

Report No.: FG9D2810-03C



# FCC RADIO TEST REPORT

FCC ID : PU5-TP00107B

Equipment : Notebook Computer

Brand Name : Lenovo Model Name : TP00107B

Applicant : Wistron Corporation

21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,

**New Taipei City 221, Taiwan** 

Manufacturer : Wistron Corporation

21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,

New Taipei City 221, Taiwan

Standard : FCC 47 CFR Part 2, and 90(S)

Equipment: Fibocom L850-GL tested inside of Lenovo Notebook Computer

The product was received on Dec. 28, 2019 and testing was started from Feb. 05, 2020 and completed on Feb. 21, 2020. 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 / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

Louis Win

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan

TEL: 0800-800005 Page Number : 1 of 15 FAX: 886-3-328-4978 Issued Date : Mar. 10, 2020

E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE90S Version 2.4

Report Version : 01

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# History of this test report

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Report No.	Version	Description	Issued Date
FG9D2810-03C 01 Initia		Initial issue of report	Mar. 10, 2020

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### **Summary of Test Result**

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046 §90.635	Conducted Output Power and Effective Radiated Power	Pass	-
-	-	Peak-to-Average Ratio	-	See Remark
-	§2.1049 §90.209	Occupied Bandwidth and 26dB Bandwidth	-	See Remark
-	§2.1051 §90.691	Emission masks – In-band emissions	-	See Remark
-	§2.1051 §90.691	Emission masks – Out of band emissions	-	See Remark
-	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	-	See Remark
3.3	§2.1053 §90.691	Field Strength of Spurious Radiation	Pass	Under limit 36.15 dB at 4944.000 MHz

**Remark:** The module (Model: L850-GL) makes no difference after verifying output power, this report reuses test data from the module report.

#### **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: Wii Chang Report Producer: Ruby Zou

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#### 1 **General Description**

### 1.1 Feature of Equipment Under Test

Product Feature						
Equipment	Notebook Computer					
Brand Name	Lenovo					
Model Name	TP00107B					
FCC ID	PU5-TP00107B					
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS					
EUT Stage	Production Unit					

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#### Remark:

- 1. The above EUT's information was declared by manufacturer.
- 2. Equipment: Fibocom L850-GL tested inside of Lenovo Notebook Computer

	Antenna Information									
WWAN				3G&LTE (dBi)						
Antenna	Manufacturer	WNC	Peak gain	2.54						
Antenna	Part number	025.901FP.0001	Туре	PIFA						

### 1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard						
Tx Frequency	LTE Band 26: 814.7 ~ 823.3 MHz					
Rx Frequency	LTE Band 26 : 859.7 ~ 868.3 MHz					
Bandwidth	1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz					
Maximum Output Power to Antenna	22.72 dBm					
Type of Modulation	QPSK / 16QAM					

#### 1.3 Modification of EUT

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

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### 1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory								
Test Site Location	No.52 , Huaya 1st Rd., Guishan Dist.,Taoyuan City, Taiwan								
Test Site No.	Sporton Site No.								
rest site No.	TH05-HY	03CH07-HY							
Test Engineer	Jacky Wang	Jesse Wang, Stan Hsieh, and Ken Wu							
Temperature	23~25℃	<b>20~24</b> ℃							
Relative Humidity	52~55%	48~58%							

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

FCC Designation No.: TW1190

### 1.5 Applied Standards

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

- FCC 47 CFR Part 2, 90
- ANSI / TIA-603-E
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- FCC KDB 414788 D01 Radiated Test Site v01r01
- Interim Guidance for Equipment Authorization of Devices with Channel Bandwidths Combined Across Two Contiguous Service Rule Allocations OET/Lab/EACB, June 6, 2013

**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

During all testing, EUT is in link mode with base station emulator at maximum power level.

