

FCC Test Report (Part 27: CA mode)

Report No.: RF200109E02B-6

FCC ID: 2AQ68T99W175

Test Model: T99W175

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Test Date: Apr. 30 ~ May 18, 2020

Issued Date: May 25, 2020

Applicant: Hon Lin Technology Co., Ltd.

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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
RF200109E02B-6	Original release	May 25, 2020

1 Certificate of Conformity

Product: 5G WWAN Module

Brand: Foxconn

Test Model: T99W175

Sample Status: Engineering Sample

Applicant: Hon Lin Technology Co., Ltd.

Test Date: Apr. 30 ~ May 18, 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:** May 25, 2020
Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** May 25, 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 B7 / LTE B38 / LTE B41	LTE B66			
2.1046 27.50 (h)(2)	2.1046 27.50 (d)(4)	Equivalent Isotropically Radiated Power	Pass	Meet the requirement of limit.
2.1047	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	2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	Pass	Meet the requirement of limit.
2.1049	2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1051 27.53 (m)(4)(6)	2.1051 27.53(h)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 27.53 (m)(4)(6)	2.1051 27.53(h)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 27.53 (m)(4)(6)	2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -21.0dB at 5186.00 & 5190.00MHz.

Note:

- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 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) (\pm)
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	ESIB7	100187	May 30, 2019	May 29, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 04, 2019	Jun. 03, 2020
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jul. 03, 2019	Jul. 02, 2020
Radio Communication Analyzer Anritsu	MT8821C	6261806803	Jan. 18, 2020	Jan. 17, 2021
MXG Vector signal generator Agilent	N5182B	MY53050162	Jan. 14, 2020	Jan. 13, 2021
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	2944A10638	Jul. 11, 2019	Jul. 10, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 18, 2020	Feb. 17, 2021
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM80 00	CABLE-CH9-02 (248780+171006)	Jan. 18, 2020	Jan. 17, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jul. 11, 2019	Jul. 10, 2020
RF signal cable Woken	8D-FB	Cable-CH9-01	Jul. 30, 2019	Jul. 29, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Standard Temperature And Humidity Chamber	MHU-225AU	920842	May 31, 2019	May 30, 2020
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	May 21, 2019	May 20, 2020
DC power supply	U8002A	MY56330015	NA	NA

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 9.

3 General Information

3.1 General Description of EUT

Product	5G WWAN Module				
Brand	Foxconn				
Test Model	T99W175				
Status of EUT	Engineering Sample				
Power Supply Rating	5 Vdc (Host equipment) 3.135Vdc~3.63Vdc (Module)				
Modulation Type	LTE: QPSK, 16QAM, 64QAM, 256QAM				
Operating Frequency	LTE Band 7C	2505.5MHz ~ 2564.7MHz			
	LTE Band 38C	2577.5MHz ~ 2612.5MHz			
	LTE Band 41C	2499.3MHz ~ 2686.7MHz			
	LTE Band 66C	1713.3MHz ~ 1776.7MHz			
	LTE Band 66B	1712.5MHz ~ 1777.5MHz			
Max. EIRP Power		QPSK	16QAM	64QAM	256QAM
	LTE Band 7C (15MHz+20MHz)	743.019mW (28.71dBm)	668.344mW (28.25dBm)	609.537mW (27.85dBm)	516.416mW (27.13dBm)
	LTE Band 7C (20MHz+20MHz)	726.106mW (28.61dBm)	613.762mW (27.88dBm)	454.988mW (26.58dBm)	454.988mW (26.58dBm)
	LTE Band 38C (20MHz+20MHz)	1061.696mW (30.26dBm)	931.108mW (29.69dBm)	837.529mW (29.23dBm)	695.024mW (28.42dBm)
	LTE Band 41C (20MHz+20MHz)	1054.387mW (30.23dBm)	1039.920mW (30.17dBm)	1028.016mW (30.12dBm)	820.352mW (29.14dBm)
	LTE Band 66C (20MHz+20MHz)	774.462mW (28.89dBm)	691.831mW (28.40dBm)	636.796mW (28.04dBm)	490.908mW (26.91dBm)
	LTE Band 66B (10MHz+10MHz)	729.458mW (28.63dBm)	657.658mW (28.18dBm)	597.035mW (27.76dBm)	509.331mW (27.07dBm)
Emission Designator	LTE Band 7C (20MHz+20MHz)	37M5G7D	37M5D7W	37M5D7W	37M5D7W
	LTE Band 7C (15MHz+20MHz)	32M5G7D	32M5D7W	32M6D7W	32M6D7W
	LTE Band 38C (20MHz+20MHz)	37M5G7D	37M4D7W	37M4D7W	37M5D7W
	LTE Band 41C (20MHz+20MHz)	37M4G7D	37M5D7W	37M5D7W	37M5D7W
	LTE Band 66C (20MHz+20MHz)	37M4G7D	37M4D7W	37M4D7W	37M4D7W
	LTE Band 66B (10MHz+10MHz)	18M8G7D	18M8D7W	18M8D7W	18M8D7W
Antenna Type	Refer to Note as below				
Antenna Connector	Refer to Note as below				
Accessory Device	NA				
Cable Supplied	NA				

Note:

- This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of BV CPS report no.: RF200109E02-7. Difference compared with the original report is adding Modulation Type 256QAM by software and adding CA_7C (20MHz+20MHz) Mode. Therefore, the EUT was tested all tests for 256QAM & tests for CA_7C (20MHz+20MHz) Mode and presented in the test report.
- There are four Difference HW of T99W175.

Brand	Model	HW
Foxconn	T99W175	1. 3G+LTE+Sub6+eSIM
		2. 3G+LTE+Sub6 only w/o eSIM
		3. 3G+LTE+Sub6+eSIM+GNSS connector
		4. 3G+LTE+Sub6 only+w/o eSIM+GNSS connector

*After pre-testing, "HW: 1. 3G+LTE+Sub6+eSIM" is the worst for the final tests.

- For CA mode configuration, please consult the manufacturer to declare the test mode.

4. 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_7C	CA_7C	15	15	40	0
		20	20		
		10	20	40	1
		15	15, 20		
		20	10, 15, 20		
		15	10, 15	40	2
		20	15, 20		
CA_38C	CA_38C	15	15	40	0
		20	20		
CA_41C	CA_41C	10	20	40	0
		15	15, 20		
		20	10, 15, 20		
		5, 10	20	40	1
		15	15, 20		
		20	5, 10, 15, 20		
		10	15, 20		
		15	10, 15, 20	40	2
		20	10, 15, 20		
		10	20		
		20	20	40	3
10	20				
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		

*7C are continuous CA and maximum combination is 15M+20M.

*38C/41C/66C are continuous CA and maximum combination is 20M+20M.

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

5. The following antennas were provided to the EUT.

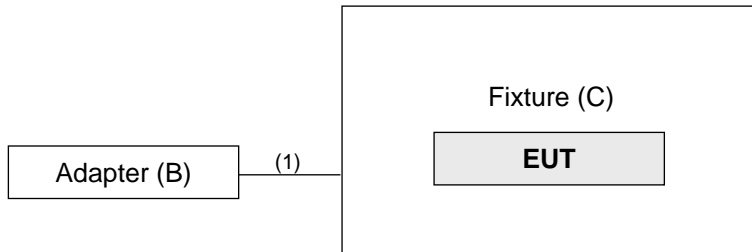
Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
1		WHA YU	C107-511720-A	4.41	660~803	PCB	I-PEX
2		WHA YU	C107-511721-A	3.81 4.03	791~960 1447.9~1606	PCB	I-PEX
3		WHA YU	C107-511722-A	4.27 5.31	1710~2170 2500~2690	PCB	I-PEX
4		WHA YU	C107-511723-A	2.99 0.92	2300~2400 3500~3700	PCB	I-PEX
5		WHA YU	C107-511724-A	6.45	5150~5925	PCB	I-PEX
6		WHA YU	C107-511725-A	4.89	3400~3700	PCB	I-PEX
7		AVX	5000106-R1-X01	2.91	699~803	Monopole	I-PEX
8		AVX	5000107-R1-X01	2.59	791~960	Monopole	I-PEX
9		AVX	5000108-R1-X01	2.85	1427~1610	Monopole	I-PEX
10		AVX	5000109-R1-X01	2.23 2.94	1710~2200 5150~5925	Monopole	I-PEX
11		AVX	5000110-R1-X01	0.9	2300~2690	Monopole	I-PEX
12		AVX	5000111-R1-X01	0.87	3300~5000	Monopole	I-PEX
13	Tx1/ Rx1	Ethertronics	5003806	0.4 -1.61 0.39 2.95 1.98 0.38 0.83 2.31	698-821 824-960 1425-1515 1710-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Rx2	Ethertronics	5003807	-2.24 -4.52 2.87 2.99 2.93 2.91 2.23 -0.85 -3.04	716-821 824-960 1425-1515 1557-1610 1805-2200 2300-2690 3300-4200 4400-5000 5150-5925	PIFA	I-PEX
	Tx2/ Rx3	Ethertronics	5003806	2.21 2.25 -0.45 2.6	1710-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX
	Rx4	Ethertronics	5003700	1.38 2.87 0.6 -2.09	1805-2200 2300-2690 3300-4200 4400-5000	PIFA	I-PEX

Antenna No.	RF Chain No.	Brand	Model	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type
14	Ant. 0 (TX/RX)	Master Wave	NA	2.4 2.2 2.9 2.9 2.9 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 2 (TX/RX)	Master Wave	NA	NA 2.2 2.8 2.9 2.8 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 1 (RX)	Master Wave	NA	NA 5.3 5.1 4.3 4.5 NA	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX
	Ant. 3 (RX)	Master Wave	NA	1.3 6.8 3.7 6.4 6.2 3.7	880~960 1020~2170 2545~2595 3565~3600 3900~4000 GPS	PCB	I-PEX

*The antenna for the final tests as following table.

	Band	Antenna
WCDMA	2	Antenna 3
	4	Antenna 3
	5	Antenna 2
LTE	2	Antenna 3
	4	Antenna 3
	5	Antenna 2
	7	Antenna 3
	12	Antenna 1
	13	Antenna 1
	14	Antenna 1
	17	Antenna 1
	25	Antenna 3
	26	Antenna 2
	30	Antenna 4
	66	Antenna 3
	71	Antenna 1
	38	Antenna 3
	41	Antenna 3
48	Antenna 4	

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.	Adapter	LITEON	PA-1050-39	NA	NA	-
C.	Fixture	NA	NA	NA	NA	Provided by client.

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	1.5	Y	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 Z-plane. Following channel(s) was (were) selected for the final test as listed below.

LTE Band 7 (CA 7C)

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20850 to 21152 21048 to 21350	20850(2510.0MHz)+ 21048(2529.8MHz), 21001(2525.1MHz)+ 21199(2544.9MHz), 21152(2540.2MHz)+ 21350(2560.0MHz)	20MHz + 20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-		20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
-		20850 to 21201 21021 to 21372	20850(2510.0MHz)+ 21021(2527.1MHz) 21026(2527.6MHz)+ 21197(2544.7MHz), 21201(2545.1MHz)+ 21372(2562.2MHz)	20MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
-		20825 to 21225 20975 to 21375	20825(2507.5MHz)+ 20975(2522.5MHz), 21025(2527.5MHz)+ 21175(2542.5MHz), 21225(2547.5MHz)+ 21375(2562.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-		20825 to 21277 20945 to 21397	20825(2507.5MHz)+ 20945(2519.5MHz), 21051(2530.1MHz)+ 21171(2542.1MHz), 21277(2552.7MHz)+ 21397(2564.7MHz)	15MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
-		20805 to 21206 20949 to 21350	20805(2505.5MHz)+ 20949(2519.9MHz), 21006(2525.6MHz)+ 21150(2540.0MHz), 21206(2545.6MHz)+ 21350(2560.0MHz)	10MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
-		20850 to 21251 20994 to 21395	20850(2510.0MHz)+ 20994(2524.4MHz), 21051(2530.1MHz)+ 21195(2544.5MHz), 21251(2550.1MHz)+ 21395(2564.5MHz)	20MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
-	Frequency Stability	20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz)	15MHz + 20MHz	256QAM	75 RB / 0 RB Offset 100 RB / 0 RB Offse

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Occupied Bandwidth	20850 to 21152 21048 to 21350	20850(2510.0MHz)+ 21048(2529.8MHz), 21001(2525.1MHz)+ 21199(2544.9MHz), 21152(2540.2MHz)+ 21350(2560.0MHz)	20MHz + 20MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		20850 to 21201 21021 to 21372	20850(2510.0MHz)+ 21021(2527.1MHz) 21026(2527.6MHz)+ 21197(2544.7MHz), 21201(2545.1MHz)+ 21372(2562.2MHz)	20MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		20825 to 21225 20975 to 21375	20825(2507.5MHz)+ 20975(2522.5MHz), 21025(2527.5MHz)+ 21175(2542.5MHz), 21225(2547.5MHz)+ 21375(2562.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
		20825 to 21277 20945 to 21397	20825(2507.5MHz)+ 20945(2519.5MHz), 21051(2530.1MHz)+ 21171(2542.1MHz), 21277(2552.7MHz)+ 21397(2564.7MHz)	15MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
		20805 to 21206 20949 to 21350	20805(2505.5MHz)+ 20949(2519.9MHz), 21006(2525.6MHz)+ 21150(2540.0MHz), 21206(2545.6MHz)+ 21350(2560.0MHz)	10MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		20850 to 21251 20994 to 21395	20850(2510.0MHz)+ 20994(2524.4MHz), 21051(2530.1MHz)+ 21195(2544.5MHz), 21251(2550.1MHz)+ 21395(2564.5MHz)	20MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
-	Emission Mask	20850 to 21152 21048 to 21350	20850(2510.0MHz)+ 21048(2529.8MHz), 21001(2525.1MHz)+ 21199(2544.9MHz), 21152(2540.2MHz)+ 21350(2560.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
		20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 75 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
-	Peak to Average Ratio	20850 to 21152 21048 to 21350	20850(2510.0MHz)+ 21048(2529.8MHz), 21001(2525.1MHz)+ 21199(2544.9MHz), 21152(2540.2MHz)+ 21350(2560.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
		20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Conducted Emission	20850 to 21152 21048 to 21350	20850(2510.0MHz)+ 21048(2529.8MHz), 21001(2525.1MHz)+ 21199(2544.9MHz), 21152(2540.2MHz)+ 21350(2560.0MHz)	20MHz + 20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-	Radiated Emission Below 1GHz	20828 to 21179 20999 to 21350	21003(2525.3MHz)+ 21174(2542.4MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-	Radiated Emission Above 1GHz	20828 to 21179 20999 to 21350	20828(2507.8MHz)+ 20999(2524.9MHz), 21003(2525.3MHz)+ 21174(2542.4MHz), 21179(2542.9MHz)+ 21350(2560.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset

Note: LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 for the modulation characteristics data of CA mode.

LTE Band 38 (CA 38C)

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		37825 to 38025 37975 to 38175	37825(2577.5MHz)+ 37975(2592.5MHz), 37925(2587.5MHz)+ 38075(2602.5MHz), 38025(2597.5MHz)+ 38175(2612.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-	Frequency Stability	37850 to 37952 38048 to 38150	37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	100 RB / 0 RB Offset
-	Occupied Bandwidth	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	100 RB / 0 RB Offset
		37825 to 38025 37975 to 38175	37825(2577.5MHz)+ 37975(2592.5MHz), 37925(2587.5MHz)+ 38075(2602.5MHz), 38025(2597.5MHz)+ 38175(2612.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-	Emission Mask	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset
-	Peak to Average Ratio	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Conducted Emission	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	37850 to 37952 38048 to 38150	37901(2585.1MHz)+ 38099(2604.9MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Above 1GHz	37850 to 37952 38048 to 38150	37850(2580.0MHz)+ 38048(2599.8MHz), 37901(2585.1MHz)+ 38099(2604.9MHz), 37952(2590.2MHz)+ 38150(2610.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset

Note: LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 for the modulation characteristics data of CA mode.

