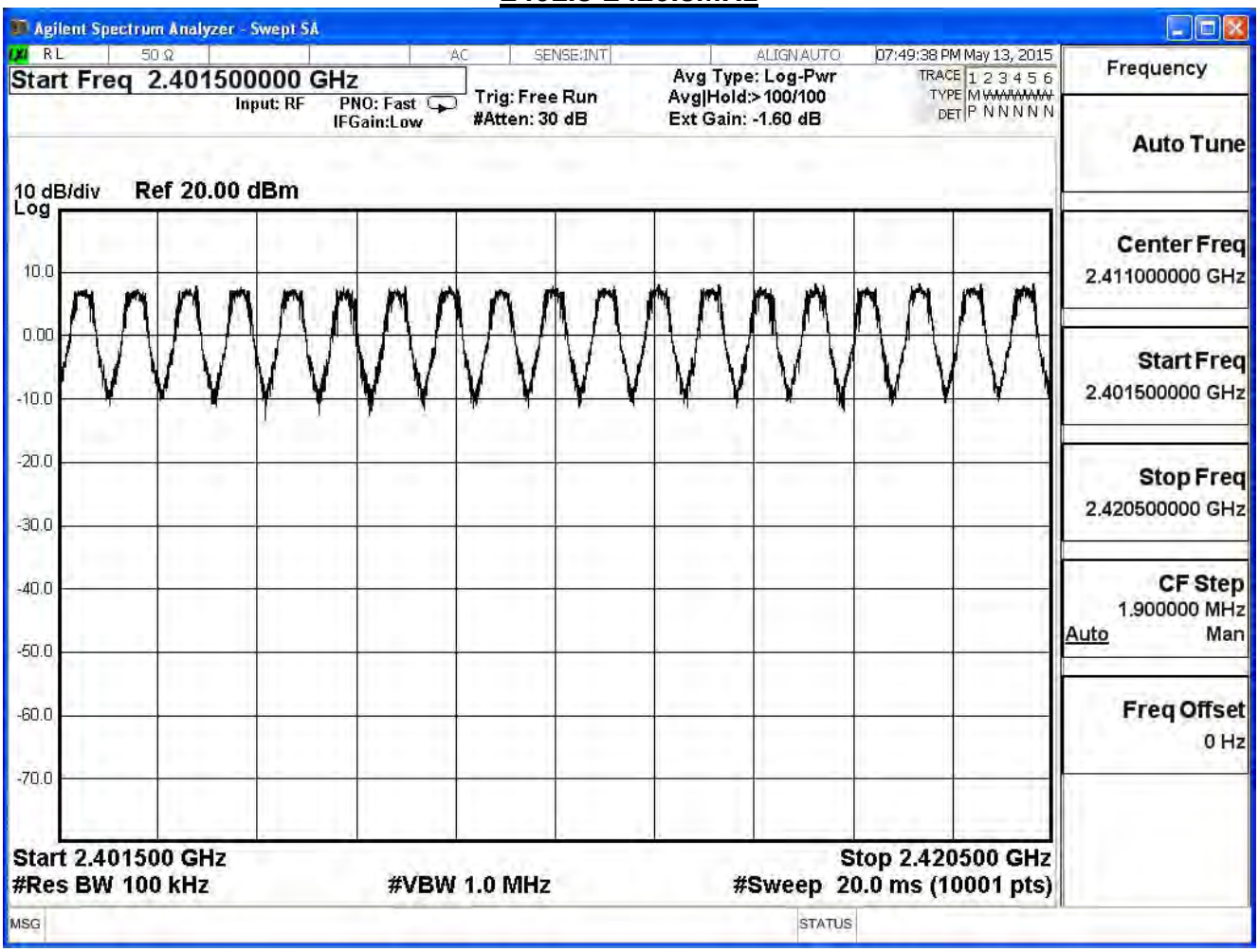
According to FCC Part 15 Subpart C Paragraph 15.247: 2014

7.6. Test Result

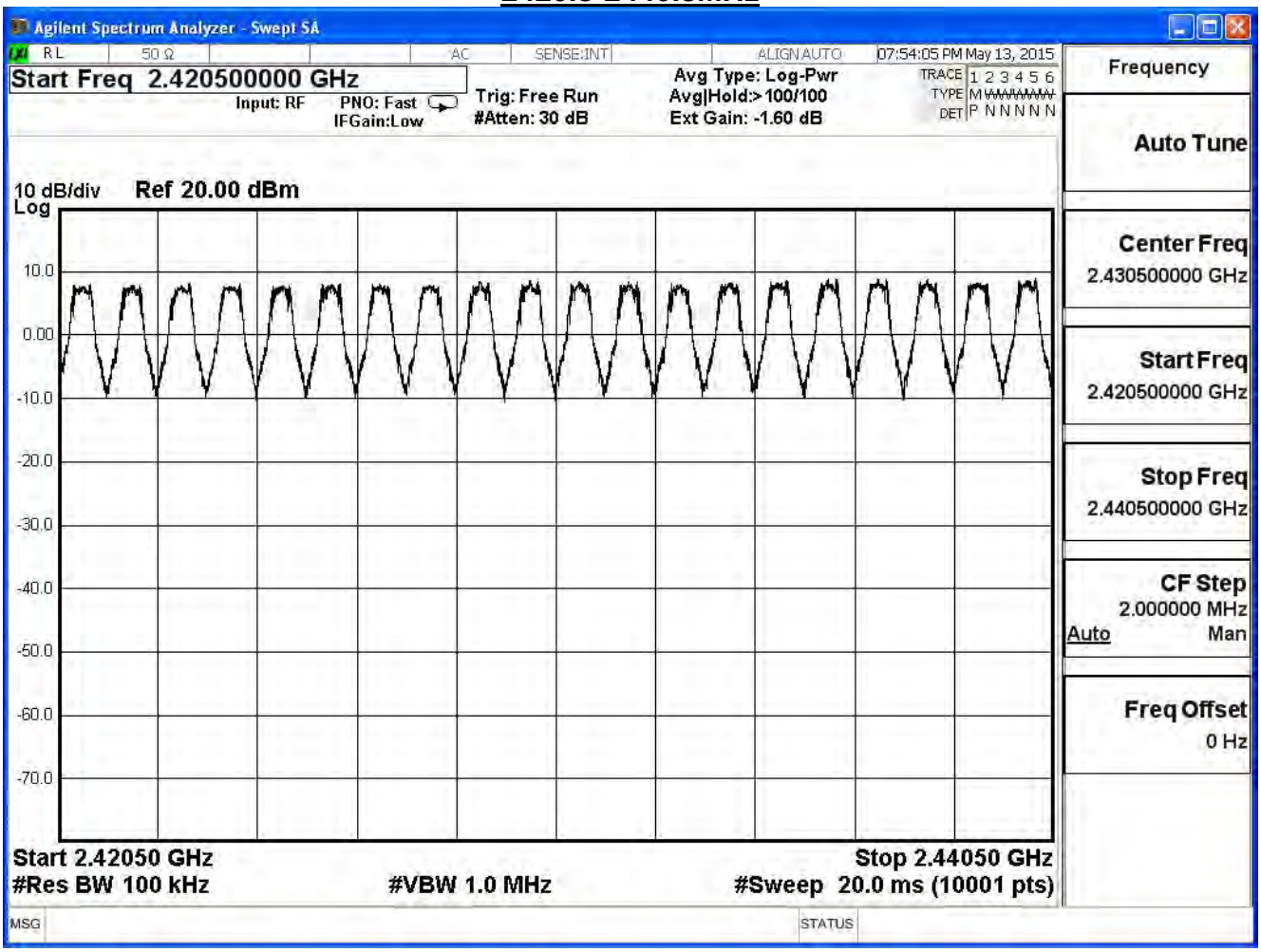
Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Number of hopping frequency		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/20	Test Site	SR7

Frequency Range (MHz)	Measure Level (Channels)	Limit (Channels)	Result
2402 - 2480	79	≧ 75	Pass

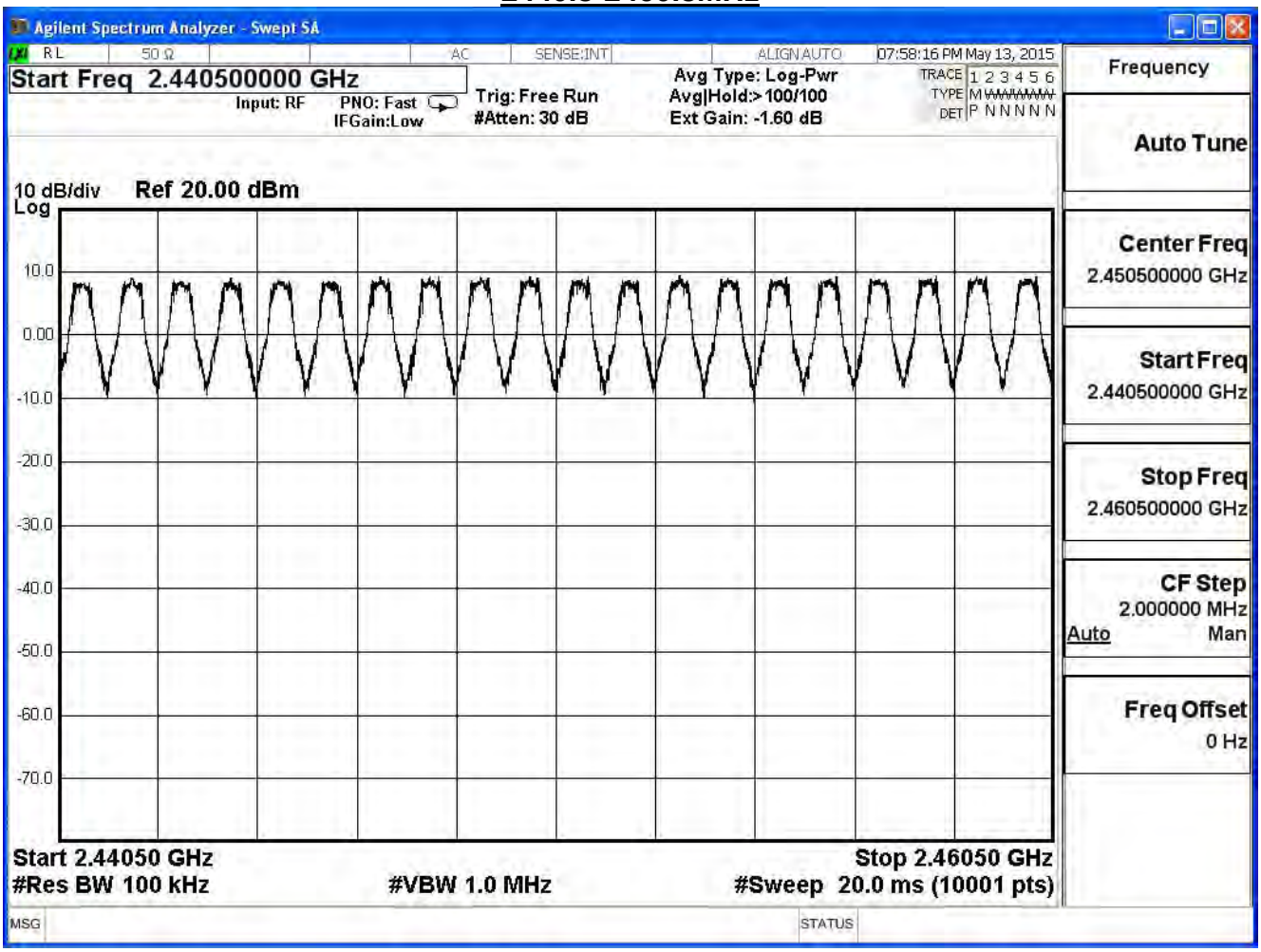
2401.5-2420.5MHz



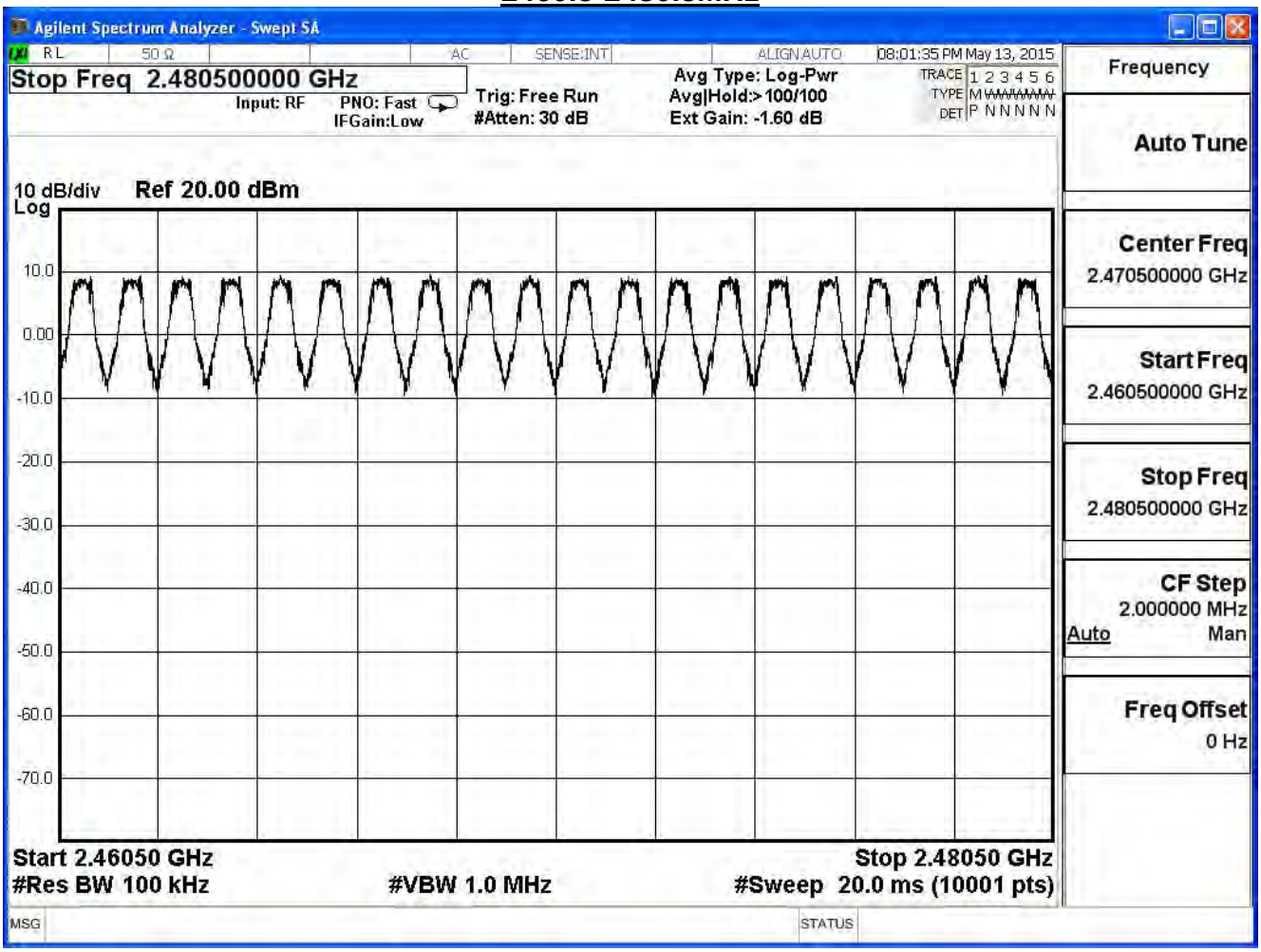
2420.5-2440.5MHz



2440.5-2460.5MHz



2460.5-2480.5MHz



8. Carrier Frequency Separation

8.1. Test Equipment

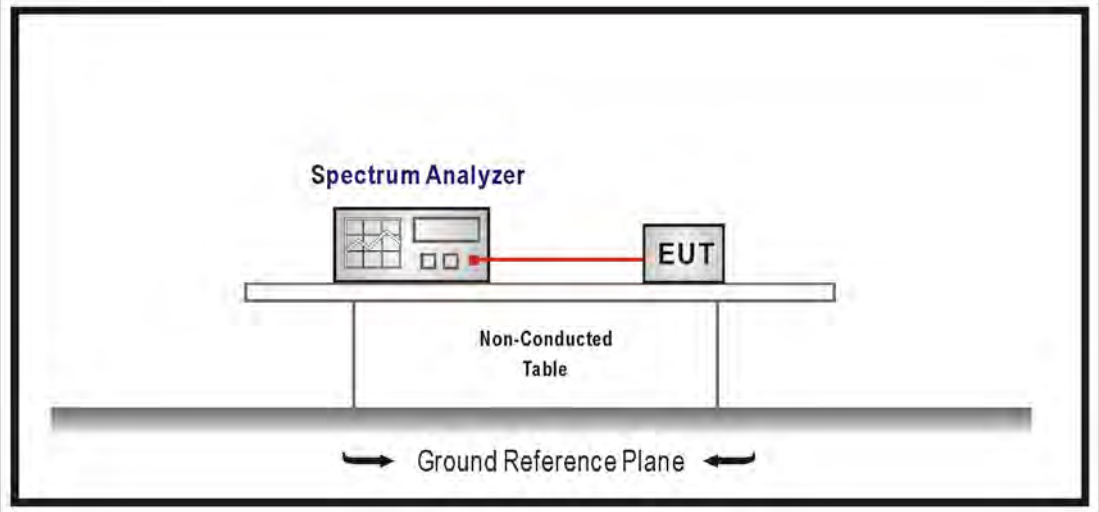
The following test equipment is used during the test:

Carrier Frequency Separation / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup



8.3. Limits

For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

8.4. Test Procedures

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Span = wide enough to capture the peaks of two adjacent channels
Resolution Bandwidth (RBW) ≥ 1% of the span, VBW ≥ RBW
Sweep = auto, Detector function = peak, Trace = max hold

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

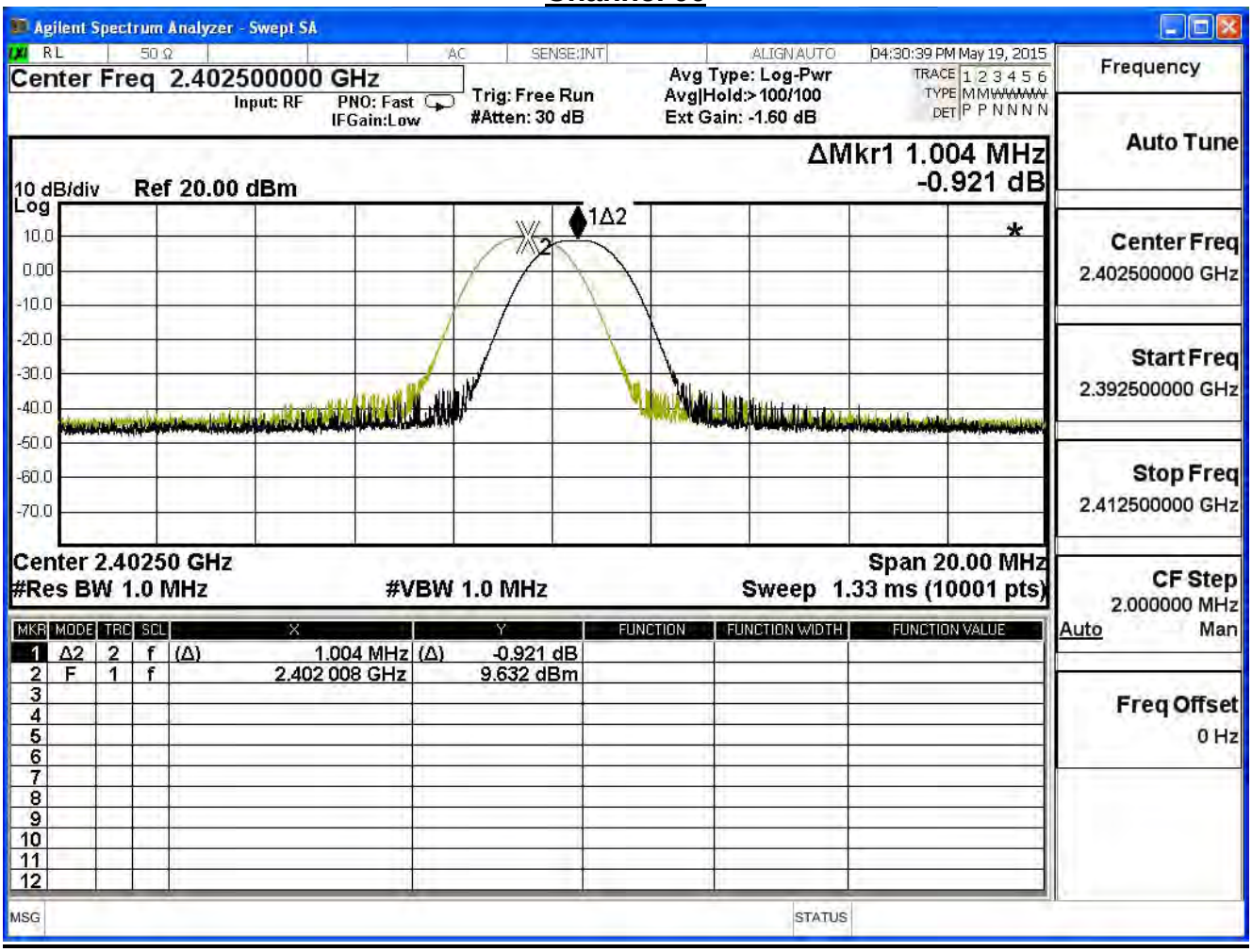
8.6. Test Result

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

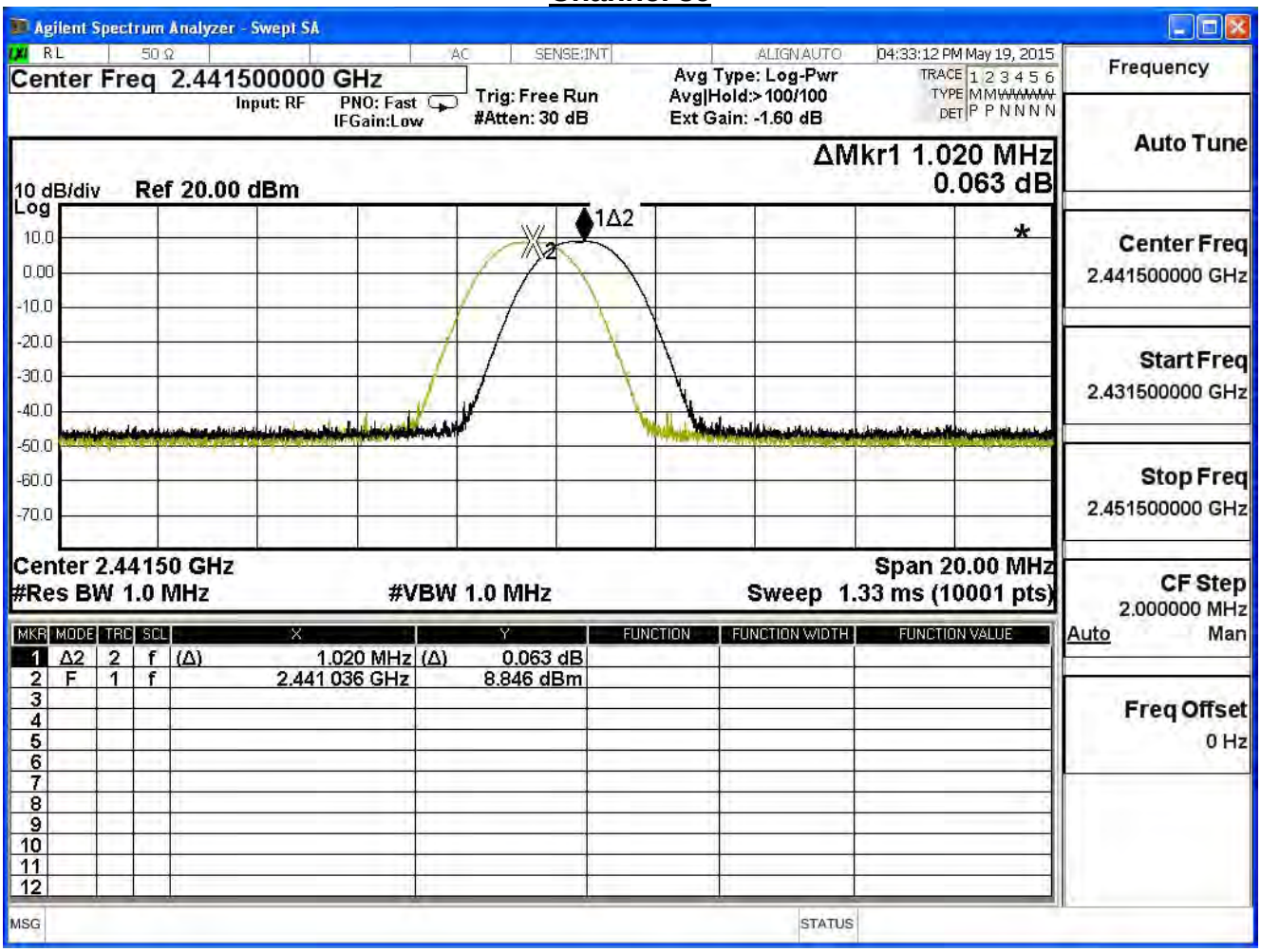
GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.004	0.729	Pass
39	2441	1.020	0.725	Pass
78	2480	1.000	0.719	Pass

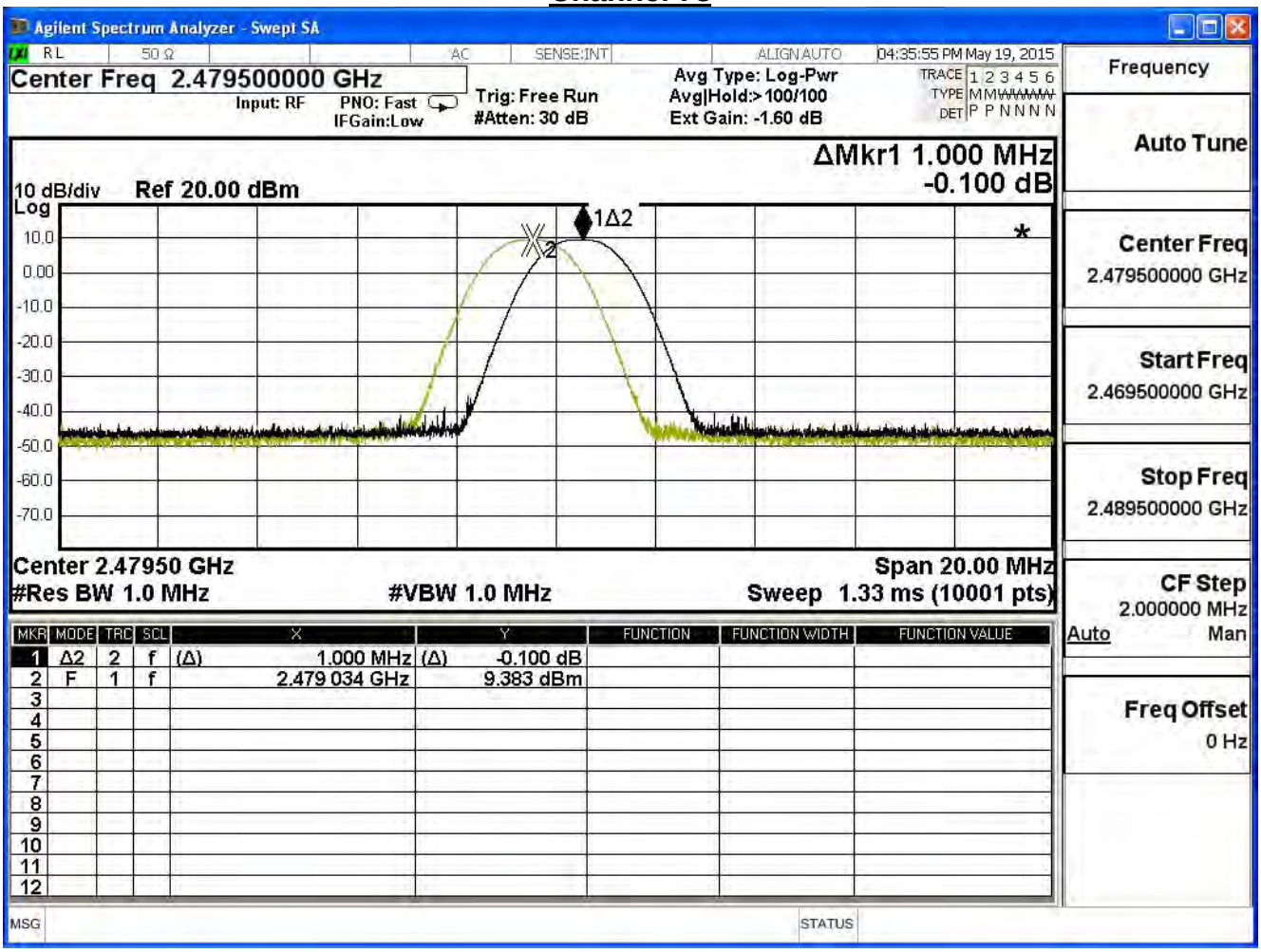
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:33:12 PM May 19, 2015
Center Freq 2.441500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W W
DET P P N N N N N
ΔMkr1 1.020 MHz
0.063 dB
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1Δ2
Center 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 2 f (Δ) 1.020 MHz (Δ) 0.063 dB
2 F 1 f 2.441 036 GHz 8.846 dBm
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.431500000 GHz
Stop Freq
2.451500000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Channel 78

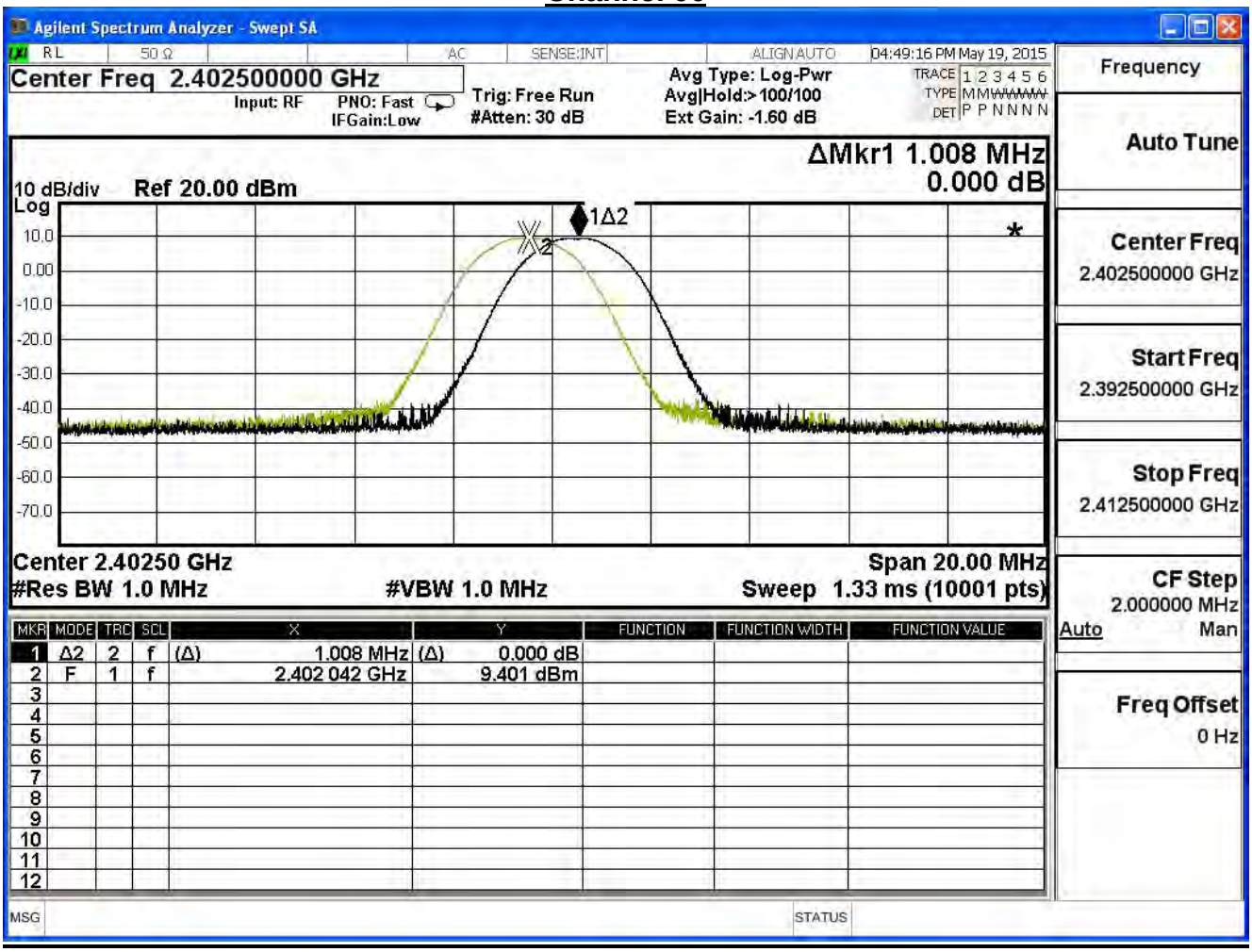

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:35:55 PM May 19, 2015
Center Freq 2.479500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W W
DET P P N N N N N
ΔMkr1 1.000 MHz
-0.100 dB
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1Δ2
Center 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 2 f (Δ) 1.000 MHz (Δ) -0.100 dB
2 F 1 f 2.479 034 GHz 9.383 dBm
Frequency
Auto Tune
Center Freq
2.479500000 GHz
Start Freq
2.469500000 GHz
Stop Freq
2.489500000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

