



RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-MC801A
Product 5G CPE
Model MC801A
Report No. R2112A1085-R5
Issue Date January 8, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2020)/ FCC CFR47 Part 27 (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000



TABLE OF CONTENT

1	Test Laboratory	4
1.1	Notes of the Test Report	4
1.2.	Test facility	4
1.3	Testing Location	4
2	General Description of Equipment under Test	5
2.1	Applicant and Manufacturer Information	5
2.2	General information	5
3	Applied Standards	7
4	Test Configuration	8
5	Test Case Results	10
5.1	RF Power Output and Effective Isotropic Radiated Power	10
5.2	Occupied Bandwidth	27
5.3	Band Edge Compliance	65
5.4	Peak-to-Average Power Ratio (PAPR)	99
5.5	Frequency Stability	102
5.6	Spurious Emissions at Antenna Terminals	105
5.7	Radiates Spurious Emission	119
6	Main Test Instruments	128
ANNEX A: The EUT Appearance		129
ANNEX B: Test Setup Photos		130



Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046/27.50(k)(3)/27.50(j)(3)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(l) /27.53(n)	PASS
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 27.53(l) /27.53(n)	PASS
7	Radiates Spurious Emission	2.1053 27.53(l) /27.53(n)	PASS

Date of Testing: December 4, 2021 ~ January 5, 2022

Date of Sample Received: December 1, 2021

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.



1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2.2 General information

EUT Description			
Model	MC801A		
IMEI	863671043881410		
Hardware Version	MC801AHW-1.0.0		
Software Version	BD_TLCMXMC801AV1.0.0B01		
Power Supply	AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Mode	Gain(dBi)	
	NR n77	4.0	
	NR n78	4.0	
SA Band	NR n77, NR n78		
NSA Band	DC_7A-n78, DC_66A_n78		
Test Modulation	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM; DFT-s OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM		
Maximum E.I.R.P.	NR n77 Subset 1	24.75 dBm	
	NR n77 Subset 2	27.46 dBm	
	DC_7A-n78	25.01 dBm	
	DC_66A_n78	26.48 dBm	
Rated Power Supply Voltage	12V		
Operating Voltage	Minimum: 10.8V Maximum: 13.2V		
Operating Temperature	Lowest: -20°C Highest: +55°C		
Testing Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	NR n77 Subset 1	3450 ~ 3550	3450 ~ 3550
	NR n77 Subset 2	3700 ~ 3980	3700 ~ 3980
	NR n78 Subset 1	3450 ~ 3550	3450 ~ 3550
	NR n78 Subset 2	3700 ~ 3800	3700 ~ 3800



EUT Accessory	
Adapter 1	Manufacturer: Shenzhen Ruijing Industrial Co.,Ltd Model: STC-A1215C55-C
Adapter 2	Manufacturer: Shenzhen Dokocom Energy Technology Co., Ltd. Model: STC-A1215C55-C
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlappong LTE Bands): a) Test Result for NR n78 Subset 1 (Frequency range: 3450 ~ 3550 MHz) is covered by NR n77 Subset 1 (Frequency range 3450 ~ 3550 MHz); NR n78 Subset 2 (Frequency range 3700 ~ 3800 MHz) is covered by NR n77 Subset 2 (Frequency range: 3700 ~ 3980 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.	



3 Applied Standards

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

Test standards:

FCC CFR47 Part 27 (2020)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2020)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

There is more than one SIM card slot, each one should be applied throughout the compliance test respectively, and however, only the worst case (SIM 1) will be recorded in this report

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (X axis, horizontal polarization for NR; X axis, vertical polarization for EN-DC) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in NR is set based on the maximum RF Output Power.

The following testing in different Bandwidth is set to detail in the following table:

Test modes are chosen to be reported as the worst case configuration below:

Test modes are chosen to be reported as the worst case configuration below for NR n77/NR n78/
DC_7A-n78/ DC_66A_n78:

Test items	Mode	Bandwidth (MHz)					Modulation					RB			Test Channel		
		20	40	60	80	100	PI/2 BPSK	QPSK	16 QAM	64 QAM	256 QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	NR n77 Subset 1	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	NR n77 Subset 2	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	DC_7A-n78	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	DC_66A_n78	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	NR n77 Subset 1	-	O	-	-	O	O	O	O	O	O	O	-	O	O	O	O
	NR n77 Subset 2	-	O	-	-	O	O	O	O	O	O	O	-	O	O	O	O
	DC_7A-n78	-	O	-	-	O	O	O	O	O	O	O	-	O	O	O	O
	DC_66A_n78	-	O	-	-	O	O	O	O	O	O	O	-	O	O	O	O
Band Edge Compliance	NR n77 Subset 1	-	O	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	NR n77 Subset 2	-	O	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	DC_7A-n78	-	O	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	DC_66A_n78	-	O	-	-	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	NR n77 Subset 1	-	O	-	-	-	O	O	O	O	O	-	-	O	O	O	O
	NR n77 Subset 2	-	O	-	-	-	O	O	O	O	O	-	-	O	O	O	O
	DC_7A-n78	-	O	-	-	-	O	O	O	O	O	-	-	O	O	O	O
	DC_66A_n78	-	O	-	-	-	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	NR n77 Subset 1	-	O	-	-	-	O	O	O	O	O	O	-	-	-	O	-
	NR n77 Subset 2	-	O	-	-	-	O	O	O	O	O	O	-	-	-	O	-
	DC_7A-n78	-	O	-	-	-	O	O	O	O	O	O	-	-	-	O	-
	DC_66A_n78	-	O	-	-	-	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions	NR n77 Subset 1	-	O	-	-	O	O	O	O	O	O	O	-	-	O	O	O



at Antenna Terminals	NR n77 Subset 2	-	O	-	-	O	O	O	O	O	O	O	-	-	O	O	O
	DC_7A-n78	-	O	-	-	O	O	O	O	O	O	O	-	-	O	O	O
	DC_66A_n78	-	O	-	-	O	O	O	O	O	O	O	-	-	O	O	O
Radiates Spurious Emission	NR n77	O	-	O	-	O	-	O	-	-	-	O	-	-	-	O	-
	NR n78	O	-	O	-	O	-	O	-	-	-	O	-	-	-	O	-
	DC_7A-n78	O	-	O	-	O	-	O	-	-	-	O	-	-	-	O	-
	DC_66A_n78	O	-	O	-	O	-	O	-	-	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing. 3. Sub 6GHz operates using 15kHz Subcarrier Spacing with both CP-OFDM and DFT-s OFDM waveforms. The band supports PI/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulation. The test data provided in this report represents the worst case configurations.																

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

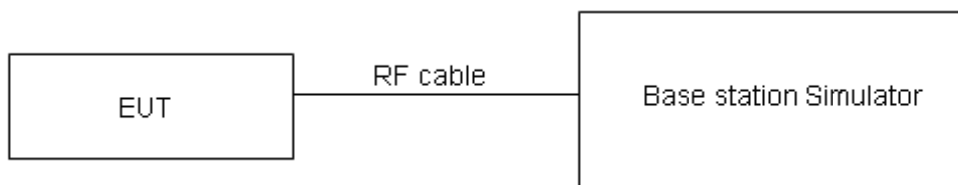
ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where:dBd refers to gain relative to an ideal dipole.

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB.)}$$

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(k) (3) Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Rule Part 27.50(j) (3) Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Part 27.50(k)(3)Limit	$\leq 1 \text{ W (30 dBm)}$
Part 27.50(j)(3) Limit	$\leq 1 \text{ W (30 dBm)}$

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4 \text{ dB}$ for RF power output, $k = 2$, $U= 1.19 \text{ dB}$ for ERP/EIRP.



Test Results

NR n77 Subset 1				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	630666	633334	635998	630666	633334	635998
				3460	3500	3540	3460	3500	3540
20	BPSK	1	0	17.88	17.63	17.90	21.88	21.63	21.90
		1	1	19.90	19.64	19.98	23.90	23.64	23.98
		1	49	19.76	19.75	20.24	23.76	23.75	24.24
		1	50	17.81	17.77	18.25	21.81	21.77	22.25
		25	12	19.71	19.60	20.08	23.71	23.60	24.08
		50	0	19.75	19.61	20.07	23.75	23.61	24.07
	QPSK	1	0	17.92	17.59	17.91	21.92	21.59	21.91
		1	1	19.95	19.64	19.96	23.95	23.64	23.96
		1	49	19.73	19.72	20.27	23.73	23.72	24.27
		1	50	17.79	17.72	18.22	21.79	21.72	22.22
		25	12	19.82	19.62	20.09	23.82	23.62	24.09
		50	0	19.78	19.67	20.09	23.78	23.67	24.09
	16QAM	1	0	17.97	17.68	18.02	21.97	21.68	22.02
		1	1	19.84	19.67	19.95	23.84	23.67	23.95
		1	49	19.82	19.82	20.31	23.82	23.82	24.31
		1	50	17.72	17.84	18.33	21.72	21.84	22.33
		25	12	19.83	19.57	20.19	23.83	23.57	24.19
		50	0	19.34	19.17	19.65	23.34	23.17	23.65
	64QAM	1	0	17.57	17.41	17.62	21.57	21.41	21.62
		1	1	18.52	18.36	18.67	22.52	22.36	22.67
		1	49	18.45	18.42	18.94	22.45	22.42	22.94
		1	50	17.44	17.51	17.96	21.44	21.51	21.96
		25	12	18.89	18.63	19.17	22.89	22.63	23.17
		50	0	18.92	18.69	19.21	22.92	22.69	23.21
	256QAM	1	0	19.91	16.58	16.89	23.91	20.58	20.89
		1	1	19.83	16.59	16.92	23.83	20.59	20.92
		1	49	16.70	16.64	17.19	20.70	20.64	21.19
		1	50	16.69	16.69	17.25	20.69	20.69	21.25
		25	12	16.90	16.65	17.20	20.90	20.65	21.20
		50	0	16.64	16.63	17.14	20.64	20.63	21.14
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				631332	633334	635332	631332	633334	635332
				3470	3500	3530	3470	3500	3530
40	BPSK	1	0	18.20	17.92	18.12	22.20	21.92	22.12
		1	1	20.09	19.93	20.10	24.09	23.93	24.10
		1	104	19.98	20.27	20.67	23.98	24.27	24.67



		1	105	18.05	18.26	18.75	22.05	22.26	22.75
		50	25	19.95	19.90	20.22	23.95	23.90	24.22
		100	0	20.01	19.93	20.28	24.01	23.93	24.28
	QPSK	1	0	18.10	17.92	18.07	22.10	21.92	22.07
		1	1	20.05	19.89	20.08	24.05	23.89	24.08
		1	104	2.09	20.23	20.75	6.09	24.23	24.75
		1	105	18.02	18.32	18.78	22.02	22.32	22.78
		50	25	20.01	19.93	20.23	24.01	23.93	24.23
		100	0	20.03	19.96	20.26	24.03	23.96	24.26
	16QAM	1	0	18.29	17.93	17.99	22.29	21.93	21.99
		1	1	20.16	19.89	20.01	24.16	23.89	24.01
		1	104	19.74	20.29	20.75	23.74	24.29	24.75
		1	105	18.01	18.31	18.79	22.01	22.31	22.79
		50	25	19.96	19.93	20.21	23.96	23.93	24.21
		100	0	19.51	19.42	19.79	23.51	23.42	23.79
	64QAM	1	0	17.90	17.57	17.69	21.90	21.57	21.69
		1	1	18.70	18.47	18.78	22.70	22.47	22.78
		1	104	18.76	18.95	19.45	22.76	22.95	23.45
		1	105	17.76	17.93	18.47	21.76	21.93	22.47
		50	25	19.05	18.92	19.23	23.05	22.92	23.23
		100	0	19.06	19.01	19.28	23.06	23.01	23.28
	256QAM	1	0	17.01	16.76	16.93	21.01	20.76	20.93
		1	1	17.01	16.78	16.85	21.01	20.78	20.85
		1	104	17.05	17.17	17.65	21.05	21.17	21.65
		1	105	17.06	17.14	17.67	21.06	21.14	21.67
		50	25	16.95	16.97	17.22	20.95	20.97	21.22
		100	0	17.02	16.95	17.28	21.02	20.95	21.28
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				632000	633334	634666	632000	633334	634666
				3480	3500	3520	3480	3500	3520
60	BPSK	1	0	17.78	17.65	17.67	21.78	21.65	21.67
		1	1	19.77	19.67	19.60	23.77	23.67	23.60
		1	160	19.71	20.03	20.34	23.71	24.03	24.34
		1	161	17.64	17.99	18.36	21.64	21.99	22.36
		81	40	19.65	19.69	19.84	23.65	23.69	23.84
		162	0	19.63	19.73	19.92	23.63	23.73	23.92
	QPSK	1	0	17.81	17.60	17.60	21.81	21.60	21.60
		1	1	19.76	19.59	19.61	23.76	23.59	23.61
		1	160	19.72	20.00	20.28	23.72	24.00	24.28
		1	161	17.72	18.02	18.29	21.72	22.02	22.29
		81	40	19.65	19.73	19.81	23.65	23.73	23.81
		162	0	19.63	19.70	19.87	23.63	23.70	23.87



	16QAM	1	0	17.79	17.74	17.47	21.79	21.74	21.47
		1	1	19.77	19.66	19.70	23.77	23.66	23.70
		1	160	19.74	20.03	20.31	23.74	24.03	24.31
		1	161	17.73	18.01	18.39	21.73	22.01	22.39
		81	40	19.61	19.67	19.84	23.61	23.67	23.84
		162	0	19.16	19.24	19.38	23.16	23.24	23.38
	64QAM	1	0	17.39	17.37	17.39	21.39	21.37	21.39
		1	1	18.45	18.38	18.37	22.45	22.38	22.37
		1	160	18.37	18.64	19.06	22.37	22.64	23.06
		1	161	17.39	17.72	18.96	21.39	21.72	22.96
		81	40	18.74	18.79	18.91	22.74	22.79	22.91
		162	0	18.74	18.80	16.54	22.74	22.80	20.54
	256QAM	1	0	16.65	16.55	16.56	20.65	20.55	20.56
		1	1	16.69	16.57	16.57	20.69	20.57	20.57
		1	160	16.63	16.90	17.21	20.63	20.90	21.21
		1	161	16.62	16.91	17.20	20.62	20.91	21.20
		81	40	16.67	16.73	16.88	20.67	20.73	20.88
		162	0	16.69	16.75	16.90	20.69	20.75	20.90
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				632666	633334	633998	632666	633334	633998
				3490	3500	3510	3490	3500	3510
80	BPSK	1	0	17.86	17.80	17.80	21.86	21.80	21.80
		1	1	19.87	19.71	19.72	23.87	23.71	23.72
		1	215	19.89	20.06	20.24	23.89	24.06	24.24
		1	216	17.96	18.03	18.23	21.96	22.03	22.23
		108	54	19.73	19.65	19.79	23.73	23.65	23.79
		216	0	19.72	19.75	19.76	23.72	23.75	23.76
	QPSK	1	0	17.87	17.81	17.78	21.87	21.81	21.78
		1	1	19.78	19.78	19.72	23.78	23.78	23.72
		1	215	19.87	20.04	20.30	23.87	24.04	24.30
		1	216	17.85	18.06	18.36	21.85	22.06	22.36
		108	54	19.70	19.61	19.80	23.70	23.61	23.80
		216	0	19.77	19.72	19.88	23.77	23.72	23.88
	16QAM	1	0	17.76	17.81	17.75	21.76	21.81	21.75
		1	1	19.89	19.77	19.74	23.89	23.77	23.74
		1	215	19.98	19.83	20.15	23.98	23.83	24.15
		1	216	18.11	18.12	18.32	22.11	22.12	22.32
		108	54	19.68	19.63	19.77	23.68	23.63	23.77
		216	0	19.27	19.22	19.25	23.27	23.22	23.25
	64QAM	1	0	17.61	17.42	17.40	21.61	21.42	21.40
		1	1	18.44	18.36	18.35	22.44	22.36	22.35
		1	215	18.65	18.72	18.95	22.65	22.72	22.95



		1	216	17.56	17.71	17.99	21.56	21.71	21.99
		108	54	18.78	18.74	18.73	22.78	22.74	22.73
		216	0	18.82	18.68	18.79	22.82	22.68	22.79
	256QAM	1	0	16.78	16.64	16.73	20.78	20.64	20.73
		1	1	16.77	16.62	16.67	20.77	20.62	20.67
		1	215	16.98	16.93	17.25	20.98	20.93	21.25
		1	216	16.73	16.96	17.22	20.73	20.96	21.22
		108	54	16.72	16.73	16.81	20.72	20.73	20.81
		216	0	16.86	16.80	16.87	20.86	20.80	20.87
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				N/A	633334	N/A	N/A	633334	N/A
				N/A	3500	N/A	N/A	3500	N/A
100	BPSK	1	0	/	18.30	/	/	22.30	/
		1	1	/	20.25	/	/	24.25	/
		1	271	/	20.43	/	/	24.43	/
		1	272	/	18.49	/	/	22.49	/
		135	67	/	20.30	/	/	24.30	/
		270	0	/	20.42	/	/	24.42	/
	QPSK	1	0	/	18.33	/	/	22.33	/
		1	1	/	20.18	/	/	24.18	/
		1	271	/	20.43	/	/	24.43	/
		1	272	/	18.50	/	/	22.50	/
		135	67	/	20.20	/	/	24.20	/
		270	0	/	20.43	/	/	24.43	/
	16QAM	1	0	/	18.49	/	/	22.49	/
		1	1	/	20.41	/	/	24.41	/
		1	271	/	20.64	/	/	24.64	/
		1	272	/	18.54	/	/	22.54	/
		135	67	/	20.40	/	/	24.40	/
		270	0	/	19.95	/	/	23.95	/
	64QAM	1	0	/	18.15	/	/	22.15	/
		1	1	/	19.01	/	/	23.01	/
		1	271	/	19.21	/	/	23.21	/
		1	272	/	18.29	/	/	22.29	/
		135	67	/	19.34	/	/	23.34	/
		270	0	/	19.46	/	/	23.46	/
	256QAM	1	0	/	17.17	/	/	21.17	/
		1	1	/	17.39	/	/	21.39	/
		1	271	/	17.45	/	/	21.45	/
		1	272	/	17.41	/	/	21.41	/
		135	67	/	17.40	/	/	21.40	/
		270	0	/	17.45	/	/	21.45	/



NR n77 Subset 2				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	647334	656000	664667	647334	656000	664667
				3710	3840	3970	3710	3840	3970
20	BPSK	1	0	21.06	19.46	18.95	25.06	23.46	22.95
		1	1	22.96	21.33	20.91	26.96	25.33	24.91
		1	49	22.94	21.11	20.70	26.94	25.11	24.70
		1	50	20.92	19.29	18.78	24.92	23.29	22.78
		25	12	22.91	21.12	20.79	26.91	25.12	24.79
		50	0	22.94	21.20	20.84	26.94	25.20	24.84
	QPSK	1	0	20.95	19.47	18.87	24.95	23.47	22.87
		1	1	22.96	21.50	20.86	26.96	25.50	24.86
		1	49	22.88	21.32	20.73	26.88	25.32	24.73
		1	50	20.86	19.31	18.72	24.86	23.31	22.72
		25	12	22.90	21.27	20.85	26.90	25.27	24.85
		50	0	22.84	21.33	20.83	26.84	25.33	24.83
	16QAM	1	0	21.02	19.74	19.00	25.02	23.74	23.00
		1	1	22.98	21.60	20.91	26.98	25.60	24.91
		1	49	22.95	21.34	20.79	26.95	25.34	24.79
		1	50	21.02	19.42	18.72	25.02	23.42	22.72
		25	12	22.90	21.29	20.74	26.90	25.29	24.74
		50	0	22.37	20.88	20.23	26.37	24.88	24.23
	64QAM	1	0	20.56	19.15	18.56	24.56	23.15	22.56
		1	1	21.75	20.03	19.62	25.75	24.03	23.62
		1	49	21.50	19.91	19.38	25.50	23.91	23.38
		1	50	20.61	18.99	18.39	24.61	22.99	22.39
		25	12	21.93	20.42	19.84	25.93	24.42	23.84
		50	0	21.90	20.55	19.76	25.90	24.55	23.76
	256QAM	1	0	19.87	18.69	17.92	23.87	22.69	21.92
		1	1	19.94	18.68	17.93	23.94	22.68	21.93
		1	49	20.04	18.49	17.77	24.04	22.49	21.77
		1	50	19.68	18.50	17.75	23.68	22.50	21.75
		25	12	19.85	18.56	17.77	23.85	22.56	21.77
		50	0	19.87	18.56	17.80	23.87	22.56	21.80
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				648000	656000	664000	648000	656000	664000
				3720	3840	3960	3720	3840	3960
40	BPSK	1	0	21.42	20.21	19.23	25.42	24.21	23.23
		1	1	23.45	22.10	21.33	27.45	26.10	25.33
		1	104	23.46	21.89	21.05	27.46	25.89	25.05
		1	105	21.37	19.89	19.02	25.37	23.89	23.02



		50	25	23.23	21.94	21.02	27.23	25.94	25.02
		100	0	23.30	21.97	21.08	27.30	25.97	25.08
	QPSK	1	0	21.41	20.22	19.32	25.41	24.22	23.32
		1	1	23.45	22.06	21.19	27.45	26.06	25.19
		1	104	23.41	21.73	21.01	27.41	25.73	25.01
		1	105	21.47	19.83	19.13	25.47	23.83	23.13
		50	25	23.21	21.88	21.02	27.21	25.88	25.02
		100	0	23.27	21.93	21.12	27.27	25.93	25.12
	16QAM	1	0	21.41	20.18	19.27	25.41	24.18	23.27
		1	1	23.37	22.17	21.24	27.37	26.17	25.24
		1	104	23.43	21.94	21.12	27.43	25.94	25.12
		1	105	21.50	19.94	19.16	25.50	23.94	23.16
		50	25	23.23	21.80	20.97	27.23	25.80	24.97
		100	0	22.75	21.37	20.52	26.75	25.37	24.52
	64QAM	1	0	21.15	19.75	18.81	25.15	23.75	22.81
		1	1	22.13	20.84	19.73	26.13	24.84	23.73
		1	104	21.93	20.50	19.77	25.93	24.50	23.77
		1	105	21.07	19.55	18.75	25.07	23.55	22.75
		50	25	22.34	20.85	20.05	26.34	24.85	24.05
		100	0	22.31	20.91	20.13	26.31	24.91	24.13
	256QAM	1	0	20.36	19.08	18.19	24.36	23.08	22.19
		1	1	20.35	19.12	18.17	24.35	23.12	22.17
		1	104	20.30	18.73	17.94	24.30	22.73	21.94
		1	105	20.29	18.69	18.01	24.29	22.69	22.01
		50	25	20.27	18.90	18.00	24.27	22.90	22.00
		100	0	20.28	18.87	18.02	24.28	22.87	22.02
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				648666	656000	663334	648666	656000	663334
				3730	3840	3950	3730	3840	3950
60	BPSK	1	0	21.05	20.05	18.78	25.05	24.05	22.78
		1	1	23.03	22.04	20.69	27.03	26.04	24.69
		1	160	22.79	21.50	21.02	26.79	25.50	25.02
		1	161	20.92	19.57	18.98	24.92	23.57	22.98
		81	40	23.01	21.72	20.85	27.01	25.72	24.85
		162	0	22.93	21.66	20.77	26.93	25.66	24.77
	QPSK	1	0	21.02	20.05	18.67	25.02	24.05	22.67
		1	1	23.06	22.03	20.77	27.06	26.03	24.77
		1	160	22.80	21.43	21.06	26.80	25.43	25.06
		1	161	20.78	19.50	19.05	24.78	23.50	23.05
		81	40	23.00	21.71	20.91	27.00	25.71	24.91
		162	0	22.92	21.72	20.88	26.92	25.72	24.88
	16QAM	1	0	20.94	20.03	18.90	24.94	24.03	22.90



