FCC+IC Test Report

Product Name	：	ConnectCore 6 Plus
Trade Name	：	DIGI
Model No.	：	CC-WMX-KK8D-TN
FCC ID.	：	MCQ-CCIMX6P
IC ID.	：	1846A-CCIMX6P

Applicant	：	DIGI INTERNATIONAL INC
Address	：	11001 Bren Road East Minnetonka, MN 55343 (USA)

Date of Receipt	：	Dec. 11, 2017
Issued Date	：	Feb. 08, 2018
Report No.	：	17C0115R-RFUSP11V00
Report Version	：	V1.0

Testing Laboratory
3024

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Test Report Certification

Issued Date : Feb. 08, 2018
Report No. : 17C0115R-RFUSP11V00

Product Name	:	ConnectCore 6 Plus
Applicant	:	DIGI INTERNATIONAL INC
Address	:	11001 Bren Road East Minnetonka, MN 55343 (USA)
Manufacturer	:	DIGI INTERNATIONAL INC
Model No.	:	CC-WMX-KK8D-TN
FCC ID.	:	MCQ-CCIMX6P
IC ID.	:	1846A-CCIMX6P
EUT Voltage	:	AC 100-240V, 50/60Hz
Testing Voltage	:	AC 120V/60Hz
Trade Name	:	DIGI
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2016 RSS-247 Issue 2 (Feb. 2017) ANSI C63.10: 2013
Laboratory Name	:	Hsin Chu Laboratory
Address	:	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	:	Complied

Documented By : Lyla Yang

(Lyla Yang / Engineering Adm. Specialist)

Tested By : clemens fang

(Clemens Fang / Engineer)

Approved By : Roy Wang

(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
17C0115R-RFUSP11V00	V1.0	Initial issue of report	Feb. 08, 2018

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1. General Information

1.1. EUT Description

Product Name	ConnectCore 6 Plus
Trade Name	DIGI
Model No.	CC-WMX-KK8D-TN
Frequency Range/Channel Number	2402~2480MHz / 40 Channels
Type of Modulation	GFSK

Antenna Information	
MFR. / Model No.	Linx Technologies Inc. / ANT-DB1-RAF-RPS
Antenna Type	Dipole Antenna
Antenna Gain	2.5 dBi

Accessories Information	
Power Adatper	GlobTek®, Inc., GT-46180-1605 I/P : 100-240V~, 50-60Hz, 0.6A O/P : 5V⎓3.2A, 16W Cable Out: Non-Shielded, 1.2m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 10	2422 MHz	Channel 20	2442 MHz	Channel 30	2462 MHz
Channel 01	2404 MHz	Channel 11	2424 MHz	Channel 21	2444 MHz	Channel 31	2464 MHz
Channel 02	2406 MHz	Channel 12	2426 MHz	Channel 22	2446 MHz	Channel 32	2466 MHz
Channel 03	2408 MHz	Channel 13	2428 MHz	Channel 23	2448 MHz	Channel 33	2468 MHz
Channel 04	2410 MHz	Channel 14	2430 MHz	Channel 24	2450 MHz	Channel 34	2470 MHz
Channel 05	2412 MHz	Channel 15	2432 MHz	Channel 25	2452 MHz	Channel 35	2472 MHz
Channel 06	2414 MHz	Channel 16	2434 MHz	Channel 26	2454 MHz	Channel 36	2474 MHz
Channel 07	2416MHz	Channel 17	2436 MHz	Channel 27	2456 MHz	Channel 37	2476 MHz
Channel 08	2418 MHz	Channel 18	2438 MHz	Channel 28	2458 MHz	Channel 38	2478 MHz
Channel 09	2420 MHz	Channel 19	2440 MHz	Channel 29	2460 MHz	Channel 39	2480 MHz

Note:

1. The device is an Wireless Embedded ARM Module with WLAN 802.11a/b/g/n/ac 2.4GHz/5GHz and Bluetooth 4.2 supporting EDR (BT2.0) + LE (BT4.0), including transmitter and receiver.
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.

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	Mode 1: Transmit Mode

Test Items	Modulation	Channel	Result
Conducted Emission	GFSK	19	Complies
Peak Power Output	GFSK	00/19/39	Complies
Radiated Emission	GFSK	00/19/39	Complies
RF antenna conducted test	GFSK	00/39	Complies
Radiated Emission Band Edge	GFSK	00/19/39	Complies
Occupied Bandwidth & DTS Bandwidth	GFSK	00/19/39	Complies
Power Density	GFSK	00/19/39	Complies

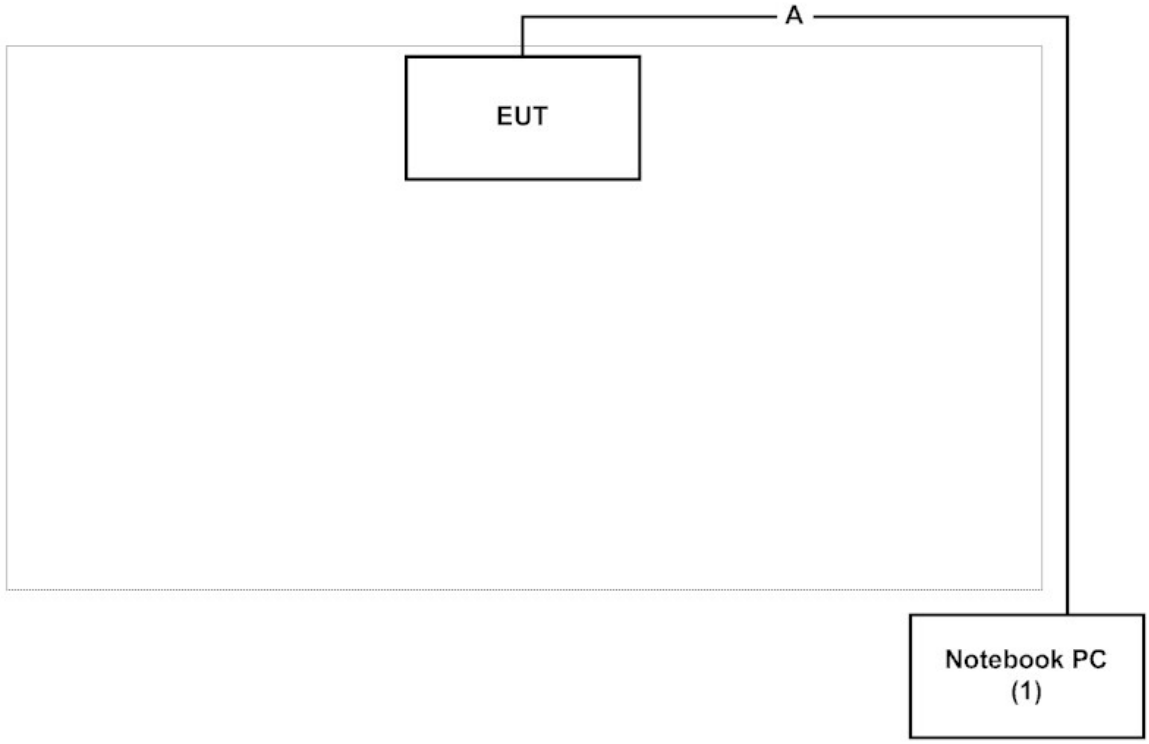
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	Latitude 600	N/A	DoC	Non-Shielded, 1.7m, one ferrite core bonded

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 4m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the “QRCT” on the laptop.
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	Test Site
Temperature (°C)	FCC PART 15 C 15.207 & RSS-247 Conducted Emission	15 - 35	20	3
Humidity (%RH)		25 - 75	50	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 Peak Power Output	15 - 35	24	3
Humidity (%RH)		25 - 75	45	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 Radiated Emission	15 - 35	25	2
Humidity (%RH)		25 - 75	54	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 RF antenna conducted test	15 - 35	24	3
Humidity (%RH)		25 - 75	45	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 Band Edge	15 - 35	25	2
Humidity (%RH)		25 - 75	50	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 Occupied Bandwidth & DTS Bandwidth	15 - 35	24	3
Humidity (%RH)		25 - 75	45	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 C 15.247 & RSS-247 Power Density	15 - 35	24	3
Humidity (%RH)		25 - 75	45	
Barometric pressure (mbar)		860 - 1060	950-1000	

Note: Test site information refers to Laboratory Information.

USA : FCC, Registration Number: TW3024

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 test sites as below:

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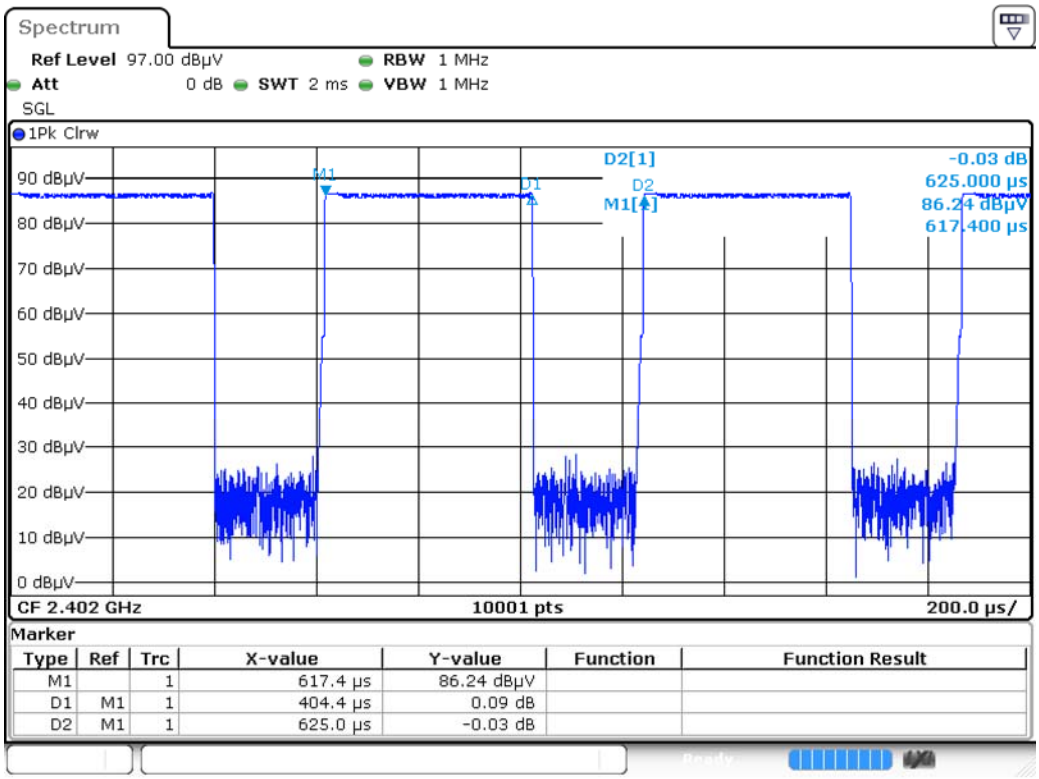
1.7. Duty cycle

On Time (us)	On+Off Time (us)	Duty Cycle (%)	Off Set (dB)
404.4	625.0	64.7	3.781



Date: 22.DEC.2017 01:06:52

2. Conducted Emission

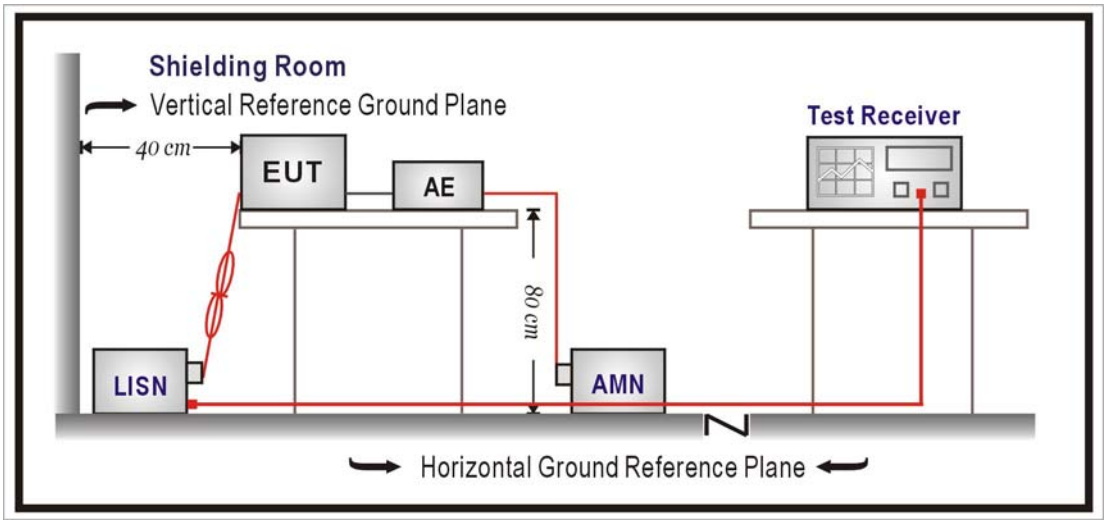
2.1. Test Equipment

The following test equipment are used during the test:

Conducted Emission /SR2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2017/02/06	2018/02/05
Test Receiver	R&S	ESCS 30	836858/022	2017/04/12	2018/04/11
LISN	R&S	ENV216	100092	2017/07/31	2018/07/30

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 was setup according to ANSI C63.10:2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

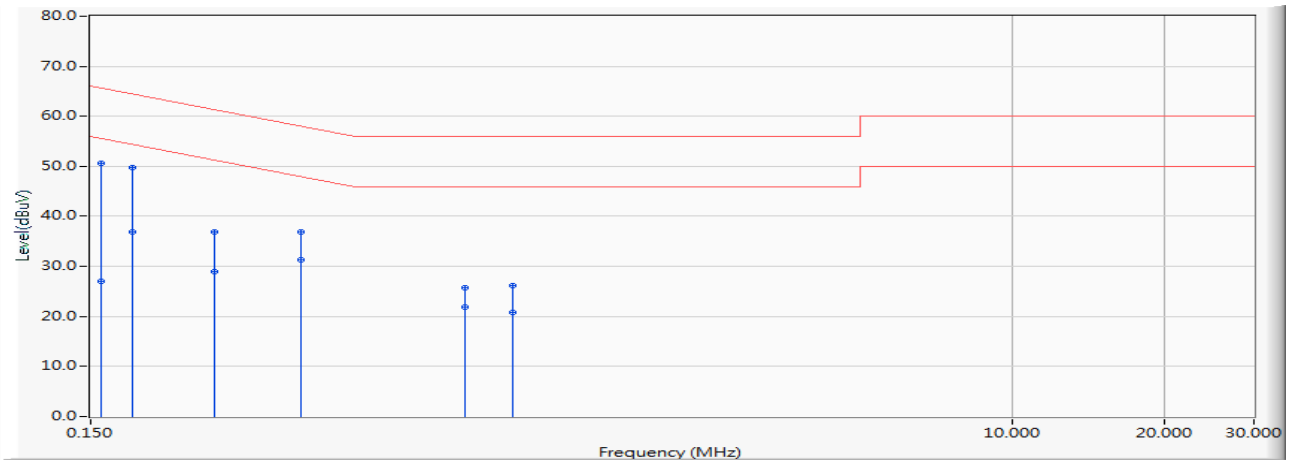
According to FCC Part 15 Subpart C Paragraph 15.207 and RSS-247.