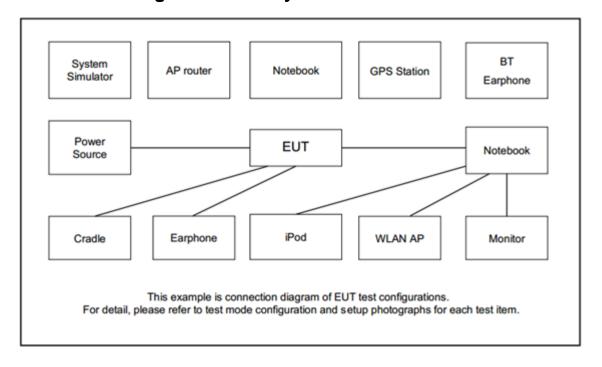
For radiated measurement, pre-scanned in three orthogonal panels (X, Y, Z) and Notebook type. The worst cases (Notebook type) were recorded in this report.

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Frequency range investigated for radiated emission is 30 MHz to 9000 MHz.

Conducted	Dand	Bandwidth (MHz)			Modulation			RB#			Test Channel					
Test Cases	Band	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	М	Н
Max. Output Power	26	٧	V	v	٧	V	•	v	v		٧	v	٧	٧	v	٧
E.R.P.	26					٧	•	v	v	v	>			>		
Radiated Spurious Emission	26	26 Worst Case									٧	v	٧			
Remark	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. LTE Band26 transmit frequency for part22 rule is 824MHz-849MHz, for part90 rule is 814MHz-824MHz.  ERP over 15MHz bandwidth complies the ERP limit line of part22 rule, therefore ERP of the partial frequency spectrum which falls within part 22 also complies. 4. All the radiated test cases were performed with Adapter 2.															

### 2.2 Connection Diagram of Test System



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### 2.3 Support Unit used in test configuration and system

Iter	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord	
1.	System Simulator	Anritsu	8821C	N/A	N/A	Unshielded, 1.8 m	
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A	

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### 2.4 Frequency List of Low/Middle/High Channels

LTE Band 26 Channel and Frequency List								
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest				
45	Channel	26765	-	-				
15	Frequency	821.5	-					
10	Channel	-	26740	-				
10	Frequency	-	819	-				
5	Channel	26715	26740	26765				
5	Frequency	816.5	819	821.5				
3	Channel	26705	26740	26775				
3	Frequency	815.5	819	822.5				
1.4	Channel	26697	26740	26783				
1.4	Frequency	814.7	819	823.3				

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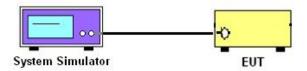
### 3 Conducted Test Items

### 3.1 Measuring Instruments

See list of measuring instruments of this test report.

### 3.1.1 Test Setup

### 3.1.2 Conducted Output Power



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#### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

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#### 3.2 Conducted Output Power Measurement and ERP Measurement

# 3.2.1 Description of the Conducted Output Power Measurement and ERP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

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The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 26.

According to KDB 412172 D01 Power Approach,

 $EIRP = P_T + G_T - L_C$ , where

 $P_T$  = transmitter output power in dBm

 $G_T$  = gain of the transmitting antenna in dBi

L<sub>C</sub> = signal attenuation in the connecting cable between the transmitter and antenna in dB

#### 3.2.2 Test Procedures

- 1. The transmitter output port was connected to the system simulator.
- 2. Set EUT at maximum power through system simulator.
- 3. Select lowest, middle, and highest channels for each band and different modulation.
- 4. Measure and record the power level from the system simulator.

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### 3.3 Field Strength of Spurious Radiation Measurement

#### 3.3.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission FCC Part 90.691 on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

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The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43+10log<sub>10</sub>(P[Watts]) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

#### 3.3.2 Test Procedures

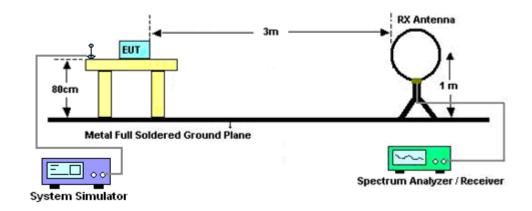
- The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
- 1. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
- 2. The table was rotated 360 degrees to determine the position of the highest spurious emission.
- 3. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
- 4. For testing below 1GHz, make the measurement with the spectrum analyzer's RBW = 100 kHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
- 5. For testing above 1GHz, make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
- A horn antenna was substituted in place of the EUT and was driven by a signal generator. 6.
- 7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- 8. Taking the record of output power at antenna port.
- 9. Repeat step 7 to step 8 for another polarization.
- 10. EIRP (dBm) = S.G. Power Tx Cable Loss + Tx Antenna Gain
- 11. ERP (dBm) = EIRP 2.15
- 12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 13. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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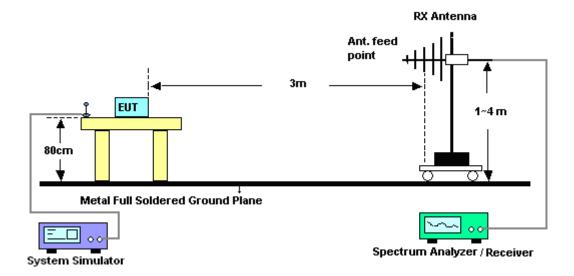
#### 3.3.3 Test Setup

