



FCC RADIO TEST REPORT

FCC ID : 2AJN7-TP00141A

Equipment : Notebook Computer

Brand Name : Lenovo Model Name : TP00141A

Applicant : LC Future Center Limited Taiwan Branch

7F., No.780, Beian Rd., Zhongshan Dist., Taipei

104, Taiwan

Manufacturer: LCFC (HeFei) Electronics Technology Co., Ltd.

No. 3188-1, Yungu Road (Hefei Export Processing

Zone), Hefei Economics & Technology Development Area, Anhui, CHINA

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

Equipment: Quectel EM05-G tested inside of Lenovo Notebook Computer.

The product was received on Dec. 07, 2021 and testing was performed from Dec. 17, 2021 to Dec. 31, 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 / TIA-603-E and has been in compliance with the applicable technical standards.

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

/ DIAZE W/IA

Sporton International Inc. EMC & Wireless Communications Laboratory

Report Version

: 01

TEL: 0800-800005 Page Number : 1 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022

E-mail: Alex@sporton.com.tw

Table of Contents

His	story o	of this test report	3
Su	mmar	ry of Test Result	4
1	Gene	eral Description	5
	1.1	Feature of Equipment Under Test	5
	1.2	Product Specification of Equipment Under Test	
	1.3	Modification of EUT	5
	1.4	Testing Site	6
	1.5	Applied Standards	6
2	Test	Configuration of Equipment Under Test	7
	2.1	Test Mode	7
	2.2	Connection Diagram of Test System	7
	2.3	Support Unit used in test configuration and system	8
	2.4	Frequency List of Low/Middle/High Channels	8
3	Cond	ducted Test Items	9
	3.1	Measuring Instruments	9
	3.2	Conducted Output Power Measurement and ERP Measurement	
	3.3	Field Strength of Spurious Radiation Measurement	
4	List	of Measuring Equipment	
5	Unce	ertainty of Evaluation	15
Αp		ix A. Test Results of Conducted Test	
Αp	pendi	x B. Test Results of Radiated Test	
An	nendi	ix C. Test Setup Photographs	

TEL: 0800-800005 FAX: 886-3-328-4978 E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE90S Version 2.4

Page Number : 2 of 15 Issued Date : Jan. 14, 2022

Report No.: FG1D0801D

Report Version : 01

History of this test report

Report No.: FG1D0801D

Report No.	Version	Description	Issued Date
FG1D0801D	01	Initial issue of report	Jan. 14, 2022

TEL: 0800-800005 : 3 of 15 Page Number FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 Report Version : 01

E-mail: Alex@sporton.com.tw

Summary of Test Result

Report No.: FG1D0801D

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 Note	
-	§2.1049 §90.209	Occupied Bandwidth and 26dB Bandwidth	-	See Note	
-	§2.1051 §90.691	Emission masks – In-band emissions	-	See Note	
-	§2.1051 §90.691	Emission masks – Out of band emissions	-	See Note	
-	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	-	See Note	
3.3	§2.1053 §90.691	Field Strength of Spurious Radiation	Pass	Under limit 34.05 dB at 1629.000 MHz	

Note: The module (Model: EM05-G) 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 product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sheng Kuo Report Producer: Vivian Hsu

TEL: 0800-800005 Page Number : 4 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 : 01

E-mail: Alex@sporton.com.tw Report Version

1 **General Description**

1.1 Feature of Equipment Under Test

Product Feature						
Equipment	Notebook Computer					
Brand Name	Lenovo					
Model Name	TP00141A					
FCC ID	2AJN7-TP00141A					
Sample 1	EUT with ICT Antenna					
Sample 2	EUT with Speed Antenna					
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS					
EUT Stage	Production Unit					

Report No.: FG1D0801D

Remark:

- 1. The above EUT's information was declared by manufacturer.
- 2. Equipment: Quectel EM05-G tested inside of Lenovo Notebook Computer.

WWAN Antenna Information									
	Manufacturer	Manufacturer ICT P		LTE Band 26 :-1.30					
Main Antonna	Part number	DC33001XA00	Туре	PIFA					
Main Antenna	Manufacturer	Speed	Peak gain (dBi)	LTE Band 26: 1.70					
	Part number	DC33001X900	Туре	PIFA					

Remark:

- 1. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
- 2. All the tests were performed with "ICT Antenna" as representative.

