

# ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No. : E14DR-021

AGR No : A14NA-187

Applicant : iVue Pty Ltd.

Address : 59 Noonbinna Crescent, Northbridge, NSW 2063, Australia

Manufacturer : CHAHOO Limited

Address : Pangyo Technovalley B-4F, 631 Sampyeong-dong, Bundang-gu, Sungnam-si,  
Gyeonggi-do 463400, South Korea

Type of Equipment : Personal Smart Tagging System

FCC ID. : 2ADQW-TAGOV1

Model Name : Tago V.1

Serial number : N/A

Total page of Report : 32 pages (including this page)

Date of Incoming : November 26, 2014

Date of issue : December 08, 2014

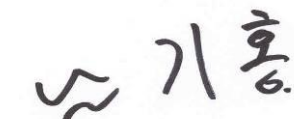
## SUMMARY

The equipment complies with the regulation; *FCC PART 15 SUBPART C Section 15.247*

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Prepared by:



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ONETECH Corp.

Approved by:



Gea-Won, Lee / Managing Director  
ONETECH Corp.

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### Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
E14DR-021	December 08, 2014	Initial Issue	All

## 1. VERIFICATION OF COMPLIANCE

Applicant : iVue Pty Ltd.  
 Address : 59 Noonbinna Crescent, Northbridge, NSW 2063, Australia  
 Contact Person : Sung Hyuk Kang / Director  
 Telephone No. : +61-400-111-117  
 FCC ID : 2ADQW-TAGOV1  
 Model Name : Tago V.1  
 Serial Number : N/A  
 Date : December 08, 2014

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM
E.U.T. DESCRIPTION	Personal Smart Tagging System
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2009
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART C Section 15.247
Modifications on the Equipment to Achieve Compliance	None
Final Test was Conducted On	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

## 2. TEST SUMMARY

### 2.1 Test items and results

SECTION	TEST ITEMS	RESULTS
15.247 (a) (2)	Minimum 6 dB Bandwidth	Met the Limit / PASS
15.247 (b) (3)	Maximum Peak Conducted Output Power	Met the Limit / PASS
15.247 (d)	100 kHz Bandwidth Outside the Frequency Band	Met the Limit / PASS
15.247 (d)	Radiated Emission which fall in the Restricted Band	Met the Limit / PASS
15.247 (e)	Peak Power Spectral Density	Met the Limit / PASS
15.209	Radiated Emission Limits	Met the Limit / PASS
15.207	Conducted Limits	N/A (See Note)
15.203	Antenna Requirement	Met requirement / PASS

Note: This test is not performed because the EUT is operated by DC battery.

### 2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

### 2.3 Related Submittal(s) / Grant(s)

Original submittal only

### 2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in FCC PART 15 SUBPART C Section 15.247.

### 2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2009. Radiated testing was performed at a distance of 3 m from EUT to the antenna.

### 2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 301-14, Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do, 464-862 Korea.

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-4112/ C-4617/ G-666/ T-1842 IC (Industry Canada) – Registration No. Site# 3736-3

-. Site Accreditation:

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation No. 85

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

### 3. GENERAL INFORMATION

#### 3.1 Product Description

The iVue Pty Ltd., Model Tago V.1 (referred to as the EUT in this report) is a Personal Smart Tagging System. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	Personal Smart Tagging System
Temperature Range	-25 °C ~ +70 °C
Operating Frequency	2 402 MHz ~ 2 480 MHz
RF Output Power	-5.79 dBm
Number of Channel	40 Channel
Modulation Type	DSSS
Antenna Type	PCB Pattern Antenna
USED RF CHIP	Marker: NORDIC Model Name: nRF8002
Antenna Gain	2.5 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	16 MHz

#### 3.2 Alternative type(s)/model(s); also covered by this test report.

-. None

### 4. EUT MODIFICATIONS

-. None

## 5. SYSTEM TEST CONFIGURATION

### 5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
Main Board	CHAHOO Limited	iCookie	N/A
Battery	Maxell	CR2032	N/A

### 5.2 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

Model	Manufacturer	Description	Connected to
Tago V.1	CHAHOO Limited	Personal Smart Tagging System (EUT)	Jig
N/A	N/A	Jig	EUT
LGR501	LG	Notebook PC	Jig
PAN35-20A	KIKUSUI ELECTRONICS CORP.	DC Power supply	Jig

### 5.3 Mode of operation during the test

For the testing, software used to control the EUT for staying in continuous transmitting is programmed.

For final testing, the EUT was set at 2 402 MHz, 2 440 MHz, and 2 480 MHz to get a maximum emission levels from the EUT. The EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XZ” axis, but the worst data was recorded in this report.



## 5.4 Configuration of Test System

**Line Conducted Test:** It is not need to test this requirement, because the EUT shall be operated by DC battery.

**Radiated Emission Test:** Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2009 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 meter open area test site.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

## 5.5 Antenna Requirement

For intentional device, according to section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### Antenna Construction:

The antenna of the EUT is a pattern antenna on the main board in the EUT, so no consideration of replacement by the user.

## 6. PRELIMINARY TEST

### 6.1 AC Power line Conducted Emissions Tests

During Preliminary Tests, the following operating mode was investigated

Operation Mode	The Worse operating condition (Please check one only)
It is not need to test this requirement, because the power of the EUT is supplied by battery.	

### 6.2 General Radiated Emissions Tests

During Preliminary Tests, the following operating modes were investigated

Operation Mode	The Worse operating condition (Please check one only)
TX mode	X

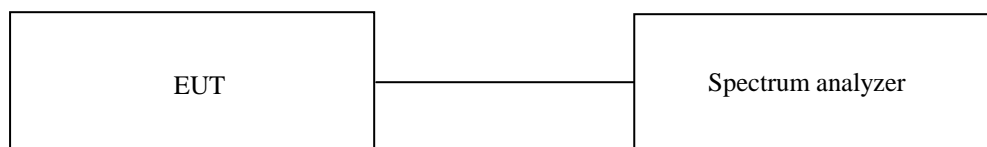
## 7. MINIMUM 6 dB BANDWIDTH

### 7.1 Operating environment

Temperature : 22 °C  
Relative humidity : 45.2 % R.H.

### 7.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.



### 7.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
■ -	FSV30	Rohde & Schwarz	Signal Analyzer	101372	Apr. 28, 2014(1Y)

All test equipment used is calibrated on a regular basis.

