APPLICANT : Motorola Mobility LLC EQUIPMENT : Mobile Cellular Phone

BRAND NAME : Motorola

MODEL NAME : XT2241-2

FCC ID : IHDT56AF6

STANDARD : 47 CFR Part 2, and 90(S)

CLASSIFICATION: PCS Licensed Transmitter Held to Ear (PCE)

TEST DATE(S) : Jun. 19, 2022 ~ Jun. 26, 2022

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

JasonJia

Approved by: Jason Jia





Report No.: FG252601D

Sporton International Inc. (Kunshan)

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 1 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

TABLE OF CONTENTS

RE	VISIO	N HISTORY	3
SU	MMA	RY OF TEST RESULT	4
1	GEN	ERAL DESCRIPTION	5
	1.1	Applicant	5
	1.2	Manufacturer	
	1.3	Feature of Equipment Under Test	5
	1.4	Product Specification of Equipment Under Test	5
	1.5	Modification of EUT	5
	1.6	Specification of Accessory	
	1.7	Maximum Conducted Power and Emission Designator	
	1.8	Testing Site	
	1.9	Test Software	
	1.10	Applied Standards	7
2	TES	T CONFIGURATION OF EQUIPMENT UNDER TEST	8
	2.1	Test Mode	8
	2.2	Connection Diagram of Test System	9
	2.3	Support Unit used in test configuration and system	9
	2.4	Measurement Results Explanation Example	9
	2.5	Frequency List of Low/Middle/High Channels	10
3	TES	T RESULT	11
	3.1	Conducted Output Power Measurement	11
	3.2	99% Occupied Bandwidth and 26dB Bandwidth Measurement	
	3.3	Emissions Mask Measurement	13
	3.4	Emissions Mask – Out Of Band Emissions Measurement	15
	3.5	Field Strength of Spurious Radiation Measurement	16
	3.6	Frequency Stability Measurement	19
4	LIST	OF MEASURING EQUIPMENT	21
5	UNC	ERTAINTY OF EVALUATION	22
ΑP	PEND	DIX A. TEST RESULTS OF CONDUCTED TEST	
ΑP	PEND	DIX B. TEST RESULTS OF RADIATED TEST	
ΑP	PEND	DIX C. TEST SETUP PHOTOGRAPHS	

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 2 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG252601D	Rev. 01	Initial issue of report	Jul. 11, 2022

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 3 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	_	Report only	-
3.2	§2.1049 §90.209	Occupied Bandwidth and 26dB Bandwidth	and Report or		-
3.3	§2.1051 §90.691	Emission masks – In-band emissions	< 50+10log ₁₀ (P[Watts])	PASS	-
3.4	§2.1051 §90.691	Emission masks – Out of band emissions	< 43+10log ₁₀ (P[Watts])	PASS	-
3.5	§2.1053 §90.691	Field Strength of Spurious Radiation	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 45.64 dB at 2440.000 MHz
3.6	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	< 2.5 ppm	PASS	-

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.

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 4 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

1 General Description

1.1 Applicant

Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Feature of Equipment Under Test

	Product Feature
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2241-2
FCC ID	IHDT56AF6
IMEI Code	Conducted: 355222700012736/355222700012744
IIIIEI Code	Radiation: 865911060029545/865911060036540
HW Version	DVT2
SW Version	SSQ32.54
EUT Stage	Identical Prototype

Report No.: FG252601D

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard							
Tx Frequency	814 ~ 824 MHz						
Rx Frequency	859 ~ 869 MHz						
Bandwidth	1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz						
Maximum Output Power to Antenna	Antenna0: 22.60 dBm						
	Antenna1: 22.63 dBm						
Antenna Type/Gain	Antenna0: IFA antenna -4.8 dBi						
Antenna Type/Gain	Antenna1: IFA antenna -5.7 dBi						
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM						

1.5 Modification of EUT

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

 Sporton International Inc. (Kunshan)
 Page Number
 : 5 of 21

 TEL: +86-512-57900158
 Report Issued Date
 : Jul. 11, 2022

 FAX: +86-512-57900958
 Report Version
 : Rev. 01

FCC ID : IHDT56AF6 Report Template No.: BU5-FWLTE Version 2.0

1.6 Maximum Conducted Power and Emission Designator

Ľ	TE Band 26	QP	SK	16QAM/64QAM/256QAM			
BW Frequency Range (MHz)		Maximum Emission Conducted power (W) Emission Designator (99%OBW)		Maximum Conducted power (W)	Emission Designator (99%OBW)		
15	821.5	0.1832	13M4G7D	0.1795	13M5W7D		
10	819.0	0.1824	9M05G7D	0.1816	9M09W7D		

1.7 Testing Site

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Ir	Sporton International Inc. (Kunshan)							
	No. 1098, Pengxi North Road, Kunshan Economic Development Zone								
Test Site Location	Jiangsu Province 215300 People's Republic of China								
Test Site Location	TEL: +86-512-57900158								
	FAX: +86-512-57900958								
	Sporton Site No.	FCC Designation No.	FCC Test Firm						
Test Site No.	Sporton Site No.	rec besignation No.	Registration No.						
	03CH04-KS TH01-KS	CN1257	314309						

1.8 Test Software

Item Site		Manufacturer	Name	Version		
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a		

Sporton International Inc. (Kunshan) TEL: +86-512-57900158

FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 6 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

1.9 Applied Standards

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

- 47 CFR Part 2, 90(S)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 971168 D02 Misc Rev Approv License Devices v02r01

Remark:

- All test items were verified and recorded according to the standards and without any deviation during the test.
- This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

1.10 Specification of Accessory

Specification of Accessory								
AC Adapter (US)	Brand Name	Motorola (AOHAI)	Model Name	MC-1251				
AC Adapter (EU)	Brand Name	Motorola (AOHAI)	Model Name	MC-1252				
AC Adapter (UK)	Brand Name	Motorola (AOHAI)	Model Name	MC-1253				
AC Adapter (IN)	Brand Name	Motorola (AOHAI)	Model Name	MC-1254				
AC Adapter (AU)	Brand Name	Motorola (AOHAI)	Model Name	MC-1255				
AC Adapter (AR)	Brand Name	Motorola (AOHAI)	Model Name	MC-1256				
AC Adapter (BR)	Brand Name	Motorola (AOHAI)	Model Name	MC-1257				
AC Adapter (CHILE)	Brand Name	Motorola (AOHAI)	Model Name	MC-1259				
Battery	Brand Name	Motorola(ATL)	Model Name	NF45				
Earphone 1	Brand Name	Motorola (Lyand)	Model Name	MD211				
Earphone 2	Brand Name	Motorola (LCHSE)	Model Name	MD211				
USB Cable	Brand Name	Motorola(Saibao)	Model Name	SC18D58980				
Wireless Charging deals	Marketing	Turbo Power 50W Wireless	Model News	MM 02				
Wireless Charging dock	Name	Charging Stand	Model Name	MW-02				

Sporton International Inc. (Kunshan)Page NumberTEL: +86-512-57900158Report IssuedFAX: +86-512-57900958Report Version

FCC ID : IHDT56AF6

Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

: 7 of 21

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. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

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

			Ва	ndwid	lth (MI	Hz)			Modulati	on			RB#		Test	t Chan	nel
Test Items	Band	1.4	3	5	10	15	20	QPSK	16QA M	64 QA M	25 6Q AM	1	Hal f	Ful I	L	М	н
Max. Output Power	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	26				v	v	-	v	v					v	v		
Emission masks In-band emissions	26	v	v	v	v	v	-	v	V	v	v	v		v	v		v
Emission masks - Out of band emissions	26	v	v	v	v	v	-	v				v			v	v	v
Frequency Stability	26				v		-	v						v		v	
Radiated Spurious Emission	26				v		-	V						v		v	
Note	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																

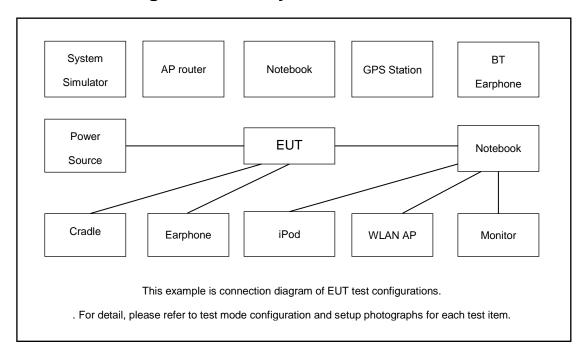
spectrum which falls within part 22 also complies.

