



Spot Check Evaluation

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2503-4, XT2505-1
FCC ID : IHDT56AU8
STANDARD : 47 CFR Part 2, 22, 24, 27, 90S
47 CFR Part 15 Subpart C §15.225
47 CFR Part 15 Subpart C §15.247
47 CFR Part 15 Subpart E §15.407
TEST DATE(S) : Jan. 03, 2025 ~ Jan. 23, 2025

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

This report contains data that were produced under subcontract by Sporton International Inc. (KunShan)

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

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4D1311-01M	Rev. 01	Initial issue of report	Feb. 10, 2025

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



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 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2503-4, XT2505-1
FCC ID	IHDT56AU8
IMEI Code	Conducted/DFS: 357706750005150/357706750005168 Radiation: 357706750006133/357706750006141 Conduction: 357706750006158/357706750006166
HW Version	DVT2
SW Version	V2VC35.13
EUT Stage	Identical Prototype

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 Modification of EUT

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

1.5 Testing Site

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ DFS01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH01-SZ	CN1256	421272

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 Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-KS 03CH02-KS 03CH08-KS	CN1257	314309

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	CO01-KS	AUDIX	E3	6.2009-8-24
2.	03CH02-KS	AUDIX	E3	6.2009-8-24a1
3.	03CH08-KS	AUDIX	E3	210616
4.	03CH01-SZ	AUDIX	E3	6.2009-8-24
5.	DFS01-SZ	Sporton	Test Tools	1.0

1.7 Applicable Standards

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

- FCC KDB 484596 D01 Referencing Test Data v02r03
- 47 CFR Part 2, 22, 24, 27, 90S
- 47 CFR Part 15 Subpart C §15.225
- 47 CFR Part 15 Subpart C §15.247
- 47 CFR Part 15 Subpart E §15.407
- ANSI C63.10-2013
- ANSI C63.26-2015

1.8 Specification of Accessory

Accessories Information				
AC Adapter 1(US)	Brand Name	Motorola(Chenyang)	Model Name	MC-681N
AC Adapter 1(EU)	Brand Name	Motorola(Chenyang)	Model Name	MC-682N
AC Adapter 1(UK)	Brand Name	Motorola(Chenyang)	Model Name	MC-683N
AC Adapter 1(AU)	Brand Name	Motorola(Chenyang)	Model Name	MC-685N
AC Adapter 1(AR)	Brand Name	Motorola(Chenyang)	Model Name	MC-686N
AC Adapter 1(BR)	Brand Name	Motorola(Chenyang)	Model Name	MC-687N
AC Adapter 1(CHILE)	Brand Name	Motorola(Chenyang)	Model Name	MC-689N
AC Adapter 2(US)	Brand Name	Motorola(Acbel)	Model Name	MC-681N
AC Adapter 2(EU)	Brand Name	Motorola(Acbel)	Model Name	MC-682N
AC Adapter 2(UK)	Brand Name	Motorola(Acbel)	Model Name	MC-683N
AC Adapter 2(AU)	Brand Name	Motorola(Acbel)	Model Name	MC-685N
AC Adapter 2(AR)	Brand Name	Motorola(Acbel)	Model Name	MC-686N
AC Adapter 2(BR)	Brand Name	Motorola(Acbel)	Model Name	MC-687N
AC Adapter 2(CHILE)	Brand Name	Motorola(Acbel)	Model Name	MC-689N
Battery 1	Brand Name	Motorola(ATL)	Model Name	RM52
Battery 2	Brand Name	Motorola(Cosmx)	Model Name	RM52
Earphone	Brand Name	Motorola(Lyand)	Model Name	MI181C
USB Cable 1	Brand Name	Motorola(saibao)	Model Name	SC18D71644
USB Cable 2	Brand Name	Motorola(Luxshare)	Model Name	SC18E08104
USB Cable 3	Brand Name	Motorola(saibao)	Model Name	SC18D86731
USB Cable 4	Brand Name	Motorola(Luxshare)	Model Name	SC18E08103



2 Re-use of Measured Data

2.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2503-4, XT2505-1, FCC ID: IHDT56AU8) is electrically identical to the reference device (Model: XT2503-1, XT2505-3, FCC ID: IHDT56AU7) for the portions of the circuitry corresponding to the data being re-used, following the FCC KDB 484596 D01 Referencing Test Data v02r03.

ECR Data Referencing Inquiry has been approved by FCC, and the data referencing and spot check test plan includes RF/EMC, the details are presented in section 2.3 of this report, and for SAR Reference detail, please refer to FCC SAR report FA4D1311-01.

The criteria set in section 3 of KDB 484596 D01 v02r03 is followed to determine whether the data referencing is justified. For SAR, the higher between the referenced value and the spot check value is used to determine compliance in both standalone and simultaneous transmission conditions

The applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID: IHDT56AU8 .

2.2 Model Difference Information

The **main** difference between FCC ID: IHDT56AU7 and FCC ID: IHDT56AU8 is as below:

- Remove WCDMA B4, LTE B4/12/13/17/66 and 5G NR n2/n66.
- Add LTE B18/19/20/32/43/71, 5G NR n20/n71/n75.
- Add n5 NSA mode and n41 SA mode.
- LTE B41, 5G NR n77/N78 upgraded to PC2 via software.

Other differences and all the details of similarity and difference can be found in the confidential documents (IHDT56AU8 Operational Description of Product Equality Declaration).



2.3 Reference detail Section:

Rule Part	Equipment Class	Frequency Band (MHz)	Reference FCC ID (Parent)	Reference on test	Reference Title	FCC ID Filling (Variant)	Test on the variant	Data Referencing (Y/N)
15C	DSS (BR/EDR)	2400~2483.5	IHDT56AU7	Full test	FR4D1311A	IHDT56AU8	Spot check	Y, All test items
	DTS (BLE)	2400~2483.5	IHDT56AU7	Full test	FR4D1311B	IHDT56AU8	Spot check	Y, All test items
	DTS (WLAN)	2400~2483.5	IHDT56AU7	Full test	FR4D1311C	IHDT56AU8	Spot check	Y, All test items
	DXX (NFC)	13.56	IHDT56AU7	Full test	FR4D1311D	IHDT56AU8	Spot check	Y, All test items
15E	U-NII	5180~5240	IHDT56AU7	Full test	FR4D1311E	IHDT56AU8	Spot check	Y, All test items
		5260~5320	IHDT56AU7	Full test	FR4D1311E	IHDT56AU8	Spot check	Y, All test items
		5500~5720	IHDT56AU7	Full test	FR4D1311E	IHDT56AU8	Spot check	Y, All test items
		5745~5825	IHDT56AU7	Full test	FR4D1311E	IHDT56AU8	Spot check	Y, All test items
		5260~5320 5500~5720	IHDT56AU7	Full test	FZ4D1311	IHDT56AU8	Spot check	Y, All test items
22, 24, 27, 90,	PCE (GSM)	GSM 850/1900	IHDT56AU7	Full test	FG4D1311A	IHDT56AU8	Spot check	Y, All test items
	PCE (WCDMA)	Band II, V	IHDT56AU7	Full test	FG4D1311A	IHDT56AU8	Spot check	Y, All test items
	PCE (LTE)	B2/5/7/26/38/42/ 7C/38C/42C	IHDT56AU7	Full test	FG4D1311B FG4D1311C FG4D1311E FG4D1311F	IHDT56AU8	Spot check	Y, All test items
	PCE (LTE)	B26 (90S)	IHDT56AU7	Full test	FG4D1311D	IHDT56AU8	Spot check	Y, All test items
	PCE (NR)	n5/n7/n26/n38/n41	IHDT56AU7	Full test	FG4D1311G FG4D1311H	IHDT56AU8	Spot check	Y, All test items except for n5 NSA RSE, n41 RSE
	PCE (NR)	n26 (90S)	IHDT56AU7	Full test	FG4D1311I	IHDT56AU8	Spot check	Y, All test items

Y: Pointer to spot-check exhibit; N: Pointer to full test exhibit

2.4 Spot Check Verification Data Section

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

All test procedures follow the related section of parent report.

Spot-check measurements, while being always compliant with the applicable rule part(s) for the test under consideration, show a deviation d_{dB} from the reference data no larger than 3 dB:

$$d_{dB} = |V_{dB} - R_{dB}| \leq 3 \text{ dB} \quad (1)$$

V_{dB} , the variant spot-check level

R_{dB} , the corresponding measurement level for the reference model

An alternative to the limit of eq. (1) is available, and is based on considering how far the reference data R_{dB} is from the compliance threshold C_{dB} (also expressed in dB), for the particular test under consideration. In this case, if $M_{dB} = |C_{dB} - R_{dB}|$ is the margin in dB from the compliance limit, a spot check may be considered acceptable when the deviation d_{dB} from the reference data satisfies the following condition:

$$d_{dB} = |V_{dB} - R_{dB}| \leq (3 + M_{dB} / 20) \text{ dB}, \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \quad (2)$$

$$d_{dB} = |V_{dB} - R_{dB}| = 6 \text{ dB}, \text{ for } M_{dB} > 60 \text{ dB}$$

where “| |” is the absolute value of the measured quantity.

