



# JAPAN RADIO TEST REPORT

## 920MHZ BAND

**Product Name** : AI Home Gateway  
**Model Name** : NCP-HG100  
**Applicant** : Sony Mobile Communications Inc.  
4-12-3, Higashi-shinagawa, Shinagawa-ku, Tokyo,  
140-0002, Japan  
**Manufacturer** : Wistron Corporation  
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,  
New Taipei City 221, Taiwan R.O.C.  
**Type Emissions** : F1D  
**Declaration  
Output Power** : 0.0042 W  
**Stanard** : Article 49-9 and the relevant articles of the  
Ordinance Regulating Radio Equipment  
**Test procedure** : Refers to DSPR procedure of "Telemeter,  
telecontrol and data transmission 2-1-8"

The product sample received on Jul. 12, 2018 and testing was started from Jul. 12, 2018 and completed on Sep. 07, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8 and shown to be compliant with the applicable technical standards. Article 2 Paragraph 1 Item 8 of the Certificate Ordinance of the Radio Law indicates the classification of the specified radio equipment.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Jones Tsai

**SPORTON INTERTIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

Report No.	Version	Description	Issued Date
JR871228E	01	Initial issue of report	Sep. 13, 2018
JR871228E	02	Revising the test data in appendix b.	Sep. 20, 2018
JR871228E	03	Revising the test data information in appendix b.	Sep. 25, 2018
JR871228E	04	Revising the test procedure information	Oct. 01, 2018

## Summary of Test Result

Report Clause	Test Items	Result (PASS/FAIL)
3.1	Frequency Tolerance	Pass
3.2	Occupied Bandwidth	Pass
3.3	Unwanted Emission Strength	Pass
3.4	RF Output Power / Tolerance	Pass
3.5	Limitation of Secondary Radiated Emission	Pass
3.6	Transmission Antenna Gain	Pass
3.7	Tolerance of adjacent channel leakage power	Pass
3.8	Carrier Sensing Function	Pass
3.9	Transmission Time Restriction	Pass
3.10	Construction Protection Confirmation	Pass

Reviewed by: Louis Wu

Report Producer: Wii Chang

# 1 General Description

## 1.1 Feature of Equipment Under Test

Product Feature & Specification		
Product Name	AI Home Gateway	
Model Name	NCP-HG100	
Support Category / Frequency Range	Article 2-1-8 / 920MHz	
Number of Channels	922.5MHz , 923.9MHz , 926.3MHz (3 channels)	
Channel Spacing	200 KHz	
Declaration RF Output Power	0.0042 W	
Power Source <sup>NOTE</sup>	<input checked="" type="checkbox"/> Commercial power	AC 100 ~ 240V
	<input checked="" type="checkbox"/> External Power Source	DC 12V, 2.5A
	<input type="checkbox"/> Lithium battery	DC 3.7V
	<input type="checkbox"/> UM battery	DC 1.2V

**NOTE:** When EUT be operated at  $\pm 10\%$  from the normal supply voltage, the supply voltage of RF part was varied within  $\pm 1\%$ . All test cases were done under the normal supply voltage.

Antenna Information		
Antenna 1	Antenna Type : Whip	Antenna Gain : -0.39

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.2 Modification of EUT

No modifications are made to the EUT during all test items.

### 1.3 Testing Site

<b>Test Site</b>	SPORTON INTERNATIONAL INC.
<b>Test Site Location</b>	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978
<b>Test Site No.</b>	<b>Sporton Site No.:</b> TH02-HY

Test Items	Uncertainty	Remark
Occupied Channel Bandwidth	± 0.49 %	Confidence 95%
RF output power, conducted	±0.61 dB	Confidence 95%
Power density, conducted	±0.60 dB	Confidence 95%
Temperature	±0.8 °C	Confidence 95%
Humidity	±3 %	Confidence 95%
Time	±0.33 %	Confidence 95%

### 1.4 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- Article 49-9 and the relevant articles of the Ordinance Regulating Radio Equipment

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. Measurement was conducted by the temporary test method which DSPResearch, Inc. submitted to the Minister for Internal Affairs and Communications based on the Ordinance Concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment in Annex 1, the Ministry of Internal Affairs and Communication notification in Article 88, Paragraph 2.
3. For Z-WAVE Power is below 20mW is categorized to "telemeter, telecontrol and data transmission of 2-1-8". (ARIB T-108)

### 1.5 Ancillary Equipment List

None.



## 2 Test Configuration of Equipment Under Test

### 2.1 EUT Operation Test Setup

During testing, RF test program provided by the customer was used to control the operating channel as well as the output power level.



### 3 Test Result

#### 3.1 Frequency Tolerance Measurement

##### 3.1.1 Limit

Item	Limits
Frequency Tolerance	$\leq 20 \times 10^{-6}$

##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedure

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Setting of SA is following as:

Span = 2~3.5 time of bandwidth

RBW = < 1% of bandwidth / VBW = RBW

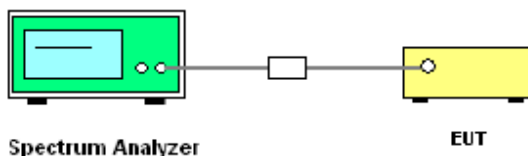
Sweep Mode: Continuous sweep

Detect mode = Positive peak / Trace mode = Max hold .

SA set to 99% of occupied bandwidth to measure occupied bandwidth.