		1	1	23.00	22.08	20.78	27.00	26.08	24.78
		1	160	22.70	21.53	21.13	26.70	25.53	25.13
		1	161	20.74	19.56	19.23	24.74	23.56	23.23
		81	40	22.99	21.75	20.87	26.99	25.75	24.87
		162	0	22.47	21.23	20.34	26.47	25.23	24.34
		1	0	20.72	19.68	18.48	24.72	23.68	22.48
	64QAM	1	1	21.67	20.67	19.41	25.67	24.67	23.41
		1	160	21.44	20.17	19.69	25.44	24.17	23.69
		1	161	20.38	19.13	18.65	24.38	23.13	22.65
		81	40	22.03	20.73	19.90	26.03	24.73	23.90
		162	0	21.91	20.80	19.95	25.91	24.80	23.95
		1	0	19.91	18.94	17.70	23.91	22.94	21.70
	256QAM	1	1	20.01	19.06	17.69	24.01	23.06	21.69
		1	160	19.70	18.54	18.10	23.70	22.54	22.10
		1	161	19.72	18.42	18.00	23.72	22.42	22.00
		81	40	19.82	18.76	17.92	23.82	22.76	21.92
		162	0	19.98	18.78	17.91	23.98	22.78	21.91
		1	0	19.91	18.94	17.70	23.91	22.94	21.70
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
				649334	656000	662666	649334	656000	662666
				3740	3840	3940	3740	3840	3940
80	BPSK	1	0	21.00	19.58	18.42	25.00	23.58	22.42
		1	1	23.05	21.50	20.30	27.05	25.50	24.30
		1	215	22.24	20.34	20.45	26.24	24.34	24.45
		1	216	20.27	18.28	18.55	24.27	22.28	22.55
		108	54	22.81	20.32	20.47	26.81	24.32	24.47
		216	0	22.75	20.76	20.51	26.75	24.76	24.51
	QPSK	1	0	21.03	19.48	18.45	25.03	23.48	22.45
		1	1	23.01	21.47	20.35	27.01	25.47	24.35
		1	215	22.27	20.31	20.38	26.27	24.31	24.38
		1	216	20.31	18.32	18.42	24.31	22.32	22.42
		108	54	22.86	20.74	20.49	26.86	24.74	24.49
		216	0	22.81	20.71	20.47	26.81	24.71	24.47
	16QAM	1	0	21.12	19.74	18.56	25.12	23.74	22.56
		1	1	23.02	21.53	20.39	27.02	25.53	24.39
		1	215	22.29	20.41	20.50	26.29	24.41	24.50
		1	216	20.41	18.17	18.56	24.41	22.17	22.56
		108	54	22.88	20.81	20.53	26.88	24.81	24.53
		216	0	22.34	20.38	20.06	26.34	24.38	24.06
	64QAM	1	0	20.70	19.32	18.05	24.70	23.32	22.05
		1	1	21.71	20.19	19.03	25.71	24.19	23.03
		1	215	20.96	19.03	19.12	24.96	23.03	23.12
		1	216	19.94	18.08	18.11	23.94	22.08	22.11



		108	54	21.95	19.91	19.56	25.95	23.91	23.56
		216	0	21.87	19.91	19.59	25.87	23.91	23.59
	256QAM	1	0	20.01	18.43	17.50	24.01	22.43	21.50
		1	1	19.94	18.45	17.29	23.94	22.45	21.29
		1	215	19.42	17.34	17.49	23.42	21.34	21.49
		1	216	19.20	17.36	17.45	23.20	21.36	21.45
		108	54	19.87	17.93	17.49	23.87	21.93	21.49
		216	0	19.83	17.95	17.51	23.83	21.95	21.51
Bandwidth (MHz)	Modulation	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP(dBm)		
				650000	656000	662000	650000	656000	662000
				3750	3840	3930	3750	3840	3930
100	BPSK	1	0	20.60	19.56	18.74	24.60	23.56	22.74
		1	1	22.65	21.56	20.81	26.65	25.56	24.81
		1	271	21.85	20.70	20.43	25.85	24.70	24.43
		1	272	19.76	18.77	18.39	23.76	22.77	22.39
		135	67	22.46	21.21	20.44	26.46	25.21	24.44
		270	0	22.40	21.23	20.40	26.40	25.23	24.40
	QPSK	1	0	20.61	19.62	18.88	24.61	23.62	22.88
		1	1	22.67	21.54	20.83	26.67	25.54	24.83
		1	271	21.74	20.72	20.49	25.74	24.72	24.49
		1	272	19.72	18.73	18.45	23.72	22.73	22.45
		135	67	22.51	21.22	20.53	26.51	25.22	24.53
		270	0	22.45	21.26	20.42	26.45	25.26	24.42
	16QAM	1	0	20.57	19.46	18.93	24.57	23.46	22.93
		1	1	22.65	21.53	20.96	26.65	25.53	24.96
		1	271	21.87	20.87	20.46	25.87	24.87	24.46
		1	272	19.90	18.58	18.42	23.90	22.58	22.42
		135	67	20.47	21.22	20.43	24.47	25.22	24.43
		270	0	21.95	20.73	20.02	25.95	24.73	24.02
	64QAM	1	0	20.36	19.29	18.49	24.36	23.29	22.49
		1	1	21.40	20.17	19.53	25.40	24.17	23.53
		1	271	20.45	19.38	19.14	24.45	23.38	23.14
		1	272	19.53	18.46	18.16	23.53	22.46	22.16
		135	67	21.48	20.17	19.46	25.48	24.17	23.46
		270	0	21.47	20.20	19.50	25.47	24.20	23.50
	256QAM	1	0	19.57	18.51	17.82	23.57	22.51	21.82
		1	1	19.61	18.49	17.86	23.61	22.49	21.86
		1	271	18.73	17.81	17.47	22.73	21.81	21.47
		1	272	18.78	17.78	17.37	22.78	21.78	21.37
		135	67	17.47	18.28	17.45	21.47	22.28	21.45
		270	0	19.43	18.25	17.49	23.43	22.25	21.49



DC_7A-n78					Maximum Output Power (dBm)			EIRP(dBm)		
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset						
					630666	633334	636000	630666	633334	636000
					3460	3500	3540	3460	3500	3540
20	BPSK	Band7-5MHz- 2535MHz-QP SK-1#0	1	0	18.18	18.44	18.82	22.18	22.44	22.82
			1	1	19.71	19.98	20.34	23.71	23.98	24.34
			1	49	19.79	20.06	20.43	23.79	24.06	24.43
			1	50	18.35	18.64	18.88	22.35	22.64	22.88
			25	12	19.69	20.01	20.39	23.69	24.01	24.39
			50	0	19.73	20.02	20.42	23.73	24.02	24.42
	QPSK		1	0	18.21	18.47	18.74	22.21	22.47	22.74
			1	1	19.62	19.96	20.37	23.62	23.96	24.37
			1	49	19.76	20.16	20.43	23.76	24.16	24.43
			1	50	18.34	18.65	18.97	22.34	22.65	22.97
			25	12	19.74	20.08	20.32	23.74	24.08	24.32
			50	0	19.77	20.10	20.41	23.77	24.10	24.41
	16QAM		1	0	18.18	18.50	18.95	22.18	22.50	22.95
			1	1	19.83	20.08	20.44	23.83	24.08	24.44
			1	49	19.89	20.31	20.60	23.89	24.31	24.60
			1	50	18.31	18.75	19.08	22.31	22.75	23.08
			25	12	19.68	20.03	20.41	23.68	24.03	24.41
			50	0	19.77	20.09	20.41	23.77	24.09	24.41
	64QAM		1	0	17.97	18.28	18.74	21.97	22.28	22.74
			1	1	18.99	19.29	19.75	22.99	23.29	23.75
			1	49	19.03	19.43	19.83	23.03	23.43	23.83
			1	50	17.95	18.44	18.81	21.95	22.44	22.81
			25	12	19.19	19.57	19.99	23.19	23.57	23.99
			50	0	19.27	19.58	19.98	23.27	23.58	23.98
	256QAM		1	0	17.12	17.37	17.79	21.12	21.37	21.79
			1	1	17.03	17.37	17.60	21.03	21.37	21.60
			1	49	17.20	17.53	17.89	21.20	21.53	21.89
			1	50	17.17	17.56	17.91	21.17	21.56	21.91
			25	12	17.15	17.52	17.91	21.15	21.52	21.91
			50	0	19.30	17.54	18.04	23.30	21.54	22.04
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP(dBm)		
					631334	633334	635334	631334	633334	635334
					3470	3500	3530	3470	3500	3530
40	BPSK	Band7-5MHz- 2535MHz-QP SK-1#0	1	0	18.51	18.67	19.02	22.51	22.67	23.02
			1	1	19.94	20.23	20.53	23.94	24.23	24.53
			1	104	20.32	20.61	20.88	24.32	24.61	24.88
			1	105	18.83	19.09	19.42	22.83	23.09	23.42



	QPSK		50	25	19.90	20.31	20.59	23.90	24.31	24.59
			100	0	20.00	20.30	20.62	24.00	24.30	24.62
			1	0	18.44	18.73	19.05	22.44	22.73	23.05
			1	1	19.87	20.14	20.55	23.87	24.14	24.55
			1	104	20.37	20.62	20.93	24.37	24.62	24.93
			1	105	18.81	19.09	19.50	22.81	23.09	23.50
			50	25	19.98	20.26	20.62	23.98	24.26	24.62
			100	0	19.95	20.33	20.58	23.95	24.33	24.58
	16QAM		1	0	18.41	18.74	19.14	22.41	22.74	23.14
			1	1	19.98	20.26	20.66	23.98	24.26	24.66
			1	104	20.41	20.74	21.01	24.41	24.74	25.01
			1	105	18.83	19.18	19.56	22.83	23.18	23.56
			50	25	19.87	20.22	20.45	23.87	24.22	24.45
			100	0	19.90	20.28	20.58	23.90	24.28	24.58
			1	0	18.31	18.64	18.93	22.31	22.64	22.93
			1	1	19.17	19.54	19.76	23.17	23.54	23.76
	64QAM		1	104	19.64	19.98	20.13	23.64	23.98	24.13
			1	105	18.72	18.99	19.23	22.72	22.99	23.23
			50	25	19.54	19.73	20.06	23.54	23.73	24.06
			100	0	19.58	19.78	20.12	23.58	23.78	24.12
			1	0	17.38	17.67	17.90	21.38	21.67	21.90
			1	1	17.45	17.58	17.89	21.45	21.58	21.89
			1	104	17.82	17.98	18.37	21.82	21.98	22.37
			1	105	17.83	17.95	18.26	21.83	21.95	22.26
	256QAM		50	25	17.49	17.78	17.89	21.49	21.78	21.89
			100	0	17.45	17.87	18.07	21.45	21.87	22.07

Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP(dBm)		
					632000	633334	634666	632000	633334	634666
					3480	3500	3520	3480	3500	3520

60	BPSK	Band7-5MHz- 2535MHz-QP SK-1#0	1	0	18.18	17.84	18.15	22.18	21.84	22.15
			1	1	19.57	19.36	19.64	23.57	23.36	23.64
			1	160	20.19	20.20	20.48	24.19	24.20	24.48
			1	161	18.68	18.75	19.03	22.68	22.75	23.03
			81	40	19.83	19.71	20.08	23.83	23.71	24.08
			162	0	19.85	19.68	20.07	23.85	23.68	24.07
	QPSK		1	0	17.97	17.84	18.18	21.97	21.84	22.18
			1	1	19.51	19.22	19.68	23.51	23.22	23.68
			1	160	20.19	20.19	20.54	24.19	24.19	24.54
			1	161	18.60	18.81	19.00	22.60	22.81	23.00
			81	40	19.91	19.68	20.08	23.91	23.68	24.08
			162	0	19.87	19.72	20.10	23.87	23.72	24.10
	16QAM		1	0	18.08	17.66	18.49	22.08	21.66	22.49



			1	1	19.51	19.34	19.80	23.51	23.34	23.80
			1	160	20.11	20.34	20.67	24.11	24.34	24.67
			1	161	18.67	18.81	19.11	22.67	22.81	23.11
			81	40	19.82	19.73	20.00	23.82	23.73	24.00
			162	0	19.84	19.70	20.02	23.84	23.70	24.02
	64QAM		1	0	17.99	17.53	18.00	21.99	21.53	22.00
			1	1	18.90	18.52	18.94	22.90	22.52	22.94
			1	160	19.59	19.42	19.88	23.59	23.42	23.88
			1	161	18.53	18.41	18.74	22.53	22.41	22.74
			81	40	19.33	19.26	19.53	23.33	23.26	23.53
	256QAM		162	0	19.39	19.21	19.61	23.39	23.21	23.61
			1	0	17.07	16.77	16.96	21.07	20.77	20.96
			1	1	17.02	16.59	17.17	21.02	20.59	21.17
			1	160	17.59	17.75	17.80	21.59	21.75	21.80
			1	161	18.03	17.71	17.97	22.03	21.71	21.97
			81	40	17.45	17.40	17.58	21.45	21.40	21.58
			162	0	17.41	17.24	17.61	21.41	21.24	21.61

Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					632666	633334	633998	632666	633334	633998
					3490	3500	3510	3490	3500	3510

80	BPSK	Band7-5MHz- 2535MHz-QP SK-1#0	1	0	17.59	17.75	17.85	21.59	21.75	21.85
			1	1	19.17	19.20	19.37	23.17	23.20	23.37
			1	215	20.21	20.38	20.38	24.21	24.38	24.38
			1	216	18.60	18.83	18.89	22.60	22.83	22.89
			108	54	19.58	19.74	19.77	23.58	23.74	23.77
			216	0	19.62	19.80	19.83	23.62	23.80	23.83
	QPSK		1	0	17.55	17.76	17.83	21.55	21.76	21.83
			1	1	19.17	19.12	19.36	23.17	23.12	23.36
			1	215	20.21	20.35	20.36	24.21	24.35	24.36
			1	216	18.71	18.83	18.83	22.71	22.83	22.83
			108	54	19.58	19.74	19.88	23.58	23.74	23.88
			216	0	19.65	19.80	19.82	23.65	23.80	23.82
	16QAM		1	0	17.80	17.73	17.99	21.80	21.73	21.99
			1	1	19.33	19.23	19.51	23.33	23.23	23.51
			1	215	20.37	20.44	20.44	24.37	24.44	24.44
			1	216	18.83	18.83	18.81	22.83	22.83	22.81
			108	54	19.56	19.72	19.74	23.56	23.72	23.74
			216	0	19.61	19.79	19.77	23.61	23.79	23.77
	64QAM		1	0	17.27	17.42	17.58	21.27	21.42	21.58
			1	1	18.38	18.43	18.60	22.38	22.43	22.60
			1	215	19.44	19.59	19.55	23.44	23.59	23.55
			1	216	18.40	18.56	18.47	22.40	22.56	22.47



			108	54	19.11	19.30	19.29	23.11	23.30	23.29
			216	0	19.19	19.35	19.33	23.19	23.35	23.33
			1	0	16.66	16.48	16.94	20.66	20.48	20.94
			1	1	16.71	16.68	16.79	20.71	20.68	20.79
			1	215	17.72	18.17	17.85	21.72	22.17	21.85
			1	216	17.57	17.68	17.90	21.57	21.68	21.90
			108	54	17.07	17.44	17.26	21.07	21.44	21.26
			216	0	17.17	17.47	17.36	21.17	21.47	21.36
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					N/A	633334	N/A	N/A	633334	N/A
					N/A	3500	N/A	N/A	3500	N/A
100	BPSK	Band7-5MHz- 2535MHz-QP SK-1#0	1	0	/	18.74	/	/	22.74	/
			1	1	/	20.04	/	/	24.04	/
			1	271	/	19.92	/	/	23.92	/
			1	272	/	18.51	/	/	22.51	/
			135	67	/	19.81	/	/	23.81	/
			270	0	/	19.85	/	/	23.85	/
	QPSK		1	0	/	18.70	/	/	22.70	/
			1	1	/	20.13	/	/	24.13	/
			1	271	/	19.83	/	/	23.83	/
			1	272	/	18.54	/	/	22.54	/
			135	67	/	19.93	/	/	23.93	/
			270	0	/	20.01	/	/	24.01	/
	16QAM		1	0	/	18.75	/	/	22.75	/
			1	1	/	20.16	/	/	24.16	/
			1	271	/	20.00	/	/	24.00	/
			1	272	/	18.36	/	/	22.36	/
			135	67	/	19.74	/	/	23.74	/
			270	0	/	19.97	/	/	23.97	/
	64QAM		1	0	/	18.37	/	/	22.37	/
			1	1	/	19.35	/	/	23.35	/
			1	271	/	19.16	/	/	23.16	/
			1	272	/	18.15	/	/	22.15	/
			135	67	/	19.45	/	/	23.45	/
			270	0	/	19.60	/	/	23.60	/
	256QAM		1	0	/	17.73	/	/	21.73	/
			1	1	/	17.61	/	/	21.61	/
			1	271	/	17.36	/	/	21.36	/
			1	272	/	17.47	/	/	21.47	/
			135	67	/	17.44	/	/	21.44	/
			270	0	/	17.62	/	/	21.62	/



DC_66A_n78					Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset						
					647334	650000	652666	647334	650000	652666
					3710	3750	3790	3710	3750	3790
20	BPSK	Band66-5MHz -1745MHz-QP SK-1#0	1	0	20.26	20.13	19.81	24.26	24.13	23.81
			1	1	21.75	21.66	21.34	25.75	25.66	25.34
			1	49	21.67	21.55	21.12	25.67	25.55	25.12
			1	50	20.12	20.10	19.58	24.12	24.10	23.58
			25	12	21.73	21.46	21.13	25.73	25.46	25.13
			50	0	21.71	21.51	21.14	25.71	25.51	25.14
	QPSK		1	0	20.28	20.16	19.82	24.28	24.16	23.82
			1	1	21.77	21.72	21.31	25.77	25.72	25.31
			1	49	21.64	21.50	20.98	25.64	25.50	24.98
			1	50	20.11	20.06	19.45	24.11	24.06	23.45
			25	12	21.79	21.54	21.11	25.79	25.54	25.11
			50	0	21.68	21.56	21.17	25.68	25.56	25.17
	16QAM		1	0	20.44	20.22	19.91	24.44	24.22	23.91
			1	1	22.00	21.74	21.39	26.00	25.74	25.39
			1	49	21.80	21.61	21.06	25.80	25.61	25.06
			1	50	20.29	20.05	19.49	24.29	24.05	23.49
			25	12	21.61	21.48	21.14	25.61	25.48	25.14
			50	0	21.78	21.48	21.12	25.78	25.48	25.12
	64QAM		1	0	20.02	20.00	19.71	24.02	24.00	23.71
			1	1	21.04	20.85	20.70	25.04	24.85	24.70
			1	49	20.93	20.94	20.15	24.93	24.94	24.15
			1	50	19.90	19.85	19.08	23.90	23.85	23.08
			25	12	21.28	21.07	20.69	25.28	25.07	24.69
			50	0	21.29	21.15	20.66	25.29	25.15	24.66
	256QAM		1	0	19.10	19.09	18.61	23.10	23.09	22.61
			1	1	19.19	18.98	18.71	23.19	22.98	22.71
			1	49	19.04	18.90	18.35	23.04	22.90	22.35
			1	50	19.06	18.94	18.38	23.06	22.94	22.38
			25	12	19.16	18.97	18.62	23.16	22.97	22.62
			50	0	19.19	19.09	18.63	23.19	23.09	22.63
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					648000	650000	652000	648000	650000	652000
					3720	3750	3780	3720	3750	3780
40	BPSK	Band66-5MHz -1745MHz-QP SK-1#0	1	0	20.67	20.61	20.55	24.67	24.61	24.55
			1	1	22.21	22.07	22.10	26.21	26.07	26.10
			1	104	22.06	21.80	21.49	26.06	25.80	25.49



	QPSK		1	105	20.46	20.33	19.96	24.46	24.33	23.96
			50	25	22.08	21.85	21.54	26.08	25.85	25.54
			100	0	22.13	21.88	21.59	26.13	25.88	25.59
			1	0	20.66	20.64	20.54	24.66	24.64	24.54
			1	1	22.13	22.00	22.02	26.13	26.00	26.02
			1	104	22.07	21.79	21.55	26.07	25.79	25.55
			1	105	20.47	20.32	19.96	24.47	24.32	23.96
			50	25	22.05	21.78	21.51	26.05	25.78	25.51
			100	0	22.08	21.90	21.55	26.08	25.90	25.55
	16QAM		1	0	20.85	20.65	20.58	24.85	24.65	24.58
			1	1	22.48	22.15	22.15	26.48	26.15	26.15
			1	104	22.18	21.97	21.50	26.18	25.97	25.50
			1	105	20.70	20.41	19.99	24.70	24.41	23.99
			50	25	22.03	21.78	21.52	26.03	25.78	25.52
			100	0	22.08	21.83	21.55	26.08	25.83	25.55
			1	0	20.41	20.43	20.28	24.41	24.43	24.28
			1	1	21.60	21.30	21.33	25.60	25.30	25.33
			1	104	21.47	21.11	21.07	25.47	25.11	25.07
	64QAM		1	105	20.42	20.07	19.87	24.42	24.07	23.87
			50	25	21.51	21.25	21.04	25.51	25.25	25.04
			100	0	21.56	21.38	21.12	25.56	25.38	25.12
			1	0	19.56	19.39	19.41	23.56	23.39	23.41
			1	1	19.52	19.41	19.36	23.52	23.41	23.36
			1	104	19.45	19.19	18.51	23.45	23.19	22.51
			1	105	19.43	19.21	18.64	23.43	23.21	22.64
			50	25	19.55	19.32	19.28	23.55	23.32	23.28
			100	0	19.32	19.31	19.38	23.32	23.31	23.38
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					648666	650000	651334	648666	650000	651334
					3730	3750	3770	3730	3750	3770
60	BPSK	Band66-5MHz -1745MHz-QP SK-1#0	1	0	20.26	20.08	20.26	24.26	24.08	24.26
			1	1	21.79	21.67	21.65	25.79	25.67	25.65
			1	160	21.52	21.32	21.09	25.52	25.32	25.09
			1	161	20.03	19.72	19.44	24.03	23.72	23.44
			81	40	21.63	21.58	21.51	25.63	25.58	25.51
			162	0	21.61	21.43	21.40	25.61	25.43	25.40
	QPSK		1	0	20.23	20.20	20.21	24.23	24.20	24.21
			1	1	21.81	21.63	21.71	25.81	25.63	25.71
			1	160	21.46	21.37	21.01	25.46	25.37	25.01
			1	161	20.01	19.77	19.46	24.01	23.77	23.46
			81	40	21.65	21.54	21.36	25.65	25.54	25.36
			162	0	21.66	21.52	21.44	25.66	25.52	25.44



