FCC Test Report

Product Name	：	Lyra mini
Trade Name	：	ASUS
Model No.	：	MAP-AC1300
FCC ID.	：	MSQ-RTACBV00

Applicant	：	ASUSTeK COMPUTER INC.
Address	：	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt	：	Nov. 17, 2016
Issued Date	：	Jan. 25, 2017
Report No.	：	16B0409R-RFUSP03V00
Report Version	：	V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date : Jan. 25, 2017
Report No. : 16B0409R-RFUSP03V00

Product Name	：	Lyra mini
Applicant	：	ASUSTeK COMPUTER INC.
Address	：	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	：	ASUSTeK COMPUTER INC.
Model No.	：	MAP-AC1300
FCC ID.	：	MSQ-RTACBV00
EUT Voltage	：	AC 100-240V, 50-60Hz
Testing Voltage	：	AC 120V/60Hz
Trade Name	：	ASUS
Applicable Standard	：	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2015
Test Lab	：	Hsin Chu Laboratory
Test Result	：	Complied

The test results relate only to the samples tested.

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Documented By : (Demi Chang / Senior Engineering Adm. Specialist)

Tested By : (Scott Chang / Assistant Engineer)

Approved By : (Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
16B0409R-RFUSP03V00	V1.0	Initial issue of report	Jan. 25, 2017

Laboratory Information

We, **DEKRA Testing and Certification Co., Ltd.**, 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: 834100**
Canada	**:**	**IC, Submission No: 181665 / IC Registration Number: 22397-1 / 22397-2 / 22397-3**

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

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1. General Information

1.1. EUT Description

Product Name	Lyra mini
Trade Name	ASUS
Model No.	MAP-AC1300
Frequency Range/Channel Number	2402~2480MHz / 79 Channels
Type of Modulation	GFSK, π/4-DQPSK, 8-DPSK

Antenna Information	
Antenna Type	PCB Antenna
Antenna Gain	2.02 dBi
Beamforming Gain	1.77 dBi

Accessories Information	
USB Cable	Non-Shielded, 2m
LAN Cable	Non-Shielded, 2m
Power Adapter	ASUS, AD2037320910LF I/P: 100-240V~50/60Hz, 0.3A O/P: 5V ⎓ 2A Cable Out: Non-Shielded, 2m
Power Adapter	ASUS, W12-010N3A I/P: 100-240V~50/60Hz, 0.3A O/P: 5V ⎓ 2A Cable Out: Non-Shielded, 2m

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 a Lyra mini including 2.4GHz b/g/n (2x2), BT2.0, BT4.0 and 5GHz a/n/ac (2x2) transmitting and receiving function.
2. 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.
3. This device is a composite device in accordance with Part 15 regulations. The receiving function was tested and its number is 16B0409R-RFUSP12V00.
4. The function BT 4.0 was measured and made a test report that the report number is 16B0409R-RFUSP03V00-A.
5. The function of the 2.4GHz & 5GHz transmitting is measured. The test report of the number is 16B0409R-RFUSP07V00 & 16B0409R-RFUSP05V00.

1.2. Test Mode

DEKRA 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:

Test Mode	
TX	Mode 1: Tx-AD2037320910LF Mode 2: Tx-W12-010N3A

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

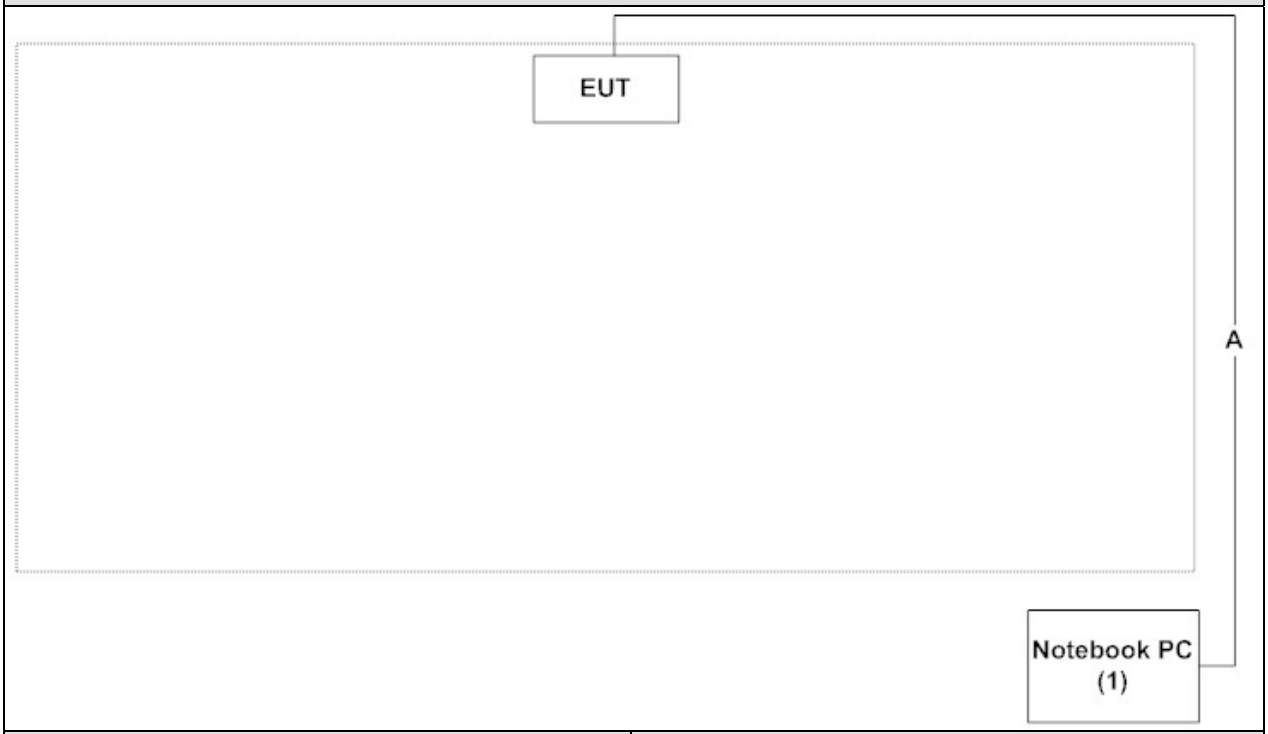
1.3. Tested System Details

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	ASUS	X522EP	E5N0CV04 3264197	DoC	Non-Shielded, 1.8m, one ferrite core bonded

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 3m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the test program “QCA Radio Control Toolkit”.
3	Configure the test mode, the test channel, and the data rate.
4	Press “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

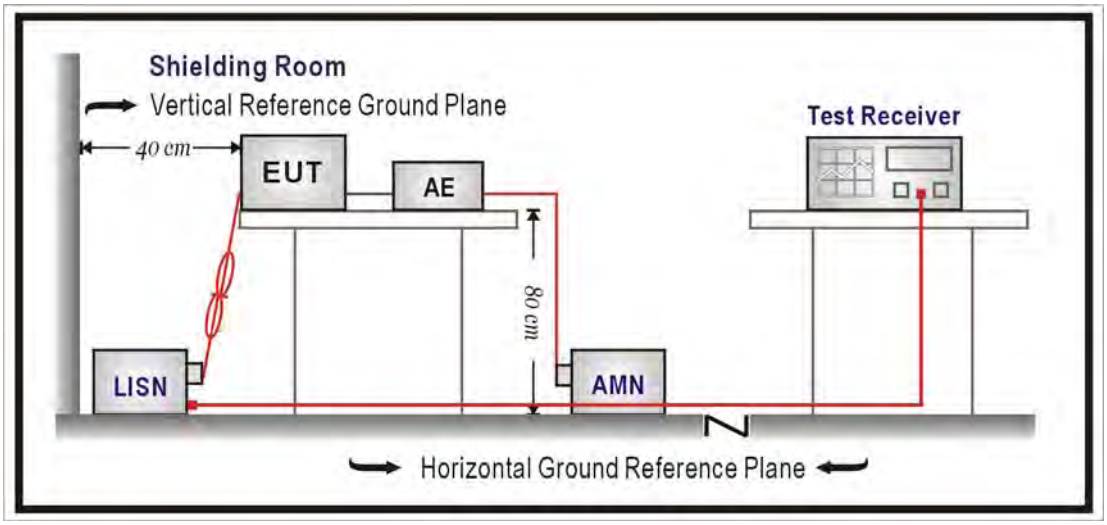
The following test equipments are used during the test:

Conducted Emission / SR2-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2017/01/20
LISN	R&S	ENV216	100092	2017/08/16
Test Receiver	R&S	ESCS 30	836858/022	2018/01/14

Note: 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 C63.10:2009 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

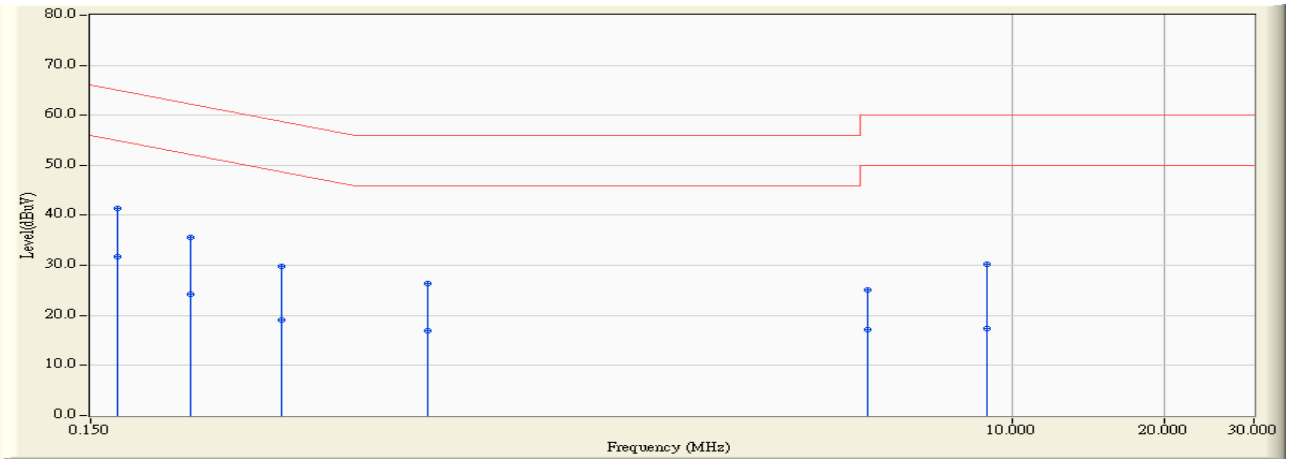
According to FCC Part 15 Subpart C Paragraph 15.207: 2015

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2-H	**Time : 2017/01/18**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2-H_LISN(16A)-6_0712 - Line1	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

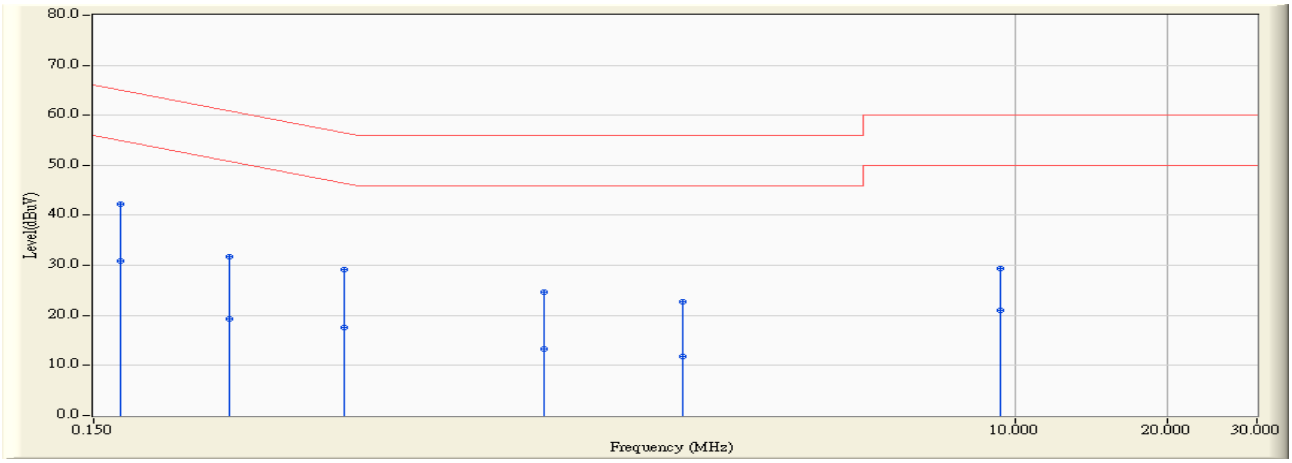


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.170	9.753	31.620	41.373	-23.610	64.983	QUASIPEAK
2	*	0.170	9.753	21.950	31.703	-23.280	54.983	AVERAGE
3		0.236	9.746	25.960	35.706	-26.532	62.238	QUASIPEAK
4		0.236	9.746	14.590	24.336	-27.902	52.238	AVERAGE
5		0.357	9.734	20.080	29.814	-28.983	58.797	QUASIPEAK
6		0.357	9.734	9.270	19.004	-29.793	48.797	AVERAGE
7		0.697	9.764	16.640	26.404	-29.596	56.000	QUASIPEAK
8		0.697	9.764	7.280	17.044	-28.956	46.000	AVERAGE
9		5.181	9.929	15.240	25.169	-34.831	60.000	QUASIPEAK
10		5.181	9.929	7.280	17.209	-32.791	50.000	AVERAGE
11		8.869	10.083	20.100	30.183	-29.817	60.000	QUASIPEAK
12		8.869	10.083	7.280	17.363	-32.637	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-H	**Time : 2017/01/18**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2-H_LISN(16A)-6_0712 - Line2	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

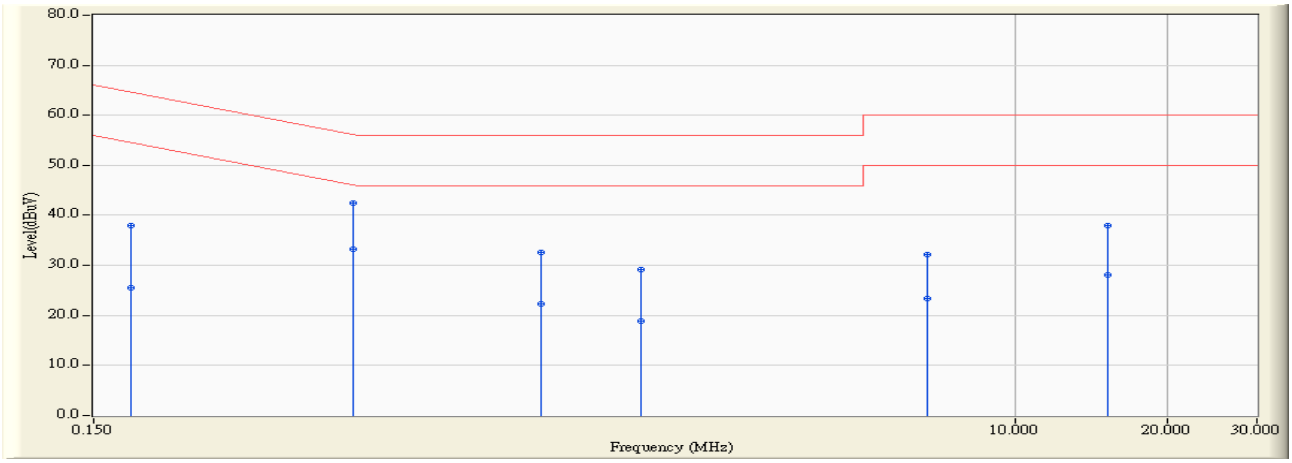


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.753	32.400	42.153	-22.830	64.983	QUASIPEAK
2		0.170	9.753	21.060	30.813	-24.170	54.983	AVERAGE
3		0.279	9.750	22.080	31.830	-29.018	60.848	QUASIPEAK
4		0.279	9.750	9.570	19.320	-31.528	50.848	AVERAGE
5		0.470	9.746	19.460	29.206	-27.302	56.508	QUASIPEAK
6		0.470	9.746	7.800	17.546	-28.962	46.508	AVERAGE
7		1.166	9.825	14.840	24.665	-31.335	56.000	QUASIPEAK
8		1.166	9.825	3.370	13.195	-32.805	46.000	AVERAGE
9		2.197	9.849	12.800	22.649	-33.351	56.000	QUASIPEAK
10		2.197	9.849	2.000	11.849	-34.151	46.000	AVERAGE
11		9.318	10.110	19.280	29.390	-30.610	60.000	QUASIPEAK
12		9.318	10.110	10.880	20.990	-29.010	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-H	**Time : 2017/01/18**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2-H_LISN(16A)-6_0712 - Line1	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15DH5_2441MHz** **Mode 2: Tx-W12-010N3A**

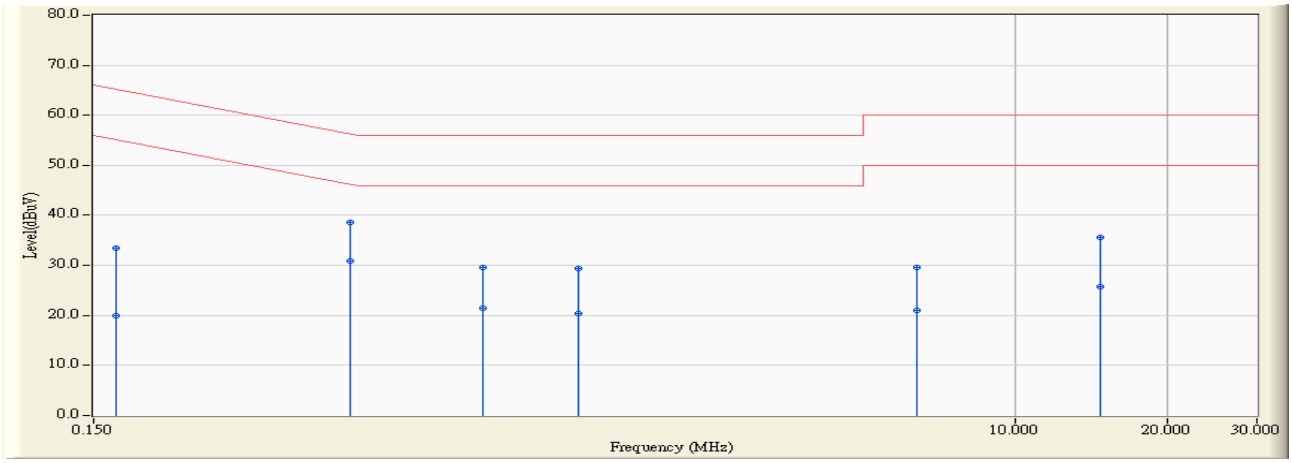


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.177	9.752	28.280	38.032	-26.577	64.609	QUASIPEAK
2		0.177	9.752	15.760	25.512	-29.097	54.609	AVERAGE
3		0.490	9.728	32.700	42.429	-13.742	56.170	QUASIPEAK
4	*	0.490	9.728	23.560	33.289	-12.882	46.170	AVERAGE
5		1.150	9.826	22.800	32.626	-23.374	56.000	QUASIPEAK
6		1.150	9.826	12.410	22.236	-23.764	46.000	AVERAGE
7		1.810	9.852	19.360	29.212	-26.788	56.000	QUASIPEAK
8		1.810	9.852	8.950	18.802	-27.198	46.000	AVERAGE
9		6.677	9.991	22.200	32.192	-27.808	60.000	QUASIPEAK
10		6.677	9.991	13.450	23.442	-26.558	50.000	AVERAGE
11		15.213	10.225	27.720	37.945	-22.055	60.000	QUASIPEAK
12		15.213	10.225	17.950	28.175	-21.825	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-H	**Time : 2017/01/18**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2-H_LISN(16A)-6_0712 - Line2	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15DH5_2441MHz** **Mode 2: Tx-W12-010N3A**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.753	23.600	33.353	-31.824	65.177	QUASIPEAK
2		0.166	9.753	10.190	19.943	-35.234	55.177	AVERAGE
3		0.482	9.746	28.840	38.586	-17.718	56.304	QUASIPEAK
4	*	0.482	9.746	21.180	30.926	-15.378	46.304	AVERAGE
5		0.884	9.803	19.820	29.622	-26.378	56.000	QUASIPEAK
6		0.884	9.803	11.700	21.502	-24.498	46.000	AVERAGE
7		1.369	9.831	19.480	29.311	-26.689	56.000	QUASIPEAK
8		1.369	9.831	10.570	20.401	-25.599	46.000	AVERAGE
9		6.388	9.940	19.700	29.639	-30.361	60.000	QUASIPEAK
10		6.388	9.940	11.130	21.069	-28.931	50.000	AVERAGE
11		14.681	10.300	25.200	35.500	-24.500	60.000	QUASIPEAK
12		14.681	10.300	15.350	25.650	-24.350	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

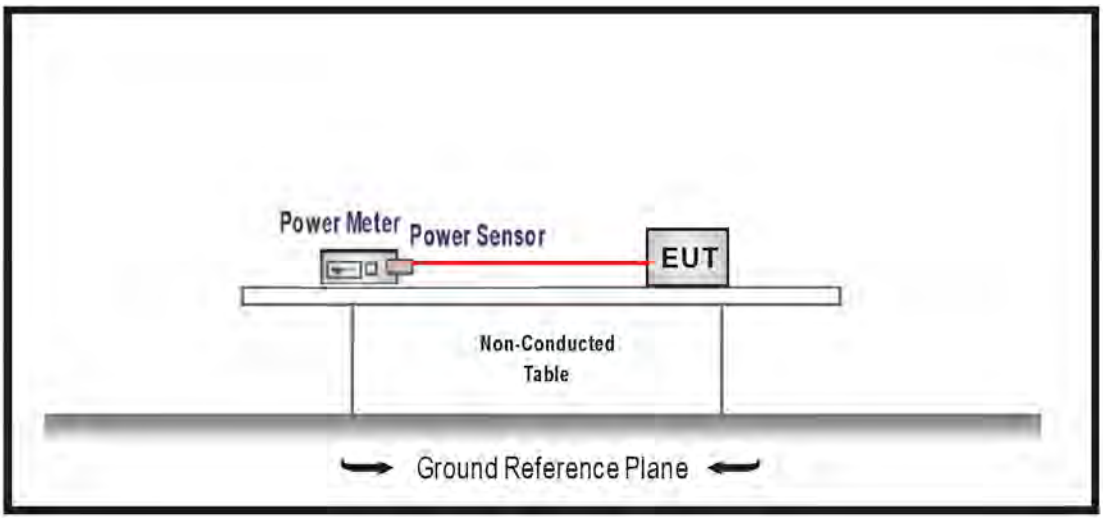
The following test equipment is used during the test:

Peak Power Output / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2017/02/09
Pulse Power Sensor	Anritsu	MA2411B	1531043	2017/01/13
Pulse Power Sensor	Anritsu	MA2411B	1531044	2017/01/13

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 C63.10:2013 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: 2015.

3.6. Test Result

Product	Lyra mini		
Test Item	Peak Power Output		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	7.530	30	Pass
39	2441	8.410	30	Pass
78	2480	8.520	30	Pass

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	9.660	30	Pass
39	2441	10.350	30	Pass
78	2480	10.540	30	Pass

8-DPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	10.300	30	Pass
39	2441	11.050	30	Pass
78	2480	11.120	30	Pass

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

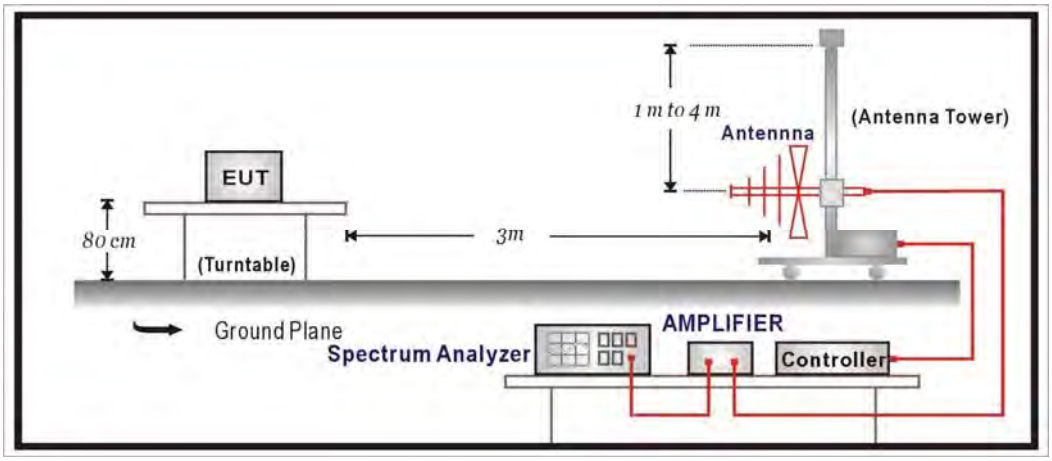
Radiated Emission / CB4-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2891	2017/08/14
Horn Antenna	Schwarzbeck	BBHA 9120	D312	2017/10/25
Pre-Amplifier	EMCI	EMC0031835	980233	2017/01/26
Pre-Amplifier	Schwarzbeck	DBL-1840N506	013	2017/09/29
Pre-Amplifier	Miteq	JS41-001040000-58-5P	1573954	2017/10/04
Horn Antenna	Schwarzbeck	BBHA 9170	203	2017/08/28
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/05

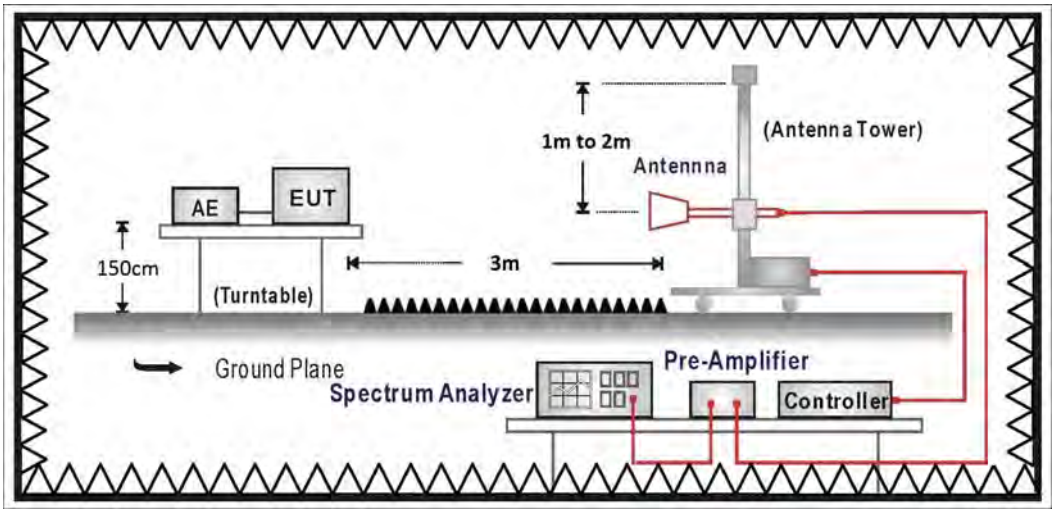
Note: All equipments that need to calibrate are with calibration period of 1 year.

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 C63.10:2013 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 or 1.5 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 C63.10:2013 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.

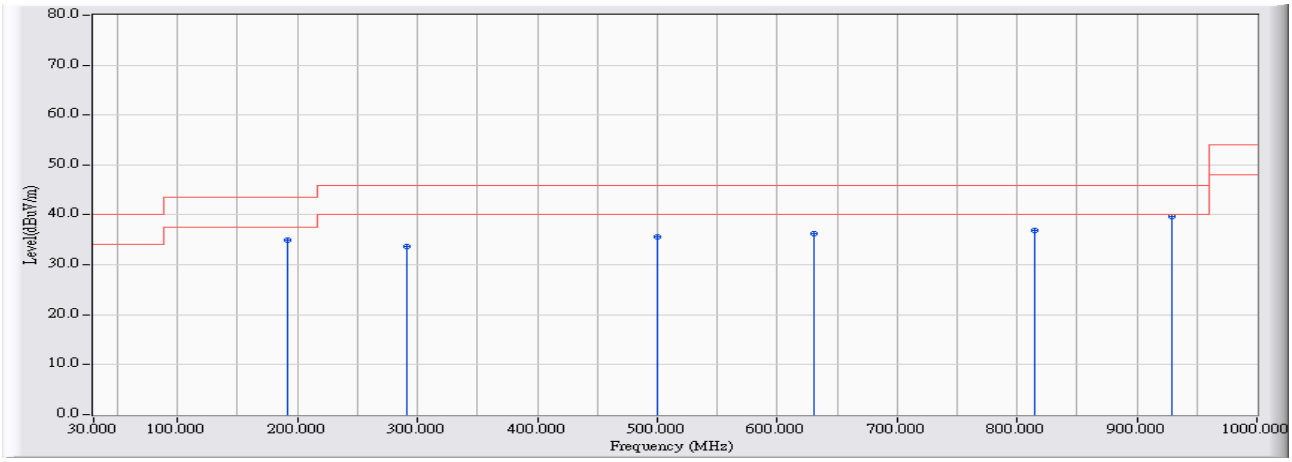
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

4.6. Test Result

30MHz-1GHz Spurious

Site : CB4-H	**Time : 2017/01/22**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB4-H_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

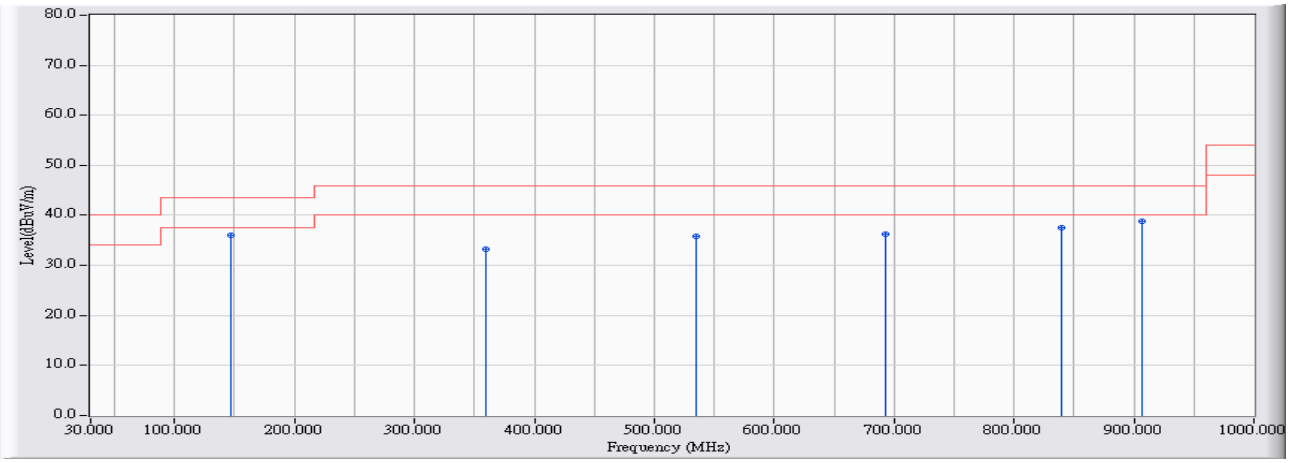


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		191.295	20.579	14.378	34.957	-8.543	43.500	QUASIPEAK
2		291.001	24.014	9.757	33.771	-12.229	46.000	QUASIPEAK
3		500.500	28.345	7.326	35.671	-10.329	46.000	QUASIPEAK
4		630.467	29.423	6.747	36.170	-9.830	46.000	QUASIPEAK
5		814.167	30.867	6.098	36.965	-9.035	46.000	QUASIPEAK
6	*	929.488	31.994	7.606	39.600	-6.400	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 : CB4-H	**Time : 2017/01/22**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB4-H_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15_DH5_2441MHz Mode 1: Tx-AD2037320910LF**

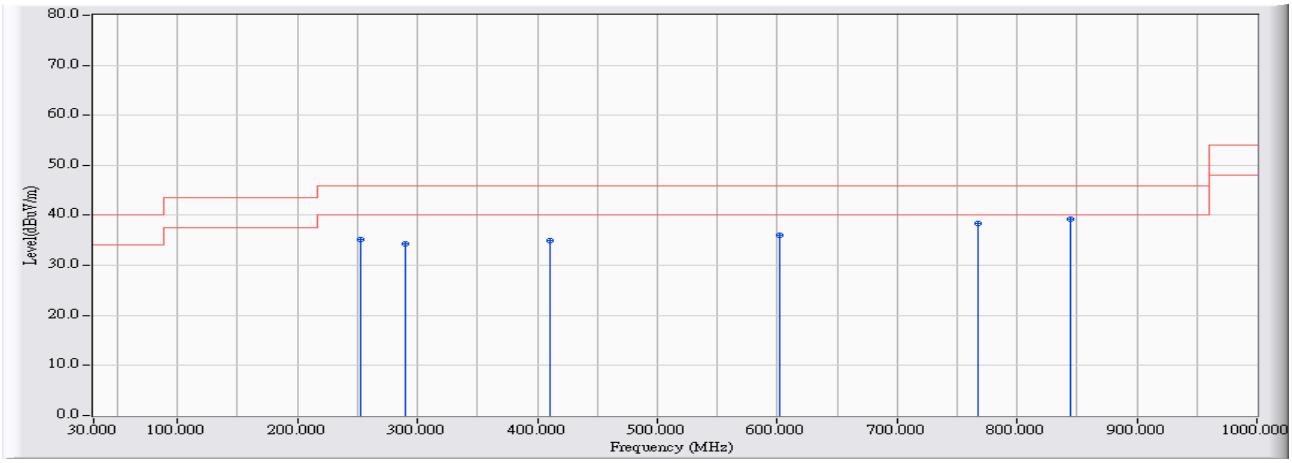


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		146.582	22.512	13.426	35.938	-7.562	43.500	QUASIPEAK
2		359.476	25.805	7.507	33.312	-12.688	46.000	QUASIPEAK
3		534.544	28.651	7.091	35.742	-10.258	46.000	QUASIPEAK
4		692.735	29.796	6.398	36.194	-9.806	46.000	QUASIPEAK
5		839.578	31.096	6.363	37.459	-8.541	46.000	QUASIPEAK
6	*	906.501	31.718	7.026	38.744	-7.256	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 : CB4-H	**Time : 2017/01/22**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB4-H_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15DH5_2441MHz Mode 2: Tx-W12-010N3A**

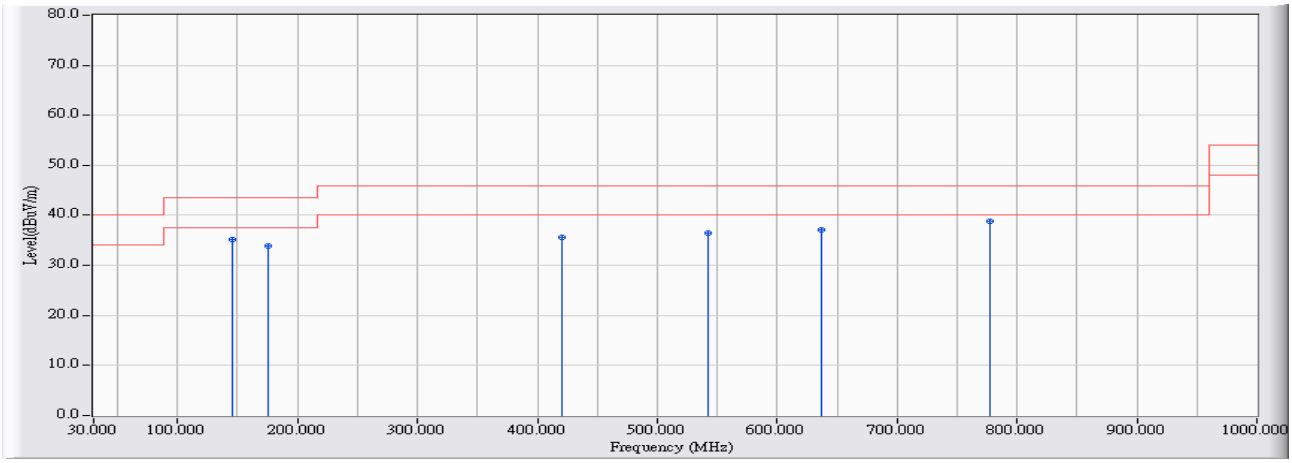


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		252.884	23.480	11.658	35.138	-10.862	46.000	QUASIPEAK
2		290.516	24.007	10.205	34.212	-11.788	46.000	QUASIPEAK
3		410.784	27.091	7.898	34.989	-11.011	46.000	QUASIPEAK
4		602.146	29.253	6.737	35.990	-10.010	46.000	QUASIPEAK
5		767.029	30.443	7.973	38.416	-7.584	46.000	QUASIPEAK
6	*	845.106	31.146	8.079	39.225	-6.775	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 : CB4-H	**Time : 2017/01/22**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB4-H_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.1.15DH5_2441MHz Mode 2: Tx-W12-010N3A**



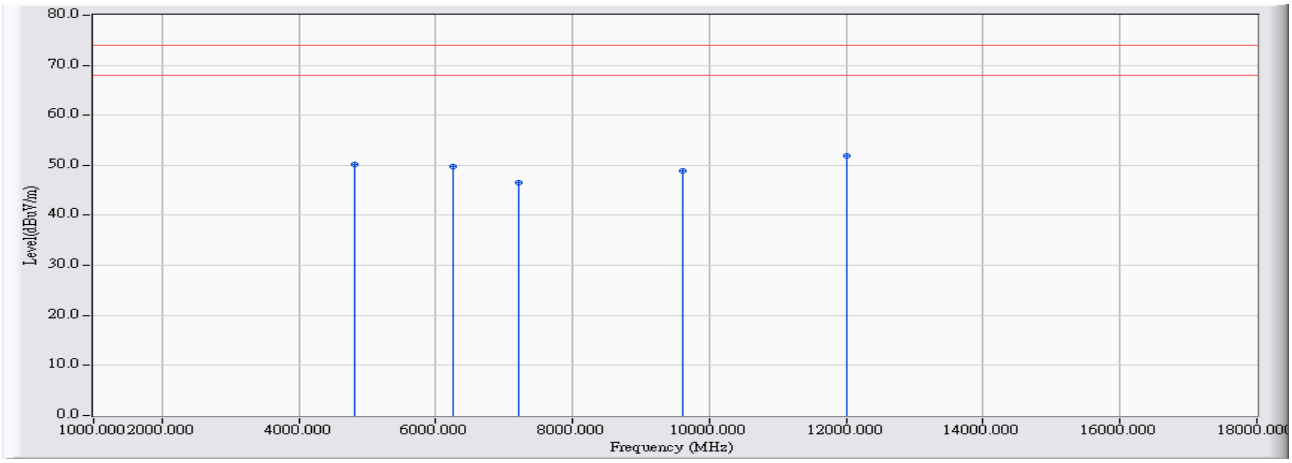
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		145.224	22.600	12.680	35.280	-8.220	43.500	QUASIPEAK
2		174.904	20.597	13.190	33.787	-9.713	43.500	QUASIPEAK
3		420.289	27.224	8.433	35.657	-10.343	46.000	QUASIPEAK
4		542.400	28.722	7.766	36.488	-9.512	46.000	QUASIPEAK
5		637.062	29.462	7.629	37.091	-8.909	46.000	QUASIPEAK
6	*	777.116	30.534	8.207	38.741	-7.259	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

Harmonic & Spurious:

Site : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz Mode 1: Tx-AD2037320910LF**

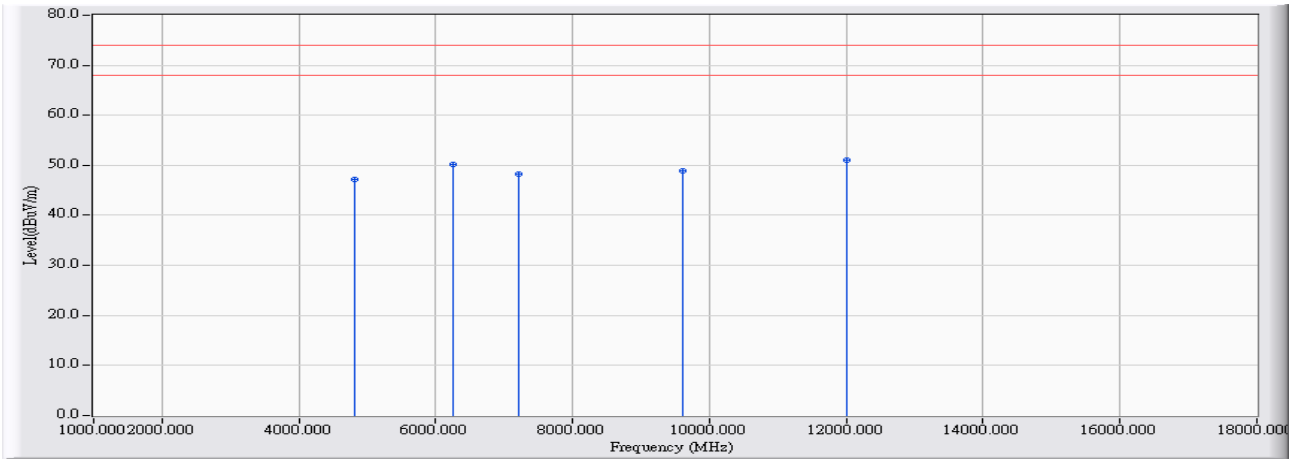


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.305	-0.375	50.460	50.085	-23.915	74.000	PEAK
2		6250.000	3.445	46.210	49.655	-24.345	74.000	PEAK
3		7208.595	7.044	39.600	46.645	-27.355	74.000	PEAK
4		9605.870	12.050	36.840	48.890	-25.110	74.000	PEAK
5	*	12013.815	17.175	34.670	51.845	-22.155	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz Mode 1: Tx-AD2037320910LF**

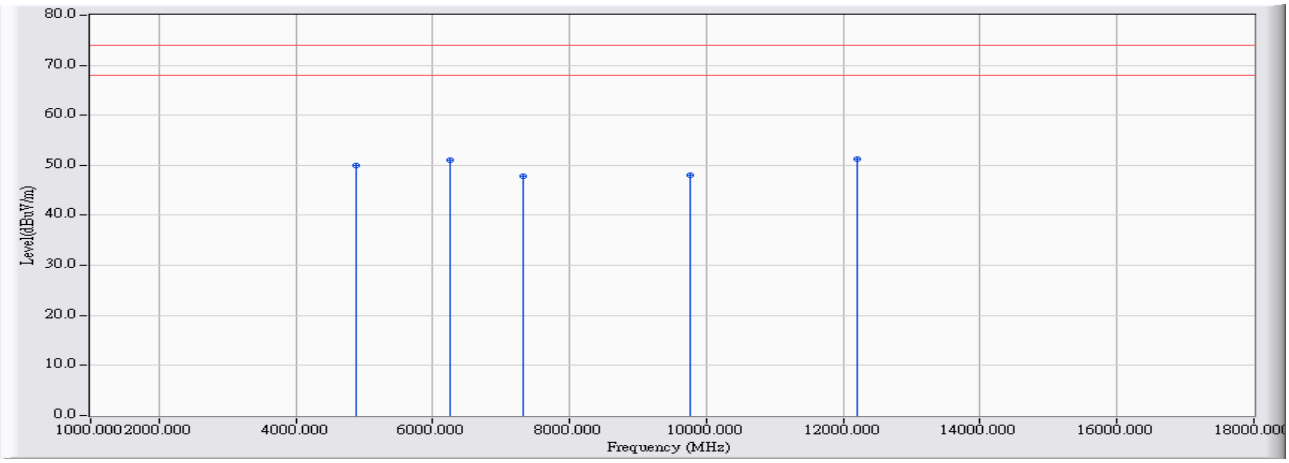


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4803.975	-0.376	47.620	47.244	-26.756	74.000	PEAK
2		6250.090	3.445	46.800	50.245	-23.755	74.000	PEAK
3		7202.450	7.014	41.320	48.334	-25.666	74.000	PEAK
4		9603.453	12.046	36.770	48.816	-25.184	74.000	PEAK
5	*	12014.535	17.174	33.790	50.964	-23.036	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