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard						
Tx Frequency	814.7 ~ 823.3 MHz					
Rx Frequency	859.7 ~ 868.3 MHz					
Bandwidth	1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz					
Maximum Output Power to Antenna	23.74 dBm					
Type of Modulation	QPSK / 16QAM					

1.3 Modification of EUT

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

TEL: 0800-800005 : 5 of 15 Page Number FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 : 01

E-mail: Alex@sporton.com.tw Report Version

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 333					
Test Site No.	Sporton Site No.					
Test Site No.	TH03-HY					
Test Engineer	Benjamin Lin					
Temperature (°C)	23.5~25					
Relative Humidity (%)	49.4~52					

Report No.: FG1D0801D

Test Site	Sporton International Inc. Wensan Laboratory					
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010					
Test Site No.	Sporton Site No.					
rest site No.	03CH12-HY (TAF Code: 3786)					
Test Engineer	Jack Cheng, Lance Chiang and Chuan Chu					
Temperature (°C)	21.6~26.2℃					
Relative Humidity (%)	56~68%					
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.					

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

FCC Designation No.: TW1190 and TW3786

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.
- 2. The TAF code is not including all the FCC KDB listed without accreditation.

TEL: 0800-800005 Page Number : 6 of 15 Issued Date : Jan. 14, 2022

E-mail: Alex@sporton.com.tw Report Version : 01

Test Configuration of Equipment Under Test 2

Test Mode 2.1

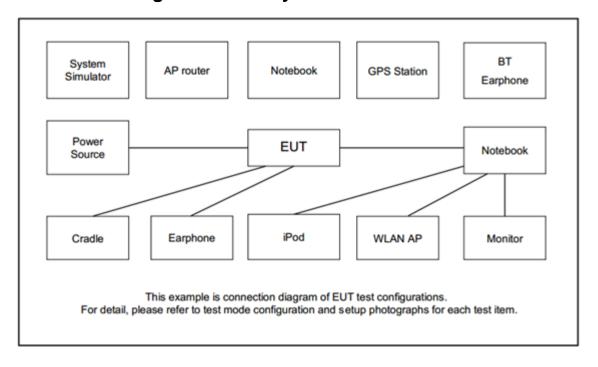
During all testing, EUT is in link mode with base station emulator at maximum power level.

Report No.: FG1D0801D

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

Conducted	Band	Bandwidth (MHz)			Modulation			RB#			Test Channel				
Test Cases		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	М	Н
Max. Output Power	26	v	٧	٧	٧	v	-	V	V	v	v	V	٧	v	v
E.R.P.	26	v	v	v	v	v	-	v	v	Max. Power					
Radiated Spurious Emission	26			v	v	v	-	v		v			V	v	v
Remark	 The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. LTE Band26 transmit frequency for part22 rule is 824MHz-849MHz, for part90 rule is 814MHz-824MHz. 							Ⅎz.							

2.2 Connection Diagram of Test System



TEL: 0800-800005 Page Number : 7 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 Report Version : 01

E-mail: Alex@sporton.com.tw

2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name Model No.		FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

Report No.: FG1D0801D

2.4 Frequency List of Low/Middle/High Channels

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

TEL: 0800-800005 Page Number : 8 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 : 01

E-mail: Alex@sporton.com.tw Report Version

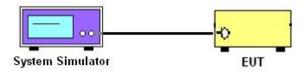
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



Report No.: FG1D0801D

3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

Report Template No.: BU5-FGLTE90S Version 2.4

TEL: 0800-800005 Page Number : 9 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022

E-mail: Alex@sporton.com.tw Report Version : 01

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.

Report No.: FG1D0801D

The conducted output power of mobile transmitters must not exceed 100 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_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.2.2 Test Procedures

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

TEL: 0800-800005 : 10 of 15 Page Number FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 : 01

E-mail: Alex@sporton.com.tw Report Version

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.

Report No.: FG1D0801D

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+10log₁₀(P[Watts]) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.3.2 Test Procedures

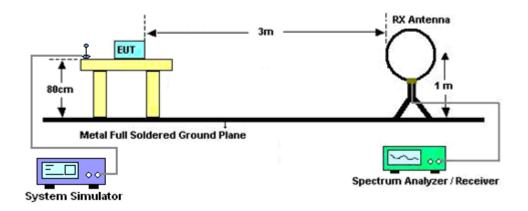
- The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
- 2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
- 4. 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.
- 5. 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.
- 6. 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. 7.
- 8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- 9. Taking the record of output power at antenna port.
- 10. Repeat step 7 to step 8 for another polarization.
- 11. EIRP (dBm) = S.G. Power Tx Cable Loss + Tx Antenna Gain
- 12. ERP (dBm) = EIRP 2.15
- 13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 14. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

