

Report No.: FC8O2320



# **FCC EMI TEST REPORT**

FCC ID : U8G-P1930LITER5

Equipment : Pepwave / Peplink / Pismo Labs Wireless Product

Brand Name : Pepwave / Peplink / Pismo

Model Name : MAX Transit Mini, Max transit mini, MAX-Transit-Mini,

MAX Transit Mini LTE, Max Transit Mini LTE, MAX Transit Mini LTEA, Max Transit Mini LTEA, MAX BR1 Mini, Max BR1 Mini, MAX BR1 Mini LTE,

MAX BR1 Mini LTEA, MAX BR1 M2M,

Pismo 930 LITE, Pismo930 LITE, Pismo930LITE, MAX-BR1-MINI-LTE-US, MAX-BR1-MINI-LTE-US-T, Pismo 930 Lite, Pismo930LITER5, Pismo 930LITER5

Applicant : Pismo Labs Technology Limited

Unit A5, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong

Manufacturer : Pismo Labs Technology Limited

Unit A5, 5/F, HK Spinners Ind. Bldg., Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Kowloon, Hong Kong

Standard : FCC 47 CFR FCC Part 15 Subpart B

The product was received on Oct. 23, 2018 and testing was started from Nov. 15, 2018 and completed on Feb. 19, 2019. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

TEL: 886-3-327-3456 Page Number : 1 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# **Table of Contents**

Report No.: FC8O2320

: 01

His	story o	of this test report	3
Su	mmar	y of Test Result	4
1.	Gene	eral Description	5
	1.1. 1.2. 1.3. 1.4.	Product Feature of Equipment Under Test	5 5 6
2.	Test	Configuration of Equipment Under Test	7
	<ul><li>2.1.</li><li>2.2.</li><li>2.3.</li><li>2.4.</li></ul>	Connection Diagram of Test System	8
3.	Test	Result	9
	3.1. 3.2.	Test of Radiated Emission Measurement	11
4.	List	of Measuring Equipment	14
5.	Unce	ertainty of Evaluation	15
Аp	pendi	x A. AC Conducted Emission Test Result	
Аp	pendi	x B. Radiated Emission Test Result	
Аp	pendi	x C. Setup Photographs	

TEL: 886-3-327-3456 Page Number : 2 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# History of this test report

Report No.: FC8O2320

Report No.	Version	Description	Issued Date
FC8O2320	01	Initial issue of report	Feb. 21, 2019

TEL: 886-3-327-3456 Page Number : 3 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# **Summary of Test Result**

Report No.: FC8O2320

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.107	AC Conducted Emission	Pass	Under limit 24.29 dB at 0.519 MHz
3.2	15.109	Radiated Emission	Pass	Under limit 9.21 dB at 125.150 MHz

#### **Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

#### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Louis Wu

**Report Producer: Maggie Chiang** 

TEL: 886-3-327-3456 Page Number : 4 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# 1. General Description

## 1.1. Product Feature of Equipment Under Test

WCDMA/LTE, and Wi-Fi 2.4GHz 802.11b/g/n.

Product Specification subjective to this standard			
Integrated WWAN Module 1	Brand Name: Telit		
Integrated WWAN Module 1	Model Name: LE910-NA V2		
Integrated WWAN Medule 2	Brand Name: Telit		
Integrated WWAN Module 2	Model Name: LE910C4-NF		
Integrated WWAN Module 3	Brand Name: Sierra		
Integrated WWAN Module 3	Model Name: MC7455		
Sample 1	EUT with WWAN module 1 (LE910-NA V2)		
Sample 2	EUT with WWAN module 2 (LE910C4-NF)		
Sample 3	EUT with WWAN module 3 (MC7455)		
Antonno Typo	WWAN: Dipole Antenna		
Antenna Type	WLAN: Replacement Antenna		

Report No.: FC8O2320

**Remark:** The product will integrate the cellular module (LE910-NA V2, LE910C4-NF, MC7455). Among the 3 options, at a time only 1 cellular module will be installed), therefore the cellular module is incorporated into the host for Part 15B test. Equipment authorization to integrate the cellular module will follow the FCC modular approval policy and procedures.

