TEST REPORT

APPLICANT	:	Nubia Technology Co.,Ltd.
PRODUCT NAME	:	5G Mobile Phone
MODEL NAME	:	NX669J
BRAND NAME	:	REDMAGIC
FCC ID	:	2AHJO-NX669J
STANDARD(S)	:	47 CFR Part 27, Subpart M
RECEIPT DATE	:	2020-12-29
TEST DATE	:	2020-12-31 to 2021-03-13
ISSUE DATE	:	2021-03-13

Edited by: Zhou Xiaolong

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Change History		
Version	**Date**	**Reason for change**
1.0	2021-03-12	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Nubia Technology Co.,Ltd.
Applicant Address:	Room 1801, Building 2, Chongwen Park, Nanshan Zhiyuan, No.3370，Liuxian Rd， Nanshan District, Shenzhen City，Guangdong Province, P. R. China
Manufacturer:	Nubia Technology Co.,Ltd.
ManufacturerAddress:	Room 1801, Building 2, Chongwen Park, Nanshan Zhiyuan, No.3370，Liuxian Rd， Nanshan District, Shenzhen City，Guangdong Province, P. R. China

1.2. Equipment Under Test (EUT) Description

Product Name:	5G Mobile Phone	
Hardware Version:	NX669J_V1AMB	
Software Version:	NX669J_EUCommon_V3.05	
Modulation Type:	DFT-s-OFDM	PI/2 BPSK, QPSK, 16QAM,64QAM,256QAM
	CP-OFDM	QPSK, 16QAM,64QAM,256QAM
Operation Band:	N41	
Frequency Range:	N41	Tx: 2496MHz -2690MHz
		Rx: 2496MHz -2690MHz
Channel Bandwidth	N41	20 MHz, 40 MHz, 60 MHz, 80MHz, 100 MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	N41	0 dBi
	AC Adapter 1	
	Brand Name:	nubia
	Model No.:	NB-A930A-A, NB-A930A-USBA-1
	Serial No.:	(N/A, marked #1 by test site)
	Rated Input:	100-240V～ 50/60HZ, 0.80A
	Rated Output:	5V⎓3A;9⎓3A; 12V⎓2.5A; 15V⎓2.0A
	Manufacturer:	ShenZhen KunXing Technology Co.,Ltd.
	Battery 1	
	Brand Name:	nubia

	Model No.:	Li3945T44P8h906455
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	4960.00mAh
	Rated Voltage:	3.87V
	Charge Limit:	4.45V
	Manufacturer:	Dongguan Amperex Technology Limited

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3. Maximum ERP/EIRP and Emission Designator

N41	Maximum ERP/EIRP（W）									
	DFT-s-OFDM					CP-OFDM				
BW(MHz)	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM
100	0.220	0.220	0.224	0.227	0.217	0.214	0.211	0.215	0.215	0.214
80	0.183	0.186	0.189	0.185	0.181	0.174	0.179	0.179	0.176	0.177
60	0.171	0.171	0.174	0.176	0.169	0.163	0.163	0.171	0.160	0.161
40	0.156	0.156	0.158	0.161	0.154	0.148	0.152	0.153	0.150	0.153
20	0.146	0.145	0.148	0.150	0.144	0.138	0.142	0.143	0.140	0.141

Emission Designator (99%OBW)					
DFT-s-OFDM					CP-OFDM
PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	QPSK
96M7G7D	97M1G7D	97M1W7D	96M9D7W	96M9D7W	98M0G7D
77M7G7D	77M4G7D	77M8W7D	77M7D7W	77M6D7W	77M9G7D
58M9G7D	59M1G7D	58M8W7D	58M8D7W	59M0D7W	58M7G7D
36M6G7D	36M1G7D	36M6W7D	36M5D7W	36M6D7W	36M0G7D
18M0G7D	18M0G7D	17M9W7D	17M9D7W	17M9D7W	18M3G7D

1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 27 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046,27.50(d)(4)	Transmitter Conducted Output Power and ERP/EIRP	Dec 29 ,2020 to Jan 13,2021	Tang Jinde Gao Jianrou	PASS	No deviation
2.1049	Occupied Bandwidth	Jan 08 , 2020	Tang Jinde	PASS	No deviation
2.1055,27.54	Frequency Stability	Jan 06 to 07, 2021	Tang Jinde	PASS	No deviation
2.1051, 27.53(m)(4)	Conducted Spurious Emissions	Mar 02 and 05, 2019	Tang Jinde	PASS	No deviation
2.1051, 27.53(m)(4)	Band Edge	Feb 18, and 21, 2021	Tang Jinde	PASS	No deviation
2.1051, 27.53(m)(4)	Radiated Spurious Emissions	Jan 26, 2021	Gao Jianrou	PASS	No deviation

Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.

Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 26.5dB contains two parts that cable loss 16.5dB and Attenuator 10dB.

1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

2. 47 CFR Part 2, Part 27L Requirements

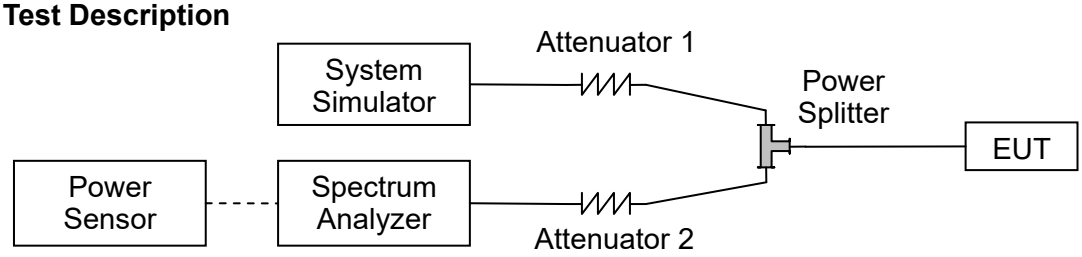
2.1. Transmitter Conducted Output Power And ERP/EIRP

2.1.1. Requirement

According to FCC section 2.1046(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 FCC section 2.1033(c)(8).

According to FCC section 27.50 (h)(2) for N41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

2.1.2. Test Description



The EUTis coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)
ERP (dBm) = EIPR (dBm) - 2.15

2.1.4. Result

Conducted Output Power:

N41

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640
100	DFT-s-OFDM PI/2 BPSK	1	1	23.29	23.43	23.28
100		1	136	23.17	23.30	23.21
100		1	271	23.01	23.19	23.03
100		135	1	21.12	21.31	21.29
100		135	67	20.30	21.35	20.00
100		135	136	20.24	20.30	20.29
100		270	0	20.21	20.29	20.20
100	DFT-s-OFDM QPSK	1	1	23.19	23.42	23.33
100		1	136	23.11	23.34	23.10
100		1	271	23.00	23.10	23.02
100		135	1	23.26	23.29	23.18
100		135	67	23.24	23.30	23.15
100		135	136	23.08	23.21	23.11
100		270	0	22.87	23.01	22.81
100	DFT-s-OFDM 16QAM	1	1	22.93	23.16	23.50
100		1	136	22.96	23.19	23.45
100		1	271	22.98	22.96	22.83
100		135	1	23.26	23.37	23.15
100		135	67	23.24	23.35	23.10
100		135	136	23.19	23.28	23.00
100		270	0	23.10	23.17	22.84
100	DFT-s-OFDM 64QAM	1	1	23.11	23.56	23.34
100		1	136	23.08	23.48	23.30
100		1	271	23.11	23.40	23.28
100		135	1	23.30	23.37	23.24
100		135	67	23.29	23.34	23.20
100		135	136	23.24	23.30	23.18
100		270	0	23.12	23.24	23.00
100	DFT-s-OFDM 256QAM	1	1	22.95	23.27	23.27
100		1	136	23.15	23.15	23.34
100		1	271	23.26	22.96	23.26
100		135	1	23.35	23.12	23.20

100		135	67	23.33	23.37	23.17
100		135	136	23.20	23.28	23.08
100		270	0	23.12	23.21	23.01
Channel				507204	518598	529998
Frequency (MHz)				2536.02	2592.99	2649.99
80	DFT-s-OFDM PI/2 BPSK	1	1	22.49	22.63	22.48
80		1	108	22.37	22.50	22.41
80		1	215	22.21	22.39	22.23
80		108	1	21.32	21.51	21.49
80		108	54	20.68	22.55	21.38
80		108	108	20.61	20.71	20.70
80		216	0	20.59	20.65	20.68
80	DFT-s-OFDM QPSK	1	1	22.39	22.62	22.53
80		1	108	22.31	22.54	22.30
80		1	215	22.20	22.30	22.22
80		108	1	22.46	22.49	22.38
80		108	54	22.44	22.50	22.35
80		108	108	22.28	22.41	22.31
80		216	0	22.07	22.21	22.01
80	DFT-s-OFDM 16QAM	1	1	22.13	22.36	22.70
80		1	108	22.16	22.39	22.65
80		1	215	22.18	22.16	22.03
80		108	1	22.46	22.57	22.35
80		108	54	22.44	22.55	22.30
80		108	108	22.39	22.48	22.20
80		216	0	22.30	22.37	22.04
80	DFT-s-OFDM 64QAM	1	1	22.31	22.76	22.54
80		1	108	22.28	22.68	22.50
80		1	215	22.31	22.60	22.48
80		108	1	22.50	22.57	22.44
80		108	54	22.49	22.54	22.40
80		108	108	22.44	22.50	22.38
80		216	0	22.32	22.44	22.20
80	DFT-s-OFDM 256QAM	1	1	22.15	22.47	22.47
80		1	108	22.35	22.35	22.54
80		1	215	22.46	22.16	22.46
80		108	1	22.55	22.32	22.40
80		108	54	22.53	22.57	22.37

80		108	108	22.40	22.48	22.28
80		216	0	22.32	22.41	22.21
Channel				505200	518598	531996
Frequency (MHz)				2526	2592.99	2559.98
60	DFT-s-OFDM PI/2 BPSK	1	1	22.19	22.33	22.18
60		1	80	22.07	22.20	22.11
60		1	160	21.91	22.09	21.93
60		81	1	22.02	22.21	22.19
60		81	40	21.20	22.25	21.93
60		81	81	21.14	21.20	21.19
60		162	0	21.11	21.19	21.10
60	DFT-s-OFDM QPSK	1	1	22.09	22.32	22.23
60		1	80	22.01	22.24	22.00
60		1	160	21.90	22.00	21.92
60		81	1	22.16	22.19	22.08
60		81	40	22.14	22.20	22.05
60		81	81	21.98	22.11	22.01
60		162	0	21.77	21.91	21.71
60	DFT-s-OFDM 16QAM	1	1	21.83	22.06	22.40
60		1	80	21.86	22.09	22.35
60		1	160	21.88	21.86	21.73
60		81	1	22.16	22.27	22.05
60		81	40	22.14	22.25	22.00
60		81	81	22.09	22.18	21.90
60		162	0	22.00	22.07	21.74
60	DFT-s-OFDM 64QAM	1	1	22.01	22.46	22.24
60		1	80	21.98	22.38	22.20
60		1	160	22.01	22.30	22.18
60		81	1	22.20	22.27	22.14
60		81	40	22.19	22.24	22.10
60		81	81	22.14	22.20	22.08
60		162	0	22.02	22.14	21.90
60	DFT-s-OFDM 256QAM	1	1	21.85	22.17	22.17
60		1	80	22.05	22.05	22.24
60		1	160	22.16	21.86	22.16
60		81	1	22.25	22.02	22.10
60		81	40	22.23	22.27	22.07
60		81	81	22.10	22.18	21.98

60		162	0	22.02	22.11	21.91
Channel				503202	518598	534000
Frequency (MHz)				2516.01	2592.99	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	21.79	21.93	21.78
40		1	53	21.67	21.80	21.71
40		1	104	21.51	21.69	21.53
40		50	1	21.47	21.64	21.49
40		50	25	20.80	21.85	20.53
40		50	50	20.74	20.80	20.39
40		100	0	20.71	20.78	20.20
40	DFT-s-OFDM QPSK	1	1	21.69	21.92	21.83
40		1	53	21.61	21.84	21.60
40		1	104	21.50	21.60	21.52
40		50	1	21.76	21.79	21.68
40		50	25	21.74	21.80	21.65
40		50	50	21.58	21.71	21.61
40		100	0	21.37	21.51	21.31
40	DFT-s-OFDM 16QAM	1	1	21.43	21.66	22.00
40		1	53	21.46	21.69	21.95
40		1	104	21.48	21.46	21.33
40		50	1	21.76	21.87	21.65
40		50	25	21.74	21.85	21.60
40		50	50	21.69	21.78	21.50
40		100	0	21.60	21.67	21.34
40	DFT-s-OFDM 64QAM	1	1	21.61	22.06	21.84
40		1	53	21.58	21.98	21.80
40		1	104	21.61	21.90	21.78
40		50	1	21.80	21.87	21.74
40		50	25	21.79	21.84	21.70
40		50	50	21.74	21.80	21.68
40		100	0	21.62	21.74	21.50
40	DFT-s-OFDM 256QAM	1	1	21.45	21.77	21.77
40		1	53	21.65	21.65	21.84
40		1	104	21.76	21.46	21.76
40		50	1	21.85	21.62	21.70
40		50	25	21.83	21.87	21.67
40		50	50	21.70	21.78	21.58
40		100	0	21.62	21.71	21.51

Channel				501204	518598	535998
Frequency (MHz)				2506.02	2592.99	2679.99
20	DFT-s-OFDM PI/2 BPSK	1	1	21.49	21.63	21.48
20		1	25	21.37	21.50	21.41
20		1	49	21.21	21.39	21.23
20		25	1	21.18	21.30	21.19
20		25	12	21.15	21.55	21.10
20		25	25	20.54	20.89	20.46
20		50	0	20.09	20.41	20.00
20	DFT-s-OFDM QPSK	1	1	21.39	21.62	21.53
20		1	25	21.31	21.54	21.30
20		1	49	21.20	21.30	21.22
20		25	1	21.46	21.49	21.38
20		25	12	21.44	21.50	21.35
20		25	25	21.28	21.41	21.31
20		50	0	21.07	21.21	21.01
20	DFT-s-OFDM 16QAM	1	1	21.13	21.36	21.70
20		1	25	21.16	21.39	21.65
20		1	49	21.18	21.16	21.03
20		25	1	21.46	21.57	21.35
20		25	12	21.44	21.55	21.30
20		25	25	21.39	21.48	21.20
20		50	0	21.30	21.37	21.04
20	DFT-s-OFDM 64QAM	1	1	21.31	21.76	21.54
20		1	25	21.28	21.68	21.50
20		1	49	21.31	21.60	21.48
20		25	1	21.50	21.57	21.44
20		25	12	21.49	21.54	21.40
20		25	25	21.44	21.50	21.38
20		50	0	21.32	21.44	21.20
20	DFT-s-OFDM 256QAM	1	1	21.15	21.47	21.47
20		1	25	21.35	21.35	21.54
20		1	49	21.46	21.16	21.46
20		25	1	21.55	21.32	21.40
20		25	12	21.53	21.57	21.37
20		25	25	21.40	21.48	21.28
20		50	0	21.32	21.41	21.21

N41

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640
100	CP-OFDM PI/2 BPSK	1	1	23.18	23.31	23.10
100		1	136	23.07	23.19	23.08
100		1	271	22.86	23.08	22.15
100		137	1	20.94	20.41	20.39
100		137	68	20.07	20.39	19.36
100		137	136	20.10	20.26	19.28
100		273	0	20.14	20.10	19.24
100	CP-OFDM QPSK	1	1	23.10	23.23	23.23
100		1	136	23.00	23.24	23.01
100		1	271	22.86	23.03	22.82
100		137	1	23.18	23.10	23.01
100		137	68	23.14	23.21	23.04
100		137	136	23.02	23.17	23.05
100		273	0	22.71	22.15	22.05
100	CP-OFDM 16QAM	1	1	22.85	23.06	23.24
100		1	136	22.90	23.04	22.10
100		1	271	22.93	22.08	22.68
100		137	1	23.20	23.32	23.05
100		137	68	23.16	23.12	23.01
100		137	136	23.10	23.19	22.90
100		273	0	23.00	23.02	22.00
100	CP-OFDM 64QAM	1	1	23.01	23.32	23.30
100		1	136	23.00	23.30	23.24
100		1	271	22.98	23.14	23.18
100		137	1	23.14	23.30	23.18
100		137	68	23.21	23.23	23.17
100		137	136	23.14	23.10	23.08
100		273	0	23.02	23.04	22.00
100	CP-OFDM 256QAM	1	1	22.83	23.00	23.17
100		1	136	23.07	22.05	23.10
100		1	271	22.17	22.14	23.05
100		137	1	23.28	22.40	23.11

100		137	68	23.21	23.30	23.02
100		137	136	23.09	23.21	23.01
100		273	0	23.01	23.16	22.95
Channel				507204	518598	529998
Frequency (MHz)				2536.02	2592.99	2649.99
80	CP-OFDM PI/2 BPSK	1	1	22.38	22.41	22.40
80		1	108	22.37	22.39	22.38
80		1	215	22.14	20.38	22.20
80		109	1	20.00	20.51	19.49
80		109	54	20.57	20.01	19.46
80		109	108	19.80	19.47	19.98
80		217	0	20.34	19.40	19.34
80	CP-OFDM QPSK	1	1	22.26	22.53	22.43
80		1	108	22.10	22.34	22.28
80		1	215	22.06	22.23	22.12
80		109	1	22.38	22.20	22.21
80		109	54	22.34	22.41	22.24
80		109	108	22.22	22.37	22.18
80		217	0	22.02	22.25	21.91
80	CP-OFDM 16QAM	1	1	22.05	22.26	22.54
80		1	108	22.06	22.34	22.20
80		1	215	22.03	22.10	21.78
80		109	1	22.37	22.42	22.25
80		109	54	22.36	22.46	22.19
80		109	108	22.30	22.39	22.11
80		217	0	22.20	22.30	21.95
80	CP-OFDM 64QAM	1	1	22.22	22.42	22.40
80		1	108	22.18	22.40	22.34
80		1	215	22.08	22.24	22.28
80		109	1	22.44	22.45	22.28
80		109	54	22.41	22.43	22.27
80		109	108	22.24	22.40	22.18
80		217	0	22.22	22.34	22.10
80	CP-OFDM 256QAM	1	1	22.03	22.10	22.37
80		1	108	22.27	22.15	22.20
80		1	215	22.30	22.04	22.15
80		109	1	22.38	22.30	22.31
80		109	54	22.31	22.48	22.29