TEL: 0800-800005 : 11 of 15 Page Number FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 : 01

E-mail: Alex@sporton.com.tw Report Version

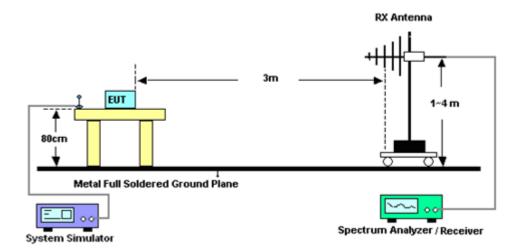
3.3.3 Test Setup

For radiated test below 30MHz



Report No.: FG1D0801D

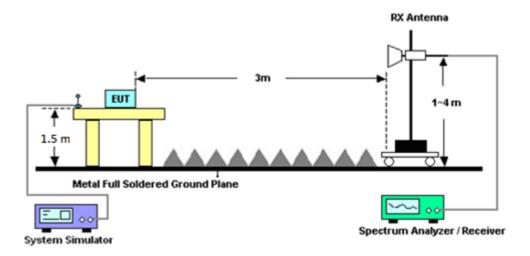
For radiated test from 30MHz to 1GHz



TEL: 0800-800005 Page Number : 12 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022

E-mail : Alex@sporton.com.tw Report Version : 01

For radiated test above 1GHz



Report No.: FG1D0801D

3.3.4 Test Result of Field Strength of Spurious Radiated

Please refer to Appendix B.

Report Template No.: BU5-FGLTE90S Version 2.4

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 adequate comparison measurement 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.

TEL: 0800-800005 Page Number : 13 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022

E-mail : Alex@sporton.com.tw Report Version : 01

List of Measuring Equipment 4

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Dec. 20, 2021~ Dec. 31, 2021	Jan. 03, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	37059 & 01	30MHz~1GHz	Oct. 09, 2021	Dec. 20, 2021~ Dec. 31, 2021	Oct. 08, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 09, 2021	Dec. 20, 2021~ Dec. 31, 2021	Oct. 08, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1326	1GHz~18GHz	Oct. 25, 2021	Dec. 20, 2021~ Dec. 31, 2021	Oct. 24, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	Dec. 20, 2021~ Dec. 31, 2021	May 17, 2022	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 24, 2021	Dec. 20, 2021~ Dec. 31, 2021	Mar. 23, 2022	Radiation (03CH12-HY)
Preamplifier	Aglient	8449B	3008A02375	1GHz~26.5GHz	May 25, 2021	Dec. 20, 2021~ Dec. 31, 2021	May 24, 2022	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03K	171000180005 4002	1GHz~18GHz	Jun. 16, 2021	Dec. 20, 2021~ Dec. 31, 2021	Jun. 15, 2022	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 15, 2021	Dec. 20, 2021~ Dec. 31, 2021	Jan. 14, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Dec. 20, 2021~ Dec. 31, 2021	Mar. 10, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 10, 2021	Dec. 20, 2021~ Dec. 31, 2021	Dec. 09, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	Dec. 20, 2021~ Dec. 31, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	Dec. 20, 2021~ Dec. 31, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12 SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	Dec. 20, 2021~ Dec. 31, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080 -1200-15000-6 0SS	SN1	1.2GHz High Pass Filter	Mar. 17, 2021	Dec. 20, 2021~ Dec. 31, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0ST	SN2	3GHz High Pass Filter	Jul. 12, 2021	Dec. 20, 2021~ Dec. 31, 2021	Jul. 11, 2022	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Sep. 30, 2021	Dec. 20, 2021~ Dec. 31, 2021	Sep. 29, 2022	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Dec. 20, 2021~ Dec. 31, 2021	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Dec. 20, 2021~ Dec. 31, 2021	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Dec. 20, 2021~ Dec. 31, 2021	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Dec. 20, 2021~ Dec. 31, 2021	N/A	Radiation (03CH12-HY)
Base Station (Measure)	Anritsu	MT8821C	6262025341	N/A	Oct. 05, 2021	Dec. 17, 2021	Oct. 04, 2022	Conducted (TH03-HY)

Report No.: FG1D0801D

TEL: 0800-800005 : 14 of 15 Page Number FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022 Report Version : 01