## 7.4 Test data

-. Test Date : December 02, 2014

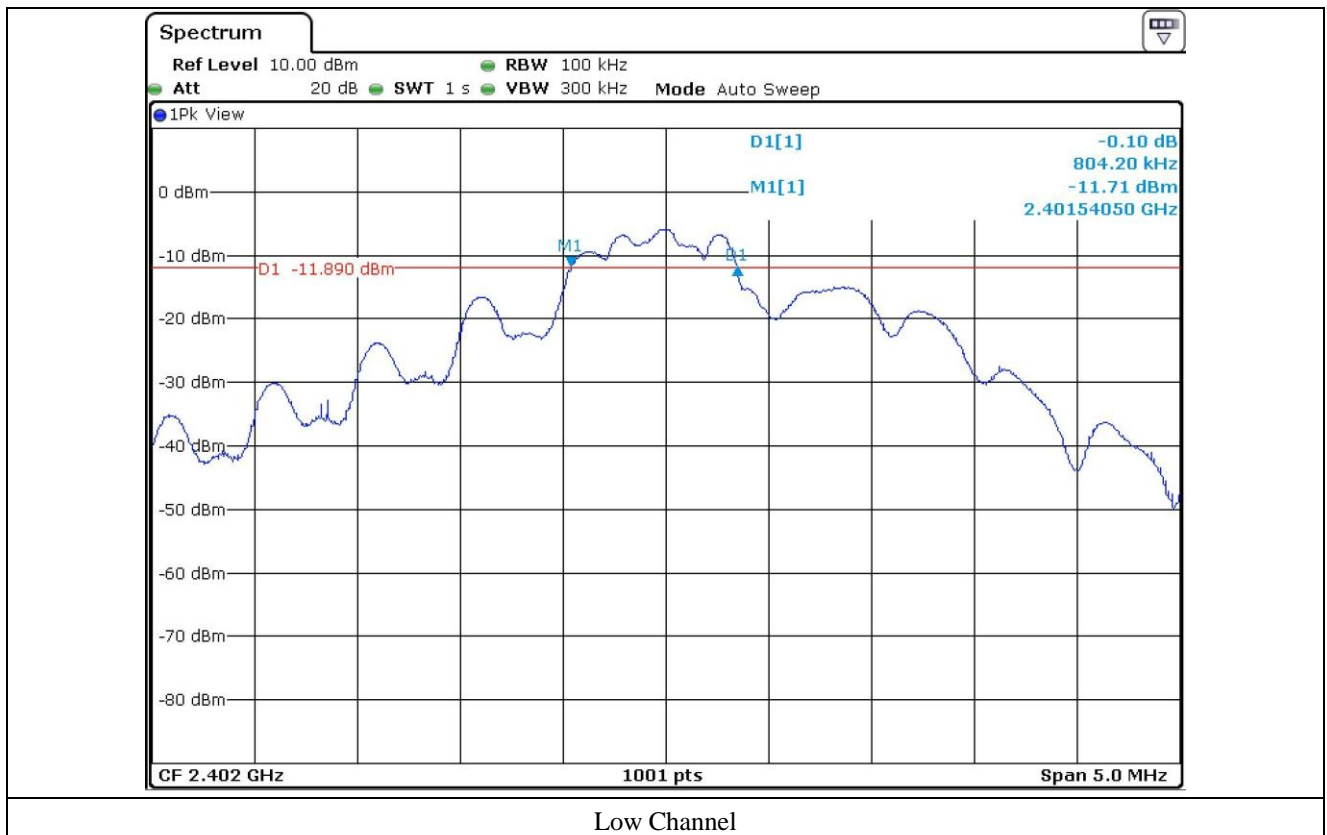
-. Test Result : Pass

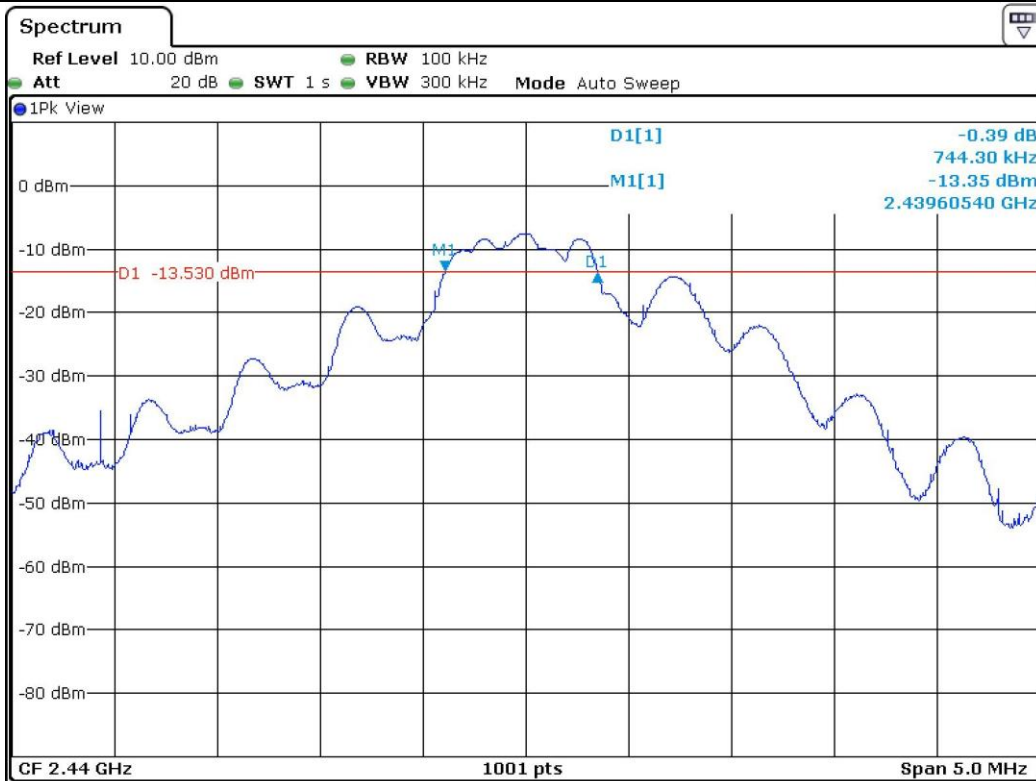
CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (kHz)	LIMIT (MHz)	MARGIN (kHz)
Low	2 402	804.20	0.5	-304.20
Middle	2 440	744.30	0.5	-244.30
High	2 480	644.40	0.5	-144.40

Remark. Margin = Measured Value - Limit

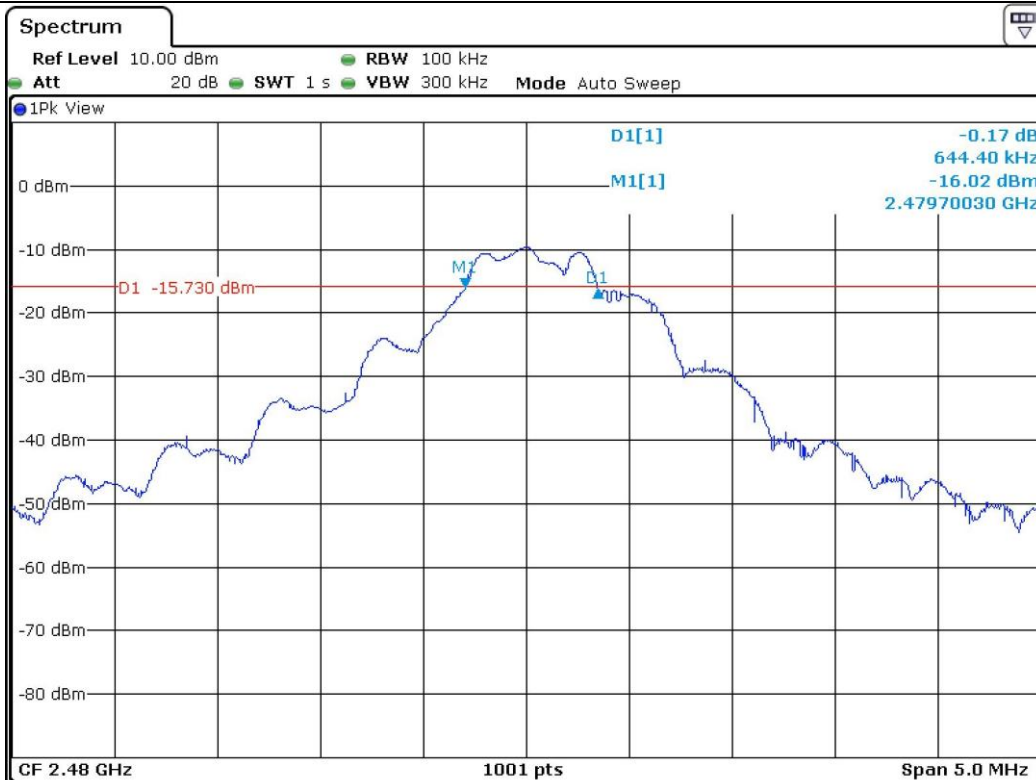


Tested by: Tae-Ho, Kim / Project Engineer





Middle Channel



High Channel

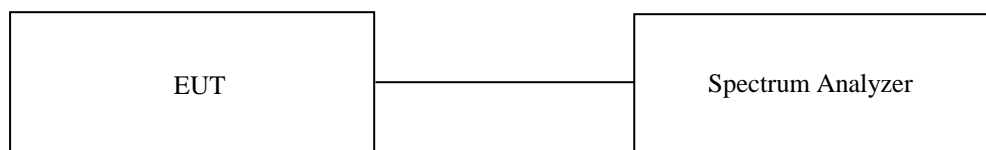
## 8. MAXIMUM PEAK OUTPUT POWER

### 8.1 Operating environment

Temperature : 22 °C  
Relative humidity : 45.2 % R.H.

### 8.2 Test set-up

The maximum peak output power was measured with the spectrum analyzer connected to the antenna output of the EUT. The spectrum analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 6 dB bandwidth. The EUT was operating in transmit mode at the appropriate center frequency.



### 8.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
■ -	FSV30	Rohde & Schwarz	Signal Analyzer	101372	Apr. 28, 2014(1Y)

All test equipment used is calibrated on a regular basis.

