

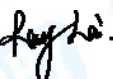
FCC Radio Test Report

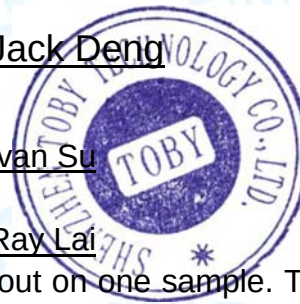
FCC ID: 2AX4E-Q8108L

Original Grant

Report No. : TB-FCC176099
Applicant : Vitek Electronics International Co., Ltd
Equipment Under Test (EUT)
EUT Name : 8 inch Tablet PC
Model No. : Q8108L-ME
Series Model No. : VK801G, VK802G, VK803G, VK804G, VK805G, VK806G, VK807G, VK808G
Brand Name : AOC, VTEX
Sample ID : TBBJ-20200916-08-3#& TBBJ-20200916-08-4#
Receipt Date : 2020-09-14
Test Date : 2020-09-15 to 2020-11-15
Issue Date : 2020-11-16
Standards : 47 CFR Part 2, 22(H), 24(E), 27
Test Method : ANSI C63.26 2015
Conclusions : **PASS**

In the configuration tested, the EUT complied with the standards specified above,

Test/Witness Engineer :  Jack Deng
Engineer Supervisor :  Ivan Su
Engineer Manager :  Ray Lai



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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Revision History

Report No.	Version	Description	Issued Date
TB-FCC176099	Rev.01	Initial issue of report	2020-11-16

1. General Information about EUT

1.1 Client Information

Applicant	:	Vitek Electronics International Co., Ltd
Address	:	Room 1104, 11/F., Witty Commercial Building, 1A-1L, Tung Choit St, Mong Kok, Kowloon, Hong Kong
Manufacturer	:	Vitek Electronics International Co., Ltd
Address	:	Room 1104, 11/F., Witty Commercial Building, 1A-1L, Tung Choit St, Mong Kok, Kowloon, Hong Kong

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	8 inch Tablet PC
Models No.	:	Q8108L-ME, VK801G, VK802G, VK803G, VK804G, VK805G, VK806G, VK807G, VK808G
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is appearance.
Product Description	:	Frequency Bands: LTE Band 2:TX: 1850MHz-1910MHz, RX: 1930MHz-1990MHz LTE Band 4:TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz LTE Band 7:TX: 2500MHz~2570MHz, RX: 2620MHz~2690MHz
	:	Antenna Type: 2.0dBi PIFA Antenna
	:	Modulation Type: QPSK, 16QAM
	:	Bandwidth: LTE Band 2 :1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 4 :1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz LTE Band 7 :5MHz/10MHz/15MHz/20MHz
Power Rating	:	Adapter(HTY15-0502000U) Input: AC 100-240V, 50/60Hz Output: DC 5V 2A DC 3.85V by 5000mAh Li-ion battery
Software Version	:	android 10.0 S806
Hardware Version	:	S706-9832E
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark	:	The antenna gain and adapter provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.

Note:

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

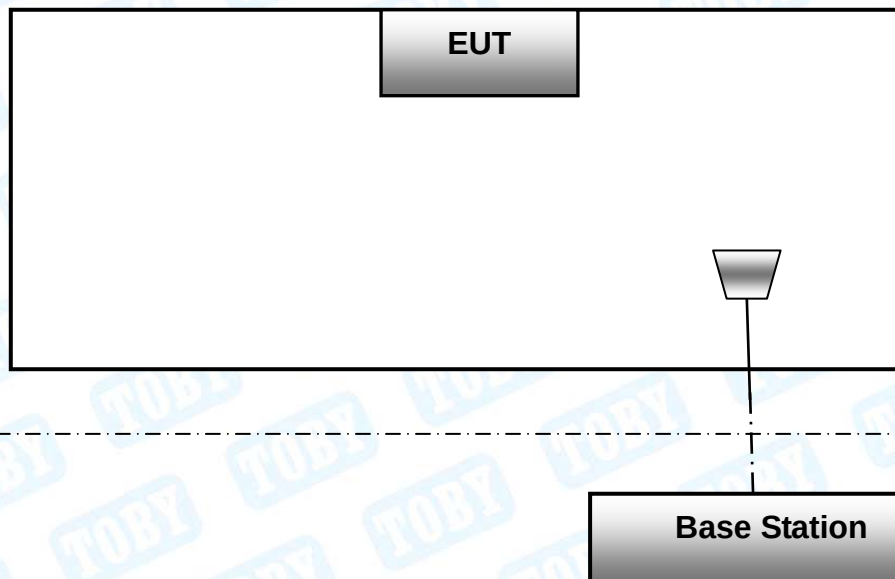
(2) Channel List

LTE Band 2(1.4MHz)		LTE Band 2(3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18607	1850.70	18615	1851.50
18608	1850.80	18616	1851.60
.....			
18899	1879.90	18899	1879.90
18900	1880.00	18900	1880.00
18901	1880.10	18901	1880.10
.....			
19192	1909.20	19184	1905.40
19193	1909.30	19185	1908.50
LTE Band 2(5MHz)		LTE Band 2(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18625	1852.50	18650	1855.00
18616	1853.60	18626	1854.90
.....			
18899	1879.90	18899	1879.90
18900	1880.00	18900	1880.00
18901	1880.10	18901	1880.10
.....			
19174	1908.40	19149	1907.90
19175	1907.50	19150	1905.00
LTE Band 2(15MHz)		LTE Band 2(20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18675	1857.50	18700	1860.00
18676	1857.60	18701	1860.10
.....			
18899	1879.90	18899	1879.90
18900	1880.00	18900	1880.00
18901	1880.10	18901	1880.10
.....			
19124	1902.40	19099	1899.90
19125	1902.50	19100	1900.00

LTE Band 4(1.4MHz)		LTE Band 4(3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19957	1710.70	19965	1711.50
19958	1710.80	19966	1711.60
.....			
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
.....			
20392	1754.20	20384	1753.40
20393	1754.30	20385	1753.50
LTE Band 4(5MHz)		LTE Band 4(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19975	1712.50	20000	1715.00
19976	1712.60	20001	1715.10
.....			
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
.....			
20374	1752.40	20349	1749.90
20375	1752.50	20350	1750.00
LTE Band 4(15MHz)		LTE Band 4(20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20025	1717.50	20050	1720.00
20026	1717.60	20051	1720.10
.....			
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
.....			
20324	1747.40	20299	1744.90
20325	1747.50	20300	1745.00

LTE Band 7(5MHz)		LTE Band 7(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20775	2502.50	20800	2505.00
20776	2502.60	20801	2505.10
.....			
21099	2534.90	21099	2534.90
21100	2535.00	21100	2535.00
21101	2535.10	21101	2535.10
.....			
21424	2567.40	21399	2561.90
21425	2567.50	21400	2565.00
LTE Band 7(15MHz)		LTE Band 7(20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20825	2505.70	20850	2510.00
20826	2505.80	20851	2510.10
.....			
21099	2534.90	21099	2534.90
21100	2535.00	21100	2535.00
21101	2535.10	21101	2535.10
.....			
21374	2562.40	21349	2559.90
21375	2562.50	21350	2560.00

1.3 Block Diagram Showing the Configuration of System Tested



The above block diagram of setup is the normal mode. And more detail please refer to the test setup of each test item of bellow.

1.4 Description of Support Units

The EUT has been tested as an independent unit.

1.5 Description of Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 v03r01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power. Radiated measurements are performed by rotating the EUT in three different or tho-gonal test planes to find the maximum emission.

Remark:

1. The mark "v " means that this configuration is chosen for testing
2. The mark "--" means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated

ITEMS	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
RF Output Power	2	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	4	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	7	--	--	V	V	V	V	V	V	V	V	V	V	V	V
Peak-to-Average Ratio	2	--	--	--	--	--	V	V	V			V	V	V	V
	4	--	--	--	--	--	V	V	V			V	V	V	V
	7	--	--	--	--	--	V	V	V			V	V	V	V
99% & -26 dB Occupied Bandwidth	2	V	V	V	V	V	V	V	V	V			V	V	V
	4	V	V	V	V	V	V	V	V	V			V	V	V
	7	--	--	V	V	V	V	V	V	V			V	V	V
Spurious Emissions at Antenna Terminal	2	V	V	V	V	V	V	V	V	V		V	V	V	V
	4	V	V	V	V	V	V	V	V	V		V	V	V	V
	7	--	--	V	V	V	V	V	V	V		V	V	V	V
Field Strength of Spurious Radiation	2	V	V	V	V	V	V	V	V	V				V	
	4	V	V	V	V	V	V	V	V	V				V	
	7	--	--	V	V	V	V	V	V	V				V	
Out of band emission, Band Edge	2	V	V	V	V	V	V	V	V	V		V	V		V
	4	V	V	V	V	V	V	V	V	V		V	V		V
	7	--	--	V	V	V	V	V	V	V		V	V		V
Frequency stability	2	V	V	V	V	V	V	V	V	V				V	
	4	V	V	V	V	V	V	V	V	V				V	
	7	--	--	V	V	V	V	V	V	V				V	

- Note:** (1) During the testing procedure, the EUT is in link mode with base station emulator at maximum power level in each test mode.
- (2) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3

axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on Z-plane as the normal use. Therefore only the test data of this Z-plane was used for radiated emission measurement test.

(3) For the Conducted Emission and Radiated test used the EUT-1(TBBJ-20200916-08-3#).

For the RF Conduction test used the EUT-2(TBBJ-20200916-08-3#).

1.6 Measurement Uncertainty

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
RF Power, conducted	/	± 0.82 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.40 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.7 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A.

2. Test Summary

Test Item	Section in CFR 47	Result
RF Output Power	Part 2.1046 Part 22.913(a)(2) Part 24.232(c) Part 27.50 (b)(10) Part 27.50 (d)(4) Part 27.50 (h)(2)	PASS
Peak-to-Average Ratio	Part 24.232(d) Part 27.50(d)(5)	PASS
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(a) Part 24.238(b) Part 27.53(h) Part 27.53(m)	PASS
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 24.238(a) Part 27.53 (h) Part 27.53(m)	PASS
Field Strength of Spurious Radiation	Part 2.1053 Part 22.917(a) Part 24.238(a) Part 27.53 (h) Part 27.53(m)	PASS
Out of band emission, Band Edge	Part 24.238(a) Part 22.917(a) Part 27.53 (h) Part 27.53(m)	PASS
Frequency stability vs. temperature	Part 27.54 Part 24.235 Part 22.355 Part 2.1055(a)(1)(b)	PASS
Frequency stability vs. voltage	Part 27.54 Part 24.235 Part 22.355 Part 2.1055(d)(2)	PASS

Pass: The EUT complies with the essential requirements in the standard.

3. Test Equipment

Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jul. 06, 2020	Jul. 05, 2021
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	144382	Sep. 11, 2020	Sep. 10, 2021
Universal Radio Communication Tester	Rohde&Schwarz	CMU200	103903	Jul. 06, 2020	Jul. 05, 2021
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Mar.01, 2020	Feb. 28, 2022
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 07, 2020	Jul. 06, 2021
Pre-amplifier	Sonoma	310N	185903	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	HP	8449B	3008A00849	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	SKET	LNPA_1840G-50	SK201904032	Mar.01, 2020	Feb. 28, 2021
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.01, 2020	Feb. 28, 2021
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	144382	Sep. 11, 2020	Sep. 10, 2021
Universal Radio Communication Tester	Rohde&Schwarz	CMU200	103903	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 11, 2020	Sep. 10, 2021
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 11, 2020	Sep. 10, 2021
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 11, 2020	Sep. 10, 2021
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 11, 2020	Sep. 10, 2021

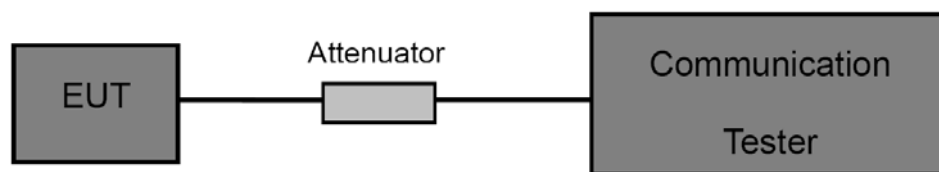
4. Conducted RF Output Power

4.1 Test Standard and Limit

4.1.1 Test Standard

FCC part 2.1046, FCC part 22.913(a)(2),
FCC part 24.232(c), FCC Part 27.50(b)&(d),
FCC Part 27.50 (h)

4.2 Test Setup



4.3 Test Procedure

- (1) The EUT is coupled to the Base Station with the suitable Attenuator, the path loss is calibrated to correct the reading.
- (2) A call is set up by the Base Station to the generic call set up procedure.
- (3) Set EUT at maximum power level through base station by power level command.
- (4) Then read record the power value from the Base Station in dBm.

4.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

4.5 Deviation From Test Standard

No deviation

4.6 Test Data

Please refer to the Attachment A.

5. Peak-Average Ratio

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC part 24.232(d)

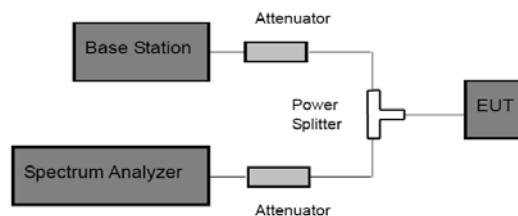
FCC Part 27.50(d), FCC Part 27.50 (h)

5.1.2 Test Limit

Peak-to-Average Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

5.2 Test Setup



5.3 Test Procedure

According with KDB 971168

- (1) The signal analyzer's CCDF measurement profile is enabled.
- (2) Frequency = carrier center frequency.
- (3) Measurement BW > Emission bandwidth of signal.
- (4) The signal analyzer was set to collect one million samples to generate the CCDF curve.
- (5) Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level.
- (6) The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which of the transmitter is operating at maximum power.

5.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

5.5 Deviation From Test Standard

No deviation

5.6 Test Data

Please refer to the Attachment B.

6. Occupied Bandwidth

6.1 Test Standard and Limit

6.1.1 Test Standard

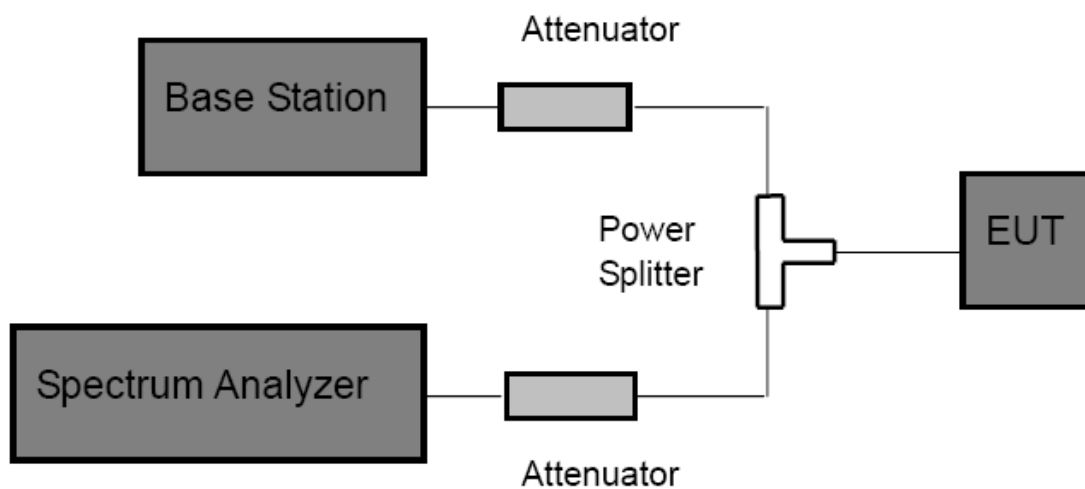
FCC Part 2: 2.1049, FCC Part 22.917(a),
FCC part 24.238(b)
FCC Part 27.53(h)
FCC Part 27.53(m)

6.1.2 Test Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Occupied bandwidth is also known as 99% power and -26dBC occupied bandwidths.

6.2 Test Setup



6.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and Base station via power splitter as show in the block diagram above.
- (2) The resolution bandwidth of the Spectrum Analyzer is set to at least 1% of the occupied bandwidth. VBW= 3 times RBW.
- (3) The low, middle and the high channels are selected to perform tests respectively.
- (4) Set the frequency range of the Spectrum Analyzer suitably to capture the waveform; search peak; make a line whose value is 26dB lower than the peak; mark two points which the line intersected the waveform at; finally record the delta of the two points as the occupied bandwidth and the plot.
- (5) Set the Spectrum Analyzer Occupied bandwidth function to measure the 99% occupied bandwidth.

6.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

6.5 Deviation From Test Standard

No deviation

6.6 Test Data

Please refer to the Attachment C.

7. Out of Band Emission at Antenna Terminals

7.1 Test Standard and Limit

7.1.1 Test Standard

FCC Part 2: 2.1051, 2.1057

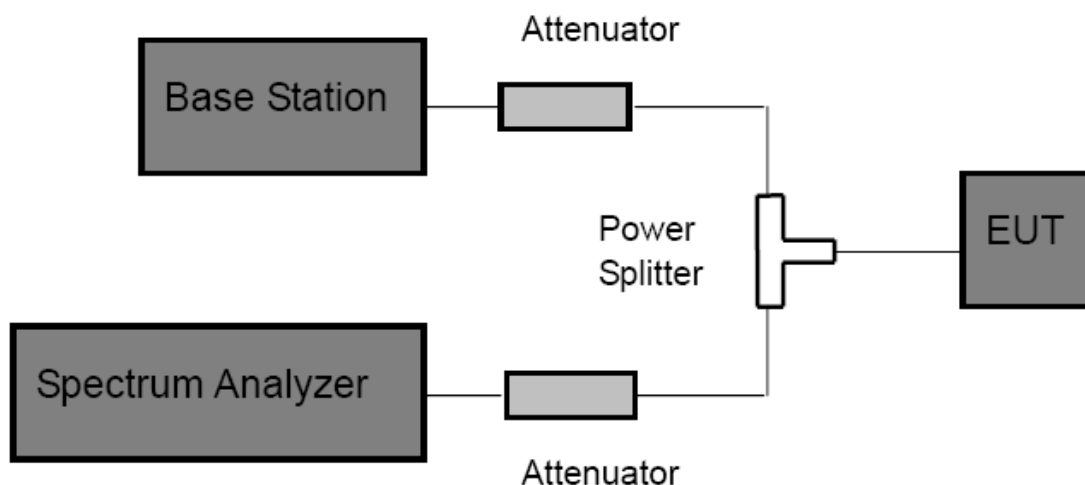
FCC Part 22.917(a), FCC part 24.238(a)

FCC Part 27.53 (h), FCC Part 27.53(m)

7.1.2 Test Limit

Band 7: For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power(P) by a factor of at least $43 + 10 \log (P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

7.2 Test Setup



7.3 Test Procedure

- 1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
- 2 The resolution bandwidth of the spectrum analyzer was set at 100 kHz when below 1GHz, 1MHz when above 1 GHz; sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.
- 3 For the out of band: Set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic.
- 4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter.

7.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

7.5 Deviation From Test Standard

No deviation

7.6 Test Data

Please refer to the Attachment D.

8. Band Edge Test

8.1 Test Standard and Limit

8.1.1 Test Standard

FCC Part 2: 2.1051, 2.1057

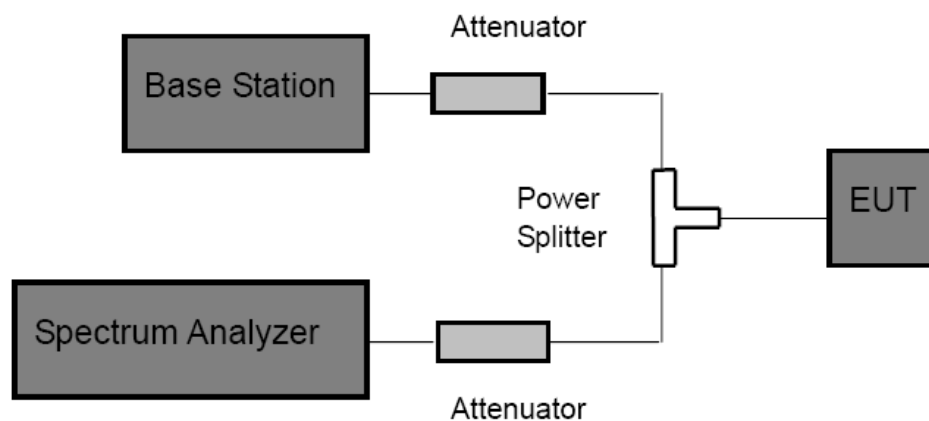
FCC Part 22.917(a), FCC part 24.238(a)

FCC Part 27.53 (h), FCC Part 27.53(m)

8.1.2 Test Limit

Band 7: For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power(P) by a factor of at least $43 + 10 \log (P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and Base station via power splitter as show in the block diagram above.
- (2) Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter.

8.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

8.5 Deviation From Test Standard

No deviation

8.6 Test Data

Please refer to the Attachment E.

9. Radiated Output Power

9.1 Test Standard and Limit

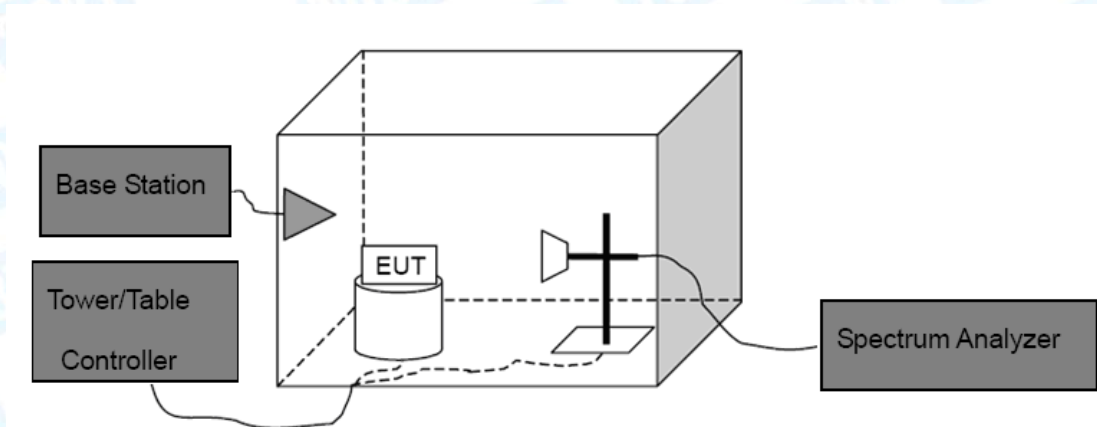
9.1.1 Test Standard

FCC Part 2.1046, FCC Part 22.913(a)(2),
FCC part 24.232(c)
FCC part 27.50(c), FCC part 27.50(d)

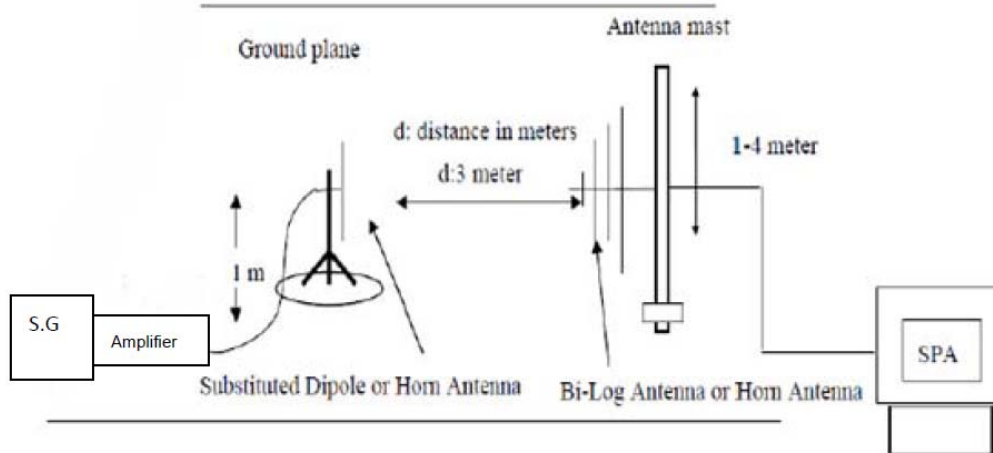
9.1.2 Test Limit

E.I.R.P	E.I.R.P	E.R.P	E.I.R.P
LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7
2W(33 dBm)	1W(30 dBm)	7W(38.45dBm)	2W(33 dBm)
E.R.P	E.I.R.P	E.I.R.P	E.R.P
LTE Band 12	LTE Band 13	LTE Band 25	LTE Band 26
3W(34.77dBm)	3W(34.77dBm)	2W(33 dBm)	7W(38.45dBm)

9.2 Test Setup



Above 1G



Substituted Method

9.3 Test Procedure

- (1) The EUT was placed on an non-conductive rotating platform with 0.8 meter height in an anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RBW=3 MHz, VBW=3 MHz and peak detector settings.
- (2) During the measurement, the EUT was enforced in maximum power and linked with the Base Station. The highest was recorded from analyzer power level (LVT) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
- (3) Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to C63.26. The EUT was replaced by dipole antenna (for frequency below 1 GHz) or Horn antenna (for frequency above 1 GHz) at same location with same polarize of receiver antenna and then a known power of each measure frequency from S.G. was applied into the dipole antenna or Horn antenna through a TX cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna.

Note: In test, the S.G Connect the Pre-amplifier(Sonoma 310N Pre-amplifier for frequency below 1 GHz, HP 8449B Pre-amplifier for frequency above 1 GHz)

Then the EUT's EIRP and ERP was calculated with the correction factor:

$ERP = S.G.Level + Antenna\ Gain\ Cord.(dBd) - Cable\ Loss(dB)$

$EIRP = S.G.Level + Antenna\ Gain\ Cord.(dBi) - Cable\ Loss(dB)$

9.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

9.5 Deviation From Test Standard

No deviation

9.6 Test Data

Please refer to the Attachment F.
Measurement Data (worst case)

10. Radiated Out Band of Emissions

10.1 Test Standard and Limit

10.1.1 Test Standard

FCC Part 2: 2.1053, FCC Part 22.917(a)

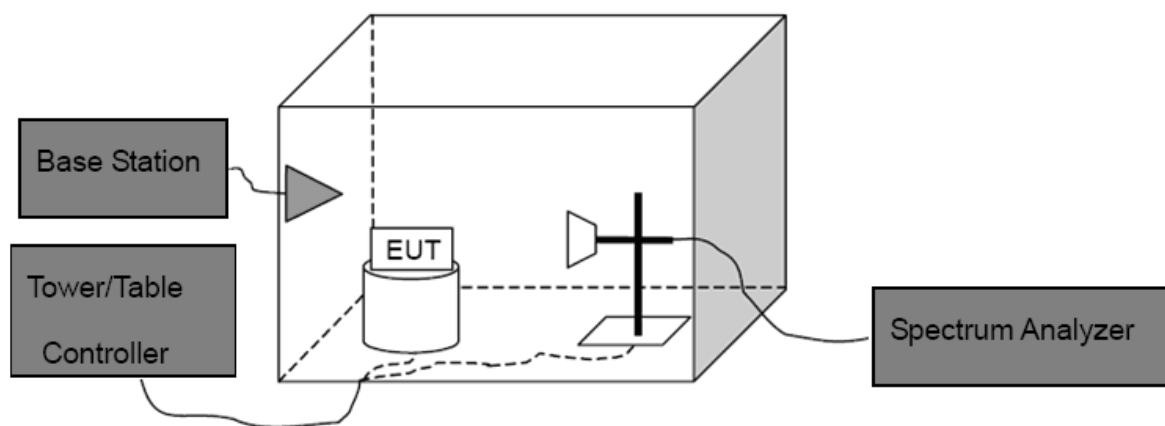
FCC part 24.238(a)

FCC Part 27.53 (h), FCC Part 27.53(m)

10.1.2 Test Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power(P) by a factor of at least $43+10\log(P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

10.2 Test Setup



10.3 Test Procedure

- (1) The test system setup as show in the block diagram above.
- (2) The EUT was placed on an non-conductive rotating platform in an anechoic chamber. The radiated spurious emissions from 30MHz to 10^{th} harmonious of fundamental frequency were measured at 3 m with a test antenna and a spectrum analyzer with RBW=1 MHz, VBW=1 MHz, peak detector settings.
- (3) During the measurement, the EUT was enforced in maximum power and linked with a base station. All the spurious emissions at 3m were measured by rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
- (4) When found the maximum level of emissions from the EUT. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB= $10 \log(\text{TX power in Watts}/0.001)$ -the absolute level

Spurious attenuation limit in dB= $43+10 \log(\text{power out in Watts})$

10.4 EUT Operating Condition

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

10.5 Deviation From Test Standard

No deviation

10.6 Test Data

Please refer to the Attachment G.
Measurement Data (worst case)

11. Frequency Stability

11.1 Test Standard and Limit

11.1.1 Test Standard

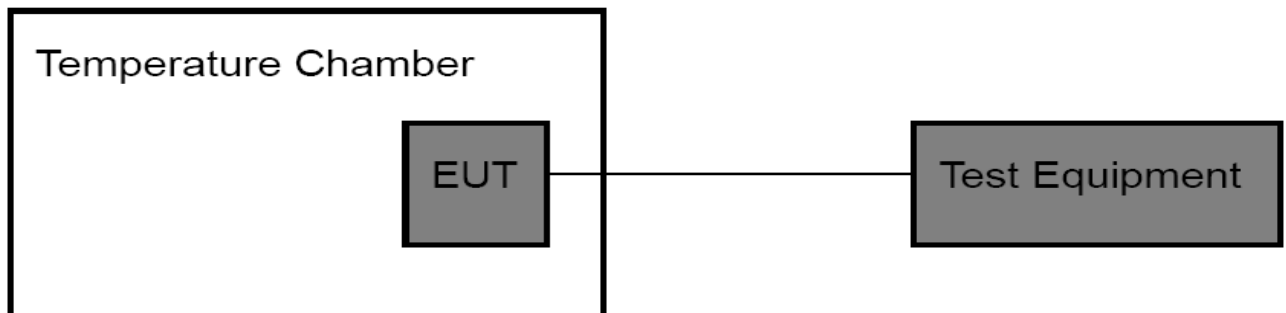
FCC Part 2.1055(a)(1)(b) FCC Part 22.355
FCC Part 24.235, Part 27.54

11.1.2 Limit

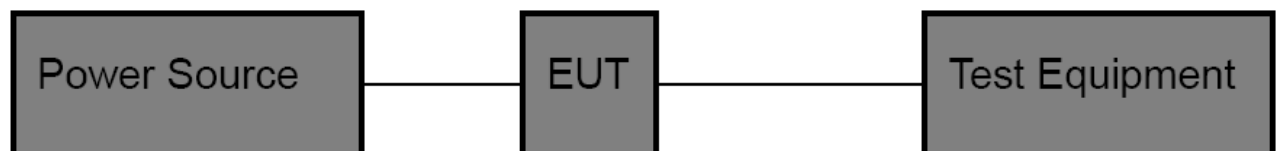
Limit
$\pm 2.5\text{ppm}$

11.2 Test Setup

For Temperature Test:



For Voltage Test:



11.3 Test Procedure

Test Procedures for Temperature Variation:

- (1) The EUT was set up in the thermal chamber and connected with the base station.
- (2) With power off, the temperature was decreased to -30°C and the EUT was stabilized for three hours. Power was applied and the maximum change in frequency was recorded within one minute.
- (3) With power off, the temperature was raised in 10°C set up to 50°C and the EUT was stabilized for three hours. Power was applied and the maximum change in frequency was recorded within one minute.
- (4) If the EUT cannot be turned on at -30°C , the testing lowest temperature will be raised in 10°C step until the EUT can be turned on.

Test Procedures for Voltage Variation:

- (1) The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected with the base station.
- (2) Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.
- (3) The variation in frequency was measured for the worst case.

11.4 EUT Operating Condition

The Equipment Under Test was set to Communication with the Base Station.

11.5 Deviation From Test Standard

No deviation

11.6 Test Data

Please refer to the Attachment H.

ATTACHMENT A--CONDUCTED RF OUTPUT POWER

FDD-LTE Band 2						
Channel Bandwidth: 1.4 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.36	22.46	22.57	PASS
	1	3	22.36	22.50	22.53	PASS
	1	5	22.38	22.47	22.53	PASS
	3	0	22.27	22.40	22.61	PASS
	3	1	22.39	22.45	22.67	PASS
	3	3	22.41	22.53	22.60	PASS
	6	0	21.42	21.55	21.57	PASS
16QAM	1	0	21.66	21.65	22.18	PASS
	1	3	21.67	21.62	22.14	PASS
	1	5	21.65	21.63	22.19	PASS
	3	0	21.76	21.46	21.69	PASS
	3	1	21.78	21.39	21.72	PASS
	3	3	21.75	21.42	21.68	PASS
	6	0	20.75	20.73	20.73	PASS
Channel Bandwidth: 3 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.26	22.43	22.48	PASS
	1	7	22.34	22.48	22.58	PASS
	1	14	22.29	22.43	22.57	PASS
	8	0	21.29	21.47	21.50	PASS
	8	4	21.39	21.49	21.48	PASS
	8	7	21.40	21.44	21.63	PASS
	15	0	21.34	21.44	21.66	PASS
16QAM	1	0	21.30	21.15	21.91	PASS
	1	7	21.19	21.18	21.84	PASS
	1	14	21.22	21.15	21.91	PASS
	8	0	20.47	20.72	20.55	PASS
	8	4	20.52	20.64	20.62	PASS
	8	7	20.51	20.71	20.59	PASS
	15	0	20.54	20.60	20.57	PASS

FDD-LTE Band 2						
Channel Bandwidth: 5 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.26	22.58	22.55	PASS
	1	12	22.24	22.62	22.45	PASS
	1	24	22.31	22.56	22.57	PASS
	12	0	21.44	21.59	21.52	PASS
	12	6	21.44	21.59	21.45	PASS
	12	11	21.33	21.54	21.56	PASS
	25	0	21.37	21.56	21.45	PASS
16QAM	1	0	21.16	21.27	21.62	PASS
	1	12	21.12	21.28	21.51	PASS
	1	24	21.14	21.21	21.57	PASS
	12	0	20.49	20.53	20.63	PASS
	12	6	20.59	22.58	20.56	PASS
	12	11	20.57	20.49	20.53	PASS
	25	0	21.44	20.51	22.55	PASS
Channel Bandwidth: 10 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.30	22.50	22.46	PASS
	1	24	22.32	22.51	22.56	PASS
	1	49	22.41	22.55	22.37	PASS
	25	0	21.45	21.49	21.47	PASS
	25	12	21.40	21.53	21.68	PASS
	25	24	21.53	21.45	21.26	PASS
	50	0	21.38	21.56	21.65	PASS
16QAM	1	0	22.50	22.55	22.57	PASS
	1	24	22.51	22.49	22.36	PASS
	1	49	22.55	22.55	22.58	PASS
	25	0	21.49	21.63	21.58	PASS
	25	12	21.53	21.55	21.64	PASS
	25	24	21.45	21.59	21.47	PASS
	50	0	21.56	21.54	21.68	PASS

FDD-LTE Band 2						
Channel Bandwidth: 15 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.55	22.57	22.65	PASS
	1	37	22.49	22.51	22.48	PASS
	1	74	22.55	22.50	22.59	PASS
	36	0	21.63	21.62	21.53	PASS
	36	16	21.55	21.44	21.47	PASS
	36	35	21.43	21.52	21.56	PASS
	75	0	21.41	21.59	21.57	PASS
16QAM	1	0	22.37	22.46	22.48	PASS
	1	37	22.38	22.36	22.48	PASS
	1	74	22.37	22.36	22.58	PASS
	36	0	21.50	21.44	21.25	PASS
	36	16	21.55	21.63	21.58	PASS
	36	35	21.40	21.48	21.46	PASS
	75	0	21.41	21.39	21.33	PASS
Channel Bandwidth: 20 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.47	22.54	22.38	PASS
	1	49	22.50	22.60	22.48	PASS
	1	99	22.52	22.58	22.56	PASS
	50	0	21.47	21.49	21.45	PASS
	50	24	21.49	21.60	21.39	PASS
	50	49	21.55	21.54	21.49	PASS
	100	0	21.53	21.58	21.53	PASS
16QAM	1	0	22.63	22.58	22.55	PASS
	1	49	22.70	22.68	22.68	PASS
	1	99	22.75	22.45	22.39	PASS
	50	0	21.44	21.37	21.46	PASS
	50	24	21.50	21.57	21.47	PASS
	50	49	21.47	21.42	21.64	PASS
	100	0	21.55	21.38	21.39	PASS

FDD-LTE Band 4						
Channel Bandwidth: 1.4 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.32	22.24	22.14	PASS
	1	2	22.36	22.27	22.16	PASS
	1	5	22.29	22.31	22.23	PASS
	3	0	22.36	22.31	22.10	PASS
	3	1	22.41	22.38	22.14	PASS
	3	2	22.47	22.31	22.22	PASS
	6	0	21.36	21.32	21.19	PASS
16QAM	1	0	21.73	21.50	22.09	PASS
	1	2	21.67	21.62	22.09	PASS
	1	5	21.69	21.65	22.13	PASS
	3	0	21.82	21.68	21.28	PASS
	3	1	21.83	21.70	21.25	PASS
	3	2	21.85	21.72	21.25	PASS
	6	0	20.60	20.61	20.52	PASS
Channel Bandwidth: 3 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.41	22.18	22.14	PASS
	1	7	22.45	22.23	22.16	PASS
	1	14	22.38	22.23	22.22	PASS
	8	0	21.36	21.29	21.21	PASS
	8	4	21.39	21.37	21.19	PASS
	8	7	21.34	21.34	21.20	PASS
	15	0	21.33	21.31	21.26	PASS
16QAM	1	0	22.17	21.70	20.92	PASS
	1	7	22.15	21.70	20.87	PASS
	1	14	22.24	21.61	20.83	PASS
	8	0	20.58	20.34	20.19	PASS
	8	4	20.53	20.30	20.18	PASS
	8	7	20.62	20.32	20.17	PASS
	15	0	20.47	20.22	20.19	PASS

FDD-LTE Band 4						
Channel Bandwidth: 5 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.47	22.35	22.00	PASS
	1	12	22.39	22.34	22.05	PASS
	1	24	22.41	22.38	22.03	PASS
	12	0	21.41	21.16	21.18	PASS
	12	6	21.32	21.20	21.25	PASS
	12	11	21.38	21.24	21.13	PASS
	25	0	21.39	21.20	21.23	PASS
16QAM	1	0	21.46	21.21	21.23	PASS
	1	12	21.37	21.25	21.21	PASS
	1	24	21.41	21.18	21.22	PASS
	12	0	20.52	20.32	20.18	PASS
	12	6	20.54	20.44	20.13	PASS
	12	11	20.51	20.36	20.18	PASS
	25	0	21.32	20.35	20.34	PASS
Channel Bandwidth: 10 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.30	22.24	22.38	PASS
	1	24	22.23	22.21	22.30	PASS
	1	49	22.31	22.28	22.36	PASS
	25	0	21.32	21.21	21.24	PASS
	25	12	21.42	21.25	21.20	PASS
	25	24	21.26	21.21	21.12	PASS
	50	0	21.39	21.28	21.09	PASS
16QAM	1	0	22.43	22.35	22.24	PASS
	1	24	22.24	22.43	22.56	PASS
	1	49	22.43	22.54	22.38	PASS
	25	0	21.18	21.23	21.35	PASS
	25	12	21.26	21.43	21.37	PASS
	25	24	21.28	21.28	21.28	PASS
	50	0	21.43	21.28	21.16	PASS

FDD-LTE Band 4						
Channel Bandwidth: 15 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.26	22.31	22.25	PASS
	1	37	22.20	22.36	22.21	PASS
	1	74	22.27	22.31	22.21	PASS
	36	0	21.40	21.29	21.23	PASS
	36	16	21.37	21.26	21.23	PASS
	36	35	21.38	21.25	21.23	PASS
	75	0	21.37	21.28	21.17	PASS
16QAM	1	0	22.43	22.38	22.24	PASS
	1	37	22.46	22.35	22.34	PASS
	1	74	22.36	22.36	22.19	PASS
	36	0	21.26	21.29	21.34	PASS
	36	16	21.29	21.18	21.28	PASS
	36	35	21.18	21.23	21.22	PASS
	75	0	21.22	21.18	21.19	PASS
Channel Bandwidth: 20 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.54	22.53	22.22	PASS
	1	49	22.43	22.50	22.18	PASS
	1	99	22.48	22.45	22.17	PASS
	50	0	21.33	21.37	21.14	PASS
	50	24	21.42	21.19	21.07	PASS
	50	49	21.32	21.27	21.13	PASS
	100	0	21.21	21.25	21.18	PASS
16QAM	1	0	22.48	22.46	22.25	PASS
	1	49	22.47	22.32	22.18	PASS
	1	99	22.38	22.67	22.23	PASS
	50	0	21.36	21.29	21.18	PASS
	50	24	21.28	21.34	21.34	PASS
	50	49	21.18	21.29	21.26	PASS
	100	0	21.19	21.27	21.67	PASS

FDD-LTE Band 7						
Channel Bandwidth: 5 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.05	22.30	21.98	PASS
	1	12	22.07	22.30	21.95	PASS
	1	24	22.06	22.30	22.03	PASS
	12	0	21.15	21.20	21.10	PASS
	12	6	21.14	21.08	21.10	PASS
	12	11	21.08	21.07	21.17	PASS
	25	0	21.04	21.19	21.17	PASS
16QAM	1	0	21.17	20.85	21.15	PASS
	1	12	21.24	20.86	20.97	PASS
	1	24	21.20	20.84	21.21	PASS
	12	0	20.32	20.25	20.19	PASS
	12	6	20.29	20.24	20.12	PASS
	12	11	20.27	20.21	20.12	PASS
	25	0	20.34	20.34	20.32	PASS
Channel Bandwidth: 10 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.01	21.96	22.28	PASS
	1	24	22.04	21.99	22.26	PASS
	1	49	22.03	22.06	22.27	PASS
	25	0	21.03	21.07	21.11	PASS
	25	12	21.06	21.06	21.05	PASS
	25	24	21.10	21.20	21.08	PASS
	50	0	21.05	21.10	21.16	PASS
16QAM	1	0	22.12	21.67	22.23	PASS
	1	24	22.23	21.87	22.22	PASS
	1	49	22.17	22.09	22.24	PASS
	25	0	21.13	21.13	21.17	PASS
	25	12	21.09	21.23	21.18	PASS
	25	24	21.13	21.14	21.23	PASS
	50	0	21.24	21.32	21.19	PASS

FDD-LTE Band 7						
Channel Bandwidth: 15 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	21.97	22.04	22.15	PASS
	1	37	22.01	22.08	22.06	PASS
	1	74	22.03	22.11	22.14	PASS
	36	0	21.06	21.07	21.04	PASS
	36	16	21.00	21.10	21.11	PASS
	36	35	21.00	21.15	21.19	PASS
	75	0	21.13	21.10	21.08	PASS
16QAM	1	0	21.96	22.24	22.19	PASS
	1	37	22.14	22.47	22.21	PASS
	1	74	22.32	22.17	22.18	PASS
	36	0	21.19	21.23	21.35	PASS
	36	16	21.06	21.16	21.28	PASS
	36	35	21.06	21.18	21.15	PASS
	75	0	21.15	21.10	21.21	PASS
Channel Bandwidth: 20 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	22.05	22.18	22.19	PASS
	1	49	22.04	22.18	22.04	PASS
	1	99	22.12	22.32	22.16	PASS
	50	0	20.99	21.15	21.06	PASS
	50	24	21.11	21.19	21.03	PASS
	50	49	21.17	21.09	21.04	PASS
	100	0	21.15	21.21	21.03	PASS
16QAM	1	0	22.21	22.23	22.27	PASS
	1	49	22.18	22.16	22.14	PASS
	1	99	22.14	22.28	22.18	PASS
	50	0	20.98	21.15	21.21	PASS
	50	24	21.13	21.24	21.29	PASS
	50	49	21.16	21.18	21.07	PASS
	100	0	21.27	21.24	21.15	PASS

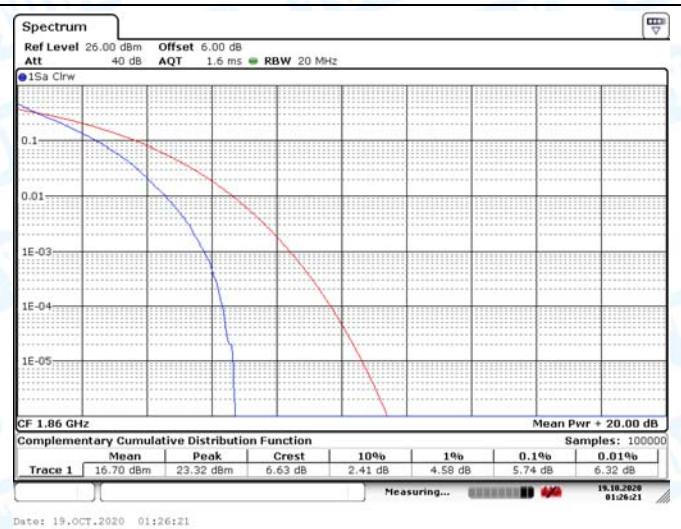
ATTACHMENT B--PEAK-AVERAGE RATIO

Test Mode	Modulation	RB Size	RB Offset	PAPR with 0.1% probability (dB)	Limit (dB)	Result
LTE BAND 2 20MHz (Low Channel)	QPSK	100	0	5.68	≤13	PASS
	16QAM	100	0	5.74	≤13	PASS
LTE BAND 2 20MHz (Middle Channel)	QPSK	100	0	4.84	≤13	PASS
	16QAM	100	0	4.75	≤13	PASS
LTE BAND 2 20MHz (High Channel)	QPSK	100	0	5.59	≤13	PASS
	16QAM	100	0	5.59	≤13	PASS
LTE BAND 4 20MHz (Low Channel)	QPSK	100	0	5.59	≤13	PASS
	16QAM	100	0	5.54	≤13	PASS
LTE BAND 4 20MHz (Middle Channel)	QPSK	100	0	5.71	≤13	PASS
	16QAM	100	0	5.59	≤13	PASS
LTE BAND 4 20MHz (High Channel)	QPSK	100	0	5.33	≤13	PASS
	16QAM	100	0	5.30	≤13	PASS
LTE BAND 7 20MHz (Low Channel)	QPSK	100	0	5.22	≤13	PASS
	16QAM	100	0	5.22	≤13	PASS
LTE BAND 7 20MHz (Middle Channel)	QPSK	100	0	4.84	≤13	PASS
	16QAM	100	0	4.81	≤13	PASS
LTE BAND 7 20MHz (High Channel)	QPSK	100	0	5.36	≤13	PASS
	16QAM	100	0	5.36	≤13	PASS
Note: Only show the worst case data.						