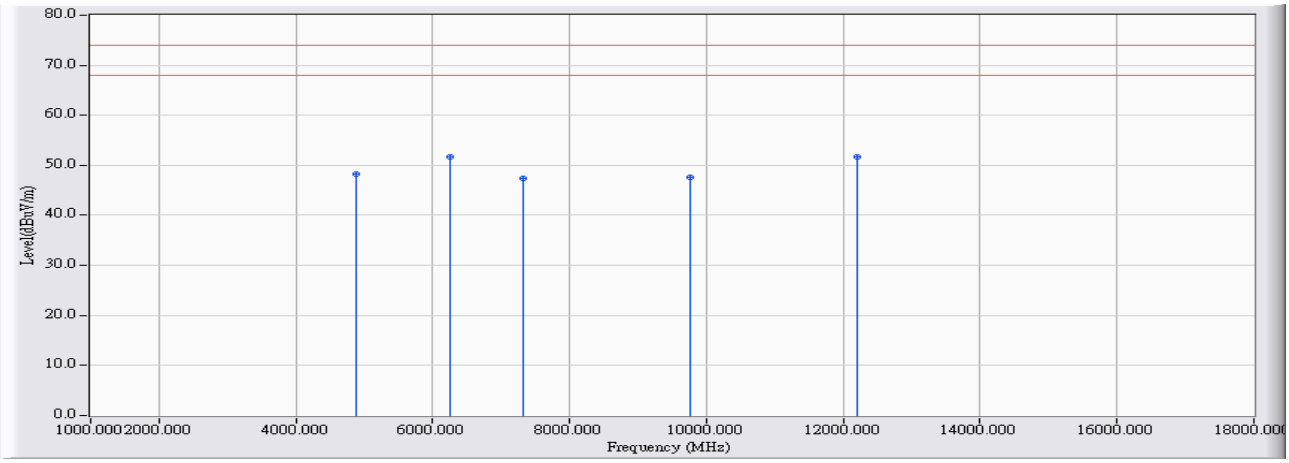


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4881.705	-0.183	50.130	49.947	-24.053	74.000	PEAK
2		6249.860	3.444	47.530	50.974	-23.026	74.000	PEAK
3		7319.130	7.593	40.150	47.743	-26.257	74.000	PEAK
4		9764.360	12.300	35.710	48.010	-25.990	74.000	PEAK
5	*	12207.800	16.821	34.360	51.182	-22.818	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

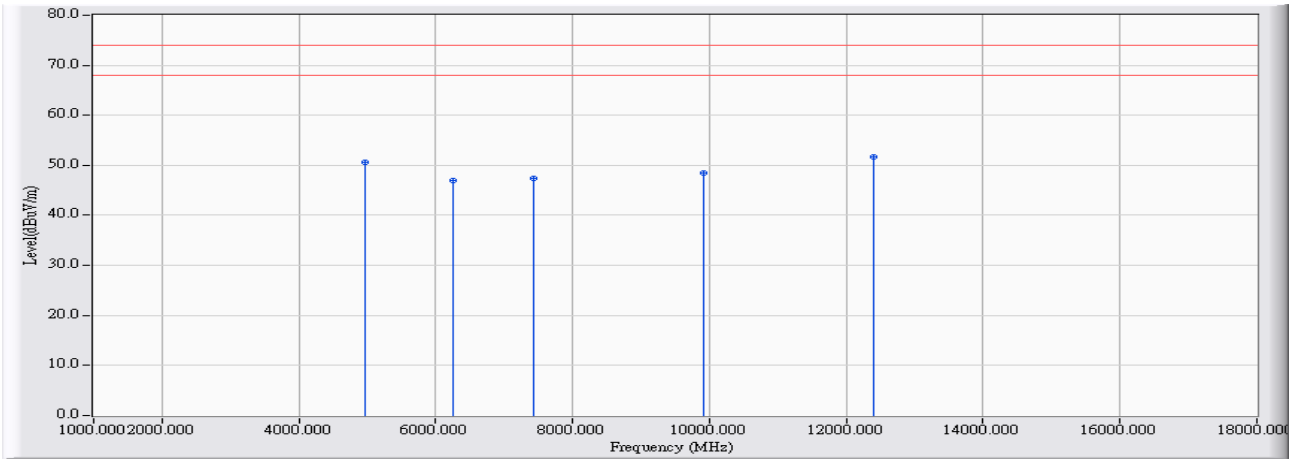


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4881.000	-0.186	48.350	48.165	-25.835	74.000	PEAK
2	*	6250.000	3.445	48.220	51.665	-22.335	74.000	PEAK
3		7326.000	7.627	39.840	47.467	-26.533	74.000	PEAK
4		9767.000	12.304	35.240	47.544	-26.456	74.000	PEAK
5		12202.000	16.833	34.800	51.634	-22.366	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz Mode 1: Tx-AD2037320910LF**

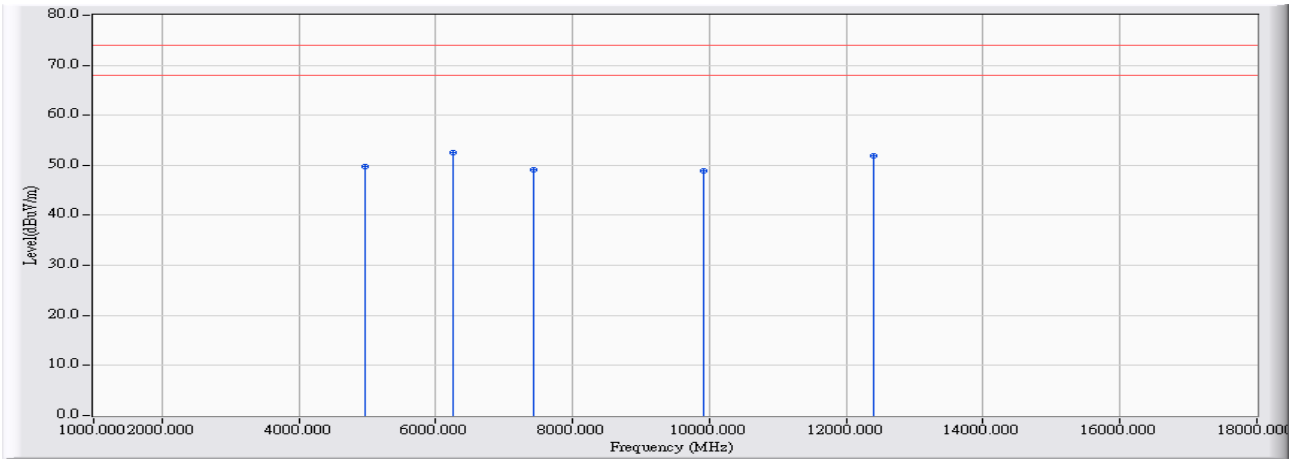


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4959.000	0.009	50.710	50.718	-23.282	74.000	PEAK
2		6250.000	3.445	43.630	47.075	-26.925	74.000	PEAK
3		7439.000	8.195	39.170	47.365	-26.635	74.000	PEAK
4		9920.000	12.520	35.860	48.380	-25.620	74.000	PEAK
5	*	12395.000	16.427	35.350	51.777	-22.223	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz Mode 1: Tx-AD2037320910LF**

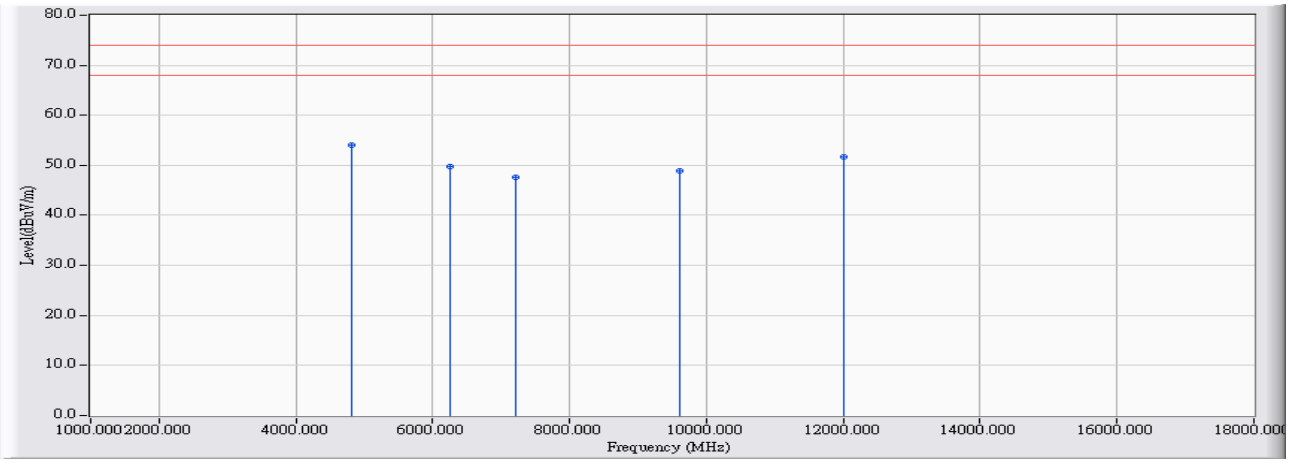


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4959.835	0.011	49.700	49.710	-24.290	74.000	PEAK
2	*	6250.030	3.445	49.110	52.555	-21.445	74.000	PEAK
3		7437.815	8.189	40.820	49.009	-24.991	74.000	PEAK
4		9917.925	12.516	36.480	48.997	-25.003	74.000	PEAK
5		12399.945	16.417	35.480	51.897	-22.103	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz** **Mode 1: Tx-AD2037320910LF**

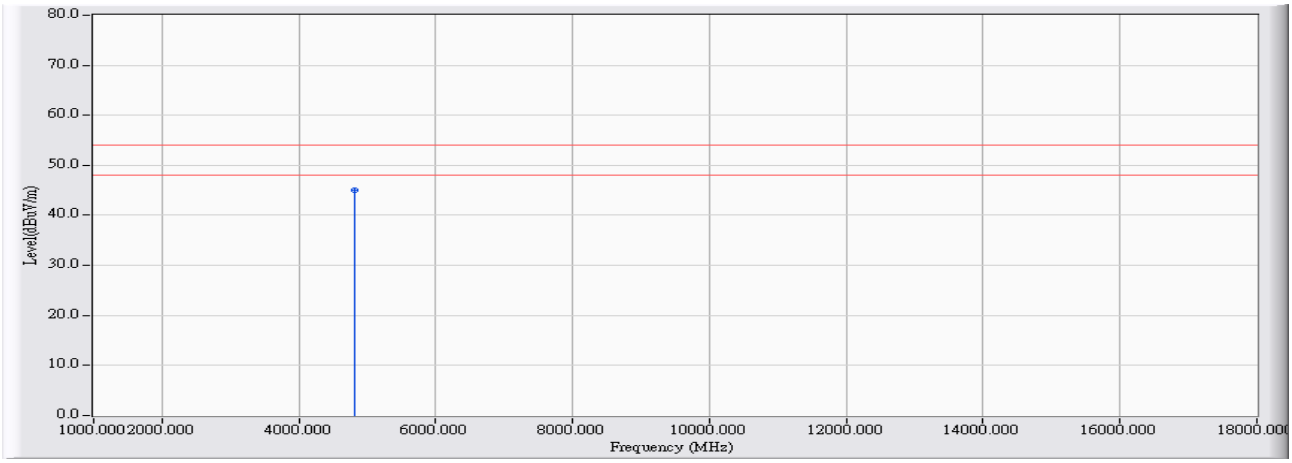


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.685	-0.377	54.380	54.004	-19.996	74.000	PEAK
2		6249.735	3.444	46.210	49.654	-24.346	74.000	PEAK
3		7202.640	7.015	40.640	47.655	-26.345	74.000	PEAK
4		9607.265	12.053	36.940	48.992	-25.008	74.000	PEAK
5		12013.630	17.175	34.420	51.596	-22.404	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz** **Mode 1: Tx-AD2037320910LF**

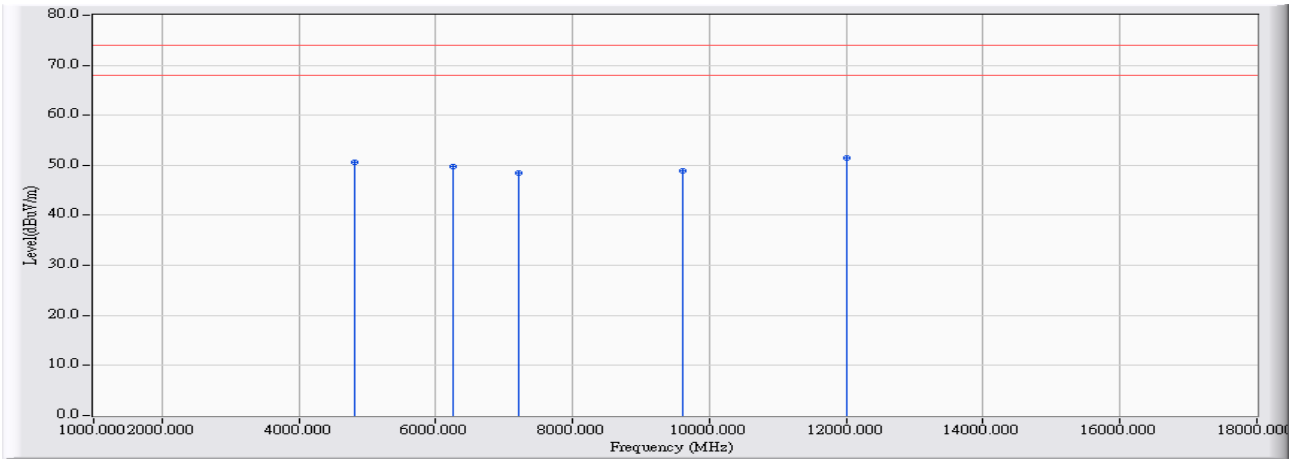


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.910	-0.376	45.520	45.144	-8.856	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz Mode 1: Tx-AD2037320910LF**

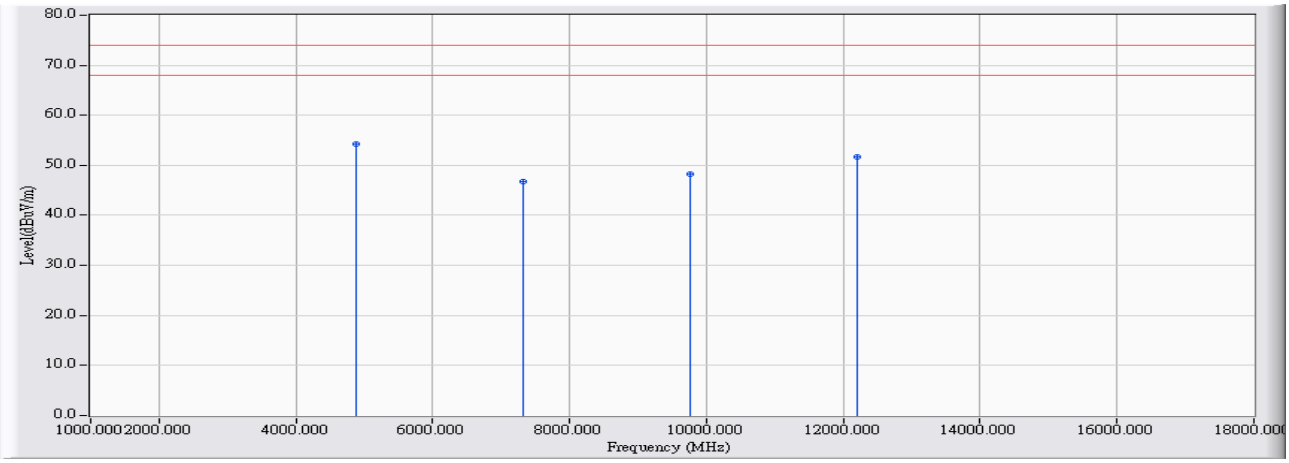


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.245	-0.375	51.090	50.715	-23.285	74.000	PEAK
2		6250.150	3.446	46.420	49.866	-24.134	74.000	PEAK
3		7203.335	7.019	41.420	48.438	-25.562	74.000	PEAK
4		9608.080	12.053	36.830	48.884	-25.116	74.000	PEAK
5	*	12014.635	17.174	34.280	51.454	-22.546	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 : CB4-H	**Time : 2016/12/19 - 16:17**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz Mode 1: Tx-AD2037320910LF**

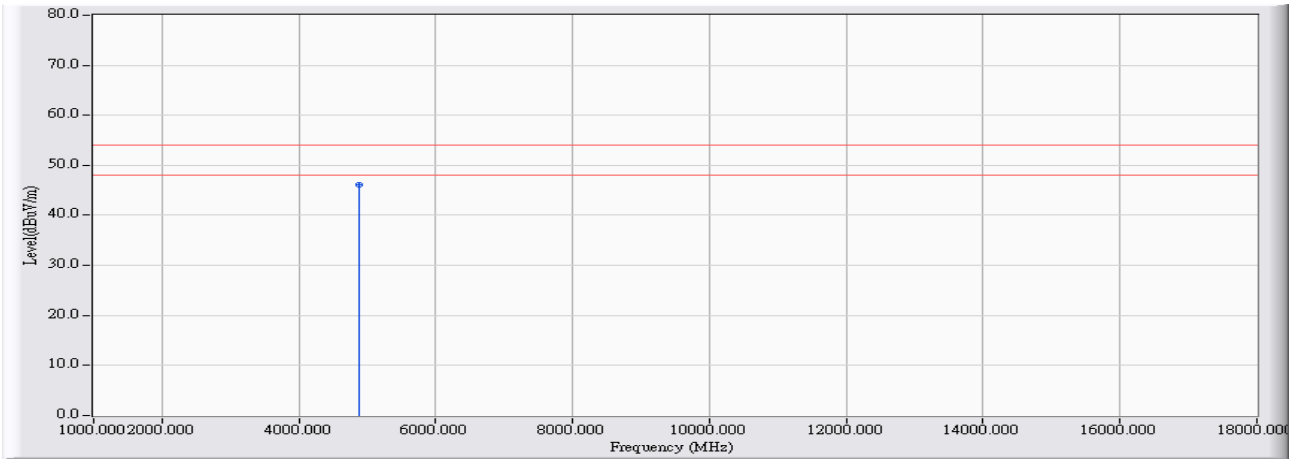


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4881.715	-0.183	54.460	54.277	-19.723	74.000	PEAK
2		7322.565	7.610	39.080	46.690	-27.310	74.000	PEAK
3		9768.495	12.306	35.940	48.246	-25.754	74.000	PEAK
4		12202.770	16.832	34.790	51.622	-22.378	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

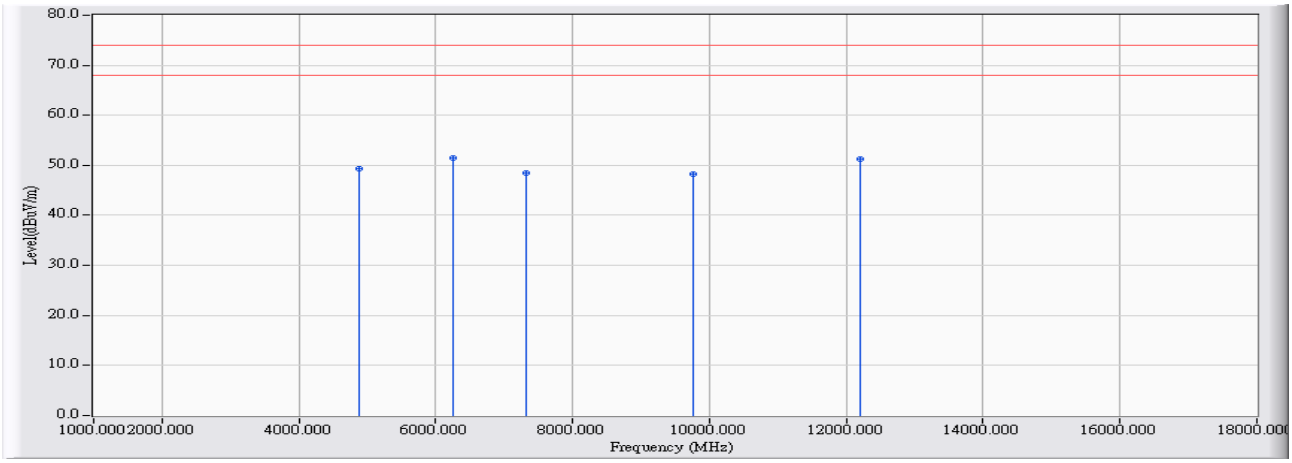


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4881.875	-0.183	46.370	46.187	-7.813	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz Mode 1: Tx-AD2037320910LF**

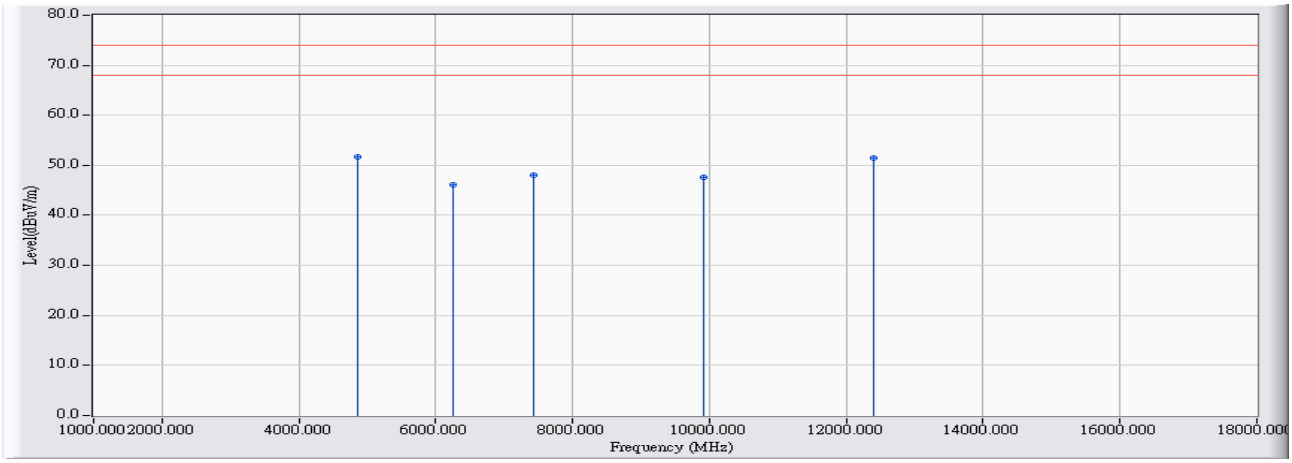


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4881.000	-0.186	49.450	49.265	-24.735	74.000	PEAK
2	*	6250.000	3.445	48.120	51.565	-22.435	74.000	PEAK
3		7324.000	7.617	40.820	48.437	-25.563	74.000	PEAK
4		9767.000	12.304	35.920	48.224	-25.776	74.000	PEAK
5		12202.000	16.833	34.460	51.294	-22.706	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

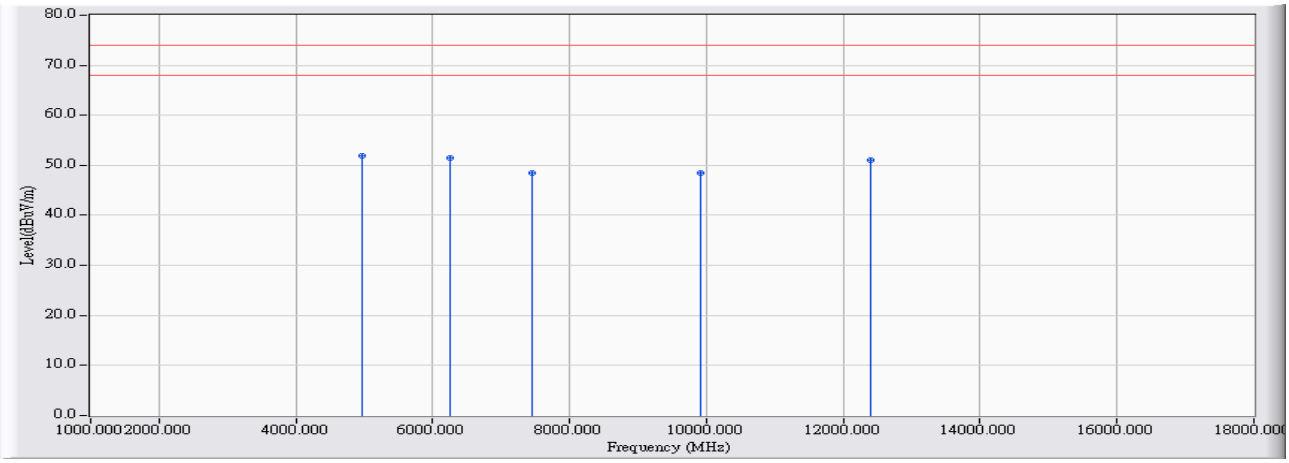


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4859.000	-0.239	51.870	51.630	-22.370	74.000	PEAK
2		6250.000	3.445	42.690	46.135	-27.865	74.000	PEAK
3		7436.000	8.179	39.830	48.010	-25.990	74.000	PEAK
4		9921.000	12.521	35.080	47.601	-26.399	74.000	PEAK
5		12398.000	16.421	35.160	51.581	-22.419	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

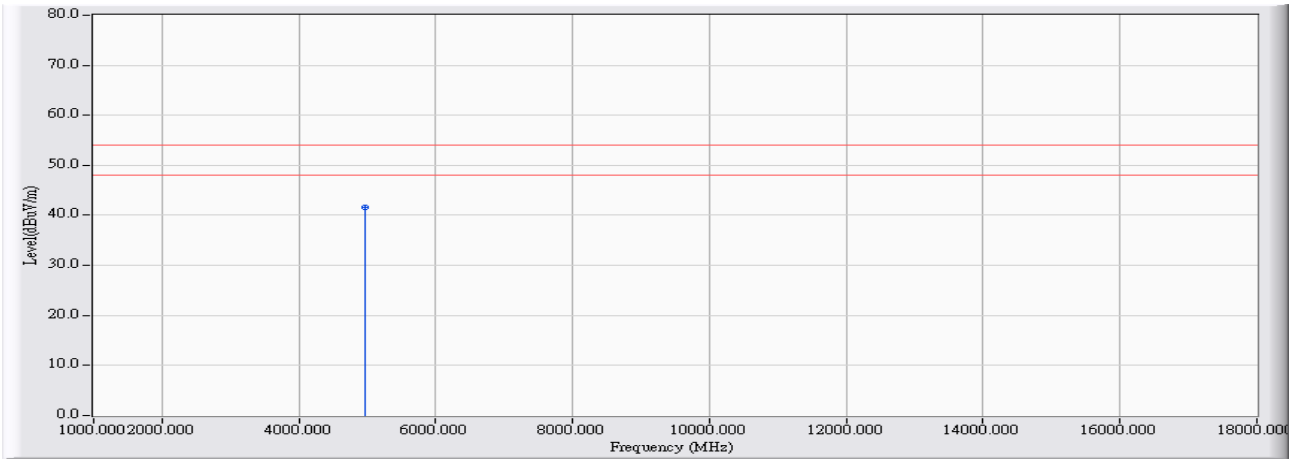


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.715	0.011	51.980	51.990	-22.010	74.000	PEAK
2		6250.110	3.445	48.110	51.556	-22.444	74.000	PEAK
3		7440.550	8.203	40.310	48.513	-25.487	74.000	PEAK
4		9921.880	12.524	35.890	48.413	-25.587	74.000	PEAK
5		12402.600	16.412	34.690	51.101	-22.899	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz** **Mode 1: Tx-AD2037320910LF**

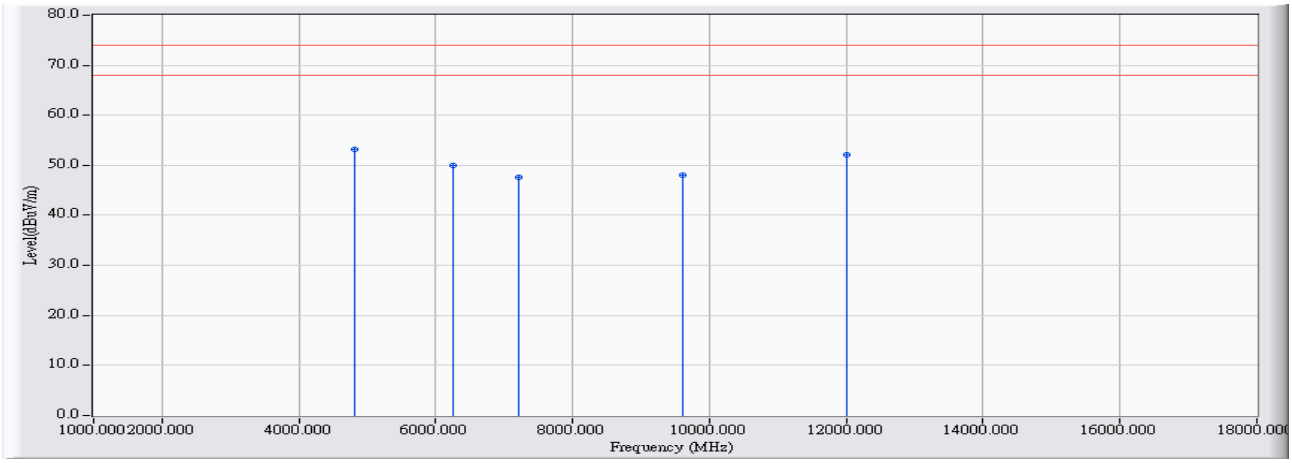


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.800	0.011	41.590	41.600	-12.400	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

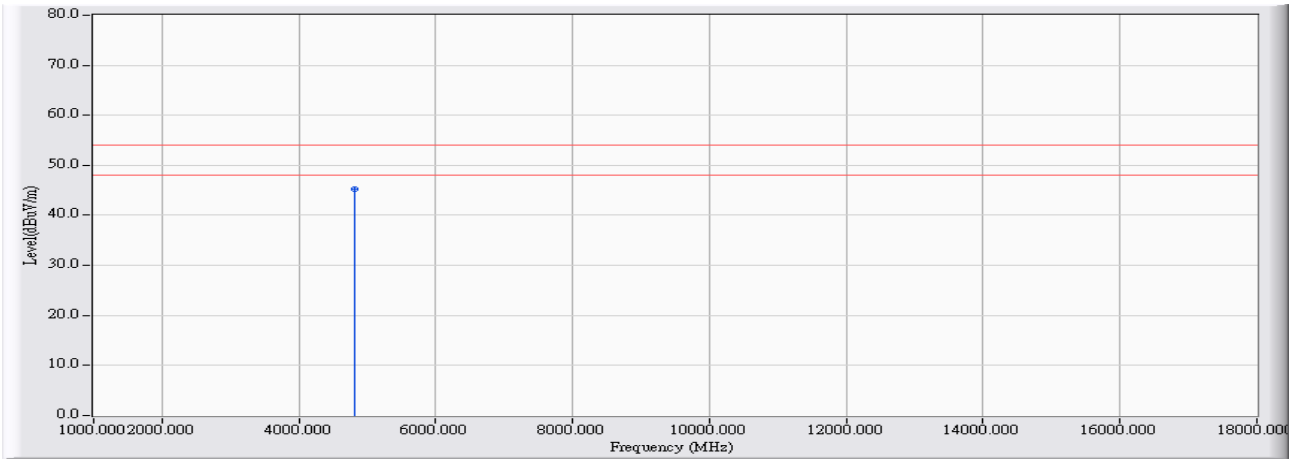


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.800	-0.376	53.650	53.274	-20.726	74.000	PEAK
2		6250.030	3.445	46.490	49.935	-24.065	74.000	PEAK
3		7206.230	7.033	40.490	47.523	-26.477	74.000	PEAK
4		9608.655	12.054	36.030	48.085	-25.915	74.000	PEAK
5		12011.935	17.178	34.960	52.138	-21.862	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

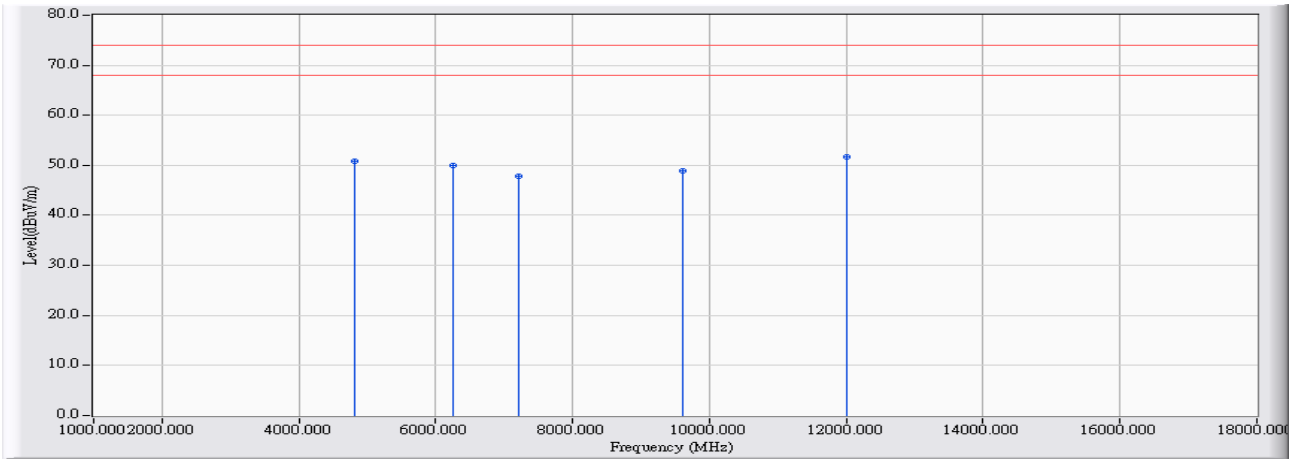


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4803.930	-0.376	45.680	45.304	-8.696	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

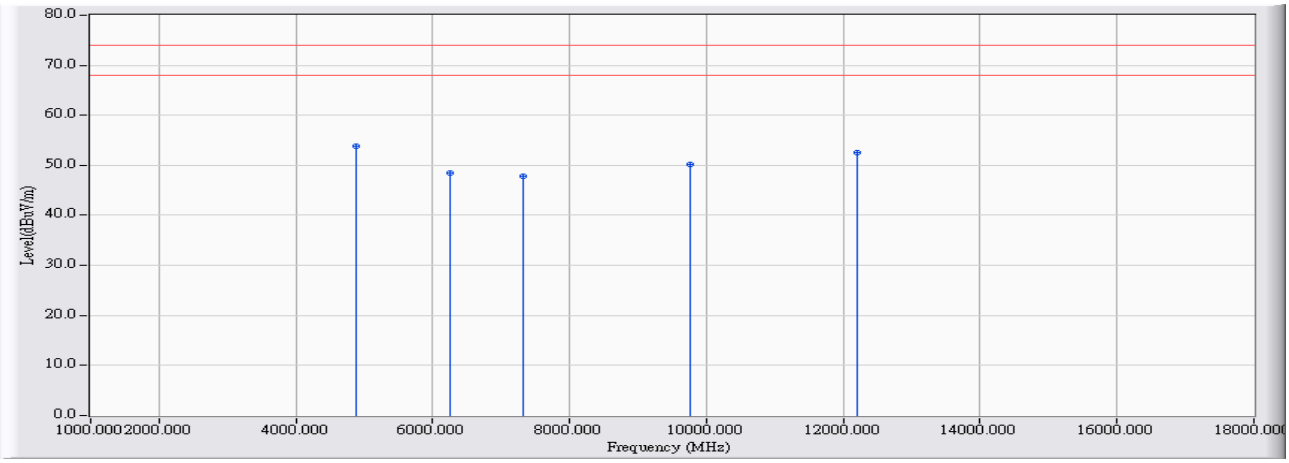


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4803.485	-0.377	51.310	50.933	-23.067	74.000	PEAK
2		6249.840	3.444	46.580	50.024	-23.976	74.000	PEAK
3		7208.270	7.043	40.740	47.783	-26.217	74.000	PEAK
4		9610.620	12.057	36.850	48.908	-25.092	74.000	PEAK
5	*	12007.610	17.185	34.510	51.695	-22.305	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

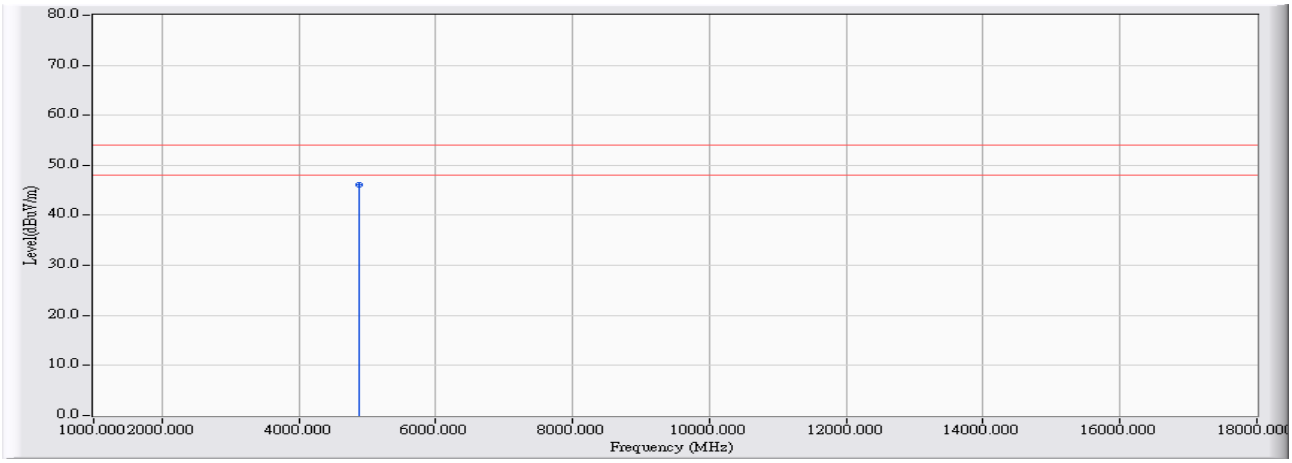


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4881.670	-0.183	53.950	53.767	-20.233	74.000	PEAK
2		6249.000	3.439	45.090	48.529	-25.471	74.000	PEAK
3		7327.000	7.632	40.220	47.852	-26.148	74.000	PEAK
4		9768.000	12.305	37.960	50.265	-23.735	74.000	PEAK
5		12200.000	16.838	35.730	52.567	-21.433	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

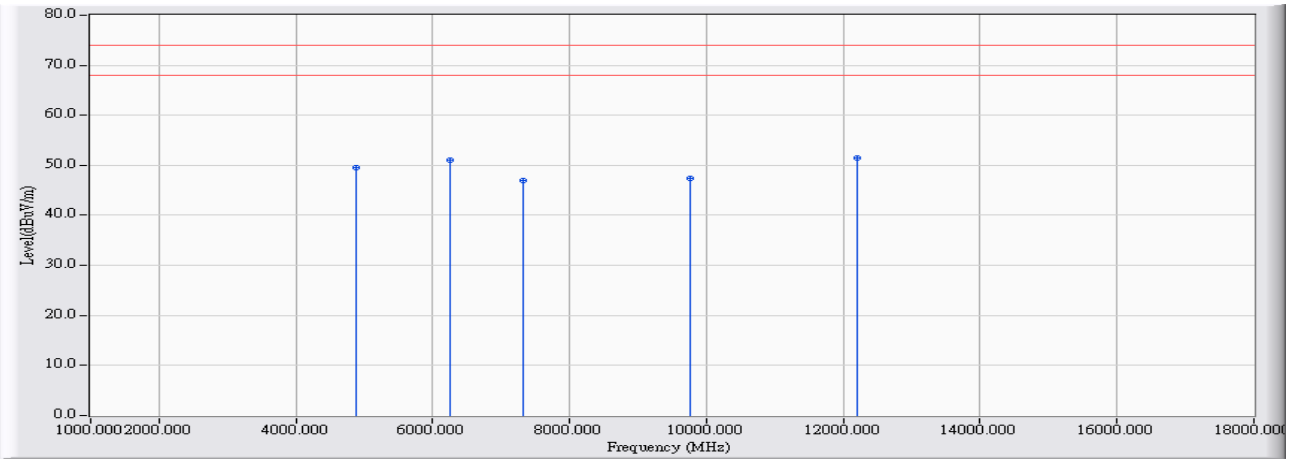


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4881.900	-0.183	46.350	46.167	-7.833	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

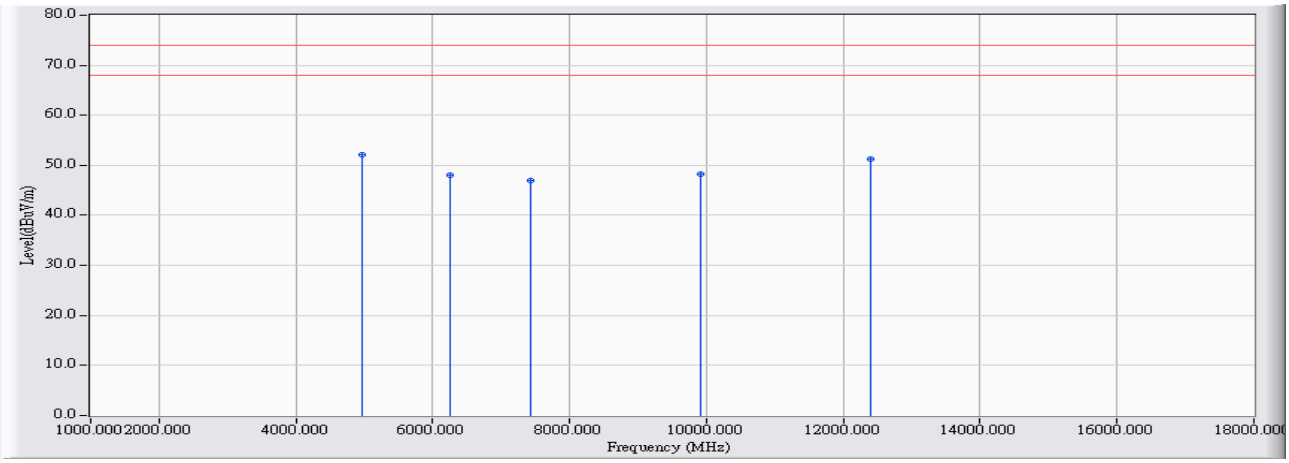


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4881.000	-0.186	49.710	49.525	-24.475	74.000	PEAK
2		6250.000	3.445	47.510	50.955	-23.045	74.000	PEAK
3		7323.000	7.611	39.370	46.982	-27.018	74.000	PEAK
4		9765.000	12.301	35.170	47.471	-26.529	74.000	PEAK
5	*	12203.000	16.832	34.660	51.492	-22.508	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**

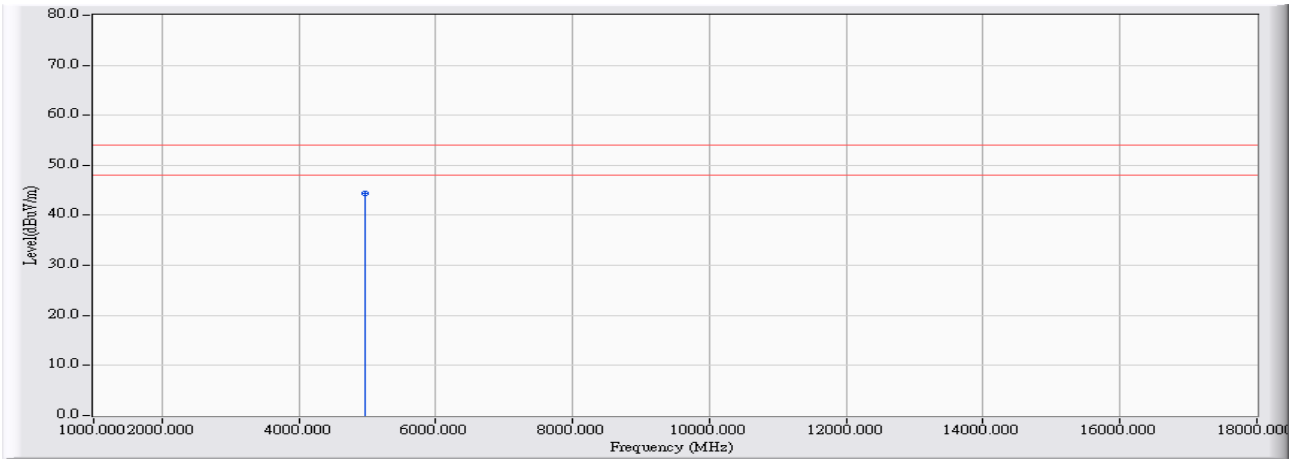


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.000	0.009	52.180	52.188	-21.812	74.000	PEAK
2		6250.000	3.445	44.650	48.095	-25.905	74.000	PEAK
3		7439.000	8.195	38.720	46.915	-27.085	74.000	PEAK
4		9924.000	12.526	35.660	48.186	-25.814	74.000	PEAK
5		12399.000	16.420	34.880	51.299	-22.701	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz** **Mode 1: Tx-AD2037320910LF**