## 8.4 Test data

-. Test Date : December 02, 2014

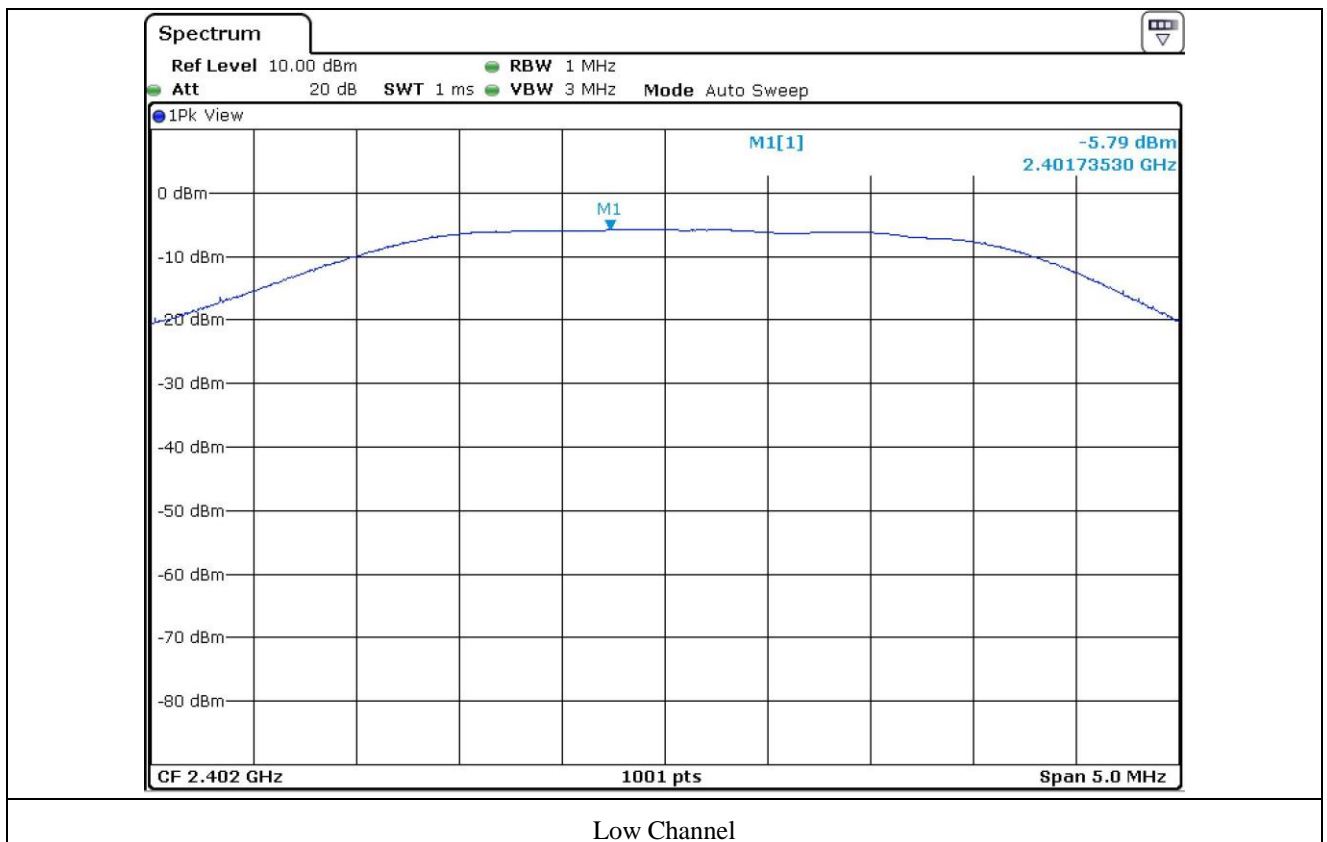
-. Test Result : Pass

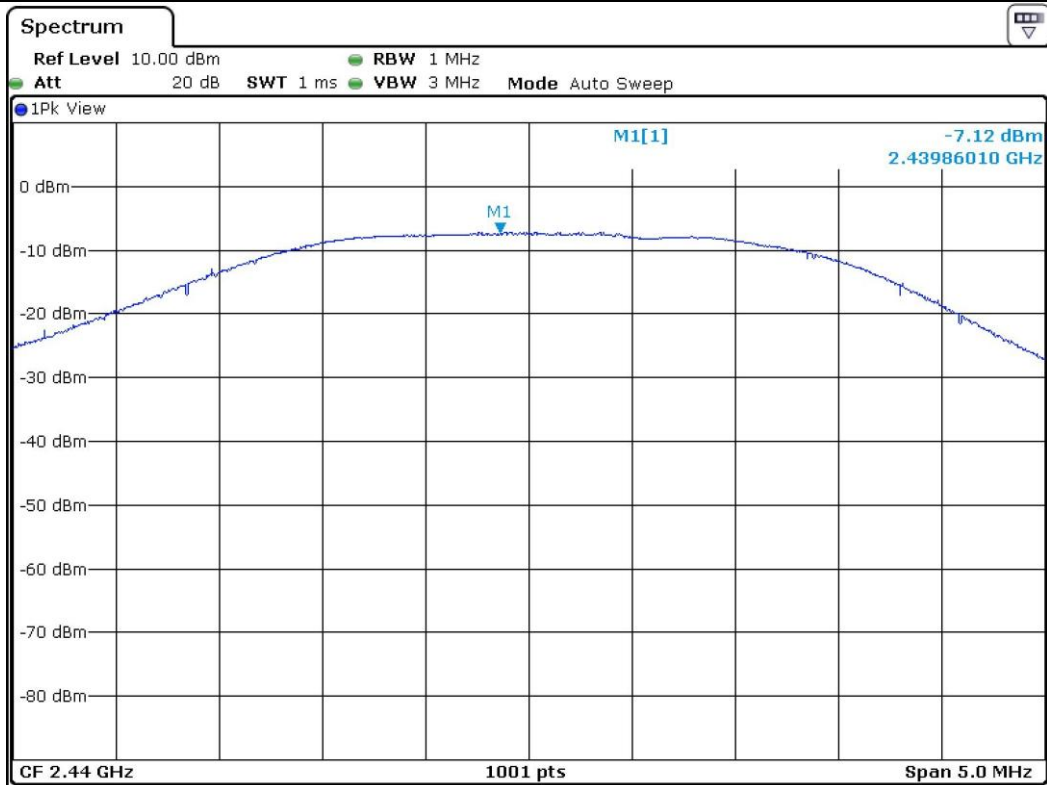
CHANNEL	FREQUENCY (MHz)	DTS (MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
LOW	2 402	804.20	-5.79	30	35.79
MIDDLE	2 440	744.30	-7.12	30	37.12
HIGH	2 480	644.40	-9.35	30	39.35

Remark. Margin = Limit – Measured Value (=Receiver Reading + Cable Loss)

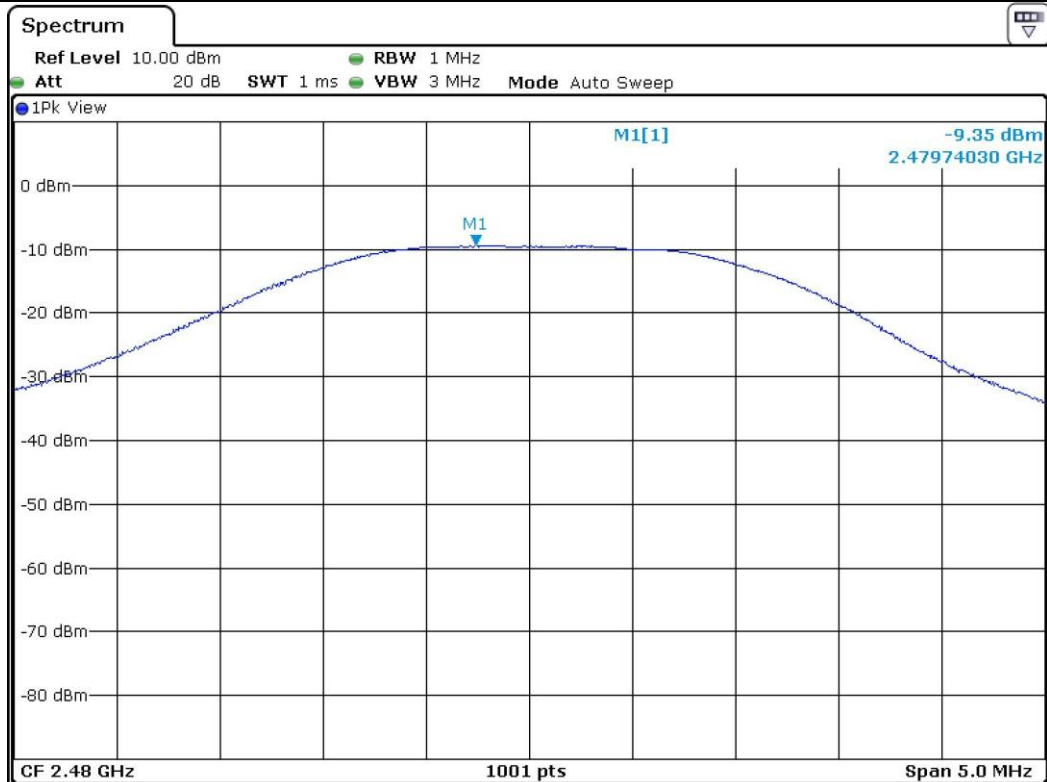


Tested by: Tae-Ho, Kim / Project Engineer





Middle Channel



High Channel

## 9. 100 kHz BANDWIDTH OUTSIDE THE FREQUENCY BAND

### 9.1 Operating environment

Temperature : 22 °C  
Relative humidity : 45.2 % R.H.

### 9.2 Test set-up for conducted measurement

The antenna output of the EUT was connected to the spectrum analyzer. The resolution and video bandwidth is set to 100 kHz, and peak detection was used.



### 9.3 Test set-up for radiated measurement

The radiated emissions measurements were performed on the 3 m, open-field test site. The EUT was placed on a non-conductive turntable approximately 0.8 m above the ground plane.

