TEST REPORT

For

JOYA TOUCH A6

Model Number: JTAWB GUN, JTAWB HH

FCC ID: U4GJTAWB

IC: 3862E-JTAWB

Report Number : WT 178004080

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection National Digital Electronic Product Testing Center
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Test report declaration

Applicant	:	Datalogic S.r.l.
Address	:	Via S. Vitalino 13, Calderara di Reno, Italy 40012
Manufacturer	:	Datalogic S.r.l.
Address	:	Via S. Vitalino 13, Calderara di Reno, Italy 40012
EUT Description	:	JOYA TOUCH A6
Model No(HVIN)	:	JTAWB GUN, JTAWB HH
Trade mark	:	/
PMN	:	JOYA TOUCH A6
FCC ID	:	U4GJTAWB
IC	:	3862E-JTAWB

Test Standards:

FCC Part 15.209, 15.247(2016)

RSS-247 Issue 2(2017-02)

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with FCC Rules 15.209, 15.247 and IC Rules RSS-247 Issue 2(2017-02).

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer:	陈司林	Date:	Jul.12, 2017
	(Chen Silin 陈司林)		
Checked by:	林奕翔	Date:	Jul.12, 2017
	(Lin Yixiang 林奕翔)		
Approved by:	林斌	Date:	Jul.12, 2017
	(Lin Bin 林斌)		

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	FCC Rules	IC Rules	Test Results
Maximum Peak Conducted Power	15.247 (b) (3)	RSS-247 Clause 5.4(4)	Pass
Maximum Power Spectral Density Level	15.247 (3)	RSS-247 Clause 5.2(2)	Pass
Radiated Bandedge and Spurious	15.247 (d) 15.209	RSS-247 Clause 5.5	Pass

Remark: “N/A” means “Not applicable.”

2. GENERAL INFORMATION

2.1. Report information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.
The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number are 446246 806614 994606(semi anechoic chamber).

The Laboratory is registered to perform emission tests with Industry Canada (IC), and the registration number is 11177A-1 11177A-2.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is E2024086Z02.

2.3. Measurement Uncertainty

For a 95% confidence level (k = 2), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

Conducted Emission

9kHz~30MHz 3.5dB

Radiated Emission

30MHz~1000MHz 4.5dB

1GHz~26.5GHz 4.6dB

3. PRODUCT DESCRIPTION

3.1. EUT Description

Description	:	JOYA TOUCH A6
Manufacturer	:	Datalogic S.r.l.
Model Number	:	JTAWB GUN, JTAWB HH
Operate Frequency	:	2.402GHz~2.480GHz
Antenna Designation	:	2.4GHz band: JOYA TOUCH A6 Handheld variants: 1.94dBi JOYA TOUCH A6 Gun variants: 2.14dBi

Remark: /

Bluetooth Low Energy :

Table 2 Working Frequency List

Regulatory Range	RF Channels
2.400-2.4835 GHz	f=2402+k*2 MHz, k=0, … ,39

3.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **U4GJTAWB** and IC: **3862E-JTAWB** filing to comply with 15.209，15.247 of the FCC Part 15, Subpart C and RSS-247 Issue 2(2017-02) Rules.

3.3. Operating Condition of EUT

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.
Worst-case data rates as provided by the client were:
Bluetooth low energy

3.4. Directional Antenna Gain

The EUT does NOT support a MIMO function.
Directional gain need NOT to be considered.

3.5. Support Equipment List

Table 3 Support Equipment List

Name	Model No	S/N	Manufacturer
Notebook	Inspiron 14z - 5423	--	DELL

3.6. Test Conditions

Date of test：Jun.19,2017- Jul.11, 2017
Date of EUT Receive：Jun.19,2017
Temperature: 16-25 ℃
Relative Humidity:48-62%

3.7. Special Accessories

Not available for this EUT intended for grant.

3.8. Equipment Modifications

Not available for this EUT intended for grant.

4. TEST EQUIPMENT USED

Table 4 Test Equipment

No.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB8501/09	EMI Test Receiver	Rohde & Schwarz	ESU40	Mar.21, 2017	1 Year
SB8501/04	Bilog Antenna	Schwarzbeck	VULB9163	Mar.21, 2017	1 Year
SB8501/01	Horn Antenna	Rohde & Schwarz	HF907	Mar.22, 2017	1 Year
SB8501/11	Horn Antenna	ETS-Lindgren	3160-09	Mar.1,2017	1 Year
SB3345	Loop Antenna	Schwarzbeck	FMZB1516	Mar.22, 2017	2 Years
SB8501/17	Preamplifier	Rohde & Schwarz	SCU-18	Mar.06, 2017	1 Year
SB8501/16	Preamplifier	Rohde & Schwarz	SCU-26	Mar.06, 2017	1 Year
SB12827/01	Power Sensor	Rohde & Schwarz	NRP-Z22	Jun.19, 2017	1 Year
--	Test Software	Rohde & Schwarz	Power Viewer Plus	--	--
--	Test Software	Rohde & Schwarz	EMC 32	--	--
SB9721/02	Signal Analyzer	Agilent	N9020A	Dec.5,2016	1 Year

5. DUTY CYCLE

5.1. LIMITS OF DUTY CYCLE

None; for reporting purposes only

5.2. TEST PROCEDURE

1. Set span = Zero
2. RBW = 10MHz
3. VBW = 10MHz,
4. Detector = Peak

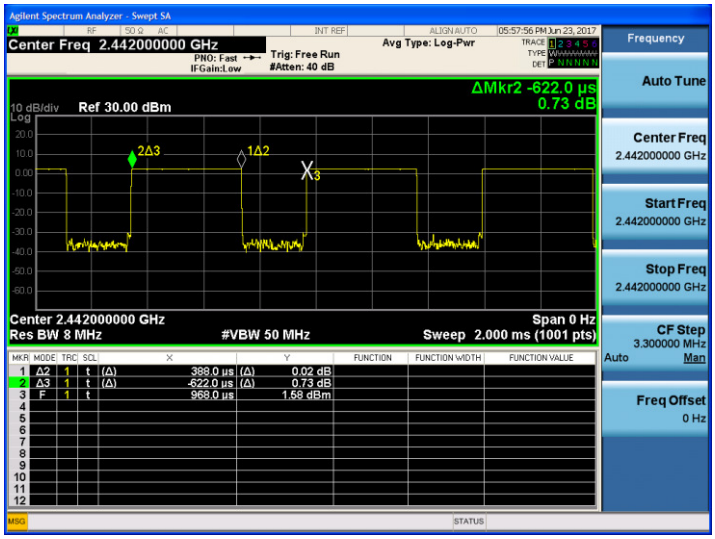
5.3. TEST SETUP

5.4. TEST DATA

Table 5 Duty Cycle Test Data

Mode	On Time (ms)	Duty Cycle(%)	Duty Factor	1/T Minimum VBW (kHz)
BT LE	0.388	62.38	2.05	2.58

BT LE


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.442000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Log-Pwr
05:57:56 PM Jun 23, 2017
ΔMkr2 -622.0 µs
0.73 dB
10 dB/div
Ref 30.00 dBm
Log
2Δ3
1Δ2
Center 2.442000000 GHz
Res BW 8 MHz
#VBW 50 MHz
Span 0 Hz
Sweep 2.000 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 1 t (Δ) 388.0 µs (Δ) 0.02 dB
2 Δ3 1 t (Δ) -622.0 µs (Δ) 0.73 dB
3 F 1 t 968.0 µs 1.58 dBm
Frequency
Auto Tune
Center Freq
2.442000000 GHz
Start Freq
2.442000000 GHz
Stop Freq
2.442000000 GHz
CF Step
3.300000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

6. MAXIMUM PEAK CONDUCTED OUTPUT POWER MEASUREMENT

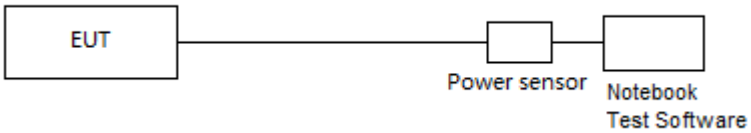
6.1. LIMITS OF Maximum Peak Conducted Output Power Measurement

CFR 47 (FCC) part 15.247 (b) (3) and 558074 D01 DTS Meas Guidance v04
RSS-247Clause 5.4(4)

6.2. TEST PROCEDURE

The transmitter output was connected to the RF power meter.
a) Using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.
1) The EUT is configured to transmit continuously, or to transmit with a constant duty factor.
2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal as described in Section 6.0.
c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
d) Adjust the measurement in dBm by adding 10log (1/x), where x is the duty cycle to the measurement result.

6.3. TEST SETUP



6.4. TEST DATA

Table 6 Maximum Peak Conducted Output Power Test Data BLE

Center Freq.[MHz]	Meas. Level (Cond.) [dBm]	Duty Factor	Output Power [dBm]	Peak/AVG	Limit [dBm]	Result
2402	1.51	/	1.51	Peak	< 30	Pass
2442	2.79	/	2.79	Peak	< 30	Pass
2480	0.33	/	0.33	Peak	< 30	Pass
2402	-0.68	2.05	1.37	AVG	< 30	Pass
2442	0.59	2.05	2.64	AVG	< 30	Pass
2480	-2.18	2.05	-0.13	AVG	< 30	Pass

Remark:

1. Test results including cable loss.

7. MAXIMUM POWER SPECTRAL DENSITY LEVEL MEASUREMENT

7.1. LIMITS OF Maximum Power Spectral Density Level Measurement

CFR 47 (FCC) part 15.247 (e) and 558074 D01 DTS Meas Guidance v04
RSS-247Clause 5.2(2)

7.2. TEST PROCEDURE

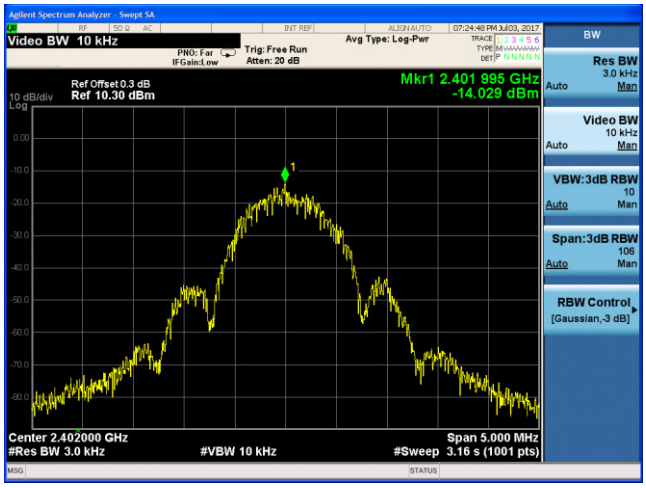
The transmitter output was connected to the spectrum analyzer.
a)Set analyzer center frequency to DTS channel center frequency.
b)Set the span to 1.5 times the DTS bandwidth.
c)Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d)Set the VBW ≥ 3 □RBW.
e)Detector = peak.
f)Sweep time = auto couple.
g)Trace mode = max hold.
h)Allow trace to fully stabilize.
i)Use the peak marker function to determine the maximum amplitude level within the RBW.
j)If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