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2-H	**Time : 2018/01/16**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-6_0712 - Line1	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

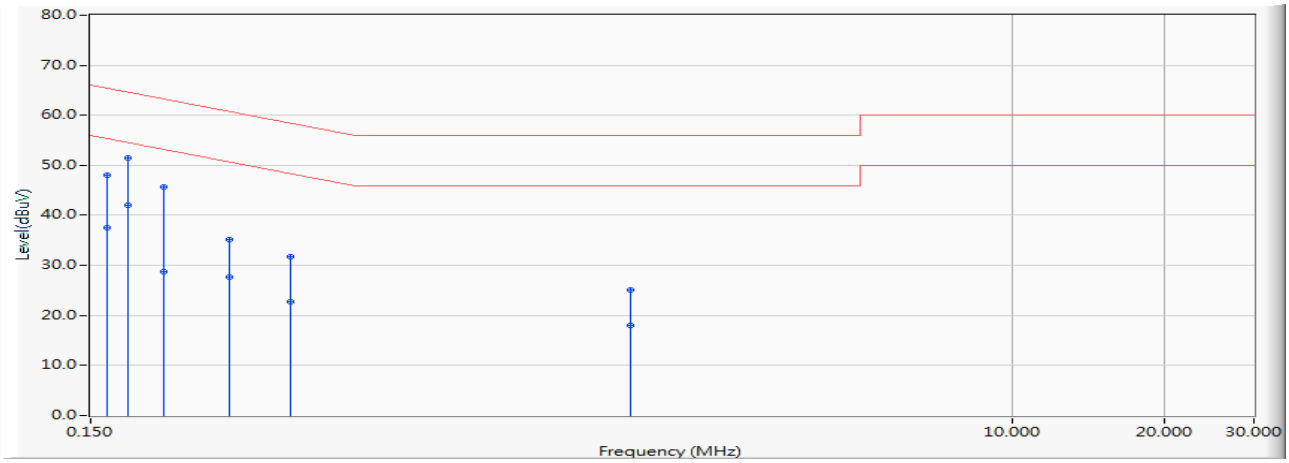


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	9.751	40.860	50.611	-14.967	65.578	QUASIPEAK
2		0.158	9.751	17.310	27.061	-28.517	55.578	AVERAGE
3	*	0.181	9.752	40.050	49.802	-14.626	64.428	QUASIPEAK
4		0.181	9.752	27.120	36.872	-17.556	54.428	AVERAGE
5		0.263	9.744	27.040	36.784	-24.544	61.327	QUASIPEAK
6		0.263	9.744	19.290	29.034	-22.294	51.327	AVERAGE
7		0.392	9.731	27.060	36.791	-21.226	58.017	QUASIPEAK
8		0.392	9.731	21.530	31.261	-16.756	48.017	AVERAGE
9		0.826	9.788	16.000	25.788	-30.212	56.000	QUASIPEAK
10		0.826	9.788	12.150	21.938	-24.062	46.000	AVERAGE
11		1.025	9.821	16.340	26.161	-29.839	56.000	QUASIPEAK
12		1.025	9.821	11.080	20.901	-25.099	46.000	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 : 2018/01/16**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-6_0712 - Line2	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	9.754	38.260	48.014	-17.361	65.375	QUASIPEAK
2		0.162	9.754	27.830	37.584	-17.791	55.375	AVERAGE
3		0.177	9.752	41.650	51.402	-13.207	64.609	QUASIPEAK
4	*	0.177	9.752	32.220	41.972	-12.637	54.609	AVERAGE
5		0.209	9.750	35.860	45.610	-17.651	63.261	QUASIPEAK
6		0.209	9.750	19.060	28.810	-24.451	53.261	AVERAGE
7		0.283	9.750	25.490	35.240	-25.493	60.733	QUASIPEAK
8		0.283	9.750	17.840	27.590	-23.143	50.733	AVERAGE
9		0.373	9.750	21.990	31.740	-26.702	58.442	QUASIPEAK
10		0.373	9.750	13.060	22.810	-25.632	48.442	AVERAGE
11		1.755	9.843	15.300	25.143	-30.857	56.000	QUASIPEAK
12		1.755	9.843	8.240	18.083	-27.917	46.000	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

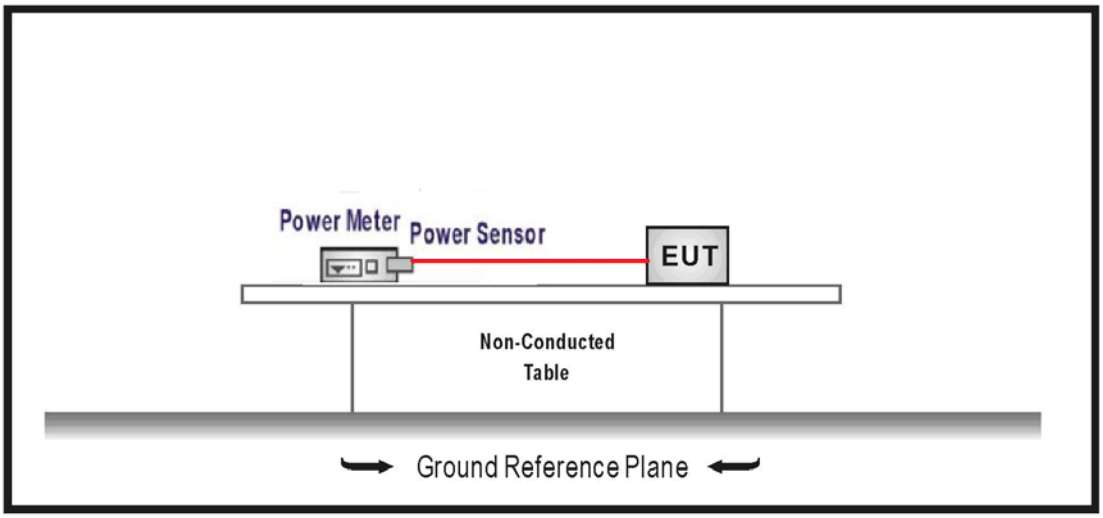
3.1. Test Equipment

The following test equipment is used during the test:

Peak Power Output / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2018/01/02	2019/01/01
Pulse Power Sensor	Anritsu	MA2411B	1531043	2018/01/02	2019/01/01
Pulse Power Sensor	Anritsu	MA2411B	1531044	2018/01/02	2019/01/01

3.2. Test Setup



3.3. Test procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB558074 D01V04 for compliance to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247 and RSS-247.

3.6. Test Result

Product	ConnectCore 6 Plus		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2018/01/05	Test Site	SR10-H

GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	1.780	30	Pass
19	2440	2.210	30	Pass
39	2480	2.290	30	Pass

4. Radiated Emission

4.1. Test Equipment

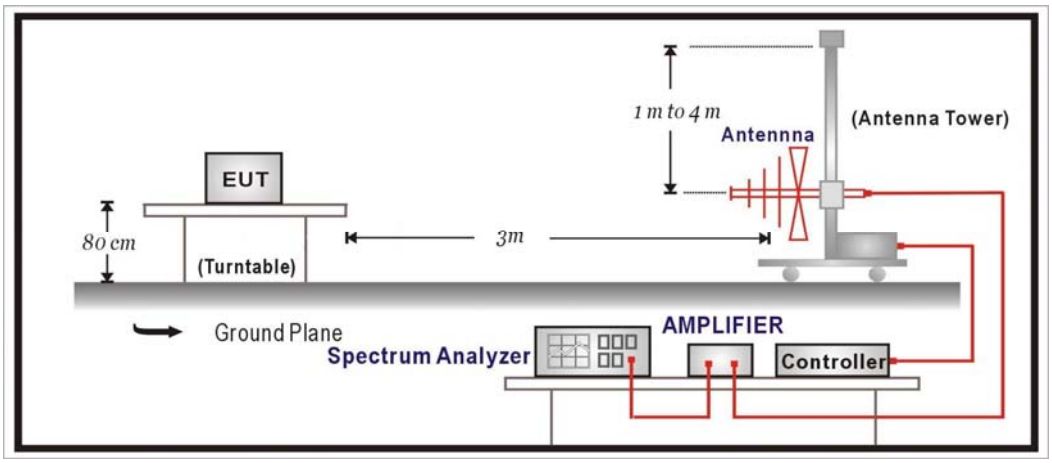
The following test equipment are used during the test:

Radiated Emission / CB2-H

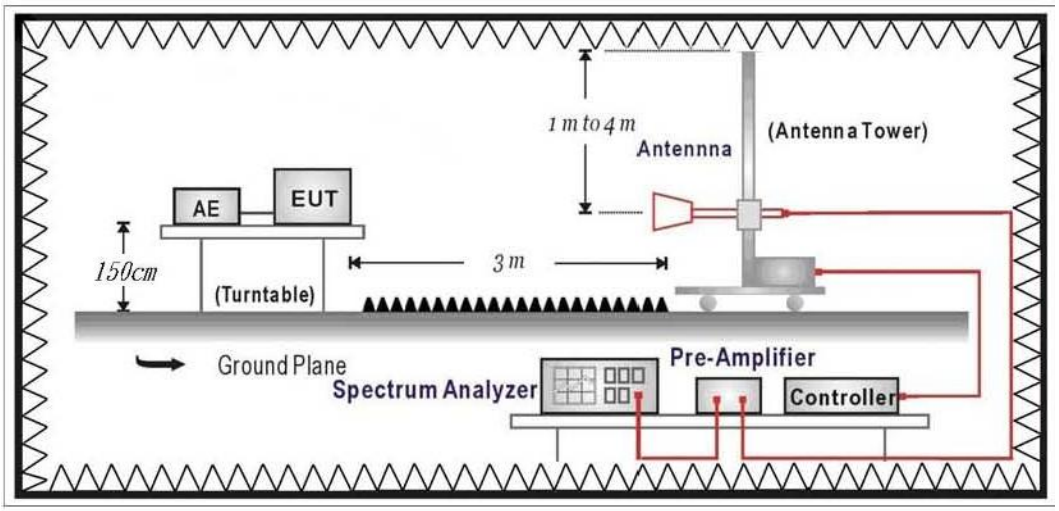
Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2017/11/21	2018/11/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2017/03/13	2018/03/12
Bilog Antenna	Teseq	CBL6112D	23191	2017/06/28	2018/06/27
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2017/06/14	2018/06/13
Horn Antenna	Schwarzbeck	BBHA 9170	202	2017/02/15	2018/02/14
Pre-Amplifier	RF Bay Inc.	LNA-1330	12162511	2017/03/09	2018/03/08
Pre-Amplifier	EMCI	EMCI 1830I	980366	2018/01/08	2019/01/07
Pre-Amplifier	MITEQ	JS44-18004000-45-8P	2014754	2017/12/13	2018/12/12

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 DTS test procedure of KDB558074 D01V04 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 form 9KHz(inculde The the lowest oscillator frequency generated within the device up to the 10th harmonic) 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.

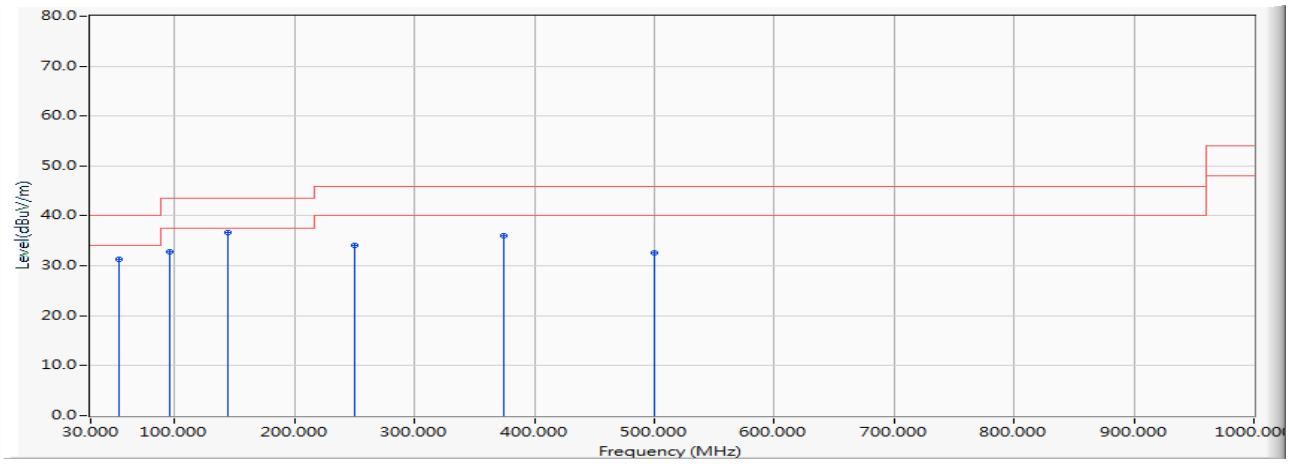
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247 and RSS-247.