80		109	108	22.29	22.41	22.20
80		217	0	22.20	22.34	22.15
Channel				505200	518598	531996
Frequency (MHz)				2526	2592.99	2559.98
60	CP-OFDM PI/2 BPSK	1	1	21.98	22.01	22.00
60		1	81	21.97	21.99	21.98
60		1	160	21.96	21.98	21.85
60		81	1	22.04	22.11	21.09
60		81	40	22.07	22.09	20.06
60		81	81	21.00	20.07	20.28
60		162	0	21.94	20.00	20.04
60	CP-OFDM QPSK	1	1	21.86	22.13	22.03
60		1	81	21.70	21.94	21.88
60		1	160	21.66	21.83	21.72
60		81	1	21.98	21.80	21.81
60		81	40	21.94	22.01	21.84
60		81	81	21.82	21.97	21.78
60		162	0	21.71	21.85	21.75
60	CP-OFDM 16QAM	1	1	21.75	21.96	22.34
60		1	81	21.70	21.94	21.80
60		1	160	21.63	21.78	21.38
60		81	1	21.97	22.02	21.85
60		81	40	21.96	22.06	21.79
60		81	81	21.90	21.99	21.71
60		162	0	21.80	21.90	21.70
60	CP-OFDM 64QAM	1	1	21.98	22.02	22.00
60		1	81	21.90	22.00	21.94
60		1	160	21.68	21.84	21.88
60		81	1	22.04	22.05	21.88
60		81	40	22.01	22.03	21.87
60		81	81	21.94	22.00	21.78
60		162	0	21.82	21.94	21.70
60	CP-OFDM 256QAM	1	1	21.73	21.70	21.97
60		1	81	21.97	21.75	21.80
60		1	160	21.90	21.81	21.75
60		81	1	21.98	21.92	21.91
60		81	40	21.91	22.08	21.89
60		81	81	21.89	22.01	21.80

60		162	0	21.80	21.94	21.75
Channel				503202	518598	534000
Frequency (MHz)				2516.01	2592.99	2670
40	CP-OFDM PI/2 BPSK	1	1	21.68	21.71	21.70
40		1	53	21.67	21.69	21.68
40		1	104	21.46	21.58	21.45
40		53	1	20.74	20.81	21.01
40		53	26	20.77	21.01	20.43
40		53	52	20.11	20.01	20.19
40		106	0	19.94	20.44	19.84
40	CP-OFDM QPSK	1	1	21.56	21.83	21.73
40		1	53	21.40	21.64	21.58
40		1	104	21.36	21.53	21.42
40		53	1	21.68	21.50	21.51
40		53	26	21.64	21.71	21.54
40		53	52	21.52	21.67	21.48
40		106	0	21.21	21.45	21.25
40	CP-OFDM 16QAM	1	1	21.45	21.56	21.84
40		1	53	21.40	21.64	21.50
40		1	104	21.33	21.38	21.08
40		53	1	21.67	21.72	21.55
40		53	26	21.66	21.76	21.49
40		53	52	21.60	21.69	21.41
40		106	0	21.50	21.60	21.20
40	CP-OFDM 64QAM	1	1	21.68	21.72	21.70
40		1	53	21.50	21.70	21.64
40		1	104	21.38	21.54	21.58
40		53	1	21.74	21.75	21.58
40		53	26	21.71	21.73	21.57
40		53	52	21.64	21.70	21.48
40		106	0	21.52	21.64	21.40
40	CP-OFDM 256QAM	1	1	21.33	21.40	21.67
40		1	53	21.47	21.45	21.50
40		1	104	21.60	21.34	21.45
40		53	1	21.68	21.50	21.61
40		53	26	21.61	21.78	21.59
40		53	52	21.59	21.71	21.50
40		106	0	21.50	21.64	21.45

Channel				501204	518598	535998
Frequency (MHz)				2506.02	2592.99	2679.99
20	CP-OFDM PI/2 BPSK	1	1	21.38	21.41	21.40
20		1	25	21.27	21.39	21.38
20		1	49	21.16	21.38	21.20
20		25	1	21.10	21.21	21.09
20		25	12	20.07	21.39	20.01
20		25	25	20.10	20.80	20.28
20		51	0	20.01	20.32	19.89
20	CP-OFDM QPSK	1	1	21.26	21.53	21.43
20		1	25	21.10	21.34	21.28
20		1	49	21.06	21.23	21.12
20		25	1	21.38	21.20	21.21
20		25	121	21.34	21.41	21.24
20		25	25	21.22	21.37	21.18
20		51	0	21.01	21.09	20.91
20	CP-OFDM 16QAM	1	1	21.03	21.33	21.56
20		1	25	21.05	21.34	21.30
20		1	49	21.03	21.10	20.88
20		25	1	21.37	21.42	21.25
20		25	121	21.36	21.46	21.19
20		25	25	21.30	21.39	21.11
20		51	0	21.20	21.30	20.98
20	CP-OFDM 64QAM	1	1	21.38	21.42	21.40
20		1	25	21.30	21.40	21.34
20		1	49	21.08	21.24	21.28
20		25	1	21.44	21.45	21.28
20		25	121	21.41	21.43	21.27
20		25	25	21.34	21.40	21.18
20		51	0	21.22	21.34	21.10
20	CP-OFDM 256QAM	1	1	21.01	21.10	21.37
20		1	25	21.30	21.15	21.20
20		1	49	21.30	21.06	21.15
20		25	1	21.38	21.22	21.31
20		25	121	21.31	21.48	21.29
20		25	25	21.29	21.41	21.20
20		51	0	21.20	21.34	21.15

Effective Radiated Power and Effective Isotropic Radiated Power:

N41				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel		Middle Channel		High Channel	
Channel				509202		518598		528000	
Frequency (MHz)				2546.01		2592.99		2640	
				dBm	W	dBm	W	dBm	W
100	DFT-s-OFDM PI/2 BPSK	1	1	23.29	0.213	23.43	0.220	23.28	0.213
100		1	136	23.17	0.207	23.30	0.214	23.21	0.209
100		1	271	23.01	0.200	23.19	0.208	23.03	0.201
100		135	1	21.12	0.129	21.31	0.135	21.29	0.135
100		135	67	20.30	0.107	21.35	0.136	20.00	0.100
100		135	136	20.24	0.106	20.30	0.107	20.29	0.107
100		270	0	20.21	0.105	20.29	0.107	20.20	0.105
100	DFT-s-OFDM QPSK	1	1	23.19	0.208	23.42	0.220	23.33	0.215
100		1	136	23.11	0.205	23.34	0.216	23.10	0.204
100		1	271	23.00	0.200	23.10	0.204	23.02	0.200
100		135	1	23.26	0.212	23.29	0.213	23.18	0.208
100		135	67	23.24	0.211	23.30	0.214	23.15	0.207
100		135	136	23.08	0.203	23.21	0.209	23.11	0.205
100		270	0	22.87	0.194	23.01	0.200	22.81	0.191
100	DFT-s-OFDM 16QAM	1	1	22.93	0.196	23.16	0.207	23.50	0.224
100		1	136	22.96	0.198	23.19	0.208	23.45	0.221
100		1	271	22.98	0.199	22.96	0.198	22.83	0.192
100		135	1	23.26	0.212	23.37	0.217	23.15	0.207
100		135	67	23.24	0.211	23.35	0.216	23.10	0.204
100		135	136	23.19	0.208	23.28	0.213	23.00	0.200
100		270	0	23.10	0.204	23.17	0.207	22.84	0.192
100	DFT-s-OFDM 64QAM	1	1	23.11	0.205	23.56	0.227	23.34	0.216
100		1	136	23.08	0.203	23.48	0.223	23.30	0.214
100		1	271	23.11	0.205	23.40	0.219	23.28	0.213
100		135	1	23.30	0.214	23.37	0.217	23.24	0.211
100		135	67	23.29	0.213	23.34	0.216	23.20	0.209
100		135	136	23.24	0.211	23.30	0.214	23.18	0.208
100		270	0	23.12	0.205	23.24	0.211	23.00	0.200
100	DFT-s-OFDM 256QAM	1	1	22.95	0.197	23.27	0.212	23.27	0.212
100		1	136	23.15	0.207	23.15	0.207	23.34	0.216

100		1	271	23.26	0.212	22.96	0.198	23.26	0.212
100		135	1	23.35	0.216	23.12	0.205	23.20	0.209
100		135	67	23.33	0.215	23.37	0.217	23.17	0.207
100		135	136	23.20	0.209	23.28	0.213	23.08	0.203
100		270	0	23.12	0.205	23.21	0.209	23.01	0.200
Channel				507204		518598		529998	
Frequency (MHz)				2536.02		2592.99		2649.99	
				dBm	W	dBm	W	dBm	W
80	DFT-s-OFDM PI/2 BPSK	1	1	22.49	0.177	22.63	0.183	22.48	0.177
80		1	108	22.37	0.173	22.50	0.178	22.41	0.174
80		1	215	22.21	0.166	22.39	0.173	22.23	0.167
80		108	1	21.32	0.136	21.51	0.142	21.49	0.141
80		108	54	20.68	0.117	22.55	0.180	21.38	0.137
80		108	108	20.61	0.115	20.71	0.118	20.70	0.117
80		216	0	20.59	0.115	20.65	0.116	20.68	0.117
80	DFT-s-OFDM QPSK	1	1	22.39	0.173	22.62	0.183	22.53	0.179
80		1	108	22.31	0.170	22.54	0.179	22.30	0.170
80		1	215	22.20	0.166	22.30	0.170	22.22	0.167
80		108	1	22.46	0.176	22.49	0.177	22.38	0.173
80		108	54	22.44	0.175	22.50	0.178	22.35	0.172
80		108	108	22.28	0.169	22.41	0.174	22.31	0.170
80		216	0	22.07	0.161	22.21	0.166	22.01	0.159
80	DFT-s-OFDM 16QAM	1	1	22.13	0.163	22.36	0.172	22.70	0.186
80		1	108	22.16	0.164	22.39	0.173	22.65	0.184
80		1	215	22.18	0.165	22.16	0.164	22.03	0.160
80		108	1	22.46	0.176	22.57	0.181	22.35	0.172
80		108	54	22.44	0.175	22.55	0.180	22.30	0.170
80		108	108	22.39	0.173	22.48	0.177	22.20	0.166
80		216	0	22.30	0.170	22.37	0.173	22.04	0.160
80	DFT-s-OFDM 64QAM	1	1	22.31	0.170	22.76	0.189	22.54	0.179
80		1	108	22.28	0.169	22.68	0.185	22.50	0.178
80		1	215	22.31	0.170	22.60	0.182	22.48	0.177
80		108	1	22.50	0.178	22.57	0.181	22.44	0.175
80		108	54	22.49	0.177	22.54	0.179	22.40	0.174
80		108	108	22.44	0.175	22.50	0.178	22.38	0.173
80		216	0	22.32	0.171	22.44	0.175	22.20	0.166
80	DFT-s-OFDM 256QAM	1	1	22.15	0.164	22.47	0.177	22.47	0.177
80		1	108	22.35	0.172	22.35	0.172	22.54	0.179

80		1	215	22.46	0.176	22.16	0.164	22.46	0.176
80		108	1	22.55	0.180	22.32	0.171	22.40	0.174
80		108	54	22.53	0.179	22.57	0.181	22.37	0.173
80		108	108	22.40	0.174	22.48	0.177	22.28	0.169
80		216	0	22.32	0.171	22.41	0.174	22.21	0.166
Channel				505200		518598		531996	
Frequency (MHz)				2526		2592.99		2559.98	
				dBm	W	dBm	W	dBm	W
60	DFT-s-OFDM PI/2 BPSK	1	1	22.19	0.166	22.33	0.171	22.18	0.165
60		1	80	22.07	0.161	22.20	0.166	22.11	0.163
60		1	160	21.91	0.155	22.09	0.162	21.93	0.156
60		81	1	22.02	0.159	22.21	0.166	22.19	0.166
60		81	40	21.20	0.132	22.25	0.168	21.93	0.156
60		81	81	21.14	0.130	21.20	0.132	21.19	0.132
60		162	0	21.11	0.129	21.19	0.132	21.10	0.129
60	DFT-s-OFDM QPSK	1	1	22.09	0.162	22.32	0.171	22.23	0.167
60		1	80	22.01	0.159	22.24	0.167	22.00	0.158
60		1	160	21.90	0.155	22.00	0.158	21.92	0.156
60		81	1	22.16	0.164	22.19	0.166	22.08	0.161
60		81	40	22.14	0.164	22.20	0.166	22.05	0.160
60		81	81	21.98	0.158	22.11	0.163	22.01	0.159
60		162	0	21.77	0.150	21.91	0.155	21.71	0.148
60	DFT-s-OFDM 16QAM	1	1	21.83	0.152	22.06	0.161	22.40	0.174
60		1	80	21.86	0.153	22.09	0.162	22.35	0.172
60		1	160	21.88	0.154	21.86	0.153	21.73	0.149
60		81	1	22.16	0.164	22.27	0.169	22.05	0.160
60		81	40	22.14	0.164	22.25	0.168	22.00	0.158
60		81	81	22.09	0.162	22.18	0.165	21.90	0.155
60		162	0	22.00	0.158	22.07	0.161	21.74	0.149
60	DFT-s-OFDM 64QAM	1	1	22.01	0.159	22.46	0.176	22.24	0.167
60		1	80	21.98	0.158	22.38	0.173	22.20	0.166
60		1	160	22.01	0.159	22.30	0.170	22.18	0.165
60		81	1	22.20	0.166	22.27	0.169	22.14	0.164
60		81	40	22.19	0.166	22.24	0.167	22.10	0.162
60		81	81	22.14	0.164	22.20	0.166	22.08	0.161
60		162	0	22.02	0.159	22.14	0.164	21.90	0.155
60	DFT-s-OFDM 256QAM	1	1	21.85	0.153	22.17	0.165	22.17	0.165
60		1	80	22.05	0.160	22.05	0.160	22.24	0.167

60		1	160	22.16	0.164	21.86	0.153	22.16	0.164
60		81	1	22.25	0.168	22.02	0.159	22.10	0.162
60		81	40	22.23	0.167	22.27	0.169	22.07	0.161
60		81	81	22.10	0.162	22.18	0.165	21.98	0.158
60		162	0	22.02	0.159	22.11	0.163	21.91	0.155
Channel				503202		518598		534000	
Frequency (MHz)				2516.01		2592.99		2670	
				dBm	W	dBm	W	dBm	W
40	DFT-s-OFDM PI/2 BPSK	1	1	21.79	0.151	21.93	0.156	21.78	0.151
40		1	53	21.67	0.147	21.80	0.151	21.71	0.148
40		1	104	21.51	0.142	21.69	0.148	21.53	0.142
40		50	1	21.47	0.140	21.64	0.146	21.49	0.141
40		50	25	20.80	0.120	21.85	0.153	20.53	0.113
40		50	50	20.74	0.119	20.80	0.120	20.39	0.109
40		100	0	20.71	0.118	20.78	0.120	20.20	0.105
40	DFT-s-OFDM QPSK	1	1	21.69	0.148	21.92	0.156	21.83	0.152
40		1	53	21.61	0.145	21.84	0.153	21.60	0.145
40		1	104	21.50	0.141	21.60	0.145	21.52	0.142
40		50	1	21.76	0.150	21.79	0.151	21.68	0.147
40		50	25	21.74	0.149	21.80	0.151	21.65	0.146
40		50	50	21.58	0.144	21.71	0.148	21.61	0.145
40		100	0	21.37	0.137	21.51	0.142	21.31	0.135
40	DFT-s-OFDM 16QAM	1	1	21.43	0.139	21.66	0.147	22.00	0.158
40		1	53	21.46	0.140	21.69	0.148	21.95	0.157
40		1	104	21.48	0.141	21.46	0.140	21.33	0.136
40		50	1	21.76	0.150	21.87	0.154	21.65	0.146
40		50	25	21.74	0.149	21.85	0.153	21.60	0.145
40		50	50	21.69	0.148	21.78	0.151	21.50	0.141
40		100	0	21.60	0.145	21.67	0.147	21.34	0.136
40	DFT-s-OFDM 64QAM	1	1	21.61	0.145	22.06	0.161	21.84	0.153
40		1	53	21.58	0.144	21.98	0.158	21.80	0.151
40		1	104	21.61	0.145	21.90	0.155	21.78	0.151
40		50	1	21.80	0.151	21.87	0.154	21.74	0.149
40		50	25	21.79	0.151	21.84	0.153	21.70	0.148
40		50	50	21.74	0.149	21.80	0.151	21.68	0.147
40		100	0	21.62	0.145	21.74	0.149	21.50	0.141
40	DFT-s-OFDM 256QAM	1	1	21.45	0.140	21.77	0.150	21.77	0.150
40		1	53	21.65	0.146	21.65	0.146	21.84	0.153

40		1	104	21.76	0.150	21.46	0.140	21.76	0.150
40		50	1	21.85	0.153	21.62	0.145	21.70	0.148
40		50	25	21.83	0.152	21.87	0.154	21.67	0.147
40		50	50	21.70	0.148	21.78	0.151	21.58	0.144
40		100	0	21.62	0.145	21.71	0.148	21.51	0.142
Channel				501204		518598		535998	
Frequency (MHz)				2506.02		2592.99		2679.99	
				dBm	W	dBm	W	dBm	W
20	DFT-s-OFDM PI/2 BPSK	1	1	21.49	0.141	21.63	0.146	21.48	0.141
20		1	25	21.37	0.137	21.50	0.141	21.41	0.138
20		1	49	21.21	0.132	21.39	0.138	21.23	0.133
20		25	1	21.18	0.131	21.30	0.135	21.19	0.132
20		25	12	21.15	0.130	21.55	0.143	21.10	0.129
20		25	25	20.54	0.113	20.89	0.123	20.46	0.111
20		50	0	20.09	0.102	20.41	0.110	20.00	0.100
20	DFT-s-OFDM QPSK	1	1	21.39	0.138	21.62	0.145	21.53	0.142
20		1	25	21.31	0.135	21.54	0.143	21.30	0.135
20		1	49	21.20	0.132	21.30	0.135	21.22	0.132
20		25	1	21.46	0.140	21.49	0.141	21.38	0.137
20		25	12	21.44	0.139	21.50	0.141	21.35	0.136
20		25	25	21.28	0.134	21.41	0.138	21.31	0.135
20		50	0	21.07	0.128	21.21	0.132	21.01	0.126
20	DFT-s-OFDM 16QAM	1	1	21.13	0.130	21.36	0.137	21.70	0.148
20		1	25	21.16	0.131	21.39	0.138	21.65	0.146
20		1	49	21.18	0.131	21.16	0.131	21.03	0.127
20		25	1	21.46	0.140	21.57	0.144	21.35	0.136
20		25	12	21.44	0.139	21.55	0.143	21.30	0.135
20		25	25	21.39	0.138	21.48	0.141	21.20	0.132
20		50	0	21.30	0.135	21.37	0.137	21.04	0.127
20	DFT-s-OFDM 64QAM	1	1	21.31	0.135	21.76	0.150	21.54	0.143
20		1	25	21.28	0.134	21.68	0.147	21.50	0.141
20		1	49	21.31	0.135	21.60	0.145	21.48	0.141
20		25	1	21.50	0.141	21.57	0.144	21.44	0.139
20		25	12	21.49	0.141	21.54	0.143	21.40	0.138
20		25	25	21.44	0.139	21.50	0.141	21.38	0.137
20		50	0	21.32	0.136	21.44	0.139	21.20	0.132
20	DFT-s-OFDM 256QAM	1	1	21.15	0.130	21.47	0.140	21.47	0.140
20		1	25	21.35	0.136	21.35	0.136	21.54	0.143