When using the option in eq. (2), d_{dB} increases linearly from 3 dB to 6 dB.



Summary for spot check for each rule entry and technology is listed as below:

Mode	Test Item	IHDT56AU7 Parent Worst mode Test Result	IHDT56AU8 Variant Check Test Result	Deviation	Deviation Limit
BT 1Mbps (CH39)	Number of Channels	79	79	0	3
	Hopping Channel Separation	1	1.003	0.003 MHz	3
	Dwell Time of Each Channel	0.306	0.307	0.001 s	3
	20dB Bandwidth	0.87	0.865	0.005 MHz	3
	99% Bandwidth	0.758	0.757	0.01 MHz	3
	Conducted Band Edges	-43.67	-45.85	2.18 dBm	3
	Conducted Spurious Emission	-36.12	-38.30	2.18 dBm	3
BT 1Mbps (CH78)	Radiated Band Edges and Radiated Spurious Emission	-18.78	-18	0.78 dB	3
BT	AC Conducted Emission	-13.67	-11.94	1.73 dB	3
BLE 2Mbps (CH01)	6dB Bandwidth	1.16	1.17	0.01 MHz	3
	99% Bandwidth	2.056	2.050	0.006 MHz	3
	Power Spectral Density	-4.23	-4.94	0.71 dBm/3kHz	3
	Conducted Band Edges	-52.99	-53.56	0.57 dBm/100kHz	3
	Conducted Spurious Emission	-35.36	-37.17	1.81 dBm/100kHz	3
BLE 1Mbps (CH19)	Radiated Band Edges and Spurious Emission	-3.41	-3.13	0.28 dB	3
BLE	AC Conducted Emission	-13.67	-11.94	1.73 dB	3
WIFI 2.4G (802.11ax HE20 CH06)	6dB Bandwidth	18.48	18.70	0.22 MHz	3
	99% Bandwidth	19.874	20.280	0.406 MHz	3
	Power Spectral Density	-6.15	-7.19	1.04 dBm/3kHz	3
	Conducted Band Edges	-14.78	-15.00	0.22 dBm/100kHz	3
	Conducted Spurious Emission	-35.5	-38.06	-2.56 dBm/100kHz	3
WIFI 2.4G (802.11ax HE40 CH06)	Radiated Band Edges and Spurious Emission	-3.11	-3.38	0.27 dB	3
WIFI 2.4G	AC Conducted Emission	-13.67	-11.94	1.73 dB	3
WIFI 5G (802.11ax HE40 CH142)	26dB & 99% Bandwidth	75.60	75.24	0.36 MHz	3
	Power Spectral Density	3.62	3.14	0.48 dBm/MHz	3
WIFI 5G (802.11ax HE80 CH58)	DFS	0.951632	0.88803	0.63602 s	3
WIFI 5G (802.11ax HE20 CH36)	Radiated Band Edges and Spurious Emission	-3.07	-3.23	0.16 dB	3
WIFI 5G	AC Conducted Emission	-17.62	-15.89	1.73 dB	3
NFC	20dB Spectrum Bandwidth	2.58	2.57	0.01 kHz	3
	99% Occupied Bandwidth	2.19	2.19	0 kHz	3
	Field Strength of Fundamental Emissions@3m	52.46	52.54	0.08 dBuV/m	3
	Radiated Spurious Emissions	47.17	49.99	0.82 dBuV/m	3
	AC Power Line Conducted Emissions	-14.93	-13.10	1.83 dB	3
Part 22H (GSM 850)	Peak-to-Average Ratio	0.17	0.14	0.03 dB	3
	Occupied Bandwidth	0.242	0.243	0.001 MHz	3
	Conducted Band Edge	-14.83	-14.60	0.23 dBm	3
	Conducted Spurious Emission	-31.6	-30.52	1.08 dBm	3
	Frequency Stability	0.0023	0.0024	0.0001 ppm	3
Part 27M (LTE Band 7)	26dB Bandwidth	0.32	0.31	0.01 MHz	3
	Radiated Spurious Emission	-49.04	-51.39	2.35 dB	3



Test Item	Mode	IHDT56AU7 Parent Worst mode Test Result	IHDT56AU8 Variant Check Test Result	Deviation (dB)	Deviation Limit (dB)
Conducted Power (dBm)	BT BR/EDR	17.40	17.30	0.10	3
	BLE 1Mbps/2Mbps	12.66	11.40	1.26	3
	11b, 2.4GHz	21.28	20.82	0.46	3
	11g, 2.4GHz	23.72	23.55	0.17	3
	11n HT20, 2.4GHz	23.68	23.53	0.15	3
	11n HT40, 2.4GHz	22.95	22.48	0.47	3
	11ax HE20, 2.4GHz	23.77	23.49	0.28	3
	11ax HE40, 2.4GHz	23.03	22.5	0.53	3
	11a, 5GHz	18.78	18.67	0.11	3
	11n HT20, 5GHz	18.69	18.67	0.02	3
	11n HT40, 5GHz	18.79	18.70	0.09	3
	11ac VHT20, 5GHz	18.75	18.74	0.01	3
	11ac VHT40, 5GHz	18.83	18.70	0.13	3
	11ac VHT80, 5GHz	17.98	17.95	0.03	3
	11ax HE20, 5GHz	18.83	18.78	0.05	3
	11ax HE40, 5GHz	18.95	18.82	0.13	3
	11ax HE80, 5GHz	18.07	18.06	0.01	3
	GSM 850	31.75	31.34	0.41	3
	GSM 1900	28.86	26.57	2.29	3
	WCDMA II	22.68	20.42	2.26	3
	WCDMA V	22.81	22.39	0.42	3
	LTE B2	22.51	22.27	0.24	3
	LTE B5	22.49	22.39	0.10	3
	LTE B7	23.67	22.36	1.31	3
	LTE B7C	22.52	22.39	0.13	3
	LTE B26L	22.47	22.13	0.34	3
	LTE B26H	22.52	22.28	0.24	3
	LTE B38	23.58	23.28	0.30	3
	LTE B38C	22.39	22.53	0.14	3
	LTE B42	22.49	22.23	0.26	3
	LTE B42C	22.38	22.18	0.20	3
	5GNR n5	23.17	22.95	0.22	3
	5GNR n7	23.57	22.84	0.73	3
	5GNR n38	23.10	23.01	0.29	3
	5GNR n41	23.62	23.26	0.36	3
	5GNR n26L	23.66	22.87	0.79	3
	5GNR n26H	23.45	23.19	0.26	3

**Conclusion:**

All test items test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

Based on the spot check test result, the test data from the original model is representative for the variant model. All spot check test data are shown within expected level compliant to limit line.

We are using power and ERP/EIRP measurements from the original parent model reports to list on the grant.

The same detection mechanism/software/antenna gain is used in the variant of DFS. Hence, all test cases refer to parent report.

We confirm that the test data referencing policy of FCC KDB 484596 D01 Referencing Test Data v02r03 has been followed and the test data as referenced from the parent model report represents compliance with new FCC ID.



3 List of Measuring Equipment

For BT/WIFI:

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 22, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 25, 2024	Jan. 22, 2025	Dec. 24, 2025	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Oct.14, 2024	Jan. 22, 2025	Oct. 13, 2025	Conducted (TH01-SZ)
EMI Test Receiver	Keysight	N9038A	MY57290151	3Hz~8.5GHz;Max 30dBm	Jul. 04, 2024	Jan. 20, 2025	Jul. 03, 2025	Radiation (03CH08-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57441079	10Hz~44GHz	Oct. 09, 2024	Jan. 20, 2025	Oct. 08, 2025	Radiation (03CH08-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Jan. 20, 2025	Sep. 07, 2025	Radiation (03CH08-KS)
Bilog Antenna	TESEQ	CBL 6111D	59915	30MHz~1GHz	Aug. 18, 2024	Jan. 20, 2025	Aug.17, 2025	Radiation (03CH08-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240138	1GHz~18GHz	Jul. 06, 2024	Jan. 20, 2025	Jul. 05, 2025	Radiation (03CH08-KS)
high gain Amplifier	EM	EM01G18GA	060890	1Ghz~18Ghz	Jul. 23, 2024	Jan. 20, 2025	Jul. 22, 2025	Radiation (03CH08-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Jan. 20, 2025	Oct. 21, 2025	Radiation (03CH08-KS)
Amplifier	SONOMA	310N	380826	9KHz~1GHz	Jul. 03, 2024	Jan. 20, 2025	Jul. 02, 2025	Radiation (03CH08-KS)
Amplifier	Keysight	83017A	MY53270417	500MHz~26.5GHz	Oct. 09, 2024	Jan. 20, 2025	Oct. 08, 2025	Radiation (03CH08-KS)
Amplifier	EM	EM18G40GGA	060737	18~40GHz	Jan. 03, 2025	Jan. 20, 2025	Jan. 02, 2026	Radiation (03CH08-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jan. 20, 2025	NCR	Radiation (03CH08-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Jan. 20, 2025	NCR	Radiation (03CH08-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Jan. 20, 2025	NCR	Radiation (03CH08-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Jan. 20, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Jan. 20, 2025	Oct. 08, 2025	Conduction (CO01-KS)
Signal Analyzer	R&S	FSV7	101473	10Hz~7GHz	Dec. 25, 2024	Jan. 08, 2025	Dec. 24, 2025	DFS (DFS01-SZ)
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200424	9kHz~6GHz	Apr. 09, 2024	Jan. 08, 2025	Apr. 08, 2025	DFS (DFS01-SZ)
Combiner	TOJOIN	PS-2AM-0460	SZE14011007	0.4~6GHz	Sep. 05, 2024	Jan. 08, 2025	Sep. 04, 2025	DFS (DFS01-SZ)

NCR: No Calibration Required.



