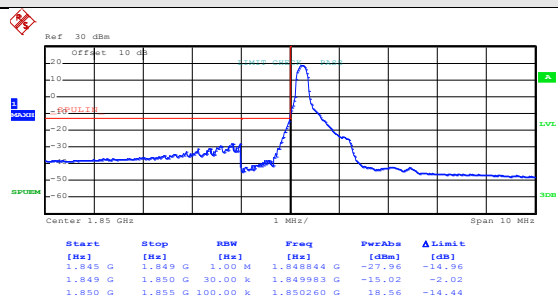


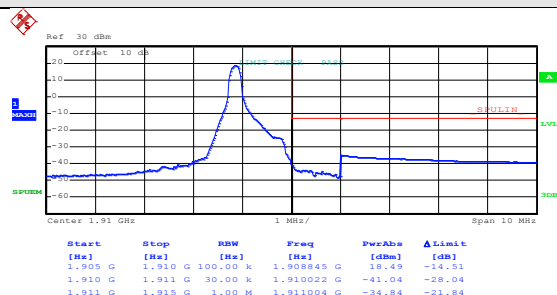
**Band edge emission:
LTE band 2 part:1.4MHz:**

Test Mode:	LTE band 2(QPSK RB Size 1 &RB Offset0)
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Date: 3.JUL.2017 09:16:07

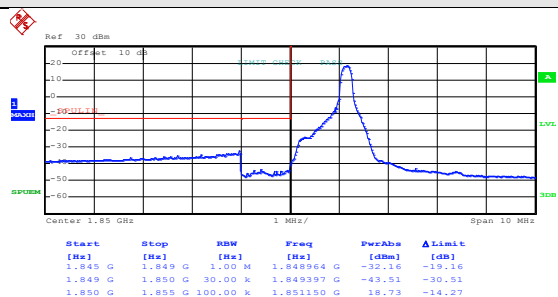
Lowest channel



Date: 3.JUL.2017 09:18:42

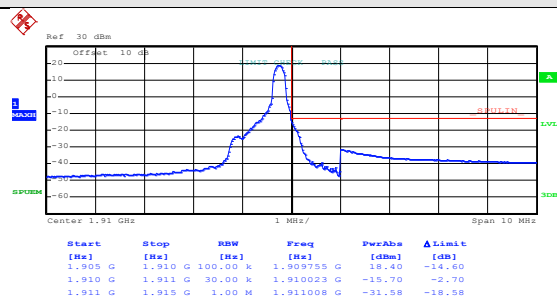
Highest channel

Test Mode:	LTE band 2(QPSK RB Size 1 &RB Offset 5)
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Date: 3.JUL.2017 09:23:32

Lowest channel

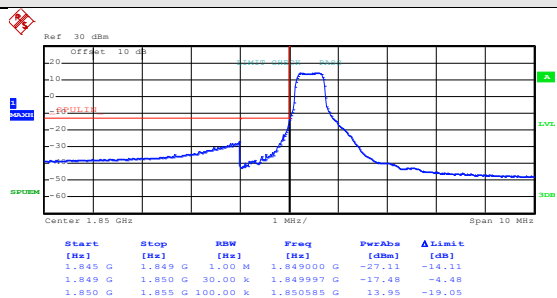


Date: 3.JUL.2017 09:20:25

Highest channel

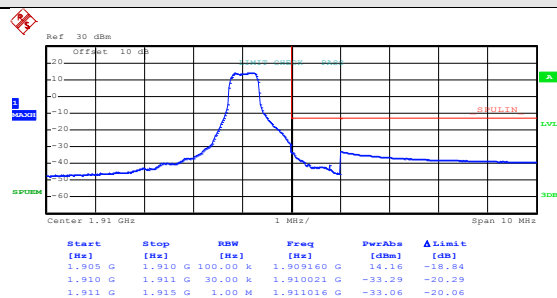
Test Mode:

LTE band 2(QPSK RB Size 3 &RB Offset0)



Date: 3.JUL.2017 09:17:02

Lowest channel

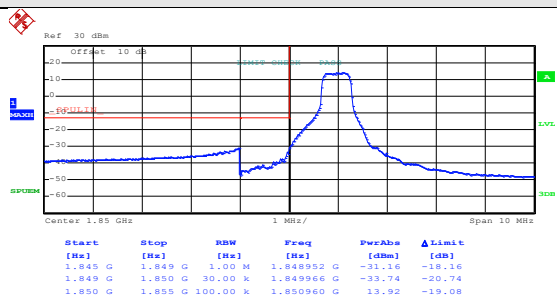


Date: 3.JUL.2017 09:19:28

Highest channel

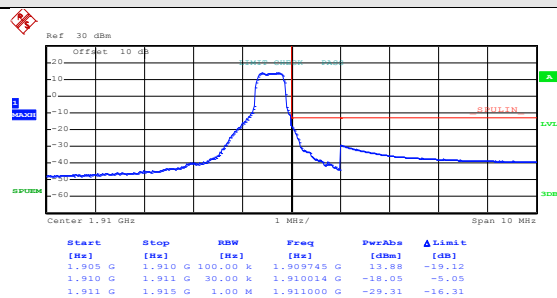
Test Mode:

LTE band 2(QPSK RB Size 3 &RB Offset 2)



Date: 3.JUL.2017 09:24:06

Lowest channel

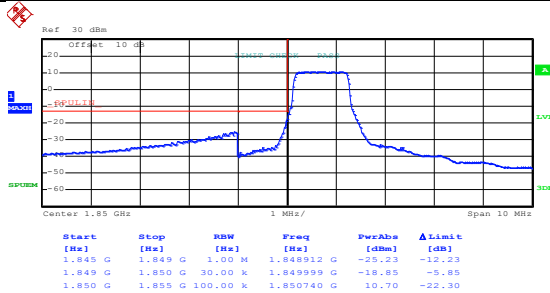


Date: 3.JUL.2017 09:22:12

Highest channel

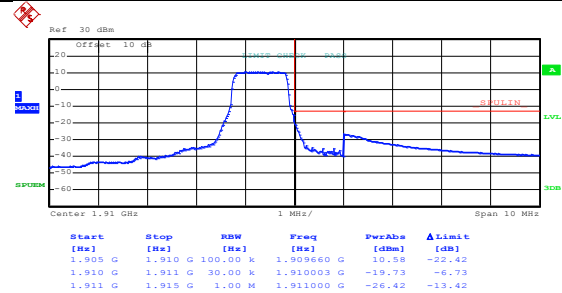
Test Mode:

LTE band 2(QPSK RB Size 6 & RB Offset 0)



Date: 3.JUL.2017 09:17:33

Lowest channel

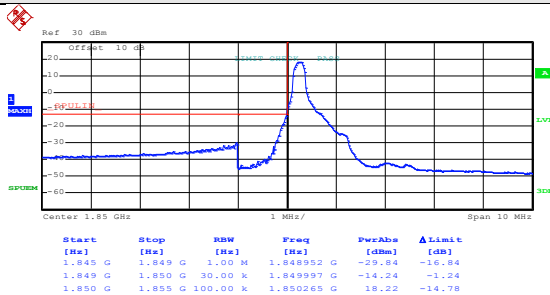


Date: 3.JUL.2017 09:20:00

Highest channel

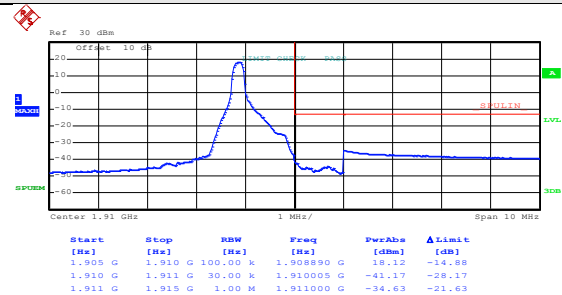
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:16:34

