

TEST REPORT

Report Number: 15605535-E7V3

Applicant : SAMSUNG ELECTRONICS CO., LTD
129 SAMSUNG-RO, YEONGTONG-GU
SUWON-SI, GYEONGGI-DO, 16677, KOREA

Model : SM-X626B

FCC ID : A3LSMX626B

EUT Description : GSM/WCDMA/LTE/5G NR TABLET + BT/BLE, DTS/UNII
a/b/g/n/ac/ax and Digitizer

Test Standard(s) : FCC 47 CFR PART 2, PART 27

Date Of Issue:
2025-02-24

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538, U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888



Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-02-11	Initial Review	Dan Coronia
V2	2025-02-13	Updated Section 1 and 6.3	Kiya Kedida
V3	2025-02-24	Updated Section 9.21 and 9.2.2	Kiya Kedida

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. SUMMARY OF TEST RESULTS	6
3. TEST METHODOLOGY	7
4. FACILITIES AND ACCREDITATION	7
5. DECISION RULES AND MEASUREMENT UNCERTAINTY	8
5.1. METROLOGICAL TRACEABILITY	8
5.2. DECISION RULES	8
5.3. MEASUREMENT UNCERTAINTY	8
5.4. SAMPLE CALCULATION.....	8
6. EQUIPMENT UNDER TEST	9
6.1. DESCRIPTION OF EUT	9
6.2. MAXIMUM OUTPUT POWER.....	9
6.3. MAXIMUM ANTENNA GAIN	11
6.4. WORST-CASE CONFIGURATION AND MODE	12
6.5. DESCRIPTION OF TEST SETUP.....	13
7. TEST AND MEASUREMENT EQUIPMENT	15
8. RF OUTPUT POWER VERIFICATION	16
8.1. 5G NR n77 (FCC Part 27 3450-3550MHz)	17
8.2. 5G NR n77 (FCC Part 27 3700-3980MHz)	23
9. CONDUCTED TEST RESULTS.....	29
9.1. OCCUPIED BANDWIDTH.....	29
9.1.1. 5G NR n77 (FCC Part 27 3450-3550MHz)	32
9.1.2. 5G NR n77 (FCC Part 27 3700-3980MHz)	35
9.2. EMISSION MASK AND ADJACENT CHANNEL POWER	38
9.2.1. 5G NR n77 (FCC Part 27 3450-3550MHz)	39
9.2.2. 5G NR n77 (FCC Part 27 3700-3980MHz)	56
9.3. OUT OF BAND EMISSIONS.....	74
9.3.1. 5G NR n77 (FCC Part 27 3450-3550MHz)	75
9.3.2. 5G NR n77 (FCC Part 27 3700-3980MHz)	76
9.4. FREQUENCY STABILITY	77

9.4.1.	5G NR n77 (BPSK 100MHz BANDWIDTH, FCC Part 27 3450-3550MHz).....	78
9.4.2.	5G NR n77 (BPSK 100MHz BANDWIDTH, FCC Part 27 3700-3980MHz).....	79
9.5.	PEAK-TO-AVERAGE POWER RATIO	80
9.5.1.	5G NR n77 (FCC Part 27 3450-3550MHz)	81
9.5.2.	5G NR n77 (FCC Part 27 3700-3980MHz)	82
10.	RADIATED TEST RESULTS	83
10.1.	EFFECTIVE RADIATED POWER ERP/EIRP	83
10.1.1.	5G NR n77 (Part 27 3450-3550MHz)	88
10.1.2.	5G NR n77 (Part 27 3700-3980MHz)	92
10.2.	FIELD STRENGTH OF SPURIOUS RADIATION, ABOVE 1GHz.....	96
10.2.1.	5G NR n77 (FCC Part 27 3450-3550MHz).....	100
10.2.2.	5G NR n77 (FCC Part 27 3700-3980MHz).....	101
11.	SETUP PHOTOS.....	102

1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	SAMSUNG ELECTRONICS CO., LTD 129 SAMSUNG-RO, YEONGTONG-GU SUWON-SI, GYEONGGI-DO, 16677, KOREA	
Model	SM-X626B	
FCC ID	A3LSMX626B	
EUT Description	GSM/WCDMA/LTE/5G NR TABLET + BT/BLE, DTS/UNII a/b/g/n/ac/ax and Digitizer	
Serial Number	Conducted: R32XC0005VL and R32XC0005YP Radiated: R32XC000V3J and R32XC000PKY	
Sample Receipt Date	2024-12-13	
Date Tested	2025-01-13 to 2025-02-10	
Applicable Standards	FCC 47 CFR PART 2, PART 27	
Test Results	COMPLIES	
UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.		
Approved & Released By:	Reviewed By:	Prepared By:
		
Dan Corona Operations Leader UL Verification Services Inc.	Kiya Kedida Lead Project Engineer UL Verification Services Inc.	Glenn Escano Senior Test Engineer UL Verification Services Inc.

2. SUMMARY OF TEST RESULTS

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer."

Below is a list of the data provided by the customer:

1. Antenna gain and type (see section 6.3)

Requirement Description	Requirement Clause Number (FCC)	Result	Remarks
Equivalent Isotropic Radiated Power	27.50(j) (3),(k) (3)	Compiles	
Occupied Bandwidth	2.1049	Compiles	
Band Edge and Emission Mask	2.1051, 27.53(n), 27.53(l)	Compiles	
Out of Band Emissions	2.1051, 27.53(n), 27.53(l)	Compiles	
Frequency Stability	2.1055, 27.54	Compiles	
Peak-to-Average Ratio	27.50(k) (4), 27.50(j) (4)	Compiles	
Field Strength of Spurious Radiation	2.1051, 27.53(n), 27.53(l)	Compiles	

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the following:

- ANSI C63.26:2015
- FCC 47 CFR Part 2, Part 27
- [FCC KDB 971168 D01](#) : Power Meas License Digital Systems
- [FCC KDB 971168 D02](#): Misc Rev Approv License Devices
- [FCC KDB 412172 D01](#) : Determining ERP and EIRP

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☐	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☐	Building 3: 843 Auburn Court, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
☐	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U _{Lab}
Conducted Antenna Port Emission Measurement	1.940 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using Power Meter	0.450 dB Ave. 1.300 dB Peak
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

Uncertainty figures are valid to a confidence level of 95%.

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE/5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and Digitizer.

6.2. MAXIMUM OUTPUT POWER

EIRP/ERP TEST PROCEDURE

ANSI C63.26:2015
KDB 971168 D01 Section 5.6

$$\text{ERP/EIRP} = \text{PMeas} + \text{GT} - \text{LC}$$

where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;

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

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

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted and ERP/EIRP output powers as follows

5G NR n77 (FCC Part 27 3450-3550MHz)

Part 27							
EIRP Limit (W)		1.00					
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
10.0	BPSK	3455.0	3545.0	24.09	0.256	8675	8M68G7W
	16QAM			23.73	0.236	8661	8M66D7W
15.0	BPSK	3457.5	3542.5	24.15	0.260	12921	12M9G7W
	16QAM			23.73	0.236	12941	12M9D7W
20.0	BPSK	3460.0	3540.0	24.13	0.259	17962	18M0G7W
	16QAM			23.61	0.230	18025	18M0D7W
25.0	BPSK	3462.5	3537.5	24.16	0.261	22994	23M0G7W
	16QAM			23.75	0.237	22989	23M0D7W
30.0	BPSK	3465.0	3535.0	24.05	0.254	26922	26M9G7W
	16QAM			23.56	0.227	26957	27M0D7W
40.0	BPSK	3470.0	3530.0	24.17	0.261	35867	35M9G7W
	16QAM			23.52	0.225	35992	36M0D7W
50.0	BPSK	3475.0	3525.0	24.31	0.270	45745	45M7G7W
	16QAM			23.63	0.231	45827	45M8D7W
60.0	BPSK	3480.0	3520.0	24.23	0.265	57945	57M9G7W
	16QAM			23.80	0.240	45827	45M8D7W
70.0	BPSK	3485.0	3515.0	24.08	0.256	64437	64M4G7W
	16QAM			23.65	0.232	64424	64M4D7W
80.0	BPSK	3490.0	3510.0	24.03	0.253	77207	77M2G7W
	16QAM			23.63	0.231	77335	77M3D7W
90.0	BPSK	3495.0	3505.0	24.13	0.259	86692	86M7G7W
	16QAM			23.57	0.228	86883	86M9D7W
100.0	BPSK	3500.0	3500.0	23.64	0.231	96534	96M5G7W
	16QAM			24.12	0.258	96739	96M7D7W

5G NR n77 (FCC Part 27 3700-3980MHz)

Part 27							
EIRP Limit (W)		1.00					
Bandwidth (MHz)	Modulation	Low Frequency (MHz)	Upper Frequency (MHz)	EIRP Average (dBm)	EIRP Average (W)	99% BW (kHz)	Emission Designator
10.0	BPSK	3705.0	3975.0	24.68	0.294	8541	8M54G7W
	16QAM			23.97	0.249	8601	8M60D7W
15.0	BPSK	3707.5	3972.5	24.53	0.284	12854	12M9G7W
	16QAM			23.86	0.243	12869	12M9D7W
20.0	BPSK	3710.0	3970.0	24.46	0.279	17921	17M9G7W
	16QAM			23.77	0.238	17898	17M9D7W
25.0	BPSK	3712.5	3967.5	24.17	0.261	22902	22M9G7W
	16QAM			23.21	0.209	22973	23M0D7W
30.0	BPSK	3715.0	3965.0	24.13	0.259	26834	26M8G7W
	16QAM			23.87	0.244	26819	26M8D7W
40.0	BPSK	3720.0	3960.0	24.22	0.264	35910	35M9G7W
	16QAM			23.57	0.228	35878	35M9D7W
50.0	BPSK	3725.0	3955.0	23.82	0.241	45746	45M7G7W
	16QAM			23.37	0.217	45586	45M6D7W
60.0	BPSK	3730.0	3950.0	24.19	0.262	57761	57M8G7W
	16QAM			23.43	0.220	57685	57M7D7W
70.0	BPSK	3735.0	3945.0	24.61	0.289	64063	64M1G7W
	16QAM			23.78	0.239	64169	64M2D7W
80.0	BPSK	3740.0	3940.0	24.51	0.282	77036	77M0G7W
	16QAM			23.87	0.244	76934	76M9D7W
90.0	BPSK	3745.0	3935.0	24.30	0.269	86870	86M9G7W
	16QAM			23.52	0.225	86673	86M7D7W
100.0	BPSK	3750.0	3930.0	24.37	0.274	96406	96M4G7W
	16QAM			23.65	0.232	95756	95M8D7W

6.3. MAXIMUM ANTENNA GAIN

The radio utilizes a Metal antenna, with a maximum gain provided by the manufacturer are as follows:

5G NR Bands	Frequency Range (MHz)	Main ANT 2 Gain (dBi)
5G NR n77 (FCC)	3450 – 3550 (FCC Part 27)	-4.83
5G NR n77 (FCC)	3700 – 3980 (FCC Part 27)	-4.69

6.4. WORST-CASE CONFIGURATION AND MODE

This report covers the following technologies:

- 5G NR n77

For 5G NR, conducted spurious emission tests were conducted on wider bandwidth with inner 1RB since this is the worst bandwidth and the highest output power.

BPSK modulation applied only for 5G NR frequencies and has the same tune up power as QPSK modulations.