The frequency spectrum from 30 MHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

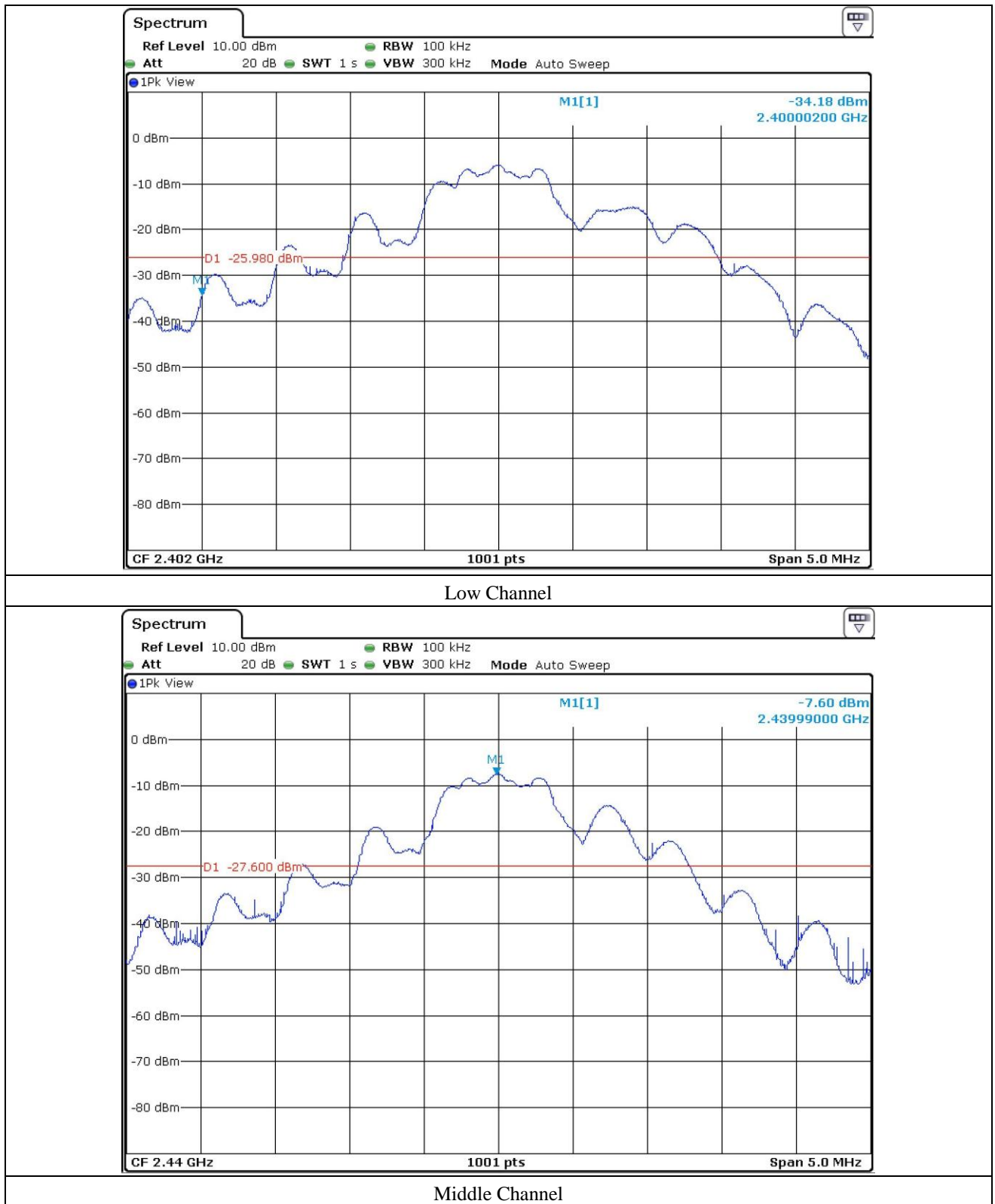
### 9.4 Test equipment used

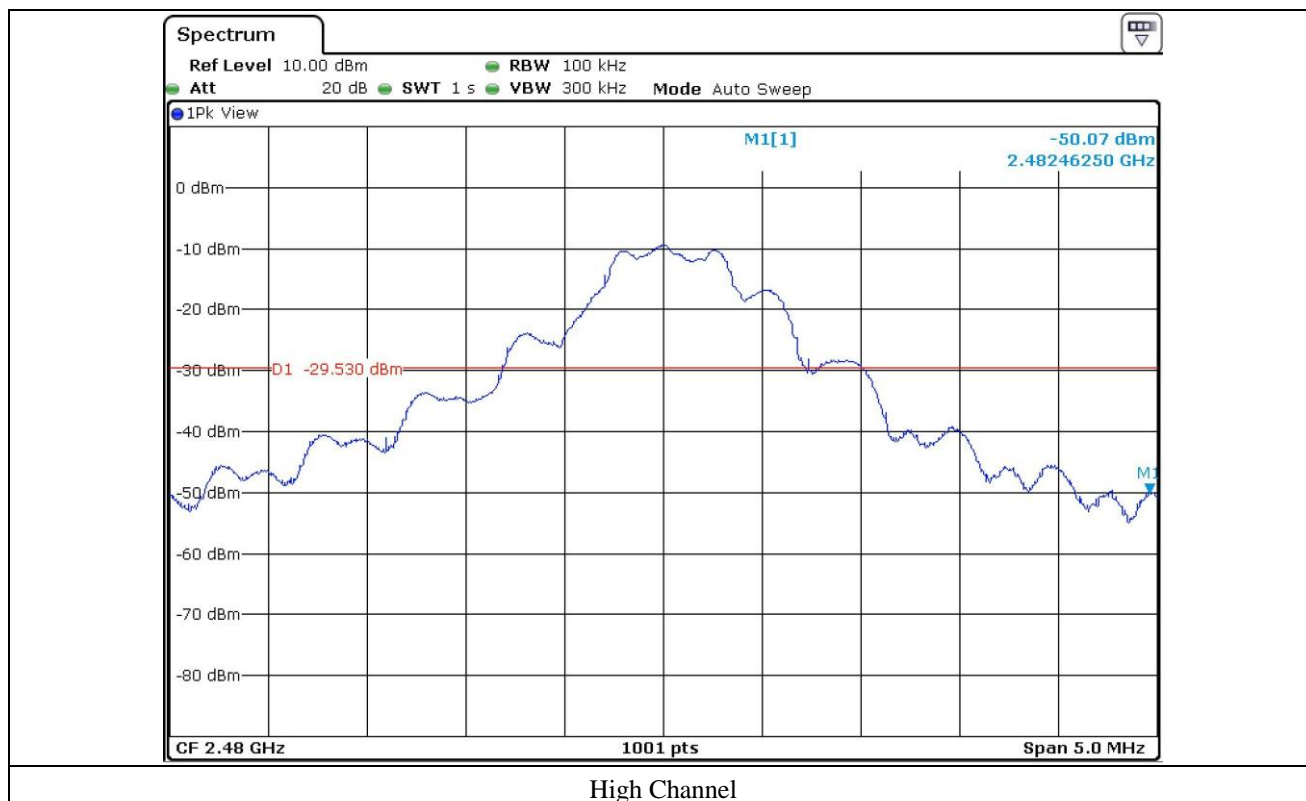
	Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
□ -	ESCI	Rohde & Schwarz	EMI Test Receiver	101012	Nov. 03, 2014(1Y)
■ -	ESU	Rohde & Schwarz	EMI Test Receiver	100261	Apr. 29, 2014(1Y)
□ -	8564E	HP	Spectrum Analyzer	3650A00756	Apr. 28, 2014(1Y)
■ -	310N	Sonoma Instrument	AMPLIFIER	312544	Apr. 28, 2014(1Y)
■ -	FSV30	Rohde & Schwarz	Signal Analyzer	101372	Apr. 28, 2014(1Y)
■ -	SCU-18	Rohde & Schwarz	PRE-AMPLIFIER	10041	Jan. 20, 2014(1Y)
■ -	MA240	HD GmbH	Antenna Master	N/A	N/A
■ -	HD100	HD GmbH	Position Controller	N/A	N/A
■ -	DS420S	HD GmbH	Turn Table	N/A	N/A
■ -	HFH2-Z2	Rohde & Schwarz	Loop Antenna	879 285/26	Dec. 11, 2012(2Y)
■ -	VULB9163	Schwarzbeck	TRILOG Broadband Antenna	9163-255	May 05, 2014(2Y)
■ -	BBHA9120D	Schwarzbeck	Horn Antenna	BBHA9120D295	Sep. 05, 2013(2Y)
■ -	BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Sep. 05, 2013(2Y)
■ -	83051A	Agilent	Microwave System Preamplifier	3950M00201	Apr. 30, 2014(1Y)

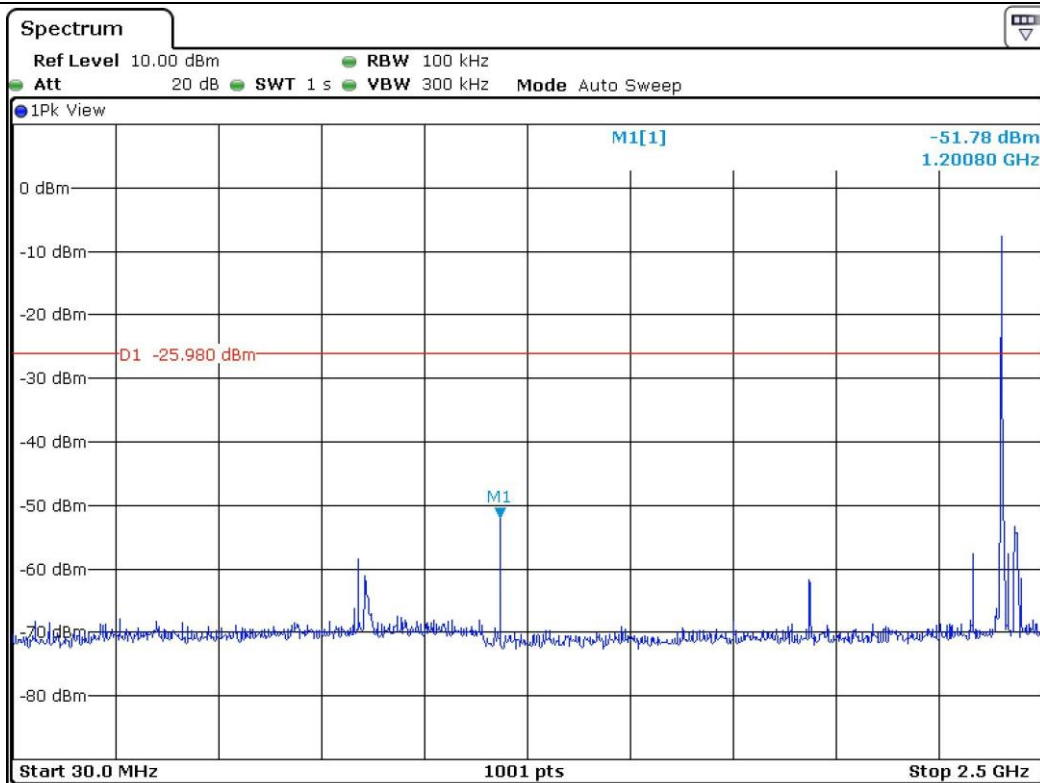
All test equipment used is calibrated on a regular basis.