Lowest channel

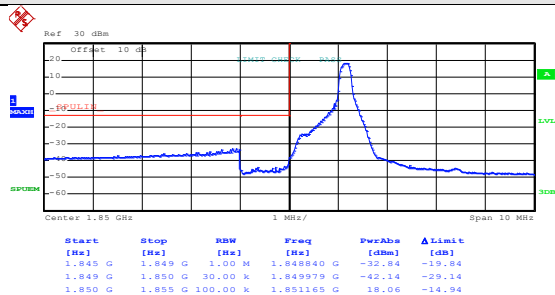


Date: 3.JUL.2017 09:18:56

Highest channel

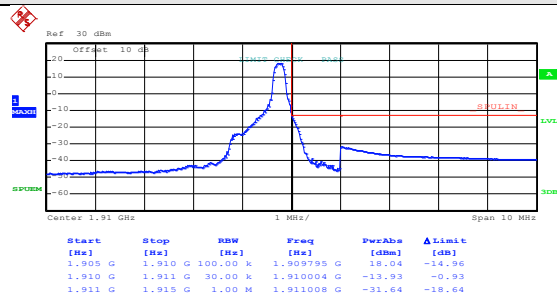
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 5)



Date: 3.JUL.2017 09:23:52

Lowest channel

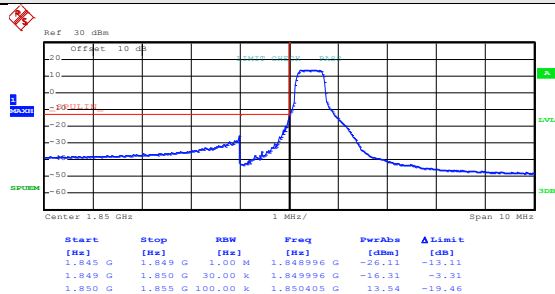


Date: 3.JUL.2017 09:21:39

Highest channel

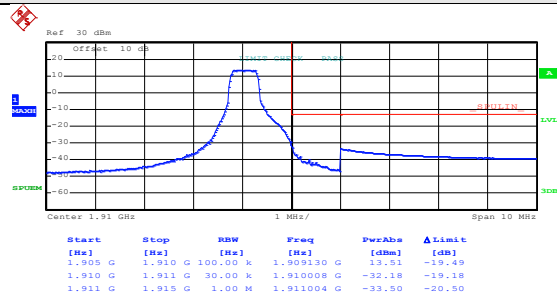
Test Mode:

LTE band 2(16QAM RB Size 3 & RB Offset 0)



Date: 3.JUL.2017 09:17:13

Lowest channel

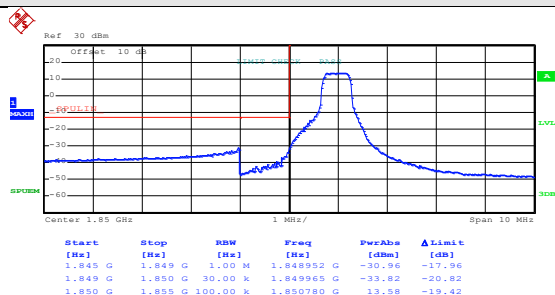


Date: 3.JUL.2017 09:19:43

Highest channel

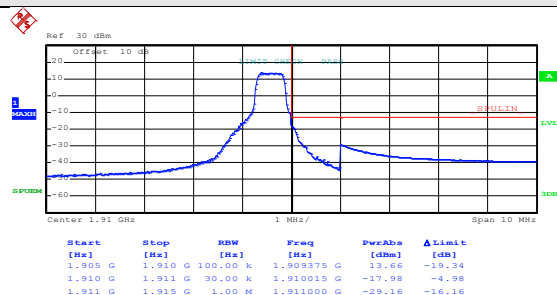
Test Mode:

LTE band 2(16QAM RB Size 3 & RB Offset 2)



Date: 3.JUL.2017 09:24:19

Lowest channel

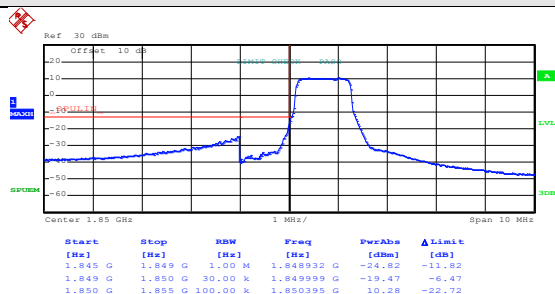


Date: 3.JUL.2017 09:22:47

Highest channel

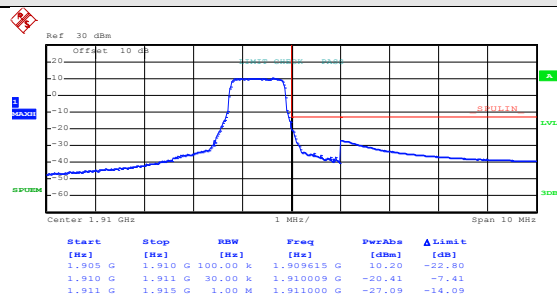
Test Mode:

LTE band 2(16QAM RB Size 6 & RB Offset 0)



Date: 3.JUL.2017 09:17:52

Lowest channel



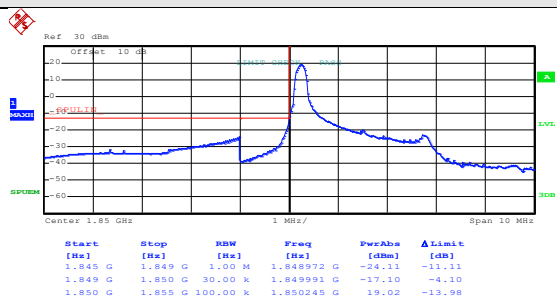
Date: 3.JUL.2017 09:20:08

Highest channel

3MHz:

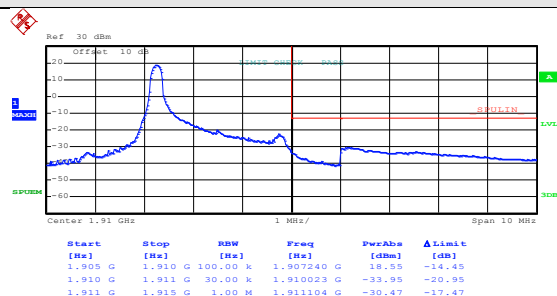
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:28:55