#### For radiated emissions below 30MHz



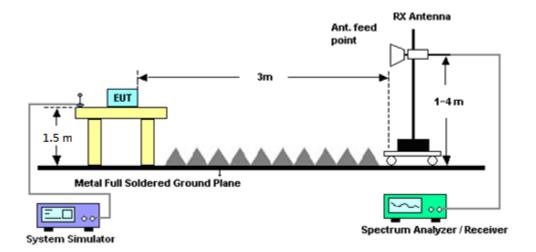
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#### For radiated test from 30MHz to 1GHz



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#### For radiated test above 1GHz



#### 3.3.4 Test Result of Field Strength of Spurious Radiated

Please refer to Appendix B.

#### Note:

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

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

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#### **List of Measuring Equipment** 4

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	620110750 9	-	Jul. 03, 2019	Feb. 21, 2020	Jul. 02, 2020	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01 N-06	35419 & 03	30MHz~1GHz	Apr. 30, 2019	Feb. 05, 2020~ Feb.13, 2020	Apr. 29, 2020	Radiation (03CH07-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 12, 2019	Feb. 05, 2020~ Feb.13, 2020	Oct. 11, 2020	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 06, 2019	Feb. 05, 2020~ Feb.13, 2020	Dec. 05, 2020	Radiation (03CH07-HY)
Horn Antenna	ESCO	3117	00066584	1GHz ~18GHz	Sep. 25, 2019	Feb. 05, 2020~ Feb.13, 2020	Sep. 24, 2020	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 576	18GHz~40GHz	May 14, 2019	Feb. 05, 2020~ Feb.13, 2020	May 13, 2020	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 251	18GHz~40GHz	Dec. 06, 2019	Feb. 05, 2020~ Feb.13, 2020	Dec. 06, 2020	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY523502 76	3Hz~44GHz	Apr. 02, 2019	Feb. 05, 2020~ Feb.13, 2020	Apr. 01, 2020	Radiation (03CH07-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz~44GHz	Oct. 28, 2019	Feb. 05, 2020~ Feb.13, 2020	Oct. 27, 2020	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 24, 2019	Feb. 05, 2020~ Feb.13, 2020	Apr. 23, 2020	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 20, 2019	Feb. 05, 2020~ Feb.13, 2020	May 19, 2020	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A023 62	1GHz~26.5GHz	Nov. 01, 2019	Feb. 05, 2020~ Feb.13, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 13, 2019	Feb. 05, 2020~ Feb.13, 2020	Dec. 12, 2020	Radiation (03CH07-HY)
Filter	Microwave	H1G013G1	SN477215	1GHz High Pass Filter	Nov. 01, 2019	Feb. 05, 2020~ Feb.13, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Filter	Microwave	H3G018G1	SN477220	3GHz High Pass Filter	Nov. 01, 2019	Feb. 05, 2020~ Feb.13, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Filter	Wainwright	WHNX7.0-26. 5G-6SS	SN7	7GHz High Pass Filter	Aug. 22, 2019	Feb. 05, 2020~ Feb.13, 2020	Aug. 21, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4 , MY24971/4 , MY15682/4	30MHz~1GHz	Feb. 26, 2019	Feb. 05, 2020~ Feb.13, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4 , MY24971/4 , MY15682/4	1GHz~18GHz	Feb. 26, 2019	Feb. 05, 2020~ Feb.13, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 26, 2019	Feb. 05, 2020~ Feb.13, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Feb. 05, 2020~ Feb.13, 2020	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Feb. 05, 2020~ Feb.13, 2020	N/A	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Aug. 27, 2019	Feb. 05, 2020~ Feb.13, 2020	Aug. 26, 2020	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	805040046 56H	N/A	N/A	Feb. 05, 2020~ Feb.13, 2020	N/A	Radiation (03CH07-HY)