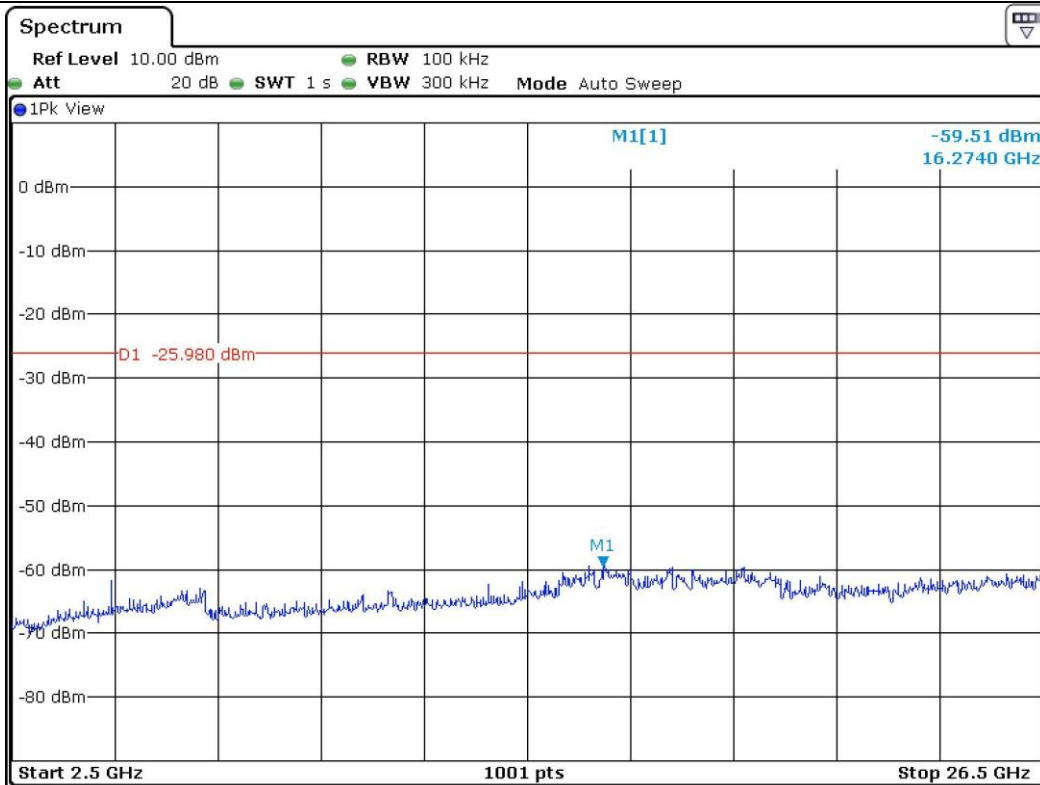
## 9.5 Test data for conducted emission



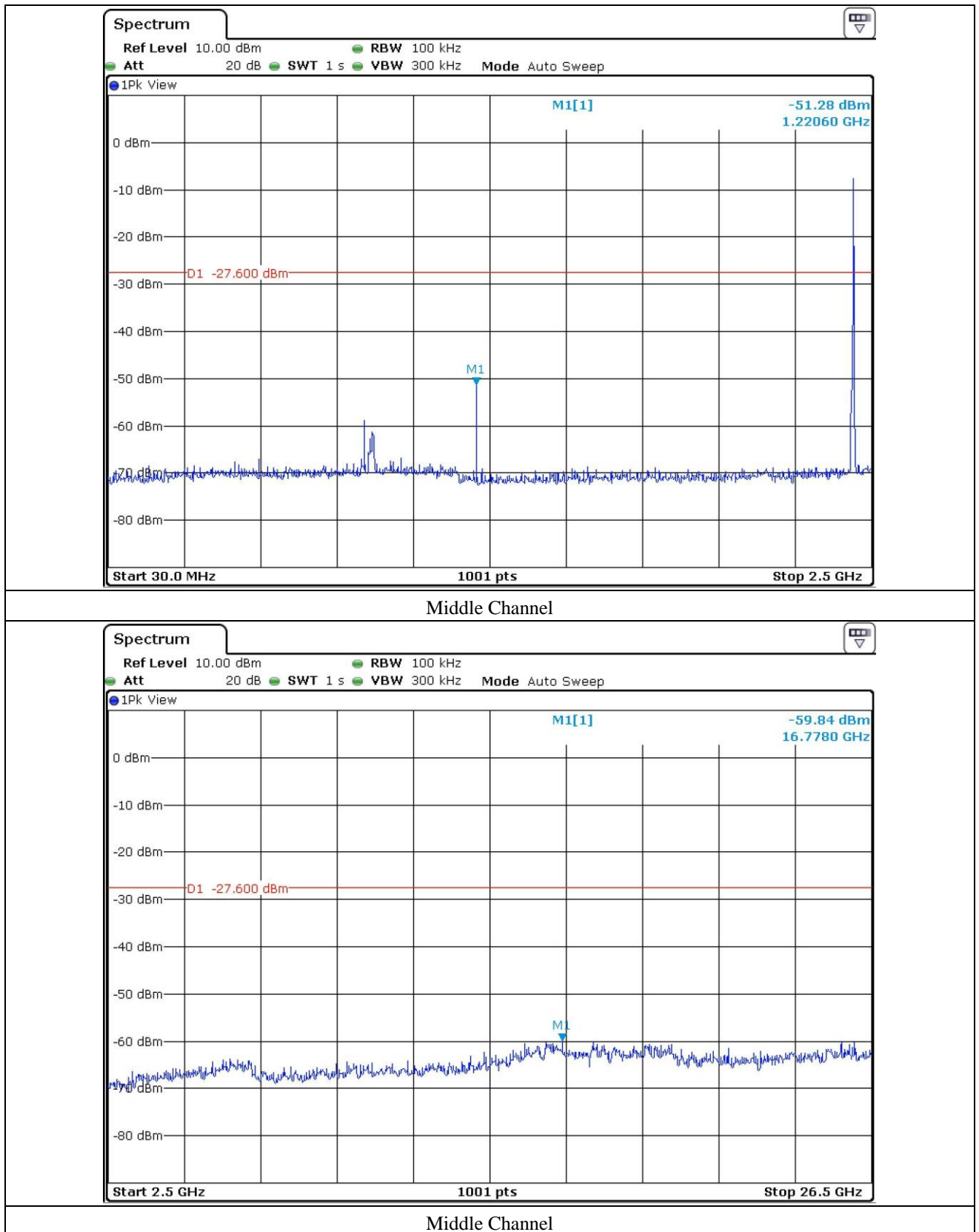


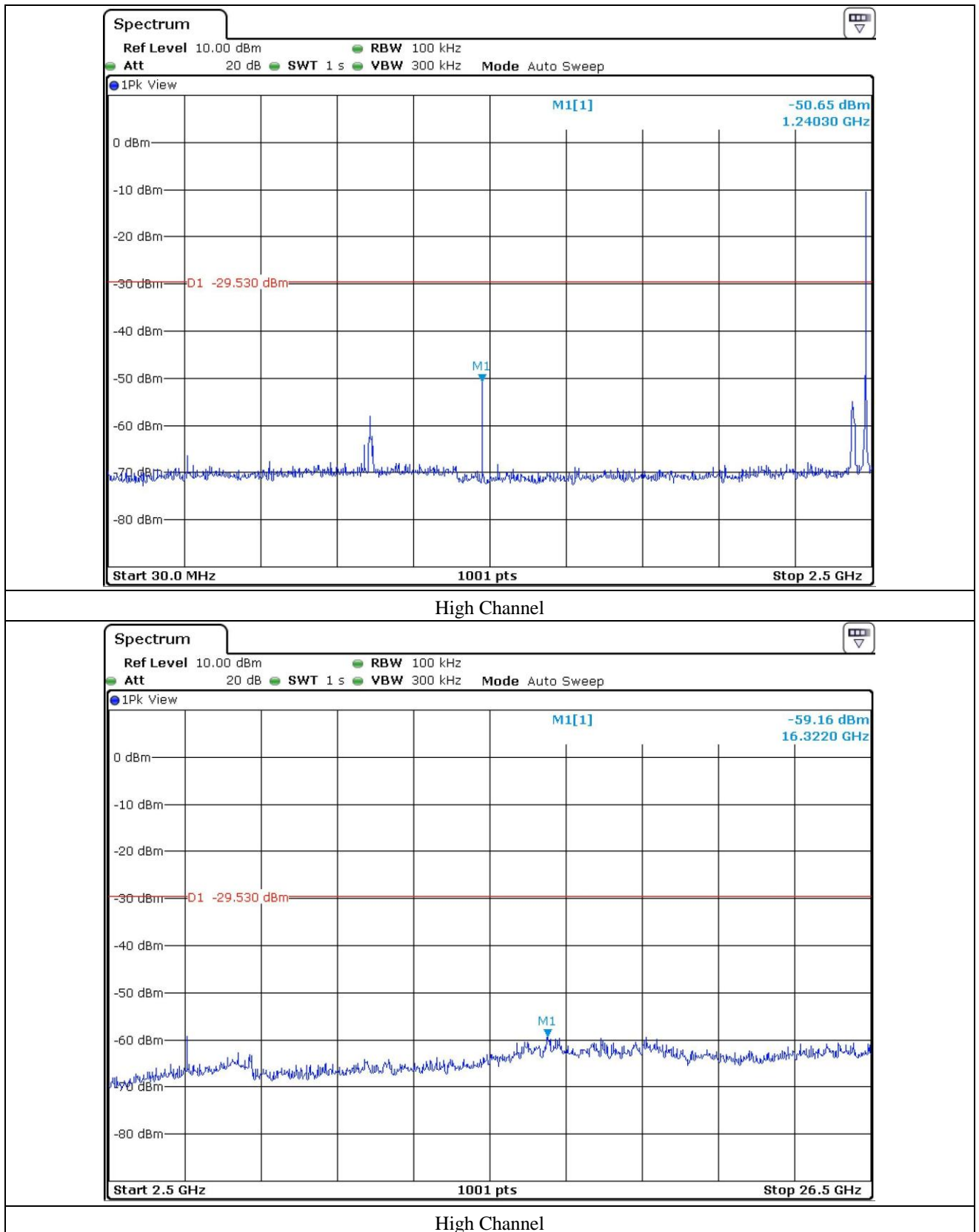


Low Channel



Low Channel





## 9.6 Test data for radiated emission

### 9.6.1 Radiated Emission which fall in the Restricted Band

- Test Date : December 02, 2014
- Resolution bandwidth : 1 MHz for Peak and Average Mode
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Measurement distance : 3 m
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 388.74	42.74	Peak	H	27.10	7.50	43.00	34.34	74.00	39.66
	28.45	Average	H				20.05	54.00	33.95
2 337.04	46.64	Peak	V				38.24	74.00	35.76
	28.73	Average	V				20.33	54.00	33.67
Test Data for High Channel									
2 483.51	44.27	Peak	H	27.10	7.50	43.00	35.87	74.00	38.13
	29.74	Average	H				21.34	54.00	32.66
2 483.51	45.21	Peak	V				36.81	74.00	37.19
	29.23	Average	V				20.83	54.00	33.17

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Project Engineer

### 9.6.2 Spurious & Harmonic Radiated Emission

- Test Date : December 02, 2014
- Resolution bandwidth : 1 MHz for Peak and Average Mode for the emissions fall in restricted band,  
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 402.00	87.24	Peak	H	27.00	7.50	42.80	78.94	-	78.94
	88.37	Peak	V				80.07	-	80.07
4 804.00	42.17	Peak	H	30.60	11.10	42.50	41.37	74.00	32.63
	30.42	Average	H				29.62	54.00	24.38
	42.21	Peak	V				41.41	74.00	32.59
	30.24	Average	V				29.44	54.00	24.56
