

FCC RF Test Report

(5G NR)

Applicant: TECNO MOBILE LIMITED

Address of Applicant: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE
19-25 SHAN MEI STREET FOTAN NT HONGKONG

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: AD11

Trade Mark: TECNO

FCC ID: 2ADYY-AD11

Applicable Standards: FCC CFR Title 47 Part 2, 22H, 27L&M& H&O&Q

Date of Sample Receipt: 12 Apr., 2023

Date of Test: 13 Apr., to 14 Jun., 2023

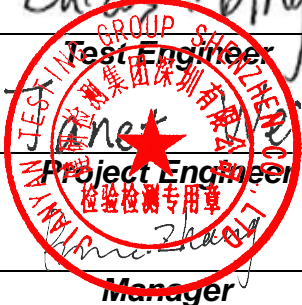
Date of Report Issued: 15 Jun., 2023

Test Result: PASS

Tested by: Luoyu Ding **Date:** 15 Jun., 2023
Test Engineer

Reviewed by: Jane **Date:** 15 Jun., 2023
Project Engineer

Approved by: Zhang **Date:** 15 Jun., 2023
Manager



This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

1 Version

Version No.	Date	Description
00	15 Jun., 2023	Original

2 Contents

Page

Cover Page	1
1 Version	2
2 Contents	3
3 General Information	4
3.1 Client Information	4
3.2 General Description of E.U.T.	4
3.3 Test Mode and Environment	6
3.4 Description of Test Auxiliary Equipment	6
3.5 Measurement Uncertainty	6
3.6 Additions to, Deviations, or Exclusions from the Method	6
3.7 Laboratory Facility	6
3.8 Laboratory Location	7
3.9 Test Instruments List	7
4 Measurement Setup and Procedure	8
4.1 Test Channel	8
4.2 Test Setup	16
4.3 Test Procedure	17
5 Test Results	18
5.1 Summary	18
5.1.1 Clause and Data Summary	18
5.1.2 Test Limit	19
5.2 Field Strength of Spurious Radiation Measurement	21

3 General Information

3.1 Client Information

Applicant:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	TECNO MOBILE LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Factory:	SHENZHEN TECNO TECHNOLOGY CO., LTD.
Address:	101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China

3.2 General Description of E.U.T.

Product Name:	Mobile Phone			
Model No.:	AD11			
Operation Frequency Range:	Band n5:	Tx: 824 MHz - 849 MHz	Rx: 869 MHz - 894 MHz	
	Band n7:	Tx: 2500 MHz - 2570 MHz	Rx: 2620 MHz - 2690 MHz	
	Band n12:	Tx: 699 MHz - 716 MHz	Rx: 729 MHz - 746 MHz	
	Band n38:	Tx: 2570 MHz - 2620 MHz	Rx: 2570 MHz - 2620 MHz	
	Band n41:	Tx: 2496 MHz - 2690 MHz	Rx: 2496 MHz - 2690 MHz	
	Band n66:	Tx: 1710 MHz - 1780 MHz	Rx: 2110 MHz - 2200 MHz	
	Band n77:	Tx: 3450 MHz - 3550 MHz	Rx: 3450 MHz - 3550 MHz	
	Band n77:	Tx: 3700 MHz - 3980 MHz	Rx: 3700 MHz - 3980 MHz	
	Band n78:	Tx: 3450 MHz - 3550 MHz	Rx: 3450 MHz - 3550 MHz	
	Band n78:	Tx: 3700 MHz - 3800 MHz	Rx: 3700 MHz - 3800 MHz	
Modulation Type:	<input checked="" type="checkbox"/> DFT-s-OFDM:	Pi/2-BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM		
	<input checked="" type="checkbox"/> CP-OFDM:	QPSK, 16-QAM, 64-QAM, 256-QAM		
Network Mode:	<input checked="" type="checkbox"/> SA:	n5, n7, n12, n38, n41, n66, n77, n78		
	<input checked="" type="checkbox"/> NSA(EN-DC):	DC_5A_n7A, DC_5A_n41A, DC_41A_n41A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_41A_n78A, DC_66A_n78A, DC_5A_n77A, DC_7A_n77A, DC_41A_n77A, DC_66A_n77A, DC_7C_n78A, DC_41C_n78A, DC_7C_n77A, DC_41C_n77A, DC_41C_n41A, DC_7A-7A_n78A, DC_2A-7A_n78A, DC_5A-7A_n78A, DC_2A-7C_n78A (LTE Band 7C and 41C only supports downlink)		
SCS Support:	<input checked="" type="checkbox"/> 15 kHz	<input checked="" type="checkbox"/> 30 kHz	<input type="checkbox"/> 60 kHz	<input type="checkbox"/> 120 kHz
Antenna Type:	Internal Antenna			
Antenna Gain:	Band n5:	Flip: -10.0 dBi (declare by Applicant)		
		Unflip: -7.2 dBi (declare by Applicant)		
	Band n7:	Flip: -1.5 dBi (declare by Applicant)		
		Unflip: -0.98 dBi (declare by Applicant)		
	Band n12:	Flip: -8.5 dBi (declare by Applicant)		
		Unflip: -2.1 dBi (declare by Applicant)		
	Band n38:	Flip: -1.5 dBi (declare by Applicant)		
		Unflip: -0.98 dBi (declare by Applicant)		
Band n41:	Flip: -1.5 dBi (declare by Applicant)			

		Unflip: -0.98 dBi (declare by Applicant)
	Band n66:	Flip: -3.8 dBi (declare by Applicant)
		Unflip: -1.4 dBi (declare by Applicant)
	Band n77:	Flip: -0.1 dBi (declare by Applicant)
		Unflip: -3.0 dBi (declare by Applicant)
	Band n78:	Flip: -0.1 dBi (declare by Applicant)
Unflip: -3.0 dBi (declare by Applicant)		
Power Supply:	Rechargeable Li-ion Polymer Battery DC3.89V, 1165mAh & Rechargeable Li-ion Polymer Battery DC3.89V, 2735mAh	
AC Adapter:	Model: U450TSA Input: AC100-240V, 50/60Hz, 0.18A Output: DC 5.0V, 2.0A or 11.0V, 4.1AMAX	
Test Sample Condition:	The test samples were provided in good working order with no visible defects.	

3.3 Test Mode and Environment

Test Mode:	
DFT-s-OFDM access mode:	Keep the EUT communication with simulated station in Pi/2-BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM modulation of DFT-s-OFDM access mode.
CP-OFDM access mode:	Keep the EUT communication with simulated station in Pi/2-BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM modulation of CP-OFDM access mode.
<ol style="list-style-type: none"> Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes. Just the worst case position (H mode) shown in report. The field strength of spurious radiation emission was pre-scan of flip and unflip states shows that unflip state is the worst mode, and the report only reflects the worst mode. 	
Operating Environment:	
Temperature:	15°C ~ 35°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.89 Vdc, Extreme: Low 3.45 Vdc, High 4.48 Vdc

3.4 Description of Test Auxiliary Equipment

Test Equipment	Manufacturer	Model No.	Serial No.
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY60192444

3.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Radiated Emission (30MHz ~ 1GHz) (3m SAC)	3.8 dB
Radiated Emission (1GHz ~ 18GHz) (3m SAC)	3.6 dB
Radiated Emission (18GHz ~ 40GHz) (3m SAC)	5.34 dB

Note: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

3.6 Additions to, Deviations, or Exclusions from the Method

No

3.7 Laboratory Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> ● FCC - Designation No.: CN1211 JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551. ● ISED – CAB identifier.: CN0021 The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1. ● CNAS - Registration No.: CNAS L15527 JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527. ● A2LA - Registration No.: 4346.01 This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf
--

3.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
 Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
 Tel: +86-755-23118282, Fax: +86-755-23116366
 Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