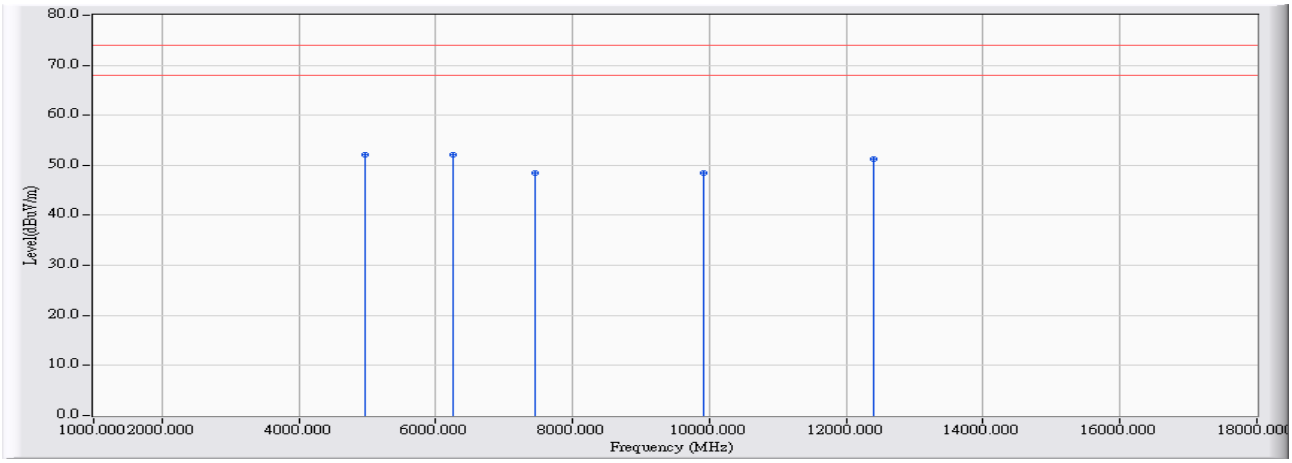


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.000	0.009	44.370	44.378	-9.622	54.000	AVERAGE

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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**

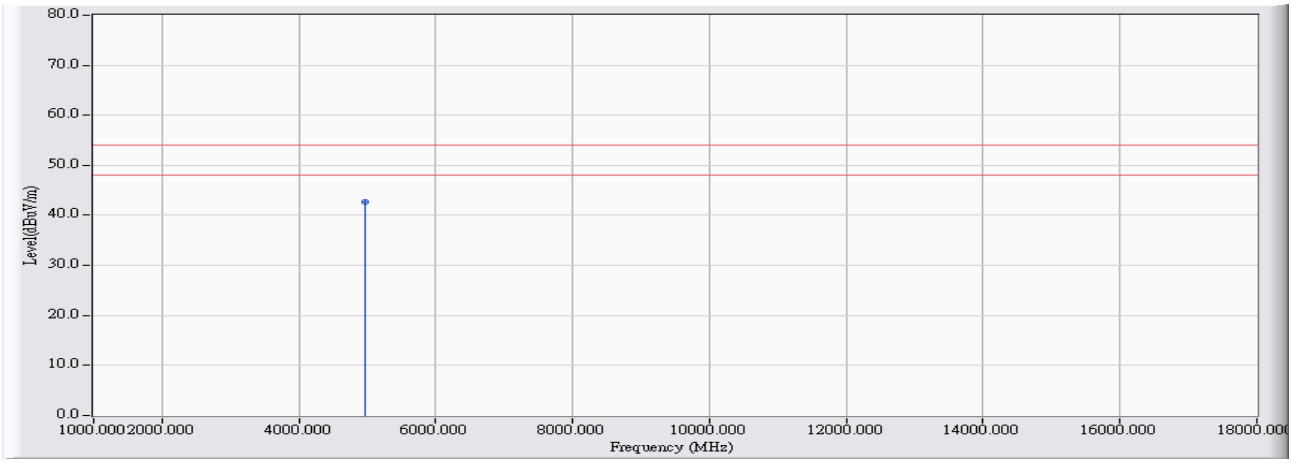


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4959.690	0.011	52.170	52.180	-21.820	74.000	PEAK
2	*	6250.350	3.446	48.770	52.217	-21.783	74.000	PEAK
3		7440.825	8.205	40.320	48.525	-25.475	74.000	PEAK
4		9921.635	12.522	35.910	48.432	-25.568	74.000	PEAK
5		12398.600	16.419	34.800	51.220	-22.780	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz** **Mode 1: Tx-AD2037320910LF**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.910	0.011	42.690	42.701	-11.299	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.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipment is used during the test:

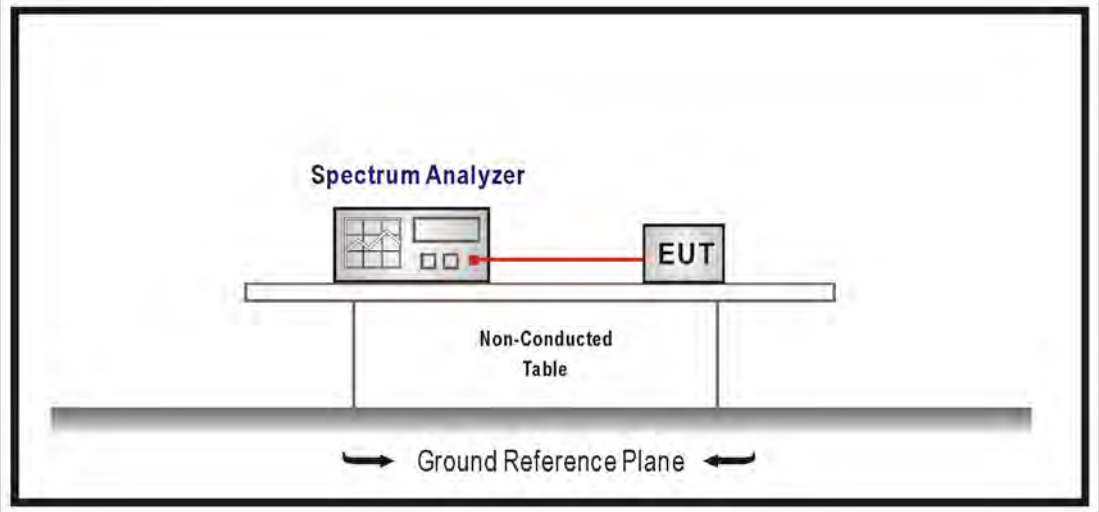
RF antenna conducted test / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/22

Note: 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 C63.10:2013 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: 2015

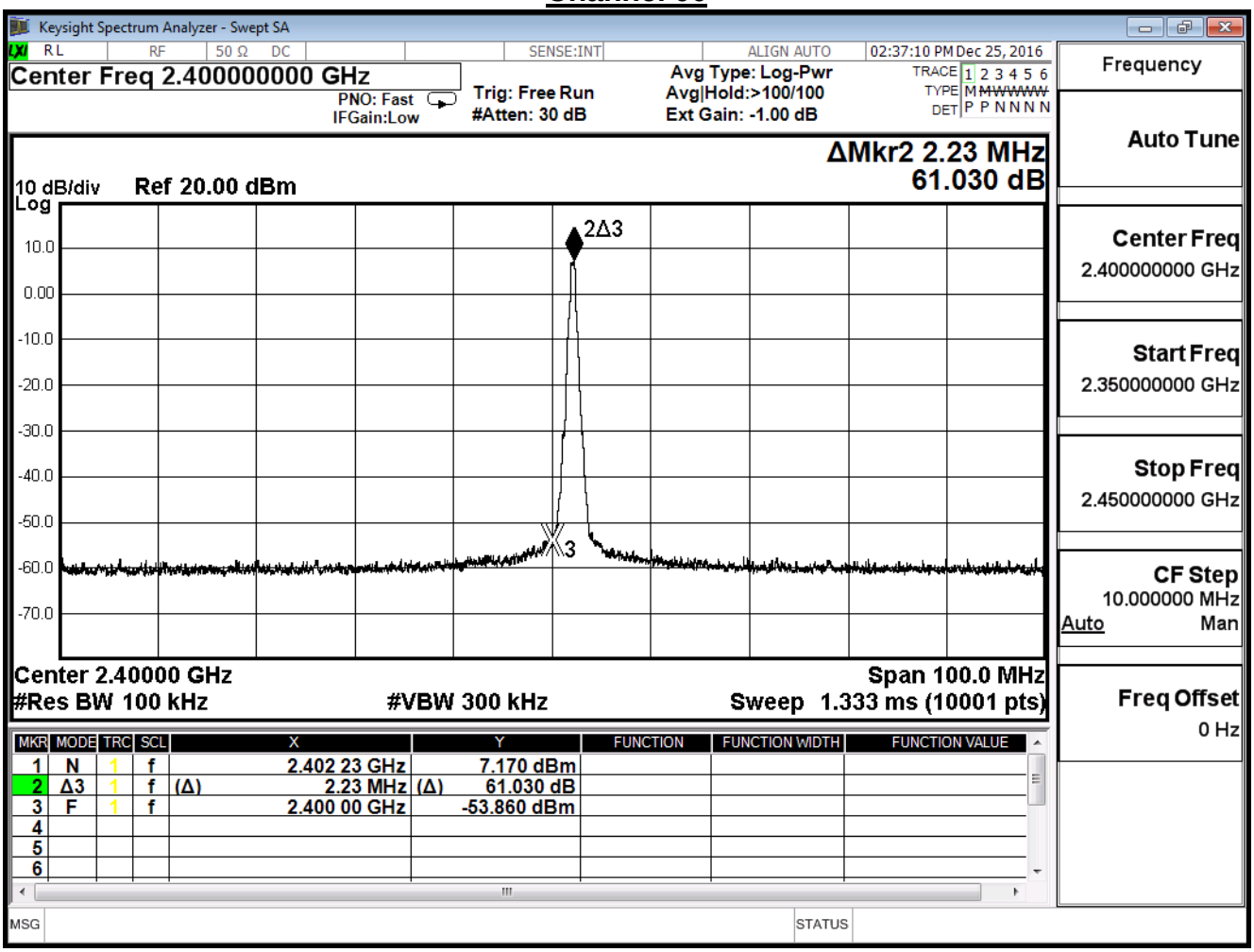
5.6. Test Result

Product	Lyra mini		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

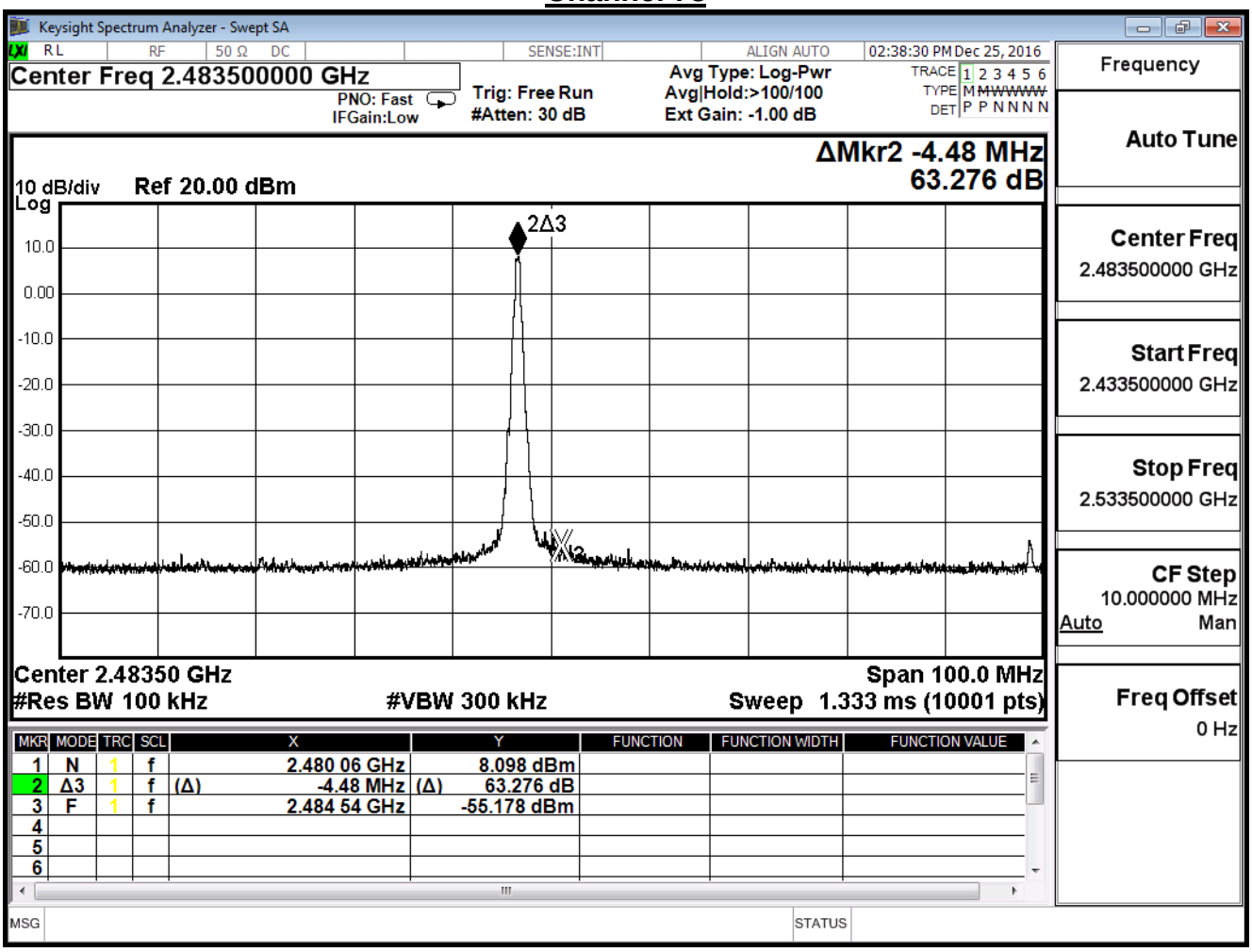
GFSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	61.030	≧20	Pass
78	2480	63.276	≧20	Pass

Channel 00



Channel 78

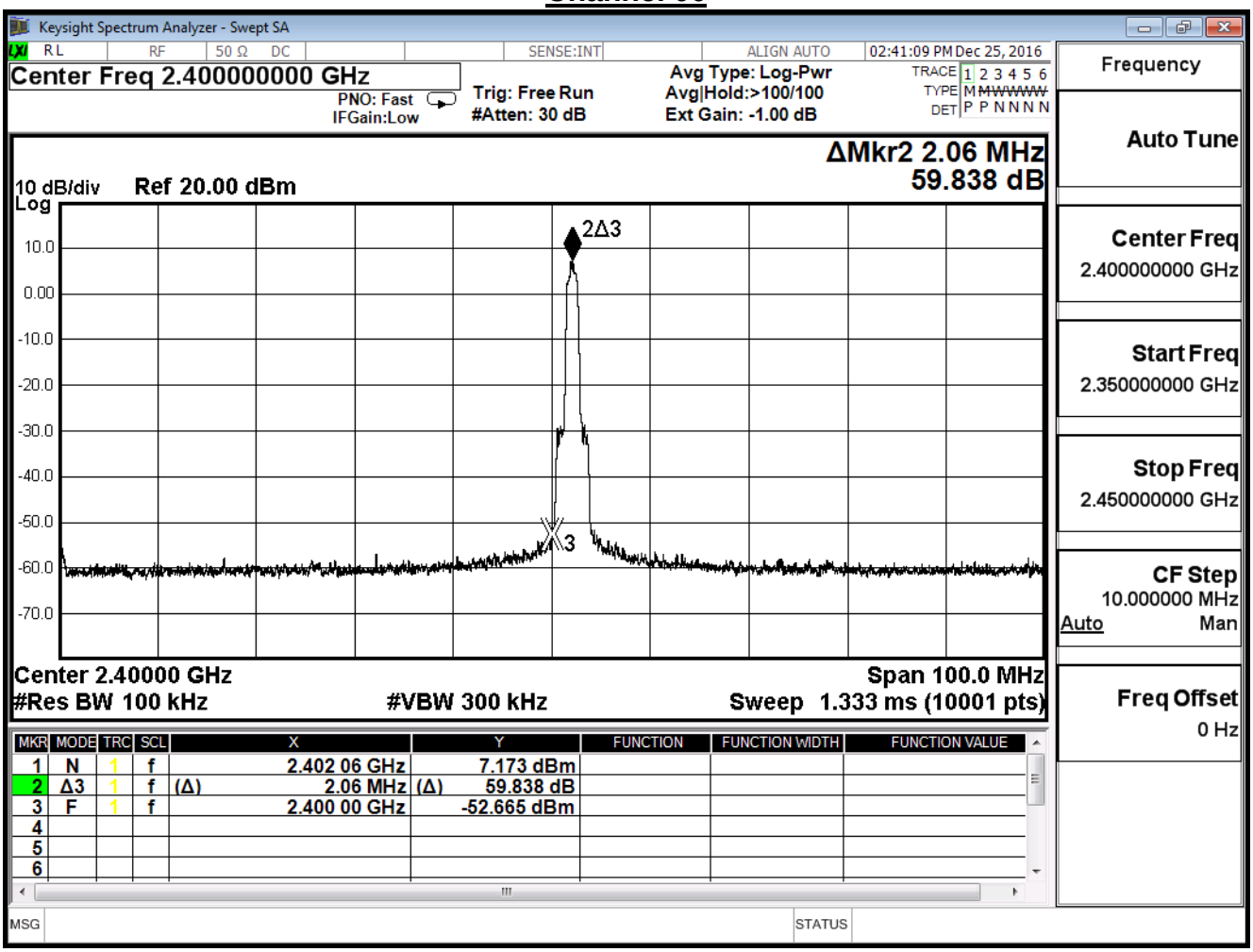

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:38:30 PM Dec 25, 2016
Center Freq 2.483500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M MWWWW
DET P P N N N N
ΔMkr2 -4.48 MHz
63.276 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
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.480 06 GHz 8.098 dBm
2 Δ3 1 f (Δ) -4.48 MHz (Δ) 63.276 dB
3 F 1 f 2.484 54 GHz -55.178 dBm
4
5
6
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	Lyra mini		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

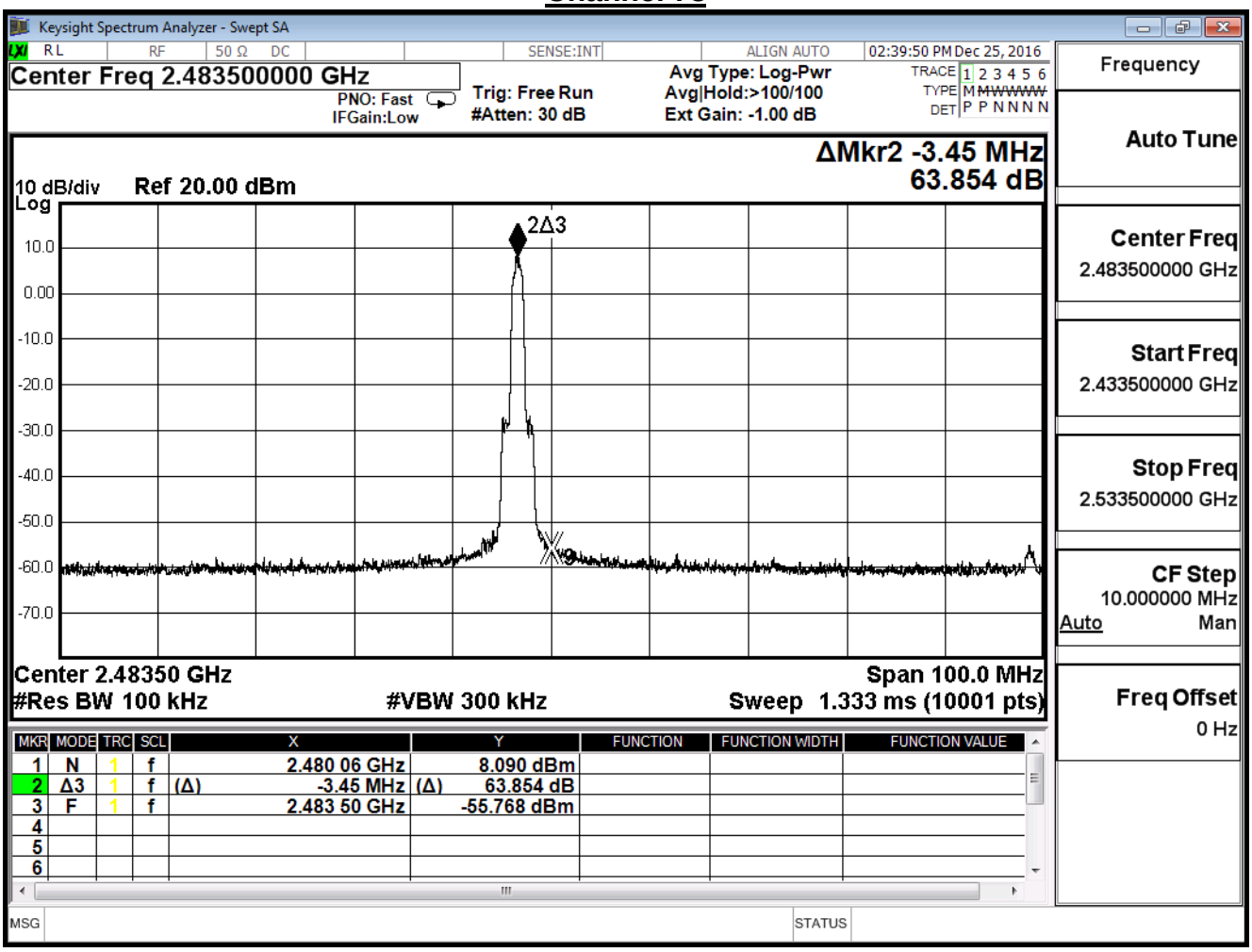
π/4-DQPSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	59.838	≧20	Pass
78	2480	63.854	≧20	Pass

Channel 00



Channel 78

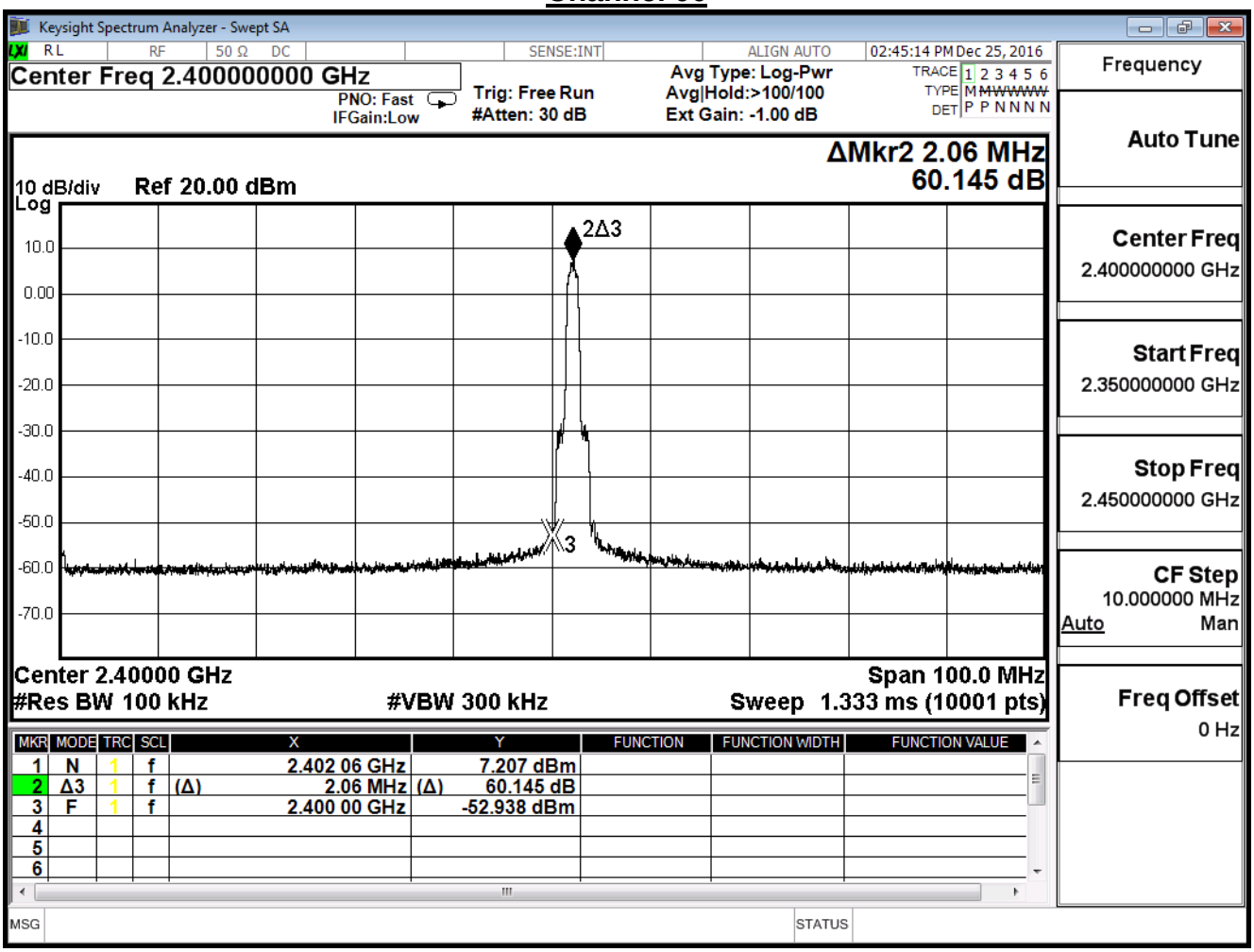

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:39:50 PM Dec 25, 2016
Center Freq 2.483500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M MWWWW
DET P P N N N N
ΔMkr2 -3.45 MHz
63.854 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.480 06 GHz 8.090 dBm
2 Δ3 1 f (Δ) -3.45 MHz (Δ) 63.854 dB
3 F 1 f 2.483 50 GHz -55.768 dBm
4
5
6
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	Lyra mini		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

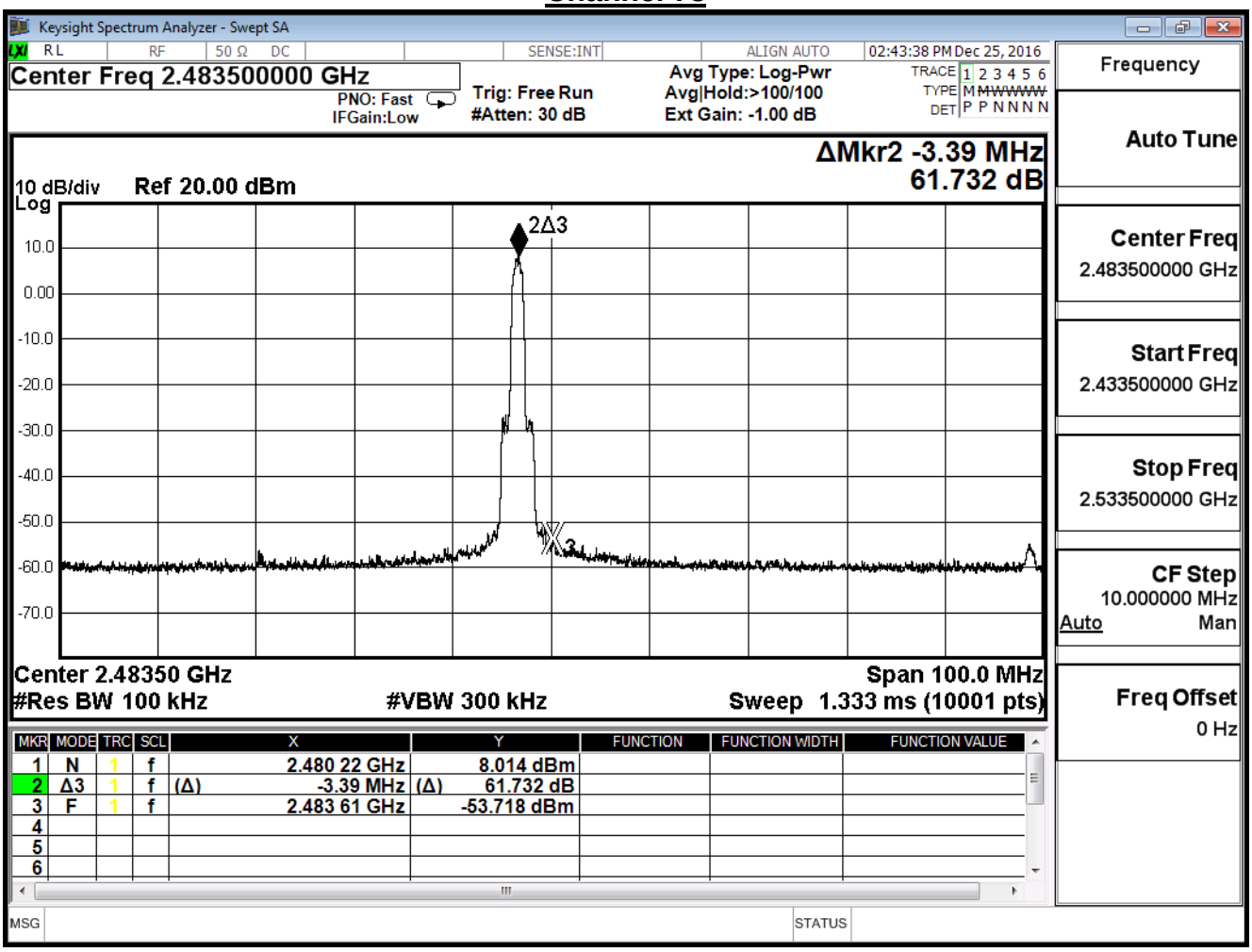
8-DPSK

Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	60.145	≧20	Pass
78	2480	61.732	≧20	Pass

Channel 00

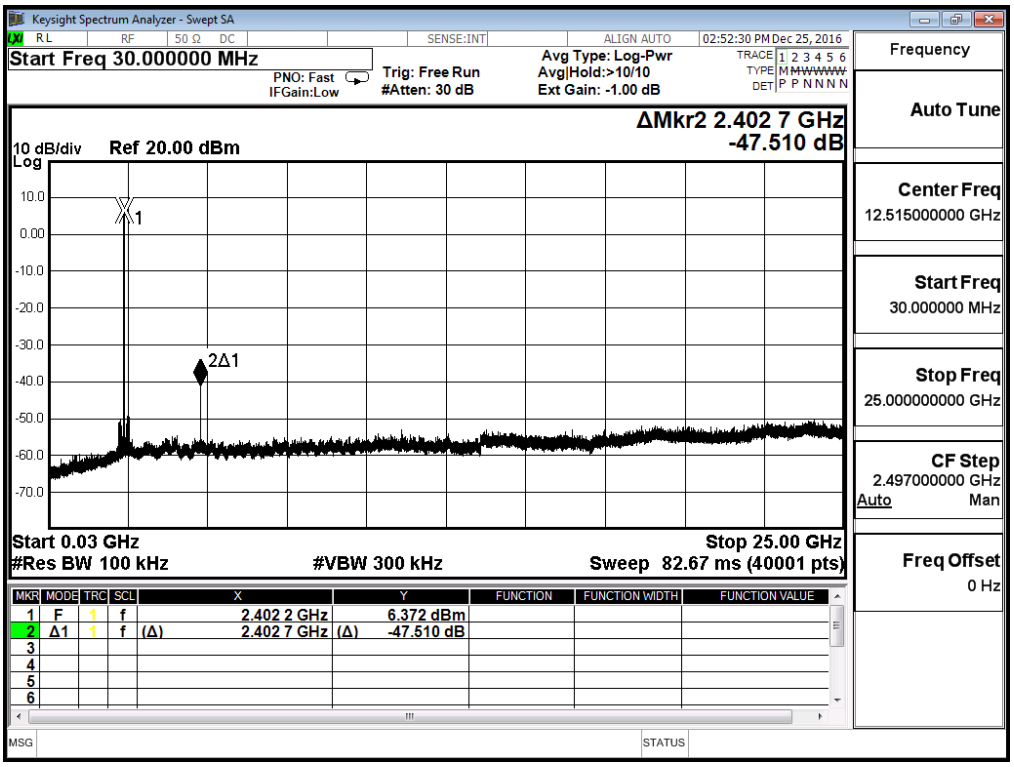


Channel 78

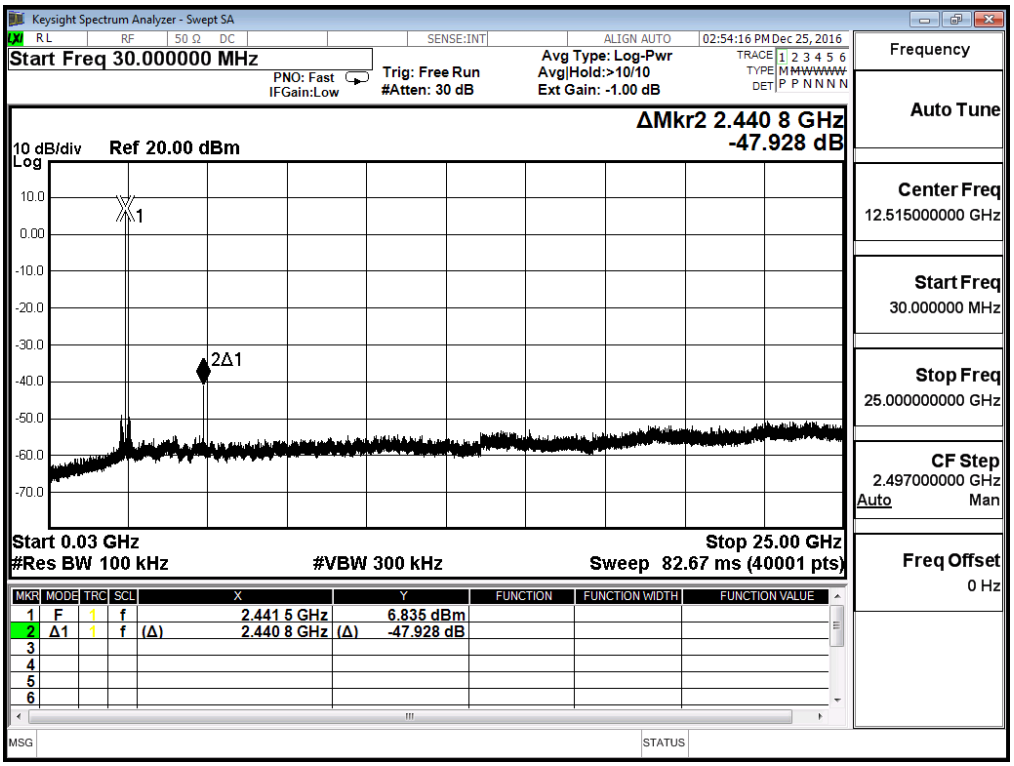

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:43:38 PM Dec 25, 2016
Center Freq 2.483500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M MWWWW
DET P P N N N N
ΔMkr2 -3.39 MHz
61.732 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
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.480 22 GHz 8.014 dBm
2 Δ3 1 f (Δ) -3.39 MHz (Δ) 61.732 dB
3 F 1 f 2.483 61 GHz -53.718 dBm
4
5
6
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	Lyra mini		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