Test Data for Middle Channel									
2 440.00	86.14	Peak	H	27.20	7.60	42.80	78.14	-	78.14
	87.29	Peak	V				79.29	-	79.29
4 880.00	42.35	Peak	H	30.70	11.20	42.50	41.75	74.00	32.25
	29.94	Average	H				29.34	54.00	24.66
	42.58	Peak	V				41.98	74.00	32.02
	30.11	Average	V				29.51	54.00	24.49

Test Data for High Channel									
2 480.00	85.47	Peak	H	27.40	7.70	42.90	77.67		77.67
	86.52	Peak	V				78.72		78.72
4 960.00	41.74	Peak	H	30.80	11.30	42.50	41.34	74.00	32.66
	30.16	Average	H				29.76	54.00	24.24
	42.01	Peak	V				41.61	74.00	32.39
	30.22	Average	V				29.82	54.00	24.18

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

Margin (dB) = Limits (dBμV/m) - Total Level (dBμV/m)

Total Level = Reading + Antenna Factor + Cable Loss – Pre-Amplifier Gain



Tested by: Tae-Ho, Kim / Project Engineer



## 10. PEAK POWER SPECTRAL DENSITY

### 10.1 Operating environment

Temperature : 22 °C  
Relative humidity : 45.2 % R.H.

### 10.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 3 kHz, the video bandwidth is set to 3 times the resolution bandwidth.



### 10.3 Test equipment used

Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
■ - FSV30	Rohde & Schwarz	Signal Analyzer	101372	Apr. 28, 2014(1Y)

All test equipment used is calibrated on a regular basis.

#### 10.4 Test data

-. Test Date : December 02, 2014

-. Test Result : Pass

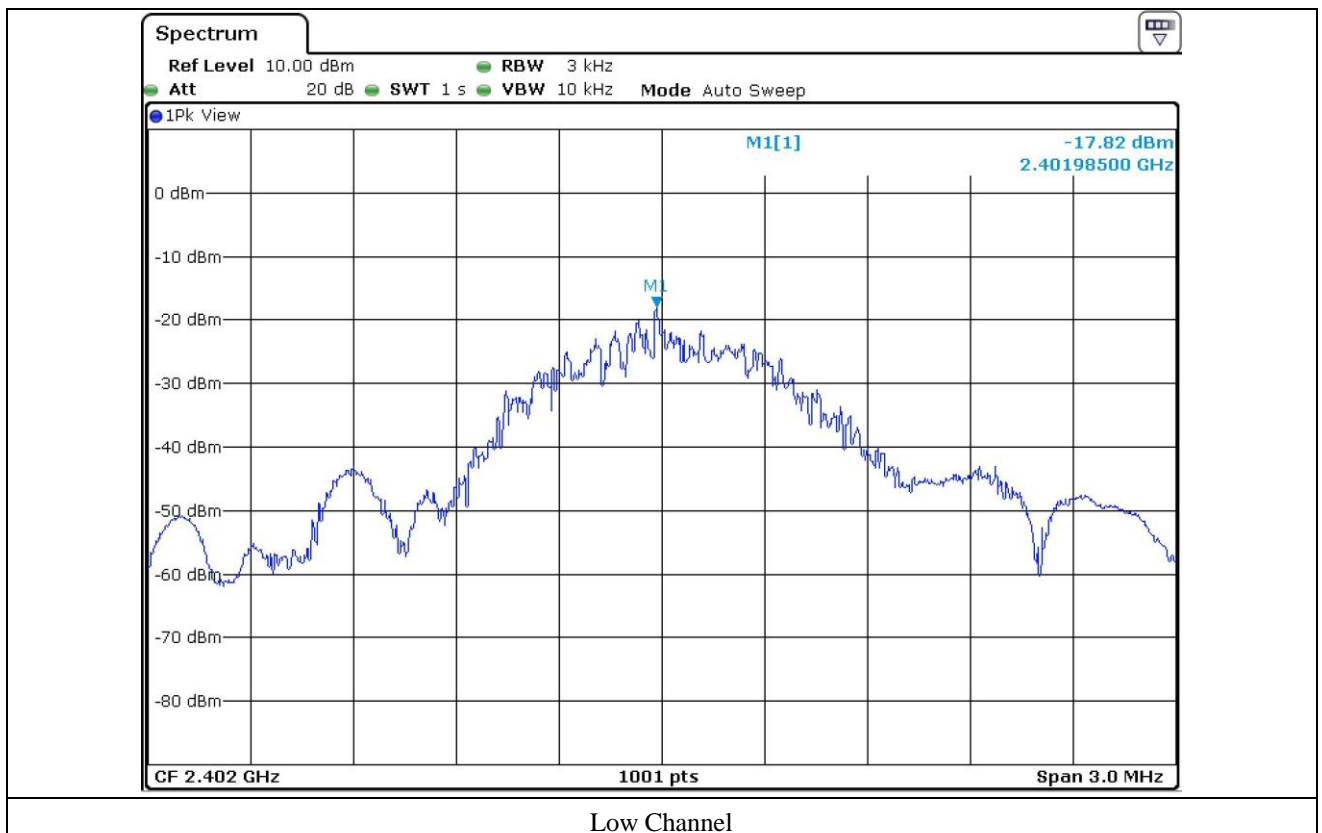
-. Operating Condition : Continuous transmitting mode