E-mail: Alex@sporton.com.tw

5 Uncertainty of Evaluation

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

Macauring Uncortainty for a Layel of	
Measuring Uncertainty for a Level of	3.10 dB
Confidence of 95% (U = 2Uc(y))	3.10 db

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.39 dB	
---	---------	--

TEL: 0800-800005 Page Number : 15 of 15 FAX: 886-3-328-4978 Issued Date : Jan. 14, 2022

E-mail: Alex@sporton.com.tw

Report Template No.: BU5-FGLTE90S Version 2.4

Report Version : 01

Report No.: FG1D0801D

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power & ERP)

	LTE	Band 26 M	laximum A	verage Po	wer [dBm	(GT - LC :	= 1.7 dB)	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0		23.62	-	-		
15	1	37		23.60	-	-		
15	1	74		23.57	-	-		
15	36	0	QPSK	22.76	-	-	23.17	0.2075
15	36	20		22.78	-	-		
15	36	39		22.70	-	-		
15	75	0		22.74	-	-		
15	1	0		22.46	-	-		
15	1	37		22.54	-	-		
15	1	74		22.67	-	-		
15	36	0	16-QAM	21.77	-	-	22.22	0.1667
15	36	20		21.75	-	-		
15	36	39	-	21.71	-	-		
15	75	0		21.71	-	-		
Limit	Conduc	ted power	< 100W		Result		Pa	iss

	LTE	Band 26 N	laximum A	verage Po	wer [dBm] (GT - LC :	= 1.7 dB)	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0		-	23.69	-		
10	1	25		-	23.61	-		
10	1	49		-	23.54	-		
10	25	0	QPSK	-	23.00	-	23.24	0.2109
10	25	12	-	-	22.91	-		
10	25	25		-	22.87	-		
10	50	0		-	22.82	-		
10	1	0		-	22.61	-		
10	1	25		-	23.02	-		
10	1	49		1	22.56	-		
10	25	0	16-QAM	1	21.59	-	22.57	0.1807
10	25	12		-	22.03	-		
10	25	25		-	21.82	-		
10	50	0		-	21.95	-		
Limit	Conduc	ted power	< 100W	Result			Pa	ISS



FCC RADIO TEST REPORT

	LTE	Band 26 M	laximum A	verage Po	wer [dBm	(GT - LC :	= 1.7 dB)	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0		23.56	23.74	23.68		
5	1	12		23.57	23.55	23.50		
5	1	24	QPSK	23.53	23.56	23.55		
5	12	0		22.76	22.98	22.88	23.29	0.2133
5	12	7		22.75	22.92	22.58		
5	12	13		22.64	22.86	22.56		
5	25	0		22.69	22.82	22.71		
5	1	0		22.94	22.59	22.75		
5	1	12		22.59	23.05	22.56		
5	1	24		22.57	22.50	22.51		
5	12	0	16-QAM	21.67	21.63	21.87	22.60	0.1820
5	12	7		21.73	21.95	21.75		
5	12	13		21.66	21.78	21.79		
5	25	0		21.61	21.94	21.80		
Limit	Conduc	ted power	< 100W	Result			Pa	ISS

Report No. : FG1D0801D

	LTE	Band 26 N	laximum A	verage Po	wer [dBm	(GT - LC :	= 1.7 dB)	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0		23.56	23.73	23.51		
3	1	8		23.58	23.60	23.53		
3	1	14		23.53	23.51	23.53		
3	8	0	QPSK	22.72	23.05	22.89	23.28	0.2128
3	8	4	-	22.72	22.91	22.61		
3	8	7		22.69	22.82	22.62		
3	15	0		22.74	22.74	22.66		
3	1	0		22.59	22.60	22.74		
3	1	8		22.52	22.99	22.57		
3	1	14		22.64	22.56	22.56		
3	8	0	16-QAM	21.70	21.65	21.87	22.54	0.1795
3	8	4		21.66	21.95	21.71		
3	8	7		21.70	21.81	21.69		
3	15	0		21.66	21.96	21.78		
Limit	Conduc	ted power	< 100W		Result		Pa	ISS