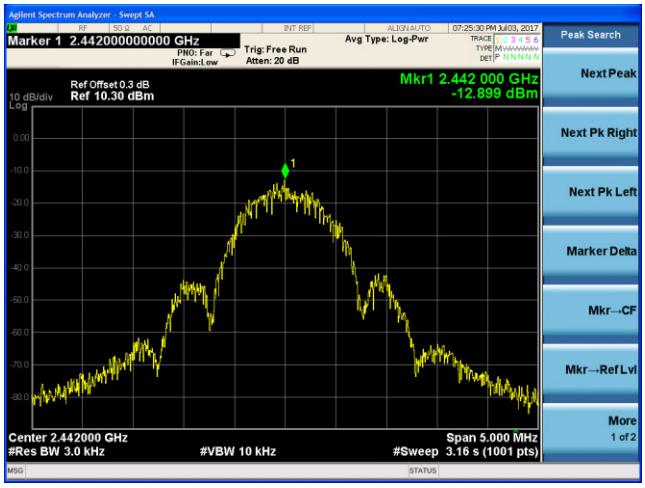
7.3. TEST DATA

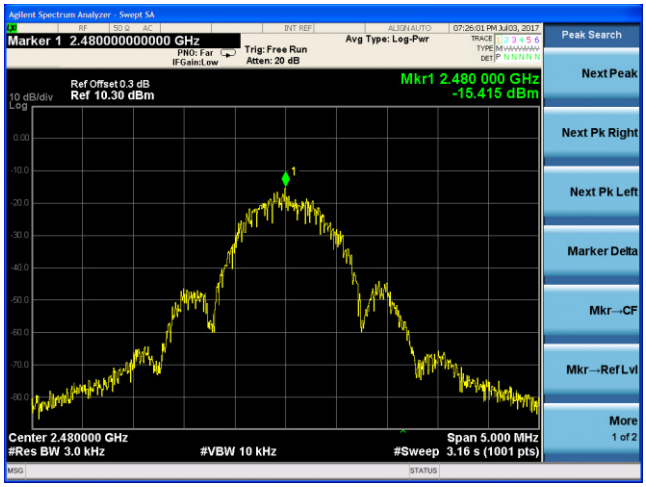
Remark:
1. Test results including cable loss.

Table 7 Maximum Power Spectral Density Level Test Data BLE

Channel	Center Freq.[MHz]	PPSD (dBm)	Limit [dBm]	Result
Low	2402	-14.029	8	Pass
Mid	2442	-12.899	8	Pass
High	2480	-15.415	8	Pass







8. RADIATED BANDEDGE AND SPURIOUS MEASUREMENT

8.1. LIMITS OF Radiated Bandedge and Spurious Measurement

CFR 47 (FCC) part 15.247 (d) and 558074 D01 DTS Meas Guidance v04
RSS-247 Clause 5.5

8.2. TEST PROCEDURE

1) Sequence of testing 9 kHz to 30 MHz

Setup:
--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
--- If the EUT is a floor standing device, it is placed on the ground.
--- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
--- The measurement distance is 3 meter.
--- The EUT was set into operation.

Premeasurement:
--- The turntable rotates from 0° to 315° using 45° steps.
--- The antenna height is 0.8 meter.
--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:
--- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).
--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.
--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:
--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions
--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
--- The measurement distance is 3 meter.
--- The EUT was set into operation.

Premeasurement:
--- The turntable rotates from 0° to 315° using 45° steps.
--- The antenna is polarized vertical and horizontal.
--- The antenna height changes from 1 to 3 meter.
--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:
--- The final measurement will be performed with minimum the six highest peaks.
--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (± 45°) and antenna movement between 1 and 4 meter.
--- The final measurement will be done with QP detector with an EMI receiver.
--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:
--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
--- Auxiliary equipment and cables were positioned to simulate normal operation conditions
--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
--- The measurement distance is 3 meter.
--- The EUT was set into operation.

Premeasurement:
--- The turntable rotates from 0° to 315° using 45° steps.
--- The antenna is polarized vertical and horizontal.
--- The antenna height scan range is 1 meter to 2.5 meter.
--- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:
--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (± 45°) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
--- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
--- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18 GHz

Setup:
--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
--- Auxiliary equipment and cables were positioned to simulate normal operation conditions
--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
--- The measurement distance is 1 meter.
--- The EUT was set into operation.

Premeasurement:
--- The antenna is moved spherical over the EUT in different polarizations of the antenna.

Final measurement:
--- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
--- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

8.3. TEST DATA

9kHz-30MHz
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Radiated Emission Test Data 9k Hz-30MHz(worst case)

Frequency MHz	Cable Loss(dB)	Antenna Factor(dB)	Readings(dBμV/m)	Level(dBμV/m)	Polarity(H/V)	Turntable Angle(deg)	Antenna Height(m)	Limits(dBμV/m)	Margin(dB)
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30MHz-1GHz

Pre-scan all mode and recorded the worst case results in this report (BT LE(Middle Channel).

The emissions don't show in following result tables are more than 20dB below the limits.

Radiated Emission Test Data 30MHz-1GHz

Frequency MHz	Cable Loss(dB)	Antenna Factor(dB)	Readings(dBμV/m)	Level(dBμV/m)	Polarity(H/V)	Turntable Angle(deg)	Antenna Height(m)	Limits(dBμV/m)	Margin(dB)
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Test Plot- for Handheld variants

(Complete full test)

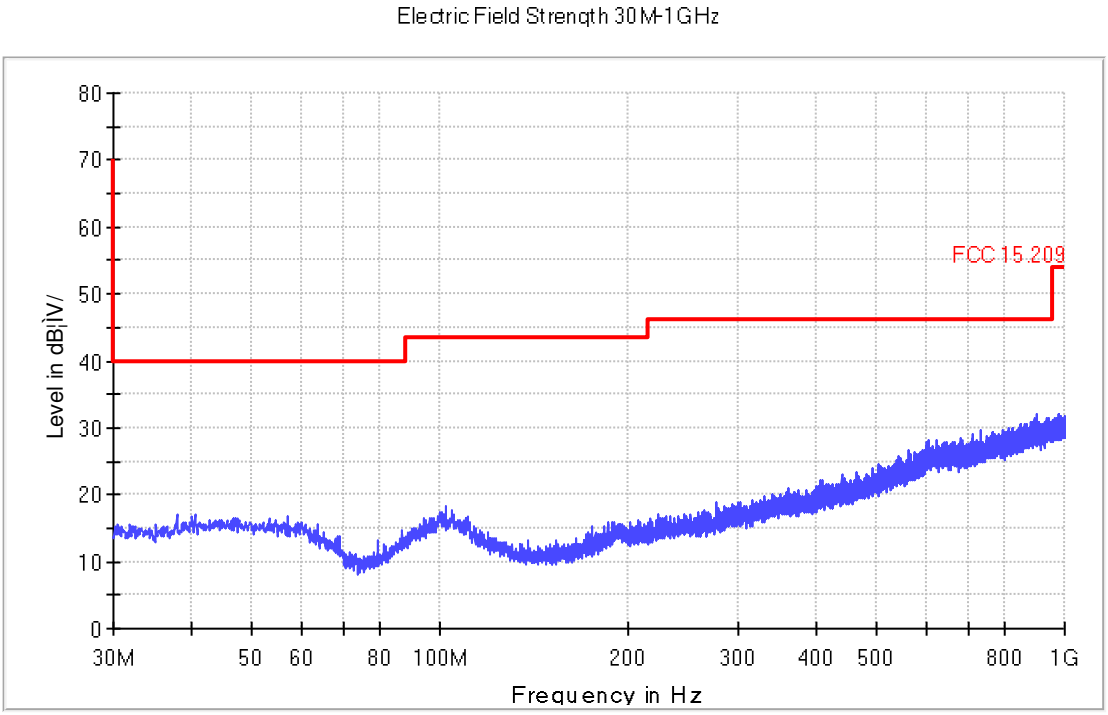
Radiated Emission

EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	Transmitting
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26



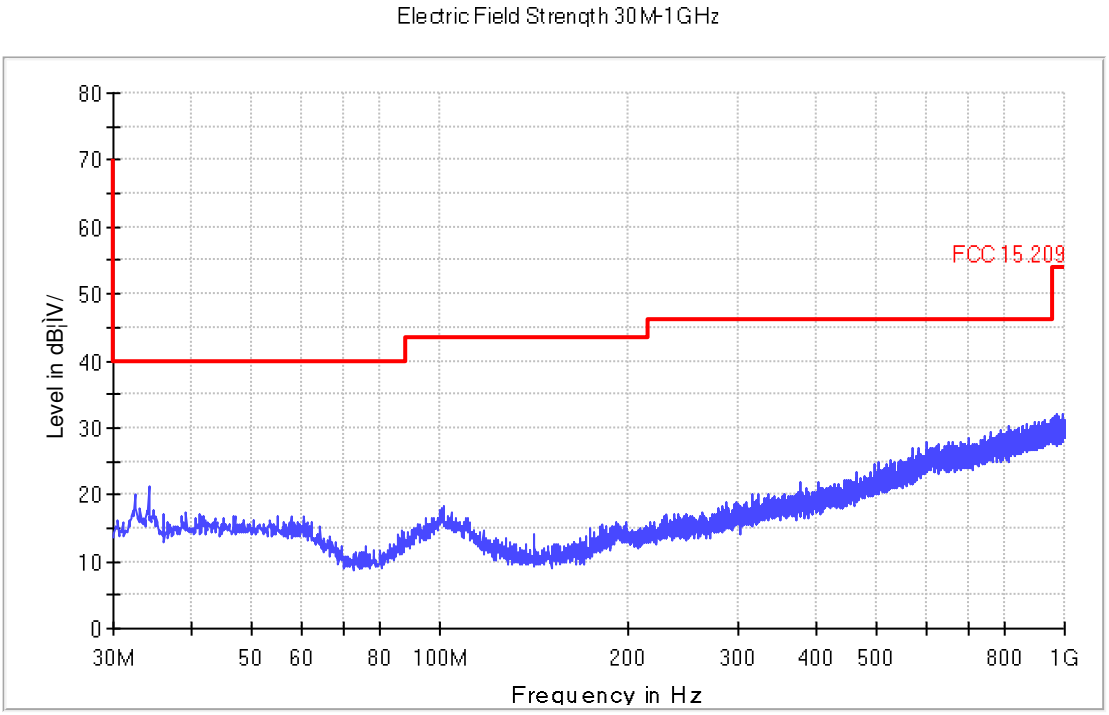
Radiated Emission

EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	Transmitting
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26