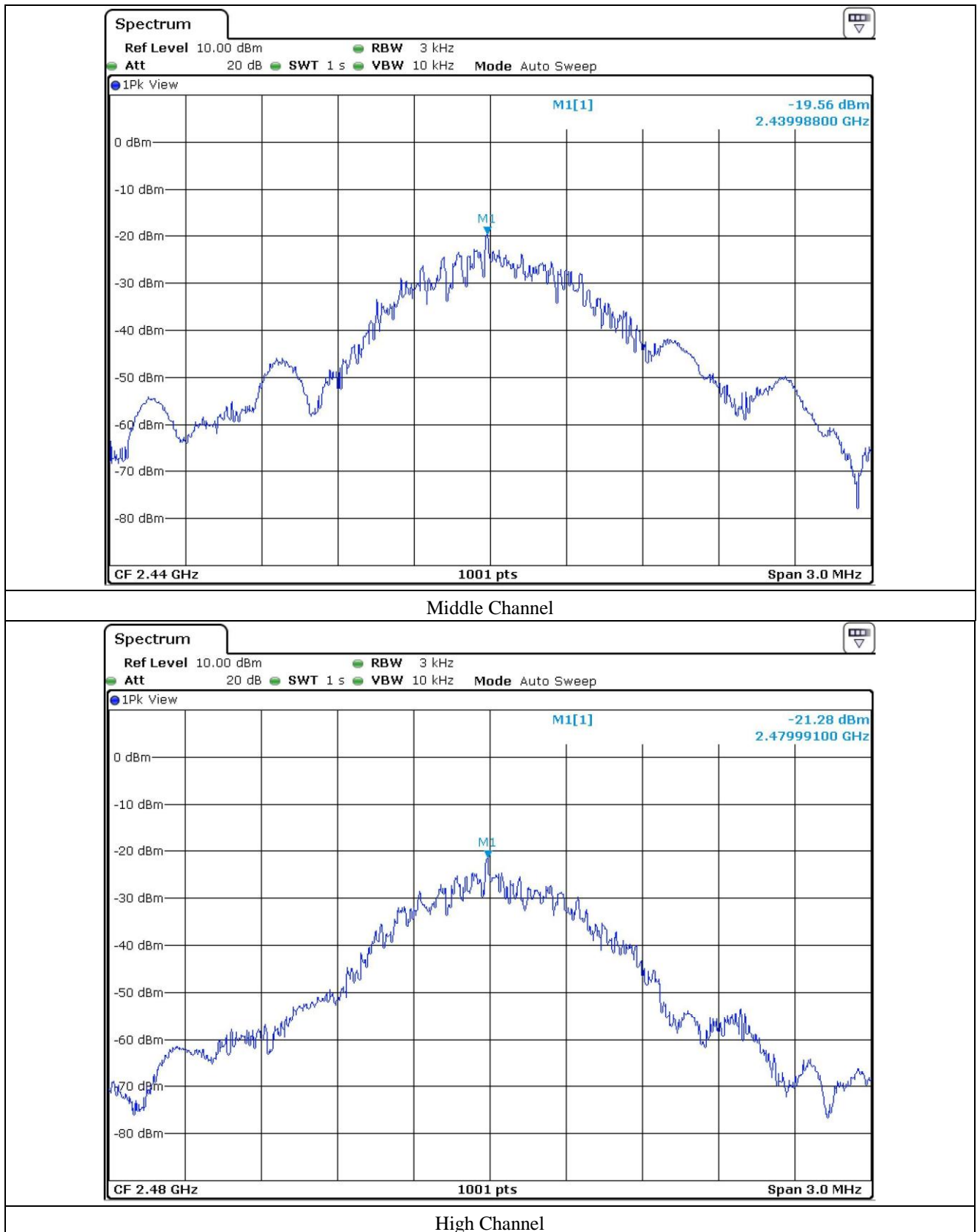
CHANNEL	FREQUENCY(MHz)	MEASURED VALUE (dBm)	LIMIT (dBm)	MARGIN (dB)
Low	2 402	-17.82	8.00	25.82
Middle	2 440	-19.56	8.00	27.56
High	2 480	-21.28	8.00	29.28

Remark. Margin = Limit – Measured value



Tested by: Tae-Ho, Kim / Project Engineer





## 11. RADIATED EMISSION TEST

### 11.1 Operating environment

Temperature : 22 °C  
Relative humidity : 45.2 % R.H.

### 11.2 Test set-up

The radiated emissions measurements were on the 3 m, open-field test site. The EUT and other support equipment were placed on a non-conductive turntable above the ground plane. The interconnecting cables from outside test site were inserted into ferrite clamps at the point where the cables reach the turntable.

The frequency spectrum from 30 MHz to 26.5 GHz was scanned and emission levels maximized at each frequency recorded. The system was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna.

### 11.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal. (Interval)
□ -	ESCI	Rohde & Schwarz	EMI Test Receiver	101012	Nov. 03, 2014(1Y)
■ -	ESU	Rohde & Schwarz	EMI Test Receiver	100261	Apr. 29, 2014(1Y)
□ -	8564E	HP	Spectrum Analyzer	3650A00756	Apr. 28, 2014(1Y)
■ -	310N	Sonoma Instrument	AMPLIFIER	312544	Apr. 28, 2014(1Y)
■ -	FSV30	Rohde & Schwarz	Signal Analyzer	101372	Apr. 28, 2014(1Y)
■ -	SCU-18	Rohde & Schwarz	PRE-AMPLIFIER	10041	Jan. 20, 2014(1Y)
■ -	MA240	HD GmbH	Antenna Master	N/A	N/A
■ -	HD100	HD GmbH	Position Controller	N/A	N/A
■ -	DS420S	HD GmbH	Turn Table	N/A	N/A
■ -	HFH2-Z2	Rohde & Schwarz	Loop Antenna	879 285/26	Dec. 11, 2012(2Y)
■ -	VULB9163	Schwarzbeck	TRILOG Broadband Antenna	9163-255	May 05, 2014(2Y)
■ -	BBHA9120D	Schwarzbeck	Horn Antenna	BBHA9120D295	Sep. 05, 2013(2Y)
■ -	BBHA9170	Schwarzbeck	Horn Antenna	BBHA9170178	Sep. 05, 2013(2Y)
■ -	83051A	Agilent	Microwave System Preamplifier	3950M00201	Apr. 30, 2014(1Y)

All test equipment used is calibrated on a regular basis.

## 11.4 Test data

Humidity Level : 45.2 % R.H.