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6

: 8 of 21 Page Number Report Issued Date: Jul. 11, 2022 Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord		
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m		

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

The following shows an offset computation example with RF cable loss 4.8 dB.

Example:

 $Offset(dB) = RF \ cable \ loss(dB).$

= 4.8 (dB)

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 9 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

2.5 Frequency List of Low/Middle/High Channels

LTE Band 26 Channel and Frequency List										
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest						
15	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						

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 10 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power 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.

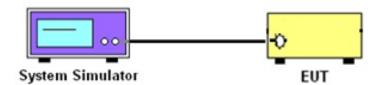
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

- 1. The transmitter output port was connected to the system simulator.
- 2. Set EUT at maximum power through the 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.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

Please refer to Appendix A.

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 11 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

3.2 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.2.1 Description of (Occupied) Bandwidth Limitations Measurement

The 99% occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

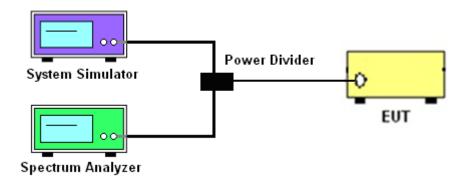
3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

- 1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
- 2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF power with full RB sizes were measured.

3.2.4 Test Setup



3.2.5 Test Result of 99% Occupied Bandwidth and 26dB Bandwidth

Please refer to Appendix A.

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 12 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

3.3 Emissions Mask Measurement

3.3.1 Description of Emissions Mask Measurement

Equipment used in this licensed to EA or non-EA systems shall comply with the emission mask provisions of FCC Part 90.691.(a):

- (a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:
- (1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log₁₀(f/6.1) decibels or 50 + 10 Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

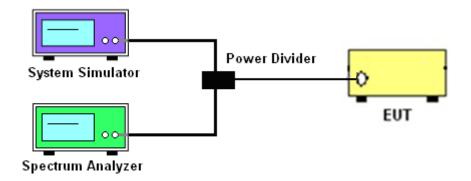
3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

- 1. The EUT was connected to spectrum analyzer and base station via power divider.
- 2. The emissions mask of low and high channels for the highest RF powers were measured.
- The measured RBW and the VBW set 3 times of RBW are then set in spectrum analyzer, and the RBW correction factor 10log (1% of OBW/measured RBW)(dB) was compensated, if required.
- 4. The test results were shown below plots with a correction offset factor including cable loss, insertion loss of power divider.

3.3.4 Test Setup



3.3.5 Test Result (Plots) of Conducted Emissions Mask

Please refer to Appendix A.

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 14 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

3.4 Emissions Mask - Out Of Band Emissions Measurement

3.4.1 Description of Conducted Emissions Out of band emissions measurement

The power of any emission FCC Part 90.691 (a)(2) on any frequency removed from the assigned frequency by out of the authorized bandwidth at least 43 + 10 log (P) dB. It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

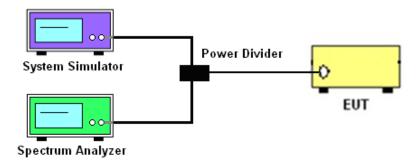
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

- 1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
- The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
 The path loss was compensated to the results for each measurement.
- 3. The middle channel for the highest RF power within the transmitting frequency was measured.
- 4. The conducted spurious emission for the whole frequency range was taken.
- 5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
- The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
- 7. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)

3.4.4 Test Setup



3.4.5 Test Result (Plots) of Conducted Emission

Please refer to Appendix A.

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 15 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report Template No.: BU5-FWLTE Version 2.0

3.5 Field Strength of Spurious Radiation Measurement

3.5.1 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.

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.

3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 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.
- Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
- 6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
- 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)

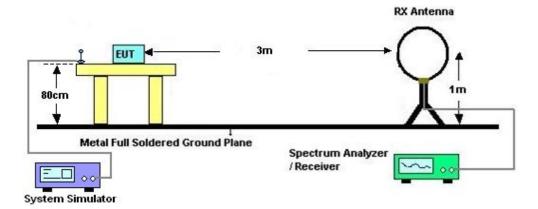
Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 16 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

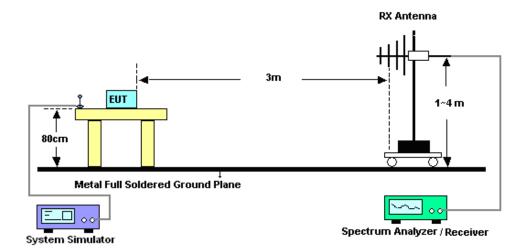
Report No.: FG252601D

3.5.4 Test Setup

For radiated test from 30MHz



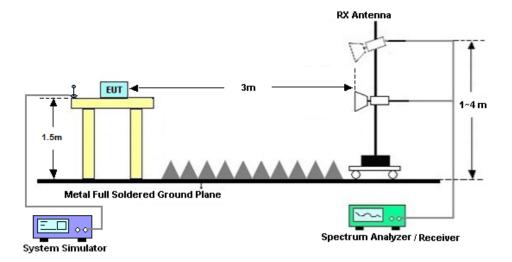
For radiated test from 30MHz to 1GHz



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 17 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

For radiated test above 1GHz



3.5.5 Test Result of Field Strength of Spurious Radiated

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.

Please refer to Appendix B.

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 18 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

3.6 Frequency Stability Measurement

3.6.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency according to FCC Part 90.213.

3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

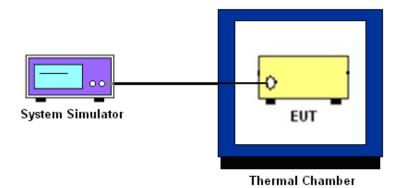
3.6.3 Test Procedures for Temperature Variation

- 1. The EUT was set up in the thermal chamber and connected with the base station.
- With power OFF, the temperature was decreased to -30°C and the EUT was stabilized for three
 hours. Power was applied and the maximum change in frequency was recorded within one
 minute.
- 3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.6.4 Test Procedures for Voltage Variation

- 1. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
- The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
- 3. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the
- 4. battery operating end point, which shall be specified by the manufacturer.
- 5. The variation in frequency was measured for the worst case.

3.6.5 Test Setup



3.6.6 Test Result of Temperature Variation

Please refer to Appendix A.

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 20 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 14, 2021	Jun. 19, 2022~ Jun. 25, 2022	Oct. 13, 2022	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Jun. 19, 2022~ Jun. 25, 2022	Aug. 25, 2022	Conducted (TH01-KS)
Temperature &hu midity chamber	Hongzhan	LP-150U	H201401144 0	-40~+150°C 20%~95%RH	Jul. 12, 2021	Jun. 19, 2022~ Jun. 25, 2022	Jul. 11, 2022	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY5754107 9	10Hz-44G,MAX 30dB	Oct. 14, 2021	Jun. 26, 2022	Oct. 13, 2022	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Jun. 26, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 24, 2022	Jun. 26, 2022	May 23, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120 D	1284	1GHz~18GHz	Jan. 05, 2022	Jun. 26, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Jun. 26, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	Jun. 26, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2022	Jun. 26, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30- 10P	2025788	1Ghz-18Ghz	Jul. 30, 2021	Jun. 26, 2022	Jul. 29, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY5728010 6	500MHz~26.5G Hz	Oct. 13, 2021	Jun. 26, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 26, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 26, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 26, 2022	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 21 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

<u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

	T
Measuring Uncertainty for a Level of	3.3dB
Confidence of 95% (U = 2Uc(y))	3.30B

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

Measuring Uncertainty for a Level of	2.8dB
Confidence of 95% (U = 2Uc(y))	2.000

----- THE END -----

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : 22 of 21
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Report No.: FG252601D

Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
	Cha	innel		26765	S7 : 184:	<i>97</i> 1.04
	Frequen	cy (MHz)	821.5			
15	QPSK	1	0	22.63		
15	QPSK	1	37	22.43		
15	QPSK	1	74	22.48		
15	QPSK	36	0	22.50		
15	QPSK	36	20	22.35		
15	QPSK	36	39	22.39		
15	QPSK	75	0	22.30		
15	16QAM	1	0	22.54		
15	16QAM	1	37	22.37		
15	16QAM	1	74	22.32		
15	16QAM	36	0	22.03		
15	16QAM	36	20	21.81		
15	16QAM	36	39	21.91		
15	16QAM	75	0	21.98		
15	64QAM	1	0	22.01		
15	64QAM	1	37	21.92		
15	64QAM	1	74	21.89		
15	64QAM	36	0	21.06		
15	64QAM	36	20	21.02		
15	64QAM	36	39	21.10		
15	64QAM	75	0	20.88		
15	256QAM	1	0	19.01		
15	256QAM	1	37	18.87		
15	256QAM	1	74	18.92		
15	256QAM	36	0	18.99		
15	256QAM	36	20	19.01		
15	256QAM	36	39	18.98		
15	256QAM	75	0	18.84		
	Cha	innel			26740	
	Frequen	cy (MHz)			819	
10	QPSK	1	0		22.61	
10	QPSK	1	25		22.43	
10	QPSK	1	49		22.45	
10	QPSK	25	0		22.48	
10	QPSK	25	12		22.38	
10	QPSK	25	25		22.45	
10	QPSK	50	0		22.37	
10	16QAM	1	0		22.59	
10	16QAM	1	25		22.27	

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A1 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



10	16QAM	1	49		22.39	
10	16QAM	25	0		21.97	
10	16QAM	25	12		21.76	
10	16QAM	25	25		21.72	
10	16QAM	50	0		21.72	
10	64QAM	1	0		22.06	
10	64QAM	1	25		21.70	
10	64QAM	1	49		21.70	
10	64QAM	25	0		21.05	
10	64QAM		12		21.03	
		25 25				
10	64QAM	50	25		21.04	
10	64QAM		0		20.93	
10	256QAM	1	0		18.96	
10	256QAM	1	25		18.75	
10	256QAM	1	49		18.86	
10	256QAM	25	0		18.98	
10	256QAM	25	12		18.92	
10	256QAM	25	25		18.88	
10	256QAM	50	0	20745	18.89	20727
		annel		26715	26740	26765
_		ncy (MHz)		816.5	819	821.5
5	QPSK	1	0	22.52	22.52	22.39
5	QPSK	1	12	22.28	22.44	22.41
5	QPSK	1	24	22.44	22.47	22.35
5	QPSK	12	0	22.39	22.52	22.49
5	QPSK	12	7	22.29	22.31	22.25
5	QPSK	12	13	22.27	22.37	22.38
5	QPSK	25	0	22.26	22.42	22.25
5	16QAM	1	0	22.46	22.49	22.55
5	16QAM	1	12	22.34	22.33	22.33
5	16QAM	1	24	22.20	22.38	22.40
5	16QAM	12	0	21.96	21.98	21.89
5	16QAM	12	7	21.76	21.79	21.73
5	16QAM	12	13	21.79	21.75	21.83
5	16QAM	25	0	21.86	21.91	21.82
5	64QAM	1	0	21.94	22.07	21.93
5	64QAM	1	12	21.88	21.71	21.81
5	64QAM	1	24	21.85	21.81	21.81
5	64QAM	12	0	21.00	20.99	20.98
5	64QAM	12	7	20.95	21.10	21.01
5	64QAM	12	13	21.06	20.95	20.95
5	64QAM	25	0	20.74	20.89	20.80
5	256QAM	1	0	18.87	18.96	18.81
5	256QAM	1	12	18.73	18.70	18.76
5	256QAM	1	24	18.80	18.76	18.77
5	256QAM	12	0	18.95	18.94	18.87
5	256QAM	12	7	18.89	18.95	18.97
5	256QAM	12	13	18.94	18.88	18.78
5	256QAM	25	0	18.75	18.91	18.79
	Cha	annel		26705	26740	26775

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A2 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



	Frequen	ncy (MHz)		815.5	819	822.5
3	QPSK	1	0	22.59	22.59	22.40
3	QPSK	1	8	22.31	22.38	22.40
3	QPSK	1	14	22.41	22.44	22.27
3	QPSK	8	0	22.36	22.49	22.48
3	QPSK	8	4	22.31	22.35	22.26
3	QPSK	8	7	22.24	22.46	22.37
3	QPSK	15	0	22.19	22.41	22.23
3	16QAM	1	0	22.44	22.54	22.53
3	16QAM	1	8	22.27	22.31	22.28
3	16QAM	1	14	22.26	22.45	22.40
3	16QAM	8	0	21.99	22.04	21.88
3	16QAM	8	4	21.71	21.76	21.71
3	16QAM	8	7	21.77	21.75	21.83
3	16QAM	15	0			
		15	0	21.86	21.95	21.87
3	64QAM			21.90	22.05	21.93
3	64QAM	1	8	21.79	21.74	21.82
3	64QAM	1	14	21.80	21.82	21.82
3	64QAM	8	0	21.01	21.01	20.92
3	64QAM	8	4	20.90	21.02	20.99
3	64QAM	8	7	20.98	21.03	20.90
3	64QAM	15	0	20.83	20.89	20.79
3	256QAM	1	0	18.86	19.04	18.83
3	256QAM	1	8	18.81	18.72	18.75
3	256QAM	1	14	18.84	18.84	18.86
3	256QAM	8	0	18.95	18.96	18.94
3	256QAM	8	4	18.98	18.95	19.02
3	256QAM	8	7	18.83	18.93	18.88
3	256QAM	15	0	18.80	18.83	18.83
		annel		26697	26740	26783
	Frequen	icy (MHz)		814.7	819	823.3
1.4	QPSK	1	0	22.50	22.60	22.40
1.4	QPSK	1	3	22.29	22.39	22.31
1.4	QPSK	1	5	22.42	22.43	22.33
1.4	QPSK	3	0	22.46	22.56	22.44
1.4	QPSK	3	1	22.32	22.31	22.30
1.4	QPSK	3	3	22.25	22.37	22.36
1.4	QPSK	6	0	22.25	22.38	22.21
1.4	16QAM	1	0	22.49	22.50	22.49
1.4	16QAM	1	3	22.32	22.26	22.27
1.4	16QAM	1	5	22.21	22.37	22.37
1.4	16QAM	3	0	22.47	22.50	22.38
1.4	16QAM	3	1	22.22	22.22	22.28
1.4	16QAM	3	3	22.34	22.30	22.25
1.4	16QAM	6	0	21.86	22.01	21.91
1.4	64QAM	1	0	21.90	22.01	21.94
1.4	64QAM	1	3	21.85	21.67	21.82
1.4	64QAM	1	5	21.85	21.84	21.87
1.4	64QAM	3	0	21.97	21.96	21.93
1.4	64QAM	3	1	21.97	22.04	22.00

Sporton International Inc. (Kunshan)

TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A3 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



1.4	64QAM	3	3	22.01	21.94	21.87
1.4	64QAM	6	0	20.75	20.92	20.79
1.4	256QAM	1	0	18.96	19.05	18.85
1.4	256QAM	1	3	18.75	18.78	18.75
1.4	256QAM	1	5	18.81	18.86	18.87
1.4	256QAM	3	0	18.88	18.96	18.85
1.4	256QAM	3	1	18.92	18.91	18.98
1.4	256QAM	3	3	18.86	18.96	18.84
1.4	256QAM	6	0	18.77	18.89	18.76

Report No.: FG252601D

 Sporton International Inc. (Kunshan)
 Page Number
 : A4 of A33

 TEL: +86-512-57900158
 Report Issued Date
 : Jul. 11, 2022

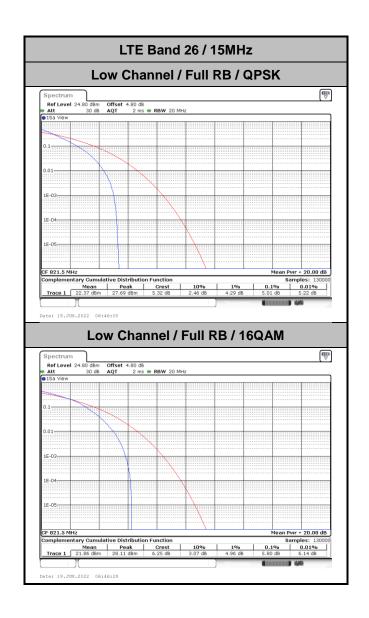
 FAX: +86-512-57900958
 Report Version
 : Rev. 01

