

MRT Technology (Suzhou) Co., Ltd Phone: +86-512-66308358 Web: www.mrt-cert.com Report No.: 1904RSU029-U6 Report Version: V01 Issue Date: 05-15-2019

MEASUREMENT REPORT

FCC PART 15.225 / RSS-210 NFC 13.56MHz

FCC ID: HD5-EDA710

IC: 1693B-EDA710

APPLICANT: Honeywell International Inc

Honeywell Safety and Productivity Solutions

Application Type: Certification

Product: Tablet

Model No.: EDA71-0

Brand Name: Honeywell

FCC Classification: Part 15 Low Power Communication Device Transmitter

(DXX)

FCC Rule Part(s): Part 15 Subpart C (Section 15.225)

IC Rule(s): RSS 210 Issue 9, RSS-GEN Issue 5

Test Procedure(s): ANSI C63.10-2013

Test Date: May 07 ~ 15, 2019

Reviewed By: Jame yuan

(Jame Yuan)

Approved By: Robin Wu

(Robin Wu)





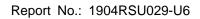
The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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Revision History

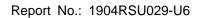
Report No.	Version	Description	Issue Date	Note
1904RSU029-U6	Rev. 01	Initial Report	05-15-2019	Valid

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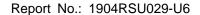
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§2.1033 General Information

Applicant:	Honeywell International Inc		
	Honeywell Safety and Productivity Solutions		
Applicant Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States		
Manufacturer:	Honeywell International Inc		
	Honeywell Safety and Productivity Solutions		
Manufacturer Address:	9680 Old Bailes Road, Fort Mill, SC 29707 United States		
Test Site: MRT Technology (Suzhou) Co., Ltd			
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development		
	Zone, Suzhou, China		
Test Device Serial No.:	S/N: 19077B32EF (Radiated Sample)		

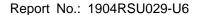
Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



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1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



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2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	Tablet			
Model No.:	EDA71-0			
Brand Name:	Honeywell			
Wi-Fi Specification:	802.11a/b/g/n/ac			
Bluetooth Version:	V4.2 dual mode			
NFC:	13.56MHz			
Accessories				
USB Adapter:	Model No.: ADS-12B-06 05010E			
Input Power: 100 - 240V ~ 50/60Hz, Max. 0.3A				
	Output Power: 5VDC 2.0A			
USB Charging Cup:	M/N: EDA70-UC			
Battery1#:	Model No.: BAT-EDA50US			
	Capacitance: 15.2Wh, 4000mAh			
Rated Voltage: 3.8V				
Battery2#: Model No.: EDA70-EXT				
	Capacitance: 33.45Wh, 8850mAh			
	Rated Voltage: 3.78V			

2.2. Test Mode

Test Mode	
Mode 1: Transmit by NFC	

2.3. Device Capabilities

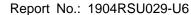
This device contains the following capabilities:

2.4GHz WLAN (DTS), 5GHz WLAN (UNII), Bluetooth v4.2 (DSS, DTS) and NFC.

2.4. Test Configuration

The **Tablet** was set to continuous transmission. This was performance using manufacturer software loaded on the terminal to allow for continuous transmission. This device was tested per the guidance of ANSI C63.10-2013, which is used as the reference of appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

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2.5. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.6. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

RSP-100 Issue 11 Section 3

The manufacturer, importer or distributor shall meet the labelling requirements set out in this section for every unit:

- (i) prior to marketing in Canada, for products manufactured in Canada
- (ii) prior to importation into Canada, for imported products

For information regarding the e-labelling option, see Notice 2014-DRS1003. The label for the certified product represents the manufacturer's or importer's compliance with Innovation, Science and Economic Development Canada's (ISED) regulatory requirements.

Please see attachment for IC label and label location.

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3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013) was used in the measurement.

Deviation from measurement procedure......None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, $50\Omega/50$ uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013 at Clause 4.3.

