



# FCC RADIO TEST REPORT

**FCC ID** : B32V400M2  
**Equipment** : Point of Sale Terminal  
**Brand Name** : Verifone  
**Model Name** : V400m-2  
V400m Plus 4G WW2  
**Applicant** : VeriFone, Inc.  
1400 West Stanford Ranch Road  
Suite 150 Rocklin CA 95765 USA  
**Manufacturer** : VeriFone, Inc.  
**Standard** : FCC Part 15 Subpart E §15.407

The product was received on Jul. 25, 2023 and testing was performed from Aug. 11, 2023 to Sep. 12, 2023. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

**Sporton International Inc. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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## History of this test report

Report No.	Version	Description	Issue Date
FR372517F	01	Initial issue of report	Sep. 20, 2023
FR372517F	02	Revise applicant and manufacturer information This report is an updated version, replacing the report issued on Sep. 20, 2023.	Sep. 26, 2023
FR372517F	03	Revise model name, applicant and manufacturer information This report is an updated version, replacing the report issued on Sep. 26, 2023.	Oct. 11, 2023



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)	Maximum Conducted Output Power	Pass	-
3.2	15.407(b)	Unwanted Emissions	Pass	9.50 dB under the limit at 11490.00 MHz
3.3	15.203	Antenna Requirement	Pass	-

Conformity Assessment Condition:	
1.	The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2.	The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".
Disclaimer:	
1.	The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2.	The purpose of different model name is for marketing segmentation.

**Reviewed by: Yun Huang**  
**Report Producer: Ming Chen**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
<b>General Specs</b> GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac and NFC.	
<b>Antenna Type</b> WWAN: Fixed Internal Antenna WLAN: PCB Antenna Bluetooth: PCB Antenna NFC: Loop Antenna	

Antenna information		
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	3.13

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

## 1.2 Modification of EUT

No modifications made to the EUT during the testing.

## 1.3 Testing Location

<b>Test Site</b>	Sporton International Inc. Wensan Laboratory
<b>Test Site Location</b>	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
<b>Test Site No.</b>	<b>Sporton Site No.</b> TH05-HY, 03CH22-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786



## 1.4 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.
- ♦ ANSI C63.10-2013

**Remark:**

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

### 2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

## 2.2 Test Mode

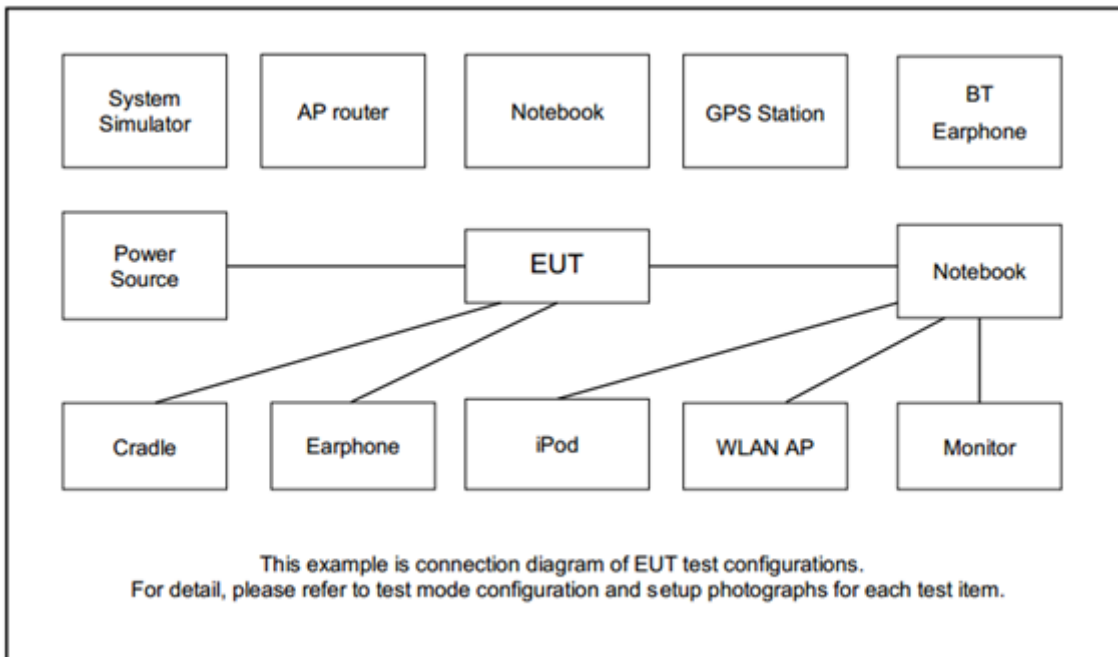
The final test modes include the worst data rates for each modulation shown in the table below.