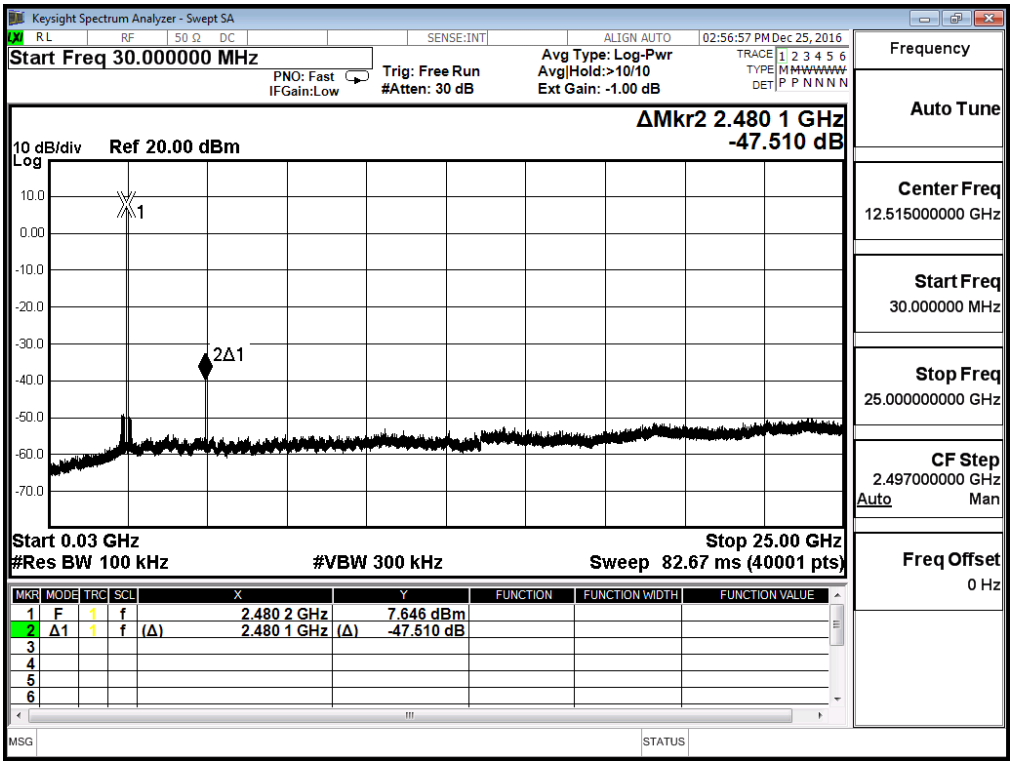
Channel 00 (30MHz-25GHz)- GFSK



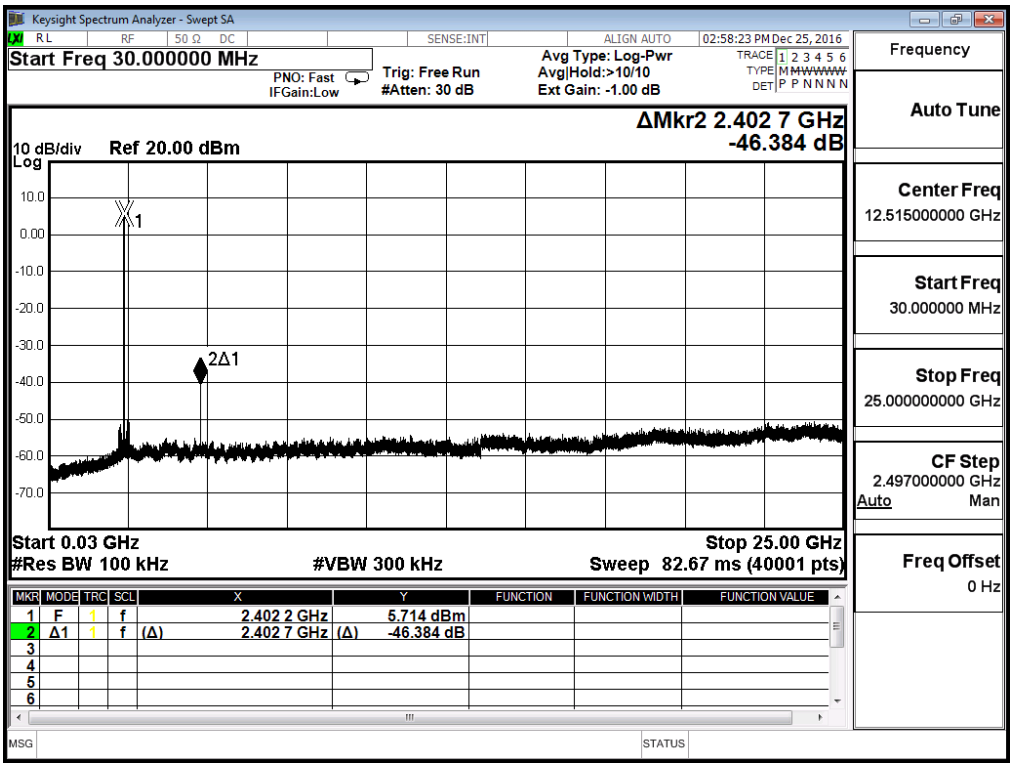
Channel 39 (30MHz-25GHz)- GFSK



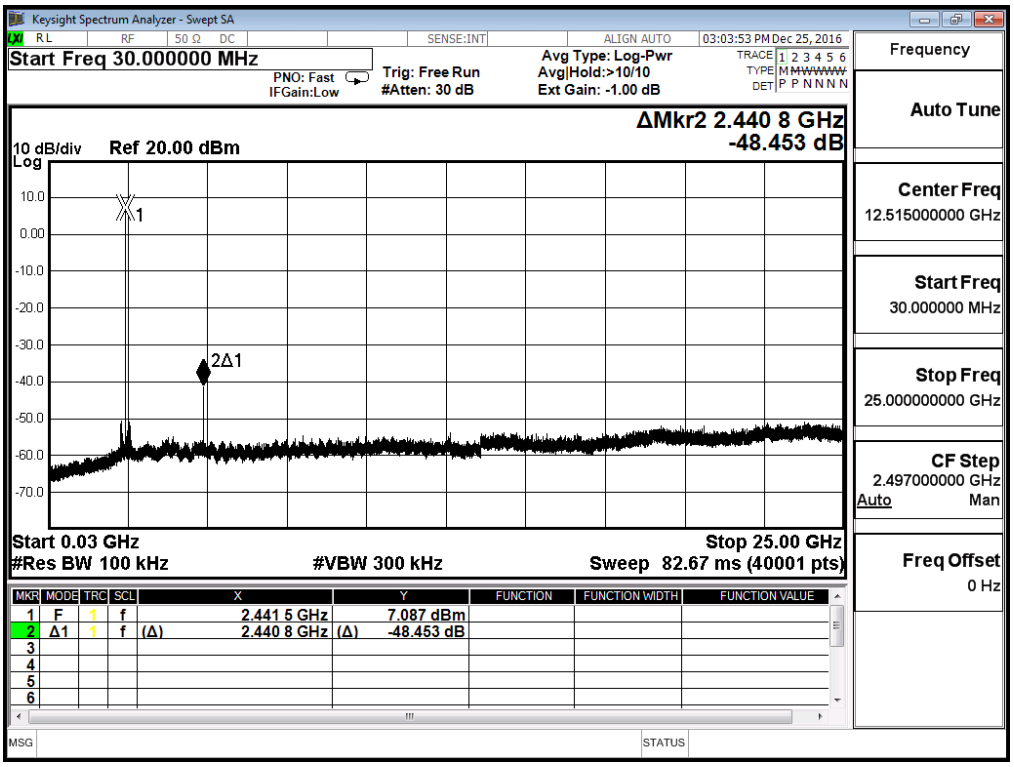
Channel 78 (30MHz-25GHz)- GFSK



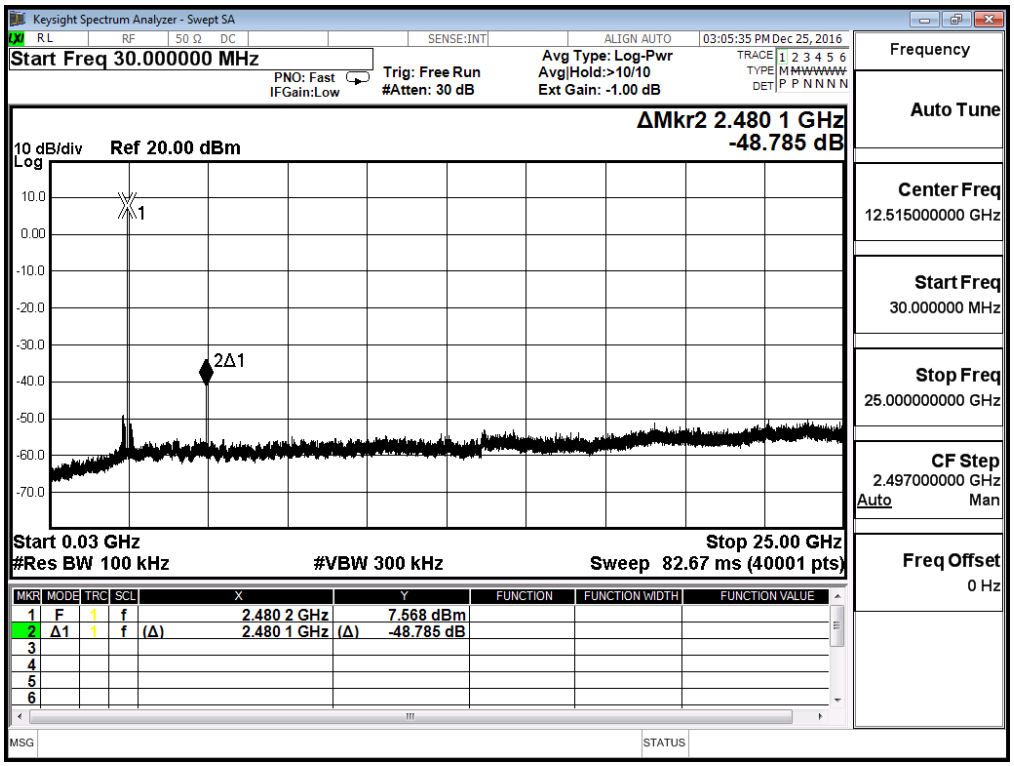
Channel 00 (30MHz-25GHz)- π/4-DQPSK



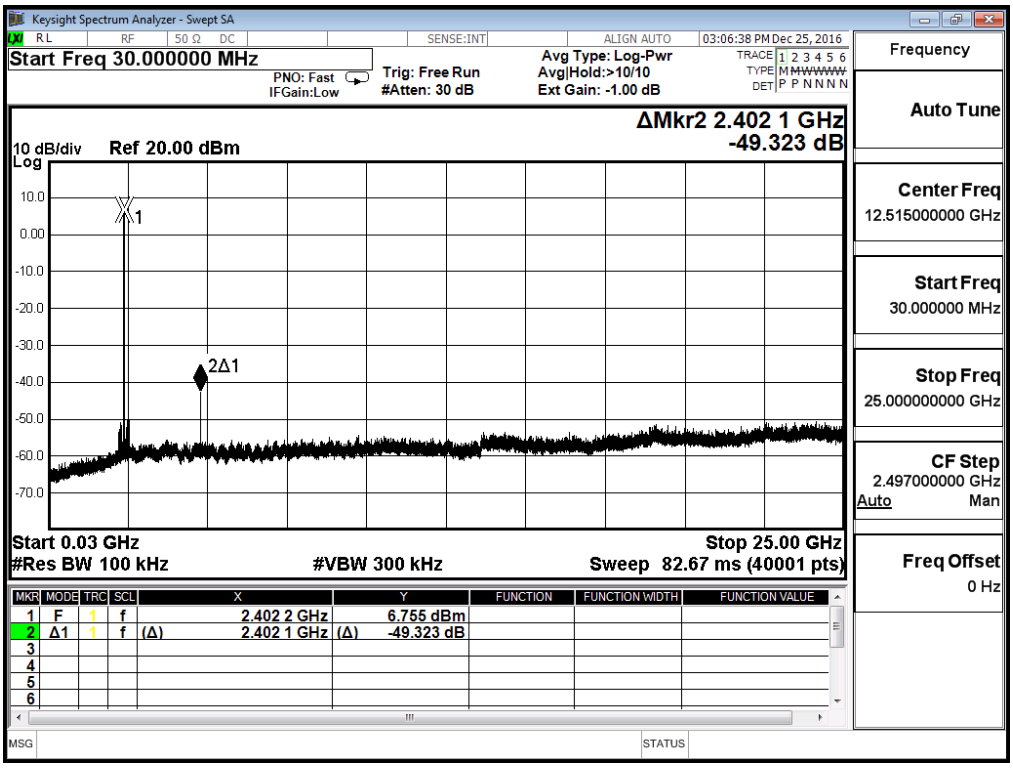
Channel 39 (30MHz-25GHz)- π/4-DQPSK



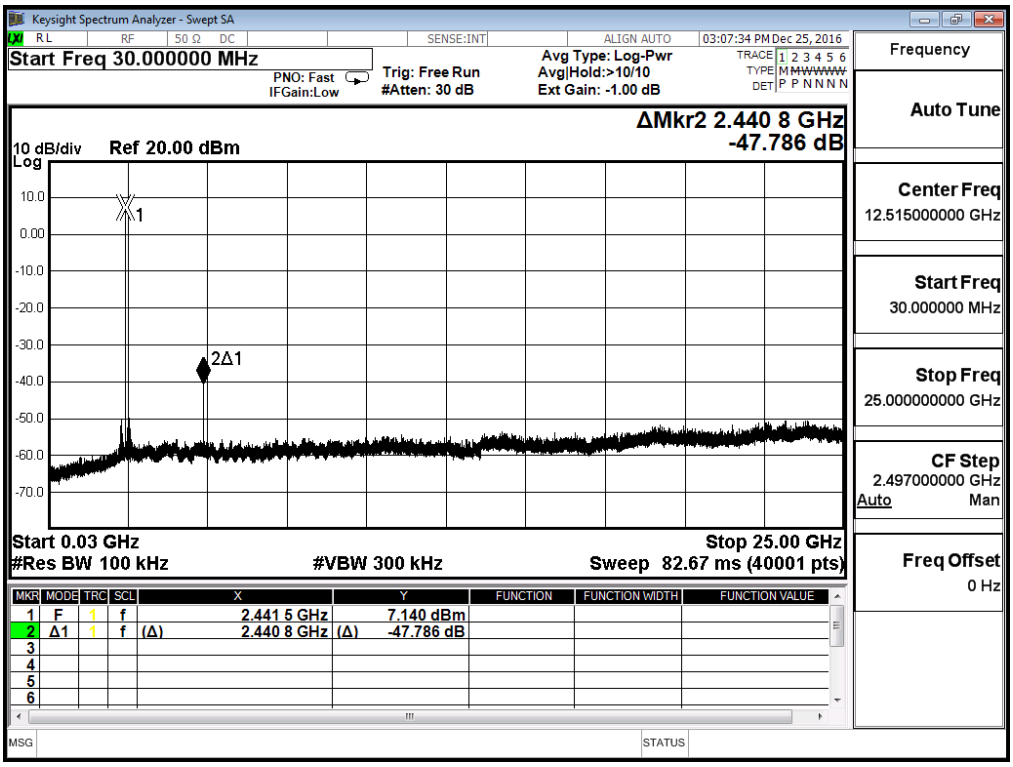
Channel 78 (30MHz-25GHz)- π/4-DQPSK



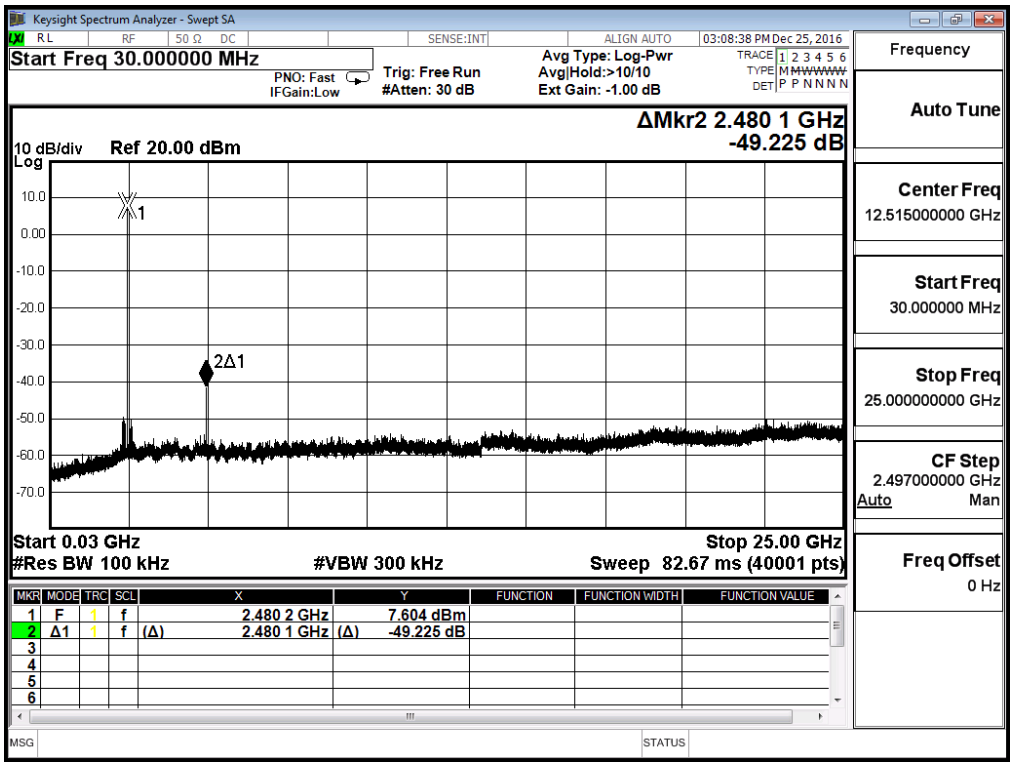
Channel 00 (30MHz-25GHz)- 8-DPSK



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



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



6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

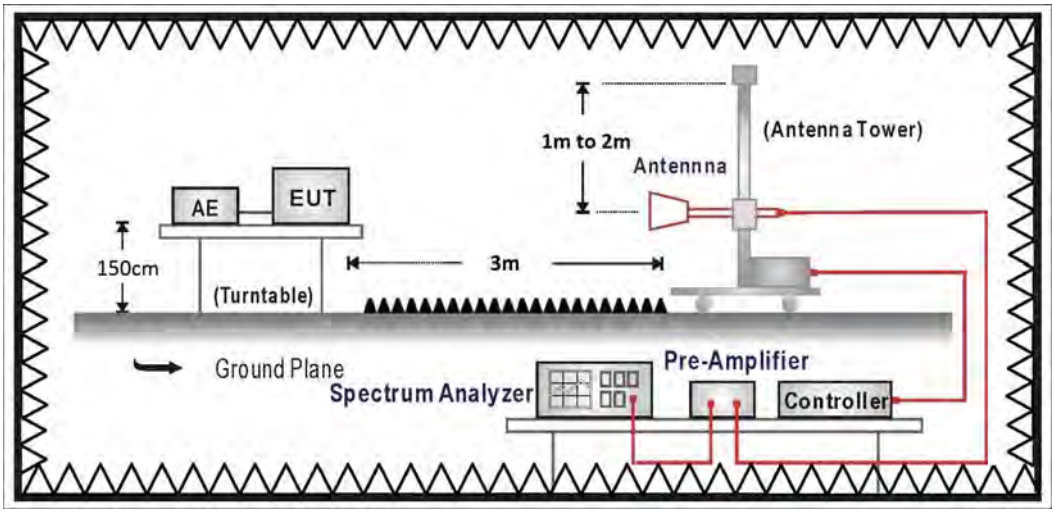
Band Edge / CB4-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Horn Antenna	Schwarzbeck	BBHA 9120	D312	2017/10/25
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/05

Note: 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 C63.10:2013 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 1.5 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.

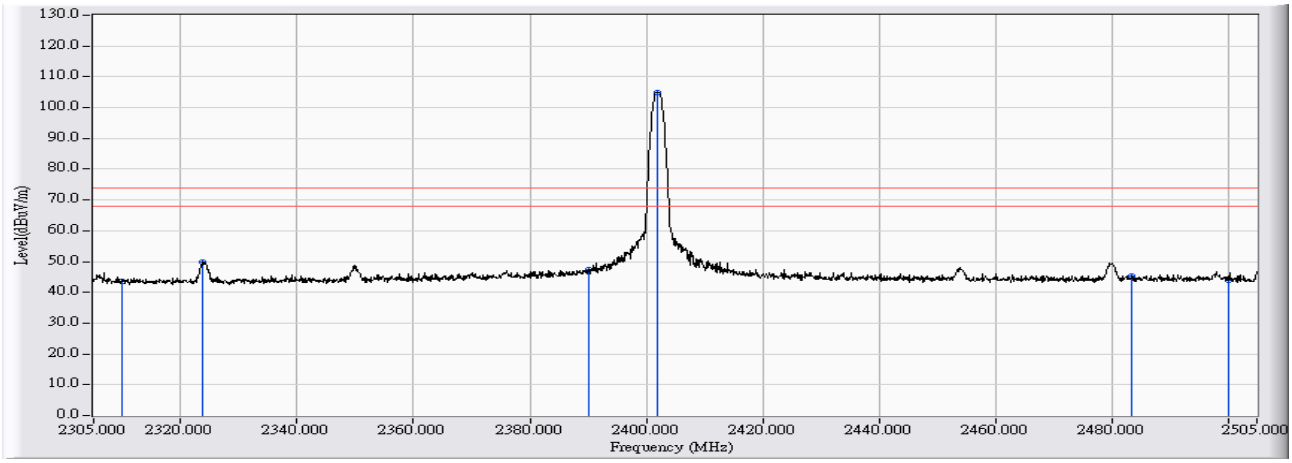
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

6.6. Test Result

Site : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz Mode 1: Tx-AD2037320910LF**

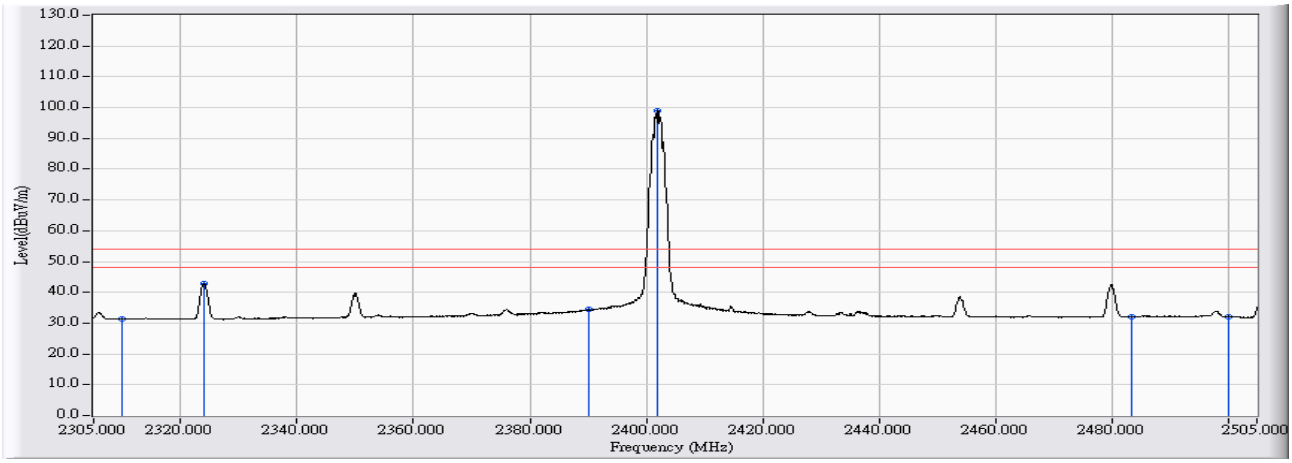


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	30.247	43.593	-30.407	74.000	PEAK
2		2323.600	13.431	36.537	49.967	-24.033	74.000	PEAK
3		2390.000	13.840	33.412	47.252	-26.748	74.000	PEAK
4	*	2401.800	13.913	91.151	105.064	31.064	74.000	PEAK
5		2483.500	14.417	30.724	45.142	-28.858	74.000	PEAK
6		2500.000	14.518	29.490	44.009	-29.991	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz** **Mode 1: Tx-AD2037320910LF**

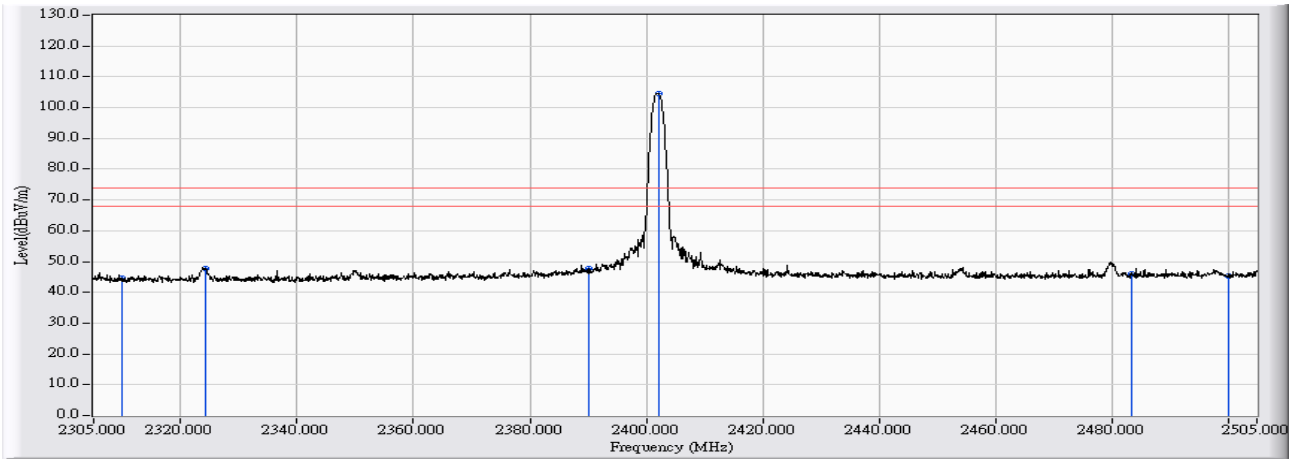


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.999	31.345	-22.655	54.000	AVERAGE
2		2324.000	13.432	29.494	42.926	-11.074	54.000	AVERAGE
3		2390.000	13.840	20.560	34.400	-19.600	54.000	AVERAGE
4	*	2402.000	13.914	85.077	98.991	44.991	54.000	AVERAGE
5		2483.500	14.417	17.670	32.088	-21.912	54.000	AVERAGE
6		2500.000	14.518	17.648	32.167	-21.833	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz Mode 1: Tx-AD2037320910LF**

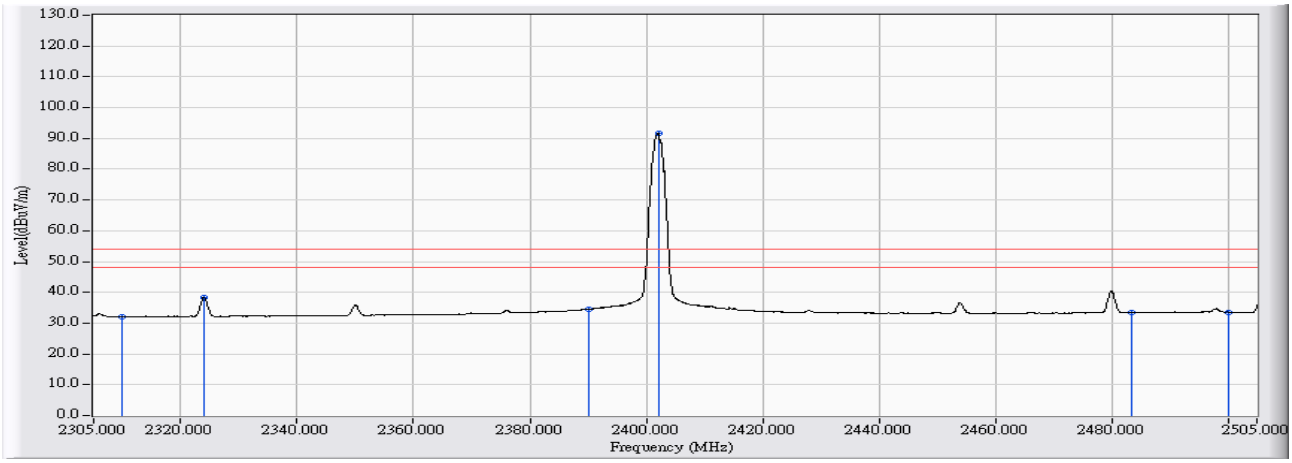


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	31.423	44.769	-29.231	74.000	PEAK
2		2324.200	13.434	34.378	47.812	-26.188	74.000	PEAK
3		2390.000	13.840	33.834	47.674	-26.326	74.000	PEAK
4	*	2402.100	13.915	90.706	104.621	30.621	74.000	PEAK
5		2483.500	14.417	31.543	45.961	-28.039	74.000	PEAK
6		2500.000	14.518	30.702	45.221	-28.779	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2402MHz Mode 1: Tx-AD2037320910LF**

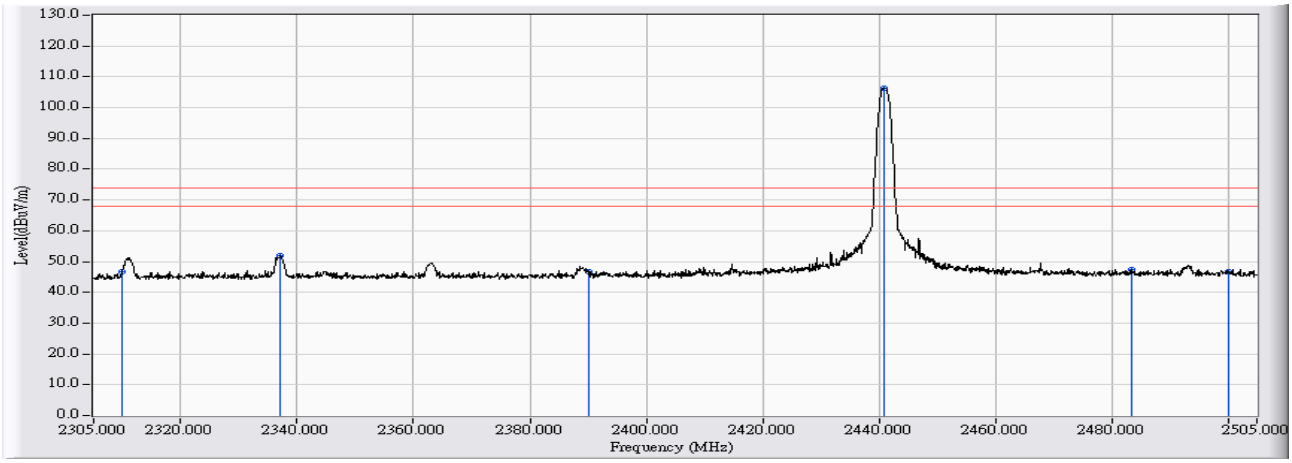


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.821	32.167	-21.833	54.000	AVERAGE
2		2323.900	13.431	24.947	38.379	-15.621	54.000	AVERAGE
3		2390.000	13.840	20.671	34.511	-19.489	54.000	AVERAGE
4	*	2402.100	13.915	77.875	91.790	37.790	54.000	AVERAGE
5		2483.500	14.417	19.091	33.509	-20.491	54.000	AVERAGE
6		2500.000	14.518	19.047	33.566	-20.434	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

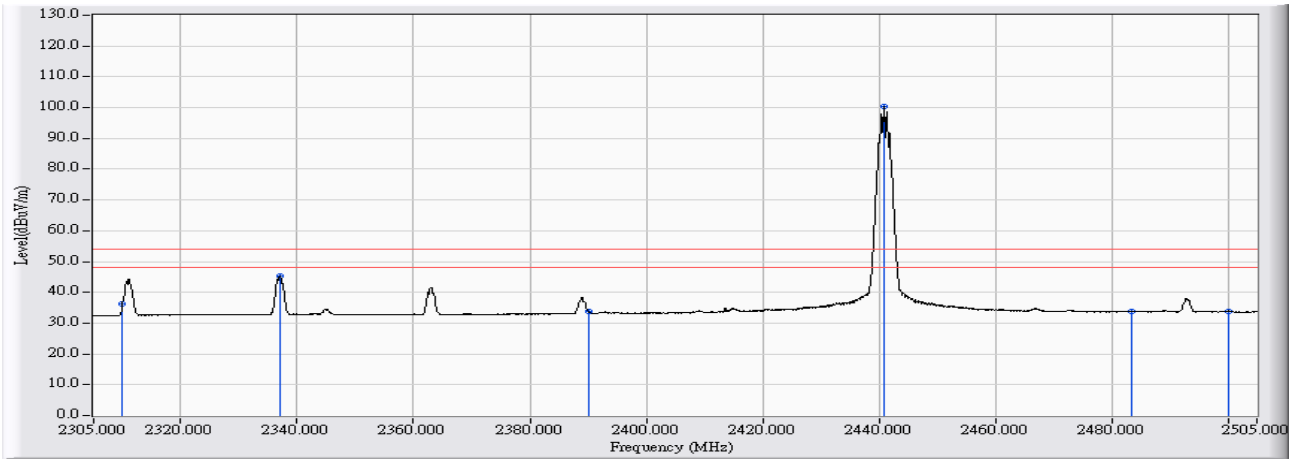


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	33.499	46.845	-27.155	74.000	PEAK
2		2337.100	13.513	38.342	51.855	-22.145	74.000	PEAK
3		2390.000	13.840	32.834	46.674	-27.326	74.000	PEAK
4	*	2440.800	14.155	92.154	106.308	32.308	74.000	PEAK
5		2483.500	14.417	32.965	47.383	-26.617	74.000	PEAK
6		2500.000	14.518	32.158	46.677	-27.323	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz Mode 1: Tx-AD2037320910LF**

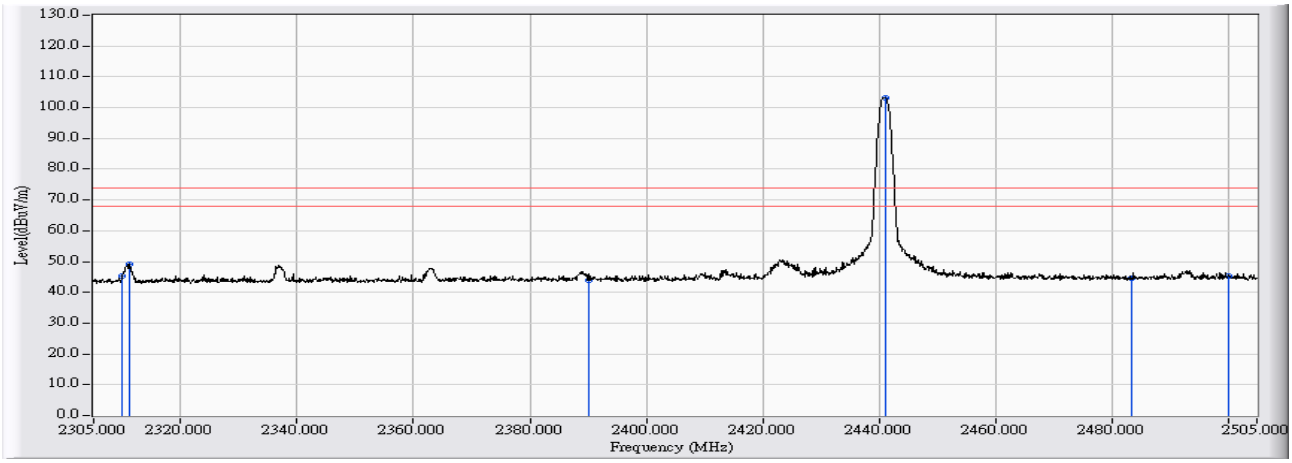


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	22.863	36.209	-17.791	54.000	AVERAGE
2		2337.000	13.513	31.836	45.349	-8.651	54.000	AVERAGE
3		2390.000	13.840	20.111	33.951	-20.049	54.000	AVERAGE
4	*	2441.000	14.155	86.177	100.332	46.332	54.000	AVERAGE
5		2483.500	14.417	19.286	33.704	-20.296	54.000	AVERAGE
6		2500.000	14.518	19.425	33.944	-20.056	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz Mode 1: Tx-AD2037320910LF**

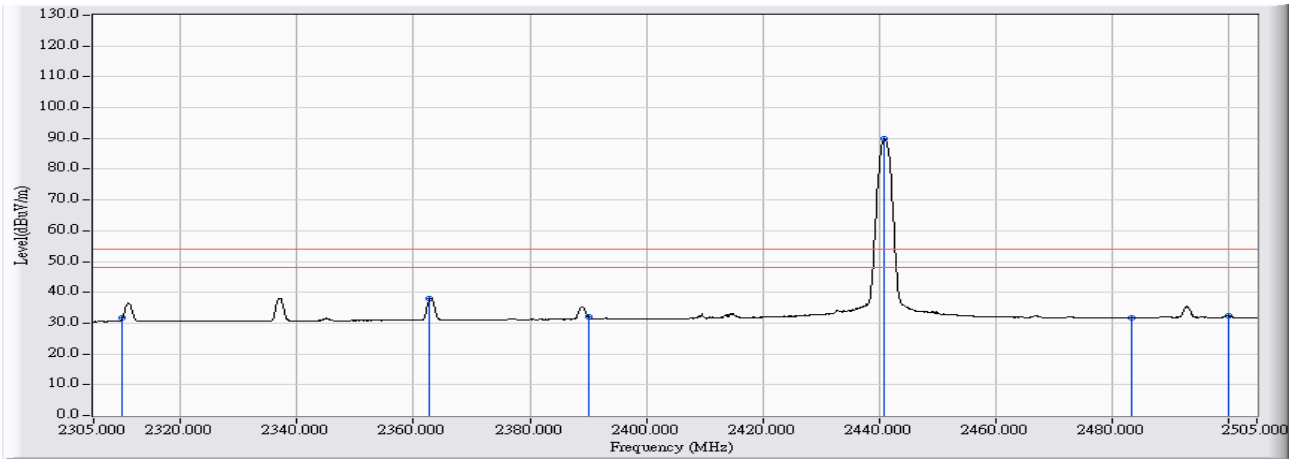


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	32.064	45.410	-28.590	74.000	PEAK
2		2311.100	13.353	35.701	49.054	-24.946	74.000	PEAK
3		2390.000	13.840	29.955	43.795	-30.205	74.000	PEAK
4	*	2441.100	14.156	89.139	103.295	29.295	74.000	PEAK
5		2483.500	14.417	30.140	44.558	-29.442	74.000	PEAK
6		2500.000	14.518	30.683	45.202	-28.798	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

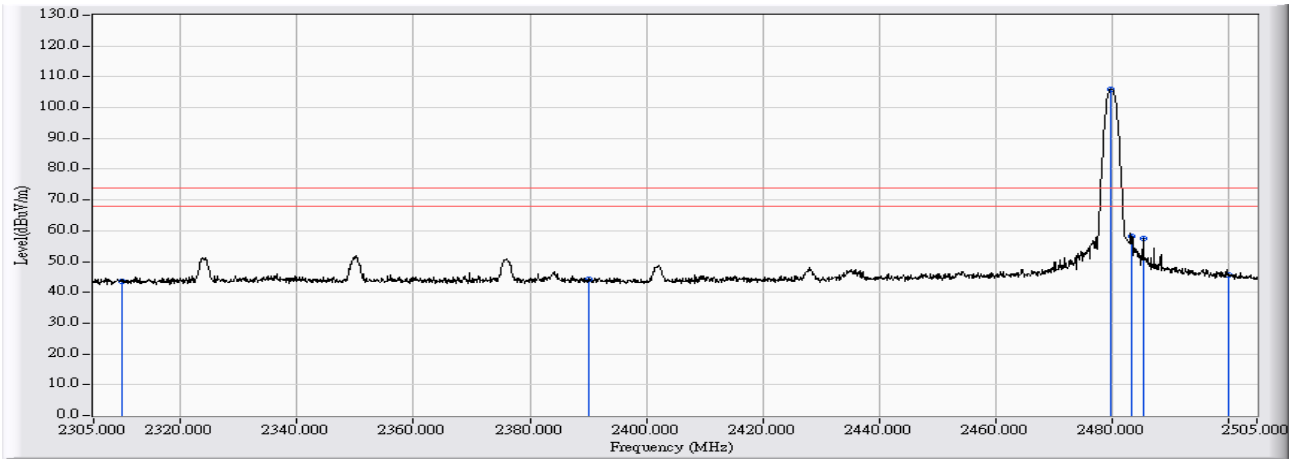


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.284	31.630	-22.370	54.000	AVERAGE
2		2362.800	13.673	24.162	37.834	-16.166	54.000	AVERAGE
3		2390.000	13.840	18.081	31.921	-22.079	54.000	AVERAGE
4	*	2441.000	14.155	75.605	89.760	35.760	54.000	AVERAGE
5		2483.500	14.417	17.327	31.745	-22.255	54.000	AVERAGE
6		2500.000	14.518	17.963	32.482	-21.518	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz Mode 1: Tx-AD2037320910LF**

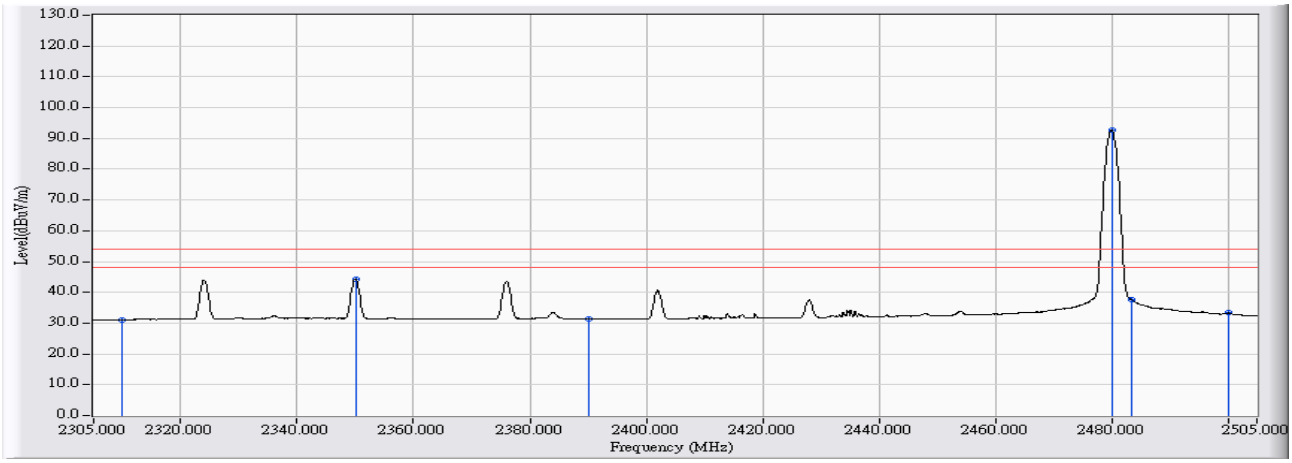


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	30.175	43.521	-30.479	74.000	PEAK
2		2390.000	13.840	30.578	44.418	-29.582	74.000	PEAK
3	*	2479.800	14.396	91.470	105.865	31.865	74.000	PEAK
4		2483.500	14.417	43.953	58.371	-15.629	74.000	PEAK
5		2485.400	14.429	43.049	57.479	-16.521	74.000	PEAK
6		2500.000	14.518	31.157	45.676	-28.324	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz** **Mode 1: Tx-AD2037320910LF**

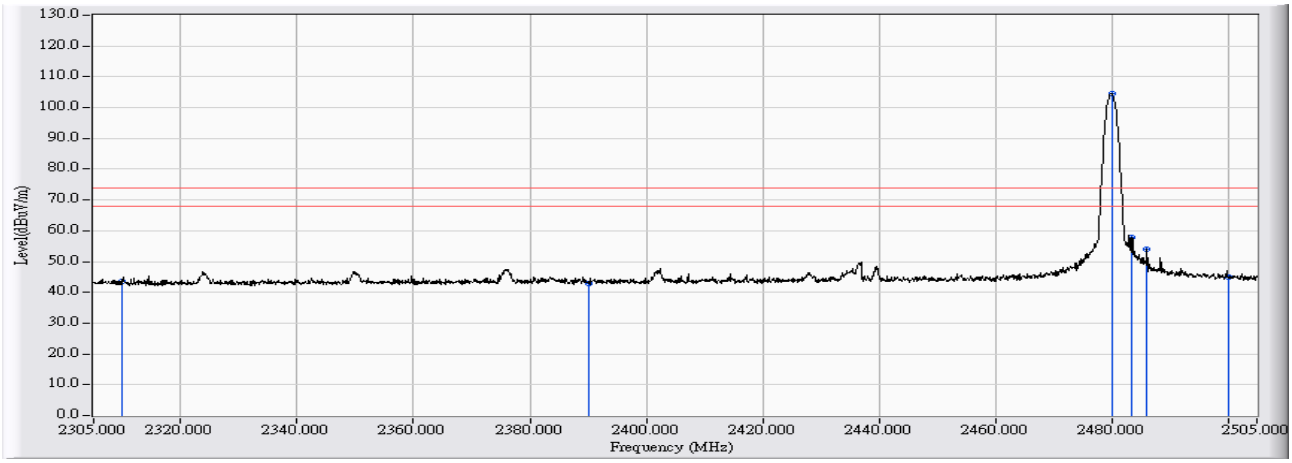


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.771	31.117	-22.883	54.000	AVERAGE
2		2350.100	13.593	30.769	44.363	-9.637	54.000	AVERAGE
3		2390.000	13.840	17.618	31.458	-22.542	54.000	AVERAGE
4	*	2480.000	14.396	78.296	92.692	38.692	54.000	AVERAGE
5		2483.500	14.417	23.154	37.572	-16.428	54.000	AVERAGE
6		2500.000	14.518	18.772	33.291	-20.709	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz** **Mode 1: Tx-AD2037320910LF**

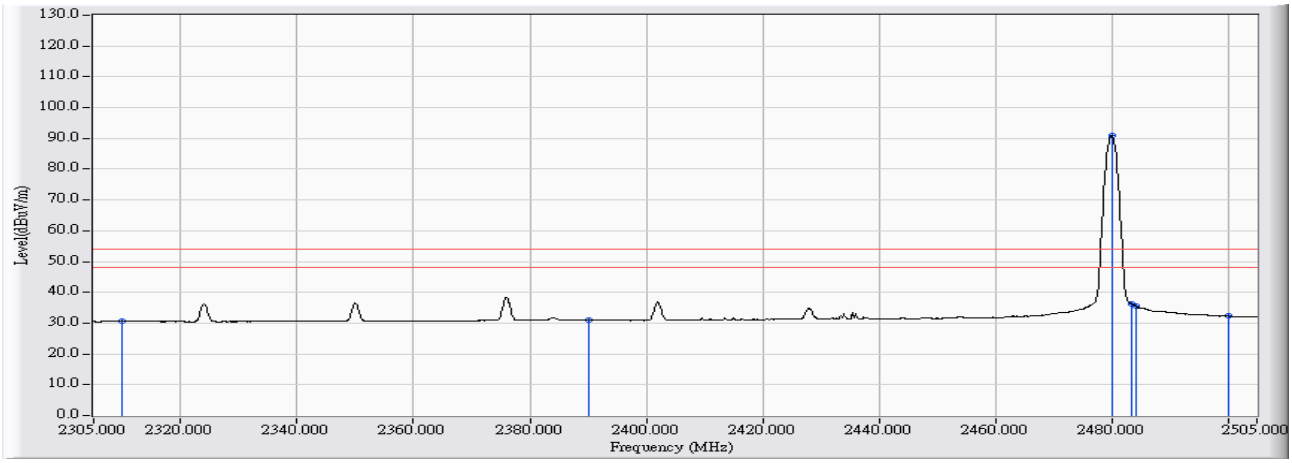


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	30.052	43.398	-30.602	74.000	PEAK
2		2390.000	13.840	29.149	42.989	-31.011	74.000	PEAK
3	*	2480.000	14.396	89.999	104.395	30.395	74.000	PEAK
4		2483.500	14.417	43.463	57.881	-16.119	74.000	PEAK
5		2486.100	14.435	39.420	53.854	-20.146	74.000	PEAK
6		2500.000	14.518	30.560	45.079	-28.921	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_DH5_2480MHz Mode 1: Tx-AD2037320910LF**

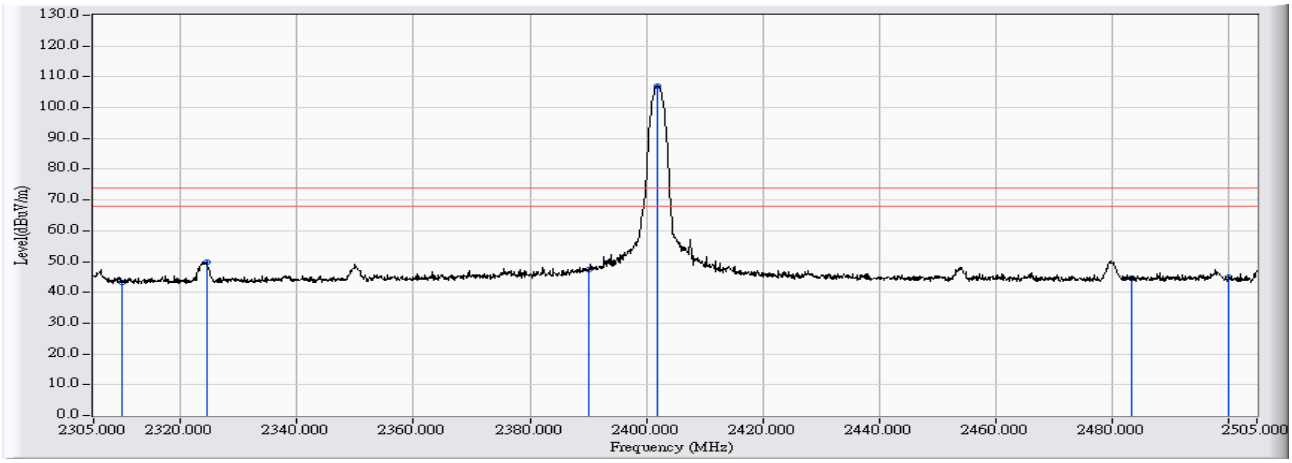


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.215	30.561	-23.439	54.000	AVERAGE
2		2390.000	13.840	17.110	30.950	-23.050	54.000	AVERAGE
3	*	2480.000	14.396	76.561	90.957	36.957	54.000	AVERAGE
4		2483.500	14.417	21.849	36.267	-17.733	54.000	AVERAGE
5		2484.200	14.422	21.052	35.474	-18.526	54.000	AVERAGE
6		2500.000	14.518	17.768	32.287	-21.713	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz Mode 1: Tx-AD2037320910LF**

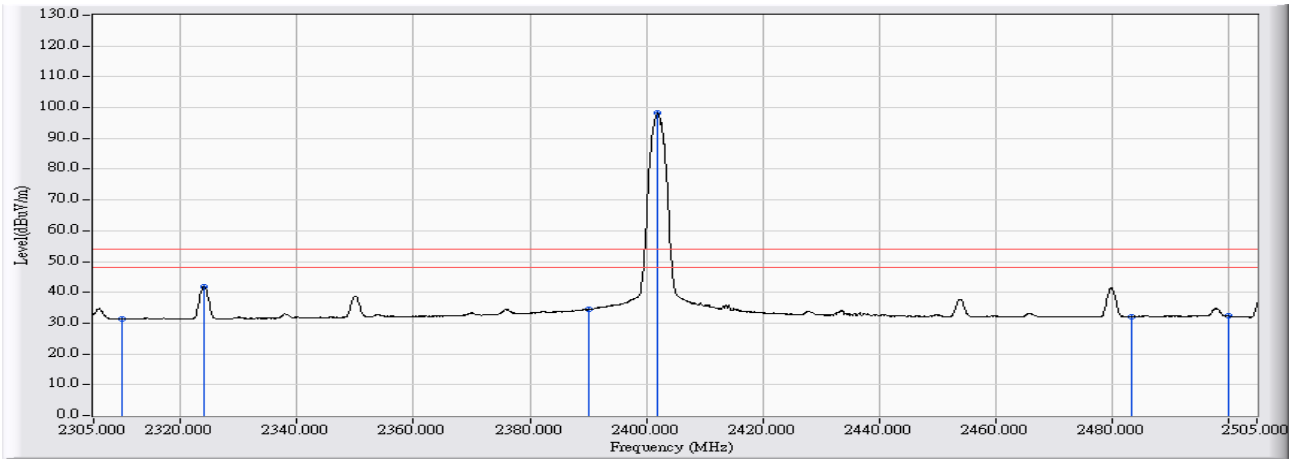


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.717	43.063	-30.937	74.000	PEAK
2		2324.400	13.435	36.485	49.920	-24.080	74.000	PEAK
3		2390.000	13.840	33.660	47.500	-26.500	74.000	PEAK
4	*	2402.000	13.914	93.188	107.102	33.102	74.000	PEAK
5		2483.500	14.417	30.301	44.719	-29.281	74.000	PEAK
6		2500.000	14.518	30.402	44.921	-29.079	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. If the readings given are average, peak measurement should also be supplied.