FCC ID: IHDT56AF6

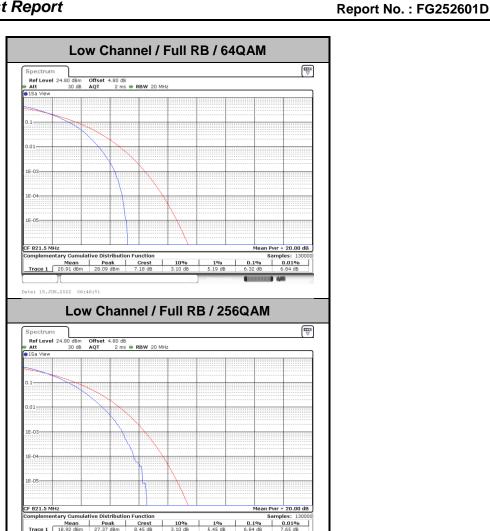
LTE Band 26_Part 90S

Peak-to-Average Ratio

Mode					
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Low CH	5.01	5.80	6.32	6.84	PASS



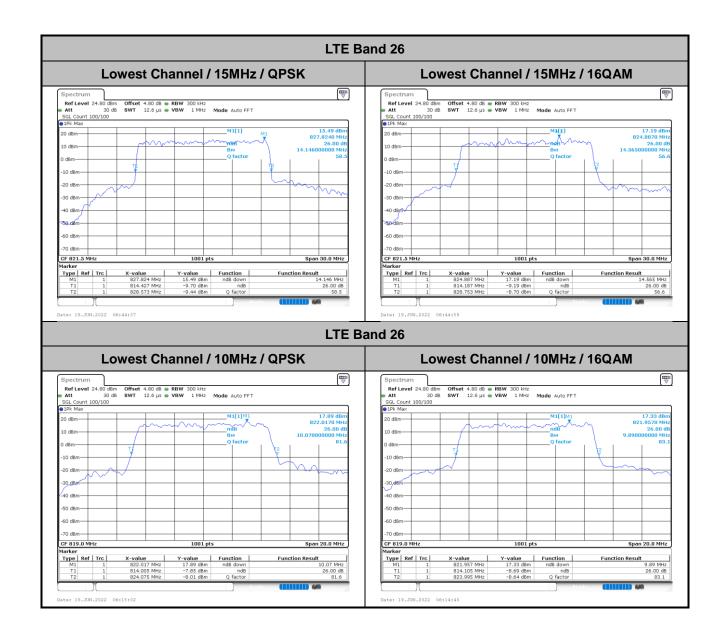
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A5 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A6 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

26dB Bandwidth

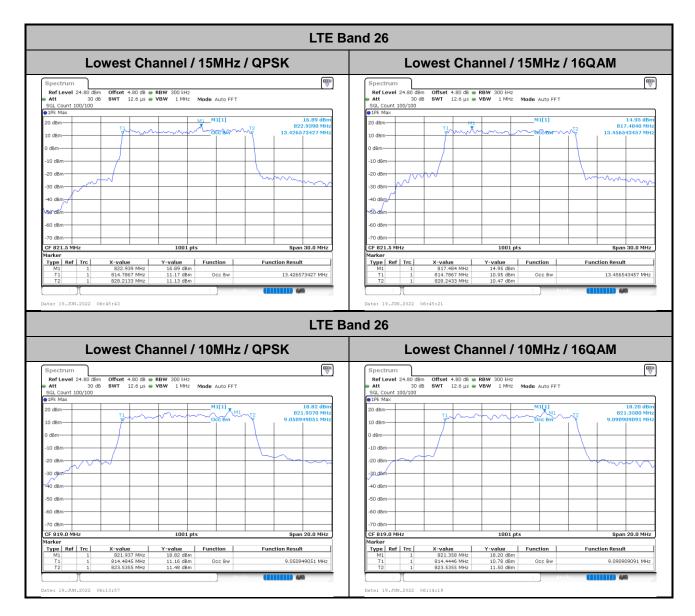
Mode	LTE Band 26 : 26dB BW(MHz)			
BW	15MHz			
Mod.	QPSK 16QAM			
Low CH	14.15 14.57			
BW	10MHz			
Mod.	QPSK	16QAM		
Low CH	10.07	9.89		



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A7 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

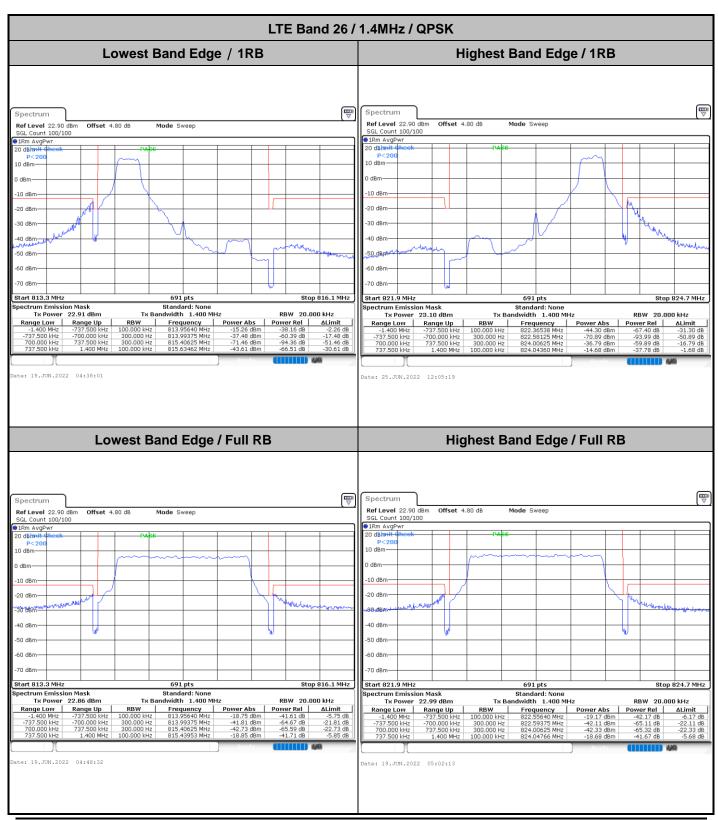
Occupied Bandwidth

Mode	LTE Band 26 : 99%OBW(MHz)			
BW	15MHz			
Mod.	QPSK 16QAM			
Low CH	13.43 13.46			
BW	10MHz			
Mod.	QPSK	16QAM		
Low CH	9.05	9.09		



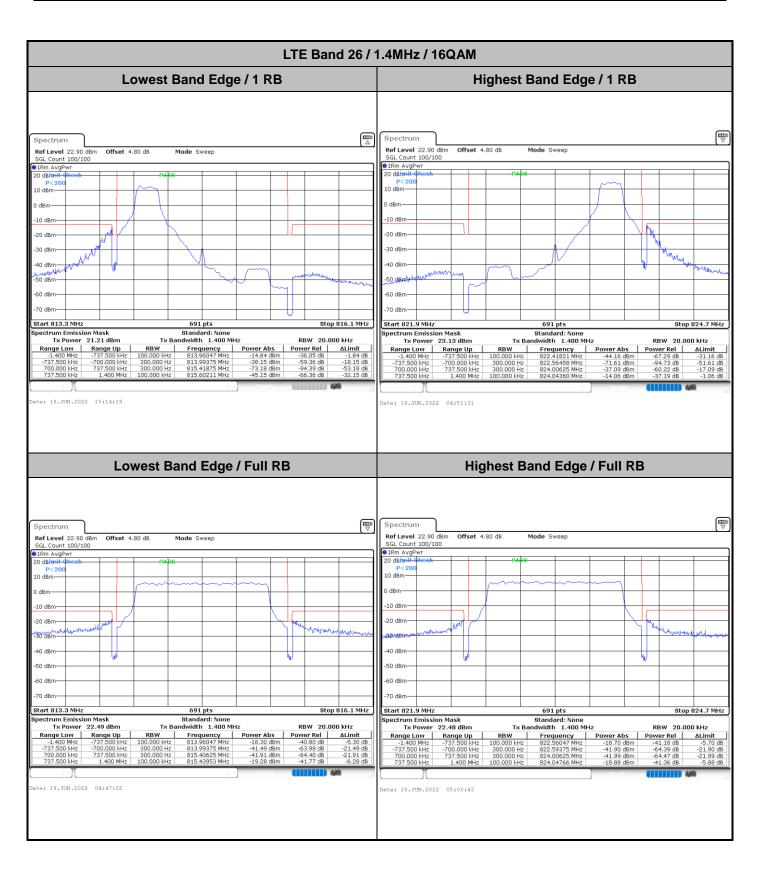
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A8 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01