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1GHz-18GHz

1-18G

BLE CH0

Radiated Emission

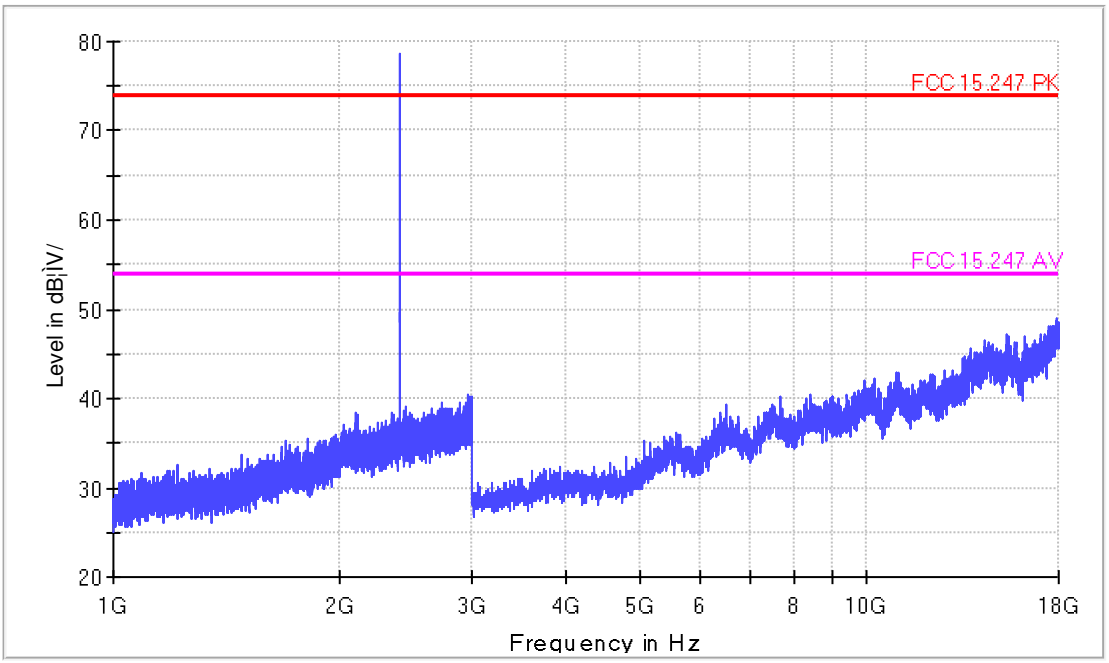
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Radiated Emission

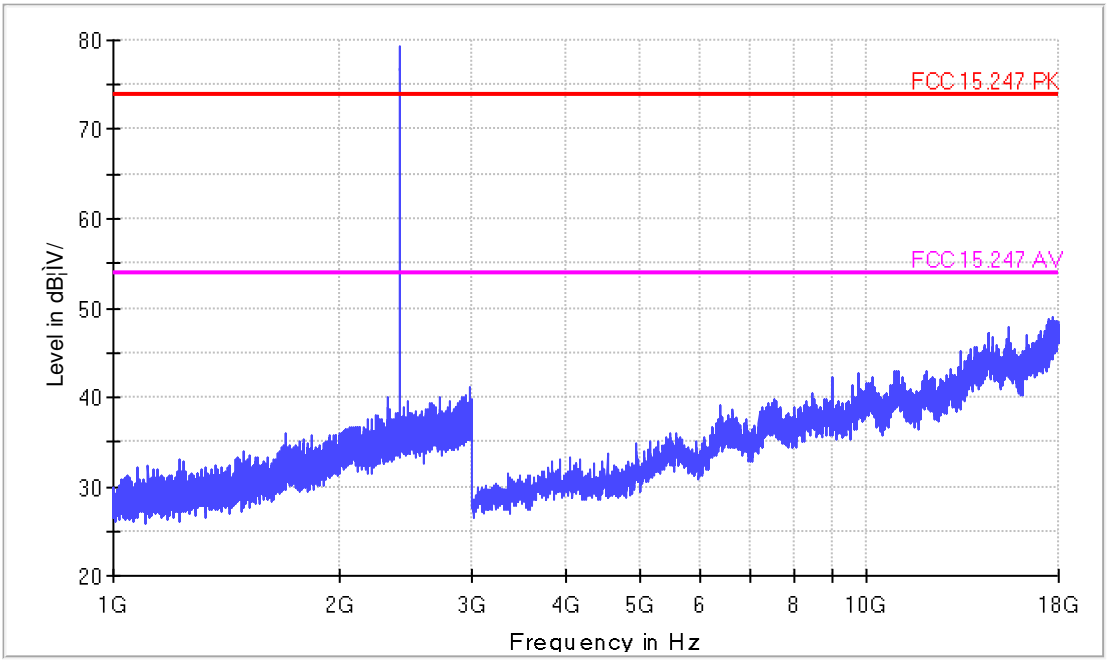
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



1-18G

BLE CH19

Radiated Emission

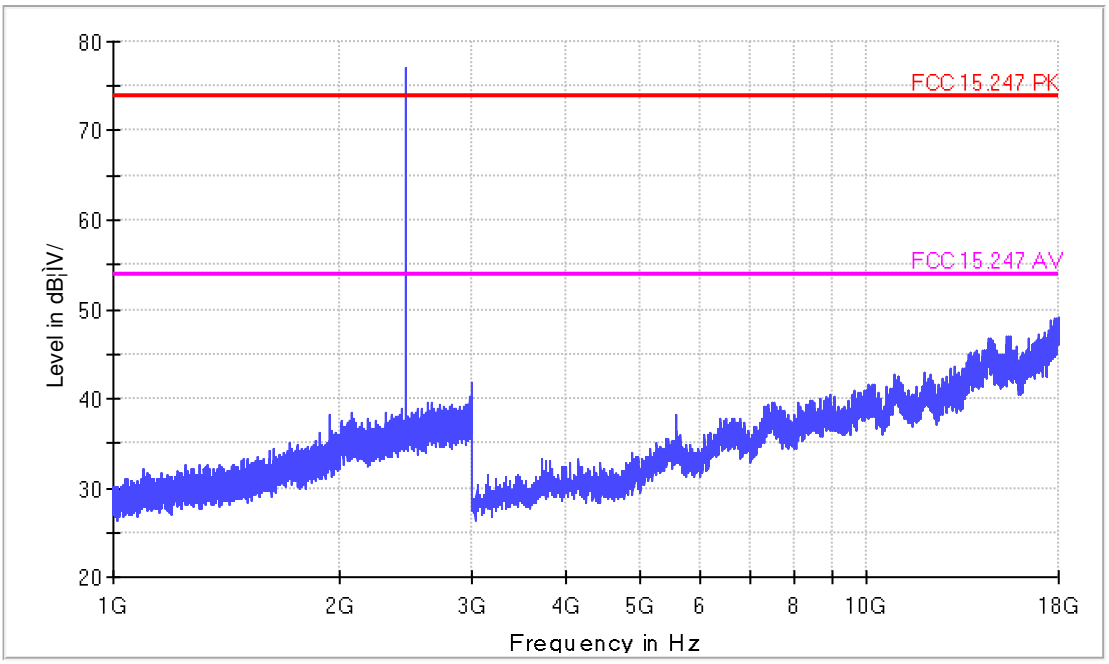
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Radiated Emission

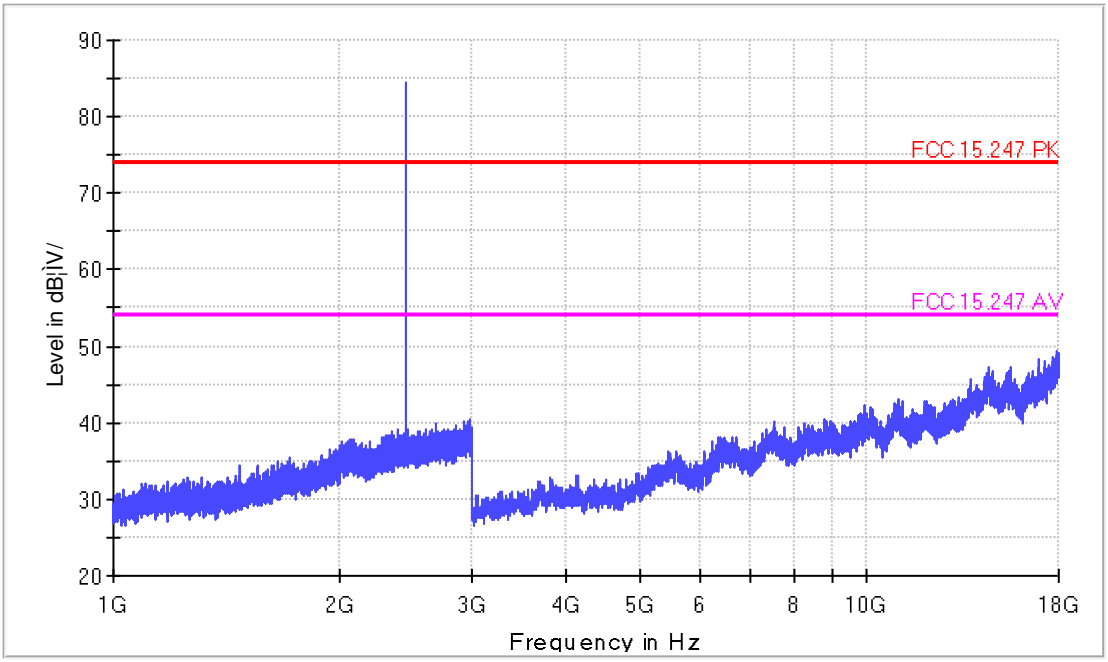
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



