

## Partial FCC Test Report

### (PART 27)

**Report No.:** RFBEDW-WTW-P21031095-4

**FCC ID:** GKR-LN300EG3L

**Test Model:** Lenovo 300e Chromebook Gen 3\*\*\*\*\*(\*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)

**Received Date:** Mar. 31, 2021

**Test Date:** Apr. 14 ~ May 04, 2021

**Issued Date:** May 28, 2021

**Applicant:** Compal Electronics Inc

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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**FCC Registration /  
Designation Number:** 788550 / TW0003



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### Release Control Record

Issue No.	Description	Date Issued
RFBEDW-WTW-P21031095-4	Original Release	May 28, 2021

## 1 Certificate of Conformity

**Product:** Notebook Computer

**Brand:** Lenovo

**Test Model:** Lenovo 300e Chromebook Gen 3\*\*\*\*\*(\*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)

**Sample Status:** Engineering Sample

**Applicant:** Compal Electronics Inc

**Test Date:** Apr. 14 ~ May 04, 2021

**Standards:** FCC Part 27, Subpart C, D

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :** Gina Liu, **Date:** May 28, 2021  
Gina Liu / Specialist

**Approved by :** Dylan Chiou, **Date:** May 28, 2021  
Dylan Chiou / Senior Project Engineer

## 2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(a)(3)	Equivalent Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note 1
2.1055 27.54	Frequency Stability	N/A	Refer to Note 1
2.1049 27.53(a)(5)	Occupied Bandwidth	N/A	Refer to Note 1
2.1051 27.53(a)(4)	Band Edge Measurements	N/A	Refer to Note 1
2.1051 27.53(a)(4)	Conducted Spurious Emissions	N/A	Refer to Note 1
2.1053 27.53(a)(4)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.07 dB at 56.19 MHz.

Note:

1. This report is a partial report. Therefore, only test item of Equivalent Isotropic Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RF180704C01-3 for module (Brand: Fibocom, Model: L850-GL)
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	3.59 dB
	200 MHz ~ 1000 MHz	3.60 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 dB

## 2.2 Test Site And Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 09, 2021	Apr. 08, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 12, 2020	Jun. 11, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 06, 2020	Nov. 05, 2021
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna EMCI	EM-6879	269	Sep. 17, 2020	Sep. 16, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jun. 08, 2020	Jun. 07, 2021
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 17, 2021	Feb. 16, 2022
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM800 0	CABLE-CH9-02 (248780+171006)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(2507 95/4)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable Woken	8D-FB	Cable-CH9-01	Jun. 08, 2020	Jun. 07, 2021
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2020	May 31, 2021
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 06, 2020	Jun. 05, 2021

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	Notebook Computer	
<b>Brand</b>	Lenovo	
<b>Test Model</b>	Lenovo 300e Chromebook Gen 3*****(*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)	
<b>Status of EUT</b>	Engineering Sample	
<b>Power Supply Rating</b>	20.0 Vdc from adapter 11.52 Vdc from battery	
<b>Modulation Type</b>	QPSK, 16QAM	
<b>Frequency Range</b>	LTE Band 30 (Channel Bandwidth: 5 MHz)	2307.5 ~ 2312.5 MHz
	LTE Band 30 (Channel Bandwidth: 10 MHz)	2310 MHz
<b>Max. EIRP Power</b>	LTE Band 30 (Channel Bandwidth: 5 MHz)	357.273 mW / 5MHz (25.53dBm)
	LTE Band 30 (Channel Bandwidth: 10 MHz)	365.595 mW / 5MHz (25.63dBm)
<b>Antenna Type</b>	Refer to Note as below	
<b>Accessory Device</b>	Refer to Note as below	
<b>Data Cable Supplied</b>	Refer to Note as below	

Note:

1. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter 1	Lenovo	ADLX45YLC2D	I/P: 100-240Vac, 50-60Hz, 1.8A O/P: 20.0V===2.25A, 45.0W 1.75M / 0core
Adapter 2	Lenovo	ADLX65YCC3D	I/P: 100-240Vac, 50-60Hz, 1.8A O/P: 20.0V===3.25A, 65.0W 1.77M / 0core
Adapter 3	Lenovo	ADLX65NLC3A	I/P: 100-240Vac, 50-60Hz, 1.8A O/P: 20.0V ===3.25A 1.55M / 0core
Battery	Lenovo	L20M3PG0	11.52 Vdc, 3994 mAh, 46Wh
LTE module	Fibocom	L850-GL	-