For NFC:

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 23, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Jan. 23, 2025	Jul. 03, 2025	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Oct. 11, 2024	Jan. 03, 2025	Oct. 10, 2025	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Jan. 03, 2025	Sep. 07, 2025	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	59915	30MHz~1GHz	Aug. 18, 2024	Jan. 03, 2025	Aug. 17, 2025	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jan. 03, 2025	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jan. 03, 2025	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jan. 03, 2025	NCR	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	413740	9KHz~1GHz	Jan. 02, 2025	Jan. 03, 2025	Jan. 01, 2026	Radiation (03CH02-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Jan. 20, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Apr. 18, 2024	Jan. 20, 2025	Apr. 17, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Jan. 20, 2025	Oct. 08, 2025	Conduction (CO01-KS)

For WWAN Bands:

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 08, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V , 3A	Oct.14, 2024	Jan. 08, 2025	Oct. 13, 2025	Conducted (TH01-SZ)
Power Divider	Titan	P02N005180	923402	0.4GHz~26.5GHz	Nov. 08, 2024	Jan. 08, 2025	Nov. 07, 2025	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 03, 2024	Jan. 08, 2025	Jul. 02, 2025	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 25, 2024	Jan. 18, 2025	Dec. 24, 2025	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Jan. 18, 2025	Dec. 27, 2025	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Oct. 24, 2023	Jan. 18, 2025	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Jan. 18, 2025	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 09, 2024	Jan. 18, 2025	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Jan. 18, 2025	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 14, 2024	Jan. 18, 2025	Oct. 13, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2024	Jan. 18, 2025	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Oct. 14, 2024	Jan. 18, 2025	Oct. 13, 2025	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 18, 2025	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 18, 2025	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required.

4 Measurement Uncertainty

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.

Uncertainty of Conducted Measurement (BT/WIFI2.4G/5G)

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	± 1.34 dB
Occupied Channel Bandwidth	± 0.012 MHz
Conducted Power	± 1.34 dB
Conducted Power Spectral Density	± 1.32 dB
Frequency	± 1.3 Hz

Uncertainty of Conducted Measurement (NFC)

Test Item	Uncertainty
Occupied Channel Bandwidth	± 0.012 MHz
Frequency	± 1.3 Hz

Uncertainty of Conducted Measurement (DFS)

Test Item	Uncertainty
Conducted Generated signal Levels	± 1.23 dB
Conducted Time	0.38%

Uncertainty of Conducted Measurement (WWAN)

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	± 1.34 dB
Occupied Channel Bandwidth	± 0.012 MHz
Conducted Power	± 1.34 dB
Peak to Average Ratio	± 1.34 dB
Frequency Stability	± 1.3 Hz

**Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)**

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.84 dB
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03CH08-KS(BT/WIF):

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.30 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.04 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.26 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.40 dB
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03CH02-KS(NFC):

Uncertainty of Radiated Emission Measurement (9 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.30 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.04 dB
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03CH01-SZ(WWAN):

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.48 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.53 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.02 dB
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-THE END-



Appendix A. Radiated Spurious Emission

For Simultaneous transmission:

Test Engineer :	Zhaohui Liang	Relative Humidity :	50%
		Temperature :	20-22℃

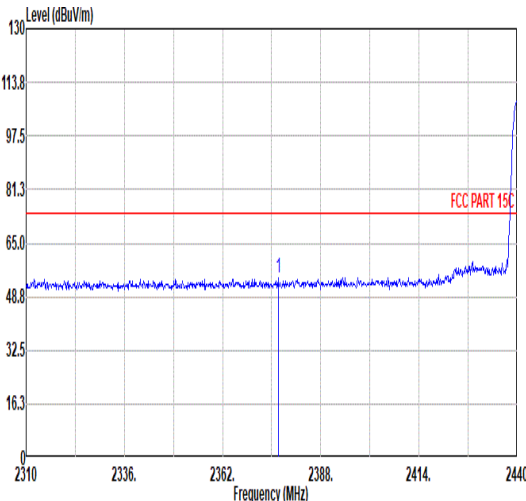
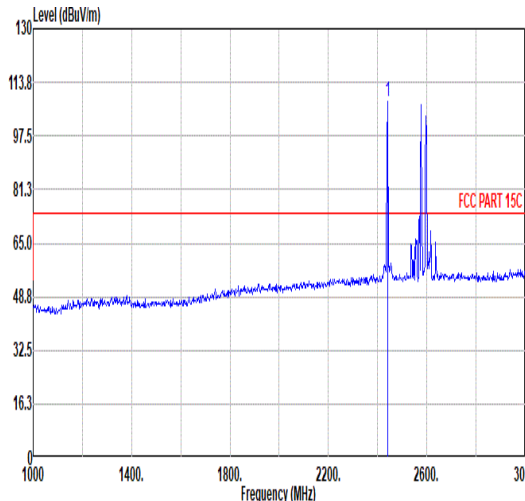
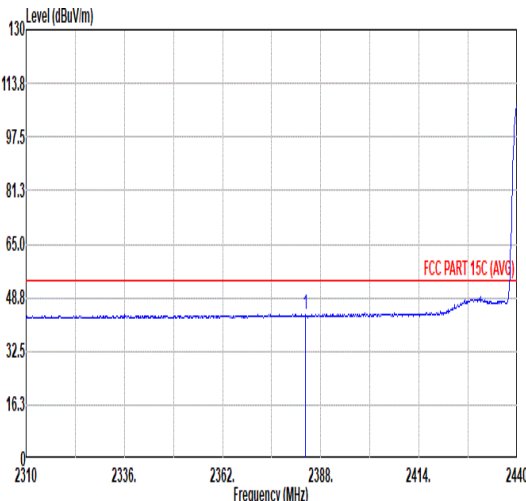
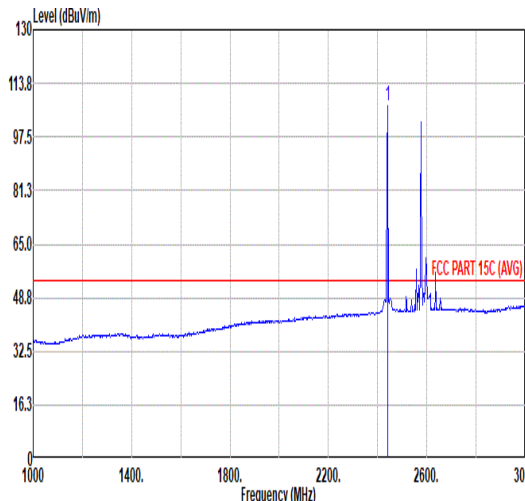
Radiated Spurious Emission Test Modes

Mode	Band	Band (GHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	2400-2483.5	3	Bluetooth-LE_GSKF	19	2440	1Mbps	-	-
	U-NII-1	5.15-5.25	4	802.11ax HE20	36	5180	MCS0	Full RU	-
	LTE Band 41C								

Summary of each worse mode

Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	Bluetooth-LE_GSKF	19	2490.46	44.29	54.00	-9.71	H	AVERAGE	Pass	Band Edge
	Bluetooth-LE_GSKF	19	4880.00	50.74	54.00	-3.26	H	AVERAGE	Pass	Harmonic
1	802.11ax HE20	36	5149.65	50.39	54.00	-3.61	H	AVERAGE	Pass	Band Edge
	802.11ax HE20	36	10360.00	44.85	68.20	-23.35	H	PEAK	Pass	Harmonic

