FCC Radio Test Report

FCC ID: 2AQ7C-M100-A

Original Grant

Report No.	:	TB-FCC173478
Applicant	:	SHENZHEN TOVISION TECHNOLOGY CO.,LTD
Equipment Under Test (EUT)		
EUT Name	:	Wireless base unit
Model No.	:	M100-A
Series Model No.	:	N/A
Brand Name	:	----
Sample ID	:	TBBJ-20200509-02-1#
Receipt Date	:	2020-06-01
Test Date	:	2020-06-02 to 2020-06-29
Issue Date	:	2020-06-30
Standards	:	47 CFR FCC Part 2, 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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Contents

Revision History

Report No.	Version	Description	Issued Date
TB-FCC173478	Rev.01	Initial issue of report	2020-06-30

1. General Information about EUT

1.1 Client Information

Applicant	:	SHENZHEN TOVISION TECHNOLOGY CO.,LTD
Address	:	5B1, Building 4, Fuhong industrial park, Fuhai street, Bao'an District, SHENZHEN City, CHINA
Manufacturer	:	SHENZHEN TOVISION TECHNOLOGY CO.,LTD
Address	:	5B1, Building 4, Fuhong industrial park, Fuhai street, Bao'an District, SHENZHEN City, CHINA

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Wireless base unit	
Models No.	:	M100-A	
Model Difference	:	N/A	
Product Description	:	Frequency Bands: LTE Band 2:TX: 1850MHz-1910MHz, RX: 1930MHz-1990MHz LTE Band 4:TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz LTE Band 12: TX: 699MHz -716MHz, RX: 729MHz-746MHz	
		Antenna Type:	Dipole Antenna
		Antenna Gain:	2dBi
		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 12 :1.4MHz/3MHz/5MHz/10MHz
Power Rating	:	DC 12*1.5V AA Battery. DC 6V from DC Port.	
Software Version	:	M100_LB_V005	
Hardware Version	:	M100_M_V03	

Note:

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

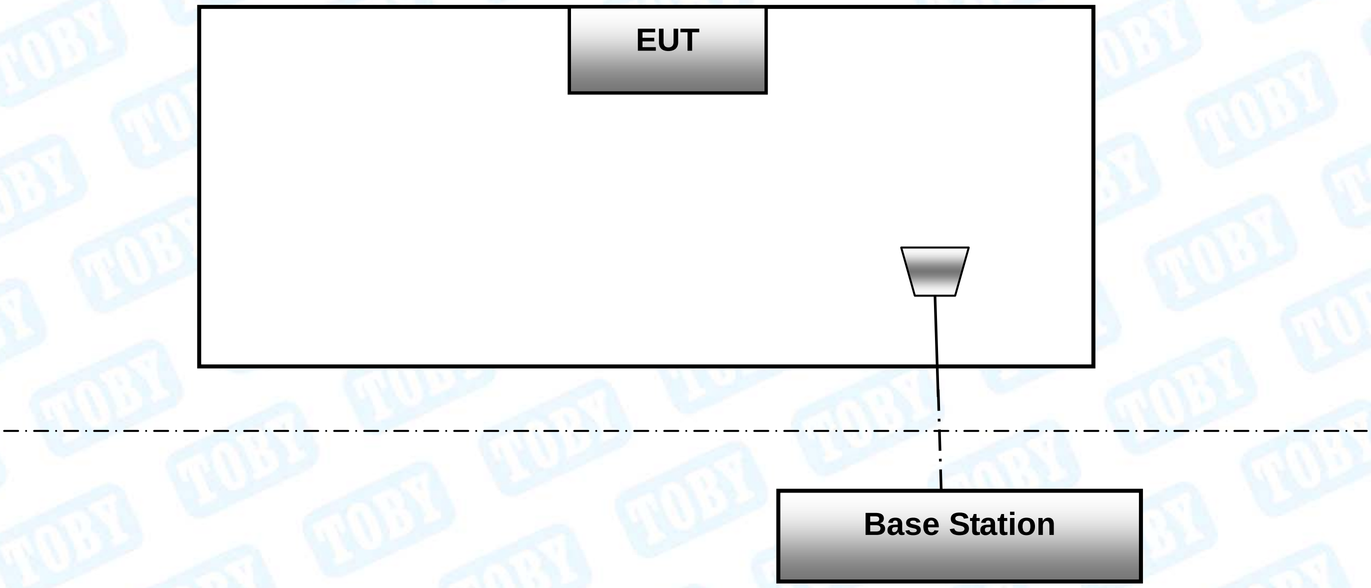
(2) Channel List

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)**
18615	**1851.50**	**18625**	**1855.00**
18616	1851.60	18626	1854.90
……	……	……	……
18899	1879.90	18899	1879.90
18900	**1880.00**	**18900**	**1880.00**
18901	1880.10	18901	1880.10
……	…..	……	…..
19154	1908.40	19174	1907.90
19185	**1908.50**	**19175**	**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 12(1.4MHz)		**LTE Band 12(3MHz)**	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
23017	**699.70**	**23025**	**700.50**
23018	699.80	23026	700.60
…...	……	…...	……
23094	707.40	23094	707.40
23095	**707.50**	**23095**	**707.50**
23096	707.60	23096	707.60
……	…..	……	…..
23172	715.20	23164	714.30
23173	**715.30**	**23165**	**714.40**
LTE Band 12(5MHz)		**LTE Band 12(10MHz)**	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
23035	**701.50**	**23060**	**704.00**
23036	701.40	23061	703.90
…...	……	…...	……
23094	707.40	23094	707.40

23095	**707.50**	**23095**	**707.50**
23096	707.60	23096	707.60
……	…..	……	…..
23156	713.40	23129	710.90
23155	**713.50**	**23130**	**711.00**

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
	12	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
	12	--	--	--	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
	12	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
	12	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	
	12	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	V
	4	V	V	V	V	V	V	V	V	V		V	V	V	V
	12	V	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	
	12	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.

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	±4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB

1.7 Test Facility

The testing was 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: 2005 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 17025：2005 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 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 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 24.238(a) Part 27.53 (h) Part 27.53(m)	**PASS**
Out of band emission, Band Edge	Part 24.238(a) Part 27.53 (h) Part 27.53(m)	**PASS**
Frequency stability vs. temperature	Part 27.54 Part 24.235 Part 2.1055(a)(1)(b)	**PASS**
Frequency stability vs. voltage	Part 27.54 Part 24.235 Part 2.1055(d)(2)	**PASS**
Pass: The EUT complies with the essential requirements in the standard.		

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Radiation Emission	EZ-EMC	EZ	FA-03A2RE

4. Test Equipment

Radiation Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 13, 2019	Jul. 12, 2020
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jul. 13, 2019	Jul. 12, 2020
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.01, 2020	Feb. 28, 2021
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.01, 2020	Feb. 28, 2021
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Aug.07, 2019	Aug. 06, 2020
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 13, 2019	Jul. 12, 2020
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	Jul. 27, 2019	Jul. 26, 2020
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. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 13, 2019	Jul. 12, 2020
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 16, 2019	Sep. 15, 2020
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 16, 2019	Sep. 15, 2020
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 16, 2019	Sep. 15, 2020
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 16, 2019	Sep. 15, 2020
Wideband Radio Comunication Tester	Rohde & Schwarz	CMW500	144382	Sep. 16, 2019	Sep. 15, 2020
Universal Radio Communication Tester	Rohde&Schwarz	CMU200	103903	Jul. 13, 2019	Jul. 12, 2020

5. Conducted RF Output Power

5.1 Test Standard and Limit

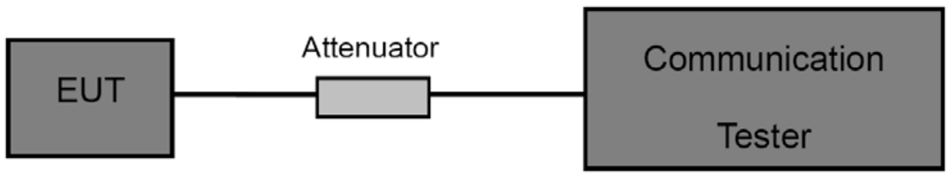
5.1.1 Test Standard

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

5.1.2 Test Limit

RF Output Power		
LTE Band 2	LTE Band 4	LTE Band 12
2W(33dBm)	1W(30dBm)	30W(44.77dBm)

5.2 Test Setup



5.3 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.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Condition

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

5.6 Test Data

Please refer to the Attachment A.

6. Peak-Average Ratio

6.1 Test Standard and Limit

6.1.1 Test Standard

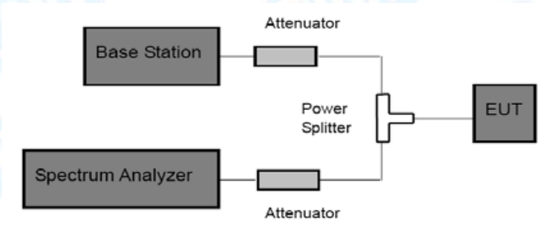
FCC part 24.232(d)

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

6.1.2 Test Limit

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

6.2 Test Setup



6.3 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.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Condition

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

6.6 Test Data

Please refer to the Attachment B.

7. Occupied Bandwidth

7.1 Test Standard and Limit

7.1.1 Test Standard

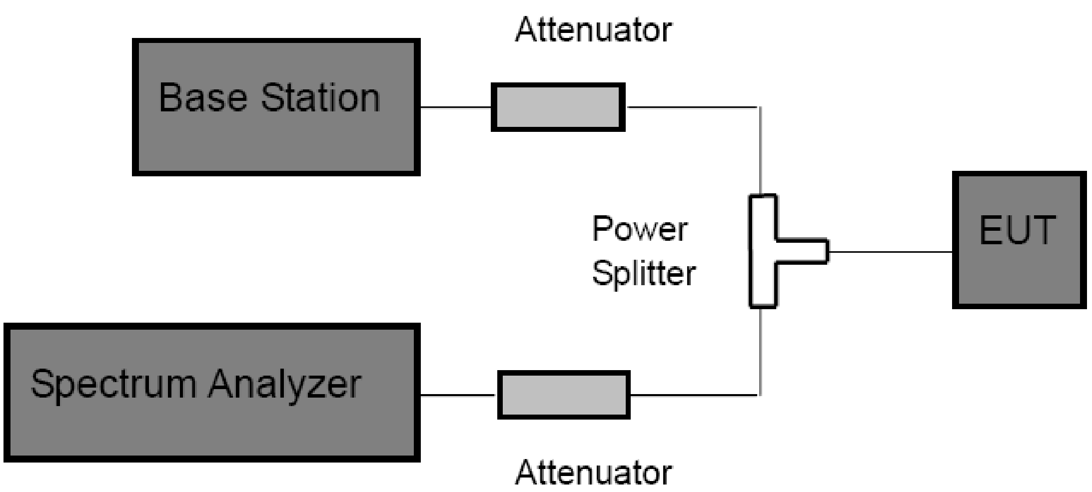
FCC Part 2: 2.1049
FCC part 24.238(b)
FCC Part 27.53(h)
FCC Part 27.53(m)

7.1.2 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.

7.2 Test Setup



7.3 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.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Condition

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

7.6 Test Data

Please refer to the Attachment C.

8. Out of Band Emission at Antenna Terminals

8.1 Test Standard and Limit

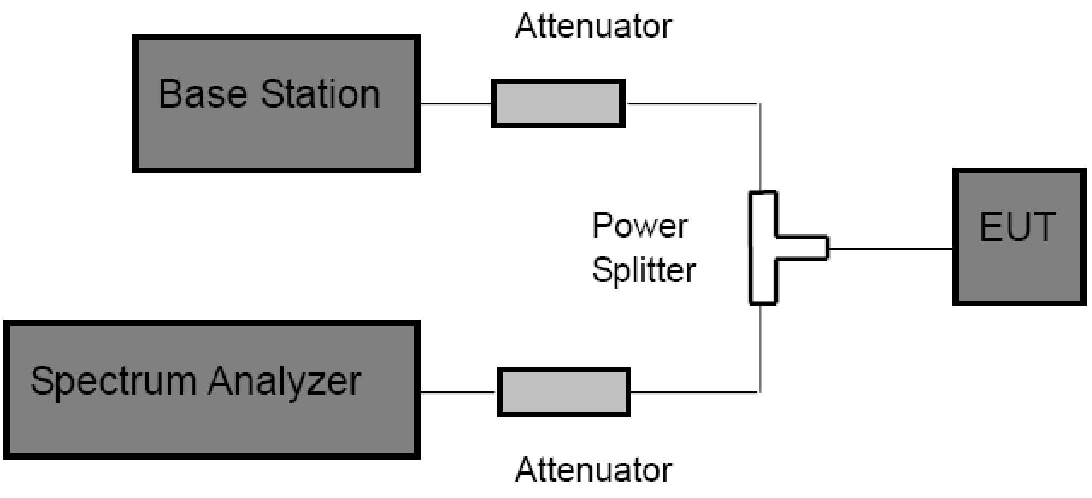
8.1.1 Test Standard

FCC Part 2: 2.1051, 2.1057
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 that 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+10log(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 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 10^{th} 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.

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Condition

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

8.6 Test Data

Please refer to the Attachment D.

9. Band Edge Test

9.1 Test Standard and Limit

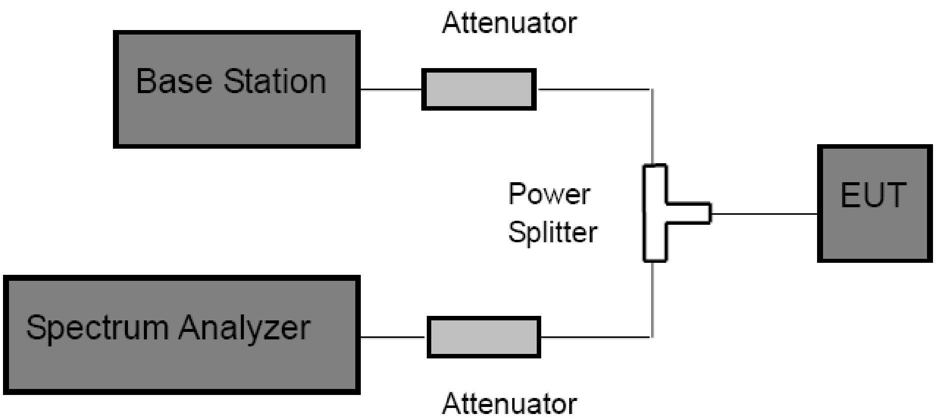
9.1.1 Test Standard

FCC Part 2: 2.1051, 2.1057
FCC part 24.238(a)
FCC Part 27.53 (h),FCC Part 27.53(m)

9.1.2 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 that 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+10log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

9.2 Test Setup



9.3 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.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Condition

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

9.6 Test Data

Please refer to the Attachment E.

10. Radiated Output Power

10.1 Test Standard and Limit

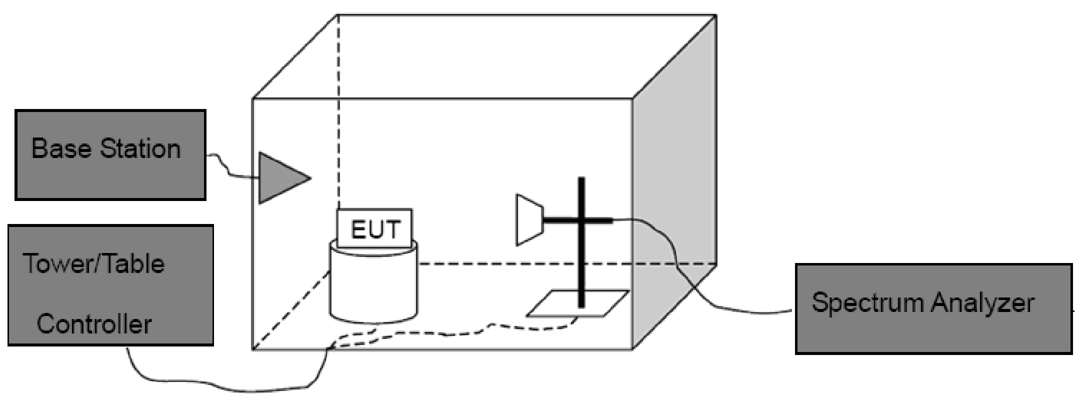
10.1.1 Test Standard

FCC Part 2.1046
FCC part 24.232(c)
FCC part 27.50(c), FCC part 27.50(d)

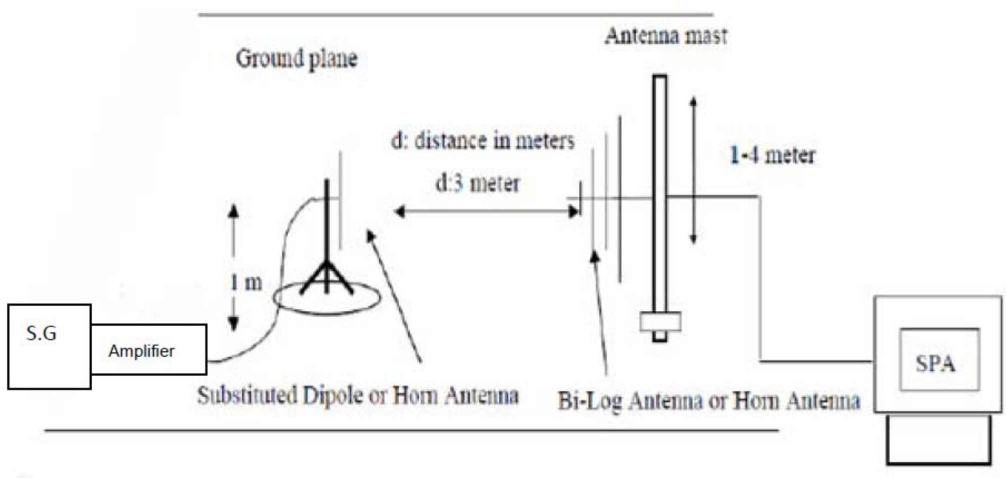
10.1.2 Test Limit

E.I.R.P	E.I.R.P	E.R.P
LTE Band 2	LTE Band 4	LTE Band 12
2W(33 dBm)	1W(30 dBm)	3W(34.77dBm)

10.2 Test Setup



Above 1G



Substituted Method

10.3 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)

10.4 Deviation From Test Standard

No deviation

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 Test Data

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

11. Radiated Out Band of Emissions

11.1 Test Standard and Limit

11.1.1 Test Standard

FCC Part 2: 2.1053

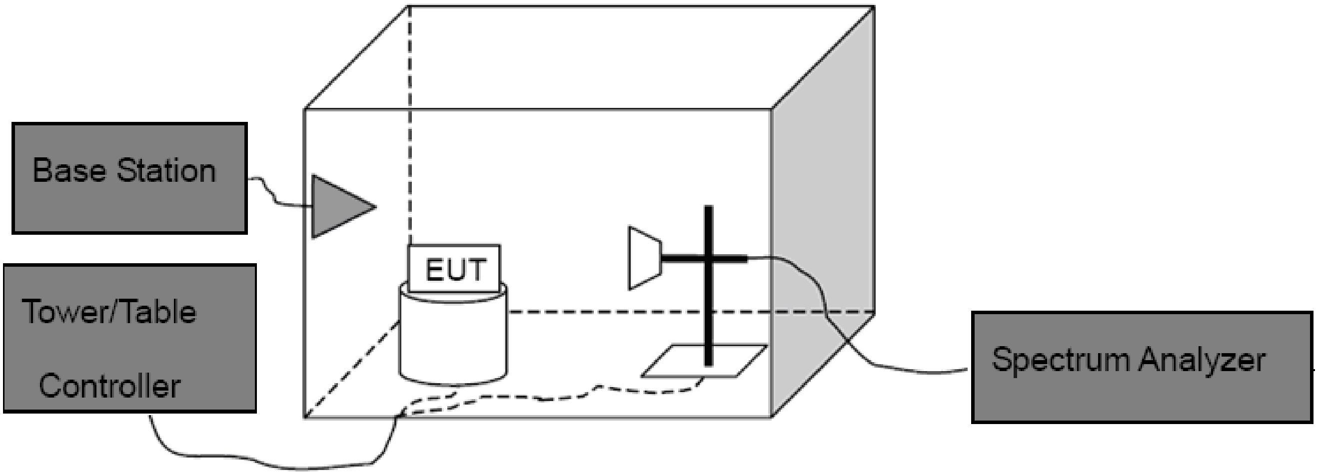
FCC part 24.238(a)

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

11.1.2 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+10log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

11.2 Test Setup



11.3 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 10th 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(TX power in Watts/0.001)-the absolute level

Spurious attenuation limit in dB=43+10 log(power out in Watts)

11.4 Deviation From Test Standard

No deviation

11.5 EUT Operating Condition

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

11.6 Test Data

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

12. Frequency Stability

12.1 Test Standard and Limit

12.1.1 Test Standard

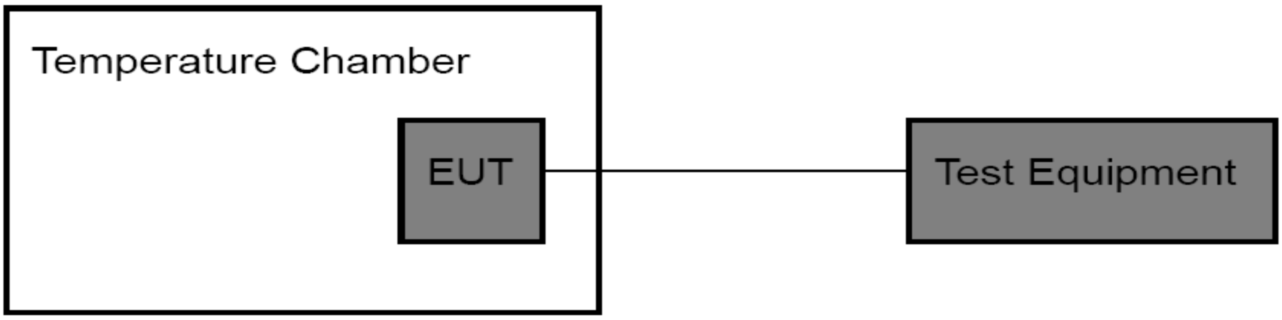
FCC Part 2.1055(a)(1)(b)
FCC Part 24.235, Part 27.54

12.1.2 Limit

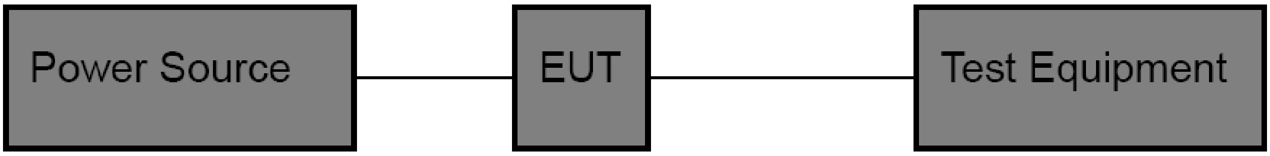
Limit
±2.5ppm

12.2 Test Setup

For Temperature Test:



For Voltage Test:



12.3 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℃ 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℃ set up to 50℃ 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℃, the testing lowest temperature will be raised in 10℃ step until the EUT can be turned on.
Test Procedures for Voltage Variation:
(1) The EUT was placed in a temperature chamber at 25±5℃ and connected with the base station.
(2) Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
(3) The variation in frequency was measured for the worst case.

11.4 Deviation From Test Standard

No deviation

12.5 EUT Operating Condition

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

12.6 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	23.48	23.51	23.62	PASS
	1	3	23.62	23.63	23.71	PASS
	1	5	23.51	23.43	23.85	PASS
	3	0	23.62	23.56	23.89	PASS
	3	1	23.66	23.58	23.65	PASS
	3	3	23.66	23.53	23.98	PASS
	6	0	24.45	23.57	23.03	PASS
16QAM	1	0	22.48	22.74	23.07	PASS
	1	3	22.62	22.84	23.10	PASS
	1	5	22.35	22.70	22.92	PASS
	3	0	22.19	22.75	22.98	PASS
	3	1	22.11	22.82	23.05	PASS
	3	3	22.05	22.66	23.07	PASS
	6	0	21.23	21.78	21.97	PASS
Channel Bandwidth: 3 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	23.50	23.76	23.79	PASS
	1	8	23.44	23.79	23.70	PASS
	1	14	23.55	24.03	23.90	PASS
	8	0	22.81	23.01	22.89	PASS
	8	4	22.89	22.80	22.88	PASS
	8	7	22.81	22.71	22.98	PASS
	15	0	22.56	22.63	23.02	PASS
16QAM	1	0	22.48	22.62	22.47	PASS
	1	8	22.33	22.38	22.35	PASS
	1	14	22.56	22.54	22.55	PASS
	8	0	21.64	21.60	22.32	PASS
	8	4	21.75	21.58	22.29	PASS
	8	7	21.61	21.61	22.06	PASS
	15	0	21.55	21.61	22.04	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	23.63	23.65	23.85	PASS
	1	12	23.80	23.76	23.75	PASS
	1	24	23.63	23.67	23.83	PASS
	12	0	22.52	22.68	23.00	PASS
	12	7	22.50	22.67	22.71	PASS
	12	13	22.57	22.60	22.93	PASS
	25	0	22.72	22.71	22.71	PASS
16QAM	1	0	22.34	22.13	22.58	PASS
	1	12	22.34	22.38	22.37	PASS
	1	24	22.65	21.67	22.38	PASS
	12	0	21.66	21.54	21.57	PASS
	12	7	21.70	21.57	21.35	PASS
	12	13	21.61	21.55	21.35	PASS
	25	0	21.58	21.64	21.52	PASS
Channel Bandwidth: 10 MHz						
Modulation	**RB Size**	**RB Offset**	**Conducted Power (dBm)**			**Result**
			Low CH	**Middle CH**	**High CH**	
QPSK	1	0	23.55	23.97	23.59	PASS
	1	25	23.49	23.86	23.51	PASS
	1	49	23.24	23.83	23.66	PASS
	25	0	22.46	22.69	22.76	PASS
	25	12	22.53	22.61	22.61	PASS
	25	25	22.52	22.75	22.52	PASS
	50	0	22.63	22.30	22.87	PASS
16QAM	1	0	20.36	22.76	22.76	PASS
	1	25	22.46	22.54	22.20	PASS
	1	49	22.40	22.56	22.05	PASS
	25	0	21.48	21.77	21.94	PASS
	25	12	21.46	21.63	21.57	PASS
	25	25	21.43	21.69	21.58	PASS
	50	0	21.50	21.63	21.72	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	23.46	23.79	23.61	PASS
	1	37	23.39	23.76	23.72	PASS
	1	74	23.31	23.44	23.48	PASS
	36	0	22.56	22.57	22.60	PASS
	36	20	22.54	22.38	22.51	PASS
	36	39	22.35	22.41	22.49	PASS
	75	0	22.33	22.45	22.61	PASS
16QAM	1	0	22.24	22.50	22.54	PASS
	1	37	22.31	22.33	22.66	PASS
	1	74	21.84	22.26	22.20	PASS
	36	0	21.42	21.34	21.71	PASS
	36	20	21.44	21.31	21.62	PASS
	36	39	21.06	21.39	21.39	PASS
	75	0	21.40	21.43	21.70	PASS
Channel Bandwidth: 20 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	23.26	23.68	23.76	PASS
	1	49	23.38	23.68	23.78	PASS
	1	99	23.48	23.75	23.76	PASS
	50	0	22.55	22.41	22.69	PASS
	50	24	22.30	22.15	22.70	PASS
	50	50	22.25	22.38	22.66	PASS
	100	0	22.34	22.45	22.68	PASS
16QAM	1	0	21.64	22.60	22.34	PASS
	1	49	21.67	22.57	22.36	PASS
	1	99	21.82	23.02	22.43	PASS
	50	0	21.54	21.46	21.72	PASS
	50	24	21.33	21.42	21.59	PASS
	50	50	21.04	21.34	21.56	PASS
	100	0	21.26	21.45	21.54	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	23.86	23.97	23.02	PASS
	1	3	23.94	24.12	23.37	PASS
	1	5	23.92	24.21	23.26	PASS
	3	0	24.00	24.09	23.33	PASS
	3	1	23.98	24.25	23.25	PASS
	3	3	23.95	24.37	23.23	PASS
	6	0	22.66	23.32	22.47	PASS
16QAM	1	0	22.27	23.03	22.25	PASS
	1	3	22.30	23.12	22.25	PASS
	1	5	22.23	22.95	22.12	PASS
	3	0	22.27	22.99	22.11	PASS
	3	1	22.57	22.75	22.00	PASS
	3	3	22.60	22.52	21.91	PASS
	6	0	21.89	21.32	21.27	PASS
Channel Bandwidth: 3 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	23.97	23.77	23.14	PASS
	1	8	24.12	23.88	23.12	PASS
	1	14	24.22	23.96	23.35	PASS
	8	0	23.09	22.82	22.25	PASS
	8	4	23.11	22.98	22.11	PASS
	8	7	23.16	23.04	22.12	PASS
	15	0	23.27	23.07	22.23	PASS
16QAM	1	0	22.64	23.01	22.12	PASS
	1	8	22.31	23.09	22.20	PASS
	1	14	22.50	23.16	22.35	PASS
	8	0	22.13	22.31	21.24	PASS
	8	4	22.23	22.36	21.22	PASS
	8	7	22.08	22.39	21.21	PASS
	15	0	22.19	22.05	21.43	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	23.96	23.54	23.65	PASS
	1	12	24.18	23.76	23.49	PASS
	1	24	24.21	23.75	23.56	PASS
	12	0	22.69	22.70	22.15	PASS
	12	7	22.45	22.65	22.16	PASS
	12	13	22.51	22.64	22.08	PASS
	25	0	22.54	22.70	22.18	PASS
16QAM	1	0	22.58	22.29	21.93	PASS
	1	12	22.29	22.43	21.75	PASS
	1	24	22.21	22.58	21.72	PASS
	12	0	22.13	21.74	21.06	PASS
	12	7	22.06	21.98	21.01	PASS
	12	13	22.03	21.91	21.05	PASS
	25	0	21.90	21.97	21.38	PASS
Channel Bandwidth: 10 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	24.28	24.09	24.21	PASS
	1	25	23.76	24.44	24.07	PASS
	1	49	23.79	23.87	24.05	PASS
	25	0	22.58	22.82	22.89	PASS
	25	12	22.19	22.98	22.49	PASS
	25	25	22.13	22.91	22.31	PASS
	50	0	22.45	22.89	22.36	PASS
16QAM	1	0	22.44	22.84	22.35	PASS
	1	25	22.01	22.82	21.86	PASS
	1	49	21.76	22.75	21.85	PASS
	25	0	21.65	21.91	21.65	PASS
	25	12	21.46	22.14	21.46	PASS
	25	25	21.49	21.36	21.73	PASS
	50	0	21.64	21.90	21.65	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	24.32	23.89	23.58	PASS
	1	37	23.73	23.92	23.12	PASS
	1	74	23.80	23.66	23.03	PASS
	36	0	22.98	22.68	22.25	PASS
	36	20	22.89	22.76	21.96	PASS
	36	39	22.87	22.62	21.91	PASS
	75	0	23.04	22.85	22.04	PASS
16QAM	1	0	23.44	22.37	22.63	PASS
	1	37	22.52	22.36	22.25	PASS
	1	74	22.71	22.32	22.00	PASS
	36	0	21.92	21.83	21.59	PASS
	36	20	21.60	22.00	21.35	PASS
	36	39	21.68	21.86	21.05	PASS
	75	0	22.12	21.91	21.32	PASS
Channel Bandwidth: 20 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	23.88	23.83	23.76	PASS
	1	49	23.85	23.97	23.23	PASS
	1	99	24.05	23.64	23.50	PASS
	50	0	22.96	22.10	22.85	PASS
	50	24	22.71	21.83	22.66	PASS
	50	50	22.10	21.87	22.37	PASS
	100	0	22.40	22.01	22.10	PASS
16QAM	1	0	22.30	21.80	22.62	PASS
	1	49	22.03	21.66	22.27	PASS
	1	99	22.31	21.75	22.31	PASS
	50	0	21.47	21.54	21.49	PASS
	50	24	21.22	21.78	21.33	PASS
	50	50	21.36	21.73	21.20	PASS
	100	0	21.76	21.20	21.68	PASS

FDD-LTE Band 12						
Channel Bandwidth: 1.4 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	24.82	25.26	24.88	PASS
	1	3	25.02	25.23	25.08	PASS
	1	5	24.91	24.93	24.82	PASS
	3	0	24.98	25.13	24.54	PASS
	3	1	25.06	25.15	24.42	PASS
	3	3	24.87	25.03	24.73	PASS
	6	0	23.99	24.04	23.76	PASS
16QAM	1	0	23.44	24.14	23.21	PASS
	1	3	23.44	24.14	23.54	PASS
	1	5	23.62	24.16	23.60	PASS
	3	0	23.62	24.35	23.69	PASS
	3	1	23.58	24.40	24.08	PASS
	3	3	23.60	24.25	24.40	PASS
	6	0	22.92	23.27	23.35	PASS
Channel Bandwidth: 3 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	24.63	25.37	24.52	PASS
	1	8	24.81	25.14	24.97	PASS
	1	14	24.73	24.90	25.07	PASS
	8	0	23.98	24.25	23.77	PASS
	8	4	24.05	24.13	23.86	PASS
	8	7	23.89	24.06	23.98	PASS
	15	0	23.87	24.19	23.81	PASS
16QAM	1	0	23.40	23.98	23.88	PASS
	1	8	23.32	23.55	23.97	PASS
	1	14	23.42	23.48	24.11	PASS
	8	0	22.82	23.38	22.76	PASS
	8	4	22.70	23.12	23.36	PASS
	8	7	22.99	23.12	23.57	PASS
	15	0	22.94	23.14	23.17	PASS

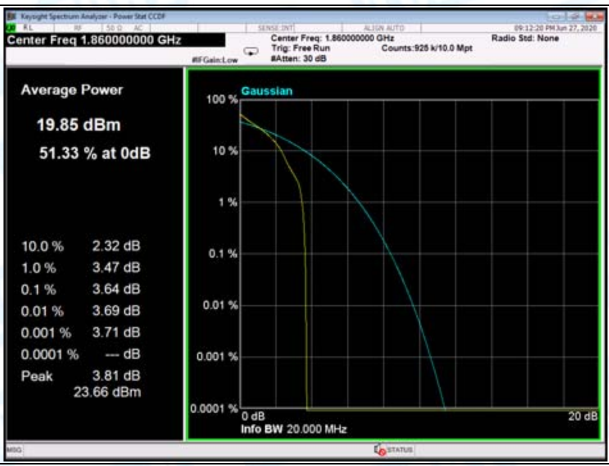
FDD-LTE Band 12						
Channel Bandwidth: 5 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	24.50	24.91	24.37	PASS
	1	12	25.22	24.65	24.98	PASS
	1	24	24.96	24.38	24.54	PASS
	12	0	23.10	23.92	23.33	PASS
	12	7	23.70	23.79	23.57	PASS
	12	13	23.65	23.74	23.48	PASS
	25	0	23.58	23.92	23.50	PASS
16QAM	1	0	22.84	23.48	23.28	PASS
	1	12	23.46	23.41	23.50	PASS
	1	24	23.54	22.94	23.33	PASS
	12	0	22.70	23.04	22.28	PASS
	12	7	22.92	22.88	22.57	PASS
	12	13	22.92	22.63	22.62	PASS
	25	0	23.09	23.14	22.75	PASS
Channel Bandwidth: 10 MHz						
Modulation	RB Size	RB Offset	Conducted Power (dBm)			Result
			Low CH	Middle CH	High CH	
QPSK	1	0	24.70	24.99	25.07	PASS
	1	25	25.03	25.61	24.81	PASS
	1	49	24.72	24.41	25.17	PASS
	25	0	23.86	24.04	23.87	PASS
	25	12	23.88	23.91	23.76	PASS
	25	25	23.87	23.79	23.75	PASS
	50	0	23.97	24.06	23.99	PASS
16QAM	1	0	23.69	23.84	23.91	PASS
	1	25	23.80	24.08	23.50	PASS
	1	49	23.17	22.87	24.01	PASS
	25	0	22.72	23.15	22.84	PASS
	25	12	22.93	23.12	22.85	PASS
	25	25	22.82	22.64	22.79	PASS
	50	0	23.14	22.90	22.47	PASS

ATTACHMENT B--PEAK-AVERAGE RATIO

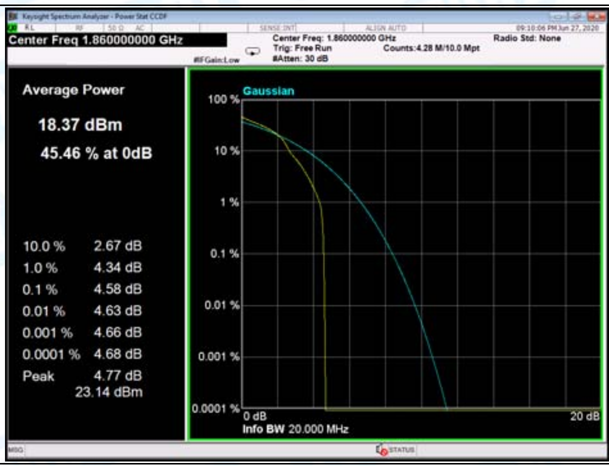
Test Mode	Modulation	RB Size	RB Offset	PAPR with 0.1% probability (dB)	Limit (dB)	Result
LTE BAND 2 20MHz (Low Channel)	QPSK	100	0	3.64	≤13	PASS
	16QAM	100	0	4.58	≤13	PASS
LTE BAND 2 20MHz (Middle Channel)	QPSK	100	0	4.19	≤13	PASS
	16QAM	100	0	5.06	≤13	PASS
LTE BAND 2 20MHz (High Channel)	QPSK	100	0	4.51	≤13	PASS
	16QAM	100	0	5.40	≤13	PASS
LTE BAND 4 20MHz (Low Channel)	QPSK	100	0	5.04	≤13	PASS
	16QAM	100	0	5.92	≤13	PASS
LTE BAND 4 20MHz (Middle Channel)	QPSK	100	0	5.11	≤13	PASS
	16QAM	100	0	6.00	≤13	PASS
LTE BAND 4 20MHz (High Channel)	QPSK	100	0	4.62	≤13	PASS
	16QAM	100	0	5.44	≤13	PASS
LTE BAND 12 10MHz (Low Channel)	QPSK	50	0	5.27	≤13	PASS
	16QAM	50	0	6.10	≤13	PASS
LTE BAND 12 10MHz (Middle Channel)	QPSK	50	0	5.34	≤13	PASS
	16QAM	50	0	6.14	≤13	PASS
LTE BAND 12 10MHz (High Channel)	QPSK	50	0	5.46	≤13	PASS
	16QAM	50	0	5.98	≤13	PASS

Note: Only show the worst case data

LTE Band 2 20MHz (Low Channel)-QPSK



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



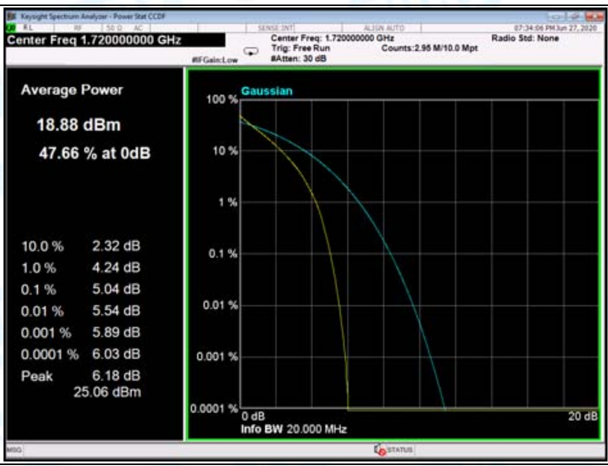
LTE Band 2 20MHz (Middle Channel)-QPSK

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

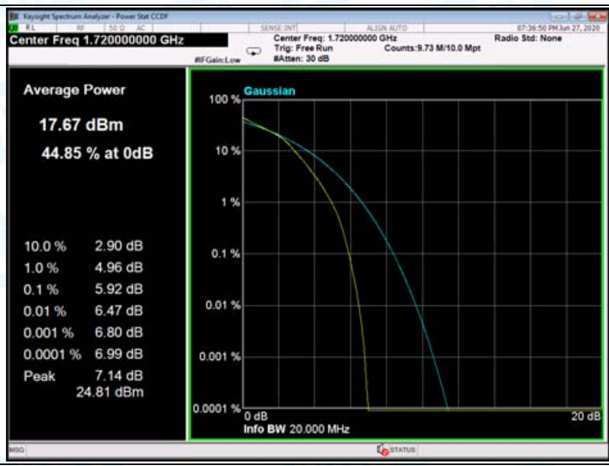
LTE Band 2 20MHz (High Channel)-QPSK

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

LTE Band 4 20MHz (Low Channel)-QPSK



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



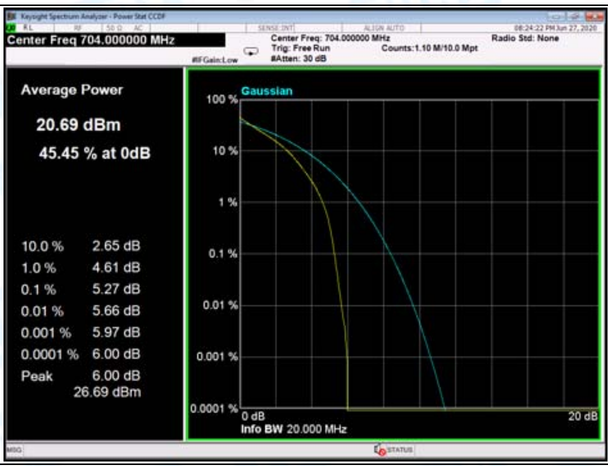
LTE Band 4 20MHz (Middle Channel)-QPSK

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

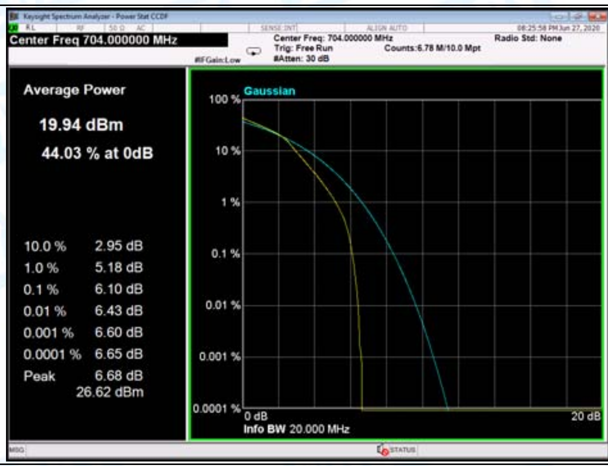
LTE Band 4 20MHz (High Channel)-QPSK

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

LTE Band 12 10MHz (Low Channel)-QPSK



LTE Band 12 10MHz (Low Channel)-16QAM



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<tr><th>LTE Band 12 10MHz (Middle Channel)-QPSK</th><th>LTE Band 12 10MHz (Middle Channel)-16QAM</th></tr>
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<tr><th>LTE Band 12 10MHz (High Channel)-QPSK</th><th>LTE Band 12 10MHz (High Channel)-16QAM</th></tr>
<tr><td>
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</td></tr>
</table>

ATTACHMENT C--OCCUPY BANDWIDTH

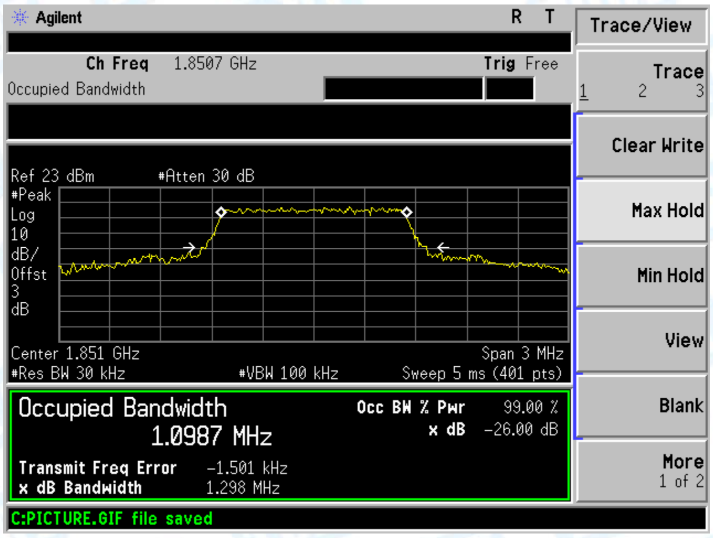
LTE Band 2					
Mode	Channel	Frequency (MHz)	Modulation	99% OBW (MHz)	-26dB Bandwidth (MHz)
1.4MHz	18607	1850.70	QPSK	1.0987	1.298
			16QAM	1.1069	1.365
	18900	1880.00	QPSK	1.0883	1.248
			16QAM	1.0868	1.260
	19193	1909.30	QPSK	1.0980	1.290
			16QAM	1.1030	1.250
3MHz	18615	1851.50	QPSK	2.6844	2.955
			16QAM	2.6844	2.955
	18900	1880.00	QPSK	2.6875	2.939
			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	8.9207	9.672
	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	13.3743	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	2.811
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	18.3060	20.829
			16QAM	18.4802	21.041

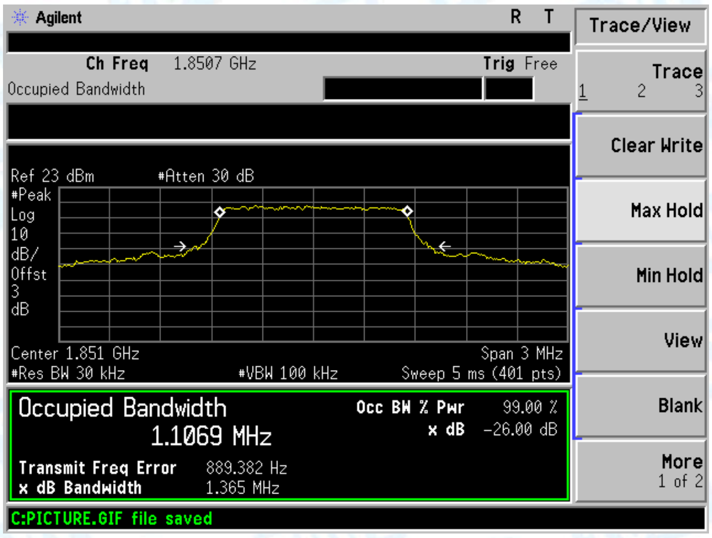
LTE Band 12					
Mode	Channel	Frequency (MHz)	Modulation	99% OBW (MHz)	-26dB Bandwidth (MHz)
1.4MHz	23017	699.70	QPSK	1.0963	1.287
			16QAM	1.0949	1.289
	23095	707.50	QPSK	1.1009	1.285
			16QAM	1.0985	1.258
	23173	715.30	QPSK	1.1031	1.286
			16QAM	1.0880	1.286
3MHz	23025	700.50	QPSK	2.6859	2.929
			16QAM	2.6761	2.929
	23095	707.50	QPSK	2.6824	2.951
			16QAM	2.6784	2.920
	23165	714.50	QPSK	2.6810	2.947
			16QAM	2.6656	2.912
5MHz	23035	701.50	QPSK	4.4985	5.029
			16QAM	4.5058	4.926
	23095	707.50	QPSK	4.4977	4.958
			16QAM	4.5048	4.996
	23155	713.50	QPSK	4.5109	4.998
			16QAM	4.5326	5.004
10MHz	23060	704.00	QPSK	8.8976	9.609
			16QAM	8.8932	9.474
	23095	707.50	QPSK	8.9438	9.670
			16QAM	8.9213	9.548
	23130	711.00	QPSK	8.9514	9.555
			16QAM	8.9186	9.560