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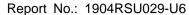


3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

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4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

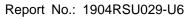
"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

- The antenna of the **Tablet** is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

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5. TEST EQUIPMENT CALIBRATION DATA

Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2020/04/15
Two-Line V-Network	R&S	ENV 216	MRTSUE06002	1 year	2019/06/14
Two-Line V-Network	R&S	ENV 216	MRTSUE06003	1 year	2019/06/14
Thermohygrometer	Testo	608-H1	MRTSUE06404	1 year	2019/08/14
Shielding Chamber	MIX-BEP	Chamber-SR2	MRTSUE06214	N/A	N/A

Radiated Emissions - AC1

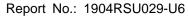
Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2019/08/13
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2019/09/25
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2019/11/09
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2020/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2019/10/19
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2019/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2019/11/16
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2019/06/12
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2019/08/14
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06213	1 year	2020/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2019/08/13
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2019/11/09
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2019/10/19
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2019/11/09
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2019/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2019/11/16
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2019/06/12
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2019/12/13
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2020/04/30

Software	Version	Function
EMI Software	V3	EMI Test Software

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6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement - SR2

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

9kHz~150kHz: 3.84dB 150kHz~30MHz: 3.46dB

Radiated Emission Measurement - AC1

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

Horizontal: 30MHz~300MHz: 4.07dB

300MHz~1GHz: 3.63dB

1GHz~18GHz: 4.16dB

Vertical: 30MHz~300MHz: 4.18dB

300MHz~1GHz: 3.60dB 1GHz~18GHz: 4.76dB

Radiated Emission Measurement - AC2

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

Horizontal: 30MHz~300MHz: 3.75dB

300MHz~1GHz: 3.53dB 1GHz~18GHz: 4.28dB

Vertical: 30MHz~300MHz: 3.86dB

300MHz~1GHz: 3.53dB 1GHz~18GHz: 4.33dB

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7. TEST RESULT

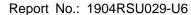
7.1. Summary

FCC Part Section(s)	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.225 (a), (b), (c)	RSS-210 [B.6] (a), (b), (c)	In-Band Emission	15,848uV/m @ 30m 13.553 ~ 13.567 MHz 334uV/m @ 30m 13.410 ~ 13.553 MHz 13.567 ~ 13.710 MHz 106uV/m @ 30m 13.110 ~ 13.410 MHz 13.710 ~ 14.010 MHz		Pass	Section 7.2
15.225(d)	RSS-210 [B.6] (d)	Out-Band Emission	Emissions outside of the specified band (13.110~14.010 MHz) must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.3
2.1049	RSS-Gen [6.7]	20dB Bandwidth 99% Bandwidth	N/A		Pass	Section 7.4
15.225(e)	RSS-210 [B.6]	Frequency Stability Tolerance	±0.01% of operating frequency		Pass	Section 7.5
15.207	RSS-Gen [8.8]	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.6

Notes:

- 1) All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

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7.2. In-band Emission

7.2.1.Test Limit

FCC Part 15 Subpart C Paragraph 15.225 & RSS-210 Section [B.6]						
Frequency (MHz)	·					
13.553 ~13.567	30	15,848				
13.410 ~13.553	30	334				
13.567 ~13.710	30	334				
13.110 ~13.410	30	106				
13.710 ~14.010	30	106				

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength $(dBuV/m) = 20 \log E$ field strength (uV/m)

7.2.2.Test Procedure Used

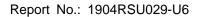
The EUT was setup according to ANSI C63.4, 2009 and tested according to ANSI C63.10: 2009 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2009 on radiated measurement.

The EUT should be operate in transmission mode.

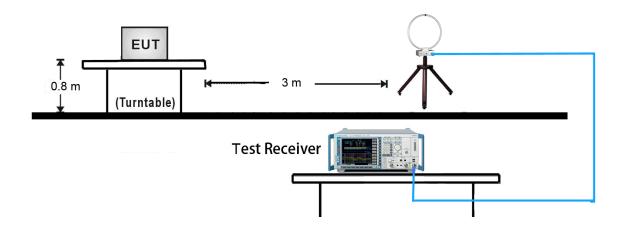
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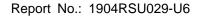




7.2.3.Test Setup

9kHz ~ 30MHz Test Setup:







7.2.4.Test Result

Test Engineer	David Lv	Temperature	25°C
Test Time	2019/05/07	Relative Humidity	56%
Test Mode	Mode1	Test Site	AC2

Frequency	Reading Level(dBuV/m)	Factor (dB)	Measure Level(dBuV/m)	Limit (3m) [dBuV/m]	Margin [dB]
Face On					
13.14	17.28	19.85	37.13	80.51	-43.38
13.50	7.19	19.87	27.06	90.47	-63.41
13.56	31.33	19.87	51.20	123.99	-72.79
13.70	9.20	19.87	29.07	90.47	-61.40
13.98	14.11	19.85	33.96	80.51	-46.55
Face Off					
13.16	8.24	19.86	28.10	80.51	-52.41
13.50	7.41	19.87	27.28	90.47	-63.19
13.56	24.47	19.86	44.33	123.99	-79.66
13.60	7.51	19.86	27.37	90.47	-63.10
13.89	7.71	19.86	27.57	80.51	-52.94

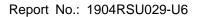
Note1: All measurements were performed using a loop antenna. The antenna was positioned in two orthogonal (face on and face off) and the position with the highest emission level was recorded.