LTE Band 41 (CA 41C)

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-		39750 to 41440 39867 to 41557	39750(2506.0MHz)+ 39867(2517.7MHz), 40595(2590.5MHz)+ 40712(2602.2MHz), 41440(2675.0MHz)+ 41557(2686.7MHz)	20MHz + 5MHz	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
-		39750 to 41391 39894 to 41535	39750(2506.0MHz)+ 39894(2520.4MHz), 40571(2588.1MHz)+ 40715(2602.5MHz), 41391(2670.1MHz)+ 41535(2684.5MHz)	20MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
-		39750 to 41341 39921 to 51512	39750(2506.0MHz)+ 39921(2523.1MHz), 40546(2585.6MHz)+ 40717(2602.7MHz), 41341(2665.1MHz)+ 51512(2682.2MHz)	20MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
-		39725 to 41417 39845 to 41537	39725(2503.5MHz)+ 39845(2515.5MHz), 40571(2588.1MHz)+ 40691(2600.1MHz), 41417(2672.7MHz)+ 41537(2684.7MHz)	15MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
-		39725 to 41365 39875 to 41515	39725(2503.5MHz)+ 39875(2518.5MHz), 40545(2585.5MHz)+ 40695(2600.5MHz), 41365(2667.5MHz)+ 41515(2682.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
-		39728 to 41319 39899 to 41490	39728(2503.8MHz)+ 39899(2520.9MHz), 40523(2583.3MHz)+ 40694(2600.4MHz), 41319(2662.9MHz)+ 41490(2680.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
-		39703 to 41395 39823 to 41515	39703(2501.3MHz)+ 39823(2513.3MHz), 40549(2585.9MHz)+ 40669(2597.9MHz), 41395(2670.5MHz)+ 41515(2682.5MHz)	10MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
-		39705 to 41346 39849 to 41490	39705(2501.5MHz)+ 39849(2515.9MHz), 40526(2583.6MHz)+ 40670(2598.0MHz), 41346(2665.6MHz)+ 41490(2680.0MHz)	10MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
-	39683 to 41373 39800 to 41490	39683(2499.3MHz)+ 39800(2511.0MHz), 40528(2583.8MHz)+ 40645(2595.5MHz), 41373(2668.3MHz)+ 41490(2680.0MHz)	5MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset	
-	Frequency Stability	39750 to 41292 39948 to 41490	41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Occupied Bandwidth	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
		39750 to 41440 39867 to 41557	39750(2506.0MHz)+ 39867(2517.7MHz), 40595(2590.5MHz)+ 40712(2602.2MHz), 41440(2675.0MHz)+ 41557(2686.7MHz)	20MHz + 5MHz	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset
		39750 to 41391 39894 to 41535	39750(2506.0MHz)+ 39894(2520.4MHz), 40571(2588.1MHz)+ 40715(2602.5MHz), 41391(2670.1MHz)+ 41535(2684.5MHz)	20MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
		39750 to 41341 39921 to 51512	39750(2506.0MHz)+ 39921(2523.1MHz), 40546(2585.6MHz)+ 40717(2602.7MHz), 41341(2665.1MHz)+ 51512(2682.2MHz)	20MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		39725 to 41417 39845 to 41537	39725(2503.5MHz)+ 39845(2515.5MHz), 40571(2588.1MHz)+ 40691(2600.1MHz), 41417(2672.7MHz)+ 41537(2684.7MHz)	15MHz + 10MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
		39725 to 41365 39875 to 41515	39725(2503.5MHz)+ 39875(2518.5MHz), 40545(2585.5MHz)+ 40695(2600.5MHz), 41365(2667.5MHz)+ 41515(2682.5MHz)	15MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
		39728 to 41319 39899 to 41490	39728(2503.8MHz)+ 39899(2520.9MHz), 40523(2583.3MHz)+ 40694(2600.4MHz), 41319(2662.9MHz)+ 41490(2680.0MHz)	15MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset 1 RB / 99 RB Offset
		39703 to 41395 39823 to 41515	39703(2501.3MHz)+ 39823(2513.3MHz), 40549(2585.9MHz)+ 40669(2597.9MHz), 41395(2670.5MHz)+ 41515(2682.5MHz)	10MHz + 15MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 74 RB Offset
		39705 to 41346 39849 to 41490	39705(2501.5MHz)+ 39849(2515.9MHz), 40526(2583.6MHz)+ 40670(2598.0MHz), 41346(2665.6MHz)+ 41490(2680.0MHz)	10MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 49 RB Offset 1 RB / 99 RB Offset
	39683 to 41373 39800 to 41490	39683(2499.3MHz)+ 39800(2511.0MHz), 40528(2583.8MHz)+ 40645(2595.5MHz), 41373(2668.3MHz)+ 41490(2680.0MHz)	5MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 99 RB Offset	
-	Emission Mask	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	Peak to Average Ratio	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Conducted Emission	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	39750 to 41292 39948 to 41490	40521(2583.1MHz)+ 40719(2602.9MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Above 1GHz	39750 to 41292 39948 to 41490	39750(2506.0MHz)+ 39948(2525.8MHz), 40521(2583.1MHz)+ 40719(2602.9MHz), 41292(2660.2MHz)+ 41490(2680.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset

Note: LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 for the modulation characteristics data of CA mode.

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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
		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	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset
-	Frequency Stability	132072 to 132374 132270 to 132572	132323(1745.1MHz)+ 132521(1764.9MHz)	20MHz + 20MHz	256QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	1 RB / 0 RB Offset 1 RB / 74 RB Offset
	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	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset 1 RB / 74 RB Offset	
-	Band Edge	132072 to 132374 132270 to 132572	132072(1720.0MHz)+ 132270(1739.8MHz), 132374(1750.2MHz)+ 132572(1770.0MHz)	20MHz + 20MHz	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset 100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	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	256QAM	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	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	132072 to 132374 132270 to 132572	132323(1745.1MHz)+ 132521(1764.9MHz)	20MHz + 20MHz	256QAM	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	256QAM	1 RB / 0 RB Offset 1 RB / 99 RB Offset

Note: LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	1 RB / 0 RB Offset 1 RB / 24 RB Offset
-	Frequency Stability	132022 to 132523 132121 to 132622	132022(1715.0MHz)+ 132121(1724.9MHz)	10MHz + 10MHz	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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	256QAM	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)	10MHz + 10MHz	256QAM	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	256QAM	1 RB / 49 RB Offset 1 RB / 0 RB Offset

Note: LTE CA mode is similar to digital modulation in LTE single frequency band, so please refer to BV CPS report no.: RF200109E02B-2 for the modulation characteristics data of CA mode.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25deg. C, 70%RH	5Vdc	James Yang
Frequency Stability	25deg. C, 70%RH	5Vdc	James Yang
Occupied Bandwidth	24deg. C, 64%RH	5Vdc	James Yang
Band Edge	24deg. C, 64%RH	5Vdc	James Yang
Peak To Average Ratio	24deg. C, 64%RH	5Vdc	James Yang
Conducted Emission	24deg. C, 64%RH	5Vdc	James Yang
Radiated Emission	22deg. C, 68%RH	120Vac, 60Hz	Greg Lin

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.

LTE Band 7, LTE Band 38, LTE Band 41:
Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

4.1.2 Test Procedures

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.

Maximum EIRP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}}$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_{T} gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

4.1.3 Test Setup

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 7 (CA 7C)

Con-figuration	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_7C	7	20	QPSK	1	0	20850	2510	7	20	QPSK	1	99	21048	2529.8	7.84	23.30
					1	99						1	0				
		7	20	QPSK	1	0	21001	2525.1	7	20	QPSK	1	99	21199	2544.9	7.83	23.18
					1	99						1	0				
		7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560	7.75	23.28
					1	99						1	0				
Intra Band Conti-guous	CA_7C	7	20	16QAM	1	0	20850	2510	7	20	16QAM	1	99	21048	2529.8	7.59	22.46
					1	99						1	0				
		7	20	16QAM	1	0	21001	2525.1	7	20	16QAM	1	99	21199	2544.9	7.42	22.56
					1	99						1	0				
		7	20	16QAM	1	0	21152	2540.2	7	20	16QAM	1	99	21350	2560	7.44	22.57
					1	99						1	0				
Intra Band Conti-guous	CA_7C	7	20	64QAM	1	0	20850	2510	7	20	64QAM	1	99	21048	2529.8	7.36	20.38
					1	99						1	0				
		7	20	64QAM	1	0	21001	2525.1	7	20	64QAM	1	99	21199	2544.9	7.19	20.20
					1	99						1	0				
		7	20	64QAM	1	0	21152	2540.2	7	20	64QAM	1	99	21350	2560	7.23	21.27
					1	99						1	0				

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_7C	7	15	256 QAM	1	0	20828	2507.8	7	20	256 QAM	1	99	20999	2524.9	15.89
					1	74						21.82				
		7	15	256 QAM	1	0	21003	2525.3	7	20	256 QAM	1	99	21174	2542.4	15.86
					1	74						21.77				
		7	15	256 QAM	1	0	21179	2542.9	7	20	256 QAM	1	99	21350	2560	15.55
					1	74						21.74				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	15	256 QAM	1	74	21021	2527.1	15.97
					1	99						19.80				
		7	20	256 QAM	1	0	21025	2527.5	7	15	256 QAM	1	74	21196	2544.6	16.01
					1	99						20.42				
		7	20	256 QAM	1	0	21201	2545.1	7	15	256 QAM	1	74	21372	2562.2	15.85
					1	99						19.54				
Intra Band Conti- guous	CA_7C	7	15	256 QAM	1	0	20825	2507.5	7	15	256 QAM	1	74	20975	2522.5	15.59
					1	74						19.03				
		7	15	256 QAM	1	0	21025	2527.5	7	15	256 QAM	1	74	21175	2542.5	15.91
					1	74						18.49				
		7	15	256 QAM	1	0	21225	2547.5	7	15	256 QAM	1	74	21375	2562.5	15.87
					1	74						19.28				
Intra Band Conti- guous	CA_7C	7	15	256 QAM	1	0	20825	2507.5	7	10	256 QAM	1	49	20945	2519.5	14.29
					1	74						19.67				
		7	15	256 QAM	1	0	21051	2530.1	7	10	256 QAM	1	49	21171	2542.1	14.20
					1	74						19.55				
		7	15	256 QAM	1	0	21277	2552.7	7	10	256 QAM	1	49	21397	2564.7	13.74
					1	74						18.31				
Intra Band Conti- guous	CA_7C	7	10	256 QAM	1	0	20805	2505.5	7	20	256 QAM	1	99	20949	2519.9	15.50
					1	49						20.27				
		7	10	256 QAM	1	0	21006	2525.6	7	20	256 QAM	1	99	21150	2540	15.49
					1	49						19.18				
		7	10	256 QAM	1	0	21206	2545.6	7	20	256 QAM	1	99	21350	2560	16.20
					1	49						19.80				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	10	256 QAM	1	49	20994	2524.4	15.37
					1	99						19.42				
		7	20	256 QAM	1	0	21051	2530.1	7	10	256 QAM	1	49	21195	2544.5	15.89
					1	99						19.71				
		7	20	256 QAM	1	0	21251	2550.1	7	10	256 QAM	1	49	21395	2564.5	16.13
					1	99						18.39				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	20	256 QAM	1	99	21048	2529.8	7.36
					1	99						20.38				
		7	20	256 QAM	1	0	21001	2525.1	7	20	256 QAM	1	99	21199	2544.9	7.19
					1	99						20.20				
		7	20	256 QAM	1	0	21152	2540.2	7	20	256 QAM	1	99	21350	2560	7.23
					1	99						21.27				

LTE Band 38 (CA 38C)

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_38C	38	20	256 QAM	1	0	37850	2580	38	20	256 QAM	1	99	38048	2599.8	17.38
					1	99						22.89				
		38	20	256 QAM	1	0	37901	2585.1	38	20	256 QAM	1	99	38099	2604.9	18.34
					1	99						22.52				
		38	20	256 QAM	1	0	37952	2590.2	38	20	256 QAM	1	99	38150	2610	18.09
					1	99						23.11				
Intra Band Conti- guous	CA_38C	38	15	256 QAM	1	0	37825	2577.5	38	15	256 QAM	1	74	37975	2592.5	16.71
					1	74						22.60				
		38	15	256 QAM	1	0	37925	2587.5	38	15	256 QAM	1	74	38075	2602.5	18.07
					1	74						22.51				
		38	15	256 QAM	1	0	38025	2597.5	38	15	256 QAM	1	74	38175	2612.5	17.79
					1	74						22.67				

LTE Band 41 (CA 41C)

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_41C	41	20	256 QAM	1	0	39750	2506	41	20	256 QAM	1	99	39948	2525.8	17.96
					1	99						23.05				
		41	20	256 QAM	1	0	40521	2583.1	41	20	256 QAM	1	99	40719	2602.9	17.81
					1	99						23.22				
		41	20	256 QAM	1	0	41292	2660.2	41	20	256 QAM	1	99	41490	2680	17.38
					1	99						23.83				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	5	256 QAM	1	24	39867	2517.7	16.93
					1	99						22.44				
		41	20	256 QAM	1	0	40595	2590.5	41	5	256 QAM	1	24	40712	2602.2	17.42
					1	99						22.67				
		41	20	256 QAM	1	0	41440	2675	41	5	256 QAM	1	24	41557	2686.7	17.25
					1	99						22.40				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	10	256 QAM	1	49	39894	2520.4	17.33
					1	99						22.26				
		41	20	256 QAM	1	0	40571	2588.1	41	10	256 QAM	1	49	40715	2602.5	17.47
					1	99						22.45				
		41	20	256 QAM	1	0	41391	2670.1	41	10	256 QAM	1	49	41535	2684.5	17.84
					1	99						22.32				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	15	256 QAM	1	74	39921	2523.1	17.27
					1	99						22.60				
		41	20	256 QAM	1	0	40546	2585.6	41	15	256 QAM	1	74	40717	2602.7	17.40
					1	99						22.52				
		41	20	256 QAM	1	0	41341	2665.1	41	15	256 QAM	1	74	51512	2682.2	17.63
					1	99						22.23				
Intra Band Conti- guous	CA_41C	41	15	256 QAM	1	0	39725	2503.5	41	10	256 QAM	1	49	39845	2515.5	16.92
					1	74						22.34				
		41	15	256 QAM	1	0	40571	2588.1	41	10	256 QAM	1	49	40691	2600.1	17.42
					1	74						22.51				
		41	15	256 QAM	1	0	41417	2672.7	41	10	256 QAM	1	49	41537	2684.7	17.95
					1	74						22.59				
Intra Band Conti- guous	CA_41C	41	15	256 QAM	1	0	39725	2503.5	41	15	256 QAM	1	74	39875	2518.5	17.34
					1	74						22.63				
		41	15	256 QAM	1	0	40545	2585.5	41	15	256 QAM	1	74	40695	2600.5	17.37
					1	74						22.55				
		41	15	256 QAM	1	0	41365	2667.5	41	15	256 QAM	1	74	41515	2682.5	17.45
					1	74						22.37				

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_41C	41	15	256 QAM	1	0	39728	2503.8	41	20	256 QAM	1	99	39899	2520.9	17.28	
					1	74						1	0			22.41	
		41	15	256 QAM	1	0	40523	2583.3	41	20	256 QAM	1	99	40694	2600.4	17.17	
					1	74						1	0			22.25	
		41	15	256 QAM	1	0	41319	2662.9	41	20	256 QAM	1	99	41490	2680	17.39	
					1	74						1	0			22.31	
Intra Band Conti- guous	CA_41C	41	10	256 QAM	1	0	39703	2501.3	41	15	256 QAM	1	74	39823	2513.3	17.32	
					1	49						1	0			22.19	
		41	10	256 QAM	1	0	40549	2585.9	41	15	256 QAM	1	74	40669	2597.9	17.80	
					1	49						1	0			22.64	
		41	10	256 QAM	1	0	41395	2670.5	41	15	256 QAM	1	74	41515	2682.5	17.42	
					1	49						1	0			22.75	
Intra Band Conti- guous	CA_41C	41	10	256 QAM	1	0	39705	2501.5	41	20	256 QAM	1	99	39849	2515.9	17.24	
					1	49						1	0			22.13	
		41	10	256 QAM	1	0	40526	2583.6	41	20	256 QAM	1	99	40670	2598	17.35	
					1	49						1	0			22.40	
		41	10	256 QAM	1	0	41346	2665.6	41	20	256 QAM	1	99	41490	2680	17.55	
					1	49						1	0			22.59	
Intra Band Conti- guous	CA_41C	41	5	256 QAM	1	0	39683	2499.3	41	20	256 QAM	1	99	39800	2511	17.43	
					1	24						1	0			22.35	
		41	5	256 QAM	1	0	40528	2583.8	41	20	256 QAM	1	99	40645	2595.5	17.51	
					1	24						1	0			22.22	
		41	5	256 QAM	1	0	41373	2668.3	41	20	256 QAM	1	99	41490	2680	17.68	
					1	24						1	0			22.34	

LTE Band 66 (CA 66C)

Con-figu-re	Com-bi-nation	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	256 QAM	1	0	132072	1720	66	20	256 QAM	1	99	132270	1739.8	16.35
					1	99						22.61				
		66	20	256 QAM	1	0	132323	1745.1	66	20	256 QAM	1	99	132521	1764.9	15.97
					1	99						22.64				
		66	20	256 QAM	1	0	132374	1750.2	66	20	256 QAM	1	99	132572	1770	15.80
					1	99						22.45				
Intra Band Conti-guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	15	256 QAM	1	74	132243	1737.1	15.44
					1	99						22.29				
		66	20	256 QAM	1	0	132348	1747.6	66	15	256 QAM	1	74	132519	1764.7	15.05
					1	99						22.62				
		66	20	256 QAM	1	0	132423	1755.1	66	15	256 QAM	1	74	132594	1772.2	15.07
					1	99						22.62				
Intra Band Conti-guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	10	256 QAM	1	49	132216	1734.4	15.17
					1	99						21.92				
		66	20	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	49	132517	1764.5	15.44
					1	99						22.08				
		66	20	256 QAM	1	0	132473	1760.1	66	10	256 QAM	1	49	132617	1774.5	15.46
					1	99						22.52				
Intra Band Conti-guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	5	256 QAM	1	24	132189	1731.7	15.02
					1	99						22.10				
		66	20	256 QAM	1	0	132397	1752.5	66	5	256 QAM	1	24	132514	1764.2	15.29
					1	99						21.38				
		66	20	256 QAM	1	0	132522	1765	66	5	256 QAM	1	24	132639	1776.7	14.80
					1	99						21.62				
Intra Band Conti-guous	CA_66C	66	5	256 QAM	1	0	132005	1713.3	66	20	256 QAM	1	99	132122	1725	15.41
					1	24						22.32				
		66	5	256 QAM	1	0	132330	1745.8	66	20	256 QAM	1	99	132447	1757.5	14.77
					1	24						22.11				
		66	5	256 QAM	1	0	132455	1758.3	66	20	256 QAM	1	99	132572	1770	14.99
					1	24						22.04				
Intra Band Conti-guous	CA_66C	66	10	256 QAM	1	0	132027	1715.5	66	20	256 QAM	1	99	132171	1729.9	15.41
					1	49						22.46				
		66	10	256 QAM	1	0	132328	1745.6	66	20	256 QAM	1	99	132472	1760	14.58
					1	49						22.36				
		66	10	256 QAM	1	0	132428	1755.6	66	20	256 QAM	1	99	132572	1770	14.76
					1	49						22.27				