Occupy Bandwidth Test Plot

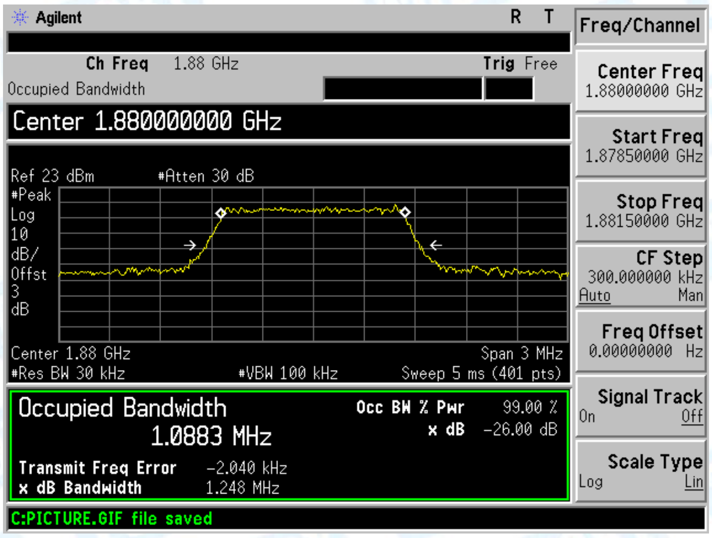
LTE BAND 2 (1.4MHz QPSK-Low CH)



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



LTE BAND 2 (1.4MHz QPSK-Middle CH)



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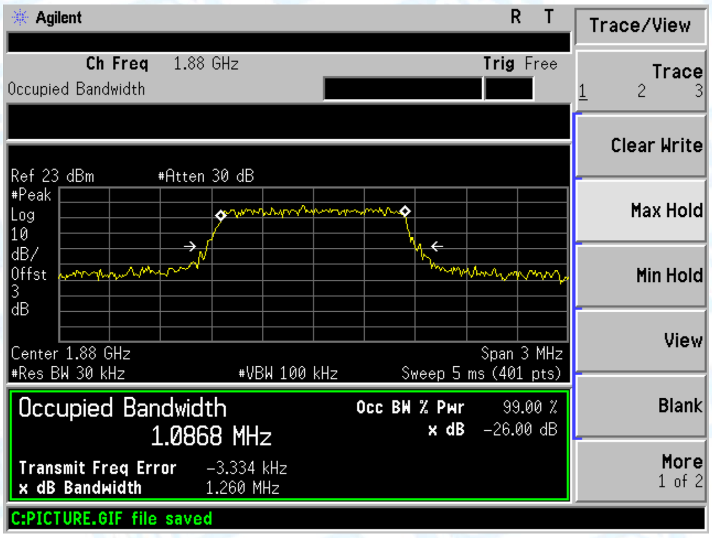

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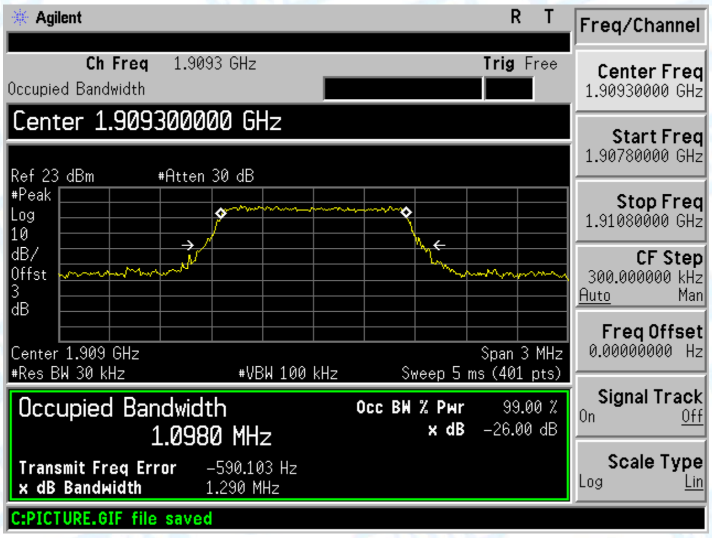

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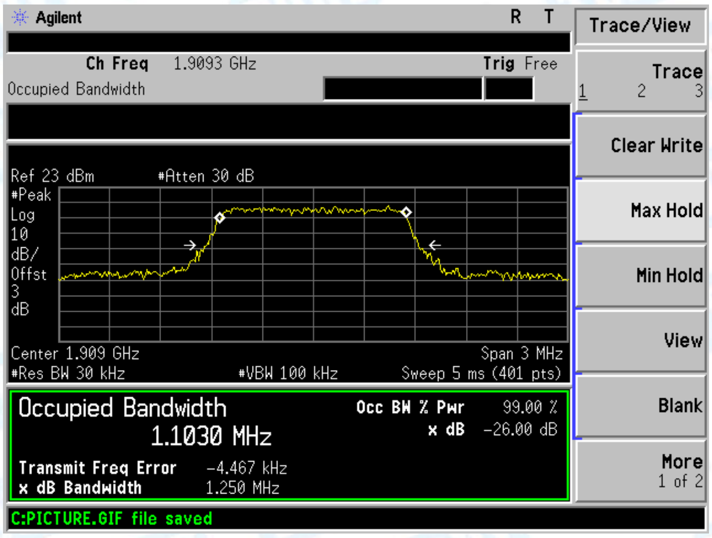
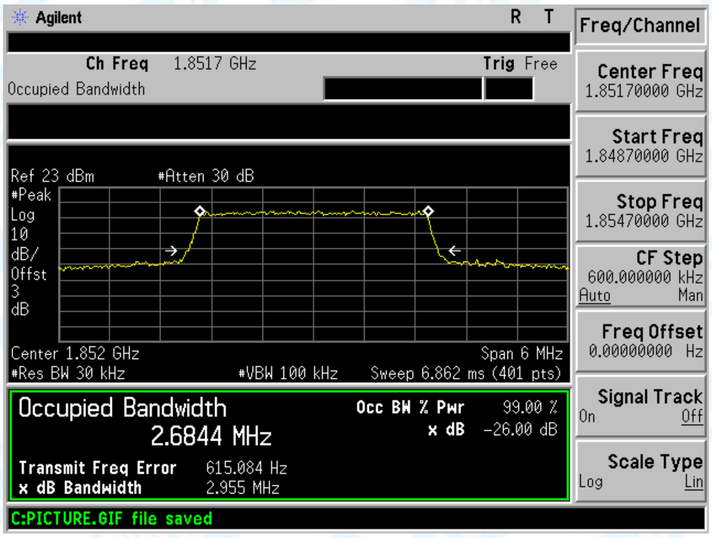
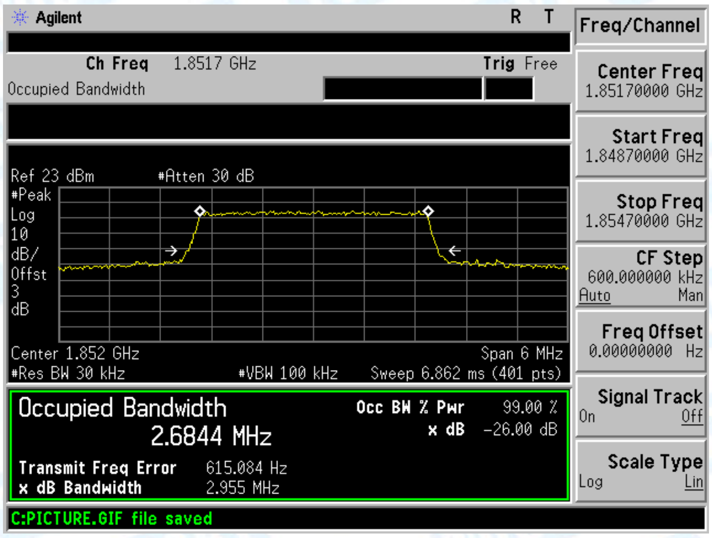


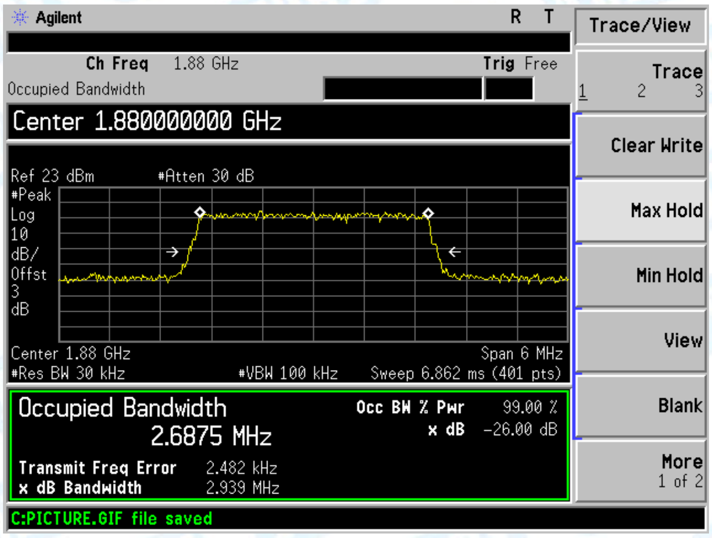
LTE BAND 2 (3MHz QPSK-Low CH)



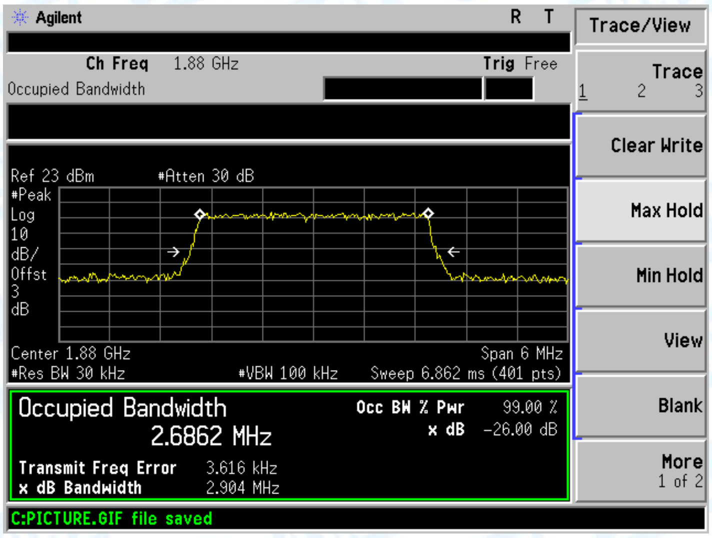
LTE BAND 2 (3MHz 16QAM-Low CH)



LTE BAND 2 (3MHz QPSK-Middle CH)



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



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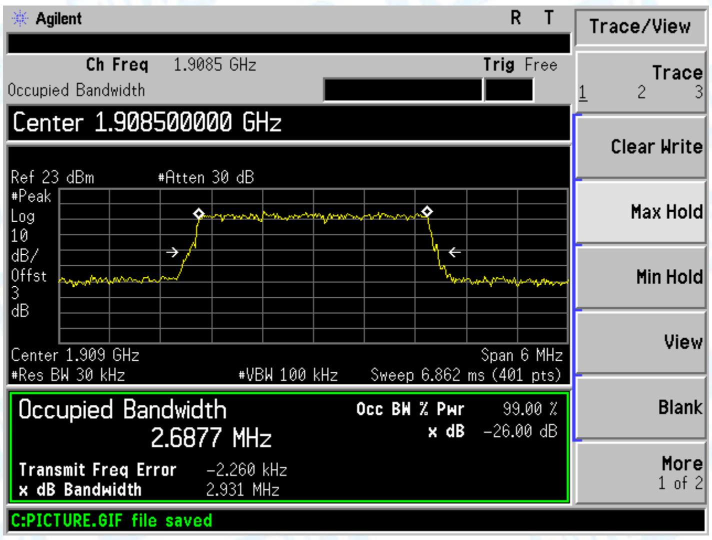

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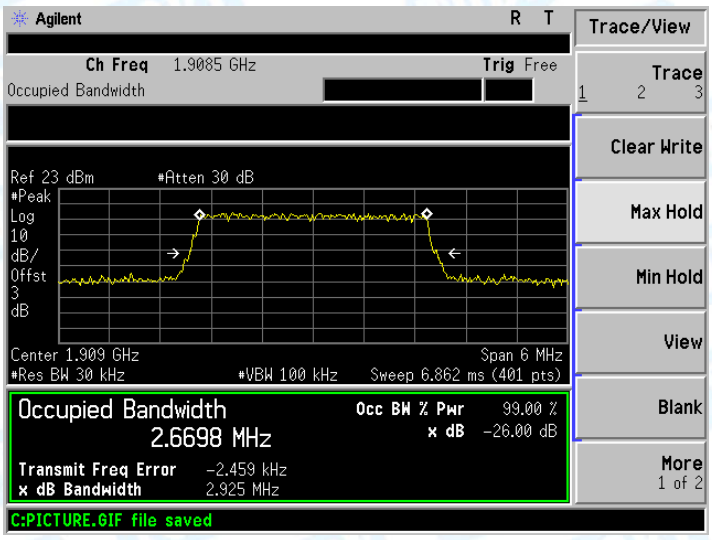
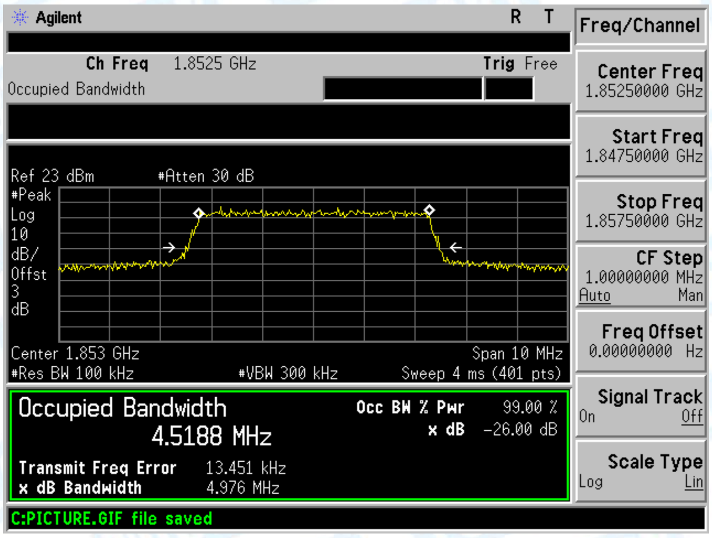
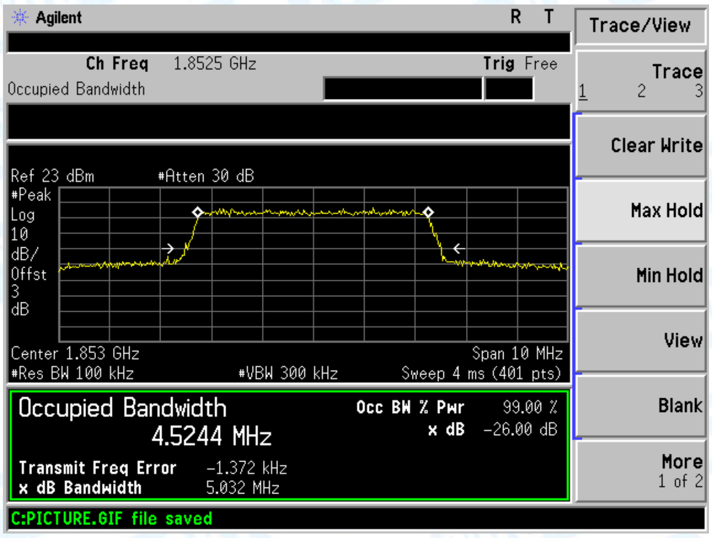


LTE BAND 2 (5MHz QPSK-Low CH)	LTE BAND 2 (5MHz 16QAM-Low CH)
	
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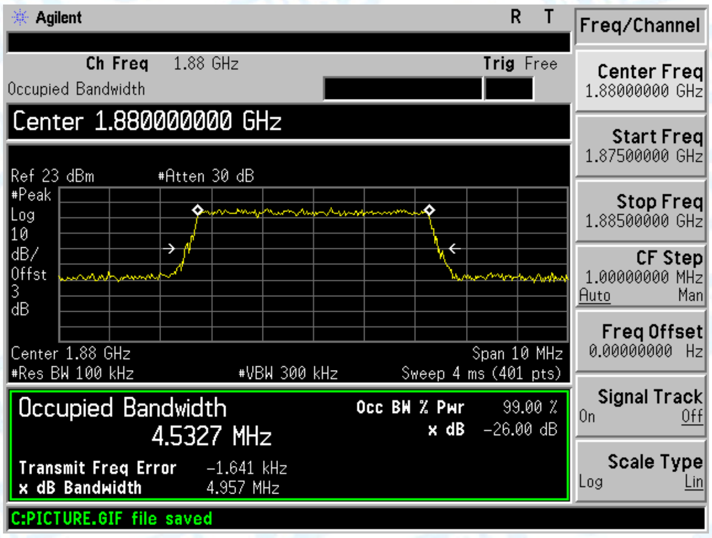
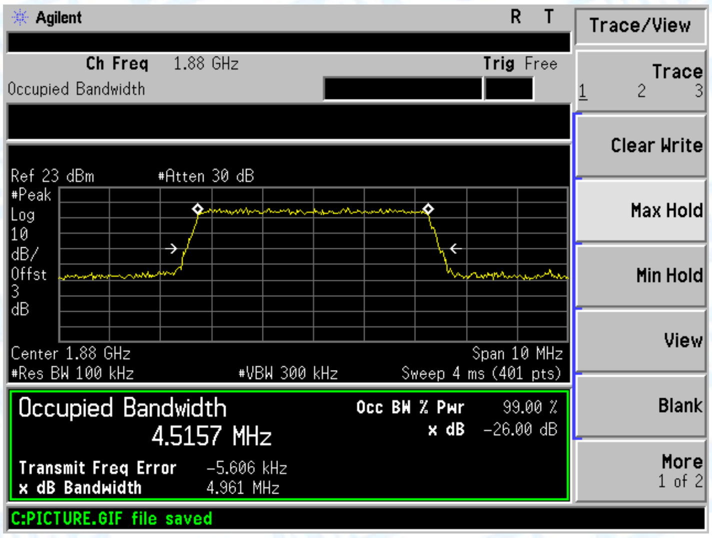
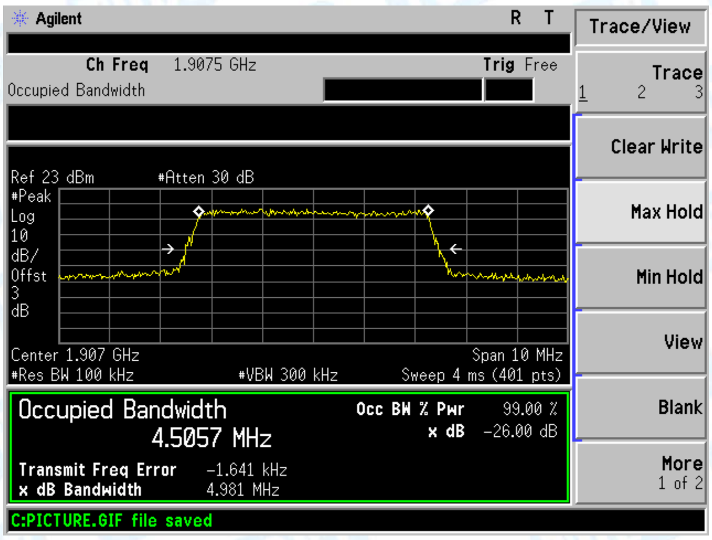
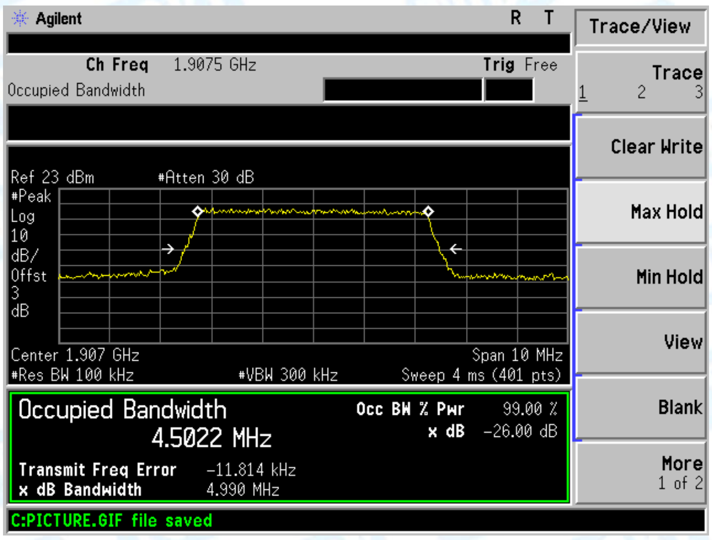
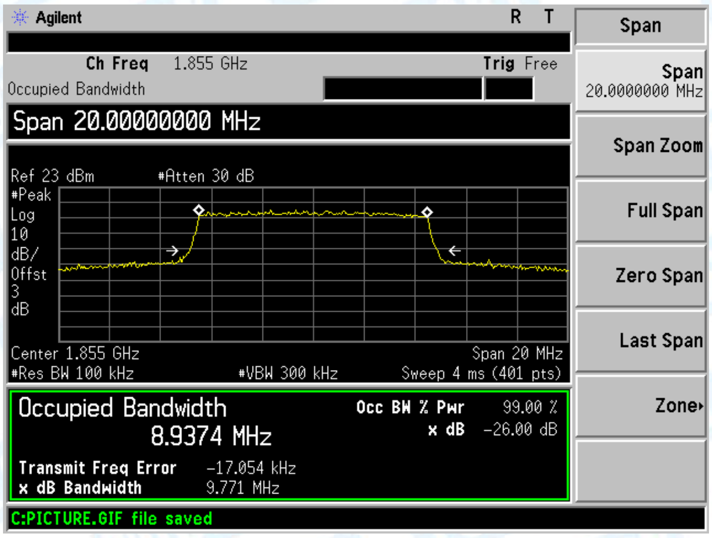
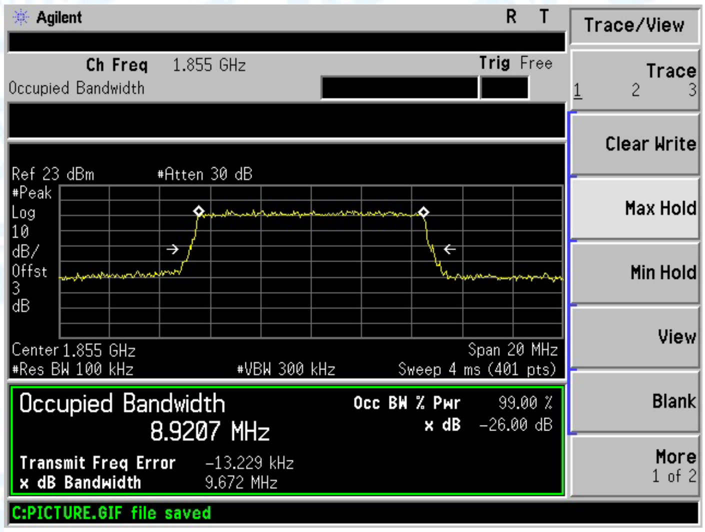
	
LTE BAND 2 (5MHz QPSK-High CH)	**LTE BAND 2 (5MHz 16QAM-High CH)**
	

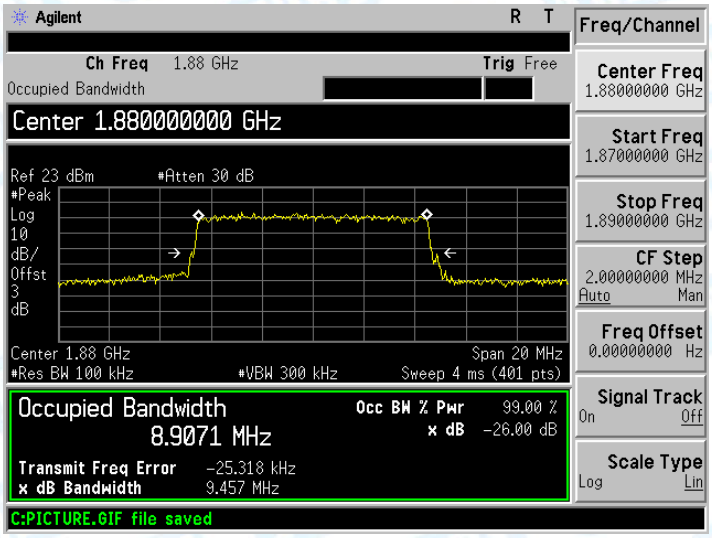
LTE BAND 2 (10MHz QPSK-Low CH)



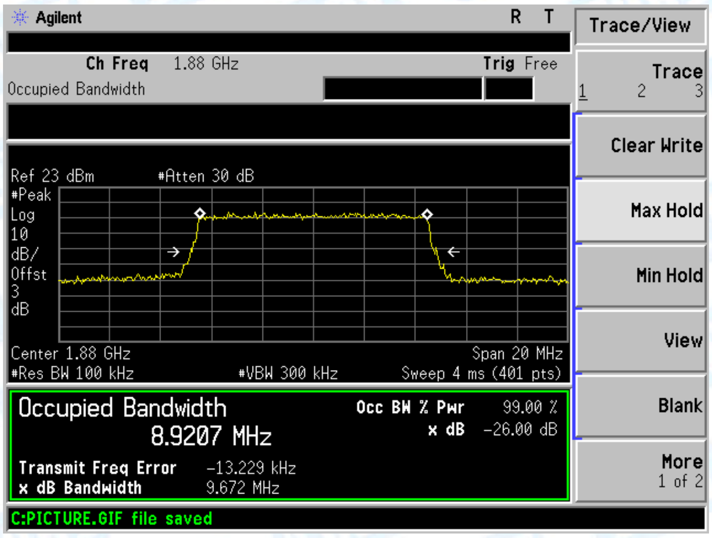
LTE BAND 2 (10MHz 16QAM-Low CH)



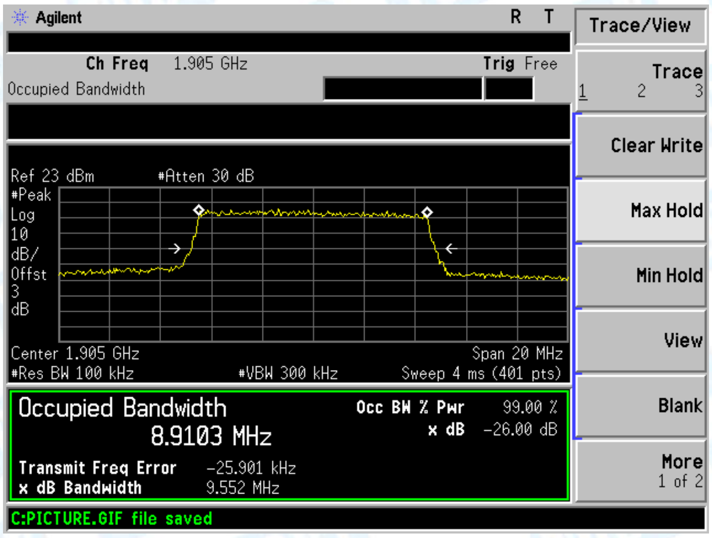
LTE BAND 2 (10MHz QPSK-Middle CH)



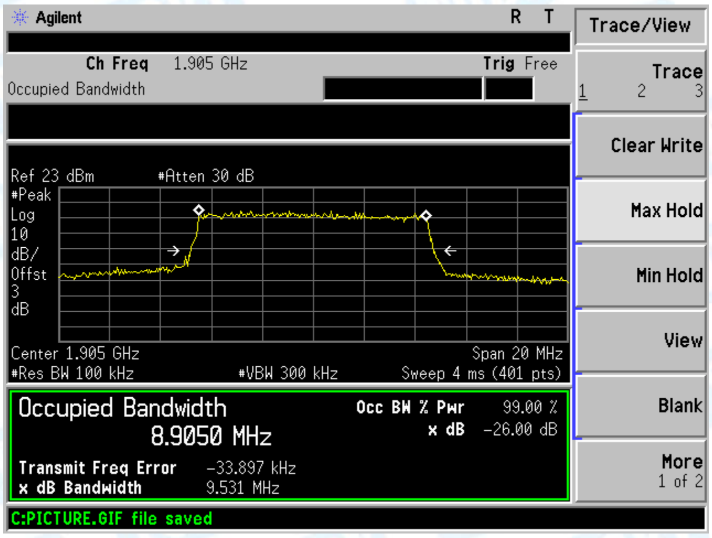
LTE BAND 2 (10MHz 16QAM- Middle CH)



LTE BAND 2 (10MHz QPSK-High CH)



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



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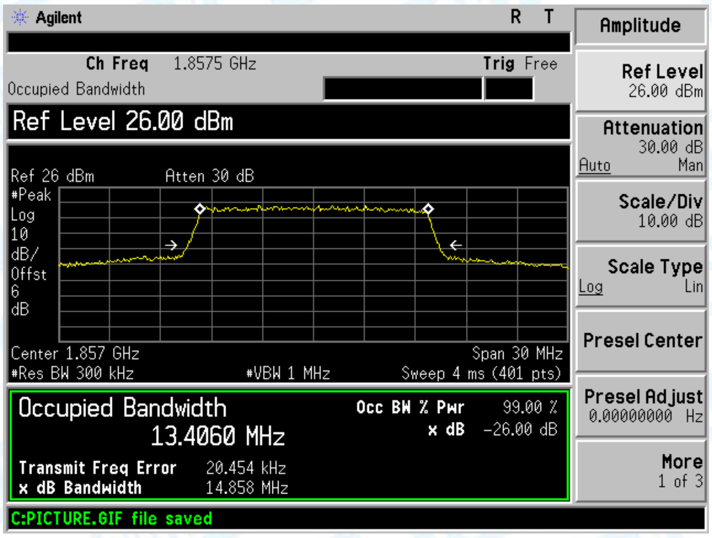
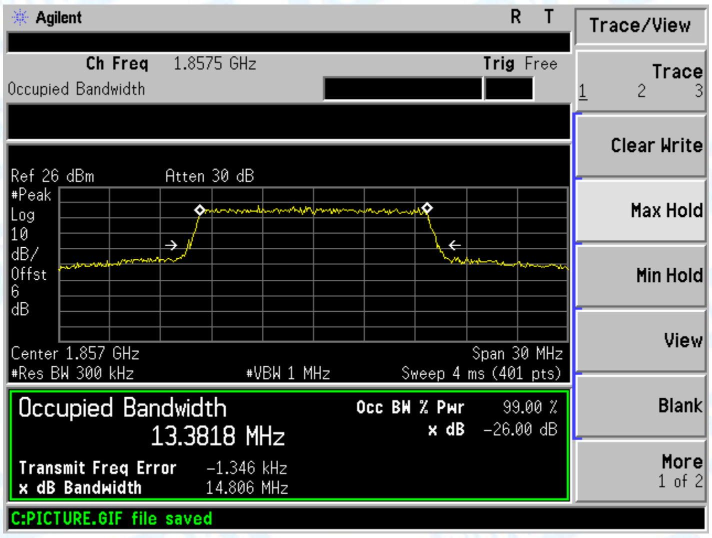
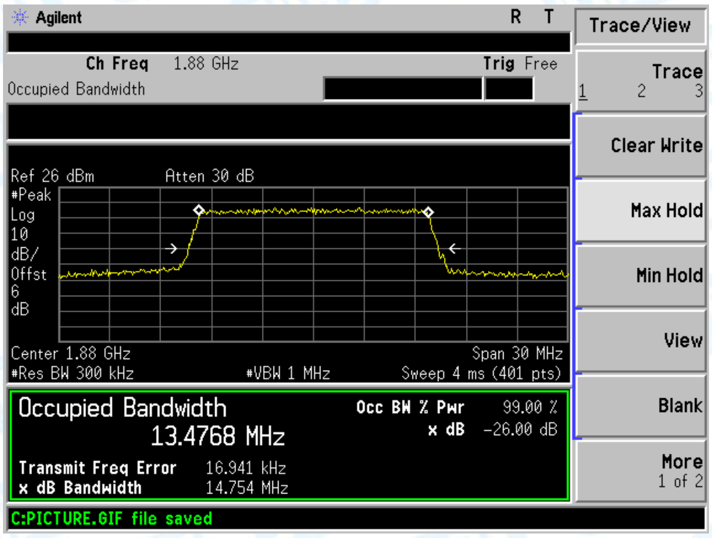


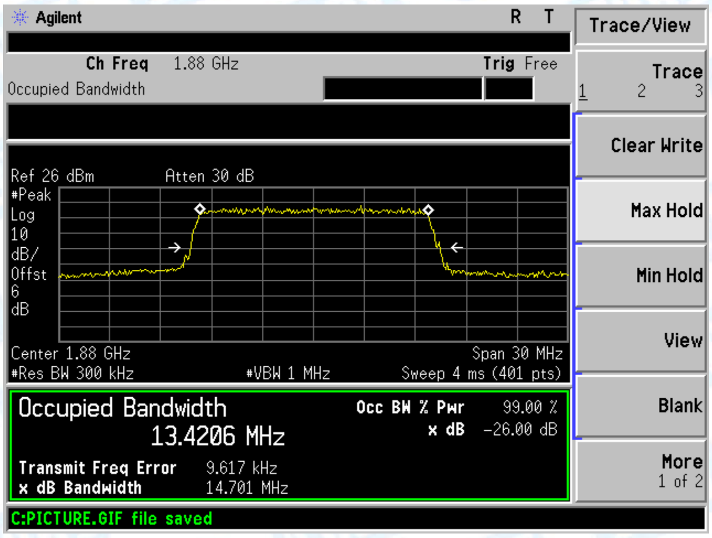
LTE BAND 2 (15MHz 16QAM-Low CH)



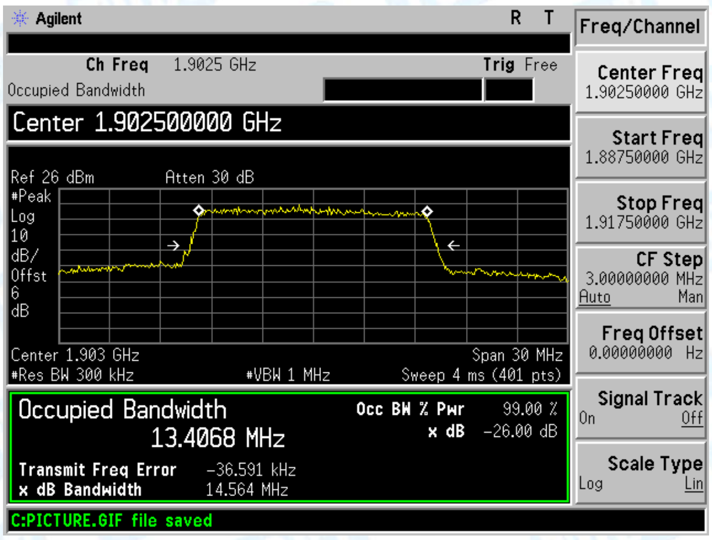
LTE BAND 2 (15MHz QPSK-Middle CH)



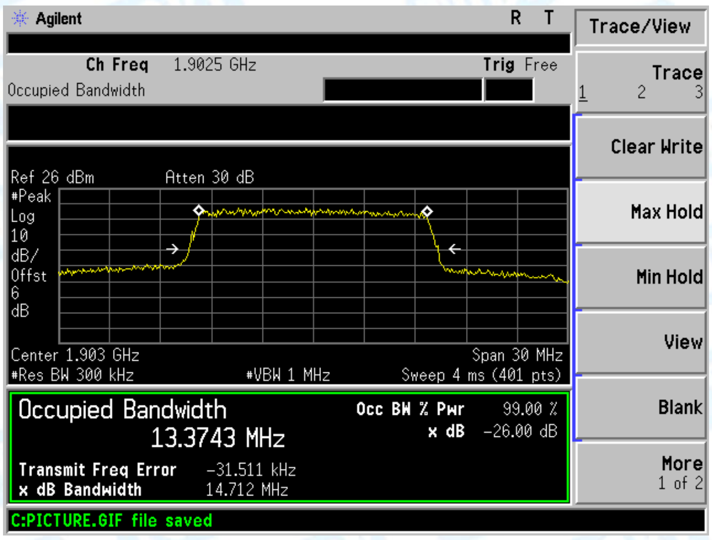
LTE BAND 2 (15MHz 16QAM- Middle CH)



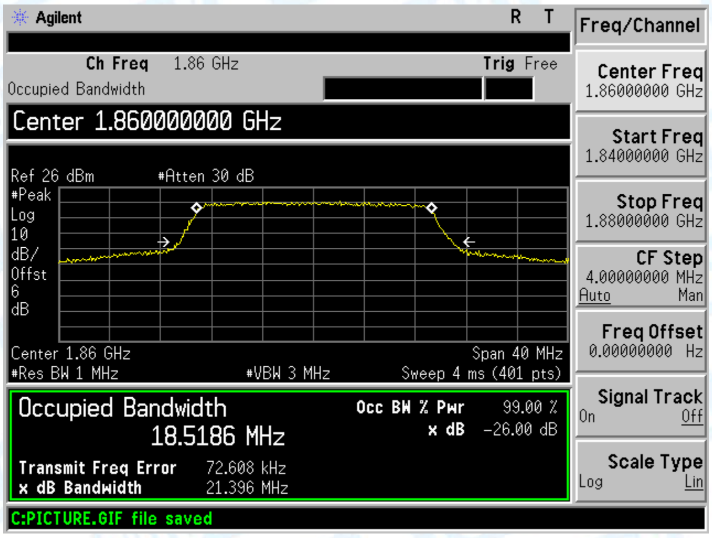
LTE BAND 2 (15MHz QPSK-High CH)



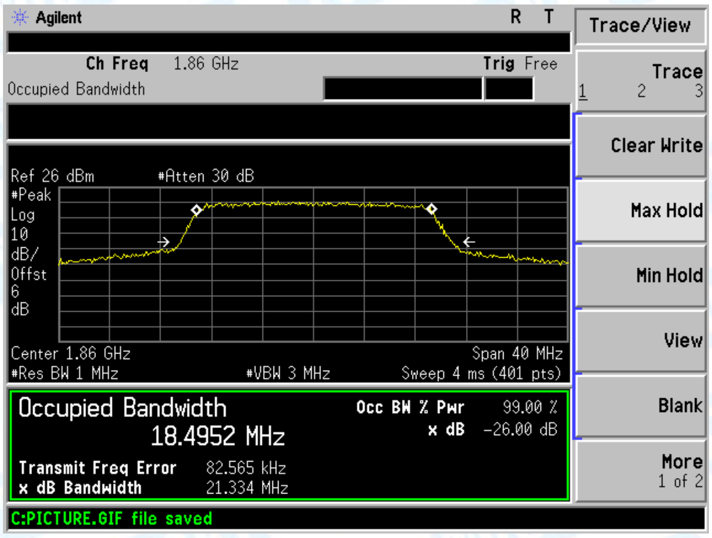
LTE BAND 2 (15MHz 16QAM-High CH)



LTE BAND 2 (20MHz QPSK-Low CH)



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



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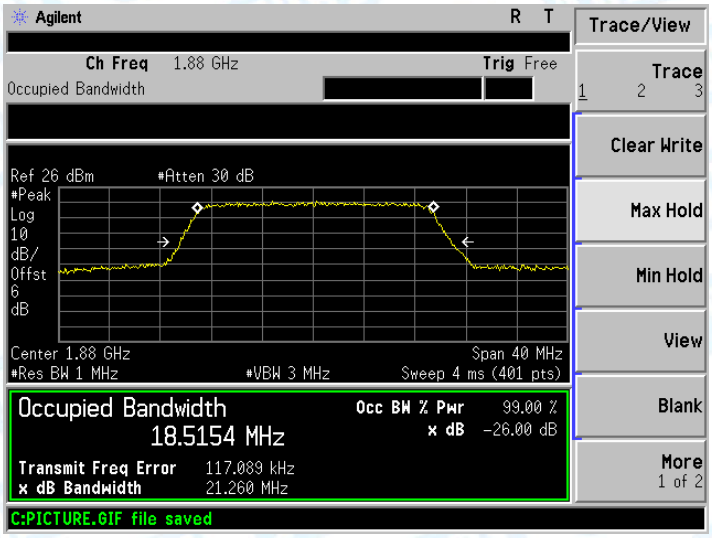
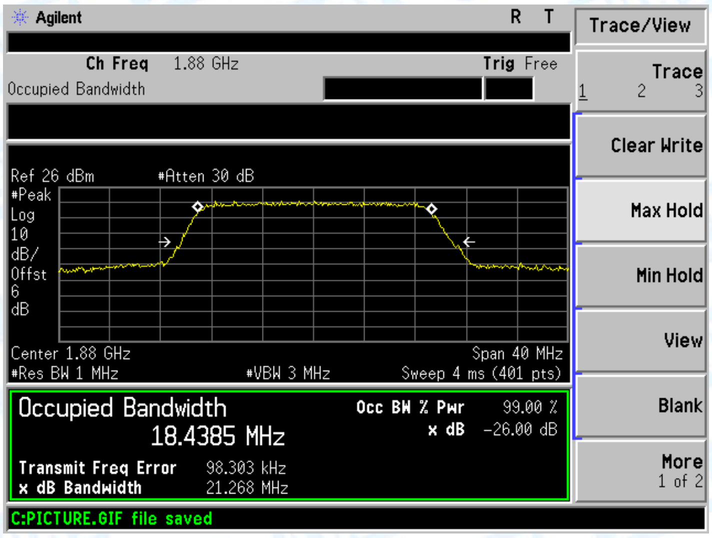
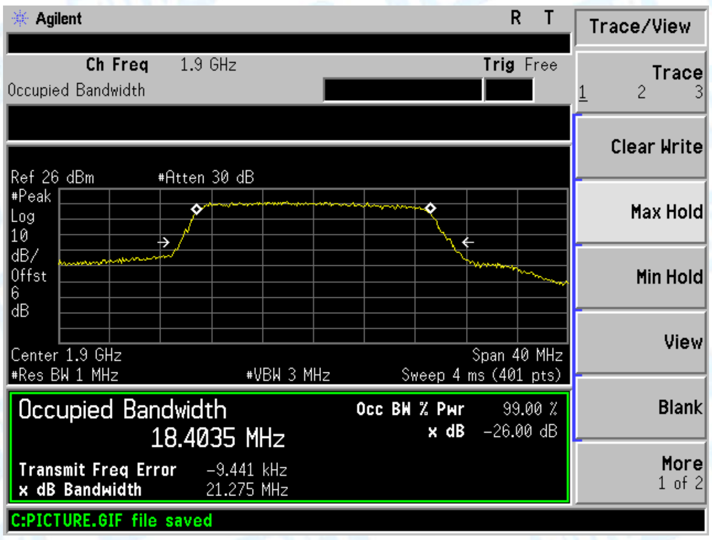


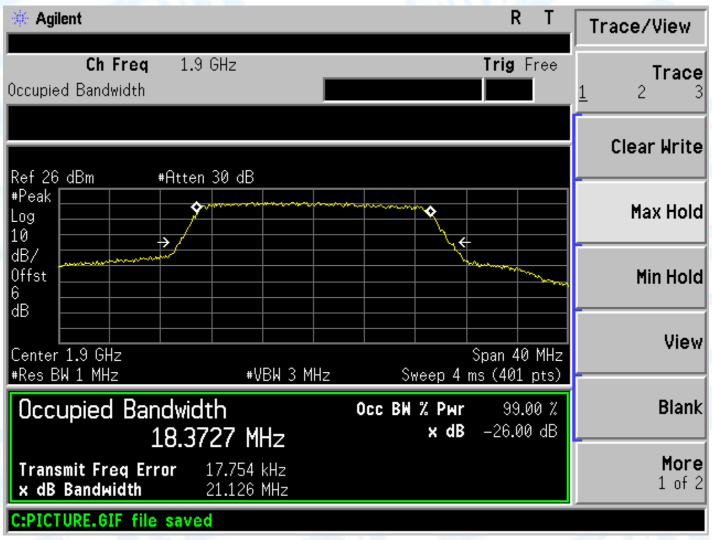
LTE BAND 2 (20MHz 16QAM- Middle CH)



LTE BAND 2 (20MHz QPSK-High CH)

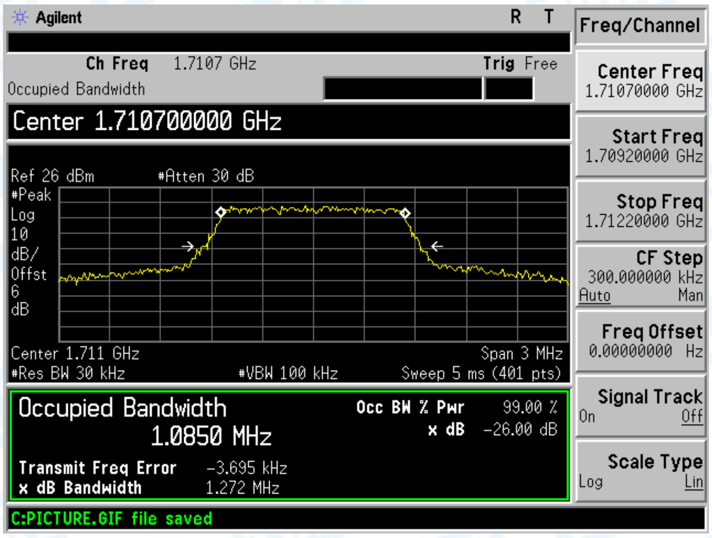


LTE BAND 2 (20MHz 16QAM-High CH)

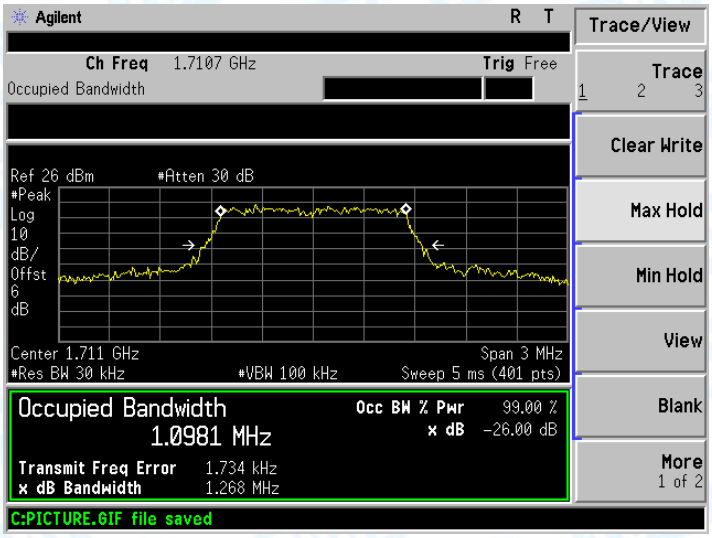


Occupy Bandwidth Test Plot

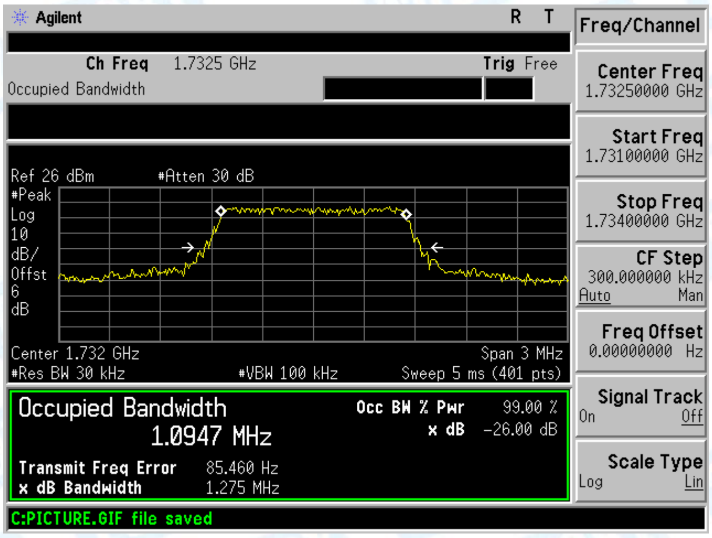
LTE BAND 4 (1.4MHz QPSK-Low CH)