LTE Band 2 20MHz (Low Channel)-QPSK



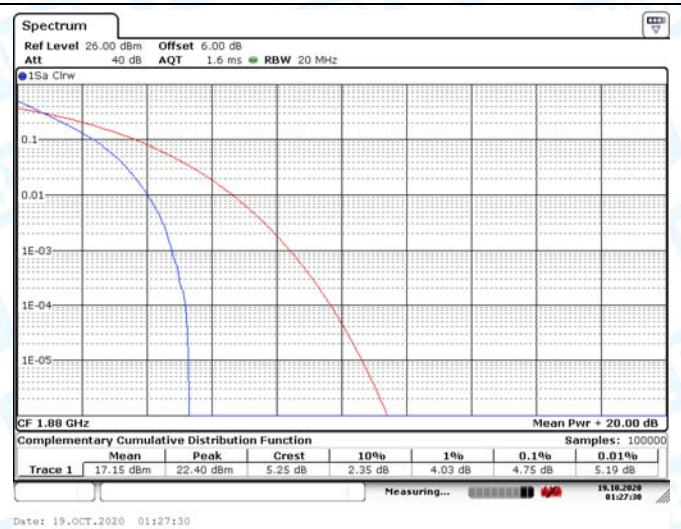
LTE Band 2 20MHz (Low Channel)-16QAM



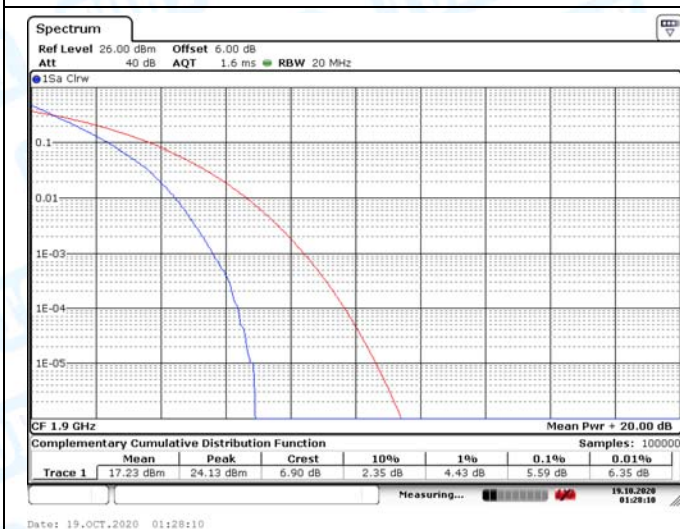
LTE Band 2 20MHz (Middle Channel)-QPSK



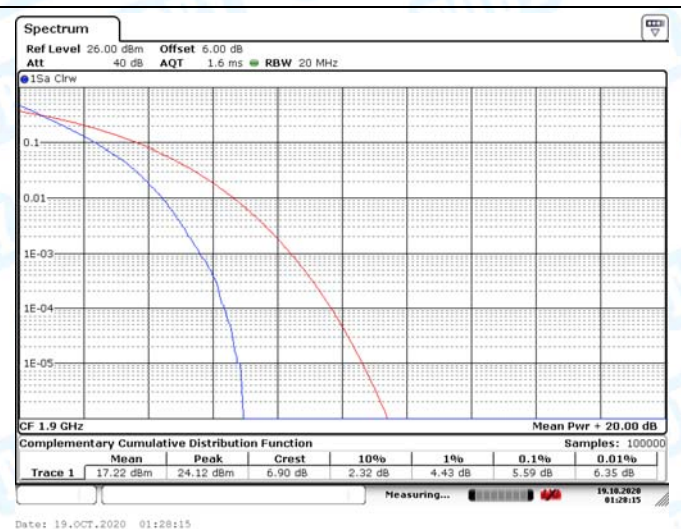
LTE Band 2 20MHz (Middle Channel)-16QAM



LTE Band 2 20MHz (High Channel)-QPSK



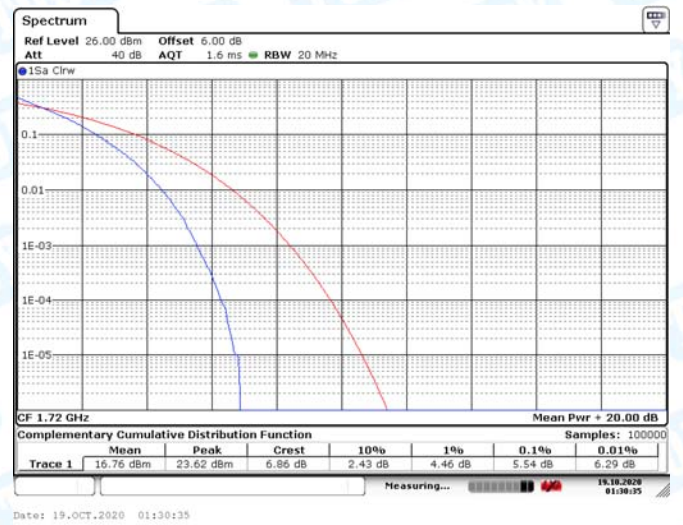
LTE Band 2 20MHz (High Channel)-16QAM



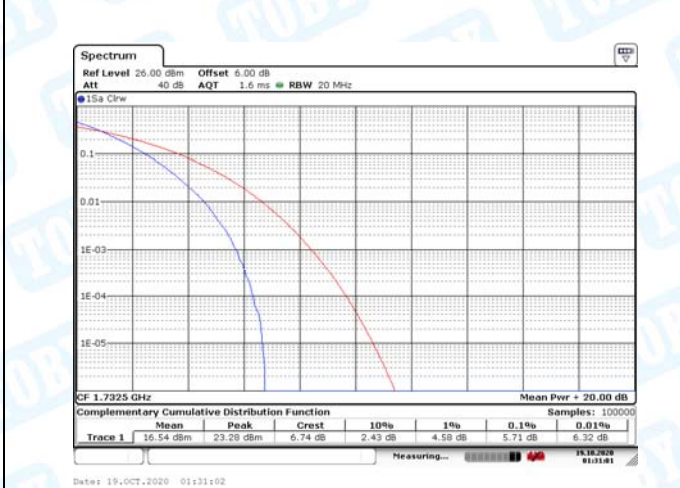
LTE Band 4 20MHz (Low Channel)-QPSK



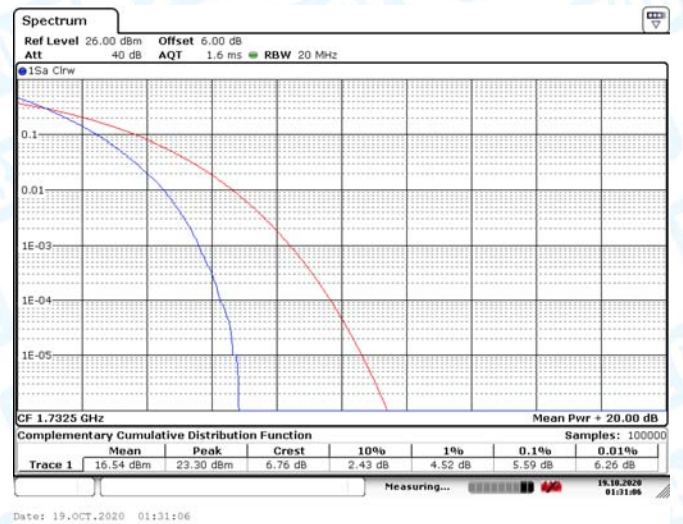
LTE Band 4 20MHz (Low Channel)-16QAM



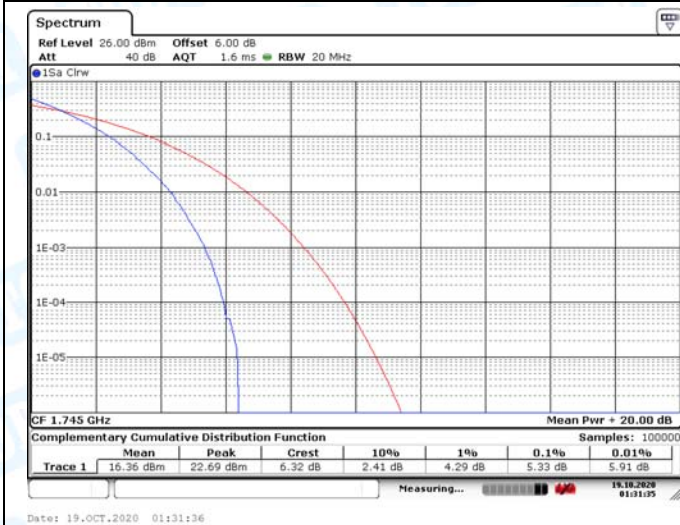
LTE Band 4 20MHz (Middle Channel)-QPSK



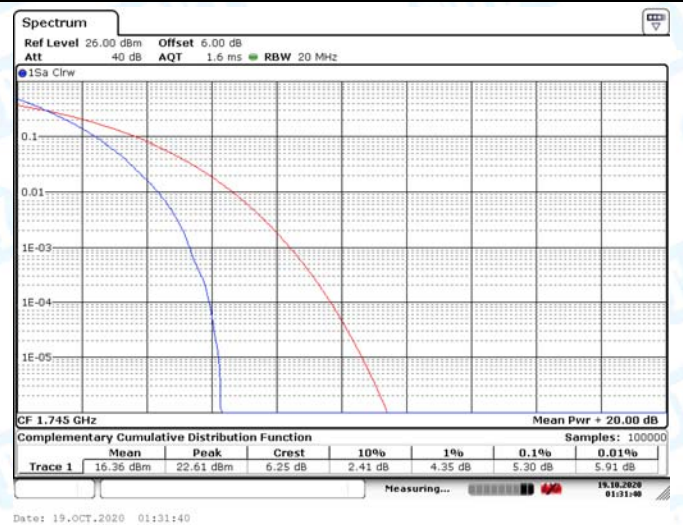
LTE Band 4 20MHz (Middle Channel)-16QAM



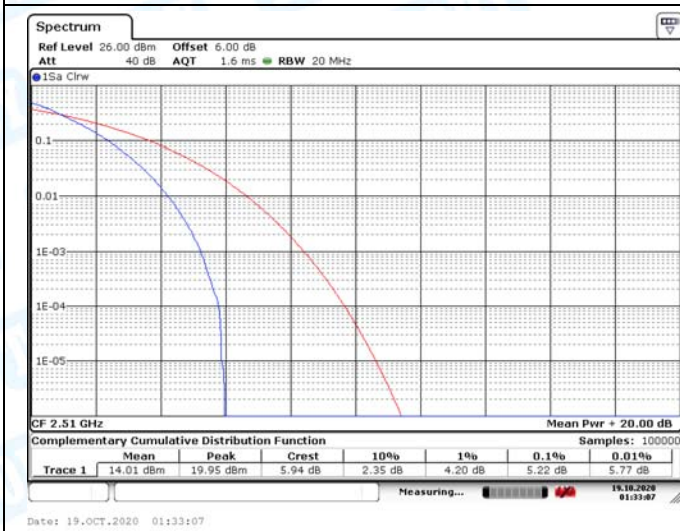
LTE Band 4 20MHz (High Channel)-QPSK



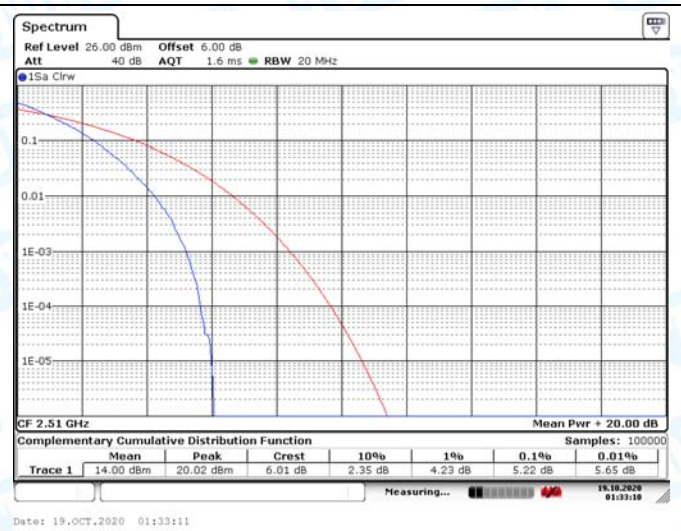
LTE Band 4 20MHz (High Channel)-16QAM



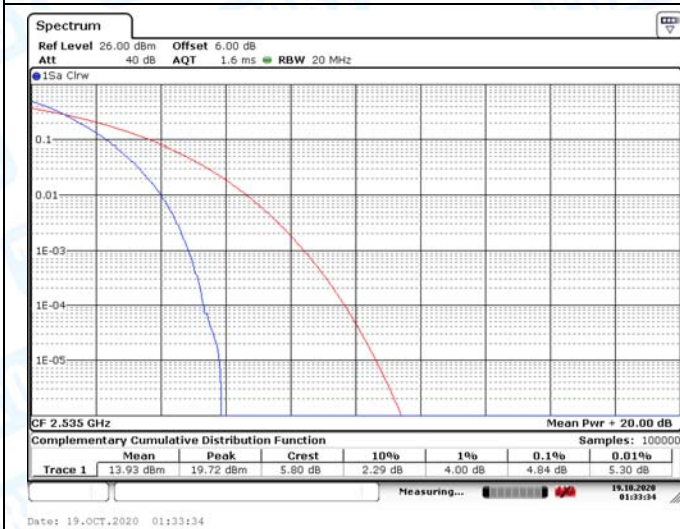
LTE Band 7 20MHz (Low Channel)-QPSK



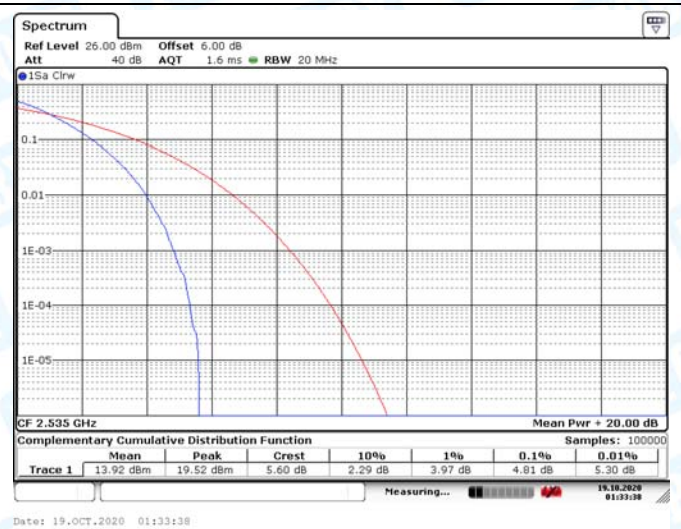
LTE Band 7 20MHz (Low Channel)-16QAM



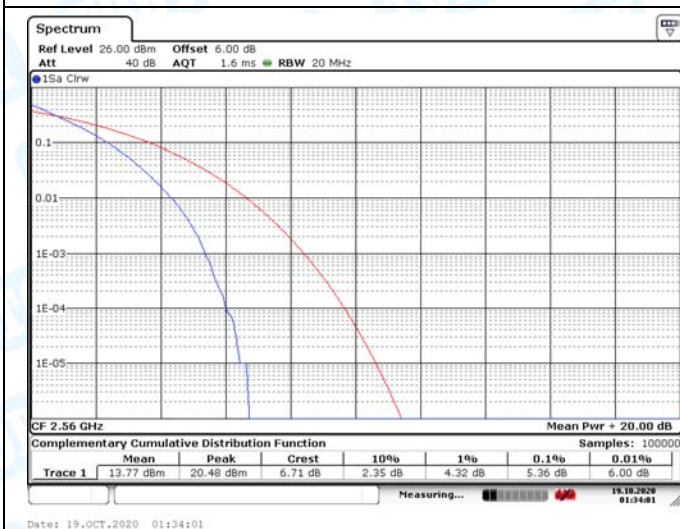
LTE Band 7 20MHz (Middle Channel)-QPSK



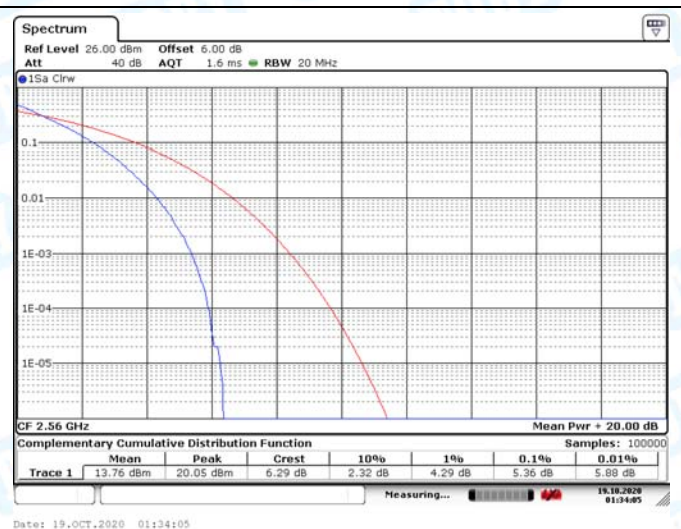
LTE Band 7 20MHz (Middle Channel)-16QAM



LTE Band 7 20MHz (High Channel)-QPSK



LTE Band 7 20MHz (High Channel)-16QAM



ATTACHMENT C--OCCUPY BANDWIDTH

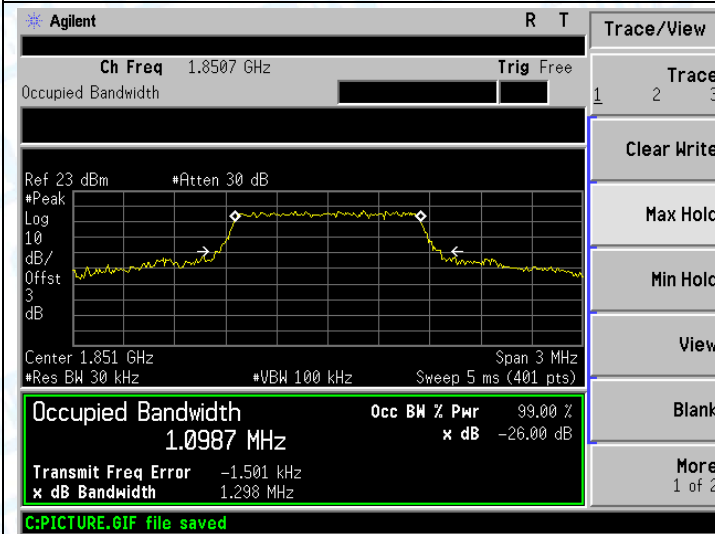
LTE Band 2					
Mode	Channel	Frequency (MHz)	Modulation	99% OBW (MHz)	-26dB Bandwidth (MHz)
1.4MHz	18607	1850.70	QPSK	1.0987	1.298
			16QAM	1.1069	1.365
	18900	1880.00	QPSK	1.0883	1.248
			16QAM	1.0868	1.260
	19193	1909.30	QPSK	1.0980	1.290
			16QAM	1.1030	1.250
3MHz	18615	1851.50	QPSK	2.6844	2.955
			16QAM	2.6844	2.955
	18900	1880.00	QPSK	2.6875	2.393
			16QAM	2.6862	2.904
	19185	1908.50	QPSK	2.6877	2.931
			16QAM	2.6698	2.925
5MHz	18625	1852.50	QPSK	4.5188	4.976
			16QAM	4.5244	5.032
	18900	1880.00	QPSK	4.5327	4.957
			16QAM	4.5157	4.961
	19175	1907.50	QPSK	4.5057	4.981
			16QAM	4.5022	4.990
10MHz	18650	1855.00	QPSK	8.9374	9.771
			16QAM	8.9410	9.474
	18900	1880.00	QPSK	8.9071	9.457
			16QAM	8.9207	9.672
	19150	1905.00	QPSK	8.9103	9.552
			16QAM	8.9050	9.531
15MHz	18675	1857.50	QPSK	13.4060	14.858
			16QAM	13.3818	14.806
	18900	1880.00	QPSK	13.4768	14.754
			16QAM	13.4206	14.701
	19125	1902.50	QPSK	13.4068	14.564
			16QAM	13.3742	14.712
20MHz	18700	1860.00	QPSK	18.5186	21.396
			16QAM	18.4952	21.334
	18900	1880.00	QPSK	18.5154	21.260
			16QAM	18.4385	21.268
	19100	1900.00	QPSK	18.4035	21.275
			16QAM	18.3727	21.126

LTE Band 4					
Mode	Channel	Frequency (MHz)	Modulation	99% OBW (MHz)	-26dB Bandwidth (MHz)
1.4MHz	19957	1710.70	QPSK	1.0850	1.272
			16QAM	1.0981	1.268
	20175	1732.50	QPSK	1.0947	1.275
			16QAM	1.0819	1.261
	20393	1754.30	QPSK	1.0909	1.270
			16QAM	1.0830	1.292
3MHz	19965	1711.50	QPSK	2.6752	2.917
			16QAM	2.6865	2.937
	20175	1732.50	QPSK	2.6715	2.863
			16QAM	2.6804	2.917
	20385	1753.50	QPSK	2.6801	2.873
			16QAM	2.6728	2.881
5MHz	19975	1712.50	QPSK	4.5023	5.041
			16QAM	4.4904	4.931
	20175	1732.50	QPSK	4.4912	4.969
			16QAM	4.5010	5.001
	20375	1752.50	QPSK	4.5146	5.035
			16QAM	4.4995	4.993
10MHz	20000	1715.00	QPSK	8.9233	9.722
			16QAM	8.9132	9.347
	20175	1732.50	QPSK	8.9195	9.689
			16QAM	8.9038	9.581
	20350	1750.00	QPSK	8.9114	9.680
			16QAM	8.9125	9.604
15MHz	20025	1717.50	QPSK	13.5015	14.734
			16QAM	13.4580	14.845
	20175	1732.50	QPSK	13.4227	14.633
			16QAM	13.3804	14.489
	20325	1747.50	QPSK	13.4433	14.954
			16QAM	13.4497	14.608
20MHz	20050	1720.00	QPSK	18.5468	21.384
			16QAM	18.5281	21.361
	20175	1732.50	QPSK	18.4094	20.994
			16QAM	18.3060	20.829
	20300	1745.00	QPSK	17.8257	19.280
			16QAM	18.4802	21.041

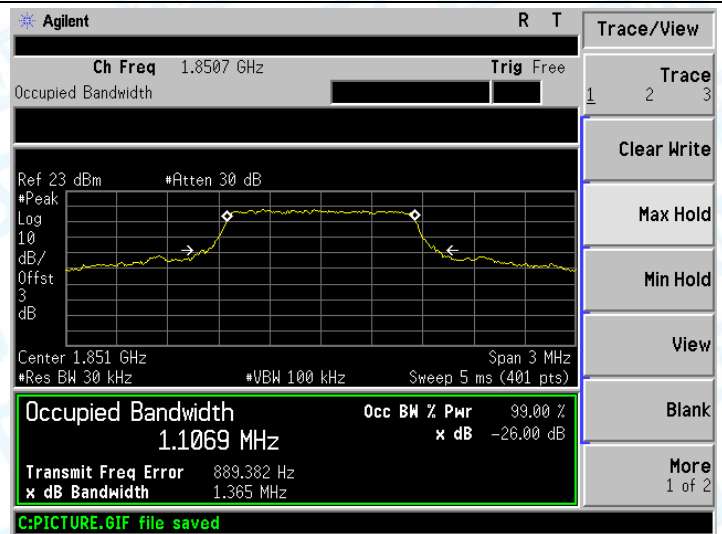
LTE Band 7					
Mode	Channel	Frequency (MHz)	Modulation	99% OBW (MHz)	-26dB Bandwidth (MHz)
5MHz	20775	2502.50	QPSK	4.4918	5.027
			16QAM	4.4959	5.305
	21100	2535.00	QPSK	4.5246	5.279
			16QAM	4.5094	5.307
	21425	2567.50	QPSK	4.5087	5.099
			16QAM	4.4927	5.069
10MHz	20800	2505.00	QPSK	8.9224	9.685
			16QAM	8.9213	9.480
	21100	2535.00	QPSK	8.9223	9.680
			16QAM	8.9488	9.681
	21400	2565.00	QPSK	8.9413	9.752
			16QAM	8.9529	9.709
15MHz	20825	2507.50	QPSK	13.5008	15.385
			16QAM	13.4829	14.864
	21100	2535.00	QPSK	13.4660	14.967
			16QAM	13.4393	14.868
	21375	2562.50	QPSK	13.5054	15.463
			16QAM	13.4733	14.721
20MHz	20850	2510.00	QPSK	17.9436	19.723
			16QAM	17.9486	19.744
	21100	2535.00	QPSK	17.8280	19.376
			16QAM	17.8805	19.198
	21350	2560.00	QPSK	17.9511	19.354
			16QAM	17.9287	19.413

Occupancy Bandwidth Test Plot

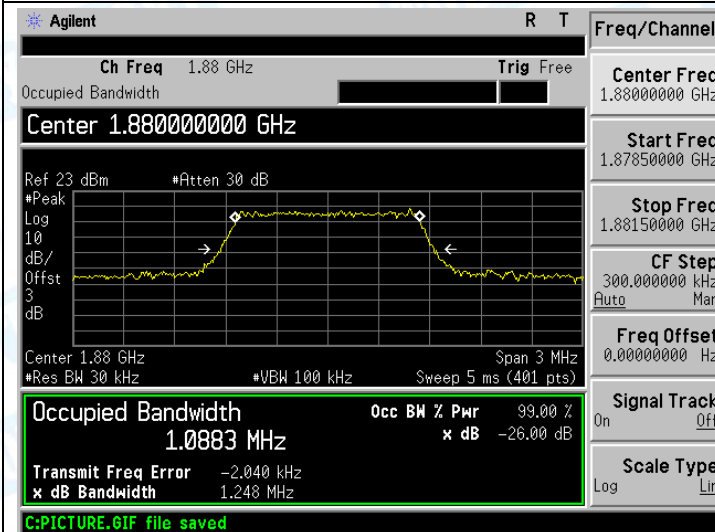
LTE BAND 2 (1.4MHz QPSK-Low CH)



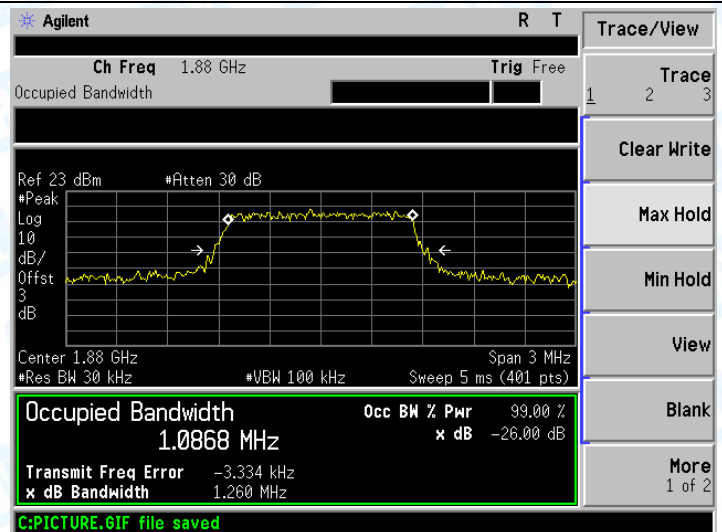
LTE BAND 2 (1.4MHz 16QAM-Low CH)



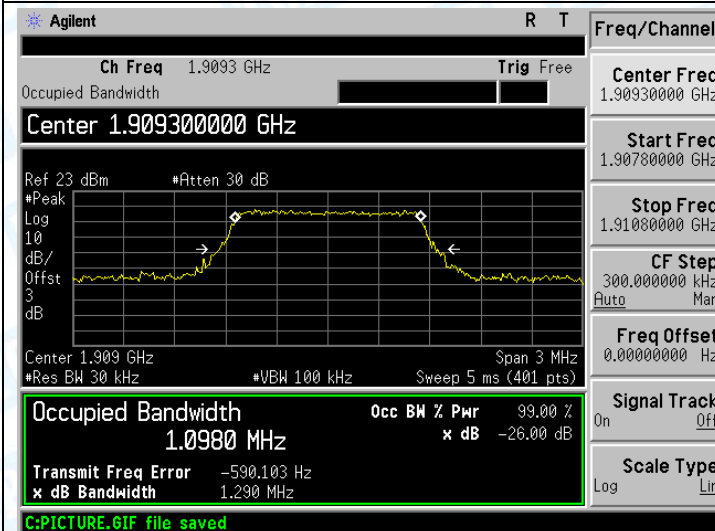
LTE BAND 2 (1.4MHz QPSK-Middle CH)



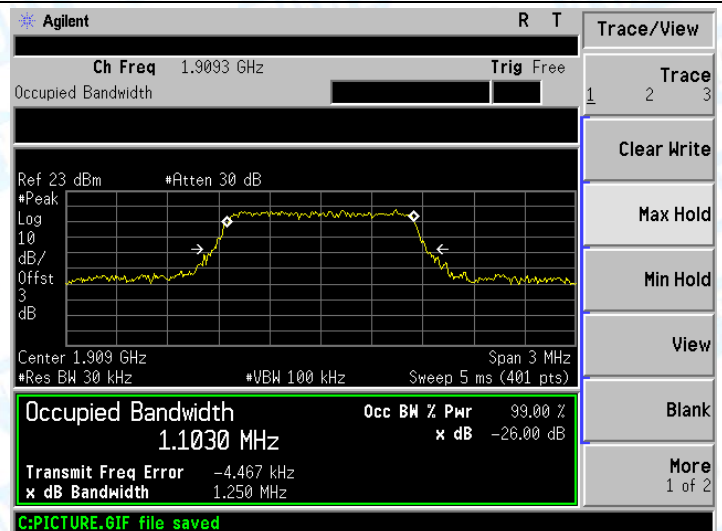
LTE BAND 2 (1.4MHz 16QAM- Middle CH)



LTE BAND 2 (1.4MHz QPSK-High CH)

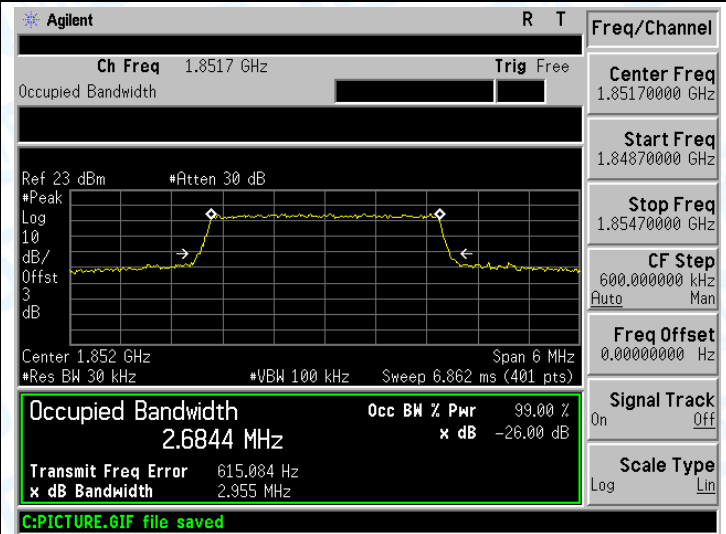
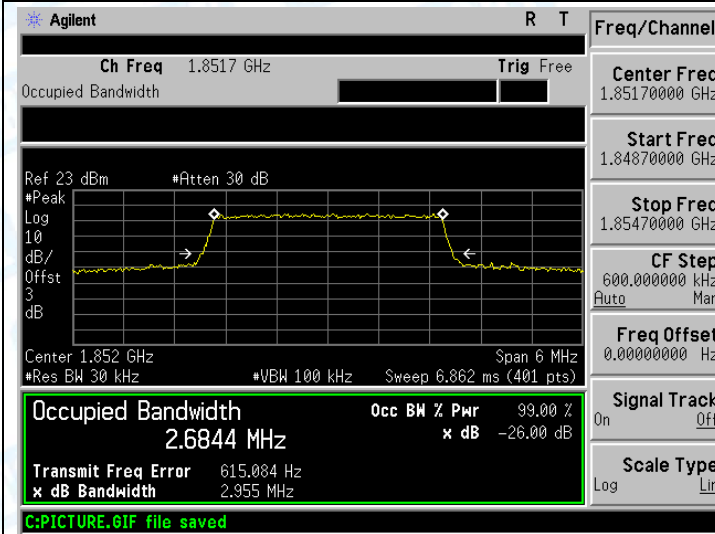


LTE BAND 2 (1.4MHz 16QAM-High CH)



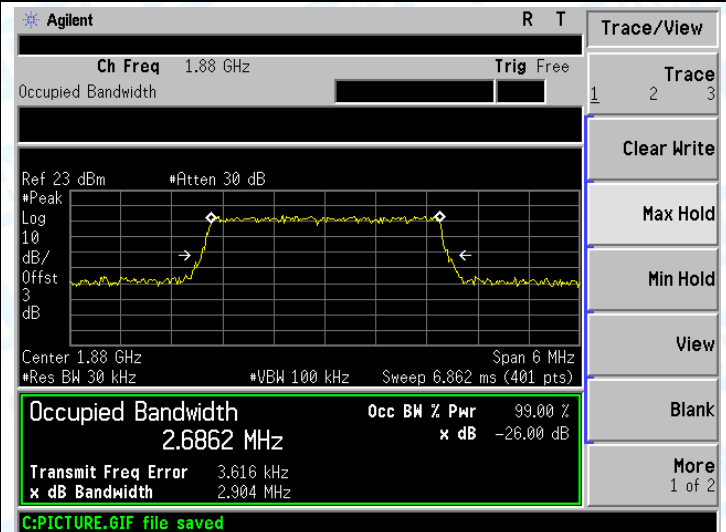
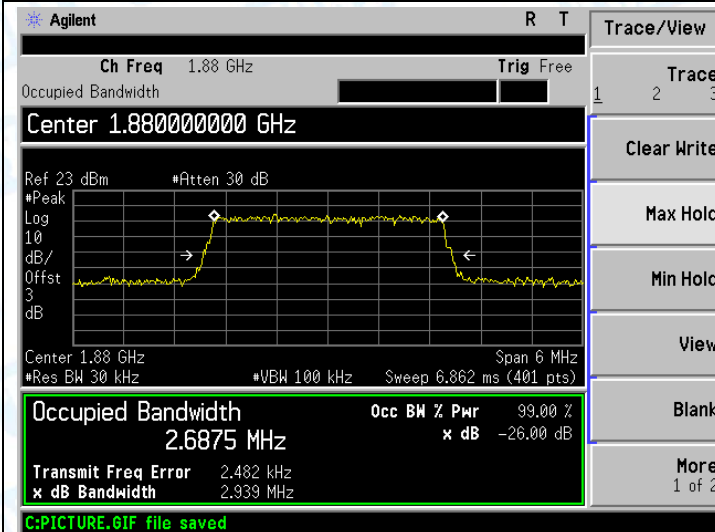
LTE BAND 2 (3MHz QPSK-Low CH)

LTE BAND 2 (3MHz 16QAM-Low CH)



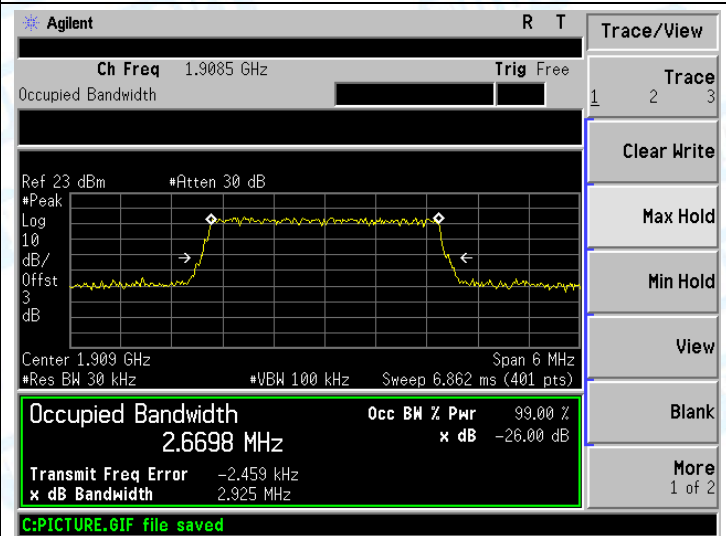
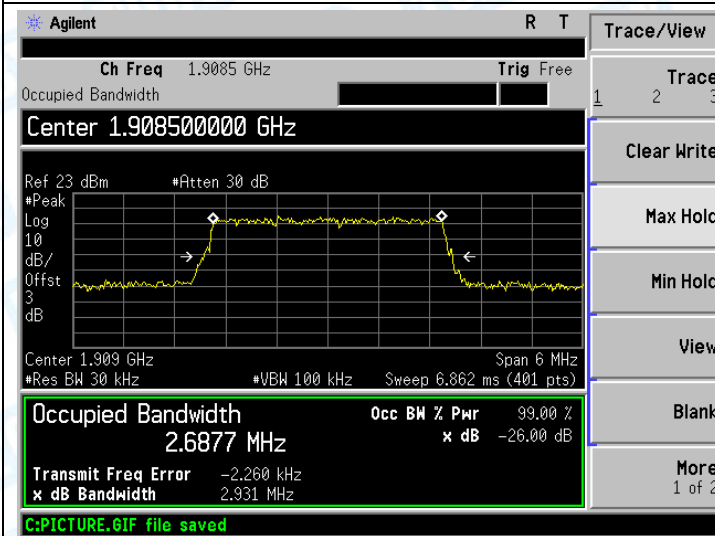
LTE BAND 2 (3MHz QPSK-Middle CH)

LTE BAND 2 (3MHz 16QAM- Middle CH)



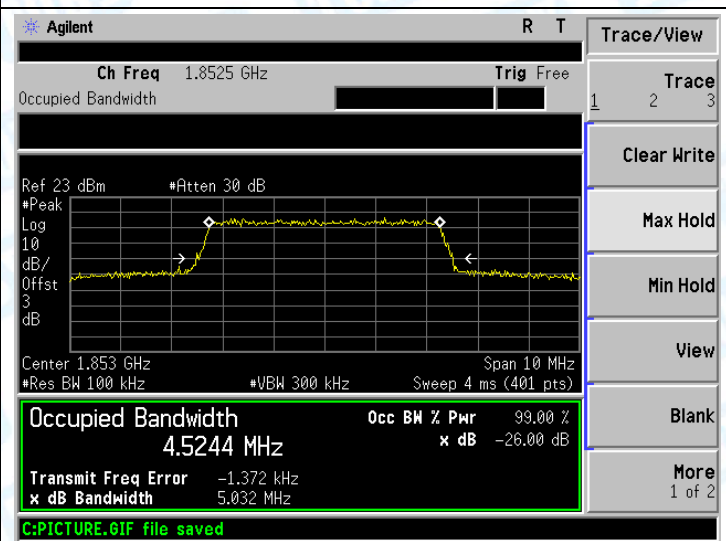
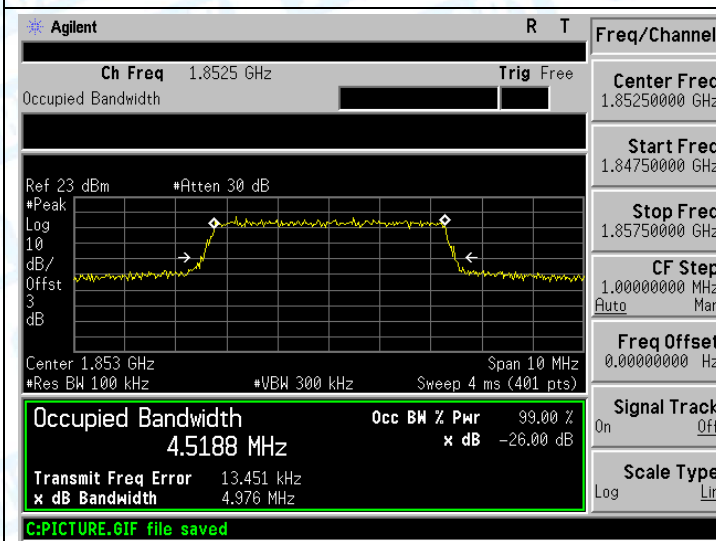
LTE BAND 2 (3MHz QPSK-High CH)

LTE BAND 2 (3MHz 16QAM-High CH)



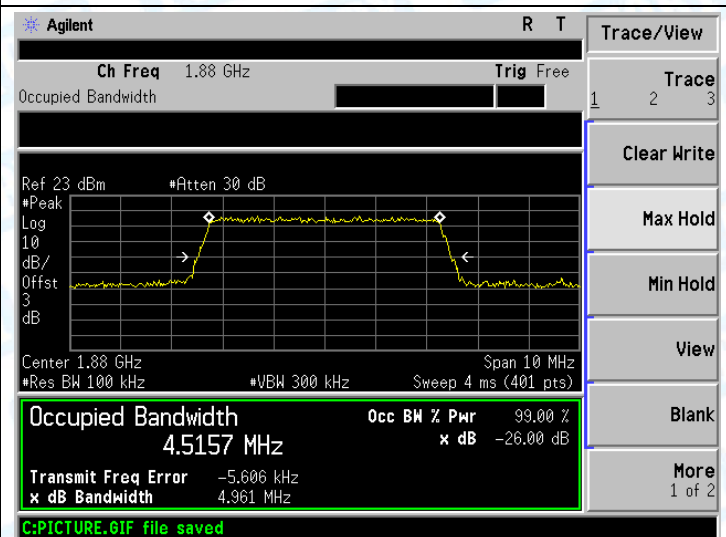
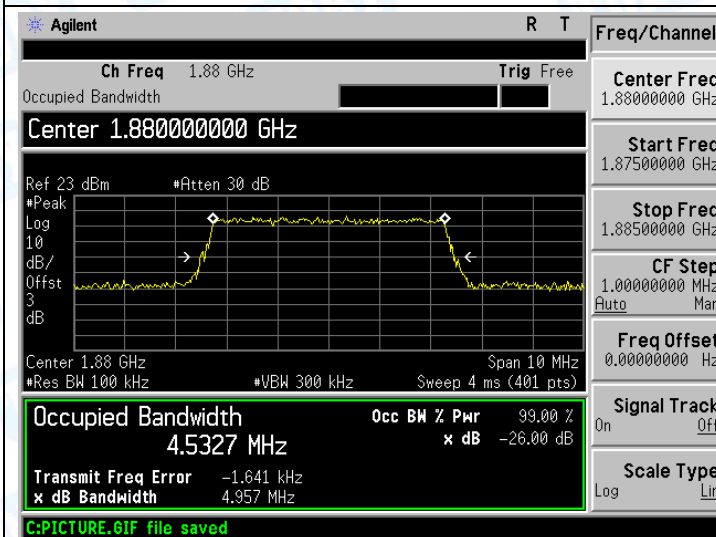
LTE BAND 2 (5MHz QPSK-Low CH)

LTE BAND 2 (5MHz 16QAM-Low CH)



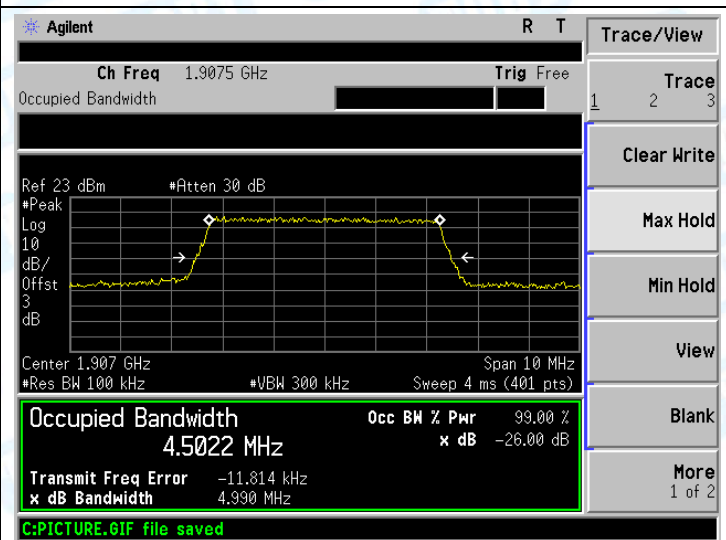
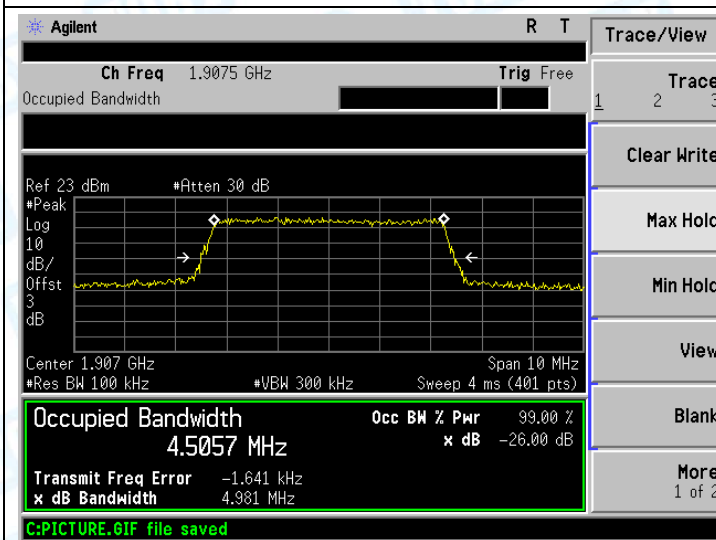
LTE BAND 2 (5MHz QPSK-Middle CH)

LTE BAND 2 (5MHz 16QAM-Middle CH)

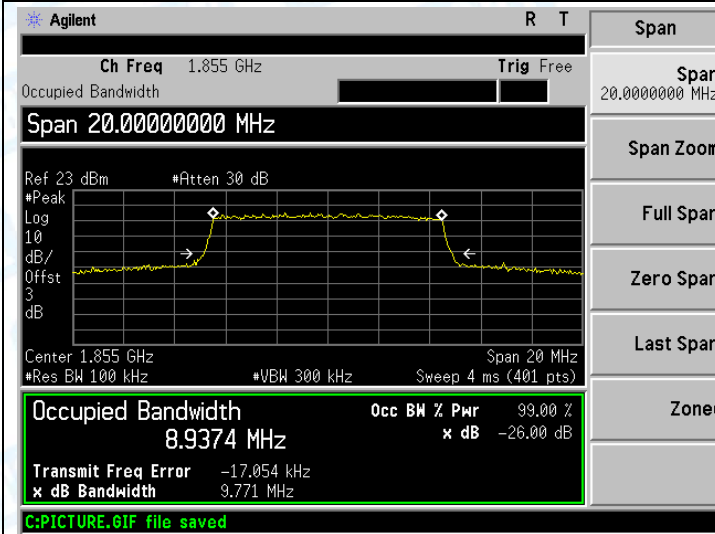


LTE BAND 2 (5MHz QPSK-High CH)

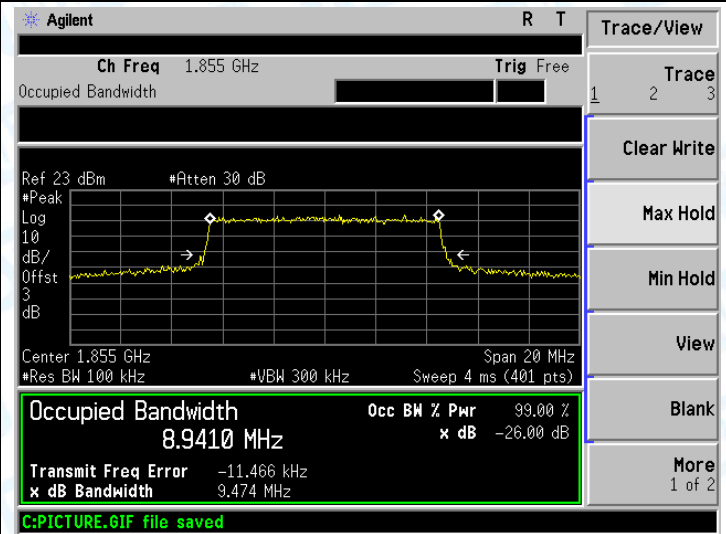
LTE BAND 2 (5MHz 16QAM-High CH)



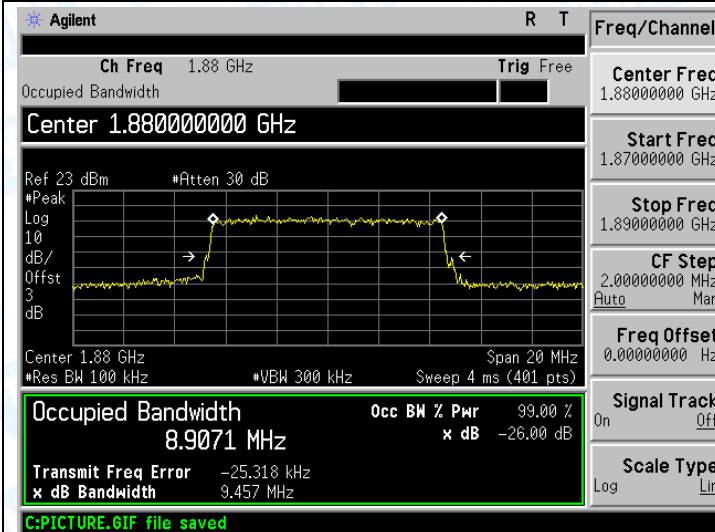
LTE BAND 2 (10MHz QPSK-Low CH)