Site : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz Mode 1: Tx-AD2037320910LF**

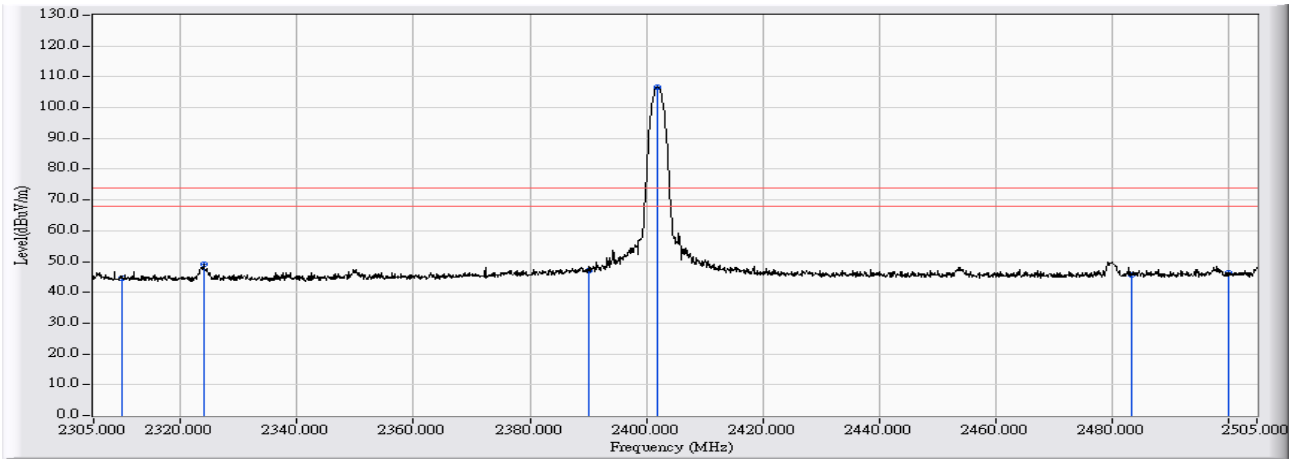


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.080	31.426	-22.574	54.000	AVERAGE
2		2324.100	13.434	28.464	41.897	-12.103	54.000	AVERAGE
3		2390.000	13.840	20.494	34.334	-19.666	54.000	AVERAGE
4	*	2402.000	13.914	84.200	98.114	44.114	54.000	AVERAGE
5		2483.500	14.417	17.706	32.124	-21.876	54.000	AVERAGE
6		2500.000	14.518	17.792	32.311	-21.689	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz Mode 1: Tx-AD2037320910LF**

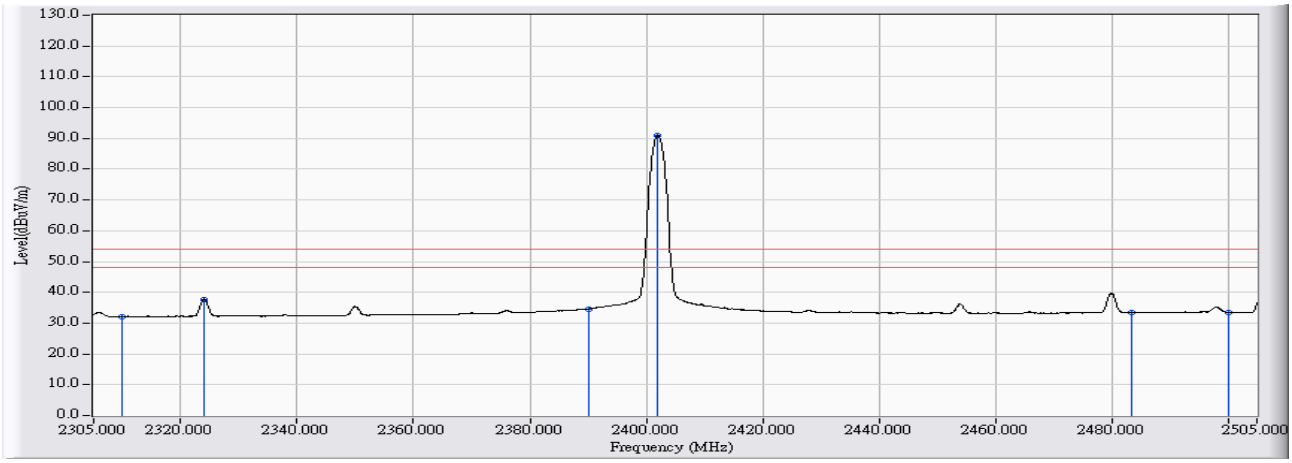


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	31.097	44.443	-29.557	74.000	PEAK
2		2324.000	13.432	35.621	49.053	-24.947	74.000	PEAK
3		2390.000	13.840	33.385	47.225	-26.775	74.000	PEAK
4	*	2401.900	13.914	92.712	106.626	32.626	74.000	PEAK
5		2483.500	14.417	31.228	45.646	-28.354	74.000	PEAK
6		2500.000	14.518	31.789	46.308	-27.692	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2402MHz Mode 1: Tx-AD2037320910LF**

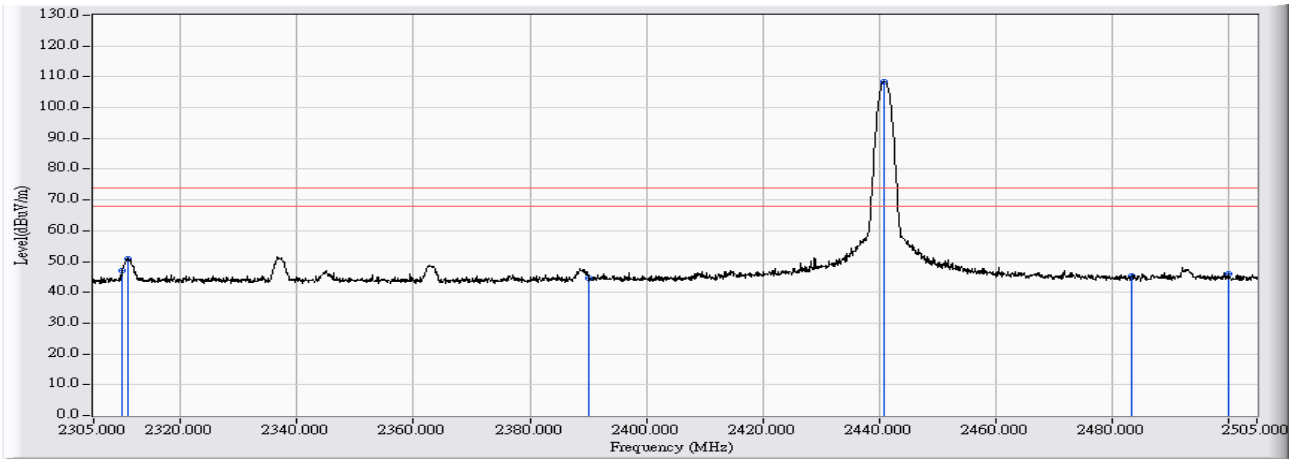


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.832	32.178	-21.822	54.000	AVERAGE
2		2323.900	13.431	24.290	37.722	-16.278	54.000	AVERAGE
3		2390.000	13.840	20.816	34.656	-19.344	54.000	AVERAGE
4	*	2402.000	13.914	77.108	91.022	37.022	54.000	AVERAGE
5		2483.500	14.417	19.030	33.448	-20.552	54.000	AVERAGE
6		2500.000	14.518	19.044	33.563	-20.437	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz Mode 1: Tx-AD2037320910LF**

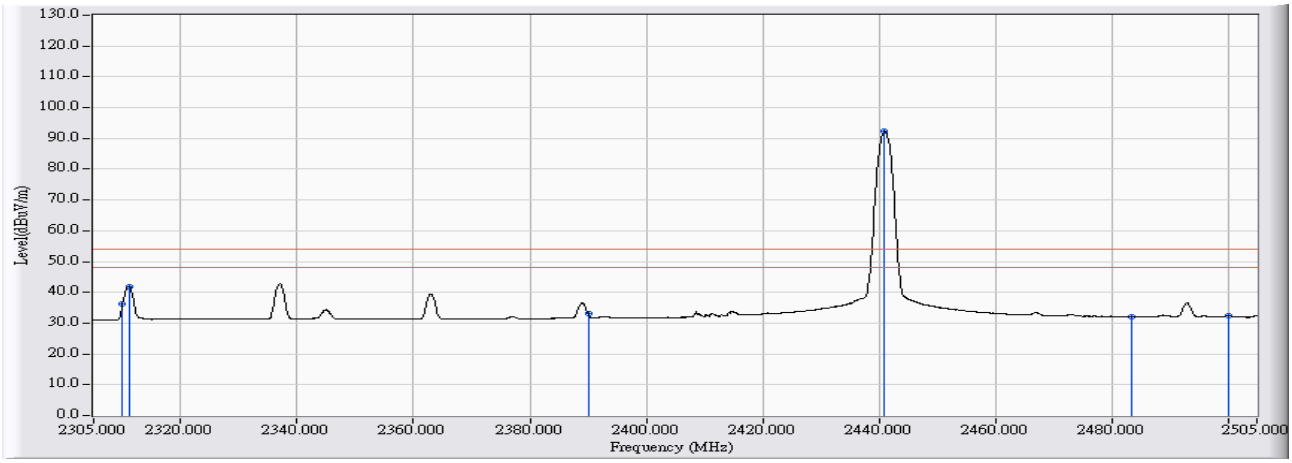


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	33.869	47.215	-26.785	74.000	PEAK
2		2310.800	13.351	37.452	50.803	-23.197	74.000	PEAK
3		2390.000	13.840	30.911	44.751	-29.249	74.000	PEAK
4	*	2440.800	14.155	94.226	108.380	34.380	74.000	PEAK
5		2483.500	14.417	30.801	45.219	-28.781	74.000	PEAK
6		2500.000	14.518	31.457	45.976	-28.024	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz Mode 1: Tx-AD2037320910LF**

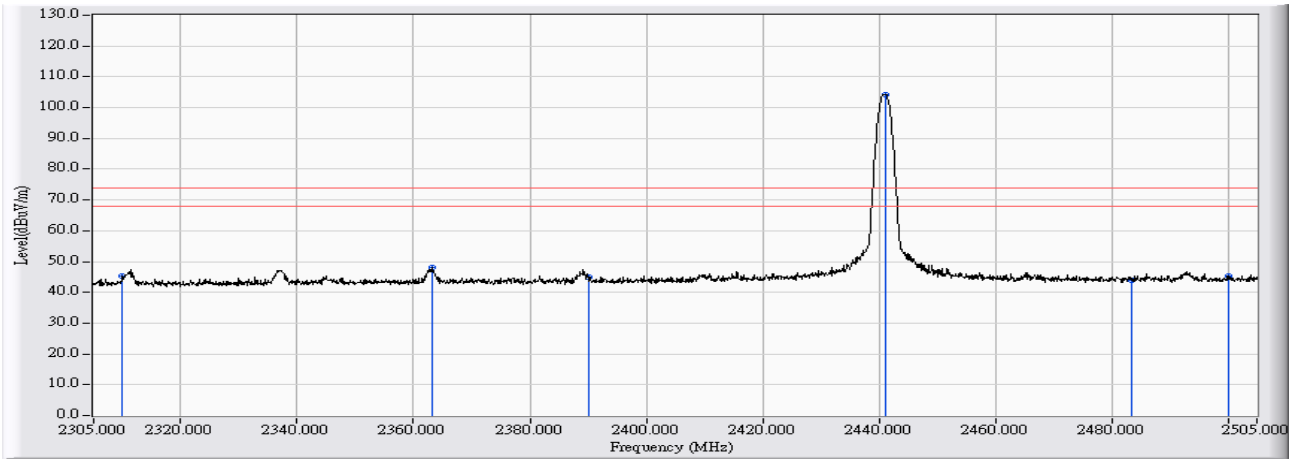


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	22.779	36.125	-17.875	54.000	AVERAGE
2		2311.100	13.353	28.605	41.958	-12.042	54.000	AVERAGE
3		2390.000	13.840	19.163	33.003	-20.997	54.000	AVERAGE
4	*	2441.000	14.155	78.144	92.299	38.299	54.000	AVERAGE
5		2483.500	14.417	17.758	32.176	-21.824	54.000	AVERAGE
6		2500.000	14.518	17.910	32.429	-21.571	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz** **Mode 1: Tx-AD2037320910LF**

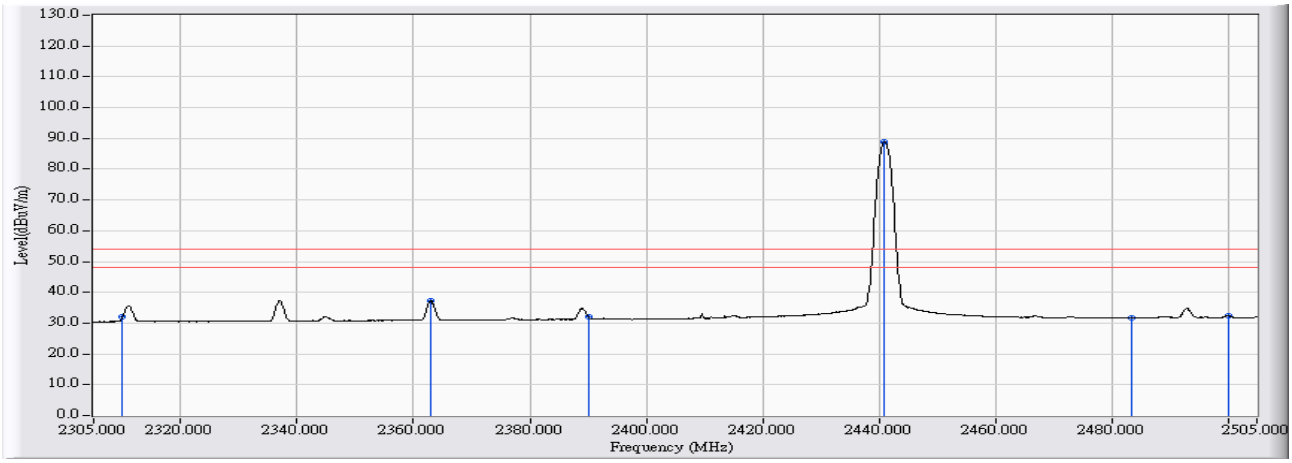


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	31.970	45.316	-28.684	74.000	PEAK
2		2363.100	13.674	34.437	48.111	-25.889	74.000	PEAK
3		2390.000	13.840	31.022	44.862	-29.138	74.000	PEAK
4	*	2441.100	14.156	90.222	104.378	30.378	74.000	PEAK
5		2483.500	14.417	29.452	43.870	-30.130	74.000	PEAK
6		2500.000	14.518	30.645	45.164	-28.836	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2441MHz Mode 1: Tx-AD2037320910LF**

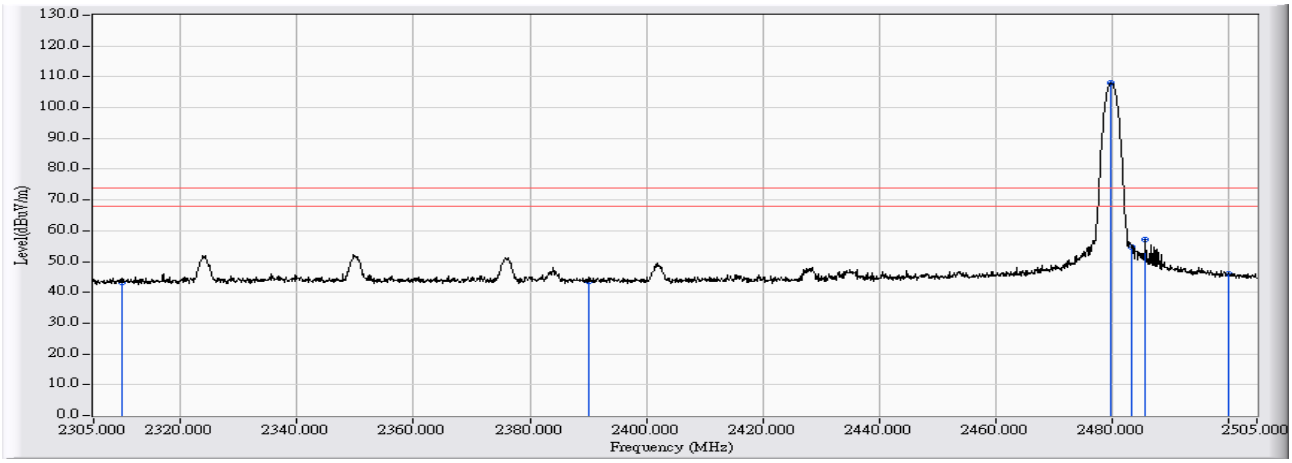


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.634	31.980	-22.020	54.000	AVERAGE
2		2362.900	13.673	23.544	37.217	-16.783	54.000	AVERAGE
3		2390.000	13.840	18.199	32.039	-21.961	54.000	AVERAGE
4	*	2441.000	14.155	74.811	88.966	34.966	54.000	AVERAGE
5		2483.500	14.417	17.356	31.774	-22.226	54.000	AVERAGE
6		2500.000	14.518	17.932	32.451	-21.549	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

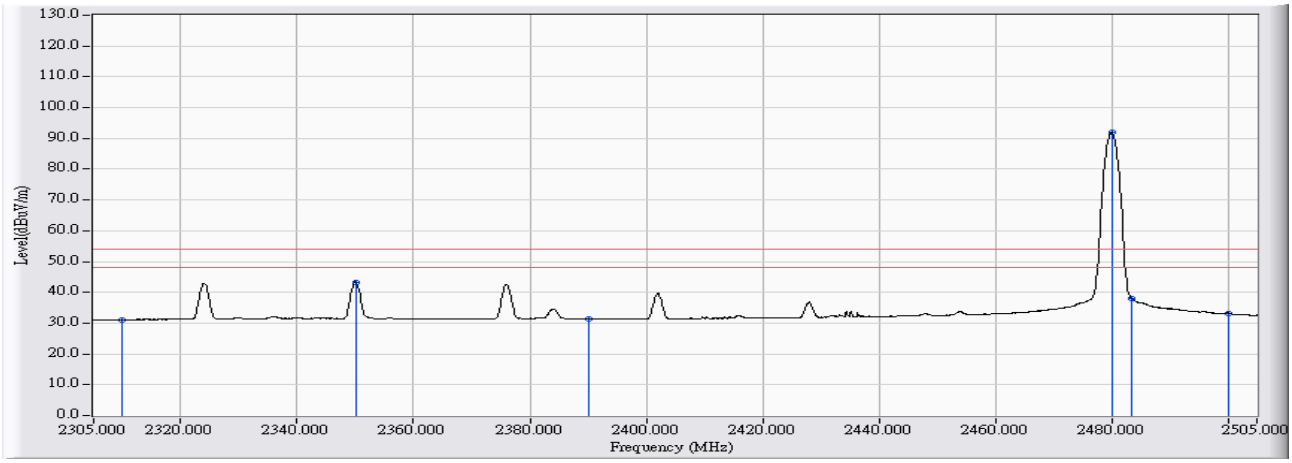


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.945	43.291	-30.709	74.000	PEAK
2		2390.000	13.840	29.789	43.629	-30.371	74.000	PEAK
3	*	2479.900	14.396	93.474	107.870	33.870	74.000	PEAK
4		2483.500	14.417	40.395	54.813	-19.187	74.000	PEAK
5		2485.800	14.432	42.691	57.123	-16.877	74.000	PEAK
6		2500.000	14.518	31.656	46.175	-27.825	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

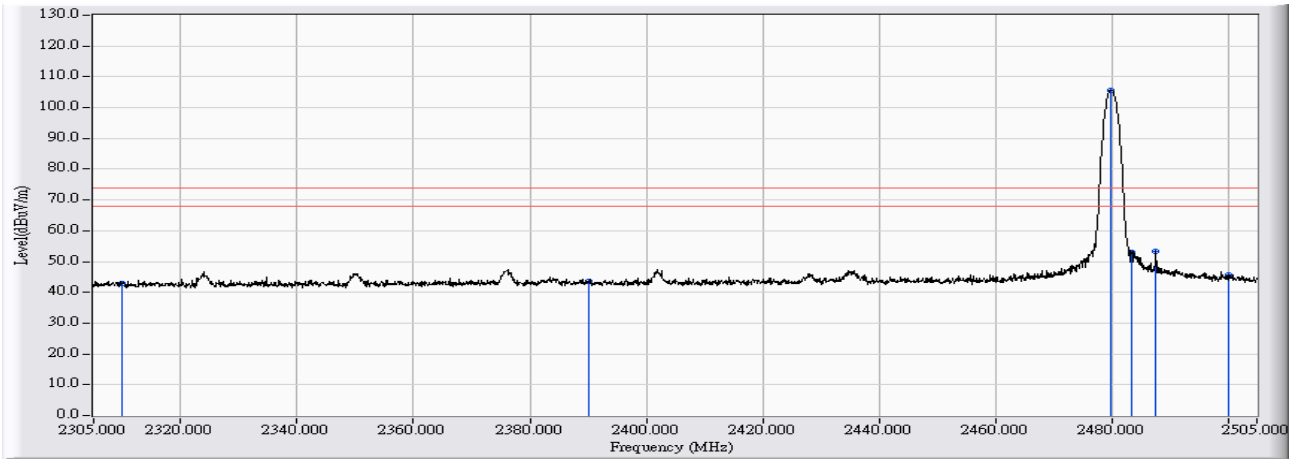


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.755	31.101	-22.899	54.000	AVERAGE
2		2350.100	13.593	29.753	43.347	-10.653	54.000	AVERAGE
3		2390.000	13.840	17.616	31.456	-22.544	54.000	AVERAGE
4	*	2480.000	14.396	77.499	91.895	37.895	54.000	AVERAGE
5		2483.500	14.417	23.557	37.975	-16.025	54.000	AVERAGE
6		2500.000	14.518	18.739	33.258	-20.742	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

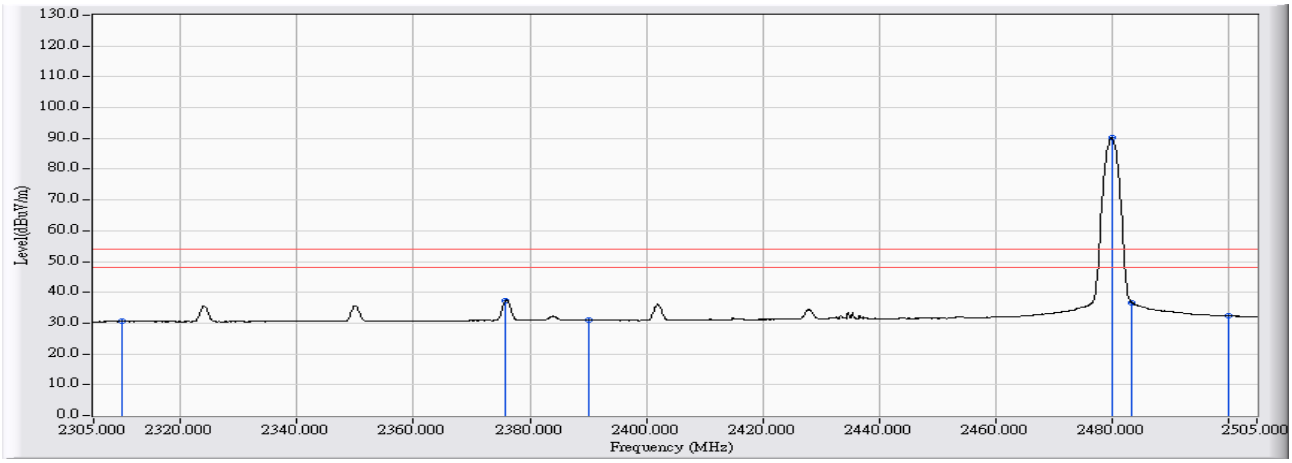


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.463	42.809	-31.191	74.000	PEAK
2		2390.000	13.840	29.691	43.531	-30.469	74.000	PEAK
3	*	2479.800	14.396	91.377	105.772	31.772	74.000	PEAK
4		2483.500	14.417	38.525	52.943	-21.057	74.000	PEAK
5		2487.600	14.443	38.970	53.413	-20.587	74.000	PEAK
6		2500.000	14.518	31.290	45.809	-28.191	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_2DH5_2480MHz Mode 1: Tx-AD2037320910LF**

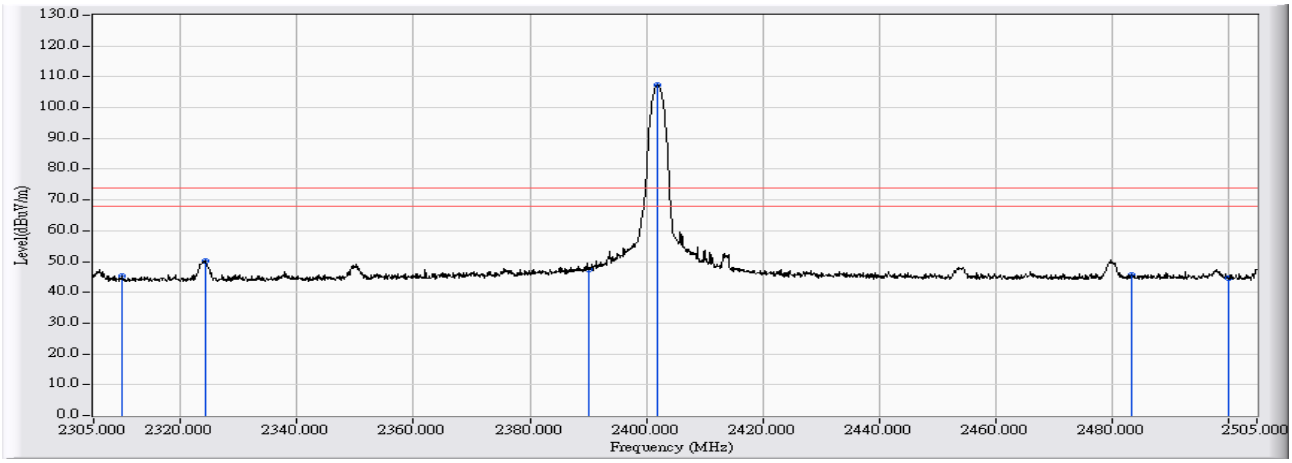


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.251	30.597	-23.403	54.000	AVERAGE
2		2375.800	13.752	23.423	37.175	-16.825	54.000	AVERAGE
3		2390.000	13.840	17.171	31.011	-22.989	54.000	AVERAGE
4	*	2480.000	14.396	75.804	90.200	36.200	54.000	AVERAGE
5		2483.500	14.417	22.242	36.660	-17.340	54.000	AVERAGE
6		2500.000	14.518	17.873	32.392	-21.608	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

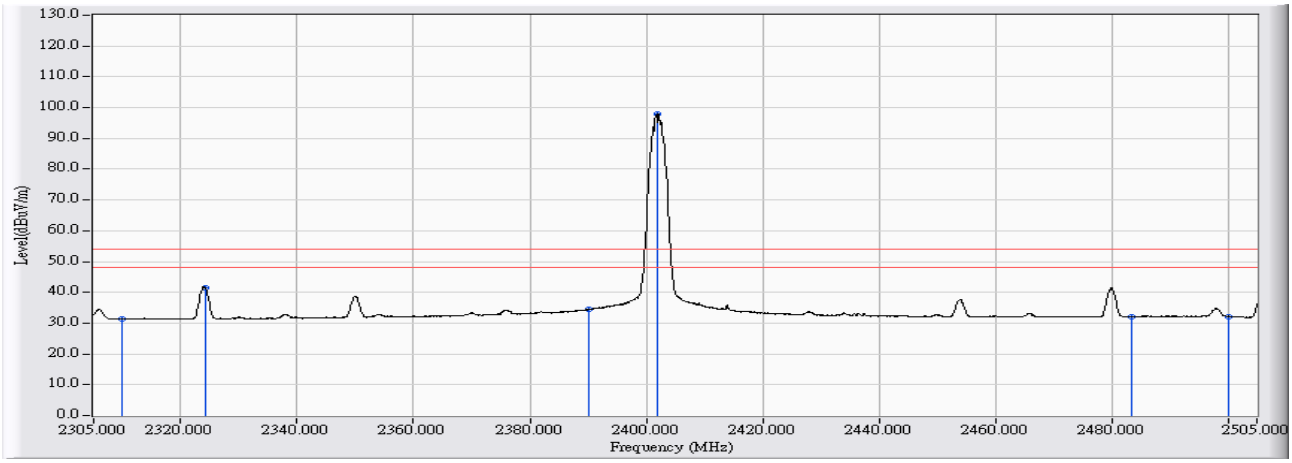


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	31.887	45.233	-28.767	74.000	PEAK
2		2324.200	13.434	36.776	50.210	-23.790	74.000	PEAK
3		2390.000	13.840	33.651	47.491	-26.509	74.000	PEAK
4	*	2402.000	13.914	93.398	107.312	33.312	74.000	PEAK
5		2483.500	14.417	31.287	45.705	-28.295	74.000	PEAK
6		2500.000	14.518	30.113	44.632	-29.368	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

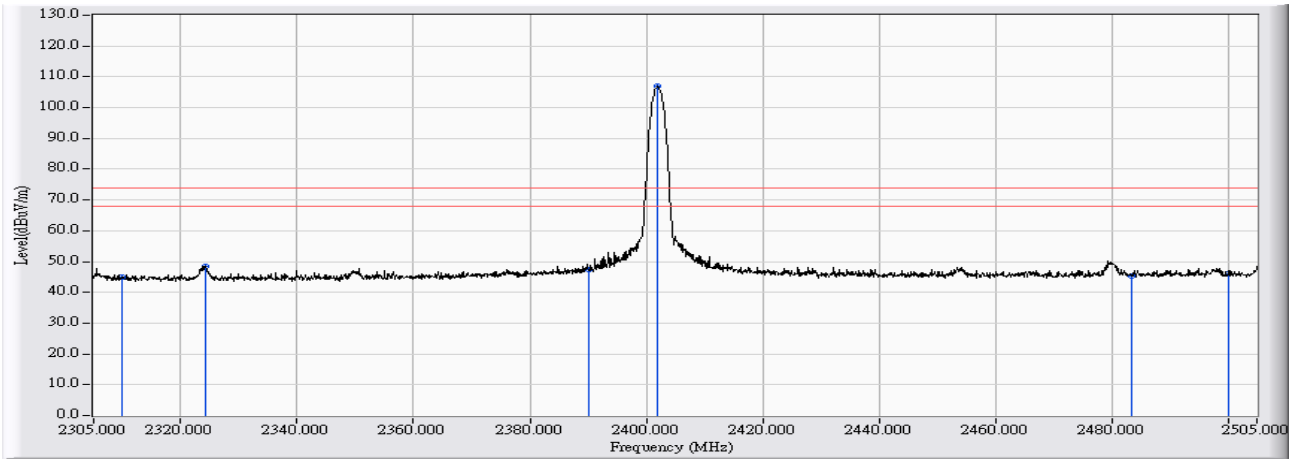


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.930	31.276	-22.724	54.000	AVERAGE
2		2324.200	13.434	28.105	41.539	-12.461	54.000	AVERAGE
3		2390.000	13.840	20.513	34.353	-19.647	54.000	AVERAGE
4	*	2402.000	13.914	84.137	98.051	44.051	54.000	AVERAGE
5		2483.500	14.417	17.676	32.094	-21.906	54.000	AVERAGE
6		2500.000	14.518	17.656	32.175	-21.825	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

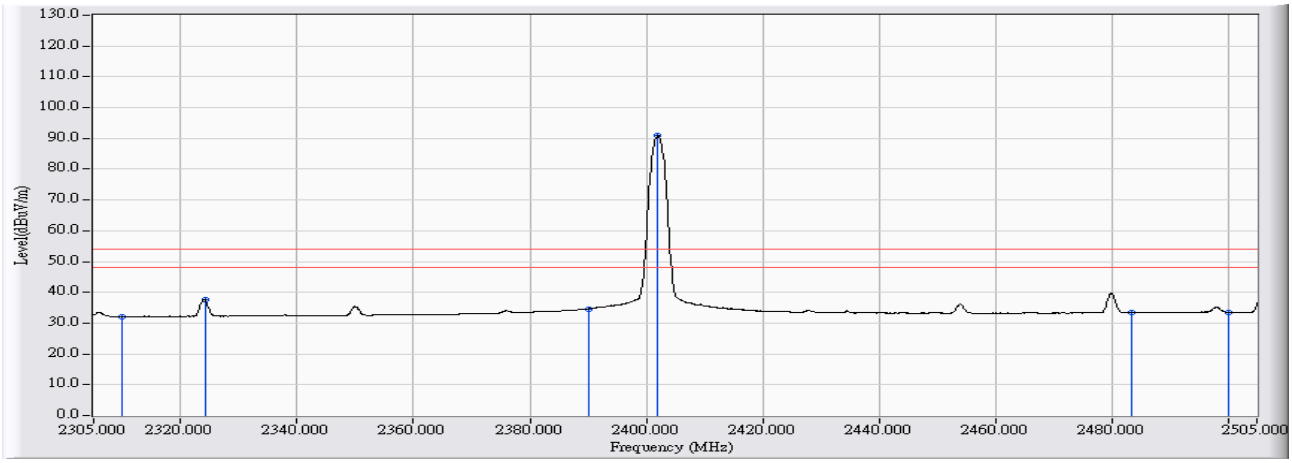


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	31.601	44.947	-29.053	74.000	PEAK
2		2324.300	13.434	35.107	48.541	-25.459	74.000	PEAK
3		2390.000	13.840	33.718	47.558	-26.442	74.000	PEAK
4	*	2402.000	13.914	92.918	106.832	32.832	74.000	PEAK
5		2483.500	14.417	30.801	45.219	-28.781	74.000	PEAK
6		2500.000	14.518	31.395	45.914	-28.086	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2402MHz Mode 1: Tx-AD2037320910LF**

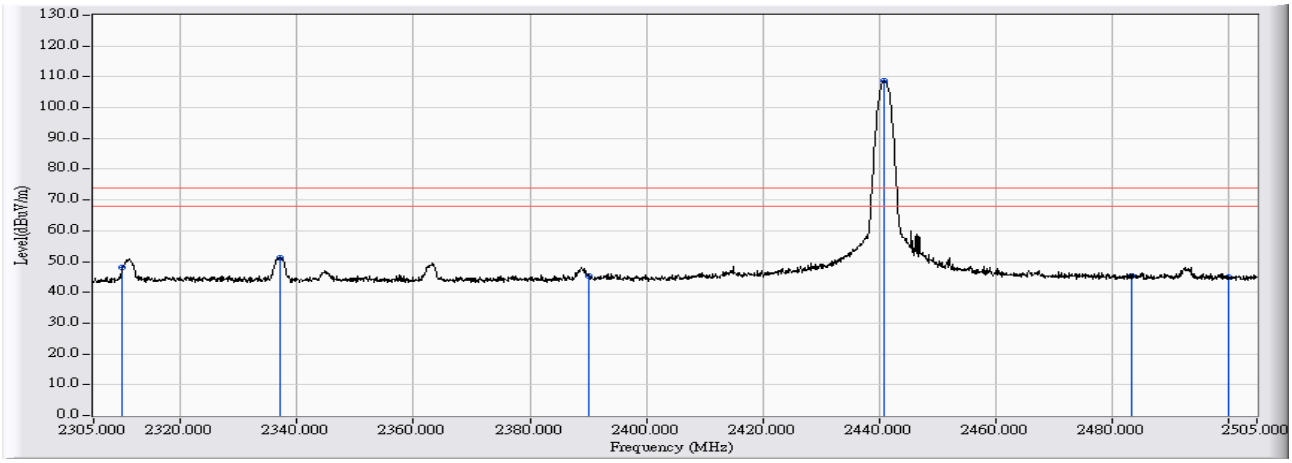


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.801	32.147	-21.853	54.000	AVERAGE
2		2324.200	13.434	24.214	37.648	-16.352	54.000	AVERAGE
3		2390.000	13.840	20.790	34.630	-19.370	54.000	AVERAGE
4	*	2401.900	13.914	77.060	90.974	36.974	54.000	AVERAGE
5		2483.500	14.417	19.073	33.491	-20.509	54.000	AVERAGE
6		2500.000	14.518	19.000	33.519	-20.481	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

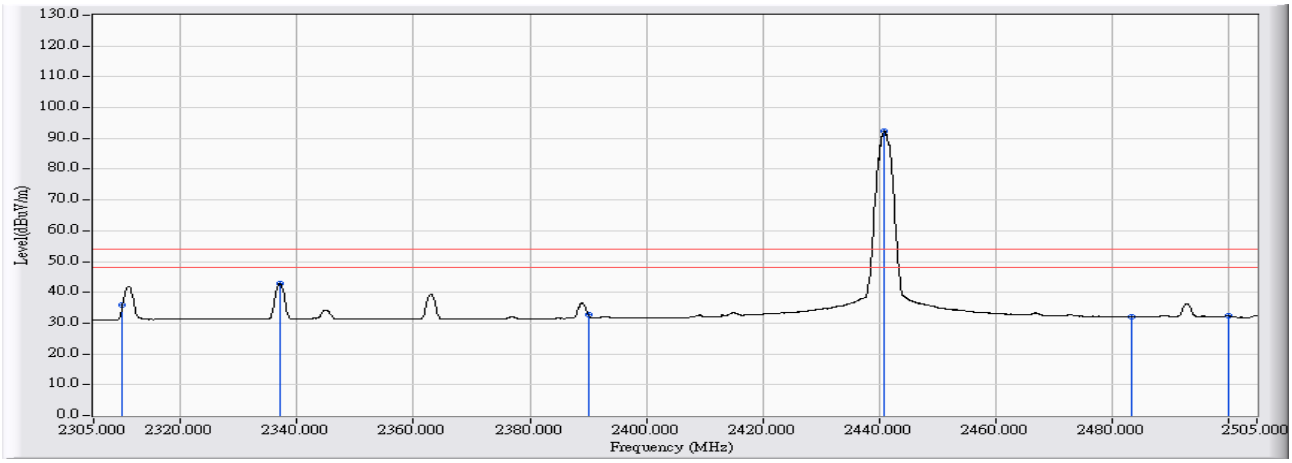


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	34.647	47.993	-26.007	74.000	PEAK
2		2337.100	13.513	37.718	51.231	-22.769	74.000	PEAK
3		2390.000	13.840	31.452	45.292	-28.708	74.000	PEAK
4	*	2441.000	14.155	94.480	108.635	34.635	74.000	PEAK
5		2483.500	14.417	31.007	45.425	-28.575	74.000	PEAK
6		2500.000	14.518	30.415	44.934	-29.066	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

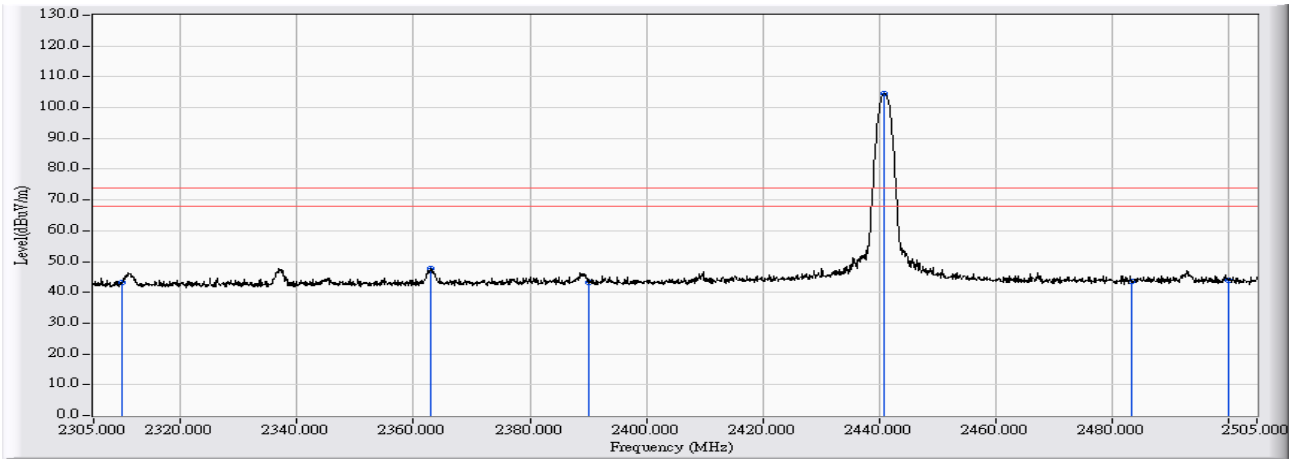


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	22.468	35.814	-18.186	54.000	AVERAGE
2		2337.000	13.513	29.213	42.726	-11.274	54.000	AVERAGE
3		2390.000	13.840	19.058	32.898	-21.102	54.000	AVERAGE
4	*	2441.000	14.155	78.109	92.264	38.264	54.000	AVERAGE
5		2483.500	14.417	17.769	32.187	-21.813	54.000	AVERAGE
6		2500.000	14.518	17.877	32.396	-21.604	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

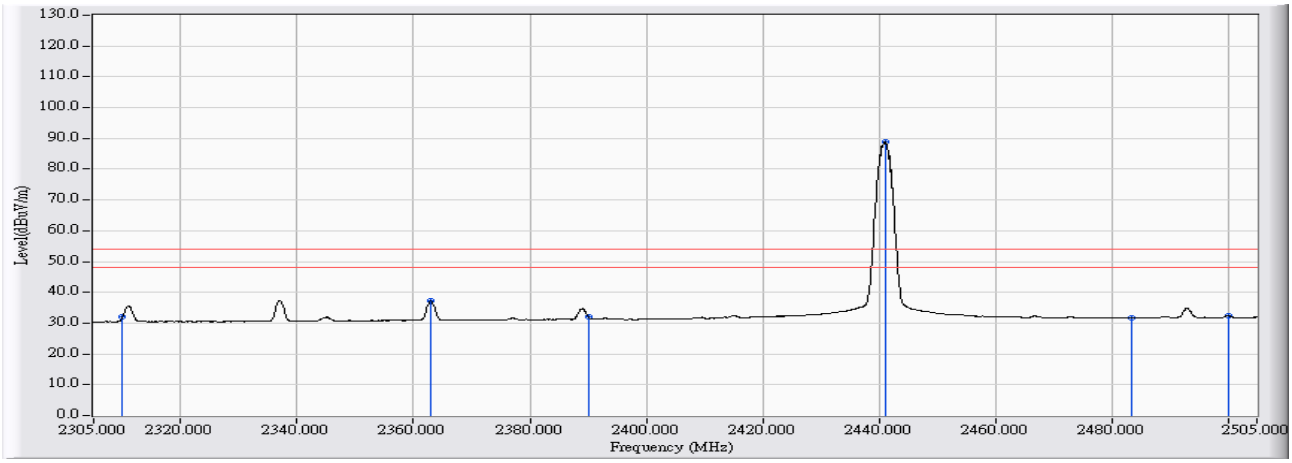


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.752	43.098	-30.902	74.000	PEAK
2		2363.000	13.673	34.132	47.805	-26.195	74.000	PEAK
3		2390.000	13.840	29.538	43.378	-30.622	74.000	PEAK
4	*	2441.000	14.155	90.463	104.618	30.618	74.000	PEAK
5		2483.500	14.417	29.313	43.731	-30.269	74.000	PEAK
6		2500.000	14.518	29.488	44.007	-29.993	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2441MHz Mode 1: Tx-AD2037320910LF**

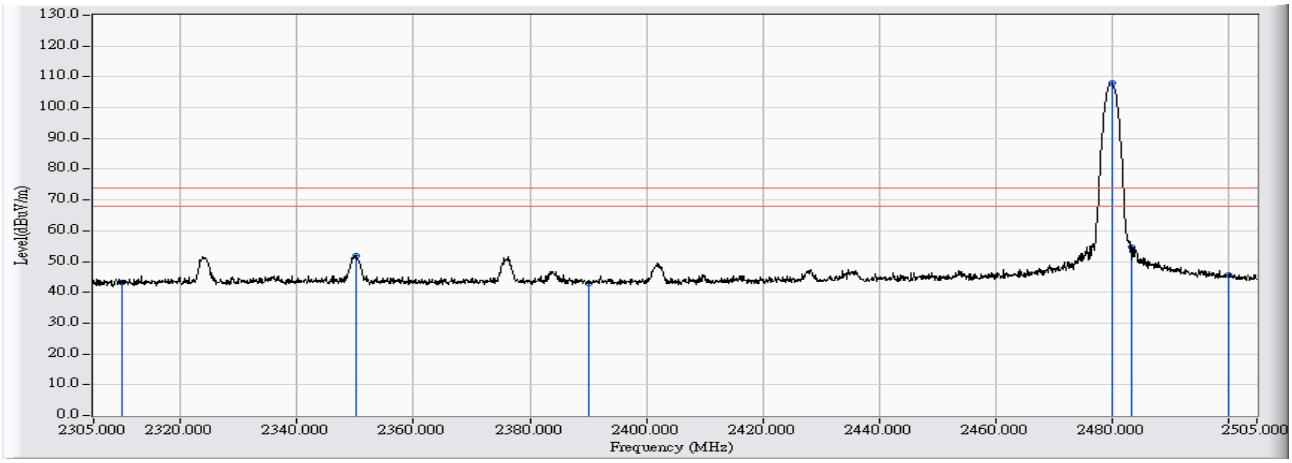


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	18.677	32.023	-21.977	54.000	AVERAGE
2		2362.900	13.673	23.456	37.129	-16.871	54.000	AVERAGE
3		2390.000	13.840	18.247	32.087	-21.913	54.000	AVERAGE
4	*	2441.100	14.156	74.750	88.906	34.906	54.000	AVERAGE
5		2483.500	14.417	17.323	31.741	-22.259	54.000	AVERAGE
6		2500.000	14.518	17.928	32.447	-21.553	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**

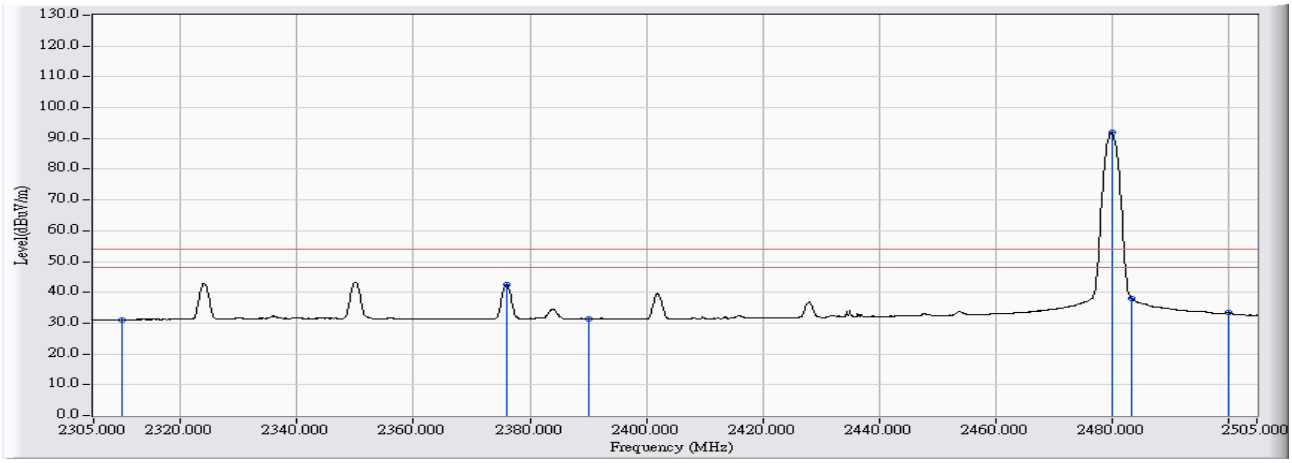


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.700	43.046	-30.954	74.000	PEAK
2		2350.100	13.593	38.173	51.767	-22.233	74.000	PEAK
3		2390.000	13.840	29.077	42.917	-31.083	74.000	PEAK
4	*	2480.000	14.396	93.713	108.109	34.109	74.000	PEAK
5		2483.500	14.417	40.311	54.729	-19.271	74.000	PEAK
6		2500.000	14.518	31.074	45.593	-28.407	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**