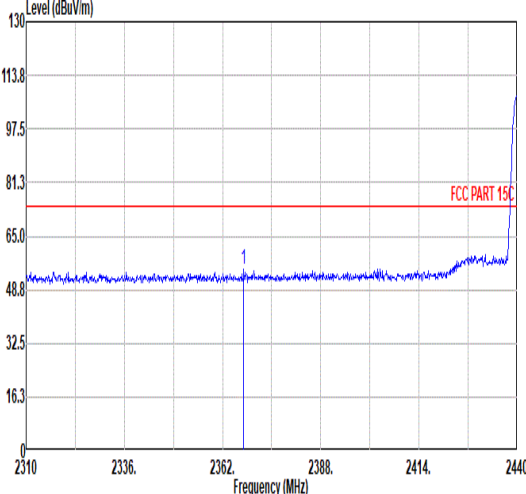
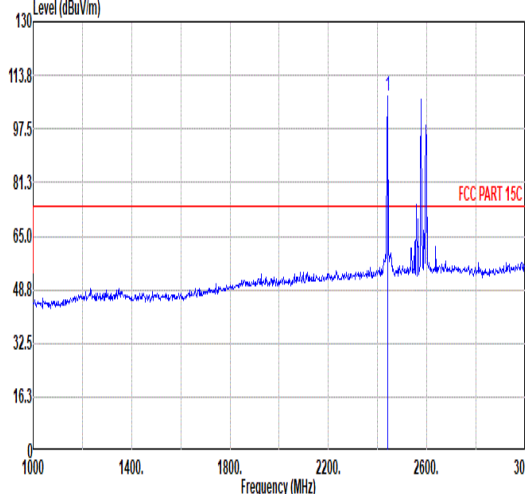
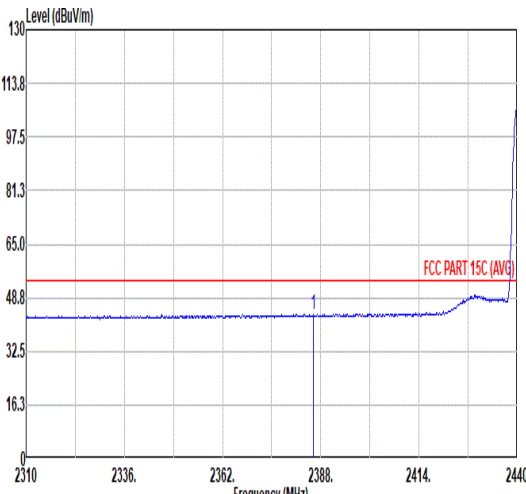
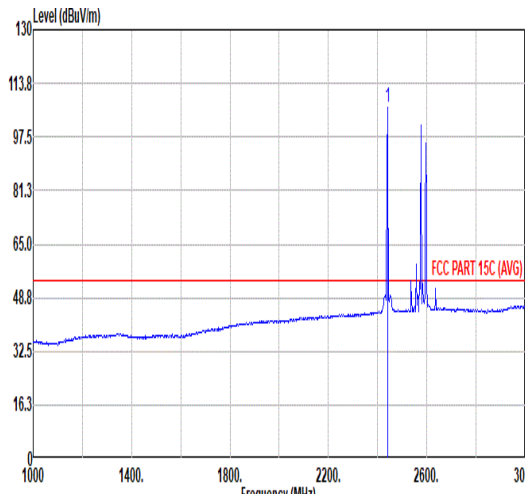


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Pol.	Horizontal						Fundamental																																																																																													
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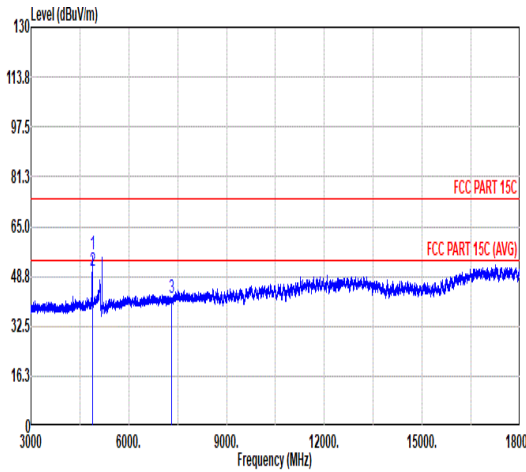
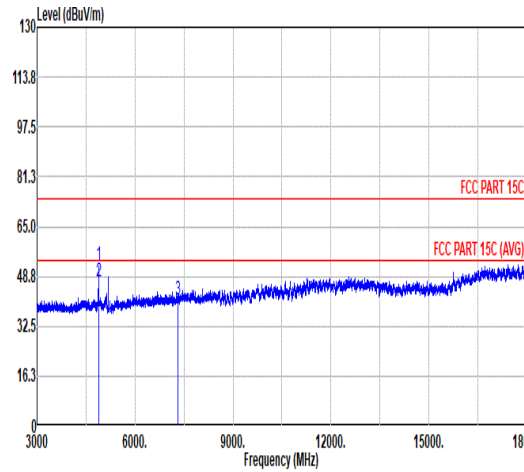


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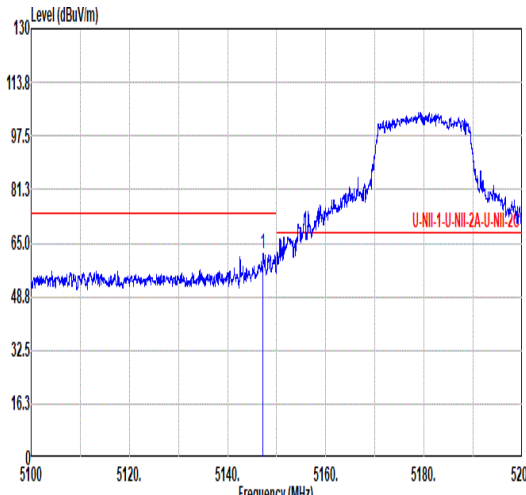
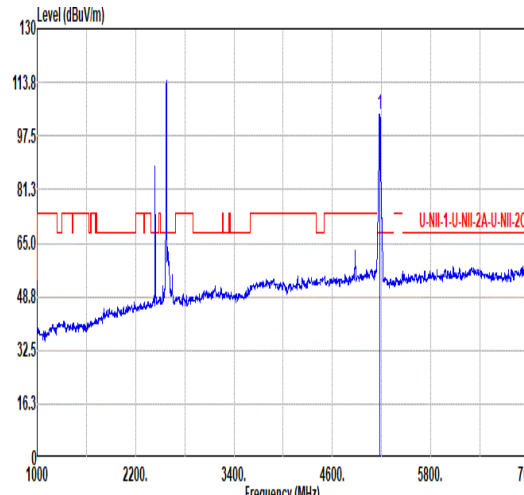
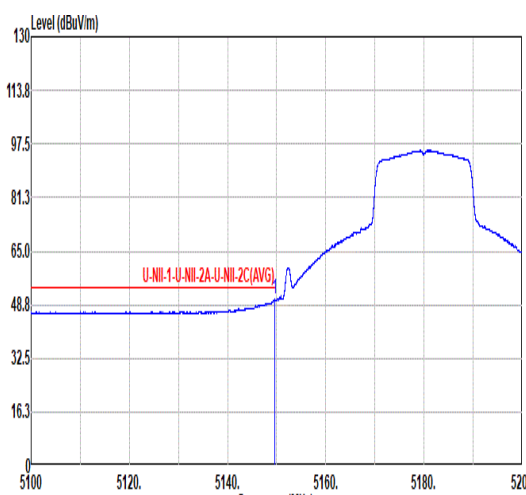
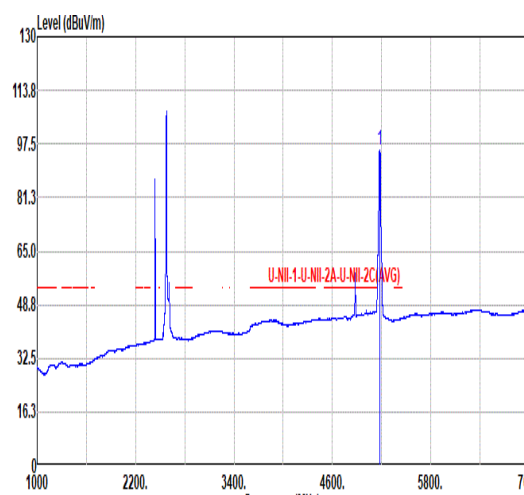