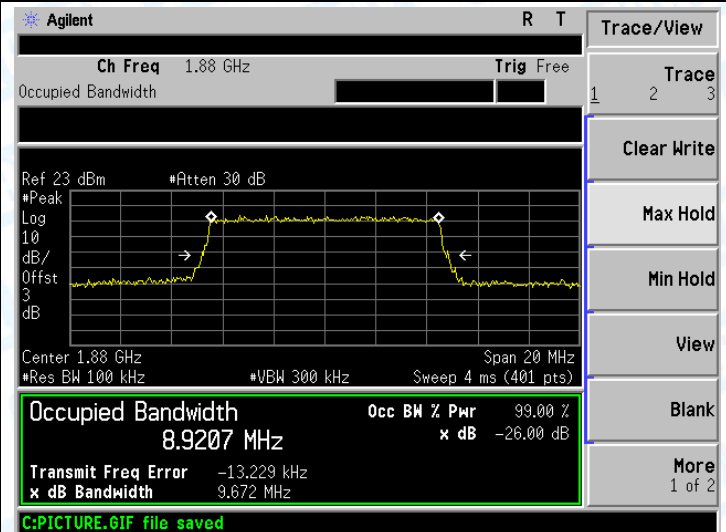
LTE BAND 2 (10MHz 16QAM-Low CH)



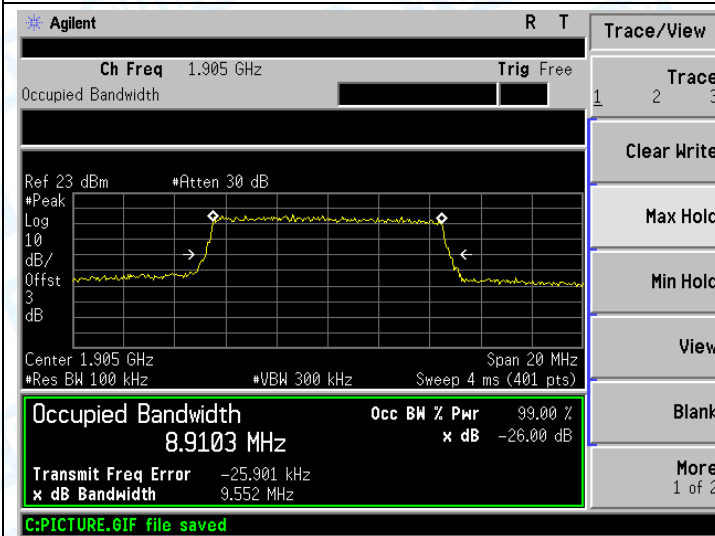
LTE BAND 2 (10MHz QPSK-Middle CH)



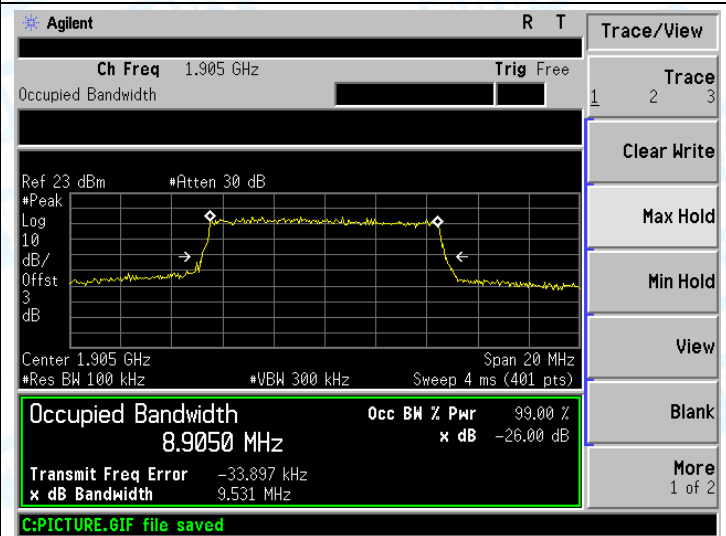
LTE BAND 2 (10MHz 16QAM- Middle CH)



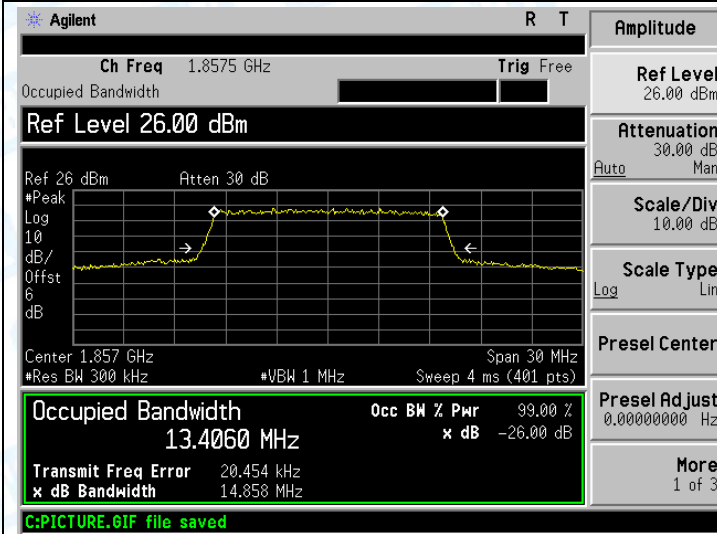
LTE BAND 2 (10MHz QPSK-High CH)



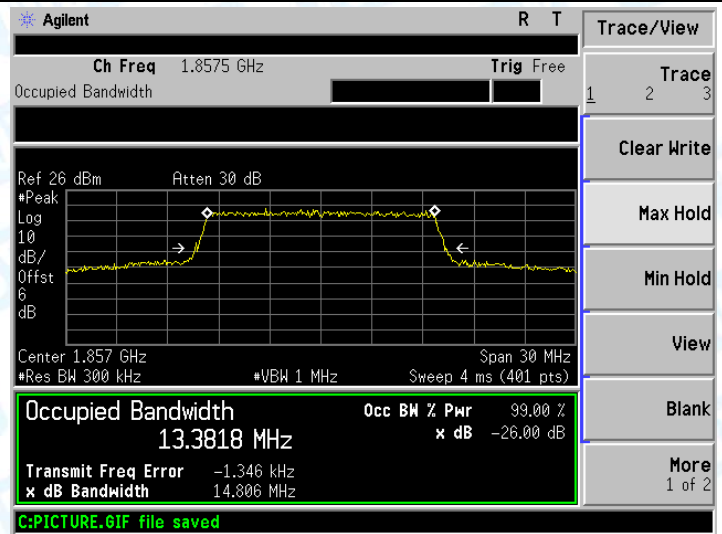
LTE BAND 2 (10MHz 16QAM-High CH)



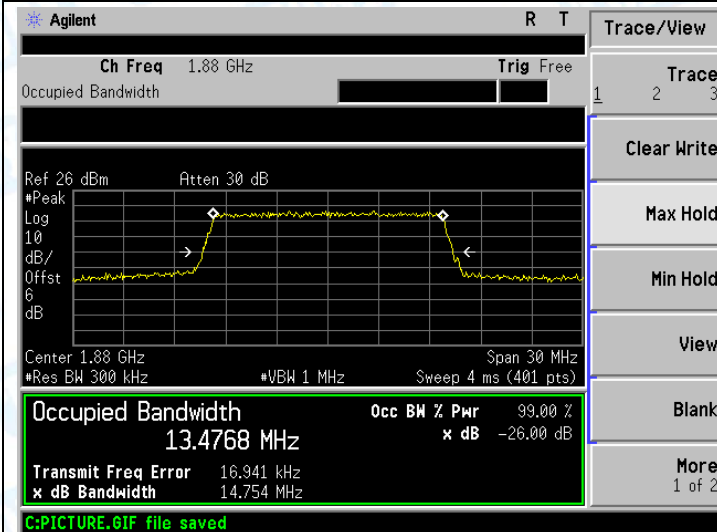
LTE BAND 2 (15MHz QPSK-Low CH)



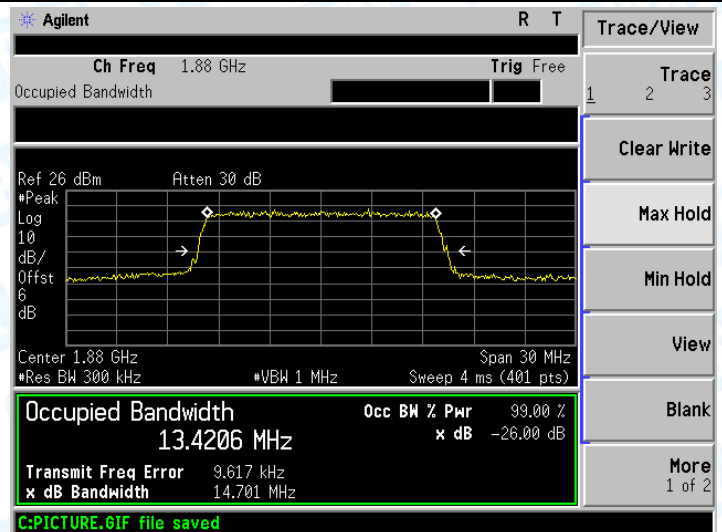
LTE BAND 2 (15MHz 16QAM-Low CH)



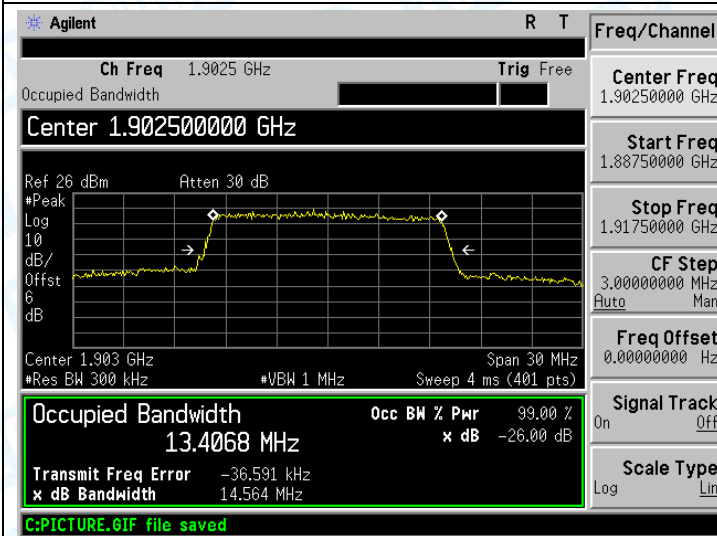
LTE BAND 2 (15MHz QPSK-Middle CH)



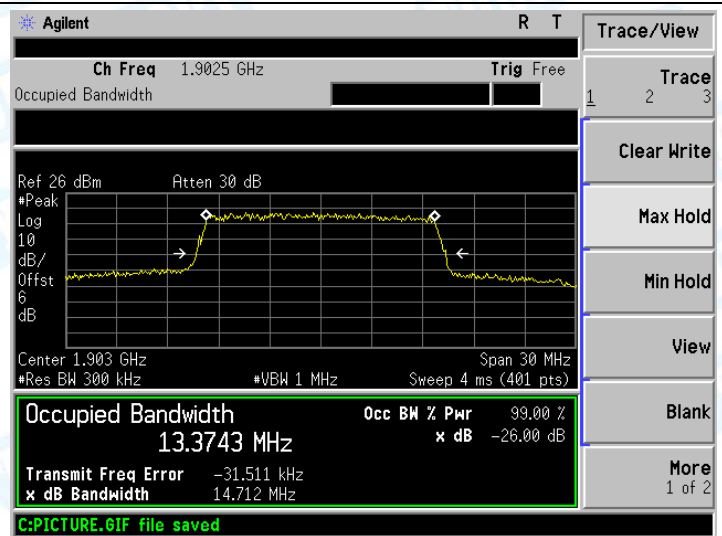
LTE BAND 2 (15MHz 16QAM-Middle CH)



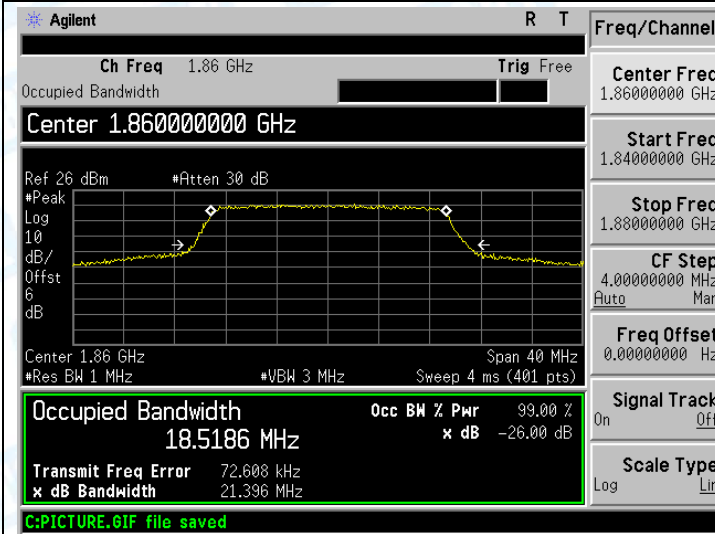
LTE BAND 2 (15MHz QPSK-High CH)



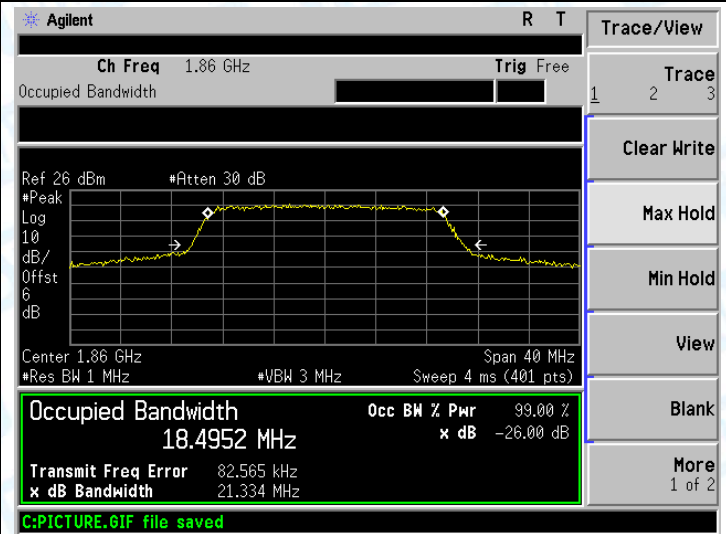
LTE BAND 2 (15MHz 16QAM-High CH)



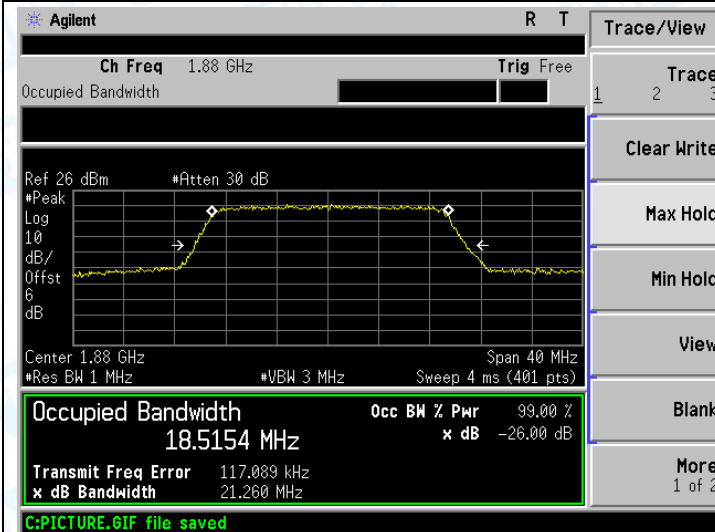
LTE BAND 2 (20MHz QPSK-Low CH)



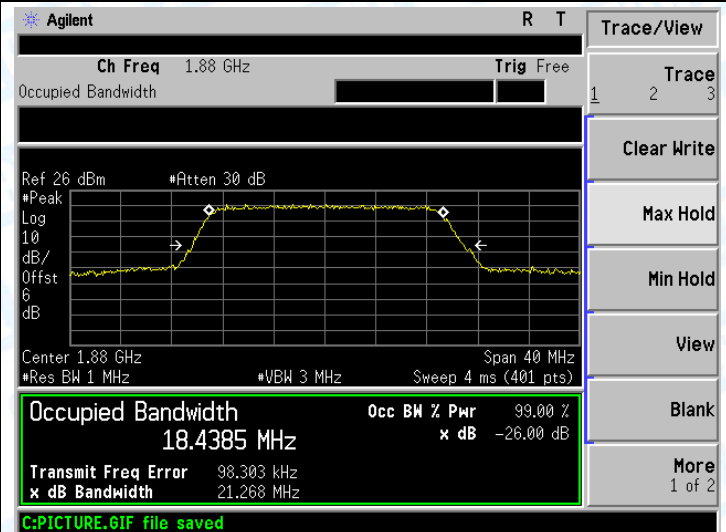
LTE BAND 2 (20MHz 16QAM-Low CH)



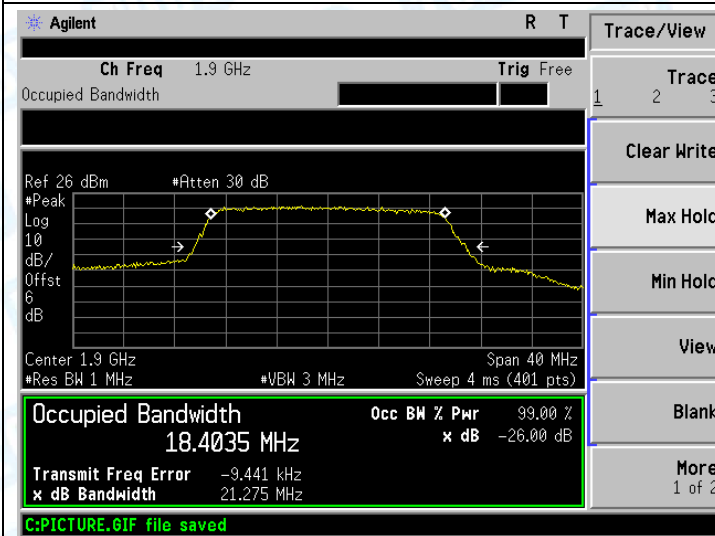
LTE BAND 2 (20MHz QPSK-Middle CH)



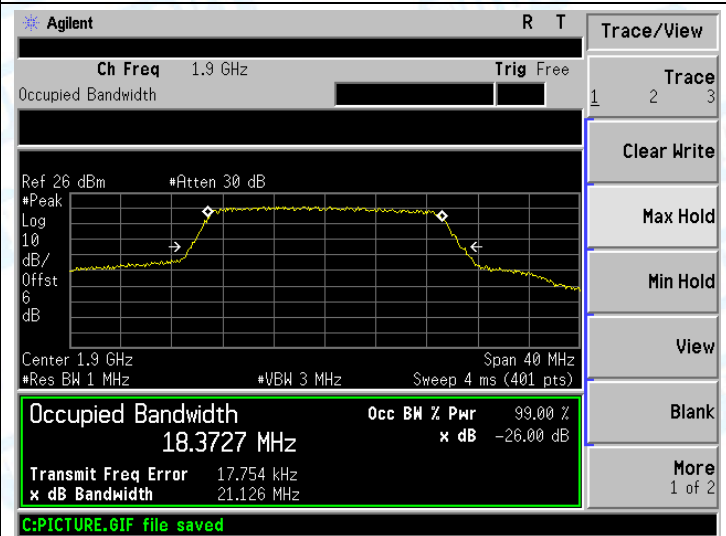
LTE BAND 2 (20MHz 16QAM-Middle CH)



LTE BAND 2 (20MHz QPSK-High CH)

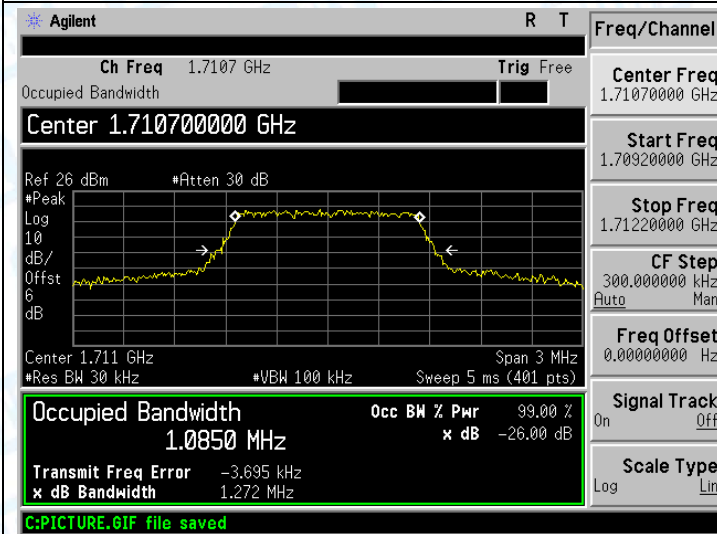


LTE BAND 2 (20MHz 16QAM-High CH)

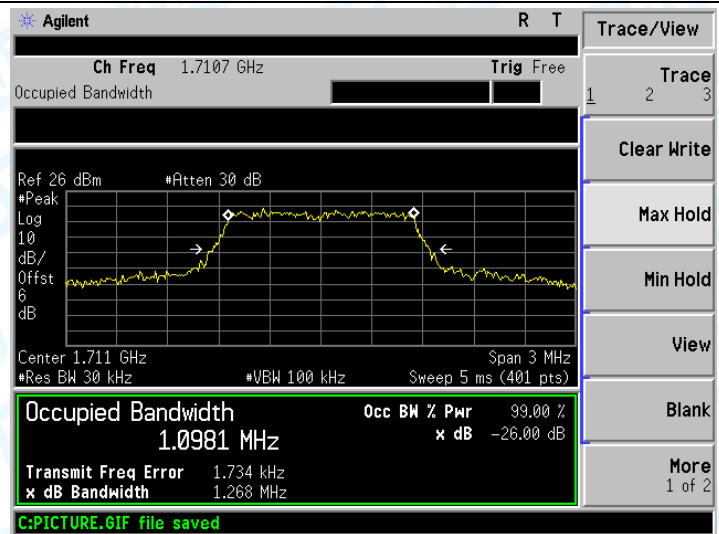


Occupancy Bandwidth Test Plot

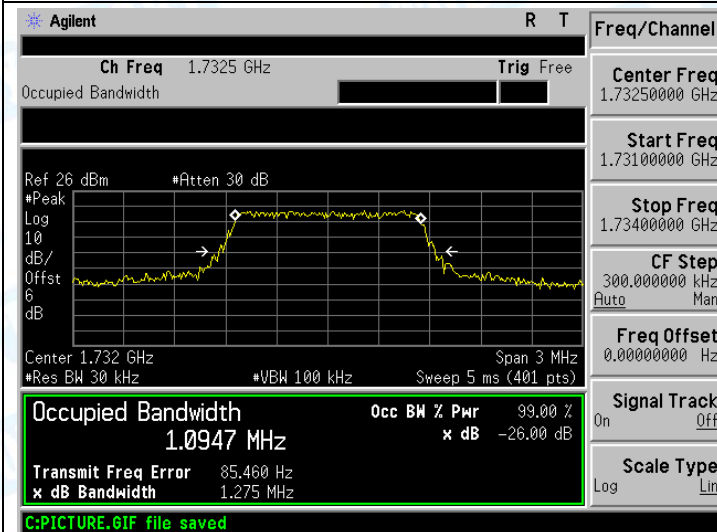
LTE BAND 4 (1.4MHz QPSK-Low CH)



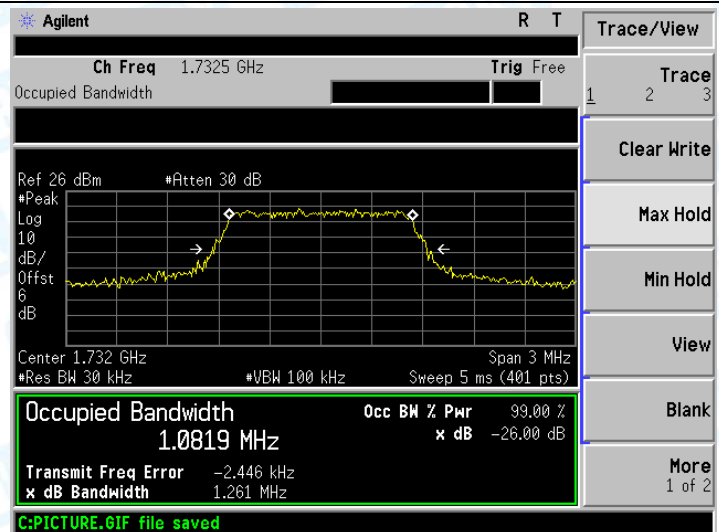
LTE BAND 4 (1.4MHz 16QAM-Low CH)



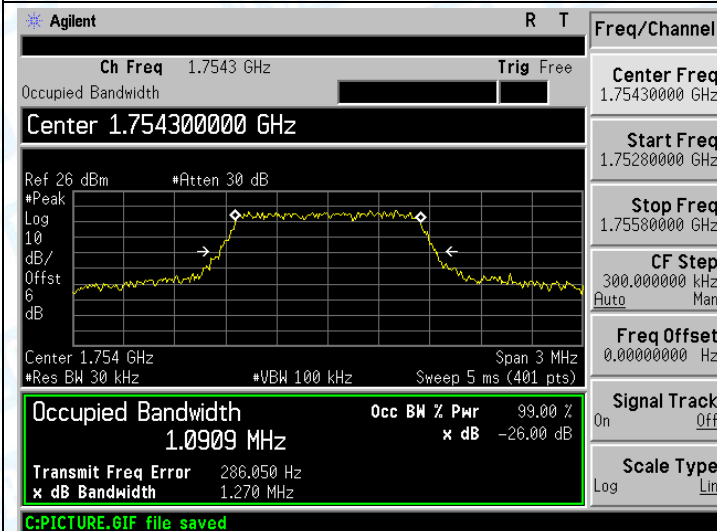
LTE BAND 4 (1.4MHz QPSK-Middle CH)



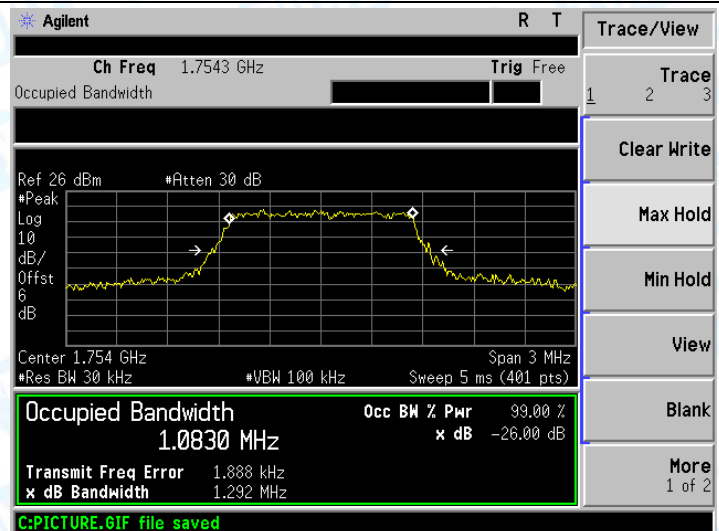
LTE BAND 4 (1.4MHz 16QAM-Middle CH)



LTE BAND 4 (1.4MHz QPSK-High CH)

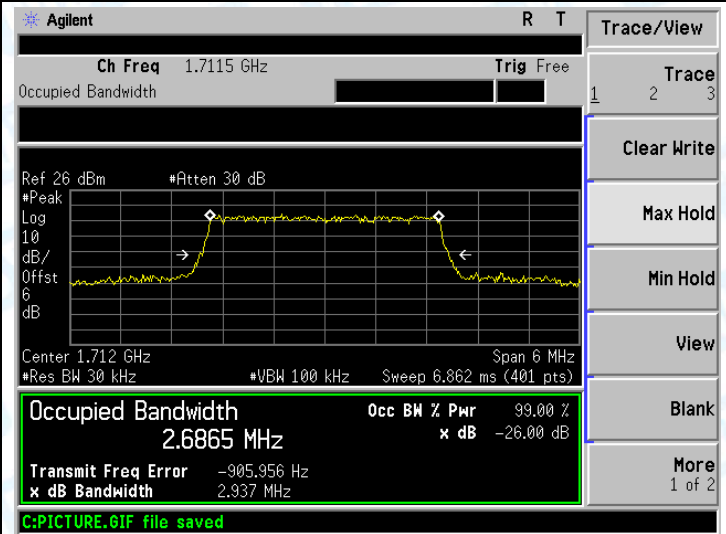
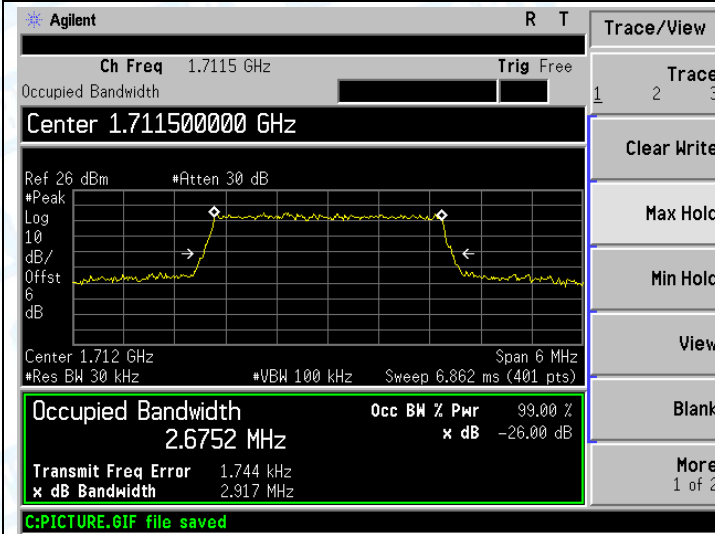


LTE BAND 4 (1.4MHz 16QAM-High CH)



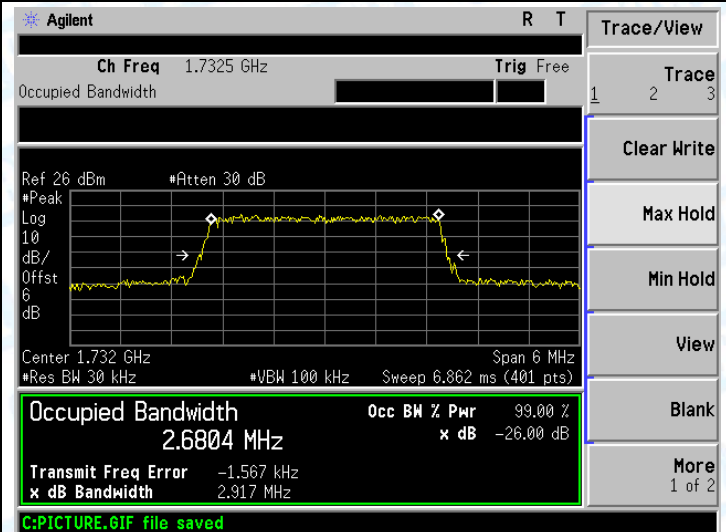
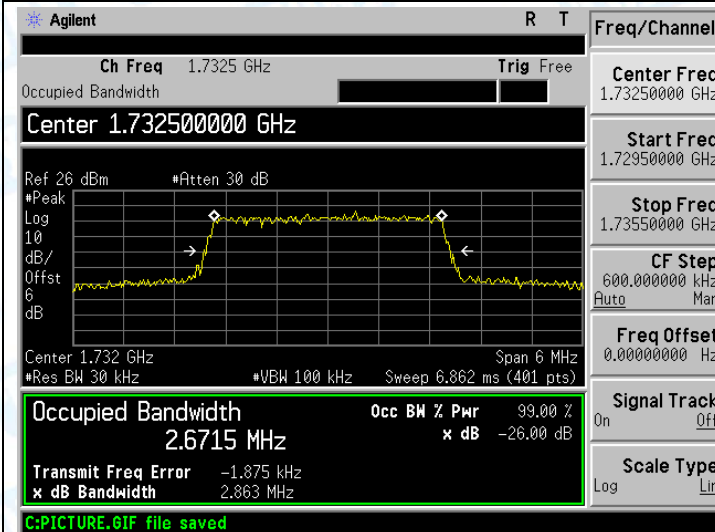
LTE BAND 4 (3MHz QPSK-Low CH)

LTE BAND 4 (3MHz 16QAM-Low CH)



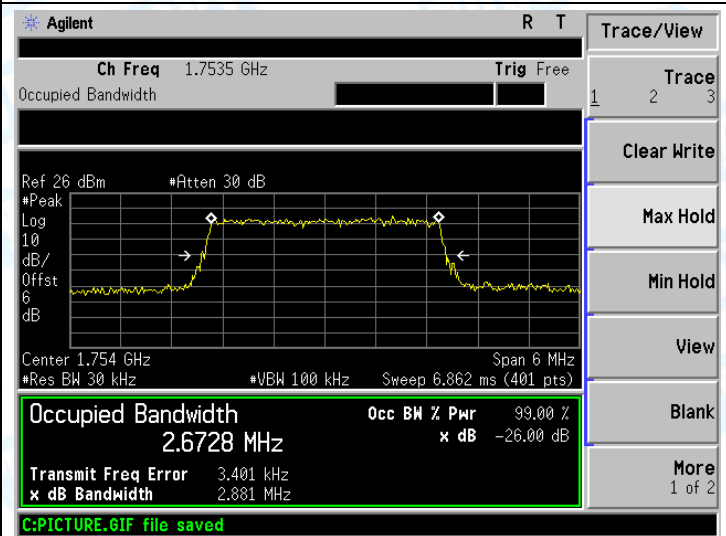
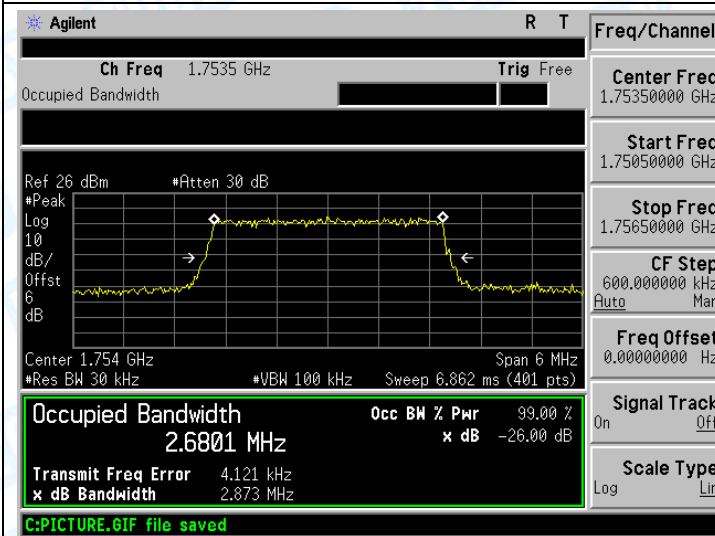
LTE BAND 4 (3MHz QPSK-Middle CH)

LTE BAND 4 (3MHz 16QAM-Middle CH)



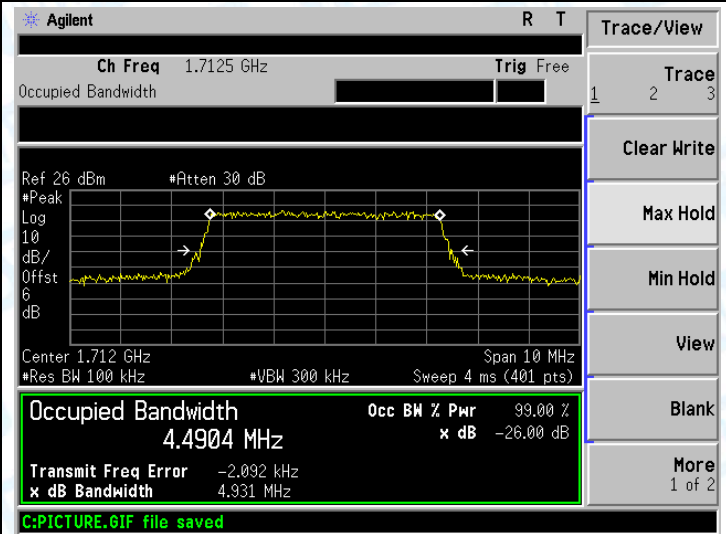
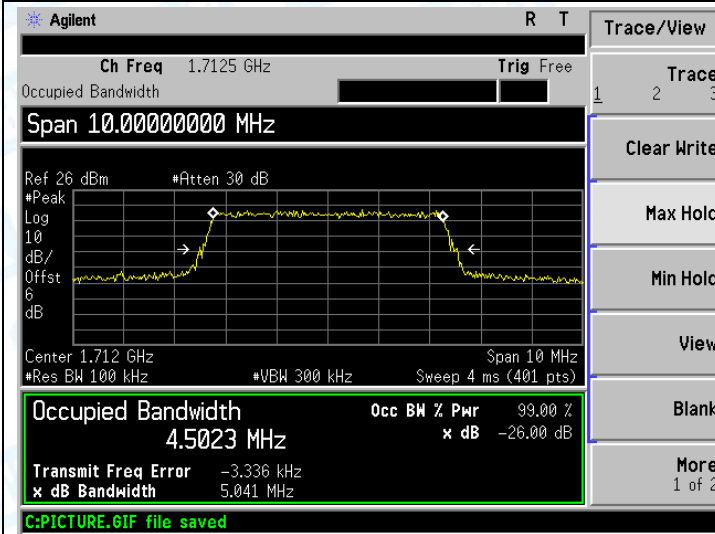
LTE BAND 4 (3MHz QPSK-High CH)

LTE BAND 4 (3MHz 16QAM-High CH)



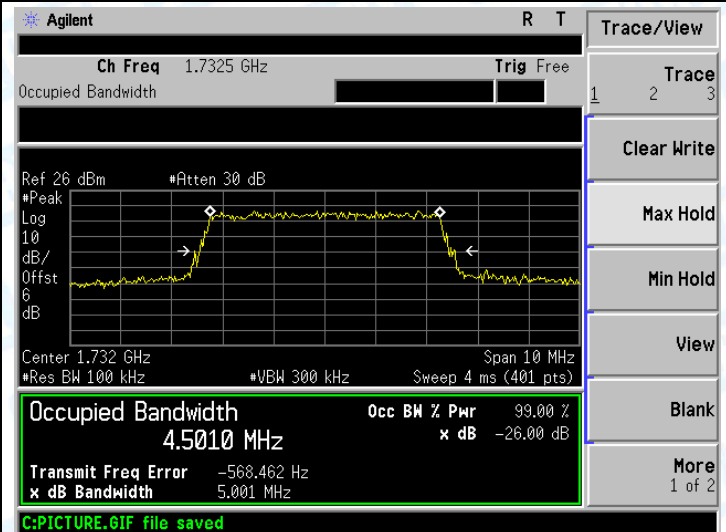
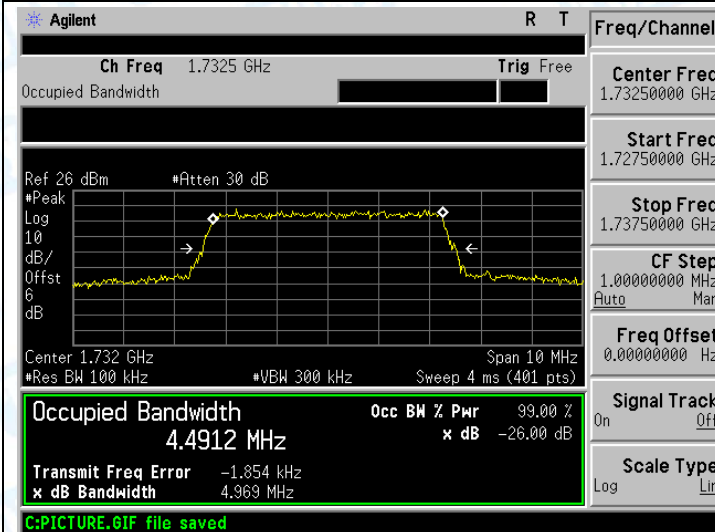
LTE BAND 4 (5MHz QPSK-Low CH)

LTE BAND 4 (5MHz 16QAM-Low CH)



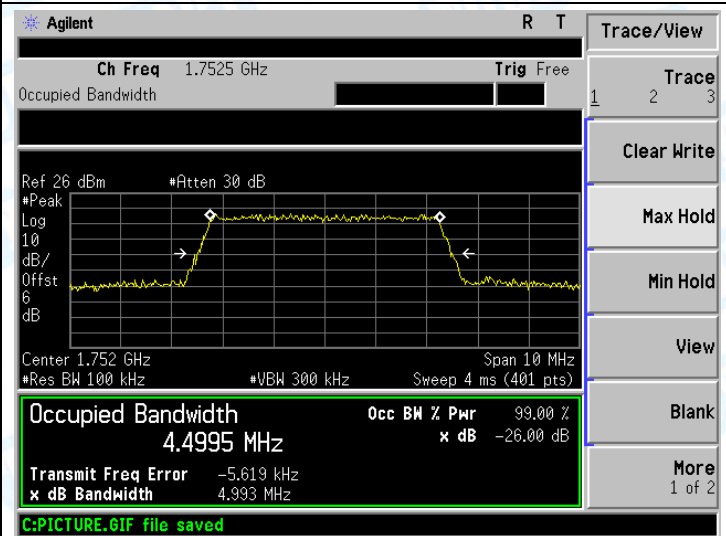
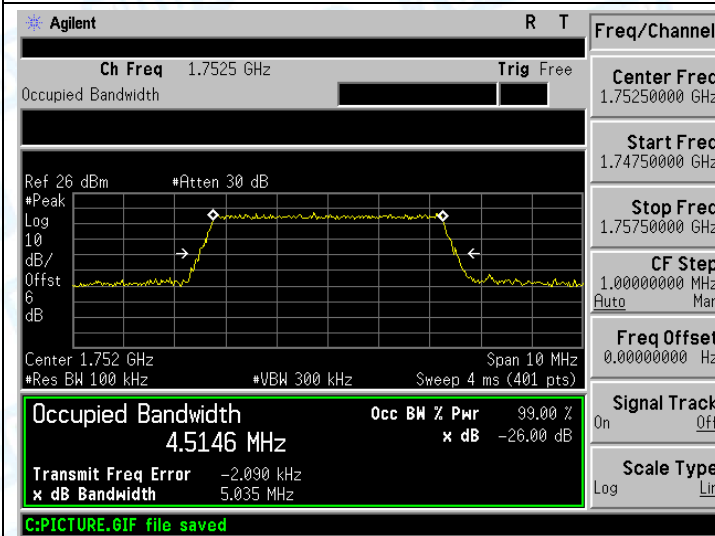
LTE BAND 4 (5MHz QPSK-Middle CH)

LTE BAND 4 (5MHz 16QAM- Middle CH)

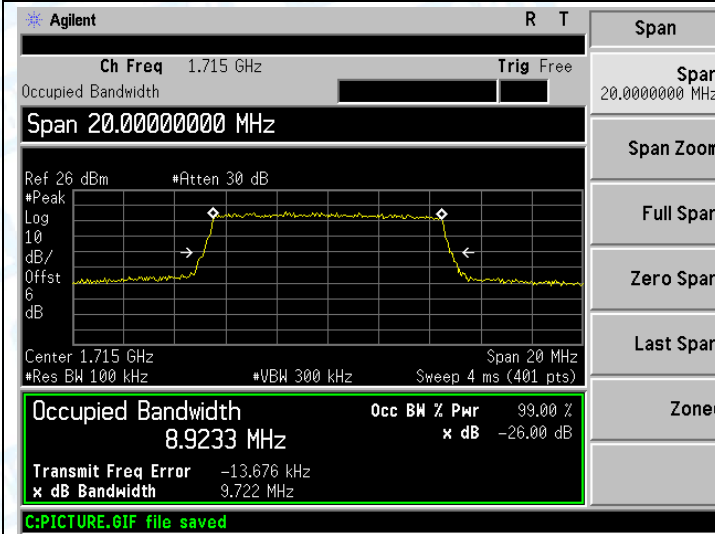


LTE BAND 4 (5MHz QPSK-High CH)

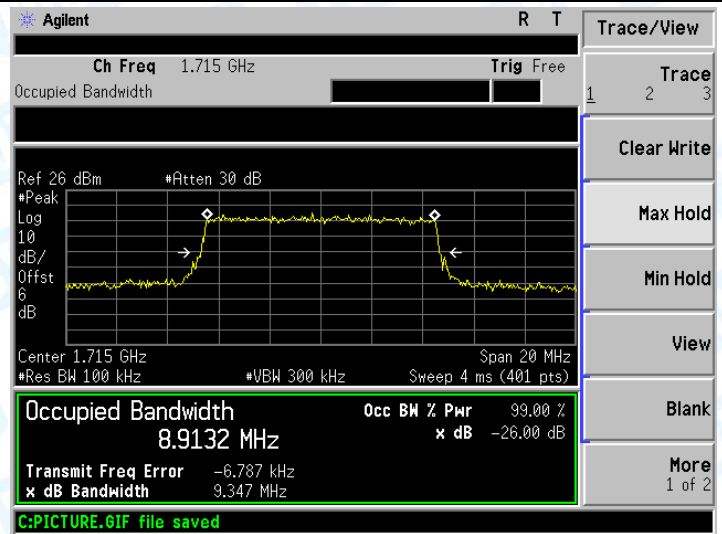
LTE BAND 4 (5MHz 16QAM-High CH)



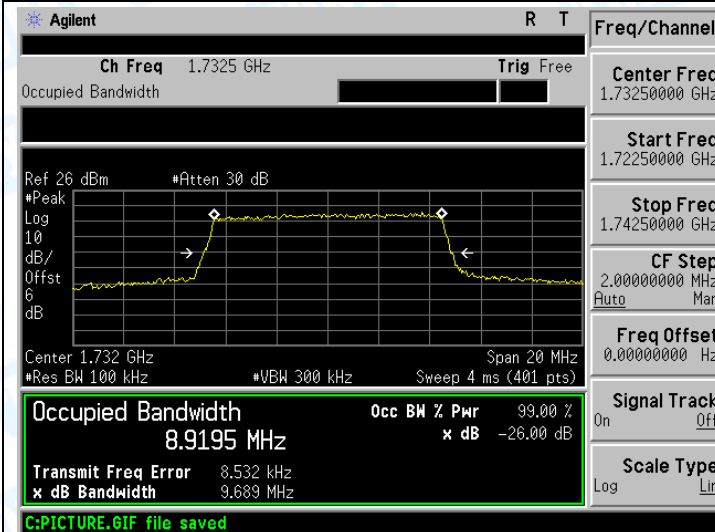
LTE BAND 4 (10MHz QPSK-Low CH)



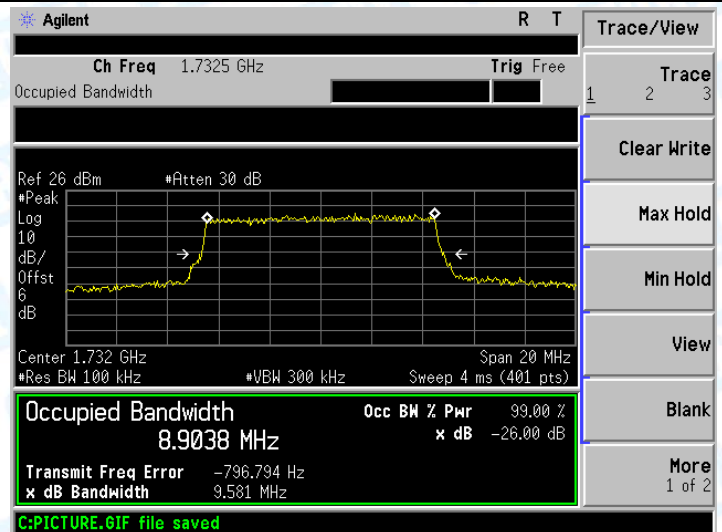
LTE BAND 4 (10MHz 16QAM-Low CH)