3.9 Test Instruments List

Radiated Emission(3m SAC):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	04-14-2021	04-13-2024
Loop Antenna	Schwarzbeck	FMZB 1519 B	WXJ002-4	02-09-2023	02-08-2024
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	02-09-2023	02-08-2024
Biconical Antenna	Schwarzbeck	VUBA9117	WXJ002-1	07-02-2021	07-01-2024
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	02-09-2023	02-08-2024
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-3	01-09-2023	01-08-2024
Horn Antenna	Schwarzbeck	BBHA9170	WXJ002-5	01-09-2023	01-08-2024
Horn Antenna	Schwarzbeck	BBHA9170	WXJ002-6	01-10-2023	01-09-2024
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXJ001-2	01-09-2023	01-08-2024
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXJ001-3	01-10-2023	01-09-2024
Pre-amplifier (18GHz ~ 40GHz)	RF System	TRLA-180400G45B	WXJ002-7	01-11-2023	01-10-2024
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	01-11-2023	01-10-2024
Spectrum Analyzer	Rohde & Schwarz	FSP 30	WXJ004	01-10-2023	01-09-2024
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ004-2	10-17-2022	10-16-2023
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	01-18-2023	01-17-2024
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	01-18-2023	01-17-2024
Coaxial Cable (18GHz ~ 40GHz)	JYTSZ	JYT3M-40G-SS-8M	WXG001-7	01-18-2023	01-17-2024
Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Test Software	Tonscend	TS+	Version: 3.0.0.1		

Conducted Method:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
Spectrum Analyzer	Keysight	N9010B	WXJ004-2	10-17-2022	10-16-2023
UXM 5G Wireless Test Platform	Keysight	E7515B	WXJ008-6	10-17-2022	10-16-2023
Temperature Humidity Chamber	HONG ZHI	CZ-A-80D	WXJ032-2	01-09-2023	01-08-2025
RF Control Box	MWRF-test	MW400-RFCB	WXG005	N/A	
Automatic Filter Box	MWRF-test	MW400-SFCB1	WXG005-1	N/A	
Automatic Filter Box	MWRF-test	MW400-SFCB2	WXG005-2	N/A	
DC Power Supply	Keysight	E3642A	WXJ025-3	N/A	
Test Software	MWRF-test	MTS 8200 NR	Version: 2.0.0.0		

4 Measurement Setup and Procedure

4.1 Test Channel

According to ANSI C63.26-2015 chapter 5.1.2.1 Table 2 requirement, select lowest channel, middle channel, and highest channel in the frequency range in which device operates for testing. The detailed frequency points are as follows:

Band n5, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
5 MHz			10 MHz		
Lowest	165300	826.5	Lowest	165800	829.0
Middle	167300	836.5	Middle	167300	836.5
Highest	169300	846.5	Highest	168800	844.0
15 MHz			20 MHz		
Lowest	166300	831.5	Lowest	166800	834.0
Middle	167300	836.5	Middle	167300	836.5
Highest	168300	841.5	Highest	167800	839.0
Band n5, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	165800	829.0	Lowest	166300	831.5
Middle	167300	836.5	Middle	167300	836.5
Highest	168800	844.0	Highest	168300	841.5
20 MHz					
Lowest	166800	834.0			
Middle	167300	836.5			
Highest	167800	839.0			
Band n7, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
5 MHz			10 MHz		
Lowest	500500	2502.5	Lowest	501000	2505.0
Middle	507000	2535.0	Middle	507000	2535.0
Highest	513500	2567.5	Highest	513000	2565.0
15 MHz			20 MHz		
Lowest	501500	2507.5	Lowest	502000	2510.0
Middle	507000	2535.0	Middle	507000	2535.0
Highest	512500	2562.5	Highest	512000	2560.0
Band n7, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	501000	2505.0	Lowest	501500	2507.5
Middle	507000	2535.0	Middle	507000	2535.0
Highest	513000	2565.0	Highest	512500	2562.5
20 MHz					
Lowest	502000	2510.0			
Middle	507000	2535.0			
Highest	512000	2560.0			

Band n12, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
5 MHz			10 MHz		
Lowest	140300	701.5	Lowest	140800	704.0
Middle	141500	707.5	Middle	141500	707.5
Highest	142700	713.5	Highest	142200	711.0
15 MHz					
Lowest	141300	706.5			
Middle	141500	707.5			
Highest	141700	708.5			
Band n12, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	140800	704.0	Lowest	141300	706.5
Middle	141500	707.5	Middle	141500	707.5
Highest	142200	711.0	Highest	141700	708.5
Band n38, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
5 MHz			10 MHz		
Lowest	514500	2572.5	Lowest	515000	2575.0
Middle	518500	2592.5	Middle	519000	2595.0
Highest	523500	2617.5	Highest	523000	2615.0
15 MHz			20 MHz		
Lowest	515500	2577.5	Lowest	516000	2580.0
Middle	519000	2595.0	Middle	519000	2595.0
Highest	522500	2612.5	Highest	522000	2610.0
40 MHz					
Lowest	518000	2590.0			
Middle	519000	2595.0			
Highest	520000	2600.0			
Band n38, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	515000	2575.0	Lowest	515500	2577.5
Middle	519000	2595.0	Middle	519000	2595.0
Highest	523000	2615.0	Highest	522500	2612.5
20 MHz			40 MHz		
Lowest	516000	2580.0	Lowest	518000	2590.0
Middle	519000	2595.0	Middle	519000	2595.0
Highest	522000	2610.0	Highest	520000	2600.0

Band n41, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	500202	2501.010	Lowest	500700	2503.500
Middle	518601	2593.005	Middle	518601	2593.005
Highest	537000	2685.000	Highest	536499	2682.495
20 MHz			30 MHz		
Lowest	501201	2506.005	Lowest	502200	2511.000
Middle	518601	2593.005	Middle	518601	2593.005
Highest	535998	2679.990	Highest	534999	2674.995
40 MHz			50 MHz		
Lowest	503202	2516.010	Lowest	504201	2521.005
Middle	518601	2593.005	Middle	518601	2593.005
Highest	534000	2670.000	Highest	532998	2664.990
Band n41, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	500202	2501.010	Lowest	500700	2503.500
Middle	518598	2592.990	Middle	518598	2592.990
Highest	537000	2685.000	Highest	536496	2682.480
20 MHz			30 MHz		
Lowest	501204	2506.020	Lowest	502200	2511.000
Middle	518598	2592.990	Middle	518598	2592.990
Highest	535998	2679.990	Highest	534996	2674.980
40 MHz			50 MHz		
Lowest	503202	2516.010	Lowest	504204	2521.020
Middle	518598	2592.990	Middle	518598	2592.990
Highest	534000	2670.000	Highest	532998	2664.990
60 MHz			80 MHz		
Lowest	505200	2526.000	Lowest	507204	2536.020
Middle	518598	2592.990	Middle	518598	2592.990
Highest	531996	2659.980	Highest	52998	2649.990
90 MHz			100 MHz		
Lowest	508200	2541.000	Lowest	509202	2546.010
Middle	518598	2592.990	Middle	518598	2592.990
Highest	528996	2644.980	Highest	528000	2640.000

Band n66, SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
5 MHz			10 MHz		
Lowest	342500	1712.5	Lowest	343000	1715.0
Middle	349000	1745.0	Middle	349000	1745.0
Highest	355500	1777.5	Highest	355000	1775.0
15 MHz			20 MHz		
Lowest	343500	1717.5	Lowest	344000	1720.0
Middle	349000	1745.0	Middle	349000	1745.0
Highest	354500	1772.5	Highest	354000	1770.0
40 MHz					
Lowest	346000	1730.0			
Middle	349000	1745.0			
Highest	352000	1760.0			
Band n66, SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	343000	1715.0	Lowest	343500	1717.5
Middle	349000	1745.0	Middle	349000	1745.0
Highest	355000	1775.0	Highest	354500	1772.5
20 MHz			40 MHz		
Lowest	344000	1720.0	Lowest	346000	1730.0
Middle	349000	1745.0	Middle	349000	1745.0
Highest	354000	1770.0	Highest	352000	1760.0

Band n77/78(3450-3550), SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	630334	3455.010	Lowest	630500	3457.500
Middle	633333	3499.995	Middle	633333	3499.995
Highest	636333	3544.995	Highest	636166	3542.490
20 MHz			30 MHz		
Lowest	630667	3460.005	Lowest	631000	3465.000
Middle	633333	3499.995	Middle	633333	3499.995
Highest	636000	3540.000	Highest	635666	3534.990
40 MHz			50 MHz		
Lowest	631334	3470.010	Lowest	631667	3475.005
Middle	633333	3499.995	Middle	633333	3499.995
Highest	635333	3529.995	Highest	635000	3525.000
Band n77/78(3450-3550), SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	630334	3455.010	Lowest	630500	3457.500
Middle	633334	3500.010	Middle	633334	3500.010
Highest	636332	3544.980	Highest	636166	3542.490
20 MHz			30 MHz		
Lowest	630668	3460.020	Lowest	631000	3465.000
Middle	633334	3500.010	Middle	633334	3500.010
Highest	636000	3540.000	Highest	635666	3534.990
40 MHz			50 MHz		
Lowest	631334	3470.010	Lowest	631668	3475.020
Middle	633334	3500.010	Middle	633334	3500.010
Highest	635332	3529.980	Highest	635000	3525.000
60 MHz			80 MHz		
Lowest	632000	3480.000	Lowest	632668	3490.020
Middle	633334	3500.010	Middle	633334	3500.010
Highest	634666	3519.990	Highest	634000	3510.000
90 MHz			100 MHz		
Lowest	633000	3495.000	Lowest	/	/
Middle	633334	3500.010	Middle	633334	3500.010
Highest	633666	3504.990	Highest	/	/

Band n77(3700-3980), SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	647000	3705.000	Lowest	647167	3707.505
Middle	656000	3840.000	Middle	656000	3840.000
Highest	665000	3975.000	Highest	664833	3972.495
20 MHz			30 MHz		
Lowest	647334	3710.010	Lowest	647667	3715.005
Middle	656000	3840.000	Middle	656000	3840.000
Highest	664666	3969.990	Highest	664333	3964.995
40 MHz			50 MHz		
Lowest	648000	3720.000	Lowest	648334	3725.010
Middle	656000	3840.000	Middle	656000	3840.000
Highest	664000	3960.000	Highest	663666	3954.990
Band n77(3700-3980), SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	647000	3705.000	Lowest	647168	3707.520
Middle	656000	3840.000	Middle	656000	3840.000
Highest	665000	3975.000	Highest	664832	3972.480
20 MHz			30 MHz		
Lowest	647334	3710.010	Lowest	647668	3715.020
Middle	656000	3840.000	Middle	656000	3840.000
Highest	664666	3969.990	Highest	664332	3964.980
40 MHz			50 MHz		
Lowest	648000	3720.000	Lowest	648334	3725.010
Middle	656000	3840.000	Middle	656000	3840.000
Highest	664000	3960.000	Highest	663666	3954.990
60 MHz			80 MHz		
Lowest	648668	3730.020	Lowest	649334	3740.010
Middle	656000	3840.000	Middle	656000	3840.000
Highest	663332	3949.980	Highest	662666	3939.990
90 MHz			100 MHz		
Lowest	649668	3745.020	Lowest	650000	3750.000
Middle	656000	3840.000	Middle	656000	3840.000
Highest	662332	3934.980	Highest	662000	3930.000

Band n78(3450-3550), SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	630334	3455.010	Lowest	630500	3457.500
Middle	633334	3500.010	Middle	633334	3500.010
Highest	636332	3544.980	Highest	636166	3542.490
20 MHz			30 MHz		
Lowest	630668	3460.020	Lowest	631000	3465.000
Middle	633334	3500.010	Middle	633334	3500.010
Highest	636000	3540.000	Highest	635666	3534.990
40 MHz			50 MHz		
Lowest	631334	3470.010	Lowest	631668	3475.020
Middle	633334	3500.010	Middle	633334	3500.010
Highest	635332	3529.980	Highest	635000	3525.000
60 MHz			70 MHz		
Lowest	632000	3480.000	Lowest	632334	3485.010
Middle	633334	3500.010	Middle	633334	3500.010
Highest	634666	3519.990	Highest	634332	3514.980
80 MHz			90 MHz		
Lowest	632668	3490.020	Lowest	633000	3495.000
Middle	633334	3500.010	Middle	633334	3500.010
Highest	634000	3510.000	Highest	633666	3504.990
100 MHz					
Lowest	/	/			
Middle	633334	3500.010			
Highest	/	/			

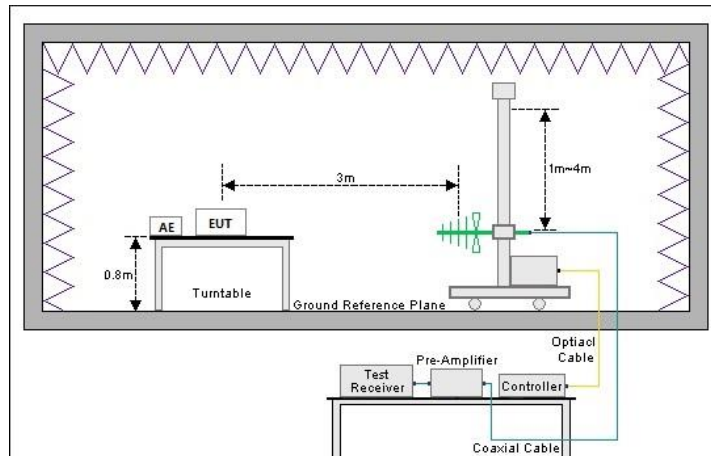
Band n78(3700-3800), SCS: 15 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	647000	3705.000	Lowest	647167	3707.505
Middle	650000	3750.000	Middle	650000	3750.000
Highest	653000	3795.000	Highest	652833	3792.495
20 MHz			30 MHz		
Lowest	647334	3710.010	Lowest	647667	3715.005
Middle	650000	3750.000	Middle	650000	3750.000
Highest	652666	3789.990	Highest	652333	3784.995
40 MHz			50 MHz		
Lowest	648000	3720.000	Lowest	648334	3725.010
Middle	650000	3750.000	Middle	650000	3750.000
Highest	652000	3780.000	Highest	651666	3774.990
Band n78(3700-3800), SCS: 30 kHz					
Channels	ARFCN	Frequency (MHz)	Channels	ARFCN	Frequency (MHz)
10 MHz			15 MHz		
Lowest	647000	3705.000	Lowest	647168	3707.520
Middle	650000	3750.000	Middle	650000	3750.000
Highest	653000	3795.000	Highest	652832	3792.480
20 MHz			30 MHz		
Lowest	647334	3710.010	Lowest	647668	3715.020
Middle	650000	3750.000	Middle	650000	3750.000
Highest	652666	3789.990	Highest	652332	3784.980
40 MHz			50 MHz		
Lowest	648000	3720.000	Lowest	648334	3725.010
Middle	650000	3750.000	Middle	650000	3750.000
Highest	652000	3780.000	Highest	651666	3774.990
60 MHz			70 MHz		
Lowest	648668	3730.020	Lowest	649000	3735.000
Middle	650000	3750.000	Middle	650000	3750.000
Highest	651332	3769.980	Highest	651000	3765.000
80 MHz			90 MHz		
Lowest	649334	3740.010	Lowest	649668	3745.020
Middle	650000	3750.000	Middle	650000	3750.000
Highest	650666	3759.990	Highest	650332	3754.980
100 MHz					
Lowest	650000	3750.000			
Middle	650000	3750.000			
Highest	650000	3750.000			

Note: 5G NR n78 (3450~3500MHz) and (3700~3800MHz) covered by 5G NR n77. They have the same output power and supported bandwidth except that the n78 SCS 30KHz supports 70MHz bandwidth, so the N78 only tests the SCS 30KHz 70MHz bandwidth.

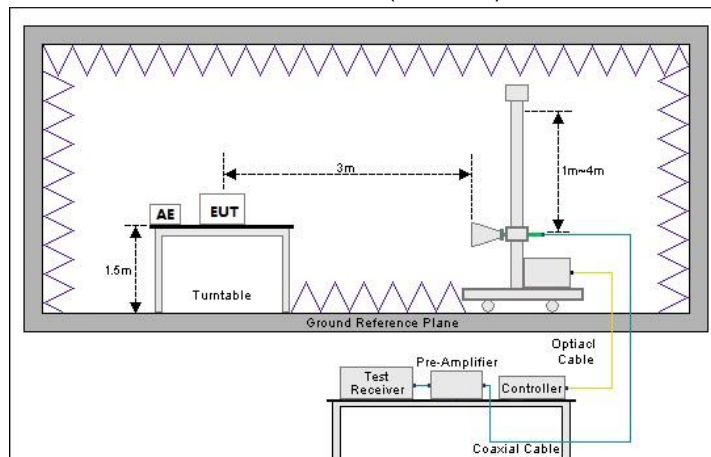
4.2 Test Setup

1) Radiated emission measurement:

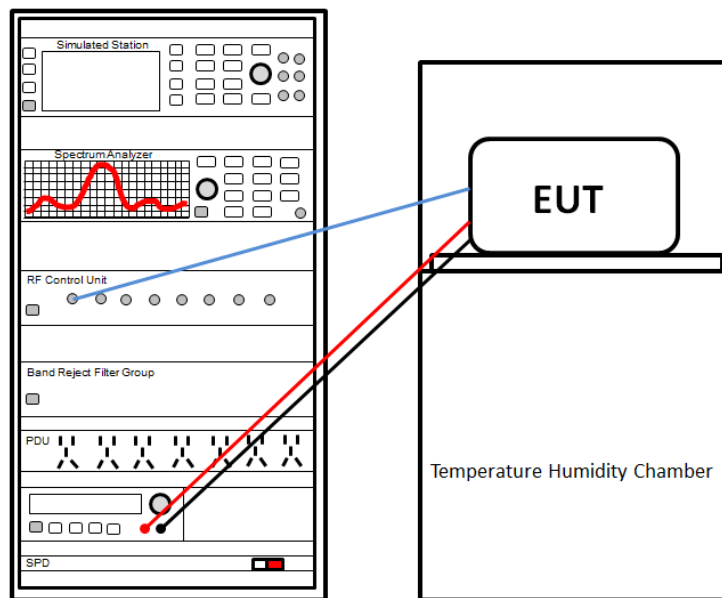
Below 1GHz (3m SAC)



Above 1GHz (3m SAC)



2) Conducted test method



4.3 Test Procedure

Test method	Test step
Radiated emission	<p>For below 1GHz:</p> <ol style="list-style-type: none"> The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. EUT works in each mode of operation that needs to be tested , and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. <p>For above 1GHz:</p> <ol style="list-style-type: none"> The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m. EUT works in each mode of operation that needs to be tested , and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
Conducted test method	<ol style="list-style-type: none"> The NR antenna port of EUT was connected to the test port of the test system through an RF cable. The EUT is keeping in continuous transmission mode and tested in all modulation modes. Open the test software, prepare a test plan, and control the system through the software. After the test is completed, the test report is exported through the test software.

5 Test Results

5.1 Summary

5.1.1 Clause and Data Summary

Test items	Standard clause	Test data	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	See SAR Report	Pass
RF Output Power	Part 2.1046 Part 22.913 (a)(5) Part 27.50 (c)(10) Part 27.50 (h)(2) Part 27.50 (d)(4) Part 27.50 (j)(3) Part 27.50 (k)(3)	Appendix – 5G NR	Pass
Peak-to-Average Power Ratio	Part 27.50 (d)(5) Part 27.50 (j)(4) Part 27.50 (k)(4)	Appendix – 5G NR	Pass
26dB Emission Bandwidth 99% Occupied Bandwidth	Part 2.1049 Part 22.917 (b) Part 27.53 (g) Part 27.53 (h)(3) Part 27.53 (l)(2) Part 27.53 (m)(6) Part 27.53 (n)(2)	Appendix – 5G NR	Pass
Out of Band Emission at Antenna Terminals	Part 2.1051 Part 22.917 (a) Part 27.53 (g) Part 27.53 (h)(1) Part 27.53 (l)(2) Part 27.53 (m)(4) Part 27.53 (n)(2)	Appendix – 5G NR	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 22.917 (a) Part 27.53 (g) Part 27.53 (h)(1) Part 27.53 (l)(2) Part 27.53 (m)(4) Part 27.53 (n)(2)	See Section 5.2	Pass
Frequency Stability vs. Temperature	Part 2.1055 (a)(1)(b) Part 22.355 Part 24.235 Part 27.54	Appendix – 5G NR	Pass
Frequency Stability vs. Voltage	Part 2.1055 (d)(2) Part 22.355 Part 24.235 Part 27.54	Appendix – 5G NR	Pass
Remark: 1. Pass: The EUT complies with the essential requirements in the standard. 2. The cable insertion loss used by “RF Output Power” and other conduction measurement items is 0.5dB (Fundamental Frequency below 1GHz)/1.0dB (Fundamental Frequency above 1GHz) (provided by the customer).			
Test Method:	ANSI/TIA-603-E-2016 ANSI C63.26-2015		

5.1.2 Test Limit

Test items	Limit
RF output power	<p>Band n7/38/41: 2W EIRP, Band n5: 7W EIRP, Band n12: 3W EIRP Band n66, n77, n78: 1W EIRP</p>
Peak-to-Average Power Ratio	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB
Modulation Characteristics	N/A
26dB Emission Bandwidth 99% Occupied Bandwidth	N/A
<p>Out of Band Emission at Antenna Terminals</p> <p>Field Strength of Spurious Radiation</p>	<p>Band n5, n12, n66: The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.</p> <p>Band n7, n38, n41: For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.</p> <p>Band n77, n78: For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.</p>

<p>Out of Band Emission at Antenna Terminals</p> <p>Field Strength of Spurious Radiation</p>	<p>For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.</p>
<p>Frequency Stability vs. Temperature</p> <p>Frequency Stability vs. Voltage</p>	<p>The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.</p>

5.2 Field Strength of Spurious Radiation Measurement

Note:

1. All bandwidths, modulation types and RB configurations were pretested, the report only reflects the worst mode..
2. Pre-Scan DC_5A_n7A, DC_5A_n41A, DC_41A_n41A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_41A_n78A, DC_66A_n78A, DC_5A_n77A, DC_7A_n77A, DC_41A_n77A, DC_66A_n77A, DC_7C_n78A, DC_41C_n78A, DC_7C_n77A, DC_41C_n77A, DC_41C_n41A, DC_7A-7A_n78A, DC_2A-7A_n78A, DC_5A-7A_n78A, DC_2A-7C_n78A mode, and found DC 5A_n7A, DC 41A_n41A, DC 41A_n77A was worst mode, the report only reflects the worst mode.

Band n5 – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1653.00	-48.67	-11.41	-60.08	-13.00	47.08	Vertical
2479.50	-48.74	-6.45	-55.19	-13.00	42.19	Vertical
3306.00	-47.44	-4.89	-52.33	-13.00	39.33	Vertical
1653.00	-48.41	-11.32	-59.73	-13.00	46.73	Horizontal
2479.50	-46.25	-6.78	-53.03	-13.00	40.03	Horizontal
3306.00	-47.48	-5.17	-52.65	-13.00	39.65	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.00	-48.89	-11.47	-60.36	-13.00	47.36	Vertical
2509.50	-48.31	-6.40	-54.71	-13.00	41.71	Vertical
3346.00	-47.77	-4.96	-52.73	-13.00	39.73	Vertical
1673.00	-48.16	-11.39	-59.55	-13.00	46.55	Horizontal
2509.50	-45.76	-6.70	-52.46	-13.00	39.46	Horizontal
3346.00	-47.83	-5.17	-53.00	-13.00	40.00	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1693.00	-49.36	-11.53	-60.89	-13.00	47.89	Vertical
2539.50	-48.09	-6.27	-54.36	-13.00	41.36	Vertical
3386.00	-47.93	-5.04	-52.97	-13.00	39.97	Vertical
1693.00	-48.04	-11.46	-59.50	-13.00	46.50	Horizontal
2539.50	-45.40	-6.58	-51.98	-13.00	38.98	Horizontal
3386.00	-47.45	-5.16	-52.61	-13.00	39.61	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n5 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1658.00	-49.02	-11.43	-60.45	-13.00	47.45	Vertical
2487.00	-48.19	-6.44	-54.63	-13.00	41.63	Vertical
3316.00	-48.14	-4.91	-53.05	-13.00	40.05	Vertical
1658.00	-47.96	-11.34	-59.30	-13.00	46.30	Horizontal
2487.00	-46.26	-6.77	-53.03	-13.00	40.03	Horizontal
3316.00	-47.71	-5.17	-52.88	-13.00	39.88	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.00	-48.55	-11.13	-59.68	-13.00	46.68	Vertical
2509.50	-48.60	-6.20	-54.80	-13.00	41.80	Vertical
3346.00	-47.70	-5.03	-52.73	-13.00	39.73	Vertical
1673.00	-47.92	-11.39	-59.31	-13.00	46.31	Horizontal
2509.50	-46.00	-6.70	-52.70	-13.00	39.70	Horizontal
3346.00	-48.08	-5.17	-53.25	-13.00	40.25	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1688.00	-48.51	-11.52	-60.03	-13.00	47.03	Vertical
2532.00	-48.67	-6.30	-54.97	-13.00	41.97	Vertical
3376.00	-47.71	-5.02	-52.73	-13.00	39.73	Vertical
1688.00	-48.40	-11.45	-59.85	-13.00	46.85	Horizontal
2532.00	-45.66	-6.61	-52.27	-13.00	39.27	Horizontal
3376.00	-47.48	-5.16	-52.64	-13.00	39.64	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n7 – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5005.00	-57.14	4.03	-53.11	-25.00	28.11	Vertical
7507.50	-59.55	11.51	-48.04	-25.00	23.04	Vertical
10010.00	-59.72	16.40	-43.32	-25.00	18.32	Vertical
5005.00	-58.38	3.59	-54.79	-25.00	29.79	Horizontal
7507.50	-59.02	9.97	-49.05	-25.00	24.05	Horizontal
10010.00	-59.18	16.02	-43.16	-25.00	18.16	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.00	-57.33	4.68	-52.65	-25.00	27.65	Vertical
7605.00	-59.53	11.22	-48.31	-25.00	23.31	Vertical
10140.00	-59.71	17.42	-42.29	-25.00	17.29	Vertical
5070.00	-57.98	4.23	-53.75	-25.00	28.75	Horizontal
7605.00	-59.26	10.04	-49.22	-25.00	24.22	Horizontal
10140.00	-59.64	16.02	-43.62	-25.00	18.62	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5135.00	-56.97	4.66	-52.31	-25.00	27.31	Vertical
7702.50	-59.22	10.87	-48.35	-25.00	23.35	Vertical
10270.00	-60.20	18.25	-41.95	-25.00	16.95	Vertical
5135.00	-58.05	4.19	-53.86	-25.00	28.86	Horizontal
7702.50	-59.14	9.77	-49.37	-25.00	24.37	Horizontal
10270.00	-59.51	17.13	-42.38	-25.00	17.38	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n7 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5010.00	-56.89	4.08	-52.81	-25.00	27.81	Vertical
7515.00	-59.28	11.49	-47.79	-25.00	22.79	Vertical
10020.00	-59.31	16.51	-42.80	-25.00	17.80	Vertical
5010.00	-58.28	3.64	-54.64	-25.00	29.64	Horizontal
7515.00	-59.62	9.98	-49.64	-25.00	24.64	Horizontal
10020.00	-59.28	16.06	-43.22	-25.00	18.22	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.00	-57.68	4.68	-53.00	-25.00	28.00	Vertical
7605.00	-59.58	11.22	-48.36	-25.00	23.36	Vertical
10140.00	-59.44	17.42	-42.02	-25.00	17.02	Vertical
5070.00	-58.35	4.23	-54.12	-25.00	29.12	Horizontal
7605.00	-58.98	10.04	-48.94	-25.00	23.94	Horizontal
10140.00	-59.53	16.02	-43.51	-25.00	18.51	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5130.00	-57.08	4.70	-52.38	-25.00	27.38	Vertical
7695.00	-59.69	10.87	-48.82	-25.00	23.82	Vertical
10260.00	-59.26	18.13	-41.13	-25.00	16.13	Vertical
5130.00	-57.83	4.24	-53.59	-25.00	28.59	Horizontal
7695.00	-59.34	9.73	-49.61	-25.00	24.61	Horizontal
10260.00	-59.96	17.05	-42.91	-25.00	17.91	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n12 – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1403.00	-48.71	-7.99	-56.70	-13.00	43.70	Vertical
2104.50	-43.18	-7.42	-50.60	-13.00	37.60	Vertical
2806.00	-48.59	-5.49	-54.08	-13.00	41.08	Vertical
1403.00	-47.56	-8.45	-56.01	-13.00	43.01	Horizontal
2104.50	-41.26	-7.13	-48.39	-13.00	35.39	Horizontal
2806.00	-48.97	-5.50	-54.47	-13.00	41.47	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1415.00	-48.48	-8.24	-56.72	-13.00	43.72	Vertical
2122.50	-42.99	-7.06	-50.05	-13.00	37.05	Vertical
2830.00	-48.90	-5.39	-54.29	-13.00	41.29	Vertical
1415.00	-47.58	-8.68	-56.26	-13.00	43.26	Horizontal
2122.50	-40.89	-6.88	-47.77	-13.00	34.77	Horizontal
2830.00	-49.18	-5.44	-54.62	-13.00	41.62	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1427.00	-48.35	-8.50	-56.85	-13.00	43.85	Vertical
2140.50	-43.38	-6.72	-50.10	-13.00	37.10	Vertical
2854.00	-49.09	-5.29	-54.38	-13.00	41.38	Vertical
1427.00	-47.39	-8.90	-56.29	-13.00	43.29	Horizontal
2140.50	-41.19	-6.64	-47.83	-13.00	34.83	Horizontal
2854.00	-49.20	-5.39	-54.59	-13.00	41.59	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n12 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1408.00	-48.46	-8.54	-57.00	-13.00	44.00	Vertical
2112.00	-43.39	-7.08	-50.47	-13.00	37.47	Vertical
2816.00	-48.62	-5.47	-54.09	-13.00	41.09	Vertical
1408.00	-47.79	-8.54	-56.33	-13.00	43.33	Horizontal
2112.00	-40.92	-7.08	-48.00	-13.00	35.00	Horizontal
2816.00	-48.75	-5.47	-54.22	-13.00	41.22	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1415.00	-48.52	-8.24	-56.76	-13.00	43.76	Vertical
2122.50	-42.73	-7.06	-49.79	-13.00	36.79	Vertical
2830.00	-49.35	-5.39	-54.74	-13.00	41.74	Vertical
1415.00	-47.18	-8.68	-55.86	-13.00	42.86	Horizontal
2122.50	-41.10	-6.88	-47.98	-13.00	34.98	Horizontal
2830.00	-49.23	-5.44	-54.67	-13.00	41.67	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1422.00	-48.98	-8.80	-57.78	-13.00	44.78	Vertical
2133.00	-42.50	-6.74	-49.24	-13.00	36.24	Vertical
2844.00	-49.00	-5.41	-54.41	-13.00	41.41	Vertical
1422.00	-47.44	-8.80	-56.24	-13.00	43.24	Horizontal
2133.00	-40.75	-6.74	-47.49	-13.00	34.49	Horizontal
2844.00	-49.34	-5.41	-54.75	-13.00	41.75	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n38 – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5145.00	-58.98	4.57	-54.41	-25.00	29.41	Vertical
7717.50	-59.22	10.96	-48.26	-25.00	23.26	Vertical
10290.00	-59.70	18.47	-41.23	-25.00	16.23	Vertical
5145.00	-58.23	4.10	-54.13	-25.00	29.13	Horizontal
7717.50	-59.35	9.97	-49.38	-25.00	24.38	Horizontal
10290.00	-60.25	17.28	-42.97	-25.00	17.97	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5190.00	-58.48	4.18	-54.30	-25.00	29.30	Vertical
7785.00	-59.61	11.37	-48.24	-25.00	23.24	Vertical
10380.00	-59.95	18.35	-41.60	-25.00	16.60	Vertical
5190.00	-57.88	3.68	-54.20	-25.00	29.20	Horizontal
7785.00	-59.81	10.95	-48.86	-25.00	23.86	Horizontal
10380.00	-59.95	17.07	-42.88	-25.00	17.88	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5235.00	-58.41	3.88	-54.53	-25.00	29.53	Vertical
7852.50	-60.04	11.98	-48.06	-25.00	23.06	Vertical
10470.00	-59.84	18.17	-41.67	-25.00	16.67	Vertical
5235.00	-57.99	3.44	-54.55	-25.00	29.55	Horizontal
7852.50	-59.79	11.37	-48.42	-25.00	23.42	Horizontal
10470.00	-60.19	17.05	-43.14	-25.00	18.14	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n38 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5150.00	-58.45	4.52	-53.93	-25.00	28.93	Vertical
7725.00	-59.52	11.00	-48.52	-25.00	23.52	Vertical
10300.00	-59.64	18.58	-41.06	-25.00	16.06	Vertical
5150.00	-58.03	4.04	-53.99	-25.00	28.99	Horizontal
7725.00	-59.43	10.08	-49.35	-25.00	24.35	Horizontal
10300.00	-60.44	17.35	-43.09	-25.00	18.09	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5190.00	-58.58	4.18	-54.40	-25.00	29.40	Vertical
7785.00	-60.03	11.37	-48.66	-25.00	23.66	Vertical
10380.00	-60.06	18.35	-41.71	-25.00	16.71	Vertical
5190.00	-58.23	3.68	-54.55	-25.00	29.55	Horizontal
7785.00	-60.11	10.95	-49.16	-25.00	24.16	Horizontal
10380.00	-59.66	17.07	-42.59	-25.00	17.59	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5230.00	-58.80	3.91	-54.89	-25.00	29.89	Vertical
7845.00	-59.20	11.91	-47.29	-25.00	22.29	Vertical
10460.00	-59.60	18.18	-41.42	-25.00	16.42	Vertical
5230.00	-57.90	3.46	-54.44	-25.00	29.44	Horizontal
7845.00	-59.33	11.34	-47.99	-25.00	22.99	Horizontal
10460.00	-60.11	17.04	-43.07	-25.00	18.07	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n41 – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5002.02	-57.12	3.99	-53.13	-25.00	28.13	Vertical
7503.03	-58.70	11.52	-47.18	-25.00	22.18	Vertical
10004.04	-60.20	16.34	-43.86	-25.00	18.86	Vertical
5002.02	-57.05	3.55	-53.50	-25.00	28.50	Horizontal
7503.03	-59.68	9.96	-49.72	-25.00	24.72	Horizontal
10004.04	-60.33	16.00	-44.33	-25.00	19.33	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5186.01	-57.45	4.21	-53.24	-25.00	28.24	Vertical
7779.02	-58.95	11.34	-47.61	-25.00	22.61	Vertical
10372.02	-60.20	18.38	-41.82	-25.00	16.82	Vertical
5186.01	-57.13	3.72	-53.41	-25.00	28.41	Horizontal
7779.02	-59.78	10.86	-48.92	-25.00	23.92	Horizontal
10372.02	-60.41	17.10	-43.31	-25.00	18.31	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5370.00	-56.98	4.24	-52.74	-25.00	27.74	Vertical
8055.00	-58.92	12.50	-46.42	-25.00	21.42	Vertical
10740.00	-60.08	19.15	-40.93	-25.00	15.93	Vertical
5370.00	-57.07	3.44	-53.63	-25.00	28.63	Horizontal
8055.00	-59.76	12.30	-47.46	-25.00	22.46	Horizontal
10740.00	-60.01	17.94	-42.07	-25.00	17.07	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n41 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5002.02	-57.59	3.99	-53.60	-25.00	28.60	Vertical
7503.03	-59.18	11.52	-47.66	-25.00	22.66	Vertical
10004.04	-59.77	16.34	-43.43	-25.00	18.43	Vertical
5002.02	-57.01	3.55	-53.46	-25.00	28.46	Horizontal
7503.03	-59.52	9.96	-49.56	-25.00	24.56	Horizontal
10004.04	-60.40	16.00	-44.40	-25.00	19.40	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5185.98	-57.35	4.21	-53.14	-25.00	28.14	Vertical
7778.97	-58.56	11.34	-47.22	-25.00	22.22	Vertical
10371.96	-59.79	18.38	-41.41	-25.00	16.41	Vertical
5185.98	-57.43	3.72	-53.71	-25.00	28.71	Horizontal
7778.97	-60.24	10.86	-49.38	-25.00	24.38	Horizontal
10371.96	-60.04	17.10	-42.94	-25.00	17.94	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5370.00	-57.71	4.24	-53.47	-25.00	28.47	Vertical
8055.00	-59.43	12.50	-46.93	-25.00	21.93	Vertical
10740.00	-60.56	19.15	-41.41	-25.00	16.41	Vertical
5370.00	-57.33	3.44	-53.89	-25.00	28.89	Horizontal
8055.00	-59.40	12.30	-47.10	-25.00	22.10	Horizontal
10740.00	-60.23	17.94	-42.29	-25.00	17.29	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n66 – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3425.00	-47.91	-4.09	-52.00	-13.00	39.00	Vertical
5137.50	-50.68	4.64	-46.04	-13.00	33.04	Vertical
6850.00	-51.10	10.70	-40.40	-13.00	27.40	Vertical
3425.00	-49.18	-4.20	-53.38	-13.00	40.38	Horizontal
5137.50	-50.66	4.17	-46.49	-13.00	33.49	Horizontal
6850.00	-52.29	9.63	-42.66	-13.00	29.66	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.00	-48.10	-2.31	-50.41	-13.00	37.41	Vertical
5235.00	-50.39	3.88	-46.51	-13.00	33.51	Vertical
6980.00	-51.56	11.02	-40.54	-13.00	27.54	Vertical
3490.00	-48.89	-2.42	-51.31	-13.00	38.31	Horizontal
5235.00	-50.20	3.44	-46.76	-13.00	33.76	Horizontal
6980.00	-52.00	9.59	-42.41	-13.00	29.41	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3555.00	-48.18	-1.56	-49.74	-13.00	36.74	Vertical
5332.50	-50.85	3.83	-47.02	-13.00	34.02	Vertical
7110.00	-51.37	12.17	-39.20	-13.00	26.20	Vertical
3555.00	-48.93	-2.01	-50.94	-13.00	37.94	Horizontal
5332.50	-50.58	3.28	-47.30	-13.00	34.30	Horizontal
7110.00	-52.34	10.37	-41.97	-13.00	28.97	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n66 – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3430.00	-48.32	-3.96	-52.28	-13.00	39.28	Vertical
5145.00	-50.56	4.57	-45.99	-13.00	32.99	Vertical
6860.00	-51.16	10.83	-40.33	-13.00	27.33	Vertical
3430.00	-49.26	-4.06	-53.32	-13.00	40.32	Horizontal
5145.00	-50.28	4.10	-46.18	-13.00	33.18	Horizontal
6860.00	-52.50	9.72	-42.78	-13.00	29.78	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.00	-48.48	-2.31	-50.79	-13.00	37.79	Vertical
5235.00	-49.90	3.88	-46.02	-13.00	33.02	Vertical
6980.00	-52.01	11.02	-40.99	-13.00	27.99	Vertical
3490.00	-48.43	-2.42	-50.85	-13.00	37.85	Horizontal
5235.00	-49.71	3.44	-46.27	-13.00	33.27	Horizontal
6980.00	-51.69	9.59	-42.10	-13.00	29.10	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3550.00	-47.73	-1.61	-49.34	-13.00	36.34	Vertical
5325.00	-50.54	3.75	-46.79	-13.00	33.79	Vertical
7100.00	-51.57	12.11	-39.46	-13.00	26.46	Vertical
3550.00	-48.73	-2.02	-50.75	-13.00	37.75	Horizontal
5325.00	-50.29	3.25	-47.04	-13.00	34.04	Horizontal
7100.00	-52.06	10.31	-41.75	-13.00	28.75	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n77(3450 MHz – 3550 MHz) – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
6910.02	-50.85	11.62	-39.23	-13.00	26.23	Vertical
10365.03	-52.68	17.95	-34.73	-13.00	21.73	Vertical
13820.04	-50.31	23.36	-26.95	-13.00	13.95	Vertical
6910.02	-50.86	10.33	-40.53	-13.00	27.53	Horizontal
10365.03	-51.99	16.68	-35.31	-13.00	22.31	Horizontal
13820.04	-52.32	23.59	-28.73	-13.00	15.73	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7000.00	-50.86	10.90	-39.96	-13.00	26.96	Vertical
10500.00	-52.77	17.98	-34.79	-13.00	21.79	Vertical
14000.00	-50.46	24.22	-26.24	-13.00	13.24	Vertical
7000.00	-50.52	9.42	-41.10	-13.00	28.10	Horizontal
10500.00	-52.33	16.93	-35.40	-13.00	22.40	Horizontal
14000.00	-52.02	24.58	-27.44	-13.00	14.44	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7090.00	-51.08	11.83	-39.25	-13.00	26.25	Vertical
10635.00	-52.29	19.06	-33.23	-13.00	20.23	Vertical
14180.00	-50.81	25.09	-25.72	-13.00	12.72	Vertical
7090.00	-50.19	10.06	-40.13	-13.00	27.13	Horizontal
10635.00	-52.06	17.57	-34.49	-13.00	21.49	Horizontal
14180.00	-52.08	25.64	-26.44	-13.00	13.44	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n77(3450 MHz – 3550 MHz) – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
6910.02	-51.03	11.62	-39.41	-13.00	26.41	Vertical
10365.03	-52.79	17.95	-34.84	-13.00	21.84	Vertical
13820.04	-50.67	23.36	-27.31	-13.00	14.31	Vertical
6910.02	-50.18	10.33	-39.85	-13.00	26.85	Horizontal
10365.03	-51.85	16.68	-35.17	-13.00	22.17	Horizontal
13820.04	-51.78	23.59	-28.19	-13.00	15.19	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7000.02	-50.81	10.90	-39.91	-13.00	26.91	Vertical
10500.03	-52.33	17.98	-34.35	-13.00	21.35	Vertical
14000.04	-50.89	24.22	-26.67	-13.00	13.67	Vertical
7000.02	-50.65	9.42	-41.23	-13.00	28.23	Horizontal
10500.03	-52.16	16.93	-35.23	-13.00	22.23	Horizontal
14000.04	-52.02	24.58	-27.44	-13.00	14.44	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7089.96	-50.97	11.83	-39.14	-13.00	26.14	Vertical
10634.94	-52.78	19.06	-33.72	-13.00	20.72	Vertical
14179.92	-50.82	25.09	-25.73	-13.00	12.73	Vertical
7089.96	-50.37	10.06	-40.31	-13.00	27.31	Horizontal
10634.94	-52.31	17.57	-34.74	-13.00	21.74	Horizontal
14179.92	-51.83	25.64	-26.19	-13.00	13.19	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n77(3700 MHz – 3980 MHz) – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7410.00	-51.10	12.88	-38.22	-13.00	25.22	Vertical
11115.00	-52.04	18.32	-33.72	-13.00	20.72	Vertical
14820.00	-50.81	25.35	-25.46	-13.00	12.46	Vertical
7410.00	-51.10	11.17	-39.93	-13.00	26.93	Horizontal
11115.00	-51.27	17.37	-33.90	-13.00	20.90	Horizontal
14820.00	-51.11	25.41	-25.70	-13.00	12.70	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7680.00	-51.34	10.68	-40.66	-13.00	27.66	Vertical
11520.00	-51.59	19.16	-32.43	-13.00	19.43	Vertical
15360.00	-50.74	28.27	-22.47	-13.00	9.47	Vertical
7680.00	-50.74	9.54	-41.20	-13.00	28.20	Horizontal
11520.00	-51.31	18.66	-32.65	-13.00	19.65	Horizontal
15360.00	-51.28	28.44	-22.84	-13.00	9.84	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7950.00	-51.50	12.04	-39.46	-13.00	26.46	Vertical
11925.00	-51.74	18.26	-33.48	-13.00	20.48	Vertical
15900.00	-51.18	31.76	-19.42	-13.00	6.42	Vertical
7950.00	-50.61	11.55	-39.06	-13.00	26.06	Horizontal
11925.00	-50.84	18.30	-32.54	-13.00	19.54	Horizontal
15900.00	-51.74	31.92	-19.82	-13.00	6.82	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band n77(3700 MHz – 3980 MHz) – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7410.00	-51.73	12.88	-38.85	-13.00	25.85	Vertical
11115.00	-51.24	18.32	-32.92	-13.00	19.92	Vertical
14820.00	-51.08	25.35	-25.73	-13.00	12.73	Vertical
7410.00	-50.49	11.17	-39.32	-13.00	26.32	Horizontal
11115.00	-51.10	17.37	-33.73	-13.00	20.73	Horizontal
14820.00	-51.69	25.41	-26.28	-13.00	13.28	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7680.00	-51.48	10.68	-40.80	-13.00	27.80	Vertical
