



FCC EMI TEST REPORT

FCC ID : AK8VTG100

Equipment : Visilion Tracker G100

Brand Name : Sony Group Corporation

Applicant : Sony Group Corporation

1-7-1 Konan Minato-ku, Tokyo, 108-0075 Japan

Manufacturer : Sony Network Communications Europe B.V.

Taurusavenue 16, 2132LS Hoofddorp, Netherlands

Standard : FCC 47 CFR FCC Part 15 Subpart B Class B

The product was received on Apr. 16, 2021 and testing was started from May 19, 2021 and completed on Jun. 16, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, 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 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.

Lunis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

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Report Template No.: BU5-FD15B Version 2.5

age Number : 2 of 14

ssued Date : Aug. 13, 2021

Report No. : FC140729-02

Report Version : 01

History of this test report

Report No. : FC140729-02

Report No.	Version	Description	Issued Date
FC140729-02	01	Initial issue of report	Aug. 13, 2021

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Summary of Test Result

Report No.: FC140729-02

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.107	AC Conducted Emission	Pass	Under limit 14.75 dB at 0.500 MHz
3.2	15.109	Radiated Emission	Pass	Under limit 11.00 dB at 42.610 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: Keven Cheng Report Producer: Amy Chen

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1. General Description

1.1. Product Feature of Equipment Under Test

GSM/LTE, Bluetooth - LE and GNSS.

Product Specification subjective to this standard				
	WWAN: PIFA Antenna			
Antenna Type	Bluetooth - LE: PIFA Antenna			
	GPS: PIFA Antenna			

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Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

EUT Information List					
HW Version SW Version		IMEI	Performed Test Item		
0B	0.1.23-test	864475047647564	Conducted Emission Radiated Emission		

Accessory List				
AC Adoptor	Model Name : UCH32			
AC Adapter	S/N: 6218W30200191			
USB Cable	Model Name : UCB24			
USB Cable	S/N : N/A			

Note:

- 1. Above EUT list used are electrically identical per declared by manufacturer.
- **2.** Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
- 3. For other wireless features of this EUT, test report will be issued separately.

1.2. Modification of EUT

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

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1.3. Test Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
	No.52, Huaya 1st Rd., Guishan Dist.,
Test Site Location	Taoyuan City 333, Taiwan (R.O.C.)
rest Site Location	TEL: +886-3-327-3456
	FAX: +886-3-328-4978
Test Site No.	Sporton Site No.
rest site No.	CO05-HY

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Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	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
Test Site No.	Sporton Site No.
rest site No.	03CH10-HY (TAF Code: 3786)
Remark	The Radiated Emission test item subcontracted to Sporton International Inc. Wensan Laboratory

FCC designation No.: TW1093 and TW1132

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 Class B
- + ANSI C63.4-2014

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

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2. 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.

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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).

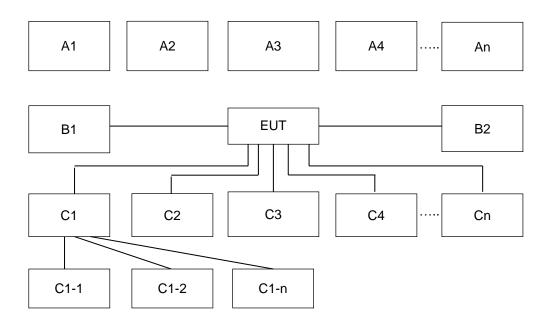
Test Items	Function Type
	Mode 1: LTE Cat. M1 Band 4 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
AC Conducted	Mode 2: LTE Cat. M1 Band 12 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
Emission	Mode 3: LTE Cat. M1 Band 13 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
	Mode 4: LTE Cat. M1 Band 26 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
	Mode 1: LTE Cat. M1 Band 4 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
Radiated	Mode 2: LTE Cat. M1 Band 12 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
Emissions	Mode 3: LTE Cat. M1 Band 13 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)
	Mode 4: LTE Cat. M1 Band 26 Idle + Bluetooth-LE Idle + GPS Rx + USB Cable (Charging from Adapter)

Remark:

- 1. For radiation emission after pre-scanned the cellular band between 30MHz ~ 960MHz (LTE Band 12/13/26); only the worst case for cellular band test data of this mode was reported.
- 2. The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

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2.2. Connection Diagram of Test System



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	Test Setup								
No. Wireless Station Connection					Те	st Mo	de		
NO.	Wireless Station	Connection Type		2	3	4	-	-	-
A1	Smart Phone	Bluetooth	Х	Х	Х	Х	-	•	-
A2	System Simulator	LTE Cat-M1	Х	Х	Х	Х	-	-	-
A3	GPS Station	GPS	Х	Х	Х	Х	-	-	-
No.	Power Source	Connection Type	1	2	3	4	-	-	-
B1	AC: 120V/60Hz	AC Power Cable	Х	Х	Х	Х	-	-	-

2.3. Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	Mobile Phone	SAMSUNG	SM-A730F/DS	A3LSMA730F	N/A	N/A
4.	Smart Phone	ASUS	Zenfone5	N/A	N/A	N/A

2.4. EUT Operation Test Setup

The EUT was in LTE idle mode during the test. The EUT was synchronized with the BCCH, and had been continuous receiving mode by setting paging reorganization of the system simulator.

At the same time, the EUT was attached to the Bluetooth earphone, and the following programs installed in the EUT were programmed during the test:

1. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.

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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.

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<Class B>

Frequency of emission	Conducted	limit (dBuV)
(MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

^{*}Decreases with the logarithm of the frequency.