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	256 QAM	1	0	132050	1717.8	66	20	256 QAM	1	99	132221	1734.9	15.45
					1	74						1	0			21.86
		66	15	256 QAM	1	0	132325	1745.3	66	20	256 QAM	1	99	132496	1762.4	14.84
					1	74						1	0			22.35
		66	15	256 QAM	1	0	132401	1752.9	66	20	256 QAM	1	99	132572	1770	14.96
					1	74						1	0			22.23
Intra Band Conti- guous	CA_66C	66	10	256 QAM	1	0	132025	1715.3	66	15	256 QAM	1	74	132145	1727.3	14.98
					1	49						1	0			22.44
		66	10	256 QAM	1	0	132351	1747.9	66	15	256 QAM	1	74	132471	1759.9	14.67
					1	49						1	0			22.08
		66	10	256 QAM	1	0	132477	1760.5	66	15	256 QAM	1	74	132597	1772.5	14.86
					1	49						1	0			21.78
Intra Band Conti- guous	CA_66C	66	15	256 QAM	1	0	132047	1717.5	66	15	256 QAM	1	74	132197	1732.5	15.03
					1	74						1	0			21.87
		66	15	256 QAM	1	0	132347	1747.5	66	15	256 QAM	1	74	132497	1762.5	14.98
					1	74						1	0			22.18
		66	15	256 QAM	1	0	132447	1757.5	66	15	256 QAM	1	74	132597	1772.5	15.47
					1	74						1	0			22.17
Intra Band Conti- guous	CA_66C	66	15	256 QAM	1	0	132047	1715.3	66	10	256 QAM	1	24	132167	1729.5	14.99
					1	74						1	0			22.07
		66	15	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	24	132493	1762.1	15.46
					1	74						1	0			22.14
		66	15	256 QAM	1	0	132499	1762.7	66	10	256 QAM	1	24	132619	1774.7	15.24
					1	74						1	0			22.10

LTE Band 66 (CA 66B)

Con-figu-re	Com-bi-nation	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	256 QAM	1	0	132022	1715	66	10	256 QAM	1	49	132121	1724.9	13.66	
					1	49						22.80					
		66	10	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	49	132472	1760	13.51	
					1	49						22.70					
		66	10	256 QAM	1	0	132523	1765.1	66	10	256 QAM	1	49	132622	1775	13.38	
					1	49						22.21					
Intra Band Conti-guous	CA_66B	66	5	256 QAM	1	0	132002	1713	66	15	256 QAM	1	79	132095	1722.3	13.25	
					1	24						22.45					
		66	5	256 QAM	1	0	132353	1748.1	66	15	256 QAM	1	79	132447	1757.4	13.23	
					1	24						22.22					
		66	5	256 QAM	1	0	132504	1763.2	66	15	256 QAM	1	79	132597	1772.5	13.01	
					1	24						22.10					
Intra Band Conti-guous	CA_66B	66	15	256 QAM	1	0	132047	1717.5	66	5	256 QAM	1	24	132140	1726.8	13.25	
					1	74						22.60					
		66	15	256 QAM	1	0	132398	1752.6	66	5	256 QAM	1	24	132491	1761.9	12.96	
					1	74						21.98					
		66	15	256 QAM	1	0	132549	1767.7	66	5	256 QAM	1	24	132642	1777	13.15	
					1	74						22.09					
Intra Band Conti-guous	CA_66B	66	5	256 QAM	1	0	132000	1712.8	66	10	256 QAM	1	49	132072	1720	13.02	
					1	24						22.16					
		66	5	256 QAM	1	0	132375	1750.3	66	10	256 QAM	1	49	132447	1757.5	12.70	
					1	24						21.76					
		66	5	256 QAM	1	0	132550	1767.8	66	10	256 QAM	1	49	132622	1775	12.76	
					1	24						21.43					
Intra Band Conti-guous	CA_66B	66	10	256 QAM	1	0	132022	1715	66	5	256 QAM	1	24	132094	1722.2	12.96	
					1	49						21.92					
		66	10	256 QAM	1	0	132397	1752.5	66	5	256 QAM	1	24	132469	1759.7	12.53	
					1	49						21.81					
		66	10	256 QAM	1	0	132572	1770	66	5	256 QAM	1	24	132644	1777.2	12.94	
					1	49						21.93					
Intra Band Conti-guous	CA_66B	66	5	256 QAM	1	0	131997	1712.5	66	5	256 QAM	1	24	132045	1717.3	13.24	
					1	24						21.65					
		66	5	256 QAM	1	0	132398	1752.6	66	5	256 QAM	1	24	132446	1757.4	12.78	
					1	24						21.88					
		66	5	256 QAM	1	0	132599	1772.7	66	5	256 QAM	1	24	132647	1777.5	12.73	
					1	24						21.62					

EIRP Power (dBm)
LTE Band 7 (CA 7C)

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)	EIRP (dBm)	
																Total	
Intra Band Conti- guous	CA_7C	7	20	QPSK	1	0	20850	2510	7	20	QPSK	1	99	21048	2529.8	13.15	
					1	99						28.61					
		7	20	QPSK	1	0	21001	2525.1	7	20	QPSK	1	99	21199	2544.9	13.14	
					1	99						28.49					
		7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560	13.06	
					1	99						28.59					
Intra Band Conti- guous	CA_7C	7	20	16QAM	1	0	20850	2510	7	20	16QAM	1	99	21048	2529.8	12.90	
					1	99						27.77					
		7	20	16QAM	1	0	21001	2525.1	7	20	16QAM	1	99	21199	2544.9	12.73	
1	99				27.87												
7	20	16QAM	1	0	21152	2540.2	7	20	16QAM	1	99	21350	2560	12.75			
			1	99						27.88							
Intra Band Conti- guous	CA_7C	7	20	64QAM	1	0	20850	2510	7	20	64QAM	1	99	21048	2529.8	12.67	
					1	99						25.69					
		7	20	64QAM	1	0	21001	2525.1	7	20	64QAM	1	99	21199	2544.9	12.50	
1	99				25.51												
7	20	64QAM	1	0	21152	2540.2	7	20	64QAM	1	99	21350	2560	12.54			
			1	99						26.58							

*EIRP = Conducted + antenna gain (5.31dBi)

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)	EIRP (dBm)
																Total
Intra Band Conti- guous	CA_7C	7	15	256 QAM	1	0	20828	2507.8	7	20	256 QAM	1	99	20999	2524.9	21.20
					1	74						27.13				
		7	15	256 QAM	1	0	21003	2525.3	7	20	256 QAM	1	99	21174	2542.4	21.17
					1	74						27.08				
		7	15	256 QAM	1	0	21179	2542.9	7	20	256 QAM	1	99	21350	2560	20.86
					1	74						27.05				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	15	256 QAM	1	74	21021	2527.1	21.28
					1	99						25.11				
		7	20	256 QAM	1	0	21025	2527.5	7	15	256 QAM	1	74	21196	2544.6	21.32
					1	99						25.73				
		7	20	256 QAM	1	0	21201	2545.1	7	15	256 QAM	1	74	21372	2562.2	21.16
					1	99						24.85				
Intra Band Conti- guous	CA_7C	7	15	256 QAM	1	0	20825	2507.5	7	15	256 QAM	1	74	20975	2522.5	20.90
					1	74						24.34				
		7	15	256 QAM	1	0	21025	2527.5	7	15	256 QAM	1	74	21175	2542.5	21.22
					1	74						23.80				
		7	15	256 QAM	1	0	21225	2547.5	7	15	256 QAM	1	74	21375	2562.5	21.18
					1	74						24.59				
Intra Band Conti- guous	CA_7C	7	15	256 QAM	1	0	20825	2507.5	7	10	256 QAM	1	49	20945	2519.5	19.60
					1	74						24.98				
		7	15	256 QAM	1	0	21051	2530.1	7	10	256 QAM	1	49	21171	2542.1	19.51
					1	74						24.86				
		7	15	256 QAM	1	0	21277	2552.7	7	10	256 QAM	1	49	21397	2564.7	19.05
					1	74						23.62				
Intra Band Conti- guous	CA_7C	7	10	256 QAM	1	0	20805	2505.5	7	20	256 QAM	1	99	20949	2519.9	20.81
					1	49						25.58				
		7	10	256 QAM	1	0	21006	2525.6	7	20	256 QAM	1	99	21150	2540	20.80
					1	49						24.49				
		7	10	256 QAM	1	0	21206	2545.6	7	20	256 QAM	1	99	21350	2560	21.51
					1	49						25.11				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	10	256 QAM	1	49	20994	2524.4	20.68
					1	99						24.73				
		7	20	256 QAM	1	0	21051	2530.1	7	10	256 QAM	1	49	21195	2544.5	21.20
					1	99						25.02				
		7	20	256 QAM	1	0	21251	2550.1	7	10	256 QAM	1	49	21395	2564.5	21.44
					1	99						23.70				
Intra Band Conti- guous	CA_7C	7	20	256 QAM	1	0	20850	2510	7	20	256 QAM	1	99	21048	2529.8	12.67
					1	99						25.69				
		7	20	256 QAM	1	0	21001	2525.1	7	20	256 QAM	1	99	21199	2544.9	12.50
					1	99						25.51				
		7	20	256 QAM	1	0	21152	2540.2	7	20	256 QAM	1	99	21350	2560	12.54
					1	99						26.58				

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 38 (CA 38C)

Con- fugure	Com- bination	PCC							SCC							Measurement Power
		Band	BW (MHz)	Modu- lation	RB	RB	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB	RB	UL Chan.	UL Freq. (MHz)	EIRP (dBm)
					Size	Offset						Size	Offset			Total
Intra Band Conti- guous	CA_38C	38	20	256 QAM	1	0	37850	2580	38	20	256 QAM	1	99	38048	2599.8	22.69
					1	99						28.20				
		38	20	256 QAM	1	0	37901	2585.1	38	20	256 QAM	1	99	38099	2604.9	23.65
					1	99						27.83				
		38	20	256 QAM	1	0	37952	2590.2	38	20	256 QAM	1	99	38150	2610	23.40
					1	99						28.42				
Intra Band Conti- guous	CA_38C	38	15	256 QAM	1	0	37825	2577.5	38	15	256 QAM	1	74	37975	2592.5	22.02
					1	74						27.91				
		38	15	256 QAM	1	0	37925	2587.5	38	15	256 QAM	1	74	38075	2602.5	23.38
					1	74						27.82				
		38	15	256 QAM	1	0	38025	2597.5	38	15	256 QAM	1	74	38175	2612.5	23.10
					1	74						27.98				

*EIRP = Conducted + antenna gain (5.31dBi)

LTE Band 41 (CA 41C)

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)	EIRP (dBm)
																Total
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	20	256 QAM	1	99	39948	2525.8	23.27
					1	99						28.36				
		41	20	256 QAM	1	0	40521	2583.1	41	20	256 QAM	1	99	40719	2602.9	23.12
					1	99						28.53				
		41	20	256 QAM	1	0	41292	2660.2	41	20	256 QAM	1	99	41490	2680	22.69
					1	99						29.14				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	5	256 QAM	1	24	39867	2517.7	22.24
					1	99						27.75				
		41	20	256 QAM	1	0	40595	2590.5	41	5	256 QAM	1	24	40712	2602.2	22.73
					1	99						27.98				
		41	20	256 QAM	1	0	41440	2675	41	5	256 QAM	1	24	41557	2686.7	22.56
					1	99						27.71				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	10	256 QAM	1	49	39894	2520.4	22.64
					1	99						27.57				
		41	20	256 QAM	1	0	40571	2588.1	41	10	256 QAM	1	49	40715	2602.5	22.78
					1	99						27.76				
		41	20	256 QAM	1	0	41391	2670.1	41	10	256 QAM	1	49	41535	2684.5	23.15
					1	99						27.63				
Intra Band Conti- guous	CA_41C	41	20	256 QAM	1	0	39750	2506	41	15	256 QAM	1	74	39921	2523.1	22.58
					1	99						27.91				
		41	20	256 QAM	1	0	40546	2585.6	41	15	256 QAM	1	74	40717	2602.7	22.71
					1	99						27.83				
		41	20	256 QAM	1	0	41341	2665.1	41	15	256 QAM	1	74	51512	2682.2	22.94
					1	99						27.54				
Intra Band Conti- guous	CA_41C	41	15	256 QAM	1	0	39725	2503.5	41	10	256 QAM	1	49	39845	2515.5	22.23
					1	74						27.65				
		41	15	256 QAM	1	0	40571	2588.1	41	10	256 QAM	1	49	40691	2600.1	22.73
					1	74						27.82				
		41	15	256 QAM	1	0	41417	2672.7	41	10	256 QAM	1	49	41537	2684.7	23.26
					1	74						27.90				
Intra Band Conti- guous	CA_41C	41	15	256 QAM	1	0	39725	2503.5	41	15	256 QAM	1	74	39875	2518.5	22.65
					1	74						27.94				
		41	15	256 QAM	1	0	40545	2585.5	41	15	256 QAM	1	74	40695	2600.5	22.68
					1	74						27.86				
		41	15	256 QAM	1	0	41365	2667.5	41	15	256 QAM	1	74	41515	2682.5	22.76
					1	74						27.68				

*EIRP = Conducted + antenna gain (5.31dBi)

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)	EIRP (dBm)	
																Total	
Intra Band Conti- guous	CA_41C	41	15	256 QAM	1	0	39728	2503.8	41	20	256 QAM	1	99	39899	2520.9	22.59	
					1	74						27.72					
		41	15	256 QAM	1	0	40523	2583.3	41	20	256 QAM	1	99	40694	2600.4	22.48	
					1	74						27.56					
		41	15	256 QAM	1	0	41319	2662.9	41	20	256 QAM	1	99	41490	2680	22.70	
					1	74						27.62					
	Intra Band Conti- guous	CA_41C	41	10	256 QAM	1	0	39703	2501.3	41	15	256 QAM	1	74	39823	2513.3	22.63
						1	49						27.50				
			41	10	256 QAM	1	0	40549	2585.9	41	15	256 QAM	1	74	40669	2597.9	23.11
1						49	27.95										
41			10	256 QAM	1	0	41395	2670.5	41	15	256 QAM	1	74	41515	2682.5	22.73	
					1	49						28.06					
Intra Band Conti- guous	CA_41C	41	10	256 QAM	1	0	39705	2501.5	41	20	256 QAM	1	99	39849	2515.9	22.55	
					1	49						27.44					
		41	10	256 QAM	1	0	40526	2583.6	41	20	256 QAM	1	99	40670	2598	22.66	
					1	49						27.71					
		41	10	256 QAM	1	0	41346	2665.6	41	20	256 QAM	1	99	41490	2680	22.86	
					1	49						27.90					
	Intra Band Conti- guous	CA_41C	41	5	256 QAM	1	0	39683	2499.3	41	20	256 QAM	1	99	39800	2511	22.74
						1	24						27.66				
			41	5	256 QAM	1	0	40528	2583.8	41	20	256 QAM	1	99	40645	2595.5	22.82
1						24	27.53										
41			5	256 QAM	1	0	41373	2668.3	41	20	256 QAM	1	99	41490	2680	22.99	
					1	24						27.65					

*EIRP = Conducted + antenna gain (5.31dBi)

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)	EIRP (dBm)
																Total
Intra Band Conti- guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	20	256 QAM	1	99	132270	1739.8	20.62
					1	99						26.88				
		66	20	256 QAM	1	0	132323	1745.1	66	20	256 QAM	1	99	132521	1764.9	20.24
					1	99						26.91				
		66	20	256 QAM	1	0	132374	1750.2	66	20	256 QAM	1	99	132572	1770	20.07
					1	99						26.72				
Intra Band Conti- guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	15	256 QAM	1	74	132243	1737.1	19.71
					1	99						26.56				
		66	20	256 QAM	1	0	132348	1747.6	66	15	256 QAM	1	74	132519	1764.7	19.32
					1	99						26.89				
		66	20	256 QAM	1	0	132423	1755.1	66	15	256 QAM	1	74	132594	1772.2	19.34
					1	99						26.89				
Intra Band Conti- guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	10	256 QAM	1	49	132216	1734.4	19.44
					1	99						26.19				
		66	20	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	49	132517	1764.5	19.71
					1	99						26.35				
		66	20	256 QAM	1	0	132473	1760.1	66	10	256 QAM	1	49	132617	1774.5	19.73
					1	99						26.79				
Intra Band Conti- guous	CA_66C	66	20	256 QAM	1	0	132072	1720	66	5	256 QAM	1	24	132189	1731.7	19.29
					1	99						26.37				
		66	20	256 QAM	1	0	132397	1752.5	66	5	256 QAM	1	24	132514	1764.2	19.56
					1	99						25.65				
		66	20	256 QAM	1	0	132522	1765	66	5	256 QAM	1	24	132639	1776.7	19.07
					1	99						25.89				
Intra Band Conti- guous	CA_66C	66	5	256 QAM	1	0	132005	1713.3	66	20	256 QAM	1	99	132122	1725	19.68
					1	24						26.59				
		66	5	256 QAM	1	0	132330	1745.8	66	20	256 QAM	1	99	132447	1757.5	19.04
					1	24						26.38				
		66	5	256 QAM	1	0	132455	1758.3	66	20	256 QAM	1	99	132572	1770	19.26
					1	24						26.31				
Intra Band Conti- guous	CA_66C	66	10	256 QAM	1	0	132027	1715.5	66	20	256 QAM	1	99	132171	1729.9	19.68
					1	49						26.73				
		66	10	256 QAM	1	0	132328	1745.6	66	20	256 QAM	1	99	132472	1760	18.85
					1	49						26.63				
		66	10	256 QAM	1	0	132428	1755.6	66	20	256 QAM	1	99	132572	1770	19.03
					1	49						26.54				

