

FCC RF TEST REPORT

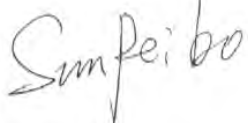
Applicant:	BARTEC GmbH
Address:	Max-Eyth-Str.16 , 97980 Bad Mergentheim, Germany

Manufacturer or Supplier:	BARTEC GmbH
Address:	Max-Eyth-Str.16 , 97980 Bad Mergentheim, Germany
Product:	Smartscanner / Smartphone
Brand Name:	BARTEC
Model Name:	SP9EX1/SC9EX1/SP9EX2/SC9EX2
FCC ID:	TBUSX9EX
Date of tests:	Jan. 02, 2024~ Jul. 26, 2024

The tests have been carried out according to the requirements of the following standard:

☒ **FCC PART 22, Subpart H** ☒ **FCC PART 24, Subpart E** ☒ **FCC Part 27, Subpart C, M** ☒
ANSI/TIA/EIA-603-D
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
 Date: Jul. 26, 2024	 Date: Jul. 26, 2024

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



Test Report No.: PSU-QSU2312140113RF07

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QSU2312140113RF07	Original release	Jul. 26, 2024

1 SUMMARY OF TEST RESULTS

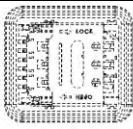
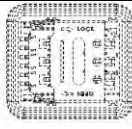
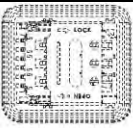
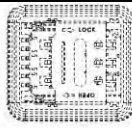
The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 22/24/27 & PART 2			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	TEST LAB*
§2.1046	Conducted Output Power	Compliance	A
§24.232(c) §27.50(h)(2) §27.50(d)(4) §27.50(j)(3) §27.50(k)(3)	Equivalent Isotropically Radiated Power (5G NR n2, n7,n25 ,n38,n41,n66,n77,n78)	Compliance	A
§22.913 (a) §27.50(c)(10)	Equivalent Radiated Power (5G NR n5, n71)	Compliance	A
§2.1055 §22.355 §24.235 §27.54	Frequency Stability	Compliance	B
§2.1049	Occupied Bandwidth	Compliance	B
§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h) §27.53(l)(2) §27.53(m)(4)(6) §27.53(n)(2)	Band Edge Measurements	Compliance	B

§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h) §27.53(l)(2) §27.53(m)(4)(6) §27.53(n)(2)	Conducted Spurious Emissions	Compliance	B
§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h) §27.53(l)(2) §27.53(m)(4)(6) §27.53(n)(2)	Radiated Spurious Emissions	Compliance	A
§27.50(j)(4) §22.913(d) n5 §24.232(d) n2 §27.50(d)(5) §27.50(k)(4)	Peak-to-Average Ratio	Compliance	B

NOTE:

1. In this report, the test EUT version is EVT, after the test is completed, the customer optimizes the product to DVT, and the final customer's shipment is PVT. For differences between EVT and DVT and PVT, please refer to the documentation provided by the customer (SC9EX1_SP9EX1 PCBA HW Release Note rev 2_0).
2. There are no differences on the PCBA between the Model SC9EX1 (FCC ID: TBUSX9EX) and the variants SP9EX1 (FCC ID: TBUSX9EX). All mounted components are the same. No functionality related to any radio interface is affected. The only difference is the presence of the barcode scanner module and the "bump" on the back cover that incorporates the barcode scanner module. Testing has been run on parent product SC9EX1 and the worst cases of power and RSE have been verified also on SP9EX1 variant. Only the worst-case data (SC9EX1) have been reported.
3. The devices BARTEC SP9EX1 Smartphone and BARTEC SP9EX2 Smartphone share the same hardware and software. The same applies for the devices BARTEC SC9EX1 Smartscanner and BARTEC SC9EX2 Smartscanner. The only difference are the hazardous area marking of the devices, see table for clarification.

BARTEC SP9EX1 Smartphone	BARTEC SP9EX2 Smartphone
BARTEC SP9EX1 Type: 17-S19P-****/***** Mfr: BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim, DE www.bartec.com   UL 24 ATEX 3153X II 1G Ex ia IIC T4 Ga II 2D Ex ia IIC T135°C Db IP64 IECEx UL 24.0004X Class I, Div 1, Groups A, B, C and D; Class II, Div 1, Groups E, F and G; Class III, T4 Zone 0, AEx ia IIC T4 Ga Zone 21, AEx ia IIC T135°C Db Zone 0, Ex ia IIC T4 Ga Zone 21, Ex ia IIC T135°C Db -20° < Ta < +55°C QR-code S/N: TTTTYYSSSSS MFD: MONTHYY reserved for logos of country approvals USB port: USB-PD compatible – 5-20 Vdc / max 3 A DC-In port: 12 Vdc / max 1.5 A USB Um = 20 V / DCin Um = 12 V WARNING/ATTENTION: Use only replaceable battery pack BARTEC GmbH type: 17-S120-0020/**** Utiliser uniquement la batterie BARTEC GmbH type: 17-S120-0020/**** INTRINSICALLY SAFE/SECURITÉ INTRINSÈQUE Warning - Substitution of components may impair intrinsic safety. Avertissement - La substitution des composants peut nuire à la sécurité intrinsèque.	BARTEC SP9EX2 Type: B7-S29P-****/***** Mfr: BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim, DE www.bartec.com   UL 24 ATEX xxxxx II 3G Ex ic IIC T4 Gc II 3D Ex ic IIC T135°C Dc IP64 IECEx UL 24.0000X Class I, Div 2, Groups A, B, C and D; Class II, Div 2, Groups E, F and G; Class III, T4 Zone 2, AEx ic IIC T4 Gc Zone 22, AEx ic IIC T135°C Dc Zone 2, Ex ic IIC T4 Gc Zone 22, Ex ic IIC T135°C Dc -20° < Ta < +55°C QR-code S/N: TTTTYYSSSSS MFD: MONTHYY reserved for logos of country approvals USB port: USB-PD compatible – 5-20 Vdc / max 3 A DC-In port: 12 Vdc / max 1.5 A USB Um = 20 V / DCin Um = 12 V WARNING/ATTENTION: Use only replaceable battery pack BARTEC GmbH type: B7-A220-0098/**** Utiliser uniquement la batterie BARTEC GmbH type: B7-A220-0098/**** INTRINSICALLY SAFE/SECURITÉ INTRINSÈQUE Warning - Substitution of components may impair intrinsic safety. Avertissement - La substitution des composants peut nuire à la sécurité intrinsèque.
BARTEC SC9EX1 Smartscanner	BARTEC SC9EX2 Smartscanner
BARTEC SC9EX1 Type: 17-S19C-****/***** Mfr: BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim, DE www.bartec.com   UL 24 ATEX 3153X II 1G Ex ia op is IIC T4 Ga II 2D Ex ia op is IIC T135°C Db IP64 IECEx UL 24.0004X Class I, Div 1, Groups A, B, C and D; Class II, Div 1, Groups E, F and G; Class III, T4 Zone 0, AEx ia op is IIC T4 Ga Zone 21, AEx ia op is IIC T135°C Db Zone 0, Ex ia op is IIC T4 Ga Zone 21, Ex ia op is IIC T135°C Db -20° < Ta < +55°C QR-code S/N: TTTTYYSSSSS MFD: MONTHYY reserved for logos of country approvals USB port: USB-PD compatible – 5-20 Vdc / max 3 A DC-In port: 12 Vdc / max 1.5 A USB Um = 20 V / DCin Um = 12 V WARNING/ATTENTION: Use only replaceable battery pack BARTEC GmbH type: 17-S120-0020/**** Utiliser uniquement la batterie BARTEC GmbH type: 17-S120-0020/**** INTRINSICALLY SAFE/SECURITÉ INTRINSÈQUE Warning - Substitution of components may impair intrinsic safety. Avertissement - La substitution des composants peut nuire à la sécurité intrinsèque.	BARTEC SC9EX2 Type: B7-S29C-****/***** Mfr: BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim, DE www.bartec.com   UL 24 ATEX xxxxx II 3G Ex ic op is IIC T4 Gc II 3D Ex ic op is IIC T135°C Dc IP64 IECEx UL 24.0000X Class I, Div 2, Groups A, B, C and D; Class II, Div 2, Groups E, F and G; Class III, T4 Zone 2, AEx ic op is IIC T4 Gc Zone 22, AEx ic op is IIC T135°C Dc Zone 2, Ex ic op is IIC T4 Gc Zone 22, Ex ic op is IIC T135°C Dc -20° < Ta < +55°C QR-code S/N: TTTTYYSSSSS MFD: MONTHYY reserved for logos of country approvals USB port: USB-PD compatible – 5-20 Vdc / max 3 A DC-In port: 12 Vdc / max 1.5 A USB Um = 20 V / DCin Um = 12 V WARNING/ATTENTION: Use only replaceable battery pack BARTEC GmbH type: B7-A220-0098/**** Utiliser uniquement la batterie BARTEC GmbH type: B7-A220-0098/**** INTRINSICALLY SAFE/SECURITÉ INTRINSÈQUE Warning - Substitution of components may impair intrinsic safety. Avertissement - La substitution des composants peut nuire à la sécurité intrinsèque.



Test Report No.: PSU-QSU2312140113RF07

***Test Lab Information Reference**

Lab A:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

Lab B:

BV 7Layers Communications Technology (Shenzhen) Co., Ltd

Lab Address:

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

Accredited Test Lab Cert 3939.01

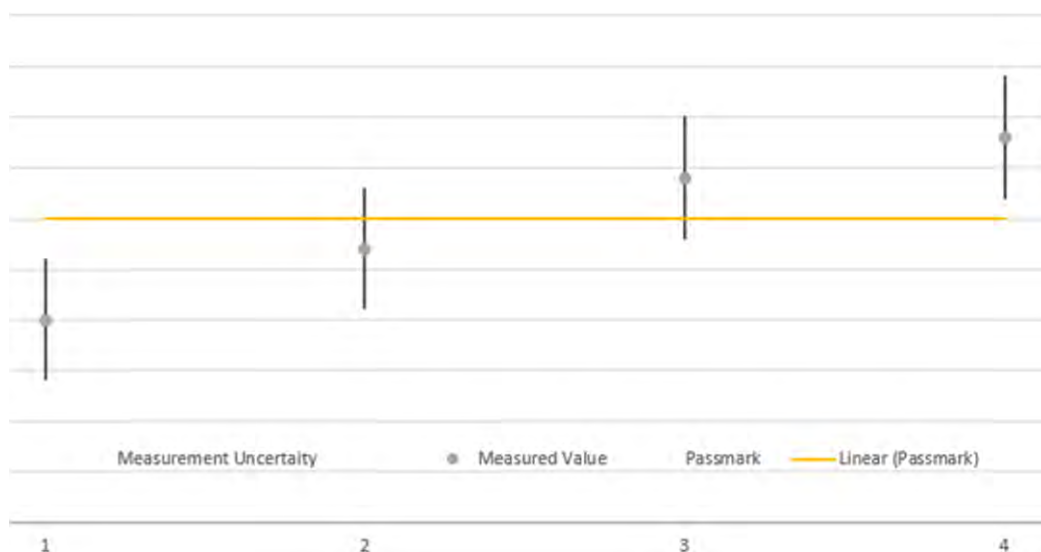
FCC Site Registration No. : 525120; Designation No. : CN1171;

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	UNCERTAINTY
Frequency Stability	$\pm 76.97\text{Hz}$
Radiated emissions (9KHz~30MHz)	$\pm 2.68\text{dB}$
Radiated emissions & Radiated Power (30MHz~1GHz)	$\pm 4.98\text{dB}$
Radiated emissions & Radiated Power (1GHz ~6GHz)	$\pm 4.70\text{dB}$
Radiated emissions (6GHz ~18GHz)	$\pm 4.60\text{dB}$
Radiated emissions (18GHz ~40GHz)	$\pm 4.12\text{dB}$
Conducted emissions	$\pm 4.01\text{dB}$
Occupied Channel Bandwidth	$\pm 43.58\text{KHz}$
Conducted Output power	$\pm 2.06\text{dB}$
Band Edge Measurements	$\pm 4.70\text{dB}$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.

1.2 TEST SITE AND INSTRUMENTS

Lab A:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.30,22	Aug.29,24
Pre-Amplifier	R&S	SCU08F1	101028	Sep.16,22	Sep.15,24
Vector Signal Generator	R&S	SMBV100B	102176	Feb.16,22	Feb.15,24
Vector Signal Generator	R&S	SMBV100B	102176	Feb.15,24	Feb.14,26
Signal Generator	R&S	SMB100A	182185	Feb.16,22	Feb.15,24
Signal Generator	R&S	SMB100A	182185	Feb.15,24	Feb.14,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-E MC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-E MC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.25,22	Feb.24,24
EMI TEST Receiver	R&S	ESR26	101734	Feb.24,24	Feb.23,26
EMI TEST Receiver	R&S	ESW44	101973	Feb.25,22	Feb.24,24
EMI TEST Receiver	R&S	ESW44	101973	Feb.24,24	Feb.23,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.28,22	Feb.27,24
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.27,24	Feb.26,26
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.22,22	Aug.21,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.23,22	Feb.22,24
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.22,24	Feb.21,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.22,22	Aug.21,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.23,22	Feb.22,24
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.27,22	Jun.26,24
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.26,24	Jun.25,26
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Oct.01,22	Sep.30,24
DC Source	HYELEC	HY3010B	551016	Aug.31,22	Aug.30,24
Hygrothermograph	DELI	20210528	SZ014	Sep.06,22	Sep.05,24
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A

TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.0 OM	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.28,23	Apr.27,24
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.28,23	Apr.27,24
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
Temperature Chamber	votsch	VT4002	58566078100050	May.31,22	May.30,24
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26

- NOTE:** 1. The calibration interval of the above test instruments is 12/ 24 / 36 months and the calibrations are traceable to CEPREI/CHINA, GREGT/CHINA and NIM/CHINA.
2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 434559; The Designation No. is CN1325.