1-18G

BLE CH39

Radiated Emission

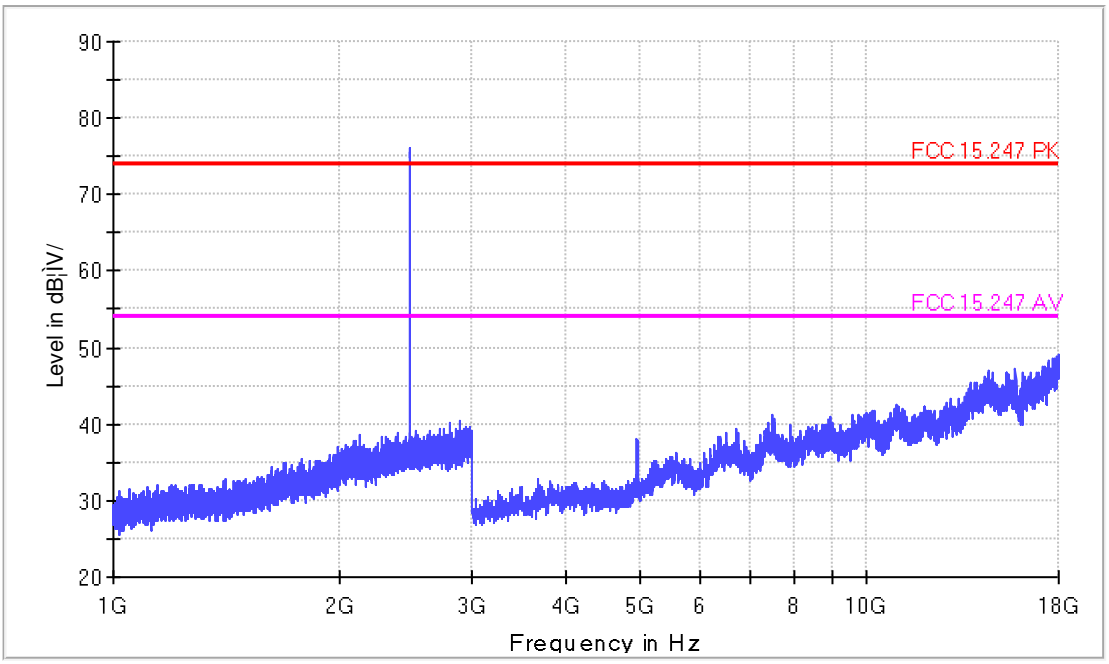
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Radiated Emission

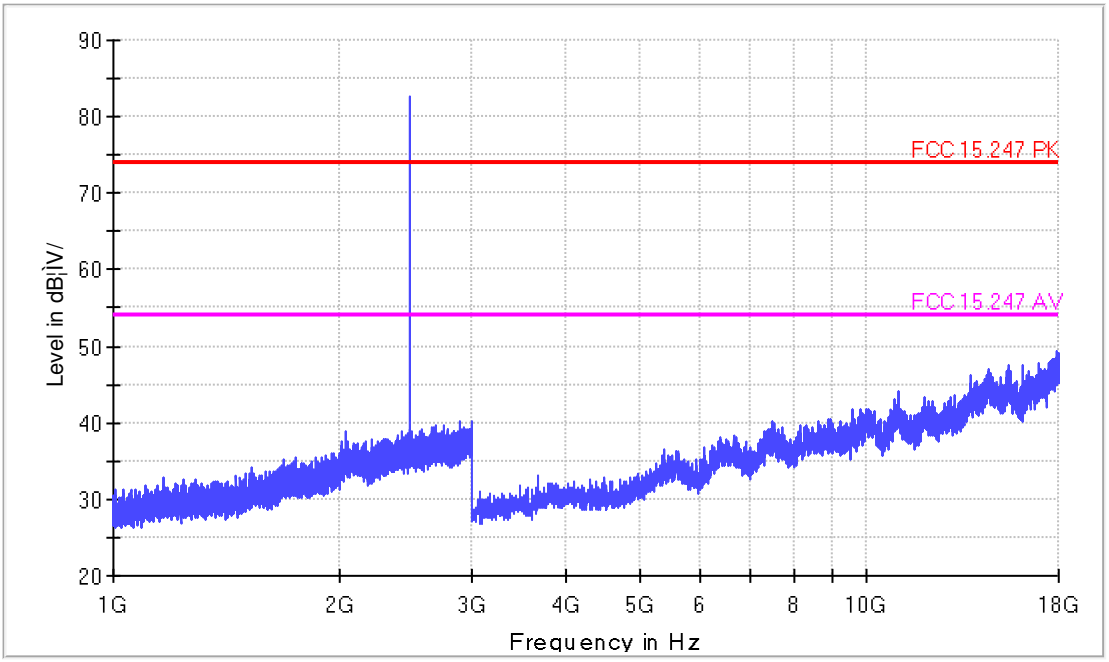
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



18-25GHz

BLE CH0

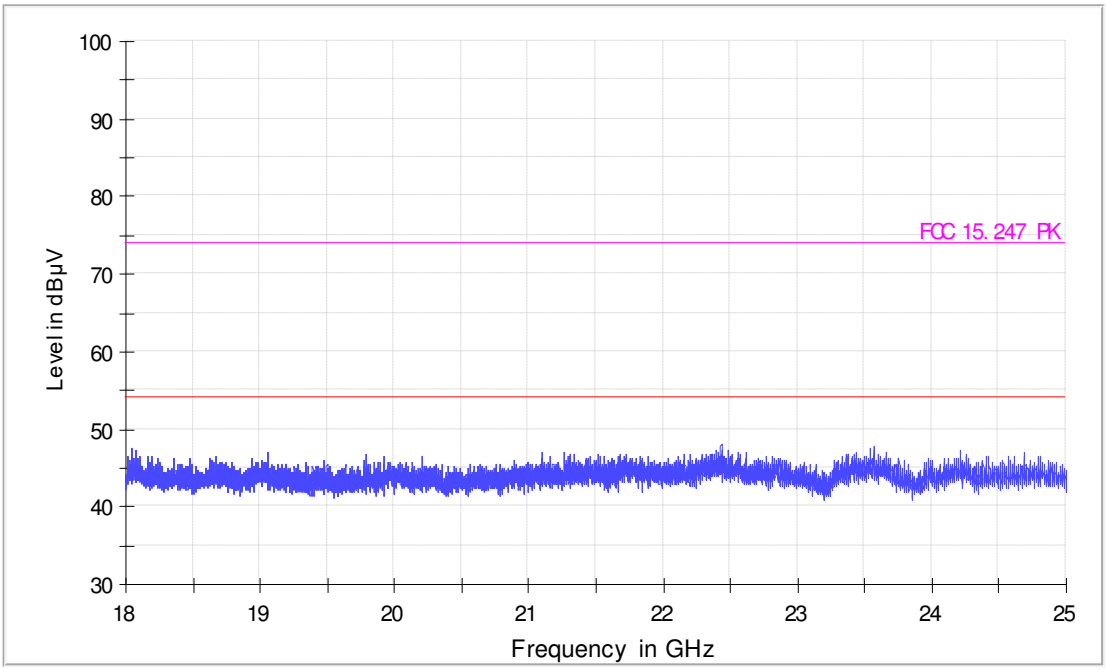
Radiated Emission

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



Radiated Emission

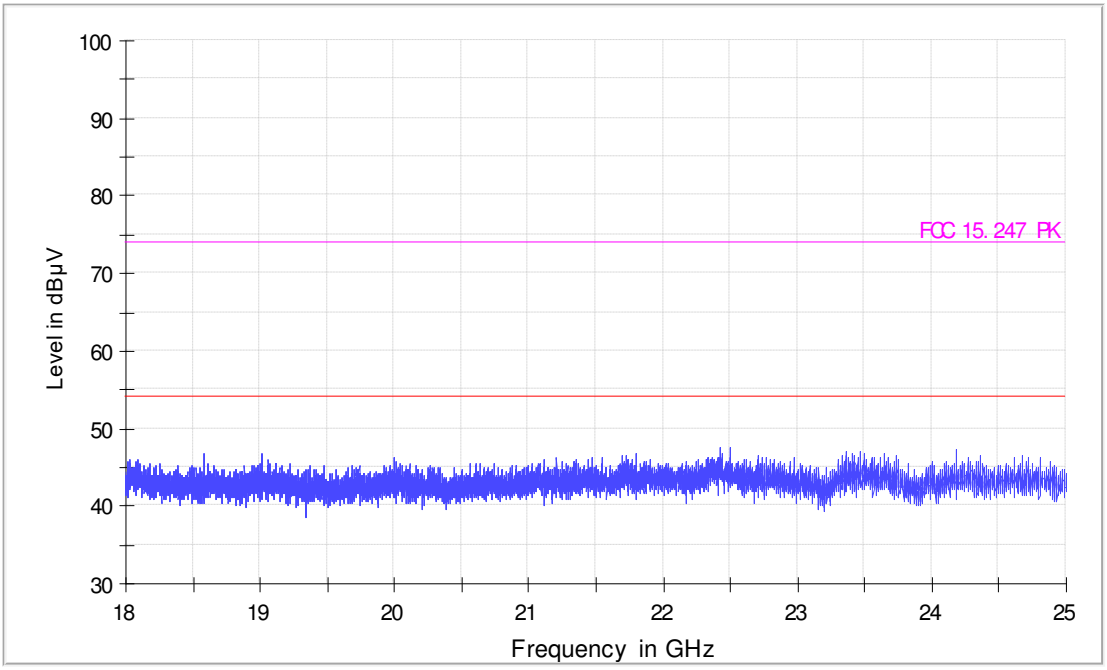
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



18-25GHz

BLE CH19

Radiated Emission

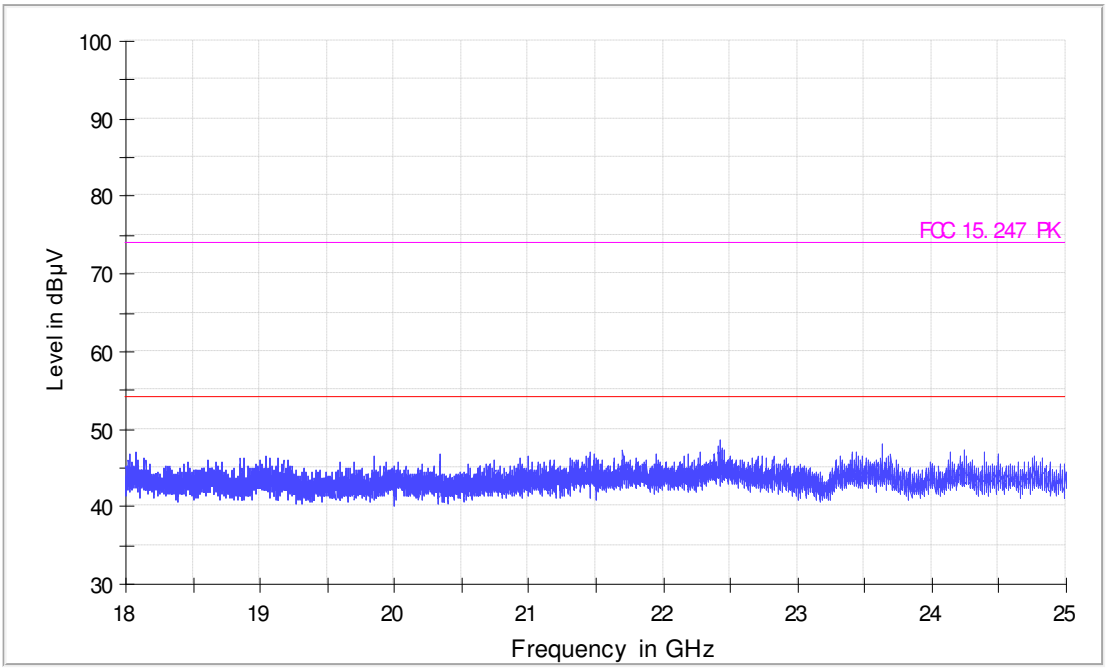
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