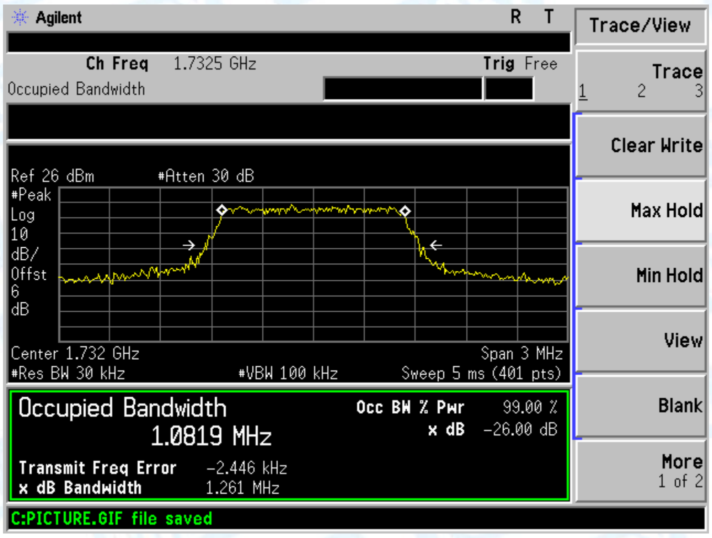
LTE BAND 4 (1.4MHz 16QAM-Low CH)



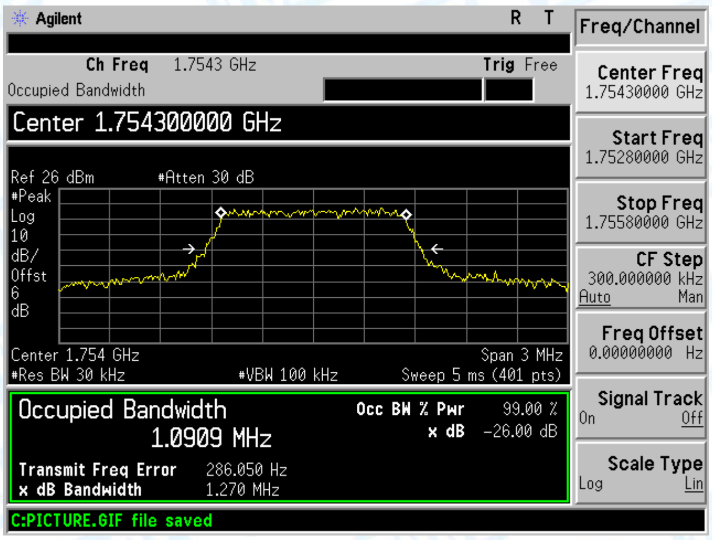
LTE BAND 4 (1.4MHz QPSK-Middle CH)



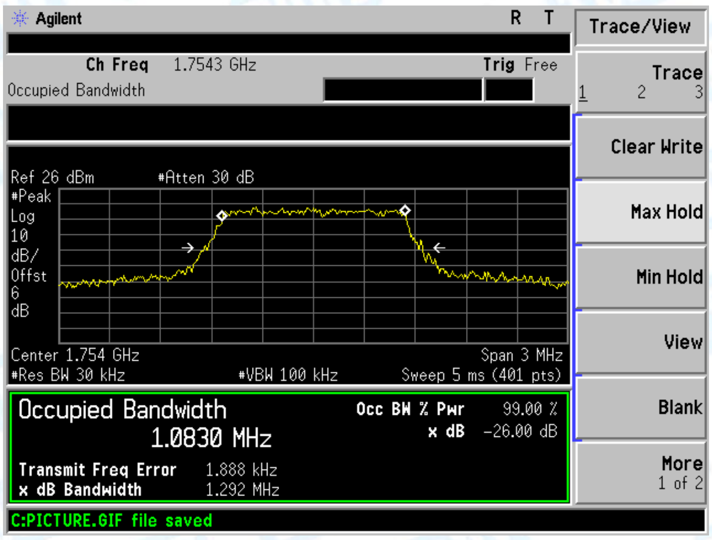
LTE BAND 4 (1.4MHz 16QAM- Middle CH)



LTE BAND 4 (1.4MHz QPSK-High CH)



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



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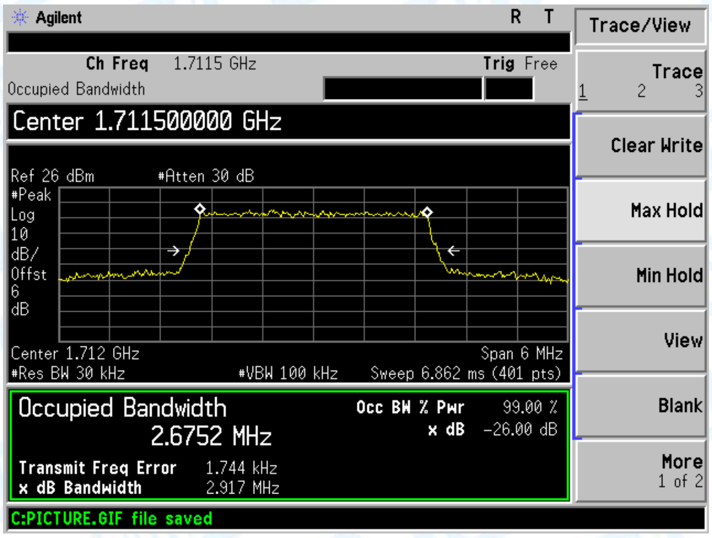
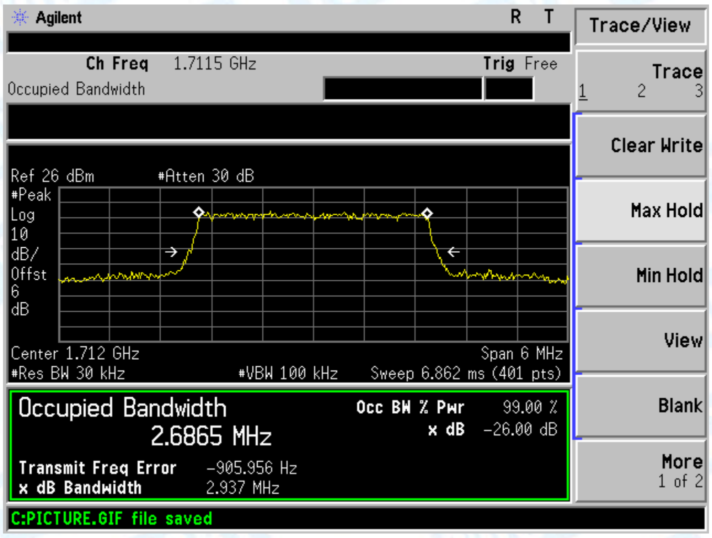
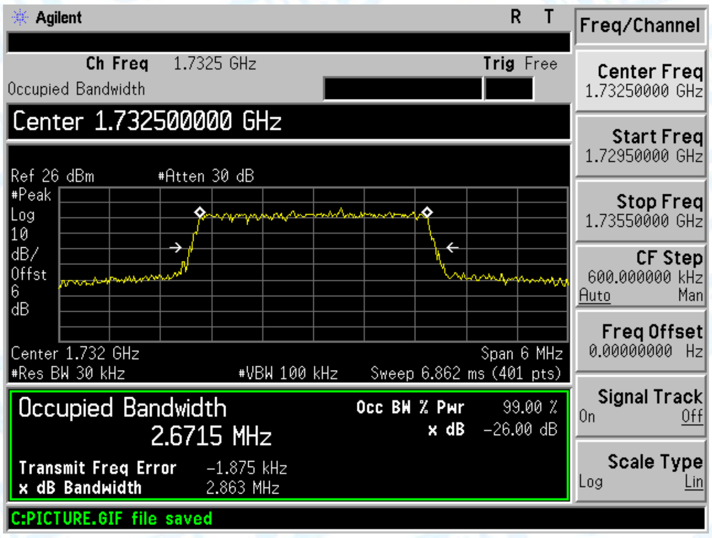


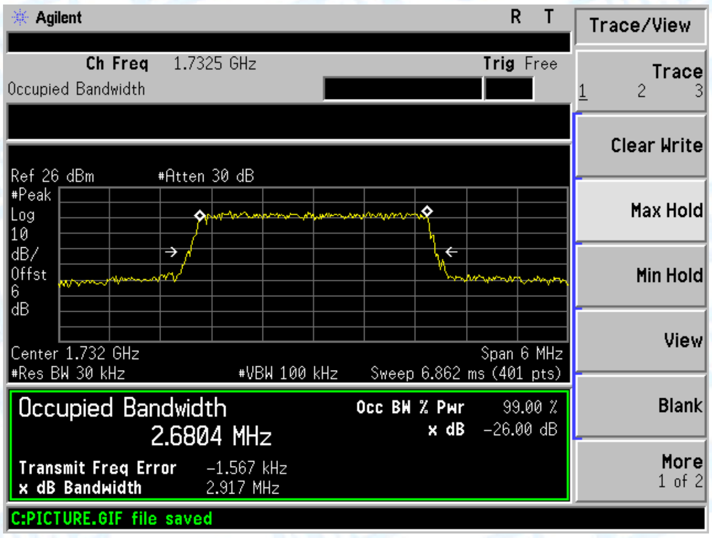
LTE BAND 4 (3MHz 16QAM-Low CH)



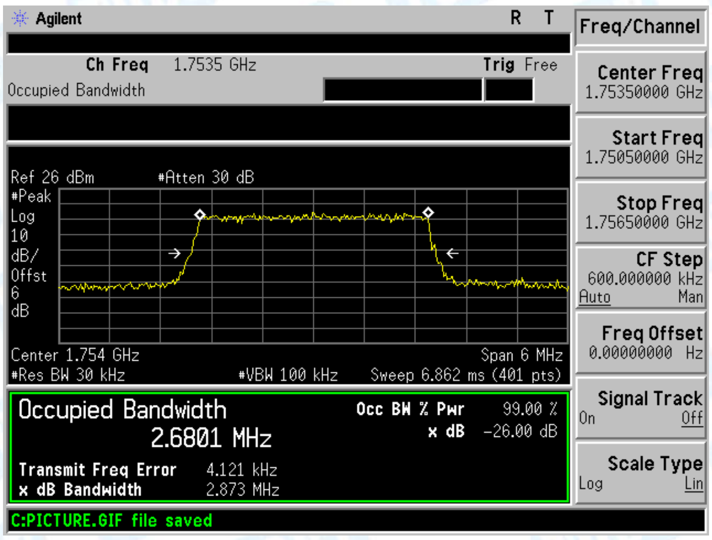
LTE BAND 4 (3MHz QPSK-Middle CH)



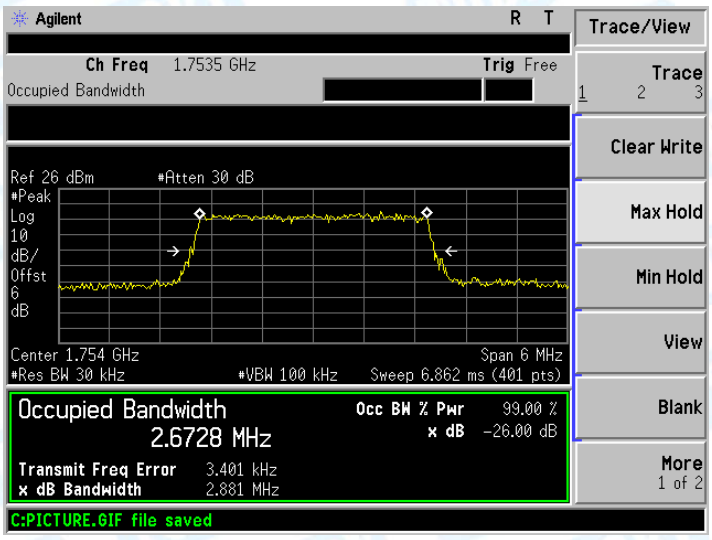
LTE BAND 4 (3MHz 16QAM- Middle CH)



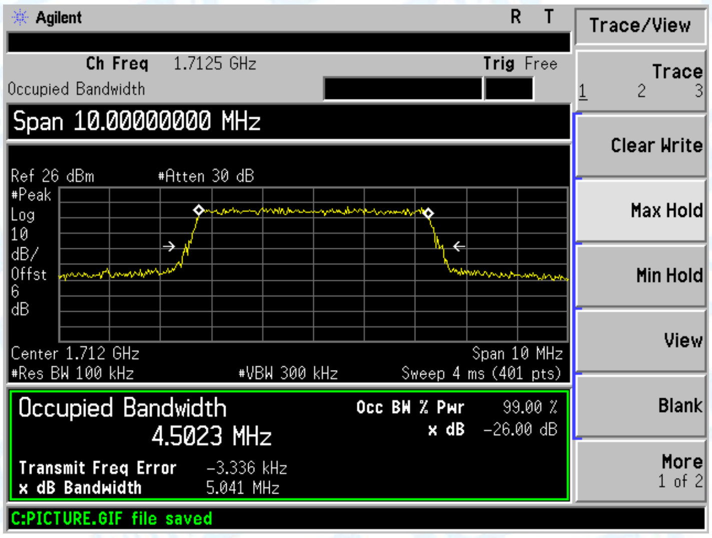
LTE BAND 4 (3MHz QPSK-High CH)



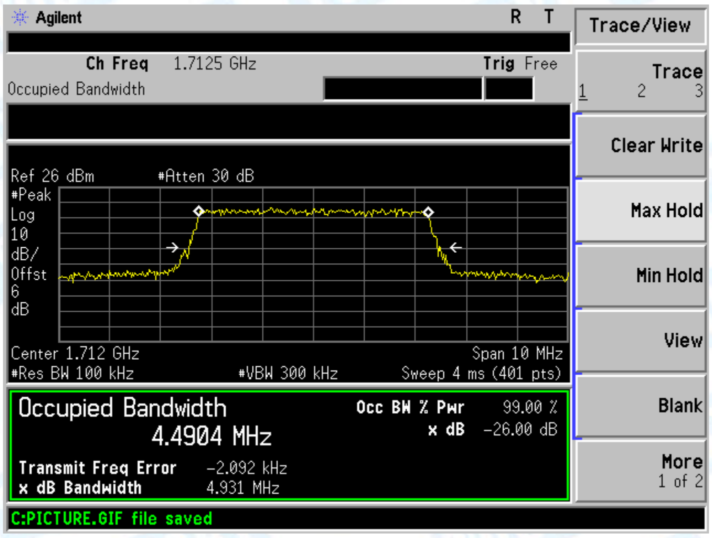
LTE BAND 4 (3MHz 16QAM-High CH)



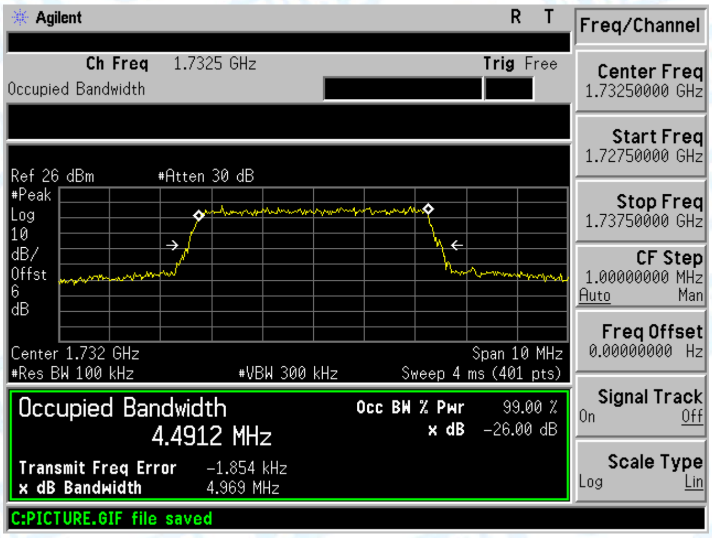
LTE BAND 4 (5MHz QPSK-Low CH)



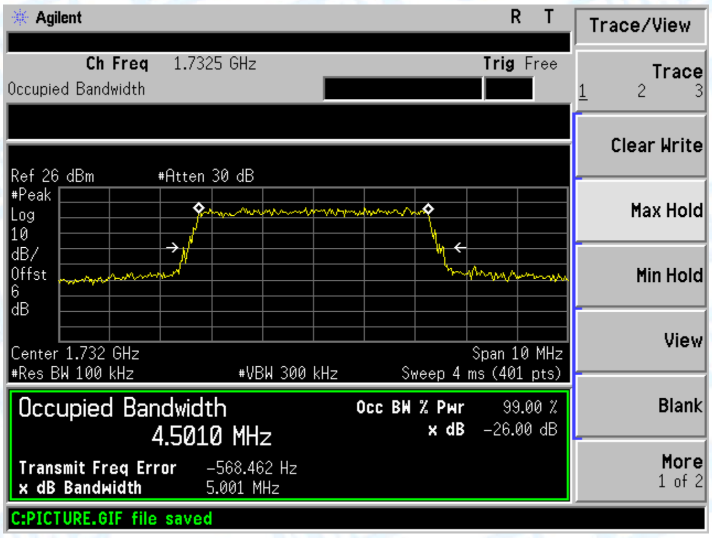
LTE BAND 4 (5MHz 16QAM-Low CH)



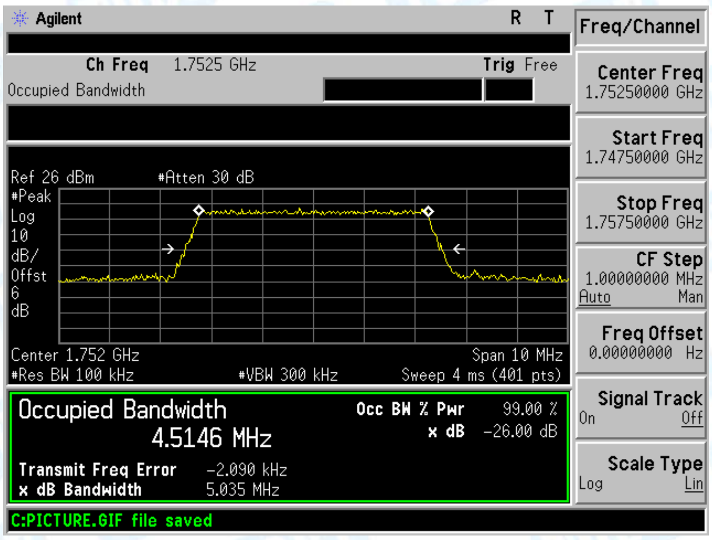
LTE BAND 4 (5MHz QPSK-Middle CH)



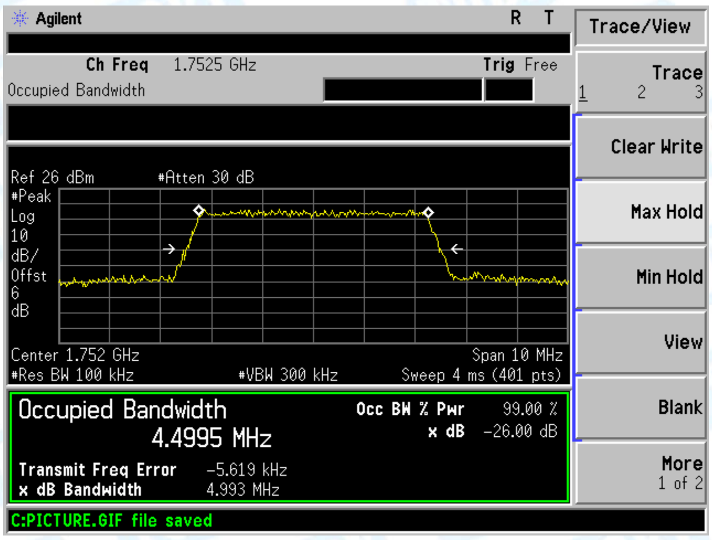
LTE BAND 4 (5MHz 16QAM- Middle CH)

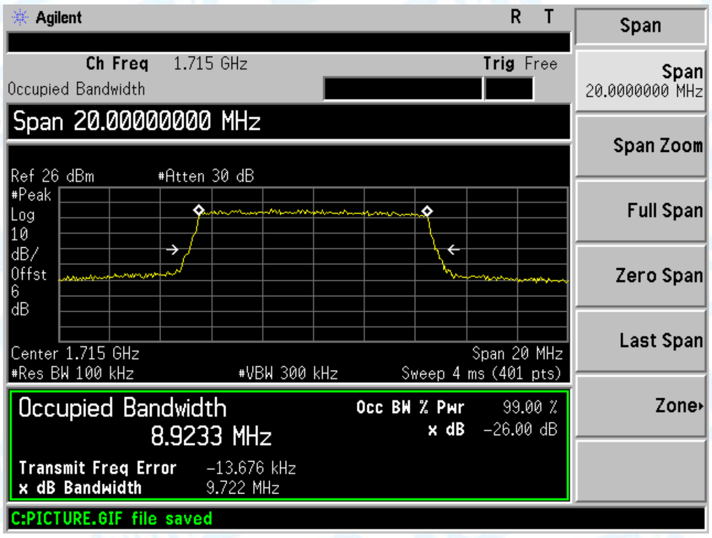
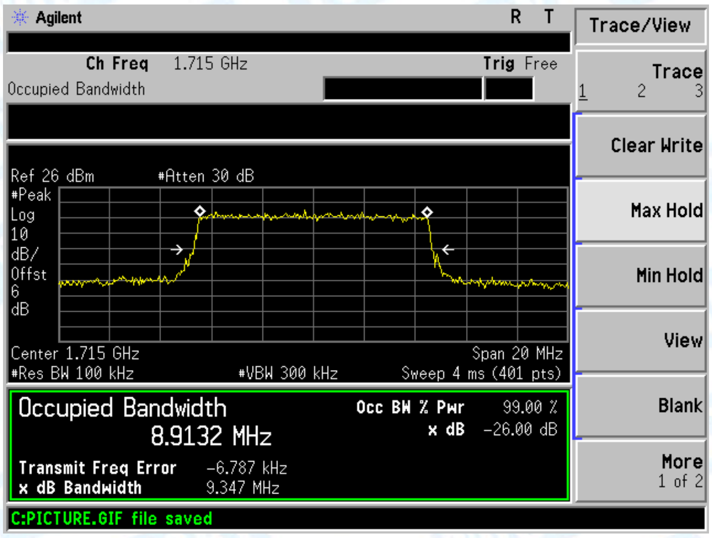
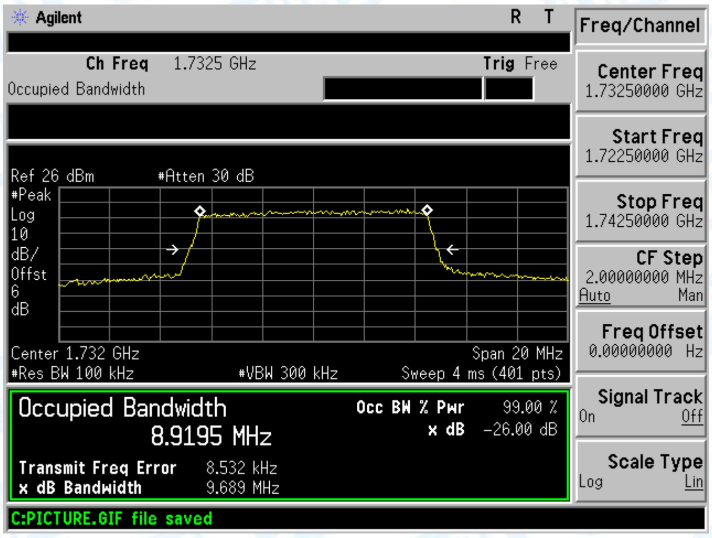
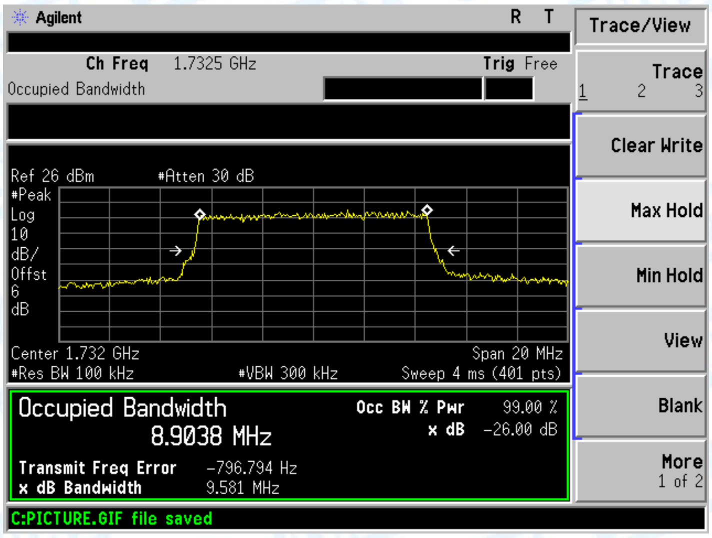
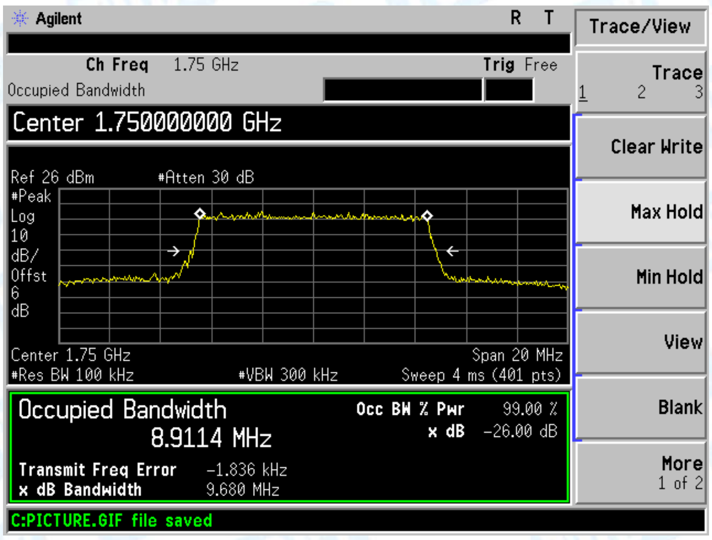
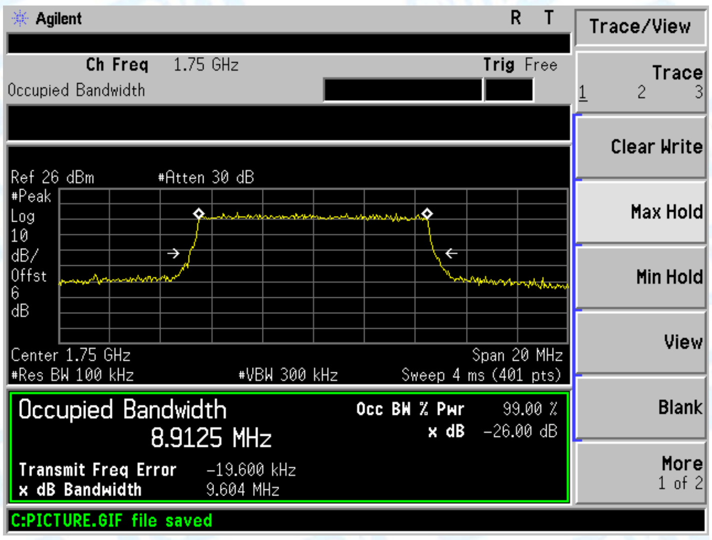


LTE BAND 4 (5MHz QPSK-High CH)

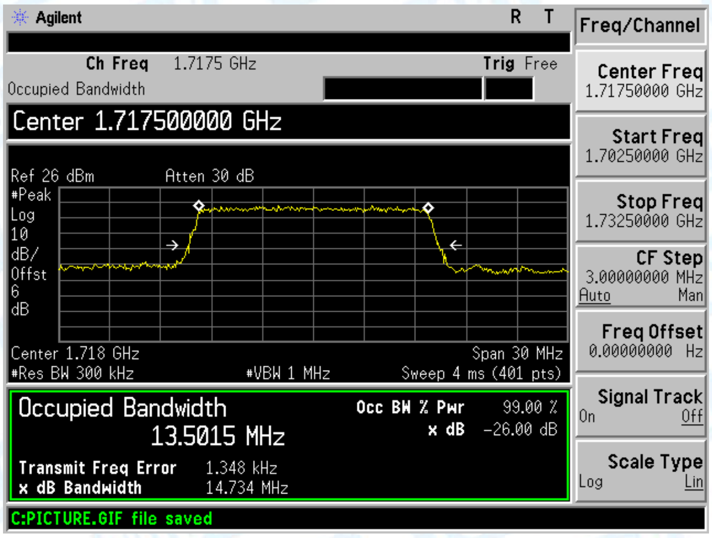


LTE BAND 4 (5MHz 16QAM-High CH)

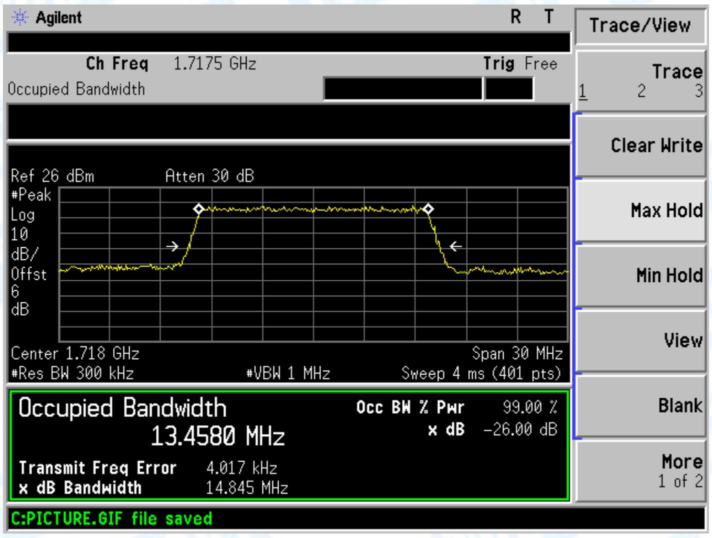


LTE BAND 4 (10MHz QPSK-Low CH)	LTE BAND 4 (10MHz 16QAM-Low CH)
	
LTE BAND 4 (10MHz QPSK-Middle CH)	**LTE BAND 4 (10MHz 16QAM- Middle CH)**
	
LTE BAND 4 (10MHz QPSK-High CH)	**LTE BAND 4 (10MHz 16QAM-High CH)**
	

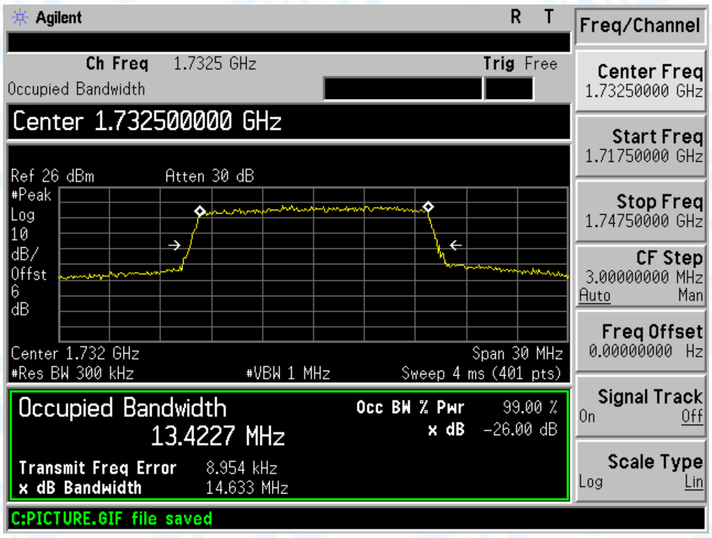
LTE BAND 4 (15MHz QPSK-Low CH)



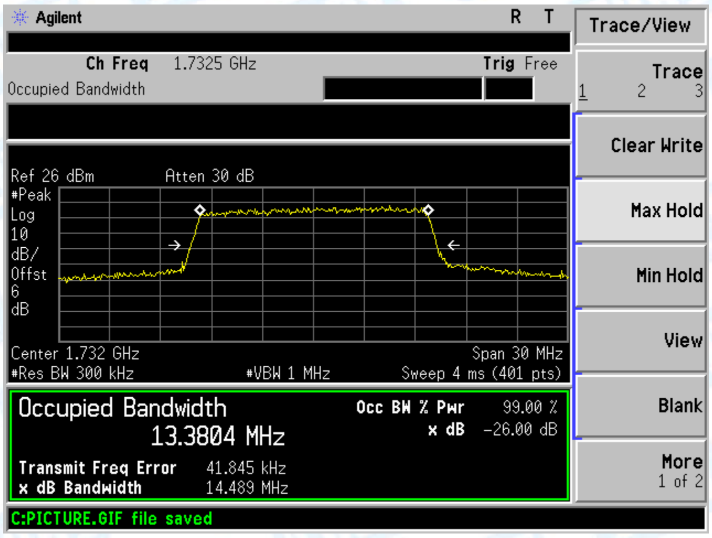
LTE BAND 4 (15MHz 16QAM-Low CH)



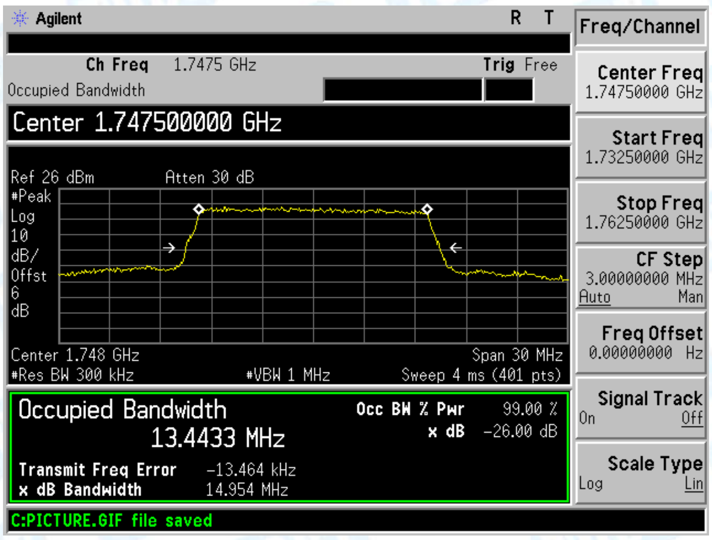
LTE BAND 4 (15MHz QPSK-Middle CH)



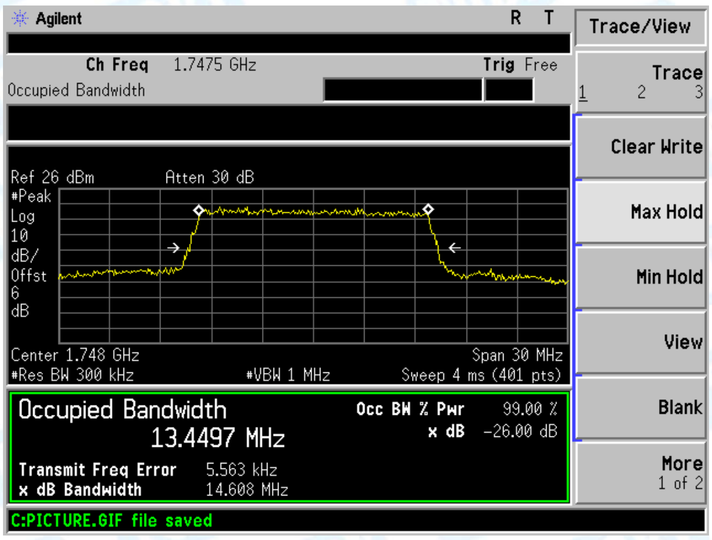
LTE BAND 4 (15MHz 16QAM- Middle CH)



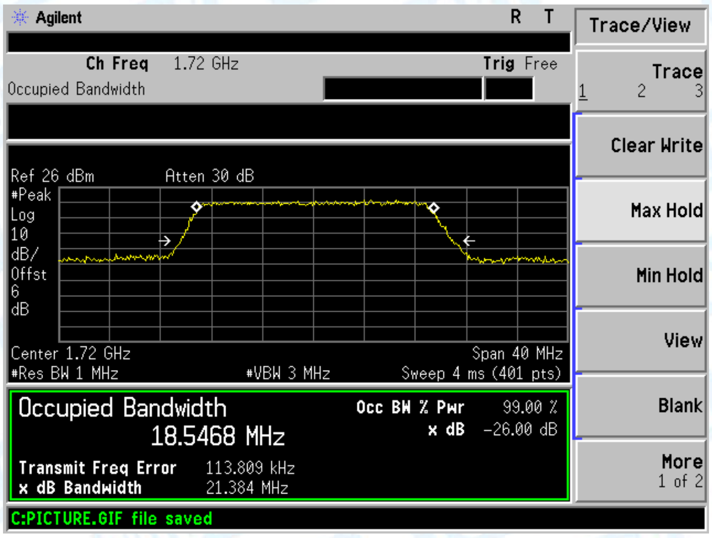
LTE BAND 4 (15MHz QPSK-High CH)



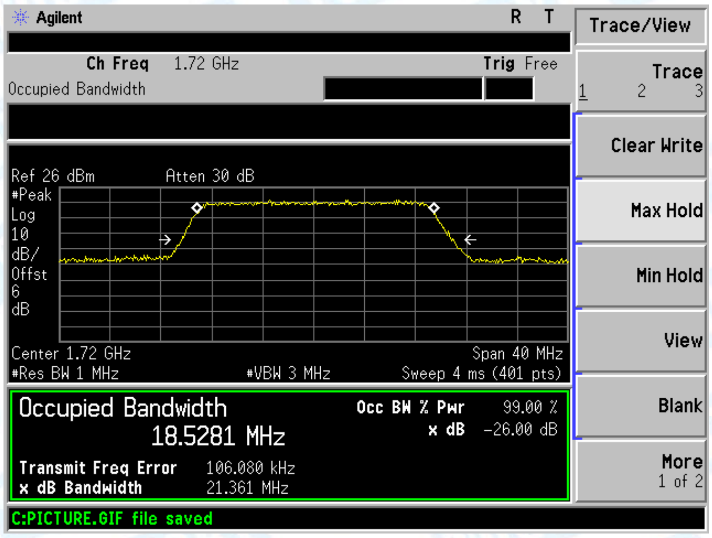
LTE BAND 4 (15MHz 16QAM-High CH)



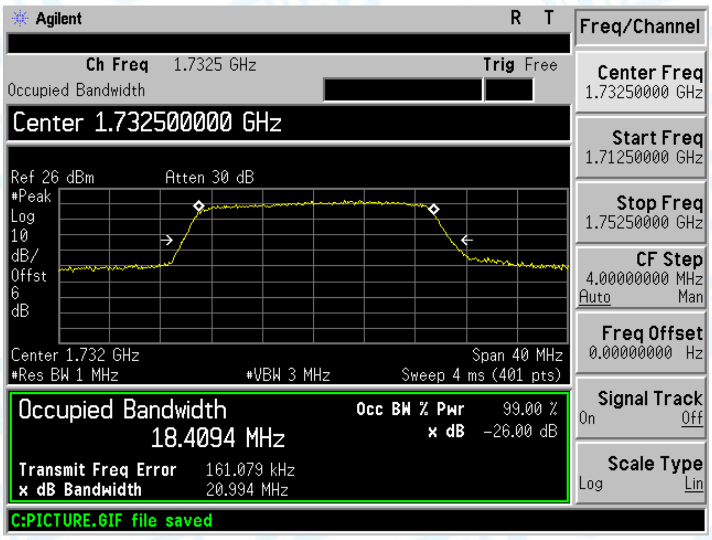
LTE BAND 4 (20MHz QPSK-Low CH)



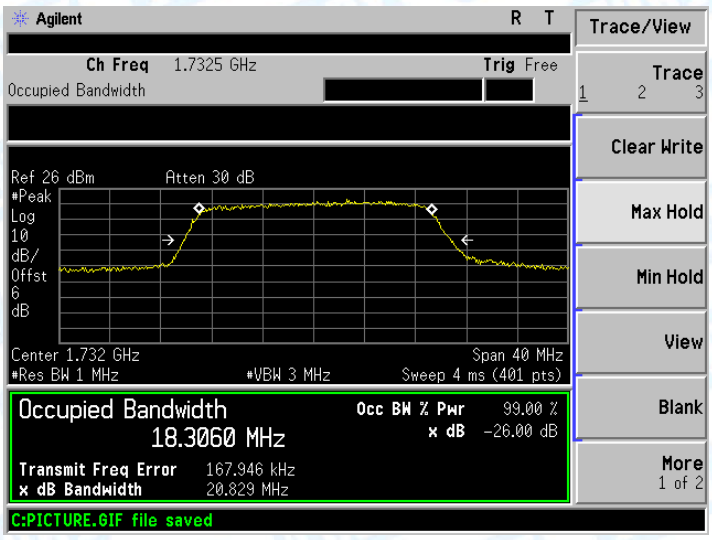
LTE BAND 4 (20MHz 16QAM-Low CH)



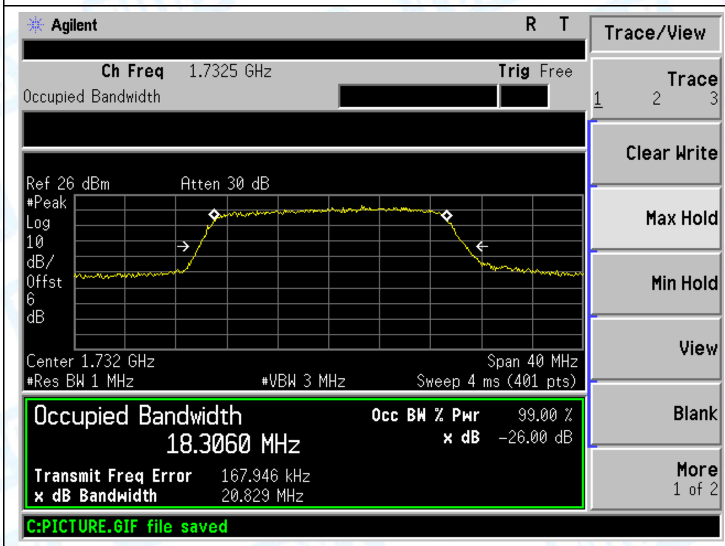
LTE BAND 4 (20MHz QPSK-Middle CH)



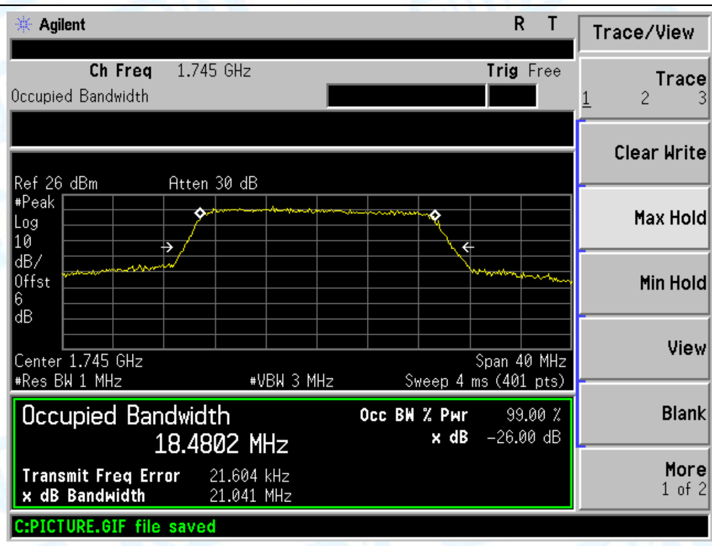
LTE BAND 4 (20MHz 16QAM- Middle CH)



LTE BAND 4 (20MHz QPSK-High CH)

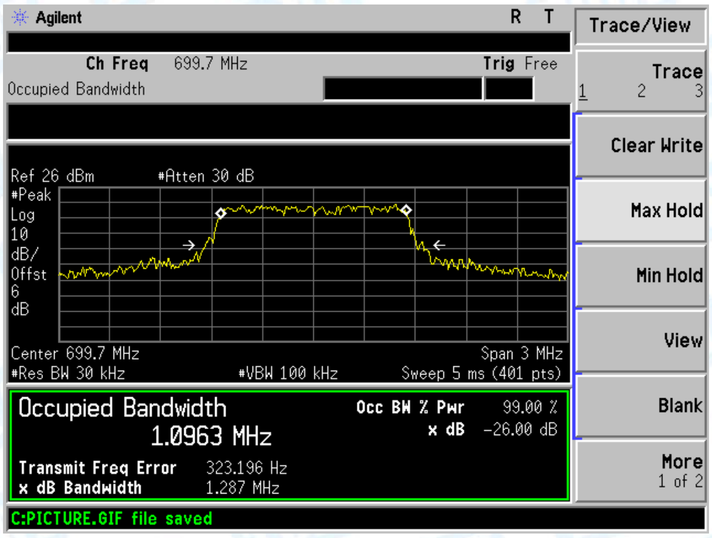


LTE BAND 4 (20MHz 16QAM-High CH)

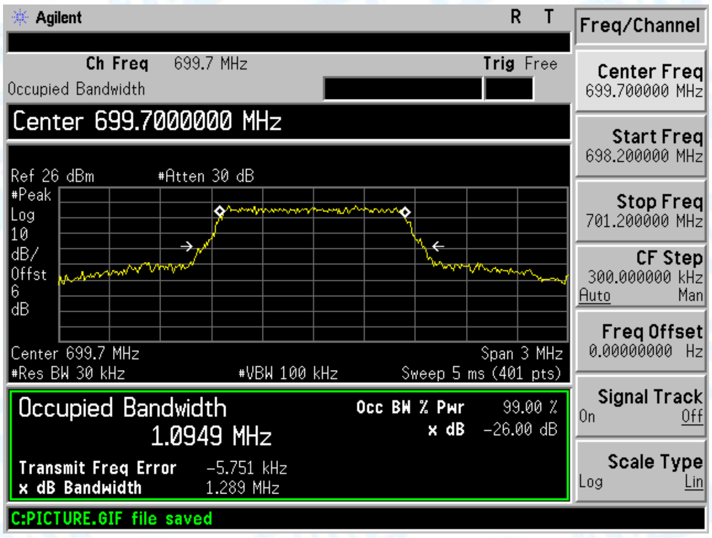


Occupy Bandwidth Test Plot

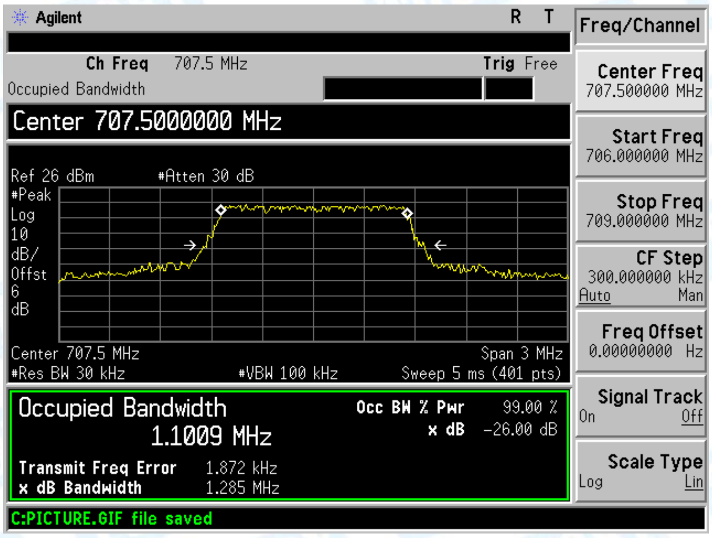
LTE BAND 12 (1.4MHz QPSK-Low CH)