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Pol.	Vertical										
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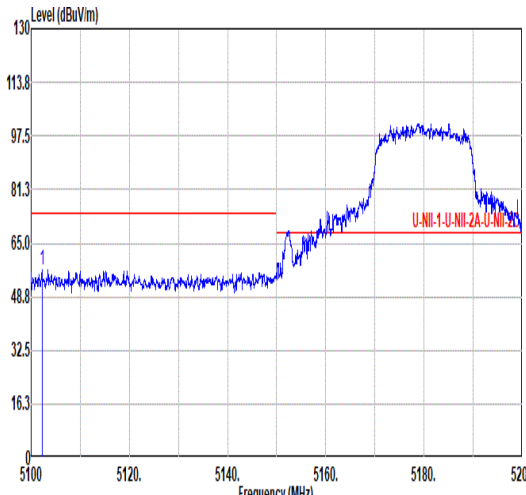
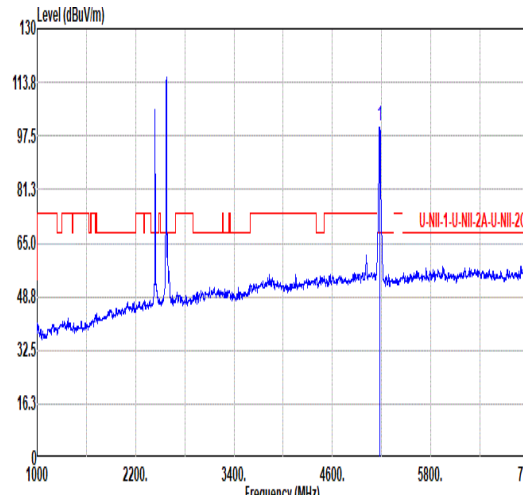
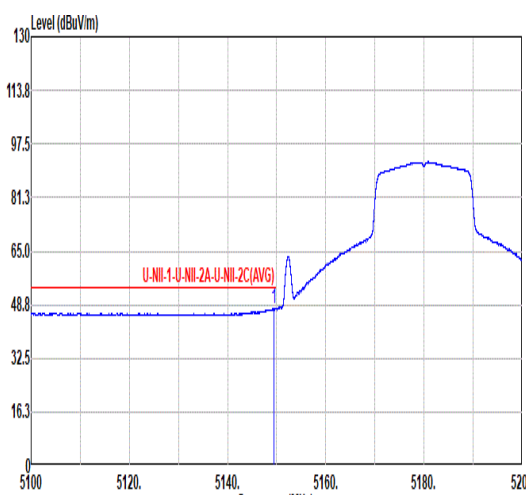
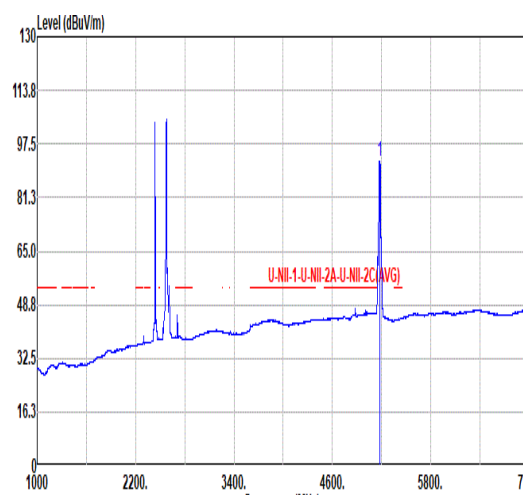


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Pol.	Horizontal						Fundamental																																																																																												
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1	5102.25	57.06	74.00	-16.94	40.62	34.29	12.00	29.85	0.00	338	50	PEAK																																											
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	<table><tr><th></th><th>Limit</th><th>Read</th><th>Ant</th><th>Cable</th><th>Preamp</th><th>Aux</th><th>APos</th><th>TPos</th><th></th></tr><tr><th>Freq</th><th>Level</th><th>Line</th><th>Margin</th><th>Level</th><th>Factor</th><th>Loss</th><th>Factor</th><th>Factor</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB/m</th><th>dB</th><th>dB</th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5180.00</td><td>100.33</td><td>-----</td><td>-----</td><td>83.93</td><td>34.22</td><td>12.06</td><td>29.88</td><td>0.00</td><td>338</td><td>50</td><td>PEAK</td></tr></table>													Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos		Freq	Level	Line	Margin	Level	Factor	Loss	Factor	Factor	Remark		MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	1	5180.00	100.33	-----	-----	83.93	34.22	12.06	29.88	0.00	338	50
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Mode	1																																																					
	Harmonic																																																					
	U-NII-1_5.15-5.25_802.11ax HE20_CH36_Full RU_5180MHz																																																					
ANT	4																																																					
Pol.	Horizontal																																																					
Peak Avg																																																						
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		Limit	Read	Ant	Cable	Preamp	Aux	APos	TPos																																													
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1	10360.00	44.55	68.20	-23.65	56.08	37.47	17.54	66.54	0.00	--	PEAK																																											

Note: For all plots above, the over limit line signals are Fundamental signal which can be ignored

**For 5G NR n5 NSA:**

Test Engineer :	HuaCong Liang	Relative Humidity :	48~52%
		Temperature :	22-25℃

EN-DC_7A_n5A / LTE 10MHz + NR 20MHz / QPSK (ANT2+0)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n5 Middle	1654.5	-65.70	-13	-52.70	-77.23	-68.95	4.00	9.40	H
	2481.75	-59.92	-13	-46.92	-78.65	-63.49	4.88	10.60	H
	3309	-59.16	-13	-46.16	-79.95	-64.09	5.52	12.60	H
	1654.5	-64.93	-13	-51.93	-77.10	-68.18	4.00	9.40	V
	2481.75	-59.78	-13	-46.78	-78.83	-63.35	4.88	10.60	V
	3309	-58.45	-13	-45.45	-79.94	-63.38	5.52	12.60	V
LTE Band7 Middle	5061.18	-58.04	-25	-33.04	-81.16	-63.60	7.14	12.70	H
	7591.77	-55.00	-25	-30.00	-81.25	-58.30	8.30	11.60	H
	10122.36	-52.53	-25	-27.53	-82.91	-54.05	10.48	12.00	H
	5061.18	-57.38	-25	-32.38	-81.71	-62.94	7.14	12.70	V
	7591.77	-55.73	-25	-30.73	-81.98	-59.03	8.30	11.60	V
	10122.36	-51.58	-25	-26.58	-83.01	-53.10	10.48	12.00	V

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



Appendix C. Reference Report



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2503-1, XT2505-3
FCC ID : IHDT56AU7
STANDARD : 47 CFR Part 22(H), 24(E), 27(L), 27(M) , 27(O)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S) : Dec. 27, 2024

We, Sporton International Inc. (ShenZhen), 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. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4D1311F	Rev. 01	Initial issue of report	Jan. 24, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1053 §22.917(a) §24.238(a) §27.53(h) §27.53(l)(2) §90.543 (e)(3) §90.543 (f)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 66)(5G NR n66) (5G NR n78)	$< 43 + 10\log_{10}(P[\text{Watts}])$	PASS	Under limit 25.04 dB at 7578.27 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (5G NR n7)	$< 55 + 10\log_{10}(P[\text{Watts}])$		

Remark : The conducted test items of inter band CA were cover by LTE/5G NR single carrier due to the CA power is reduced according to 3GPP MPR.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



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 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2503-1, XT2505-3
FCC ID	IHDT56AU7
IMEI Code	Radiation: 354424860020035/354424860020043
HW Version	DVT2
SW Version	V2VC35.13
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification															
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n78: 3700 MHz ~ 3800 MHz(270)														
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 66 : 2110 MHz~ 2200 MHz 5G NR n7 : 2620 MHz ~ 2690 MHz 5G NR n66 : 2110 MHz~ 2200 MHz 5G NR n78: 3700 MHz ~ 3800 MHz(270)														
Uplink CA Bands	<table><tr><td>4A-5A</td><td>4A-7A</td><td>5A-7A</td><td>5A-66A</td><td>n66A-n78A</td></tr><tr><td>2A-4A</td><td>2A-5A</td><td>2A-7A</td><td>2A-66A</td><td>n7A-n78A</td></tr></table>					4A-5A	4A-7A	5A-7A	5A-66A	n66A-n78A	2A-4A	2A-5A	2A-7A	2A-66A	n7A-n78A
4A-5A	4A-7A	5A-7A	5A-66A	n66A-n78A											
2A-4A	2A-5A	2A-7A	2A-66A	n7A-n78A											
Type of Modulation	LTE:QPSK / 16QAM / 64QAM / 256QAM 5GNR: CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM														



1.5 Modification of EUT

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

1.6 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH01-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24



1.8 Applicable Standards

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

- 47 CFR Part 22(H), 24(E), 27(L), 27(M) , 27(O)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