Mark highest( $f_H$ ) and lowest( $f_L$ ) frequency , Determine measuring frequency  $f = (f_H + f_L)/2$

##### 3.1.4 Test Setup



##### 3.1.5 Test Deviation

There is no deviation with the original standard.

##### 3.1.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

##### 3.1.7 Test Result of Frequency Tolerance

Please refer to Appendix B.

## 3.2 Occupied Bandwidth

### 3.2.1 Limit

Item	Limits
Occupied Bandwidth	200 x n KHz ( n = 1 ~ 5 )

### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Setting of SA is following as:

Span = 2~3.5 time of bandwidth

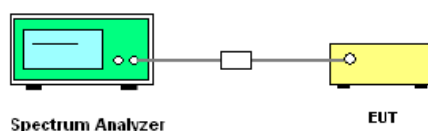
RBW = < 1% of bandwidth / VBW = RBW

Sweep Mode: Continuous sweep

Detect mode = Positive peak / Trace mode = Max hold .

SA set to 99% of occupied bandwidth to measure occupied bandwidth.

### 3.2.4 Test Setup



### 3.2.5 Test Deviation

There is no deviation with the original standard.

### 3.2.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 3.2.7 Test Result of Occupied Bandwidth

Please refer to Appendix B.

### 3.3 Unwanted Emission Strength Measurement

#### 3.3.1 Limit

Item	Limits
Tx Spurious Emission	30MHz ~ 710MHz $\leq$ -36dBm/100kHz
	710MHz ~ 900MHz $\leq$ -55dBm/1MHz
	900MHz ~ 915MHz $\leq$ -55dBm/100kHz
	915MHz ~ 920.3MHz $\leq$ -36dBm/100kHz
	920.3MHz ~ 924.3MHz $\leq$ -36dBm/100kHz
	(Except 200 + 100 x n kHz from the center frequency of radio channel)
	924.3MHz ~ 930MHz $\leq$ -36dBm/100kHz
	(Unit channel = 200kHz ;
	Except 200 + 100 x n kHz from the center frequency of radio channel)
	(Unit channel = 100kHz ;
	Except 100 + 50 x n kHz from the center frequency of radio channel)
	930MHz ~ 1000MHz $\leq$ -55dBm/100kHz
	1000MHz ~ 1215MHz $\leq$ -45dBm/1MHz
	1215MHz ~ 5000MHz $\leq$ -30dBm/1MHz

#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.3.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

##### 1. Testing methods of Peak Search

Setting of SA is following as:

Span = Follow frequency range of above table

RBW = Follow measure bandwidth of above table / VBW = RBW

Sweep Mode = Single sweep

Detect mode = Positive peak / Trace mode = Max hold .

##### 2. Testing methods of re-measured for unwanted emission

Setting of SA is following as:

Span = 0Hz

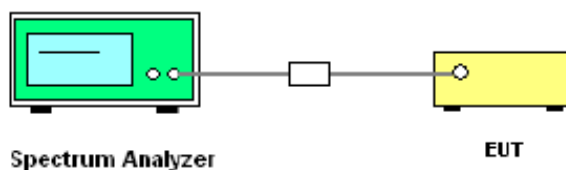
RBW = Follow measure bandwidth of above table / VBW = RBW

Sweep Mode = Single sweep

Detect mode = Sample/ Trace mode = Clear write .

Calculated the mean power value, add all value of test point and division sample point number.

### 3.3.4 Test Setup



### 3.3.5 Test Deviation

There is no deviation with the original standard.

### 3.3.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 3.3.7 Test Result of Unwanted Emission Intensity

Please refer to Appendix B.

## 3.4 RF Output Power / Tolerance

### 3.4.1 Limit

Item	Limits
Antenna Power	$\leq 0.02W$
Antenna Power Tolerance	+20%, -80%

### 3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.4.3 Test Procedures

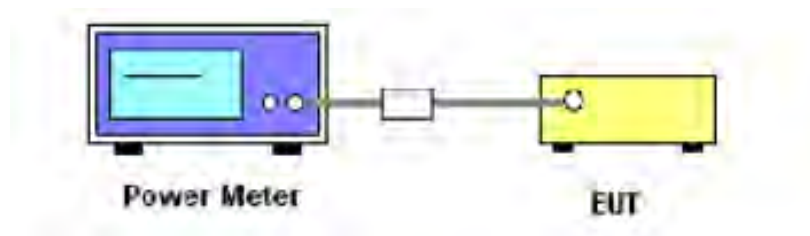
Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Output Power =  $P(\text{dBm}) = P_{\text{Linear}}(\text{mW})$

Declaration Power =  $P_d(\text{mW})$

Tolerance =  $(P_{\text{Linear}} - P_d) / P_d \times 100\%$

### 3.4.4 Test Setup



### 3.4.5 Test Deviation

There is no deviation with the original standard.

### 3.4.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 3.4.7 Test Result of RF Output Power / Tolerance

Please refer to Appendix B.

## 3.5 Limitation of Secondary Radiated Emission Measurement

### 3.5.1 Limit

Item	Limits
Rx Spurious Emission	30MHz ~ 710MHz $\leq$ -54dBm/100kHz
	710MHz ~ 900MHz $\leq$ -55dBm/1MHz
	900MHz ~ 915MHz $\leq$ -55dBm/100kHz
	915MHz ~ 930MHz $\leq$ -54dBm/100kHz
	930MHz ~ 1000MHz $\leq$ -55dBm/100kHz
	1000MHz ~ 5000MHz $\leq$ -47dBm/1MHz

### 3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.5.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

#### 1. Testing methods of Peak Search

Setting of SA is following as:

Span = Follow frequency range of above table

RBW = Follow measure bandwidth of above table / VBW = RBW

Sweep Mode = Single sweep

Detect mode = Positive peak / Trace mode = Max hold .