20		1	49	21.46	0.140	21.16	0.131	21.46	0.140
20		25	1	21.55	0.143	21.32	0.136	21.40	0.138
20		25	12	21.53	0.142	21.57	0.144	21.37	0.137
20		25	25	21.40	0.138	21.48	0.141	21.28	0.134
20		50	0	21.32	0.136	21.41	0.138	21.21	0.132

N41				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel		Middle Channel		High Channel	
Channel				509202		518598		528000	
Frequency (MHz)				2546.01		2592.99		2640	
				dBm	W	dBm	W	dBm	W
100	CP-OFDM PI/2 BPSK	1	1	23.18	0.208	23.31	0.214	23.10	0.204
100		1	136	23.07	0.203	23.19	0.208	23.08	0.203
100		1	271	22.86	0.193	23.08	0.203	22.15	0.164
100		135	1	20.94	0.124	20.41	0.110	20.39	0.109
100		135	67	20.07	0.102	20.39	0.109	19.36	0.086
100		135	136	20.10	0.102	20.26	0.106	19.28	0.085
100		270	0	20.14	0.103	20.10	0.102	19.24	0.084
100	CP-OFDM QPSK	1	1	23.10	0.204	23.23	0.210	23.23	0.210
100		1	136	23.00	0.200	23.24	0.211	23.01	0.200
100		1	271	22.86	0.193	23.03	0.201	22.82	0.191
100		135	1	23.18	0.208	23.10	0.204	23.01	0.200
100		135	67	23.14	0.206	23.21	0.209	23.04	0.201
100		135	136	23.02	0.200	23.17	0.207	23.05	0.202
100		270	0	22.71	0.187	22.15	0.164	22.05	0.160
100	CP-OFDM 16QAM	1	1	22.85	0.193	23.06	0.202	23.24	0.211
100		1	136	22.90	0.195	23.04	0.201	22.10	0.162
100		1	271	22.93	0.196	22.08	0.161	22.68	0.185
100		135	1	23.20	0.209	23.32	0.215	23.05	0.202
100		135	67	23.16	0.207	23.12	0.205	23.01	0.200
100		135	136	23.10	0.204	23.19	0.208	22.90	0.195
100		270	0	23.00	0.200	23.02	0.200	22.00	0.158
100	CP-OFDM 64QAM	1	1	23.01	0.200	23.32	0.215	23.30	0.214
100		1	136	23.00	0.200	23.30	0.214	23.24	0.211
100		1	271	22.98	0.199	23.14	0.206	23.18	0.208
100		135	1	23.14	0.206	23.30	0.214	23.18	0.208
100		135	67	23.21	0.209	23.23	0.210	23.17	0.207
100		135	136	23.14	0.206	23.10	0.204	23.08	0.203
100		270	0	23.02	0.200	23.04	0.201	22.00	0.158
100	CP-OFDM 256QAM	1	1	22.83	0.192	23.00	0.200	23.17	0.207
100		1	136	23.07	0.203	22.05	0.160	23.10	0.204
100		1	271	22.17	0.165	22.14	0.164	23.05	0.202

100		135	1	23.28	0.213	22.40	0.174	23.11	0.205
100		135	67	23.21	0.209	23.30	0.214	23.02	0.200
100		135	136	23.09	0.204	23.21	0.209	23.01	0.200
100		270	0	23.01	0.200	23.16	0.207	22.95	0.197
Channel				507204		518598		529998	
Frequency (MHz)				2536.02		2592.99		2649.99	
				dBm	W	dBm	W	dBm	W
80	CP-OFDM PI/2 BPSK	1	1	22.38	0.173	22.41	0.174	22.40	0.174
80		1	108	22.37	0.173	22.39	0.173	22.38	0.173
80		1	215	22.14	0.164	20.38	0.109	22.20	0.166
80		108	1	20.00	0.100	20.51	0.112	19.49	0.089
80		108	54	20.57	0.114	20.01	0.100	19.46	0.088
80		108	108	19.80	0.095	19.47	0.089	19.98	0.100
80		216	0	20.34	0.108	19.40	0.087	19.34	0.086
80	CP-OFDM QPSK	1	1	22.26	0.168	22.53	0.179	22.43	0.175
80		1	108	22.10	0.162	22.34	0.171	22.28	0.169
80		1	215	22.06	0.161	22.23	0.167	22.12	0.163
80		108	1	22.38	0.173	22.20	0.166	22.21	0.166
80		108	54	22.34	0.171	22.41	0.174	22.24	0.167
80		108	108	22.22	0.167	22.37	0.173	22.18	0.165
80		216	0	22.02	0.159	22.25	0.168	21.91	0.155
80	CP-OFDM 16QAM	1	1	22.05	0.160	22.26	0.168	22.54	0.179
80		1	108	22.06	0.161	22.34	0.171	22.20	0.166
80		1	215	22.03	0.160	22.10	0.162	21.78	0.151
80		108	1	22.37	0.173	22.42	0.175	22.25	0.168
80		108	54	22.36	0.172	22.46	0.176	22.19	0.166
80		108	108	22.30	0.170	22.39	0.173	22.11	0.163
80		216	0	22.20	0.166	22.30	0.170	21.95	0.157
80	CP-OFDM 64QAM	1	1	22.22	0.167	22.42	0.175	22.40	0.174
80		1	108	22.18	0.165	22.40	0.174	22.34	0.171
80		1	215	22.08	0.161	22.24	0.167	22.28	0.169
80		108	1	22.44	0.175	22.45	0.176	22.28	0.169
80		108	54	22.41	0.174	22.43	0.175	22.27	0.169
80		108	108	22.24	0.167	22.40	0.174	22.18	0.165
80		216	0	22.22	0.167	22.34	0.171	22.10	0.162
80	CP-OFDM 256QAM	1	1	22.03	0.160	22.10	0.162	22.37	0.173
80		1	108	22.27	0.169	22.15	0.164	22.20	0.166
80		1	215	22.30	0.170	22.04	0.160	22.15	0.164

80		108	1	22.38	0.173	22.30	0.170	22.31	0.170
80		108	54	22.31	0.170	22.48	0.177	22.29	0.169
80		108	108	22.29	0.169	22.41	0.174	22.20	0.166
80		216	0	22.20	0.166	22.34	0.171	22.15	0.164
Channel				505200		518598		531996	
Frequency (MHz)				2526		2592.99		2559.98	
				dBm	W	dBm	W	dBm	W
60	CP-OFDM PI/2 BPSK	1	1	21.98	0.158	22.01	0.159	22.00	0.158
60		1	80	21.97	0.157	21.99	0.158	21.98	0.158
60		1	160	21.96	0.157	21.98	0.158	21.85	0.153
60		81	1	22.04	0.160	22.11	0.163	21.09	0.129
60		81	40	22.07	0.161	22.09	0.162	20.06	0.101
60		81	81	21.00	0.126	20.07	0.102	20.28	0.107
60		162	0	21.94	0.156	20.00	0.100	20.04	0.101
60	CP-OFDM QPSK	1	1	21.86	0.153	22.13	0.163	22.03	0.160
60		1	80	21.70	0.148	21.94	0.156	21.88	0.154
60		1	160	21.66	0.147	21.83	0.152	21.72	0.149
60		81	1	21.98	0.158	21.80	0.151	21.81	0.152
60		81	40	21.94	0.156	22.01	0.159	21.84	0.153
60		81	81	21.82	0.152	21.97	0.157	21.78	0.151
60		162	0	21.71	0.148	21.85	0.153	21.75	0.150
60	CP-OFDM 16QAM	1	1	21.75	0.150	21.96	0.157	22.34	0.171
60		1	80	21.70	0.148	21.94	0.156	21.80	0.151
60		1	160	21.63	0.146	21.78	0.151	21.38	0.137
60		81	1	21.97	0.157	22.02	0.159	21.85	0.153
60		81	40	21.96	0.157	22.06	0.161	21.79	0.151
60		81	81	21.90	0.155	21.99	0.158	21.71	0.148
60		162	0	21.80	0.151	21.90	0.155	21.70	0.148
60	CP-OFDM 64QAM	1	1	21.98	0.158	22.02	0.159	22.00	0.158
60		1	80	21.90	0.155	22.00	0.158	21.94	0.156
60		1	160	21.68	0.147	21.84	0.153	21.88	0.154
60		81	1	22.04	0.160	22.05	0.160	21.88	0.154
60		81	40	22.01	0.159	22.03	0.160	21.87	0.154
60		81	81	21.94	0.156	22.00	0.158	21.78	0.151
60		162	0	21.82	0.152	21.94	0.156	21.70	0.148
60	CP-OFDM 256QAM	1	1	21.73	0.149	21.70	0.148	21.97	0.157
60		1	80	21.97	0.157	21.75	0.150	21.80	0.151
60		1	160	21.90	0.155	21.81	0.152	21.75	0.150

60		81	1	21.98	0.158	21.92	0.156	21.91	0.155
60		81	40	21.91	0.155	22.08	0.161	21.89	0.155
60		81	81	21.89	0.155	22.01	0.159	21.80	0.151
60		162	0	21.80	0.151	21.94	0.156	21.75	0.150
Channel				503202		518598		534000	
Frequency (MHz)				2516.01		2592.99		2670	
				dBm	W	dBm	W	dBm	W
40	CP-OFDM PI/2 BPSK	1	1	21.68	0.147	21.71	0.148	21.70	0.148
40		1	53	21.67	0.147	21.69	0.148	21.68	0.147
40		1	104	21.46	0.140	21.58	0.144	21.45	0.140
40		50	1	20.74	0.119	20.81	0.121	21.01	0.126
40		50	25	20.77	0.119	21.01	0.126	20.43	0.110
40		50	50	20.11	0.103	20.01	0.100	20.19	0.104
40		100	0	19.94	0.099	20.44	0.111	19.84	0.096
40	CP-OFDM QPSK	1	1	21.56	0.143	21.83	0.152	21.73	0.149
40		1	53	21.40	0.138	21.64	0.146	21.58	0.144
40		1	104	21.36	0.137	21.53	0.142	21.42	0.139
40		50	1	21.68	0.147	21.50	0.141	21.51	0.142
40		50	25	21.64	0.146	21.71	0.148	21.54	0.143
40		50	50	21.52	0.142	21.67	0.147	21.48	0.141
40		100	0	21.21	0.132	21.45	0.140	21.25	0.133
40	CP-OFDM 16QAM	1	1	21.45	0.140	21.56	0.143	21.84	0.153
40		1	53	21.40	0.138	21.64	0.146	21.50	0.141
40		1	104	21.33	0.136	21.38	0.137	21.08	0.128
40		50	1	21.67	0.147	21.72	0.149	21.55	0.143
40		50	25	21.66	0.147	21.76	0.150	21.49	0.141
40		50	50	21.60	0.145	21.69	0.148	21.41	0.138
40		100	0	21.50	0.141	21.60	0.145	21.20	0.132
40	CP-OFDM 64QAM	1	1	21.68	0.147	21.72	0.149	21.70	0.148
40		1	53	21.50	0.141	21.70	0.148	21.64	0.146
40		1	104	21.38	0.137	21.54	0.143	21.58	0.144
40		50	1	21.74	0.149	21.75	0.150	21.58	0.144
40		50	25	21.71	0.148	21.73	0.149	21.57	0.144
40		50	50	21.64	0.146	21.70	0.148	21.48	0.141
40		100	0	21.52	0.142	21.64	0.146	21.40	0.138
40	CP-OFDM 256QAM	1	1	21.33	0.136	21.40	0.138	21.67	0.147
40		1	53	21.47	0.140	21.45	0.140	21.50	0.141
40		1	104	21.60	0.145	21.34	0.136	21.45	0.140

40		50	1	21.68	0.147	21.50	0.141	21.61	0.145
40		50	25	21.61	0.145	21.78	0.151	21.59	0.144
40		50	50	21.59	0.144	21.71	0.148	21.50	0.141
40		100	0	21.50	0.141	21.64	0.146	21.45	0.140
Channel				501204		518598		535998	
Frequency (MHz)				2506.02		2592.99		2679.99	
				dBm	W	dBm	W	dBm	W
20	CP-OFDM PI/2 BPSK	1	1	21.38	0.137	21.41	0.138	21.40	0.138
20		1	25	21.27	0.134	21.39	0.138	21.38	0.137
20		1	49	21.16	0.131	21.38	0.137	21.20	0.132
20		25	1	21.10	0.129	21.21	0.132	21.09	0.129
20		25	12	20.07	0.102	21.39	0.138	20.01	0.100
20		25	25	20.10	0.102	20.80	0.120	20.28	0.107
20		50	0	20.01	0.100	20.32	0.108	19.89	0.097
20	CP-OFDM QPSK	1	1	21.26	0.134	21.53	0.142	21.43	0.139
20		1	25	21.10	0.129	21.34	0.136	21.28	0.134
20		1	49	21.06	0.128	21.23	0.133	21.12	0.129
20		25	1	21.38	0.137	21.20	0.132	21.21	0.132
20		25	12	21.34	0.136	21.41	0.138	21.24	0.133
20		25	25	21.22	0.132	21.37	0.137	21.18	0.131
20		50	0	21.01	0.126	21.09	0.129	20.91	0.123
20	CP-OFDM 16QAM	1	1	21.03	0.127	21.33	0.136	21.56	0.143
20		1	25	21.05	0.127	21.34	0.136	21.30	0.135
20		1	49	21.03	0.127	21.10	0.129	20.88	0.122
20		25	1	21.37	0.137	21.42	0.139	21.25	0.133
20		25	12	21.36	0.137	21.46	0.140	21.19	0.132
20		25	25	21.30	0.135	21.39	0.138	21.11	0.129
20		50	0	21.20	0.132	21.30	0.135	20.98	0.125
20	CP-OFDM 64QAM	1	1	21.38	0.137	21.42	0.139	21.40	0.138
20		1	25	21.30	0.135	21.40	0.138	21.34	0.136
20		1	49	21.08	0.128	21.24	0.133	21.28	0.134
20		25	1	21.44	0.139	21.45	0.140	21.28	0.134
20		25	12	21.41	0.138	21.43	0.139	21.27	0.134
20		25	25	21.34	0.136	21.40	0.138	21.18	0.131
20		50	0	21.22	0.132	21.34	0.136	21.10	0.129
20	CP-OFDM 256QAM	1	1	21.01	0.126	21.10	0.129	21.37	0.137
20		1	25	21.30	0.135	21.15	0.130	21.20	0.132
20		1	49	21.30	0.135	21.06	0.128	21.15	0.130

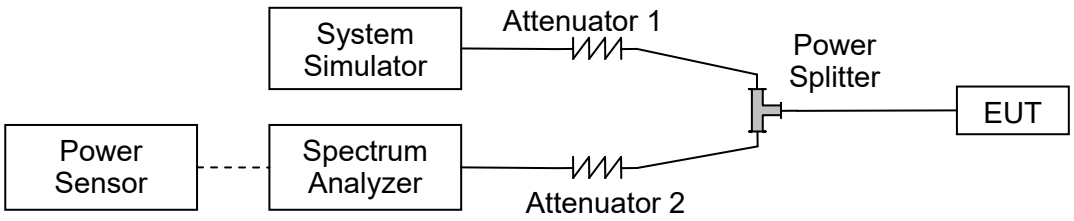
20		25	1	21.38	0.137	21.22	0.132	21.31	0.135
20		25	12	21.31	0.135	21.48	0.141	21.29	0.135
20		25	25	21.29	0.135	21.41	0.138	21.20	0.132
20		50	0	21.20	0.132	21.34	0.136	21.15	0.130

2.2. Occupied Bandwidth

2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth 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.Occupied bandwidth is also known as the 99% emission bandwidth.