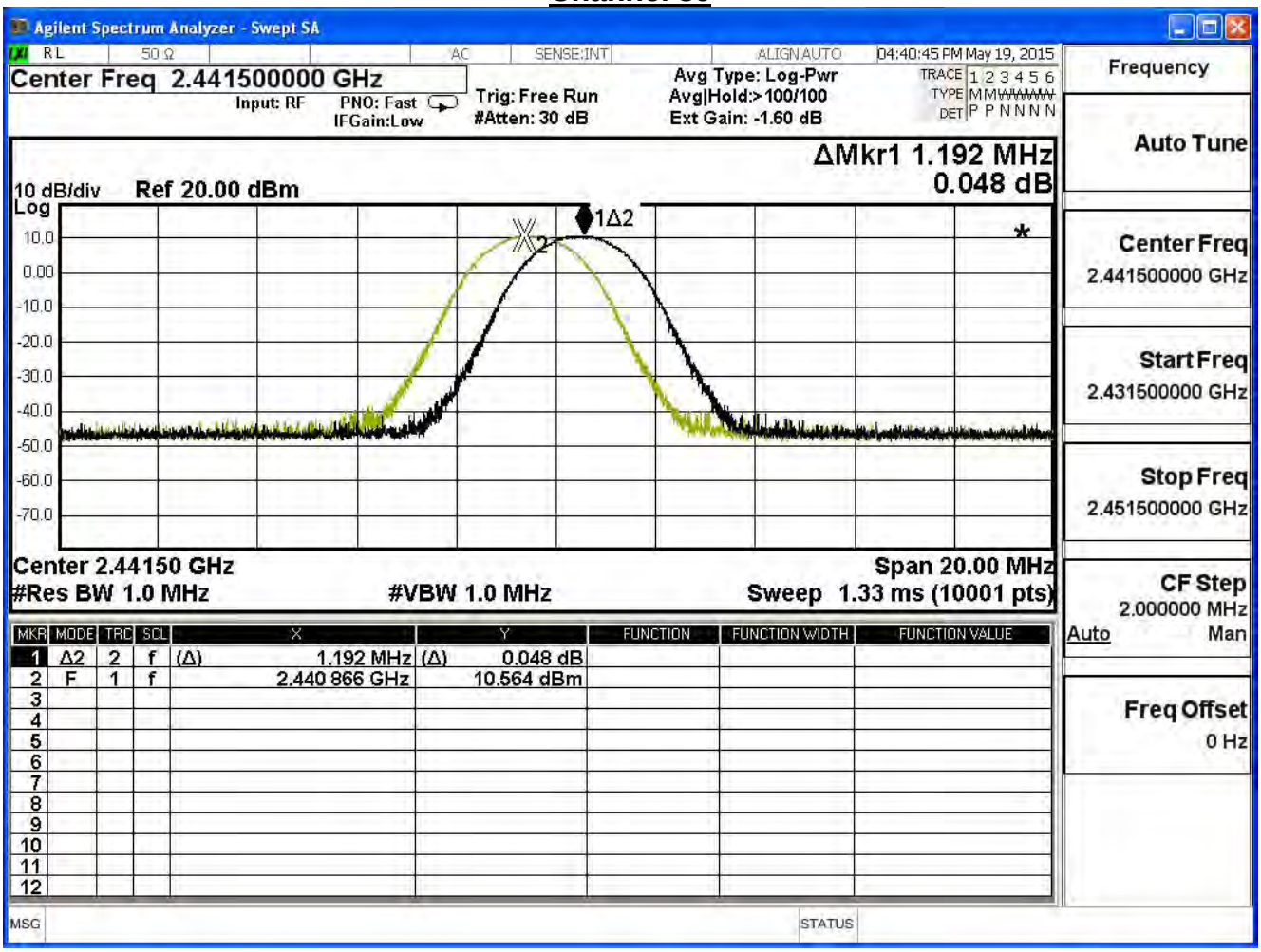
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.008	0.908	Pass
39	2441	1.192	0.896	Pass
78	2480	1.028	0.902	Pass

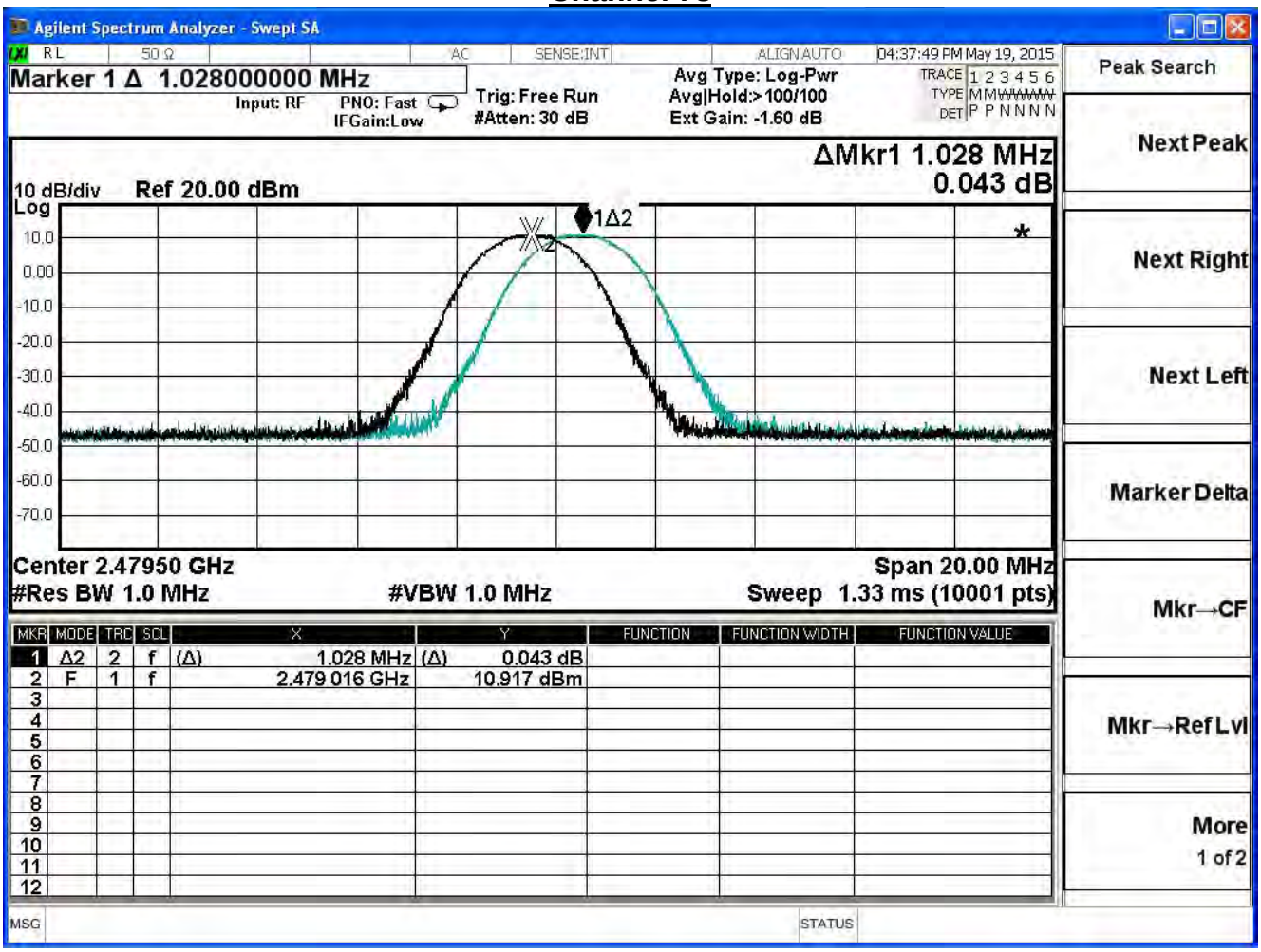
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:40:45 PM May 19, 2015
Center Freq 2.441500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W W
DET P P N N N N N
ΔMkr1 1.192 MHz
0.048 dB
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1Δ2
Center 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 2 f (Δ) 1.192 MHz (Δ) 0.048 dB
2 F 1 f 2.440 866 GHz 10.564 dBm
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.431500000 GHz
Stop Freq
2.451500000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Channel 78

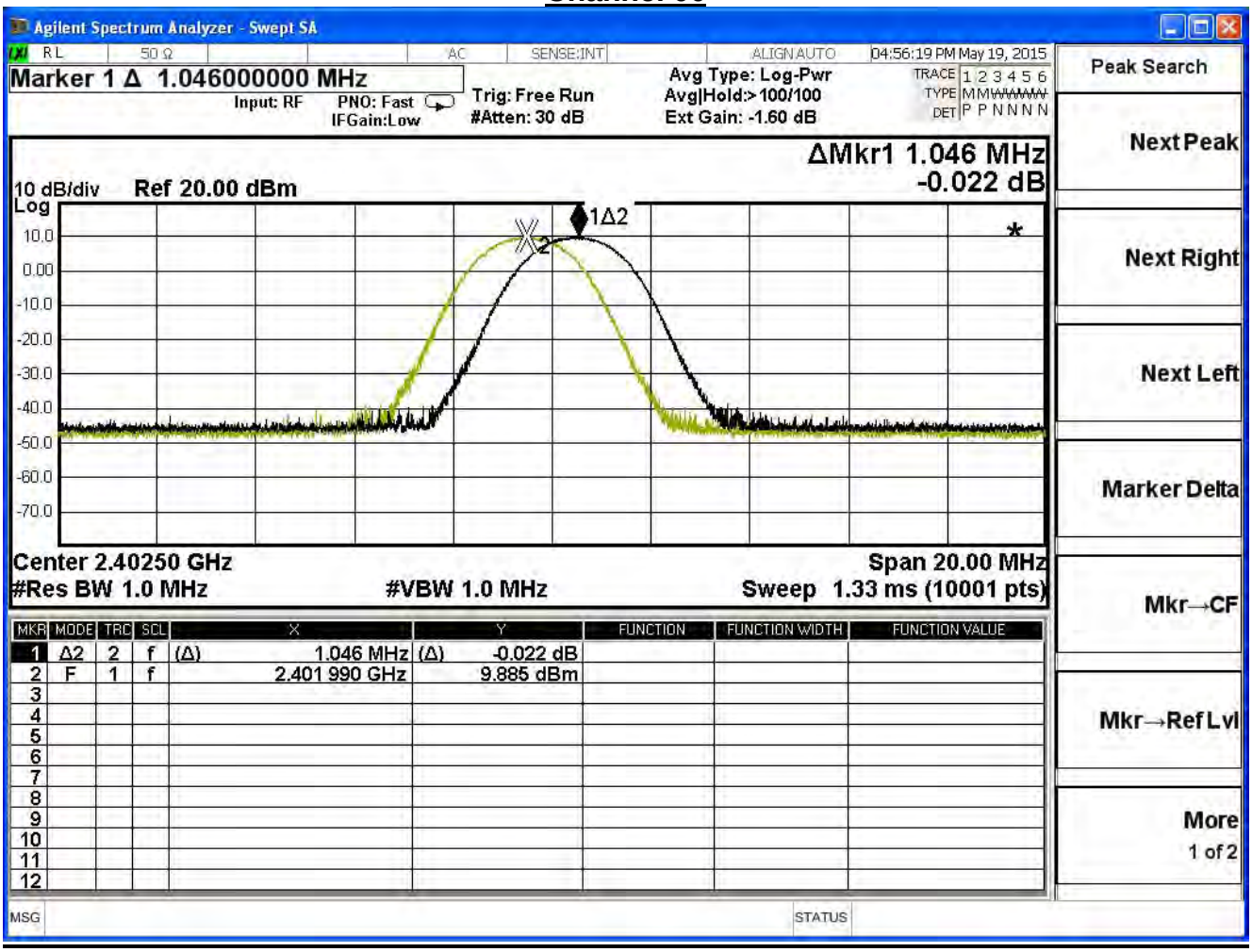

Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ 1.028000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
04:37:49 PM May 19, 2015
ΔMkr1 1.028 MHz
0.043 dB
10 dB/div
Log
Ref 20.00 dBm
Center 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
1 Δ2 1.028 MHz 0.043 dB
2 F 1 f 2.479 016 GHz 10.917 dBm
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

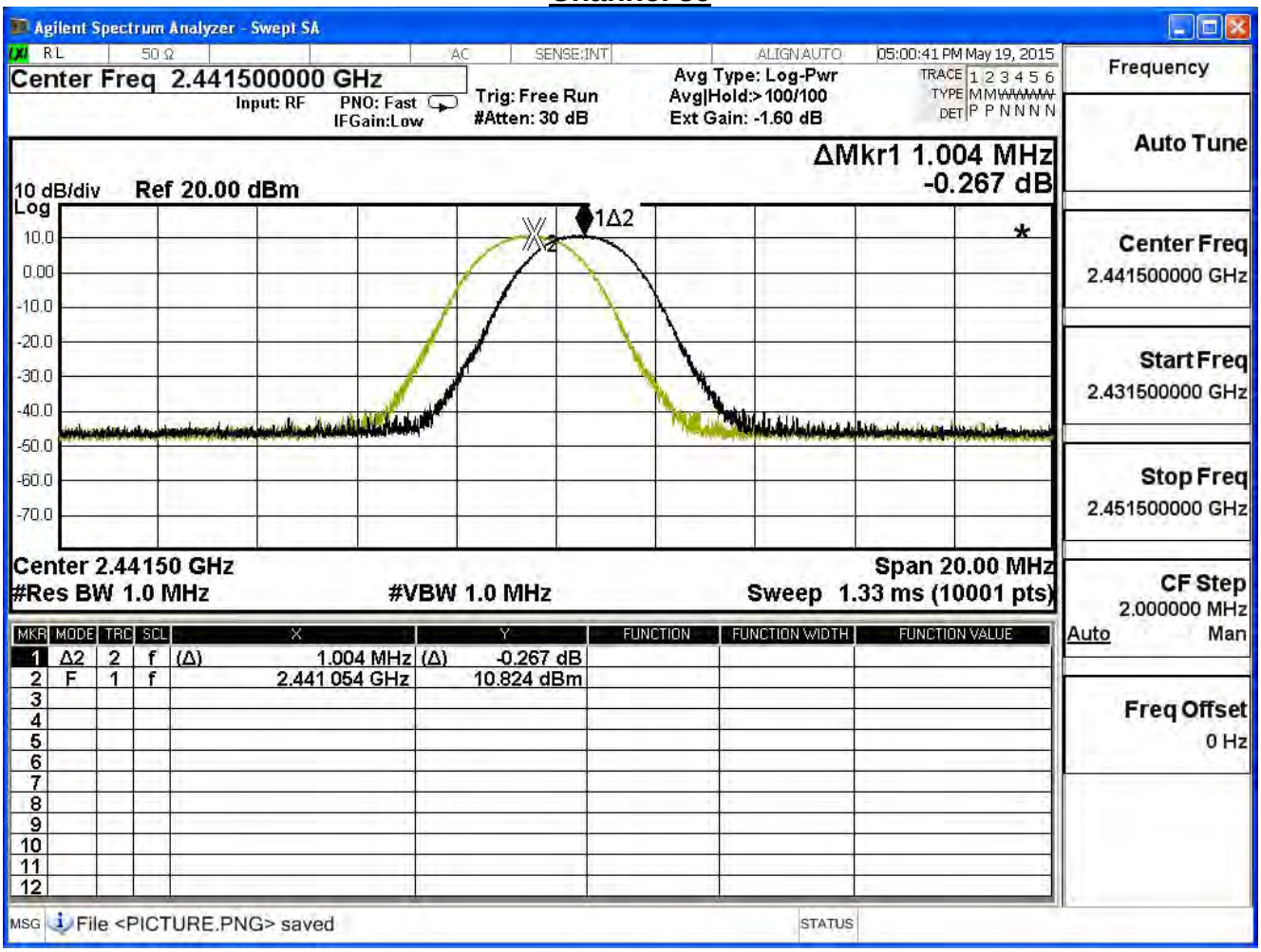
8-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.046	0.896	Pass
39	2441	1.004	0.913	Pass
78	2480	1.006	0.917	Pass