#### 2. Testing methods of re-measured for unwanted emission

Setting of SA is following as:

Span = 0Hz

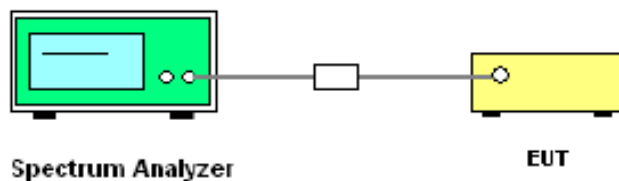
RBW = Follow measure bandwidth of above table / VBW = RBW

Sweep Mode = Single sweep

Detect mode = Sample/ Trace mode = Max hold .

Calculated the mean power value, add all value of test point and division sample point number.

### 3.5.4 Test Setup



### 3.5.5 Test Deviation

There is no deviation with the original standard.

### 3.5.6 EUT Operation during Test

The EUT was programmed to be in continuously reception mode.

### 3.5.7 Test Result of Limitation of Collateral Emission of Receiver

Please refer to Appendix B.

## 3.6 Transmission Antenna Gain Measurement

### 3.6.1 Limit

Item	Limits
Antenna Gain	$\leq 3$ dBi (However, when EIRP is less than 16dBm , the shortage can be compensated by the Antenna Gain)

### 3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

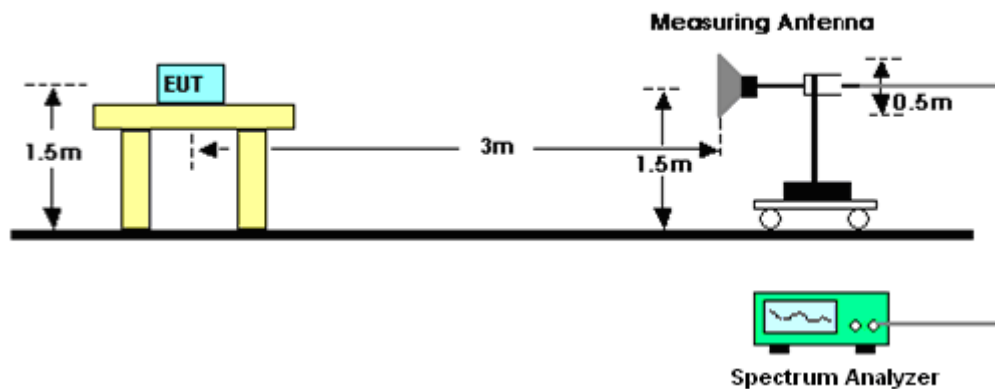
### 3.6.3 Test Procedures

1. Set EUT ad measuring antenna at the same height and roughly facing each other.
2. Move the measuring antenna height up and down within  $\pm 50$ cm of EUT height and swing it to find the maximum output of the measuring antenna. The output level at the spectrum analyzer is read sa “E”.
3. Remove the EUT from the turn table and put the replacing antenna facing to measuring antenna at same height. Set the standard signal generator (SSG) at same frequency and transmit on then receive the signal.
4. Swing the replacing antenna give a maximum receiving level.
5. Move the measuring antenna height up and down within  $\pm 50$ cm of replacing antenna height and swing it to find the maximum receiving level.
6. Set SSG output power at Pt to give the equivalent output level of “E” or caluate Pt with SSG output which gives the nearest of “E” and difference ( $\pm 1$ dB). Record the Pt.
7. Calculate EIRP by the formula below  $EIRP = G_t - L + P_t$ .  
Gt: gain of replacing antenna (dBi)  
L: feeder loss between SSG and replacing antenna  
Pt: Output power of the SSG
8. If the antenna for the EUT has circular polarization, sum of V-field and H-field will be result if measuring antenna is linear polarization.

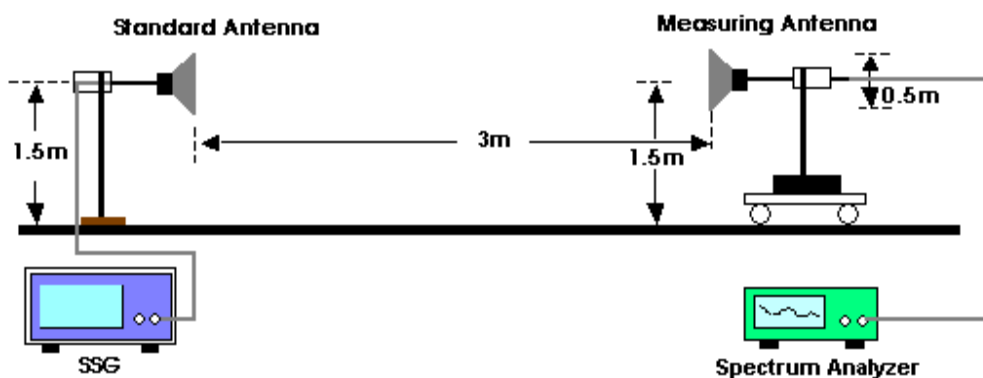


### 3.6.4 Test Setup

<For EUT radiation measurement>



<For standard antenna measurement>



### 3.6.5 Test Deviation

There is no deviation with the original standard.