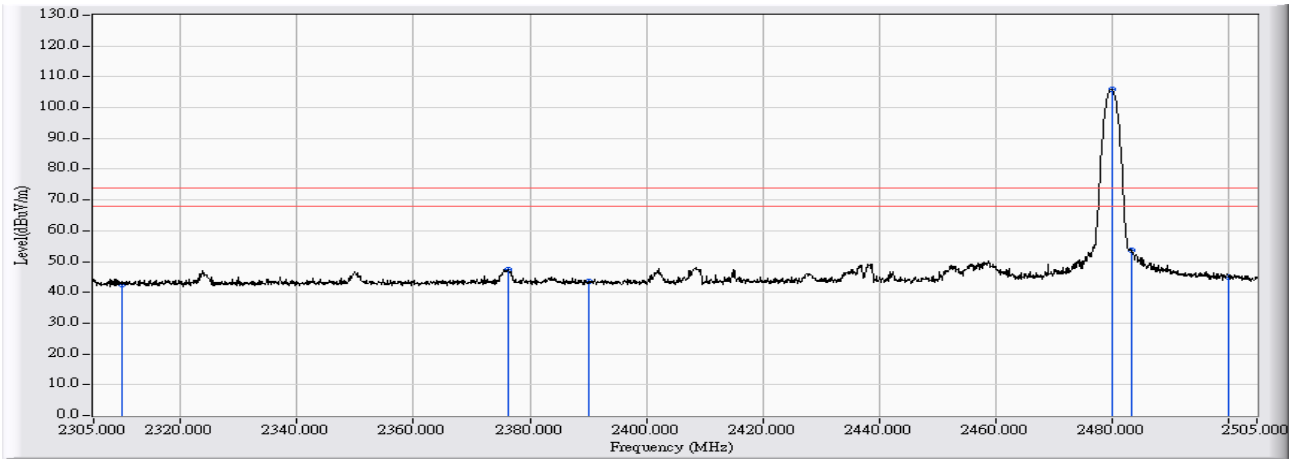


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.757	31.103	-22.897	54.000	PEAK
2		2375.900	13.753	28.781	42.534	-11.466	54.000	PEAK
3		2390.000	13.840	17.621	31.461	-22.539	54.000	PEAK
4	*	2480.000	14.396	77.497	91.893	37.893	54.000	PEAK
5		2483.500	14.417	23.409	37.827	-16.173	54.000	PEAK
6		2500.000	14.518	18.850	33.369	-20.631	54.000	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**

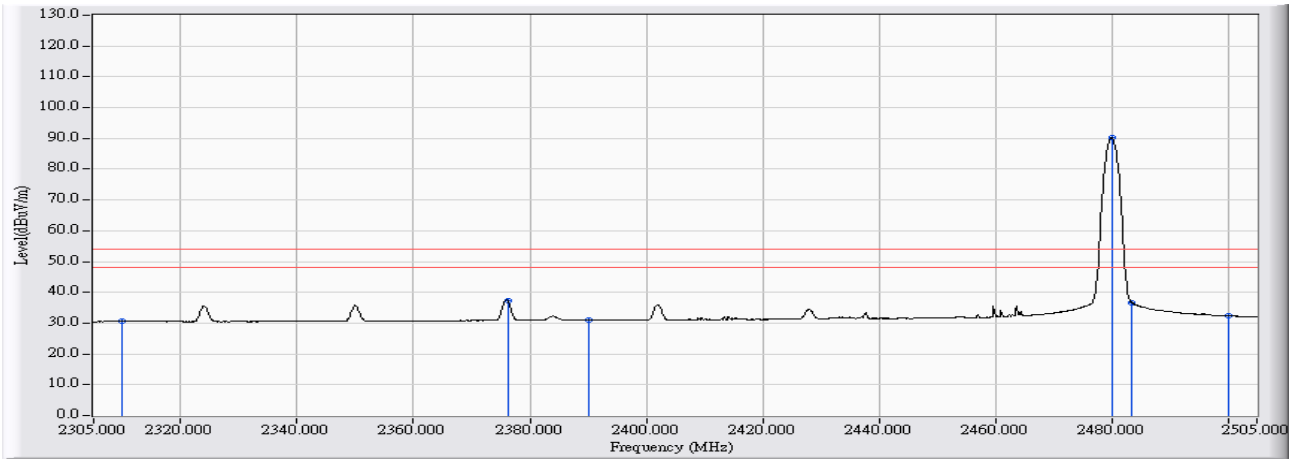


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	29.158	42.504	-31.496	74.000	PEAK
2		2376.200	13.755	33.652	47.407	-26.593	74.000	PEAK
3		2390.000	13.840	29.677	43.517	-30.483	74.000	PEAK
4	*	2480.000	14.396	91.643	106.039	32.039	74.000	PEAK
5		2483.500	14.417	39.128	53.546	-20.454	74.000	PEAK
6		2500.000	14.518	30.493	45.012	-28.988	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 : CB4-H	**Time : 2016/12/19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB4-H_FCC_EFS_B432_1-18GHz_3M_1116 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Lyra mini	**Note : 802.15.1_EDR_3DH5_2480MHz Mode 1: Tx-AD2037320910LF**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	13.346	17.199	30.545	-23.455	54.000	AVERAGE
2		2376.200	13.755	23.603	37.358	-16.642	54.000	AVERAGE
3		2390.000	13.840	17.146	30.986	-23.014	54.000	AVERAGE
4	*	2480.000	14.396	75.795	90.191	36.191	54.000	AVERAGE
5		2483.500	14.417	22.152	36.570	-17.430	54.000	AVERAGE
6		2500.000	14.518	17.886	32.405	-21.595	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

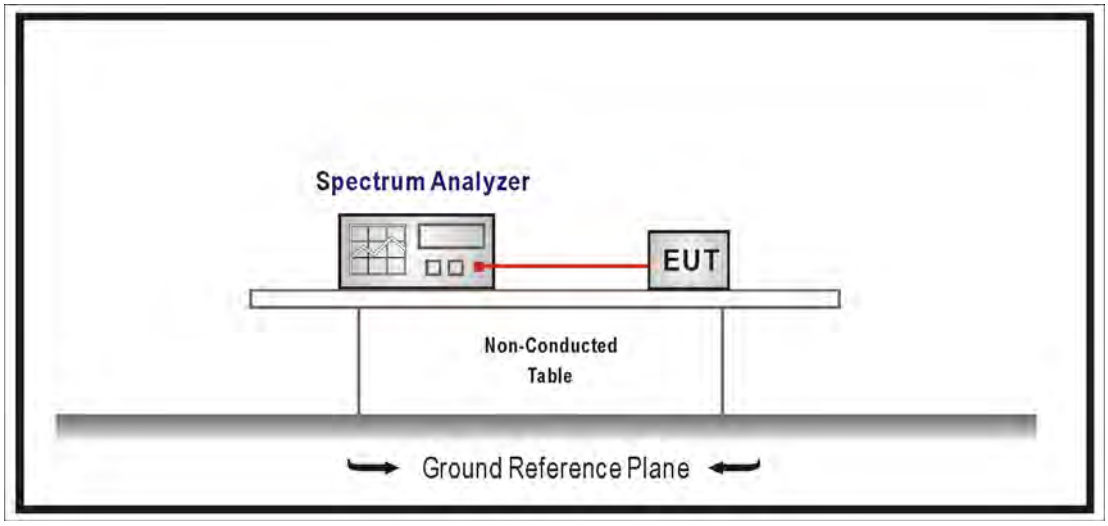
The following test equipment is used during the test:

Number of hopping frequency / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/22

Note: 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 C63.10:2013 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

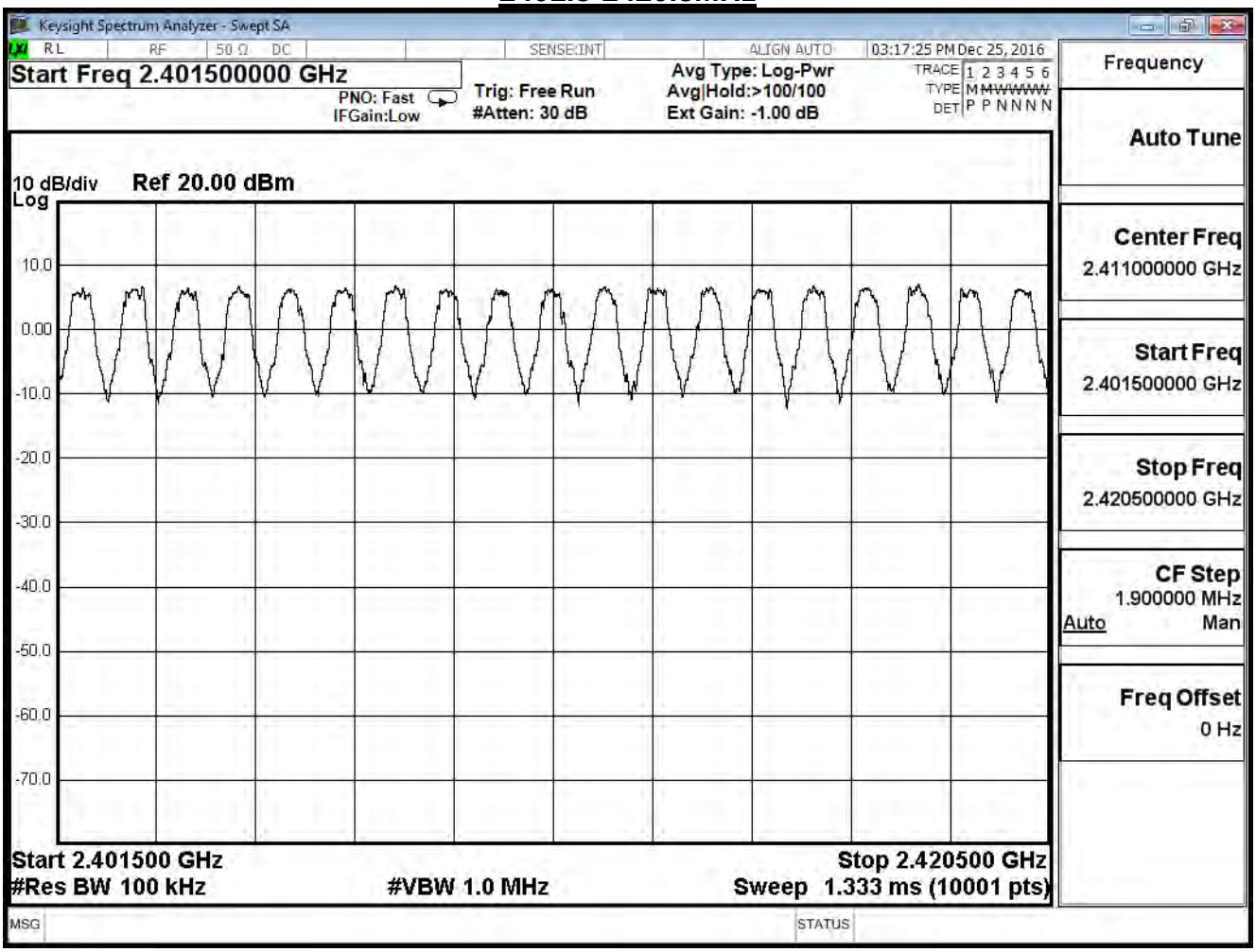
According to FCC Part 15 Subpart C Paragraph 15.247: 2015

7.6. Test Result

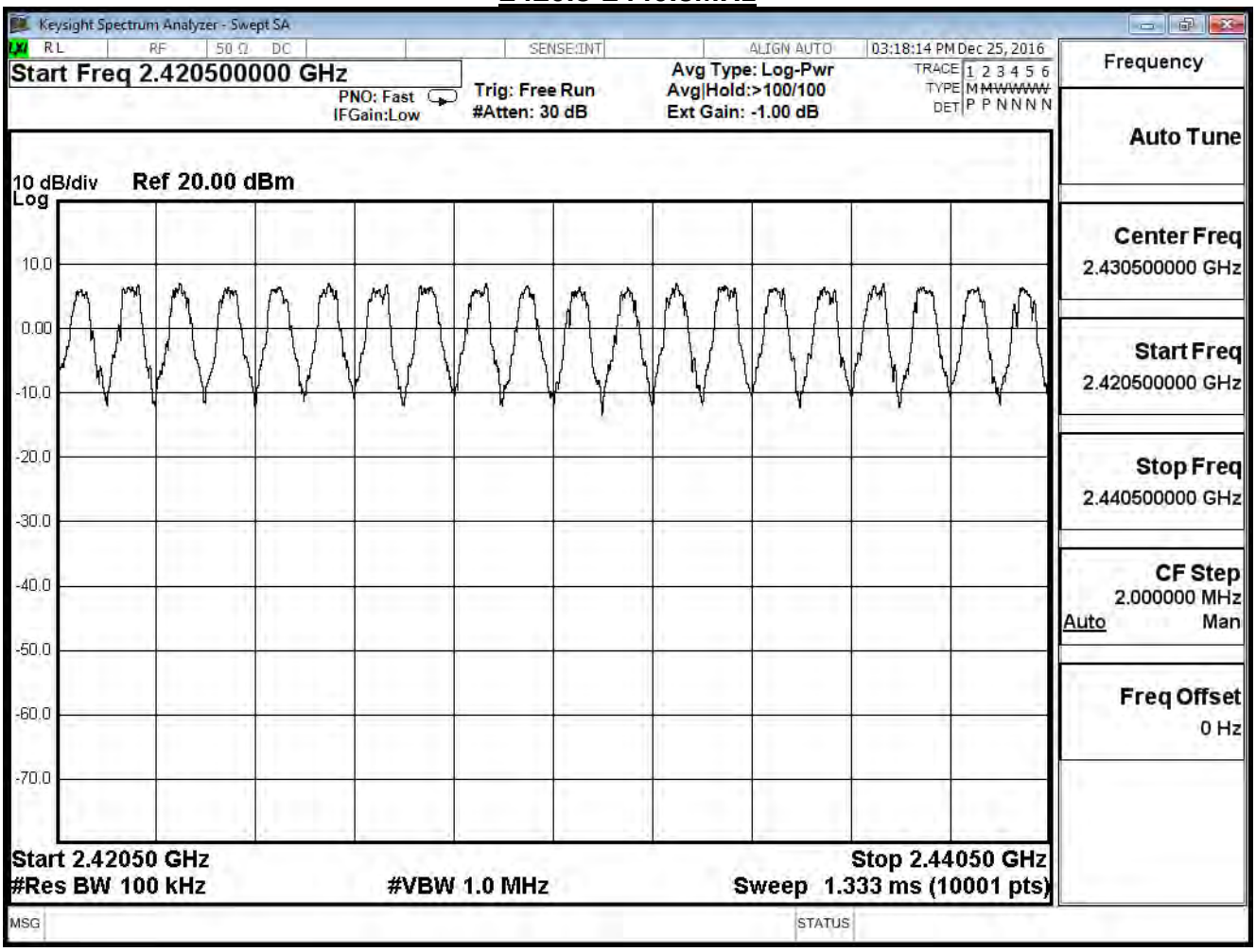
Product	Lyra mini		
Test Item	Number of hopping frequency		
Test Mode	Mode 1: Tx-AD2037320910		
Date of Test	2016/12/25	Test Site	SR10-H

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

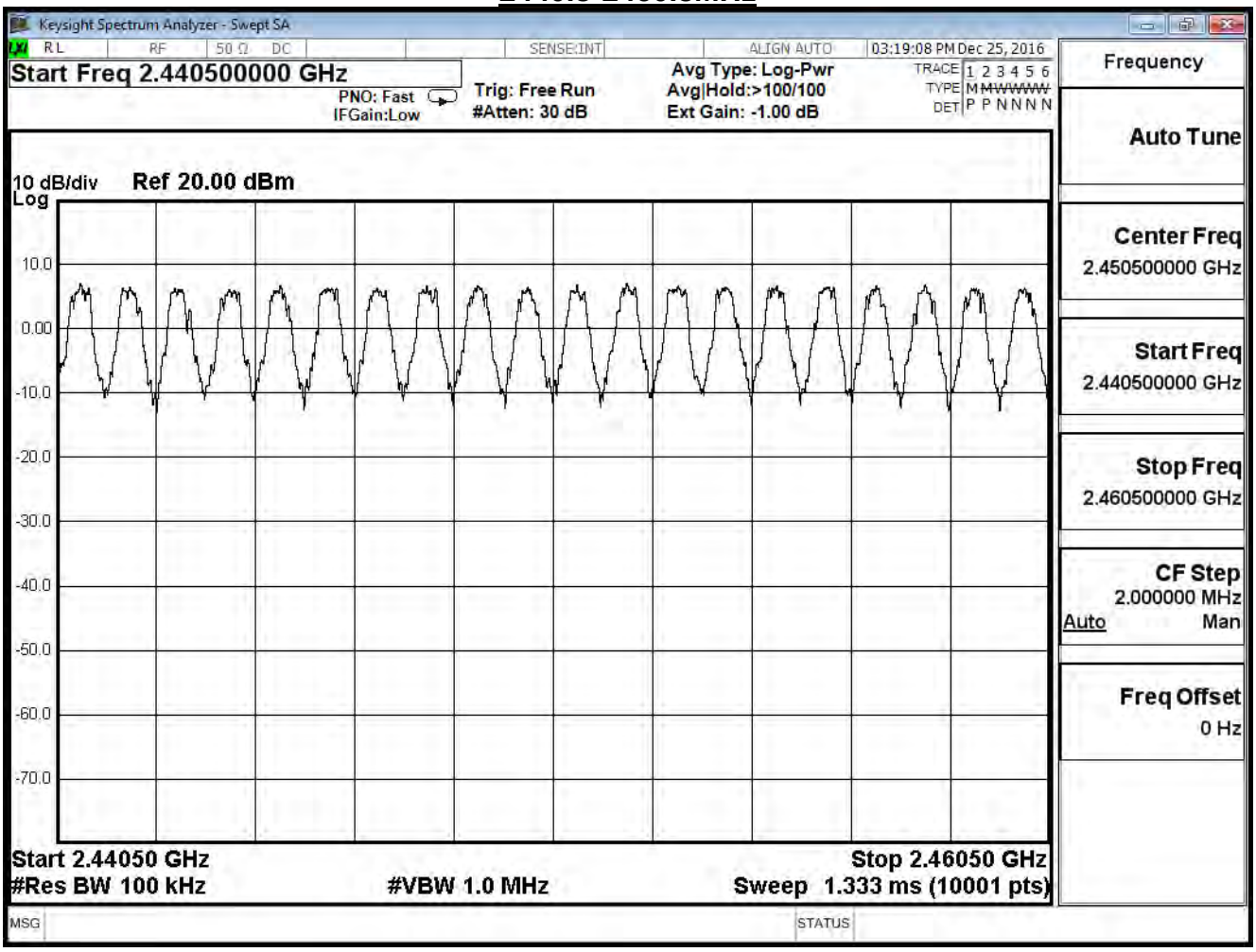
2401.5-2420.5MHz



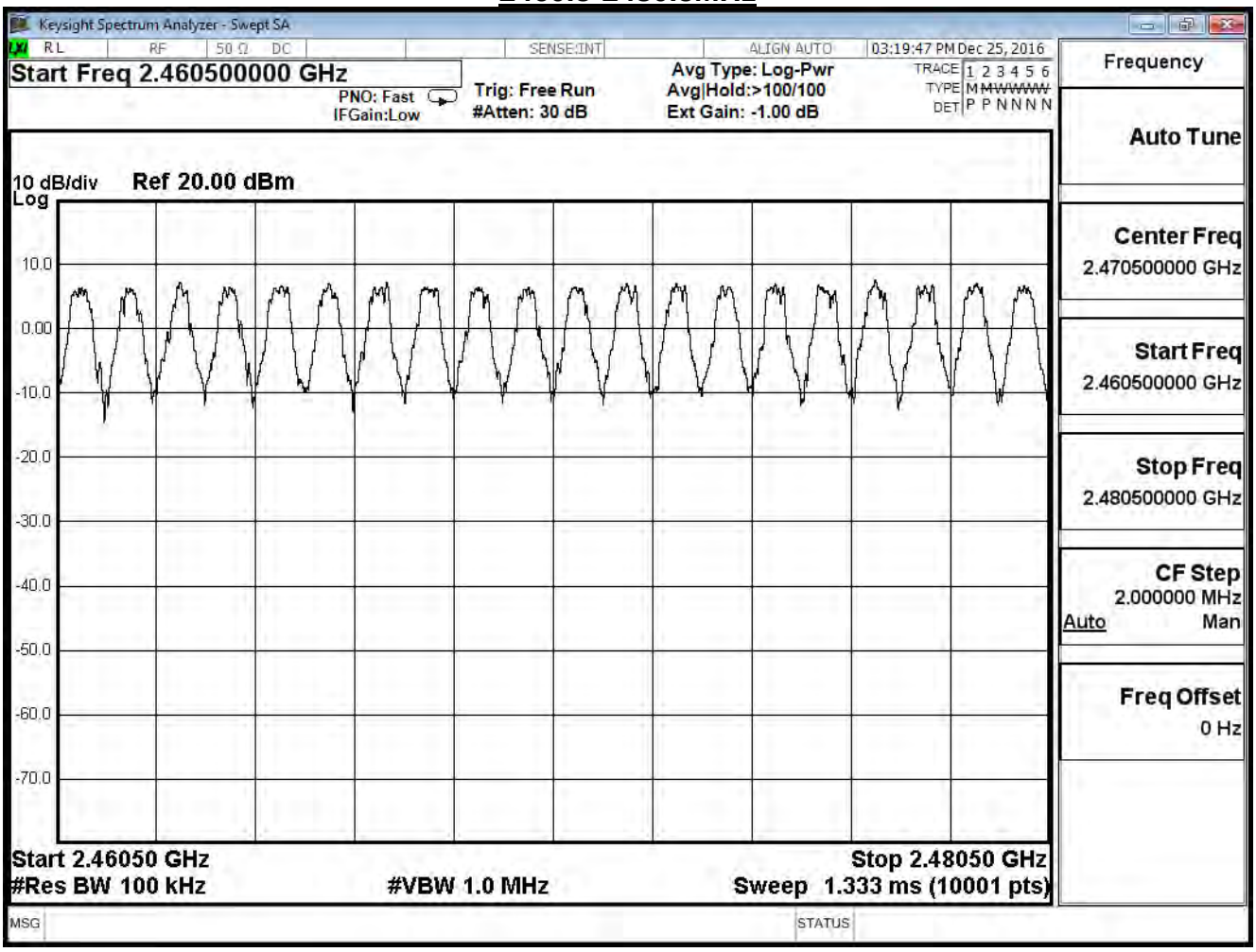
2420.5-2440.5MHz



2440.5-2460.5MHz



2460.5-2480.5MHz



8. Carrier Frequency Separation

8.1. Test Equipment

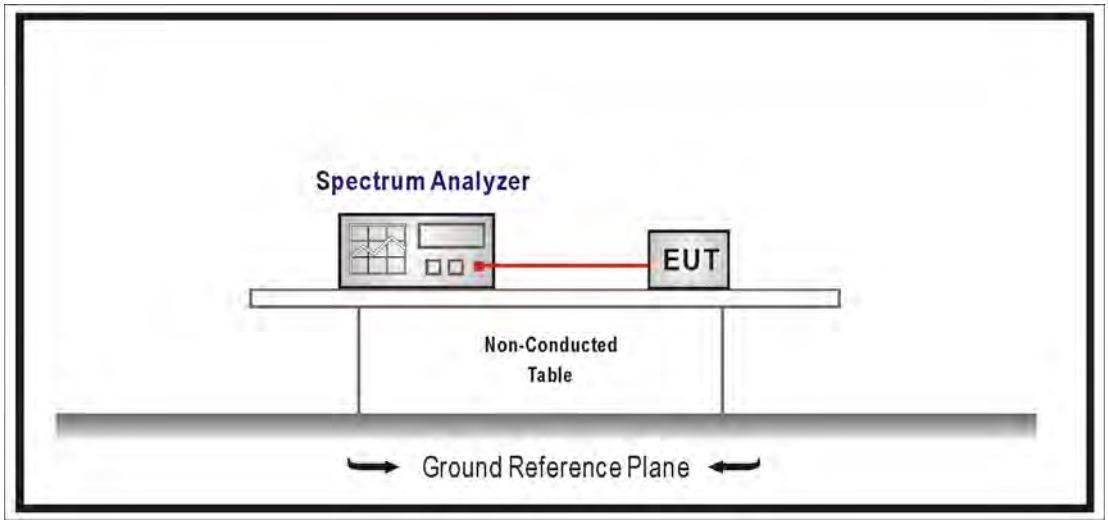
The following test equipment is used during the test:

Carrier Frequency Separation / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/22

Note: 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 C63.10:2013 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: 2015

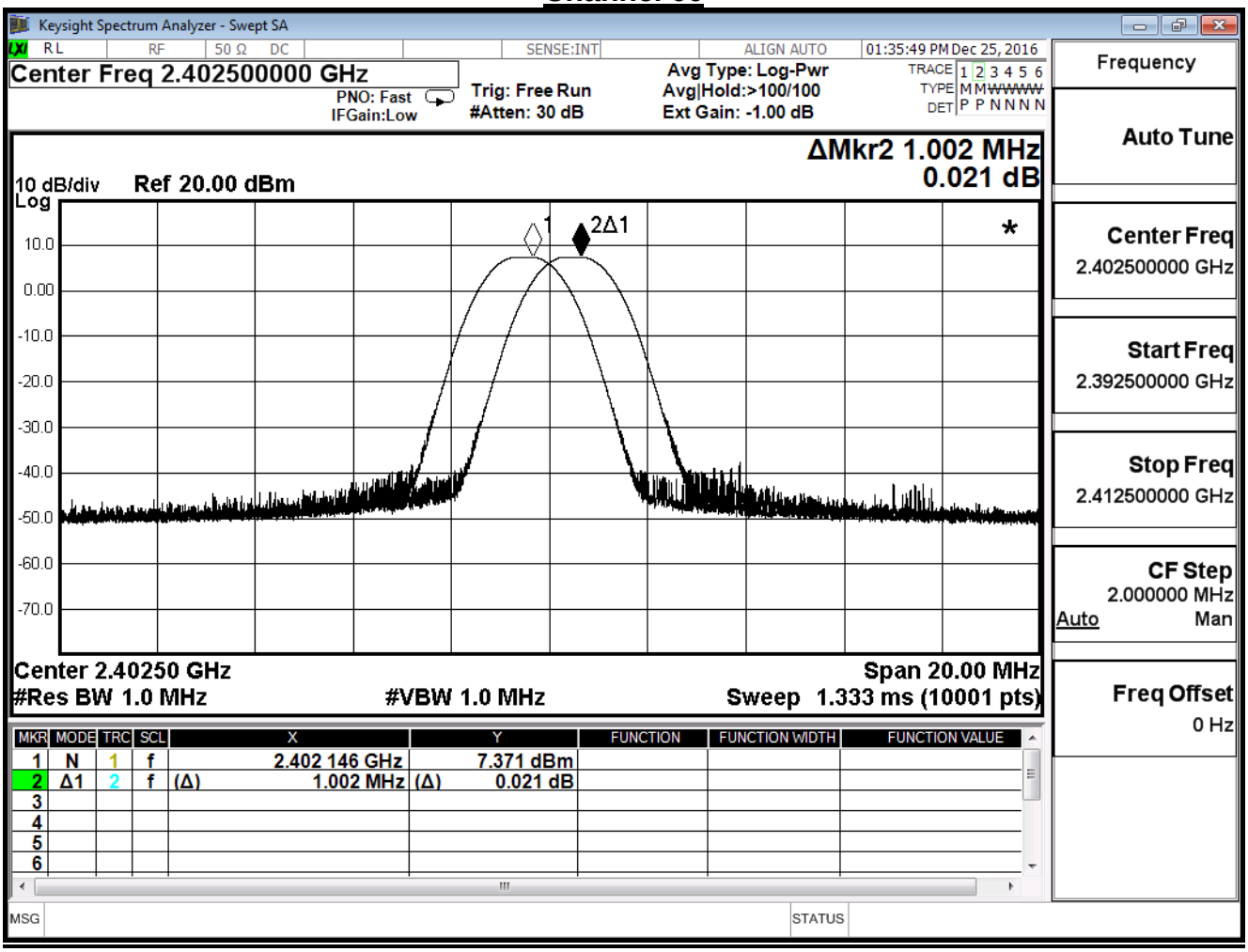
8.6. Test Result

Product	Lyra mini		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

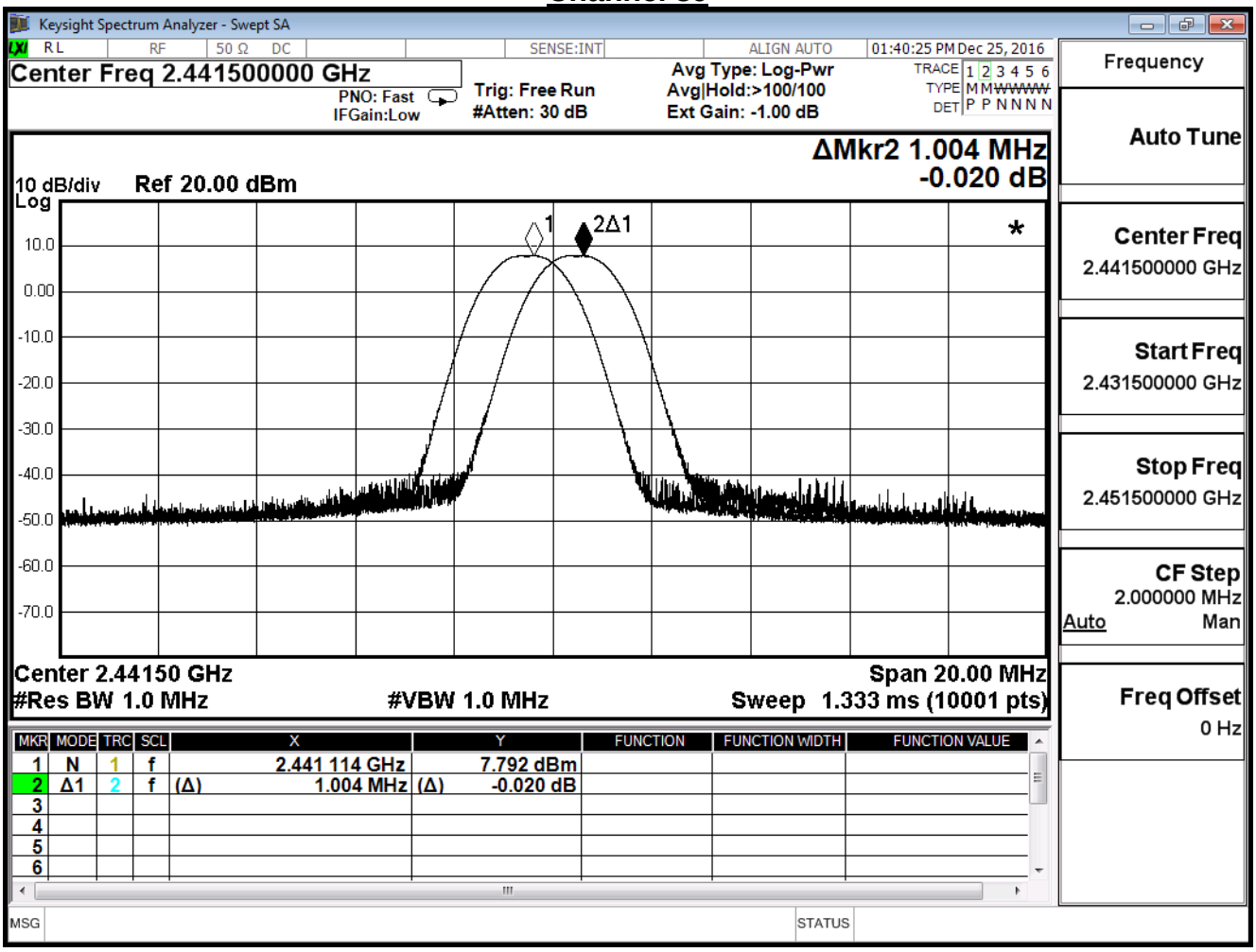
GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.002	0.729	Pass
39	2441	1.004	0.725	Pass
78	2480	1.014	0.719	Pass

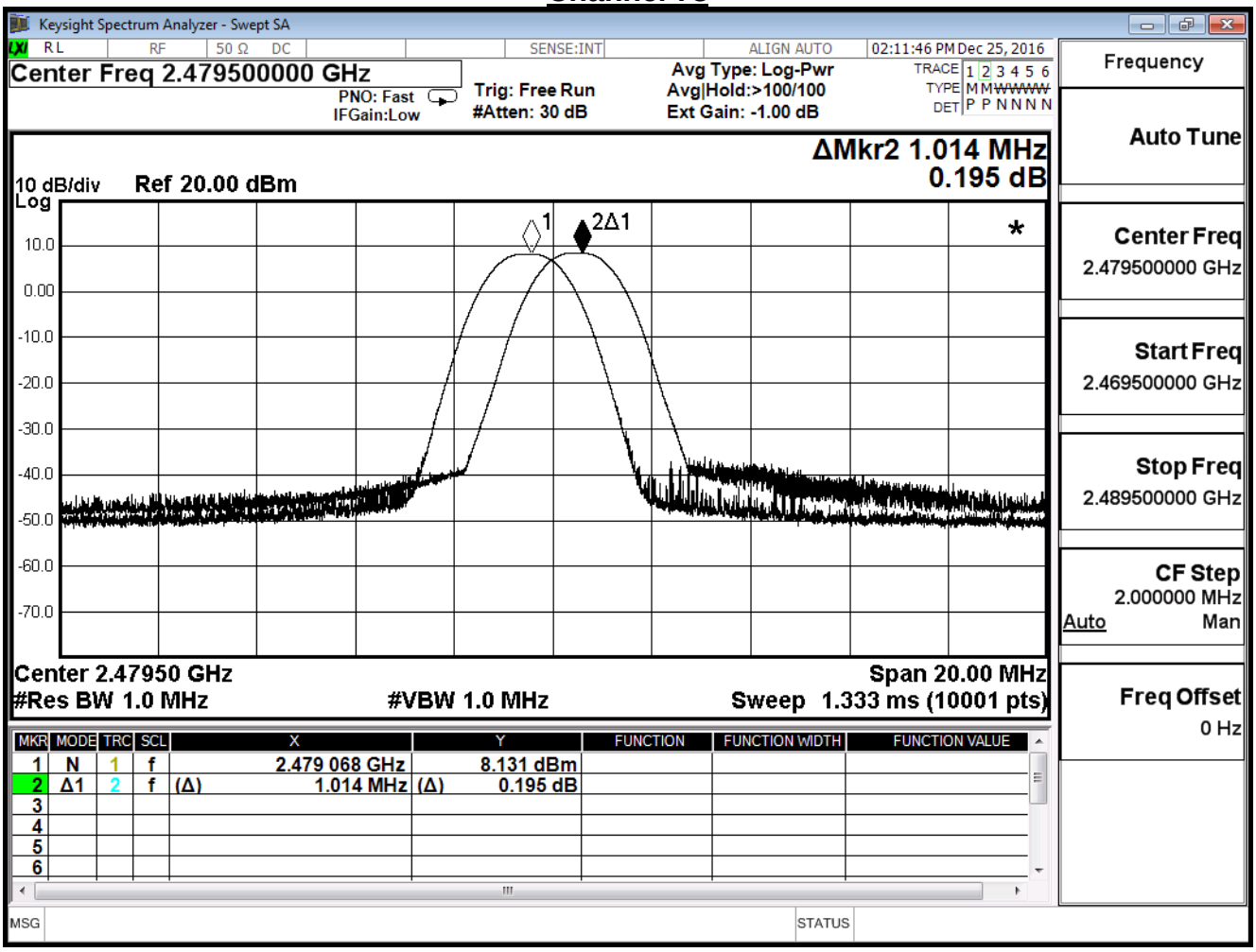
Channel 00



Channel 39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
01:40:25 PM Dec 25, 2016
Center Freq 2.441500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.004 MHz
-0.020 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 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.441 114 GHz 7.792 dBm
2 Δ1 2 f (Δ) 1.004 MHz (Δ) -0.020 dB
3
4
5
6
MSG
STATUS
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

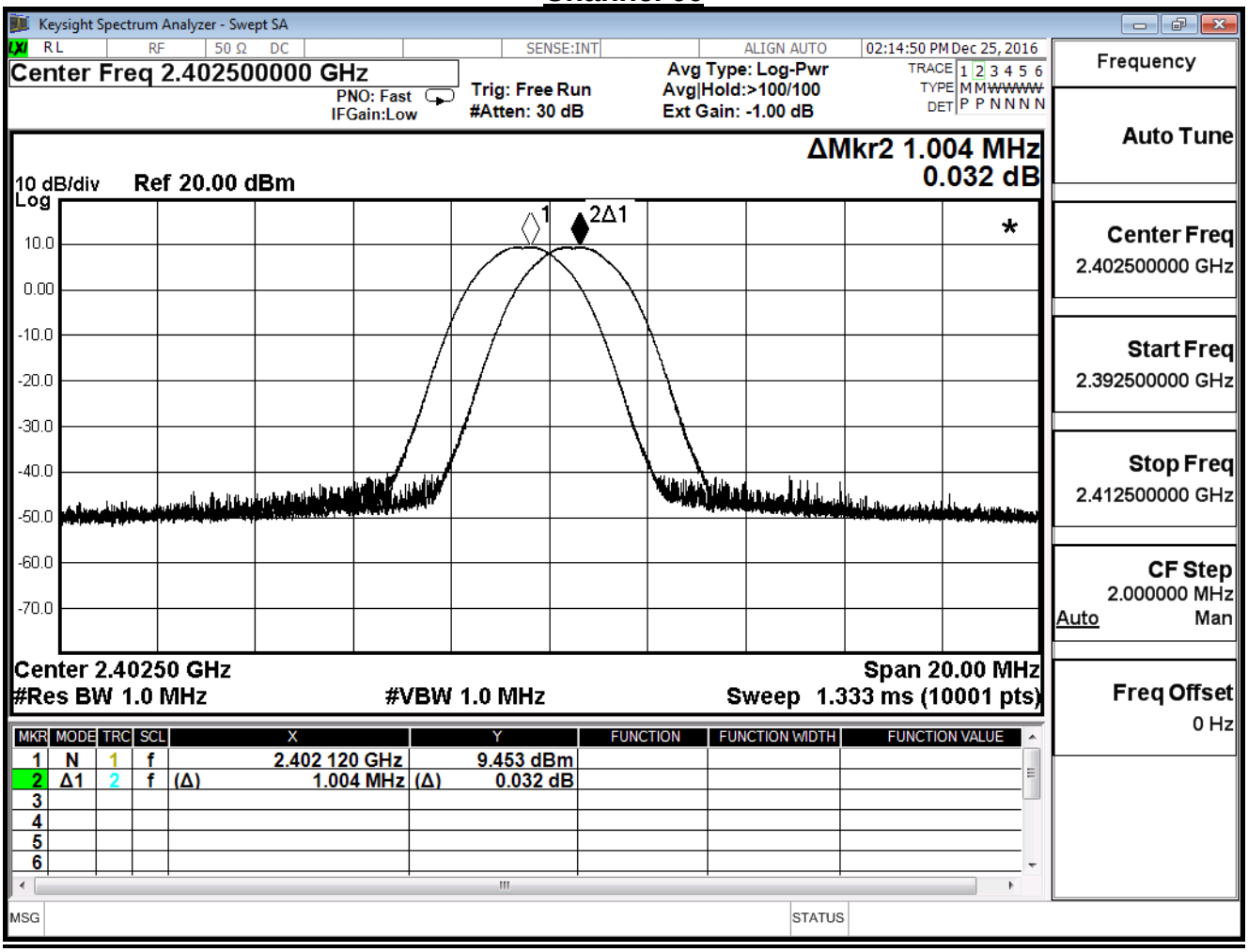

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:11:46 PM Dec 25, 2016
Center Freq 2.479500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.014 MHz
0.195 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 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.479 068 GHz 8.131 dBm
2 Δ1 2 f (Δ) 1.014 MHz (Δ) 0.195 dB
3
4
5
6
MSG
STATUS
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

Product	Lyra mini		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

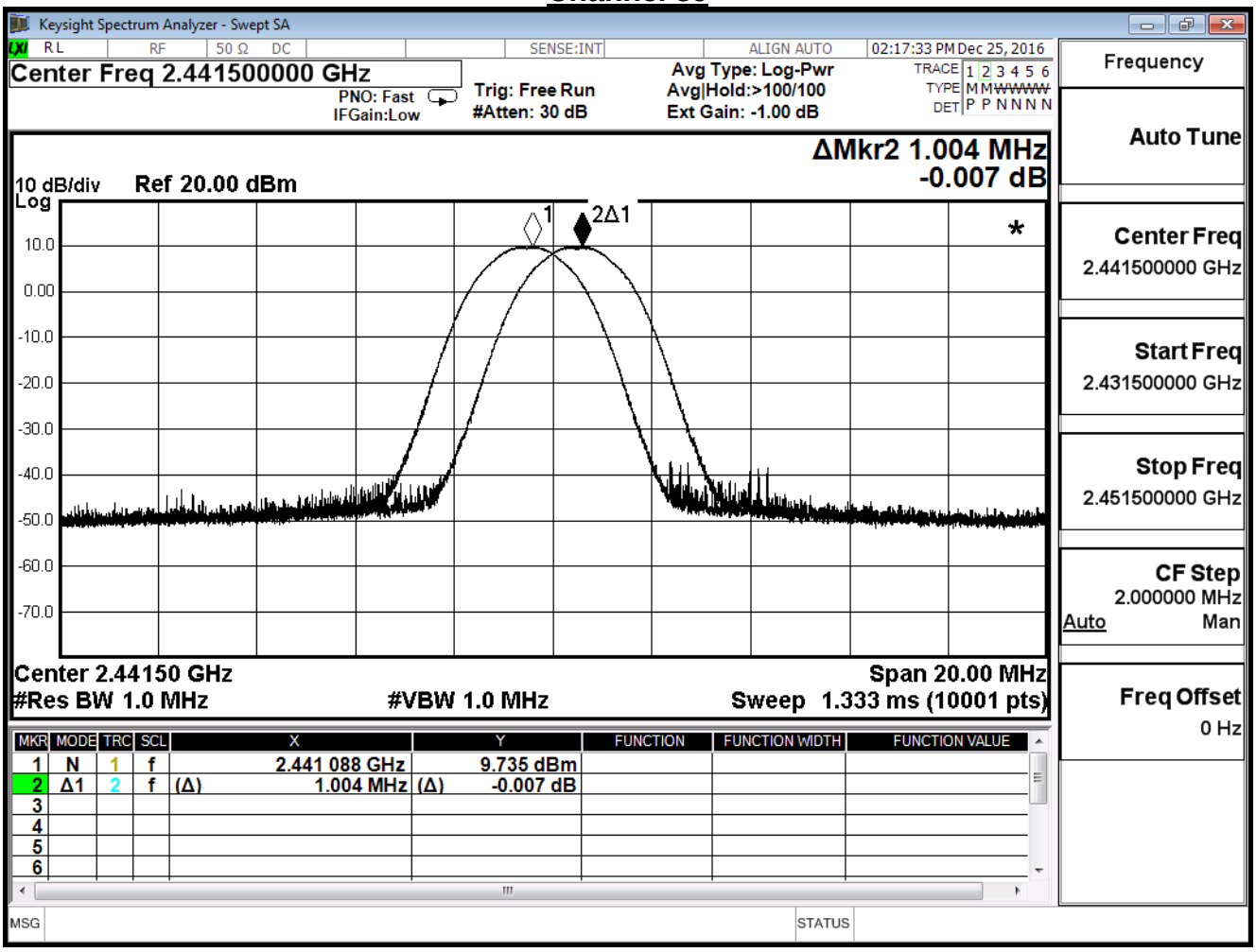
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.004	0.925	Pass
39	2441	1.004	0.923	Pass
78	2480	1.004	0.924	Pass