3.1.2. Measuring Instruments

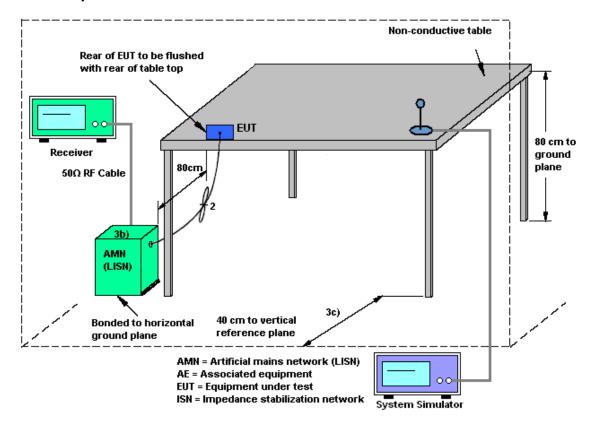
Refer a test equipment and calibration data table in this test report.

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 shall 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.

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3.1.4. Test Setup



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3.1.5. Test Result of AC Conducted Emission

Please refer to Appendix A.

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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:

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Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

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

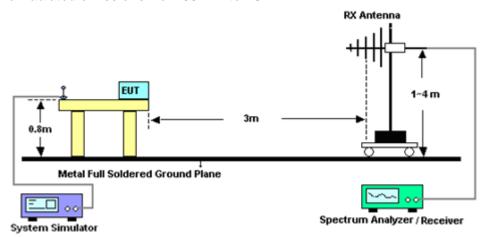
3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 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=120 kHz/VBW=300 kHz for frequency below 1 GHz; RBW=1 MHz VBW=3 MHz (Peak), RBW=1 MHz/VBW=10 Hz (Average) for frequency above 1 GHz).
- 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

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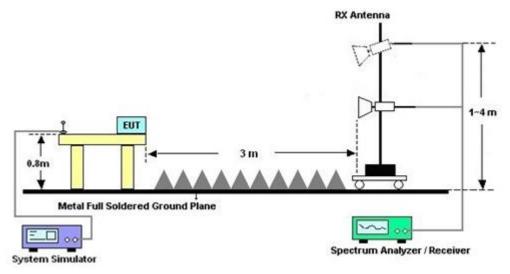
3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



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For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

Please refer to Appendix B.

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4. List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 11, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Jun. 11, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 18, 2020	Jun. 11, 2021	Nov. 17, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 16, 2020	Jun. 11, 2021	Nov. 15, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 11, 2021	N/A	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Feb. 25, 2021	Jun. 11, 2021	Feb. 24, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Jun. 11, 2021	Dec. 30, 2021	Conduction (CO05-HY)
Amplifier	SONOMA	310N	187311	9kHz~1GHz	Oct. 21, 2020	May 19, 2021~ Jun. 16, 2021	Oct. 20, 2021	Radiation (03CH10-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	35413 & 02	30MHz~1GHz	Feb. 10, 2021	May 19, 2021~ Jun. 16, 2021	Feb. 09, 2022	Radiation (03CH10-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02114	1GHz~18GHz	Aug. 04, 2020	May 19, 2021~ Jun. 16, 2021	Aug. 03, 2021	Radiation (03CH10-HY)
Preamplifier	Jet-Power	JAP00101800- 30-10P	160118550004	1GHz~18GHz	Mar. 01, 2021	May 19, 2021~ Jun. 16, 2021	Feb. 28, 2022	Radiation (03CH10-HY)
Spectrum Analyzer	Keysight	N9010A	MY53470118	10Hz~44GHz	Jan. 15, 2021	May 19, 2021~ Jun. 16, 2021	Jan. 14, 2022	Radiation (03CH10-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	May 19, 2021~ Jun. 16, 2021	N/A	Radiation (03CH10-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	May 19, 2021~ Jun. 16, 2021	N/A	Radiation (03CH10-HY)
Turn Table	EMEC	TT 2200	N/A	0~360 Degree	N/A	May 19, 2021~ Jun. 16, 2021	N/A	Radiation (03CH10-HY)
Software	Audix	E3 6.2009-8-24	RK-001042	N/A	N/A	May 19, 2021~ Jun. 16, 2021	N/A	Radiation (03CH10-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290045	20MHz~8.4GHz	Jan. 13, 2021	May 19, 2021~ Jun. 16, 2021	Jan. 12, 2022	Radiation (03CH10-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104 / 102	MY11692/4PE, MY11693/4PE, MY2855/2	30MHz~1GHz	Nov. 06, 2020	May 19, 2021~ Jun. 16, 2021	Nov. 05, 2021	Radiation (03CH10-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104 / 102	MY11692/4PE, MY11693/4PE, MY2855/2	1GHz~18GHz	Nov. 06, 2020	May 19, 2021~ Jun. 16, 2021	Nov. 05, 2021	Radiation (03CH10-HY)

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5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	22.40
of 95% (U = 2Uc(y))	2.3 dB

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

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

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

Measuring Uncertainty for a Level of Confidence	5.1 dB
of 95% (U = 2Uc(y))	3.1 dB

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Appendix A. AC Conducted Emission Test Results

Test Engineer : Calvin Wang	Temperature :	23~26 ℃
	Calvill Wally	Relative Humidity:

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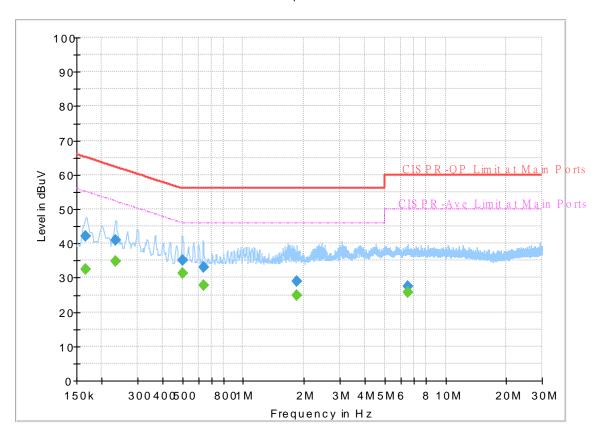
 Report NO :
 140729-02

 Test Mode :
 Mode 1

 Test Voltage :
 120Vac/60Hz

Phase: Line

FullSpectrum

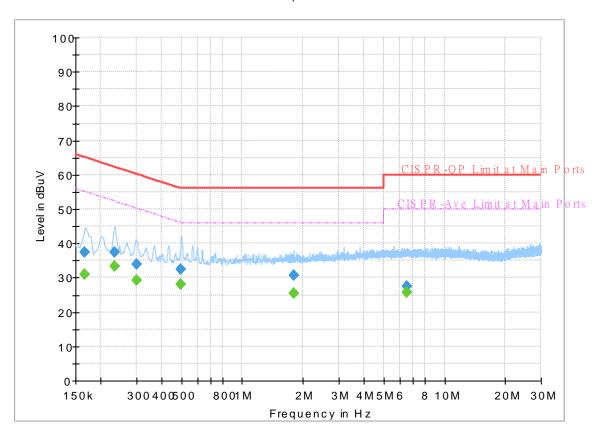


Final Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.165480		32.36	55.18	22.82	L1	OFF	19.5
0.165480	42.07		65.18	23.11	L1	OFF	19.5
0.233610		34.90	52.32	17.42	L1	OFF	19.5
0.233610	41.01	-	62.32	21.31	L1	OFF	19.5
0.500460		31.25	46.00	14.75	L1	OFF	19.7
0.500460	34.99		56.00	21.01	L1	OFF	19.7
0.636720		27.89	46.00	18.11	L1	OFF	19.8
0.636720	33.11		56.00	22.89	L1	OFF	19.8
1.841370		24.82	46.00	21.18	L1	OFF	20.0
1.841370	29.04		56.00	26.96	L1	OFF	20.0
6.512190		25.71	50.00	24.29	L1	OFF	19.9
6.512190	27.47		60.00	32.53	L1	OFF	19.9

Report NO: 140729-02
Test Mode: Mode 1
Test Voltage: 120Vac/60Hz
Phase: Neutral

FullSpectrum



Final Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.166380		30.95	55.14	24.19	N	OFF	19.5
0.166380	37.40		65.14	27.74	N	OFF	19.5
0.232890		33.37	52.35	18.98	N	OFF	19.5
0.232890	37.36	-	62.35	24.99	N	OFF	19.5
0.299490		29.24	50.26	21.02	N	OFF	19.5
0.299490	34.06	-	60.26	26.20	N	OFF	19.5
0.498120		28.17	46.03	17.86	N	OFF	19.7
0.498120	32.32		56.03	23.71	N	OFF	19.7
1.799250		25.58	46.00	20.42	N	OFF	20.0
1.799250	30.66		56.00	25.34	N	OFF	20.0
6.537750		25.75	50.00	24.25	N	OFF	20.0
6.537750	27.35		60.00	32.65	N	OFF	20.0

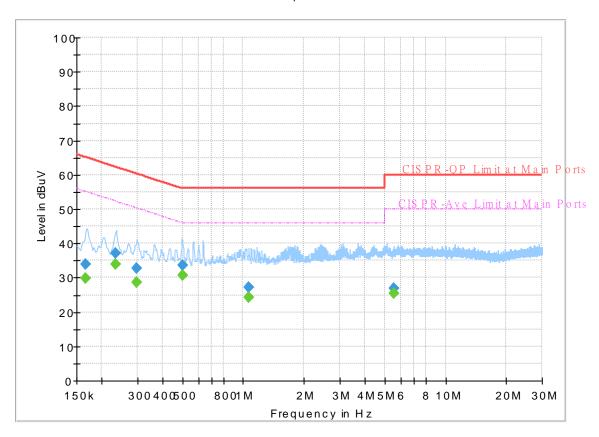
 Report NO :
 140729-02

 Test Mode :
 Mode 2

 Test Voltage :
 120Vac/60Hz

Phase: Line

FullSpectrum

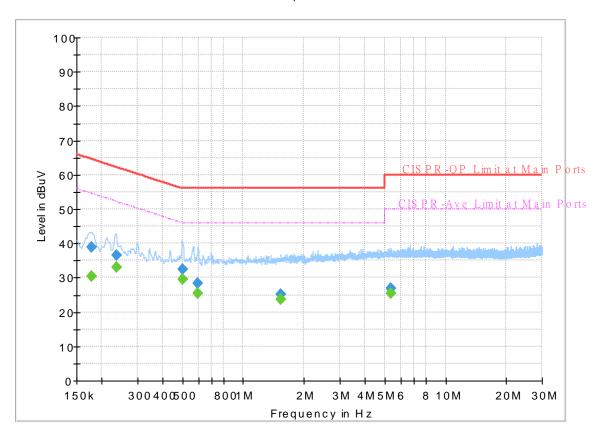


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.165480		29.87	55.18	25.31	L1	OFF	19.5
0.165480	33.91		65.18	31.27	L1	OFF	19.5
0.232800		33.94	52.35	18.41	L1	OFF	19.5
0.232800	37.19		62.35	25.16	L1	OFF	19.5
0.298860		28.52	50.27	21.75	L1	OFF	19.5
0.298860	32.75		60.27	27.52	L1	OFF	19.5
0.501990		30.84	46.00	15.16	L1	OFF	19.7
0.501990	33.67		56.00	22.33	L1	OFF	19.7
1.070250		24.21	46.00	21.79	L1	OFF	20.0
1.070250	27.31		56.00	28.69	L1	OFF	20.0
5.538750		25.36	50.00	24.64	L1	OFF	19.9
5.538750	26.87		60.00	33.13	L1	OFF	19.9