Note2: Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).

Extrapolation Factor = 40*Log(30/3) = 40 dB

Note3: All measurements were recorded using a EMI test receiver employing a peak detector.

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7.3. Out-band Emission

7.3.1.Test Limit

FCC Part 15 Subpart C Paragraph 15.209 & RSS-Gen Section 8.9						
Frequency (MHz)	Distance (m)	Level (uV/m)				
0.009 - 0.490	300	2400/F (kHz)				
0.490 - 1.705	30	2400/F (kHz)				
1.705 - 30	30	30				
30 - 88	3	100				
88 - 216	3	150				
216 - 960	3	200				
Above 960	3	500				

Note 1: The lower limit shall apply at the transition frequency.

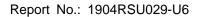
Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

7.3.2.Test Procedure Used

The EUT was tested from 9kHz up to the 1GHz excluding the band 13.110-14.010 MHz. All measurements were recorded with a spectrum analyzer employing an average detector for emissions below 30MHz. Above 30MHz a Quasi-peak detector was used. All out-of-band emissions must not exceed the limits shown as stated per Section 15.209. A loop antenna was used for searching for emissions below 30MHz.

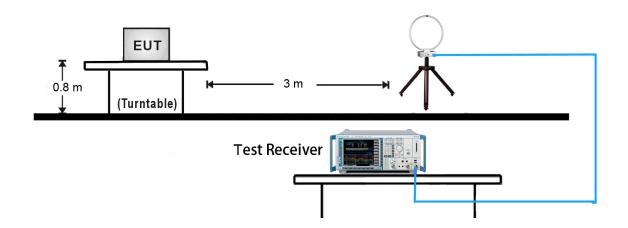
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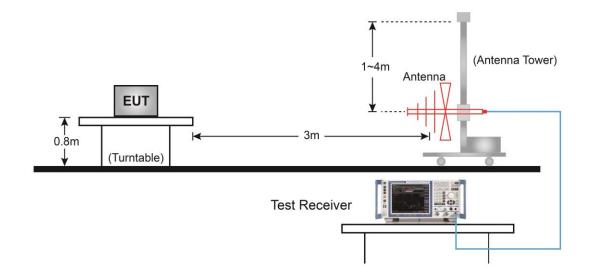


7.3.3.Test Setup

9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:





7.3.4.Test Result

Test Engineer	David Lv	Temperature	25°C
Test Time	2019/05/07	Relative Humidity	56%
Test Mode	Mode1	Test Site	AC2

	Out-Band Emission Below 30MHz					
Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Face On	Face On					
27.12	6.38	19.51	25.89	69.54	-43.65	QP
Face Off						
27.12	6.33	19.51	25.84	69.54	-43.7	QP

	Out-Band Emission Above 30MHz						
Antenna	Frequency	Reading	Factor	Measure	Limit	Margin (dB)	Detector
	(MHz)	Level	(dB)	Level	(dBuV/m)		
		(dBuV/m)		(dBuV/m)			
Н	39.70	2.22	13.73	15.95	40.00	-24.05	QP
Н	52.80	-0.65	14.79	14.14	40.00	-25.86	QP
Н	101.78	-0.19	13.07	12.89	43.50	-30.62	QP
Н	264.74	-1.16	13.74	12.58	46.00	-33.42	QP
Н	371.44	2.47	15.88	18.35	46.00	-27.66	QP
Н	490.27	2.32	17.83	20.15	46.00	-25.85	QP
V	35.82	14.47	13.03	27.50	40.00	-12.50	QP
V	57.65	5.72	14.16	19.88	40.00	-20.12	QP
V	108.09	0.27	12.88	13.15	43.50	-30.35	QP
V	159.98	6.67	9.67	16.35	43.50	-27.15	QP
V	334.10	1.54	15.22	16.76	46.00	-29.24	QP
V	492.21	0.86	17.88	18.73	46.00	-27.27	QP

Note1: All measurements were performed using a loop antenna. The antenna was positioned in two orthogonal (face on and face off) and the position with the highest emission level was recorded. Note2: Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).

Extrapolation Factor = $40*Log^{(30/3)} = 40 dB$

Note3: All measurements were recorded using a EMI test receiver employing a peak detector.