4.6. Test Result

30MHz-1GHz Spurious

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/20**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB2_FCC_EFS_S2_30M-1GHz_1116 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

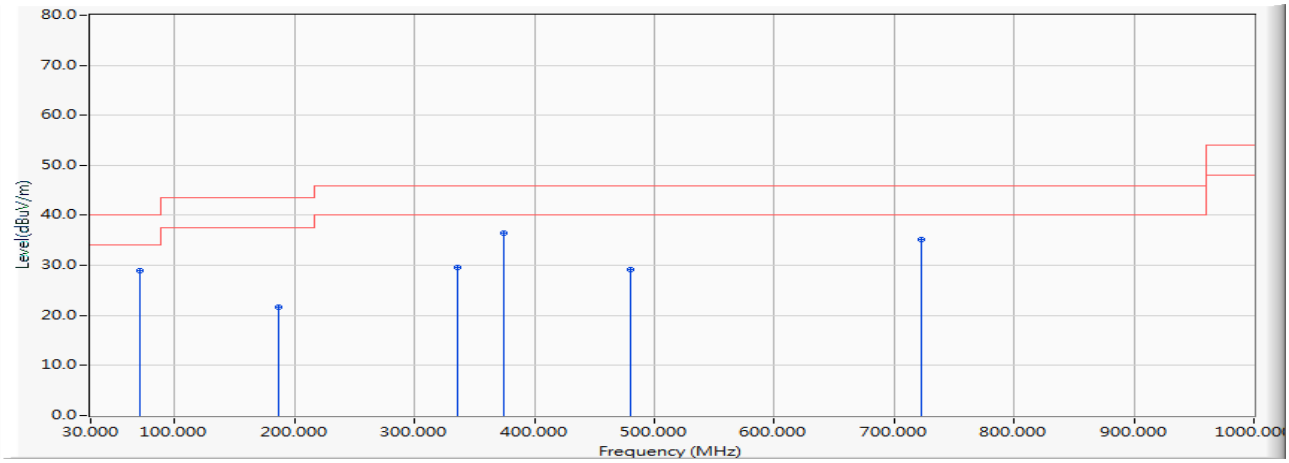


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		53.862	-26.708	58.081	31.373	-8.627	40.000	QUASIPEAK
2		95.863	-24.487	57.248	32.761	-10.739	43.500	QUASIPEAK
3	*	143.878	-22.146	58.739	36.592	-6.908	43.500	QUASIPEAK
4		249.996	-20.377	54.382	34.004	-11.996	46.000	QUASIPEAK
5		374.932	-16.759	52.782	36.023	-9.977	46.000	QUASIPEAK
6		499.965	-14.456	46.976	32.521	-13.479	46.000	QUASIPEAK

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/20**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB2_FCC_EFS_S2_30M-1GHz_1116 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**



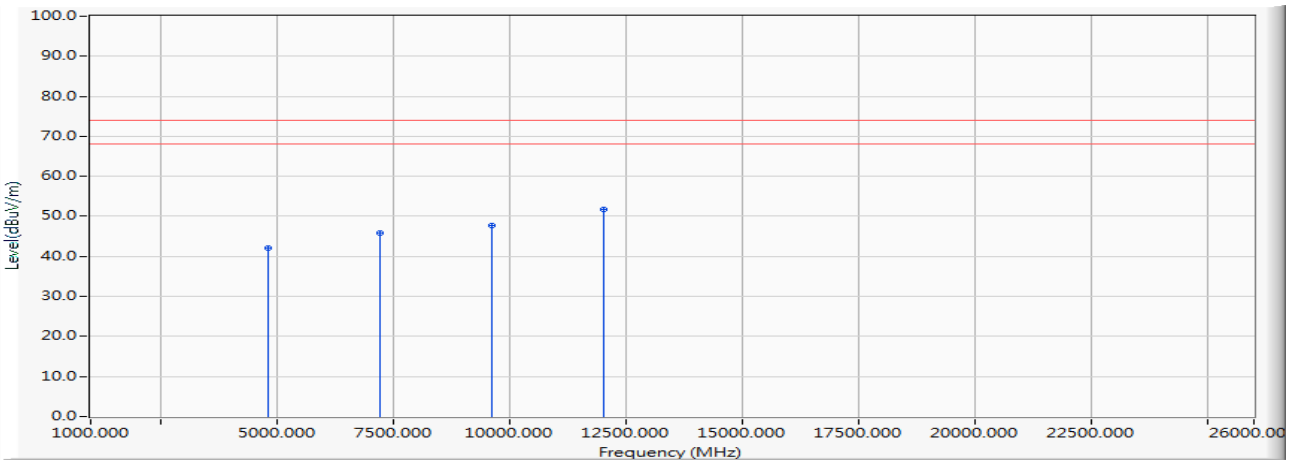
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.740	-28.167	57.088	28.921	-11.079	40.000	QUASIPEAK
2		186.073	-24.013	45.699	21.686	-21.814	43.500	QUASIPEAK
3		335.938	-17.951	47.638	29.687	-16.313	46.000	QUASIPEAK
4	*	374.932	-16.759	53.120	36.361	-9.639	46.000	QUASIPEAK
5		479.983	-14.748	43.998	29.249	-16.751	46.000	QUASIPEAK
6		722.095	-11.994	47.271	35.277	-10.723	46.000	QUASIPEAK

Note:

1. All Reading Levels is Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The Emission under 30MHz were not included is because their levels are too low.

Harmonic & Spurious:

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

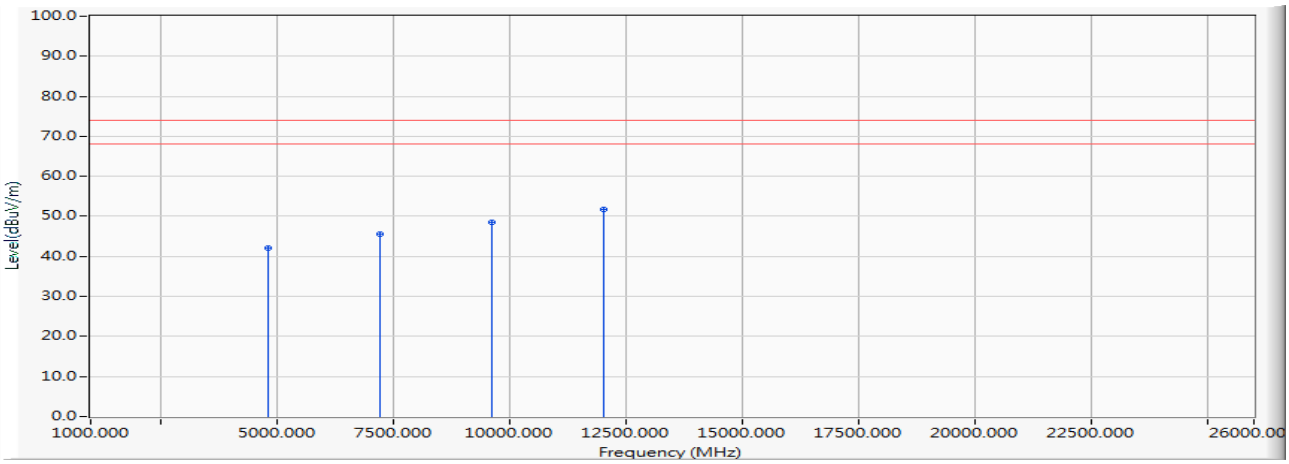


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	-0.209	42.240	42.032	-31.968	74.000	PEAK
2		7206.000	6.970	38.870	45.839	-28.161	74.000	PEAK
3		9608.000	12.540	35.140	47.681	-26.319	74.000	PEAK
4	*	12010.000	15.516	36.100	51.616	-22.384	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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 : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

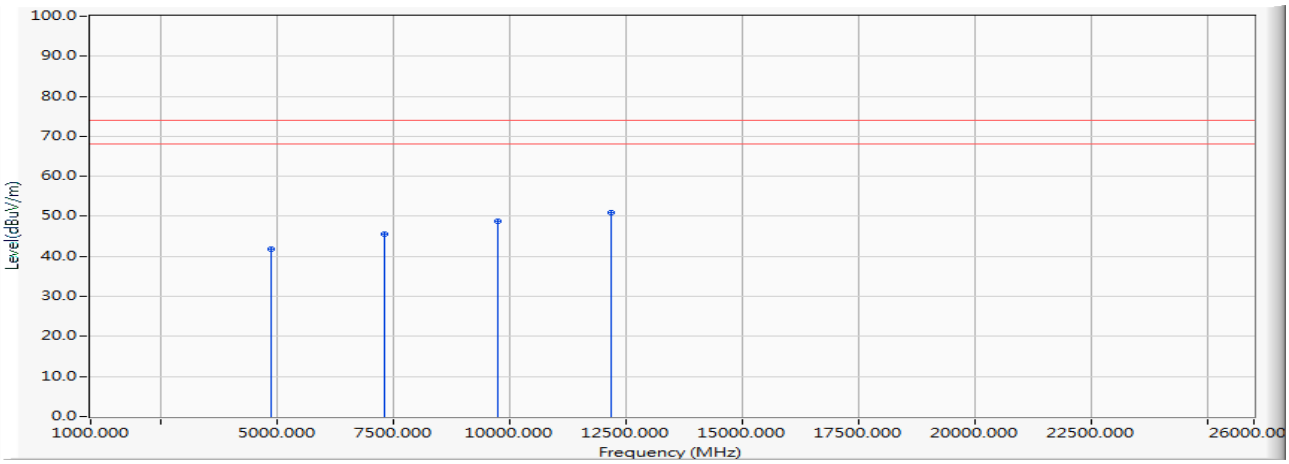


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	-0.209	42.310	42.102	-31.898	74.000	PEAK
2		7206.000	6.970	38.640	45.609	-28.391	74.000	PEAK
3		9608.000	12.540	35.930	48.471	-25.529	74.000	PEAK
4	*	12010.000	15.516	36.310	51.826	-22.174	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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 : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

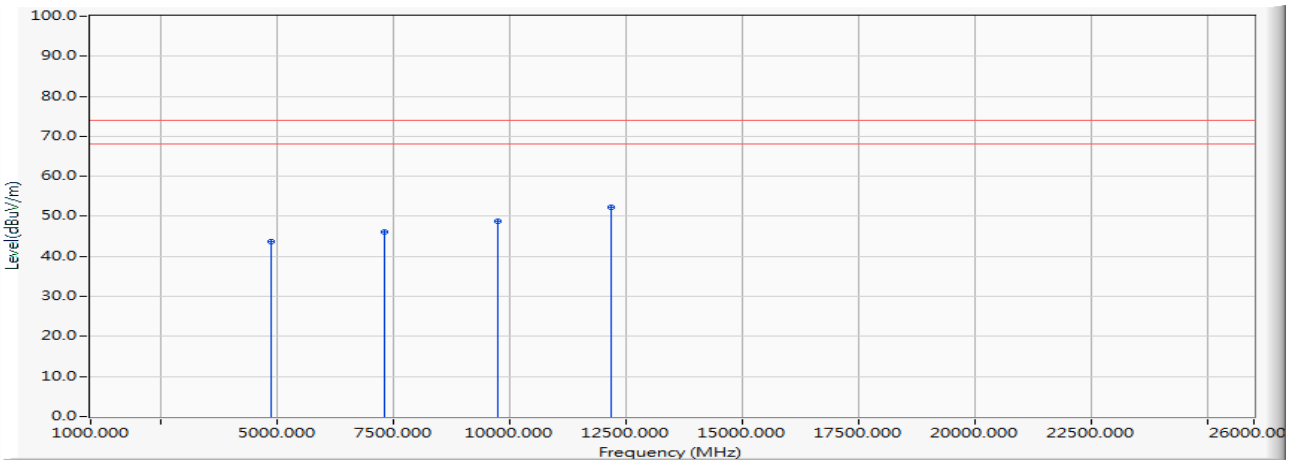


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4880.000	-0.126	42.070	41.944	-32.056	74.000	PEAK
2		7320.000	7.437	38.120	45.557	-28.443	74.000	PEAK
3		9760.000	12.866	35.990	48.855	-25.145	74.000	PEAK
4	*	12200.000	14.851	36.140	50.992	-23.008	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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 : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

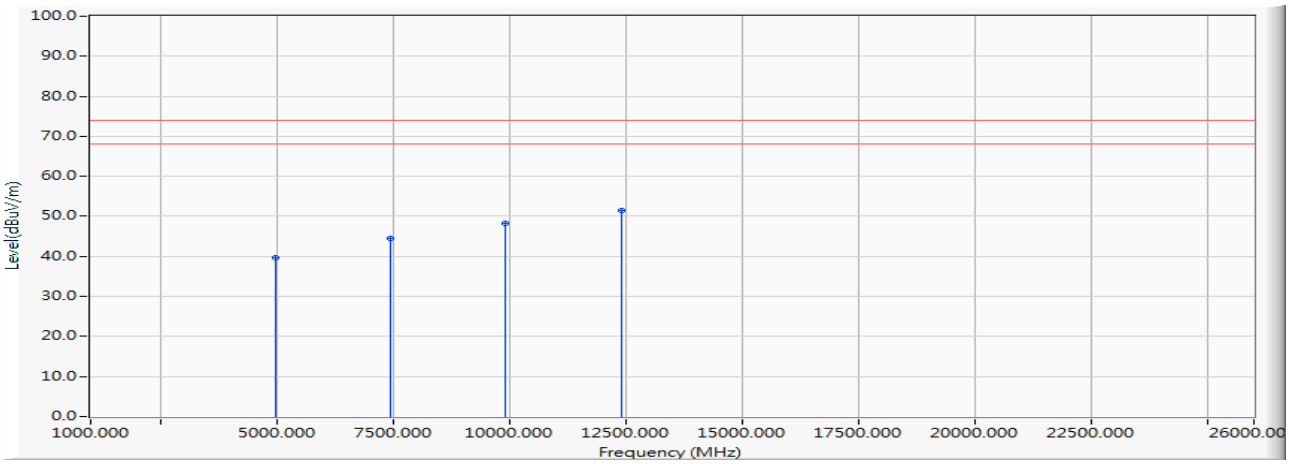


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4880.000	-0.126	43.760	43.634	-30.366	74.000	PEAK
2		7320.000	7.437	38.630	46.067	-27.933	74.000	PEAK
3		9760.000	12.866	35.950	48.815	-25.185	74.000	PEAK
4	*	12200.000	14.851	37.410	52.262	-21.738	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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 : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**