Report NO: 140729-02
Test Mode: Mode 2
Test Voltage: 120Vac/60Hz
Phase: Neutral

FullSpectrum



Final_Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.177630		30.43	54.60	24.17	N	OFF	19.5
0.177630	38.93		64.60	25.67	N	OFF	19.5
0.236130		33.02	52.23	19.21	N	OFF	19.5
0.236130	36.56	-	62.23	25.67	N	OFF	19.5
0.503790		29.50	46.00	16.50	N	OFF	19.7
0.503790	32.54		56.00	23.46	N	OFF	19.7
0.597660		25.38	46.00	20.62	N	OFF	19.8
0.597660	28.39	-	56.00	27.61	N	OFF	19.8
1.537620		23.81	46.00	22.19	N	OFF	20.0
1.537620	25.24	-	56.00	30.76	N	OFF	20.0
5.392950		25.50	50.00	24.50	N	OFF	19.9
5.392950	26.95		60.00	33.05	N	OFF	19.9

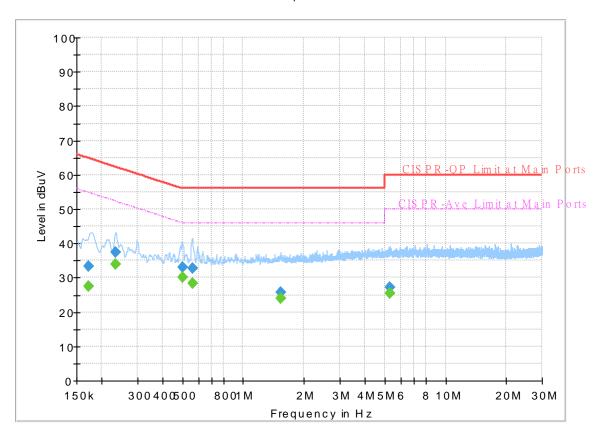
 Report NO :
 140729-02

 Test Mode :
 Mode 3

 Test Voltage :
 120Vac/60Hz

Phase: Line

FullSpectrum

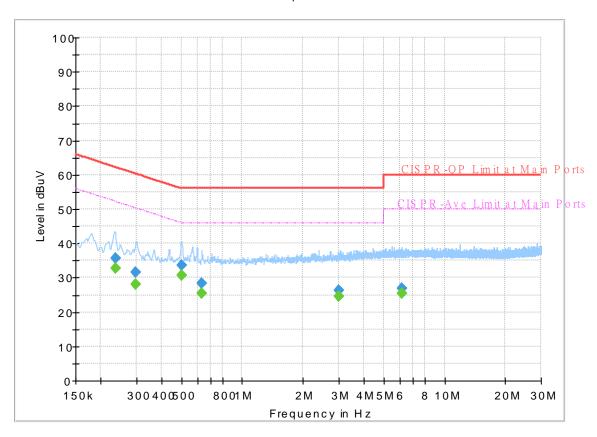


Final Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.172500		27.46	54.84	27.38	L1	OFF	19.5
0.172500	33.22		64.84	31.62	L1	OFF	19.5
0.232890		34.00	52.35	18.35	L1	OFF	19.5
0.232890	37.42	-	62.35	24.93	L1	OFF	19.5
0.501540		30.19	46.00	15.81	L1	OFF	19.7
0.501540	33.12		56.00	22.88	L1	OFF	19.7
0.561480		28.28	46.00	17.72	L1	OFF	19.7
0.561480	32.66		56.00	23.34	L1	OFF	19.7
1.534200		23.89	46.00	22.11	L1	OFF	20.0
1.534200	25.66	-	56.00	30.34	L1	OFF	20.0
5.319420		25.33	50.00	24.67	L1	OFF	19.9
5.319420	27.05		60.00	32.95	L1	OFF	19.9

Report NO: 140729-02
Test Mode: Mode 3
Test Voltage: 120Vac/60Hz
Phase: Neutral

FullSpectrum



Final Result

Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.236400		32.63	52.22	19.59	N	OFF	19.5
0.236400	35.75	-	62.22	26.47	N	OFF	19.5
0.296520		27.96	50.34	22.38	N	OFF	19.5
0.296520	31.72	-	60.34	28.62	N	OFF	19.5
0.501360		30.78	46.00	15.22	N	OFF	19.7
0.501360	33.66		56.00	22.34	N	OFF	19.7
0.633750		25.46	46.00	20.54	N	OFF	19.8
0.633750	28.42		56.00	27.58	N	OFF	19.8
2.992020		24.59	46.00	21.41	N	OFF	19.9
2.992020	26.29		56.00	29.71	N	OFF	19.9
6.173250		25.45	50.00	24.55	N	OFF	19.9
6.173250	26.88		60.00	33.12	N	OFF	19.9