*EIRP = Conducted + antenna gain (4.27dBi)

Con- figure	Com- bination	PCC							SCC							Measurement Power	
		Band	BW (MHz)	Modu- lation	RB	RB	UL Chan.	UL Freq. (MHz)	Band	BW (MHz)	Modu- lation	RB	RB	UL Chan.	UL Freq. (MHz)	EIRP (dBm)	
					Size	Offset						Size	Offset			Total	
Intra Band Conti- guous	CA_66C	66	15	256 QAM	1	0	132050	1717.8	66	20	256 QAM	1	99	132221	1734.9	19.72	
					1	74						1	0			26.13	
		66	15	256 QAM	1	0	132325	1745.3	66	20	256 QAM	1	99	132496	1762.4	19.11	
					1	74						1	0			26.62	
		66	15	256 QAM	1	0	132401	1752.9	66	20	256 QAM	1	99	132572	1770	19.23	
					1	74						1	0			26.50	
Intra Band Conti- guous	CA_66C	66	10	256 QAM	1	0	132025	1715.3	66	15	256 QAM	1	74	132145	1727.3	19.25	
					1	49						1	0			26.71	
		66	10	256 QAM	1	0	132351	1747.9	66	15	256 QAM	1	74	132471	1759.9	18.94	
					1	49						1	0			26.35	
		66	10	256 QAM	1	0	132477	1760.5	66	15	256 QAM	1	74	132597	1772.5	19.13	
					1	49						1	0			26.05	
Intra Band Conti- guous	CA_66C	66	15	256 QAM	1	0	132047	1717.5	66	15	256 QAM	1	74	132197	1732.5	19.30	
					1	74						1	0			26.14	
		66	15	256 QAM	1	0	132347	1747.5	66	15	256 QAM	1	74	132497	1762.5	19.25	
					1	74						1	0			26.45	
		66	15	256 QAM	1	0	132447	1757.5	66	15	256 QAM	1	74	132597	1772.5	19.74	
					1	74						1	0			26.44	
Intra Band Conti- guous	CA_66C	66	15	256 QAM	1	0	132047	1715.3	66	10	256 QAM	1	24	132167	1729.5	19.26	
					1	74						1	0			26.34	
		66	15	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	24	132493	1762.1	19.73	
					1	74						1	0			26.41	
		66	15	256 QAM	1	0	132499	1762.7	66	10	256 QAM	1	24	132619	1774.7	19.51	
					1	74						1	0			26.37	

*EIRP = Conducted + antenna gain (4.27dBi)

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)	EIRP (dBm)
																Total
Intra Band Conti- guous	CA_66B	66	10	256 QAM	1	0	132022	1715	66	10	256 QAM	1	49	132121	1724.9	17.93
					1	49						27.07				
		66	10	256 QAM	1	0	132373	1750.1	66	10	256 QAM	1	49	132472	1760	17.78
					1	49						26.97				
		66	10	256 QAM	1	0	132523	1765.1	66	10	256 QAM	1	49	132622	1775	17.65
					1	49						26.48				
Intra Band Conti- guous	CA_66B	66	5	256 QAM	1	0	132002	1713	66	15	256 QAM	1	79	132095	1722.3	17.52
					1	24						26.72				
		66	5	256 QAM	1	0	132353	1748.1	66	15	256 QAM	1	79	132447	1757.4	17.50
					1	24						26.49				
		66	5	256 QAM	1	0	132504	1763.2	66	15	256 QAM	1	79	132597	1772.5	17.28
					1	24						26.37				
Intra Band Conti- guous	CA_66B	66	15	256 QAM	1	0	132047	1717.5	66	5	256 QAM	1	24	132140	1726.8	17.52
					1	74						26.87				
		66	15	256 QAM	1	0	132398	1752.6	66	5	256 QAM	1	24	132491	1761.9	17.23
					1	74						26.25				
		66	15	256 QAM	1	0	132549	1767.7	66	5	256 QAM	1	24	132642	1777	17.42
					1	74						26.36				
Intra Band Conti- guous	CA_66B	66	5	256 QAM	1	0	132000	1712.8	66	10	256 QAM	1	49	132072	1720	17.29
					1	24						26.43				
		66	5	256 QAM	1	0	132375	1750.3	66	10	256 QAM	1	49	132447	1757.5	16.97
					1	24						26.03				
		66	5	256 QAM	1	0	132550	1767.8	66	10	256 QAM	1	49	132622	1775	17.03
					1	24						25.70				
Intra Band Conti- guous	CA_66B	66	10	256 QAM	1	0	132022	1715	66	5	256 QAM	1	24	132094	1722.2	17.23
					1	49						26.19				
		66	10	256 QAM	1	0	132397	1752.5	66	5	256 QAM	1	24	132469	1759.7	16.80
					1	49						26.08				
		66	10	256 QAM	1	0	132572	1770	66	5	256 QAM	1	24	132644	1777.2	17.21
					1	49						26.20				
Intra Band Conti- guous	CA_66B	66	5	256 QAM	1	0	131997	1712.5	66	5	256 QAM	1	24	132045	1717.3	17.51
					1	24						25.92				
		66	5	256 QAM	1	0	132398	1752.6	66	5	256 QAM	1	24	132446	1757.4	17.05
					1	24						26.15				
		66	5	256 QAM	1	0	132599	1772.7	66	5	256 QAM	1	24	132647	1777.5	17.00
					1	24						25.89				

*EIRP = Conducted + antenna gain (4.27dBi)

4.2 Occupied Bandwidth Measurement

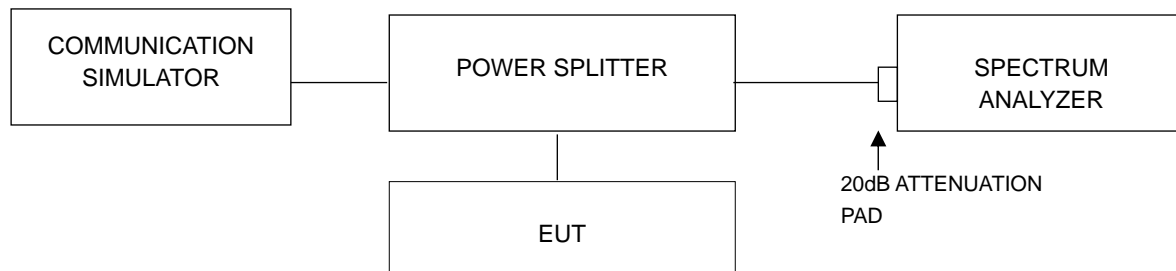
4.2.1 Limits of Occupied Bandwidth Measurement

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: 10MHz+10MHz), RBW = 360kHz and VBW = 1.1MHz (Channel Bandwidth: 15MHz+20MHz) and RBW = 430kHz and VBW = 1.3MHz (Channel Bandwidth: 20MHz+20MHz). The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

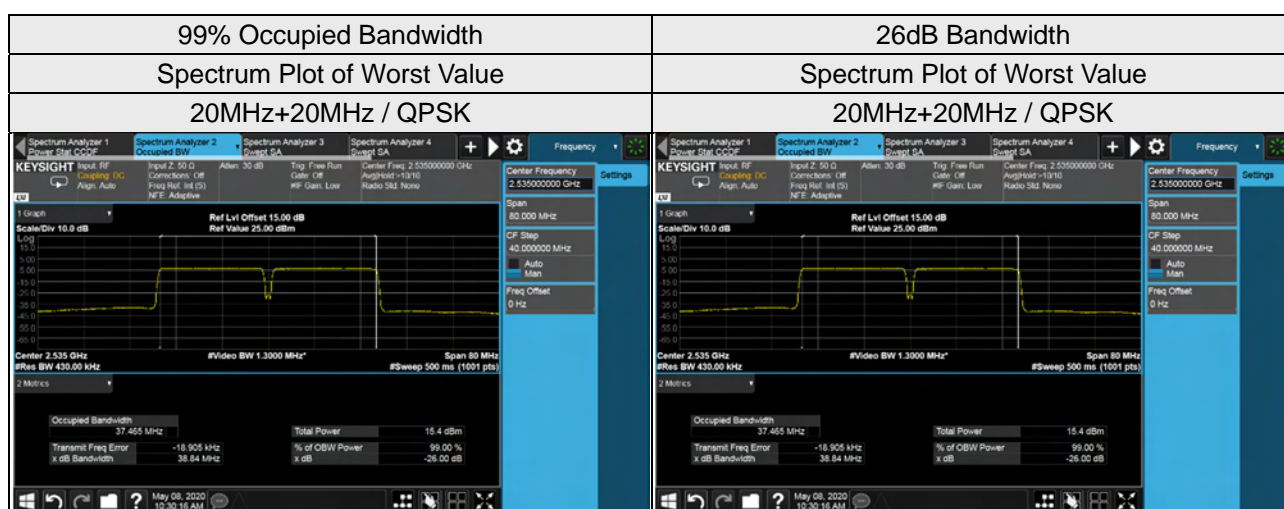
4.2.3 Test Setup



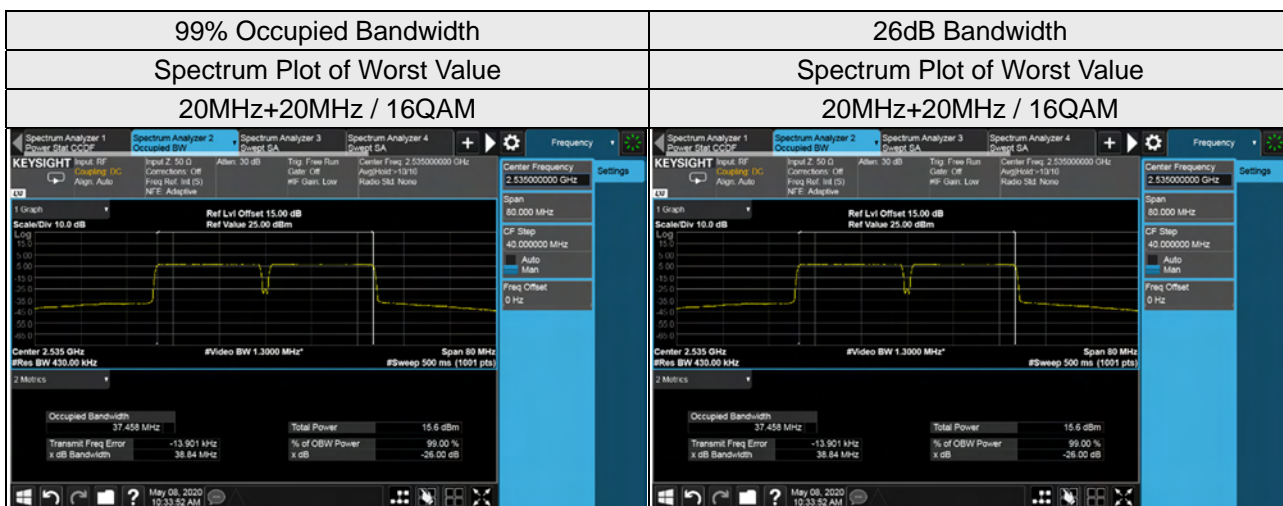
4.2.4 Test Result

LTE Band 7 (CA 7C)

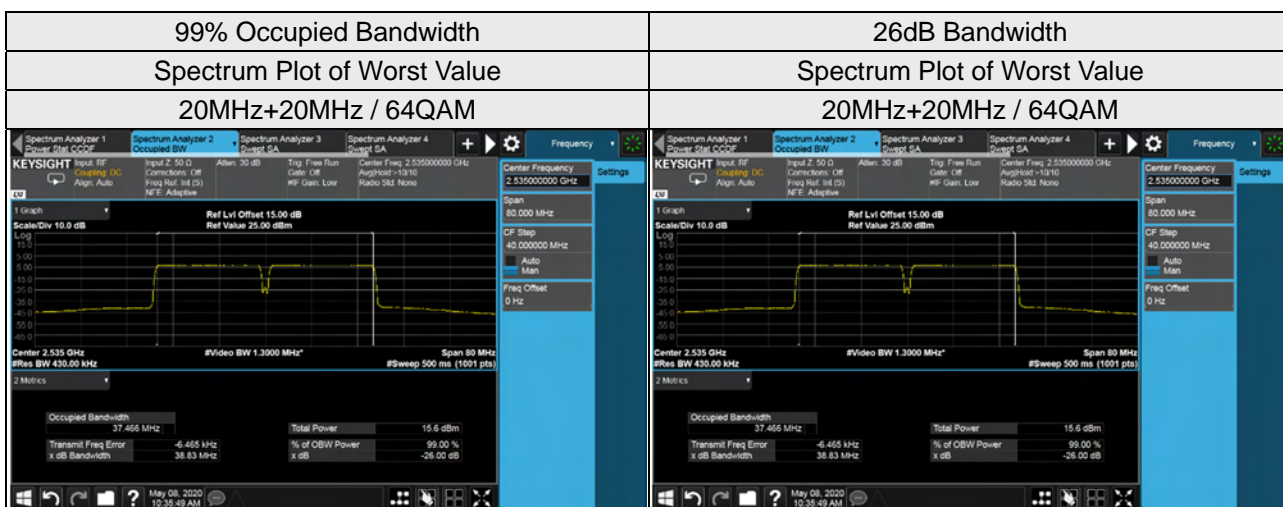
LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+20MHz			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		QPSK_Full RB	QPSK_Full RB
20850+21048	2510.0+2529.8	37.38	38.77
21001+21199	2525.1+2544.9	37.47	38.84
21152+21350	2540.2+2560.0	37.33	38.77



LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+20MHz			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		16QAM_Full RB	16QAM_Full RB
20850+21048	2510.0+2529.8	37.39	38.78
21001+21199	2525.1+2544.9	37.46	38.84
21152+21350	2540.2+2560.0	37.33	38.76

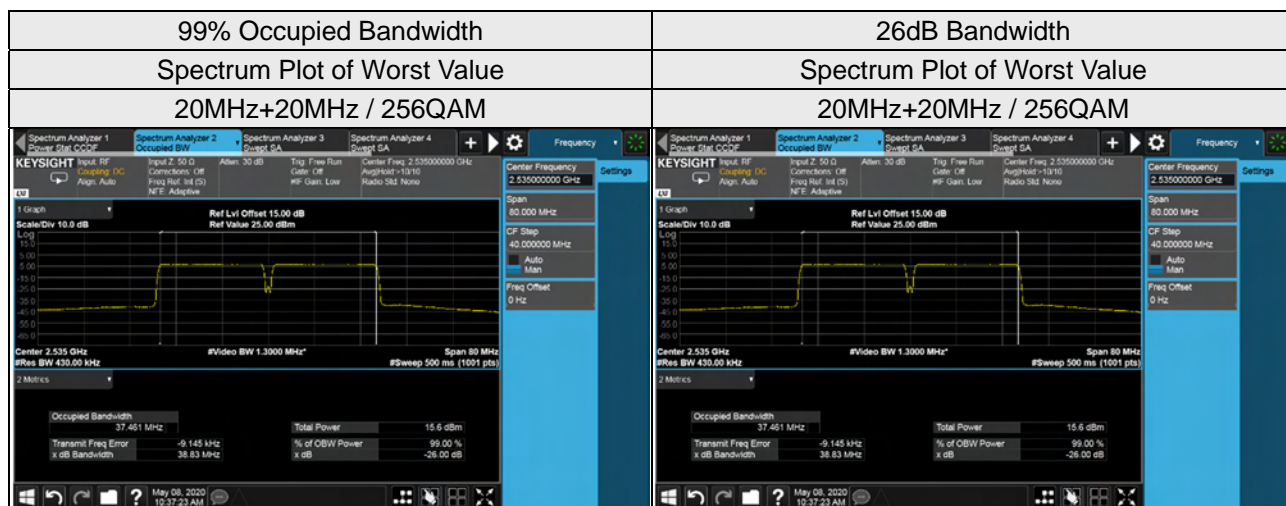


LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+20MHz			
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		64QAM_Full RB	64QAM_Full RB
20850+21048	2510.0+2529.8	37.38	38.79
21001+21199	2525.1+2544.9	37.47	38.83
21152+21350	2540.2+2560.0	37.33	38.76



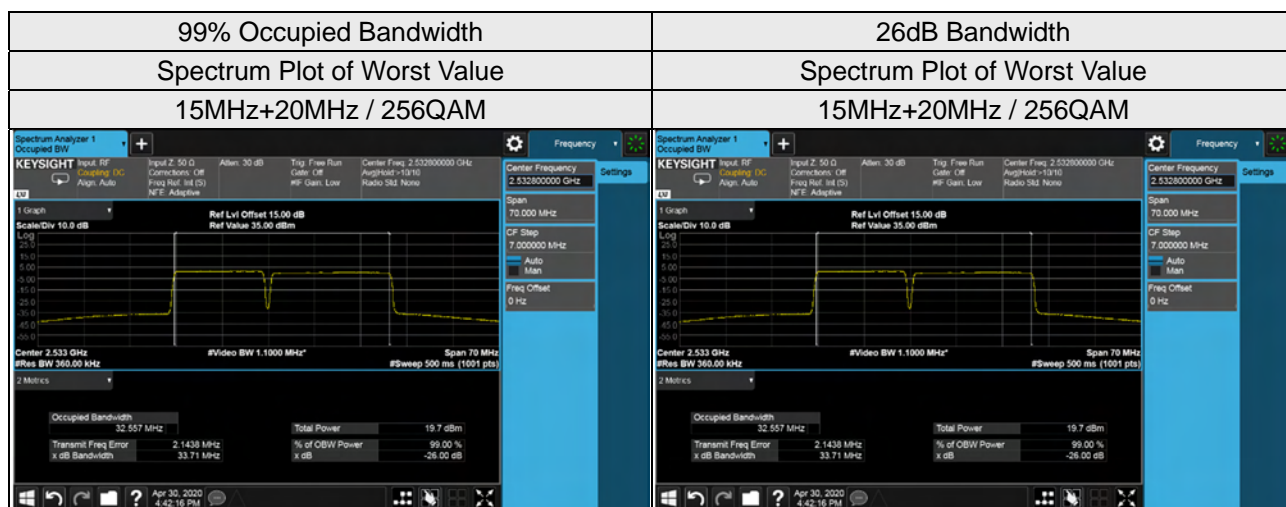
LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20850+21048	2510.0+2529.8	37.37	38.79
21001+21199	2525.1+2544.9	37.46	38.83
21152+21350	2540.2+2560.0	37.32	38.76