Radiated Emission

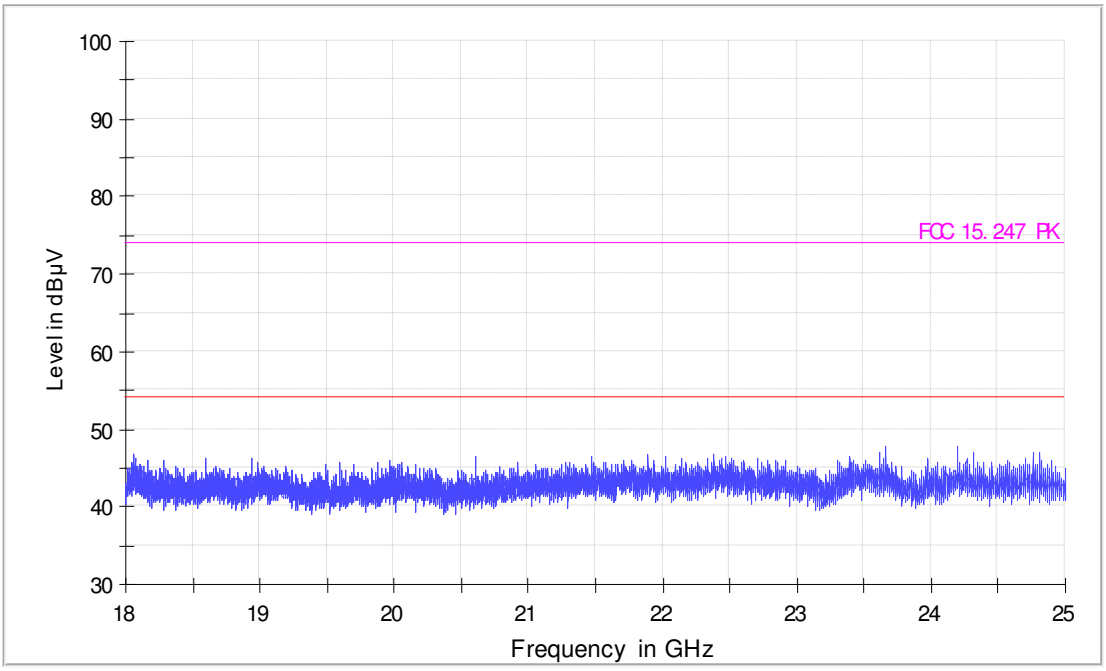
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



18-25GHz

BLE CH39

Radiated Emission

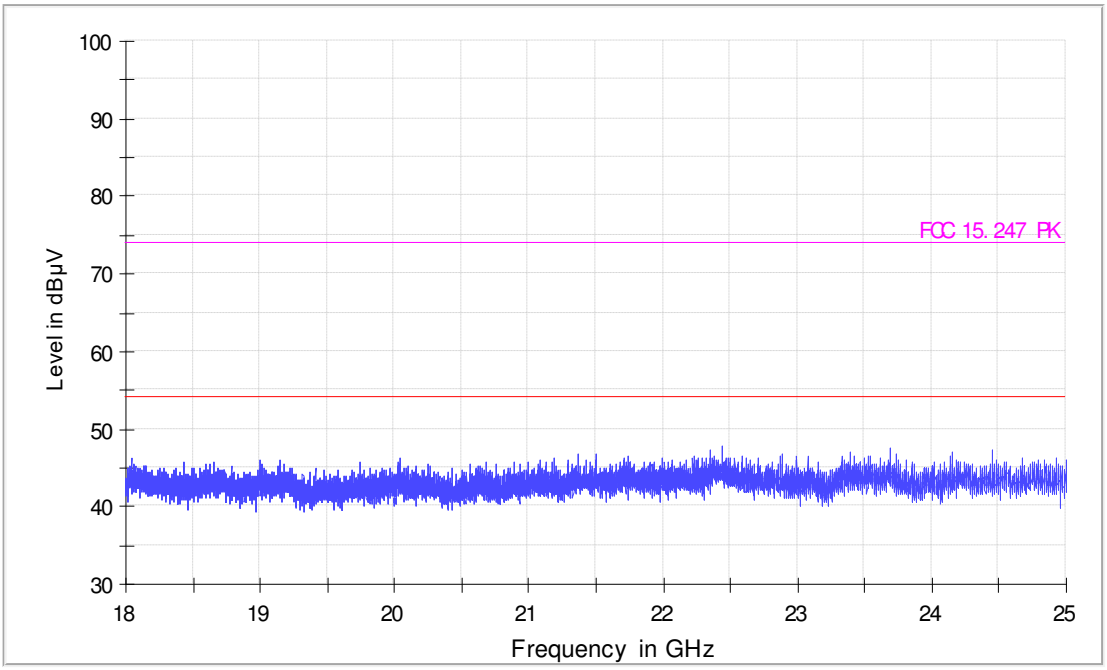
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



Radiated Emission

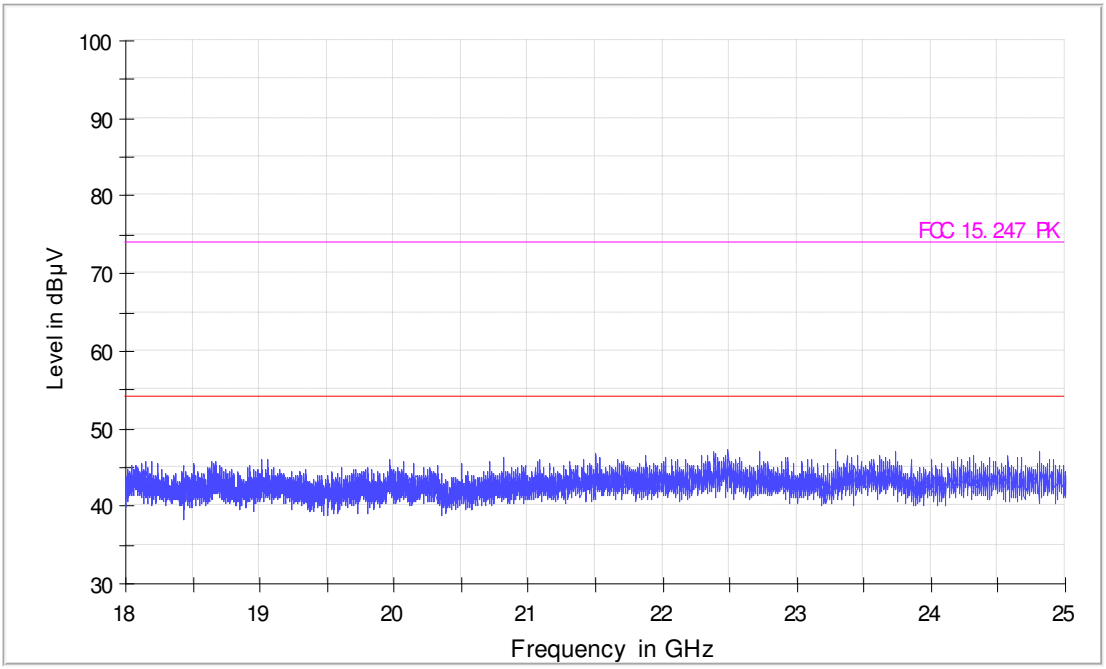
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 18-26.5GHz



25-40G

(Worst Case at BLE CH19)

Radiated Emission

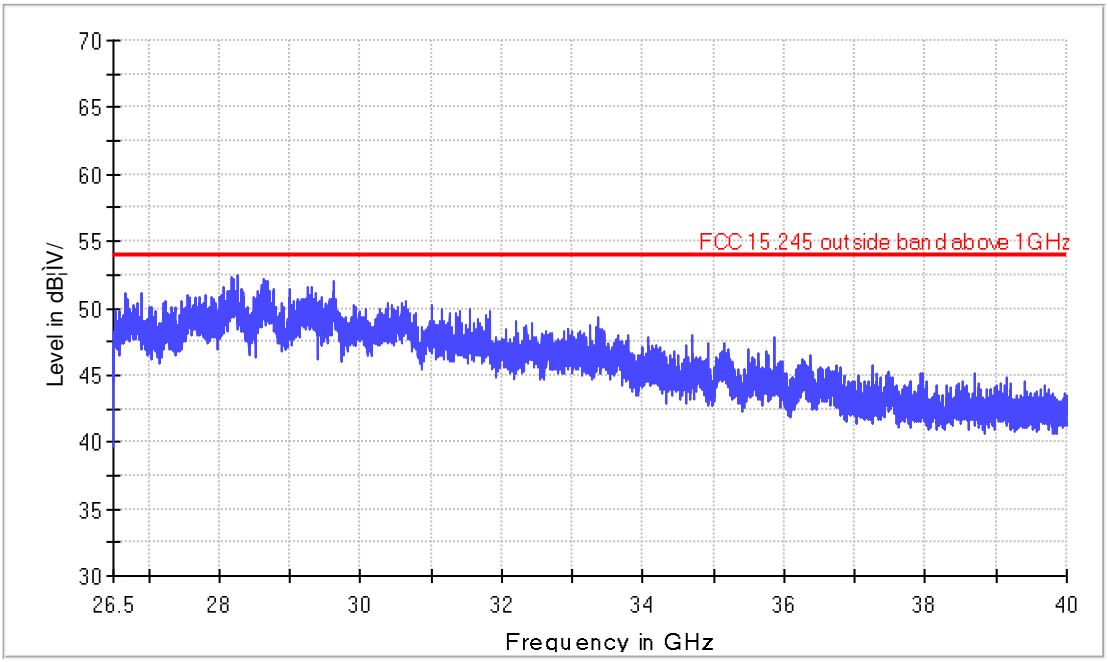
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 26.5-40GHz