1.9 Specification of Accessory

Accessories Information				
AC Adapter 1(US)	Brand Name	Motorola(Chenyang)	Model Name	MC-681N
AC Adapter 1(EU)	Brand Name	Motorola(Chenyang)	Model Name	MC-682N
AC Adapter 1(UK)	Brand Name	Motorola(Chenyang)	Model Name	MC-683N
AC Adapter 1(AU)	Brand Name	Motorola(Chenyang)	Model Name	MC-685N
AC Adapter 1(AR)	Brand Name	Motorola(Chenyang)	Model Name	MC-686N
AC Adapter 1(BR)	Brand Name	Motorola(Chenyang)	Model Name	MC-687N
AC Adapter 1(Chile)	Brand Name	Motorola(Chenyang)	Model Name	MC-689N
AC Adapter 2(US)	Brand Name	Motorola(Acbel)	Model Name	MC-681N
AC Adapter 2(EU)	Brand Name	Motorola(Acbel)	Model Name	MC-682N
AC Adapter 2(UK)	Brand Name	Motorola(Acbel)	Model Name	MC-683N
AC Adapter 2(AU)	Brand Name	Motorola(Acbel)	Model Name	MC-685N
AC Adapter 2(AR)	Brand Name	Motorola(Acbel)	Model Name	MC-686N
AC Adapter 2(BR)	Brand Name	Motorola(Acbel)	Model Name	MC-687N
AC Adapter 2(Chile)	Brand Name	Motorola(Acbel)	Model Name	MC-689N
Battery 1	Brand Name	Motorola(ATL)	Model Name	RM52
Battery 2	Brand Name	Motorola(Cosmx)	Model Name	RM52
USB Cable 1	Brand Name	Motorola(saibao)	Model Name	SC18D71644
USB Cable 2	Brand Name	Motorola(Luxshare)	Model Name	SC18E08104
USB Cable 3	Brand Name	Motorola(saibao)	Model Name	SC18D86731
USB Cable 4	Brand Name	Motorola(Luxshare)	Model Name	SC18E08103
Wireless Earphones	Brand Name	Motorola	Model Name	XT2443-1



2 Test Configuration of Equipment Under Test

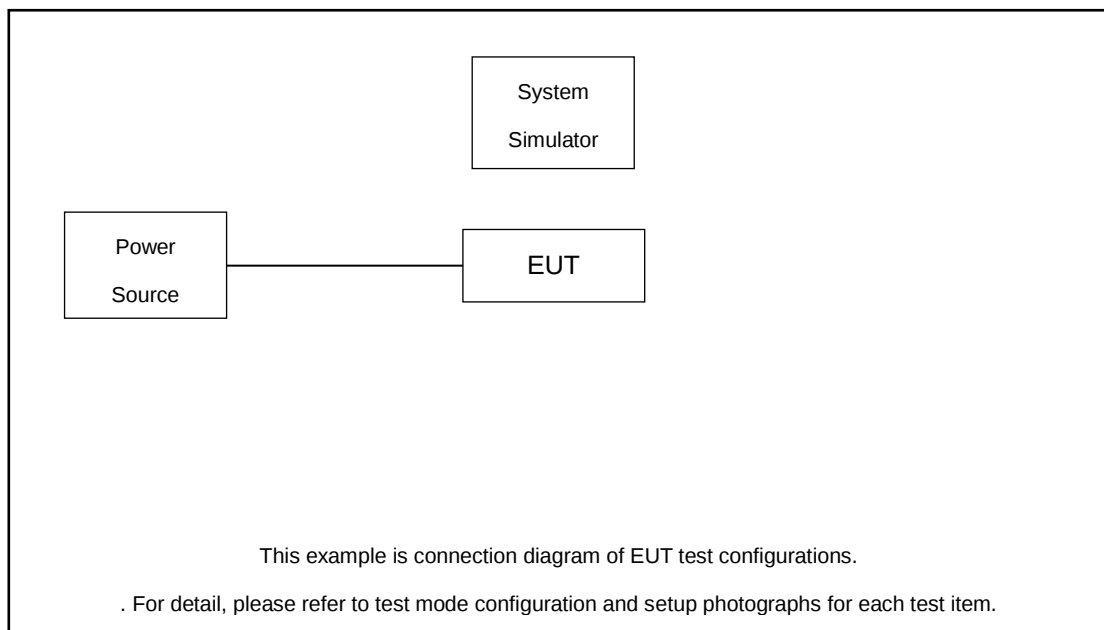
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission. (Y-Plane)

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	2A-4A	Worst Case														v	
	2A-5A	Worst Case														v	
	2A-7A	Worst Case														v	
	2A-12A	Worst Case														v	
	2A-66A	Worst Case														v	
	4A-5A	Worst Case														v	
	4A-7A	Worst Case														v	
	5A-7A	Worst Case														v	
	5A-66A	Worst Case														v	
	n66A-n78A	Worst Case														v	
	n7A-n78A	Worst Case														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. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.																

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.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5



1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3



LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

5G NR n7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
50	Channel	505000	507000	509000
	Frequency	2525	2535	2545
40	Channel	504000	507000	510000
	Frequency	2520	2535	2550
35	Channel	503500	507000	501500
	Frequency	2517.5	2535	2552.5
30	Channel	503000	507000	511000



	Frequency	2515	2535	2555
25	Channel	502500	507000	511500
	Frequency	2512.5	2535	2557.5
20	Channel	502000	507000	512000
	Frequency	2510	2535	2560
15	Channel	501500	507000	512500
	Frequency	2507.5	2535	2562.5
10	Channel	501000	507000	513000
	Frequency	2505	2535	2565
5	Channel	500500	507000	513500
	Frequency	2502.5	2535	2567.5

5G NR n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
45	Channel	346500	349000	351500
	Frequency	1732.5	1745	1757.5
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
35	Channel	345500	349000	352500
	Frequency	1727.5	1745	1762.5
30	Channel	345000	349000	353000
	Frequency	1725	1745	1765
25	Channel	344500	349000	353500
	Frequency	1722.5	1745	1767.5
20	Channel	344000	349000	354000
	Frequency	1720	1745	1770
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5
10	Channel	343000	349000	355000
	Frequency	1715	1745	1775
5	Channel	342500	349000	355500
	Frequency	1712.5	1745	1777.5



5G n78(30kHz) Channel and Frequency List for 270				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000		
	Frequency	3750		
90	Channel	649668	650000	650332
	Frequency	3745.02	3750	3754.98
80	Channel	649334	650000	650666
	Frequency	3740.01	3750	3759.99
70	Channel	649000	650000	651000
	Frequency	3735	3750	3765
60	Channel	648668	650000	651332
	Frequency	3730.02	3750	3769.98
50	Channel	648334	650000	651666
	Frequency	3725.01	3750	3774.99
40	Channel	648000	650000	652000
	Frequency	3720	3750	3780
30	Channel	647668	650000	652332
	Frequency	3715.02	3750	3784.98
25	Channel	647500	650000	652500
	Frequency	3712.5	3750	3787.5
20	Channel	647334	650000	652666
	Frequency	3710.01	3750	3789.99
15	Channel	647168	650000	652832
	Frequency	3707.52	3750	3792.48
10	Channel	647000	650000	653000
	Frequency	3705	3750	3795

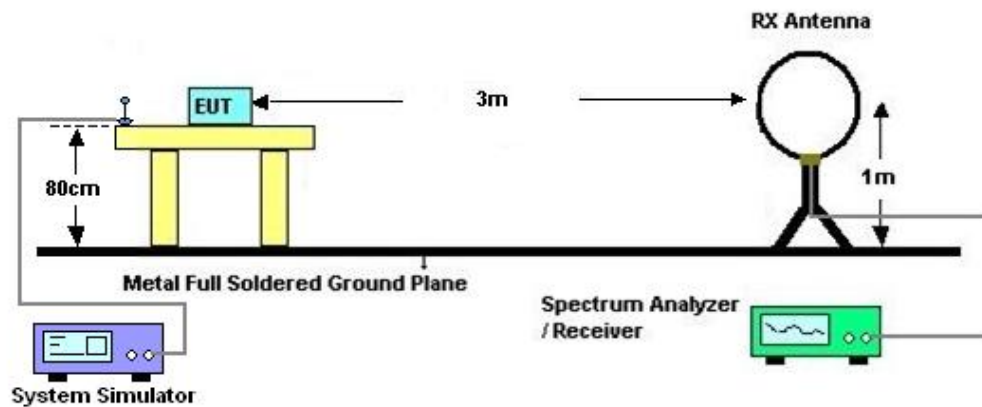
3 Radiated Test Items

3.1 Measuring Instruments

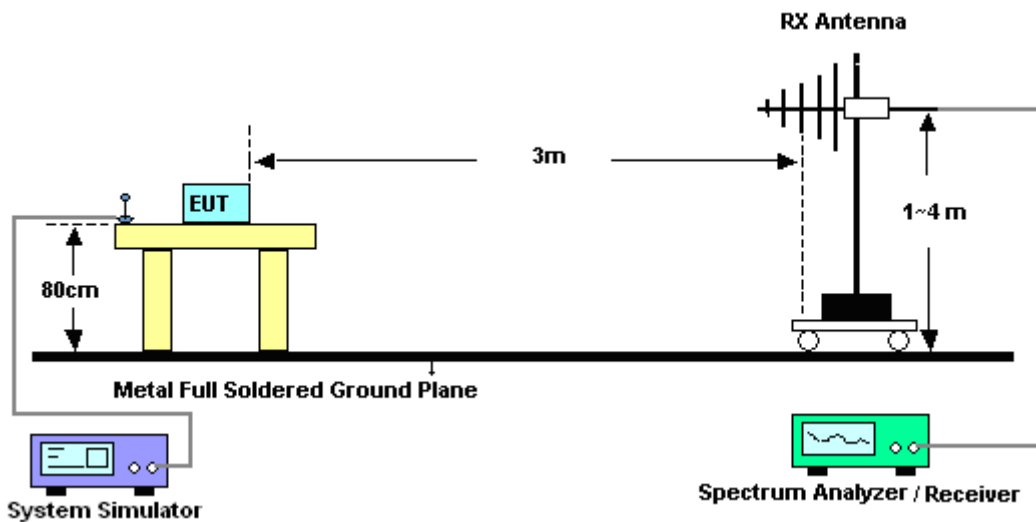
See list of measuring instruments of this test report.