	16QAM		1	0	20.38	21.20	20.36	24.38	25.20	24.36
			1	1	22.06	21.74	22.27	26.06	25.74	26.27
			1	160	21.79	21.29	21.19	25.79	25.29	25.19
			1	161	20.16	19.73	19.62	24.16	23.73	23.62
			81	40	21.61	21.45	21.38	25.61	25.45	25.38
			162	0	21.71	21.51	21.43	25.71	25.51	25.43
	64QAM		1	0	20.04	20.02	20.03	24.04	24.02	24.03
			1	1	21.10	21.04	21.11	25.10	25.04	25.11
			1	160	20.79	20.95	20.46	24.79	24.95	24.46
			1	161	19.63	19.42	19.38	23.63	23.42	23.38
			81	40	21.11	20.77	20.91	25.11	24.77	24.91
			162	0	20.94	21.14	20.95	24.94	25.14	24.95
	256QAM		1	0	19.11	19.22	19.49	23.11	23.22	23.49
			1	1	19.15	19.15	19.43	23.15	23.15	23.43
			1	160	18.90	18.94	18.83	22.90	22.94	22.83
			1	161	18.94	18.89	18.78	22.94	22.89	22.78
			81	40	19.13	19.01	18.94	23.13	23.01	22.94
			162	0	19.17	19.29	18.87	23.17	23.29	22.87
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					649334	650000	650666	649334	650000	650666
					3740	3750	3760	3740	3750	3760
80	BPSK	Band66-5MHz -1745MHz-QP SK-1#0	1	0	20.27	20.29	20.32	24.27	24.29	24.32
			1	1	21.83	21.66	21.73	25.83	25.66	25.73
			1	215	21.28	21.15	20.85	25.28	25.15	24.85
			1	216	19.79	19.67	19.31	23.79	23.67	23.31
			108	54	21.62	21.58	21.38	25.62	25.58	25.38
			216	0	21.61	21.49	21.43	25.61	25.49	25.43
	QPSK		1	0	20.28	20.27	20.20	24.28	24.27	24.20
			1	1	21.80	21.65	21.74	25.80	25.65	25.74
			1	215	21.28	21.14	20.83	25.28	25.14	24.83
			1	216	19.75	19.64	19.30	23.75	23.64	23.30
			108	54	21.63	21.60	21.37	25.63	25.60	25.37
			216	0	21.64	21.49	21.44	25.64	25.49	25.44
	16QAM		1	0	20.47	20.27	20.48	24.47	24.27	24.48
			1	1	22.04	21.61	21.99	26.04	25.61	25.99
			1	215	21.55	21.02	21.03	25.55	25.02	25.03
			1	216	19.89	19.49	19.32	23.89	23.49	23.32
			108	54	21.58	21.48	21.31	25.58	25.48	25.31
			216	0	21.59	21.49	21.58	25.59	25.49	25.58
	64QAM		1	0	20.10	20.04	19.97	24.10	24.04	23.97
			1	1	21.13	21.11	20.91	25.13	25.11	24.91
			1	215	20.70	20.60	20.24	24.70	24.60	24.24



	256QAM		1	216	19.66	19.46	19.98	23.66	23.46	23.98
			108	54	21.11	21.04	20.94	25.11	25.04	24.94
			216	0	21.18	21.00	20.76	25.18	25.00	24.76
			1	0	19.12	19.15	19.02	23.12	23.15	23.02
			1	1	19.24	19.25	19.18	23.24	23.25	23.18
			1	215	18.60	18.24	18.35	22.60	22.24	22.35
			1	216	18.69	18.19	18.17	22.69	22.19	22.17
			108	54	18.94	18.79	18.90	22.94	22.79	22.90
			216	0	18.86	19.05	18.91	22.86	23.05	22.91
Bandwidth (MHz)	Modulation	Modulation (LTE)	RB Allocation	RB Offset	Maximum Output Power (dBm)			EIRP (dBm)		
					N/A	650000	N/A	N/A	650000	N/A
					N/A	3750	N/A	N/A	3750	N/A
100	BPSK	Band66-5MHz -1745MHz-QP SK-1#0	1	0	/	20.72	/	/	24.72	/
			1	1	/	22.09	/	/	26.09	/
			1	271	/	21.13	/	/	25.13	/
			1	272	/	19.83	/	/	23.83	/
			135	67	/	21.69	/	/	25.69	/
			270	0	/	21.64	/	/	25.64	/
	QPSK		1	0	/	20.70	/	/	24.70	/
			1	1	/	22.10	/	/	26.10	/
			1	271	/	21.18	/	/	25.18	/
			1	272	/	19.83	/	/	23.83	/
			135	67	/	21.74	/	/	25.74	/
			270	0	/	21.64	/	/	25.64	/
	16QAM		1	0	/	20.71	/	/	24.71	/
			1	1	/	22.17	/	/	26.17	/
			1	271	/	21.08	/	/	25.08	/
			1	272	/	20.14	/	/	24.14	/
			135	67	/	21.73	/	/	25.73	/
			270	0	/	21.67	/	/	25.67	/
	64QAM		1	0	/	20.47	/	/	24.47	/
			1	1	/	21.36	/	/	25.36	/
			1	271	/	20.45	/	/	24.45	/
			1	272	/	19.52	/	/	23.52	/
			135	67	/	21.28	/	/	25.28	/
			270	0	/	21.20	/	/	25.20	/
	256QAM		1	0	/	19.67	/	/	23.67	/
			1	1	/	19.63	/	/	23.63	/
			1	271	/	18.79	/	/	22.79	/
			1	272	/	18.75	/	/	22.75	/
			135	67	/	19.26	/	/	23.26	/
			270	0	/	19.01	/	/	23.01	/

5.2 Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

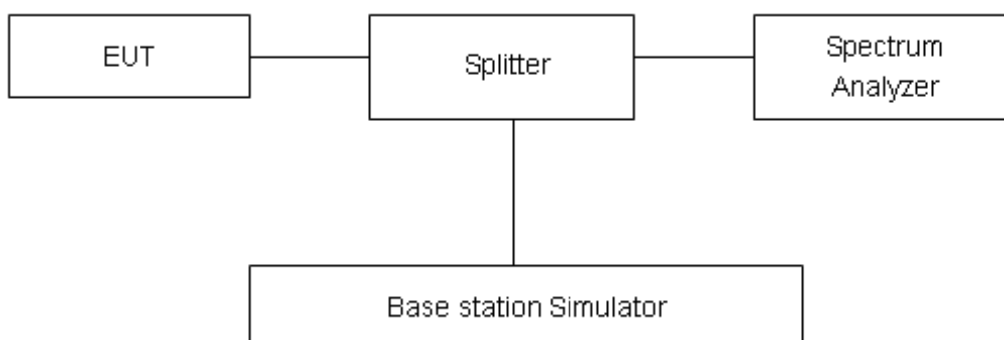
Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to at least one percent of the emission bandwidth of the fundamental emission of the transmitter for NR n77 Subset 1 / NR n77 Subset 2/ DC_7A-n78/ DC_66A_n78.

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=624\text{Hz}$.



Test Result

NR n77 Subset 1						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
1RB	P1/2 BPSK	40	509202	2546.01	0.507	0.850
			518598	2592.99	0.530	0.860
			528000	2640	0.522	0.838
	QPSK		509202	2546.01	0.512	0.897
			518598	2592.99	0.493	0.872
			528000	2640	0.532	0.855
	16QAM		509202	2546.01	0.548	0.913
			518598	2592.99	0.536	0.801
			528000	2640	0.490	0.866
	64QAM		509202	2546.01	0.534	0.895
			518598	2592.99	0.495	0.781
			528000	2640	0.478	0.782
	256QAM		509202	2546.01	0.486	0.866
			518598	2592.99	0.490	0.795
			528000	2640	0.479	0.763
	P1/2 BPSK	100	633334	3500	0.754	1.304
	QPSK		633334	3500	0.731	1.259
	16QAM		633334	3500	0.834	1.318
	64QAM		633334	3500	0.807	1.314
	256QAM		633334	3500	0.797	1.251
100% RB	P1/2 BPSK	40	631332	3470	35.914	38.570
			633334	3500	35.856	38.230
			635332	3530	35.863	38.280
	QPSK		631332	3470	35.928	38.370
			633334	3500	35.892	38.240
			635332	3530	35.885	38.190
	16QAM		631332	3470	36.018	38.310
			633334	3500	35.974	38.260
			635332	3530	35.951	38.210
	64QAM		631332	3470	35.910	38.390
			633334	3500	35.895	38.260
			635332	3530	35.852	38.250
	256QAM		631332	3470	35.981	38.410
			633334	3500	35.883	38.500
			635332	3530	35.809	38.430
	P1/2 BPSK	100	633334	3500	96.542	101.500



	QPSK		633334	3500	96.594	101.600
	16QAM		633334	3500	96.571	101.600
	64QAM		633334	3500	96.689	101.600
	256QAM		633334	3500	96.869	101.500

NR n77 Subset 2						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
1RB	P1/2 BPSK	40	648000	3720	0.479	0.829
			656000	3840	0.479	0.826
			664000	3960	0.528	0.930
	QPSK		648000	3720	0.528	0.848
			656000	3840	0.488	0.819
			664000	3960	0.558	0.919
	16QAM		648000	3720	0.519	0.870
			656000	3840	0.528	0.844
			664000	3960	0.516	0.837
	64QAM		648000	3720	0.520	0.965
			656000	3840	0.496	0.876
			664000	3960	0.485	0.764
	256QAM		648000	3720	0.512	0.864
			656000	3840	0.479	0.823
			664000	3960	0.478	0.802
	P1/2 BPSK	100	650000	3750	0.736	1.212
			656000	3840	0.670	1.220
			662000	3930	0.669	1.197
	QPSK		650000	3750	0.693	1.290
			656000	3840	0.705	1.301
			662000	3930	0.687	1.225
	16QAM		650000	3750	0.833	1.402
			656000	3840	0.733	1.262
			662000	3930	0.731	1.279
	64QAM		650000	3750	0.673	1.146
			656000	3840	0.700	1.189
			662000	3930	0.676	1.185
	256QAM		650000	3750	0.761	1.258
			656000	3840	0.734	1.160
			662000	3930	0.701	1.106
100% RB	P1/2 BPSK	40	648000	3720	35.897	38.210



			656000	3840	35.938	38.310
			664000	3960	36.044	38.260
	QPSK		648000	3720	35.913	38.410
			656000	3840	35.973	38.230
			664000	3960	35.925	38.330
	16QAM		648000	3720	35.959	38.270
			656000	3840	36.009	38.300
			664000	3960	36.023	38.300
	64QAM		648000	3720	35.952	38.240
			656000	3840	35.924	38.220
			664000	3960	35.929	38.160
	256QAM		648000	3720	35.913	38.360
			656000	3840	35.997	38.310
			664000	3960	35.986	38.390
	P1/2 BPSK		100	650000	3750	96.398
		656000		3840	96.582	101.500
		662000		3930	96.495	101.600
	QPSK	650000		3750	96.425	101.500
		656000		3840	96.619	101.400
		662000		3930	96.485	101.600
	16QAM	650000		3750	96.479	101.600
		656000		3840	96.707	101.600
		662000		3930	96.483	101.600
	64QAM	650000		3750	96.359	101.500
		656000		3840	96.790	101.400
		662000		3930	96.493	101.500
	256QAM	650000		3750	96.573	101.400
		656000		3840	96.609	101.400
		662000		3930	96.593	101.500



DC_7A-n78						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
1RB	P1/2 BPSK	40	631334	3470	0.505	0.826
			633334	3500	0.523	0.908
			635334	3500	0.572	0.909
	QPSK		631334	3470	0.502	0.853
			633334	3500	0.530	0.867
			635334	3500	0.498	0.825
	16QAM		631334	3470	0.533	0.790
			633334	3500	0.572	0.959
			635334	3500	0.556	0.912
	64QAM		631334	3470	0.563	0.948
			633334	3500	0.539	0.921
			635334	3500	0.511	0.825
	256QAM		631334	3470	0.526	0.866
			633334	3500	0.507	0.737
			635334	3500	0.521	0.827
	P1/2 BPSK	100	633334	3500	0.784	1.250
	QPSK		633334	3500	0.719	1.254
	16QAM		633334	3500	0.777	1.257
	64QAM		633334	3500	0.659	1.104
	256QAM		633334	3500	0.765	1.331
100% RB	P1/2 BPSK	40	631334	3470	35.870	38.390
			633334	3500	35.867	38.250
			635334	3500	35.837	38.310
	QPSK		631334	3470	35.912	38.360
			633334	3500	35.827	38.280
			635334	3500	35.783	38.220
	16QAM		631334	3470	36.015	38.390
			633334	3500	35.975	38.260
			635334	3500	35.938	38.330
	64QAM		631334	3470	35.894	38.400
			633334	3500	35.900	38.270
			635334	3500	35.881	38.190
	256QAM		631334	3470	35.936	38.280
			633334	3500	35.909	38.480
			635334	3500	35.851	38.260
	P1/2 BPSK	100	633334	3500	96.640	101.600

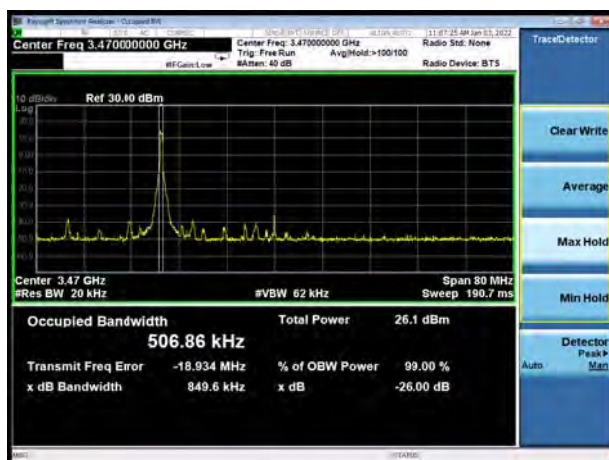
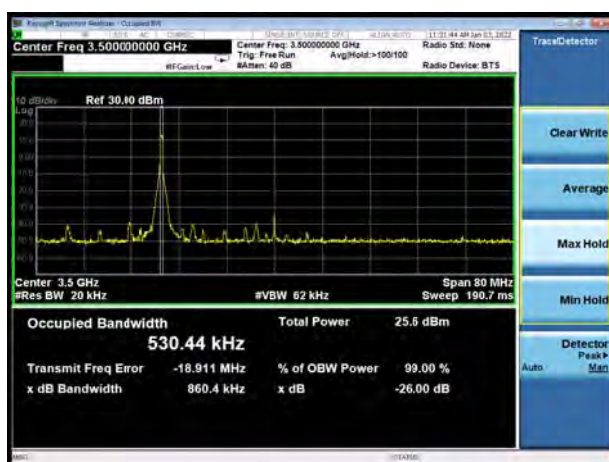
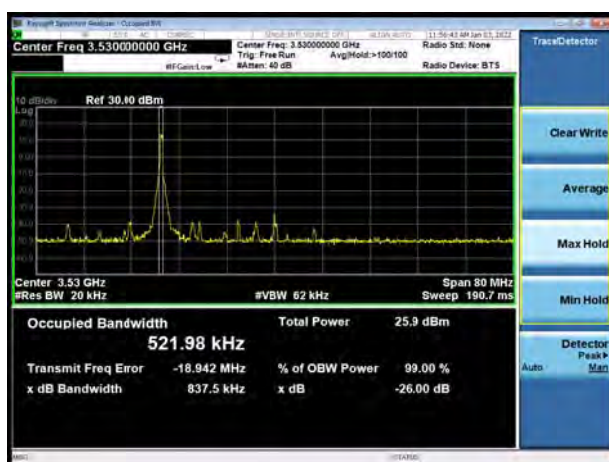
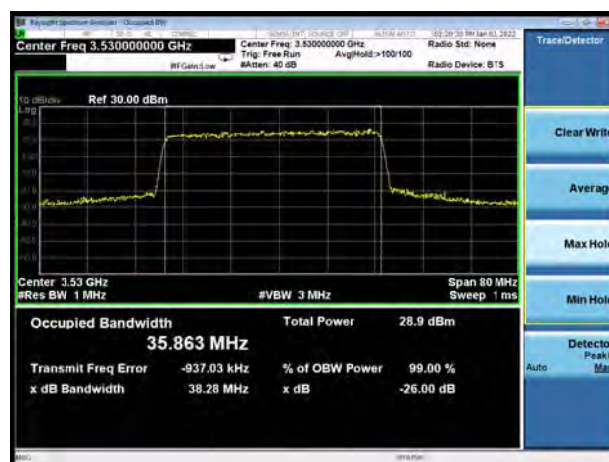


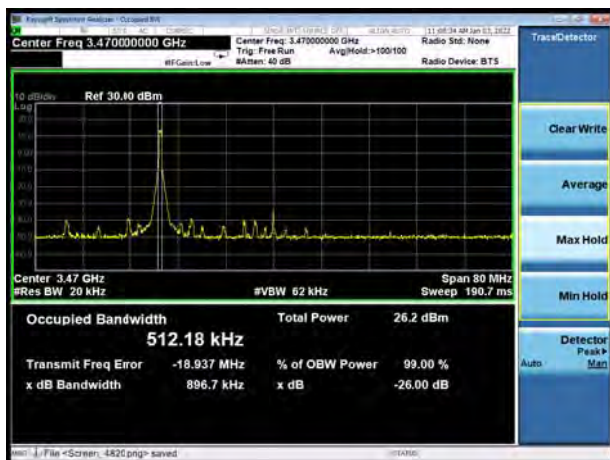
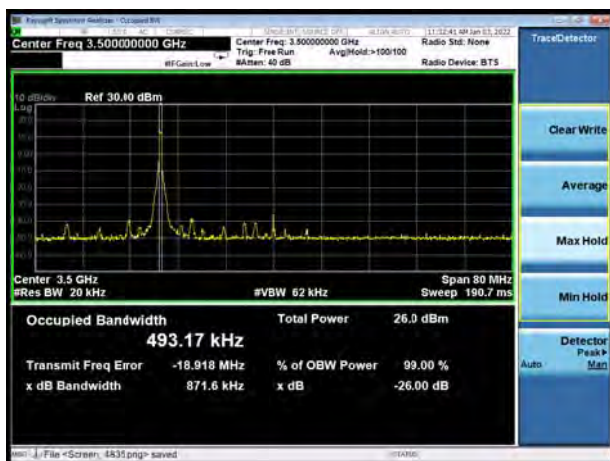
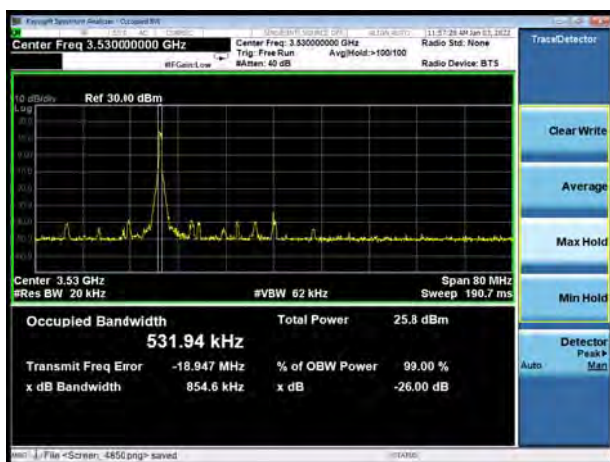
	QPSK		633334	3500	96.547	101.300
	16QAM		633334	3500	96.763	101.700
	64QAM		633334	3500	96.660	101.500
	256QAM		633334	3500	96.594	101.700

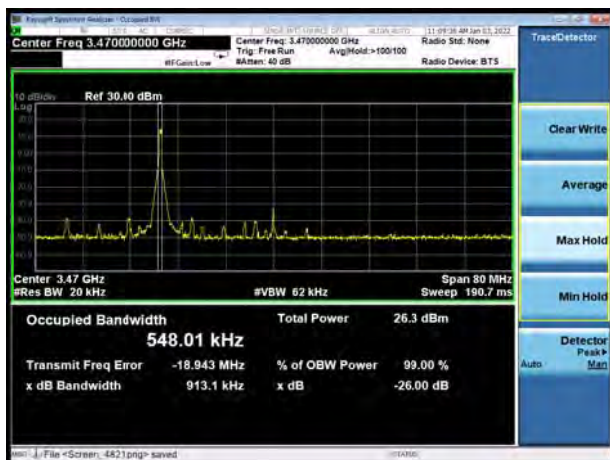
DC_66A_n78						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
1RB	P1/2 BPSK	40	648000	3720	0.478	0.806
			650000	3750	0.507	0.824
			652000	3780	0.509	0.762
	QPSK		648000	3720	0.478	0.826
			650000	3750	0.508	0.826
			652000	3780	0.499	0.780
	16QAM		648000	3720	0.519	0.876
			650000	3750	0.535	0.928
			652000	3780	0.548	0.939
	64QAM		648000	3720	0.510	0.915
			650000	3750	0.580	0.973
			652000	3780	0.501	0.849
	256QAM		648000	3720	0.526	0.919
			650000	3750	0.478	0.795
			652000	3780	0.478	0.757
	P1/2 BPSK	100	650000	3750	0.731	1.315
	QPSK		650000	3750	0.720	1.286
	16QAM		650000	3750	0.817	1.366
	64QAM		650000	3750	0.930	1.286
	256QAM		650000	3750	0.758	1.258
100% RB	P1/2 BPSK	40	648000	3720	35.892	38.210
			650000	3750	35.849	38.190
			652000	3780	35.883	38.160
	QPSK		648000	3720	35.958	38.316
			650000	3750	35.888	38.240
			652000	3780	35.876	38.230
	16QAM		648000	3720	36.023	38.290
			650000	3750	36.028	38.210
			652000	3780	36.015	38.210
	64QAM		648000	3720	35.950	38.230
			650000	3750	35.947	38.070
			652000	3780	35.902	38.320