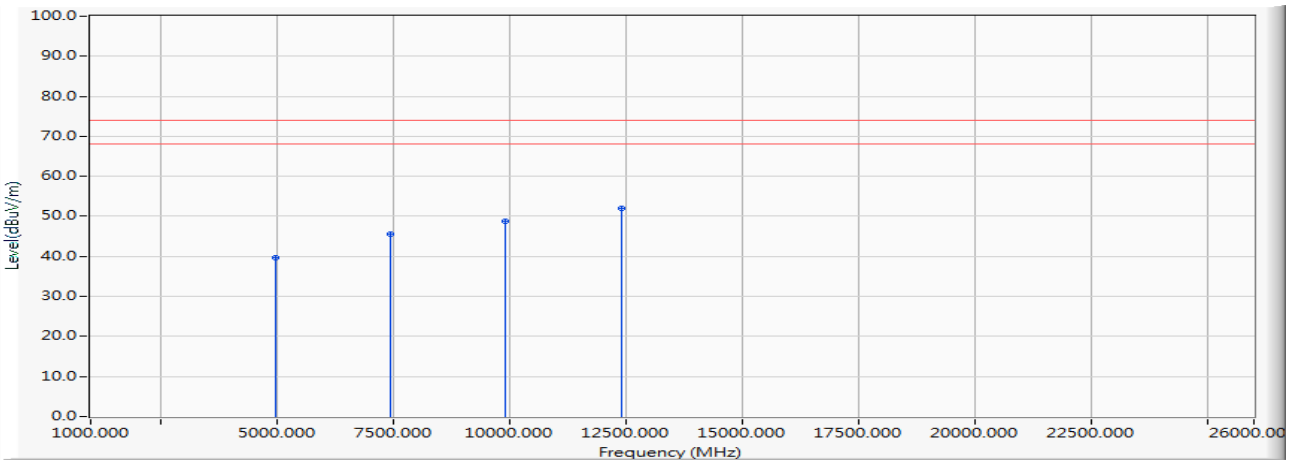


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-0.034	39.840	39.806	-34.194	74.000	PEAK
2		7440.000	7.868	36.730	44.598	-29.402	74.000	PEAK
3		9920.000	13.091	35.100	48.191	-25.809	74.000	PEAK
4	*	12400.000	15.733	35.680	51.413	-22.587	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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 : DEKRA Taiwan CB2-H	**Time : 2017/12/19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4960.000	-0.034	39.780	39.746	-34.254	74.000	PEAK
2		7440.000	7.868	37.770	45.638	-28.362	74.000	PEAK
3		9920.000	13.091	35.570	48.661	-25.339	74.000	PEAK
4	*	12400.000	15.733	36.350	52.083	-21.917	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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

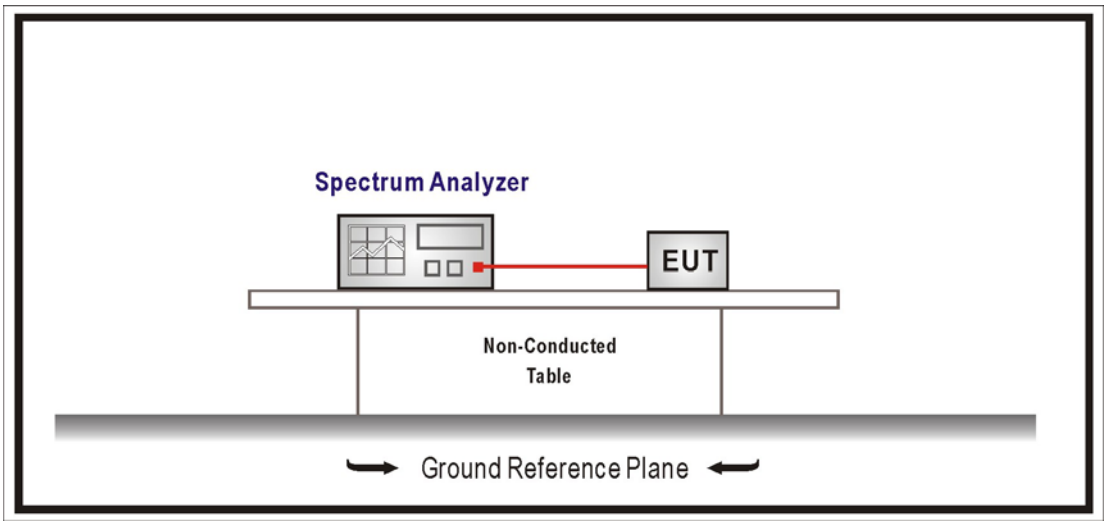
The following test equipment is used during the test:

RF antenna conducted test / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2017/03/13	2018/03/12

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 DTS test procedure of KDB558074 D01V04 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 and RSS-247.

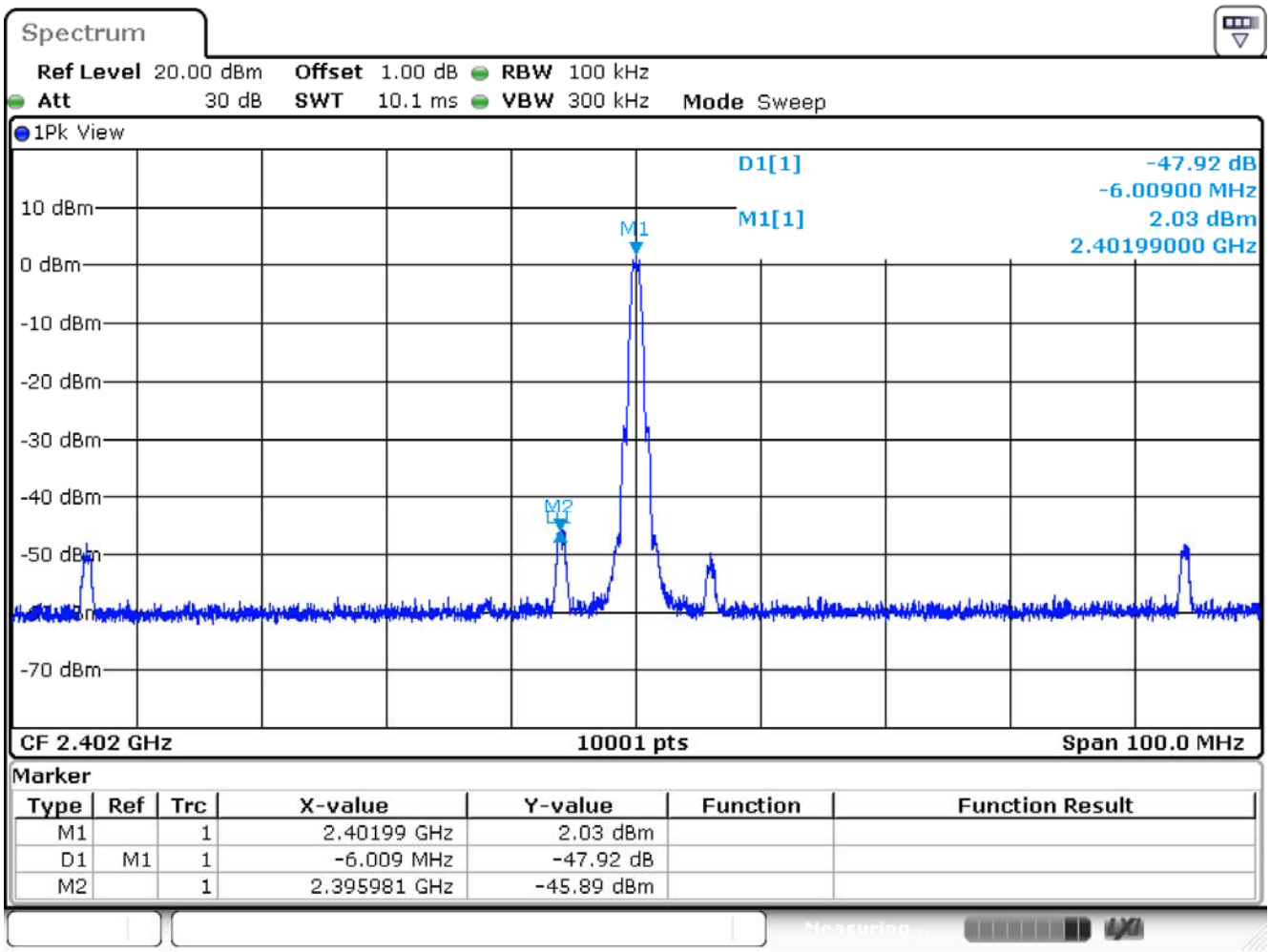
5.6. Test Result

Product	ConnectCore 6 Plus		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2018/01/05	Test Site	SR10-H

GFSK

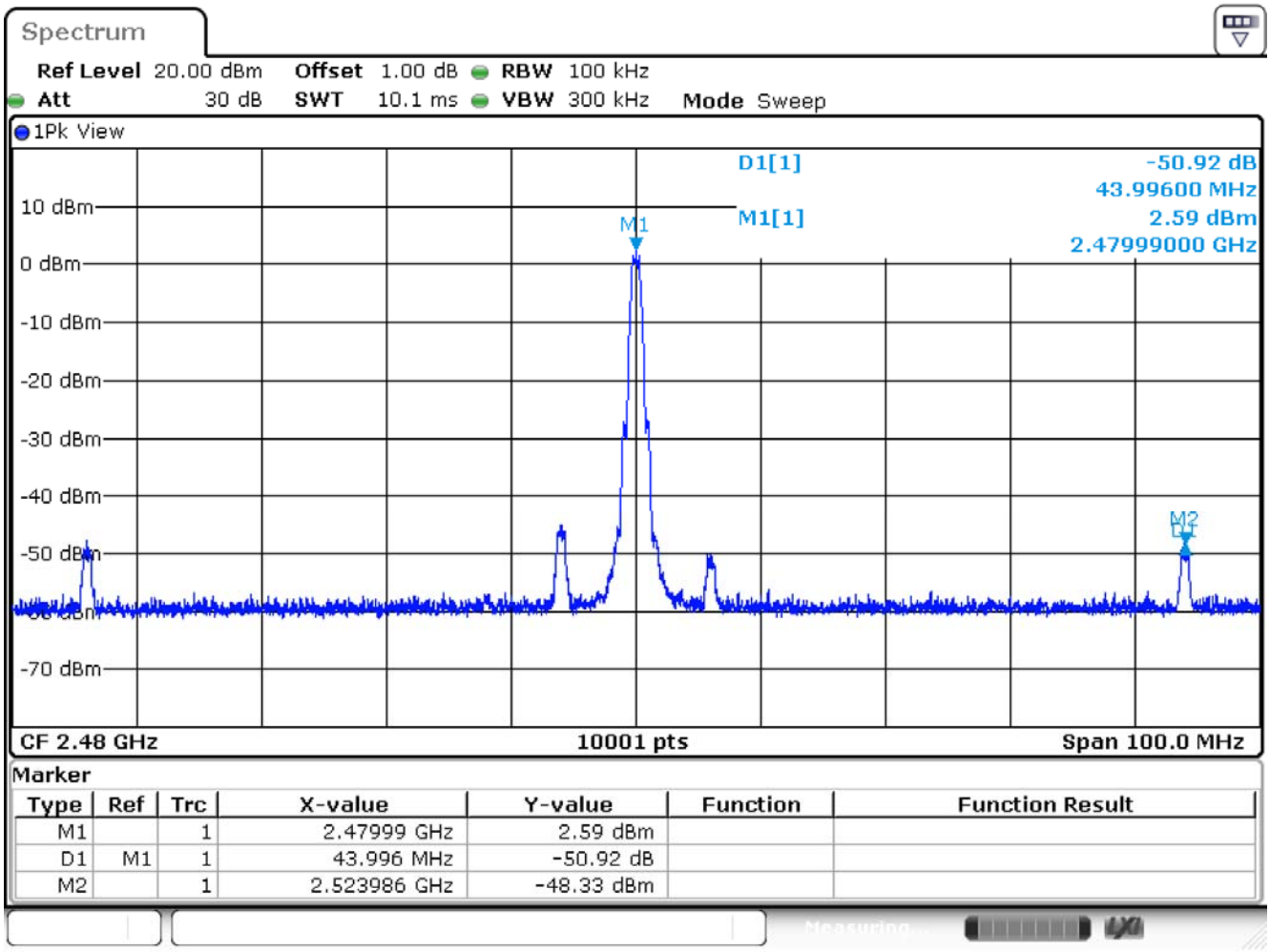
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	47.920	≧20	Pass
39	2480	50.920	≧20	Pass

Channel 00



Date: 5.JAN.2018 21:54:16

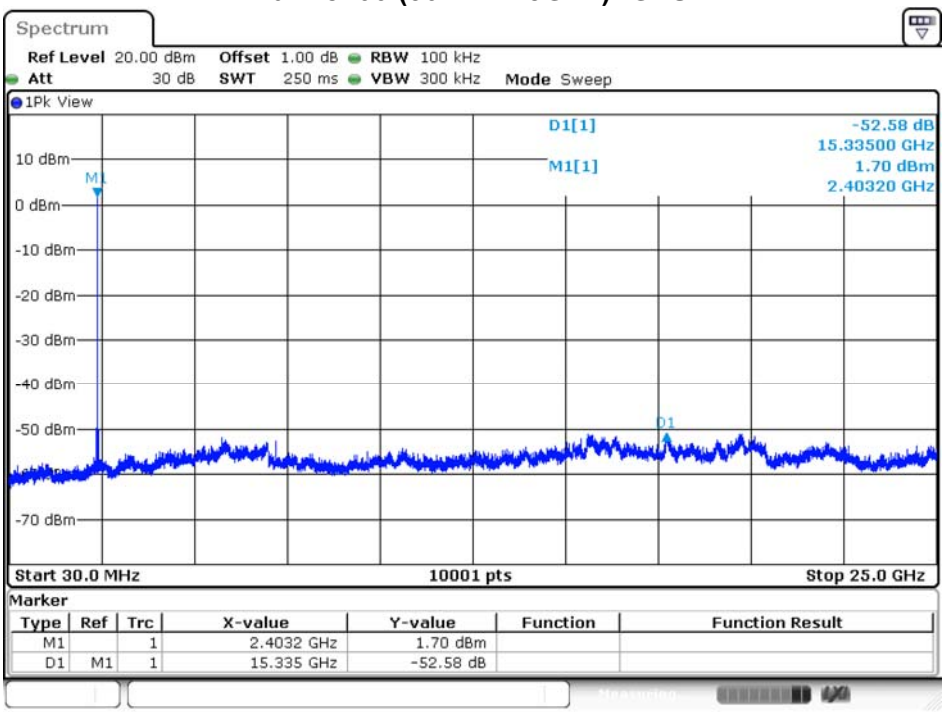
Channel 39



Date: 5.JAN.2018 21:52:46

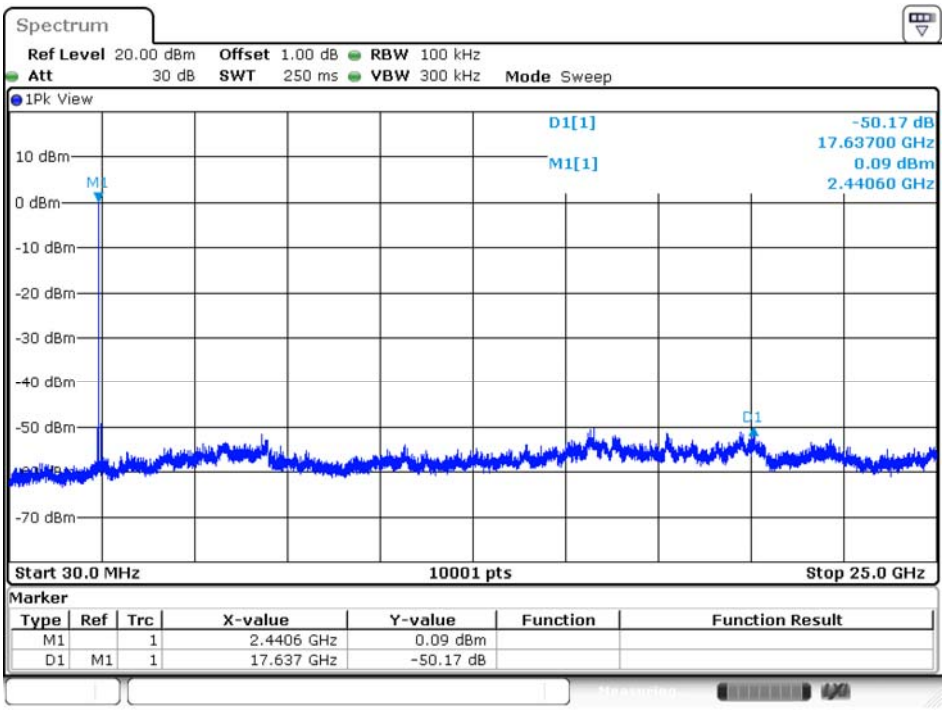
Product	ConnectCore 6 Plus		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2018/01/05	Test Site	SR10-H