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# 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.23

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#### **Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)**

Measuring Uncertainty for a Level of	3.63
Confidence of 95% (U = 2Uc(y))	3.03

#### <u>Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)</u>

Measuring Uncertainty for a Level of	4.70
Confidence of 95% (U = 2Uc(y))	4.70

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# **Appendix A. Test Results of Conducted Test**

### Conducted Output Power(Average power)

LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
15	1	0		22.64	-	-			
15	1	37		22.69	-	-			
15	1	74		22.72	-	-			
15	36	0	QPSK	21.76	-	-			
15	36	20		21.80	1	-			
15	36	39		21.85	1	-			
15	75	0		21.91	1	-			
15	1	0		21.85	1	-			
15	1	37		21.97	1	-			
15	1	74		21.98	-	-			
15	36	0	16-QAM	20.87	1	-			
15	36	20		20.86	-	-			
15	36	39		20.95	1	-			
15	75	0		20.97	1	-			
10	1	0		-	22.67	-			
10	1	25		-	22.59	-			
10	1	49	QPSK	-	22.71	-			
10	25	0		-	21.73	-			
10	25	12		-	21.57	-			
10	25	25		-	21.62	-			
10	50	0		-	21.83	-			
10	1	0		-	21.86	-			
10	1	25		-	21.67	-			
10	1	49	16-QAM	-	21.87	-			
10	25	0		-	20.74	-			
10	25	12		-	20.78	-			
10	25	25		-	20.57	-			
10	50	0		-	20.82	-			



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BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
5	1	0		22.45	22.70	22.41			
5	1	12		22.50	22.69	22.34			
5	1	24		22.66	22.53	22.38			
5	12	0	QPSK	21.66	21.69	21.56			
5	12	7		21.71	21.58	21.59			
5	12	13		21.66	21.55	21.40			
5	25	0		21.77	21.83	21.73			
5	1	0		21.85	21.79	21.71			
5	1	12		21.78	21.77	21.55			
5	1	24		21.87	21.80	21.57			
5	12	0	16-QAM	20.76	20.82	20.70			
5	12	7		20.70	20.72	20.52			
5	12	13		20.80	20.64	20.62			
5	25	0		20.82	20.91	20.66			
3	1	0		22.59	22.68	22.43			
3	1	8		22.57	22.64	22.52			
3	1	14	QPSK	22.59	22.62	22.42			
3	8	0		21.71	21.71	21.63			
3	8	4		21.71	21.63	21.51			
3	8	7		21.71	21.61	21.58			
3	15	0		21.80	21.79	21.71			
3	1	0		21.73	21.83	21.59			
3	1	8		21.83	21.80	21.56			
3	1	14		21.82	21.77	21.63			
3	8	0	16-QAM	20.72	20.86	20.58			
3	8	4		20.68	20.70	20.61			
3	8	7		20.81	20.65	20.43			
3	15	0		20.78	20.83	20.69			



LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
1.4	1	0		22.58	22.61	22.46			
1.4	1	3		22.58	22.56	22.52			
1.4	1	5		22.54	22.52	22.42			
1.4	3	0	QPSK	22.64	22.61	22.53			
1.4	3	1		22.72	22.66	22.47			
1.4	3	3		22.64	22.58	22.47			
1.4	6	0		21.82	21.67	21.72			
1.4	1	0		21.83	21.89	21.64			
1.4	1	3		21.95	21.72	21.62			
1.4	1	5		21.98	21.82	21.72			
1.4	3	0	16-QAM	21.77	21.78	21.45			
1.4	3	1		21.82	21.80	21.66			
1.4	3	3		21.85	21.72	21.57			
1.4	6	0		20.97	20.89	20.71			

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# **Appendix B. Test Results of ERP and Radiated Test**