Radiated Emission

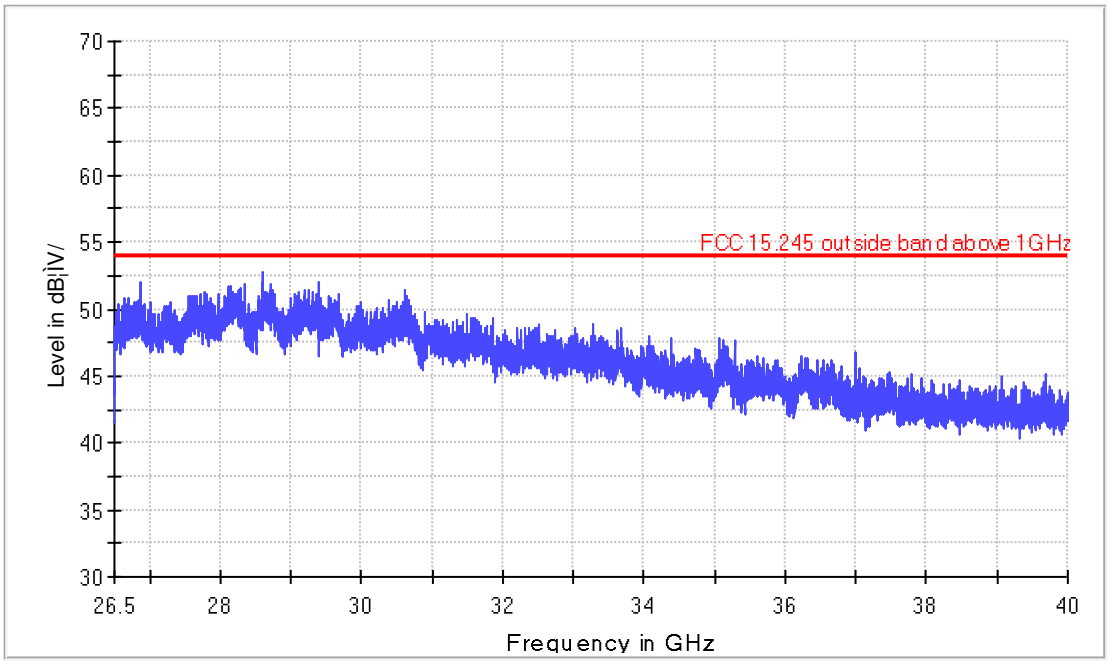
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 26.5-40GHz



Band edge

BLE CH0

Radiated Emission

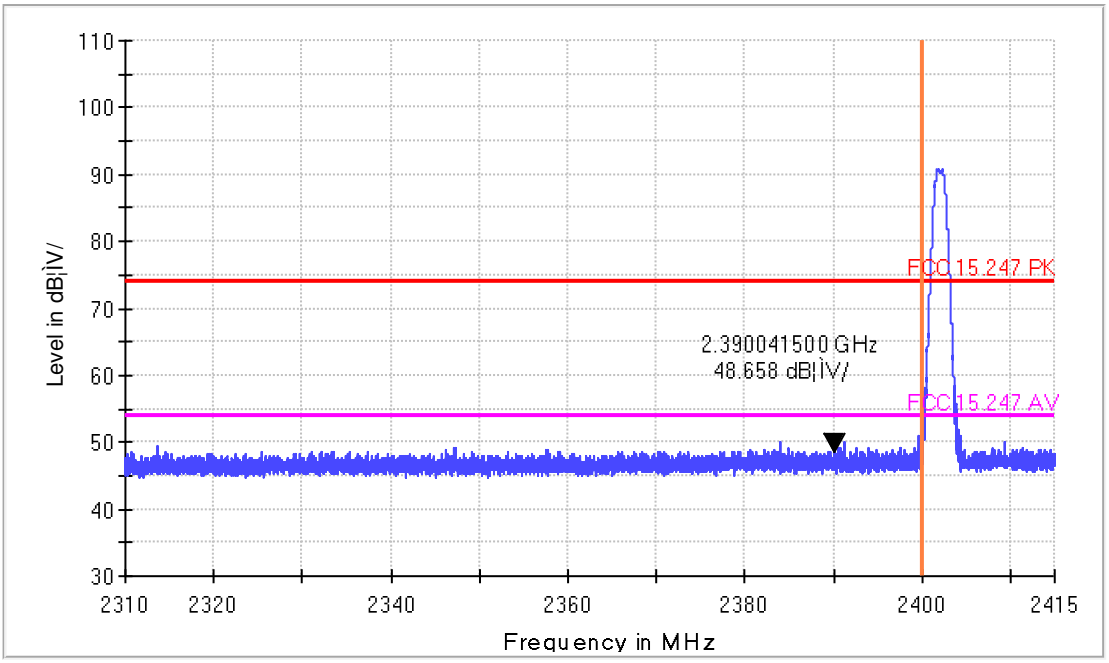
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-PK



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	50.24	-3.58	46.66	74.00	-27.34	Peak	Horizontal

Radiated Emission

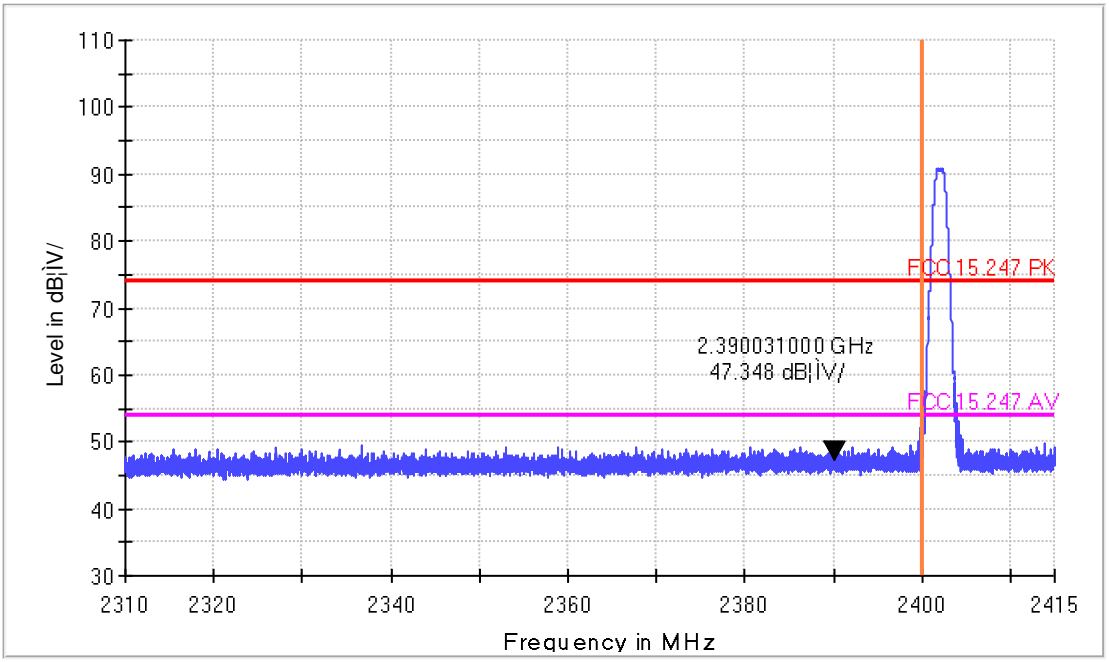
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-PK



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	50.93	-3.58	47.35	74.00	-26.65	Peak	Vertical

Radiated Emission

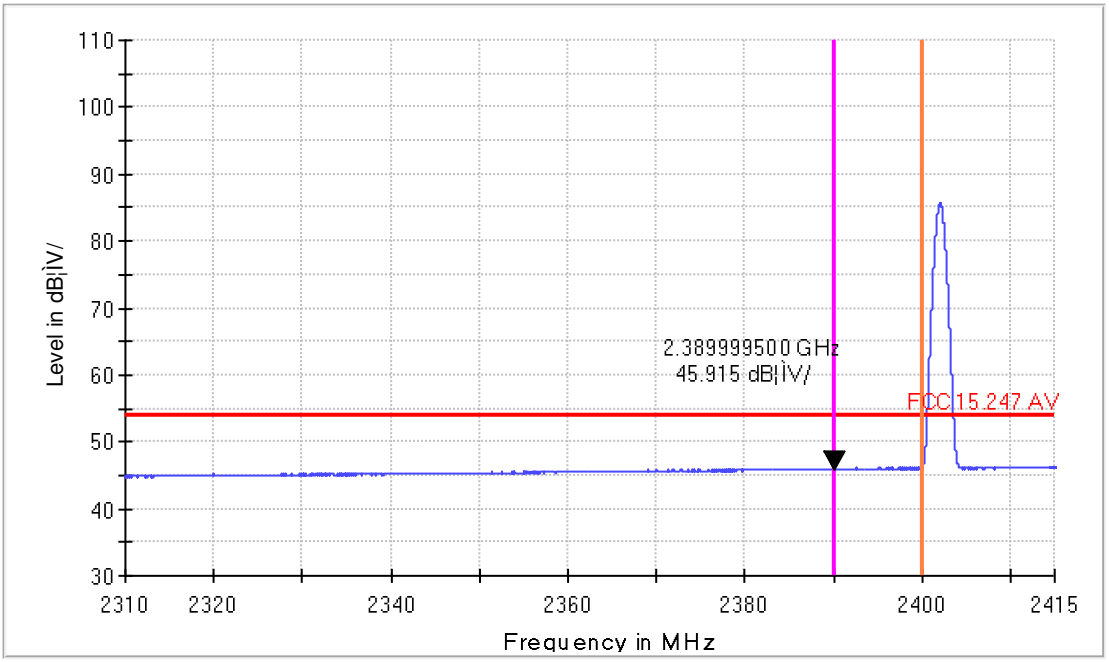
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-AV



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.50	-3.58	45.92	54.00	-8.08	Average	Horizontal

Radiated Emission

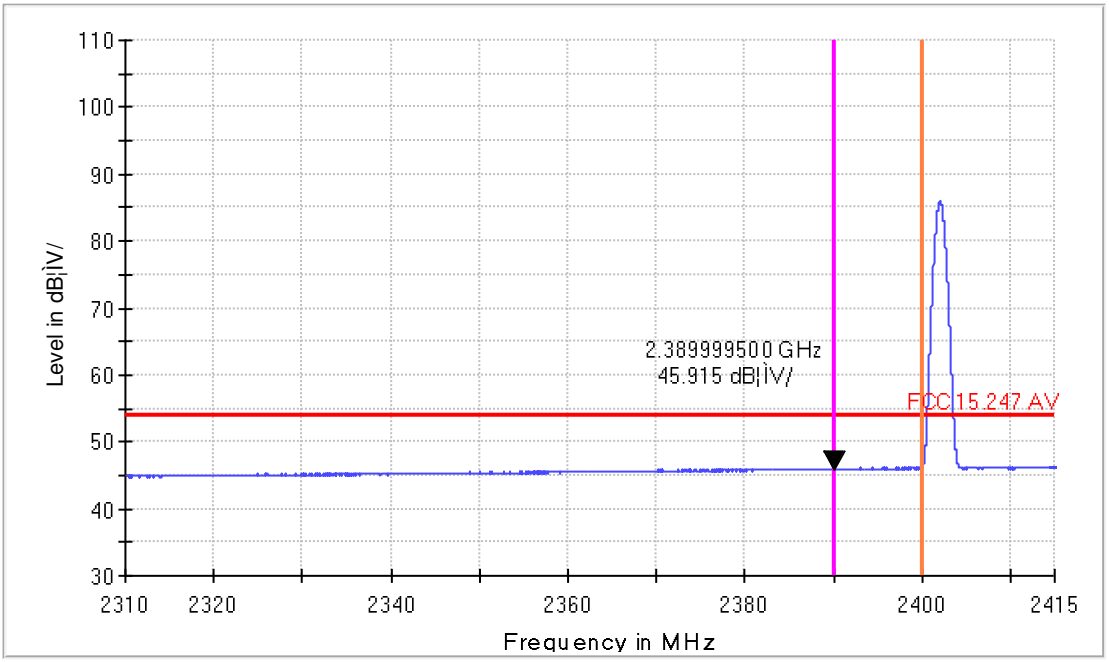
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH0
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-AV