The DFT-s-OFDM and CP-OFDM waveforms were investigated, and DFT-s-OFDM was found to be the worst case.

The worst-case scenario for all measurements is based on an engineering evaluation made on different modulations. Then, BPSK were observed as the worst mode to 5G NR bands respectively and set for all conducted and radiated. Output power measurements were measured on BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulations. For testing purposes emissions on sections 8 and 9 were measured while BPSK was set at or above target power for all bands. Conducted tests were performed on the worst case antenna port because it has the highest conducted power. The worst case antenna port is shown in the table below.

5G NR Bands	Worst case Antenna Port for Conducted Power
5G NR n77	Main Ant 2

The EUT was investigated in three orthogonal orientations X/Y/Z on all antenna to determine the worst-case orientation. The full tests of the EUT have made upon the orientations that shown in the table below.

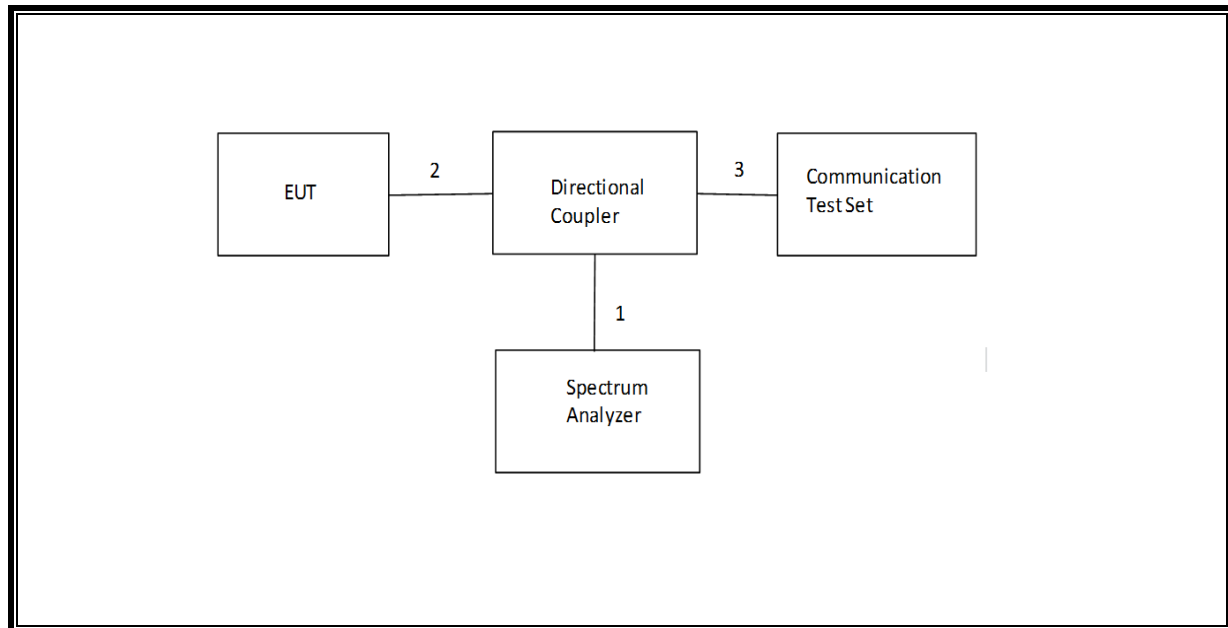
Frequency Range	Main ANT 2
3300 – 3980 MHz	X

Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. There were no emissions found with less than 20dB of margin from 9kHz to 30MHz, 30MHz-1GHz and above 18GHz.

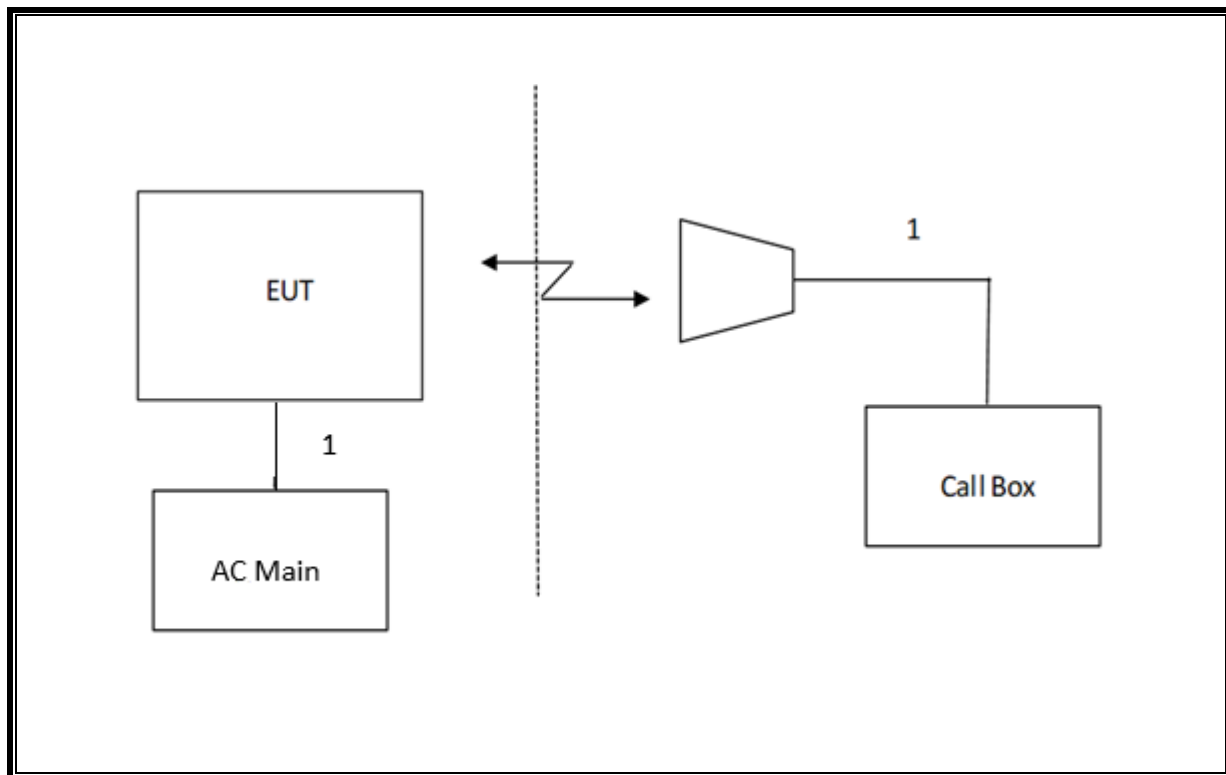
6.5. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT						
Description		Manufacturer	Model	Serial Number		FCC ID/ DoC
AC/DC adapter		Samsung	EP-TA800	R37WBAA004BDKA		N/A
I/O CABLES (RF CONDUCTED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	RF Out	1	Spectrum Analyzer	Shielded	None	N/A
2	Antenna Port	1	EUT	Shielded	0.1m	N/A
3	RF In/Out	1	Communication Test Set	Shielded	1m	N/A
I/O CABLES (RF RADIATED TEST)						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Shielded	1	N/A

CONDUCTED SETUP



RADIATED SETUP



7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Horn 1-18GHz	ETS Lindgren	3117	206808	2026-04-30
Antenna, Horn 1-18GHz	ETS Lindgren	3117	79834	2025-07-31
Antenna, Broadband Hybrid, 30MHz to 3GHz	SunAR RF Motion	JB3	203089	2025-04-30
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	223083	2025-08-01
RF Filter Box, 1-18GHz	UL-FR1	SAC 8 port rf box 1	197920	2025-03-31
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	175953	2025-05-17
EMI Test Receiver, 1Hz to 44GHz	Rohde & Schwarz	ESW	225688	2025-02-28
EMI Test Receiver, 2Hz to 44GHz	Rohde & Schwarz	ESW	169935	2025-02-28
Spectrum Analyzer, PSA 3Hz to 44GHz	Keysight	N9030A	87738	2026-01-31
Directional Coupler	KRYTAR	152610	254457	2025-10-31
Directional Coupler	KRYTAR	152610	246234	2025-04-30
Power Meter, P-series single channel	Keysight	N1911A	90719	2026-01-31
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight	N1921A	90389	2026-01-31
Frankenstein 2A	UL Solutions	F2A	237597	2025-10-31
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	85214	2026-01-31
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	230295	2025-02-28
Wideband Communication Test Set, Call Box	R&S GmbH & Co. KG	CMW500	85727	2025-06-26
UXM 5G Wireless Test Platform	Keysight	E7515B	245172	2025-02-28
Chamber, Environmental	Thermotron Corporation	SM-16C Mini-Max	179936	2025-01-31
UL AUTOMATION SOFTWARE				
CLT Software	UL	UL RF	V2023.11.21.0	
Power Measurement Software	UL	UL RF	V2023.08.14.0	
Radiated test software	UL	UL RF	Ver 9.5 2023-05-01	

NOTES:

- * Testing is completed before equipment expiration date.

8. RF OUTPUT POWER VERIFICATION

CONDUCTED OUTPUT POWER MEASUREMENT PROCEDURE

All bands conducted average power is obtained from the base station simulator.

The following tests were conducted according to the test requirements outlined in ANSI C63.26 Section 5.2.

RESULTS

The EUT has different power levels for head use configuration and body use configuration. All measurements are made with the device operating at the highest average conducted output powers.

8.1. 5G NR n77 (FCC Part 27 3450-3550MHz)

Test Engineer ID:	27966	Test Date:	2025-01-13
-------------------	-------	------------	------------

OUTPUT POWER FOR 5G NR n77 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				630333	633332	636333
				3455.0 MHz	3500.0 MHz	3545.0 MHz
10.0	BPSK	1	0	24.0	23.0	22.2
		1	1	27.4	26.5	25.7
		1	22	27.1	26.3	25.8
		1	23	23.6	22.9	22.3
		12	6	27.1	26.4	25.7
		24	0	26.6	25.9	25.2
	QPSK	1	0	23.9	23.0	22.2
		1	1	27.3	26.5	25.7
		1	22	26.9	26.2	25.8
		1	23	23.3	22.7	22.3
		12	6	27.1	26.4	25.7
		24	0	26.1	25.3	24.7
	16QAM	1	0	23.8	23.2	21.9
		1	1	26.1	25.5	24.5
		1	22	25.7	25.0	24.6
		1	23	23.2	22.6	22.2
		12	6	26.1	25.4	24.7
		24	0	25.1	24.3	23.7
	64QAM	1	0	24.0	22.7	22.1
		1	1	24.7	23.9	23.1
		1	22	24.3	23.7	23.3
		1	23	23.2	22.6	22.1
		12	6	24.6	23.8	23.2
		24	0	24.7	23.8	23.2
	256QAM	1	0	22.9	22.2	21.2
		1	1	22.8	21.9	21.3
		1	22	22.5	21.9	21.4
		1	23	22.4	21.7	21.5
		12	6	22.7	21.9	21.2
		24	0	22.6	21.8	21.3