### ERP

<Reporting Only>

Treporting	areporting only?									
LTE Band 26 / 15MHz (Channel 26765) (GT - LC = 0.66 dB)										
Chammal	Mode	RB		Cond	lucted	ERP				
Channel	Wode	Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)			
Lowest	QPSK	1	74	22.72	0.1871	21.23	0.1327			
Middle		-	-	-	-	-	-			
Highest		-	-	-	-	-	-			
Lowest		1	74	21.98	0.1578	20.49	0.1119			
Middle	16QAM	-	-	-	-	-	-			
Highest		-	-	-	-	-	-			
Limit	ERP < 7W			Re	sult	PA	SS			

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# Radiated Spurious Emission

# LTE Band 26 (Part 90S)

Report No.: FG9D2810-03C

LTE Band 26 / 1.4MHz / QPSK									
Channel	Frequency ( MHz )	ERP (dBm)	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
	1632	-52.21	-13	-39.21	-64.26	-54.02	0.97	4.93	Н
	2440	-58.63	-13	-45.63	-75.8	-60.43	1.27	5.22	Н
	4888	-53.21	-13	-40.21	-76.27	-58.26	2.27	9.48	Н
Lowest									Н
Lowest	1632	-52.86	-13	-39.86	-65.5	-54.67	0.97	4.93	V
	2440	-58.61	-13	-45.61	-76.21	-60.41	1.27	5.22	V
	4888	-54.41	-13	-41.41	-77.18	-59.46	2.27	9.48	V
									V
	1640	-50.28	-13	-37.28	-62.49	-52.06	0.97	4.91	Н
	4912	-54.14	-13	-41.14	-77.18	-59.23	2.29	9.52	Н
	5736	-53.53	-13	-40.53	-78.95	-58.41	2.76	9.79	Н
Middle									Н
Middle	1640	-51.88	-13	-38.88	-64.55	-53.66	0.97	4.91	V
	4912	-53.25	-13	-40.25	-76.15	-58.34	2.29	9.52	V
	5736	-51.77	-13	-38.77	-77.25	-56.65	2.76	9.79	V
									V
	1648	-52.48	-13	-39.48	-64.68	-54.24	0.98	4.89	Н
	4936	-51.86	-13	-38.86	-75.02	-56.98	2.30	9.57	Н
	5760	-52.46	-13	-39.46	-77.97	-57.34	2.77	9.80	Н
Lieboot									Н
Highest	1648	-52.92	-13	-39.92	-65.47	-54.68	0.98	4.89	V
	4936	-51.88	-13	-38.88	-74.89	-57	2.30	9.57	V
	5760	-51.24	-13	-38.24	-76.72	-56.12	2.77	9.80	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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	LTE Band 26 / 10MHz / QPSK									
Channel	Frequency ( MHz )	ERP (dBm)	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)	
	1648	-51.86	-13	-38.86	-64.05	-53.62	0.98	4.89	Н	
	2472	-57.81	-13	-44.81	-75.2	-59.69	1.28	5.32	Н	
	4944	-49.15	-13	-36.15	-72.35	-54.28	2.30	9.59	Н	
	5768	-52.44	-13	-39.44	-77.95	-57.32	2.78	9.81	Н	
Middle									Н	
Middle	1648	-51.87	-13	-38.87	-64.56	-53.63	0.98	4.89	V	
	2472	-57.73	-13	-44.73	-75.52	-59.61	1.28	5.32	V	
	4944	-49.42	-13	-36.42	-72.42	-54.55	2.30	9.59	V	
	5768	-49.49	-13	-36.49	-75.07	-54.37	2.78	9.81	V	
		·							V	

Report No.: FG9D2810-03C

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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	LTE Band 26 / 15MHz / QPSK									
Channel	Frequency (MHz)	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)	
	1656	-55.54	-13	-42.54	-67.88	-57.27	0.98	4.86	Н	
	4968	-51.22	-13	-38.22	-74.37	-56.39	2.32	9.64	Н	
	5800	-53.77	-13	-40.77	-79.37	-58.64	2.80	9.82	Н	
Louiset									Н	
Lowest	1656	-57.09	-13	-44.09	-69.83	-58.82	0.98	4.86	V	
	4968	-53.38	-13	-40.38	-75.46	-58.55	2.32	9.64	V	
	5800	-53.84	-13	-40.84	-78.52	-58.71	2.80	9.82	V	
									V	

Report No.: FG9D2810-03C

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

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