Channel 00 (30MHz-25GHz)- GFSK



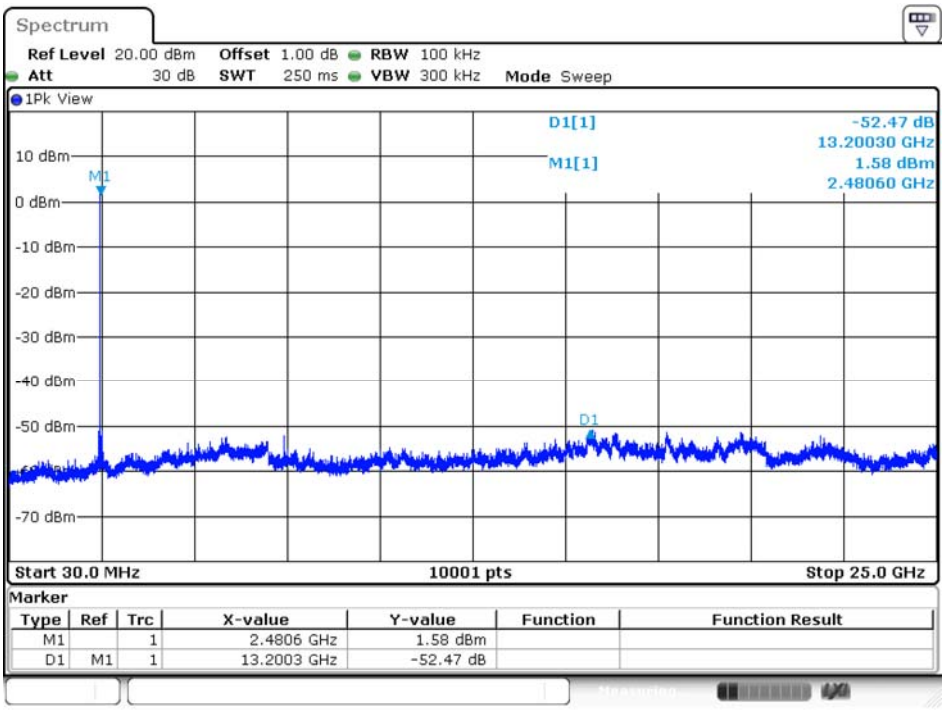
Date: 5.JAN.2018 21:45:14

Channel 19 (30MHz-25GHz)- GFSK



Date: 5.JAN.2018 21:46:29

Channel 39 (30MHz-25GHz)- GFSK



Date: 5.JAN.2018 21:49:21

6. Band Edge

6.1. Test Equipment

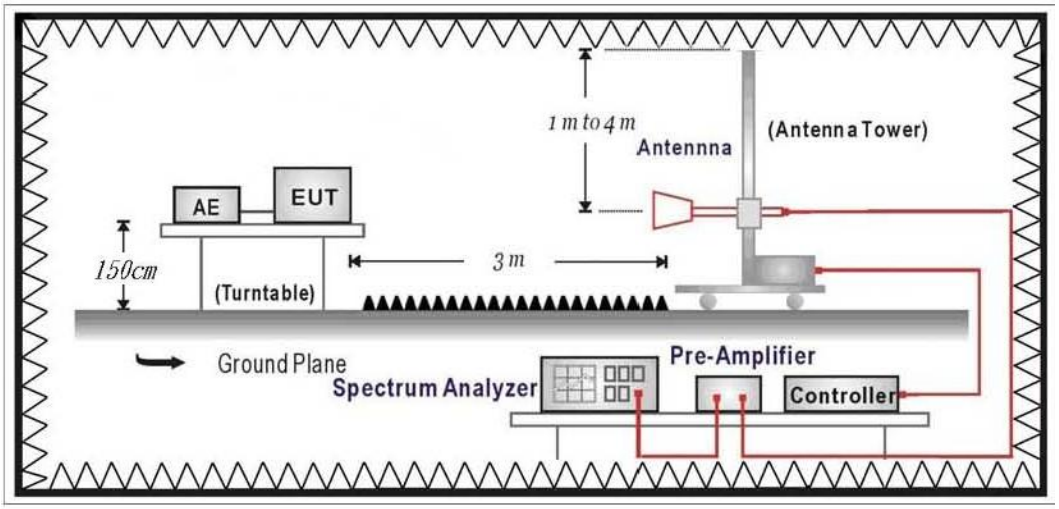
The following test equipment are used during the test:

Band Edge / CB2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2017/11/21	2018/11/20
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2017/03/13	2018/03/12
Bilog Antenna	Teseq	CBL6112D	23191	2017/06/28	2018/06/27
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2017/06/14	2018/06/13
Horn Antenna	Schwarzbeck	BBHA 9170	202	2017/02/15	2018/02/14
Pre-Amplifier	RF Bay Inc.	LNA-1330	12162511	2017/03/09	2018/03/08
Pre-Amplifier	EMCI	EMCI 1830I	980366	2018/01/08	2019/01/07
Pre-Amplifier	MITEQ	JS44-18004000-45-8P	2014754	2017/12/13	2018/12/12

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 DTS test procedure of KDB558074 D01V04 for compliance to FCC 47CFR 15.247 requirements.

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

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

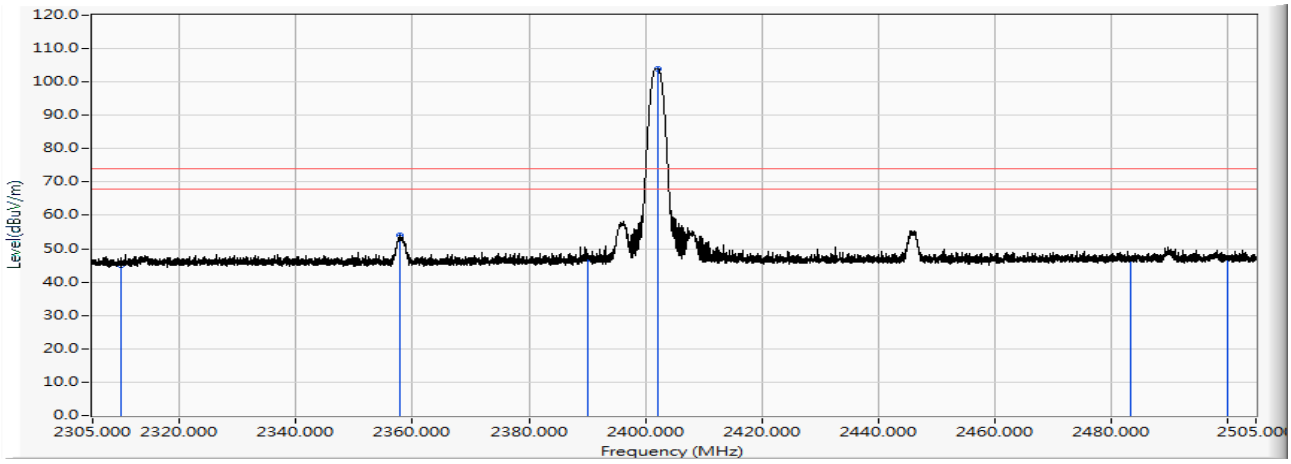
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247 and RSS-247.

6.6. Test Result

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

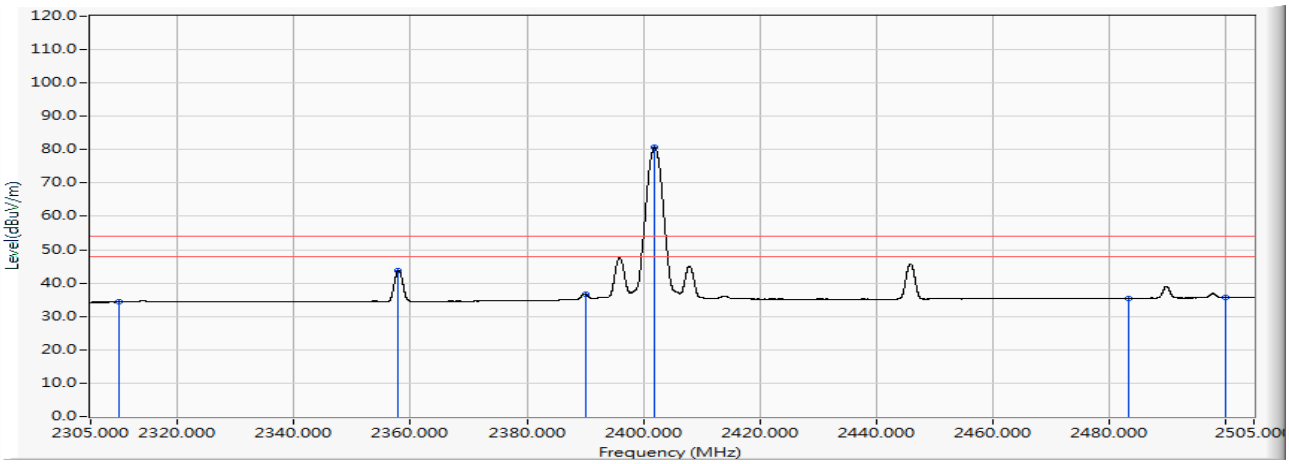


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	32.774	45.158	-28.842	74.000	PEAK
2		2357.780	12.699	41.420	54.119	-19.881	74.000	PEAK
3		2390.000	12.911	34.094	47.005	-26.995	74.000	PEAK
4	*	2402.260	12.992	90.958	103.950	29.950	74.000	PEAK
5		2483.500	13.527	33.348	46.875	-27.125	74.000	PEAK
6		2500.000	13.629	33.807	47.436	-26.564	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

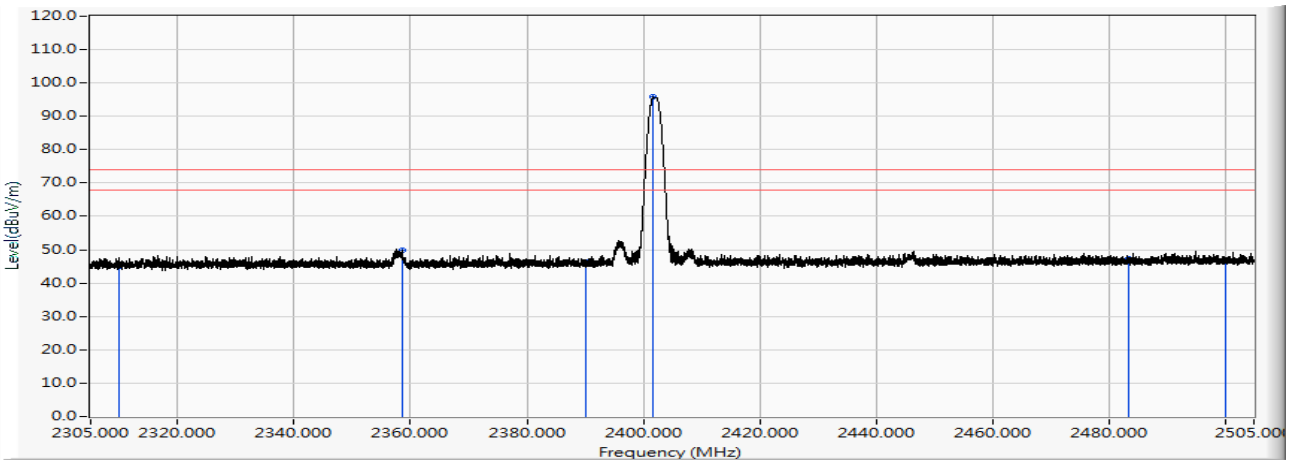


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.903	34.287	-19.713	54.000	AVERAGE
2		2357.920	12.700	31.119	43.819	-10.181	54.000	AVERAGE
3		2390.000	12.911	23.800	36.711	-17.289	54.000	AVERAGE
4	*	2401.920	12.989	67.606	80.596	26.596	54.000	AVERAGE
5		2483.500	13.527	21.923	35.450	-18.550	54.000	AVERAGE
6		2500.000	13.629	22.207	35.836	-18.164	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