2. The antenna information is listed as below.

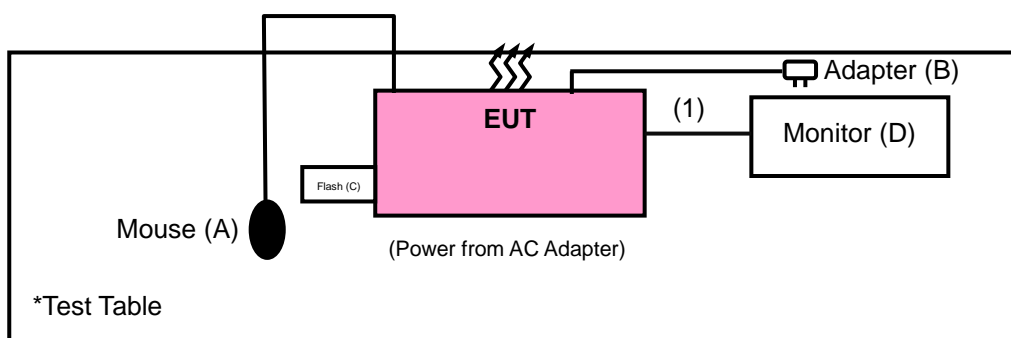
Ant. Type	Brand	Ant.	Model	Antenna Peak Gain (dBi)	Connector
PIFA	Pulse	Main	SZ18665 (DC33002JN20)	2.93	IPEX 20565 or compatible.
		Aux.	SZ1868E (DC33002JN30)		
	South Star	Main	N19-0814-R0A (DC33002J020)	0.56	Kangshuo MHF-B13-N-01
		Aux.	N19-0815-R0A (DC33002J030)		

\* The Max antenna gain was chosen for final test.

3. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

## 3.2 Configuration of System Under Test



### 3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Mouse	Microsoft	1113	9170515897028	FCC DOC Approved	-
B	Adapter	Lenovo	ADLX45YLC2D	NA	NA	Provided by client
C	Flash	HP	v250W	09	NA	-
D	Monitor	DELL	U2410	CN-0J257M-728 72-0A6-02YL	Doc	-

No.	Signal Cable Description Of The Above Support Units
1.	HDMI Cable: 1m

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item C acted as communication partners to transfer data.



### 3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis & NB Mode, and antenna ports.

The worst case was found when positioned on NB mode for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	27685 to 27735	27685, 27710, 27735	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 1 RB / 12 RB Offset 1 RB / 24 RB Offset 12 RB / 0 RB Offset 12 RB / 6 RB Offset 12 RB / 13 RB Offset 25 RB / 0 RB Offset
		27710	27710	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset 25 RB / 0 RB Offset 25 RB / 12 RB Offset 25 RB / 25 RB Offset 50 RB / 0 RB Offset
-	Radiated Emission	27685 to 27735	27685, 27710, 27735	5 MHz	QPSK	1 RB / 0 RB Offset
		27710	27710	10 MHz	QPSK	1 RB / 0 RB Offset

#### Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emissions below 1 GHz, select the worst radiated emission channel for final testing.

#### Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25 deg. C, 60 % RH	120 Vac, 60 Hz	Jones Chang
Radiated Emission	22 deg. C, 66 % RH	120 Vac, 60 Hz	Rex Wang

### 3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

### **3.5 General Description of Applied Standards and references**

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and references:

**Test Standard:**

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

**ANSI 63.26-2015**

**NOTE:** All test items have been performed and recorded as per the above standards.

**References Test Guidance:**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

**ANSI/TIA/EIA-603-E 2016**

**NOTE:** All test items have been performed as a reference to the above KDB test guidance.

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

Mobile and portable stations. (i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

#### 4.1.2 Test Procedures

##### Maximum EIRP / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_{\text{Meas}} + G_T$$

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively  
(expressed in the same units as  $P_{\text{Meas}}$ , e.g., dBm or dBW)

$P_{\text{Meas}}$  measured transmitter output power or PSD, in dBm or dBW

$G_T$  gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

##### Conducted Power Measurement:

- The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Note: Measurement method refers to ANSI C63.26 section 5.2.7 & 5.2.4.