2.2.2. Test Description



The EUTis coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.2.3. Test procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

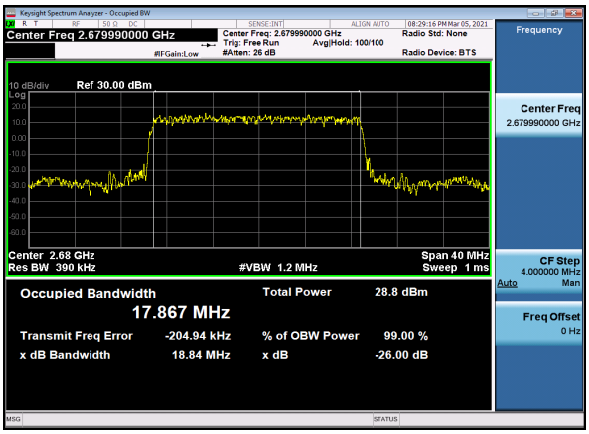
2.2.4. Test Result

N41					
BW(MHz)	ChannelLevel	Modulation		99% BW(MHz)	26dB BW(MHz)
100	Low	DFT-s-OFDM	PI/2 BPSK	96.64	101.5
	Low		QPSK	96.45	101.33
	Low		16QAM	96.63	101.33
	Low		64QAM	96.37	101.56
	Low		256QAM	96.71	101.4
	Low	CP-OFDM	QPSK	97.37	102.49
	Mid	DFT-s-OFDM	PI/2 BPSK	96.71	101.64
	Mid		QPSK	97.13	101.31
	Mid		16QAM	97.07	101.48
	Mid		64QAM	96.75	101.43
	Mid		256QAM	96.93	101.57
	Mid	CP-OFDM	QPSK	97.96	102.50
	High	DFT-s-OFDM	PI/2 BPSK	96.42	101.51
	High		QPSK	96.72	101.21
	High		16QAM	96.74	101.65
	High		64QAM	96.85	101.7
	High		256QAM	96.6	101.4
	High	CP-OFDM	QPSK	98.01	102.37
80	Low	DFT-s-OFDM	PI/2 BPSK	77.27	80.91
	Low		QPSK	77.26	80.87
	Low		16QAM	77.22	81.09
	Low		64QAM	77.27	80.81
	Low		256QAM	77.31	81.14
	Low	CP-OFDM	QPSK	77.67	81.61
	Mid	DFT-s-OFDM	PI/2 BPSK	77.4	81.13
	Mid		QPSK	77.43	80.78
	Mid		16QAM	77.47	81.14
	Mid		64QAM	77.31	80.86
	Mid		256QAM	77.62	81.11
	Mid	CP-OFDM	QPSK	77.57	81.49
	High	DFT-s-OFDM	PI/2 BPSK	77.32	80.89
	High		QPSK	77.38	81.28
	High		16QAM	77.82	81.09

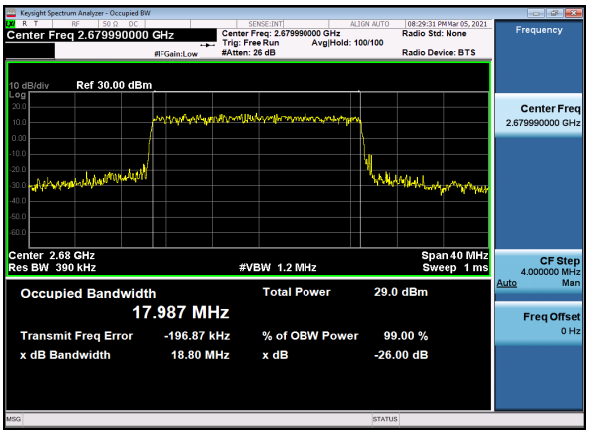
	High		64QAM	77.70	81.26
	High		256QAM	77.53	81.04
	High	CP-OFDM	QPSK	77.86	81.37
60	Low	DFT-s-OFDM	PI/2 BPSK	58.11	60.99
	Low		QPSK	58.09	60.93
	Low		16QAM	58.05	60.81
	Low		64QAM	58.18	60.79
	Low		256QAM	58.11	60.98
	Low	CP-OFDM	QPSK	58.08	60.81
	Mid	DFT-s-OFDM	PI/2 BPSK	58.16	60.94
	Mid		QPSK	57.95	60.84
	Mid		16QAM	58.02	60.90
	Mid		64QAM	57.92	60.64
	Mid		256QAM	58.04	60.92
	Mid	CP-OFDM	QPSK	57.99	60.89
	High	DFT-s-OFDM	PI/2 BPSK	58.85	60.70
	High		QPSK	59.06	60.77
	High		16QAM	58.82	60.71
	High		64QAM	58.82	60.15
	High		256QAM	58.98	60.45
	High	CP-OFDM	QPSK	58.67	60.32
40	Low	DFT-s-OFDM	PI/2 BPSK	36.56	37.48
	Low		QPSK	35.65	37.73
	Low		16QAM	36.53	37.53
	Low		64QAM	36.49	37.70
	Low		256QAM	36.1	37.72
	Low	CP-OFDM	QPSK	36.04	37.92
	Mid	DFT-s-OFDM	PI/2 BPSK	36.09	37.67
	Mid		QPSK	35.94	37.79
	Mid		16QAM	36.14	37.49
	Mid		64QAM	35.91	37.80
	Mid		256QAM	36.58	37.48
	Mid	CP-OFDM	QPSK	35.96	37.86
	High	DFT-s-OFDM	PI/2 BPSK	35.95	37.72
	High		QPSK	35.78	38.00
	High		16QAM	36.57	37.56
	High		64QAM	35.63	37.74
	High		256QAM	36.59	37.46

	High	CP-OFDM	QPSK	35.88	37.68
20	Low	DFT-s-OFDM	PI/2 BPSK	17.96	18.94
	Low		QPSK	17.96	18.95
	Low		16QAM	17.92	19.25
	Low		64QAM	17.92	19.16
	Low		256QAM	17.94	19.06
	Low	CP-OFDM	QPSK	18.26	19.4
	Mid	DFT-s-OFDM	PI/2 BPSK	17.96	18.94
	Mid		QPSK	17.96	18.95
	Mid		16QAM	17.92	19.25
	Mid		64QAM	17.92	19.16
	Mid		256QAM	17.94	19.06
	Mid	CP-OFDM	QPSK	18.26	19.40
	High	DFT-s-OFDM	PI/2 BPSK	17.87	18.84
	High		QPSK	17.99	18.80
	High		16QAM	17.89	19.16
	High		64QAM	17.90	18.86
	High		256QAM	17.90	19.24
	High	CP-OFDM	QPSK	18.24	19.44

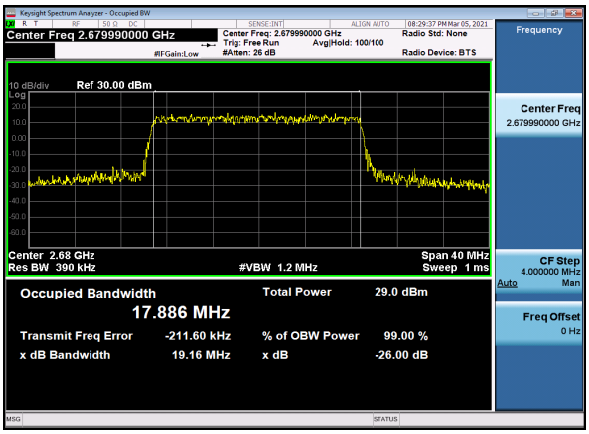
N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



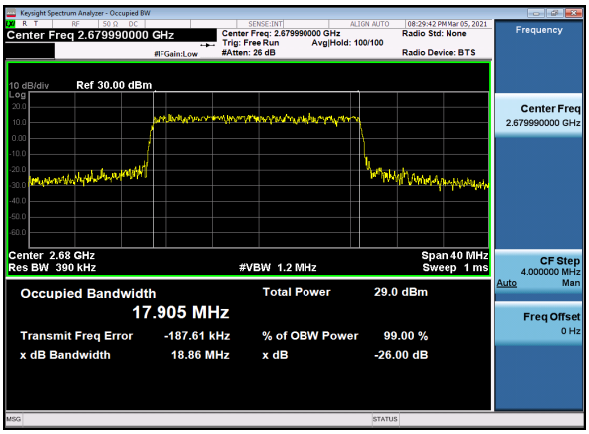
N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



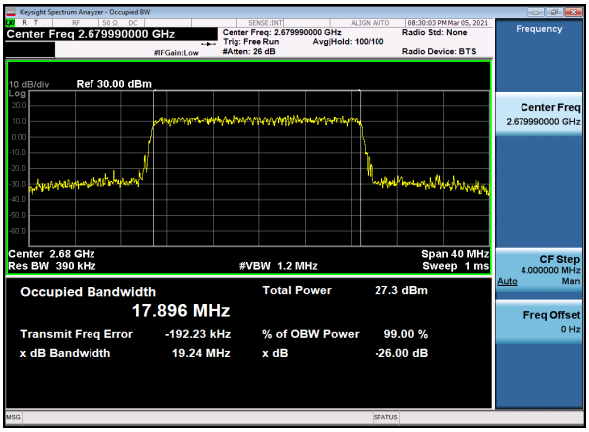
N41(20M)_DFT-s-OFDM_16 QAM_Outer_Full_High_CH



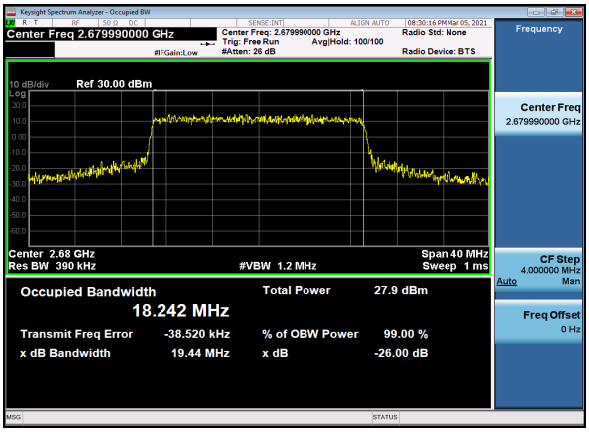
N41(20M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH



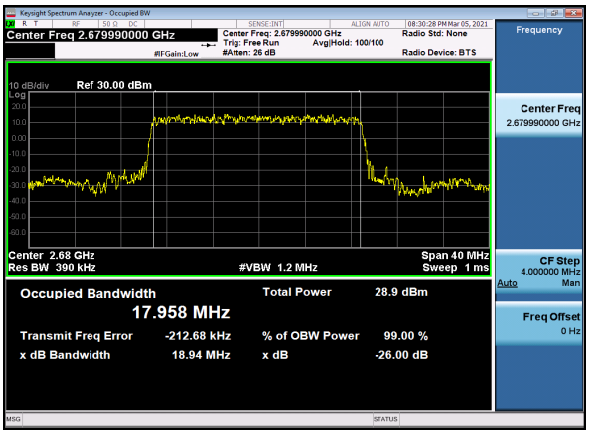
N41(20M)_DFT-s-OFDM_256 QAM_Outer_Full_High_CH



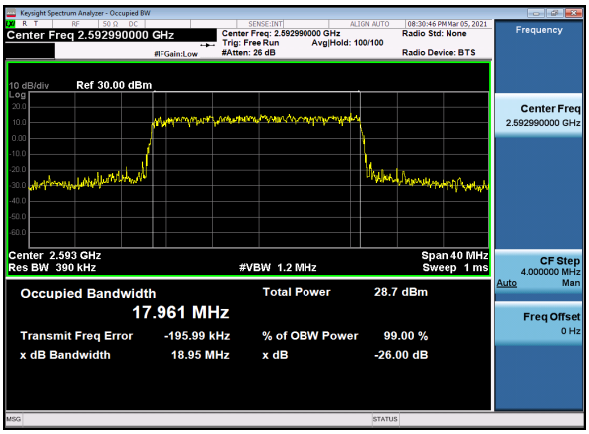
N41(20M)_CP-OFDM_QPSK_Outer_Full_High_CH



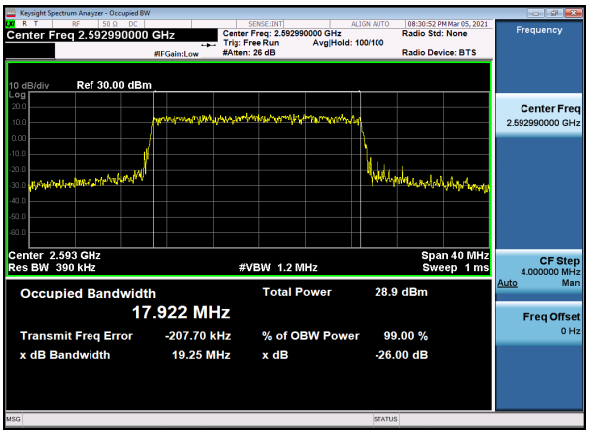
N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



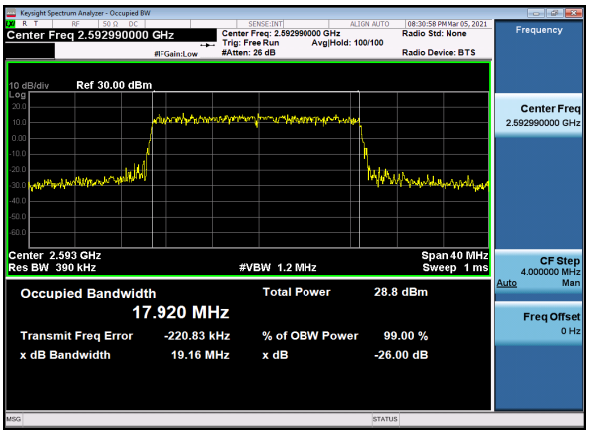
N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



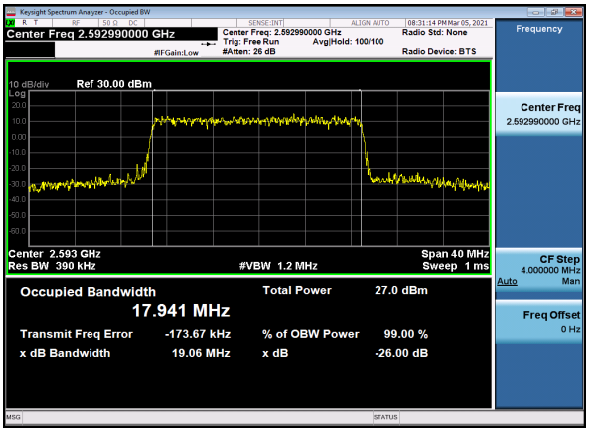
N41(20M)_DFT-s-OFDM_16 QAM_Outer_Full_Mid_CH



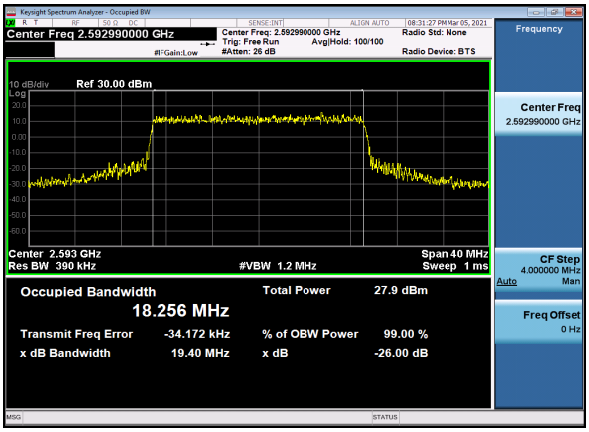
N41(20M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH



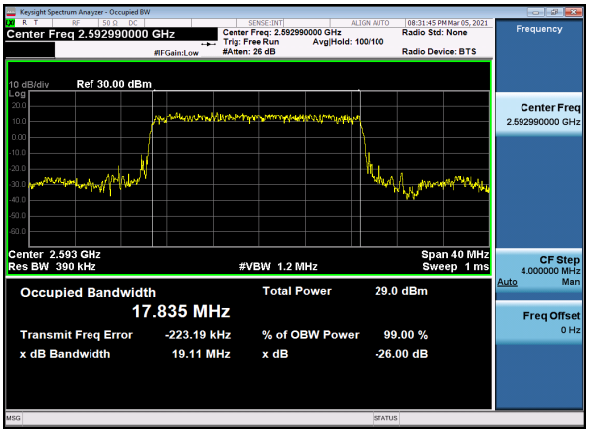
N41(20M)_DFT-s-OFDM_256 QAM_Outer_Full_Mid_CH



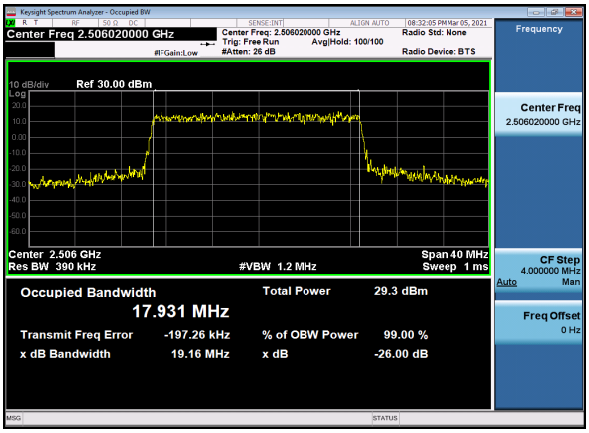
N41(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



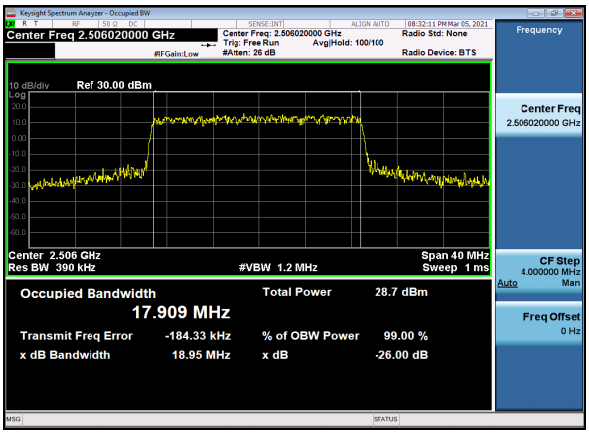
N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



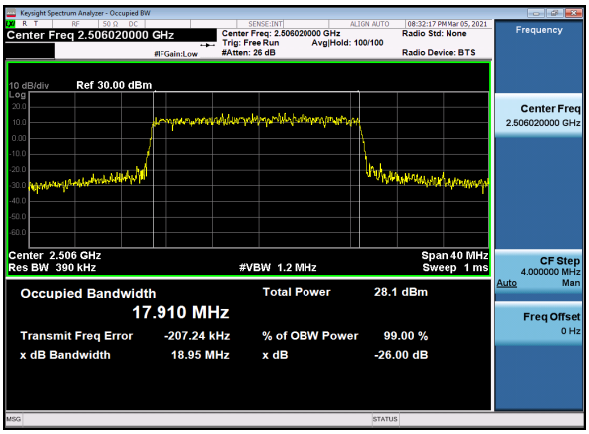
N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



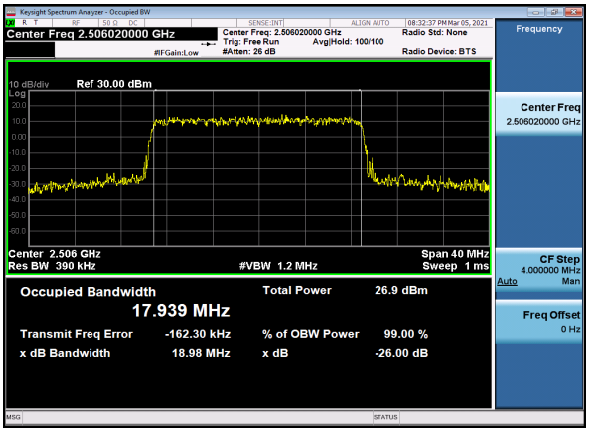
N41(20M)_DFT-s-OFDM_16 QAM_Outer_Full_Low_CH



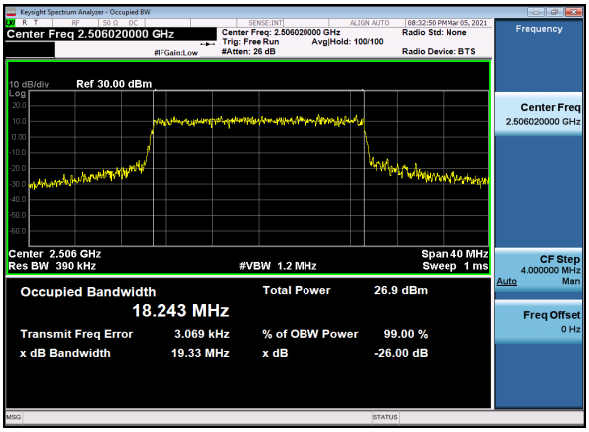
N41(20M)_DFT-s-OFDM_64 QAM_Outer_Full_Low_CH