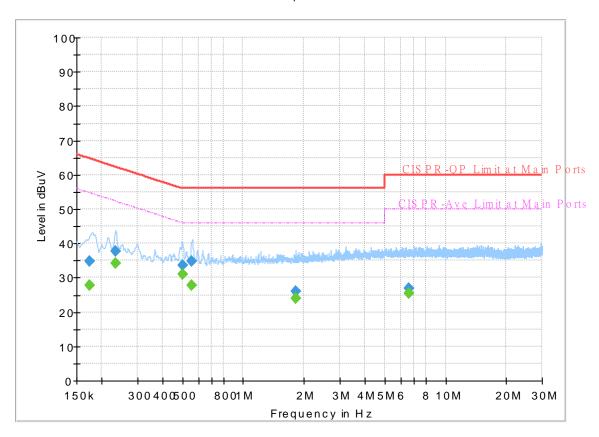
 Report NO :
 140729-02

 Test Mode :
 Mode 4

 Test Voltage :
 120Vac/60Hz

Phase: Line

FullSpectrum

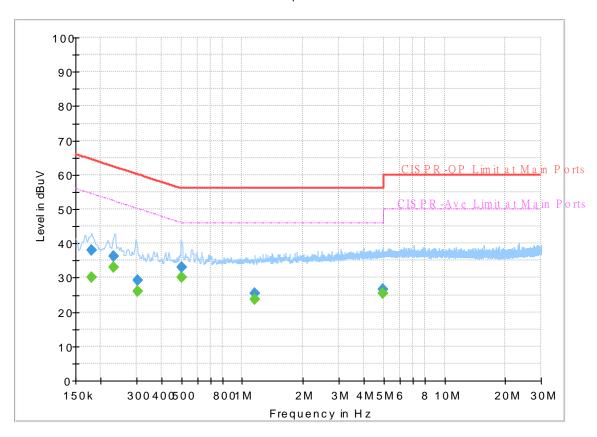


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.174750	34.72		64.73	30.01	L1	OFF	19.5
0.174750		27.81	54.73	26.92	L1	OFF	19.5
0.233430	37.74		62.33	24.59	L1	OFF	19.5
0.233430		34.33	52.33	18.00	L1	OFF	19.5
0.500100	33.63		56.00	22.37	L1	OFF	19.7
0.500100		30.85	46.00	15.15	L1	OFF	19.7
0.555180	34.74		56.00	21.26	L1	OFF	19.7
0.555180		27.90	46.00	18.10	L1	OFF	19.7
1.816350	26.04		56.00	29.96	L1	OFF	20.0
1.816350		24.08	46.00	21.92	L1	OFF	20.0
6.576000	26.86		60.00	33.14	L1	OFF	19.9
6.576000		25.50	50.00	24.50	L1	OFF	19.9

Report NO: 140729-02
Test Mode: Mode 4
Test Voltage: 120Vac/60Hz
Phase: Neutral

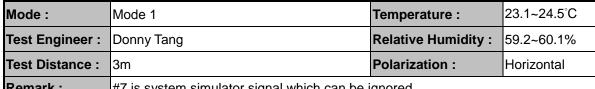
FullSpectrum



Final Result

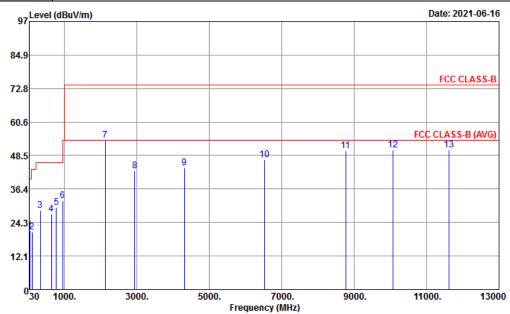
Frequency	QuasiPeak	CAverage	Limit	Margin	Line	Filter	Corr.
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dB)			(dB)
0.179430		29.99	54.51	24.52	N	OFF	19.5
0.179430	38.11		64.51	26.40	N	OFF	19.5
0.231360		32.94	52.40	19.46	N	OFF	19.5
0.231360	36.34		62.40	26.06	N	OFF	19.5
0.303000		25.90	50.16	24.26	N	OFF	19.6
0.303000	29.21		60.16	30.95	N	OFF	19.6
0.503070		30.17	46.00	15.83	N	OFF	19.7
0.503070	33.05	-	56.00	22.95	N	OFF	19.7
1.158000		23.65	46.00	22.35	N	OFF	20.1
1.158000	25.35	-	56.00	30.65	N	OFF	20.1
4.949250		25.34	46.00	20.66	N	OFF	19.9
4.949250	26.73		56.00	29.27	N	OFF	19.9

Appendix B. Radiated Emission Test Result



Report No. : FC140729-02

Remark: #7 is system simulator signal which can be ignored.



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL

Project : 140729-02 Power : 120Vac/60Hz

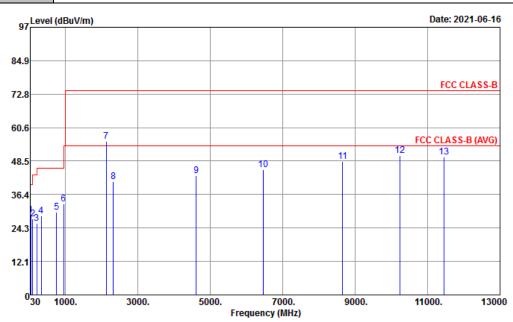
Mode :1

			0ver	LimitA	ntenna	Read	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Factor	Level	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	CM	deg	
1	45.52	21.47	-18.53	40.00	16.65	36.68	0.77	32.63			Peak
2	102.75	20.74	-22.76	43.50	16.23	35.95	1.15	32.59			Peak
3	335.55	28.77	-17.23	46.00	19.91	39.22	2.05	32.41			Peak
4	644.01	27.16	-18.84	46.00	26.63	30.20	2.84	32.51			Peak
5	780.78	29.69	-16.31	46.00	28.58	30.33	3.16	32.38			Peak
6	955.38	32.24	-13.76	46.00	30.93	28.99	3.49	31.17	100	0	Peak
7	2132.50	54.00			27.32	79.55	5.37	58.24			Peak
8	2940.00	43.03	-30.97	74.00	28.26	66.44	6.46	58.13			Peak
9	4318.00	44.09	-29.91	74.00	29.97	64.44	8.13	58.45			Peak
10	6528.00	47.02	-26.98	74.00	34.16	61.99	10.37	59.50			Peak
11	8772.00	50.17	-23.83	74.00	37.64	60.61	11.88	59.96			Peak
12	10078.00	50.47	-23.53	74.00	38.82	59.24	12.78	60.37			Peak
13	11622.00	50.53	-23.47	74.00	39.37	56.08	14.00	58.92	100	0	Peak