### 3.6.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 3.6.7 Test Result of Transmission Antenna Gain (EIRP Antenna Power)

Please refer to Appendix B. For the antenna gain, please refer to antenna test report.

## 3.7 Tolerance of adjacent channel leakage power Measurement

### 3.7.1 Limit

Item	Limits
ACLR	$\pm 200\text{KHz} \leq -15\text{dBm} / 200\text{KHz}$

### 3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.7.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Setting of SA is following as:

Span > 3 time of bandwidth

RBW = 1KHz / VBW = 3KHz

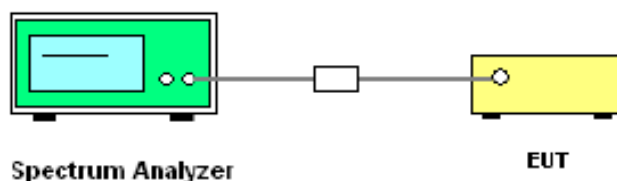
Sweep Mode: Continuous sweep

Detect mode = Positive peak / Trace mode = Max hold .

Use ACP function and setting measuring bandwidth = specific bandwidth / correct measuring range.

Record the test result and it should be less than specific limit.

### 3.7.4 Test Setup



### 3.7.5 Test Deviation

There is no deviation with the original standard.

### 3.7.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 3.7.7 Test Result of T Tolerance of adjacent channel leakage power

Please refer to Appendix B.

### 3.8 Carrier Sensing Function

#### 3.8.1 Limit

Antenna Power	Applied CH number	Unit CH bandwidth	CH used in a bundle	Carrier sense time	Power Level
1mW or less	1 - 5	200kHz	1 ~ 5 ch	None	-80dBm
	62 - 77	100kHz	1 ~ 5 ch		
20mW or less	24 - 38	200kHz	1 ~ 5 ch	5ms or more	
	33 - 61	200kHz	1 ch	128us or more	
			2 ch		
			3 ch		

#### 3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.8.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Setting of SA is following as:

Basic operation of carrier sense

Span = 2 MHz

RBW = 100KHz / VBW = 300KHz

Detect mode = Positive peak

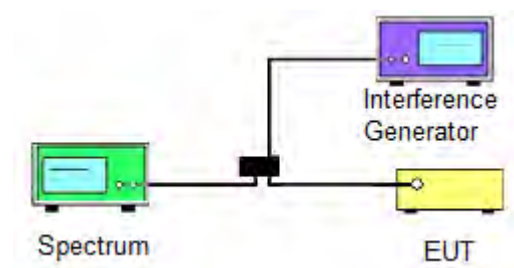
Carrier sense determination time

Span = 0 Hz

RBW = 100KHz / VBW = 300KHz

Detect mode = Positive peak

### 3.8.4 Test Setup



### 3.8.5 Test Deviation

There is no deviation with the original standard.

### 3.8.6 EUT Operation during Test

The EUT was programmed to be in normal mode.

### 3.8.7 Test Result of Carrier Sensing Function

Please refer to Appendix B.

### 3.9 Transmission Time Restriction

#### 3.9.1 Limit

Antenna Power	Applied CH number	Unit CH bandwidth	CH used in a bundle	Sending duration	Pause duration	The sum of emission time per arbitrary one hour
1mW or less	1 - 5	200kHz	1 ~ 5 ch	100ms or less	100ms	3.6sec
	62 - 77	100kHz	1 ~ 5 ch	50ms or less	50ms	None
20mW or less	24 - 38	200kHz	1 ~ 5 ch	4s	50ms	None
	33 - 61	200kHz	1 ch	More than 200ms, and 400ms or less	Ten times or more of the former sending time	360sec or less
				More than 6ms, and 200ms or less	2ms	
				6ms or less	None	
			2 ch	More than 3ms, and 200ms or less	2ms	
				3ms or less	None	
			3 ~ 5 ch	More than 2ms, and 200ms or less	2ms	
				2ms or less	None	

### 3.9.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.9.3 Test Procedures

Refers to DSPR procedure of "Telemeter, telecontrol and data transmission 2-1-8"

Setting of SA is following as:

Span = 0 Hz

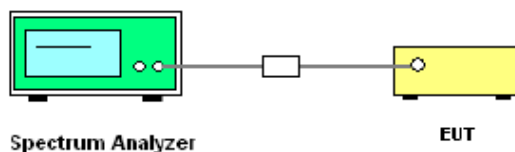
RBW = 1MHz / VBW = 1MHz

Detect mode = Positive peak

RBW = 100KHz / VBW = 300KHz

Detect mode = Positive peak

### 3.9.4 Test Setup



### 3.9.5 Test Deviation

There is no deviation with the original standard.

### 3.9.6 EUT Operation during Test

The EUT was programmed to be in normal mode.

### 3.9.7 Test Result of Transmission Time Restriction

Please refer to Appendix B.