Lowest channel

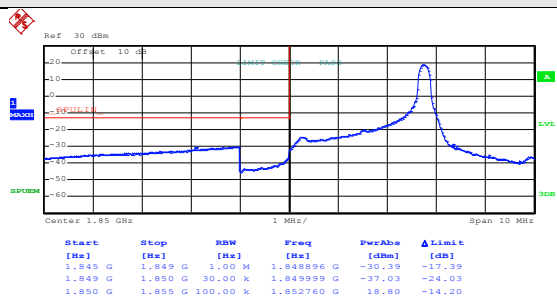


Date: 3.JUL.2017 09:33:03

Highest channel

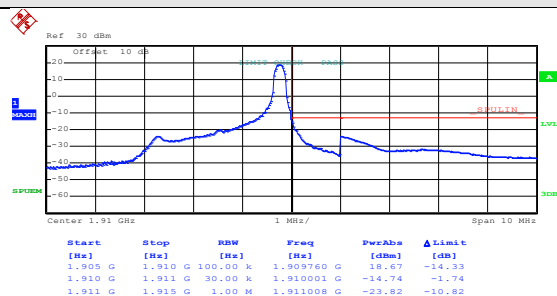
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 14)



Date: 3.JUL.2017 09:29:40

Lowest channel

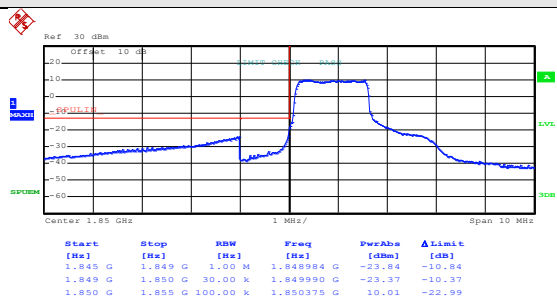


Date: 3.JUL.2017 09:33:45

Highest channel

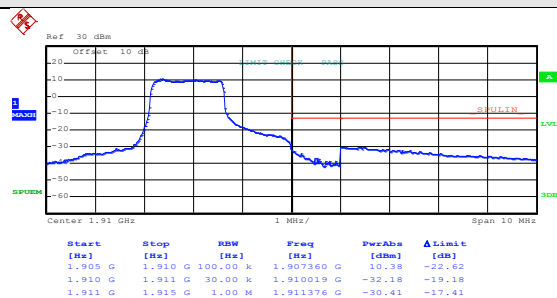
Test Mode:

LTE band 2(QPSK RB Size 8 & RB Offset 0)



Date: 3.JUL.2017 09:31:44

Lowest channel

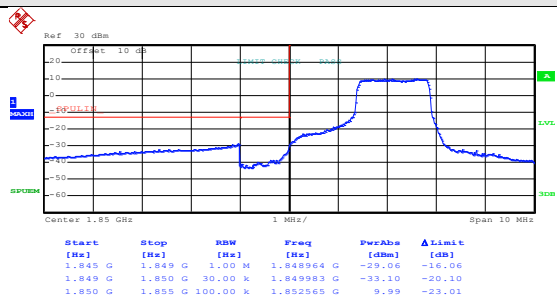


Date: 3.JUL.2017 09:34:31

Highest channel

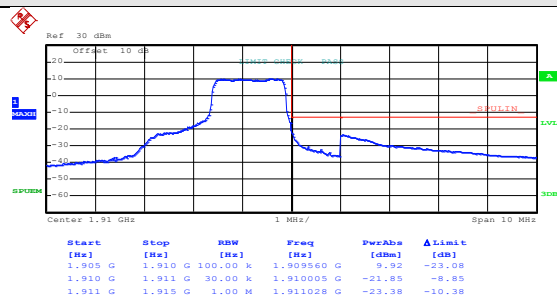
Test Mode:

LTE band 2(QPSK RB Size 8 & RB Offset 7)



Date: 3.JUL.2017 09:32:15

Lowest channel

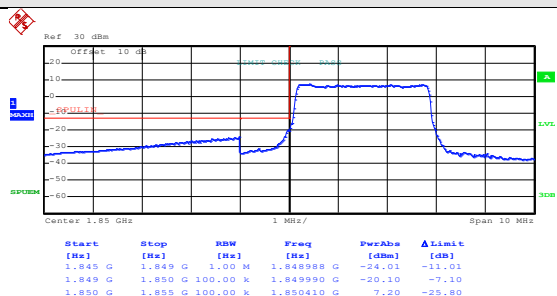


Date: 3.JUL.2017 09:35:07

Highest channel

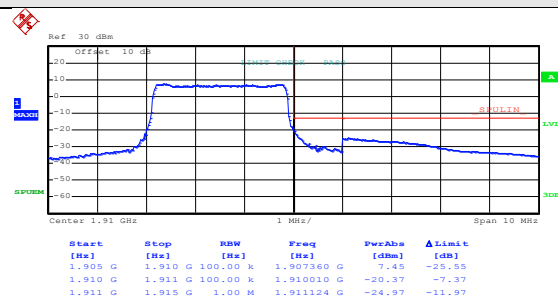
Test Mode:

LTE band 2(QPSK RB Size 15 & RB Offset 0)



Date: 3.JUL.2017 09:38:10

Lowest channel

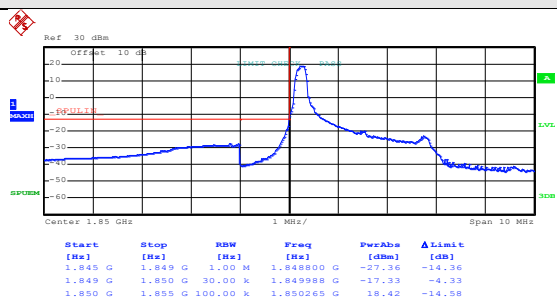


Date: 3.JUL.2017 09:36:47

Highest channel

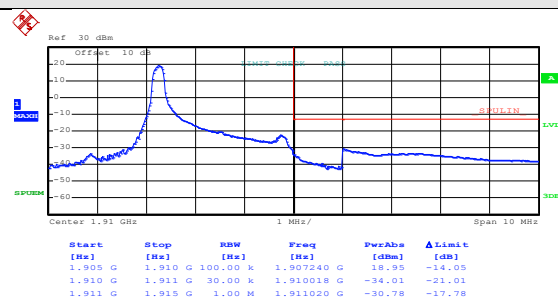
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:29:08

Lowest channel

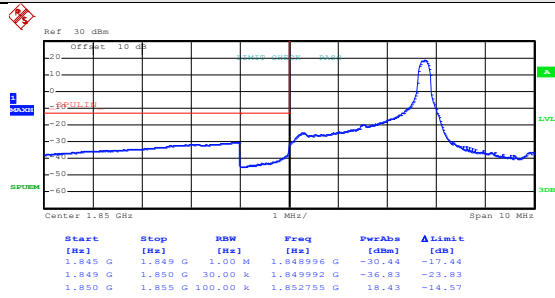


Date: 3.JUL.2017 09:33:17

Highest channel

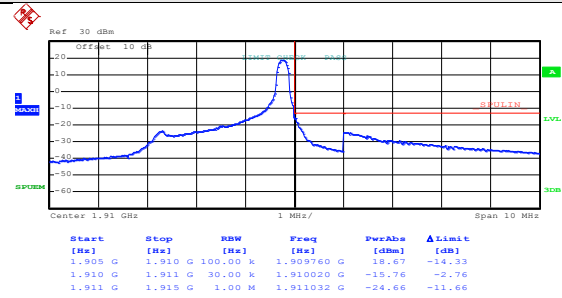
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 14)