TEL: 886-3-327-3456 Page Number : B1 of B8

Mode:	Mode 1	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Vertical

Remark: #7 is system simulator signal which can be ignored.



: 03CH10-HY Site

Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL

Project : 140729-02 Power : 120Vac/60Hz

Mode : 1

			0ver	Limit/	ntenna	Read	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Factor	Level	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	cm	deg	
1	42.61	29.00	-11.00	40.00	18.07	42.82	0.75	32.64	100	0	Peak
2	100.81	27.44	-16.06	43.50	16.11	42.78	1.14	32.59			Peak
3	209.45	25.84	-17.66	43.50	15.01	41.70	1.62	32.49			Peak
4	333.61	28.72	-17.28	46.00	19.85	39.24	2.04	32.41			Peak
5	757.50	29.93	-16.07	46.00	28.61	30.63	3.10	32.41			Peak
6	953.44	32.90	-13.10	46.00	30.83	29.77	3.49	31.19			Peak
7	2132.50	55.60			27.32	81.15	5.37	58.24			Peak
8	2322.00	40.97	-33.03	74.00	27.66	65.86	5.59	58.14			Peak
9	4610.00	43.24	-30.76	74.00	30.74	62.66	8.26	58.42			Peak
10	6460.00	45.37	-28.63	74.00	33.86	60.70	10.22	59.41			Peak
11	8654.00	48.47	-25.53	74.00	37.32	59.08	11.87	59.80			Peak
12	10228.00	50.56	-23.44	74.00	39.23	58.56	12.90	60.13	100	0	Peak
13	11452.00	49.99	-24.01	74.00	39.65	55.10	13.87	58.63			Peak

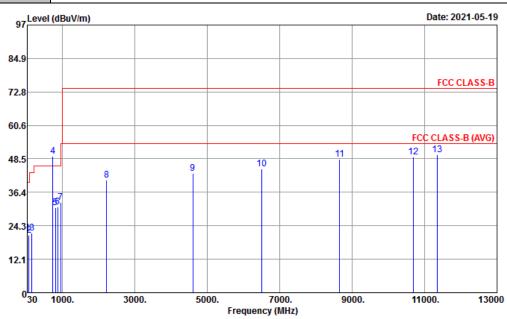
TEL: 886-3-327-3456 Page Number : B2 of B8

PORTON LAB. FCC EMI TEST REPORT

Mode :	Mode 2	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Horizontal
Damasis.	#4 is a set and almost a sign of subject and back		•

Report No. : FC140729-02

Remark: #4 is system simulator signal which can be ignored.



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL

Project : 140729-02 Power : 120Vac/60Hz

Mode : 2

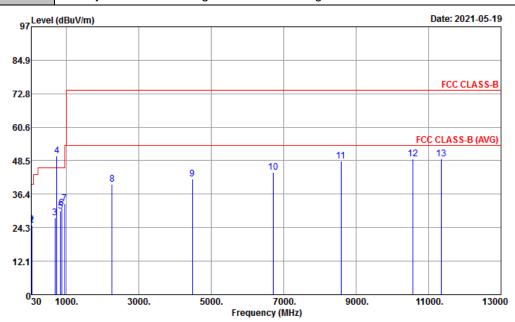
	•	_									
	Freq	Level	Over Limit		ntenna Factor	Read Level		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	——dB	dBuV/m	dB/m	dBuV	dB	dB		deg	
1	30.00	21.75	-18.25	40.00	24.38	29.39	0.63	32.65			Peak
2	80.44	20.82	-19.18	40.00	13.40	39.01	1.02	32.61			Peak
3	158.04	21.48	-22.02	43.50	16.63	35.97	1.42	32.54			Peak
4 *	737.50	49.35			28.28	50.46	3.05	32.44			Peak
5	804.06	30.74	-15.26	46.00	28.34	31.52	3.21	32.33			Peak
6	874.87	31.13	-14.87	46.00	29.07	30.64	3.32	31.90			Peak
7	954.41	32.66	-13.34	46.00	30.89	29.46	3.49	31.18	100	0	Peak
8	2224.00	40.84	-33.16	74.00	27.85	65.69	5.49	58.19			Peak
9	4606.00	43.31	-30.69	74.00	30.72	62.76	8.25	58.42			Peak
10	6504.00	44.79	-29.21	74.00	34.11	59.86	10.31	59.49			Peak
11	8650.00	48.42	-25.58	74.00	37.30	59.05	11.86	59.79			Peak
12	10698.00	49.07	-24.93	74.00	39.50	55.61	13.27	59.31			Peak
13	11342.00	49.99	-24.01	74.00	39.48	55.37	13.78	58.64	100	0	Peak

TEL: 886-3-327-3456 Page Number : B3 of B8

CC EMI TEST REPORT Report No. : FC140729-02

Mode:	Mode 2	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Vertical

Remark: #4 is system simulator signal which can be ignored.