LTE Band 7 (CA 7C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20828+20999	2507.8+2524.9	32.48	33.69
21003+21174	2525.3+2542.4	32.56	33.71
21179+21350	2542.9+2560.0	32.45	33.68



LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20850+21021	2510.0+2527.1	32.60	34.36
21026+21197	2527.6+2544.7	32.54	33.71
21201+21372	2545.1+2562.2	32.45	33.67

99% Occupied Bandwidth

Spectrum Plot of Worst Value

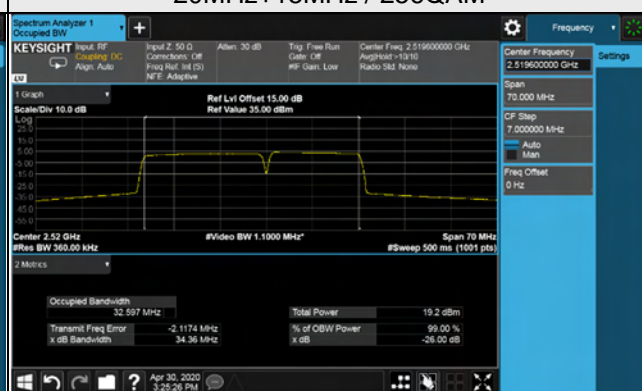
20MHz+15MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

20MHz+15MHz / 256QAM



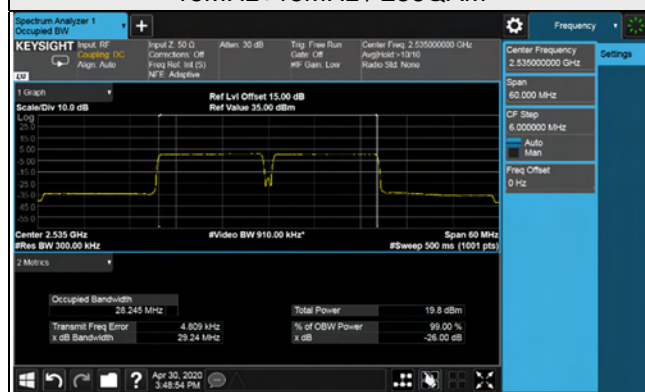
LTE Band 7 (CA 7C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20825+20975	2507.5+2522.5	28.17	29.19
21025+21175	2527.5+2542.5	28.25	29.24
21225+21375	2547.5+2562.5	28.17	29.20

99% Occupied Bandwidth

Spectrum Plot of Worst Value

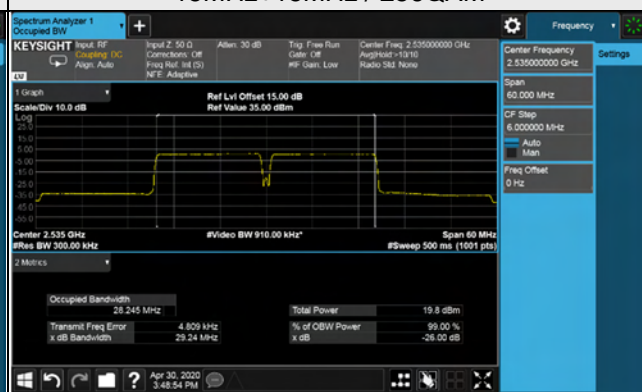
15MHz+15MHz / 256QAM



26dB Bandwidth

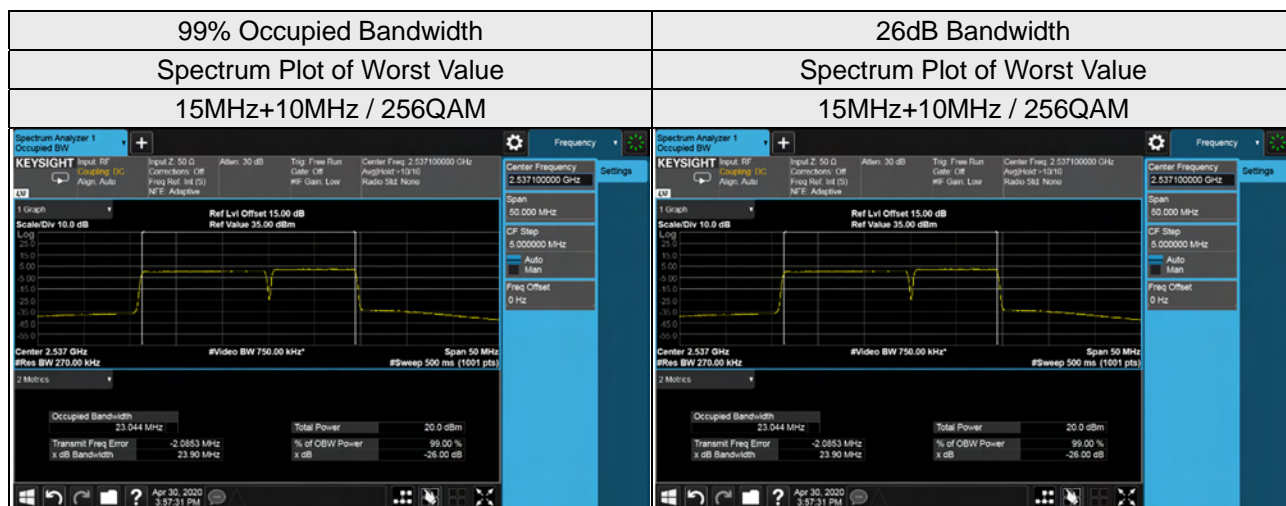
Spectrum Plot of Worst Value

15MHz+15MHz / 256QAM



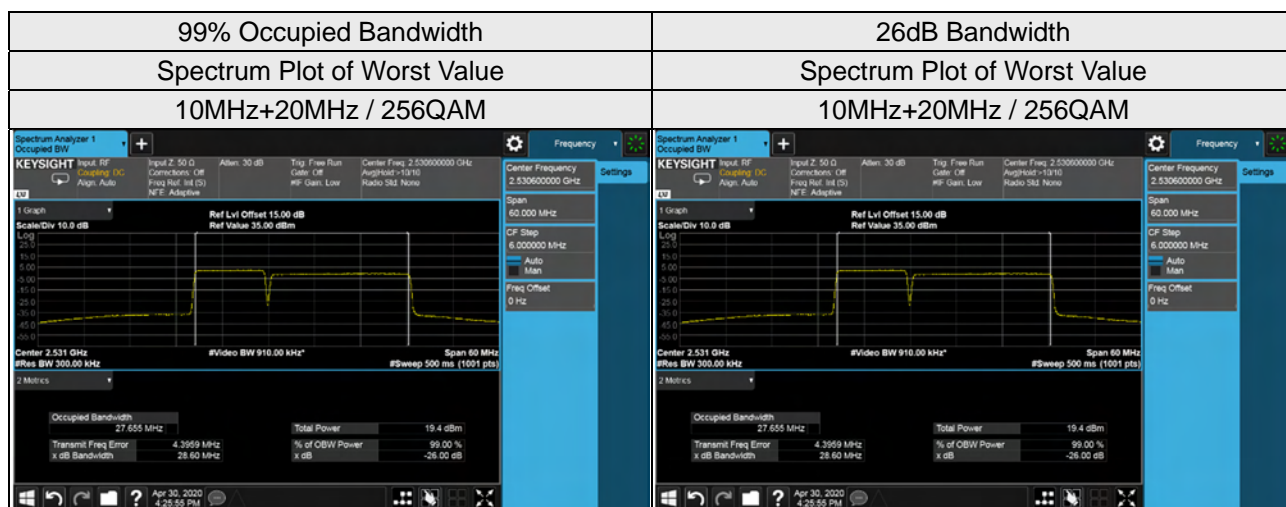
LTE Band 7 (CA 7C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20825+20945	2507.5+2519.5	23.00	23.87
21051+21171	2530.1+2542.1	23.04	23.90
21277+21397	2552.7+2564.7	23.02	23.89



LTE Band 7 (CA 7C), Channel Bandwidth 10MHz+20MHz

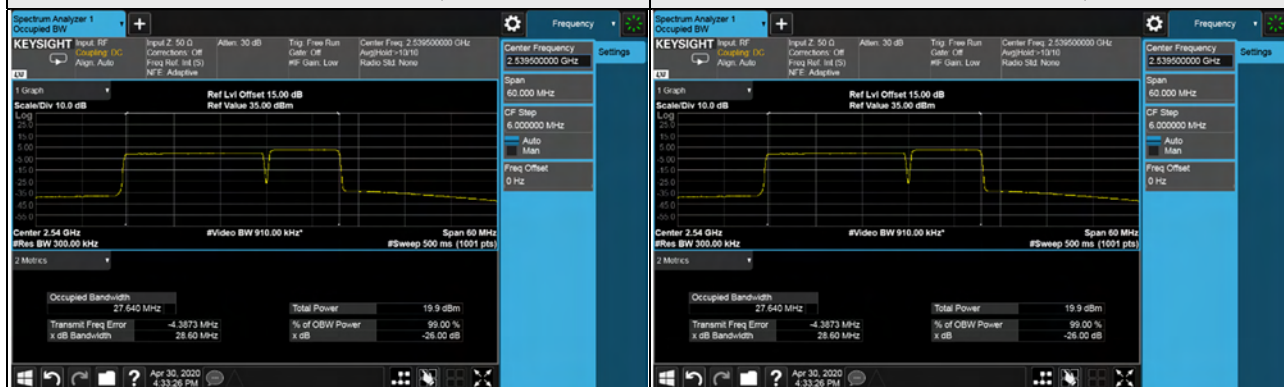
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20805+20949	2505.5+2519.9	27.57	28.56
21006+21150	2525.6+2540.0	27.66	28.60
21206+21350	2545.6+2560.0	27.58	28.57



LTE Band 7 (CA 7C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
20850+20994	2510.0+2524.4	27.59	28.57
21051+21195	25301.+2544.5	27.64	28.60
21251+21395	2550.1+2564.5	27.59	28.58

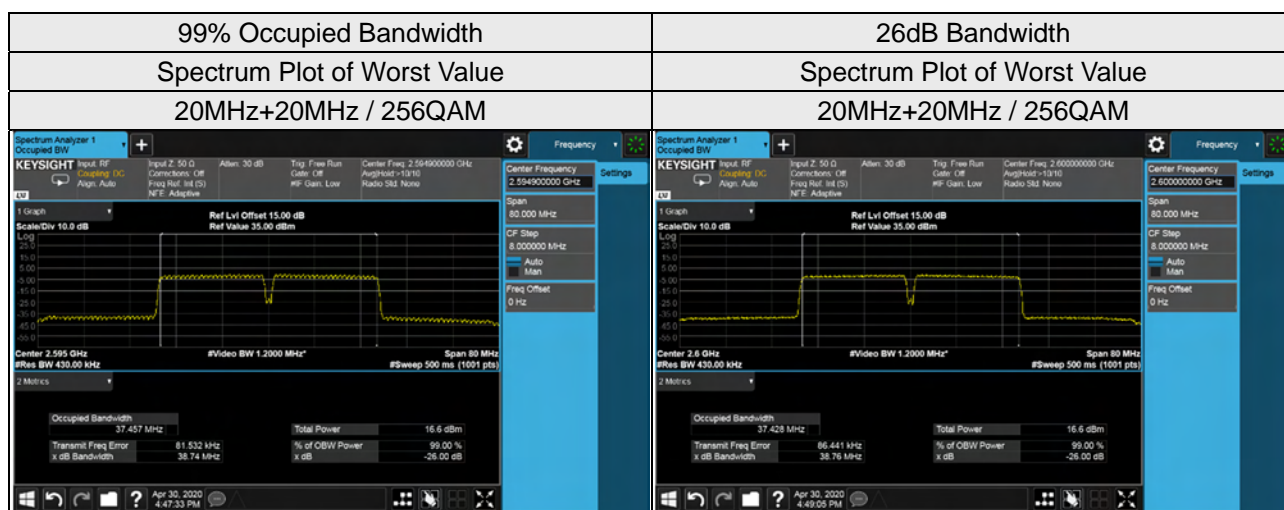
99% Occupied Bandwidth	26dB Bandwidth
Spectrum Plot of Worst Value	Spectrum Plot of Worst Value
20MHz+10MHz / 256QAM	20MHz+10MHz / 256QAM



LTE Band 38 (CA 38C)

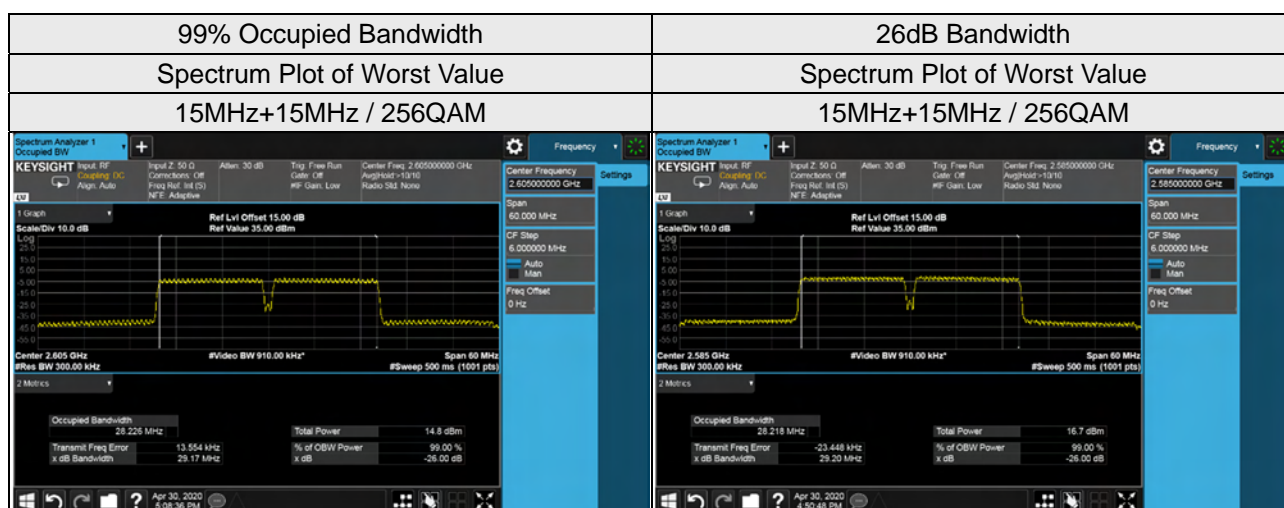
LTE Band 38 (CA 38C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
37850+38048	2580.0+2599.8	37.41	38.73
37901+38099	2585.1+2604.9	37.46	38.74
37952+38150	2590.2+2610.0	37.43	38.76



LTE Band 38 (CA 38C), Channel Bandwidth 15MHz+15MHz

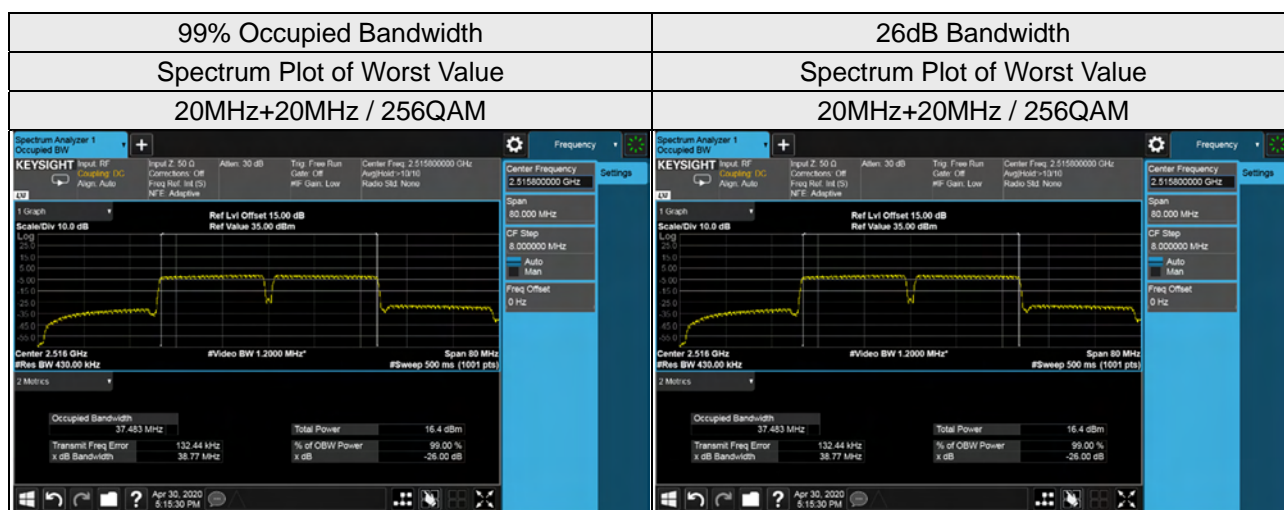
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
37825+37975	2577.5+2592.5	28.22	29.20
37925+38075	2587.5+2602.5	28.19	29.18
38025+38175	2597.5+2612.5	28.23	29.17