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.50	-3.58	45.92	54.00	-8.08	Average	Vertical

Band edge

BLE CH39

Radiated Emission

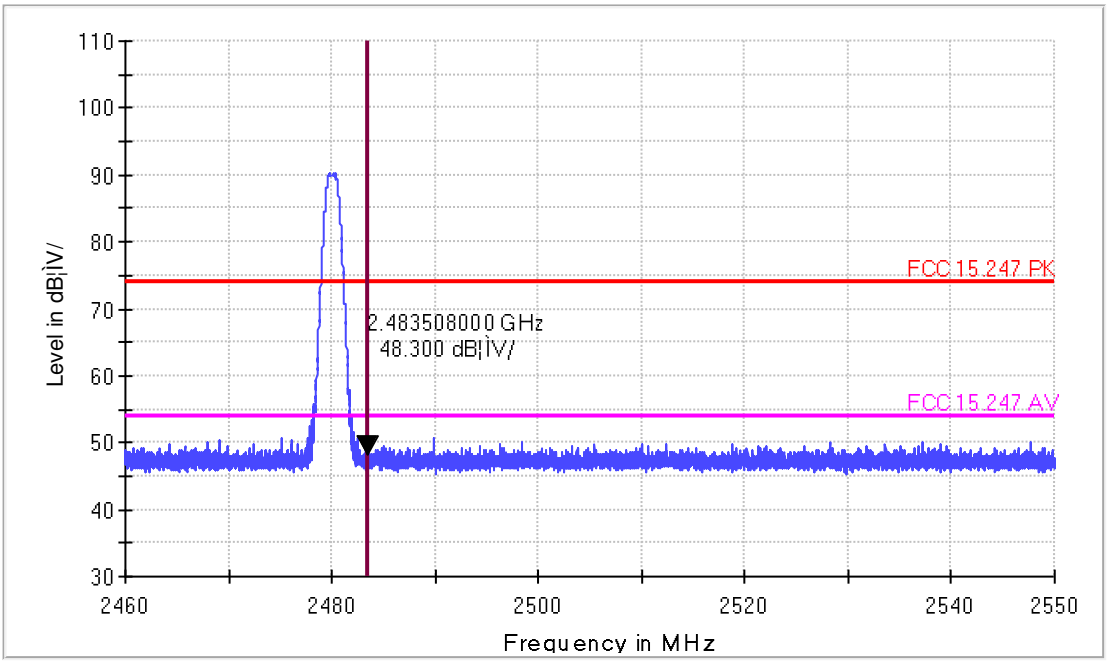
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-PK



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	51.54	-3.24	48.30	74.00	-25.70	Peak	Horizontal

Radiated Emission

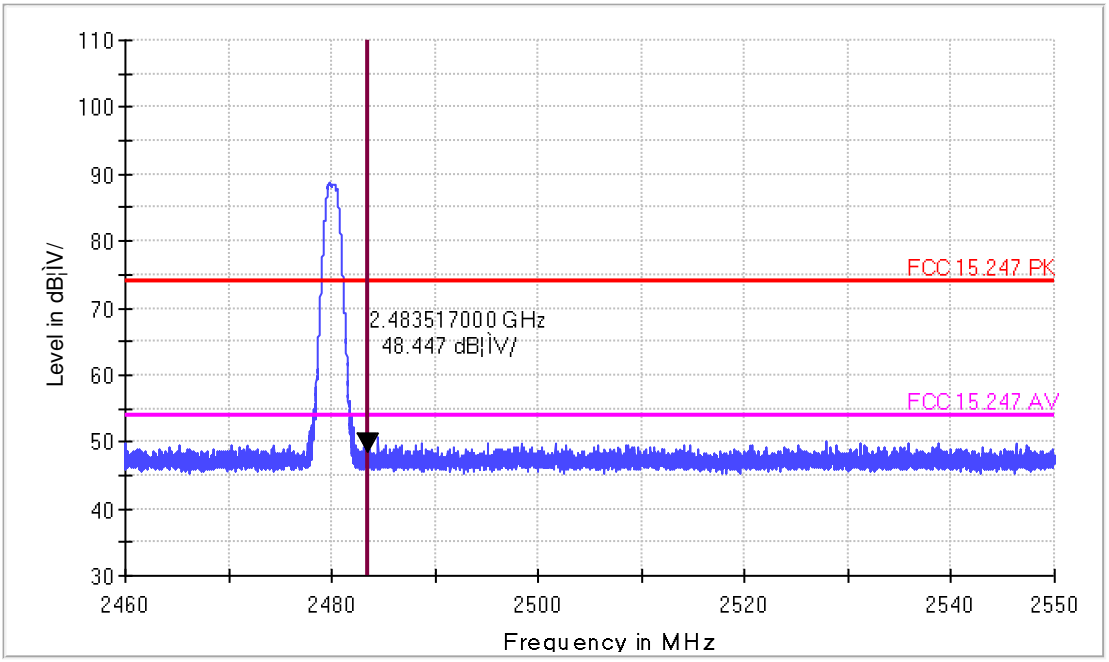
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-PK



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	51.69	-3.24	48.45	74.00	-25.55	Peak	Vertical

Radiated Emission

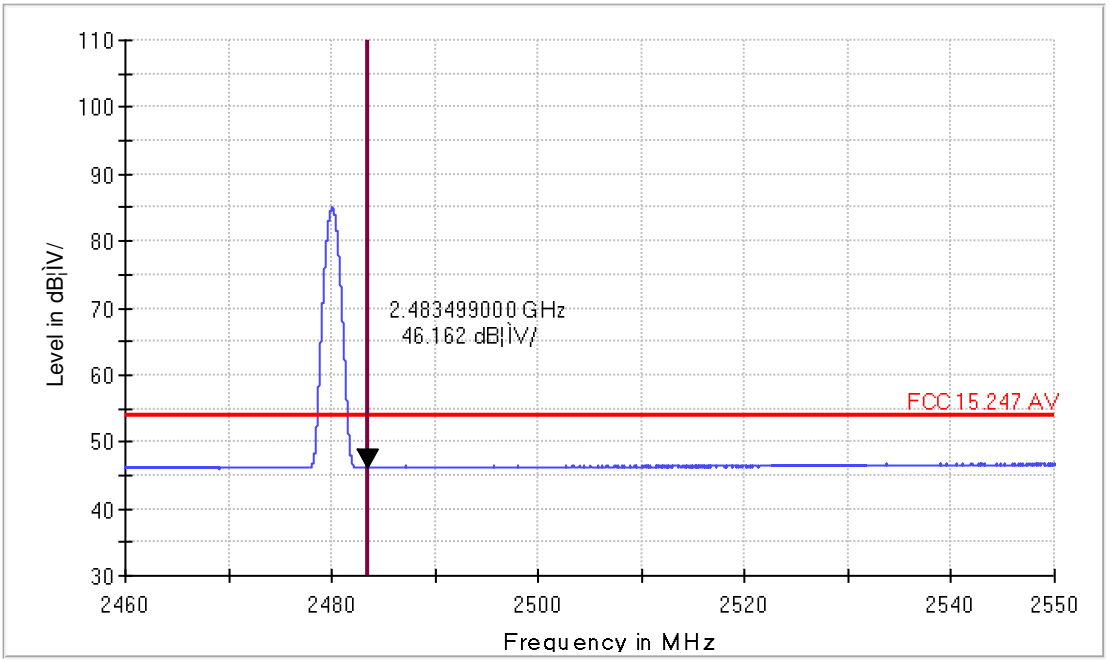
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-AV



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.36	-3.24	46.12	54.00	-7.88	Average	Horizontal

Radiated Emission

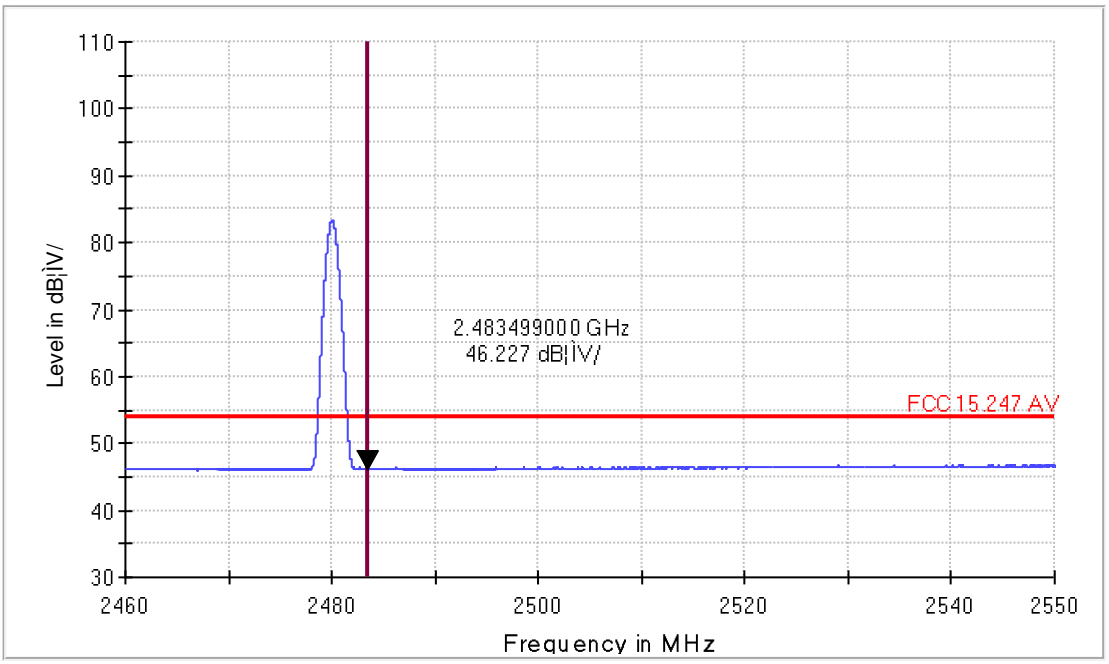
EUT Information

EUT Model Name:	JTAWB HH
Operation mode:	BLE CH39
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:24.1° Humidity:54.1
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	June 26