Conducted Band Edge

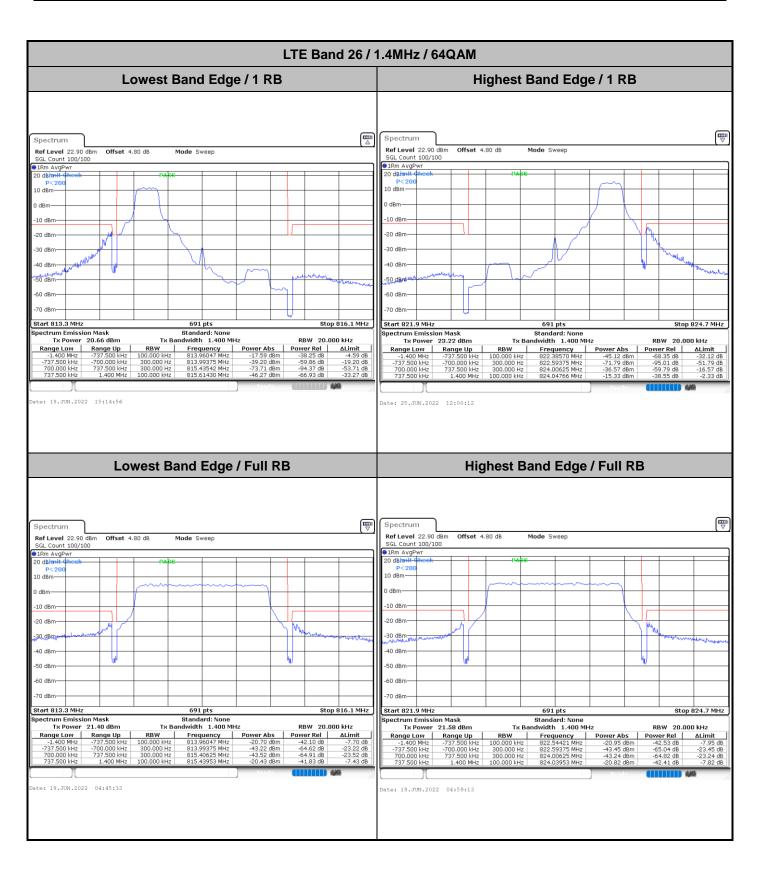


Sporton International Inc. (Kunshan)

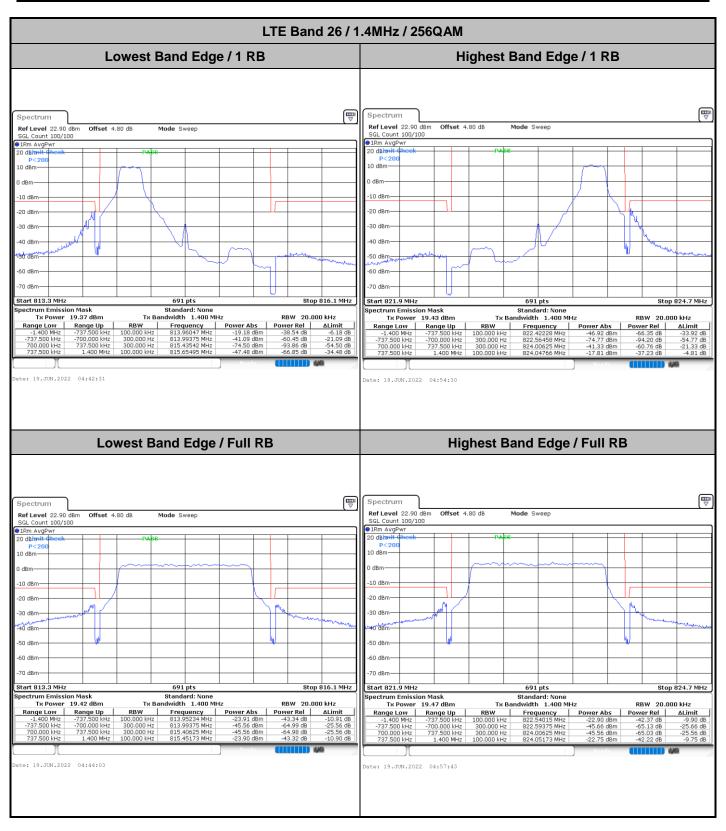
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A9 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



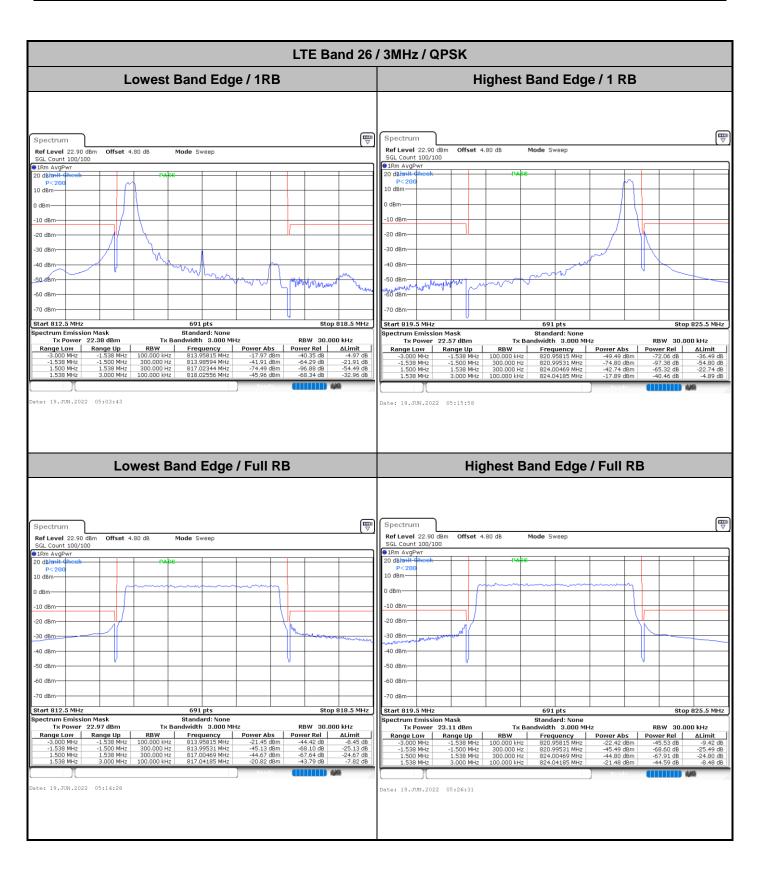
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A10 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



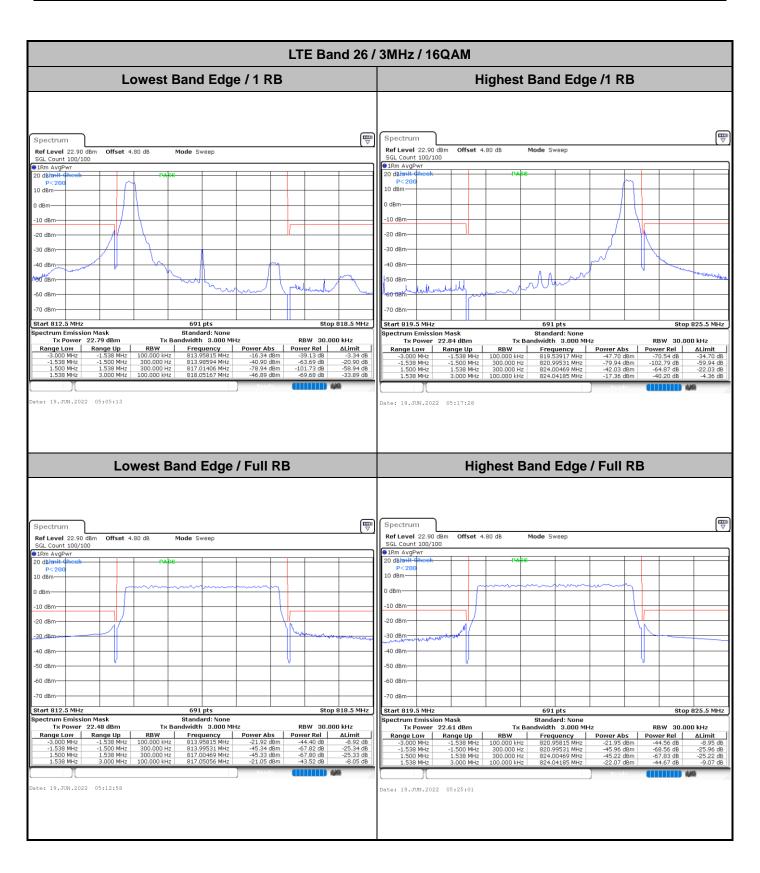
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A11 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