#### 4.1.3 Test Setup

##### Conducted Power Measurement:



#### 4.1.4 Test Results

##### Conducted Output Power (dBm)

LTE Band 30															
BW	MCS Index	RB Size	RB Offset		Mid		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel			27710					Channel		27685	27710	27735	
		Frequency (MHz)			2310.0					Frequency (MHz)		2307.5	2310.0	2312.5	
10M	QPSK	1	0		22.55		0	5M	QPSK	1	0	22.39	22.36	22.29	0
		1	24		22.45		0			1	12	22.36	22.26	22.14	0
		1	49		22.46		0			1	24	22.25	22.17	22.28	0
		25	0		22.59		1			12	0	22.37	22.32	22.26	1
		25	12		22.43		1			12	6	22.33	22.30	22.17	1
		25	25		22.39		1			12	13	22.28	22.29	22.27	1
		50	0		22.54		1			25	0	22.35	22.33	22.15	1
	16QAM	1	0		22.70		1		16QAM	1	0	22.50	22.60	22.46	1
		1	24		22.57		1			1	12	22.48	22.47	22.32	1
		1	49		22.59		1			1	24	22.38	22.36	22.38	1
		25	0		21.53		2			12	0	21.37	21.33	21.22	2
		25	12		21.39		2			12	6	21.33	21.30	21.17	2
		25	25		21.36		2			12	13	21.27	21.30	21.30	2
		50	0		21.49		2			25	0	21.34	21.30	21.19	2

##### EIRP Power

LTE Band 30															
BW	MCS Index	RB Size	RB Offset		Mid		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel			27710					Channel		27685	27710	27735	
		Frequency (MHz)			2310.0					Frequency (MHz)		2307.5	2310.0	2312.5	
10M	QPSK	1	0		25.48		0	5M	QPSK	1	0	25.32	25.29	25.22	0
		1	24		25.38		0			1	12	25.29	25.19	25.07	0
		1	49		25.39		0			1	24	25.18	25.10	25.21	0
		25	0		25.52		1			12	0	25.30	25.25	25.19	1
		25	12		25.36		1			12	6	25.26	25.23	25.10	1
		25	25		25.32		1			12	13	25.21	25.22	25.20	1
		50	0		25.47		1			25	0	25.28	25.26	25.08	1
	16QAM	1	0		25.63		1		16QAM	1	0	25.43	25.53	25.39	1
		1	24		25.50		1			1	12	25.41	25.40	25.25	1
		1	49		25.52		1			1	24	25.31	25.29	25.31	1
		25	0		24.46		2			12	0	24.30	24.26	24.15	2
		25	12		24.32		2			12	6	24.26	24.23	24.10	2
		25	25		24.29		2			12	13	24.20	24.23	24.23	2
		50	0		24.42		2			25	0	24.27	24.23	24.12	2

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $70 + 10 \log (P)$  dB. The limit of emission is equal to -40 dBm.

### 4.2.2 Test Procedure

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
- c. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15 dB.

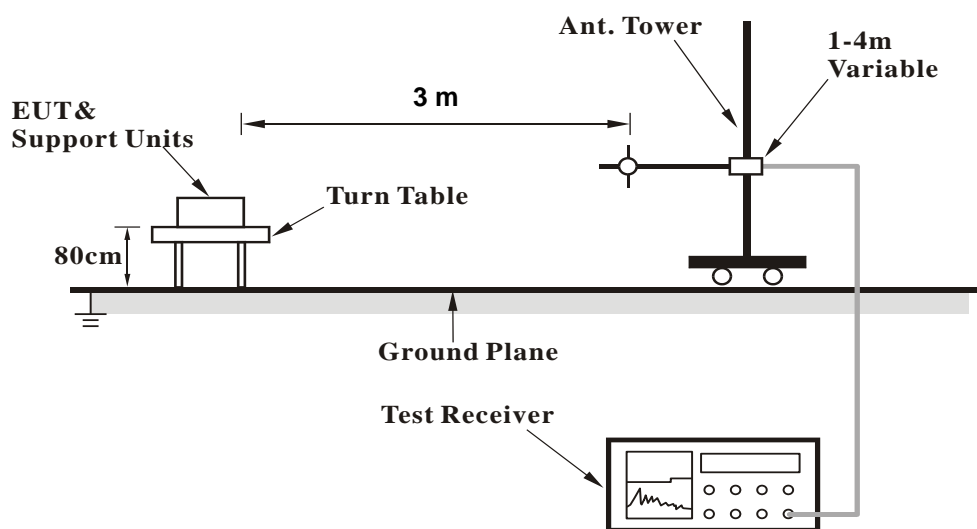
**Note:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 4.2.3 Deviation from Test Standard