LTE Band 41 (CA 41C)

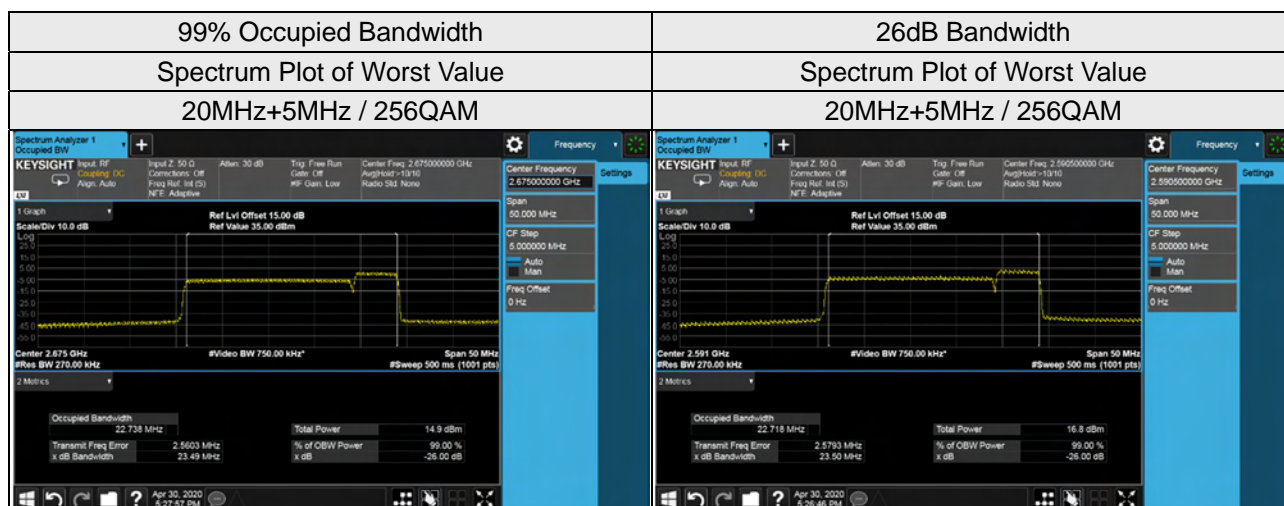
LTE Band 41 (CA 41C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39750+39948	2506.0+2525.8	37.48	38.77
40521+40719	2583.1+2602.9	37.46	38.72
41292+41490	2660.2+2680.0	37.32	38.75



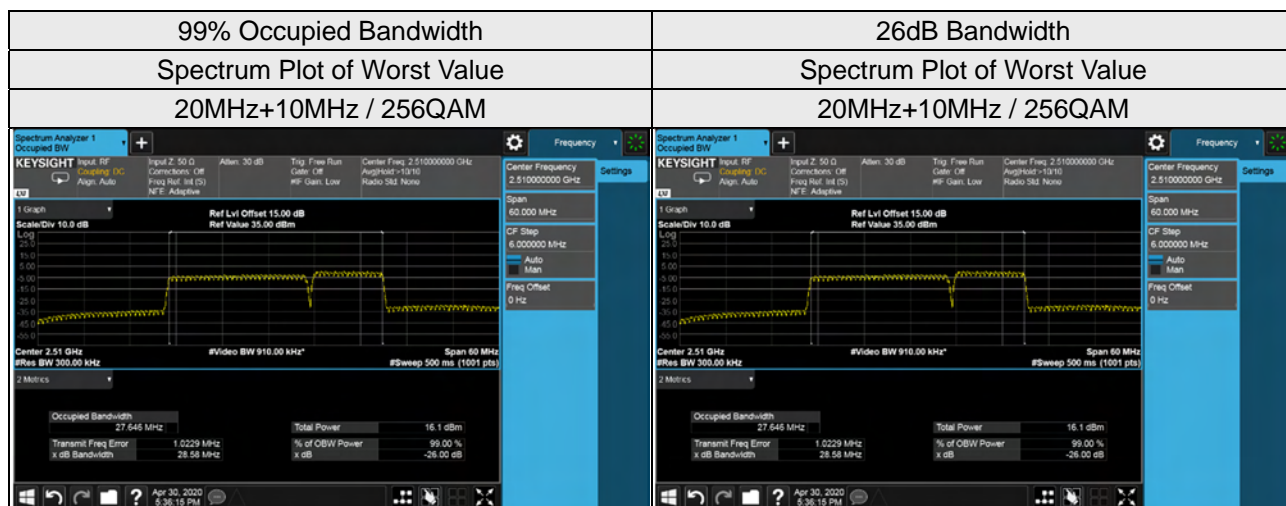
LTE Band 41 (CA 41C), Channel Bandwidth 20MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39750+39867	2506.0+2517.7	22.73	23.49
40595+40712	2590.5+2602.2	22.72	23.50
41440+41557	2675.0+2686.7	22.74	23.49



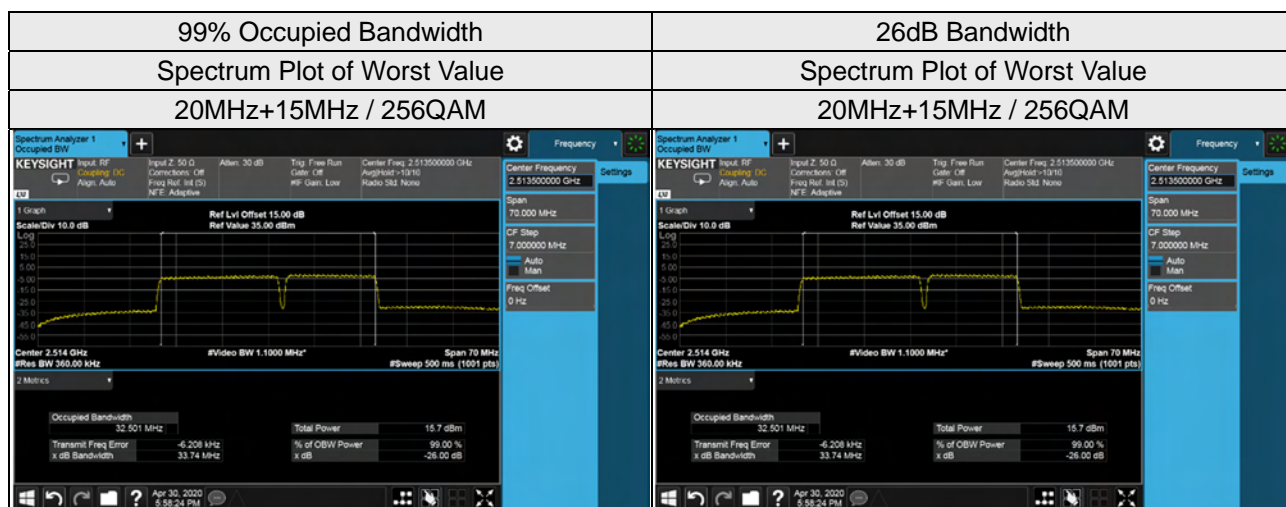
LTE Band 41 (CA 41C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39750+39894	2506.0+2520.4	27.65	28.58
40571+40715	2588.1+2602.5	27.63	28.55
41391+41535	2670.1+2684.5	27.62	28.55



LTE Band 41 (CA 41C), Channel Bandwidth 20MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39750+39921	2506.0+2523.1	32.50	33.74
40546+40717	2585.6+2602.7	32.50	33.67
41341+41512	2665.1+2682.2	32.50	33.63



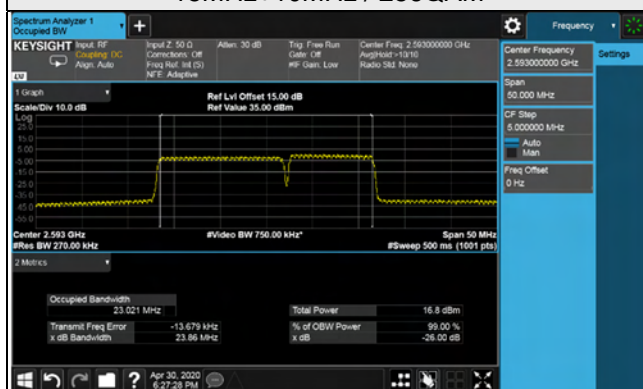
LTE Band 41 (CA 41C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39725+39845	2503.5+2515.5	23.01	23.85
40571+40691	2588.1+2600.1	23.02	23.86
41417+41537	2672.7+2684.7	23.02	23.85

99% Occupied Bandwidth

Spectrum Plot of Worst Value

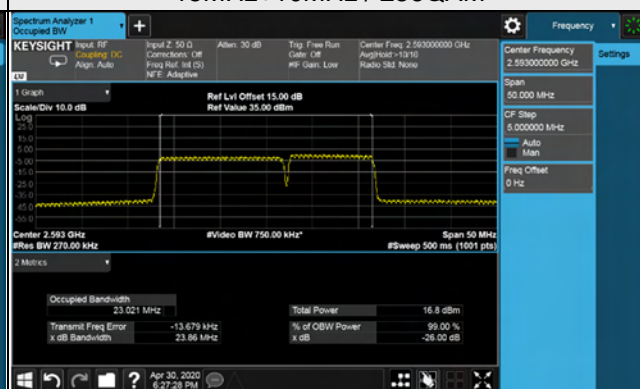
15MHz+10MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+10MHz / 256QAM



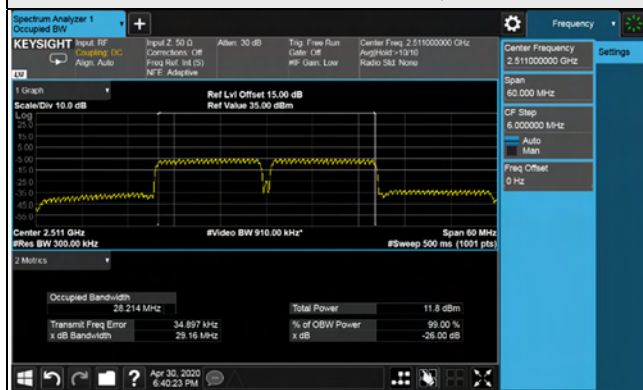
LTE Band 41 (CA 41C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39725+39875	2503.5+2518.5	28.21	29.16
40545+40695	2685.5+2600.5	28.17	29.14
41365+41515	2667.5+2682.5	28.19	29.19

99% Occupied Bandwidth

Spectrum Plot of Worst Value

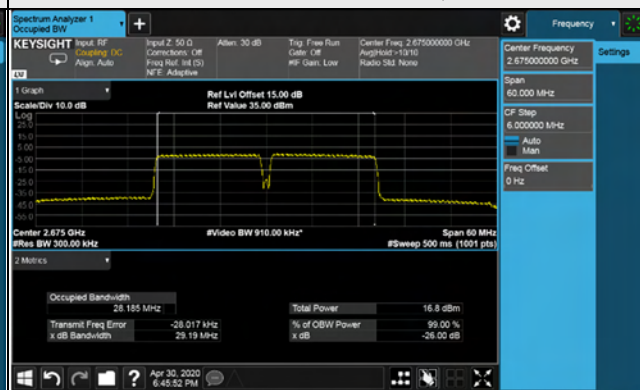
15MHz+15MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+15MHz / 256QAM



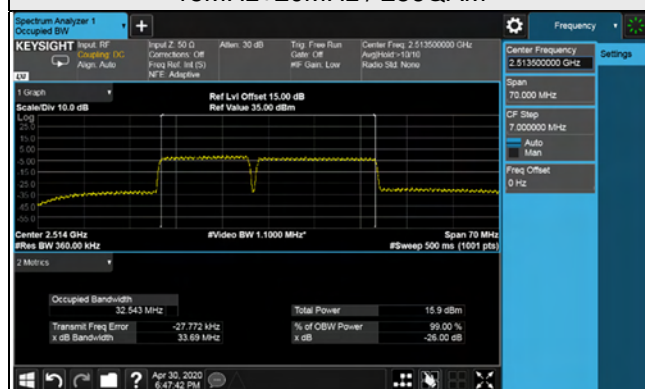
LTE Band 41 (CA 41C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39728+39899	2503.8+2520.9	32.54	33.69
40523+40694	2583.3+2600.4	32.53	33.65
41319+41490	2662.9+2680.0	32.50	33.62

99% Occupied Bandwidth

Spectrum Plot of Worst Value

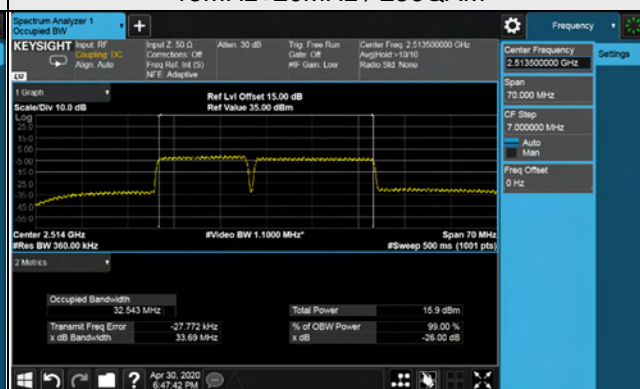
15MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+20MHz / 256QAM



LTE Band 41 (CA 41C), Channel Bandwidth 10MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39703+39823	2501.3+2513.3	23.01	23.85
40549+40669	2585.9+2597.9	23.02	23.86
41395+41515	2670.5+2682.5	22.99	23.82

99% Occupied Bandwidth

Spectrum Plot of Worst Value

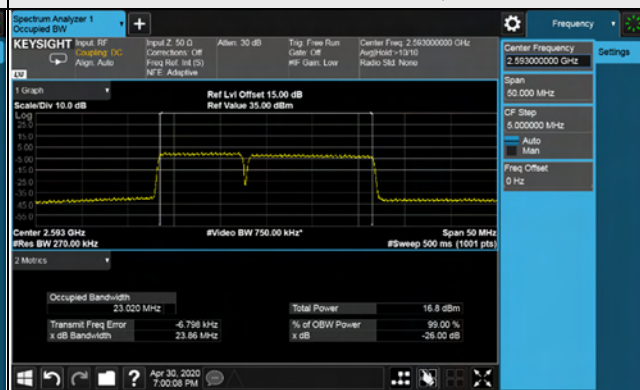
10MHz+15MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

10MHz+15MHz / 256QAM



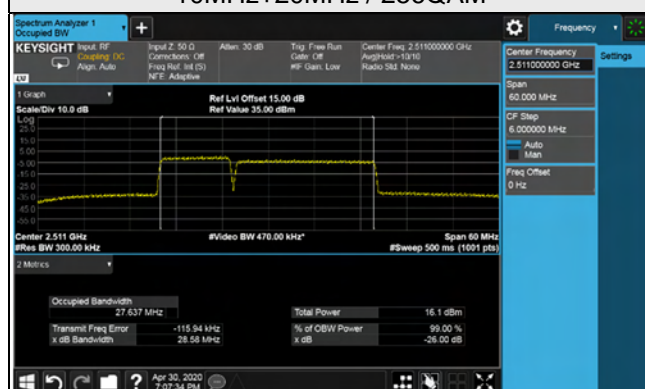
LTE Band 41 (CA 41C), Channel Bandwidth 10MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39705+39849	2501.5+2515.9	27.64	28.58
40526+40670	2583.6+2598.0	27.61	28.53
41346+41490	2665.6+2680.0	27.56	28.53

99% Occupied Bandwidth

Spectrum Plot of Worst Value

10MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

10MHz+20MHz / 256QAM



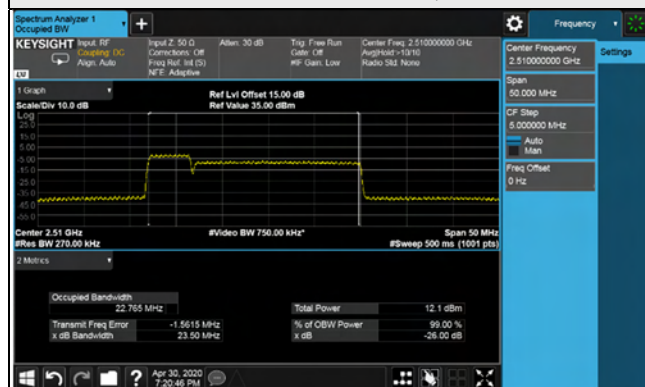
LTE Band 41 (CA 41C), Channel Bandwidth 5MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
39683+39800	2499.3+2511.0	22.77	23.50
40528+40645	2583.8+2595.5	22.69	23.51
41373+41490	2668.3+2680.0	22.67	23.52

99% Occupied Bandwidth

Spectrum Plot of Worst Value

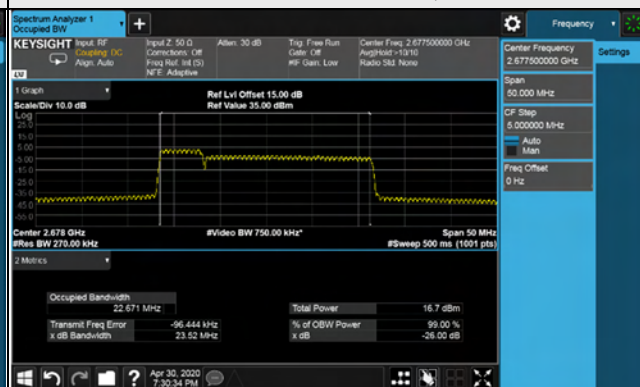
5MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