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL

Project : 140729-02 Power : 120Vac/60Hz

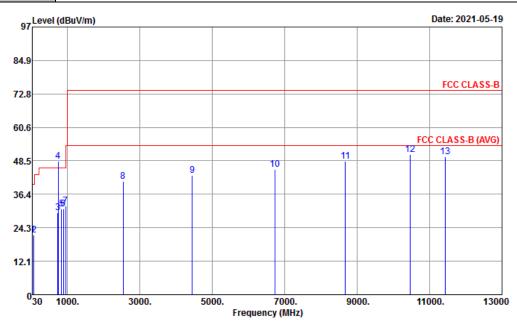
Mode : 2

			over	LimitA	ıntenna	Kead	Cable	rreamp	A/Pos	1/205	
	Freq	Level	Limit	Line	Factor	Level	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	cm	deg	
1	36.79	25.51	-14.49	40.00	21.08	36.38	0.69	32.64			Peak
2	41.64	25.23	-14.77	40.00	18.69	38.44	0.74	32.64			Peak
3	684.75	27.78	-18.22	46.00	26.65	30.70	2.93	32.50			Peak
4 *	737.50	50.14			28.28	51.25	3.05	32.44			Peak
5	836.07	30.31	-15.69	46.00	28.99	30.20	3.25	32.13			Peak
6	869.05	31.39	-14.61	46.00	29.13	30.89	3.31	31.94			Peak
7	954.41	33.05	-12.95	46.00	30.89	29.85	3.49	31.18	100	0	Peak
8	2260.00	40.08	-33.92	74.00	27.78	64.94	5.53	58.17			Peak
9	4482.00	41.89	-32.11	74.00	30.33	61.75	8.21	58.40			Peak
10	6706.00	44.42	-29.58	74.00	34.29	59.16	10.53	59.56			Peak
11	8582.00	48.31	-25.69	74.00	37.16	59.00	11.84	59.69			Peak
12	10568.00	49.20	-24.80	74.00	39.50	56.10	13.17	59.57			Peak
13	11356.00	49.21	-24.79	74.00	39.51	54.55	13.79	58.64	100	0	Peak

TEL: 886-3-327-3456 Page Number : B4 of B8

Mode:	Mode 3	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Horizontal
Damania .	#4 is a set on since later since I which say had		

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



Site : 03CH10-HY

: FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL Condition

Project : 140729-02 Power : 120Vac/60Hz

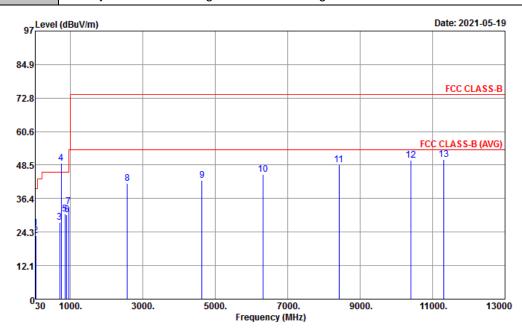
Mode : 3

mode		_									
	Freq	Level	Over Limit		Antenna Factor	Read Level		Preamp Factor	A/Pos	T/Pos	Remark
	rreq	rever	LIMIT	LINE	ractor	rever	LUSS	ractor			Kelliark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	CM	deg	
1	30.00	21.56	-18.44	40.00	24.38	29.20	0.63	32.65			Peak
2	79.47	21.72	-18.28	40.00	13.25	40.06	1.02	32.61			Peak
3	731.31	29.73	-16.27	46.00	27.94	31.20	3.04	32.45			Peak
4 *	751.00	48.33			28.57	49.10	3.08	32.42			Peak
5	840.92	31.09	-14.91	46.00	29.13	30.80	3.26	32.10			Peak
6	894.27	31.16	-14.84	46.00	28.88	30.70	3.36	31.78			Peak
7	952.47	32.25	-13.75	46.00	30.78	29.19	3.48	31.20	100	0	Peak
8	2540.00	40.96	-33.04	74.00	27.28	65.86	5.88	58.06			Peak
9	4448.00	43.26	-30.74	74.00	30.20	63.27	8.20	58.41			Peak
10	6728.00	45.30	-28.70	74.00	34.24	60.10	10.53	59.57			Peak
11	8672.00	48.46	-25.54	74.00	37.39	59.02	11.87	59.82			Peak
12	10466.00	50.87	-23.13	74.00	39.50	58.04	13.09	59.76	100	0	Peak
13	11440.00	49.94	-24.06	74.00	39.64	55.07	13.86	58.63			Peak

TEL: 886-3-327-3456 Page Number : B5 of B8

Mode:	Mode 3	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Vertical

Remark: #4 is system simulator signal which can be ignored.