Date: 3.JUL.2017 09:30:58

Lowest channel

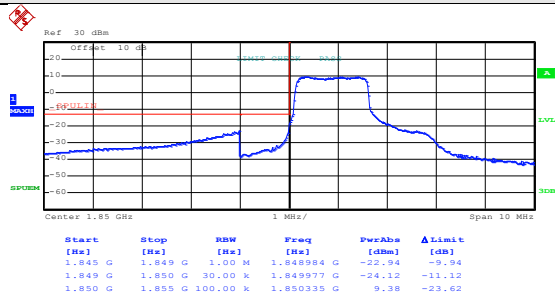


Date: 3.JUL.2017 09:34:07

Highest channel

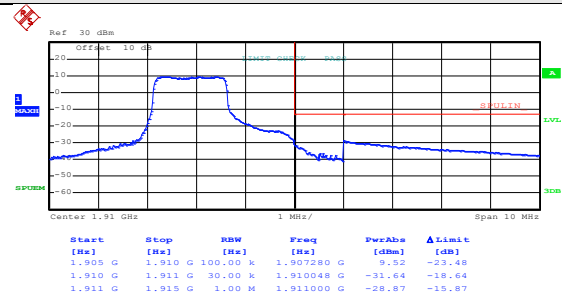
Test Mode:

LTE band 2(16QAM RB Size 8 & RB Offset 0)



Date: 3.JUL.2017 09:31:59

Lowest channel

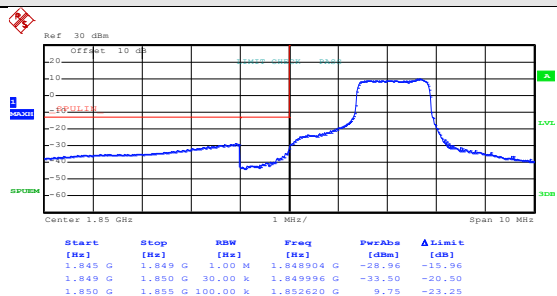


Date: 3.JUL.2017 09:34:50

Highest channel

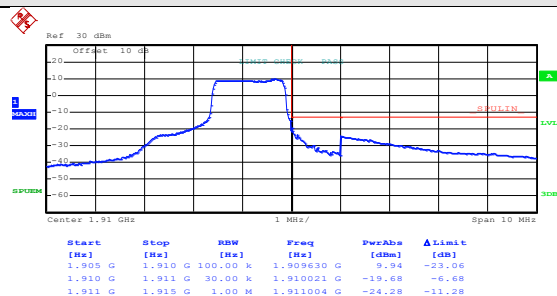
Test Mode:

LTE band 2(16QAM RB Size 8 & RB Offset 7)



Date: 3.JUL.2017 09:32:28

Lowest channel

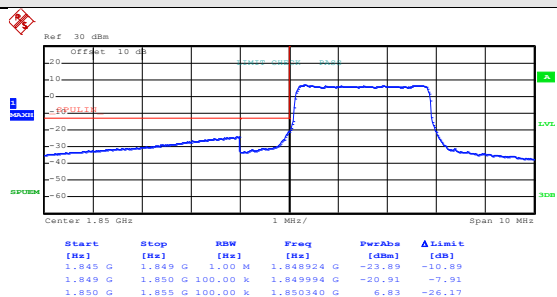


Date: 3.JUL.2017 09:35:31

Highest channel

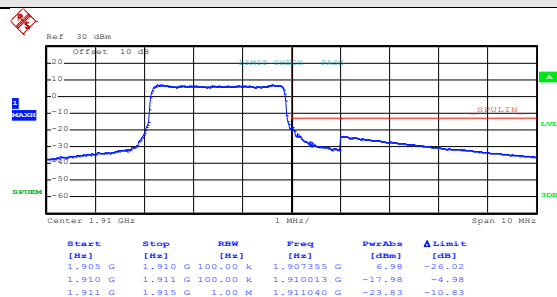
Test Mode:

LTE band 2(16QAM RB Size 15 & RB Offset 0)



Date: 3.JUL.2017 09:37:57

Lowest channel



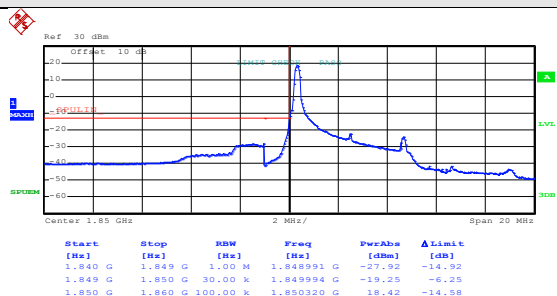
Date: 3.JUL.2017 09:37:09

Highest channel

5MHz:

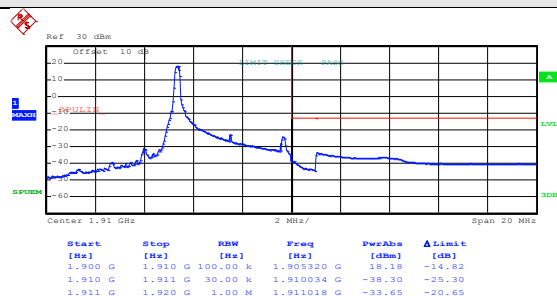
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:43:55

Lowest channel

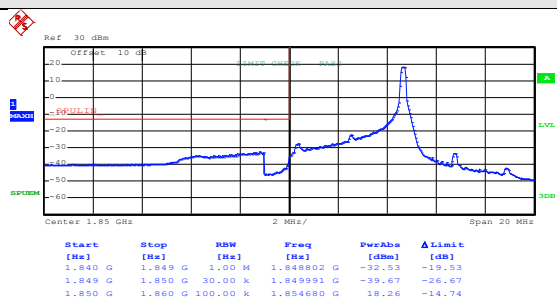


Date: 3.JUL.2017 09:41:38

Highest channel

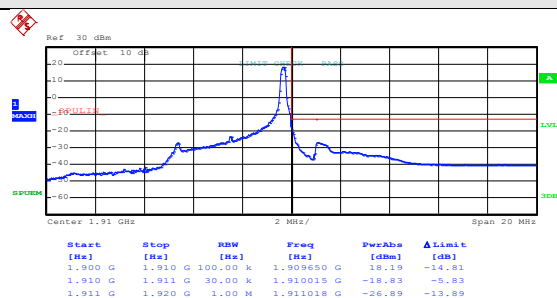
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 24)



Date: 3.JUL.2017 09:44:35

Lowest channel

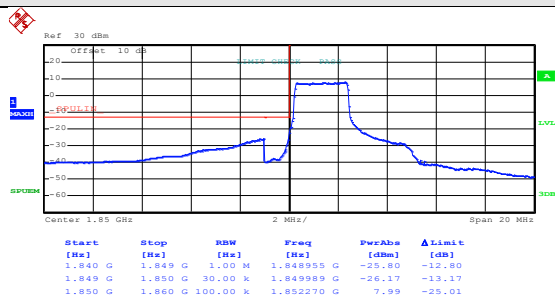


Date: 3.JUL.2017 09:42:14

Highest channel

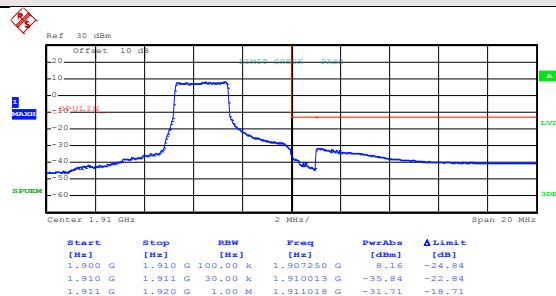
Test Mode:

LTE band 2(QPSK RB Size 12 & RB Offset 0)



Date: 3.JUL.2017 09:45:30

Lowest channel

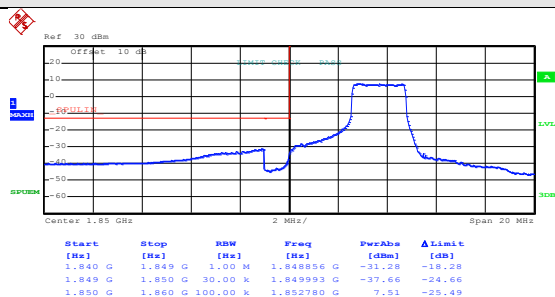


Date: 3.JUL.2017 09:42:46

Highest channel

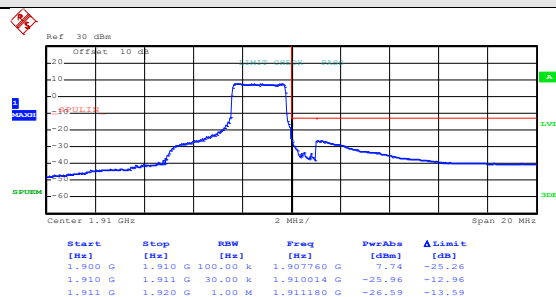
Test Mode:

LTE band 2(QPSK RB Size 12 & RB Offset 11)



Date: 3.JUL.2017 09:46:11

Lowest channel

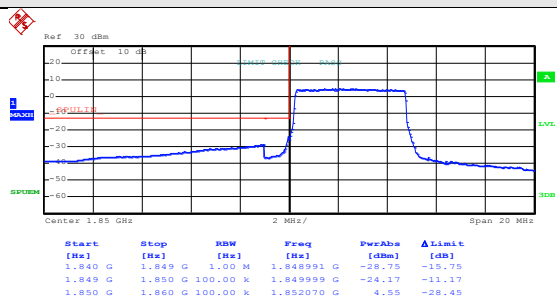


Date: 3.JUL.2017 09:43:14

Highest channel

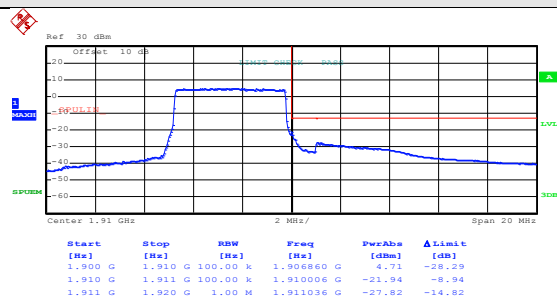
Test Mode:

LTE band 2(QPSK RB Size 25 & RB Offset 0)



Date: 3.JUL.2017 09:39:25

Lowest channel

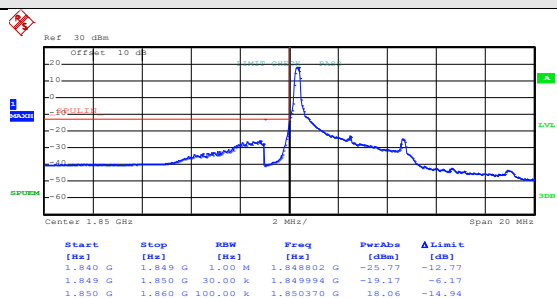


Date: 3.JUL.2017 09:40:06

Highest channel

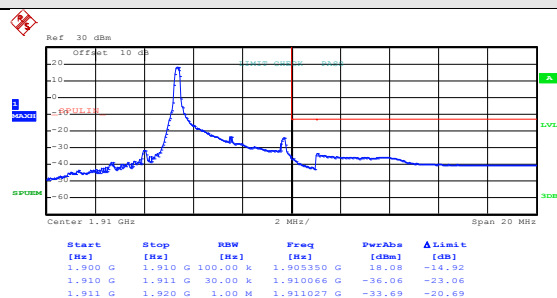
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:44:16

Lowest channel

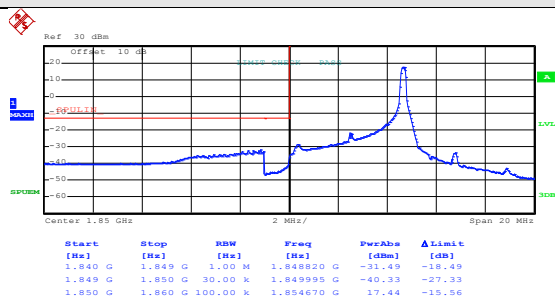


Date: 3.JUL.2017 09:41:56

Highest channel

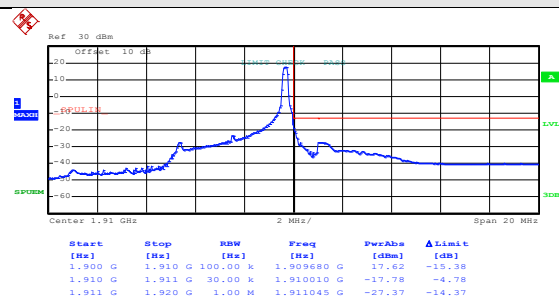
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 24)



Date: 3.JUL.2017 09:44:50

Lowest channel

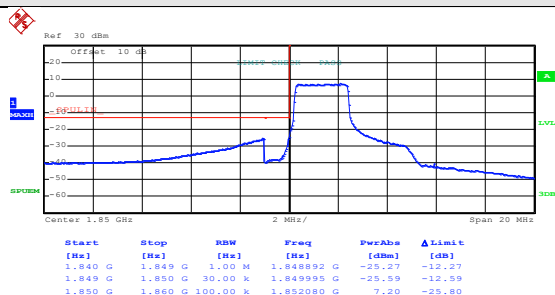


Date: 3.JUL.2017 09:42:26

Highest channel

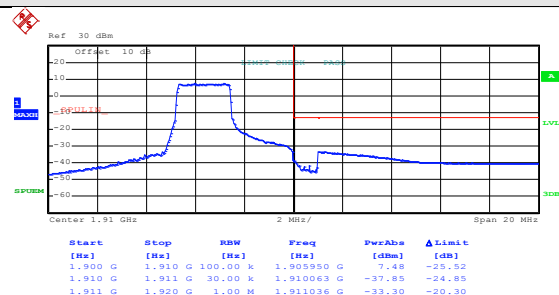
Test Mode:

LTE band 2(16QAM RB Size 12 & RB Offset 0)



Date: 3.JUL.2017 09:45:45

Lowest channel

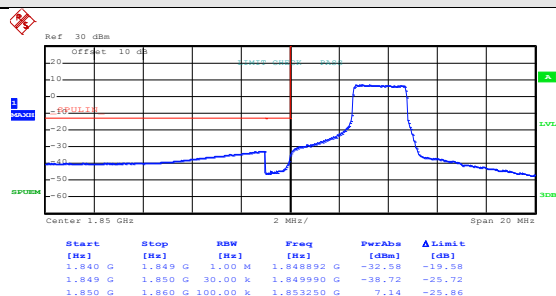


Date: 3.JUL.2017 09:42:57

Highest channel

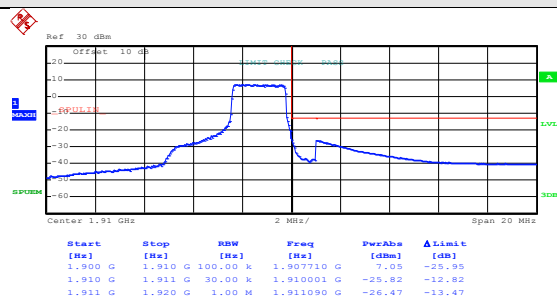
Test Mode:

LTE band 2(16QAM RB Size 12 & RB Offset 11)



Date: 3.JUL.2017 09:46:25

Lowest channel

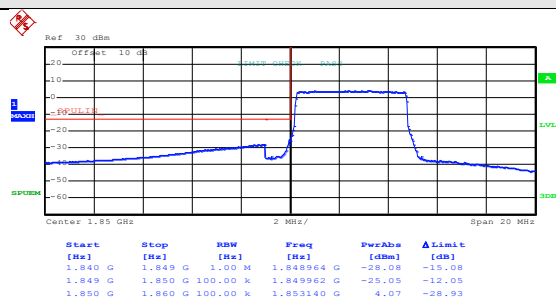


Date: 3.JUL.2017 09:43:27

Highest channel

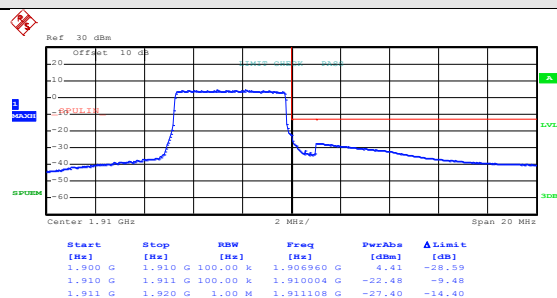
Test Mode:

LTE band 2(16QAM RB Size 25 & RB Offset 0)



Date: 3.JUL.2017 09:39:34

Lowest channel



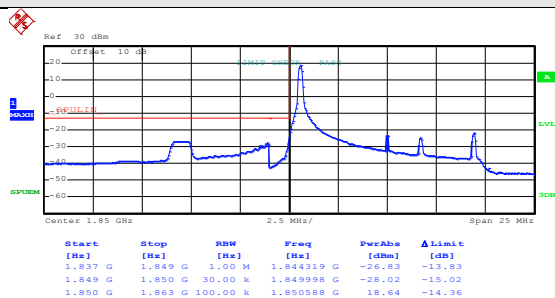
Date: 3.JUL.2017 09:40:21

Highest channel

10MHz:

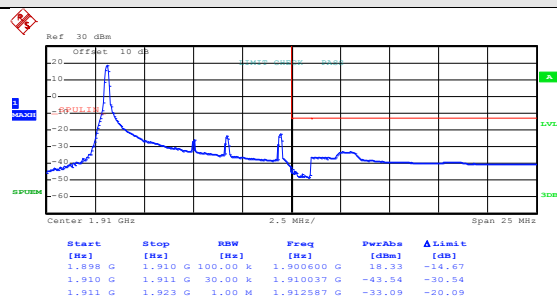
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:48:52

Lowest channel

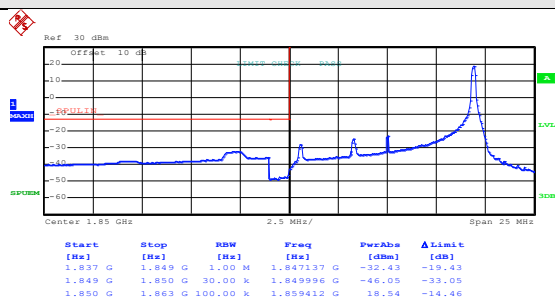


Date: 3.JUL.2017 09:52:13

Highest channel

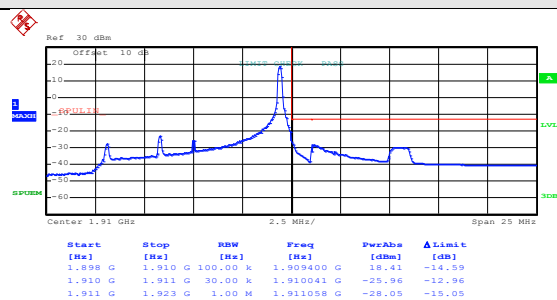
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 49)



Date: 3.JUL.2017 09:49:50

Lowest channel

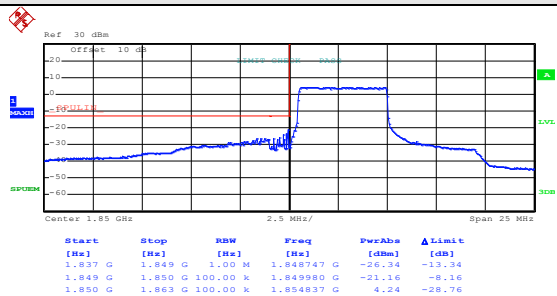


Date: 3.JUL.2017 09:52:43

Highest channel

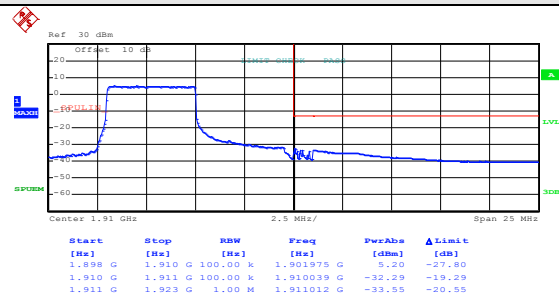
Test Mode:

LTE band 4(QPSK RB Size 25 & RB Offset 0)



Date: 3.JUL.2017 10:08:50

Lowest channel

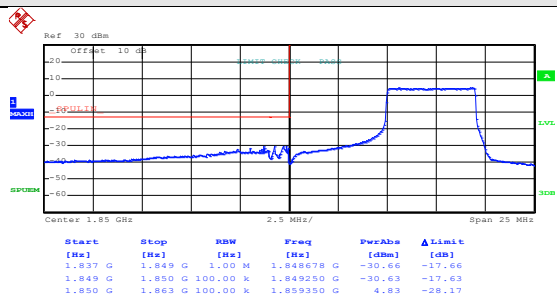


Date: 3.JUL.2017 10:07:21

Highest channel

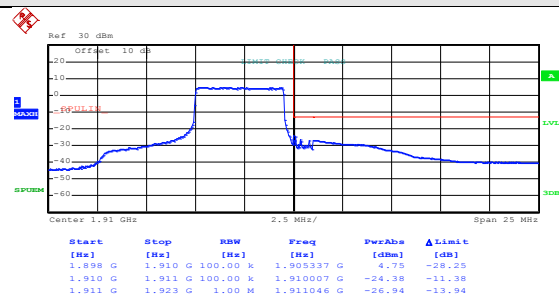
Test Mode:

LTE band 4(QPSK RB Size 25 & RB Offset 24)