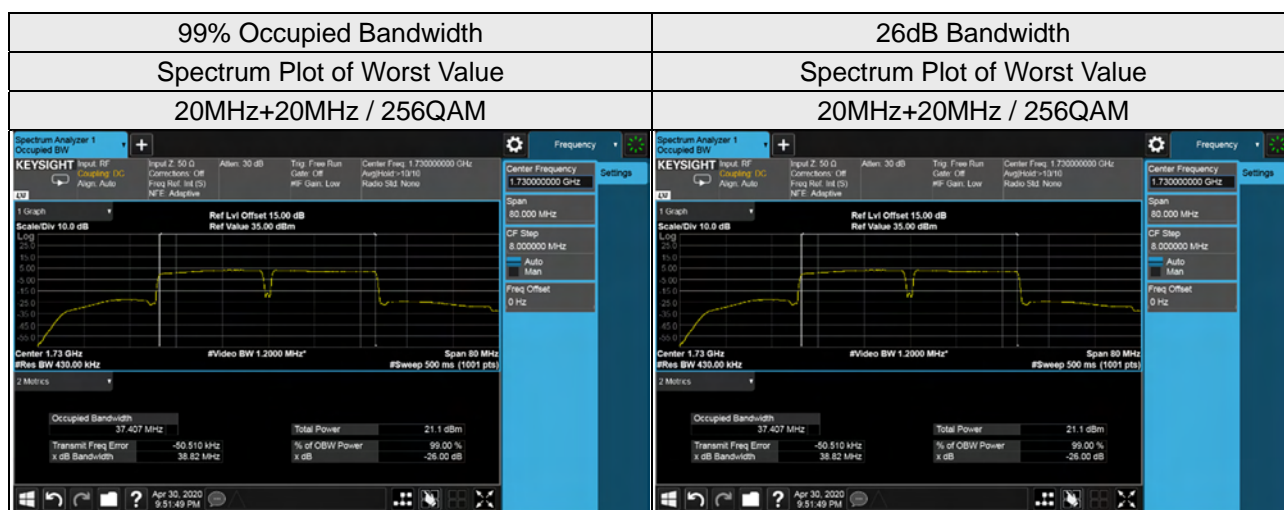
5MHz+20MHz / 256QAM



LTE Band 66 (CA 66C)

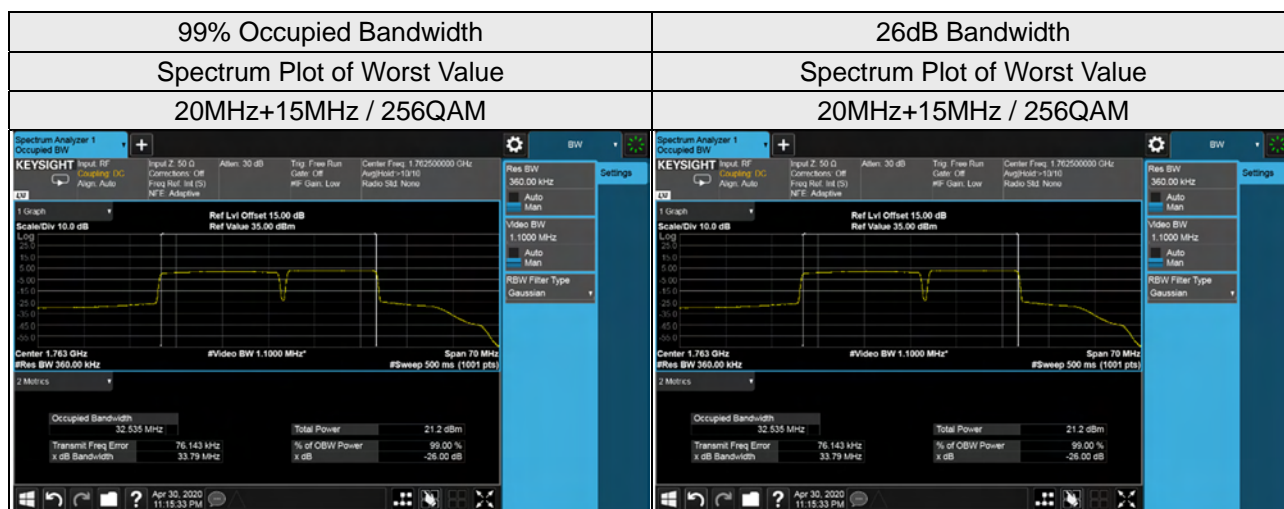
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132072+132270	1720.0+1739.8	37.41	38.82
132323+132521	1745.1+1764.9	37.38	38.77
132374+132572	1750.2+1770.0	37.38	38.81



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

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132072+132243	1720.0+1737.1	32.51	33.73
132348+132519	1747.6+1764.7	32.48	33.69
132423+132594	1755.1+1772.2	32.54	33.79



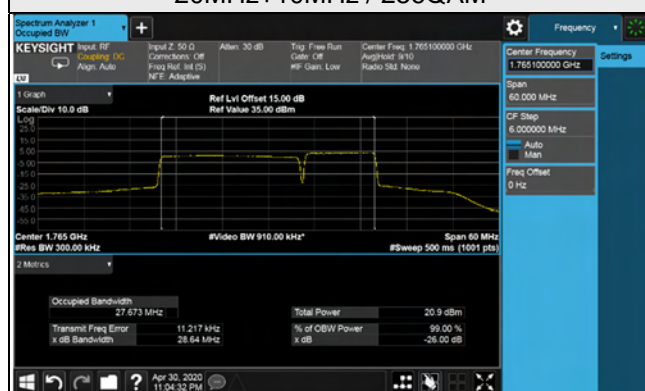
LTE Band 66 (CA 66C), Channel Bandwidth 20MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132072+132216	1720.0+1734.4	27.58	28.59
132373+132517	1750.1+1764.5	27.58	28.59
132473+132617	1760.1+1774.5	27.67	28.64

99% Occupied Bandwidth

Spectrum Plot of Worst Value

20MHz+10MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

20MHz+10MHz / 256QAM



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

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132072+132189	1720.0+1731.7	22.71	23.53
132397+132514	1752.5+1764.2	22.71	23.54
132522+132639	1765.0+1776.7	22.82	23.58

99% Occupied Bandwidth

Spectrum Plot of Worst Value

20MHz+5MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

20MHz+5MHz / 256QAM



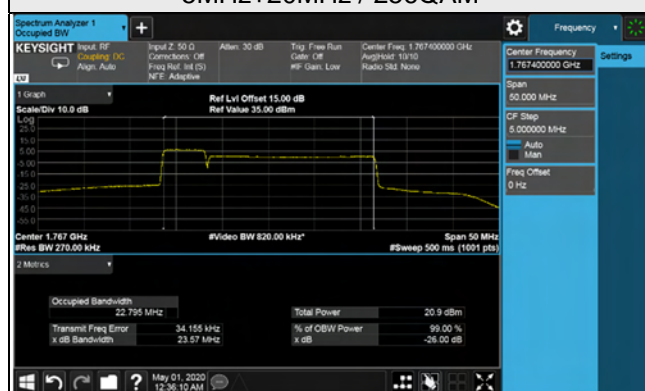
LTE Band 66 (CA 66C), Channel Bandwidth 5MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132005+132122	1713.3+1725.0	22.70	23.54
132330+132447	1745.8+1757.5	22.73	23.57
132455+132572	1758.3+1770.0	22.80	23.57

99% Occupied Bandwidth

Spectrum Plot of Worst Value

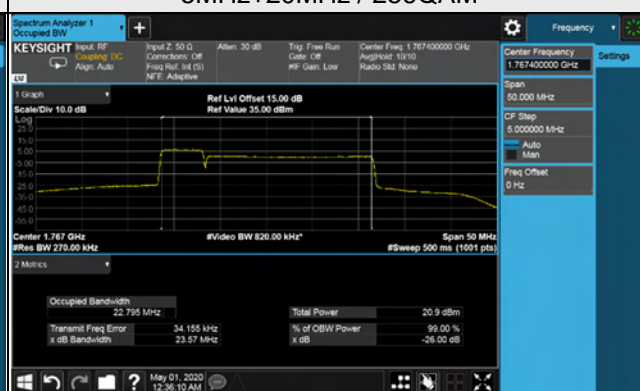
5MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

5MHz+20MHz / 256QAM



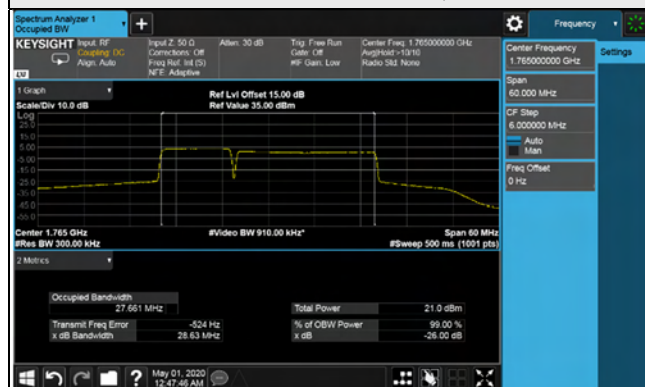
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132027+132171	1715.5+1729.9	27.59	28.58
132328+132472	1745.6+1760.0	27.58	28.61
132428+132572	1755.6+1770.0	27.66	28.63

99% Occupied Bandwidth

Spectrum Plot of Worst Value

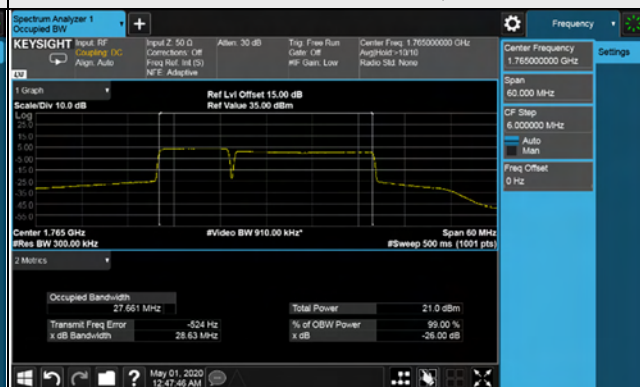
10MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

10MHz+20MHz / 256QAM



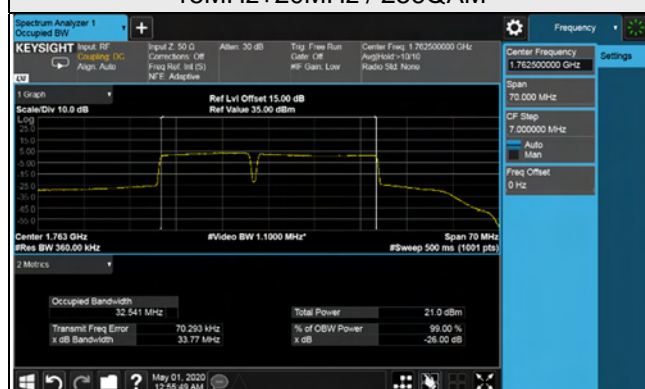
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+20MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132050+132221	1717.8+1734.9	32.51	33.73
132325+132496	1745.3+1762.4	32.48	33.72
132401+132572	1752.9+1770.0	32.54	33.77

99% Occupied Bandwidth

Spectrum Plot of Worst Value

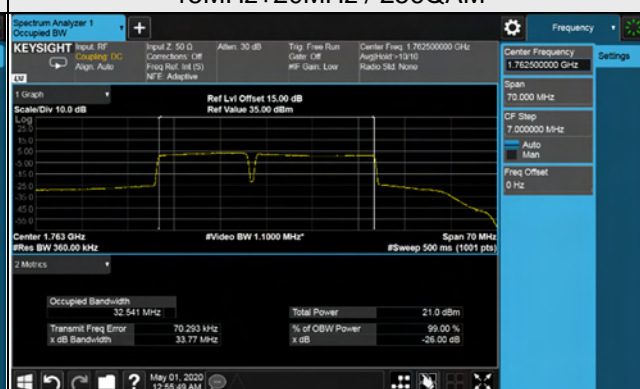
15MHz+20MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+20MHz / 256QAM



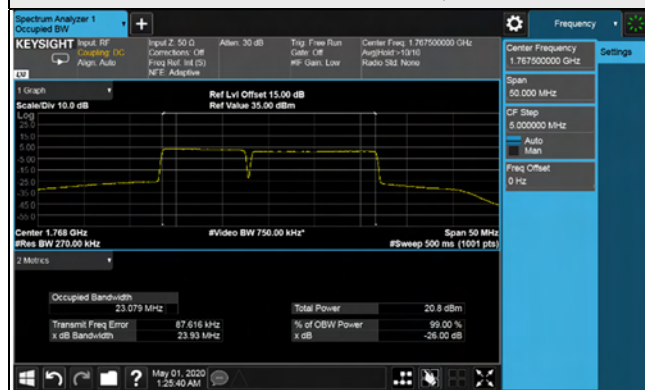
LTE Band 66 (CA 66C), Channel Bandwidth 10MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132025+132145	1715.3+1727.3	22.98	23.89
132351+132471	1747.9+1759.9	22.98	23.91
132477+132597	1760.5+1772.5	23.08	23.93

99% Occupied Bandwidth

Spectrum Plot of Worst Value

10MHz+15MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

10MHz+15MHz / 256QAM



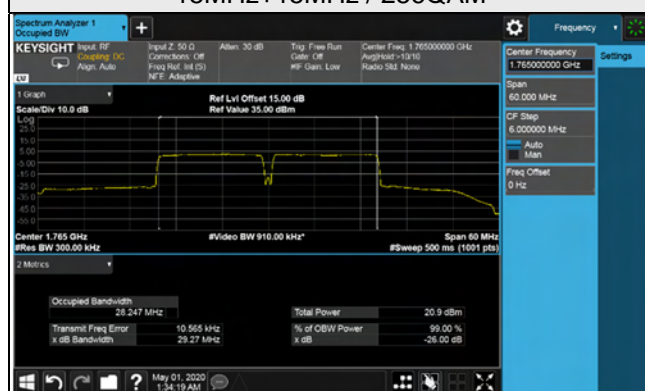
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132047+132197	1717.5+1732.5	28.16	29.20
132347+132497	1747.5+1762.5	28.18	29.21
132447+132597	1757.5+1772.5	28.25	29.27

99% Occupied Bandwidth

Spectrum Plot of Worst Value

15MHz+15MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+15MHz / 256QAM



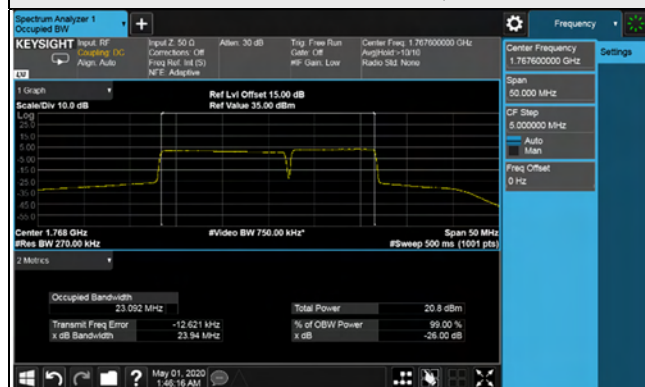
LTE Band 66 (CA 66C), Channel Bandwidth 15MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132047+132167	1715.3+1729.5	22.90	23.87
132373+132493	1750.1+1762.1	22.89	23.87
132499+132619	1762.7+1774.7	23.09	23.94

99% Occupied Bandwidth

Spectrum Plot of Worst Value

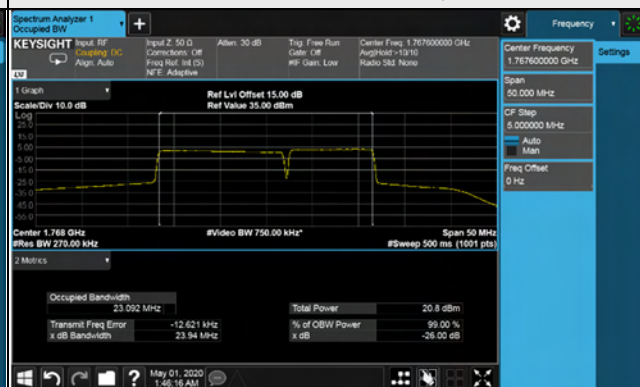
15MHz+10MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

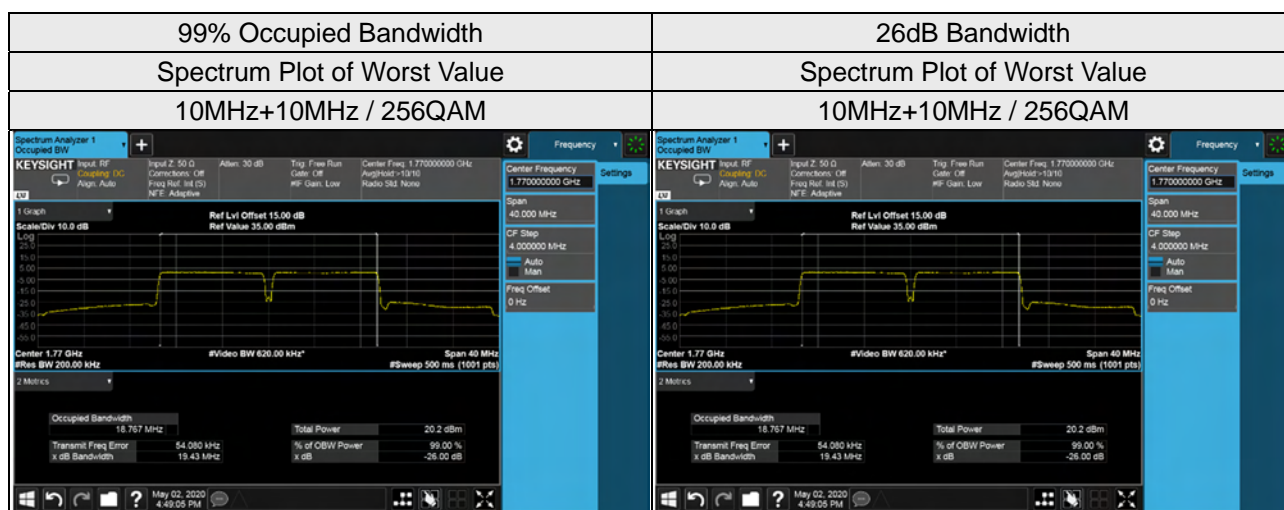
15MHz+10MHz / 256QAM



LTE Band 66 (CA 66B)

