TEST REPORT

APPLICANT	:	Nubia Technology Co., Ltd.
PRODUCT NAME	:	5G Mobile Phone
MODEL NAME	:	NX679J
BRAND NAME	:	REDMAGIC
FCC ID	:	2AHJO-NX679J
STANDARD(S)	:	47 CFR Part 27, Subpart M
RECEIPT DATE	:	2021-11-02
TEST DATE	:	2021-11-02 to 2021-12-25
ISSUE DATE	:	2022-01-10

Edited by: Li Hanbin

Li Hanbin (Rapporteur)

Approved by: Shen Junsheng

Shen Junsheng (Supervisor)

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Change History		
Version	**Date**	**Reason for change**
1.0	2022-01-10	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.
Manufacturer Address:	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:	NX679J_V1AMB	
Software Version:	NX679J_UNCommon_V4.01	
IMEI:	869351050017208	
Modulation Type:	DFT-s-OFDM	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
	CP-OFDM	QPSK, 16QAM, 64QAM, 256QAM
Operation Band:	DC_2A_n41, DC_2C_n41, DC_66A_n41	
Frequency Range:	n41	Tx: 2496MHz-2690MHz
		Rx: 2496MHz-2690MHz
Channel Bandwidth	n41	20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	n41	0.00dBi
	DC Adaptor	
	Brand Name:	nubia
	Model No.:	STC-A59152050AC-Z
	Serial No.:	(N/A, marked #1 by test site)
	Rated Input:	100-240V～ 1.5A,50/60Hz
	Rated Output:	5.0V⎓3.0A, 9.0V⎓3.0A, 15.0V⎓3.0A, 20.0V⎓3.25A PPS: 5.0V-11.0V⎓5.0A, 5.0V-20.0V⎓3.25A

Accessory Information:	Manufacturer:	ShenZhen KunXing Technology Co.,Ltd.
	Battery	
	Brand Name:	nubia
	Model No.:	Li3945T44P8h556490
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	2190mAh
	Rated Voltage:	7.74V
	Charge Limit:	8.9V
	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.

Note 2: According to the measured power of all frequency bands, The frequency band with the highest power was selected for the same NR frequency band for testing.

1.3. Maximum ERP/EIRP and Emission Designator

DC_2A_n41	Maximum ERP/EIRP（W）					
	DFT-s-OFDM					CP-OFDM
BW(MHz)	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	QPSK
100	0.165	0.167	0.158	0.137	0.094	0.166
90	0.163	/	/	/	/	/
80	0.165	/	/	/	/	/
70	0.167	/	/	/	/	/
60	0.150	/	/	/	/	/
50	0.163	/	/	/	/	/
40	0.164	/	/	/	/	/
30	0.165	/	/	/	/	/
20	0.166	/	/	/	/	/

DC_2A_n41	Emission Designator (99%OBW)					
	DFT-s-OFDM					CP-OFDM
BW(MHz)	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	QPSK
100	97M4G7D	97M4G7D	97M4W7D	97M4D7W	97M6D7W	98M2G7D
90	86M5G7D	86M6G7D	86M4W7D	86M5D7W	86M6D7W	88M4G7D
80	78M1G7D	77M9G7D	78M2W7D	77M9D7W	78M2D7W	78M4G7D
70	64M8G7D	64M2G7D	64M2W7D	64M3D7W	64M3D7W	67M5G7D
60	58M5G7D	58M4G7D	58M4W7D	58M4D7W	58M4D7W	58M4G7D
50	46M2G7D	46M2G7D	46M0W7D	46M1D7W	46M1D7W	47M9G7D
40	36M1G7D	36M0G7D	36M0W7D	36M0D7W	36M1D7W	38M2G7D
30	27M0G7D	26M9G7D	27M0W7D	27M0D7W	27M0D7W	28M0G7D
20	17M9G7D	18M0G7D	18M0W7D	18M0D7W	18M0D7W	18M3G7D

DC_2C_n41	Maximum ERP/EIRP（W）					
	DFT-s-OFDM					CP-OFDM
BW(MHz)	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	QPSK
100	0.165	0.166	0.156	0.138	0.094	0.163
90	0.166	/	/	/	/	/

80	0.164	/	/	/	/	/
70	0.166	/	/	/	/	/
60	0.149	/	/	/	/	/
50	0.153	/	/	/	/	/
40	0.165	/	/	/	/	/
30	0.165	/	/	/	/	/
20	0.163	/	/	/	/	/

DC_66A_n41	**Maximum ERP/EIRP（W）**					
	DFT-s-OFDM					**CP-OFDM**
BW(MHz)	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	QPSK
100	0.166	0.166	0.156	0.143	0.093	0.163
90	0.165	/	/	/	/	/
80	0.166	/	/	/	/	/
70	0.164	/	/	/	/	/
60	0.165	/	/	/	/	/
50	0.165	/	/	/	/	/
40	0.164	/	/	/	/	/
30	0.164	/	/	/	/	/
20	0.166	/	/	/	/	/

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
2	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(h)(2)	Transmitter Conducted Output Power and ERP/EIRP	Nov. 19 to 23, 2021	Li Hanbin	PASS	No deviation
2.1049	Occupied Bandwidth	Nov. 25 to 30, 2021	Li Hanbin	PASS	No deviation
2.1055	Frequency Stability	Nov. 23 to 25, 2021	Li Hanbin	PASS	No deviation
2.1051 27.53(m)(4)	Conducted Spurious Emissions	Dec. 1 to 2, 2021	Li Hanbin	PASS	No deviation
2.1051 27.53(m)(4)	Band Edge	Dec. 2,2021	Li Hanbin	PASS	No deviation
2.1051 27.53(m)(4)	Radiated Spurious Emissions	Dec. 23 to 25, 2021	Yin Xiaogang	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 offset4dB and Attenuator 36dB.

Note 3: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

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 27M Requirements

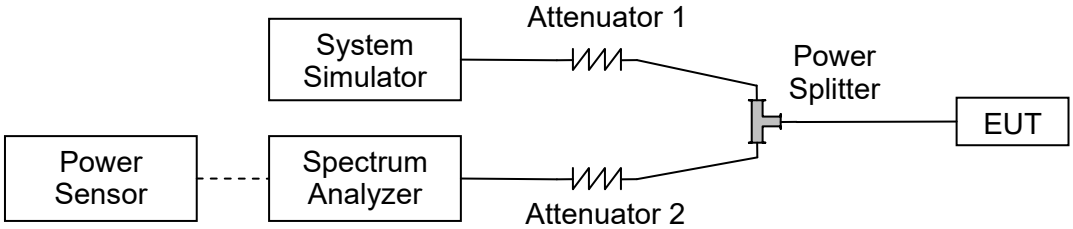
2.1. Transmitter Conducted Output Power And ERP/EIRP

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 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

2.1.2.Test Description



The EUT is 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:

DC_2A_n41A

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	DFT-s-OFDM PI/2 BPSK	1	1	21.98	22.17	22.09
100		1	136	22.03	22.12	22.07
100		1	272	21.71	21.37	21.45
100		135	1	22.04	22.09	22.11
100		135	67	22.07	22.16	22.16
100		135	136	22.05	22.13	22.10
100		270	0	22.03	22.10	22.11
100	DFT-s-OFDM QPSK	1	1	21.98	22.23	21.99
100		1	136	22.01	22.10	21.97
100		1	272	21.46	21.56	21.45
100		135	1	22.01	22.17	22.11
100		135	67	21.98	22.14	22.08
100		135	136	21.94	22.09	22.11
100		270	0	22.02	22.09	22.10
100	DFT-s-OFDM 16QAM	1	1	21.59	21.98	21.75
100	DFT-s-OFDM 64QAM	1	1	21.17	21.38	21.23
100	DFT-s-OFDM 256QAM	1	1	19.52	19.73	19.56
Channel				508200	518598	528996
Frequency (MHz)				2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.04	22.09	22.11
Channel				507204	518598	529998
Frequency (MHz)				2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.06	22.18	22.16
Channel				506202	518598	531000
Frequency (MHz)				2531	2593	2655

70	DFT-s-OFDM PI/2 BPSK	1	1	22.17	22.22	21.98
Channel				505200	518598	531996
Frequency (MHz)				2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.65	21.77	21.59
Channel				504204	518598	532998
Frequency (MHz)				2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	22.13	21.82	21.83
Channel				503202	518598	534000
Frequency (MHz)				2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.02	22.12	22.14
Channel				502200	518598	534996
Frequency (MHz)				2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.16	22.17	22.12
Channel				501204	518598	535998
Frequency (MHz)				2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.19	22.20	22.18
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	CP-OFDM QPSK	1	1	22.21	22.19	22.15
100	CP-OFDM 16QAM	1	1	21.69	21.81	21.79
100	CP-OFDM 64QAM	1	1	20.26	20.37	20.35
100	CP-OFDM 256QAM	1	1	17.59	17.73	17.67

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BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	DFT-s-OFDM PI/2 BPSK	1	1	22.03	22.09	22.09
100		1	136	22.02	22.08	22.12
100		1	272	21.38	21.36	21.40
100		135	1	21.99	22.18	22.11
100		135	67	22.02	22.17	22.17
100		135	136	21.99	22.13	22.15
100		270	0	22.02	22.12	22.14
100	DFT-s-OFDM QPSK	1	1	22.07	22.21	22.07
100		1	136	21.99	22.10	22.03
100		1	272	20.79	20.72	20.82
100		135	1	21.98	22.19	22.07
100		135	67	21.94	22.14	22.14
100		135	136	21.98	22.11	22.14
100		270	0	21.95	22.10	22.12
100	DFT-s-OFDM 16QAM	1	1	21.73	21.93	21.82
100	DFT-s-OFDM 64QAM	1	1	21.22	21.40	21.21
100	DFT-s-OFDM 256QAM	1	1	19.61	19.75	19.57
Channel				508200	518598	528996
Frequency (MHz)				2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.07	22.19	22.12
Channel				507204	518598	529998
Frequency (MHz)				2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.10	22.15	22.14
Channel				506202	518598	531000
Frequency (MHz)				2531	2593	2655

70	DFT-s-OFDM PI/2 BPSK	1	1	22.20	22.12	21.94
Channel				505200	518598	531996
Frequency (MHz)				2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.64	21.74	21.60
Channel				504204	518598	532998
Frequency (MHz)				2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	21.85	21.76	21.84
Channel				503202	518598	534000
Frequency (MHz)				2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.08	22.18	22.11
Channel				502200	518598	534996
Frequency (MHz)				2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.09	22.08	22.17
Channel				501204	518598	535998
Frequency (MHz)				2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.13	22.03	22.06
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	CP-OFDM QPSK	1	1	22.11	22.10	22.15
100	CP-OFDM 16QAM	1	1	21.52	21.88	21.64
100	CP-OFDM 64QAM	1	1	20.30	20.58	20.32
100	CP-OFDM 256QAM	1	1	17.66	17.97	17.68

DC_66A_n41A

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	DFT-s-OFDM PI/2 BPSK	1	1	22.05	22.19	22.06
100		1	136	22.10	22.12	22.12
100		1	272	21.42	21.43	21.48
100		135	1	22.05	22.18	22.08
100		135	67	22.03	22.12	22.18
100		135	136	22.01	22.09	22.14
100		270	0	22.02	22.11	22.15
100	DFT-s-OFDM QPSK	1	1	22.06	22.20	22.05
100		1	136	21.99	22.09	22.03
100		1	272	21.40	21.43	21.45
100		135	1	22.03	22.16	22.08
100		135	67	21.98	22.12	22.09
100		135	136	22.06	22.06	22.10
100		270	0	21.98	22.08	22.11
100	DFT-s-OFDM 16QAM	1	1	21.93	21.94	21.79
100	DFT-s-OFDM 64QAM	1	1	21.54	21.42	21.21
100	DFT-s-OFDM 256QAM	1	1	19.51	19.70	19.59
Channel				508200	518598	528996
Frequency (MHz)				2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.13	22.17	22.13
Channel				507204	518598	529998
Frequency (MHz)				2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.19	22.16	22.13
Channel				506202	518598	531000
Frequency (MHz)				2531	2593	2655

70	DFT-s-OFDM PI/2 BPSK	1	1	22.11	22.15	21.93
Channel				505200	518598	531996
Frequency (MHz)				2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.62	22.18	22.15
Channel				504204	518598	532998
Frequency (MHz)				2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	21.84	22.17	22.16
Channel				503202	518598	534000
Frequency (MHz)				2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.01	22.14	22.13
Channel				502200	518598	534996
Frequency (MHz)				2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.16	22.10	22.15
Channel				501204	518598	535998
Frequency (MHz)				2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.18	22.19	22.11
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546	2593	2640
100	CP-OFDM QPSK	1	1	22.07	22.13	22.01
100	CP-OFDM 16QAM	1	1	21.52	21.82	21.60
100	CP-OFDM 64QAM	1	1	20.32	20.47	20.37
100	CP-OFDM 256QAM	1	1	17.65	17.81	17.65

Effective Radiated Power and Effective Isotropic Radiated Power:

DC_2A_n41				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	LowCh. /Freq.	MiddlCh./Freq.	HighCh. / Freq.	LowCh. / EIRP	MiddleCh./EIRP	HighCh. / EIRP
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
				dBm			W		
100	DFT-s-OFDM PI/2 BPSK	1	1	21.98	22.17	22.09	0.158	0.165	0.162
100		1	136	22.03	22.12	22.07	0.160	0.163	0.161
100		1	272	21.71	21.37	21.45	0.148	0.137	0.140
100		135	1	22.04	22.09	22.11	0.160	0.162	0.163
100		135	67	22.07	22.16	22.16	0.161	0.164	0.164
100		135	136	22.05	22.13	22.10	0.160	0.163	0.162
100		270	0	22.03	22.10	22.11	0.160	0.162	0.163
100	DFT-s-OFDM QPSK	1	1	21.98	22.23	21.99	0.158	0.167	0.158
100		1	136	22.01	22.10	21.97	0.159	0.162	0.157
100		1	272	21.46	21.56	21.45	0.140	0.143	0.140
100		135	1	22.01	22.17	22.11	0.159	0.165	0.163
100		135	67	21.98	22.14	22.08	0.158	0.164	0.161
100		135	136	21.94	22.09	22.11	0.156	0.162	0.163
100		270	0	22.02	22.09	22.10	0.159	0.162	0.162
100	DFT-s-OFDM 16QAM	1	1	21.59	21.98	21.75	0.144	0.158	0.150
100	DFT-s-OFDM 64QAM	1	1	21.17	21.38	21.23	0.131	0.137	0.133
100	DFT-s-OFDM 256QAM	1	1	19.52	19.73	19.56	0.090	0.094	0.090
Channel				508200	518598	528996	508200	518598	528996
Frequency (MHz)				2541	2593	2645	2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.04	22.09	22.11	0.160	0.162	0.163
Channel				507204	518598	529998	507204	518598	529998
Frequency (MHz)				2536	2593	2650	2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.06	22.18	22.16	0.161	0.165	0.164
Channel				506202	518598	531000	506202	518598	531000
Frequency (MHz)				2531	2593	2655	2531	2593	2655

70	DFT-s-OFDM PI/2 BPSK	1	1	22.17	22.22	21.98	0.165	0.167	0.158
Channel				505200	518598	531996	505200	518598	531996
Frequency (MHz)				2526	2593	2660	2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.65	21.77	21.59	0.146	0.150	0.144
Channel				504204	518598	532998	504204	518598	532998
Frequency (MHz)				2521	2593	2665	2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	22.13	21.82	21.83	0.163	0.152	0.152
Channel				503202	518598	534000	503202	518598	534000
Frequency (MHz)				2516	2593	2670	2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.02	22.12	22.14	0.159	0.163	0.164
Channel				502200	518598	534996	502200	518598	534996
Frequency (MHz)				2511	2593	2675	2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.16	22.17	22.12	0.164	0.165	0.163
Channel				501204	518598	535998	501204	518598	535998
Frequency (MHz)				2506	2593	2680	2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.19	22.20	22.18	0.166	0.166	0.165
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
100	CP-OFDM QPSK	1	1	22.21	22.19	22.15	0.166	0.166	0.164
100	CP-OFDM 16QAM	1	1	21.69	21.81	21.79	0.148	0.152	0.151
100	CP-OFDM 64QAM	1	1	20.26	20.37	20.35	0.106	0.109	0.108
100	CP-OFDM 256QAM	1	1	17.59	17.73	17.67	0.057	0.059	0.058

DC_2C_n41				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	LowCh. /Freq.	MiddlCh./Freq.	HighCh. / Freq.	LowCh. / EIRP	MiddleCh./EIRP	HighCh. / EIRP
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
				dBm			W		
100	DFT-s-OFDM PI/2 BPSK	1	1	22.03	22.09	22.09	0.160	0.162	0.162
100		1	136	22.02	22.08	22.12	0.159	0.161	0.163
100		1	272	21.38	21.36	21.40	0.137	0.137	0.138
100		135	1	21.99	22.18	22.11	0.158	0.165	0.163
100		135	67	22.02	22.17	22.17	0.159	0.165	0.165
100		135	136	21.99	22.13	22.15	0.158	0.163	0.164
100		270	0	22.02	22.12	22.14	0.159	0.163	0.164
100	DFT-s-OFDM QPSK	1	1	22.07	22.21	22.07	0.161	0.166	0.161
100		1	136	21.99	22.10	22.03	0.158	0.162	0.160
100		1	272	20.79	20.72	20.82	0.120	0.118	0.121
100		135	1	21.98	22.19	22.07	0.158	0.166	0.161
100		135	67	21.94	22.14	22.14	0.156	0.164	0.164
100		135	136	21.98	22.11	22.14	0.158	0.163	0.164
100		270	0	21.95	22.10	22.12	0.157	0.162	0.163
100	DFT-s-OFDM 16QAM	1	1	21.73	21.93	21.82	0.149	0.156	0.152
100	DFT-s-OFDM 64QAM	1	1	21.22	21.40	21.21	0.132	0.138	0.132
100	DFT-s-OFDM 256QAM	1	1	19.61	19.75	19.57	0.091	0.094	0.091
Channel				508200	518598	528996	508200	518598	528996
Frequency (MHz)				2541	2593	2645	2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.07	22.19	22.12	0.161	0.166	0.163
Channel				507204	518598	529998	507204	518598	529998
Frequency (MHz)				2536	2593	2650	2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.10	22.15	22.14	0.162	0.164	0.164
Channel				506202	518598	531000	506202	518598	531000
Frequency (MHz)				2531	2593	2655	2531	2593	2655
70	DFT-s-OFDM PI/2 BPSK	1	1	22.20	22.12	21.94	0.166	0.163	0.156

Channel				505200	518598	531996	505200	518598	531996
Frequency (MHz)				2526	2593	2660	2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.64	21.74	21.60	0.146	0.149	0.145
Channel				504204	518598	532998	504204	518598	532998
Frequency (MHz)				2521	2593	2665	2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	21.85	21.76	21.84	0.153	0.150	0.153
Channel				503202	518598	534000	503202	518598	534000
Frequency (MHz)				2516	2593	2670	2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.08	22.18	22.11	0.161	0.165	0.163
Channel				502200	518598	534996	502200	518598	534996
Frequency (MHz)				2511	2593	2675	2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.09	22.08	22.17	0.162	0.161	0.165
Channel				501204	518598	535998	501204	518598	535998
Frequency (MHz)				2506	2593	2680	2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.13	22.03	22.06	0.163	0.160	0.161
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
100	CP-OFDM QPSK	1	1	22.11	22.10	22.15	0.163	0.162	0.164
100	CP-OFDM 16QAM	1	1	21.52	21.88	21.64	0.142	0.154	0.146
100	CP-OFDM 64QAM	1	1	20.30	20.58	20.32	0.107	0.114	0.108
100	CP-OFDM 256QAM	1	1	17.66	17.97	17.68	0.058	0.063	0.059

DC_66A_n41				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	LowCh. /Freq.	MiddlCh./Freq.	HighCh. / Freq.	LowCh. / EIRP	MiddleCh./EIRP	HighCh. / EIRP
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
				dBm			W		
100	DFT-s-OFDM PI/2 BPSK	1	1	22.05	22.19	22.06	0.160	0.166	0.161
100		1	136	22.10	22.12	22.12	0.162	0.163	0.163
100		1	272	21.42	21.43	21.48	0.139	0.139	0.141
100		135	1	22.05	22.18	22.08	0.160	0.165	0.161
100		135	67	22.03	22.12	22.18	0.160	0.163	0.165
100		135	136	22.01	22.09	22.14	0.159	0.162	0.164
100		270	0	22.02	22.11	22.15	0.159	0.163	0.164
100	DFT-s-OFDM QPSK	1	1	22.06	22.20	22.05	0.161	0.166	0.160
100		1	136	21.99	22.09	22.03	0.158	0.162	0.160
100		1	272	21.40	21.43	21.45	0.138	0.139	0.140
100		135	1	22.03	22.16	22.08	0.160	0.164	0.161
100		135	67	21.98	22.12	22.09	0.158	0.163	0.162
100		135	136	22.06	22.06	22.10	0.161	0.161	0.162
100		270	0	21.98	22.08	22.11	0.158	0.161	0.163
100	DFT-s-OFDM 16QAM	1	1	21.93	21.94	21.79	0.156	0.156	0.151
100	DFT-s-OFDM 64QAM	1	1	21.54	21.42	21.21	0.143	0.139	0.132
100	DFT-s-OFDM 256QAM	1	1	19.51	19.70	19.59	0.089	0.093	0.091
Channel				508200	518598	528996	508200	518598	528996
Frequency (MHz)				2541	2593	2645	2541	2593	2645
90	DFT-s-OFDM PI/2 BPSK	1	1	22.13	22.17	22.13	0.163	0.165	0.163
Channel				507204	518598	529998	507204	518598	529998
Frequency (MHz)				2536	2593	2650	2536	2593	2650
80	DFT-s-OFDM PI/2 BPSK	1	1	22.19	22.16	22.13	0.166	0.164	0.163
Channel				506202	518598	531000	506202	518598	531000
Frequency (MHz)				2531	2593	2655	2531	2593	2655
70	DFT-s-OFDM PI/2 BPSK	1	1	22.11	22.15	21.93	0.163	0.164	0.156

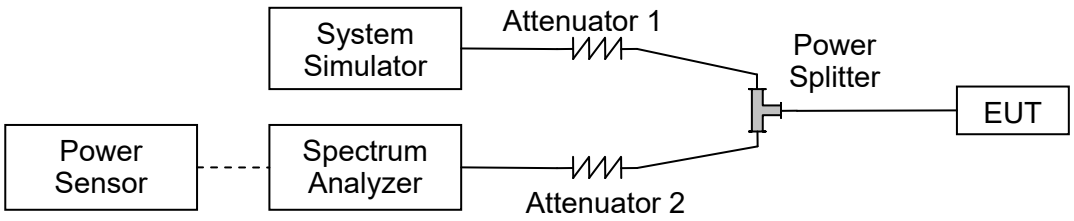
Channel				505200	518598	531996	505200	518598	531996
Frequency (MHz)				2526	2593	2660	2526	2593	2660
60	DFT-s-OFDM PI/2 BPSK	1	1	21.62	22.18	22.15	0.145	0.165	0.164
Channel				504204	518598	532998	504204	518598	532998
Frequency (MHz)				2521	2593	2665	2521	2593	2665
50	DFT-s-OFDM PI/2 BPSK	1	1	21.84	22.17	22.16	0.153	0.165	0.164
Channel				503202	518598	534000	503202	518598	534000
Frequency (MHz)				2516	2593	2670	2516	2593	2670
40	DFT-s-OFDM PI/2 BPSK	1	1	22.01	22.14	22.13	0.159	0.164	0.163
Channel				502200	518598	534996	502200	518598	534996
Frequency (MHz)				2511	2593	2675	2511	2593	2675
30	DFT-s-OFDM PI/2 BPSK	1	1	22.16	22.10	22.15	0.164	0.162	0.164
Channel				501204	518598	535998	501204	518598	535998
Frequency (MHz)				2506	2593	2680	2506	2593	2680
20	DFT-s-OFDM PI/2 BPSK	1	1	22.18	22.19	22.11	0.165	0.166	0.163
Channel				509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546	2593	2640	2546	2593	2640
100	CP-OFDM QPSK	1	1	22.07	22.13	22.01	0.161	0.163	0.159
100	CP-OFDM 16QAM	1	1	21.52	21.82	21.60	0.142	0.152	0.145
100	CP-OFDM 64QAM	1	1	20.32	20.47	20.37	0.108	0.111	0.109
100	CP-OFDM 256QAM	1	1	17.65	17.81	17.65	0.058	0.060	0.058

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 EUT is 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.