Date: 3.JUL.2017 10:09:19

Lowest channel

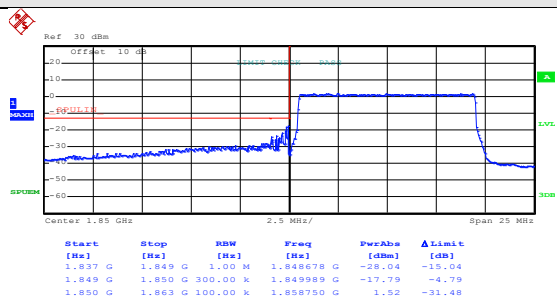


Date: 3.JUL.2017 10:07:58

Highest channel

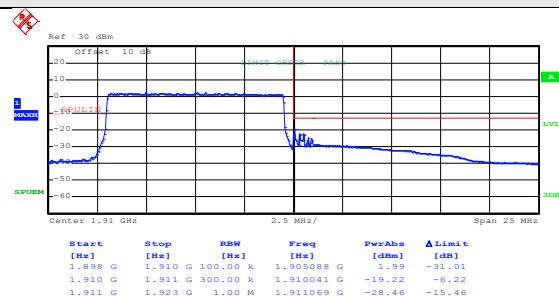
Test Mode:

LTE band 4(QPSK RB Size 50 & RB Offset 0)



Date: 3.JUL.2017 10:10:22

Lowest channel

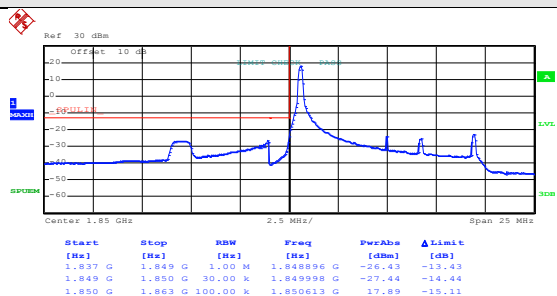


Date: 3.JUL.2017 10:10:56

Highest channel

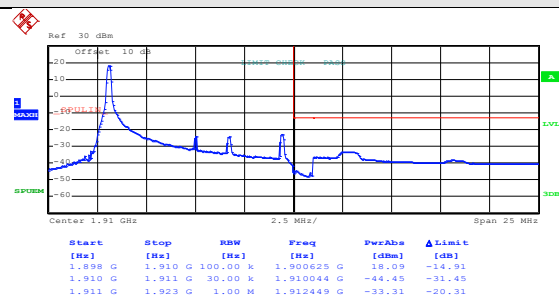
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 09:49:15

Lowest channel

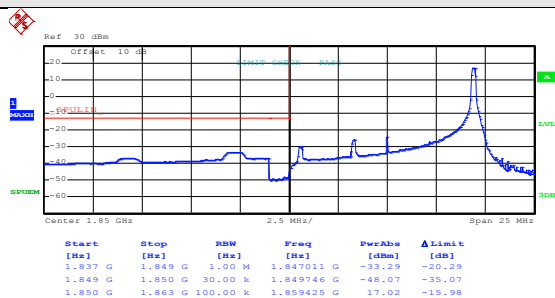


Date: 3.JUL.2017 09:52:27

Highest channel

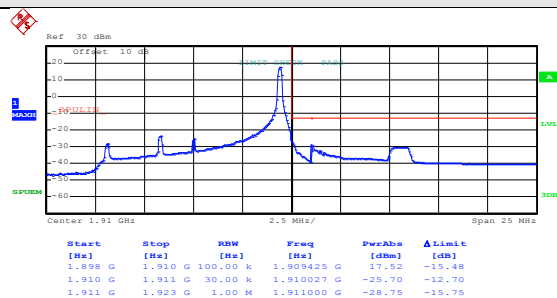
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 49)



Date: 3.JUL.2017 09:50:47

Lowest channel

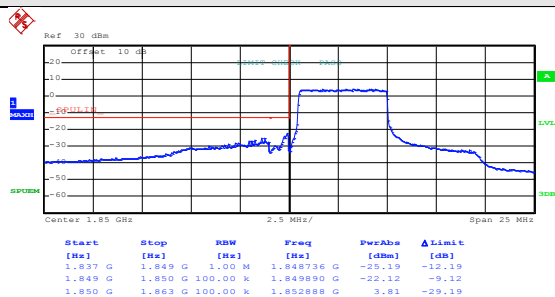


Date: 3.JUL.2017 09:52:55

Highest channel

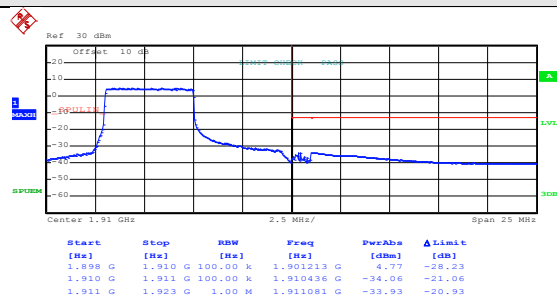
Test Mode:

LTE band 2(16QAM RB Size 25 & RB Offset 0)



Date: 3.JUL.2017 10:09:03

Lowest channel

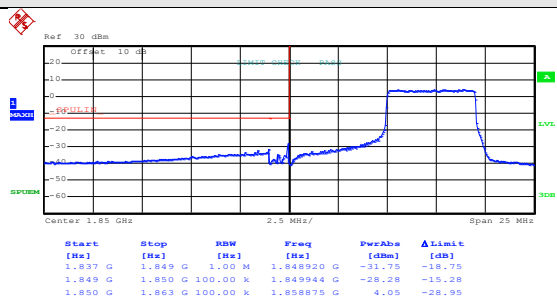


Date: 3.JUL.2017 10:07:40

Highest channel

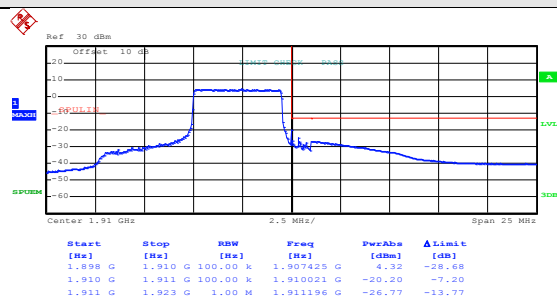
Test Mode:

LTE band 2(16QAM RB Size 25 & RB Offset 24)



Date: 3.JUL.2017 10:09:31

Lowest channel

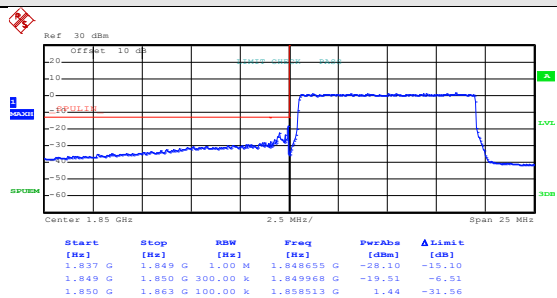


Date: 3.JUL.2017 10:08:13

Highest channel

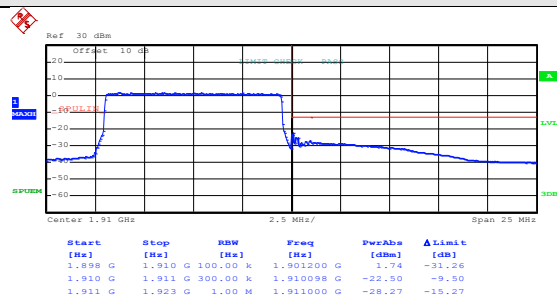
Test Mode:

LTE band 2(16QAM RB Size 50 & RB Offset 0)