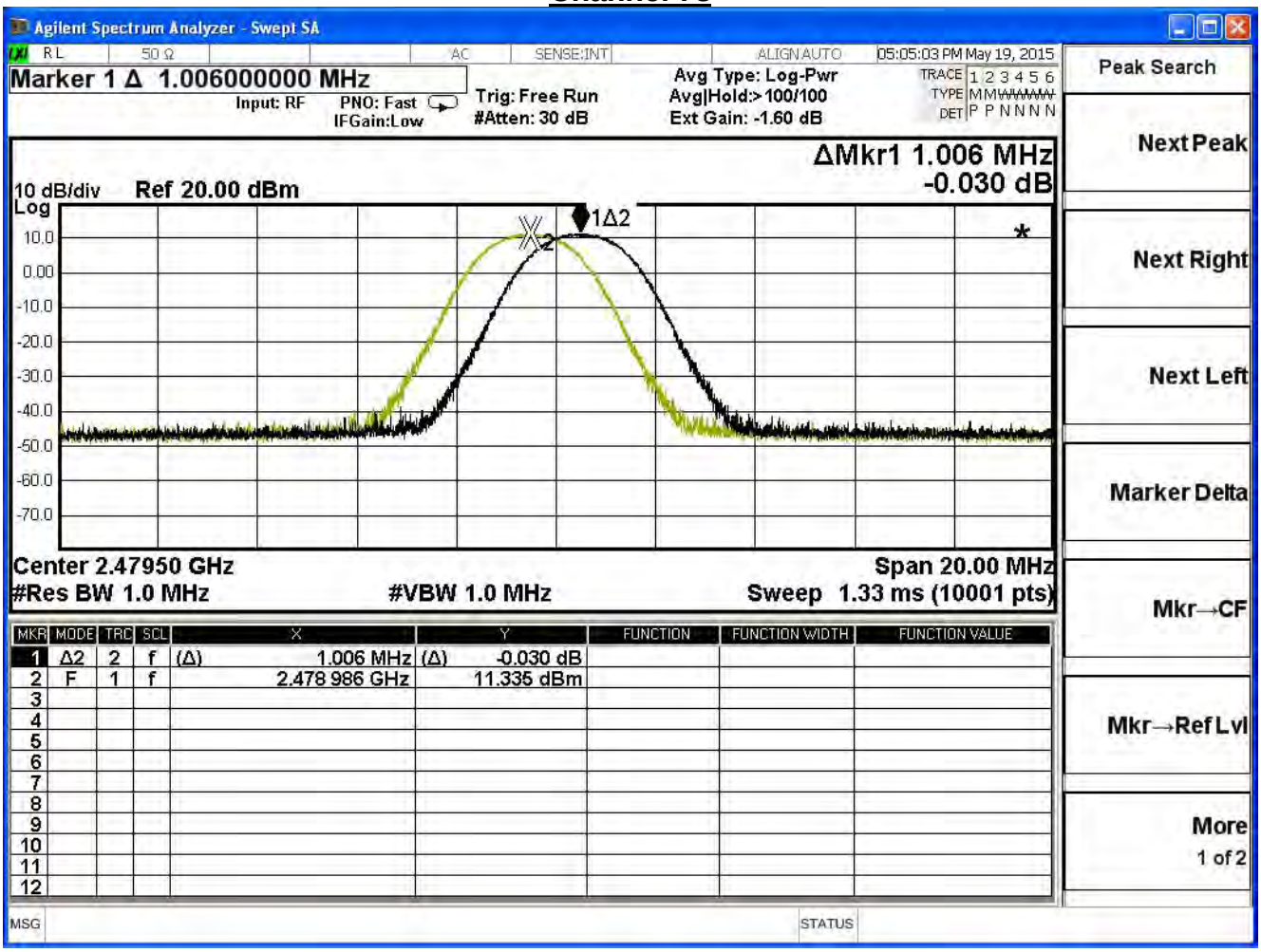
Channel 00



Channel 39


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441500000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
05:00:41 PM May 19, 2015
ΔMkr1 1.004 MHz
-0.267 dB
10 dB/div
Log
Ref 20.00 dBm
Center 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
1 Δ2 2 f (Δ) 1.004 MHz (Δ) -0.267 dB
2 F 1 f 2.441 054 GHz 10.824 dBm
File <PICTURE.PNG> saved
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.431500000 GHz
Stop Freq
2.451500000 GHz
CF Step
2.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 78


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:05:03 PM May 19, 2015
Marker 1 Δ 1.006000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.60 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W W
DET P P N N N N N
ΔMkr1 1.006 MHz
-0.030 dB
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1Δ2
Center 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.33 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 2 f (Δ) 1.006 MHz (Δ) -0.030 dB
2 F 1 f 2.478 986 GHz 11.335 dBm
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

9. Occupied Bandwidth

9.1. Test Equipment

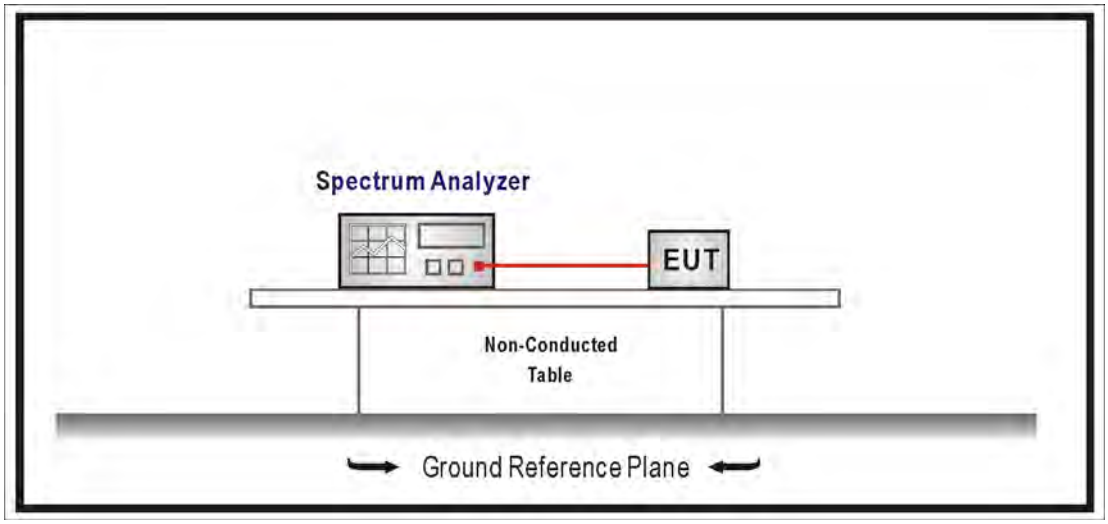
The following test equipment is used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

9.2. Test Setup



9.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
For frequency hopping systems operating in the 5725-5850 MHz bands. The maximum 20 dB bandwidth of the hopping channel is 1 MHz.
For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

9.4. Test Procedures

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW , Sweep = auto, Detector function = peak, Trace = max hold , The EUT should be transmitting at its maximum data rate.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

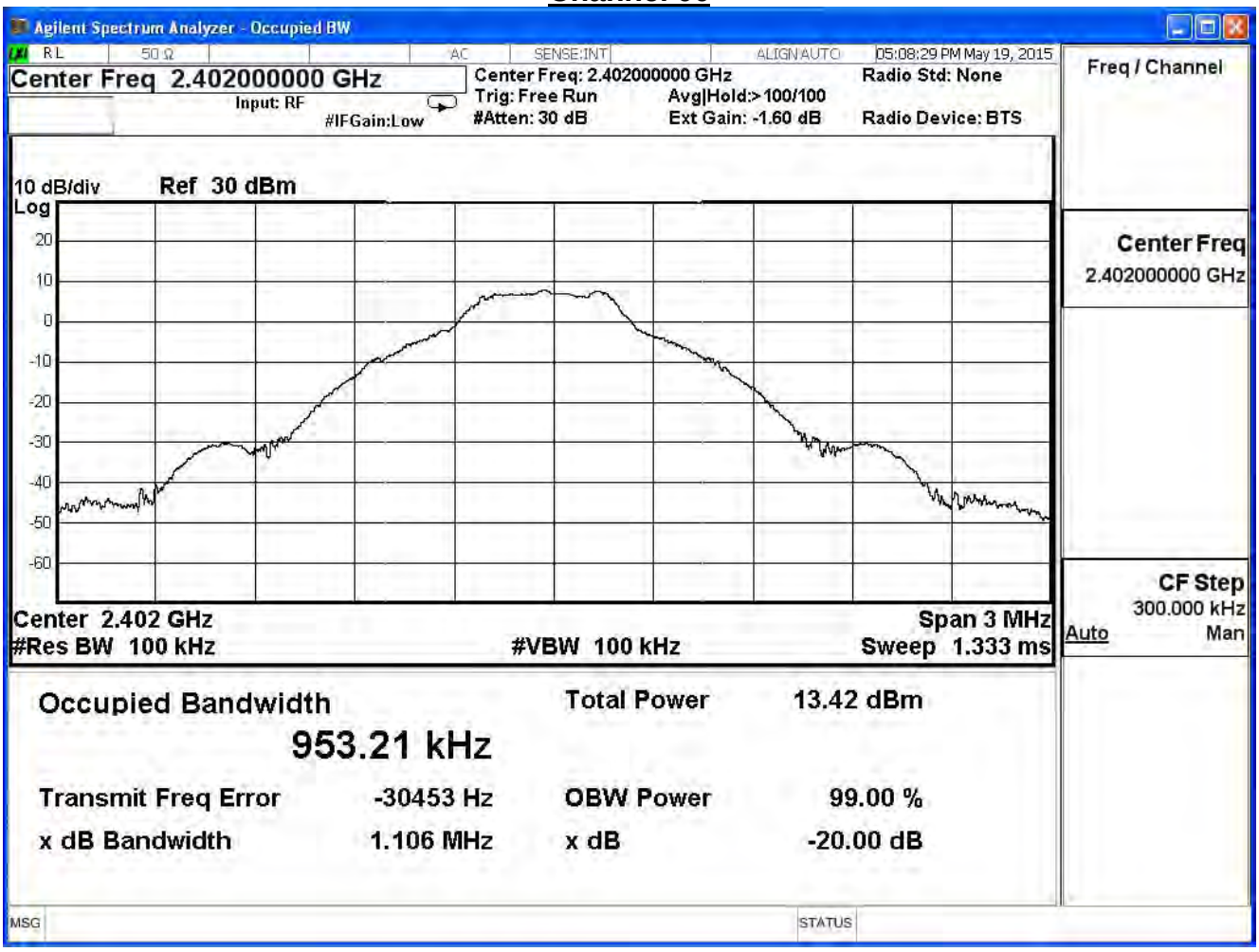
9.6. Test Result

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

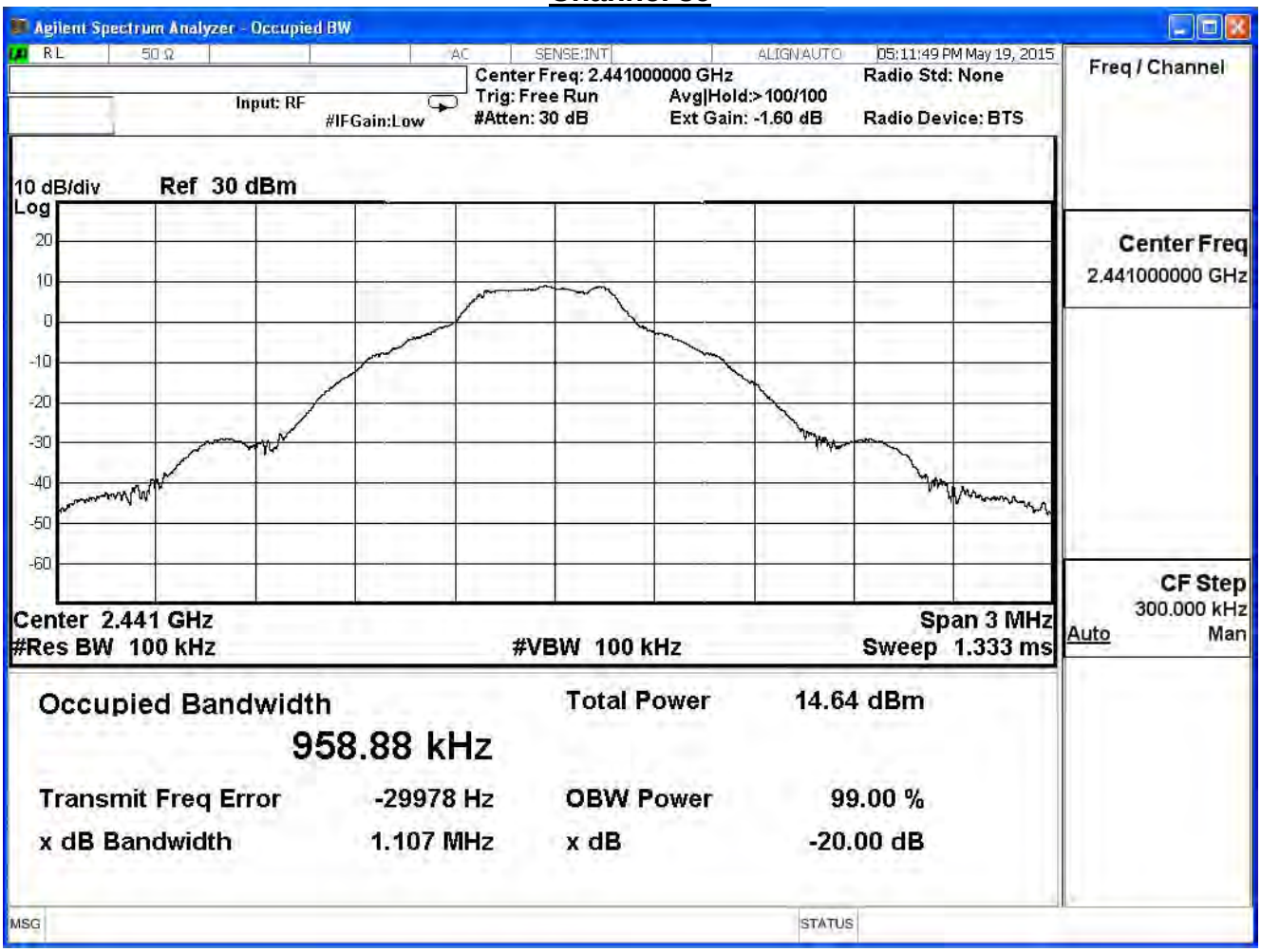
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.106	--	Pass
39	2441	1.107	--	Pass
78	2480	1.107	--	Pass

