REPORT No.: SZ24070315W11

TEST REPORT

APPLICANT	:	OnePlus Technology (Shenzhen) Co., Ltd.
PRODUCT NAME	:	Mobile Phone
MODEL NAME	:	CPH2647
BRAND NAME	:	OPPO
FCC ID	:	2ABZ2-OP23869
STANDARD(S)	:	47 CFR Part 2 47 CFR Part 22 47 CFR Part 24 47 CFR Part 27 47 CFR Part 96
RECEIPT DATE	:	2024-08-19
TEST DATE	:	2024-08-15 to 202-09-30
ISSUE DATE	:	2024-10-12

Edited by: Gan Jing (Rapporteur)

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2024-10-12	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	OnePlus Technology (Shenzhen) Co., Ltd.
Applicant Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.
Manufacturer:	OnePlus Technology (Shenzhen) Co., Ltd.
Manufacturer Address:	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.

1.2. Equipment Under Test (EUT) Description

Product Name:	Mobile Phone	
Sample No.:	4#	
Hardware Version:	11	
Software Version:	OxygenOS 15.0	
Modulation Type:	QPSK, 16QAM, 64QAM, 256QAM	
Operation Band:	Uplink:2A-4A，2A-5A，2A-7A，2A-12A，2A-13A，2A-66A，2A-71A 4A-5A，4A-12A，4A-13A，4A-17A，4A-71A，5A-7A，5A-30A，5A-66A 7A-12A，12A-30A，12A-66A，13A-66A，66A-71A，12B，66B，7C，38C，41C，48C，66C	
Frequency Range:	LTE Band 2	Tx: 1850MHz–1910MHz
		Rx: 1930MHz–1990MHz
	LTE Band 4	Tx: 1710MHz–1755MHz
		Rx: 2110MHz–2155MHz
	LTE Band 5	Tx: 824MHz–849MHz
		Rx: 869MHz–894MHz
	LTE Band 7	Tx: 2500MHz–2570MHz
		Rx: 2620MHz–2690MHz
	LTE Band 12	Tx: 699MHz–716MHz
		Rx: 729MHz–746MHz
	LTE Band 13	Tx: 777MHz–787MHz

		Rx: 746MHz–756MHz
	LTE Band 17	Tx: 704MHz–716MHz
		Rx: 734MHz–746MHz
	LTE Band 30	Tx: 2305MHz–2315MHz
		Rx: 2350MHz–2360MHz
	LTE Band 38	Tx: 2570MHz–2620MHz
		Rx: 2570MHz–2620MHz
	LTE Band 41	Tx: 2496MHz–2690MHz
		Rx: 2496MHz–2690MHz
	LTE Band 66	Tx: 1710MHz–1780MHz
		Rx: 2110MHz–2200MHz
	LTE Band 71	Tx: 663MHz–698MHz
		Rx: 617MHz–652MHz
Intra-band Operation Frequency Range:	12B	703.9MHz-711.1MHz
	66B	1715MHz-1775.2MHz
	7C	2512.5MHz-2557.7MHz
	38C	2585MHz-2605MHz
	41C	2508.5MHz-2678.3MHz
	48C	3562.5MHz-3688.3MHz
	66C	1722.5MHz-1768.3MHz
Channel Bandwidth:	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 7	5 MHz, 10MHz, 15MHz, 20MHz
	Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	Band 13	5 MHz, 10MHz
	Band 17	5 MHz, 10MHz
	Band 30	5 MHz, 10MHz
	Band 38	5 MHz, 10MHz, 15MHz, 20MHz
	Band 41	5 MHz, 10MHz, 15MHz, 20MHz
	Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 71	5MHz, 10MHz, 15MHz, 20MHz
	LTE 12B	5MHz+5MHz, 5MHz+10MHz,
	LTE 7C	10MHz+20MHz,15MHz+10MHz,15MHz+15MHz, 15MHz+20MHz, 20MHz+20MHz
	LTE 38C	15MHz+15MHz, 20MHz+20MHz

	LTE 41C	5MHz+20MHz, 20MHz+5MHz,10MHz+15MHz, 15MHz+10MHz,10MHz+20MHz, 20MHz+10MHz 15MHz+15MHz,15MHz+20MHz, 20MHz+15MHz, 20MHz+20MHz
	LTE 48C	5MHz+20MHz, 20MHz+5MHz, 10MHz+20MHz, 20MHz+10MHz, 15MHz+20MHz, 20MHz+15MHz, 20MHz+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	ANT0: -2.2dBi, ANT4: 0.9dBi, ANT5: -0.20dBi, ANT6: -2.30dBi
	Band 4	ANT0: -0.20dBi, ANT4: 0.30dBi, ANT5: -0.50dBi, ANT6: -1.50dBi
	Band 5	ANT0: -3.80 dBi, ANT1: -6.00dBi
	Band 7	ANT0: -0.60dBi, ANT4: 0.90dBi, ANT5: 0.70dBi, ANT6: -3.10dBi
	Band 12	ANT0: -5.50 dBi, ANT1: -7.70dBi
	Band 13	ANT0: -5.50 dBi, ANT1: -6.70dBi
	Band 17	ANT0: -5.50 dBi, ANT1: -7.60dBi
	Band 30	ANT4: -0.80 dBi, ANT6: -4.00dBi
	Band 38	ANT0: -0.60dBi, ANT4: -0.80dBi, ANT5: 0.90dBi, ANT6: -4.00dBi
	Band 41	ANT0: -0.60dBi, ANT4: -0.80dBi, ANT5: 0.90dBi, ANT6: -4.00dBi
	Band 48	ANT4: -0.70dBi, ANT8: -2.70dBi, ANT9: -2.10dBi, ANT11: 1.2dBi
	Band 66	ANT0: -0.20dBi, ANT4: 0.30dBi, ANT5: -0.50dBi, ANT6: -1.50dBi
	Band 71	ANT0: -5.50 dBi, ANT1: -3.10dBi
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	BLPB25
	Serial No.:	N/A

	Capacity:	5860mAh
	Rated Voltage:	3.93V
	Charge Limit:	4.53V
	Manufacturer:	Sunwoda Electronic CO.,LTD.
	AC Adapter	
	Brand Name:	N/A
	Model No.:	VCB8OAUH
	Serial No.:	N/A
	Rated Output:	5V⎓2A or 5-11V⎓5.0A or 5-11V⎓7.3A
	Rated Input:	100-240V~50/60Hz, 0.5A
	Manufacturer 1:	Dongguan Aohai Technology Co.,Ltd.
	Manufacturer 2:	Huizhou Golden Lake Industrial Co., Ltd.

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

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

Channel bandwidth	Maximum ERP/EIRP（W）			
CA_7C	QPSK	16QAM	64QAM	256QAM
20+20	0.240	/	/	/
CA_12B	QPSK	16QAM	64QAM	256QAM
5+10	0.052	/	/	/
CA_38C	QPSK	16QAM	64QAM	256QAM
20+20	0.248	/	/	/
CA_41C_PC3	QPSK	16QAM	64QAM	256QAM
20+20	0.308	/	/	/
CA_41C_PC2	QPSK	16QAM	64QAM	256QAM
20+20	0.390	/	/	/
CA_48C	QPSK	16QAM	64QAM	256QAM
20+20	0.113	/	/	/
CA_66B	QPSK	16QAM	64QAM	256QAM
10+10	0.189	/	/	/
CA_66C	QPSK	16QAM	64QAM	256QAM
20+20	0.182	/	/	/
CA_2A-4A	QPSK	16QAM	64QAM	256QAM
20+20	0.249	/	/	/
CA_2A-5A	QPSK	16QAM	64QAM	256QAM
20+10	0.257	/	/	/
CA_2A-7A	QPSK	16QAM	64QAM	256QAM
20+20	0.253	/	/	/
CA_2A-12A	QPSK	16QAM	64QAM	256QAM
20+5	0.249	/	/	/
CA_2A-13A	QPSK	16QAM	64QAM	256QAM
20+10	0.249	/	/	
CA_2A-66A	QPSK	16QAM	64QAM	256QAM
20+20	0.254	/	/	/
CA_2A-71A	QPSK	16QAM	64QAM	256QAM
20+20	0.256	/	/	/
CA_4A-5A	QPSK	16QAM	64QAM	256QAM
20+10	0.222	/	/	/
CA_4A-12A	QPSK	16QAM	64QAM	256QAM
20+5	0.229	/	/	/
CA_4A-13A	QPSK	16QAM	64QAM	256QAM

20+10	0.224	/	/	/
CA_4A-17A	QPSK	16QAM	64QAM	256QAM
10+10	0.222	/	/	/
CA_4A-71A	QPSK	16QAM	64QAM	256QAM
20+20	0.221	/	/	/
CA_5A-7A	QPSK	16QAM	64QAM	256QAM
10+20	0.249	/	/	/
CA_5A-66A	QPSK	16QAM	64QAM	256QAM
10+20	0.222	/	/	/
CA_7A-12A	QPSK	16QAM	64QAM	256QAM
20+5	0.249	/	/	/
CA_12A-30A	QPSK	16QAM	64QAM	256QAM
5+20	0.174	/	/	/
CA_12A-66A	QPSK	16QAM	64QAM	256QAM
5+20	0.223	/	/	/
CA_13A-66A	QPSK	16QAM	64QAM	256QAM
10+20	0.228	/	/	/
CA_66A-71A	QPSK	16QAM	64QAM	256QAM
20+20	0.223	/	/	/

Channel bandwidth	**Emission Designator (99%OBW)**			
LTE 7C	QPSK	16QAM	64QAM	256QAM
10+20	27M6G7D	27M6W7D	27M6W7D	27M6W7D
15+10	23M1G7D	23M1W7D	23M1W7D	23M1W7D
15+15	28M3G7D	28M2W7D	28M3W7D	28M2W7D
15+20	32M5G7D	32M5W7D	32M6W7D	32M5W7D
20+10	27M7G7D	27M7W7D	27M7W7D	27M7W7D
20+15	32M6G7D	32M6W7D	32M6W7D	32M6W7D
20+20	37M5G7D	37M4W7D	37M6W7D	37M6W7D
LTE 12B	QPSK	16QAM	64QAM	256QAM
5+5	9M30G7D	9M27W7D	9M28W7D	9M25W7D
5+10	13M9G7D	13M9W7D	13M9W7D	13M9W7D
LTE 38C	QPSK	16QAM	64QAM	256QAM
15+15	28M3G7D	28M3W7D	28M3W7D	28M3W7D
20+20	37M5G7D	37M5W7D	37M6W7D	37M5W7D
LTE 41C	QPSK	16QAM	64QAM	256QAM
5+20	22M8G7D	22M8W7D	22M8W7D	22M8W7D

10+15	23M1G7D	23M1W7D	23M1W7D	23M1W7D
10+20	27M6G7D	27M7W7D	27M8W7D	27M7W7D
15+10	23M1G7D	23M1W7D	23M1W7D	23M1W7D
15+15	28M3G7D	28M2W7D	28M3W7D	28M3W7D
15+20	32M6G7D	32M6W7D	32M5W7D	32M6W7D
20+5	22M9G7D	22M9W7D	22M8W7D	22M9W7D
20+10	27M7G7D	27M7W7D	27M7W7D	27M7W7D
20+15	32M7G7D	32M6W7D	32M6W7D	32M6W7D
20+20	37M6G7D	37M4W7D	37M5W7D	37M6W7D
LTE 48C	QPSK	16QAM	64QAM	256QAM
5+20	22M8G7D	22M8W7D	22M8W7D	22M7W7D
10+20	27M7G7D	27M7W7D	27M6W7D	27M6W7D
15+20	32M6G7D	32M5W7D	32M6W7D	32M6W7D
20+5	22M8G7D	22M9W7D	22M9W7D	22M9W7D
20+10	27M7G7D	27M7W7D	27M8W7D	27M7W7D
20+15	32M6G7D	32M5W7D	32M5W7D	32M7W7D
20+20	37M5G7D	37M5W7D	37M4W7D	37M6W7D
LTE 66C	QPSK	16QAM	64QAM	256QAM
5+20	22M7G7D	22M7W7D	22M7W7D	22M7W7D
10+15	23M1G7D	23M0W7D	23M1W7D	23M1W7D
10+20	27M6G7D	27M6W7D	27M7W7D	27M6W7D
15+10	23M1G7D	23M1W7D	23M1W7D	23M1W7D
15+15	28M2G7D	28M2W7D	28M3W7D	28M2W7D
15+20	32M5G7D	32M6W7D	32M6W7D	32M5W7D
20+5	22M9G7D	22M8W7D	22M8W7D	22M8W7D
20+10	27M7G7D	27M7W7D	27M8W7D	27M7W7D
20+15	32M6G7D	32M6W7D	32M6W7D	32M6W7D
20+20	37M4G7D	37M4W7D	37M4W7D	37M4W7D
LTE 66B	QPSK	16QAM	64QAM	256QAM
5+5	9M30G7D	9M27W7D	9M29W7D	9M28W7D
5+10	13M9G7D	13M9W7D	13M9W7D	13M9W7D
5+15	18M3G7D	18M3W7D	18M2W7D	18M2W7D
10+5	13M9G7D	13M9W7D	13M9W7D	14M0W7D
10+10	18M8G7D	18M8W7D	18M8W7D	18M8W7D
15+5	18M3G7D	18M3W7D	18M3W7D	18M3W7D

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 ≤ 2 W	PASS
Peak-Average Ratio	§24.232(d)	Limit≤13 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)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §24.238(a)	≤ -13 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 ≤1 W	PASS
Peak-Average Ratio	§27.50(d) (5)	Limit≤13 dB	PASS

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 ≤ 7W	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	≤ ±2.5ppm	PASS

B7 & B41			
Item	**FCC Rule No.**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(h)(2)	EIRP ≤2W	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, §27.53(m)(4)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)(4)	≤ -25 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(m)(4)	≤ -25 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

B12 & B17			
Item	**FCC Rule No.**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(c)(10)	ERP ≤3W	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, §27.53(g)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	≤ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

B13			
Item	**FCC Rule No.**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(b)(10)	ERP ≤3W	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, §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

B71			
Item	**FCC Rule No.**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(c)(10)	EIRP ≤3 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, §27.53(g)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	≤ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

B30		
Item	**FCC Rule No.**	**Requirements**
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(a)(3)	ERP ≤250mW
Peak-Average Ratio	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit
Band Edges Compliance	§2.1051, §27.53(a)	Refer to section the following description
Spurious Emission at Antenna Terminals	§2.1051, §27.53	≤ -40 dBm/1MHz
Field Strength of Spurious Radiation	§2.1053, §27.53	≤ -40 dBm/1MHz
Frequency Stability	§2.1055, §27.54	No limit

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.	Chen Hao Gan Jing	PASS	No deviation
Occupied Bandwidth	Gan Jing	PASS	No deviation
Frequency Stability	Gan Jing	PASS [note5]	No deviation
Peak to Average Radio	Gan Jing	PASS	No deviation
Conducted Spurious Emissions	Gan Jing	PASS	No deviation
Band Edge	Gan Jing	PASS	No deviation
Radiated Spurious Emissions	Yang Lian	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 equipment. The ref offset 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.