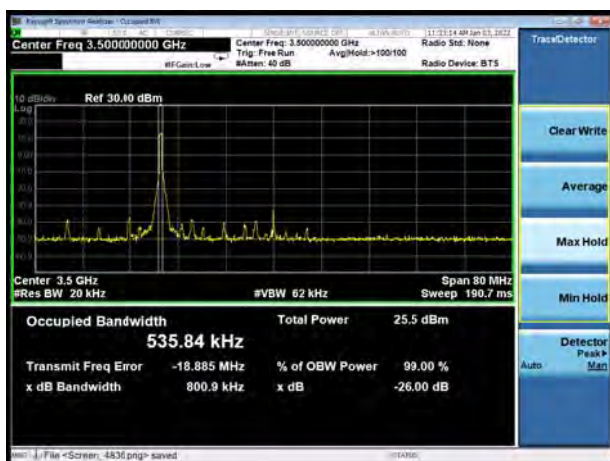


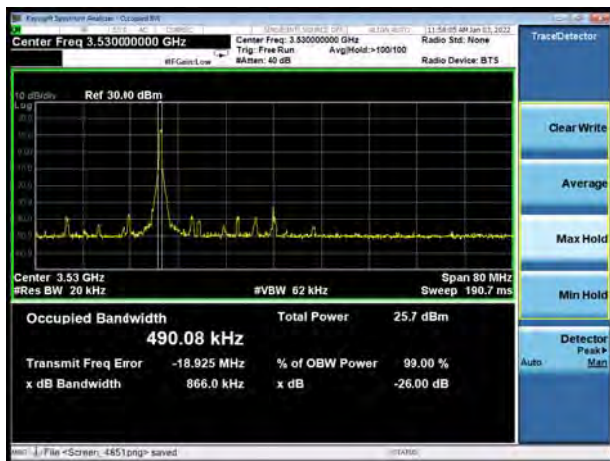
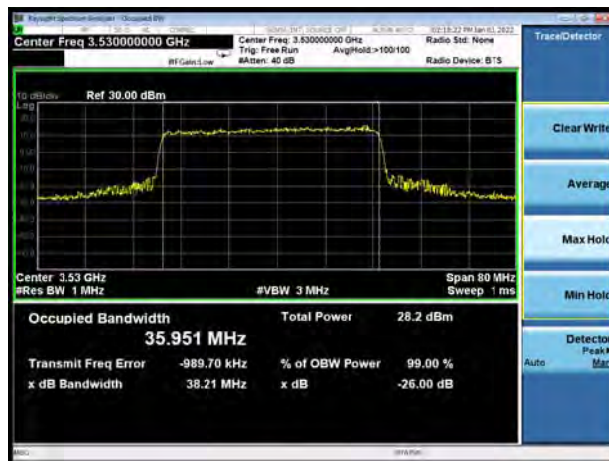
	256QAM		648000	3720	35.940	38.316
			650000	3750	35.866	38.320
			652000	3780	35.933	38.250
	P1/2 BPSK	100	650000	3750	96.622	101.600
	QPSK		650000	3750	96.473	101.600
	16QAM		650000	3750	96.759	101.600
	64QAM		650000	3750	96.469	101.400
	256QAM		650000	3750	96.554	101.300

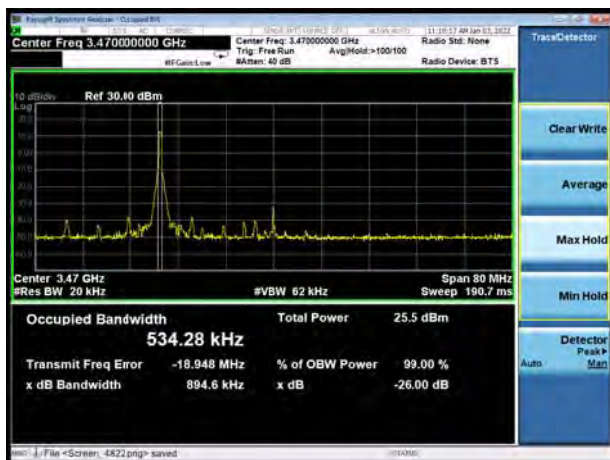
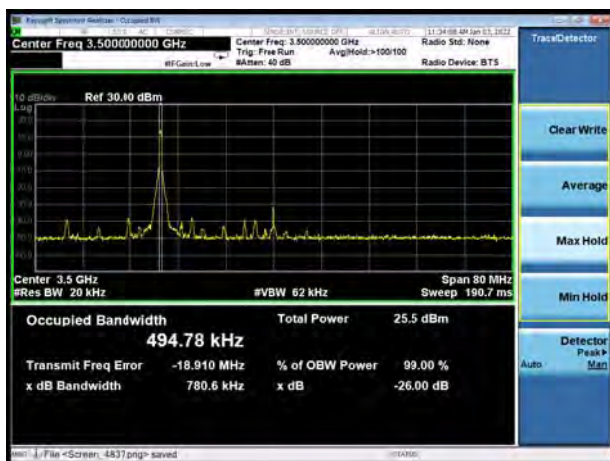
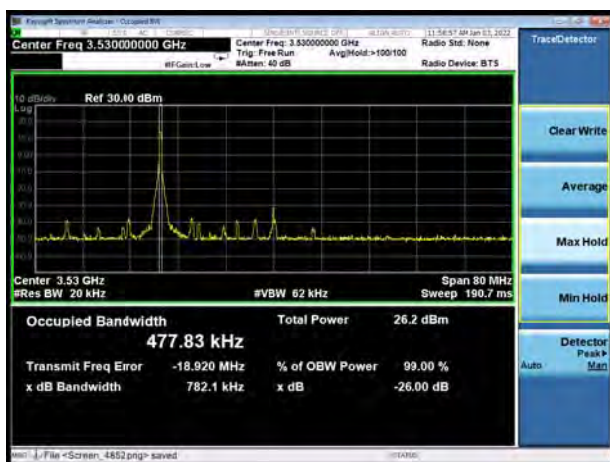
NR n77 Subset 1 P1/2 BPSK 1RB 40MHz
CH-LowNR n77 Subset 1 P1/2 BPSK 100%RB 40MHz
CH-LowNR n77 Subset 1 P1/2 BPSK 1RB 40MHz
CH-MiddleNR n77 Subset 1 P1/2 BPSK 100%RB 40MHz
CH-MiddleNR n77 Subset 1 P1/2 BPSK 1RB 40MHz
CH-HighNR n77 Subset 1 P1/2 BPSK 100%RB 40MHz
CH-High

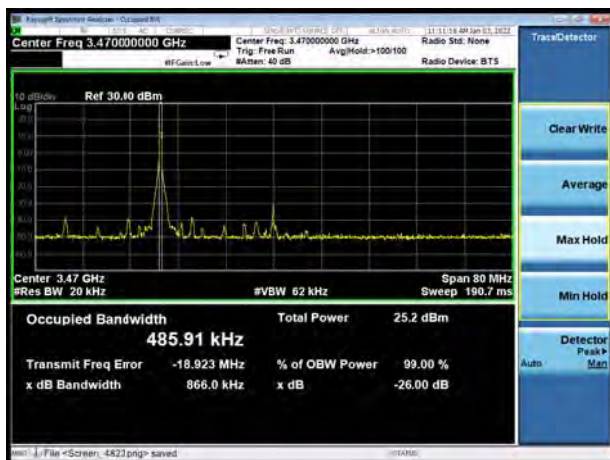
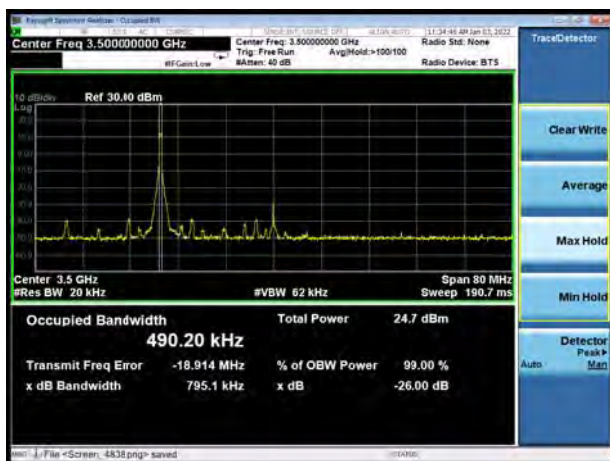
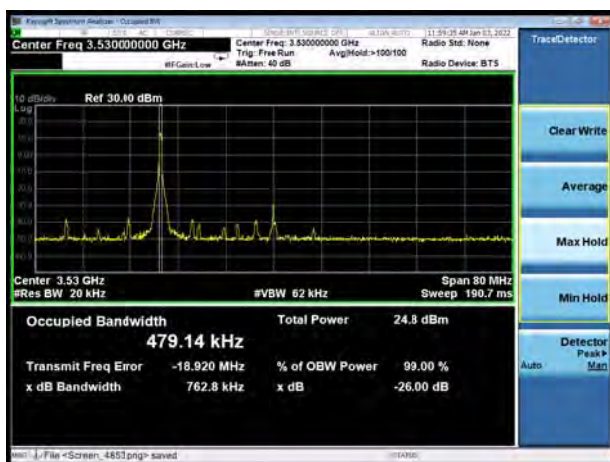
NR n77 Subset 1 QPSK 1RB 40MHz
CH-LowNR n77 Subset 1 QPSK 100%RB 40MHz
CH-LowNR n77 Subset 1 QPSK 1RB 40MHz
CH-MiddleNR n77 Subset 1 QPSK 100%RB 40MHz
CH-MiddleNR n77 Subset 1 QPSK 1RB 40MHz
CH-HighNR n77 Subset 1 QPSK 100%RB 40MHz
CH-High

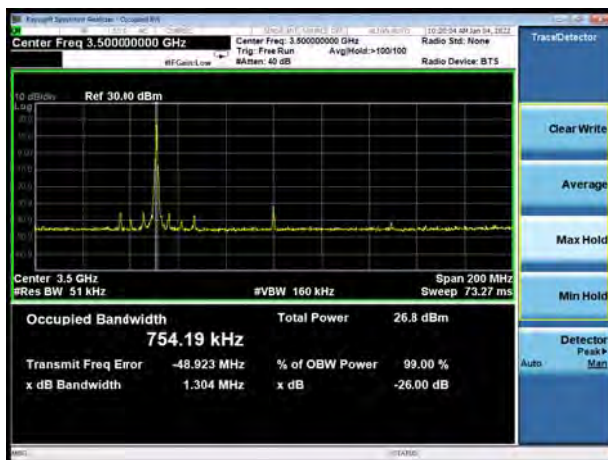
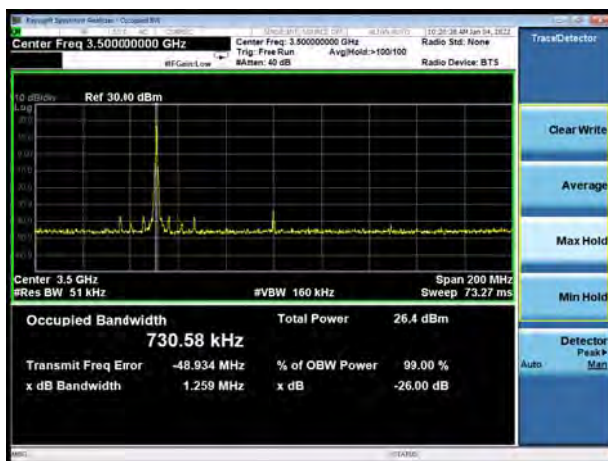
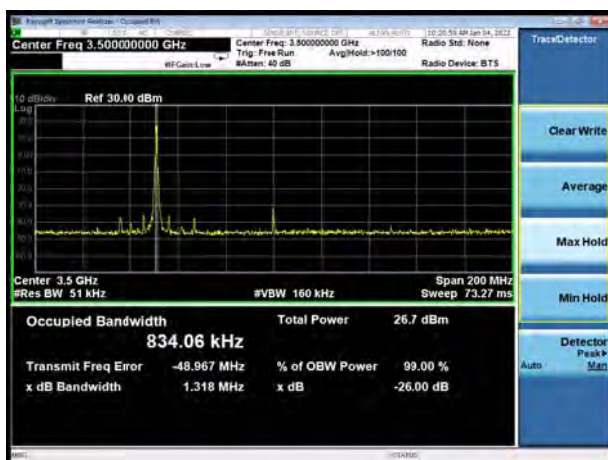
NR n77 Subset 1 16QAM 1RB 40MHz
CH-Low

NR n77 Subset 1 16QAM 100%RB 40MHz
CH-Low

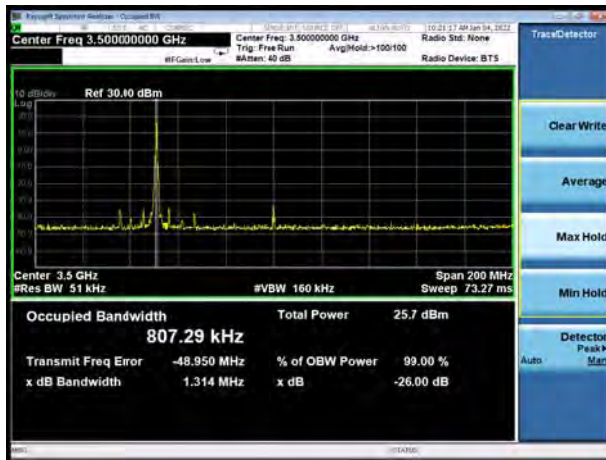
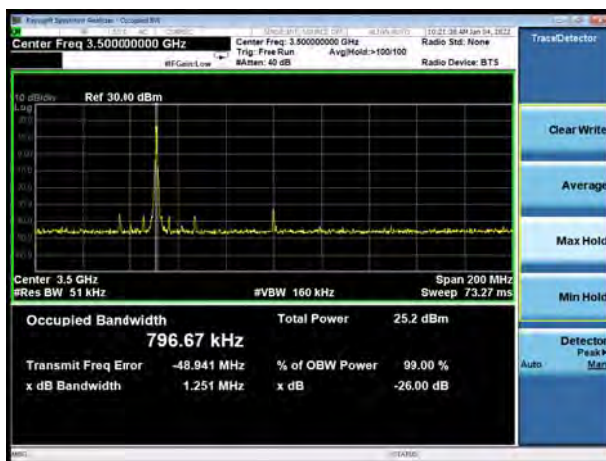
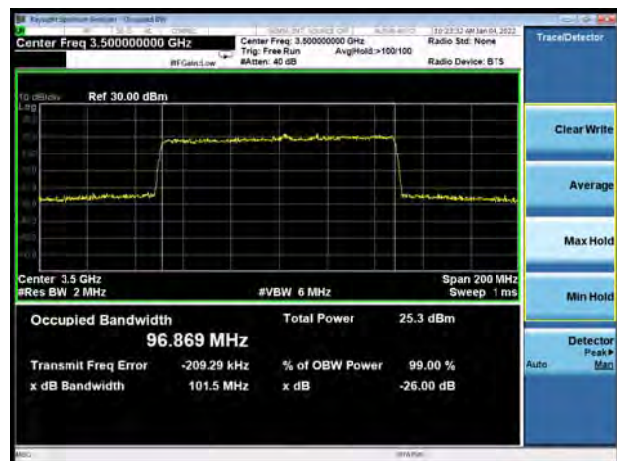
NR n77 Subset 1 16QAM 1RB 40MHz
CH-Middle

NR n77 Subset 1 16QAM 100%RB 40MHz
CH-Middle

NR n77 Subset 1 16QAM 1RB 40MHz
CH-High

NR n77 Subset 1 16QAM 100%RB 40MHz
CH-High


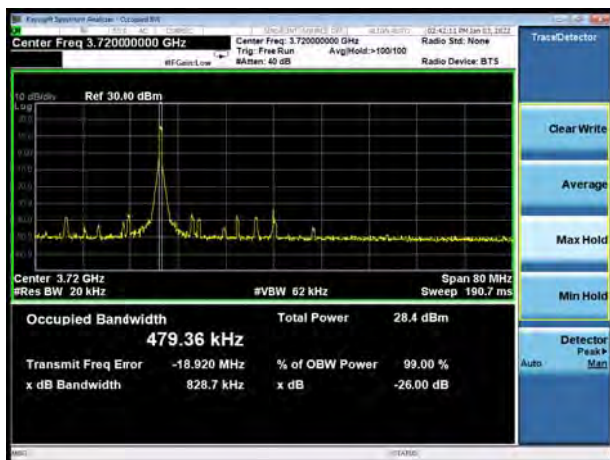
NR n77 Subset 1 64QAM 1RB 40MHz
CH-LowNR n77 Subset 1 64QAM 100%RB 40MHz
CH-LowNR n77 Subset 1 64QAM 1RB 40MHz
CH-MiddleNR n77 Subset 1 64QAM 100%RB 40MHz
CH-MiddleNR n77 Subset 1 64QAM 1RB 40MHz
CH-HighNR n77 Subset 1 64QAM 100%RB 40MHz
CH-High

NR n77 Subset 1 256QAM 1RB 40MHz
CH-LowNR n77 Subset 1 256QAM 100%RB 40MHz
CH-LowNR n77 Subset 1 256QAM 1RB 40MHz
CH-MiddleNR n77 Subset 1 256QAM 100%RB 40MHz
CH-MiddleNR n77 Subset 1 256QAM 1RB 40MHz
CH-HighNR n77 Subset 1 256QAM 100%RB 40MHz
CH-High

NR n77 Subset 1 P1/2 BPSK 1RB 100MHz
CH- MiddleNR n77 Subset 1 P1/2 BPSK 100%RB 100MHz
CH- MiddleNR n77 Subset 1 QPSK 1RB 100MHz
CH-MiddleNR n77 Subset 1 QPSK 100%RB 100MHz
CH-MiddleNR n77 Subset 1 16QAM 1RB 100MHz
CH- MiddleNR n77 Subset 1 16QAM 100%RB 100MHz
CH- Middle

NR n77 Subset 1 64QAM 1RB 100MHz
CH- MiddleNR n77 Subset 1 64QAM 100%RB 100MHz
CH- MiddleNR n77 Subset 1 256QAM 1RB 100MHz
CH- MiddleNR n77 Subset 1 256QAM 100%RB 100MHz
CH- Middle

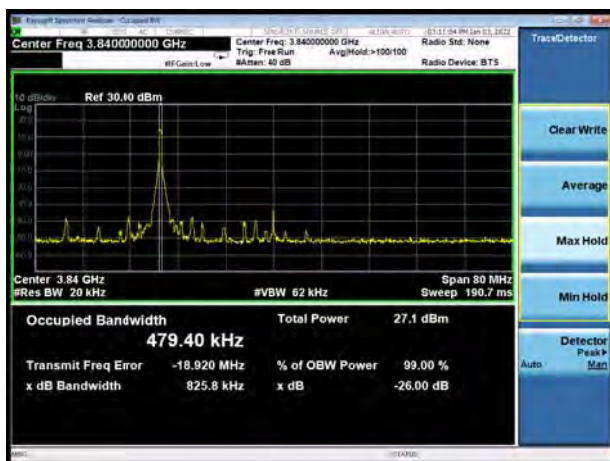
NR n77 Subset 2 P1/2 BPSK 1RB 40MHz
CH-Low



NR n77 Subset 2 P1/2 BPSK 100%RB 40MHz
CH-Low



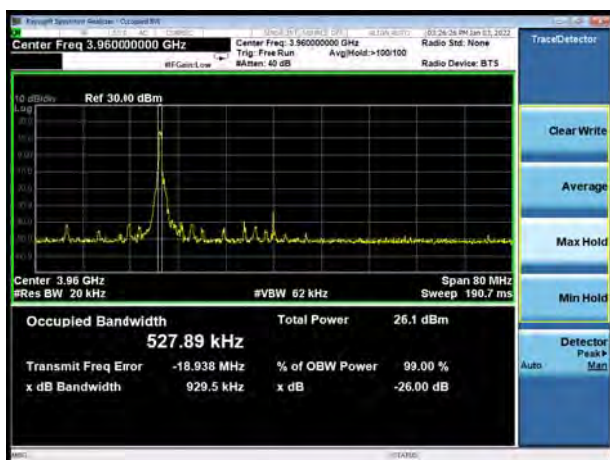
NR n77 Subset 2 P1/2 BPSK 1RB 40MHz
CH-Middle



NR n77 Subset 2 P1/2 BPSK 100%RB 40MHz
CH-Middle

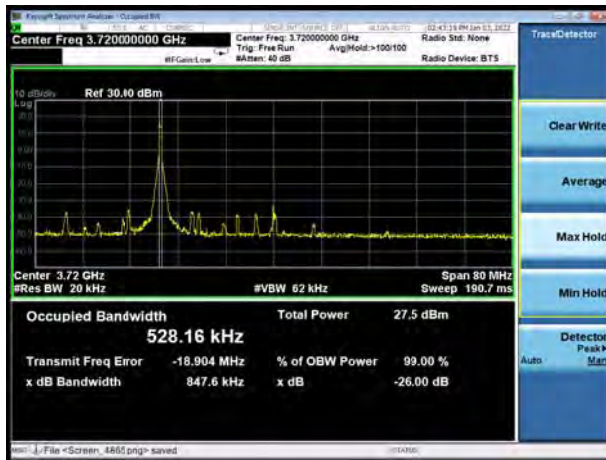
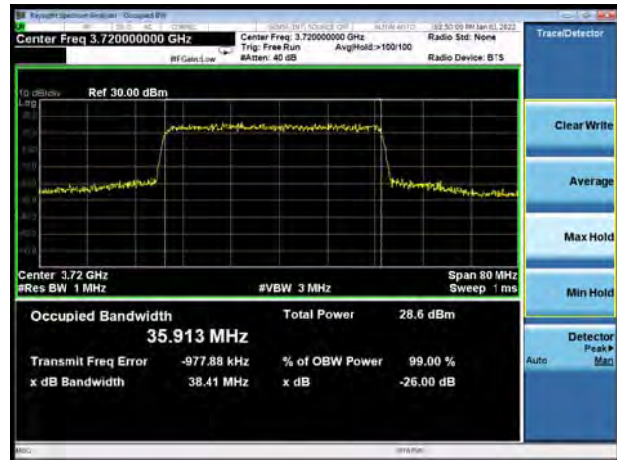
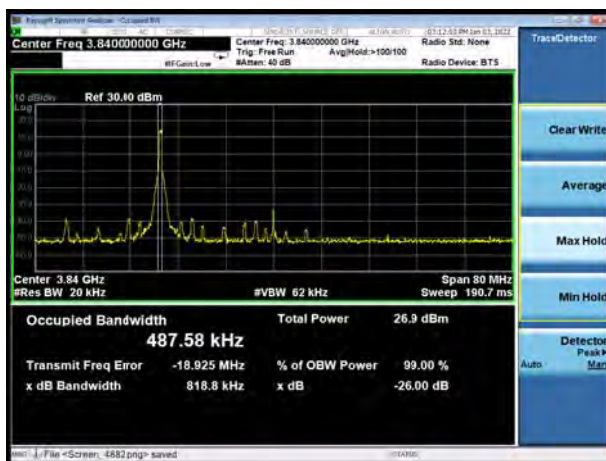