FCC RADIO TEST REPORT

	LTE	Band 26 N	laximum A	verage Po	wer [dBm	(GT - LC :	= 1.7 dB)	
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0		23.57	23.70	23.51		
1.4	1	3		23.56	23.54	23.51		
1.4	1	5		23.52	23.50	23.53		
1.4	3	0	QPSK	23.56	23.72	23.54	23.27	0.2123
1.4	3	1	-	23.50	23.59	23.53		
1.4	3	3		23.55	23.55	23.59		
1.4	6	0		22.71	22.74	22.69		
1.4	1	0		22.63	22.58	22.67		
1.4	1	3		22.59	23.00	22.54		
1.4	1	5		22.64	22.51	22.59		
1.4	3	0	16-QAM	22.66	23.06	22.89	22.61	0.1824
1.4	3	1		22.76	22.94	22.56		
1.4	3	3		22.62	22.90	22.53		
1.4	6	0		21.69	21.88	21.87		
Limit	Conduc	ted power	< 100W		Result			ISS

Report No. : FG1D0801D

Appendix B. Test Results of Radiated Test

LTE Band 26

Report No.: FG1D0801D

			L	TE Band 26	/ 5MHz / QP	SK			
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)
	1629	-47.05	-13	-34.05	-56.65	-52.58	0.91	8.59	Н
	2443	-53.52	-13	-40.52	-67.45	-60.85	1.14	10.62	Н
	3257	-54.96	-13	-41.96	-71.1	-63.41	1.32	11.92	Н
									Н
									Н
Lowest									Н
Lowest	1629	-51.62	-13	-38.62	-60.76	-57.15	0.91	8.59	V
	2443	-50.61	-13	-37.61	-64.61	-57.94	1.14	10.62	V
	3257	-54.10	-13	-41.10	-70.73	-62.55	1.32	11.92	V
									V
									V
									V
	1634	-48.14	-13	-35.14	-57.76	-53.68	0.92	8.61	Н
	2451	-53.14	-13	-40.14	-67.09	-60.48	1.14	10.63	Н
	3267	-55.04	-13	-42.04	-71.16	-63.51	1.32	11.94	Н
									Н
									Н
Middle									Н
ivildale	1634	-51.46	-13	-38.46	-60.6	-57.00	0.92	8.61	V
	2451	-55.49	-13	-42.49	-69.53	-62.83	1.14	10.63	V
	3267	-54.51	-13	-41.51	-71.11	-62.98	1.32	11.94	V
									V
									V
									V

TEL: 0800-800005 Page Number: B1 of B4



		1		1	1	1	1	1	
	1639	-49.13	-13	-36.13	-58.75	-54.69	0.92	8.63	Н
	2458	-54.66	-13	-41.66	-68.6	-62.01	1.14	10.64	Н
	3277	-54.63	-13	-41.63	-70.73	-63.12	1.32	11.96	Н
									Н
									Н
I Palacat									Н
Highest	1639	-52.47	-13	-39.47	-61.59	-58.03	0.92	8.63	V
	2458	-55.47	-13	-42.47	-69.52	-62.82	1.14	10.64	V
	3277	-54.23	-13	-41.23	-70.81	-62.72	1.32	11.96	V
									V
									V
									V

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

TEL: 0800-800005 Page Number : B2 of B4

			Ľ	TE Band 26	/ 10MHz / QF	PSK			
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)
	1629	-47.98	-13	-34.98	-57.58	-53.51	0.91	8.59	Н
	2444	-55.84	-13	-42.84	-69.77	-63.17	1.14	10.62	Н
	3258	-55.03	-13	-42.03	-71.17	-63.48	1.32	11.92	Н
									Н
									Н
Middle									Н
Middle	1629	-51.82	-13	-38.82	-60.96	-57.35	0.91	8.59	V
	2444	-53.99	-13	-40.99	-68	-61.32	1.14	10.62	V
	3258	-53.02	-13	-40.02	-69.64	-61.47	1.32	11.92	V
									V
									V
									V

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

TEL: 0800-800005 Page Number : B3 of B4

			Ľ	TE Band 26	/ 15MHz / QF	PSK			
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)
	1630	-48.12	-13	-35.12	-57.72	-53.65	0.91	8.59	Н
	2445	-50.23	-13	-37.23	-64.16	-57.57	1.14	10.62	Н
	3259	-54.62	-13	-41.62	-70.75	-63.07	1.32	11.92	Н
									Н
									Н
Louiset									Н
Lowest	1630	-51.07	-13	-38.07	-60.21	-56.60	0.91	8.59	V
	2445	-55.06	-13	-42.06	-69.07	-62.40	1.14	10.62	V
	3259	-53.89	-13	-40.89	-70.51	-62.34	1.32	11.92	V
									V
									V
									V

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

TEL: 0800-800005 Page Number : B4 of B4