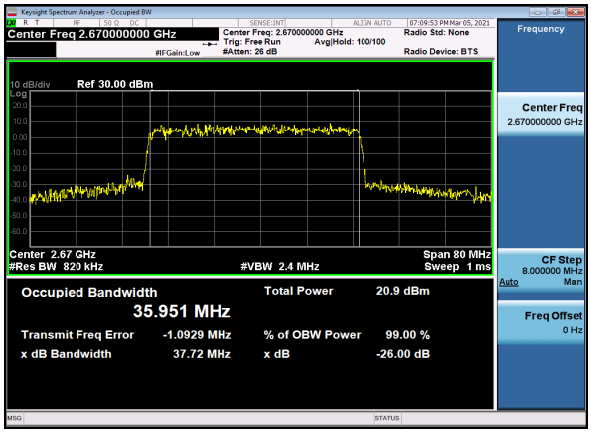
N41(20M)_DFT-s-OFDM_256 QAM_Outer_Full_Low_CH



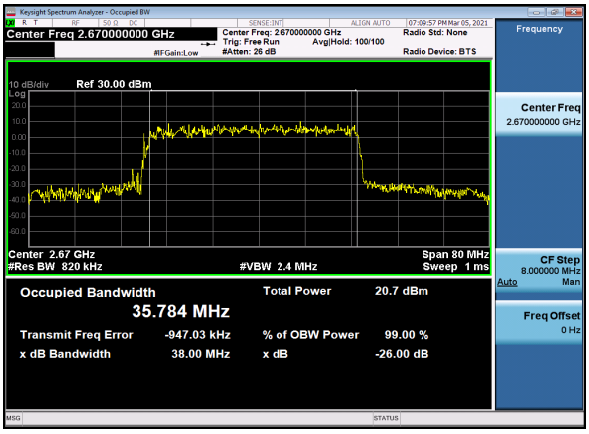
N41(20M)_CP-OFDM_QPSK_Outer_Full_Low_CH



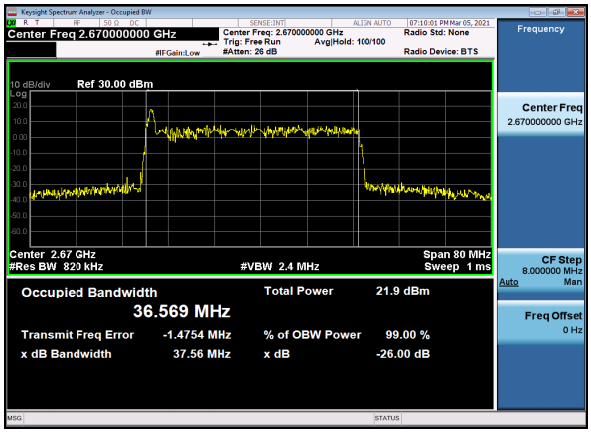
N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



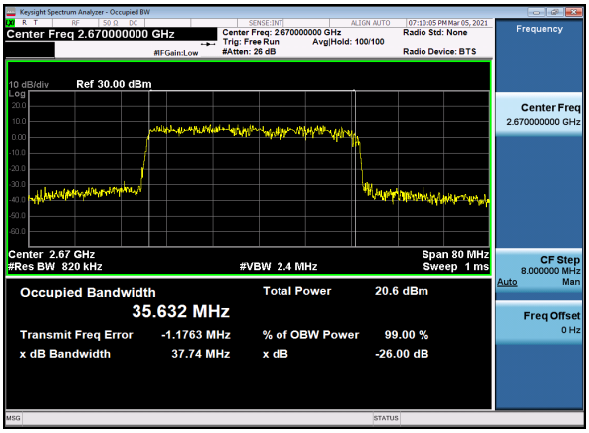
N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



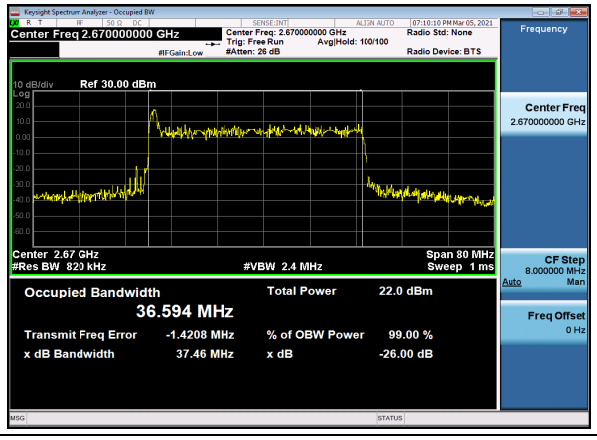
N41(40M)_DFT-s-OFDM_16 QAM_Outer_Full_High_CH



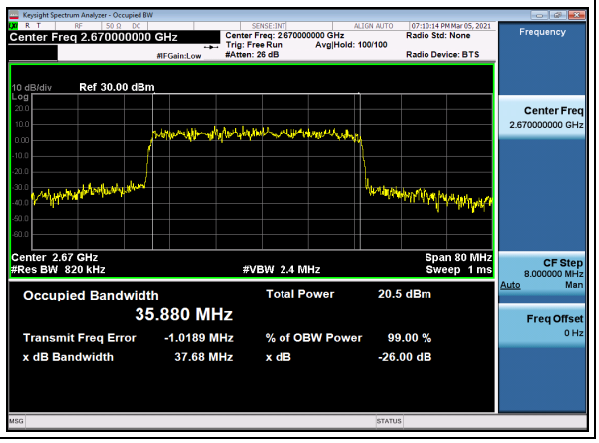
N41(40M)_DFT-s-OFDM_64 QAM_Outer_Full_High_CH



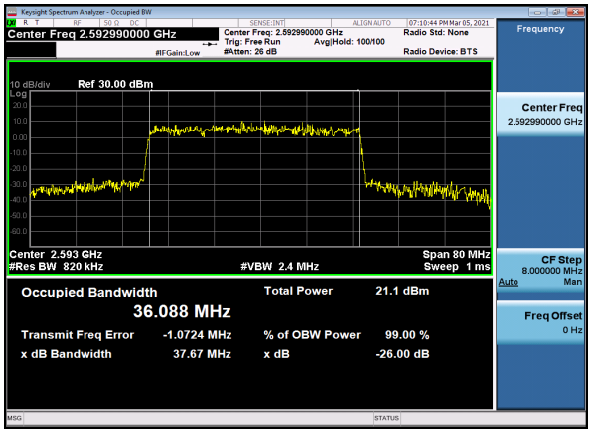
N41(40M)_DFT-s-OFDM_256 QAM_Outer_Full_High_CH



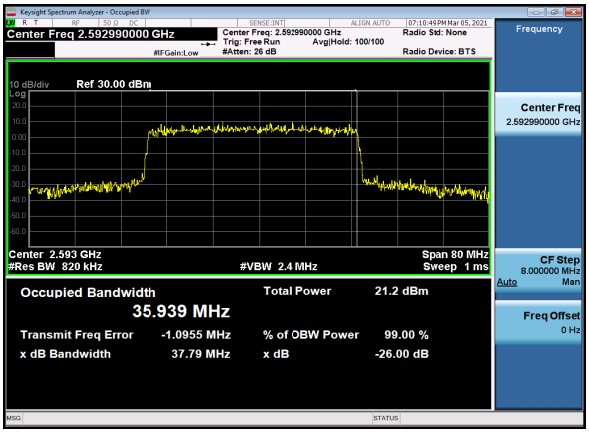
N41(40M)_CP-OFDM_QPSK_Outer_Full_High_CH



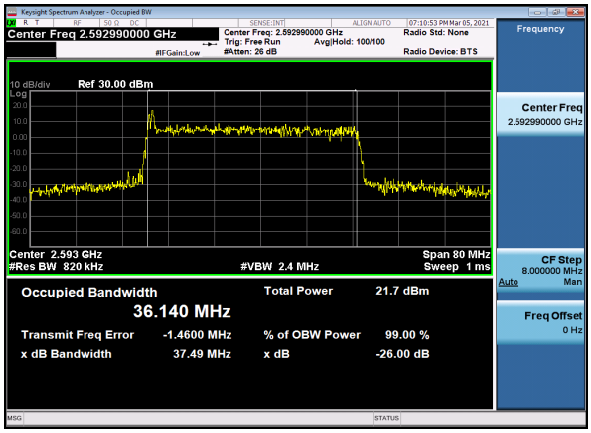
N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



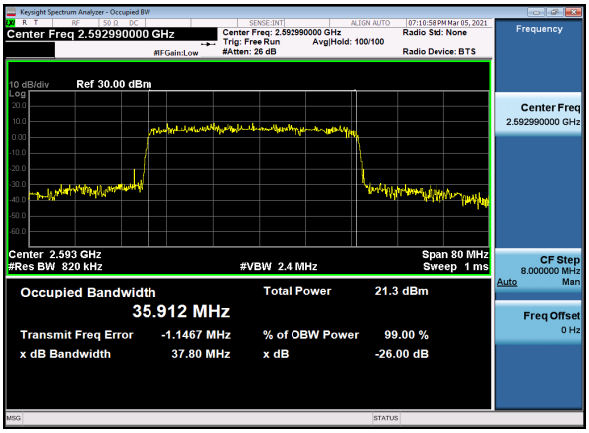
N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



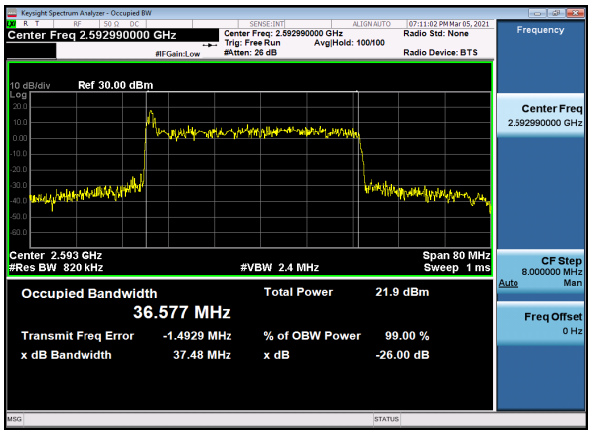
N41(40M)_DFT-s-OFDM_16 QAM_Outer_Full_Mid_CH



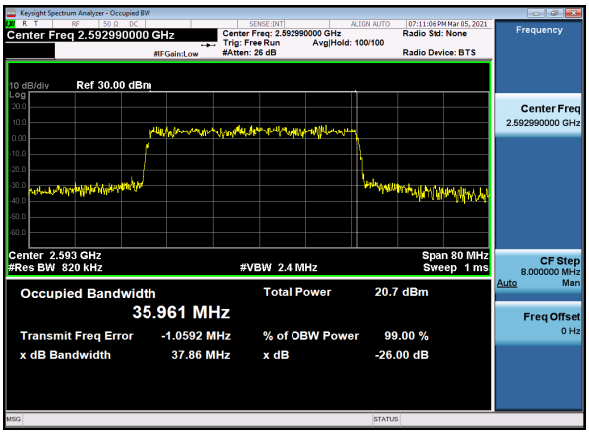
N41(40M)_DFT-s-OFDM_64 QAM_Outer_Full_Mid_CH



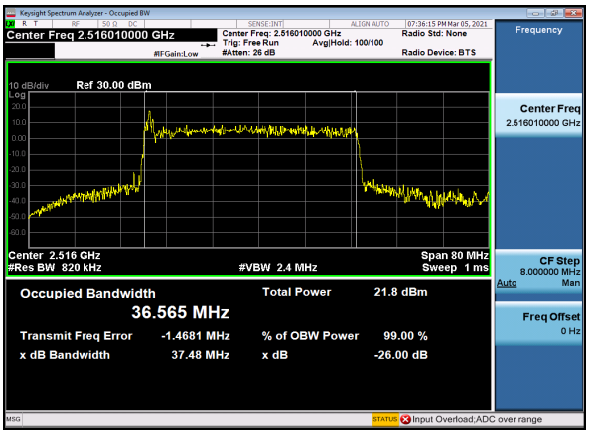
N41(40M)_DFT-s-OFDM_256 QAM_Outer_Full_Mid_CH



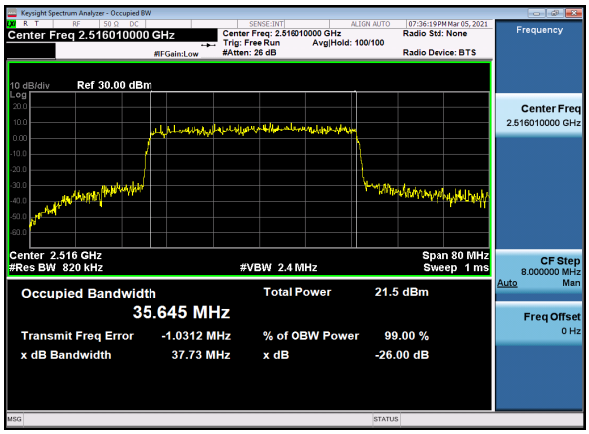
N41(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



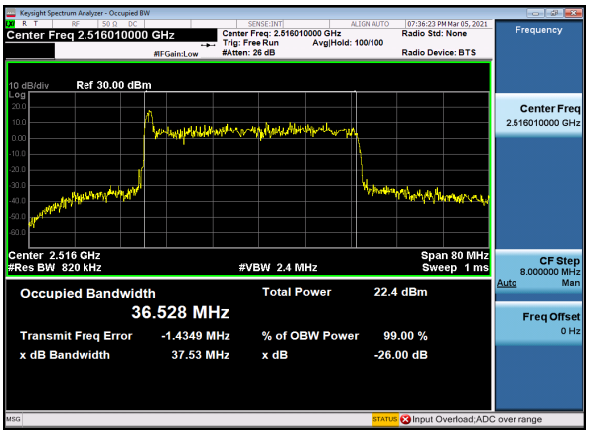
N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



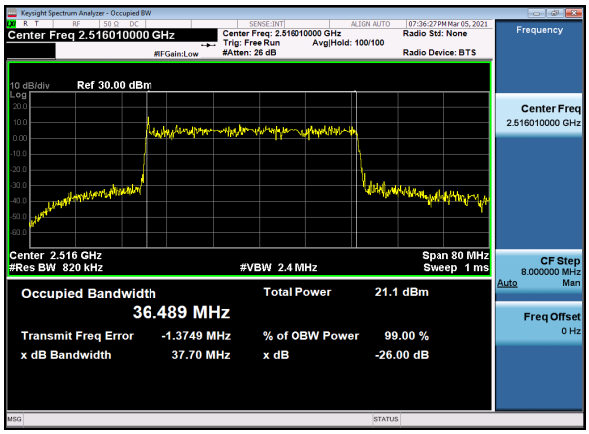
N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



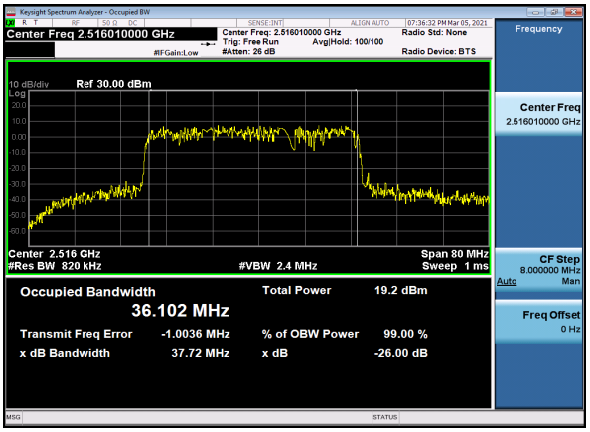
N41(40M)_DFT-s-OFDM_16 QAM_Outer_Full_Low_CH



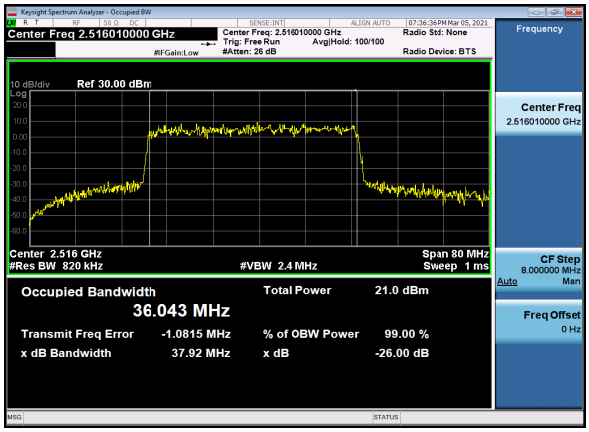
N41(40M)_DFT-s-OFDM_64 QAM_Outer_Full_Low_CH



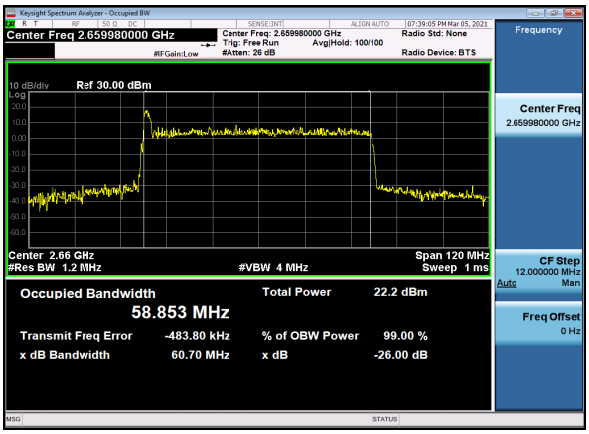
N41(40M)_DFT-s-OFDM_256 QAM_Outer_Full_Low_CH



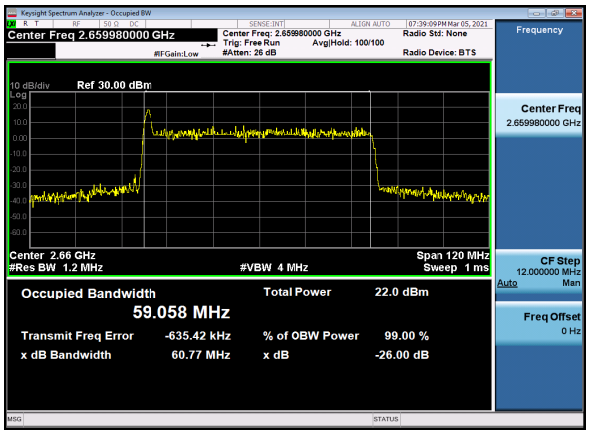
N41(40M)_CP-OFDM_QPSK_Outer_Full_Low_CH



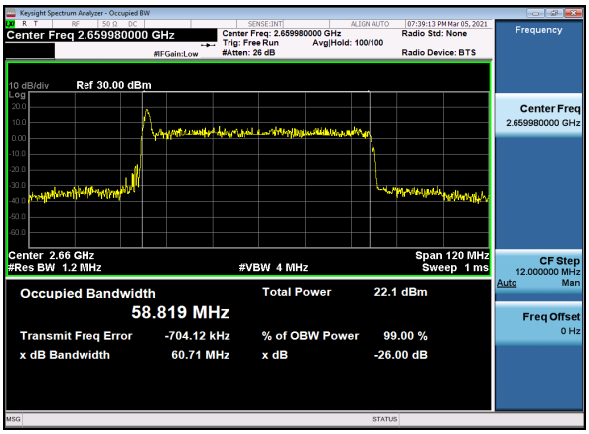
N41(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full High_CH