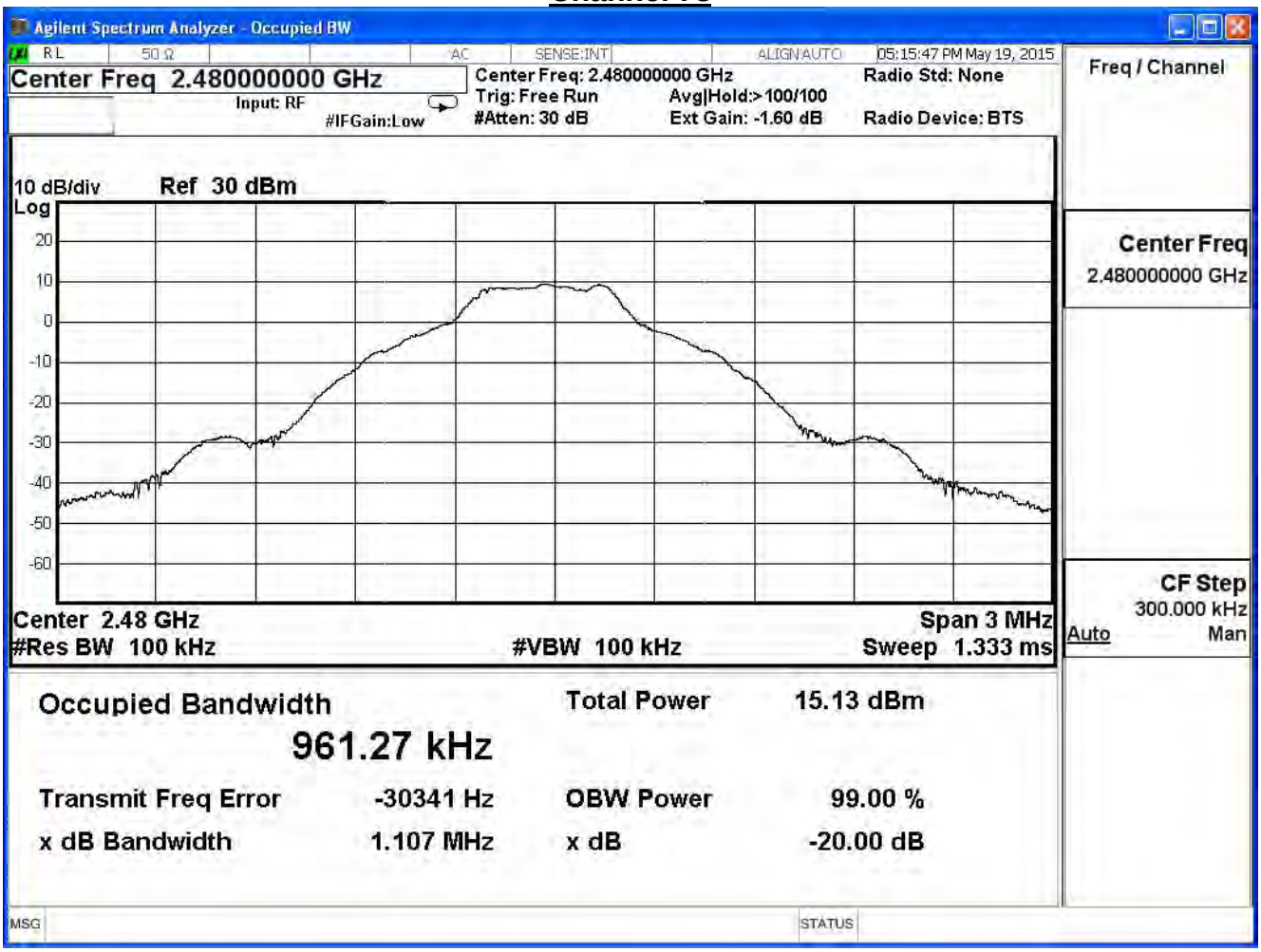
Channel 00



Channel 39


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:11:49 PM May 19, 2015
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.60 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
958.88 kHz
Total Power
14.64 dBm
Transmit Freq Error
-29978 Hz
OBW Power
99.00 %
x dB Bandwidth
1.107 MHz
x dB
-20.00 dB
MSG
STATUS

Channel 78

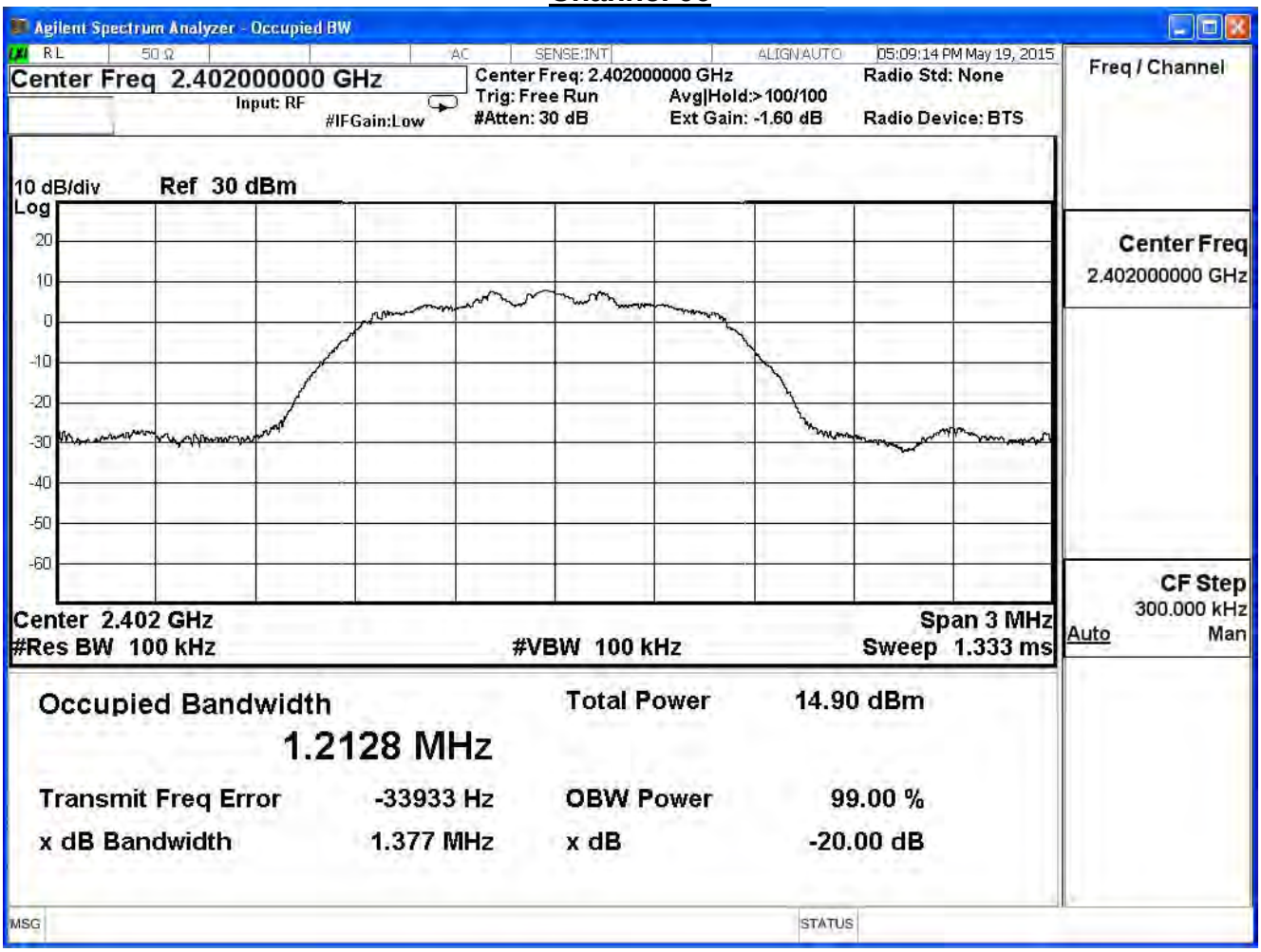

Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:15:47 PM May 19, 2015
Center Freq 2.480000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
961.27 kHz
Total Power
15.13 dBm
Transmit Freq Error
-30341 Hz
OBW Power
99.00 %
x dB Bandwidth
1.107 MHz
x dB
-20.00 dB
MSG
STATUS

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

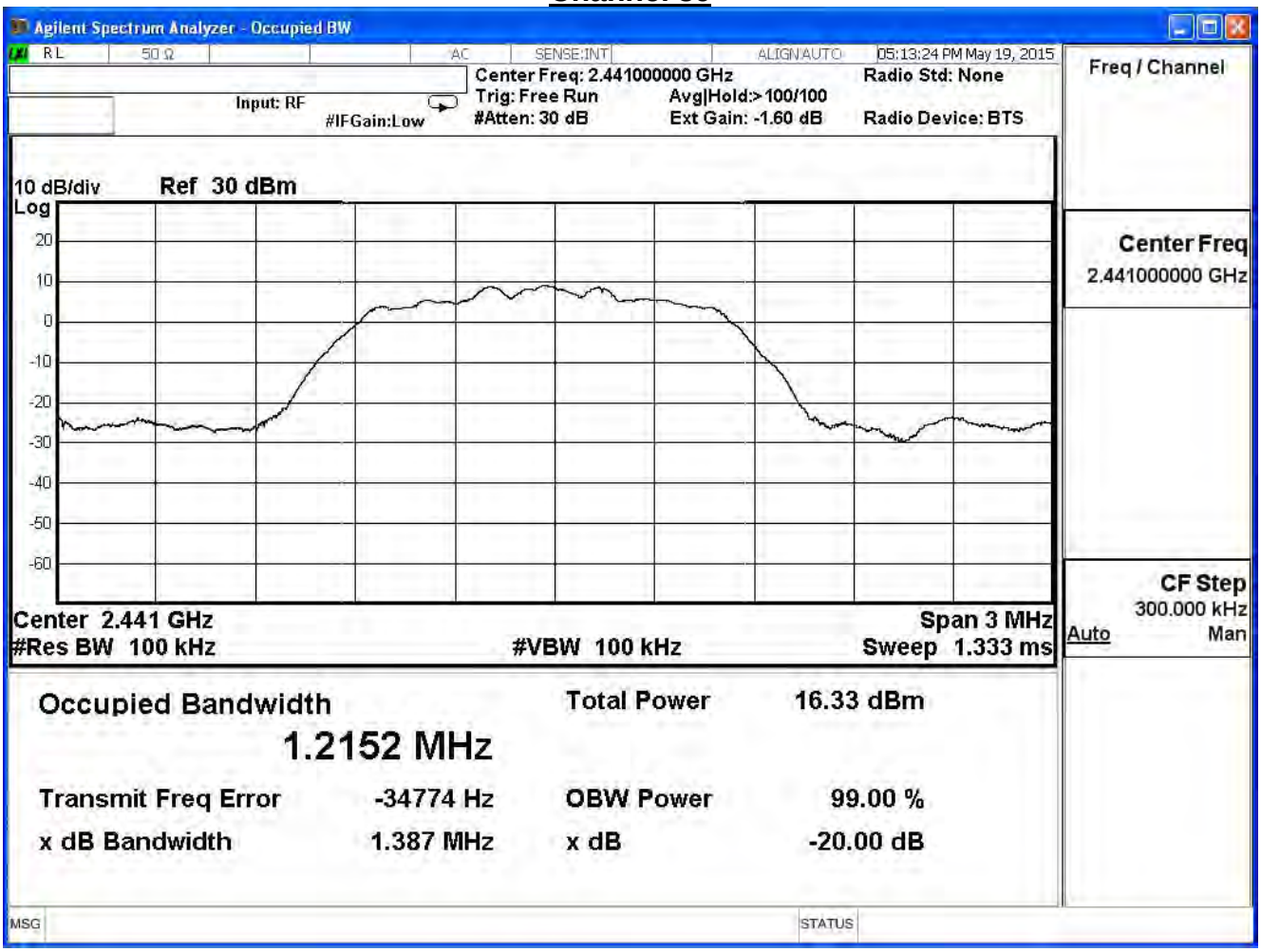
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.377	--	Pass
39	2441	1.387	--	Pass
78	2480	1.384	--	Pass

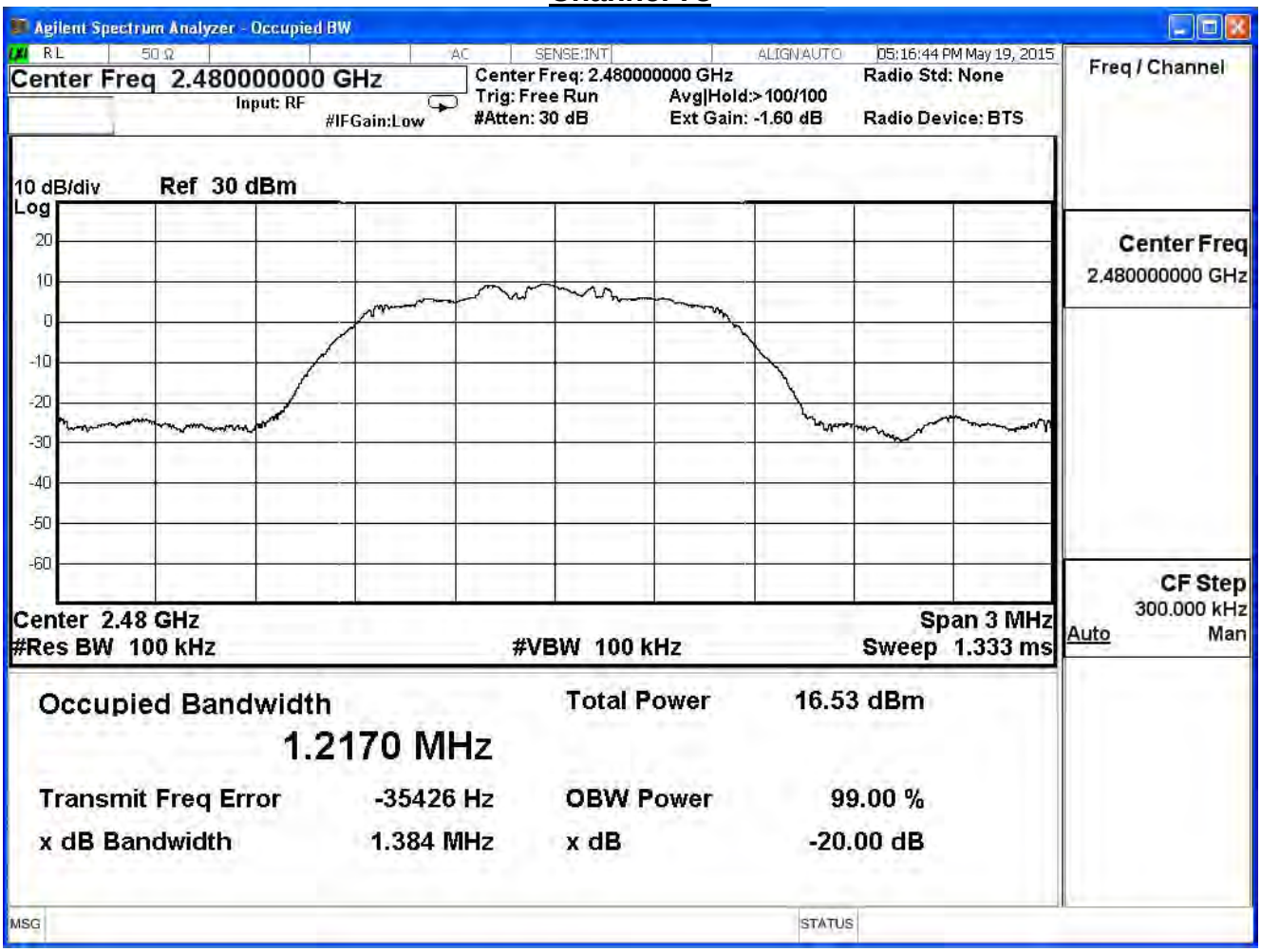
Channel 00



Channel 39


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:13:24 PM May 19, 2015
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.60 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.2152 MHz
Total Power
16.33 dBm
Transmit Freq Error
-34774 Hz
OBW Power
99.00 %
x dB Bandwidth
1.387 MHz
x dB
-20.00 dB
MSG
STATUS