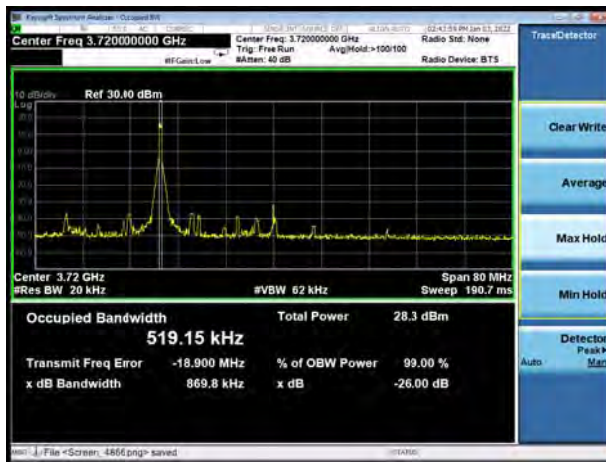
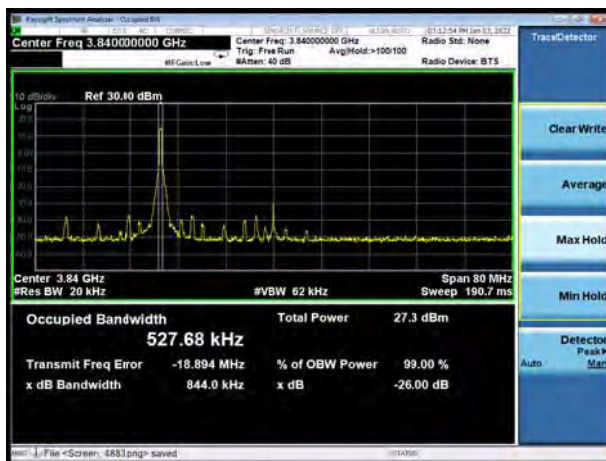
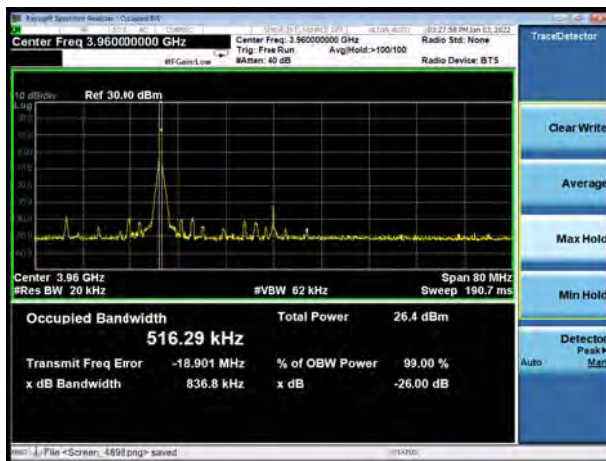
NR n77 Subset 2 P1/2 BPSK 1RB 40MHz
CH-High

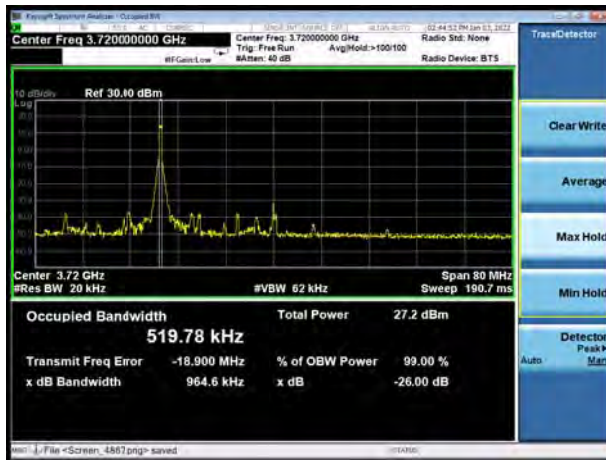
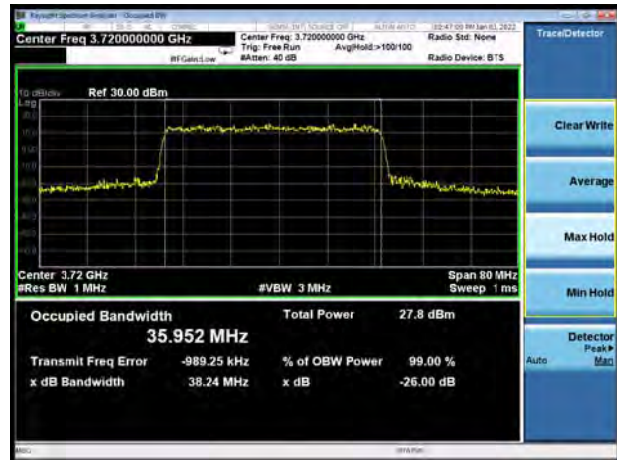
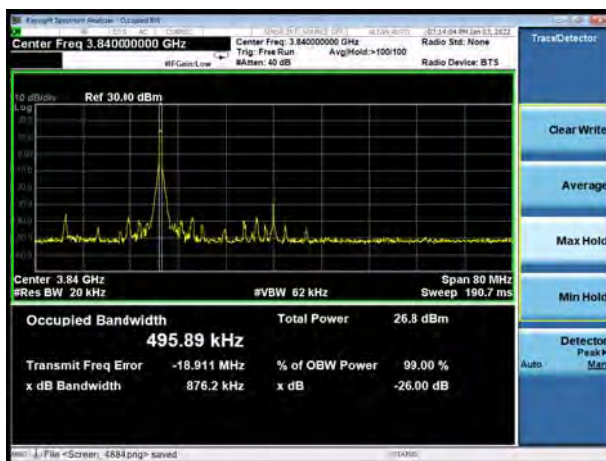
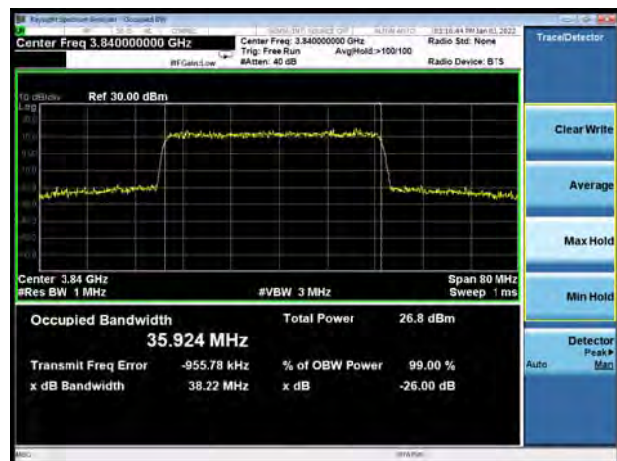
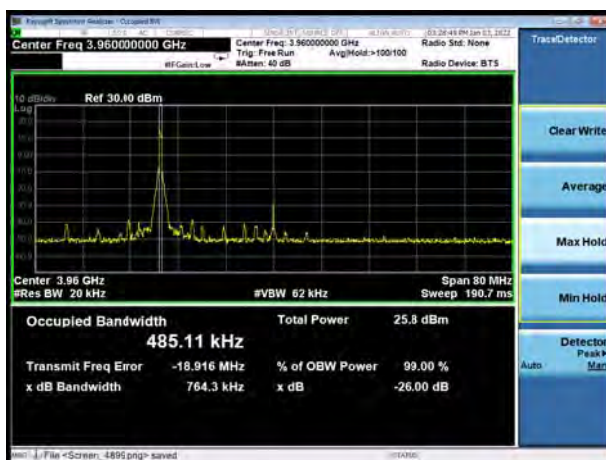
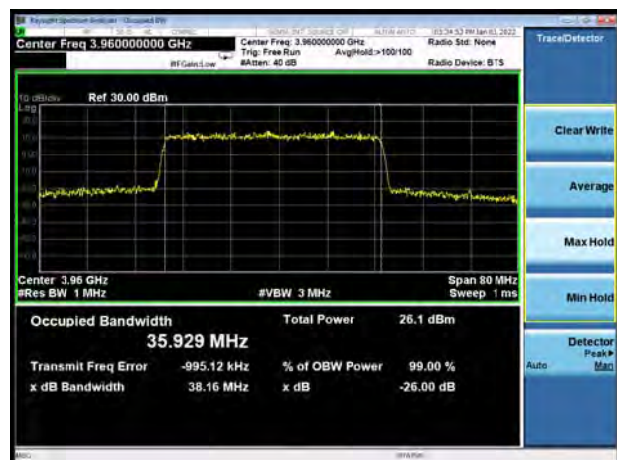


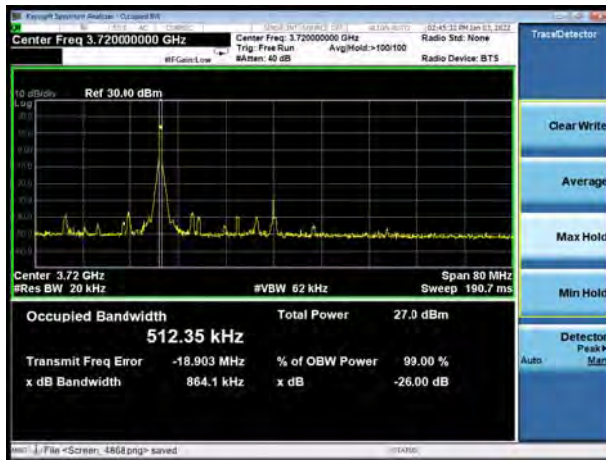
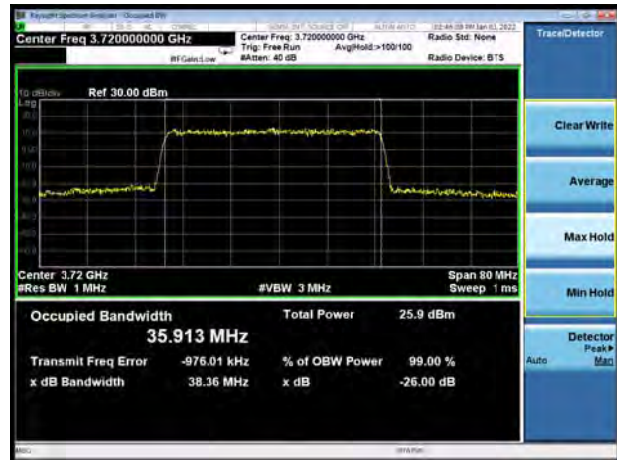
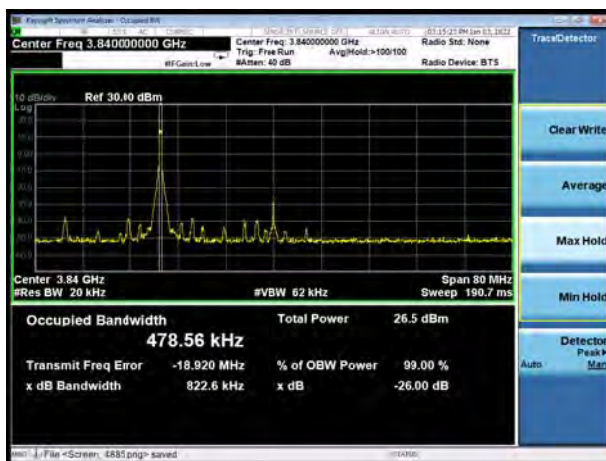
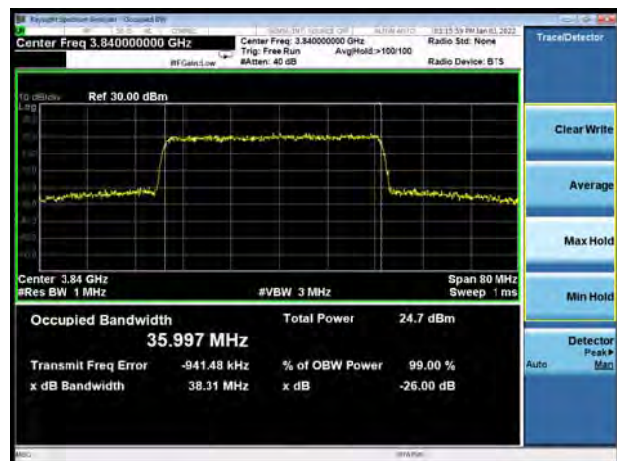
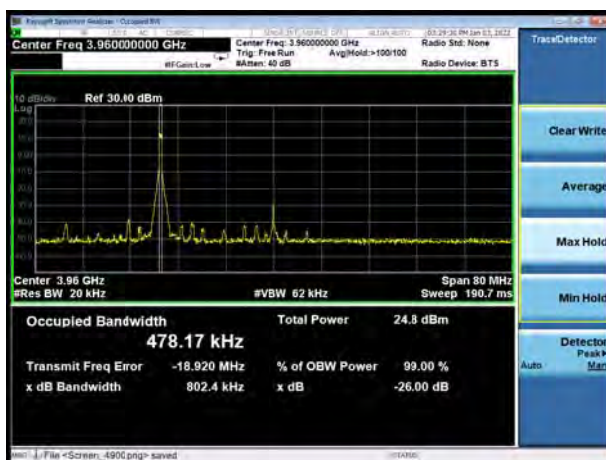
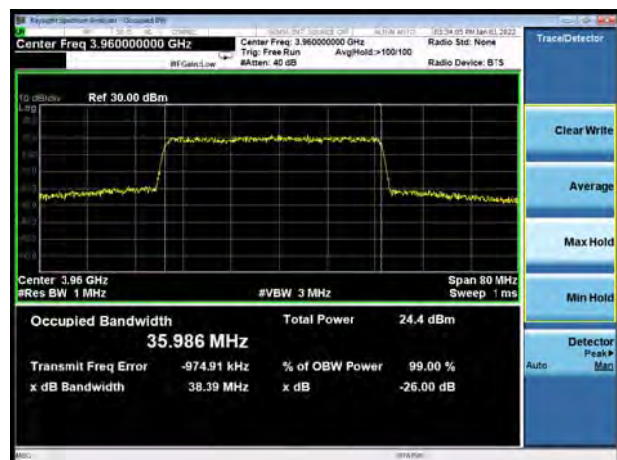
NR n77 Subset 2 P1/2 BPSK 100%RB 40MHz
CH-High

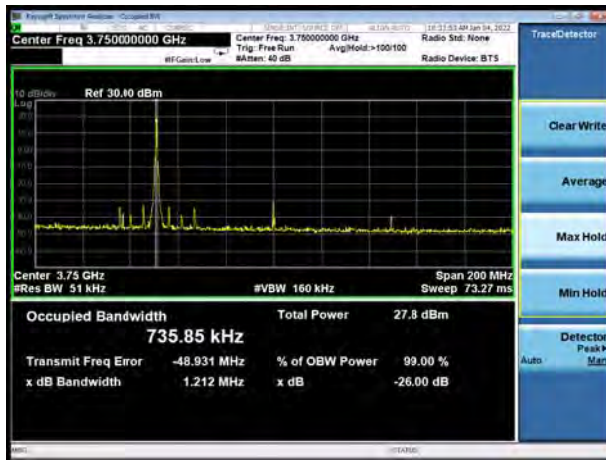
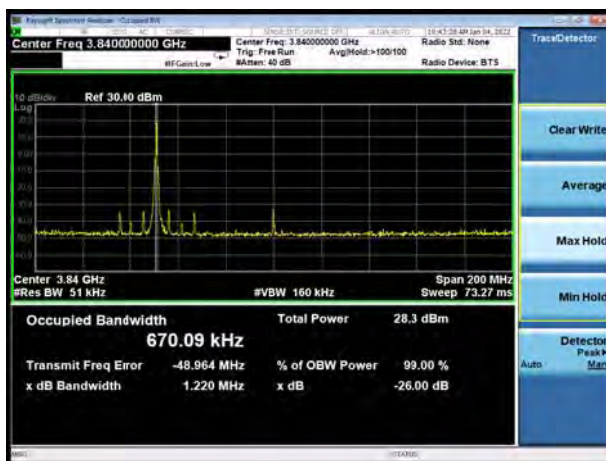
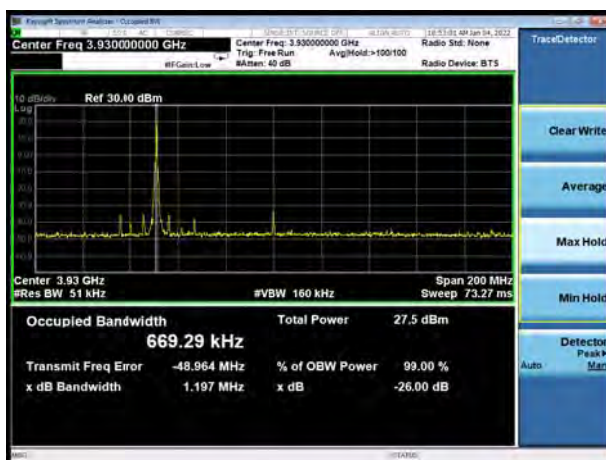


NR n77 Subset 2 QPSK 1RB 40MHz
CH-LowNR n77 Subset 2 QPSK 100%RB 40MHz
CH-LowNR n77 Subset 2 QPSK 1RB 40MHz
CH-MiddleNR n77 Subset 2 QPSK 100%RB 40MHz
CH-MiddleNR n77 Subset 2 QPSK 1RB 40MHz
CH-HighNR n77 Subset 2 QPSK 100%RB 40MHz
CH-High

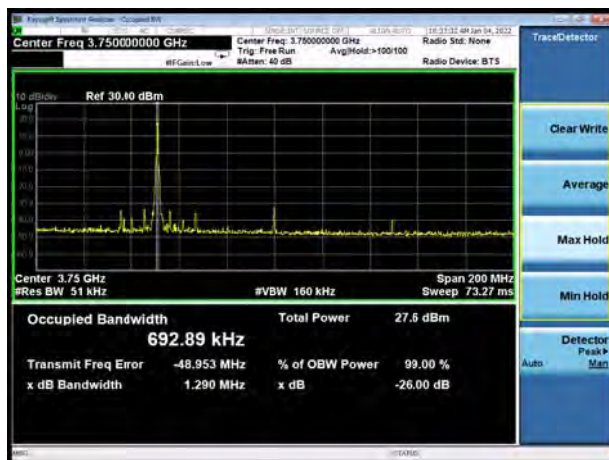
NR n77 Subset 2 16QAM 1RB 40MHz
CH-LowNR n77 Subset 2 16QAM 100%RB 40MHz
CH-LowNR n77 Subset 2 16QAM 1RB 40MHz
CH-MiddleNR n77 Subset 2 16QAM 100%RB 40MHz
CH-MiddleNR n77 Subset 2 16QAM 1RB 40MHz
CH-HighNR n77 Subset 2 16QAM 100%RB 40MHz
CH-High

NR n77 Subset 2 64QAM 1RB 40MHz
CH-LowNR n77 Subset 2 64QAM 100%RB 40MHz
CH-LowNR n77 Subset 2 64QAM 1RB 40MHz
CH-MiddleNR n77 Subset 2 64QAM 100%RB 40MHz
CH-MiddleNR n77 Subset 2 64QAM 1RB 40MHz
CH-HighNR n77 Subset 2 64QAM 100%RB 40MHz
CH-High

NR n77 Subset 2 256QAM 1RB 40MHz
CH-LowNR n77 Subset 2 256QAM 100%RB 40MHz
CH-LowNR n77 Subset 2 256QAM 1RB 40MHz
CH-MiddleNR n77 Subset 2 256QAM 100%RB 40MHz
CH-MiddleNR n77 Subset 2 256QAM 1RB 40MHz
CH-HighNR n77 Subset 2 256QAM 100%RB 40MHz
CH-High

NR n77 Subset 2 P1/2 BPSK 1RB 100MHz
CH-LowNR n77 Subset 2 P1/2 BPSK 100%RB 100MHz
CH-LowNR n77 Subset 2 P1/2 BPSK 1RB 100MHz
CH-MiddleNR n77 Subset 2 P1/2 BPSK 100%RB 100MHz
CH-MiddleNR n77 Subset 2 P1/2 BPSK 1RB 100MHz
CH-HighNR n77 Subset 2 P1/2 BPSK 100%RB 100MHz
CH-High

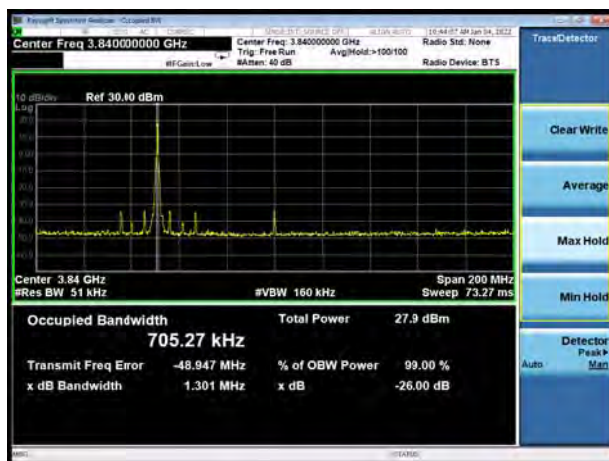
NR n77 Subset 2 QPSK 1RB 100MHz
CH-Low



NR n77 Subset 2 QPSK 100%RB 100MHz
CH-Low



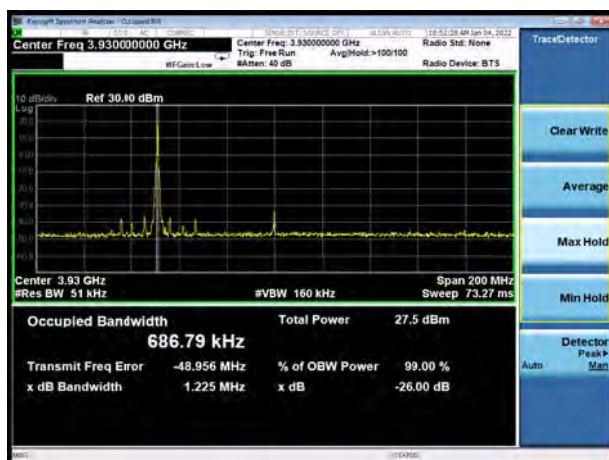
NR n77 Subset 2 QPSK 1RB 100MHz
CH-Middle