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7.4. 20dB Bandwidth

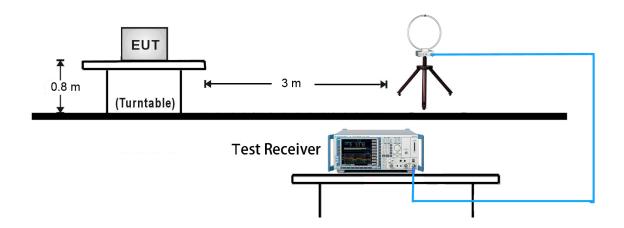
7.4.1.Test Limit

N/A

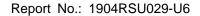
7.4.2.Test Procedure Used

The 20dB bandwidth is measured with a spectrum analyzer connected via a receive antenna placed near the EUT while the EUT is operating in transmission mode.

7.4.3.Test Setup



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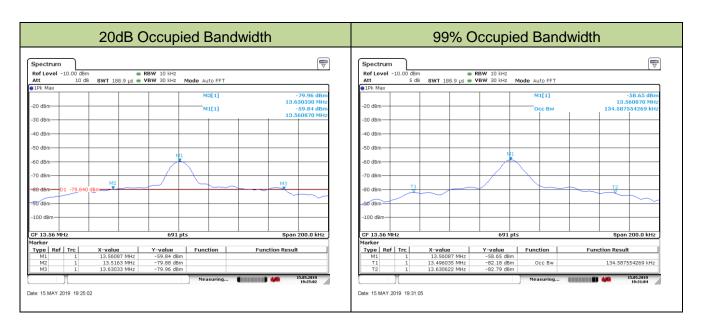




7.4.4.Test Result

Test Engineer	David Lv	Temperature	25°C
Test Time	2019/05/15	Relative Humidity	56%
Test Mode	Mode1	Test Site	AC2

Frequency	20dB Occupied Bandwidth	99% Occupied Bandwidth
(MHz)	(kHz)	(kHz)
13.56	114.03	134.59



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7.5. Frequency Tolerence

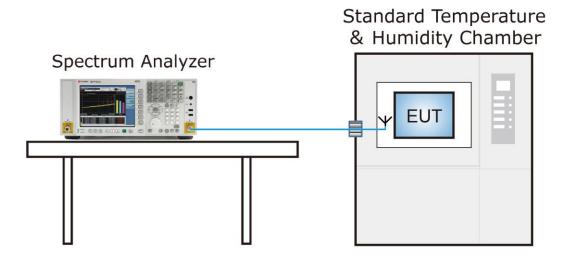
7.5.1.Test Limit

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency.

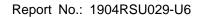
7.5.2.Test Procedure Used

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

7.5.3.Test Setup



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7.5.4.Test Result

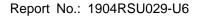
Test Engineer	Snake Ni	Temperature	25°C
Test Time	2019/05/07	Relative Humidity	56%
Test Mode	Mode1	Test Site	AC1

Operating Frequency: 13.56MHz

Reference Voltage: 3.8Vdc

Deviation Limit: +	Deviation Limit: +/- 0.01% = 1356Hz					
Voltage	Power	TEMP	FREQ.	FREQ. Dev.	Deviation	
(%)	Battery	(°C)	(Hz)	(Hz)	(%)	
		-20	13,559,537	-463	-0.003414	
		-10	13,559,687	-313	-0.002308	
		0	13,559,053	-947	-0.006984	
4000/	0.00	+10	13,560,556	556	0.004100	
100%	3.80	+20 (Ref)	13,560,750	750	0.005531	
		+30	13,560,762	762	0.005619	
		+40	13,560,765	765	0.005642	
		+50	13,560,771	771	0.005686	
115%	4.37	+ 20	13,560,748	748	0.005516	
85%	3.23	+ 20	13,560,691	691	0.005096	

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7.6. AC Conducted Emissions Measurement

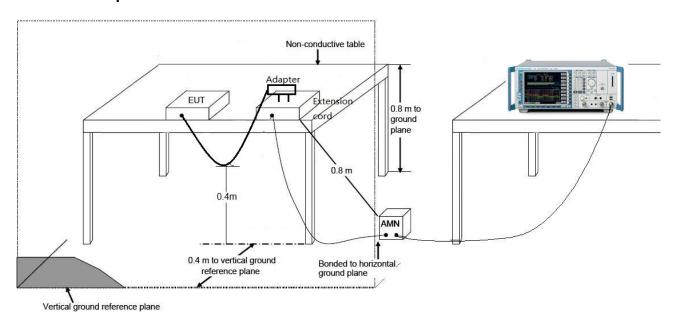
7.6.1.Test Limit

FCC Part 15 Subpart C Paragraph 15.207 & RSS-Gen Section 8.8						
Frequency (MHz)	QP (dBuV)	AV (dBuV)				
0.15 - 0.50	66 - 56	56 - 46				
0.50 - 5.0	56	46				
5.0 - 30	60	50				