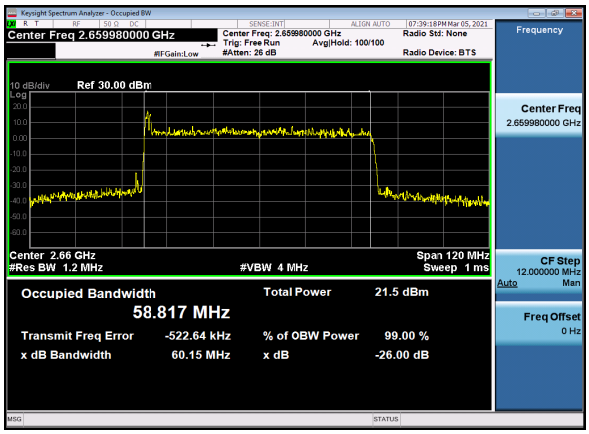
N41(60M)_DFT-s-OFDM_QPSK_Outer_Full_ High_CH



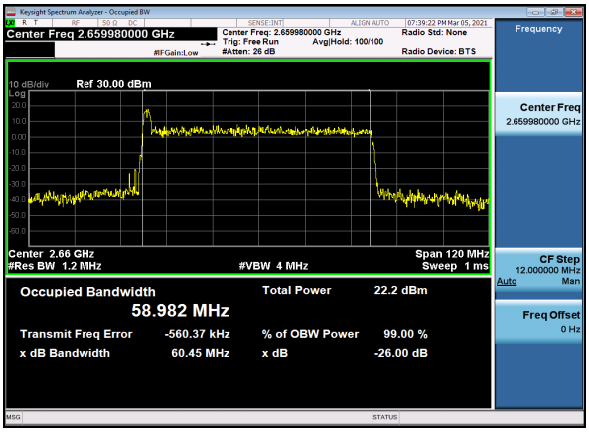
N41(60M)_DFT-s-OFDM_16 QAM_Outer_Full_High_CH



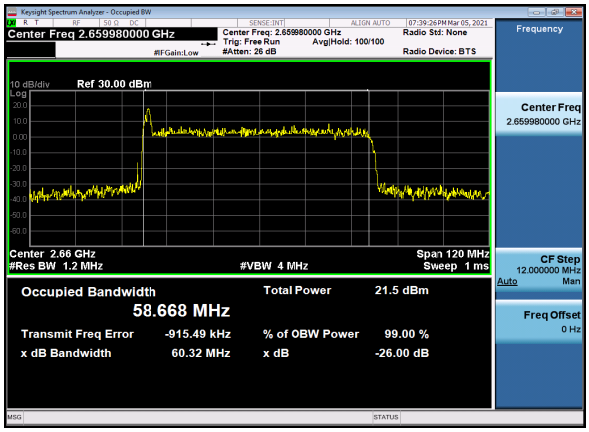
N41(60M)_DFT-s-OFDM_64 QAM_Outer_Full_High_CH



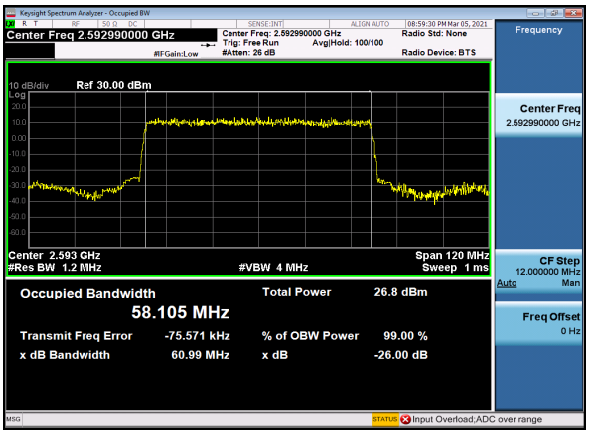
N41(60M)_DFT-s-OFDM_256 QAM_Outer_Full_High_CH



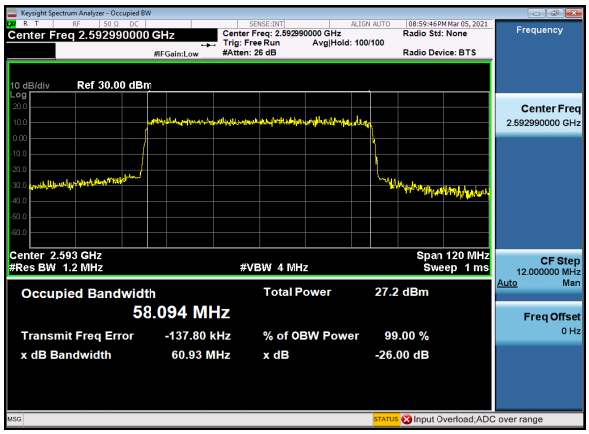
N41(60M)_CP-OFDM_QPSK_Outer_Full_ High_CH



N41(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



N41(60M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



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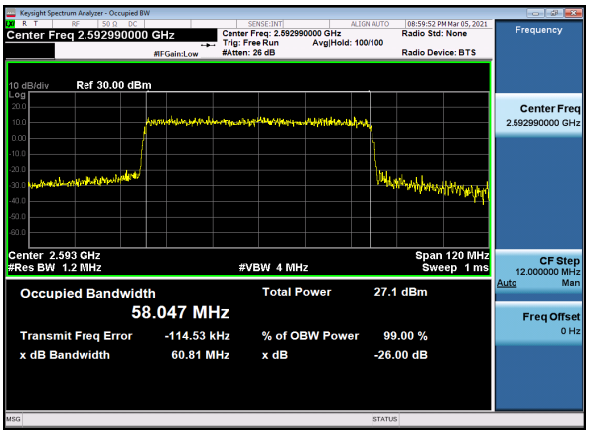

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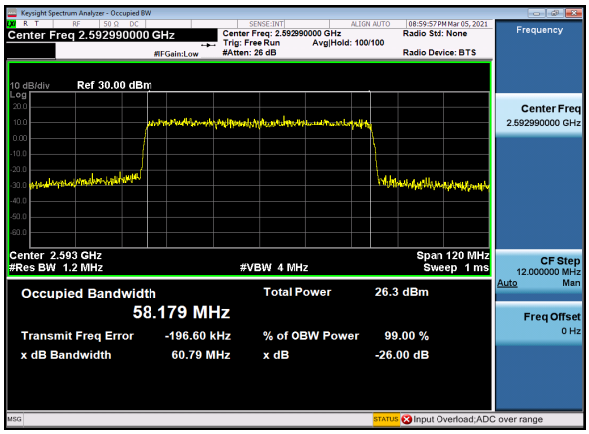
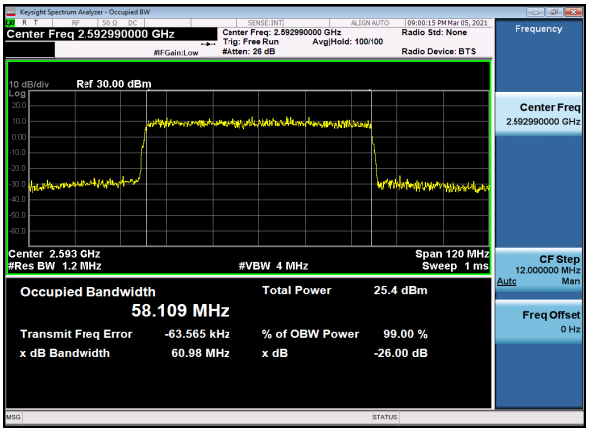


N41(60M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



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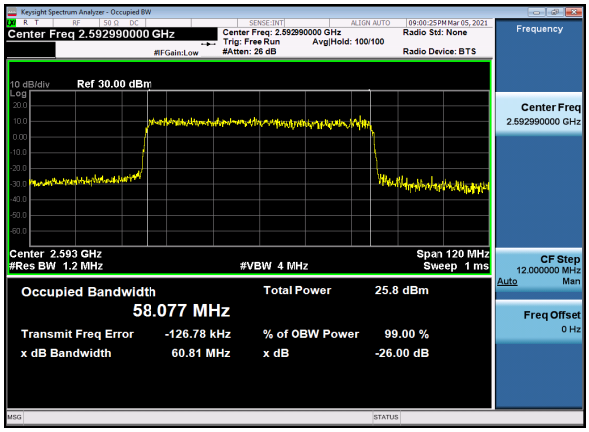

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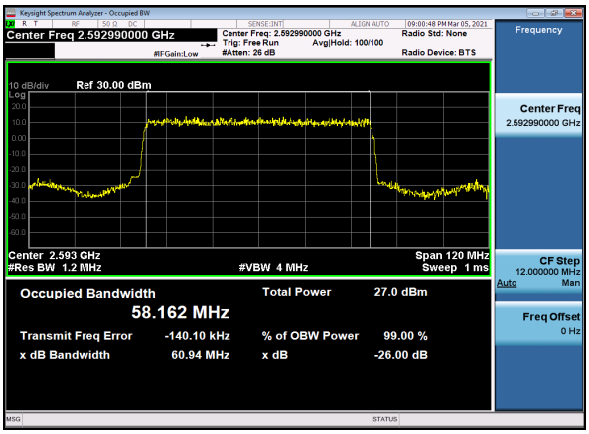

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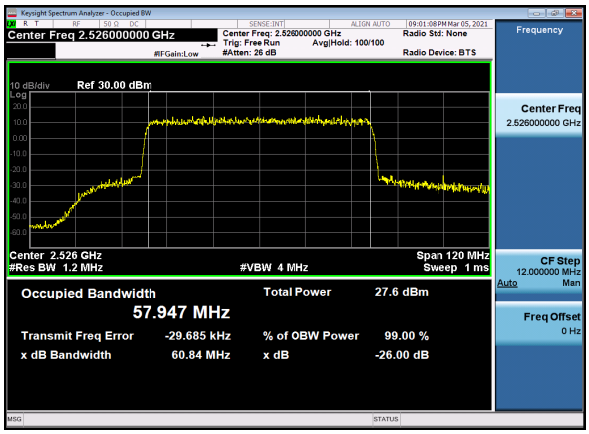

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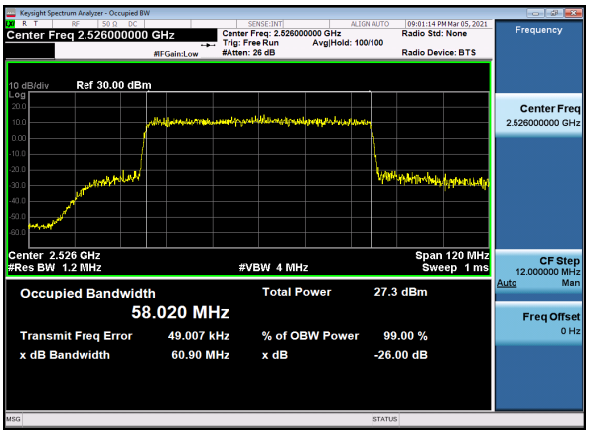

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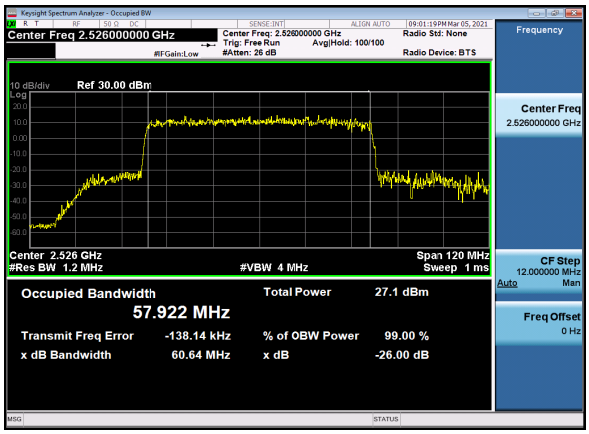

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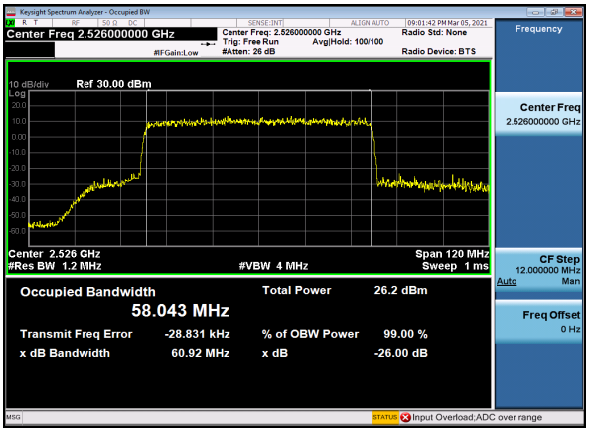

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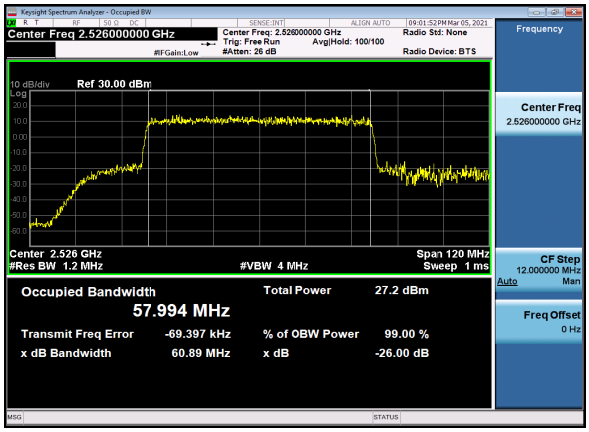
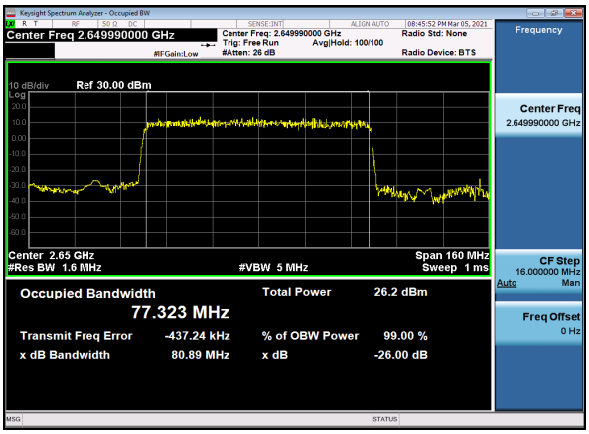


N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



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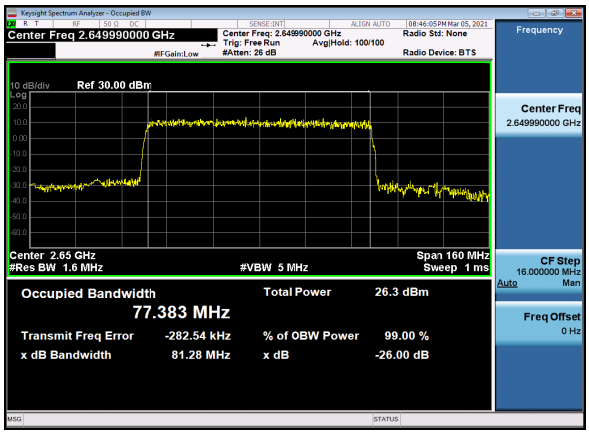

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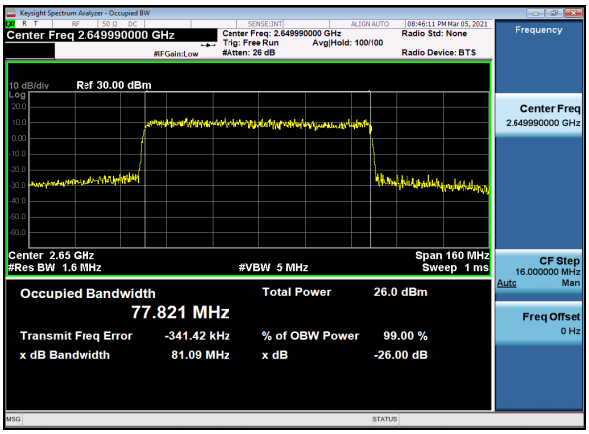

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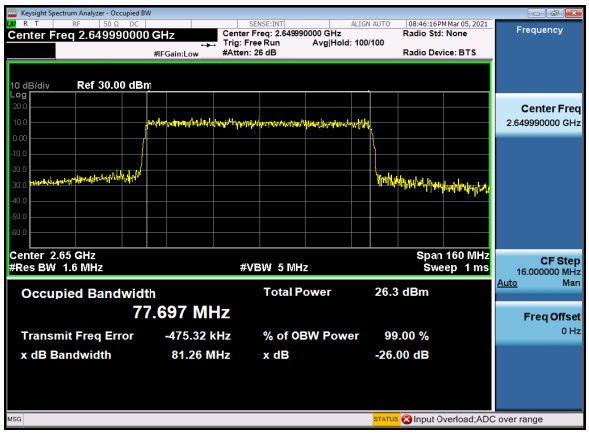

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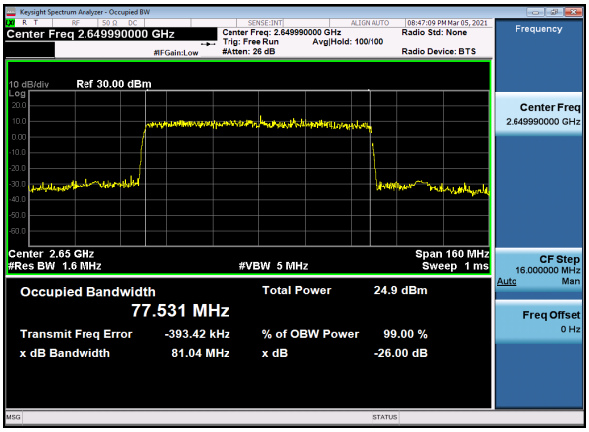