Channel 78

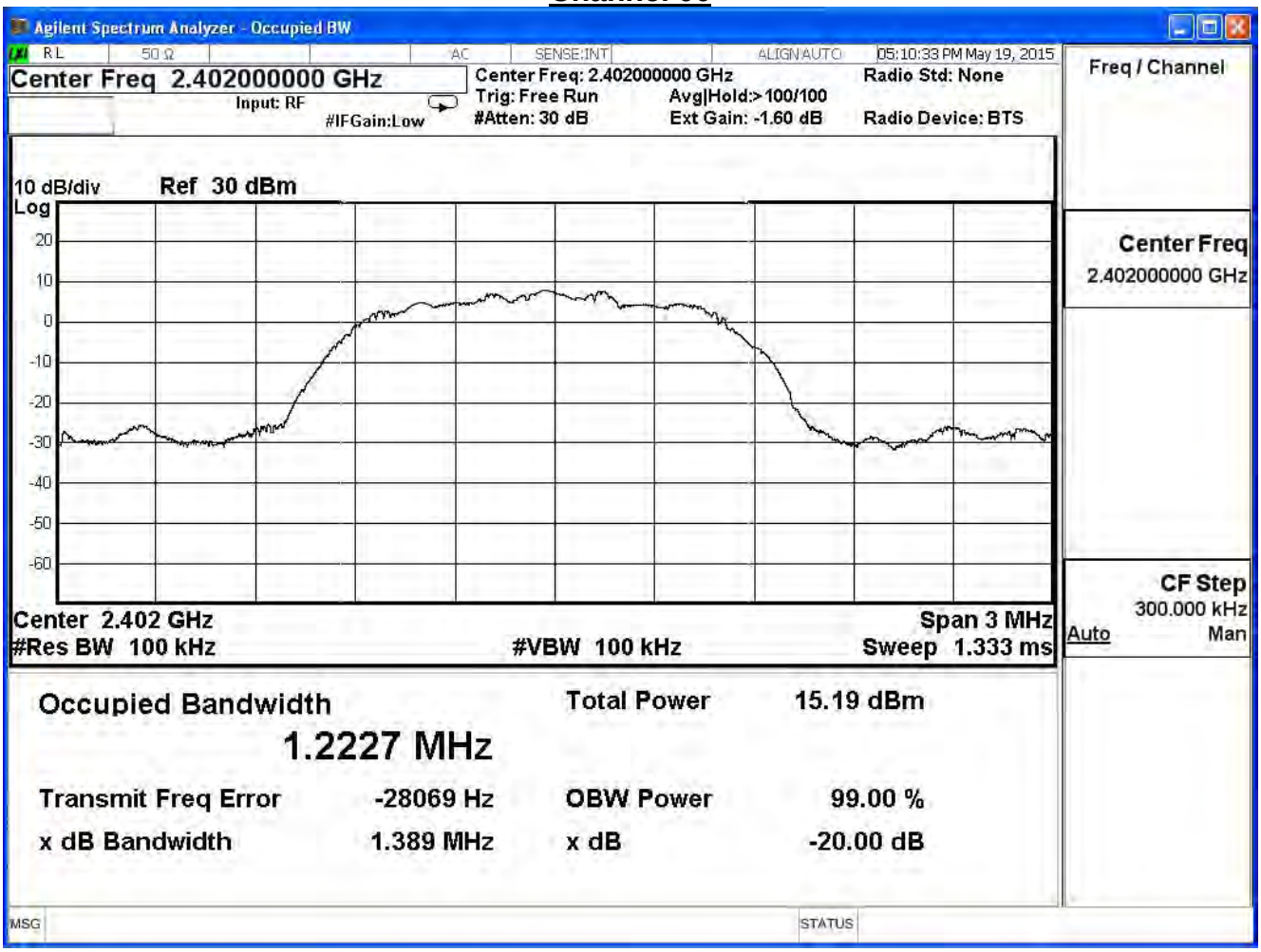

Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:16:44 PM May 19, 2015
Center Freq 2.480000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.480000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.2170 MHz
Total Power
16.53 dBm
Transmit Freq Error
-35426 Hz
OBW Power
99.00 %
x dB Bandwidth
1.384 MHz
x dB
-20.00 dB
MSG
STATUS

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

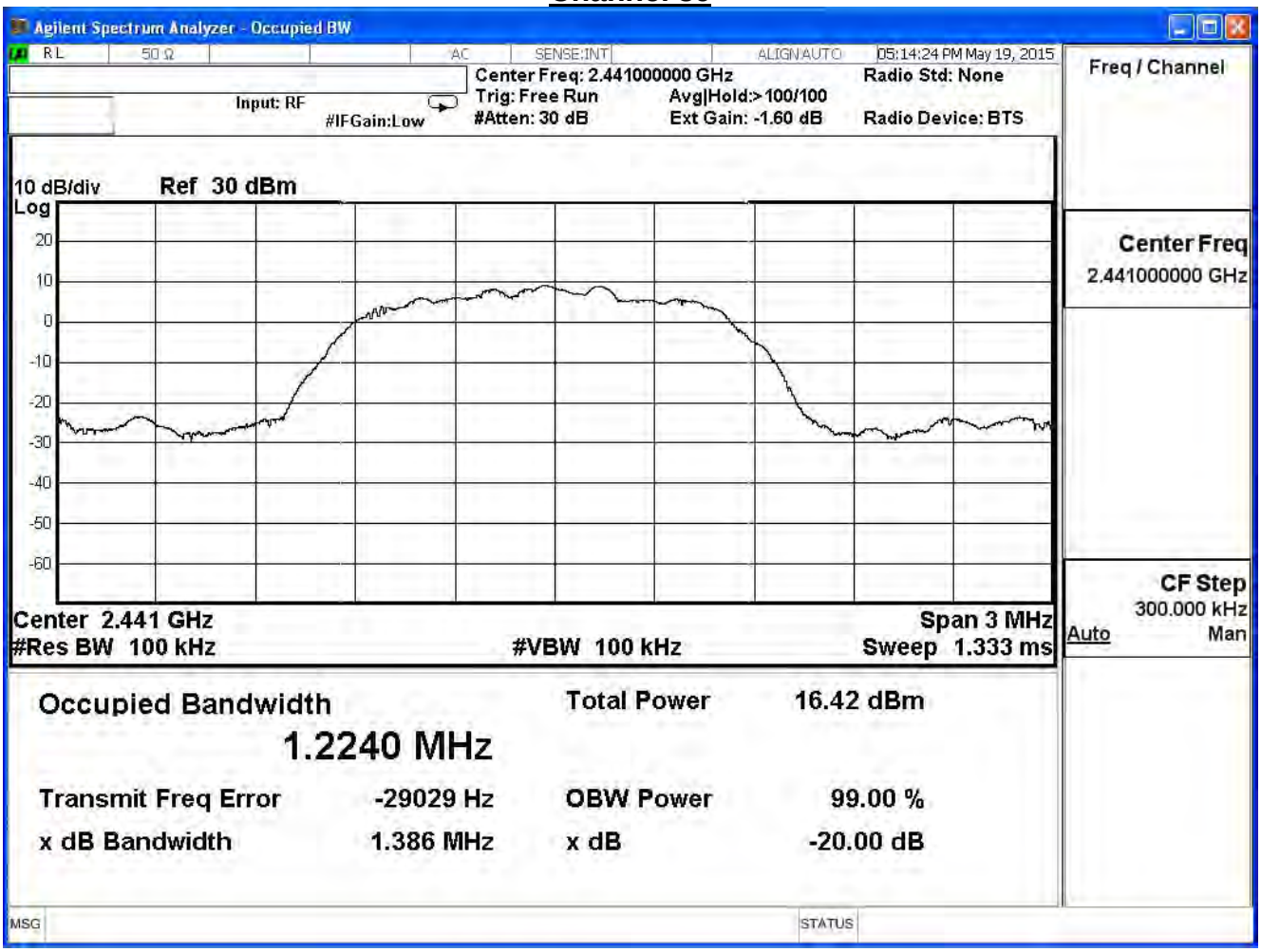
8-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.389	--	Pass
39	2441	1.386	--	Pass
78	2480	1.385	--	Pass

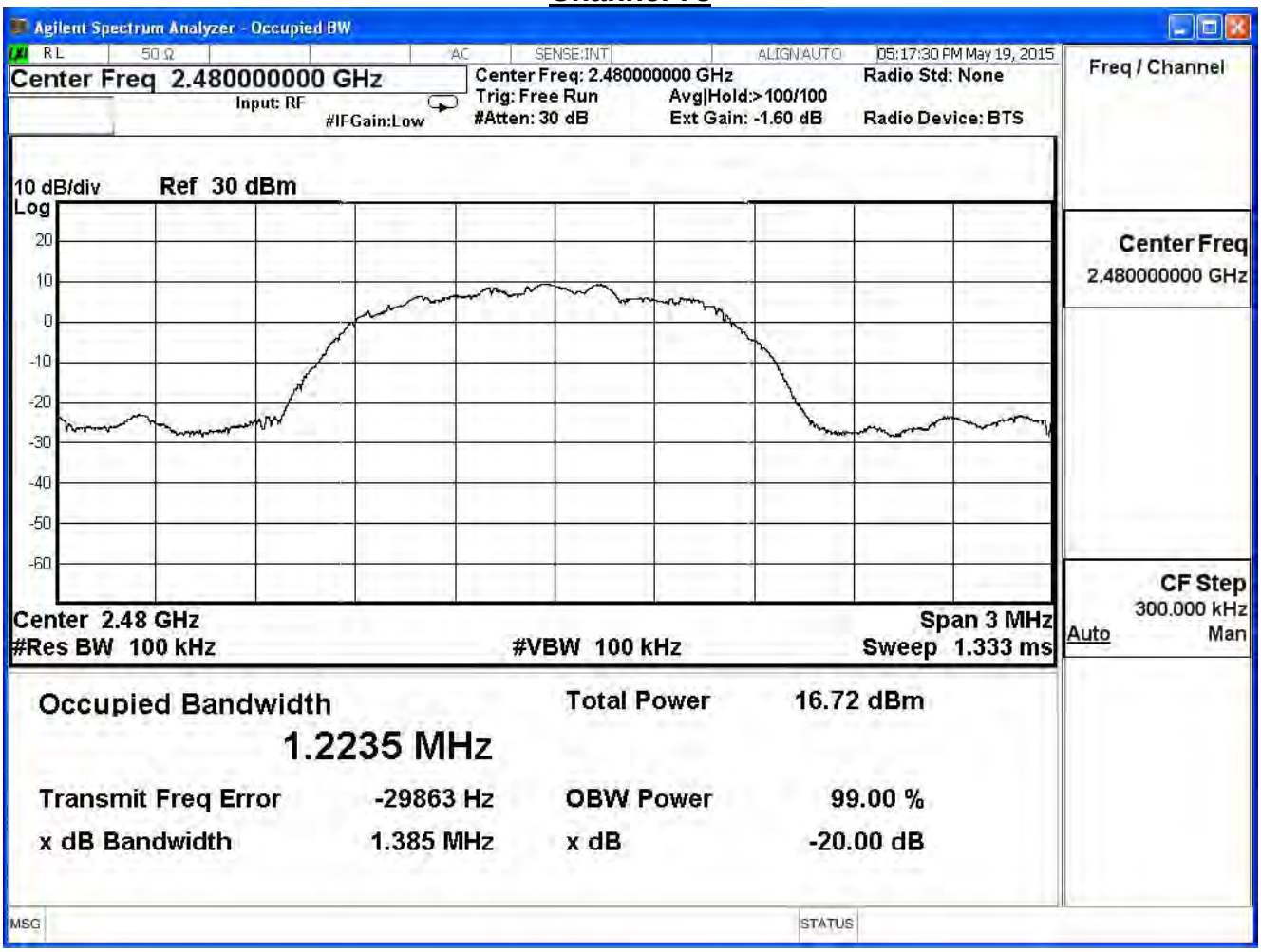
Channel 00



Channel 39


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:14:24 PM May 19, 2015
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.60 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.2240 MHz
Total Power
16.42 dBm
Transmit Freq Error
-29029 Hz
OBW Power
99.00 %
x dB Bandwidth
1.386 MHz
x dB
-20.00 dB
MSG
STATUS

Channel 78


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:17:30 PM May 19, 2015
Center Freq 2.480000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.480000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 1.333 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.2235 MHz
Total Power
16.72 dBm
Transmit Freq Error
-29863 Hz
OBW Power
99.00 %
x dB Bandwidth
1.385 MHz
x dB
-20.00 dB
MSG
STATUS

10. Dwell Time

10.1. Test Equipment

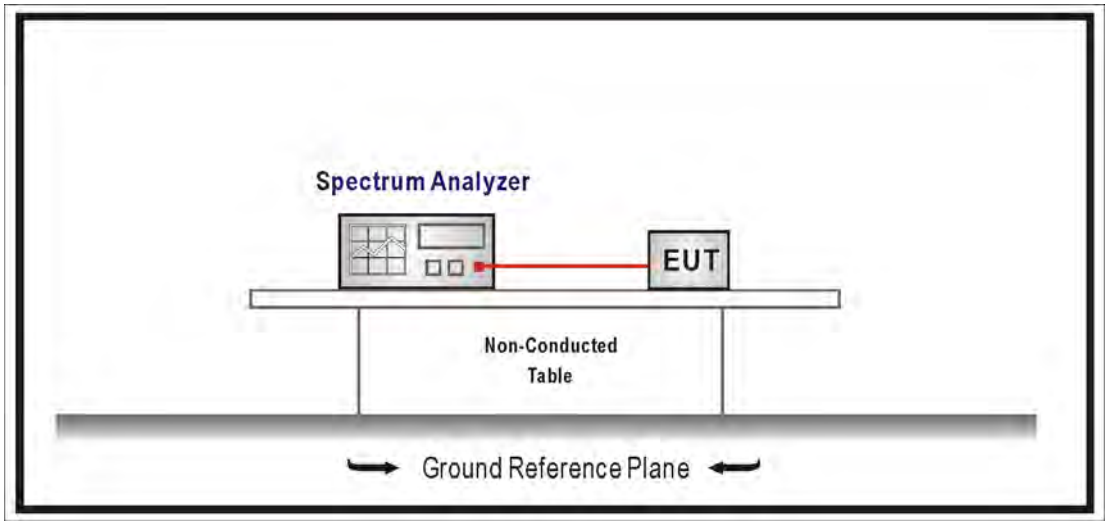
The following test equipment is used during the test:

Dwell Time / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

10.2. Test Setup



10.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.
For frequency hopping systems operating in the 2400-2483.5 MHz bands. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.
For frequency hopping systems operating in the 5725-5850 MHz bands. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

10.4. Test Procedures

The EUT was setup according to ANSI C63.10 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Span = zero span, centered on a hopping channel , RBW = 1 MHz, VBW ≥ RBW ,
Sweep = as necessary to capture the entire dwell time per hopping channel ,
Detector function = peak, Trace = max hold.

10.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

10.6. Test Result

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

GFSK, DH5

Occupancy Time of Frequency Hopping System

A) 2402MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.898 ms = 0.002898 sec

Dwell Time : 0.002898 *(266.67/79)* 31.60= 0.3091sec。

B) 2441MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.898ms = 0.002898 sec

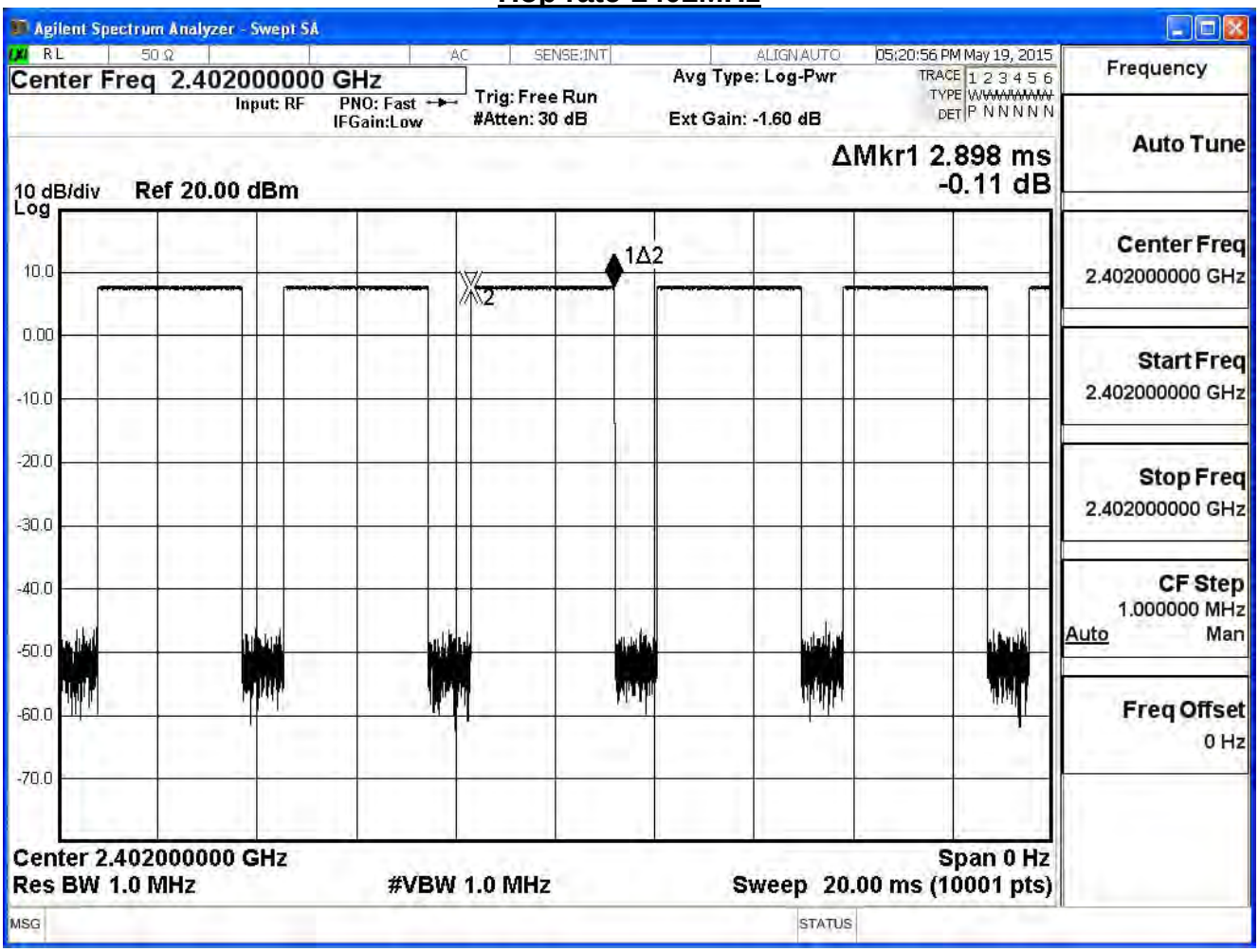
Dwell Time : 0.002898*(266.67/79)* 31.60= 0.3091sec。