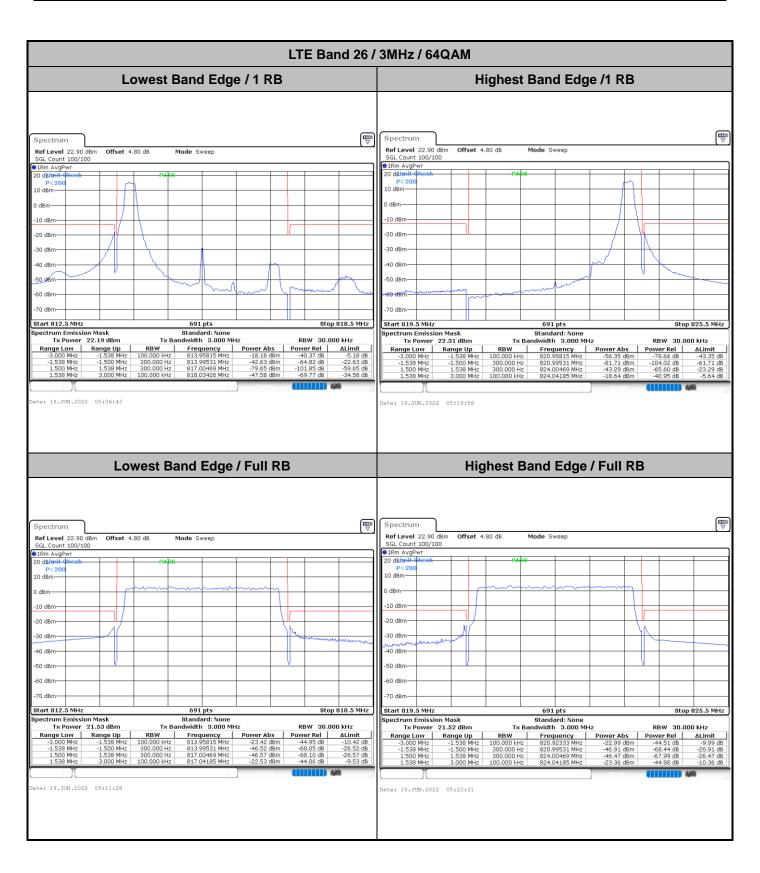
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A12 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



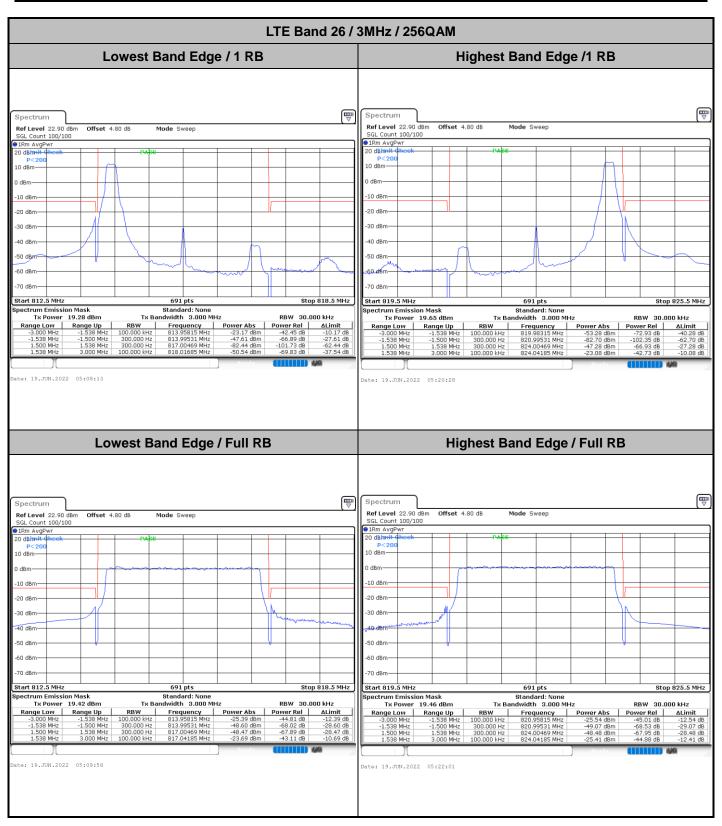
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A13 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



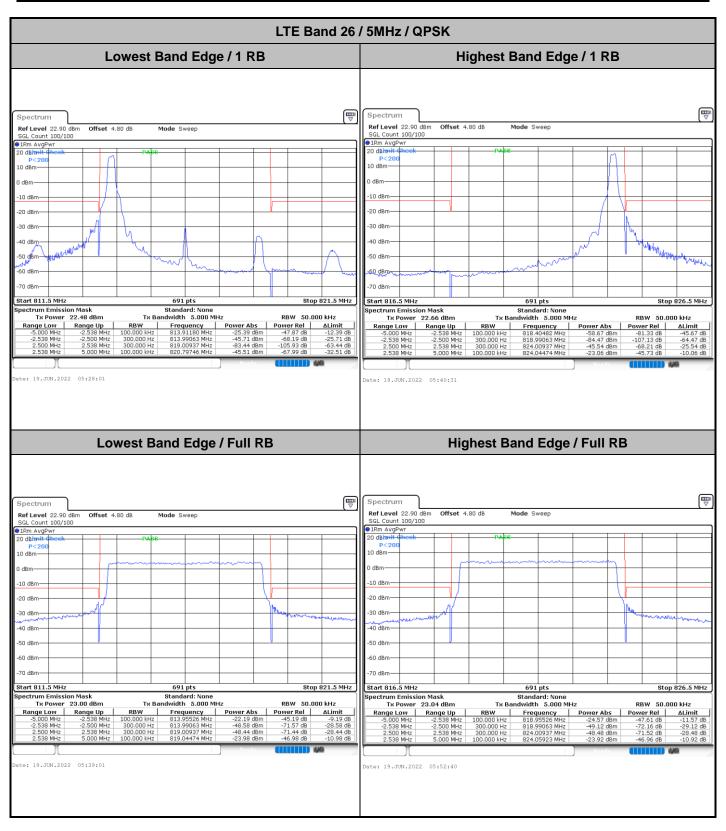
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A14 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