OUTPUT POWER FOR 5G NR n77 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				630500	633332	636166
				3457.5 MHz	3500.0 MHz	3542.5 MHz
15.0	BPSK	1	0	23.8	23.1	22.0
		1	1	27.4	26.6	25.5
		1	36	26.7	26.2	25.6
		1	37	23.2	22.7	22.2
		18	9	27.0	26.4	25.6
		36	0	26.5	25.9	25.1
	QPSK	1	0	24.0	23.0	22.1
		1	1	27.4	26.5	25.5
		1	36	26.8	25.9	25.7
		1	37	23.3	22.4	22.0
		18	9	27.0	26.3	25.6
		36	0	26.0	25.4	24.6
	16QAM	1	0	23.6	23.0	21.8
		1	1	26.2	25.5	24.4
		1	36	25.7	25.1	24.5
		1	37	23.1	22.6	22.0
		18	9	25.9	25.3	24.6
		36	0	25.0	24.4	23.6
	64QAM	1	0	24.0	22.9	21.9
		1	1	24.9	23.8	22.9
		1	36	24.4	23.4	22.9
		1	37	23.4	22.4	21.8
		18	9	24.5	23.9	23.1
		36	0	24.5	23.9	23.1
	256QAM	1	0	22.7	22.1	21.2
		1	1	22.6	22.1	21.2
		1	36	22.2	21.9	21.3
		1	37	22.4	21.8	21.4
		18	9	22.6	21.8	21.2
		36	0	22.6	21.9	21.2

OUTPUT POWER FOR 5G NR n77 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				630666	633332	635998
				3460.0 MHz	3500.0 MHz	3540.0 MHz
20.0	BPSK	1	0	23.9	23.0	22.2
		1	1	27.3	26.5	25.7
		1	49	26.6	26.0	25.8
		1	50	23.1	22.4	22.3
		25	12	26.9	26.4	25.6
		50	0	26.4	25.8	25.1
	QPSK	1	0	23.8	23.0	22.1
		1	1	27.3	26.5	25.6
		1	49	26.6	26.0	25.7
		1	50	23.1	22.5	22.2
		25	12	26.9	26.4	25.6
		50	0	25.9	25.3	24.6
	16QAM	1	0	23.5	22.8	22.1
		1	1	26.1	25.2	24.7
		1	49	25.3	24.8	24.7
		1	50	22.9	22.4	22.3
		25	12	26.0	25.4	24.6
		50	0	24.8	24.3	23.6
	64QAM	1	0	24.0	23.0	22.1
		1	1	25.0	24.2	23.1
		1	49	24.2	23.5	23.2
		1	50	23.2	22.3	22.2
		25	12	24.4	23.9	23.1
		50	0	24.4	23.8	23.1
	256QAM	1	0	22.6	21.9	21.1
		1	1	22.5	22.0	21.1
		1	49	22.0	21.4	21.1
		1	50	21.9	21.4	21.1
		25	12	22.4	21.8	21.1
		50	0	22.3	21.8	21.1

OUTPUT POWER FOR 5G NR n77 (25.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				630834	633332	635832
				3462.5 MHz	3500.0 MHz	3537.5 MHz
25.0	BPSK	1	0	24.1	23.3	22.5
		1	1	27.5	26.7	25.9
		1	63	27.1	26.3	26.1
		1	64	23.4	22.6	22.4
		32	16	27.1	26.7	25.9
		64	0	26.5	26.1	25.3
	QPSK	1	0	24.0	23.3	22.5
		1	1	27.6	26.8	25.9
		1	63	27.1	26.4	26.1
		1	64	23.5	22.8	22.5
		32	16	26.8	26.4	25.6
		64	0	26.0	25.6	24.8
	16QAM	1	0	23.8	23.2	22.5
		1	1	26.9	26.1	25.5
		1	63	26.4	25.6	25.5
		1	64	23.9	22.9	22.8
		32	16	26.1	25.7	24.8
		64	0	25.0	24.7	23.9
	64QAM	1	0	24.3	23.5	22.7
		1	1	25.3	24.5	23.4
		1	63	24.6	23.9	23.6
		1	64	23.6	22.8	22.8
		32	16	24.6	24.2	23.4
		64	0	24.6	24.2	23.4
	256QAM	1	0	23.2	22.5	21.7
		1	1	23.3	22.5	21.6
		1	63	22.9	22.0	21.7
		1	64	22.7	22.0	21.8
		32	16	22.6	22.2	21.4
		64	0	22.6	22.2	21.4

OUTPUT POWER FOR 5G NR n77 (30.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				631000	633332	635666
				3465.0 MHz	3500.0MHz	3535.0 MHz
30.0	BPSK	1	0	23.8	23.0	22.1
		1	1	27.3	26.5	25.6
		1	76	26.6	25.8	25.7
		1	77	23.1	22.3	22.2
		36	18	26.8	26.4	25.7
		75	0	26.3	25.9	25.1
	QPSK	1	0	23.7	23.0	22.2
		1	1	27.3	26.5	25.7
		1	76	26.6	25.9	25.7
		1	77	23.1	22.4	22.2
		36	18	26.8	26.4	25.7
		75	0	25.8	25.4	24.6
	16QAM	1	0	23.7	23.1	22.5
		1	1	26.3	25.5	25.1
		1	76	25.6	24.7	25.1
		1	77	23.2	22.2	22.6
		36	18	25.8	25.4	24.7
		75	0	24.7	24.4	23.6
	64QAM	1	0	23.8	23.0	22.2
		1	1	24.7	23.9	23.3
		1	76	23.9	23.2	23.2
		1	77	23.0	22.2	22.3
		36	18	24.3	23.9	23.2
		75	0	24.3	23.8	23.2
	256QAM	1	0	22.8	22.1	21.1
		1	1	22.8	22.1	21.0
		1	76	22.3	21.4	21.1
		1	77	22.0	21.4	21.1
		36	18	22.3	21.9	21.2
		75	0	22.3	21.9	21.1

OUTPUT POWER FOR 5G NR n77 (40.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				631332	633332	635332
				3470.0 MHz	3500.0 MHz	3530.0MHz
40.0	BPSK	1	0	23.9	23.0	22.3
		1	1	27.4	26.5	25.8
		1	104	26.5	25.7	25.7
		1	105	22.9	22.2	22.1
		50	25	26.7	26.4	25.7
		100	0	26.1	25.9	25.2
	QPSK	1	0	23.7	23.0	22.4
		1	1	27.2	26.5	25.9
		1	104	26.5	25.7	25.7
		1	105	23.0	22.2	22.2
		50	25	26.6	26.4	25.7
		100	0	25.6	25.3	24.7
	16QAM	1	0	23.8	23.1	22.3
		1	1	26.3	25.5	24.8
		1	104	25.5	24.7	24.7
		1	105	23.0	22.4	22.2
		50	25	25.6	25.4	24.7
		100	0	24.6	24.3	23.7
	64QAM	1	0	23.9	23.0	22.5
		1	1	24.9	24.0	23.4
		1	104	24.1	23.4	23.3
		1	105	23.2	22.4	22.4
		50	25	24.1	23.8	23.2
		100	0	24.2	23.8	23.2
	256QAM	1	0	22.8	22.0	21.3
		1	1	22.7	22.0	21.3
		1	104	22.0	21.2	21.2
		1	105	22.0	21.2	21.2
		50	25	22.1	21.9	21.2
		100	0	22.1	21.8	21.2

OUTPUT POWER FOR 5G NR n77 (50.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				631666	633332	634998
				3475.0 MHz	3500.0 MHz	3525.0 MHz
50.0	BPSK	1	0	23.7	23.0	22.7
		1	1	27.3	26.6	26.2
		1	131	26.3	25.7	25.7
		1	132	22.8	22.2	22.2
		64	32	26.7	26.4	25.8
		128	0	26.1	25.8	25.3
	QPSK	1	0	23.8	23.1	22.7
		1	1	27.2	26.6	26.2
		1	131	26.4	25.7	25.7
		1	132	22.8	22.2	22.2
		64	32	26.7	26.4	25.8
		128	0	25.6	25.3	24.8
	16QAM	1	0	23.8	23.1	22.8
		1	1	26.3	25.5	25.2
		1	131	25.5	24.6	24.8
		1	132	22.9	22.2	22.3
		64	32	25.6	25.4	24.7
		128	0	24.6	24.3	23.8
	64QAM	1	0	23.8	23.0	22.5
		1	1	24.8	24.1	23.5
		1	131	23.8	23.2	22.9
		1	132	22.9	21.9	21.9
		64	32	24.1	23.9	23.3
		128	0	24.1	23.8	23.3
	256QAM	1	0	22.7	22.0	21.7
		1	1	22.6	22.0	21.6
		1	131	21.8	21.2	21.1
		1	132	21.8	21.2	21.2
		64	32	22.1	21.9	21.3
		128	0	22.1	21.8	21.3

OUTPUT POWER FOR 5G NR n77 (60.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				632000	633332	634666
				3480.0 MHz	3500.0 MHz	3520.0 MHz
60.0	BPSK	1	0	23.7	23.0	22.9
		1	1	27.2	26.6	26.4
		1	160	25.9	25.7	25.7
		1	161	22.4	22.1	22.2
		81	40	26.6	26.4	25.8
		162	0	26.0	25.8	25.3
	QPSK	1	0	23.7	23.0	22.9
		1	1	27.2	26.5	26.4
		1	160	25.9	25.6	25.7
		1	161	22.4	22.1	22.2
		81	40	26.6	26.3	25.8
		162	0	25.5	25.3	24.9
	16QAM	1	0	23.8	22.9	23.1
		1	1	26.3	25.5	25.6
		1	160	25.0	24.8	24.9
		1	161	22.3	22.3	22.4
		81	40	25.6	25.4	24.8
		162	0	24.5	24.3	23.8
	64QAM	1	0	23.7	23.0	22.8
		1	1	24.8	24.0	23.8
		1	160	23.5	23.0	23.5
		1	161	22.5	22.1	22.5
		81	40	24.1	23.8	23.3
		162	0	24.0	23.8	23.3
	256QAM	1	0	22.8	22.0	21.9
		1	1	22.8	22.0	21.9
		1	160	21.6	21.2	21.2
		1	161	21.5	21.2	21.2
		81	40	22.1	21.9	21.3
		162	0	22.0	21.9	21.3

OUTPUT POWER FOR 5G NR n77 (70.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				632333	633332	634333
				3485.0 MHz	3500.0 MHz	3515.0 MHz
70.0	BPSK	1	0	23.7	23.1	22.9
		1	1	27.2	26.6	26.5
		1	187	25.7	25.6	25.7
		1	188	22.2	22.1	22.2
		90	45	26.6	26.4	25.9
		180	0	25.9	25.8	25.4
	QPSK	1	0	23.7	23.1	22.9
		1	1	27.2	26.6	26.5
		1	187	25.7	25.6	25.7
		1	188	22.2	22.1	22.2
		90	45	26.6	26.4	25.9
		180	0	25.5	25.3	24.9
	16QAM	1	0	23.6	23.1	22.9
		1	1	26.2	25.6	25.4
		1	187	24.7	24.7	24.6
		1	188	22.2	22.2	22.1
		90	45	25.6	25.4	24.9
		180	0	24.4	24.3	23.9
	64QAM	1	0	23.7	23.3	22.9
		1	1	24.8	24.3	23.9
		1	187	23.3	23.3	23.2
		1	188	22.0	22.3	22.3
		90	45	24.1	23.8	23.4
		180	0	24.0	23.8	23.4
	256QAM	1	0	22.7	22.1	22.1
		1	1	22.7	22.1	22.1
		1	187	21.3	21.2	21.3
		1	188	21.3	21.1	21.3
		90	45	22.0	21.9	21.4
		180	0	22.0	21.8	21.4