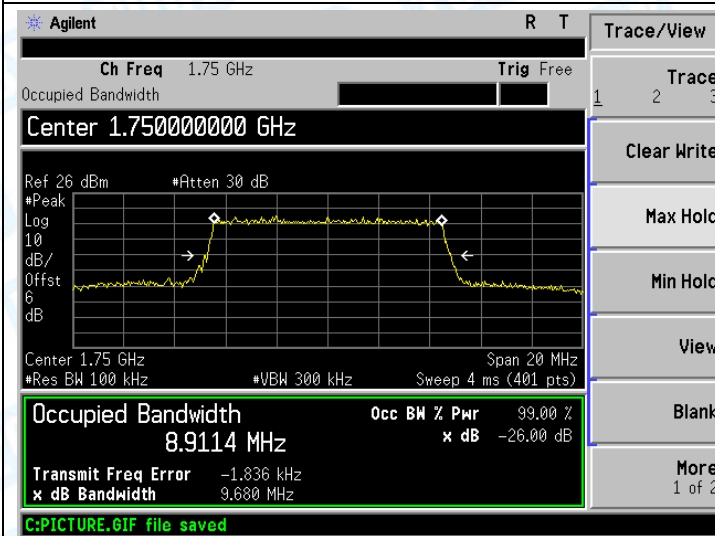
LTE BAND 4 (10MHz QPSK-Middle CH)



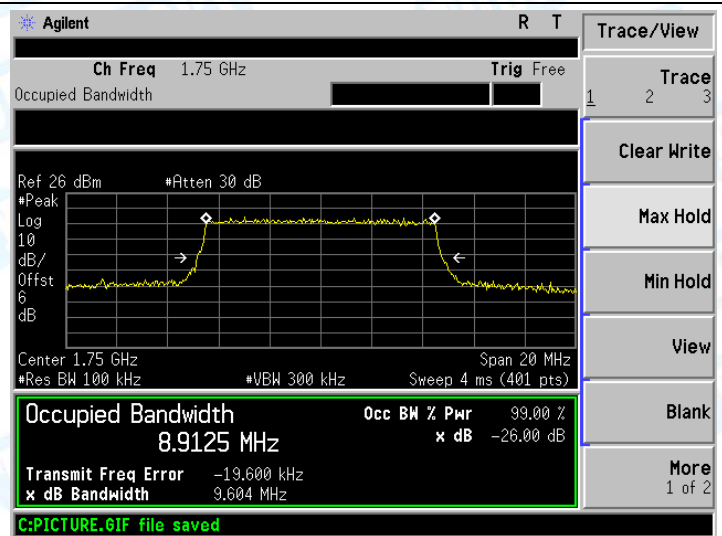
LTE BAND 4 (10MHz 16QAM-Middle CH)



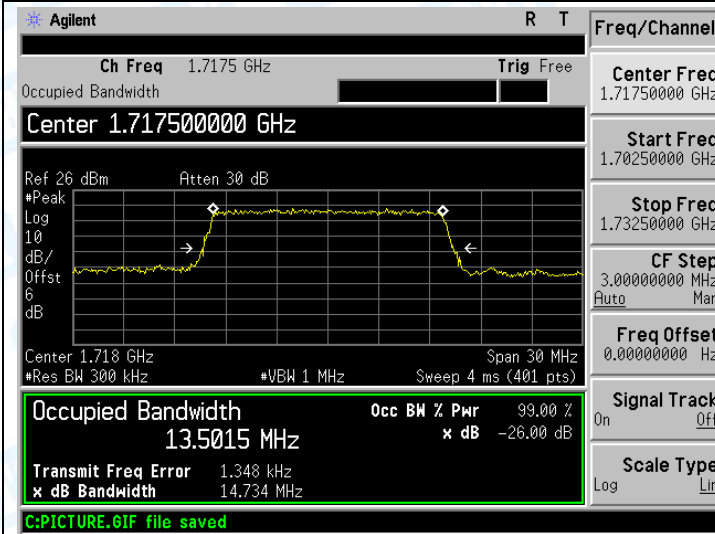
LTE BAND 4 (10MHz QPSK-High CH)



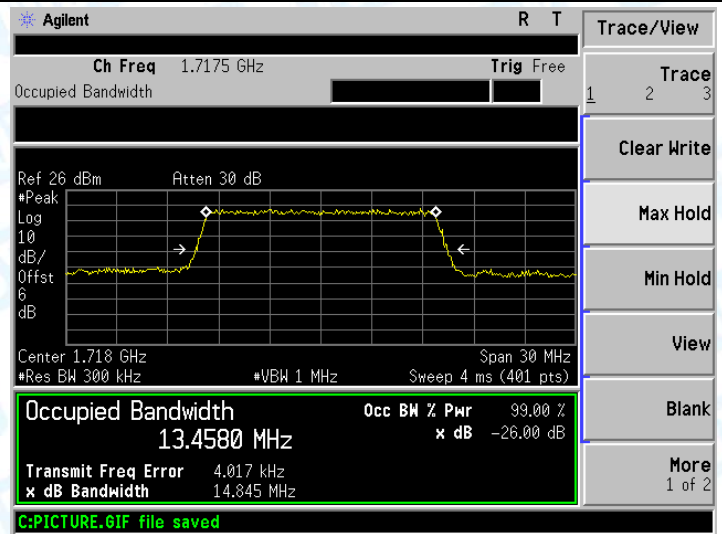
LTE BAND 4 (10MHz 16QAM-High CH)



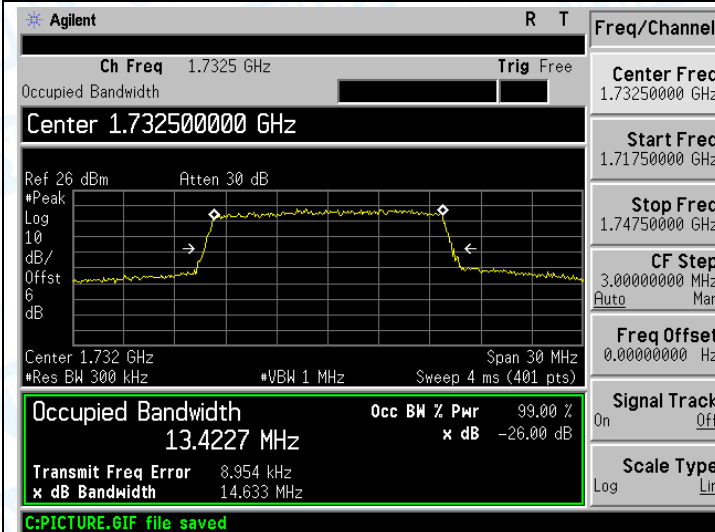
LTE BAND 4 (15MHz QPSK-Low CH)



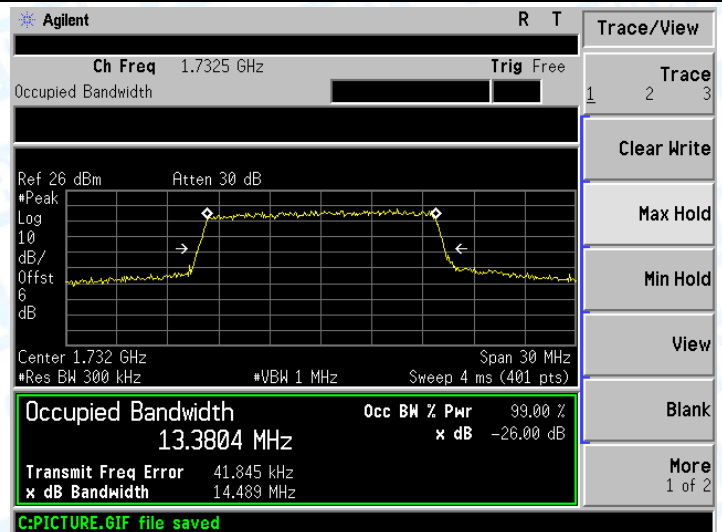
LTE BAND 4 (15MHz 16QAM-Low CH)



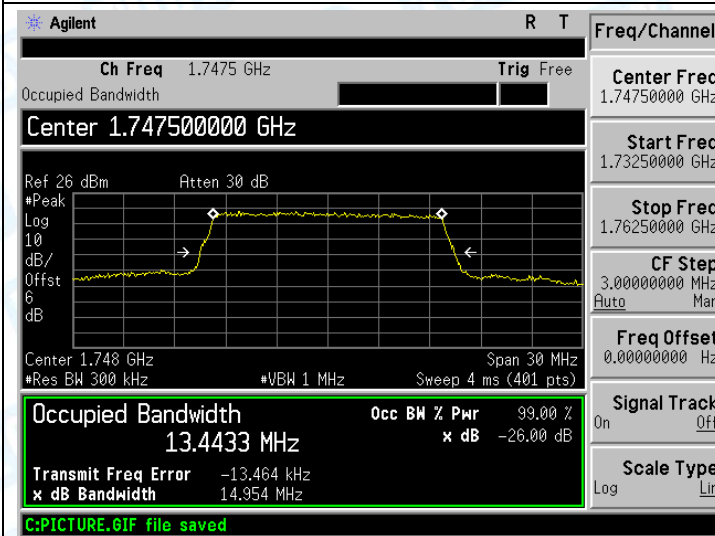
LTE BAND 4 (15MHz QPSK-Middle CH)



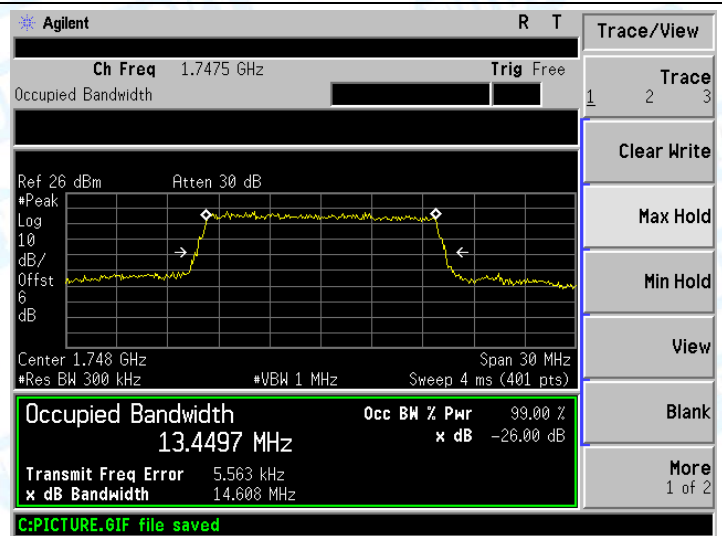
LTE BAND 4 (15MHz 16QAM- Middle CH)



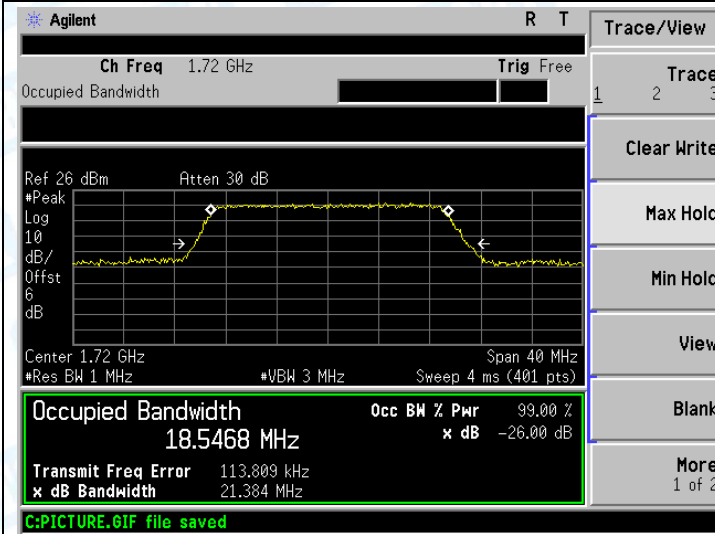
LTE BAND 4 (15MHz QPSK-High CH)



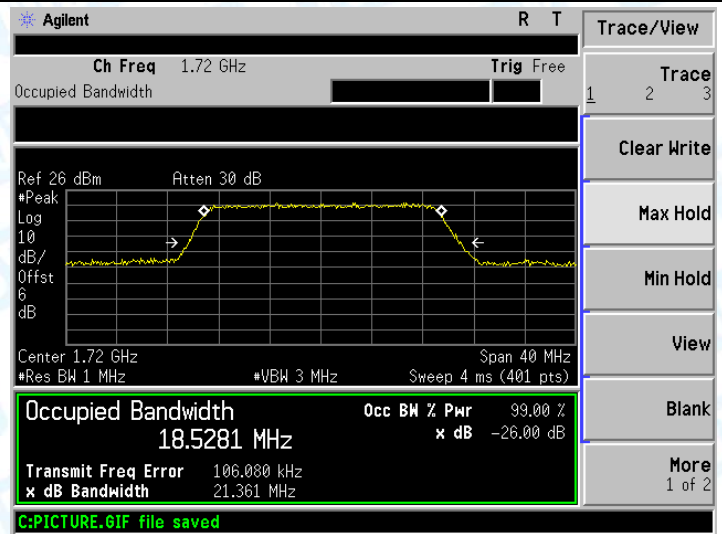
LTE BAND 4 (15MHz 16QAM-High CH)



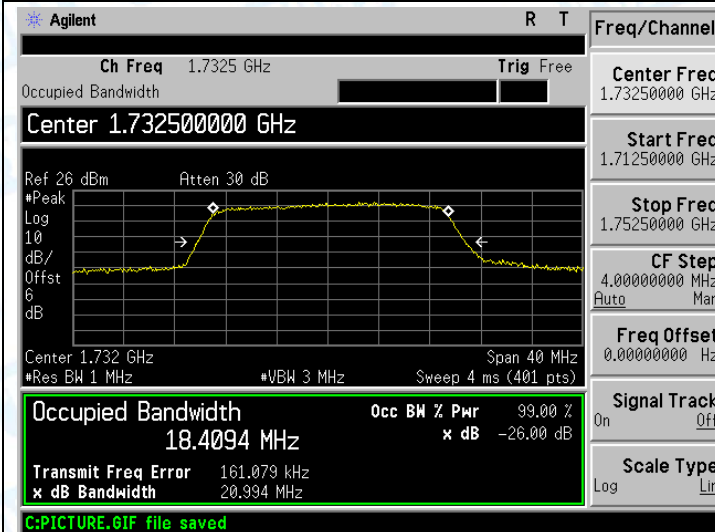
LTE BAND 4 (20MHz QPSK-Low CH)



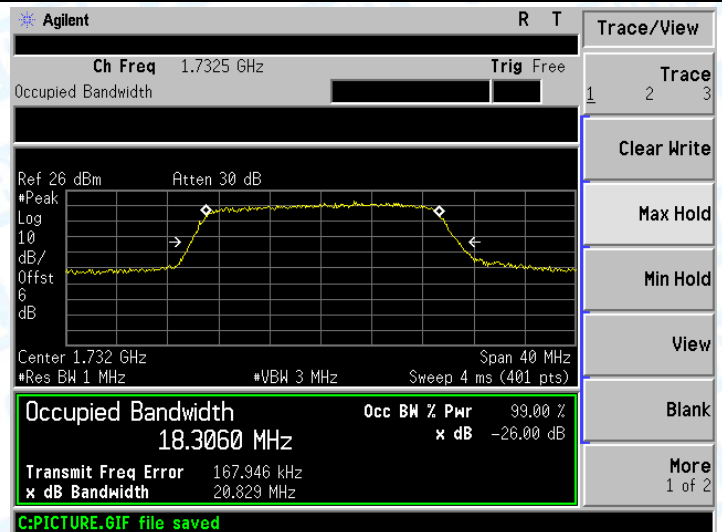
LTE BAND 4 (20MHz 16QAM-Low CH)



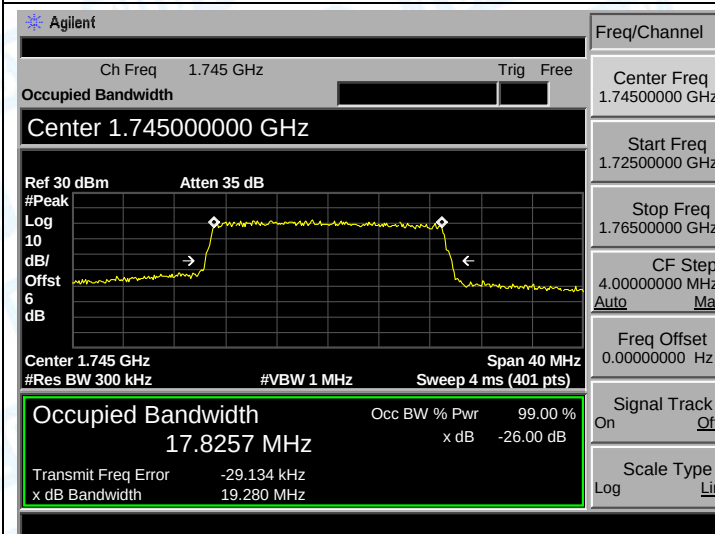
LTE BAND 4 (20MHz QPSK-Middle CH)



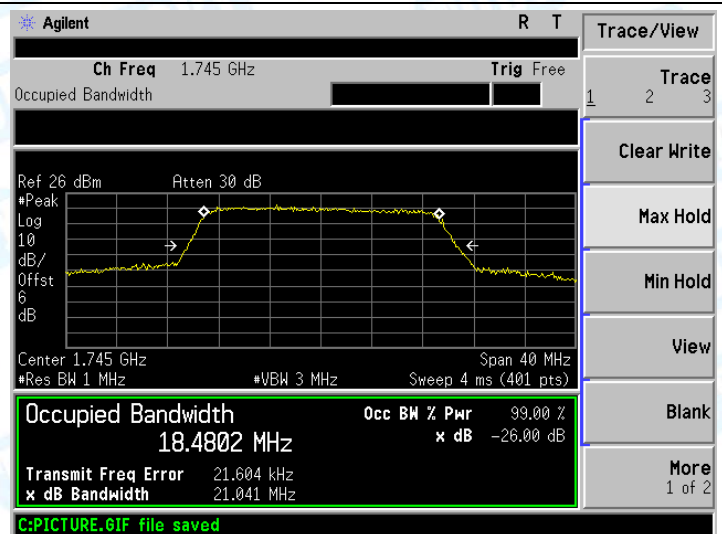
LTE BAND 4 (20MHz 16QAM- Middle CH)



LTE BAND 4 (20MHz QPSK-High CH)



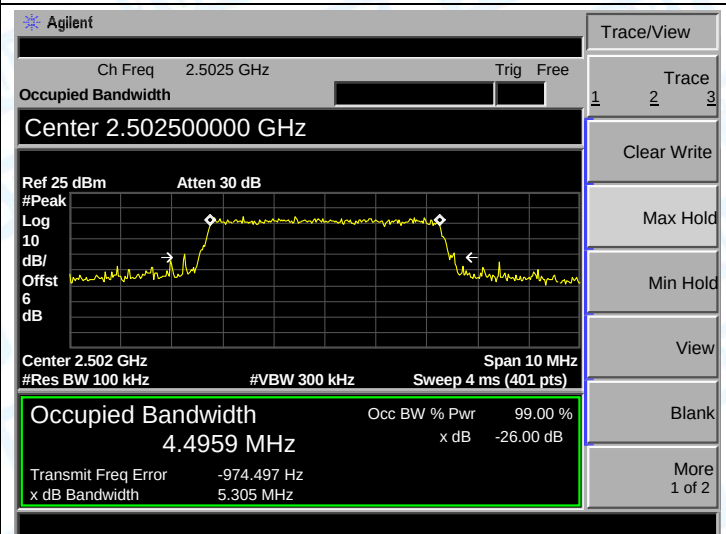
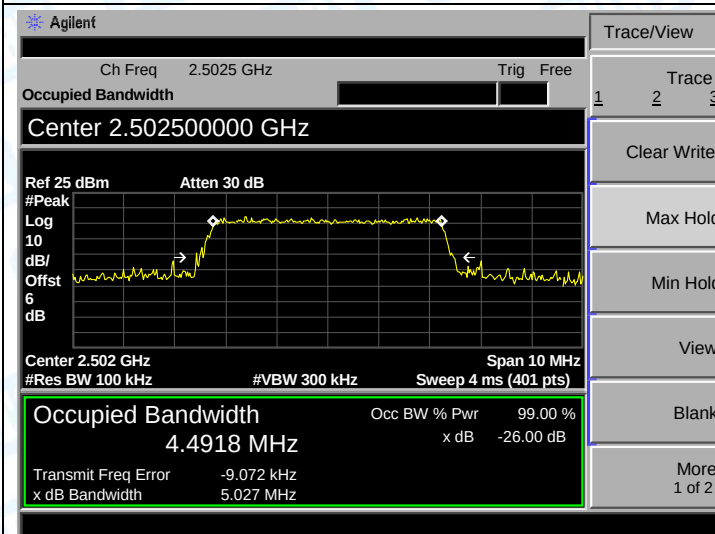
LTE BAND 4 (20MHz 16QAM-High CH)



Occupancy Bandwidth Test Plot

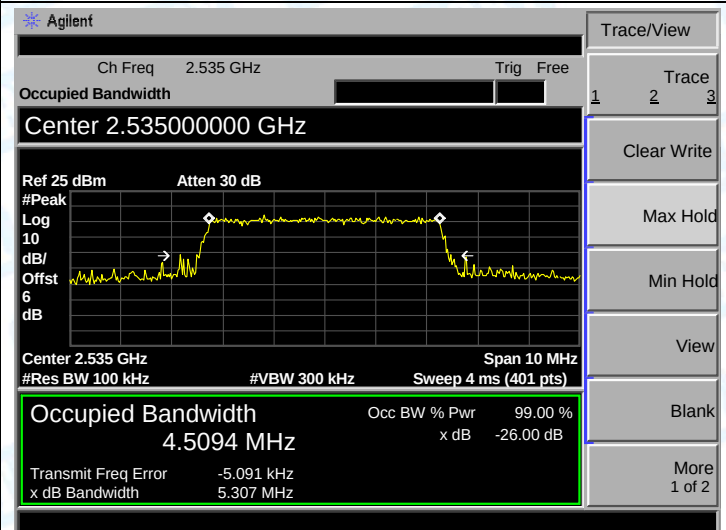
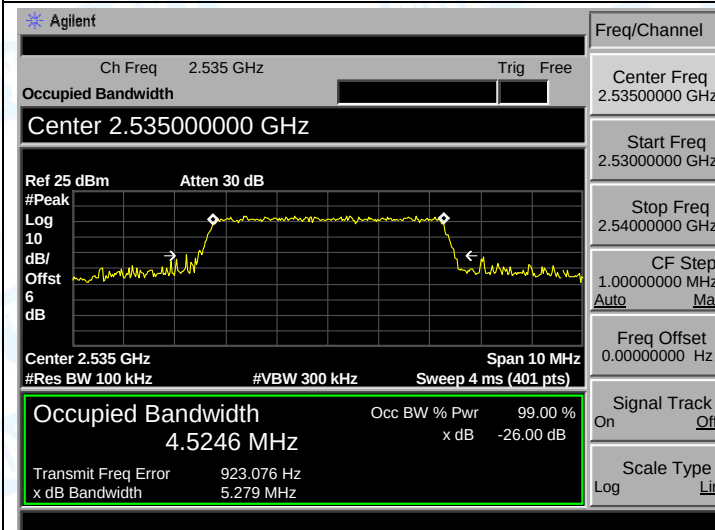
LTE BAND 7 (5MHz QPSK-Low CH)

LTE BAND 7 (5MHz 16QAM-Low CH)



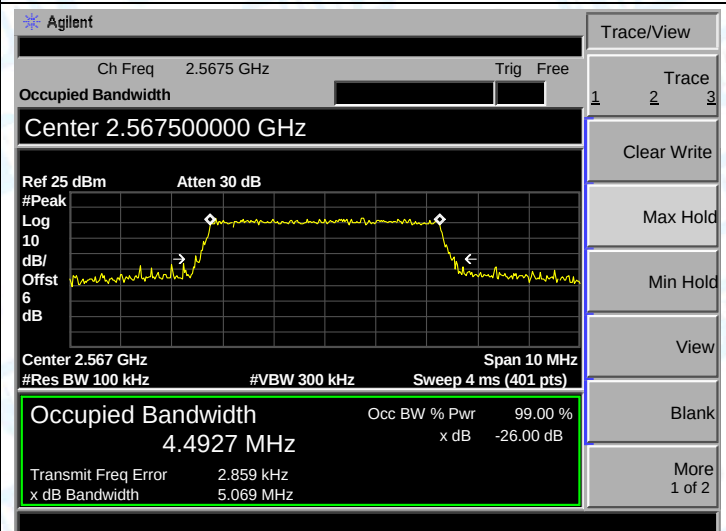
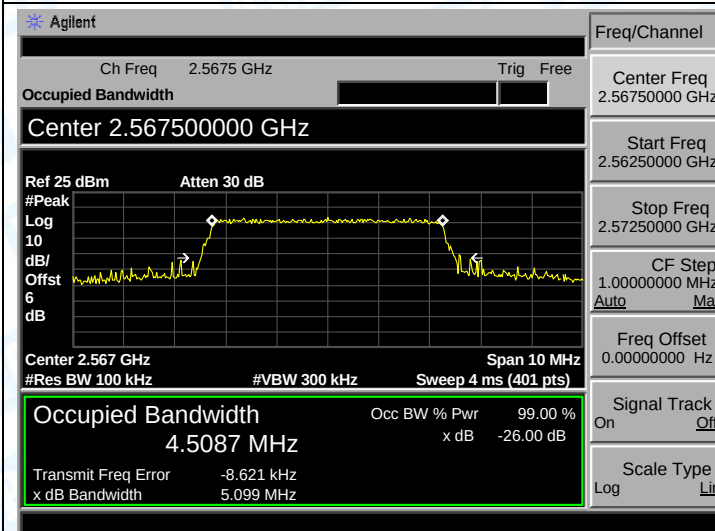
LTE BAND 7 (5MHz QPSK-Middle CH)

LTE BAND 7 (5MHz 16QAM- Middle CH)

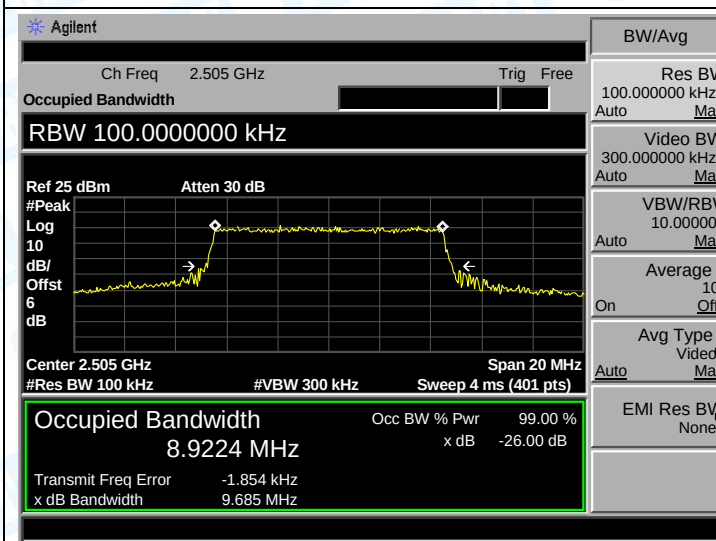


LTE BAND 7 (5MHz QPSK-High CH)

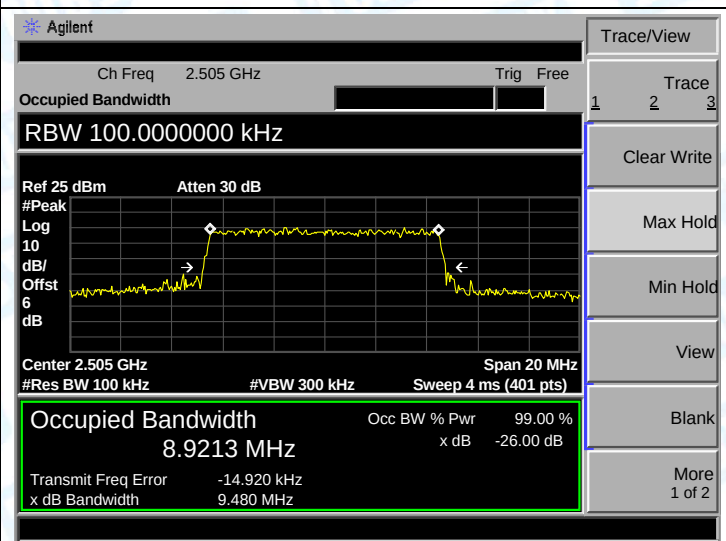
LTE BAND 7 (5MHz 16QAM-High CH)



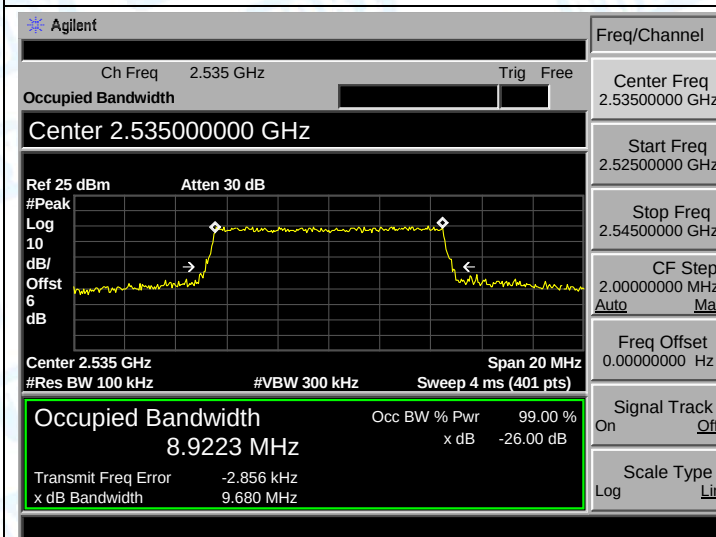
LTE BAND 7 (10MHz QPSK-Low CH)



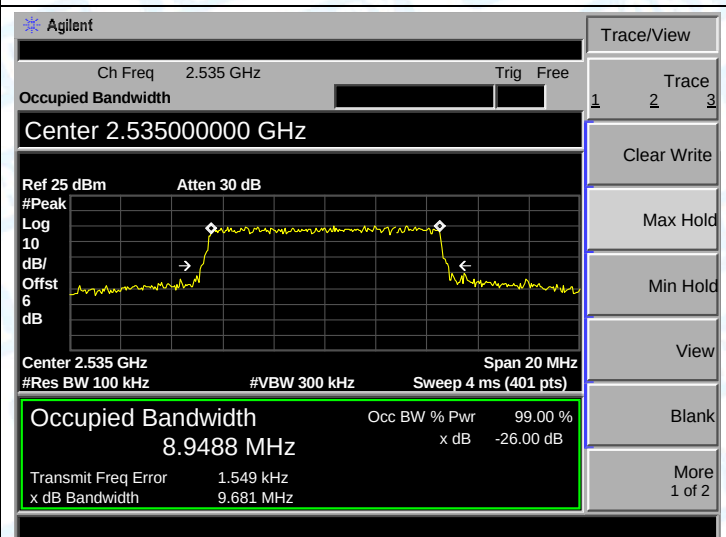
LTE BAND 7 (10MHz 16QAM-Low CH)



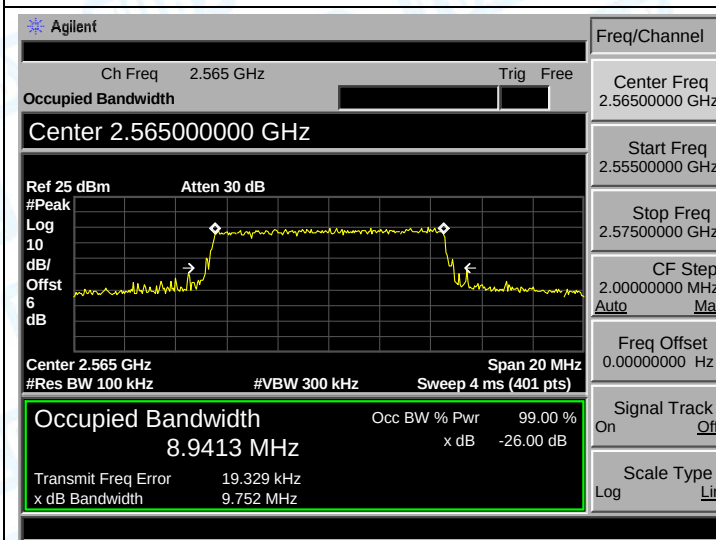
LTE BAND 7 (10MHz QPSK-Middle CH)



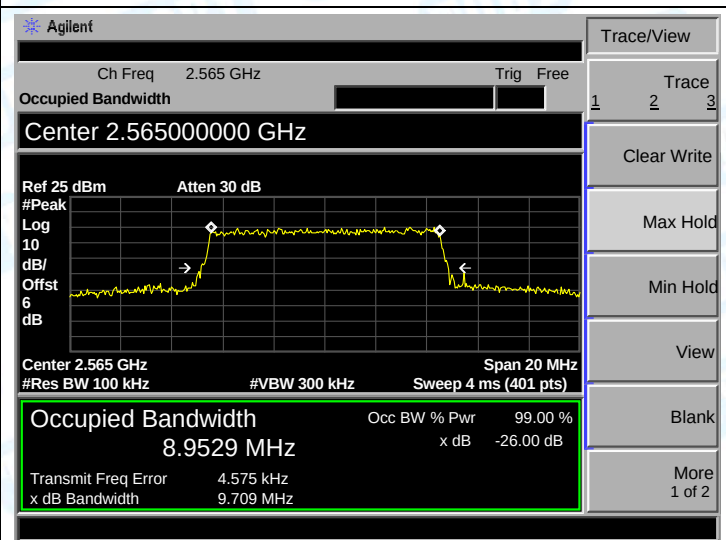
LTE BAND 7 (10MHz 16QAM- Middle CH)



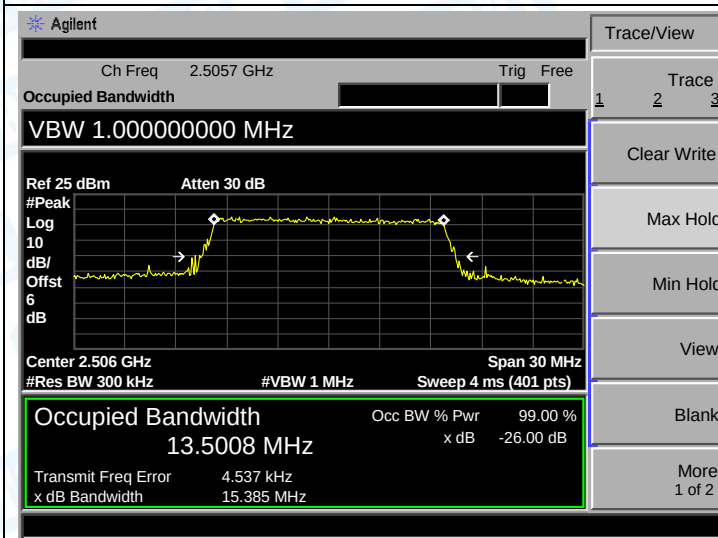
LTE BAND 7 (10MHz QPSK-High CH)



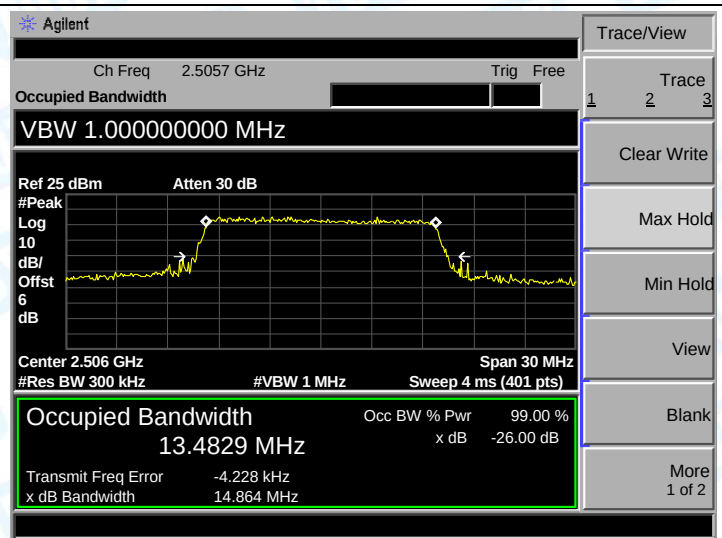
LTE BAND 7 (10MHz 16QAM-High CH)



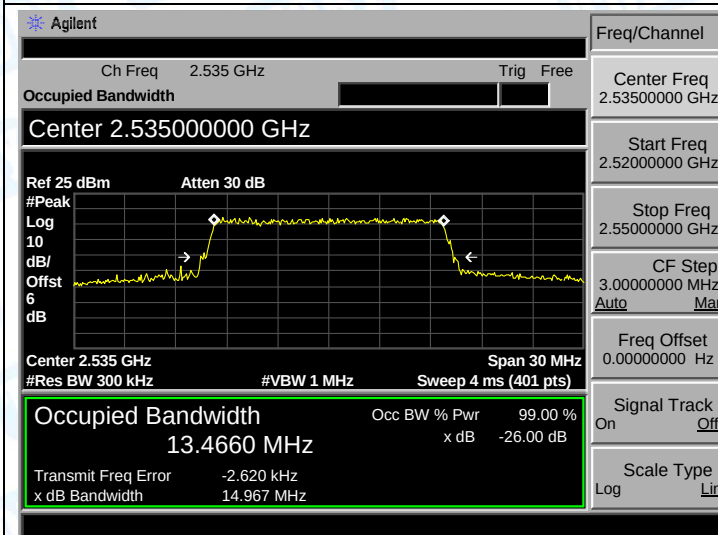
LTE BAND 7 (15MHz QPSK-Low CH)



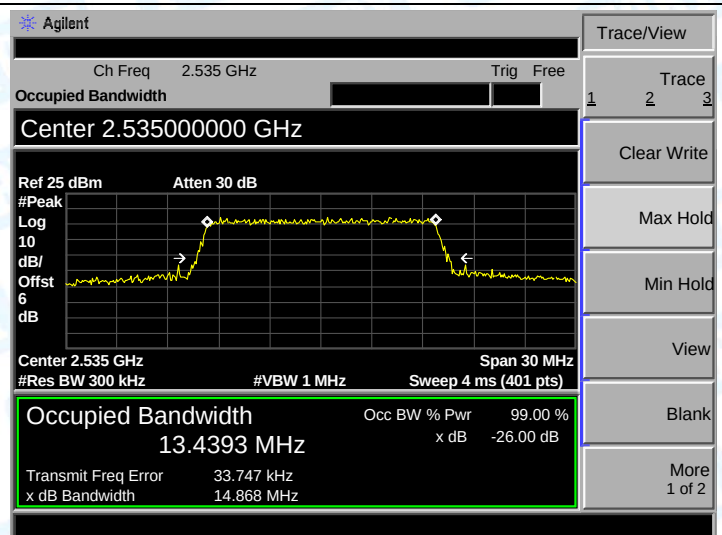
LTE BAND 7 (15MHz 16QAM-Low CH)



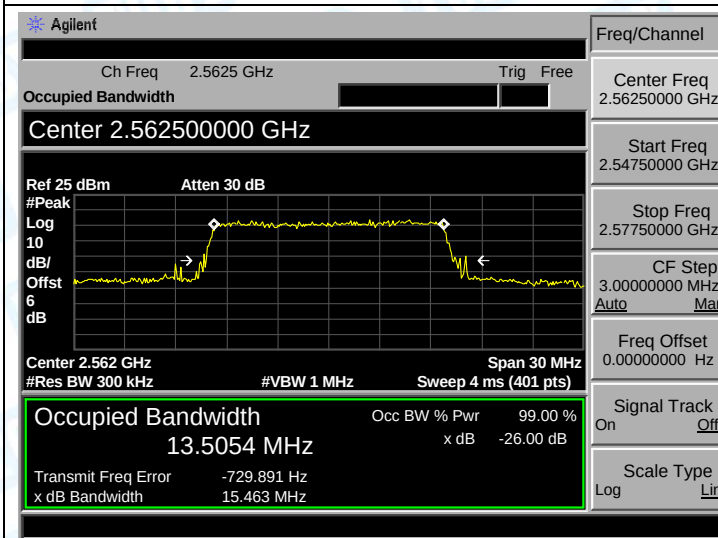
LTE BAND 7 (15MHz QPSK-Middle CH)



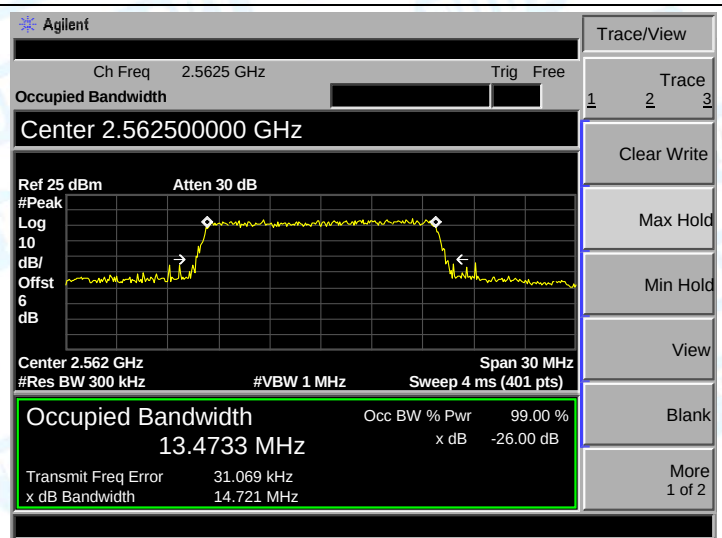
LTE BAND 7 (15MHz 16QAM- Middle CH)



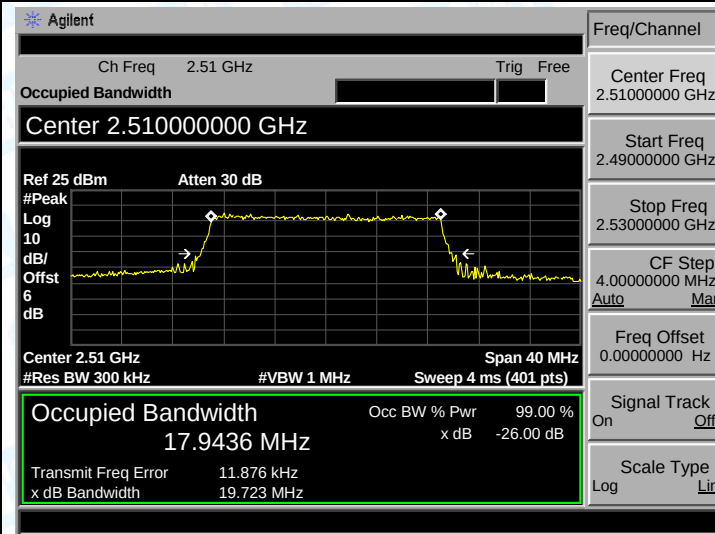
LTE BAND 7 (15MHz QPSK-High CH)



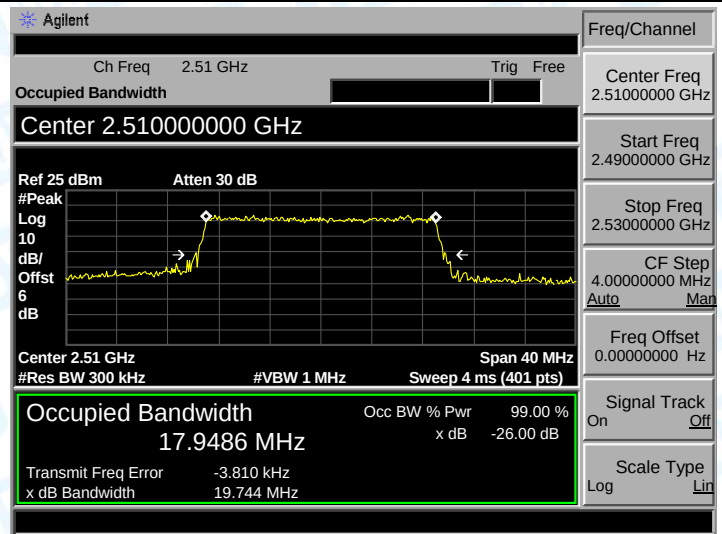
LTE BAND 7 (15MHz 16QAM-High CH)



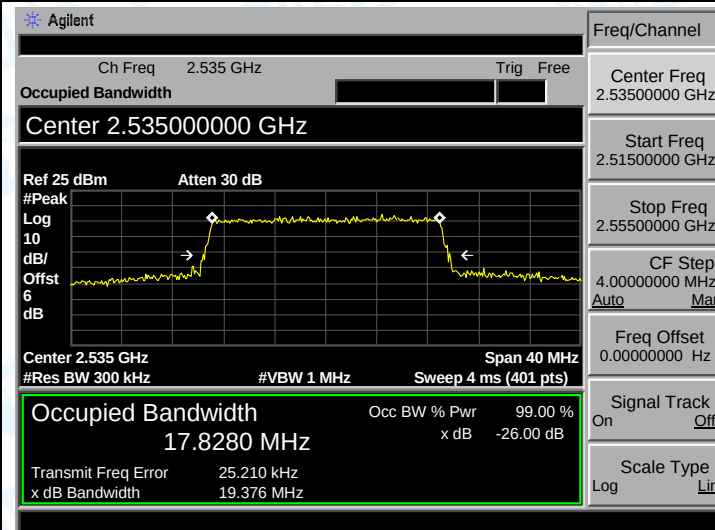
LTE BAND 7 (20MHz QPSK-Low CH)



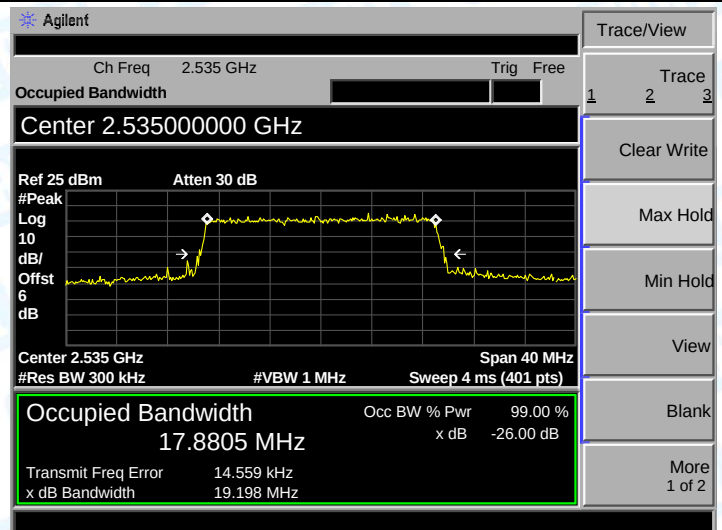
LTE BAND 7 (20MHz 16QAM-Low CH)



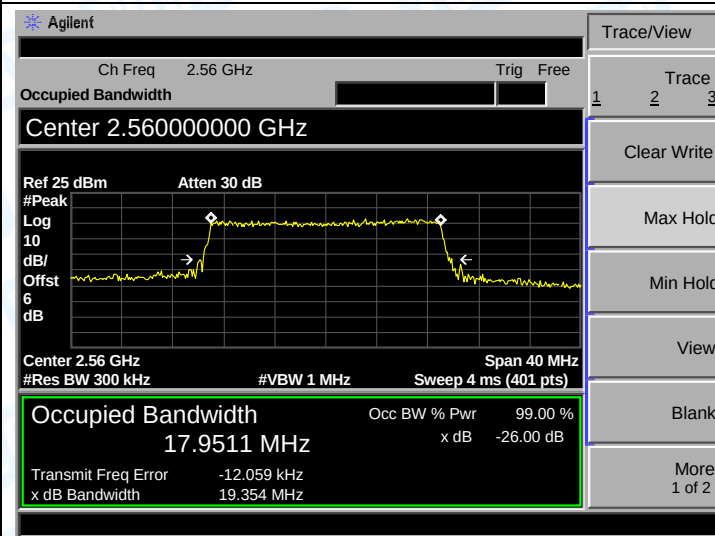
LTE BAND 7 (20MHz QPSK-Middle CH)