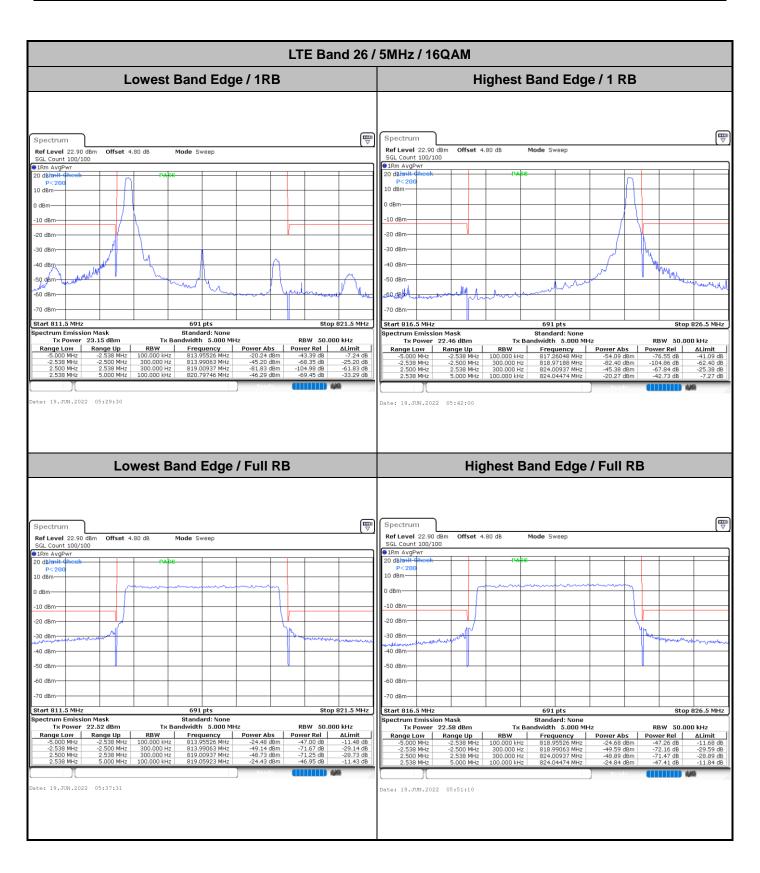
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A15 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



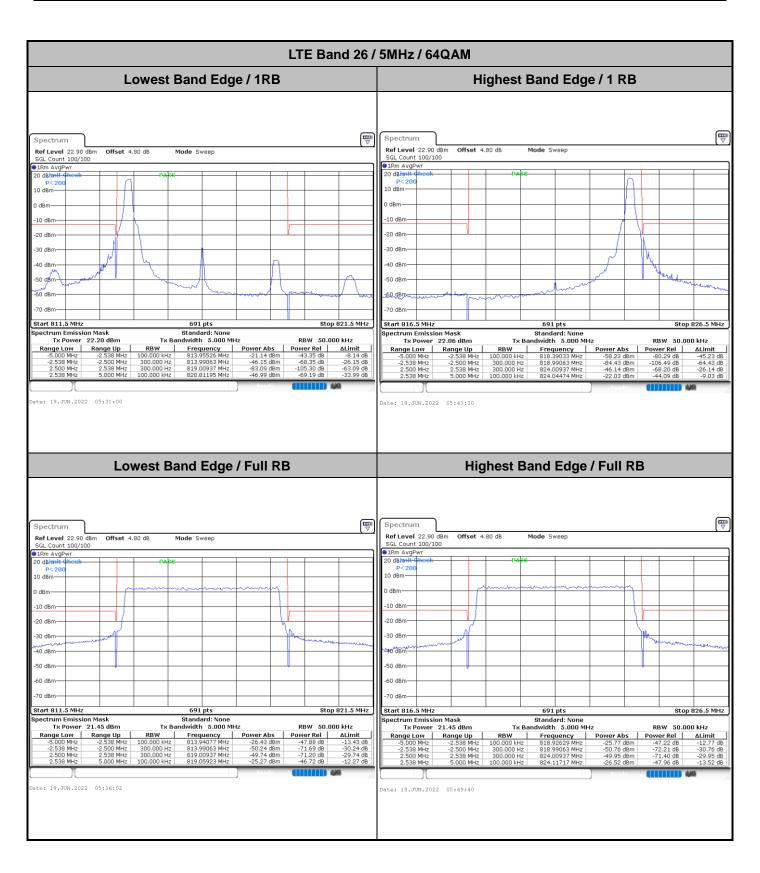
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A16 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



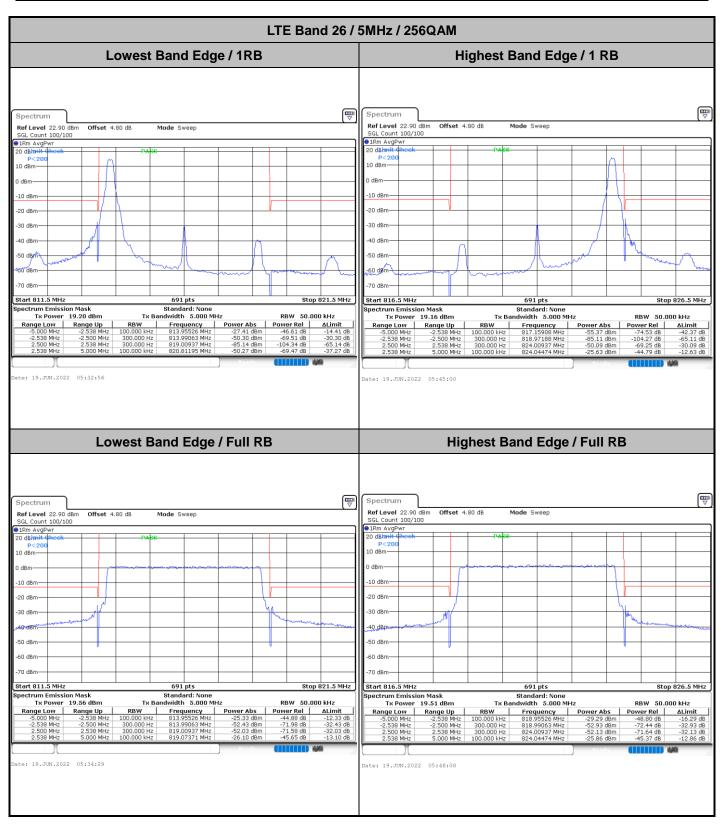
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A17 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



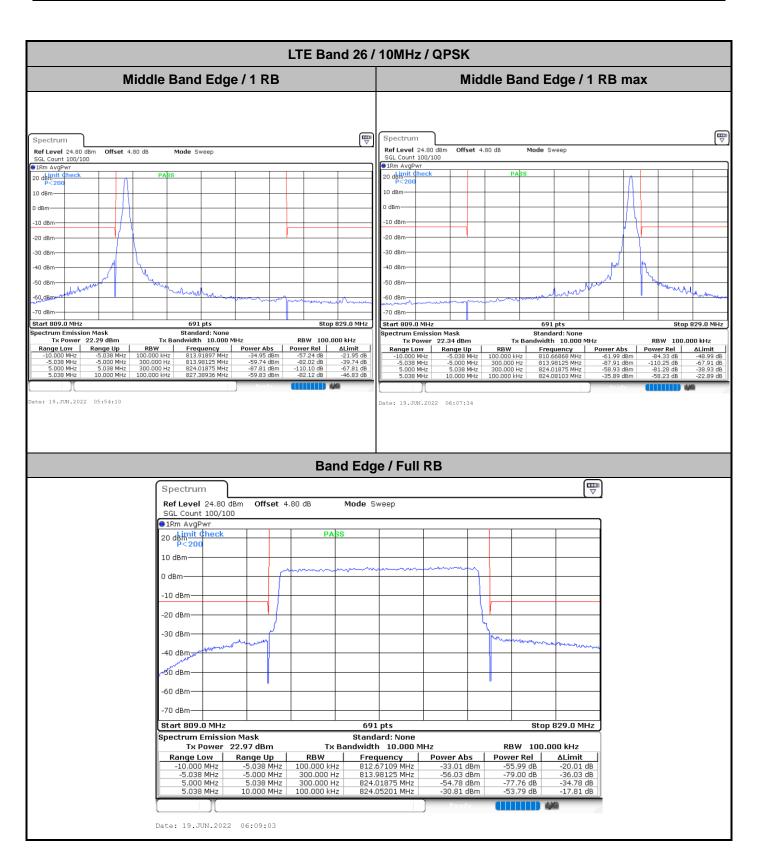
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A18 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



