

TEST REPORT

FCC Test for MT6433-77A
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2604-FC036

DATE OF ISSUE
April 23, 2026

Tested by
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Applicant	SAMSUNG Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Product Name	MMU(MT6433)
Model Name	MT6433-77A
FCC ID	A3LMT6433-77A
Date of Test	April 1, 2026 ~ April 23, 2026
Location of Test	☒ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
Test Standard Used	CFR 47 Part 2, Part 27
Test Results	PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	April 23, 2026	Initial Release

Notice

Content

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. GENERAL INFORMATION

1.1. APPLICANT INFORMATION

Company Name	SAMSUNG Electronics Co., Ltd.
Company Address	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

1.2. PRODUCT INFORMATION

EUT Type	MMU(MT6433)					
EUT Serial Number	S61H300208					
Power Supply	-48 VDC					
Frequency Range	3 700 MHz ~ 3 980 MHz					
Modulation Type	QPSK, 16QAM, 64QAM, 256QAM					
Output Power	Band		Carrier	Bandwidth	Power	
	(64 Port) n77 5G NR		1	40 MHz	3.48 W/path, 222.87 W	
	(64 Port) n77 5G NR		1	60 MHz	5.22 W/path, 334.31 W	
	(64 Port) n77 5G NR		1	80 MHz	6.96 W/path, 445.75 W	
	(64 Port) n77 5G NR		1	100 MHz	7.5 W/path, 480 W	
Emission Designator	Mode	Bandwidth	Emission Designator			
			QPSK (G7D)	Conducted (W)	16 QAM (W7D)	Conducted (W)
	(64 Port) n77 5G NR	40 MHz	37M9G7D	190.51	37M9W7D	199.14
	(64 Port) n77 5G NR	60 MHz	57M9G7D	282.67	57M9W7D	295.01
	(64 Port) n77 5G NR	80 MHz	77M7G7D	367.42	77M7W7D	375.04
	(64 Port) n77 5G NR	100 MHz	97M6G7D	407.72	97M6W7D	426.36
	Antenna Specification	Category	Peak Gain	EIRP Limit	Attenuation	
OBW						
40, 60, 80 MHz					100 MHz	
Common Beam		19.8 dBi	1640 W/MHz	0 dB	0 dB	
			3280 W/MHz	0 dB	0 dB	
User-specific Beam		27.1 dBi	1640 W/MHz	3.010 dB	2.362 dB	
			3280 W/MHz	0 dB	0 dB	
- The gain of the user-specific beam is higher than that of the common beam; therefore, the user-specific beam is controlled through beamforming functionality. - Attenuation values are applied per OBW based on each gain condition.						

1.3. TEST INFORMATION

FCC Rule Parts	CFR 47 Part 2, Part 27
Measurement standards	ANSI C63.26-2015, KDB 971168 D01 v03r01, KDB 662911 D01 v02r01
Test Location	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea

2. FACILITIES AND ACCREDITATIONS

2.1. FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated February 26, 2026 (Registration Number: KR0032).

2.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

3. TEST SPECIFICATIONS

3.1. STANDARDS

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 2, Part 27

Description	Reference	Results
Conducted Output Power and PSD	§ 2.1046, § 27.50(j)(1), (2)	Compliant
PAPR	§ 27.50(j)(4)	Compliant
Occupied Bandwidth	§ 2.1049	Compliant
Out-of-band Unwanted Emissions	§ 2.1051, § 27.53(l)(1)	Compliant
Spurious Unwanted Emissions		Compliant
Radiated Emissions	§ 2.1053, § 27.53(l)(1)	Compliant
Frequency Stability	§ 2.1055	Compliant

Note: The decision rule applies 'simple acceptance'.

3.2. ADDITIONAL DESCRIPTIONS ABOUT TEST

- The EUT was operated in a manner representative of the typical usage of the equipment.
- During all testing, system components were manipulated within the confines of typical usage to maximize each emission.
- The user-specific beam, which has the highest antenna gain among the supported beam configurations, was applied for testing as the worst-case condition.
- All modulation types (QPSK, 16QAM, 64QAM, 256QAM) supported by the EUT have been tested, and the test results presented in the following sections represent the worst-case conditions.

Test results are reported based on emission designators: QPSK (G7D) and QAM (W7D), where the QAM category includes 16QAM, 64QAM, and 256QAM, and the worst-case condition (16QAM) is applied.

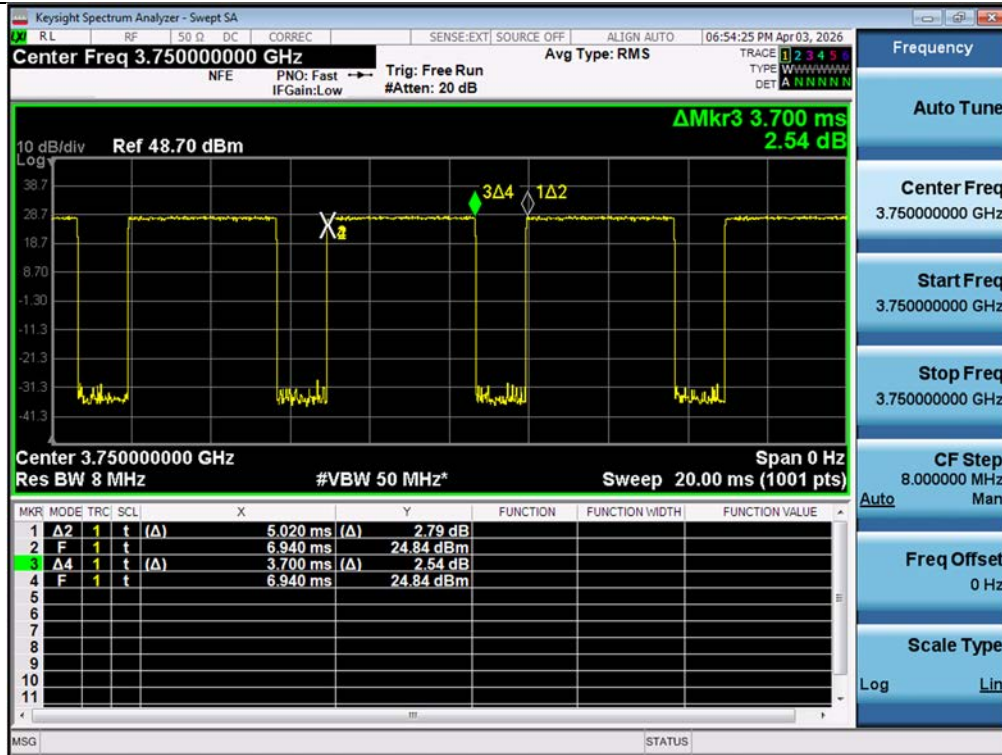
Based on the measured RF Output Power and PSD, 16QAM was identified as the worst-case modulation. For PAPR, OBW, OOB, Unwanted Emissions, and RSE, the results are reported based on the worst-case modulation condition.

- All mode of operation, supporting bandwidth and frequencies were investigated. The test plots shown in the following sections represent the worst-case emissions.
- The measurement has been performed for each carrier in the mode of full resource block size as worst-case to transmit maximum output power condition.
- The dummy loads were connected to the RF output ports for radiated spurious emission testing.
- The operating frequencies used by the operator are defined as the center frequencies per channel bandwidth as shown in the table below.

Channel Bandwidth (MHz)	Center Frequency (MHz)	Frequency Range (MHz)
40	3 820	3 800 ~ 3 840
60	3 830	3 800 ~ 3 860
80	3 840	3 800 ~ 3 880
100	3 750	3 700 ~ 3 800

- Because of the EUT using TDD technology, it cannot be configured to transmit continuously and measurement instrument cannot be configured to measure only during active transmissions. So, we performed the measurement using duty cycle method.

Transmit On/Off Timing



The EUT duty cycle is calculated according to ANSI C63.26 - 5.2.4.3.4.

$$\text{Duty Cycle} = \text{On-time} / \text{Transmitter period} = 3.70 \text{ ms} / 5.02 \text{ ms} = 0.74$$

$$\text{Duty Correction} = 10 \log (1/\text{duty cycle}) = 10 \log (1/0.74) = 1.31 \text{ dB}^\#$$

[#] The exact value is 1.3076828..., which has been rounded to 1.31 dB and applied in the calculations.

- The tests results in plots are already including the actual value of loss for the attenuator and cable combination. Please check correction factors below table.

Port 0

Correction factor table			
Frequency (MHz)	Factor (dB)	Frequency (MHz)	Factor (dB)
0.009	29.757	11 000	25.506
100	30.394	12 000	25.727
200	30.698	13 000	25.966
300	30.964	14 000	26.378
400	31.217	15 000	27.167
500	31.299	16 000	27.139
600	31.477	17 000	27.287
700	31.656	18 000	27.580
800	31.751	19 000	27.368
900	31.942	20 000	27.855
1 000	32.885	21 000	27.812
1 500	33.439	22 000	28.432
2 000	33.896	23 000	28.165
2 500	33.620	24 000	28.237
3 000	34.097	25 000	28.441
3 100	34.223	26 000	28.599
3 200	34.279	27 000	29.106
3 300	34.289	28 000	29.315
3 400	34.473	29 000	29.756
3 500	34.488	30 000	29.649
3 600	34.545	31 000	29.615
3 700	34.556	32 000	30.634
3 800	34.610	33 000	36.794
3 900	34.698	34 000	31.049
4 000	34.582	35 000	30.285
5 000	36.031	36 000	29.807
6 000	36.047	37 000	29.826
7 000	36.658	38 000	29.809
8 000	37.118	39 000	30.045
9 000	37.559	40 000	30.082
10 000	25.108	-	-

Note: The correction factor was applied to each port, but only one factor is listed for simplicity.

3.3. MAXIMUM MEASUREMENT UNCERTAINTY

Description	Condition	Uncertainty
Radiated Disturbance	9 kHz ~ 30 MHz	4.54 dB
	30 MHz ~ 1 GHz	5.74 dB
	1 GHz ~ 18 GHz	5.80 dB
	18 GHz ~ 40 GHz	5.86 dB

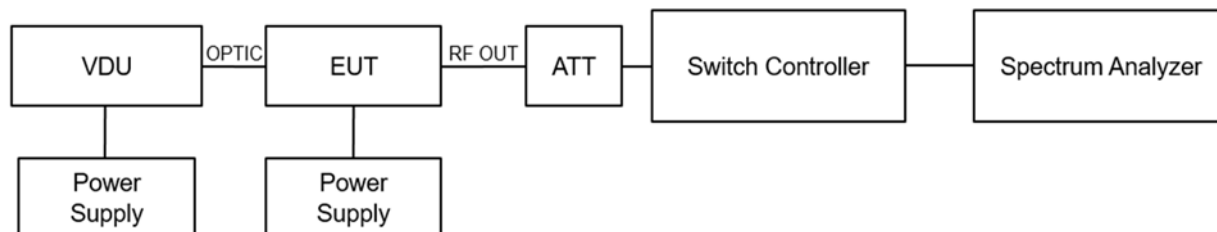
Coverage factor $k=2$, Confidence levels of 95 %

3.4. STANDARDS ENVIRONMENTAL TEST CONDITIONS

Temperature:	+15 °C to +35 °C
Relative humidity:	30 % to 60 %
Air pressure:	860 mbar to 1 060 mbar

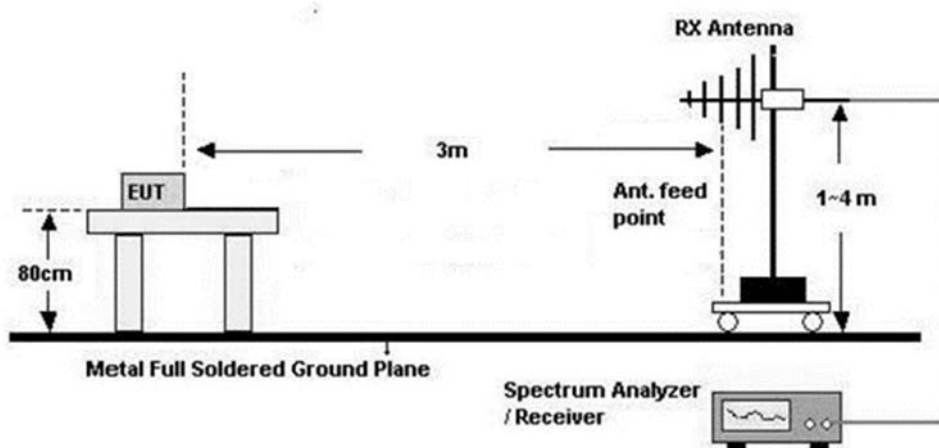
3.5. TEST DIAGRAMS

Conducted Test

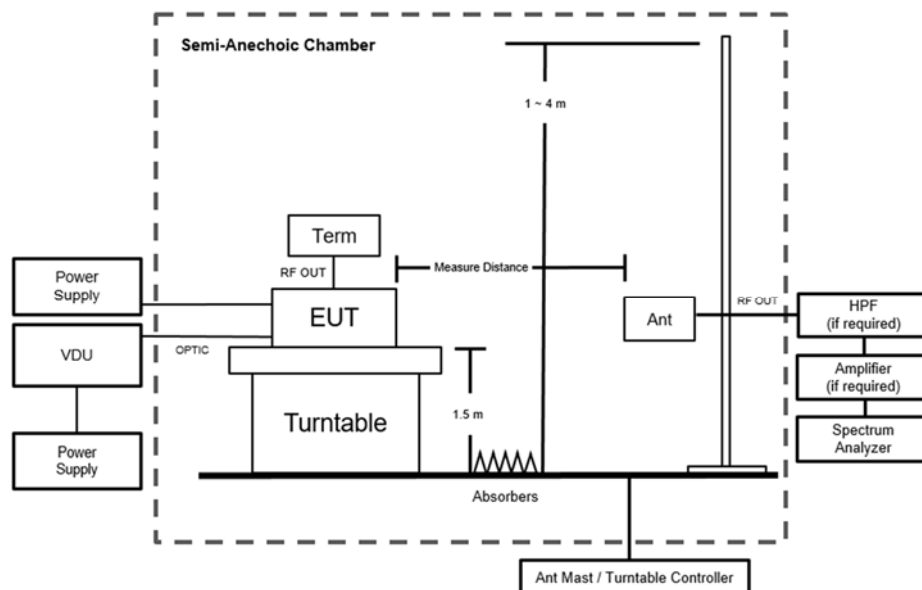


Radiated Test

30 MHz ~ 1 GHz

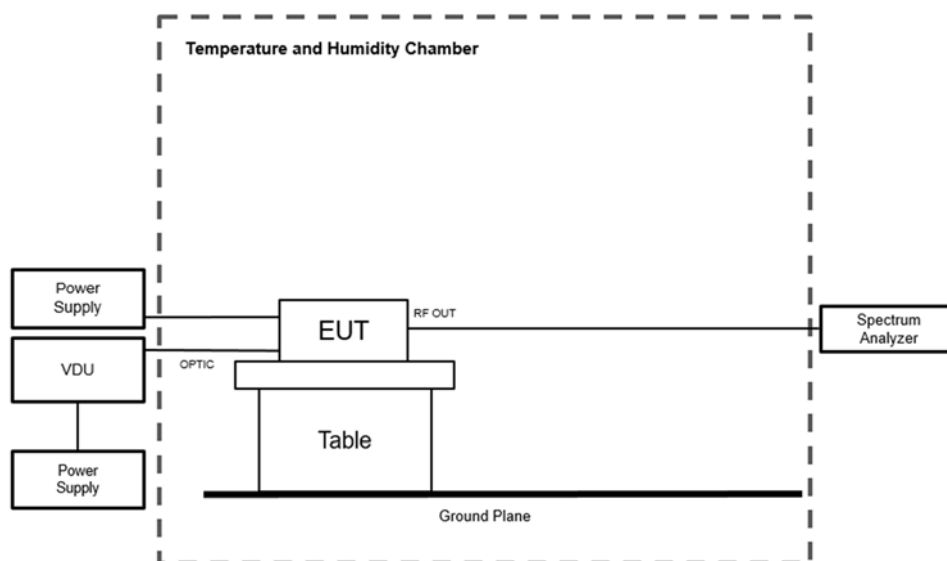


Above 1 GHz



※ Measure distance is 3 m.

Frequency Stability



Note: All modulations(QPSK, 16QAM, 64QAM, 256QAM) were investigated and the worst-case configuration channel results are reported.

4. TEST EQUIPMENTS

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
PXA Signal Analyzer	N9030A	Keysight	MY49431434	07/10/2026	Annual
PXA Signal Analyzer	N9030A	Keysight	MY55410714	12/09/2026	Annual
RF Switch System	TMX0132C	TNM System	TM20010001	N/A	N/A
RF Switch System	TMX0132C	TNM System	TM20010002	N/A	N/A
20 dB Attenuator	FAS-23-20	MCLI	103756	12/16/2026	Annual
#30 dB Attenuator	5930_SMA-50-010	HUBER SUHNER	33	09/16/2026	Annual
#50Ω Termination	908A	H.P.	N/A	N/A	N/A
DC Power Supply	6674A	Agilent	MY41003340	06/20/2026	Annual
DC Power Supply	EX 60-40	ODA	ODA-02-0923-01606	02/05/2027	Annual
Temperature and Humidity Chamber	NY-THR18750	NANGYEAL	NY-200912201A	12/16/2026	Annual
Amp & Filter Bank Switch Controller	FBSM-01B	TNM system	TM20090002	N/A	N/A
Controller (Antenna Mast & Turn Table)	CO3000	Innco system	CO3000/1251/48920320/P	N/A	N/A
Antenna Mast	MA4640	Innco system	S4AM	08/01/2026	Annual
Turn Table	N/A	Ets	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-333	06/23/2027	Biennial
Trilog Broadband Antenna	VULB 9168	Schwarzbeck	9168-0895	08/28/2026	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	9120D-937	02/07/2027	Biennial
Horn Antenna	BBHA9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
RF Switching System	FBSR-04C (10 dB ATT + LNA)	TNM system	S4L2	03/04/2027	Annual
RF Switching System	FBSR-04C (3 dB ATT + LNA)	TNM system	S4L3	03/04/2027	Annual
RF Switching System	FBSR-04C (LNA)	TNM system	S4L4	03/04/2027	Annual
RF Switching System	FBSR-04C (7 GHz HPF + LNA)	TNM system	S4L5	03/04/2027	Annual
RF Switching System	FBSR-04C (Thru)	TNM system	S4L6	03/04/2027	Annual
LOW NOISE AMPLIFIER	TK-PA1840H	TESTEK	170011-L	09/29/2026	Annual

#This equipment has been used to each port, but we only listed one equipment for simplicity.

Note: All test equipment was within its valid calibration period at the time of testing.

5. TEST RESULT

5.1. RF OUTPUT POWER and PSD

Test Requirements:

§ 2.1046 Measurements required: RF power output.

- (a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.
- (b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as specified and applicable in § 2.1046 (b) (1-5). In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.
- (c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

§ 27.50 Power limits and duty cycle.

- (j) The following power requirements apply to stations transmitting in the 3700-3980 MHz band:
 - (1) The power of each fixed or base station transmitting in the 3700-3980 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to an equivalent isotropically radiated power (EIRP) of 3280 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.
 - (2) The power of each fixed or base station transmitting in the 3700-3980 MHz band and situated in any geographic location other than that described in paragraph (j)(1) of this section is limited to an EIRP of 1640 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

Test Procedures:

The measurement is performed in accordance with Section 5.2.4.4.2 of ANSI C63.26.

When the fundamental condition for average power measurements cannot be realized (i.e., the EUT cannot be configured to transmit at full-power on a continuous basis (i.e., duty cycle < 98%) and the instrumentation cannot be configured to measure only during active full-power transmissions), then the following procedure can be used if the EUT duty cycle is constant (i.e., duty cycle variations are less than or equal to $\pm 2\%$). See 5.2.4.3.4 for guidance on measurement of duty cycle.

- a) Set span to $2 \times$ to $3 \times$ the OBW.
- b) Set RBW = 1 % to 5 % of the OBW.
- c) Set VBW $\geq 3 \times$ RBW.
- d) Set number of measurement points in sweep $\geq 2 \times$ span / RBW.
- e) Sweep time:
 - 1) Set = auto-couple, or
 - 2) Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$ for single sweep (automation-compatible) measurement.
- f) Detector = power averaging (rms).
- g) Set sweep trigger to “free run.”
- h) Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument’s band or channel power measurement function with band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- j) Add $10 \log (1/\text{duty cycle})$ to the measured power level to compute the average power during continuous transmission. For example, add $[10 \log (1/0.25)] = 6 \text{ dB}$ if the duty cycle is a constant 25%.

The PSD measurement is performed in accordance with Section 5.2.4.5 of ANSI C63.26.

Some regulatory requirements specify the RF output power limits in terms of maximum or average PSD, (i.e., the output power or unwanted emissions power limits are defined within a specified reference bandwidth).

When average PSD limits are specified, the same fundamental measurement condition applies as previously discussed (i.e., averaging is to be performed only over durations of active transmissions at maximum output power level). Thus, when performing this measurement, the EUT must either be configured to transmit continuously at full power while the compliance measurement is performed, or else the measurement instrumentation must be configured to acquire data only over durations when the EUT is actively transmitting at full power. In circumstances where neither of these conditions can be realized, then alternative procedures are provided for both constant duty cycle and non-constant duty cycle transmissions.

The PSD is measured following the same procedures described in 5.2.4.4 for measuring the total average power, but with the RBW set to the reference bandwidth specified by the applicable regulatory requirement, and by using the marker function to identify the maximum PSD instead of summing the power across the OBW. If the fundamental measurement condition cannot be realized, then one of the alternative procedures in 5.2.4.4.2 or 5.2.4.4.3 should be selected, based on whether the transmitter duty cycle is constant (variations $\leq \pm 2\%$) or non-constant (variations $> \pm 2\%$), respectively.

Note:

1. The results of the Conducted Output Power and PSD tests show a similar trend across all ports, and all measured values fall within the allowable tolerance; therefore, only the worst-case plot is attached.
2. The conducted output power and PSD levels are measured at each antenna port and then mathematically summed to determine the total values from the device.

The duty cycle correction factor was applied as an ext. gain value in the plot and was taken into account in the measurement.

Test Results:

Tabular Data of RF Output Power

(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Op. Freq.	3 820.00	34.46	2.79
	16QAM	Op. Freq.	3 820.00	34.72	2.97
1	QPSK	Op. Freq.	3 820.00	34.86	3.06
	16QAM	Op. Freq.	3 820.00	35.29	3.38
2	QPSK	Op. Freq.	3 820.00	34.67	2.93
	16QAM	Op. Freq.	3 820.00	34.70	2.95
3	QPSK	Op. Freq.	3 820.00	34.44	2.78
	16QAM	Op. Freq.	3 820.00	34.93	3.11
4	QPSK	Op. Freq.	3 820.00	34.55	2.85
	16QAM	Op. Freq.	3 820.00	34.70	2.95
5	QPSK	Op. Freq.	3 820.00	34.62	2.90
	16QAM	Op. Freq.	3 820.00	34.79	3.02
6	QPSK	Op. Freq.	3 820.00	34.47	2.80
	16QAM	Op. Freq.	3 820.00	34.62	2.90
7	QPSK	Op. Freq.	3 820.00	34.47	2.80
	16QAM	Op. Freq.	3 820.00	34.65	2.92
8	QPSK	Op. Freq.	3 820.00	34.52	2.83
	16QAM	Op. Freq.	3 820.00	34.53	2.84
9	QPSK	Op. Freq.	3 820.00	34.56	2.86
	16QAM	Op. Freq.	3 820.00	34.78	3.01
10	QPSK	Op. Freq.	3 820.00	34.47	2.80
	16QAM	Op. Freq.	3 820.00	34.82	3.03
11	QPSK	Op. Freq.	3 820.00	34.45	2.78
	16QAM	Op. Freq.	3 820.00	34.69	2.95
12	QPSK	Op. Freq.	3 820.00	34.62	2.90
	16QAM	Op. Freq.	3 820.00	34.80	3.02
13	QPSK	Op. Freq.	3 820.00	35.19	3.30
	16QAM	Op. Freq.	3 820.00	35.91	3.90
14	QPSK	Op. Freq.	3 820.00	34.78	3.01
	16QAM	Op. Freq.	3 820.00	35.02	3.18
15	QPSK	Op. Freq.	3 820.00	34.60	2.89
	16QAM	Op. Freq.	3 820.00	34.95	3.12
16	QPSK	Op. Freq.	3 820.00	34.59	2.87
	16QAM	Op. Freq.	3 820.00	34.65	2.91
17	QPSK	Op. Freq.	3 820.00	34.61	2.89
	16QAM	Op. Freq.	3 820.00	34.77	3.00
18	QPSK	Op. Freq.	3 820.00	34.68	2.93
	16QAM	Op. Freq.	3 820.00	34.77	3.00
19	QPSK	Op. Freq.	3 820.00	34.57	2.87
	16QAM	Op. Freq.	3 820.00	34.66	2.93

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
20	QPSK	Op. Freq.	3 820.00	34.66	2.92
	16QAM	Op. Freq.	3 820.00	34.78	3.01
21	QPSK	Op. Freq.	3 820.00	34.48	2.81
	16QAM	Op. Freq.	3 820.00	34.60	2.88
22	QPSK	Op. Freq.	3 820.00	34.62	2.90
	16QAM	Op. Freq.	3 820.00	34.70	2.95
23	QPSK	Op. Freq.	3 820.00	34.79	3.01
	16QAM	Op. Freq.	3 820.00	34.96	3.14
24	QPSK	Op. Freq.	3 820.00	35.00	3.16
	16QAM	Op. Freq.	3 820.00	35.16	3.28
25	QPSK	Op. Freq.	3 820.00	34.77	3.00
	16QAM	Op. Freq.	3 820.00	34.88	3.07
26	QPSK	Op. Freq.	3 820.00	34.78	3.01
	16QAM	Op. Freq.	3 820.00	35.12	3.25
27	QPSK	Op. Freq.	3 820.00	35.65	3.68
	16QAM	Op. Freq.	3 820.00	35.78	3.78
28	QPSK	Op. Freq.	3 820.00	34.77	3.00
	16QAM	Op. Freq.	3 820.00	34.86	3.06
29	QPSK	Op. Freq.	3 820.00	34.49	2.81
	16QAM	Op. Freq.	3 820.00	34.70	2.95
30	QPSK	Op. Freq.	3 820.00	34.63	2.91
	16QAM	Op. Freq.	3 820.00	34.91	3.10
31	QPSK	Op. Freq.	3 820.00	34.60	2.89
	16QAM	Op. Freq.	3 820.00	34.88	3.08
32	QPSK	Op. Freq.	3 820.00	34.44	2.78
	16QAM	Op. Freq.	3 820.00	34.63	2.90
33	QPSK	Op. Freq.	3 820.00	34.85	3.06
	16QAM	Op. Freq.	3 820.00	35.06	3.21
34	QPSK	Op. Freq.	3 820.00	34.77	3.00
	16QAM	Op. Freq.	3 820.00	34.91	3.10
35	QPSK	Op. Freq.	3 820.00	34.50	2.82
	16QAM	Op. Freq.	3 820.00	34.66	2.92
36	QPSK	Op. Freq.	3 820.00	35.69	3.71
	16QAM	Op. Freq.	3 820.00	35.86	3.85
37	QPSK	Op. Freq.	3 820.00	35.38	3.45
	16QAM	Op. Freq.	3 820.00	35.51	3.56
38	QPSK	Op. Freq.	3 820.00	34.47	2.80
	16QAM	Op. Freq.	3 820.00	34.55	2.85
39	QPSK	Op. Freq.	3 820.00	34.66	2.92
	16QAM	Op. Freq.	3 820.00	34.87	3.07
40	QPSK	Op. Freq.	3 820.00	34.98	3.15
	16QAM	Op. Freq.	3 820.00	35.29	3.38
41	QPSK	Op. Freq.	3 820.00	34.99	3.15
	16QAM	Op. Freq.	3 820.00	35.04	3.19
42	QPSK	Op. Freq.	3 820.00	34.55	2.85
	16QAM	Op. Freq.	3 820.00	34.69	2.95
43	QPSK	Op. Freq.	3 820.00	35.61	3.64
	16QAM	Op. Freq.	3 820.00	35.67	3.69
44	QPSK	Op. Freq.	3 820.00	34.71	2.96
	16QAM	Op. Freq.	3 820.00	34.72	2.97

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
45	QPSK	Op. Freq.	3 820.00	35.04	3.19
	16QAM	Op. Freq.	3 820.00	35.18	3.29
46	QPSK	Op. Freq.	3 820.00	34.90	3.09
	16QAM	Op. Freq.	3 820.00	35.12	3.25
47	QPSK	Op. Freq.	3 820.00	34.49	2.82
	16QAM	Op. Freq.	3 820.00	34.53	2.84
48	QPSK	Op. Freq.	3 820.00	34.65	2.91
	16QAM	Op. Freq.	3 820.00	34.74	2.98
49	QPSK	Op. Freq.	3 820.00	34.77	3.00
	16QAM	Op. Freq.	3 820.00	34.94	3.12
50	QPSK	Op. Freq.	3 820.00	34.55	2.85
	16QAM	Op. Freq.	3 820.00	34.67	2.93
51	QPSK	Op. Freq.	3 820.00	34.64	2.91
	16QAM	Op. Freq.	3 820.00	34.84	3.05
52	QPSK	Op. Freq.	3 820.00	34.61	2.89
	16QAM	Op. Freq.	3 820.00	34.81	3.03
53	QPSK	Op. Freq.	3 820.00	34.54	2.84
	16QAM	Op. Freq.	3 820.00	34.61	2.89
54	QPSK	Op. Freq.	3 820.00	34.57	2.86
	16QAM	Op. Freq.	3 820.00	34.69	2.95
55	QPSK	Op. Freq.	3 820.00	34.57	2.86
	16QAM	Op. Freq.	3 820.00	34.88	3.08
56	QPSK	Op. Freq.	3 820.00	34.57	2.87
	16QAM	Op. Freq.	3 820.00	34.59	2.88
57	QPSK	Op. Freq.	3 820.00	34.91	3.09
	16QAM	Op. Freq.	3 820.00	35.28	3.37
58	QPSK	Op. Freq.	3 820.00	34.64	2.91
	16QAM	Op. Freq.	3 820.00	35.05	3.20
59	QPSK	Op. Freq.	3 820.00	34.87	3.07
	16QAM	Op. Freq.	3 820.00	35.44	3.50
60	QPSK	Op. Freq.	3 820.00	34.46	2.79
	16QAM	Op. Freq.	3 820.00	34.60	2.88
61	QPSK	Op. Freq.	3 820.00	34.96	3.13
	16QAM	Op. Freq.	3 820.00	35.26	3.36
62	QPSK	Op. Freq.	3 820.00	35.36	3.44
	16QAM	Op. Freq.	3 820.00	35.39	3.46
63	QPSK	Op. Freq.	3 820.00	34.45	2.79
	16QAM	Op. Freq.	3 820.00	34.49	2.81

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	Output Power (Conducted)	
	QPSK	16QAM
	W	
3 820.00	190.51	199.14

(64 Port) n77 5G NR 60 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Op. Freq.	3 830.00	36.45	4.42
	16QAM	Op. Freq.	3 830.00	36.68	4.65
1	QPSK	Op. Freq.	3 830.00	36.68	4.66
	16QAM	Op. Freq.	3 830.00	37.08	5.10
2	QPSK	Op. Freq.	3 830.00	36.32	4.29
	16QAM	Op. Freq.	3 830.00	36.66	4.63
3	QPSK	Op. Freq.	3 830.00	36.22	4.19
	16QAM	Op. Freq.	3 830.00	36.60	4.58
4	QPSK	Op. Freq.	3 830.00	36.29	4.26
	16QAM	Op. Freq.	3 830.00	36.54	4.51
5	QPSK	Op. Freq.	3 830.00	36.33	4.30
	16QAM	Op. Freq.	3 830.00	36.69	4.67
6	QPSK	Op. Freq.	3 830.00	36.23	4.20
	16QAM	Op. Freq.	3 830.00	36.42	4.38
7	QPSK	Op. Freq.	3 830.00	36.31	4.27
	16QAM	Op. Freq.	3 830.00	36.49	4.46
8	QPSK	Op. Freq.	3 830.00	36.28	4.25
	16QAM	Op. Freq.	3 830.00	36.39	4.36
9	QPSK	Op. Freq.	3 830.00	36.34	4.30
	16QAM	Op. Freq.	3 830.00	36.66	4.63
10	QPSK	Op. Freq.	3 830.00	36.25	4.22
	16QAM	Op. Freq.	3 830.00	36.59	4.56
11	QPSK	Op. Freq.	3 830.00	36.27	4.23
	16QAM	Op. Freq.	3 830.00	36.52	4.48
12	QPSK	Op. Freq.	3 830.00	36.27	4.23
	16QAM	Op. Freq.	3 830.00	36.58	4.55
13	QPSK	Op. Freq.	3 830.00	36.65	4.63
	16QAM	Op. Freq.	3 830.00	37.02	5.03
14	QPSK	Op. Freq.	3 830.00	36.32	4.28
	16QAM	Op. Freq.	3 830.00	36.69	4.66
15	QPSK	Op. Freq.	3 830.00	36.28	4.25
	16QAM	Op. Freq.	3 830.00	36.71	4.68
16	QPSK	Op. Freq.	3 830.00	36.18	4.15
	16QAM	Op. Freq.	3 830.00	36.43	4.39
17	QPSK	Op. Freq.	3 830.00	36.25	4.22
	16QAM	Op. Freq.	3 830.00	36.48	4.44
18	QPSK	Op. Freq.	3 830.00	36.23	4.20
	16QAM	Op. Freq.	3 830.00	36.51	4.48
19	QPSK	Op. Freq.	3 830.00	36.33	4.29
	16QAM	Op. Freq.	3 830.00	36.35	4.32

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
20	QPSK	Op. Freq.	3 830.00	36.27	4.23
	16QAM	Op. Freq.	3 830.00	36.48	4.44
21	QPSK	Op. Freq.	3 830.00	36.25	4.21
	16QAM	Op. Freq.	3 830.00	36.31	4.28
22	QPSK	Op. Freq.	3 830.00	36.22	4.19
	16QAM	Op. Freq.	3 830.00	36.51	4.48
23	QPSK	Op. Freq.	3 830.00	36.39	4.36
	16QAM	Op. Freq.	3 830.00	36.67	4.64
24	QPSK	Op. Freq.	3 830.00	36.61	4.58
	16QAM	Op. Freq.	3 830.00	36.87	4.87
25	QPSK	Op. Freq.	3 830.00	36.31	4.28
	16QAM	Op. Freq.	3 830.00	36.39	4.36
26	QPSK	Op. Freq.	3 830.00	36.39	4.36
	16QAM	Op. Freq.	3 830.00	36.43	4.39
27	QPSK	Op. Freq.	3 830.00	37.13	5.17
	16QAM	Op. Freq.	3 830.00	37.55	5.69
28	QPSK	Op. Freq.	3 830.00	36.38	4.35
	16QAM	Op. Freq.	3 830.00	36.44	4.40
29	QPSK	Op. Freq.	3 830.00	36.23	4.20
	16QAM	Op. Freq.	3 830.00	36.33	4.30
30	QPSK	Op. Freq.	3 830.00	36.43	4.39
	16QAM	Op. Freq.	3 830.00	36.45	4.42
31	QPSK	Op. Freq.	3 830.00	36.28	4.25
	16QAM	Op. Freq.	3 830.00	36.37	4.33
32	QPSK	Op. Freq.	3 830.00	36.19	4.16
	16QAM	Op. Freq.	3 830.00	36.45	4.41
33	QPSK	Op. Freq.	3 830.00	36.60	4.57
	16QAM	Op. Freq.	3 830.00	36.79	4.77
34	QPSK	Op. Freq.	3 830.00	36.50	4.47
	16QAM	Op. Freq.	3 830.00	36.73	4.71
35	QPSK	Op. Freq.	3 830.00	36.27	4.24
	16QAM	Op. Freq.	3 830.00	36.38	4.35
36	QPSK	Op. Freq.	3 830.00	37.36	5.45
	16QAM	Op. Freq.	3 830.00	37.42	5.53
37	QPSK	Op. Freq.	3 830.00	36.91	4.91
	16QAM	Op. Freq.	3 830.00	37.20	5.25
38	QPSK	Op. Freq.	3 830.00	36.50	4.47
	16QAM	Op. Freq.	3 830.00	36.58	4.55
39	QPSK	Op. Freq.	3 830.00	36.52	4.49
	16QAM	Op. Freq.	3 830.00	36.60	4.57
40	QPSK	Op. Freq.	3 830.00	36.65	4.62
	16QAM	Op. Freq.	3 830.00	36.77	4.75
41	QPSK	Op. Freq.	3 830.00	36.53	4.49
	16QAM	Op. Freq.	3 830.00	36.71	4.69
42	QPSK	Op. Freq.	3 830.00	36.20	4.17
	16QAM	Op. Freq.	3 830.00	36.27	4.24
43	QPSK	Op. Freq.	3 830.00	37.20	5.25
	16QAM	Op. Freq.	3 830.00	37.27	5.33
44	QPSK	Op. Freq.	3 830.00	36.18	4.15
	16QAM	Op. Freq.	3 830.00	36.27	4.24

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
45	QPSK	Op. Freq.	3 830.00	36.99	5.00
	16QAM	Op. Freq.	3 830.00	37.05	5.07
46	QPSK	Op. Freq.	3 830.00	36.29	4.26
	16QAM	Op. Freq.	3 830.00	36.59	4.56
47	QPSK	Op. Freq.	3 830.00	36.19	4.16
	16QAM	Op. Freq.	3 830.00	36.22	4.19
48	QPSK	Op. Freq.	3 830.00	36.59	4.56
	16QAM	Op. Freq.	3 830.00	36.74	4.72
49	QPSK	Op. Freq.	3 830.00	36.45	4.42
	16QAM	Op. Freq.	3 830.00	36.75	4.73
50	QPSK	Op. Freq.	3 830.00	36.54	4.51
	16QAM	Op. Freq.	3 830.00	36.60	4.58
51	QPSK	Op. Freq.	3 830.00	36.60	4.57
	16QAM	Op. Freq.	3 830.00	36.70	4.68
52	QPSK	Op. Freq.	3 830.00	36.57	4.54
	16QAM	Op. Freq.	3 830.00	36.61	4.58
53	QPSK	Op. Freq.	3 830.00	36.43	4.40
	16QAM	Op. Freq.	3 830.00	36.55	4.52
54	QPSK	Op. Freq.	3 830.00	36.51	4.47
	16QAM	Op. Freq.	3 830.00	36.60	4.57
55	QPSK	Op. Freq.	3 830.00	36.55	4.52
	16QAM	Op. Freq.	3 830.00	36.61	4.58
56	QPSK	Op. Freq.	3 830.00	36.18	4.15
	16QAM	Op. Freq.	3 830.00	36.26	4.23
57	QPSK	Op. Freq.	3 830.00	36.52	4.48
	16QAM	Op. Freq.	3 830.00	36.73	4.71
58	QPSK	Op. Freq.	3 830.00	36.37	4.33
	16QAM	Op. Freq.	3 830.00	36.59	4.56
59	QPSK	Op. Freq.	3 830.00	36.58	4.55
	16QAM	Op. Freq.	3 830.00	36.95	4.96
60	QPSK	Op. Freq.	3 830.00	36.23	4.19
	16QAM	Op. Freq.	3 830.00	36.31	4.27
61	QPSK	Op. Freq.	3 830.00	36.84	4.83
	16QAM	Op. Freq.	3 830.00	36.99	5.00
62	QPSK	Op. Freq.	3 830.00	36.74	4.72
	16QAM	Op. Freq.	3 830.00	36.80	4.79
63	QPSK	Op. Freq.	3 830.00	36.19	4.16
	16QAM	Op. Freq.	3 830.00	36.21	4.18

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	Output Power (Conducted)	
	QPSK	16QAM
	W	
3 830.00	282.67	295.01

(64 Port) n77 5G NR 80 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Op. Freq.	3 840.00	37.50	5.62
	16QAM	Op. Freq.	3 840.00	37.53	5.66
1	QPSK	Op. Freq.	3 840.00	37.95	6.23
	16QAM	Op. Freq.	3 840.00	38.04	6.37
2	QPSK	Op. Freq.	3 840.00	37.47	5.58
	16QAM	Op. Freq.	3 840.00	37.49	5.60
3	QPSK	Op. Freq.	3 840.00	37.48	5.59
	16QAM	Op. Freq.	3 840.00	37.54	5.67
4	QPSK	Op. Freq.	3 840.00	37.43	5.54
	16QAM	Op. Freq.	3 840.00	37.44	5.55
5	QPSK	Op. Freq.	3 840.00	37.66	5.83
	16QAM	Op. Freq.	3 840.00	37.69	5.87
6	QPSK	Op. Freq.	3 840.00	37.50	5.62
	16QAM	Op. Freq.	3 840.00	37.78	6.00
7	QPSK	Op. Freq.	3 840.00	37.47	5.59
	16QAM	Op. Freq.	3 840.00	37.73	5.93
8	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.48	5.60
9	QPSK	Op. Freq.	3 840.00	37.49	5.60
	16QAM	Op. Freq.	3 840.00	37.50	5.62
10	QPSK	Op. Freq.	3 840.00	37.44	5.55
	16QAM	Op. Freq.	3 840.00	37.45	5.55
11	QPSK	Op. Freq.	3 840.00	37.44	5.54
	16QAM	Op. Freq.	3 840.00	37.45	5.55
12	QPSK	Op. Freq.	3 840.00	37.47	5.58
	16QAM	Op. Freq.	3 840.00	37.51	5.64
13	QPSK	Op. Freq.	3 840.00	37.86	6.12
	16QAM	Op. Freq.	3 840.00	38.27	6.71
14	QPSK	Op. Freq.	3 840.00	37.60	5.76
	16QAM	Op. Freq.	3 840.00	37.71	5.90
15	QPSK	Op. Freq.	3 840.00	37.58	5.73
	16QAM	Op. Freq.	3 840.00	37.66	5.83
16	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.54	5.67
17	QPSK	Op. Freq.	3 840.00	37.48	5.59
	16QAM	Op. Freq.	3 840.00	37.63	5.80
18	QPSK	Op. Freq.	3 840.00	37.53	5.66
	16QAM	Op. Freq.	3 840.00	37.54	5.68
19	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.47	5.58