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0

Ch. #		Band IV : 5725-5850 MHz
		802.11n HT20
L	Low	149
M	Middle	-
H	High	-

**Remark:** For Radiated Test Cases, the tests were performed with AC Adapter.

## 2.3 Connection Diagram of Test System







## 2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	MP2CWZYZ	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

## 2.5 EUT Operation Test Setup

The RF test items, utility “Tera Term 4.105” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

### 3 Test Result

#### 3.1 Maximum Conducted Output Power Measurement

##### 3.1.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### 3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

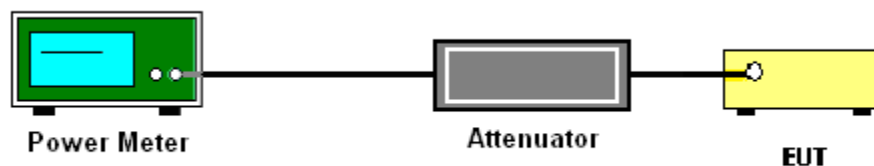
##### 3.1.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



### 3.2 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

#### 3.2.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2) Unwanted spurious emissions falls in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

**Note:** The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts)}$$

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

(3) KDB789033 D02 v02r01 G)2)c)

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.



### 3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

### 3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000 MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
    - RBW = 1 MHz
    - VBW  $\geq$  3 MHz
    - Detector = Peak
    - Sweep time = auto
    - Trace mode = max hold
  - (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz
    - RBW = 1 MHz
    - VBW = 10 Hz, when duty cycle is no less than 98 percent.
    - VBW  $\geq$  1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading.  
When there is no suspected emission found and the emission level is with at least 6 dB margin

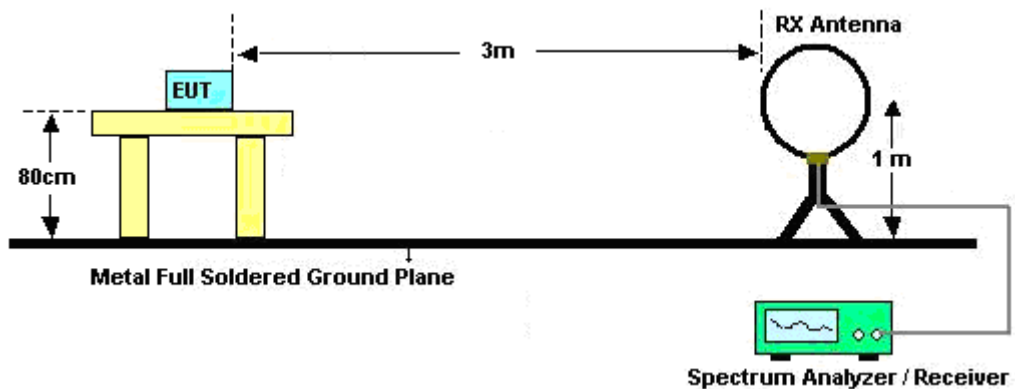
against QP limit line, the position is marked as “-”.