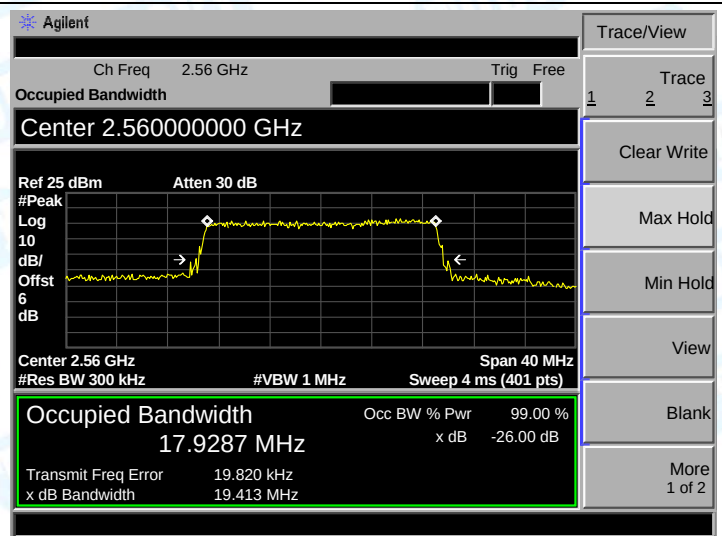
LTE BAND 7 (20MHz 16QAM- Middle CH)



LTE BAND 7 (20MHz QPSK-High CH)

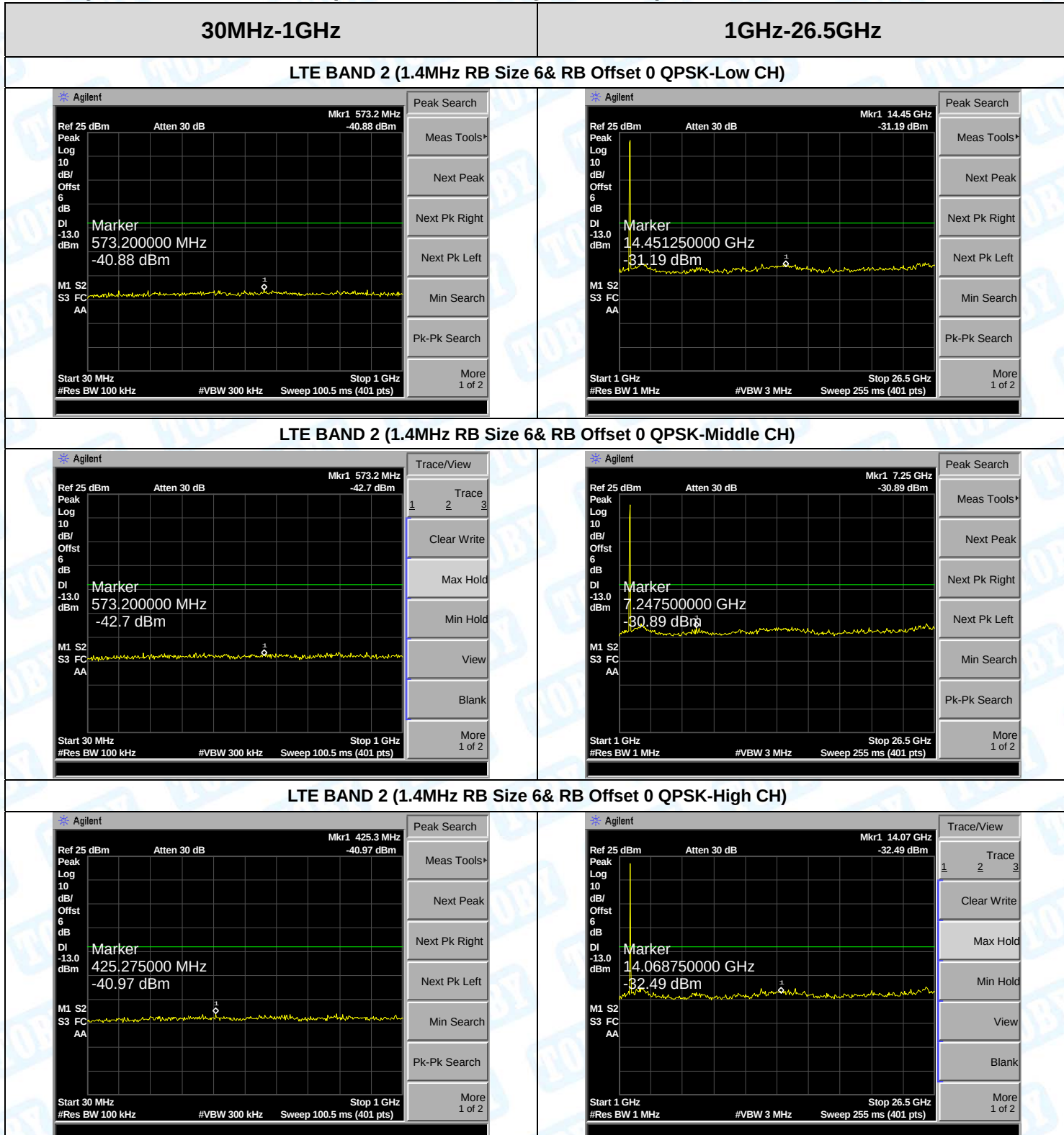


LTE BAND 7 (20MHz 16QAM-High CH)



ATTACHMENT D--OUT OF BAND EMISSION AT ANTENNA TERMINALS

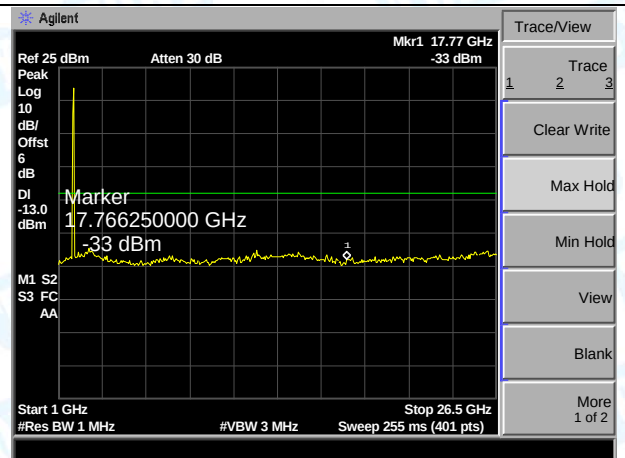
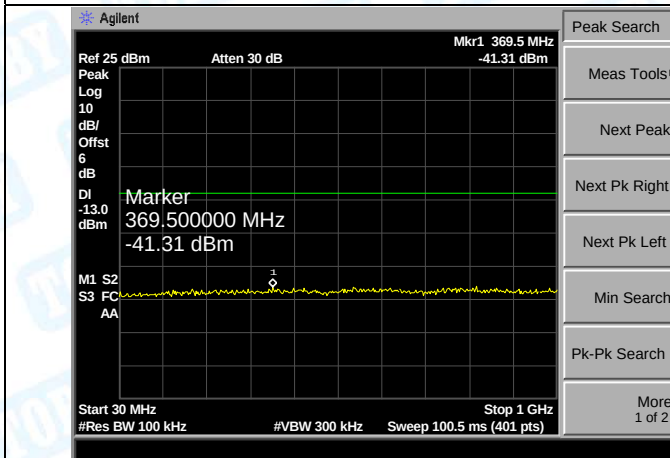
Only show the worst case(LTE BAND 2/4/7 QPSK Mode)



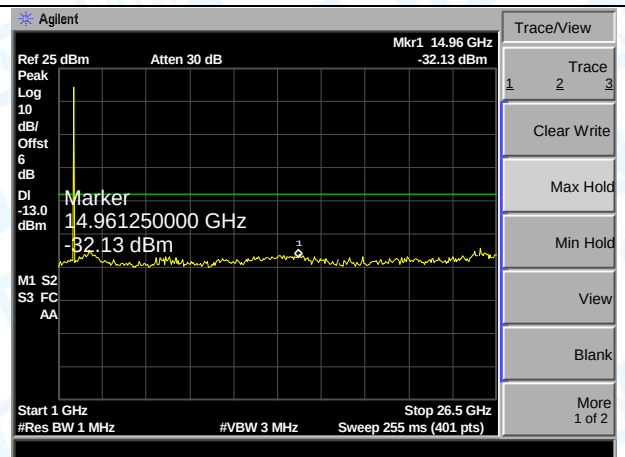
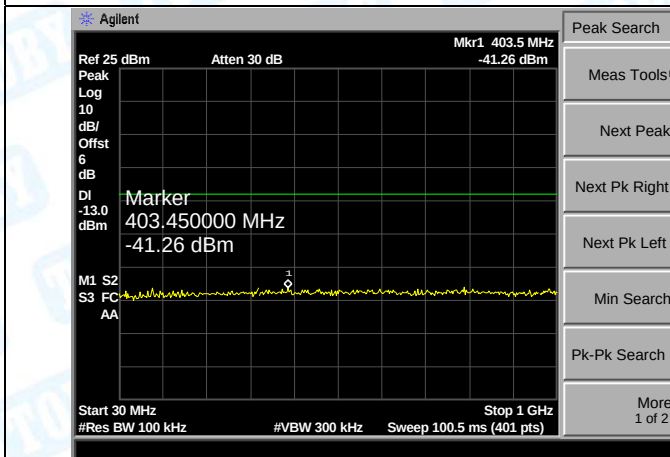
30MHz-1GHz

1GHz-26.5GHz

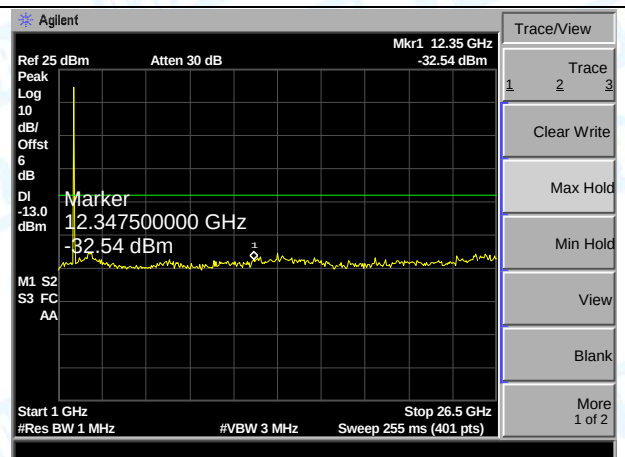
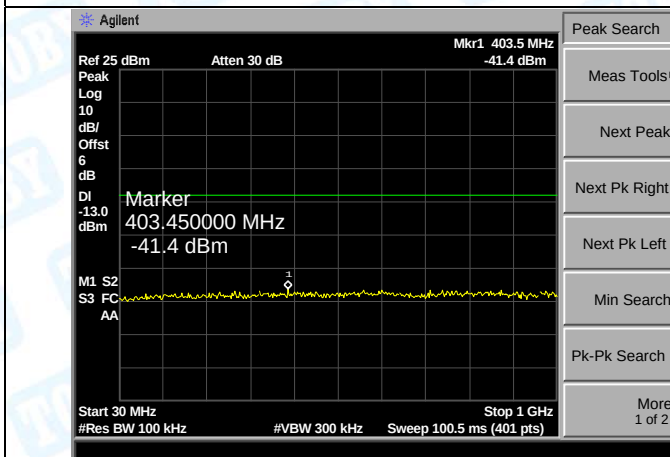
LTE BAND 2 (3MHz RB Size 15& RB Offset 0 QPSK-Low CH)



LTE BAND 2 (3MHz RB Size 15& RB Offset 0 QPSK-Middle CH)



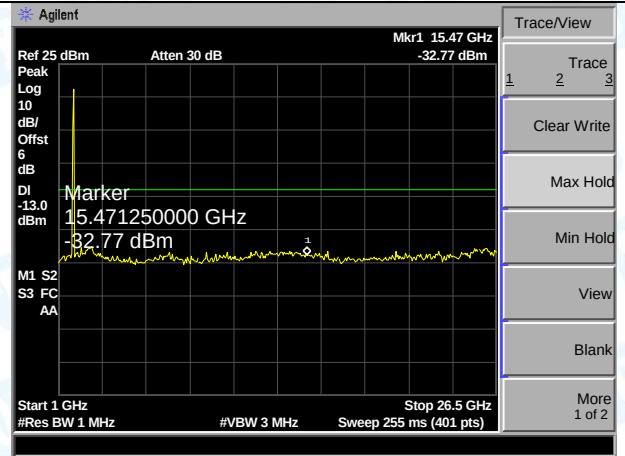
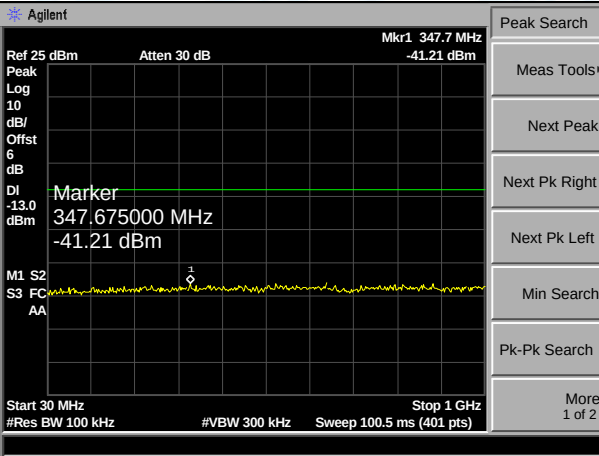
LTE BAND 2 (3MHz RB Size 15& RB Offset 0 QPSK-High CH)



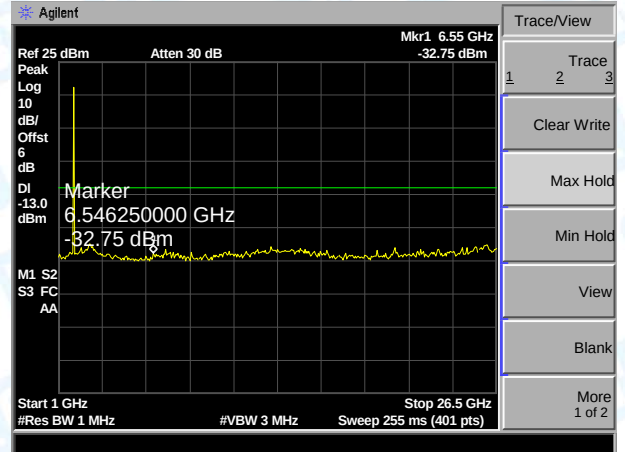
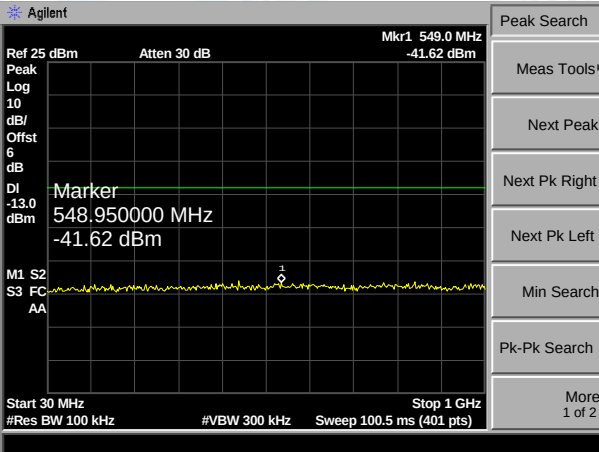
30MHz-1GHz

1GHz-26.5GHz

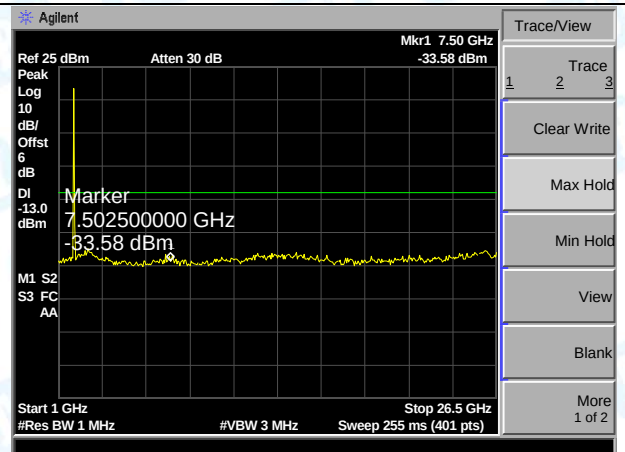
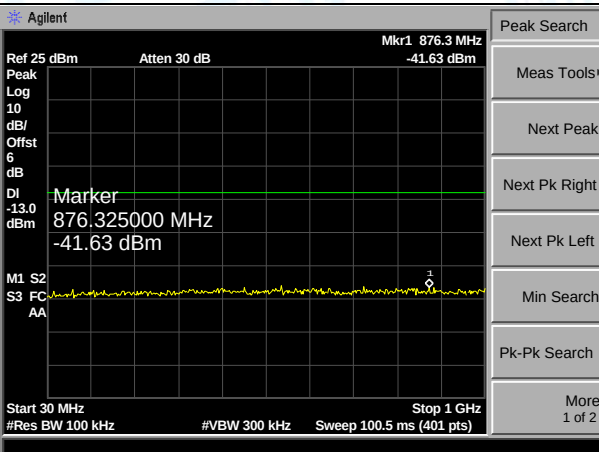
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 QPSK-Low CH)



LTE BAND 2 (5MHz RB Size 25& RB Offset 0 QPSK-Middle CH)



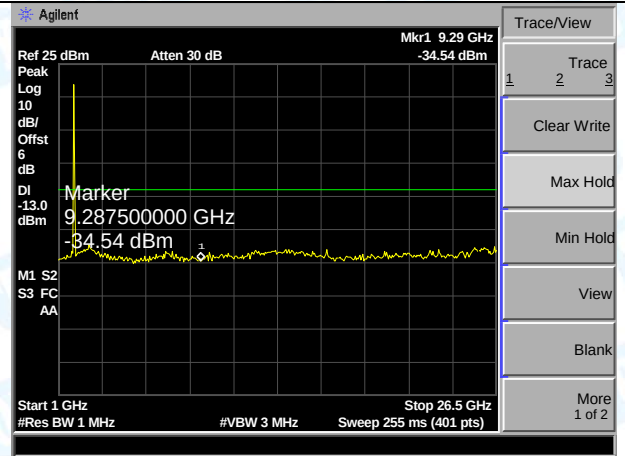
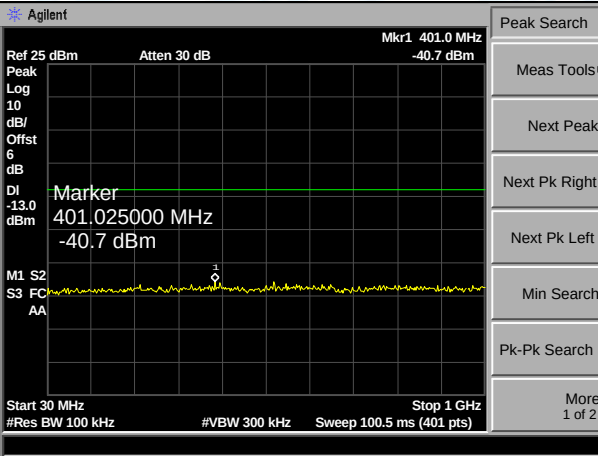
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 QPSK-High CH)



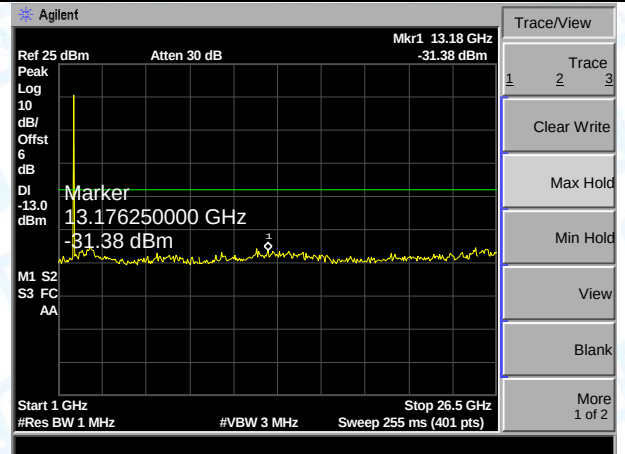
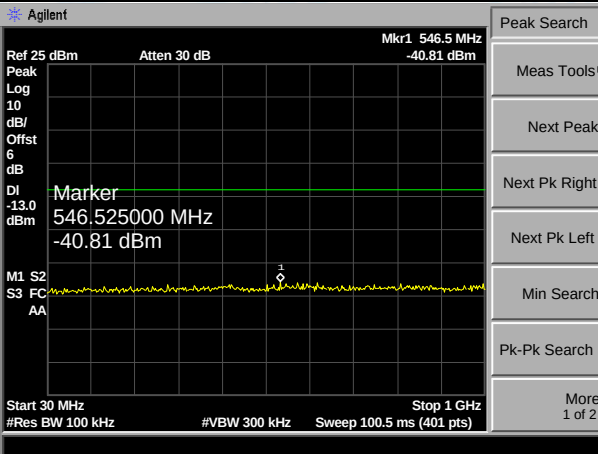
30MHz-1GHz

1GHz-26.5GHz

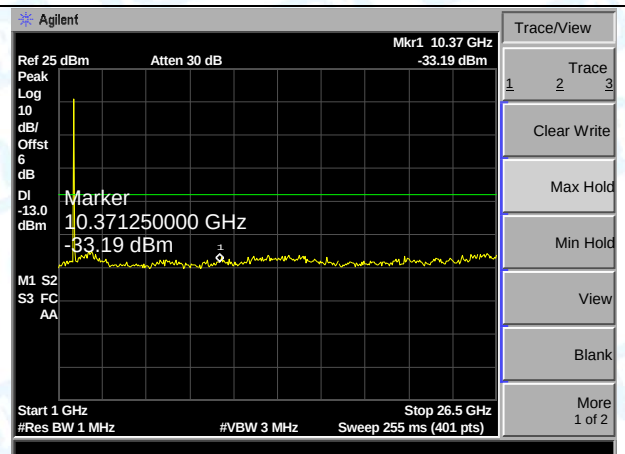
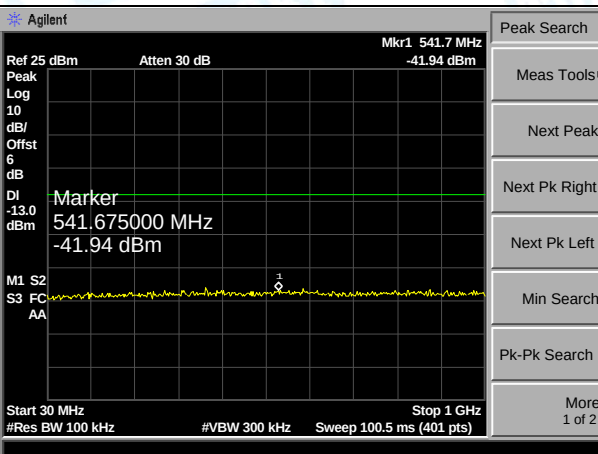
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-Low CH)



LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-Middle CH)



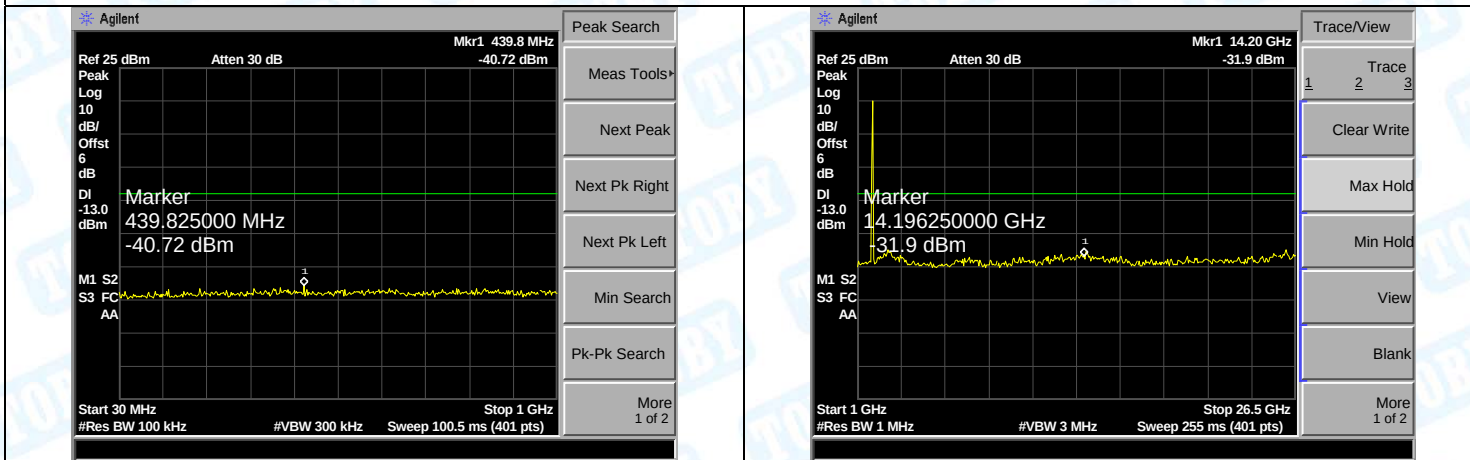
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-High CH)



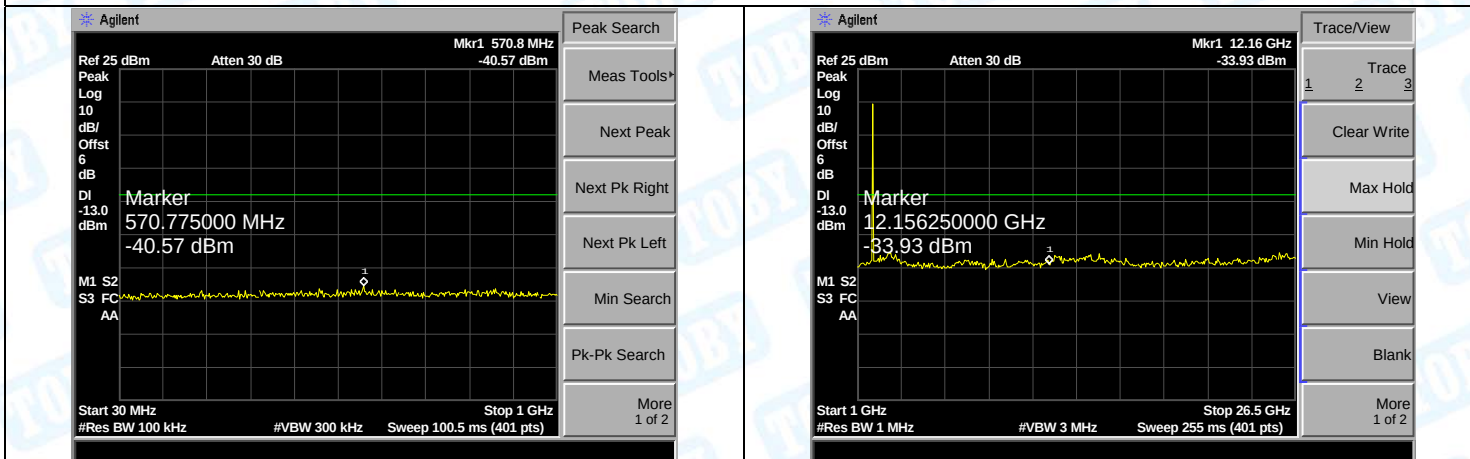
30MHz-1GHz

1GHz-26.5GHz

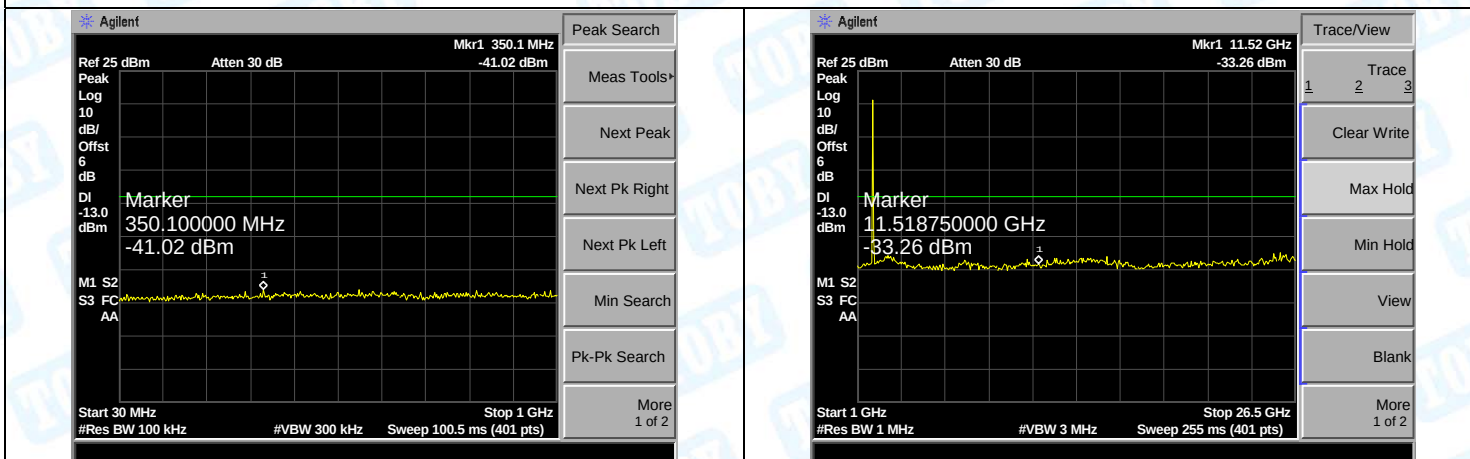
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 QPSK-Low CH)



LTE BAND 2 (15MHz RB Size 75& RB Offset 0 QPSK-Middle CH)



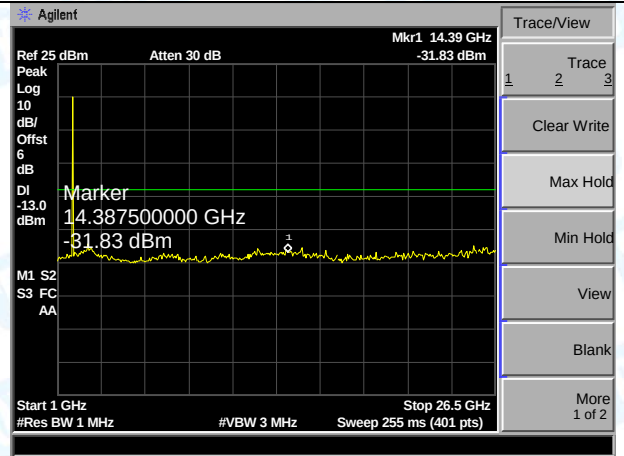
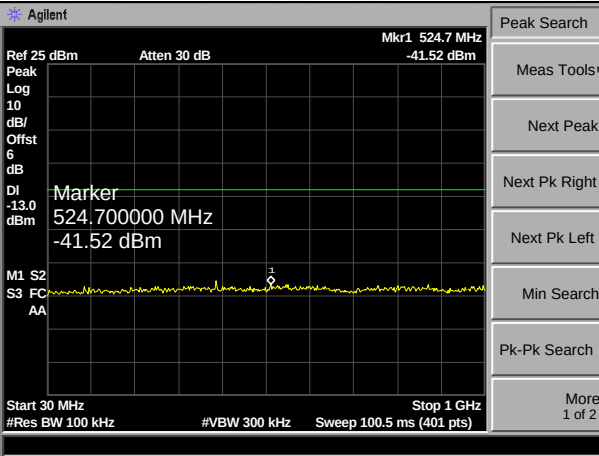
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 QPSK-High CH)



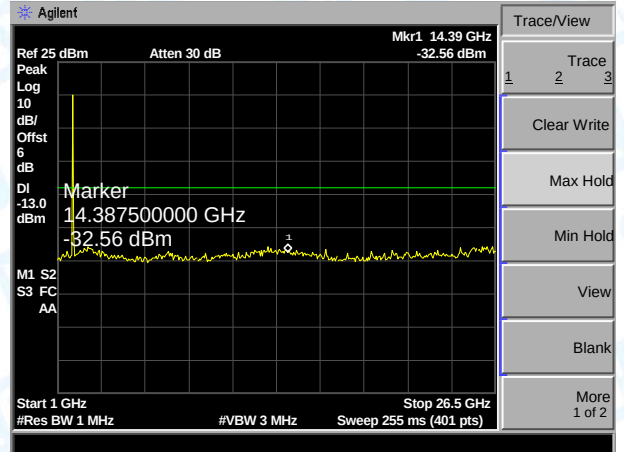
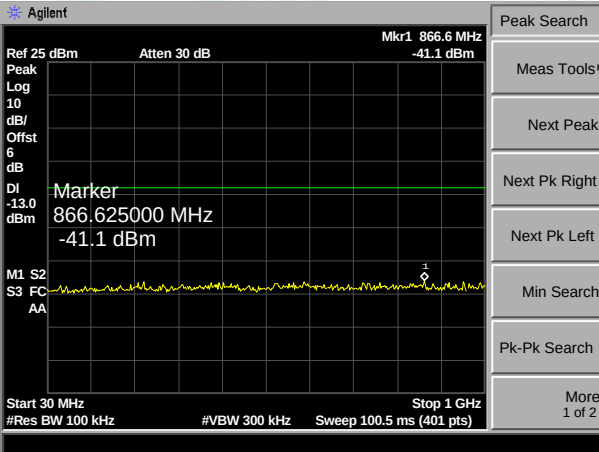
30MHz-1GHz

1GHz-26.5GHz

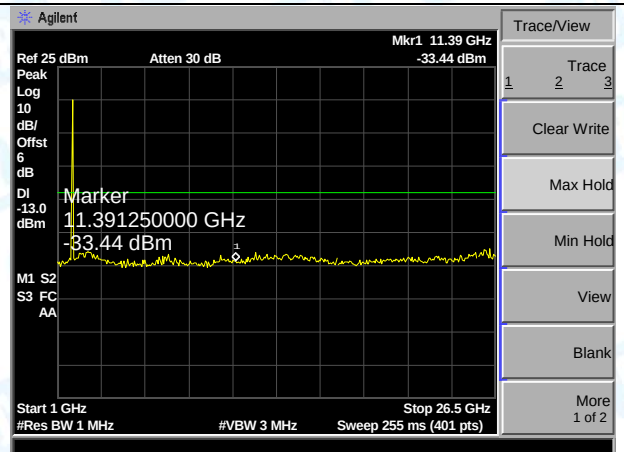
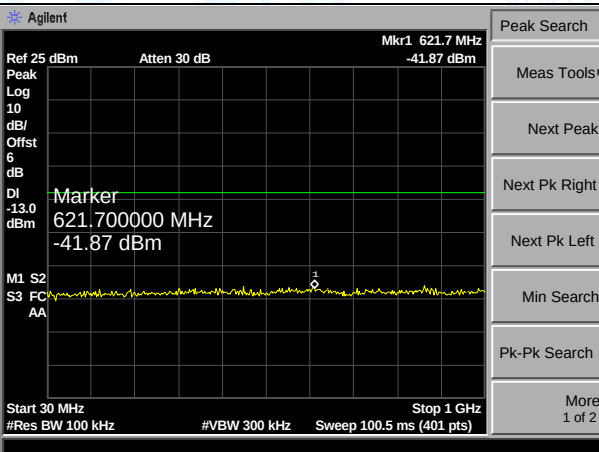
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 QPSK-Low CH)



LTE BAND 2 (20MHz RB Size 100& RB Offset 0 QPSK-Middle CH)



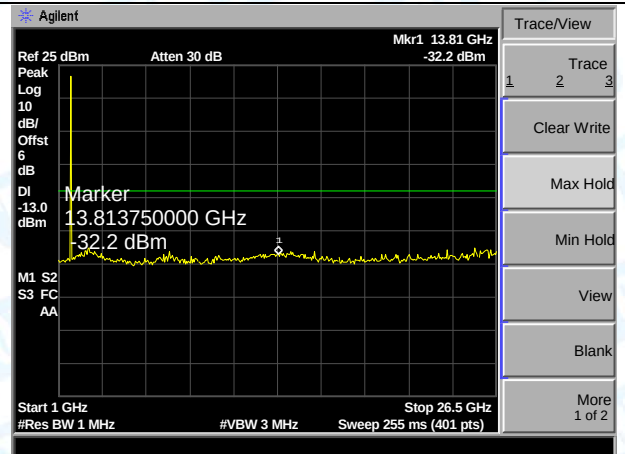
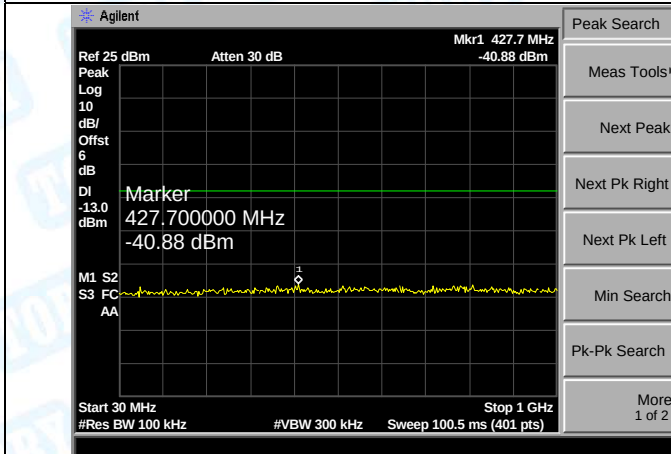
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 QPSK-High CH)



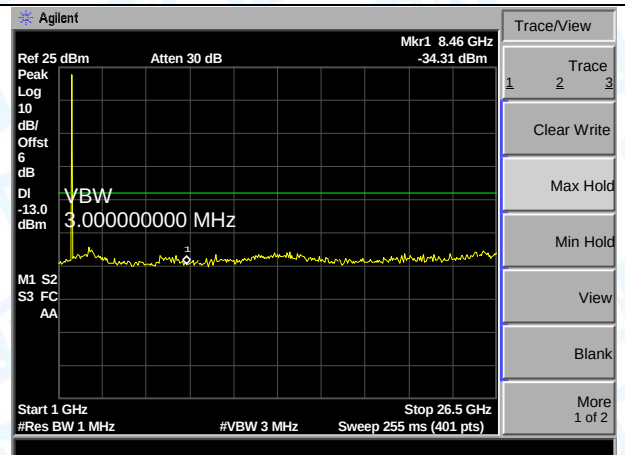
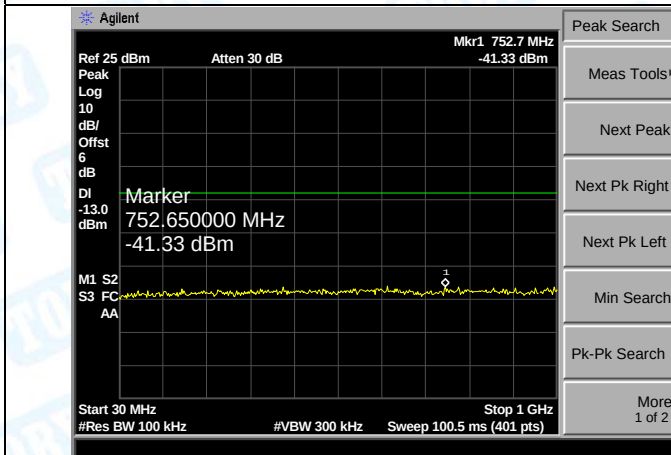
30MHz-1GHz

1GHz-26.5GHz

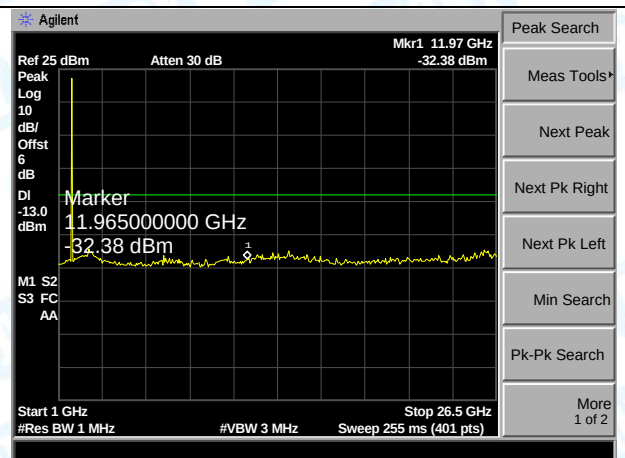
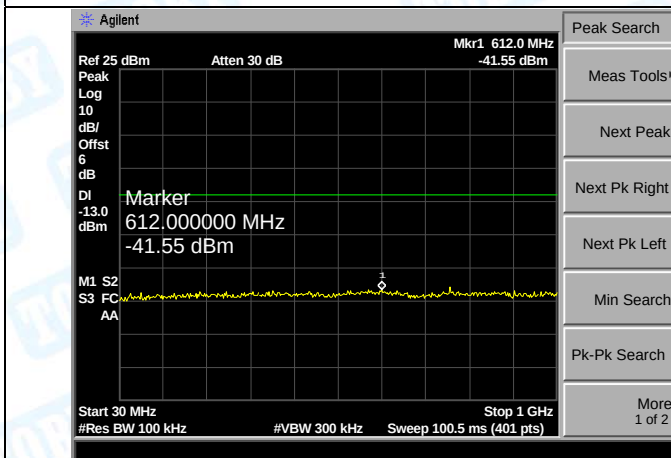
LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK-Middle CH)



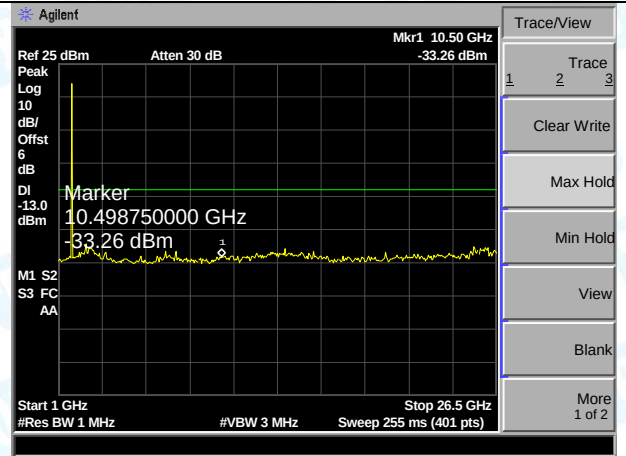
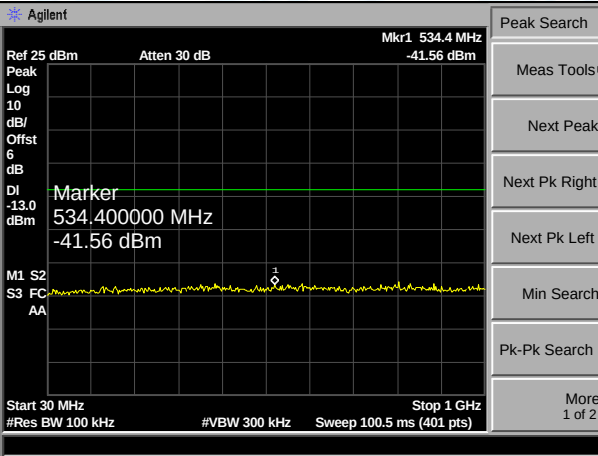
LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK-High CH)



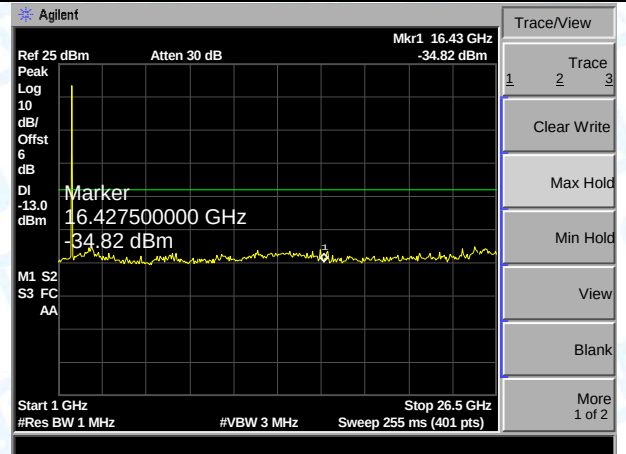
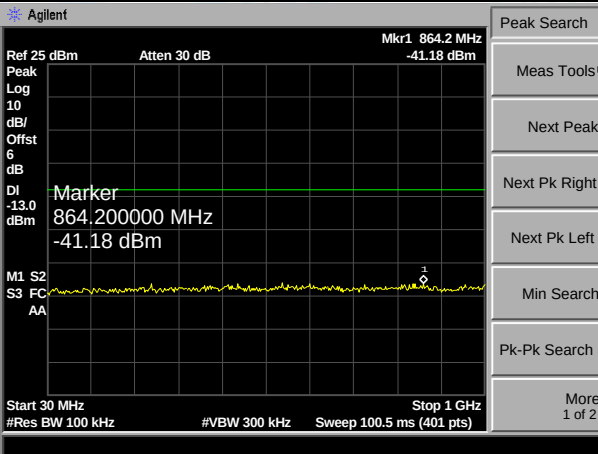
30MHz-1GHz

1GHz-26.5GHz

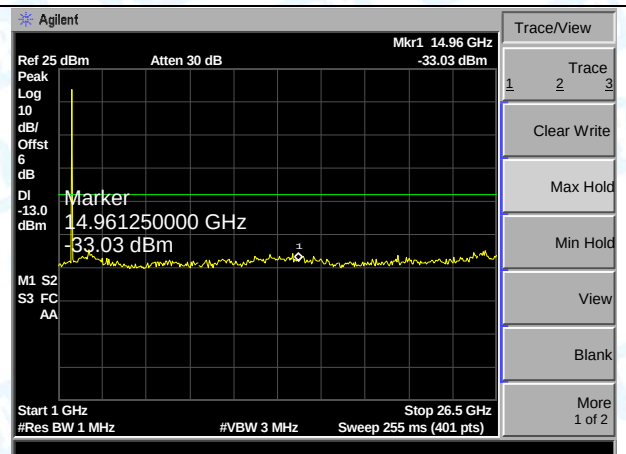
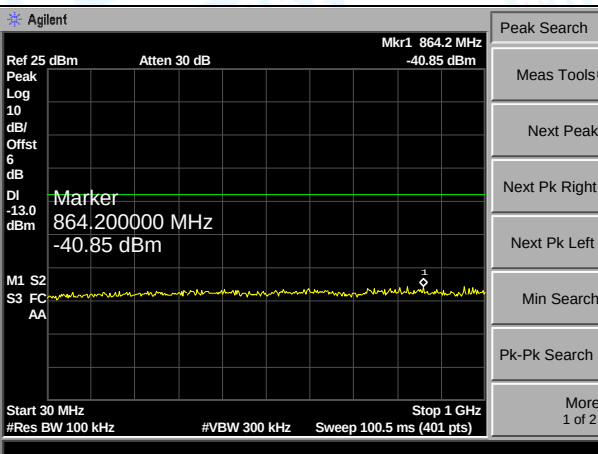
LTE BAND 4 (3MHz RB Size 15& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (3MHz RB Size 15& RB Offset 0 QPSK-Middle CH)