### 3.10 Construction Protection Confirmation Method

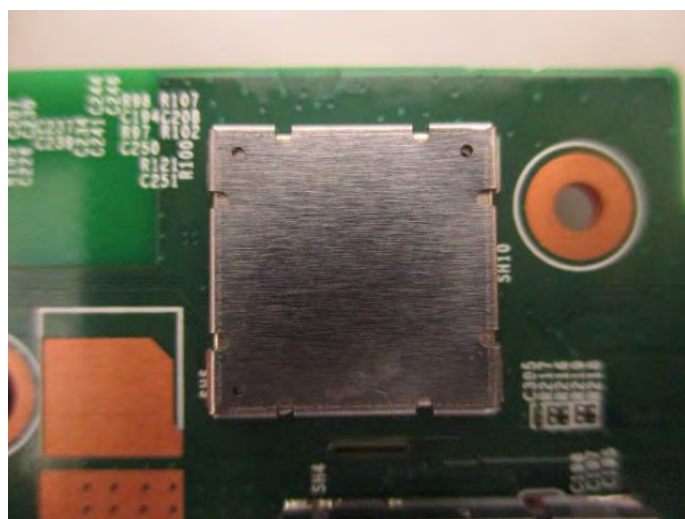
#### 3.10.1 Limit

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

#### 3.10.2 Confirmation Method

<input type="checkbox"/>	Sealed with special screws.
<input type="checkbox"/>	Plastic chassis is being welded using ultrasonic waves.
<input type="checkbox"/>	Chassis is glued using a special adhesive.
<input type="checkbox"/>	Metal covers are spot-fused.
<input type="checkbox"/>	Cover is specially interlocked.
<input checked="" type="checkbox"/>	RF and Modulation components are covered with shielding case and this shielding case is soldered.
<input type="checkbox"/>	Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
<input type="checkbox"/>	Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive.
<input type="checkbox"/>	Shield case is welded at RF and modulation parts, and ID-ROM is glued with a non-transparent laminating agent.
<input type="checkbox"/>	Other :

#### 3.10.3 The Photos of Construction Protection



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Test Periods	Due Date	Calibration Body	Calibration Method
Spectrum Analyzer	Rohde & Schwarz	FSV 40	101397	Nov. 07, 2017	Jul. 12, 2018~ Sep. 07, 2018	Nov. 06, 2018	Rohde & Schwarz	C
Power Meter	Agilent	E4416A	GB41292344	Dec. 20, 2017	Jul. 12, 2018~ Sep. 07, 2018	Dec. 19, 2018	ETC, R.O.C	C
Power Sensor	Agilent	E9327A	US40441548	Dec. 20, 2017	Jul. 12, 2018~ Sep. 07, 2018	Dec. 19, 2018	ETC, R.O.C	C
Programmable Power Supply	GW Instek	PSS-2005	EL890001	Oct. 06, 2017	Jul. 12, 2018~ Sep. 07, 2018	Oct. 05, 2018	GW Instek	C
Signal Generator	Keysight	N5182B	MY56200377	Mar. 16, 2018	Jul. 12, 2018~ Sep. 07, 2018	Mar. 15, 2019	Keysight	C
Multimeter	YFE	YF-303	1317563	Jan. 15, 2018	Jul. 12, 2018~ Sep. 07, 2018	Jan. 14, 2019	ETC, R.O.C	C

Note: Above test equipment was used and kept valid calibration period during test.

### Calibration Method :

**a)** : Calibration conducted by the National Institute of Information and Communications Technology ~ NICT ~ or a designated calibration agency under Article 102-18 paragraph

(1) TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc ~.

**b)** : Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) ~ Japan Calibration Service System ~

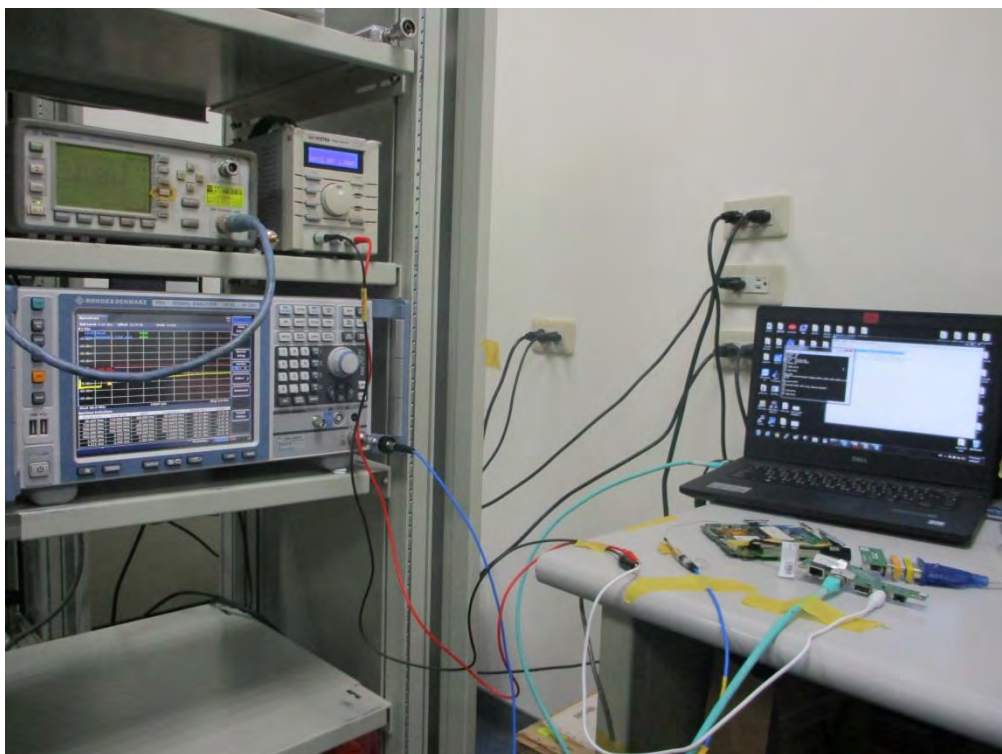
**c)** : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph

(1) ~ TELEC Engineering Center, Intertek Japan K.K., Keysight Technologies, Inc ~.