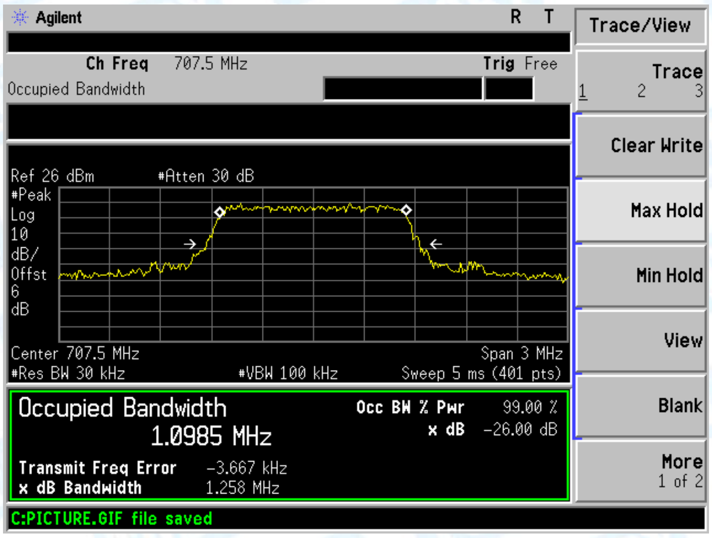
LTE BAND 12 (1.4MHz 16QAM-Low CH)



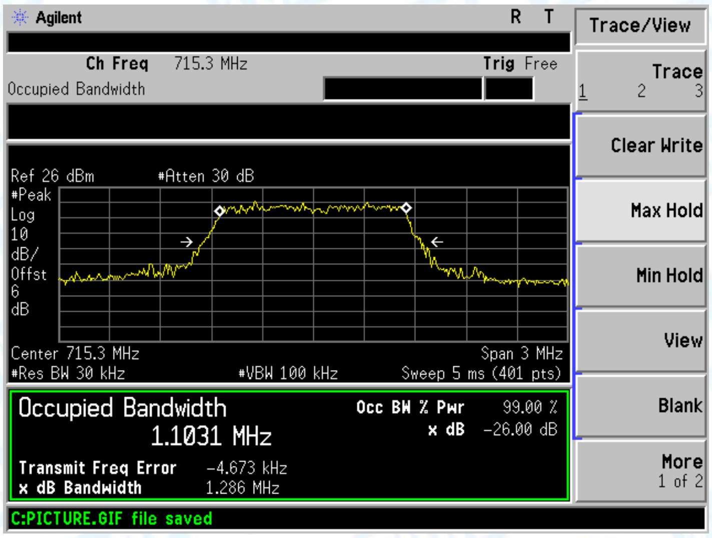
LTE BAND 12 (1.4MHz QPSK-Middle CH)



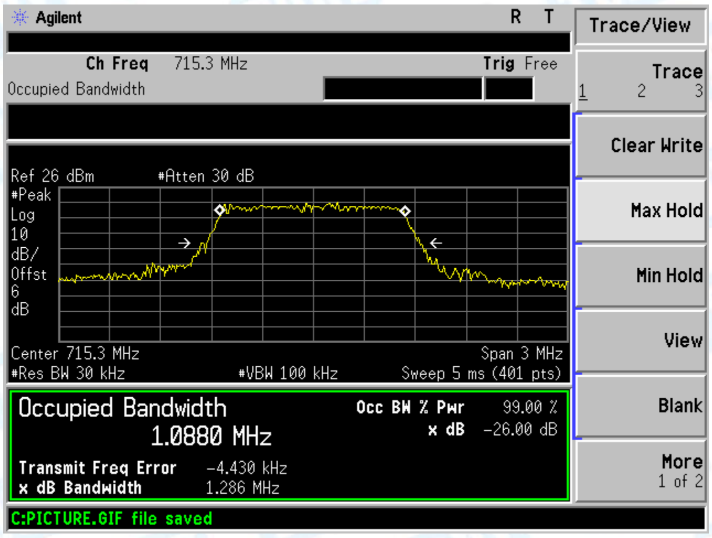
LTE BAND 12 (1.4MHz 16QAM- Middle CH)



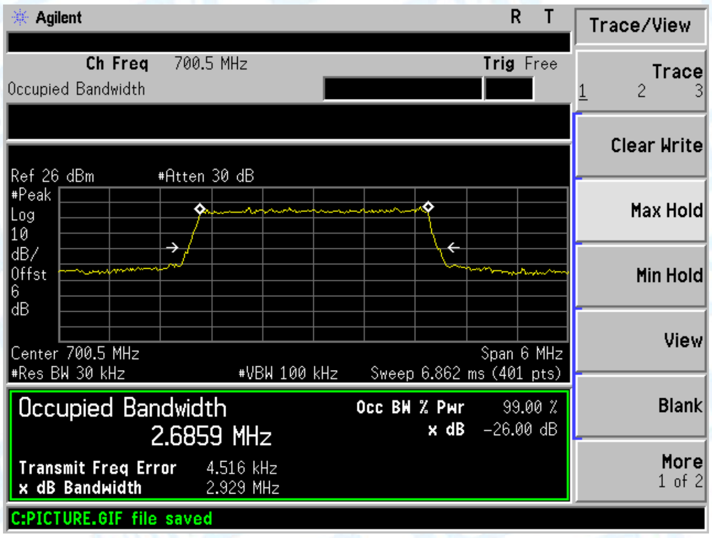
LTE BAND 12 (1.4MHz QPSK-High CH)



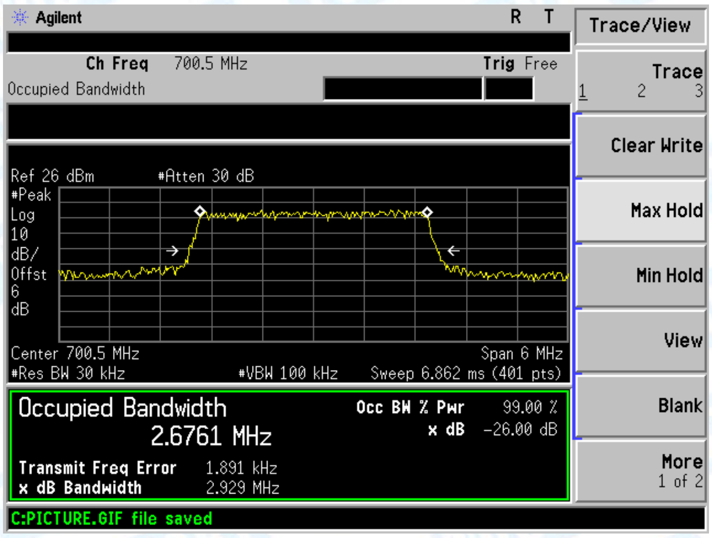
LTE BAND 12 (1.4MHz 16QAM-High CH)



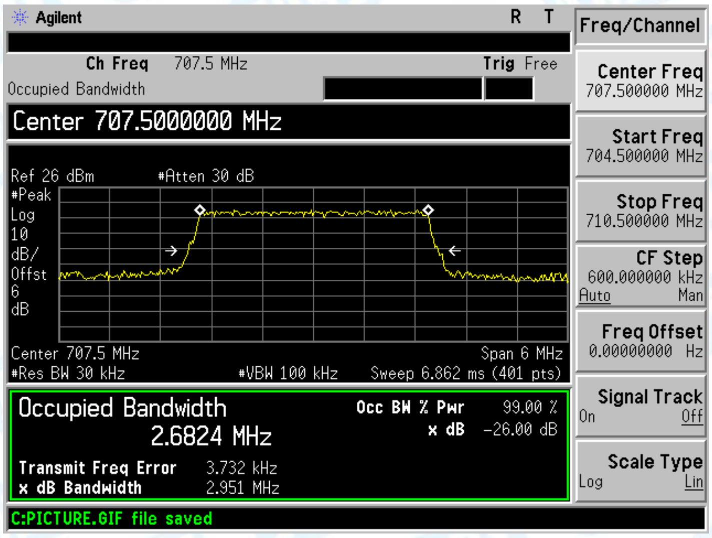
LTE BAND 12 (3MHz QPSK-Low CH)



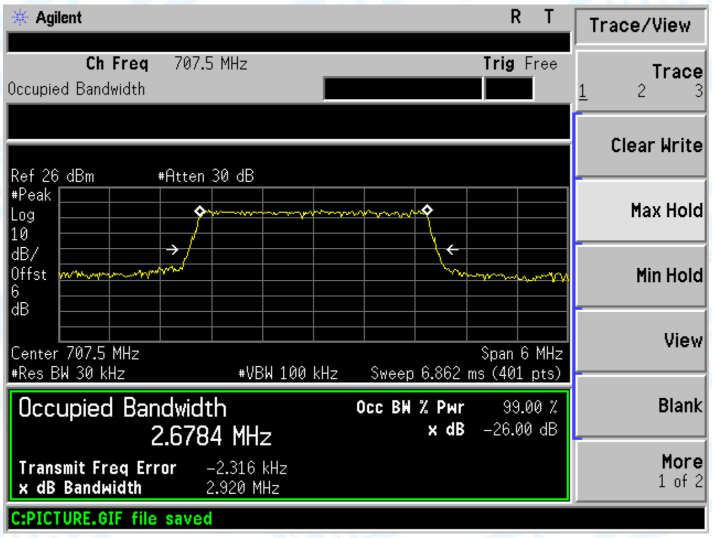
LTE BAND 12 (3MHz 16QAM-Low CH)



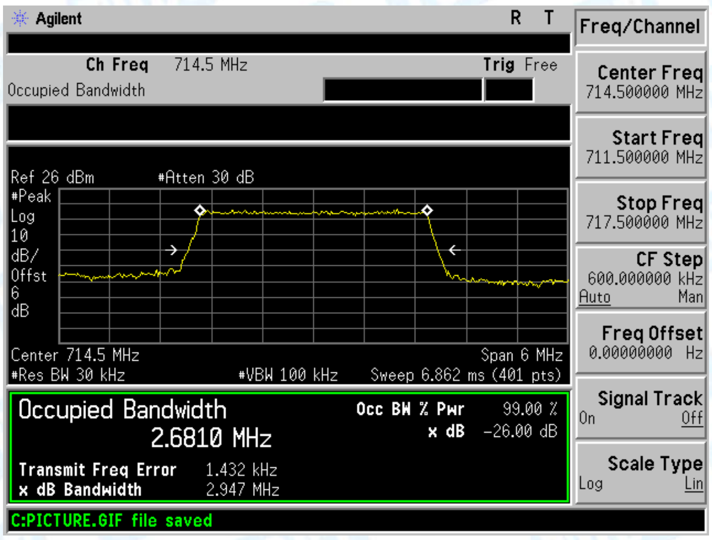
LTE BAND 12 (3MHz QPSK-Middle CH)



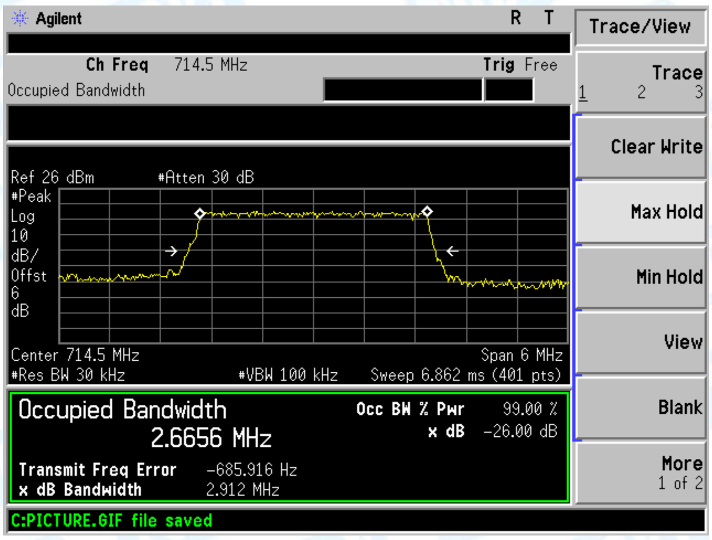
LTE BAND 12 (3MHz 16QAM- Middle CH)

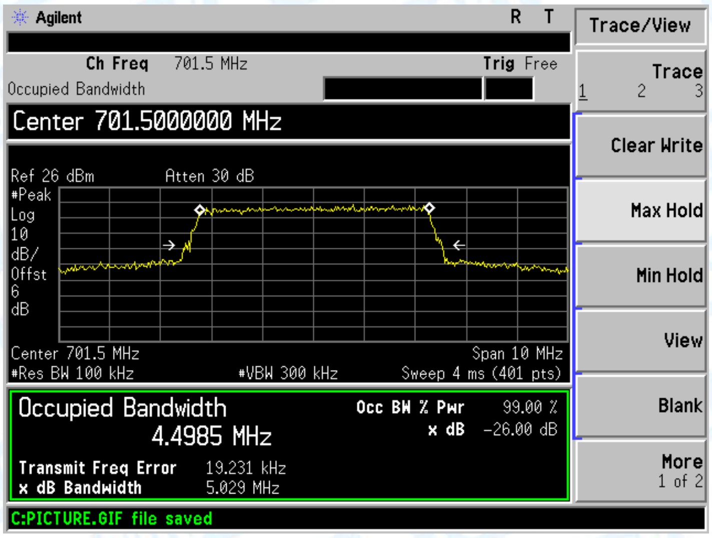
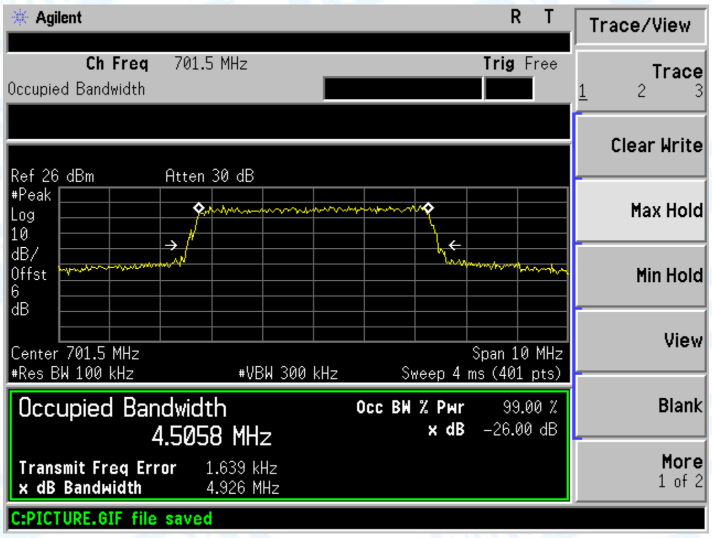
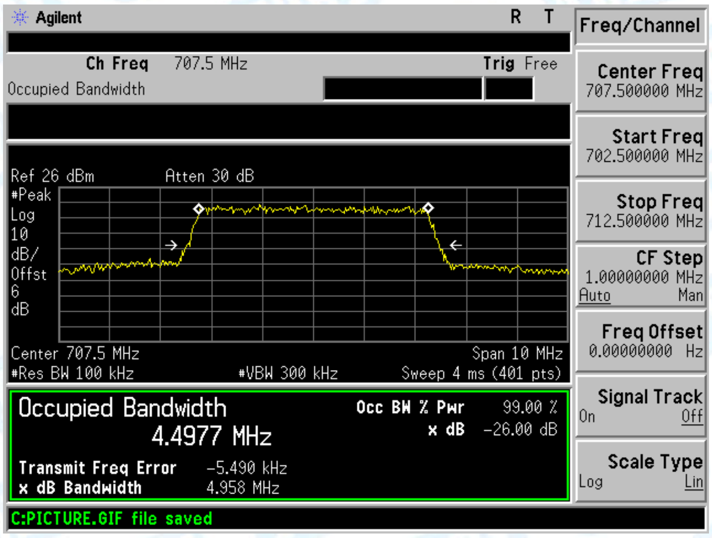
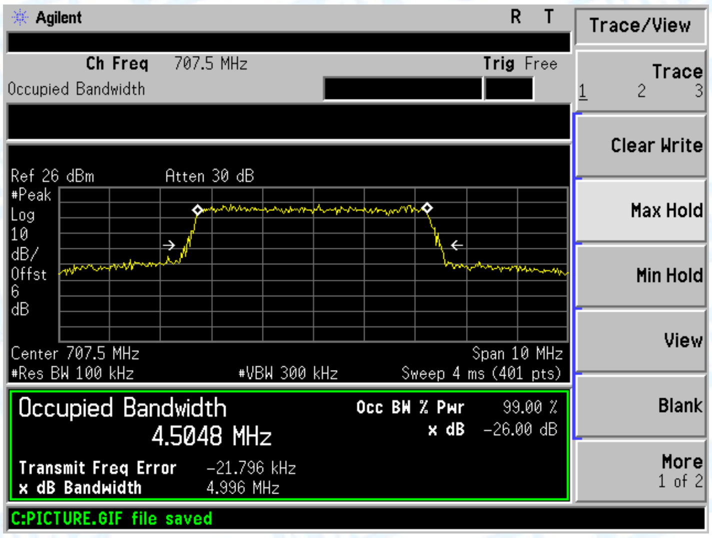
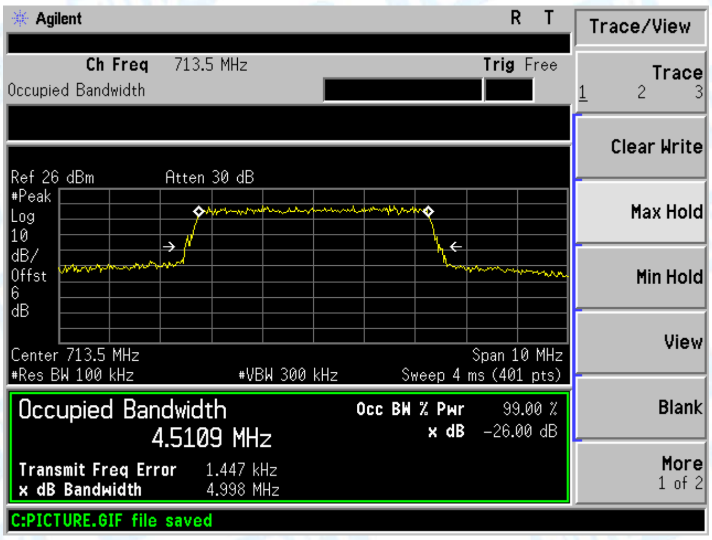
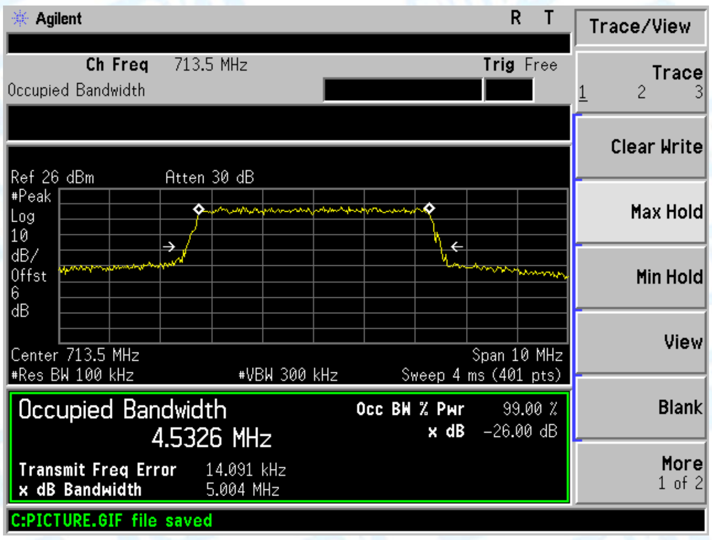


LTE BAND 12 (3MHz QPSK-High CH)

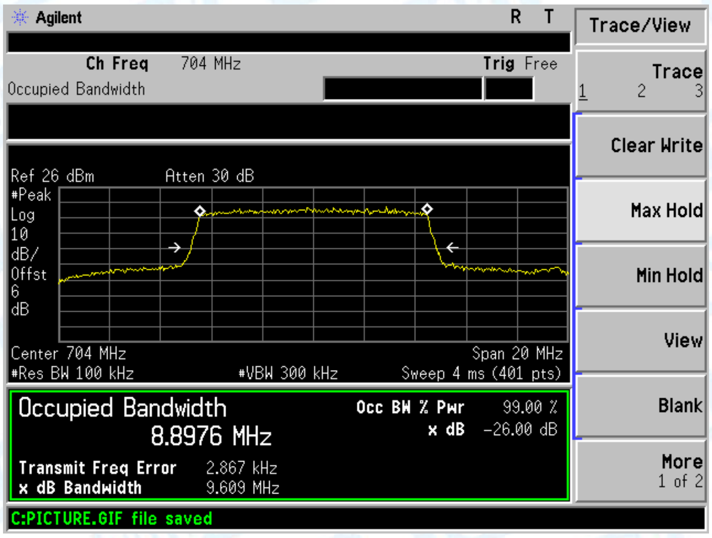


LTE BAND 12 (3MHz 16QAM-High CH)

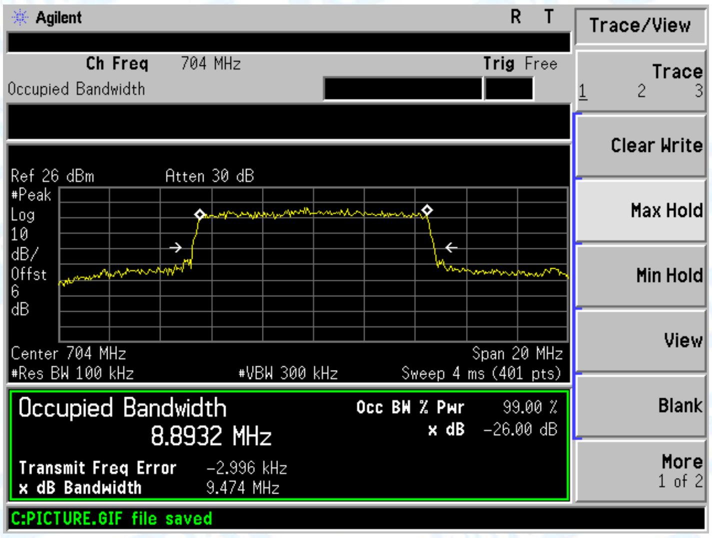


LTE BAND 12 (5MHz QPSK-Low CH)	LTE BAND 12 (5MHz 16QAM-Low CH)
	
LTE BAND 12 (5MHz QPSK-Middle CH)	**LTE BAND 12 (5MHz 16QAM- Middle CH)**
	
LTE BAND 12 (5MHz QPSK-High CH)	**LTE BAND 12 (5MHz 16QAM-High CH)**
	

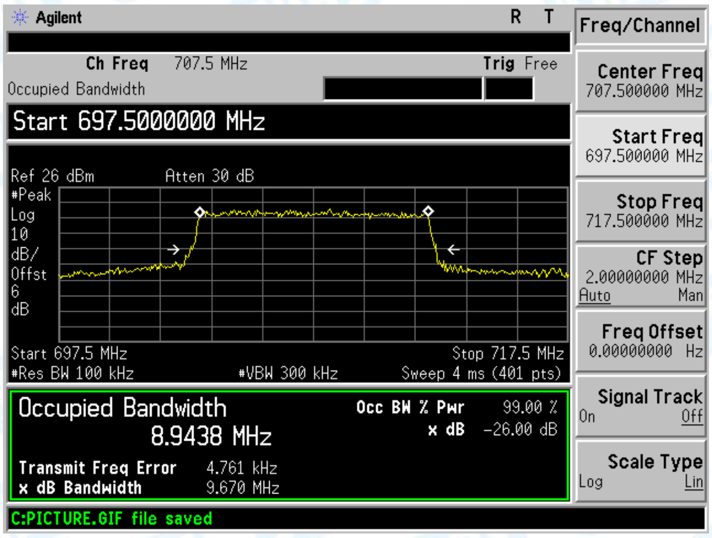
LTE BAND 12 (10MHz QPSK-Low CH)



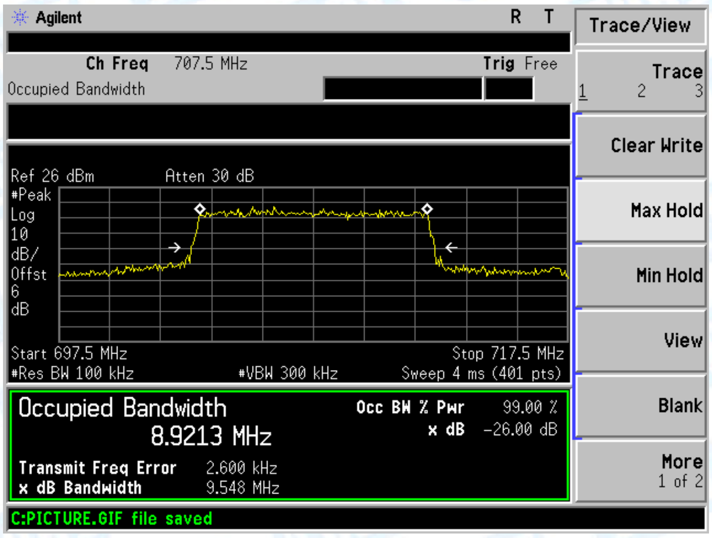
LTE BAND 12 (10MHz 16QAM-Low CH)



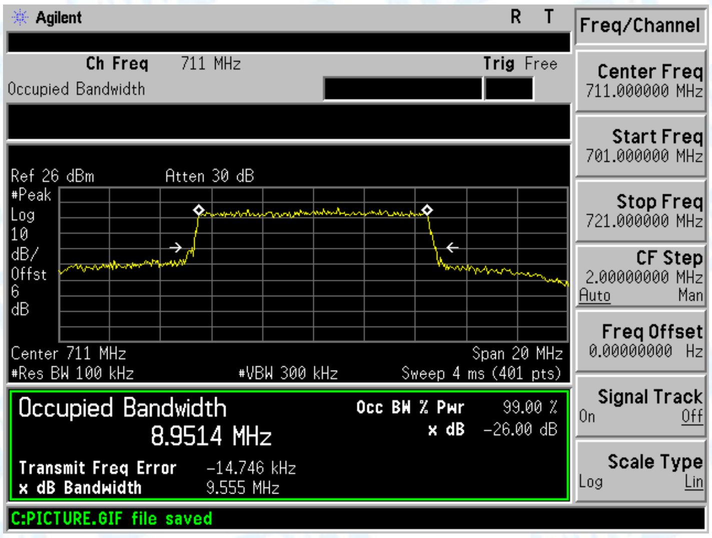
LTE BAND 12 (10MHz QPSK-Middle CH)



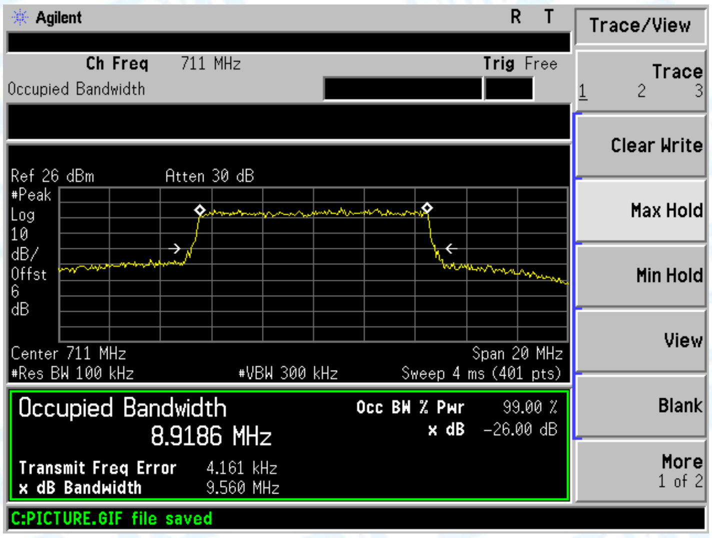
LTE BAND 12 (10MHz 16QAM- Middle CH)



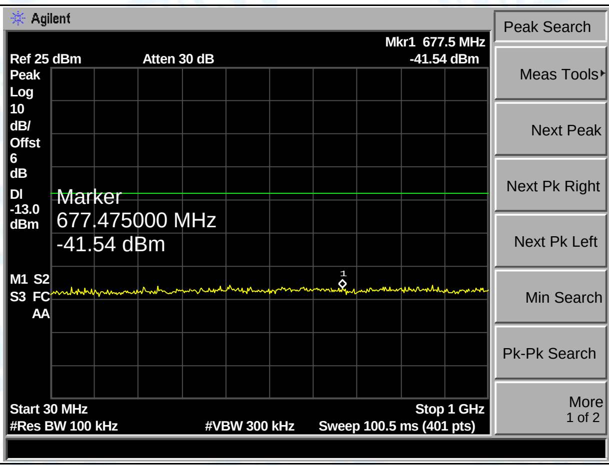
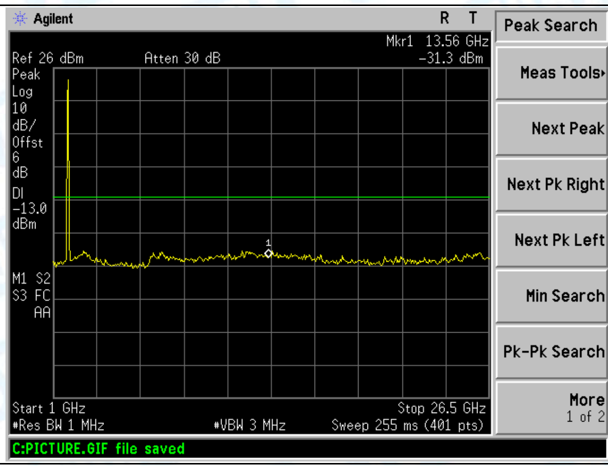
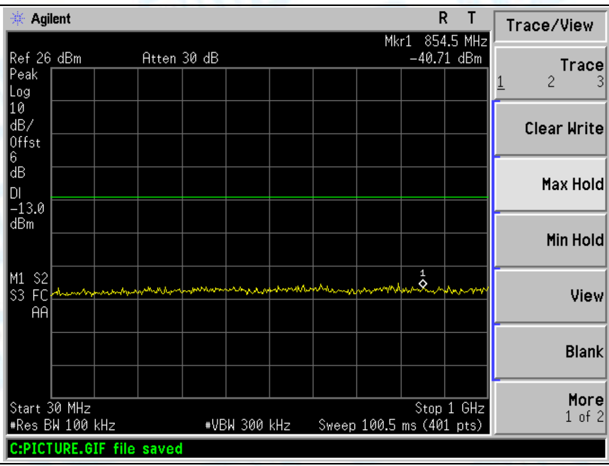
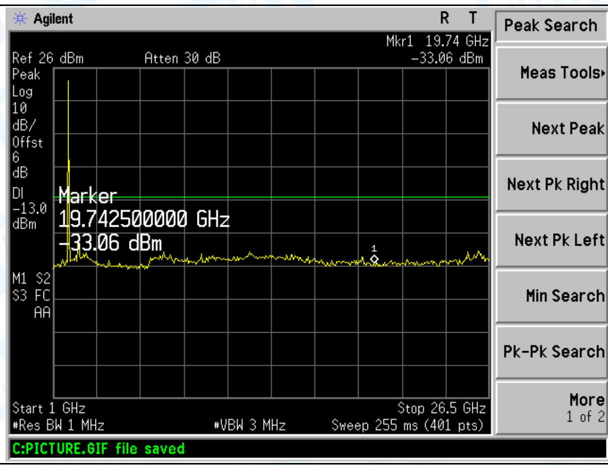
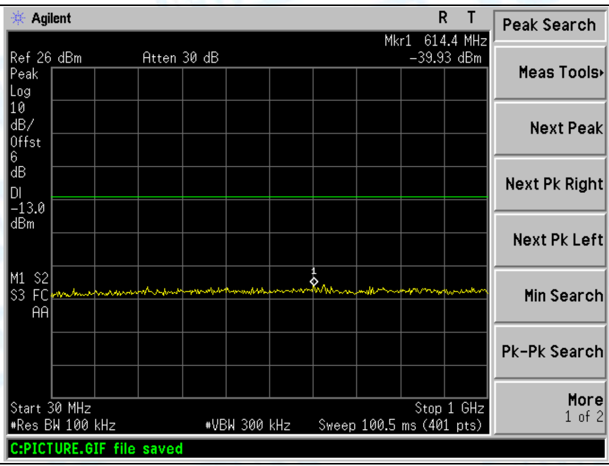
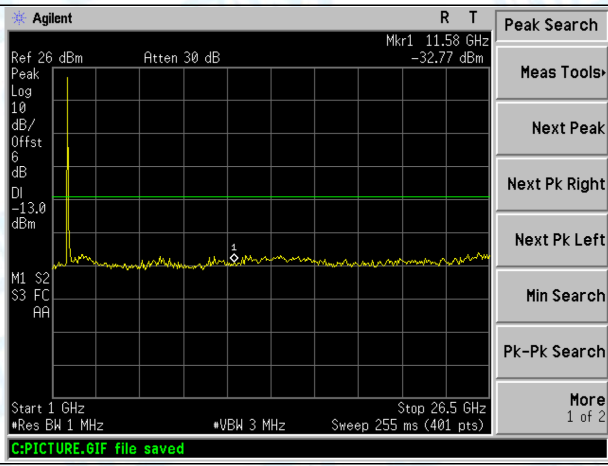
LTE BAND 12 (10MHz QPSK-High CH)

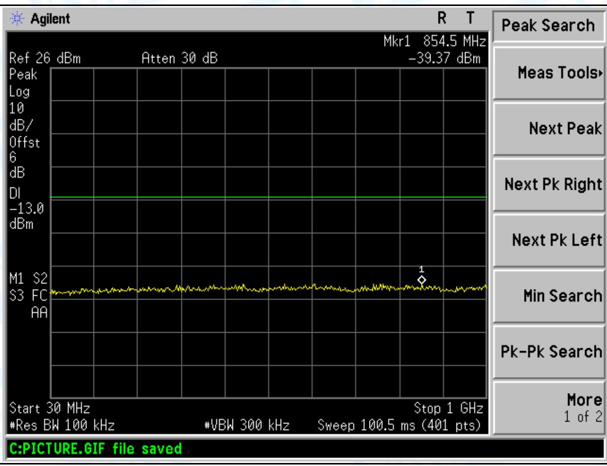
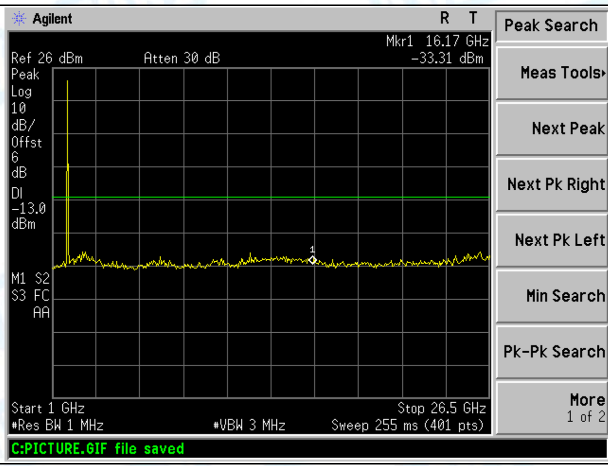
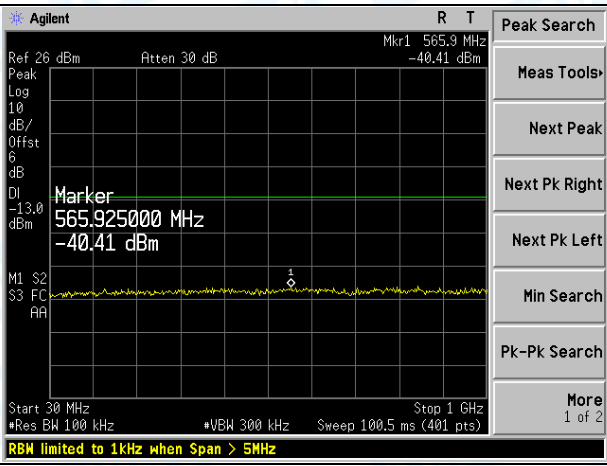
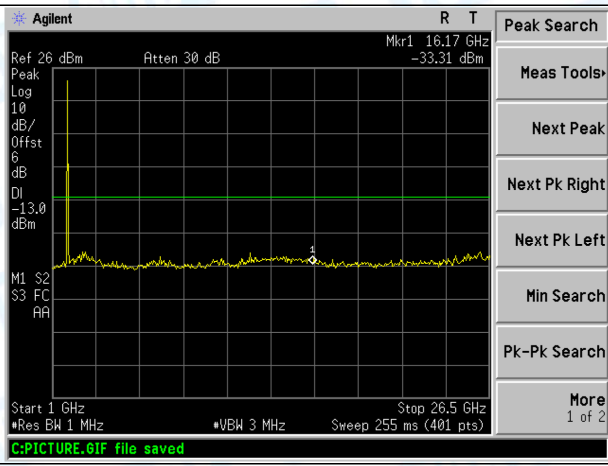
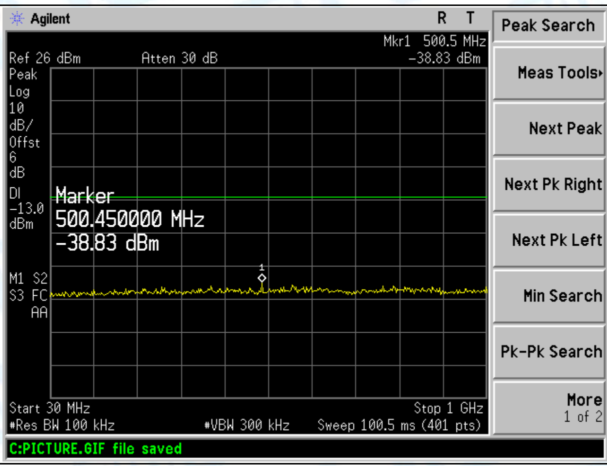
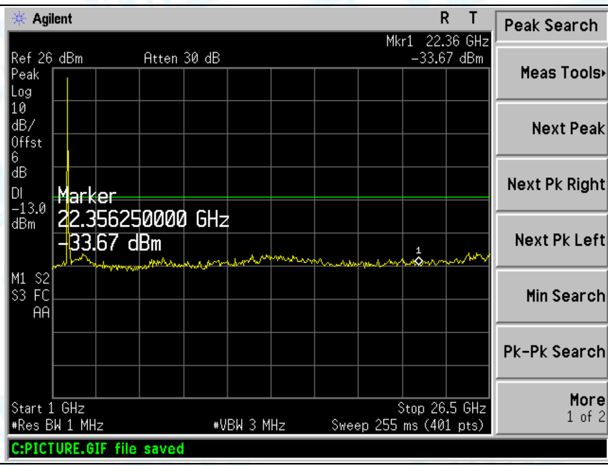


LTE BAND 12 (10MHz 16QAM-High CH)



ATTACHMENT D--OUT OF BAND EMISSION AT ANTENNA TERMINALS

30MHz-1GHz	1GHz-26.5GHz
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 QPSK-Low CH)	
	
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 QPSK-Middle CH)	
	
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 QPSK-High CH)	
	

30MHz-1GHz	1GHz-26.5GHz
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 16QAM-Low CH)	
	
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 16QAM-Middle CH)	
	
LTE BAND 2 (1.4MHz RB Size 6& RB Offset 0 16QAM-High CH)	
	