Lab B:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 28,23	Mar. 27,24
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 27,24	Mar. 26,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.10,23	May.09,24
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.09,24	May.08,25
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.02,23	Sep.01,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 18,23	Feb. 17,24
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 17,24	Feb. 16,25
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 18,23	Feb. 17,24
Horn Antenna	ETS-LINDGREN	3117	00168692	Feb. 17,24	Feb. 16,25
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Sep.03, 23	Sep.02, 24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 14,23	Feb. 13,24
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 13,24	Feb. 12,25
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 06,23	May. 05,24
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May. 05,24	May. 04,25
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.10,23	May.09,24
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.09,24	May.08,25



**BUREAU
VERITAS**

Test Report No.: PSU-QSU2312140113RF07

Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 17,23	Feb.16,24
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb.16,24	Feb.15,25
3m Semi-anechoic Chamber	ETS-LINDGRE N	9m*6m*6m	Euroshieldpn-CT0001143-1216	Nov. 14,23	Nov. 13,26
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120	3.1.36	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 06,23	May. 05,24
10dB Attenuator	JFW/USA	50HF-010-SMA	50HF-010-SMA	May. 05,24	May. 04,25
Power Meter	Anritsu	ML2495A	1506002	Feb. 14,23	Feb. 13,24
Power Meter	Anritsu	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Sensor	Anritsu	MA2411B	1339352	Feb. 14,23	Feb. 13,24
Power Sensor	Anritsu	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Temperature Chamber	ESPEC	SH-242	93000855	May. 06,23	May. 05,24
Temperature Chamber	ESPEC	SH-242	93000855	May. 05,24	May. 04,25
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 14,23	Feb. 13,24
MXG Analog Microwave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 13,24	Feb. 12,25
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.10,23	May.09,24
Base station R&S CMW500	Rohde&Schwarz	CMW500	153085	May.09,24	May.08,25
DC Source	Kikusui/JP	PMX18-5A	N/A	Aug. 11,23	Aug. 10,24

- NOTE:**
1. The calibration interval of the above test instruments is 12/ 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Smartscanner / Smartphone	
BRAND NAME*	BARTEC	
MODEL NAME*	SP9EX1/SC9EX1/SP9EX2/SC9EX2	
NOMINAL VOLTAGE*	5.0V/9.0V/12.0Vdc (adapter) 3.2V/3.8V/4.2V/dc (battery)	
MODULATION TECHNOLOGY	5G NR	DFT-s-OFDM(Pi/2BPSK,QPSK,16QAM,64QAM,256QAM); CP-OFDM(QPSK,16QAM,64QAM,256QAM);
LTE ANCHOR BAND FOR NR BAND	NR Band n2	LTE Band 5/13/66
	NR Band n5	LTE Band 2/12/66
	NR Band n7	None
	NR Band n25	LTE Band 12/48/66
	NR Band n38	None
	NR Band n41/n41(HPUE)	LTE Band 2/66
	NR Band n66	LTE Band 2/5/13/48
	NR Band n71	LTE Band 2/66
	NR Band n77(Part27Q)/(HPUE)	LTE Band 2/5/12/13/66
	NR Band n77(Part27O)/(HPUE)	LTE Band 2/5/12/13/66
	NR Band n78(Part27Q)/(HPUE)	LTE Band 7/38
	NR Band n78(Part27O)/(HPUE)	LTE Band 7/38
FREQUENCY RANGE	NR Band n2	1852.5MHz ~ 1907.5MHz
	NR Band n5	826.5MHz ~ 846.5MHz
	NR Band n7	2502.5MHz ~ 2567.5MHz
	NR Band n25	1852.5MHz ~ 1912.5MHz
	NR Band n38	2575MHz ~ 2615MHz
	NR Band n41	2501.01MHz ~ 2685MHz
	NR Band n66	1712.5MHz ~ 1777.5MHz

FREQUENCY RANGE	NR Band n71	665.5MHz ~ 695.5MHz
	NR Band n77(Part27Q)/ NR Band n77(Part27Q) (HPUE)	3460.02MHz ~ 3540MHz
	NR Band n77(Part27O)/ NR Band n77(Part27O) (HPUE)	3710.01MHz ~ 3969.99MHz
	NR Band n78(Part27Q)/ NR Band n78(Part27Q) (HPUE)	3460.02MHz ~ 3540MHz
	NR Band n78(Part27O)/ NR Band n78(Part27O) (HPUE)	3710.01MHz ~ 3989.99MHz
EMISSION DESIGNATOR	NR Band n5 Channel Bandwidth: 5MHz	QPSK: 4M46G7D 16QAM: 4M46W7D 64QAM: 4M47W7D 256QAM: 4M47W7D Pi/2BPSK: 4M47G7D
	NR Band n5 Channel Bandwidth: 10MHz	QPSK: 8M91G7D 16QAM: 8M92W7D 64QAM: 9M00W7D 256QAM: 8M91 W7D Pi/2BPSK: 8M92G7D
	NR Band n5 Channel Bandwidth: 15MHz	QPSK: 13M4G7D 16QAM: 13M4W7D 64QAM: 13M4W7D 256QAM: 13M4W7D Pi/2BPSK: 13M4G7D
	NR Band n5 Channel Bandwidth: 20MHz	QPSK: 17M8G7D 16QAM: 17M8W7D 64QAM: 17M8W7D 256QAM: 17M8 W7D Pi/2BPSK: 17M8G7D
	NR Band n7 Channel Bandwidth: 5MHz	QPSK: 4M46G7D 16QAM: 4M46W7D 64QAM: 4M46W7D 256QAM: 4M47W7D Pi/2BPSK: 4M47G7D
	NR Band n7 Channel Bandwidth: 10MHz	QPSK: 8M91G7D 16QAM: 8M93W7D 64QAM: 8M91W7D 256QAM: 8M91W7D Pi/2BPSK: 8M92G7D

EMISSION DESIGNATOR	NR Band n7 Channel Bandwidth: 15MHz	QPSK: 13M4G7D 16QAM: 13M4W7D 64QAM: 13M4W7D 256QAM: 13M4W7D Pi/2BPSK: 13M4G7D
	NR Band n7 Channel Bandwidth: 20MHz	QPSK: 17M9G7D 16QAM: 17M9W7D 64QAM: 17M9W7D 256QAM: 17M9W7D Pi/2BPSK: 17M8G7D
	NR Band n25 Channel Bandwidth: 5MHz	QPSK: 4M45G7D 16QAM: 4M46W7D 64QAM: 4M47W7D 256QAM: 4M48W7D Pi/2BPSK: 4M48G7D
	NR Band n25 Channel Bandwidth: 10MHz	QPSK: 8M91G7D 16QAM: 8M92W7D 64QAM: 8M91W7D 256QAM: 8M92W7D Pi/2BPSK: 8M91G7D
	NR Band n25 Channel Bandwidth: 15MHz	QPSK: 13M4G7D 16QAM: 13M4W7D 64QAM: 13M4W7D 256QAM: 13M4W7D Pi/2BPSK: 13M4G7D
	NR Band n25 Channel Bandwidth: 20MHz	QPSK: 17M9G7D 16QAM: 17M9W7D 64QAM: 17M9W7D 256QAM: 17M9W7D Pi/2BPSK: 17M9G7D
	NR Band n41 Channel Bandwidth: 20MHz	QPSK: 17M8G7D 16QAM: 17M9W7D 64QAM: 17M8W7D 256QAM: 17M8W7D Pi/2BPSK: 17M8G7D
	NR Band n41 Channel Bandwidth: 30MHz	QPSK: 26M7G7D 16QAM: 26M8W7D 64QAM: 26M7W7D 256QAM: 26M8W7D Pi/2BPSK: 26M8G7D

EMISSION DESIGNATOR	NR Band n41 Channel Bandwidth: 40MHz	QPSK: 35M7G7D 16QAM: 35M8W7D 64QAM: 35M8W7D 256QAM: 35M8W7D Pi/2BPSK: 35M8G7D
	NR Band n41 Channel Bandwidth: 50MHz	QPSK: 45M7G7D 16QAM: 45M7W7D 64QAM: 45M7W7D 256QAM: 45M7W7D Pi/2BPSK: 45M7G7D
	NR Band n41 Channel Bandwidth: 60MHz	QPSK: 57M9G7D 16QAM: 57M8W7D 64QAM: 57M8W7D 256QAM: 57M8W7D Pi/2BPSK: 57M8G7D
	NR Band n41 Channel Bandwidth: 80MHz	QPSK: 77M1G7D 16QAM: 76M9W7D 64QAM: 77M2W7D 256QAM: 77M1W7D Pi/2BPSK: 77M2G7D
	NR Band n41 Channel Bandwidth: 90MHz	QPSK: 86M7G7D 16QAM: 86M9W7D 64QAM: 86M5W7D 256QAM: 86M6W7D Pi/2BPSK: 86M8G7D
	NR Band n41 Channel Bandwidth: 100MHz	QPSK: 96M4G7D 16QAM: 96M5W7D 64QAM: 96M4W7D 256QAM: 96M3W7D Pi/2BPSK: 96M3G7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M2W7D 64QAM: 18M2W7D 256QAM: 18M2W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 30MHz	QPSK: 27M8G7D 16QAM: 27M8W7D 64QAM: 27M9W7D 256QAM: 27M8W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 40MHz	QPSK: 37M8G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M8W7D

EMISSION DESIGNATOR	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 50MHz	QPSK: 47M4G7D 16QAM: 47M5W7D 64QAM: 47M4W7D 256QAM: 47M4W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M7W7D 256QAM: 57M7W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 70MHz	QPSK: 67M4G7D 16QAM: 67M5W7D 64QAM: 67M4W7D 256QAM: 67M5W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 80MHz	QPSK: 77M3G7D 16QAM: 77M3W7D 64QAM: 77M3W7D 256QAM: 77M3W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 90MHz	QPSK: 87M3G7D 16QAM: 87M4W7D 64QAM: 87M4W7D 256QAM: 87M5W7D
	NR Band n41_UL_MIMO_Ant2 Channel Bandwidth: 100MHz	QPSK: 97M3G7D 16QAM: 97M3W7D 64QAM: 97M3W7D 256QAM: 97M3W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M2W7D 64QAM: 18M2W7D 256QAM: 18M2W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 30MHz	QPSK: 27M9G7D 16QAM: 27M8W7D 64QAM: 27M9W7D 256QAM: 27M8W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 40MHz	QPSK: 37M8G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M8W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 50MHz	QPSK: 47M4G7D 16QAM: 47M5W7D 64QAM: 47M5W7D 256QAM: 47M4W7D

EMISSION DESIGNATOR	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M7W7D 256QAM: 57M6W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 70MHz	QPSK: 67M3G7D 16QAM: 67M4W7D 64QAM: 67M3W7D 256QAM: 67M3W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 80MHz	QPSK: 77M4G7D 16QAM: 77M2W7D 64QAM: 77M2W7D 256QAM: 77M2W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 90MHz	QPSK: 87M2G7D 16QAM: 87M3W7D 64QAM: 87M2W7D 256QAM: 87M2W7D
	NR Band n41_UL_MIMO_Ant1 Channel Bandwidth: 100MHz	QPSK: 97M2G7D 16QAM: 97M4W7D 64QAM: 97M3W7D 256QAM: 97M4W7D
	NR Band n66 Channel Bandwidth: 5MHz	QPSK: 4M46G7D 16QAM: 4M46W7D 64QAM: 4M47W7D 256QAM: 4M47W7D Pi/2BPSK: 4M47G7D
	NR Band n66 Channel Bandwidth: 10MHz	QPSK: 8M91G7D 16QAM: 8M92W7D 64QAM: 8M91W7D 256QAM: 8M91W7D Pi/2BPSK: 8M92G7D
	NR Band n66 Channel Bandwidth: 15MHz	QPSK: 13M4G7D 16QAM: 13M4W7D 64QAM: 13M4W7D 256QAM: 13M4W7D Pi/2BPSK: 13M4G7D
	NR Band n66 Channel Bandwidth: 20MHz	QPSK: 17M9G7D 16QAM: 17M9W7D 64QAM: 17M9W7D 256QAM: 17M9W7D Pi/2BPSK: 17M9G7D

EMISSION DESIGNATOR	NR Band n71 Channel Bandwidth: 5MHz	QPSK: 4M46G7D 16QAM: 4M46W7D 64QAM: 4M47W7D 256QAM: 4M47W7D Pi/2BPSK: 4M48G7D
	NR Band n71 Channel Bandwidth: 10MHz	QPSK: 8M90G7D 16QAM: 8M91W7D 64QAM: 8M90W7D 256QAM: 8M90W7D Pi/2BPSK: 8M89G7D
	NR Band n71 Channel Bandwidth: 15MHz	QPSK: 13M4G7D 16QAM: 13M4W7D 64QAM: 13M4W7D 256QAM: 13M4W7D Pi/2BPSK: 13M4G7D
	NR Band n71 Channel Bandwidth: 20MHz	QPSK: 17M8G7D 16QAM: 17M9W7D 64QAM: 17M8W7D 256QAM: 17M8W7D Pi/2BPSK: 17M8G7D
	NR Band 77(Part27O) Channel Bandwidth: 20MHz	QPSK: 17M8G7D 16QAM: 17M9W7D 64QAM: 17M9W7D 256QAM: 17M8W7D Pi/2BPSK: 17M8G7D
	NR Band 77(Part27O) Channel Bandwidth: 30MHz	QPSK: 26M7G7D 16QAM: 26M7W7D 64QAM: 26M7W7D 256QAM: 26M8W7D Pi/2BPSK: 26M8G7D
	NR Band 77(Part27O) Channel Bandwidth: 40MHz	QPSK: 35M7G7D 16QAM: 35M8W7D 64QAM: 35M8W7D 256QAM: 35M8W7D Pi/2BPSK: 35M7G7D
	NR Band 77(Part27O) Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M7W7D 64QAM: 57M8W7D 256QAM: 57M8W7D Pi/2BPSK: 57M7G7D