3.2 Test Setup

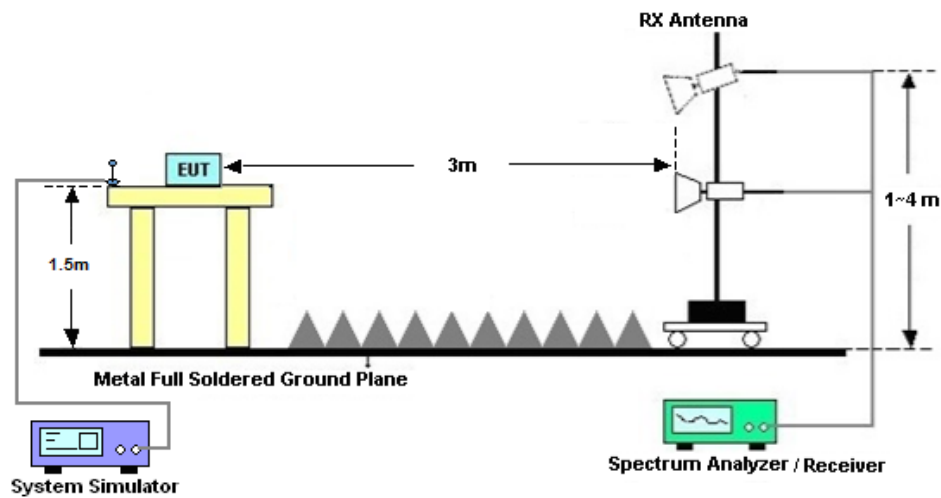
3.2.1 For radiated test below 30MHz



3.2.2 For radiated test from 30MHz to 1GHz



3.2.3 For radiated test above 1GHz



3.3 Test Result of Radiated Test

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 A.

3.4 Radiated Spurious Emission

3.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26.

For LTE Band 2, 4, 5, 66

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 $43 + 10 \log (P)$ dB.

For Band 7

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 $55 + 10 \log (P)$ dB.

For 5G NR n7:

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 $55 + 10 \log (P)$ dB.

For 5G NR n78:

The power of any emission outside of the authorized operating frequency ranges shall not exceed -13 dBm/MHz.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
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.

For Band 2, 4, 5, 66:

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P (Watts)
 $= P(W) - [43 + 10\log(P)]\ (dB)$
 $= [30 + 10\log(P)]\ (dBm) - [43 + 10\log(P)]\ (dB)$
 $= -13dBm.$

For Band 7:

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P (Watts)
 $= P(W) - [55 + 10\log(P)]\ (dB)$
 $= [30 + 10\log(P)]\ (dBm) - [55 + 10\log(P)]\ (dB)$
 $= -25dBm.$



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Dec. 27, 2024	Dec. 28, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Dec. 27, 2024	Dec. 28, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14,2024	Dec. 27, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Dec. 27, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Dec. 27, 2024	Jul. 03, 2025	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09 ,2024	Dec. 27, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Dec. 27, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 14,2024	Dec. 27, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Dec. 27, 2024	Jul. 02, 2025	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	Oct. 14,2024	Dec. 27, 2024	Oct. 13, 2025	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 27, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 27, 2024	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

5 Measurement Uncertainty

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.

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.48 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.53 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.02 dB
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Appendix A. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	HuaCong Liang	Temperature :	22~25°C
		Relative Humidity :	48~52%

Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test and record in the report.

ULCA_2A-4A (ANT2+1)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B2 BW 20MHz Middle 1RB0,QPSK	3742.18	-57.64	-13	-44.64	-80.48	-64.39	5.85	12.60	H
	5613.27	-57.60	-13	-44.60	-81.73	-63.40	7.30	13.10	H
	7484.36	-55.74	-13	-42.74	-82.40	-58.89	8.35	11.50	H
	3742.18	-55.36	-13	-42.36	-80.21	-62.11	5.85	12.60	V
	5613.27	-56.81	-13	-43.81	-81.79	-62.61	7.30	13.10	V
	7484.36	-55.80	-13	-42.80	-82.44	-58.95	8.35	11.50	V
LTE B4 BW 20MHz Middle 1RB0,QPSK	3447.18	-60.12	-13	-47.12	-81.18	-66.97	5.65	12.50	H
	5170.77	-58.22	-13	-45.22	-82.05	-63.89	7.13	12.80	H
	6894.36	-56.36	-13	-43.36	-81.92	-59.76	8.40	11.80	H
	3447.18	-59.09	-13	-46.09	-81.09	-65.94	5.65	12.50	V
	5170.77	-57.66	-13	-44.66	-81.99	-63.33	7.13	12.80	V
	6894.36	-55.14	-13	-42.14	-81.98	-58.54	8.40	11.80	V

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

ULCA_2A-5A (ANT2+1)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B2 BW 20MHz Middle 1RB0,QPSK	3742.18	-57.98	-13	-44.98	-80.82	-64.73	5.85	12.60	H
	5613.27	-57.85	-13	-44.85	-81.98	-63.65	7.30	13.10	H
	7484.36	-55.56	-13	-42.56	-82.22	-58.71	8.35	11.50	H
	3742.18	-56.02	-13	-43.02	-80.87	-62.77	5.85	12.60	V
	5613.27	-56.75	-13	-43.75	-81.73	-62.55	7.30	13.10	V
	7484.36	-55.60	-13	-42.60	-82.24	-58.75	8.35	11.50	V
LTE B5 BW 10MHz Middle 1RB0,QPSK	1664.18	-66.23	-13	-53.23	-77.84	-69.48	4.00	9.40	H
	2496.27	-60.60	-13	-47.60	-79.47	-64.17	4.88	10.60	H
	3328.36	-59.35	-13	-46.35	-80.23	-64.28	5.52	12.60	H
	1664.18	-65.58	-13	-52.58	-77.86	-68.83	4.00	9.40	V
	2496.27	-60.21	-13	-47.21	-79.34	-63.78	4.88	10.60	V
	3328.36	-59.34	-13	-46.34	-80.72	-64.27	5.52	12.60	V

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

ULCA_2A-7A (ANT2+1)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B2 BW 20MHz Middle 1RB0,QPSK	3742.18	-57.80	-13	-44.80	-80.64	-64.55	5.85	12.60	H
	5613.27	-57.61	-13	-44.61	-81.74	-63.41	7.30	13.10	H
	7484.36	-55.61	-13	-42.61	-82.27	-58.76	8.35	11.50	H
	3742.18	-55.68	-13	-42.68	-80.53	-62.43	5.85	12.60	V
	5613.27	-57.06	-13	-44.06	-82.04	-62.86	7.30	13.10	V
	7484.36	-55.81	-13	-42.81	-82.45	-58.96	8.35	11.50	V
LTE B7 BW 20MHz Middle 1RB0,QPSK	5052.18	-58.35	-25	-33.35	-81.35	-63.91	7.14	12.70	H
	7578.27	-55.99	-25	-30.99	-82.30	-59.29	8.30	11.60	H
	10104.36	-52.77	-25	-27.77	-83.13	-54.29	10.48	12.00	H
	5052.18	-57.40	-25	-32.40	-81.73	-62.96	7.14	12.70	V
	7578.27	-55.94	-25	-30.94	-82.25	-59.24	8.30	11.60	V
	10104.36	-52.07	-25	-27.07	-83.41	-53.59	10.48	12.00	V