NR n77 Subset 2 QPSK 100%RB 100MHz
CH-Middle

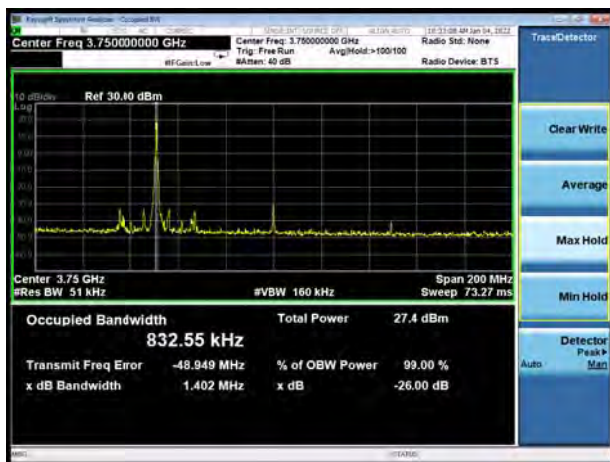


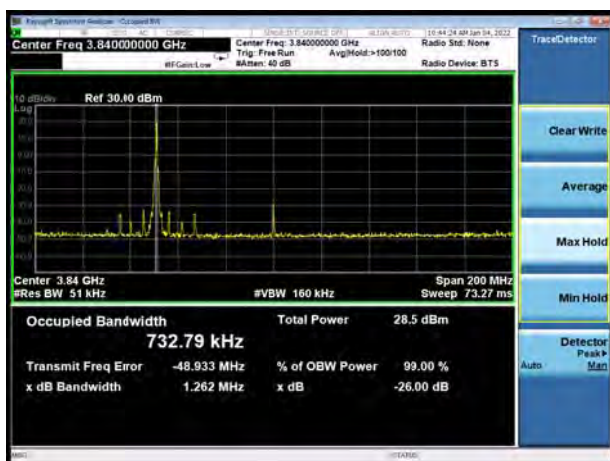
NR n77 Subset 2 QPSK 1RB 100MHz
CH-High

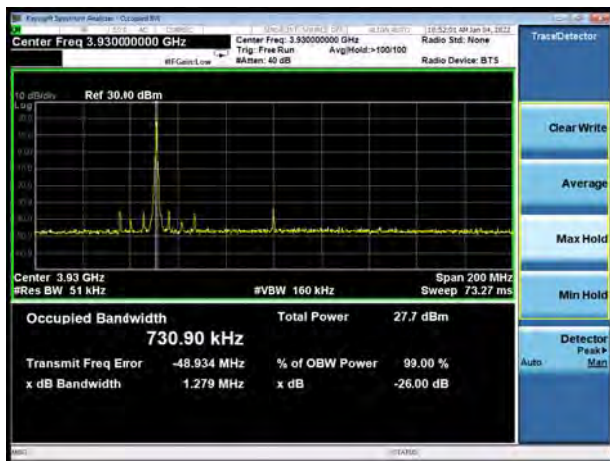
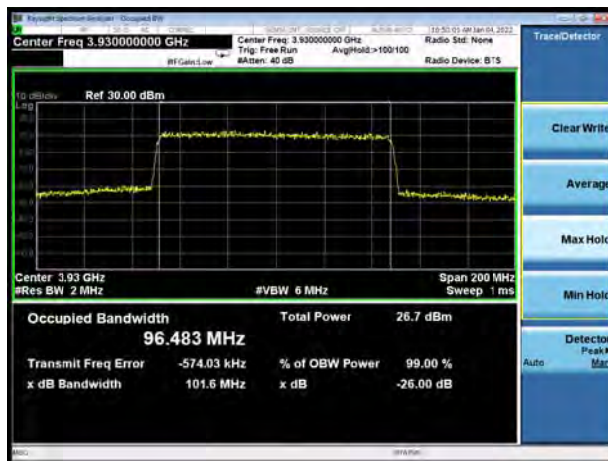


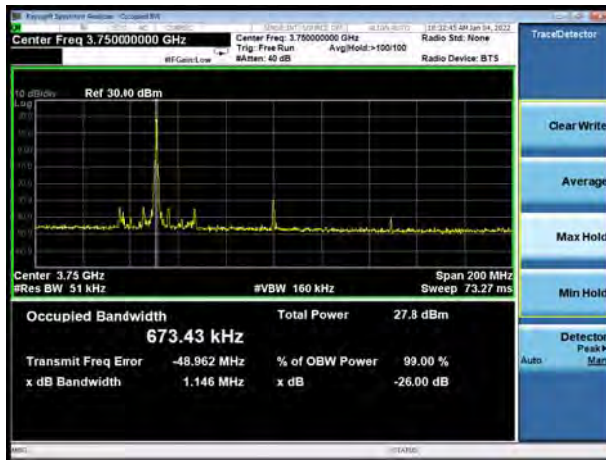
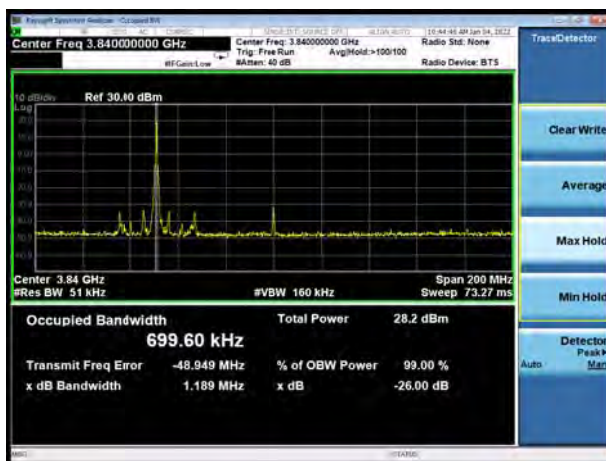
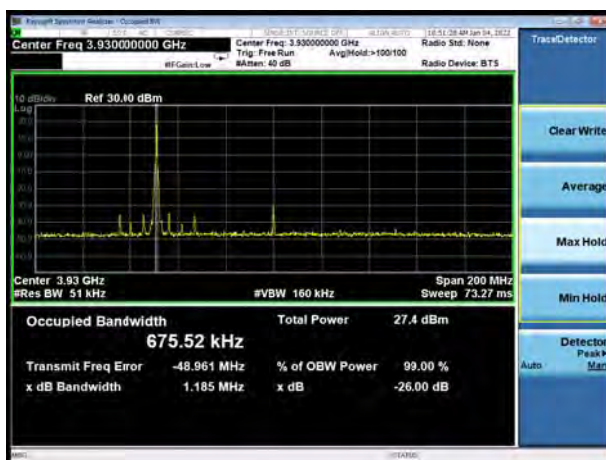
NR n77 Subset 2 QPSK 100%RB 100MHz
CH-High

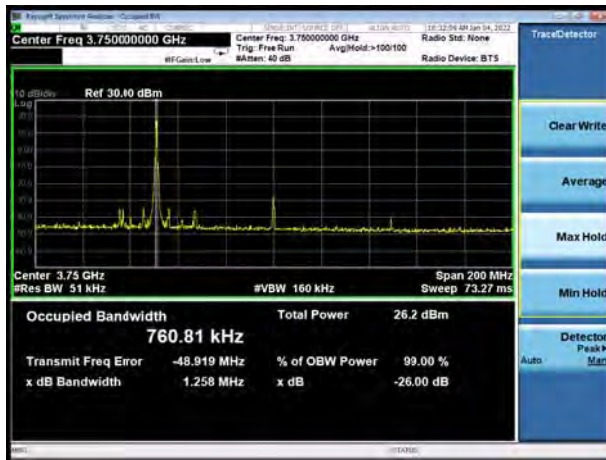
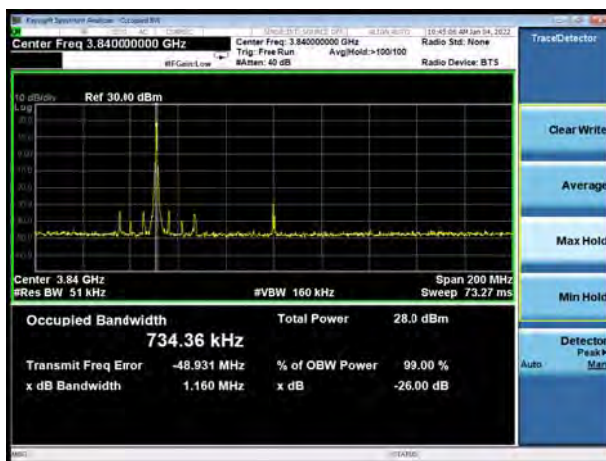
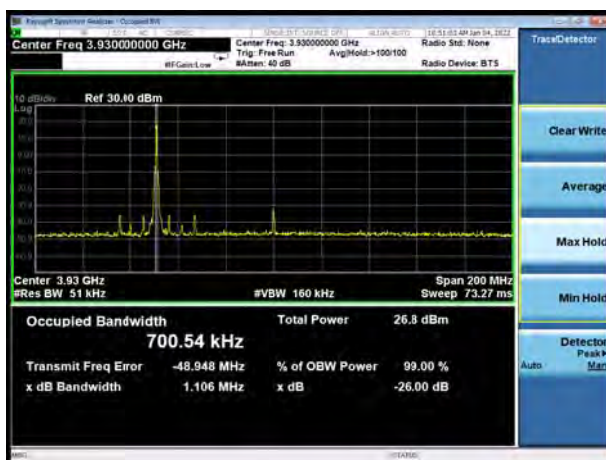


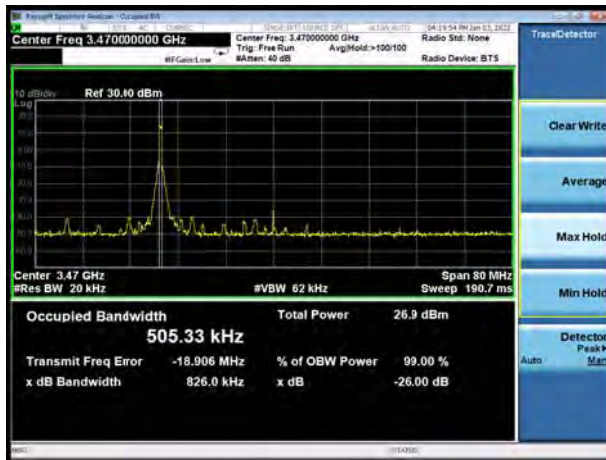
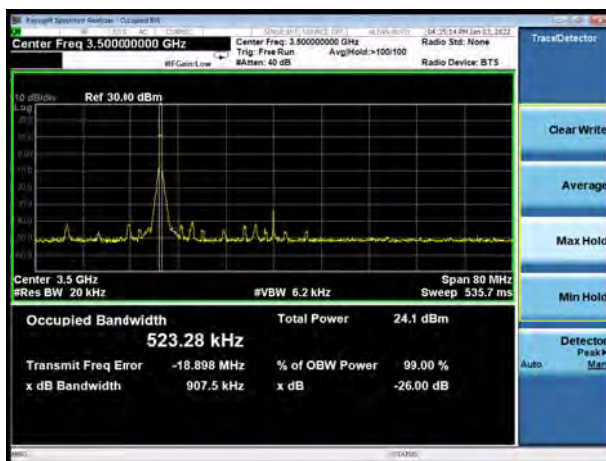
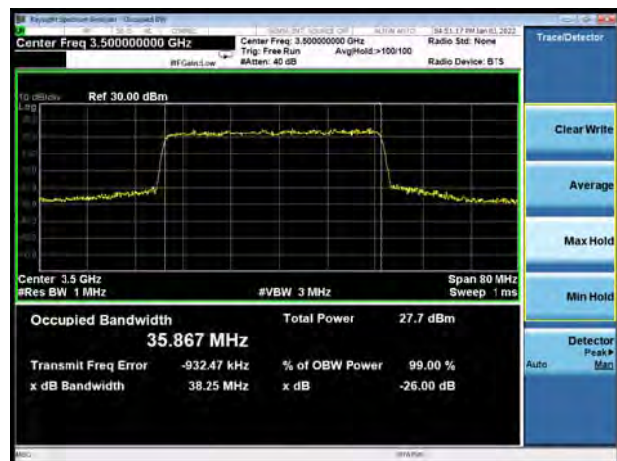
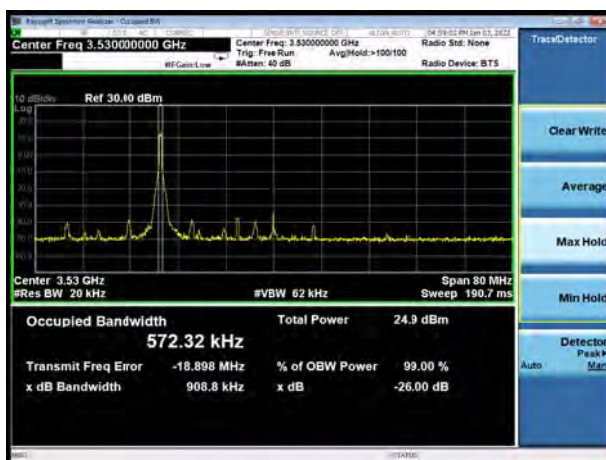
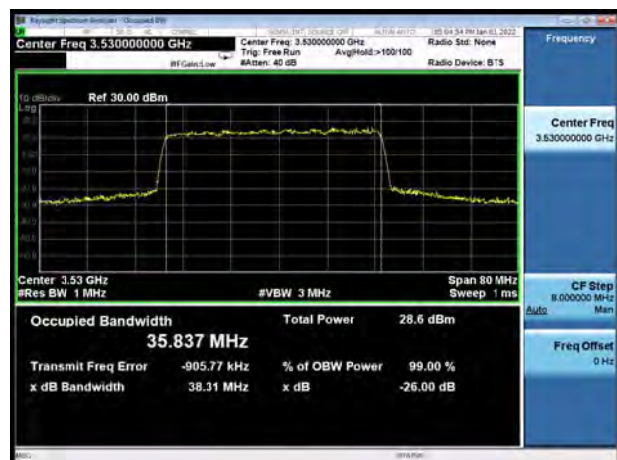
NR n77 Subset 2 16QAM 1RB 100MHz
CH-Low

NR n77 Subset 2 16QAM 100%RB 100MHz
CH-Low

NR n77 Subset 2 16QAM 1RB 100MHz
CH-Middle

NR n77 Subset 2 16QAM 100%RB 100MHz
CH-Middle

NR n77 Subset 2 16QAM 1RB 100MHz
CH-High

NR n77 Subset 2 16QAM 100%RB 100MHz
CH-High


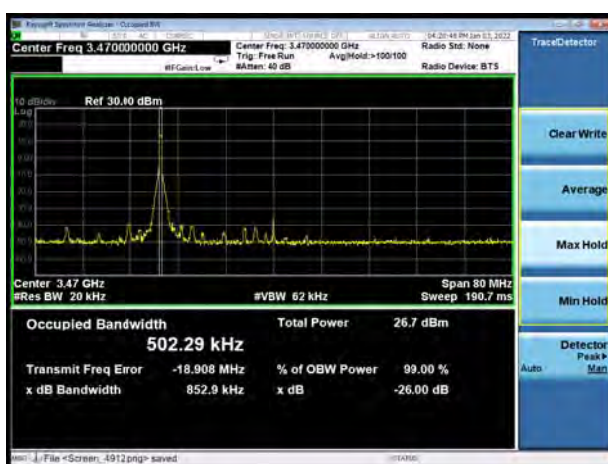
NR n77 Subset 2 64QAM 1RB 100MHz
CH-LowNR n77 Subset 2 64QAM 100%RB 100MHz
CH-LowNR n77 Subset 2 64QAM 1RB 100MHz
CH-MiddleNR n77 Subset 2 64QAM 100%RB 100MHz
CH-MiddleNR n77 Subset 2 64QAM 1RB 100MHz
CH-HighNR n77 Subset 2 64QAM 100%RB 100MHz
CH-High

NR n77 Subset 2 256QAM 1RB 100MHz
CH-LowNR n77 Subset 2 256QAM 100%RB 100MHz
CH-LowNR n77 Subset 2 256QAM 1RB 100MHz
CH-MiddleNR n77 Subset 2 256QAM 100%RB 100MHz
CH-MiddleNR n77 Subset 2 256QAM 1RB 100MHz
CH-HighNR n77 Subset 2 256QAM 100%RB 100MHz
CH-High

DC_7A-n78 P1/2 BPSK 1RB 40MHz
CH-LowDC_7A-n78 P1/2 BPSK 100%RB 40MHz
CH-LowDC_7A-n78 P1/2 BPSK 1RB 40MHz
CH-MiddleDC_7A-n78 P1/2 BPSK 100%RB 40MHz
CH-MiddleDC_7A-n78 P1/2 BPSK 1RB 40MHz
CH-HighDC_7A-n78 P1/2 BPSK 100%RB 40MHz
CH-High