Note 3: 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.

Note 4: 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 5: The frequency stability of Carrier aggregation bands are referred to its corresponding single band, the test results refer to the test report.

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 side band, 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 1wat E.I.R.P.

According to FCC section22.913 (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 (h)(2) for LTE Band 7/38/41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

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.

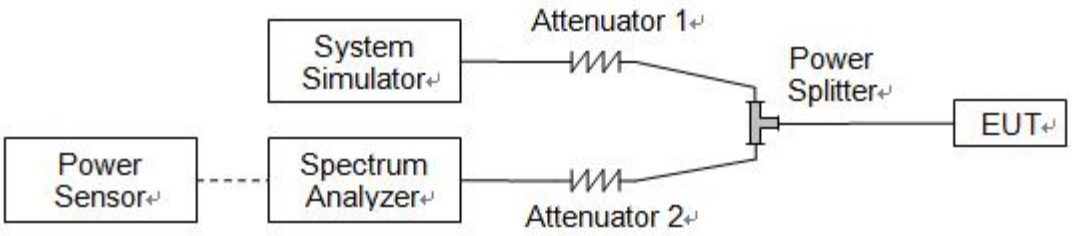
According to FCC section 27.50 (c)(10)for LTE Band 12/17/71,Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

According to FCC section 27.50 (a)(3) for LTE Band 30, Mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average E.I.R.P. must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

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) = Conducted Output Power (dBm) + Antenna Gain (dBi)
E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15

2.1.4. Result

Conducted Output Power

CA_7C Ant 5								
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		
20850	21048	QPSK	1	0	0	0	1	23.06
21001	21199	QPSK	1	0	0	0	1	23.10
21152	21350	QPSK	1	0	0	0	1	23.08

CA_7C Ant 0								
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		
20850	21048	QPSK	1	0	0	0	1	21.09
21001	21199	QPSK	1	0	0	0	1	21.10
21152	21350	QPSK	1	0	0	0	1	21.00

CA_12B Ant 1								
Combination:5MHz+10MHz(25RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB Size	RB Offset	RB Size	RB Offset		
23038	23110	QPSK	1	0	0	0	1	23.06
23048	23120	QPSK	1	0	0	0	1	23.13
23058	23130	QPSK	1	0	0	0	1	23.04

CA_12B Ant 0								
Combination:5MHz+10MHz(25RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power(dBm)
			RB	RB	RB	RB		

			Size	Offset	Size	Offset		
23038	23110	QPSK	1	0	0	0	1	22.32
23048	23120	QPSK	1	0	0	0	1	22.40
23058	23130	QPSK	1	0	0	0	1	22.28

CA_38C Ant 5								
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		
37850	38048	QPSK	1	0	0	0	1	23.22
37901	38099	QPSK	1	0	0	0	1	23.25
37952	38150	QPSK	1	0	0	0	1	23.23

CA_38C Ant 0								
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		
37850	38048	QPSK	1	0	0	0	1	21.14
37901	38099	QPSK	1	0	0	0	1	21.23
37952	38150	QPSK	1	0	0	0	1	21.19

CA_41C （PC3) Ant 5								
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		
39750	39948	QPSK	1	0	0	0	1	24.11
40521	40719	QPSK	1	0	0	0	1	24.18
41292	41490	QPSK	1	0	0	0	1	24.13

CA_41C（PC3) Ant 0								
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		

39750	39948	QPSK	1	0	0	0	1	22.14
40521	40719	QPSK	1	0	0	0	1	22.23
41292	41490	QPSK	1	0	0	0	1	22.19

CA_41C（PC2） Ant 5								
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		
39750	39948	QPSK	1	0	0	0	1	25.14
40521	40719	QPSK	1	0	0	0	1	25.21
41292	41490	QPSK	1	0	0	0	1	25.16

CA_41C（PC2） Ant 0								
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		
39750	39948	QPSK	1	0	0	0	1	23.09
40521	40719	QPSK	1	0	0	0	1	23.18
41292	41490	QPSK	1	0	0	0	1	23.14

CA_48C（PC2） Ant 8								
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	23.09
55891	56089	QPSK	1	0	0	0	1	23.22
56442	56640	QPSK	1	0	0	0	1	23.18

CA_48C（PC2） Ant 9								
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	22.35

55891	56089	QPSK	1	0	0	0	1	22.38
56442	56640	QPSK	1	0	0	0	1	22.31

CA_48C（PC2） Ant 4								
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	19.81
55891	56089	QPSK	1	0	0	0	1	19.86
56442	56640	QPSK	1	0	0	0	1	19.76

CA_48C（PC2） Ant 11								
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	19.34
55891	56089	QPSK	1	0	0	0	1	19.39
56442	56640	QPSK	1	0	0	0	1	19.29

CA_66B Ant 5								
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		
132047	132140	QPSK	1	0	0	0	1	23.22
132398	132491	QPSK	1	0	0	0	1	23.26
132549	132642	QPSK	1	0	0	0	1	23.17

CA_66B Ant 0								
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		
132047	132140	QPSK	1	0	0	0	1	21.52
132398	132491	QPSK	1	0	0	0	1	21.56
132549	132642	QPSK	1	0	0	0	1	21.47

CA_66C Ant 5								
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		
132070	132072	QPSK	1	0	0	0	1	23.07
132322	132323	QPSK	1	0	0	0	1	23.11
132572	132374	QPSK	1	0	0	0	1	23.02

CA_66C Ant 0								
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		
132070	132072	QPSK	1	0	0	0	1	21.59
132322	132323	QPSK	1	0	0	0	1	21.63
132572	132374	QPSK	1	0	0	0	1	21.54

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-7A	2	20	18700	1860	QPSK/1#0
	CA_2A-12A	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	18700	1860	QPSK/1#0
	CA_4A-5A	4	20	20050	1720	QPSK/1#0
	CA_4A-12A	4	20	20050	1720	QPSK/1#0
	CA_4A-13A	4	20	20050	1720	QPSK/1#0
	CA_4A-17A	4	10	20175	1732.5	QPSK/1#0
	CA_4A-71A	4	20	20050	1720	QPSK/1#0
	CA_5A-7A	5	10	20450	829	QPSK/1#0

	CA_5A-30A	5	10	20450	829	QPSK/1#0
	CA_5A-66A	5	10	20450	829	QPSK/1#0
	CA_7A-12A	7	20	20850	2510	QPSK/1#0
	CA_12A-30A	12	5	23035	701.5	QPSK/1#0
	CA_12A-66A	12	5	23035	701.5	QPSK/1#0
	CA_13A-66A	13	10	23230	782	QPSK/1#0
	CA_66A-71A	66	20	132072	1720	QPSK/1#0

SCC				
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)
4	20	20300	1745	23.07
5	10	20600	844	23.20
7	20	21350	2560	23.13
12	5	23155	713.5	23.06
13	10	23230	782	23.07
66	20	132572	1770	23.15
71	20	133372	688	23.18
5	10	20600	844	23.17
12	5	23155	713.5	23.29
13	10	23230	782	23.21
17	10	23790	710	23.16
71	20	133372	688	23.14
7	20	21350	2560	23.07
30	10	27710	2310	23.10
66	20	132572	1770	23.17
12	5	23155	713.5	23.06
30	10	27710	2310	23.20
66	20	132572	1770	23.18
66	20	132572	1770	23.28
71	20	133372	688	23.18

Effective Radiated Power and Effective Isotropic Radiated Power

Note: Consider and evaluate all antennas separately by fully testing each band; This test report only records the worst-case scenario.

CA_7C Ant 5									
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			
20850	21048	QPSK	1	0	100	0	1	23.76	0.238
21001	21199	QPSK	1	0	100	0	1	23.80	0.240
21152	21350	QPSK	1	0	100	0	1	23.78	0.239

CA_12B Ant 1									
Combination:5MHz+10MHz(25RB+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			
23038	23110	QPSK	1	0	0	0	1	17.06	0.051
23048	23120	QPSK	1	0	0	0	1	17.13	0.052
23058	23130	QPSK	1	0	0	0	1	17.04	0.051

CA_38C Ant 5									
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			
37850	38048	QPSK	1	0	0	0	1	23.92	0.247
37901	38099	QPSK	1	0	0	0	1	23.95	0.248
37952	38150	QPSK	1	0	0	0	1	23.93	0.247

CA_41C（PC3） Ant 5									
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			

39750	39948	QPSK	1	0	0	0	1	24.81	0.303
40521	40719	QPSK	1	0	0	0	1	24.88	0.308
41292	41490	QPSK	1	0	0	0	1	24.83	0.304

CA_41C（PC2） Ant 5									
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			
39750	39948	QPSK	1	0	0	0	1	25.84	0.384
40521	40719	QPSK	1	0	0	0	1	25.91	0.390
41292	41490	QPSK	1	0	0	0	1	25.86	0.385

CA_48C Ant 8									
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	0	0	1	20.39	0.109
55891	56089	QPSK	1	0	0	0	1	20.52	0.113
56442	56640	QPSK	1	0	0	0	1	20.48	0.112

CA_66B Ant 5									
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			
132047	132140	QPSK	1	0	0	0	1	22.72	0.187
132398	132491	QPSK	1	0	0	0	1	22.76	0.189
132549	132642	QPSK	1	0	0	0	1	22.67	0.185

CA_66C Ant 5									
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	0	0	1	22.57	0.181

132323	132521	QPSK	1	0	0	0	1	22.61	0.182
132374	132572	QPSK	1	0	0	0	1	22.52	0.179

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-7A	2	20	18700	1860	QPSK/1#0
	CA_2A-12A	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	18700	1860	QPSK/1#0
	CA_4A-5A	4	20	20050	1720	QPSK/1#0
	CA_4A-12A	4	20	20050	1720	QPSK/1#0
	CA_4A-13A	4	20	20050	1720	QPSK/1#0
	CA_4A-17A	4	10	20175	1732.5	QPSK/1#0
	CA_4A-71A	4	20	20050	1720	QPSK/1#0
	CA_5A-7A	5	10	20450	829	QPSK/1#0
	CA_5A-30A	5	10	20450	829	QPSK/1#0
	CA_5A-66A	5	10	20450	829	QPSK/1#0
	CA_7A-12A	7	20	20850	2510	QPSK/1#0
	CA_12A-30A	12	5	23035	701.5	QPSK/1#0
	CA_12A-66A	12	5	23035	701.5	QPSK/1#0
	CA_13A-66A	13	10	23230	782	QPSK/1#0
	CA_66A-71A	66	20	132072	1720	QPSK/1#0

SCC					
Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	EIRP(W)
4	20	20300	1745	23.97	0.249
5	10	20600	844	24.10	0.257
7	20	21350	2560	24.03	0.253
12	5	23155	713.5	23.96	0.249
13	10	23230	782	23.97	0.249
66	20	132572	1770	24.05	0.254
71	20	133372	688	24.08	0.256

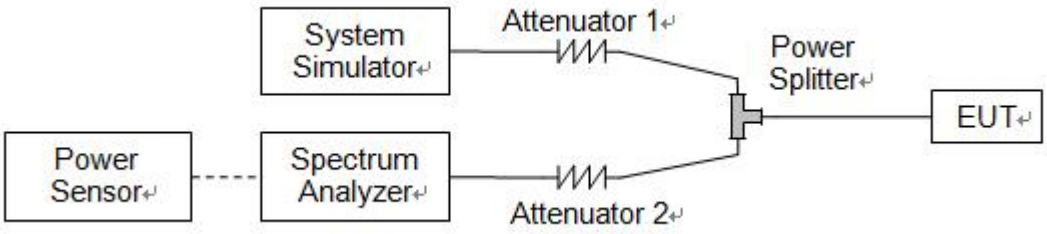
5	10	20600	844	23.47	0.222
12	5	23155	713.5	23.59	0.229
13	10	23230	782	23.51	0.224
17	10	23790	710	23.46	0.222
71	20	133372	688	23.44	0.221
7	20	21350	2560	23.97	0.249
30	10	27710	2310	22.30	0.170
66	20	132572	1770	23.47	0.222
12	5	23155	713.5	23.96	0.249
30	10	27710	2310	22.40	0.174
66	20	132572	1770	23.48	0.223
66	20	132572	1770	23.58	0.228
71	20	133372	688	23.48	0.223

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

LTE Band	BW(MHz)	Channel Level	PCC CH	SCC CH	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
7C	10+20	Low	20805	20949	QPSK	27.544	28.880	PASS
7C	10+20	Low	20805	20949	16QAM	27.603	28.817	PASS
7C	10+20	Low	20805	20949	64QAM	27.562	28.738	PASS
7C	10+20	Low	20805	20949	256QAM	27.648	28.964	PASS
7C	10+20	Mid	21006	21150	QPSK	27.597	28.833	PASS
7C	10+20	Mid	21006	21150	16QAM	27.562	28.897	PASS
7C	10+20	Mid	21006	21150	64QAM	27.622	28.893	PASS
7C	10+20	Mid	21006	21150	256QAM	27.611	29.087	PASS
7C	10+20	High	21206	21350	QPSK	27.535	28.816	PASS
7C	10+20	High	21206	21350	16QAM	27.531	28.797	PASS
7C	10+20	High	21206	21350	64QAM	27.566	28.874	PASS
7C	10+20	High	21206	21350	256QAM	27.492	29.108	PASS
7C	15+10	Low	20825	20945	QPSK	23.075	24.313	PASS
7C	15+10	Low	20825	20945	16QAM	23.080	24.284	PASS
7C	15+10	Low	20825	20945	64QAM	23.094	24.267	PASS
7C	15+10	Low	20825	20945	256QAM	23.003	24.649	PASS
7C	15+15	Low	20825	20975	QPSK	28.231	29.666	PASS
7C	15+15	Low	20825	20975	16QAM	28.217	29.600	PASS
7C	15+15	Low	20825	20975	64QAM	28.254	29.596	PASS
7C	15+15	Low	20825	20975	256QAM	28.126	29.664	PASS
7C	15+20	Low	20828	20999	QPSK	32.465	33.926	PASS
7C	15+20	Low	20828	20999	16QAM	32.480	34.050	PASS
7C	15+20	Low	20828	20999	64QAM	32.449	34.074	PASS
7C	15+20	Low	20828	20999	256QAM	32.494	34.147	PASS
7C	15+10	Mid	21051	21171	QPSK	23.108	24.610	PASS
7C	15+10	Mid	21051	21171	16QAM	23.058	24.429	PASS
7C	15+10	Mid	21051	21171	64QAM	23.125	24.375	PASS
7C	15+10	Mid	21051	21171	256QAM	23.077	24.576	PASS
7C	15+15	Mid	21025	21175	QPSK	28.249	29.633	PASS
7C	15+15	Mid	21025	21175	16QAM	28.185	29.739	PASS
7C	15+15	Mid	21025	21175	64QAM	28.237	29.771	PASS
7C	15+15	Mid	21025	21175	256QAM	28.196	29.554	PASS
7C	15+20	Mid	21003	21174	QPSK	32.438	34.196	PASS
7C	15+20	Mid	21003	21174	16QAM	32.544	34.035	PASS
7C	15+20	Mid	21003	21174	64QAM	32.485	33.875	PASS

7C	15+20	Mid	21003	21174	256QAM	32.528	33.972	PASS
7C	15+10	High	21277	21397	QPSK	23.041	24.499	PASS
7C	15+10	High	21277	21397	16QAM	23.040	24.428	PASS
7C	15+10	High	21277	21397	64QAM	23.092	24.448	PASS
7C	15+10	High	21277	21397	256QAM	23.066	24.323	PASS
7C	15+15	High	21225	21375	QPSK	28.258	29.632	PASS
7C	15+15	High	21225	21375	16QAM	28.195	29.606	PASS
7C	15+15	High	21225	21375	64QAM	28.284	29.590	PASS
7C	15+15	High	21225	21375	256QAM	28.172	29.489	PASS
7C	15+20	High	21179	21350	QPSK	32.440	34.124	PASS
7C	15+20	High	21179	21350	16QAM	32.490	34.042	PASS
7C	15+20	High	21179	21350	64QAM	32.583	34.132	PASS
7C	15+20	High	21179	21350	256QAM	32.510	33.922	PASS
7C	20+10	Low	20850	20994	QPSK	27.625	29.215	PASS
7C	20+10	Low	20850	20994	16QAM	27.684	29.138	PASS
7C	20+10	Low	20850	20994	64QAM	27.678	29.041	PASS
7C	20+10	Low	20850	20994	256QAM	27.657	29.088	PASS
7C	20+15	Low	20850	21021	QPSK	32.531	34.121	PASS
7C	20+15	Low	20850	21021	16QAM	32.533	34.166	PASS
7C	20+15	Low	20850	21021	64QAM	32.539	34.314	PASS
7C	20+15	Low	20850	21021	256QAM	32.535	34.300	PASS
7C	20+20	Low	20850	21048	QPSK	37.430	39.321	PASS
7C	20+20	Low	20850	21048	16QAM	37.429	39.231	PASS
7C	20+20	Low	20850	21048	64QAM	37.569	39.236	PASS
7C	20+20	Low	20850	21048	256QAM	37.366	39.151	PASS
7C	20+10	Mid	21051	21195	QPSK	27.715	29.113	PASS
7C	20+10	Mid	21051	21195	16QAM	27.678	29.217	PASS
7C	20+10	Mid	21051	21195	64QAM	27.635	29.237	PASS
7C	20+10	Mid	21051	21195	256QAM	27.639	29.117	PASS
7C	20+15	Mid	21026	21197	QPSK	32.574	34.283	PASS
7C	20+15	Mid	21026	21197	16QAM	32.563	34.163	PASS
7C	20+15	Mid	21026	21197	64QAM	32.598	34.249	PASS
7C	20+15	Mid	21026	21197	256QAM	32.578	34.316	PASS
7C	20+20	Mid	21001	21199	QPSK	37.461	39.365	PASS
7C	20+20	Mid	21001	21199	16QAM	37.404	39.198	PASS
7C	20+20	Mid	21001	21199	64QAM	37.452	39.281	PASS
7C	20+20	Mid	21001	21199	256QAM	37.555	39.193	PASS
7C	20+10	High	21251	21395	QPSK	27.621	29.155	PASS

7C	20+10	High	21251	21395	16QAM	27.718	29.283	PASS
7C	20+10	High	21251	21395	64QAM	27.665	29.365	PASS
7C	20+10	High	21251	21395	256QAM	27.700	29.378	PASS
7C	20+15	High	21201	21372	QPSK	32.525	34.119	PASS
7C	20+15	High	21201	21372	16QAM	32.481	34.027	PASS
7C	20+15	High	21201	21372	64QAM	32.512	34.171	PASS
7C	20+15	High	21201	21372	256QAM	32.572	34.302	PASS
7C	20+20	High	21152	21350	QPSK	37.374	39.362	PASS
7C	20+20	High	21152	21350	16QAM	37.384	39.186	PASS
7C	20+20	High	21152	21350	64QAM	37.458	39.311	PASS
7C	20+20	High	21152	21350	256QAM	37.493	39.165	PASS
12B	5+5	Low	23035	23083	QPSK	9.297	10.091	PASS
12B	5+5	Low	23035	23083	16QAM	9.269	10.034	PASS
12B	5+5	Low	23035	23083	64QAM	9.276	9.988	PASS
12B	5+5	Low	23035	23083	256QAM	9.246	9.936	PASS
12B	5+10	Low	23038	23110	QPSK	13.861	14.817	PASS
12B	5+10	Low	23038	23110	16QAM	13.898	14.692	PASS
12B	5+10	Low	23038	23110	64QAM	13.857	14.932	PASS
12B	5+10	Low	23038	23110	256QAM	13.816	14.725	PASS
12B	5+5	Mid	23071	23119	QPSK	9.272	9.852	PASS
12B	5+5	Mid	23071	23119	16QAM	9.236	9.977	PASS
12B	5+5	Mid	23071	23119	64QAM	9.220	10.059	PASS
12B	5+5	Mid	23071	23119	256QAM	9.231	10.010	PASS
12B	5+10	Mid	23048	23120	QPSK	13.894	14.850	PASS
12B	5+10	Mid	23048	23120	16QAM	13.848	14.730	PASS
12B	5+10	Mid	23048	23120	64QAM	13.870	14.821	PASS
12B	5+10	Mid	23048	23120	256QAM	13.871	14.813	PASS
12B	5+5	High	23107	23155	QPSK	9.244	9.914	PASS
12B	5+5	High	23107	23155	16QAM	9.219	9.940	PASS
12B	5+5	High	23107	23155	64QAM	9.243	10.082	PASS
12B	5+5	High	23107	23155	256QAM	9.247	10.057	PASS
12B	5+10	High	23058	23130	QPSK	13.822	14.751	PASS
12B	5+10	High	23058	23130	16QAM	13.848	14.895	PASS
12B	5+10	High	23058	23130	64QAM	13.869	14.797	PASS
12B	5+10	High	23058	23130	256QAM	13.880	14.770	PASS
38C	15+15	Low	37825	37975	QPSK	28.262	29.765	PASS
38C	15+15	Low	37825	37975	16QAM	28.318	29.911	PASS
38C	15+15	Low	37825	37975	64QAM	28.297	29.732	PASS

38C	15+15	Low	37825	37975	256QAM	28.283	29.480	PASS
38C	15+15	Mid	37925	38075	QPSK	28.205	29.593	PASS
38C	15+15	Mid	37925	38075	16QAM	28.216	29.640	PASS
38C	15+15	Mid	37925	38075	64QAM	28.300	29.768	PASS
38C	15+15	Mid	37925	38075	256QAM	28.256	29.649	PASS
38C	15+15	High	38025	38175	QPSK	28.253	29.634	PASS
38C	15+15	High	38025	38175	16QAM	28.263	29.660	PASS
38C	15+15	High	38025	38175	64QAM	28.227	29.872	PASS
38C	15+15	High	38025	38175	256QAM	28.314	29.753	PASS
38C	20+20	Low	37850	38048	QPSK	37.520	39.159	PASS
38C	20+20	Low	37850	38048	16QAM	37.505	39.330	PASS
38C	20+20	Low	37850	38048	64QAM	37.530	39.443	PASS
38C	20+20	Low	37850	38048	256QAM	37.446	39.295	PASS
38C	20+20	Mid	37901	38099	QPSK	37.517	39.956	PASS
38C	20+20	Mid	37901	38099	16QAM	37.488	39.129	PASS
38C	20+20	Mid	37901	38099	64QAM	37.557	39.223	PASS
38C	20+20	Mid	37901	38099	256QAM	37.505	39.538	PASS
38C	20+20	High	37952	38150	QPSK	37.443	40.114	PASS
38C	20+20	High	37952	38150	16QAM	37.497	39.148	PASS
38C	20+20	High	37952	38150	64QAM	37.432	39.138	PASS
38C	20+20	High	37952	38150	256QAM	37.444	39.353	PASS
41C	5+20	Low	39683	39800	QPSK	22.783	23.616	PASS
41C	5+20	Low	39683	39800	16QAM	22.791	24.321	PASS
41C	5+20	Low	39683	39800	64QAM	22.781	23.582	PASS
41C	5+20	Low	39683	39800	256QAM	22.779	23.760	PASS
41C	5+20	Mid	40528	40645	QPSK	22.741	23.714	PASS
41C	5+20	Mid	40528	40645	16QAM	22.781	23.767	PASS
41C	5+20	Mid	40528	40645	64QAM	22.802	23.707	PASS
41C	5+20	Mid	40528	40645	256QAM	22.814	23.708	PASS
41C	5+20	High	41373	41490	QPSK	22.679	23.681	PASS
41C	5+20	High	41373	41490	16QAM	22.636	23.794	PASS
41C	5+20	High	41373	41490	64QAM	22.742	23.649	PASS
41C	5+20	High	41373	41490	256QAM	22.691	23.632	PASS
41C	10+15	Low	39703	39823	QPSK	23.040	24.091	PASS
41C	10+15	Low	39703	39823	16QAM	23.051	24.158	PASS
41C	10+15	Low	39703	39823	64QAM	23.121	24.269	PASS
41C	10+15	Low	39703	39823	256QAM	23.023	24.303	PASS
41C	10+20	Low	39705	39849	QPSK	27.610	28.876	PASS

41C	10+20	Low	39705	39849	16QAM	27.666	28.797	PASS
41C	10+20	Low	39705	39849	64QAM	27.615	28.826	PASS
41C	10+20	Low	39705	39849	256QAM	27.666	28.823	PASS
41C	10+15	Mid	40549	40669	QPSK	23.025	24.174	PASS
41C	10+15	Mid	40549	40669	16QAM	23.019	24.380	PASS
41C	10+15	Mid	40549	40669	64QAM	23.076	24.635	PASS
41C	10+15	Mid	40549	40669	256QAM	23.062	24.196	PASS
41C	10+20	Mid	40526	40670	QPSK	27.633	28.894	PASS
41C	10+20	Mid	40526	40670	16QAM	27.621	28.768	PASS
41C	10+20	Mid	40526	40670	64QAM	27.786	28.740	PASS
41C	10+20	Mid	40526	40670	256QAM	27.635	28.747	PASS
41C	10+15	High	41395	41515	QPSK	23.067	24.172	PASS
41C	10+15	High	41395	41515	16QAM	23.048	24.352	PASS
41C	10+15	High	41395	41515	64QAM	23.008	24.306	PASS
41C	10+15	High	41395	41515	256QAM	22.962	24.067	PASS
41C	10+20	High	41346	41490	QPSK	27.572	28.811	PASS
41C	10+20	High	41346	41490	16QAM	27.617	28.834	PASS
41C	10+20	High	41346	41490	64QAM	27.594	28.765	PASS
41C	10+20	High	41346	41490	256QAM	27.677	28.902	PASS
41C	15+10	Low	39725	39845	QPSK	23.083	24.233	PASS
41C	15+10	Low	39725	39845	16QAM	23.024	24.401	PASS
41C	15+10	Low	39725	39845	64QAM	23.084	24.484	PASS
41C	15+10	Low	39725	39845	256QAM	23.091	24.288	PASS
41C	15+15	Low	39725	39875	QPSK	28.283	29.678	PASS
41C	15+15	Low	39725	39875	16QAM	28.231	29.434	PASS
41C	15+15	Low	39725	39875	64QAM	28.258	29.597	PASS
41C	15+15	Low	39725	39875	256QAM	28.278	29.654	PASS
41C	15+20	Low	39728	39899	QPSK	32.494	33.870	PASS
41C	15+20	Low	39728	39899	16QAM	32.576	34.110	PASS
41C	15+20	Low	39728	39899	64QAM	32.515	33.898	PASS
41C	15+20	Low	39728	39899	256QAM	32.518	33.891	PASS
41C	15+10	Mid	40571	40691	QPSK	23.107	24.687	PASS
41C	15+10	Mid	40571	40691	16QAM	23.082	24.391	PASS
41C	15+10	Mid	40571	40691	64QAM	23.092	24.236	PASS
41C	15+10	Mid	40571	40691	256QAM	23.038	24.405	PASS
41C	15+15	Mid	40545	40695	QPSK	28.236	29.593	PASS
41C	15+15	Mid	40545	40695	16QAM	28.195	29.805	PASS
41C	15+15	Mid	40545	40695	64QAM	28.289	30.589	PASS

41C	15+15	Mid	40545	40695	256QAM	28.309	29.719	PASS
41C	15+20	Mid	40523	40694	QPSK	32.533	33.969	PASS
41C	15+20	Mid	40523	40694	16QAM	32.622	34.066	PASS
41C	15+20	Mid	40523	40694	64QAM	32.516	34.299	PASS
41C	15+20	Mid	40523	40694	256QAM	32.570	34.127	PASS
41C	15+10	High	41417	41537	QPSK	23.074	24.766	PASS
41C	15+10	High	41417	41537	16QAM	23.099	24.569	PASS
41C	15+10	High	41417	41537	64QAM	23.085	24.348	PASS
41C	15+10	High	41417	41537	256QAM	23.103	24.392	PASS
41C	15+15	High	41365	41515	QPSK	28.163	29.669	PASS
41C	15+15	High	41365	41515	16QAM	28.199	29.739	PASS
41C	15+15	High	41365	41515	64QAM	28.294	29.697	PASS
41C	15+15	High	41365	41515	256QAM	28.209	29.680	PASS
41C	15+20	High	41319	41490	QPSK	32.582	34.043	PASS
41C	15+20	High	41319	41490	16QAM	32.592	34.136	PASS
41C	15+20	High	41319	41490	64QAM	32.528	34.203	PASS
41C	15+20	High	41319	41490	256QAM	32.538	33.854	PASS
41C	20+5	Low	39750	39867	QPSK	22.793	24.098	PASS
41C	20+5	Low	39750	39867	16QAM	22.810	23.911	PASS
41C	20+5	Low	39750	39867	64QAM	22.782	24.088	PASS
41C	20+5	Low	39750	39867	256QAM	22.744	23.838	PASS
41C	20+10	Low	39750	39894	QPSK	27.656	29.227	PASS
41C	20+10	Low	39750	39894	16QAM	27.619	29.091	PASS
41C	20+10	Low	39750	39894	64QAM	27.664	29.757	PASS
41C	20+10	Low	39750	39894	256QAM	27.654	29.133	PASS
41C	20+15	Low	39750	39921	QPSK	32.574	33.992	PASS
41C	20+15	Low	39750	39921	16QAM	32.501	34.691	PASS
41C	20+15	Low	39750	39921	64QAM	32.504	34.145	PASS
41C	20+15	Low	39750	39921	256QAM	32.549	34.170	PASS
41C	20+20	Low	39750	39948	QPSK	37.468	39.244	PASS
41C	20+20	Low	39750	39948	16QAM	37.402	39.537	PASS
41C	20+20	Low	39750	39948	64QAM	37.410	39.160	PASS
41C	20+20	Low	39750	39948	256QAM	37.432	39.201	PASS
41C	20+5	Mid	40595	40712	QPSK	22.807	24.028	PASS
41C	20+5	Mid	40595	40712	16QAM	22.837	24.098	PASS
41C	20+5	Mid	40595	40712	64QAM	22.831	23.874	PASS
41C	20+5	Mid	40595	40712	256QAM	22.813	23.932	PASS
41C	20+10	Mid	40571	40715	QPSK	27.690	29.173	PASS

41C	20+10	Mid	40571	40715	16QAM	27.668	29.244	PASS
41C	20+10	Mid	40571	40715	64QAM	27.691	29.672	PASS
41C	20+10	Mid	40571	40715	256QAM	27.686	29.204	PASS
41C	20+15	Mid	40546	40717	QPSK	32.663	34.302	PASS
41C	20+15	Mid	40546	40717	16QAM	32.643	34.072	PASS
41C	20+15	Mid	40546	40717	64QAM	32.564	34.082	PASS
41C	20+15	Mid	40546	40717	256QAM	32.571	34.095	PASS
41C	20+20	Mid	40521	40719	QPSK	37.554	39.491	PASS
41C	20+20	Mid	40521	40719	16QAM	37.427	39.117	PASS
41C	20+20	Mid	40521	40719	64QAM	37.530	40.973	PASS
41C	20+20	Mid	40521	40719	256QAM	37.565	39.164	PASS
41C	20+5	High	41440	41557	QPSK	22.850	24.125	PASS
41C	20+5	High	41440	41557	16QAM	22.859	23.970	PASS
41C	20+5	High	41440	41557	64QAM	22.843	24.163	PASS
41C	20+5	High	41440	41557	256QAM	22.853	24.215	PASS
41C	20+10	High	41391	41535	QPSK	27.721	29.324	PASS
41C	20+10	High	41391	41535	16QAM	27.716	29.295	PASS
41C	20+10	High	41391	41535	64QAM	27.702	29.075	PASS
41C	20+10	High	41391	41535	256QAM	27.657	29.242	PASS
41C	20+15	High	41341	41512	QPSK	32.465	34.372	PASS
41C	20+15	High	41341	41512	16QAM	32.584	34.560	PASS
41C	20+15	High	41341	41512	64QAM	32.577	34.072	PASS
41C	20+15	High	41341	41512	256QAM	32.608	34.098	PASS
41C	20+20	High	41292	41490	QPSK	37.402	39.082	PASS
41C	20+20	High	41292	41490	16QAM	37.412	39.283	PASS
41C	20+20	High	41292	41490	64QAM	37.362	40.523	PASS
41C	20+20	High	41292	41490	256QAM	37.319	39.150	PASS
48C	5+20	Low	55273	55390	QPSK	22.808	23.628	PASS
48C	5+20	Low	55273	55390	16QAM	22.767	23.734	PASS
48C	5+20	Low	55273	55390	64QAM	22.729	23.742	PASS
48C	5+20	Low	55273	55390	256QAM	2.610	3.333	PASS
48C	5+20	Mid	55898	56015	QPSK	22.691	23.604	PASS
48C	5+20	Mid	55898	56015	16QAM	22.713	23.673	PASS
48C	5+20	Mid	55898	56015	64QAM	22.691	23.574	PASS
48C	5+20	Mid	55898	56015	256QAM	22.650	23.547	PASS
48C	5+20	High	56523	56640	QPSK	22.754	23.571	PASS
48C	5+20	High	56523	56640	16QAM	22.703	23.558	PASS
48C	5+20	High	56523	56640	64QAM	22.789	23.539	PASS

48C	5+20	High	56523	56640	256QAM	22.704	23.617	PASS
48C	10+20	Low	55295	55439	QPSK	27.654	28.767	PASS
48C	10+20	Low	55295	55439	16QAM	27.627	28.975	PASS
48C	10+20	Low	55295	55439	64QAM	27.626	28.897	PASS
48C	10+20	Low	55295	55439	256QAM	27.645	28.859	PASS
48C	10+20	Mid	55896	56040	QPSK	27.688	28.866	PASS
48C	10+20	Mid	55896	56040	16QAM	27.669	29.018	PASS
48C	10+20	Mid	55896	56040	64QAM	27.531	28.582	PASS
48C	10+20	Mid	55896	56040	256QAM	27.554	28.778	PASS
48C	10+20	High	56496	56640	QPSK	27.491	28.648	PASS
48C	10+20	High	56496	56640	16QAM	27.741	28.663	PASS
48C	10+20	High	56496	56640	64QAM	27.575	28.652	PASS
48C	10+20	High	56496	56640	256QAM	27.617	28.916	PASS
48C	15+20	Low	55318	55489	QPSK	32.532	33.719	PASS
48C	15+20	Low	55318	55489	16QAM	32.537	33.974	PASS
48C	15+20	Low	55318	55489	64QAM	32.481	33.844	PASS
48C	15+20	Low	55318	55489	256QAM	32.607	33.674	PASS
48C	15+20	Mid	55893	56064	QPSK	32.615	33.785	PASS
48C	15+20	Mid	55893	56064	16QAM	32.458	33.719	PASS
48C	15+20	Mid	55893	56064	64QAM	32.630	33.844	PASS
48C	15+20	Mid	55893	56064	256QAM	32.510	33.760	PASS
48C	15+20	High	56469	56640	QPSK	32.585	33.893	PASS
48C	15+20	High	56469	56640	16QAM	32.499	33.617	PASS
48C	15+20	High	56469	56640	64QAM	32.480	33.781	PASS
48C	15+20	High	56469	56640	256QAM	32.478	33.875	PASS
48C	20+5	Low	55340	55457	QPSK	22.846	24.019	PASS
48C	20+5	Low	55340	55457	16QAM	22.838	24.062	PASS
48C	20+5	Low	55340	55457	64QAM	22.896	23.953	PASS
48C	20+5	Low	55340	55457	256QAM	22.878	23.819	PASS
48C	20+10	Low	55340	55484	QPSK	27.716	29.019	PASS
48C	20+10	Low	55340	55484	16QAM	27.738	29.686	PASS
48C	20+10	Low	55340	55484	64QAM	27.769	29.588	PASS
48C	20+10	Low	55340	55484	256QAM	27.658	29.574	PASS
48C	20+15	Low	55340	55511	QPSK	32.505	33.963	PASS
48C	20+15	Low	55340	55511	16QAM	32.548	34.073	PASS
48C	20+15	Low	55340	55511	64QAM	32.516	33.758	PASS
48C	20+15	Low	55340	55511	256QAM	32.668	34.484	PASS
48C	20+20	Low	55340	55538	QPSK	37.476	39.110	PASS

48C	20+20	Low	55340	55538	16QAM	37.469	38.817	PASS
48C	20+20	Low	55340	55538	64QAM	37.347	38.982	PASS
48C	20+20	Low	55340	55538	256QAM	37.581	38.750	PASS
48C	20+5	Mid	55965	56082	QPSK	22.782	23.683	PASS
48C	20+5	Mid	55965	56082	16QAM	22.782	24.041	PASS
48C	20+5	Mid	55965	56082	64QAM	22.848	23.929	PASS
48C	20+5	Mid	55965	56082	256QAM	22.839	23.925	PASS
48C	20+10	Mid	55941	56085	QPSK	27.731	28.718	PASS
48C	20+10	Mid	55941	56085	16QAM	27.700	29.768	PASS
48C	20+10	Mid	55941	56085	64QAM	27.615	28.875	PASS
48C	20+10	Mid	55941	56085	256QAM	27.669	28.957	PASS
48C	20+15	Mid	55916	56087	QPSK	32.637	33.814	PASS
48C	20+15	Mid	55916	56087	16QAM	32.487	33.902	PASS
48C	20+15	Mid	55916	56087	64QAM	32.504	33.745	PASS
48C	20+15	Mid	55916	56087	256QAM	32.578	34.184	PASS
48C	20+20	Mid	55891	56089	QPSK	37.507	39.110	PASS
48C	20+20	Mid	55891	56089	16QAM	37.448	38.883	PASS
48C	20+20	Mid	55891	56089	64QAM	37.220	38.881	PASS
48C	20+20	Mid	55891	56089	256QAM	37.372	38.878	PASS
48C	20+5	High	56590	56707	QPSK	22.836	23.735	PASS
48C	20+5	High	56590	56707	16QAM	22.854	23.999	PASS
48C	20+5	High	56590	56707	64QAM	22.828	23.939	PASS
48C	20+5	High	56590	56707	256QAM	22.800	23.986	PASS
48C	20+10	High	56541	56685	QPSK	27.695	29.010	PASS
48C	20+10	High	56541	56685	16QAM	27.731	28.836	PASS
48C	20+10	High	56541	56685	64QAM	27.679	28.879	PASS
48C	20+10	High	56541	56685	256QAM	27.629	29.250	PASS
48C	20+15	High	56491	56662	QPSK	32.459	33.970	PASS
48C	20+15	High	56491	56662	16QAM	32.529	34.031	PASS
48C	20+15	High	56491	56662	64QAM	32.409	33.896	PASS
48C	20+15	High	56491	56662	256QAM	32.499	33.884	PASS
48C	20+20	High	56442	56640	QPSK	37.321	39.008	PASS
48C	20+20	High	56442	56640	16QAM	37.485	38.710	PASS
48C	20+20	High	56442	56640	64QAM	37.411	38.977	PASS
48C	20+20	High	56442	56640	256QAM	37.433	38.861	PASS
66B	5+5	Low	131997	132045	QPSK	9.232	9.953	PASS
66B	5+5	Low	131997	132045	16QAM	9.217	10.003	PASS
66B	5+5	Low	131997	132045	64QAM	9.263	9.979	PASS

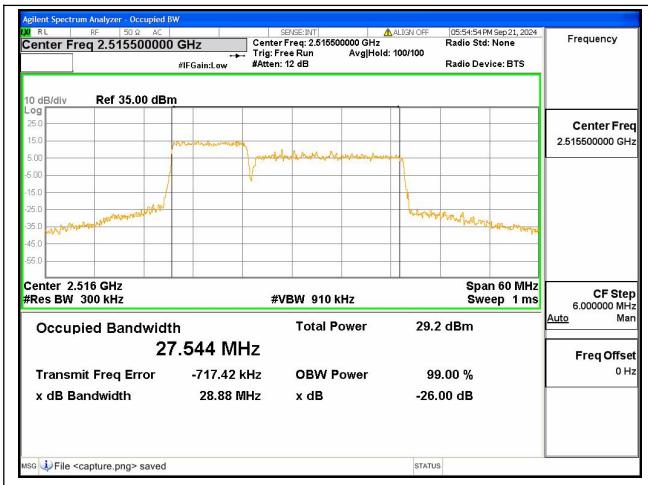
66B	5+5	Low	131997	132045	256QAM	9.252	9.972	PASS
66B	5+10	Low	132000	132072	QPSK	13.886	14.813	PASS
66B	5+10	Low	132000	132072	16QAM	13.877	14.860	PASS
66B	5+10	Low	132000	132072	64QAM	13.864	14.831	PASS
66B	5+10	Low	132000	132072	256QAM	13.861	14.675	PASS
66B	5+15	Low	132002	132095	QPSK	18.245	19.598	PASS
66B	5+15	Low	132002	132095	16QAM	18.260	19.373	PASS
66B	5+15	Low	132002	132095	64QAM	18.224	19.340	PASS
66B	5+15	Low	132002	132095	256QAM	18.156	19.317	PASS
66B	5+5	Mid	132398	132446	QPSK	9.272	9.998	PASS
66B	5+5	Mid	132398	132446	16QAM	9.274	9.987	PASS
66B	5+5	Mid	132398	132446	64QAM	9.292	9.991	PASS
66B	5+5	Mid	132398	132446	256QAM	9.275	9.947	PASS
66B	5+10	Mid	132375	132447	QPSK	13.880	14.732	PASS
66B	5+10	Mid	132375	132447	16QAM	13.883	14.837	PASS
66B	5+10	Mid	132375	132447	64QAM	13.882	14.730	PASS
66B	5+10	Mid	132375	132447	256QAM	13.859	14.916	PASS
66B	5+15	Mid	132353	132446	QPSK	18.284	19.371	PASS
66B	5+15	Mid	132353	132446	16QAM	18.143	19.295	PASS
66B	5+15	Mid	132353	132446	64QAM	18.164	19.365	PASS
66B	5+15	Mid	132353	132446	256QAM	18.223	19.355	PASS
66B	5+5	High	132599	132647	QPSK	9.296	9.958	PASS
66B	5+5	High	132599	132647	16QAM	9.274	10.064	PASS
66B	5+5	High	132599	132647	64QAM	9.282	10.010	PASS
66B	5+5	High	132599	132647	256QAM	9.238	9.929	PASS
66B	5+10	High	132550	132622	QPSK	13.819	14.708	PASS
66B	5+10	High	132550	132622	16QAM	13.853	14.691	PASS
66B	5+10	High	132550	132622	64QAM	13.893	14.761	PASS
66B	5+10	High	132550	132622	256QAM	13.926	14.735	PASS
66B	5+15	High	132504	132597	QPSK	18.125	19.282	PASS
66B	5+15	High	132504	132597	16QAM	18.152	19.243	PASS
66B	5+15	High	132504	132597	64QAM	18.167	19.184	PASS
66B	5+15	High	132504	132597	256QAM	18.200	19.259	PASS
66B	10+5	Low	132022	132094	QPSK	13.917	15.079	PASS
66B	10+5	Low	132022	132094	16QAM	13.874	14.885	PASS
66B	10+5	Low	132022	132094	64QAM	13.922	14.848	PASS
66B	10+5	Low	132022	132094	256QAM	13.896	15.223	PASS
66B	10+10	Low	132022	132121	QPSK	18.805	20.191	PASS

66B	10+10	Low	132022	132121	16QAM	18.785	20.081	PASS
66B	10+10	Low	132022	132121	64QAM	18.776	20.150	PASS
66B	10+10	Low	132022	132121	256QAM	18.773	20.036	PASS
66B	10+5	Mid	132397	132469	QPSK	13.929	15.420	PASS
66B	10+5	Mid	132397	132469	16QAM	13.890	14.862	PASS
66B	10+5	Mid	132397	132469	64QAM	13.901	15.116	PASS
66B	10+5	Mid	132397	132469	256QAM	13.955	15.005	PASS
66B	10+10	Mid	132373	132472	QPSK	18.838	20.204	PASS
66B	10+10	Mid	132373	132472	16QAM	18.819	20.103	PASS
66B	10+10	Mid	132373	132472	64QAM	18.792	20.120	PASS
66B	10+10	Mid	132373	132472	256QAM	18.755	20.118	PASS
66B	10+5	High	132572	132644	QPSK	13.916	15.051	PASS
66B	10+5	High	132572	132644	16QAM	13.873	15.178	PASS
66B	10+5	High	132572	132644	64QAM	13.911	15.003	PASS
66B	10+5	High	132572	132644	256QAM	13.886	15.017	PASS
66B	10+10	High	132523	132622	QPSK	18.834	20.175	PASS
66B	10+10	High	132523	132622	16QAM	18.754	20.066	PASS
66B	10+10	High	132523	132622	64QAM	18.768	20.051	PASS
66B	10+10	High	132523	132622	256QAM	18.788	20.018	PASS
66B	15+5	Low	132047	132140	QPSK	18.265	19.621	PASS
66B	15+5	Low	132047	132140	16QAM	18.216	20.077	PASS
66B	15+5	Low	132047	132140	64QAM	18.258	19.687	PASS
66B	15+5	Low	132047	132140	256QAM	18.295	19.849	PASS
66B	15+5	Mid	132398	132491	QPSK	18.257	19.967	PASS
66B	15+5	Mid	132398	132491	16QAM	18.303	20.389	PASS
66B	15+5	Mid	132398	132491	64QAM	18.315	20.046	PASS
66B	15+5	Mid	132398	132491	256QAM	18.273	19.795	PASS
66B	15+5	High	132549	132642	QPSK	18.255	19.685	PASS
66B	15+5	High	132549	132642	16QAM	18.287	19.764	PASS
66B	15+5	High	132549	132642	64QAM	18.305	20.391	PASS
66B	15+5	High	132549	132642	256QAM	18.301	19.888	PASS
66C	5+20	Low	132005	132122	QPSK	22.667	23.620	PASS
66C	5+20	Low	132005	132122	16QAM	22.695	23.688	PASS
66C	5+20	Low	132005	132122	64QAM	22.739	23.902	PASS
66C	5+20	Low	132005	132122	256QAM	22.739	23.698	PASS
66C	5+20	Mid	132330	132447	QPSK	22.690	23.787	PASS
66C	5+20	Mid	132330	132447	16QAM	22.622	23.679	PASS
66C	5+20	Mid	132330	132447	64QAM	22.699	23.726	PASS

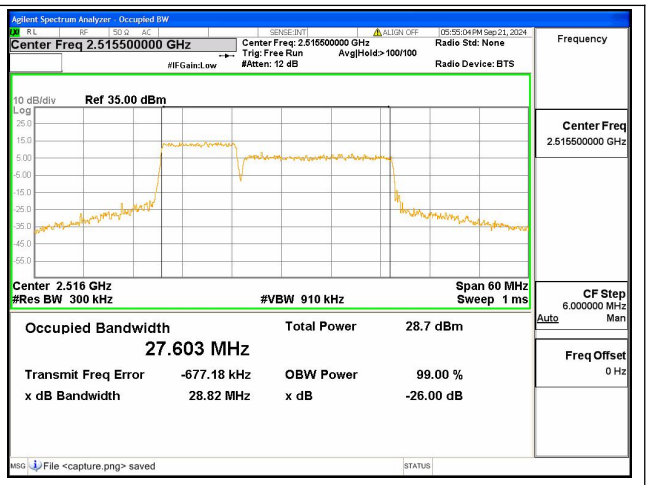
66C	5+20	Mid	132330	132447	256QAM	22.716	23.651	PASS
66C	5+20	High	132455	132572	QPSK	22.669	23.682	PASS
66C	5+20	High	132455	132572	16QAM	22.661	23.692	PASS
66C	5+20	High	132455	132572	64QAM	22.561	23.720	PASS
66C	5+20	High	132455	132572	256QAM	22.617	23.697	PASS
66C	10+15	Low	132025	132145	QPSK	23.025	24.246	PASS
66C	10+15	Low	132025	132145	16QAM	22.984	24.232	PASS
66C	10+15	Low	132025	132145	64QAM	22.983	24.132	PASS
66C	10+15	Low	132025	132145	256QAM	23.065	24.378	PASS
66C	10+20	Low	132027	132171	QPSK	27.559	28.890	PASS
66C	10+20	Low	132027	132171	16QAM	27.639	28.723	PASS
66C	10+20	Low	132027	132171	64QAM	27.690	28.796	PASS
66C	10+20	Low	132027	132171	256QAM	27.634	28.937	PASS
66C	10+15	Mid	132351	132471	QPSK	23.067	24.242	PASS
66C	10+15	Mid	132351	132471	16QAM	22.994	24.092	PASS
66C	10+15	Mid	132351	132471	64QAM	23.086	24.177	PASS
66C	10+15	Mid	132351	132471	256QAM	22.944	24.122	PASS
66C	10+20	Mid	132328	132472	QPSK	27.598	28.970	PASS
66C	10+20	Mid	132328	132472	16QAM	27.594	28.839	PASS
66C	10+20	Mid	132328	132472	64QAM	27.573	28.822	PASS
66C	10+20	Mid	132328	132472	256QAM	27.550	29.015	PASS
66C	10+15	High	132477	132597	QPSK	22.954	24.295	PASS
66C	10+15	High	132477	132597	16QAM	22.921	24.138	PASS
66C	10+15	High	132477	132597	64QAM	22.918	24.168	PASS
66C	10+15	High	132477	132597	256QAM	22.999	24.305	PASS
66C	10+20	High	132428	132572	QPSK	27.528	28.786	PASS
66C	10+20	High	132428	132572	16QAM	27.533	28.858	PASS
66C	10+20	High	132428	132572	64QAM	27.458	28.852	PASS
66C	10+20	High	132428	132572	256QAM	27.536	28.958	PASS
66C	15+10	Low	132047	132167	QPSK	23.050	24.237	PASS
66C	15+10	Low	132047	132167	16QAM	23.057	24.258	PASS
66C	15+10	Low	132047	132167	64QAM	23.034	24.275	PASS
66C	15+10	Low	132047	132167	256QAM	22.998	24.265	PASS
66C	15+15	Low	132047	132197	QPSK	28.225	29.674	PASS
66C	15+15	Low	132047	132197	16QAM	28.207	29.449	PASS
66C	15+15	Low	132047	132197	64QAM	28.277	29.462	PASS
66C	15+15	Low	132047	132197	256QAM	28.207	29.472	PASS
66C	15+20	Low	132050	132221	QPSK	32.513	34.090	PASS

66C	15+20	Low	132050	132221	16QAM	32.540	34.129	PASS
66C	15+20	Low	132050	132221	64QAM	32.600	34.144	PASS
66C	15+20	Low	132050	132221	256QAM	32.510	34.053	PASS
66C	15+10	Mid	132373	132493	QPSK	23.088	24.391	PASS
66C	15+10	Mid	132373	132493	16QAM	23.043	24.266	PASS
66C	15+10	Mid	132373	132493	64QAM	23.079	24.393	PASS
66C	15+10	Mid	132373	132493	256QAM	23.062	24.366	PASS
66C	15+15	Mid	132347	132497	QPSK	28.176	29.496	PASS
66C	15+15	Mid	132347	132497	16QAM	28.246	29.703	PASS
66C	15+15	Mid	132347	132497	64QAM	28.286	29.866	PASS
66C	15+15	Mid	132347	132497	256QAM	27.133	28.720	PASS
66C	15+20	Mid	132325	132496	QPSK	32.526	34.202	PASS
66C	15+20	Mid	132325	132496	16QAM	32.593	33.978	PASS
66C	15+20	Mid	132325	132496	64QAM	32.416	34.014	PASS
66C	15+20	Mid	132325	132496	256QAM	32.447	34.069	PASS
66C	15+10	High	132499	132619	QPSK	23.061	24.428	PASS
66C	15+10	High	132499	132619	16QAM	23.078	24.409	PASS
66C	15+10	High	132499	132619	64QAM	23.028	24.360	PASS
66C	15+10	High	132499	132619	256QAM	23.049	24.364	PASS
66C	15+15	High	132447	132597	QPSK	28.202	29.590	PASS
66C	15+15	High	132447	132597	16QAM	28.184	29.675	PASS
66C	15+15	High	132447	132597	64QAM	28.219	29.583	PASS
66C	15+15	High	132447	132597	256QAM	28.199	29.627	PASS
66C	15+20	High	132401	132572	QPSK	32.511	34.200	PASS
66C	15+20	High	132401	132572	16QAM	32.398	33.988	PASS
66C	15+20	High	132401	132572	64QAM	32.530	34.169	PASS
66C	15+20	High	132401	132572	256QAM	32.364	34.100	PASS
66C	20+10	Low	132072	132216	QPSK	27.652	29.441	PASS
66C	20+10	Low	132072	132216	16QAM	27.715	29.302	PASS
66C	20+10	Low	132072	132216	64QAM	27.660	29.203	PASS
66C	20+10	Low	132072	132216	256QAM	27.691	29.280	PASS
66C	20+15	Low	132072	132243	QPSK	32.561	34.324	PASS
66C	20+15	Low	132072	132243	16QAM	32.527	34.097	PASS
66C	20+15	Low	132072	132243	64QAM	32.605	34.227	PASS
66C	20+15	Low	132072	132243	256QAM	32.511	34.267	PASS
66C	20+5	Low	132072	132189	QPSK	22.871	24.072	PASS
66C	20+5	Low	132072	132189	16QAM	22.778	24.041	PASS
66C	20+5	Low	132072	132189	64QAM	22.808	24.190	PASS

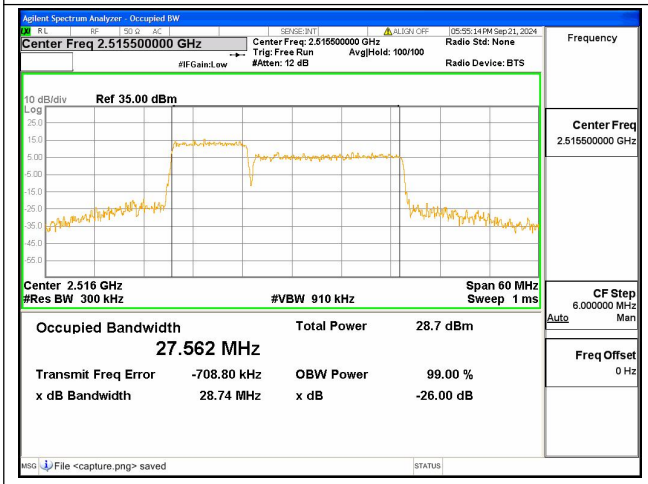
66C	20+5	Low	132072	132189	256QAM	22.772	24.253	PASS
66C	20+20	Low	132072	132270	QPSK	37.422	39.248	PASS
66C	20+20	Low	132072	132270	16QAM	37.364	39.142	PASS
66C	20+20	Low	132072	132270	64QAM	37.387	39.152	PASS
66C	20+20	Low	132072	132270	256QAM	37.350	39.307	PASS
66C	20+10	Mid	132373	132517	QPSK	27.678	29.151	PASS
66C	20+10	Mid	132373	132517	16QAM	27.690	29.085	PASS
66C	20+10	Mid	132373	132517	64QAM	27.698	29.240	PASS
66C	20+10	Mid	132373	132517	256QAM	27.671	29.377	PASS
66C	20+15	Mid	132348	132519	QPSK	32.578	34.348	PASS
66C	20+15	Mid	132348	132519	16QAM	32.560	34.354	PASS
66C	20+15	Mid	132348	132519	64QAM	32.522	34.338	PASS
66C	20+15	Mid	132348	132519	256QAM	32.546	34.153	PASS
66C	20+5	Mid	132397	132514	QPSK	22.816	24.149	PASS
66C	20+5	Mid	132397	132514	16QAM	22.809	24.077	PASS
66C	20+5	Mid	132397	132514	64QAM	22.845	24.147	PASS
66C	20+5	Mid	132397	132514	256QAM	22.815	24.257	PASS
66C	20+20	Mid	132323	132521	QPSK	37.364	39.154	PASS
66C	20+20	Mid	132323	132521	16QAM	37.438	39.307	PASS
66C	20+20	Mid	132323	132521	64QAM	37.423	39.165	PASS
66C	20+20	Mid	132323	132521	256QAM	37.391	39.432	PASS
66C	20+10	High	132473	132617	QPSK	27.711	29.407	PASS
66C	20+10	High	132473	132617	16QAM	27.630	29.061	PASS
66C	20+10	High	132473	132617	64QAM	27.794	29.263	PASS
66C	20+10	High	132473	132617	256QAM	27.703	29.269	PASS
66C	20+15	High	132423	132594	QPSK	32.524	34.024	PASS
66C	20+15	High	132423	132594	16QAM	32.525	34.328	PASS
66C	20+15	High	132423	132594	64QAM	32.495	34.075	PASS
66C	20+15	High	132423	132594	256QAM	32.553	34.205	PASS
66C	20+5	High	132522	132639	QPSK	22.823	24.294	PASS
66C	20+5	High	132522	132639	16QAM	22.823	24.040	PASS
66C	20+5	High	132522	132639	64QAM	22.813	24.073	PASS
66C	20+5	High	132522	132639	256QAM	22.808	24.029	PASS
66C	20+20	High	132374	132572	QPSK	37.414	39.191	PASS
66C	20+20	High	132374	132572	16QAM	37.439	39.395	PASS
66C	20+20	High	132374	132572	64QAM	37.402	39.297	PASS
66C	20+20	High	132374	132572	256QAM	37.389	39.224	PASS



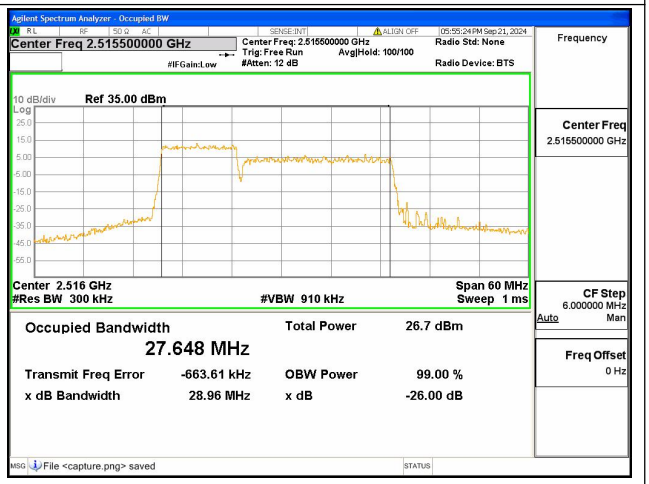
7C / 10+20MHz / QPSK/ Low CH



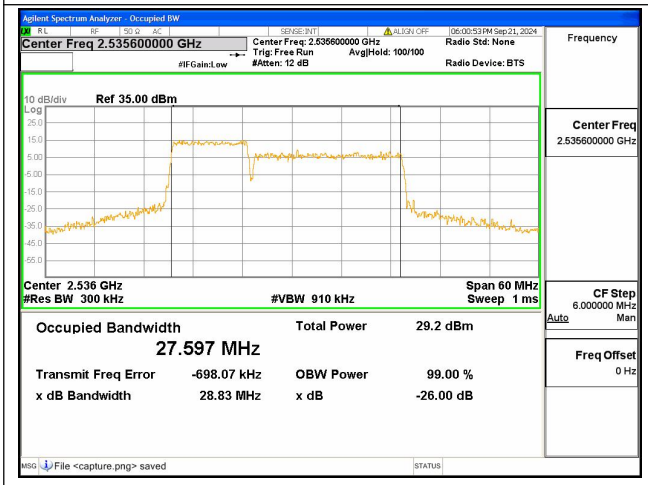
7C / 10+20MHz / 16QAM/ Low CH



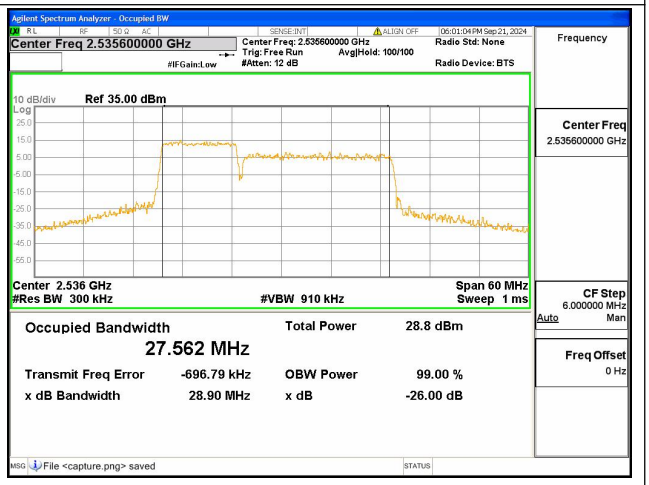
7C / 10+20MHz / 64QAM/ Low CH



7C / 10+20MHz / 256QAM/ Low CH

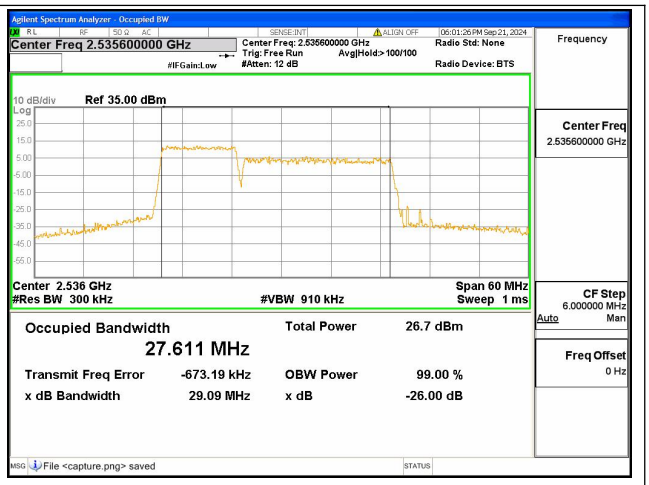


7C / 10+20MHz / QPSK/ Mid CH

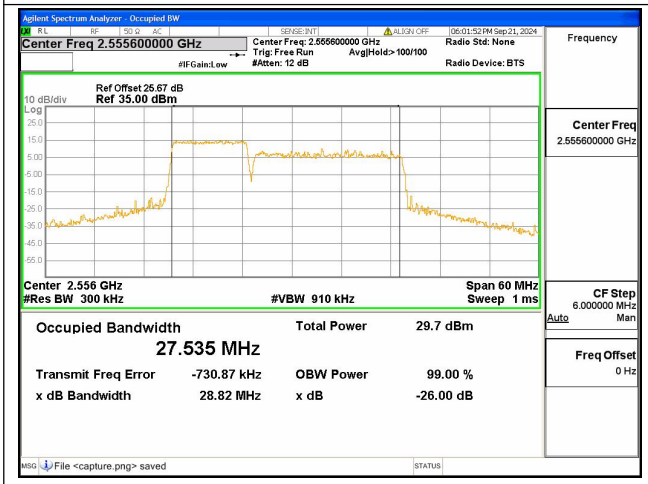


7C / 10+20MHz / 16QAM/ Mid CH

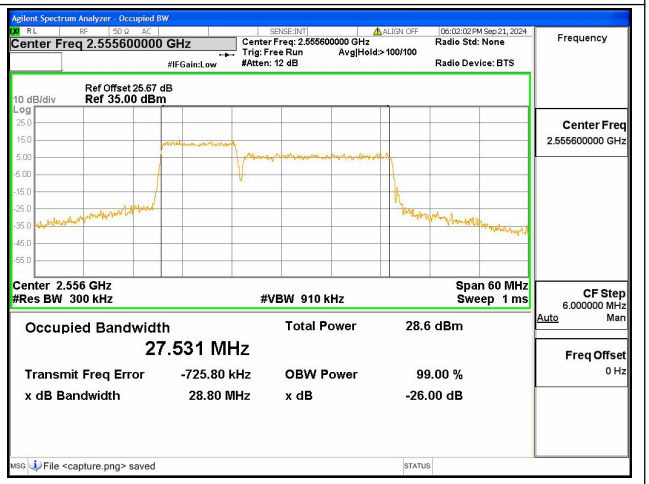
7C / 10+20MHz / 64QAM/ Mid CH



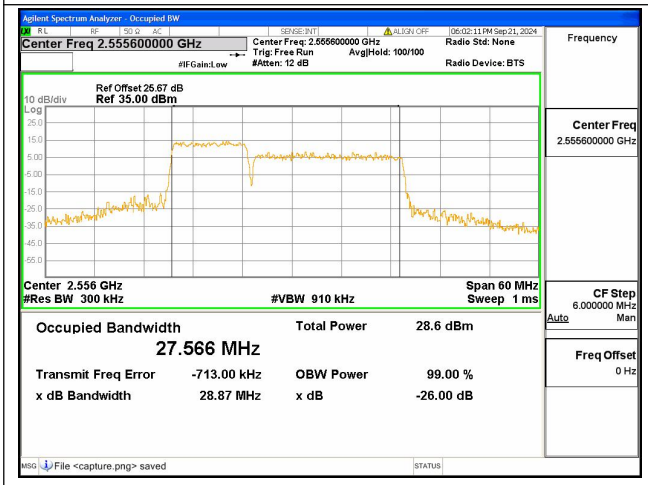
7C / 10+20MHz / 256QAM/ Mid CH



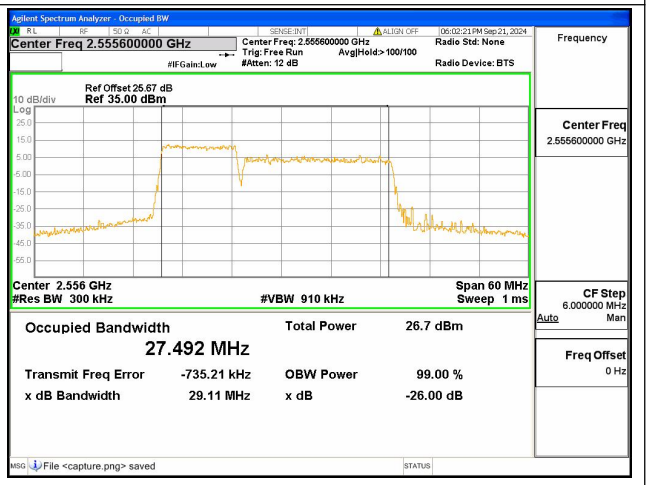
7C / 10+20MHz / QPSK/ High CH



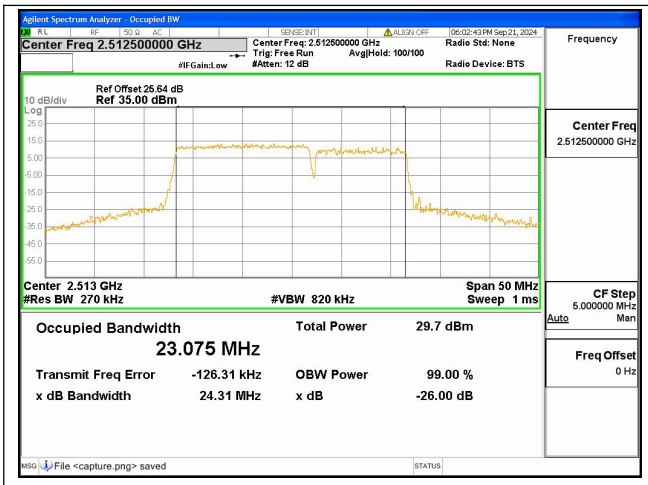
7C / 10+20MHz / 16QAM/ High CH



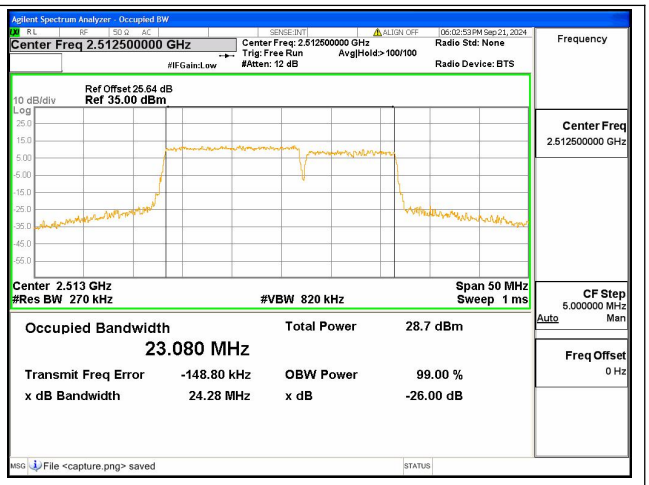
7C / 10+20MHz / 64QAM/ High CH



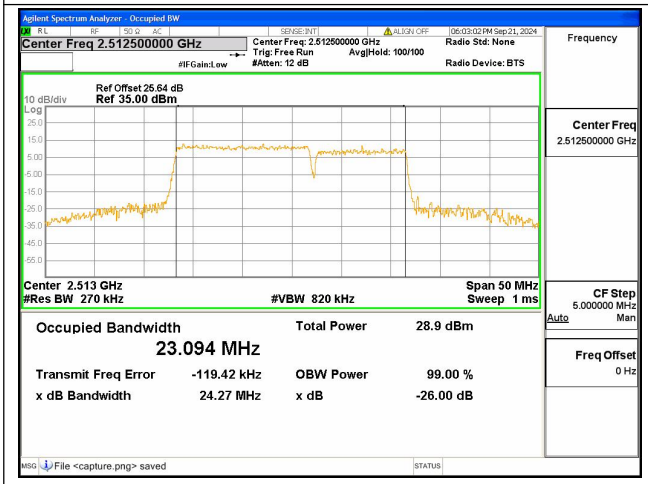
7C / 10+20MHz / 256QAM/ High CH



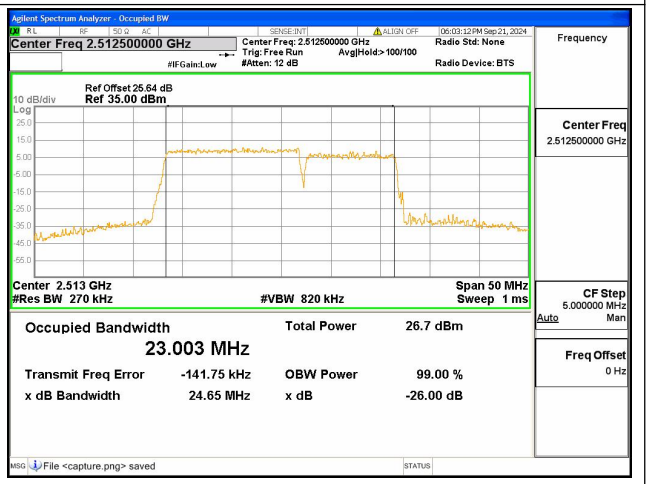
7C / 15+10MHz / QPSK/ Low CH



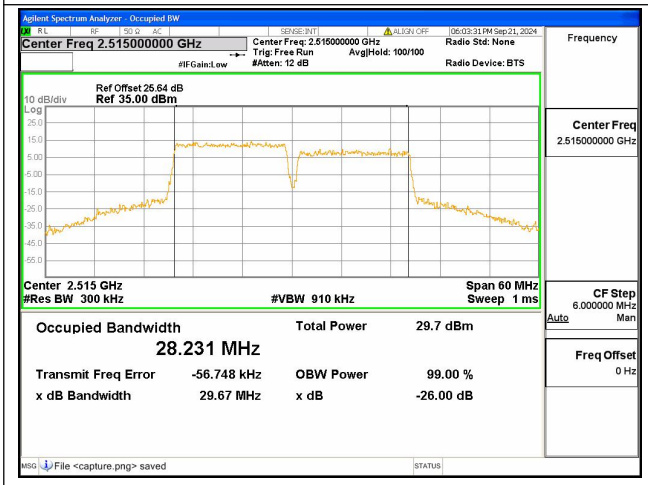
7C / 15+10MHz / 16QAM/ Low CH



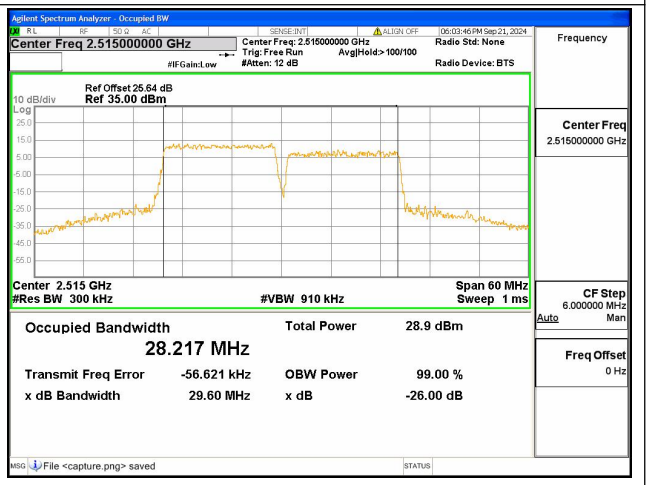
7C / 15+10MHz / 64QAM/ Low CH



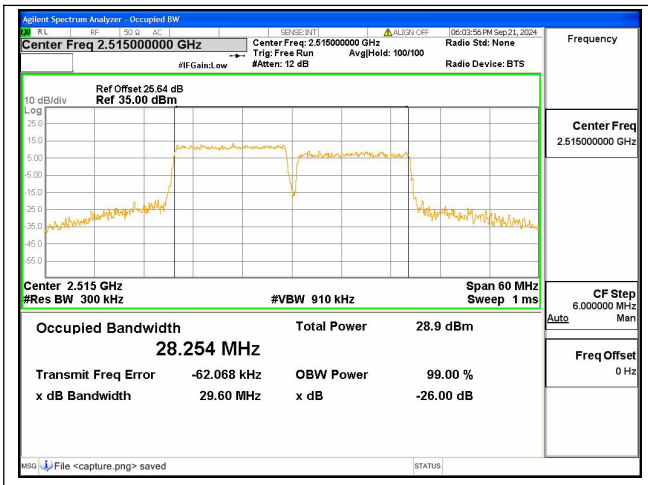
7C / 15+10MHz / 256QAM/ Low CH



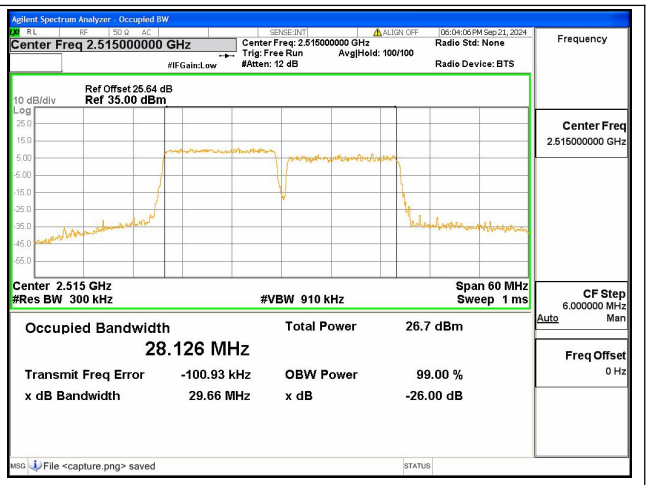
7C / 15+15MHz / QPSK/ Low CH



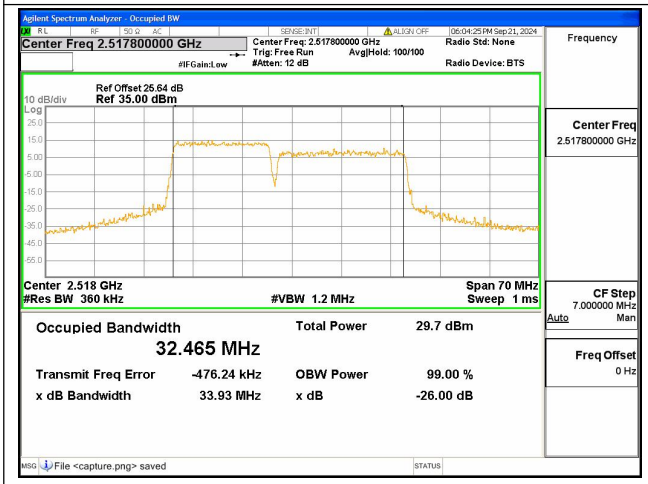
7C / 15+15MHz / 16QAM/ Low CH



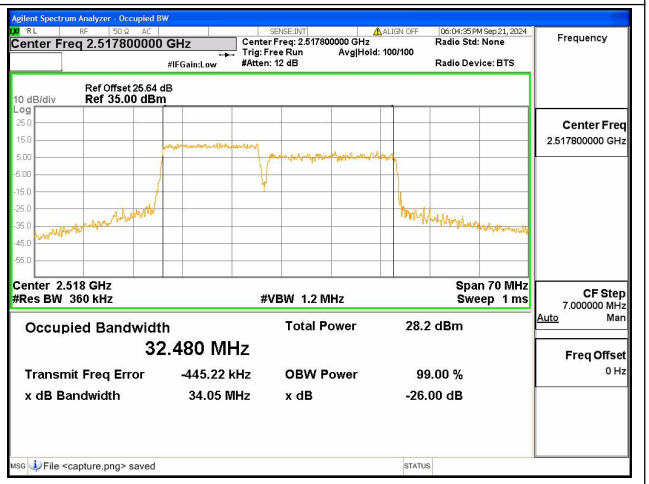
7C / 15+15MHz / 64QAM/ Low CH



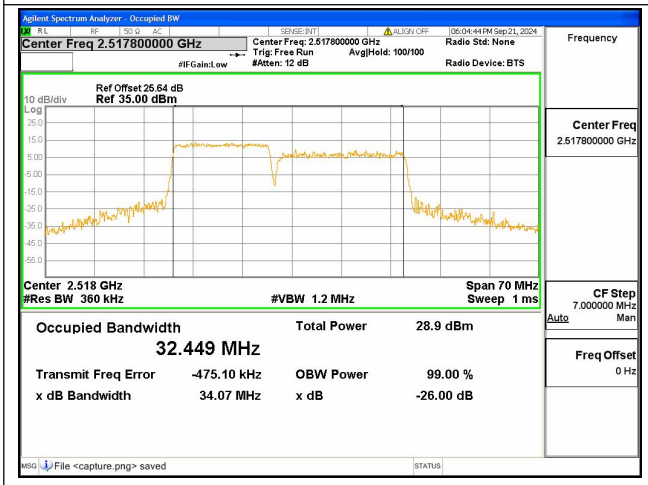
7C / 15+15MHz / 256QAM/ Low CH



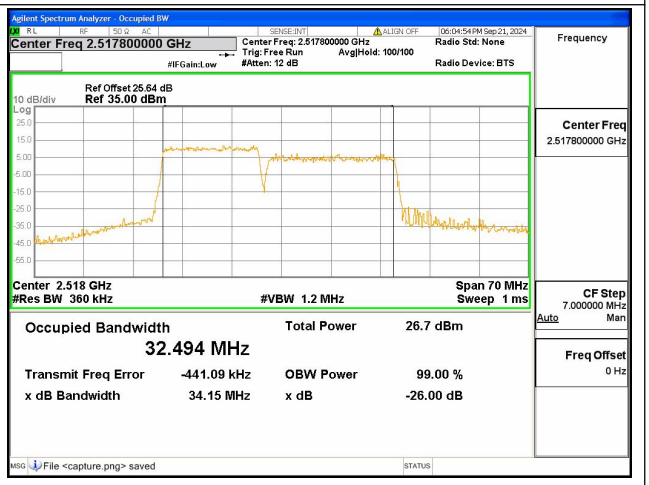
7C / 15+20MHz / QPSK/ Low CH



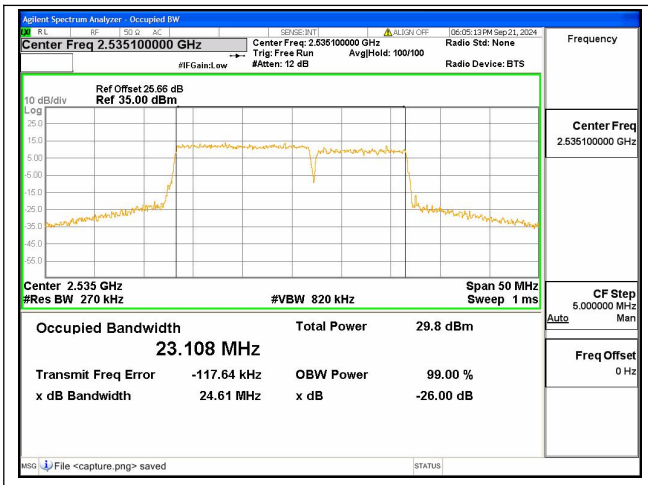
7C / 15+20MHz / 16QAM/ Low CH



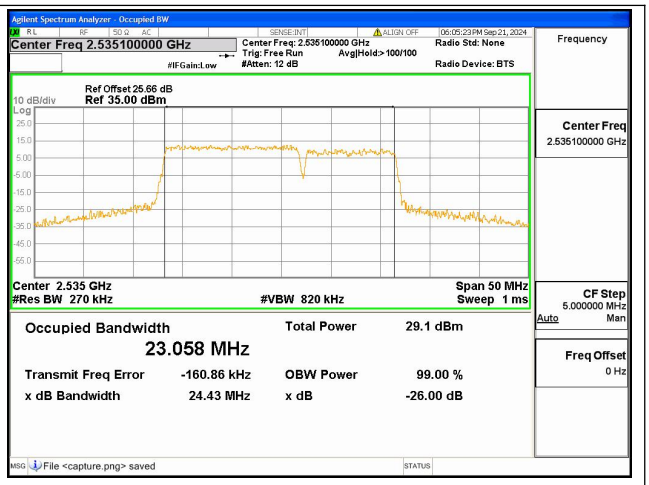
7C / 15+20MHz / 64QAM/ Low CH



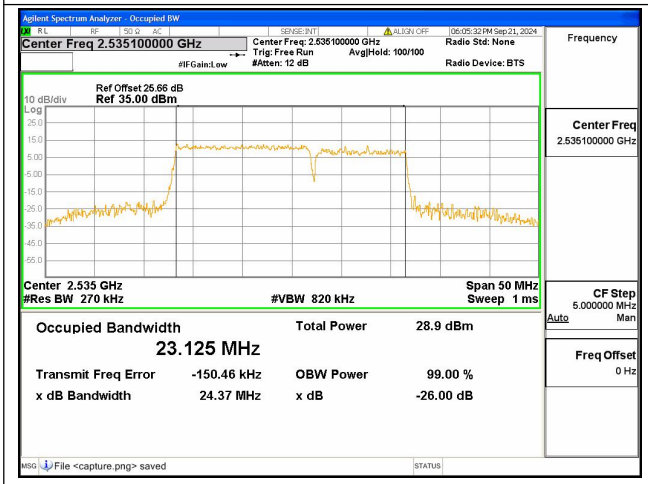
7C / 15+20MHz / 256QAM/ Low CH



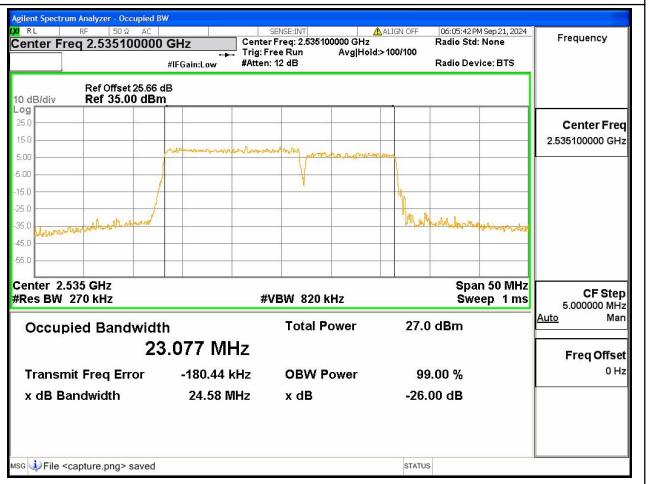
7C / 15+10MHz / QPSK/ Mid CH



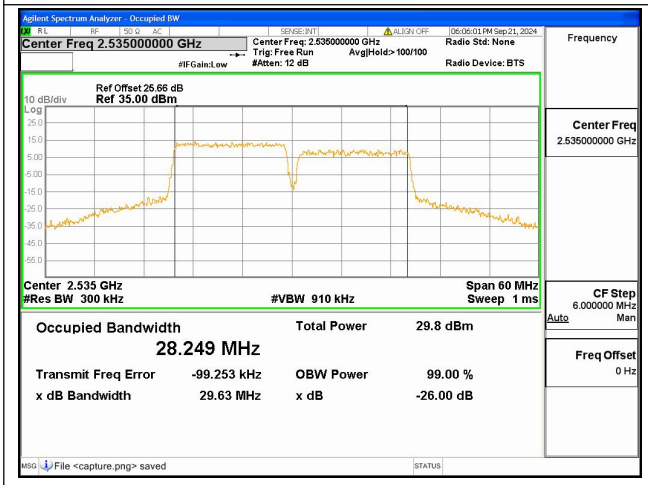
7C / 15+10MHz / 16QAM/ Mid CH



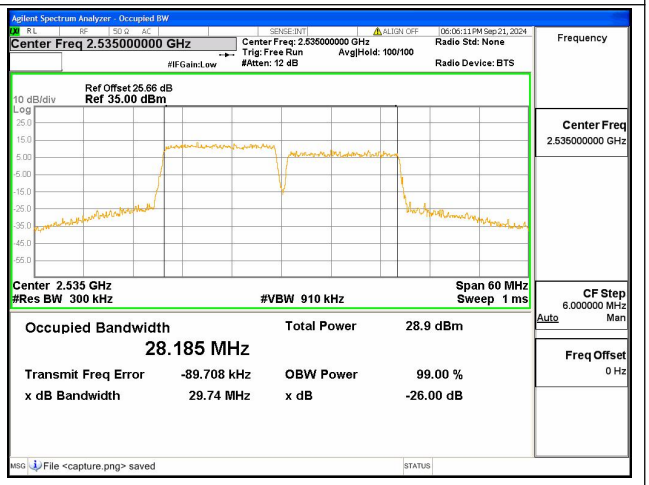
7C / 15+10MHz / 64QAM/ Mid CH



7C / 15+10MHz / 256QAM/ Mid CH

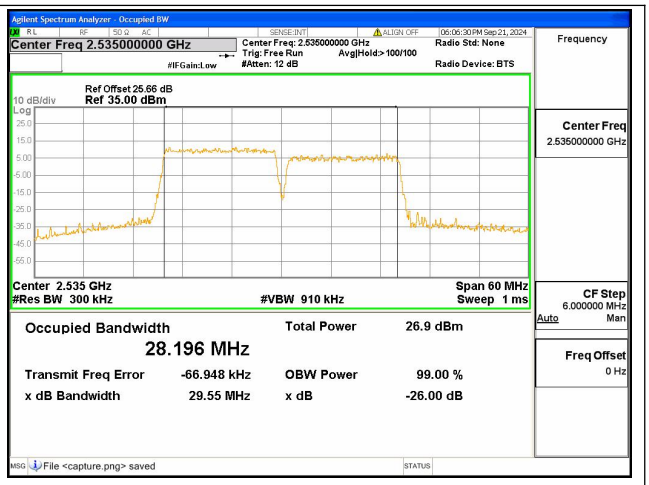


7C / 15+15MHz / QPSK/ Mid CH

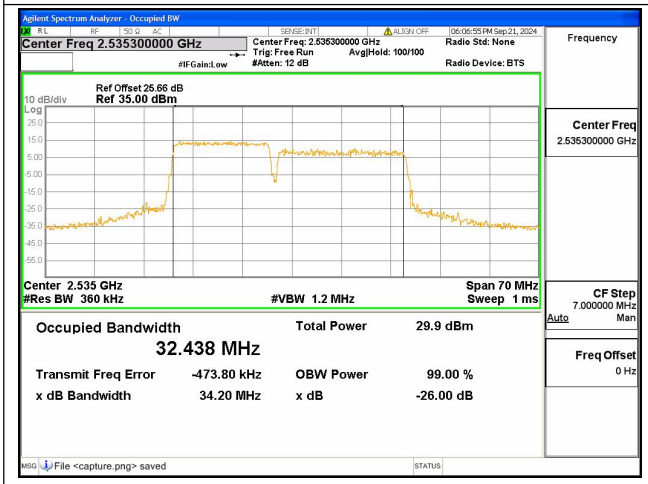


7C / 15+15MHz / 16QAM/ Mid CH

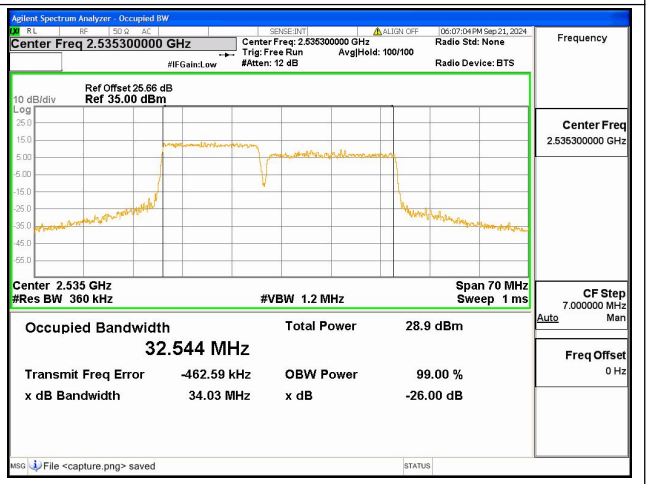
7C / 15+15MHz / 64QAM/ Mid CH



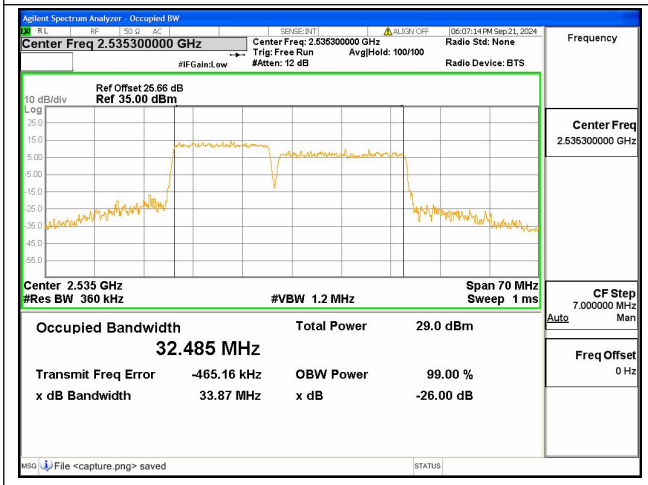
7C / 15+15MHz / 256QAM/ Mid CH



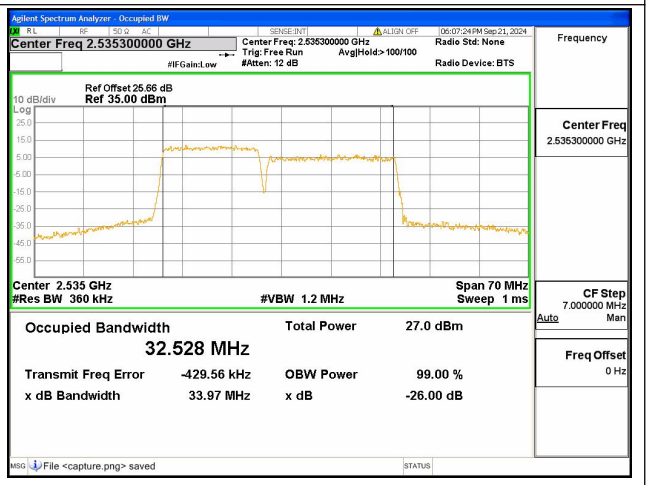
7C / 15+20MHz / QPSK/ Mid CH



7C / 15+20MHz / 16QAM/ Mid CH



7C / 15+20MHz / 64QAM/ Mid CH



7C / 15+20MHz / 256QAM/ Mid CH