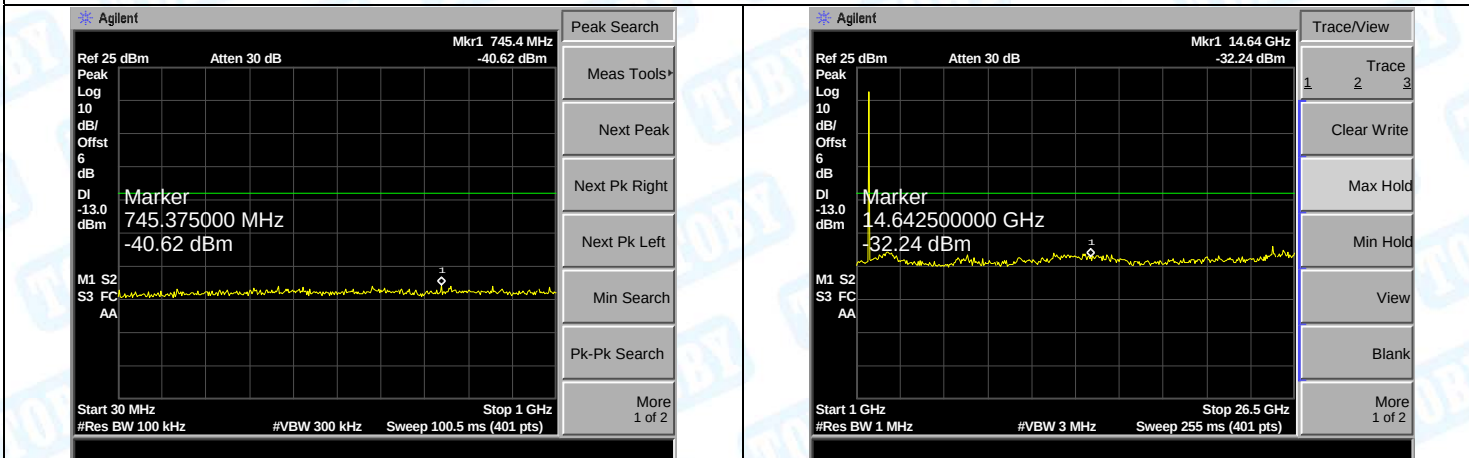
LTE BAND 4 (3MHz RB Size 15& RB Offset 0 QPSK-High CH)



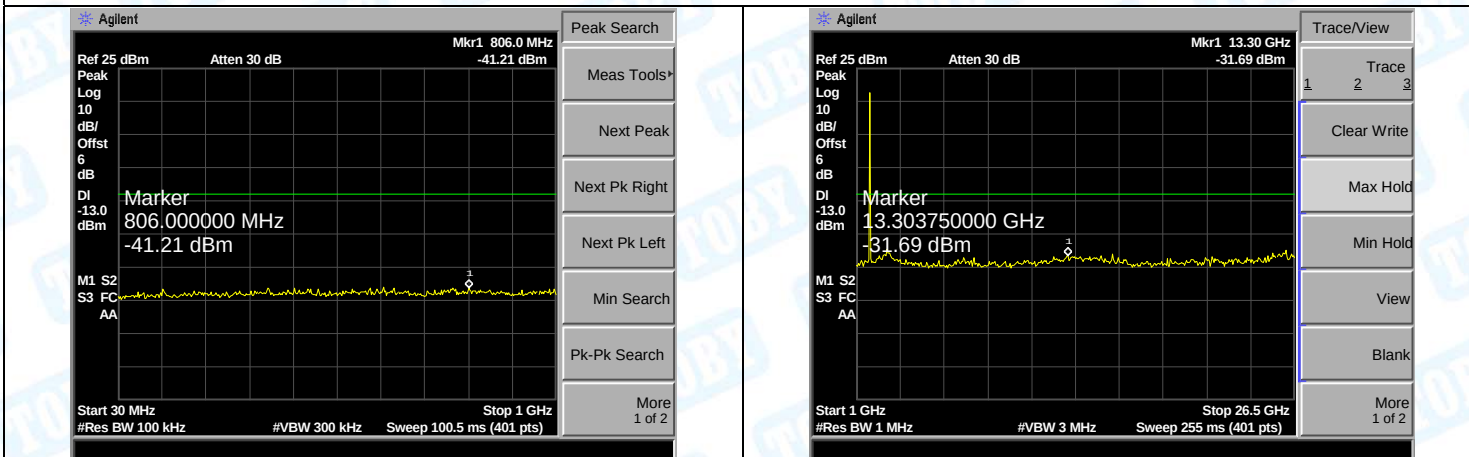
30MHz-1GHz

1GHz-26.5GHz

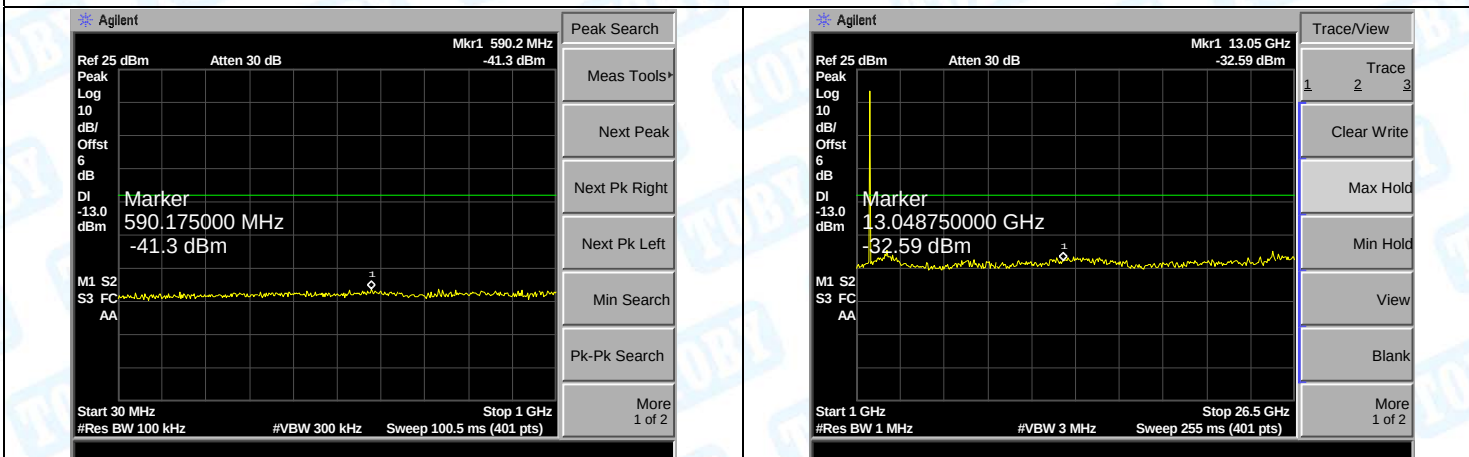
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK-Middle CH)



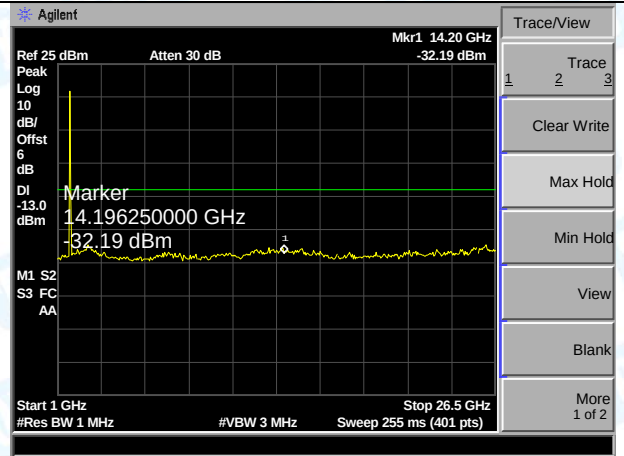
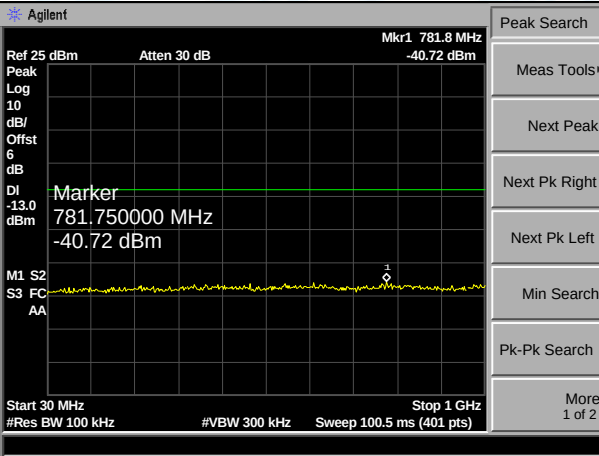
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK-High CH)



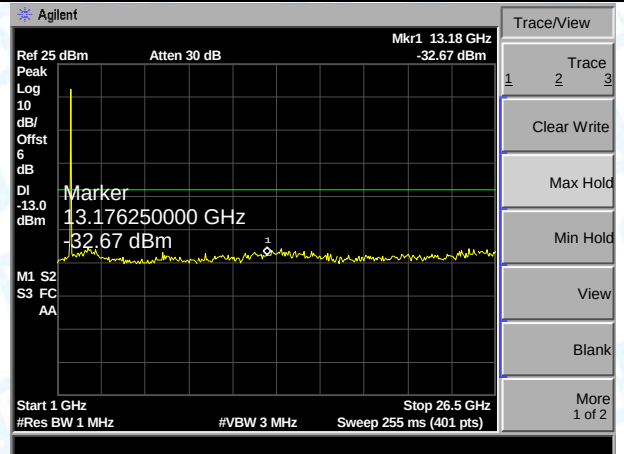
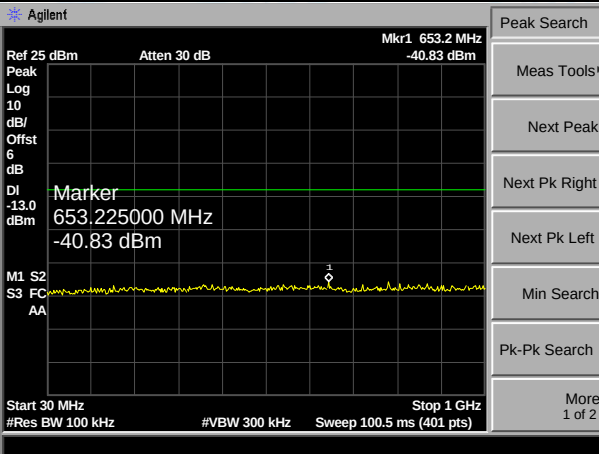
30MHz-1GHz

1GHz-26.5GHz

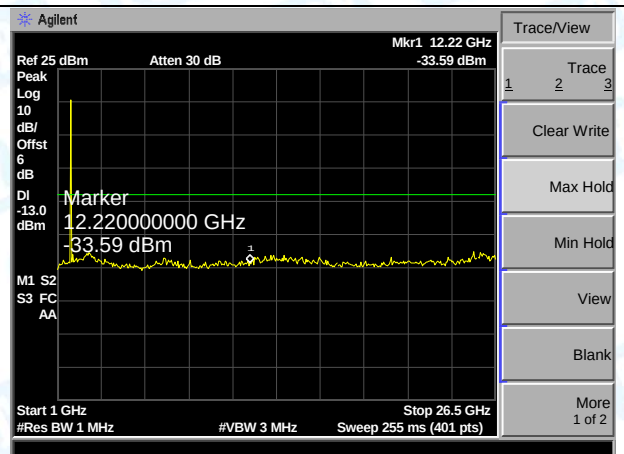
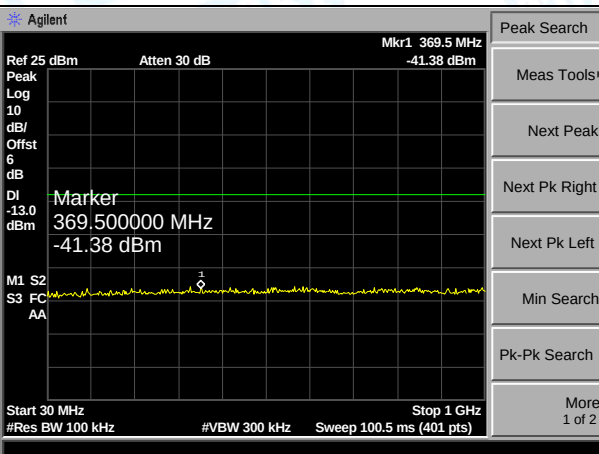
LTE BAND 4 (10MHz RB Size 50& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (10MHz RB Size 50& RB Offset 0 QPSK-Middle CH)



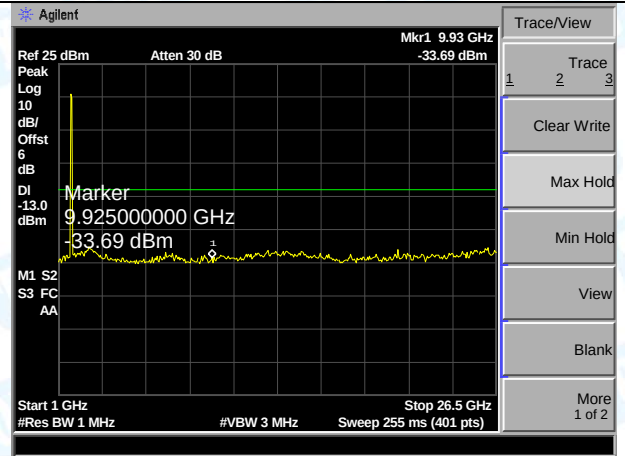
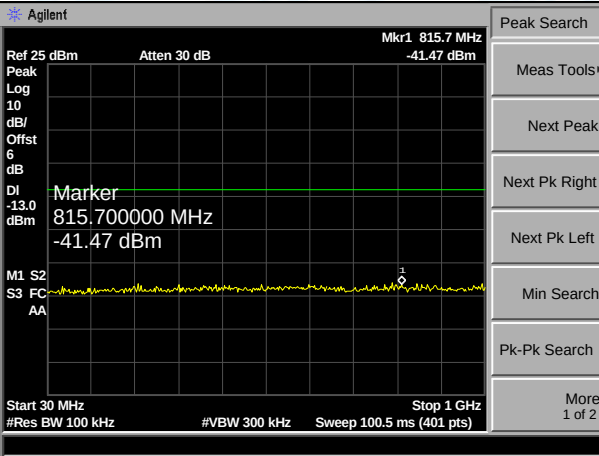
LTE BAND 4 (10MHz RB Size 50& RB Offset 0 QPSK-High CH)



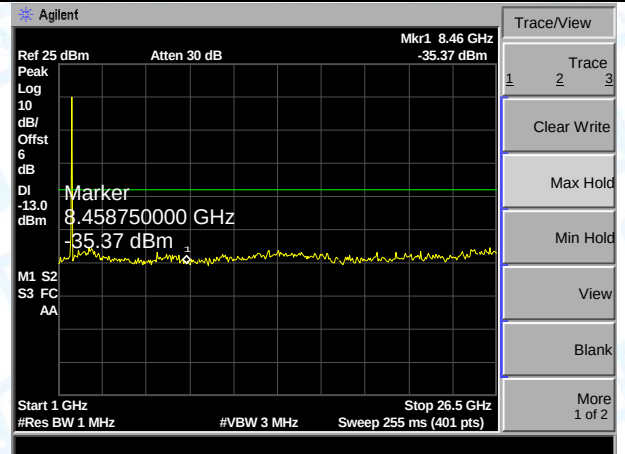
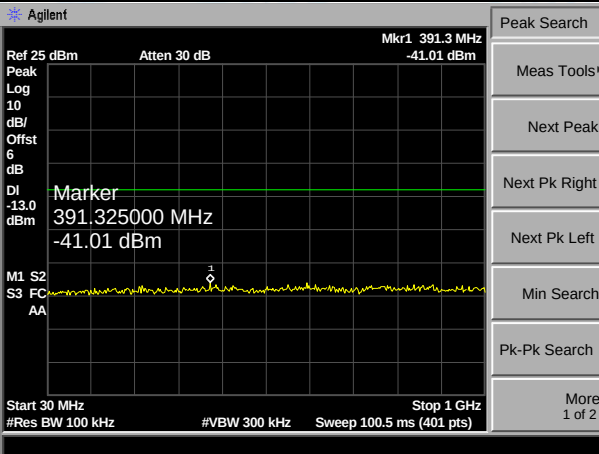
30MHz-1GHz

1GHz-26.5GHz

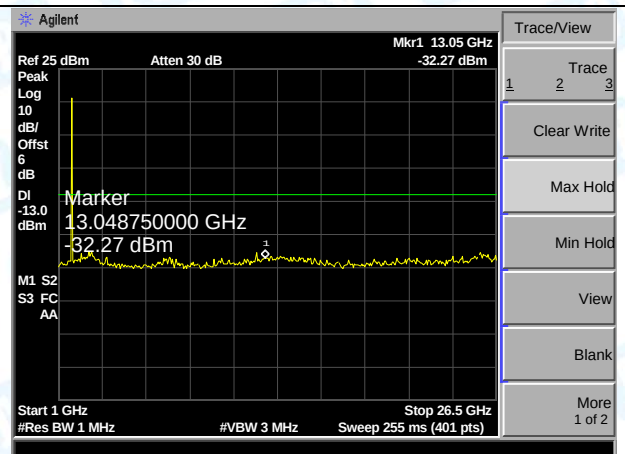
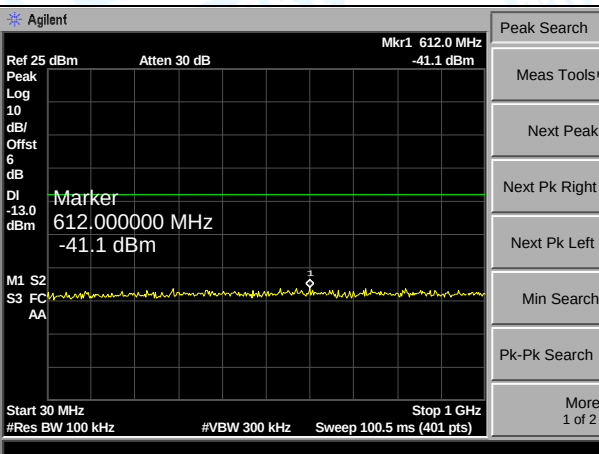
LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK-Middle CH)



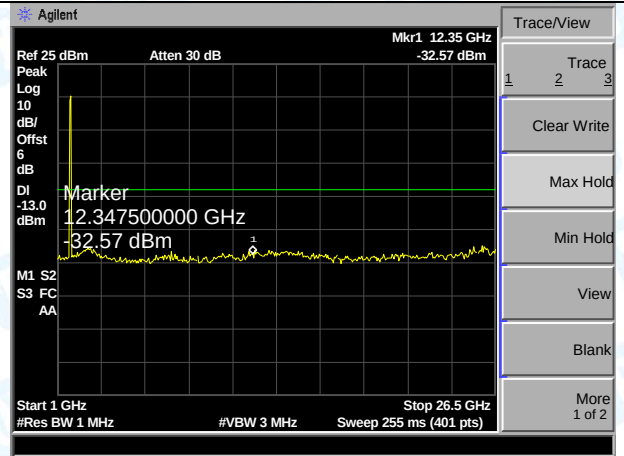
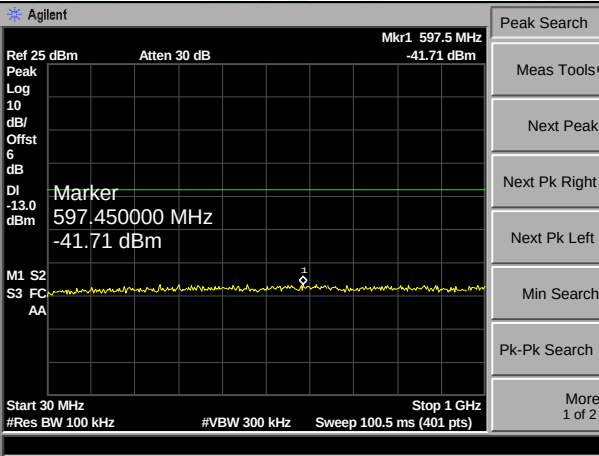
LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK-High CH)



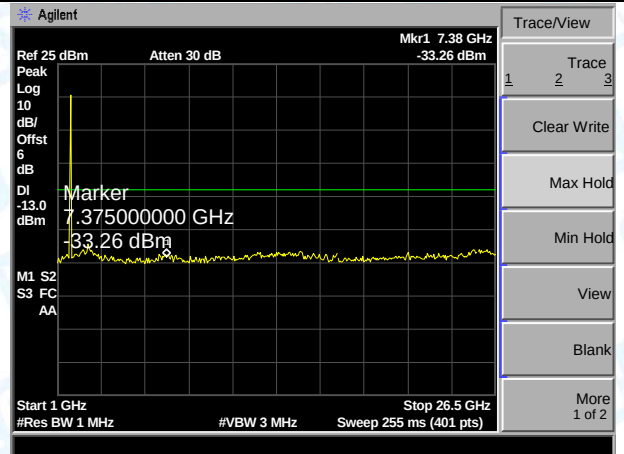
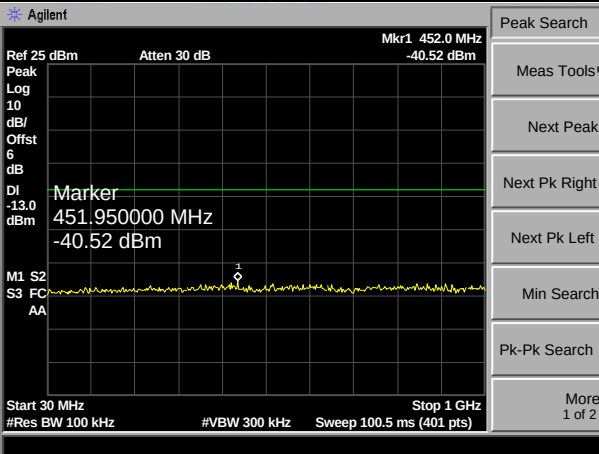
30MHz-1GHz

1GHz-26.5GHz

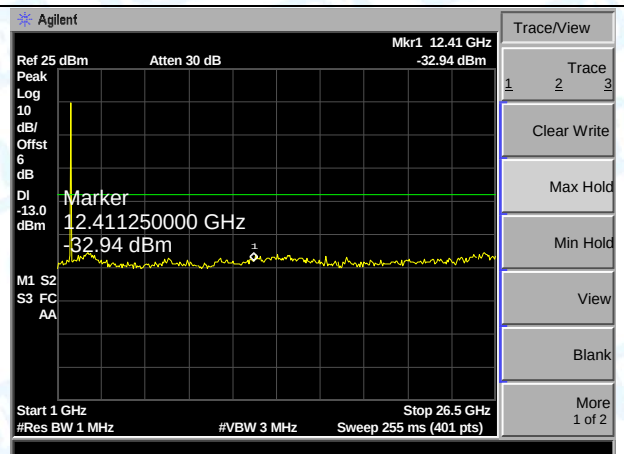
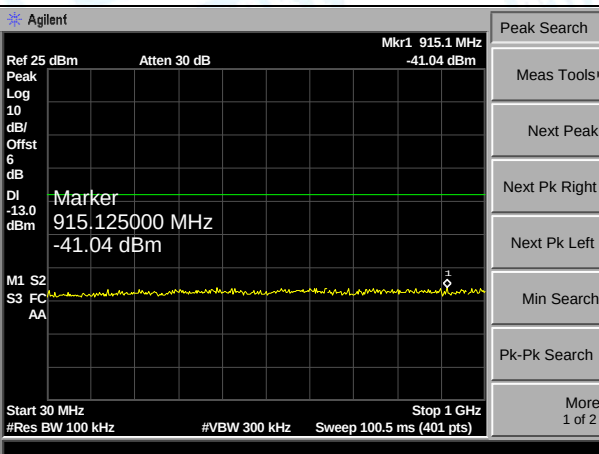
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-Low CH)



LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-Middle CH)



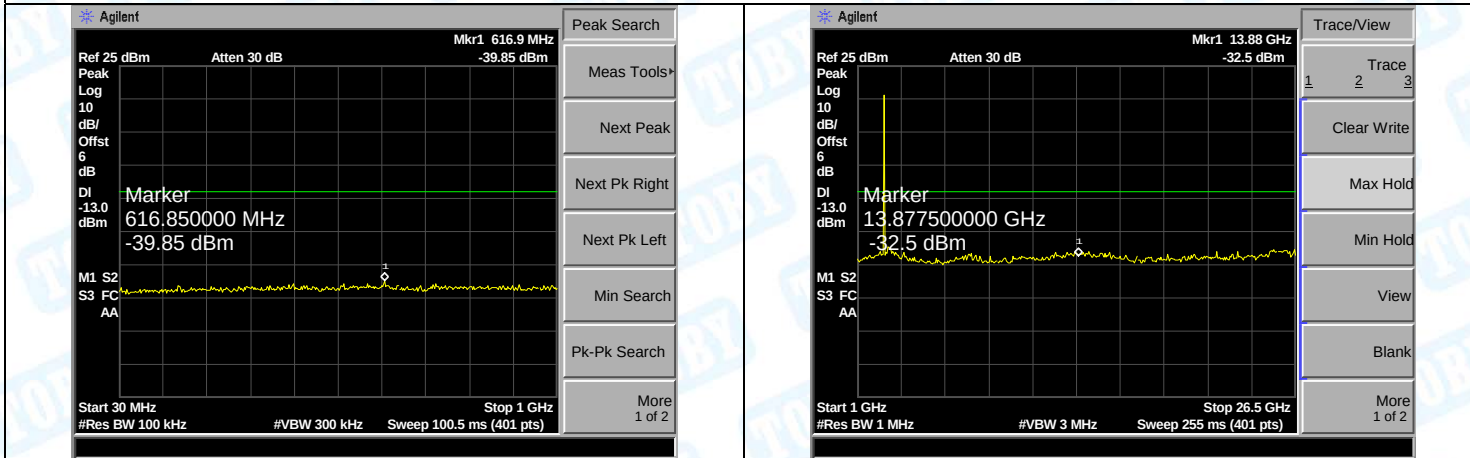
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-High CH)



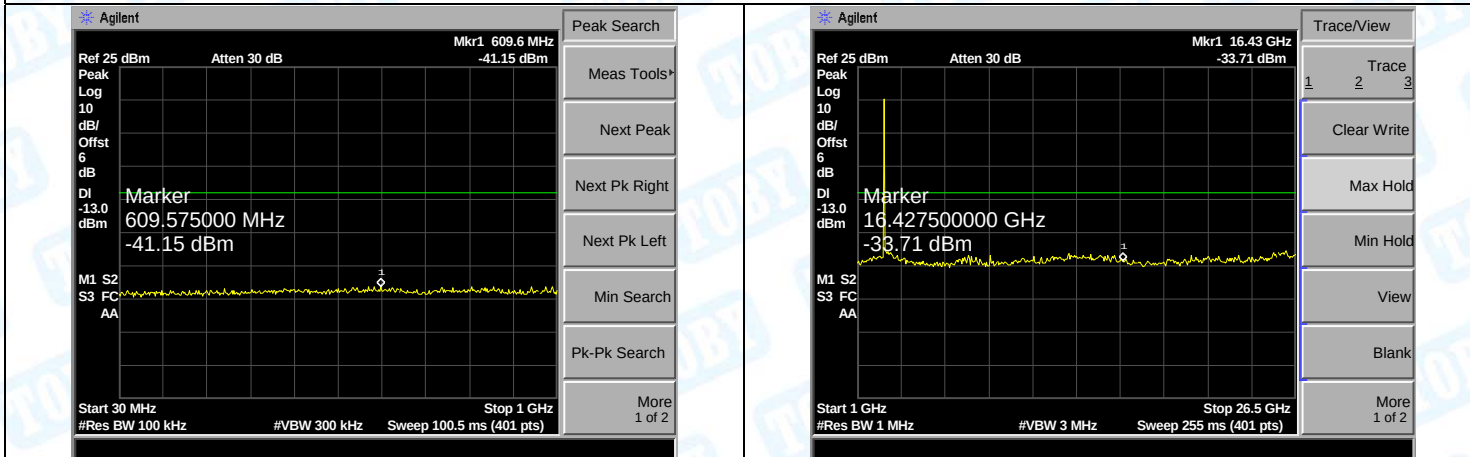
30MHz-1GHz

1GHz-26.5GHz

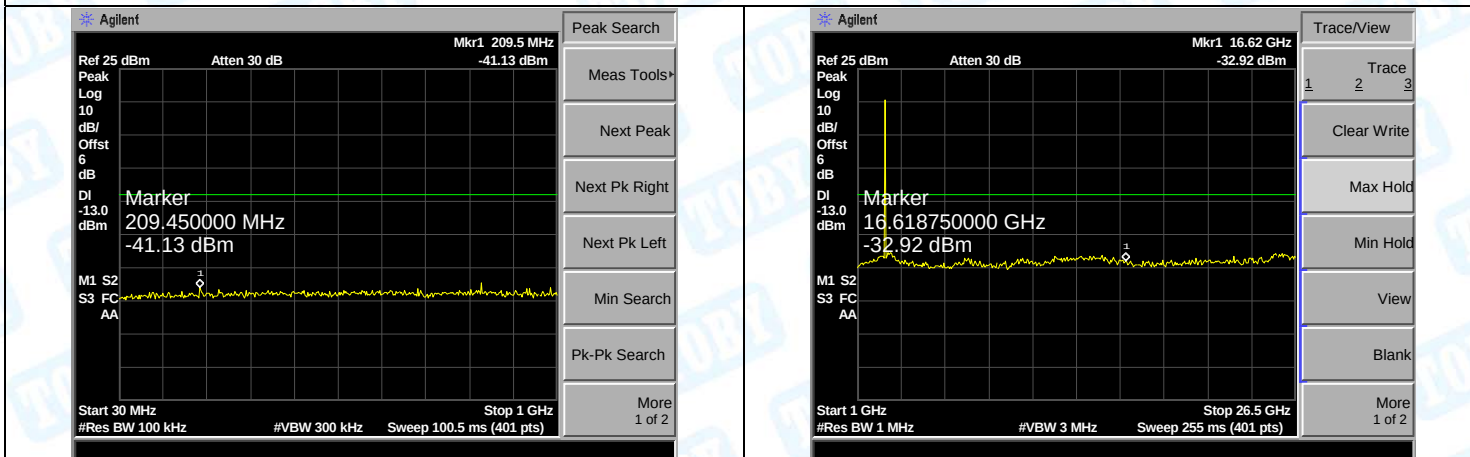
LTE BAND 7 (5MHz RB Size 25& RB Offset 0 QPSK-Low CH)



LTE BAND 7 (5MHz RB Size 25& RB Offset 0 QPSK-Middle CH)



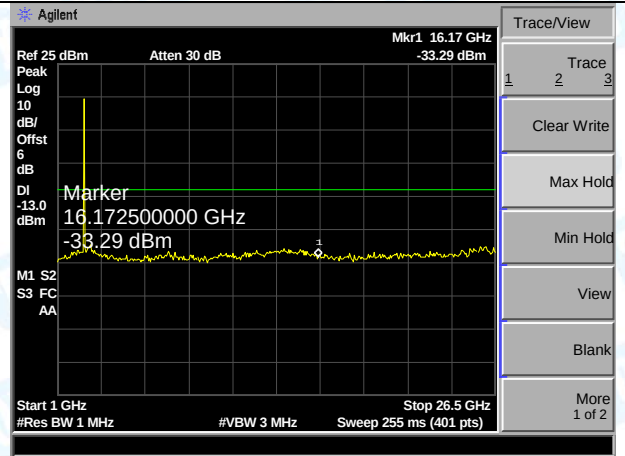
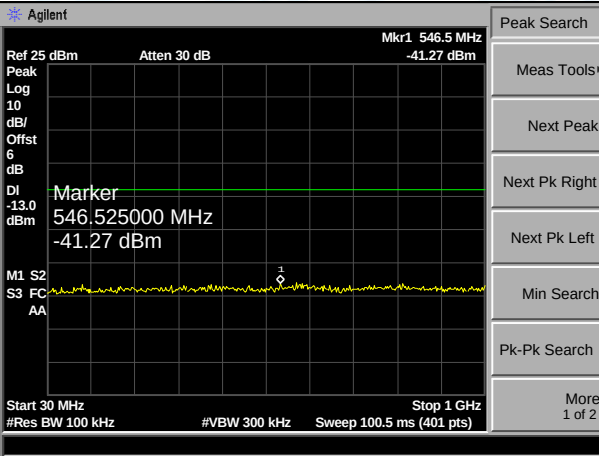
LTE BAND 7 (5MHz RB Size 25& RB Offset 0 QPSK-High CH)



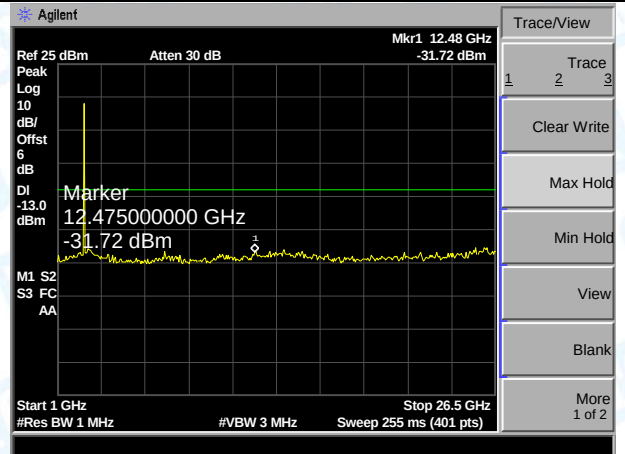
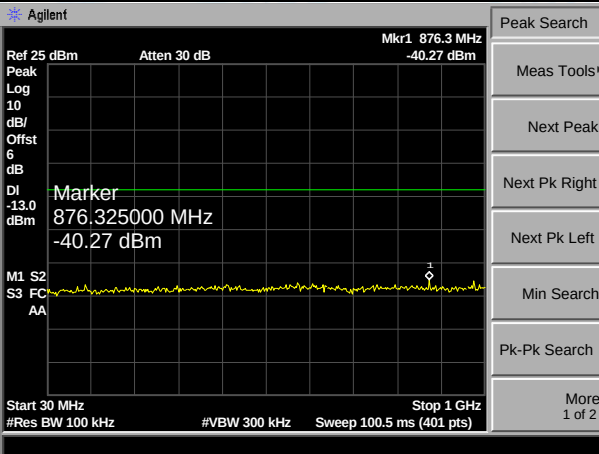
30MHz-1GHz

1GHz-26.5GHz

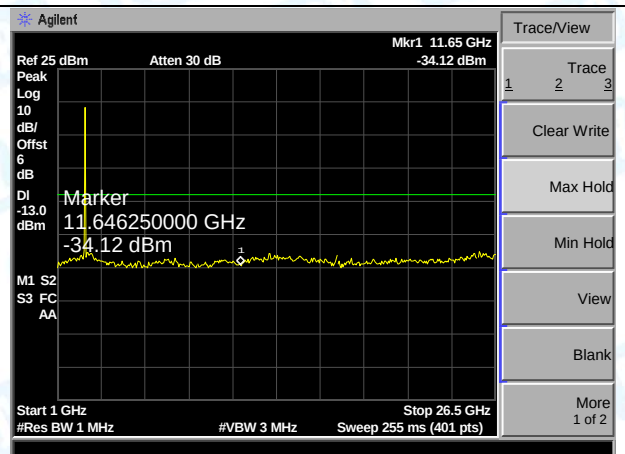
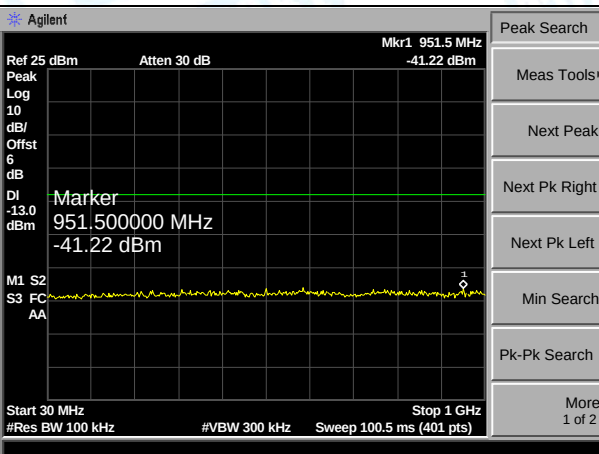
LTE BAND 7 (10MHz RB Size 50& RB Offset 0 QPSK-Low CH)



LTE BAND 7 (10MHz RB Size 50& RB Offset 0 QPSK-Middle CH)



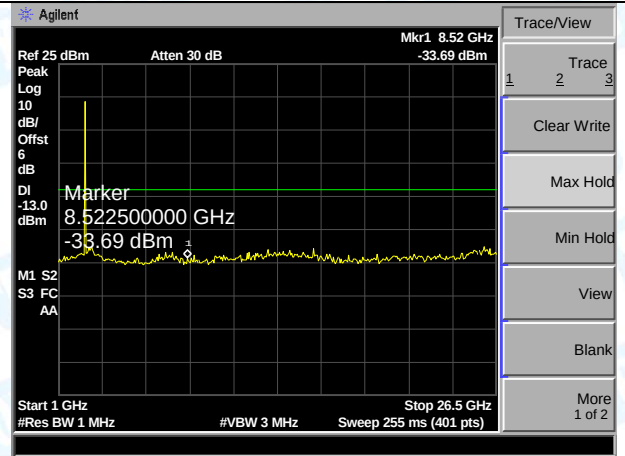
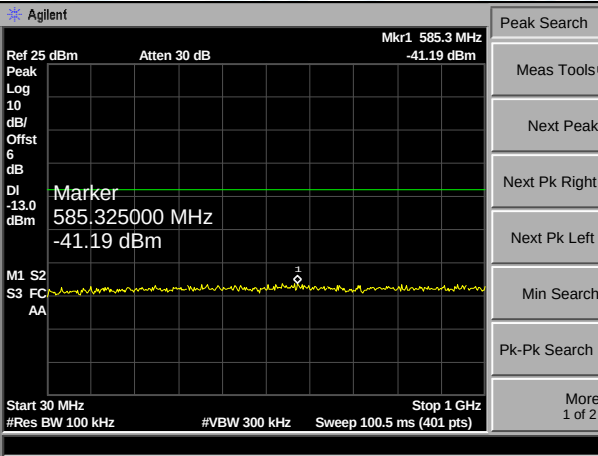
LTE BAND 7 (10MHz RB Size 50& RB Offset 0 QPSK-High CH)



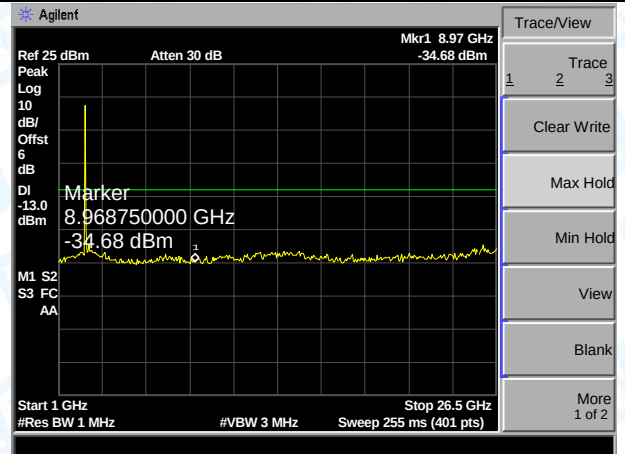
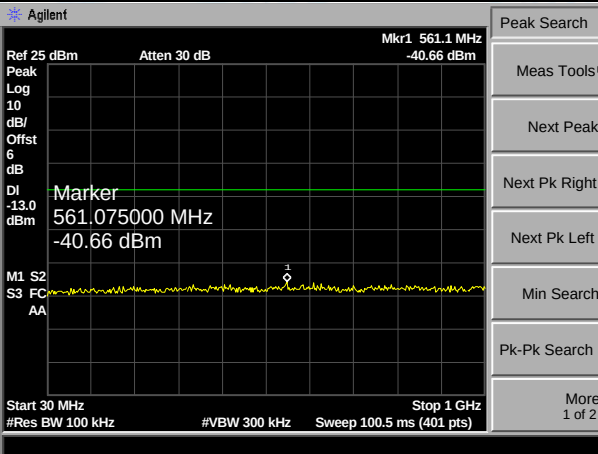
30MHz-1GHz

1GHz-26.5GHz

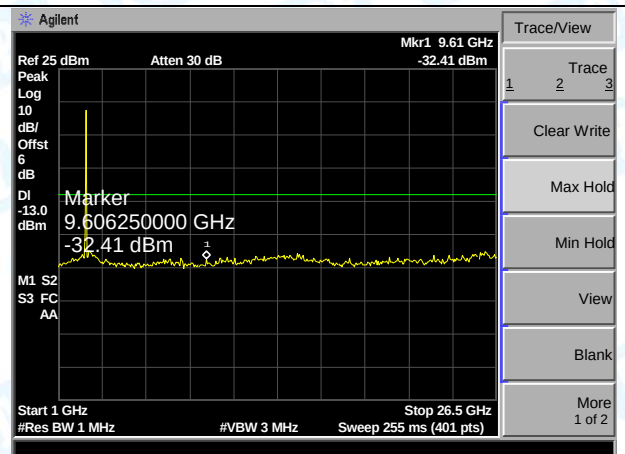
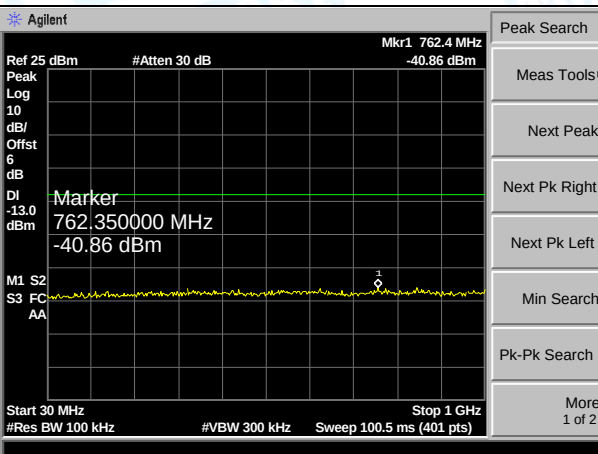
LTE BAND 7 (15MHz RB Size 75& RB Offset 0 QPSK-Low CH)



LTE BAND 7 (15MHz RB Size 75& RB Offset 0 QPSK-Middle CH)



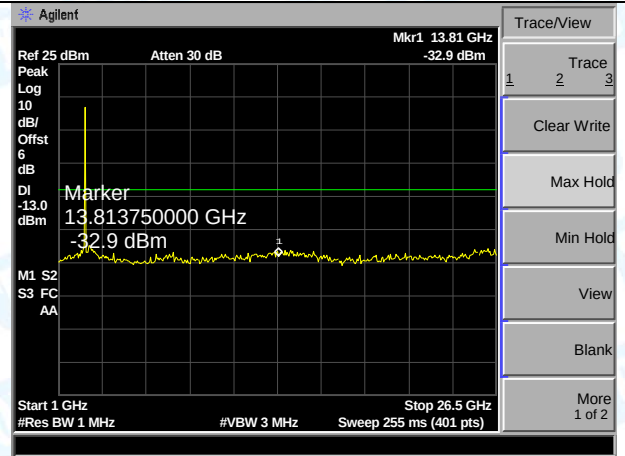
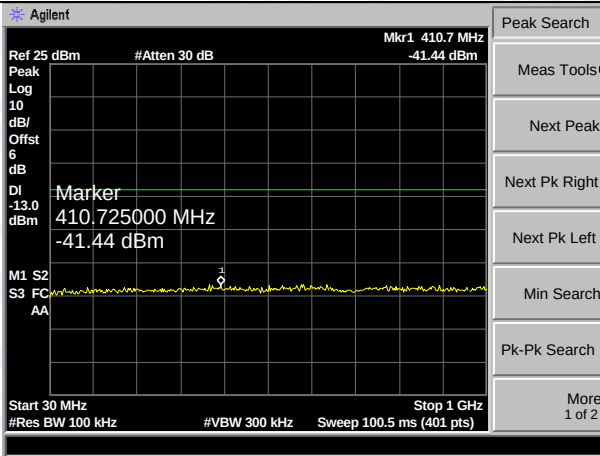
LTE BAND 7 (15MHz RB Size 75& RB Offset 0 QPSK-High CH)



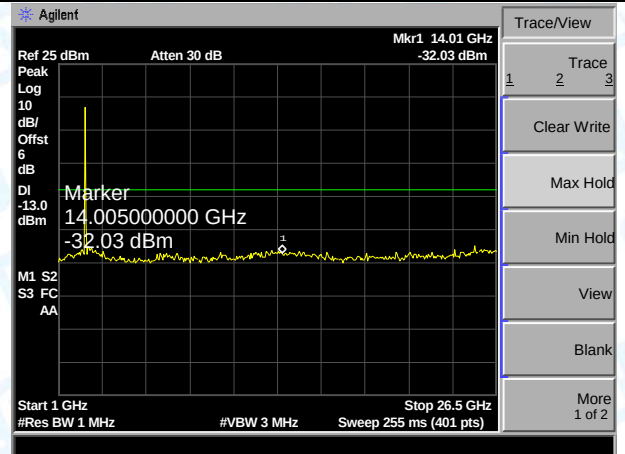
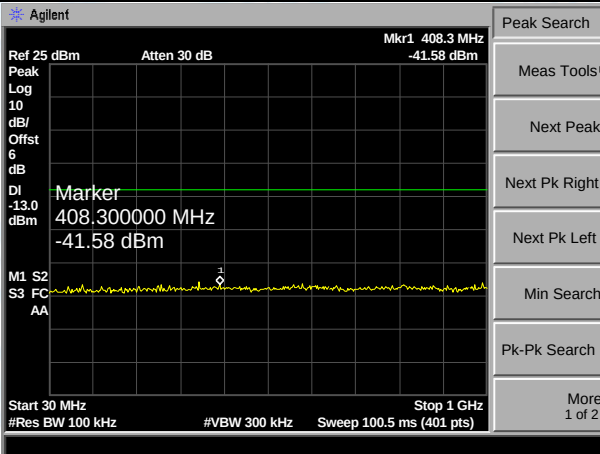
30MHz-1GHz

1GHz-26.5GHz

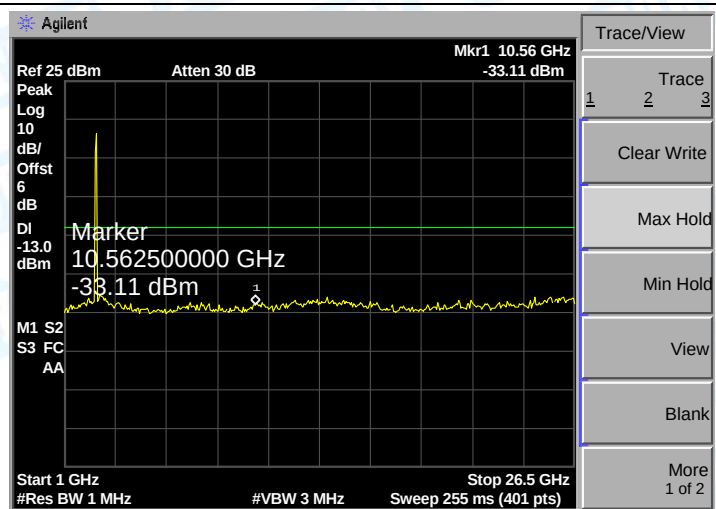
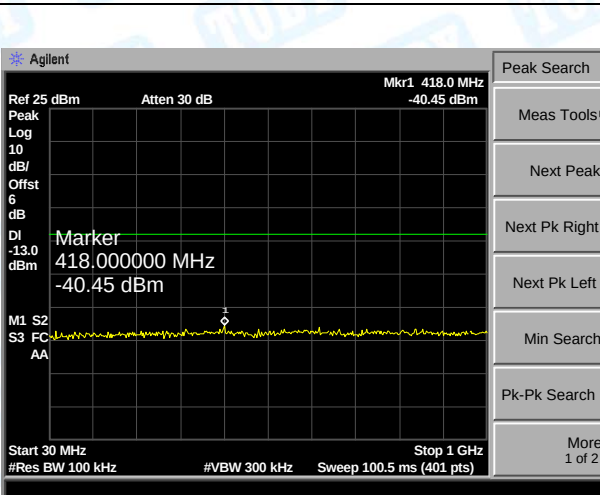
LTE BAND 7 (20MHz RB Size 100& RB Offset 0 QPSK-Low CH)



LTE BAND 7 (20MHz RB Size 100& RB Offset 0 QPSK-Middle CH)



LTE BAND 7 (20MHz RB Size 100& RB Offset 0 QPSK-High CH)



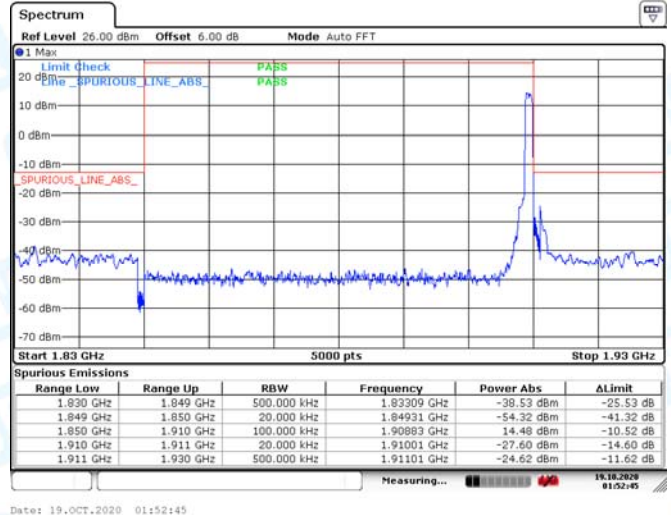
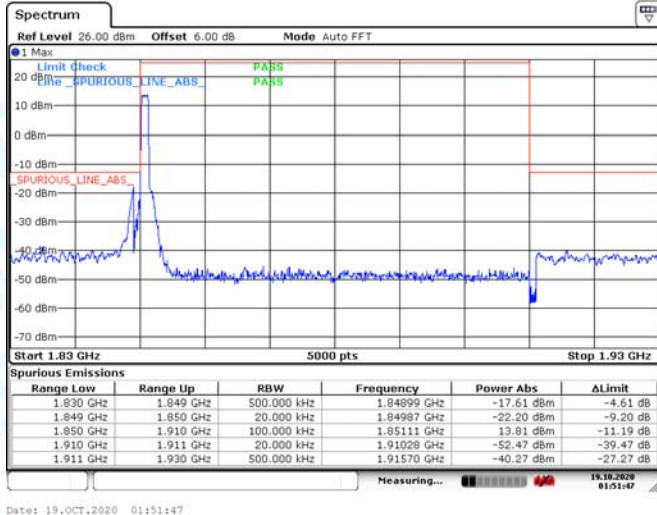
ATTACHMENT E--BAND EDGE TEST

Only show the worst case(max RB size).