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<tr><th>30MHz-1GHz</th><th>1GHz-26.5GHz</th></tr>
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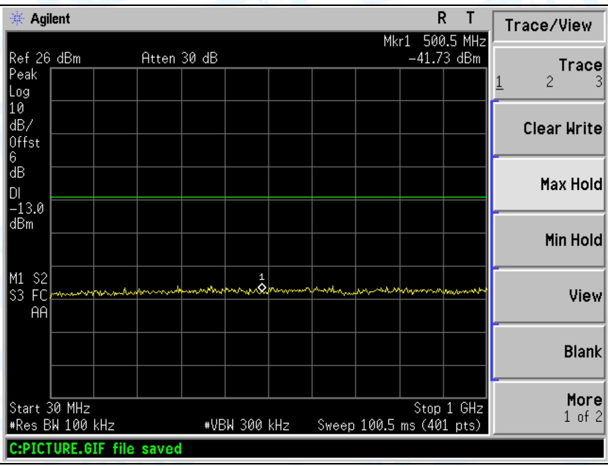
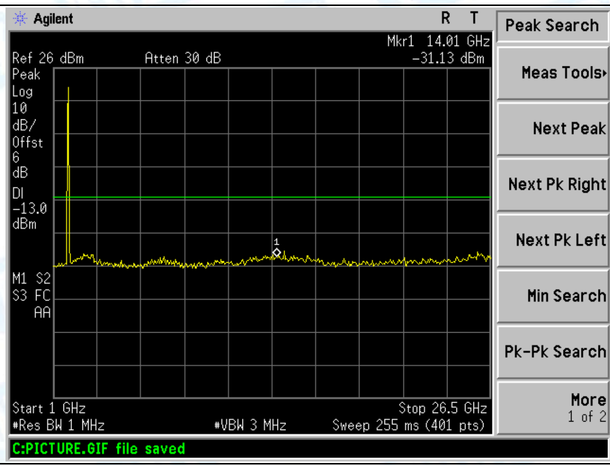
<tr><td>
</td><td>
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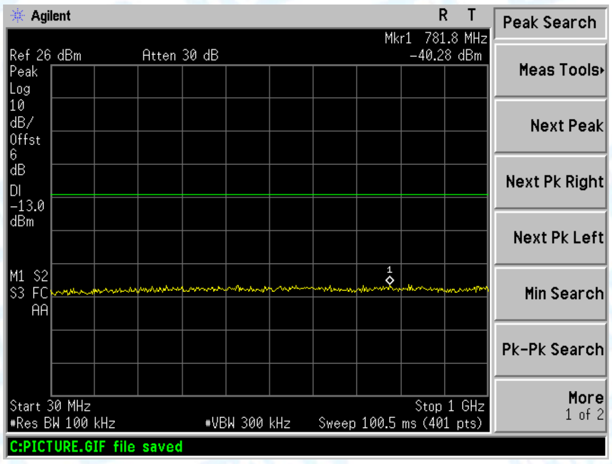
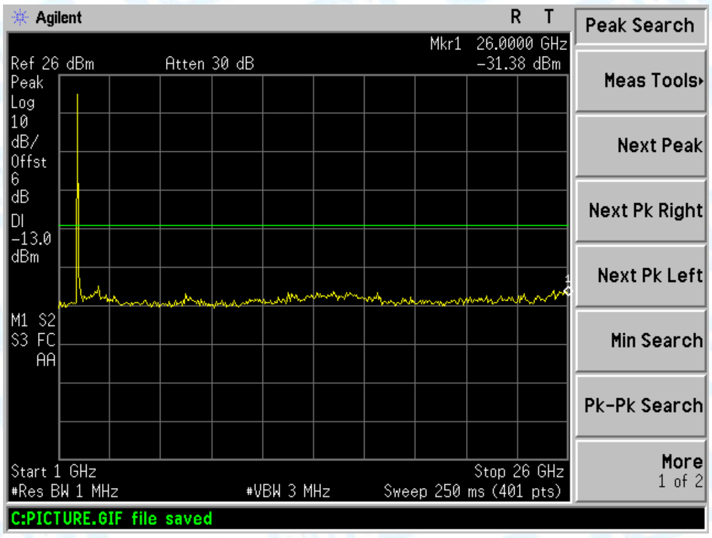
<tr><td colspan="2">LTE BAND 2 (3MHz RB Size 15& RB Offset 0 QPSK-Middle CH)</td></tr>
<tr><td>
</td><td>
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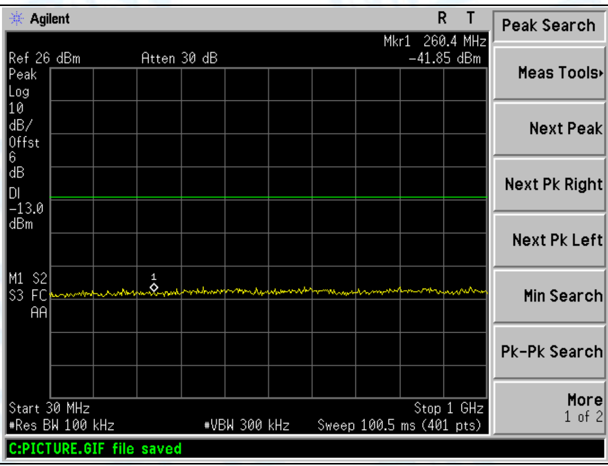
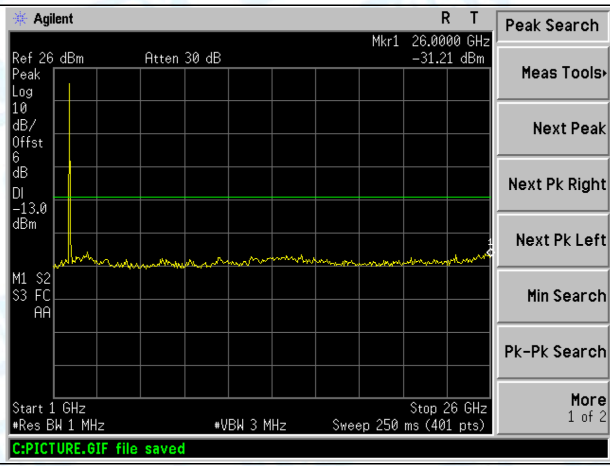
<tr><td>
</td><td>
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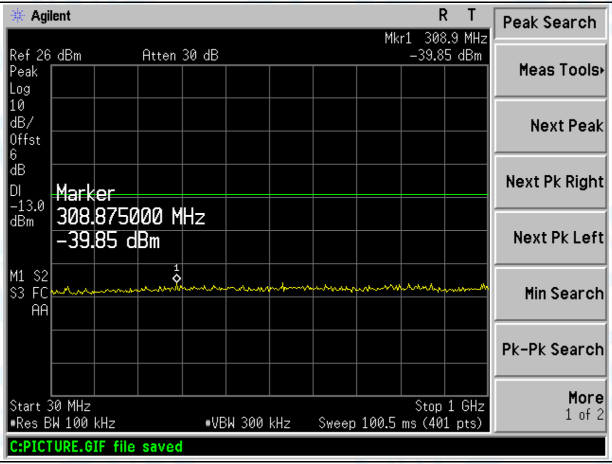
<tr><td>
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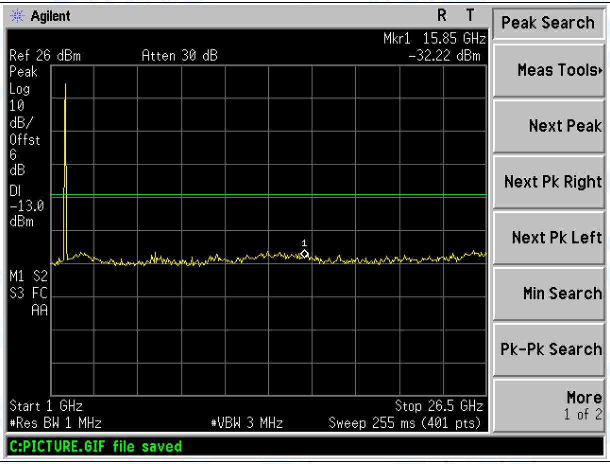
<td>
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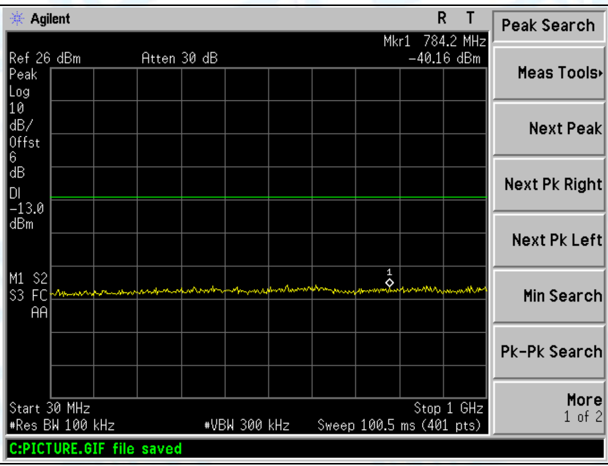
<tr><td>
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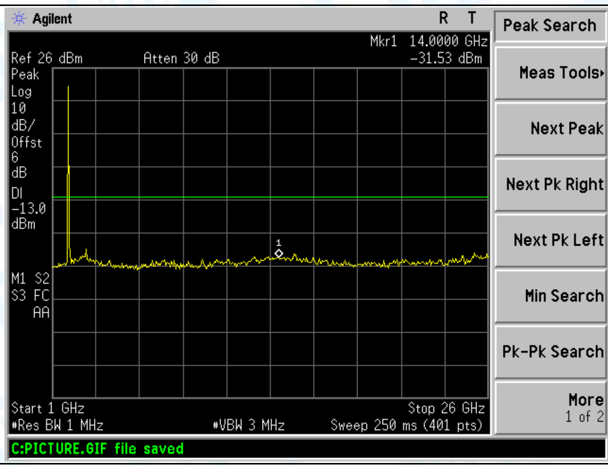
<td>
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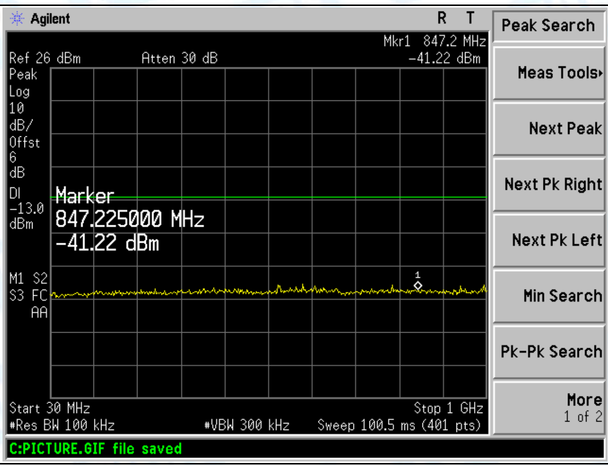
<tr><td>
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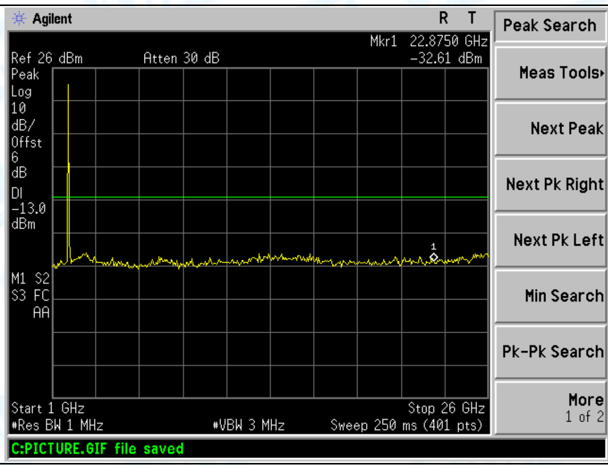
<td>
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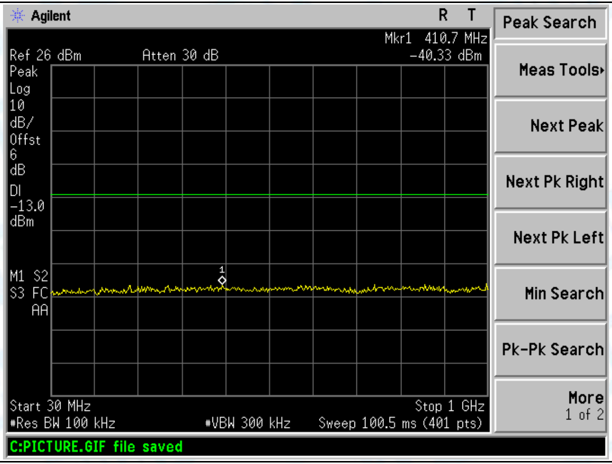
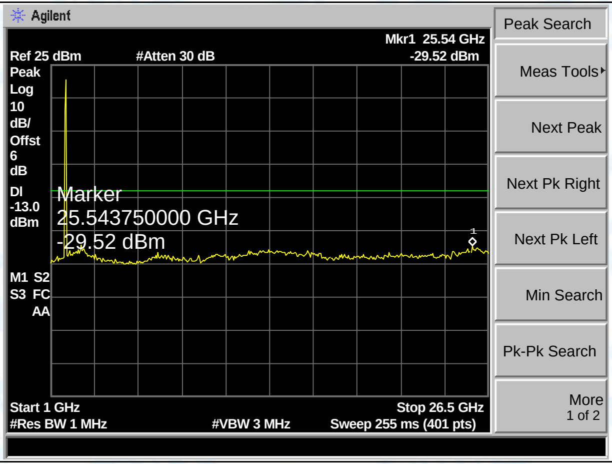
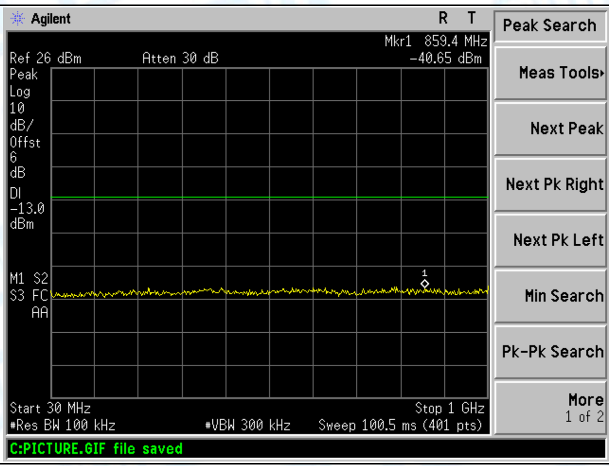
30MHz-1GHz	1GHz-26.5GHz

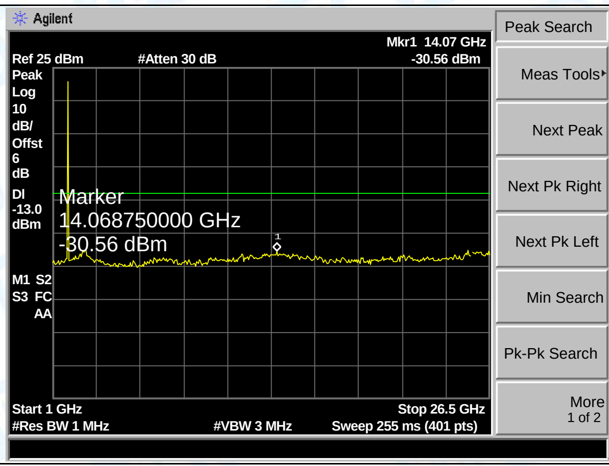
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 QPSK-Low CH)





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





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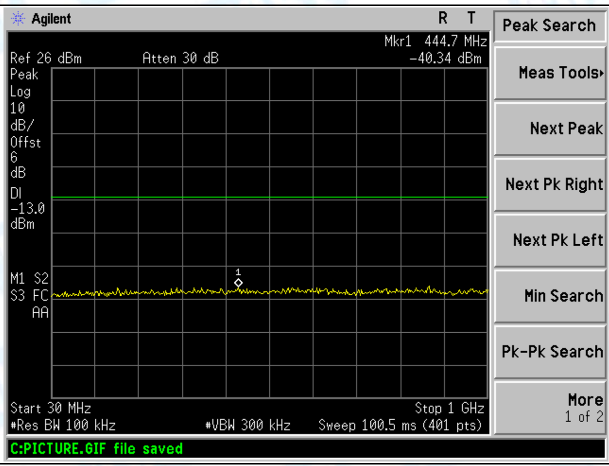
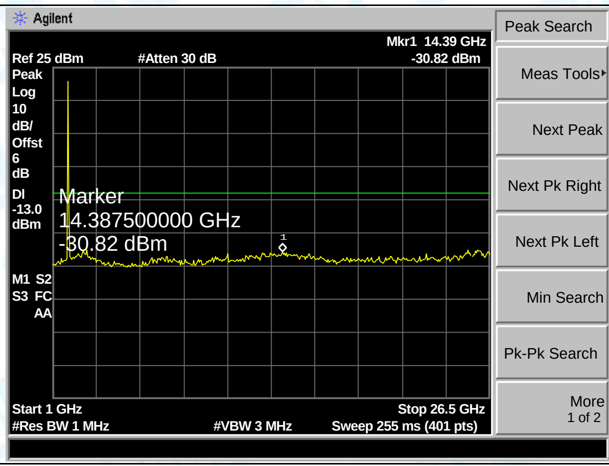
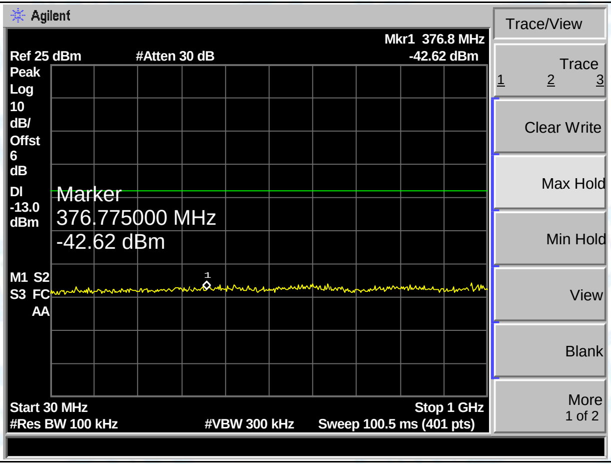
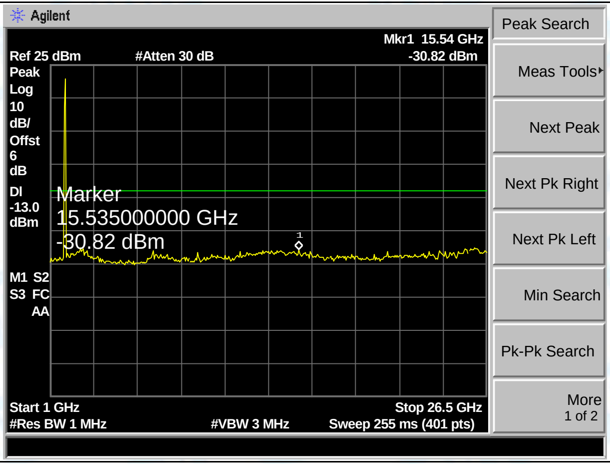




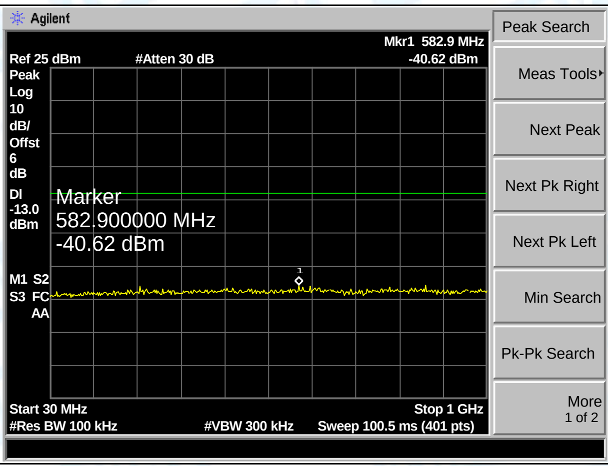
30MHz-1GHz	1GHz-26.5GHz

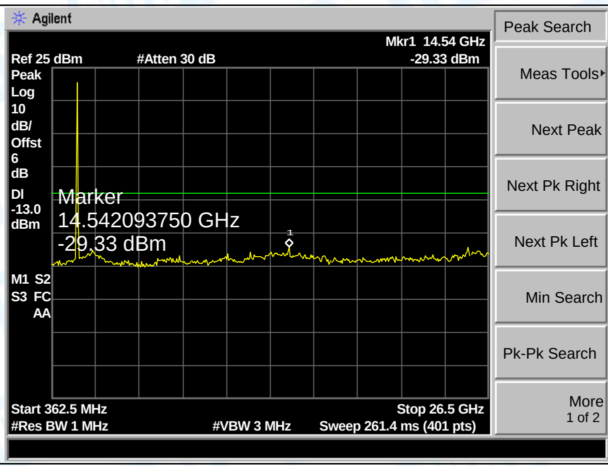
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 16QAM-Low CH)



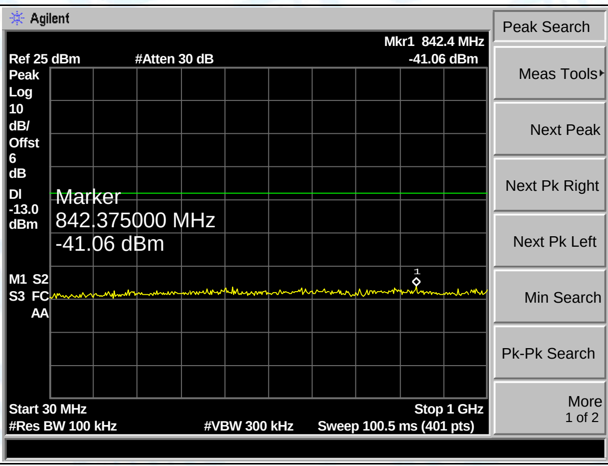


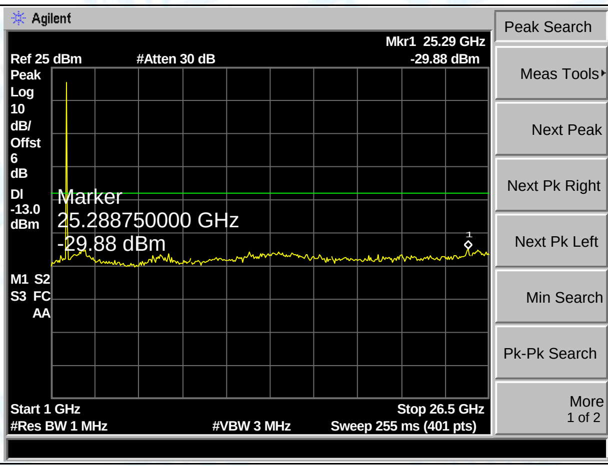
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 16QAM-Middle CH)





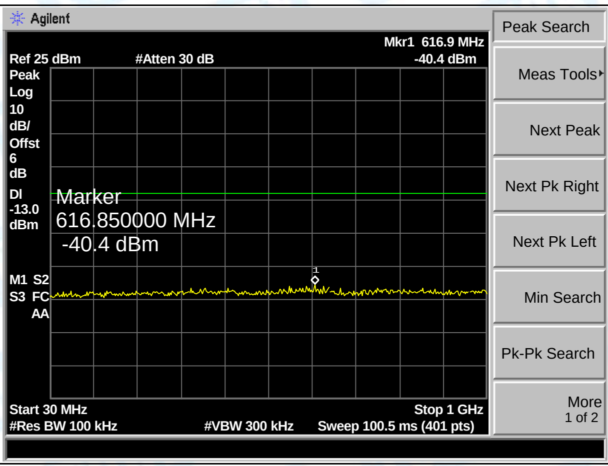
LTE BAND 2 (5MHz RB Size 25& RB Offset 0 16QAM-High CH)

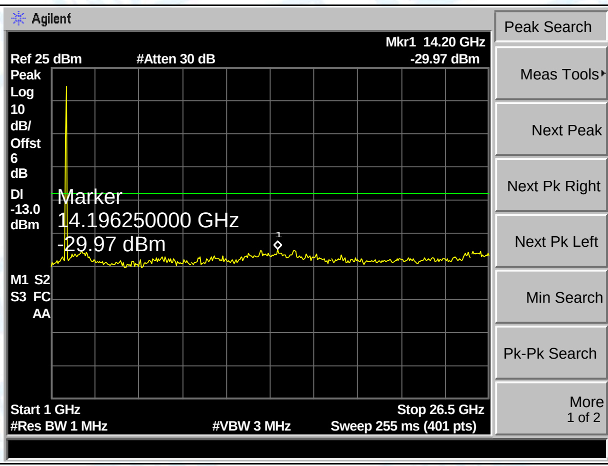




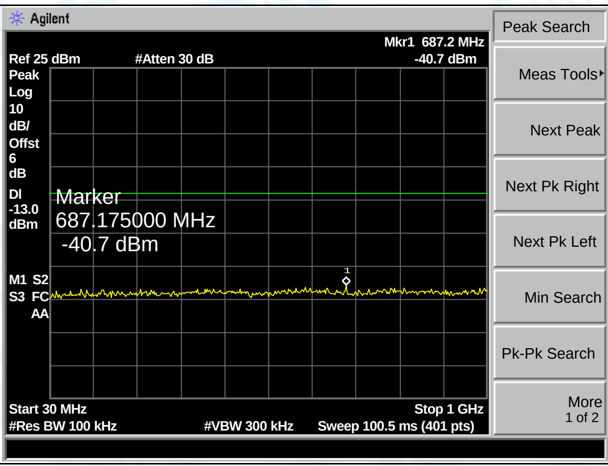
30MHz-1GHz	1GHz-26.5GHz

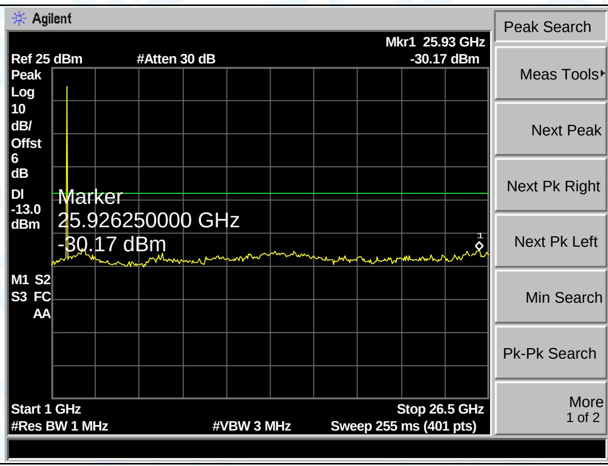
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-Low CH)



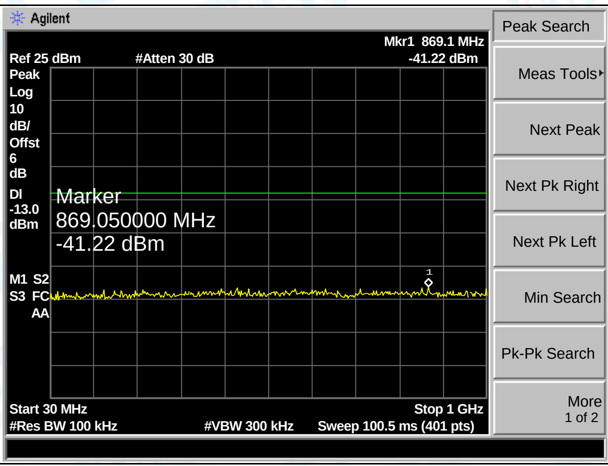


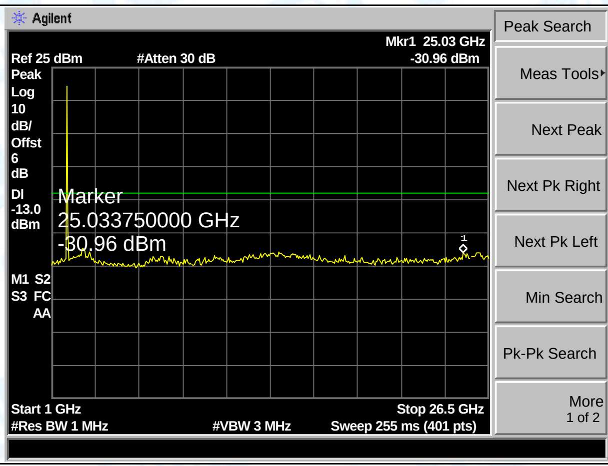
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-Middle CH)





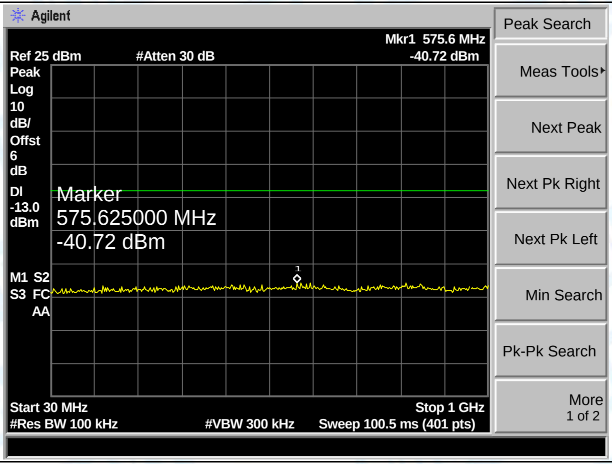
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 QPSK-High CH)

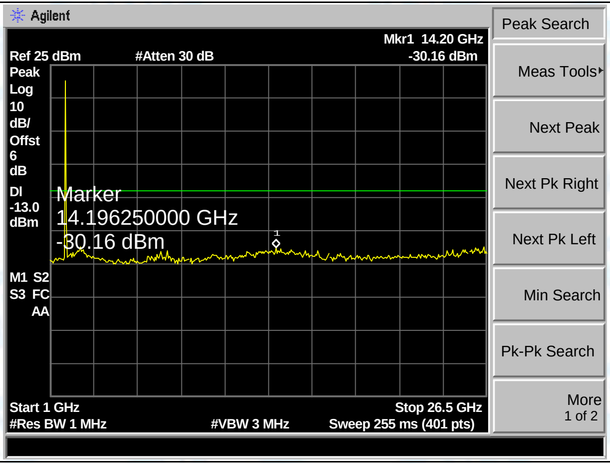




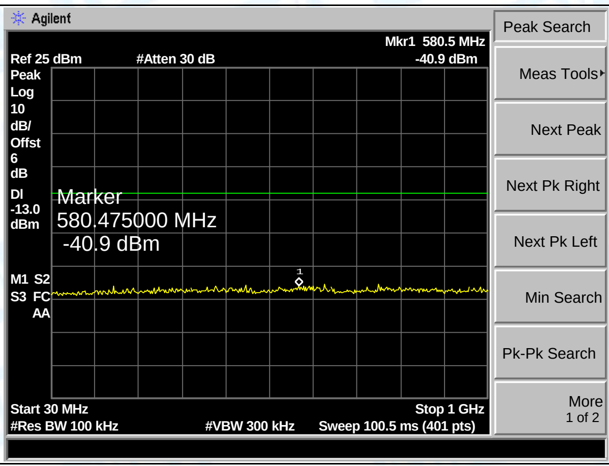
30MHz-1GHz	1GHz-26.5GHz

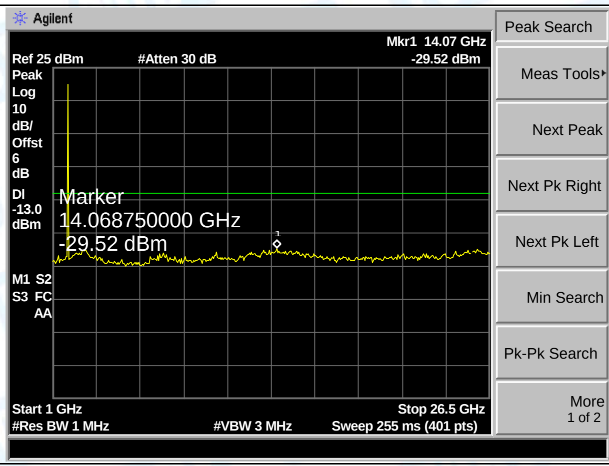
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 16QAM-Low CH)



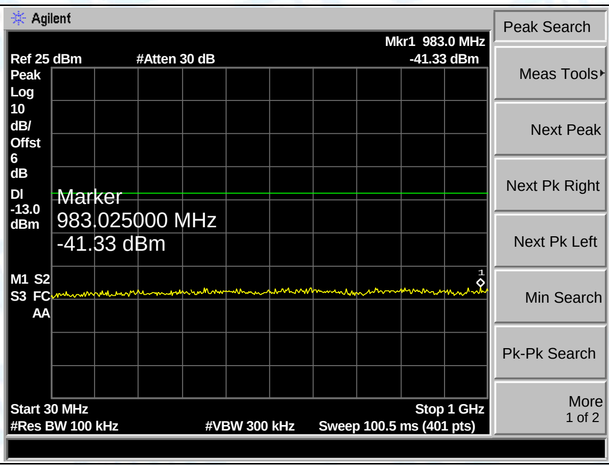


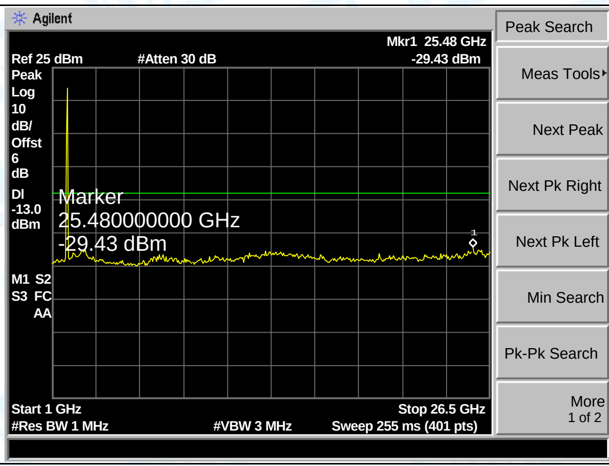
LTE BAND 2 (10MHz RB Size 50& RB Offset 0 16QAM-Middle CH)

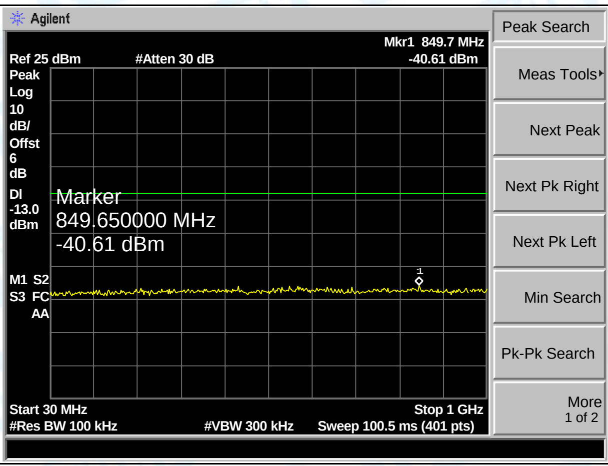
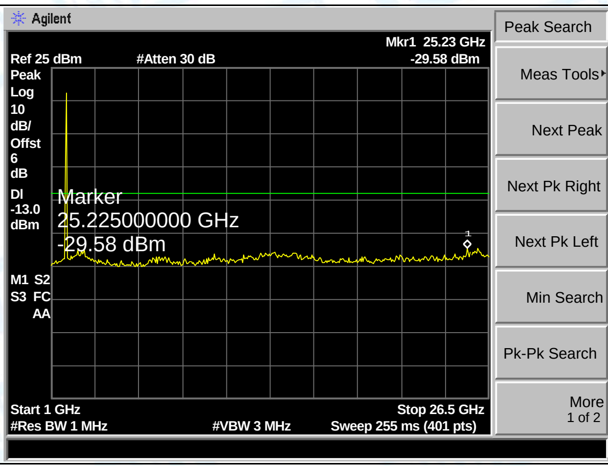




LTE BAND 2 (10MHz RB Size 50& RB Offset 0 16QAM-High CH)





30MHz-1GHz	1GHz-26.5GHz
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 QPSK-Low CH)	
	
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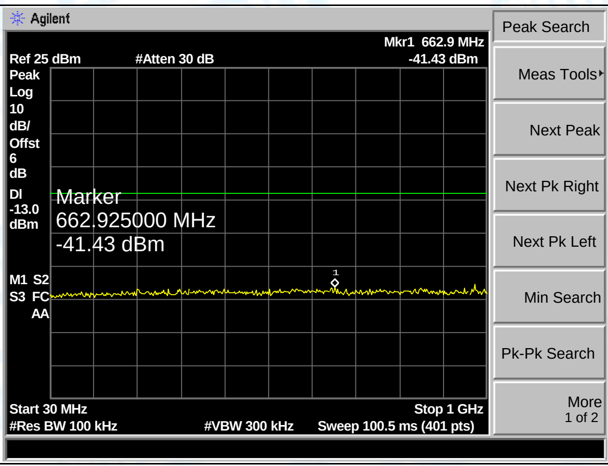	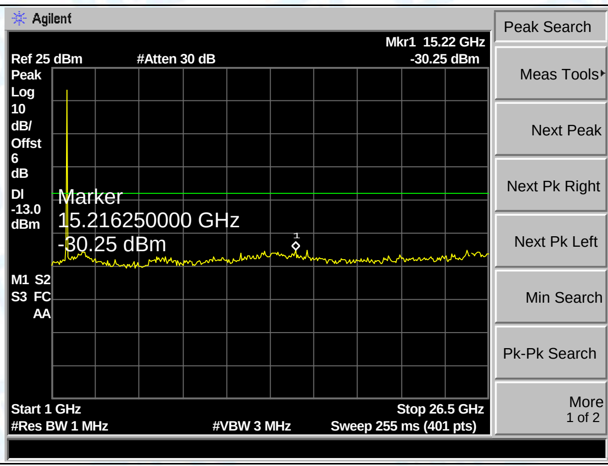
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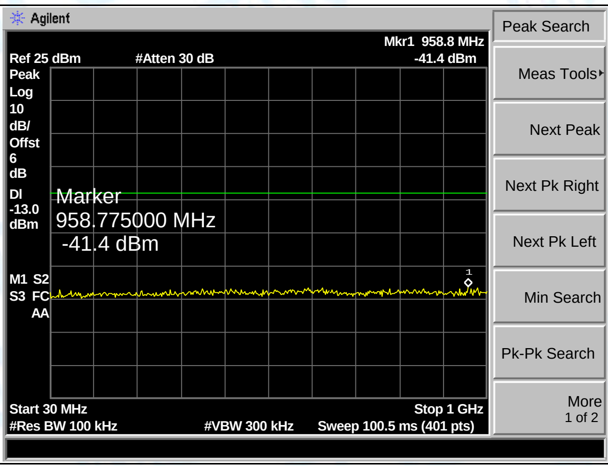
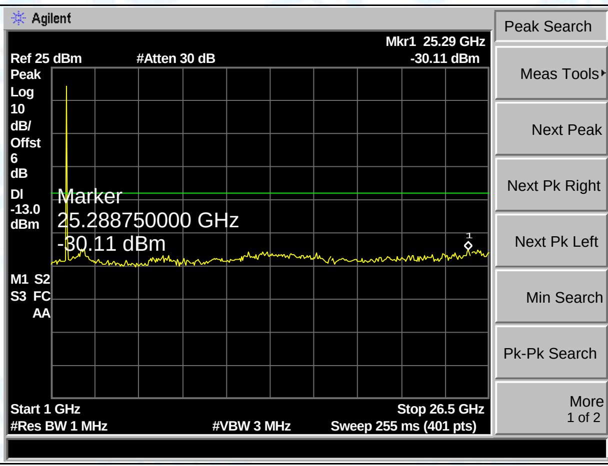
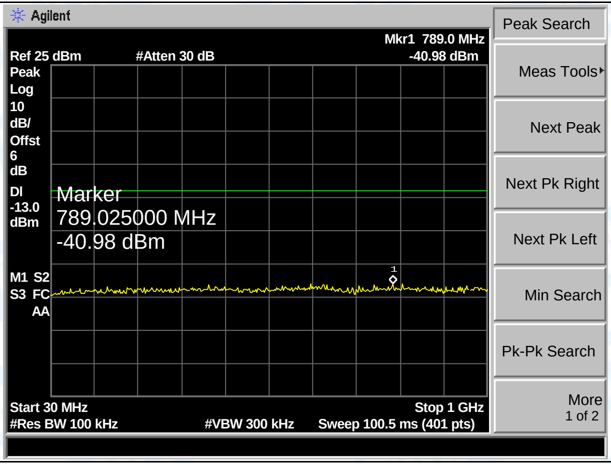
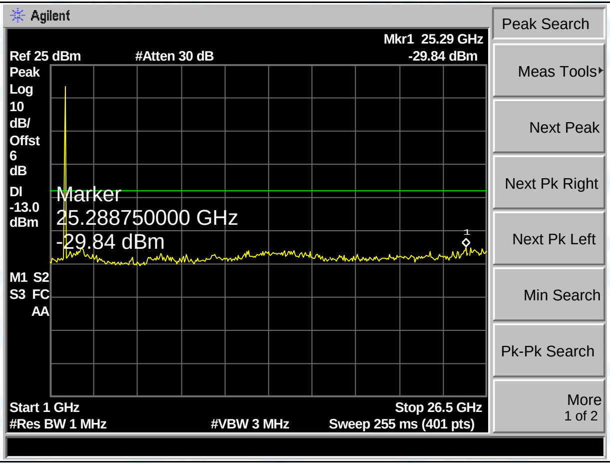
	

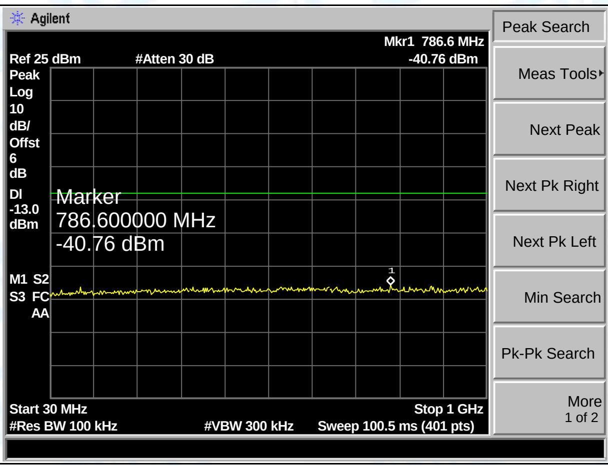
30MHz-1GHz	1GHz-26.5GHz

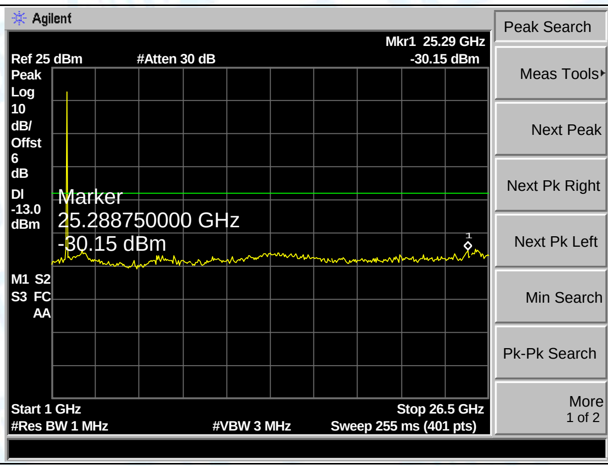
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 16QAM-Low CH)



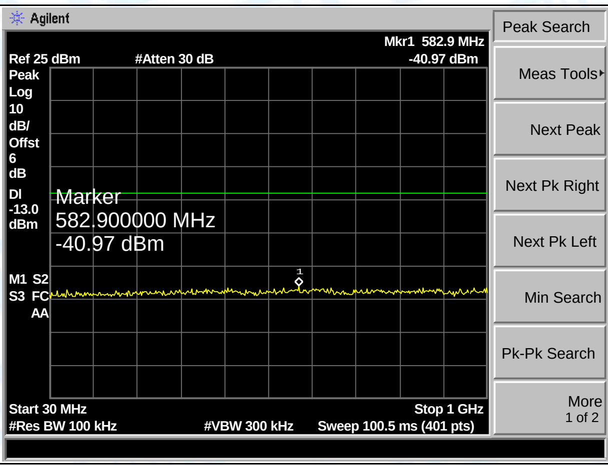


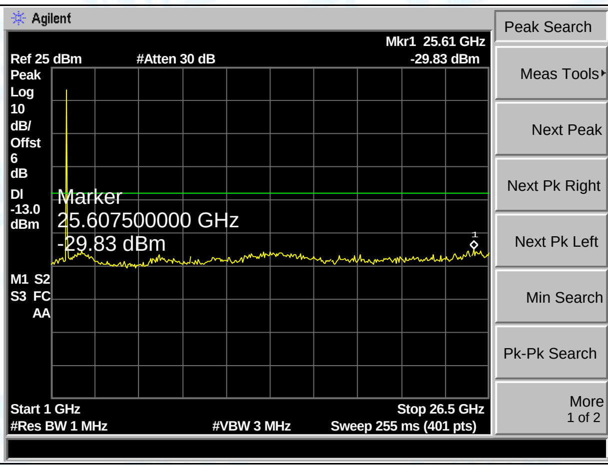
LTE BAND 2 (15MHz RB Size 75& RB Offset 0 16QAM-Middle CH)





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





30MHz-1GHz	1GHz-26.5GHz
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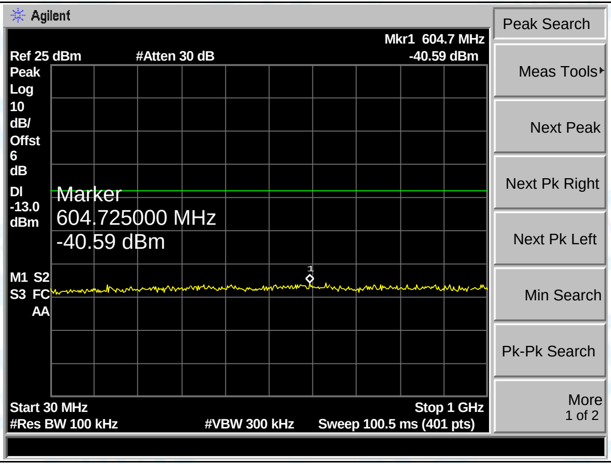
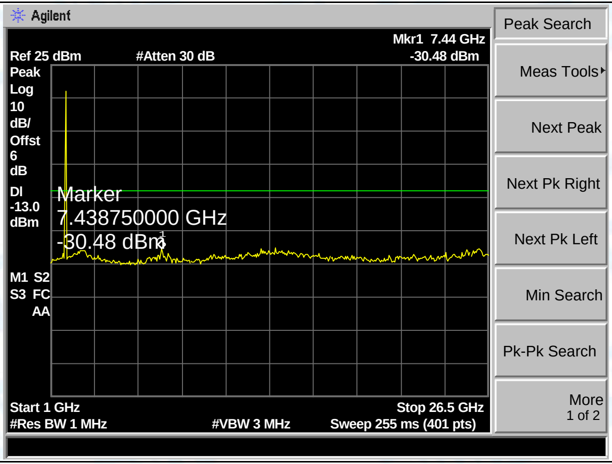
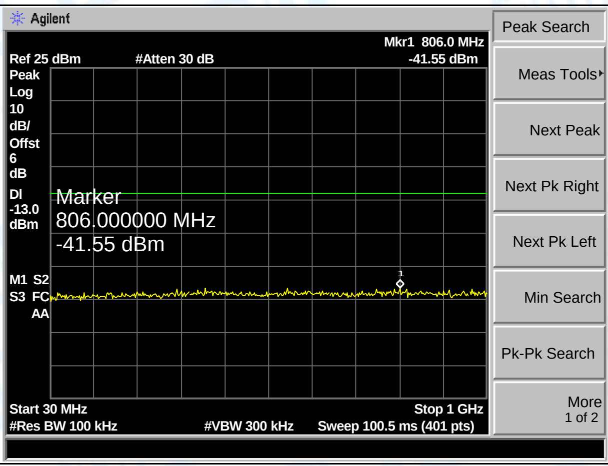
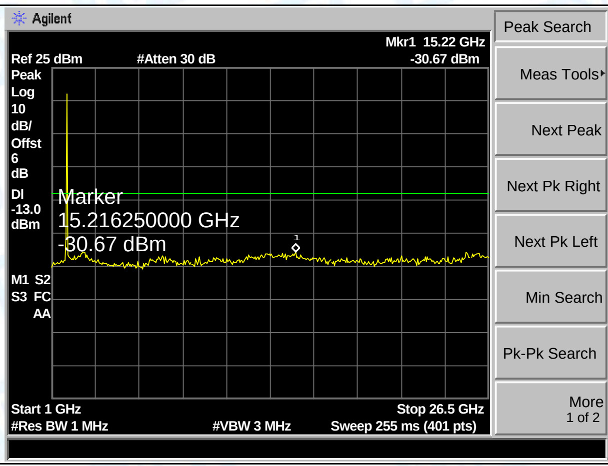
	
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 QPSK-Middle CH)	
	
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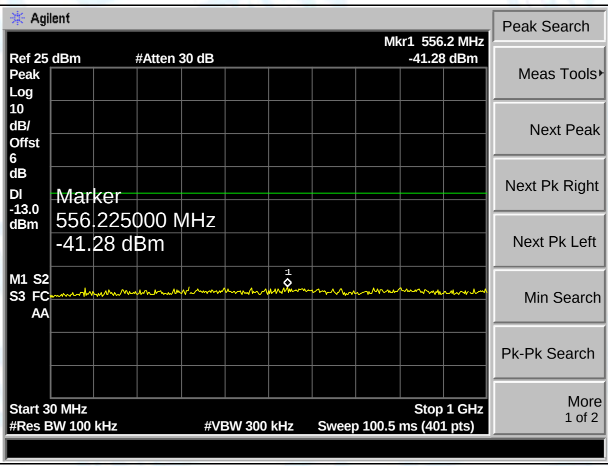
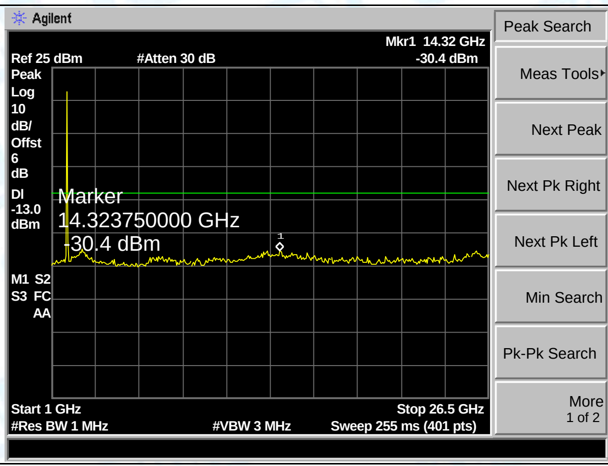
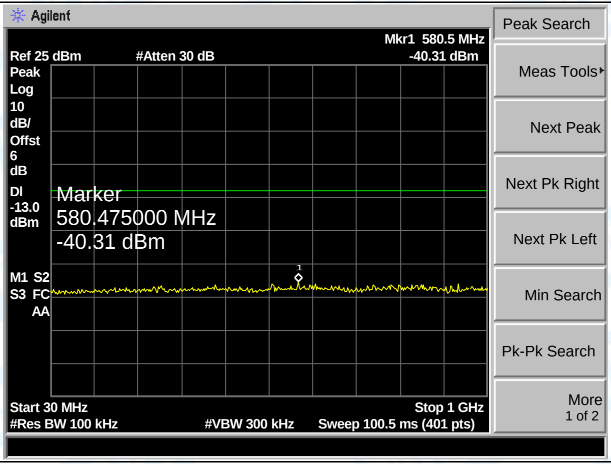
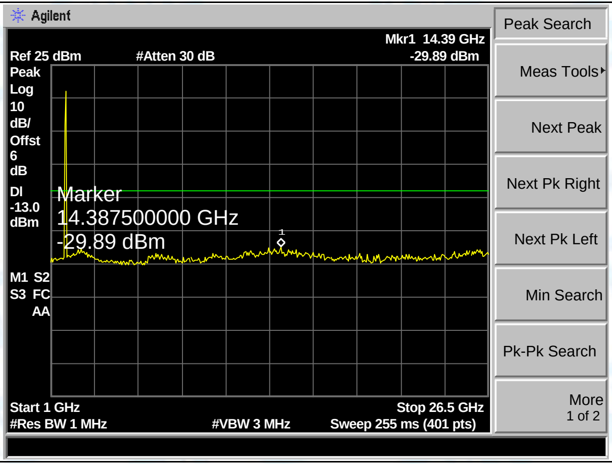
	

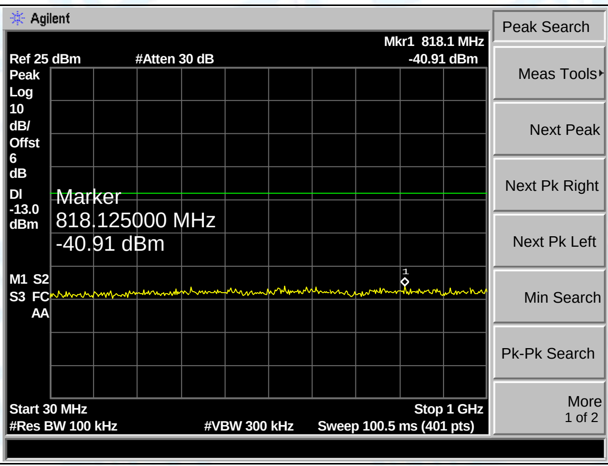
30MHz-1GHz	1GHz-26.5GHz

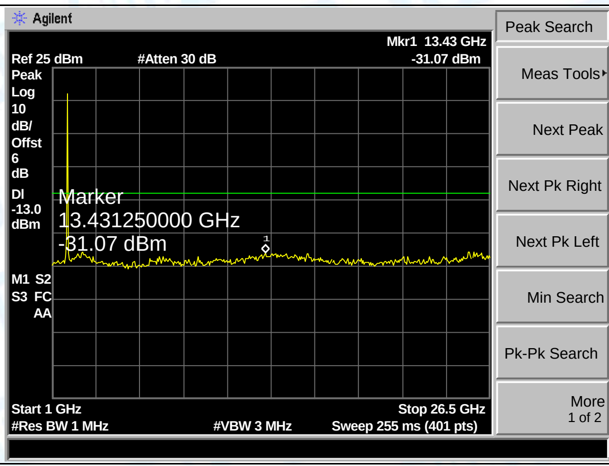
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 16QAM-Low CH)