C) 2480MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.896ms = 0.002896 sec

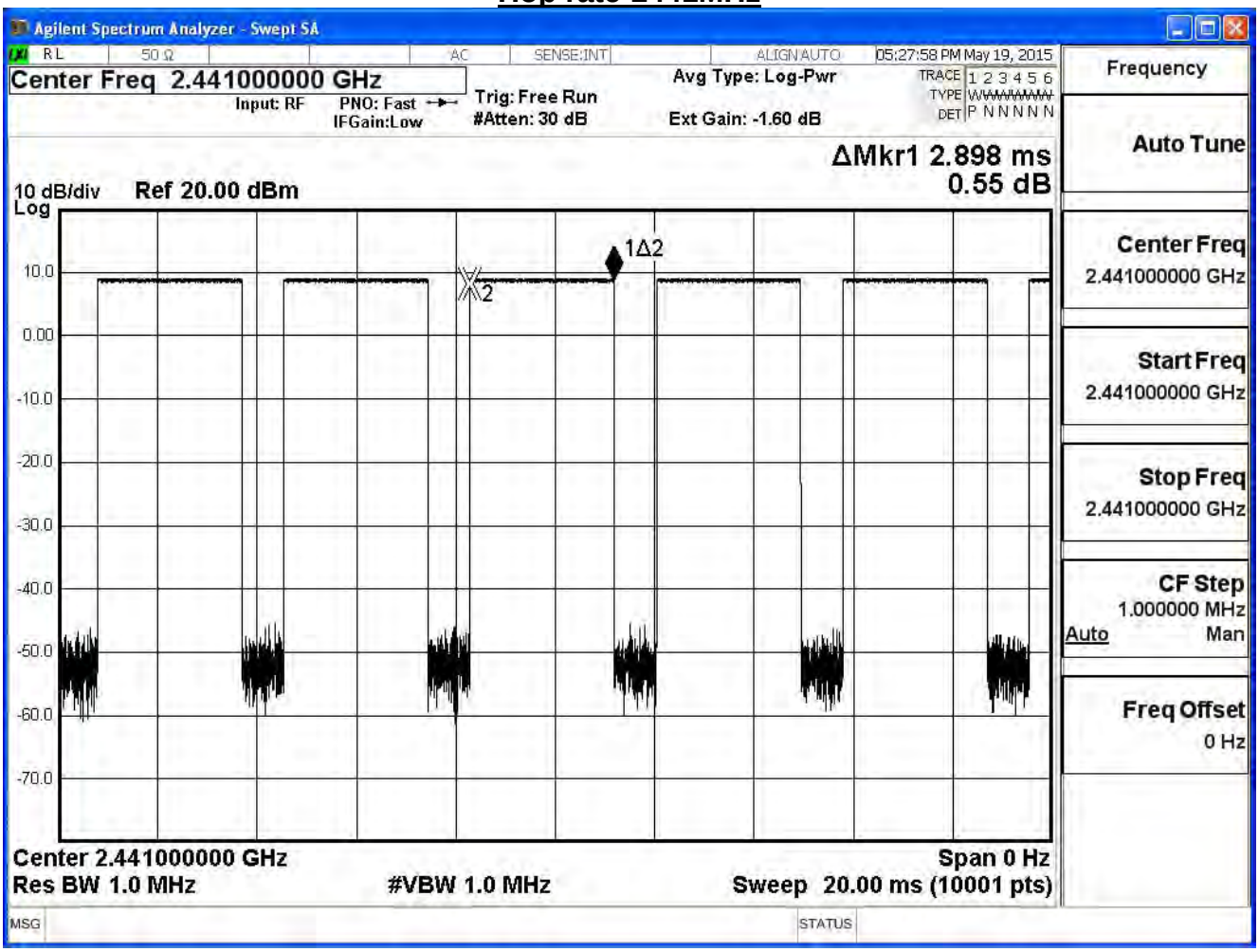
Dwell Time : 0.002896*(266.67/79)* 31.60=0.3089sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

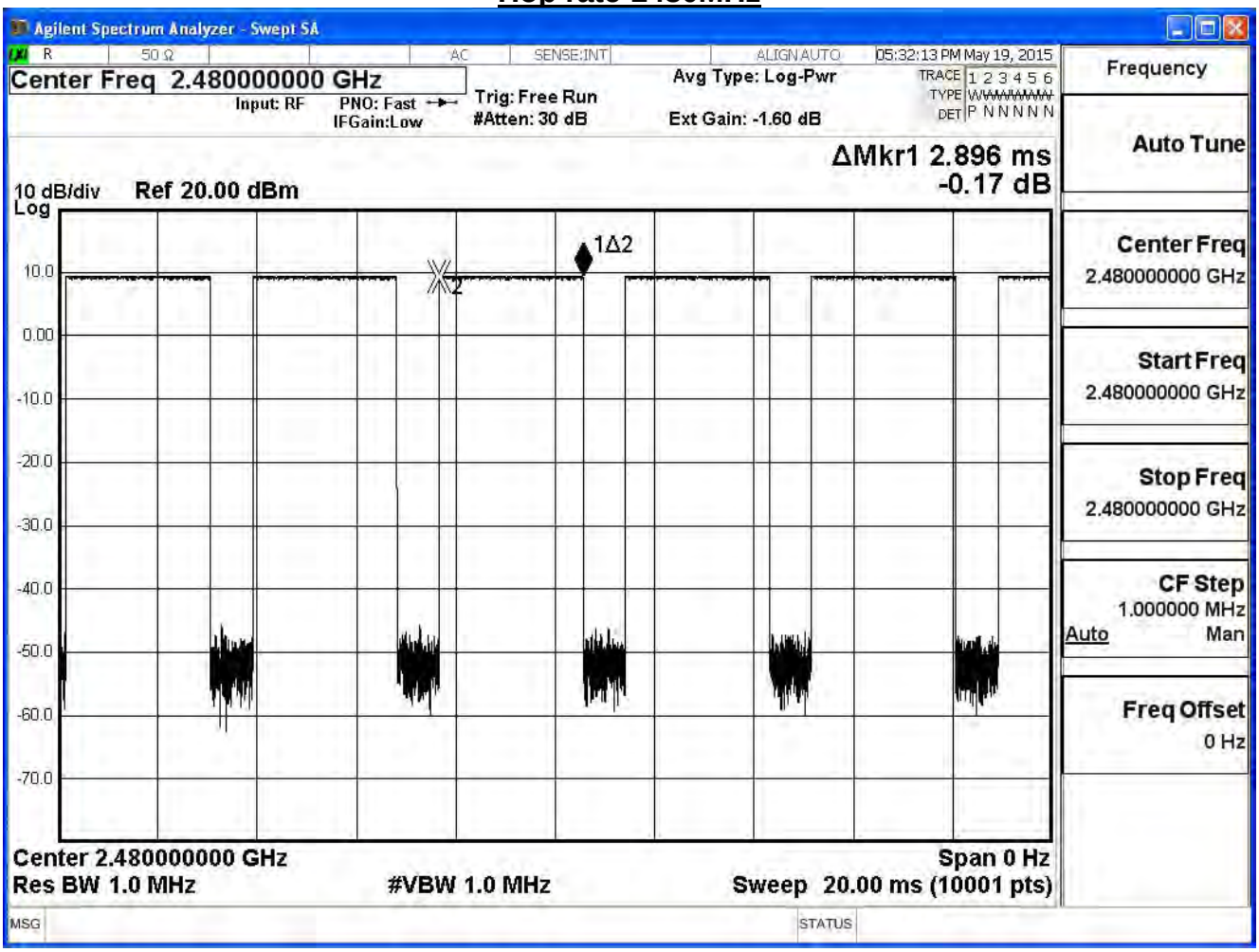
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

π/4-DQPSK, 2DH5

Occupancy Time of Frequency Hopping System

A) 2402MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.902 ms = 0.002902 sec

Dwell Time : 0.002902*(266.67/79)* 31.60=0.309sec。

B) 2441MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.902ms = 0.002902 sec

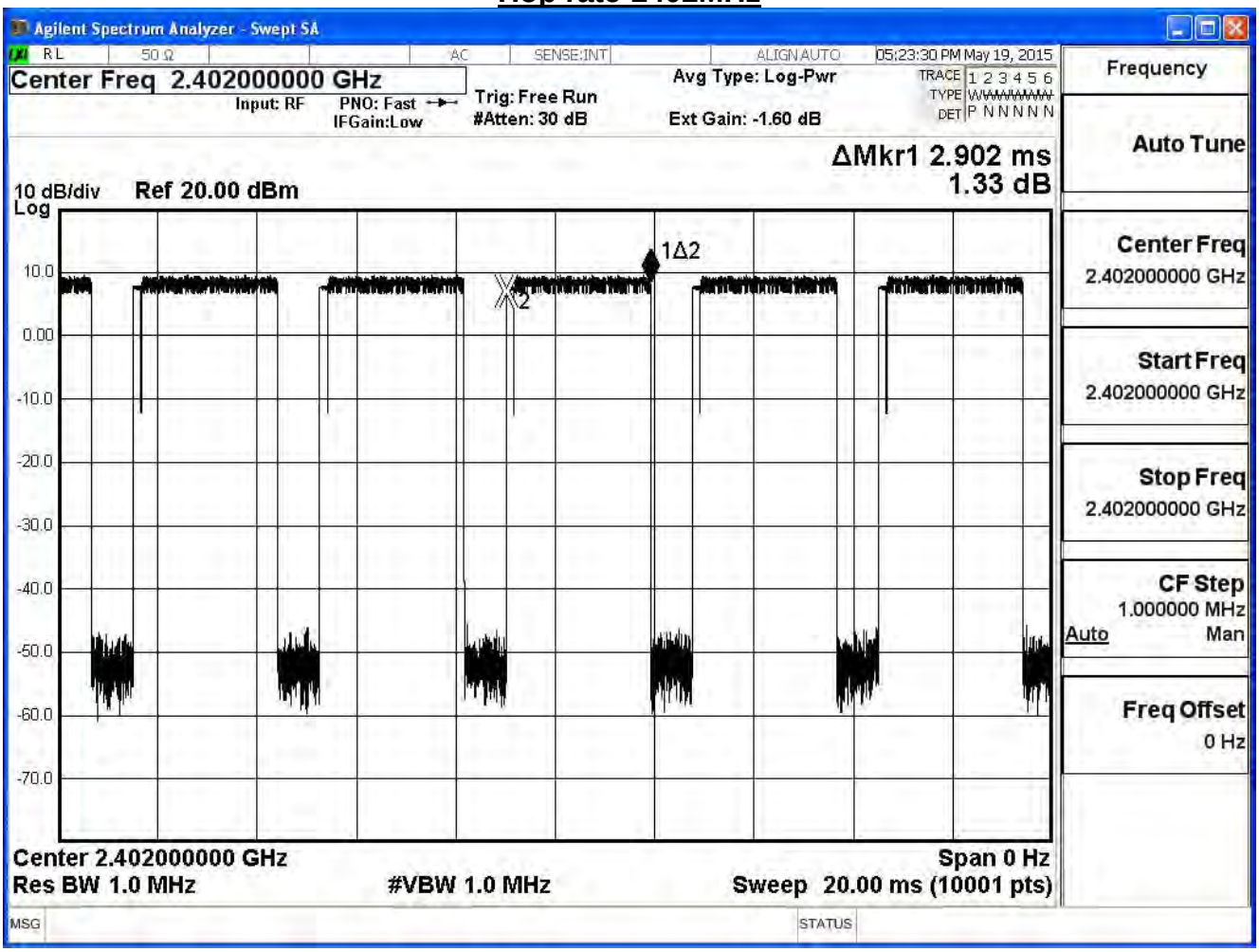
Dwell Time : 0.002902*(266.67/79)* 31.60=0.309sec。

C) 2480MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.902ms = 0.002902 sec

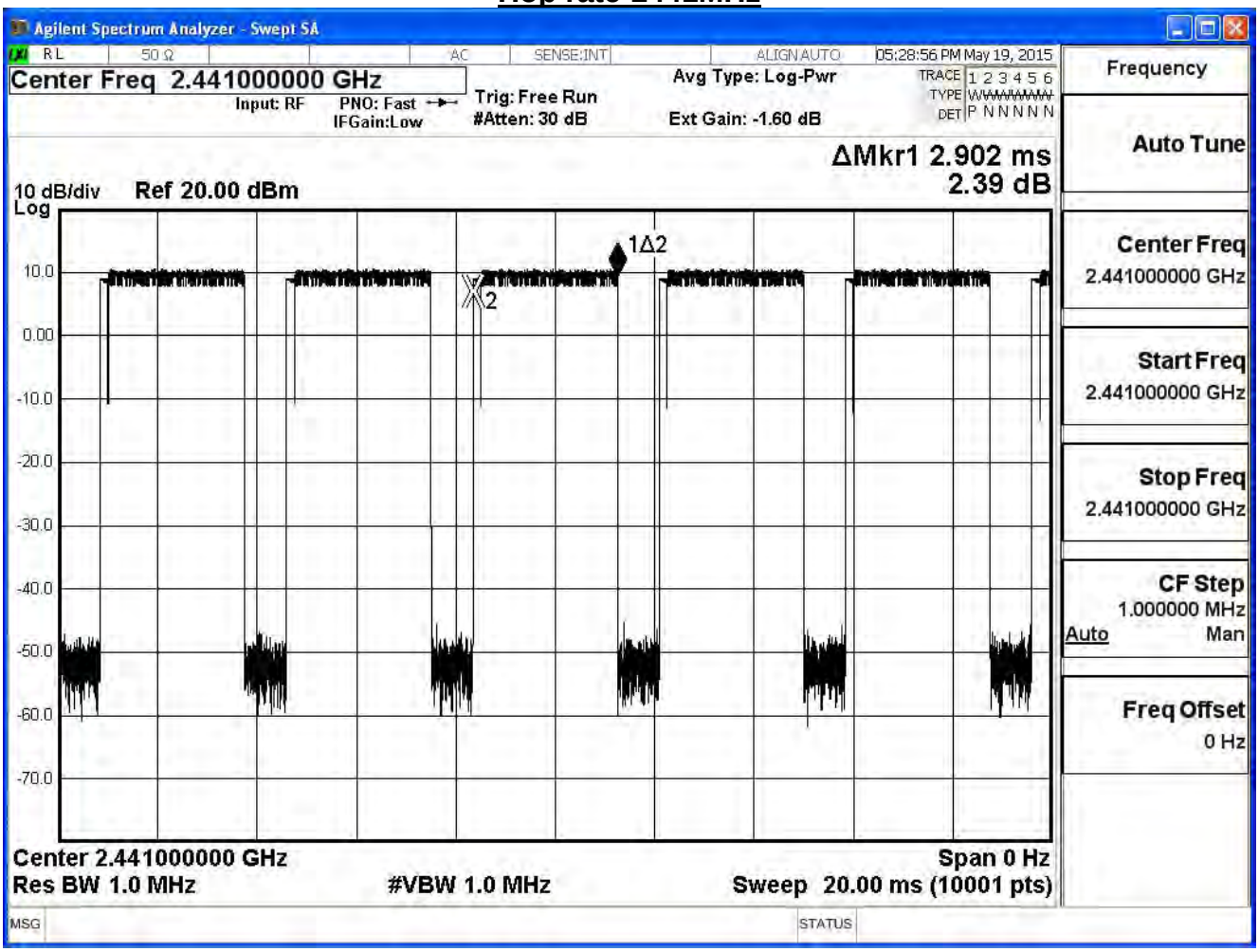
Dwell Time : 0.002902*(266.67/79)* 31.60=0.309sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