FCC Electric Field Strength 2.4GHz Bandedge-AV



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	49.47	-3.24	46.23	54.00	-7.77	Average	Vertical

Test Plot- for Gun variants

(Spots Check test)

1-18G

BLE CH19

Radiated Emission

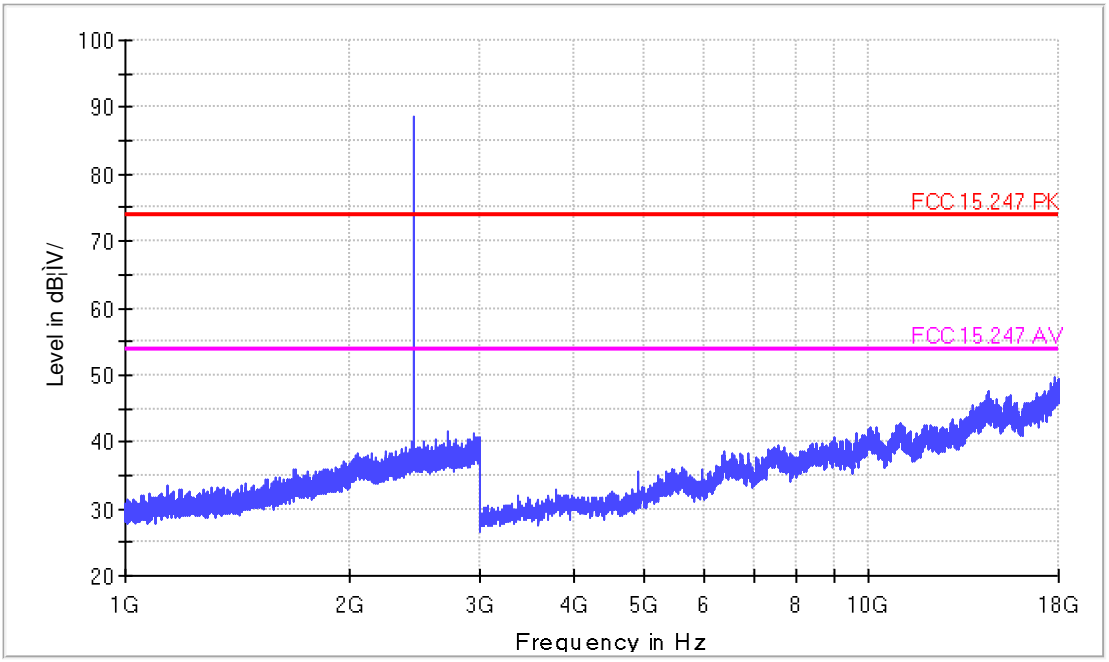
EUT Information

EUT Model Name:	JTAWB GUN
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:23.7° Humidity:52.9
Antenna Polarization:	Horizontal
Operator Name:	Belial.Lee
Date:	July 03

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Radiated Emission

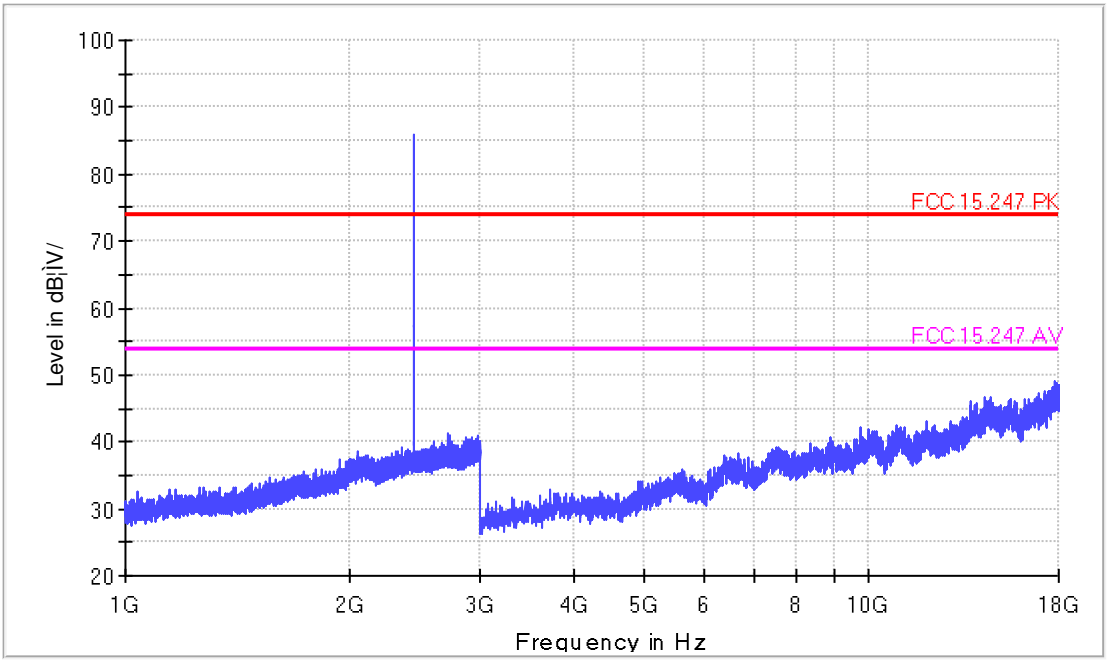
EUT Information

EUT Model Name:	JTAWB GUN
Operation mode:	BLE CH19
Test Voltage:	DC 3.75V
Comment:	

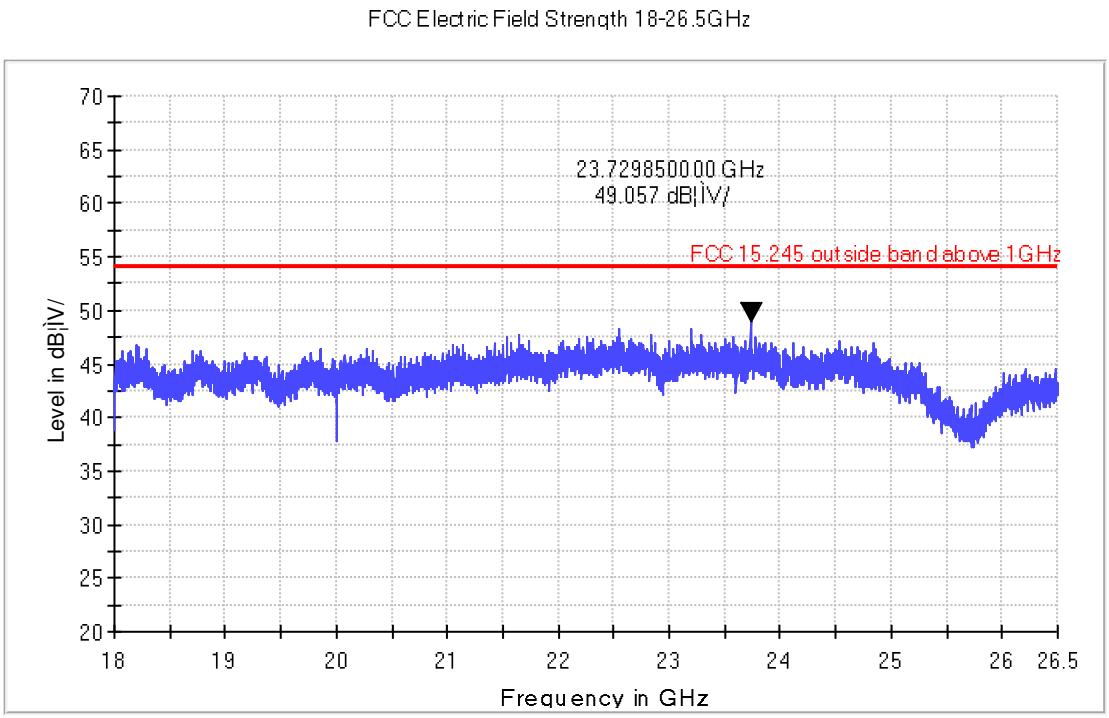
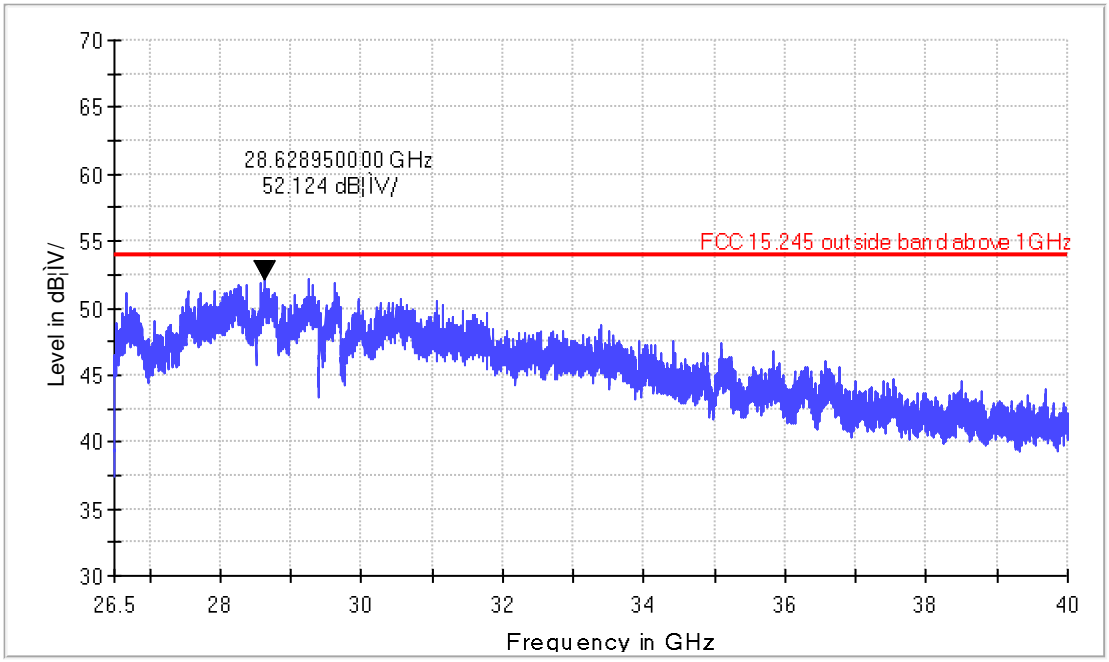
Common Information

Test Site:	SMQ EMC Lab.
Environment	Temperature:23.7° Humidity:52.9
Antenna Polarization:	Vertical
Operator Name:	Belial.Lee
Date:	July 03

FCC Electric Field Strength 1-18GHz operate on 2.4GHz



18-26.5GHz
No Peak found in pre-scan, only worst case result is listed in this report.



26.5-40GHz
No Peak found in pre-scan, only worst case result is listed in this report.