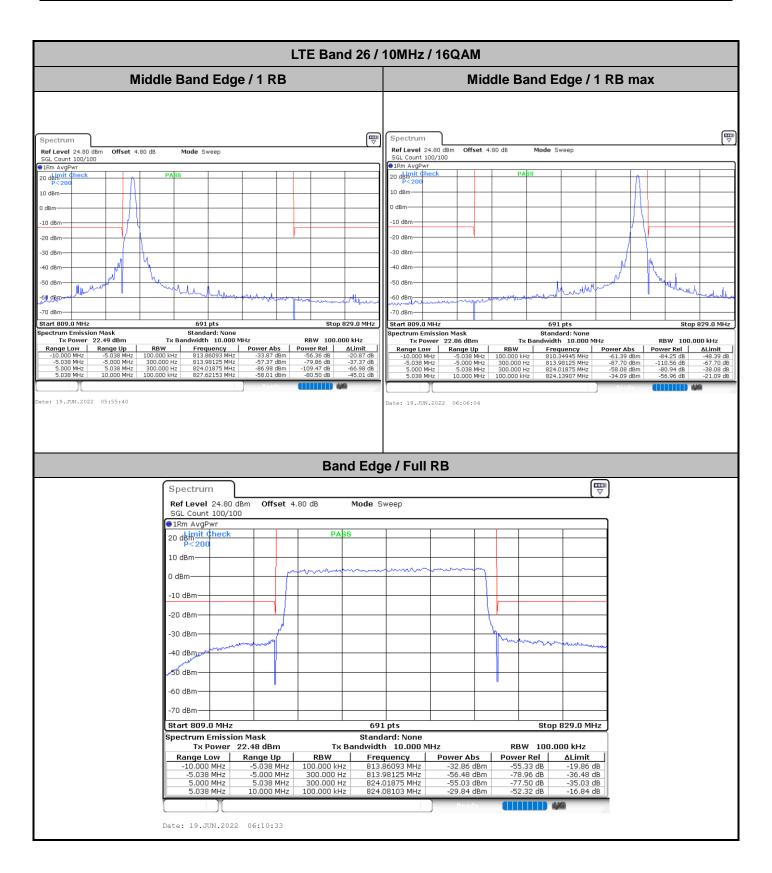
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A19 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



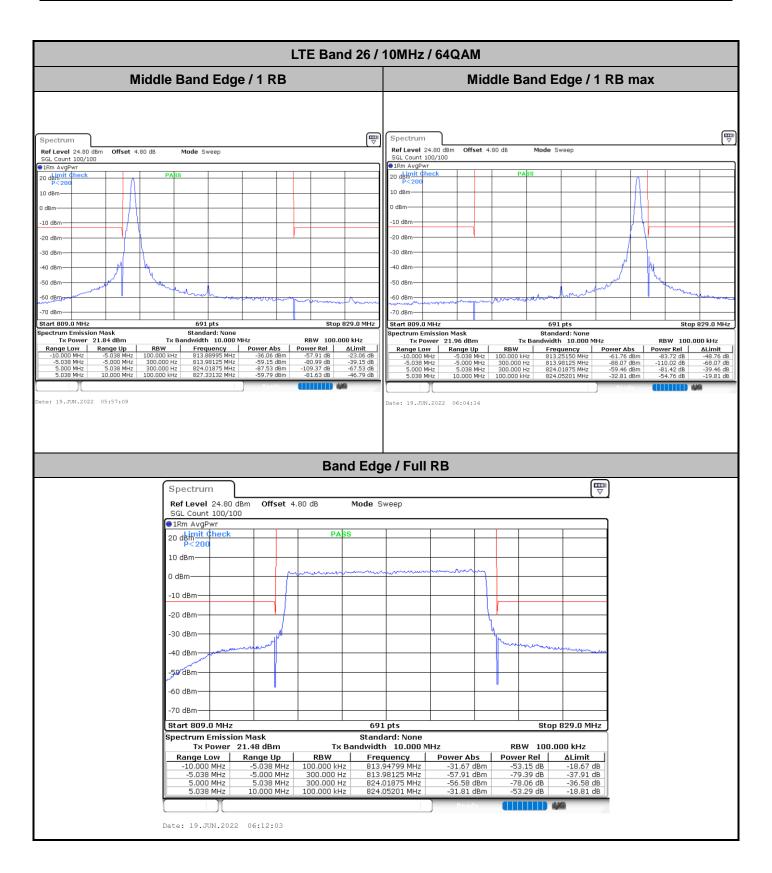
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A20 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



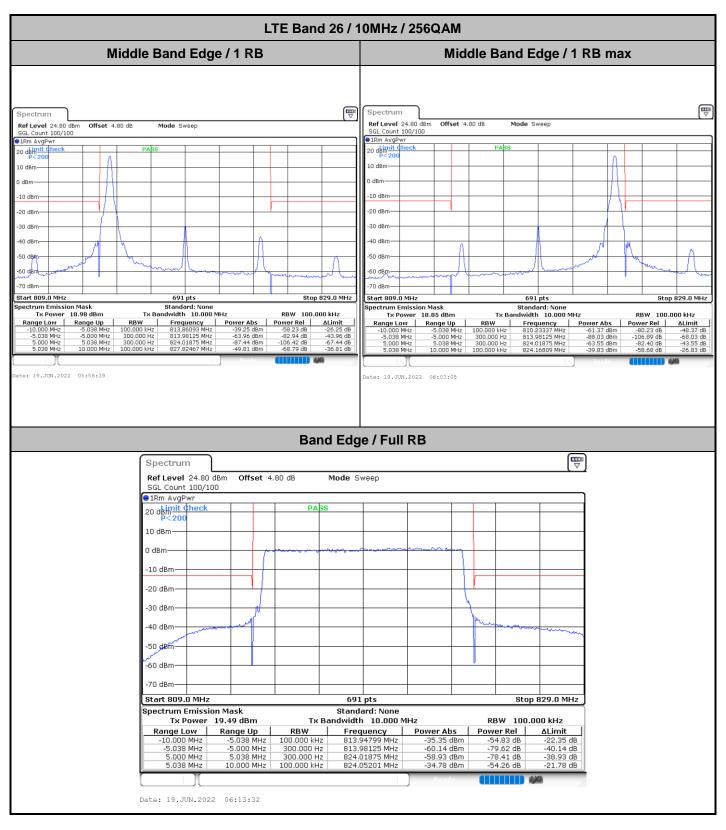
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A21 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



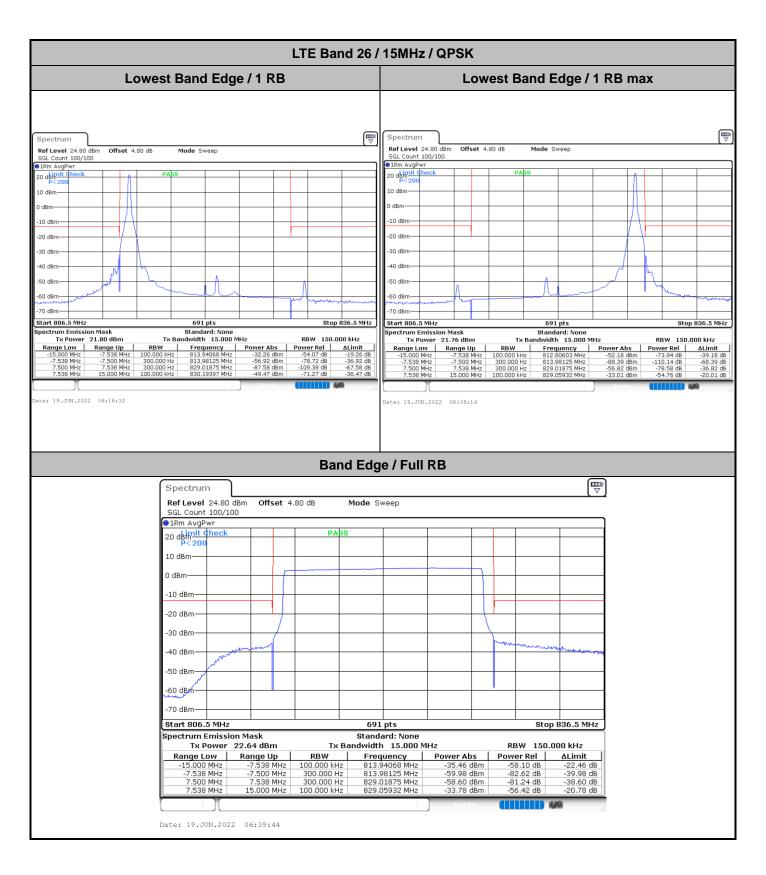
TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A22 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A23 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A24 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01



TEL: +86-512-57900158 FAX: +86-512-57900958 FCC ID: IHDT56AF6 Page Number : A25 of A33
Report Issued Date : Jul. 11, 2022
Report Version : Rev. 01