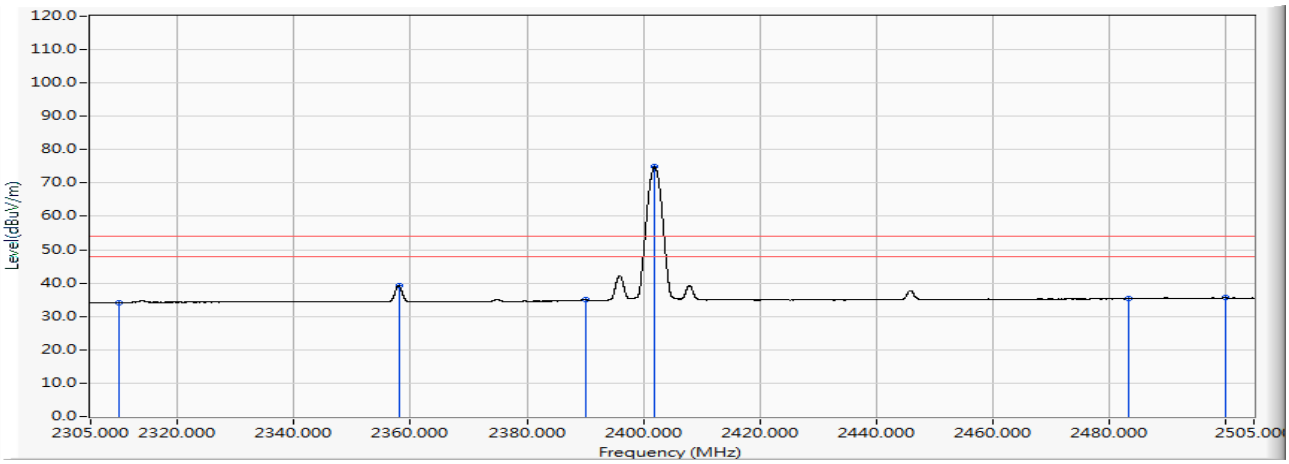


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	32.670	45.054	-28.946	74.000	PEAK
2		2358.500	12.704	37.140	49.844	-24.156	74.000	PEAK
3		2390.000	12.911	33.300	46.211	-27.789	74.000	PEAK
4	*	2401.740	12.988	82.737	95.726	21.726	74.000	PEAK
5		2483.500	13.527	33.906	47.433	-26.567	74.000	PEAK
6		2500.000	13.629	33.064	46.693	-27.307	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2402MHz**

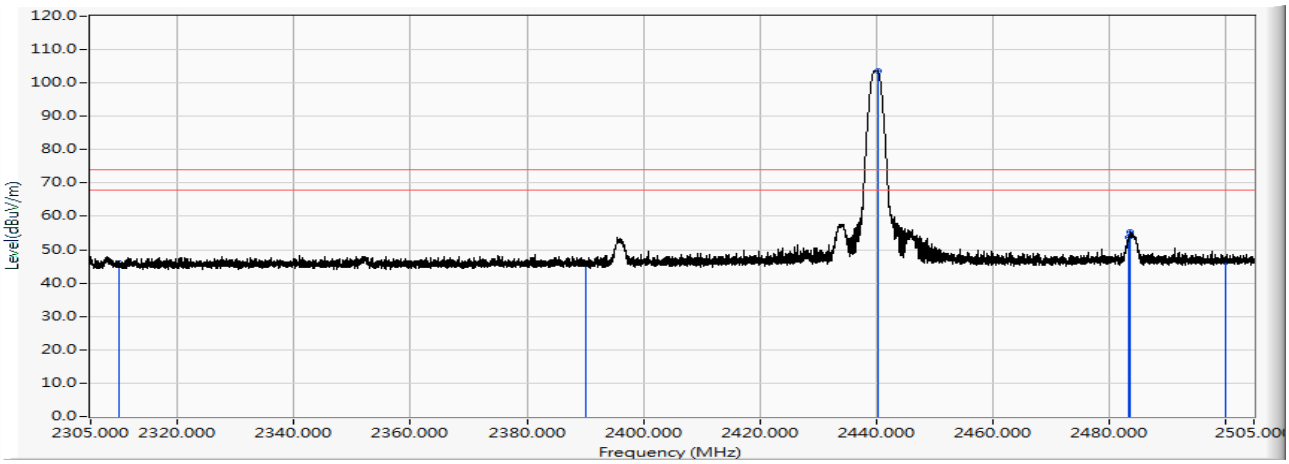


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.822	34.206	-19.794	54.000	AVERAGE
2		2357.980	12.700	26.562	39.262	-14.738	54.000	AVERAGE
3		2390.000	12.911	22.104	35.015	-18.985	54.000	AVERAGE
4	*	2401.960	12.990	61.840	74.830	20.830	54.000	AVERAGE
5		2483.500	13.527	21.797	35.324	-18.676	54.000	AVERAGE
6		2500.000	13.629	22.047	35.676	-18.324	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

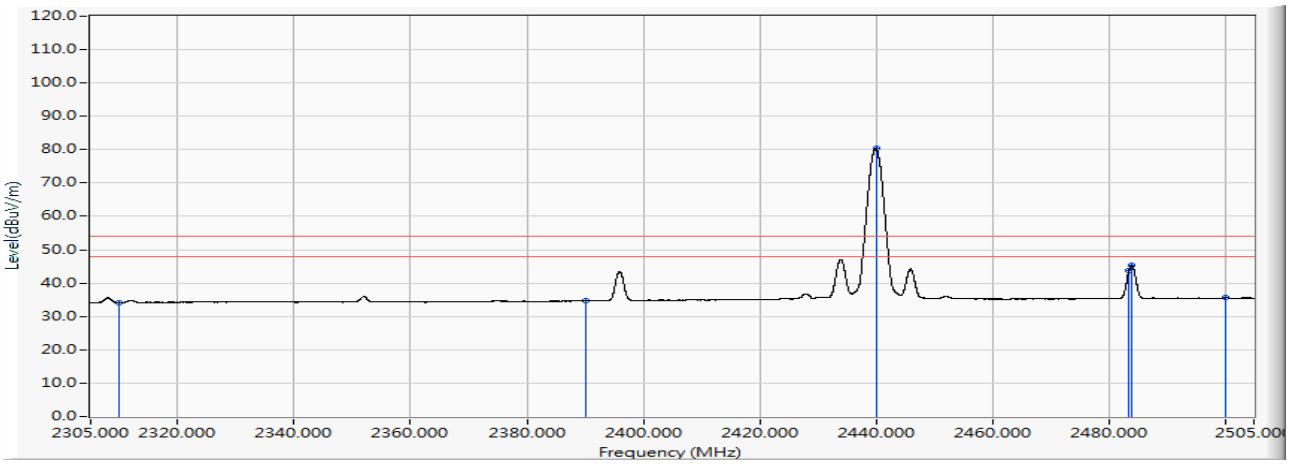


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	33.509	45.893	-28.107	74.000	PEAK
2		2390.000	12.911	32.672	45.583	-28.417	74.000	PEAK
3	*	2440.260	13.242	90.310	103.552	29.552	74.000	PEAK
4		2483.500	13.527	40.298	53.825	-20.175	74.000	PEAK
5		2483.780	13.530	41.756	55.285	-18.715	74.000	PEAK
6		2500.000	13.629	32.588	46.217	-27.783	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

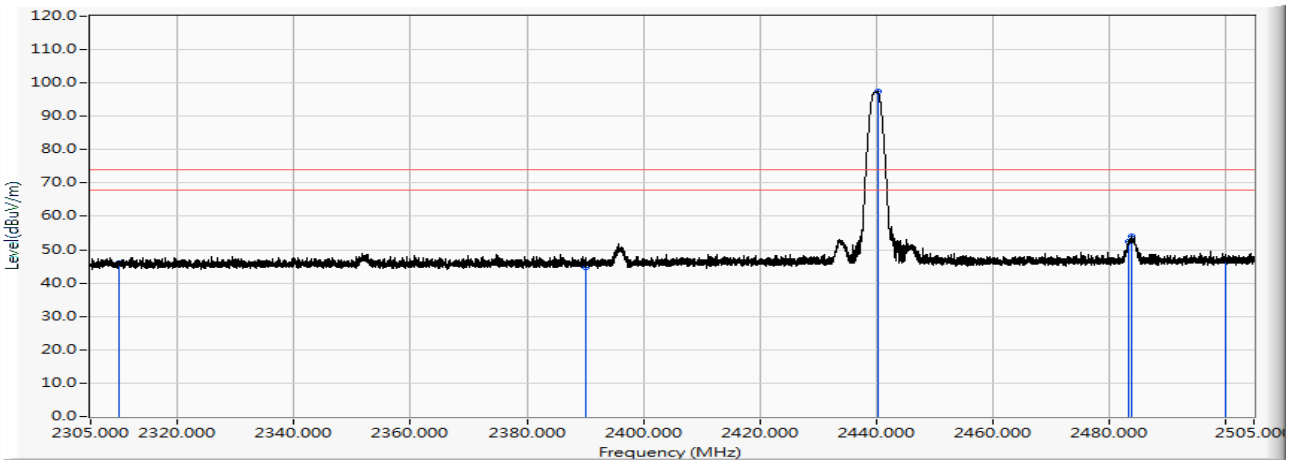


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.762	34.146	-19.854	54.000	AVERAGE
2		2390.000	12.911	21.777	34.688	-19.312	54.000	AVERAGE
3	*	2440.000	13.241	67.162	80.403	26.403	54.000	AVERAGE
4		2483.500	13.527	30.138	43.665	-10.335	54.000	AVERAGE
5		2483.980	13.530	31.718	45.248	-8.752	54.000	AVERAGE
6		2500.000	13.629	22.023	35.652	-18.348	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

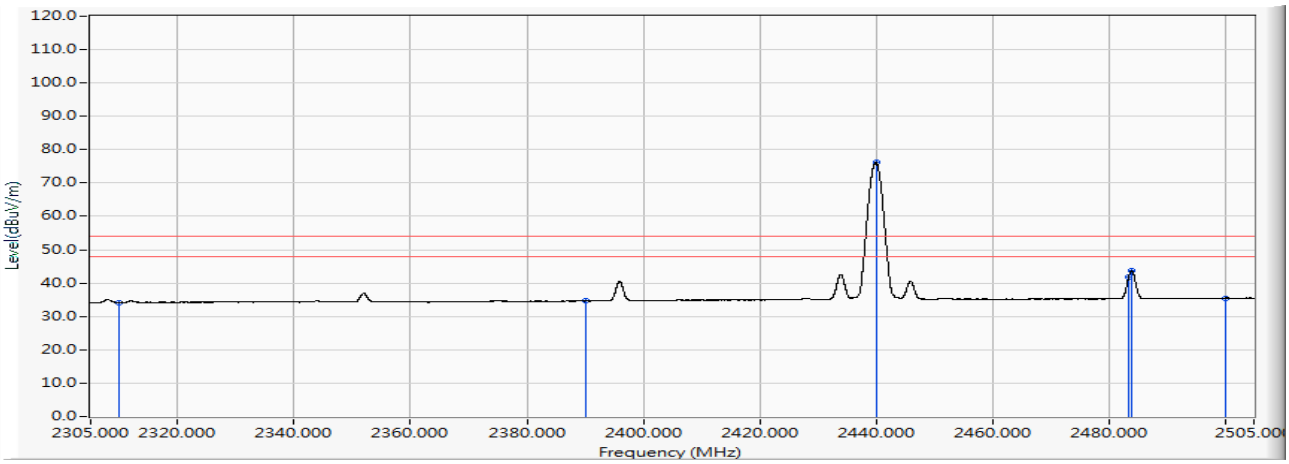


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	33.759	46.143	-27.857	74.000	PEAK
2		2390.000	12.911	31.730	44.641	-29.359	74.000	PEAK
3	*	2440.260	13.242	84.140	97.382	23.382	74.000	PEAK
4		2483.500	13.527	38.982	52.509	-21.491	74.000	PEAK
5		2483.920	13.530	40.465	53.995	-20.005	74.000	PEAK
6		2500.000	13.629	32.968	46.597	-27.403	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2440MHz**

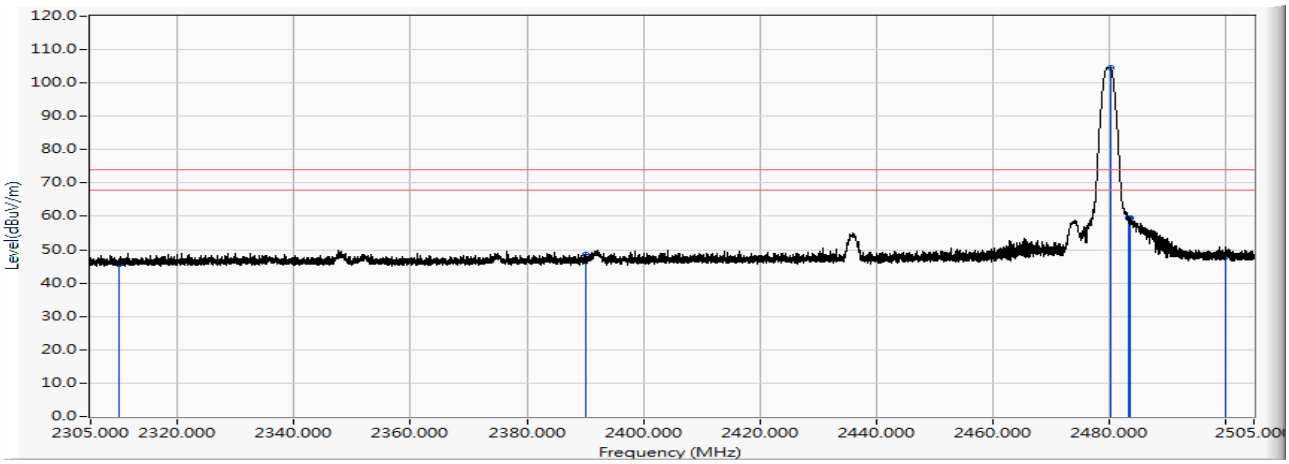


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.768	34.152	-19.848	54.000	AVERAGE
2		2390.000	12.911	21.718	34.629	-19.371	54.000	AVERAGE
3	*	2440.000	13.241	62.906	76.147	22.147	54.000	AVERAGE
4		2483.500	13.527	28.451	41.978	-12.022	54.000	AVERAGE
5		2483.940	13.530	30.063	43.593	-10.407	54.000	AVERAGE
6		2500.000	13.629	21.861	35.490	-18.510	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**