11520.00	-51.78	19.16	-32.62	-13.00	19.62	Vertical
15360.00	-51.12	28.27	-22.85	-13.00	9.85	Vertical
7680.00	-51.03	9.54	-41.49	-13.00	28.49	Horizontal
11520.00	-51.07	18.66	-32.41	-13.00	19.41	Horizontal
15360.00	-51.56	28.44	-23.12	-13.00	10.12	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7950.00	-51.48	12.04	-39.44	-13.00	26.44	Vertical
11925.00	-51.20	18.26	-32.94	-13.00	19.94	Vertical
15900.00	-51.11	31.76	-19.35	-13.00	6.35	Vertical
7950.00	-50.56	11.55	-39.01	-13.00	26.01	Horizontal
11925.00	-51.35	18.30	-33.05	-13.00	20.05	Horizontal
15900.00	-51.16	31.92	-19.24	-13.00	6.24	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_5A_n7A – SCS 15kHz						
5MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5005.00	-57.61	4.03	-53.58	-25.00	28.58	Vertical
7507.50	-59.63	11.51	-48.12	-25.00	23.12	Vertical
10010.00	-59.85	16.40	-43.45	-25.00	18.45	Vertical
5005.00	-58.45	3.59	-54.86	-25.00	29.86	Horizontal
7507.50	-59.49	9.97	-49.52	-25.00	24.52	Horizontal
10010.00	-59.68	16.02	-43.66	-25.00	18.66	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.00	-57.75	4.68	-53.07	-25.00	28.07	Vertical
7605.00	-50.29	11.22	-39.07	-25.00	14.07	Vertical
10140.00	-59.63	17.42	-42.21	-25.00	17.21	Vertical
5070.00	-57.56	4.23	-53.33	-25.00	28.33	Horizontal
7605.00	-59.47	10.04	-49.43	-25.00	24.43	Horizontal
10140.00	-59.84	16.02	-43.82	-25.00	18.82	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5135.00	-56.92	4.66	-52.26	-25.00	27.26	Vertical
7702.50	-59.08	10.87	-48.21	-25.00	23.21	Vertical
10270.00	-60.12	18.25	-41.87	-25.00	16.87	Vertical
5135.00	-57.58	4.19	-53.39	-25.00	28.39	Horizontal
7702.50	-59.76	9.77	-49.99	-25.00	24.99	Horizontal
10270.00	-59.92	17.13	-42.79	-25.00	17.79	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_5A_n7A – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5010.00	-57.02	4.08	-52.94	-25.00	27.94	Vertical
7515.00	-59.11	11.49	-47.62	-25.00	22.62	Vertical
10020.00	-59.62	16.51	-43.11	-25.00	18.11	Vertical
5010.00	-57.69	3.64	-54.05	-25.00	29.05	Horizontal
7515.00	-59.70	9.98	-49.72	-25.00	24.72	Horizontal
10020.00	-59.53	16.06	-43.47	-25.00	18.47	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.00	-57.15	4.68	-52.47	-25.00	27.47	Vertical
7605.00	-59.88	11.22	-48.66	-25.00	23.66	Vertical
10140.00	-59.22	17.42	-41.80	-25.00	16.80	Vertical
5070.00	-57.63	4.23	-53.40	-25.00	28.40	Horizontal
7605.00	-59.61	10.04	-49.57	-25.00	24.57	Horizontal
10140.00	-59.37	16.02	-43.35	-25.00	18.35	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5130.00	-57.83	4.70	-53.13	-25.00	28.13	Vertical
7695.00	-59.21	10.87	-48.34	-25.00	23.34	Vertical
10260.00	-59.66	18.13	-41.53	-25.00	16.53	Vertical
5130.00	-58.06	4.24	-53.82	-25.00	28.82	Horizontal
7695.00	-58.85	9.73	-49.12	-25.00	24.12	Horizontal
10260.00	-59.29	17.05	-42.24	-25.00	17.24	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n41A – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5002.02	-57.93	3.99	-53.94	-25.00	28.94	Vertical
7503.03	-45.38	11.52	-33.86	-25.00	8.86	Vertical
10004.04	-60.17	16.34	-43.83	-25.00	18.83	Vertical
5002.02	-56.96	3.55	-53.41	-25.00	28.41	Horizontal
7503.03	-59.82	9.96	-49.86	-25.00	24.86	Horizontal
10004.04	-60.50	16.00	-44.50	-25.00	19.50	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5186.01	-57.32	4.21	-53.11	-25.00	28.11	Vertical
7779.02	-58.91	11.34	-47.57	-25.00	22.57	Vertical
10372.02	-59.97	18.38	-41.59	-25.00	16.59	Vertical
5186.01	-57.58	3.72	-53.86	-25.00	28.86	Horizontal
7779.02	-59.64	10.86	-48.78	-25.00	23.78	Horizontal
10372.02	-60.79	17.10	-43.69	-25.00	18.69	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5370.00	-57.80	4.24	-53.56	-25.00	28.56	Vertical
8055.00	-58.99	12.50	-46.49	-25.00	21.49	Vertical
10740.00	-60.59	19.15	-41.44	-25.00	16.44	Vertical
5370.00	-56.99	3.44	-53.55	-25.00	28.55	Horizontal
8055.00	-59.48	12.30	-47.18	-25.00	22.18	Horizontal
10740.00	-60.74	17.94	-42.80	-25.00	17.80	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n41A – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5002.02	-57.93	3.99	-53.94	-25.00	28.94	Vertical
7503.03	-58.46	11.52	-46.94	-25.00	21.94	Vertical
10004.04	-60.57	16.34	-44.23	-25.00	19.23	Vertical
5002.02	-56.87	3.55	-53.32	-25.00	28.32	Horizontal
7503.03	-60.16	9.96	-50.20	-25.00	25.20	Horizontal
10004.04	-59.94	16.00	-43.94	-25.00	18.94	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5185.98	-56.96	4.21	-52.75	-25.00	27.75	Vertical
7778.97	-59.09	11.34	-47.75	-25.00	22.75	Vertical
10371.96	-60.33	18.38	-41.95	-25.00	16.95	Vertical
5185.98	-56.7	3.72	-52.98	-25.00	27.98	Horizontal
7778.97	-60.24	10.86	-49.38	-25.00	24.38	Horizontal
10371.96	-59.95	17.10	-42.85	-25.00	17.85	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
5370.00	-57.52	4.24	-53.28	-25.00	28.28	Vertical
8055.00	-58.54	12.50	-46.04	-25.00	21.04	Vertical
10740.00	-60.24	19.15	-41.09	-25.00	16.09	Vertical
5370.00	-57.40	3.44	-53.96	-25.00	28.96	Horizontal
8055.00	-59.93	12.30	-47.63	-25.00	22.63	Horizontal
10740.00	-60.76	17.94	-42.82	-25.00	17.82	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n77A (3450 MHz – 3550 MHz) – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
6910.02	-50.91	11.62	-39.29	-13.00	26.29	Vertical
10365.03	-50.22	17.95	-32.27	-13.00	19.27	Vertical
13820.04	-50.34	23.36	-26.98	-13.00	13.98	Vertical
6910.02	-50.39	10.33	-40.06	-13.00	27.06	Horizontal
10365.03	-52.35	16.68	-35.67	-13.00	22.67	Horizontal
13820.04	-52.38	23.59	-28.79	-13.00	15.79	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7000.00	-50.95	10.90	-40.05	-13.00	27.05	Vertical
10500.00	-53.01	17.98	-35.03	-13.00	22.03	Vertical
14000.00	-50.66	24.22	-26.44	-13.00	13.44	Vertical
7000.00	-51.00	9.42	-41.58	-13.00	28.58	Horizontal
10500.00	-52.71	16.93	-35.78	-13.00	22.78	Horizontal
14000.00	-52.37	24.58	-27.79	-13.00	14.79	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7090.00	-50.56	11.83	-38.73	-13.00	25.73	Vertical
10635.00	-53.17	19.06	-34.11	-13.00	21.11	Vertical
14180.00	-50.11	25.09	-25.02	-13.00	12.02	Vertical
7090.00	-50.92	10.06	-40.86	-13.00	27.86	Horizontal
10635.00	-52.77	17.57	-35.20	-13.00	22.20	Horizontal
14180.00	-51.85	25.64	-26.21	-13.00	13.21	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n77A (3450 MHz – 3550 MHz) – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
6910.02	-50.46	11.62	-38.84	-13.00	25.84	Vertical
10365.03	-52.98	17.95	-35.03	-13.00	22.03	Vertical
13820.04	-50.64	23.36	-27.28	-13.00	14.28	Vertical
6910.02	-50.16	10.33	-39.83	-13.00	26.83	Horizontal
10365.03	-51.86	16.68	-35.18	-13.00	22.18	Horizontal
13820.04	-51.66	23.59	-28.07	-13.00	15.07	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7000.02	-50.58	10.90	-39.68	-13.00	26.68	Vertical
10500.03	-52.33	17.98	-34.35	-13.00	21.35	Vertical
14000.04	-50.59	24.22	-26.37	-13.00	13.37	Vertical
7000.02	-50.59	9.42	-41.17	-13.00	28.17	Horizontal
10500.03	-52.13	16.93	-35.20	-13.00	22.20	Horizontal
14000.04	-52.47	24.58	-27.89	-13.00	14.89	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7089.96	-50.87	11.83	-39.04	-13.00	26.04	Vertical
10634.94	-53.23	19.06	-34.17	-13.00	21.17	Vertical
14179.92	-50.73	25.09	-25.64	-13.00	12.64	Vertical
7089.96	-50.37	10.06	-40.31	-13.00	27.31	Horizontal
10634.94	-51.84	17.57	-34.27	-13.00	21.27	Horizontal
14179.92	-52.36	25.64	-26.72	-13.00	13.72	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n77A (3700 MHz – 3980 MHz) – SCS 15kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7410.00	-50.92	12.88	-38.04	-13.00	25.04	Vertical
11115.00	-52.99	18.32	-34.67	-13.00	21.67	Vertical
14820.00	-50.54	25.35	-25.19	-13.00	12.19	Vertical
7410.00	-51.06	11.17	-39.89	-13.00	26.89	Horizontal
11115.00	-51.35	17.37	-33.98	-13.00	20.98	Horizontal
14820.00	-51.55	25.41	-26.14	-13.00	13.14	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7680.00	-50.85	10.68	-40.17	-13.00	27.17	Vertical
11520.00	-51.81	19.16	-32.65	-13.00	19.65	Vertical
15360.00	-51.21	28.27	-22.94	-13.00	9.94	Vertical
7680.00	-51.21	9.54	-41.67	-13.00	28.67	Horizontal
11520.00	-51.32	18.66	-32.66	-13.00	19.66	Horizontal
15360.00	-51.39	28.44	-22.95	-13.00	9.95	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7950.00	-51.35	12.04	-39.31	-13.00	26.31	Vertical
11925.00	-52.19	18.26	-33.93	-13.00	20.93	Vertical
15900.00	-50.80	31.76	-19.04	-13.00	6.04	Vertical
7950.00	-51.28	11.55	-39.73	-13.00	26.73	Horizontal
11925.00	-51.50	18.30	-33.20	-13.00	20.20	Horizontal
15900.00	-50.70	31.92	-18.78	-13.00	5.78	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