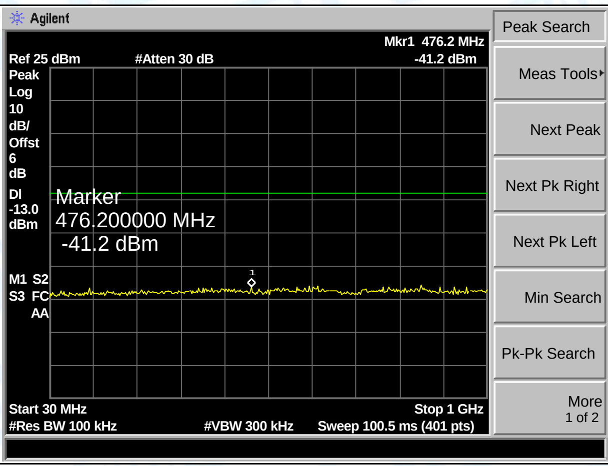


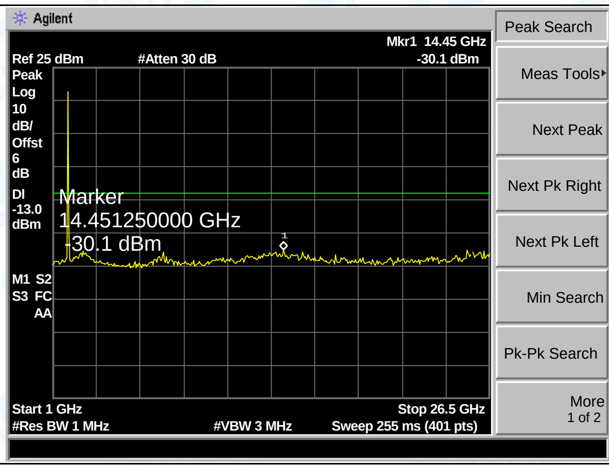
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 16QAM-Middle CH)





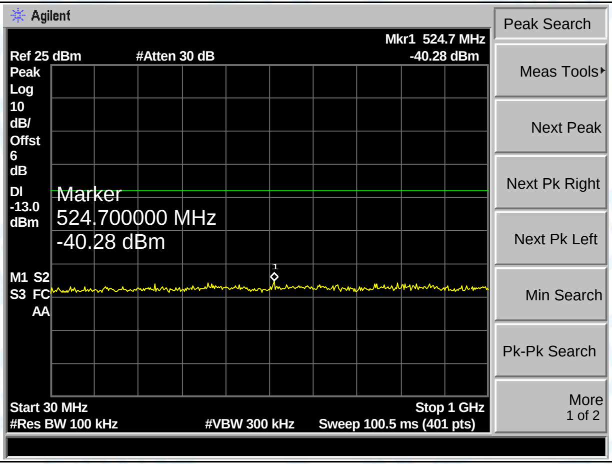
LTE BAND 2 (20MHz RB Size 100& RB Offset 0 16QAM-High CH)

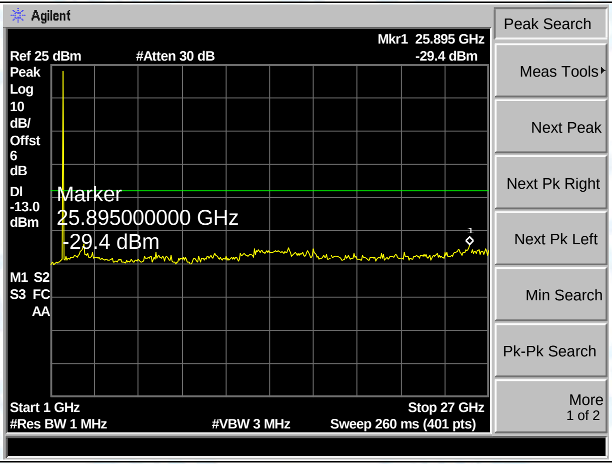




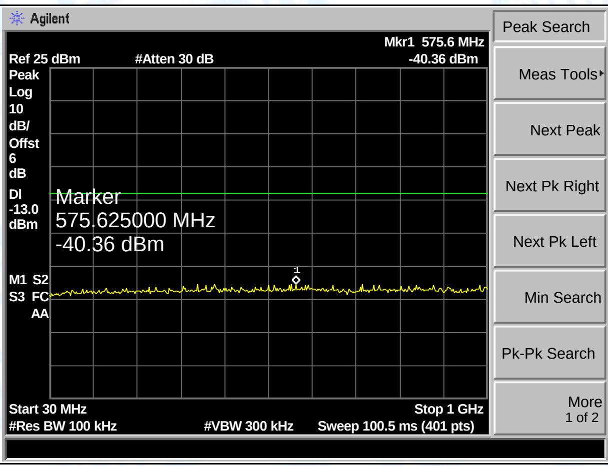
30MHz-1GHz	1GHz-26.5GHz

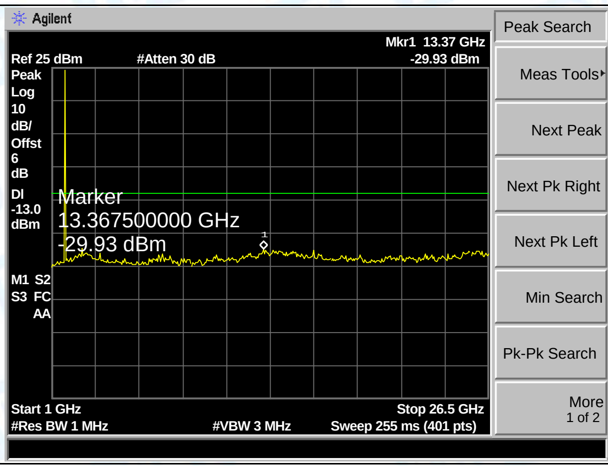
LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK-Low CH)



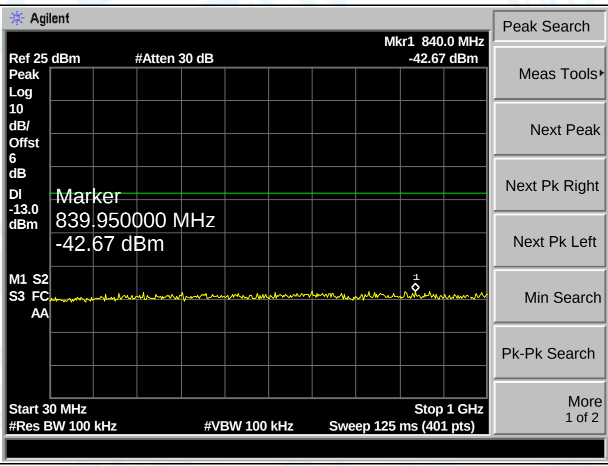


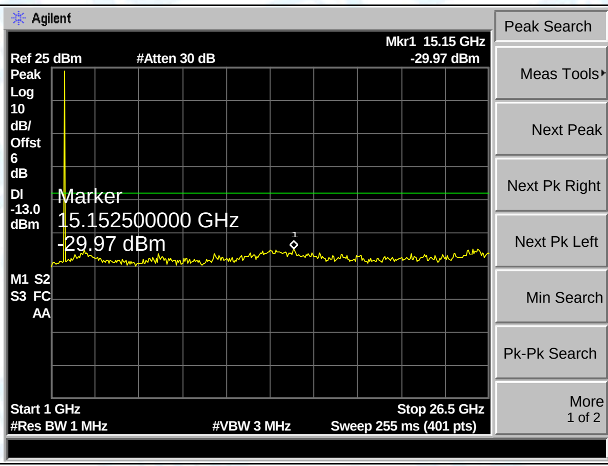
LTE BAND 4 (1.4MHz RB Size 6& RB Offset 0 QPSK-Middle CH)





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





<table>
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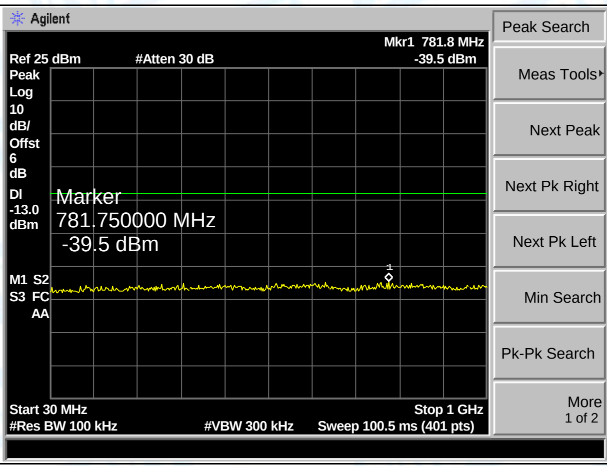
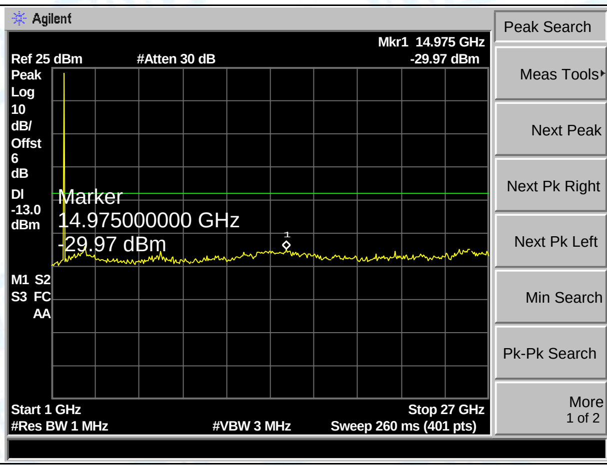
<tr><td>
</td><td>
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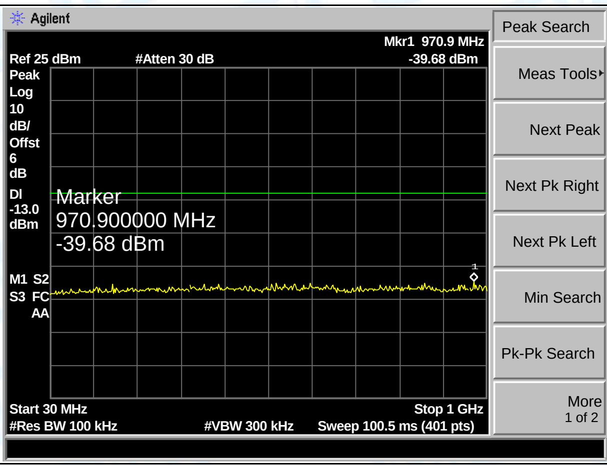
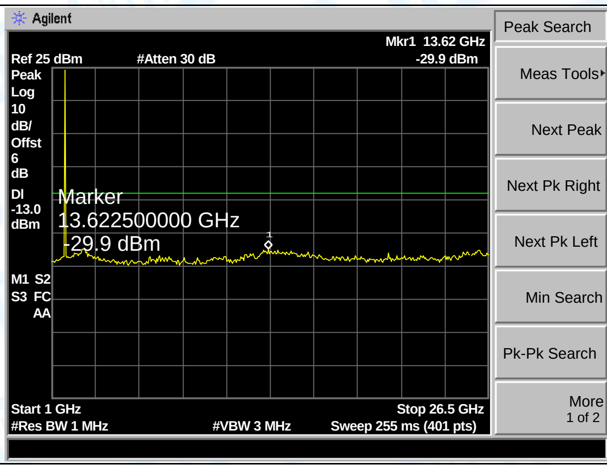
<tr><td>
</td><td>
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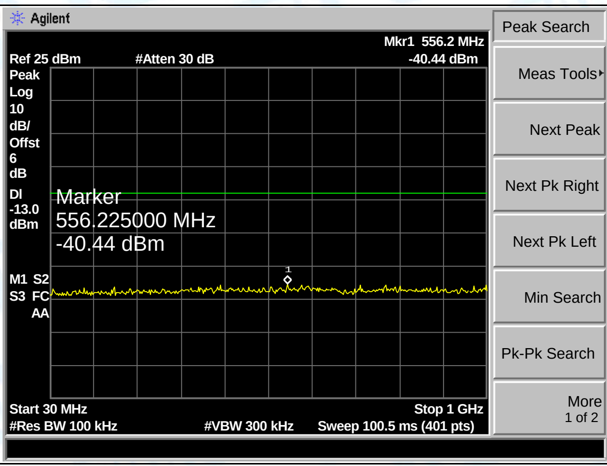
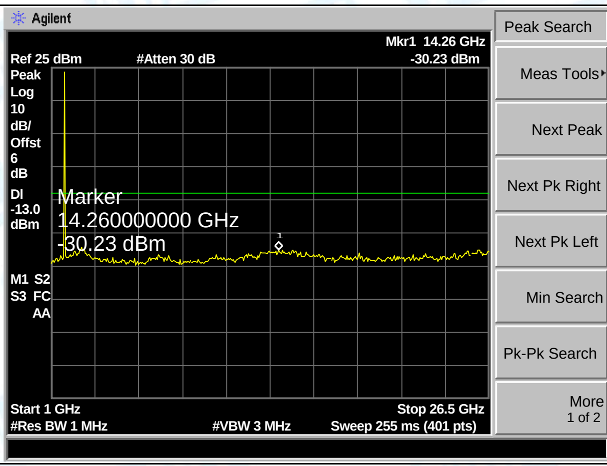
<tr><td>
</td><td>
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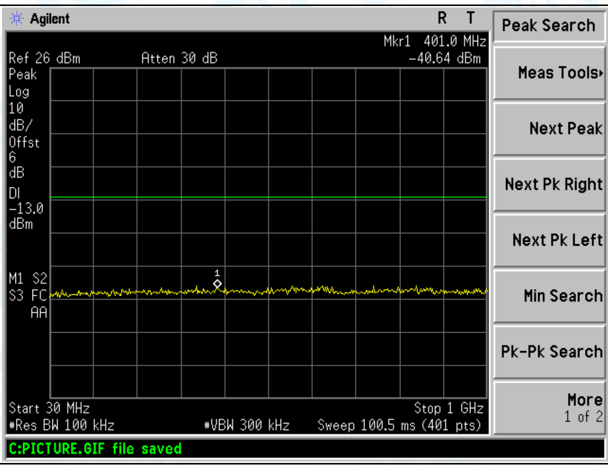
<tr><td>
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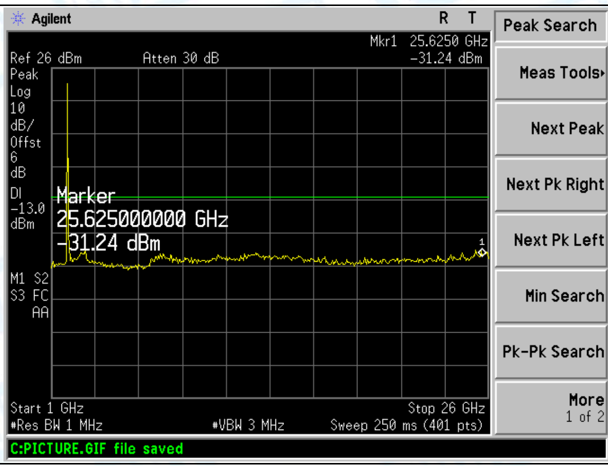
<td>
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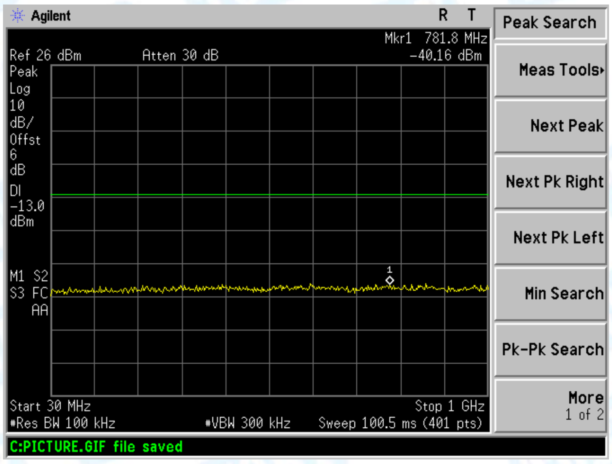
<tr><td>
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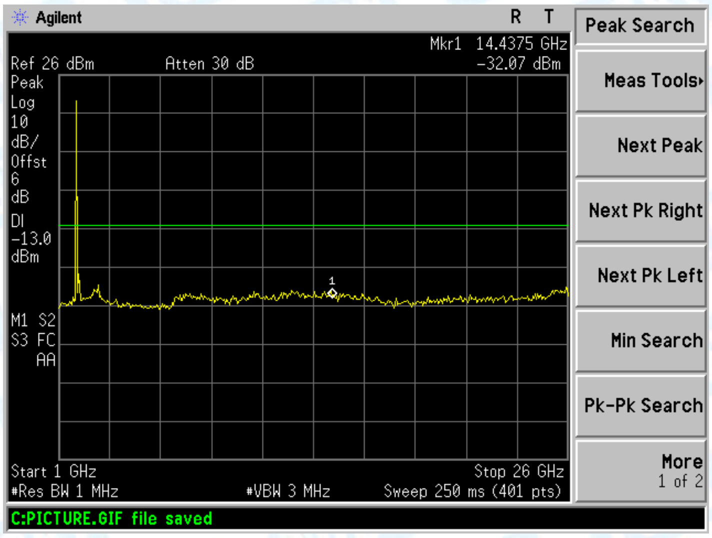
<td>
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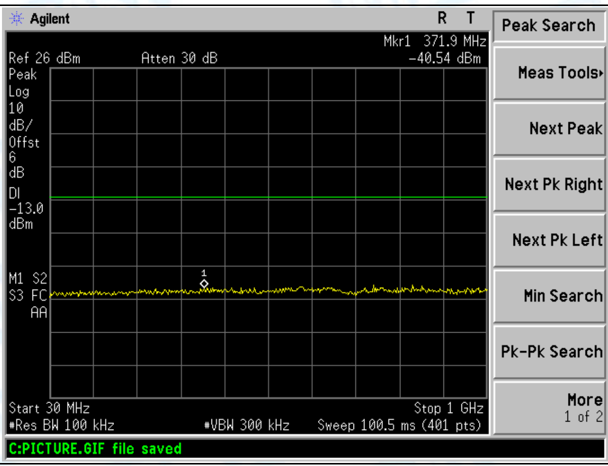
<tr><td>
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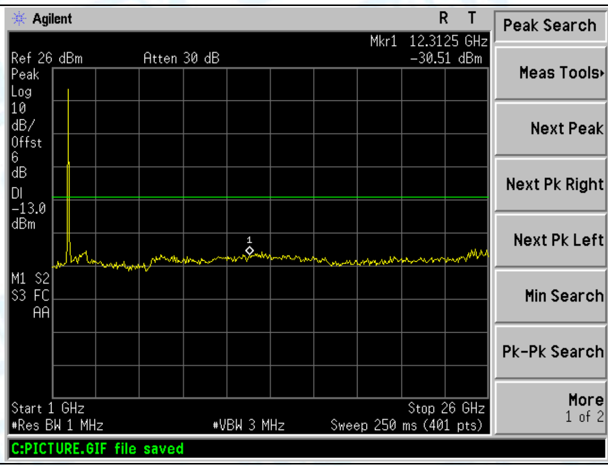
<td>
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30MHz-1GHz	1GHz-26.5GHz
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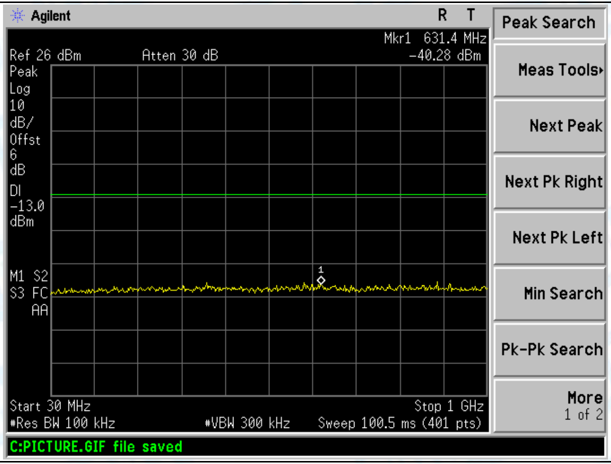	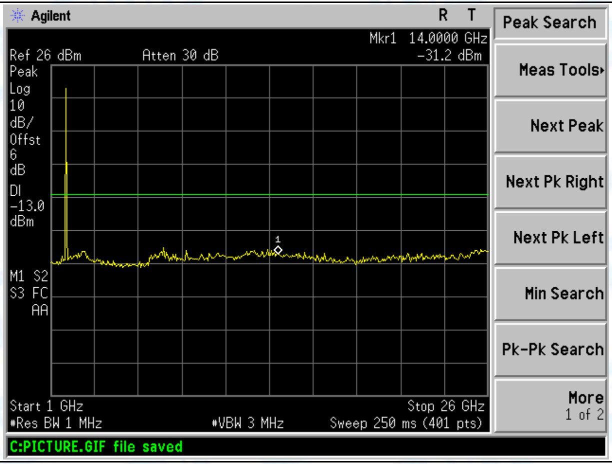
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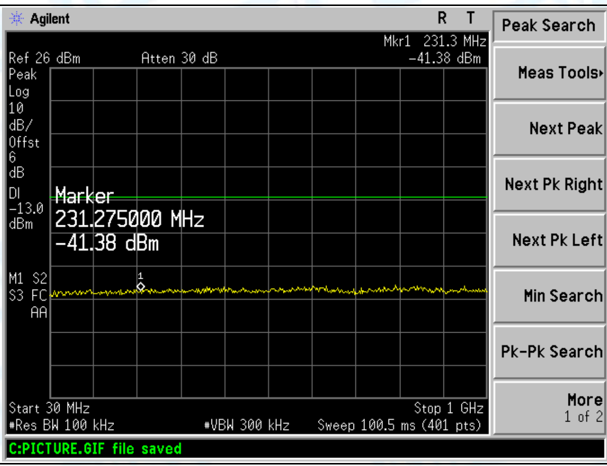	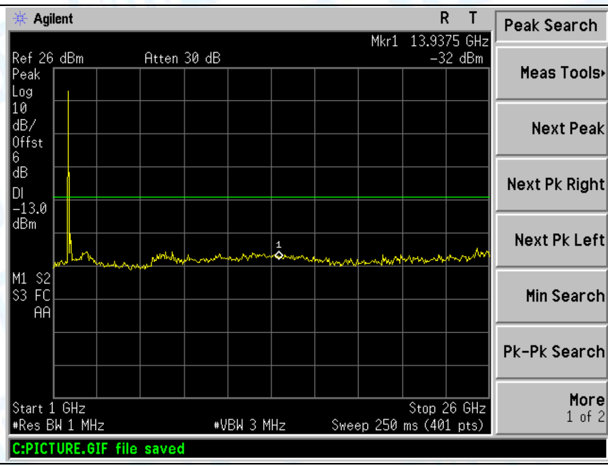
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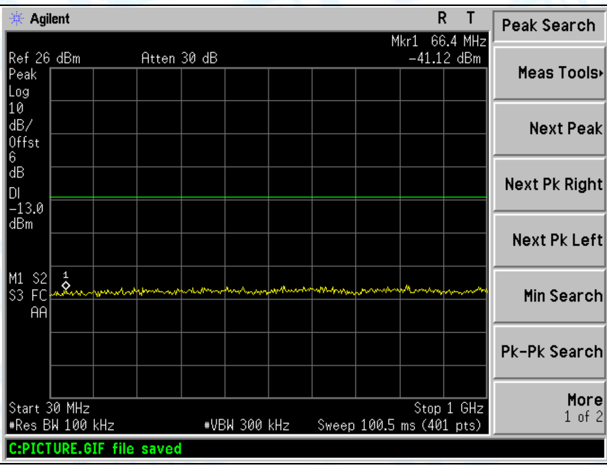	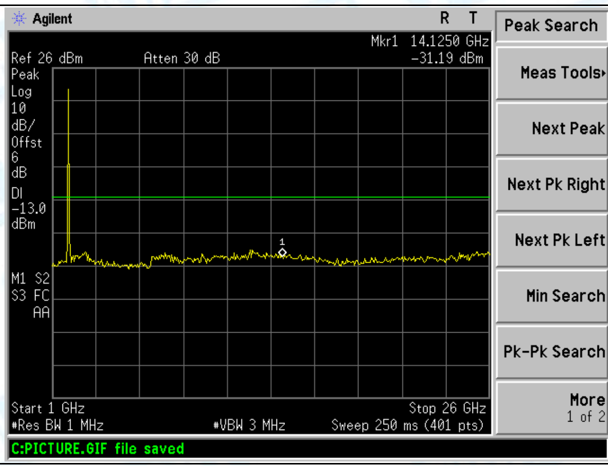

30MHz-1GHz	1GHz-26.5GHz
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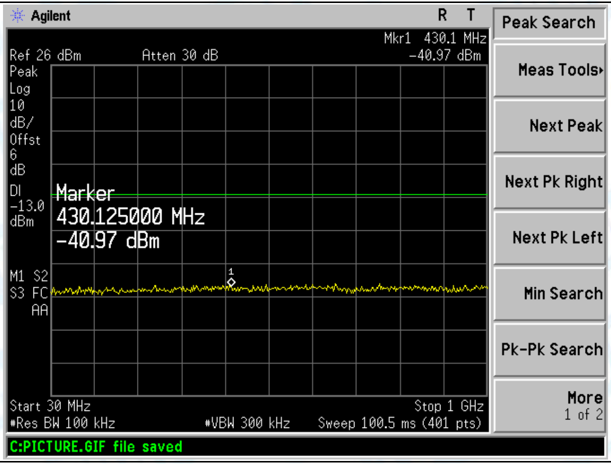
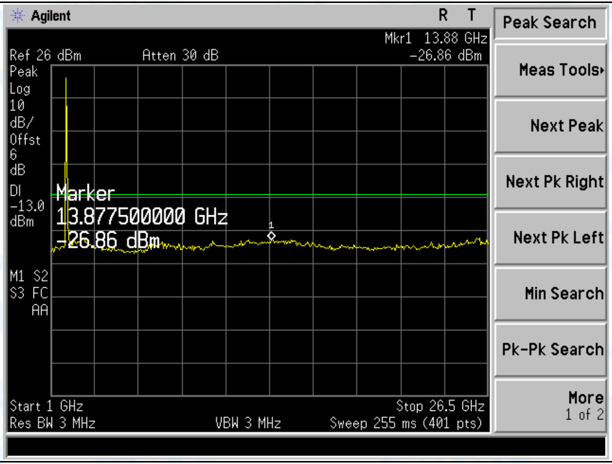
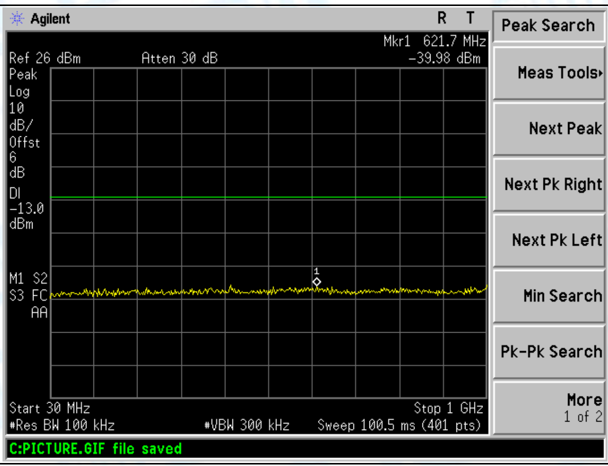
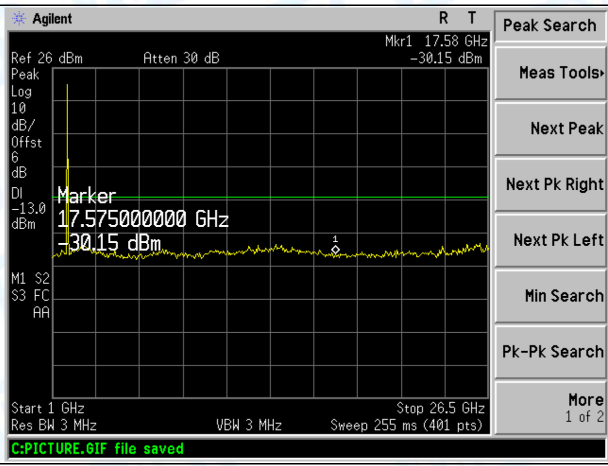
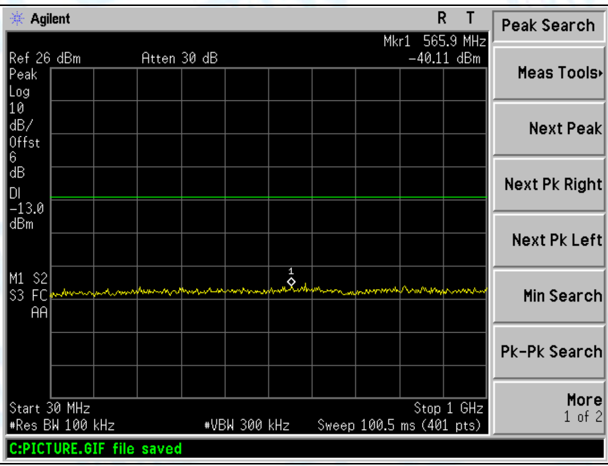
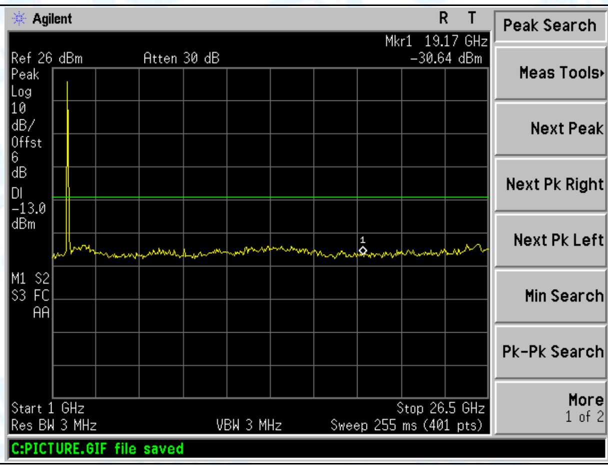
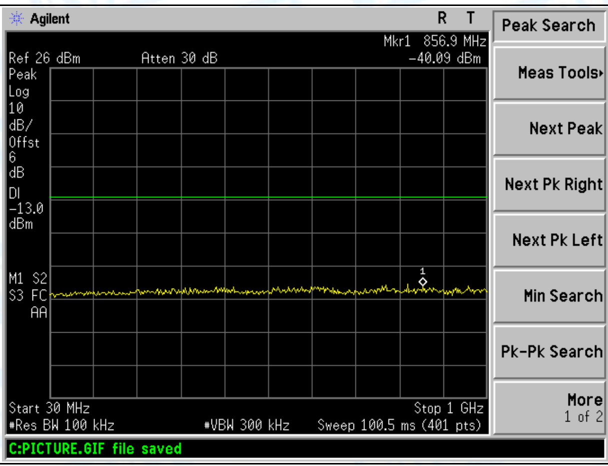
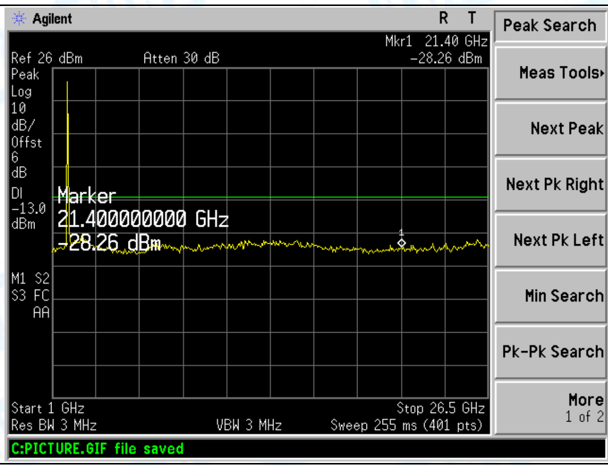
	
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK-Middle CH)	
	
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK-High CH)	
	

30MHz-1GHz	1GHz-26.5GHz
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 16QAM-Low CH)	
	
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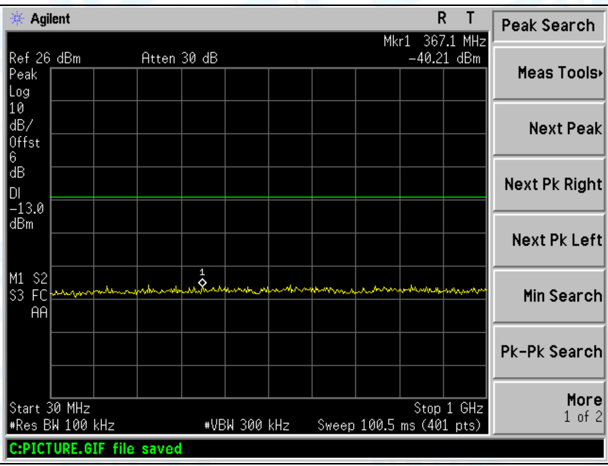	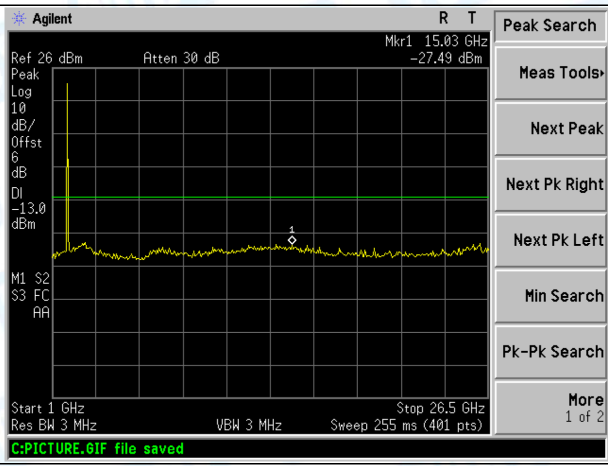
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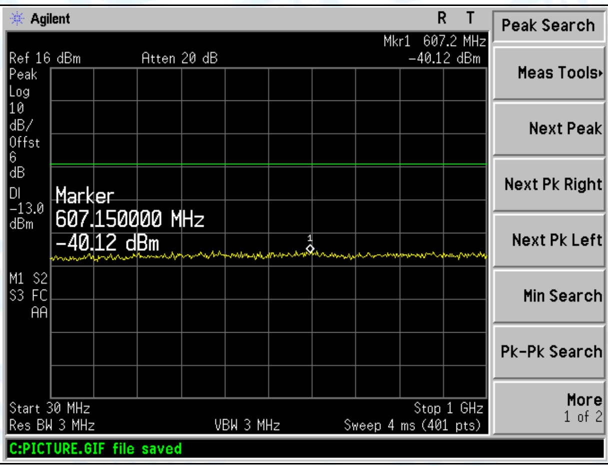	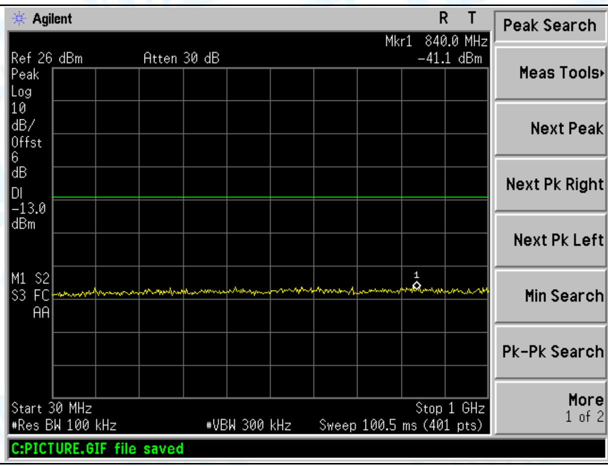

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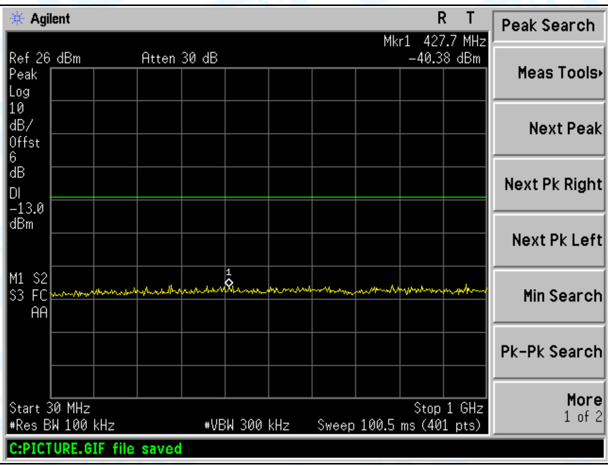

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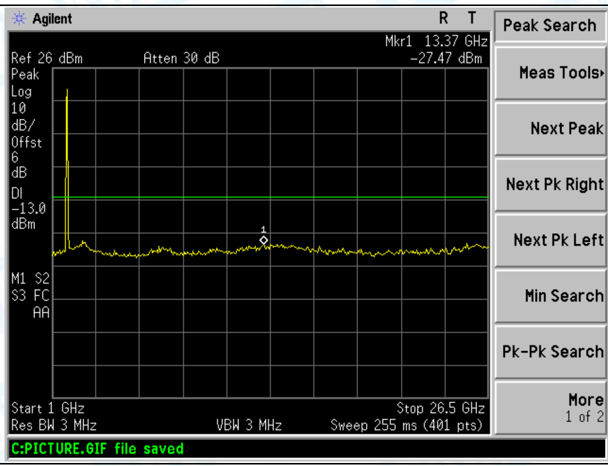

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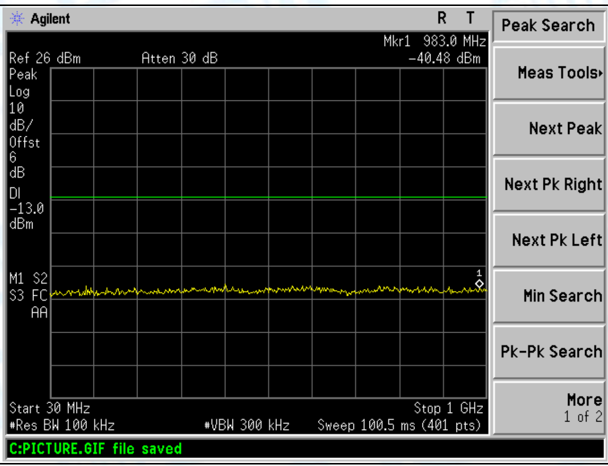

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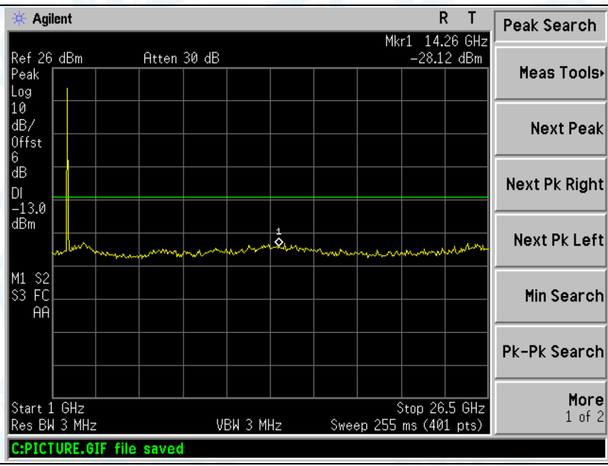

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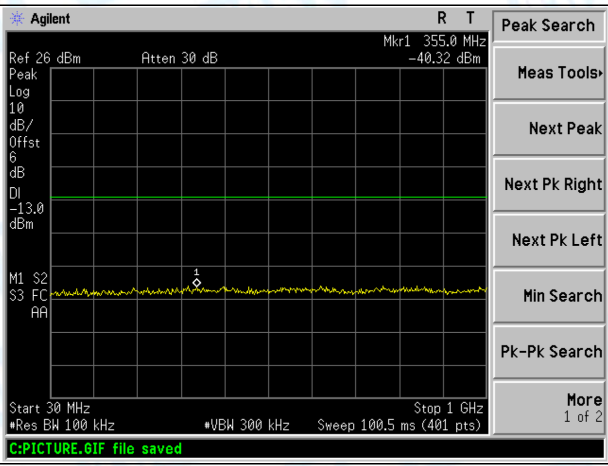

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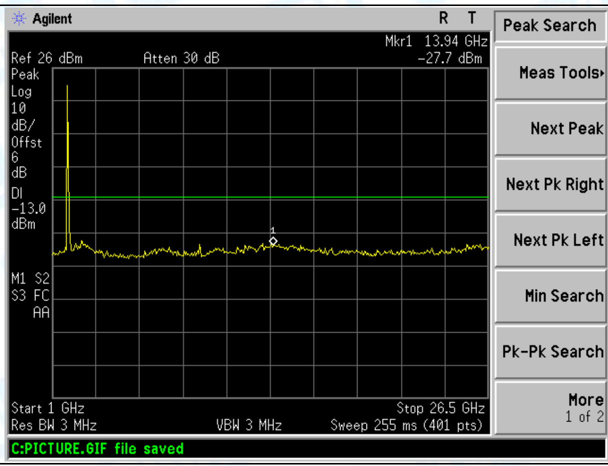

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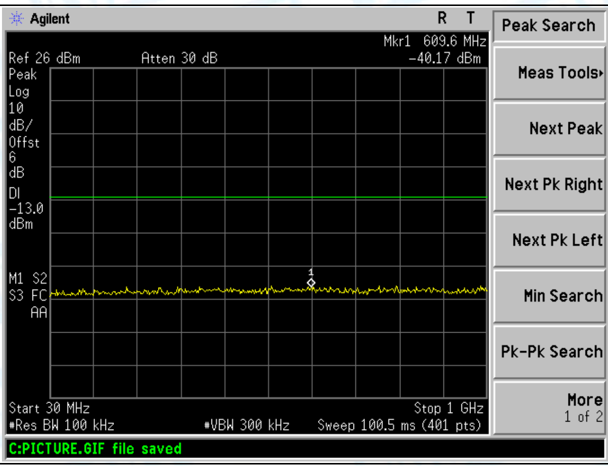
<tr><td>
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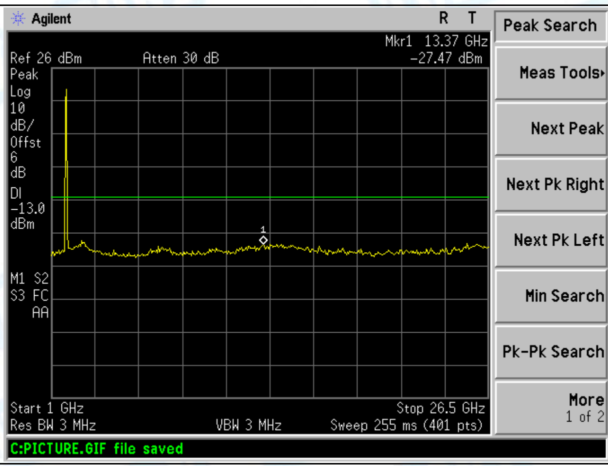
<td>
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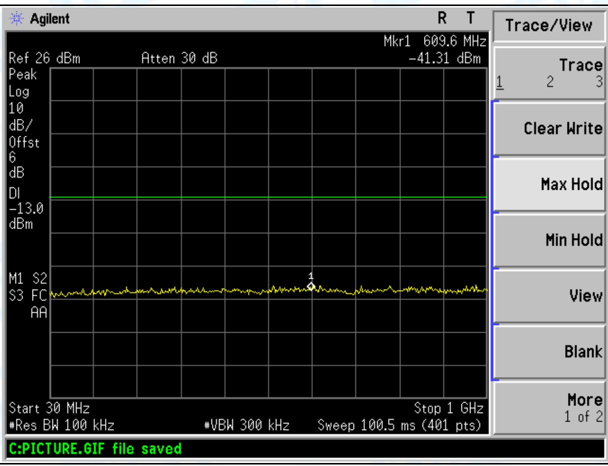
<tr><td>
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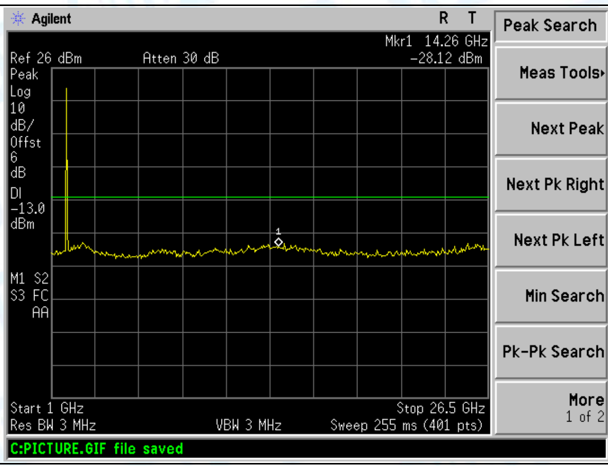
<td>
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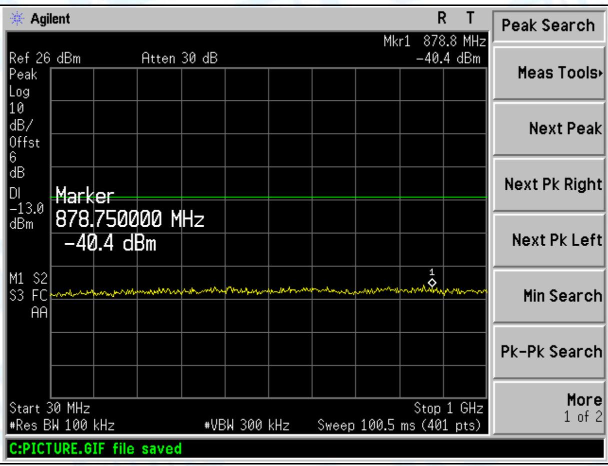
<tr><td>
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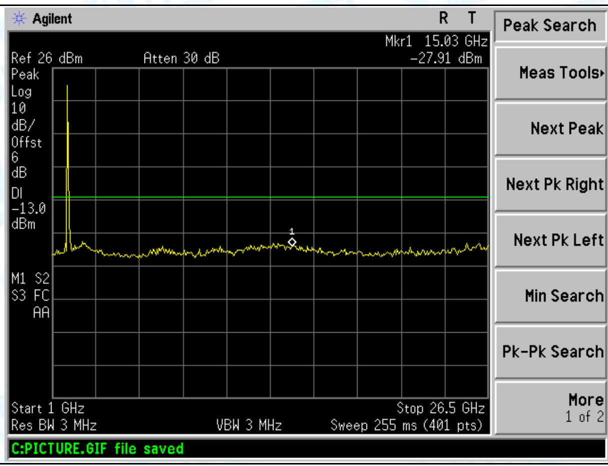
<td>
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30MHz-1GHz	1GHz-26.5GHz
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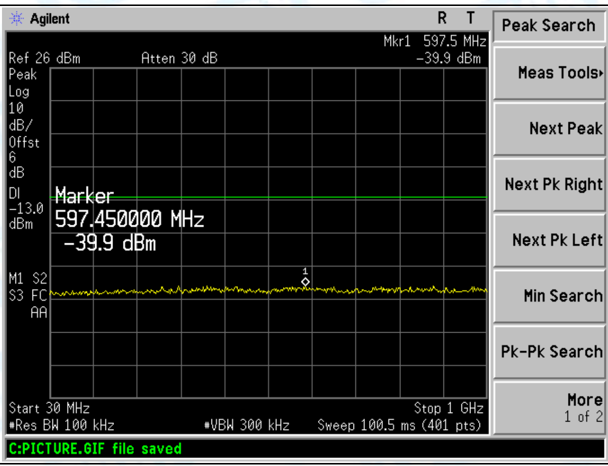	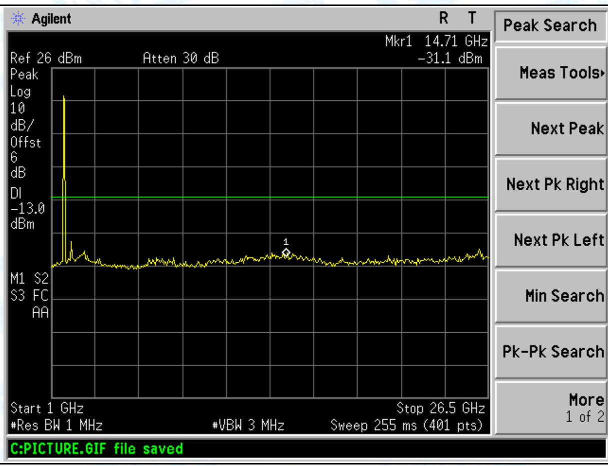
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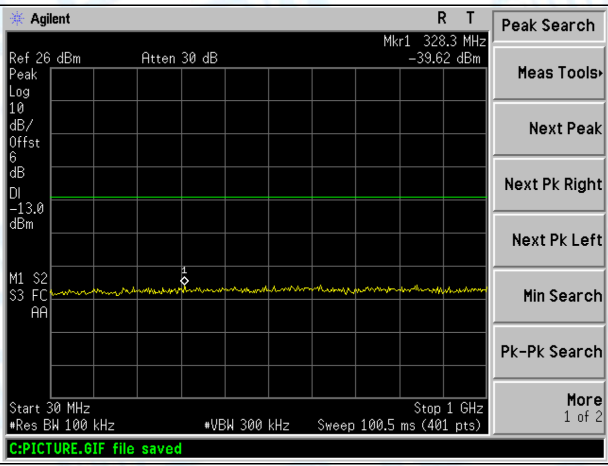
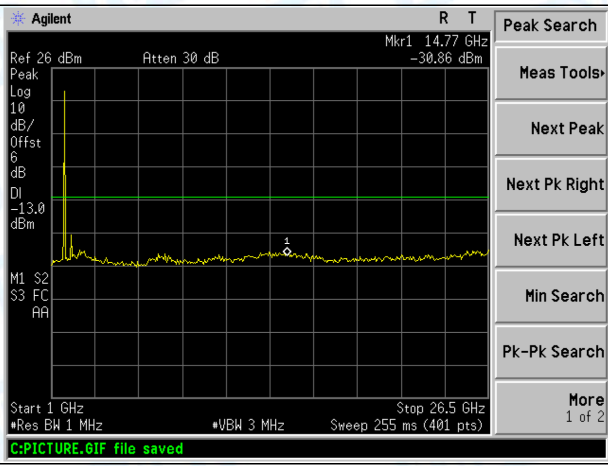
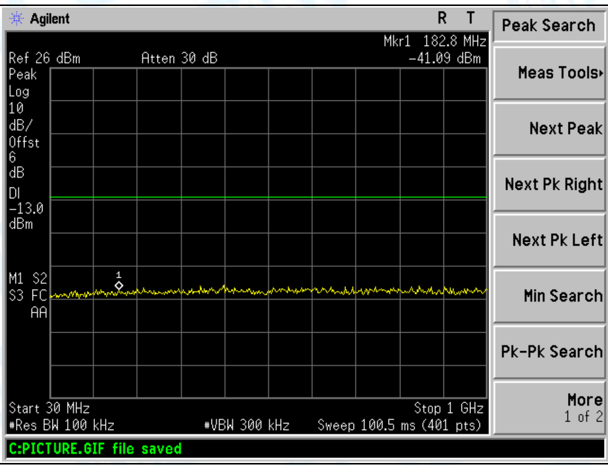
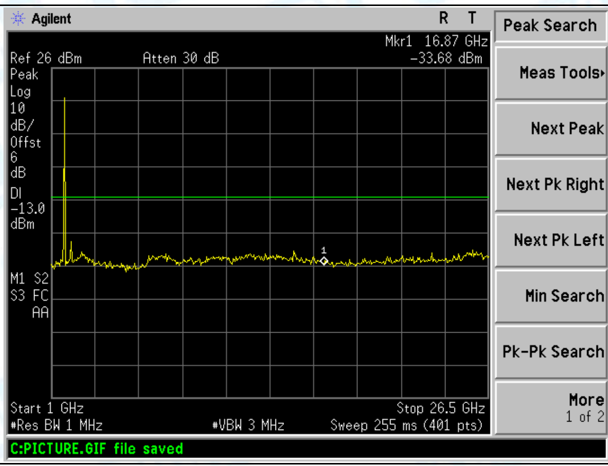
	