2.2.3.1. Test Result

DC 2A_n41					
BW(MHz)	Channel Level	Modulation		99% BW(MHz)	26dB BW(MHz)
20	Low	DFT-s-OFDM	PI/2 BPSK	17.911	18.5
	Low		QPSK	17.889	18.38
	Low		16QAM	17.916	18.5
	Low		64QAM	17.789	18.43
	Low		256QAM	17.919	18.34
	Low	CP-OFDM	QPSK	18.184	18.76
	Mid	DFT-s-OFDM	PI/2 BPSK	17.812	19.14
	Mid		QPSK	17.955	18.38
	Mid		16QAM	17.966	18.42
	Mid		64QAM	17.954	18.41
	Mid		256QAM	17.945	18.37
	Mid	CP-OFDM	QPSK	18.217	18.68
	High	DFT-s-OFDM	PI/2 BPSK	17.802	18.47
	High		QPSK	17.76	18.31
	High		16QAM	17.817	18.29
	High		64QAM	17.754	18.4
	High		256QAM	17.885	18.37
	High	CP-OFDM	QPSK	18.27	18.73
30	Low	DFT-s-OFDM	PI/2 BPSK	26.952	27.51
	Low		QPSK	26.904	27.63
	Low		16QAM	26.987	27.62
	Low		64QAM	26.997	27.64
	Low		256QAM	26.945	27.66
	Low	CP-OFDM	QPSK	27.753	28.52
	Mid	DFT-s-OFDM	PI/2 BPSK	26.995	27.61
	Mid		QPSK	26.824	27.47
	Mid		16QAM	26.847	27.76
	Mid		64QAM	26.962	27.7
	Mid		256QAM	26.857	27.56
	Mid	CP-OFDM	QPSK	27.913	28.47
	High	DFT-s-OFDM	PI/2 BPSK	26.869	27.56
	High		QPSK	26.67	27.5
	High		16QAM	26.965	27.64

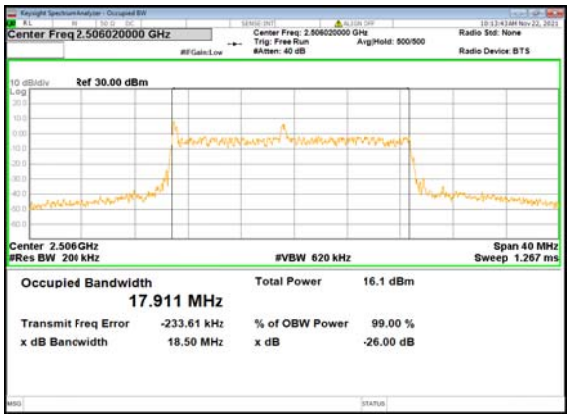
	High		64QAM	27.0	27.94
	High		256QAM	27.022	27.78
	High	CP-OFDM	QPSK	27.958	28.65
40	Low	DFT-s-OFDM	PI/2 BPSK	36.032	36.79
	Low		QPSK	35.957	36.83
	Low		16QAM	35.599	36.85
	Low		64QAM	35.964	36.76
	Low		256QAM	35.802	36.76
	Low	CP-OFDM	QPSK	38.154	39.08
	Mid	DFT-s-OFDM	PI/2 BPSK	36.096	36.92
	Mid		QPSK	36.025	36.79
	Mid		16QAM	36.017	36.96
	Mid		64QAM	35.683	36.69
	Mid		256QAM	36.091	36.83
	Mid	CP-OFDM	QPSK	37.86	38.84
	High	DFT-s-OFDM	PI/2 BPSK	35.983	36.8
	High		QPSK	35.841	36.75
	High		16QAM	35.792	36.7
	High		64QAM	35.703	36.7
	High		256QAM	35.924	36.73
	High	CP-OFDM	QPSK	37.89	38.89
50	Low	DFT-s-OFDM	PI/2 BPSK	46.073	46.9
	Low		QPSK	46.001	47.06
	Low		16QAM	46.04	47.11
	Low		64QAM	45.997	46.99
	Low		256QAM	45.81	46.96
	Low	CP-OFDM	QPSK	47.81	48.93
	Mid	DFT-s-OFDM	PI/2 BPSK	46.021	47.04
	Mid		QPSK	46.165	47.05
	Mid		16QAM	45.857	47.04
	Mid		64QAM	46.14	47.06
	Mid		256QAM	46.038	47.02
	Mid	CP-OFDM	QPSK	47.601	48.69
	High	DFT-s-OFDM	PI/2 BPSK	46.156	47.04
	High		QPSK	45.949	47.17
	High		16QAM	45.688	46.85
	High		64QAM	46.111	46.93
	High		256QAM	46.048	47.05

	High	CP-OFDM	QPSK	47.886	48.8
60	Low	DFT-s-OFDM	PI/2 BPSK	58.229	59.58
	Low		QPSK	57.836	59.17
	Low		16QAM	58.351	59.56
	Low		64QAM	58.131	59.19
	Low		256QAM	58.374	59.46
	Low	CP-OFDM	QPSK	58.397	59.4
	Mid	DFT-s-OFDM	PI/2 BPSK	58.476	59.63
	Mid		QPSK	58.174	59.42
	Mid		16QAM	58.074	59.47
	Mid		64QAM	58.021	59.44
	Mid		256QAM	57.9	59.51
	Mid	CP-OFDM	QPSK	57.842	59.06
	High	DFT-s-OFDM	PI/2 BPSK	58.334	59.5
	High		QPSK	58.352	59.39
	High		16QAM	58.404	59.56
	High		64QAM	58.392	59.57
	High		256QAM	58.442	59.66
	High	CP-OFDM	QPSK	58.303	59.4
70	Low	DFT-s-OFDM	PI/2 BPSK	64.264	66.65
	Low		QPSK	64.238	66.62
	Low		16QAM	64.227	66.51
	Low		64QAM	64.247	66.61
	Low		256QAM	64.255	66.61
	Low	CP-OFDM	QPSK	67.460	69.89
	Mid	DFT-s-OFDM	PI/2 BPSK	64.815	66.60
	Mid		QPSK	64.113	66.60
	Mid		16QAM	64.140	66.61
	Mid		64QAM	64.245	66.64
	Mid		256QAM	64.152	66.59
	Mid	CP-OFDM	QPSK	67.414	69.87
	High	DFT-s-OFDM	PI/2 BPSK	64.103	66.57
	High		QPSK	64.166	66.61
	High		16QAM	64.144	66.58
	High		64QAM	64.153	66.60
	High		256QAM	64.196	66.58
	High	CP-OFDM	QPSK	67.316	69.84
	Low		PI/2 BPSK	77.067	78.83

80	Low	DFT-s-OFDM	QPSK	77.602	78.91
	Low		16QAM	78.165	79.44
	Low		64QAM	77.911	79.42
	Low		256QAM	78.159	79.58
	Low	CP-OFDM	QPSK	78.224	79.52
	Mid	DFT-s-OFDM	PI/2 BPSK	77.984	79.43
	Mid		QPSK	77.874	79.38
	Mid		16QAM	77.902	79.71
	Mid		64QAM	77.722	79.14
	Mid		256QAM	77.969	79.29
	Mid	CP-OFDM	QPSK	78.392	79.88
	High	DFT-s-OFDM	PI/2 BPSK	78.07	79.54
	High		QPSK	77.117	78.91
	High		16QAM	77.672	79.33
	High		64QAM	77.583	79.41
	High		256QAM	77.161	79.68
	High	CP-OFDM	QPSK	77.828	79.66
90	Low	DFT-s-OFDM	PI/2 BPSK	86.415	88.23
	Low		QPSK	86.589	88.42
	Low		16QAM	86.365	88.02
	Low		64QAM	86.519	88.23
	Low		256QAM	86.638	88.04
	Low	CP-OFDM	QPSK	88.372	89.92
	Mid	DFT-s-OFDM	PI/2 BPSK	86.52	88.22
	Mid		QPSK	86.526	88.14
	Mid		16QAM	86.424	88.03
	Mid		64QAM	86.197	88.14
	Mid		256QAM	86.607	88.27
	Mid	CP-OFDM	QPSK	88.258	90.01
	High	DFT-s-OFDM	PI/2 BPSK	86.173	88.0
	High		QPSK	85.845	89.0
	High		16QAM	86.411	88.2
	High		64QAM	86.481	88.16
	High		256QAM	86.511	88.34
	High	CP-OFDM	QPSK	87.935	89.8
	Low	DFT-s-OFDM	PI/2 BPSK	97.408	99.1
	Low		QPSK	97.236	99.13
	Low		16QAM	96.984	99.24

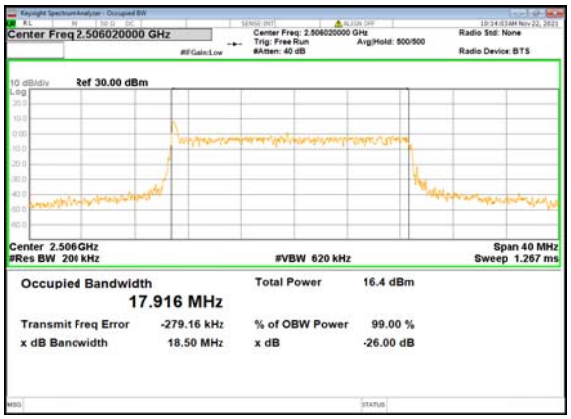
100	Low		64QAM	97.411	99.12
	Low		256QAM	96.379	99.49
	Low	CP-OFDM	QPSK	96.712	99.25
	Mid	DFT-s-OFDM	PI/2 BPSK	97.247	99.13
	Mid		QPSK	97.387	99.24
	Mid		16QAM	97.28	99.26
	Mid		64QAM	97.175	99.11
	Mid		256QAM	97.638	99.51
	Mid	CP-OFDM	QPSK	97.491	100.6
	High	DFT-s-OFDM	PI/2 BPSK	97.172	98.87
	High		QPSK	97.319	99.59
	High		16QAM	97.402	99.13
	High		64QAM	97.125	99.03
	High		256QAM	97.346	99.11
	High	CP-OFDM	QPSK	98.157	100.1

B2_N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



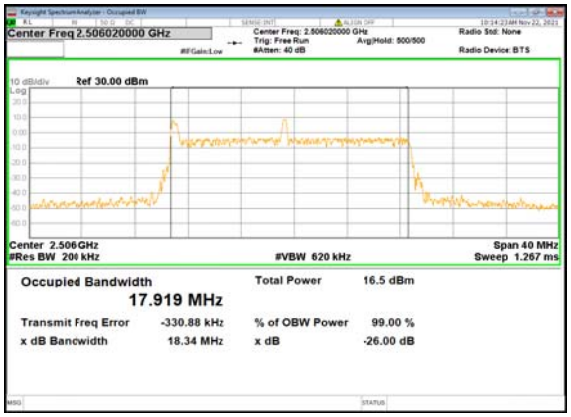
B2_N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(20M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH

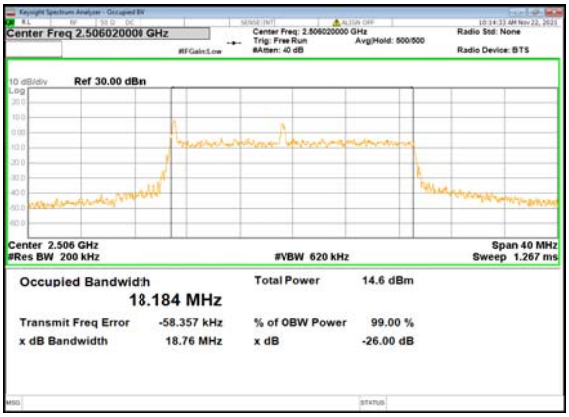


B2_N41(20M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

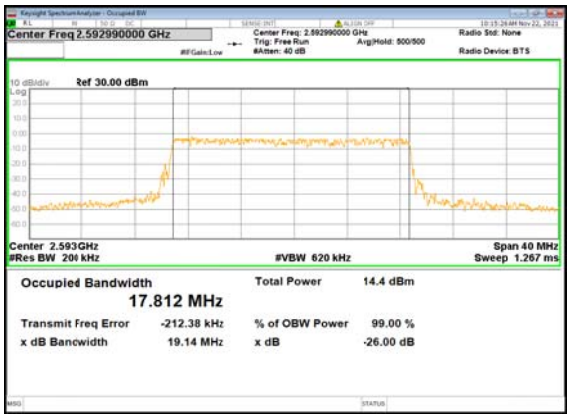
B2_N41(20M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH



B2_N41(20M)_CP-OFDM_QPSK_Outer_Full_Low_CH

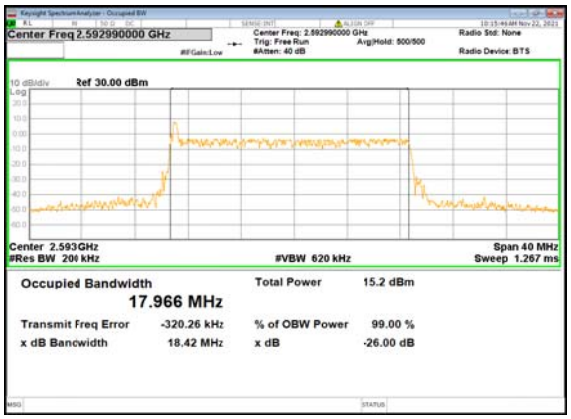


B2_N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



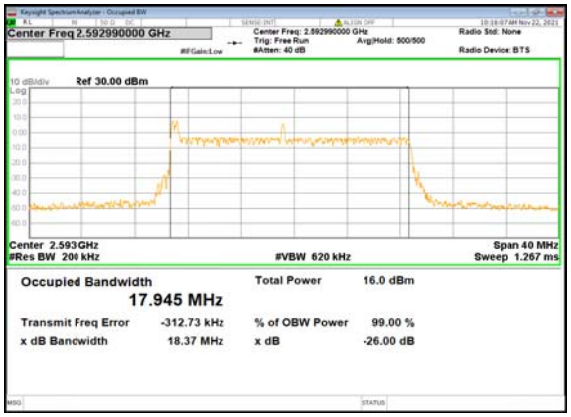
B2_N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(20M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH

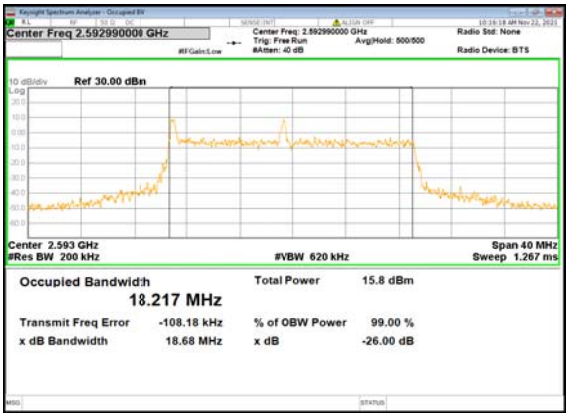


B2_N41(20M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

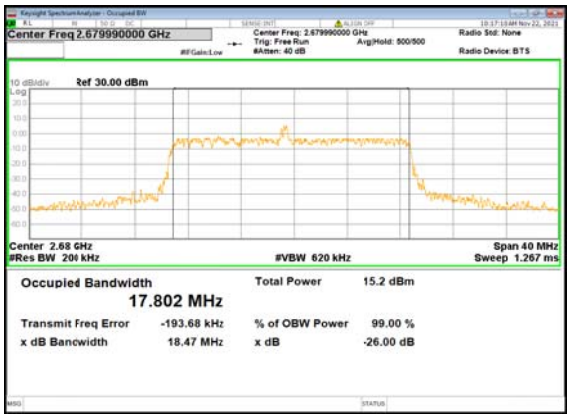
B2_N41(20M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



B2_N41(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

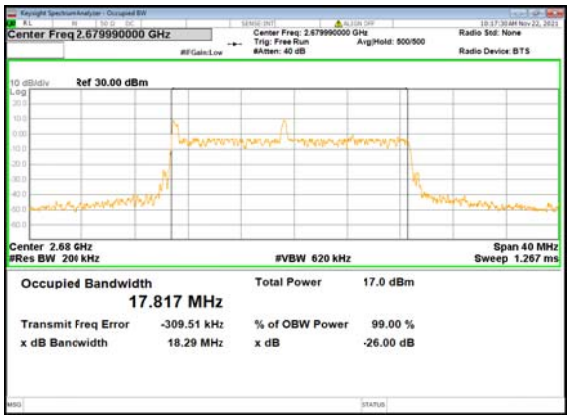


B2_N41(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



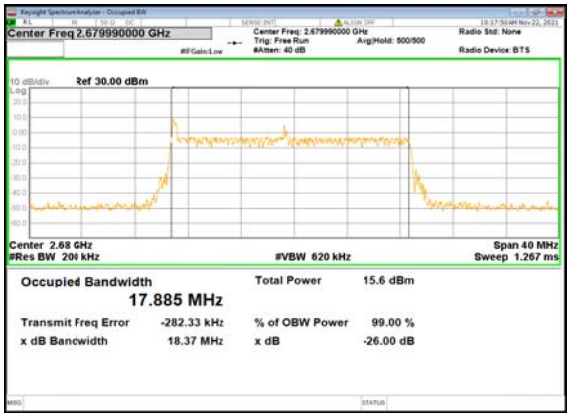
B2_N41(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(20M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH



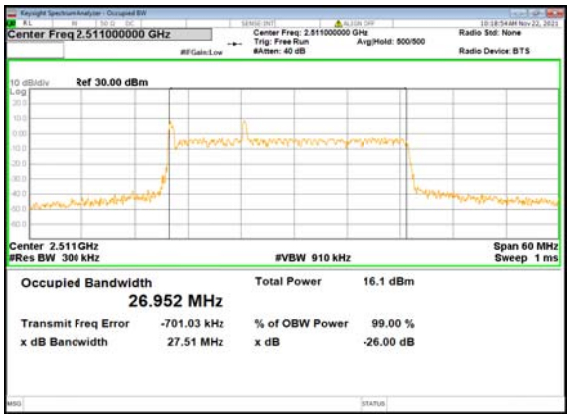
B2_N41(20M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

B2_N41(20M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH



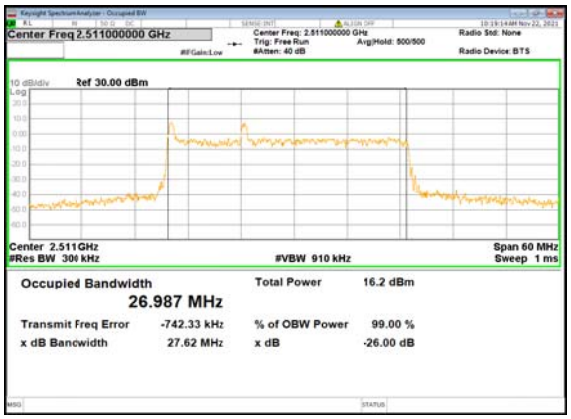
B2_N41(20M)_CP-OFDM_QPSK_Outer_Full_High_CH

B2_N41(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH

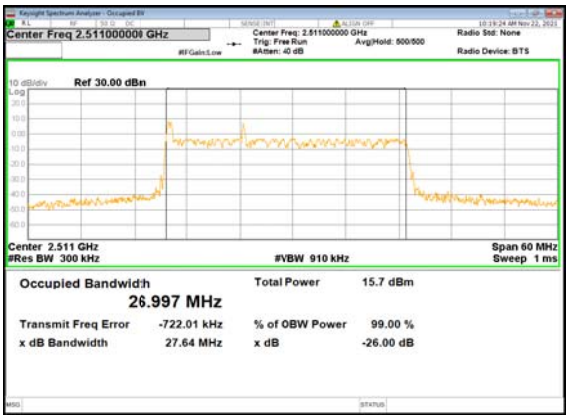


B2_N41(30M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

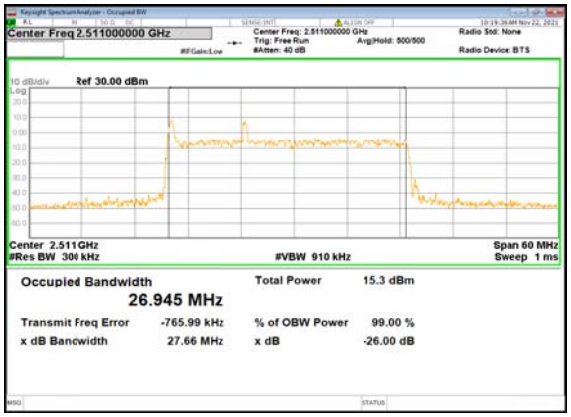
B2_N41(30M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH



B2_N41(30M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

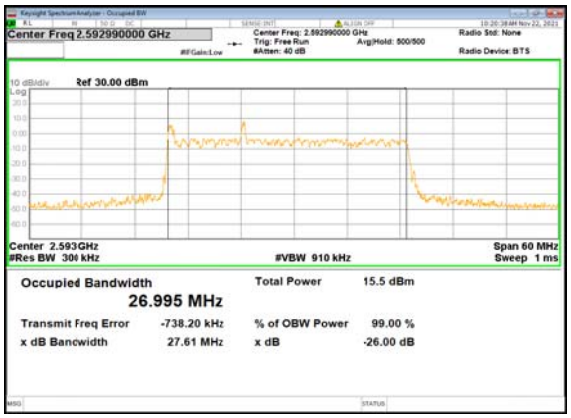


B2_N41(30M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH

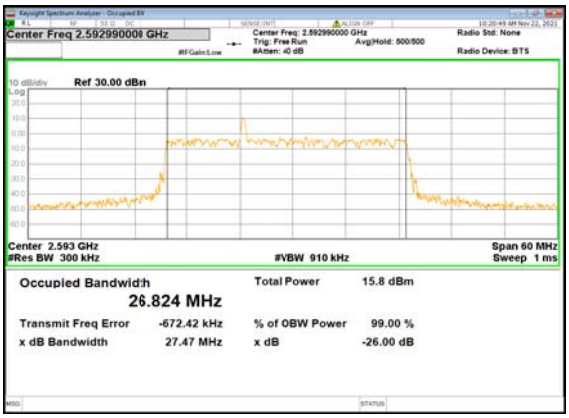


B2_N41(30M)_CP-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



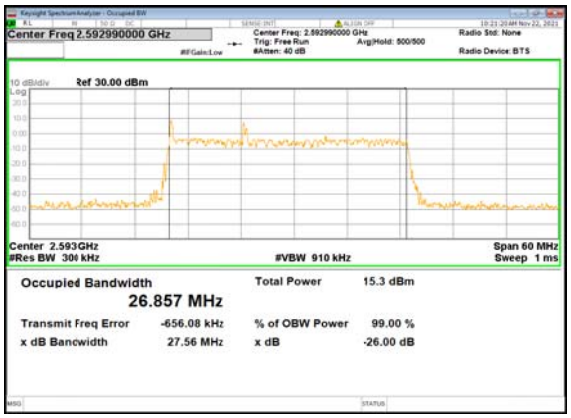
B2_N41(30M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B2_N41(30M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH

B2_N41(30M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

B2_N41(30M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH

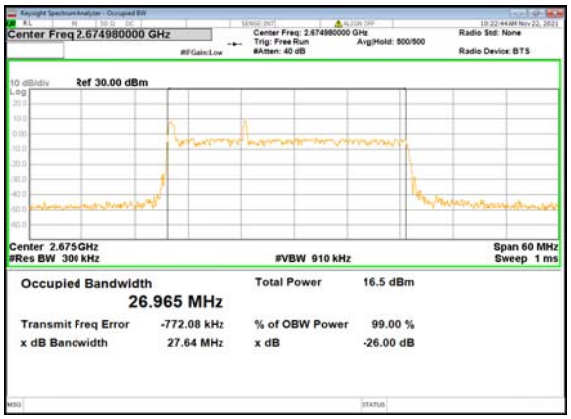


B2_N41(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(30M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH

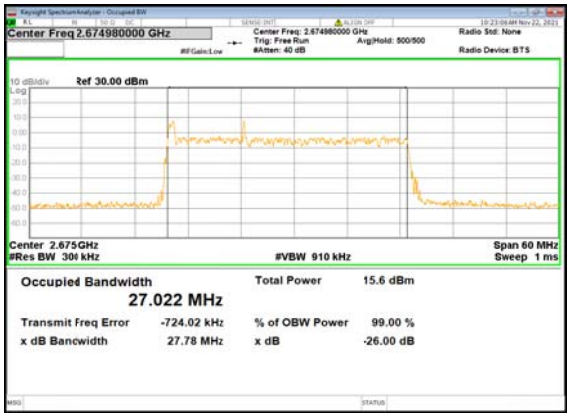
B2_N41(30M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(30M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH



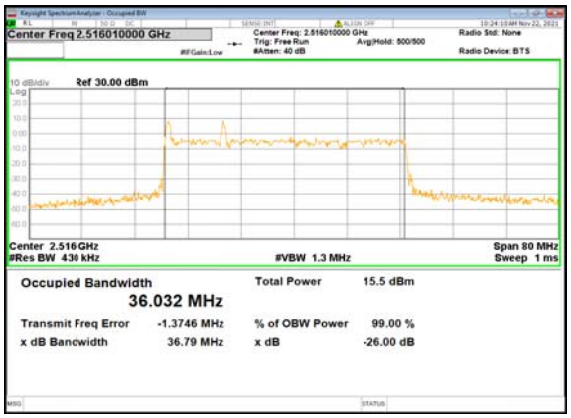
B2_N41(30M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

B2_N41(30M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

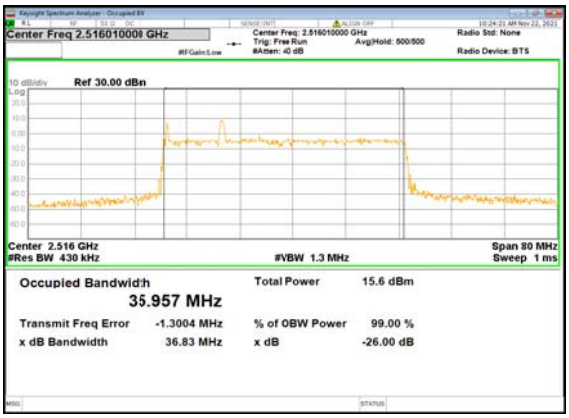


B2_N41(30M)_CP-OFDM_QPSK_Outer_Full_High_CH

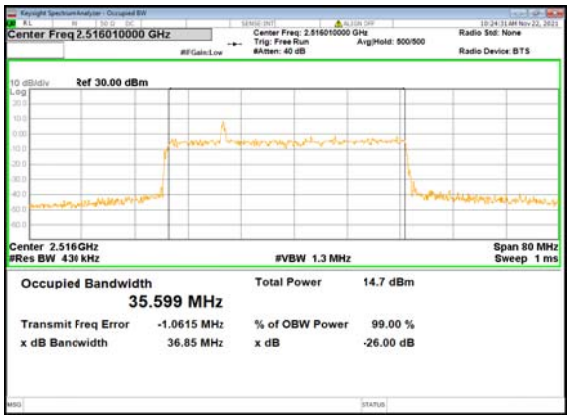
B2_N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