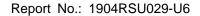
Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.6.2.Test Setup



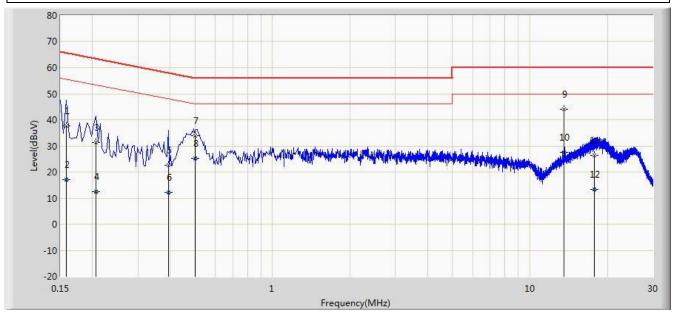
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7.6.3.Test Result

Site: SR2	Time: 2019/05/07 - 15:45
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Tablet	Power: AC 120V/60Hz
Test Mode: Mode 1	



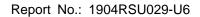
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.158	37.585	27.274	-27.983	65.568	10.311	QP
2			0.158	16.959	6.648	-38.609	55.568	10.311	AV
3			0.206	31.255	21.274	-32.110	63.365	9.981	QP
4			0.206	12.364	2.383	-41.001	53.365	9.981	AV
5			0.394	22.469	12.389	-35.510	57.979	10.080	QP
6			0.394	12.079	1.999	-35.900	47.979	10.080	AV
7			0.502	33.857	23.700	-22.143	56.000	10.157	QP
8			0.502	25.257	15.100	-20.743	46.000	10.157	AV
9		*	13.560	44.058	34.000	-15.942	60.000	10.058	QP
10			13.560	27.558	17.500	-22.442	50.000	10.058	AV
11			17.818	26.444	16.350	-33.556	60.000	10.094	QP
12			17.818	13.320	3.226	-36.680	50.000	10.094	AV

Note 1: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Note 2: 13.56MHz is NFC working frequency.

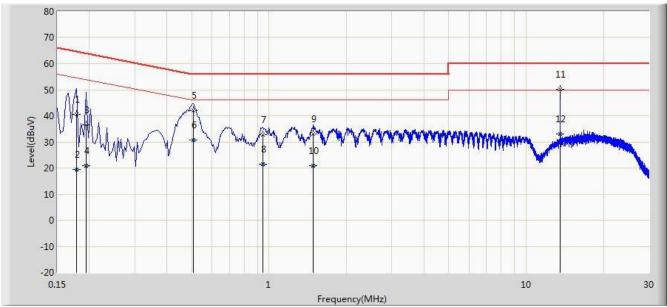
FCC ID: HD5-EDA710 IC: 11693B-EDA710





Site: SR2	Time: 2019/05/07 - 15:50				
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan				
Probe: ENV216_101683_Filter On	Polarity: Neutral				
EUT: Tablet	Power: AC 120V/60Hz				
Test Mode: Mode 1					

Test Mode: Mode 1



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.178	40.505	30.456	-24.073	64.578	10.049	QP
2			0.178	19.370	9.320	-35.208	54.578	10.049	AV
3			0.194	36.579	26.558	-27.284	63.864	10.021	QP
4			0.194	20.909	10.888	-32.954	53.864	10.021	AV
5			0.506	42.152	31.975	-13.848	56.000	10.177	QP
6			0.506	30.767	20.590	-15.233	46.000	10.177	AV
7			0.946	32.803	22.865	-23.197	56.000	9.938	QP
8			0.946	21.329	11.391	-24.671	46.000	9.938	AV
9			1.486	32.961	23.070	-23.039	56.000	9.891	QP
10			1.486	20.844	10.953	-25.156	46.000	9.891	AV
11		*	13.560	50.099	40.000	-9.901	60.000	10.100	QP
12			13.560	32.999	22.900	-17.001	50.000	10.100	AV

Note 1: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

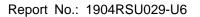
Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Note 2: 13.56MHz is NFC working frequency.



8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Tablet** is in compliance with Part 15C of the FCC Rules and ISED rules.

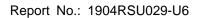




Appendix A - Test Setup Photograph

Refer to "1904RSU029-UT" file.

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Appendix B - EUT Photograph

Refer to "1904RSU029-UE" file.

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