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
20	QPSK	Op. Freq.	3 840.00	37.49	5.61
	16QAM	Op. Freq.	3 840.00	37.60	5.75
21	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.50	5.62
22	QPSK	Op. Freq.	3 840.00	37.50	5.63
	16QAM	Op. Freq.	3 840.00	37.60	5.76
23	QPSK	Op. Freq.	3 840.00	37.57	5.72
	16QAM	Op. Freq.	3 840.00	37.58	5.73
24	QPSK	Op. Freq.	3 840.00	37.49	5.61
	16QAM	Op. Freq.	3 840.00	37.70	5.88
25	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.53	5.66
26	QPSK	Op. Freq.	3 840.00	37.71	5.90
	16QAM	Op. Freq.	3 840.00	37.79	6.01
27	QPSK	Op. Freq.	3 840.00	37.67	5.85
	16QAM	Op. Freq.	3 840.00	37.86	6.12
28	QPSK	Op. Freq.	3 840.00	37.45	5.56
	16QAM	Op. Freq.	3 840.00	37.51	5.63
29	QPSK	Op. Freq.	3 840.00	37.46	5.57
	16QAM	Op. Freq.	3 840.00	37.55	5.69
30	QPSK	Op. Freq.	3 840.00	37.48	5.60
	16QAM	Op. Freq.	3 840.00	37.53	5.66
31	QPSK	Op. Freq.	3 840.00	37.54	5.67
	16QAM	Op. Freq.	3 840.00	37.57	5.71
32	QPSK	Op. Freq.	3 840.00	37.49	5.61
	16QAM	Op. Freq.	3 840.00	37.56	5.70
33	QPSK	Op. Freq.	3 840.00	37.68	5.87
	16QAM	Op. Freq.	3 840.00	37.78	6.00
34	QPSK	Op. Freq.	3 840.00	37.65	5.81
	16QAM	Op. Freq.	3 840.00	37.66	5.84
35	QPSK	Op. Freq.	3 840.00	37.45	5.56
	16QAM	Op. Freq.	3 840.00	37.54	5.68
36	QPSK	Op. Freq.	3 840.00	38.60	7.24
	16QAM	Op. Freq.	3 840.00	38.62	7.27
37	QPSK	Op. Freq.	3 840.00	38.36	6.85
	16QAM	Op. Freq.	3 840.00	38.39	6.91
38	QPSK	Op. Freq.	3 840.00	37.48	5.60
	16QAM	Op. Freq.	3 840.00	37.50	5.62
39	QPSK	Op. Freq.	3 840.00	37.57	5.71
	16QAM	Op. Freq.	3 840.00	37.59	5.74
40	QPSK	Op. Freq.	3 840.00	37.65	5.82
	16QAM	Op. Freq.	3 840.00	37.73	5.93
41	QPSK	Op. Freq.	3 840.00	37.66	5.84
	16QAM	Op. Freq.	3 840.00	37.69	5.88
42	QPSK	Op. Freq.	3 840.00	37.46	5.57
	16QAM	Op. Freq.	3 840.00	37.62	5.78
43	QPSK	Op. Freq.	3 840.00	37.47	5.59
	16QAM	Op. Freq.	3 840.00	37.86	6.11
44	QPSK	Op. Freq.	3 840.00	37.53	5.67
	16QAM	Op. Freq.	3 840.00	37.62	5.78

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
45	QPSK	Op. Freq.	3 840.00	38.09	6.44
	16QAM	Op. Freq.	3 840.00	38.23	6.65
46	QPSK	Op. Freq.	3 840.00	37.43	5.54
	16QAM	Op. Freq.	3 840.00	37.50	5.62
47	QPSK	Op. Freq.	3 840.00	37.47	5.58
	16QAM	Op. Freq.	3 840.00	37.48	5.60
48	QPSK	Op. Freq.	3 840.00	37.55	5.69
	16QAM	Op. Freq.	3 840.00	37.66	5.83
49	QPSK	Op. Freq.	3 840.00	37.86	6.11
	16QAM	Op. Freq.	3 840.00	37.88	6.14
50	QPSK	Op. Freq.	3 840.00	37.53	5.66
	16QAM	Op. Freq.	3 840.00	37.64	5.80
51	QPSK	Op. Freq.	3 840.00	37.76	5.97
	16QAM	Op. Freq.	3 840.00	37.74	5.95
52	QPSK	Op. Freq.	3 840.00	37.46	5.57
	16QAM	Op. Freq.	3 840.00	37.58	5.73
53	QPSK	Op. Freq.	3 840.00	37.43	5.53
	16QAM	Op. Freq.	3 840.00	37.51	5.64
54	QPSK	Op. Freq.	3 840.00	37.47	5.59
	16QAM	Op. Freq.	3 840.00	37.59	5.74
55	QPSK	Op. Freq.	3 840.00	37.53	5.66
	16QAM	Op. Freq.	3 840.00	37.56	5.70
56	QPSK	Op. Freq.	3 840.00	37.44	5.55
	16QAM	Op. Freq.	3 840.00	37.46	5.57
57	QPSK	Op. Freq.	3 840.00	37.66	5.83
	16QAM	Op. Freq.	3 840.00	37.78	6.00
58	QPSK	Op. Freq.	3 840.00	37.61	5.76
	16QAM	Op. Freq.	3 840.00	37.76	5.97
59	QPSK	Op. Freq.	3 840.00	37.50	5.62
	16QAM	Op. Freq.	3 840.00	37.53	5.67
60	QPSK	Op. Freq.	3 840.00	37.48	5.60
	16QAM	Op. Freq.	3 840.00	37.62	5.78
61	QPSK	Op. Freq.	3 840.00	37.76	5.96
	16QAM	Op. Freq.	3 840.00	37.99	6.30
62	QPSK	Op. Freq.	3 840.00	37.99	6.29
	16QAM	Op. Freq.	3 840.00	38.10	6.46
63	QPSK	Op. Freq.	3 840.00	37.47	5.58
	16QAM	Op. Freq.	3 840.00	37.53	5.66

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	Output Power (Conducted)	
	QPSK	16QAM
	W	
3 840.00	367.42	375.04

(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Op. Freq.	3 750.00	37.80	6.02
	16QAM	Op. Freq.	3 750.00	38.35	6.83
1	QPSK	Op. Freq.	3 750.00	38.35	6.84
	16QAM	Op. Freq.	3 750.00	38.89	7.74
2	QPSK	Op. Freq.	3 750.00	37.90	6.16
	16QAM	Op. Freq.	3 750.00	38.41	6.94
3	QPSK	Op. Freq.	3 750.00	37.89	6.15
	16QAM	Op. Freq.	3 750.00	38.52	7.11
4	QPSK	Op. Freq.	3 750.00	37.79	6.02
	16QAM	Op. Freq.	3 750.00	38.18	6.57
5	QPSK	Op. Freq.	3 750.00	38.01	6.32
	16QAM	Op. Freq.	3 750.00	38.23	6.66
6	QPSK	Op. Freq.	3 750.00	37.92	6.19
	16QAM	Op. Freq.	3 750.00	38.01	6.32
7	QPSK	Op. Freq.	3 750.00	37.79	6.01
	16QAM	Op. Freq.	3 750.00	38.08	6.43
8	QPSK	Op. Freq.	3 750.00	37.85	6.10
	16QAM	Op. Freq.	3 750.00	37.88	6.14
9	QPSK	Op. Freq.	3 750.00	37.97	6.26
	16QAM	Op. Freq.	3 750.00	38.16	6.54
10	QPSK	Op. Freq.	3 750.00	37.92	6.20
	16QAM	Op. Freq.	3 750.00	38.10	6.45
11	QPSK	Op. Freq.	3 750.00	37.91	6.18
	16QAM	Op. Freq.	3 750.00	38.10	6.46
12	QPSK	Op. Freq.	3 750.00	37.98	6.29
	16QAM	Op. Freq.	3 750.00	38.15	6.53
13	QPSK	Op. Freq.	3 750.00	38.52	7.12
	16QAM	Op. Freq.	3 750.00	38.92	7.81
14	QPSK	Op. Freq.	3 750.00	37.93	6.21
	16QAM	Op. Freq.	3 750.00	37.99	6.30
15	QPSK	Op. Freq.	3 750.00	38.10	6.45
	16QAM	Op. Freq.	3 750.00	38.41	6.93
16	QPSK	Op. Freq.	3 750.00	37.76	5.97
	16QAM	Op. Freq.	3 750.00	37.78	6.00
17	QPSK	Op. Freq.	3 750.00	37.86	6.11
	16QAM	Op. Freq.	3 750.00	37.92	6.19
18	QPSK	Op. Freq.	3 750.00	37.93	6.22
	16QAM	Op. Freq.	3 750.00	38.02	6.33
19	QPSK	Op. Freq.	3 750.00	37.76	5.97
	16QAM	Op. Freq.	3 750.00	37.87	6.12

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
20	QPSK	Op. Freq.	3 750.00	37.80	6.03
	16QAM	Op. Freq.	3 750.00	37.93	6.21
21	QPSK	Op. Freq.	3 750.00	37.86	6.11
	16QAM	Op. Freq.	3 750.00	37.97	6.27
22	QPSK	Op. Freq.	3 750.00	37.82	6.05
	16QAM	Op. Freq.	3 750.00	37.94	6.22
23	QPSK	Op. Freq.	3 750.00	38.07	6.41
	16QAM	Op. Freq.	3 750.00	38.20	6.61
24	QPSK	Op. Freq.	3 750.00	37.94	6.23
	16QAM	Op. Freq.	3 750.00	38.24	6.67
25	QPSK	Op. Freq.	3 750.00	37.90	6.17
	16QAM	Op. Freq.	3 750.00	37.97	6.26
26	QPSK	Op. Freq.	3 750.00	37.87	6.12
	16QAM	Op. Freq.	3 750.00	38.15	6.53
27	QPSK	Op. Freq.	3 750.00	39.04	8.02
	16QAM	Op. Freq.	3 750.00	39.12	8.17
28	QPSK	Op. Freq.	3 750.00	37.87	6.12
	16QAM	Op. Freq.	3 750.00	38.11	6.47
29	QPSK	Op. Freq.	3 750.00	37.76	5.97
	16QAM	Op. Freq.	3 750.00	37.95	6.23
30	QPSK	Op. Freq.	3 750.00	37.91	6.18
	16QAM	Op. Freq.	3 750.00	37.97	6.26
31	QPSK	Op. Freq.	3 750.00	37.82	6.05
	16QAM	Op. Freq.	3 750.00	38.09	6.44
32	QPSK	Op. Freq.	3 750.00	37.84	6.07
	16QAM	Op. Freq.	3 750.00	38.10	6.46
33	QPSK	Op. Freq.	3 750.00	38.26	6.71
	16QAM	Op. Freq.	3 750.00	38.42	6.95
34	QPSK	Op. Freq.	3 750.00	38.25	6.68
	16QAM	Op. Freq.	3 750.00	38.46	7.01
35	QPSK	Op. Freq.	3 750.00	37.98	6.28
	16QAM	Op. Freq.	3 750.00	38.21	6.63
36	QPSK	Op. Freq.	3 750.00	38.81	7.61
	16QAM	Op. Freq.	3 750.00	38.88	7.73
37	QPSK	Op. Freq.	3 750.00	38.83	7.64
	16QAM	Op. Freq.	3 750.00	38.88	7.73
38	QPSK	Op. Freq.	3 750.00	37.96	6.25
	16QAM	Op. Freq.	3 750.00	38.23	6.65
39	QPSK	Op. Freq.	3 750.00	37.98	6.29
	16QAM	Op. Freq.	3 750.00	38.04	6.37
40	QPSK	Op. Freq.	3 750.00	38.20	6.61
	16QAM	Op. Freq.	3 750.00	38.25	6.68
41	QPSK	Op. Freq.	3 750.00	38.10	6.46
	16QAM	Op. Freq.	3 750.00	38.19	6.60
42	QPSK	Op. Freq.	3 750.00	37.80	6.03
	16QAM	Op. Freq.	3 750.00	37.87	6.12
43	QPSK	Op. Freq.	3 750.00	38.60	7.24
	16QAM	Op. Freq.	3 750.00	38.99	7.92
44	QPSK	Op. Freq.	3 750.00	37.82	6.06
	16QAM	Op. Freq.	3 750.00	38.10	6.45

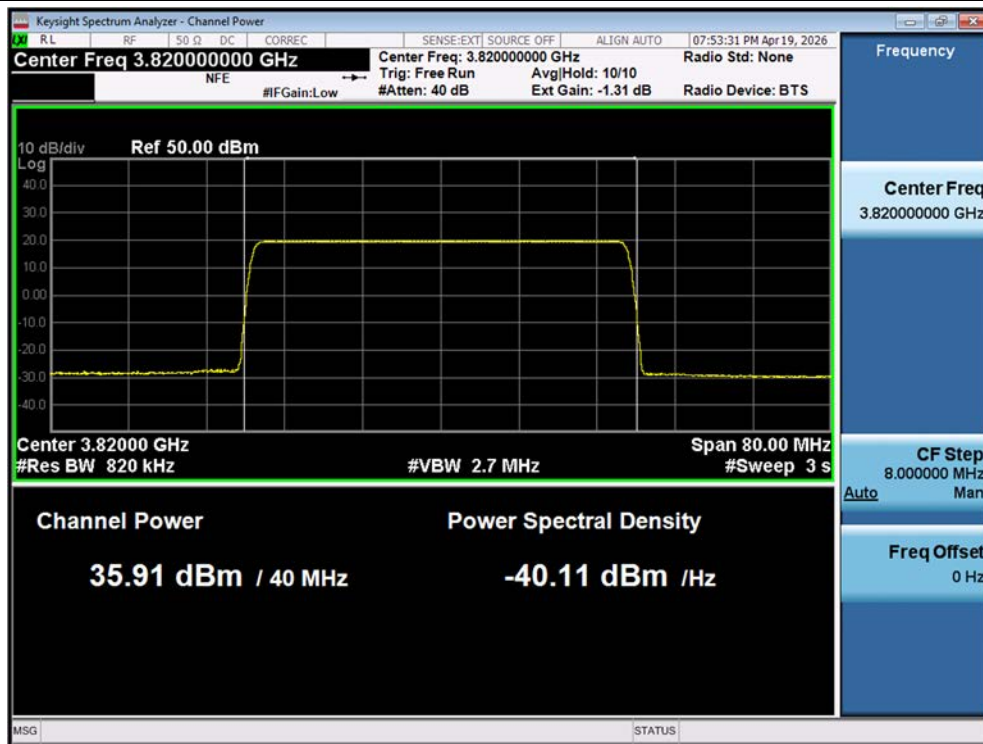
Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
45	QPSK	Op. Freq.	3 750.00	38.25	6.69
	16QAM	Op. Freq.	3 750.00	38.65	7.33
46	QPSK	Op. Freq.	3 750.00	37.83	6.07
	16QAM	Op. Freq.	3 750.00	38.23	6.65
47	QPSK	Op. Freq.	3 750.00	37.77	5.99
	16QAM	Op. Freq.	3 750.00	37.82	6.05
48	QPSK	Op. Freq.	3 750.00	37.78	5.99
	16QAM	Op. Freq.	3 750.00	38.06	6.40
49	QPSK	Op. Freq.	3 750.00	38.17	6.56
	16QAM	Op. Freq.	3 750.00	38.35	6.84
50	QPSK	Op. Freq.	3 750.00	38.04	6.38
	16QAM	Op. Freq.	3 750.00	38.10	6.46
51	QPSK	Op. Freq.	3 750.00	37.98	6.28
	16QAM	Op. Freq.	3 750.00	38.20	6.61
52	QPSK	Op. Freq.	3 750.00	38.12	6.48
	16QAM	Op. Freq.	3 750.00	38.14	6.51
53	QPSK	Op. Freq.	3 750.00	37.96	6.25
	16QAM	Op. Freq.	3 750.00	38.08	6.43
54	QPSK	Op. Freq.	3 750.00	37.91	6.18
	16QAM	Op. Freq.	3 750.00	38.11	6.47
55	QPSK	Op. Freq.	3 750.00	38.24	6.67
	16QAM	Op. Freq.	3 750.00	38.25	6.68
56	QPSK	Op. Freq.	3 750.00	37.76	5.97
	16QAM	Op. Freq.	3 750.00	37.97	6.27
57	QPSK	Op. Freq.	3 750.00	38.57	7.20
	16QAM	Op. Freq.	3 750.00	38.60	7.24
58	QPSK	Op. Freq.	3 750.00	38.39	6.90
	16QAM	Op. Freq.	3 750.00	38.47	7.03
59	QPSK	Op. Freq.	3 750.00	38.48	7.05
	16QAM	Op. Freq.	3 750.00	38.72	7.45
60	QPSK	Op. Freq.	3 750.00	37.82	6.05
	16QAM	Op. Freq.	3 750.00	38.07	6.41
61	QPSK	Op. Freq.	3 750.00	38.18	6.58
	16QAM	Op. Freq.	3 750.00	38.19	6.59
62	QPSK	Op. Freq.	3 750.00	37.93	6.22
	16QAM	Op. Freq.	3 750.00	38.18	6.58
63	QPSK	Op. Freq.	3 750.00	37.83	6.07
	16QAM	Op. Freq.	3 750.00	37.99	6.29

Sum Data of Port 0 ~ Port 63

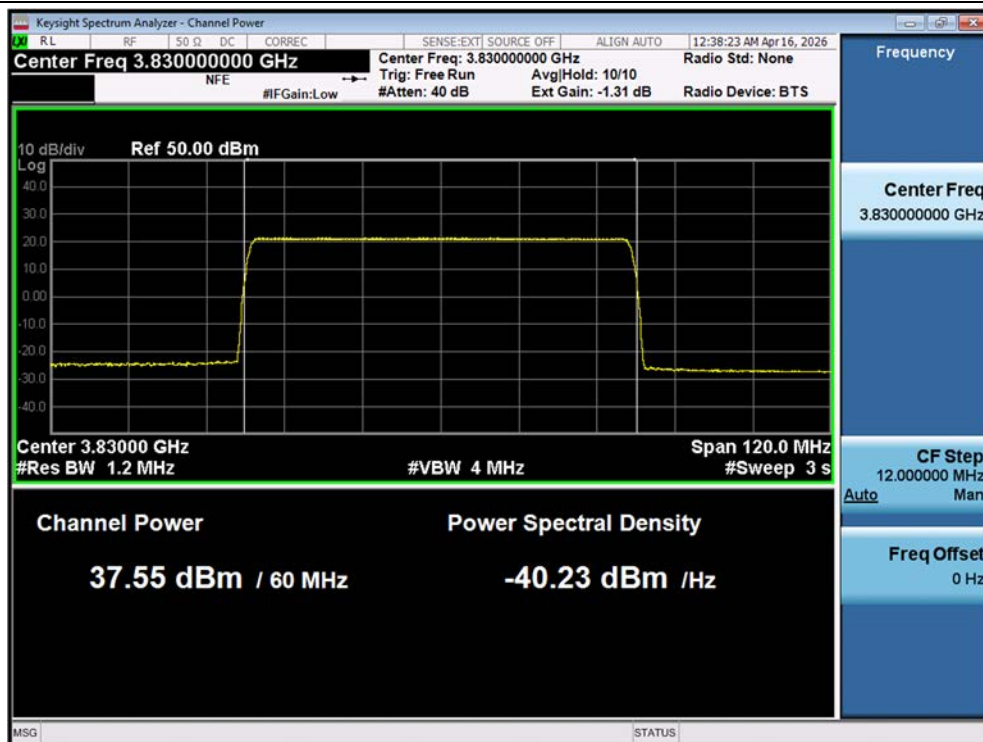
Frequency (MHz)	Output Power (Conducted)	
	QPSK	16QAM
	W	
3 750.00	407.72	426.36

Plot Data of RF Output Power

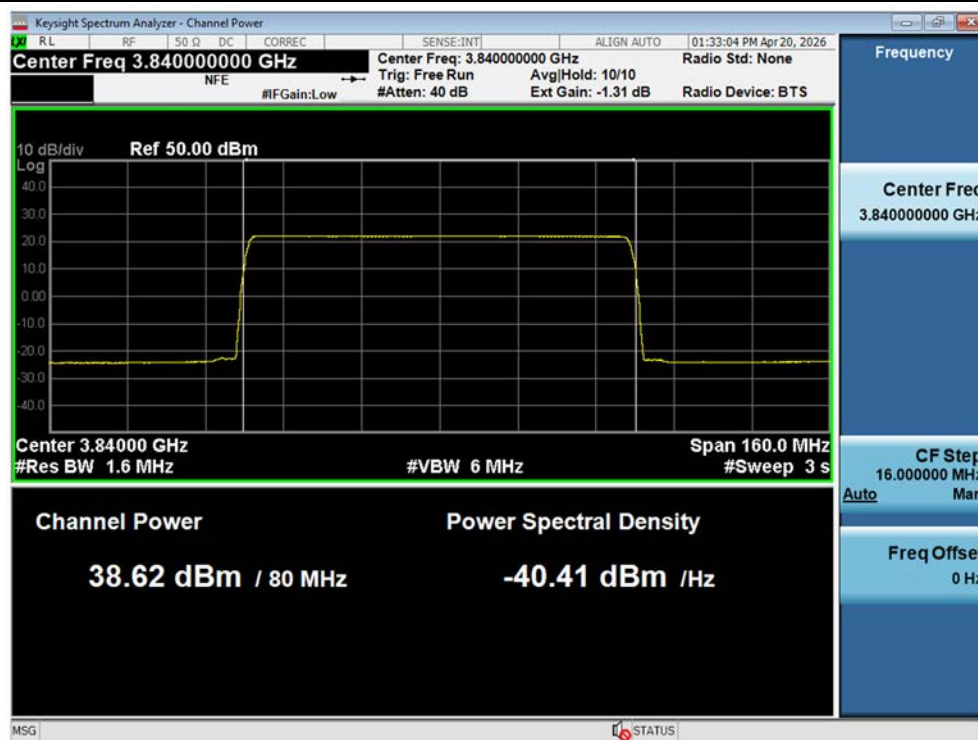
Port 13 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency



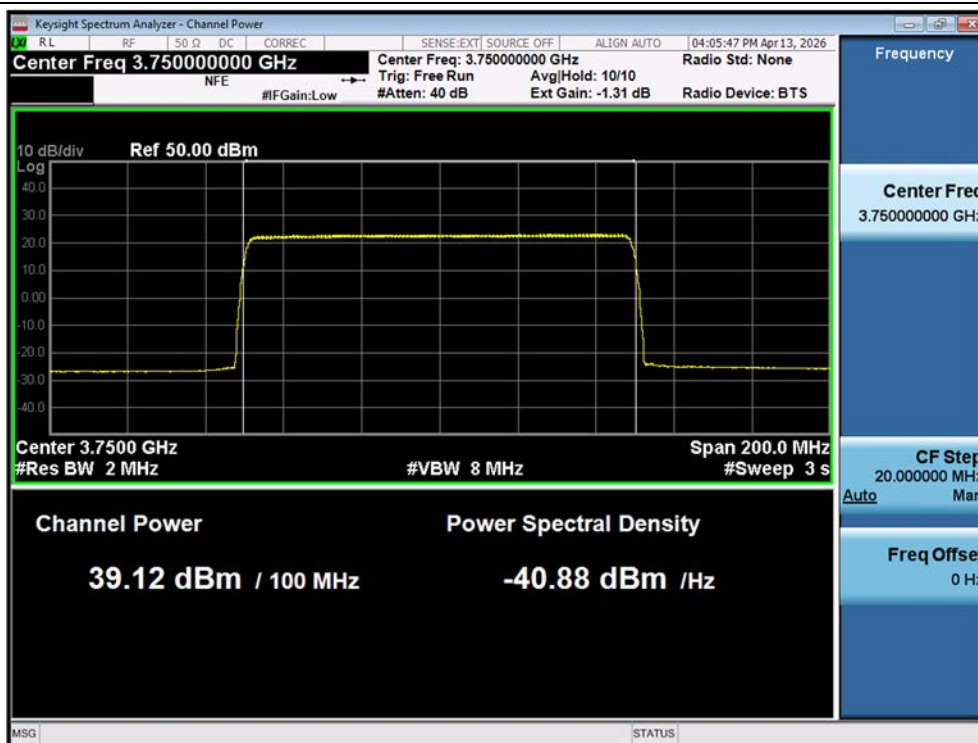
Port 27 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency



Port 36 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency



Port 27 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency



Test Results:

Tabular Data of RF PSD

(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Op. Freq.	3 820.00	18.84	27.1	3.010	42.93	19.62
	16QAM	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.74
1	QPSK	Op. Freq.	3 820.00	19.32	27.1	3.010	43.41	21.93
	16QAM	Op. Freq.	3 820.00	19.38	27.1	3.010	43.47	22.24
2	QPSK	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.72
	16QAM	Op. Freq.	3 820.00	18.91	27.1	3.010	43.00	19.94
3	QPSK	Op. Freq.	3 820.00	18.85	27.1	3.010	42.94	19.68
	16QAM	Op. Freq.	3 820.00	18.89	27.1	3.010	42.98	19.86
4	QPSK	Op. Freq.	3 820.00	18.72	27.1	3.010	42.81	19.10
	16QAM	Op. Freq.	3 820.00	18.78	27.1	3.010	42.87	19.36
5	QPSK	Op. Freq.	3 820.00	18.82	27.1	3.010	42.91	19.54
	16QAM	Op. Freq.	3 820.00	18.92	27.1	3.010	43.01	19.99
6	QPSK	Op. Freq.	3 820.00	18.68	27.1	3.010	42.77	18.94
	16QAM	Op. Freq.	3 820.00	18.83	27.1	3.010	42.92	19.57
7	QPSK	Op. Freq.	3 820.00	18.63	27.1	3.010	42.72	18.71
	16QAM	Op. Freq.	3 820.00	18.78	27.1	3.010	42.87	19.37
8	QPSK	Op. Freq.	3 820.00	18.57	27.1	3.010	42.66	18.46
	16QAM	Op. Freq.	3 820.00	18.64	27.1	3.010	42.73	18.75
9	QPSK	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.73
	16QAM	Op. Freq.	3 820.00	18.93	27.1	3.010	43.02	20.03
10	QPSK	Op. Freq.	3 820.00	18.64	27.1	3.010	42.73	18.75
	16QAM	Op. Freq.	3 820.00	18.68	27.1	3.010	42.77	18.91
11	QPSK	Op. Freq.	3 820.00	18.72	27.1	3.010	42.81	19.08
	16QAM	Op. Freq.	3 820.00	18.76	27.1	3.010	42.85	19.28
12	QPSK	Op. Freq.	3 820.00	18.67	27.1	3.010	42.76	18.86
	16QAM	Op. Freq.	3 820.00	18.74	27.1	3.010	42.83	19.17
13	QPSK	Op. Freq.	3 820.00	19.22	27.1	3.010	43.31	21.43
	16QAM	Op. Freq.	3 820.00	19.57	27.1	3.010	43.66	23.24
14	QPSK	Op. Freq.	3 820.00	18.75	27.1	3.010	42.84	19.22
	16QAM	Op. Freq.	3 820.00	18.90	27.1	3.010	42.99	19.90
15	QPSK	Op. Freq.	3 820.00	18.61	27.1	3.010	42.70	18.64
	16QAM	Op. Freq.	3 820.00	18.89	27.1	3.010	42.98	19.84
16	QPSK	Op. Freq.	3 820.00	18.60	27.1	3.010	42.69	18.58
	16QAM	Op. Freq.	3 820.00	18.65	27.1	3.010	42.74	18.78

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
17	QPSK	Op. Freq.	3 820.00	18.65	27.1	3.010	42.74	18.80
	16QAM	Op. Freq.	3 820.00	18.72	27.1	3.010	42.81	19.09
18	QPSK	Op. Freq.	3 820.00	18.70	27.1	3.010	42.79	18.99
	16QAM	Op. Freq.	3 820.00	18.72	27.1	3.010	42.81	19.08
19	QPSK	Op. Freq.	3 820.00	18.66	27.1	3.010	42.75	18.81
	16QAM	Op. Freq.	3 820.00	18.69	27.1	3.010	42.78	18.96
20	QPSK	Op. Freq.	3 820.00	18.74	27.1	3.010	42.83	19.19
	16QAM	Op. Freq.	3 820.00	18.75	27.1	3.010	42.84	19.23
21	QPSK	Op. Freq.	3 820.00	18.53	27.1	3.010	42.62	18.26
	16QAM	Op. Freq.	3 820.00	18.54	27.1	3.010	42.63	18.32
22	QPSK	Op. Freq.	3 820.00	18.59	27.1	3.010	42.68	18.53
	16QAM	Op. Freq.	3 820.00	18.76	27.1	3.010	42.85	19.28
23	QPSK	Op. Freq.	3 820.00	18.82	27.1	3.010	42.91	19.56
	16QAM	Op. Freq.	3 820.00	18.90	27.1	3.010	42.99	19.91
24	QPSK	Op. Freq.	3 820.00	18.92	27.1	3.010	43.01	19.99
	16QAM	Op. Freq.	3 820.00	19.08	27.1	3.010	43.17	20.74
25	QPSK	Op. Freq.	3 820.00	18.75	27.1	3.010	42.84	19.22
	16QAM	Op. Freq.	3 820.00	18.76	27.1	3.010	42.85	19.27
26	QPSK	Op. Freq.	3 820.00	18.60	27.1	3.010	42.69	18.59
	16QAM	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.72
27	QPSK	Op. Freq.	3 820.00	19.77	27.1	3.010	43.86	24.31
	16QAM	Op. Freq.	3 820.00	19.78	27.1	3.010	43.87	24.40
28	QPSK	Op. Freq.	3 820.00	18.39	27.1	3.010	42.48	17.70
	16QAM	Op. Freq.	3 820.00	18.79	27.1	3.010	42.88	19.41
29	QPSK	Op. Freq.	3 820.00	18.51	27.1	3.010	42.60	18.21
	16QAM	Op. Freq.	3 820.00	18.70	27.1	3.010	42.79	19.00
30	QPSK	Op. Freq.	3 820.00	18.49	27.1	3.010	42.58	18.13
	16QAM	Op. Freq.	3 820.00	18.75	27.1	3.010	42.84	19.21
31	QPSK	Op. Freq.	3 820.00	18.61	27.1	3.010	42.70	18.60
	16QAM	Op. Freq.	3 820.00	18.71	27.1	3.010	42.80	19.04
32	QPSK	Op. Freq.	3 820.00	18.60	27.1	3.010	42.69	18.56
	16QAM	Op. Freq.	3 820.00	18.96	27.1	3.010	43.05	20.19
33	QPSK	Op. Freq.	3 820.00	19.14	27.1	3.010	43.23	21.04
	16QAM	Op. Freq.	3 820.00	19.25	27.1	3.010	43.34	21.57
34	QPSK	Op. Freq.	3 820.00	18.99	27.1	3.010	43.08	20.30
	16QAM	Op. Freq.	3 820.00	19.21	27.1	3.010	43.30	21.36

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
35	QPSK	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.72
	16QAM	Op. Freq.	3 820.00	19.07	27.1	3.010	43.16	20.68
36	QPSK	Op. Freq.	3 820.00	19.24	27.1	3.010	43.33	21.54
	16QAM	Op. Freq.	3 820.00	19.44	27.1	3.010	43.53	22.53
37	QPSK	Op. Freq.	3 820.00	19.02	27.1	3.010	43.11	20.46
	16QAM	Op. Freq.	3 820.00	19.08	27.1	3.010	43.17	20.77
38	QPSK	Op. Freq.	3 820.00	18.90	27.1	3.010	42.99	19.91
	16QAM	Op. Freq.	3 820.00	19.22	27.1	3.010	43.31	21.42
39	QPSK	Op. Freq.	3 820.00	19.25	27.1	3.010	43.34	21.59
	16QAM	Op. Freq.	3 820.00	19.38	27.1	3.010	43.47	22.24
40	QPSK	Op. Freq.	3 820.00	18.59	27.1	3.010	42.68	18.54
	16QAM	Op. Freq.	3 820.00	19.35	27.1	3.010	43.44	22.10
41	QPSK	Op. Freq.	3 820.00	19.14	27.1	3.010	43.23	21.02
	16QAM	Op. Freq.	3 820.00	19.41	27.1	3.010	43.50	22.40
42	QPSK	Op. Freq.	3 820.00	18.45	27.1	3.010	42.54	17.93
	16QAM	Op. Freq.	3 820.00	18.84	27.1	3.010	42.93	19.62
43	QPSK	Op. Freq.	3 820.00	19.41	27.1	3.010	43.50	22.39
	16QAM	Op. Freq.	3 820.00	19.87	27.1	3.010	43.96	24.89
44	QPSK	Op. Freq.	3 820.00	18.53	27.1	3.010	42.62	18.26
	16QAM	Op. Freq.	3 820.00	18.75	27.1	3.010	42.84	19.23
45	QPSK	Op. Freq.	3 820.00	18.47	27.1	3.010	42.56	18.02
	16QAM	Op. Freq.	3 820.00	19.08	27.1	3.010	43.17	20.74
46	QPSK	Op. Freq.	3 820.00	19.04	27.1	3.010	43.13	20.54
	16QAM	Op. Freq.	3 820.00	19.38	27.1	3.010	43.47	22.21
47	QPSK	Op. Freq.	3 820.00	18.42	27.1	3.010	42.51	17.80
	16QAM	Op. Freq.	3 820.00	18.76	27.1	3.010	42.85	19.29
48	QPSK	Op. Freq.	3 820.00	18.81	27.1	3.010	42.90	19.48
	16QAM	Op. Freq.	3 820.00	19.20	27.1	3.010	43.29	21.34
49	QPSK	Op. Freq.	3 820.00	19.10	27.1	3.010	43.19	20.85
	16QAM	Op. Freq.	3 820.00	19.37	27.1	3.010	43.46	22.19
50	QPSK	Op. Freq.	3 820.00	18.85	27.1	3.010	42.94	19.68
	16QAM	Op. Freq.	3 820.00	19.10	27.1	3.010	43.19	20.83
51	QPSK	Op. Freq.	3 820.00	18.96	27.1	3.010	43.05	20.19
	16QAM	Op. Freq.	3 820.00	19.30	27.1	3.010	43.39	21.83
52	QPSK	Op. Freq.	3 820.00	19.00	27.1	3.010	43.09	20.38
	16QAM	Op. Freq.	3 820.00	19.24	27.1	3.010	43.33	21.52
53	QPSK	Op. Freq.	3 820.00	19.01	27.1	3.010	43.10	20.42
	16QAM	Op. Freq.	3 820.00	19.20	27.1	3.010	43.29	21.34

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
54	QPSK	Op. Freq.	3 820.00	19.01	27.1	3.010	43.10	20.43
	16QAM	Op. Freq.	3 820.00	19.18	27.1	3.010	43.27	21.21
55	QPSK	Op. Freq.	3 820.00	18.54	27.1	3.010	42.63	18.33
	16QAM	Op. Freq.	3 820.00	19.00	27.1	3.010	43.09	20.35
56	QPSK	Op. Freq.	3 820.00	18.43	27.1	3.010	42.52	17.85
	16QAM	Op. Freq.	3 820.00	18.68	27.1	3.010	42.77	18.93
57	QPSK	Op. Freq.	3 820.00	18.67	27.1	3.010	42.76	18.90
	16QAM	Op. Freq.	3 820.00	18.97	27.1	3.010	43.06	20.23
58	QPSK	Op. Freq.	3 820.00	18.86	27.1	3.010	42.95	19.74
	16QAM	Op. Freq.	3 820.00	19.27	27.1	3.010	43.36	21.66
59	QPSK	Op. Freq.	3 820.00	19.00	27.1	3.010	43.09	20.38
	16QAM	Op. Freq.	3 820.00	19.32	27.1	3.010	43.41	21.93
60	QPSK	Op. Freq.	3 820.00	18.45	27.1	3.010	42.54	17.93
	16QAM	Op. Freq.	3 820.00	18.68	27.1	3.010	42.77	18.92
61	QPSK	Op. Freq.	3 820.00	19.00	27.1	3.010	43.09	20.38
	16QAM	Op. Freq.	3 820.00	19.43	27.1	3.010	43.52	22.49
62	QPSK	Op. Freq.	3 820.00	17.76	27.1	3.010	41.85	15.30
	16QAM	Op. Freq.	3 820.00	18.12	27.1	3.010	42.21	16.62
63	QPSK	Op. Freq.	3 820.00	18.57	27.1	3.010	42.66	18.46
	16QAM	Op. Freq.	3 820.00	18.60	27.1	3.010	42.69	18.57

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 820.00	1 243.22	1 303.81	1 640

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 820.00	2 486.27	2 607.44	3 280

Note: The sum data for the EIRP limit of 3280 W/MHz was calculated by applying 0 dB attenuation in accordance with the antenna specification described in Section 1.2.

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Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Op. Freq.	3 830.00	18.77	27.1	3.010	42.86	19.33
	16QAM	Op. Freq.	3 830.00	18.85	27.1	3.010	42.94	19.68
1	QPSK	Op. Freq.	3 830.00	19.21	27.1	3.010	43.30	21.40
	16QAM	Op. Freq.	3 830.00	19.26	27.1	3.010	43.35	21.61
2	QPSK	Op. Freq.	3 830.00	18.70	27.1	3.010	42.79	18.99
	16QAM	Op. Freq.	3 830.00	18.92	27.1	3.010	43.01	20.00
3	QPSK	Op. Freq.	3 830.00	18.64	27.1	3.010	42.73	18.77
	16QAM	Op. Freq.	3 830.00	18.66	27.1	3.010	42.75	18.84
4	QPSK	Op. Freq.	3 830.00	18.75	27.1	3.010	42.84	19.23
	16QAM	Op. Freq.	3 830.00	18.83	27.1	3.010	42.92	19.58
5	QPSK	Op. Freq.	3 830.00	18.77	27.1	3.010	42.86	19.32
	16QAM	Op. Freq.	3 830.00	19.00	27.1	3.010	43.09	20.38
6	QPSK	Op. Freq.	3 830.00	18.68	27.1	3.010	42.77	18.91
	16QAM	Op. Freq.	3 830.00	18.84	27.1	3.010	42.93	19.65
7	QPSK	Op. Freq.	3 830.00	18.62	27.1	3.010	42.71	18.67
	16QAM	Op. Freq.	3 830.00	18.85	27.1	3.010	42.94	19.67
8	QPSK	Op. Freq.	3 830.00	18.73	27.1	3.010	42.82	19.16
	16QAM	Op. Freq.	3 830.00	18.81	27.1	3.010	42.90	19.51
9	QPSK	Op. Freq.	3 830.00	18.94	27.1	3.010	43.03	20.07
	16QAM	Op. Freq.	3 830.00	19.06	27.1	3.010	43.15	20.65
10	QPSK	Op. Freq.	3 830.00	18.59	27.1	3.010	42.68	18.55
	16QAM	Op. Freq.	3 830.00	18.86	27.1	3.010	42.95	19.72
11	QPSK	Op. Freq.	3 830.00	18.77	27.1	3.010	42.86	19.31
	16QAM	Op. Freq.	3 830.00	18.82	27.1	3.010	42.91	19.54
12	QPSK	Op. Freq.	3 830.00	18.78	27.1	3.010	42.87	19.37
	16QAM	Op. Freq.	3 830.00	18.89	27.1	3.010	42.98	19.87
13	QPSK	Op. Freq.	3 830.00	19.12	27.1	3.010	43.21	20.94
	16QAM	Op. Freq.	3 830.00	19.79	27.1	3.010	43.88	24.41
14	QPSK	Op. Freq.	3 830.00	18.61	27.1	3.010	42.70	18.60
	16QAM	Op. Freq.	3 830.00	19.03	27.1	3.010	43.12	20.50
15	QPSK	Op. Freq.	3 830.00	18.96	27.1	3.010	43.05	20.16
	16QAM	Op. Freq.	3 830.00	19.01	27.1	3.010	43.10	20.41
16	QPSK	Op. Freq.	3 830.00	18.63	27.1	3.010	42.72	18.72
	16QAM	Op. Freq.	3 830.00	18.78	27.1	3.010	42.87	19.36

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
17	QPSK	Op. Freq.	3 830.00	18.61	27.1	3.010	42.70	18.61
	16QAM	Op. Freq.	3 830.00	18.79	27.1	3.010	42.88	19.39
18	QPSK	Op. Freq.	3 830.00	18.73	27.1	3.010	42.82	19.12
	16QAM	Op. Freq.	3 830.00	18.75	27.1	3.010	42.84	19.24
19	QPSK	Op. Freq.	3 830.00	18.69	27.1	3.010	42.78	18.96
	16QAM	Op. Freq.	3 830.00	18.73	27.1	3.010	42.82	19.15
20	QPSK	Op. Freq.	3 830.00	18.68	27.1	3.010	42.77	18.94
	16QAM	Op. Freq.	3 830.00	18.80	27.1	3.010	42.89	19.45
21	QPSK	Op. Freq.	3 830.00	18.58	27.1	3.010	42.67	18.49
	16QAM	Op. Freq.	3 830.00	18.61	27.1	3.010	42.70	18.60
22	QPSK	Op. Freq.	3 830.00	18.57	27.1	3.010	42.66	18.44
	16QAM	Op. Freq.	3 830.00	18.70	27.1	3.010	42.79	19.03
23	QPSK	Op. Freq.	3 830.00	18.93	27.1	3.010	43.02	20.05
	16QAM	Op. Freq.	3 830.00	19.06	27.1	3.010	43.15	20.63
24	QPSK	Op. Freq.	3 830.00	19.16	27.1	3.010	43.25	21.13
	16QAM	Op. Freq.	3 830.00	19.23	27.1	3.010	43.32	21.46
25	QPSK	Op. Freq.	3 830.00	18.51	27.1	3.010	42.60	18.18
	16QAM	Op. Freq.	3 830.00	18.85	27.1	3.010	42.94	19.66
26	QPSK	Op. Freq.	3 830.00	18.83	27.1	3.010	42.92	19.60
	16QAM	Op. Freq.	3 830.00	19.06	27.1	3.010	43.15	20.66
27	QPSK	Op. Freq.	3 830.00	19.94	27.1	3.010	44.03	25.32
	16QAM	Op. Freq.	3 830.00	20.09	27.1	3.010	44.18	26.17
28	QPSK	Op. Freq.	3 830.00	18.72	27.1	3.010	42.81	19.10
	16QAM	Op. Freq.	3 830.00	18.96	27.1	3.010	43.05	20.16
29	QPSK	Op. Freq.	3 830.00	18.56	27.1	3.010	42.65	18.41
	16QAM	Op. Freq.	3 830.00	18.76	27.1	3.010	42.85	19.29
30	QPSK	Op. Freq.	3 830.00	18.60	27.1	3.010	42.69	18.56
	16QAM	Op. Freq.	3 830.00	18.90	27.1	3.010	42.99	19.91
31	QPSK	Op. Freq.	3 830.00	18.67	27.1	3.010	42.76	18.87
	16QAM	Op. Freq.	3 830.00	18.86	27.1	3.010	42.95	19.72
32	QPSK	Op. Freq.	3 830.00	18.39	27.1	3.010	42.48	17.72
	16QAM	Op. Freq.	3 830.00	18.98	27.1	3.010	43.07	20.27
33	QPSK	Op. Freq.	3 830.00	18.74	27.1	3.010	42.83	19.20
	16QAM	Op. Freq.	3 830.00	19.42	27.1	3.010	43.51	22.45
34	QPSK	Op. Freq.	3 830.00	18.75	27.1	3.010	42.84	19.24
	16QAM	Op. Freq.	3 830.00	19.40	27.1	3.010	43.49	22.32

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
35	QPSK	Op. Freq.	3 830.00	18.55	27.1	3.010	42.64	18.38
	16QAM	Op. Freq.	3 830.00	19.13	27.1	3.010	43.22	21.00
36	QPSK	Op. Freq.	3 830.00	17.99	27.1	3.010	42.08	16.13
	16QAM	Op. Freq.	3 830.00	19.14	27.1	3.010	43.23	21.06
37	QPSK	Op. Freq.	3 830.00	18.60	27.1	3.010	42.69	18.57
	16QAM	Op. Freq.	3 830.00	19.17	27.1	3.010	43.26	21.19
38	QPSK	Op. Freq.	3 830.00	18.64	27.1	3.010	42.73	18.77
	16QAM	Op. Freq.	3 830.00	19.28	27.1	3.010	43.37	21.70
39	QPSK	Op. Freq.	3 830.00	18.94	27.1	3.010	43.03	20.08
	16QAM	Op. Freq.	3 830.00	19.39	27.1	3.010	43.48	22.28
40	QPSK	Op. Freq.	3 830.00	19.01	27.1	3.010	43.10	20.39
	16QAM	Op. Freq.	3 830.00	19.53	27.1	3.010	43.62	23.04
41	QPSK	Op. Freq.	3 830.00	19.09	27.1	3.010	43.18	20.80
	16QAM	Op. Freq.	3 830.00	19.50	27.1	3.010	43.59	22.86
42	QPSK	Op. Freq.	3 830.00	18.49	27.1	3.010	42.58	18.11
	16QAM	Op. Freq.	3 830.00	19.03	27.1	3.010	43.12	20.53
43	QPSK	Op. Freq.	3 830.00	19.62	27.1	3.010	43.71	23.48
	16QAM	Op. Freq.	3 830.00	20.05	27.1	3.010	44.14	25.95
44	QPSK	Op. Freq.	3 830.00	18.49	27.1	3.010	42.58	18.11
	16QAM	Op. Freq.	3 830.00	19.04	27.1	3.010	43.13	20.57
45	QPSK	Op. Freq.	3 830.00	18.68	27.1	3.010	42.77	18.94
	16QAM	Op. Freq.	3 830.00	18.72	27.1	3.010	42.81	19.08
46	QPSK	Op. Freq.	3 830.00	18.94	27.1	3.010	43.03	20.10
	16QAM	Op. Freq.	3 830.00	19.37	27.1	3.010	43.46	22.16
47	QPSK	Op. Freq.	3 830.00	18.61	27.1	3.010	42.70	18.62
	16QAM	Op. Freq.	3 830.00	18.90	27.1	3.010	42.99	19.91
48	QPSK	Op. Freq.	3 830.00	18.83	27.1	3.010	42.92	19.57
	16QAM	Op. Freq.	3 830.00	19.40	27.1	3.010	43.49	22.35
49	QPSK	Op. Freq.	3 830.00	19.04	27.1	3.010	43.13	20.54
	16QAM	Op. Freq.	3 830.00	19.54	27.1	3.010	43.63	23.07
50	QPSK	Op. Freq.	3 830.00	18.83	27.1	3.010	42.92	19.59
	16QAM	Op. Freq.	3 830.00	19.27	27.1	3.010	43.36	21.67
51	QPSK	Op. Freq.	3 830.00	18.96	27.1	3.010	43.05	20.19
	16QAM	Op. Freq.	3 830.00	19.44	27.1	3.010	43.53	22.54
52	QPSK	Op. Freq.	3 830.00	18.98	27.1	3.010	43.07	20.28
	16QAM	Op. Freq.	3 830.00	19.44	27.1	3.010	43.53	22.52
53	QPSK	Op. Freq.	3 830.00	18.93	27.1	3.010	43.02	20.05
	16QAM	Op. Freq.	3 830.00	19.50	27.1	3.010	43.59	22.88

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
54	QPSK	Op. Freq.	3 830.00	18.99	27.1	3.010	43.08	20.31
	16QAM	Op. Freq.	3 830.00	19.36	27.1	3.010	43.45	22.15
55	QPSK	Op. Freq.	3 830.00	18.66	27.1	3.010	42.75	18.85
	16QAM	Op. Freq.	3 830.00	19.27	27.1	3.010	43.36	21.69
56	QPSK	Op. Freq.	3 830.00	18.64	27.1	3.010	42.73	18.75
	16QAM	Op. Freq.	3 830.00	18.98	27.1	3.010	43.07	20.29
57	QPSK	Op. Freq.	3 830.00	18.73	27.1	3.010	42.82	19.13
	16QAM	Op. Freq.	3 830.00	19.35	27.1	3.010	43.44	22.07
58	QPSK	Op. Freq.	3 830.00	19.00	27.1	3.010	43.09	20.38
	16QAM	Op. Freq.	3 830.00	19.48	27.1	3.010	43.57	22.72
59	QPSK	Op. Freq.	3 830.00	19.34	27.1	3.010	43.43	22.04
	16QAM	Op. Freq.	3 830.00	19.59	27.1	3.010	43.68	23.32
60	QPSK	Op. Freq.	3 830.00	18.60	27.1	3.010	42.69	18.56
	16QAM	Op. Freq.	3 830.00	19.03	27.1	3.010	43.12	20.52
61	QPSK	Op. Freq.	3 830.00	19.25	27.1	3.010	43.34	21.59
	16QAM	Op. Freq.	3 830.00	19.75	27.1	3.010	43.84	24.23
62	QPSK	Op. Freq.	3 830.00	17.87	27.1	3.010	41.96	15.69
	16QAM	Op. Freq.	3 830.00	18.75	27.1	3.010	42.84	19.21
63	QPSK	Op. Freq.	3 830.00	18.79	27.1	3.010	42.88	19.39
	16QAM	Op. Freq.	3 830.00	19.09	27.1	3.010	43.18	20.79

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 830.00	1 242.82	1 344.28	1 640

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 830.00	2 485.47	2 688.37	3 280

Note: The sum data for the EIRP limit of 3280 W/MHz was calculated by applying 0 dB attenuation in accordance with the antenna specification described in Section 1.2.

(64 Port) n77 5G NR 80 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Op. Freq.	3 840.00	18.72	27.10	3.01	42.81	19.09
	16QAM	Op. Freq.	3 840.00	19.10	27.10	3.01	43.19	20.84
1	QPSK	Op. Freq.	3 840.00	19.30	27.10	3.01	43.39	21.84
	16QAM	Op. Freq.	3 840.00	19.39	27.10	3.01	43.48	22.26
2	QPSK	Op. Freq.	3 840.00	18.68	27.10	3.01	42.77	18.94
	16QAM	Op. Freq.	3 840.00	19.22	27.10	3.01	43.31	21.42
3	QPSK	Op. Freq.	3 840.00	18.61	27.10	3.01	42.70	18.63
	16QAM	Op. Freq.	3 840.00	18.85	27.10	3.01	42.94	19.68
4	QPSK	Op. Freq.	3 840.00	18.68	27.10	3.01	42.77	18.91
	16QAM	Op. Freq.	3 840.00	18.96	27.10	3.01	43.05	20.18
5	QPSK	Op. Freq.	3 840.00	18.68	27.10	3.01	42.77	18.93
	16QAM	Op. Freq.	3 840.00	19.03	27.10	3.01	43.12	20.49
6	QPSK	Op. Freq.	3 840.00	18.59	27.10	3.01	42.68	18.54
	16QAM	Op. Freq.	3 840.00	18.80	27.10	3.01	42.89	19.46
7	QPSK	Op. Freq.	3 840.00	18.52	27.10	3.01	42.61	18.26
	16QAM	Op. Freq.	3 840.00	18.86	27.10	3.01	42.95	19.74
8	QPSK	Op. Freq.	3 840.00	18.36	27.10	3.01	42.45	17.57
	16QAM	Op. Freq.	3 840.00	18.86	27.10	3.01	42.95	19.71
9	QPSK	Op. Freq.	3 840.00	18.66	27.10	3.01	42.75	18.82
	16QAM	Op. Freq.	3 840.00	19.14	27.10	3.01	43.23	21.03
10	QPSK	Op. Freq.	3 840.00	18.49	27.10	3.01	42.58	18.13
	16QAM	Op. Freq.	3 840.00	18.95	27.10	3.01	43.04	20.14
11	QPSK	Op. Freq.	3 840.00	18.52	27.10	3.01	42.61	18.26
	16QAM	Op. Freq.	3 840.00	18.79	27.10	3.01	42.88	19.41
12	QPSK	Op. Freq.	3 840.00	18.48	27.10	3.01	42.57	18.09
	16QAM	Op. Freq.	3 840.00	19.03	27.10	3.01	43.12	20.52
13	QPSK	Op. Freq.	3 840.00	19.53	27.10	3.01	43.62	23.02
	16QAM	Op. Freq.	3 840.00	19.78	27.10	3.01	43.87	24.37
14	QPSK	Op. Freq.	3 840.00	18.70	27.10	3.01	42.79	19.03
	16QAM	Op. Freq.	3 840.00	18.87	27.10	3.01	42.96	19.76
15	QPSK	Op. Freq.	3 840.00	18.14	27.10	3.01	42.23	16.71
	16QAM	Op. Freq.	3 840.00	18.15	27.10	3.01	42.24	16.75
16	QPSK	Op. Freq.	3 840.00	18.49	27.10	3.01	42.58	18.10
	16QAM	Op. Freq.	3 840.00	18.74	27.10	3.01	42.83	19.17

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
17	QPSK	Op. Freq.	3 840.00	18.52	27.10	3.01	42.61	18.24
	16QAM	Op. Freq.	3 840.00	18.76	27.10	3.01	42.85	19.29
18	QPSK	Op. Freq.	3 840.00	18.81	27.10	3.01	42.90	19.48
	16QAM	Op. Freq.	3 840.00	18.85	27.10	3.01	42.94	19.69
19	QPSK	Op. Freq.	3 840.00	18.43	27.10	3.01	42.52	17.86
	16QAM	Op. Freq.	3 840.00	18.71	27.10	3.01	42.80	19.06
20	QPSK	Op. Freq.	3 840.00	18.48	27.10	3.01	42.57	18.07
	16QAM	Op. Freq.	3 840.00	18.83	27.10	3.01	42.92	19.60
21	QPSK	Op. Freq.	3 840.00	18.33	27.10	3.01	42.42	17.47
	16QAM	Op. Freq.	3 840.00	18.56	27.10	3.01	42.65	18.42
22	QPSK	Op. Freq.	3 840.00	18.41	27.10	3.01	42.50	17.77
	16QAM	Op. Freq.	3 840.00	18.48	27.10	3.01	42.57	18.06
23	QPSK	Op. Freq.	3 840.00	18.69	27.10	3.01	42.78	18.95
	16QAM	Op. Freq.	3 840.00	19.05	27.10	3.01	43.14	20.62
24	QPSK	Op. Freq.	3 840.00	18.73	27.10	3.01	42.82	19.15
	16QAM	Op. Freq.	3 840.00	19.07	27.10	3.01	43.16	20.68
25	QPSK	Op. Freq.	3 840.00	18.55	27.10	3.01	42.64	18.36
	16QAM	Op. Freq.	3 840.00	18.94	27.10	3.01	43.03	20.08
26	QPSK	Op. Freq.	3 840.00	18.60	27.10	3.01	42.69	18.56
	16QAM	Op. Freq.	3 840.00	19.17	27.10	3.01	43.26	21.20
27	QPSK	Op. Freq.	3 840.00	18.71	27.10	3.01	42.80	19.04
	16QAM	Op. Freq.	3 840.00	19.48	27.10	3.01	43.57	22.75
28	QPSK	Op. Freq.	3 840.00	18.67	27.10	3.01	42.76	18.88
	16QAM	Op. Freq.	3 840.00	19.04	27.10	3.01	43.13	20.56
29	QPSK	Op. Freq.	3 840.00	18.47	27.10	3.01	42.56	18.02
	16QAM	Op. Freq.	3 840.00	18.93	27.10	3.01	43.02	20.06
30	QPSK	Op. Freq.	3 840.00	18.43	27.10	3.01	42.52	17.88
	16QAM	Op. Freq.	3 840.00	19.04	27.10	3.01	43.13	20.57
31	QPSK	Op. Freq.	3 840.00	18.50	27.10	3.01	42.59	18.13
	16QAM	Op. Freq.	3 840.00	18.91	27.10	3.01	43.00	19.94
32	QPSK	Op. Freq.	3 840.00	19.07	27.10	3.01	43.16	20.69
	16QAM	Op. Freq.	3 840.00	19.42	27.10	3.01	43.51	22.41
33	QPSK	Op. Freq.	3 840.00	19.47	27.10	3.01	43.56	22.67
	16QAM	Op. Freq.	3 840.00	19.83	27.10	3.01	43.92	24.67
34	QPSK	Op. Freq.	3 840.00	19.39	27.10	3.01	43.48	22.29
	16QAM	Op. Freq.	3 840.00	19.65	27.10	3.01	43.74	23.65

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
35	QPSK	Op. Freq.	3 840.00	19.22	27.10	3.01	43.31	21.44
	16QAM	Op. Freq.	3 840.00	19.44	27.10	3.01	43.53	22.55
36	QPSK	Op. Freq.	3 840.00	19.17	27.10	3.01	43.26	21.20
	16QAM	Op. Freq.	3 840.00	19.29	27.10	3.01	43.38	21.76
37	QPSK	Op. Freq.	3 840.00	19.23	27.10	3.01	43.32	21.50
	16QAM	Op. Freq.	3 840.00	19.25	27.10	3.01	43.34	21.59
38	QPSK	Op. Freq.	3 840.00	19.25	27.10	3.01	43.34	21.59
	16QAM	Op. Freq.	3 840.00	19.46	27.10	3.01	43.55	22.66
39	QPSK	Op. Freq.	3 840.00	19.59	27.10	3.01	43.68	23.36
	16QAM	Op. Freq.	3 840.00	19.71	27.10	3.01	43.80	23.97
40	QPSK	Op. Freq.	3 840.00	19.00	27.10	3.01	43.09	20.36
	16QAM	Op. Freq.	3 840.00	19.74	27.10	3.01	43.83	24.13
41	QPSK	Op. Freq.	3 840.00	19.26	27.10	3.01	43.35	21.62
	16QAM	Op. Freq.	3 840.00	19.66	27.10	3.01	43.75	23.74
42	QPSK	Op. Freq.	3 840.00	19.05	27.10	3.01	43.14	20.58
	16QAM	Op. Freq.	3 840.00	19.11	27.10	3.01	43.20	20.90
43	QPSK	Op. Freq.	3 840.00	19.99	27.10	3.01	44.08	25.61
	16QAM	Op. Freq.	3 840.00	20.05	27.10	3.01	44.14	25.93
44	QPSK	Op. Freq.	3 840.00	19.09	27.10	3.01	43.18	20.78
	16QAM	Op. Freq.	3 840.00	19.12	27.10	3.01	43.21	20.93
45	QPSK	Op. Freq.	3 840.00	18.63	27.10	3.01	42.72	18.72
	16QAM	Op. Freq.	3 840.00	19.62	27.10	3.01	43.71	23.50
46	QPSK	Op. Freq.	3 840.00	19.43	27.10	3.01	43.52	22.50
	16QAM	Op. Freq.	3 840.00	19.61	27.10	3.01	43.70	23.44
47	QPSK	Op. Freq.	3 840.00	19.26	27.10	3.01	43.35	21.65
	16QAM	Op. Freq.	3 840.00	19.29	27.10	3.01	43.38	21.76
48	QPSK	Op. Freq.	3 840.00	19.47	27.10	3.01	43.56	22.71
	16QAM	Op. Freq.	3 840.00	19.59	27.10	3.01	43.68	23.31
49	QPSK	Op. Freq.	3 840.00	19.51	27.10	3.01	43.60	22.90
	16QAM	Op. Freq.	3 840.00	19.63	27.10	3.01	43.72	23.56
50	QPSK	Op. Freq.	3 840.00	19.24	27.10	3.01	43.33	21.53
	16QAM	Op. Freq.	3 840.00	19.43	27.10	3.01	43.52	22.50
51	QPSK	Op. Freq.	3 840.00	19.51	27.10	3.01	43.60	22.90
	16QAM	Op. Freq.	3 840.00	19.65	27.10	3.01	43.74	23.63
52	QPSK	Op. Freq.	3 840.00	19.50	27.10	3.01	43.59	22.87
	16QAM	Op. Freq.	3 840.00	19.60	27.10	3.01	43.69	23.39
53	QPSK	Op. Freq.	3 840.00	19.19	27.10	3.01	43.28	21.27
	16QAM	Op. Freq.	3 840.00	19.39	27.10	3.01	43.48	22.29

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
54	QPSK	Op. Freq.	3 840.00	19.31	27.10	3.01	43.40	21.86
	16QAM	Op. Freq.	3 840.00	19.50	27.10	3.01	43.59	22.84
55	QPSK	Op. Freq.	3 840.00	19.09	27.10	3.01	43.18	20.79
	16QAM	Op. Freq.	3 840.00	19.54	27.10	3.01	43.63	23.08
56	QPSK	Op. Freq.	3 840.00	19.01	27.10	3.01	43.10	20.42
	16QAM	Op. Freq.	3 840.00	19.09	27.10	3.01	43.18	20.79
57	QPSK	Op. Freq.	3 840.00	19.16	27.10	3.01	43.25	21.11
	16QAM	Op. Freq.	3 840.00	19.56	27.10	3.01	43.65	23.16
58	QPSK	Op. Freq.	3 840.00	19.38	27.10	3.01	43.47	22.22
	16QAM	Op. Freq.	3 840.00	19.61	27.10	3.01	43.70	23.46
59	QPSK	Op. Freq.	3 840.00	19.50	27.10	3.01	43.59	22.87
	16QAM	Op. Freq.	3 840.00	19.87	27.10	3.01	43.96	24.88
60	QPSK	Op. Freq.	3 840.00	18.94	27.10	3.01	43.03	20.07
	16QAM	Op. Freq.	3 840.00	19.13	27.10	3.01	43.22	21.01
61	QPSK	Op. Freq.	3 840.00	19.57	27.10	3.01	43.66	23.20
	16QAM	Op. Freq.	3 840.00	19.99	27.10	3.01	44.08	25.56
62	QPSK	Op. Freq.	3 840.00	18.39	27.10	3.01	42.48	17.70
	16QAM	Op. Freq.	3 840.00	19.13	27.10	3.01	43.22	21.00
63	QPSK	Op. Freq.	3 840.00	19.05	27.10	3.01	43.14	20.58
	16QAM	Op. Freq.	3 840.00	19.31	27.10	3.01	43.40	21.86

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 840.00	1 288.29	1 379.40	1 640

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 840.00	2 576.40	2 758.61	3 280

Note: The sum data for the EIRP limit of 3280 W/MHz was calculated by applying 0 dB attenuation in accordance with the antenna specification described in Section 1.2.

(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Op. Freq.	3 750.00	18.09	27.10	2.36	42.82	19.16
	16QAM	Op. Freq.	3 750.00	18.68	27.10	2.36	43.42	21.98
1	QPSK	Op. Freq.	3 750.00	18.57	27.10	2.36	43.30	21.40
	16QAM	Op. Freq.	3 750.00	18.87	27.10	2.36	43.61	22.97
2	QPSK	Op. Freq.	3 750.00	18.03	27.10	2.36	42.77	18.93
	16QAM	Op. Freq.	3 750.00	18.50	27.10	2.36	43.24	21.08
3	QPSK	Op. Freq.	3 750.00	17.99	27.10	2.36	42.73	18.74
	16QAM	Op. Freq.	3 750.00	18.32	27.10	2.36	43.06	20.23
4	QPSK	Op. Freq.	3 750.00	18.00	27.10	2.36	42.74	18.79
	16QAM	Op. Freq.	3 750.00	18.48	27.10	2.36	43.21	20.96
5	QPSK	Op. Freq.	3 750.00	18.06	27.10	2.36	42.80	19.05
	16QAM	Op. Freq.	3 750.00	18.44	27.10	2.36	43.18	20.79
6	QPSK	Op. Freq.	3 750.00	18.10	27.10	2.36	42.83	19.20
	16QAM	Op. Freq.	3 750.00	18.47	27.10	2.36	43.21	20.93
7	QPSK	Op. Freq.	3 750.00	17.91	27.10	2.36	42.65	18.39
	16QAM	Op. Freq.	3 750.00	18.46	27.10	2.36	43.20	20.90
8	QPSK	Op. Freq.	3 750.00	17.97	27.10	2.36	42.70	18.63
	16QAM	Op. Freq.	3 750.00	18.26	27.10	2.36	43.00	19.96
9	QPSK	Op. Freq.	3 750.00	18.08	27.10	2.36	42.82	19.12
	16QAM	Op. Freq.	3 750.00	18.56	27.10	2.36	43.30	21.37
10	QPSK	Op. Freq.	3 750.00	18.01	27.10	2.36	42.75	18.84
	16QAM	Op. Freq.	3 750.00	18.39	27.10	2.36	43.13	20.56
11	QPSK	Op. Freq.	3 750.00	18.13	27.10	2.36	42.87	19.34
	16QAM	Op. Freq.	3 750.00	18.34	27.10	2.36	43.08	20.31
12	QPSK	Op. Freq.	3 750.00	18.10	27.10	2.36	42.84	19.24
	16QAM	Op. Freq.	3 750.00	18.58	27.10	2.36	43.32	21.49
13	QPSK	Op. Freq.	3 750.00	18.99	27.10	2.36	43.73	23.59
	16QAM	Op. Freq.	3 750.00	19.55	27.10	2.36	44.29	26.83
14	QPSK	Op. Freq.	3 750.00	18.49	27.10	2.36	43.23	21.01
	16QAM	Op. Freq.	3 750.00	18.72	27.10	2.36	43.46	22.17
15	QPSK	Op. Freq.	3 750.00	17.61	27.10	2.36	42.35	17.18
	16QAM	Op. Freq.	3 750.00	18.01	27.10	2.36	42.75	18.82
16	QPSK	Op. Freq.	3 750.00	17.89	27.10	2.36	42.63	18.31
	16QAM	Op. Freq.	3 750.00	18.27	27.10	2.36	43.01	19.99

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
17	QPSK	Op. Freq.	3 750.00	17.96	27.10	2.36	42.70	18.60
	16QAM	Op. Freq.	3 750.00	18.40	27.10	2.36	43.14	20.60
18	QPSK	Op. Freq.	3 750.00	18.14	27.10	2.36	42.88	19.40
	16QAM	Op. Freq.	3 750.00	18.46	27.10	2.36	43.20	20.88
19	QPSK	Op. Freq.	3 750.00	17.87	27.10	2.36	42.60	18.21
	16QAM	Op. Freq.	3 750.00	18.19	27.10	2.36	42.93	19.64
20	QPSK	Op. Freq.	3 750.00	17.93	27.10	2.36	42.67	18.49
	16QAM	Op. Freq.	3 750.00	18.29	27.10	2.36	43.03	20.07
21	QPSK	Op. Freq.	3 750.00	17.84	27.10	2.36	42.57	18.09
	16QAM	Op. Freq.	3 750.00	18.23	27.10	2.36	42.96	19.79
22	QPSK	Op. Freq.	3 750.00	17.78	27.10	2.36	42.51	17.84
	16QAM	Op. Freq.	3 750.00	18.10	27.10	2.36	42.83	19.20
23	QPSK	Op. Freq.	3 750.00	18.26	27.10	2.36	42.99	19.92
	16QAM	Op. Freq.	3 750.00	18.65	27.10	2.36	43.39	21.81
24	QPSK	Op. Freq.	3 750.00	18.26	27.10	2.36	43.00	19.93
	16QAM	Op. Freq.	3 750.00	18.64	27.10	2.36	43.38	21.77
25	QPSK	Op. Freq.	3 750.00	17.89	27.10	2.36	42.63	18.33
	16QAM	Op. Freq.	3 750.00	18.38	27.10	2.36	43.11	20.48
26	QPSK	Op. Freq.	3 750.00	18.03	27.10	2.36	42.77	18.93
	16QAM	Op. Freq.	3 750.00	18.52	27.10	2.36	43.26	21.17
27	QPSK	Op. Freq.	3 750.00	18.70	27.10	2.36	43.44	22.07
	16QAM	Op. Freq.	3 750.00	19.17	27.10	2.36	43.91	24.58
28	QPSK	Op. Freq.	3 750.00	17.97	27.10	2.36	42.70	18.64
	16QAM	Op. Freq.	3 750.00	18.54	27.10	2.36	43.28	21.26
29	QPSK	Op. Freq.	3 750.00	17.83	27.10	2.36	42.57	18.07
	16QAM	Op. Freq.	3 750.00	18.39	27.10	2.36	43.13	20.57
30	QPSK	Op. Freq.	3 750.00	18.02	27.10	2.36	42.75	18.85
	16QAM	Op. Freq.	3 750.00	18.52	27.10	2.36	43.26	21.19
31	QPSK	Op. Freq.	3 750.00	17.88	27.10	2.36	42.62	18.26
	16QAM	Op. Freq.	3 750.00	18.52	27.10	2.36	43.26	21.19
32	QPSK	Op. Freq.	3 750.00	18.12	27.10	2.36	42.86	19.30
	16QAM	Op. Freq.	3 750.00	18.52	27.10	2.36	43.25	21.15
33	QPSK	Op. Freq.	3 750.00	18.43	27.10	2.36	43.17	20.76
	16QAM	Op. Freq.	3 750.00	18.74	27.10	2.36	43.48	22.29
34	QPSK	Op. Freq.	3 750.00	18.38	27.10	2.36	43.12	20.52
	16QAM	Op. Freq.	3 750.00	18.69	27.10	2.36	43.43	22.03

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
35	QPSK	Op. Freq.	3 750.00	18.06	27.10	2.36	42.79	19.03
	16QAM	Op. Freq.	3 750.00	18.45	27.10	2.36	43.19	20.84
36	QPSK	Op. Freq.	3 750.00	17.36	27.10	2.36	42.09	16.19
	16QAM	Op. Freq.	3 750.00	18.52	27.10	2.36	43.26	21.16
37	QPSK	Op. Freq.	3 750.00	18.27	27.10	2.36	43.01	19.98
	16QAM	Op. Freq.	3 750.00	18.30	27.10	2.36	43.04	20.13
38	QPSK	Op. Freq.	3 750.00	18.20	27.10	2.36	42.94	19.66
	16QAM	Op. Freq.	3 750.00	18.66	27.10	2.36	43.40	21.88
39	QPSK	Op. Freq.	3 750.00	18.79	27.10	2.36	43.53	22.53
	16QAM	Op. Freq.	3 750.00	18.98	27.10	2.36	43.72	23.52
40	QPSK	Op. Freq.	3 750.00	18.40	27.10	2.36	43.14	20.60
	16QAM	Op. Freq.	3 750.00	19.00	27.10	2.36	43.73	23.62
41	QPSK	Op. Freq.	3 750.00	18.55	27.10	2.36	43.28	21.30
	16QAM	Op. Freq.	3 750.00	19.11	27.10	2.36	43.84	24.23
42	QPSK	Op. Freq.	3 750.00	17.94	27.10	2.36	42.68	18.53
	16QAM	Op. Freq.	3 750.00	18.65	27.10	2.36	43.39	21.81
43	QPSK	Op. Freq.	3 750.00	18.80	27.10	2.36	43.53	22.56
	16QAM	Op. Freq.	3 750.00	19.30	27.10	2.36	44.04	25.33
44	QPSK	Op. Freq.	3 750.00	17.75	27.10	2.36	42.49	17.75
	16QAM	Op. Freq.	3 750.00	18.20	27.10	2.36	42.94	19.67
45	QPSK	Op. Freq.	3 750.00	18.30	27.10	2.36	43.04	20.11
	16QAM	Op. Freq.	3 750.00	18.51	27.10	2.36	43.25	21.13
46	QPSK	Op. Freq.	3 750.00	18.46	27.10	2.36	43.20	20.89
	16QAM	Op. Freq.	3 750.00	18.63	27.10	2.36	43.37	21.74
47	QPSK	Op. Freq.	3 750.00	17.78	27.10	2.36	42.52	17.85
	16QAM	Op. Freq.	3 750.00	18.36	27.10	2.36	43.10	20.40
48	QPSK	Op. Freq.	3 750.00	18.21	27.10	2.36	42.95	19.72
	16QAM	Op. Freq.	3 750.00	18.63	27.10	2.36	43.36	21.69
49	QPSK	Op. Freq.	3 750.00	18.47	27.10	2.36	43.20	20.91
	16QAM	Op. Freq.	3 750.00	19.03	27.10	2.36	43.77	23.82
50	QPSK	Op. Freq.	3 750.00	18.16	27.10	2.36	42.90	19.49
	16QAM	Op. Freq.	3 750.00	18.68	27.10	2.36	43.42	21.98
51	QPSK	Op. Freq.	3 750.00	18.23	27.10	2.36	42.97	19.82
	16QAM	Op. Freq.	3 750.00	18.82	27.10	2.36	43.56	22.70
52	QPSK	Op. Freq.	3 750.00	18.17	27.10	2.36	42.90	19.51
	16QAM	Op. Freq.	3 750.00	18.68	27.10	2.36	43.41	21.95
53	QPSK	Op. Freq.	3 750.00	18.15	27.10	2.36	42.89	19.45
	16QAM	Op. Freq.	3 750.00	18.57	27.10	2.36	43.30	21.40

Port	Modulation	Channel	Frequency (MHz)	Measured Value (dBm/MHz)	Ant. Gain (dBi)	Att. (dB)	E.I.R.P. (dBm/MHz)	Calculated (W/MHz)
54	QPSK	Op. Freq.	3 750.00	18.16	27.10	2.36	42.89	19.47
	16QAM	Op. Freq.	3 750.00	18.61	27.10	2.36	43.34	21.60
55	QPSK	Op. Freq.	3 750.00	18.12	27.10	2.36	42.86	19.32
	16QAM	Op. Freq.	3 750.00	18.31	27.10	2.36	43.05	20.19
56	QPSK	Op. Freq.	3 750.00	17.80	27.10	2.36	42.54	17.96
	16QAM	Op. Freq.	3 750.00	18.39	27.10	2.36	43.13	20.56
57	QPSK	Op. Freq.	3 750.00	18.35	27.10	2.36	43.09	20.37
	16QAM	Op. Freq.	3 750.00	18.39	27.10	2.36	43.13	20.54
58	QPSK	Op. Freq.	3 750.00	18.31	27.10	2.36	43.05	20.17
	16QAM	Op. Freq.	3 750.00	18.98	27.10	2.36	43.72	23.53
59	QPSK	Op. Freq.	3 750.00	18.48	27.10	2.36	43.21	20.96
	16QAM	Op. Freq.	3 750.00	18.64	27.10	2.36	43.37	21.74
60	QPSK	Op. Freq.	3 750.00	17.76	27.10	2.36	42.50	17.77
	16QAM	Op. Freq.	3 750.00	18.44	27.10	2.36	43.18	20.78
61	QPSK	Op. Freq.	3 750.00	18.29	27.10	2.36	43.02	20.06
	16QAM	Op. Freq.	3 750.00	18.76	27.10	2.36	43.50	22.40
62	QPSK	Op. Freq.	3 750.00	16.92	27.10	2.36	41.66	14.66
	16QAM	Op. Freq.	3 750.00	17.17	27.10	2.36	41.91	15.53
63	QPSK	Op. Freq.	3 750.00	17.74	27.10	2.36	42.48	17.71
	16QAM	Op. Freq.	3 750.00	18.48	27.10	2.36	43.22	20.99

Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 750.00	1 237.45	1 367.90	1 640

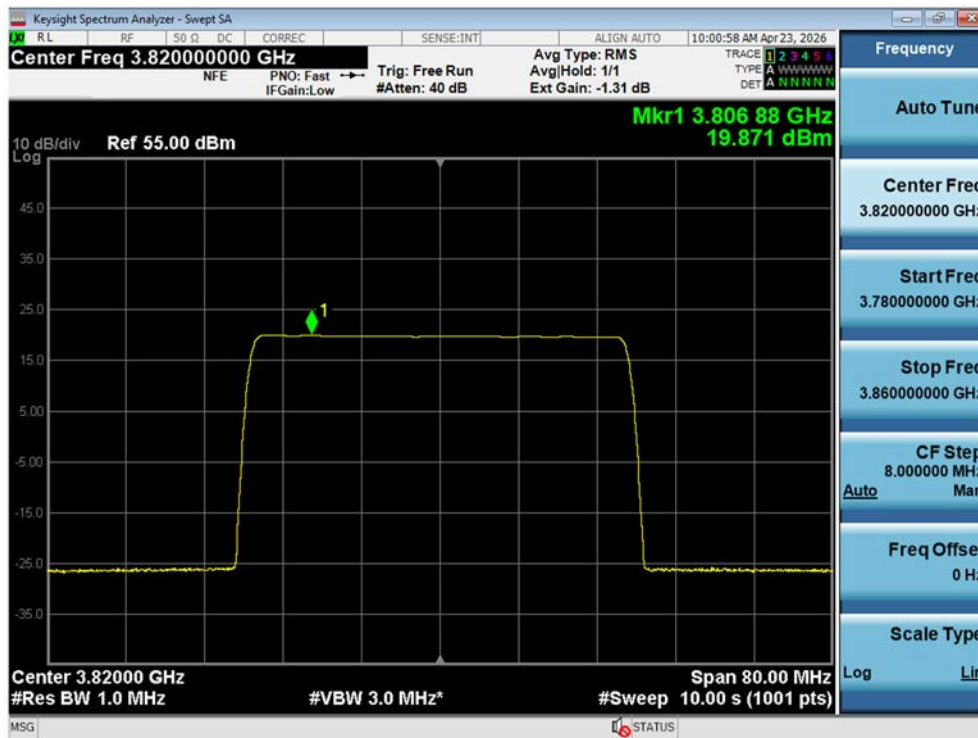
Sum Data of Port 0 ~ Port 63

Frequency (MHz)	E.I.R.P.		Limit
	QPSK	16QAM	
	W/MHz		
3 750.00	2 131.70	2 356.43	3 280

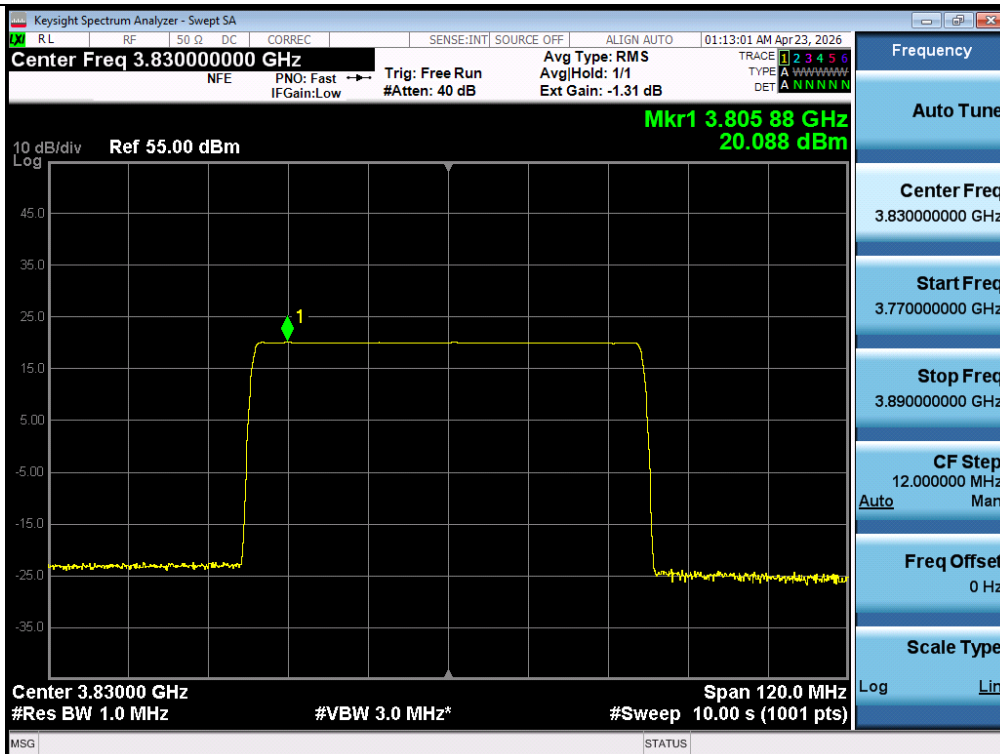
Note: The sum data for the EIRP limit of 3280 W/MHz was calculated by applying 0 dB attenuation in accordance with the antenna specification described in Section 1.2.

Plot Data of PSD

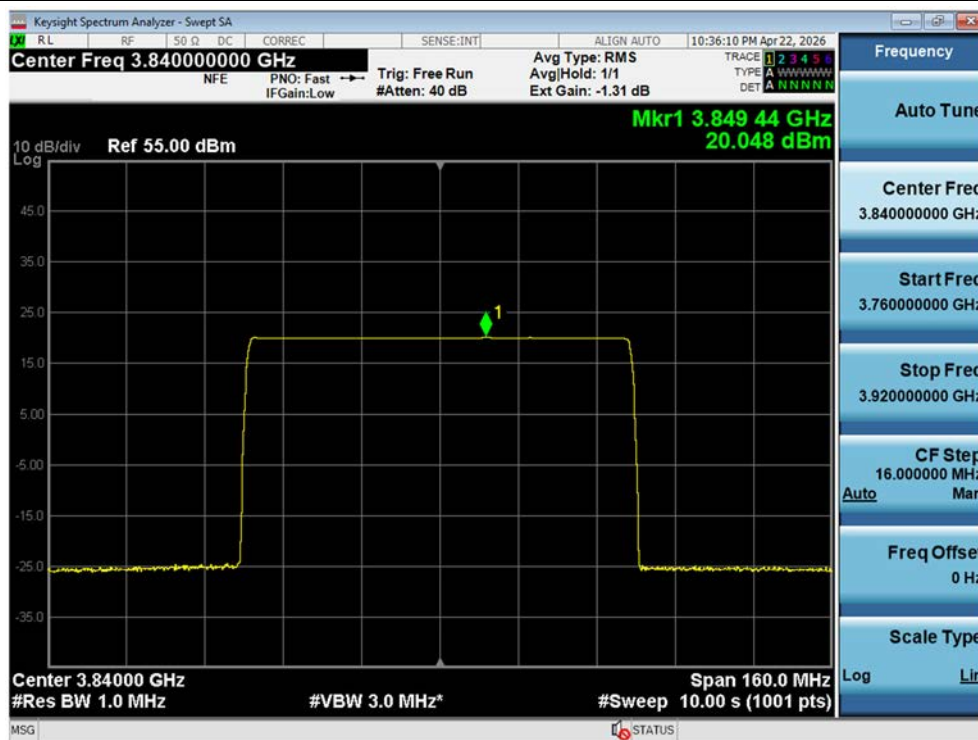
Port 43 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency



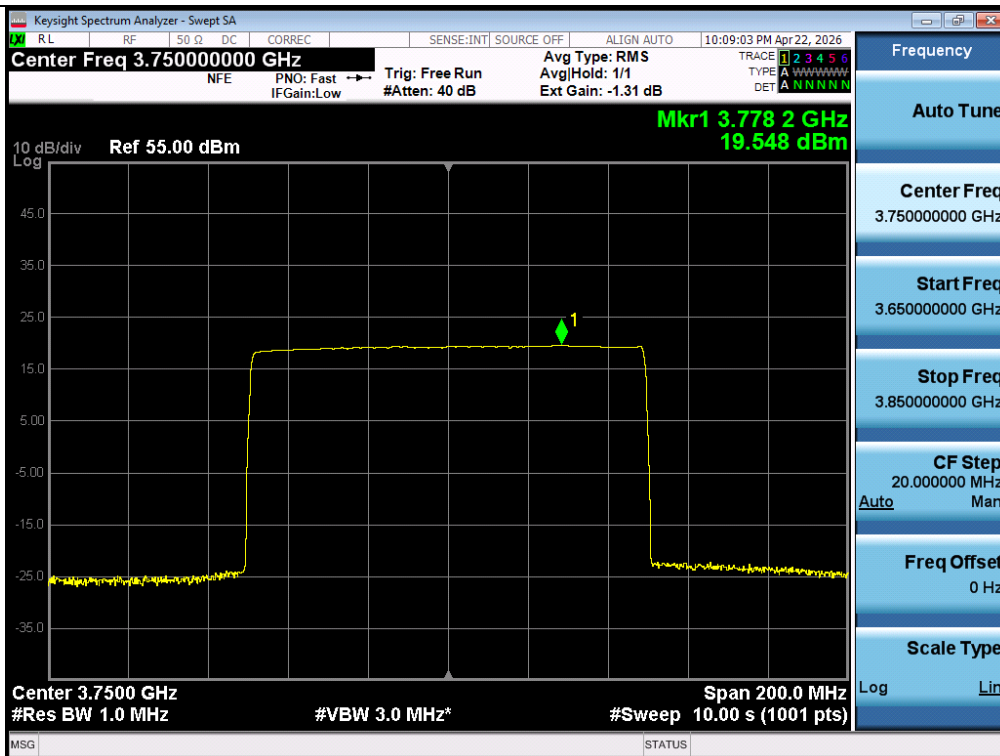
Port 27 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency



Port 43 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency



Port 13 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency



5.2. PAPR

Test Requirements:

§ 27.50 Power limits and duty cycle.

- (j) The following power requirements apply to stations transmitting in the 3700-3980 MHz band:
 - (4) Equipment employed must be authorized in accordance with the provisions of § 27.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (j)(5) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Test Procedures:

The measurement is performed in accordance with Section 5.2.3.4 of ANSI C63.26.

The following guidelines are offered for performing a CCDF measurement.

- a) Set resolution/measurement bandwidth $\geq$ OBW or specified reference bandwidth.
- b) Set the number of counts to a value that stabilizes the measured CCDF curve.
- c) Set the measurement interval as follows:
 - 1) For continuous transmissions, set to the greater of $[10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$ or 1 ms.
 - 2) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement interval to a time that is less than or equal to the burst duration.
 - 3) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.
- d) Record the maximum PAPR level associated with a probability of 0.1%.
- e) The peak power level is calculated from the sum of the PAPR value from step d) to the measured average power.

Note: The results of the PAPR tests show a similar trend across all ports; therefore, only the worst-case plots are attached.

Test Results:

Tabular Data of RF PAPR

(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	16QAM	Operator Freq.	3 820.00	9.64
1	16QAM	Operator Freq.	3 820.00	9.34
2	16QAM	Operator Freq.	3 820.00	9.49
3	16QAM	Operator Freq.	3 820.00	9.43
4	16QAM	Operator Freq.	3 820.00	9.60
5	16QAM	Operator Freq.	3 820.00	9.57
6	16QAM	Operator Freq.	3 820.00	9.47
7	16QAM	Operator Freq.	3 820.00	9.49
8	16QAM	Operator Freq.	3 820.00	9.41
9	16QAM	Operator Freq.	3 820.00	9.44
10	16QAM	Operator Freq.	3 820.00	9.46
11	16QAM	Operator Freq.	3 820.00	9.54
12	16QAM	Operator Freq.	3 820.00	9.51
13	16QAM	Operator Freq.	3 820.00	9.48
14	16QAM	Operator Freq.	3 820.00	9.51
15	16QAM	Operator Freq.	3 820.00	9.45
16	16QAM	Operator Freq.	3 820.00	9.11
17	16QAM	Operator Freq.	3 820.00	9.37
18	16QAM	Operator Freq.	3 820.00	9.47
19	16QAM	Operator Freq.	3 820.00	9.58
20	16QAM	Operator Freq.	3 820.00	9.36
21	16QAM	Operator Freq.	3 820.00	9.54
22	16QAM	Operator Freq.	3 820.00	9.49
23	16QAM	Operator Freq.	3 820.00	9.51
24	16QAM	Operator Freq.	3 820.00	9.59
25	16QAM	Operator Freq.	3 820.00	9.54
26	16QAM	Operator Freq.	3 820.00	9.58
27	16QAM	Operator Freq.	3 820.00	9.57
28	16QAM	Operator Freq.	3 820.00	9.60
29	16QAM	Operator Freq.	3 820.00	9.43
30	16QAM	Operator Freq.	3 820.00	9.15
31	16QAM	Operator Freq.	3 820.00	9.54
32	16QAM	Operator Freq.	3 820.00	9.34
33	16QAM	Operator Freq.	3 820.00	9.39
34	16QAM	Operator Freq.	3 820.00	9.54
35	16QAM	Operator Freq.	3 820.00	9.44
36	16QAM	Operator Freq.	3 820.00	9.36
37	16QAM	Operator Freq.	3 820.00	9.44
38	16QAM	Operator Freq.	3 820.00	9.46
39	16QAM	Operator Freq.	3 820.00	9.45
40	16QAM	Operator Freq.	3 820.00	9.47

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
41	16QAM	Operator Freq.	3 820.00	9.57
42	16QAM	Operator Freq.	3 820.00	9.29
43	16QAM	Operator Freq.	3 820.00	9.45
44	16QAM	Operator Freq.	3 820.00	9.51
45	16QAM	Operator Freq.	3 820.00	9.42
46	16QAM	Operator Freq.	3 820.00	9.47
47	16QAM	Operator Freq.	3 820.00	9.55
48	16QAM	Operator Freq.	3 820.00	9.46
49	16QAM	Operator Freq.	3 820.00	9.42
50	16QAM	Operator Freq.	3 820.00	9.38
51	16QAM	Operator Freq.	3 820.00	9.42
52	16QAM	Operator Freq.	3 820.00	9.45
53	16QAM	Operator Freq.	3 820.00	9.46
54	16QAM	Operator Freq.	3 820.00	9.41
55	16QAM	Operator Freq.	3 820.00	9.53
56	16QAM	Operator Freq.	3 820.00	9.39
57	16QAM	Operator Freq.	3 820.00	9.47
58	16QAM	Operator Freq.	3 820.00	9.54
59	16QAM	Operator Freq.	3 820.00	9.44
60	16QAM	Operator Freq.	3 820.00	9.45
61	16QAM	Operator Freq.	3 820.00	9.51
62	16QAM	Operator Freq.	3 820.00	9.45
63	16QAM	Operator Freq.	3 820.00	9.53

(64 Port) n77 5G NR 60 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	16QAM	Operator Freq.	3 830.00	9.19
1	16QAM	Operator Freq.	3 830.00	9.32
2	16QAM	Operator Freq.	3 830.00	9.36
3	16QAM	Operator Freq.	3 830.00	9.35
4	16QAM	Operator Freq.	3 830.00	9.38
5	16QAM	Operator Freq.	3 830.00	9.21
6	16QAM	Operator Freq.	3 830.00	9.45
7	16QAM	Operator Freq.	3 830.00	9.34
8	16QAM	Operator Freq.	3 830.00	9.40
9	16QAM	Operator Freq.	3 830.00	9.50
10	16QAM	Operator Freq.	3 830.00	9.41
11	16QAM	Operator Freq.	3 830.00	9.28
12	16QAM	Operator Freq.	3 830.00	9.60
13	16QAM	Operator Freq.	3 830.00	9.28
14	16QAM	Operator Freq.	3 830.00	9.35
15	16QAM	Operator Freq.	3 830.00	9.34
16	16QAM	Operator Freq.	3 830.00	9.30
17	16QAM	Operator Freq.	3 830.00	9.19
18	16QAM	Operator Freq.	3 830.00	9.25
19	16QAM	Operator Freq.	3 830.00	9.29
20	16QAM	Operator Freq.	3 830.00	9.40
21	16QAM	Operator Freq.	3 830.00	9.34
22	16QAM	Operator Freq.	3 830.00	9.41
23	16QAM	Operator Freq.	3 830.00	9.32
24	16QAM	Operator Freq.	3 830.00	9.49
25	16QAM	Operator Freq.	3 830.00	9.25
26	16QAM	Operator Freq.	3 830.00	9.30
27	16QAM	Operator Freq.	3 830.00	9.16
28	16QAM	Operator Freq.	3 830.00	9.58
29	16QAM	Operator Freq.	3 830.00	9.29
30	16QAM	Operator Freq.	3 830.00	9.32
31	16QAM	Operator Freq.	3 830.00	9.27
32	16QAM	Operator Freq.	3 830.00	9.65
33	16QAM	Operator Freq.	3 830.00	9.40
34	16QAM	Operator Freq.	3 830.00	9.39
35	16QAM	Operator Freq.	3 830.00	9.52
36	16QAM	Operator Freq.	3 830.00	9.42
37	16QAM	Operator Freq.	3 830.00	9.29
38	16QAM	Operator Freq.	3 830.00	9.45
39	16QAM	Operator Freq.	3 830.00	9.48
40	16QAM	Operator Freq.	3 830.00	9.30
41	16QAM	Operator Freq.	3 830.00	9.62
42	16QAM	Operator Freq.	3 830.00	9.45

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
43	16QAM	Operator Freq.	3 830.00	9.36
44	16QAM	Operator Freq.	3 830.00	9.57
45	16QAM	Operator Freq.	3 830.00	9.64
46	16QAM	Operator Freq.	3 830.00	9.39
47	16QAM	Operator Freq.	3 830.00	9.34
48	16QAM	Operator Freq.	3 830.00	9.61
49	16QAM	Operator Freq.	3 830.00	9.32
50	16QAM	Operator Freq.	3 830.00	9.41
51	16QAM	Operator Freq.	3 830.00	9.35
52	16QAM	Operator Freq.	3 830.00	9.58
53	16QAM	Operator Freq.	3 830.00	9.25
54	16QAM	Operator Freq.	3 830.00	9.48
55	16QAM	Operator Freq.	3 830.00	9.39
56	16QAM	Operator Freq.	3 830.00	9.40
57	16QAM	Operator Freq.	3 830.00	9.12
58	16QAM	Operator Freq.	3 830.00	9.46
59	16QAM	Operator Freq.	3 830.00	9.46
60	16QAM	Operator Freq.	3 830.00	9.13
61	16QAM	Operator Freq.	3 830.00	9.61
62	16QAM	Operator Freq.	3 830.00	9.44
63	16QAM	Operator Freq.	3 830.00	8.92

(64 Port) n77 5G NR 80 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	16QAM	Operator Freq.	3 840.00	8.83
1	16QAM	Operator Freq.	3 840.00	8.72
2	16QAM	Operator Freq.	3 840.00	8.91
3	16QAM	Operator Freq.	3 840.00	8.80
4	16QAM	Operator Freq.	3 840.00	9.08
5	16QAM	Operator Freq.	3 840.00	8.87
6	16QAM	Operator Freq.	3 840.00	8.83
7	16QAM	Operator Freq.	3 840.00	9.13
8	16QAM	Operator Freq.	3 840.00	8.73
9	16QAM	Operator Freq.	3 840.00	9.36
10	16QAM	Operator Freq.	3 840.00	9.13
11	16QAM	Operator Freq.	3 840.00	8.69
12	16QAM	Operator Freq.	3 840.00	8.93
13	16QAM	Operator Freq.	3 840.00	8.96
14	16QAM	Operator Freq.	3 840.00	8.91
15	16QAM	Operator Freq.	3 840.00	8.92
16	16QAM	Operator Freq.	3 840.00	9.18
17	16QAM	Operator Freq.	3 840.00	8.79
18	16QAM	Operator Freq.	3 840.00	9.19
19	16QAM	Operator Freq.	3 840.00	9.10
20	16QAM	Operator Freq.	3 840.00	9.16
21	16QAM	Operator Freq.	3 840.00	9.05
22	16QAM	Operator Freq.	3 840.00	9.23
23	16QAM	Operator Freq.	3 840.00	8.90
24	16QAM	Operator Freq.	3 840.00	9.06
25	16QAM	Operator Freq.	3 840.00	9.14
26	16QAM	Operator Freq.	3 840.00	8.81
27	16QAM	Operator Freq.	3 840.00	8.81
28	16QAM	Operator Freq.	3 840.00	9.44
29	16QAM	Operator Freq.	3 840.00	8.87
30	16QAM	Operator Freq.	3 840.00	9.28
31	16QAM	Operator Freq.	3 840.00	8.83
32	16QAM	Operator Freq.	3 840.00	9.14
33	16QAM	Operator Freq.	3 840.00	9.21
34	16QAM	Operator Freq.	3 840.00	9.24
35	16QAM	Operator Freq.	3 840.00	8.89
36	16QAM	Operator Freq.	3 840.00	9.00
37	16QAM	Operator Freq.	3 840.00	9.19
38	16QAM	Operator Freq.	3 840.00	9.14
39	16QAM	Operator Freq.	3 840.00	9.23
40	16QAM	Operator Freq.	3 840.00	8.96
41	16QAM	Operator Freq.	3 840.00	9.32
42	16QAM	Operator Freq.	3 840.00	9.12

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
43	16QAM	Operator Freq.	3 840.00	9.29
44	16QAM	Operator Freq.	3 840.00	9.16
45	16QAM	Operator Freq.	3 840.00	9.28
46	16QAM	Operator Freq.	3 840.00	9.31
47	16QAM	Operator Freq.	3 840.00	9.23
48	16QAM	Operator Freq.	3 840.00	9.11
49	16QAM	Operator Freq.	3 840.00	8.68
50	16QAM	Operator Freq.	3 840.00	9.24
51	16QAM	Operator Freq.	3 840.00	9.14
52	16QAM	Operator Freq.	3 840.00	9.26
53	16QAM	Operator Freq.	3 840.00	9.03
54	16QAM	Operator Freq.	3 840.00	9.21
55	16QAM	Operator Freq.	3 840.00	9.25
56	16QAM	Operator Freq.	3 840.00	9.15
57	16QAM	Operator Freq.	3 840.00	9.25
58	16QAM	Operator Freq.	3 840.00	9.12
59	16QAM	Operator Freq.	3 840.00	9.15
60	16QAM	Operator Freq.	3 840.00	9.12
61	16QAM	Operator Freq.	3 840.00	9.20
62	16QAM	Operator Freq.	3 840.00	9.14
63	16QAM	Operator Freq.	3 840.00	9.21

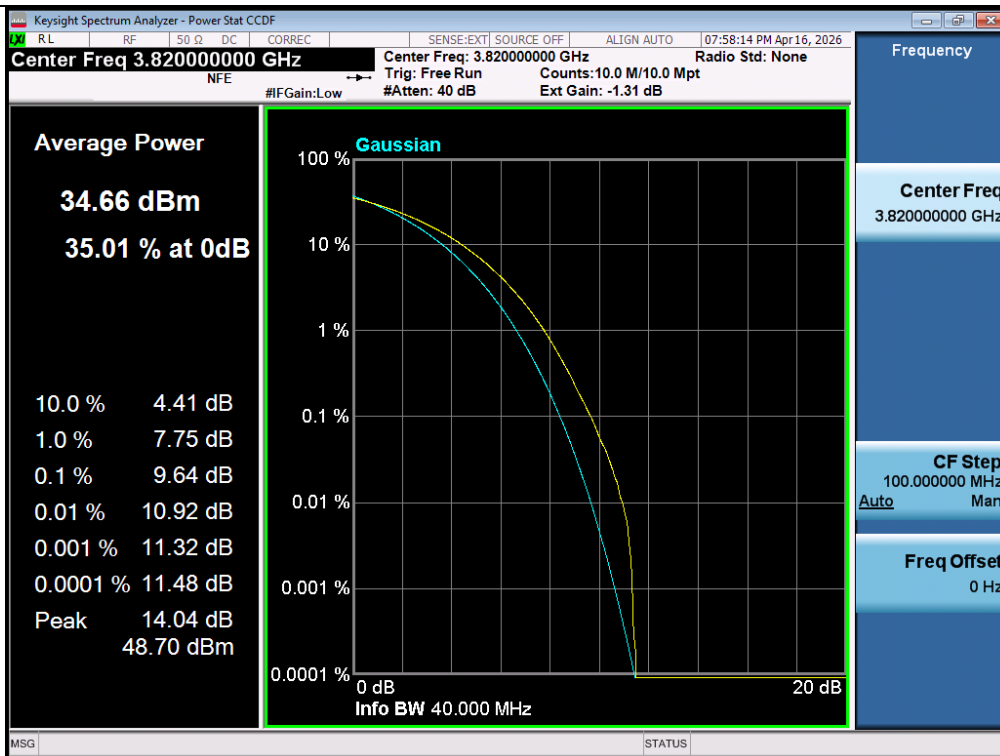
(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	16QAM	Operator Freq.	3 750.00	8.98
1	16QAM	Operator Freq.	3 750.00	8.94
2	16QAM	Operator Freq.	3 750.00	9.04
3	16QAM	Operator Freq.	3 750.00	9.08
4	16QAM	Operator Freq.	3 750.00	9.07
5	16QAM	Operator Freq.	3 750.00	9.03
6	16QAM	Operator Freq.	3 750.00	8.68
7	16QAM	Operator Freq.	3 750.00	9.12
8	16QAM	Operator Freq.	3 750.00	9.01
9	16QAM	Operator Freq.	3 750.00	9.17
10	16QAM	Operator Freq.	3 750.00	8.76
11	16QAM	Operator Freq.	3 750.00	8.69
12	16QAM	Operator Freq.	3 750.00	8.71
13	16QAM	Operator Freq.	3 750.00	8.87
14	16QAM	Operator Freq.	3 750.00	8.94
15	16QAM	Operator Freq.	3 750.00	8.90
16	16QAM	Operator Freq.	3 750.00	8.74
17	16QAM	Operator Freq.	3 750.00	8.70
18	16QAM	Operator Freq.	3 750.00	9.09
19	16QAM	Operator Freq.	3 750.00	8.90
20	16QAM	Operator Freq.	3 750.00	8.73
21	16QAM	Operator Freq.	3 750.00	8.96
22	16QAM	Operator Freq.	3 750.00	8.81
23	16QAM	Operator Freq.	3 750.00	9.10
24	16QAM	Operator Freq.	3 750.00	9.11
25	16QAM	Operator Freq.	3 750.00	8.84
26	16QAM	Operator Freq.	3 750.00	8.92
27	16QAM	Operator Freq.	3 750.00	8.46
28	16QAM	Operator Freq.	3 750.00	9.30
29	16QAM	Operator Freq.	3 750.00	8.97
30	16QAM	Operator Freq.	3 750.00	9.25
31	16QAM	Operator Freq.	3 750.00	9.14
32	16QAM	Operator Freq.	3 750.00	8.95
33	16QAM	Operator Freq.	3 750.00	9.09
34	16QAM	Operator Freq.	3 750.00	9.16
35	16QAM	Operator Freq.	3 750.00	9.09
36	16QAM	Operator Freq.	3 750.00	8.91
37	16QAM	Operator Freq.	3 750.00	9.17
38	16QAM	Operator Freq.	3 750.00	8.66
39	16QAM	Operator Freq.	3 750.00	8.80
40	16QAM	Operator Freq.	3 750.00	9.02
41	16QAM	Operator Freq.	3 750.00	8.38
42	16QAM	Operator Freq.	3 750.00	8.91

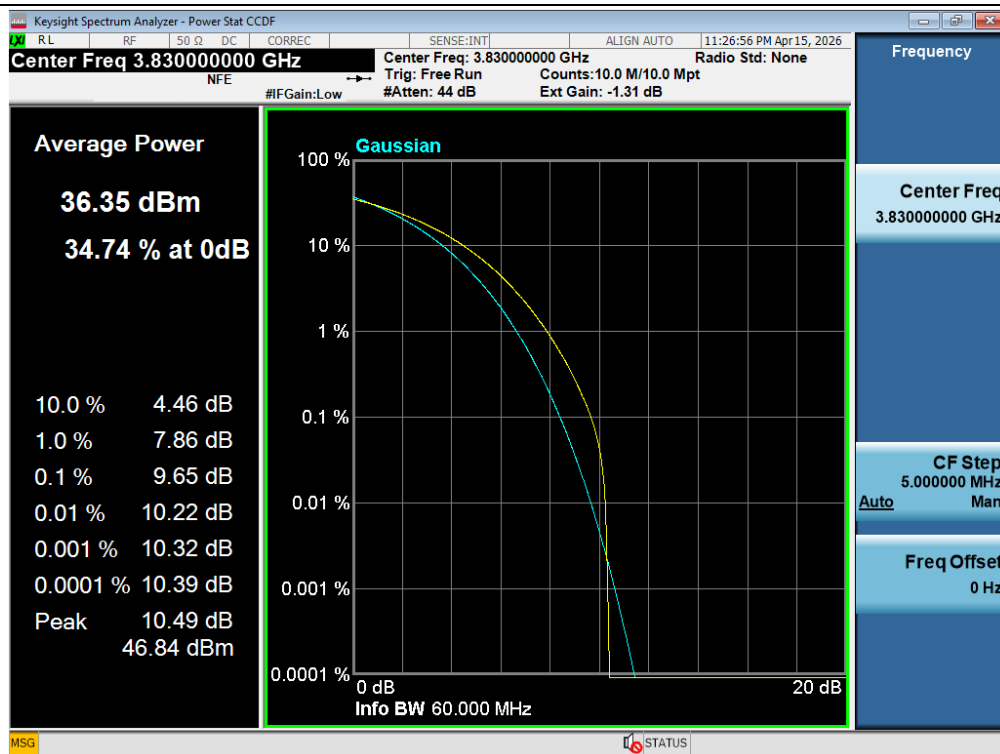
Port	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
43	16QAM	Operator Freq.	3 750.00	9.25
44	16QAM	Operator Freq.	3 750.00	8.87
45	16QAM	Operator Freq.	3 750.00	9.17
46	16QAM	Operator Freq.	3 750.00	8.67
47	16QAM	Operator Freq.	3 750.00	9.07
48	16QAM	Operator Freq.	3 750.00	9.14
49	16QAM	Operator Freq.	3 750.00	8.73
50	16QAM	Operator Freq.	3 750.00	8.46
51	16QAM	Operator Freq.	3 750.00	9.13
52	16QAM	Operator Freq.	3 750.00	8.93
53	16QAM	Operator Freq.	3 750.00	8.98
54	16QAM	Operator Freq.	3 750.00	9.32
55	16QAM	Operator Freq.	3 750.00	9.22
56	16QAM	Operator Freq.	3 750.00	8.98
57	16QAM	Operator Freq.	3 750.00	8.70
58	16QAM	Operator Freq.	3 750.00	8.69
59	16QAM	Operator Freq.	3 750.00	8.70
60	16QAM	Operator Freq.	3 750.00	9.17
61	16QAM	Operator Freq.	3 750.00	8.68
62	16QAM	Operator Freq.	3 750.00	9.05
63	16QAM	Operator Freq.	3 750.00	8.94

Plot Data of PAPR

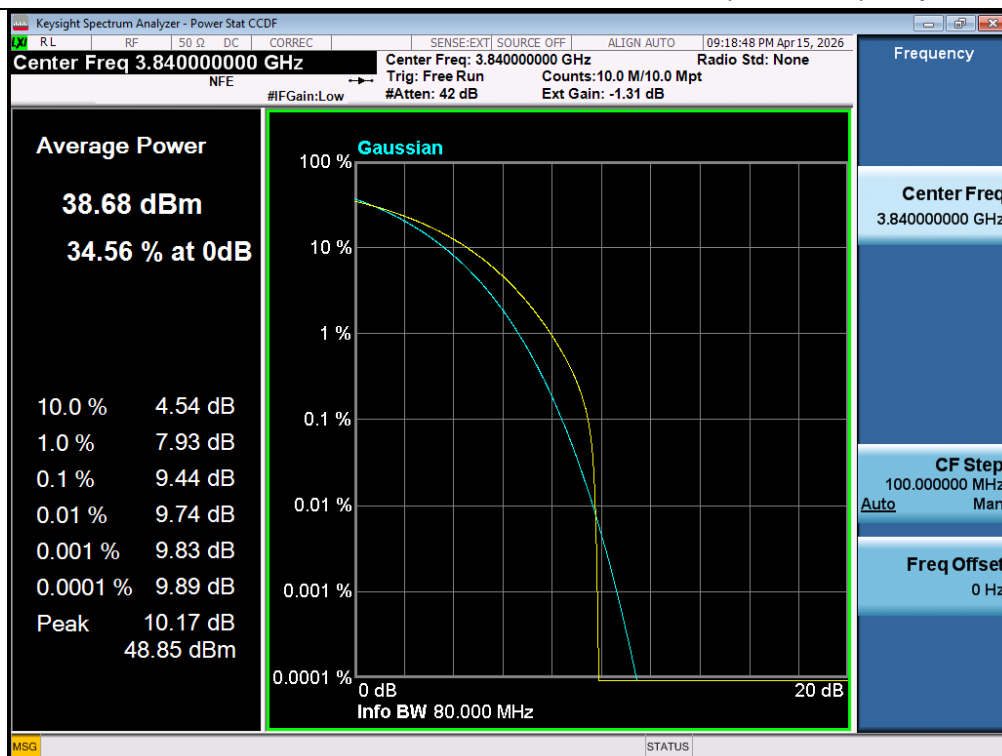
Port 0 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency



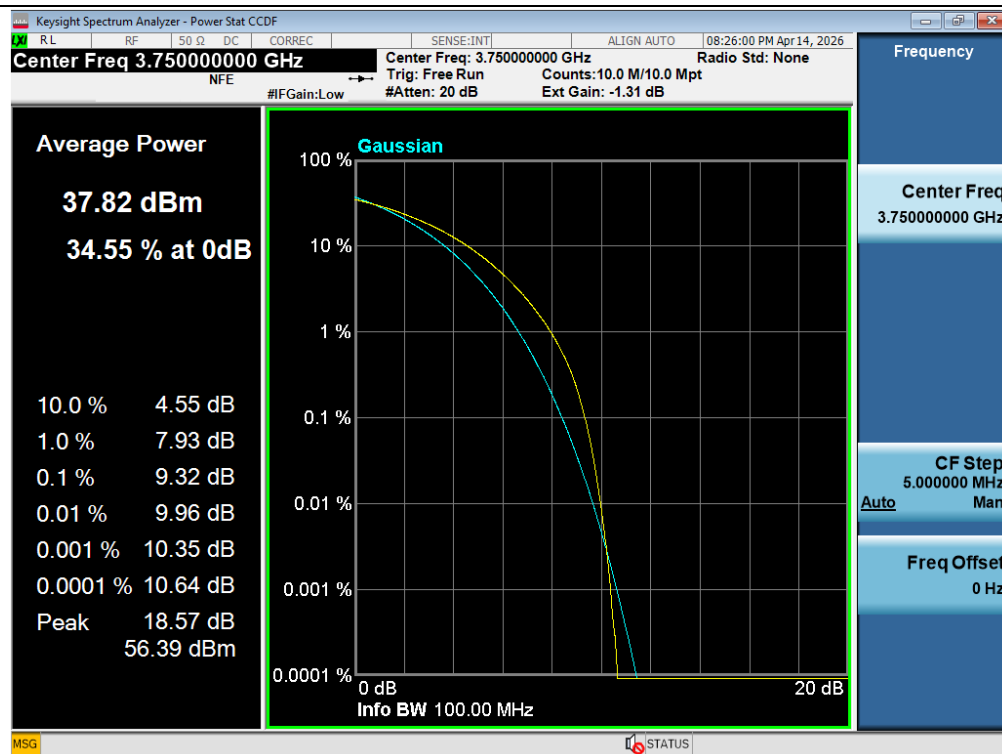
Port 32 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency



Port 28 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency



5.3. OCCUPIED BANDWIDTH

Test Requirements:

§ 2.1049 Measurements required: Occupied bandwidth.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

Test Procedures:

The measurement is performed in accordance with Section 5.4.4 of ANSI C63.26.

5.4.4 Occupied bandwidth—Power bandwidth (99%) measurement procedure

The OBW is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring (99%) power bandwidth:

- (c) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of $1.5 \times \text{OBW}$ is sufficient).
- (d) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- (e) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.
- (f) Set the detection mode to peak, and the trace mode to max-hold.
- (g) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.
- (h) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

Note: The results of the Occupied Bandwidth tests show a similar trend across all ports; therefore, only the worst-case plots are attached.

Test Results:

Tabular Data of RF Occupied bandwidth
(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
0	16QAM	Operator Frequency	3 820.00	37.879
1	16QAM	Operator Frequency	3 820.00	37.903
2	16QAM	Operator Frequency	3 820.00	37.927
3	16QAM	Operator Frequency	3 820.00	37.885
4	16QAM	Operator Frequency	3 820.00	37.940
5	16QAM	Operator Frequency	3 820.00	38.001
6	16QAM	Operator Frequency	3 820.00	37.899
7	16QAM	Operator Frequency	3 820.00	37.908
8	16QAM	Operator Frequency	3 820.00	38.011
9	16QAM	Operator Frequency	3 820.00	37.928
10	16QAM	Operator Frequency	3 820.00	37.960
11	16QAM	Operator Frequency	3 820.00	37.888
12	16QAM	Operator Frequency	3 820.00	37.939
13	16QAM	Operator Frequency	3 820.00	37.951
14	16QAM	Operator Frequency	3 820.00	37.915
15	16QAM	Operator Frequency	3 820.00	37.951
16	16QAM	Operator Frequency	3 820.00	37.963
17	16QAM	Operator Frequency	3 820.00	37.972
18	16QAM	Operator Frequency	3 820.00	37.996
19	16QAM	Operator Frequency	3 820.00	37.838
20	16QAM	Operator Frequency	3 820.00	37.930
21	16QAM	Operator Frequency	3 820.00	38.001
22	16QAM	Operator Frequency	3 820.00	37.916
23	16QAM	Operator Frequency	3 820.00	38.021
24	16QAM	Operator Frequency	3 820.00	37.874
25	16QAM	Operator Frequency	3 820.00	37.984
26	16QAM	Operator Frequency	3 820.00	37.947
27	16QAM	Operator Frequency	3 820.00	37.957
28	16QAM	Operator Frequency	3 820.00	37.873
29	16QAM	Operator Frequency	3 820.00	37.903
30	16QAM	Operator Frequency	3 820.00	37.937
31	16QAM	Operator Frequency	3 820.00	37.933
32	16QAM	Operator Frequency	3 820.00	37.936
33	16QAM	Operator Frequency	3 820.00	37.957
34	16QAM	Operator Frequency	3 820.00	37.934
35	16QAM	Operator Frequency	3 820.00	37.897
36	16QAM	Operator Frequency	3 820.00	38.053
37	16QAM	Operator Frequency	3 820.00	37.962
38	16QAM	Operator Frequency	3 820.00	37.888
39	16QAM	Operator Frequency	3 820.00	37.905
40	16QAM	Operator Frequency	3 820.00	37.916

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
41	16QAM	Operator Frequency	3 820.00	38.012
42	16QAM	Operator Frequency	3 820.00	37.931
43	16QAM	Operator Frequency	3 820.00	37.921
44	16QAM	Operator Frequency	3 820.00	37.980
45	16QAM	Operator Frequency	3 820.00	37.922
46	16QAM	Operator Frequency	3 820.00	37.948
47	16QAM	Operator Frequency	3 820.00	37.998
48	16QAM	Operator Frequency	3 820.00	37.990
49	16QAM	Operator Frequency	3 820.00	37.948
50	16QAM	Operator Frequency	3 820.00	37.941
51	16QAM	Operator Frequency	3 820.00	37.915
52	16QAM	Operator Frequency	3 820.00	37.929
53	16QAM	Operator Frequency	3 820.00	37.960
54	16QAM	Operator Frequency	3 820.00	37.988
55	16QAM	Operator Frequency	3 820.00	37.976
56	16QAM	Operator Frequency	3 820.00	37.995
57	16QAM	Operator Frequency	3 820.00	37.987
58	16QAM	Operator Frequency	3 820.00	37.916
59	16QAM	Operator Frequency	3 820.00	37.963
60	16QAM	Operator Frequency	3 820.00	37.967
61	16QAM	Operator Frequency	3 820.00	37.938
62	16QAM	Operator Frequency	3 820.00	37.892
63	16QAM	Operator Frequency	3 820.00	37.965

(64 Port) n77 5G NR 60 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
0	16QAM	Operator Frequency	3 830.00	57.920
1	16QAM	Operator Frequency	3 830.00	57.924
2	16QAM	Operator Frequency	3 830.00	57.938
3	16QAM	Operator Frequency	3 830.00	57.937
4	16QAM	Operator Frequency	3 830.00	57.957
5	16QAM	Operator Frequency	3 830.00	57.880
6	16QAM	Operator Frequency	3 830.00	57.912
7	16QAM	Operator Frequency	3 830.00	57.947
8	16QAM	Operator Frequency	3 830.00	57.844
9	16QAM	Operator Frequency	3 830.00	57.975
10	16QAM	Operator Frequency	3 830.00	57.886
11	16QAM	Operator Frequency	3 830.00	57.901
12	16QAM	Operator Frequency	3 830.00	57.952
13	16QAM	Operator Frequency	3 830.00	57.888
14	16QAM	Operator Frequency	3 830.00	57.928
15	16QAM	Operator Frequency	3 830.00	58.015
16	16QAM	Operator Frequency	3 830.00	57.904
17	16QAM	Operator Frequency	3 830.00	57.846
18	16QAM	Operator Frequency	3 830.00	57.910
19	16QAM	Operator Frequency	3 830.00	57.977
20	16QAM	Operator Frequency	3 830.00	57.949
21	16QAM	Operator Frequency	3 830.00	58.033
22	16QAM	Operator Frequency	3 830.00	58.031
23	16QAM	Operator Frequency	3 830.00	57.882
24	16QAM	Operator Frequency	3 830.00	57.963
25	16QAM	Operator Frequency	3 830.00	57.966
26	16QAM	Operator Frequency	3 830.00	57.964
27	16QAM	Operator Frequency	3 830.00	57.996
28	16QAM	Operator Frequency	3 830.00	57.909
29	16QAM	Operator Frequency	3 830.00	57.829
30	16QAM	Operator Frequency	3 830.00	57.933
31	16QAM	Operator Frequency	3 830.00	57.926
32	16QAM	Operator Frequency	3 830.00	57.946
33	16QAM	Operator Frequency	3 830.00	57.847
34	16QAM	Operator Frequency	3 830.00	58.046
35	16QAM	Operator Frequency	3 830.00	57.962
36	16QAM	Operator Frequency	3 830.00	57.857
37	16QAM	Operator Frequency	3 830.00	57.952
38	16QAM	Operator Frequency	3 830.00	57.991
39	16QAM	Operator Frequency	3 830.00	57.910
40	16QAM	Operator Frequency	3 830.00	57.953
41	16QAM	Operator Frequency	3 830.00	57.975
42	16QAM	Operator Frequency	3 830.00	57.898

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
43	16QAM	Operator Frequency	3 830.00	58.012
44	16QAM	Operator Frequency	3 830.00	57.971
45	16QAM	Operator Frequency	3 830.00	57.989
46	16QAM	Operator Frequency	3 830.00	58.045
47	16QAM	Operator Frequency	3 830.00	58.116
48	16QAM	Operator Frequency	3 830.00	57.901
49	16QAM	Operator Frequency	3 830.00	57.929
50	16QAM	Operator Frequency	3 830.00	57.915
51	16QAM	Operator Frequency	3 830.00	57.943
52	16QAM	Operator Frequency	3 830.00	57.987
53	16QAM	Operator Frequency	3 830.00	57.987
54	16QAM	Operator Frequency	3 830.00	57.983
55	16QAM	Operator Frequency	3 830.00	57.883
56	16QAM	Operator Frequency	3 830.00	57.950
57	16QAM	Operator Frequency	3 830.00	57.966
58	16QAM	Operator Frequency	3 830.00	57.944
59	16QAM	Operator Frequency	3 830.00	57.934
60	16QAM	Operator Frequency	3 830.00	57.904
61	16QAM	Operator Frequency	3 830.00	58.091
62	16QAM	Operator Frequency	3 830.00	58.053
63	16QAM	Operator Frequency	3 830.00	57.992

(64 Port) n77 5G NR 80 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
0	16QAM	Operator Frequency	3 840.00	77.617
1	16QAM	Operator Frequency	3 840.00	77.678
2	16QAM	Operator Frequency	3 840.00	77.503
3	16QAM	Operator Frequency	3 840.00	77.532
4	16QAM	Operator Frequency	3 840.00	77.722
5	16QAM	Operator Frequency	3 840.00	77.680
6	16QAM	Operator Frequency	3 840.00	77.693
7	16QAM	Operator Frequency	3 840.00	77.599
8	16QAM	Operator Frequency	3 840.00	77.610
9	16QAM	Operator Frequency	3 840.00	77.722
10	16QAM	Operator Frequency	3 840.00	77.638
11	16QAM	Operator Frequency	3 840.00	77.547
12	16QAM	Operator Frequency	3 840.00	77.576
13	16QAM	Operator Frequency	3 840.00	77.528
14	16QAM	Operator Frequency	3 840.00	77.751
15	16QAM	Operator Frequency	3 840.00	77.565
16	16QAM	Operator Frequency	3 840.00	77.542
17	16QAM	Operator Frequency	3 840.00	77.511
18	16QAM	Operator Frequency	3 840.00	77.609
19	16QAM	Operator Frequency	3 840.00	77.517
20	16QAM	Operator Frequency	3 840.00	77.559
21	16QAM	Operator Frequency	3 840.00	77.523
22	16QAM	Operator Frequency	3 840.00	77.547
23	16QAM	Operator Frequency	3 840.00	77.600
24	16QAM	Operator Frequency	3 840.00	77.642
25	16QAM	Operator Frequency	3 840.00	77.496
26	16QAM	Operator Frequency	3 840.00	77.659
27	16QAM	Operator Frequency	3 840.00	77.671
28	16QAM	Operator Frequency	3 840.00	77.568
29	16QAM	Operator Frequency	3 840.00	77.622
30	16QAM	Operator Frequency	3 840.00	77.627
31	16QAM	Operator Frequency	3 840.00	77.709
32	16QAM	Operator Frequency	3 840.00	77.607
33	16QAM	Operator Frequency	3 840.00	77.583
34	16QAM	Operator Frequency	3 840.00	77.590
35	16QAM	Operator Frequency	3 840.00	77.619
36	16QAM	Operator Frequency	3 840.00	77.651
37	16QAM	Operator Frequency	3 840.00	77.595
38	16QAM	Operator Frequency	3 840.00	77.480
39	16QAM	Operator Frequency	3 840.00	77.734
40	16QAM	Operator Frequency	3 840.00	77.527
41	16QAM	Operator Frequency	3 840.00	77.660
42	16QAM	Operator Frequency	3 840.00	77.595

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
43	16QAM	Operator Frequency	3 840.00	77.620
44	16QAM	Operator Frequency	3 840.00	77.662
45	16QAM	Operator Frequency	3 840.00	77.630
46	16QAM	Operator Frequency	3 840.00	77.630
47	16QAM	Operator Frequency	3 840.00	77.544
48	16QAM	Operator Frequency	3 840.00	77.616
49	16QAM	Operator Frequency	3 840.00	77.706
50	16QAM	Operator Frequency	3 840.00	77.493
51	16QAM	Operator Frequency	3 840.00	77.620
52	16QAM	Operator Frequency	3 840.00	77.577
53	16QAM	Operator Frequency	3 840.00	77.639
54	16QAM	Operator Frequency	3 840.00	77.609
55	16QAM	Operator Frequency	3 840.00	77.559
56	16QAM	Operator Frequency	3 840.00	77.674
57	16QAM	Operator Frequency	3 840.00	77.601
58	16QAM	Operator Frequency	3 840.00	77.625
59	16QAM	Operator Frequency	3 840.00	77.568
60	16QAM	Operator Frequency	3 840.00	77.690
61	16QAM	Operator Frequency	3 840.00	77.689
62	16QAM	Operator Frequency	3 840.00	77.629
63	16QAM	Operator Frequency	3 840.00	77.527

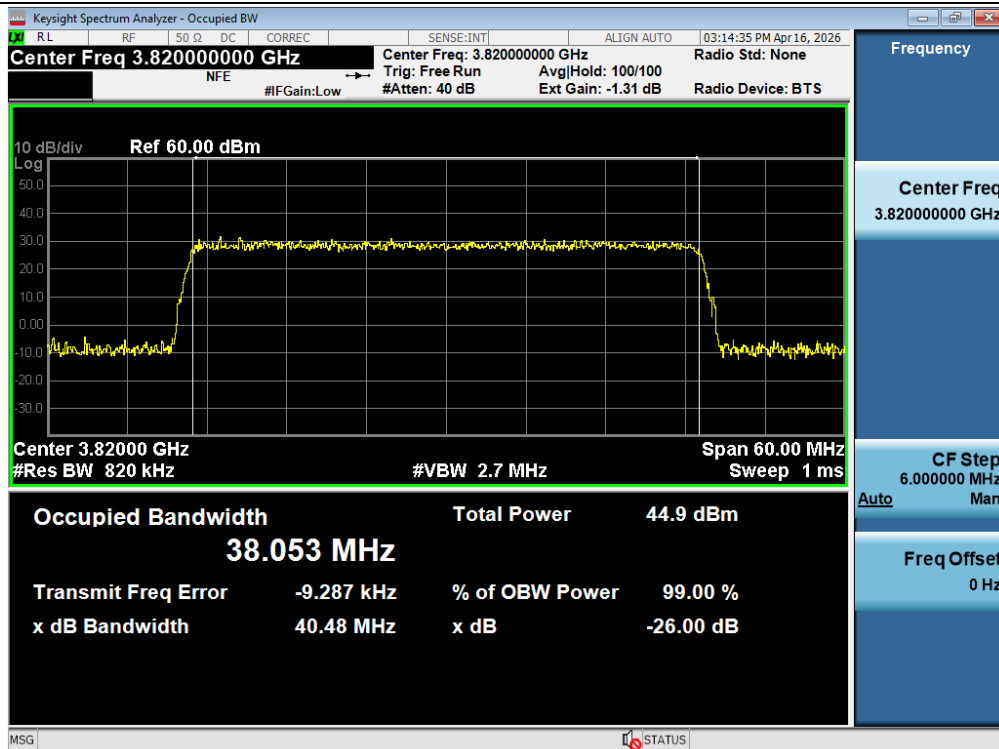
(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
0	16QAM	Operator Frequency	3 750.00	97.434
1	16QAM	Operator Frequency	3 750.00	97.612
2	16QAM	Operator Frequency	3 750.00	97.536
3	16QAM	Operator Frequency	3 750.00	97.477
4	16QAM	Operator Frequency	3 750.00	97.553
5	16QAM	Operator Frequency	3 750.00	97.461
6	16QAM	Operator Frequency	3 750.00	97.482
7	16QAM	Operator Frequency	3 750.00	97.524
8	16QAM	Operator Frequency	3 750.00	97.393
9	16QAM	Operator Frequency	3 750.00	97.487
10	16QAM	Operator Frequency	3 750.00	97.490
11	16QAM	Operator Frequency	3 750.00	97.428
12	16QAM	Operator Frequency	3 750.00	97.421
13	16QAM	Operator Frequency	3 750.00	97.403
14	16QAM	Operator Frequency	3 750.00	97.478
15	16QAM	Operator Frequency	3 750.00	97.520
16	16QAM	Operator Frequency	3 750.00	97.422
17	16QAM	Operator Frequency	3 750.00	97.568
18	16QAM	Operator Frequency	3 750.00	97.447
19	16QAM	Operator Frequency	3 750.00	97.741
20	16QAM	Operator Frequency	3 750.00	97.360
21	16QAM	Operator Frequency	3 750.00	97.570
22	16QAM	Operator Frequency	3 750.00	97.657
23	16QAM	Operator Frequency	3 750.00	97.760
24	16QAM	Operator Frequency	3 750.00	97.562
25	16QAM	Operator Frequency	3 750.00	97.541
26	16QAM	Operator Frequency	3 750.00	97.434
27	16QAM	Operator Frequency	3 750.00	97.530
28	16QAM	Operator Frequency	3 750.00	97.446
29	16QAM	Operator Frequency	3 750.00	97.573
30	16QAM	Operator Frequency	3 750.00	97.491
31	16QAM	Operator Frequency	3 750.00	97.587
32	16QAM	Operator Frequency	3 750.00	97.450
33	16QAM	Operator Frequency	3 750.00	97.510
34	16QAM	Operator Frequency	3 750.00	97.555
35	16QAM	Operator Frequency	3 750.00	97.408
36	16QAM	Operator Frequency	3 750.00	97.323
37	16QAM	Operator Frequency	3 750.00	97.426
38	16QAM	Operator Frequency	3 750.00	97.296
39	16QAM	Operator Frequency	3 750.00	97.598
40	16QAM	Operator Frequency	3 750.00	97.414
41	16QAM	Operator Frequency	3 750.00	97.588
42	16QAM	Operator Frequency	3 750.00	97.542

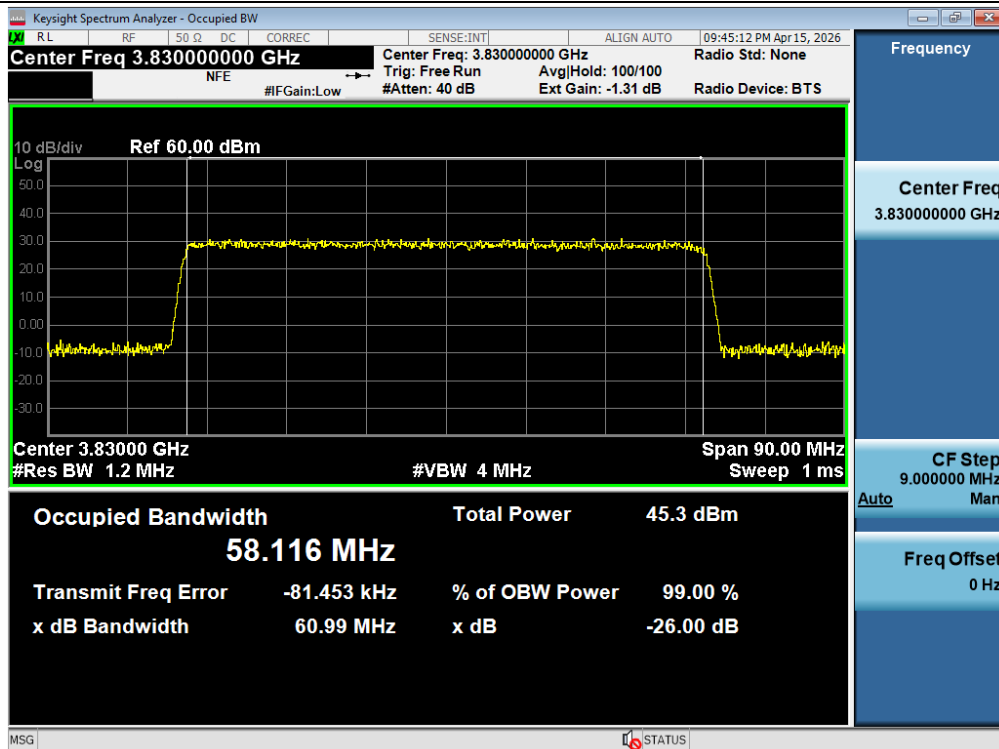
Port	Modulation	Channel	Frequency (MHz)	Occupied bandwidth (MHz)
43	16QAM	Operator Frequency	3 750.00	97.450
44	16QAM	Operator Frequency	3 750.00	97.489
45	16QAM	Operator Frequency	3 750.00	97.423
46	16QAM	Operator Frequency	3 750.00	97.461
47	16QAM	Operator Frequency	3 750.00	97.579
48	16QAM	Operator Frequency	3 750.00	97.610
49	16QAM	Operator Frequency	3 750.00	97.624
50	16QAM	Operator Frequency	3 750.00	97.517
51	16QAM	Operator Frequency	3 750.00	97.609
52	16QAM	Operator Frequency	3 750.00	97.627
53	16QAM	Operator Frequency	3 750.00	97.571
54	16QAM	Operator Frequency	3 750.00	97.385
55	16QAM	Operator Frequency	3 750.00	97.601
56	16QAM	Operator Frequency	3 750.00	97.644
57	16QAM	Operator Frequency	3 750.00	97.567
58	16QAM	Operator Frequency	3 750.00	97.524
59	16QAM	Operator Frequency	3 750.00	97.689
60	16QAM	Operator Frequency	3 750.00	97.400
61	16QAM	Operator Frequency	3 750.00	97.721
62	16QAM	Operator Frequency	3 750.00	97.465
63	16QAM	Operator Frequency	3 750.00	97.535

Plot Data of Occupied bandwidth

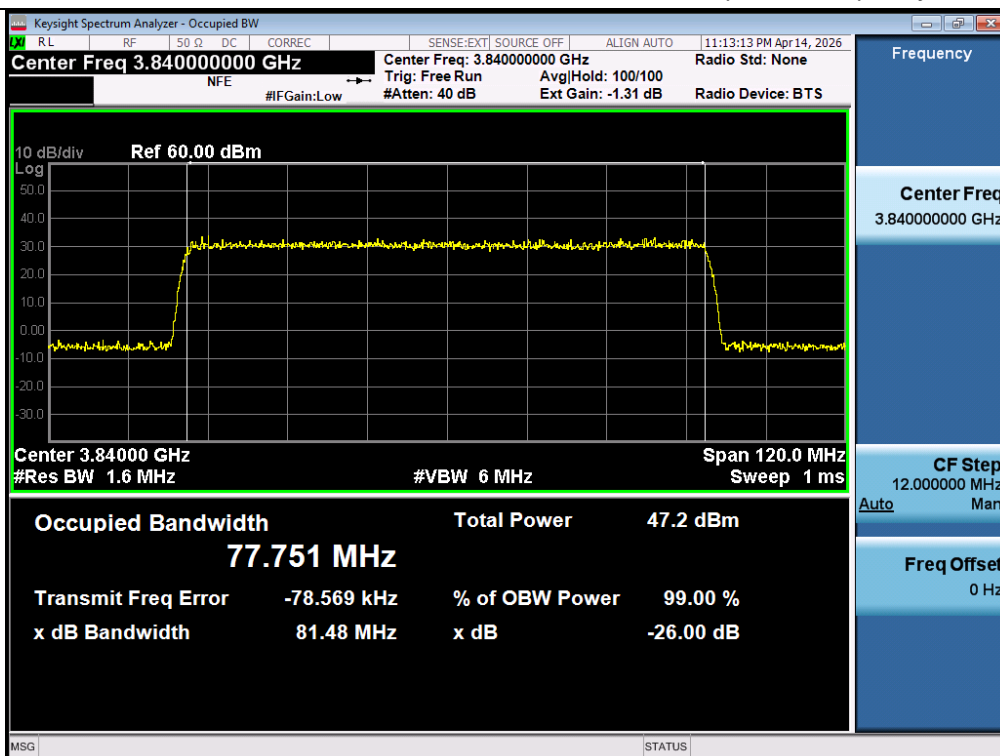
Port 36 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency



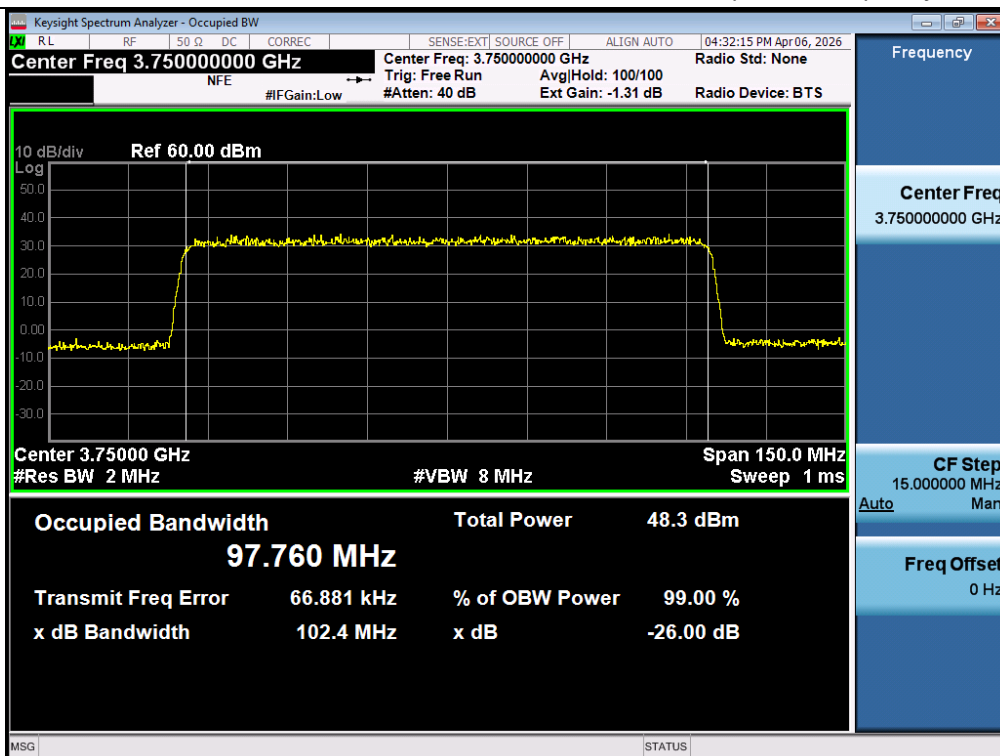
Port 47 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency



Port 14 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency



Port 23 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency



5.4. OUT-OF-BAND UNWANTED EMISSIONS

Test Requirements:

§ 2.1051 Measurements required: Spurious emissions at antenna terminals.

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 27.53 Emission limits.

- (l) 3.7 GHz Service. The following emission limits apply to station transmitting in the 3700-3980 MHz band:
 - (1) For base station 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)(1) 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. 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 Procedures:

The measurement is performed in accordance with Section 5.7.2 and 5.7.3 of ANSI C63.26.

5.7.2 Basic guidelines for unwanted emissions conducted measurements

- a) For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's channel power, adjacent channel power, or band power functions. When using the integration method at the channel/block/band edge, the starting frequency of the integration shall be centered at one-half of the RBW away from the band/channel/block edge.

5.7.3 Out-of-band unwanted emissions measurements

- a) Set the spectrum analyzer center frequency to the block, band, or channel edge frequency.
- b) Set the span wide enough to capture the fundamental emission closest to the authorized block or band edge, and to include all modulation products that spill into the immediately adjacent frequency band. In some cases, it may be possible to set the center frequency and span so as to encompass the fundamental emission and the unwanted out-of-band (band-edge) emissions on either side of the authorized block, band, or

channel. This can be accomplished with a single (slow) sweep, if adequate overload protection and sufficient dynamic range can be maintained.

- c) Set the number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.
- d) Sweep time should be auto for peak detection. For rms detection the sweep time should be set as follows:
 - 1) If the device can be configured to transmit continuously (duty cycle $\geq 98\%$), set the (sweep time) $> (\text{number of points in sweep}) \times (\text{symbol period})$ (e.g., by a factor of $10 \times \text{symbol period} \times \text{number of points}$). Increasing the sweep time (i.e., slowing the sweep speed) will allow for averaging over multiple symbols
 - 2) If the device cannot transmit continuously (duty cycle $< 98\%$), a gated sweep shall be used when possible (i.e., gate triggered such that the analyzer only sweeps when the device is transmitting at full power), set the sweep time $> (\text{number of points in sweep}) \times (\text{symbol period})$ but the sweep time shall always be maintained at a value that is less than or equal to the minimum transmission time.
 - 3) If the device cannot be configured to transmit continuously (duty cycle $< 98\%$) and a freerunning sweep must be used, set the sweep time so that the averaging is performed over multiple on/off cycles by setting the sweep time $> (\text{number of points in sweep}) \times (\text{transmitter period})$ (i.e., the transmit on-time + the off-time). The spectrum analyzer readings shall subsequently be corrected by $[10 \log (1/\text{duty cycle})]$. This assumes that the transmission period and duty cycle is relatively constant (duty cycle variation $\leq \pm 2\%$).
 - 4) If the device cannot be configured to transmit continuously and a free-running sweep must be used, and if the transmissions exhibit a non-constant duty cycle (duty cycle variations $> \pm 2\%$), set the sweep time so that the averaging is performed over the on-period by setting the sweep time $> (\text{symbol period}) \times (\text{number of points})$, while also maintaining the sweep time $< (\text{transmitter on-time})$. The trace mode shall be set to max hold, since not every display point will be averaged only over just the on-time. Thus, multiple sweeps (e.g., 100) in maximum hold are necessary to ensure that the maximum power is measured.
- e) The test report shall include the plots of the measuring instrument display and the measured data.
- f) See Annex I for example emission mask plots.

Note:

1. Due to MIMO operations, a correction has been added to the limit according to KDB 662911 D01 v02r01.

- 4Tx MIMO correction: $10 \log(N_{\text{ANT}}) = 10 \log(64) = 18.06 \text{ dB}$
- Corrected Measured Level = Measured Level + $10 \log(64)$

If the corrected measured level for each port does not exceed the limit, the MIMO combined value will also not exceed the limit.

When the corrected measured level of an individual port exceeded the limit, the MIMO combined (summation) value was calculated and verified to remain within the limit.

2. In frequency regions adjacent to the fundamental signal, the measured results may include contributions from the transmitter's fundamental emission. Accordingly, emissions close to the channel edge were assessed with consideration of this contribution. The duty cycle correction factor was applied as an external gain in the plot for signal-based measurements and was taken into account in the relevant measurements.
3. All blocks of operation were investigated, and the results for the worst case configuration are reported.
4. The results of the Out-of-band Unwanted Emissions tests show a similar trend across all ports; therefore, only the worst-case plots are attached.
5. For the 1 MHz bands immediately outside and adjacent to the frequency block, ANSI C63.26 Sections 5.7.2 and 5.7.3 were applied depending on the margin to the limit.

Test Results:

Tabular Data of Out-of-band Unwanted Emissions

(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
0	16QAM	Op. Freq.	Left	3 799.80	-35.00	-16.94	3 799.20	-35.96	-17.89	-13
			Right	3 840.20	-33.81	-15.75	3 840.80	-36.92	-18.86	
1		Op. Freq.	Left	3 799.80	-35.28	-17.22	3 799.20	-36.20	-18.14	
			Right	3 840.20	-35.82	-17.76	3 840.80	-37.77	-19.70	
2		Op. Freq.	Left	3 799.80	-34.64	-16.57	3 799.20	-35.38	-17.32	
			Right	3 840.20	-34.68	-16.62	3 840.80	-36.31	-18.24	
3		Op. Freq.	Left	3 799.80	-34.41	-16.34	3 799.20	-35.34	-17.27	
			Right	3 840.20	-34.52	-16.46	3 840.80	-35.94	-17.88	
4		Op. Freq.	Left	3 799.80	-36.95	-18.89	3 799.20	-37.48	-19.41	
			Right	3 840.20	-36.21	-18.15	3 840.80	-38.23	-20.17	
5		Op. Freq.	Left	3 799.80	-34.45	-16.39	3 799.20	-35.34	-17.27	
			Right	3 840.20	-35.73	-17.67	3 840.80	-37.43	-19.37	
6		Op. Freq.	Left	3 799.80	-36.02	-17.95	3 799.20	-36.91	-18.85	
			Right	3 840.20	-36.54	-18.48	3 840.80	-38.12	-20.05	
7		Op. Freq.	Left	3 799.80	-36.67	-18.61	3 799.20	-38.11	-20.05	
			Right	3 840.20	-37.39	-19.33	3 840.80	-39.56	-21.50	
8		Op. Freq.	Left	3 799.80	-37.06	-19.00	3 799.20	-38.01	-19.95	
			Right	3 840.20	-37.18	-19.12	3 840.80	-39.06	-21.00	
9		Op. Freq.	Left	3 799.80	-34.42	-16.36	3 799.20	-35.18	-17.12	
			Right	3 840.20	-35.65	-17.59	3 840.80	-37.41	-19.35	
10		Op. Freq.	Left	3 799.80	-35.99	-17.93	3 799.20	-36.85	-18.79	
			Right	3 840.20	-36.68	-18.62	3 840.80	-38.45	-20.39	
11		Op. Freq.	Left	3 799.80	-34.82	-16.76	3 799.20	-35.71	-17.65	
			Right	3 840.20	-35.27	-17.21	3 840.80	-36.84	-18.78	
12		Op. Freq.	Left	3 799.80	-37.04	-18.98	3 799.20	-38.20	-20.14	
			Right	3 840.20	-36.54	-18.47	3 840.80	-38.78	-20.72	
13		Op. Freq.	Left	3 799.80	-37.30	-19.24	3 799.20	-38.17	-20.10	
			Right	3 840.20	-37.07	-19.00	3 840.80	-39.47	-21.41	
14		Op. Freq.	Left	3 799.80	-36.01	-17.94	3 799.20	-36.93	-18.87	
			Right	3 840.20	-35.65	-17.59	3 840.80	-37.35	-19.28	
15		Op. Freq.	Left	3 799.80	-34.99	-16.93	3 799.20	-35.62	-17.56	
			Right	3 840.20	-33.01	-14.95	3 840.80	-36.38	-18.32	
16		Op. Freq.	Left	3 799.80	-35.74	-17.68	3 799.20	-36.49	-18.43	
			Right	3 840.20	-35.58	-17.52	3 840.80	-37.16	-19.10	
17		Op. Freq.	Left	3 799.80	-35.73	-17.67	3 799.20	-36.91	-18.85	
			Right	3 840.20	-36.13	-18.06	3 840.80	-38.20	-20.13	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
18	16QAM	Op. Freq.	Left	3 799.80	-35.81	-17.74	3 799.20	-36.69	-18.63	-13
			Right	3 840.20	-34.57	-16.51	3 840.80	-35.96	-17.89	
19		Op. Freq.	Left	3 799.80	-35.31	-17.25	3 799.20	-36.33	-18.27	
			Right	3 840.20	-35.00	-16.94	3 840.80	-36.37	-18.31	
20		Op. Freq.	Left	3 799.80	-36.82	-18.76	3 799.20	-37.61	-19.54	
			Right	3 840.20	-36.82	-18.76	3 840.80	-39.05	-20.99	
21		Op. Freq.	Left	3 799.80	-36.37	-18.31	3 799.20	-37.04	-18.98	
			Right	3 840.20	-35.96	-17.90	3 840.80	-37.35	-19.28	
22		Op. Freq.	Left	3 799.80	-35.02	-16.95	3 799.20	-35.84	-17.77	
			Right	3 840.20	-34.57	-16.51	3 840.80	-36.66	-18.60	
23		Op. Freq.	Left	3 799.80	-34.83	-16.76	3 799.20	-34.77	-16.71	
			Right	3 840.20	-35.52	-17.45	3 840.80	-37.27	-19.20	
24		Op. Freq.	Left	3 799.80	-34.32	-16.26	3 799.20	-35.04	-16.98	
			Right	3 840.20	-35.17	-17.11	3 840.80	-36.91	-18.85	
25		Op. Freq.	Left	3 799.80	-34.22	-16.16	3 799.20	-35.63	-17.57	
			Right	3 840.20	-35.32	-17.25	3 840.80	-36.56	-18.50	
26		Op. Freq.	Left	3 799.80	-36.15	-18.09	3 799.20	-38.44	-20.38	
			Right	3 840.20	-36.42	-18.36	3 840.80	-38.49	-20.43	
27		Op. Freq.	Left	3 799.80	-36.37	-18.31	3 799.20	-37.28	-19.22	
			Right	3 840.20	-35.62	-17.55	3 840.80	-37.57	-19.50	
28		Op. Freq.	Left	3 799.80	-35.24	-17.18	3 799.20	-36.53	-18.47	
			Right	3 840.20	-36.89	-18.83	3 840.80	-38.97	-20.90	
29		Op. Freq.	Left	3 799.80	-34.92	-16.86	3 799.20	-35.67	-17.61	
			Right	3 840.20	-35.02	-16.95	3 840.80	-36.63	-18.57	
30		Op. Freq.	Left	3 799.80	-36.31	-18.25	3 799.20	-35.74	-17.68	
			Right	3 840.20	-36.51	-18.45	3 840.80	-38.23	-20.17	
31		Op. Freq.	Left	3 799.80	-35.73	-17.67	3 799.20	-36.37	-18.31	
			Right	3 840.20	-35.69	-17.62	3 840.80	-37.45	-19.39	
32		Op. Freq.	Left	3 799.80	-34.12	-16.06	3 799.20	-35.16	-17.10	
			Right	3 840.20	-35.45	-17.39	3 840.80	-36.62	-18.55	
33		Op. Freq.	Left	3 799.80	-35.91	-17.85	3 799.20	-37.14	-19.08	
			Right	3 840.20	-36.62	-18.55	3 840.80	-36.97	-18.91	
34		Op. Freq.	Left	3 799.80	-35.29	-17.23	3 799.20	-35.77	-17.70	
			Right	3 840.20	-36.05	-17.99	3 840.80	-37.56	-19.49	
35		Op. Freq.	Left	3 799.80	-37.06	-19.00	3 799.20	-38.10	-20.04	
			Right	3 840.20	-37.42	-19.36	3 840.80	-39.57	-21.51	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
36	16QAM	Op. Freq.	Left	3 799.80	-35.64	-17.58	3 799.20	-36.81	-18.75	-13
			Right	3 840.20	-35.54	-17.47	3 840.80	-37.15	-19.09	
37		Op. Freq.	Left	3 799.80	-34.94	-16.88	3 799.20	-36.68	-18.61	
			Right	3 840.20	-35.39	-17.33	3 840.80	-37.78	-19.72	
38		Op. Freq.	Left	3 799.80	-36.68	-18.62	3 799.20	-38.11	-20.05	
			Right	3 840.20	-36.08	-18.01	3 840.80	-37.71	-19.65	
39		Op. Freq.	Left	3 799.80	-35.36	-17.30	3 799.20	-36.38	-18.31	
			Right	3 840.20	-35.08	-17.02	3 840.80	-36.13	-18.07	
40		Op. Freq.	Left	3 799.80	-36.02	-17.96	3 799.20	-36.95	-18.89	
			Right	3 840.20	-35.88	-17.82	3 840.80	-37.75	-19.69	
41		Op. Freq.	Left	3 799.80	-36.26	-18.20	3 799.20	-37.38	-19.32	
			Right	3 840.20	-35.90	-17.84	3 840.80	-37.55	-19.49	
42		Op. Freq.	Left	3 799.80	-35.29	-17.22	3 799.20	-36.27	-18.21	
			Right	3 840.20	-36.09	-18.03	3 840.80	-37.64	-19.57	
43		Op. Freq.	Left	3 799.80	-35.53	-17.47	3 799.20	-36.59	-18.53	
			Right	3 840.20	-36.13	-18.07	3 840.80	-37.87	-19.81	
44		Op. Freq.	Left	3 799.80	-36.99	-18.93	3 799.20	-38.32	-20.26	
			Right	3 840.20	-36.95	-18.89	3 840.80	-38.93	-20.87	
45		Op. Freq.	Left	3 799.80	-36.54	-18.48	3 799.20	-37.83	-19.77	
			Right	3 840.20	-36.68	-18.62	3 840.80	-37.93	-19.87	
46		Op. Freq.	Left	3 799.80	-35.20	-17.14	3 799.20	-36.37	-18.31	
			Right	3 840.20	-35.22	-17.16	3 840.80	-37.30	-19.24	
47		Op. Freq.	Left	3 799.80	-36.36	-18.30	3 799.20	-37.52	-19.46	
			Right	3 840.20	-36.34	-18.28	3 840.80	-36.94	-18.88	
48		Op. Freq.	Left	3 799.80	-33.12	-15.06	3 799.20	-37.04	-18.97	
			Right	3 840.20	-36.12	-18.05	3 840.80	-37.70	-19.64	
49		Op. Freq.	Left	3 799.80	-36.89	-18.83	3 799.20	-38.24	-20.18	
			Right	3 840.20	-36.89	-18.83	3 840.80	-38.79	-20.72	
50		Op. Freq.	Left	3 799.80	-35.57	-17.51	3 799.20	-36.67	-18.60	
			Right	3 840.20	-36.21	-18.15	3 840.80	-37.22	-19.16	
51		Op. Freq.	Left	3 799.80	-37.14	-19.08	3 799.20	-38.42	-20.36	
			Right	3 840.20	-36.56	-18.50	3 840.80	-38.28	-20.21	
52		Op. Freq.	Left	3 799.80	-36.94	-18.88	3 799.20	-38.70	-20.64	
			Right	3 840.20	-37.02	-18.96	3 840.80	-38.91	-20.84	
53		Op. Freq.	Left	3 799.80	-36.01	-17.94	3 799.20	-37.00	-18.94	
			Right	3 840.20	-36.63	-18.57	3 840.80	-38.15	-20.09	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
54	16QAM	Op. Freq.	Left	3 799.80	-32.66	-14.60	3 799.20	-33.26	-15.20	-13
			Right	3 840.20	-32.85	-14.79	3 840.80	-33.46	-15.40	
55		Op. Freq.	Left	3 799.80	-37.17	-19.11	3 799.20	-38.60	-20.54	
			Right	3 840.20	-36.51	-18.45	3 840.80	-38.30	-20.24	
56		Op. Freq.	Left	3 799.80	-37.96	-19.90	3 799.20	-39.15	-21.08	
			Right	3 840.20	-38.44	-20.38	3 840.80	-40.52	-22.45	
57		Op. Freq.	Left	3 799.80	-36.93	-18.87	3 799.20	-37.86	-19.80	
			Right	3 840.20	-35.97	-17.91	3 840.80	-38.01	-19.95	
58		Op. Freq.	Left	3 799.80	-32.27	-14.21	3 799.20	-33.77	-15.70	
			Right	3 840.20	-34.77	-16.71	3 840.80	-35.86	-17.80	
59		Op. Freq.	Left	3 799.80	-35.88	-17.82	3 799.20	-36.59	-18.53	
			Right	3 840.20	-33.10	-15.03	3 840.80	-37.43	-19.37	
60		Op. Freq.	Left	3 799.80	-35.77	-17.71	3 799.20	-37.90	-19.84	
			Right	3 840.20	-35.27	-17.21	3 840.80	-38.45	-20.39	
61		Op. Freq.	Left	3 799.80	-36.75	-18.69	3 799.20	-38.23	-20.17	
			Right	3 840.20	-35.77	-17.70	3 840.80	-36.98	-18.91	
62		Op. Freq.	Left	3 799.80	-35.92	-17.86	3 799.20	-37.07	-19.00	
			Right	3 840.20	-35.79	-17.73	3 840.80	-37.13	-19.07	
63		Op. Freq.	Left	3 799.80	-36.83	-18.77	3 799.20	-38.12	-20.05	
			Right	3 840.20	-37.98	-19.92	3 840.80	-38.68	-20.62	

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	Low edge_Left(1) (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-17.52	-13	4.52

Modulation	Channel	Low edge_Left(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-17.66	-13	4.66

Modulation	Channel	High edge_Right(1) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-18.57	-13	5.57

Modulation	Channel	High edge_Right(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-19.42	-13	6.42

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Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
0	16QAM	Op. Freq.	Left	3 799.70	-34.75	-16.68	3 799.30	-36.43	-18.37	-13
			Right	3 860.30	-34.21	-16.15	3 860.70	-36.99	-18.93	
1		Op. Freq.	Left	3 799.70	-32.30	-14.24	3 799.30	-33.21	-15.15	
			Right	3 860.30	-32.80	-14.74	3 860.70	-34.45	-16.38	
2		Op. Freq.	Left	3 799.70	-32.68	-14.62	3 799.30	-33.95	-15.88	
			Right	3 860.30	-32.63	-14.57	3 860.70	-34.58	-16.52	
3		Op. Freq.	Left	3 799.70	-33.63	-15.56	3 799.30	-35.29	-17.23	
			Right	3 860.30	-33.90	-15.84	3 860.70	-36.16	-18.10	
4		Op. Freq.	Left	3 799.70	-33.74	-15.68	3 799.30	-35.05	-16.99	
			Right	3 860.30	-36.01	-17.95	3 860.70	-38.23	-20.17	
5		Op. Freq.	Left	3 799.70	-33.28	-15.22	3 799.30	-34.79	-16.72	
			Right	3 860.30	-34.69	-16.63	3 860.70	-36.63	-18.57	
6		Op. Freq.	Left	3 799.70	-34.09	-16.03	3 799.30	-35.28	-17.22	
			Right	3 860.30	-35.00	-16.94	3 860.70	-36.65	-18.59	
7		Op. Freq.	Left	3 799.70	-35.13	-17.07	3 799.30	-36.84	-18.78	
			Right	3 860.30	-36.45	-18.39	3 860.70	-38.59	-20.53	
8		Op. Freq.	Left	3 799.70	-35.86	-17.80	3 799.30	-37.29	-19.23	
			Right	3 860.30	-37.32	-19.26	3 860.70	-39.54	-21.48	
9		Op. Freq.	Left	3 799.70	-33.62	-15.56	3 799.30	-34.83	-16.77	
			Right	3 860.30	-34.42	-16.36	3 860.70	-36.16	-18.10	
10		Op. Freq.	Left	3 799.70	-35.11	-17.05	3 799.30	-36.44	-18.38	
			Right	3 860.30	-35.74	-17.68	3 860.70	-37.12	-19.06	
11		Op. Freq.	Left	3 799.70	-33.85	-15.79	3 799.30	-35.50	-17.44	
			Right	3 860.30	-34.82	-16.76	3 860.70	-37.31	-19.25	
12		Op. Freq.	Left	3 799.70	-34.91	-16.85	3 799.30	-36.43	-18.37	
			Right	3 860.30	-35.55	-17.49	3 860.70	-37.99	-19.92	
13		Op. Freq.	Left	3 799.70	-34.56	-16.50	3 799.30	-36.32	-18.26	
			Right	3 860.30	-35.87	-17.81	3 860.70	-39.00	-20.94	
14		Op. Freq.	Left	3 799.70	-34.66	-16.60	3 799.30	-36.59	-18.53	
			Right	3 860.30	-35.31	-17.24	3 860.70	-37.21	-19.15	
15		Op. Freq.	Left	3 799.70	-34.17	-16.11	3 799.30	-35.90	-17.83	
			Right	3 860.30	-35.10	-17.04	3 860.70	-37.81	-19.74	
16		Op. Freq.	Left	3 799.70	-34.14	-16.08	3 799.30	-36.02	-17.95	
			Right	3 860.30	-34.58	-16.52	3 860.70	-36.44	-18.38	
17		Op. Freq.	Left	3 799.70	-35.25	-17.19	3 799.30	-37.11	-19.04	
			Right	3 860.30	-35.36	-17.30	3 860.70	-38.80	-20.74	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
18	16QAM	Op. Freq.	Left	3 799.70	-34.34	-16.28	3 799.30	-37.10	-19.04	-13
			Right	3 860.30	-33.62	-15.56	3 860.70	-35.55	-17.49	
19		Op. Freq.	Left	3 799.70	-34.23	-16.17	3 799.30	-36.64	-18.58	
			Right	3 860.30	-34.18	-16.12	3 860.70	-37.20	-19.14	
20		Op. Freq.	Left	3 799.70	-35.96	-17.90	3 799.30	-37.93	-19.86	
			Right	3 860.30	-35.71	-17.65	3 860.70	-37.90	-19.84	
21		Op. Freq.	Left	3 799.70	-34.53	-16.47	3 799.30	-36.12	-18.06	
			Right	3 860.30	-34.83	-16.76	3 860.70	-37.20	-19.14	
22		Op. Freq.	Left	3 799.70	-33.93	-15.86	3 799.30	-36.02	-17.96	
			Right	3 860.30	-34.85	-16.79	3 860.70	-37.11	-19.04	
23		Op. Freq.	Left	3 799.70	-33.91	-15.85	3 799.30	-35.55	-17.49	
			Right	3 860.30	-34.40	-16.33	3 860.70	-36.68	-18.62	
24		Op. Freq.	Left	3 799.70	-33.17	-15.10	3 799.30	-34.83	-16.77	
			Right	3 860.30	-34.76	-16.70	3 860.70	-37.50	-19.44	
25		Op. Freq.	Left	3 799.70	-33.70	-15.64	3 799.30	-34.26	-16.19	
			Right	3 860.30	-33.82	-15.76	3 860.70	-34.57	-16.51	
26		Op. Freq.	Left	3 799.70	-35.80	-17.74	3 799.30	-36.85	-18.78	
			Right	3 860.30	-36.42	-18.36	3 860.70	-38.09	-20.03	
27		Op. Freq.	Left	3 799.70	-34.23	-16.17	3 799.30	-34.76	-16.70	
			Right	3 860.30	-34.94	-16.87	3 860.70	-36.32	-18.26	
28		Op. Freq.	Left	3 799.70	-35.20	-17.14	3 799.30	-35.34	-17.28	
			Right	3 860.30	-36.00	-17.93	3 860.70	-37.30	-19.24	
29		Op. Freq.	Left	3 799.70	-33.28	-15.22	3 799.30	-33.80	-15.74	
			Right	3 860.30	-33.55	-15.49	3 860.70	-34.36	-16.29	
30		Op. Freq.	Left	3 799.70	-33.90	-15.84	3 799.30	-33.88	-15.82	
			Right	3 860.30	-35.61	-17.55	3 860.70	-36.72	-18.66	
31		Op. Freq.	Left	3 799.70	-34.38	-16.32	3 799.30	-35.17	-17.11	
			Right	3 860.30	-35.09	-17.02	3 860.70	-36.15	-18.08	
32		Op. Freq.	Left	3 799.70	-32.25	-14.19	3 799.30	-32.69	-14.63	
			Right	3 860.30	-33.11	-15.05	3 860.70	-33.47	-15.41	
33		Op. Freq.	Left	3 799.70	-34.53	-16.47	3 799.30	-35.25	-17.19	
			Right	3 860.30	-35.68	-17.62	3 860.70	-36.38	-18.32	
34		Op. Freq.	Left	3 799.70	-32.30	-14.24	3 799.30	-32.38	-14.32	
			Right	3 860.30	-32.47	-14.41	3 860.70	-32.76	-14.70	
35		Op. Freq.	Left	3 799.70	-35.40	-17.34	3 799.30	-36.15	-18.09	
			Right	3 860.30	-35.48	-17.42	3 860.70	-36.37	-18.31	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
36	16QAM	Op. Freq.	Left	3 799.70	-34.19	-16.12	3 799.30	-35.25	-17.19	-13
			Right	3 860.30	-34.87	-16.81	3 860.70	-35.88	-17.81	
37		Op. Freq.	Left	3 799.70	-34.41	-16.35	3 799.30	-35.67	-17.60	
			Right	3 860.30	-35.12	-17.06	3 860.70	-36.13	-18.06	
38		Op. Freq.	Left	3 799.70	-35.45	-17.39	3 799.30	-36.96	-18.90	
			Right	3 860.30	-35.19	-17.13	3 860.70	-36.33	-18.27	
39		Op. Freq.	Left	3 799.70	-32.59	-14.52	3 799.30	-32.85	-14.79	
			Right	3 860.30	-33.91	-15.84	3 860.70	-34.66	-16.60	
40		Op. Freq.	Left	3 799.70	-34.76	-16.70	3 799.30	-35.91	-17.85	
			Right	3 860.30	-34.95	-16.89	3 860.70	-36.05	-17.99	
41		Op. Freq.	Left	3 799.70	-34.42	-16.35	3 799.30	-35.01	-16.95	
			Right	3 860.30	-35.40	-17.34	3 860.70	-36.86	-18.80	
42		Op. Freq.	Left	3 799.70	-33.86	-15.80	3 799.30	-34.81	-16.75	
			Right	3 860.30	-35.41	-17.35	3 860.70	-36.34	-18.27	
43		Op. Freq.	Left	3 799.70	-34.07	-16.01	3 799.30	-35.14	-17.08	
			Right	3 860.30	-35.10	-17.04	3 860.70	-35.98	-17.92	
44		Op. Freq.	Left	3 799.70	-34.81	-16.75	3 799.30	-35.92	-17.85	
			Right	3 860.30	-36.42	-18.36	3 860.70	-37.47	-19.41	
45		Op. Freq.	Left	3 799.70	-33.15	-15.09	3 799.30	-33.77	-15.70	
			Right	3 860.30	-35.09	-17.03	3 860.70	-36.06	-18.00	
46		Op. Freq.	Left	3 799.70	-35.49	-17.43	3 799.30	-36.96	-18.90	
			Right	3 860.30	-35.88	-17.82	3 860.70	-37.39	-19.33	
47		Op. Freq.	Left	3 799.70	-35.63	-17.57	3 799.30	-36.65	-18.59	
			Right	3 860.30	-34.76	-16.70	3 860.70	-35.10	-17.03	
48		Op. Freq.	Left	3 799.70	-34.33	-16.27	3 799.30	-35.57	-17.51	
			Right	3 860.30	-34.94	-16.88	3 860.70	-36.21	-18.15	
49		Op. Freq.	Left	3 799.70	-34.41	-16.35	3 799.30	-34.97	-16.90	
			Right	3 860.30	-34.52	-16.46	3 860.70	-35.21	-17.14	
50		Op. Freq.	Left	3 799.70	-34.19	-16.13	3 799.30	-35.01	-16.95	
			Right	3 860.30	-35.10	-17.04	3 860.70	-35.97	-17.90	
51		Op. Freq.	Left	3 799.70	-34.41	-16.35	3 799.30	-35.29	-17.23	
			Right	3 860.30	-35.00	-16.94	3 860.70	-35.88	-17.82	
52		Op. Freq.	Left	3 799.70	-34.78	-16.72	3 799.30	-35.95	-17.89	
			Right	3 860.30	-35.07	-17.01	3 860.70	-36.09	-18.03	
53		Op. Freq.	Left	3 799.70	-34.67	-16.61	3 799.30	-35.82	-17.76	
			Right	3 860.30	-35.48	-17.42	3 860.70	-36.14	-18.08	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
54	16QAM	Op. Freq.	Left	3 799.70	-31.66	-13.60	3 799.30	-32.21	-14.15	-13
			Right	3 860.30	-32.21	-14.15	3 860.70	-32.76	-14.69	
55		Op. Freq.	Left	3 799.70	-35.23	-17.17	3 799.30	-36.29	-18.23	
			Right	3 860.30	-36.05	-17.99	3 860.70	-36.95	-18.89	
56		Op. Freq.	Left	3 799.70	-36.20	-18.14	3 799.30	-37.50	-19.44	
			Right	3 860.30	-37.34	-19.28	3 860.70	-38.29	-20.23	
57		Op. Freq.	Left	3 799.70	-34.40	-16.33	3 799.30	-35.27	-17.21	
			Right	3 860.30	-35.29	-17.23	3 860.70	-36.21	-18.15	
58		Op. Freq.	Left	3 799.70	-31.88	-13.81	3 799.30	-32.58	-14.52	
			Right	3 860.30	-33.05	-14.99	3 860.70	-33.49	-15.43	
59		Op. Freq.	Left	3 799.70	-34.02	-15.96	3 799.30	-34.92	-16.86	
			Right	3 860.30	-34.63	-16.57	3 860.70	-35.11	-17.05	
60		Op. Freq.	Left	3 799.70	-35.46	-17.40	3 799.30	-37.13	-19.06	
			Right	3 860.30	-35.82	-17.75	3 860.70	-37.22	-19.15	
61		Op. Freq.	Left	3 799.70	-34.82	-16.76	3 799.30	-35.65	-17.59	
			Right	3 860.30	-35.22	-17.16	3 860.70	-35.75	-17.68	
62		Op. Freq.	Left	3 799.70	-32.78	-14.72	3 799.30	-33.44	-15.38	
			Right	3 860.30	-33.88	-15.82	3 860.70	-34.24	-16.18	
63		Op. Freq.	Left	3 799.70	-35.94	-17.88	3 799.30	-36.82	-18.75	
			Right	3 860.30	-37.24	-19.18	3 860.70	-38.22	-20.16	

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	Low edge_Left(1) (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-16.08	-13	3.08

Modulation	Channel	Low edge_Left(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-16.76	-13	3.76

Modulation	Channel	High edge_Right(1) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-17.15	-13	4.15

Modulation	Channel	High edge_Right(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-18.09	-13	5.09

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Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
0	16QAM	Op. Freq.	Left	3 799.60	-32.68	-14.62	3 799.40	-33.03	-14.97	-13
			Right	3 880.40	-33.81	-15.75	3 880.60	-35.05	-16.99	
1		Op. Freq.	Left	3 799.60	-31.07	-13.00	3 799.40	-31.29	-13.23	
			Right	3 880.40	-31.37	-13.31	3 880.60	-31.73	-13.67	
2		Op. Freq.	Left	3 799.60	-31.16	-13.09	3 799.40	-31.01	-12.95	
			Right	3 880.40	-31.74	-13.68	3 880.60	-31.76	-13.70	
3		Op. Freq.	Left	3 799.60	-30.16	-12.10	3 799.40	-30.54	-12.47	
			Right	3 880.40	-31.13	-13.06	3 880.60	-31.53	-13.47	
4		Op. Freq.	Left	3 799.60	-31.26	-13.19	3 799.40	-30.64	-12.58	
			Right	3 880.40	-34.12	-16.05	3 880.60	-34.91	-16.85	
5		Op. Freq.	Left	3 799.60	-30.47	-12.41	3 799.40	-30.60	-12.54	
			Right	3 880.40	-31.12	-13.06	3 880.60	-31.27	-13.21	
6		Op. Freq.	Left	3 799.60	-32.35	-14.29	3 799.40	-32.69	-14.62	
			Right	3 880.40	-32.29	-14.23	3 880.60	-32.18	-14.12	
7		Op. Freq.	Left	3 799.60	-32.32	-14.26	3 799.40	-33.15	-15.09	
			Right	3 880.40	-33.46	-15.40	3 880.60	-34.51	-16.44	
8		Op. Freq.	Left	3 799.60	-34.77	-16.70	3 799.40	-35.22	-17.15	
			Right	3 880.40	-34.90	-16.84	3 880.60	-36.40	-18.34	
9		Op. Freq.	Left	3 799.60	-31.96	-13.89	3 799.40	-31.92	-13.86	
			Right	3 880.40	-32.43	-14.36	3 880.60	-32.52	-14.46	
10		Op. Freq.	Left	3 799.60	-33.97	-15.91	3 799.40	-33.92	-15.86	
			Right	3 880.40	-34.63	-16.57	3 880.60	-35.55	-17.49	
11		Op. Freq.	Left	3 799.60	-31.75	-13.68	3 799.40	-32.00	-13.94	
			Right	3 880.40	-31.81	-13.75	3 880.60	-32.66	-14.60	
12		Op. Freq.	Left	3 799.60	-33.80	-15.74	3 799.40	-33.81	-15.75	
			Right	3 880.40	-33.21	-15.15	3 880.60	-34.23	-16.17	
13		Op. Freq.	Left	3 799.60	-32.10	-14.04	3 799.40	-32.19	-14.12	
			Right	3 880.40	-32.72	-14.66	3 880.60	-33.43	-15.37	
14		Op. Freq.	Left	3 799.60	-32.26	-14.20	3 799.40	-32.46	-14.39	
			Right	3 880.40	-32.94	-14.88	3 880.60	-33.66	-15.60	
15		Op. Freq.	Left	3 799.60	-33.19	-15.13	3 799.40	-33.28	-15.22	
			Right	3 880.40	-33.58	-15.51	3 880.60	-32.85	-14.79	
16		Op. Freq.	Left	3 799.60	-32.02	-13.95	3 799.40	-32.18	-14.12	
			Right	3 880.40	-32.76	-14.70	3 880.60	-33.04	-14.98	
17		Op. Freq.	Left	3 799.60	-33.03	-14.97	3 799.40	-33.69	-15.63	
			Right	3 880.40	-33.65	-15.59	3 880.60	-35.77	-17.71	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
18	16QAM	Op. Freq.	Left	3 799.60	-33.05	-14.99	3 799.40	-33.54	-15.48	-13
			Right	3 880.40	-33.98	-15.92	3 880.60	-35.18	-17.11	
19		Op. Freq.	Left	3 799.60	-31.99	-13.93	3 799.40	-32.89	-14.83	
			Right	3 880.40	-32.00	-13.94	3 880.60	-32.96	-14.90	
20		Op. Freq.	Left	3 799.60	-34.54	-16.48	3 799.40	-34.74	-16.68	
			Right	3 880.40	-33.68	-15.62	3 880.60	-34.80	-16.74	
21		Op. Freq.	Left	3 799.60	-32.50	-14.44	3 799.40	-32.38	-14.31	
			Right	3 880.40	-32.84	-14.77	3 880.60	-33.59	-15.53	
22		Op. Freq.	Left	3 799.60	-31.21	-13.14	3 799.40	-31.14	-13.07	
			Right	3 880.40	-32.31	-14.25	3 880.60	-33.17	-15.11	
23		Op. Freq.	Left	3 799.60	-31.39	-13.33	3 799.40	-29.96	-11.90	
			Right	3 880.40	-29.17	-11.10	3 880.60	-30.12	-12.05	
24		Op. Freq.	Left	3 799.60	-31.31	-13.24	3 799.40	-29.44	-11.38	
			Right	3 880.40	-30.52	-12.46	3 880.60	-32.11	-14.05	
25		Op. Freq.	Left	3 799.60	-29.18	-11.11	3 799.40	-28.88	-10.82	
			Right	3 880.40	-30.78	-12.71	3 880.60	-28.53	-10.46	
26		Op. Freq.	Left	3 799.60	-33.38	-15.32	3 799.40	-32.12	-14.05	
			Right	3 880.40	-34.75	-16.69	3 880.60	-32.78	-14.71	
27		Op. Freq.	Left	3 799.60	-31.05	-12.99	3 799.40	-30.55	-12.49	
			Right	3 880.40	-33.33	-15.27	3 880.60	-34.66	-16.60	
28		Op. Freq.	Left	3 799.60	-33.69	-15.63	3 799.40	-34.04	-15.98	
			Right	3 880.40	-34.05	-15.99	3 880.60	-33.47	-15.40	
29		Op. Freq.	Left	3 799.60	-29.03	-10.97	3 799.40	-30.27	-12.21	
			Right	3 880.40	-31.25	-13.19	3 880.60	-31.09	-13.03	
30		Op. Freq.	Left	3 799.60	-28.91	-10.84	3 799.40	-29.11	-11.05	
			Right	3 880.40	-30.89	-12.83	3 880.60	-31.76	-13.70	
31		Op. Freq.	Left	3 799.60	-33.30	-15.24	3 799.40	-33.19	-15.13	
			Right	3 880.40	-32.44	-14.38	3 880.60	-32.42	-14.36	
32		Op. Freq.	Left	3 799.60	-31.66	-13.60	3 799.40	-31.59	-13.53	
			Right	3 880.40	-31.66	-13.60	3 880.60	-32.21	-14.15	
33		Op. Freq.	Left	3 799.60	-32.91	-14.85	3 799.40	-33.45	-15.39	
			Right	3 880.40	-33.58	-15.52	3 880.60	-34.24	-16.17	
34		Op. Freq.	Left	3 799.60	-30.53	-12.46	3 799.40	-30.64	-12.58	
			Right	3 880.40	-30.52	-12.46	3 880.60	-31.01	-12.95	
35		Op. Freq.	Left	3 799.60	-32.91	-14.85	3 799.40	-33.65	-15.58	
			Right	3 880.40	-33.50	-15.44	3 880.60	-33.77	-15.71	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
36	16QAM	Op. Freq.	Left	3 799.60	-32.14	-14.08	3 799.40	-32.62	-14.56	-13
			Right	3 880.40	-33.08	-15.02	3 880.60	-34.08	-16.02	
37		Op. Freq.	Left	3 799.60	-31.37	-13.31	3 799.40	-32.01	-13.95	
			Right	3 880.40	-32.51	-14.45	3 880.60	-32.96	-14.90	
38		Op. Freq.	Left	3 799.60	-33.52	-15.45	3 799.40	-34.41	-16.35	
			Right	3 880.40	-34.04	-15.98	3 880.60	-35.03	-16.97	
39		Op. Freq.	Left	3 799.60	-30.75	-12.69	3 799.40	-31.07	-13.01	
			Right	3 880.40	-31.17	-13.11	3 880.60	-31.94	-13.88	
40		Op. Freq.	Left	3 799.60	-32.40	-14.34	3 799.40	-33.36	-15.30	
			Right	3 880.40	-32.87	-14.81	3 880.60	-33.42	-15.36	
41		Op. Freq.	Left	3 799.60	-31.27	-13.21	3 799.40	-31.68	-13.61	
			Right	3 880.40	-33.97	-15.91	3 880.60	-34.85	-16.79	
42		Op. Freq.	Left	3 799.60	-32.36	-14.30	3 799.40	-32.97	-14.90	
			Right	3 880.40	-33.78	-15.72	3 880.60	-34.60	-16.54	
43		Op. Freq.	Left	3 799.60	-31.65	-13.59	3 799.40	-32.60	-14.54	
			Right	3 880.40	-32.37	-14.31	3 880.60	-32.80	-14.74	
44		Op. Freq.	Left	3 799.60	-33.40	-15.34	3 799.40	-33.74	-15.68	
			Right	3 880.40	-33.94	-15.88	3 880.60	-34.74	-16.68	
45		Op. Freq.	Left	3 799.60	-31.01	-12.94	3 799.40	-31.22	-13.15	
			Right	3 880.40	-32.05	-13.99	3 880.60	-32.47	-14.41	
46		Op. Freq.	Left	3 799.60	-34.18	-16.11	3 799.40	-34.76	-16.70	
			Right	3 880.40	-34.55	-16.49	3 880.60	-35.64	-17.58	
47		Op. Freq.	Left	3 799.60	-33.10	-15.03	3 799.40	-33.08	-15.02	
			Right	3 880.40	-33.95	-15.89	3 880.60	-33.91	-15.85	
48		Op. Freq.	Left	3 799.60	-33.13	-15.07	3 799.40	-34.08	-16.02	
			Right	3 880.40	-33.59	-15.52	3 880.60	-34.90	-16.84	
49		Op. Freq.	Left	3 799.60	-32.52	-14.46	3 799.40	-32.56	-14.50	
			Right	3 880.40	-32.37	-14.31	3 880.60	-32.67	-14.61	
50		Op. Freq.	Left	3 799.60	-33.31	-15.25	3 799.40	-33.93	-15.87	
			Right	3 880.40	-33.97	-15.91	3 880.60	-34.90	-16.83	
51		Op. Freq.	Left	3 799.60	-32.64	-14.58	3 799.40	-32.92	-14.85	
			Right	3 880.40	-33.43	-15.37	3 880.60	-34.07	-16.01	
52		Op. Freq.	Left	3 799.60	-33.48	-15.42	3 799.40	-33.95	-15.88	
			Right	3 880.40	-34.00	-15.93	3 880.60	-35.29	-17.23	
53		Op. Freq.	Left	3 799.60	-33.47	-15.41	3 799.40	-34.06	-16.00	
			Right	3 880.40	-34.47	-16.40	3 880.60	-35.71	-17.65	

Port	Modulation	Ch.	Edge Position	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Freq. (MHz)	Measured Level (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
54	16QAM	Op. Freq.	Left	3 799.60	-30.50	-12.44	3 799.40	-30.99	-12.93	-13
			Right	3 880.40	-30.80	-12.74	3 880.60	-31.24	-13.18	
55		Op. Freq.	Left	3 799.60	-33.31	-15.25	3 799.40	-33.90	-15.84	
			Right	3 880.40	-33.40	-15.34	3 880.60	-33.56	-15.50	
56		Op. Freq.	Left	3 799.60	-34.25	-16.18	3 799.40	-34.75	-16.69	
			Right	3 880.40	-35.27	-17.20	3 880.60	-36.12	-18.06	
57		Op. Freq.	Left	3 799.60	-34.34	-16.28	3 799.40	-35.15	-17.08	
			Right	3 880.40	-33.31	-15.25	3 880.60	-34.10	-16.04	
58		Op. Freq.	Left	3 799.60	-30.36	-12.30	3 799.40	-30.52	-12.46	
			Right	3 880.40	-30.97	-12.91	3 880.60	-31.28	-13.22	
59		Op. Freq.	Left	3 799.60	-32.15	-14.09	3 799.40	-32.30	-14.24	
			Right	3 880.40	-33.55	-15.49	3 880.60	-34.37	-16.31	
60		Op. Freq.	Left	3 799.60	-33.49	-15.43	3 799.40	-34.51	-16.45	
			Right	3 880.40	-33.21	-15.15	3 880.60	-34.59	-16.52	
61		Op. Freq.	Left	3 799.60	-31.70	-13.64	3 799.40	-32.24	-14.17	
			Right	3 880.40	-33.88	-15.81	3 880.60	-35.36	-17.29	
62		Op. Freq.	Left	3 799.60	-32.23	-14.17	3 799.40	-32.51	-14.45	
			Right	3 880.40	-32.92	-14.86	3 880.60	-33.43	-15.37	
63		Op. Freq.	Left	3 799.60	-34.86	-16.80	3 799.40	-35.49	-17.43	
			Right	3 880.40	-34.89	-16.83	3 880.60	-35.33	-17.27	

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	Low edge_Left(1) (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-14.00	-13	1.00

Modulation	Channel	Low edge_Left(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.63	-13	1.63

Modulation	Channel	High edge_Right(1) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.19	-13	1.19

Modulation	Channel	High edge_Right(2) (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.13	-13	2.13

(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Edge Position	Frequency (MHz)	Measured Value (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
0	16QAM	Op. Freq.	Left	3699.50	-31.27	-13.21	-13
			Right	3800.50	-32.62	-14.56	
1		Op. Freq.	Left	3699.50	-32.03	-13.97	
			Right	3800.50	-31.13	-13.07	
2		Op. Freq.	Left	3699.50	-31.16	-13.10	
			Right	3800.50	-30.80	-12.74	
3		Op. Freq.	Left	3699.50	-31.24	-13.18	
			Right	3800.50	-30.50	-12.44	
4		Op. Freq.	Left	3699.50	-31.98	-13.91	
			Right	3800.50	-32.30	-14.24	
5		Op. Freq.	Left	3699.50	-30.80	-12.74	
			Right	3800.50	-30.35	-12.28	
6		Op. Freq.	Left	3699.50	-32.53	-14.46	
			Right	3800.50	-31.92	-13.86	
7		Op. Freq.	Left	3699.50	-33.42	-15.36	
			Right	3800.50	-31.97	-13.91	
8		Op. Freq.	Left	3699.50	-33.50	-15.43	
			Right	3800.50	-32.73	-14.66	
9		Op. Freq.	Left	3699.50	-33.50	-15.44	
			Right	3800.50	-32.26	-14.20	
10		Op. Freq.	Left	3699.50	-31.63	-13.56	
			Right	3800.50	-31.46	-13.40	
11		Op. Freq.	Left	3699.50	-32.06	-13.99	
			Right	3800.50	-30.75	-12.69	
12		Op. Freq.	Left	3699.50	-33.12	-15.06	
			Right	3800.50	-31.69	-13.63	
13		Op. Freq.	Left	3699.50	-31.71	-13.65	
			Right	3800.50	-30.30	-12.24	
14		Op. Freq.	Left	3699.50	-31.51	-13.45	
			Right	3800.50	-31.14	-13.08	
15		Op. Freq.	Left	3699.50	-33.03	-14.97	
			Right	3800.50	-31.31	-13.25	
17		Op. Freq.	Left	3699.50	-31.26	-13.20	
			Right	3800.50	-31.15	-13.09	

Port	Modulation	Channel	Edge Position	Frequency (MHz)	Measured Value (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
18	16QAM	Op. Freq.	Left	3699.50	-32.92	-14.86	-13
			Right	3800.50	-33.21	-15.15	
19		Op. Freq.	Left	3699.50	-32.39	-14.33	
			Right	3800.50	-32.60	-14.54	
20		Op. Freq.	Left	3699.50	-33.35	-15.29	
			Right	3800.50	-32.86	-14.80	
21		Op. Freq.	Left	3699.50	-32.41	-14.35	
			Right	3800.50	-31.22	-13.16	
22		Op. Freq.	Left	3699.50	-33.11	-15.05	
			Right	3800.50	-32.32	-14.26	
23		Op. Freq.	Left	3699.50	-31.98	-13.92	
			Right	3800.50	-31.17	-13.11	
24		Op. Freq.	Left	3699.50	-31.24	-13.18	
			Right	3800.50	-31.84	-13.77	
25		Op. Freq.	Left	3699.50	-31.78	-13.72	
			Right	3800.50	-31.56	-13.50	
26		Op. Freq.	Left	3699.50	-33.75	-15.69	
			Right	3800.50	-32.87	-14.81	
27		Op. Freq.	Left	3699.50	-32.17	-14.11	
			Right	3800.50	-32.36	-14.30	
28		Op. Freq.	Left	3699.50	-33.54	-15.47	
			Right	3800.50	-33.43	-15.37	
29		Op. Freq.	Left	3699.50	-31.17	-13.11	
			Right	3800.50	-30.12	-12.06	
30		Op. Freq.	Left	3699.50	-32.87	-14.80	
			Right	3800.50	-33.05	-14.99	
31		Op. Freq.	Left	3699.50	-32.26	-14.19	
			Right	3800.50	-31.79	-13.73	
32		Op. Freq.	Left	3699.50	-31.54	-13.47	
			Right	3800.50	-30.32	-12.25	
33		Op. Freq.	Left	3699.50	-32.20	-14.14	
			Right	3800.50	-32.65	-14.59	
34		Op. Freq.	Left	3699.50	-30.85	-12.79	
			Right	3800.50	-30.06	-12.00	
35		Op. Freq.	Left	3699.50	-33.01	-14.95	
			Right	3800.50	-31.90	-13.84	

Port	Modulation	Channel	Edge Position	Frequency (MHz)	Measured Value (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
36	16QAM	Op. Freq.	Left	3699.50	-31.26	-13.20	-13
			Right	3800.50	-30.91	-12.85	
37		Op. Freq.	Left	3699.50	-31.12	-13.06	
			Right	3800.50	-30.55	-12.49	
38		Op. Freq.	Left	3699.50	-32.86	-14.80	
			Right	3800.50	-33.03	-14.97	
39		Op. Freq.	Left	3699.50	-30.95	-12.88	
			Right	3800.50	-30.65	-12.58	
40		Op. Freq.	Left	3699.50	-34.07	-16.01	
			Right	3800.50	-32.73	-14.66	
41		Op. Freq.	Left	3699.50	-31.28	-13.21	
			Right	3800.50	-30.69	-12.63	
42		Op. Freq.	Left	3699.50	-34.09	-16.03	
			Right	3800.50	-32.61	-14.55	
43		Op. Freq.	Left	3699.50	-31.82	-13.76	
			Right	3800.50	-31.05	-12.99	
44		Op. Freq.	Left	3699.50	-33.09	-15.03	
			Right	3800.50	-34.01	-15.95	
45		Op. Freq.	Left	3699.50	-31.17	-13.11	
			Right	3800.50	-31.00	-12.94	
46		Op. Freq.	Left	3699.50	-32.06	-14.00	
			Right	3800.50	-31.60	-13.54	
47		Op. Freq.	Left	3699.50	-33.35	-15.29	
			Right	3800.50	-33.56	-15.50	
48		Op. Freq.	Left	3699.50	-33.24	-15.18	
			Right	3800.50	-32.47	-14.40	
49		Op. Freq.	Left	3699.50	-31.67	-13.61	
			Right	3800.50	-31.31	-13.24	
50		Op. Freq.	Left	3699.50	-32.15	-14.09	
			Right	3800.50	-31.82	-13.76	
51		Op. Freq.	Left	3699.50	-32.93	-14.87	
			Right	3800.50	-32.35	-14.29	
52		Op. Freq.	Left	3699.50	-34.28	-16.22	
			Right	3800.50	-33.76	-15.70	
53		Op. Freq.	Left	3699.50	-30.90	-12.84	
			Right	3800.50	-32.83	-14.77	

Port	Modulation	Channel	Edge Position	Frequency (MHz)	Measured Value (dBm)	Corrected Measured Level (dBm)	Limit (dBm)
54	16QAM	Op. Freq.	Left	3699.50	-34.06	-16.00	-13
			Right	3800.50	-32.74	-14.68	
55		Op. Freq.	Left	3699.50	-33.87	-15.81	
			Right	3800.50	-32.80	-14.74	
56		Op. Freq.	Left	3699.50	-33.42	-15.36	
			Right	3800.50	-32.82	-14.75	
57		Op. Freq.	Left	3699.50	-33.54	-15.48	
			Right	3800.50	-32.48	-14.42	
58		Op. Freq.	Left	3699.50	-32.90	-14.83	
			Right	3800.50	-32.11	-14.05	
59		Op. Freq.	Left	3699.50	-32.83	-14.77	
			Right	3800.50	-32.26	-14.19	
60		Op. Freq.	Left	3699.50	-33.35	-15.29	
			Right	3800.50	-32.60	-14.54	
61		Op. Freq.	Left	3699.50	-33.74	-15.68	
			Right	3800.50	-32.78	-14.72	
62		Op. Freq.	Left	3699.50	-33.67	-15.60	
			Right	3800.50	-31.61	-13.55	
63		Op. Freq.	Left	3699.50	-33.86	-15.80	
			Right	3800.50	-33.96	-15.90	

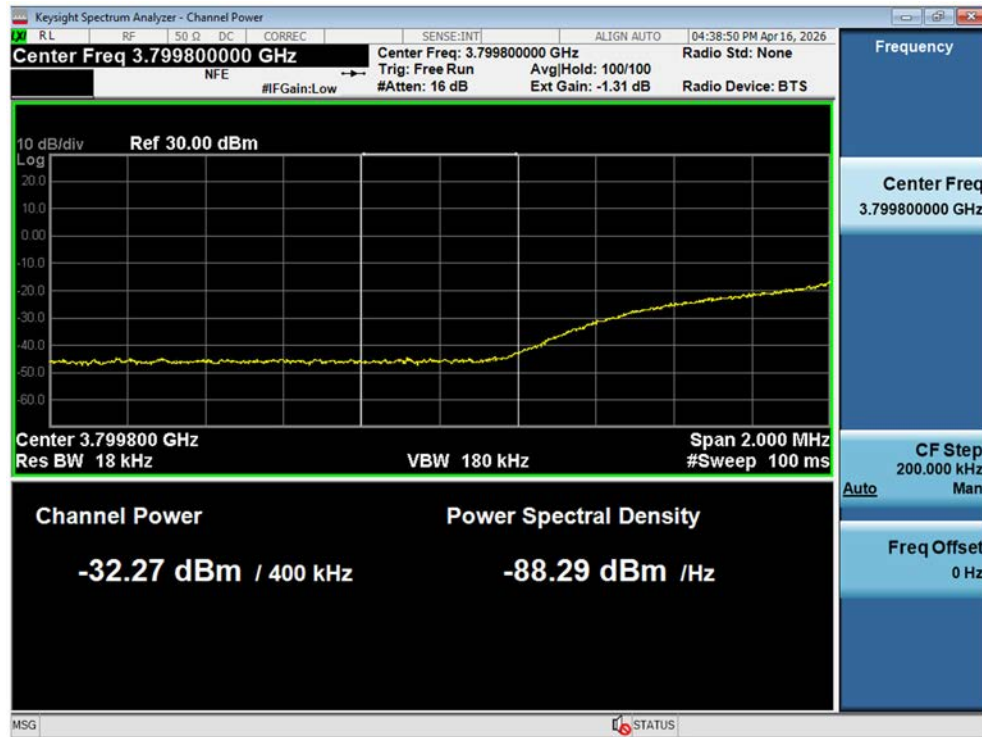
Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	Low edge (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-14.32	-13	1.32

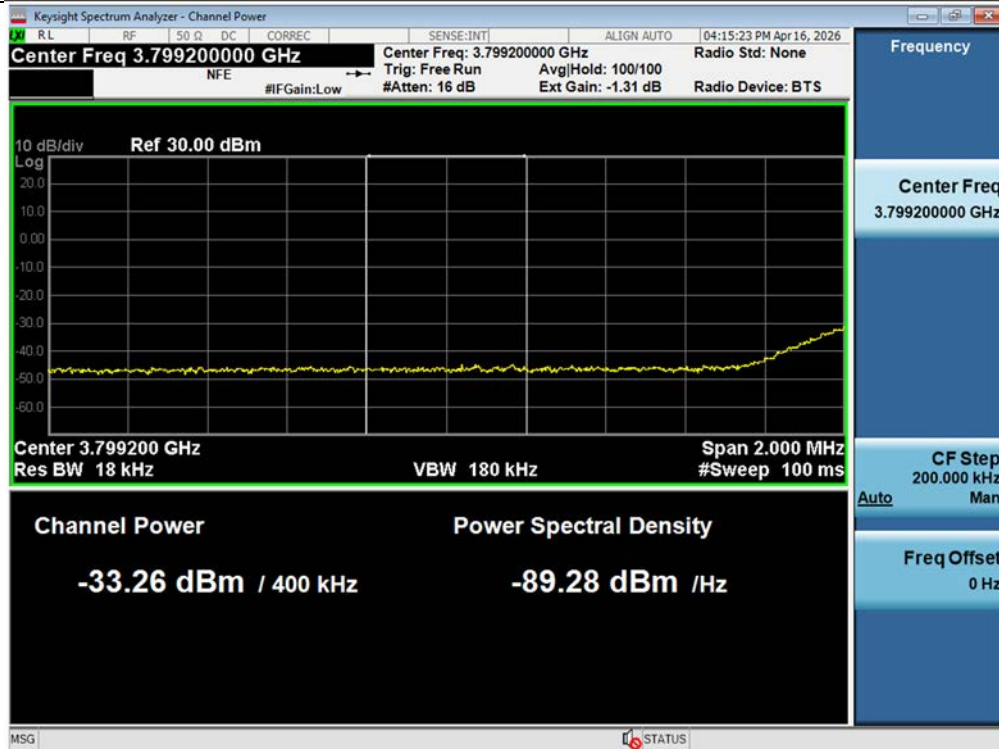
Modulation	Channel	High edge (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-13.79	-13	0.79

Plot Data of Out-of-band Unwanted Emissions

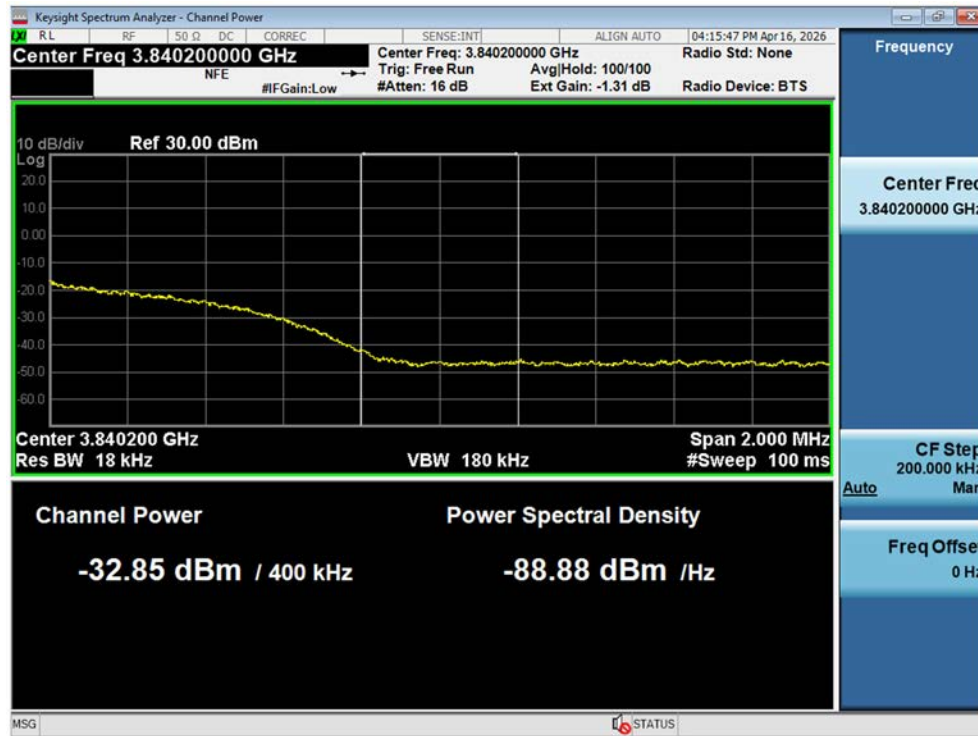
Port 58 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency / Left(1)



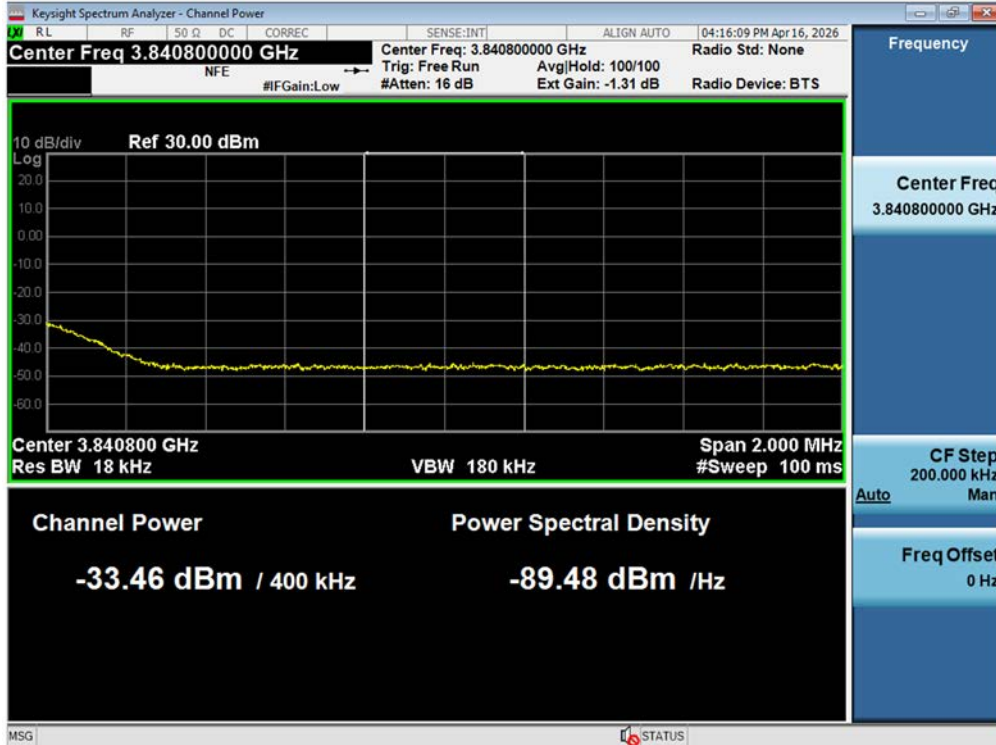
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency / Left(2)



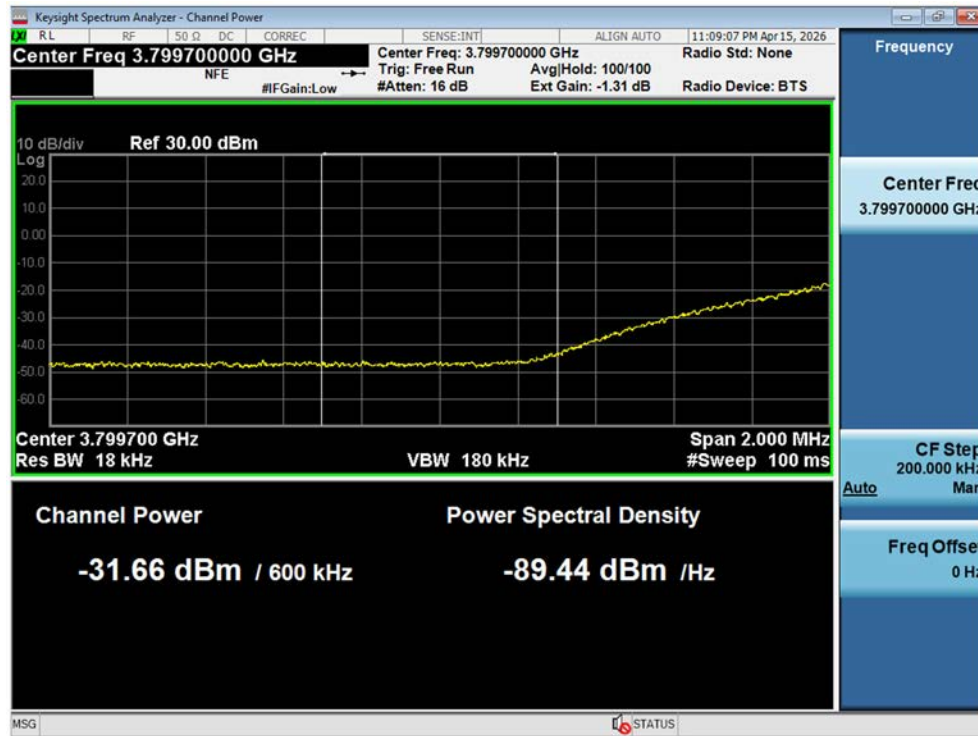
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency / Right(1)



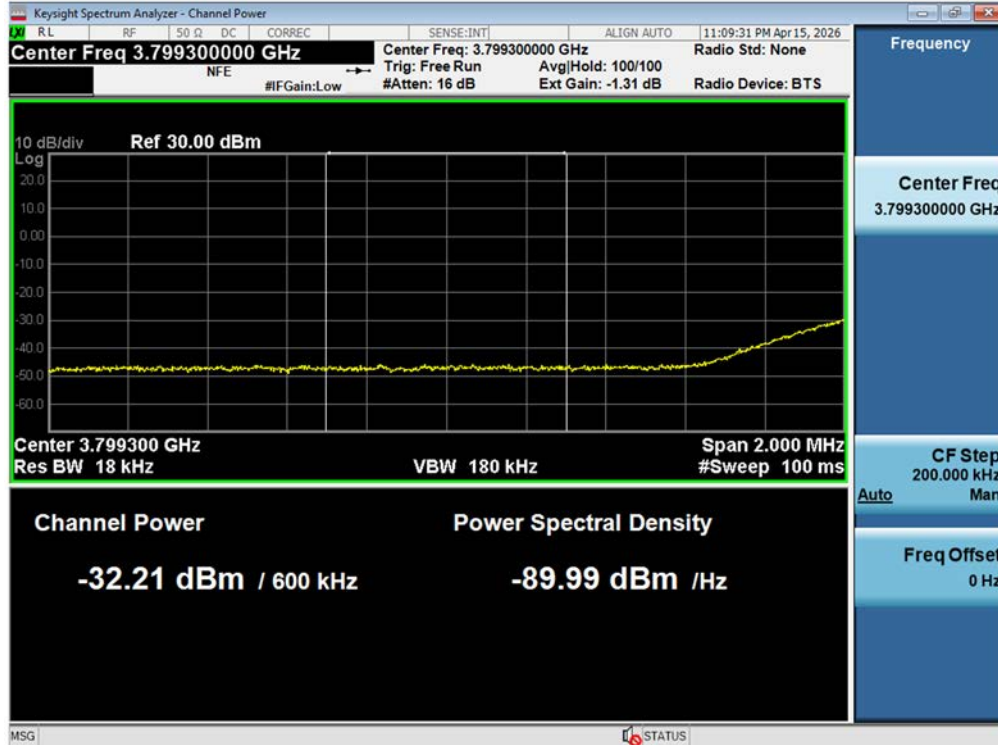
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 16QAM / Operator Frequency / Right(2)



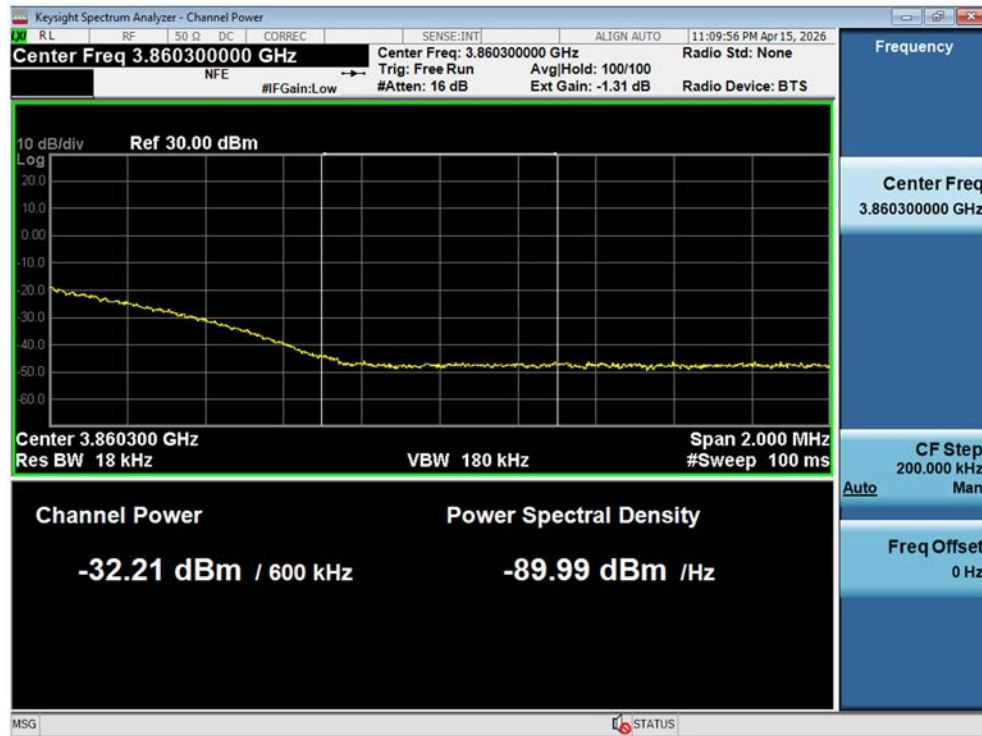
Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency / Left(1)



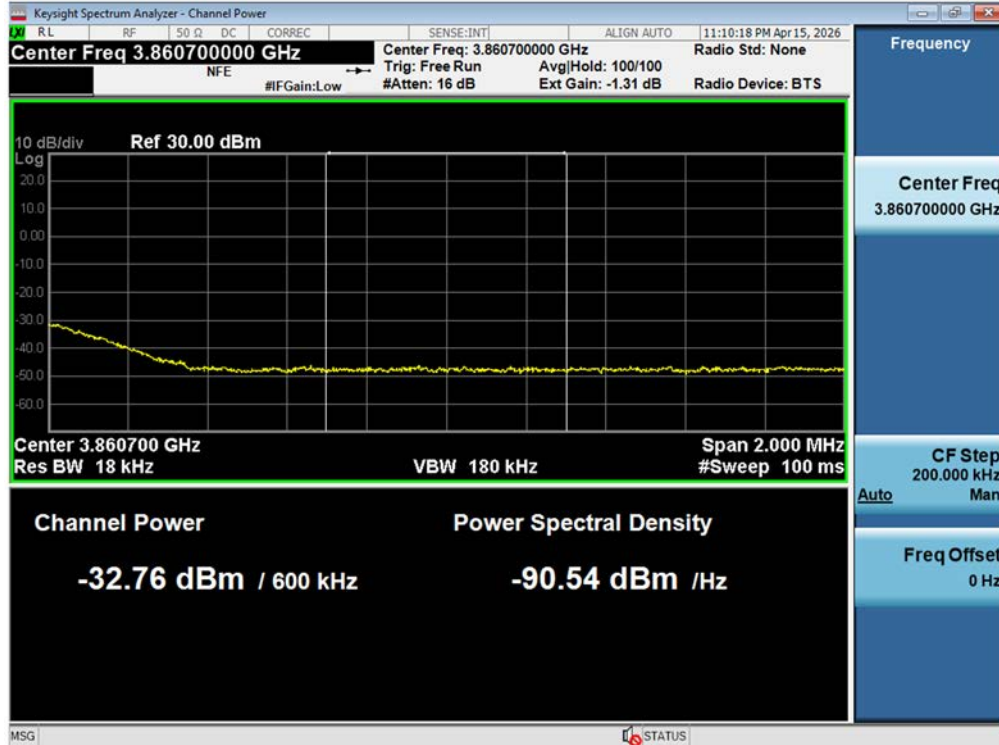
Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency / Left(2)



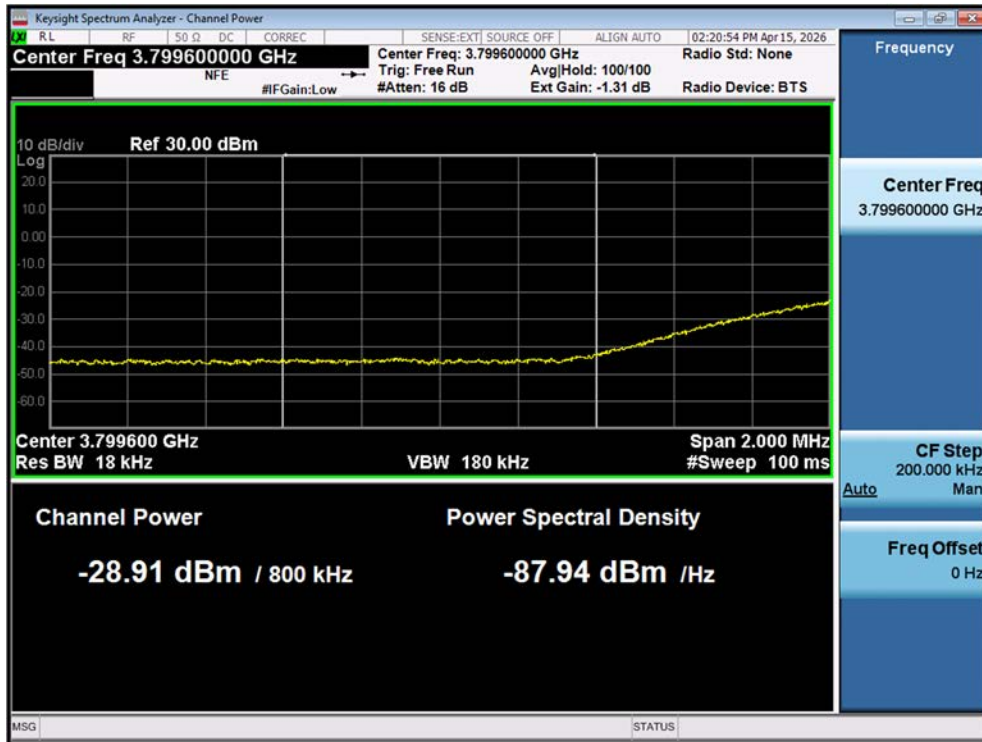
Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency / Right(1)



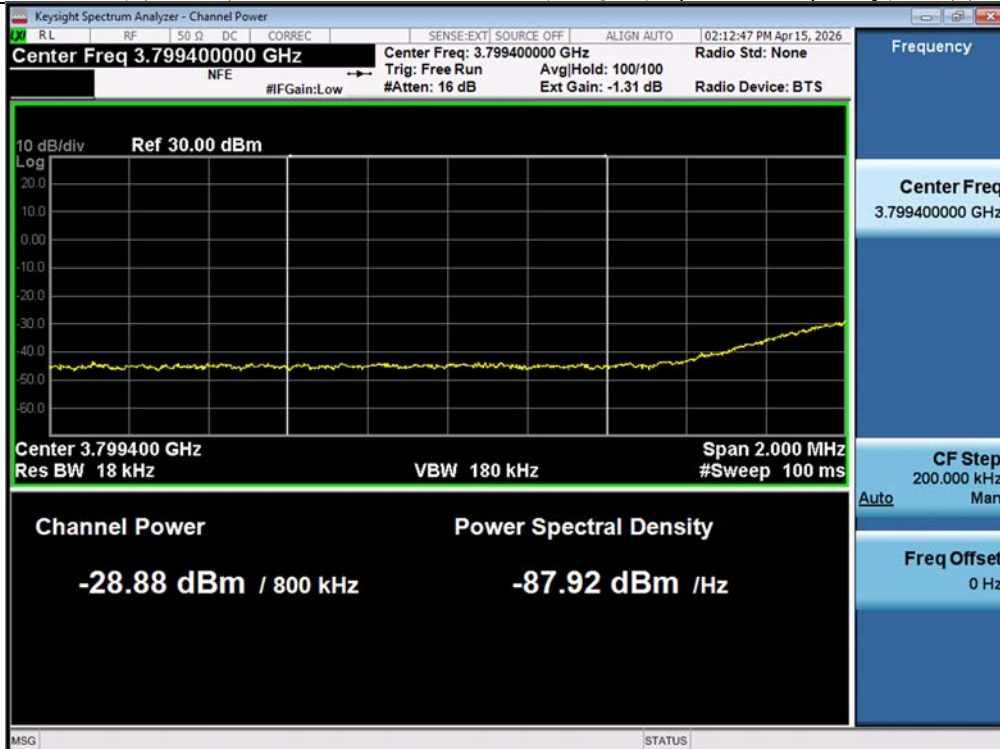
Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 16QAM / Operator Frequency / Right(2)



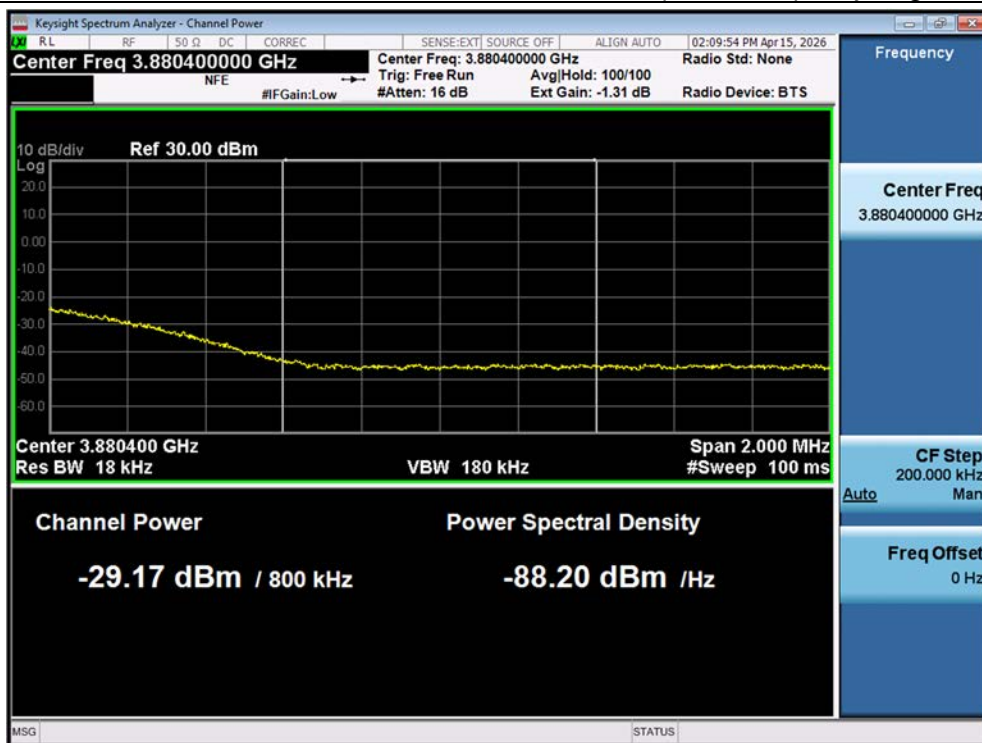
Port 30 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency / Left(1)



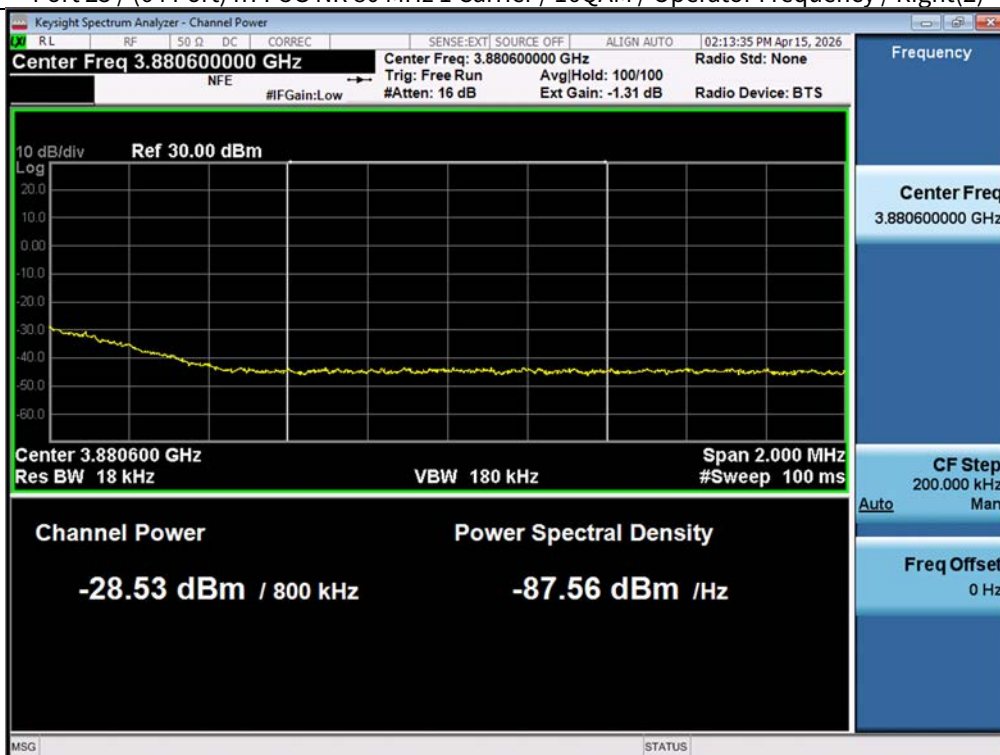
Port 25 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency / Left(2)



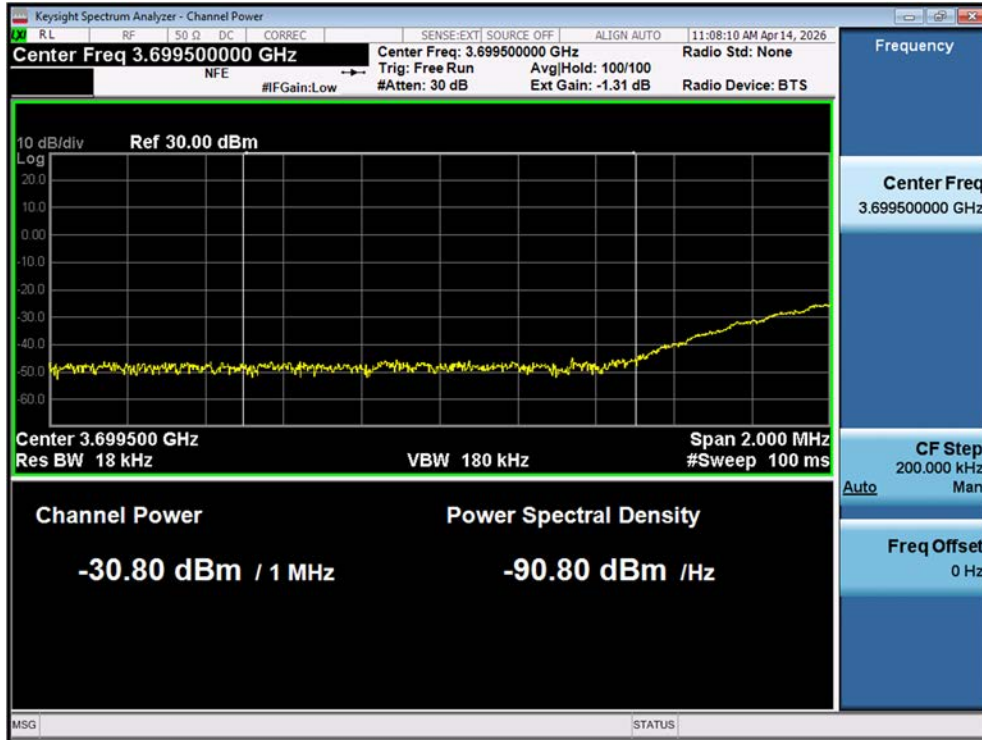
Port 23 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency / Right(1)



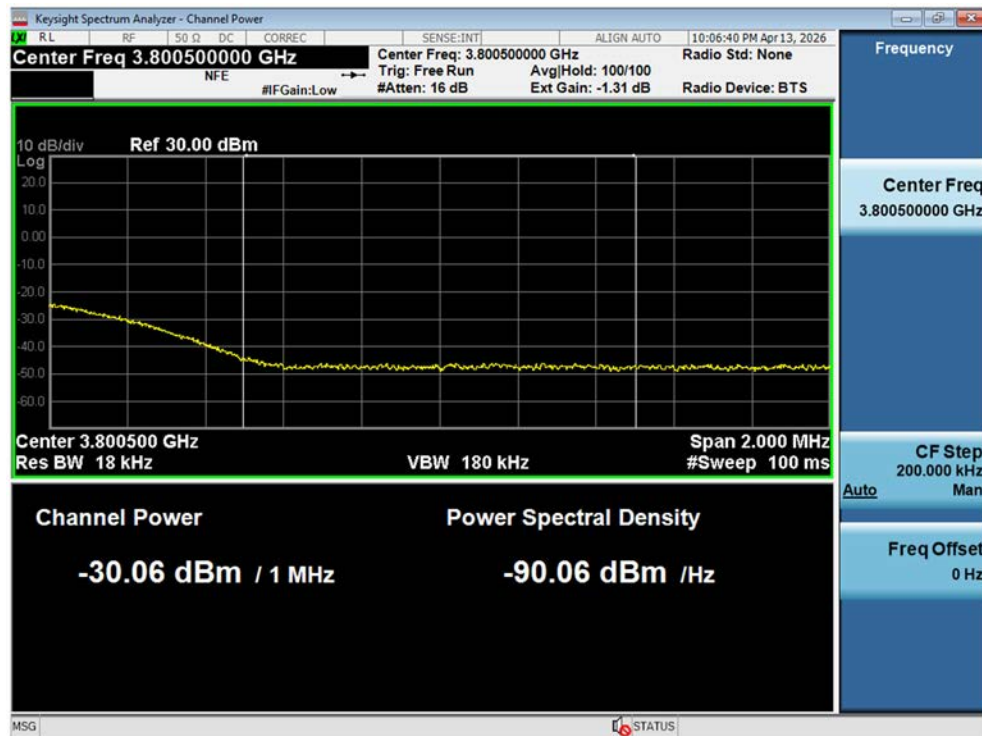
Port 25 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 16QAM / Operator Frequency / Right(2)



Port 5 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency / Left



Port 34 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM / Operator Frequency / Right



5.5. SPURIOUS UNWANTED EMISSIONS

Test Requirements:

§ 2.1051 Measurements required: Spurious emissions at antenna terminals.

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 27.53 Emission limits.

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

- (1) For base station 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)(1) 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. 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 Procedures:

The measurement is performed in accordance with Section 5.7.2, 5.7.4 of ANSI C63.26.

5.7.2 Basic guidelines for unwanted emissions conducted measurements

- a) For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's channel power, adjacent channel power, or band power functions. When using the integration method at the channel/block/band edge, the starting frequency of the integration shall be centered at one-half of the RBW away from the band/channel/block edge.

5.7.4 Spurious unwanted emission measurements

- a) Set the spectrum analyzer start frequency to the lowest frequency generated by the EUT, without going below 9 kHz, and the stop frequency to the lower frequency covered by the measurements previously performed in 5.7.3. As an alternative, the stop frequency can be set to the value specified in 5.1.1, depending on the EUT operating range, if the resulting plot can clearly demonstrate compliance for all frequencies not addressed by the out-of-band emissions measurements performed as per 5.7.3.
- b) When using an average power (rms) detector, ensure that the number of points in the sweep $\geq 2 \times (\text{span} / \text{RBW})$. This may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the spectrum analyzer capabilities. This requirement does not apply to peak-detected power measurements. When average power is specified by the applicable regulation, a peak-detector can be utilized for preliminary measurements to accommodate wider frequency spans. Any emissions found in the preliminary measurement to exceed the applicable limit(s) shall be further examined using a power averaging (rms) detector with the minimum number of measurement points as defined above.
- c) The sweep time should be set to auto-couple for performing peak-detector measurements. For measurements that use a power averaging (rms) detector, the sweep time shall be set as described for out-of-band emissions measurements in item d) of 5.7.3.
- d) Identify and measure the Highest spurious emission levels in each frequency range. It is not necessary to re-measure the out-of-band emissions as a part of this test. Record the frequencies and amplitudes corresponding to the measured emissions and capture the data plots.
- e) Repeat step b) through step d) for the upper spurious emission frequency range if not already captured by a wide span measurement performed as per the alternative provided in step a). The upper frequency for this measurement is defined in 5.1.1 as a function of the EUT operating range.
- f) Compare the results with the corresponding limit in the applicable regulation.
- g) The test report shall include the data plots of the measuring instrument display and the measured data.

Note:

1. In some frequency ranges, the RBW was reduced to 0.1%, 1%, and 10% of the reference bandwidth for measuring unwanted emissions levels. Therefore, the limit lines of the test plots were downward corrected from the limits (–values) in accordance with section 5.7.2 of ANSI C63.26-2015, while the measured values from the plots were adjusted with the correction factors and recorded in the tabular data (+values) to demonstrate compliance with the limits. Test plots show results with relative correction applied, while tabular tables present the results with full correction applied to compare to the actual limit.

Reduced RBW	0.1 %	1 %	10 %
Plot: Limit line compensation	-30 dB	-20 dB	-10 dB
Tabular data: Applied correction	+30 dB	+20 dB	+10 dB

2. Due to MIMO operations, a correction has been added to the limit according to KDB 662911 D01 v02r01.

- 4Tx MIMO correction: $10 \log(N_{\text{ANT}}) = 10 \log(64) = 18.06 \text{ dB}$
- Corrected Measured Level = Measured Level + $10 \log(64)$

If the corrected measured level for each port does not exceed the limit, the MIMO combined value will also not exceed the limit.

When the corrected measured level of an individual port exceeded the limit, the MIMO combined (summation) value was calculated and verified to remain within the limit.

3. In frequency regions adjacent to the fundamental signal, the measured results may include contributions from the transmitter's fundamental emission. Accordingly, emissions close to the channel edge were assessed with consideration of this contribution. The duty cycle correction factor was applied as an external gain in the plot for signal-based measurements and was taken into account in the relevant measurements.
4. The results of the Spurious Unwanted Emissions tests show a similar trend across all ports; therefore, only the worst-case plots are attached.

Test Results:

Tabular Data of RF Spurious Unwanted Emissions

(64 Port) n77 5G NR 40 MHz 1 Carrier

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 841 MHz ~ 3 842 MHz	3 842 MHz ~ 10 GHz	10 GHz ~ 40 GHz
0	16QAM	Op. Freq.	-21.165	-32.102	-13.410	-13.588	-14.657	-14.118	-18.233
1			-21.073	-32.571	-13.788	-13.825	-16.058	-14.784	-17.540
2			-22.415	-32.899	-12.980	-13.030	-14.068	-13.331	-18.028
3			-21.354	-31.701	-12.920	-13.346	-14.557	-13.248	-18.366
4			-21.182	-31.256	-16.129	-16.473	-17.013	-15.040	-19.877
5			-21.862	-31.425	-13.428	-13.414	-16.740	-15.208	-20.093
6			-21.654	-31.350	-14.818	-15.000	-17.086	-15.806	-20.226
7			-20.583	-31.988	-16.366	-16.225	-19.354	-17.325	-20.380
8			-22.098	-31.294	-16.056	-16.019	-17.573	-16.428	-19.711
9			-22.222	-32.069	-13.220	-13.319	-16.432	-15.167	-18.380
10			-21.377	-31.096	-14.651	-15.381	-17.781	-15.762	-18.644
11			-21.406	-31.497	-14.137	-14.303	-16.143	-14.945	-18.266
12			-22.297	-32.340	-16.002	-16.397	-17.634	-16.139	-18.801
13			-21.932	-32.732	-16.426	-16.734	-17.892	-16.483	-18.892
14			-21.578	-32.164	-15.118	-15.378	-16.169	-15.098	-18.725
15			-21.496	-31.860	-14.073	-14.223	-15.552	-14.254	-18.720
16			-21.484	-31.639	-14.774	-14.957	-16.388	-15.070	-18.903
17			-21.696	-31.981	-15.034	-15.399	-17.200	-16.002	-18.966
18			-21.687	-32.168	-14.666	-15.280	-15.306	-14.262	-18.875
19			-21.140	-31.684	-14.256	-14.873	-15.166	-14.253	-18.725
20			-21.205	-32.000	-16.045	-15.999	-18.194	-16.774	-18.863
21			-21.494	-31.416	-15.371	-15.279	-16.155	-15.227	-18.791
22			-21.718	-31.687	-13.864	-13.874	-15.939	-14.835	-18.507
23			-22.126	-32.286	-13.834	-13.738	-16.289	-15.324	-18.907
24			-21.784	-31.372	-13.010	-13.129	-15.311	-14.314	-18.873
25			-21.499	-31.106	-13.645	-13.909	-15.542	-14.316	-19.080
26			-21.716	-31.819	-16.729	-16.825	-17.365	-16.092	-18.972
27			-21.797	-32.045	-15.949	-16.319	-17.251	-15.610	-18.935
28			-21.604	-31.794	-15.174	-15.526	-18.040	-16.843	-18.962
29			-21.622	-31.670	-13.635	-14.096	-15.679	-14.522	-18.612
30			-21.950	-31.803	-15.658	-15.850	-17.882	-16.551	-18.904
31			-21.908	-31.520	-14.766	-14.670	-16.329	-15.402	-18.627
32			-21.411	-30.843	-13.326	-13.488	-14.505	-15.042	-17.965
33			-21.589	-31.022	-15.478	-15.284	-15.486	-16.474	-17.721
34			-22.591	-32.777	-13.308	-13.535	-15.163	-16.126	-17.608
35			-21.640	-33.005	-16.077	-16.170	-16.039	-17.467	-17.852
Limit			-13						

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 841 MHz ~ 3 842 MHz	3 842 MHz ~ 10 GHz	10 GHz ~ 40 GHz
36	16QAM	Op. Freq.	-21.305	-31.572	-14.604	-14.780	-14.208	-15.018	-17.680
37			-22.354	-33.030	-15.399	-15.323	-13.903	-15.969	-17.007
38			-20.857	-31.418	-15.417	-15.673	-15.021	-14.811	-17.157
39			-21.433	-31.970	-13.800	-14.154	-13.815	-14.247	-17.997
40			-21.629	-32.851	-14.793	-15.052	-14.966	-15.454	-18.280
41			-21.568	-32.169	-14.987	-15.208	-14.914	-15.198	-18.377
42			-21.953	-32.158	-14.196	-14.410	-15.617	-15.622	-18.481
43			-21.529	-32.277	-14.588	-14.947	-15.457	-15.645	-18.394
44			-21.450	-32.470	-16.107	-16.515	-16.440	-16.848	-18.290
45			-22.060	-32.665	-14.900	-14.916	-14.318	-15.939	-18.585
46			-21.502	-33.004	-14.771	-15.227	-15.532	-15.113	-18.473
47			-21.389	-32.084	-15.254	-16.021	-15.724	-15.814	-18.514
48			-22.030	-32.657	-14.956	-15.408	-15.371	-15.167	-18.619
49			-22.090	-32.247	-15.996	-15.814	-15.635	-16.450	-18.487
50			-21.114	-31.359	-14.520	-14.843	-15.258	-15.557	-18.534
51			-21.446	-31.454	-15.980	-16.146	-15.167	-16.126	-18.249
52			-21.334	-32.134	-15.992	-16.140	-15.428	-16.308	-18.536
53			-21.227	-31.555	-14.925	-15.230	-15.357	-16.293	-18.458
54			-21.357	-30.672	-11.029	-11.438	-11.733	-11.458	-18.520
55			-21.680	-31.577	-15.603	-15.486	-14.911	-14.775	-18.404
56			-21.017	-31.291	-17.464	-17.407	-17.158	-18.392	-18.632
57			-21.463	-31.132	-15.925	-16.090	-15.935	-17.589	-18.516
58			-21.708	-31.867	-12.603	-12.767	-14.334	-14.182	-18.564
59			-21.825	-31.683	-15.507	-15.942	-15.618	-15.692	-18.671
60			-21.107	-32.351	-15.209	-15.752	-14.842	-13.550	-18.584
61			-21.724	-31.647	-15.228	-15.853	-14.744	-14.116	-18.561
62			-21.780	-32.178	-14.889	-15.247	-14.740	-15.555	-18.536
63			-21.307	-31.832	-16.159	-16.505	-17.074	-17.253	-18.619
Limit			-13						

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	30 MHz ~ 3 798 MHz (dBm/MHz)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-14.663	-13	1.663
Modulation	Channel	3 798 MHz ~ 3 799 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.886	-13	1.886
Modulation	Channel	3 841 MHz ~3 842 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.639	-13	2.639
Modulation	Channel	3 842 MHz ~ 10 GHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.274	-13	2.274

(64 Port) n77 5G NR 60 MHz 1 Carrier

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 861 MHz ~ 3 862 MHz	3 862 MHz ~ 10 GHz	10 GHz ~ 40 GHz
0	16QAM	Op. Freq.	-18.399	-31.153	-15.489	-15.631	-18.076	-14.872	-18.588
1			-18.041	-30.351	-13.370	-12.829	-15.604	-13.118	-19.220
2			-19.124	-31.294	-13.370	-13.050	-15.046	-12.853	-18.952
3			-17.954	-32.275	-14.201	-14.291	-17.745	-14.252	-17.690
4			-17.954	-30.902	-14.106	-13.898	-20.536	-16.197	-18.242
5			-18.776	-32.185	-13.728	-13.788	-18.722	-15.108	-18.456
6			-18.134	-32.437	-14.248	-14.279	-18.586	-14.877	-18.590
7			-18.200	-31.864	-15.928	-15.765	-21.174	-16.626	-18.759
8			-18.387	-31.537	-16.977	-16.304	-22.291	-17.426	-18.544
9			-18.352	-30.771	-14.194	-14.009	-17.380	-14.417	-18.852
10			-18.174	-32.369	-15.485	-15.482	-19.072	-15.130	-18.426
11			-18.146	-32.002	-14.457	-14.622	-19.576	-15.505	-18.258
12			-18.078	-32.205	-15.623	-15.353	-20.023	-15.713	-18.374
13			-18.549	-31.304	-14.641	-14.823	-20.780	-15.756	-18.583
14			-18.537	-32.354	-15.567	-15.095	-19.879	-15.960	-18.456
15			-18.277	-31.624	-14.663	-14.730	-19.083	-15.260	-18.328
16			-18.228	-30.744	-14.657	-14.626	-17.503	-14.348	-18.545
17			-18.484	-31.906	-15.695	-15.721	-20.769	-16.046	-18.052
18			-18.397	-32.164	-15.514	-15.674	-15.605	-13.308	-18.221
19			-18.130	-31.982	-14.601	-15.043	-18.168	-14.681	-18.294
20			-18.330	-32.322	-16.527	-16.386	-19.528	-15.641	-18.557
21			-18.352	-30.905	-14.816	-14.661	-18.377	-14.958	-17.850
22			-18.263	-31.430	-14.276	-14.310	-18.338	-14.933	-18.465
23			-18.401	-31.721	-14.028	-13.912	-17.499	-14.511	-17.815
24			-18.256	-31.129	-13.074	-13.281	-19.184	-15.016	-18.661
25			-18.647	-31.139	-13.929	-14.084	-16.278	-13.822	-18.255
26			-18.217	-31.417	-16.284	-16.658	-21.670	-16.500	-18.580
27			-18.352	-32.153	-14.330	-14.362	-19.836	-15.057	-18.696
28			-18.078	-31.066	-15.515	-15.093	-20.604	-15.677	-17.340
29			-17.996	-31.809	-13.377	-13.432	-16.012	-13.392	-18.145
30			-17.926	-31.094	-13.804	-13.499	-19.845	-15.431	-17.340
31			-18.378	-31.838	-14.789	-14.660	-19.280	-15.006	-17.754
32			-18.470	-32.612	-12.700	-12.970	-13.450	-13.589	-18.888
33			-18.343	-31.388	-15.330	-15.341	-16.128	-16.649	-18.920
34			-19.073	-31.326	-12.134	-12.438	-12.852	-13.131	-18.550
35			-18.352	-31.162	-15.618	-15.702	-15.887	-15.886	-18.328
Limit			-13						

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 861 MHz ~ 3 862 MHz	3 862 MHz ~ 10 GHz	10 GHz ~ 40 GHz
36	16QAM	Op. Freq.	-18.069	-31.756	-14.397	-15.154	-15.323	-15.281	-18.267
37			-18.841	-31.546	-15.190	-15.312	-14.580	-15.509	-18.193
38			-18.295	-31.109	-16.355	-16.722	-15.944	-15.609	-18.281
39			-18.053	-31.944	-13.529	-13.235	-15.375	-14.874	-18.279
40			-18.015	-32.123	-15.645	-15.746	-15.551	-14.680	-18.164
41			-18.379	-32.174	-14.707	-15.393	-15.834	-15.447	-18.203
42			-18.484	-31.635	-14.268	-14.373	-15.827	-15.469	-18.396
43			-17.873	-31.655	-14.880	-14.973	-15.364	-15.754	-18.494
44			-18.271	-31.707	-15.529	-15.838	-16.571	-16.636	-18.621
45			-18.461	-31.650	-13.290	-13.264	-14.577	-15.663	-18.550
46			-18.393	-31.751	-16.265	-16.764	-16.162	-15.705	-18.485
47			-18.269	-32.079	-16.138	-16.625	-15.185	-15.507	-18.599
48			-18.293	-31.575	-14.881	-15.511	-15.788	-14.799	-18.451
49			-18.360	-31.474	-14.559	-15.218	-15.112	-15.063	-18.754
50			-18.431	-31.838	-14.427	-14.709	-15.513	-15.647	-18.544
51			-18.305	-31.634	-15.198	-15.338	-15.458	-15.652	-18.284
52			-18.490	-31.972	-15.426	-15.764	-15.372	-15.492	-18.141
53			-18.188	-30.726	-15.443	-15.534	-15.752	-16.701	-18.210
54			-18.545	-32.256	-12.024	-12.056	-12.583	-12.233	-18.112
55			-19.000	-32.678	-15.881	-16.071	-15.819	-16.491	-18.086
56			-18.256	-31.026	-17.068	-17.327	-17.114	-18.374	-18.119
57			-18.024	-32.110	-14.827	-14.979	-15.400	-15.451	-17.984
58			-18.594	-31.490	-12.217	-12.498	-13.576	-13.526	-18.146
59			-18.493	-31.111	-14.631	-14.874	-15.021	-14.992	-18.081
60			-18.253	-30.979	-16.790	-16.948	-16.533	-16.253	-18.251
61			-17.905	-31.386	-15.635	-15.533	-15.267	-16.168	-18.009
62			-18.087	-31.265	-13.523	-13.524	-14.069	-14.328	-18.086
63			-16.628	-30.308	-16.749	-16.837	-17.145	-18.073	-18.221
Limit			-13						

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	30 MHz ~ 3 798 MHz (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-14.63	-13	1.63
Modulation	Channel	3 798 MHz ~ 3 799 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.70	-13	1.70
Modulation	Channel	3 861 MHz ~3 862 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-16.51	-13	3.51
Modulation	Channel	3 862 MHz ~ 10 GHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.10	-13	2.10

(64 Port) n77 5G NR 80 MHz 1 Carrier

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 881 MHz ~ 3 882 MHz	3 842 MHz ~ 10 GHz	10 GHz ~ 40 GHz
0	16QAM	Op. Freq.	-18.402	-31.570	-14.399	-14.318	-18.858	-14.860	-17.745
1			-18.108	-31.534	-12.574	-12.628	-15.363	-12.724	-17.559
2			-18.863	-31.883	-11.950	-12.459	-15.318	-12.691	-17.310
3			-17.382	-31.350	-11.910	-12.168	-15.568	-12.842	-16.795
4			-17.938	-30.397	-12.273	-13.039	-20.198	-15.359	-17.588
5			-19.306	-30.870	-12.264	-12.345	-15.252	-12.821	-17.497
6			-18.423	-30.613	-13.965	-13.945	-16.903	-14.042	-16.752
7			-18.067	-31.106	-14.764	-14.724	-18.869	-14.913	-16.614
8			-18.550	-32.119	-16.273	-16.104	-21.959	-16.331	-17.860
9			-18.491	-30.432	-13.842	-13.730	-16.575	-13.857	-17.274
10			-18.215	-30.483	-15.422	-15.354	-18.618	-15.176	-16.816
11			-18.709	-30.864	-13.748	-13.752	-17.370	-13.254	-16.999
12			-18.701	-29.954	-14.735	-14.707	-18.230	-14.401	-17.345
13			-18.659	-30.374	-13.884	-13.848	-17.832	-13.275	-18.035
14			-17.566	-31.061	-13.604	-13.752	-16.697	-13.295	-17.383
15			-17.769	-31.153	-14.674	-14.414	-20.174	-15.092	-17.821
16			-17.938	-31.536	-13.580	-13.577	-15.572	-13.186	-18.146
17			-17.831	-30.897	-15.819	-15.601	-22.733	-16.702	-18.080
18			-17.987	-30.045	-13.095	-13.346	-20.003	-14.994	-17.832
19			-17.844	-31.089	-14.753	-14.990	-18.449	-14.375	-17.575
20			-17.791	-30.504	-15.497	-15.154	-18.337	-14.740	-17.792
21			-17.808	-30.799	-14.107	-13.850	-16.335	-13.667	-18.309
22			-17.857	-30.648	-12.764	-12.687	-15.605	-13.066	-17.085
23			-17.486	-30.785	-12.712	-12.834	-15.352	-12.546	-18.070
24			-17.292	-29.777	-13.572	-13.589	-18.596	-14.283	-18.186
25			-17.798	-30.736	-12.898	-12.911	-15.838	-13.105	-17.683
26			-18.131	-31.737	-16.031	-15.563	-21.699	-16.068	-17.837
27			-17.869	-31.261	-13.794	-13.538	-18.751	-13.960	-17.300
28			-18.037	-31.138	-16.350	-16.280	-21.128	-15.458	-17.526
29			-18.141	-30.030	-12.476	-12.615	-15.439	-13.011	-17.351
30			-18.049	-31.773	-14.006	-14.373	-15.531	-13.318	-17.752
31			-17.778	-30.024	-14.328	-14.461	-20.525	-15.038	-17.434
32			-17.743	-31.015	-12.813	-12.891	-13.823	-13.508	-18.195
33			-17.196	-30.390	-14.498	-14.756	-15.231	-15.438	-18.105
34			-18.189	-31.451	-11.763	-11.700	-11.835	-11.748	-18.181
35			-17.950	-31.724	-15.372	-15.422	-15.068	-15.683	-18.100
Limit			-13						

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 798 MHz	3 798 MHz ~ 3 799 MHz	3 881 MHz ~ 3 882 MHz	3 842 MHz ~ 10 GHz	10 GHz ~ 40 GHz
36	16QAM	Op. Freq.	-16.908	-29.985	-12.842	-13.148	-14.761	-14.118	-18.036
37			-18.138	-31.956	-12.935	-13.082	-13.859	-14.280	-17.920
38			-17.486	-30.631	-14.823	-15.160	-16.113	-14.584	-18.241
39			-16.889	-29.945	-11.921	-12.038	-12.195	-12.275	-18.340
40			-17.804	-30.793	-14.847	-15.139	-15.396	-14.600	-18.251
41			-17.986	-31.300	-13.867	-14.171	-16.142	-15.261	-18.195
42			-17.507	-30.463	-13.735	-13.785	-15.726	-14.430	-18.296
43			-17.849	-31.089	-13.629	-13.553	-13.843	-13.837	-18.324
44			-17.793	-30.875	-14.205	-14.789	-15.987	-14.937	-18.290
45			-17.637	-31.605	-12.462	-12.477	-13.719	-14.134	-17.990
46			-17.625	-30.961	-15.647	-15.880	-16.309	-15.542	-18.288
47			-17.923	-30.517	-14.836	-14.731	-15.837	-12.911	-18.048
48			-17.670	-30.337	-14.315	-14.870	-15.810	-14.121	-18.381
49			-17.753	-30.907	-12.745	-13.825	-13.979	-13.238	-18.057
50			-17.802	-30.238	-14.275	-14.374	-15.610	-15.599	-18.361
51			-17.582	-31.766	-13.809	-14.104	-15.274	-14.785	-18.229
52			-17.988	-29.771	-15.029	-14.853	-16.060	-14.794	-18.189
53			-17.830	-30.384	-14.968	-14.630	-16.250	-15.381	-18.284
54			-18.002	-30.655	-11.385	-12.004	-12.642	-12.216	-18.223
55			-17.913	-30.982	-14.230	-14.421	-14.509	-14.755	-18.219
56			-17.820	-30.469	-15.833	-15.737	-16.983	-17.032	-18.010
57			-17.568	-30.550	-15.929	-16.287	-15.903	-14.978	-18.115
58			-17.510	-30.588	-12.044	-11.850	-13.070	-13.186	-18.008
59			-17.572	-31.068	-13.543	-13.429	-15.547	-14.667	-18.067
60			-17.887	-30.616	-14.847	-15.371	-15.697	-13.497	-18.328
61			-17.654	-31.194	-13.021	-13.510	-16.117	-14.486	-18.181
62			-17.560	-32.070	-13.347	-13.338	-14.515	-14.457	-18.331
63			-18.148	-31.580	-16.564	-16.572	-16.620	-17.003	-18.096
Limit			-13						

Summation Value (Sum Data of Port 0 ~ Port 63)

Modulation	Channel	30 MHz ~ 3 798 MHz (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-13.758	-13	0.758
Modulation	Channel	3 798 MHz ~ 3 799 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-13.876	-13	0.876
Modulation	Channel	3 881 MHz ~3 882 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.916	-13	2.916
Modulation	Channel	3 882 MHz ~ 10 GHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.125	-13	1.125

(64 Port) n77 5G NR 100 MHz 1 Carrier

Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 698 MHz	3 698 MHz ~ 3 699 MHz	3 801 MHz ~ 3 802 MHz	3 802 MHz ~ 10 GHz	10 GHz ~ 40 GHz
0	16QAM	Op. Freq.	-23.124	-33.375	-15.907	-16.485	-16.349	-16.046	-18.742
1			-22.270	-31.368	-14.892	-15.866	-14.585	-14.472	-18.901
2			-23.315	-32.223	-13.622	-14.433	-13.433	-13.269	-18.795
3			-23.249	-32.095	-13.332	-13.961	-14.060	-13.604	-18.805
4			-22.232	-31.227	-13.121	-14.907	-15.911	-13.925	-18.887
5			-23.083	-32.176	-13.533	-14.211	-13.648	-13.036	-18.965
6			-22.805	-32.001	-15.773	-16.444	-15.181	-14.764	-19.049
7			-22.338	-30.632	-15.988	-16.789	-15.882	-15.290	-18.854
8			-23.453	-32.099	-16.397	-17.117	-15.675	-15.413	-18.972
9			-22.880	-32.491	-16.225	-16.954	-15.926	-15.486	-19.004
10			-23.124	-31.602	-14.507	-15.178	-15.038	-14.486	-18.996
11			-22.620	-31.127	-14.496	-15.136	-14.857	-14.197	-18.811
12			-22.841	-31.967	-16.361	-16.966	-15.661	-15.172	-18.938
13			-22.864	-30.550	-13.899	-15.278	-13.592	-13.033	-18.877
14			-22.701	-31.491	-15.984	-17.071	-15.541	-14.542	-18.942
15			-23.202	-31.637	-15.609	-16.354	-14.679	-14.089	-18.865
16			-23.168	-32.255	-16.206	-16.875	-15.530	-14.831	-18.721
17			-22.835	-30.851	-17.091	-18.737	-17.046	-16.881	-18.542
18			-22.973	-31.123	-15.380	-17.248	-16.278	-15.470	-18.739
19			-23.146	-31.880	-16.387	-17.281	-16.234	-15.188	-18.963
20			-23.037	-31.786	-17.034	-18.119	-16.892	-16.218	-18.846
21			-22.945	-32.912	-15.568	-16.648	-15.268	-14.380	-18.857
22			-22.755	-31.555	-15.923	-16.408	-14.713	-14.303	-18.845
23			-22.614	-32.289	-14.098	-15.638	-13.676	-13.720	-18.761
24			-22.755	-31.336	-14.309	-14.838	-15.571	-14.795	-18.777
25			-21.810	-31.807	-15.571	-16.183	-15.483	-13.896	-18.775
26			-22.939	-31.541	-17.083	-17.775	-16.535	-16.522	-18.823
27			-22.756	-32.413	-13.894	-14.503	-13.833	-13.343	-18.785
28			-22.953	-31.574	-13.913	-14.807	-14.422	-13.690	-17.627
29			-22.936	-31.894	-13.646	-14.336	-13.342	-13.708	-17.706
30			-23.297	-32.228	-14.164	-15.298	-15.923	-15.118	-18.420
31			-22.695	-32.439	-14.422	-15.984	-15.476	-14.603	-18.025
32			-22.741	-31.907	-14.148	-13.213	-12.282	-12.348	-18.029
33			-22.237	-31.184	-15.492	-16.576	-14.908	-14.832	-17.920
34			-23.290	-31.615	-14.212	-14.789	-11.204	-11.869	-17.827
35			-22.208	-29.930	-16.404	-16.939	-14.459	-14.771	-17.696
Limit			-13						

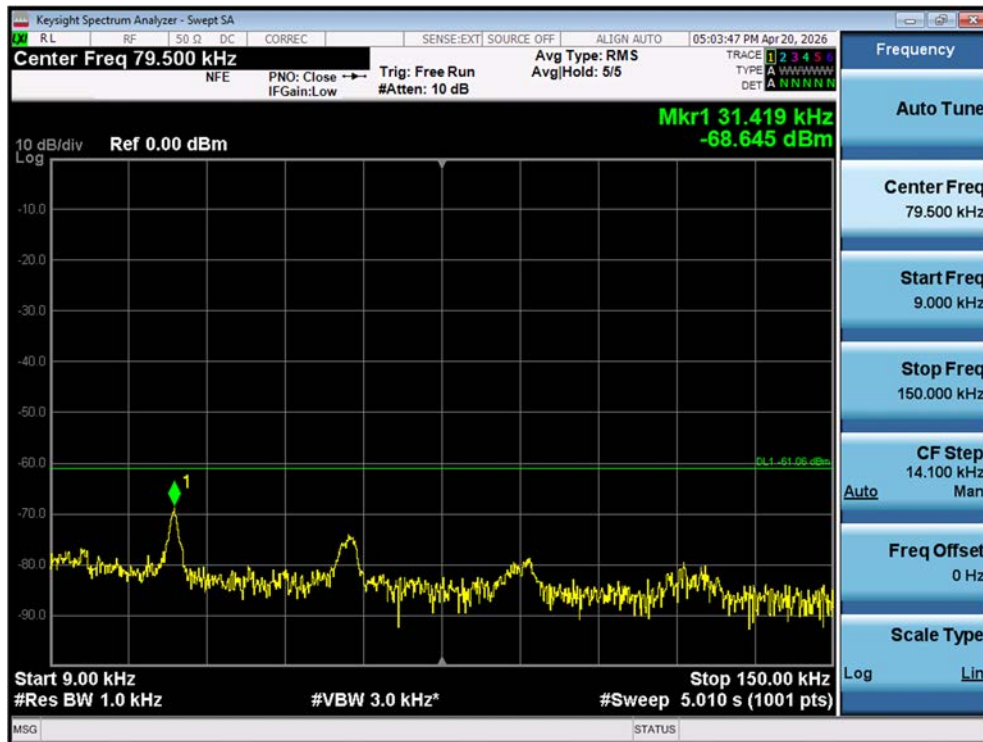
Port	Modulation	Channel	Corrected Measured Level (dBm/MHz)						
			9 kHz ~ 150 kHz	150 kHz ~ 30 MHz	30 MHz ~ 3 698 MHz	3 698 MHz ~ 3 699 MHz	3 801 MHz ~ 3 802 MHz	3 802 MHz ~ 10 GHz	10 GHz ~ 40 GHz
36	16QAM	Op. Freq.	-21.883	-31.317	-12.625	-13.737	-12.908	-11.942	-17.812
37			-23.005	-32.526	-12.491	-13.150	-12.248	-12.052	-17.808
38			-22.116	-31.230	-15.746	-16.365	-14.751	-14.540	-17.993
39			-22.237	-31.193	-11.733	-12.441	-11.286	-11.485	-17.782
40			-22.093	-32.008	-15.817	-16.699	-14.803	-14.292	-18.347
41			-22.777	-31.111	-13.353	-15.256	-13.276	-12.142	-18.282
42			-21.822	-31.123	-14.591	-14.973	-14.514	-13.726	-18.468
43			-21.754	-31.526	-14.979	-15.892	-14.566	-13.794	-18.504
44			-22.359	-31.764	-15.827	-17.030	-15.320	-14.880	-18.428
45			-22.243	-31.591	-13.474	-14.400	-13.215	-12.740	-18.469
46			-22.685	-31.774	-13.627	-15.150	-13.066	-12.581	-18.387
47			-22.296	-30.920	-15.214	-16.546	-15.129	-14.242	-18.260
48			-22.225	-30.071	-14.995	-15.742	-13.249	-13.534	-18.297
49			-22.627	-31.984	-14.514	-14.003	-13.891	-14.651	-18.275
50			-22.556	-32.178	-14.519	-15.012	-13.506	-13.247	-18.507
51			-22.633	-31.833	-15.913	-15.621	-14.588	-14.601	-18.490
52			-22.470	-31.611	-15.746	-16.172	-15.449	-15.142	-18.505
53			-22.776	-31.131	-15.257	-15.455	-14.926	-14.038	-18.559
54			-22.961	-31.744	-16.051	-16.351	-14.947	-14.721	-18.421
55			-22.688	-31.313	-15.495	-15.993	-14.224	-13.505	-16.193
56			-22.640	-32.087	-16.445	-15.809	-14.493	-14.312	-19.667
57			-23.014	-31.300	-12.344	-12.226	-12.124	-13.773	-19.890
58			-22.642	-31.643	-14.202	-14.780	-13.624	-13.635	-20.038
59			-22.740	-31.953	-14.593	-15.016	-14.071	-13.895	-18.652
60			-22.880	-31.703	-14.592	-15.582	-13.930	-14.119	-18.730
61			-22.999	-31.928	-12.650	-12.909	-13.259	-12.483	-17.759
62			-22.018	-30.772	-14.153	-15.195	-13.452	-12.584	-17.554
63			-21.856	-31.883	-14.264	-15.734	-15.276	-12.704	-17.624
Limit			-13						

Summation Value (Sum Data of Port 0 ~ Port 63)

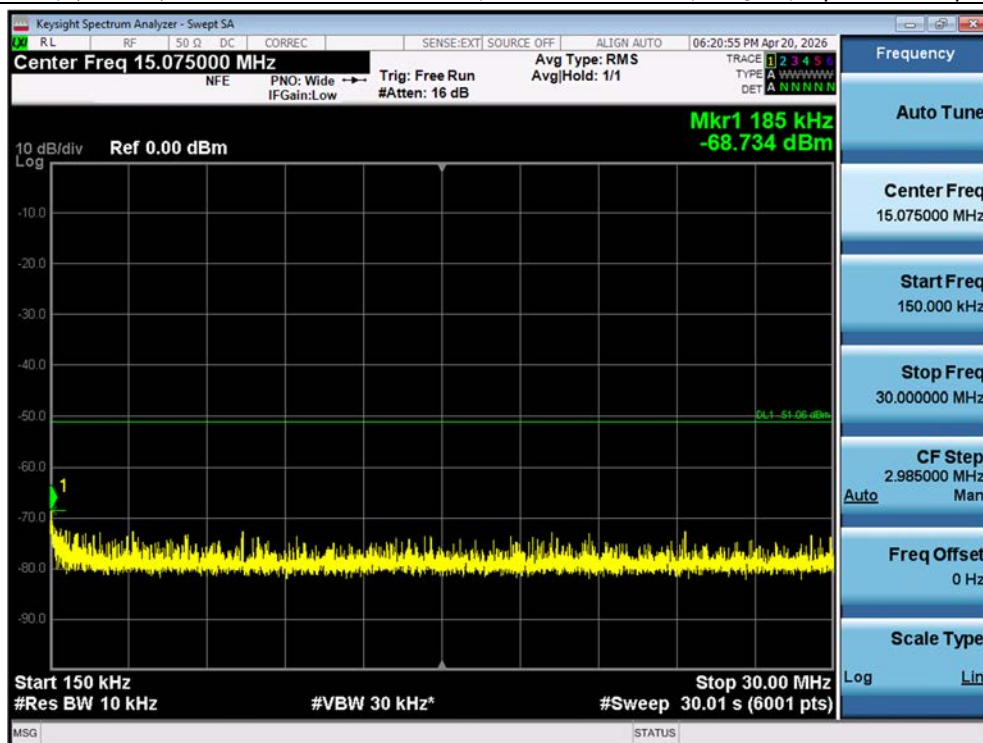
Modulation	Channel	30 MHz ~ 3 698 MHz (dBm)	Limit (dBm/)	Margin (dB)
16QAM	Op. Freq.	-14.658	-13	1.658
Modulation	Channel	3 698 MHz ~ 3 699 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-15.394	-13	2.394
Modulation	Channel	3 801 MHz ~3 802 MHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-14.325	-13	1.325
Modulation	Channel	3 802 MHz ~ 10 GHz (dBm)	Limit (dBm)	Margin (dB)
16QAM	Op. Freq.	-13.923	-13	0.923

Plot Data of Spurious Unwanted Emissions

Port 7 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 9 kHz ~ 150 kHz / 16QAM / Operator Frequency



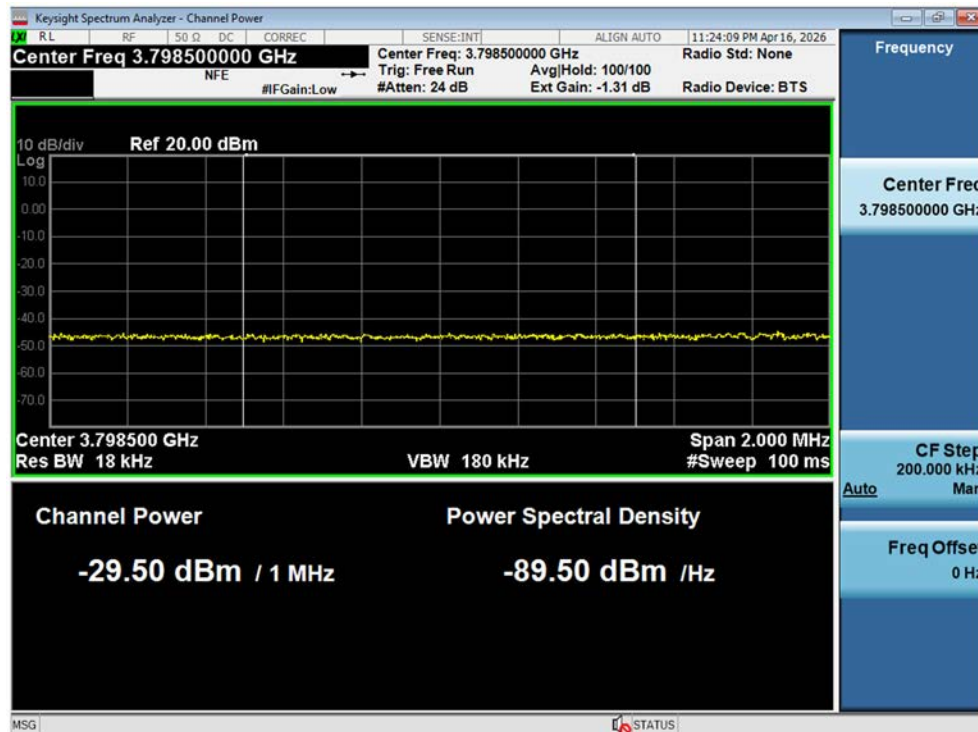
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 150 kHz ~ 30 MHz / 16QAM / Operator Frequency



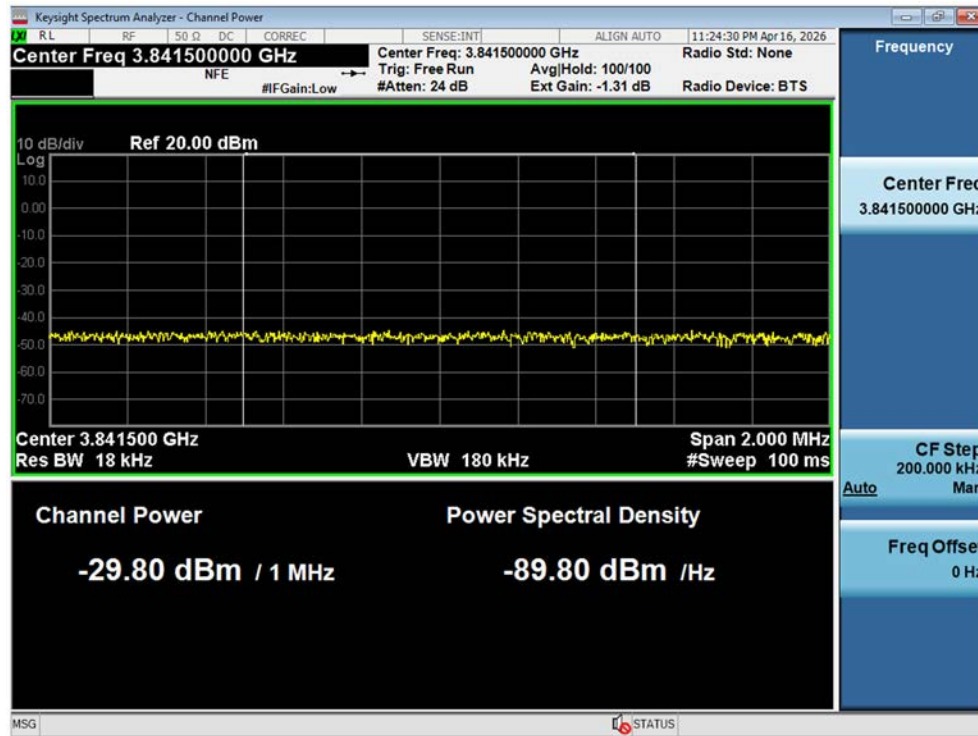
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 30 MHz ~ 3798 MHz / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 3798 MHz ~ 3799 MHz / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 3841 MHz ~ 3842 MHz / 16QAM / Operator Frequency



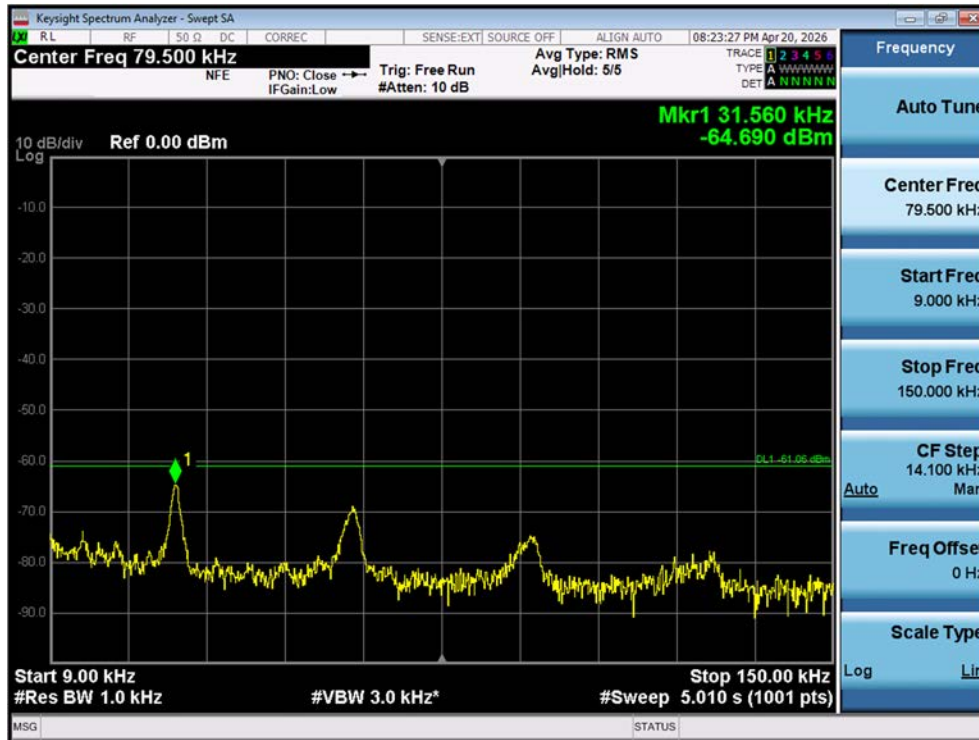
Port 54 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 3842 MHz ~ 10 GHz / 16QAM / Operator Frequency



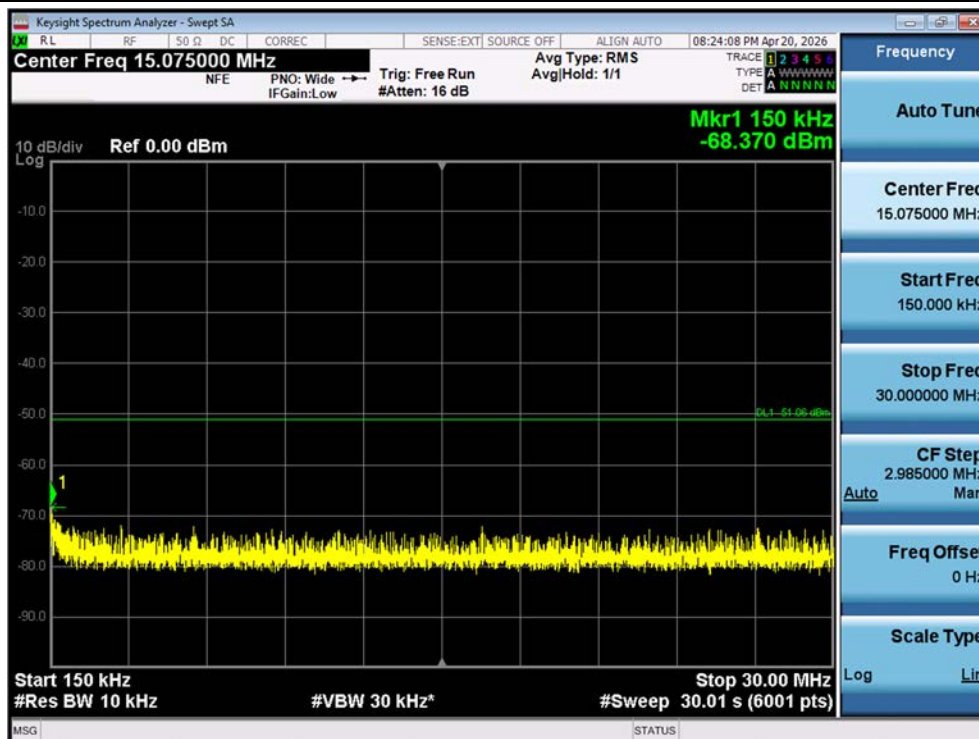
Port 37 / (64 Port) n77 5G NR 40 MHz 1 Carrier / 10 GHz ~ 40 GHz / 16QAM / Operator Frequency



Port 63 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 9 kHz ~ 150 kHz / 16QAM / Operator Frequency



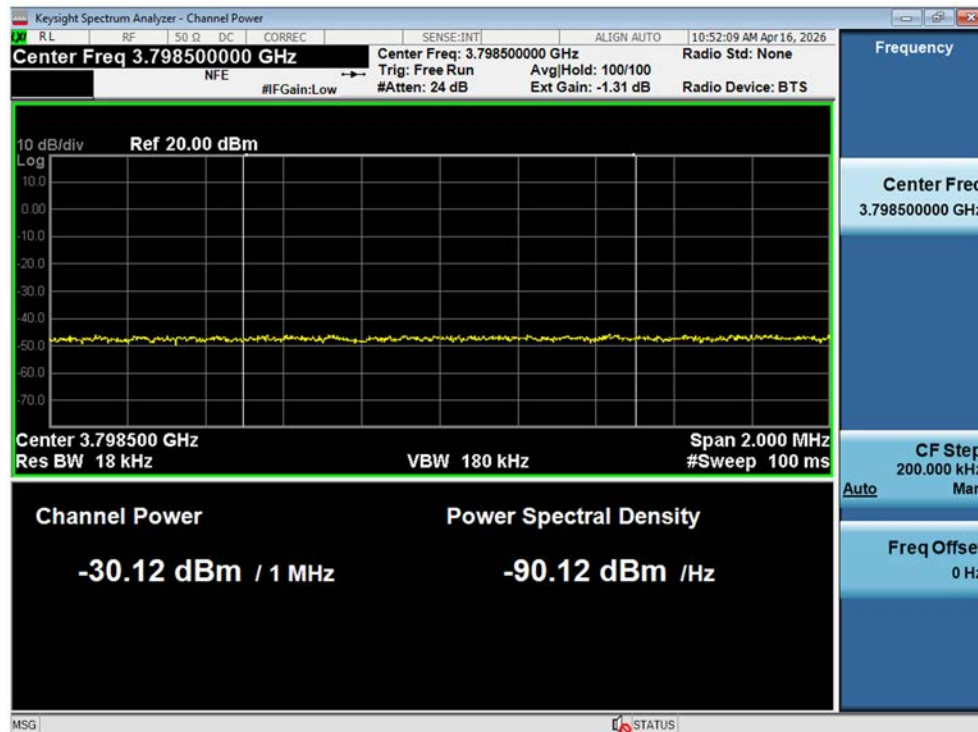
Port 63 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 150 kHz ~ 30 MHz / 16QAM / Operator Frequency



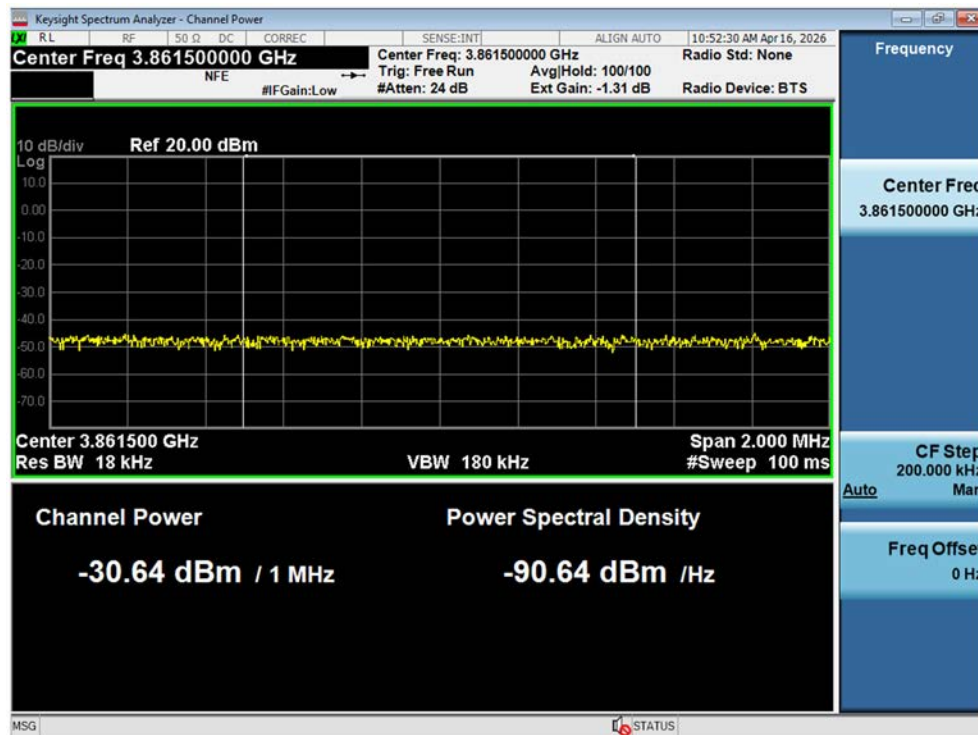
Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 30 MHz ~ 3798 MHz / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 3798 MHz ~ 3799 MHz / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 3861 MHz ~ 3862 MHz / 16QAM / Operator Frequency



Port 54 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 3862 MHz ~ 10 GHz / 16QAM / Operator Frequency



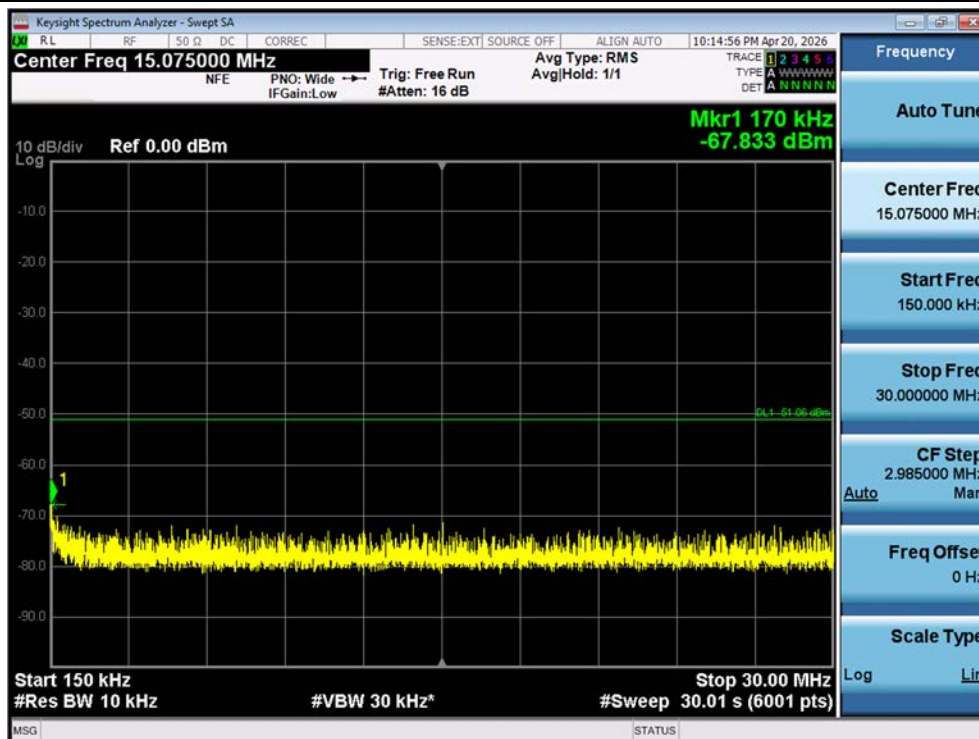
Port 28 / (64 Port) n77 5G NR 60 MHz 1 Carrier / 10 GHz ~ 40 GHz / 16QAM / Operator Frequency



Port 39 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 9 kHz ~ 150 kHz / 16QAM / Operator Frequency



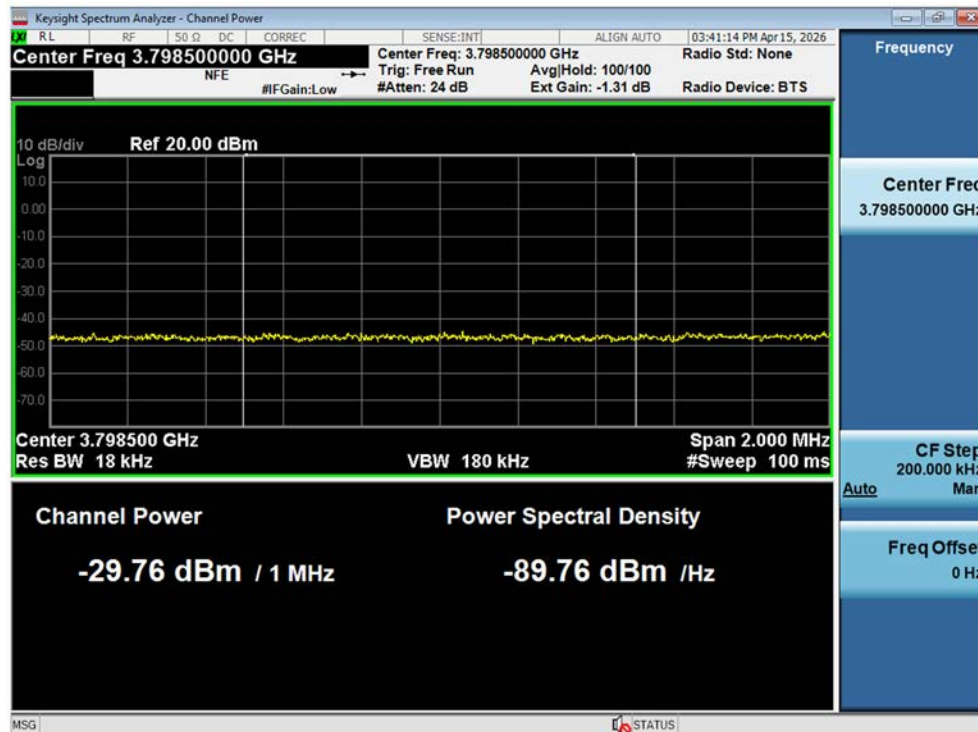
Port 52 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 150 kHz ~ 30 MHz / 16QAM / Operator Frequency



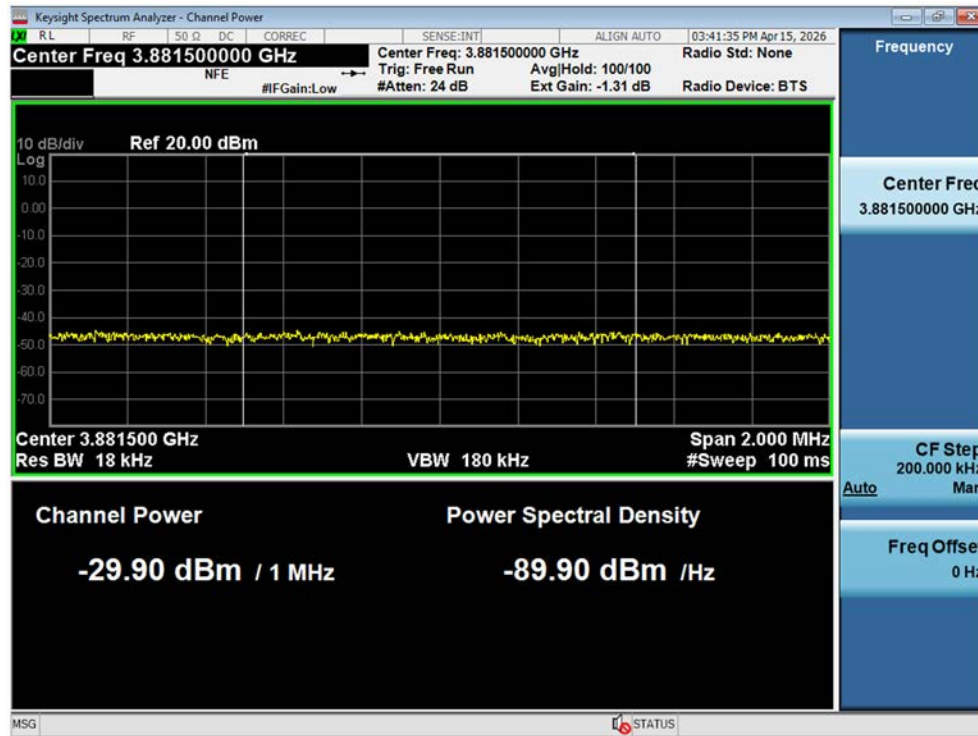
Port 54 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 30 MHz ~ 3798 MHz / 16QAM / Operator Frequency



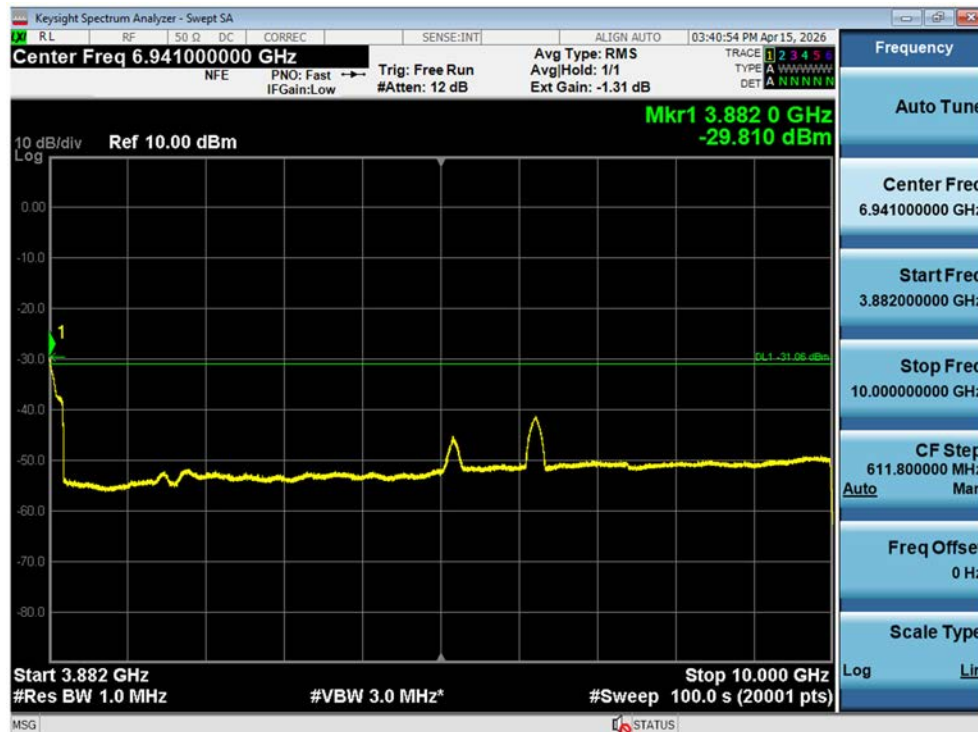
Port 34 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 3798 MHz ~ 3799 MHz / 16QAM / Operator Frequency



Port 34 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 3881 MHz ~ 3882 MHz / 16QAM / Operator Frequency



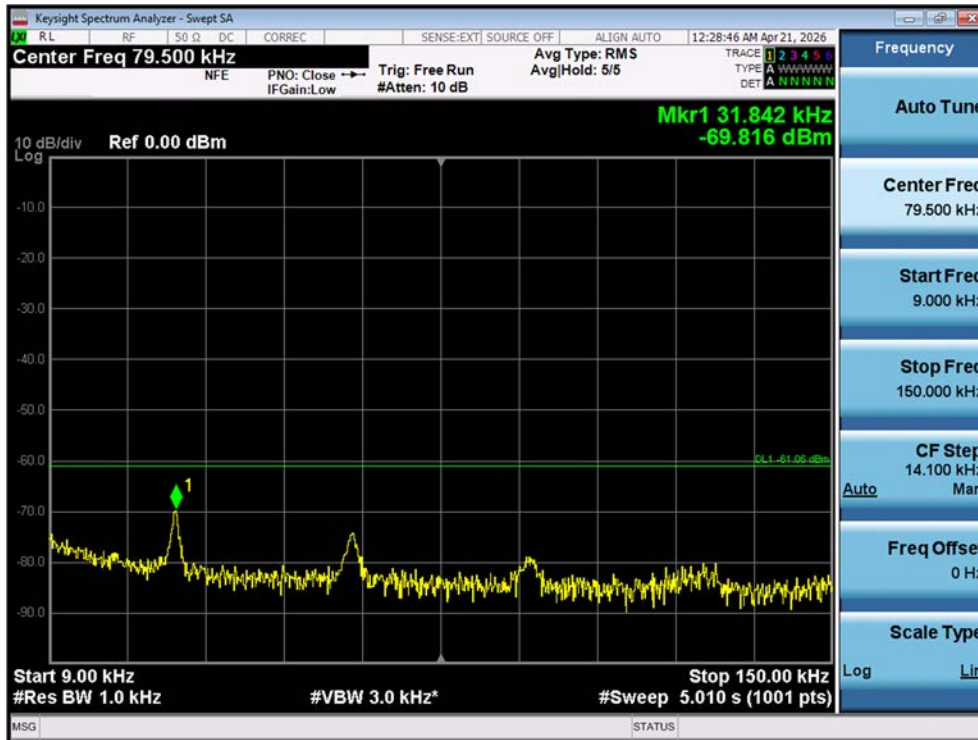
Port 34 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 3882 MHz ~ 10 GHz / 16QAM / Operator Frequency



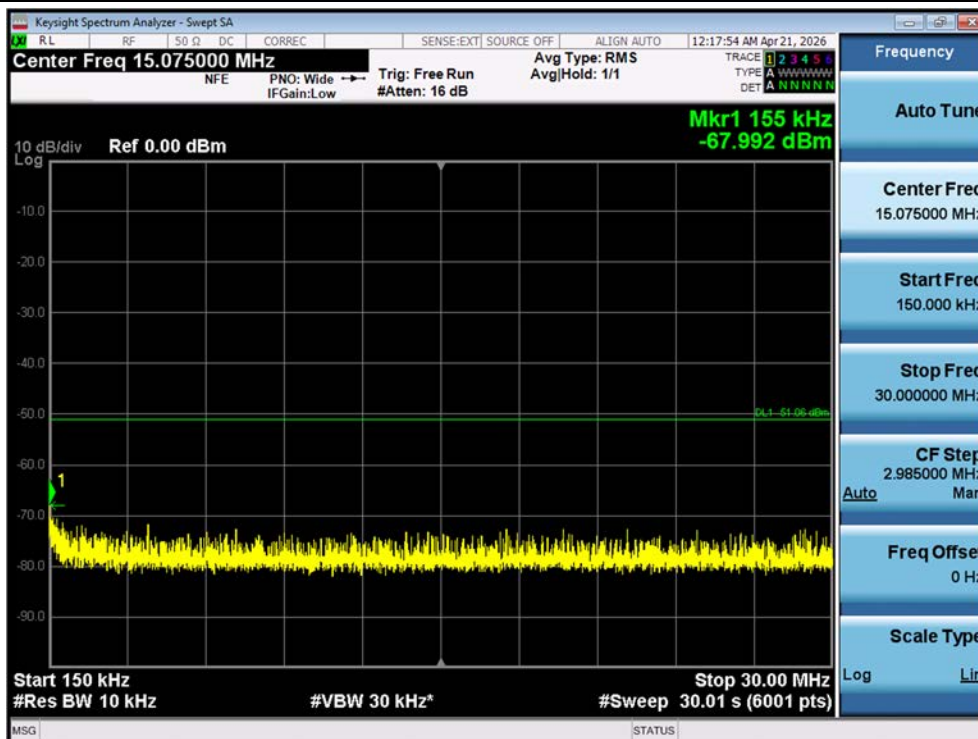
Port 7 / (64 Port) n77 5G NR 80 MHz 1 Carrier / 10 GHz ~ 40 GHz / 16QAM / Operator Frequency



Port 43 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 9 kHz ~ 150 kHz / 16QAM / Operator Frequency



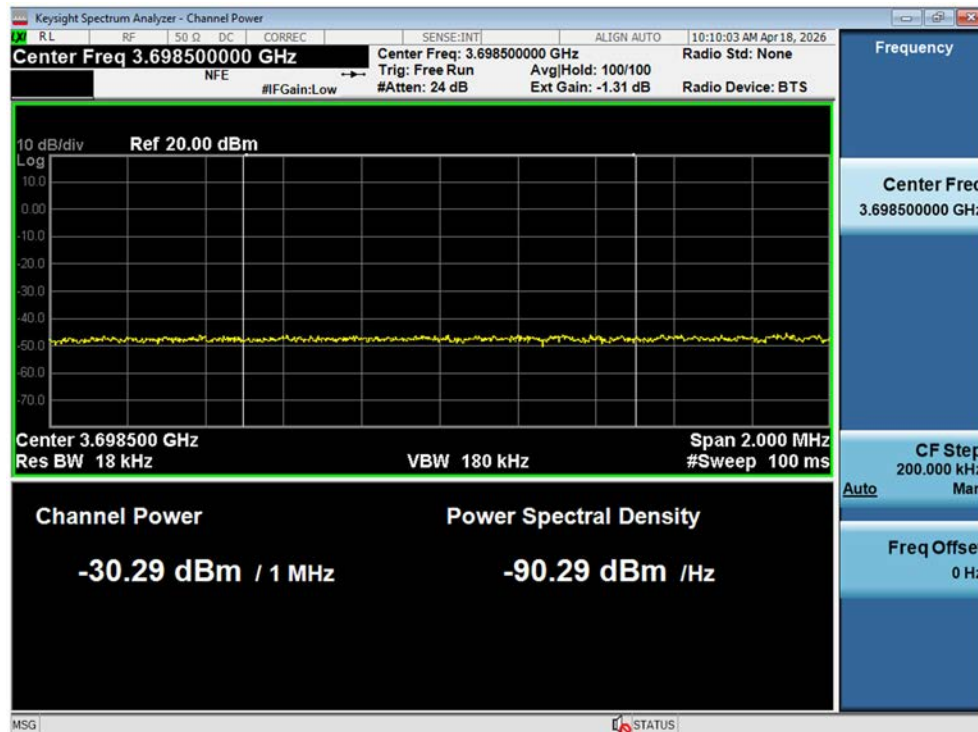
Port 35 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 150 kHz ~ 30 MHz / 16QAM / Operator Frequency



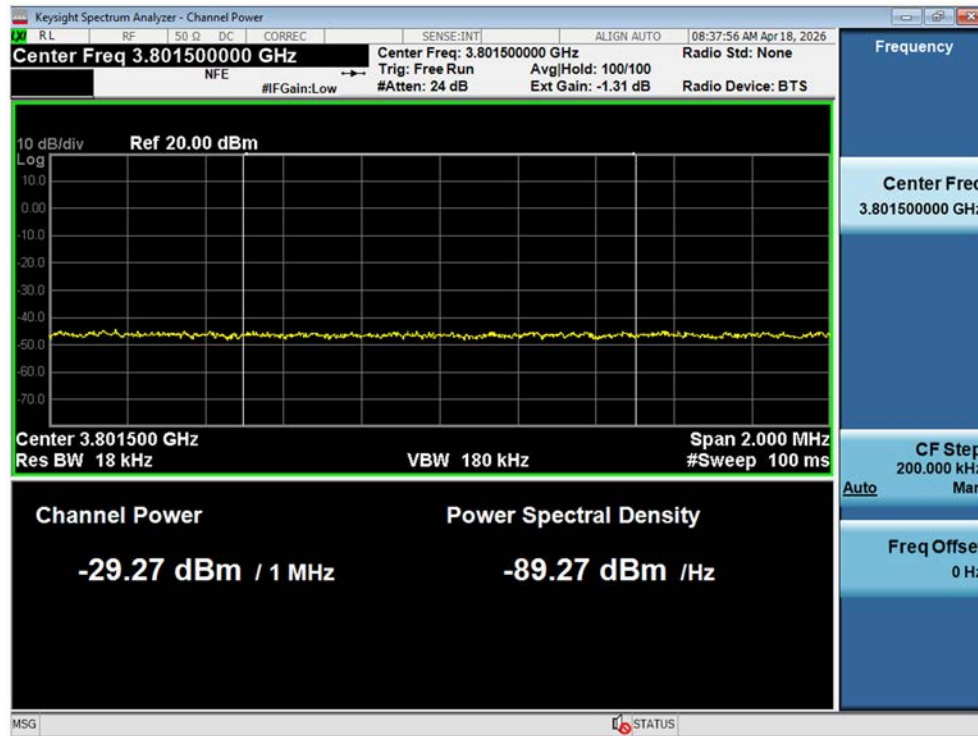
Port 39 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 30 MHz ~ 3698 MHz / 16QAM / Operator Frequency



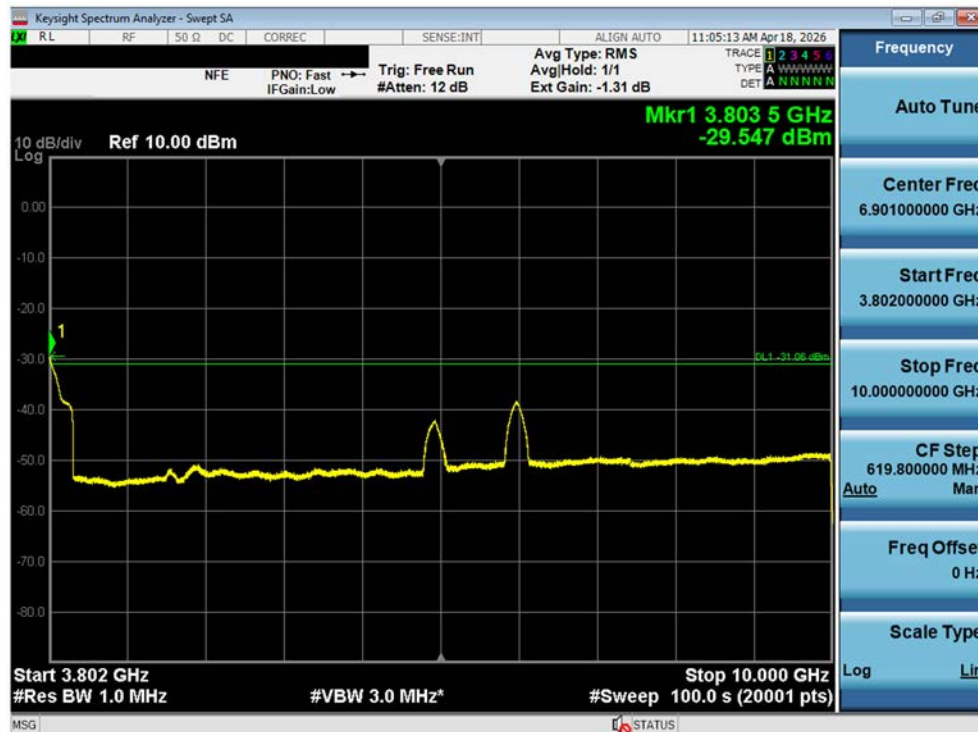
Port 57 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 3698 MHz ~ 3699 MHz / 16QAM / Operator Frequency



Port 34 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 3801 MHz ~ 3802 MHz / 16QAM / Operator Frequency



Port 39 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 3802 MHz ~ 10 GHz / 16QAM / Operator Frequency



Port 55 / (64 Port) n77 5G NR 100 MHz 1 Carrier / 10 GHz ~ 40 GHz / 16QAM / Operator Frequency



5.6. RADIATED EMISSIONS

Test Requirements:

§ 2.1053 Measurements required: Field strength of spurious radiation.

- (a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.
- (b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:
 - (1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.
 - (2) All equipment operating on frequencies higher than 25 MHz.
 - (3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.
 - (4) Other types of equipment as required, when deemed necessary by the Commission.

§ 27.53 Emission limits.

- (l) 3.7 GHz Service. The following emission limits apply to station transmitting in the 3700-3980 MHz band:
 - (1) For base station 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)(1) 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. 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 Procedures:

The measurement is performed in accordance with Section 5.5.3.2 of ANSI C63.26.

- a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.
- b) Each emission under consideration shall be evaluated:
 - 1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - 2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - 3) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - 4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
 - 5) Record the measured emission amplitude level and frequency using the appropriate RBW.
- c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- d) ~ j) Omitted
- k) Provide the complete measurement results as a part of the test report.

Note:

1. Radiated emissions were measured at maximum output power, and only the worst-case data are provided.
2. Measurements were performed using both horizontal and vertical polarizations of the receiving antenna.
3. Spurious emissions attenuated by more than 20 dB below the permissible limit were not recorded in accordance with ANSI C63.26 Clause 5.1.1., c).
4. Measure distance = 3 m

Test Results:

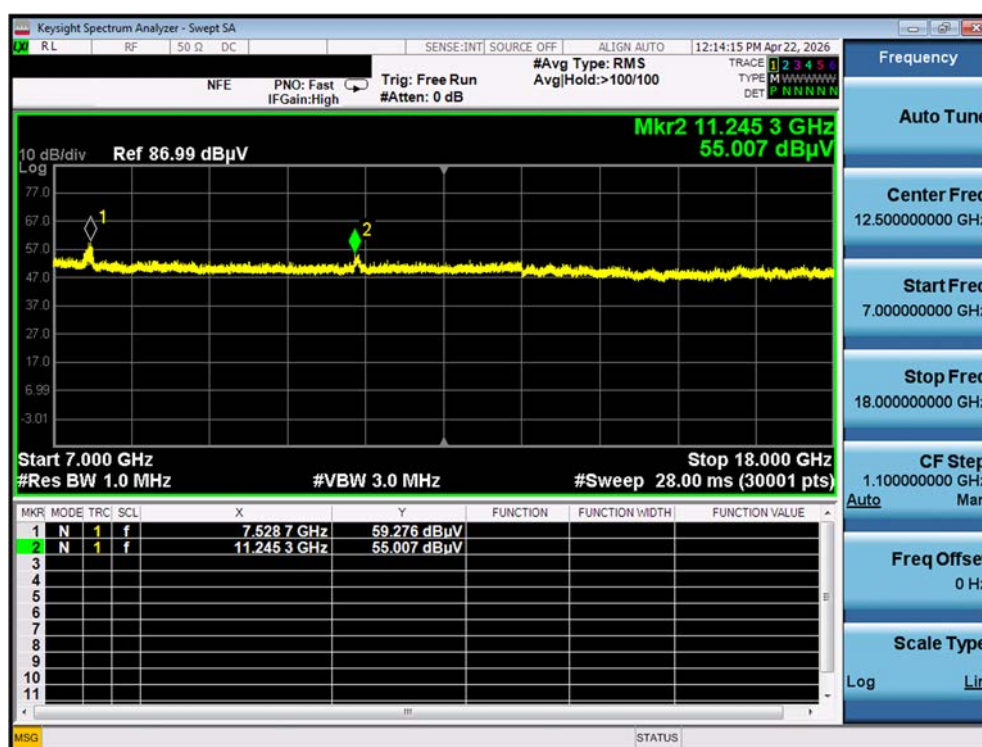
Frequency [MHz]	Measured Level [dBμV]	Antenna Factor [dB/m]	A.G.+C.L.+H.P.F. [dB]	Polarization [H/V]	Measured Power [dBm]	Result [dBm]	Limit [dBm/m]
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No emissions within 20 dB of the limit.

C.L.: Cable Loss / A.G.: Amp Gain / H.P.F.: High Pass Filter

Plot data of Radiated Emissions

(64 Port) n77 5G NR 100 MHz 1 Carrier / 16QAM



Note: Only the worst-case plots for Radiated Spurious Emissions.

5.7. FREQUENCY STABILITY

Test Requirements:

§ 2.1055 Measurements required: Frequency stability.

- (a) The frequency stability shall be measured with variation of ambient temperature as follows:
- (1) From -30° to $+50^{\circ}$ centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.

Test Procedures:

The measurement is performed in accordance with Section 5.6.3, 5.6.4 and 5.6.5 of ANSI C63.26.

5.6.3 Procedure for frequency stability testing

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at $+20^{\circ}\text{C}$ and rated supply voltage.

The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is tested:

- a) At 10°C intervals of temperatures between -30°C and $+50^{\circ}\text{C}$ at the manufacturer's rated supply voltage, and
- b) At $+20^{\circ}\text{C}$ temperature and $\pm 15\%$ supply voltage variations. If a product is specified to operate over a range of input voltage then the -15% variation is applied to the lowermost voltage and the $+15\%$ is applied to the uppermost voltage.

During the test all necessary settings, adjustments and control of the EUT have to be performed without disturbing the test environment, i.e., without opening the environmental chamber. The frequency stabilities can be maintained to a lesser temperature range provided that the transmitter is automatically inhibited from operating outside the lesser temperature range. For handheld equipment that is only capable of operating from internal batteries and the supply voltage cannot be varied, the frequency stability tests shall be performed at the nominal battery voltage and the battery end point voltage specified by the manufacturer. An external supply voltage can be used and set at the internal battery nominal voltage, and again at the battery operating end point voltage which shall be specified by the equipment manufacturer.

If an unmodulated carrier is not available, the mean frequency of a modulated carrier can be obtained by using a frequency counter with gating time set to an appropriately large multiple of bit periods (gating time depending on the required accuracy). Full details on the choice of values shall be included in the test report.

5.6.4 Frequency stability over variations in temperature

- a) Supply the EUT with a nominal 60 Hz ac voltage, dc voltage, or install a new or fully charged battery in the EUT.
- b) If possible a dummy load should be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, the EUT should be placed in the center of the chamber with the antenna adjusted to the shortest length possible.
- c) Turn on the EUT, and tune it to the center frequency of the operating band.
- d) Couple the transmitter output to the measuring instrument through a suitable attenuator and coaxial cable. If connection to the EUT output is not possible, make the measurement by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away).

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory authority is the recommended measuring instrument.

- e) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument, but is strong enough to allow measurement of the operating or fundamental frequency of the EUT). Adjust the detector bandwidth and span settings to achieve a resolution capable of accurate frequency measurements over the applicable frequency stability limits.
- f) Turn the EUT off, and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.
- g) Set the temperature control on the chamber to the Highest temperature specified in the regulatory requirements for the type of device, and allow the oscillator heater and the chamber temperature to stabilize. Unless otherwise instructed by the regulatory authority, this temperature should be 50 °C.
- h) While maintaining a constant temperature inside the environmental chamber, turn on the EUT and allow sufficient time for the EUT temperature to stabilize.
- i) Measure the frequency.
- j) Switch off the EUT, but do not switch off the oscillator heater.
- k) Lower the chamber temperature to the next level that is required by the standard and allow the temperature inside the chamber to stabilize. Unless otherwise instructed by the regulators, this temperature step should be 10 °C.
- l) Repeat step h) through step k) down to the lowest specified temperature. Unless otherwise instructed by the regulators, this temperature should be –30 °C. When the frequency stability limit is stated as being sufficient such that the fundamental emissions stay within the authorized bands of operation, a reference point shall be established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and Highest channel of operation shall be identified as f_L and f_H respectively. The worst-case frequency offset determined in the above methods shall be added or subtracted from the values of f_L and f_H and the resulting frequencies must remain within the band.
- m) Omitted

5.6.5 Frequency stability when varying supply voltage

- a) Couple the transmitter output to the measuring instrument through a suitable attenuator and coaxial cable. If connection to the EUT output is not possible make the measurement by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away)
- b) Supply the EUT with nominal ac or dc voltage. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.
- c) Turn on the EUT, and couple its output to a frequency counter or other frequency-measuring instrument.
- d) Tune the EUT to the center frequency of the operating band. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument, but is strong enough to allow measurement of the operating or fundamental frequency of the EUT). Adjust the detector bandwidth and span settings to achieve a resolution capable of accurate frequency measurements over the applicable frequency stability limits.
NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory authority is the recommended measuring instrument.
- e) Measure the frequency.
- f) Unless otherwise specified, vary primary supply voltage from 85% to 115% of the nominal value for other than hand carried battery equipment.
- g) For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
- h) Repeat the frequency measurement.

NOTE—For band-edge compliance, it can be required to make these measurements at the low and High channel of the operating band.

Note: The results of the Frequency Stability tests show a similar trend across all ports; therefore, only the worst-case data are attached.

Test Results:
Reference: - 48 Vdc at 20°C Freq. = 3,820,000,000 Hz

Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	
100 %	+20(Ref)	3 820 000 006	6.272	0.000	0.00000
	-30	3 820 000 011	4.532	-1.740	-0.00046
	-20	3 820 000 007	0.496	-5.776	-0.00151
	-10	3 820 000 014	7.497	1.226	0.00032
	0	3 820 000 012	6.036	-0.236	-0.00006
	+10	3 820 000 013	6.789	0.517	0.00014
	+30	3 820 000 008	1.596	-4.676	-0.00122
	+40	3 820 000 010	3.715	-2.557	-0.00067
	+50	3 820 000 009	2.798	-3.474	-0.00091
115 %	+20	3 820 000 009	2.438	-3.834	-0.00100
85 %	+20	3 820 000 010	3.565	-2.706	-0.00071

Reference: - 48 Vdc at 20°C Freq. = 3,830,000,000 Hz

Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	
100 %	+20(Ref)	3 830 000 008	8.177	0.000	0.00000
	-30	3 830 000 009	0.948	-5.323	-0.00139
	-20	3 830 000 010	1.829	-4.443	-0.00116
	-10	3 830 000 013	4.893	-1.378	-0.00036
	0	3 830 000 011	2.531	-3.741	-0.00098
	+10	3 830 000 010	1.949	-4.322	-0.00113
	+30	3 830 000 009	1.033	-5.239	-0.00137
	+40	3 830 000 016	7.520	1.248	0.00033
	+50	3 830 000 014	6.167	-0.105	-0.00003
115 %	+20	3 830 000 012	3.394	-2.878	-0.00075
85 %	+20	3 830 000 011	3.092	-3.179	-0.00083

Reference: - 48 Vdc at 20°C Freq. = 3,840,000,000 Hz

Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	
100 %	+20(Ref)	3 840 000 001	1.277	0.000	0.00000
	-30	3 840 000 010	8.952	2.680	0.00070
	-20	3 840 000 007	5.429	-0.843	-0.00022
	-10	3 840 000 009	7.896	1.624	0.00043
	0	3 840 000 006	4.734	-1.538	-0.00040
	+10	3 840 000 011	9.732	3.460	0.00091
	+30	3 840 000 002	1.003	-5.269	-0.00138
	+40	3 840 000 004	2.643	-3.629	-0.00095
	+50	3 840 000 009	7.432	1.160	0.00030
115 %	+20	3 840 000 011	9.469	3.197	0.00084
85 %	+20	3 840 000 007	5.777	-0.495	-0.00013

Reference: - 48 Vdc at 20°C Freq. = 3,750,000,000 Hz

Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	
100 %	+20(Ref)	3 750 000 010	9.696	0.000	0.00000
	-30	3 750 000 012	2.260	-4.012	-0.00105
	-20	3 750 000 018	8.127	1.855	0.00049
	-10	3 750 000 010	0.198	-6.074	-0.00159
	0	3 750 000 012	2.430	-3.842	-0.00101
	+10	3 750 000 018	8.802	2.531	0.00066
	+30	3 750 000 020	9.859	3.587	0.00094
	+40	3 750 000 015	5.688	-0.583	-0.00015
	+50	3 750 000 015	5.550	-0.722	-0.00019
115 %	+20	3 750 000 018	8.350	2.078	0.00054
85 %	+20	3 750 000 014	4.008	-2.264	-0.00059

6. Annex A_EUT AND TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2604-FC036-P