EMISSION DESIGNATOR	NR Band 77(Part27O) Channel Bandwidth: 80MHz	QPSK: 77M1G7D 16QAM: 76M9W7D 64QAM: 77M2W7D 256QAM: 77M1W7D Pi/2BPSK: 77M1G7D
	NR Band 77(Part27O) Channel Bandwidth: 100MHz	QPSK: 96M3G7D 16QAM: 96M4W7D 64QAM: 96M3W7D 256QAM: 96M2W7D Pi/2BPSK: 96M2G7D
	NR Band 77(Part27O)_UL_MIMO_ ANT5 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M2W7D 64QAM: 18M2W7D 256QAM: 18M2W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT5 Channel Bandwidth: 30MHz	QPSK: 27M8G7D 16QAM: 27M8W7D 64QAM: 27M8W7D 256QAM: 27M8W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT5 Channel Bandwidth: 40MHz	QPSK: 37M7G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M8W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT5 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M7W7D 256QAM: 57M7W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT5 Channel Bandwidth: 80MHz	QPSK: 77M3G7D 16QAM: 77M3W7D 64QAM: 77M3W7D 256QAM: 77M3W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT5 Channel Bandwidth: 100MHz	QPSK: 97M3G7D 16QAM: 97M3W7D 64QAM: 97M3W7D 256QAM: 97M3W7D
	NR Band 77(Part27O)_UL_MIMO_ ANT3 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M1W7D 64QAM: 18M2W7D 256QAM: 18M2W7D

EMISSION DESIGNATOR	NR Band 77(Part27O) _UL_MIMO_ ANT3 Channel Bandwidth: 30MHz	QPSK: 27M8G7D 16QAM: 27M8W7D 64QAM: 27M9W7D 256QAM: 27M8W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT3 Channel Bandwidth: 40MHz	QPSK: 37M8G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M8W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT3 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M8W7D 256QAM: 57M7W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT3 Channel Bandwidth: 80MHz	QPSK: 77M4G7D 16QAM: 77M3W7D 64QAM: 77M3W7D 256QAM: 77M3W7D
	NR Band 77(Part27O) _UL_MIMO_ ANT3 Channel Bandwidth: 100MHz	QPSK: 97M2G7D 16QAM: 97M2W7D 64QAM: 97M4W7D 256QAM: 97M4W7D
	NR Band 78(Part27Q) Channel Bandwidth: 20MHz	QPSK: 17M8G7D 16QAM: 17M9W7D 64QAM: 17M8W7D 256QAM: 17M8W7D Pi/2BPSK: 17M8G7D
	NR Band 78(Part27Q) Channel Bandwidth: 30MHz	QPSK: 26M7G7D 16QAM: 26M7W7D 64QAM: 26M7W7D 256QAM: 26M8W7D Pi/2BPSK: 26M8G7D
	NR Band 78(Part27Q) Channel Bandwidth: 40MHz	QPSK: 35M7G7D 16QAM: 35M8W7D 64QAM: 35M7W7D 256QAM: 35M8W7D Pi/2BPSK: 35M7G7D
	NR Band 78(Part27Q) Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M7W7D 64QAM: 57M8W7D 256QAM: 57M7W7D Pi/2BPSK: 58M0G7D

EMISSION DESIGNATOR	NR Band 78(Part27Q) Channel Bandwidth: 70MHz	QPSK: 64M3G7D 16QAM: 64M2W7D 64QAM: 64M2W7D 256QAM: 64M2W7D Pi/2BPSK: 64M2G7D
	NR Band 78(Part27Q) Channel Bandwidth: 80MHz	QPSK: 77M1G7D 16QAM: 76M9W7D 64QAM: 77M2W7D 256QAM: 77M0W7D Pi/2BPSK: 77M1G7D
	NR Band 78(Part27Q) Channel Bandwidth: 90MHz	QPSK: 86M6G7D 16QAM: 86M9W7D 64QAM: 86M5W7D 256QAM: 86M6W7D Pi/2BPSK: 86M7G7D
	NR Band 78(Part27Q) Channel Bandwidth: 100MHz	QPSK: 96M3G7D 16QAM: 96M4W7D 64QAM: 96M3W7D 256QAM: 96M2W7D Pi/2BPSK: 96M2G7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M2W7D 64QAM: 18M2W7D 256QAM: 18M2W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 30MHz	QPSK: 27M8G7D 16QAM: 27M8W7D 64QAM: 27M8W7D 256QAM: 27M8W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 40MHz	QPSK: 37M8G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M8W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M7W7D 256QAM: 57M7W7D

EMISSION DESIGNATOR	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 70MHz	QPSK: 67M4G7D 16QAM: 67M5W7D 64QAM: 67M4W7D 256QAM: 67M5W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 80MHz	QPSK: 77M3G7D 16QAM: 77M3W7D 64QAM: 77M2W7D 256QAM: 77M3W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 90MHz	QPSK: 87M3G7D 16QAM: 87M3W7D 64QAM: 87M4W7D 256QAM: 87M5W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT5 Channel Bandwidth: 100MHz	QPSK: 97M3G7D 16QAM: 97M3W7D 64QAM: 97M3W7D 256QAM: 97M3W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 20MHz	QPSK: 18M2G7D 16QAM: 18M1W7D 64QAM: 18M2W7D 256QAM: 18M2W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 30MHz	QPSK: 27M8G7D 16QAM: 27M8W7D 64QAM: 27M9W7D 256QAM: 27M8W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 40MHz	QPSK: 37M8G7D 16QAM: 37M8W7D 64QAM: 37M8W7D 256QAM: 37M9W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 60MHz	QPSK: 57M7G7D 16QAM: 57M8W7D 64QAM: 57M7W7D 256QAM: 57M7W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 70MHz	QPSK: 67M4G7D 16QAM: 67M4W7D 64QAM: 67M4W7D 256QAM: 67M3W7D

EMISSION DESIGNATOR	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 80MHz	QPSK: 77M5G7D 16QAM: 77M3W7D 64QAM: 77M4W7D 256QAM: 77M3W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 90MHz	QPSK: 87M3G7D 16QAM: 87M3W7D 64QAM: 87M3W7D 256QAM: 87M3W7D
	NR Band 78(Part27Q) _UL_MIMO_ANT3 Channel Bandwidth: 100MHz	QPSK: 97M3G7D 16QAM: 97M5W7D 64QAM: 97M4W7D 256QAM: 97M5W7D
5G SA MAX. ERP/EIRP POWER	NR Band n2 Channel Bandwidth: 5MHz	108.39mW
	NR Band n2 Channel Bandwidth: 10MHz	109.14mW
	NR Band n2 Channel Bandwidth: 15MHz	107.89mW
	NR Band n2 Channel Bandwidth: 20MHz	110.92mW
	NR Band n5 Channel Bandwidth: 5MHz	48.64mW
	NR Band n5 Channel Bandwidth: 10MHz	49.89 mW
	NR Band n5 Channel Bandwidth: 15MHz	49.2mW
	NR Band n5 Channel Bandwidth: 20MHz	50.12mW

5G SA MAX. ERP/EIRP POWER	NR Band n7 Channel Bandwidth: 5MHz	226.46mW
	NR Band n7 Channel Bandwidth: 10MHz	233.88mW
	NR Band n7 Channel Bandwidth: 15MHz	234.42mW
	NR Band n7 Channel Bandwidth: 20MHz	239.33mW
	NR Band n25 Channel Bandwidth: 5MHz	106.66mW
	NR Band n25 Channel Bandwidth: 10MHz	107.89mW
	NR Band n25 Channel Bandwidth: 15MHz	106.91mW
	NR Band n25 Channel Bandwidth: 20MHz	108.64mW
	NR Band n38 Channel Bandwidth: 20MHz	154.88mW
	NR Band n38 Channel Bandwidth: 30MHz	152.05mW
	NR Band n38 Channel Bandwidth: 40MHz	156.31mW

5G SA MAX. ERP/EIRP POWER	NR Band n41 Channel Bandwidth: 20MHz	159.59mW
	NR Band n41 Channel Bandwidth: 30MHz	161.06mW
	NR Band n41 Channel Bandwidth: 40MHz	161.81mW
	NR Band n41 Channel Bandwidth: 50MHz	163.68mW
	NR Band n41 Channel Bandwidth: 60MHz	161.06mW
	NR Band n41 Channel Bandwidth: 80MHz	162.18mW
	NR Band n41 Channel Bandwidth: 90MHz	158.85mW
	NR Band n41 Channel Bandwidth: 100MHz	164.06mW
	NR Band n41(HPUE) Channel Bandwidth: 20MHz	314.77mW
	NR Band n41(HPUE) Channel Bandwidth: 30MHz	307.61mW
	NR Band n41(HPUE) Channel Bandwidth: 40MHz	309.03mW
	NR Band n41(HPUE) Channel Bandwidth: 50MHz	309.03mW

5G SA MAX. ERP/EIRP POWER	NR Band n41(HPUE) Channel Bandwidth: 60MHz	309.74mW
	NR Band n41(HPUE) Channel Bandwidth: 80MHz	312.61mW
	NR Band n41(HPUE) Channel Bandwidth: 90MHz	310.46mW
	NR Band n41(HPUE) Channel Bandwidth: 100MHz	314.77mW
	NR Band n41(MIMO) Channel Bandwidth: 20MHz	368.13mW
	NR Band n41(MIMO) Channel Bandwidth: 30MHz	366.44mW
	NR Band n41(MIMO) Channel Bandwidth: 40MHz	363.92mW
	NR Band n41(MIMO) Channel Bandwidth: 50MHz	367.28mW
	NR Band n41(MIMO) Channel Bandwidth: 60MHz	362.24mW
	NR Band n41(MIMO) Channel Bandwidth: 80MHz	363.08mW
	NR Band n41(MIMO) Channel Bandwidth: 90MHz	363.08mW
	NR Band n41(MIMO) Channel Bandwidth: 100MHz	370.68mW

5G SA MAX. ERP/EIRP POWER	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 20MHz	505.82mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 30MHz	506.99mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 40MHz	506.99mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 50MHz	509.33mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 60MHz	505.82mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 80MHz	506.99mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 90MHz	505.82mW
	NR Band n41(HPUE) (MIMO) Channel Bandwidth: 100MHz	512.86mW
	NR Band n66 Channel Bandwidth: 5MHz	230.14mW
	NR Band n66 Channel Bandwidth: 10MHz	228.03mW

5G SA MAX. ERP/EIRP POWER	NR Band n66 Channel Bandwidth: 15MHz	230.67Mw
	NR Band n66 Channel Bandwidth: 20MHz	232.81mW
	NR Band n71 Channel Bandwidth: 5MHz	21.04mW
	NR Band n71 Channel Bandwidth: 10MHz	21.23mW
	NR Band n71 Channel Bandwidth: 15MHz	21.38mW
	NR Band n71 Channel Bandwidth: 20MHz	21.48mW
	NR Band 77(Part27Q) Channel Bandwidth: 20MHz	194.09mW
	NR Band 77(Part27Q) Channel Bandwidth: 30MHz	195.43mW
	NR Band 77(Part27Q) Channel Bandwidth: 40MHz	192.31mW
	NR Band 77(Part27Q) Channel Bandwidth: 60MHz	194.09mW
	NR Band 77(Part27Q) Channel Bandwidth: 80MHz	191.43mW
	NR Band 77(Part27Q) Channel Bandwidth: 100MHz	196.34mW

5G SA MAX. ERP/EIRP POWER	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 20MHz	302mW
	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 30MHz	300.61mW
	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 40MHz	304.79mW
	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 60MHz	302.69mW
	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 80MHz	307.61mW
	NR Band 77(Part27Q) (HPUE) Channel Bandwidth: 100MHz	356.45mW
	NR Band 77(Part27O) Channel Bandwidth: 20MHz	186.21mW
	NR Band 77(Part27O) Channel Bandwidth: 30MHz	185.78mW
	NR Band 77(Part27O) Channel Bandwidth: 40MHz	190.99mW
	NR Band 77(Part27O) Channel Bandwidth: 60MHz	185.78mW
	NR Band 77(Part27O) Channel Bandwidth: 80MHz	188.8mW
	NR Band 77(Part27O) Channel Bandwidth: 100MHz	194.09mW

5G SA MAX. ERP/EIRP POWER	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 20MHz	363.08mW
	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 30MHz	361.41mW
	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 40MHz	358.1mW
	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 60MHz	355.63mW
	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 80MHz	364.75mW
	NR Band 77(Part27O) (HPUE) Channel Bandwidth: 100MHz	381.94mW
	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 20MHz	379.31mW
	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 30MHz	389.05mW
	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 40MHz	386.37mW
	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 60MHz	383.71mW
	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 80MHz	389.94mW

5G SA MAX. ERP/EIRP POWER	NR Band 77(Part27Q) (MIMO) Channel Bandwidth: 100MHz	409.26mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 20MHz	579.43 mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 30MHz	564.94 mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 40MHz	583.45 mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 60MHz	574.12 mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 80MHz	584.79 mW
	NR Band 77(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 100MHz	630.96 mW
	NR Band 77(Part27O) (MIMO) Channel Bandwidth: 20MHz	404.58 mW
	NR Band 77(Part27O) (MIMO)Channel Bandwidth: 30MHz	412.1 mW
	NR Band 77(Part27O) (MIMO) Channel Bandwidth: 40MHz	411.15 mW
	NR Band 77(Part27O) (MIMO) Channel Bandwidth: 60MHz	401.79 mW
	NR Band 77(Part27O) (MIMO) Channel Bandwidth: 80MHz	405.51 mW
	NR Band 77(Part27O) (MIMO) Channel Bandwidth: 100MHz	413.05 mW