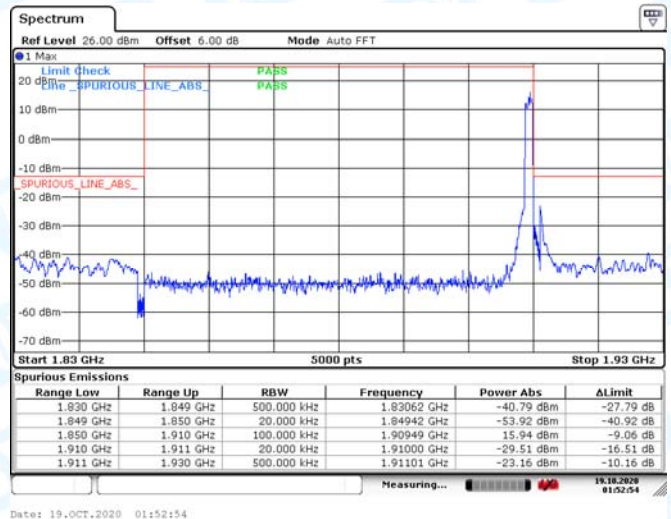
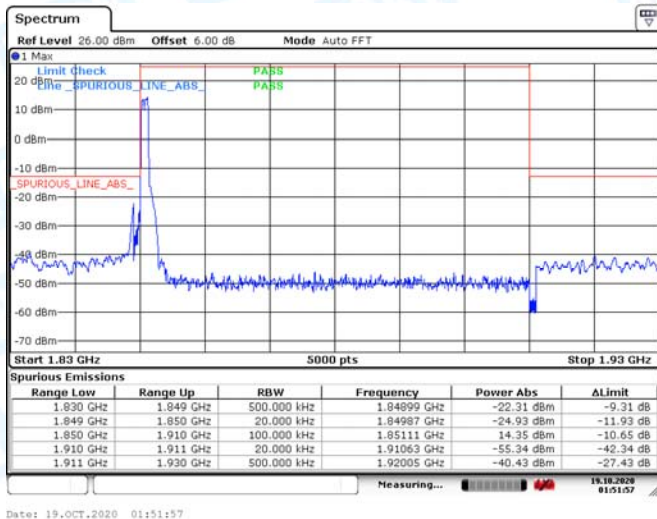
Low Channel

High Channel

LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 QPSK)



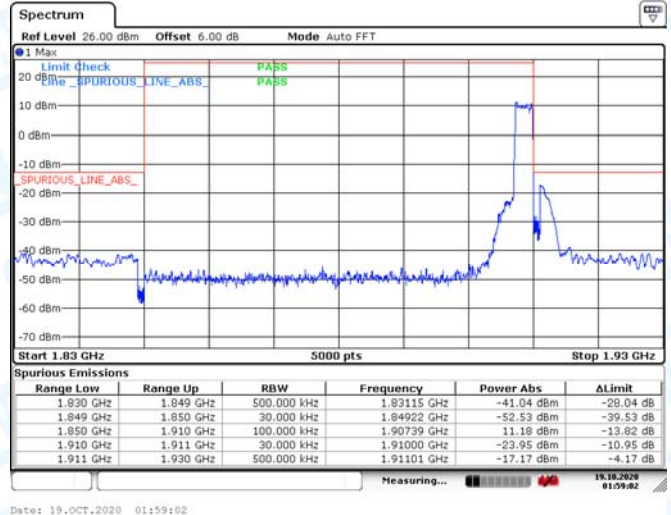
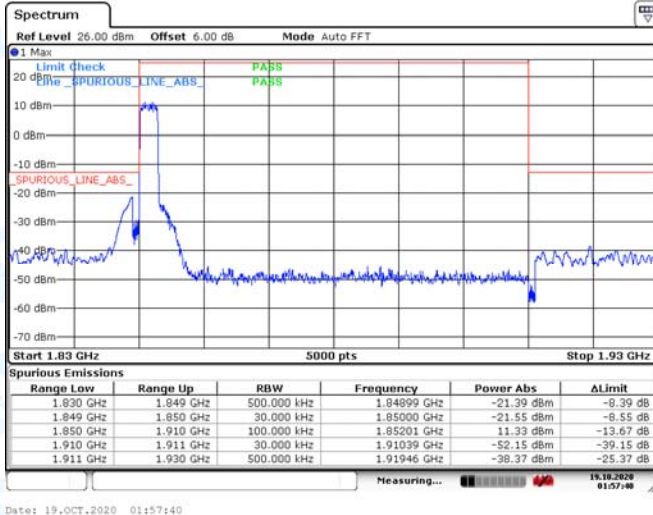
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 16QAM)



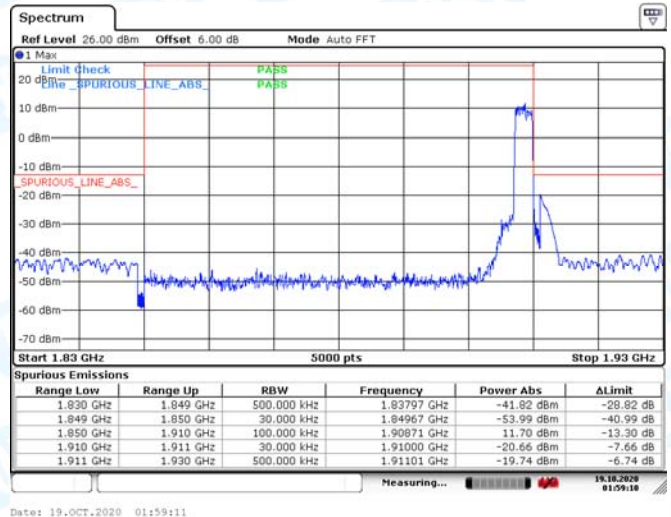
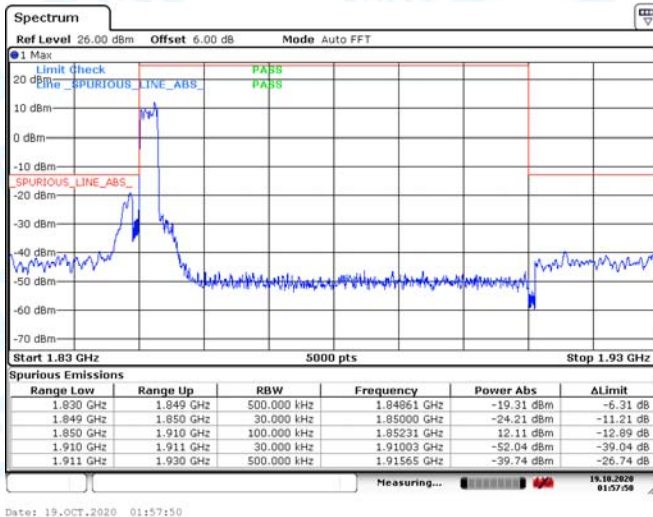
Low Channel

High Channel

LTE BAND 2 (3MHz RB Size 15& RB Offset 0 QPSK)



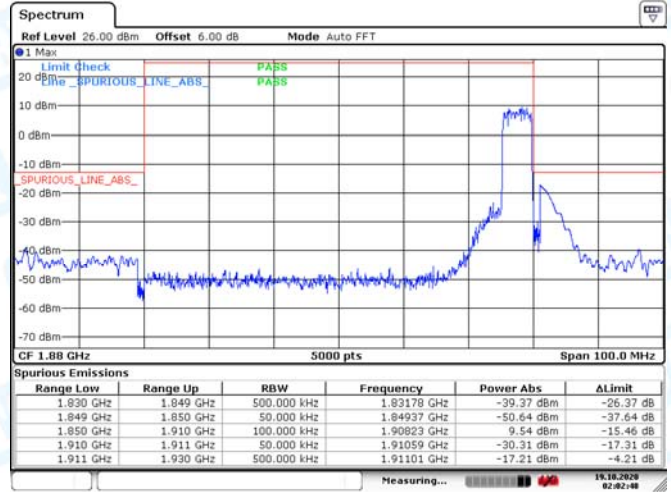
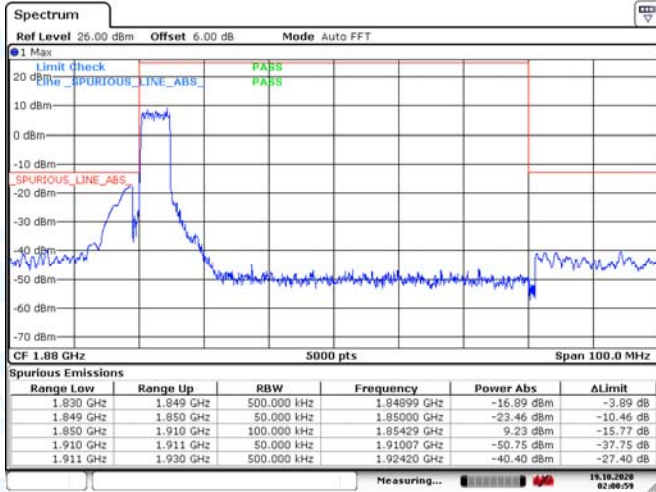
LTE BAND 2 (3MHz RB Size 15& RB Offset 0 16QAM)



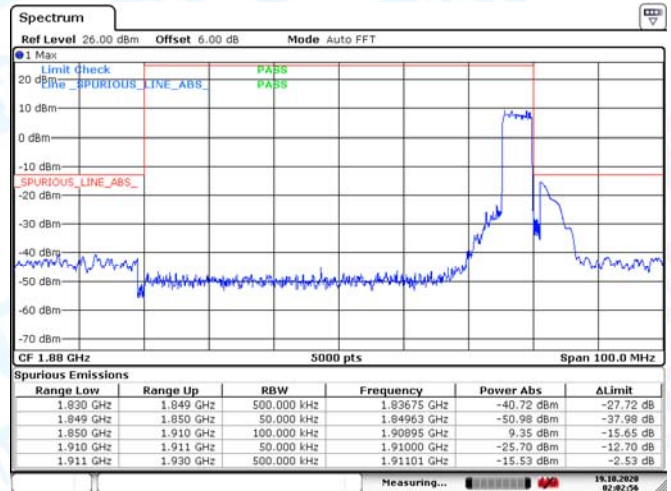
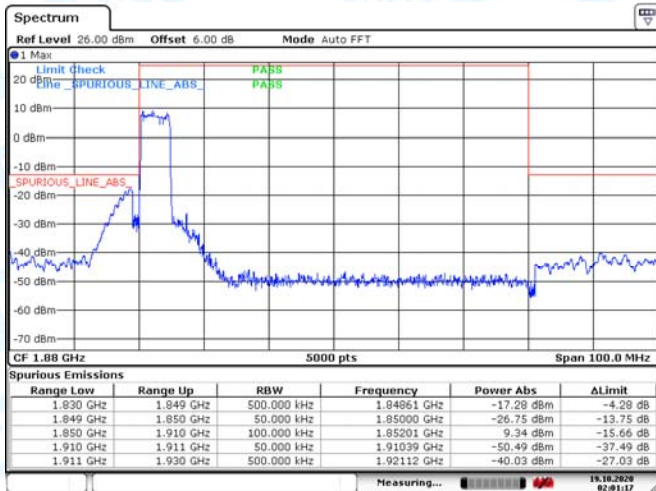
Low Channel

High Channel

LTE BAND 2 (5MHz RB Size 25& RB Offset 0 QPSK)



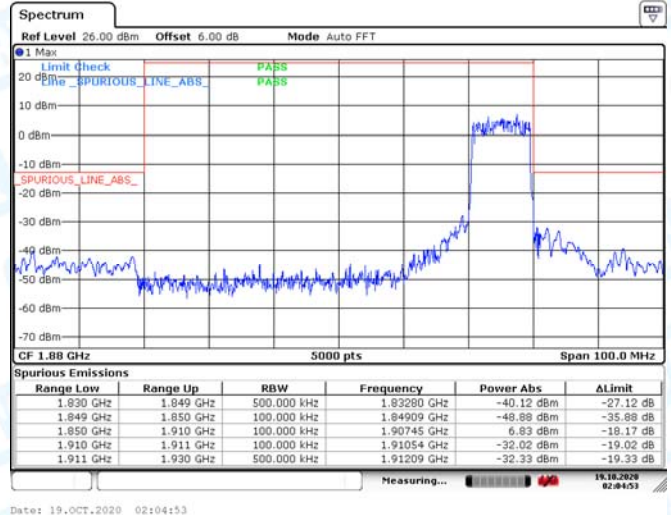
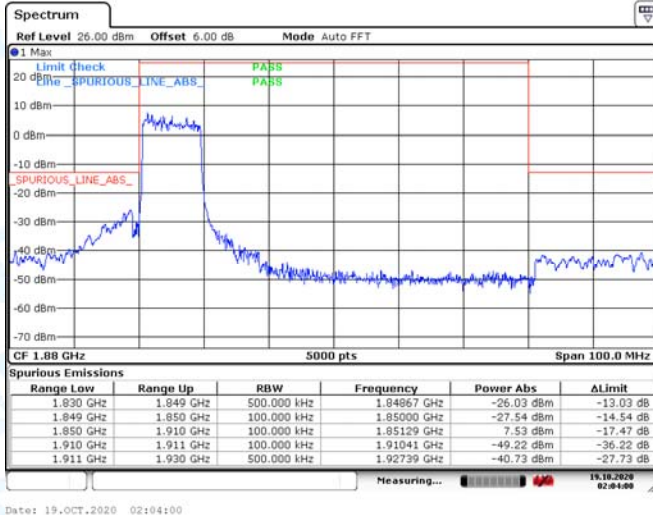
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 16QAM)



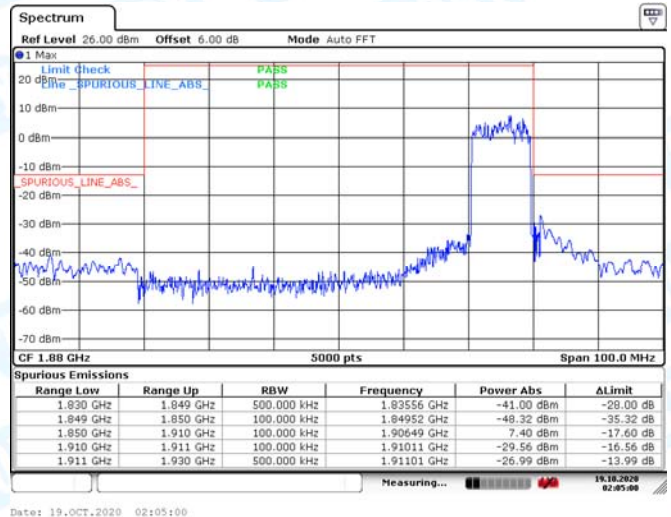
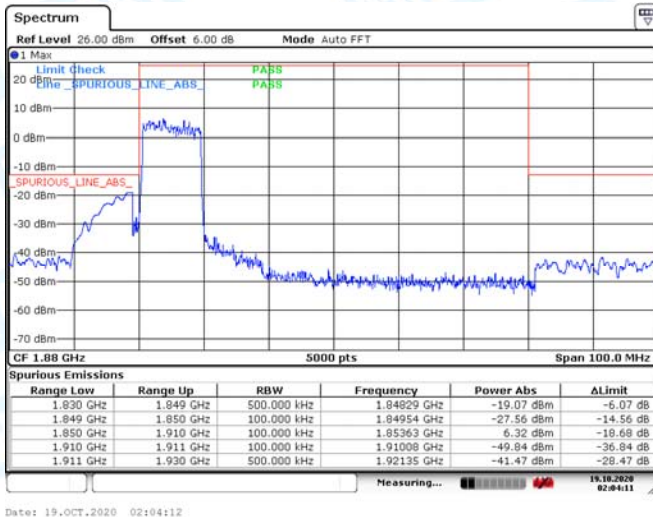
Low Channel

High Channel

LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK)



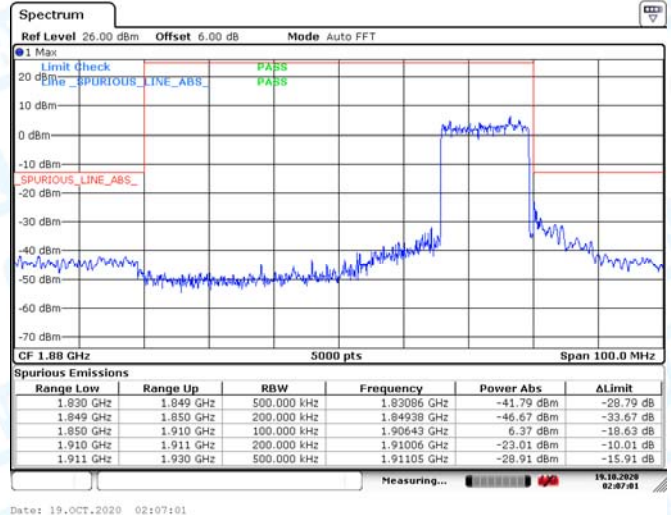
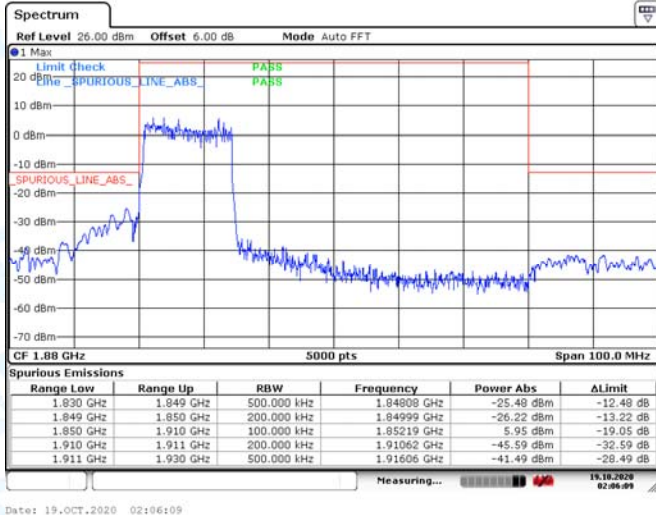
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 16QAM)



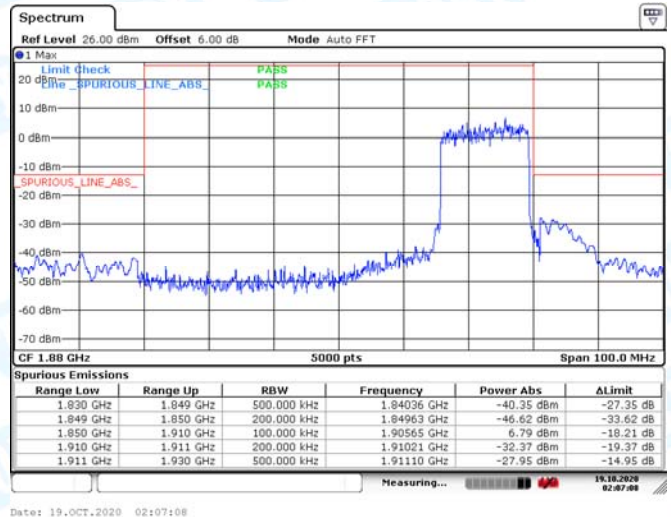
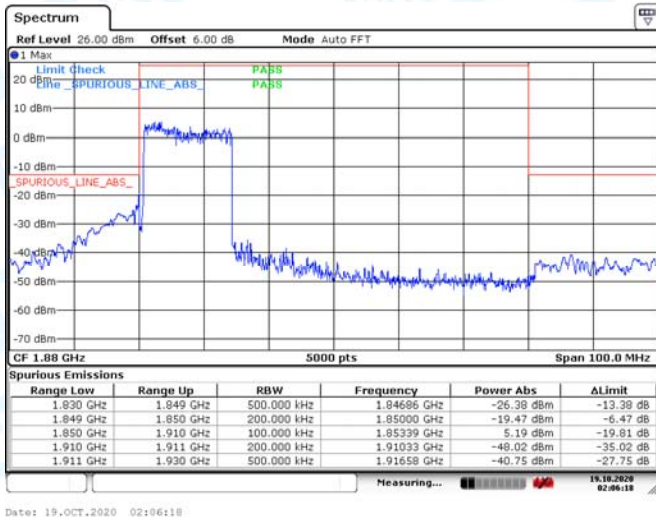
Low Channel

High Channel

LTE BAND 2 (15MHz RB Size 75& RB Offset 0 QPSK)



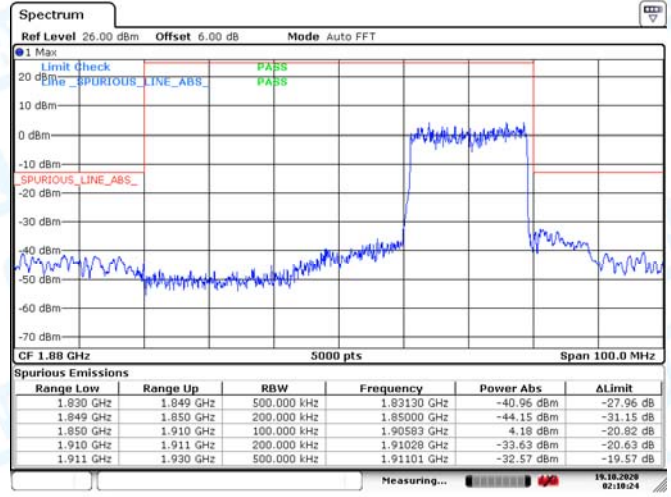
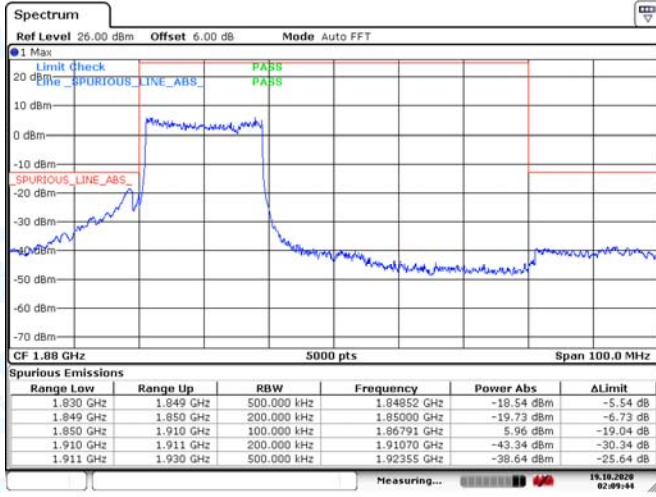
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 16QAM)



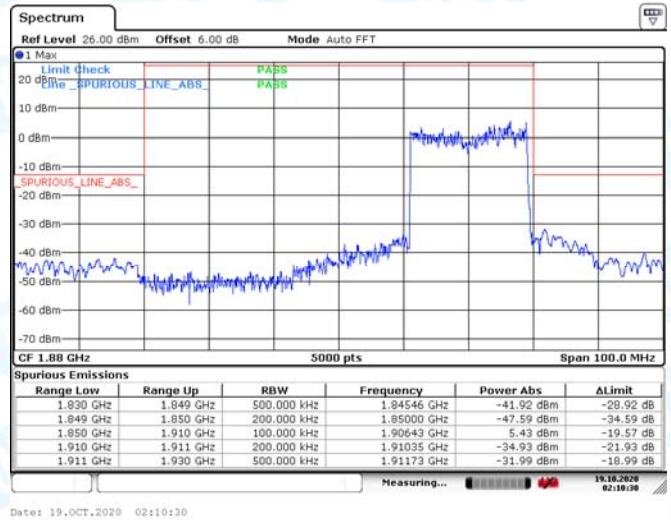
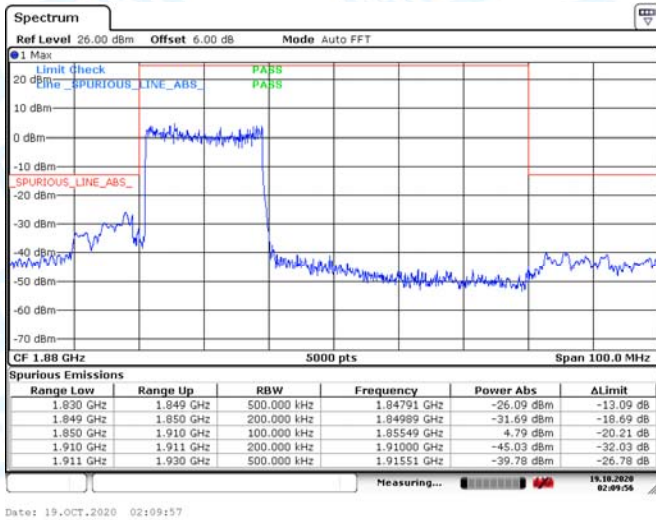
Low Channel

High Channel

LTE BAND 2 (20MHz RB Size 100& RB Offset 0 QPSK)



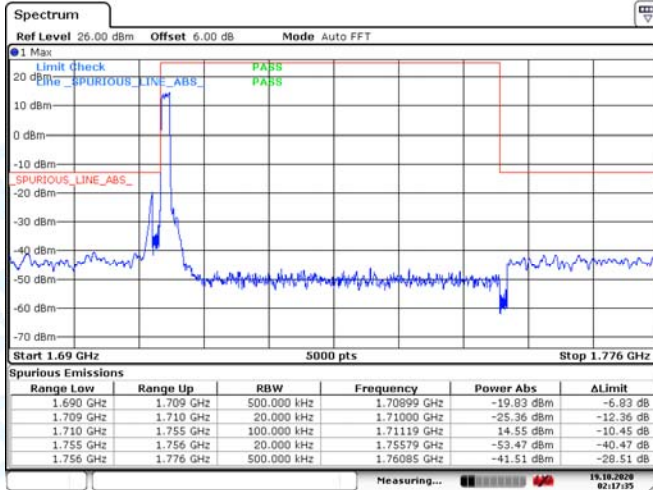
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 16QAM)



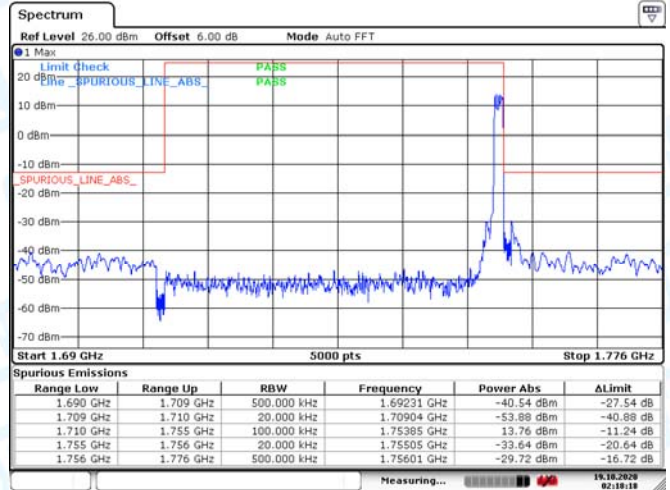
Low Channel

High Channel

LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK)

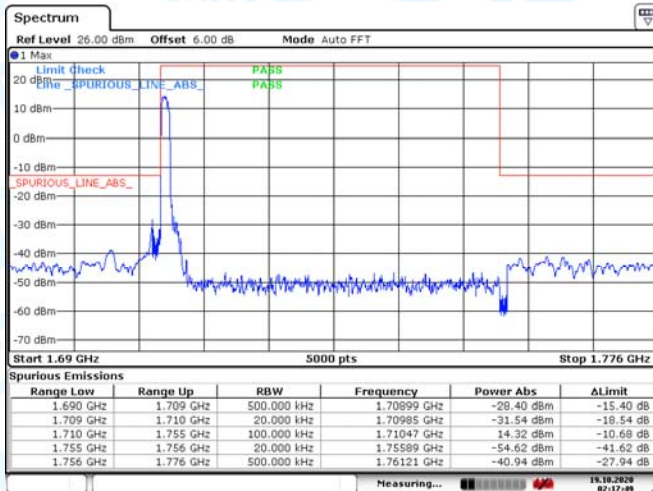


Date: 19.OCT.2020 02:17:35

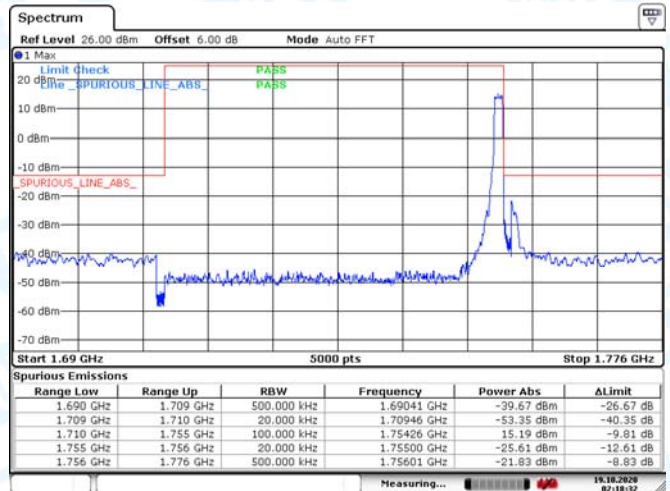


Date: 19.OCT.2020 02:18:18

LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 16QAM)



Date: 19.OCT.2020 02:17:50

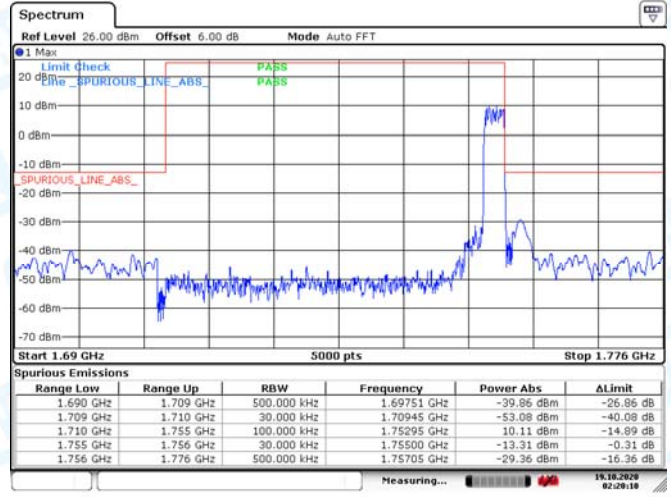
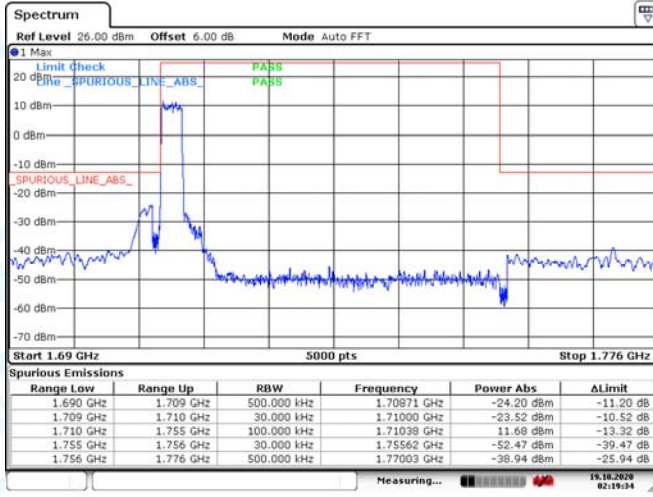


Date: 19.OCT.2020 02:18:32

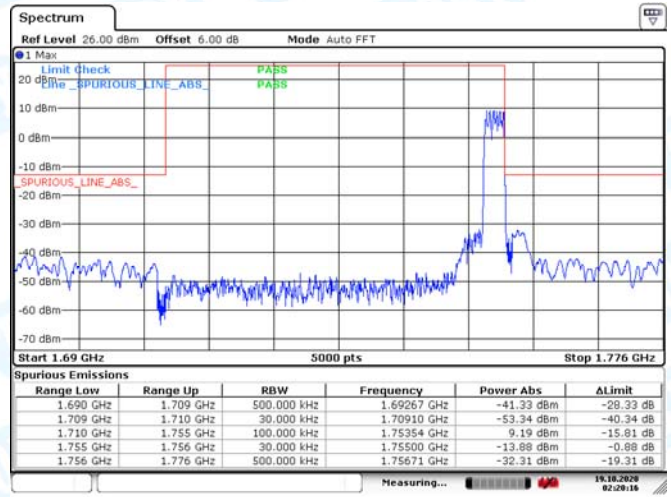
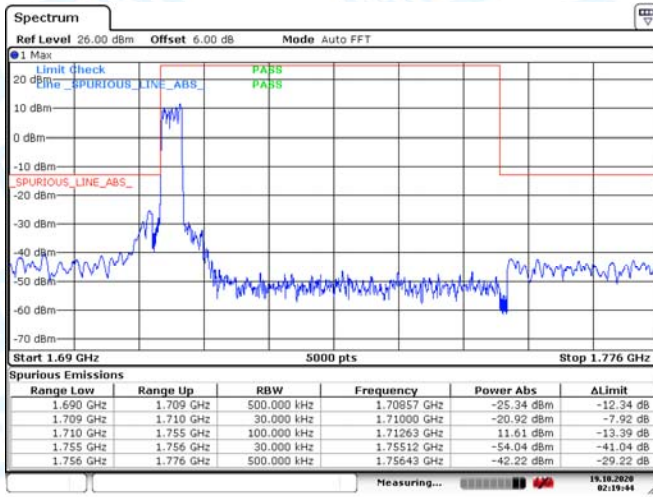
Low Channel

High Channel

LTE BAND 4 (3MHz RB Size 15& RB Offset 0 QPSK)



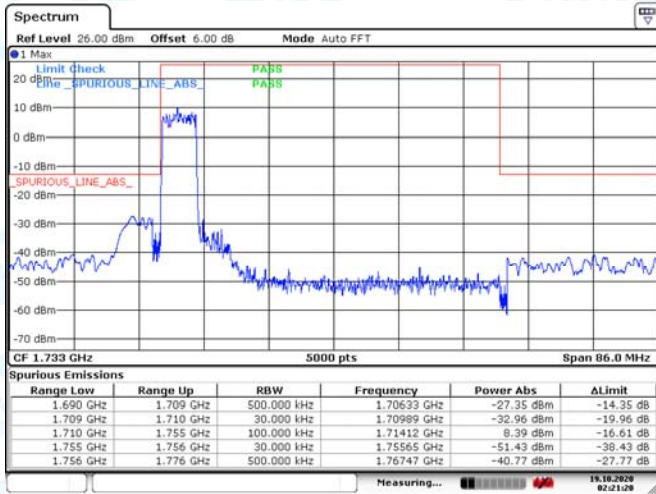
LTE BAND 4 (3MHz RB Size 15& RB Offset 0 16QAM)



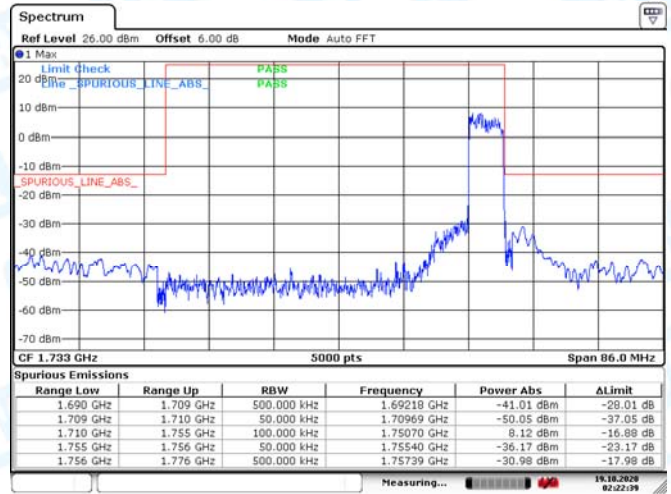
Low Channel

High Channel

LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK)

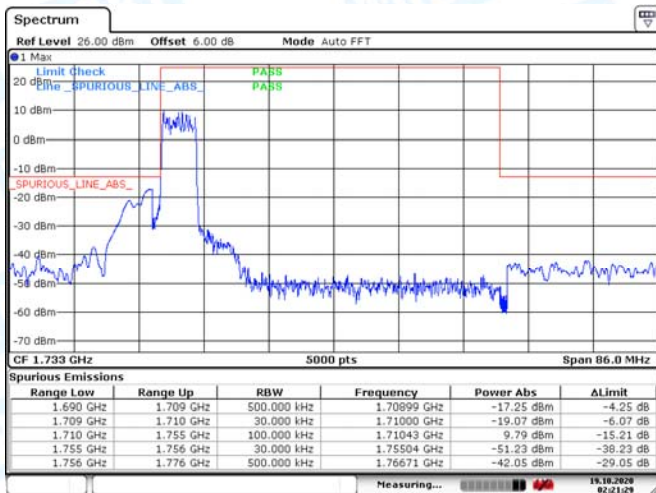


Date: 19.OCT.2020 02:21:20

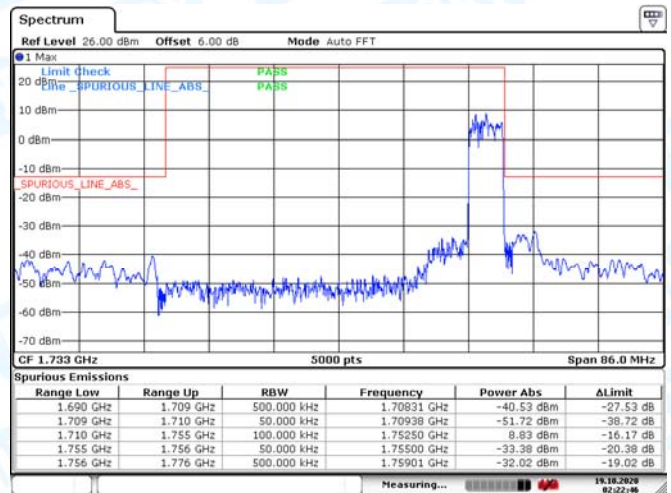


Date: 19.OCT.2020 02:22:40

LTE BAND 4 (5MHz RB Size 25& RB Offset 0 16QAM)



Date: 19.OCT.2020 02:21:29

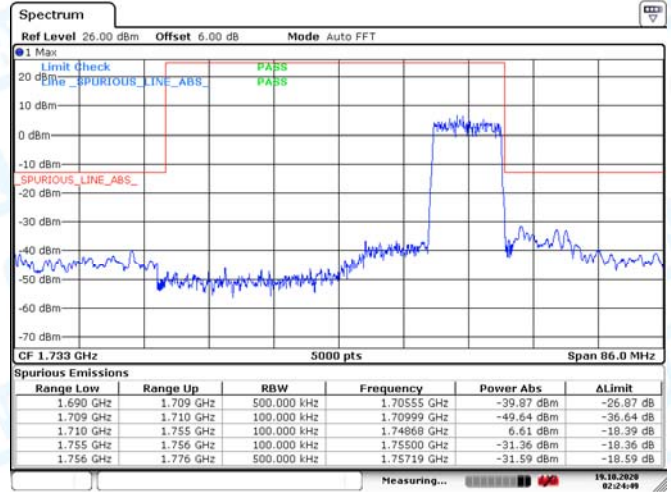
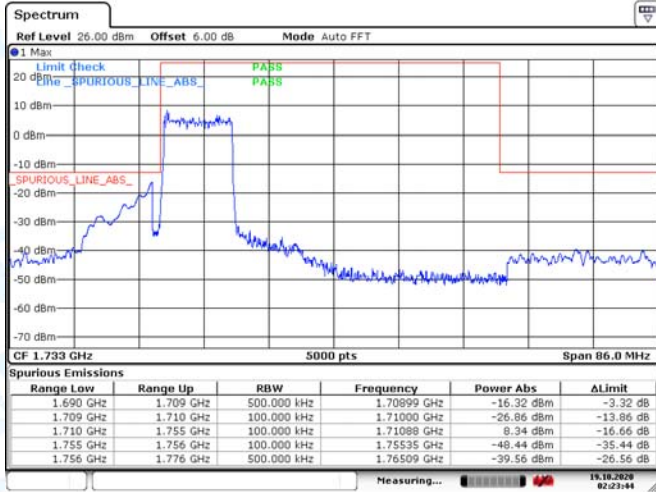


Date: 19.OCT.2020 02:22:46

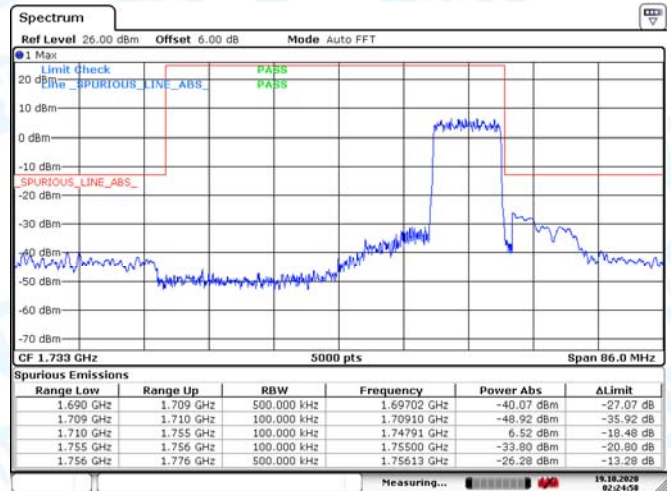
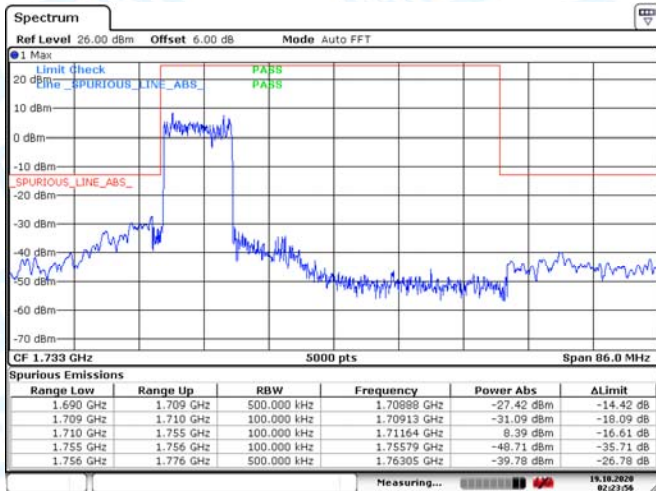
Low Channel

High Channel

LTE BAND 4 (10MHz RB Size 50& RB Offset 0 QPSK)



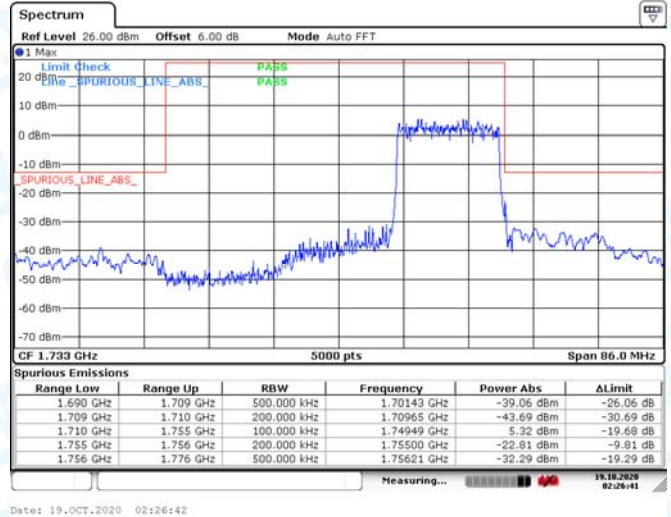
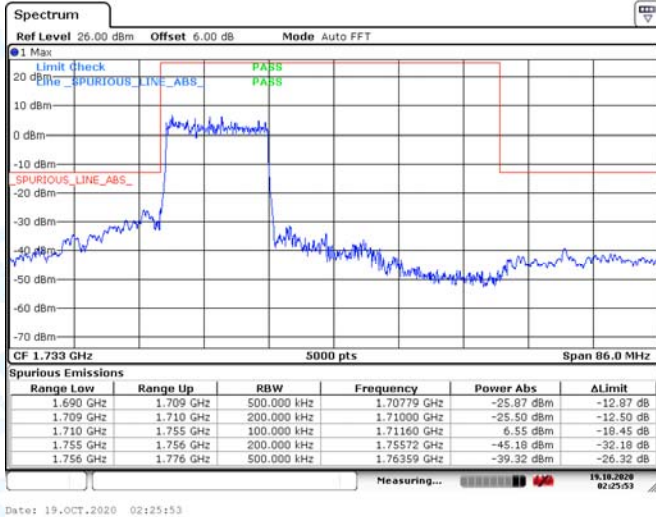
LTE BAND 4 (10MHz RB Size 50& RB Offset 0 16QAM)



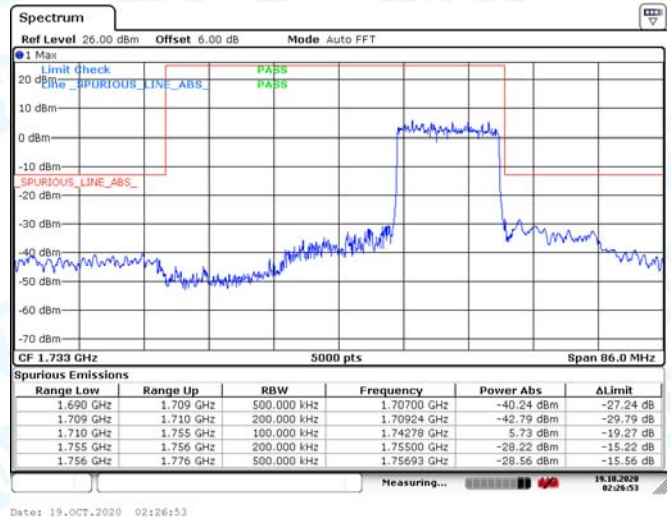
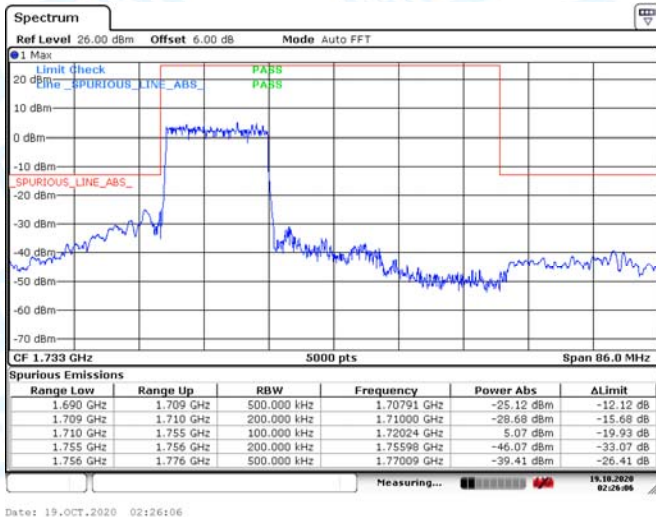
Low Channel