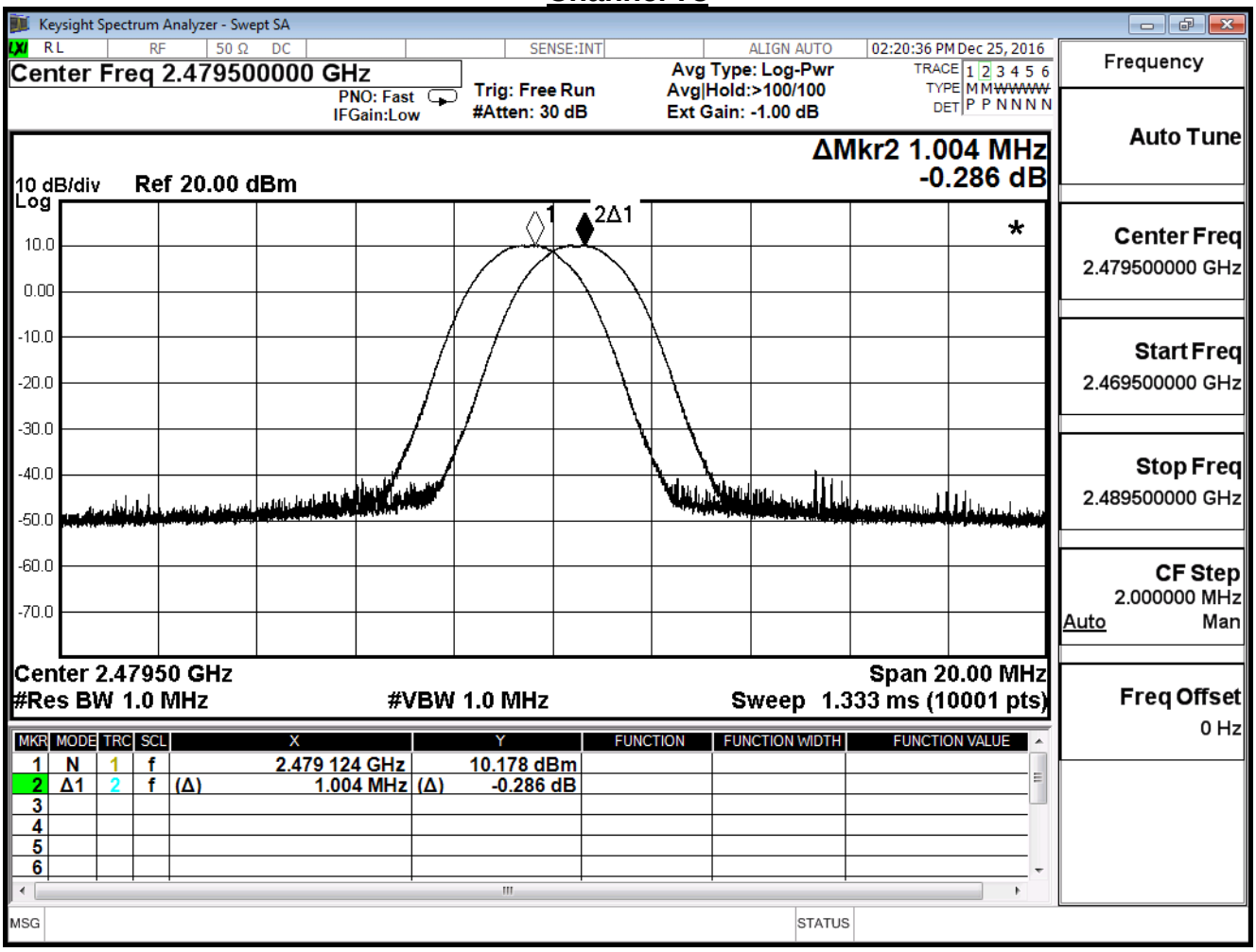
Channel 00



Channel 39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:17:33 PM Dec 25, 2016
Center Freq 2.441500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.004 MHz
-0.007 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 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.441 088 GHz 9.735 dBm
2 Δ1 2 f (Δ) 1.004 MHz (Δ) -0.007 dB
3
4
5
6
MSG
STATUS
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

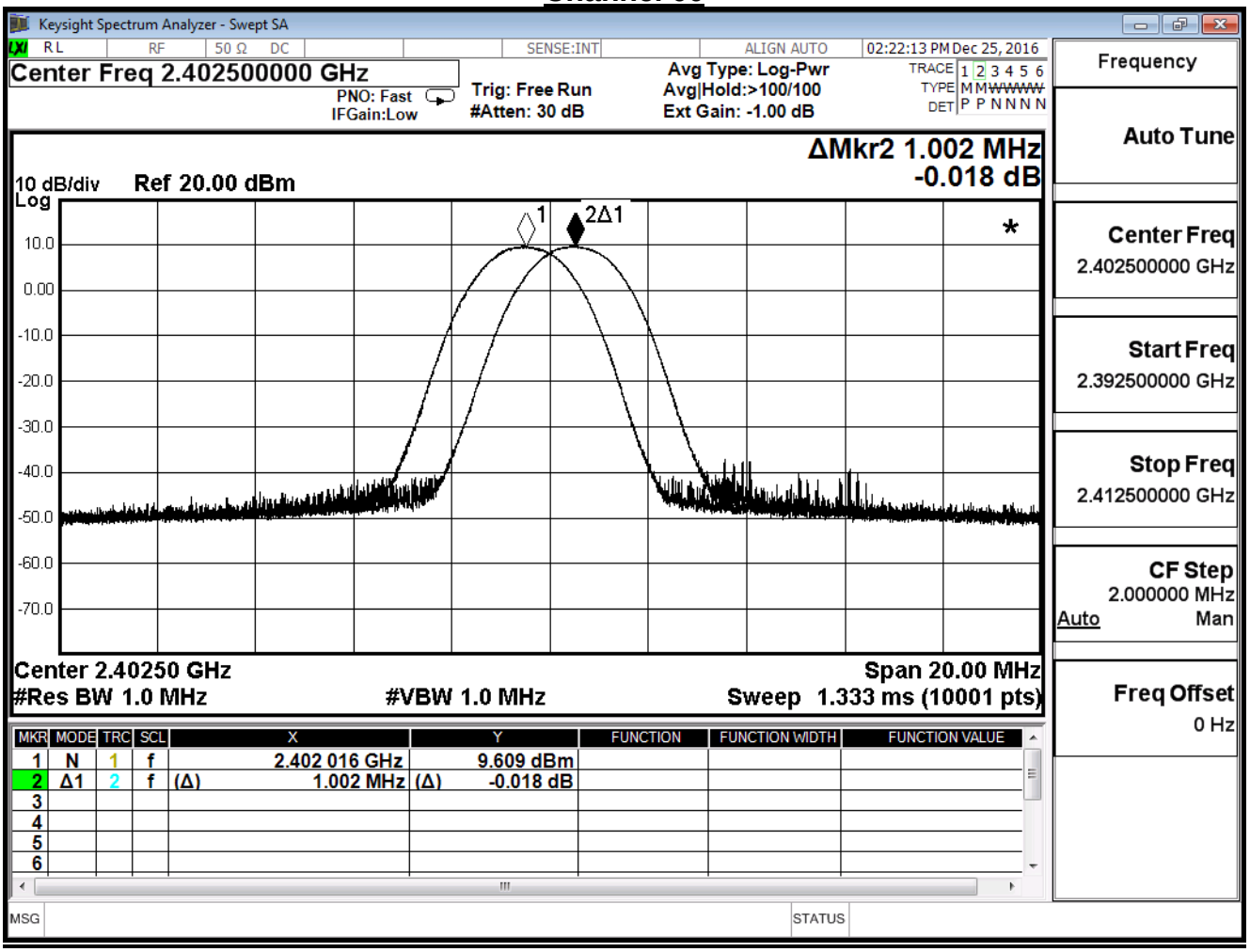

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:20:36 PM Dec 25, 2016
Center Freq 2.479500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.004 MHz
-0.286 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 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.479 124 GHz 10.178 dBm
2 Δ1 2 f (Δ) 1.004 MHz (Δ) -0.286 dB
3
4
5
6
MSG
STATUS
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

Product	Lyra mini		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

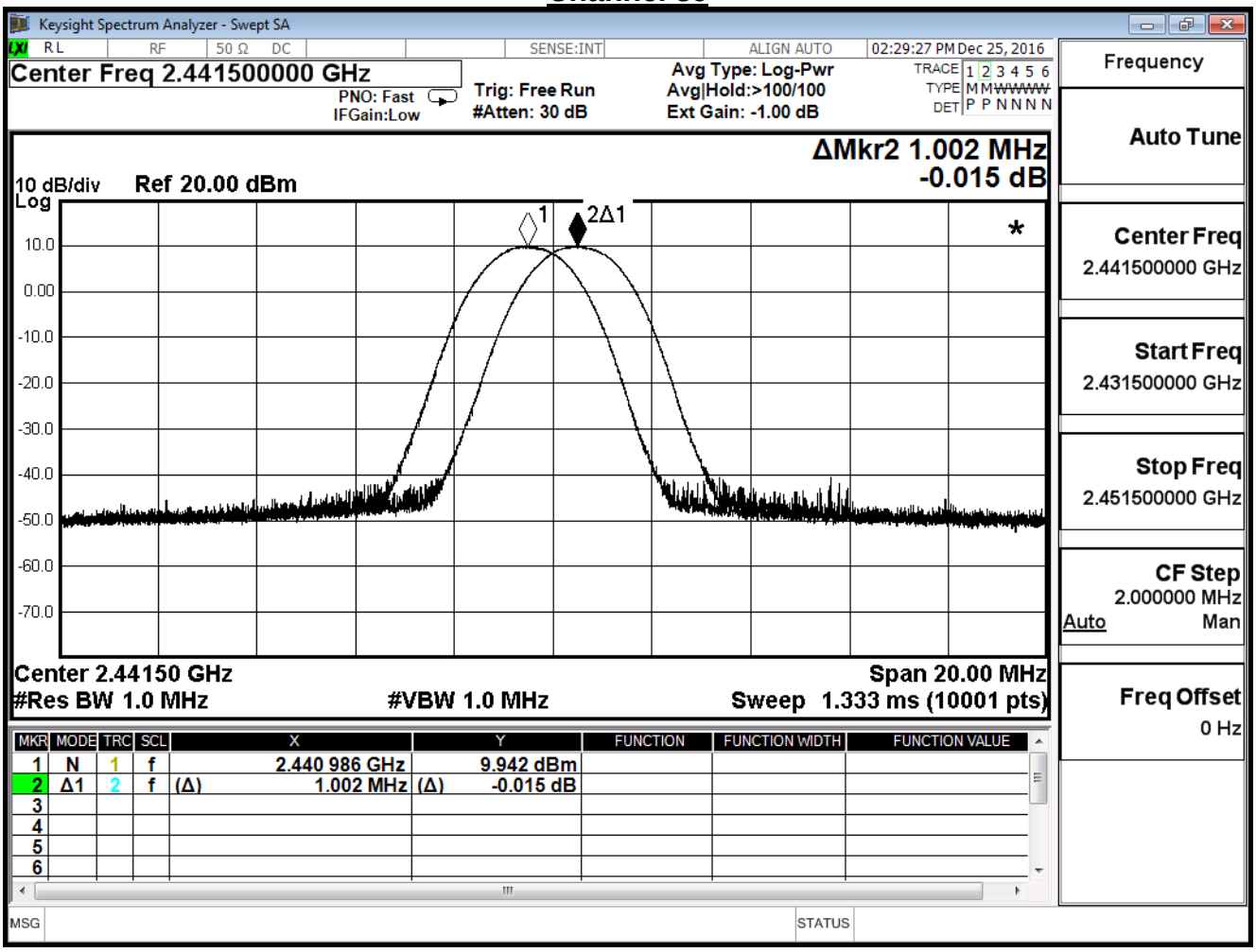
8-DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.002	0.896	Pass
39	2441	1.002	0.913	Pass
78	2480	1.010	0.917	Pass

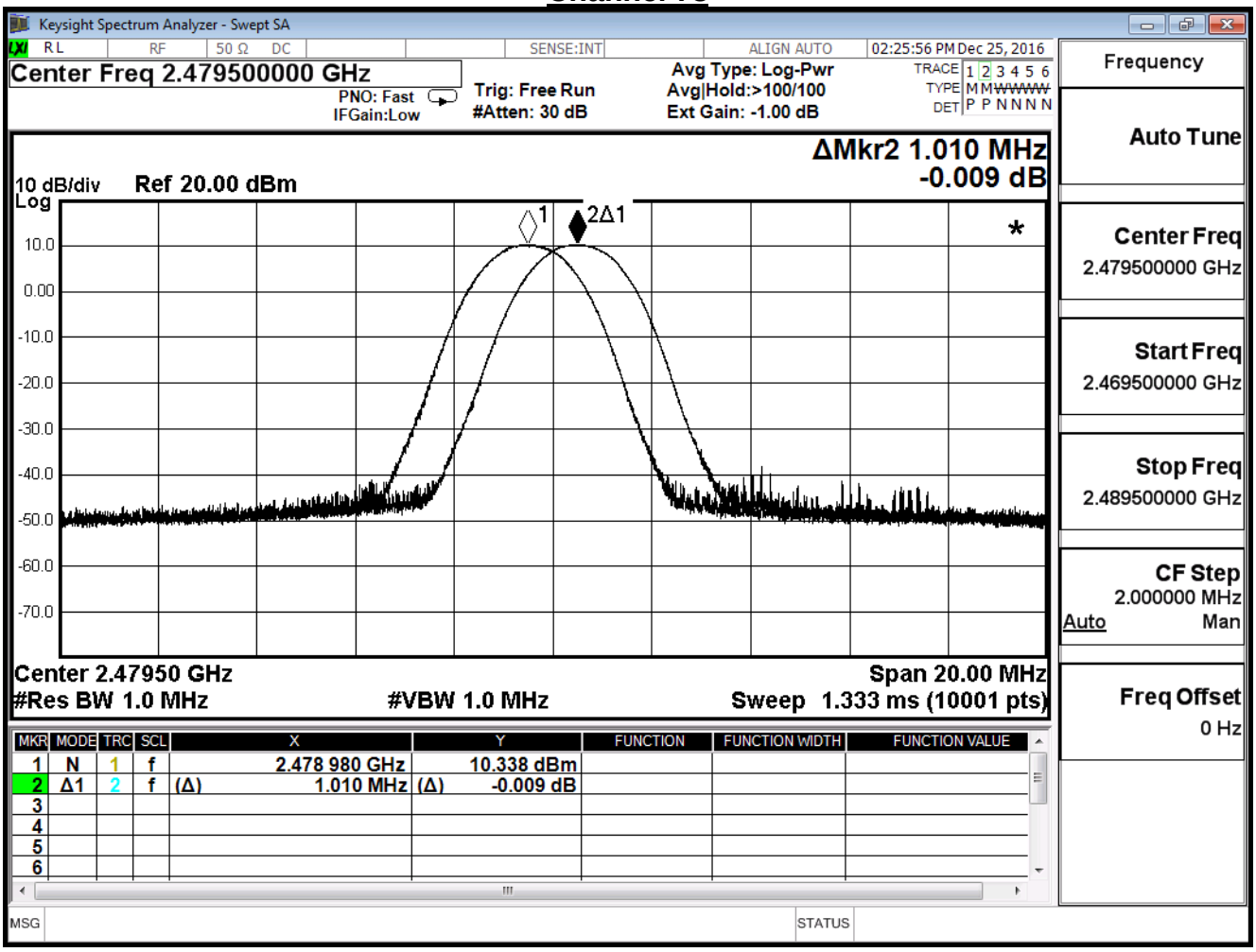
Channel 00



Channel 39


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:29:27 PM Dec 25, 2016
Center Freq 2.441500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.002 MHz
-0.015 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 2.44150 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.440 986 GHz 9.942 dBm
2 Δ1 2 f (Δ) 1.002 MHz (Δ) -0.015 dB
3
4
5
6
MSG
STATUS
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


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
02:25:56 PM Dec 25, 2016
Center Freq 2.479500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M M W W W W
DET P P N N N N
ΔMkr2 1.010 MHz
-0.009 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 2.47950 GHz
#Res BW 1.0 MHz
#VBW 1.0 MHz
Span 20.00 MHz
Sweep 1.333 ms (10001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.478 980 GHz 10.338 dBm
2 Δ1 2 f (Δ) 1.010 MHz (Δ) -0.009 dB
3
4
5
6
MSG
STATUS
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

9. Occupied Bandwidth

9.1. Test Equipment

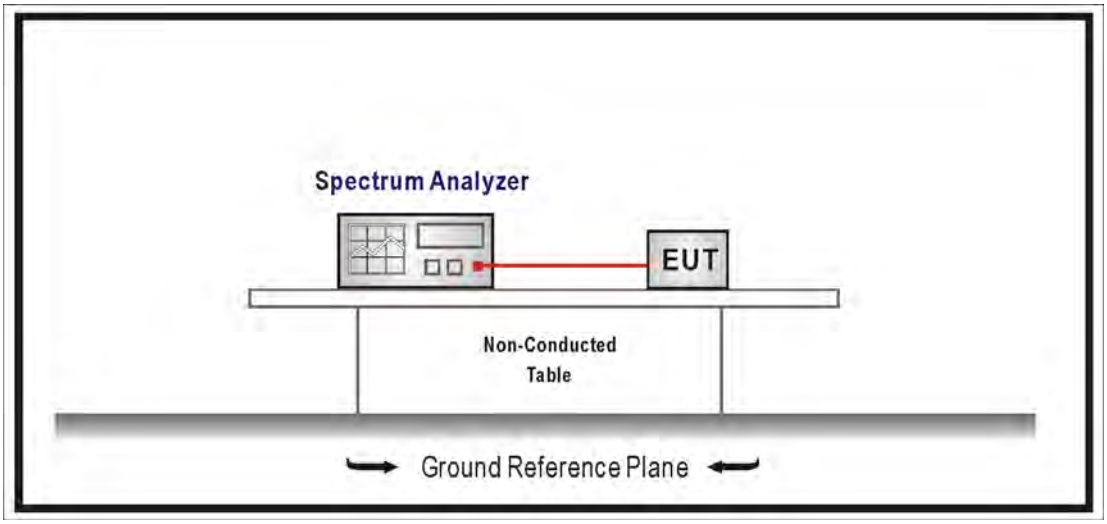
The following test equipment is used during the test:

Occupied Bandwidth / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/22

Note: 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 C63.10:2013 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: 2015

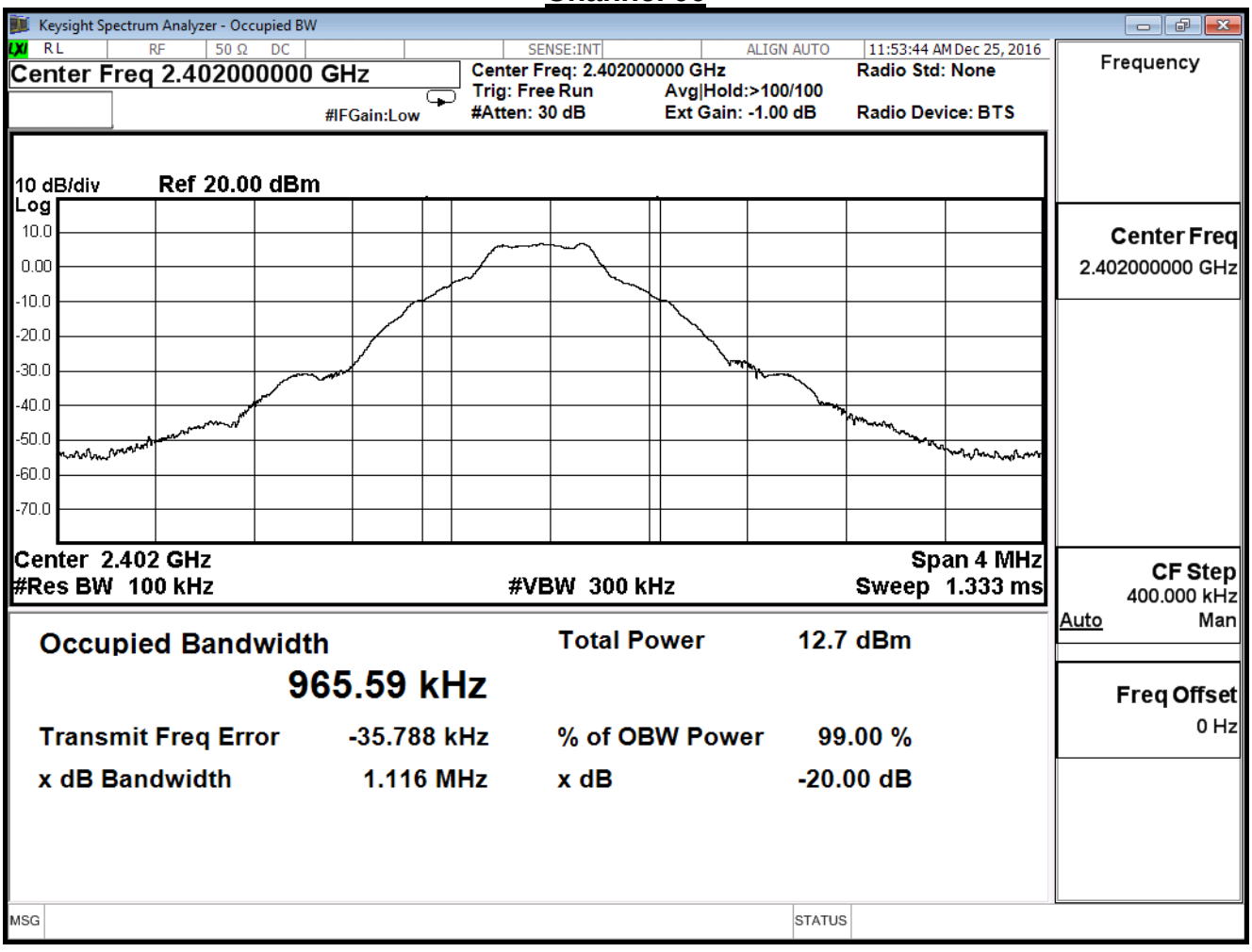
9.6. Test Result

Product	Lyra mini		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

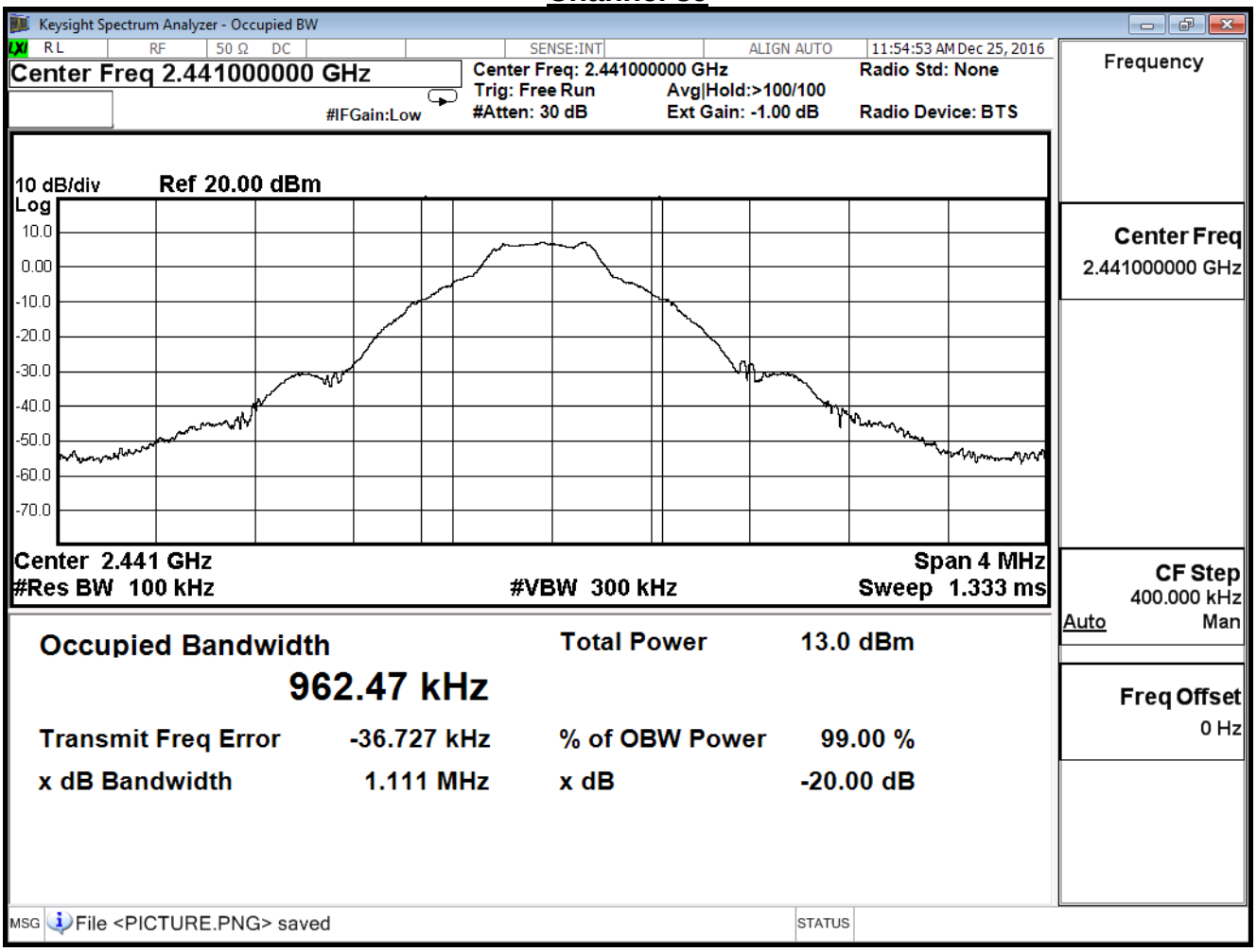
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.116	--	Pass
39	2441	1.111	--	Pass
78	2480	1.113	--	Pass

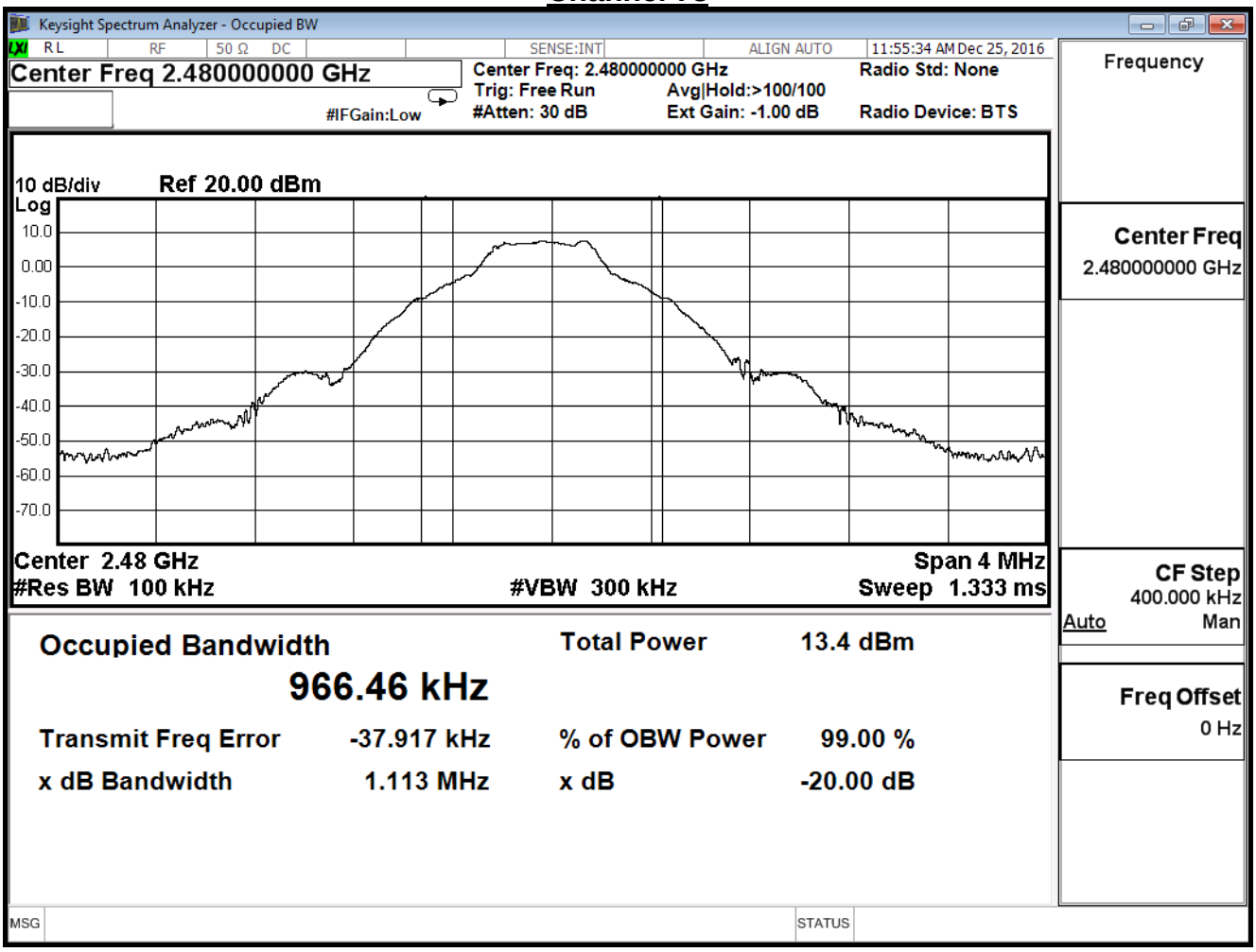
Channel 00



Channel 39


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
11:54:53 AM Dec 25, 2016
Center Freq 2.441000000 GHz
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
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 Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
962.47 kHz
Total Power
13.0 dBm
Transmit Freq Error
-36.727 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.111 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
File <PICTURE.PNG> saved
STATUS

Channel 78

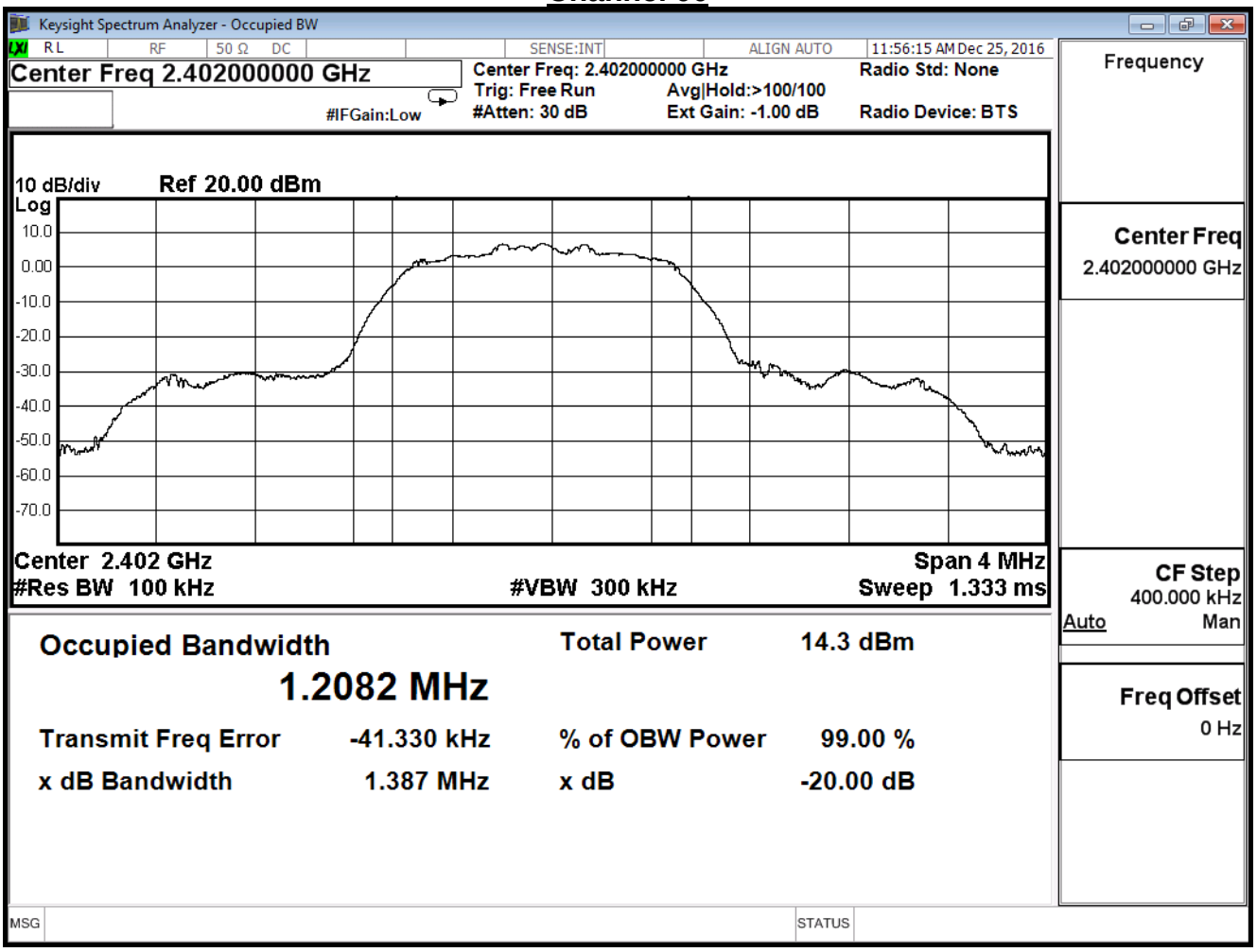

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
11:55:34 AM Dec 25, 2016
Center Freq 2.480000000 GHz
#IFGain:Low
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
966.46 kHz
Total Power
13.4 dBm
Transmit Freq Error
-37.917 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.113 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	Lyra mini		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

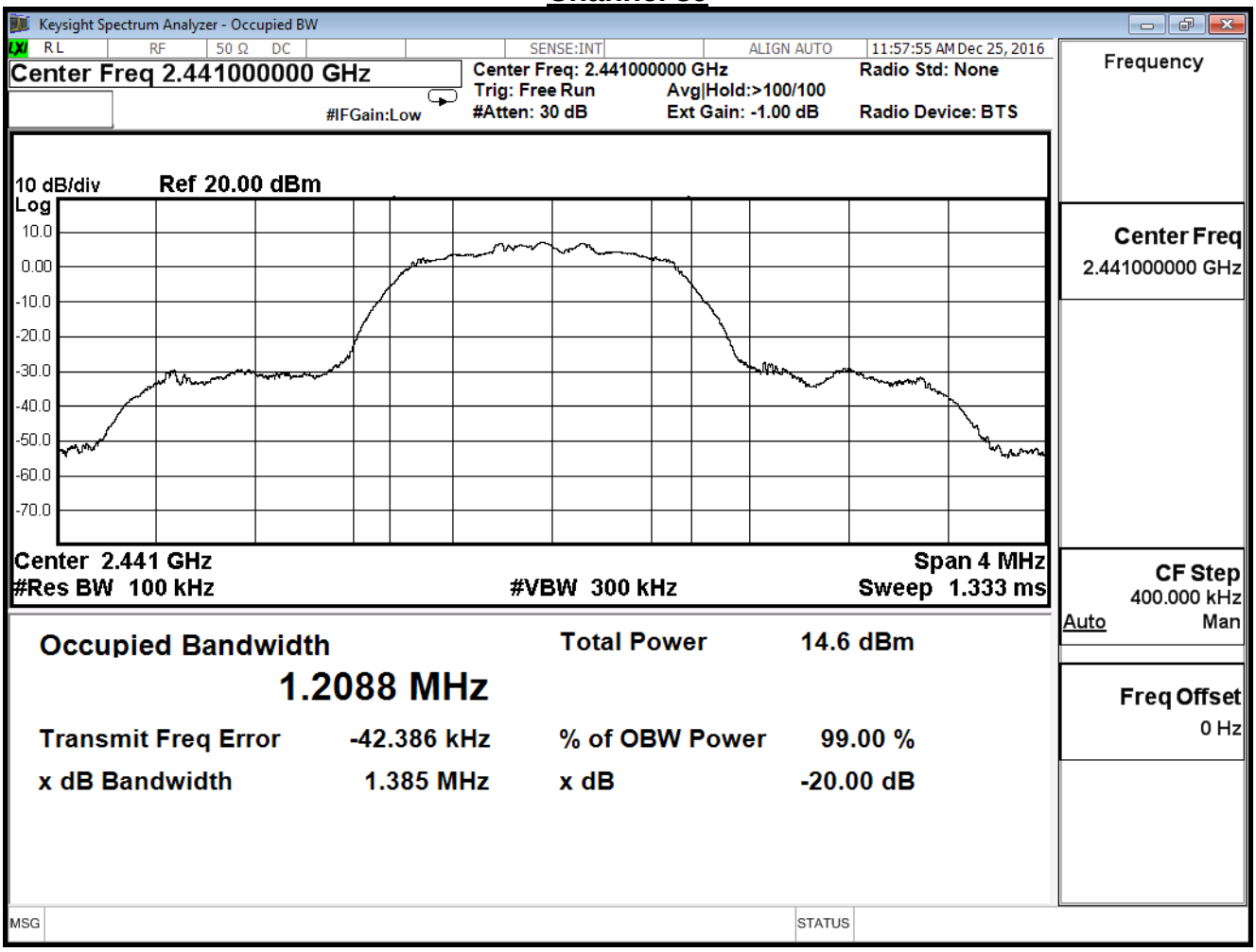
π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.387	--	Pass
39	2441	1.385	--	Pass
78	2480	1.386	--	Pass

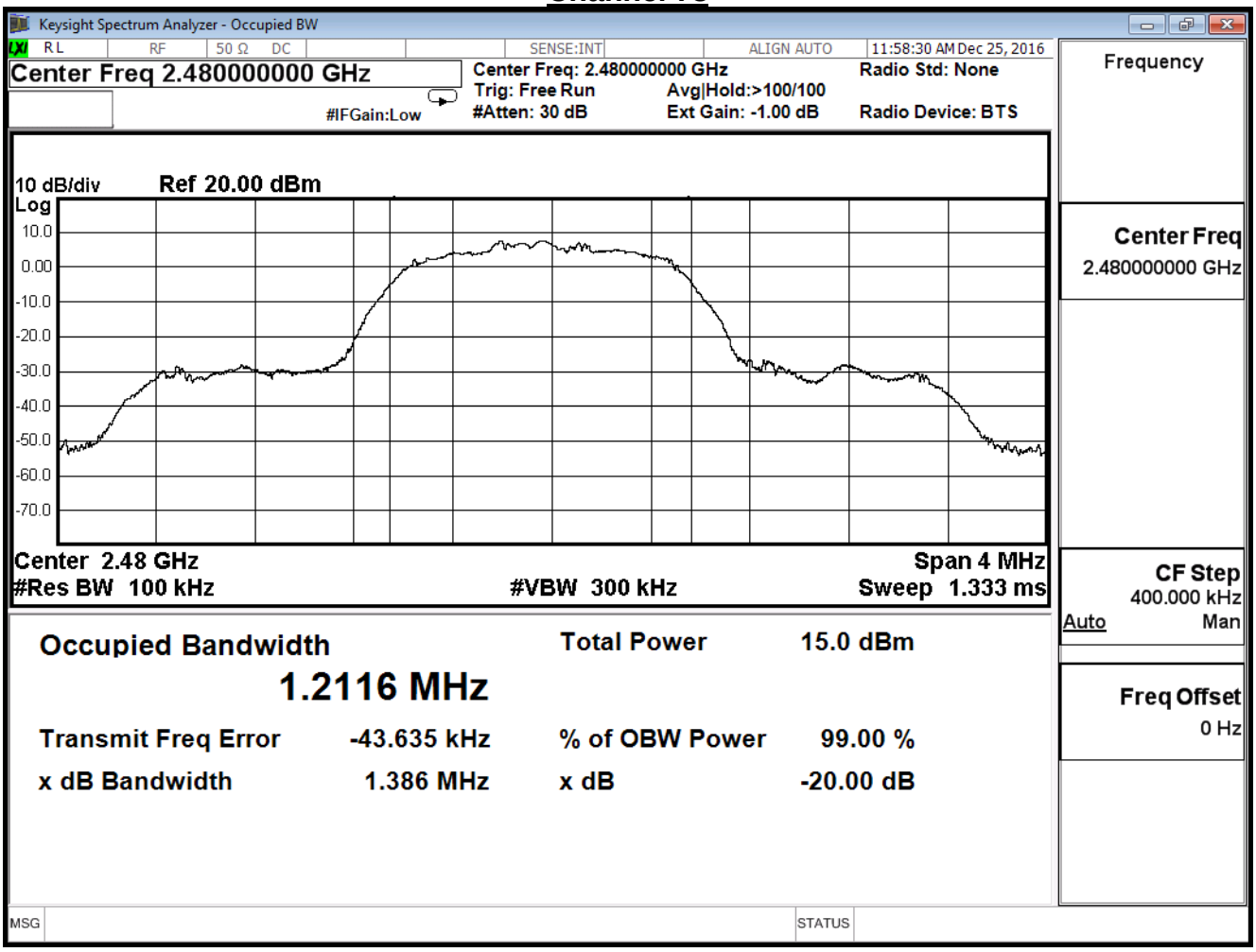
Channel 00



Channel 39


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
11:57:55 AM Dec 25, 2016
Center Freq 2.441000000 GHz
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
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 Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
1.2088 MHz
Total Power
14.6 dBm
Transmit Freq Error
-42.386 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.385 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

Channel 78

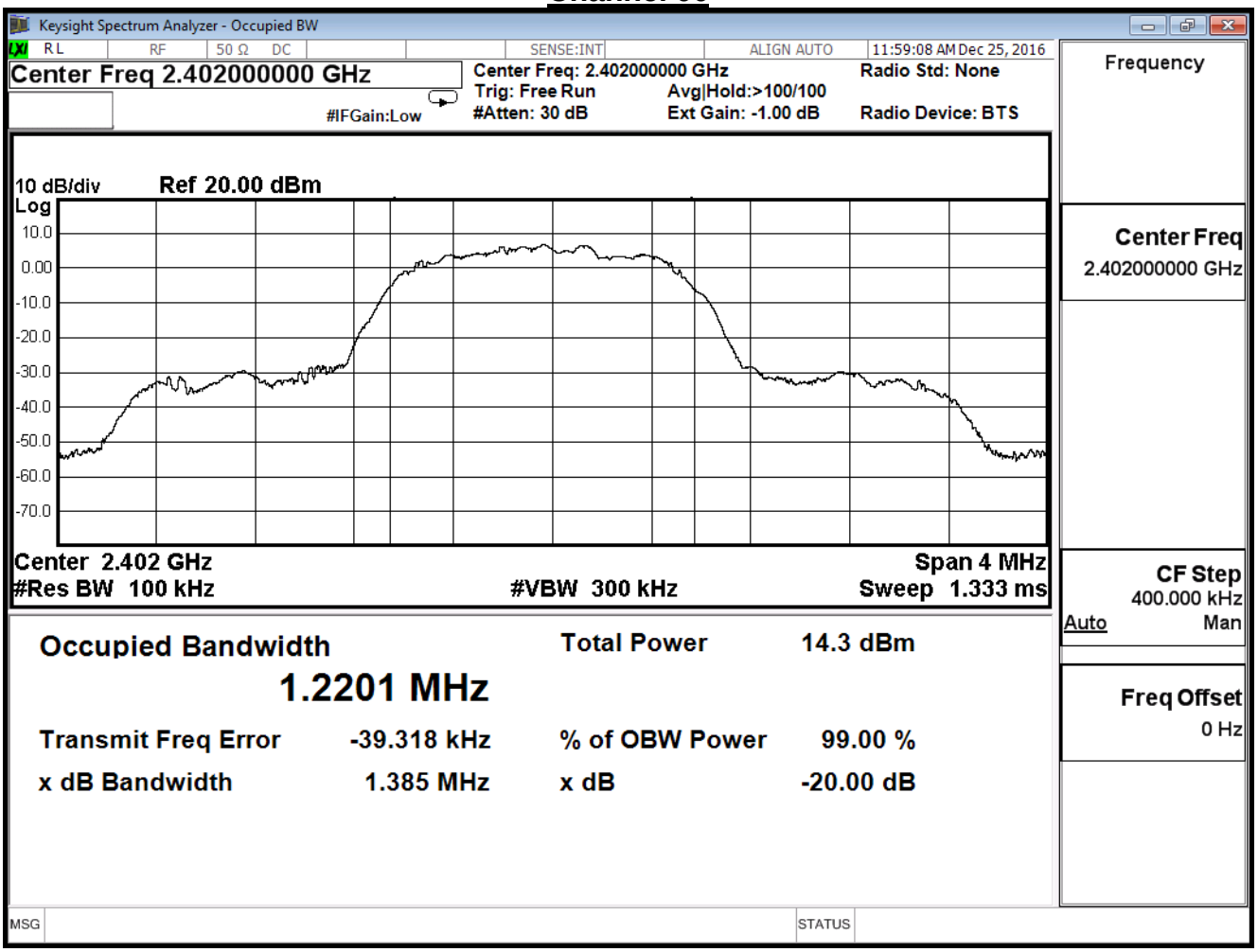

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
11:58:30 AM Dec 25, 2016
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
1.2116 MHz
Total Power
15.0 dBm
Transmit Freq Error
-43.635 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.386 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	Lyra mini		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