LTE BAND 4 (15MHz RB Size 75& RB Offset 0 QPSK-High CH)	
	

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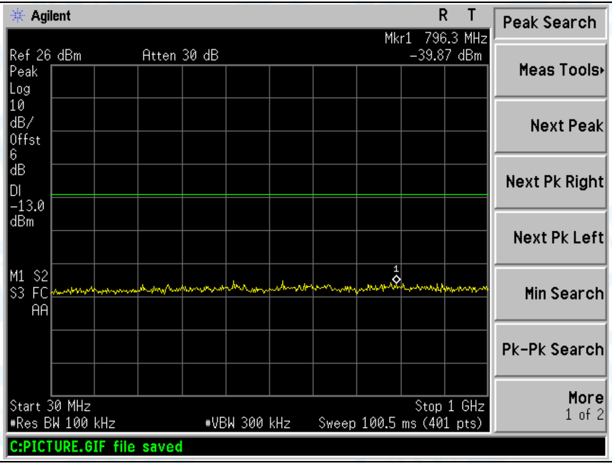
<tr><td>
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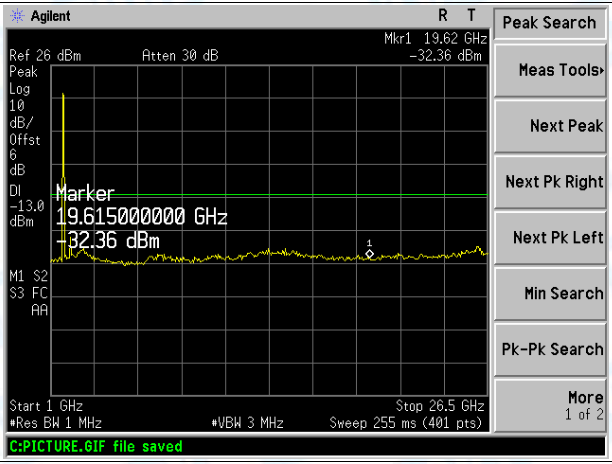
<td>
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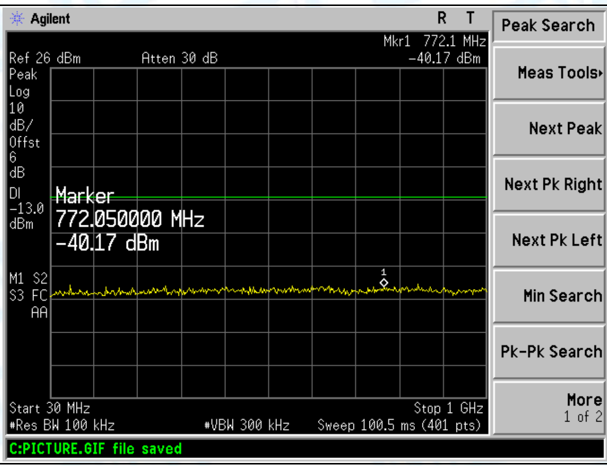
<tr><td>
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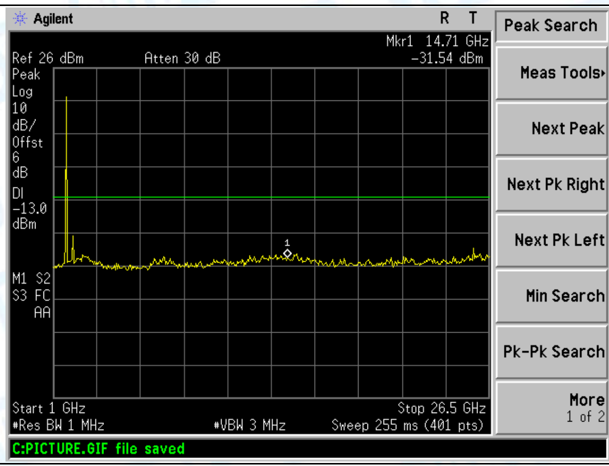
<td>
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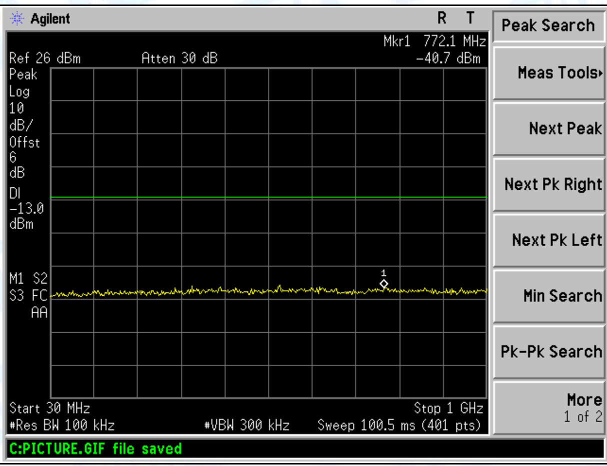
<tr><td>
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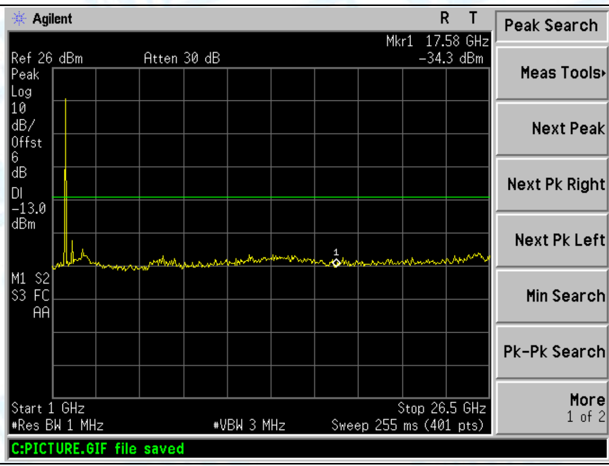
<td>
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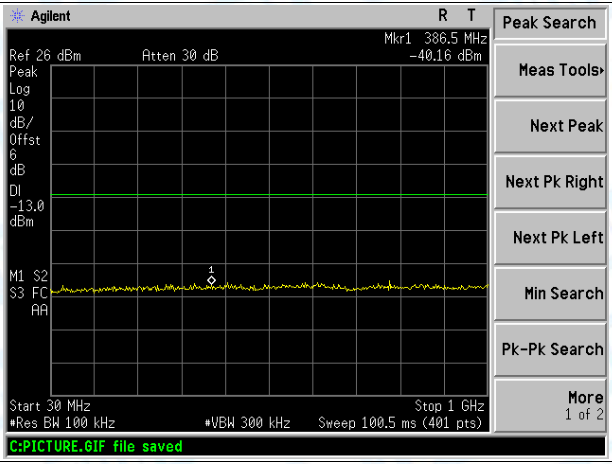
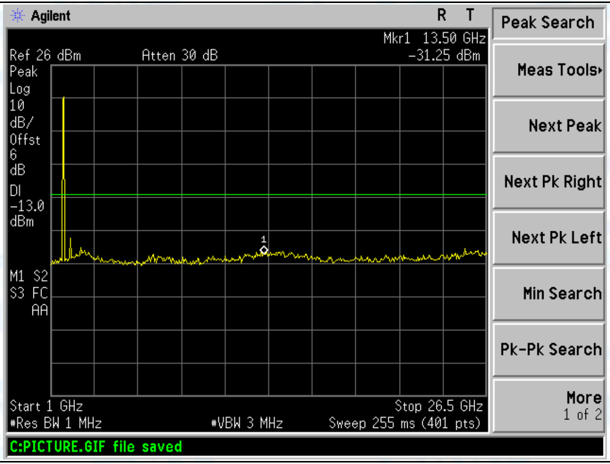
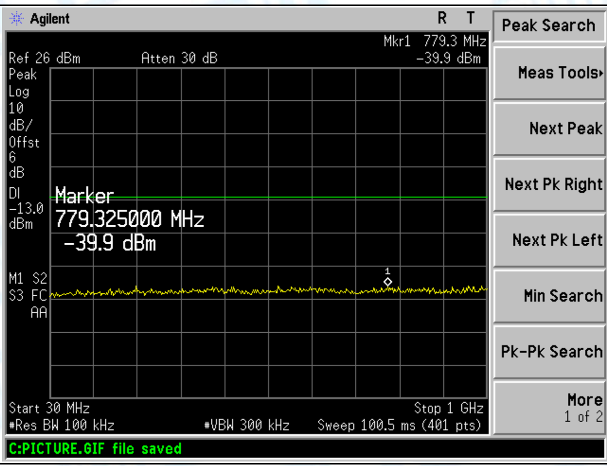
30MHz-1GHz	1GHz-26.5GHz

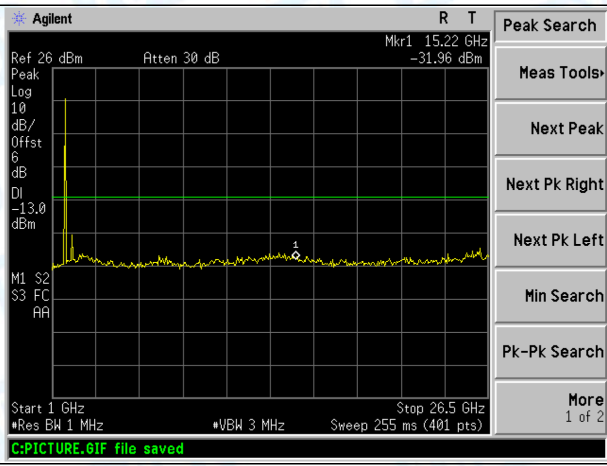
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-Low CH)



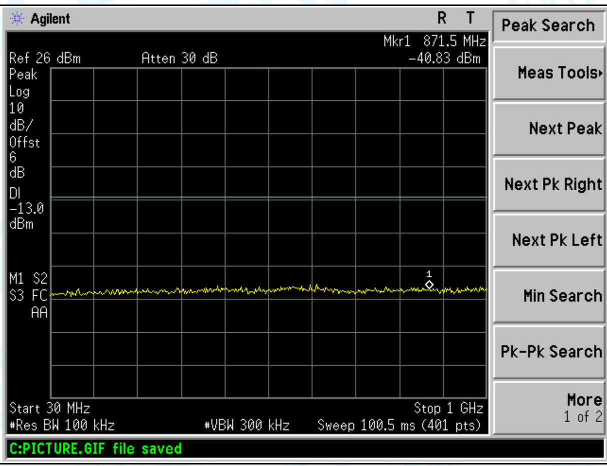


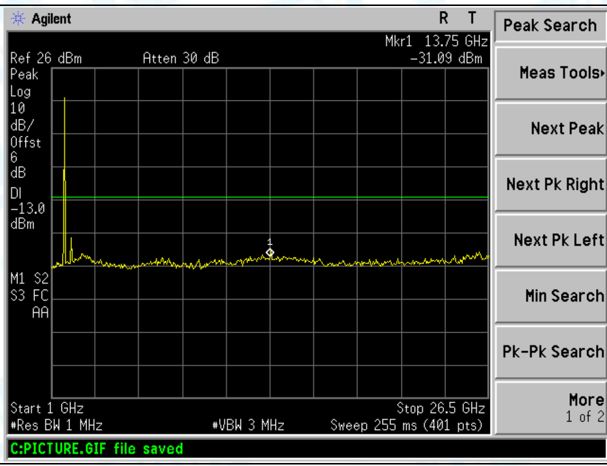
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-Middle CH)





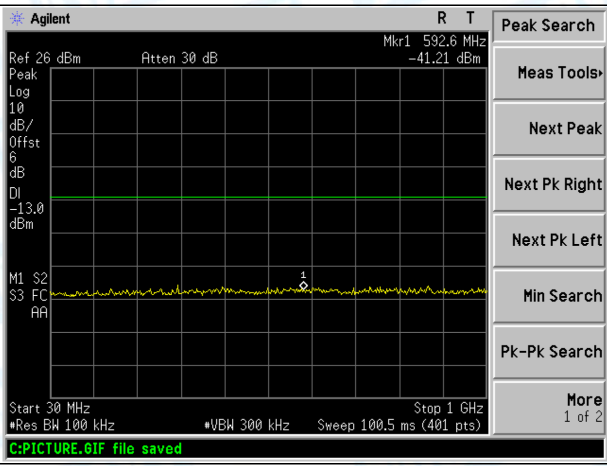
LTE BAND 4 (20MHz RB Size 100& RB Offset 0 QPSK-High CH)

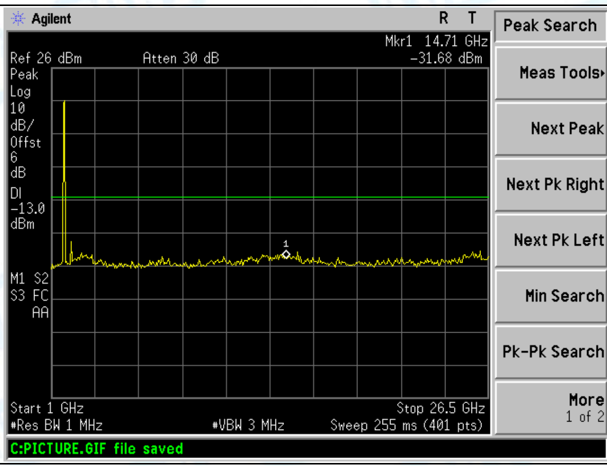




30MHz-1GHz	1GHz-26.5GHz

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





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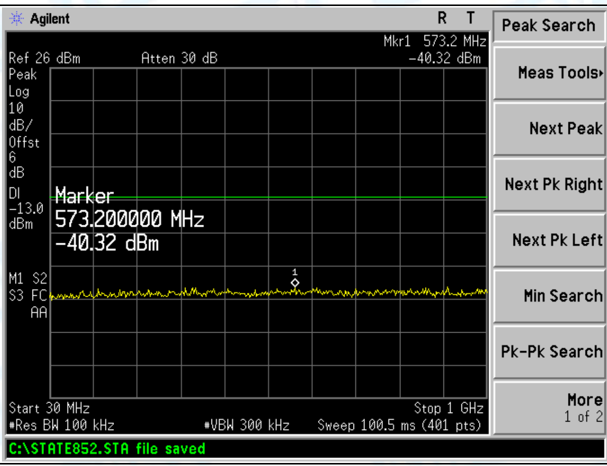
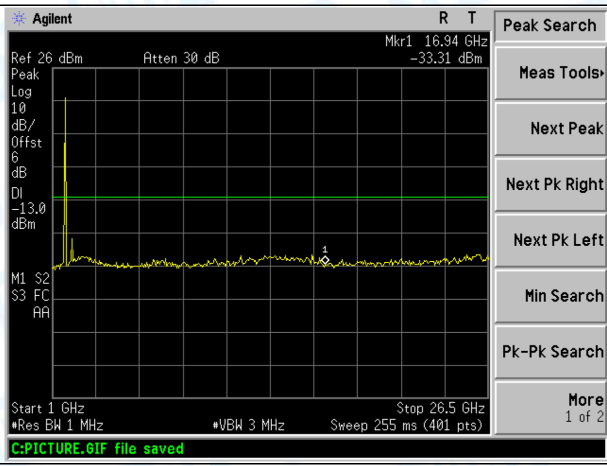
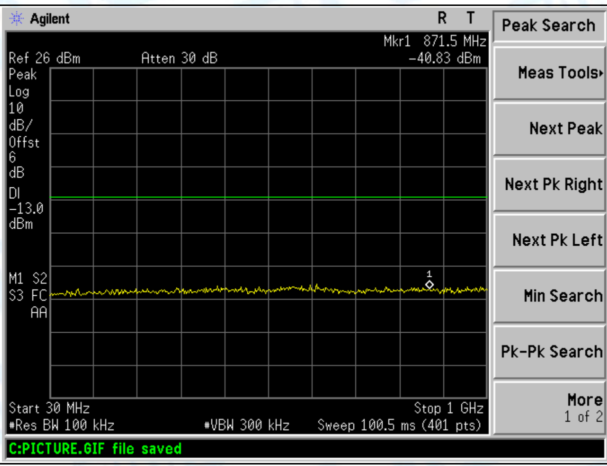
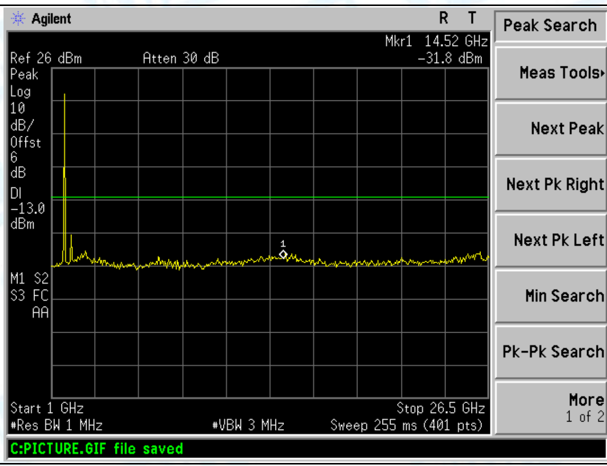
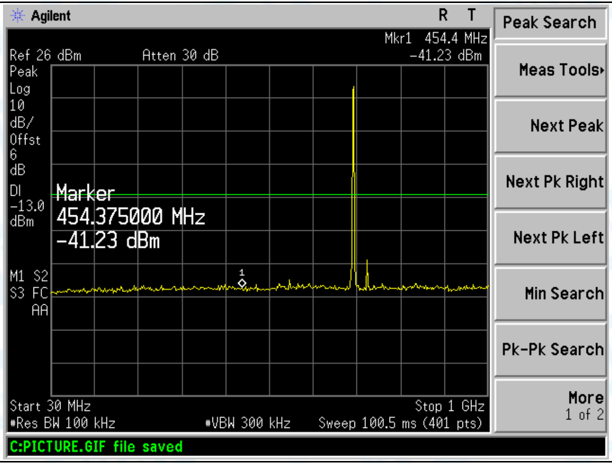
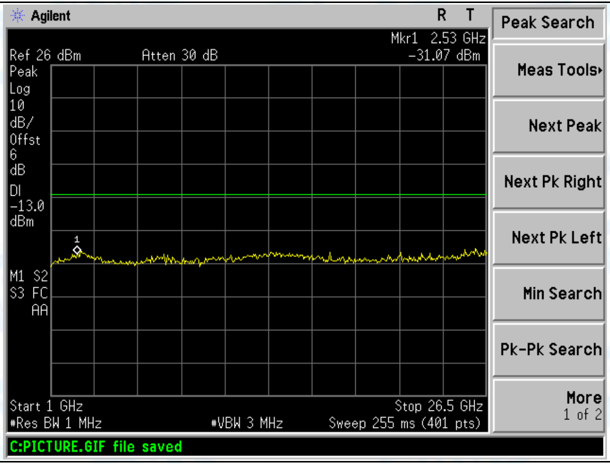




LTE BAND 4 (20MHz RB Size 100& RB Offset 0 16QAM-High CH)





30MHz-1GHz	1GHz-26.5GHz
LTE BAND 12 (1.4MHz RB Size 6& RB Offset 0 QPSK-Low CH)	
	
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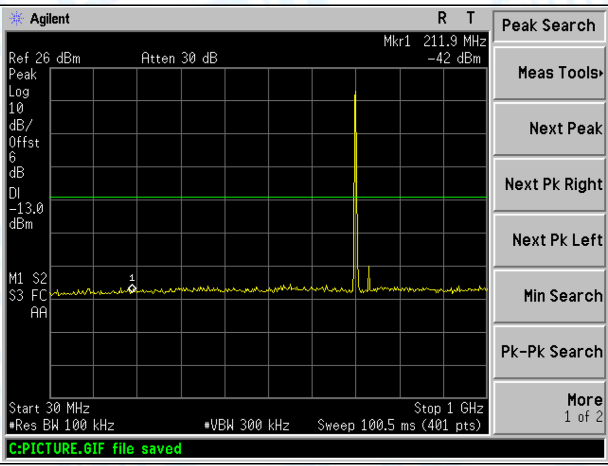	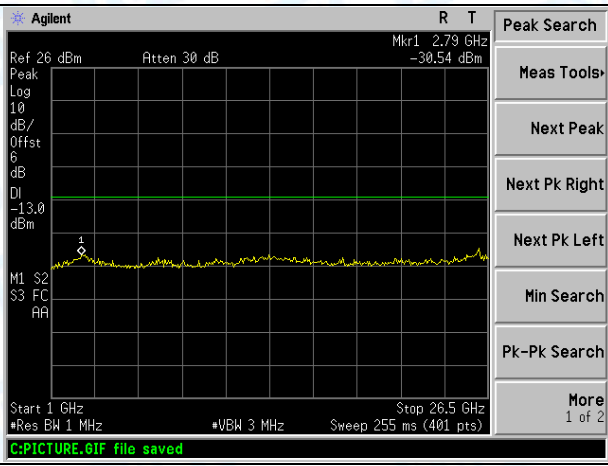
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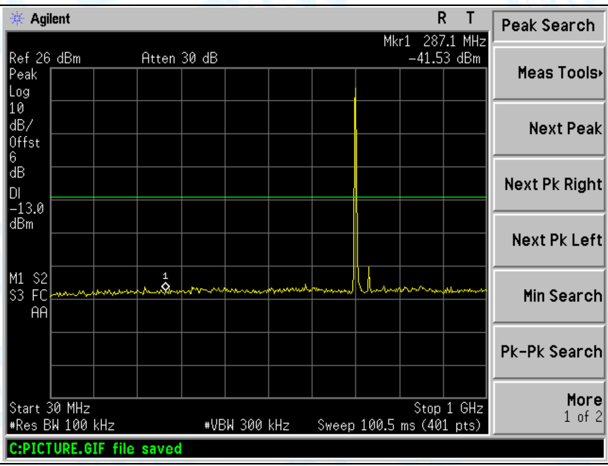	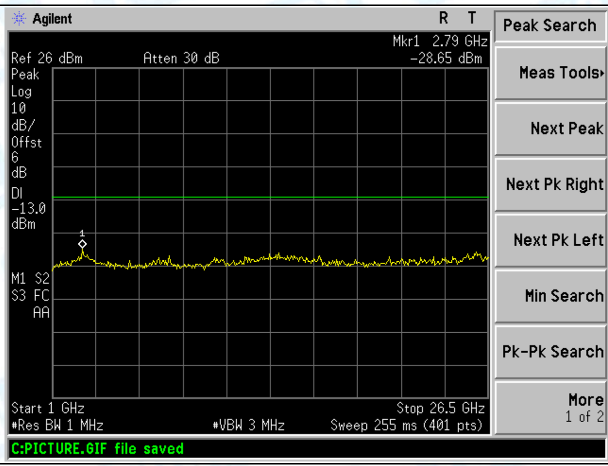

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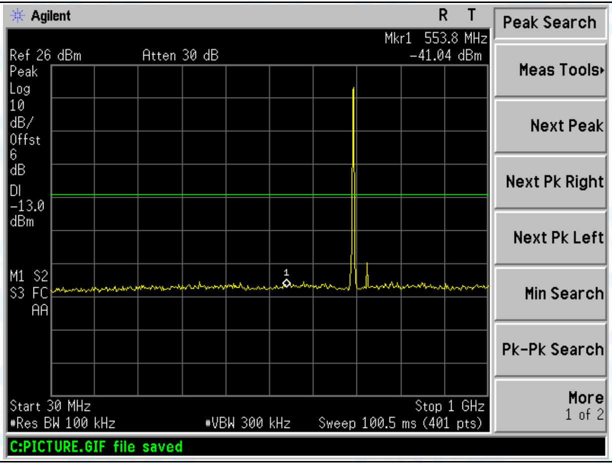
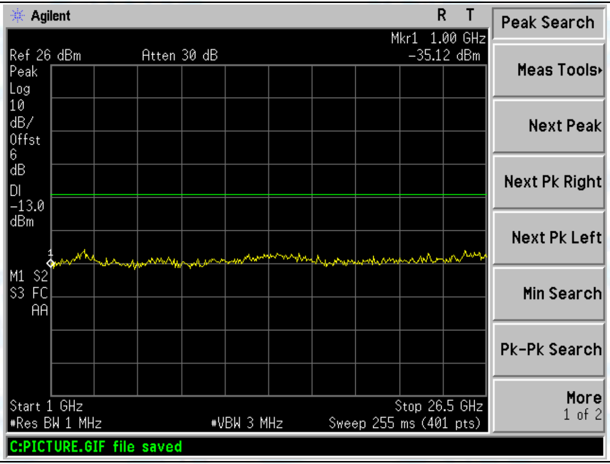
<tr><td></td><td></td></tr>
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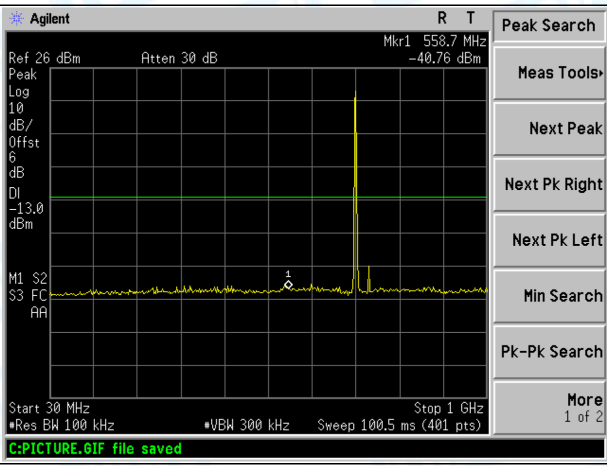
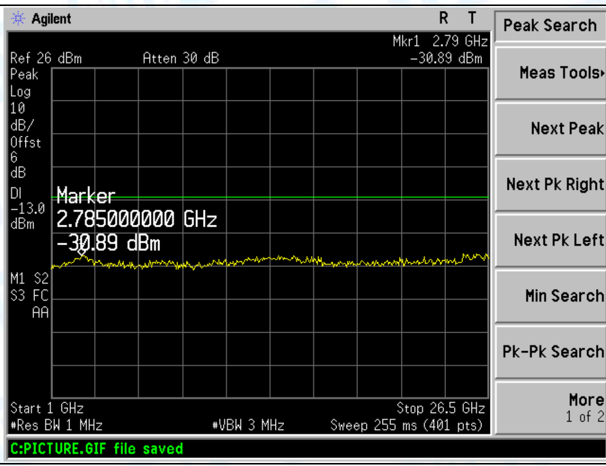
<tr><td></td><td></td></tr>
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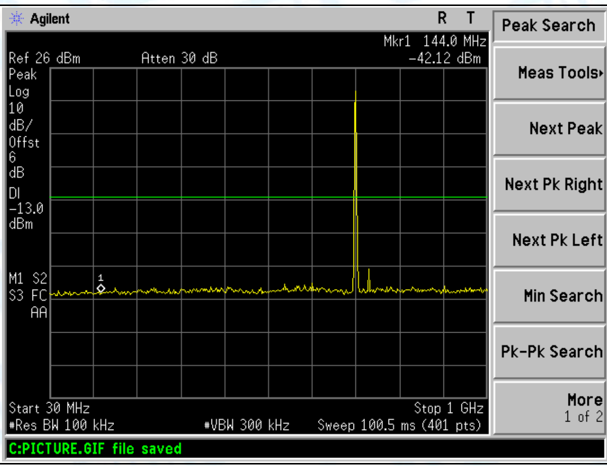
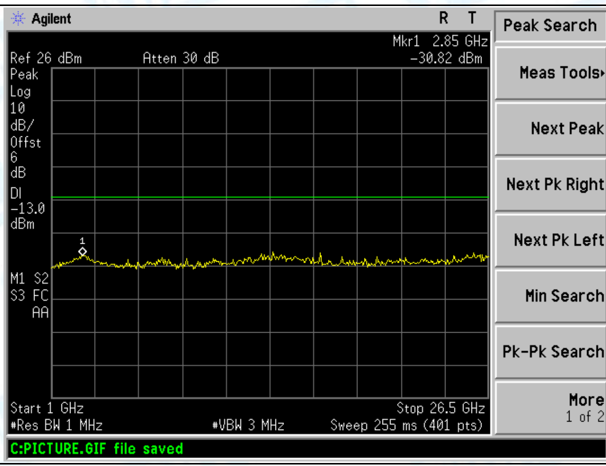
<tr><td></td><td></td></tr>
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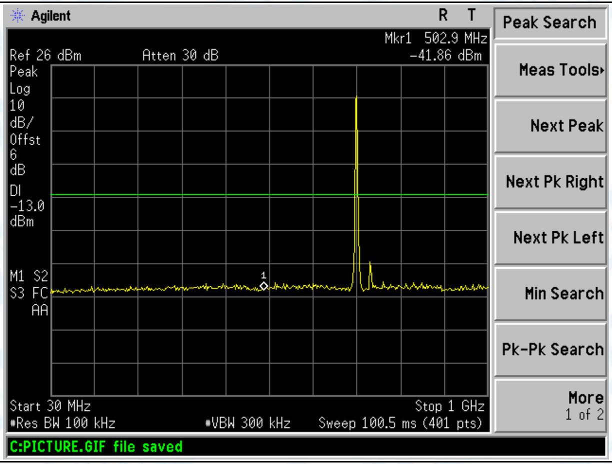
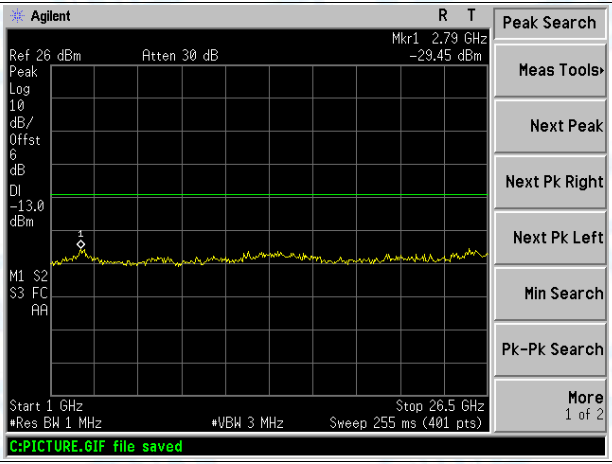
30MHz-1GHz	1GHz-26.5GHz
LTE BAND 12 (3MHz RB Size 15& RB Offset 0 QPSK-Low CH)	
	
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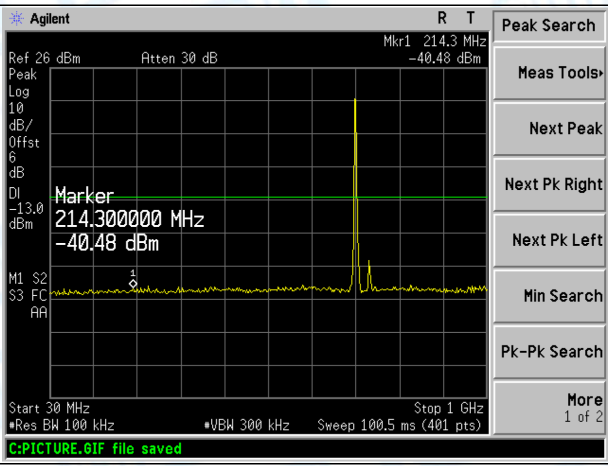	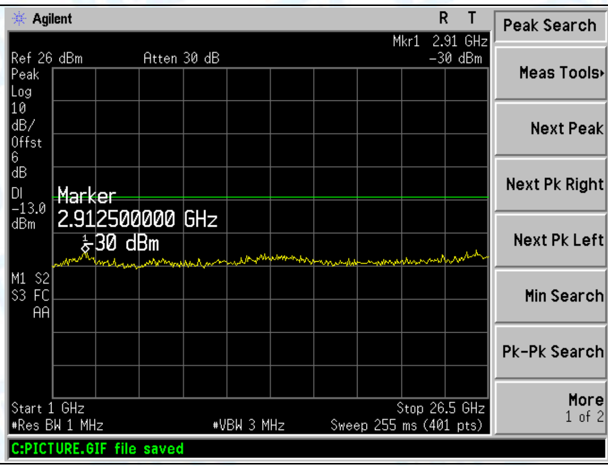
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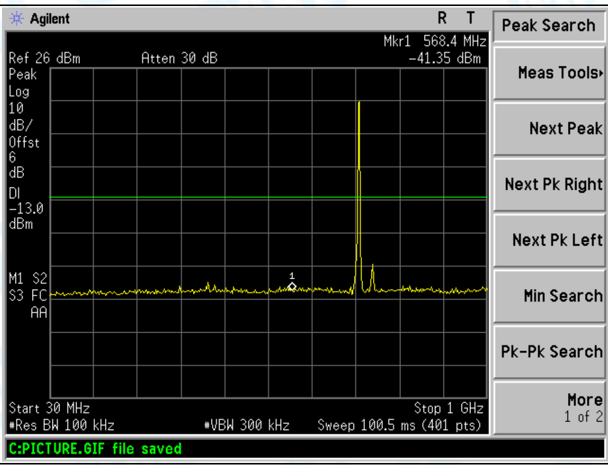
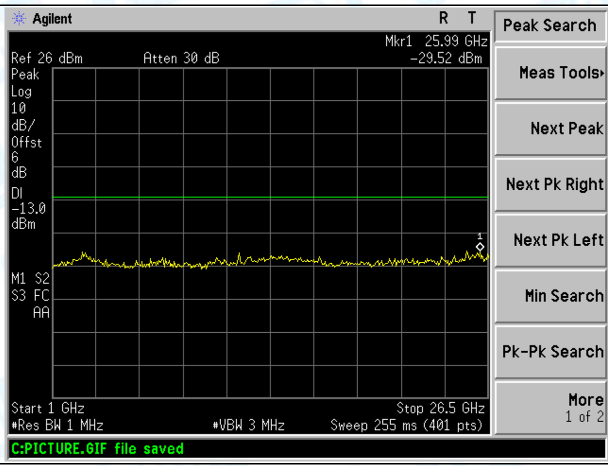
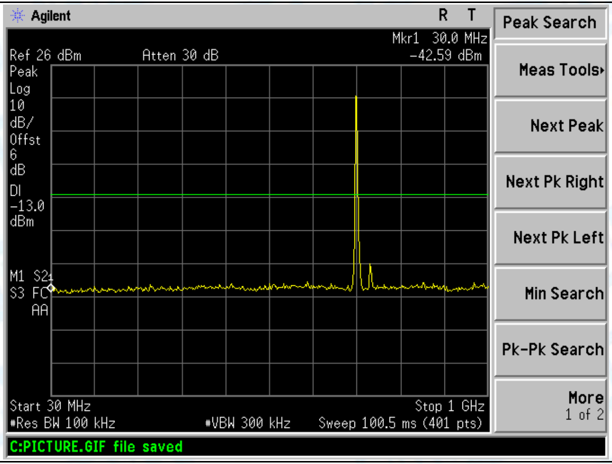
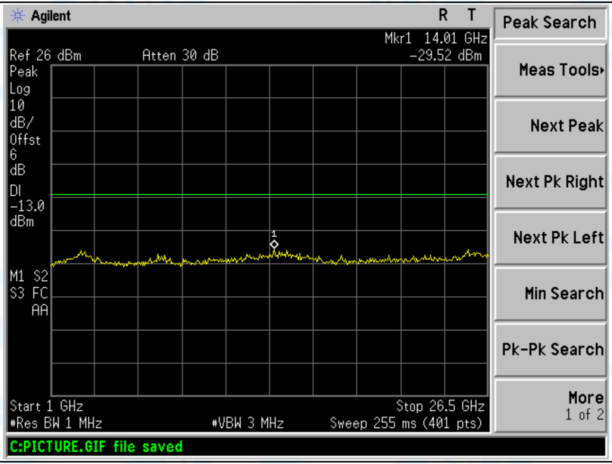
	

30MHz-1GHz	1GHz-26.5GHz
LTE BAND 12 (3MHz RB Size 15& RB Offset 0 16QAM-Low CH)	
	
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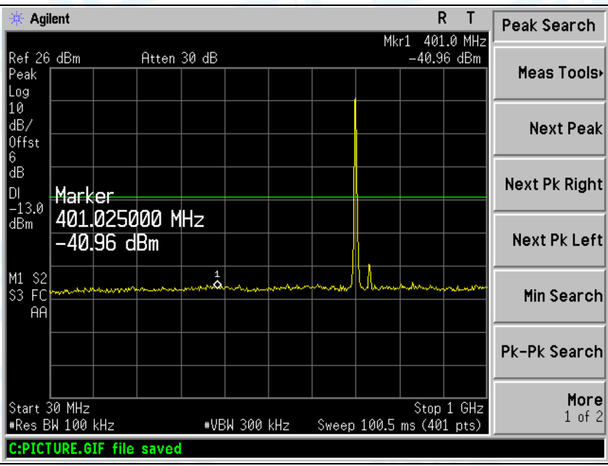	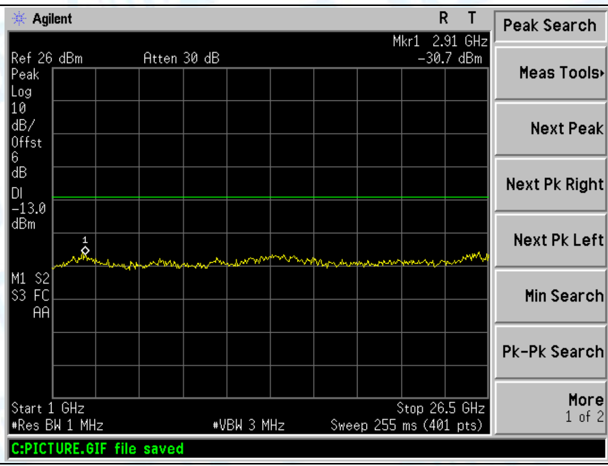
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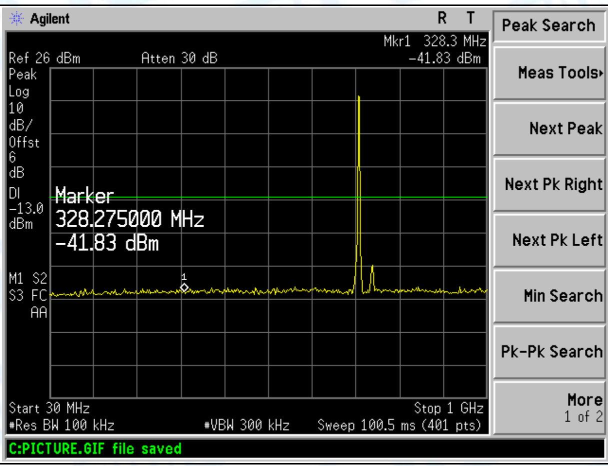	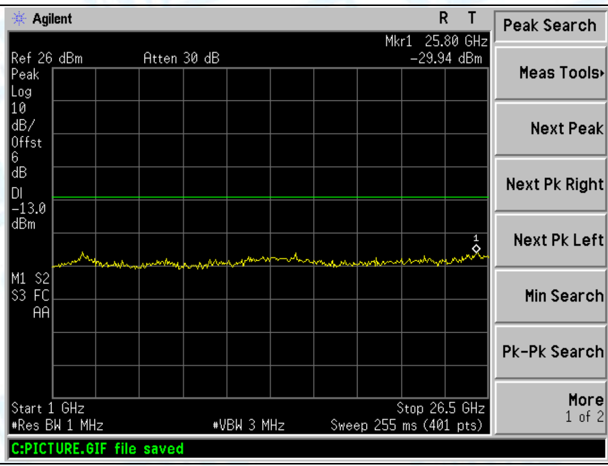