B2_N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

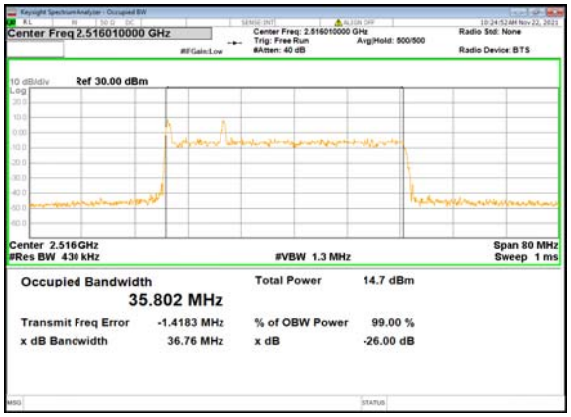


B2_N41(40M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH

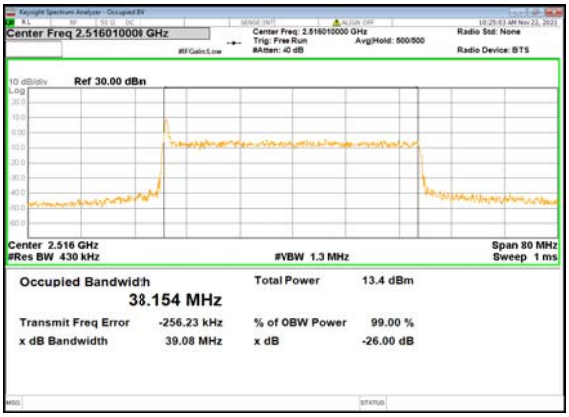


B2_N41(40M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

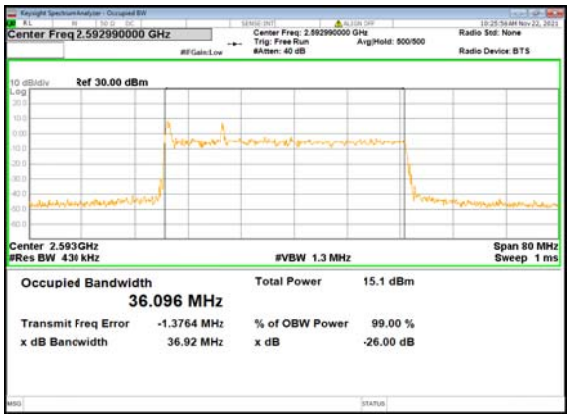
B2_N41(40M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH



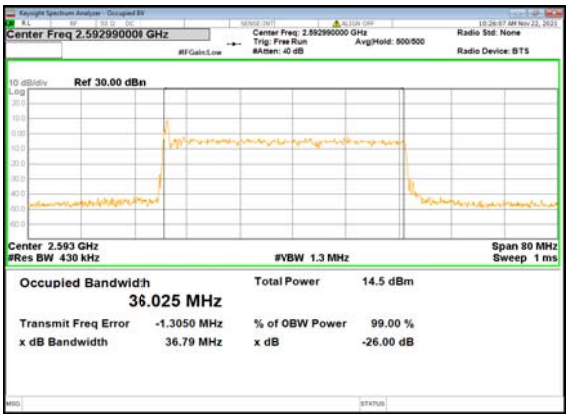
B2_N41(40M)_CP-OFDM_QPSK_Outer_Full_Low_CH



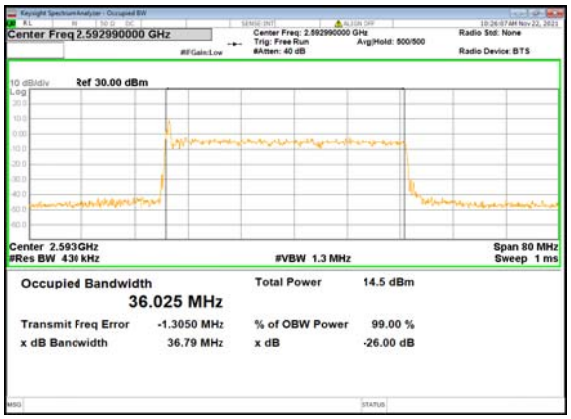
B2_N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



B2_N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

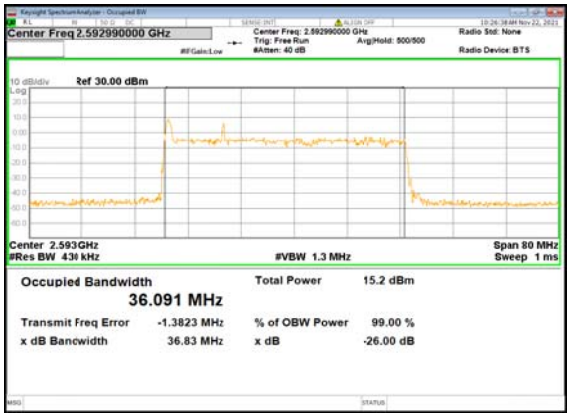


B2_N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



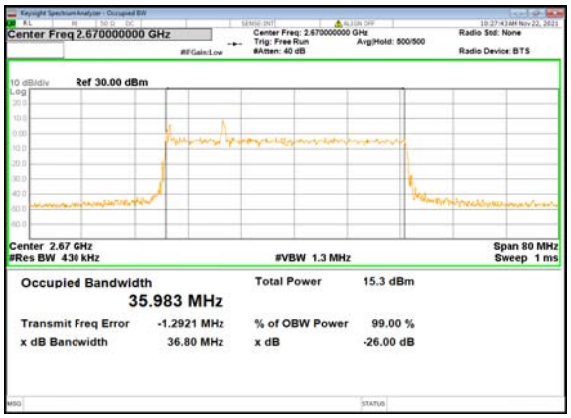
B2_N41(40M)_DFT-s-OFDM_64 QAM_Outer_Full_Mid_CH

B2_N41(40M)_DFT-s-OFDM_256 QAM_Outer_Full_Mid_CH

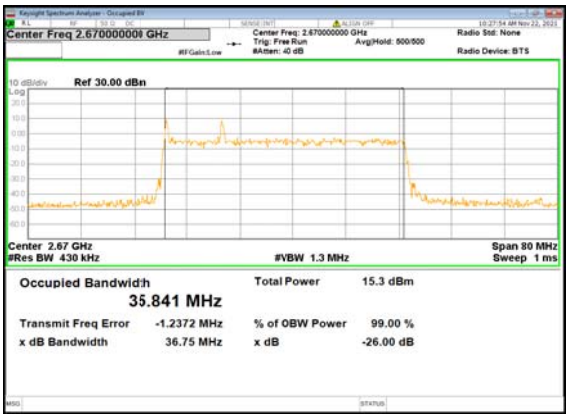


B2_N41(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

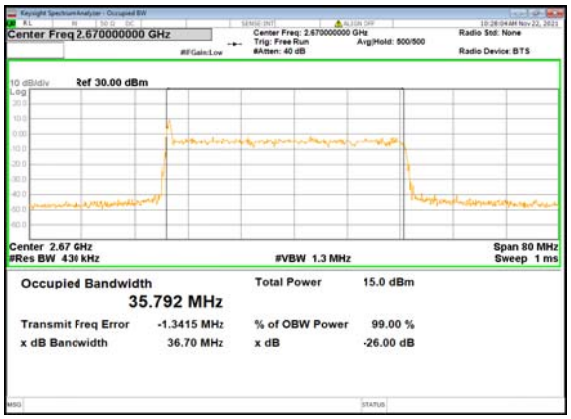
B2_N41(40M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



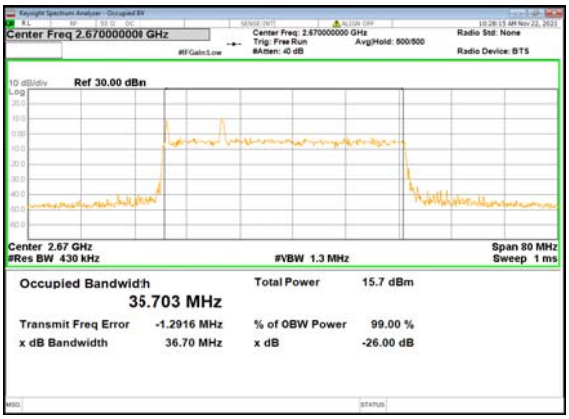
B2_N41(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



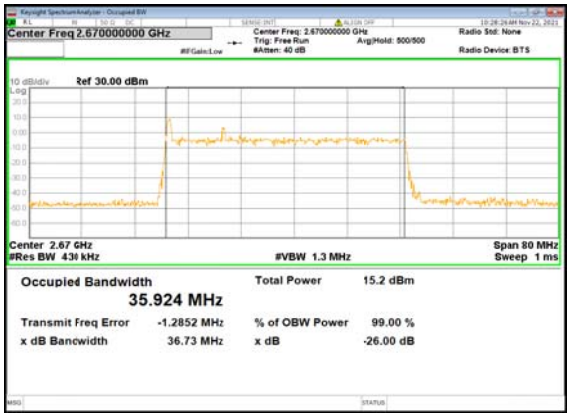
B2_N41(40M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH



B2_N41(40M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

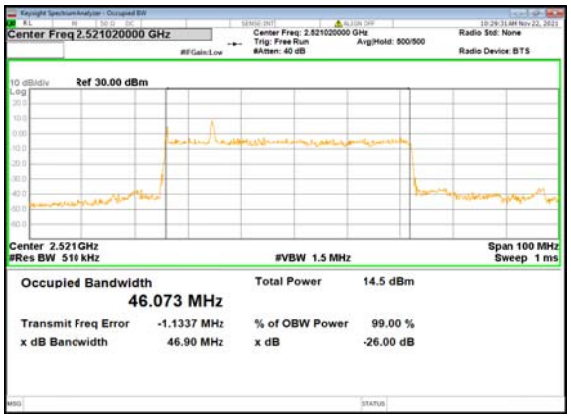


B2_N41(40M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

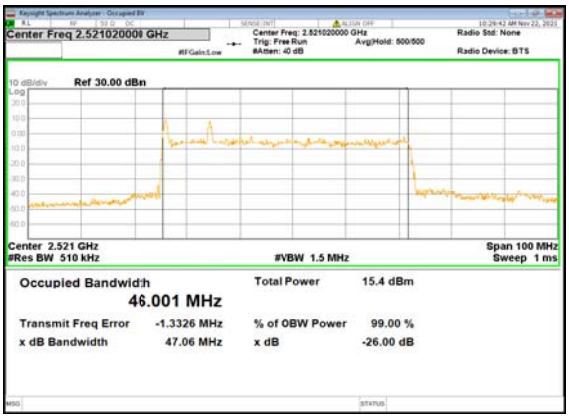


B2_N41(40M)_CP-OFDM_QPSK_Outer_Full_High_CH

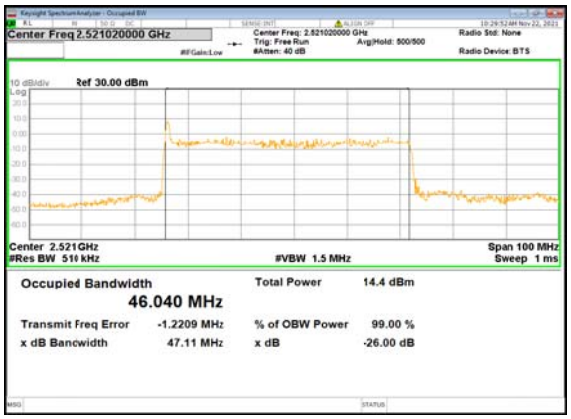
B2_N41(50M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



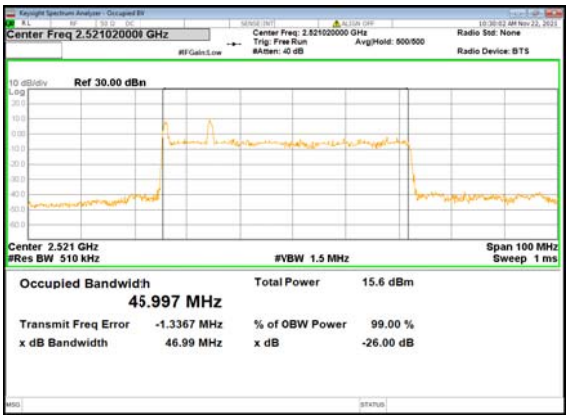
B2_N41(50M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



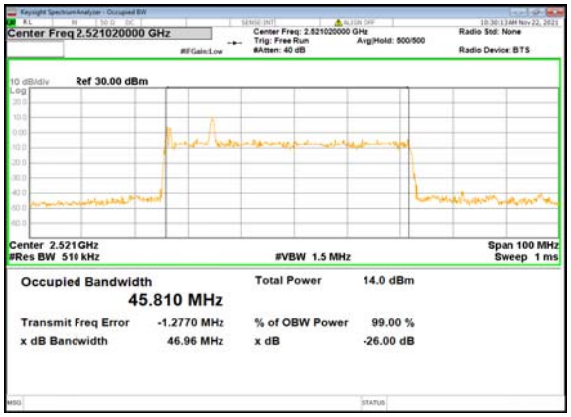
B2_N41(50M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH



B2_N41(50M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

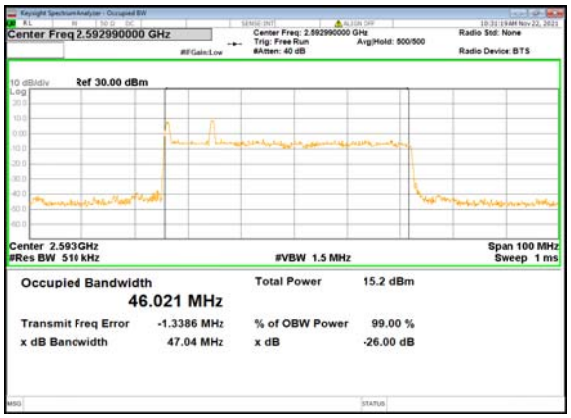


B2_N41(50M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH

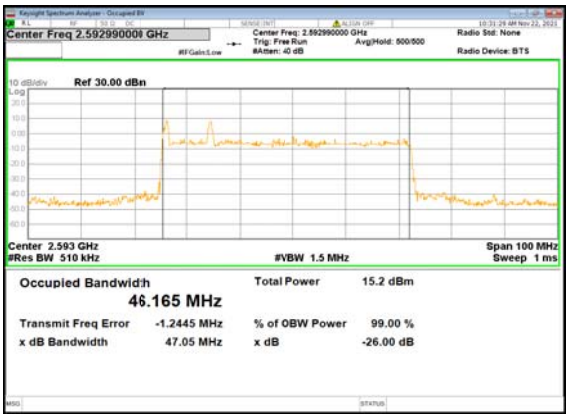


B2_N41(50M)_CP-OFDM_QPSK_Outer_Full_Low_CH

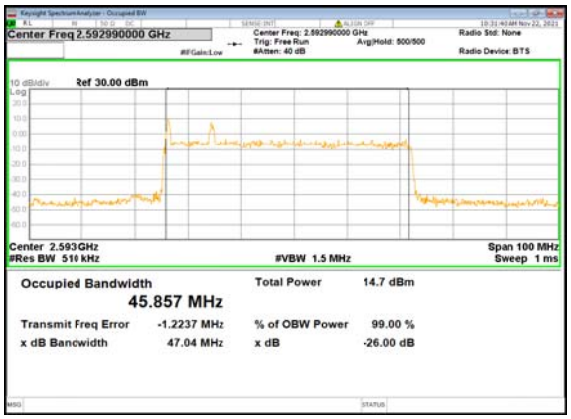
B2_N41(50M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



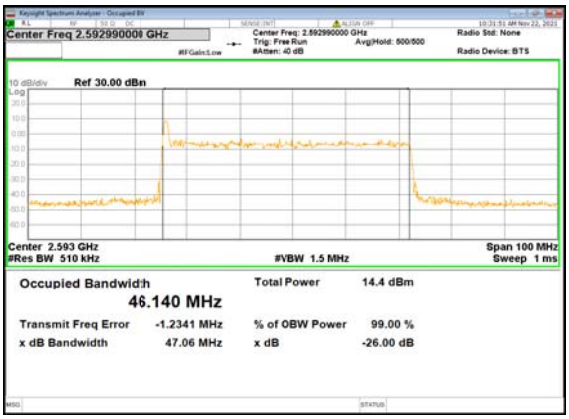
B2_N41(50M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



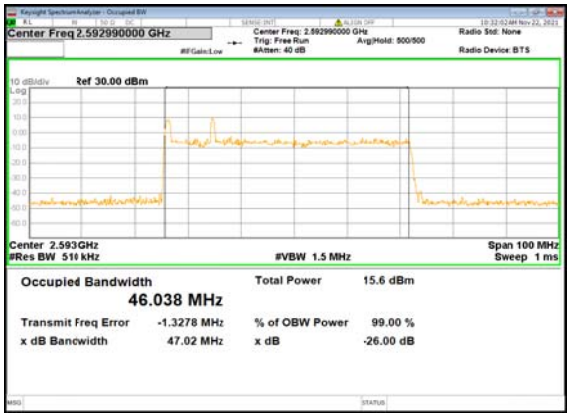
B2_N41(50M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH



B2_N41(50M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

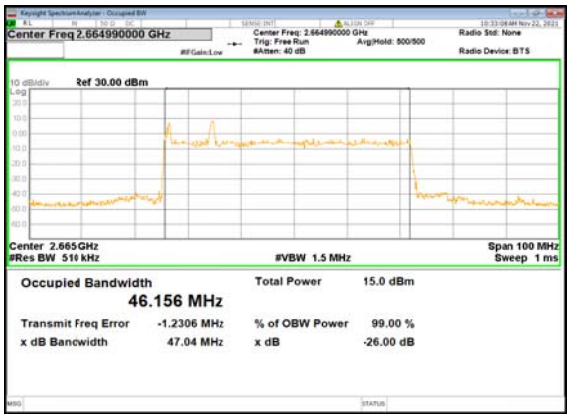


B2_N41(50M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



B2_N41(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

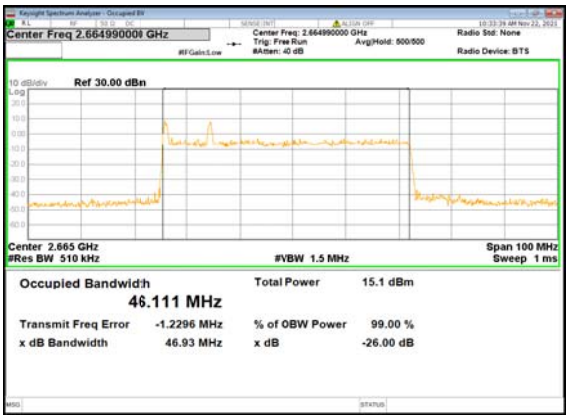
B2_N41(50M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



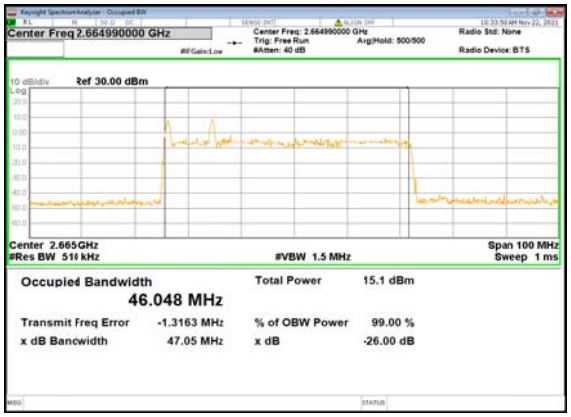
B2_N41(50M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(50M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH

B2_N41(50M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

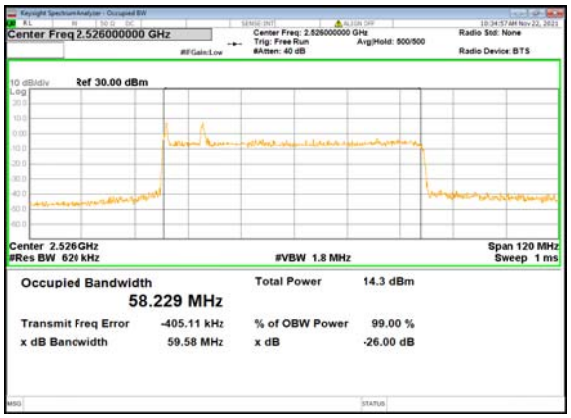


B2_N41(50M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH



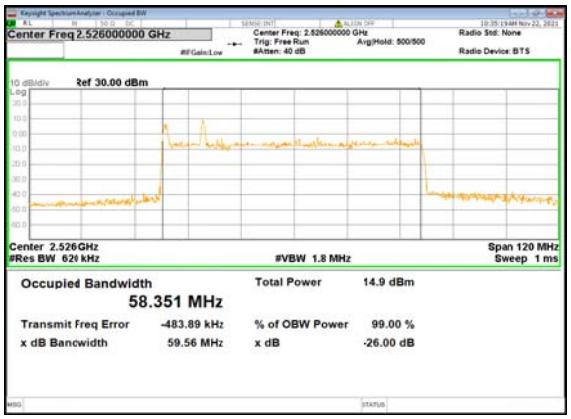
B2_N41(50M)_CP-OFDM_QPSK_Outer_Full_High_CH

B2_N41(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



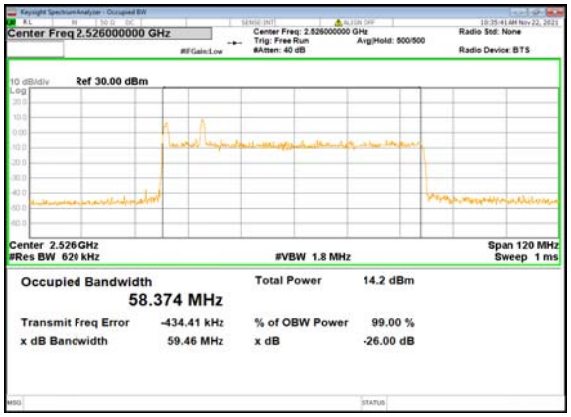
B2_N41(60M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(60M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH



B2_N41(60M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

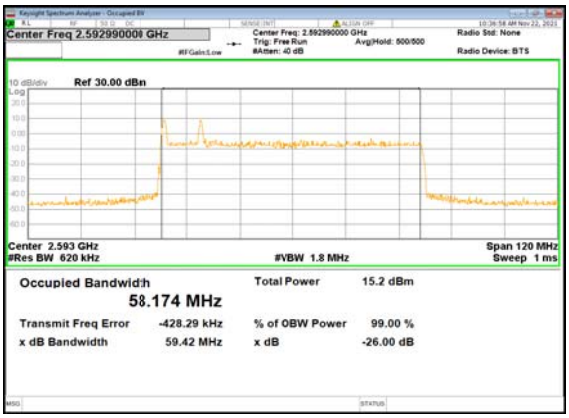
B2_N41(60M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH



B2_N41(60M)_CP-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

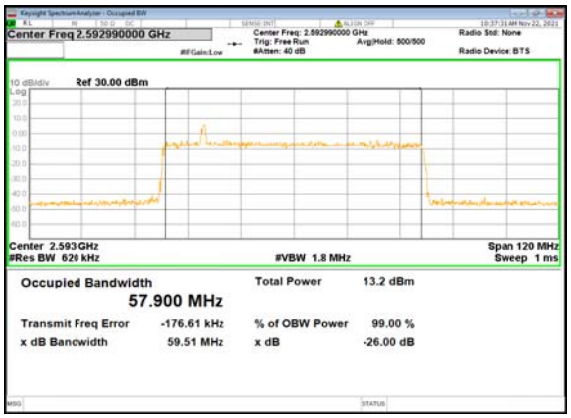
B2_N41(60M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B2_N41(60M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH

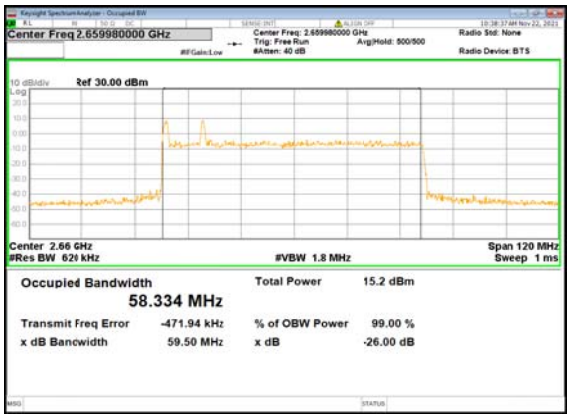
B2_N41(60M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

B2_N41(60M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



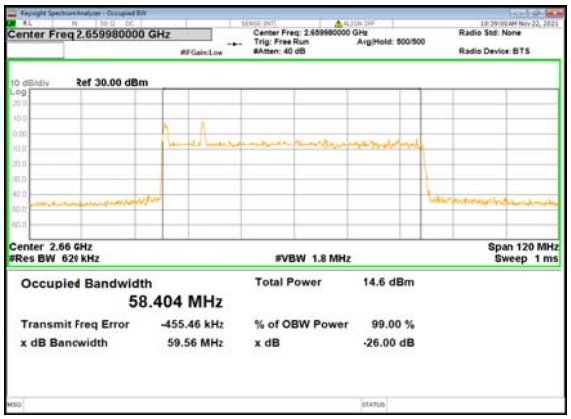
B2_N41(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(60M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



B2_N41(60M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(60M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH

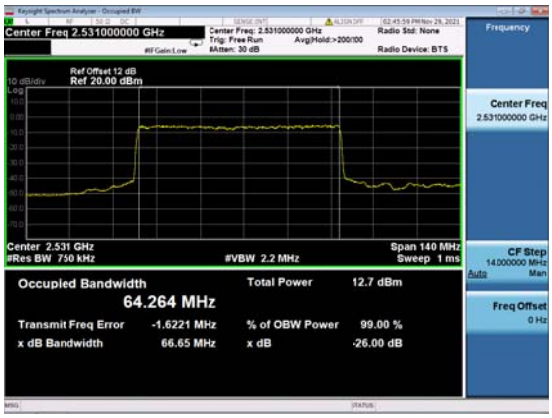


B2_N41(60M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

B2_N41(60M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

B2_N41(60M)_CP-OFDM_QPSK_Outer_Full_High_CH

B2_N41(70M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



B2_N41(70M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

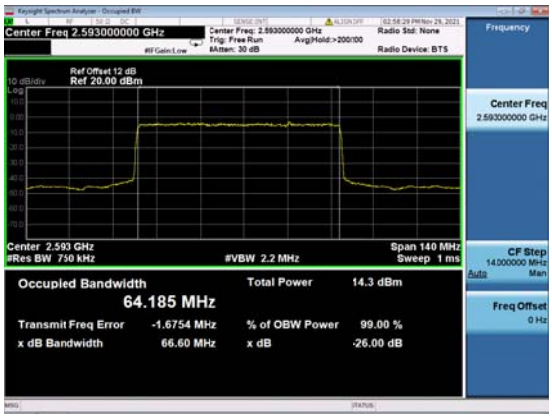
B2_N41(70M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH

B2_N41(70M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

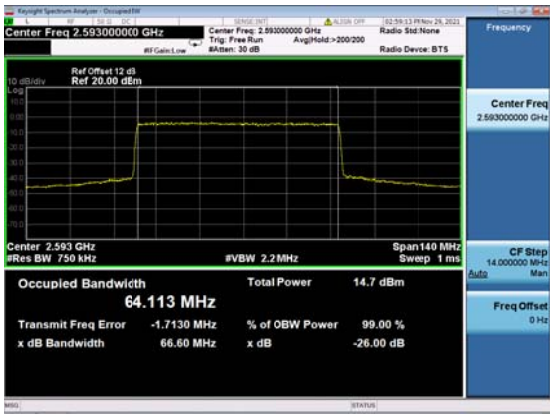
B2_N41(70M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH

B2_N41(70M)_CP-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(70M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

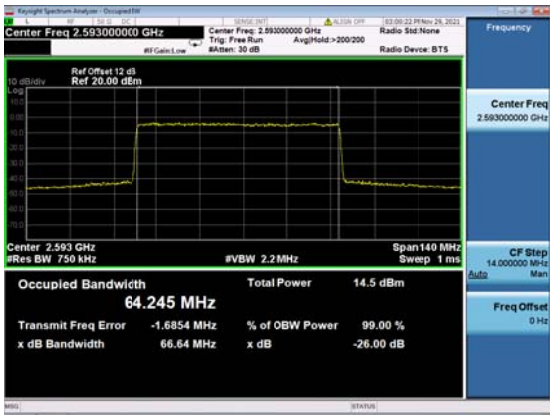


B2_N41(70M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



B2_N41(70M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH

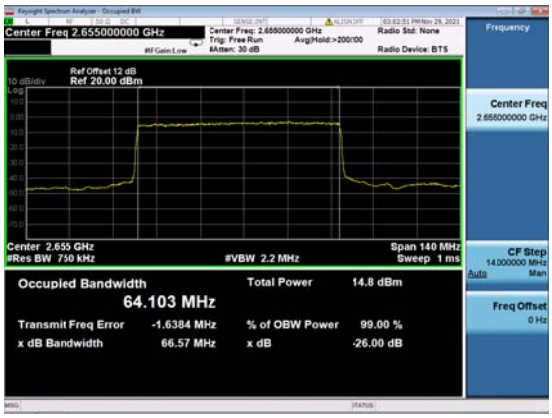
B2_N41(70M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH



B2_N41(70M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH

B2_N41(70M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(70M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



B2_N41(70M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(70M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH

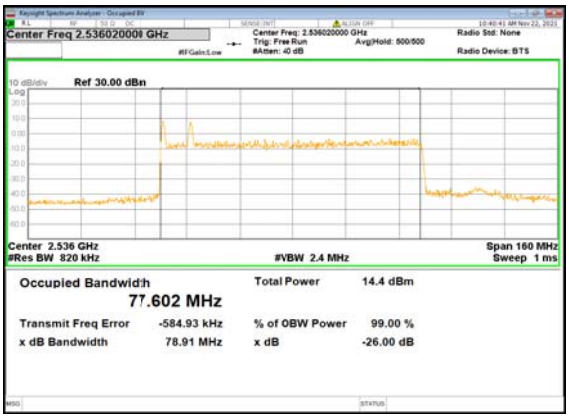
B2_N41(70M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

B2_N41(70M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

B2_N41(70M)_CP-OFDM_QPSK_Outer_Full_High_CH

B2_N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH

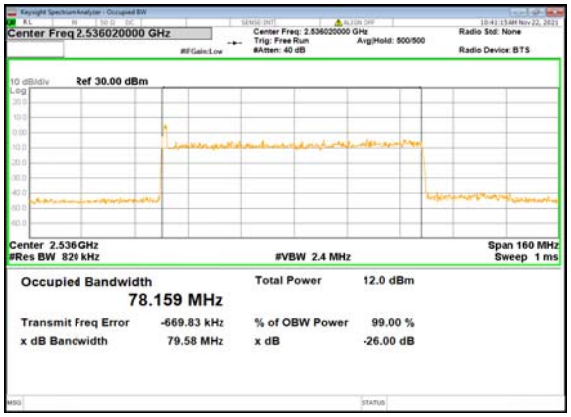
B2_N41(80M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



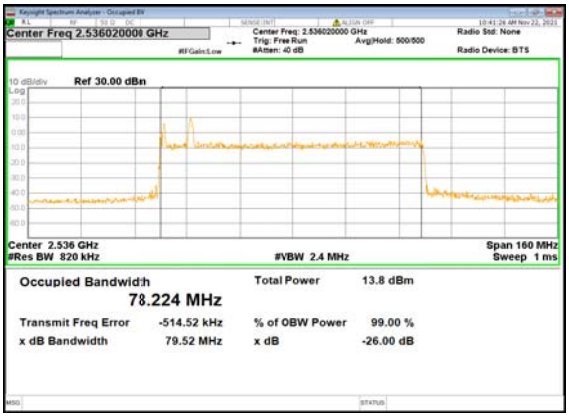
B2_N41(80M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH

B2_N41(80M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

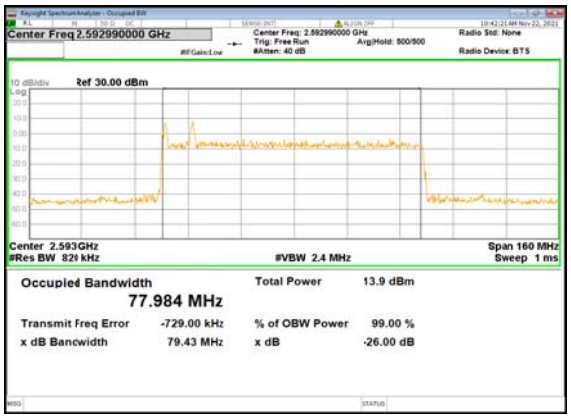
B2_N41(80M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH



B2_N41(80M)_CP-OFDM_QPSK_Outer_Full_Low_CH



B2_N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH



B2_N41(80M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(80M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH

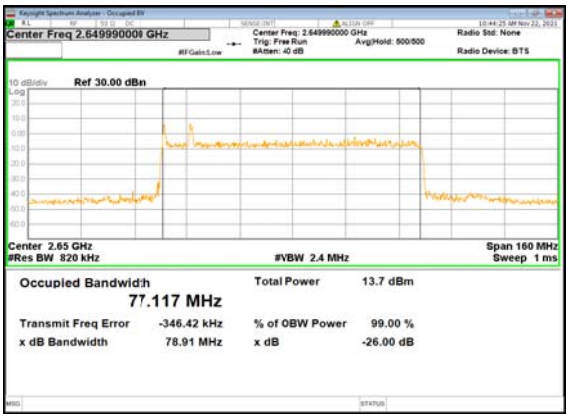
B2_N41(80M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

B2_N41(80M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH

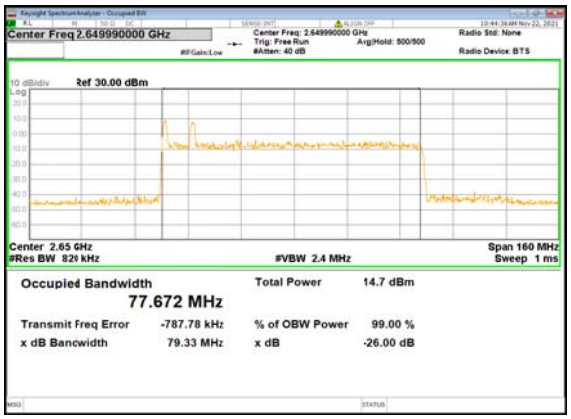
B2_N41(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(80M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH

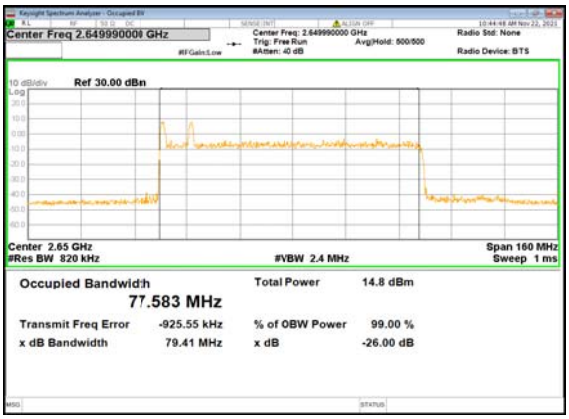
B2_N41(80M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



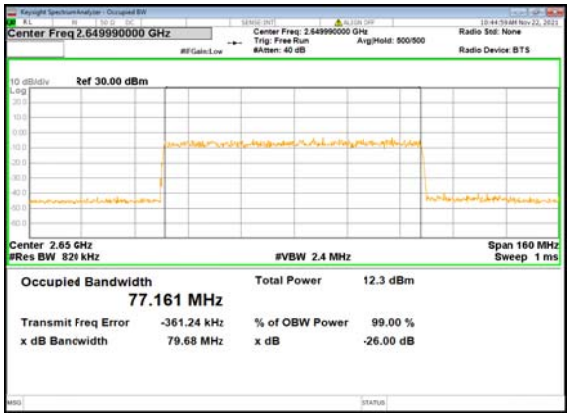
B2_N41(80M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH



B2_N41(80M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH



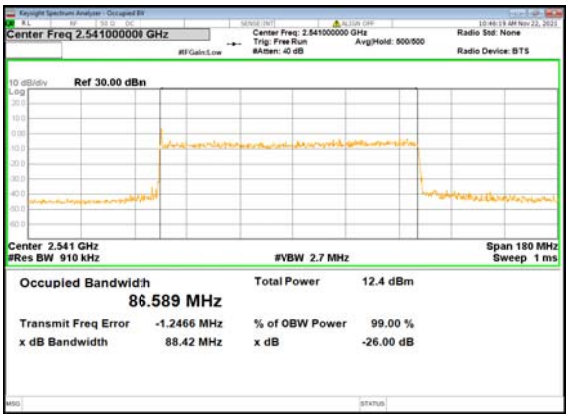
B2_N41(80M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH



B2_N41(80M)_CP-OFDM_QPSK_Outer_Full_High_CH

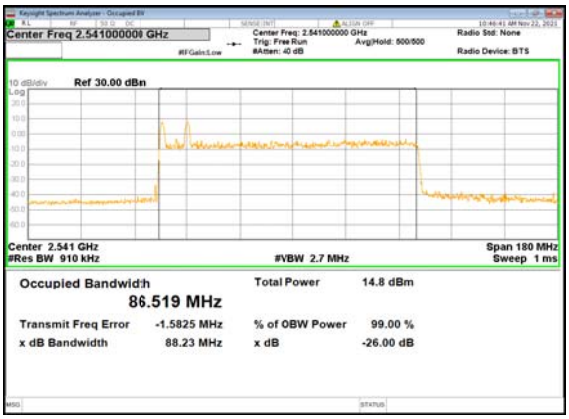
B2_N41(90M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH

B2_N41(90M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



B2_N41(90M)_DFT-s-OFDM_16 QAM_Outer_Full_Low_CH

B2_N41(90M)_DFT-s-OFDM_64 QAM_Outer_Full_Low_CH

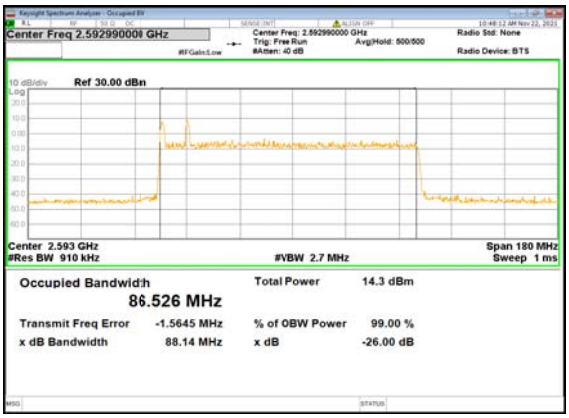


B2_N41(90M)_DFT-s-OFDM_256 QAM_Outer_Full_Low_CH

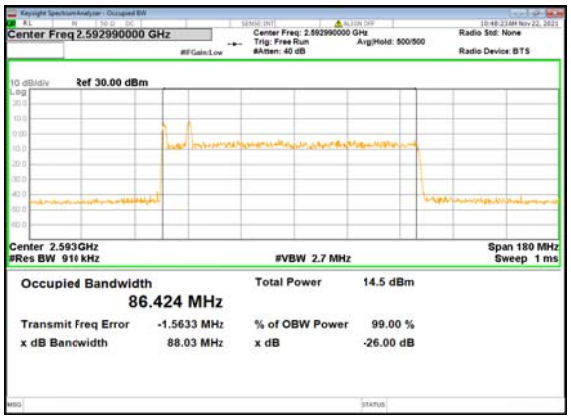
B2_N41(90M)_CP-OFDM_QPSK_Outer_Full_Low_CH