5G SA MAX. ERP/EIRP POWER	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 20MHz	597.04mW
	NR Band 77(Part27O) (HPUE) (MIMO)Channel Bandwidth: 30MHz	595.66mW
	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 40MHz	597.04mW
	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 60MHz	591.56mW
	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 80MHz	598.41mW
	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 100MHz	602.56mW
	NR Band 78(Part27Q) Channel Bandwidth: 20MHz	160.69mW
	NR Band 78(Part27Q) Channel Bandwidth: 30MHz	187.93mW
	NR Band 78(Part27Q) Channel Bandwidth: 40MHz	163.68mW
	NR Band 78(Part27Q) Channel Bandwidth: 60MHz	161.06mW
	NR Band 78(Part27Q) Channel Bandwidth: 70MHz	162.18mW
	NR Band 78(Part27Q) Channel Bandwidth: 80MHz	162.55mW
	NR Band 78(Part27Q) Channel Bandwidth: 90MHz	164.44mW
	NR Band 78(Part27Q) Channel Bandwidth: 100MHz	166.34mW
	NR Band 78(Part27Q)(HPUE) Channel Bandwidth: 20MHz	259.42mW

5G SA MAX. ERP/EIRP POWER	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 30MHz	256.45mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 40MHz	254.1mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 60MHz	259.42mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 70MHz	259.42mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 80MHz	256.45mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 90MHz	292.42mW
	NR Band 78(Part27Q) (HPUE) Channel Bandwidth: 100MHz	261.22mW
	NR Band 78(Part27O) Channel Bandwidth: 20MHz	158.85mW
	NR Band 78(Part27O) Channel Bandwidth: 30MHz	159.59mW
	NR Band 78(Part27O) Channel Bandwidth: 40MHz	158.12mW
	NR Band 78(Part27O) Channel Bandwidth: 60MHz	157.04mW
	NR Band 78(Part27O) Channel Bandwidth: 70MHz	156.31mW
	NR Band 78(Part27O) Channel Bandwidth: 80MHz	158.49mW

5G SA MAX. ERP/EIRP POWER	NR Band 78(Part27O) Channel Bandwidth: 90MHz	159.59mW
	NR Band 78(Part27O) Channel Bandwidth: 100MHz	163.31mW
	NR Band 78(Part27O)(HPUE) Channel Bandwidth: 20MHz	309.74mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 30MHz	314.05mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 40MHz	310.46mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 60MHz	311.89mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 70MHz	306.9mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 80MHz	309.74mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 90MHz	314.05mW
	NR Band 78(Part27O) (HPUE) Channel Bandwidth: 100MHz	314.77mW
	NR Band 78(Part27Q)(MIMO) Channel Bandwidth: 20MHz	383.71 mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 30MHz	381.07 mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 40MHz	381.07 mW

5G SA MAX. ERP/EIRP POWER	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 60MHz	387.26mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 70MHz	381.07mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 80MHz	377.57mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 90MHz	389.94mW
	NR Band 78(Part27Q) (MIMO) Channel Bandwidth: 100MHz	426.58mW
	NR Band 78(Part27Q)(HPUE) (MIMO) Channel Bandwidth: 20MHz	613.7 mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 30MHz	608.14mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 40MHz	608.14 mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 60MHz	606.74mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 70MHz	610.94mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 80MHz	616.6mW

5G SA MAX. ERP/EIRP POWER	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 90MHz	618.02mW
	NR Band 78(Part27Q) (HPUE) (MIMO) Channel Bandwidth: 100MHz	626.61mW
	NR Band 78(Part27O) (MIMO) Channel Bandwidth: 20MHz	399.02mW
	NR Band 78(Part27O) (MIMO)Channel Bandwidth: 30MHz	400.87 mW
	NR Band 78(Part27O) (MIMO)Channel Bandwidth: 40MHz	402.72 mW
	NR Band 78(Part27O) (MIMO) Channel Bandwidth: 60MHz	395.37 mW
	NR Band 78(Part27O) (MIMO) Channel Bandwidth: 70MHz	394.46 mW
	NR Band 78(Part27O) (MIMO)Channel Bandwidth: 80MHz	397.19 mW
	NR Band 78(Part27O) (MIMO)Channel Bandwidth: 90MHz	404.58 mW
	NR Band 78(Part27O) (MIMO) Channel Bandwidth: 100MHz	405.51 mW
	NR Band 78(Part27O)(HPUE) (MIMO) Channel Bandwidth: 20MHz	601.17 mW
	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 30MHz	608.14 mW

5G SA MAX. ERP/EIRP POWER	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 40MHz	609.54 mW
	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 60MHz	601.17 mW
	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 70MHz	606.74 mW
	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 80MHz	603.95 mW
	NR Band 78(Part27O) (HPUE) (MIMO) Channel Bandwidth: 90MHz	605.34 mW
	NR Band 77(Part27O) (HPUE) (MIMO) Channel Bandwidth: 100MHz	612.35 mW
ANTENNA TYPE*	5G SA NR Band n2: Main TX/RX ANT0: IFA Antenna with -3.7 dBi gain RX ANT PRIM. MIMO ANT1: IFA Antenna with -2.2dBi gain RX ANT SEC.ANT2: IFA Antenna with -2.6dBi gain RX ANT SEC. MIMO ANT3: IFA Antenna with 0.5dBi gain NR Band n5: Main TX/RX ANT0: IFA Antenna with -4.9 dBi gain RX ANT SEC.ANT2: IFA Antenna with -11 dBi gain NR Band n7: Main TX/RX ANT0: IFA Antenna with 0.6 dBi gain RX ANT PRIM. MIMO ANT1: IFA Antenna with -0.2dBi gain RX ANT SEC.ANT2: IFA Antenna with -0.6dBi gain RX ANT SEC. MIMO ANT3: IFA Antenna with -0.3dBi gain NR Band n25: Main TX/RX ANT0: IFA Antenna with -3.8 dBi gain RX ANT PRIM. MIMO ANT1: IFA Antenna with -2.2dBi gain RX ANT SEC.ANT2: IFA Antenna with -2.6dBi gain RX ANT SEC. MIMO ANT3: IFA Antenna with 0.5dBi gain NR Band n38: RX ANT SEC.ANT0: IFA Antenna with 0.7dBi gain	

	RX ANT SEC. MIMO ANT1: IFA Antenna with -0.2dBi gain Main TX/RX ANT2: IFA Antenna with -2.1dBi gain RX ANT PRIM. MIMO ANT3: IFA Antenna with -0.5dBi gain NR Band n41: RX ANT SEC.ANT0: IFA Antenna with 0.6dBi gain TX ANT UL MIMO/ SEC. MIMO ANT1: IFA Antenna with -0.1dBi gain Main TX/RX ANT2: IFA Antenna with -0.8dBi gain RX ANT PRIM. MIMO ANT3: IFA Antenna with -0.2dBi gain NR Band n66: Main TX/RX ANT0: IFA Antenna with -0.6 dBi gain RX ANT PRIM. MIMO ANT1: IFA Antenna with -2.5dBi gain RX ANT SEC.ANT2: IFA Antenna with -2.7dBi gain RX ANT SEC. MIMO ANT3: IFA Antenna with -1.3dBi gain NR Band n71: Main TX/RX ANT0: IFA Antenna with -8.6 dBi gain RX ANT SEC.ANT2: IFA Antenna with -11.7 dBi gain NR Band n77: RX ANT PRIM. MIMO ANT1: IFA Antenna with 0.4dBi gain TX ANT UL MIMO/ RX ANT SEC.ANT3: IFA Antenna with 0.7dBi gain RX ANT SEC. MIMO ANT4: IFA Antenna with 0.9dBi gain Main TX/RX ANT5: IFA Antenna with 0dBi gain NR Band n78: RX ANT PRIM. MIMO ANT1: IFA Antenna with -0.1dBi gain TX ANT UL MIMO/ RX ANT SEC.ANT3: IFA Antenna with 1.3dBi gain RX ANT SEC. MIMO ANT4: IFA Antenna with 1.1dBi gain Main TX/RX ANT5: IFA Antenna with -0.5dBi gain
HW VERSION*	E
SW VERSION*	TWG1.240820.261
I/O PORTS*	Refer to user's manual
CABLE SUPPLIED*	USB cable: non-shielded cable, with w/o ferrite core, 0.8 meter
EXTREME TEMPERATURE*	-20℃-60 ℃
EXTREME VOLTAGE*	3.2V – 4.2V

NOTE:

1. *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information , Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
2. For a more detailed features description, please refer to the manufacturer's specifications or the

user's manual.

3. The EUT incorporates a MIMO function for N41/77/78 and a siso function for N2/5/7/25/38/66/71.

MODULATION MODE	TX FUNCTION
N41/77/78	2TX
N2/5/7/25/38/66/71	1TX

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
5. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.
6. Max ERP/EIRP is according to Max conducted power calculate for SA.
7. For MIMO mode, the directional gain was calculated by the following equation of KDB 662911 D01 v02r01:

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

Where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas;

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

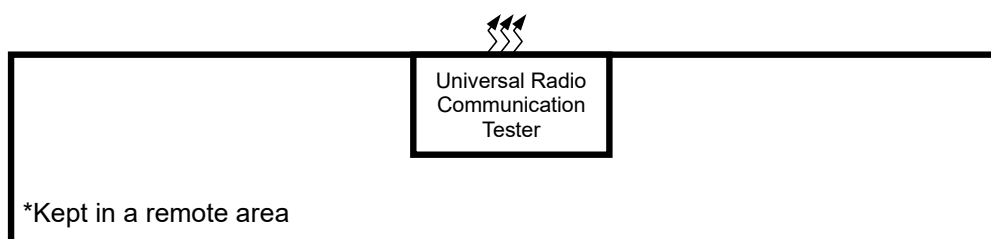
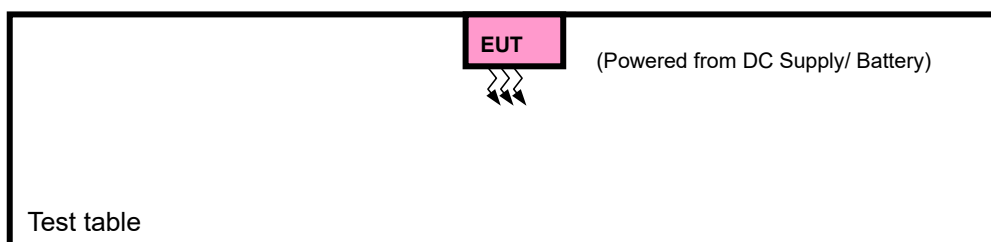
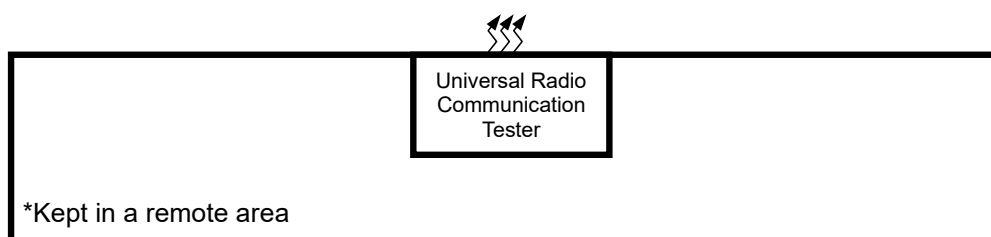
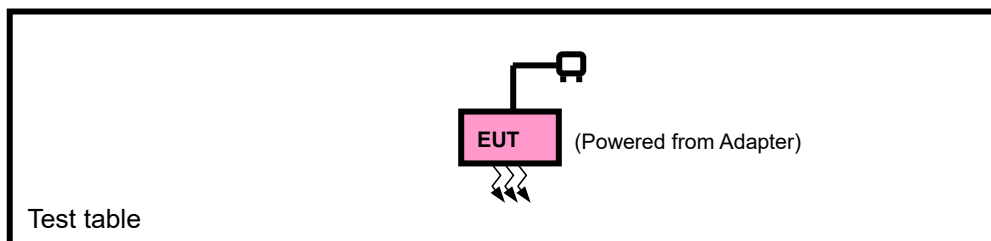
The directional gain is calculated as following table:

Band	Ant 0(dBi)	Ant 1(dBi)	Ant 2(dBi)	Ant 3(dBi)	Directional Gain(dBi)
N41	0.6	-0.1	-0.8	-0.2	2.57
Band	Ant 1(dBi)	Ant 3(dBi)	Ant 4(dBi)	Ant 5(dBi)	Directional Gain(dBi)
N77	0.4	0.7	0.9	0	3.37
Band	Ant 1(dBi)	Ant 3(dBi)	Ant 4(dBi)	Ant 5(dBi)	Directional Gain(dBi)
N78	-0.1	1.3	1.1	-0.5	3.46

8. List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
Display(AMOLED)	Xiao Xin	N/A	XX611OLED-A002.1	N/A
Back cover	IV Techmould	N/A	N/A	N/A
Bezel	IV Techmould	N/A	N/A	N/A
Photo/Video Camera 1	Sunny Optical	N/A	F48N03A (Auto focus)	N/A
Photo/Video Camera 2	TrulyOpto	N/A	CSF208-B8BF-E(Fix focus)	N/A
CPU	Qualcomm	N/A	QCM6490	N/A
UFS	Kioxia	N/A	THGJFAT0T44BAIL	N/A
BT/WLAN Module	Murata	N/A	LBEE5QG2CX-830	N/A
NFC chipset	NXP	N/A	SN110TUK1	N/A
Battery	BARTEC	N/A	17-S1Z0-0020/****	4300 mAh, 3.68V
USB-C Cable	BARTEC	N/A	G7-A0Z0-0010	Length: 0.8m

2.2 CONFIGURATION OF SYSTEM UNDER TEST FOR RADIATION EMISSION TEST



2.3 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Adapter	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Cable: Unshielded, Detachable, 0.8m;

2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on Y-plane for EIRP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with 5G NR link
B	EUT + Battery with 5G NR link

5G NR n2 MODE (SA_n2)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	370500 to 381500	370500 to 381500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		371000 to 381000	371000 to 381000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		371500 to 380500	371500 to 380500	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		372000 to 513500	372000 to 513500	Low, Middle, High	20MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n2.

3. SA n2 are covered by SA n25, Because it is a subset of SA n25 with the same output power and supported bandwidths, So the conducted test data please refer to SA n25.

5G NR n5 MODE (SA_n5)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	ERP	165300 to 169300	165300 to 169300	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		165800 to 168800	165800 to 168800	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		166300 to 168300	166300 to 168300	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		166800 to 167800	166800 to 167800	Low, Middle, High	20MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	166800 to 167800	166800 to 167800	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	166800 to 167800	166800 to 167800	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full
A	OCCUPIED BANDWIDTH	165300 to 169300	165300 to 169300	Middle	5MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		165800 to 168800	165800 to 168800	Middle	10MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		166300 to 168300	166300 to 168300	Middle	15MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		166800 to 167800	166800 to 167800	Middle	20MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	165300 to 169300	165300 to 169300	Low	5MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full

				High	5MHz	QPSK	1RB/ 24RB Offset
							Outer Full
		165800 to 168800	165800 to 168800	Low	10MHz	QPSK	1RB/ 0RB Offset
							Outer Full
				High	10MHz	QPSK	1RB/ 51RB Offset
							Outer Full
		166800 to 167800	166800 to 167800	Low	20MHz	QPSK	1RB/ 0RB Offset
							Outer Full
				High	20MHz	QPSK	1RB/ 105RB Offset
							Outer Full
A	CONDUCTED EMISSION	165300 to 169300	165300 to 169300	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		165800 to 168800	165800 to 168800	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		166800 to 167800	166800 to 167800	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	165300 to 169300	165300 to 169300	Middle,	5MHz	QPSK	1RB/ 0RB Offset
		165800 to 168800	165800 to 168800	Middle,	10MHz	QPSK	1RB/ 0RB Offset
		166300 to 168300	166300 to 168300	Middle,	15MHz	QPSK	1RB/ 0RB Offset
		166800 to 167800	166800 to 167800	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n5.

5G NR n7 MODE (SA_n7)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	ERP	500500 to 513500	500500 to 513500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		51000 to 513000	51000 to 513000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		501500 to 512500	501500 to 512500	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset

		502000 to 512000	502000 to 512000	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	502000 to 512000	502000 to 512000	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	502000 to 512000	502000 to 512000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset Outer_ Full
A	OCCUPIED BANDWIDTH	500500 to 513500	500500 to 513500	Middle	5MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		51000 to 513000	51000 to 513000	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		501500 to 512500	501500 to 512500	Middle	15MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		502000 to 512000	502000 to 512000	Middle	20MHz	Pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	500500 to 513500	500500 to 513500	Low	5MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	5MHz	QPSK	1RB/ 24RB Offset Outer_ Full
		51000 to 513000	51000 to 513000	Low	10MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	10MHz	QPSK	1RB/ 51RB Offset Outer_ Full
		502000 to 512000	502000 to 512000	Low	20MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	20MHz	QPSK	1RB/ 105RB Offset Outer_ Full
		500500 to 513500	500500 to 513500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
				Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
A	CONDUCTED EMISSION	502000 to 512000	502000 to 512000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		500500 to 513500	500500 to 513500	Middle	5MHz	QPSK	1RB/ 0RB Offset
		51000 to 513000	51000 to 513000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		501500 to 512500	501500 to 512500	Middle	15MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	502000 to 512000	502000 to 512000	Middle	20MHz	QPSK	1RB/ 0RB Offset
		500500 to 513500	500500 to 513500	Middle	5MHz	QPSK	1RB/ 0RB Offset
		51000 to 513000	51000 to 513000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		501500 to 512500	501500 to 512500	Middle	15MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n7.

5G NR n25 MODE(SA_n25)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	370500 to 382500	370500 to 382500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		371000 to 382000	371000 to 382000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		371500 to 381500	371500 to 381500	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		372000 to 381000	372000 to 381000	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	372000 to 381000	372000 to 381000	Middle	20MHz	QPSK	Outer_Full
A	PEAK TO AVERAGE RATIO	374000 to 379000	374000 to 379000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
							Outer_Full
A	OCCUPIED BANDWIDTH	370500 to 382500	370500 to 382500	Middle	5MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_Full
		371000 to 382000	371000 to 382000	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_Full
		371500 to 381500	371500 to 381500	Middle	15MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_Full
		372000 to 381000	372000 to 381000	Middle	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_Full
A	BAND EDGE	370500 to 382500	370500 to 382500	Low	5MHz	QPSK	1RB/ 0RB Offset
				High	5MHz	QPSK	Outer_Full
		371000 to 382000	371000 to 382000	Low	10MHz	QPSK	1RB/ 0RB Offset
				High	10MHz	QPSK	Outer_Full
		372000 to 381000	372000 to 381000	Low	20MHz	QPSK	1RB/ 105 RB Offset
				High	20MHz	QPSK	Outer_Full
				Low	20MHz	QPSK	1RB/ 0RB Offset
				High	20MHz	QPSK	Outer_Full
A	CONDUCTED EMISSION	370500 to 382500	370500 to 382500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		371000 to 382000	371000 to 382000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset

		372000 to 381000	372000 to 381000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	370500 to 382500	370500 to 382500	Middle	5MHz	QPSK	1RB/ 0RB Offset
		371000 to 382000	371000 to 382000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		371500 to 381500	371500 to 381500	Middle	15MHz	QPSK	1RB/ 0RB Offset
		372000 to 381000	372000 to 381000	Middle	20MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n25

5G NR n38 MODE (SA_n38)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	ERP	516000 to 522000	516000 to 522000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		517000 to 521000	517000 to 521000	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		518000 to 520000	518000 to 520000	Low, Middle, High	40MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n38.

3. SA n38 are covered by SA n41, Because it is a subset of SA n41 with the same output power and supported bandwidths, So the conducted test data and RSE test data please refer to SA n41.

5G NR n41 MODE (SA_n41)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL		TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	501204 to 535998	501204 to 535998		Low, Middle, High	20MHz	QPSK,	1RB/ 0RB Offset
		502200 to 534996	502200 to 534996		Low, Middle, High	30MHz	QPSK,	1RB/ 0RB Offset
		503202 to 534000	503202 to 534000		Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset

		504204 to 532998	504204 to 532998		Low, Middle, High	50MHz	QPSK	1RB/ 0RB Offset
		505200 to 531996	505200 to 531996		Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		507204 to 529998	507204 to 529998		Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		508200 to 528996	508200 to 528996		Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000		Low, Middle, High	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	509202 to 528000	509202 to 528000		Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	509202 to 528000	509202 to 528000		Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
								Outer_ Full
A	OCCUPIED BANDWIDTH	501204 to 535998	501204 to 535998		Middle	20MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		502200 to 534996	502200 to 534996		Middle	30MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		503202 to 534000	503202 to 534000		Middle	40MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		504204 to 532998	504204 to 532998		Middle	50MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		505200 to 531996	505200 to 531996		Middle	60MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		507204 to 529998	507204 to 529998		Middle	80MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		508200 to 528996	508200 to 528996		Middle	90MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		509202 to 528000	509202 to 528000		Middle	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	501204 to 535998	501204 to 535998		Low	20MHz	QPSK	1RB/ 0RB Offset
								Outer_ Full
					High	20MHz	QPSK	1RB/ 50RB Offset
								Outer_ Full
		505200 to 531996	505200 to 531996		Low	60MHz	QPSK	1RB/ 161RB Offset
								Outer_ Full
					High	60MHz	QPSK	1RB/ 0RB Offset
								Outer_ Full
		509202 to 528000	509202 to 528000		Low	100MHz	QPSK	1RB/ 272RB Offset
								Outer_ Full
					High	100MHz	QPSK	1RB/ 161RB Offset
								Outer_ Full
A	CONDUCTED EMISSION	501204 to 535998	501204 to 535998		Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset

		505200 to 531996	505200 to 531996		Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000		Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	501204 to 535998	501204 to 535998		Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		502200 to 534996	502200 to 534996		Middle	30MHz	QPSK	1RB/ 0RB Offset
		503202 to 534000	503202 to 534000		Middle	40MHz	QPSK	1RB/ 0RB Offset
		504204 to 532998	504204 to 532998		Middle	50MHz	QPSK	1RB/ 0RB Offset
		505200 to 531996	505200 to 531996		Middle	60MHz	QPSK	1RB/ 0RB Offset
		507204 to 529998	507204 to 529998		Middle	80MHz	QPSK	1RB/ 0RB Offset
		508200 to 528996	508200 to 528996		Middle	90MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000		Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n41.

5G NR n41 MODE (SA_n41)_MIMO MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	501204 to 535998	501204 to 535998	Low, Middle, High	20MHz	QPSK,	1RB/ 0RB Offset
		502200 to 534996	502200 to 534996	Low, Middle, High	30MHz	QPSK,	1RB/ 0RB Offset
		503202 to 534000	503202 to 534000	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		504204 to 532998	504204 to 532998	Low, Middle, High	50MHz	QPSK	1RB/ 0RB Offset
		505200 to 531996	505200 to 531996	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		507204 to 529998	507204 to 529998	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		508200 to 528996	508200 to 528996	Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000	Low, Middle, High	100MHz	QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	509202 to 528000	509202 to 528000	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	509202 to 528000	509202 to 528000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full

A	OCCUPIED BANDWIDTH	501204 to 535998	501204 to 535998	Middle	20MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		502200 to 534996	502200 to 534996	Middle	30MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		503202 to 534000	503202 to 534000	Middle	40MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		504204 to 532998	504204 to 532998	Middle	50MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		505200 to 531996	505200 to 531996	Middle	60MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		507204 to 529998	507204 to 529998	Middle	80MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		508200 to 528996	508200 to 528996	Middle	90MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		509202 to 528000	509202 to 528000	Middle	100MHz	QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	501204 to 535998	501204 to 535998	Low	20MHz	QPSK	1RB/ 0RB Offset
				High	20MHz	QPSK	Outer_ Full
							1RB/ 50RB Offset
		505200 to 531996	505200 to 531996	Low	60MHz	QPSK	1RB/ 0RB Offset
				High	60MHz	QPSK	Outer_ Full
							1RB/ 50RB Offset
		509202 to 528000	509202 to 528000	Low	100MHz	QPSK	1RB/ 0RB Offset
				High	100MHz	QPSK	Outer_ Full
							1RB/ 50RB Offset
A	CONDUCTED EMISSION	501204 to 535998	501204 to 535998	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		505200 to 531996	505200 to 531996	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000	Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	501204 to 535998	501204 to 535998	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		502200 to 534996	502200 to 534996	Middle	30MHz	QPSK	1RB/ 0RB Offset
		503202 to 534000	503202 to 534000	Middle	40MHz	QPSK	1RB/ 0RB Offset
		504204 to 532998	504204 to 532998	Middle	50MHz	QPSK	1RB/ 0RB Offset
		505200 to 531996	505200 to 531996	Middle	60MHz	QPSK	1RB/ 0RB Offset
		507204 to 529998	507204 to 529998	Middle	80MHz	QPSK	1RB/ 0RB Offset
		508200 to 528996	508200 to 528996	Middle	90MHz	QPSK	1RB/ 0RB Offset
		509202 to 528000	509202 to 528000	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n41.

5G NR n66 MODE (SA_n66)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	342500 to 355500	342500 to 355500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		343000 to 355000	343000 to 355000	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		343500 to 354500	343500 to 354500	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		344000 to 354000	344000 to 354000	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	346000 to 352000	346000 to 352000	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	346000 to 352000	346000 to 352000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full
A	OCCUPIED BANDWIDTH	342500 to 355500	342500 to 355500	Middle	5MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		343000 to 355000	343000 to 355000	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		343500 to 354500	343500 to 354500	Middle	15MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		344000 to 354000	344000 to 354000	Middle	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	502008 to 535998	502008 to 535998	Low	5MHz	QPSK	1RB/ 0RB Offset
				High	5MHz	QPSK	Outer_ Full
							1RB/ 24RB Offset
							Outer_ Full
		343000 to 355000	343000 to 355000	Low	10MHz	QPSK	1RB/ 0RB Offset
				High	10MHz	QPSK	Outer_ Full
							1RB/ 105RB Offset
							Outer_ Full
A	BAND EDGE	344000 to 354000	344000 to 354000	Low	20MHz	QPSK	1RB/ 0RB Offset
				High	20MHz	QPSK	Outer_ Full
							1RB/ 215RB Offset
							Outer_ Full
		502008 to 535998	502008 to 535998	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
				Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset

		346000 to 352000	346000 to 352000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	342500 to 355500	342500 to 355500	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		343000 to 355000	343000 to 355000	Middle	10MHz	QPSK	1RB/ 0RB Offset
		343500 to 354500	343500 to 354500	Middle	15MHz	QPSK	1RB/ 0RB Offset
		344000 to 354000	344000 to 354000	Middle	20MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n66.

5G NR n71 MODE (SA_n71)

EUT CONFIGURE MODE	TESWT ITEM	AVAILAB LE CP-OFDM CHANNE L	AVAILABL E DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	ERP	133100 to 139100	133100 to 139100	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		133600 to 138600	133600 to 138600	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		134100 to 138100	134100 to 138100	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		134600 to 137600	134600 to 137600	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	134100 to 138100	134100 to 138100	Middle	15MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	134100 to 138100	134100 to 138100	Low, Middle, High	15MHz	QPSK	Outer_ Full
A	OCCUPIED BANDWIDTH	133100 to 139100	133100 to 139100	Middle	5MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		133600 to 138600	133600 to 138600	Middle	10MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		134100 to 138100	134100 to 138100	Middle	15MHz	Pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		134600 to 137600	134600 to 137600	Low, Middle, High	20MHz	Pi/2BPSK,QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	133100 to 139100	133100 to 139100	Low	5MHz	QPSK	1RB/ 0RB Offset
							1RB/ 24RB Offset
							Outer_ Full
				High	5MHz	QPSK	1RB/ 0RB Offset
							1RB/ 24RB Offset
							Outer_ Full
		133600 to 138600	133600 to 138600	Low	10MHz	QPSK	1RB/ 0RB Offset
							1RB/ 51RB Offset

				High	10MHz	QPSK	Outer_Full
							1RB/ 0RB Offset
							1RB/ 51RB Offset
		134100 to 138100	134100 to 138100	Low	15MHz	QPSK	Outer_Full
							1RB/ 0RB Offset
							1RB/ 78RB Offset
		134600 to 137600	134600 to 137600	High	15MHz	QPSK	Outer_Full
							1RB/ 0RB Offset
							1RB/ 78RB Offset
		134600 to 137600	134600 to 137600	Low	20MHz	QPSK	Outer_Full
							1RB/ 0RB Offset
							1RB/ 78RB Offset
A	CONDUCTED EMISSION	133100 to 139100	133100 to 139100	Low, Middle, High	5MHz	QPSK	1RB/ 0RB Offset
		133600 to 138600	133600 to 138600	Low, Middle, High	10MHz	QPSK	1RB/ 0RB Offset
		134100 to 138100	134100 to 138100	Low, Middle, High	15MHz	QPSK	1RB/ 0RB Offset
		134600 to 137600	134600 to 137600	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	133100 to 139100	133100 to 139100	Middle	5MHz	QPSK	1RB/ 0RB Offset
		133600 to 138600	133600 to 138600	Middle	10MHz	QPSK	1RB/ 0RB Offset
		134100 to 138100	134100 to 138100	Middle	15MHz	QPSK	1RB/ 0RB Offset
		134600 to 137600	134600 to 137600	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n71.

5G NR n77(Part27Q)

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
A	RADIATED EMISSION	630668 to 636000	630668 to 636000	Middle	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Middle	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Middle	60MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Middle	80MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n77(Part27Q).

3. SA n77(Part27Q) are covered by SA n78(Part27Q), Because it is a subset of SA n78(Part27Q) with the same output power and supported bandwidths, So the conducted test data please refer to SA n78(Part27Q).

5G NR n77(Part27Q)—MIMO MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
A	RADIATED EMISSION	630668 to 636000	630668 to 636000	Middle	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset

		631334 to 635332	631334 to 635332	Middle	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Middle	60MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Middle	80MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n77(Part27Q).

3. SA n77(Part27Q) are covered by SA n78(Part27Q), Because it is a subset of SA n78(Part27Q) with the same output power and supported bandwidths, So the conducted test data please refer to SA n78(Part27Q).

5G NR n77(Part27Q) MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 664332	647670 to 664332	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 664000	648000 to 664000	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		649334 to 662666	649334 to 662666	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENCY STABILITY	647334 to 664666	647334 to 664666	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	Outer_ Full
A	OCCUPIED BANDWIDTH	647334 to 664666	647334 to 664666	Middle	20MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		647670 to 664332	647670 to 664332	Middle	30MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		648000 to 664000	648000 to 664000	Middle	40MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		648668 to 663332	648668 to 663332	Middle	60MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		649334 to 662666	649334 to 662666	Middle	80MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	647334 to 664666	647334 to 664666	Low	20MHz	QPSK	1RB/ 0RB Offset
							Outer_ Full
				High	20MHz	QPSK	1RB/ 50RB Offset
							Outer_ Full

		648668 to 663332	648668 to 663332	Low	60MHz	QPSK	1RB/ 0RB Offset
				High	60MHz	QPSK	Outer Full
		650000 to 662000	650000 to 662000	Low	100MHz	QPSK	1RB/ 0RB Offset
				High	100MHz	QPSK	Outer Full
							1RB/ 272RB Offset
							Outer Full
A	CONDUCTED EMISSION	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 664332	647670 to 664332	Middle	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 664000	648000 to 664000	Middle	40MHz	QPSK	1RB/ 0RB Offset
		648336 to 663666	648336 to 663666	Middle	50MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Middle	60MHz	QPSK	1RB/ 0RB Offset
		649334 to 662666	649334 to 662666	Middle	80MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The test data presented in the report from worst SA_{n77}(Part 270).

5G NR n77(Part270) –MIMO MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CP-OFDM CHANNEL	AVAILABLE DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 664332	647670 to 664332	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 664000	648000 to 664000	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		649334 to 662666	649334 to 662666	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	Pi/2BPSK, QPSK, 16QAM, 64QAM, 256QAM	1RB/ 0RB Offset

B	FREQUENCY STABILITY	647334 to 664666	647334 to 664666	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	Outer_ Full
A	OCCUPIED BANDWIDTH	647334 to 664666	647334 to 664666	Middle	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		647670 to 664332	647670 to 664332	Middle	30MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		648000 to 664000	648000 to 664000	Middle	40MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		648668 to 663332	648668 to 663332	Middle	60MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		649334 to 662666	649334 to 662666	Middle	80MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	647334 to 664666	647334 to 664666	Low	20MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	20MHz	QPSK	1RB/ 50RB Offset Outer_ Full
		648668 to 663332	648668 to 663332	Low	60MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	60MHz	QPSK	1RB/ 161RB Offset Outer_ Full
		650000 to 662000	650000 to 662000	Low	100MHz	QPSK	1RB/ 0RB Offset Outer_ Full
				High	100MHz	QPSK	1RB/ 272RB Offset Outer_ Full
A	CONDUCTED EMISSION	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	647334 to 664666	647334 to 664666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 664332	647670 to 664332	Middle	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 664000	648000 to 664000	Middle	40MHz	QPSK	1RB/ 0RB Offset
		648336 to 663666	648336 to 663666	Middle	50MHz	QPSK	1RB/ 0RB Offset
		648668 to 663332	648668 to 663332	Middle	60MHz	QPSK	1RB/ 0RB Offset
		649334 to 662666	649334 to 662666	Middle	80MHz	QPSK	1RB/ 0RB Offset
		650000 to 662000	650000 to 662000	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst

case was found in QPSK modulation.

2. The test data presented in the report from worst SA_n77(Part 270).

5G NR Band n78(Part27Q) (SA_n78)

EUT CONFIGUR E MODE	TEST ITEM	AVAILAB LE CP-OFDM CHANNE L	AVAILABL E DFT-S-OFDM CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S-OFDM) (INCLUDE CP-OFDM)
A	EIRP	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		632334 to 635332	632334 to 635332	Low, Middle, High	70MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		633000 to 633666	633000 to 633666	Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENC Y STABILITY	630668 to 636000	630668 to 636000	Middle	20MHz	QPSK	Outer_ Full
A	PEAK TO AVERAGE RATIO	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	Outer_ Full
A	OCCUPIED BANDWIDT H	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		632334 to 635332	632334 to 635332	Low, Middle, High	70MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		633000 to 633666	633000 to 633666	Low, Middle, High	90MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
		633334	633334	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full
A	BAND EDGE	630668 to 636000	630668 to 636000	Low	20MHz	QPSK	1RB/ 0RB Offset
				High	20MHz	QPSK	Outer_ Full
		632000 to 634666	632000 to 634666	Low	60MHz	QPSK	1RB/ 50RB Offset
				High	60MHz	QPSK	Outer_ Full
		633334	633334	Low	100MHz	QPSK	1RB/ 161RB Offset
				High	100MHz	QPSK	Outer_ Full

				High	100MHz	QPSK	Outer_Full 1RB/ 272RB Offset
A	CONDUCTED EMISSION	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset
A	RADIATED EMISSION	630668 to 636000	630668 to 636000	Middle	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Middle	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Middle	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Middle	60MHz	QPSK	1RB/ 0RB Offset
		632334 to 635332	632334 to 635332	Low, Middle, High	70MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Middle	80MHz	QPSK	1RB/ 0RB Offset
		633000 to 633666	633000 to 633666	Middle	90MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle	100MHz	QPSK	1RB/ 0RB Offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n78(Part27Q).
3. SA n78(Part27Q) RSE test data please refer to SA n77(Part27Q).

5G NR Band n78(Part27Q) (SA_n78)—MIMO MODE

EUT CONFIGUR E MODE	TEST ITEM	AVAILAB LE CP-OFDM CHANNE L	AVAILABL E DFT-S-OFD M CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S- OFDM) (INCLUDE CP-OFDM)
A	EIRP	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		632334 to 635332	632334 to 635332	Low, Middle, High	70MHz	QPSK	1RB/ 0RB Offset
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		633000 to 633666	633000 to 633666	Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		633334	633334	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset
B	FREQUENC Y STABILITY	630668 to 636000	630668 to 636000	Middle	20MHz	QPSK	Outer_Full
A	PEAK TO AVERAGE RATIO	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	Outer_Full

A	OCCUPIED BANDWIDT H	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		631002 to 635664	631002 to 635664	Low, Middle, High	30MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		631334 to 635332	631334 to 635332	Low, Middle, High	40MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		632334 to 635332	632334 to 635332	Low, Middle, High	70MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		632668 to 634000	632668 to 634000	Low, Middle, High	80MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		633000 to 633666	633000 to 633666	Low, Middle, High	90MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
		633334	633334	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	Outer_ Full		
A	BAND EDGE	630668 to 636000	630668 to 636000	Low	20MHz	QPSK	1RB/ 0RB Offset Outer_ Full		
				High	20MHz	QPSK	1RB/ 50RB Offset Outer_ Full		
		632000 to 634666	632000 to 634666	Low	60MHz	QPSK	1RB/ 0RB Offset Outer_ Full		
				High	60MHz	QPSK	1RB/ 161RB Offset Outer_ Full		
		633334	633334	Low	100MHz	QPSK	1RB/ 0RB Offset Outer_ Full		
				High	100MHz	QPSK	1RB/ 272RB Offset Outer_ Full		
		A	CONDUCTE D EMISSION	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
				632000 to 634666	632000 to 634666	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
633334	633334			Low, Middle, High	100MHz	QPSK	1RB/ 0RB Offset		
A	RADIATED EMISSION	630668 to 636000	630668 to 636000	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset		
		631002 to 635664	631002 to 635664	Middle	30MHz	QPSK	1RB/ 0RB Offset		
		631334 to 635332	631334 to 635332	Middle	40MHz	QPSK	1RB/ 0RB Offset		
		632000 to 634666	632000 to 634666	Middle	60MHz	QPSK	1RB/ 0RB Offset		
		632334 to 635332	632334 to 635332	Middle	70MHz	QPSK	1RB/ 0RB Offset		
		632668 to 634000	632668 to 634000	Middle	80MHz	QPSK	1RB/ 0RB Offset		
		633000 to 633666	633000 to 633666	Middle	90MHz	QPSK	1RB/ 0RB Offset		
		633334	633334	Middle	100MHz	QPSK	1RB/ 0RB Offset		

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n78(Part27Q).

3. For UL_mimo tests, Only supported CP modulation, and 10*Log (2)dBm has been added to the test plot.

5G NR Band n78(Part270) (SA_n78)

EUT CONFIGUR E MODE	TEST ITEM	AVAILABL E CP-OFDM CHANNEL	AVAILABLE DFT-S-OFD M CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S- OFDM) (INCLUDE CP-OFDM)
A	EIRP	647334 to 652666	647334 to 652666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 652666	647670 to 652666	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 652000	648000 to 652000	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		648668 to 651332	648668 to 651332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		649000 to 651000	649000 to 651000	Low, Middle, High	70MHz	QPSK	1RB/ 0RB Offset
		649334 to 650666	649334 to 650666	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		649668 to 650332	649668 to 650332	Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		650000	650000	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

2. The EIRP calculate presented in the report from worst SA n78(Part270).

5G NR Band n78(Part270) (SA_n78)—MIMO MODE

EUT CONFIGUR E MODE	TEST ITEM	AVAILAB LE CP-OFDM CHANNE L	AVAILABL E DFT-S-OFD M CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE(DFT-S- OFDM) (INCLUDE CP-OFDM)
A	EIRP	647334 to 652666	647334 to 652666	Low, Middle, High	20MHz	QPSK	1RB/ 0RB Offset
		647670 to 652666	647670 to 652666	Low, Middle, High	30MHz	QPSK	1RB/ 0RB Offset
		648000 to 652000	648000 to 652000	Low, Middle, High	40MHz	QPSK	1RB/ 0RB Offset
		648668 to 651332	648668 to 651332	Low, Middle, High	60MHz	QPSK	1RB/ 0RB Offset
		649000 to 651000	649000 to 651000	Low, Middle, High	70MHz	QPSK	1RB/ 0RB Offset
		649334 to 650666	649334 to 650666	Low, Middle, High	80MHz	QPSK	1RB/ 0RB Offset
		649668 to 650332	649668 to 650332	Low, Middle, High	90MHz	QPSK	1RB/ 0RB Offset
		650000	650000	Middle,	100MHz	Pi/2BPSK,QPSK,16QAM, 64QAM, 256QAM	1RB/ 0RB Offset

Note: 1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.2V/ 3.8V/ 4.2V By Battery	Hanwen Xu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
BAND EDGE	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
CONDCUDED EMISSION	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 5.0V/ 9.0V/ 12.0V By Adapter	Hanwen Xu



Test Report No.: PSU-QSU2312140113RF07

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC 47 CFR Part 2

FCC 47 CFR Part 22/24/27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

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

3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station are limited to 7 watts e.r.p. (n5)

Mobile and portable stations are limited to 2 watts EIRP. (n2/n25)

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.(n7/n38/n41)”

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP(n66)

According to the specific rule Part 27.50(b)(10) and 27.50(c)(10) Fixed, mobile, and Portable stations (hand-held devices) transmitting in the 698-746 MHz, 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP(n71)

According to the specific rule Part 27.50(j)(4) and Part 27.50(k)(3) ,Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.(n77/n78)

3.1.2 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , typically dBW or dBm);

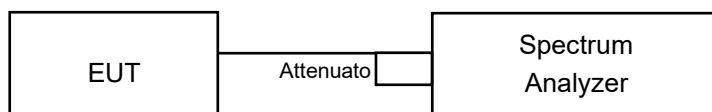
P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

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

L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

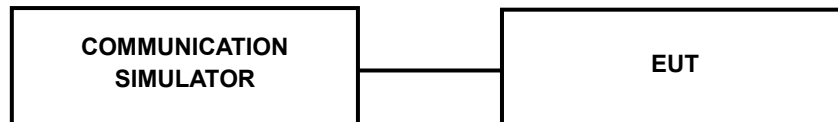
CONDUCTED POWER MEASUREMENT:

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



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



1. Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
2. Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).
3. Set the span to twice the nominal EBW (span = 2 x EBW).
4. Set the resolution bandwidth (RBW) to approximately 1% of EBW.
5. Set the video bandwidth (VBW) to $\geq 3 \times \text{RBW}$
6. Select the average power (RMS) display detector.
7. Set the number of measurement points to ≥ 1001 .
8. Use auto-coupled sweep time.
9. Perform measurement over an interval of time when the transmission is continuous and at its maximum power level.
10. Utilize trace averaging over 100 traces in the power averaging mode.
11. Use the Band/Channel Power function to determine the integrated power over the full EBW.
12. Record the band power level.
13. Adjust the recorded level by applying appropriate correction factors for the measurement set-up.
14. Determine the EIRP by adding the effective antenna gain to the adjusted power level.

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

3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm)

Note: Only the output power in the Main ANT is shown in the test report.

5G SA

N2(ANT0)

n2 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		372000	376000	380000
		Frequency (MHz)		1860	1880	1900
20M	DFT-s-OFDM Pi/2 BPSK	1	1	24.04	23.93	24.01
		1	53	23.90	24.01	23.50
		1	104	23.94	24.07	23.48
		50	0	23.60	23.63	23.46
		50	28	24.03	24.11	24.04
		50	56	23.48	23.52	23.60
		100	0	23.53	23.62	23.32
	DFT-s-OFDM QPSK	1	1	24.15	24.03	24.06
		1	53	23.88	23.61	23.47
		1	104	23.82	23.83	23.39
		50	0	23.06	23.12	23.05
		50	28	24.14	24.09	23.86
		50	56	23.05	23.08	23.09
		100	0	23.08	23.05	23.03
	DFT-s-OFDM 16QAM	1	1	23.34	23.33	23.38
	DFT-s-OFDM 64QAM	1	1	21.13	21.30	21.44
	DFT-s-OFDM 256QAM	1	1	19.35	19.23	19.31
BW	MCS Index	Channel		371500	376000	380500
		Frequency (MHz)		1857.5	1880	1902.5
15M	DFT-s-OFDM QPSK	1	1	24.03	23.92	23.88
BW	MCS Index	Channel		371000	376000	381000
		Frequency (MHz)		1855	1880	1905
10M	DFT-s-OFDM QPSK	1	1	24.08	23.92	23.93
BW	MCS Index	Channel		370500	376000	381500
		Frequency (MHz)		1852.5	1880	1907.5
5M	DFT-s-OFDM QPSK	1	1	24.05	24.01	23.93

N5(ANT0)

n5 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		166800	167300	167800
		Frequency (MHz)		834	836.5	839
20M	DFT-s-OFDM Pi/2 BPSK	1	1	23.98	24.03	23.92
		1	53	23.82	23.88	23.87
		1	104	23.80	23.69	23.58
		50	0	23.45	23.45	23.44
		50	28	23.90	23.92	23.91
		50	56	23.37	23.39	23.32
		100	0	23.47	23.56	23.40
	DFT-s-OFDM QPSK	1	1	23.94	24.05	23.86
		1	53	23.76	23.92	23.71
		1	104	23.63	23.69	23.50
		50	0	22.89	23.00	22.95
		50	28	23.95	23.96	23.92
		50	56	22.85	22.80	22.81
		100	0	22.95	22.96	22.93
	DFT-s-OFDM 16QAM	1	1	23.38	23.39	23.33
	DFT-s-OFDM 64QAM	1	1	21.26	21.36	21.22
	DFT-s-OFDM 256QAM	1	1	19.30	19.36	19.21
BW	MCS Index	Channel		166300	167300	168300
		Frequency (MHz)		831.5	836.5	841.5
15M	DFT-s-OFDM QPSK	1	1	23.93	23.97	23.75
BW	MCS Index	Channel		165800	167300	168800
		Frequency (MHz)		829	836.5	844
10M	DFT-s-OFDM QPSK	1	1	23.90	24.03	23.77
BW	MCS Index	Channel		165300	167300	169300
		Frequency (MHz)		826.5	836.5	846.5
5M	DFT-s-OFDM QPSK	1	1	23.85	23.92	23.84

N7(ANT0)

n7 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		502000	507000	512000
		Frequency (MHz)		2510	2535	2560
20M	DFT-s-OFDM Pi/2 BPSK	1	1	22.92	23.12	23.04
		1	53	23.11	23.11	23.10
		1	104	23.08	23.10	23.02
		50	0	22.85	23.03	22.92
		50	28	23.03	23.04	22.90
		50	56	23.07	22.94	22.89
		100	0	23.10	23.12	23.07
	DFT-s-OFDM QPSK	1	1	23.15	23.19	23.09
		1	53	23.11	23.15	23.06
		1	104	23.12	23.11	23.01
		50	0	22.98	22.99	22.97
		50	28	22.92	22.92	22.95
		50	56	22.97	22.85	22.88
		100	0	23.11	23.15	23.05
	DFT-s-OFDM 16QAM	1	1	22.44	22.66	22.58
	DFT-s-OFDM 64QAM	1	1	20.97	21.13	21.09
	DFT-s-OFDM 256QAM	1	1	19.22	19.32	19.23
BW	MCS Index	Channel		501500	507000	512500
		Frequency (MHz)		2507.5	2535	2562.5
15M	DFT-s-OFDM QPSK	1	1	22.98	23.10	23.02
BW	MCS Index	Channel		501000	507000	513000
		Frequency (MHz)		2505	2535	2565
10M	DFT-s-OFDM QPSK	1	1	22.85	23.09	23.00
BW	MCS Index	Channel		500500	507000	513500
		Frequency (MHz)		2502.5	2535	2567.5
5M	DFT-s-OFDM QPSK	1	1	22.83	22.95	22.92



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N25(ANT0)

n25 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		372000	376500	381000
		Frequency (MHz)		1860	1882.5	1905
20M	DFT-s-OFDM Pi/2 BPSK	1	1	24.08	23.89	23.90
		1	53	24.11	23.94	23.86
		1	104	23.95	23.91	23.40
		50	0	23.72	23.50	23.46
		50	28	24.07	23.95	24.12
		50	56	23.65	23.56	23.55
		100	0	23.67	23.53	23.69
	DFT-s-OFDM QPSK	1	1	24.16	23.97	23.96
		1	53	23.93	23.73	23.86
		1	104	23.97	23.42	23.56
		50	0	23.29	23.11	23.21
		50	28	24.12	24.08	24.07
		50	56	23.20	23.09	23.30
		100	0	23.28	23.13	23.18
	DFT-s-OFDM 16QAM	1	1	23.53	23.36	22.86
	DFT-s-OFDM 64QAM	1	1	21.44	21.22	21.24
	DFT-s-OFDM 256QAM	1	1	19.49	19.34	19.36
BW	MCS Index	Channel		371500	376500	381500
		Frequency (MHz)		1857.5	1882.5	1907.5
15M	DFT-s-OFDM QPSK	1	1	24.09	23.93	23.94
BW	MCS Index	Channel		371000	376500	382000
		Frequency (MHz)		1855	1882.5	1910
10M	DFT-s-OFDM QPSK	1	1	24.13	23.96	23.81
BW	MCS Index	Channel		370500	376500	382500
		Frequency (MHz)		1852.5	1882.5	1912.5
5M	DFT-s-OFDM QPSK	1	1	24.08	23.92	23.92

N38(ANT2)

n38 (SCS 30 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		518000	519000	520000
		Frequency (MHz)		2590	2595	2600
40M	DFT-s-OFDM Pi/2 BPSK	1	1	23.85	23.99	23.86
		1	53	23.96	23.88	23.85
		1	104	23.97	23.93	23.95
		50	0	23.35	23.52	23.49
		50	28	24.01	24.04	23.90
		50	56	23.43	23.51	23.43
		100	0	23.52	23.58	23.41
	DFT-s-OFDM QPSK	1	1	23.85	24.08	23.87
		1	53	23.81	23.89	23.77
		1	104	23.79	23.85	23.84
		50	0	22.91	23.03	22.98
		50	28	23.97	23.99	23.94
		50	56	22.95	23.09	22.91
		100	0	22.93	23.04	22.89
	DFT-s-OFDM 16QAM	1	1	22.81	22.98	22.94
	DFT-s-OFDM 64QAM	1	1	20.92	21.18	20.87
	DFT-s-OFDM 256QAM	1	1	19.15	19.27	19.17
BW	MCS Index	Channel		517000	519000	521000
		Frequency (MHz)		2585	2595	2605
30M	DFT-s-OFDM QPSK	1	1	23.76	23.92	23.86
BW	MCS Index	Channel		516000	519000	522000
		Frequency (MHz)		2580	2595	2610
20M	DFT-s-OFDM QPSK	1	1	23.83	24.00	23.74

N41(ANT2) PC3:

PC3_n41 (SCS 30 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		509202	518598	528000
		Frequency (MHz)		2546.01	2592.99	2640
100M	DFT-s-OFDM Pi/2 BPSK	1	1	22.79	22.58	22.86
		1	137	22.71	22.63	22.72
		1	271	22.85	22.56	22.83
		135	0	22.72	22.63	22.62
		135	69	22.91	22.88	22.86
		135	138	22.89	22.79	22.76
		270	0	22.87	22.86	22.85
	DFT-s-OFDM QPSK	1	1	22.91	22.75	22.95
		1	137	22.89	22.71	22.73
		1	271	22.87	22.73	22.91
		135	0	22.93	22.72	22.94
		135	69	22.92	22.71	22.84
		135	138	22.85	22.68	22.83
		270	0	22.87	22.66	22.89
	DFT-s-OFDM 16QAM	1	1	22.66	22.58	22.59
	DFT-s-OFDM 64QAM	1	1	22.32	22.24	22.21
	DFT-s-OFDM 256QAM	1	1	20.98	20.90	20.92
BW	MCS Index	Channel		508200	518598	528996
		Frequency (MHz)		2541	2592.99	2644.98
90M	DFT-s-OFDM QPSK	1	1	22.77	22.65	22.81
BW	MCS Index	Channel		507204	518598	529998
		Frequency (MHz)		2536.02	2592.99	2649.99
80M	DFT-s-OFDM QPSK	1	1	22.90	22.60	22.85
BW	MCS Index	Channel		505200	518598	531996
		Frequency (MHz)		2526	2592.99	2659.98
60M	DFT-s-OFDM QPSK	1	1	22.87	22.66	22.81
BW	MCS Index	Channel		504204	518598	532998
		Frequency (MHz)		2521.02	2592.99	2664.99
50M	DFT-s-OFDM QPSK	1	1	22.82	22.60	22.94
BW	MCS Index	Channel		503202	518598	534000
		Frequency (MHz)		2516.01	2592.99	2670
40M	DFT-s-OFDM QPSK	1	1	22.89	22.74	22.85
BW	MCS Index	Channel		502200	518598	534996
		Frequency (MHz)		2511	2592.99	2674.98



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30M	DFT-s-OFDM QPSK	1	1	22.83	22.70	22.87
BW	MCS Index	Channel		501204	518598	535998
		Frequency (MHz)		2506.02	2592.99	2679.99
20M	DFT-s-OFDM QPSK	1	1	22.82	22.73	22.83

N41(ANT2)PC2:

PC2_n41 (SCS 30 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		509202	518598	528000
		Frequency (MHz)		2546.01	2592.99	2640
100M	DFT-s-OFDM Pi/2 BPSK	1	1	25.77	25.73	25.78
		1	137	25.71	25.33	25.74
		1	271	25.76	25.72	24.32
		135	0	24.89	25.25	24.82
		135	69	25.64	25.36	25.55
		135	138	25.12	24.80	25.00
		270	0	25.11	24.75	24.78
	DFT-s-OFDM QPSK	1	1	25.75	25.68	25.82
		1	137	25.74	25.49	25.78
		1	271	25.71	25.65	25.01
		135	0	24.91	25.22	24.81
		135	69	25.62	25.34	25.68
		135	138	25.16	24.79	24.96
		270	0	25.01	24.92	25.06
	DFT-s-OFDM 16QAM	1	1	24.54	24.62	24.58
	DFT-s-OFDM 64QAM	1	1	22.99	22.82	22.93
	DFT-s-OFDM 256QAM	1	1	21.13	21.25	21.07
BW	MCS Index	Channel		508200	518598	528996
		Frequency (MHz)		2541	2592.99	2644.98
90M	DFT-s-OFDM QPSK	1	1	25.67	25.56	25.72
BW	MCS Index	Channel		507204	518598	529998
		Frequency (MHz)		2536.02	2592.99	2649.99
80M	DFT-s-OFDM QPSK	1	1	25.63	25.66	25.75
BW	MCS Index	Channel		505200	518598	531996
		Frequency (MHz)		2526	2592.99	2659.98
60M	DFT-s-OFDM QPSK	1	1	25.71	25.61	25.69
BW	MCS Index	Channel		504204	518598	532998
		Frequency (MHz)		2521.02	2592.99	2664.99
50M	DFT-s-OFDM QPSK	1	1	25.64	25.55	25.70
BW	MCS Index	Channel		503202	518598	534000
		Frequency (MHz)		2516.01	2592.99	2670
40M	DFT-s-OFDM QPSK	1	1	25.64	25.67	25.70
BW	MCS Index	Channel		502200	518598	534996
		Frequency (MHz)		2511	2592.99	2674.98