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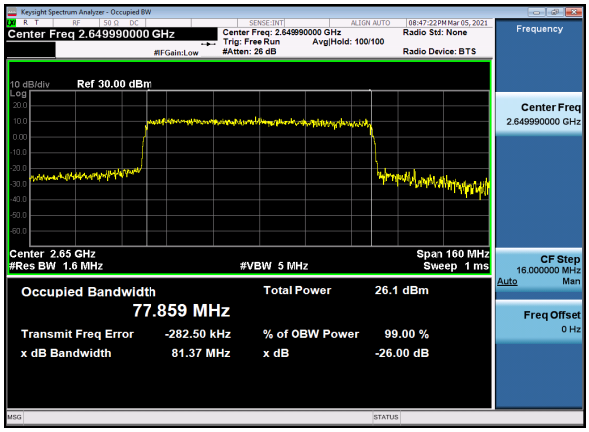
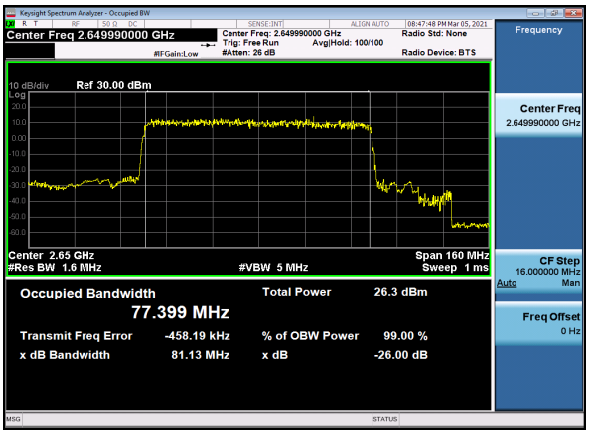


N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



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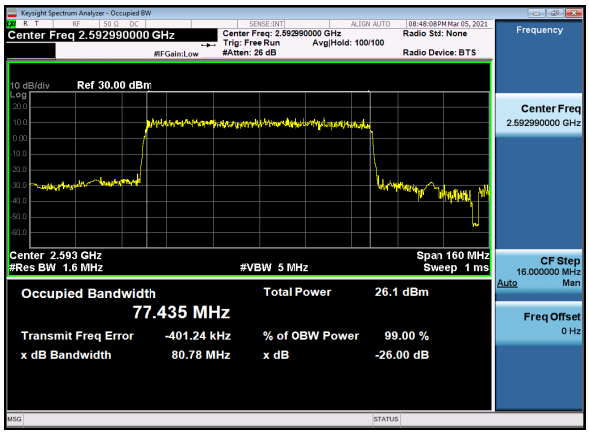

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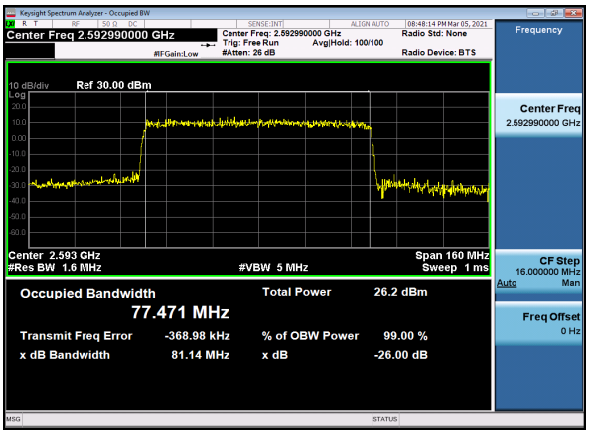

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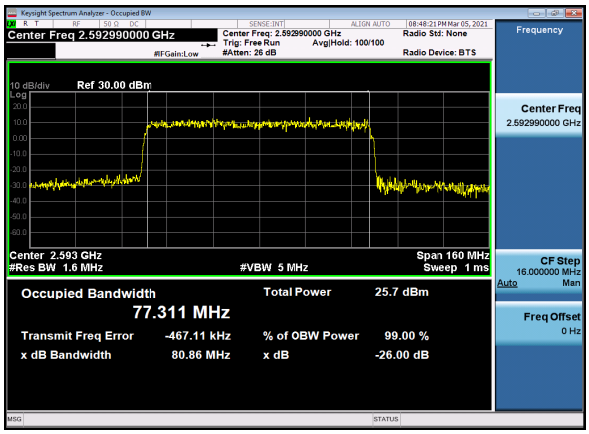

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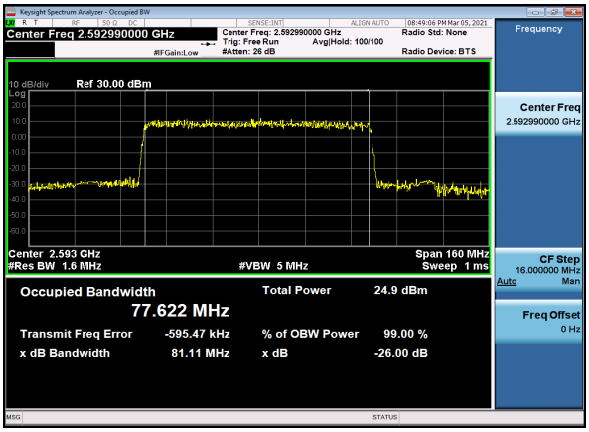
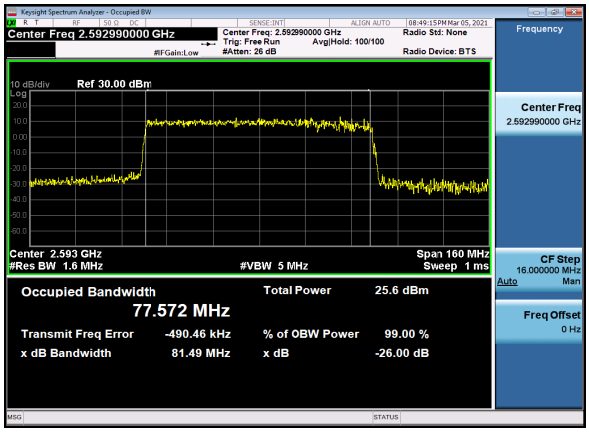
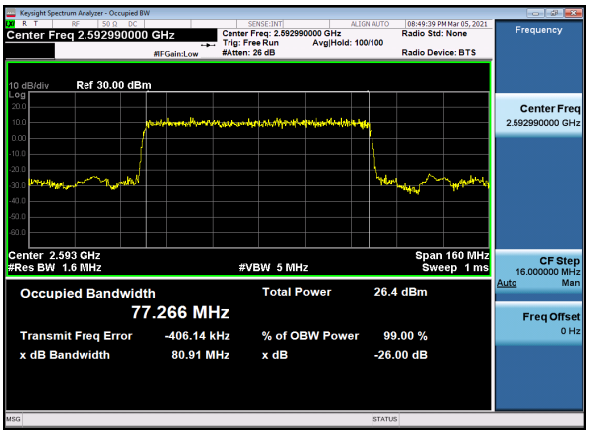


N41(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



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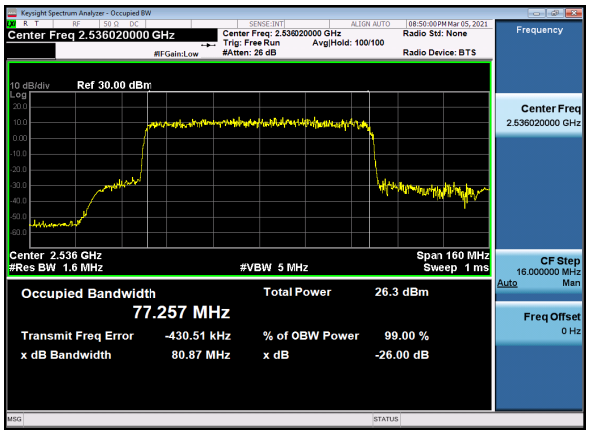

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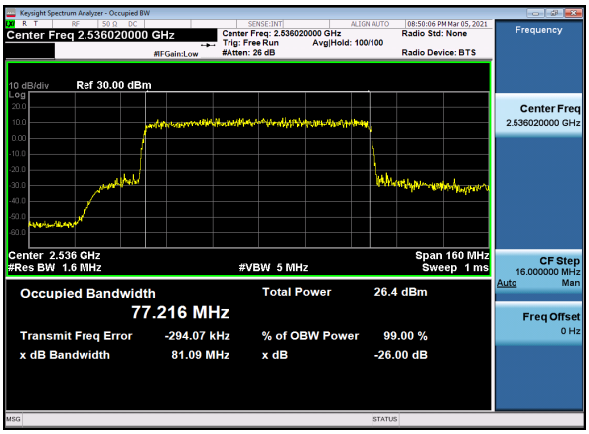

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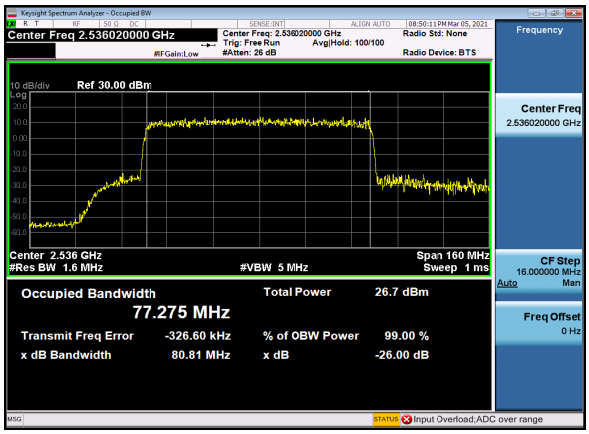

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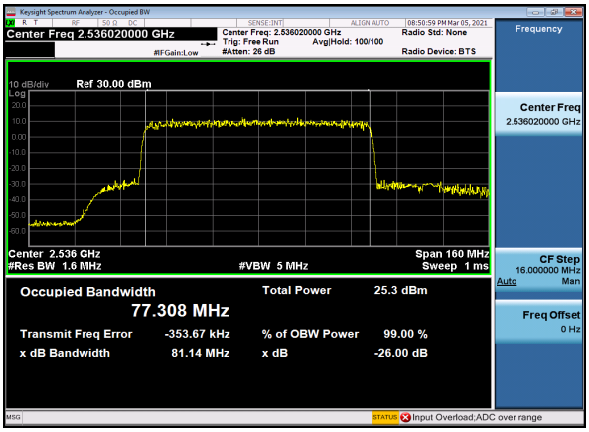
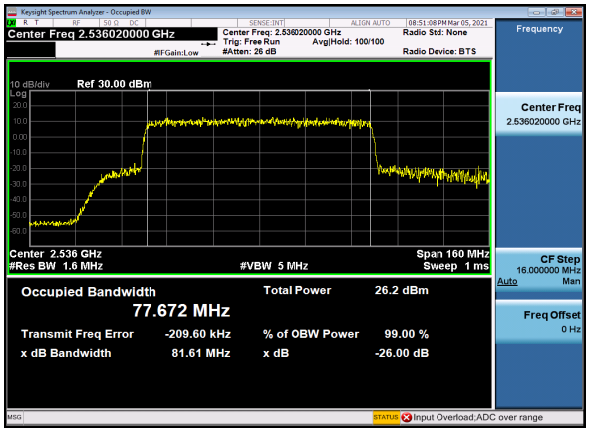
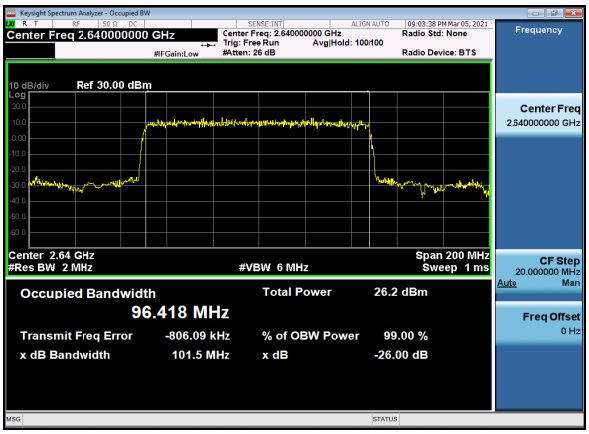


N41(80M)_CP-OFDM_QPSK_Outer_Full_Low_CH



N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



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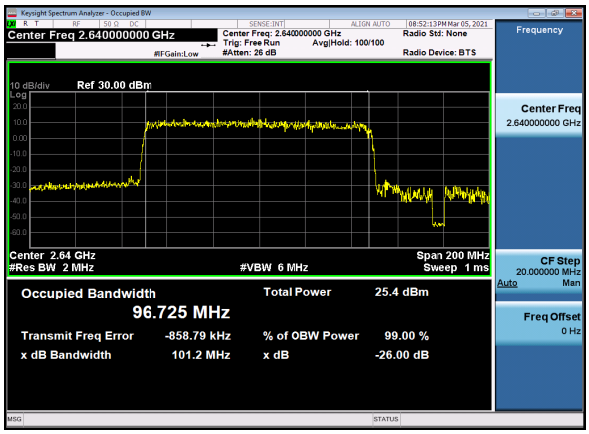

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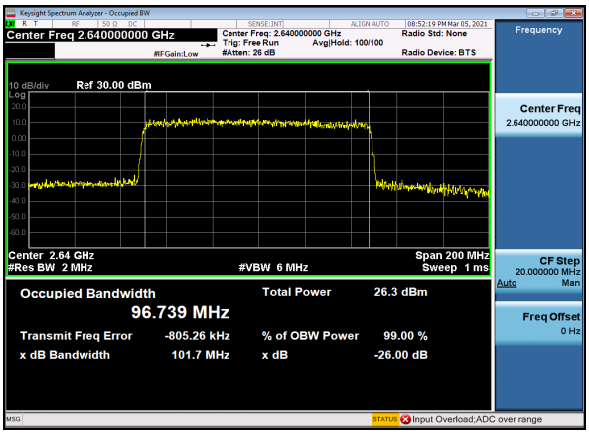

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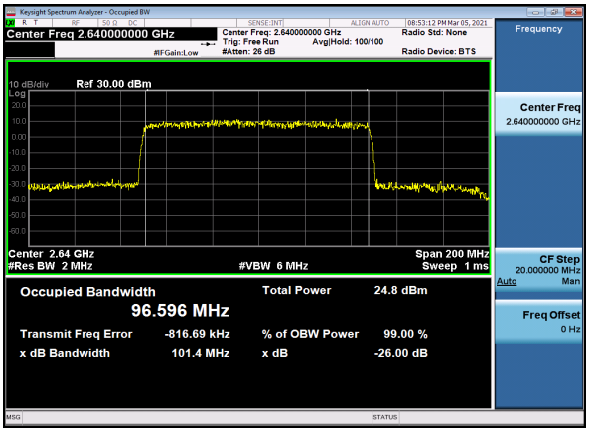
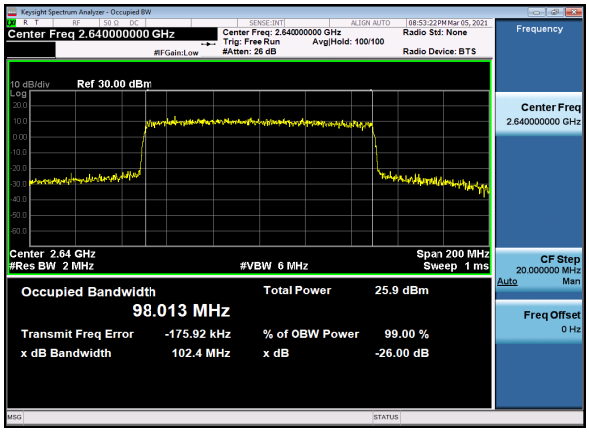
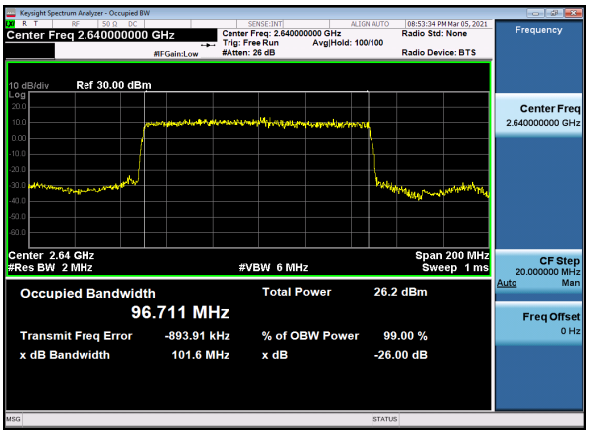
N41(100M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH



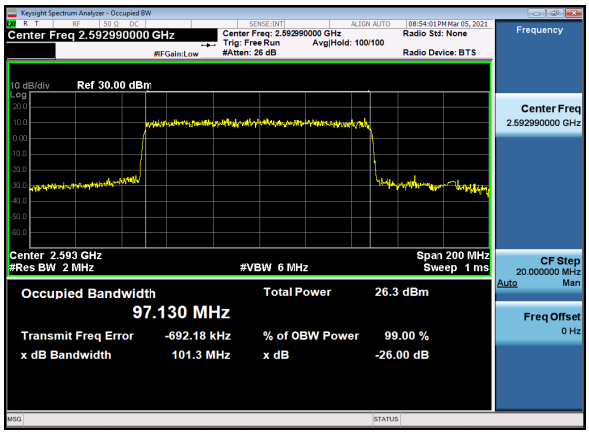
N41(100M)_CP-OFDM_QPSK_Outer_Full_High_CH



N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



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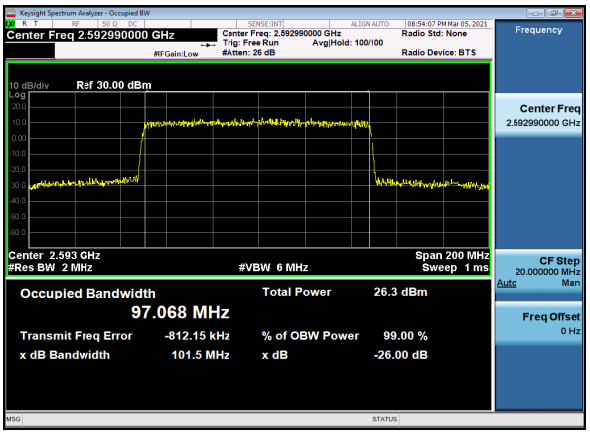