DC_41A_n77A (3700 MHz – 3980 MHz) – SCS 30kHz						
10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7410.00	-50.73	12.88	-37.85	-13.00	24.85	Vertical
11115.00	-51.95	18.32	-33.63	-13.00	20.63	Vertical
14820.00	-51.28	25.35	-25.93	-13.00	12.93	Vertical
7410.00	-51.33	11.17	-40.16	-13.00	27.16	Horizontal
11115.00	-51.03	17.37	-33.66	-13.00	20.66	Horizontal
14820.00	-50.98	25.41	-25.57	-13.00	12.57	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7680.00	-50.62	10.68	-39.94	-13.00	26.94	Vertical
11520.00	-51.78	19.16	-32.62	-13.00	19.62	Vertical
15360.00	-50.80	28.27	-22.53	-13.00	9.53	Vertical
7680.00	-50.92	9.54	-41.38	-13.00	28.38	Horizontal
11520.00	-50.82	18.66	-32.16	-13.00	19.16	Horizontal
15360.00	-51.26	28.44	-22.82	-13.00	9.82	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
7950.00	-51.13	12.04	-39.09	-13.00	26.09	Vertical
11925.00	-51.56	18.26	-33.30	-13.00	20.30	Vertical
15900.00	-51.04	31.76	-19.28	-13.00	6.28	Vertical
7950.00	-51.48	11.55	-39.93	-13.00	26.93	Horizontal
11925.00	-51.49	18.30	-33.19	-13.00	20.19	Horizontal
15900.00	-50.86	31.92	-18.94	-13.00	5.94	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

-----End of report-----