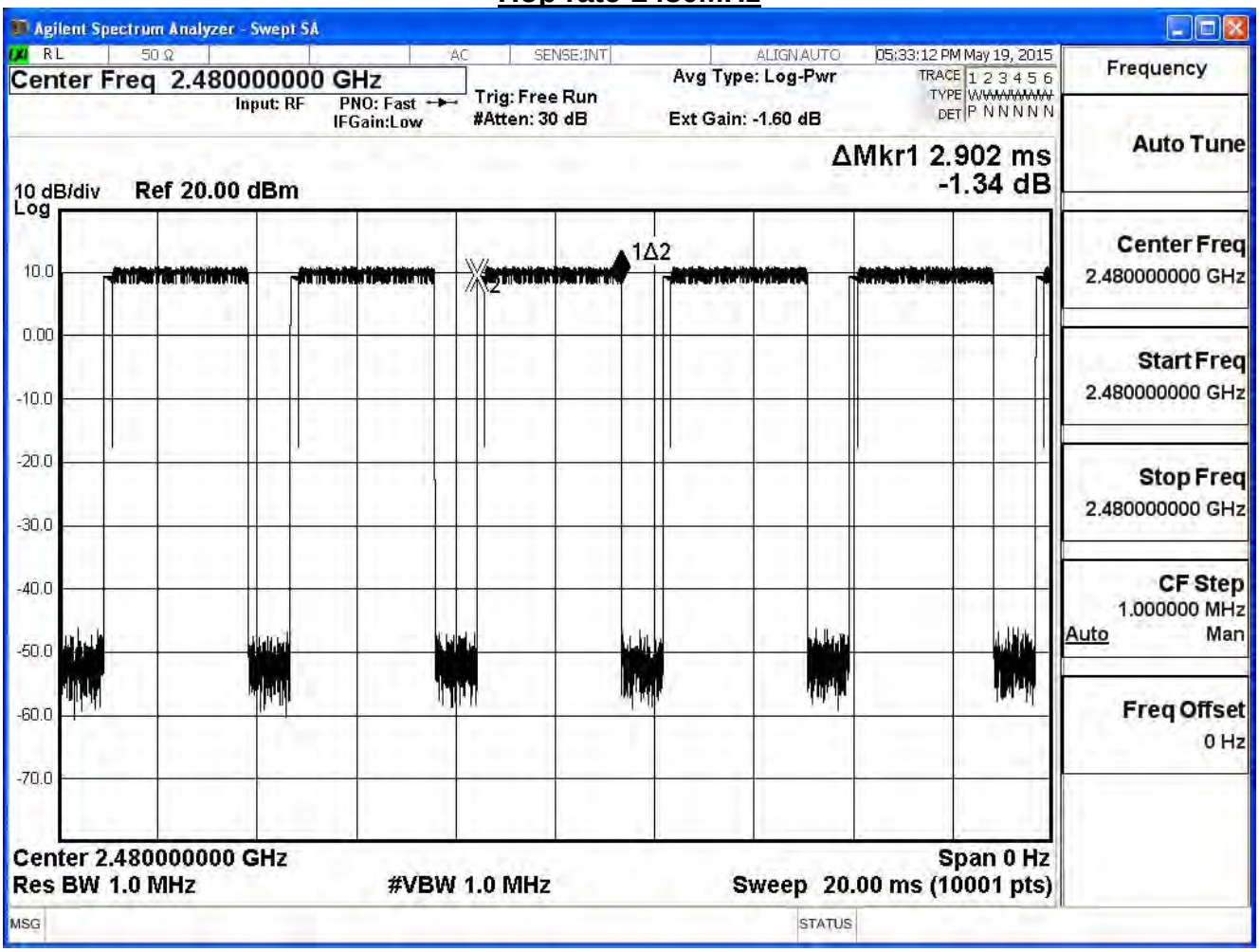
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Product	ASUS SRT-AC1900 Wireless Smart Router		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD891M21		
Date of Test	2015/05/19	Test Site	SR7

8-DQPSK, 3DH5

Occupancy Time of Frequency Hopping System

A) 2402MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.904ms = 0.002904sec

Dwell Time : 0.002904*(266.67/79)* 31.60=0.309sec。

B) 2441MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.904 ms = 0.002904 sec

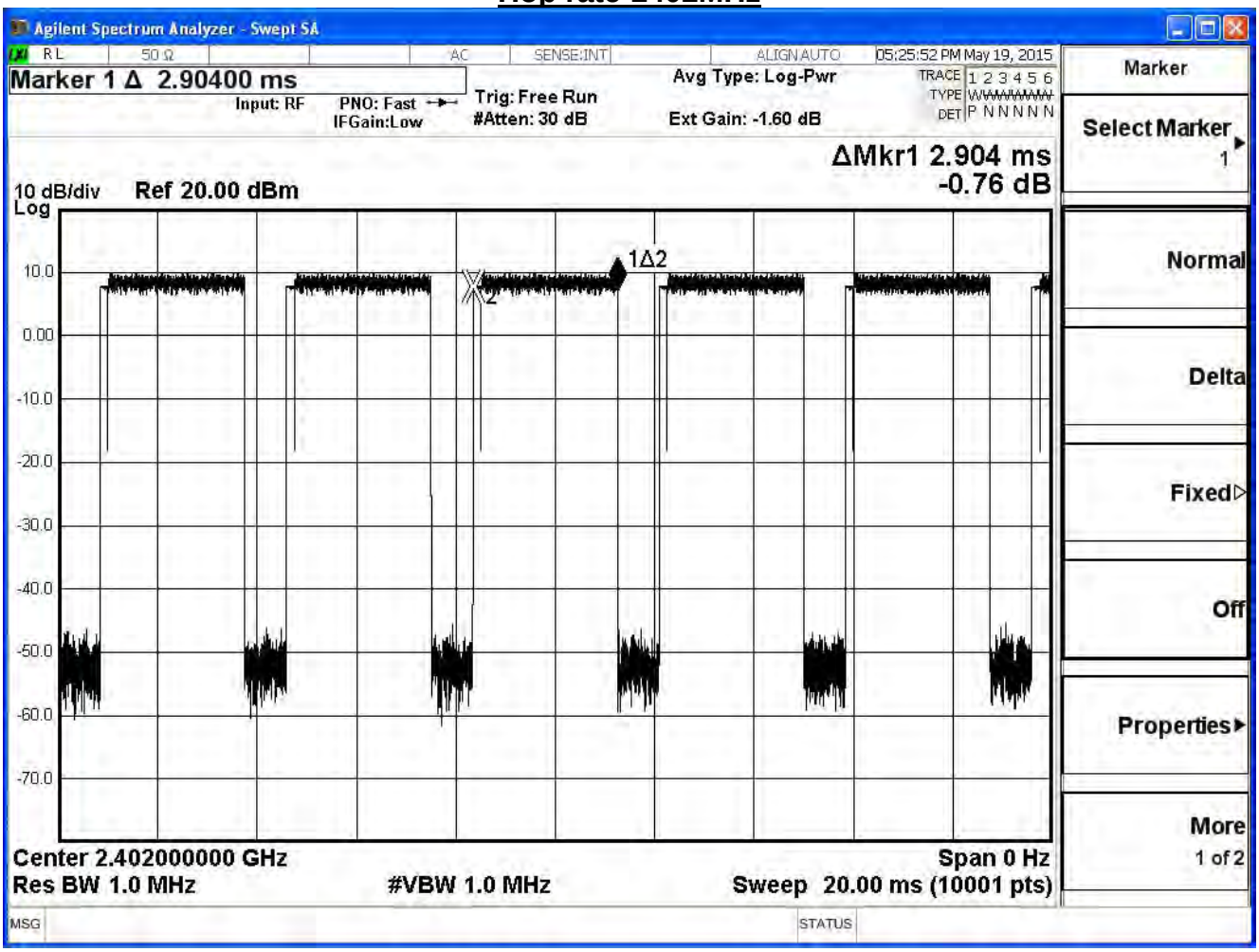
Dwell Time : 0.002904*(266.67/79)* 31.60=0.309sec。

C) 2480MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.904 ms = 0.002904 sec

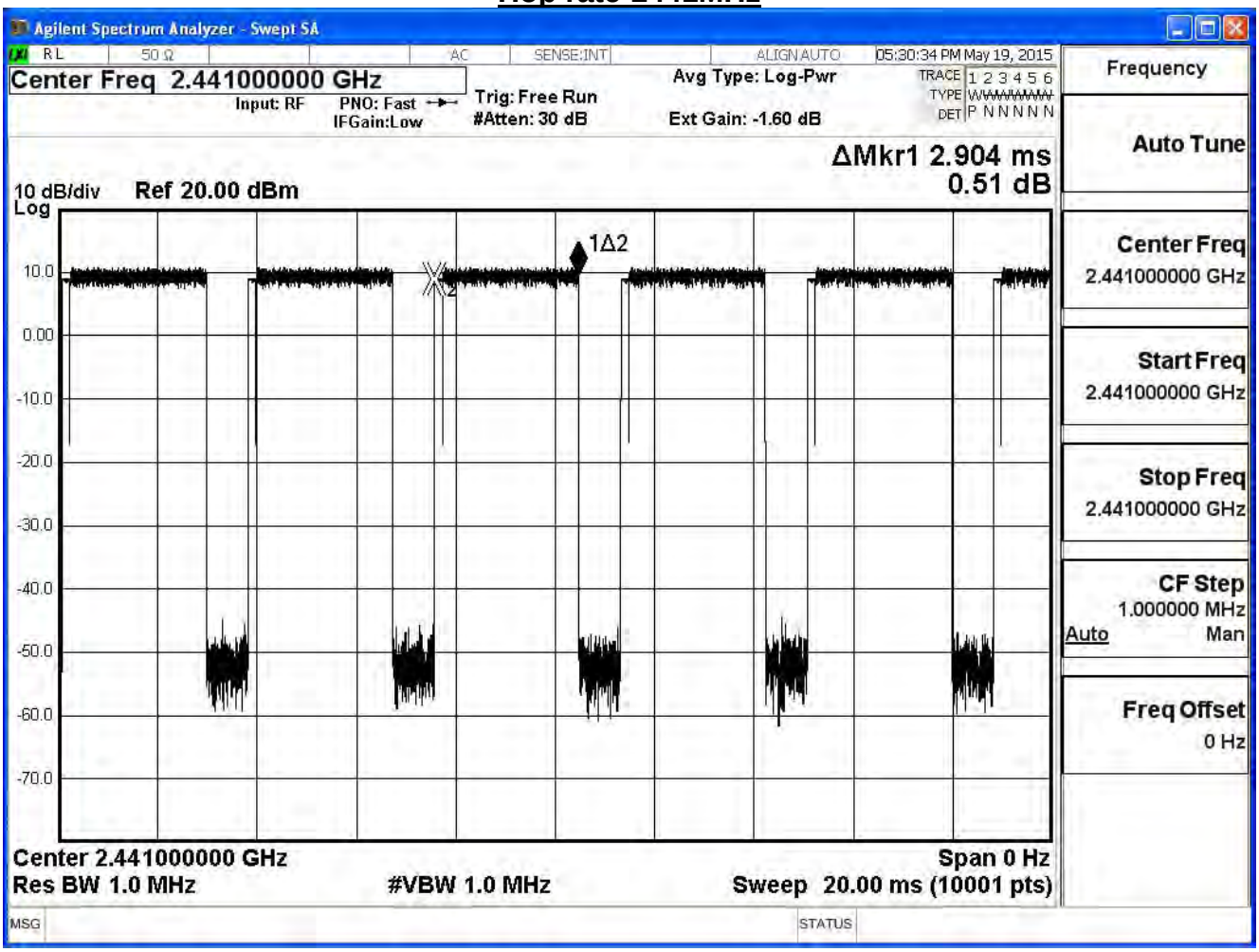
Dwell Time : 0.002904*(266.67/79)* 31.60=0.309sec。

Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

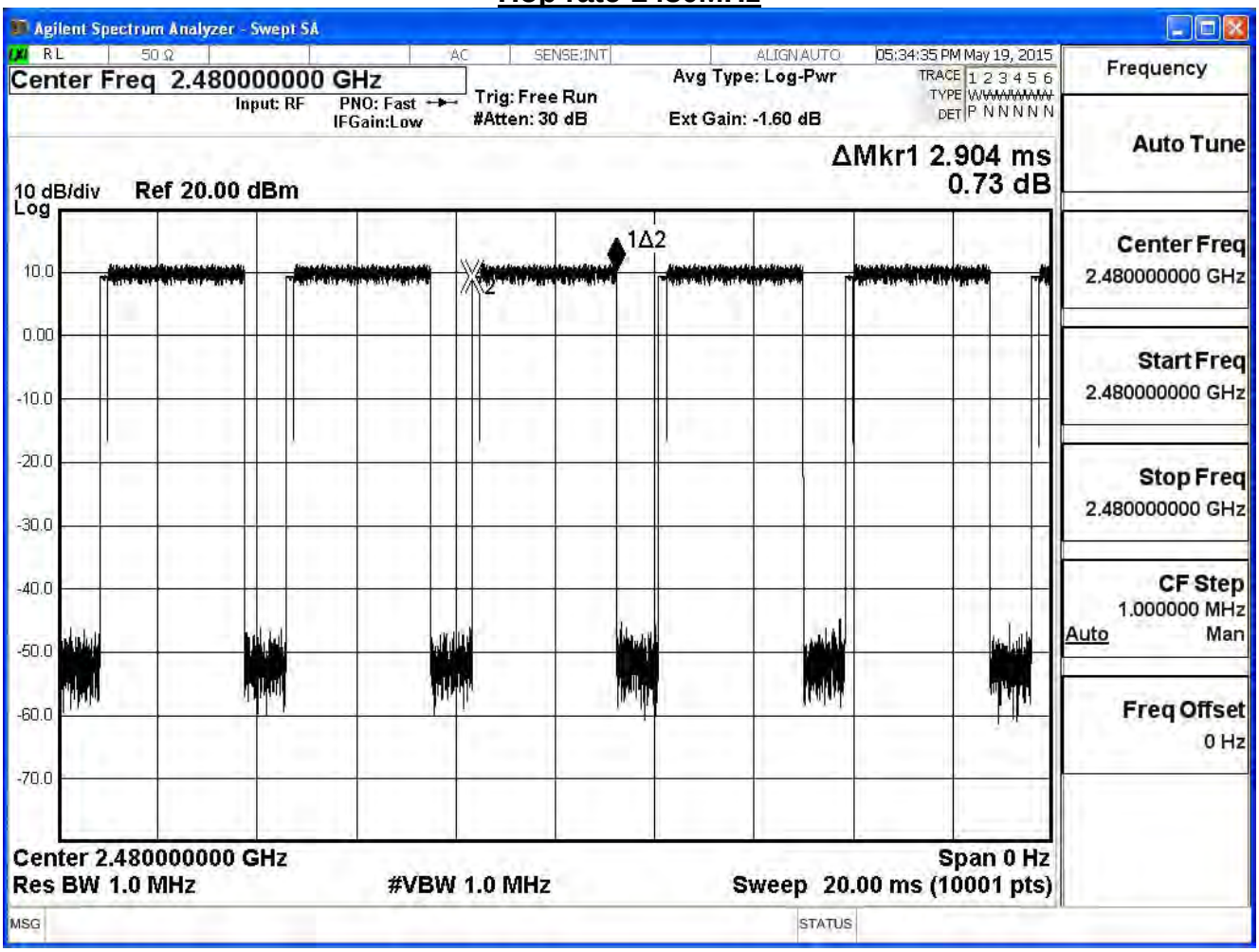
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



Note: Dwell time＝time slot length * hop rate / number of hopping channels * period