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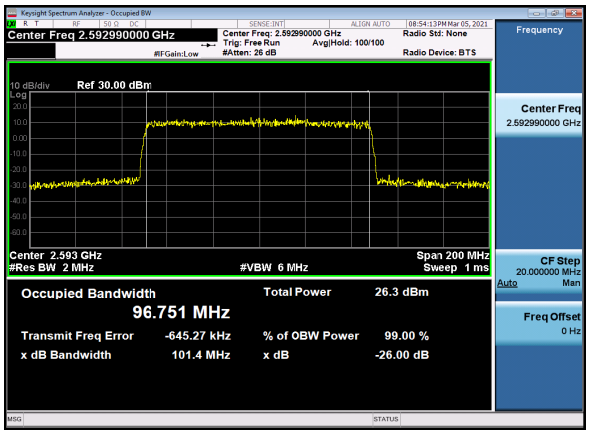
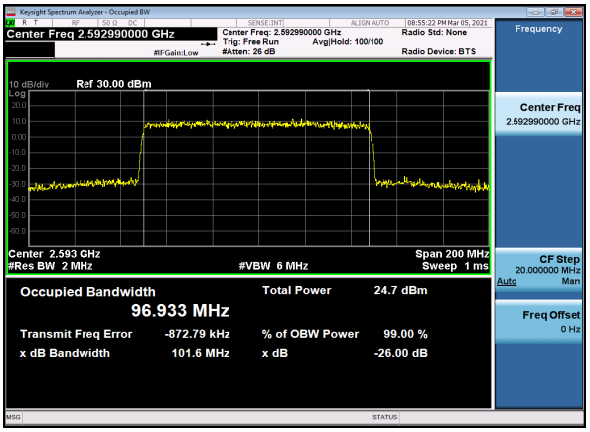
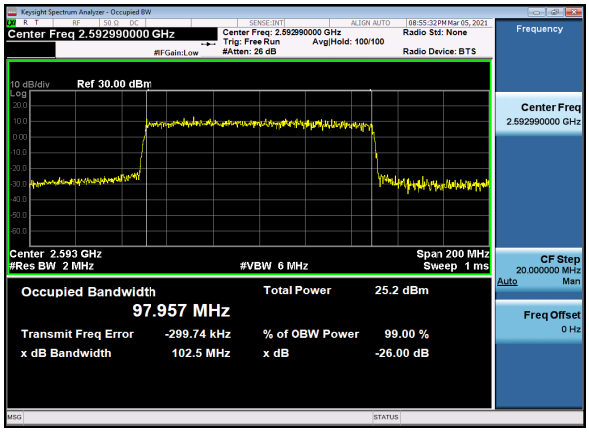


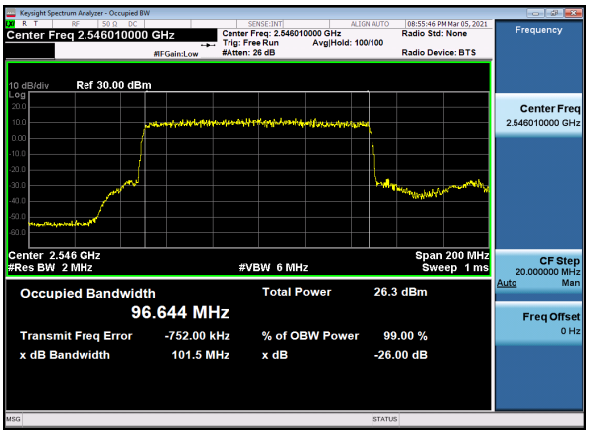
N41(100M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



N41(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

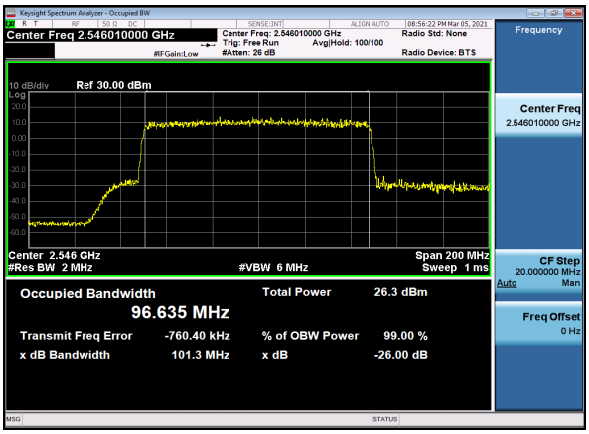


N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

N41(100M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH



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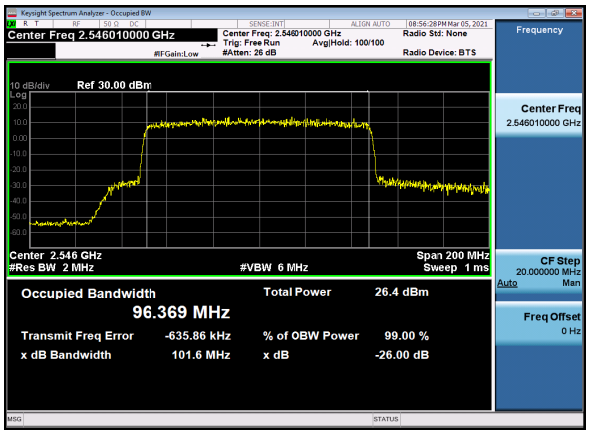

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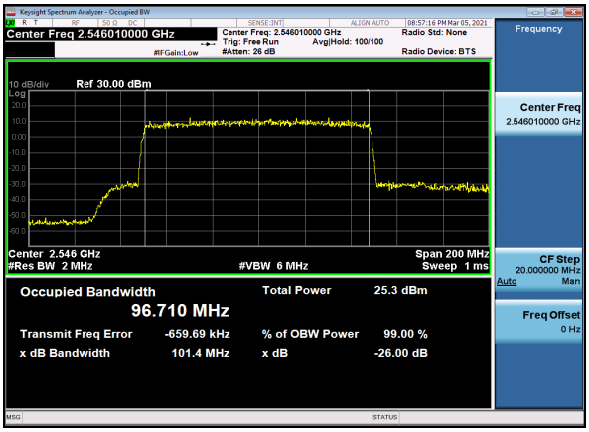
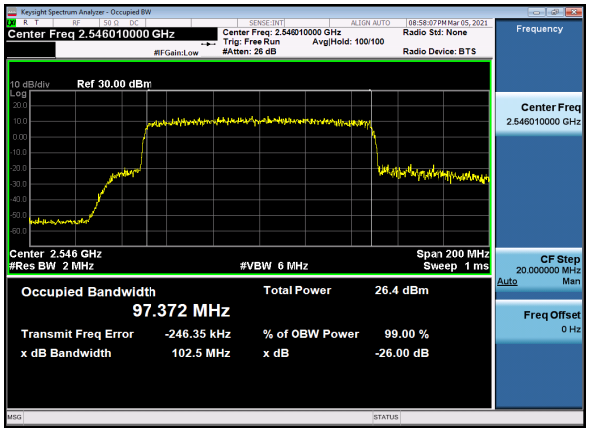


N41(100M)_CP-OFDM_QPSK_Outer_Full_Low_CH



2.3. Frequency Stability

2.3.1. Requirement

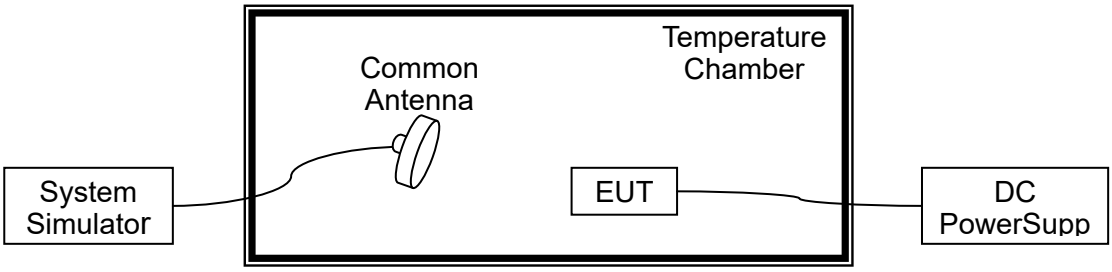
According to FCC section 2.1055 & 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.

(b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. 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.

Note: The operating temperature of EUT is from 0°C to 40°C, which are specified by the applicant.

2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

2.3.3. Test procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.

2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.85VDC, 4.2VDC and 3.6VDC, which are specified by the applicant; the normal temperature here used is 20°C.

NR n41, QPSK, Channel 518598, SCS 30kHz, Frequency 2592.99MHz Limit =±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.87	+20（Ref）	21	0.010	PASS
100		0	-12	0.025	
100		+10	16	-0.014	
100		+20	33	0.013	
100		+30	-26	0.017	
100		+40	13	0.011	
115	4.45	+20	10	-0.020	
85	3.45	+20	12	0.014	

2.4. Conducted Spurious Emissions

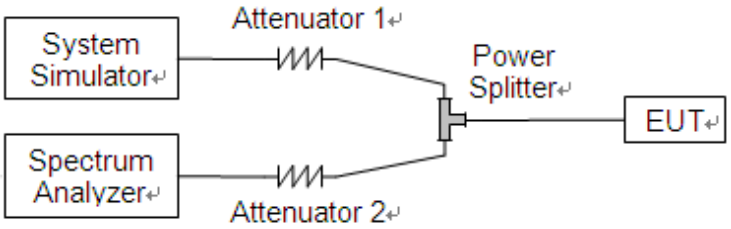
2.4.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

Additional requirement for N41:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. This calculated to be -25dBm.

2.4.2. Test Description



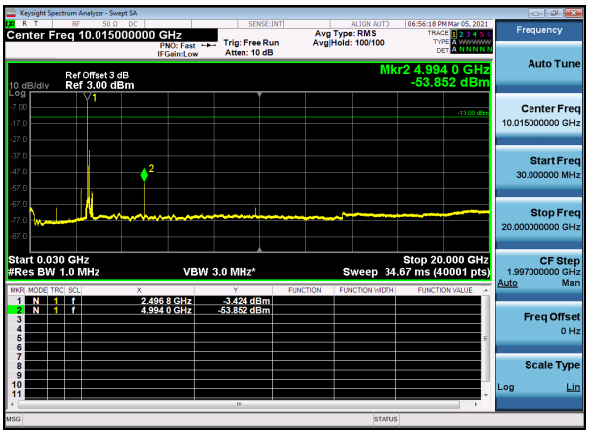
The EUTis coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.4.3. Test procedure

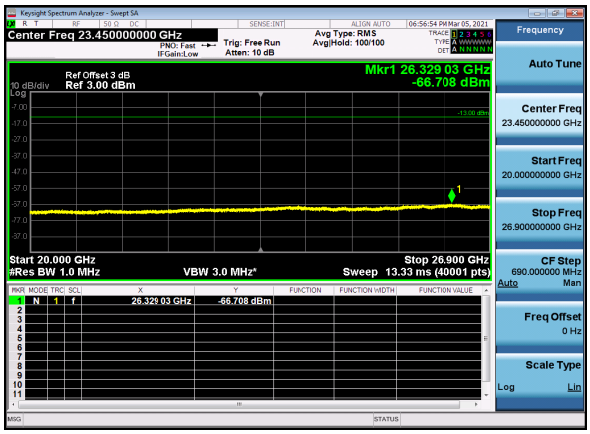
KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

2.4.4. Test Result

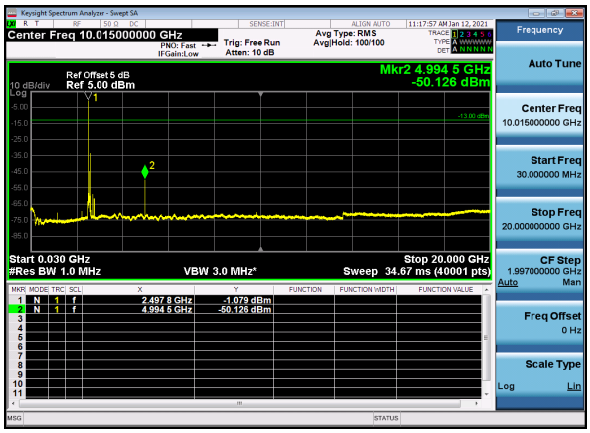
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



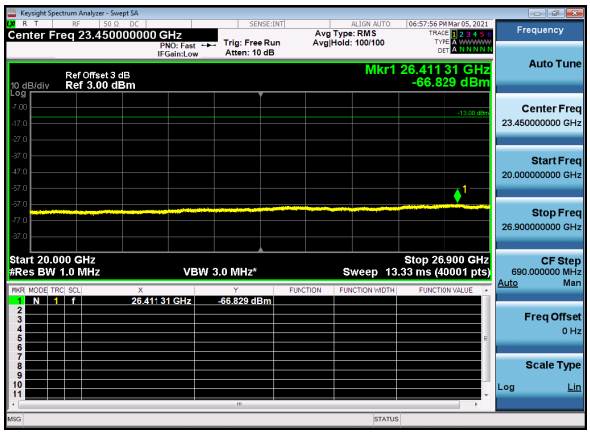
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



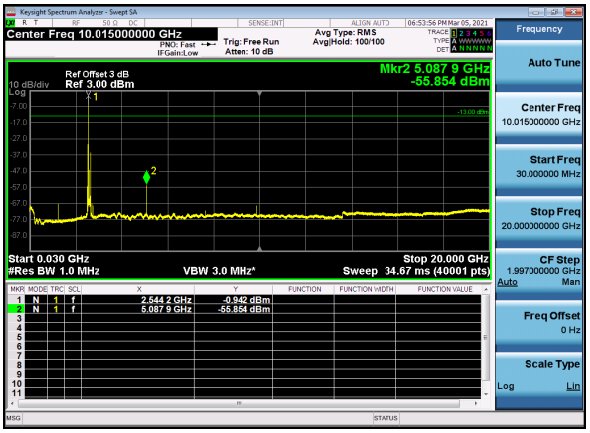
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



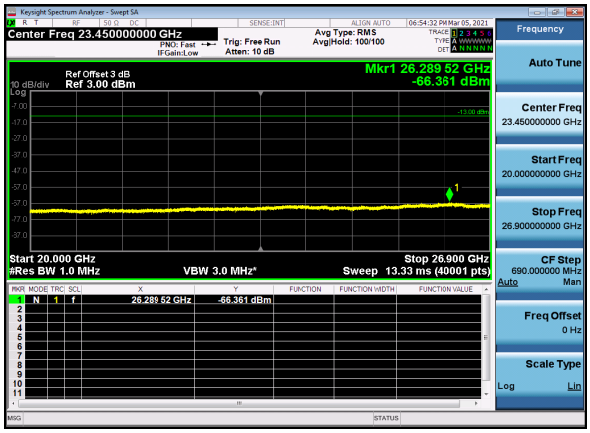
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



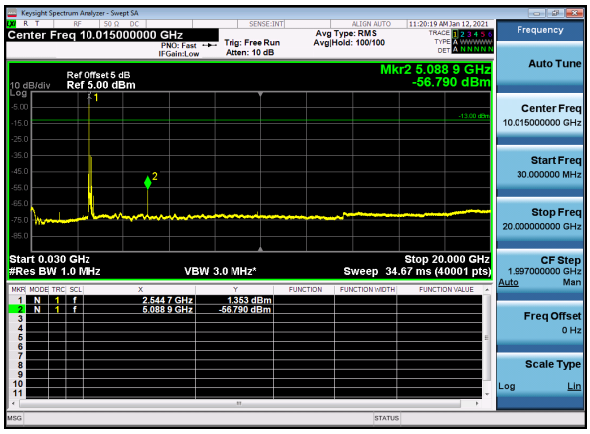
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



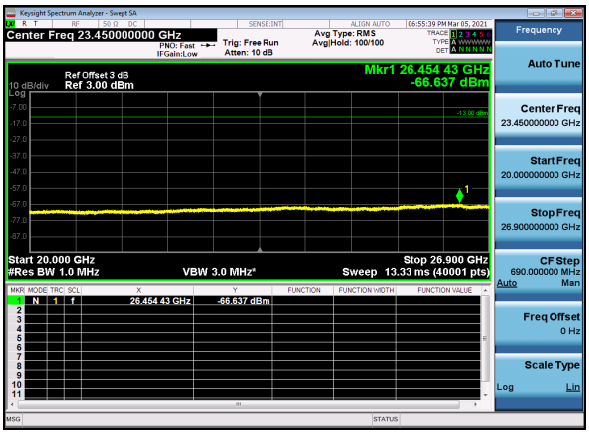
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



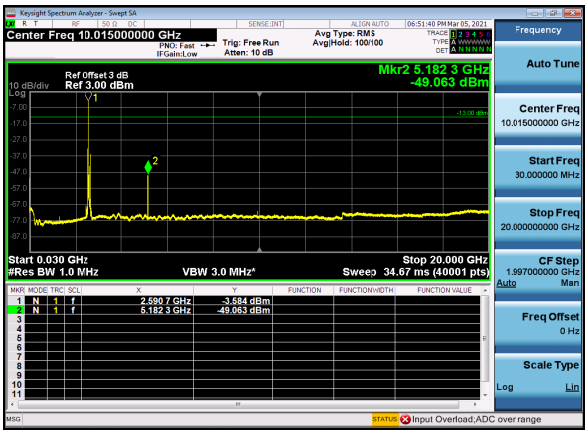
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



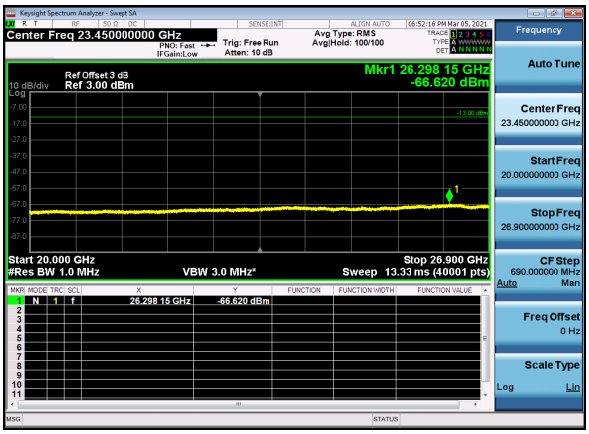
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



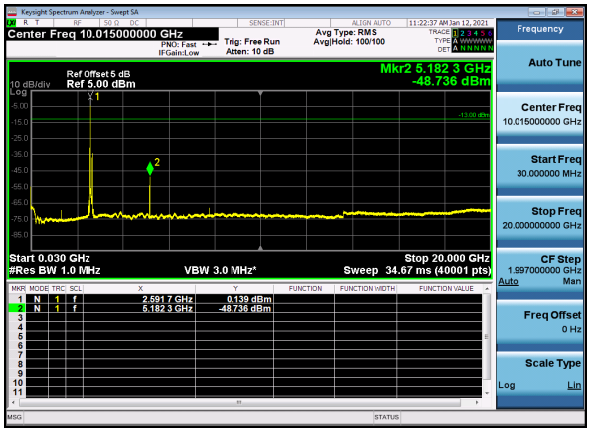
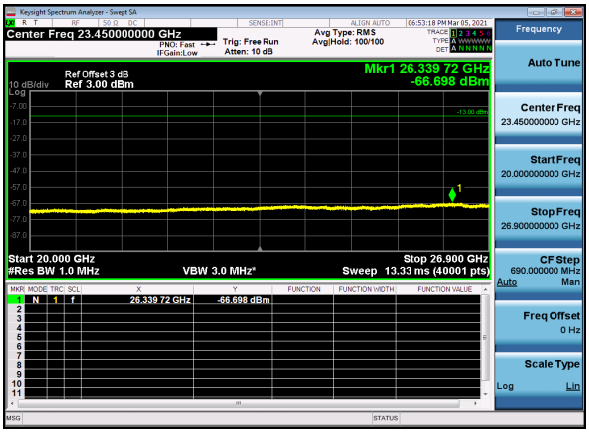
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH