

FCC Test Report (Part 27: CA mode)

Report No.: RF200605C24-17

FCC ID: V65E7110

Test Model: E7110

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Issued Date: Nov. 19, 2020

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RF200605C24-17	Original release	Nov. 19, 2020

1 Certificate of Conformity

Product: Smart Phone

Brand: Kyocera

Test Model: E7110

Sample Status: Identical Prototype

Applicant: Kyocera Corporation % Kyocera International, Inc.

Test Date: Nov. 02 ~ Nov. 12, 2020

Standards: FCC Part 27, Subpart C, M, L

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen, **Date:** Nov. 19, 2020
Pettie Chen / Senior Specialist

Approved by : Bruce Chen, **Date:** Nov. 19, 2020
Bruce Chen / Senior Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
LTE B66			
2.1046 27.50 (d)(4)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Refer to Note 2
27.50 (d)(5)	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
27.53(h)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 27.53(h)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -26.4dB at 89.04MHz.

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02-8 R1 for the modulation characteristics data of CA mode.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Dec. 31, 2019	Dec. 30, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 16, 2020	Sep. 15, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 11, 2019 Nov. 03, 2020	Nov. 10, 2020 Nov. 02, 2021
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 07, 2019	Nov. 06, 2020
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jun. 08, 2020	Jun. 07, 2021
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 08, 2020	Jun. 07, 2021
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH4-01	Aug. 16, 2020	Aug. 15, 2021
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Aug. 16, 2020	Aug. 15, 2021
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jun. 08, 2020	Jun. 07, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jun. 08, 2020	Jun. 07, 2021
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Standard Temperature And Humidity Chamber GIANT FORCE	GTH-120-40-CP-AR	MAA1306-019	Sep. 09, 2020	Sep. 08, 2021
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 06, 2020	Jun. 05, 2021
DC power supply	U8002A	MY56330015	NA	NA
Radio Communication Analyzer Anritsu	MT8821C	6201462755	Feb. 13, 2020	Feb. 12, 2021

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 4.

3 General Information

3.1 General Description of EUT

Product	Smart Phone			
Brand	Kyocera			
Test Model	E7110			
Status of EUT	Identical Prototype			
Power Supply Rating	3.85 Vdc (Battery) 5 Vdc / 9 Vdc / 12 Vdc (Adapter)			
Modulation Type	LTE: QPSK, 16QAM, 64QAM			
Operating Frequency	LTE Band 66C	1720.0MHz ~ 1770.0MHz		
	LTE Band 66B	1715.0MHz ~ 1775.0MHz		
Max. EIRP Power		QPSK	16QAM	64QAM
	LTE Band 66C (20MHz+20MHz)	218.776mW (23.4dBm)	173.780mW (22.4dBm)	151.356mW (21.8dBm)
	LTE Band 66B (10MHz+10MHz)	245.471mW (23.9dBm)	194.984mW (22.9dBm)	169.824mW (22.3dBm)
Emission Designator	LTE Band 66C (20MHz+20MHz)	37M6G7D	37M6D7W	37M5D7W
	LTE Band 66B (10MHz+10MHz)	18M8G7D	18M8D7W	18M8D7W
Antenna Type	Monopole Antenna with -0.8 dBi gain			
Accessory Device	Refer to Note as below			
Data Cable Supplied	Refer to Note as below			

Note:

1. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	Kyocera	SCP-53ADT	I/P: 100-240 Vac, 50/60 Hz, 0.6 A O/P: 5 Vdc, 3 A; 9 Vdc, 3 A; 15 Vdc, 1.8 A; 20 Vdc, 1.35 A
USB Cable	Kyocera	SCP-27SDC	1.0m

- The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.
- The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
- For CA mode configuration, please consult the manufacturer to declare the test mode.

5. E-UTRA CA configuration / Bandwidth combination set.

E-UTRA CA configuration / Bandwidth combination set					
E-UTRA CA configuration	Uplink CA configurations	Component carriers in order of increasing carrier frequency		Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_66B	CA_66B	5	5, 10, 15	20	0
		10	5, 10		
		15	5		
CA_66C	CA_66C	5	20	40	0
		10	15, 20		
		15	10, 15, 20		
		20	5, 10, 15, 20		

*66C is continuous CA and maximum combination is 20M+20M.

*66B is continuous CA and maximum combination is 10M+10M.

6. The EUT support the following CA Configuration.

Band Configuration
2A-5A
4A-5A
5A-66A
5B
48C
66B
66C

7. LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200605C24-6 & RF200605C24-8 for the test data of inter Band CA mode.

3.2 Configuration of System under Test



Remote site



3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Anritsu	MT8821C	6261806803	NA	-
B.	Earphone	APPLE	A1748	NA	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1.0	Y	0	Accessory
2.	Audio cable	1	1.15	N	0	-

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on X-plane. Following channel(s) was (were) selected for the final test as listed below.

LTE Band 66 (CA 66C)

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132323(1745.1MHz)+ 132521(1764.9MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		132072 to 132423 132243 to 132594	132072(1720.0MHz)+ 132243(1737.1MHz), 132348(1747.6MHz)+ 132519(1764.7MHz), 132423(1755.1MHz)+ 132594(1772.2MHz)	20MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		132072 to 132473 132216 to 132617	132072(1720.0MHz)+ 132216(1734.4MHz), 132373(1750.1MHz)+ 132517(1764.5MHz), 132473(1760.1MHz)+ 132617(1774.5MHz)	20MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		132072 to 132522 132189 to 132639	132072(1720.0MHz)+ 132189(1731.7MHz), 132397(1752.5MHz)+ 132514(1764.2MHz), 132522(1765.0MHz)+ 132639(1776.7MHz)	20MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
		132005 to 132455 132122 to 132572	132005(1713.3MHz)+ 132122(1725.0MHz), 132330(1745.8MHz)+ 132447(1757.5MHz), 132455(1758.3MHz)+ 132572(1770.0MHz)	5MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
		132027 to 132428 132171 to 132572	132027(1715.5MHz)+ 132171(1729.9MHz), 132328(1745.6MHz)+ 132472(1760.0MHz), 132428(1755.6MHz)+ 132572(1770.0MHz)	10MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		132050 to 132401 132221 to 132572	132050(1717.8MHz)+ 132221(1734.9MHz), 132325(1745.3MHz)+ 132496(1762.4MHz), 132401(1752.9MHz)+ 132572(1770.0MHz)	15MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		132025 to 132477 132145 o 132597	132025(1715.3MHz)+ 132145(1727.3MHz), 132351(1747.9MHz)+ 132471(1759.9MHz), 132477(1760.5MHz)+ 132597(1772.5MHz)	10MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
		132047 to 132447 132197 to 132597	132047(1717.5MHz)+ 132197(1732.5MHz), 132347(1747.5MHz)+ 132497(1762.5MHz), 132447(1757.5MHz)+ 132597(1772.5MHz)	15MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Frequency Stability	132047 to 132499 132167 to 132619	132323(1745.1MHz)+ 132521(1764.9MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Occupied Bandwidth	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132323(1745.1MHz)+ 132521(1764.9MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		132072 to 132423 132243 to 132594	132072(1720.0MHz)+ 132243(1737.1MHz), 132348(1747.6MHz)+ 132519(1764.7MHz), 132423(1755.1MHz)+ 132594(1772.2MHz)	20MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		132072 to 132473 132216 to 132617	132072(1720.0MHz)+ 132216(1734.4MHz), 132373(1750.1MHz)+ 132517(1764.5MHz), 132473(1760.1MHz)+ 132617(1774.5MHz)	20MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		132072 to 132522 132189 to 132639	132072(1720.0MHz)+ 132189(1731.7MHz), 132397(1752.5MHz)+ 132514(1764.2MHz), 132522(1765.0MHz)+ 132639(1776.7MHz)	20MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
		132005 to 132455 132122 to 132572	132005(1713.3MHz)+ 132122(1725.0MHz), 132330(1745.8MHz)+ 132447(1757.5MHz), 132455(1758.3MHz)+ 132572(1770.0MHz)	5MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
		132027 to 132428 132171 to 132572	132027(1715.5MHz)+ 132171(1729.9MHz), 132328(1745.6MHz)+ 132472(1760.0MHz), 132428(1755.6MHz)+ 132572(1770.0MHz)	10MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		132050 to 132401 132221 to 132572	132050(1717.8MHz)+ 132221(1734.9MHz), 132325(1745.3MHz)+ 132496(1762.4MHz), 132401(1752.9MHz)+ 132572(1770.0MHz)	15MHz + 20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		132025 to 132477 132145 to 132597	132025(1715.3MHz)+ 132145(1727.3MHz), 132351(1747.9MHz)+ 132471(1759.9MHz), 132477(1760.5MHz)+ 132597(1772.5MHz)	10MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
		132047 to 132447 132197 to 132597	132047(1717.5MHz)+ 132197(1732.5MHz), 132347(1747.5MHz)+ 132497(1762.5MHz), 132447(1757.5MHz)+ 132597(1772.5MHz)	15MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Band Edge	132047 to 132499 132167 to 132619	132047(1715.3MHz)+ 132167(1729.5MHz), 132373(1750.1MHz)+ 132493(1762.1MHz), 132499(1762.7MHz)+ 132619(1774.7MHz)	15MHz + 10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
-	Peak to Average Ratio	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132323(1745.1MHz)+ 132521(1764.9MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Conducted Emission	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132323(1745.1MHz)+ 132521(1764.9MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	132072 to 132374 132270 to 132572	132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Above 1GHz	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132323(1745.1MHz)+ 132521(1764.9MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1 GHz, choose the maximum EIRP power worst mode for final test.
3. LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200605C24-8 for the modulation characteristics data of CA mode.

LTE Band 66 (CA 66B)

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132373(1750.1MHz)+ 132472(1760.0MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset
		132002 to 132504 132095 to 132597	132002(1713.0MHz)+ 132095(1722.3MHz), 132353(1748.1MHz)+ 132447(1757.4MHz), 132504(1763.2MHz)+ 132597(1772.5MHz)	5MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 79 RB Offset
		132047 to 132549 132140 to 132642	132047(1717.5MHz)+ 132140(1726.8MHz), 132398(1752.6MHz)+ 132491(1761.9MHz), 132549(1767.7MHz)+ 132642(1777.0MHz)	15MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
		132000 to 132550 132072 to 132622	132000(1712.8MHz)+ 132072(1720.0MHz), 132375(1750.3MHz)+ 132447(1757.5MHz), 132550(1767.8MHz)+ 132622(1775.0MHz)	5MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset
		132022 to 132572 132094 to 132644	132022(1715.0MHz)+ 132094(1722.2MHz), 132397(1752.5MHz)+ 132469(1759.7MHz), 132572(1770.0MHz)+ 132644(1777.2MHz)	10MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
		131997 to 132599 132045 to 132647	131997(1712.5MHz)+ 132045(1717.3MHz), 132398(1752.6MHz)+ 132446(1757.4MHz), 132599(1772.7MHz)+ 132647(1777.5MHz)	5MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset
-	Frequency Stability	132022 to 132523 132121 to 132622	132373(1750.1MHz)+ 132472(1760.0MHz)	10MHz + 10MHz	QPSK	50 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Occupied Bandwidth	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132373(1750.1MHz)+ 132472(1760.0MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset
		132002 to 132504 132095 to 132597	132002(1713.0MHz)+ 132095(1722.3MHz), 132353(1748.1MHz)+ 132447(1757.4MHz), 132504(1763.2MHz)+ 132597(1772.5MHz)	5MHz + 15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 79 RB Offset
		132047 to 132549 132140 to 132642	132047(1717.5MHz)+ 132140(1726.8MHz), 132398(1752.6MHz)+ 132491(1761.9MHz), 132549(1767.7MHz)+ 132642(1777.0MHz)	15MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
		132000 to 132550 132072 to 132622	132000(1712.8MHz)+ 132072(1720.0MHz), 132375(1750.3MHz)+ 132447(1757.5MHz), 132550(1767.8MHz)+ 132622(1775.0MHz)	5MHz + 10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 49 RB Offset
		132022 to 132572 132094 to 132644	132022(1715.0MHz)+ 132094(1722.2MHz), 132397(1752.5MHz)+ 132469(1759.7MHz), 132572(1770.0MHz)+ 132644(1777.2MHz)	10MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
		131997 to 132599 132045 to 132647	131997(1712.5MHz)+ 132045(1717.3MHz), 132398(1752.6MHz)+ 132446(1757.4MHz), 132599(1772.7MHz)+ 132647(1777.5MHz)	5MHz + 5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset
-	Band Edge	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 49 RB Offset 50 RB / 0 RB Offset
-	Peak to Average Ratio	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132373(1750.1MHz)+ 132472(1760.0MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK	1 RB / 49 RB Offset 1 RB / 0 RB Offset
-	Conducted Emission	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132373(1750.1MHz)+ 132472(1760.0MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK	1 RB / 49 RB Offset 1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	132022 to 132523 132121 to 132622	132373(1750.1MHz)+ 132472(1760.0MHz)	10MHz + 10MHz	QPSK	1 RB / 49 RB Offset 1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz), 132373(1750.1MHz)+ 132472(1760.0MHz), 132523(1765.1MHz)+ 132622(1775.0MHz)	10MHz + 10MHz	QPSK	1 RB / 49 RB Offset 1 RB / 0 RB Offset

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200605C24-8 for the modulation characteristics data of CA mode.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Frequency Stability	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Occupied Bandwidth	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Band Edge	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Peak To Average Ratio	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Conducted Emission	25deg. C, 70%RH	120Vac, 60Hz	Getaz Yang
Radiated Emission	23deg. C, 67%RH	120Vac, 60Hz	Adair Peng

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards and References:

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

LTE Band 66:

Mobile / Portable station are limited to 1 watts e.i.r.p.

4.1.2 Test Procedures

Maximum EIRP

- a. All measurements were done at low, middle and high operational frequency range. RBW is 10 MHz, 15 MHz, 20 MHz for LTE mode, VBW $\geq 3 \times$ RBW. When the RBW setting value exceeds the maximum value set by the Spectrum instrument, the measurement method refers to ANSI C63.26 section 5.2.4.4.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated from E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$. Correction Factor (includes EIRP and ERP unit conversion factor) = Antenna gain of substitution horn. – Tx cable loss. Measurement method refers to ANSI C63.26 section 5.2.7 & 5.2.4.

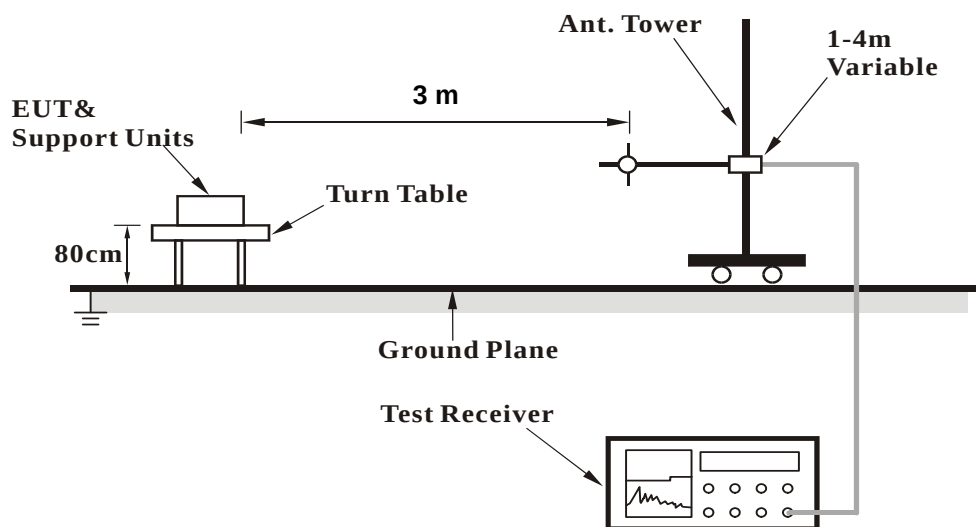
Conducted Power Measurement:

The EUT was set up for the maximum power with LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

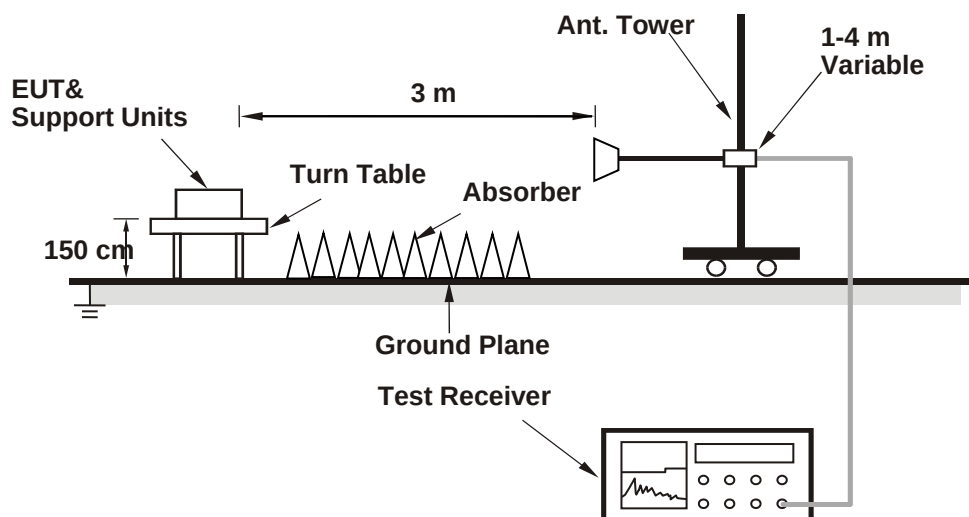
4.1.3 Test Setup

EIRP / ERP Measurement:

<Radiated Emission below or equal 1 GHz>

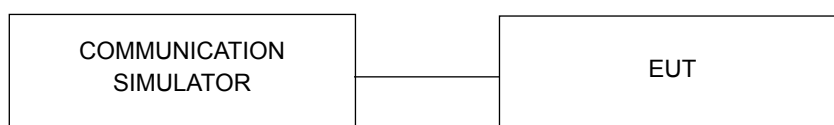


<Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Conducted Power Measurement:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.4 Test Results

Conducted Output Power (dBm)

LTE Band 66 (CA 66C)

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
		Total														
Intra Band Conti- guous	CA_66C	66	20	QPSK	1	0	132072	1720	66	20	QPSK	1	99	132270	1739.8	16.15
					1	99						1	0			24.25
		66	20	QPSK	1	0	132323	1745.1	66	20	QPSK	1	99	132521	1764.9	16.45
					1	99						1	0			24.75
		66	20	QPSK	1	0	132374	1750.2	66	20	QPSK	1	99	132572	1770	16.52
					1	99						1	0			24.58
Intra Band Conti- guous	CA_66C	66	20	QPSK	1	0	132072	1720	66	15	QPSK	1	74	132243	1737.1	15.19
					1	99						1	0			23.99
		66	20	QPSK	1	0	132348	1747.6	66	15	QPSK	1	74	132519	1764.7	14.90
					1	99						1	0			24.70
		66	20	QPSK	1	0	132423	1755.1	66	15	QPSK	1	74	132594	1772.2	15.17
					1	99						1	0			24.39
Intra Band Conti- guous	CA_66C	66	20	QPSK	1	0	132072	1720	66	10	QPSK	1	49	132216	1734.4	15.75
					1	99						1	0			24.08
		66	20	QPSK	1	0	132373	1750.1	66	10	QPSK	1	49	132517	1764.5	15.77
					1	99						1	0			24.52
		66	20	QPSK	1	0	132473	1760.1	66	10	QPSK	1	49	132617	1774.5	15.14
					1	99						1	0			24.21
Intra Band Conti- guous	CA_66C	66	20	QPSK	1	0	132072	1720	66	5	QPSK	1	24	132189	1731.7	15.42
					1	99						1	0			24.17
		66	20	QPSK	1	0	132397	1752.5	66	5	QPSK	1	24	132514	1764.2	15.65
					1	99						1	0			24.71
		66	20	QPSK	1	0	132522	1765	66	5	QPSK	1	24	132639	1776.7	15.37
					1	99						1	0			24.41
Intra Band Conti- guous	CA_66C	66	15	QPSK	1	0	132050	1717.8	66	20	QPSK	1	99	132221	1734.9	15.41
					1	74						1	0			23.98
		66	15	QPSK	1	0	132325	1745.3	66	20	QPSK	1	99	132496	1762.4	15.59
					1	74						1	0			24.52
		66	15	QPSK	1	0	132401	1752.9	66	20	QPSK	1	99	132572	1770	15.40
					1	74						1	0			24.49
Intra Band Conti- guous	CA_66C	66	15	QPSK	1	0	132047	1717.5	66	15	QPSK	1	74	132197	1732.5	15.52
					1	74						1	0			24.06
		66	15	QPSK	1	0	132347	1747.5	66	15	QPSK	1	74	132497	1762.5	15.33
					1	74						1	0			24.39
		66	15	QPSK	1	0	132447	1757.5	66	15	QPSK	1	74	132597	1772.5	15.48
					1	74						1	0			24.42

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
		Total														
Intra Band Conti- guous	CA_66C	66	15	QPSK	1	0	132047	1715.3	66	10	QPSK	1	24	132167	1729.5	15.36
					1	74						1	0			24.09
		66	15	QPSK	1	0	132373	1750.1	66	10	QPSK	1	24	132493	1762.1	15.30
					1	74						1	0			24.43
		66	15	QPSK	1	0	132499	1762.7	66	10	QPSK	1	24	132619	1774.7	15.65
					1	74						1	0			24.51
Intra Band Conti- guous	CA_66C	66	10	QPSK	1	0	132027	1715.5	66	20	QPSK	1	99	132171	1729.9	15.45
					1	49						1	0			24.22
		66	10	QPSK	1	0	132328	1745.6	66	20	QPSK	1	99	132472	1760	15.44
					1	49						1	0			24.73
		66	10	QPSK	1	0	132428	1755.6	66	20	QPSK	1	99	132572	1770	15.35
					1	49						1	0			24.49
Intra Band Conti- guous	CA_66C	66	10	QPSK	1	0	132025	1715.3	66	15	QPSK	1	74	132145	1727.3	15.56
					1	49						1	0			24.11
		66	10	QPSK	1	0	132351	1747.9	66	15	QPSK	1	74	132471	1759.9	15.63
					1	49						1	0			24.56
		66	10	QPSK	1	0	132477	1760.5	66	15	QPSK	1	74	132597	1772.5	15.23
					1	49						1	0			24.48
Intra Band Conti- guous	CA_66C	66	5	QPSK	1	0	132005	1713.3	66	20	QPSK	1	99	132122	1725	15.70
					1	24						1	0			24.09
		66	5	QPSK	1	0	132330	1745.8	66	20	QPSK	1	99	132447	1757.5	15.67
					1	24						1	0			24.13
		66	5	QPSK	1	0	132455	1758.3	66	20	QPSK	1	99	132572	1770	15.27
					1	24						1	0			24.35

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
		Total														
Intra Band Conti- guous	CA_66C	66	20	16QAM	1	0	132072	1720	66	20	16QAM	1	99	132270	1739.8	15.19
					1	99						1	0			23.45
		66	20	16QAM	1	0	132323	1745.1	66	20	16QAM	1	99	132521	1764.9	16.12
					1	99						1	0			23.91
		66	20	16QAM	1	0	132374	1750.2	66	20	16QAM	1	99	132572	1770	15.59
					1	99						1	0			23.70
Intra Band Conti- guous	CA_66C	66	20	16QAM	1	0	132072	1720	66	15	16QAM	1	74	132243	1737.1	14.30
					1	99						1	0			23.28
		66	20	16QAM	1	0	132348	1747.6	66	15	16QAM	1	74	132519	1764.7	14.02
					1	99						1	0			23.80
		66	20	16QAM	1	0	132423	1755.1	66	15	16QAM	1	74	132594	1772.2	14.26
					1	99						1	0			23.45
Intra Band Conti- guous	CA_66C	66	20	16QAM	1	0	132072	1720	66	10	16QAM	1	49	132216	1734.4	14.91
					1	99						1	0			23.11
		66	20	16QAM	1	0	132373	1750.1	66	10	16QAM	1	49	132517	1764.5	14.87
					1	99						1	0			23.63
		66	20	16QAM	1	0	132473	1760.1	66	10	16QAM	1	49	132617	1774.5	14.33
					1	99						1	0			23.55
Intra Band Conti- guous	CA_66C	66	20	16QAM	1	0	132072	1720	66	5	16QAM	1	24	132189	1731.7	14.51
					1	99						1	0			23.39
		66	20	16QAM	1	0	132397	1752.5	66	5	16QAM	1	24	132514	1764.2	14.73
					1	99						1	0			23.75
		66	20	16QAM	1	0	132522	1765	66	5	16QAM	1	24	132639	1776.7	14.55
					1	99						1	0			23.56
Intra Band Conti- guous	CA_66C	66	15	16QAM	1	0	132050	1717.8	66	20	16QAM	1	99	132221	1734.9	14.62
					1	74						1	0			23.25
		66	15	16QAM	1	0	132325	1745.3	66	20	16QAM	1	99	132496	1762.4	14.73
					1	74						1	0			23.73
		66	15	16QAM	1	0	132401	1752.9	66	20	16QAM	1	99	132572	1770	14.52
					1	74						1	0			23.65
Intra Band Conti- guous	CA_66C	66	15	16QAM	1	0	132047	1717.5	66	15	16QAM	1	74	132197	1732.5	14.63
					1	74						1	0			23.23
		66	15	16QAM	1	0	132347	1747.5	66	15	16QAM	1	74	132497	1762.5	14.44
					1	74						1	0			23.60
		66	15	16QAM	1	0	132447	1757.5	66	15	16QAM	1	74	132597	1772.5	14.57
					1	74						1	0			23.55

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
		Total														
Intra Band Conti- guous	CA_66C	66	15	16QAM	1	0	132047	1715.3	66	10	16QAM	1	24	132167	1729.5	14.53
					1	74						1	0			23.20
		66	15	16QAM	1	0	132373	1750.1	66	10	16QAM	1	24	132493	1762.1	14.42
					1	74						1	0			23.57
		66	15	16QAM	1	0	132499	1762.7	66	10	16QAM	1	24	132619	1774.7	14.77
					1	74						1	0			22.45
Intra Band Conti- guous	CA_66C	66	10	16QAM	1	0	132027	1715.5	66	20	16QAM	1	99	132171	1729.9	14.57
					1	49						1	0			23.25
		66	10	16QAM	1	0	132328	1745.6	66	20	16QAM	1	99	132472	1760	14.50
					1	49						1	0			23.81
		66	10	16QAM	1	0	132428	1755.6	66	20	16QAM	1	99	132572	1770	14.50
					1	49						1	0			23.48
Intra Band Conti- guous	CA_66C	66	10	16QAM	1	0	132025	1715.3	66	15	16QAM	1	74	132145	1727.3	14.64
					1	49						1	0			23.20
		66	10	16QAM	1	0	132351	1747.9	66	15	16QAM	1	74	132471	1759.9	14.77
					1	49						1	0			23.66
		66	10	16QAM	1	0	132477	1760.5	66	15	16QAM	1	74	132597	1772.5	14.48
					1	49						1	0			23.60
Intra Band Conti- guous	CA_66C	66	5	16QAM	1	0	132005	1713.3	66	20	16QAM	1	99	132122	1725	14.89
					1	24						1	0			23.34
		66	5	16QAM	1	0	132330	1745.8	66	20	16QAM	1	99	132447	1757.5	14.78
					1	24						1	0			23.28
		66	5	16QAM	1	0	132455	1758.3	66	20	16QAM	1	99	132572	1770	14.53
					1	24						1	0			23.59

LTE Band 66 (CA 66C)

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
																Total
Intra Band Conti- guous	CA_66C	66	20	64QAM	1	0	132072	1720	66	20	64QAM	1	99	132270	1739.8	13.45
					1	99						1	0			22.81
		66	20	64QAM	1	0	132323	1745.1	66	20	64QAM	1	99	132521	1764.9	13.53
					1	99						1	0			22.15
		66	20	64QAM	1	0	132374	1750.2	66	20	64QAM	1	99	132572	1770	12.94
					1	99						1	0			22.14
Intra Band Conti- guous	CA_66C	66	20	64QAM	1	0	132072	1720	66	15	64QAM	1	74	132243	1737.1	13.34
					1	99						1	0			22.31
		66	20	64QAM	1	0	132348	1747.6	66	15	64QAM	1	74	132519	1764.7	13.45
					1	99						1	0			22.01
		66	20	64QAM	1	0	132423	1755.1	66	15	64QAM	1	74	132594	1772.2	12.89
					1	99						1	0			22.12
Intra Band Conti- guous	CA_66C	66	20	64QAM	1	0	132072	1720	66	10	64QAM	1	49	132216	1734.4	14.40
					1	99						1	0			22.54
		66	20	64QAM	1	0	132373	1750.1	66	10	64QAM	1	49	132517	1764.5	13.20
					1	99						1	0			22.00
		66	20	64QAM	1	0	132473	1760.1	66	10	64QAM	1	49	132617	1774.5	12.85
					1	99						1	0			22.04
Intra Band Conti- guous	CA_66C	66	20	64QAM	1	0	132072	1720	66	5	64QAM	1	24	132189	1731.7	13.44
					1	99						1	0			22.78
		66	20	64QAM	1	0	132397	1752.5	66	5	64QAM	1	24	132514	1764.2	13.25
					1	99						1	0			22.12
		66	20	64QAM	1	0	132522	1765	66	5	64QAM	1	24	132639	1776.7	12.68
					1	99						1	0			21.96
Intra Band Conti- guous	CA_66C	66	15	64QAM	1	0	132050	1717.8	66	20	64QAM	1	99	132221	1734.9	14.02
					1	74						1	0			22.73
		66	15	64QAM	1	0	132325	1745.3	66	20	64QAM	1	99	132496	1762.4	13.30
					1	74						1	0			22.12
		66	15	64QAM	1	0	132401	1752.9	66	20	64QAM	1	99	132572	1770	12.85
					1	74						1	0			21.99
Intra Band Conti- guous	CA_66C	66	15	64QAM	1	0	132047	1717.5	66	15	64QAM	1	74	132197	1732.5	13.35
					1	74						1	0			22.59
		66	15	64QAM	1	0	132347	1747.5	66	15	64QAM	1	74	132497	1762.5	13.48
					1	74						1	0			22.12
		66	15	64QAM	1	0	132447	1757.5	66	15	64QAM	1	74	132597	1772.5	12.81
					1	74						1	0			21.95

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
																Total
Intra Band Conti- guous	CA_66C	66	15	64QAM	1	0	132047	1715.3	66	10	64QAM	1	24	132167	1729.5	13.15
					1	74						1	0			22.55
		66	15	64QAM	1	0	132373	1750.1	66	10	64QAM	1	24	132493	1762.1	13.28
					1	74						1	0			22.07
		66	15	64QAM	1	0	132499	1762.7	66	10	64QAM	1	24	132619	1774.7	12.91
					1	74						1	0			22.05
Intra Band Conti- guous	CA_66C	66	10	64QAM	1	0	132027	1715.5	66	20	64QAM	1	99	132171	1729.9	13.14
					1	49						1	0			22.45
		66	10	64QAM	1	0	132328	1745.6	66	20	64QAM	1	99	132472	1760	13.34
					1	49						1	0			22.06
		66	10	64QAM	1	0	132428	1755.6	66	20	64QAM	1	99	132572	1770	12.73
					1	49						1	0			22.05
Intra Band Conti- guous	CA_66C	66	10	64QAM	1	0	132025	1715.3	66	15	64QAM	1	74	132145	1727.3	13.34
					1	49						1	0			22.67
		66	10	64QAM	1	0	132351	1747.9	66	15	64QAM	1	74	132471	1759.9	13.42
					1	49						1	0			22.03
		66	10	64QAM	1	0	132477	1760.5	66	15	64QAM	1	74	132597	1772.5	12.64
					1	49						1	0			22.13
Intra Band Conti- guous	CA_66C	66	5	64QAM	1	0	132005	1713.3	66	20	64QAM	1	99	132122	1725	13.06
					1	24						1	0			22.78
		66	5	64QAM	1	0	132330	1745.8	66	20	64QAM	1	99	132447	1757.5	13.46
					1	24						1	0			22.08
		66	5	64QAM	1	0	132455	1758.3	66	20	64QAM	1	99	132572	1770	12.71
					1	24						1	0			22.05

LTE Band 66 (CA 66B)

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
																Total
Intra Band Conti- guous	CA_66B	66	10	QPSK	1	0	132022	1715	66	10	QPSK	1	49	132121	1724.9	13.80
					1	49						1	0			24.29
		66	10	QPSK	1	0	132373	1750.1	66	10	QPSK	1	49	132472	1760	13.96
					1	49						1	0			24.53
		66	10	QPSK	1	0	132523	1765.1	66	10	QPSK	1	49	132622	1775	14.20
					1	49						1	0			24.16
Intra Band Conti- guous	CA_66B	66	15	QPSK	1	0	132047	1717.5	66	5	QPSK	1	24	132140	1726.8	13.72
					1	74						1	0			24.13
		66	15	QPSK	1	0	132398	1752.6	66	5	QPSK	1	24	132491	1761.9	13.39
					1	74						1	0			24.27
		66	15	QPSK	1	0	132549	1767.7	66	5	QPSK	1	24	132642	1777	13.71
					1	74						1	0			23.73
Intra Band Conti- guous	CA_66B	66	10	QPSK	1	0	132022	1715	66	5	QPSK	1	24	132094	1722.2	13.71
					1	49						1	0			23.49
		66	10	QPSK	1	0	132397	1752.5	66	5	QPSK	1	24	132469	1759.7	13.94
					1	49						1	0			24.05
		66	10	QPSK	1	0	132572	1770	66	5	QPSK	1	24	132644	1777.2	13.90
					1	49						1	0			24.11
Intra Band Conti- guous	CA_66B	66	5	QPSK	1	0	132002	1713	66	15	QPSK	1	79	132095	1722.3	13.68
					1	24						1	0			24.21
		66	5	QPSK	1	0	132353	1748.1	66	15	QPSK	1	79	132447	1757.4	13.73
					1	24						1	0			24.00
		66	5	QPSK	1	0	132504	1763.2	66	15	QPSK	1	79	132597	1772.5	14.10
					1	24						1	0			23.95
Intra Band Conti- guous	CA_66B	66	5	QPSK	1	0	132000	1712.8	66	10	QPSK	1	49	132072	1720	13.76
					1	24						1	0			23.58
		66	5	QPSK	1	0	132375	1750.3	66	10	QPSK	1	49	132447	1757.5	13.51
					1	24						1	0			23.67
		66	5	QPSK	1	0	132550	1767.8	66	10	QPSK	1	49	132622	1775	14.06
					1	24						1	0			23.84
Intra Band Conti- guous	CA_66B	66	5	QPSK	1	0	131997	1712.5	66	5	QPSK	1	24	132045	1717.3	13.74
					1	24						1	0			24.06
		66	5	QPSK	1	0	132398	1752.6	66	5	QPSK	1	24	132446	1757.4	13.87
					1	24						1	0			23.70
		66	5	QPSK	1	0	132599	1772.7	66	5	QPSK	1	24	132647	1777.5	13.71
					1	24						1	0			23.70

Con- figure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)
		Total														
Intra Band Conti- guous	CA_66B	66	10	16QAM	1	0	132022	1715	66	10	16QAM	1	49	132121	1724.9	12.99
					1	49						1	0			23.30
		66	10	16QAM	1	0	132373	1750.1	66	10	16QAM	1	49	132472	1760	12.18
					1	49						1	0			23.46
		66	10	16QAM	1	0	132523	1765.1	66	10	16QAM	1	49	132622	1775	13.40
					1	49						1	0			23.49
Intra Band Conti- guous	CA_66B	66	15	16QAM	1	0	132047	1717.5	66	5	16QAM	1	24	132140	1726.8	12.81
					1	74						1	0			23.20
		66	15	16QAM	1	0	132398	1752.6	66	5	16QAM	1	24	132491	1761.9	11.94
					1	74						1	0			23.13
		66	15	16QAM	1	0	132549	1767.7	66	5	16QAM	1	24	132642	1777	12.83
					1	74						1	0			22.77
Intra Band Conti- guous	CA_66B	66	10	16QAM	1	0	132022	1715	66	5	16QAM	1	24	132094	1722.2	12.70
					1	49						1	0			22.86
		66	10	16QAM	1	0	132397	1752.5	66	5	16QAM	1	24	132469	1759.7	12.11
					1	49						1	0			22.87
		66	10	16QAM	1	0	132572	1770	66	5	16QAM	1	24	132644	1777.2	13.03
					1	49						1	0			23.05
Intra Band Conti- guous	CA_66B	66	5	16QAM	1	0	132002	1713	66	15	16QAM	1	79	132095	1722.3	12.90
					1	24						1	0			22.89
		66	5	16QAM	1	0	132353	1748.1	66	15	16QAM	1	79	132447	1757.4	12.16
					1	24						1	0			23.10
		66	5	16QAM	1	0	132504	1763.2	66	15	16QAM	1	79	132597	1772.5	13.39
					1	24						1	0			23.07
Intra Band Conti- guous	CA_66B	66	5	16QAM	1	0	132000	1712.8	66	10	16QAM	1	49	132072	1720	12.83
					1	24						1	0			22.71
		66	5	16QAM	1	0	132375	1750.3	66	10	16QAM	1	49	132447	1757.5	12.13
					1	24						1	0			22.78
		66	5	16QAM	1	0	132550	1767.8	66	10	16QAM	1	49	132622	1775	13.14
					1	24						1	0			23.00
Intra Band Conti- guous	CA_66B	66	5	16QAM	1	0	131997	1712.5	66	5	16QAM	1	24	132045	1717.3	12.76
					1	24						1	0			23.20
		66	5	16QAM	1	0	132398	1752.6	66	5	16QAM	1	24	132446	1757.4	12.09
					1	24						1	0			22.81
		66	5	16QAM	1	0	132599	1772.7	66	5	16QAM	1	24	132647	1777.5	12.84
					1	24						1	0			22.95

Con- figure	Com- bination	PCC							SCC							Measurement Power	
		Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB Size	RB Offset	UL Chan.	UL Freq. (MHz)	Tx Power with UL-CA Active (dBm)	
																	Total
Intra Band Conti- guous	CA_66B	66	10	64QAM	1	0	132022	1715	66	10	64QAM	1	49	132121	1724.9	12.08	
					1	49						1	0			22.52	
		66	10	64QAM	1	0	132373	1750.1	66	10	64QAM	1	49	132472	1760	11.41	
					1	49						1	0			22.60	
		66	10	64QAM	1	0	132523	1765.1	66	10	64QAM	1	49	132622	1775	12.63	
					1	49						1	0			22.63	
Intra Band Conti- guous	CA_66B	66	15	64QAM	1	0	132047	1717.5	66	5	64QAM	1	24	132140	1726.8	11.91	
					1	74						1	0			22.33	
		66	15	64QAM	1	0	132398	1752.6	66	5	64QAM	1	24	132491	1761.9	11.06	
					1	74						1	0			23.26	
		66	15	64QAM	1	0	132549	1767.7	66	5	64QAM	1	24	132642	1777	12.48	
					1	74						1	0			22.28	
Intra Band Conti- guous	CA_66B	66	10	64QAM	1	0	132022	1715	66	5	64QAM	1	24	132094	1722.2	11.16	
					1	49						1	0			21.88	
		66	10	64QAM	1	0	132397	1752.5	66	5	64QAM	1	24	132469	1759.7	11.11	
					1	49						1	0			22.48	
		66	10	64QAM	1	0	132572	1770	66	5	64QAM	1	24	132644	1777.2	12.11	
					1	49						1	0			21.92	
Intra Band Conti- guous	CA_66B	66	5	64QAM	1	0	132002	1713	66	15	64QAM	1	79	132095	1722.3	11.98	
					1	24						1	0			21.77	
		66	5	64QAM	1	0	132353	1748.1	66	15	64QAM	1	79	132447	1757.4	11.33	
					1	24						1	0			22.11	
		66	5	64QAM	1	0	132504	1763.2	66	15	64QAM	1	79	132597	1772.5	12.48	
					1	24						1	0			22.20	
Intra Band Conti- guous	CA_66B	66	5	64QAM	1	0	132000	1712.8	66	10	64QAM	1	49	132072	1720	11.96	
					1	24						1	0			21.89	
		66	5	64QAM	1	0	132375	1750.3	66	10	64QAM	1	49	132447	1757.5	11.21	
					1	24						1	0			21.99	
		66	5	64QAM	1	0	132550	1767.8	66	10	64QAM	1	49	132622	1775	12.31	
					1	24						1	0			22.11	
Intra Band Conti- guous	CA_66B	66	5	64QAM	1	0	131997	1712.5	66	5	64QAM	1	24	132045	1717.3	11.93	
					1	24						1	0			22.27	
		66	5	64QAM	1	0	132398	1752.6	66	5	64QAM	1	24	132446	1757.4	11.20	
					1	24						1	0			21.96	
		66	5	64QAM	1	0	132599	1772.7	66	5	64QAM	1	24	132647	1777.5	12.04	
					1	24						1	0			22.14	

EIRP Power (dBm)

LTE Band 66 (CA 66C)

Modulation Type: QPSK

LTE Band 66 (CA 66C), Channel Bandwidth: 20MHz+20MHz

MODE		TX channel 132072(1720.0MHz)+132270(1739.8MHz), TX channel 132323(1745.1MHz)+132521(1764.9MHz), TX channel 132374(1750.2MHz)+132572(1770.0MHz)					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1729.90	-15.5	22.1	1.0	23.1	30.0	-6.9
2	1755.00	-15.5	22.2	1.1	23.3	30.0	-6.7
3	1760.10	-15.4	22.3	1.1	23.4	30.0	-6.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1729.90	-22.5	16.0	1.0	17.0	30.0	-13.0
2	1755.00	-22.3	16.0	1.1	17.1	30.0	-12.9
3	1760.10	-22.7	15.6	1.1	16.7	30.0	-13.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

LTE Band 66 (CA 66C), Channel Bandwidth: 20MHz+20MHz

MODE		TX channel 132072(1720.0MHz)+132270(1739.8MHz), TX channel 132323(1745.1MHz)+132521(1764.9MHz), TX channel 132374(1750.2MHz)+132572(1770.0MHz)					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1729.90	-16.5	21.1	1.0	22.1	30.0	-7.9
2	1755.00	-16.4	21.3	1.1	22.4	30.0	-7.6
3	1760.10	-16.4	21.3	1.1	22.4	30.0	-7.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1729.90	-23.5	15.0	1.0	16.0	30.0	-14.0
2	1755.00	-23.3	15.0	1.1	16.1	30.0	-13.9
3	1760.10	-23.7	14.6	1.1	15.7	30.0	-14.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

LTE Band 66 (CA 66C), Channel Bandwidth: 20MHz+20MHz

MODE		TX channel 132072(1720.0MHz)+132270(1739.8MHz), TX channel 132323(1745.1MHz)+132521(1764.9MHz), TX channel 132374(1750.2MHz)+132572(1770.0MHz)							
		Antenna Polarity & Test Distance: Horizontal at 3 M							
		No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
		1	1729.90	-17.0	20.6	1.0	21.6	30.0	-8.4
2	1755.00	-17.0	20.7	1.1	21.8	30.0	-8.2		
3	1760.10	-17.1	20.6	1.1	21.7	30.0	-8.3		
Antenna Polarity & Test Distance: Vertical at 3 M									
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)		
1	1729.90	-24.0	14.5	1.0	15.5	30.0	-14.5		
2	1755.00	-23.8	14.5	1.1	15.6	30.0	-14.4		
3	1760.10	-24.3	14.0	1.1	15.1	30.0	-14.9		

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

LTE Band 66 (CA 66B)

Modulation Type: QPSK

LTE Band 66 (CA 66B), Channel Bandwidth: 10MHz+10MHz

MODE		TX channel 132022(1715.0MHz)+132121(1724.9MHz), TX channel 132373(1750.1MHz)+132472(1760.0MHz), TX channel 132523(1765.1MHz)+132622(1775.0MHz)					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-14.9	22.7	1.0	23.7	30.0	-6.3
2	1755.05	-14.9	22.8	1.1	23.9	30.0	-6.1
3	1770.05	-15.2	22.5	1.1	23.6	30.0	-6.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-21.7	16.8	1.0	17.8	30.0	-12.2
2	1755.05	-21.5	16.8	1.1	17.9	30.0	-12.1
3	1770.05	-22.0	16.2	1.1	17.3	30.0	-12.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

LTE Band 66 (CA 66B), Channel Bandwidth: 10MHz+10MHz

MODE		TX channel 132022(1715.0MHz)+132121(1724.9MHz),					
		TX channel 132373(1750.1MHz)+132472(1760.0MHz),					
		TX channel 132523(1765.1MHz)+132622(1775.0MHz)					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-15.9	21.7	1.0	22.7	30.0	-7.3
2	1755.05	-15.9	21.8	1.1	22.9	30.0	-7.1
3	1770.05	-16.2	21.5	1.1	22.6	30.0	-7.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-22.7	15.8	1.0	16.8	30.0	-13.2
2	1755.05	-22.5	15.8	1.1	16.9	30.0	-13.1
3	1770.05	-23.0	15.2	1.1	16.3	30.0	-13.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

LTE Band 66 (CA 66B), Channel Bandwidth: 10MHz+10MHz

MODE		TX channel 132022(1715.0MHz)+132121(1724.9MHz),					
		TX channel 132373(1750.1MHz)+132472(1760.0MHz),					
		TX channel 132523(1765.1MHz)+132622(1775.0MHz)					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-16.5	21.1	1.0	22.1	30.0	-7.9
2	1755.05	-16.5	21.2	1.1	22.3	30.0	-7.7
3	1770.05	-16.8	20.9	1.1	22.0	30.0	-8.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1719.95	-23.2	15.3	1.0	16.3	30.0	-13.7
2	1755.05	-23.0	15.3	1.1	16.4	30.0	-13.6
3	1770.05	-23.3	14.9	1.1	16.0	30.0	-14.0

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 Occupied Bandwidth Measurement

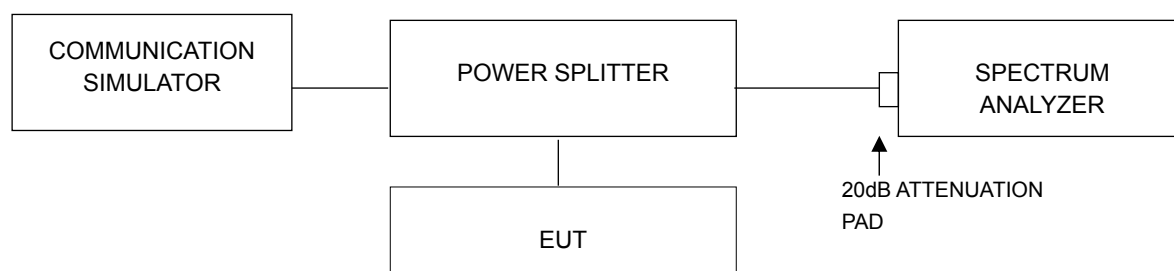
4.2.1 Limits of Occupied Bandwidth Measurement

The occupied bandwidth, that 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

4.2.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW = 200kHz and VBW = 620kHz (Channel Bandwidth: 5MHz+5MHz), RBW = 300kHz and VBW = 1MHz (Channel Bandwidth: 5MHz+10MHz, 10MHz+5MHz), RBW = 430kHz and VBW = 1.3MHz (Channel Bandwidth: 10MHz+10MHz, 5MHz+15MHz, 15MHz+5MHz), RBW = 510kHz and VBW = 1.6MHz (Channel Bandwidth: 20MHz+5MHz, 5MHz+20MHz, 10MHz+15MHz, 15MHz+10MHz), RBW = 620kHz and VBW = 2MHz (Channel Bandwidth: 10MHz+20MHz, 15MHz+15MHz, 20MHz+10MHz, 10MHz+20MHz), RBW = 750kHz and VBW = 2.4MHz (Channel Bandwidth: 20MHz+15MHz, 15MHz+20MHz) and RBW = 820kHz and VBW = 2.7MHz (Channel Bandwidth: 20MHz+20MHz). The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB. For the 26dBc bandwidth measurement method, please refer to section 5.4.3 of ANSI C63.26.

4.2.3 Test Setup

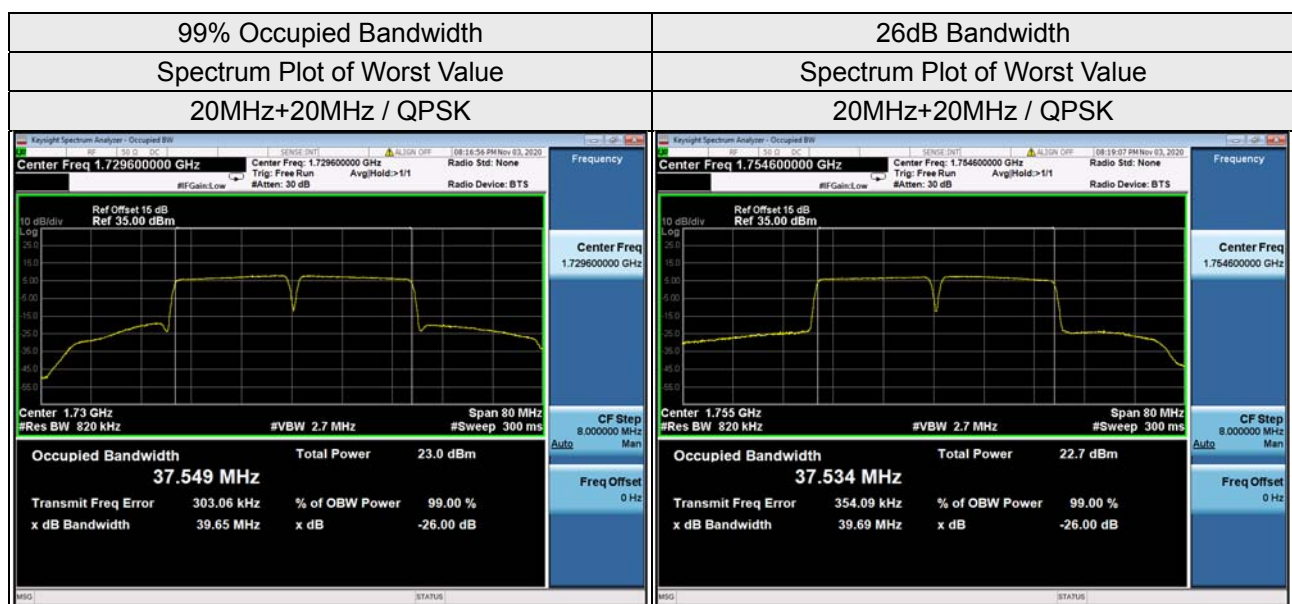


4.2.4 Test Result

LTE Band 66 (CA 66C)

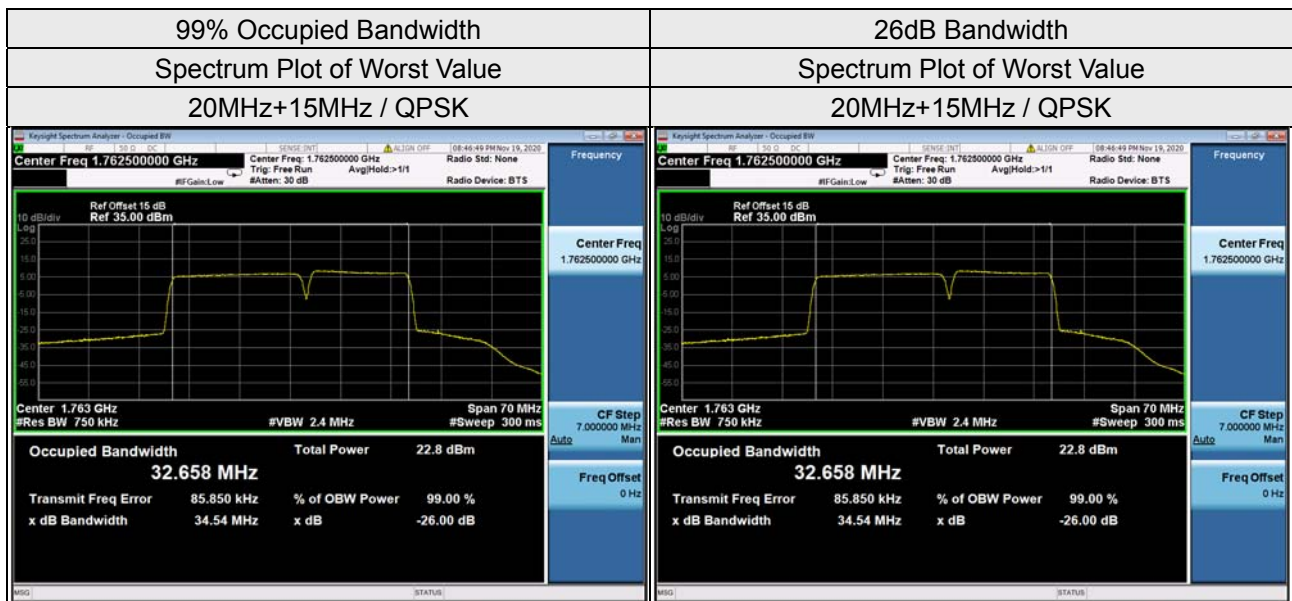
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132072+132270	1720.0+1739.8	37.55	39.65
132323+132521	1745.1+1764.9	37.53	39.69
132374+132572	1750.2+1770.0	37.54	39.62



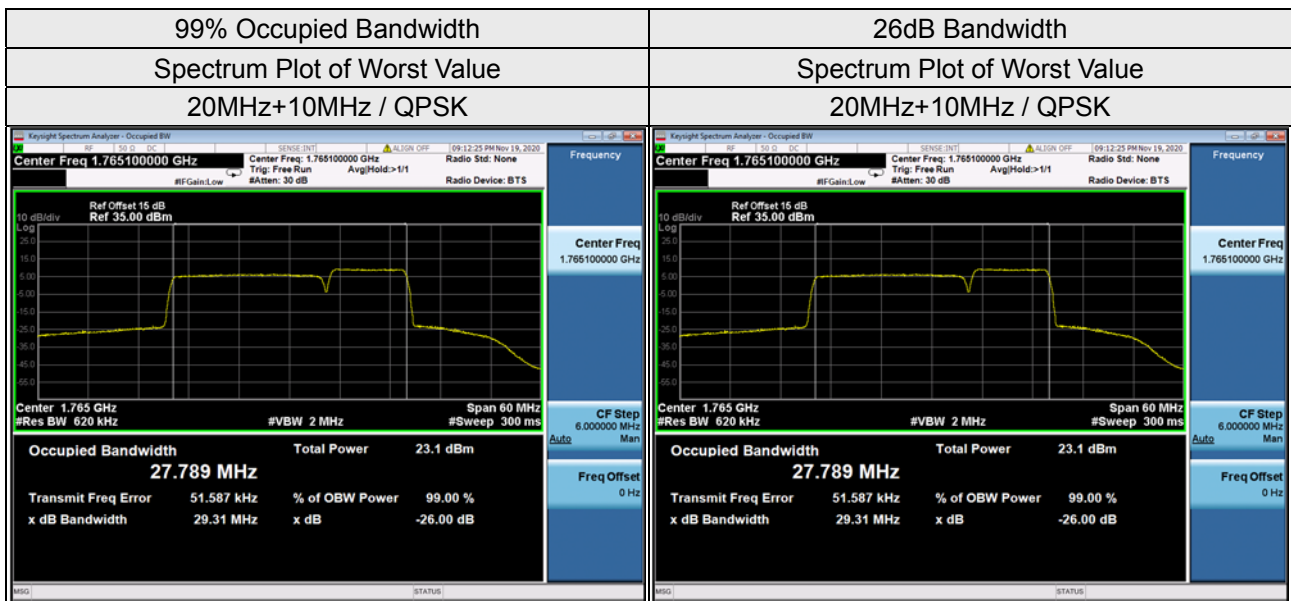
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132072+132243	1720.0+1737.1	32.61	34.52
132348+132519	1747.6+1764.7	32.63	34.48
132423+132594	1755.1+1772.2	32.66	34.54



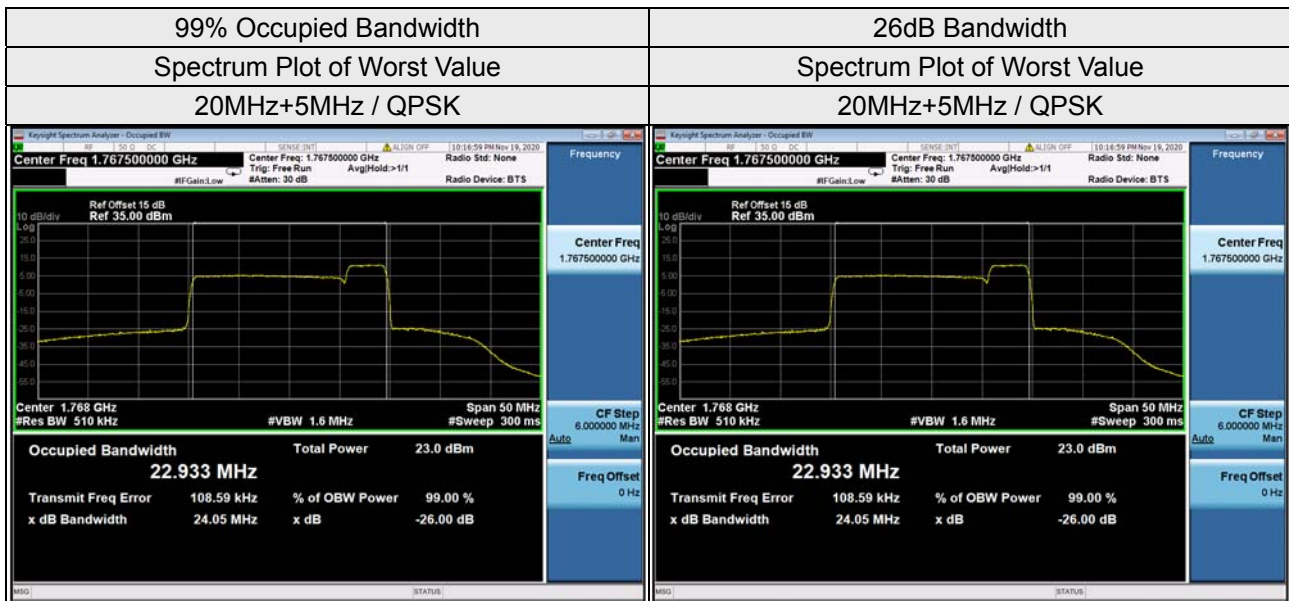
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132072+132216	1720.0+1734.4	27.72	29.25
132373+132517	1750.1+1764.5	27.73	29.23
132473+132617	1760.1+1774.5	27.79	29.31



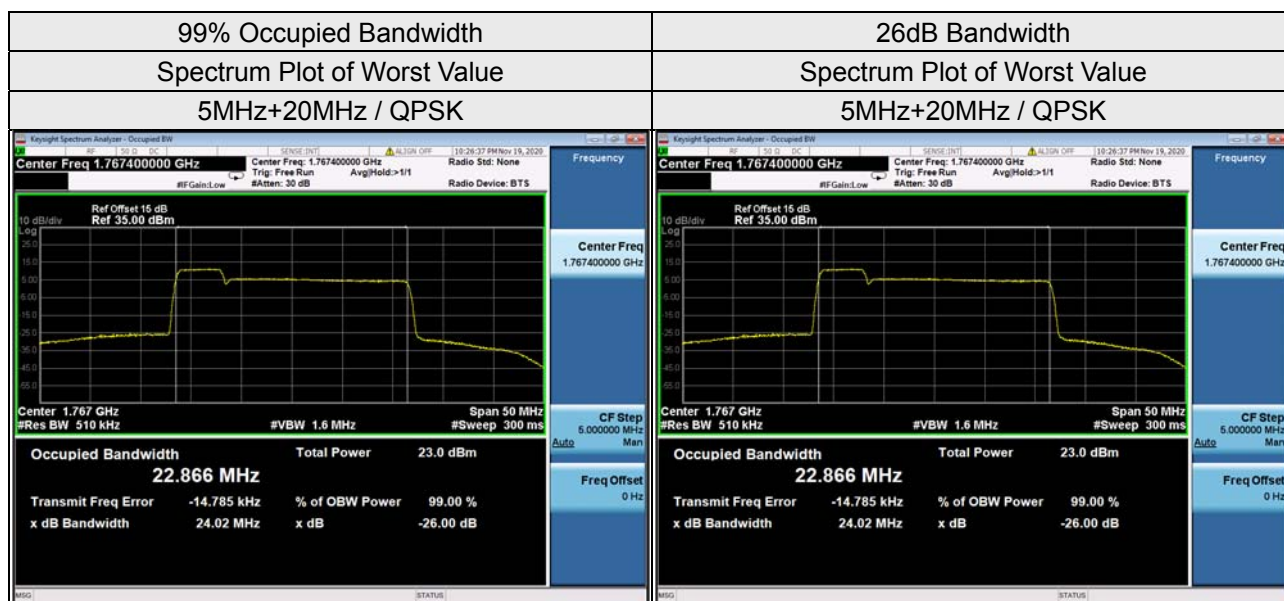
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132072+132189	1720.0+1731.7	22.85	24.02
132397+132514	1752.5+1764.2	22.87	24.02
132522+132639	1765.0+1776.7	22.93	24.05



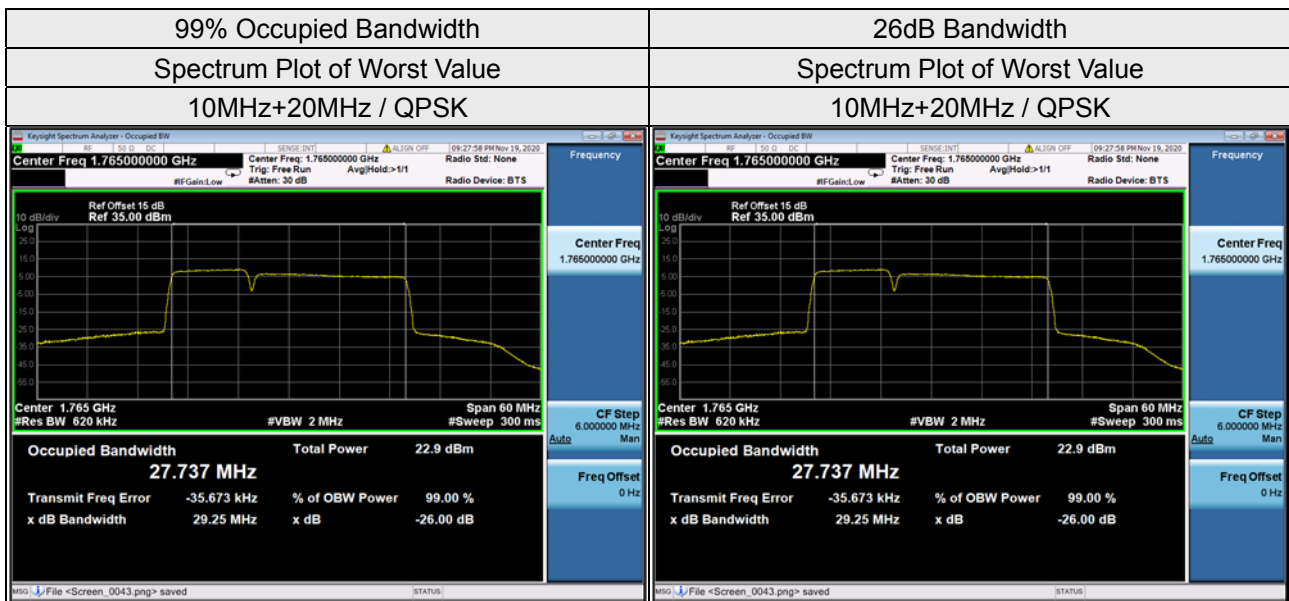
LTE Band 66 (CA 66C), Channel Bandwidth 5MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132005+132122	1713.3+1725.0	22.86	24.01
132330+132447	1745.8+1757.5	22.85	24.01
132455+132572	1758.3+1770.0	22.87	24.02



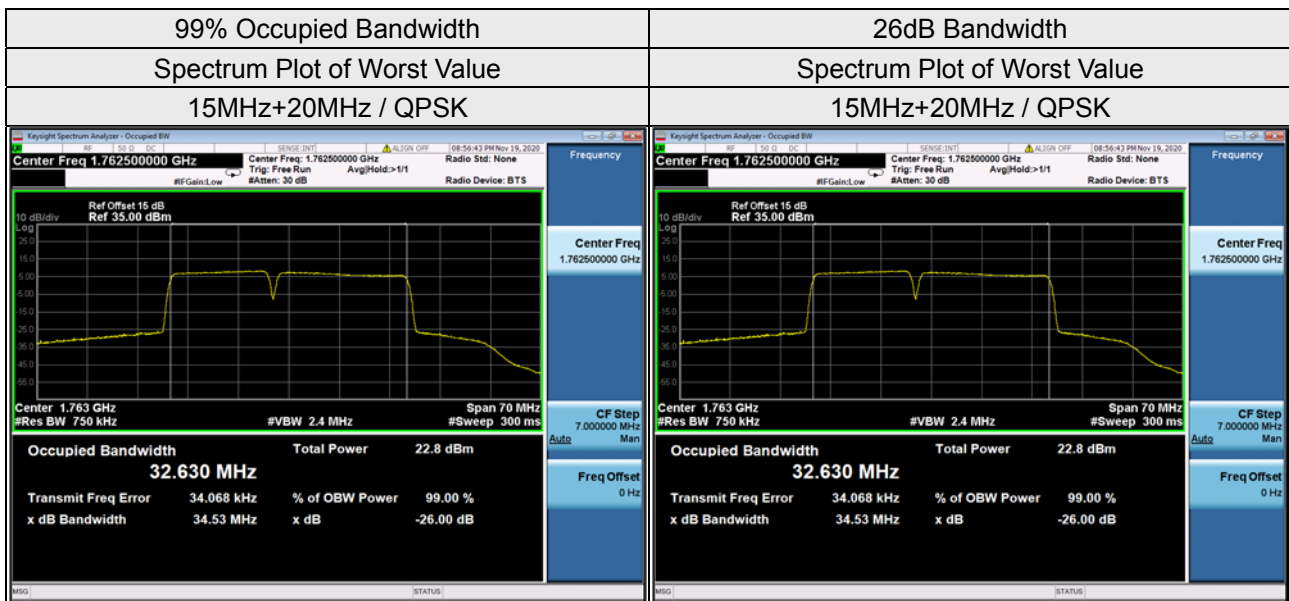
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132027+132171	1715.5+1729.9	27.73	29.23
132328+132472	1745.6+1760.0	27.71	29.25
132428+132572	1755.6+1770.0	27.74	29.25



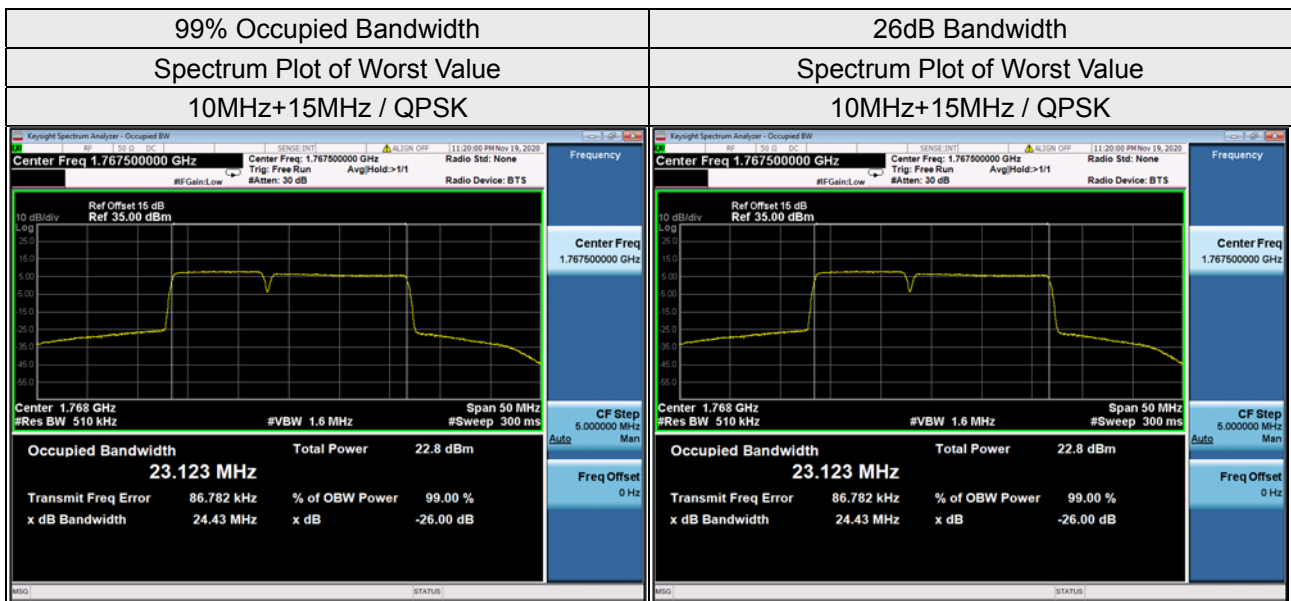
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132050+132221	1717.8+1734.9	32.61	34.49
132325+132496	1745.3+1762.4	32.62	34.51
132401+132572	1752.9+1770.0	32.63	34.53



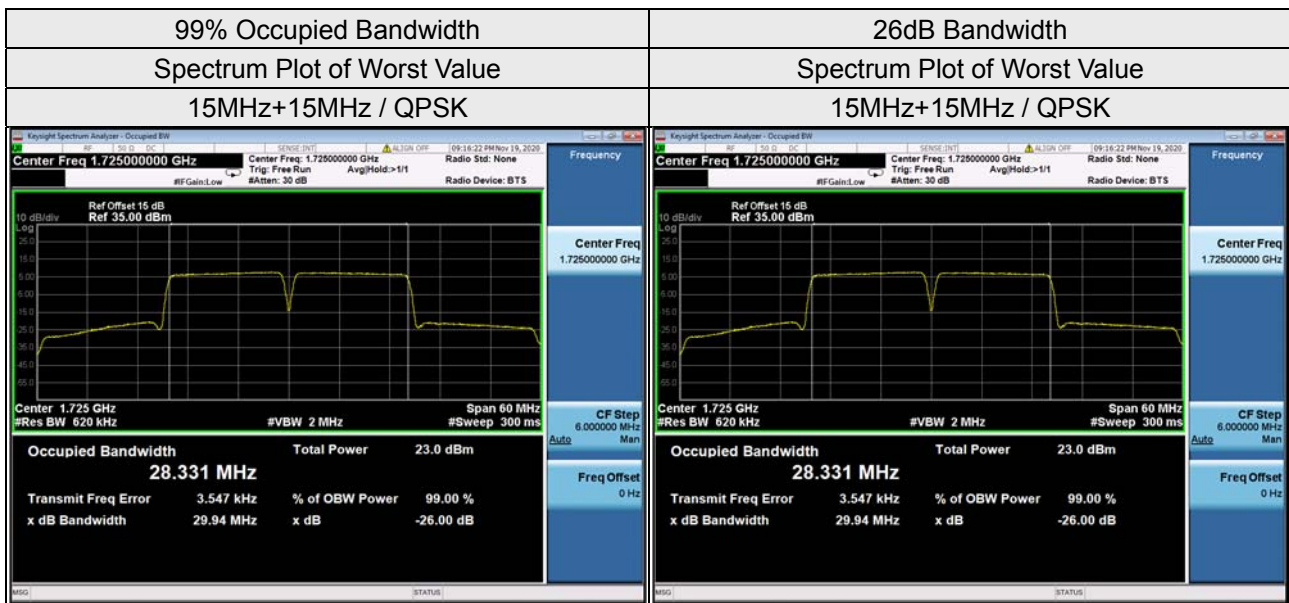
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132025+132145	1715.3+1727.3	23.01	24.39
132351+132471	1747.9+1759.9	23.09	24.37
132477+132597	1760.5+1772.5	23.12	24.43



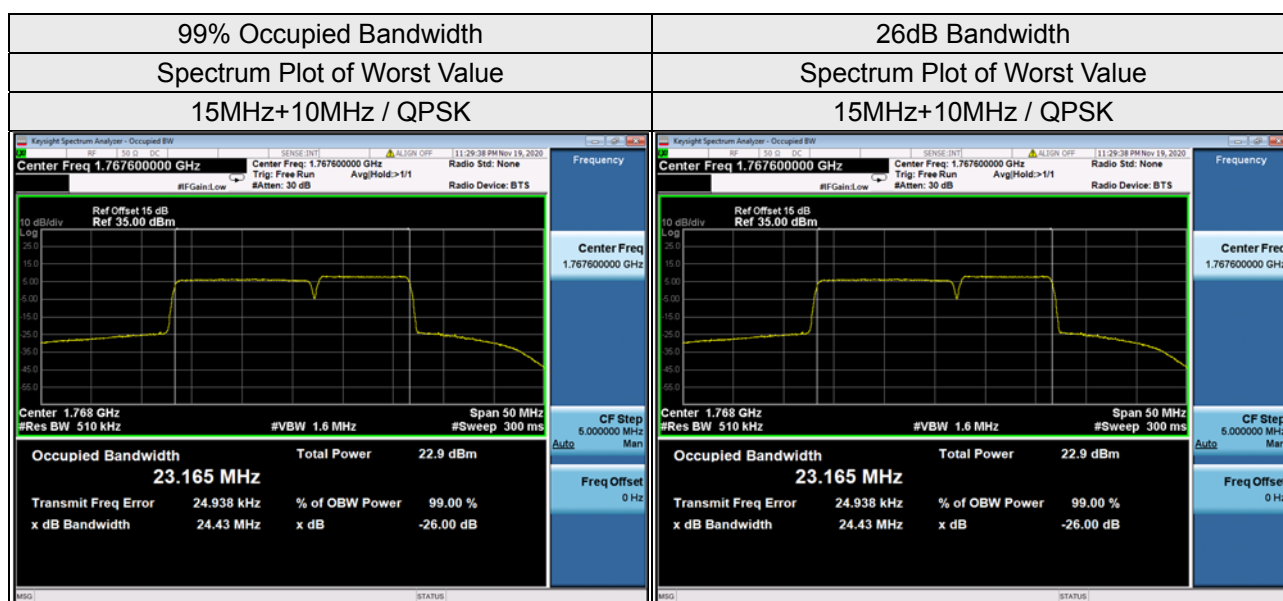
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132047+132197	1717.5+1732.5	28.33	29.94
132347+132497	1747.5+1762.5	28.31	29.90
132447+132597	1757.5+1772.5	27.74	29.25



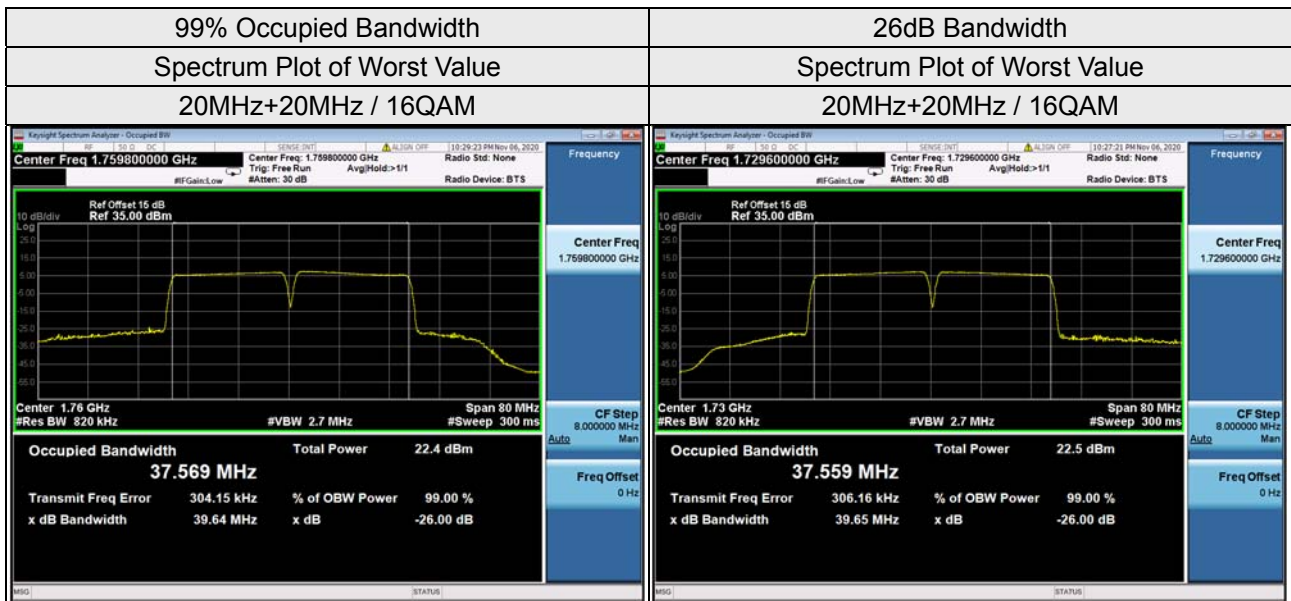
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
132047+132167	1715.3+1729.5	23.10	24.38
132373+132493	1750.1+1762.1	23.12	24.38
132499+132619	1762.7+1774.7	23.17	24.43



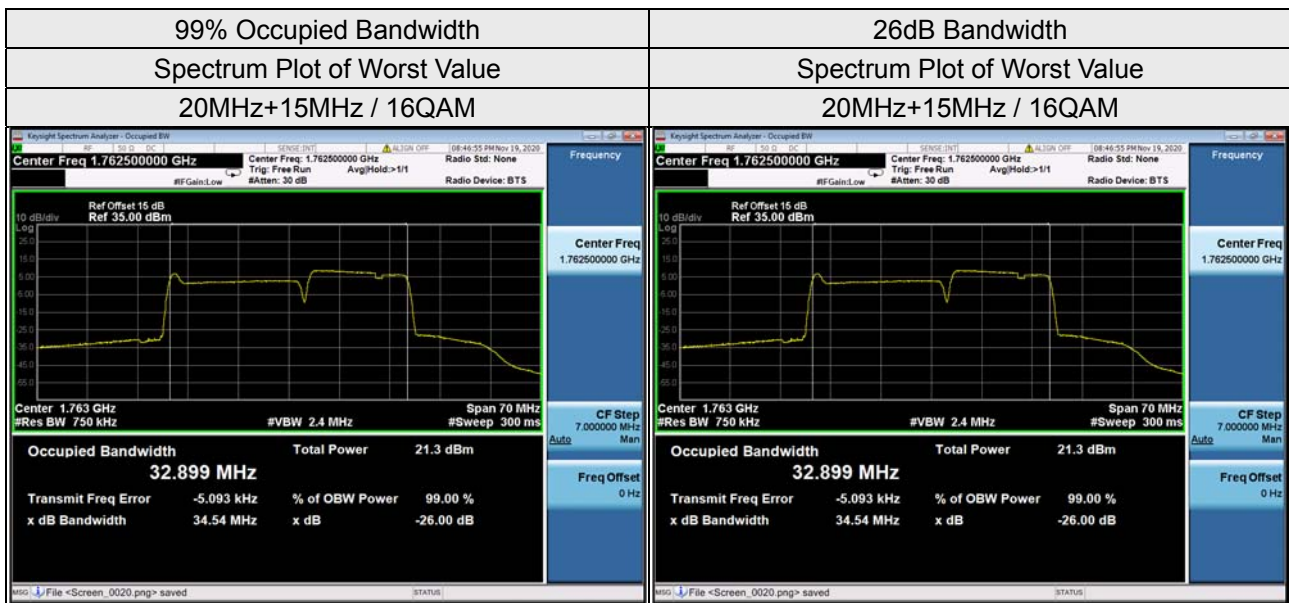
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132072+132270	1720.0+1739.8	37.56	39.65
132323+132521	1745.1+1764.9	37.56	39.64
132374+132572	1750.2+1770.0	37.57	39.64



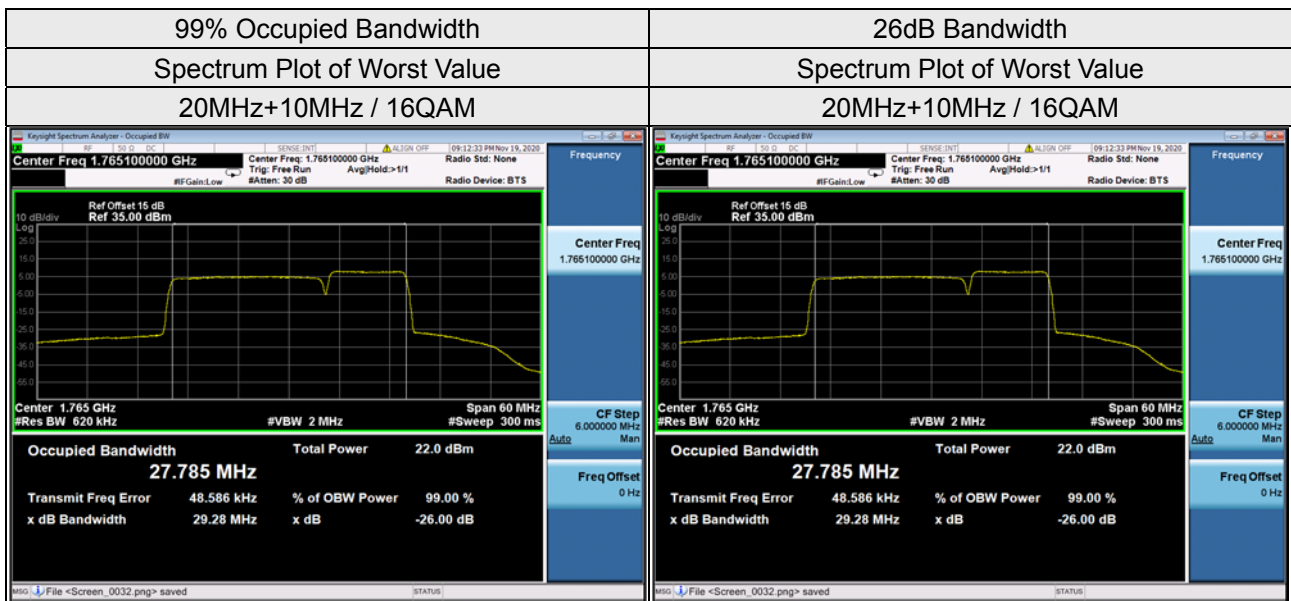
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132072+132243	1720.0+1737.1	32.64	34.49
132348+132519	1747.6+1764.7	32.63	34.50
132423+132594	1755.1+1772.2	32.90	34.54



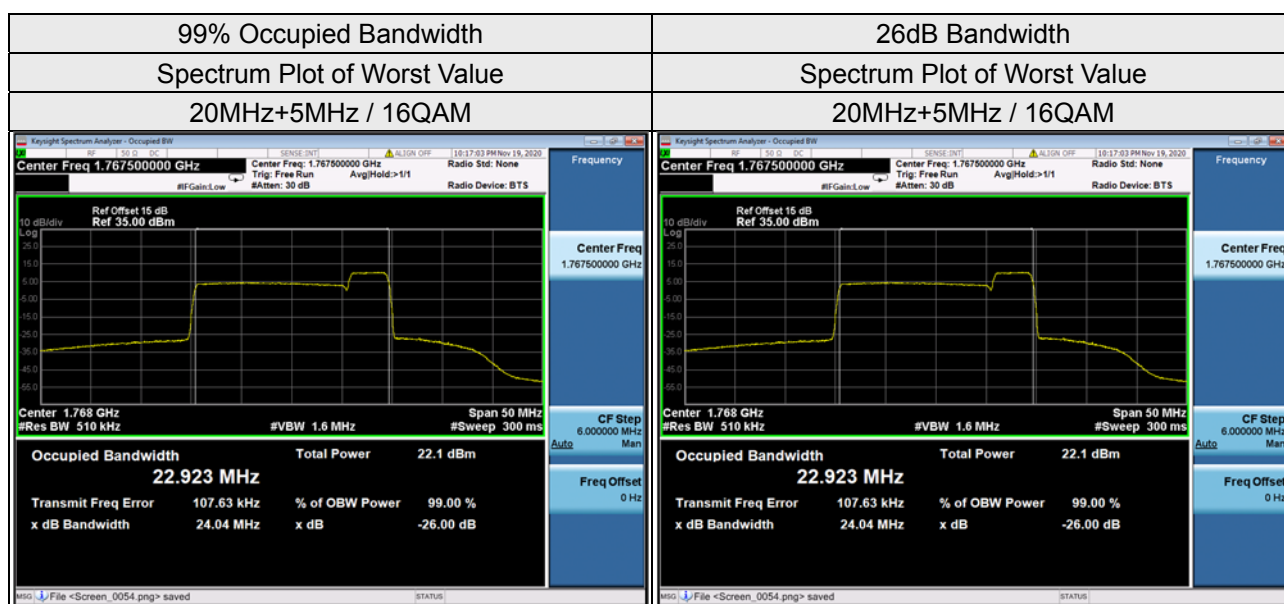
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132072+132216	1720.0+1734.4	27.73	29.34
132373+132517	1750.1+1764.5	27.74	29.24
132473+132617	1760.1+1774.5	27.79	29.28



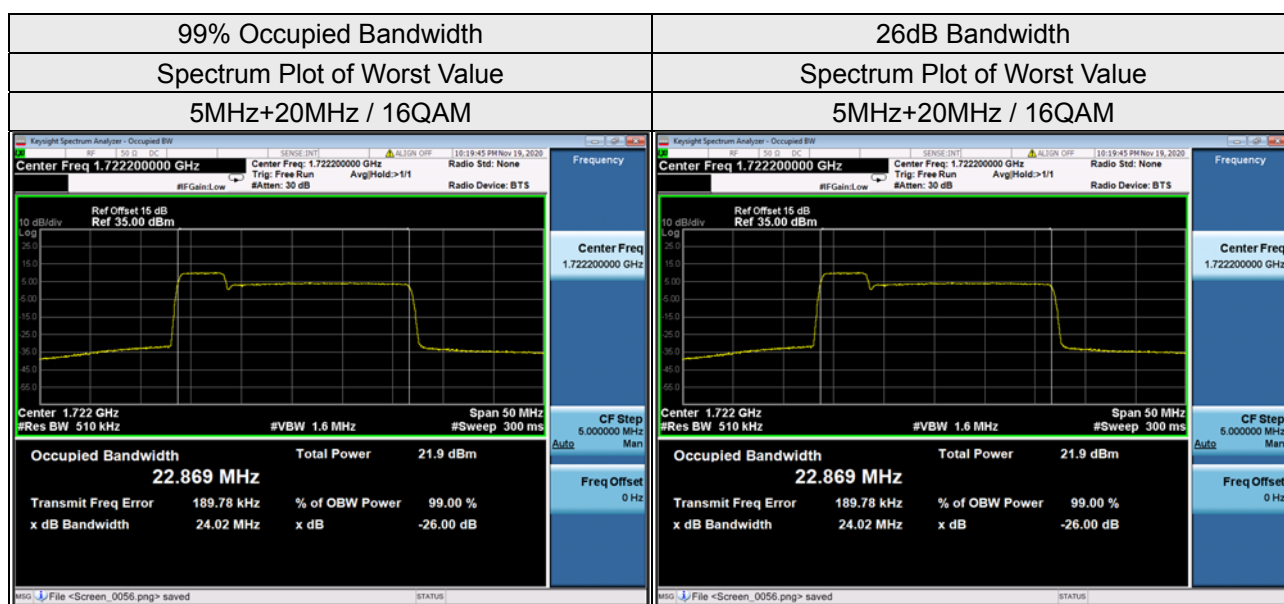
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132072+132189	1720.0+1731.7	22.86	24.03
132397+132514	1752.5+1764.2	22.87	24.02
132522+132639	1765.0+1776.7	22.92	24.04



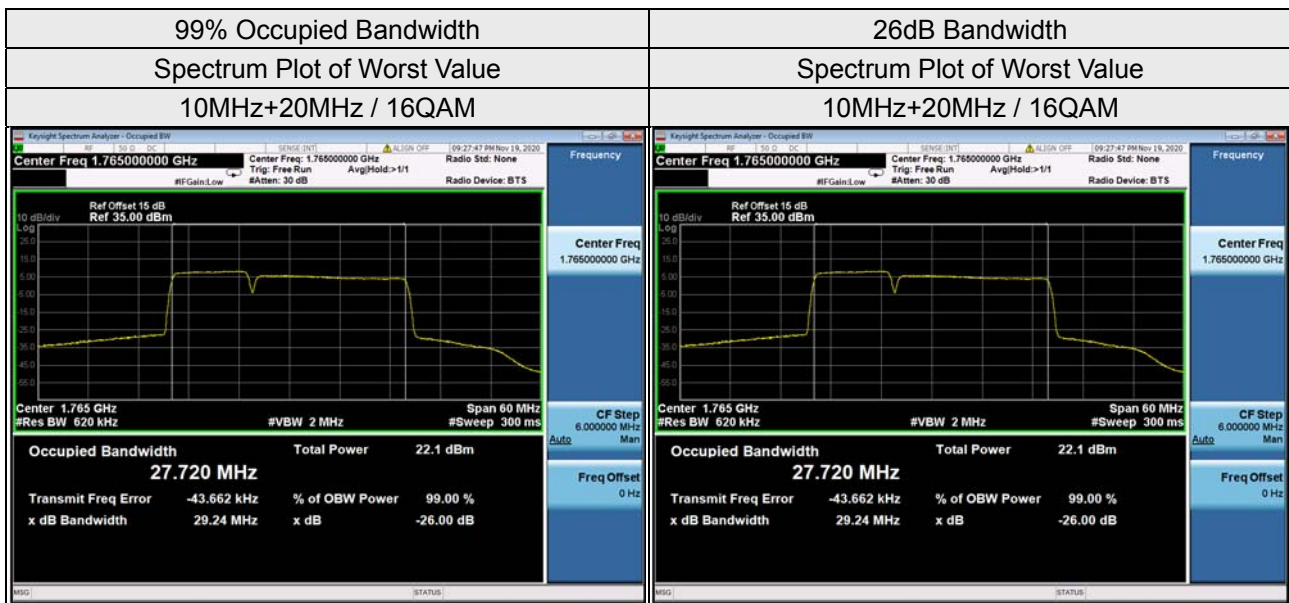
LTE Band 66 (CA 66C), Channel Bandwidth 5MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132005+132122	1713.3+1725.0	22.87	24.02
132330+132447	1745.8+1757.5	22.79	23.99
132455+132572	1758.3+1770.0	22.86	24.02



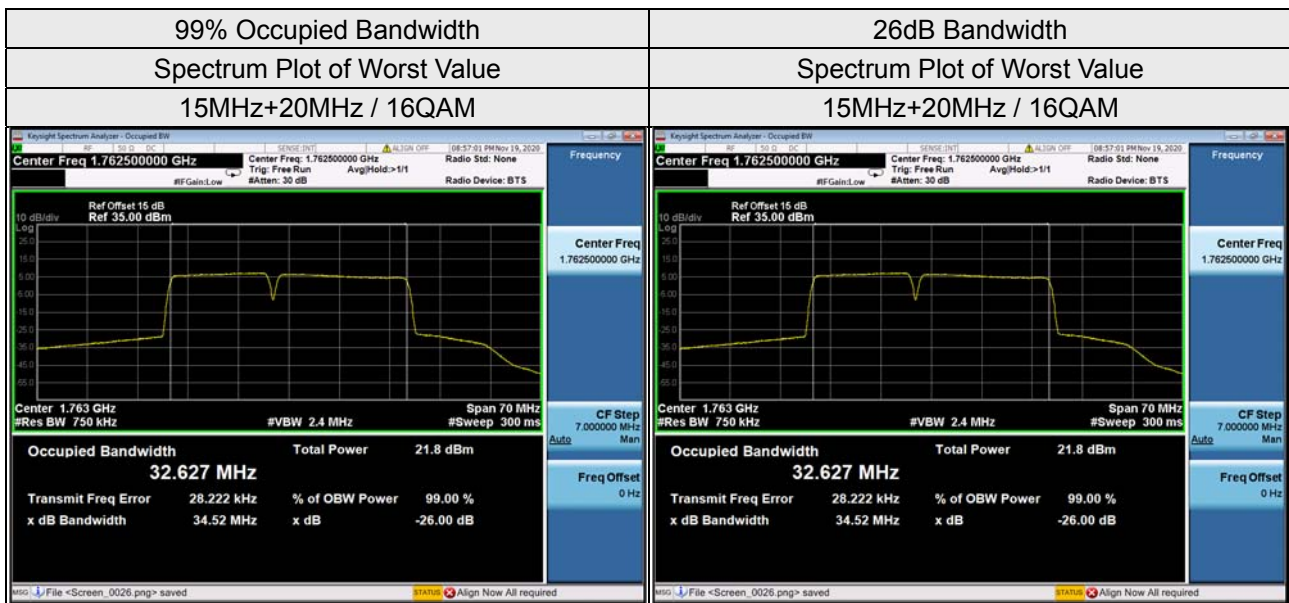
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132027+132171	1715.5+1729.9	27.71	29.22
132328+132472	1745.6+1760.0	27.72	29.24
132428+132572	1755.6+1770.0	27.72	29.24



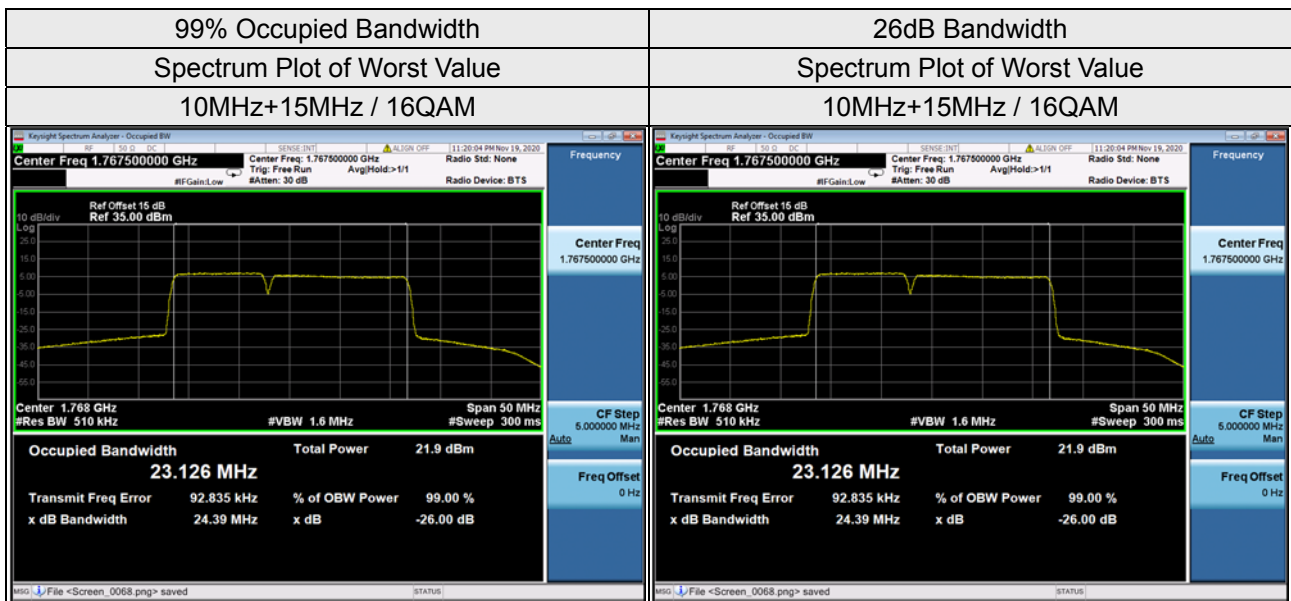
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132050+132221	1717.8+1734.9	32.62	34.48
132325+132496	1745.3+1762.4	32.61	34.51
132401+132572	1752.9+1770.0	32.63	34.52



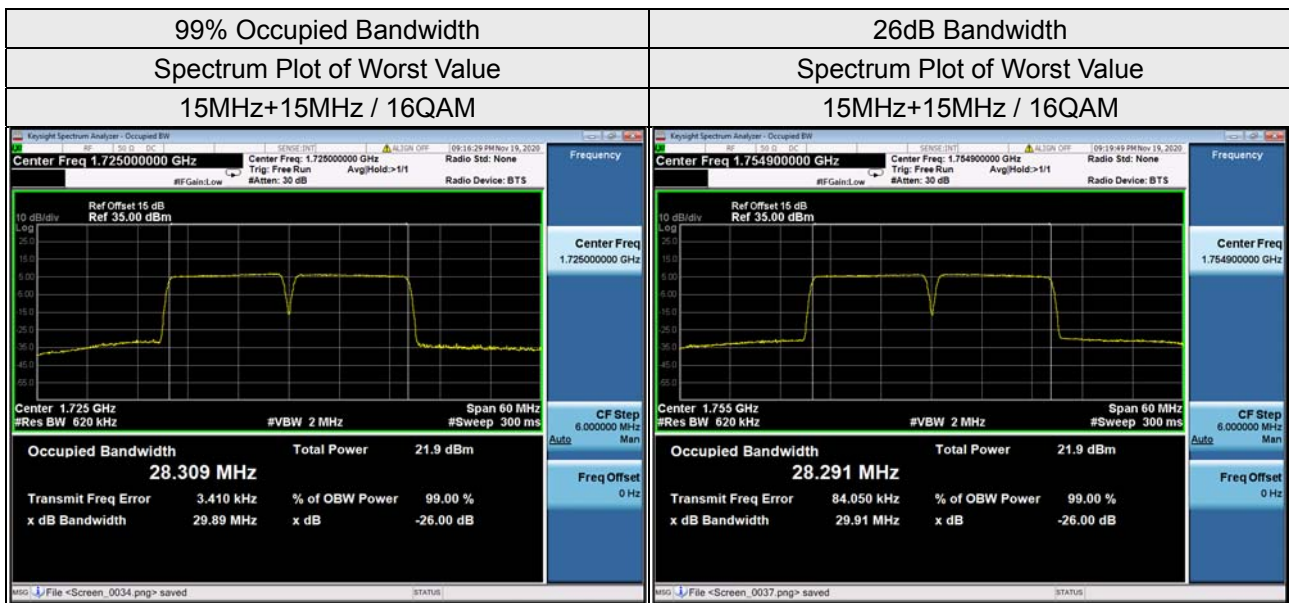
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132025+132145	1715.3+1727.3	23.10	24.39
132351+132471	1747.9+1759.9	23.10	24.38
132477+132597	1760.5+1772.5	23.13	24.39



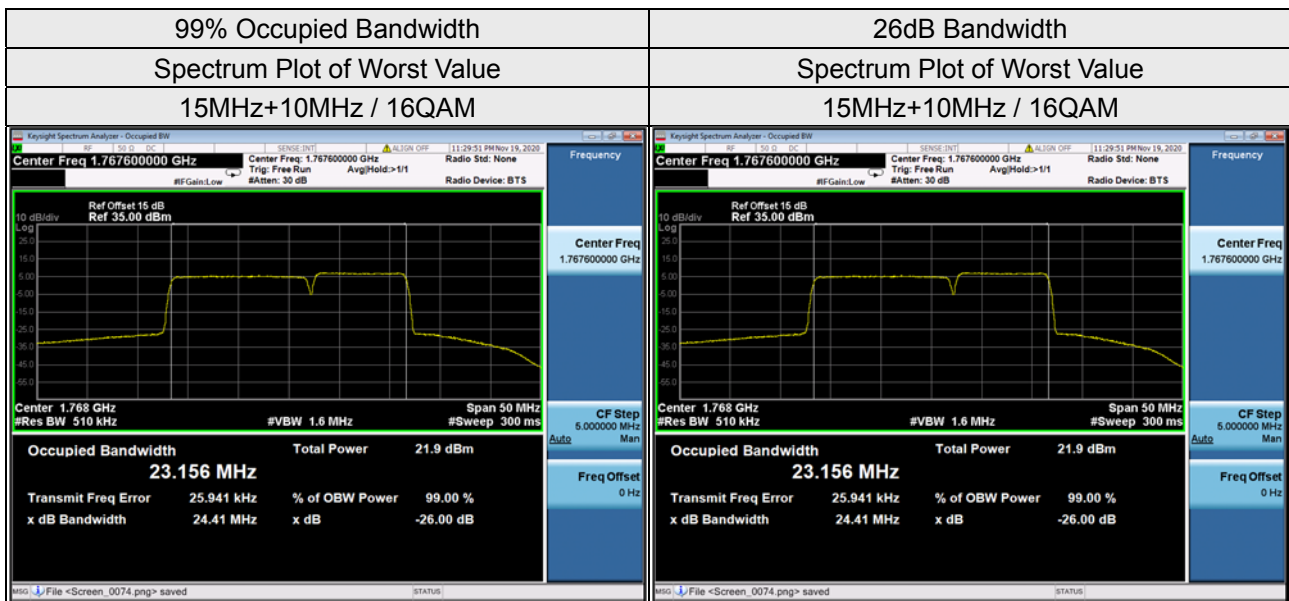
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132047+132197	1717.5+1732.5	28.31	29.89
132347+132497	1747.5+1762.5	28.29	29.91
132447+132597	1757.5+1772.5	27.74	29.23



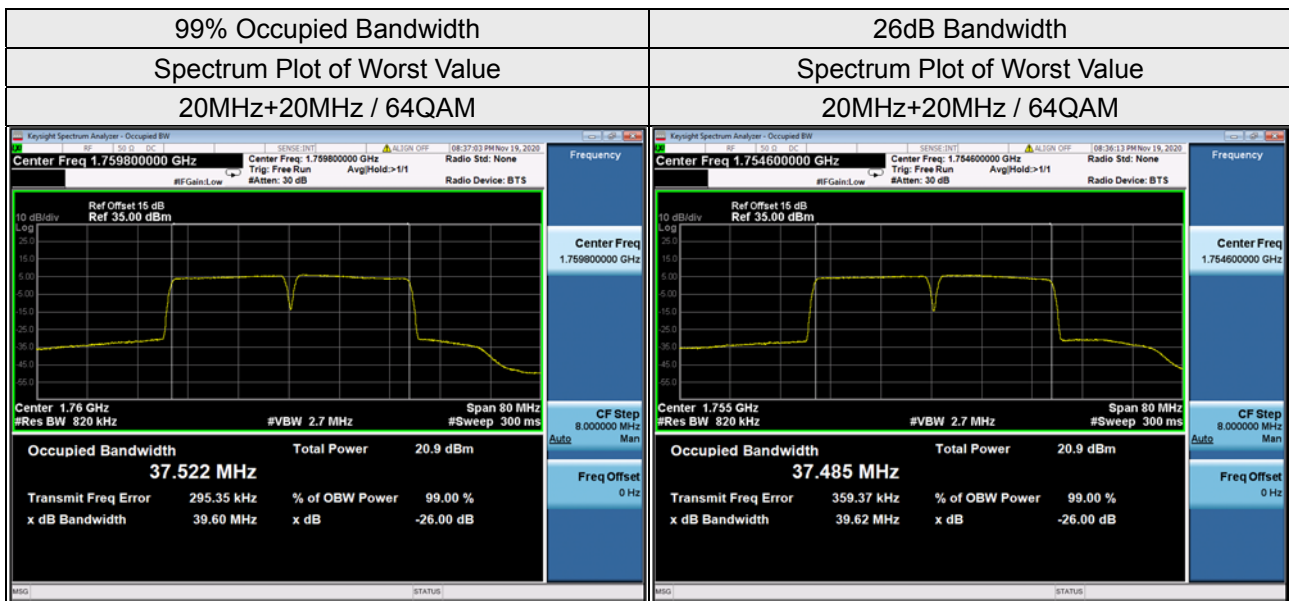
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
132047+132167	1715.3+1729.5	23.11	24.38
132373+132493	1750.1+1762.1	23.10	24.39
132499+132619	1762.7+1774.7	23.16	24.41



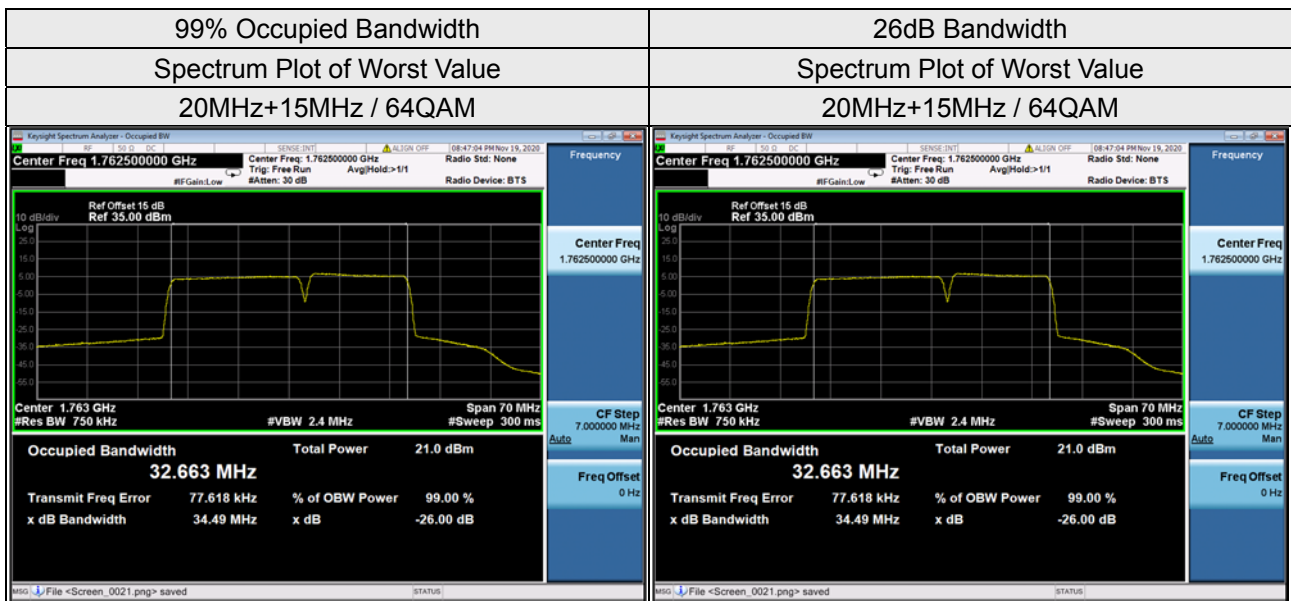
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132072+132270	1720.0+1739.8	37.49	39.61
132323+132521	1745.1+1764.9	37.49	39.62
132374+132572	1750.2+1770.0	37.52	39.60



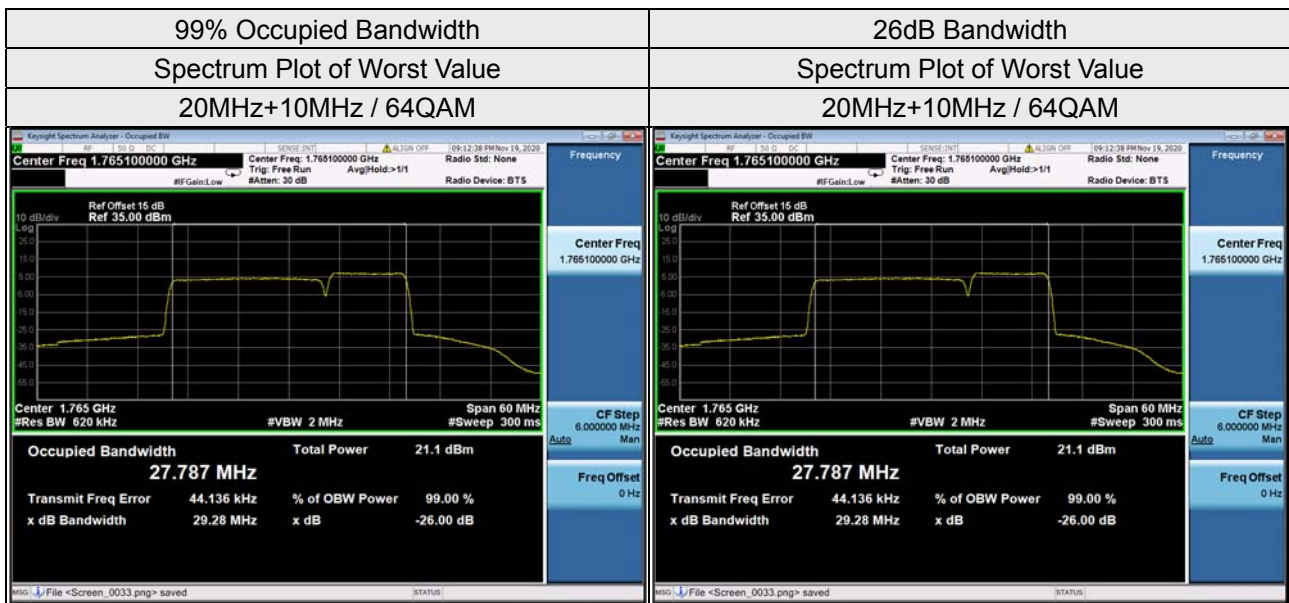
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132072+132243	1720.0+1737.1	32.61	34.49
132348+132519	1747.6+1764.7	32.63	34.46
132423+132594	1755.1+1772.2	32.66	34.49



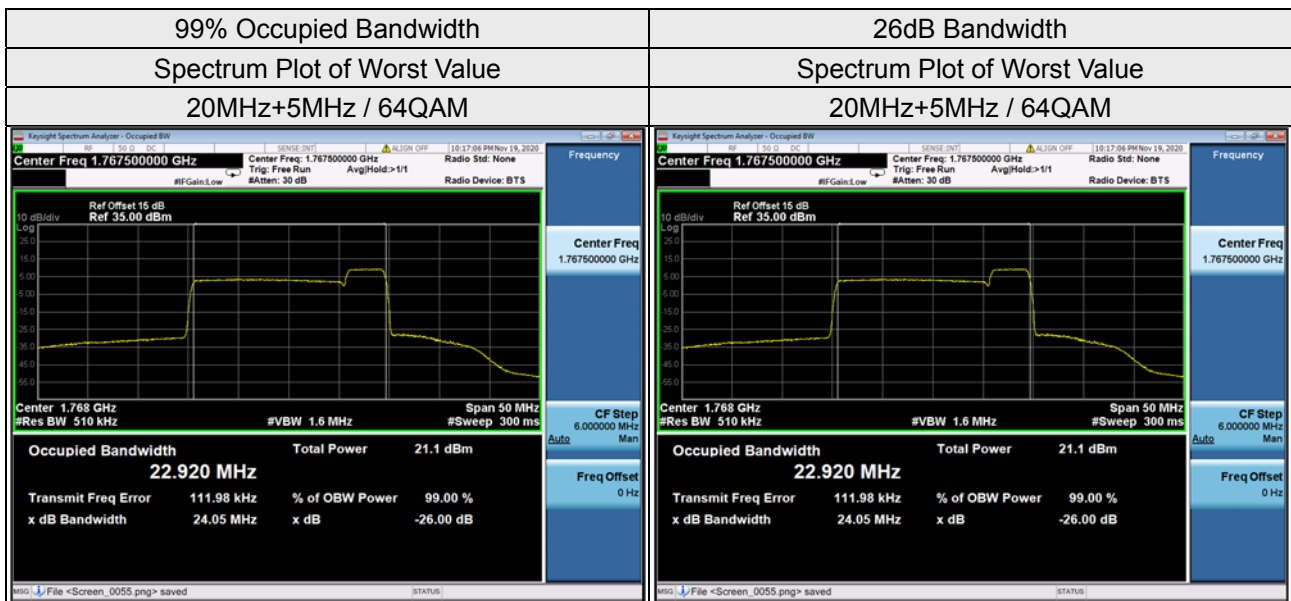
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132072+132216	1720.0+1734.4	27.73	29.23
132373+132517	1750.1+1764.5	27.73	29.23
132473+132617	1760.1+1774.5	27.79	29.28



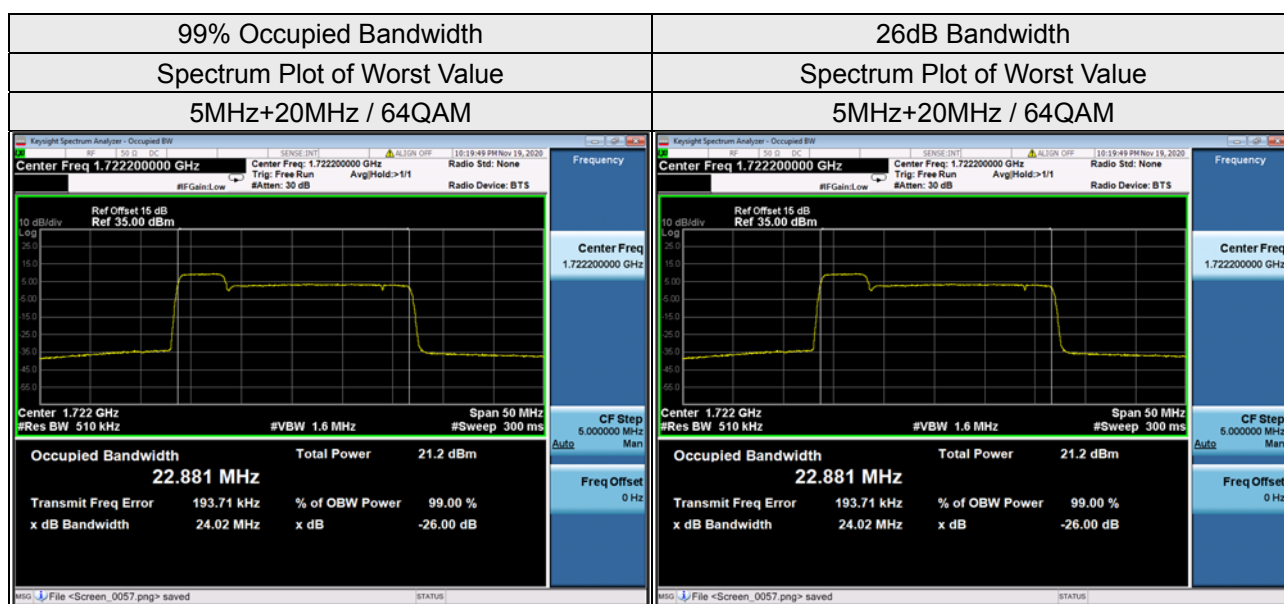
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132072+132189	1720.0+1731.7	22.85	24.03
132397+132514	1752.5+1764.2	22.86	24.03
132522+132639	1765.0+1776.7	22.92	24.05



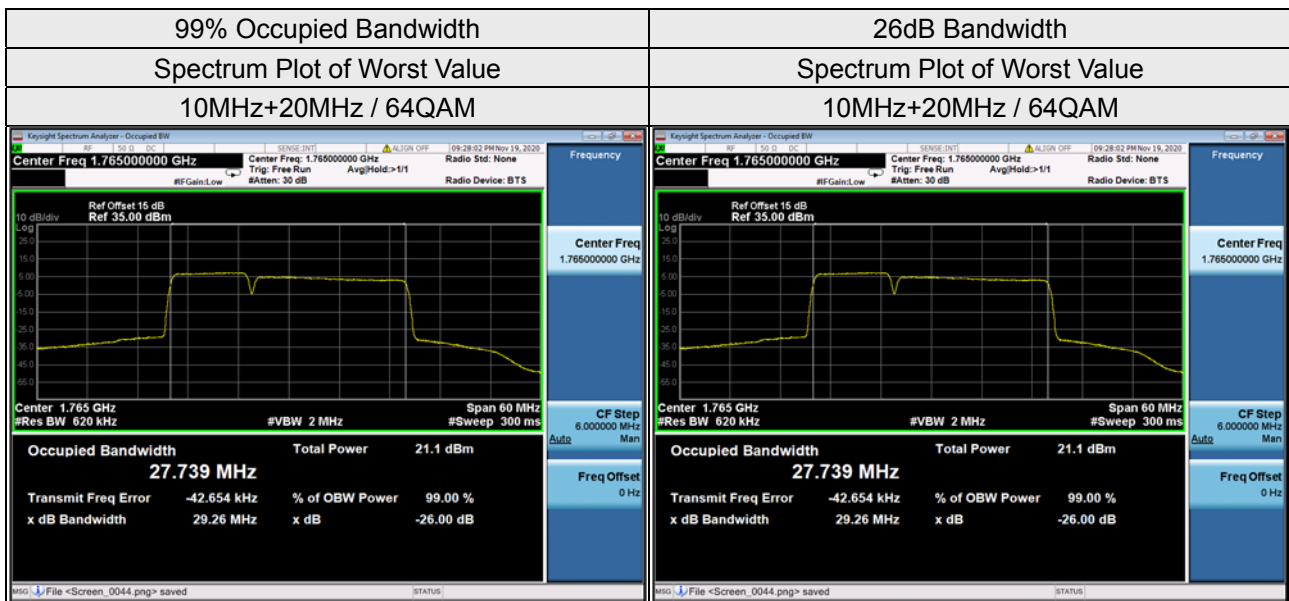
LTE Band 66 (CA 66C), Channel Bandwidth 5MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132005+132122	1713.3+1725.0	22.88	24.02
132330+132447	1745.8+1757.5	22.86	24.02
132455+132572	1758.3+1770.0	22.86	24.01



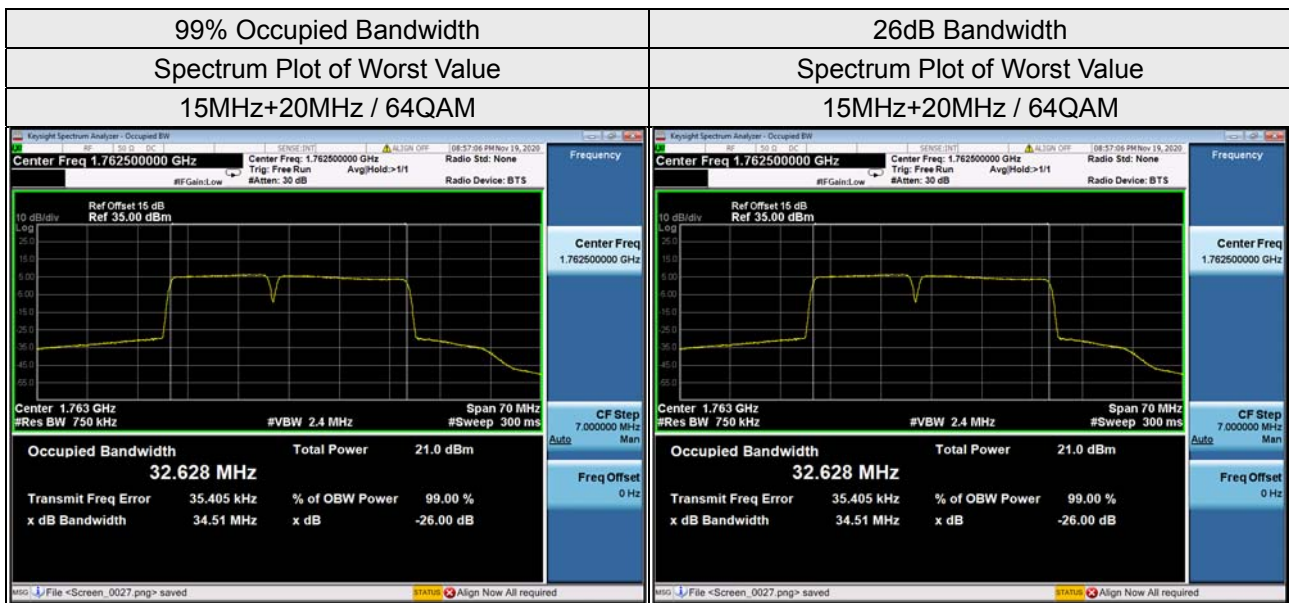
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132027+132171	1715.5+1729.9	27.72	29.25
132328+132472	1745.6+1760.0	27.72	29.25
132428+132572	1755.6+1770.0	27.74	29.26



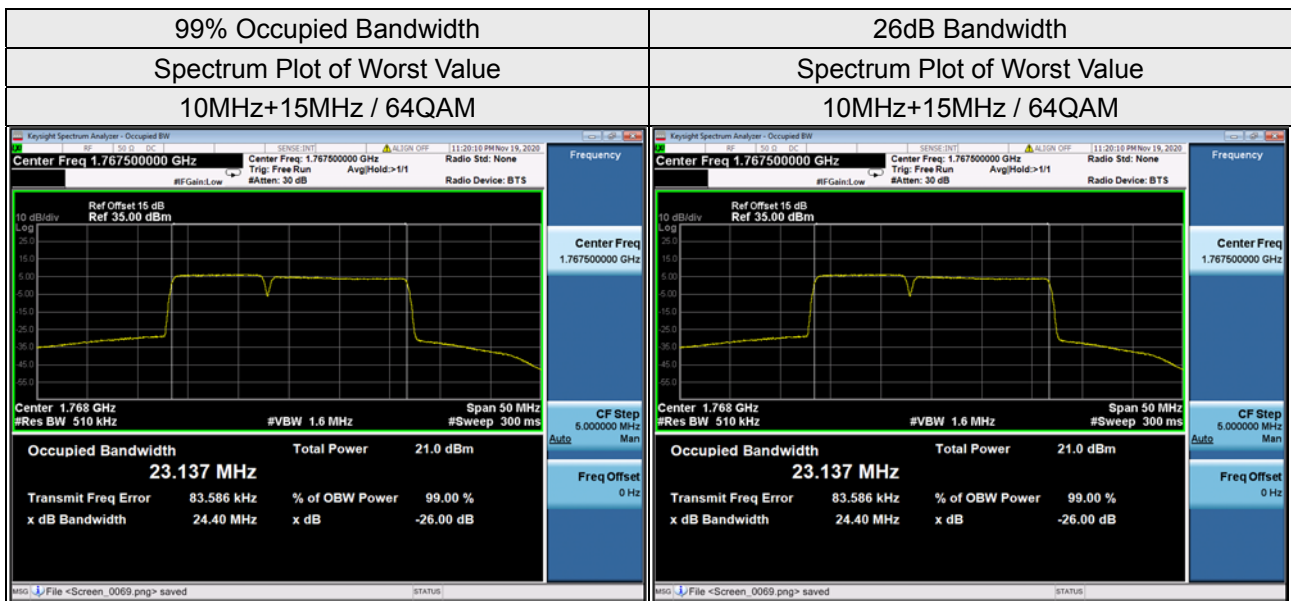
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132050+132221	1717.8+1734.9	32.61	34.49
132325+132496	1745.3+1762.4	32.59	34.50
132401+132572	1752.9+1770.0	32.63	34.51



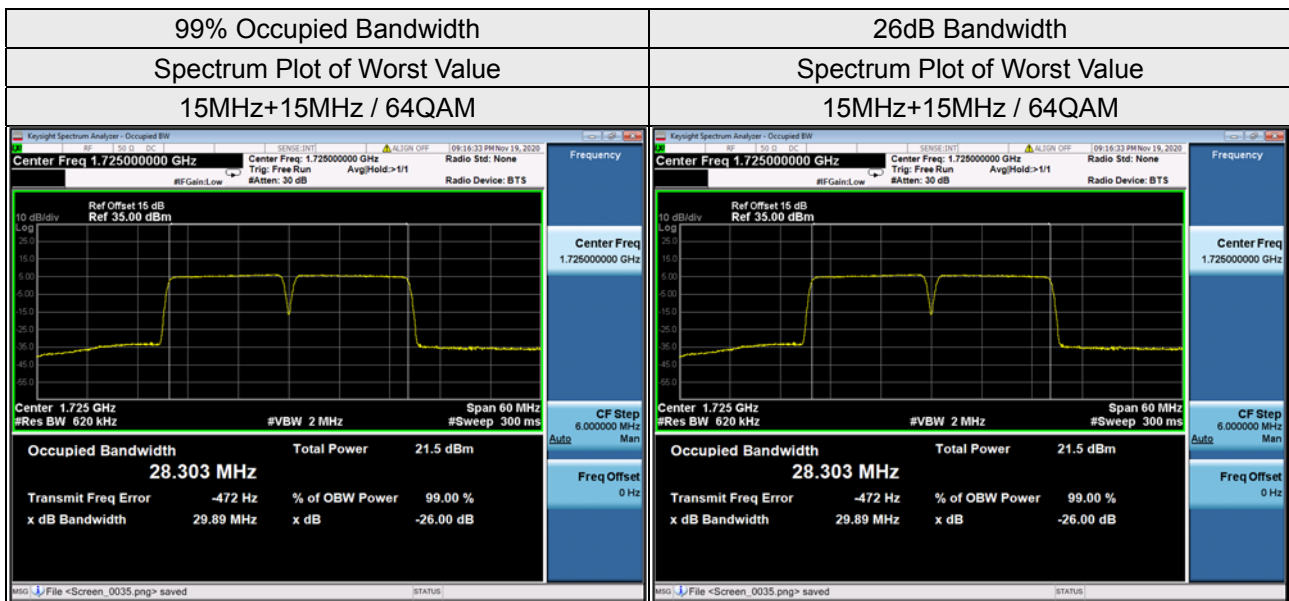
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132025+132145	1715.3+1727.3	23.13	24.39
132351+132471	1747.9+1759.9	23.10	24.38
132477+132597	1760.5+1772.5	23.14	24.40



LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132047+132197	1717.5+1732.5	28.30	29.89
132347+132497	1747.5+1762.5	28.29	29.88
132447+132597	1757.5+1772.5	27.73	29.26



LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
132047+132167	1715.3+1729.5	23.12	24.38
132373+132493	1750.1+1762.1	23.12	24.38
132499+132619	1762.7+1774.7	23.15	24.39