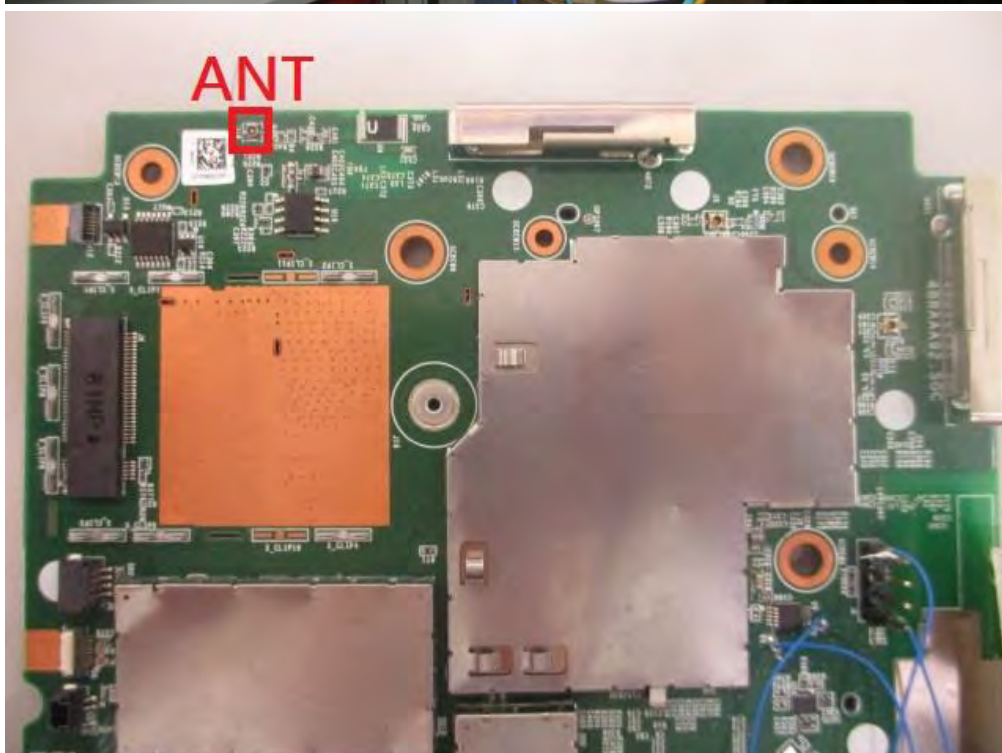


## Appendix A. Setup Photographs

Front View



Near View





## **Appendix B. Test Results**

Please refer to the following pages for test results.

## **1. TEST RESULTS DATA**

### **RFID 920MHz Band**

Environment of Test Room	Temperature	23~25 °C
	Humidity	50~55 %
Test Engineer	Ethan Lin	

Occupied Bandwidth	<b>N=2 400KHz</b>
--------------------	-----------------------

Peak Antenna Gain	-0.39	dBi
Declaration Output Power	4.20	mW
Declaration Output Power	6.232	dBm
<b>E.I.R.P</b>	<b>5.842</b>	<b>dBm</b>
Input Power Voltage	12.000	VDC

Antenna	No.	Type	Gain
	1	Whip	-0.39
	2	---	---
	3	---	---
	4	---	---

Test Category : 920MHz Band ZWAVE System
Comprehensive operation test
Use the DC Power Supply to adjust Voltate.

### **1.1. TEST Results (Normal Voltage)**

Measurement Frequency	MHz	922.5	923.9	926.3	Regulation	Result
Channel Number	---	CH33/CH34	CH40/CH41	CH52/CH53	----	Result
<b>Frequency Tolerance</b>						
Normal						
Reading Frequency (TX1)	MHz	922.499130	923.898260	926.298850	----	----
Frequency Tolerance (TX1)	ppm	-0.943	-1.883	-1.241	20 ppm	<b>PASS</b>
<b>Occupied Bandwidth</b>						
Occupied Bandwidth (TX1)	KHz	110.564	109.407	109.407	400KHz	<b>PASS</b>
<b>RF Output Power</b>						
RF Output Power (TX 1)	mW	3.475	3.673	4.159	20mW	<b>PASS</b>
RF Output Power (Max)	mW	3.475	3.673	4.159	20mW	<b>PASS</b>
RF Output Power Tolerance TX1	%	-17.25	-12.55	-0.97	+20% ~ -80%	<b>PASS</b>