B2_N41(90M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

B2_N41(90M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

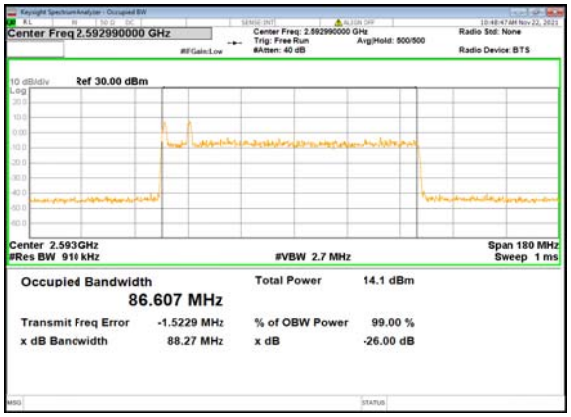


B2_N41(90M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH



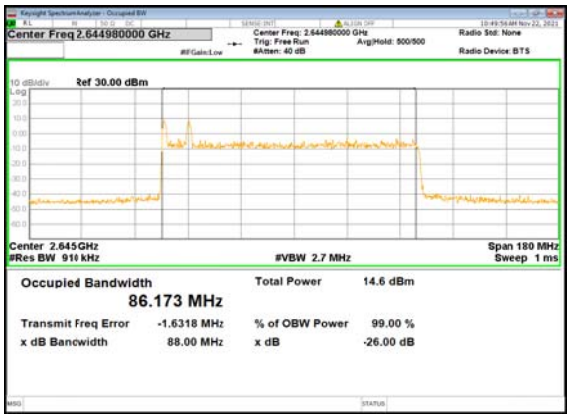
B2_N41(90M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

B2_N41(90M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH



B2_N41(90M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N41(90M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH



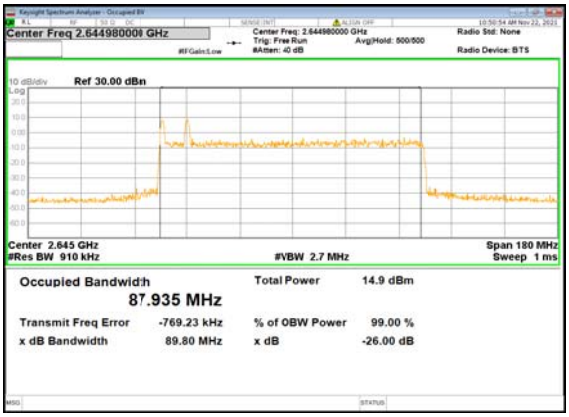
B2_N41(90M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N41(90M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH

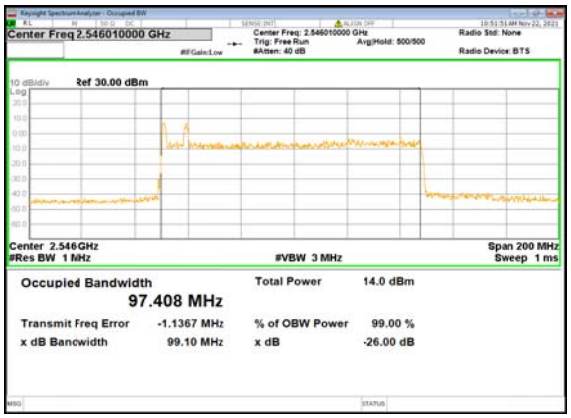
B2_N41(90M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH

B2_N41(90M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

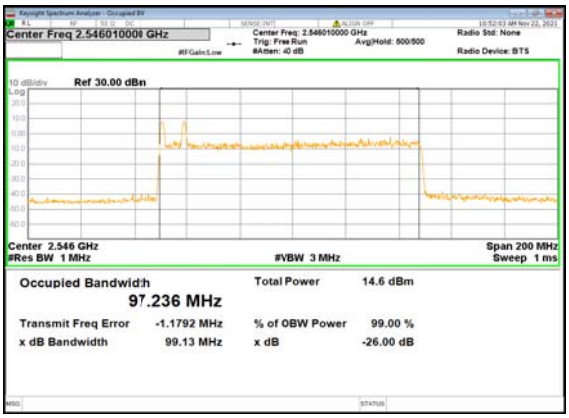
B2_N41(90M)_CP-OFDM_QPSK_Outer_Full_High_CH



B2_N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



B2_N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

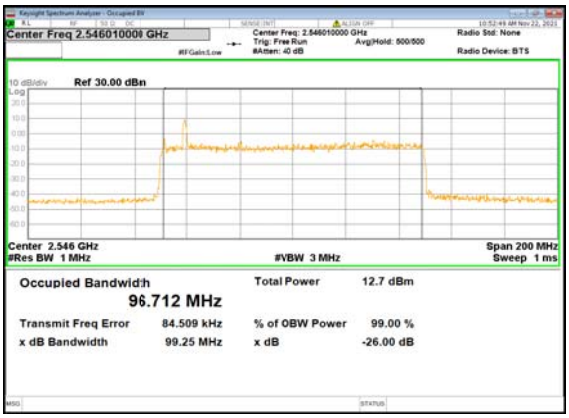


B2_N41(100M)_DFT-s-OFDM_16QAM_Outer_Full_Low_CH

B2_N41(100M)_DFT-s-OFDM_64QAM_Outer_Full_Low_CH

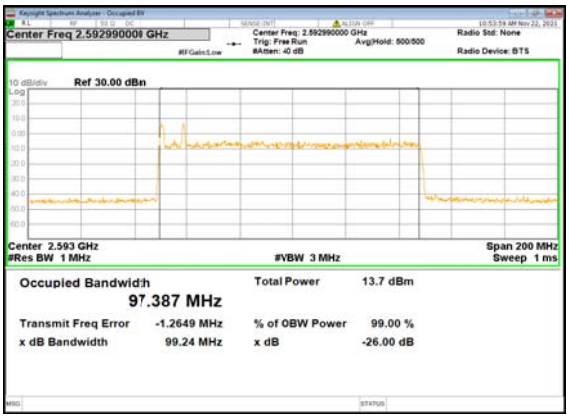
B2_N41(100M)_DFT-s-OFDM_256QAM_Outer_Full_Low_CH

B2_N41(100M)_CP-OFDM_QPSK_Outer_Full_Low_CH

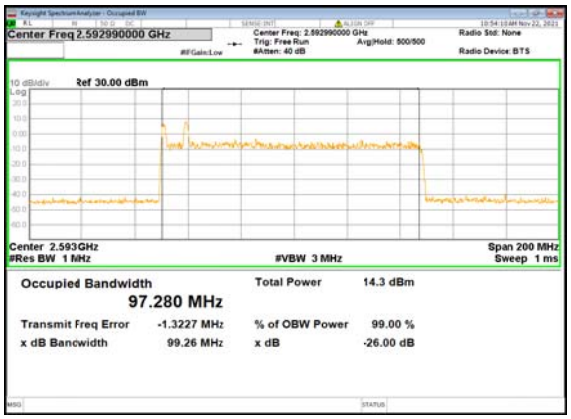


B2_N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

B2_N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



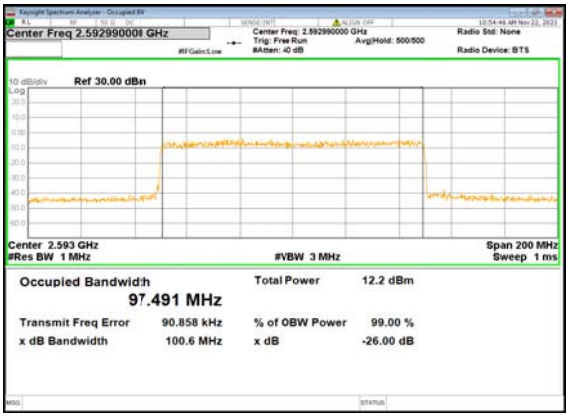
B2_N41(100M)_DFT-s-OFDM_16QAM_Outer_Full_Mid_CH



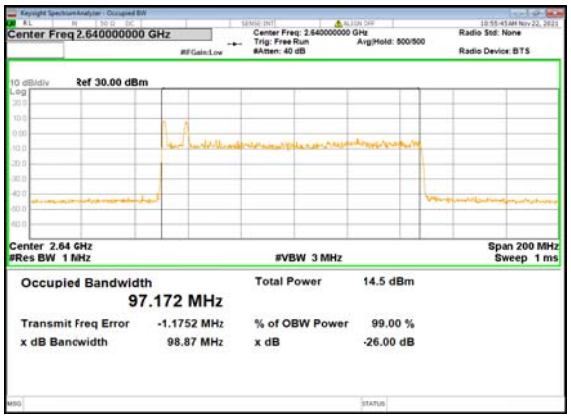
B2_N41(100M)_DFT-s-OFDM_64QAM_Outer_Full_Mid_CH

B2_N41(100M)_DFT-s-OFDM_256QAM_Outer_Full_Mid_CH

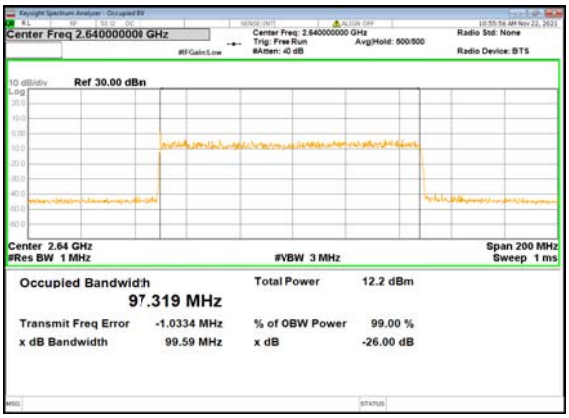
B2_N41(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



B2_N41(100M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_High_CH

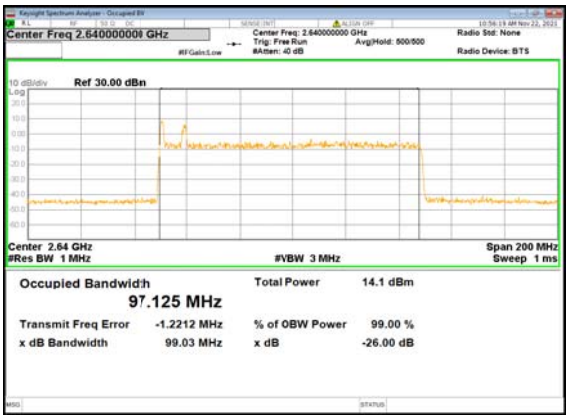


B2_N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



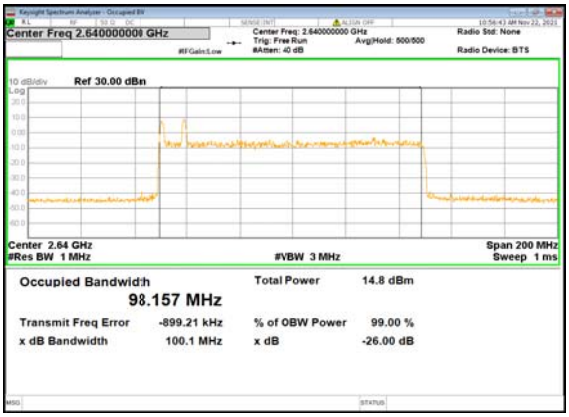
B2_N41(100M)_DFT-s-OFDM_16QAM_Outer_Full_High_CH

B2_N41(100M)_DFT-s-OFDM_64QAM_Outer_Full_High_CH



B2_N41(100M)_DFT-s-OFDM_256QAM_Outer_Full_High_CH

B2_N41(100M)_CP-OFDM_QPSK_Outer_Full_High_CH



2.3. Frequency Stability

2.3.1.Requirement

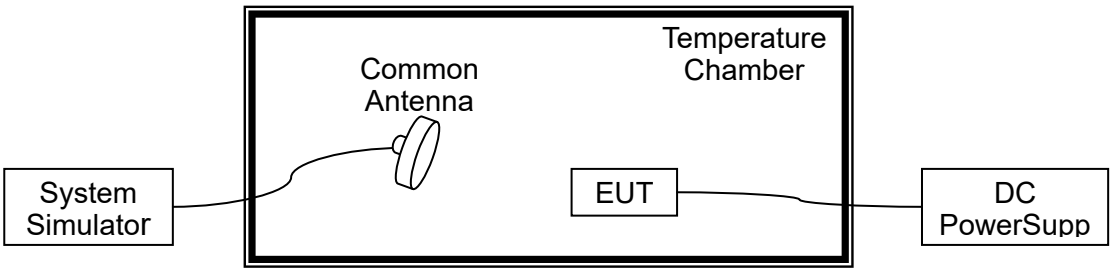
According to FCC section 2.1055, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(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 7.74VDC, 8.9VDC and 6VDC, which are specified by the applicant; the normal temperature here used is 20°C.

NR n41, QPSK, Channel 518598, SCS 30kHz, Frequency 2593MHz Limit =±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	7.74	+20（Ref）	36	0.014	PASS
100		0	18	0.007	
100		+10	19	0.007	
100		+20	23	0.009	
100		+30	14	0.005	
100		+40	29	0.011	
115	8.9	+20	20	0.008	
85	6	+20	28	0.011	

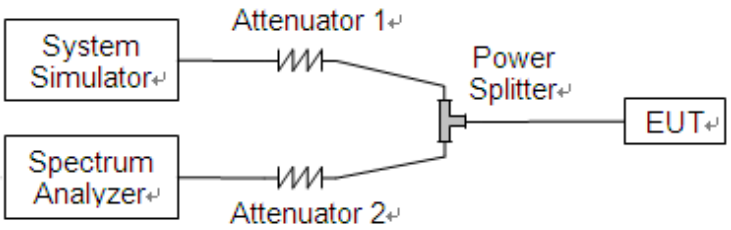
2.4. Conducted Spurious Emissions

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.

According to FCC section 27.53(m)(4) 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 EUT is 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