OUTPUT POWER FOR 5G NR n77 (80.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				632666	633332	633998
				3490.0 MHz	3500.0 MHz	3510.0 MHz
80.0	BPSK	1	0	23.7	23.2	23.0
		1	1	27.3	26.8	26.6
		1	215	25.7	25.6	25.8
		1	216	22.2	22.1	22.2
		108	54	26.5	26.4	26.0
		216	0	25.9	25.8	25.5
	QPSK	1	0	23.7	23.2	23.0
		1	1	27.3	26.8	26.5
		1	215	25.7	25.6	25.7
		1	216	22.2	22.1	22.2
		108	54	26.5	26.3	26.0
		216	0	25.4	25.3	25.0
	16QAM	1	0	23.6	23.1	23.0
		1	1	26.2	26.0	25.6
		1	215	24.6	24.9	24.8
		1	216	22.1	22.1	22.3
		108	54	25.6	25.3	25.0
		216	0	24.4	24.3	24.0
	64QAM	1	0	23.5	23.2	23.0
		1	1	24.6	24.2	24.1
		1	215	23.0	23.1	23.3
		1	216	21.9	22.0	22.3
		108	54	24.0	23.8	23.5
		216	0	23.9	23.8	23.5
	256QAM	1	0	22.7	22.2	22.1
		1	1	22.8	22.2	22.2
		1	215	21.2	21.1	21.4
		1	216	21.2	21.0	21.4
		108	54	22.0	21.9	21.5
		216	0	21.9	21.8	21.5

OUTPUT POWER FOR 5G NR n77 (90.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				633000	633332	633666
				3495.0 MHz	3500.0 MHz	3505.0 MHz
90.0	BPSK	1	0	23.7	23.5	23.2
		1	1	27.3	27.0	26.8
		1	243	25.7	25.7	25.8
		1	244	22.1	22.1	22.2
		120	60	26.5	26.3	26.2
		243	0	25.9	25.8	25.7
	QPSK	1	0	23.7	23.4	23.2
		1	1	27.3	27.0	26.8
		1	243	25.7	25.7	25.8
		1	244	22.1	22.1	22.2
		120	60	26.5	26.4	26.2
		243	0	25.4	25.3	25.1
	16QAM	1	0	23.7	23.3	23.5
		1	1	26.4	26.0	26.2
		1	243	24.7	24.6	25.1
		1	244	22.2	22.0	22.5
		120	60	25.4	25.4	25.2
		243	0	24.3	24.3	24.1
	64QAM	1	0	23.6	23.5	23.2
		1	1	24.7	24.6	24.3
		1	243	23.1	23.3	23.3
		1	244	21.9	22.2	22.3
		120	60	24.0	23.8	23.7
		243	0	23.8	23.8	23.7
	256QAM	1	0	22.9	22.4	22.2
		1	1	23.0	22.5	22.3
		1	243	21.4	21.1	21.3
		1	244	21.3	21.0	21.3
		120	60	21.9	21.8	21.7
		243	0	21.8	21.8	21.7

OUTPUT POWER FOR 5G NR n77 (100.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				N/A	633332	N/A
				N/A	3500.0 MHz	N/A
100.0	BPSK	1	0		23.6	
		1	1		27.3	
		1	271		25.8	
		1	272		22.2	
		135	67		26.3	
		270	0		25.8	
	QPSK	1	0		23.6	
		1	1		27.3	
		1	271		25.8	
		1	272		22.2	
		135	67		26.3	
		270	0		25.3	
	16QAM	1	0		23.5	
		1	1		26.2	
		1	271		24.7	
		1	272		22.1	
		135	67		25.4	
		270	0		24.3	
	64QAM	1	0		23.6	
		1	1		24.8	
		1	271		23.3	
		1	272		22.1	
		135	67		23.9	
		270	0		23.8	
	256QAM	1	0		22.6	
		1	1		22.8	
		1	271		21.3	
		1	272		21.1	
		135	67		21.8	
		270	0		21.8	

8.2. 5G NR n77 (FCC Part 27 3700-3980MHz)

Test Engineer ID:	27966	Test Date:	2025-01-13
-------------------	-------	------------	------------

OUTPUT POWER FOR 5G NR n77 (10.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				647000	656000	665000
				3705.0 MHz	3840.0 MHz	3975.0 MHz
10.0	BPSK	1	0	23.7	23.1	22.6
		1	1	26.8	26.6	26.1
		1	22	26.9	26.6	26.1
		1	23	23.4	23.1	22.5
		12	6	26.9	26.5	26.1
		24	0	26.4	26.1	25.6
	QPSK	1	0	23.3	23.0	22.6
		1	1	26.8	26.6	26.2
		1	22	26.9	26.5	26.1
		1	23	23.5	22.9	22.4
		12	6	26.9	26.6	26.1
		24	0	25.9	25.6	25.1
	16QAM	1	0	23.6	23.0	22.8
		1	1	26.2	25.6	25.4
		1	22	26.2	25.7	25.1
		1	23	23.8	23.0	22.8
		12	6	26.0	25.5	25.0
		24	0	24.9	24.6	24.0
	64QAM	1	0	23.4	22.9	22.3
		1	1	24.5	24.2	23.1
		1	22	24.4	24.1	23.1
		1	23	23.5	23.0	22.4
		12	6	24.4	24.0	23.6
		24	0	24.4	24.0	23.5
	256QAM	1	0	22.4	22.0	21.6
		1	1	22.3	22.3	21.6
		1	22	22.5	22.0	21.6
		1	23	22.4	21.9	21.5
		12	6	22.4	22.1	21.6
		24	0	22.4	22.0	21.5

OUTPUT POWER FOR 5G NR n77 (15.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				647166	656000	664833
				3707.5 MHz	3840.0 MHz	3972.5 MHz
15.0	BPSK	1	0	23.5	23.0	22.4
		1	1	26.9	26.5	25.9
		1	36	26.9	26.5	25.9
		1	37	23.4	23.0	22.4
		18	9	27.0	26.6	26.1
		36	0	26.4	26.0	25.6
	QPSK	1	0	23.4	22.8	22.4
		1	1	26.9	26.6	25.9
		1	36	26.9	26.5	25.9
		1	37	23.4	22.9	22.3
		18	9	26.9	26.6	26.1
		36	0	25.9	25.6	25.1
	16QAM	1	0	23.3	22.8	22.6
		1	1	25.8	25.5	25.1
		1	36	25.8	25.2	25.0
		1	37	23.3	22.7	22.7
		18	9	25.9	25.6	25.1
		36	0	24.9	24.6	24.2
	64QAM	1	0	23.4	22.9	22.7
		1	1	24.3	24.1	23.7
		1	36	24.3	24.1	23.5
		1	37	23.3	23.1	22.5
		18	9	24.4	24.1	23.5
		36	0	24.4	24.1	23.6
	256QAM	1	0	22.3	22.1	21.6
		1	1	22.3	22.1	21.5
		1	36	22.5	21.9	21.5
		1	37	22.3	22.0	21.5
		18	9	22.4	22.1	21.6
		36	0	22.4	22.0	21.6

OUTPUT POWER FOR 5G NR n77 (20.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				647333	656000	664666
				3710.0 MHz	3840.0 MHz	3970.0 MHz
20.0	BPSK	1	0	23.4	22.9	22.6
		1	1	26.9	26.4	26.1
		1	49	26.8	26.4	26.2
		1	50	23.2	22.9	22.7
		25	12	27.0	26.6	26.2
		50	0	26.5	26.1	25.7
	QPSK	1	0	23.3	22.9	22.6
		1	1	26.8	26.4	26.1
		1	49	26.8	26.4	26.1
		1	50	23.3	22.9	22.6
		25	12	27.0	26.7	26.3
		50	0	25.9	25.6	25.2
	16QAM	1	0	23.5	24.4	22.8
		1	1	26.2	25.5	25.3
		1	49	26.0	25.7	25.3
		1	50	23.4	23.0	22.8
		25	12	25.9	25.6	25.2
		50	0	24.9	24.6	24.1
	64QAM	1	0	23.5	23.1	22.7
		1	1	24.5	24.0	23.8
		1	49	24.4	23.9	23.7
		1	50	23.6	22.9	22.7
		25	12	24.4	24.2	23.7
		50	0	24.4	24.2	23.7
	256QAM	1	0	22.4	22.1	21.6
		1	1	22.4	22.1	21.7
		1	49	22.4	22.0	21.6
		1	50	22.4	22.0	21.6
		25	12	22.4	22.1	21.6
		50	0	22.4	22.1	21.6

OUTPUT POWER FOR 5G NR n77 (25.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				647500	656000	664500
				3712.5 MHz	3840.0 MHz	3967.5 MHz
25.0	BPSK	1	0	24.1	23.3	22.5
		1	1	27.5	26.7	25.9
		1	63	27.1	26.3	26.1
		1	64	23.4	22.6	22.4
		32	16	27.1	26.7	25.9
		64	0	26.5	26.1	25.3
	QPSK	1	0	24.0	23.3	22.5
		1	1	27.6	26.8	25.9
		1	63	27.1	26.4	26.1
		1	64	23.5	22.8	22.5
		32	16	26.8	26.4	25.6
		64	0	26.0	25.6	24.8
	16QAM	1	0	23.8	23.2	22.5
		1	1	26.9	26.1	25.5
		1	63	26.4	25.6	25.5
		1	64	23.9	22.9	22.8
		32	16	26.1	25.7	24.8
		64	0	25.0	24.7	23.9
	64QAM	1	0	24.3	23.5	22.7
		1	1	25.3	24.5	23.4
		1	63	24.6	23.9	23.6
		1	64	23.6	22.8	22.8
		32	16	24.6	24.2	23.4
		64	0	24.6	24.2	23.4
	256QAM	1	0	23.2	22.5	21.7
		1	1	23.3	22.5	21.6
		1	63	22.9	22.0	21.7
		1	64	22.7	22.0	21.8
		32	16	22.6	22.2	21.4
		64	0	22.6	22.2	21.4

OUTPUT POWER FOR 5G NR n77 (30.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				647666	656000	664333
				3715.0 MHz	3840.0 MHz	3965.0 MHz
30.0	BPSK	1	0	23.4	23.0	22.6
		1	1	26.9	26.5	26.2
		1	76	26.6	26.5	26.2
		1	77	23.1	23.0	22.7
		36	18	26.9	26.7	26.2
		75	0	26.5	26.2	25.7
		1	0	23.4	23.0	22.7
	QPSK	1	1	26.9	26.5	26.2
		1	76	26.7	26.5	26.2
		1	77	23.1	23.0	22.7
		36	18	26.9	26.7	26.2
		75	0	25.9	25.7	25.2
		1	0	23.2	23.1	22.6
		1	1	25.7	25.2	25.1
	16QAM	1	76	25.5	25.5	25.3
		1	77	23.0	23.0	22.7
		36	18	25.9	25.7	25.2
		75	0	24.9	24.7	24.1
		1	0	23.4	22.7	22.6
		1	1	24.5	24.3	23.6
		1	76	24.3	24.0	23.7
	64QAM	1	77	23.2	23.0	22.7
		36	18	24.4	24.2	23.6
		75	0	24.4	24.2	23.7
	256QAM	1	0	22.5	21.9	21.4
		1	1	22.4	21.9	21.4
		1	76	22.1	21.9	21.5
		1	77	22.1	21.9	21.5
		36	18	22.4	22.2	21.6
		75	0	22.4	22.1	21.7