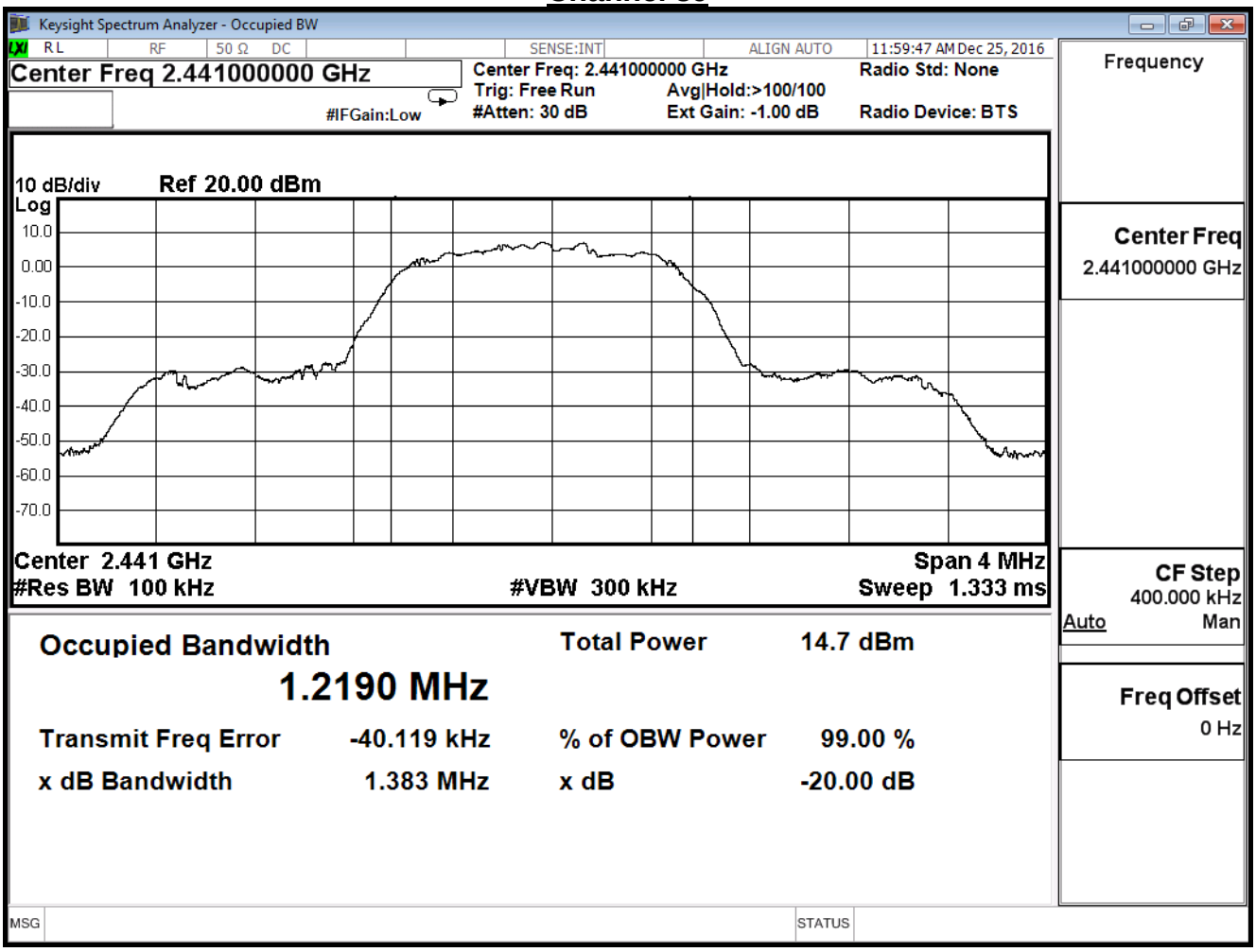
8-DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.385	--	Pass
39	2441	1.383	--	Pass
78	2480	1.383	--	Pass

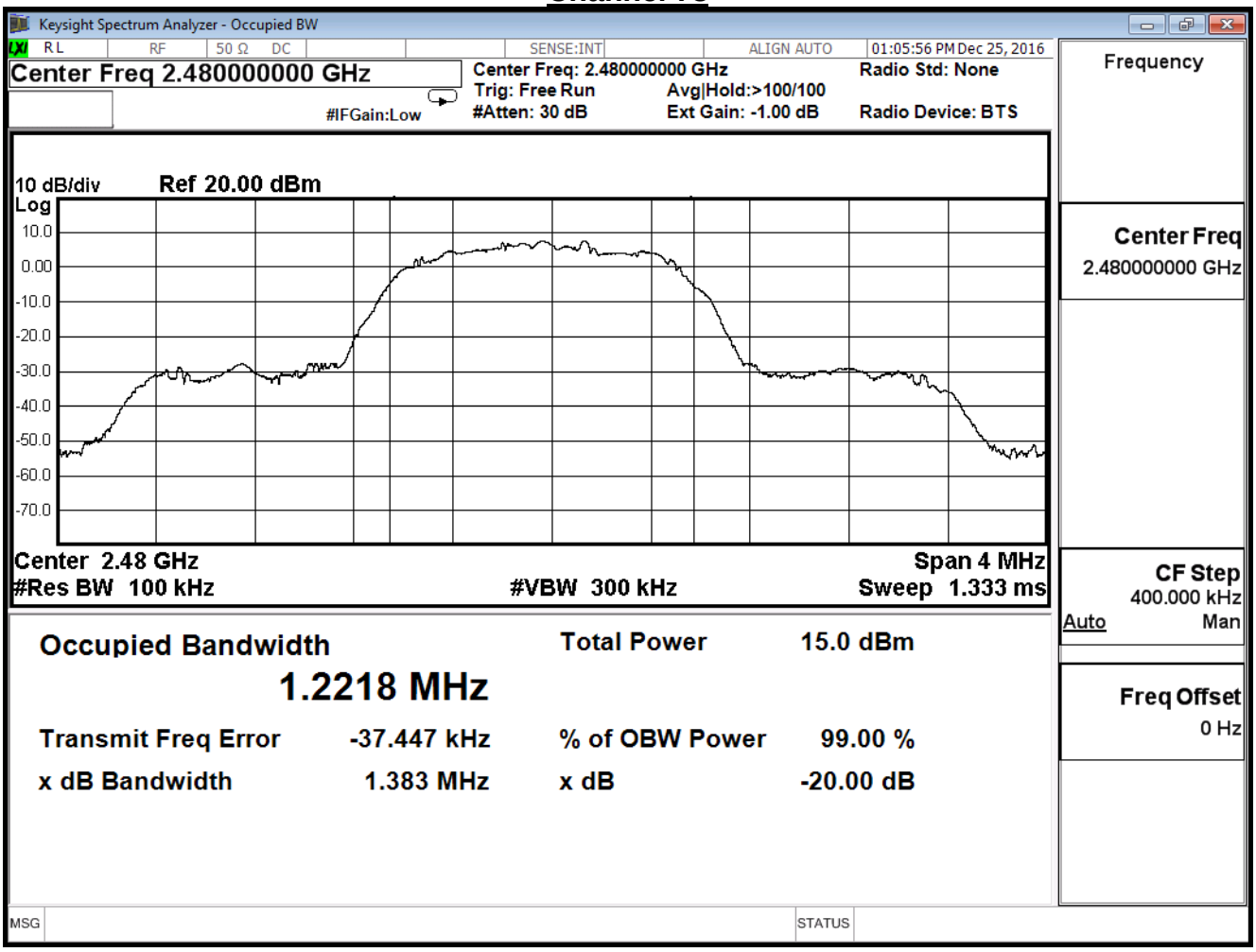
Channel 00



Channel 39


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
11:59:47 AM Dec 25, 2016
Center Freq 2.441000000 GHz
#IFGain:Low
Center Freq: 2.441000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
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 Freq
2.441000000 GHz
Center 2.441 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
1.2190 MHz
Total Power
14.7 dBm
Transmit Freq Error
-40.119 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.383 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

Channel 78


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
01:05:56 PM Dec 25, 2016
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
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 Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 4 MHz
Sweep 1.333 ms
CF Step
400.000 kHz
Auto
Man
Occupied Bandwidth
1.2218 MHz
Total Power
15.0 dBm
Transmit Freq Error
-37.447 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.383 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

10. Dwell Time

10.1. Test Equipment

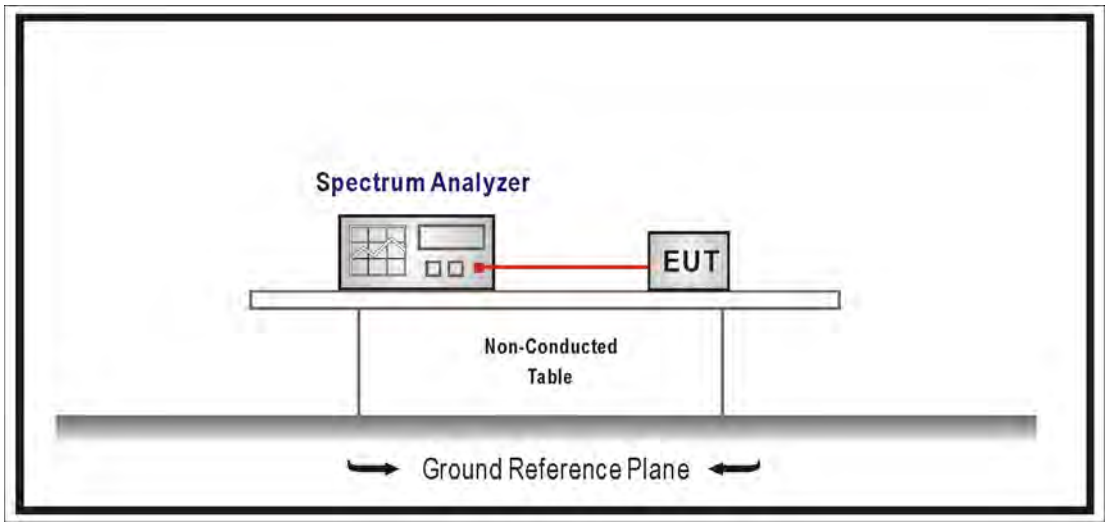
The following test equipment is used during the test:

Dwell Time / SR10-H

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/22

Note: 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 C63.10:2013 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: 2015

10.6. Test Result

Product	Lyra mini		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

GFSK, DH5

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= 0.3095 sec。

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

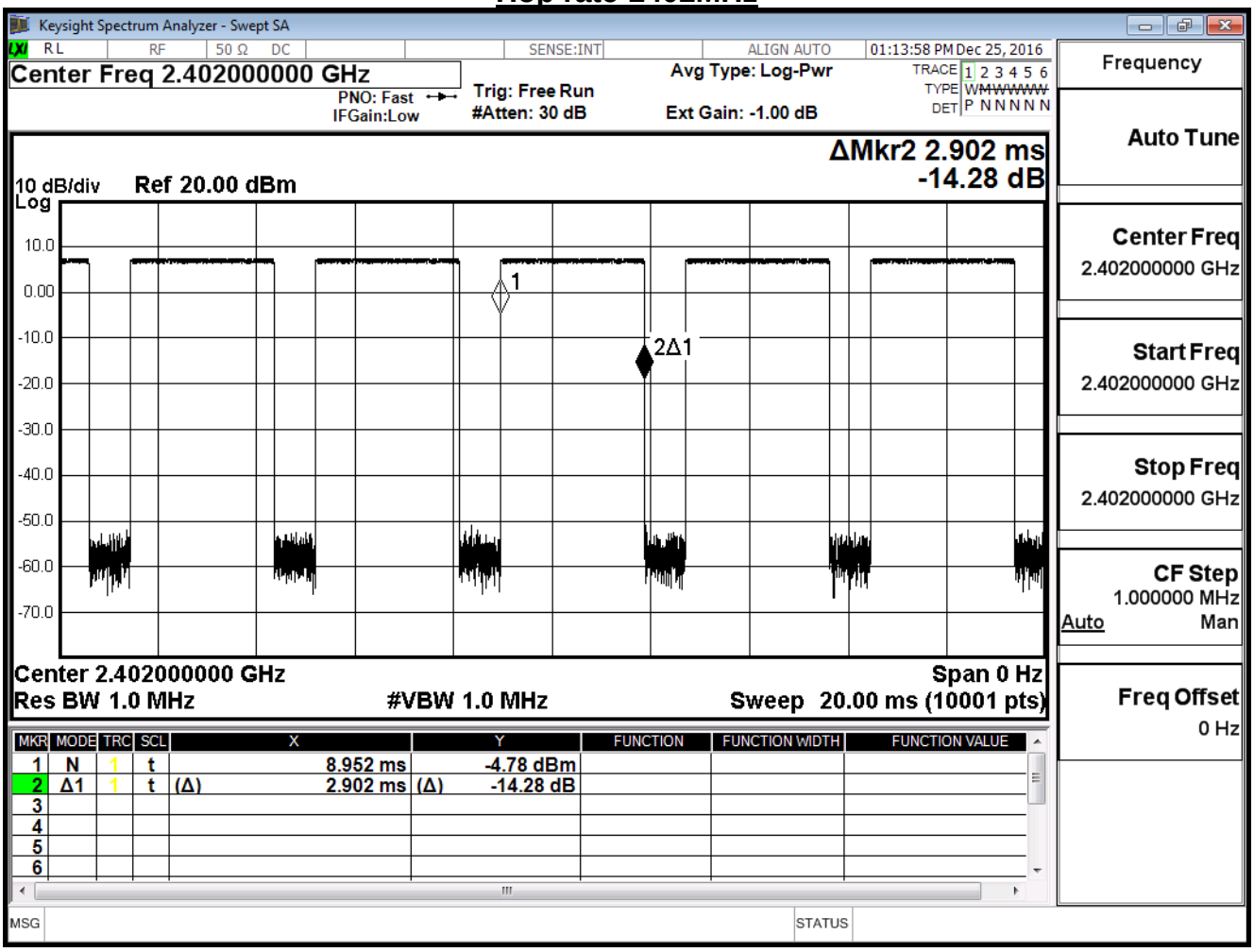
Dwell Time : 0.002902 *(266.67/79)* 31.60= 0.3095 sec。

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

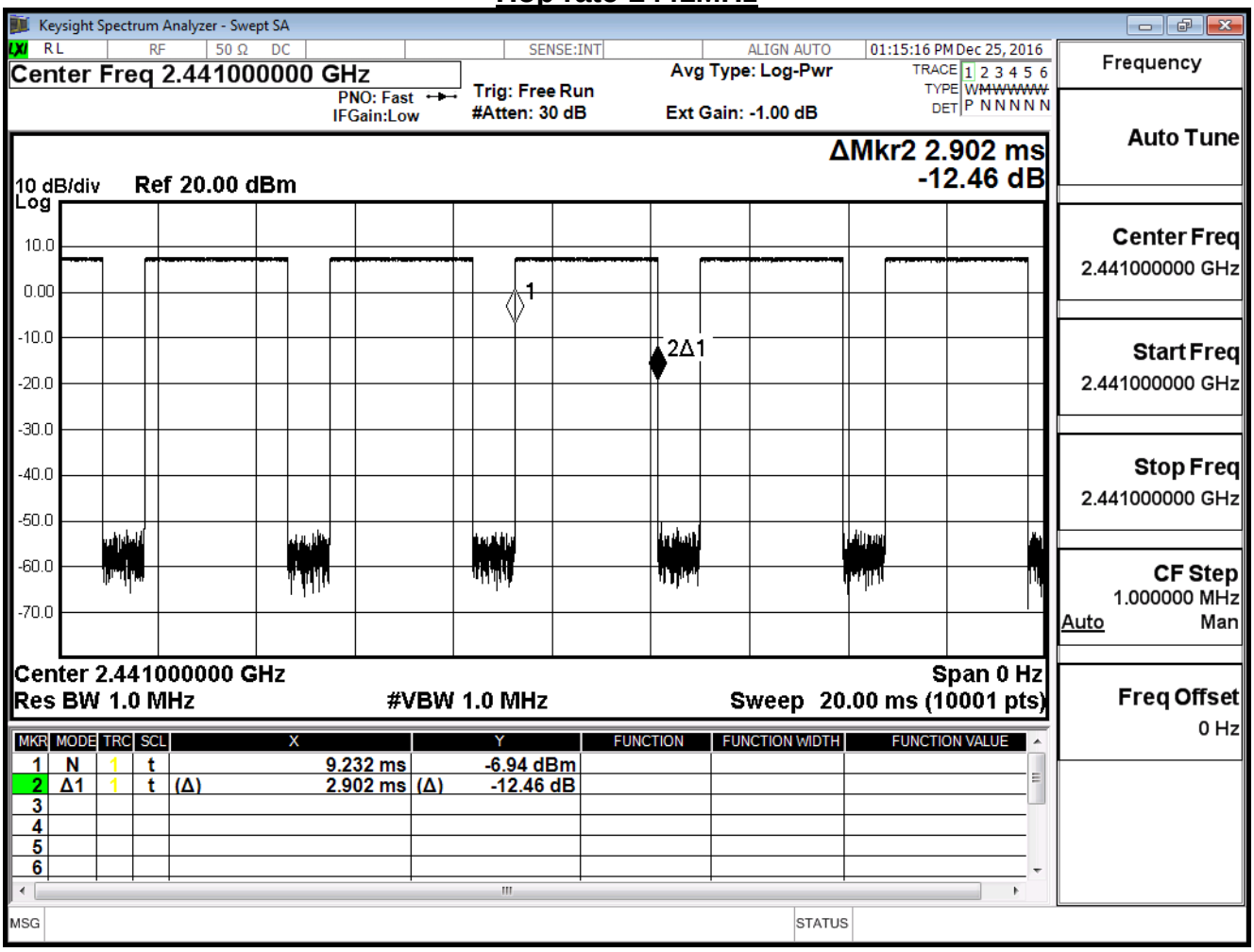
Dwell Time : 0.002902 *(266.67/79)* 31.60= 0.3095 sec。

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

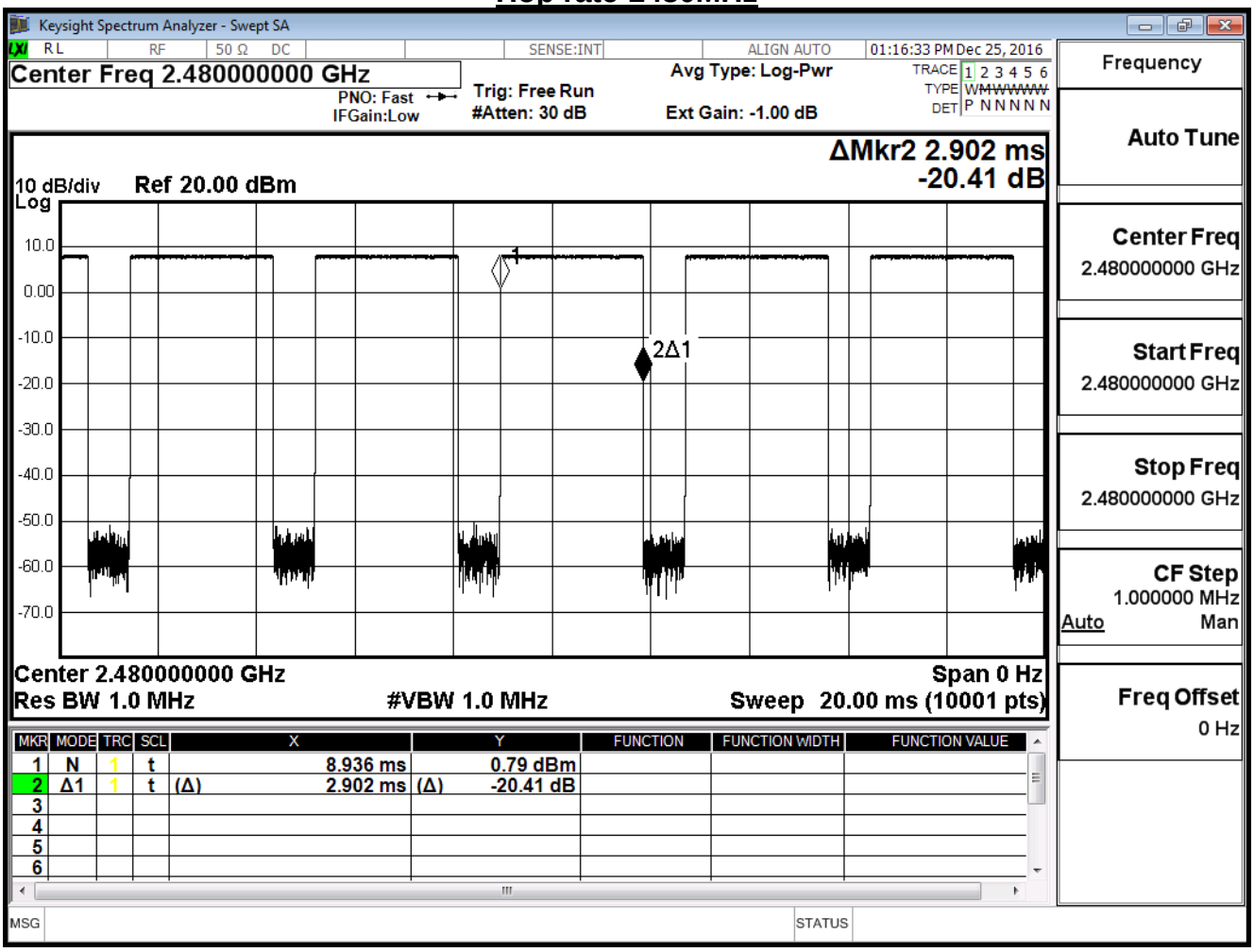
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



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

Product	Lyra mini		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

π/4-DQPSK, 2DH5

Occupancy Time of Frequency Hopping System

A) 2402MHz 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= 0.3098 sec。

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

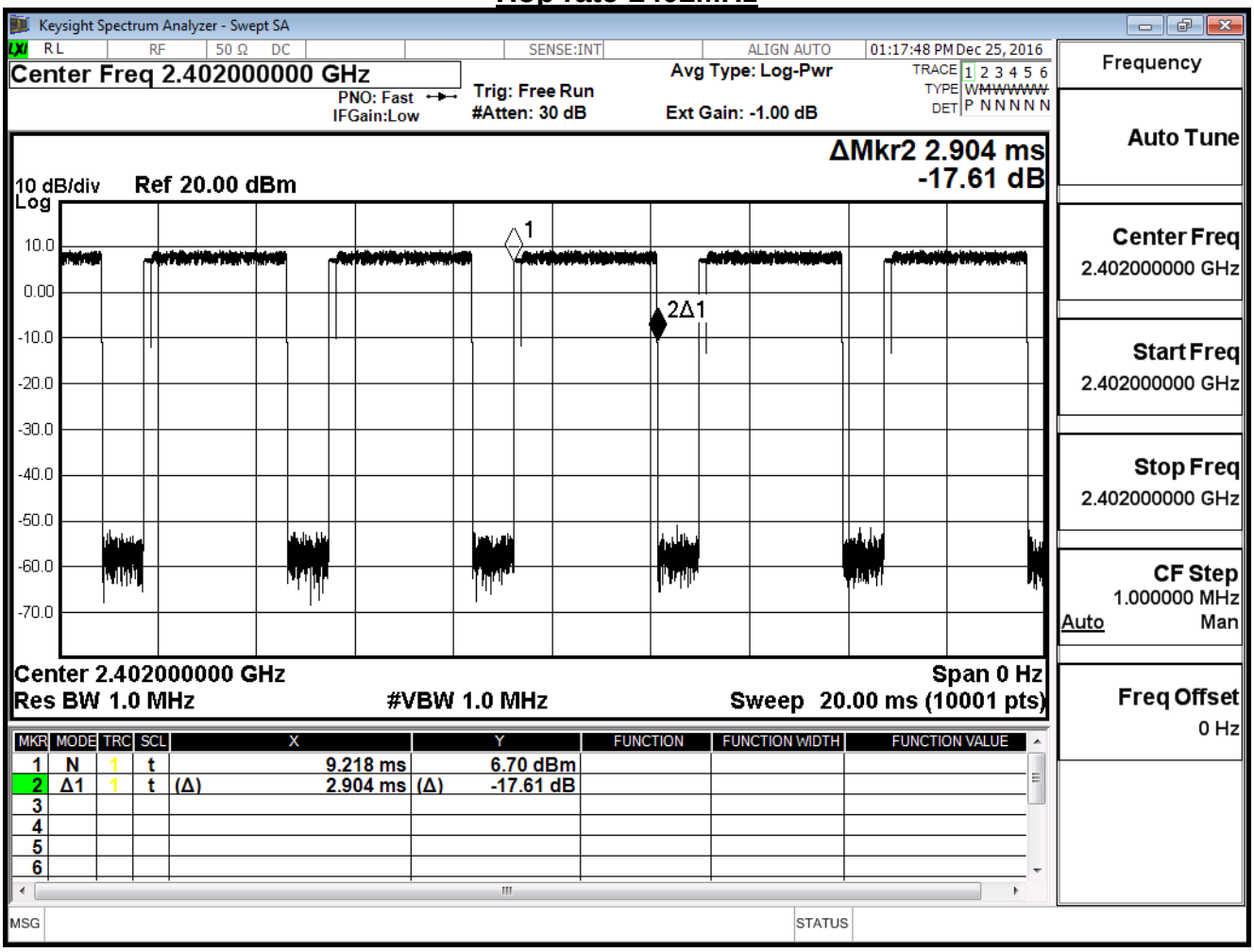
Dwell Time : 0.002904*(266.67/79)* 31.60= 0.3098 sec。

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

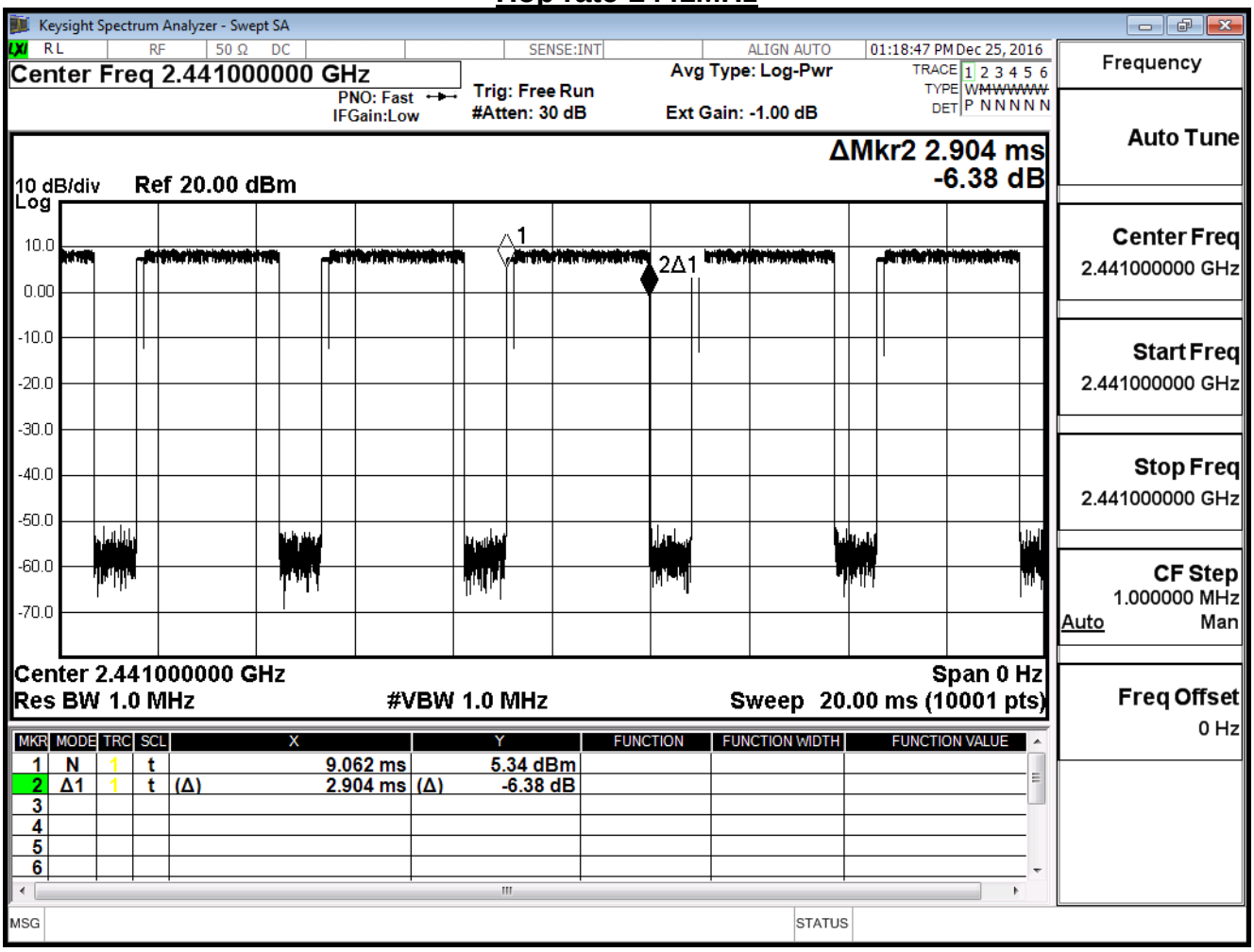
Dwell Time : 0.002904*(266.67/79)* 31.60= 0.3098 sec。

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

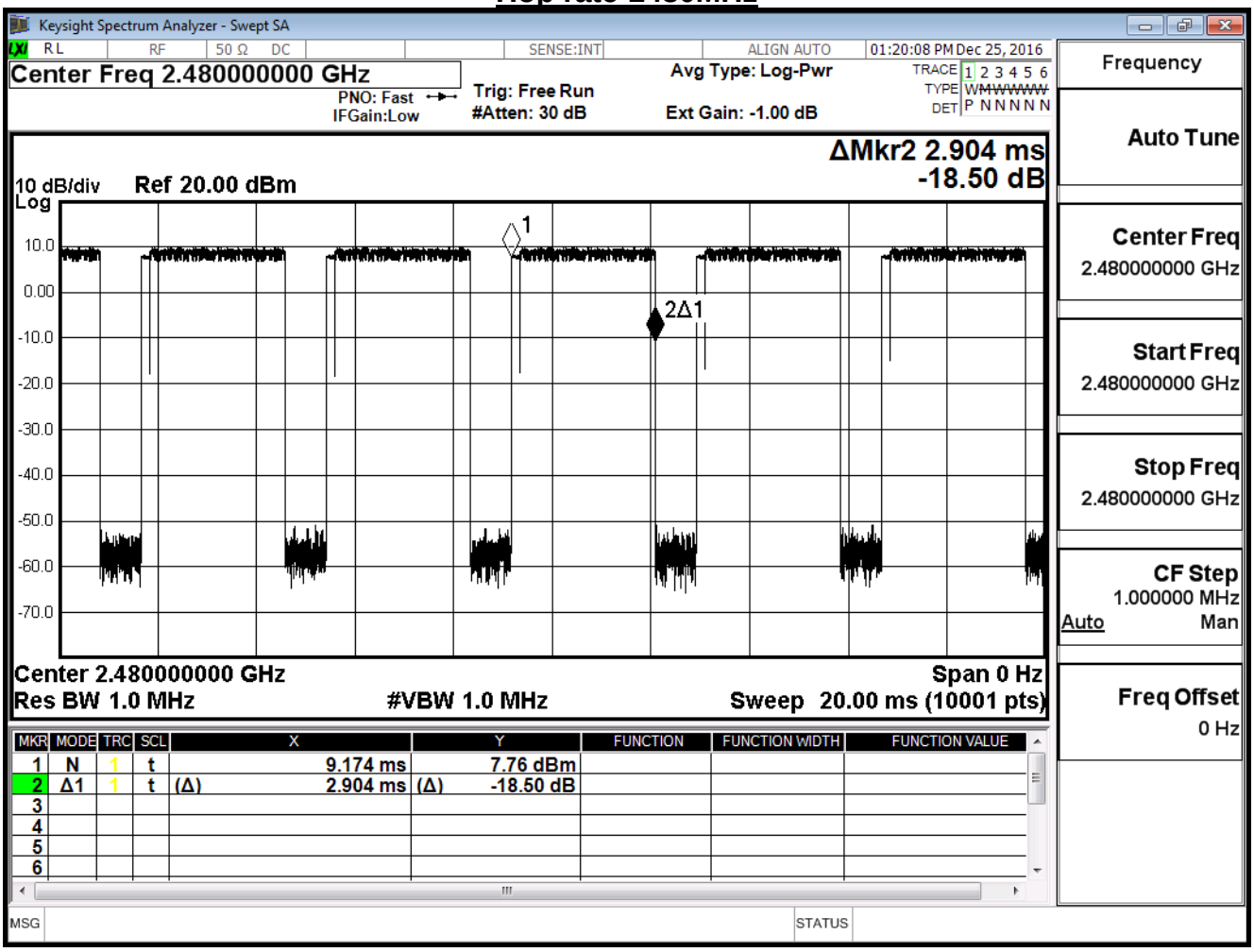
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



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

Product	Lyra mini		
Test Item	Dwell Time		
Test Mode	Mode 1: Tx-AD2037320910LF		
Date of Test	2016/12/25	Test Site	SR10-H

8-DPSK, 3DH5

Occupancy Time of Frequency Hopping System

A) 2402MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.906ms = 0.002906 sec

Dwell Time : 0.002906*(266.67/79)* 31.60=0.3100 sec。

B) 2441MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.906 ms = 0.002906 sec

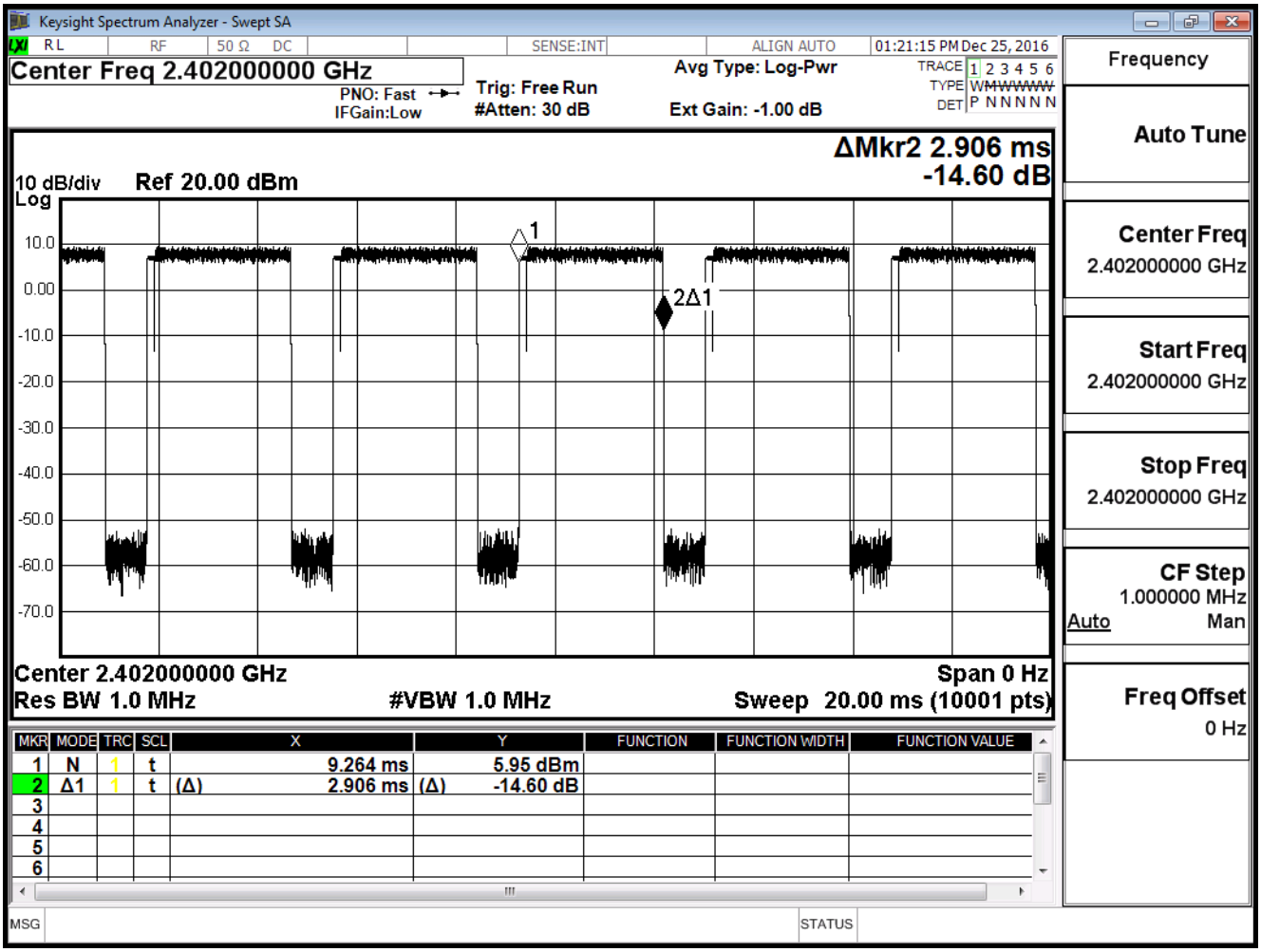
Dwell Time : 0.002906*(266.67/79)* 31.60=0.3100 sec。

C) 2480MHz Test Time Period: 0.4*79=31.60sec，Time slot length : 2.906 ms = 0.002906 sec

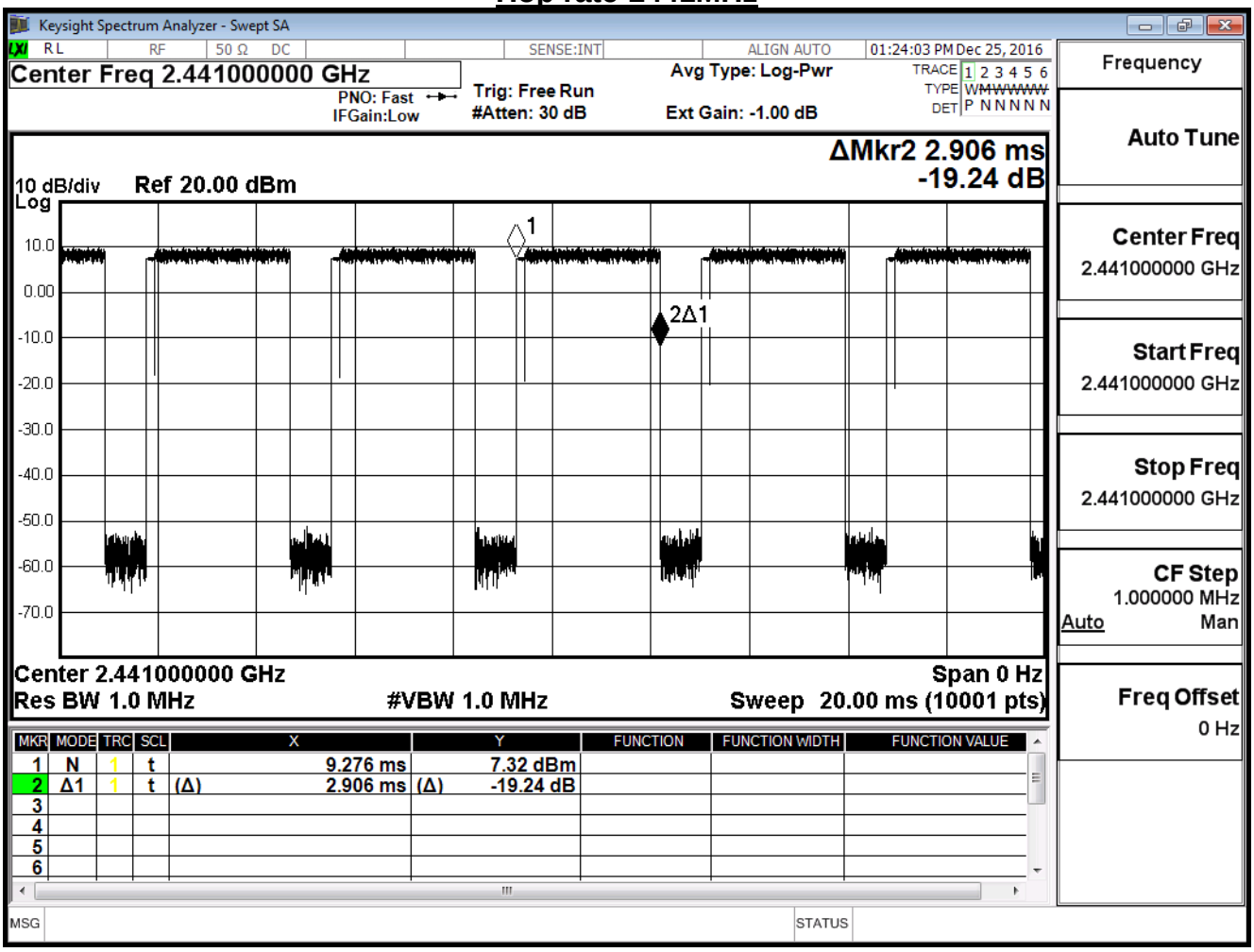
Dwell Time : 0.002906*(266.67/79)* 31.60=0.3100 sec。

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

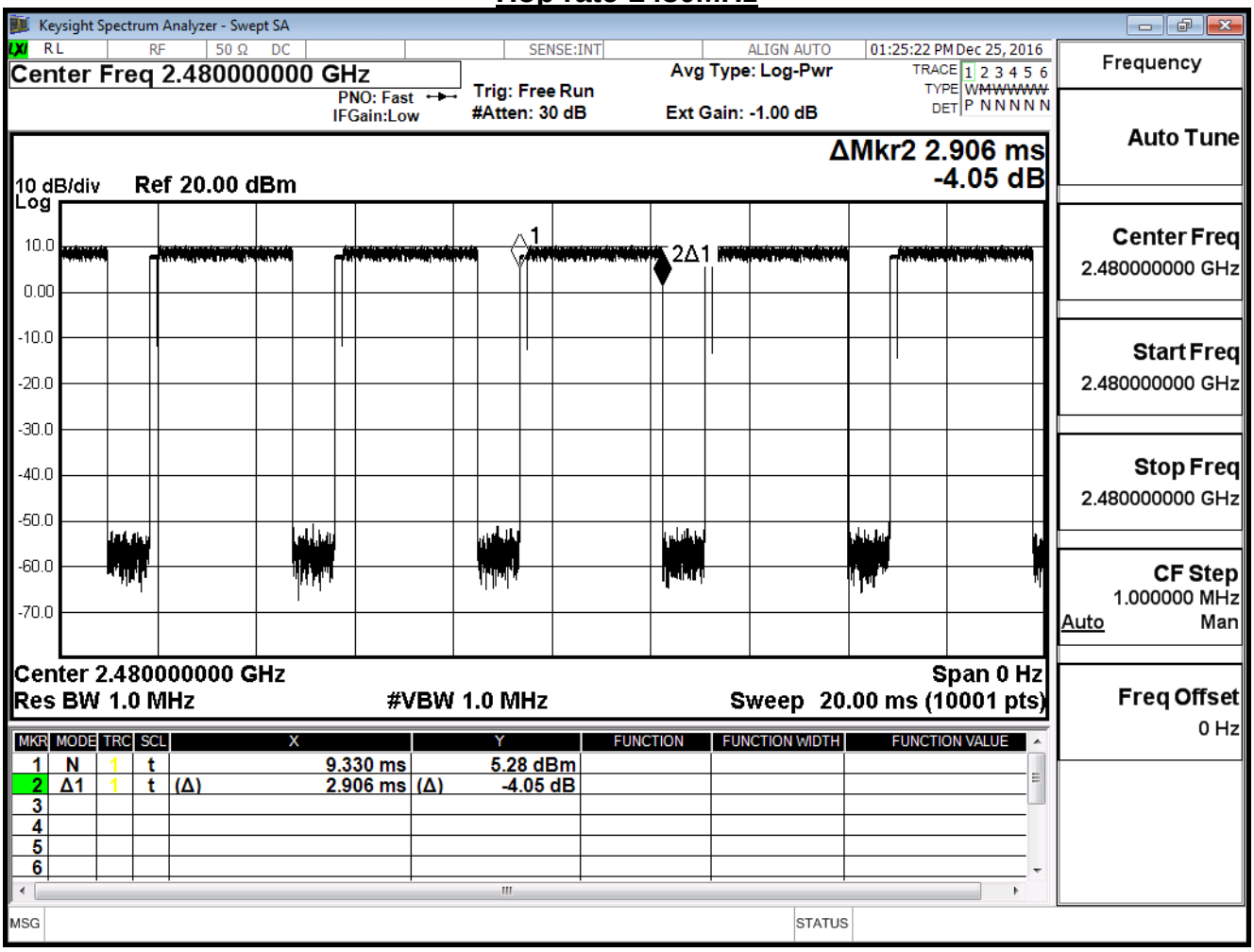
Hop rate-2402MHz



Hop rate-2441MHz



Hop rate-2480MHz



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