High Channel

LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK)



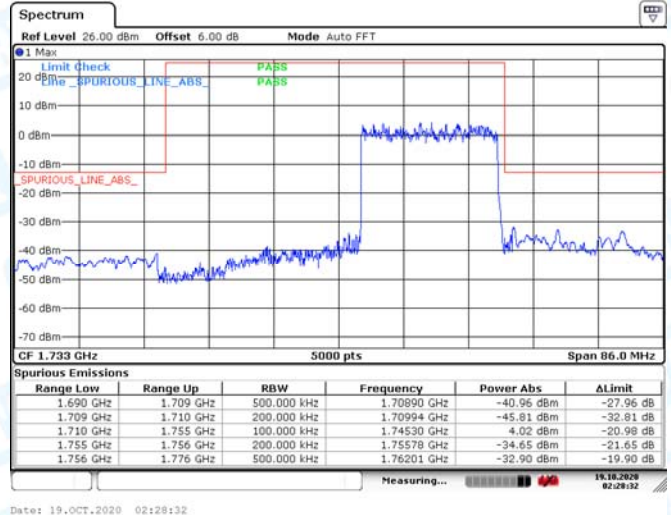
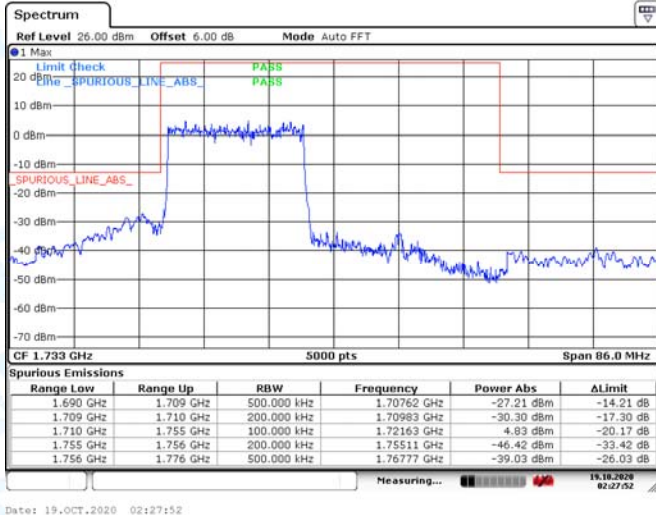
LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK)



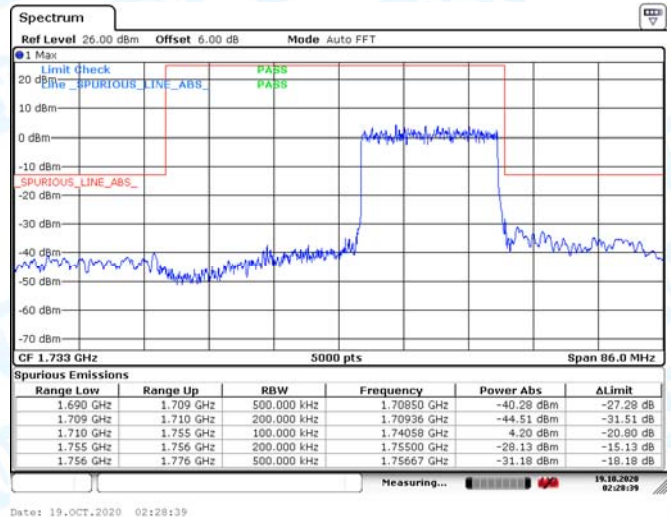
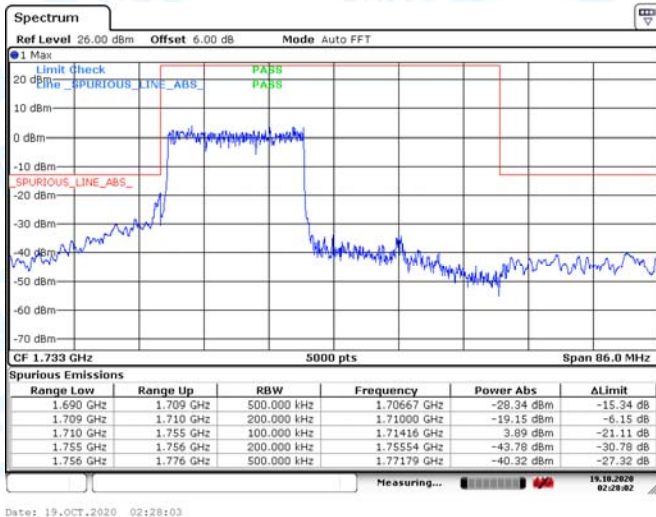
Low Channel

High Channel

LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK)



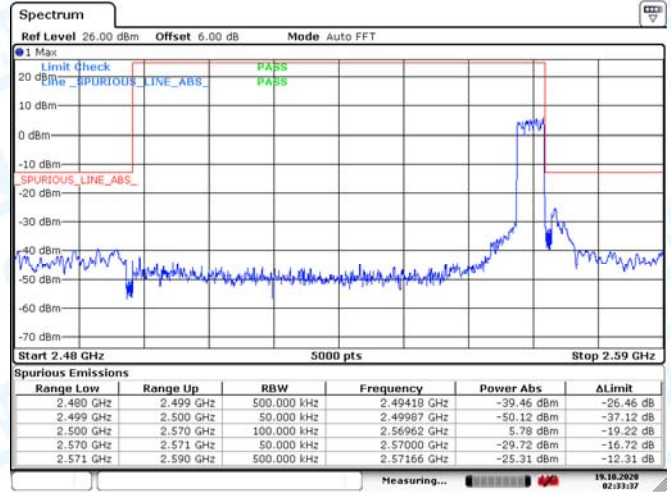
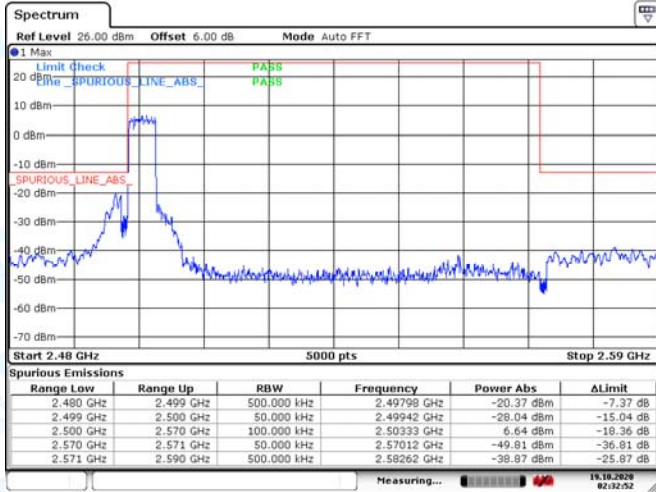
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 16QAM)



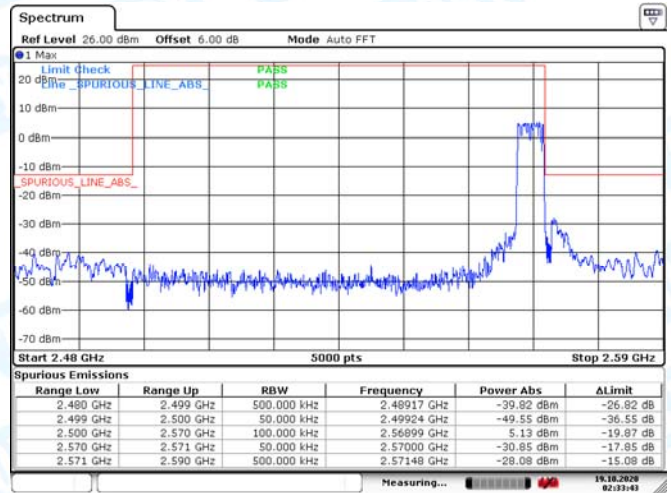
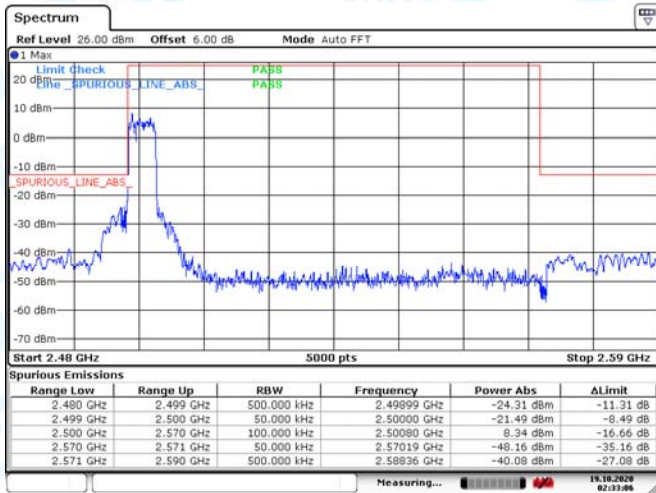
Low Channel

High Channel

LTE BAND 7 (5MHz RB Size 25& RB Offset 0 QPSK)



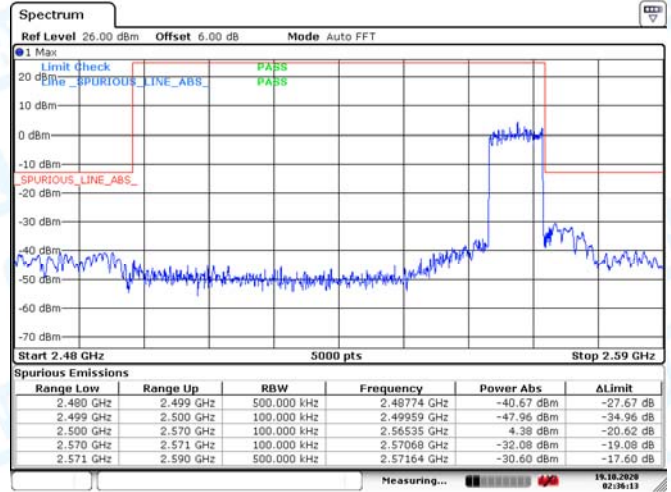
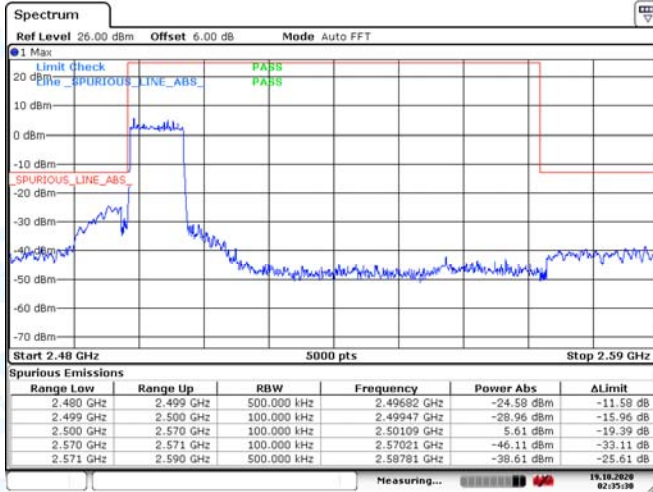
LTE BAND 7 (5MHz RB Size 25& RB Offset 0 16QAM)



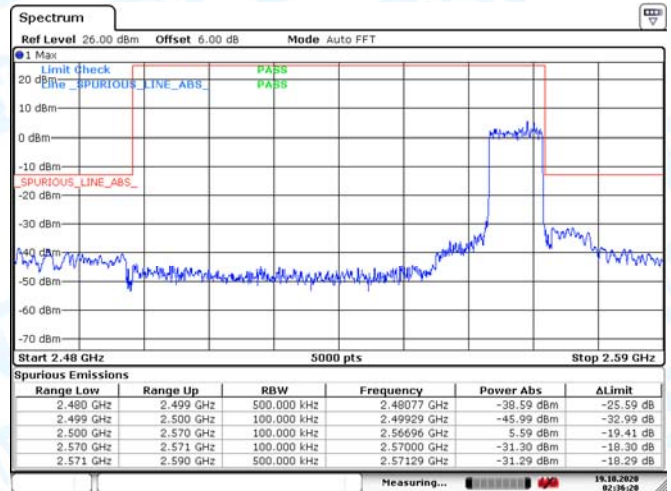
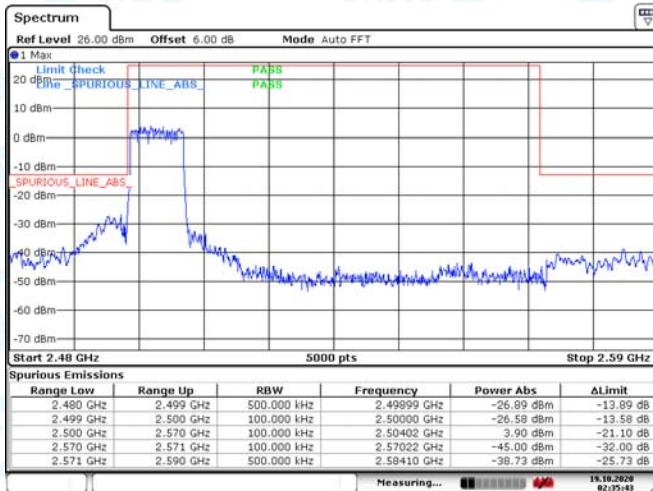
Low Channel

High Channel

LTE BAND 7 (10MHz RB Size 50& RB Offset 0 QPSK)



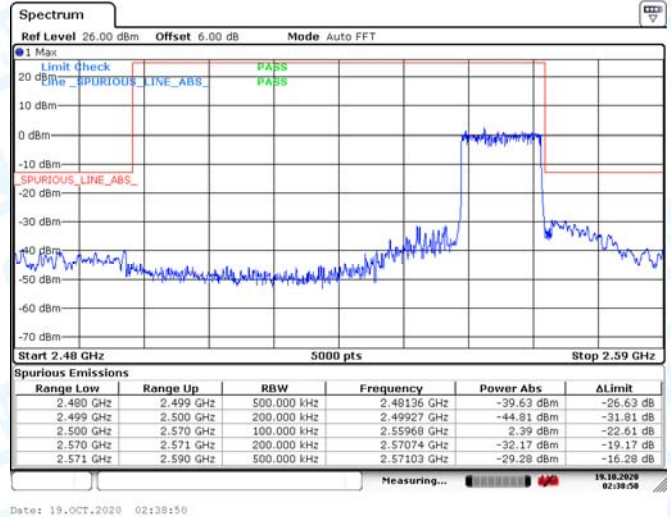
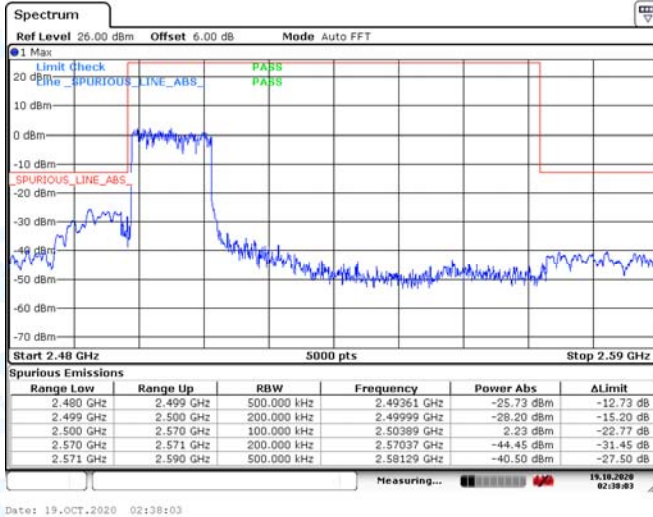
LTE BAND 7 (10MHz RB Size 50& RB Offset 0 QPSK)



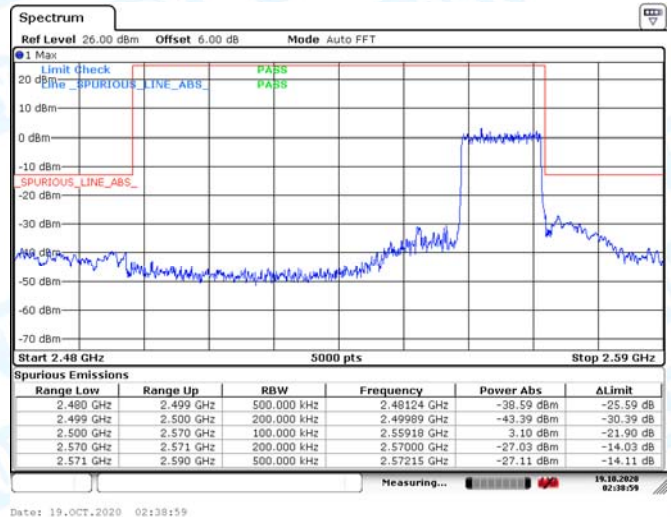
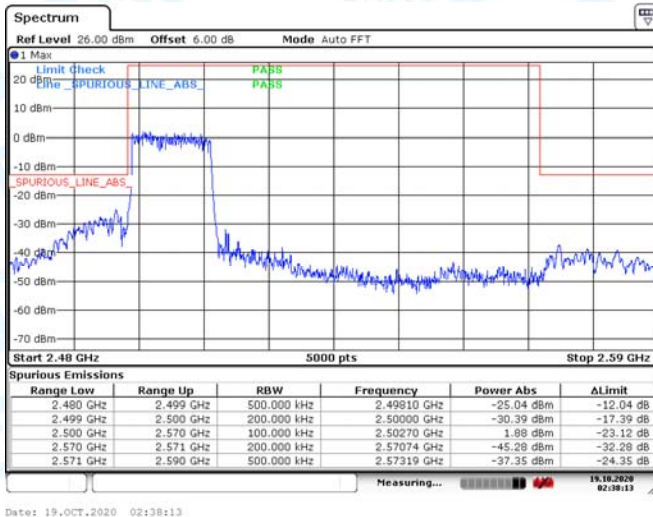
Low Channel

High Channel

LTE BAND 7 (15MHz RB Size 75& RB Offset 0 QPSK)



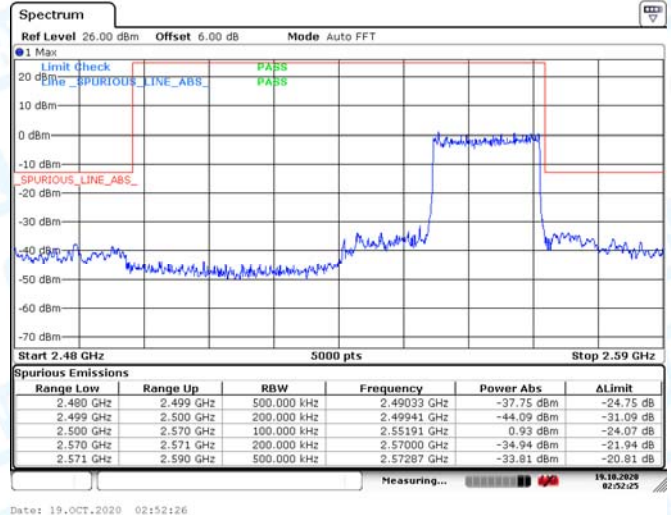
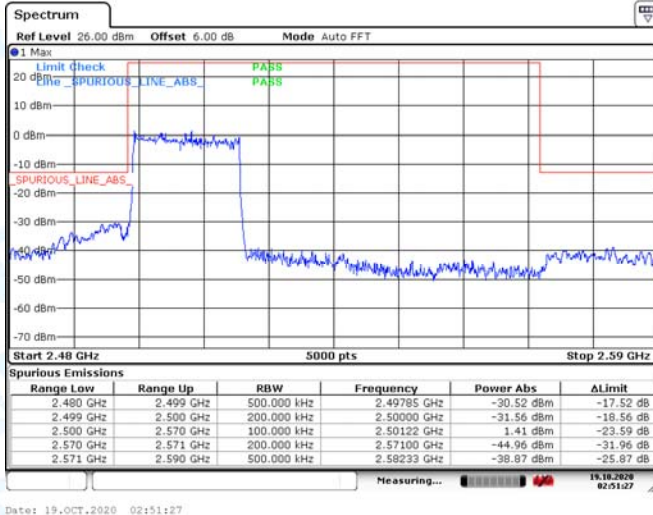
LTE BAND 7 (15MHz RB Size 75& RB Offset 0 16QAM)



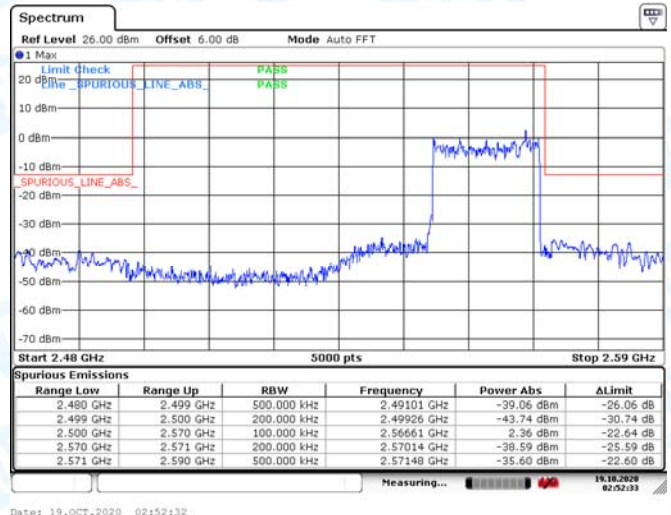
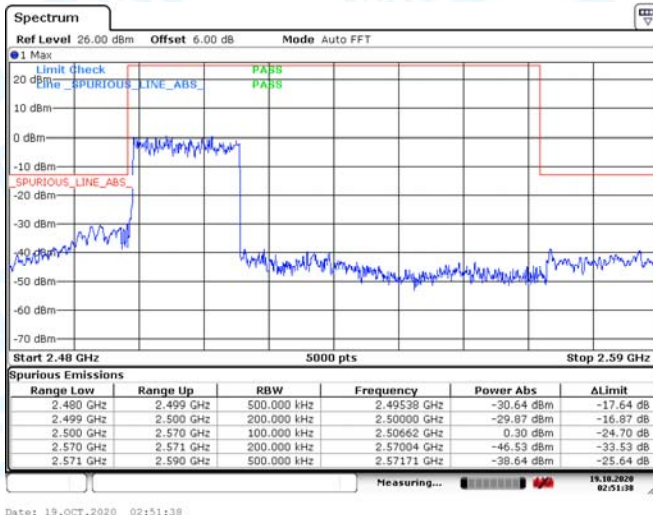
Low Channel

High Channel

LTE BAND 7 (20MHz RB Size 100& RB Offset 0 QPSK)



LTE BAND 7 (20MHz RB Size 100& RB Offset 0 QPSK)



ATTACHMENT F--RADIATED OUTPUT POWER

Radiated Power (EIRP) for LTE Band 2 / 1.4M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.94	5.01	2.59	21.36	0.137
				V	17.26	5.01	2.59	19.68	0.093
	1	0	Middle	H	19.73	4.82	2.59	21.96	0.157
				V	17.33	4.82	2.59	19.56	0.090
	1	0	Highest	H	20.30	4.45	2.59	22.16	0.164
				V	18.03	4.45	2.59	19.89	0.097
16QAM	1	0	Lowest	H	19.45	5.01	2.59	21.87	0.154
				V	16.27	5.01	2.59	18.69	0.074
	1	0	Middle	H	19.52	4.82	2.59	21.75	0.150
				V	16.46	4.82	2.59	18.69	0.074
	1	0	Highest	H	19.90	4.45	2.59	21.76	0.150
				V	16.20	4.45	2.59	18.06	0.064
Limit								33	2

Radiated Power (EIRP) for LTE Band 2 / 3M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.90	5.01	2.59	21.32	0.136
				V	16.27	5.01	2.59	18.69	0.074
	1	0	Middle	H	19.61	4.82	2.59	21.84	0.153
				V	16.70	4.82	2.59	18.93	0.078
	1	0	Highest	H	19.90	4.45	2.59	21.76	0.150
				V	16.50	4.45	2.59	18.36	0.069
16QAM	1	0	Lowest	H	19.34	5.01	2.59	21.76	0.150
				V	16.14	5.01	2.59	18.56	0.072
	1	0	Middle	H	19.46	4.82	2.59	21.69	0.148
				V	16.53	4.82	2.59	18.76	0.075
	1	0	Highest	H	19.82	4.45	2.59	21.68	0.147
				V	16.88	4.45	2.59	18.74	0.075
Limit								33	2

Radiated Power (EIRP) for LTE Band 2 / 5M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.04	5.01	2.59	21.46	0.140
				V	16.34	5.01	2.59	18.76	0.075
	1	0	Middle	H	19.36	4.82	2.59	21.59	0.144
				V	16.31	4.82	2.59	18.54	0.071
	1	0	Highest	H	19.50	4.45	2.59	21.36	0.137
				V	16.67	4.45	2.59	18.53	0.071
16QAM	1	0	Lowest	H	19.34	5.01	2.59	21.76	0.150
				V	15.84	5.01	2.59	18.26	0.067
	1	0	Middle	H	19.54	4.82	2.59	21.77	0.150
				V	16.00	4.82	2.59	18.23	0.067
	1	0	Highest	H	19.56	4.45	2.59	21.42	0.139
				V	16.27	4.45	2.59	18.13	0.065
Limit								33	2

Radiated Power (EIRP) for LTE Band 2 / 10M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.16	5.01	2.59	21.58	0.144
				V	15.94	5.01	2.59	18.36	0.069
	1	0	Middle	H	19.90	4.82	2.59	22.13	0.163
				V	16.80	4.82	2.59	19.03	0.080
	1	0	Highest	H	19.50	4.45	2.59	21.36	0.137
				V	16.56	4.45	2.59	18.42	0.070
16QAM	1	0	Lowest	H	19.27	5.01	2.59	21.69	0.148
				V	15.94	5.01	2.59	18.36	0.069
	1	0	Middle	H	19.62	4.82	2.59	21.85	0.153
				V	16.45	4.82	2.59	18.68	0.074
	1	0	Highest	H	19.69	4.45	2.59	21.55	0.143
				V	16.37	4.45	2.59	18.23	0.067
Limit								33	2

Radiated Power (EIRP) for LTE Band 2 / 15M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.54	5.01	2.59	20.96	0.125
				V	15.60	5.01	2.59	18.02	0.063
	1	0	Middle	H	18.79	4.82	2.59	21.02	0.126
				V	16.30	4.82	2.59	18.53	0.071
	1	0	Highest	H	19.40	4.45	2.59	21.26	0.134
				V	16.68	4.45	2.59	18.54	0.071
16QAM	1	0	Lowest	H	18.90	5.01	2.59	21.32	0.136
				V	15.70	5.01	2.59	18.12	0.065
	1	0	Middle	H	19.44	4.82	2.59	21.67	0.147
				V	16.13	4.82	2.59	18.36	0.069
	1	0	Highest	H	19.60	4.45	2.59	21.46	0.140
				V	16.28	4.45	2.59	18.14	0.065
Limit								33	2

Radiated Power (EIRP) for LTE Band 2 / 20M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.64	5.01	2.59	21.06	0.128
				V	15.71	5.01	2.59	18.13	0.065
	1	0	Middle	H	19.09	4.82	2.59	21.32	0.136
				V	16.00	4.82	2.59	18.23	0.067
	1	0	Highest	H	19.68	4.45	2.59	21.54	0.143
				V	16.51	4.45	2.59	18.37	0.069
16QAM	1	0	Lowest	H	19.14	5.01	2.59	21.56	0.143
				V	15.82	5.01	2.59	18.24	0.067
	1	0	Middle	H	19.63	4.82	2.59	21.86	0.153
				V	16.31	4.82	2.59	18.54	0.071
	1	0	Highest	H	19.82	4.45	2.59	21.68	0.147
				V	16.56	4.45	2.59	18.42	0.070
Limit								33	2

Radiated Power (EIRP) for LTE Band 4 / 1.4M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.52	5.26	2.43	21.35	0.136
				V	15.42	5.26	2.43	18.25	0.067
	1	0	Middle	H	19.11	5.38	2.43	22.06	0.161
				V	15.70	5.38	2.43	18.65	0.073
	1	0	Highest	H	19.17	5.4	2.43	22.14	0.164
				V	15.39	5.4	2.43	18.36	0.069
16QAM	1	0	Lowest	H	19.03	5.26	2.43	21.86	0.153
				V	15.41	5.26	2.43	18.24	0.067
	1	0	Middle	H	18.92	5.38	2.43	21.87	0.154
				V	15.28	5.38	2.43	18.23	0.067
	1	0	Highest	H	18.78	5.4	2.43	21.75	0.150
				V	15.45	5.4	2.43	18.42	0.070
Limit								30	1

Radiated Power (EIRP) for LTE Band 4 / 3M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.70	5.26	2.43	21.53	0.142
				V	15.42	5.26	2.43	18.25	0.067
	1	0	Middle	H	18.57	5.38	2.43	21.52	0.142
				V	15.28	5.38	2.43	18.23	0.067
	1	0	Highest	H	18.39	5.4	2.43	21.36	0.137
				V	15.16	5.4	2.43	18.13	0.065
16QAM	1	0	Lowest	H	19.06	5.26	2.43	21.89	0.155
				V	15.71	5.26	2.43	18.54	0.071
	1	0	Middle	H	18.41	5.38	2.43	21.36	0.137
				V	15.37	5.38	2.43	18.32	0.068
	1	0	Highest	H	18.88	5.4	2.43	21.85	0.153
				V	15.28	5.4	2.43	18.25	0.067
Limit								30	1

Radiated Power (EIRP) for LTE Band 4 / 5M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.82	5.26	2.43	21.65	0.146
				V	15.49	5.26	2.43	18.32	0.068
	1	0	Middle	H	18.61	5.38	2.43	21.56	0.143
				V	15.58	5.38	2.43	18.53	0.071
	1	0	Highest	H	18.68	5.4	2.43	21.65	0.146
				V	15.26	5.4	2.43	18.23	0.067
16QAM	1	0	Lowest	H	18.95	5.26	2.43	21.78	0.151
				V	15.43	5.26	2.43	18.26	0.067
	1	0	Middle	H	18.51	5.38	2.43	21.46	0.140
				V	15.40	5.38	2.43	18.35	0.068
	1	0	Highest	H	18.71	5.4	2.43	21.68	0.147
				V	15.29	5.4	2.43	18.26	0.067
Limit								30	1

Radiated Power (EIRP) for LTE Band 4 / 10M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.20	5.26	2.43	22.03	0.160
				V	16.12	5.26	2.43	18.95	0.079
	1	0	Middle	H	19.18	5.38	2.43	22.13	0.163
				V	15.41	5.38	2.43	18.36	0.069
	1	0	Highest	H	18.89	5.4	2.43	21.86	0.153
				V	15.48	5.4	2.43	18.45	0.070
16QAM	1	0	Lowest	H	18.43	5.26	2.43	21.26	0.134
				V	15.23	5.26	2.43	18.06	0.064
	1	0	Middle	H	18.50	5.38	2.43	21.45	0.140
				V	15.41	5.38	2.43	18.36	0.069
	1	0	Highest	H	18.81	5.4	2.43	21.78	0.151
				V	15.48	5.4	2.43	18.45	0.070
Limit								30	1

Radiated Power (EIRP) for LTE Band 4 / 15M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	18.82	5.26	2.43	21.65	0.146
				V	15.73	5.26	2.43	18.56	0.072
	1	0	Middle	H	18.79	5.38	2.43	21.74	0.149
				V	15.41	5.38	2.43	18.36	0.069
	1	0	Highest	H	18.16	5.4	2.43	21.13	0.130
				V	14.99	5.4	2.43	17.96	0.063
16QAM	1	0	Lowest	H	18.89	5.26	2.43	21.72	0.149
				V	15.71	5.26	2.43	18.54	0.071
	1	0	Middle	H	18.41	5.38	2.43	21.36	0.137
				V	15.11	5.38	2.43	18.06	0.064
	1	0	Highest	H	18.49	5.4	2.43	21.46	0.140
				V	15.29	5.4	2.43	18.26	0.067
Limit								30	1

Radiated Power (EIRP) for LTE Band 4 / 20M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.53	5.26	2.43	22.36	0.172
				V	16.20	5.26	2.43	19.03	0.080
	1	0	Middle	H	18.74	5.38	2.43	21.69	0.148
				V	15.47	5.38	2.43	18.42	0.070
	1	0	Highest	H	18.89	5.4	2.43	21.86	0.153
				V	15.39	5.4	2.43	18.36	0.069
16QAM	1	0	Lowest	H	18.82	5.26	2.43	21.65	0.146
				V	15.41	5.26	2.43	18.24	0.067
	1	0	Middle	H	18.77	5.38	2.43	21.72	0.149
				V	15.39	5.38	2.43	18.34	0.068
	1	0	Highest	H	18.99	5.4	2.43	21.96	0.157
				V	15.62	5.4	2.43	18.59	0.072
Limit								30	1

Radiated Power (EIRP) for LTE Band 7 / 5M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.92	4.76	2.65	22.03	0.160
				V	16.67	4.76	2.65	18.78	0.076
	1	0	Middle	H	19.87	4.91	2.65	22.13	0.163
				V	16.49	4.91	2.65	18.75	0.075
	1	0	Highest	H	19.71	5.00	2.65	22.06	0.161
				V	16.59	5.00	2.65	18.94	0.078
16QAM	1	0	Lowest	H	19.87	4.76	2.65	21.98	0.158
				V	16.35	4.76	2.65	18.46	0.070
	1	0	Middle	H	19.61	4.91	2.65	21.87	0.154
				V	16.30	4.91	2.65	18.56	0.072
	1	0	Highest	H	19.44	5.00	2.65	21.79	0.151
				V	16.07	5.00	2.65	18.42	0.070
Limit								33	2

Radiated Power (EIRP) for LTE Band 7 / 10M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.46	4.76	2.65	21.57	0.144
				V	16.15	4.76	2.65	18.26	0.067
	1	0	Middle	H	19.00	4.91	2.65	21.26	0.134
				V	16.20	4.91	2.65	18.46	0.070
	1	0	Highest	H	19.54	5.00	2.65	21.89	0.155
				V	15.89	5.00	2.65	18.24	0.067
16QAM	1	0	Lowest	H	19.64	4.76	2.65	21.75	0.150
				V	16.12	4.76	2.65	18.23	0.067
	1	0	Middle	H	19.52	4.91	2.65	21.78	0.151
				V	15.98	4.91	2.65	18.24	0.067
	1	0	Highest	H	19.51	5.00	2.65	21.86	0.153
				V	16.13	5.00	2.65	18.48	0.070
Limit								33	2

Radiated Power (EIRP) for LTE Band 7 / 15M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.32	4.76	2.65	21.43	0.139
				V	16.02	4.76	2.65	18.13	0.065
	1	0	Middle	H	19.28	4.91	2.65	21.54	0.143
				V	16.06	4.91	2.65	18.32	0.068
	1	0	Highest	H	19.30	5.00	2.65	21.65	0.146
				V	15.91	5.00	2.65	18.26	0.067
16QAM	1	0	Lowest	H	19.57	4.76	2.65	21.68	0.147
				V	16.53	4.76	2.65	18.64	0.073
	1	0	Middle	H	19.09	4.91	2.65	21.35	0.136
				V	16.00	4.91	2.65	18.26	0.067
	1	0	Highest	H	19.43	5.00	2.65	21.78	0.151
				V	15.87	5.00	2.65	18.22	0.066
Limit								33	2

Radiated Power (EIRP) for LTE Band 7 / 20M									
Modulation	RB		Channel	Antenna (H&V)	SG Level (dBm)	Antenna Factor (dBd)	Cable Loss (dB)	EIRP (dBm)	EIRP (W)
	Size	offset							
QPSK	1	0	Lowest	H	19.73	4.76	2.65	21.84	0.153
				V	16.46	4.76	2.65	18.57	0.072
	1	0	Middle	H	19.48	4.91	2.65	21.74	0.149
				V	16.00	4.91	2.65	18.26	0.067
	1	0	Highest	H	19.33	5.00	2.65	21.68	0.147
				V	16.04	5.00	2.65	18.39	0.069
16QAM	1	0	Lowest	H	19.61	4.76	2.65	21.72	0.149
				V	16.25	4.76	2.65	18.36	0.069
	1	0	Middle	H	19.32	4.91	2.65	21.58	0.144
				V	15.99	4.91	2.65	18.25	0.067
	1	0	Highest	H	19.52	5.00	2.65	21.87	0.154
				V	15.90	5.00	2.65	18.25	0.067
Limit								33	2

ATTACHMENT G--RADIATED OUT BAND OF EMISSIONS

Measurement Data (worst case)

Test mode: LTE BAND 2 1.4MHz(RB size 1 & RB offset 0) for QPSK							
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-64.74	14.94	6.24	-43.56	-13.00	Pass
5640.20	H	-60.43	13.87	7.98	-38.58		
7519.60	H	-56.67	14.49	9.68	-32.5		
3759.90	Vertical	-68.49	15.97	6.24	-46.28	-13.00	Pass
5640.20	V	-62.17	13.94	7.98	-40.25		
7519.60	V	-58.80	13.87	9.68	-35.25		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 2 3MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-63.54	14.94	6.24	-42.36	-13.00	Pass
5640.20	H	-60.11	13.87	7.98	-38.26		
7519.60	H	-57.42	14.49	9.68	-33.25		
3759.90	Vertical	-67.47	15.97	6.24	-45.26	-13.00	Pass
5640.20	V	-61.17	13.94	7.98	-39.25		
7519.60	V	-58.40	13.87	9.68	-34.85		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 2 5MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-65.54	14.94	6.24	-44.36	-13.00	Pass
5640.20	H	-58.70	13.87	7.98	-36.85		
7519.60	H	-58.39	14.49	9.68	-34.22		
3759.90	Vertical	-65.46	15.97	6.24	-43.25	-13.00	Pass
5640.20	V	-60.57	13.94	7.98	-38.65		
7519.60	V	-53.80	13.87	9.68	-30.25		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 2 10MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-64.44	14.94	6.24	-43.26	-13.00	Pass
5640.20	H	-58.74	13.87	7.98	-36.89		
7519.60	H	-56.42	14.49	9.68	-32.25		
3759.90	Vertical	-66.46	15.97	6.24	-44.25	-13.00	Pass
5640.20	V	-59.90	13.94	7.98	-37.98		
7519.60	V	-54.07	13.87	9.68	-30.52		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 2 15MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-65.43	14.94	6.24	-44.25	-13.00	Pass
5640.20	H	-59.10	13.87	7.98	-37.25		
7519.60	H	-55.53	14.49	9.68	-31.36		
3759.90	Vertical	-64.57	15.97	6.24	-42.36	-13.00	Pass
5640.20	V	-60.15	13.94	7.98	-38.23		
7519.60	V	-56.07	13.87	9.68	-32.52		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 2 20MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3759.90	Horizontal	-66.54	14.94	6.24	-45.36	-13.00	Pass
5640.20	H	-60.11	13.87	7.98	-38.26		
7519.60	H	-56.43	14.49	9.68	-32.26		
3759.90	Vertical	-64.57	15.97	6.24	-42.36	-13.00	Pass
5640.20	V	-60.88	13.94	7.98	-38.96		
7519.60	V	-55.24	13.87	9.68	-31.69		
Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 1.4MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-70.72	14.94	6.12	-49.66	-13.00	Pass
5198.98	H	-66.09	13.87	7.86	-44.36		
6932.13	H	-62.28	14.49	9.54	-38.25		
3465.99	Vertical	-70.45	15.97	6.12	-48.36	-13.00	Pass
5198.98	V	-65.05	13.94	7.86	-43.25		
6932.13	V	-58.10	13.87	9.54	-34.69		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 3MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-69.42	14.94	6.12	-48.36	-13.00	Pass
5198.98	H	-65.42	13.87	7.86	-43.69		
6932.13	H	-61.28	14.49	9.54	-37.25		
3465.99	Vertical	-69.78	15.97	6.12	-47.69	-13.00	Pass
5198.98	V	-66.05	13.94	7.86	-44.25		
6932.13	V	-59.66	13.87	9.54	-36.25		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 5MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-68.31	14.94	6.12	-47.25	-13.00	Pass
5198.98	H	-64.42	13.87	7.86	-42.69		
6932.13	H	-60.28	14.49	9.54	-36.25		
3465.99	Vertical	-69.07	15.97	6.12	-46.98	-13.00	Pass
5198.98	V	-67.16	13.94	7.86	-45.36		
6932.13	V	-57.66	13.87	9.54	-34.25		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 10MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-67.31	14.94	6.12	-46.25	-13.00	Pass
5198.98	H	-63.09	13.87	7.86	-41.36		
6932.13	H	-59.29	14.49	9.54	-35.26		
3465.99	Vertical	-68.35	15.97	6.12	-46.26	-13.00	Pass
5198.98	V	-66.55	13.94	7.86	-44.75		
6932.13	V	-58.67	13.87	9.54	-35.26		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 15MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-68.38	14.94	6.12	-47.32	-13.00	Pass
5198.98	H	-64.09	13.87	7.86	-42.36		
6932.13	H	-59.72	14.49	9.54	-35.69		
3465.99	Vertical	-67.52	15.97	6.12	-45.43	-13.00	Pass
5198.98	V	-62.43	13.94	7.86	-40.63		
6932.13	V	-57.93	13.87	9.54	-34.52		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 4 20MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
3465.99	Horizontal	-65.62	14.94	6.12	-44.56	-13.00	Pass
5198.98	H	-62.09	13.87	7.86	-40.36		
6932.13	H	-58.46	14.49	9.54	-34.43		
3465.99	Vertical	-68.34	15.97	6.12	-46.25	-13.00	Pass
5198.98	V	-62.05	13.94	7.86	-40.25		
6932.13	V	-59.02	13.87	9.54	-35.61		
Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 7 5MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
5070.00	Horizontal	-64.59	14.70	7.53	-42.36	-13.00	Pass
7605.00	H	-59.18	13.67	9.26	-36.25		
10140.00	H	-58.24	14.27	11.45	-32.52		
5070.00	Vertical	-66.90	15.81	7.53	-43.56	-13.00	Pass
7605.00	V	-61.22	13.80	9.26	-38.16		
10140.00	V	-55.10	13.40	11.45	-30.25		
Remark: 1, The testing has been conformed to 10*2535.0MHz=25350MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 7 10MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
5070.00	Horizontal	-65.59	14.70	7.53	-43.36	-13.00	Pass
7605.00	H	-60.18	13.67	9.26	-37.25		
10140.00	H	-58.28	14.27	11.45	-32.56		
5070.00	Vertical	-67.59	15.81	7.53	-44.25	-13.00	Pass
7605.00	V	-59.91	13.80	9.26	-36.85		
10140.00	V	-56.11	13.40	11.45	-31.26		
Remark: 1, The testing has been conformed to 10*2535.0MHz=25350MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 7 15MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
5070.00	Horizontal	-66.46	14.70	7.53	-44.23	-13.00	Pass
7605.00	H	-61.18	13.67	9.26	-38.25		
10140.00	H	-57.58	14.27	11.45	-31.86		
5070.00	Vertical	-67.30	15.81	7.53	-43.96	-13.00	Pass
7605.00	V	-60.62	13.80	9.26	-37.56		
10140.00	V	-58.13	13.40	11.45	-33.28		
Remark: 1, The testing has been conformed to 10*2535.0MHz=25350MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

Test mode:	LTE BAND 7 20MHz(RB size 1 & RB offset 0) for QPSK						
Channel:	Middle			Date of Test:	2020-09-16		
Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
	Polarization (H&V)	Read Level (dBm)	Antenna Correct Factor (dBi)	Cable Loss (dB)	Emission Level (dBm)		
5070.00	Horizontal	-66.12	14.70	7.53	-43.89	-13.00	Pass
7605.00	H	-60.38	13.67	9.26	-37.45		
10140.00	H	-57.37	14.27	11.45	-31.65		
5070.00	Vertical	-67.60	15.81	7.53	-44.26	-13.00	Pass
7605.00	V	-59.95	13.80	9.26	-36.89		
10140.00	V	-57.01	13.40	11.45	-32.16		
Remark: 1, The testing has been conformed to 10*2535.0MHz=25350MHz. 2, All other emissions more than 30 dB below the limit. 3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss							

ATTACHMENT H--FREQUENCY STABILITY

Remark: We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 7. recorded worst case for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 7.

Temperature Variation					
Reference Frequency: LTE Band 2 QPSK(10MHz) Middle channel=18900 Frequency=1880.0MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	89	0.0473	±2.5	Pass
	-20	112	0.0594		
	-10	106	0.0562		
	0	80	0.0424		
	10	86	0.0455		
	20	69	0.0367		
	30	58	0.0307		
	40	95	0.0504		
	50	94	0.0499		
Reference Frequency: LTE Band 2 16QAM(10MHz) Middle channel=18900 Frequency=1880.0MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	112	0.0596	±2.5	Pass
	-20	122	0.0651		
	-10	141	0.0751		
	0	99	0.0528		
	10	105	0.0558		
	20	138	0.0735		
	30	101	0.0537		
	40	134	0.0715		
	50	147	0.0784		

Temperature Variation					
Reference Frequency: LTE Band 4 QPSK(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	98	0.0566	±2.5	Pass
	-20	59	0.0343		
	-10	105	0.0606		
	0	118	0.0679		
	10	134	0.0776		
	20	135	0.0782		
	30	73	0.0421		
	40	114	0.0655		
	50	88	0.0506		
Reference Frequency: LTE Band 4 16QAM(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	113	0.0652	±2.5	Pass
	-20	150	0.0864		
	-10	91	0.0523		
	0	141	0.0814		
	10	109	0.0627		
	20	82	0.0471		
	30	139	0.0805		
	40	104	0.0598		
	50	74	0.0430		
Temperature Variation					
Reference Frequency: LTE Band 7 QPSK(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	76	0.0300	±2.5	Pass
	-20	90	0.0355		
	-10	89	0.0351		
	0	48	0.0188		
	10	102	0.0403		
	20	86	0.0338		
	30	63	0.0249		
	40	65	0.0256		
	50	95	0.0377		
Reference Frequency: LTE Band 7 16QAM(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	86	0.0339	±2.5	Pass
	-20	79	0.0313		
	-10	66	0.0260		
	0	76	0.0298		
	10	104	0.0410		
	20	92	0.0365		
	30	113	0.0446		
	40	70	0.0274		
	50	94	0.0371		

Voltage Variation					
Reference Frequency: LTE Band 2 QPSK(10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	148	0.0785	±2.5	Pass
	3.85	100	0.0531		
	4.20	136	0.0722		
Reference Frequency: LTE Band 2 16QAM(10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	107	0.0570	±2.5	Pass
	3.85	93	0.0494		
	4.20	85	0.0454		
Voltage Variation					
Reference Frequency: LTE Band 4 QPSK(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	115	0.0664	±2.5	Pass
	3.85	129	0.0747		
	4.20	132	0.0759		
Reference Frequency: LTE Band 4 16QAM(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	87	0.0501	±2.5	Pass
	3.85	128	0.0740		
	4.20	97	0.0558		
Voltage Variation					
Reference Frequency: LTE Band 7 QPSK(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	124	0.0489	±2.5	Pass
	3.85	152	0.0601		
	4.20	157	0.0621		
Reference Frequency: LTE Band 7 16QAM(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	122	0.0481	±2.5	Pass
	3.85	106	0.0419		
	4.20	139	0.0547		

-----End of Report-----