OUTPUT POWER FOR 5G NR n77 (40.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				648000	656000	664000
				3720.0 MHz	3840.0 MHz	3960.0MHz
40.0	BPSK	1	0	23.2	22.9	22.4
		1	1	26.8	26.4	25.9
		1	104	26.7	26.5	26.1
		1	105	23.2	23.0	22.6
		50	25	26.8	26.7	26.2
		100	0	26.3	26.1	25.6
		1	0	23.4	22.7	22.5
	QPSK	1	1	27.0	26.2	26.0
		1	104	26.7	26.3	26.2
		1	105	23.2	22.9	22.7
		50	25	26.8	26.7	26.2
		100	0	25.8	25.6	25.1
		1	0	23.6	22.6	22.5
		1	1	26.1	25.1	25.1
	16QAM	1	104	25.9	25.2	25.2
		1	105	23.4	22.7	22.7
		50	25	25.9	25.7	25.1
		100	0	24.8	24.6	24.2
		1	0	23.4	22.8	22.3
		1	1	24.3	23.8	23.4
		1	104	24.2	24.0	23.6
	64QAM	1	105	23.3	22.8	22.6
		50	25	24.3	24.2	23.6
		100	0	24.3	24.1	23.7
	256QAM	1	0	22.3	21.9	21.2
		1	1	22.3	21.7	21.3
		1	104	22.1	21.8	21.4
		1	105	22.1	21.8	21.4
		50	25	22.3	22.2	21.7
		100	0	22.3	22.1	21.6

OUTPUT POWER FOR 5G NR n77 (50.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				648333	656000	663666
				3725.0 MHz	3840.0 MHz	3955.0 MHz
50.0	BPSK	1	0	23.4	22.8	22.5
		1	1	26.9	26.3	26.0
		1	131	26.8	26.6	26.1
		1	132	23.2	23.0	22.6
		64	32	26.8	26.7	26.2
		128	0	26.2	26.2	25.7
	QPSK	1	0	23.4	22.7	22.5
		1	1	26.9	26.2	26.0
		1	131	26.5	26.5	26.2
		1	132	23.1	23.0	22.6
		64	32	26.8	26.7	26.2
		128	0	25.7	25.7	25.1
	16QAM	1	0	23.4	22.7	22.5
		1	1	26.0	25.3	25.0
		1	131	25.7	25.6	25.2
		1	132	23.3	22.9	22.7
		64	32	25.8	25.7	25.2
		128	0	24.7	24.6	24.1
	64QAM	1	0	23.5	22.7	22.6
		1	1	24.5	23.7	23.6
		1	131	24.3	23.9	23.8
		1	132	23.3	23.0	22.8
		64	32	24.3	24.2	23.7
		128	0	24.3	24.1	23.7
	256QAM	1	0	22.3	21.6	21.5
		1	1	22.4	21.6	21.4
		1	131	22.2	21.9	21.6
		1	132	22.2	21.8	21.6
		64	32	22.2	22.1	21.7
		128	0	22.2	22.1	21.7

OUTPUT POWER FOR 5G NR n77 (60.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				648666	656000	663333
				3730.0 MHz	3840.0 MHz	3950.0 MHz
60.0	BPSK	1	0	23.3	22.7	22.6
		1	1	26.8	26.2	26.2
		1	160	26.0	26.6	26.2
		1	161	23.0	23.0	22.6
		81	40	26.7	26.7	26.2
		162	0	26.2	26.1	25.7
	QPSK	1	0	23.3	22.7	22.6
		1	1	26.9	26.2	26.2
		1	160	26.5	26.6	26.2
		1	161	23.0	23.0	22.6
		81	40	26.7	26.7	26.2
		162	0	25.7	25.7	25.2
	16QAM	1	0	23.3	22.7	22.7
		1	1	25.8	25.2	25.2
		1	160	25.5	25.7	25.2
		1	161	22.9	22.9	22.6
		81	40	25.7	25.7	25.2
		162	0	24.7	24.7	24.2
	64QAM	1	0	23.4	22.3	22.6
		1	1	24.4	23.5	23.6
		1	160	24.1	23.9	23.6
		1	161	23.1	22.9	22.6
		81	40	24.2	24.2	23.7
		162	0	24.2	24.1	23.7
	256QAM	1	0	22.2	21.7	21.5
		1	1	22.3	21.7	21.6
		1	160	21.9	22.1	21.5
		1	161	21.9	21.8	21.5
		81	40	22.2	22.2	21.7
		162	0	22.2	22.1	21.7

OUTPUT POWER FOR 5G NR n77 (70.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				649000	656000	663000
				3735.0 MHz	3840.0 MHz	3945.0 MHz
70.0	BPSK	1	0	23.3	22.7	22.8
		1	1	26.9	26.3	26.4
		1	187	26.3	26.5	26.2
		1	188	22.8	23.0	22.6
		90	45	26.7	26.7	26.1
		180	0	26.3	26.1	25.7
	QPSK	1	0	23.3	22.7	22.8
		1	1	26.9	26.3	26.4
		1	187	26.3	26.5	26.2
		1	188	22.8	23.0	22.7
		90	45	26.8	26.7	26.2
		180	0	25.8	25.7	25.2
	16QAM	1	0	23.4	22.5	22.9
		1	1	25.9	25.4	25.5
		1	187	25.4	25.5	25.2
		1	188	22.8	23.0	24.2
		90	45	25.8	25.7	25.2
		180	0	24.8	24.6	24.2
	64QAM	1	0	23.4	22.5	22.8
		1	1	24.4	23.5	23.9
		1	187	23.8	23.9	23.6
		1	188	22.8	22.9	22.7
		90	45	24.3	24.2	23.7
		180	0	24.3	24.1	23.6
	256QAM	1	0	22.5	21.7	21.9
		1	1	22.4	21.8	21.9
		1	187	21.9	22.1	21.7
		1	188	21.9	22.1	21.6
		90	45	22.2	22.2	21.6
		180	0	22.2	22.2	21.7

OUTPUT POWER FOR 5G NR n77 (80.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				649333	656000	662666
				3740.0 MHz	3840.0 MHz	3940.0 MHz
80.0	BPSK	1	0	23.4	22.8	23.2
		1	1	27.0	26.4	26.7
		1	215	26.4	26.5	26.2
		1	216	22.8	23.0	22.7
		108	54	26.8	26.7	26.1
		216	0	26.4	26.1	25.7
	QPSK	1	0	23.4	22.7	23.1
		1	1	26.9	26.3	26.7
		1	215	26.4	26.5	26.2
		1	216	22.8	23.0	22.7
		108	54	26.8	26.7	26.1
		216	0	25.9	25.6	25.2
	16QAM	1	0	23.6	22.9	23.4
		1	1	26.1	25.4	26.0
		1	215	25.5	25.4	25.5
		1	216	22.9	22.9	22.9
		108	54	25.9	25.7	25.1
		216	0	24.9	24.6	24.2
	64QAM	1	0	23.3	22.8	23.1
		1	1	24.4	23.9	24.2
		1	215	23.7	24.0	23.7
		1	216	22.7	22.9	22.7
		108	54	24.3	24.2	23.6
		216	0	24.4	24.1	23.7
	256QAM	1	0	22.2	21.8	22.0
		1	1	22.3	21.8	22.1
		1	215	21.7	22.1	21.6
		1	216	21.6	22.1	21.6
		108	54	22.3	22.2	21.6
		216	0	22.3	22.1	21.7

OUTPUT POWER FOR 5G NR n77 (90.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				649666	656000	662333
				3745.0 MHz	3840.0 MHz	3935.0 MHz
90.0	BPSK	1	0	23.3	22.8	23.5
		1	1	27.0	26.4	27.1
		1	243	26.4	26.5	26.3
		1	244	22.8	22.8	22.7
		120	60	26.8	26.7	26.2
		243	0	26.4	26.1	25.8
	QPSK	1	0	23.3	22.8	23.4
		1	1	27.0	26.4	27.1
		1	243	26.5	26.5	26.2
		1	244	22.9	22.8	22.6
		120	60	26.9	26.7	26.2
		243	0	25.9	25.6	25.3
	16QAM	1	0	23.6	22.8	23.4
		1	1	26.1	25.3	26.1
		1	243	25.6	25.5	25.2
		1	244	23.0	22.8	22.5
		120	60	25.8	25.7	25.1
		243	0	24.9	24.6	24.3
	64QAM	1	0	23.3	22.8	23.4
		1	1	24.4	24.0	24.6
		1	243	23.8	24.1	23.8
		1	244	22.7	22.9	22.7
		120	60	24.3	24.2	23.7
		243	0	24.3	24.1	23.7
	256QAM	1	0	22.4	21.9	22.4
		1	1	22.5	22.0	22.6
		1	243	22.0	22.0	21.7
		1	244	21.9	21.9	21.6
		120	60	22.3	22.2	21.6
		243	0	22.3	22.1	21.7

OUTPUT POWER FOR 5G NR n77 (100.0 MHz)

Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Conducted Average (dBm)		
				650000	656000	662000
				3750.0 MHz	3840.0 MHz	3930.0 MHz
100.0	BPSK	1	0	23.2	22.8	23.7
		1	1	26.9	26.5	27.5
		1	271	26.4	26.4	26.2
		1	272	22.7	22.7	22.5
		135	67	26.9	26.6	26.3
		270	0	26.4	26.2	25.8
	QPSK	1	0	23.2	22.8	23.8
		1	1	26.9	26.4	27.4
		1	271	26.5	26.4	26.2
		1	272	22.8	22.7	22.5
		135	67	26.9	26.6	26.3
		270	0	25.9	25.6	25.3
	16QAM	1	0	23.0	22.9	23.8
		1	1	25.7	25.2	26.4
		1	271	25.3	25.4	25.2
		1	272	22.6	22.9	22.4
		135	67	25.9	25.6	25.3
		270	0	24.9	24.6	24.3
	64QAM	1	0	23.2	22.9	23.7
		1	1	24.4	24.1	24.9
		1	271	24.0	24.0	23.7
		1	272	22.8	22.8	22.5
		135	67	24.3	24.1	23.8
		270	0	24.4	24.1	23.8
	256QAM	1	0	22.4	21.8	22.7
		1	1	22.5	22.0	22.9
		1	271	22.1	21.9	21.8
		1	272	21.9	21.7	21.6
		135	67	22.4	22.1	21.7
		270	0	22.4	22.1	21.8

9. CONDUCTED TEST RESULTS

9.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only.

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the middle channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

RESULTS

There is no limit required and power is the same for low, middle and high channel; therefore, only middle channel was tested.

5G NR n77 (FCC Part 27 3450-3550MHz)

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
5G NR n77 (FCC Part 27 3450- 3550MHz)	10MHz, BPSK	24/0	3500.0	8.6750	10.04
	10MHz, QPSK			8.6458	10.17
	10MHz, 16QAM			8.6609	10.17
	15MHz, BPSK	36/0		12.921	14.36
	15MHz, QPSK			12.934	14.46
	15MHz, 16QAM			12.941	14.44
	20MHz, BPSK	50/0		17.962	19.89
	20MHz, QPSK			17.955	20.00
	20MHz, 16QAM			18.025	19.58
	25MHz, BPSK	64/0		22.994	24.91
	25MHz, QPSK			22.956	25.20
	25MHz, 16QAM			22.986	24.82
	30MHz, BPSK	75/0		26.922	28.97
	30MHz, QPSK			26.931	29.18
	30MHz, 16QAM			26.957	29.24
	40MHz, BPSK	100/0		35.867	37.98
	40MHz, QPSK			35.867	38.32
	40MHz, 16QAM			35.922	38.49
	50MHz, BPSK	128/0		45.745	49.24
	50MHz, QPSK			45.760	50.08
	50MHz, 16QAM			45.827	49.71
	60MHz, BPSK	162/0		57.945	63.36
	60MHz, QPSK			58.100	65.67
	60MHz, 16QAM			58.022	64.00
	70MHz, BPSK	180/0		64.437	71.27
	70MHz, QPSK			64.367	71.21
	70MHz, 16QAM			64.424	71.04
	80MHz, BPSK	216/0		77.207	82.17
	80MHz, QPSK			77.274	84.17
	80MHz, 16QAM			77.335	84.23
	90MHz, BPSK	243/0		86.692	92.41
	90MHz, QPSK			86.801	94.75
	90MHz, 16QAM			86.883	93.37
100MHz, BPSK	270/0	96.534	104.90		
100MHz, QPSK		96.307	103.7		
100MHz, 16QAM		96.739	103.3		
100MHz, BPSK	1/0	0.5952	0.9308		

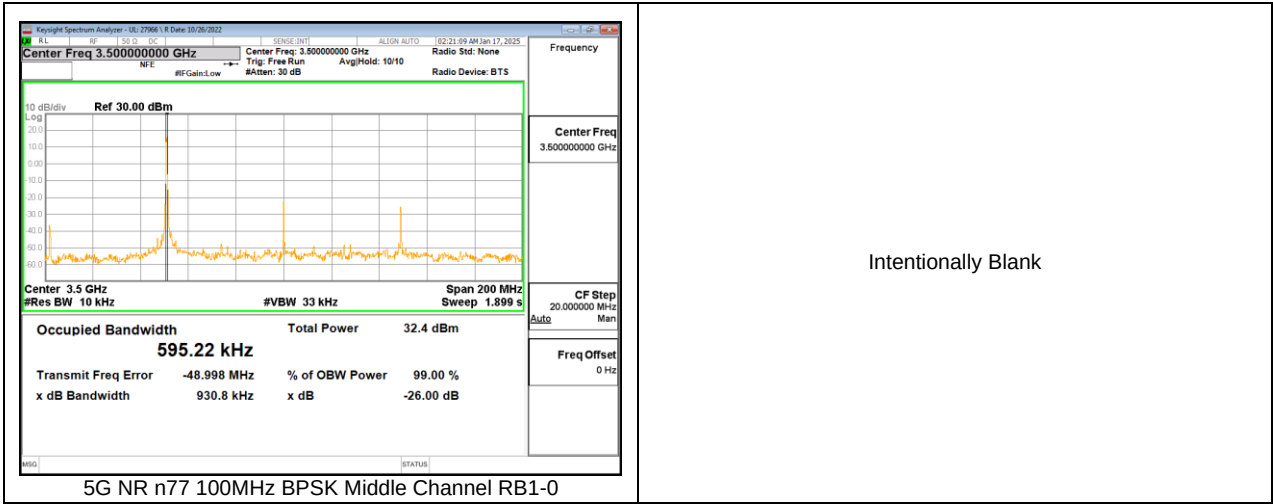
5G NR n77 (FCC Part 27 3700-3980MHz)

Band	Mode	RB Allocation/RB Offset	f(MHz)	99% BW (MHz)	-26dB BW (MHz)
5G NR n77 (FCC Part 27 3700- 3980MHz)	10MHz, BPSK	24/0	3840.0	8.5409	9.91
	10MHz, QPSK			8.5966	9.51
	10MHz, 16QAM			8.6013	9.60
	15MHz, BPSK	36/0		12.854	14.00
	15MHz, QPSK			12.877	14.48
	15MHz, 16QAM			12.869	14.00
	20MHz, BPSK	50/0		17.921	19.66
	20MHz, QPSK			17.933	18.93
	20MHz, 16QAM			17.898	19.32
	25MHz, BPSK	64/0		22.902	24.72
	25MHz, QPSK			22.922	24.53
	25MHz, 16QAM			22.973	24.05
	30MHz, BPSK	75/0		26.834	28.34
	30MHz, QPSK			26.737	28.14
	30MHz, 16QAM			26.819	28.26
	40MHz, BPSK	100/0		35.910	37.54
	40MHz, QPSK			35.860	37.55
	40MHz, 16QAM			35.873	37.87
	50MHz, BPSK	128/0		45.746	48.15
	50MHz, QPSK			45.560	48.04
	50MHz, 16QAM			45.586	48.12
	60MHz, BPSK	162/0		57.761	60.55
	60MHz, QPSK			57.741	61.84
	60MHz, 16QAM			57.685	62.40
	70MHz, BPSK	180/0		64.063	67.75
	70MHz, QPSK			64.169	68.39
	70MHz, 16QAM			64.329	66.57
	80MHz, BPSK	216/0		77.036	81.86
	80MHz, QPSK			76.934	80.97
	80MHz, 16QAM			76.877	81.38
	90MHz, BPSK	243/0		86.870	91.04
	90MHz, QPSK			86.544	90.71
	90MHz, 16QAM			86.673	90.67
	100MHz, BPSK	270/0		96.406	102.50
	100MHz, QPSK			96.263	101.20
	100MHz, 16QAM			95.756	103.40
	100MHz, BPSK	1/0		0.5942	0.8573

9.1.1. 5G NR n77 (FCC Part 27 3450-3550MHz)

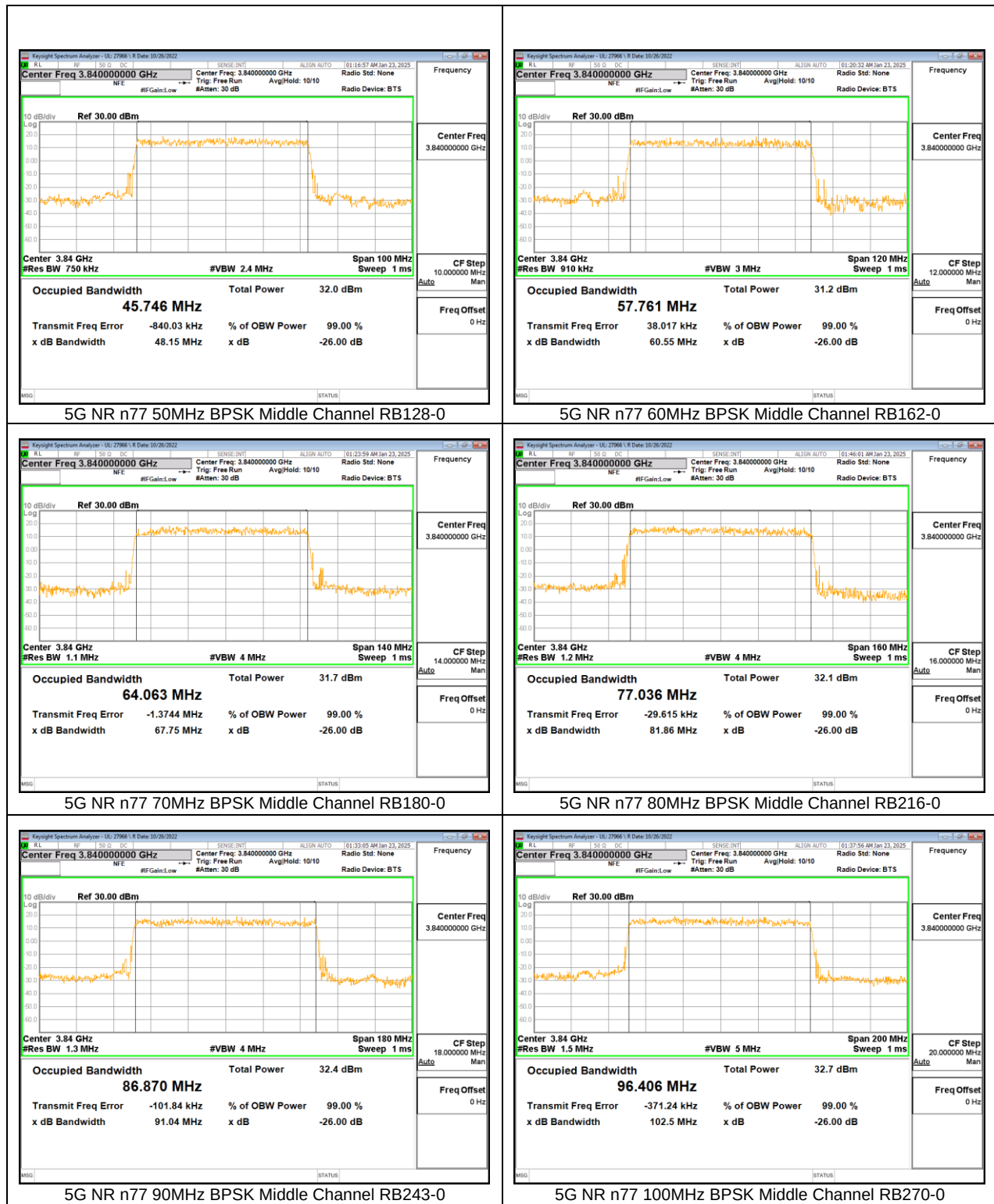


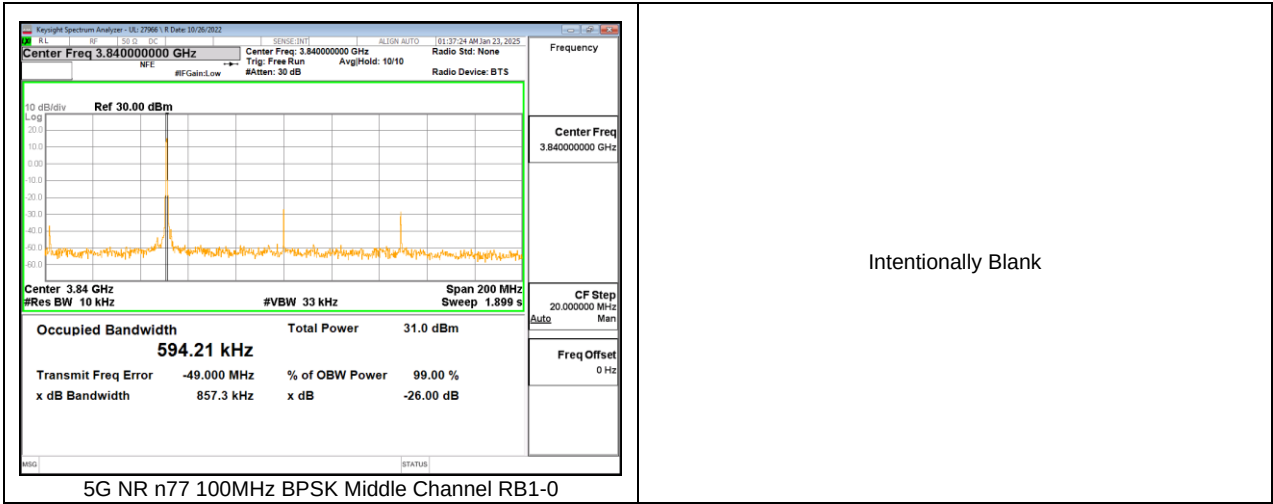




9.1.2. 5G NR n77 (FCC Part 27 3700-3980MHz)







9.2. EMISSION MASK AND ADJACENT CHANNEL POWER

LIMITS

FCC: §27.53

(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

(2) 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.