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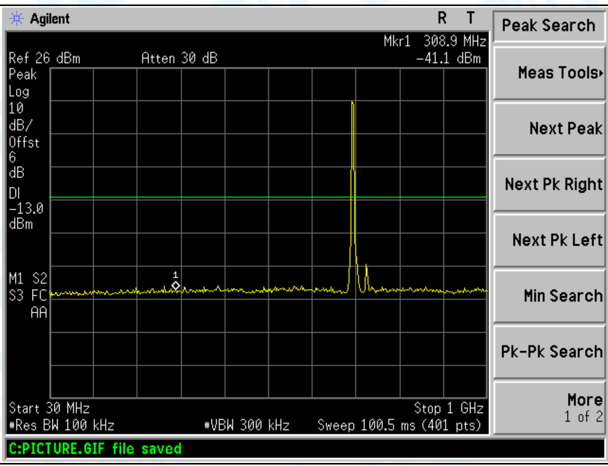
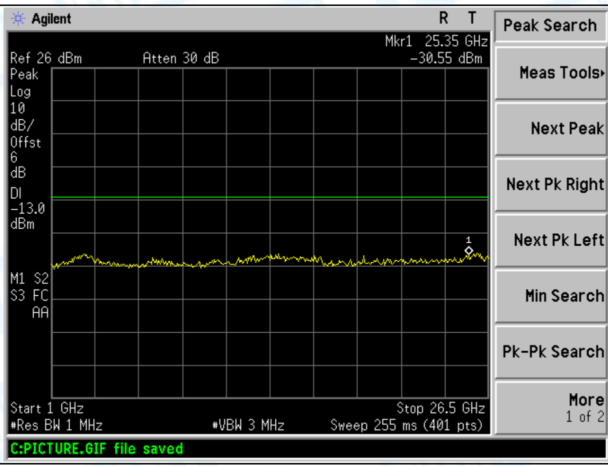
<tr><td>
</td><td>
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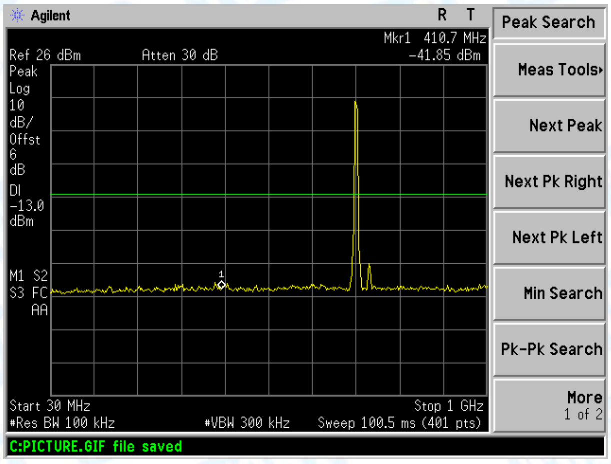
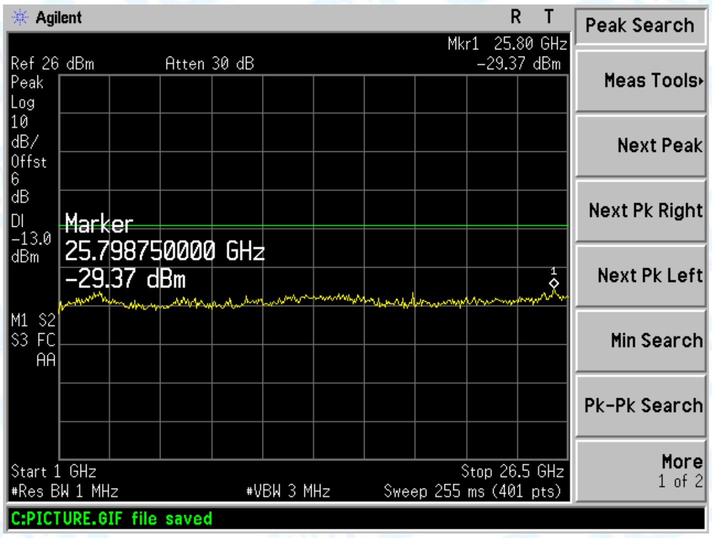
<tr><td>
</td><td>
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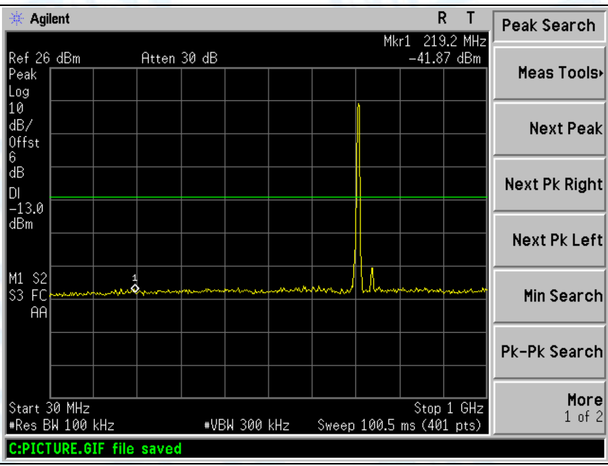
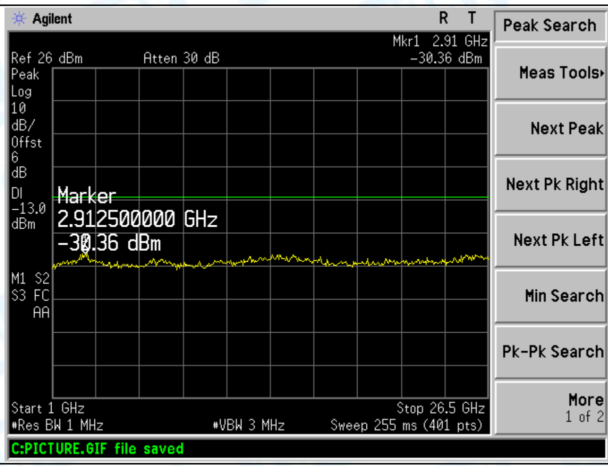
<tr><td>
</td><td>
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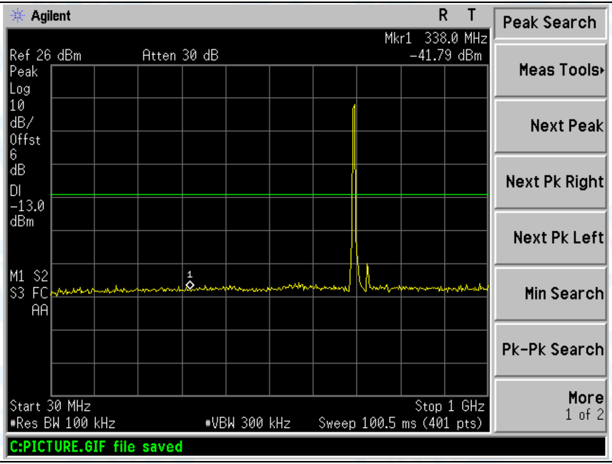
<tr><td>
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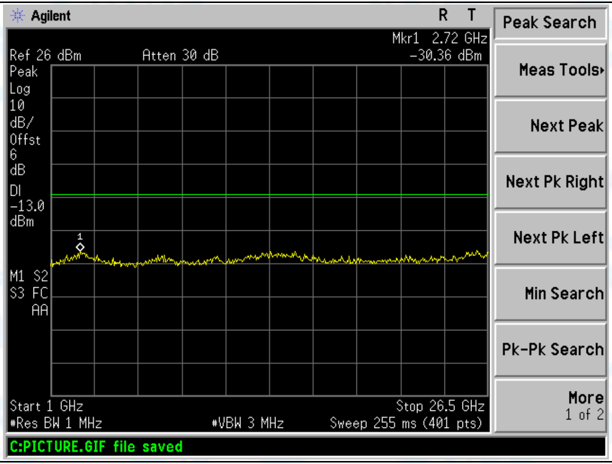
<td>
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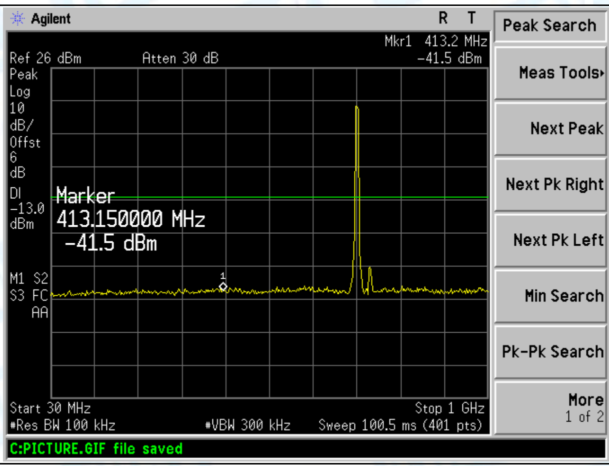
<tr><td>
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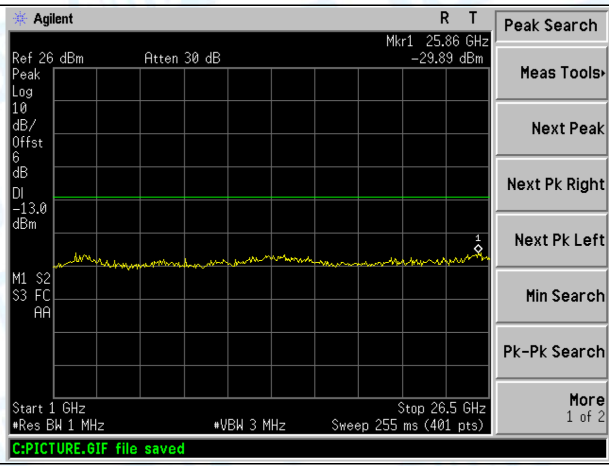
<td>
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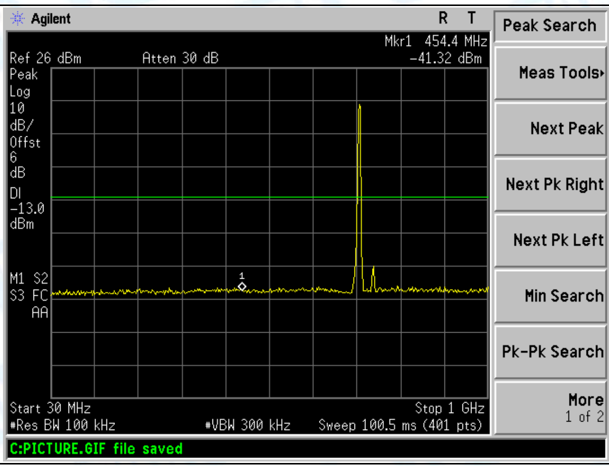
<tr><td>
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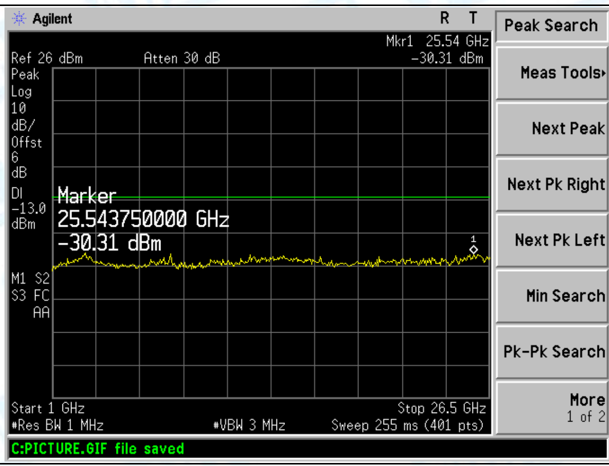
<td>
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30MHz-1GHz	1GHz-26.5GHz
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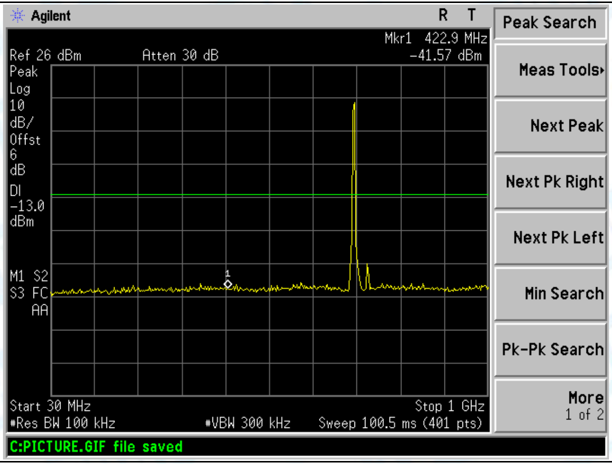	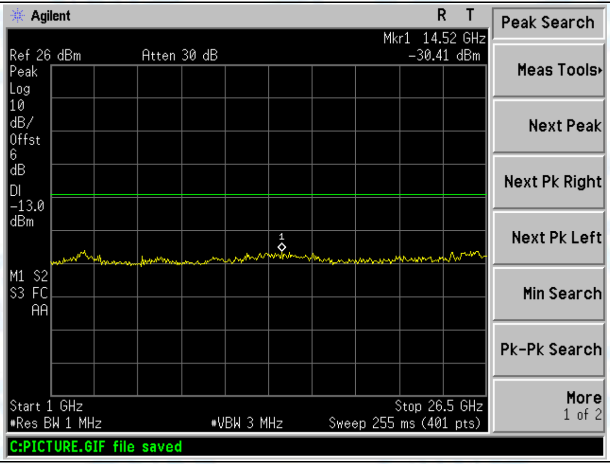
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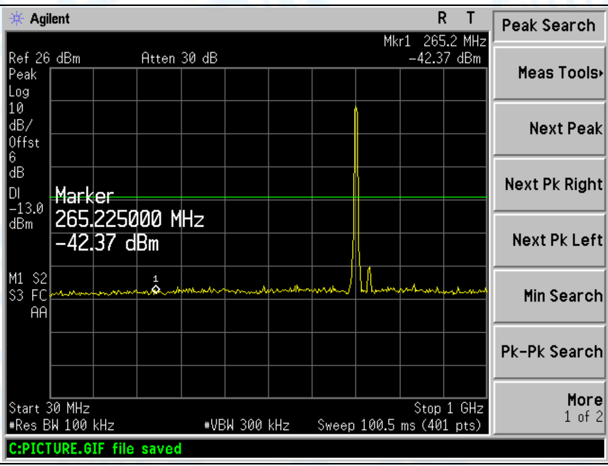	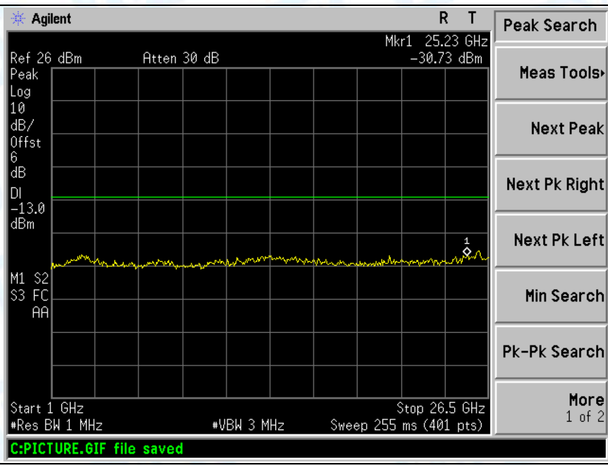
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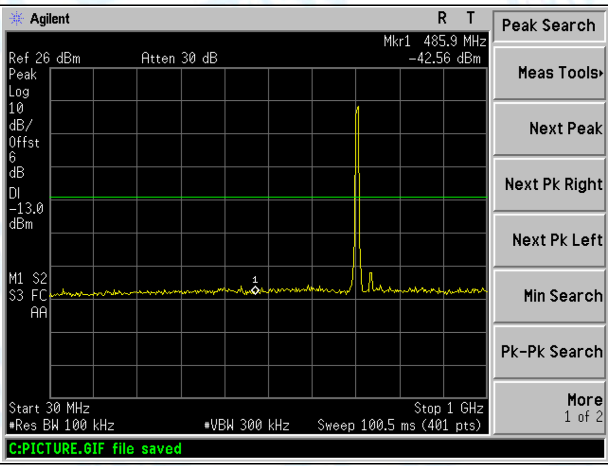	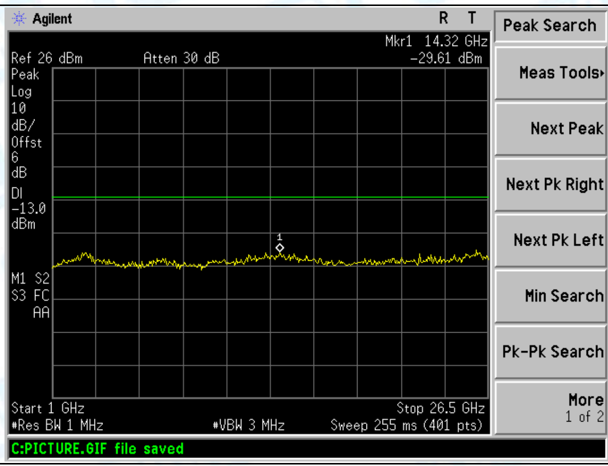

<table>
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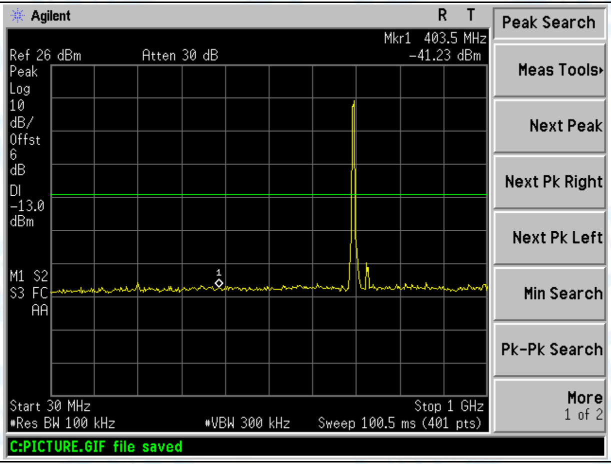

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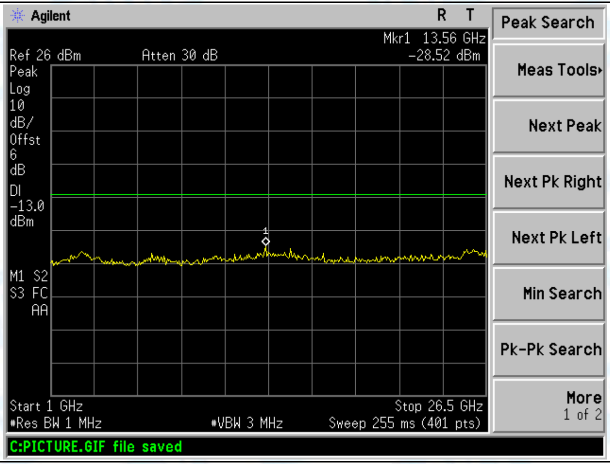

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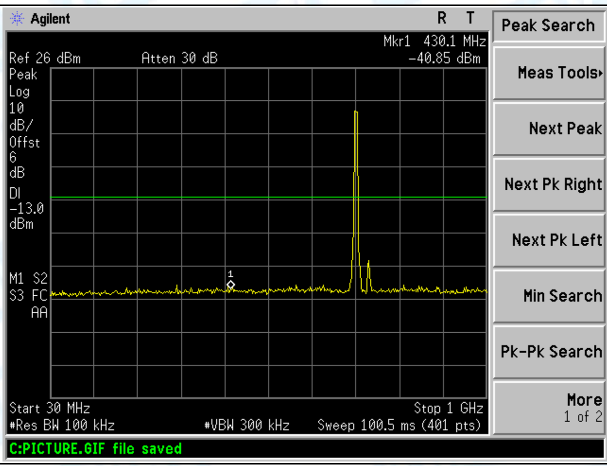

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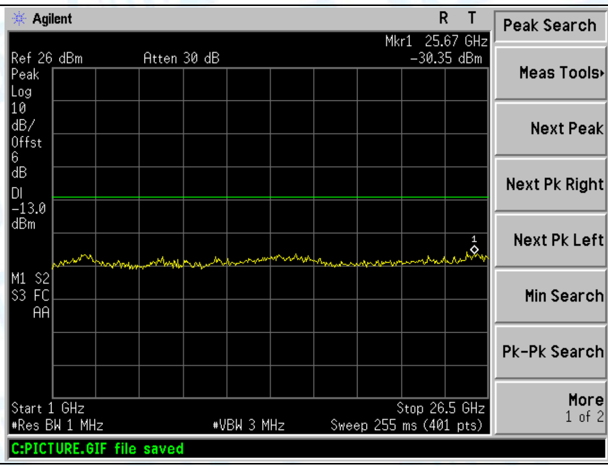

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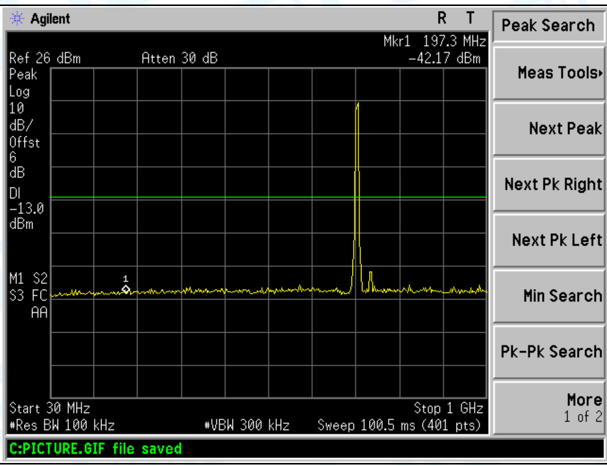

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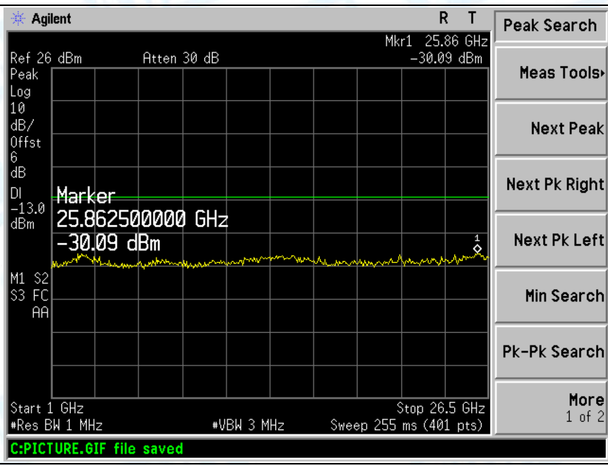

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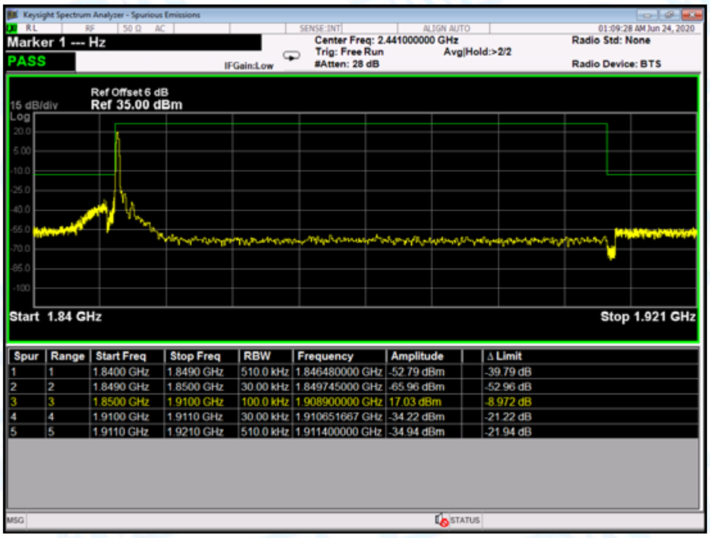
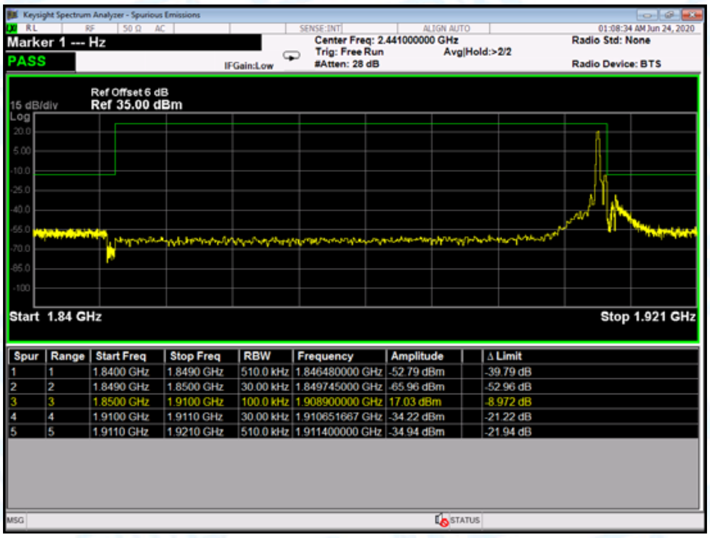
ATTACHMENT E--BAND EDGE TEST

Low Channel	High Channel

LTE BAND 2 (1.4MHz RB Size 1& RB Offset 0 QPSK)





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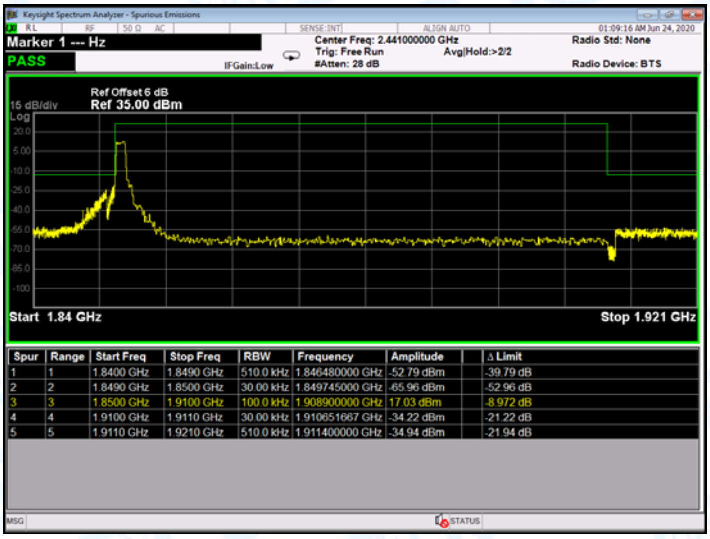
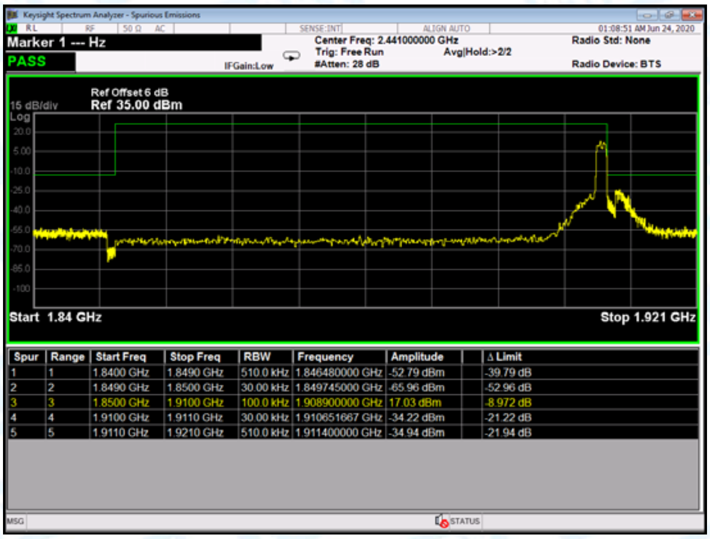
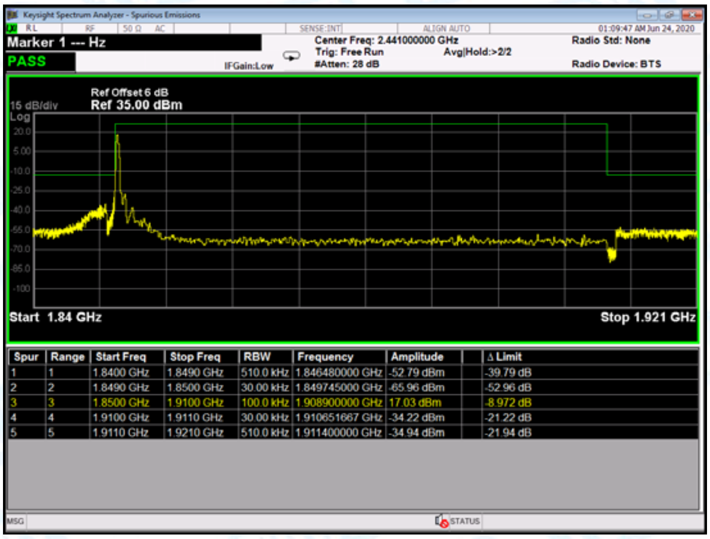
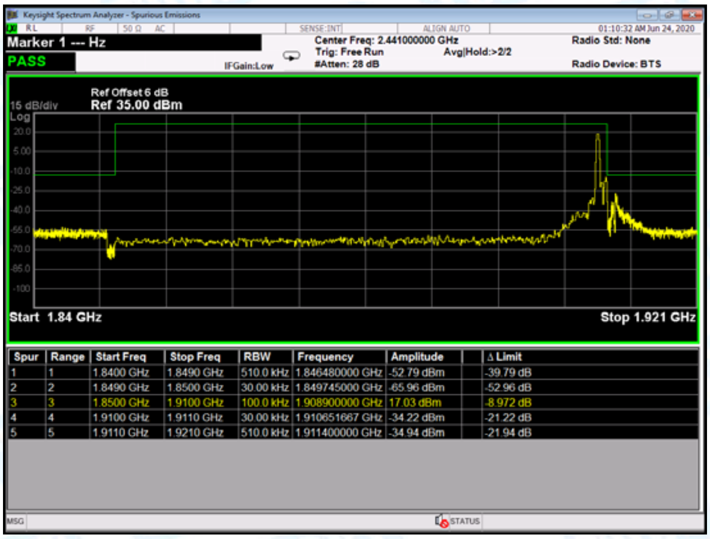




Low Channel	High Channel

LTE BAND 2 (1.4MHz RB Size 1& RB Offset 0 16QAM)





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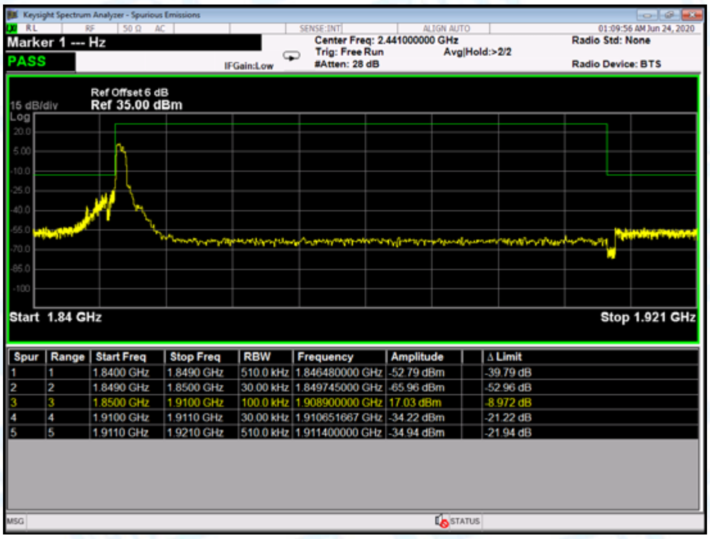

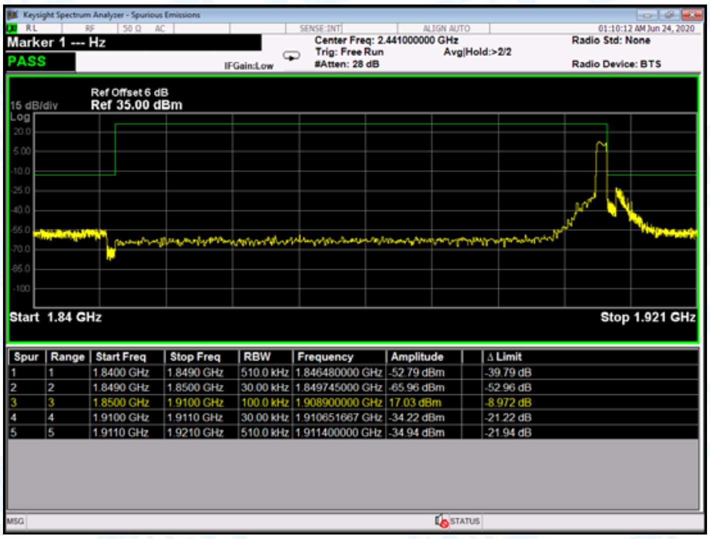

Low Channel	High Channel
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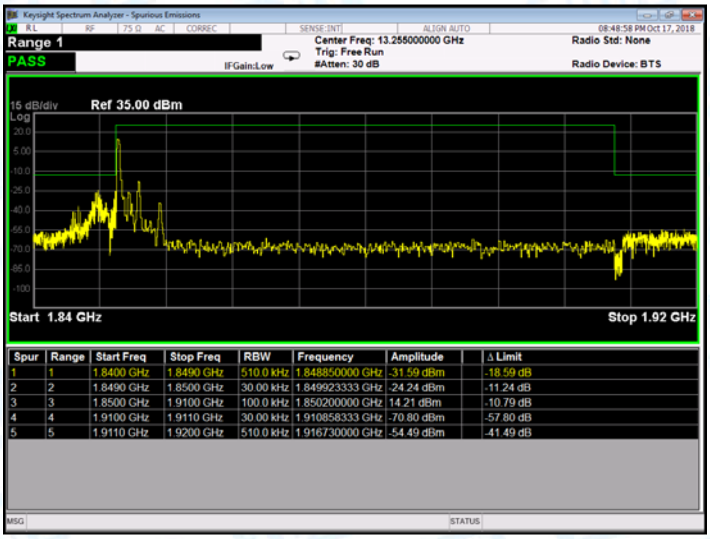	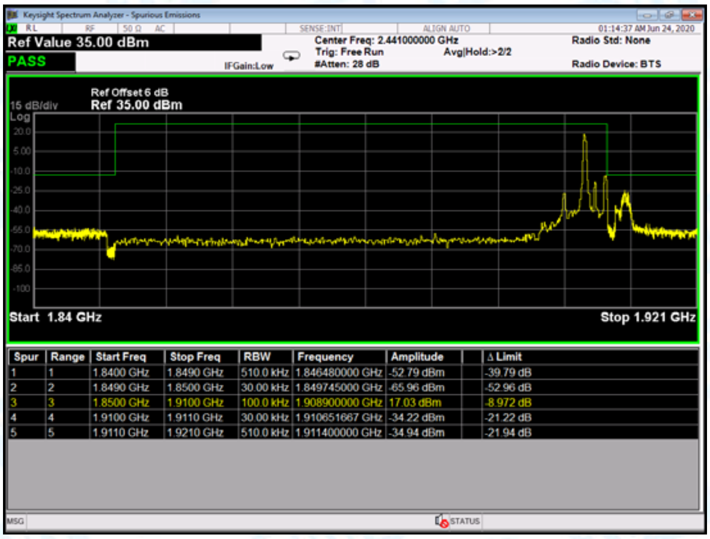
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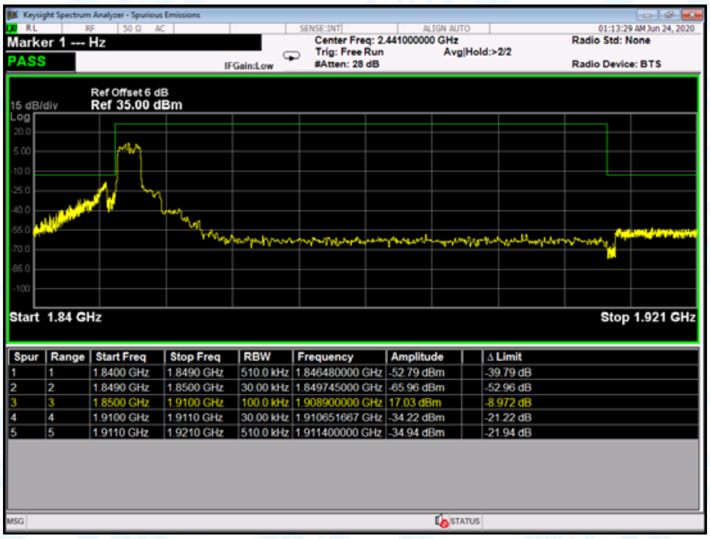
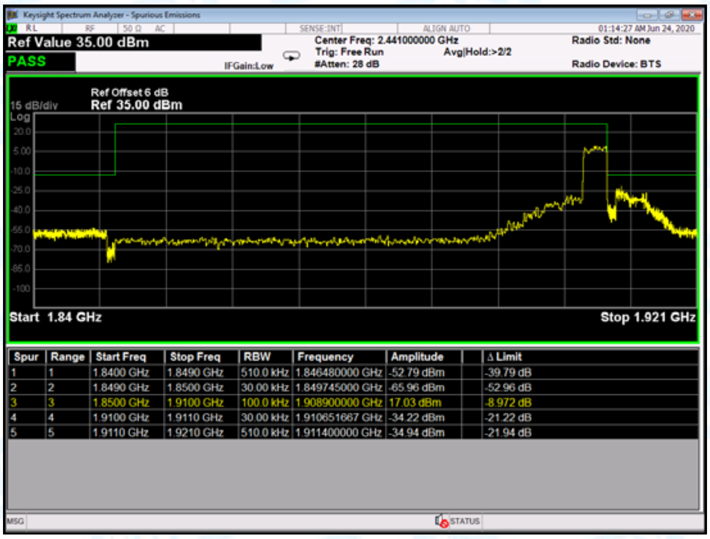
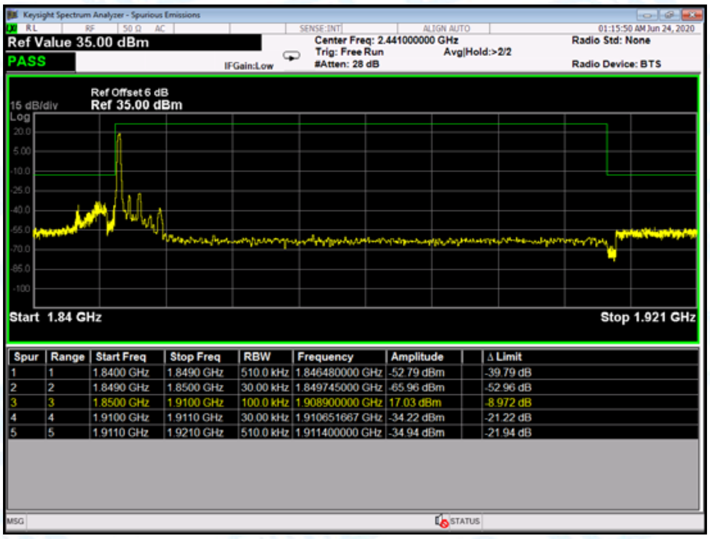
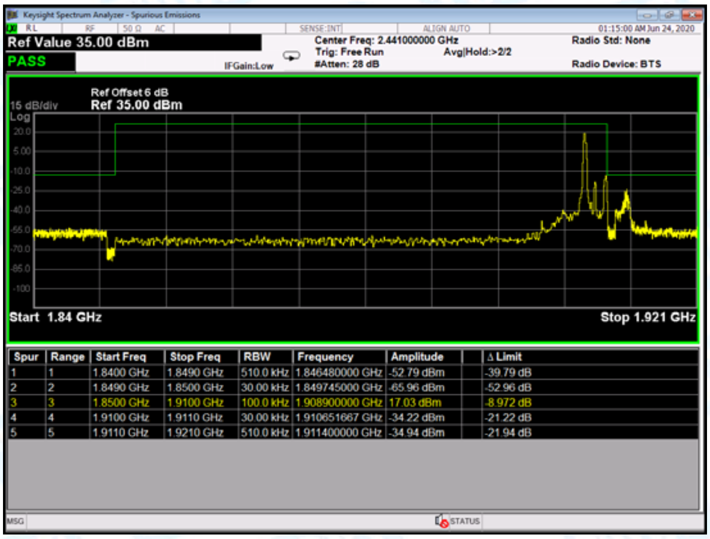
	

Low Channel	High Channel

LTE BAND 2 (3MHz RB Size 1& RB Offset 0 16QAM)





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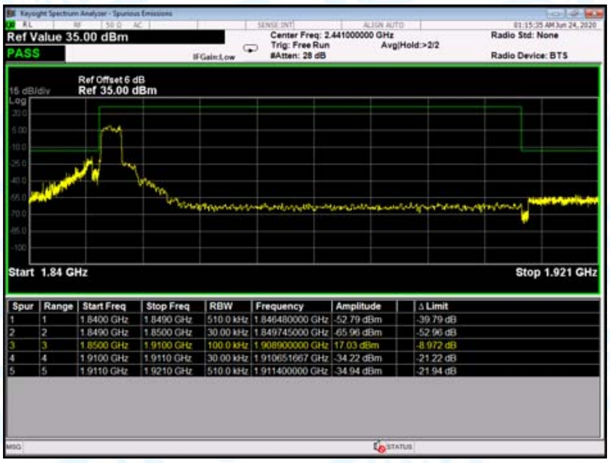

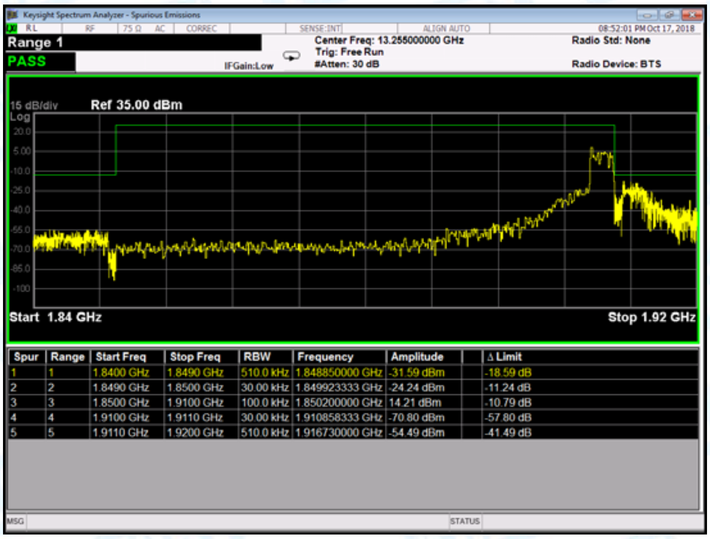

Low Channel	High Channel

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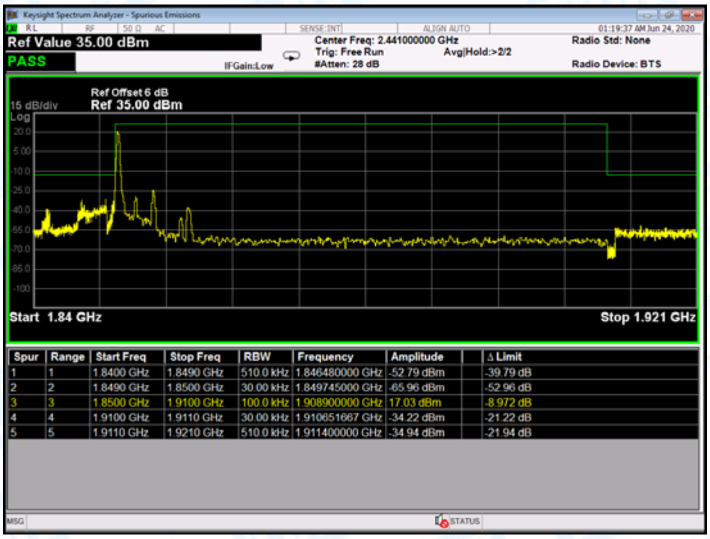
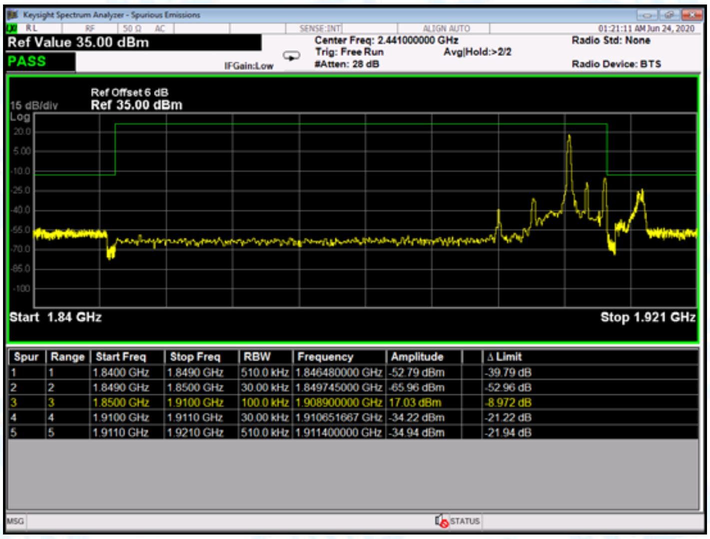
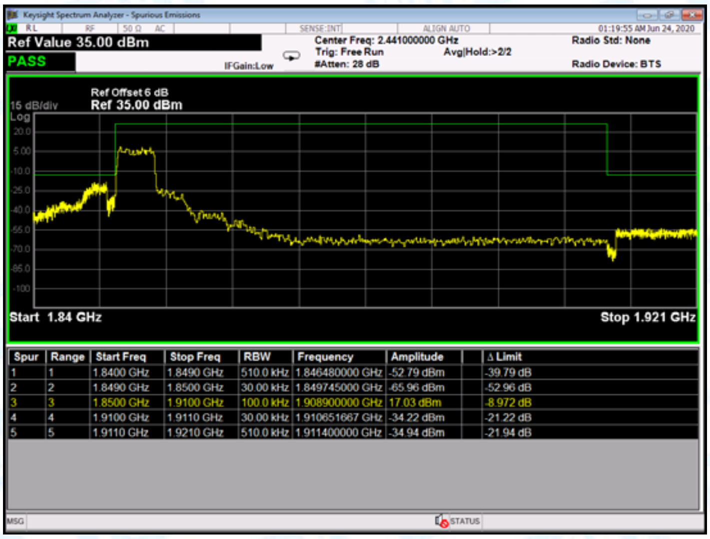
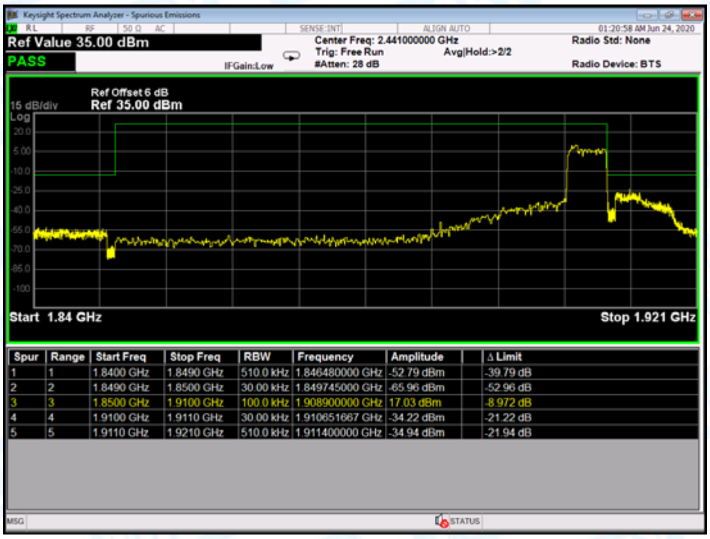




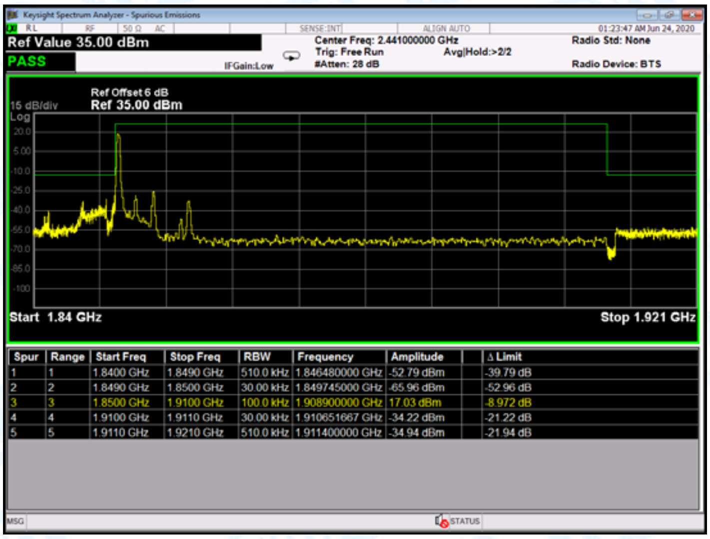
LTE BAND 4 (5MHz RB Size 25& RB Offset 0 QPSK)

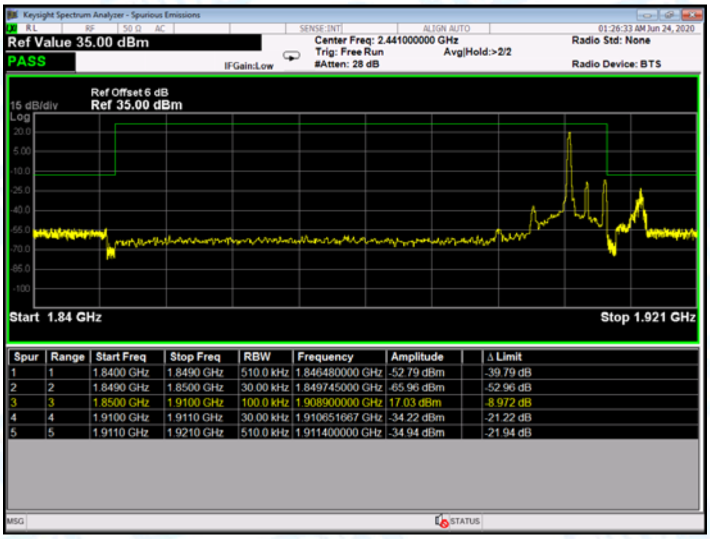




Low Channel	High Channel

LTE BAND 2 (5MHz RB Size 1& RB Offset 0 16QAM)





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