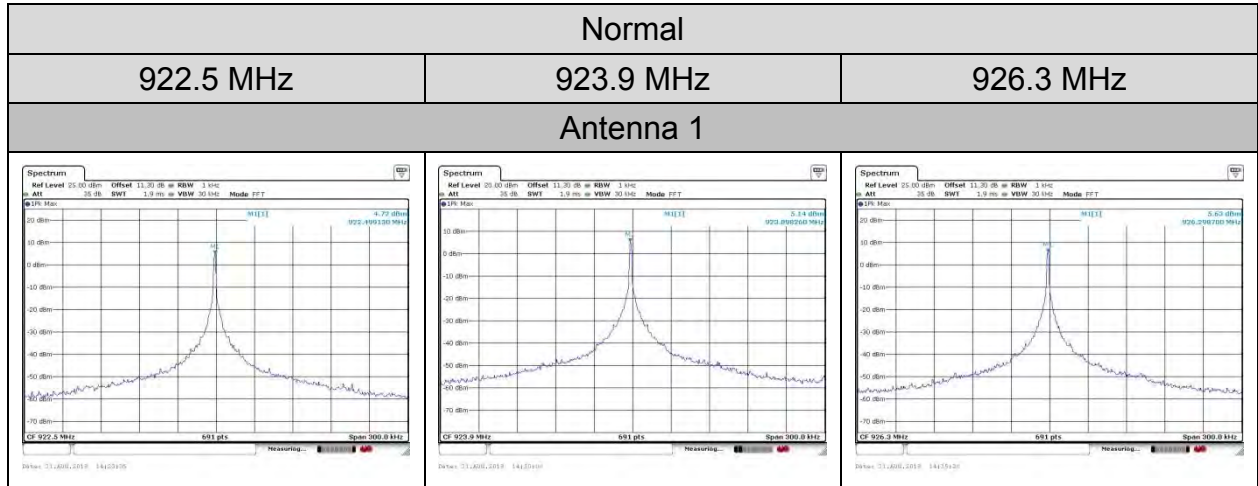
**1.1. TEST Results (Normal Voltage)**

Measurement Frequency		MHz	922.5	923.9	926.3	Regulation	Result
Channel Number		---	CH33/CH34	CH40/CH41	CH52/CH53	----	Result
Unwanted Emission Strength (TX1)							
30MHz - 710MHz	dBm/100kHz	-83.38	-83.49	-84.71	-36dBm/100kHz	PASS	
	MHz	368.981	395.147	550.790	----	----	
710MHz - 900MHz	dBm/1MHz	-67.41	-68.29	-70.29	-55dBm/1MHz	PASS	
	MHz	895.965	899.858	899.478	----	----	
900MHz - 915MHz	dBm/100kHz	-61.86	-66.48	-70.91	-55dBm/100kHz	PASS	
	MHz	911.421	911.675	914.157	----	----	
915MHz - 920.3MHz	dBm/100kHz	-49.36	-46.43	-62.15	-36dBm/100kHz	PASS	
	MHz	916.941	919.858	919.322	----	----	
920.3MHz -924.3MHz	dBm/100kHz	-51.26	-53.91	-58.09	-36dBm/100kHz	PASS	
	MHz	922.918	923.357	922.973	----	----	
924.3MHz - 930MHz	dBm/100kHz	-51.07	-42.22	-41.48	-36dBm/100kHz	PASS	
	MHz	927.997	928.005	927.991	----	----	
930MHz - 1000MHz	dBm/100kHz	-73.32	-71.22	-69.13	-55dBm/100kHz	PASS	
	MHz	933.812	932.426	931.733	----	----	
1000MHz - 1215MHz	dBm/1MHz	-77.58	-77.60	-78.04	-45dBm/1MHz	PASS	
	MHz	1170.680	1012.090	1187.980	----	----	
1215MHz - 5000MHz	dBm/1MHz	-55.13	-52.90	-54.37	-30dBm/1MHz	PASS	
	MHz	1845.830	1847.720	1853.400	----	----	
Adjacent channel leakage power							
ACLR (TX1)	CF -300KHz	dBm	-35.64	-35.85	-36.58	-15dBm/200kHz	PASS
	CF +300KHz	dBm	-35.77	-35.90	-36.64	-15dBm/200kHz	PASS
Secondary Radiated Emission (RX1)							
30MHz - 710MHz	dBm/100kHz	-74.71	-74.79	-74.43	-54dBm/100kHz	PASS	
	MHz	219.115	555.887	371.359	----	----	
710MHz - 900MHz	dBm/1MHz	-62.93	-62.45	-62.77	-55dBm/1MHz	PASS	
	MHz	878.018	855.420	841.652	----	----	
900MHz - 915MHz	dBm/100kHz	-71.47	-71.33	-70.82	-55dBm/100kHz	PASS	
	MHz	901.256	907.950	905.004	----	----	
915MHz - 930MHz	dBm/100kHz	-70.98	-71.14	-70.97	-54dBm/100kHz	PASS	
	MHz	926.668	924.561	925.633	----	----	
930MHz - 1000MHz	dBm/100kHz	-71.49	-70.60	-71.16	-55dBm/100kHz	PASS	
	MHz	994.665	962.866	984.380	----	----	
1000MHz - 5000MHz	dBm/1MHz	-61.54	-60.76	-61.36	-47dBm/1MHz	PASS	
	MHz	4917.720	4932.850	4934.740	----	----	
Transmission Time		ms	3.768	3.768	3.768	----	PASS
Suspend Time		ms	55.072	55.362	55.073	----	PASS
Carrier Sensing Function		-----	good				PASS
The sum of emission time per arbitrary one hour is 360 sec or less		-----	good				PASS
Interference Prevention Function		-----	good				PASS