Temperature: 22 °C

Limits apply to : FCC CFR 47, PART 15, SUBPART C, SECTION 15.247

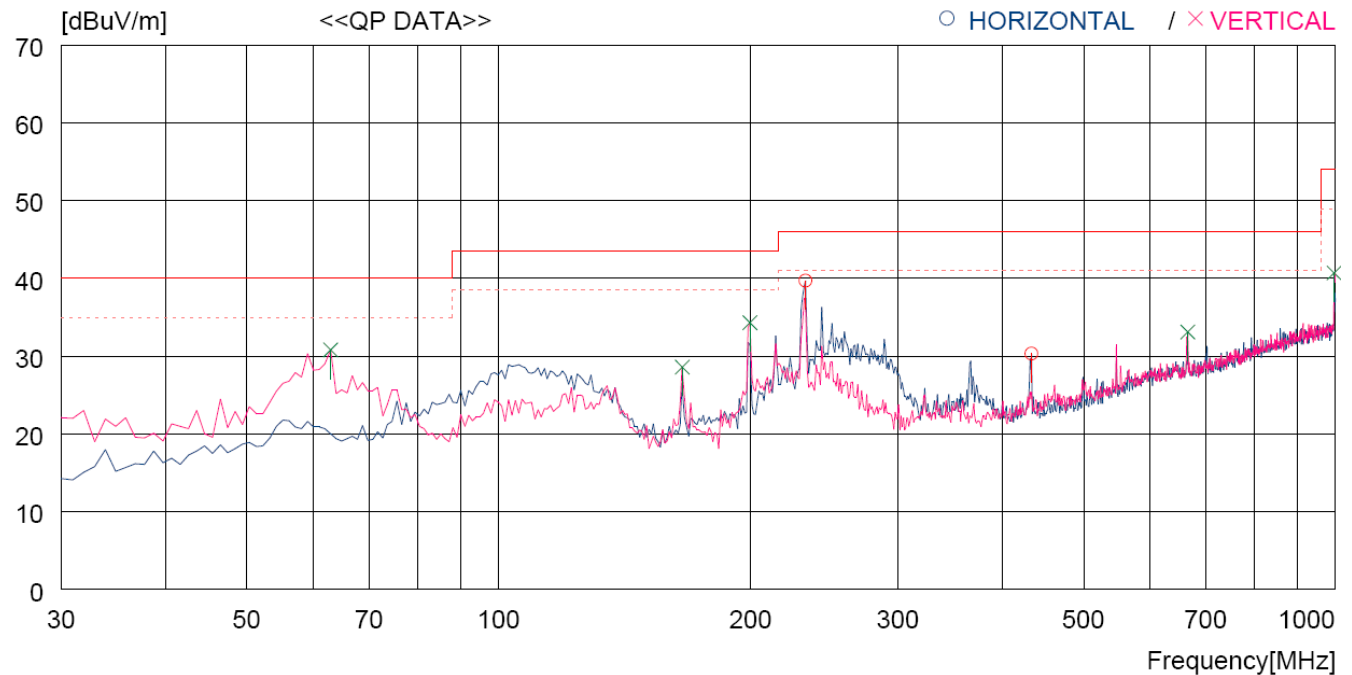
Result : PASSED

EUT : Personal Smart Tagging System

Date: December 02, 2014

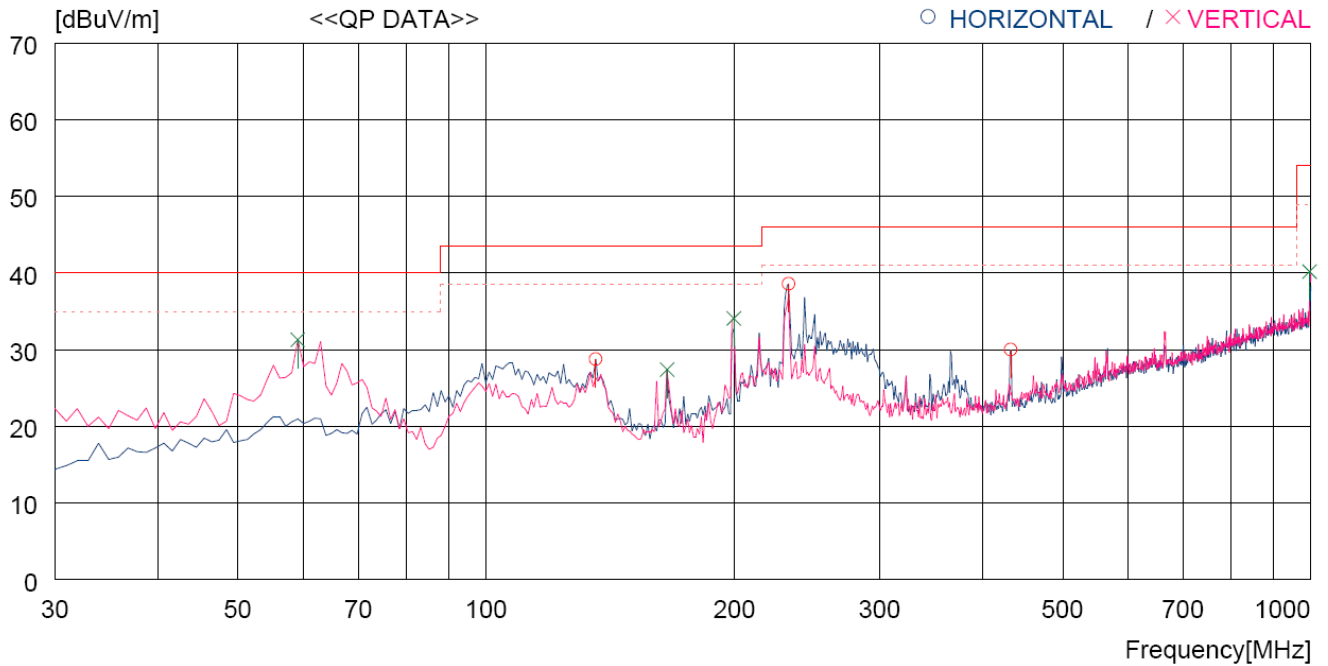
Detector : CISPR Quasi-Peak (6 dB Bandwidth: 120 kHz)

Operating condition : Low Channel



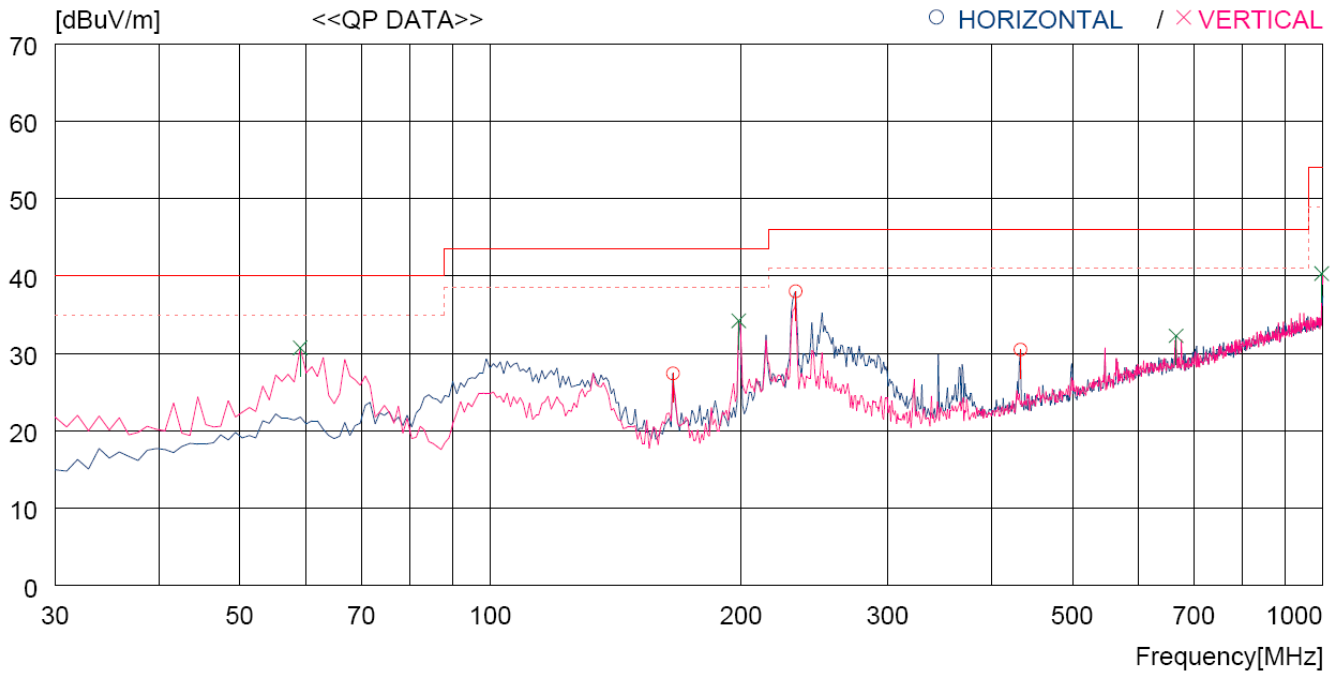
No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QF	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	232.730	50.5	13.1	9.1	33.0	39.7	46.0	6.3	100	278
2	433.521	35.6	17.4	10.3	33.0	30.3	46.0	15.7	100	359
----- Vertical -----										
3	62.980	43.4	12.9	7.6	33.1	30.8	40.0	9.2	100	0
4	165.800	43.5	9.5	8.6	33.0	28.6	43.5	14.9	100	0
5	199.750	46.2	12.3	8.8	33.0	34.3	43.5	9.2	100	0
6	666.316	34.4	20.6	11.4	33.3	33.1	46.0	12.9	100	243
7	996.106	35.4	24.1	12.8	31.6	40.7	54.0	13.3	100	20

Operating condition : Middle Channel



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	135.730	44.0	9.6	8.3	33.1	28.8	43.5	14.7	200	271
2	232.730	49.4	13.1	9.1	33.0	38.6	46.0	7.4	100	0
3	432.551	35.3	17.4	10.3	33.0	30.0	46.0	16.0	100	186
----- Vertical -----										
4	59.100	42.7	14.2	7.5	33.1	31.3	40.0	8.7	100	81
5	165.800	42.3	9.5	8.6	33.0	27.4	43.5	16.1	200	26
6	199.750	46.0	12.3	8.8	33.0	34.1	43.5	9.4	100	124
7	996.106	34.9	24.1	12.8	31.6	40.2	54.0	13.8	100	0

Operating condition : High Channel



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA TABLE	
	[MHz]	[dBuV]	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	165.800	42.3	9.5	8.6	33.0	27.4	43.5	16.1	200	0
2	232.730	48.8	13.1	9.1	33.0	38.0	46.0	8.0	100	359
3	433.521	35.8	17.4	10.3	33.0	30.5	46.0	15.5	100	359
----- Vertical -----										
4	59.100	42.1	14.2	7.5	33.1	30.7	40.0	9.3	100	305
5	198.780	46.2	12.2	8.8	33.0	34.2	43.5	9.3	100	0
6	666.316	33.6	20.6	11.4	33.3	32.3	46.0	13.7	100	0
7	996.106	35.0	24.1	12.8	31.6	40.3	54.0	13.7	100	0

Tested by: Tae-Ho, Kim / Project Engineer

#### 11.4.1 Test data for Below 30 MHz

- . Test Date : December 02, 2014
- . Resolution bandwidth : 200 Hz (from 9 kHz to 0.15 MHz), 9 kHz (from 0.15 MHz to 30 MHz)
- . Frequency range : 9 kHz ~ 30 MHz
- . Measurement distance : 3 m
- . Operating mode : Transmitting mode

Frequency (MHz)	Reading (dB $\mu$ V)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)
It was not observed any emissions from the EUT.									

#### 11.4.2 Test data for above 1 GHz

- . Test Date : December 02, 2014
- . Resolution bandwidth : 1 MHz for Peak and Average Mode
- . Video bandwidth : 1 MHz for Peak Mode, 10 Hz for Average Mode
- . Frequency range : 1 GHz ~ 26.5 GHz
- . Measurement distance : 3 m
- . Operating mode : Transmitting mode

Frequency (MHz)	Reading (dB $\mu$ V)	Ant. Pol. (H/V)	Ant. Height (m)	Angle (°)	Ant. Factor (dB/m)	Cable Loss	Emission Level(dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)
It was not observed any emissions from the EUT.									



Tested by: Tae-Ho, Kim / Project Engineer