FCC: §27.53

(l) 3.7 GHz Service. The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

(2) 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.

TEST PROCEDURE

For Spectrum Emission Mask plots, the spectrum analyzer is configured to sweep with a moving integration window, the width of which can be adjusted to different sizes across the sweep. The window width is configured to be greater than or equal to the required reference bandwidth. The center frequencies of the integration window for the different integration windows was set such that the upper and lower edges of the windows are aligned with the transition points in the reference bandwidths. This is achieved by setting the start / stop frequencies of the window with an offset equal to the reference bandwidth / 2 from the transition point.

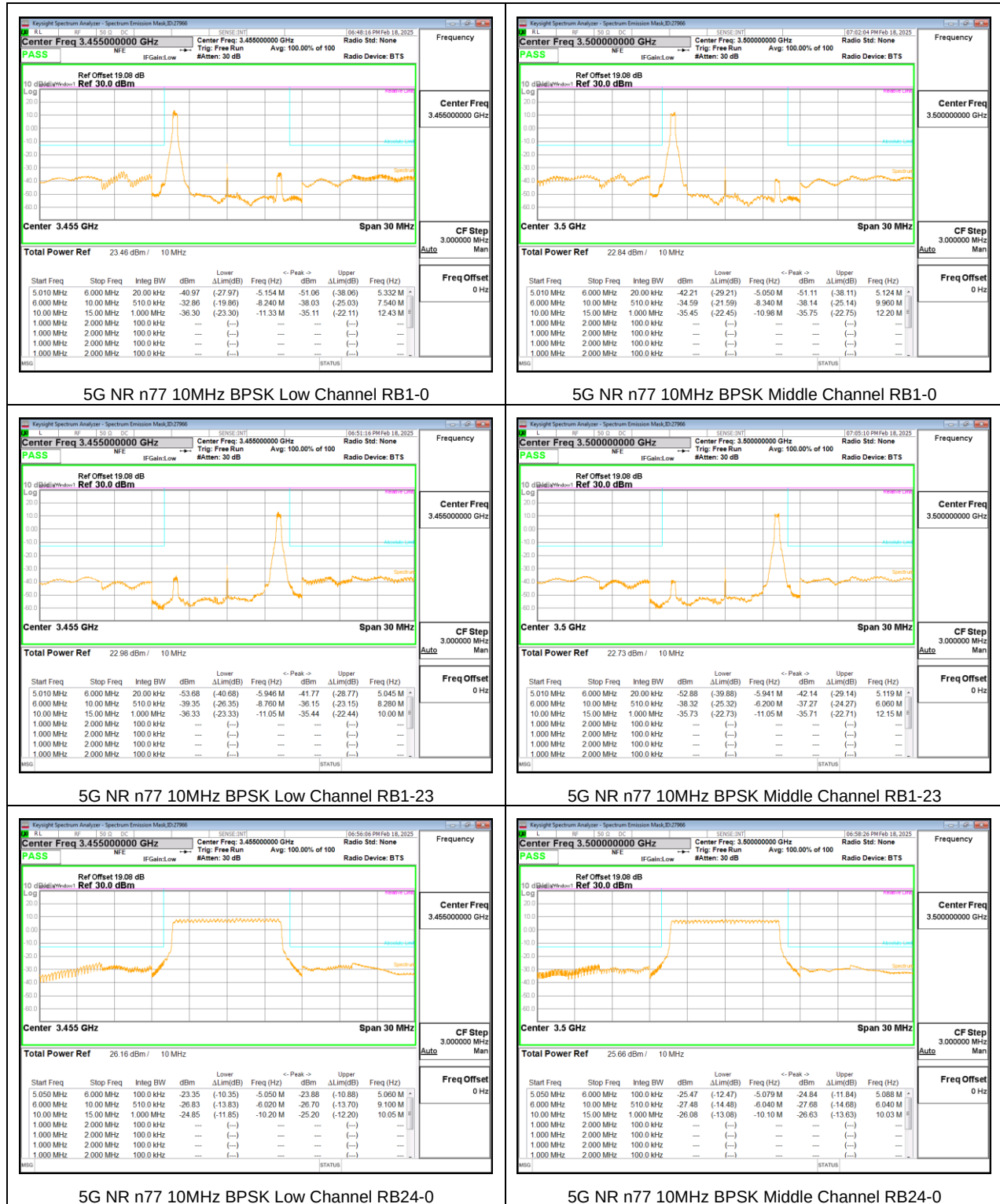
The transmitter output was connected to a base station simulator and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

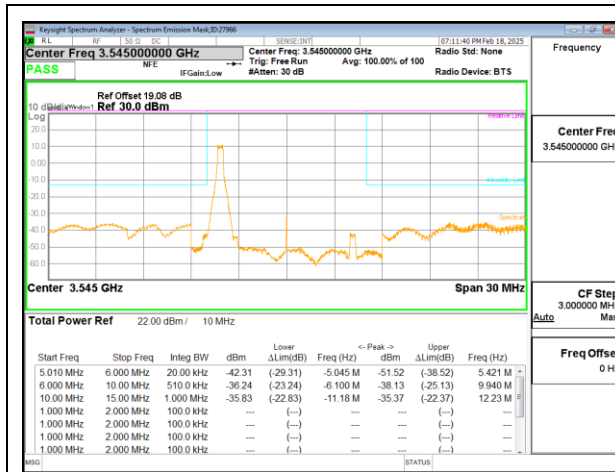
For each band edge measurement:

1. Set the spectrum analyzer span to include the block edge frequency.
2. Set a marker to point the corresponding band edge frequency in each test case.
3. Set display line at -13 dBm
4. Set resolution bandwidth to at least 1% of emission bandwidth.

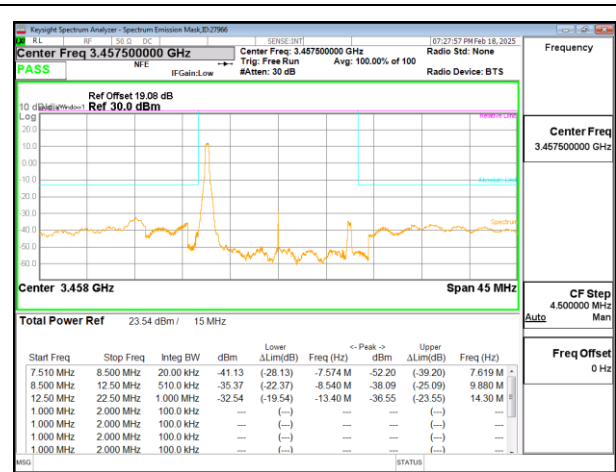
RESULTS

9.2.1. 5G NR n77 (FCC Part 27 3450-3550MHz)

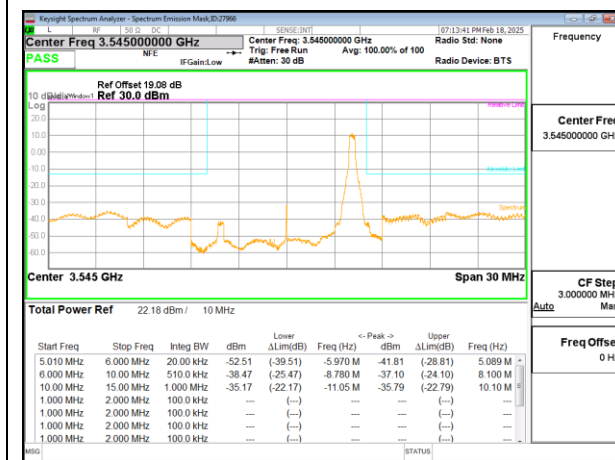




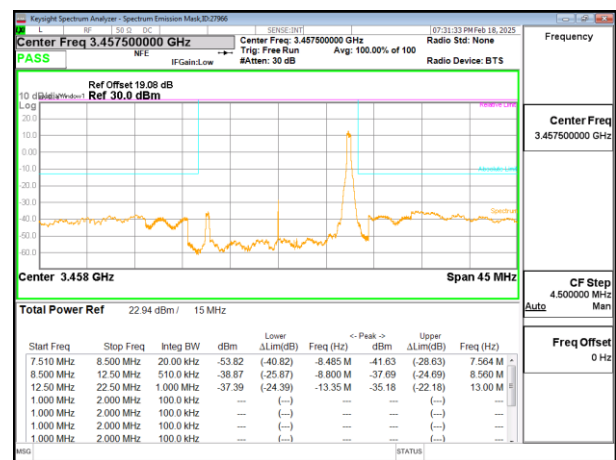
5G NR n77 10MHz BPSK High Channel RB1-0



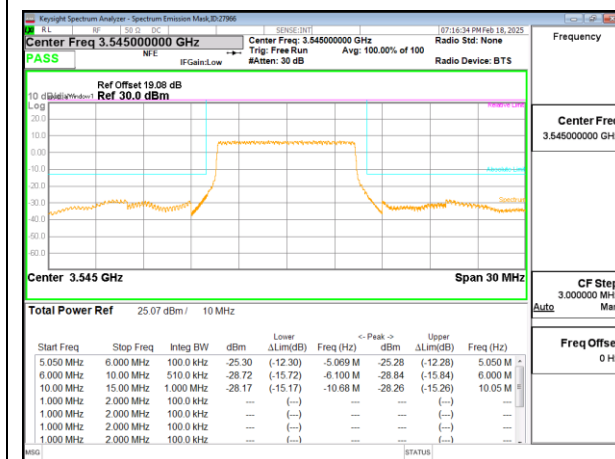
5G NR n77 15MHz BPSK Low Channel RB1-0



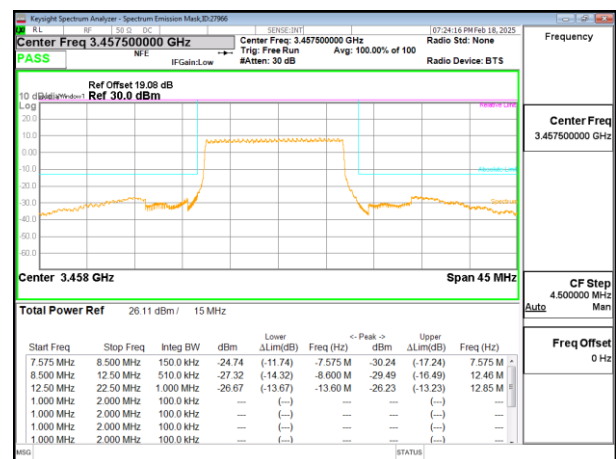
5G NR n77 10MHz BPSK High Channel RB1-23