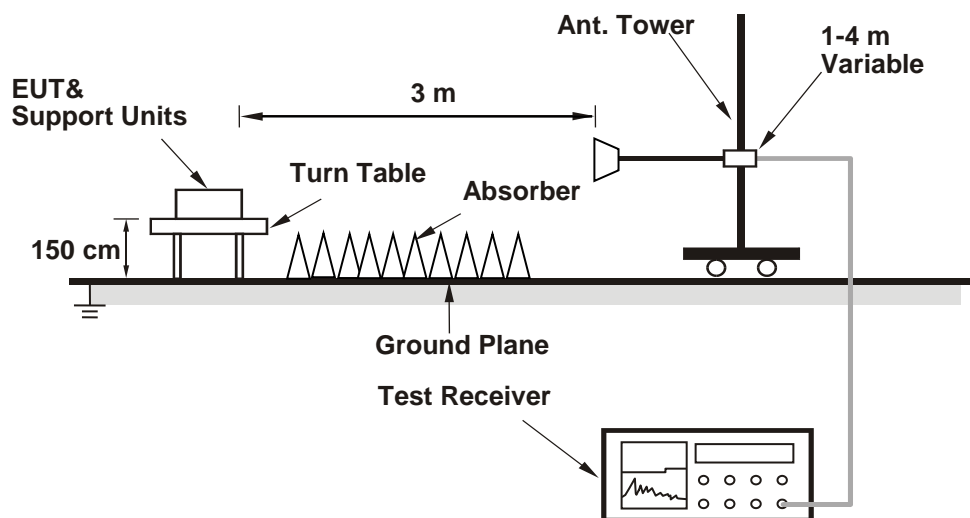
No deviation.

#### 4.2.4 Test Setup

##### <Radiated Emission below or equal 1 GHz>



##### <Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.2.5 Test Results

##### BELOW 1GHz

<b>RF Mode</b>	TX LTE Band 30-10MHz	<b>Channel</b>	CH 27735 : 2312.5 MHz
<b>Frequency Range</b>	30MHz ~ 1GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	75.59	-49.20	-40.00	-9.20	1.00 H	60	58.22	-107.42
2	159.01	-52.56	-40.00	-12.56	2.00 H	130	50.79	-103.35
3	256.01	-54.48	-40.00	-14.48	1.50 H	272	49.23	-103.71
4	300.63	-52.79	-40.00	-12.79	2.00 H	292	49.20	-101.99
5	492.69	-59.51	-40.00	-19.51	1.00 H	19	38.53	-98.04
6	639.16	-57.31	-40.00	-17.31	1.00 H	73	37.70	-95.01

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	56.19	-43.07	-40.00	-3.07	1.50 V	101	61.27	-104.34
2	105.66	-46.10	-40.00	-6.10	1.00 V	10	61.33	-107.43
3	146.40	-58.13	-40.00	-18.13	1.25 V	190	45.53	-103.66
4	274.44	-54.24	-40.00	-14.24	1.00 V	156	48.45	-102.69
5	576.11	-57.07	-40.00	-17.07	2.00 V	36	39.40	-96.47
6	892.33	-50.91	-40.00	-10.91	1.50 V	15	39.63	-90.54

#### Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

## ABOVE 1GHz

RF Mode	TX LTE Band 30-5MHz	Channel	CH 27685 : 2307.5 MHz
Frequency Range	1GMHz ~ 25GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4615.00	-46.75	-40.00	-6.75	1.96 H	152	47.42	-94.17
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4615.00	-48.30	-40.00	-8.30	1.04 V	266	45.87	-94.17

### Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	TX LTE Band 30-5MHz	Channel	CH 27710 : 2310.0 MHz
Frequency Range	1GMHz ~ 25GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4620.00	-46.61	-40.00	-6.61	1.94 H	155	47.54	-94.15
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4620.00	-47.55	-40.00	-7.55	1.02 V	264	46.60	-94.15

### Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.



<b>RF Mode</b>	TX LTE Band 30-5MHz	<b>Channel</b>	CH 27735 : 2312.5 MHz
<b>Frequency Range</b>	1GMHz ~ 25GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4625.00	-46.57	-40.00	-6.57	1.95 H	157	47.57	-94.14
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4625.00	-48.03	-40.00	-8.03	1.05 V	263	46.11	-94.14

**Remarks:**

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

<b>RF Mode</b>	TX LTE Band 30-10MHz	<b>Channel</b>	CH 27710 : 2310.0 MHz
<b>Frequency Range</b>	1GMHz ~ 25GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4620.00	-46.55	-40.00	-6.55	1.97 H	153	47.60	-94.15
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4620.00	-48.55	-40.00	-8.55	1.00 V	266	45.60	-94.15

**Remarks:**

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

## Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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