



REPORT No.: SZ23120302W01

TEST REPORT

APPLICANT : Reliance Communications LLC

PRODUCT NAME : Orbic Fun Pro 5G

MODEL NAME : R678L5SFP

BRAND NAME : Orbic

FCC ID : 2ABGH-R678L5SFP

STANDARD(S) : 47 CFR Part 2
47 CFR Part 22
47 CFR Part 24
47 CFR Part 27
47 CFR Part 96

RECEIPT DATE : 2023-11-28

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Change History		
Version	Date	Reason for change
1.0	2024-04-19	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Reliance Communications LLC
Applicant Address:	555 Wireless Blvd. Hauppauge, NY 11788, USA
Manufacturer:	Unimaxcomm
Manufacturer Address:	35F,HBC HuiLong Center Building-II Minzhi Street,Longhua, Shenzhen, P.R. China 518110

1.2. Equipment Under Test (EUT) Description

Product Name:	Orbic Fun Pro 5G	
Sample No.:	3#	
Hardware Version:	V1.0	
Software Version:	R678L5SFP_v1.0.18_LVZ	
Modulation Type:	QPSK, 16QAM, 64QAM,256QAM	
Operation Band:	Uplink:2A_4A; 2A_5A; 2A_13A; 2A_66A; 4A_5A; 4A_13A; 5A_66A; 13A_66A; 5B; 48C; 66B; 66C	
Frequency Range:	Band 2	Tx: 1850MHz–1910MHz
		Rx: 1930MHz–1990MHz
	Band 4	Tx: 1710MHz–1755MHz
		Rx: 2110MHz–2155MHz
	Band 5	Tx: 824MHz–849MHz
		Rx: 869MHz–894MHz
	Band 13	Tx: 777MHz–787MHz
		Rx: 746MHz–756MHz
	Band 66	Tx: 1710MHz –1780MHz
		Rx: 2110MHz–2200MHz
	LTE 5B	Tx: 824MHz–849MHz
		Rx: 869MHz–894MHz
	LTE 48C	Tx: 3550MHz–3700MHz
		Rx: 3550MHz–3700MHz
	LTE 66B	Tx: 1710MHz –1780MHz
		Rx: 2110MHz–2200MHz



Channel Bandwidth:	LTE 66C	Tx: 1710MHz –1780MHz Rx: 2110MHz–2200MHz
	Band 2	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 5	1.4MHz, 3MHz, 5MHz, 10MHz
	Band 13	5 MHz, 10MHz
	Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	LTE 5B	3MHz+5MHz,5MHz+3MHz,5MHz+10MHz, 10MHz+5MHz,10MHz+10MHz
	LTE 48C	5MHz+20MHz,20MHz+5MHz,10MHz+20MHz,20 MHz+10MHz,15MHz+20MHz,20MHz+15MHz,20 MHz+20MHz
	LTE 66B	5MHz+5MHz,5MHz+10MHz,10MHz+5MHz,5MHz +15MHz,15MHz+5MHz,10MHz+10MHz
	LTE 66C	5MHz+20MHz,20MHz+5MHz,10MHz+15MHz, 15MHz+10MHz,10MHz+20MHz,20MHz+10MHz 15MHz+15MHz,15MHz+20MHz,20MHz+15MHz, 20MHz+20MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	Band 2	ANT3:2.47dBi, ANT4: 1.40dBi
	Band 4	ANT3:1.34dBi, ANT4: 2.68dBi
	Band 5	ANT1: -8.22dBi
	Band 13	ANT1: -5.54dBi
	Band 48	ANT6:0.51dBi
	Band 66	ANT3:-4.04dBi, ANT4: 2.68dBi
Accessory Information:	Battery	
	Brand Name:	Orbic
	Model No.:	BTE-5004
	Serial No.:	N/A
	Capacity:	4870mAh
	Rated Voltage:	3.87V
	Charge Limit:	4.45V
	Manufacturer:	Shenzhen Aerospace Electronic Co.,Ltd.
	AC Adapter	
	Brand Name:	Orbic
	Model No.:	OACH023US1
	Serial No.:	N/A



	Rated Output:	100-240V~50/60HZ, 0.5A
	Rated Input:	5V=3A or 9V=2A or 12V=1.5A
	Manufacturer 1:	WATAI ELECTRONICS PRIVATE LIMITED
	Manufacturer 2:	KANGYIN ELECTRONIC TECHNOLOGY CO.,LTD
	USB Cable :	
	Model No.:	HX-YLMK-06
	Manufacturer:	SHENZHEN HUAWANG PRECISION ELECTRONICS CO.,LTD

Note1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

Note2: This is a variant report of original report (Report No.: SZ23080316W01, FCC ID: 2ABGH-R678L5S). Based on the similarity between before, only change the product name, model name, software version, FCC ID, appearance and antenna, the others are the same as before. No other changes, all RF parameters remain the same. The changes do not affect the test results.

1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

Channel bandwidth	Maximum ERP/EIRP (W)			
CA_5B	QPSK	16QAM	64QAM	256QAM
20+20	0.029	0.024	0.019	0.010
CA_48C	QPSK	16QAM	64QAM	256QAM
20+20	0.183	0.159	0.126	0.062
CA_66B	QPSK	16QAM	64QAM	256QAM
10+10	0.349	0.303	0.240	0.117
CA_66C	QPSK	16QAM	64QAM	256QAM
20+20	0.348	0.294	0.230	0.113
CA_2A-4A	QPSK	16QAM	64QAM	256QAM
20+20	0.310	/	/	/
CA_2A-5A	QPSK	16QAM	64QAM	256QAM
20+10	0.292	/	/	/
CA_2A-13A	QPSK	16QAM	64QAM	256QAM
20+10	0.293	/	/	/
CA_2A-66A	QPSK	16QAM	64QAM	256QAM
20+20	0.305	/	/	/
CA_4A-5A	QPSK	16QAM	64QAM	256QAM
20+10	0.333	/	/	/
CA_4A-13A	QPSK	16QAM	64QAM	256QAM
20+10	0.325	/	/	/
CA_5A-66A	QPSK	16QAM	64QAM	256QAM
10+20	0.361	/	/	/
CA_13A-66A	QPSK	16QAM	64QAM	256QAM
10+20	0.335	/	/	/

Channel bandwidth	Emission Designator (99%OBW)			
LTE 5B	QPSK	16QAM	64QAM	256QAM
3+5	7M49G7D	7M46W7D	7M47W7D	7M50W7D
5+3	7M49G7D	7M52W7D	7M47W7D	7M50W7D
5+10	14M0G7D	13M9W7D	14M0W7D	13M9W7D
10+5	13M9G7D	13M9W7D	14M0W7D	13M9W7D
10+10	18M8G7D	18M8W7D	18M8W7D	18M8W7D
LTE 48C	QPSK	16QAM	64QAM	256QAM
5+20	22M8G7D	22M8W7D	22M7W7D	22M8W7D



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10+20	27M6G7D	27M7W7D	27M8W7D	27M7W7D
15+20	32M6G7D	32M6W7D	32M6W7D	32M5W7D
20+5	22M8G7D	22M8W7D	22M9W7D	22M9W7D
20+10	27M7G7D	27M7W7D	27M7W7D	27M7W7D
20+15	32M6G7D	32M6W7D	32M5W7D	32M6W7D
20+20	37M6G7D	37M6W7D	37M6W7D	37M4W7D
LTE 66B	QPSK	16QAM	64QAM	256QAM
5+5	9M28G7D	9M27W7D	9M30W7D	9M29W7D
5+10	14M0G7D	13M9W7D	13M9W7D	13M9W7D
5+15	18M3G7D	18M3W7D	18M2W7D	18M2W7D
10+5	13M9G7D	13M9W7D	13M9W7D	14M0W7D
10+10	18M9G7D	18M9W7D	18M9W7D	18M9W7D
15+5	18M3G7D	18M3W7D	18M3W7D	18M3W7D
LTE 66C	QPSK	16QAM	64QAM	256QAM
5+20	22M8G7D	22M8W7D	22M8W7D	22M8W7D
10+15	23M1G7D	23M1W7D	23M1W7D	23M0W7D
10+20	27M7G7D	27M7W7D	27M7W7D	27M7W7D
15+10	23M1G7D	23M1W7D	23M1W7D	23M1W7D
15+15	28M4G7D	28M3W7D	28M3W7D	28M3W7D
15+20	32M6G7D	32M6W7D	32M6W7D	32M6W7D
20+5	22M9G7D	22M8W7D	22M9W7D	22M8W7D
20+10	27M7G7D	27M7W7D	27M7W7D	27M8W7D
20+15	32M6G7D	32M7W7D	32M6W7D	32M6W7D
20+20	37M5G7D	37M5W7D	37M5W7D	37M5W7D

1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, Part 24, Part 27 and Part 96 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 22	Public Mobile Services
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services
6	47 CFR Part 96	CITIZENS BROADBAND RADIO SERVICE

B2			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §24.232(c)	$EIRP \leq 2\text{ W}$	PASS
Peak-Average Ratio	§24.232(d)	Limit $\leq 13\text{ dB}$	PASS
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §24.238(a)(b)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §24.238(a)(b)	$\leq -13\text{ dBm/1MHz}$	PASS
Field Strength of Spurious Radiation	§2.1053, §24.238(a)	$\leq -13\text{ dBm/1MHz}$	PASS
Frequency Stability	§2.1055, §24.235	No limit	N/A

B4 & B66			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)(4)	$EIRP \leq 1\text{ W}$	PASS
Peak-Average Ratio	§27.50(d) (5)	Limit $\leq 13\text{ dB}$	PASS



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Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(h)(1) §27.53(h)(3)(i)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)(1)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(h)(1)	≤ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

B5			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §22.913(a)(5)	ERP ≤ 7 W	PASS
Peak-Average Ratio	N/A	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §22.917(a)(b)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §22.917(a)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §22.355	≤ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §22.355	$\leq \pm 2.5$ ppm	PASS

B13			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(b)(10)	ERP ≤ 3 W	PASS
Peak-Average Ratio	N/A	N/A	N/A



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Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §27.53(c)(2)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(c)(2)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(c)(2)	≤ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

B48			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §96.41(b)	Refer to section 2.1	PASS
Peak-Average Ratio	N/A	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §96.41(e)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §96.41(e)	≤ -40 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §96.41(e)	≤ -40 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A



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

Test Item	Test Engineer	Result	Method Determination /Remark
Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Yu Xiaoming Li Huaijie	PASS	No deviation
Occupied Bandwidth	Gan Jing	PASS	No deviation
Peak to Average Ratio	Gan Jing	PASS	No deviation
Conducted Spurious Emissions	Gan Jing	PASS	No deviation
Band Edge	Gan Jing	PASS	No deviation
Radiated Spurious Emissions	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 23.5dB contains two parts that cable loss 13.5dB and Attenuator 10dB. 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. Note 4: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.			



1.5. Environmental Conditions

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

Temperature (°C):	15-35
Relative Humidity (%):	30-60

2. Summary Test Results And Description

2.1. Transmitter Conducted Output Power

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 24.232 (c) for LTE Band 2, Mobile and portable stations are limited to 2 watts E.I.R.P. and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1 watt E.I.R.P.

According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

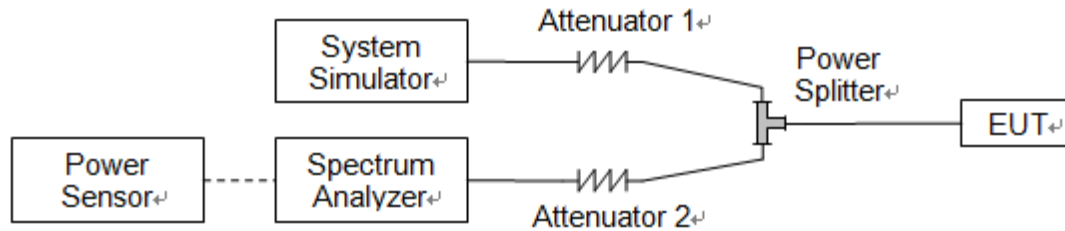
According to FCC section 27.50 (b)(10) for LTE Band 13, Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts E.R.P.

According to FCC section 27.50 (c)(10) for LTE Band 12, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3 watts E.R.P.

According to FCC section 96.41(b) for LTE Band 48, the maximum effective isotropic radiated power (EIRP) and maximum Power Spectral Density (PSD) of any CBSD and End User Device must comply with the limits shown in the table in this paragraph (b):

Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a
Category A CBSD	30	20
Category B CBSD ¹	47	37

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.

$E.I.R.P. (dBm) = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15$

**2.1.4. Result****Conducted Output Power**

CA_5B								
Combination:10MHz+10MHz(50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB Size	RB Offset	RB Size	RB Offset		
20450	20549	QPSK	1	0	0	0	1	22.83
20476	20575	QPSK	1	0	0	0	1	22.86
20501	20600	QPSK	1	0	0	0	1	22.75
20450	20549	16QAM	1	0	0	0	1	22.08
20476	20575	16QAM	1	0	0	0	1	22.03
20501	20600	16QAM	1	0	0	0	1	22.01
20450	20549	64QAM	1	0	0	0	1	20.98
20476	20575	64QAM	1	0	0	0	1	21.03
20501	20600	64QAM	1	0	0	0	1	21.00
20450	20549	256QAM	1	0	0	0	1	18.21
20476	20575	256QAM	1	0	0	0	1	18.25
20501	20600	256QAM	1	0	0	0	1	18.19
20450	20549	QPSK	25	0	0	0	1	21.85
20476	20575	QPSK	25	0	0	0	1	21.86
20501	20600	QPSK	25	0	0	0	1	21.81

CA_48C								
Combination:20MHz+20MHz(100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB Size	RB Offset	RB Size	RB Offset		
55340	55538	QPSK	1	0	0	0	1	22.80
55891	56089	QPSK	1	0	0	0	1	22.65
56442	56640	QPSK	1	0	0	0	1	22.88
55340	55538	16QAM	1	0	0	0	1	22.13
55891	56089	16QAM	1	0	0	0	1	22.02
56442	56640	16QAM	1	0	0	0	1	22.28



55340	55538	64QAM	1	0	0	0	1	21.25
55891	56089	64QAM	1	0	0	0	1	21.15
56442	56640	64QAM	1	0	0	0	1	21.21
55340	55538	256QAM	1	0	0	0	1	18.18
55891	56089	256QAM	1	0	0	0	1	18.05
56442	56640	256QAM	1	0	0	0	1	18.15
55340	55538	QPSK	50	0	0	0	1	21.76
55891	56089	QPSK	50	0	0	0	1	21.65
56442	56640	QPSK	50	0	0	0	1	21.70

CA_66B								
Combination:15MHz+10MHz(75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132047	132140	QPSK	1	0	100	0	1	22.68
132398	132491	QPSK	1	0	100	0	1	22.75
132549	132642	QPSK	1	0	100	0	1	22.71
132047	132140	16QAM	1	0	0	0	1	21.89
132398	132491	16QAM	1	0	0	0	1	22.12
132549	132642	16QAM	1	0	0	0	1	22.14
132047	132140	64QAM	1	0	0	0	1	20.92
132398	132491	64QAM	1	0	0	0	1	20.94
132549	132642	64QAM	1	0	0	0	1	21.12
132047	132140	256QAM	1	0	0	0	1	17.79
132398	132491	256QAM	1	0	0	0	1	18.01
132549	132642	256QAM	1	0	0	0	1	17.95
132047	132140	QPSK	36	0	0	0	1	21.71
132398	132491	QPSK	36	0	0	0	1	21.88
132549	132642	QPSK	36	0	0	0	1	21.84



CA_66C								
Combination:20MHz+20MHz(100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB Size	RB Offset	RB Size	RB Offset		
132072	132270	QPSK	1	0	0	0	1	22.66
132323	132521	QPSK	1	0	0	0	1	22.74
132374	132572	QPSK	1	0	0	0	1	22.70
132072	132270	16QAM	1	0	0	0	1	22.00
132323	132521	16QAM	1	0	0	0	1	21.95
132374	132572	16QAM	1	0	0	0	1	21.96
132072	132270	64QAM	1	0	0	0	1	20.77
132323	132521	64QAM	1	0	0	0	1	20.94
132374	132572	64QAM	1	0	0	0	1	20.88
132072	132270	256QAM	1	0	0	0	1	17.53
132323	132521	256QAM	1	0	0	0	1	17.86
132374	132572	256QAM	1	0	0	0	1	17.79
132072	132270	QPSK	50	0	0	0	1	21.73
132323	132521	QPSK	50	0	0	0	1	21.83
132374	132572	QPSK	50	0	0	0	1	21.86

Configure	CA Configuration	PCC				
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)
Inter-band	CA_2A-4A	2	20	18700	1860	QPSK/1#0
	CA_2A-5A	2	20	18700	1860	QPSK/1#0
	CA_2A-13A	2	20	18700	1860	QPSK/1#0
	CA_2A-66A	2	20	18700	1860	QPSK/1#0
	CA_2A-71A	2	20	20050	1950	QPSK/1#0
	CA_4A-5A	4	20	20050	1747.5	QPSK/1#0
	CA_4A-13A	4	20	20450	1747.5	QPSK/1#0
	CA_5A-66A	5	10	23230	1747.5	QPSK/1#0
	CA_13A-66A	13	10	18700	1860	QPSK/1#0



SCC				
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)
4	20	20300	1745	22.23
5	10	20450	829	22.18
13	10	23230	782	22.20
66	20	132572	1770	22.17
5	10	20450	829	22.55
13	10	23230	782	22.44
66	20	132572	1770	22.89
66	20	132572	1770	22.57

Effective Radiated Power and Effective Isotropic Radiated Power

LTE CA_5B									
Combination:10MHz+10MHz(50RB+50RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)	Measured EIRP(W)
			RB Size	RB Offset	RB Size	RB Offset			
20450	20549	QPSK	1	0	100	0	1	14.61	0.029
20476	20575	QPSK	1	0	100	0	1	14.64	0.029
20501	20600	QPSK	1	0	100	0	1	14.53	0.028

LTE CA_48C									
Combination:20MHz+20MHz(100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)	Measured EIRP(W)
			RB Size	RB Offset	RB Size	RB Offset			
55340	55538	QPSK	1	0	100	0	1	22.54	0.179
55891	56089	QPSK	1	0	100	0	1	22.39	0.173
56442	56640	QPSK	1	0	100	0	1	22.62	0.183

LTE CA_66B									
Combination:20MHz+20MHz(100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)	Measured EIRP(W)
			RB Size	RB Offset	RB Size	RB Offset			
132022	132121	QPSK	1	0	100	0	1	25.36	0.344



132373	132472	QPSK	1	0	100	0	1	25.43	0.349
132523	132622	QPSK	1	0	100	0	1	25.39	0.346

LTE CA_66C									
Combination:20MHz+20MHz(100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)	Measured EIRP(W)
			RB Size	RB Offset	RB Size	RB Offset			
132072	132270	QPSK	1	0	100	0	1	25.34	0.342
132323	132521	QPSK	1	0	100	0	1	25.42	0.348
132374	132572	QPSK	1	0	100	0	1	25.38	0.345

Configure	CA Configuration	PCC				
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)
Inter-band	CA_2A-4A	2	20	18700	1860	QPSK/1#0
	CA_2A-5A	2	20	18700	1860	QPSK/1#0
	CA_2A-13A	2	20	18700	1860	QPSK/1#0
	CA_2A-66A	2	20	18700	1860	QPSK/1#0
	CA_4A-5A	4	20	20050	1720	QPSK/1#0
	CA_4A-13A	4	20	20050	1720	QPSK/1#0
	CA_5A-66A	5	10	20450	829	QPSK/1#0
	CA_13A-66A	13	10	23230	782	QPSK/1#0

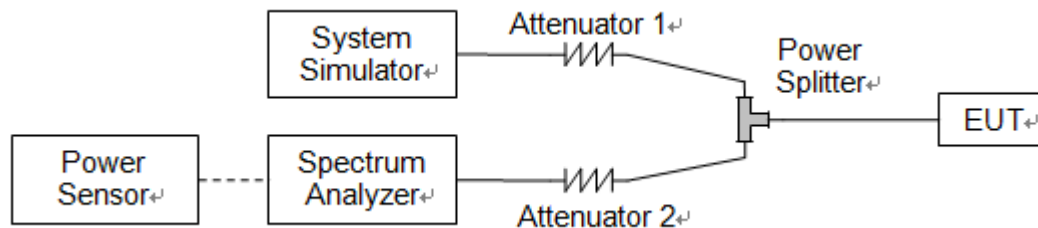
SCC					
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	EIRP(W)
4	20	20300	1745	24.91	0.310
5	10	20600	844	24.65	0.292
13	10	23230	782	24.67	0.293
66	20	132572	1770	24.85	0.305
5	10	20600	844	25.23	0.333
13	10	23230	782	25.12	0.325
66	20	132572	1770	25.57	0.361
66	20	132572	1770	25.25	0.335

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.

2.2.4. Test Result



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LTE Band	BW(MHz)	Channel Level	PCC CH	SCC CH	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
5B	3+5	Low	20416	20455	QPSK	7.4580	7.9957	PASS
5B	3+5	Low	20416	20455	16QAM	7.4596	8.0468	PASS
5B	3+5	Low	20416	20455	64QAM	7.4700	7.9707	PASS
5B	3+5	Low	20416	20455	256QAM	7.4515	7.9940	PASS
5B	5+3	Low	20425	20464	QPSK	7.4921	8.0103	PASS
5B	5+3	Low	20425	20464	16QAM	7.4687	8.0232	PASS
5B	5+3	Low	20425	20464	64QAM	7.4789	7.9859	PASS
5B	5+3	Low	20425	20464	256QAM	7.5022	7.9906	PASS
5B	5+10	Low	20428	20500	QPSK	7.4881	8.2958	PASS
5B	5+10	Low	20428	20500	16QAM	7.4671	7.9886	PASS
5B	5+10	Low	20428	20500	64QAM	7.4654	8.2986	PASS
5B	5+10	Low	20428	20500	256QAM	7.4567	7.9477	PASS
5B	10+5	Low	20450	20522	QPSK	7.4954	8.1030	PASS
5B	10+5	Low	20450	20522	16QAM	7.5218	8.1386	PASS
5B	10+5	Low	20450	20522	64QAM	7.4737	8.1305	PASS
5B	10+5	Low	20450	20522	256QAM	7.4928	8.1567	PASS
5B	10+10	Low	20450	20549	QPSK	13.883	14.818	PASS
5B	10+10	Low	20450	20549	16QAM	13.932	14.754	PASS
5B	10+10	Low	20450	20549	64QAM	13.951	14.793	PASS
5B	10+10	Low	20450	20549	256QAM	13.856	14.759	PASS
5B	3+5	Mid	20501	20540	QPSK	7.4937	8.1093	PASS
5B	3+5	Mid	20501	20540	16QAM	7.4909	8.1818	PASS
5B	3+5	Mid	20501	20540	64QAM	7.4786	8.1126	PASS
5B	3+5	Mid	20501	20540	256QAM	7.5095	8.1140	PASS
5B	5+3	Mid	20510	20549	QPSK	13.952	14.815	PASS
5B	5+3	Mid	20510	20549	16QAM	13.887	14.799	PASS
5B	5+3	Mid	20510	20549	64QAM	13.900	14.893	PASS
5B	5+3	Mid	20510	20549	256QAM	13.919	14.790	PASS
5B	5+10	Mid	20478	20550	QPSK	7.4866	8.1152	PASS
5B	5+10	Mid	20478	20550	16QAM	7.4879	8.1219	PASS
5B	5+10	Mid	20478	20550	64QAM	7.4727	8.1037	PASS
5B	5+10	Mid	20478	20550	256QAM	7.4955	8.1083	PASS
5B	10+5	Mid	20500	20572	QPSK	13.850	14.743	PASS
5B	10+5	Mid	20500	20572	16QAM	13.822	14.774	PASS
5B	10+5	Mid	20500	20572	64QAM	13.845	14.731	PASS



5B	10+5	Mid	20500	20572	256QAM	13.834	14.690	PASS
5B	10+10	Mid	20476	20575	QPSK	13.890	14.872	PASS
5B	10+10	Mid	20476	20575	16QAM	13.910	14.893	PASS
5B	10+10	Mid	20476	20575	64QAM	13.957	14.986	PASS
5B	10+10	Mid	20476	20575	256QAM	13.894	15.027	PASS
5B	3+5	High	20586	20625	QPSK	18.830	20.120	PASS
5B	3+5	High	20586	20625	16QAM	18.791	20.088	PASS
5B	3+5	High	20586	20625	64QAM	18.823	19.970	PASS
5B	3+5	High	20586	20625	256QAM	18.802	20.101	PASS
5B	5+3	High	20595	20634	QPSK	13.930	15.077	PASS
5B	5+3	High	20595	20634	16QAM	13.929	14.970	PASS
5B	5+3	High	20595	20634	64QAM	13.899	15.046	PASS
5B	5+3	High	20595	20634	256QAM	13.935	14.944	PASS
5B	5+10	High	20528	20600	QPSK	18.820	20.212	PASS
5B	5+10	High	20528	20600	16QAM	18.797	20.111	PASS
5B	5+10	High	20528	20600	64QAM	18.774	20.173	PASS
5B	5+10	High	20528	20600	256QAM	18.757	20.170	PASS
5B	10+5	High	20550	20622	QPSK	13.912	15.073	PASS
5B	10+5	High	20550	20622	16QAM	13.886	14.920	PASS
5B	10+5	High	20550	20622	64QAM	13.863	14.962	PASS
5B	10+5	High	20550	20622	256QAM	13.879	14.984	PASS
5B	10+10	High	20501	20600	QPSK	18.791	20.156	PASS
5B	10+10	High	20501	20600	16QAM	18.738	20.180	PASS
5B	10+10	High	20501	20600	64QAM	18.770	20.108	PASS
5B	10+10	High	20501	20600	256QAM	18.750	20.002	PASS
48C	5+20	Low	55273	55390	QPSK	22.746	23.776	PASS
48C	5+20	Low	55273	55390	16QAM	22.745	23.904	PASS
48C	5+20	Low	55273	55390	64QAM	22.664	23.877	PASS
48C	5+20	Low	55273	55390	256QAM	22.737	23.588	PASS
48C	5+20	Mid	55898	56015	QPSK	22.708	23.538	PASS
48C	5+20	Mid	55898	56015	16QAM	22.656	23.529	PASS
48C	5+20	Mid	55898	56015	64QAM	22.690	23.520	PASS
48C	5+20	Mid	55898	56015	256QAM	22.779	23.677	PASS
48C	5+20	High	56523	56640	QPSK	22.765	23.888	PASS
48C	5+20	High	56523	56640	16QAM	22.796	23.584	PASS
48C	5+20	High	56523	56640	64QAM	22.682	23.498	PASS
48C	5+20	High	56523	56640	256QAM	22.740	23.730	PASS
48C	10+20	Low	55295	55439	QPSK	27.649	29.781	PASS



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48C	10+20	Low	55295	55439	16QAM	27.632	28.801	PASS
48C	10+20	Low	55295	55439	64QAM	27.757	29.014	PASS
48C	10+20	Low	55295	55439	256QAM	27.643	29.022	PASS
48C	10+20	Mid	55896	56040	QPSK	27.550	28.666	PASS
48C	10+20	Mid	55896	56040	16QAM	27.692	28.765	PASS
48C	10+20	Mid	55896	56040	64QAM	27.553	29.491	PASS
48C	10+20	Mid	55896	56040	256QAM	27.619	28.536	PASS
48C	10+20	High	56496	56640	QPSK	27.574	28.583	PASS
48C	10+20	High	56496	56640	16QAM	27.616	28.705	PASS
48C	10+20	High	56496	56640	64QAM	27.464	28.651	PASS
48C	10+20	High	56496	56640	256QAM	27.708	28.594	PASS
48C	15+20	Low	55318	55489	QPSK	32.488	33.849	PASS
48C	15+20	Low	55318	55489	16QAM	32.591	33.802	PASS
48C	15+20	Low	55318	55489	64QAM	32.577	33.868	PASS
48C	15+20	Low	55318	55489	256QAM	32.501	33.901	PASS
48C	15+20	Mid	55893	56064	QPSK	32.595	33.897	PASS
48C	15+20	Mid	55893	56064	16QAM	32.562	34.160	PASS
48C	15+20	Mid	55893	56064	64QAM	32.416	34.062	PASS
48C	15+20	Mid	55893	56064	256QAM	32.484	33.610	PASS
48C	15+20	High	56469	56640	QPSK	32.642	33.671	PASS
48C	15+20	High	56469	56640	16QAM	32.607	33.612	PASS
48C	15+20	High	56469	56640	64QAM	32.624	33.833	PASS
48C	15+20	High	56469	56640	256QAM	32.516	33.755	PASS
48C	20+5	Low	55340	55457	QPSK	22.794	24.161	PASS
48C	20+5	Low	55340	55457	16QAM	22.833	23.990	PASS
48C	20+5	Low	55340	55457	64QAM	22.838	24.473	PASS
48C	20+5	Low	55340	55457	256QAM	22.844	23.882	PASS
48C	20+10	Low	55340	55484	QPSK	27.695	29.816	PASS
48C	20+10	Low	55340	55484	16QAM	27.694	29.344	PASS
48C	20+10	Low	55340	55484	64QAM	27.705	29.204	PASS
48C	20+10	Low	55340	55484	256QAM	27.673	29.427	PASS
48C	20+15	Low	55340	55511	QPSK	32.616	33.752	PASS
48C	20+15	Low	55340	55511	16QAM	32.640	33.840	PASS
48C	20+15	Low	55340	55511	64QAM	32.389	33.768	PASS
48C	20+15	Low	55340	55511	256QAM	32.513	33.859	PASS
48C	20+20	Low	55340	55538	QPSK	37.451	39.341	PASS
48C	20+20	Low	55340	55538	16QAM	37.498	39.120	PASS
48C	20+20	Low	55340	55538	64QAM	37.582	38.934	PASS



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48C	20+20	Low	55340	55538	256QAM	37.323	38.735	PASS
48C	20+5	Mid	55965	56082	QPSK	22.722	23.743	PASS
48C	20+5	Mid	55965	56082	16QAM	22.776	23.603	PASS
48C	20+5	Mid	55965	56082	64QAM	22.828	23.974	PASS
48C	20+5	Mid	55965	56082	256QAM	22.807	23.678	PASS
48C	20+10	Mid	55941	56085	QPSK	27.685	29.041	PASS
48C	20+10	Mid	55941	56085	16QAM	27.734	28.818	PASS
48C	20+10	Mid	55941	56085	64QAM	27.622	28.724	PASS
48C	20+10	Mid	55941	56085	256QAM	27.685	28.856	PASS
48C	20+15	Mid	55916	56087	QPSK	32.509	33.817	PASS
48C	20+15	Mid	55916	56087	16QAM	32.565	33.987	PASS
48C	20+15	Mid	55916	56087	64QAM	32.517	33.620	PASS
48C	20+15	Mid	55916	56087	256QAM	32.467	33.721	PASS
48C	20+20	Mid	55891	56089	QPSK	37.536	39.048	PASS
48C	20+20	Mid	55891	56089	16QAM	37.327	38.842	PASS
48C	20+20	Mid	55891	56089	64QAM	37.321	38.748	PASS
48C	20+20	Mid	55891	56089	256QAM	37.427	38.974	PASS
48C	20+5	High	56590	56707	QPSK	22.796	23.933	PASS
48C	20+5	High	56590	56707	16QAM	22.747	23.709	PASS
48C	20+5	High	56590	56707	64QAM	22.855	23.601	PASS
48C	20+5	High	56590	56707	256QAM	22.892	23.713	PASS
48C	20+10	High	56541	56685	QPSK	27.603	29.249	PASS
48C	20+10	High	56541	56685	16QAM	27.703	28.836	PASS
48C	20+10	High	56541	56685	64QAM	27.711	28.863	PASS
48C	20+10	High	56541	56685	256QAM	27.574	28.793	PASS
48C	20+15	High	56491	56662	QPSK	32.524	33.800	PASS
48C	20+15	High	56491	56662	16QAM	32.500	33.790	PASS
48C	20+15	High	56491	56662	64QAM	32.457	33.818	PASS
48C	20+15	High	56491	56662	256QAM	32.552	33.759	PASS
48C	20+20	High	56442	56640	QPSK	37.600	38.923	PASS
48C	20+20	High	56442	56640	16QAM	37.552	39.189	PASS
48C	20+20	High	56442	56640	64QAM	37.391	38.666	PASS
48C	20+20	High	56442	56640	256QAM	37.437	39.524	PASS
66B	5+5	Low	131997	132045	QPSK	9.239	9.991	PASS
66B	5+5	Low	131997	132045	16QAM	9.270	10.060	PASS
66B	5+5	Low	131997	132045	64QAM	9.271	9.951	PASS
66B	5+5	Low	131997	132045	256QAM	9.284	9.997	PASS
66B	5+10	Low	132000	132072	QPSK	13.955	14.797	PASS



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66B	5+10	Low	132000	132072	16QAM	13.862	14.747	PASS
66B	5+10	Low	132000	132072	64QAM	13.878	14.837	PASS
66B	5+10	Low	132000	132072	256QAM	13.878	14.815	PASS
66B	5+15	Low	132002	132095	QPSK	18.263	19.400	PASS
66B	5+15	Low	132002	132095	16QAM	18.216	19.322	PASS
66B	5+15	Low	132002	132095	64QAM	18.228	19.316	PASS
66B	5+15	Low	132002	132095	256QAM	18.232	19.340	PASS
66B	5+5	Mid	132398	132446	QPSK	9.282	9.995	PASS
66B	5+5	Mid	132398	132446	16QAM	9.256	9.992	PASS
66B	5+5	Mid	132398	132446	64QAM	9.303	10.022	PASS
66B	5+5	Mid	132398	132446	256QAM	9.297	9.978	PASS
66B	5+10	Mid	132375	132447	QPSK	13.899	14.893	PASS
66B	5+10	Mid	132375	132447	16QAM	13.840	14.862	PASS
66B	5+10	Mid	132375	132447	64QAM	13.873	14.871	PASS
66B	5+10	Mid	132375	132447	256QAM	13.880	14.814	PASS
66B	5+15	Mid	132353	132446	QPSK	18.250	19.325	PASS
66B	5+15	Mid	132353	132446	16QAM	18.176	19.411	PASS
66B	5+15	Mid	132353	132446	64QAM	18.136	19.347	PASS
66B	5+15	Mid	132353	132446	256QAM	18.110	19.208	PASS
66B	5+5	High	132599	132647	QPSK	9.248	9.965	PASS
66B	5+5	High	132599	132647	16QAM	9.267	9.954	PASS
66B	5+5	High	132599	132647	64QAM	9.271	10.040	PASS
66B	5+5	High	132599	132647	256QAM	9.287	9.970	PASS
66B	5+10	High	132550	132622	QPSK	13.922	14.789	PASS
66B	5+10	High	132550	132622	16QAM	13.868	14.696	PASS
66B	5+10	High	132550	132622	64QAM	13.895	14.772	PASS
66B	5+10	High	132550	132622	256QAM	13.844	14.769	PASS
66B	5+15	High	132504	132597	QPSK	18.298	19.367	PASS
66B	5+15	High	132504	132597	16QAM	18.287	19.249	PASS
66B	5+15	High	132504	132597	64QAM	18.224	19.356	PASS
66B	5+15	High	132504	132597	256QAM	18.233	19.278	PASS
66B	10+5	Low	132022	132094	QPSK	13.932	15.021	PASS
66B	10+5	Low	132022	132094	16QAM	13.911	15.010	PASS
66B	10+5	Low	132022	132094	64QAM	13.886	14.981	PASS
66B	10+5	Low	132022	132094	256QAM	13.912	14.983	PASS
66B	10+10	Low	132022	132121	QPSK	18.875	20.230	PASS
66B	10+10	Low	132022	132121	16QAM	18.834	20.350	PASS
66B	10+10	Low	132022	132121	64QAM	18.871	20.232	PASS



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66B	10+10	Low	132022	132121	256QAM	18.887	20.155	PASS
66B	10+5	Mid	132397	132469	QPSK	13.915	14.966	PASS
66B	10+5	Mid	132397	132469	16QAM	13.911	15.072	PASS
66B	10+5	Mid	132397	132469	64QAM	13.929	15.043	PASS
66B	10+5	Mid	132397	132469	256QAM	13.967	14.934	PASS
66B	10+10	Mid	132373	132472	QPSK	18.870	20.093	PASS
66B	10+10	Mid	132373	132472	16QAM	18.835	20.009	PASS
66B	10+10	Mid	132373	132472	64QAM	18.852	20.187	PASS
66B	10+10	Mid	132373	132472	256QAM	18.766	20.238	PASS
66B	10+5	High	132572	132644	QPSK	13.911	14.896	PASS
66B	10+5	High	132572	132644	16QAM	13.872	14.981	PASS
66B	10+5	High	132572	132644	64QAM	13.904	14.908	PASS
66B	10+5	High	132572	132644	256QAM	13.882	14.902	PASS
66B	10+10	High	132523	132622	QPSK	18.849	20.275	PASS
66B	10+10	High	132523	132622	16QAM	18.868	20.147	PASS
66B	10+10	High	132523	132622	64QAM	18.794	20.091	PASS
66B	10+10	High	132523	132622	256QAM	18.884	20.209	PASS
66B	15+5	Low	132047	132140	QPSK	18.335	19.746	PASS
66B	15+5	Low	132047	132140	16QAM	18.338	19.676	PASS
66B	15+5	Low	132047	132140	64QAM	18.336	19.762	PASS
66B	15+5	Low	132047	132140	256QAM	18.349	19.614	PASS
66B	15+5	Mid	132398	132491	QPSK	18.338	19.579	PASS
66B	15+5	Mid	132398	132491	16QAM	18.310	19.646	PASS
66B	15+5	Mid	132398	132491	64QAM	18.324	19.578	PASS
66B	15+5	Mid	132398	132491	256QAM	18.290	19.649	PASS
66B	15+5	High	132549	132642	QPSK	18.283	19.697	PASS
66B	15+5	High	132549	132642	16QAM	18.287	19.583	PASS
66B	15+5	High	132549	132642	64QAM	18.247	19.697	PASS
66B	15+5	High	132549	132642	256QAM	18.265	19.594	PASS
66C	5+20	Low	132005	132122	QPSK	22.793	23.724	PASS
66C	5+20	Low	132005	132122	16QAM	22.718	23.796	PASS
66C	5+20	Low	132005	132122	64QAM	22.758	23.744	PASS
66C	5+20	Low	132005	132122	256QAM	22.770	23.792	PASS
66C	5+20	Mid	132330	132447	QPSK	22.631	23.712	PASS
66C	5+20	Mid	132330	132447	16QAM	22.710	23.723	PASS
66C	5+20	Mid	132330	132447	64QAM	22.616	23.754	PASS
66C	5+20	Mid	132330	132447	256QAM	22.668	23.647	PASS
66C	5+20	High	132455	132572	QPSK	22.766	23.816	PASS



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66C	5+20	High	132455	132572	16QAM	22.769	23.818	PASS
66C	5+20	High	132455	132572	64QAM	22.780	23.875	PASS
66C	5+20	High	132455	132572	256QAM	22.700	23.683	PASS
66C	10+15	Low	132025	132145	QPSK	23.076	24.329	PASS
66C	10+15	Low	132025	132145	16QAM	23.005	24.201	PASS
66C	10+15	Low	132025	132145	64QAM	23.038	24.147	PASS
66C	10+15	Low	132025	132145	256QAM	23.047	24.286	PASS
66C	10+20	Low	132027	132171	QPSK	27.701	28.938	PASS
66C	10+20	Low	132027	132171	16QAM	27.670	28.817	PASS
66C	10+20	Low	132027	132171	64QAM	27.691	28.983	PASS
66C	10+20	Low	132027	132171	256QAM	27.673	28.910	PASS
66C	10+15	Mid	132351	132471	QPSK	23.011	24.305	PASS
66C	10+15	Mid	132351	132471	16QAM	22.973	24.171	PASS
66C	10+15	Mid	132351	132471	64QAM	23.039	24.170	PASS
66C	10+15	Mid	132351	132471	256QAM	23.005	24.173	PASS
66C	10+20	Mid	132328	132472	QPSK	27.602	28.792	PASS
66C	10+20	Mid	132328	132472	16QAM	27.490	28.843	PASS
66C	10+20	Mid	132328	132472	64QAM	27.567	29.038	PASS
66C	10+20	Mid	132328	132472	256QAM	27.581	28.778	PASS
66C	10+15	High	132477	132597	QPSK	23.063	24.184	PASS
66C	10+15	High	132477	132597	16QAM	23.075	24.240	PASS
66C	10+15	High	132477	132597	64QAM	23.073	24.300	PASS
66C	10+15	High	132477	132597	256QAM	23.049	24.209	PASS
66C	10+20	High	132428	132572	QPSK	27.679	29.002	PASS
66C	10+20	High	132428	132572	16QAM	27.662	28.932	PASS
66C	10+20	High	132428	132572	64QAM	27.697	28.908	PASS
66C	10+20	High	132428	132572	256QAM	27.625	28.834	PASS
66C	15+10	Low	132047	132167	QPSK	23.058	24.640	PASS
66C	15+10	Low	132047	132167	16QAM	23.080	24.534	PASS
66C	15+10	Low	132047	132167	64QAM	23.060	24.505	PASS
66C	15+10	Low	132047	132167	256QAM	23.064	24.296	PASS
66C	15+15	Low	132047	132197	QPSK	28.241	29.703	PASS
66C	15+15	Low	132047	132197	16QAM	28.299	29.749	PASS
66C	15+15	Low	132047	132197	64QAM	28.262	29.735	PASS
66C	15+15	Low	132047	132197	256QAM	28.299	29.776	PASS
66C	15+20	Low	132050	132221	QPSK	32.619	34.252	PASS
66C	15+20	Low	132050	132221	16QAM	32.568	34.104	PASS
66C	15+20	Low	132050	132221	64QAM	32.641	34.169	PASS



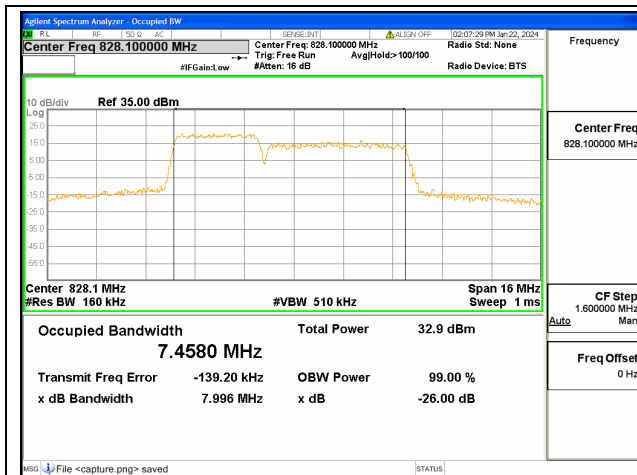
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66C	15+20	Low	132050	132221	256QAM	32.624	34.188	PASS
66C	15+10	Mid	132373	132493	QPSK	23.011	24.360	PASS
66C	15+10	Mid	132373	132493	16QAM	23.069	24.378	PASS
66C	15+10	Mid	132373	132493	64QAM	23.058	24.485	PASS
66C	15+10	Mid	132373	132493	256QAM	23.046	24.429	PASS
66C	15+15	Mid	132347	132497	QPSK	28.351	29.497	PASS
66C	15+15	Mid	132347	132497	16QAM	28.215	29.660	PASS
66C	15+15	Mid	132347	132497	64QAM	28.193	29.619	PASS
66C	15+15	Mid	132347	132497	256QAM	28.230	29.570	PASS
66C	15+20	Mid	132325	132496	QPSK	32.526	34.083	PASS
66C	15+20	Mid	132325	132496	16QAM	32.586	34.133	PASS
66C	15+20	Mid	132325	132496	64QAM	32.571	33.894	PASS
66C	15+20	Mid	132325	132496	256QAM	32.503	34.099	PASS
66C	15+10	High	132499	132619	QPSK	23.120	24.493	PASS
66C	15+10	High	132499	132619	16QAM	23.129	24.302	PASS
66C	15+10	High	132499	132619	64QAM	23.097	24.308	PASS
66C	15+10	High	132499	132619	256QAM	23.073	24.356	PASS
66C	15+15	High	132447	132597	QPSK	28.275	29.713	PASS
66C	15+15	High	132447	132597	16QAM	28.243	29.814	PASS
66C	15+15	High	132447	132597	64QAM	28.341	29.719	PASS
66C	15+15	High	132447	132597	256QAM	28.305	29.593	PASS
66C	15+20	High	132401	132572	QPSK	32.599	34.083	PASS
66C	15+20	High	132401	132572	16QAM	32.546	34.155	PASS
66C	15+20	High	132401	132572	64QAM	32.500	33.958	PASS
66C	15+20	High	132401	132572	256QAM	32.599	34.279	PASS
66C	20+10	Low	132072	132216	QPSK	27.675	29.331	PASS
66C	20+10	Low	132072	132216	16QAM	27.682	29.341	PASS
66C	20+10	Low	132072	132216	64QAM	27.723	29.460	PASS
66C	20+10	Low	132072	132216	256QAM	27.681	29.222	PASS
66C	20+15	Low	132072	132243	QPSK	32.625	34.288	PASS
66C	20+15	Low	132072	132243	16QAM	32.682	34.387	PASS
66C	20+15	Low	132072	132243	64QAM	32.558	34.362	PASS
66C	20+15	Low	132072	132243	256QAM	32.603	34.100	PASS
66C	20+5	Low	132072	132189	QPSK	22.892	24.007	PASS
66C	20+5	Low	132072	132189	16QAM	22.803	24.077	PASS
66C	20+5	Low	132072	132189	64QAM	22.865	24.111	PASS
66C	20+5	Low	132072	132189	256QAM	22.840	23.844	PASS
66C	20+20	Low	132072	132270	QPSK	37.505	39.253	PASS

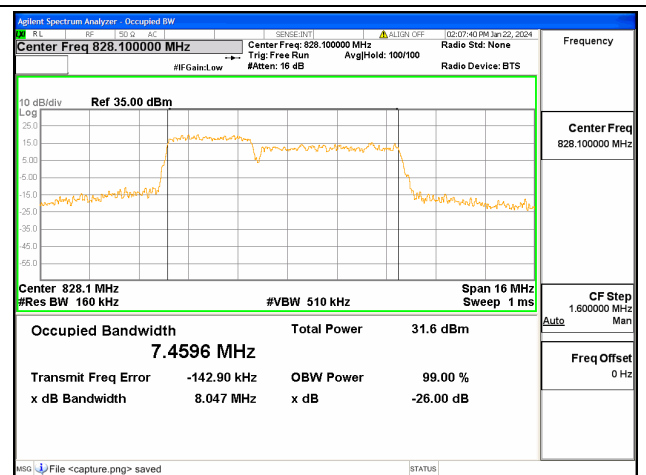


REPORT No.: SZ23120302W01

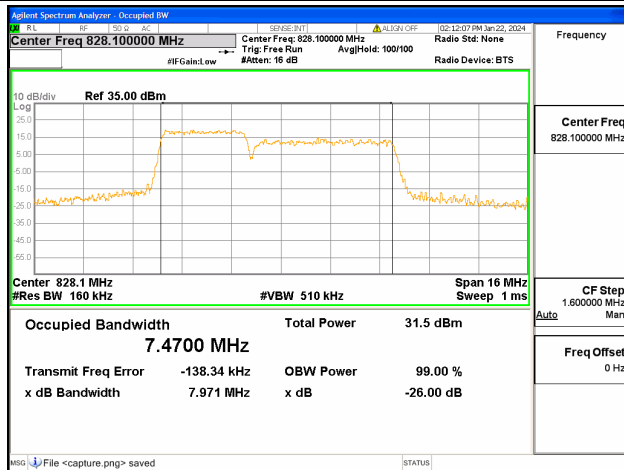
66C	20+20	Low	132072	132270	16QAM	37.517	39.462	PASS
66C	20+20	Low	132072	132270	64QAM	37.538	39.458	PASS
66C	20+20	Low	132072	132270	256QAM	37.520	39.256	PASS
66C	20+10	Mid	132373	132517	QPSK	27.715	29.365	PASS
66C	20+10	Mid	132373	132517	16QAM	27.703	29.232	PASS
66C	20+10	Mid	132373	132517	64QAM	27.658	29.367	PASS
66C	20+10	Mid	132373	132517	256QAM	27.766	29.068	PASS
66C	20+15	Mid	132348	132519	QPSK	32.624	34.239	PASS
66C	20+15	Mid	132348	132519	16QAM	32.593	34.147	PASS
66C	20+15	Mid	132348	132519	64QAM	32.575	34.224	PASS
66C	20+15	Mid	132348	132519	256QAM	32.541	34.293	PASS
66C	20+5	Mid	132397	132514	QPSK	22.888	24.037	PASS
66C	20+5	Mid	132397	132514	16QAM	22.839	23.882	PASS
66C	20+5	Mid	132397	132514	64QAM	22.837	24.006	PASS
66C	20+5	Mid	132397	132514	256QAM	22.844	24.031	PASS
66C	20+20	Mid	132323	132521	QPSK	37.526	39.481	PASS
66C	20+20	Mid	132323	132521	16QAM	37.519	39.409	PASS
66C	20+20	Mid	132323	132521	64QAM	37.465	39.100	PASS
66C	20+20	Mid	132323	132521	256QAM	37.529	39.407	PASS
66C	20+10	High	132473	132617	QPSK	27.644	29.318	PASS
66C	20+10	High	132473	132617	16QAM	27.739	29.265	PASS
66C	20+10	High	132473	132617	64QAM	27.722	29.174	PASS
66C	20+10	High	132473	132617	256QAM	27.759	29.186	PASS
66C	20+15	High	132423	132594	QPSK	32.578	34.358	PASS
66C	20+15	High	132423	132594	16QAM	32.527	34.284	PASS
66C	20+15	High	132423	132594	64QAM	32.606	34.477	PASS
66C	20+15	High	132423	132594	256QAM	32.604	34.343	PASS
66C	20+5	High	132522	132639	QPSK	22.826	23.988	PASS
66C	20+5	High	132522	132639	16QAM	22.828	24.150	PASS
66C	20+5	High	132522	132639	64QAM	22.835	24.098	PASS
66C	20+5	High	132522	132639	256QAM	22.843	24.047	PASS
66C	20+20	High	132374	132572	QPSK	37.424	39.499	PASS
66C	20+20	High	132374	132572	16QAM	37.465	39.518	PASS
66C	20+20	High	132374	132572	64QAM	37.513	39.437	PASS
66C	20+20	High	132374	132572	256QAM	37.525	39.330	PASS



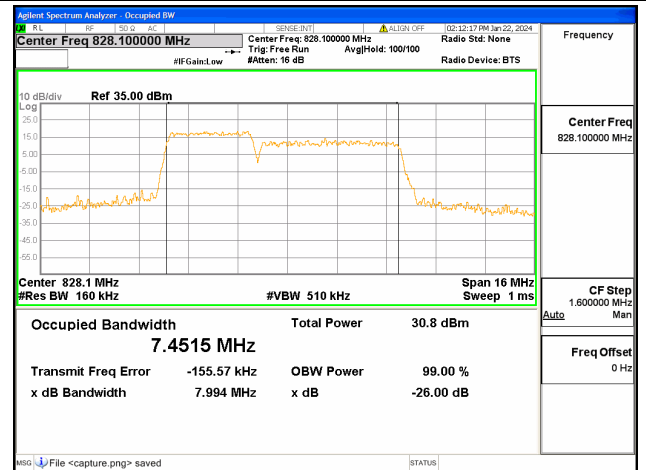
5B / 3+5MHz / QPSK/ Low CH



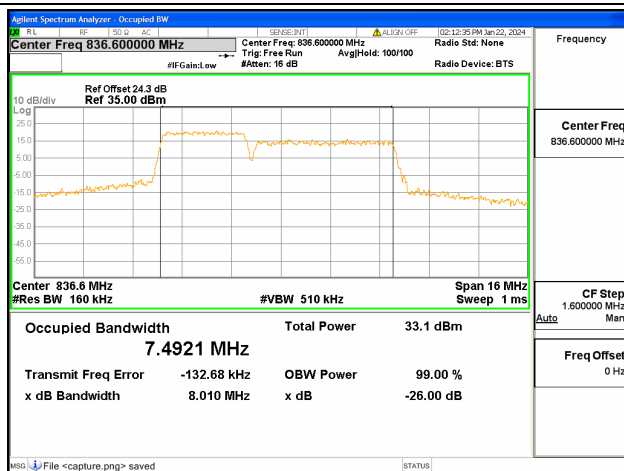
5B / 3+5MHz / 16QAM/ Low CH



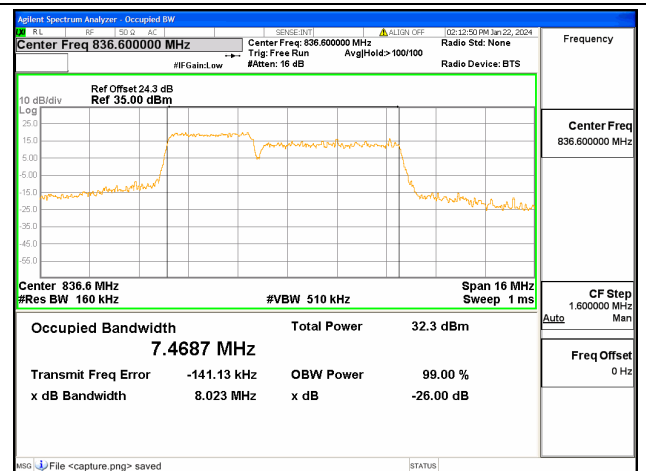
5B / 3+5MHz / 64QAM/ Low CH



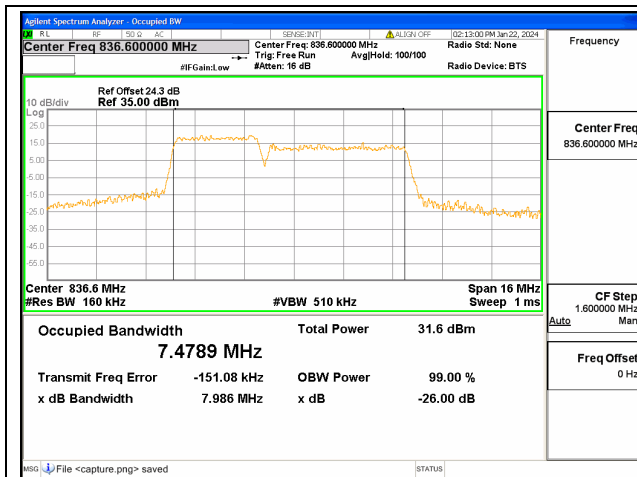
5B / 3+5MHz / 256QAM/ Low CH



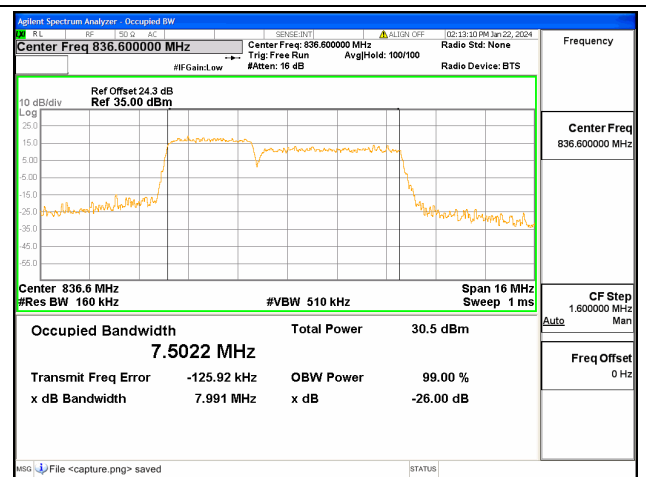
5B / 3+5MHz / QPSK/ Mid CH



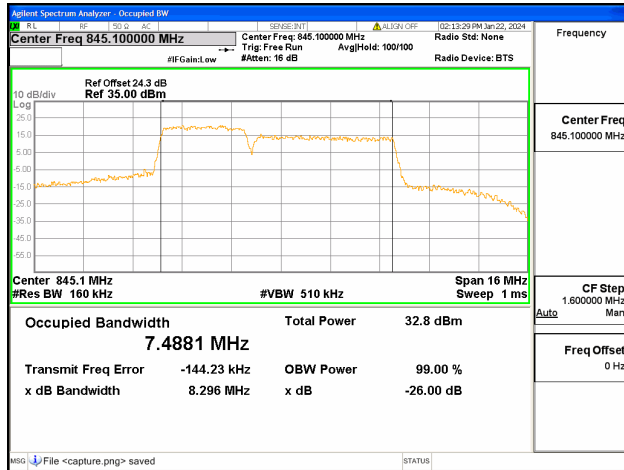
5B / 3+5MHz / 16QAM/ Mid CH



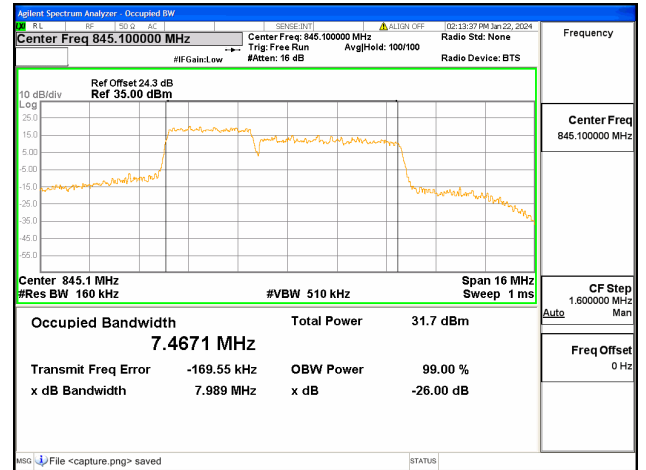
5B / 3+5MHz / 64QAM/ Mid CH



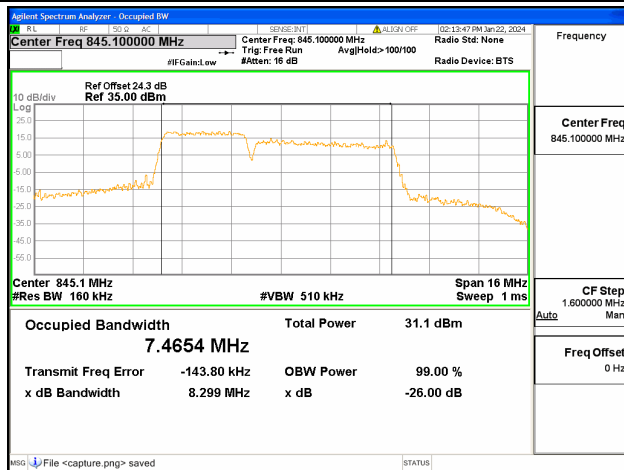
5B / 3+5MHz / 256QAM/ Mid CH



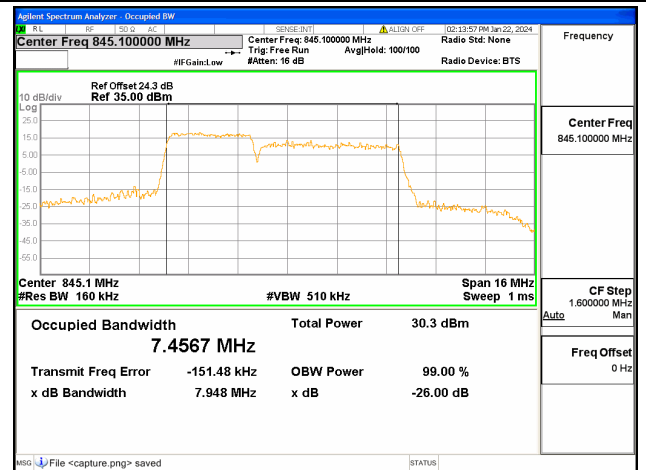
5B / 3+5MHz / QPSK/ High CH



5B / 3+5MHz / 16QAM/ High CH



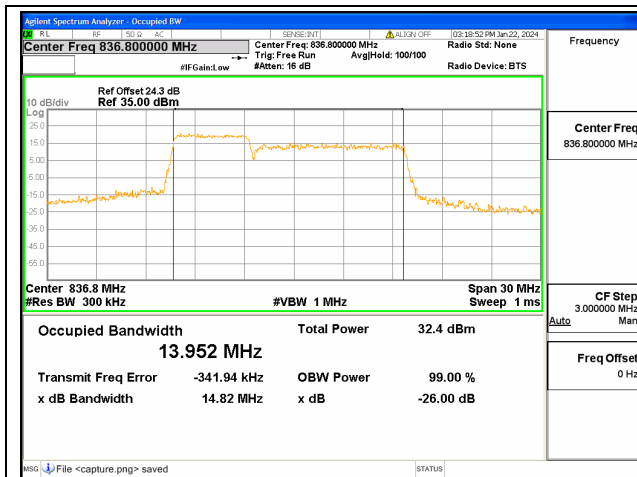
5B / 3+5MHz / 64QAM/ High CH



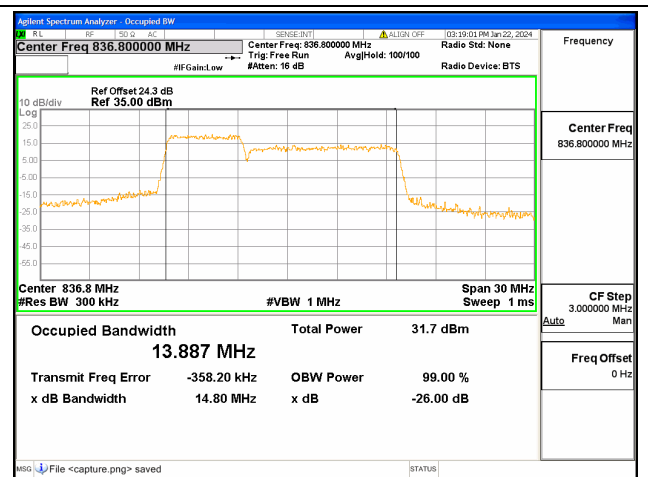
5B / 3+5MHz / 256QAM/ High CH



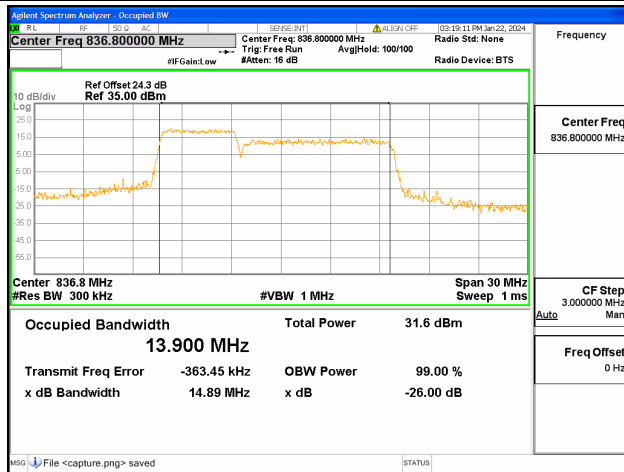




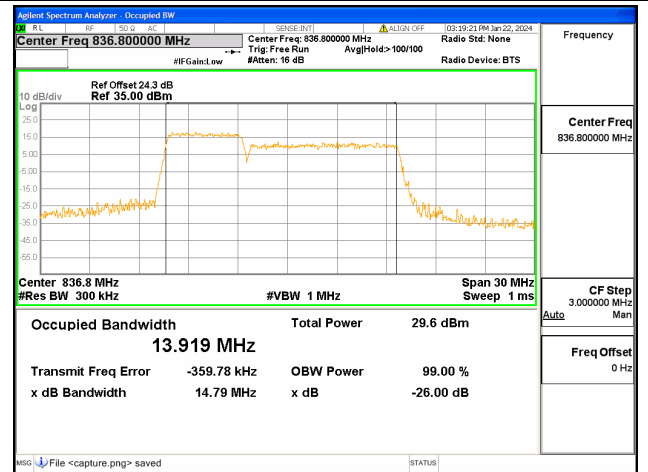
5B / 5+10MHz / QPSK/ Mid CH



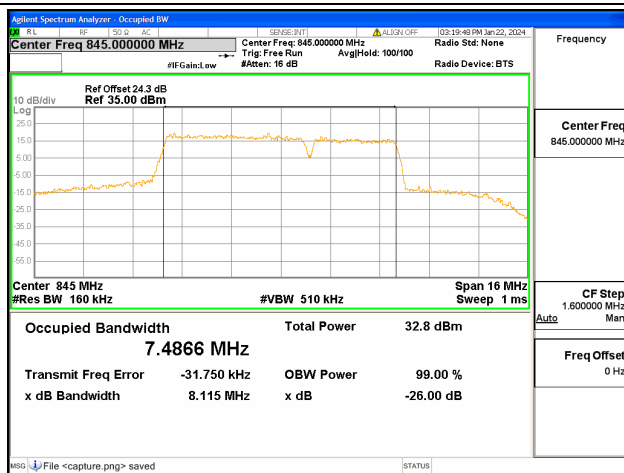
5B / 5+10MHz / 16QAM/ Mid CH



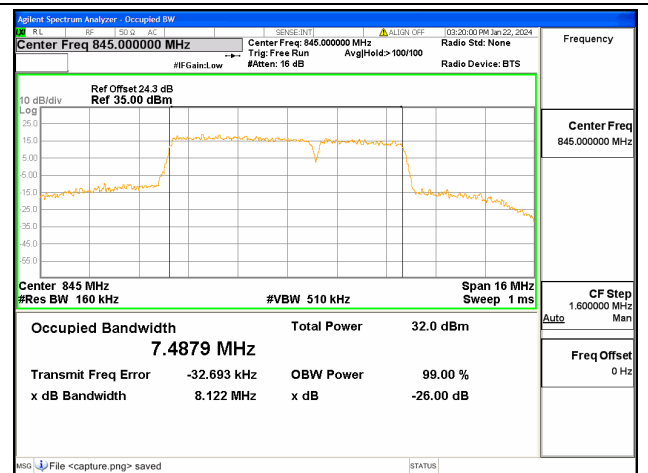
5B / 5+10MHz / 64QAM/ Mid CH



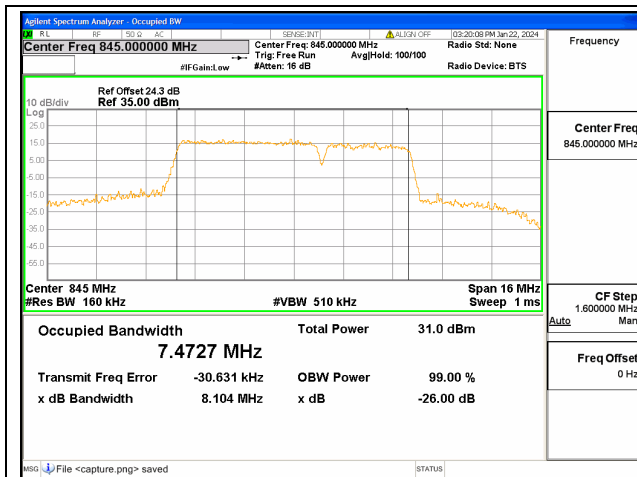
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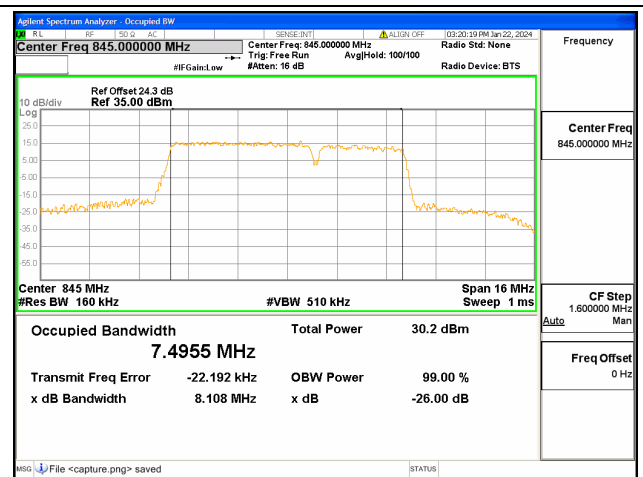
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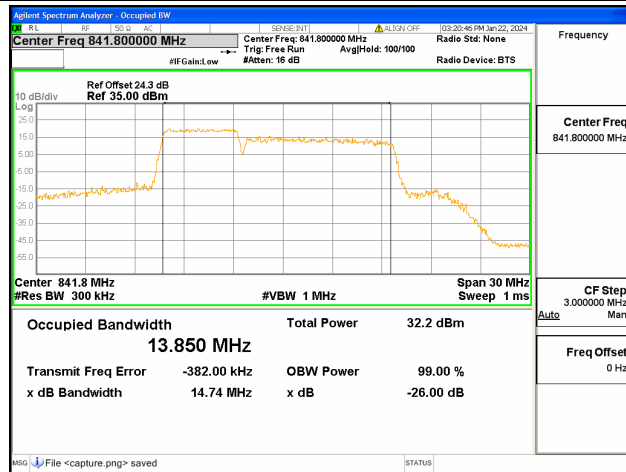
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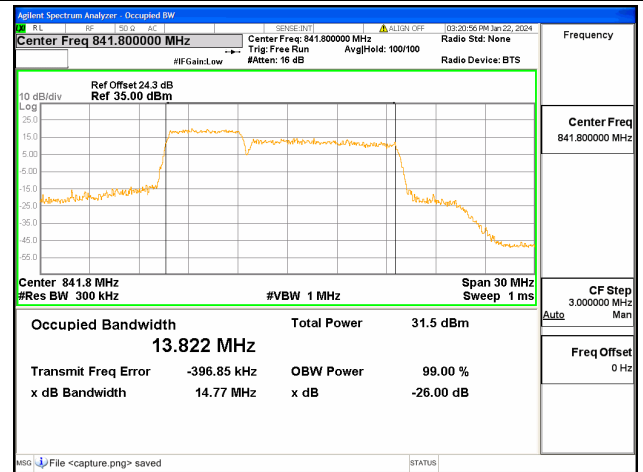
5B / 5+3MHz / 64QAM/ High CH



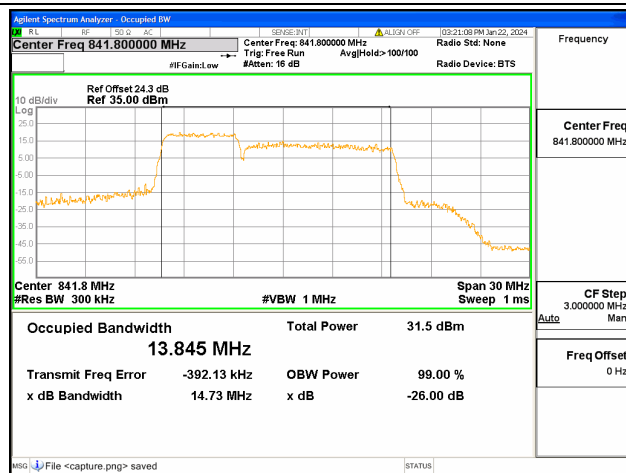
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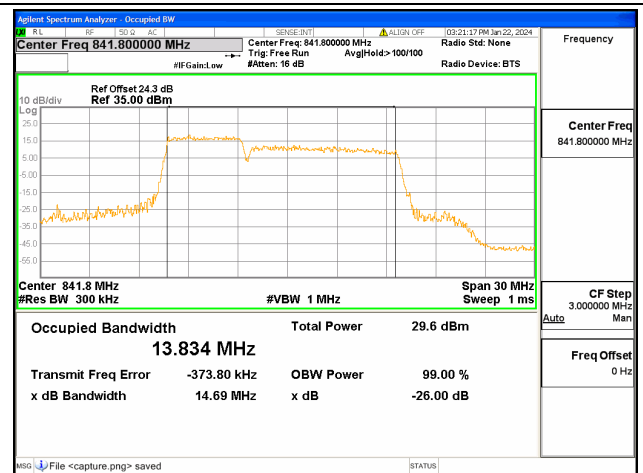
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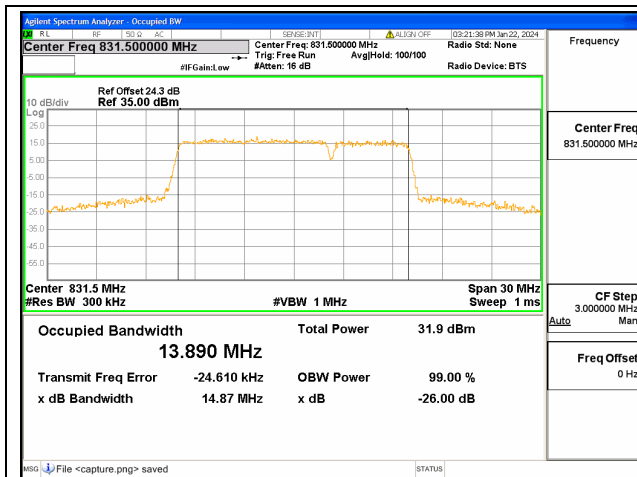
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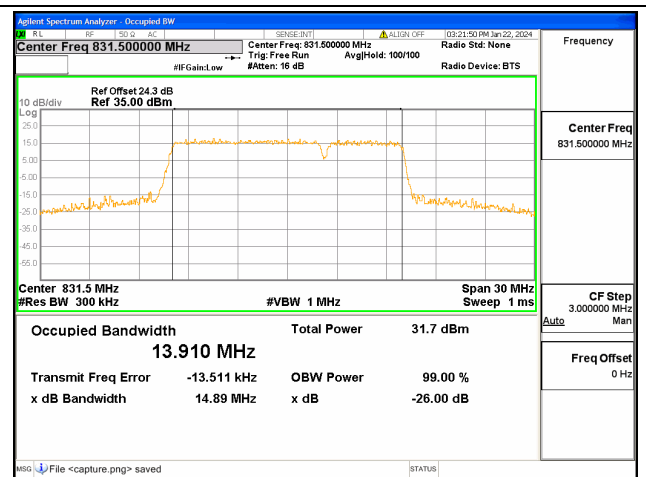
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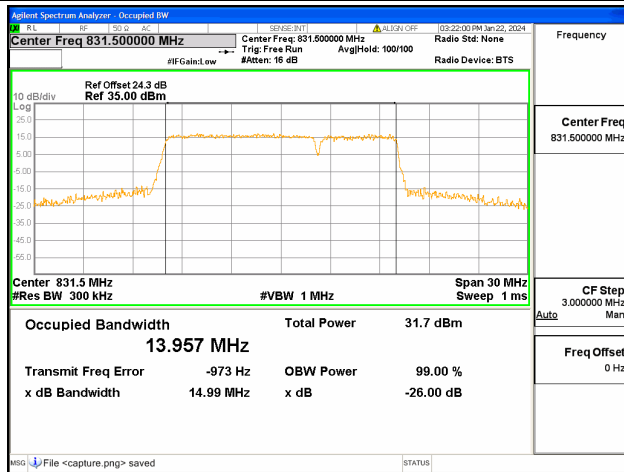
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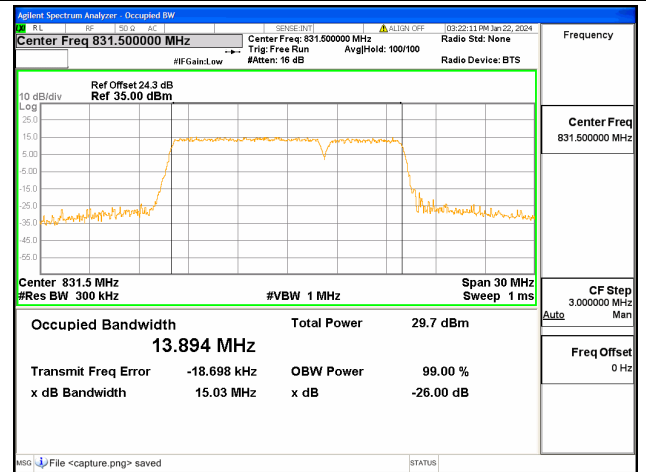
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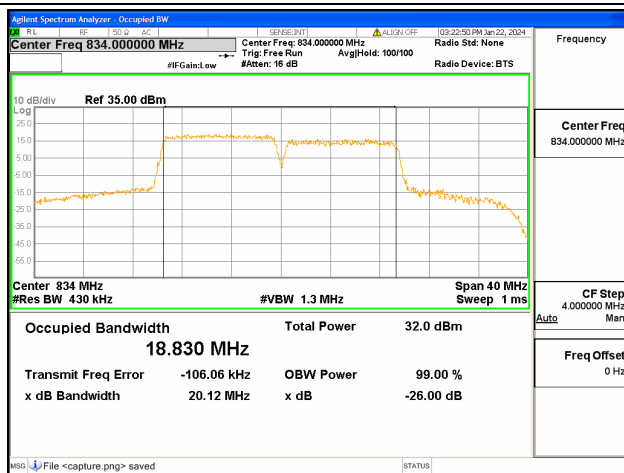
5B / 10+5MHz / 16QAM/ Low CH



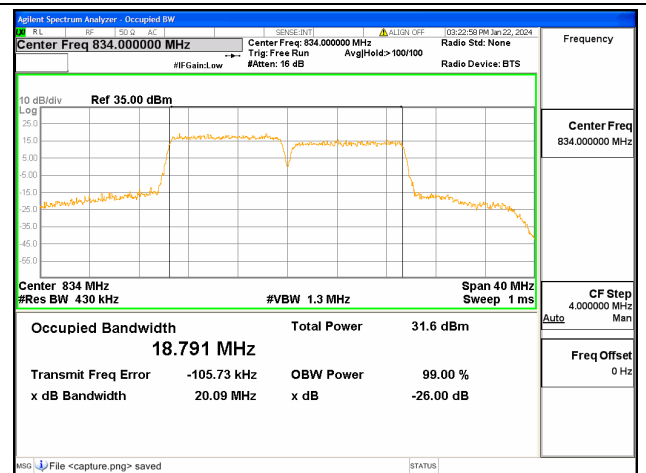
5B / 10+5MHz / 64QAM/ Low CH



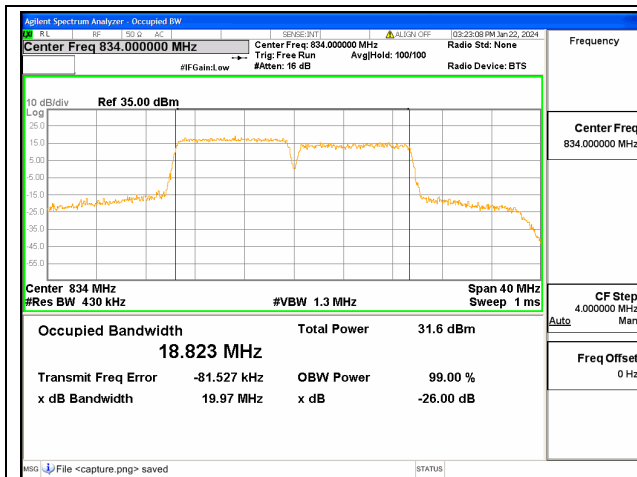
5B / 10+5MHz / 256QAM/ Low CH



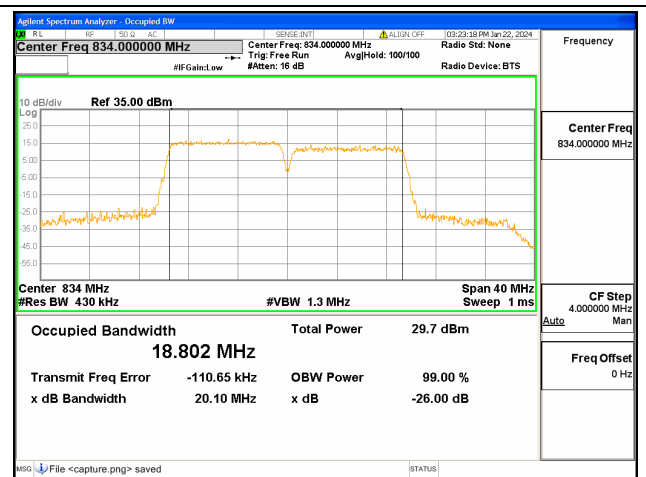
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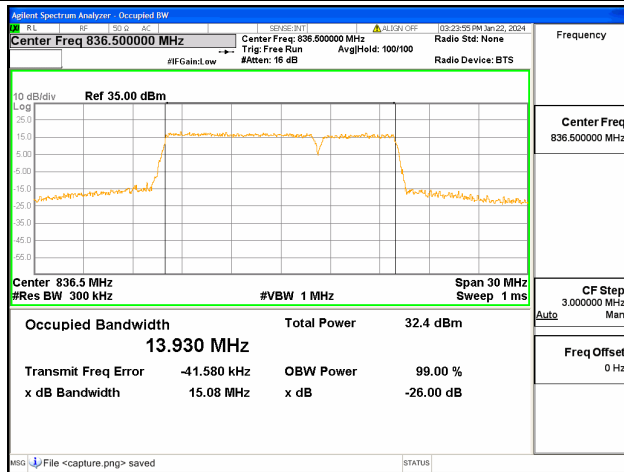
5B / 10+10MHz / 16QAM/ Low CH



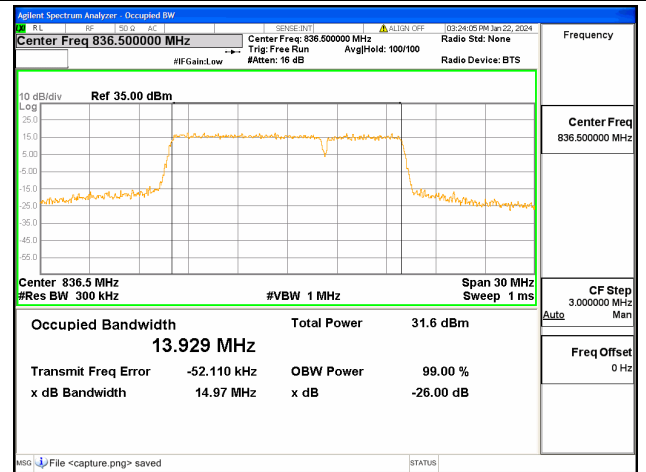
5B / 10+10MHz / 64QAM/ Low CH



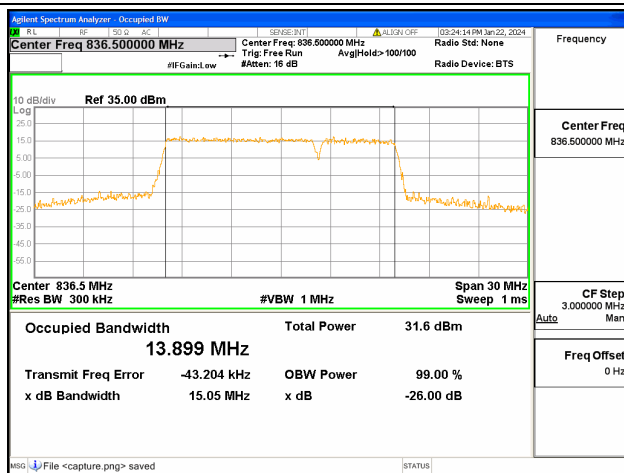
5B / 10+10MHz / 256QAM/ Low CH



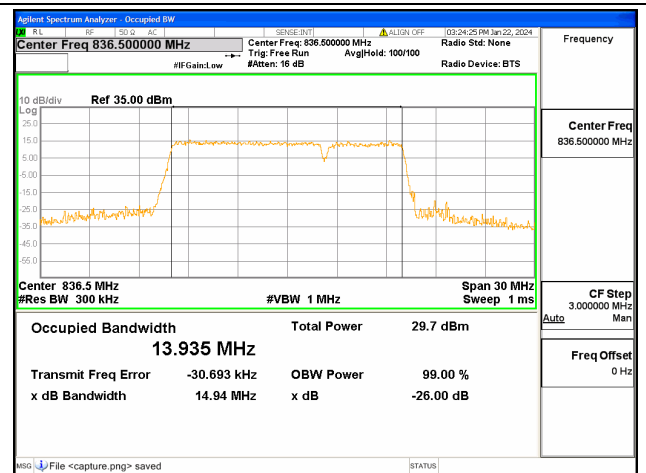
5B / 10+5MHz / QPSK/ Mid CH



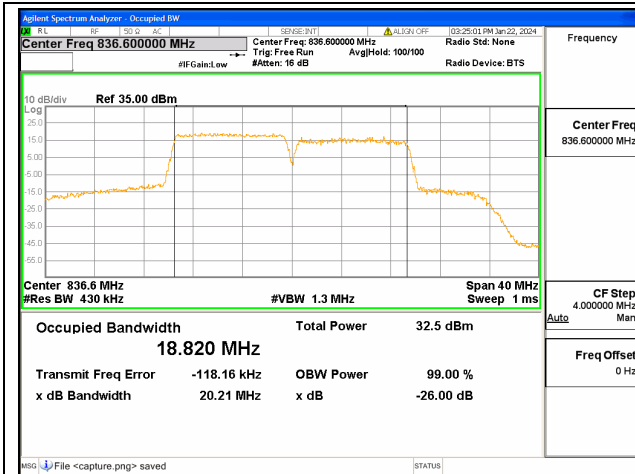
5B / 10+5MHz / 16QAM/ Mid CH



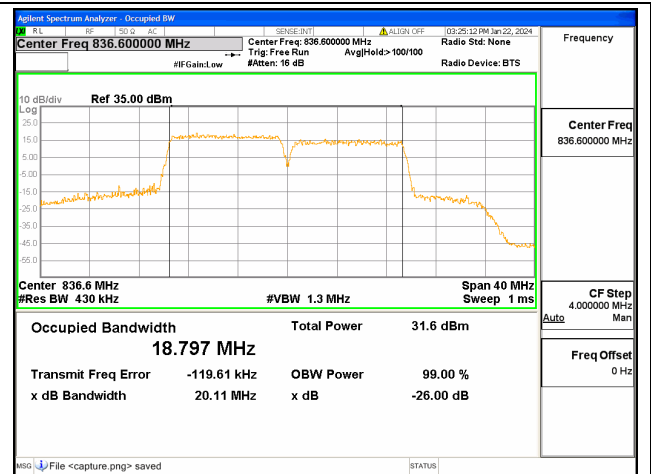
5B / 10+5MHz / 64QAM/ Mid CH



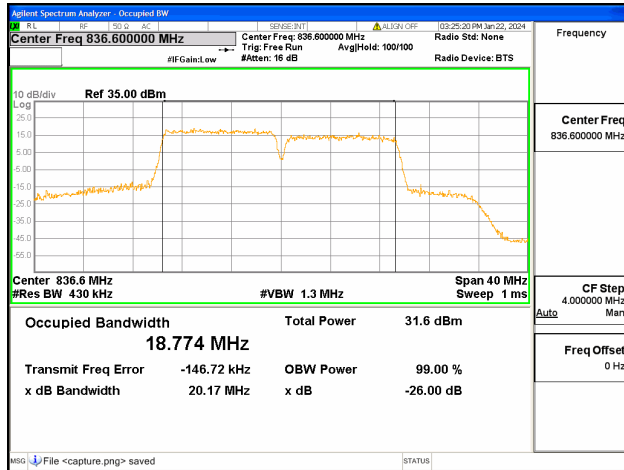
5B / 10+5MHz / 256QAM/ Mid CH



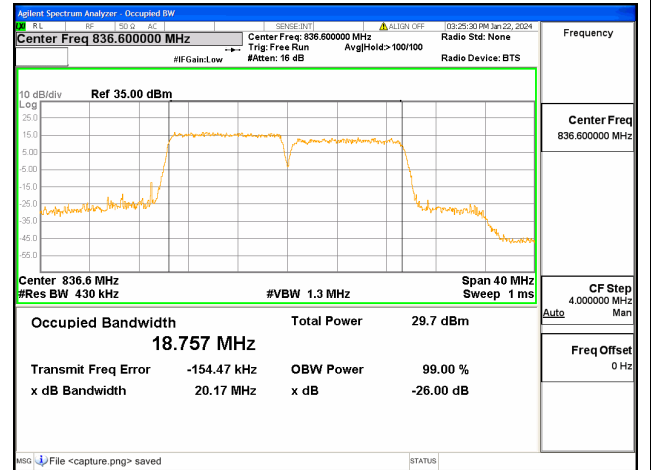
5B / 10+10MHz / QPSK/ Mid CH



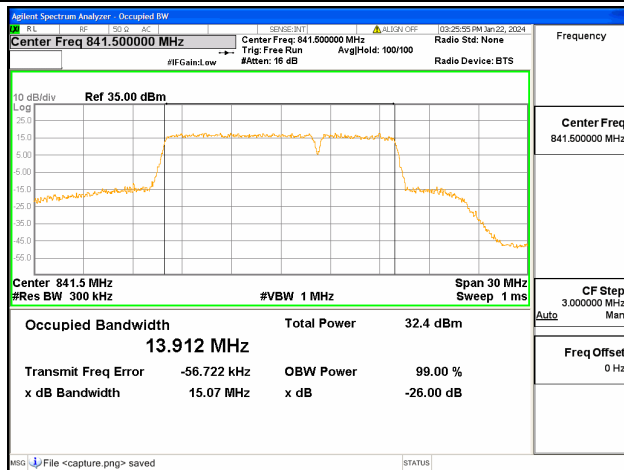
5B / 10+10MHz / 16QAM/ Mid CH



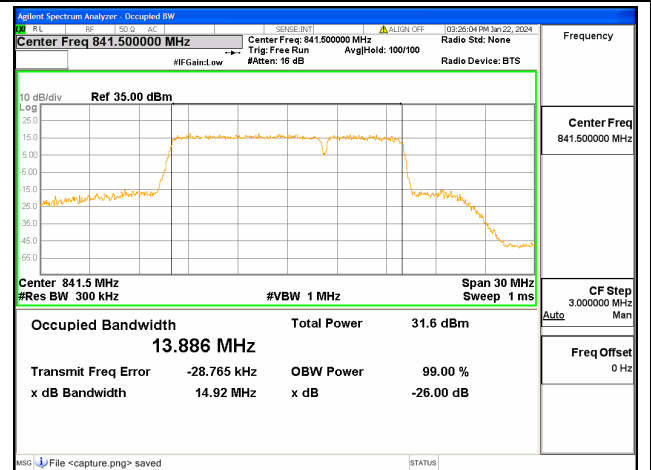
5B / 10+10MHz / 64QAM/ Mid CH



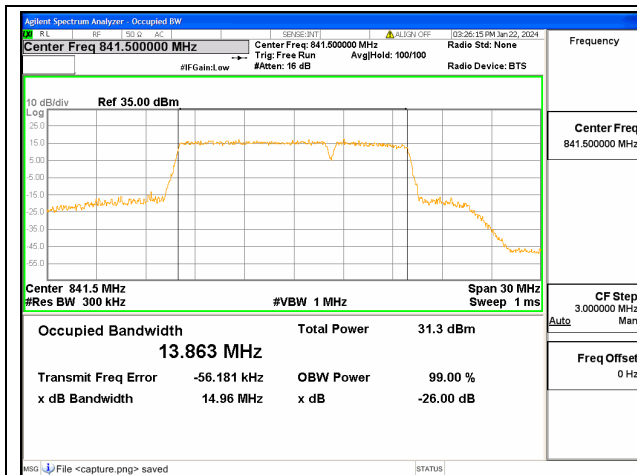
5B / 10+10MHz / 256QAM/ Mid CH



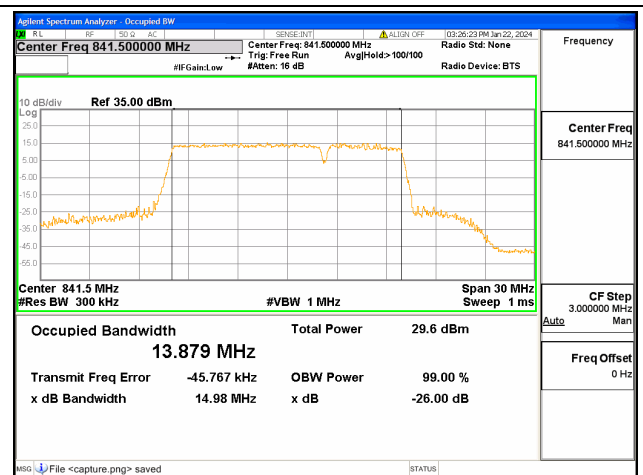
5B / 10+5MHz / QPSK/ High CH



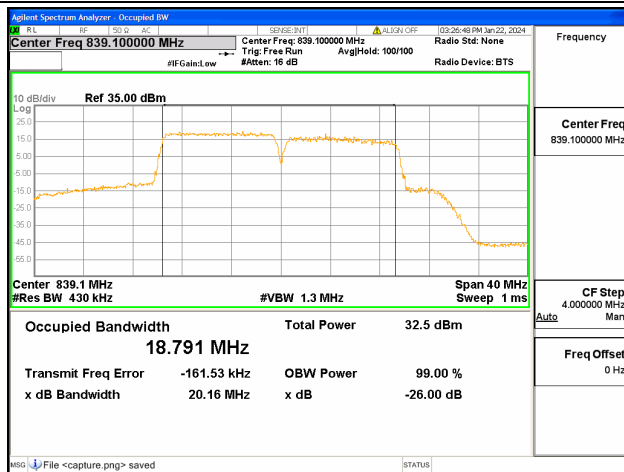
5B / 10+5MHz / 16QAM/ High CH



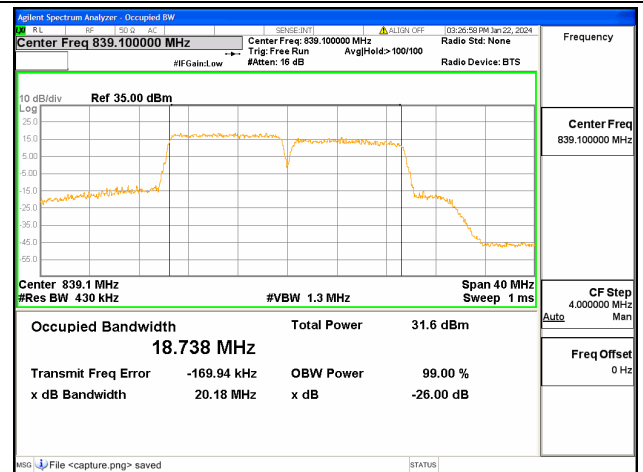
5B / 10+5MHz / 64QAM/ High CH



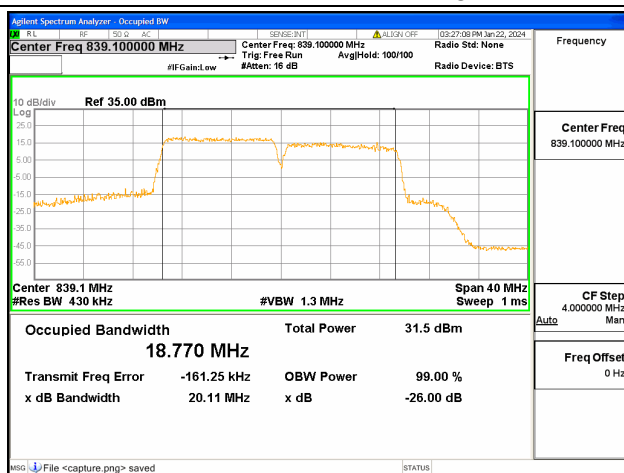
5B / 10+5MHz / 256QAM/ High CH



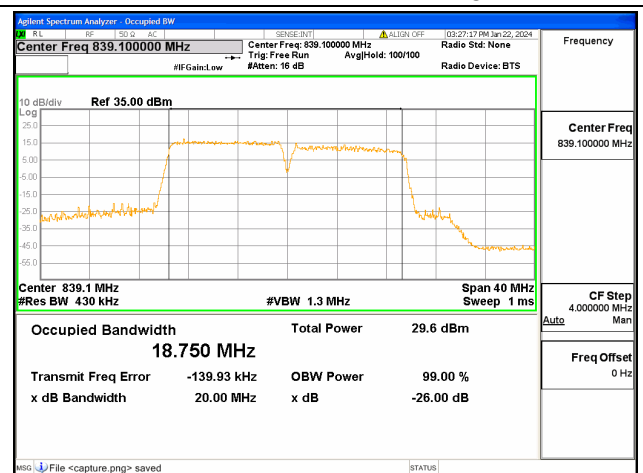
5B / 10+10MHz / QPSK/ High CH



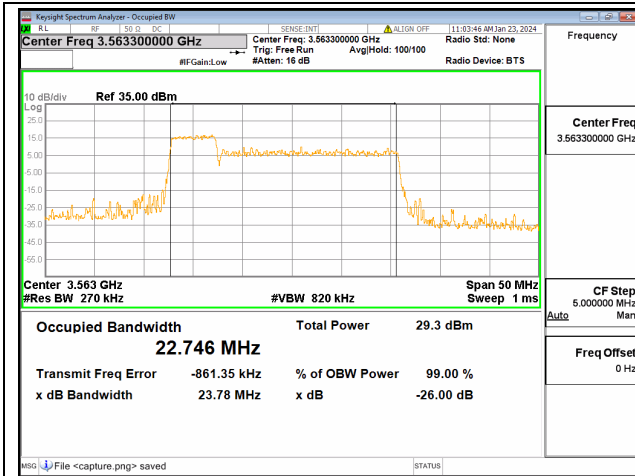
5B / 10+10MHz / 16QAM/ High CH



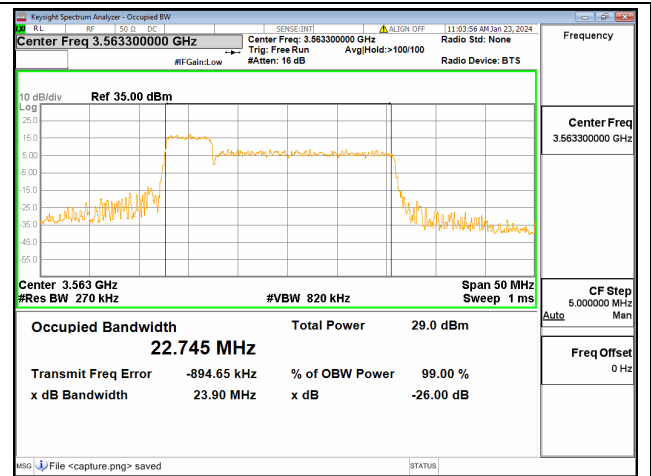
5B / 10+10MHz / 64QAM/ High CH



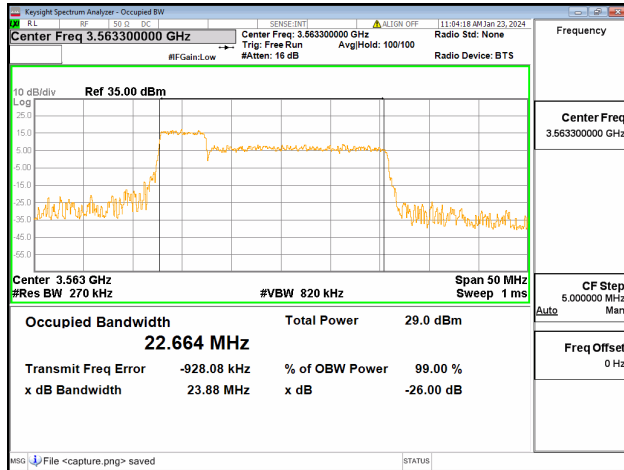
5B / 10+10MHz / 256QAM/ High CH



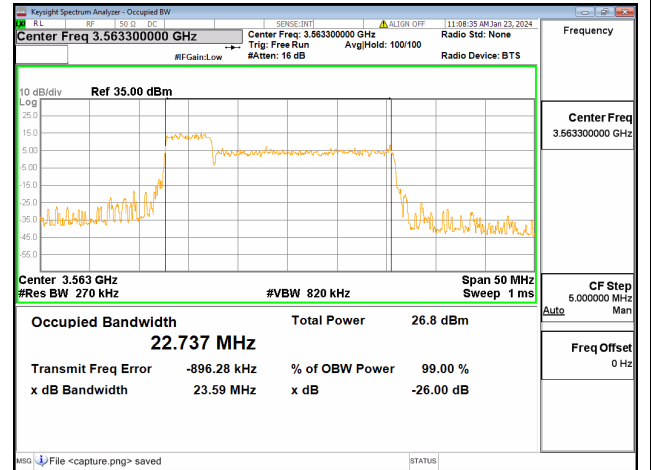
48C / 5+20MHz / QPSK/ Low CH



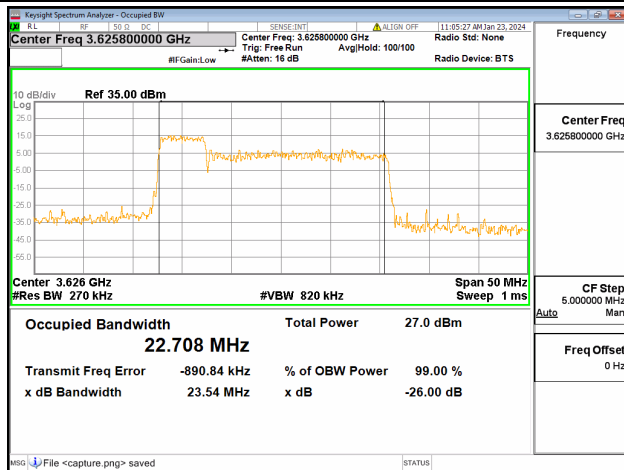
48C / 5+20MHz / 16QAM/ Low CH



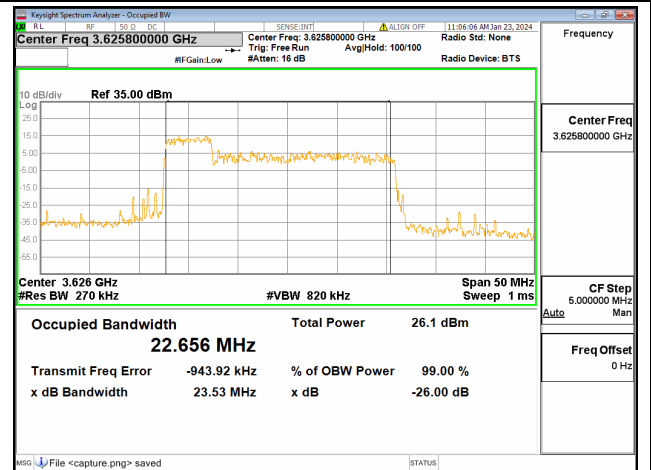
48C / 5+20MHz / 64QAM/ Low CH



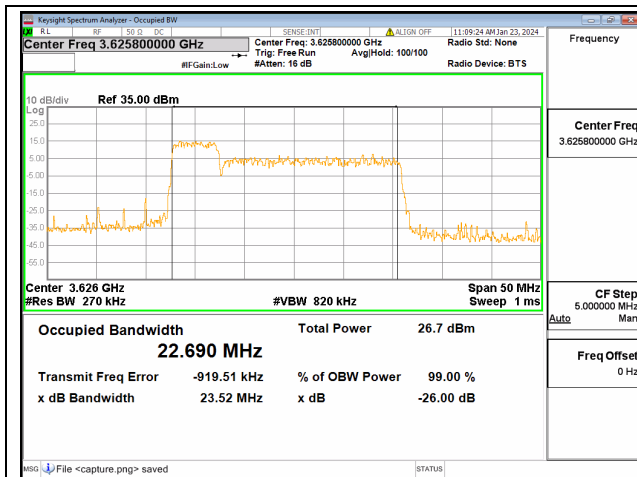
48C / 5+20MHz / 256QAM/ Low CH



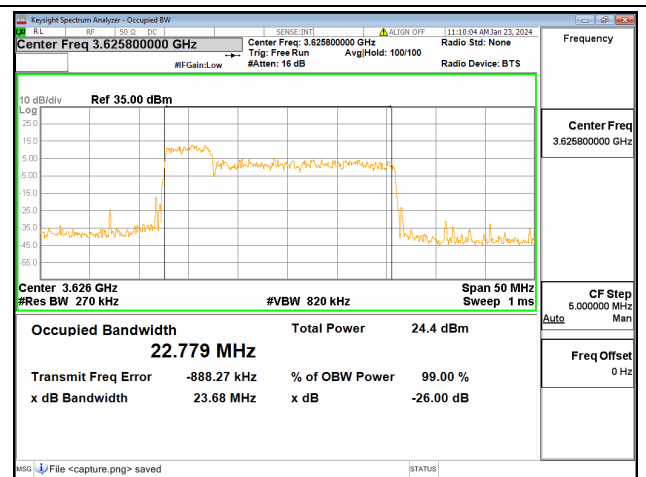
48C / 5+20MHz / QPSK/ Mid CH



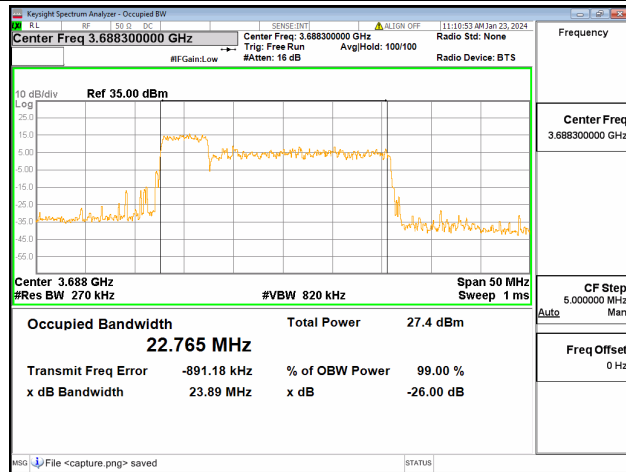
48C / 5+20MHz / 16QAM/ Mid CH



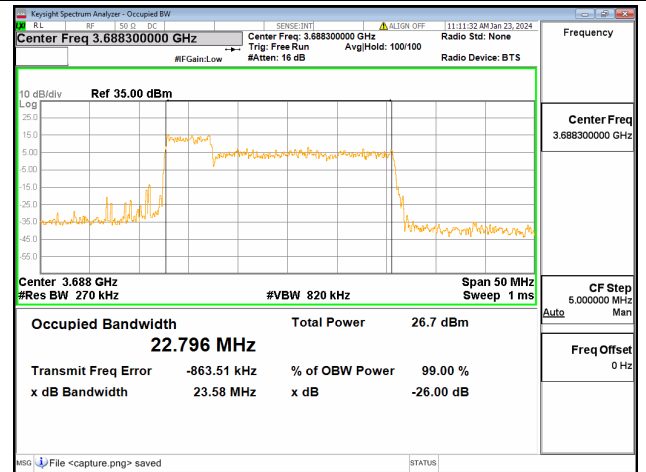
48C / 5+20MHz / 64QAM/ Mid CH



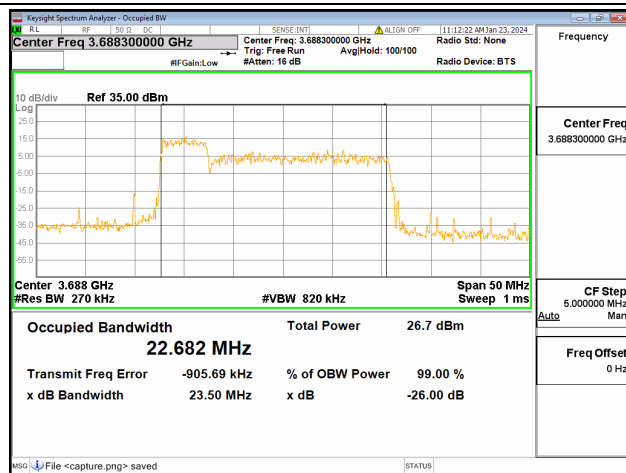
48C / 5+20MHz / 256QAM/ Mid CH



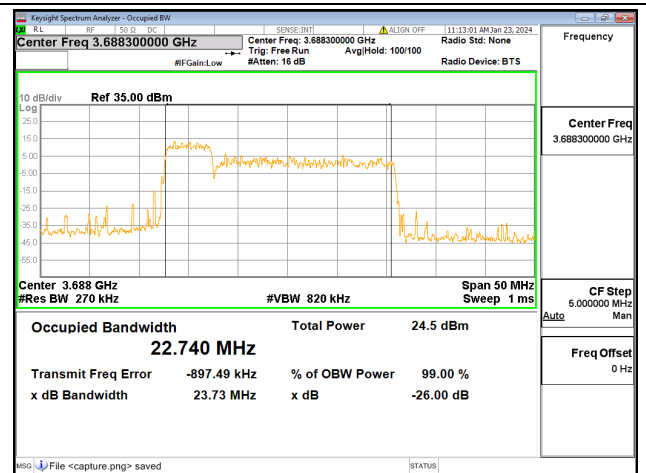
48C / 5+20MHz / QPSK/ High CH



48C / 5+20MHz / 16QAM/ High CH



48C / 5+20MHz / 64QAM/ High CH

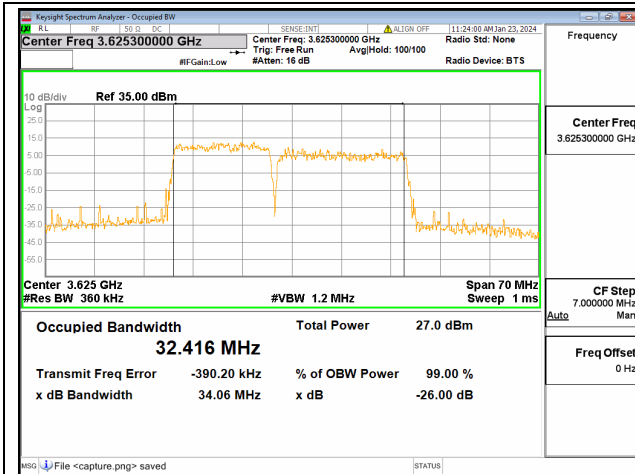


48C / 5+20MHz / 256QAM/ High CH

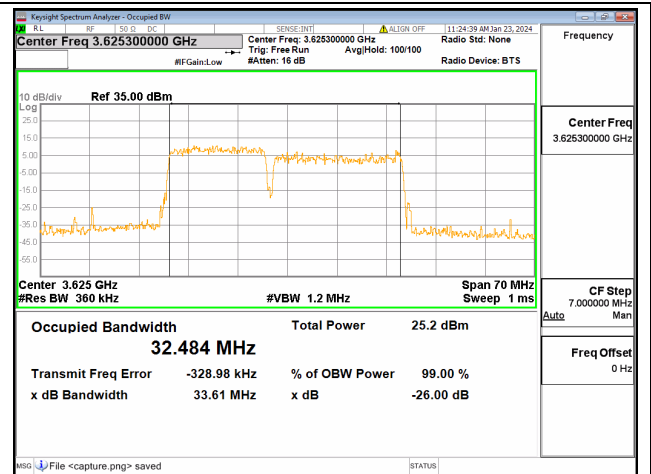




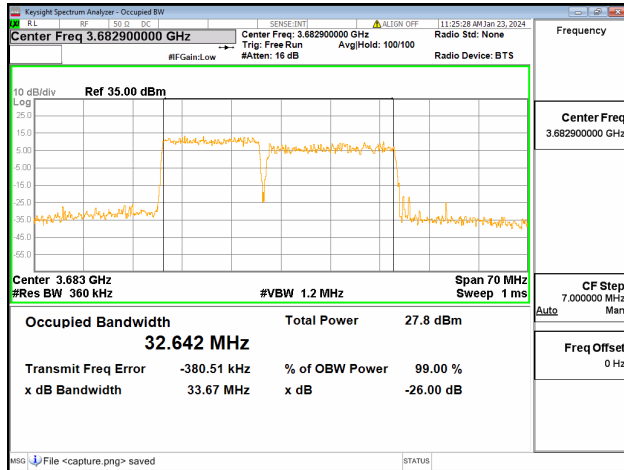




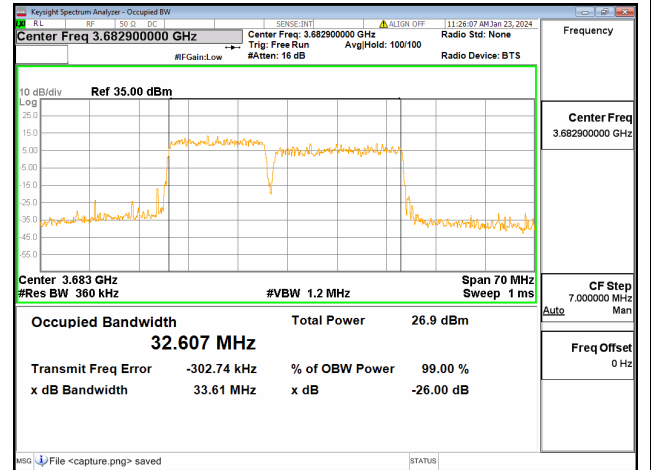
48C / 15+20MHz / 64QAM/ Mid CH



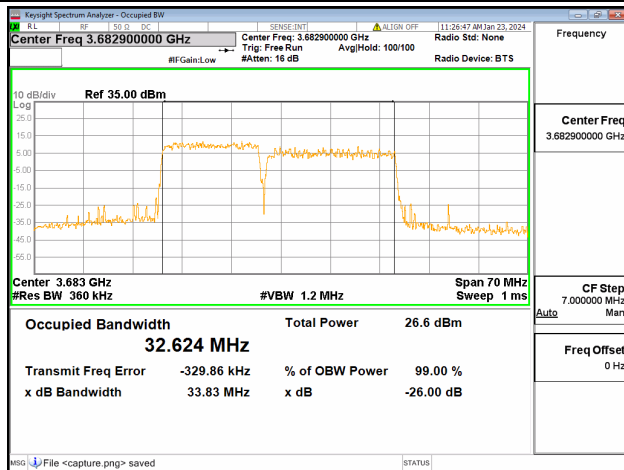
48C / 15+20MHz / 256QAM/ Mid CH



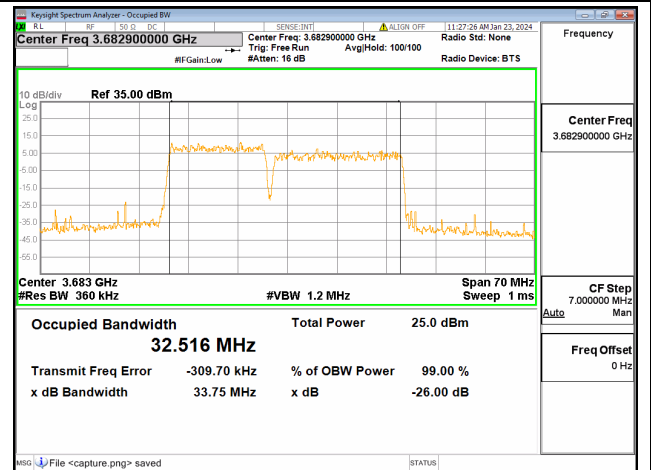
48C / 15+20MHz / QPSK/ High CH



48C / 15+20MHz / 16QAM/ High CH



48C / 15+20MHz / 64QAM/ High CH



48C / 15+20MHz / 256QAM/ High CH