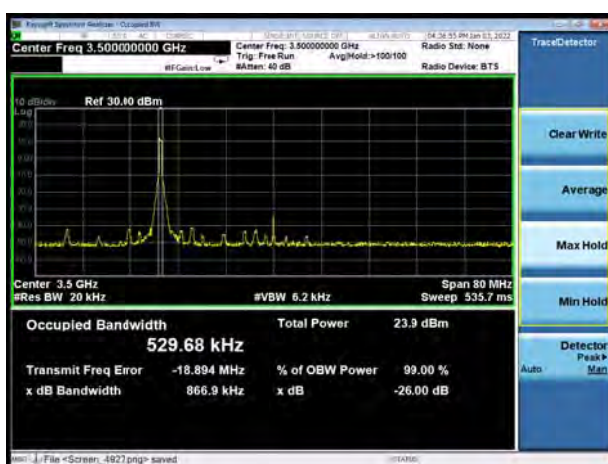
DC_7A-n78 QPSK 1RB 40MHz CH-Low



DC_7A-n78 QPSK 100%RB 40MHz CH-Low



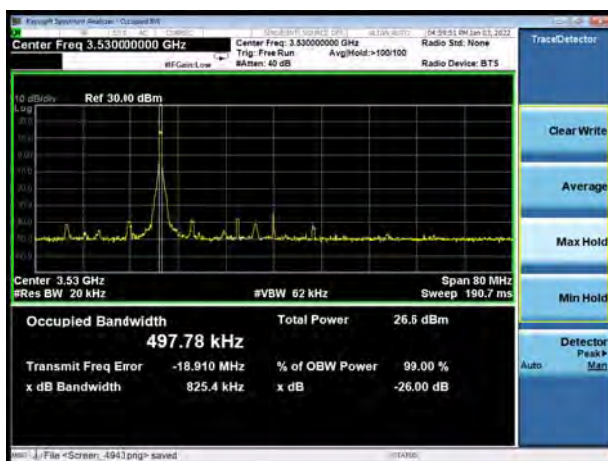
DC_7A-n78 QPSK 1RB 40MHz CH-Middle



DC_7A-n78 QPSK 100%RB 40MHz CH-Middle



DC_7A-n78 QPSK 1RB 40MHz CH-High

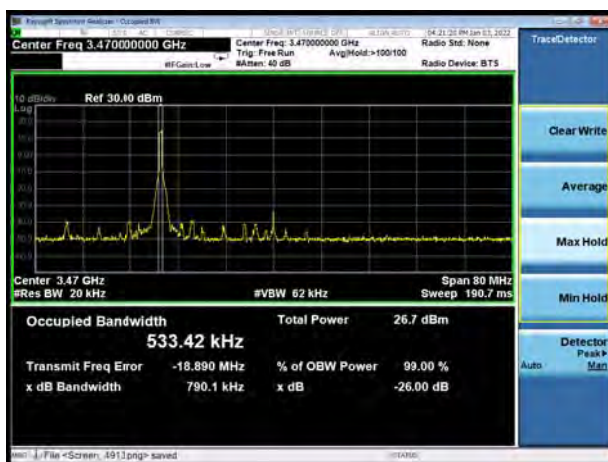


DC_7A-n78 QPSK 100%RB 40MHz CH-High





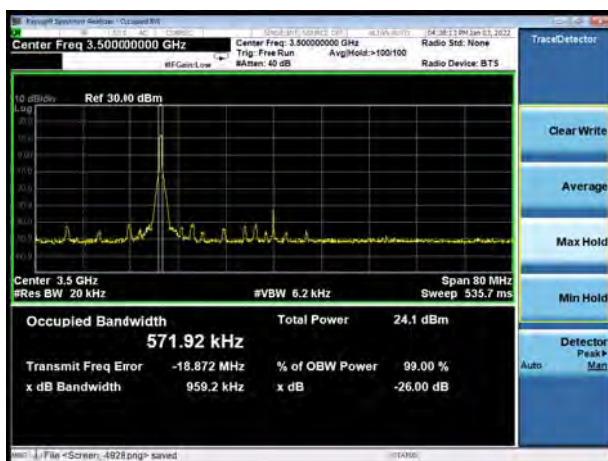
DC_7A-n78 16QAM 1RB 40MHz CH-Low



DC_7A-n78 16QAM 100%RB 40MHz CH-Low



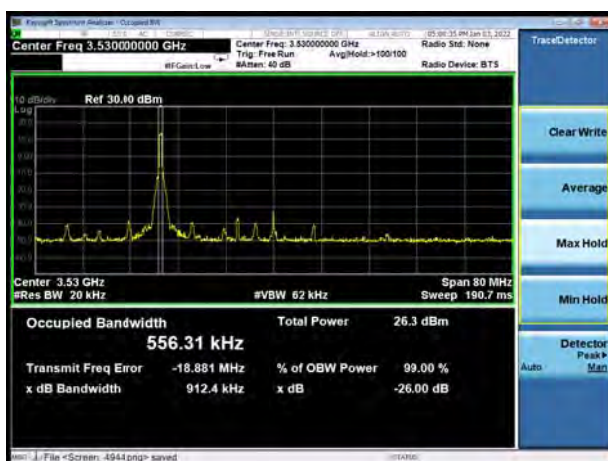
DC_7A-n78 16QAM 1RB 40MHz CH-Middle



DC_7A-n78 16QAM 100%RB 40MHz CH-Middle



DC_7A-n78 16QAM 1RB 40MHz CH-High

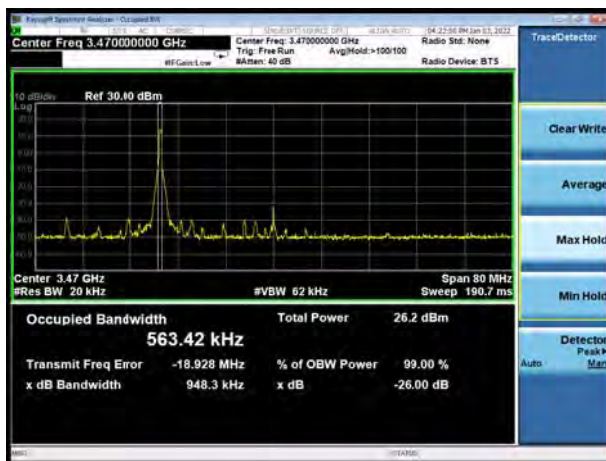


DC_7A-n78 16QAM 100%RB 40MHz CH-High

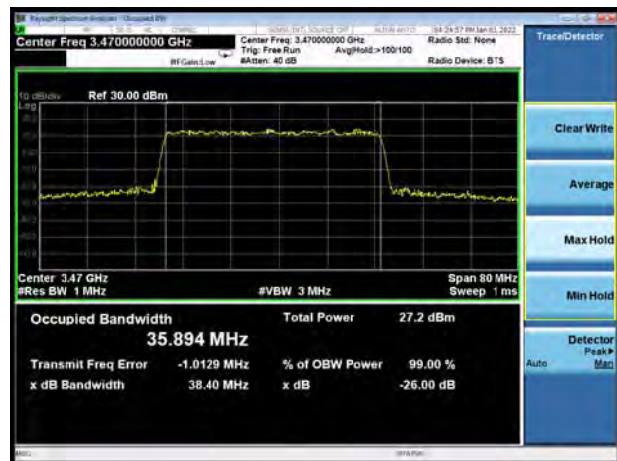




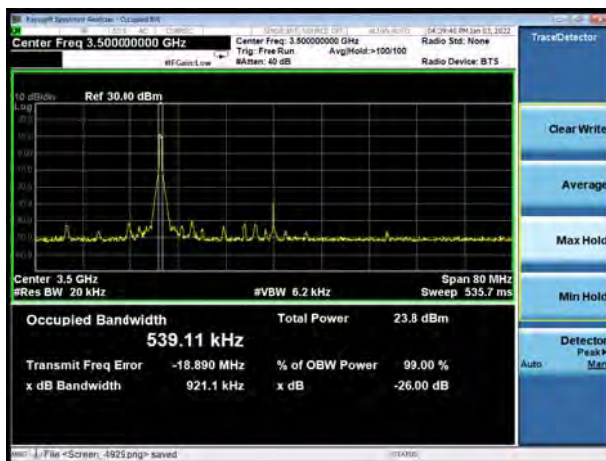
DC_7A-n78 64QAM 1RB 40MHz CH-Low



DC_7A-n78 64QAM 100%RB 40MHz CH-Low



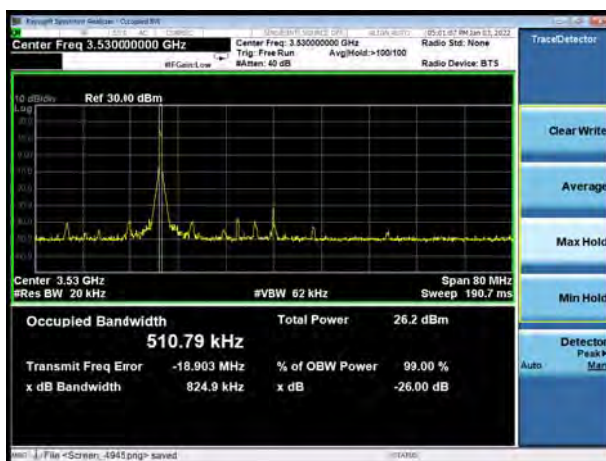
DC_7A-n78 64QAM 1RB 40MHz CH-Middle



DC_7A-n78 64QAM 100%RB 40MHz CH-Middle



DC_7A-n78 64QAM 1RB 40MHz CH-High

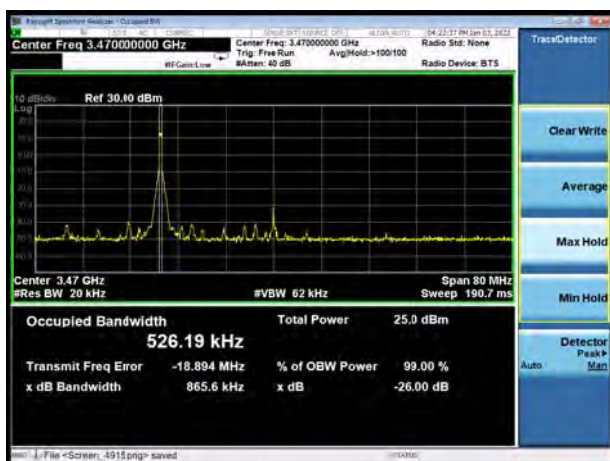


DC_7A-n78 64QAM 100%RB 40MHz CH-High

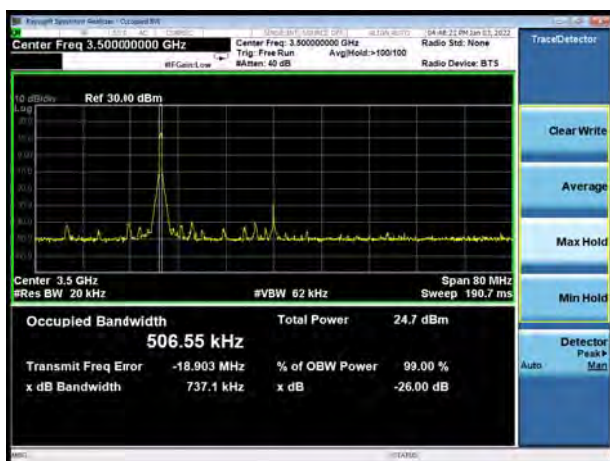




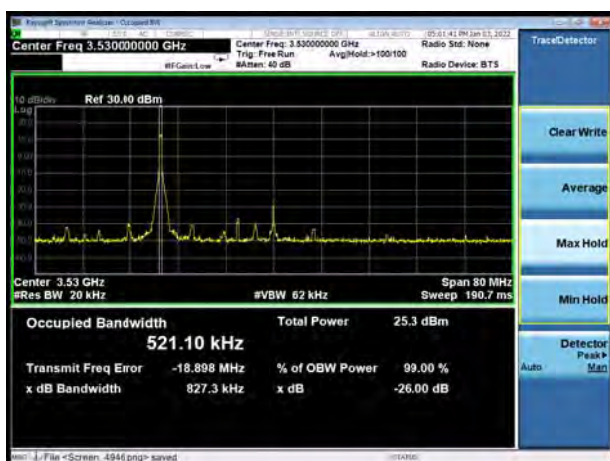
DC_7A-n78 256QAM 1RB 40MHz CH-Low



DC_7A-n78 256QAM 100%RB 40MHz CH-Low

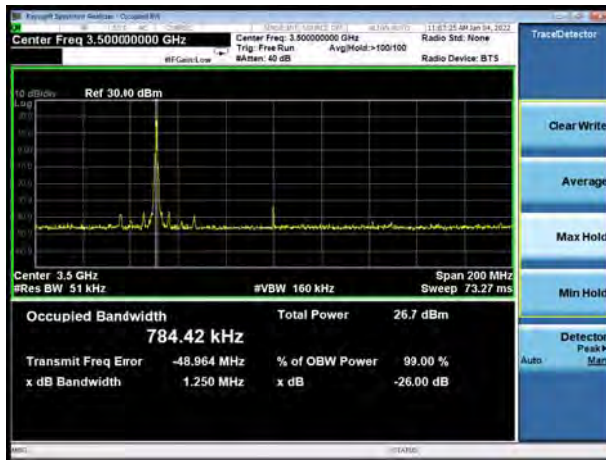
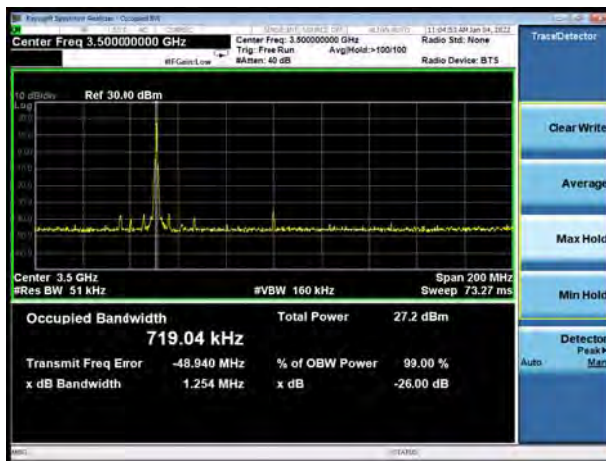
DC_7A-n78 256QAM 1RB 40MHz
CH-MiddleDC_7A-n78 256QAM 100%RB 40MHz
CH-Middle

DC_7A-n78 256QAM 1RB 40MHz CH-High

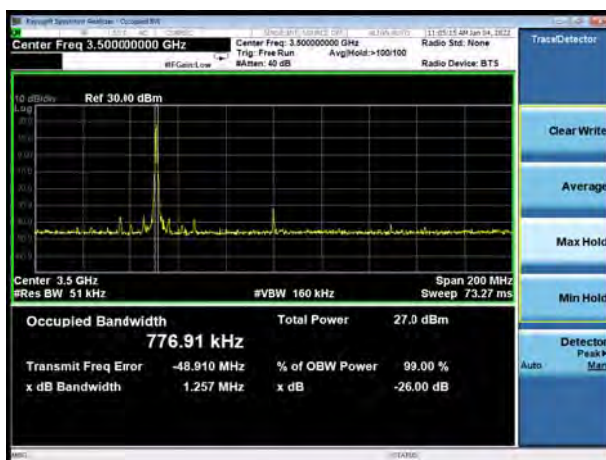
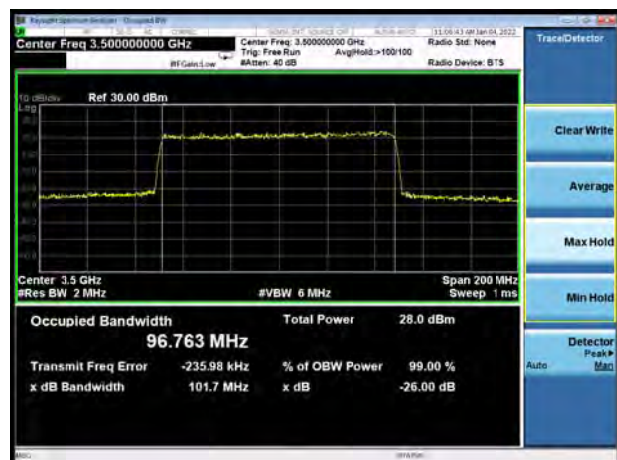


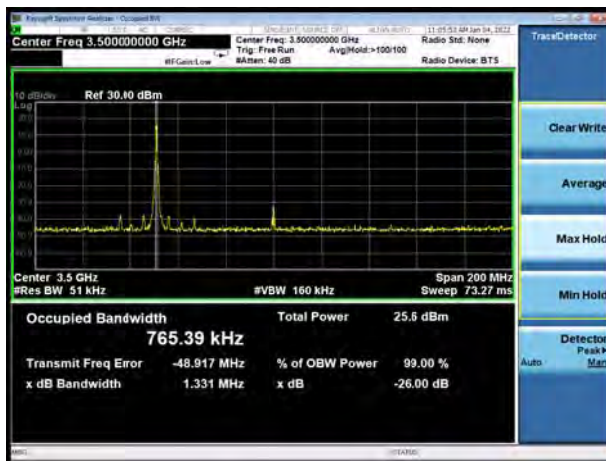
DC_7A-n78 256QAM 100%RB 40MHz CH-High



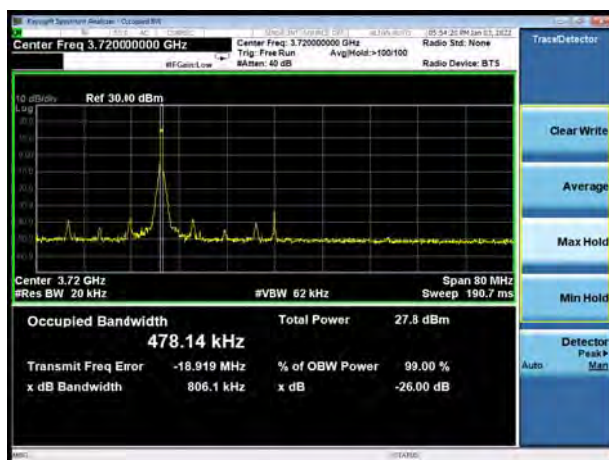
DC_7A-n78 P1/2 BPSK 1RB 100MHz
CH- MiddleDC_7A-n78 P1/2 BPSK 100%RB 100MHz CH-
MiddleDC_7A-n78 QPSK 1RB 100MHz
CH-Middle

DC_7A-n78 QPSK 100%RB 100MHz CH-Middle

DC_7A-n78 16QAM 1RB 100MHz
CH- MiddleDC_7A-n78 16QAM 100%RB 100MHz CH-
Middle

DC_7A-n78 64QAM 1RB 100MHz
CH- MiddleDC_7A-n78 64QAM 100%RB 100MHz CH-
MiddleDC_7A-n78 256QAM 1RB 100MHz
CH- MiddleDC_7A-n78 256QAM 100%RB 100MHz CH-
Middle

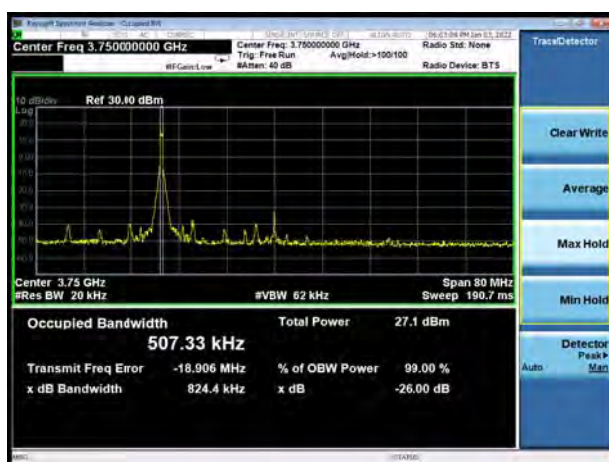
DC_66A_n78 P1/2 BPSK 1RB 40MHz
CH-Low



DC_66A_n78 P1/2 BPSK 100%RB 40MHz
CH-Low



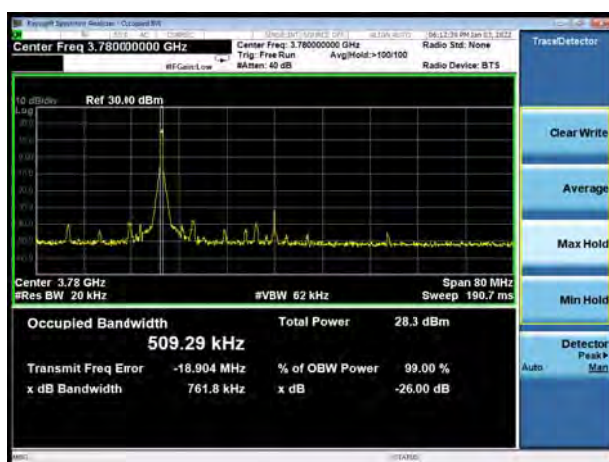
DC_66A_n78 P1/2 BPSK 1RB 40MHz
CH-Middle



DC_66A_n78 P1/2 BPSK 100%RB 40MHz
CH-Middle



DC_66A_n78 P1/2 BPSK 1RB 40MHz
CH-High

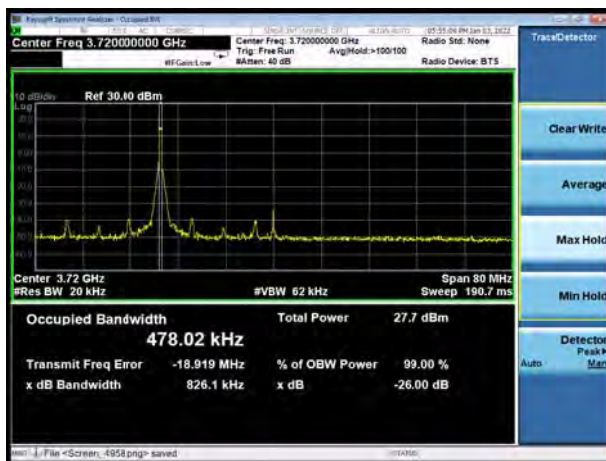


DC_66A_n78 P1/2 BPSK 100%RB 40MHz
CH-High





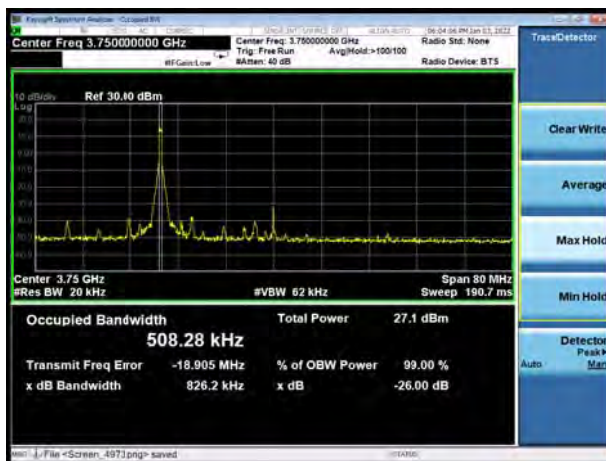
DC_66A_n78 QPSK 1RB 40MHz CH-Low



DC_66A_n78 QPSK 100%RB 40MHz CH-Low



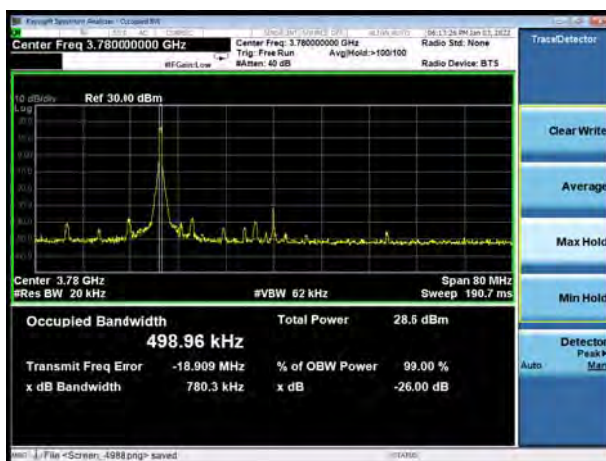
DC_66A_n78 QPSK 1RB 40MHz CH-Middle



DC_66A_n78 QPSK 100%RB 40MHz CH-Middle



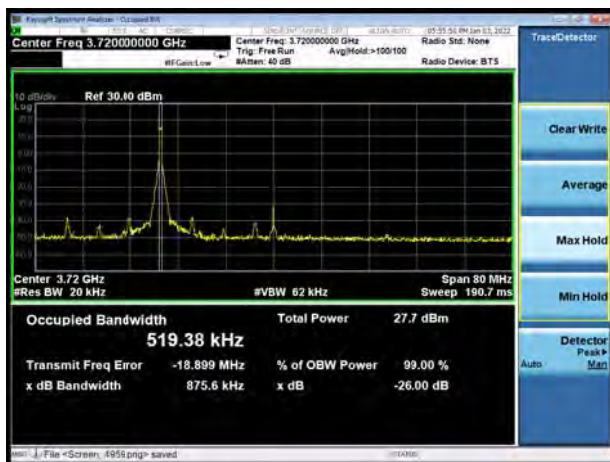
DC_66A_n78 QPSK 1RB 40MHz CH-High



DC_66A_n78 QPSK 100%RB 40MHz CH-High



DC_66A_n78 16QAM 1RB 40MHz
CH-Low



DC_66A_n78 16QAM 100%RB 40MHz
CH-Low



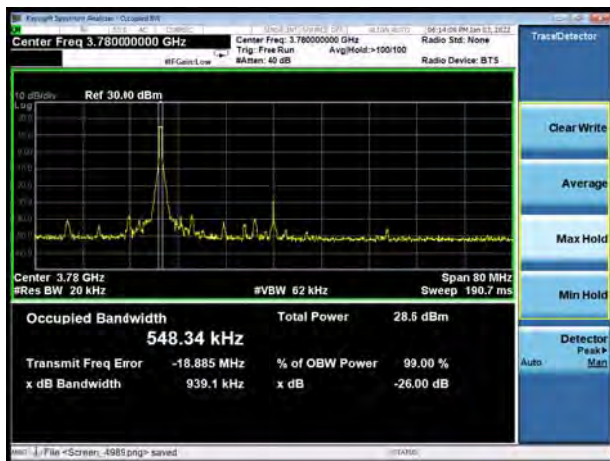
DC_66A_n78 16QAM 1RB 40MHz
CH-Middle



DC_66A_n78 16QAM 100%RB 40MHz
CH-Middle



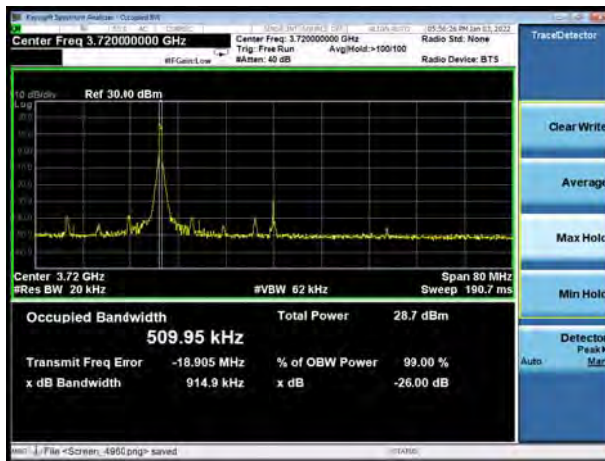
DC_66A_n78 16QAM 1RB 40MHz
CH-High



DC_66A_n78 16QAM 100%RB 40MHz
CH-High



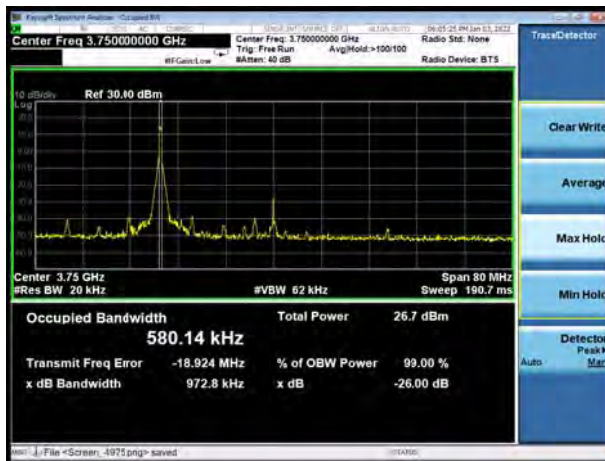
DC_66A_n78 64QAM 1RB 40MHz CH-Low



DC_66A_n78 64QAM 100%RB 40MHz CH-Low



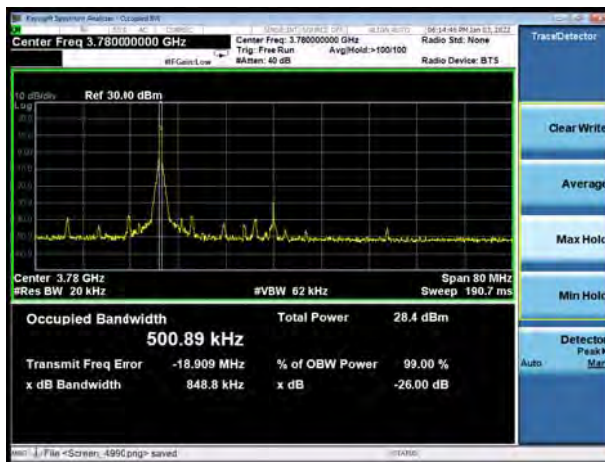
DC_66A_n78 64QAM 1RB 40MHz CH-Middle



DC_66A_n78 64QAM 100%RB 40MHz CH-Middle



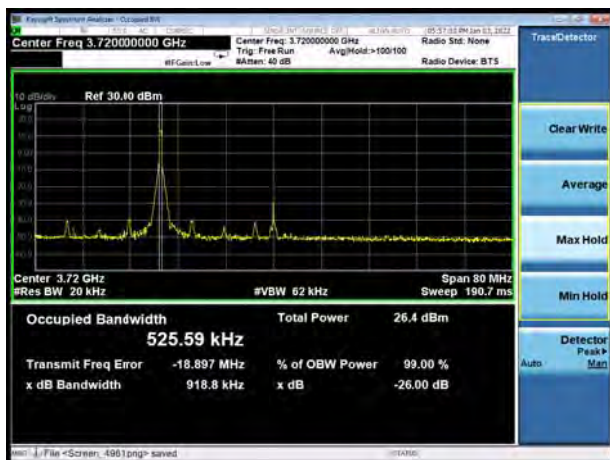
DC_66A_n78 64QAM 1RB 40MHz CH-High



DC_66A_n78 64QAM 100%RB 40MHz CH-High



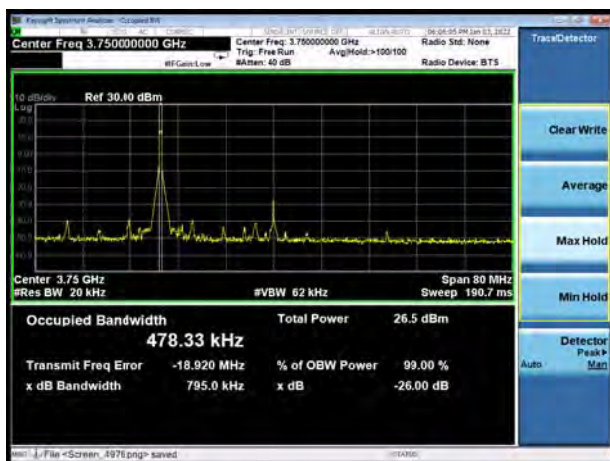
DC_66A_n78 256QAM 1RB 40MHz
CH-Low



DC_66A_n78 256QAM 100%RB 40MHz
CH-Low



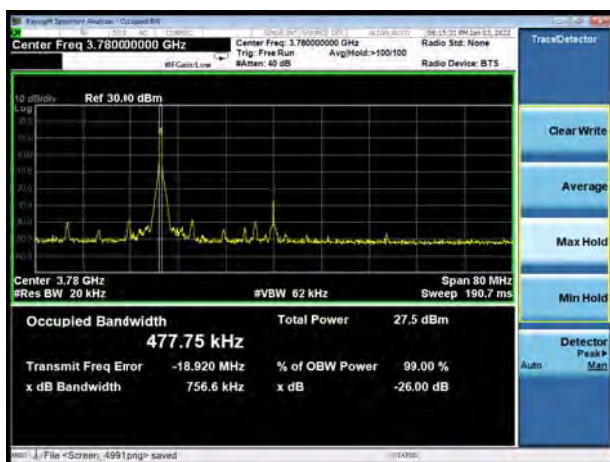
DC_66A_n78 256QAM 1RB 40MHz
CH-Middle



DC_66A_n78 256QAM 100%RB 40MHz
CH-Middle



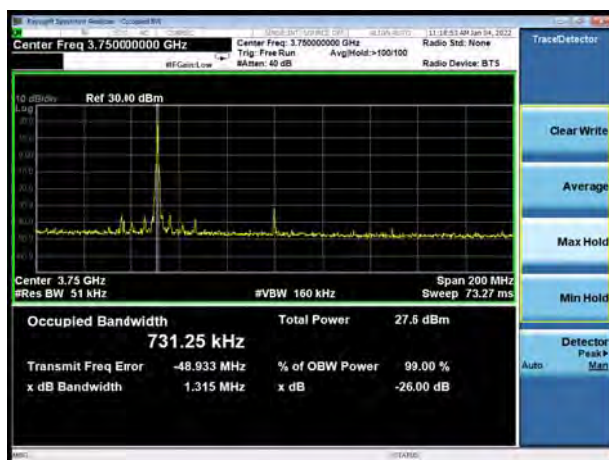
DC_66A_n78 256QAM 1RB 40MHz
CH-High



DC_66A_n78 256QAM 100%RB 40MHz
CH-High



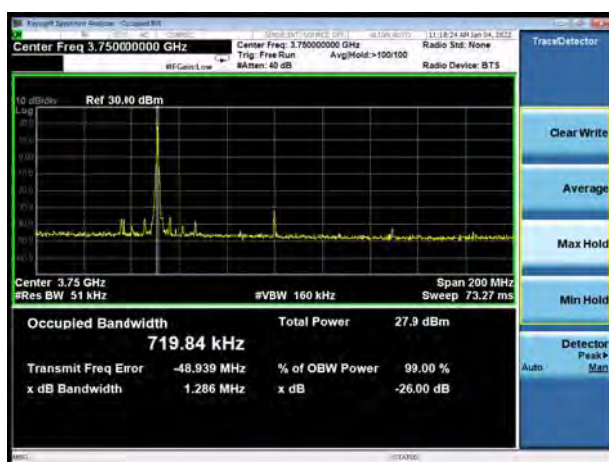
DC_66A_n78 P1/2 BPSK 1RB 100MHz
CH- Middle



DC_66A_n78 P1/2 BPSK 100%RB 100MHz
CH- Middle



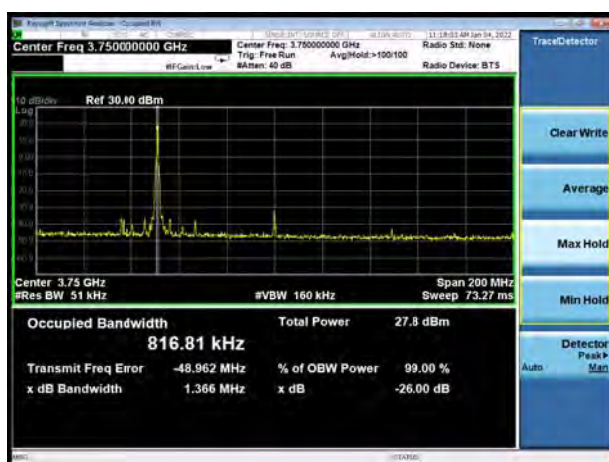
DC_66A_n78 QPSK 1RB 100MHz
CH-Middle



DC_66A_n78 QPSK 100%RB 100MHz
CH-Middle

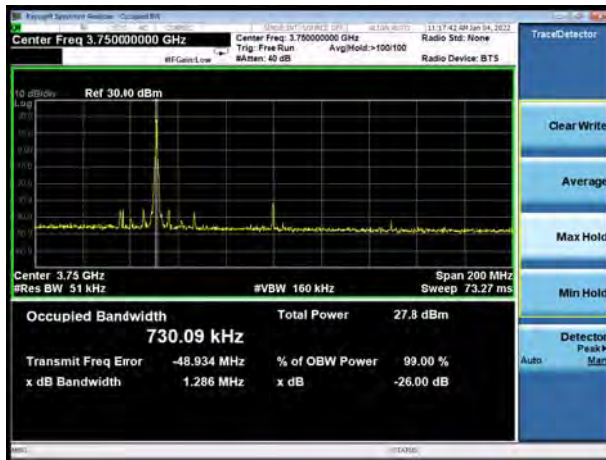
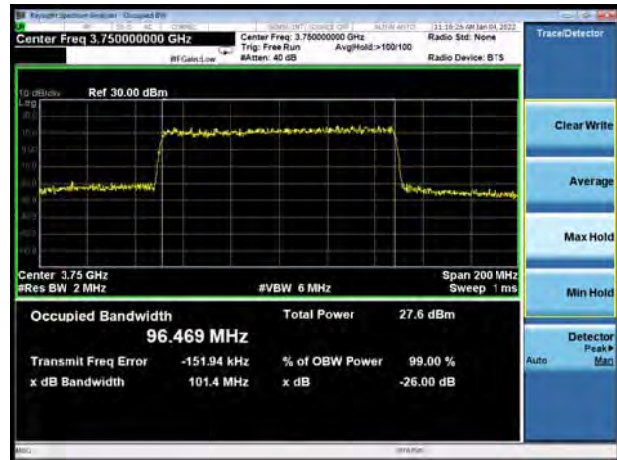
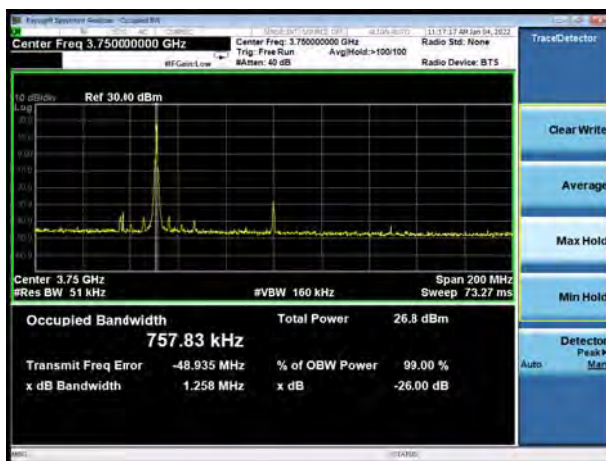


DC_66A_n78 16QAM 1RB 100MHz
CH- Middle



DC_66A_n78 16QAM 100%RB 100MHz
CH- Middle



DC_66A_n78 64QAM 1RB 100MHz
CH- MiddleDC_66A_n78 64QAM 100%RB 100MHz
CH- MiddleDC_66A_n78 256QAM 1RB 100MHz
CH- MiddleDC_66A_n78 256QAM 100%RB 100MHz
CH- Middle

5.3 Band Edge Compliance

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 D01 v03r01 Section 6.0

The EUT was connected to spectrum analyzer and system simulator via a power divider.

The band edges of low and high channels for the highest RF powers were measured.

RBW is set to at least one percent of the emission bandwidth of the fundamental emission of the transmitter for NR n77 Subset 1 / NR n77 Subset 2/ DC_7A-n78/ DC_66A_n78.

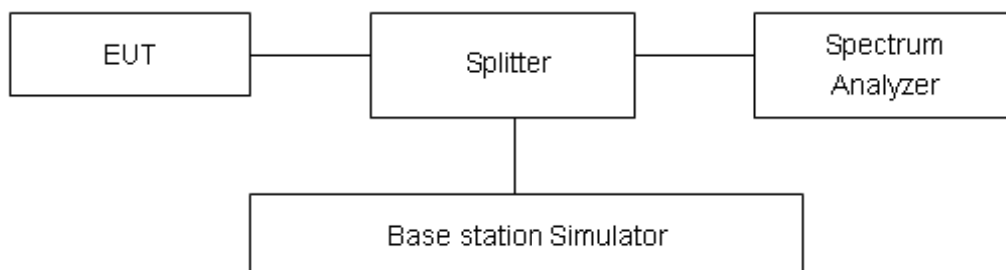
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Checked that all the results comply with the emission limit line.

Test Setup



Limits

Rule Part 27.53 (l) (2) specifies that “ For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed –13 dBm/MHz. Compliance with this paragraph (l)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.”



Rule Part 27.53(n) (2) specifies that “For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.”

Measurement Uncertainty

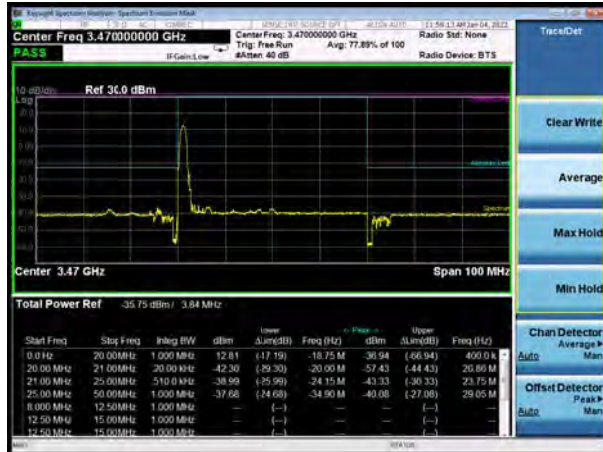
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684\text{dB}$.



Test Result

All the test traces in the plots shows the test results clearly.

NR n77 Subset 1 40MHz PI/2 BPSK 1RB
CH-Low



NR n77 Subset 1 40MHz PI/2 BPSK 1RB
CH-High



NR n77 Subset 1 40MHz PI/2 BPSK 100%RB
CH-Low



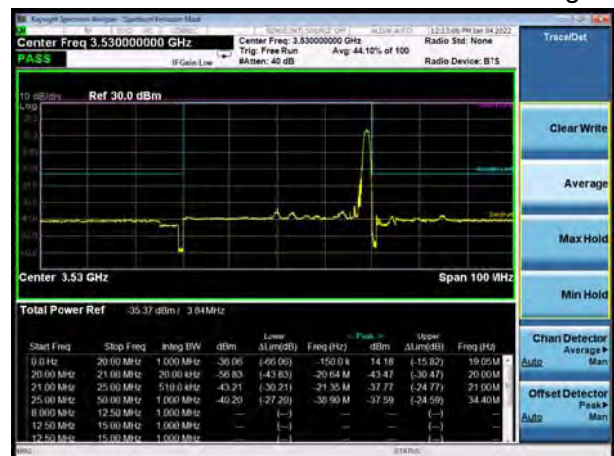
NR n77 Subset 1 40MHz PI/2 BPSK 100%RB
CH-High



NR n77 Subset 1 40MHz QPSK 1RB CH-Low



NR n77 Subset 1 40MHz QPSK 1RB CH-High



NR n77 Subset 1 40MHz QPSK 100%RB
CH-LowNR n77 Subset 1 40MHz QPSK 100%RB
CH-High

NR n77 Subset 1 40MHz 16QAM 1RB CH-Low



NR n77 Subset 1 40MHz 16QAM 1RB CH-High

NR n77 Subset 1 40MHz 16QAM 100%RB
CH-LowNR n77 Subset 1 40MHz 16QAM 100%RB
CH-High



NR n77 Subset 1 40MHz 64QAM 1RB CH-Low



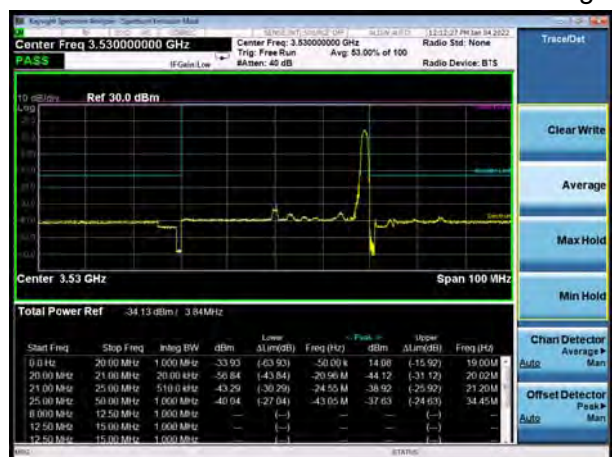
NR n77 Subset 1 40MHz 64QAM 1RB CH-High

NR n77 Subset 1 40MHz 64QAM 100%RB
CH-LowNR n77 Subset 1 40MHz 64QAM 100%RB
CH-High

NR n77 Subset 1 40MHz 256QAM 1RB CH-Low



NR n77 Subset 1 40MHz 256QAM 1RB CH-High



NR n77 Subset 1 40MHz 256QAM 100%RB
CH-LowNR n77 Subset 1 40MHz 256QAM 100%RB
CH-High

NR n77 Subset 1 100MHz PI/2 BPSK 1RB
CH-LowNR n77 Subset 1 100MHz PI/2 BPSK 1RB
CH-HighNR n77 Subset 1 100MHz PI/2 BPSK 100%RB
CH-LowNR n77 Subset 1 100MHz PI/2 BPSK 100%RB
CH-High

NR n77 Subset 1 100MHz QPSK 1RB CH-Low



NR n77 Subset 1 100MHz QPSK 1RB CH-High



NR n77 Subset 1 100MHz QPSK 100%RB
CH-LowNR n77 Subset 1 100MHz QPSK 100%RB
CH-High

NR n77 Subset 1 100MHz 16QAM 1RB CH-Low



NR n77 Subset 1 100MHz 16QAM 1RB CH-High

NR n77 Subset 1 100MHz 16QAM 100%RB
CH-LowNR n77 Subset 1 100MHz 16QAM 100%RB
CH-High



NR n77 Subset 1 100MHz 64QAM 1RB CH-Low



NR n77 Subset 1 100MHz 64QAM 1RB CH-High



NR n77 Subset 1 100MHz 64QAM 100%RB CH-Low



NR n77 Subset 1 100MHz 64QAM 100%RB CH-High



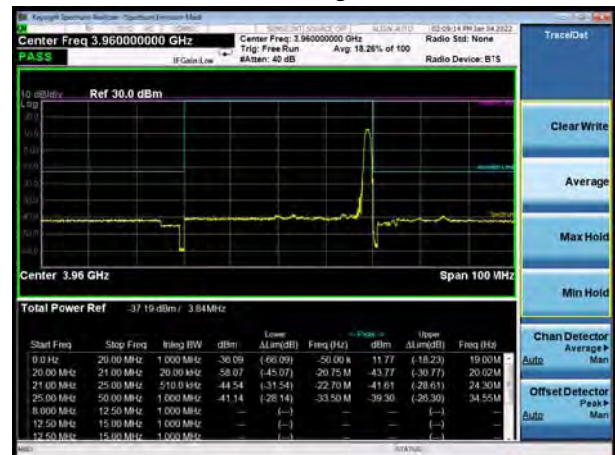
NR n77 Subset 1 100MHz 256QAM 1RB CH-Low



NR n77 Subset 1 100MHz 256QAM 1RB CH-High



NR n77 Subset 1 100MHz 256QAM 100%RB
CH-LowNR n77 Subset 1 100MHz 256QAM 100%RB
CH-High

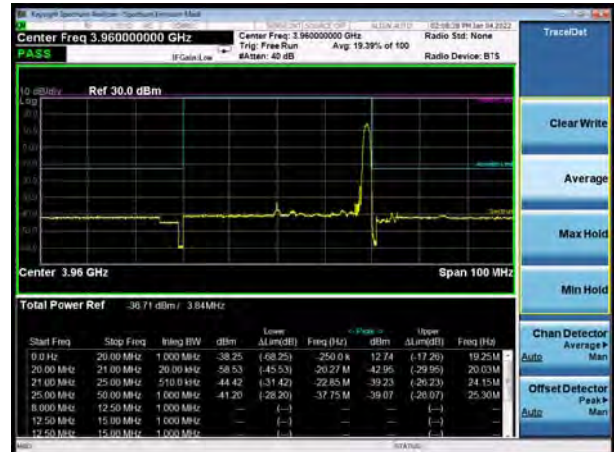
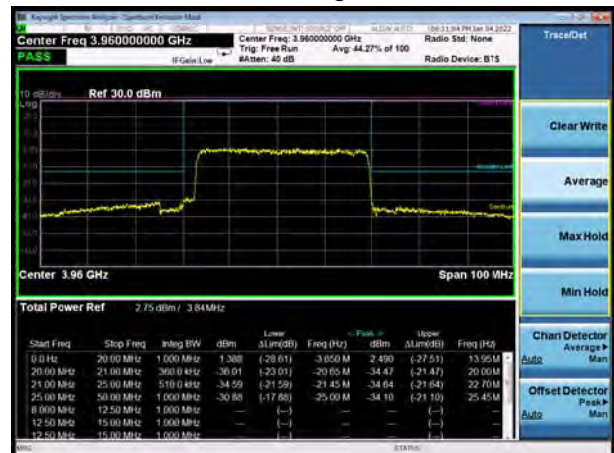
NR n77 Subset 2 40MHz PI/2 BPSK 1RB
CH-LowNR n77 Subset 2 40MHz PI/2 BPSK 1RB
CH-HighNR n77 Subset 2 40MHz PI/2 BPSK 100%RB
CH-LowNR n77 Subset 2 40MHz PI/2 BPSK 100%RB
CH-High

NR n77 Subset 2 40MHz QPSK 1RB CH-Low



NR n77 Subset 2 40MHz QPSK 1RB CH-High



NR n77 Subset 2 40MHz QPSK 100%RB
CH-LowNR n77 Subset 2 40MHz QPSK 100%RB
CH-HighNR n77 Subset 2 40MHz 16QAM 1RB
CH-LowNR n77 Subset 2 40MHz 16QAM 1RB
CH-HighNR n77 Subset 2 40MHz 16QAM 100%RB
CH-LowNR n77 Subset 2 40MHz 16QAM 100%RB
CH-High



NR n77 Subset 2 40MHz 64QAM 1RB CH-Low



NR n77 Subset 2 40MHz 64QAM 1RB CH-High



NR n77 Subset 2 40MHz 64QAM 100%RB CH-Low



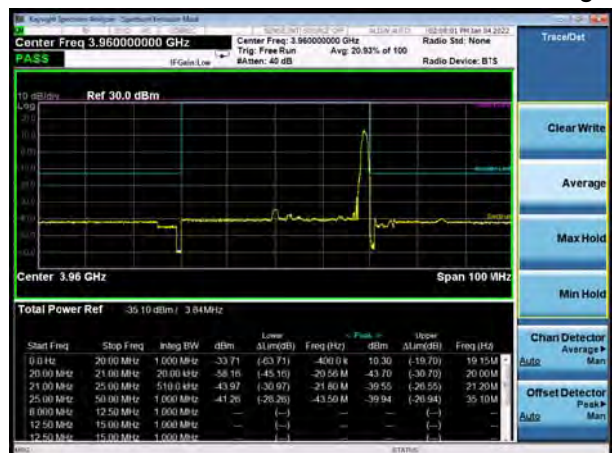
NR n77 Subset 2 40MHz 64QAM 100%RB CH-High



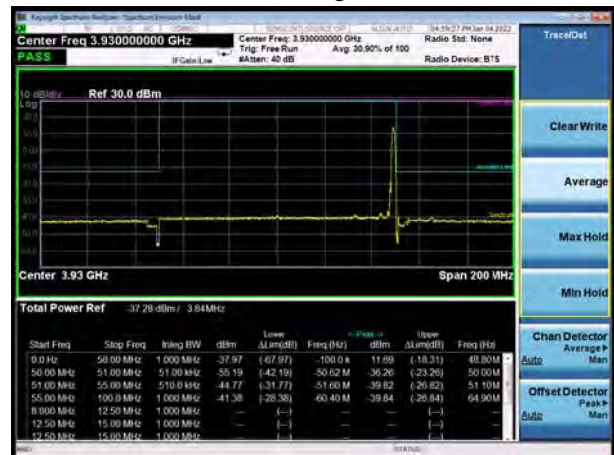
NR n77 Subset 2 40MHz 256QAM 1RB CH-Low



NR n77 Subset 2 40MHz 256QAM 1RB CH-High



NR n77 Subset 2 40MHz 256QAM 100%RB
CH-LowNR n77 Subset 2 40MHz 256QAM 100%RB
CH-High

NR n77 Subset 2 100MHz PI/2 BPSK 1RB
CH-LowNR n77 Subset 2 100MHz PI/2 BPSK 1RB
CH-HighNR n77 Subset 2 100MHz PI/2 BPSK 100%RB
CH-LowNR n77 Subset 2 100MHz PI/2 BPSK 100%RB
CH-High

NR n77 Subset 2 100MHz QPSK 1RB CH-Low



NR n77 Subset 2 100MHz QPSK 1RB CH-High



NR n77 Subset 2 100MHz QPSK 100%RB
CH-LowNR n77 Subset 2 100MHz QPSK 100%RB
CH-HighNR n77 Subset 2 100MHz 16QAM 1RB
CH-LowNR n77 Subset 2 100MHz 16QAM 1RB
CH-HighNR n77 Subset 2 100MHz 16QAM 100%RB
CH-LowNR n77 Subset 2 100MHz 16QAM 100%RB
CH-High