7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies.

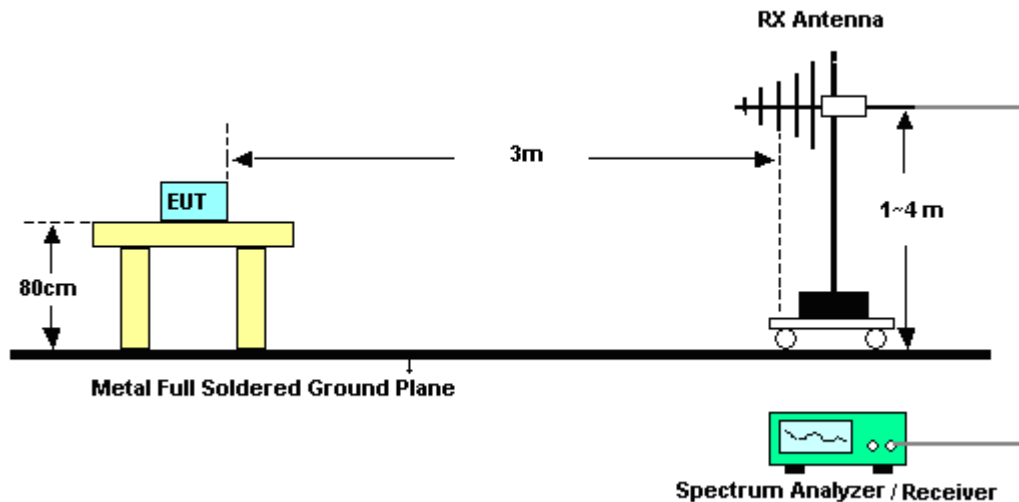
When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.

### 3.2.4 Test Setup

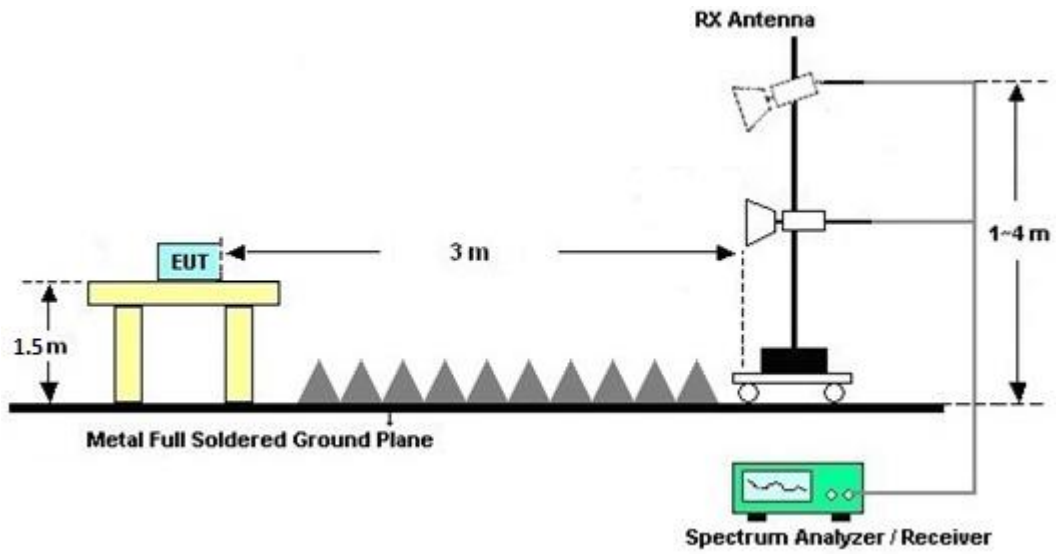
**For radiated emissions below 30MHz**



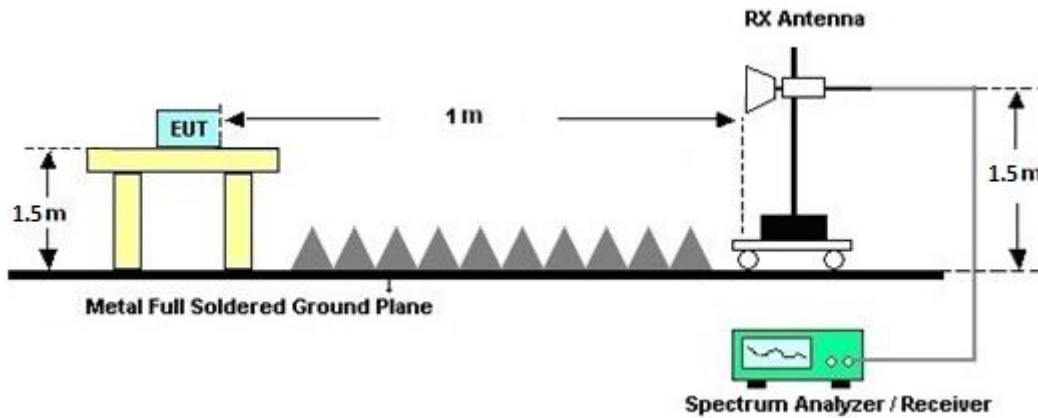
**For radiated emissions from 30MHz to 1GHz**



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz





### **3.2.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)**

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

### **3.2.6 Test Result of Radiated Band Edges**

Please refer to Appendix B and C.

### **3.2.7 Duty Cycle**

Please refer to Appendix D.

### **3.2.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)**

Please refer to Appendix B and C.



### **3.3 Antenna Requirements**

#### **3.3.1 Standard Applicable**

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

#### **3.3.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.





## 4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna with 6dB pad	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63304 & 002	N/A	Oct. 04, 2022	Aug. 22, 2023~ Aug. 24, 2023	Oct. 03, 2023	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 15, 2023	Aug. 22, 2023~ Aug. 24, 2023	Jul. 14, 2024	Radiation (03CH22-HY)
Horn Antenna	RFSPIN	DRH18-E	LE2C04A18E N	1GHz~18GHz	Jul. 12, 2023	Aug. 22, 2023~ Aug. 24, 2023	Jul. 11, 2024	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz-40GHz	Jul. 10, 2023	Aug. 22, 2023~ Aug. 24, 2023	Jul. 09, 2024	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 29, 2022	Aug. 22, 2023~ Aug. 24, 2023	Sep. 28, 2023	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060872	18-40GHz	Sep. 28, 2022	Aug. 22, 2023~ Aug. 24, 2023	Sep. 27, 2023	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	10Hz~44GHz	Aug. 31, 2023	Aug. 22, 2023~ Aug. 24, 2023	Aug. 30, 2024	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP211469	N/A	Jan. 06, 2023	Aug. 22, 2023~ Aug. 24, 2023	Jan. 05, 2024	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 22, 2023~ Aug. 24, 2023	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 22, 2023~ Aug. 24, 2023	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 22, 2023~ Aug. 24, 2023	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019 122	RK-002347	N/A	N/A	Aug. 22, 2023~ Aug. 24, 2023	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 07, 2023	Aug. 22, 2023~ Aug. 24, 2023	Mar. 06, 2024	Radiation (03CH22-HY)
RF Cable javascript: void(0)	HUBER + SUHNER	SUCOFLEX 102	804390/2,804611/2,804615/2	N/A	Oct. 25, 2022	Aug. 22, 2023~ Aug. 24, 2023	Oct. 24, 2023	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17, 2022	Sep. 11, 2023~ Sep. 12, 2023	Nov. 16, 2023	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO12 (NO:113)	10MHz~6GHz	Dec. 13, 2022	Sep. 11, 2023~ Sep. 12, 2023	Dec. 12, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101565	10Hz ~ 40GHz	Dec. 26, 2022	Sep. 11, 2023~ Sep. 12, 2023	Dec. 25, 2023	Conducted (TH05-HY)



## 5 Measurement Uncertainty

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.92 dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.42 dB
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### Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.40 dB
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.38 dB
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**Appendix A. Test Result of Conducted Test Items**

Test Engineer:	Shiming Liu	Temperature:	21~25	°C
Test Date:	2023/9/11~2023/9/12	Relative Humidity:	51~54	%

**TEST RESULTS DATA**  
**Average Power Table**

U-NII-3 single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	11.90	-		30.00	-	3.13	-	Pass
11a	6Mbps	1	157	5785	11.80	-		30.00	-	3.13	-	Pass
11a	6Mbps	1	165	5825	11.70	-		30.00	-	3.13	-	Pass
HT20	MCS0	1	149	5745	11.60	-		30.00	-	3.13	-	Pass
HT20	MCS0	1	157	5785	11.80	-		30.00	-	3.13	-	Pass
HT20	MCS0	1	165	5825	11.60	-		30.00	-	3.13	-	Pass
HT40	MCS0	1	151	5755	11.50	-		30.00	-	3.13	-	Pass
HT40	MCS0	1	159	5795	11.90	-		30.00	-	3.13	-	Pass
VHT80	MCS0	1	155	5775	9.00	-		30.00	-	3.13	-	Pass

**TEST RESULTS DATA**  
**Power Spectral Density**

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/3kHz)			Average PSD Limit (dBm/3kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	-13.65	-		14.00	-	3.13	-	Pass
11a	6Mbps	1	157	5785	-13.58	-		14.00	-	3.13	-	Pass
11a	6Mbps	1	165	5825	-13.57	-		14.00	-	3.13	-	Pass
HT20	MCS0	1	149	5745	-13.65	-		14.00	-	3.13	-	Pass
HT20	MCS0	1	157	5785	-13.50	-		14.00	-	3.13	-	Pass
HT20	MCS0	1	165	5825	-13.15	-		14.00	-	3.13	-	Pass
HT40	MCS0	1	151	5755	-16.81	-		14.00	-	3.13	-	Pass
HT40	MCS0	1	159	5795	-16.40	-		14.00	-	3.13	-	Pass
VHT80	MCS0	1	155	5775	-21.94	-		14.00	-	3.13	-	Pass



## Appendix B. Radiated Spurious Emission

Test Engineer :	Bank Lin and Lu Wen Kai	Temperature :	20.1~23.1°C
		Relative Humidity :	55~65%

**Band 4 5725~5850MHz**

**WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Margin ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )	
802.11n HT20 CH 149 5745MHz		5649.5	52.54	-15.66	68.2	39.2	33.5	14.32	34.48	100	61	P	H	
		5699	60.56	-43.9	104.46	47.04	33.7	14.36	34.54	100	61	P	H	
		5718.8	75.19	-35.27	110.46	61.57	33.81	14.37	34.56	100	61	P	H	
		5723.975	78.57	-41.29	119.86	64.92	33.84	14.38	34.57	100	61	P	H	
	*	5745	111.13	-	-	97.36	33.97	14.39	34.59	100	61	P	H	
	*	5745	104.18	-	-	90.41	33.97	14.39	34.59	100	61	A	H	
														H
														H
			5627.675	52.07	-16.13	68.2	38.85	33.37	14.31	34.46	100	355	P	V
			5699.9	58.47	-46.66	105.13	44.95	33.7	14.36	34.54	100	355	P	V
			5717.9	71.04	-39.17	110.21	57.42	33.81	14.37	34.56	100	355	P	V
			5724.875	75.09	-46.83	121.92	61.43	33.85	14.38	34.57	100	355	P	V
	*		5745	108.69	-	-	94.92	33.97	14.39	34.59	100	355	P	V
	*		5745	101.79	-	-	88.02	33.97	14.39	34.59	100	355	A	V
													V	
													V	



**Band 4 5725~5850MHz**

**WIFI 802.11n HT20 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dBμV/m )	Margin ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)	
802.11n HT20 CH 149 5745MHz		11490	55.27	-18.73	74	35.63	38.98	20.13	40.14	100	61	P	H	
		11490	44.5	-9.5	54	24.86	38.98	20.13	40.14	100	61	A	H	
		17235	55.06	-13.14	68.2	35.2	40.57	25.09	46.25	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			11490	55.66	-18.34	74	36.02	38.98	20.13	40.14	100	205	P	V
			11490	43.75	-10.25	54	24.11	38.98	20.13	40.14	100	205	A	V
			17235	55.87	-12.33	68.2	36.01	40.57	25.09	46.25	-	-	P	V
														V
														V
														V
														V
													V	



**Note symbol**

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>Margin</b> line.
P/A	<b>Peak</b> or <b>Average</b>
H/V	<b>Horizontal</b> or <b>Vertical</b>





A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11a CH 149 5745MHz		5650	55.45	-12.75	68.2	54.51	32.22	4.58	35.86	103	308	P	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 5650MHz:**

1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
2. Margin(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 68.2(dBμV/m)  
= -12.75 (dB)

**Both peak and average measured complies with the limit line, so test result is “PASS”.**



## Appendix B. Radiated Spurious Emission Plots

Test Engineer :	Bank Lin and Lu Wen Kai	Temperature :	20.1~23.1°C
		Relative Humidity :	55~65%

### Note symbol

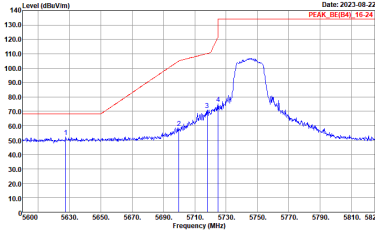
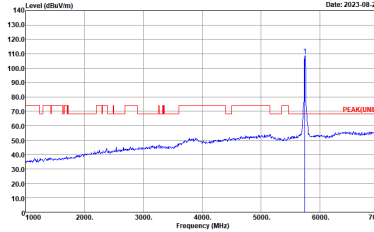
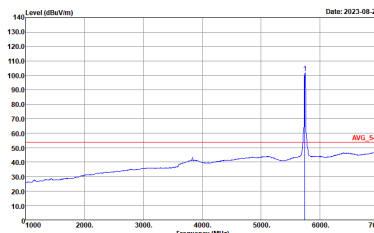
-L	Low channel location
-R	High channel location



**Band 4 5725~5850MHz  
WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak	<p>Site : 03CH22-HY Condition : PEAK_BE(84)_16-24 3m LE2C04A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Site : 03CH22-HY Condition : PEAK(UNII) 3m LE2C04A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Avg	Left blank	<p>Site : 03CH22-HY Condition : AVG_54 3m LE2C04A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak	 <p>Site : 03CH22-HY Condition : PEAK_BE[94]_16-24 3m LE2004A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Site : 03CH22-HY Condition : PEAK(LINE) 3m LE2004A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Avg	Left blank	 <p>Site : 03CH22-HY Condition : AV6_54 3m LE2004A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto</p>



Band 4 - 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

Table with 3 columns: WIFI, ANT, and 1. It contains two spectral plots: 'Horizontal' and 'Vertical'. Each plot shows Level (dBuV/m) vs Frequency (MHz) with a peak at 5745 MHz. The table also includes site and condition information for both orientations.



WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
10.6G ~18G Avg.	<p>Site : 03CH22-HY Condition : AVG_54 3m LE2C04A18ENL_230712 HORIZONTAL</p>	<p>Site : 03CH22-HY Condition : AVG_54 3m LE2C04A18ENL_230712 VERTICAL</p>



## Appendix C. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	5GHz 802.11n HT20	98.16	-	-	10Hz