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30M	DFT-s-OFDM QPSK	1	1	25.61	25.57	25.68
BW	MCS Index	Channel		501204	518598	535998
		Frequency (MHz)		2506.02	2592.99	2679.99
20M	DFT-s-OFDM QPSK	1	1	25.73	25.61	25.78



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Test Report No.: PSU-QSU2312140113RF07

N66(ANT0)

n66 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		344000	349000	354000
		Frequency (MHz)		1720	1745	1770
20M	DFT-s-OFDM Pi/2 BPSK	1	1	23.80	24.12	24.15
		1	53	23.91	24.27	24.05
		1	104	24.08	24.24	24.12
		50	0	23.34	23.80	23.06
		50	28	23.86	24.24	23.45
		50	56	23.53	23.78	23.54
		100	0	23.42	23.71	23.64
	DFT-s-OFDM QPSK	1	1	24.03	24.29	24.15
		1	53	23.68	24.21	23.94
		1	104	23.98	24.27	23.91
		50	0	23.17	23.29	23.23
		50	28	23.90	24.25	24.17
		50	56	23.06	23.43	23.09
		100	0	22.97	23.29	23.17
	DFT-s-OFDM 16QAM	1	1	23.24	23.53	23.00
	DFT-s-OFDM 64QAM	1	1	21.10	21.57	21.46
	DFT-s-OFDM 256QAM	1	1	19.07	19.37	19.42
BW	MCS Index	Channel		343500	349000	354500
		Frequency (MHz)		1717.5	1745	1772.5
15M	DFT-s-OFDM QPSK	1	1	24.02	24.23	24.09
BW	MCS Index	Channel		343000	349000	355000
		Frequency (MHz)		1715	1745	1775
10M	DFT-s-OFDM QPSK	1	1	23.90	24.18	24.04
BW	MCS Index	Channel		342500	349000	355500
		Frequency (MHz)		1712.5	1745	1777.5
5M	DFT-s-OFDM QPSK	1	1	23.88	24.22	24.06



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Test Report No.: PSU-QSU2312140113RF07

N71(ANT0)

n71 (SCS 15 kHz)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		134600	136100	137600
		Frequency (MHz)		673	680.5	688
20M	DFT-s-OFDM Pi/2 BPSK	1	1	24.06	23.83	23.99
		1	53	23.96	24.04	24.05
		1	104	23.94	23.80	23.83
		50	0	23.11	23.53	23.51
		50	28	23.88	24.02	23.93
		50	56	23.28	23.41	23.50
		100	0	23.57	23.55	23.48
	DFT-s-OFDM QPSK	1	1	24.07	23.89	23.96
		1	53	23.71	23.87	23.88
		1	104	23.78	23.69	23.76
		50	0	23.11	23.03	23.09
		50	28	24.04	24.01	23.96
		50	56	23.06	22.97	22.98
		100	0	23.12	23.10	22.95
	DFT-s-OFDM 16QAM	1	1	23.48	23.34	23.29
	DFT-s-OFDM 64QAM	1	1	21.37	21.17	21.21
	DFT-s-OFDM 256QAM	1	1	19.49	19.21	19.33
BW	MCS Index	Channel		134100	136100	138100
		Frequency (MHz)		670.5	680.5	690.5
15M	DFT-s-OFDM QPSK	1	1	24.05	23.81	23.89
BW	MCS Index	Channel		133600	136100	138600
		Frequency (MHz)		668	680.5	693
10M	DFT-s-OFDM QPSK	1	1	24.02	23.74	23.87
BW	MCS Index	Channel		133100	136100	139100
		Frequency (MHz)		665.5	680.5	695.5
5M	DFT-s-OFDM QPSK	1	1	23.98	23.81	23.89



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Test Report No.: PSU-QSU2312140113RF07

N77(Part 27Q)(ANT5)PC3:

PC3_n77 (SCS 30 kHz) 3450~3550MHz						
BW	MCS Index	RB Size	RB Offset	/	Mid	/
		Channel		/	633334	/
		Frequency (MHz)		/	3500.01	/
100M	DFT-s-OFDM Pi/2 BPSK	1	1	/	22.76	/
		1	137	/	22.09	/
		1	271	/	22.75	/
		135	0	/	22.66	/
		135	69	/	22.22	/
		135	138	/	22.32	/
		270	0	/	22.51	/
	DFT-s-OFDM QPSK	1	1	/	22.93	/
		1	137	/	22.34	/
		1	271	/	22.75	/
		135	0	/	22.51	/
		135	69	/	22.27	/
		135	138	/	22.54	/
		270	0	/	22.49	/
	DFT-s-OFDM 16QAM	1	1	/	22.21	/
	DFT-s-OFDM 64QAM	1	1	/	21.11	/
	DFT-s-OFDM 256QAM	1	1	/	19.50	/
BW	MCS Index	Channel		632668	633334	634000
		Frequency (MHz)		3490.02	3500.01	3510
80M	DFT-s-OFDM QPSK	1	1	22.73	22.77	22.82
BW	MCS Index	Channel		632000	633334	634666
		Frequency (MHz)		3480	3500.01	3519.99
60M	DFT-s-OFDM QPSK	1	1	22.86	22.69	22.88
BW	MCS Index	Channel		631334	633334	635332
		Frequency (MHz)		3470.01	3500.01	3529.98
40M	DFT-s-OFDM QPSK	1	1	22.79	22.73	22.84
BW	MCS Index	Channel		631002	633334	635664
		Frequency (MHz)		3465.03	3500.01	3534.96
30M	DFT-s-OFDM QPSK	1	1	22.91	22.66	22.85
BW	MCS Index	Channel		630668	633334	636000
		Frequency (MHz)		3460.02	3500.01	3540
20M	DFT-s-OFDM QPSK	1	1	22.88	22.63	22.87



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Test Report No.: PSU-QSU2312140113RF07

N77(Part 27Q)(ANT5) PC2

PC2_n77 (SCS 30 kHz) 3450~3550MHz						
BW	MCS Index	RB Size	RB Offset	/	Mid	/
		Channel		/	633334	/
		Frequency (MHz)		/	3500.01	/
100M	DFT-s-OFDM Pi/2 BPSK	1	1	/	25.38	/
		1	137	/	25.41	/
		1	271	/	25.48	/
		135	0	/	24.99	/
		135	69	/	25.49	/
		135	138	/	24.96	/
		270	0	/	24.92	/
	DFT-s-OFDM QPSK	1	1	/	25.52	/
		1	137	/	25.42	/
		1	271	/	25.39	/
		135	0	/	24.46	/
		135	69	/	25.45	/
		135	138	/	24.49	/
		270	0	/	24.52	/
	DFT-s-OFDM 16QAM	1	1	/	23.81	/
	DFT-s-OFDM 64QAM	1	1	/	21.73	/
	DFT-s-OFDM 256QAM	1	1	/	20.81	/
BW	MCS Index	Channel		632668	633334	634000
		Frequency (MHz)		3490.02	3500.01	3510
80M	DFT-s-OFDM QPSK	1	1	24.83	24.88	24.55
BW	MCS Index	Channel		632000	633334	634666
		Frequency (MHz)		3480	3500.01	3519.99
60M	DFT-s-OFDM QPSK	1	1	24.79	24.81	24.44
BW	MCS Index	Channel		631334	633334	635332
		Frequency (MHz)		3470.01	3500.01	3529.98
40M	DFT-s-OFDM QPSK	1	1	24.75	24.84	24.47
BW	MCS Index	Channel		631002	633334	635664
		Frequency (MHz)		3465.03	3500.01	3534.96
30M	DFT-s-OFDM QPSK	1	1	24.78	24.77	24.43
BW	MCS Index	Channel		630668	633334	636000
		Frequency (MHz)		3460.02	3500.01	3540
20M	DFT-s-OFDM QPSK	1	1	24.75	24.80	24.47



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VERITAS**

Test Report No.: PSU-QSU2312140113RF07

N77(Part 270)(ANT5)PC3:

PC3_n77 (SCS 30 kHz) 3700~3980MHz						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3750	3840	3930
100M	DFT-s-OFDM Pi/2 BPSK	1	1	22.24	22.38	22.53
		1	137	22.53	22.60	22.50
		1	271	22.78	22.59	21.98
		135	0	22.45	22.54	22.53
		135	69	22.65	22.60	22.46
		135	138	22.61	22.48	22.27
		270	0	22.56	22.54	22.35
	DFT-s-OFDM QPSK	1	1	22.14	22.31	22.39
		1	137	22.88	22.58	22.56
		1	271	22.74	22.55	22.41
		135	0	22.42	22.51	22.49
		135	69	22.57	22.57	22.42
		135	138	22.66	22.59	22.53
		270	0	22.53	22.49	22.39
	DFT-s-OFDM 16QAM	1	137	22.61	22.52	22.45
	DFT-s-OFDM 64QAM	1	137	22.57	22.46	22.53
	DFT-s-OFDM 256QAM	1	137	20.36	20.68	20.52
BW	MCS Index	Channel		650000	656000	662666
		Frequency (MHz)		3750	3840	3939.99
80M	DFT-s-OFDM QPSK	1	109	22.76	22.56	22.46
BW	MCS Index	Channel		650000	656000	663332
		Frequency (MHz)		3750	3840	3949.98
60M	DFT-s-OFDM QPSK	1	81	22.69	22.66	22.57
BW	MCS Index	Channel		650000	656000	664000
		Frequency (MHz)		3750	3840	3960
40M	DFT-s-OFDM QPSK	1	53	22.81	22.53	22.51
BW	MCS Index	Channel		650000	656000	664332
		Frequency (MHz)		3750	3840	3964.98
30M	DFT-s-OFDM QPSK	1	39	22.69	22.64	22.56
BW	MCS Index	Channel		650000	656000	664666
		Frequency (MHz)		3750	3840	3969.99
20M	DFT-s-OFDM QPSK	1	26	22.70	22.53	22.50

N77(Part 270)(ANT5)PC2

PC2_n77 (SCS 30 kHz) 3700~3980MHz						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3750	3840	3930
100M	DFT-s-OFDM Pi/2 BPSK	1	1	25.77	25.73	25.78
		1	137	25.71	25.33	25.74
		1	271	25.76	25.72	24.32
		135	0	24.89	25.25	24.82
		135	69	25.64	25.36	25.55
		135	138	25.12	24.80	25.00
		270	0	25.11	24.75	24.78
	DFT-s-OFDM QPSK	1	1	25.75	25.68	25.82
		1	137	25.74	25.49	25.78
		1	271	25.71	25.65	25.01
		135	0	24.91	25.22	24.81
		135	69	25.62	25.34	25.68
		135	138	25.16	24.79	24.96
		270	0	24.96	24.92	24.97
	DFT-s-OFDM 16QAM	1	1	24.54	24.62	24.58
	DFT-s-OFDM 64QAM	1	1	22.99	22.82	22.93
	DFT-s-OFDM 256QAM	1	1	21.13	21.25	21.07
BW	MCS Index	Channel		649334	656000	662666
		Frequency (MHz)		3740.01	3840	3939.99
80M	DFT-s-OFDM QPSK	1	1	25.07	25.62	25.26
BW	MCS Index	Channel		648668	656000	663332
		Frequency (MHz)		3730.02	3840	3949.98
60M	DFT-s-OFDM QPSK	1	1	25.19	25.51	25.34
BW	MCS Index	Channel		648000	656000	664000
		Frequency (MHz)		3720	3840	3960
40M	DFT-s-OFDM QPSK	1	1	25.08	25.54	25.30
BW	MCS Index	Channel		647670	656000	664332
		Frequency (MHz)		3715.05	3840	3964.98
30M	DFT-s-OFDM QPSK	1	1	25.08	25.58	25.26
BW	MCS Index	Channel		647334	656000	664666
		Frequency (MHz)		3710.01	3840	3969.99
20M	DFT-s-OFDM QPSK	1	1	25.11	25.60	25.33



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Test Report No.: PSU-QSU2312140113RF07

N78(Part 27Q)(ANT5)PC3:

PC3_n78 (SCS 30 kHz) 3450~3550MHz						
BW	MCS Index	RB Size	RB Offset	/	Mid	/
		Channel		/	633334	/
		Frequency (MHz)		/	3500.01	/
100M	DFT-s-OFDM Pi/2 BPSK	1	1	/	22.62	/
		1	137	/	22.14	/
		1	271	/	22.61	/
		135	0	/	22.58	/
		135	69	/	22.32	/
		135	138	/	22.37	/
		270	0	/	22.51	/
	DFT-s-OFDM QPSK	1	1	/	22.71	/
		1	137	/	22.09	/
		1	271	/	22.63	/
		135	0	/	22.61	/
		135	69	/	22.30	/
		135	138	/	22.37	/
		270	0	/	22.57	/
	DFT-s-OFDM 16QAM	1	1	/	22.53	/
	DFT-s-OFDM 64QAM	1	1	/	21.97	/
	DFT-s-OFDM 256QAM	1	1	/	21.14	/
BW	MCS Index	Channel		633000	633334	633666
		Frequency (MHz)		3495	3500.01	3504.99
90M	DFT-s-OFDM QPSK	1	1	22.65	22.66	22.57
BW	MCS Index	Channel		632668	633334	634000
		Frequency (MHz)		3490.02	3500.01	3510
80M	DFT-s-OFDM QPSK	1	1	22.61	22.51	22.46
BW	MCS Index	Channel		632334	633334	634332
		Frequency (MHz)		3485.01	3500.01	3514.98
70M	DFT-s-OFDM QPSK	1	1	22.60	22.60	22.53
BW	MCS Index	Channel		632000	633334	634666
		Frequency (MHz)		3480	3500.01	3519.99
60M	DFT-s-OFDM QPSK	1	1	22.56	22.57	22.56
BW	MCS Index	Channel		631334	633334	635332
		Frequency (MHz)		3470.01	3500.01	3529.98
40M	DFT-s-OFDM QPSK	1	1	22.58	22.64	22.44
BW	MCS	Channel		631002	633334	635664