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL

Project : 140729-02 : 120Vac/60Hz Power

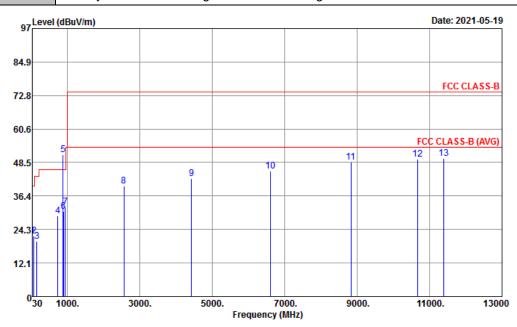
Mode : 3

			0ver	Limit/	Antenna	Read	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Factor	Level	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	cm	deg	
1	35.82	25.80	-14.20	40.00	21.55	36.21	0.68	32.64			Peak
2	42.61	23.08	-16.92	40.00	18.07	36.90	0.75	32.64			Peak
3	709.00	27.85	-18.15	46.00	26.93	30.42	2.98	32.48			Peak
4	* 751.00	49.09			28.57	49.86	3.08	32.42			Peak
5	844.80	30.69	-15.31	46.00	29.20	30.31	3.26	32.08			Peak
6	903.00	30.56	-15.44	46.00	28.95	29.95	3.38	31.72			Peak
7	951.50	33.58	-12.42	46.00	30.72	30.59	3.48	31.21	100	0	Peak
8	2568.00	41.91	-32.09	74.00	27.34	66.71	5.92	58.06			Peak
9	4636.00	42.99	-31.01	74.00	30.84	62.27	8.30	58.42			Peak
10	6310.00	45.22	-28.78	74.00	33.04	61.39	9.90	59.11			Peak
11	8416.00	48.60	-25.40	74.00	36.46	60.03	11.64	59.53			Peak
12	10398.00	50.14	-23.86	74.00	39.50	57.48	13.03	59.87			Peak
13	11300.00	50.41	-23.59	74.00	39.40	55.91	13.75	58.65	100	0	Peak

TEL: 886-3-327-3456 Page Number : B6 of B8

Mode:	Mode 4	Temperature :	23.1~24.5°C			
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%			
Test Distance :	3m	Polarization :	Horizontal			
D	"Figure 1 and the latest and the lat					

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



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF HORIZONTAL

Project : 140729-02 Power : 120Vac/60Hz

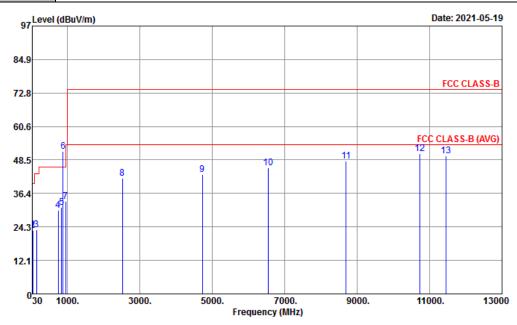
Mode : 4

		Freq	Level	Over Limit		Antenna Factor	Read Level		Preamp Factor	A/Pos	T/Pos	Remark
	-		dBuV/m		dBuV/m	dB/m	dBuV	dB	dB		deg	
1		30.00	21.77	-18.23	40.00	24.38	29.41	0.63	32.65			Peak
2		79.47	21.95	-18.05	40.00	13.25	40.29	1.02	32.61			Peak
3		158.04	20.12	-23.38	43.50	16.63	34.61	1.42	32.54			Peak
4		739.07	29.17	-16.83	46.00	28.35	30.21	3.05	32.44			Peak
5	*	876.50	51.30			29.02	50.85	3.32	31.89			Peak
6		892.33	30.82	-15.18	46.00	28.89	30.38	3.35	31.80			Peak
7		941.80	32.35	-13.65	46.00	30.25	29.96	3.46	31.32	100	0	Peak
8		2556.00	40.04	-33.96	74.00	27.31	64.89	5.90	58.06			Peak
9		4432.00	42.70	-31.30	74.00	30.16	62.75	8.20	58.41			Peak
10		6602.00	45.48	-28.52	74.00	34.30	60.18	10.53	59.53			Peak
11		8834.00	48.52	-25.48	74.00	37.63	58.96	11.98	60.05			Peak
12		10680.00	49.72	-24.28	74.00	39.50	56.30	13.26	59.34			Peak
13		11394.00	49.96	-24.04	74.00	39.59	55.18	13.82	58.63	100	0	Peak

TEL: 886-3-327-3456 Page Number : B7 of B8

Mode:	Mode 4	Temperature :	23.1~24.5°C
Test Engineer :	Donny Tang	Relative Humidity :	59.2~60.1%
Test Distance :	3m	Polarization :	Vertical
_			

Remark: #6 is system simulator signal which can be ignored.



Site : 03CH10-HY

Condition : FCC CLASS-B 3m HORN 9120D-HF VERTICAL

: 140729-02 Project Power : 120Vac/60Hz

Mode : 4

			Over	Limit	Antenna	Kead	Cable	Preamp	A/Pos	1/Pos	
	Freq	Level	Limit	Line	Factor	Level	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dB/m	dBuV	dB	dB	cm	deg	
1	35.82	23.18	-16.82	40.00	21.55	33.59	0.68	32.64			Peak
2	42.61	22.97	-17.03	40.00	18.07	36.79	0.75	32.64			Peak
3	146.40	23.37	-20.13	43.50	17.15	37.41	1.36	32.55			Peak
4	747.80	30.22	-15.78	46.00	28.53	31.04	3.07	32.42			Peak
5	840.92	31.31	-14.69	46.00	29.13	31.02	3.26	32.10			Peak
6 3	* 876.50	51.54			29.02	51.09	3.32	31.89			Peak
7	954.41	33.60	-12.40	46.00	30.89	30.40	3.49	31.18	100	0	Peak
8	2524.00	41.97	-32.03	74.00	27.25	66.91	5.86	58.05			Peak
9	4722.00	43.18	-30.82	74.00	31.06	62.11	8.45	58.44			Peak
10	6538.00	45.75	-28.25	74.00	34.18	60.68	10.39	59.50			Peak
11	8694.00	48.02	-25.98	74.00	37.48	58.52	11.87	59.85			Peak
12	10732.00	50.80	-23.20	74.00	39.60	57.14	13.30	59.24	100	0	Peak
13	11456.00	50.12	-23.88	74.00	39.66	55.22	13.87	58.63			Peak

-THE END-

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