5G NR n77 15MHz BPSK Low Channel RB1-37

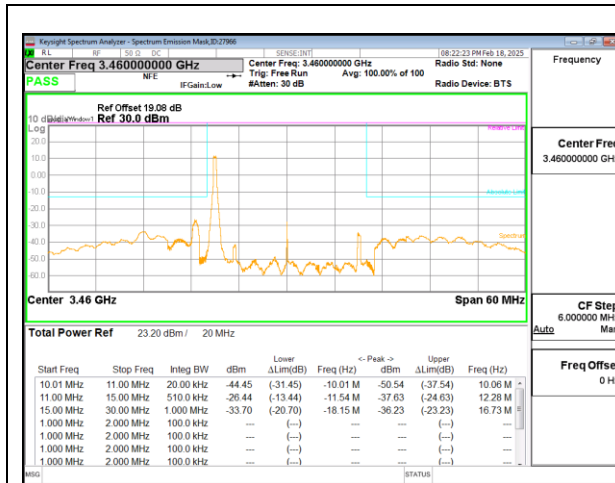


5G NR n77 10MHz BPSK High Channel RB24-0

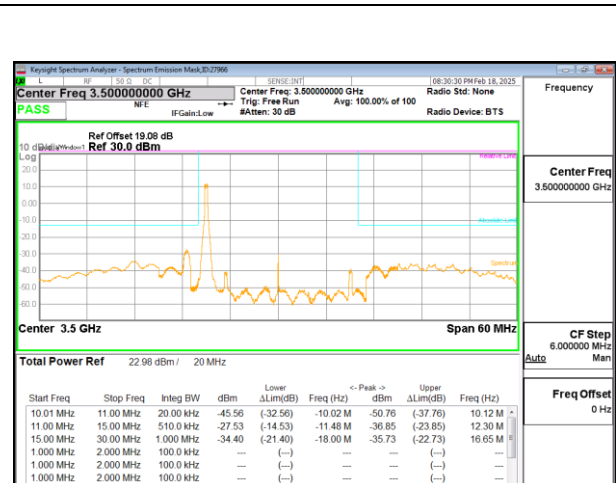


5G NR n77 15MHz BPSK Low Channel RB36-0

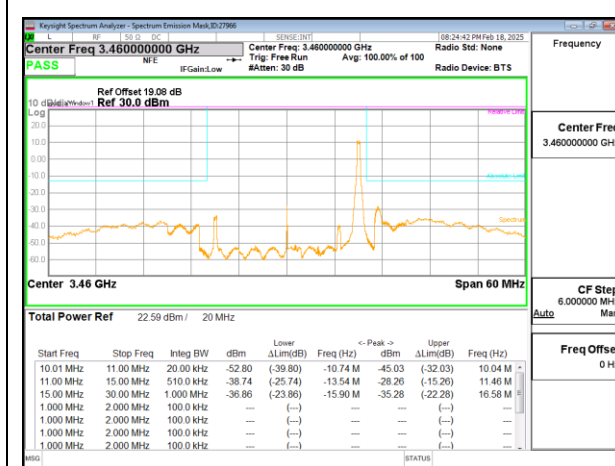




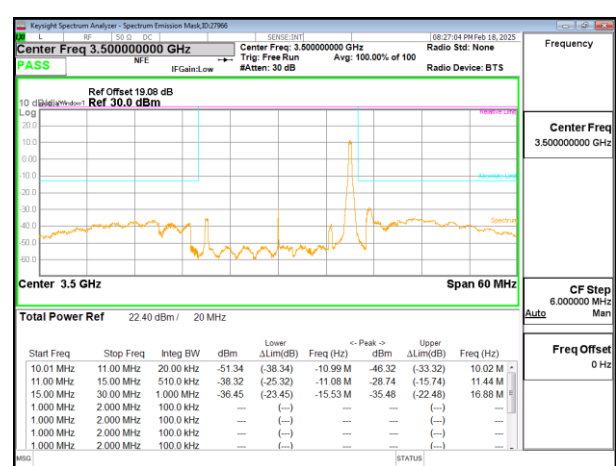
5G NR n77 20MHz BPSK Low Channel RB1-0



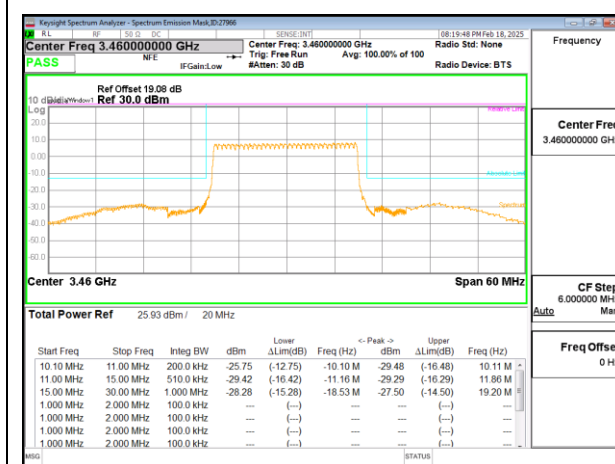
5G NR n77 20MHz BPSK Middle Channel RB1-0



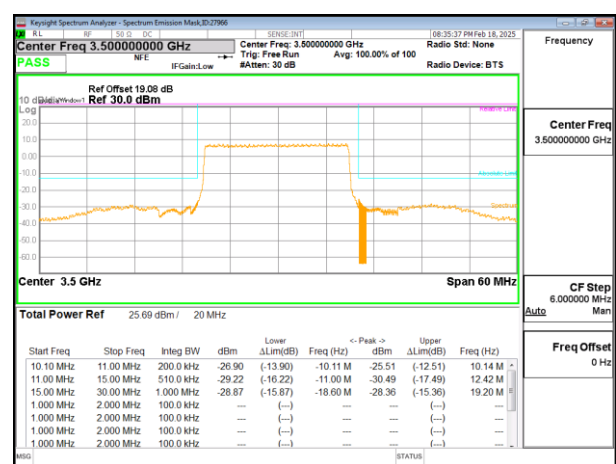
5G NR n77 20MHz BPSK Low Channel RB1-50



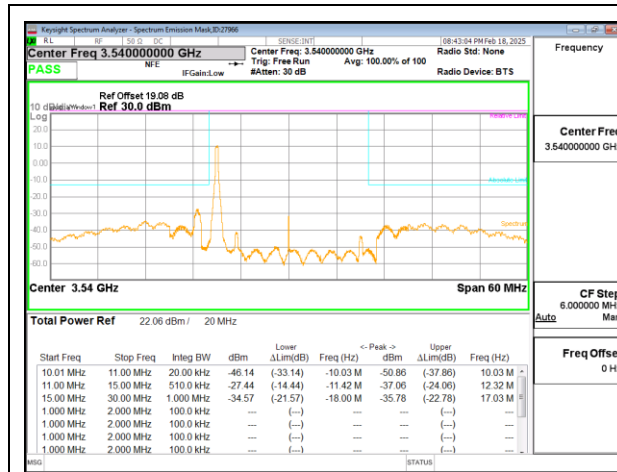
5G NR n77 20MHz BPSK Middle Channel RB1-50



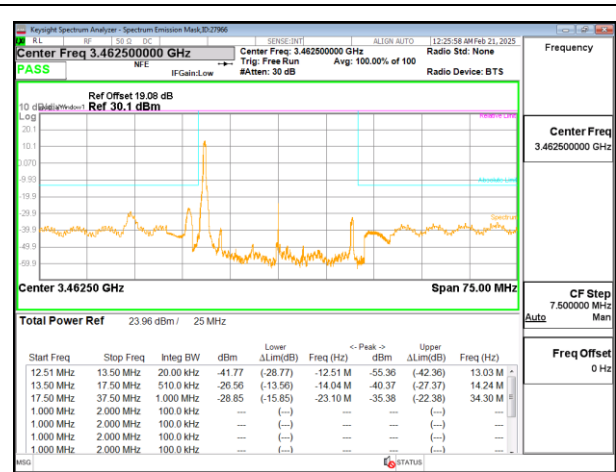
5G NR n77 20MHz BPSK Low Channel RB50-0



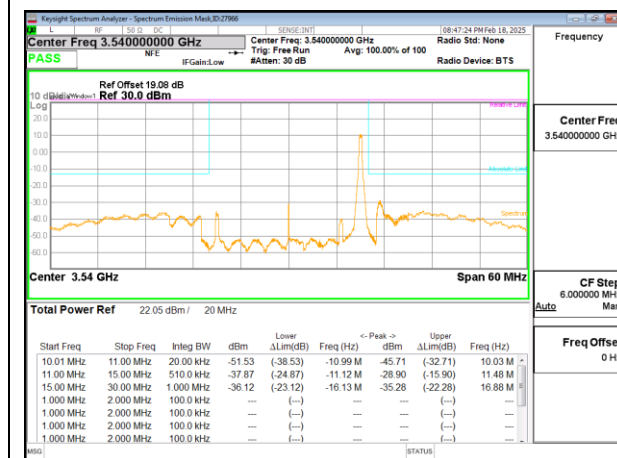
5G NR n77 20MHz BPSK Middle Channel RB50-0



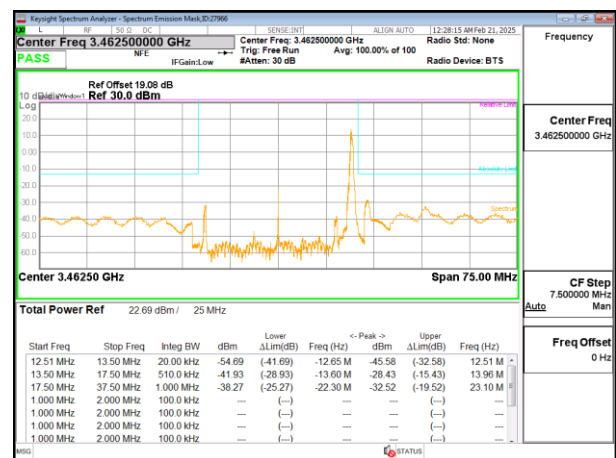
5G NR n77 20MHz BPSK High Channel RB1-0



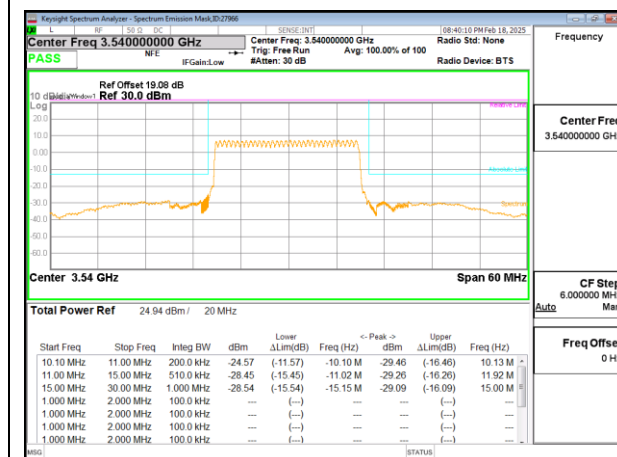
5G NR n77 25MHz BPSK Low Channel RB1-0



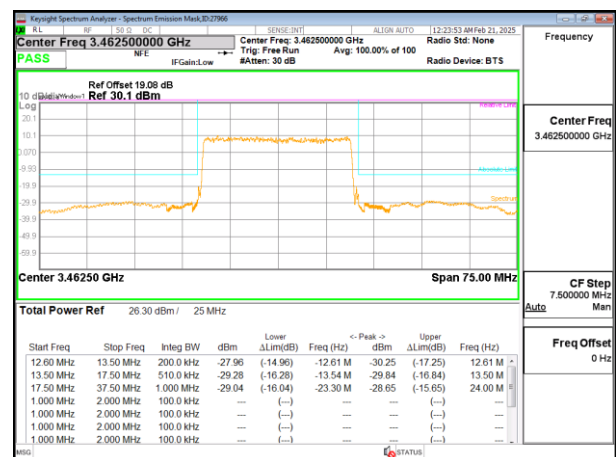
5G NR n77 20MHz BPSK High Channel RB1-50



5G NR n77 25MHz BPSK Low Channel RB1-64



5G NR n77 20MHz BPSK High Channel RB50-0



5G NR n77 25MHz BPSK Low Channel RB64-0