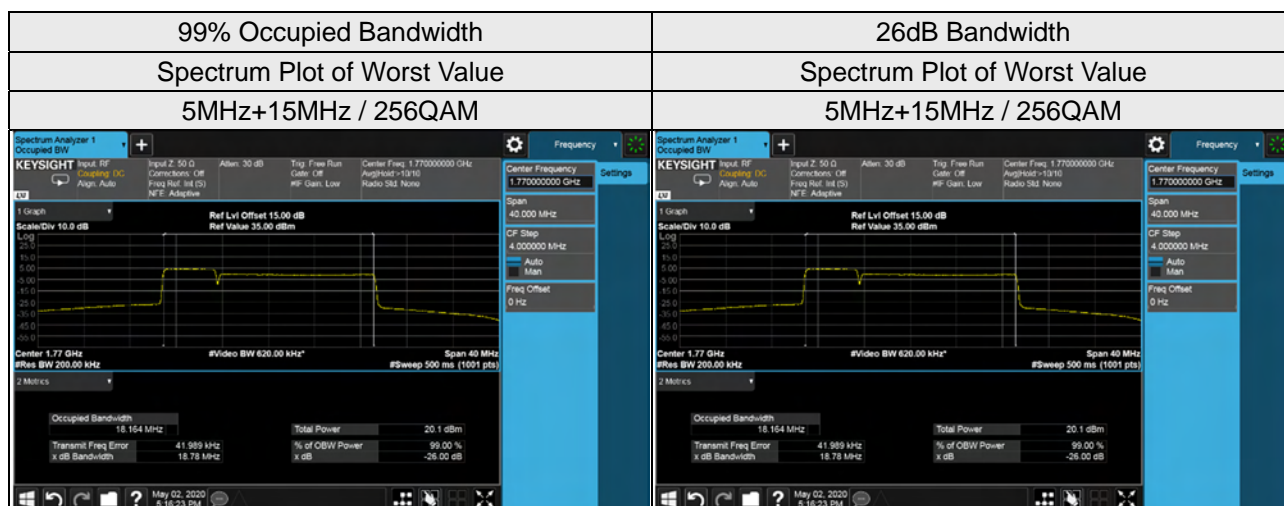
LTE Band 66 (CA 66B), Channel Bandwidth 10MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132022+132121	1715.0+1724.9	18.72	19.40
132373+132472	1750.1+1760.0	18.70	19.39
132523+132622	1765.1+1775.0	18.77	19.43



LTE Band 66 (CA 66B), Channel Bandwidth 5MHz+15MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132002+132095	1713.0+1722.3	18.14	18.76
132353+132447	1748.1+1757.4	18.12	18.76
132504+132597	1763.2+1772.5	18.16	18.78



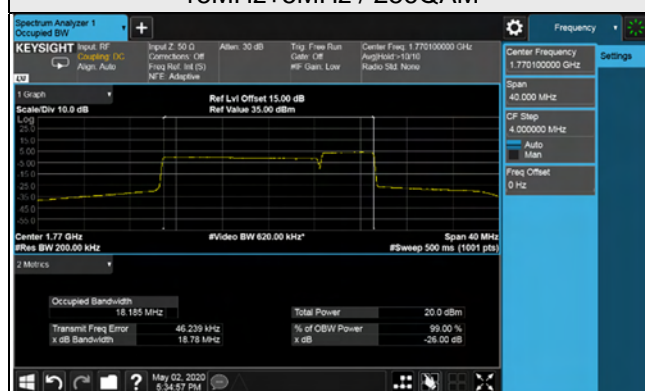
LTE Band 66 (CA 66B), Channel Bandwidth 15MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132047+132140	1717.5+1726.8	18.09	18.75
132398+132491	1752.6+1761.9	18.08	18.75
132549+132642	1767.7+1777.0	18.19	18.78

99% Occupied Bandwidth

Spectrum Plot of Worst Value

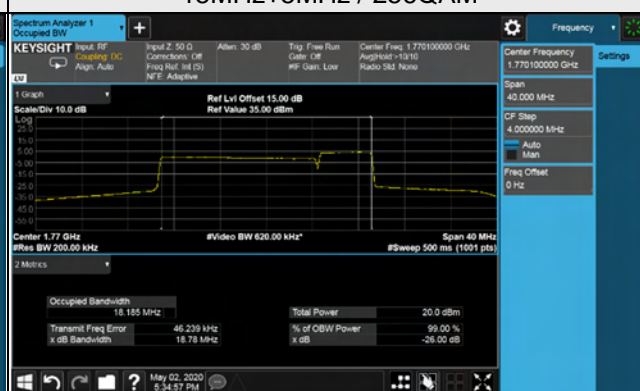
15MHz+5MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

15MHz+5MHz / 256QAM



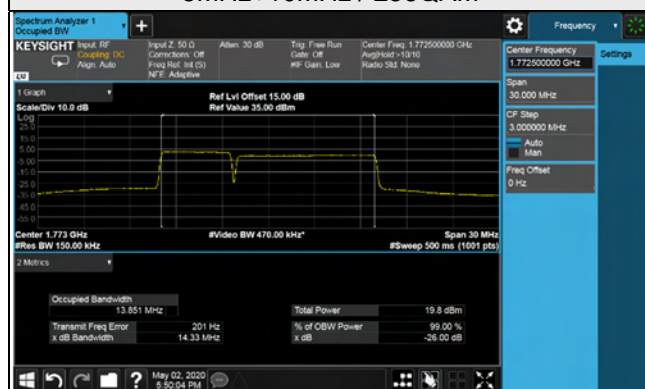
LTE Band 66 (CA 66B), Channel Bandwidth 5MHz+10MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132000+132072	1712.8+1720.0	13.84	14.32
132375+132447	1750.3+1757.5	13.82	14.31
132550+132622	1767.8+1775.0	13.85	14.33

99% Occupied Bandwidth

Spectrum Plot of Worst Value

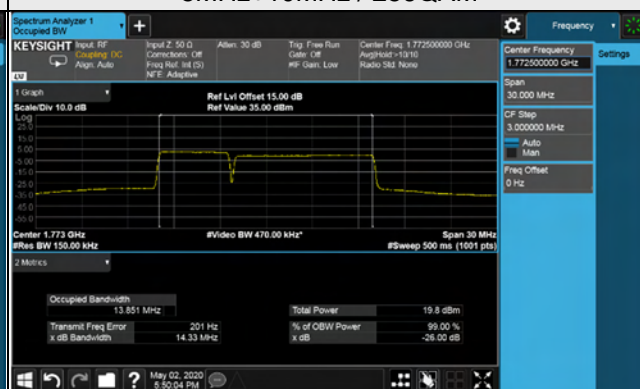
5MHz+10MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

5MHz+10MHz / 256QAM



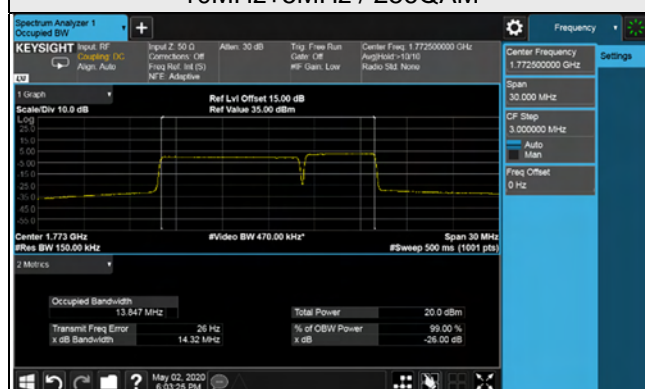
LTE Band 66 (CA 66B), Channel Bandwidth 10MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
132022+132094	1715.0+1722.2	13.81	14.31
132397+132469	1752.5+1759.7	13.79	14.31
132572+132644	1770.0+1777.2	13.85	14.32

99% Occupied Bandwidth

Spectrum Plot of Worst Value

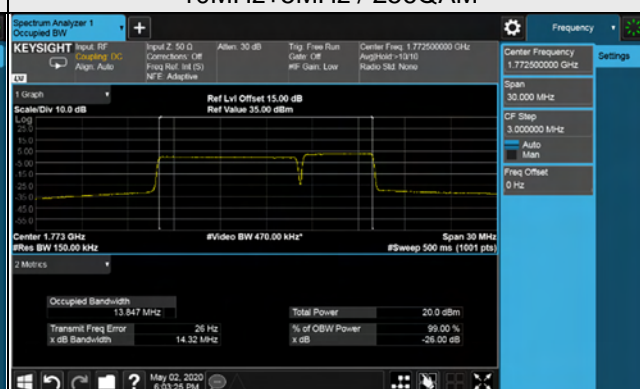
10MHz+5MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

10MHz+5MHz / 256QAM



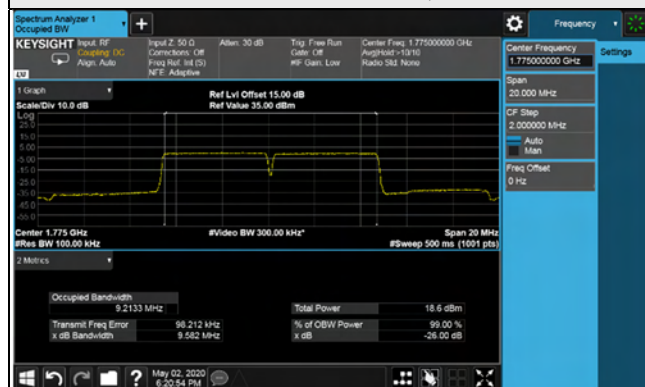
LTE Band 66 (CA 66B), Channel Bandwidth 5MHz+5MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)
		256QAM_Full RB	256QAM_Full RB
131997+132045	1712.5+1717.3	9.21	9.57
132398+132446	1752.6+1757.4	9.20	9.58
132599+132647	1772.7+1777.5	9.21	9.58

99% Occupied Bandwidth

Spectrum Plot of Worst Value

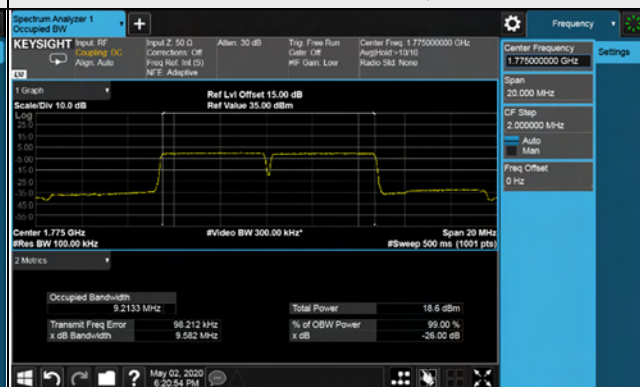
5MHz+5MHz / 256QAM



26dB Bandwidth

Spectrum Plot of Worst Value

5MHz+5MHz / 256QAM



4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stability Measurement

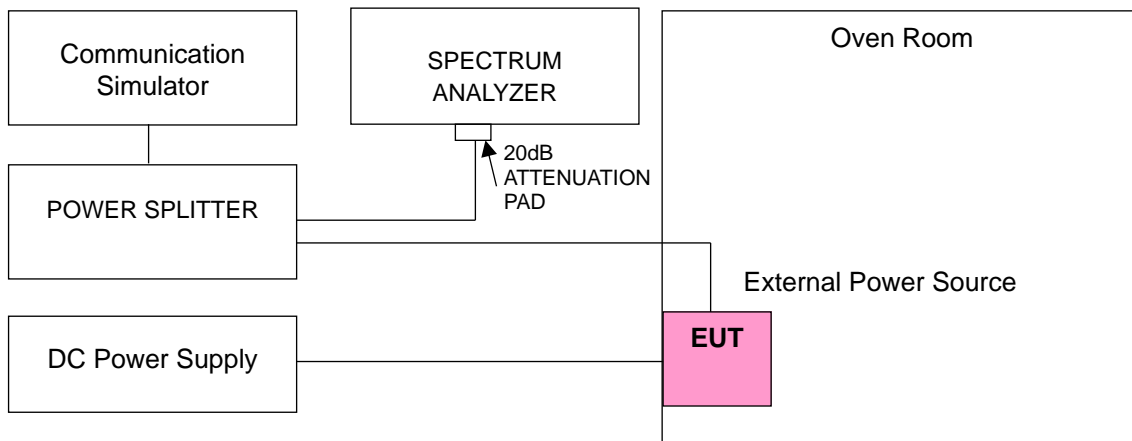
According to the FCC part 2.1055 shall be tested the frequency stability. The rule is defined that “The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.” The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with specification of EUT $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$.

4.3.2 Test Procedure

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

Note: The frequency error was recorded frequency error from the communication simulator.

4.3.3 Test Setup



4.3.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7 (CA 7C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2540.200001	0.001	2560.000003	0.001
5	2540.200003	0.001	2560.000002	0.001
5.75	2540.200002	0.001	2560.000004	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7 (CA 7C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2540.200001	0.001	2560.000002	0.001
-20	2540.200002	0.001	2560.000002	0.001
-10	2540.200004	0.002	2560.000002	0.001
0	2540.200003	0.001	2560.000002	0.001
10	2540.200002	0.001	2560.000001	0.001
20	2540.199998	-0.001	2559.999997	-0.001
30	2540.199996	-0.001	2559.999999	-0.001
40	2540.199999	0.000	2559.999998	-0.001
50	2540.199998	-0.001	2559.999997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 7 (CA 7C)			
	Channel Bandwidth: 15MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2507.800003	0.001	2524.900001	0.000
5	2507.800003	0.001	2524.900004	0.002
5.75	2507.800003	0.001	2524.900004	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 7 (CA 7C)			
	Channel Bandwidth: 15MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2507.800003	0.001	2524.900001	0.000
-20	2507.800003	0.001	2524.900002	0.001
-10	2507.800004	0.002	2524.900002	0.001
0	2507.800002	0.001	2524.900001	0.000
10	2507.800002	0.001	2524.900002	0.001
20	2507.799998	-0.001	2524.899997	-0.001
30	2507.799997	-0.001	2524.899999	0.000
40	2507.799996	-0.002	2524.899997	-0.001
50	2507.799997	-0.001	2524.899997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 38 (CA 38C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2590.200002	0.001	2610.000003	0.001
5	2590.200003	0.001	2610.000003	0.001
5.75	2590.200001	0.000	2610.000002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 38 (CA 38C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2590.200002	0.001	2610.000001	0.000
-20	2590.200003	0.001	2610.000002	0.001
-10	2590.200001	0.000	2610.000002	0.001
0	2590.200002	0.001	2610.000002	0.001
10	2590.200003	0.001	2610.000001	0.000
20	2590.199999	-0.001	2609.999998	-0.001
30	2590.199996	-0.001	2609.999997	-0.001
40	2590.199998	-0.001	2609.999996	-0.001
50	2590.199996	-0.001	2609.999998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 41 (CA 41C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	2660.200003	0.001	2680.000001	0.000
5	2660.200003	0.001	2680.000001	0.000
5.75	2660.200001	0.001	2680.000001	0.000

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 41 (CA 41C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	2660.200002	0.001	2680.000003	0.001
-20	2660.200004	0.001	2680.000004	0.001
-10	2660.200003	0.001	2680.000003	0.001
0	2660.200003	0.001	2680.000004	0.001
10	2660.200001	0.000	2680.000003	0.001
20	2660.199999	-0.001	2679.999998	-0.001
30	2660.199999	-0.001	2679.999997	-0.001
40	2660.199998	-0.001	2679.999998	-0.001
50	2660.199998	-0.001	2679.999997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66 (CA 66C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1745.100004	0.002	1764.900001	0.001
5	1745.100001	0.001	1764.900001	0.001
5.75	1745.100001	0.001	1764.900002	0.001

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66 (CA 66C)			
	Channel Bandwidth: 20MHz+20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1745.100001	0.001	1764.900003	0.002
-20	1745.100003	0.002	1764.900003	0.002
-10	1745.100004	0.002	1764.900003	0.002
0	1745.100004	0.002	1764.900002	0.001
10	1745.100002	0.001	1764.900004	0.002
20	1745.099998	-0.001	1764.899997	-0.002
30	1745.099996	-0.002	1764.899998	-0.001
40	1745.099996	-0.002	1764.899998	-0.001
50	1745.099997	-0.002	1764.899996	-0.002

Frequency Error vs. Voltage

Voltage (Volts)	LTE Band 66 (CA 66B)			
	Channel Bandwidth: 10MHz+10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
4.25	1715.000002	0.001	1724.900003	0.002
5	1715.000002	0.001	1724.900003	0.002
5.75	1715.000003	0.002	1724.900004	0.002

Note: The applicant defined the normal working voltage is from 4.25Vdc to 5.75Vdc.

Frequency Error vs. Temperature

Temp. (°C)	LTE Band 66 (CA 66B)			
	Channel Bandwidth: 10MHz+10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1715.000001	0.001	1724.900003	0.002
-20	1715.000001	0.001	1724.900002	0.001
-10	1715.000003	0.002	1724.900002	0.001
0	1715.000001	0.001	1724.900003	0.002
10	1715.000004	0.002	1724.900003	0.001
20	1714.999996	-0.002	1724.899998	-0.001
30	1714.999998	-0.001	1724.899998	-0.001
40	1714.999999	-0.001	1724.899997	-0.002
50	1714.999998	-0.001	1724.899996	-0.002