### 1.2. Modification of EUT

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

TEL: 886-3-327-3456 Page Number : 5 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# 1.3. Test Location

Test Site	SPORTON INTERNATIONAL INC.				
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist. Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	,			
Test Site No.	Sporton	Site No.			
Test site NO.	CO05-HY	03CH06-HY			

Report No.: FC8O2320

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C TEL: +886-2-2631-5551 FAX: +886-2-2631-9740
Test Site No.	Sporton Site No.
rest site No.	OS02-NH

FCC Designation No. TW1093 and TW1094

### 1.4. Applicable Standards

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

- FCC 47 CFR FCC Part 15 Subpart B
- + ANSI C63.4-2014

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

TEL: 886-3-327-3456 Page Number : 6 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# **Test Configuration of Equipment Under Test**

#### 2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

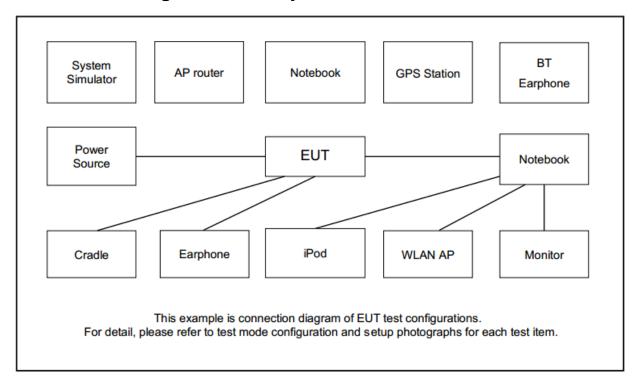
Report No.: FC8O2320

Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type			
	Mode 1: WCDMA Band II Idle + WLAN (2.4GHz) Idle + LAN Link + WAN Link + GPS Rx + Console Port (Load) + AC Adapter + SIM 1 for Sample 1			
AC Conducted	Mode 2: LTE Band 5 Idle + WLAN (2.4GHz) Idle + LAN Link + GPS Rx + Console Port (Load) + POE Adapter + SIM 2 for Sample 1			
Emission	Mode 3: LTE Band 5 Idle + WLAN (2.4GHz) Idle + LAN Link + GPS Rx + Console Port (Load) + POE Adapter + SIM 2 for Sample 2			
	Mode 4: LTE Band 5 Idle + WLAN (2.4GHz) Idle + LAN Link + GPS Rx + Console Port (Load) + POE Adapter + SIM 2 for Sample 3			
Radiated Emissions	Mode 1: WCDMA Band II Idle + WLAN (2.4GHz) Idle + LAN Link + WAN Link + GPS Rx + Console Port (Load) + AC Adapter + SIM 1 for Sample 1			
Remark:				

- 1. The worst case of AC is mode 4; only the test data of this mode was reported.
- 2. The worst case of RE is mode 1; only the test data of this mode was reported.

## 2.2. Connection Diagram of Test System



TEL: 886-3-327-3456 Page Number : 7 of 15 FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	Asus	P2430U	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: N/A QDS-BRCM1054		AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	Notebook	DELL	Latitude E5570	FCC DoC N/A		AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	PEPWAVE	N/A	PoE-1012	N/A	N/A	N/A

Report No.: FC8O2320

# 2.4. EUT Operation Test Setup

The EUT was in WCDMA or LTE idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the following programs installed in the EUT were programmed during the test.

- 1. Execute "Test Console" to make the EUT receive continuous signals from GPS station.
- 2. EUT links with Notebook via RJ45 and execute ping.
- 3. For WLAN Idle, the EUT was attached to the Notebook.

TEL: 886-3-327-3456 Page Number : 8 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

#### 3. Test Result

#### 3.1. Test of AC Conducted Emission Measurement

#### 3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Report No.: FC8O2320

Frequency of emission	Conducted	limit (dBuV)
(MHz)	Quasi-peak	Average
0.15-0.5	79	66
0.5-30	73	60

#### 3.1.2 Measuring Instruments

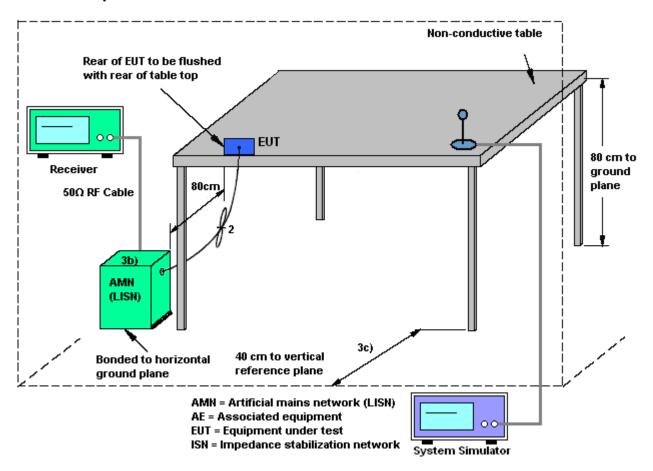
Refer a test equipment and calibration data table in this test report.

#### 3.1.3 Test Procedure

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

TEL: 886-3-327-3456 Page Number : 9 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

#### 3.1.4 Test Setup



Report No.: FC8O2320

#### 3.1.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

TEL: 886-3-327-3456 Page Number : 10 of 15 FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

#### 3.2. Test of Radiated Emission Measurement

#### 3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Report No.: FC8O2320

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	300	10

Frequency (MHz)	Field Strength (dBuV/meter)	Measurement Distance (meters)
30 – 230	40	10
230 – 1000	47	10

Note: Measurement follows the CISPR 22 limit line as below:

15.109 (g) As an alternative to the radiated emission limits shown in paragraphs (a) and (b) of this section, digital devices may be shown to comply with the standards contained in Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, "Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement"

#### 3.2.2. Measuring Instruments

Refer a test equipment and calibration data table in this test report.

TEL: 886-3-327-3456 Page Number : 11 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

#### 3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 10 meters (30M~1G) and 3 meters (1G~ 13G) from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

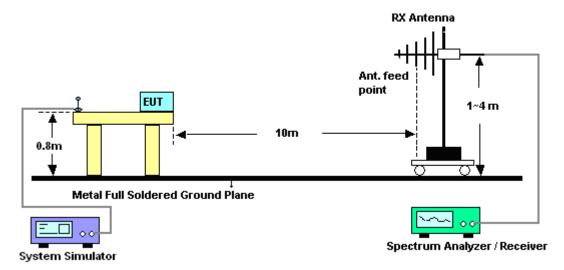
Report No.: FC8O2320

- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a Bi-Log antenna and its height is adjusted between one to 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 was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
- 8. Emission level  $(dB\mu V/m) = 20 \log Emission level (\mu V/m)$
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

TEL: 886-3-327-3456 Page Number : 12 of 15
FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

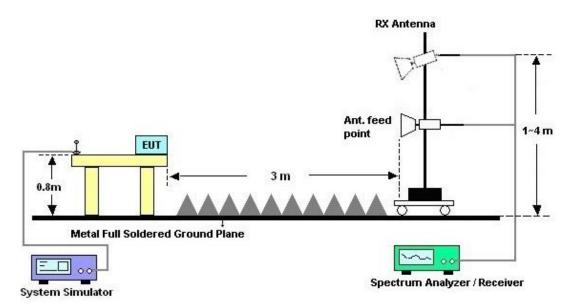
### 3.2.4. Test Setup of Radiated Emission

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



Report No.: FC8O2320

#### For radiated emissions above 1GHz



#### 3.2.5. Test Result of Radiated Emission

Please refer to Appendix B.

TEL: 886-3-327-3456 Page Number : 13 of 15 FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 15, 2018~ Dec. 24, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Nov. 15, 2018~ Dec. 24, 2018	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Nov. 15, 2018~ Dec. 24, 2018	Nov. 13, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Nov. 15, 2018~ Dec. 24, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Nov. 15, 2018~ Dec. 24, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Nov. 15, 2018~ Dec. 24, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Amplifier	HP	8447D	2944A06292	0.1 MHz - 1.3 GHz	May 14, 2018	Feb. 15, 2019~ Feb. 18, 2019	May 13, 2019	Radiation (OS02-NH)
Receiver	R&S	ESCI	100497	9 kHz – 3 GHz	May 22, 2018	Feb. 15, 2019~ Feb. 18, 2019	May 21, 2019	Radiation (OS02-NH)
Bilog Antenna With 5dB Attenuator	TESEO	CBL6112D	35376	30 MHz - 2 GHz	Apr. 28, 2018	Feb. 15, 2019~ Feb. 18, 2019	Apr. 27, 2019	Radiation (OS02-NH)
Turn Table	EMCO	2080	9508-1805	0 - 360 degree	NCR	Feb. 15, 2019~ Feb. 18, 2019	NCR	Radiation (OS02-NH)
Antenna Mast	ETS	2075-2	2385	1 m - 4 m	NCR	Feb. 15, 2019~ Feb. 18, 2019	NCR	Radiation (OS02-NH)
RF Cable-R10m	MIYAZAKI	5DFB	CB044	30 MHz - 1 GHz	Aug. 24, 2018	Feb. 15, 2019~ Feb. 18, 2019	Aug. 23, 2019	Radiation (OS02-NH)
Software	Audix	E3	Ver.4	-	NCR	Feb. 15, 2019~ Feb. 18, 2019	NCR	Radiation (OS02-NH)
AVR	ACPOWER	AFC-1KV	F103030011	-	NCR	Feb. 15, 2019~ Feb. 18, 2019	NCR	Radiation (OS02-NH)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 08, 2019	Feb. 19, 2019	Jan. 07, 2020	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Aug. 24, 2018	Feb. 19, 2019	Aug. 23, 2019	Radiation (03CH06-HY)
Preamplifier	MITEQ	AMF-7D-00101 800-30-10P	1850117	1GHz ~ 18GHz	May 24, 2018	Feb. 19, 2019	May 23, 2019	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Feb. 19, 2019	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Feb. 19, 2019	N/A	Radiation (03CH06-HY)
Test Software	AUDIX	e3	6.2009-8-24 (k5)	N/A	N/A	Feb. 19, 2019	N/A	Radiation (03CH06-HY)
RF Cable	HUBER+SUH NER/WOKEN/ HARBOUR INDUSTRIES	SUCOFLEX 104 /STORM/LL14 2	MY24966/4/ 00100A1O2A1 78T/ CA3601-3601- 1000	30MHz-26GHz	Nov. 22, 2018	Feb. 19, 2019	Nov. 21, 2019	Radiation (03CH06-HY)
Filter	Microwave	H1G013G1	SN477215	1.0G High Pass	Nov. 02, 2018	Feb. 19, 2019	Nov. 01, 2019	Radiation (03CH06-HY)

Report No.: FC8O2320

TEL: 886-3-327-3456 Page Number : 14 of 15 FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# 5. Uncertainty of Evaluation

#### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence	2.2
of 95% (U = 2Uc(y))	2.2

Report No.: FC8O2320

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

Measuring Uncertainty for a Level of Confidence	2.0
of 95% (U = 2Uc(y))	3.0

#### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence	4.7
of 95% (U = 2Uc(y))	4.7

TEL: 886-3-327-3456 Page Number : 15 of 15 FAX: 886-3-328-4978 Issued Date : Feb. 21, 2019

# **Appendix A. AC Conducted Emission Test Results**

Test Engineer :	limmy Chang	Temperature :	24~26°C
	Jiminy Chang	Relative Humidity :	50~52%

Report No.: FC8O2320

TEL: 886-3-327-3456 Page Number : A1 of A1

### **EUT Information**

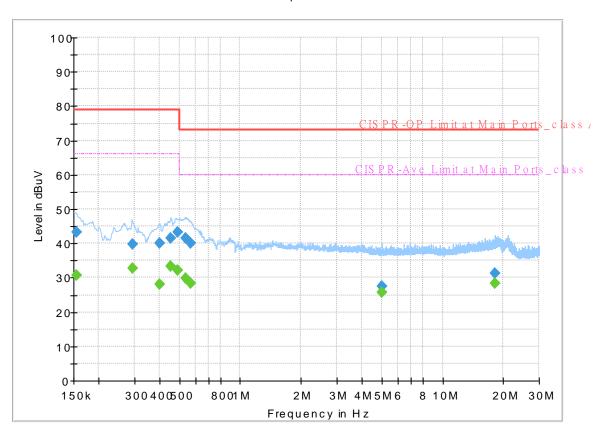
 Report NO :
 802320

 Test Mode :
 Mode 4

 Test Voltage :
 120Vac/60Hz

Phase: Line

#### FullSpectrum



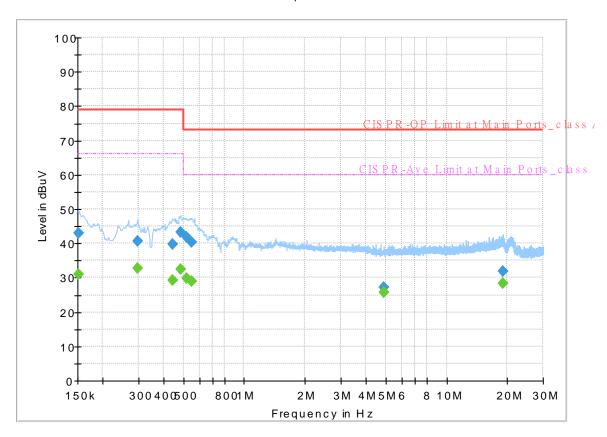
## Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	43.31		79.00	35.69	L1	OFF	19.5
0.154500		30.66	73.00	42.34	L1	OFF	19.5
0.294000	39.63		79.00	39.37	L1	OFF	19.5
0.294000		32.68	73.00	40.32	L1	OFF	19.5
0.399750	39.94		79.00	39.06	L1	OFF	19.5
0.399750		28.02	73.00	44.98	L1	OFF	19.5
0.453750	41.54		79.00	37.46	L1	OFF	19.5
0.453750		33.34	73.00	39.66	L1	OFF	19.5
0.489750	43.40		79.00	35.60	L1	OFF	19.5
0.489750		32.28	73.00	40.72	L1	OFF	19.5
0.534750	41.58		66.00	24.42	L1	OFF	19.5
0.534750		29.76	60.00	30.24	L1	OFF	19.5
0.570750	39.95		66.00	26.05	L1	OFF	19.5
0.570750		28.37	60.00	31.63	L1	OFF	19.5
5.023500	27.62		66.00	38.38	L1	OFF	19.7
5.023500		25.82	60.00	34.18	L1	OFF	19.7
18.224250	31.22		66.00	34.78	L1	OFF	20.2
18.224250		28.30	60.00	31.70	L1	OFF	20.2

### **EUT Information**

Report NO: 802320
Test Mode: Mode 4
Test Voltage: 120Vac/60Hz
Phase: Neutral

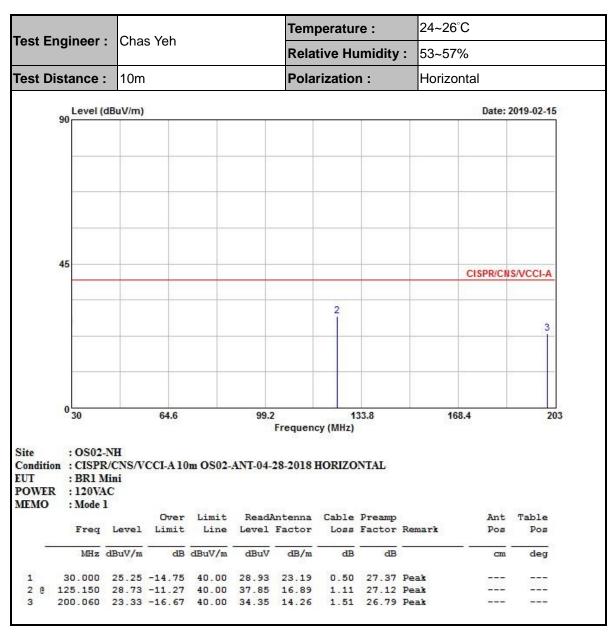
FullSpectrum



# Final\_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.152250	43.00		79.00	36.00	N	OFF	19.5
0.152250	1	30.86	73.00	42.14	N	OFF	19.5
0.296250	40.77		79.00	38.23	N	OFF	19.5
0.296250	-	32.82	73.00	40.18	N	OFF	19.5
0.442500	39.70		79.00	39.30	N	OFF	19.5
0.442500		29.23	73.00	43.77	N	OFF	19.5
0.485250	43.31		79.00	35.69	N	OFF	19.5
0.485250	-	32.56	73.00	40.44	N	OFF	19.5
0.519000	41.71		66.00	24.29	N	OFF	19.5
0.519000	-	29.80	60.00	30.20	N	OFF	19.5
0.552750	40.42		66.00	25.58	N	OFF	19.5
0.552750		29.09	60.00	30.91	N	OFF	19.5
4.899750	27.23		66.00	38.77	N	OFF	19.7
4.899750		25.67	60.00	34.33	N	OFF	19.7
18.996000	31.85		66.00	34.15	N	OFF	20.3
18.996000		28.37	60.00	31.63	N	OFF	20.3

# **Appendix B. Radiated Emission Test Result**



Report No.: FC8O2320

TEL: 886-3-327-3456 Page Number : B1 of B6 FAX: 886-3-328-4978

3

24~26°C Temperature: Test Engineer: Chas Yeh **Relative Humidity:** 53~57% Test Distance: 10m **Polarization:** Horizontal Level (dBuV/m) Date: 2019-02-15 CISPR/CNS/VCCI-A 45 200 360. 840. 1000 Frequency (MHz) : OS02-NH Condition : CISPR/CNS/VCCI-A 10m OS02-ANT-04-28-2018 HORIZONTAL EUT : BR1 Mini POWER : 120VAC MEMO : Mode 1 Over Limit ReadAntenna Cable Preamp Ant Table Freq Level Limit Line Level Factor Pos Loss Factor Remark Pos MHz dBuV/m dB dBuV/m dBuV dB/m dB dB deg 249.600 30.15 -16.85 47.00 37.87 17.23 358.400 31.53 -15.47 47.00 36.57 19.68 1 1.76 26.71 Peak 2.35 27.07 Peak \_\_\_ 2 ---

Report No.: FC8O2320

\_\_\_\_

100

3.32 28.18 Peak

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68

TEL: 886-3-327-3456 Page Number : B2 of B6 FAX: 886-3-328-4978

439.200 29.79 -17.21 47.00 33.40 21.38 2.63 27.62 Peak 499.200 36.76 -10.24 47.00 39.46 22.42 2.86 27.98 Peak 637.600 30.14 -16.86 47.00 31.28 23.72 3.32 28.18 Peak

1000.000 31.92 -15.08 47.00 28.33 26.50 4.20 27.11 Peak

499.200 36.76 -10.24 47.00 39.46 22.42

Test Engineer : Yuan Lee

Temperature : 25~27°C

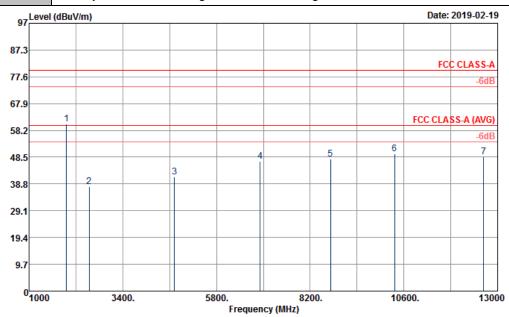
Relative Humidity : 50~52%

Test Distance : 3m

Polarization : Horizontal

Report No.: FC8O2320

**Remark:** #1 is system simulator signal which can be ignored.



Site : 03CH06-HY

Condition : FCC CLASS-A 3m 9120D\_1156\_180824 HORIZONTAL

Power : 120Vac/60Hz Memo : Mode 1

Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV deg dB/m dB dB cm --- Peak 1960.00 60.44 89.35 26.00 5.78 61.10 1 ---2542.00 37.81 -42.19 80.00 64.47 27.40 6.65 61.12 --- Peak 4726.00 41.25 -38.75 80.00 59.60 31.00 9.62 59.52 3 --- Peak 6916.00 47.02 -32.98 80.00 55.96 35.03 13.78 58.62 --- Peak 8722.00 47.70 -32.30 80.00 52.42 37.70 13.78 57.57 --- Peak 6 10364.00 49.63 -30.37 80.00 51.63 39.80 14.75 57.77 100 110 Peak 12646.00 48.61 -31.39 80.00 50.79 38.65 16.57 58.55 --- Peak

TEL: 886-3-327-3456 Page Number: B3 of B6

Test Engineer : Chas Yeh

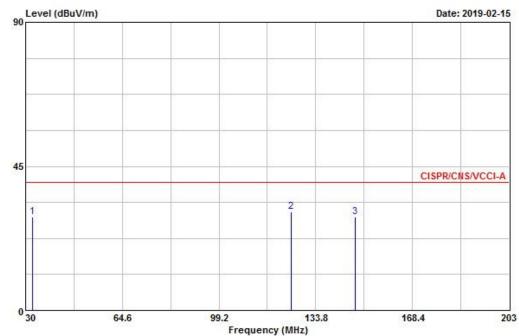
Test Distance : 10m

Temperature : 24~26°C

Relative Humidity : 53~57%

Polarization : Vertical

Report No.: FC8O2320



Site : OS02-NH

Condition : CISPR/CNS/VCCI-A 10m OS02-ANT-04-28-2018 VERTICAL

EUT : BR1 Mini POWER : 120VAC MEMO : Mode 1

		racenares		Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table
			Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	-		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	6	- Cm
1	0	32.420	29.26	-10.74	40.00	33.90	22.21	0.52	27.37	Peak		
2	8	125.150	30.79	-9.21	40.00	39.91	16.89	1.11	27.12	Peak	100	221
3	0	147.990	29.13	-10.87	40.00	39.36	15.52	1.27	27.02	Peak		

TEL: 886-3-327-3456 Page Number : B4 of B6

24~26°C Temperature: Test Engineer: Chas Yeh **Relative Humidity:** 53~57% Test Distance: 10m Polarization: Vertical Level (dBuV/m) Date: 2019-02-15 CISPR/CNS/VCCI-A 45 200 360. 680. 840. 1000 Frequency (MHz) : OS02-NH Condition : CISPR/CNS/VCCI-A 10m OS02-ANT-04-28-2018 VERTICAL EUT : BR1 Mini POWER : 120VAC MEMO : Mode 1 Over Limit ReadAntenna Cable Preamp Ant Table Freq Level Limit Line Level Factor Loss Factor Remark Pos Pos MHz dBuV/m dB dBuV/m dBuV dB/m dB dB deg 1 231.200 29.66 -17.34 47.00 38.61 16.12 1.67 26.74 Peak 2 @ 356.000 34.95 -12.05 47.00 40.05 19.61 2.34 27.05 Peak 3 375.200 32.73 -14.27 47.00 37.43 20.09 2.41 27.20 Peak 4 @ 499.200 35.45 -11.55 47.00 38.15 22.42 2.86 27.98 Peak 5 @ 749.600 34.33 -12.67 47.00 34.31 24.46 3.61 28.05 Peak ------

Report No.: FC8O2320

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TEL: 886-3-327-3456 Page Number : B5 of B6

1000.000 31.68 -15.32 47.00 28.09 26.50 4.20 27.11 Peak

Test Engineer : Yuan Lee

Test Distance : 3m

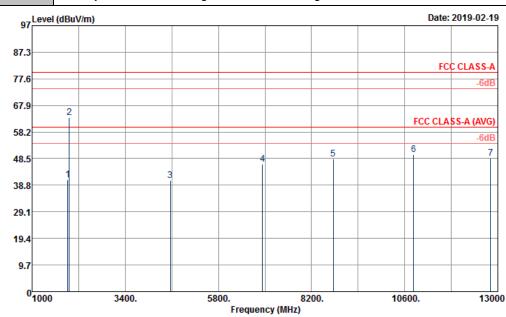
Temperature : 25~27°C

Relative Humidity : 50~52%

Polarization : Vertical

Report No.: FC8O2320

**Remark:** #2 is system simulator signal which can be ignored.



Site : 03CH06-HY

Condition : FCC CLASS-A 3m 9120D\_1156\_180824 VERTICAL

Power : 120Vac/60Hz

Memo : Mode 1

Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m deg cm 1920.00 40.77 -39.23 80.00 69.91 25.80 5.76 61.10 --- Peak 1 1960.00 63.62 92.53 26.00 5.78 61.10 4562.00 40.50 -39.50 80.00 60.09 30.73 9.38 60.26 --- Peak 3 6936.00 46.46 -33.54 80.00 55.45 35.07 13.72 58.61 --- Peak 5 8762.00 48.31 -31.69 80.00 52.86 37.93 13.74 57.61 --- Peak ---6 10828.00 49.98 -30.02 80.00 50.27 40.33 15.06 56.88 100 133 Peak 12816.00 48.72 -31.28 80.00 50.42 39.12 16.75 58.72 --- Peak

TEL: 886-3-327-3456 Page Number : B6 of B6