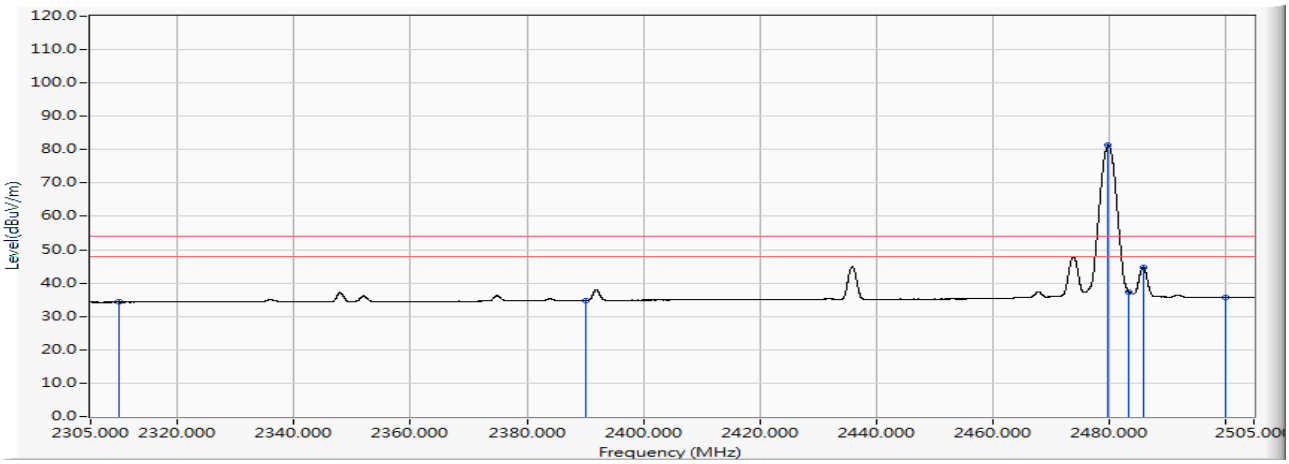


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	33.360	45.744	-28.256	74.000	PEAK
2		2390.000	12.911	35.755	48.666	-25.334	74.000	PEAK
3	*	2480.260	13.505	91.019	104.525	30.525	74.000	PEAK
4		2483.500	13.527	46.056	59.583	-14.417	74.000	PEAK
5		2483.640	13.529	45.917	59.445	-14.555	74.000	PEAK
6		2500.000	13.629	34.197	47.826	-26.174	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**

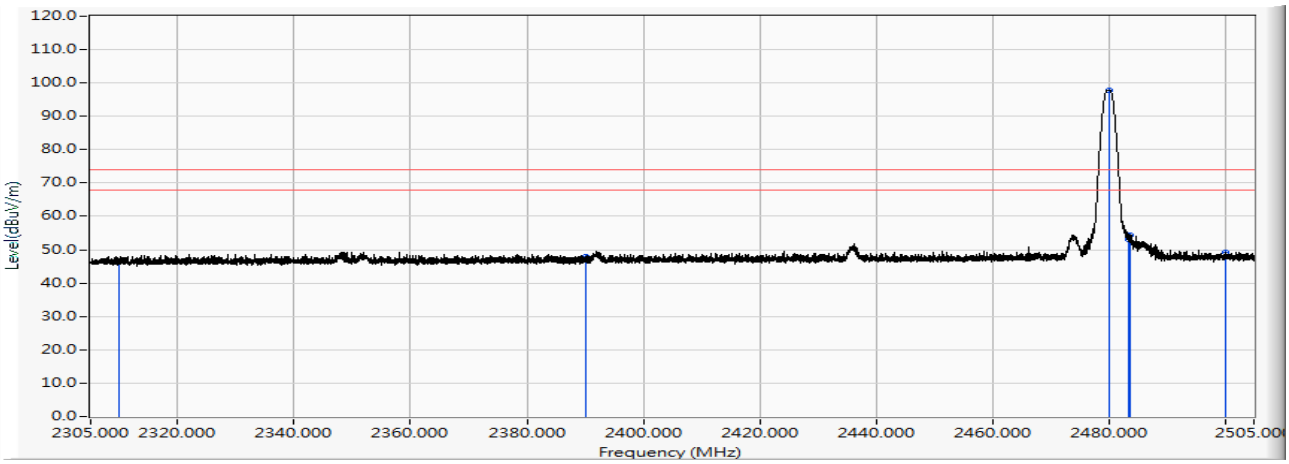


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.888	34.272	-19.728	54.000	AVERAGE
2		2390.000	12.911	21.861	34.772	-19.228	54.000	AVERAGE
3	*	2479.960	13.504	67.732	81.236	27.236	54.000	AVERAGE
4		2483.500	13.527	23.923	37.450	-16.550	54.000	AVERAGE
5		2485.960	13.543	31.097	44.640	-9.360	54.000	AVERAGE
6		2500.000	13.629	22.043	35.672	-18.328	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**

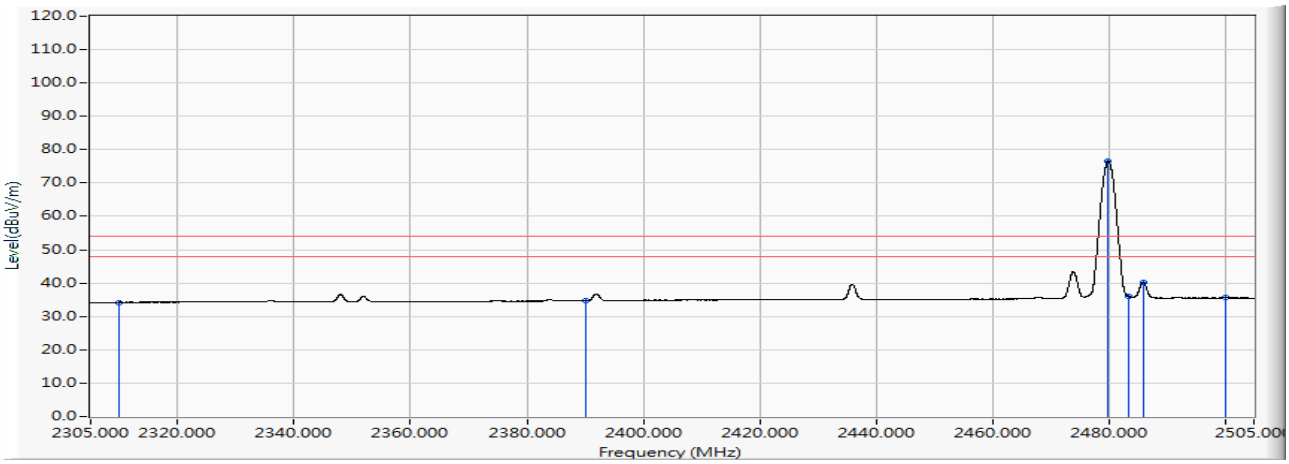


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	34.382	46.766	-27.234	74.000	PEAK
2		2390.000	12.911	35.120	48.031	-25.969	74.000	PEAK
3	*	2480.220	13.505	84.257	97.763	23.763	74.000	PEAK
4		2483.500	13.527	39.526	53.053	-20.947	74.000	PEAK
5		2483.620	13.527	40.867	54.395	-19.605	74.000	PEAK
6		2500.000	13.629	35.687	49.316	-24.684	74.000	PEAK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

Site : DEKRA Taiwan CB2-H	**Time : 2017/12/25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB2_FCC_EFS_B091_1-18GHz_3M_0117 - VERTICAL	**Power : AC 120V/60Hz**
EUT : ConnectCore 6 Plus	**Note : 802.15.1_BLE_2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	12.384	21.867	34.251	-19.749	54.000	AVERAGE
2		2390.000	12.911	21.766	34.677	-19.323	54.000	AVERAGE
3	*	2479.960	13.504	63.093	76.597	22.597	54.000	AVERAGE
4		2483.500	13.527	22.440	35.967	-18.033	54.000	AVERAGE
5		2485.900	13.543	26.758	40.301	-13.699	54.000	AVERAGE
6		2500.000	13.629	22.096	35.725	-18.275	54.000	AVERAGE

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, 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. The fundamental for reference only, it’s not restricted by unwanted emission limit.

7. Occupied Bandwidth & DTS Bandwidth

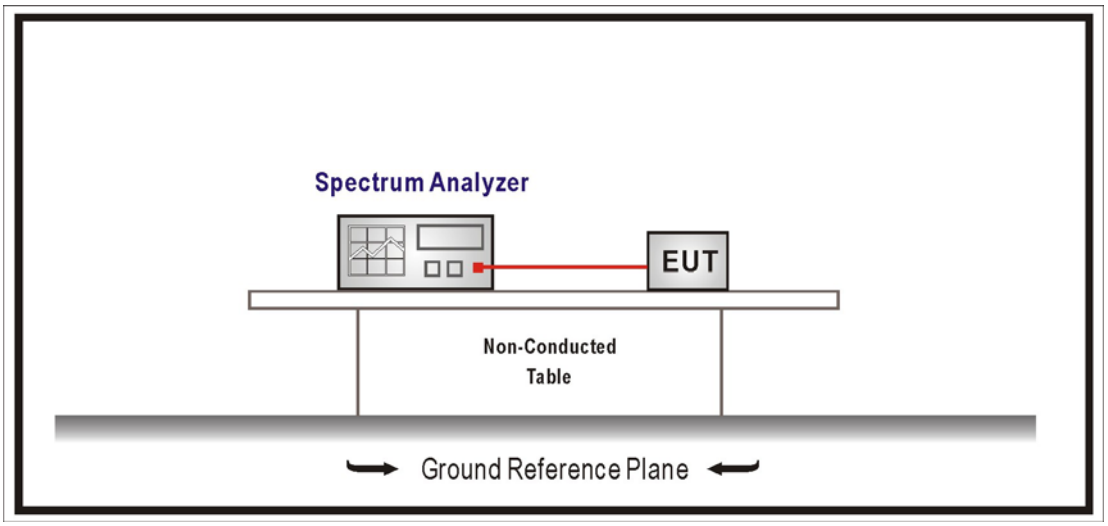
7.1. Test Equipment

The following test equipment is used during the test:

Occupied Bandwidth & DTS Bandwidth / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2017/03/13	2018/03/12

7.2. Test Setup



7.3. Limits

The 6 dB bandwidth: ≧ 500 kHz.

Occupied Bandwidth: NA

7.4. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB558074 D01V04 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1% of EBW, Span greater than RBW.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247 and RSS-247.

7.6. Test Result

Product	ConnectCore 6 Plus		
Test Item	Occupied Bandwidth & DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2018/01/05	Test Site	SR10-H

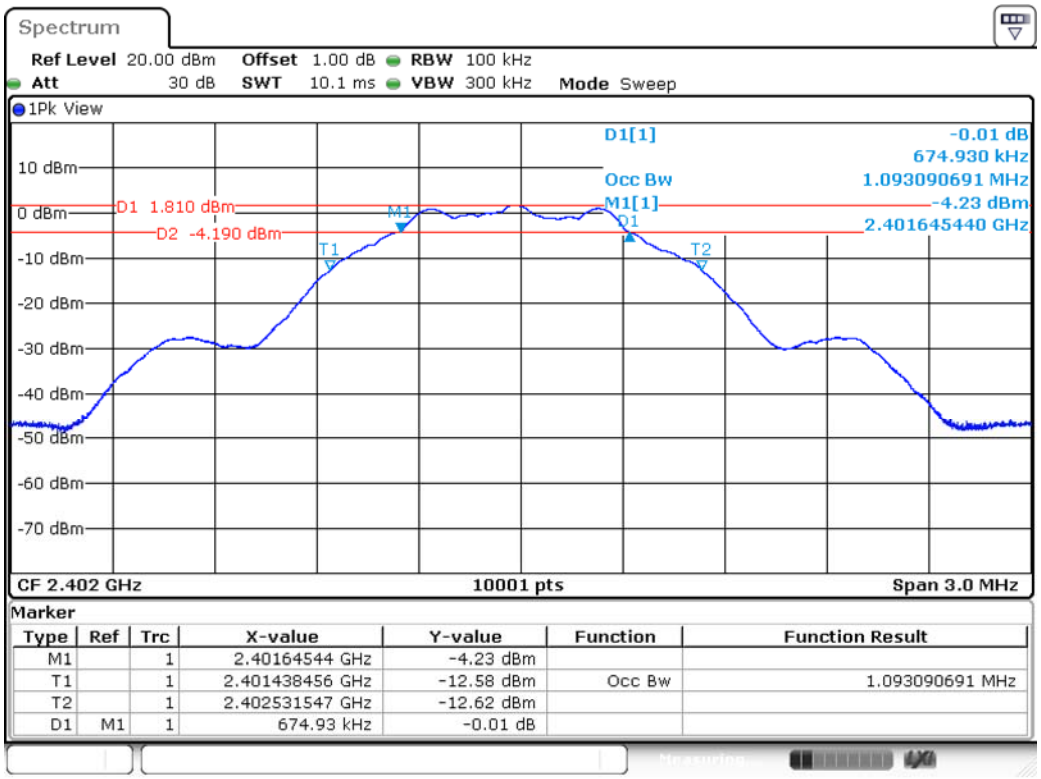
Occupied Bandwidth:

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.093	--	Pass
19	2440	1.094	--	Pass
39	2480	1.091	--	Pass

DTS Bandwidth:

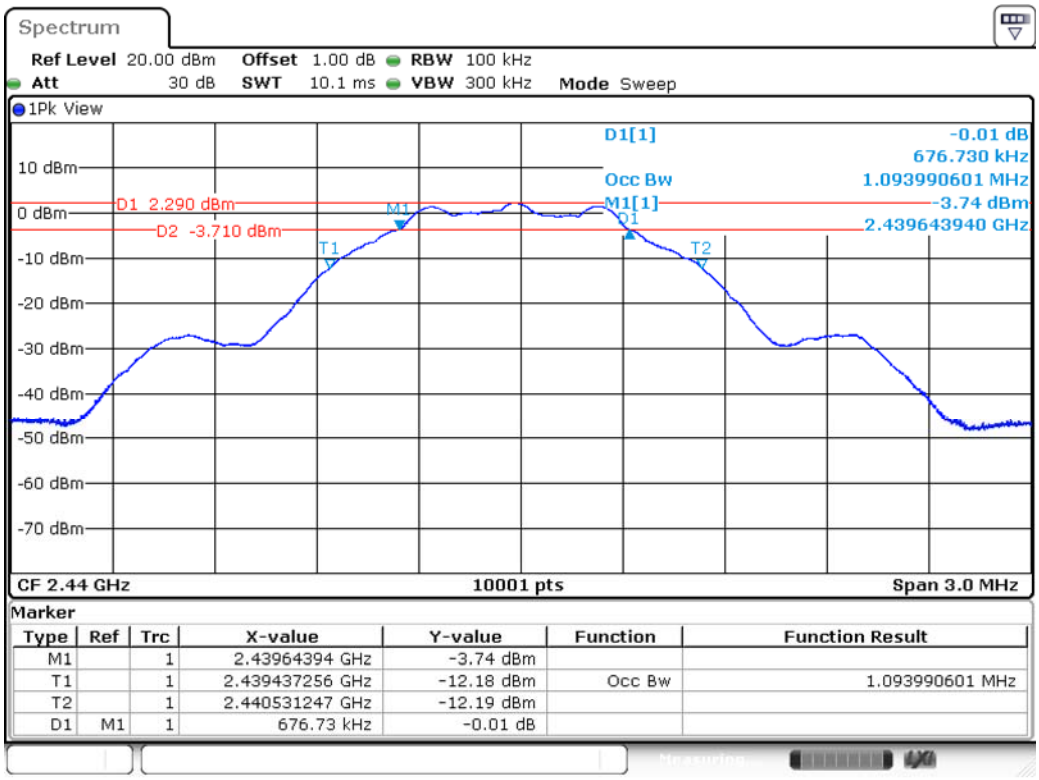
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (KHz)	Result
00	2402	0.674	≧500	Pass
19	2440	0.676	≧500	Pass
39	2480	0.670	≧500	Pass