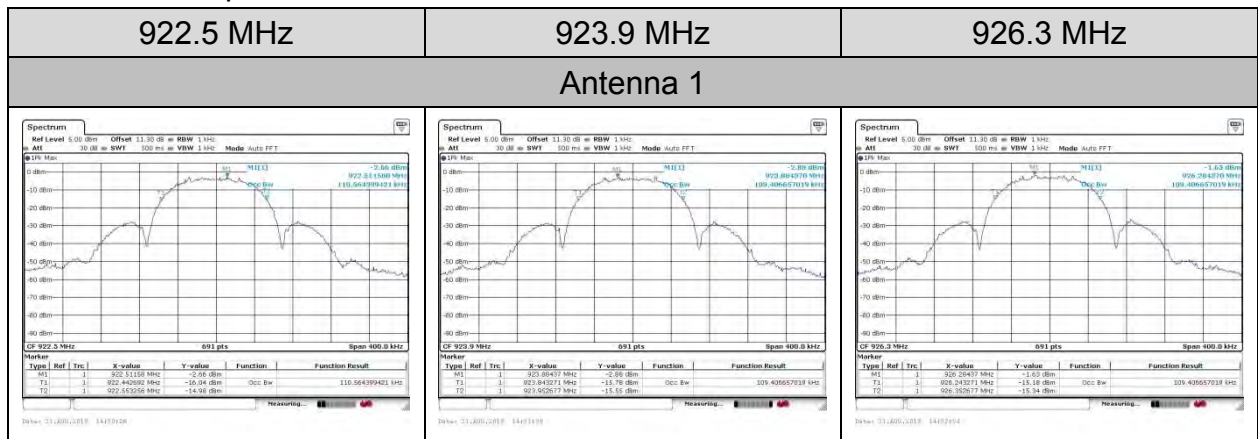
## Appendix C. Test Plots

### C.1. 920MHz Band\_NV

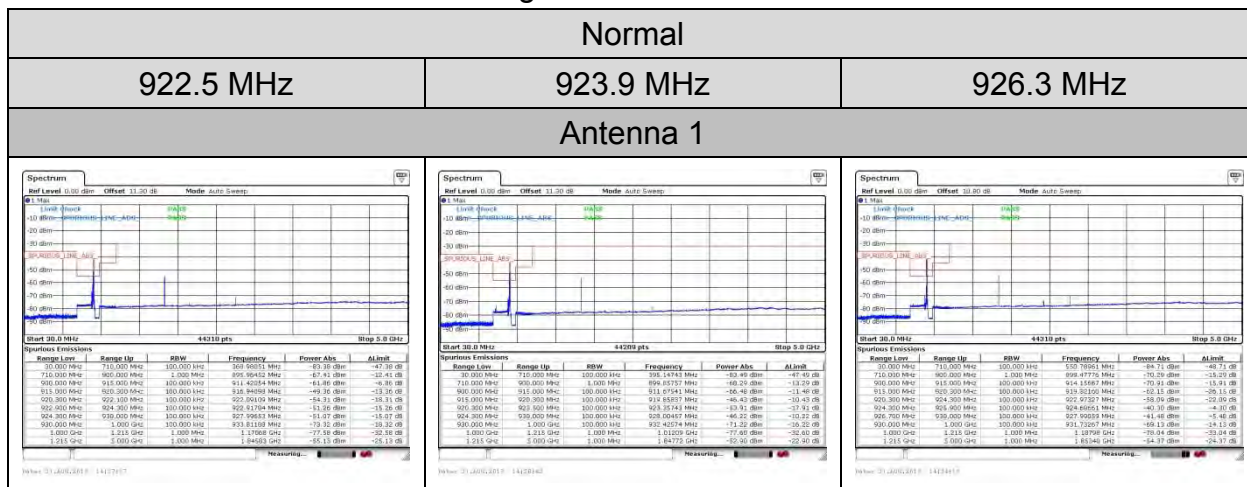
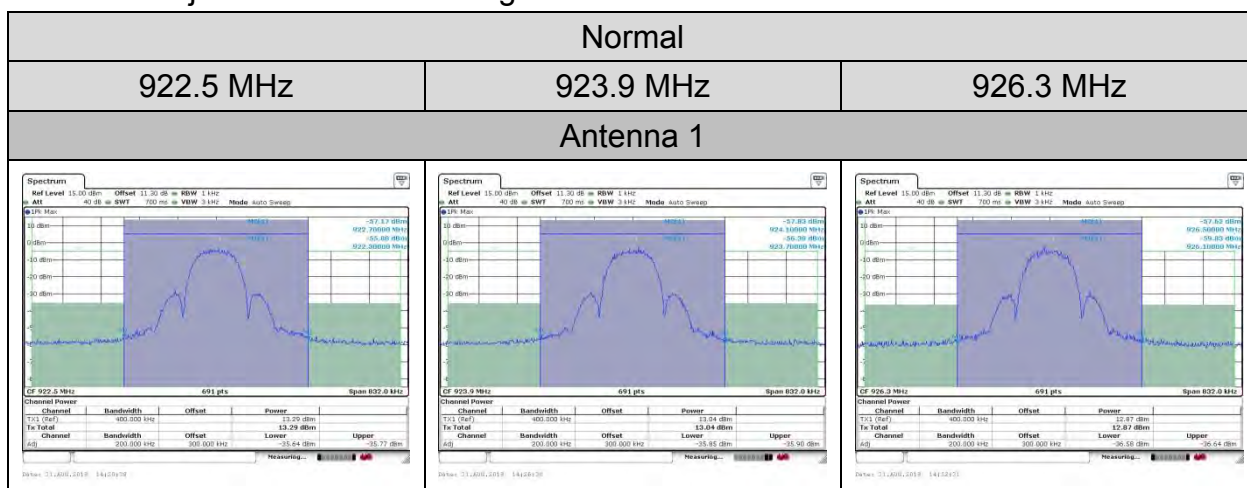
#### i. Frequency Tolerance



#### ii. Occupied Bandwidth





**iii. Unwanted Emission Strength**

**iv. Adjacent Channel Leakage Power**

**v. Secondly Emitted Radio Wave Strength**