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

ULCA_2A-66A (ANT2+1)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B2 BW 20MHz Middle 1RB0,QPSK	3742.18	-57.71	-13	-44.71	-80.55	-64.46	5.85	12.60	H
	5613.27	-57.87	-13	-44.87	-82.00	-63.67	7.30	13.10	H
	7484.36	-55.41	-13	-42.41	-82.07	-58.56	8.35	11.50	H
	3742.18	-55.28	-13	-42.28	-80.13	-62.03	5.85	12.60	V
	5613.27	-56.77	-13	-43.77	-81.75	-62.57	7.30	13.10	V
	7484.36	-55.67	-13	-42.67	-82.31	-58.82	8.35	11.50	V
LTE B66 BW 20MHz Middle 1RB0,QPSK	3472	-59.36	-13	-46.36	-81.21	-66.21	5.65	12.50	H
	5208	-57.82	-13	-44.82	-81.94	-63.49	7.13	12.80	H
	6944	-56.04	-13	-43.04	-81.70	-59.44	8.40	11.80	H
	3472	-58.37	-13	-45.37	-80.02	-65.22	5.65	12.50	V
	5208	-57.32	-13	-44.32	-81.61	-62.99	7.13	12.80	V
	6944	-55.79	-13	-42.79	-82.18	-59.19	8.40	11.80	V

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



ULCA_4A-5A (ANT2+1)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B4 BW 20MHz Middle 1RB0,QPSK	3447.18	-59.11	-13	-46.11	-80.17	-65.96	5.65	12.50	H
	5170.77	-57.76	-13	-44.76	-81.59	-63.43	7.13	12.80	H
	6894.36	-56.08	-13	-43.08	-81.64	-59.48	8.40	11.80	H
	3447.18	-58.80	-13	-45.80	-80.8	-65.65	5.65	12.50	V
	5170.77	-57.86	-13	-44.86	-82.19	-63.53	7.13	12.80	V
	6894.36	-55.08	-13	-42.08	-81.92	-58.48	8.40	11.80	V
LTE B5 BW 10MHz Middle 1RB0,QPSK	1664.18	-66.05	-13	-53.05	-77.66	-69.30	4.00	9.40	H
	2496.27	-60.45	-13	-47.45	-79.32	-64.02	4.88	10.60	H
	3328.36	-59.45	-13	-46.45	-80.33	-64.38	5.52	12.60	H
	1664.18	-65.09	-13	-52.09	-77.37	-68.34	4.00	9.40	V
	2496.27	-60.06	-13	-47.06	-79.19	-63.63	4.88	10.60	V
	3328.36	-59.01	-13	-46.01	-80.39	-63.94	5.52	12.60	V

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

ULCA_4A-7A (ANT2+1)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B4 BW 20MHz Middle 1RB0,QPSK	3447.18	-60.11	-13	-47.11	-81.17	-66.96	5.65	12.50	H
	5170.77	-57.98	-13	-44.98	-81.81	-63.65	7.13	12.80	H
	6894.36	-56.04	-13	-43.04	-81.60	-59.44	8.40	11.80	H
	3447.18	-59.19	-13	-46.19	-81.19	-66.04	5.65	12.50	V
	5170.77	-57.34	-13	-44.34	-81.67	-63.01	7.13	12.80	V
	6894.36	-55.08	-13	-42.08	-81.92	-58.48	8.40	11.80	V
LTE B7 BW 20MHz Middle 1RB0,QPSK	5052.18	-58.64	-25	-33.64	-81.64	-64.20	7.14	12.70	H
	7578.27	-56.08	-25	-31.08	-82.39	-59.38	8.30	11.60	H
	10104.36	-53.22	-25	-28.22	-83.58	-54.74	10.48	12.00	H
	5052.18	-57.44	-25	-32.44	-81.77	-63.00	7.14	12.70	V
	7578.27	-56.13	-25	-31.13	-82.44	-59.43	8.30	11.60	V
	10104.36	-51.85	-25	-26.85	-83.19	-53.37	10.48	12.00	V

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

ULCA_5A-7A (ANT1+2)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B5 BW 10MHz Middle 1RB0,QPSK	1664.18	-65.99	-13	-52.99	-77.60	-69.24	4.00	9.40	H
	2496.27	-59.63	-13	-46.63	-78.50	-63.20	4.88	10.60	H
	3328.36	-59.33	-13	-46.33	-80.21	-64.26	5.52	12.60	H
	1664.18	-65.35	-13	-52.35	-77.63	-68.60	4.00	9.40	V
	2496.27	-60.09	-13	-47.09	-79.22	-63.66	4.88	10.60	V
	3328.36	-59.21	-13	-46.21	-80.59	-64.14	5.52	12.60	V
LTE B7 BW 20MHz Middle 1RB0,QPSK	5052.18	-58.13	-25	-33.13	-81.13	-63.69	7.14	12.70	H
	7578.27	-50.04	-25	-25.04	-76.35	-53.34	8.30	11.60	H
	10104.36	-52.82	-25	-27.82	-83.18	-54.34	10.48	12.00	H
	5052.18	-57.41	-25	-32.41	-81.74	-62.97	7.14	12.70	V
	7578.27	-50.62	-25	-25.62	-76.93	-53.92	8.30	11.60	V
	10104.36	-51.94	-25	-26.94	-83.28	-53.46	10.48	12.00	V

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

ULCA_5A-66A (ANT1+2)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B5 BW 10MHz Middle 1RB0,QPSK	1664.18	-66.24	-13	-53.24	-77.85	-69.49	4.00	9.40	H
	2496.27	-60.69	-13	-47.69	-79.56	-64.26	4.88	10.60	H
	3328.36	-59.67	-13	-46.67	-80.55	-64.60	5.52	12.60	H
	1664.18	-65.02	-13	-52.02	-77.30	-68.27	4.00	9.40	V
	2496.27	-60.10	-13	-47.10	-79.23	-63.67	4.88	10.60	V
	3328.36	-59.20	-13	-46.20	-80.58	-64.13	5.52	12.60	V
LTE B66 BW 20MHz Middle 1RB0,QPSK	3472	-59.55	-13	-46.55	-81.40	-66.40	5.65	12.50	H
	5208	-57.85	-13	-44.85	-81.97	-63.52	7.13	12.80	H
	6944	-56.56	-13	-43.56	-82.22	-59.96	8.40	11.80	H
	3472	-58.75	-13	-45.75	-80.4	-65.60	5.65	12.50	V
	5208	-57.00	-13	-44.00	-81.29	-62.67	7.13	12.80	V
	6944	-55.48	-13	-42.48	-81.87	-58.88	8.40	11.80	V

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



ULCA_n66A_n78A (ANT1+8)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n66 BW 45MHz Middle 1RB0,QPSK	3448	-63.83	-13	-50.83	-64.70	-70.68	5.65	12.50	H
	5172	-62.20	-13	-49.20	-65.96	-67.87	7.13	12.80	H
	6896	-59.43	-13	-46.43	-65.93	-62.83	8.40	11.80	H
	3448	-63.41	-13	-50.41	-65.22	-70.26	5.65	12.50	V
	5172	-62.01	-13	-49.01	-66.27	-67.68	7.13	12.80	V
	6896	-58.06	-13	-45.06	-65.84	-61.46	8.40	11.80	V
NR n78 BW 100MHz Middle 1RB0,QPSK	7401.00	-58.76	-13	-45.76	-66.60	-62.06	8.30	11.60	H
	11101.50	-47.03	-13	-34.03	-61.41	-48.55	10.48	12.00	H
	14802.00	-54.93	-13	-41.93	-70.93	-56.63	11.80	13.50	H
	7401.00	-56.58	-13	-43.58	-64.39	-59.88	8.30	11.60	V
	11101.50	-47.36	-13	-34.36	-63.67	-48.88	10.48	12.00	V
	14802.00	-54.44	-13	-41.44	-70.72	-56.14	11.80	13.50	V

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

ULCA_n7A_n78A (Ant1+8)									
Channel	Frequency (MHz)	ERP/EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n7 BW 50 MHz Middle 1RB0,QPSK	5025.00	-63.35	-25	-38.35	-66.14	-68.91	7.14	12.70	H
	7537.50	-59.36	-25	-34.36	-66.73	-62.66	8.30	11.60	H
	10050.00	-57.79	-25	-32.79	-68.66	-59.31	10.48	12.00	H
	5025.00	-61.76	-25	-36.76	-66	-67.32	7.14	12.70	V
	7537.50	-58.59	-25	-33.59	-65.95	-61.89	8.30	11.60	V
	10050.00	-57.23	-25	-32.23	-68.86	-58.75	10.48	12.00	V
NR n78 BW 100MHz Middle 1RB0,QPSK	7401.00	-58.92	-13	-45.92	-66.76	-62.22	8.30	11.60	H
	11101.50	-49.74	-13	-36.74	-64.12	-51.26	10.48	12.00	H
	14802.00	-54.59	-13	-41.59	-70.59	-56.29	11.80	13.50	H
	7401.00	-58.72	-13	-45.72	-66.53	-62.02	8.30	11.60	V
	11101.50	-49.06	-13	-36.06	-65.37	-50.58	10.48	12.00	V
	14802.00	-53.97	-13	-40.97	-70.25	-55.67	11.80	13.50	V

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