Channel 00



Date: 5.JAN.2018 22:40:40

Channel 19

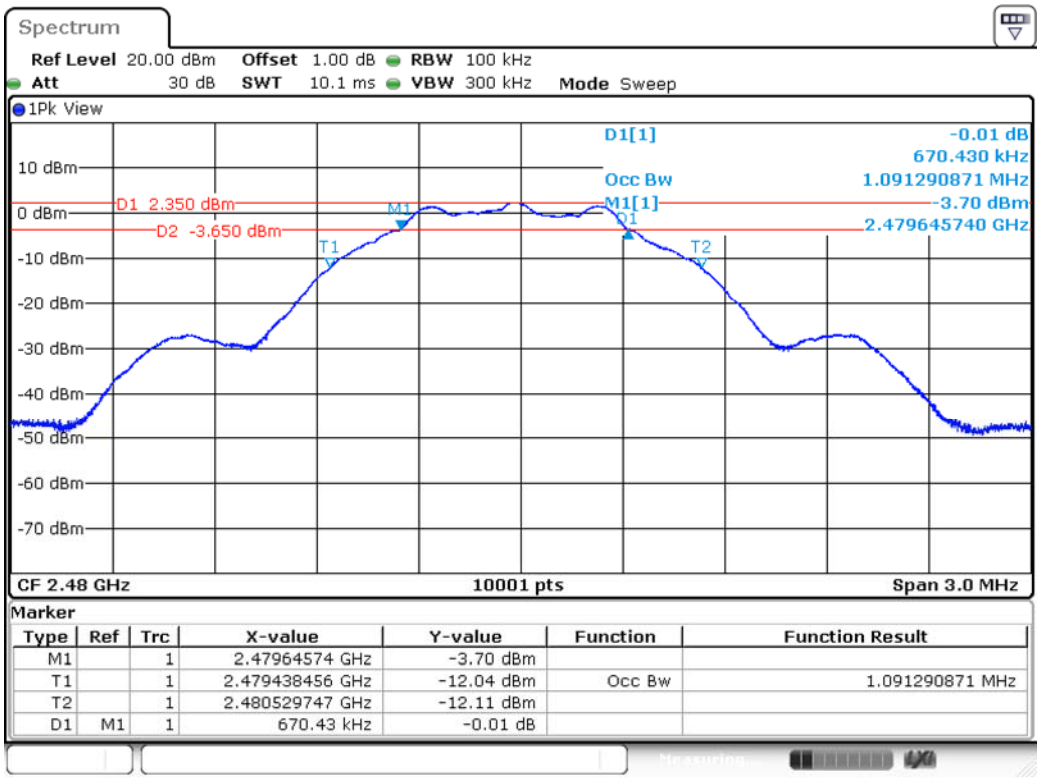


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43964394 GHz	-3.74 dBm		
T1		1	2.439437256 GHz	-12.18 dBm	Occ Bw	1.093990601 MHz
T2		1	2.440531247 GHz	-12.19 dBm		
D1	M1	1	676.73 kHz	-0.01 dB		

Date: 5.JAN.2018 22:31:47

Channel 39



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47964574 GHz	-3.70 dBm		
T1		1	2.479438456 GHz	-12.04 dBm	Occ Bw	1.091290871 MHz
T2		1	2.480529747 GHz	-12.11 dBm		
D1	M1	1	670.43 kHz	-0.01 dB		

Date: 5.JAN.2018 22:12:24

8. Power Density

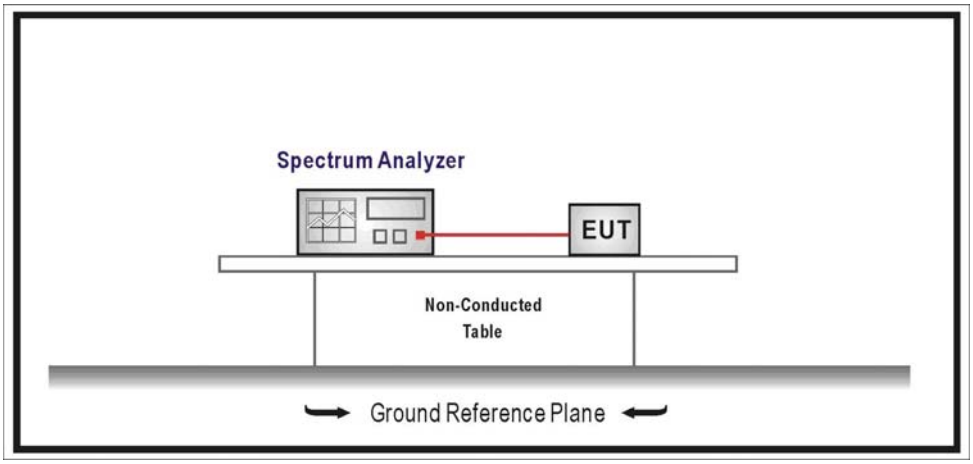
8.1. Test Equipment

The following test equipment is used during the test:

Power Density / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2017/03/13	2018/03/12

8.2. Test Setup



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB558074 D01V04 for compliance to FCC 47CFR 15.247 requirements.

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247 and RSS-247.

8.6. Uncertainty

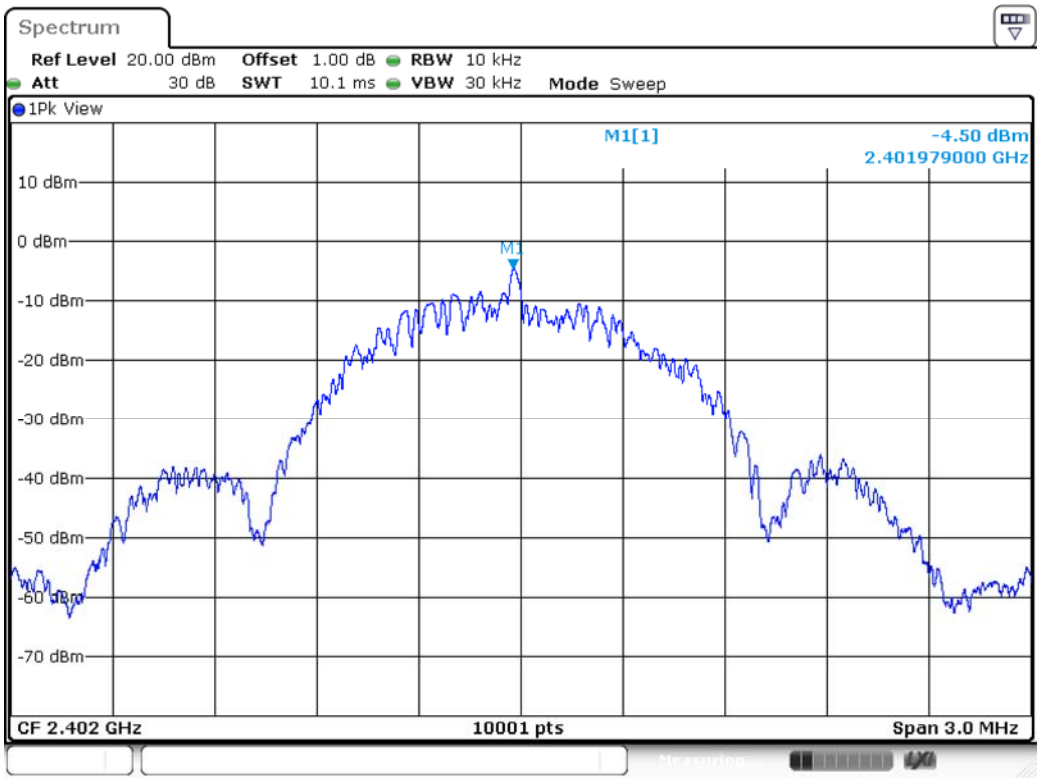
The measurement uncertainty is defined as ±1.27dB.

8.7. Test Result

Product	ConnectCore 6 Plus		
Test Item	Power Density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2018/01/05	Test Site	SR10-H

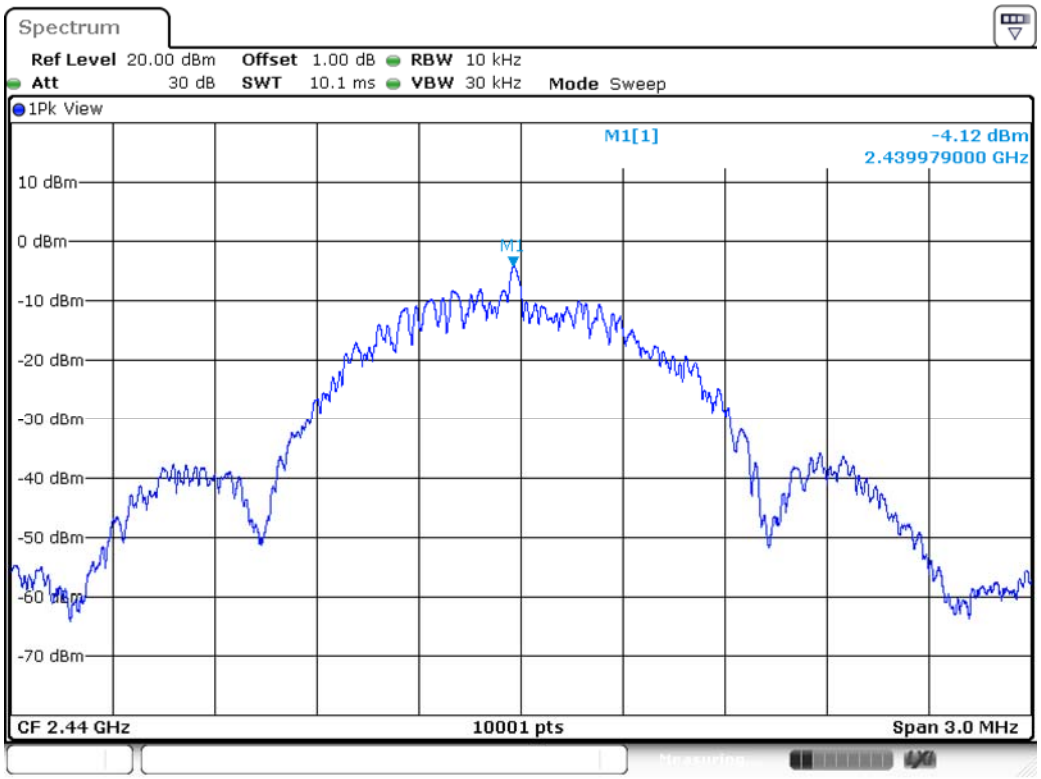
Channel No.	Frequency (MHz)	Measure Level (dBm/3KHz)	Limit (dBm/3KHz)	Result
00	2402	-4.500	≦8	Pass
19	2440	-4.120	≦8	Pass
39	2480	-4.010	≦8	Pass

Channel 00



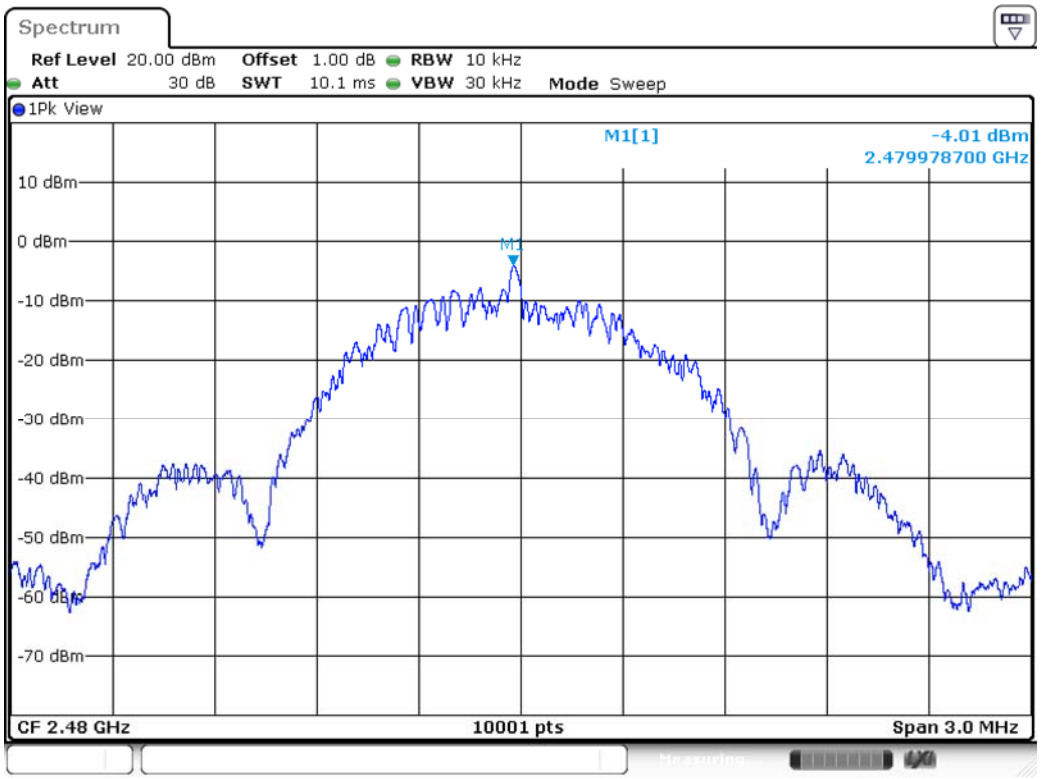
Date: 5.JAN.2018 22:01:13

Channel 19



Date: 5.JAN.2018 21:56:13

Channel 39



Date: 5.JAN.2018 22:02:57