Date: 3.JUL.2017 10:10:30

Lowest channel



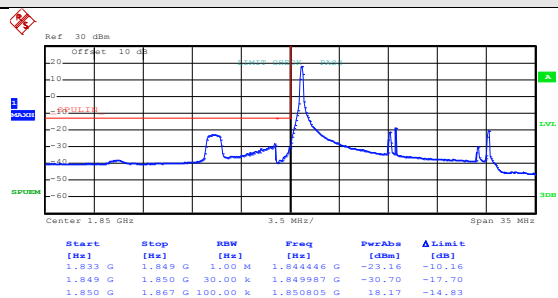
Date: 3.JUL.2017 10:11:06

Highest channel

15MHz:

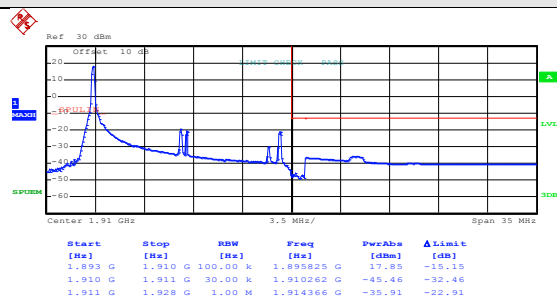
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 10:43:44

Lowest channel

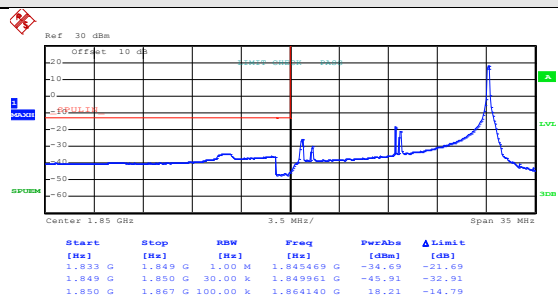


Date: 3.JUL.2017 10:45:41

Highest channel

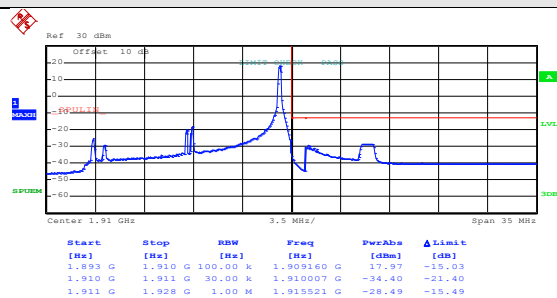
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 74)



Date: 3.JUL.2017 10:44:25

Lowest channel

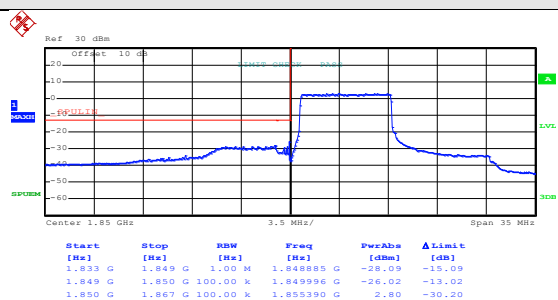


Date: 3.JUL.2017 10:47:04

Highest channel

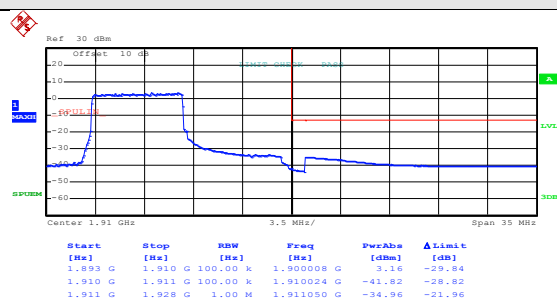
Test Mode:

LTE band 2(QPSK RB Size 36 & RB Offset 0)



Date: 3.JUL.2017 11:17:55

Lowest channel

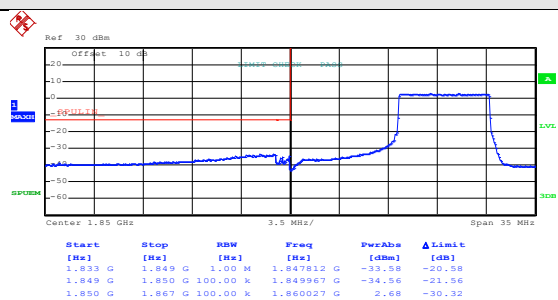


Date: 3.JUL.2017 10:48:07

Highest channel

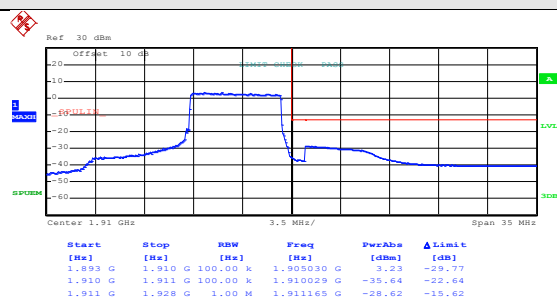
Test Mode:

LTE band 2(QPSK RB Size 36 & RB Offset 35)



Date: 3.JUL.2017 11:18:24

Lowest channel

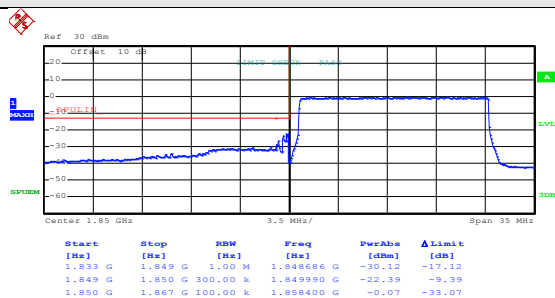


Date: 3.JUL.2017 10:48:38

Highest channel

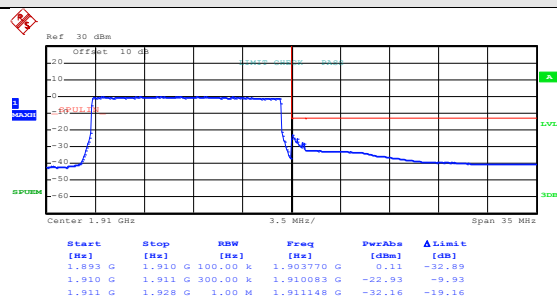
Test Mode:

LTE band 2(QPSK RB Size 75 & RB Offset 0)



Date: 3.JUL.2017 11:33:35

Lowest channel

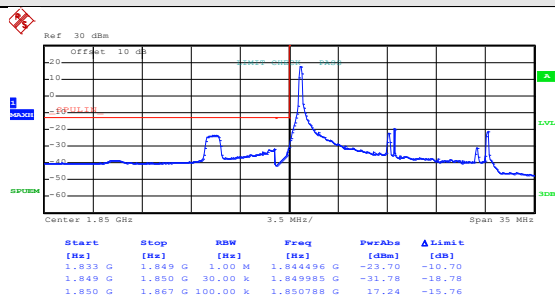


Date: 3.JUL.2017 11:34:15

Highest channel

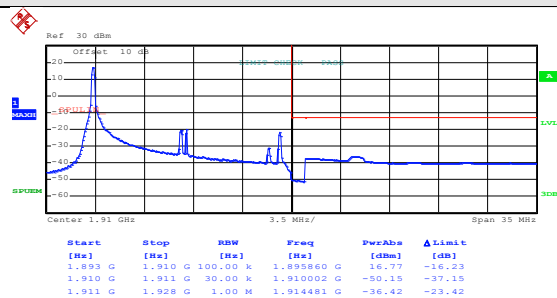
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 10:44:05

Lowest channel

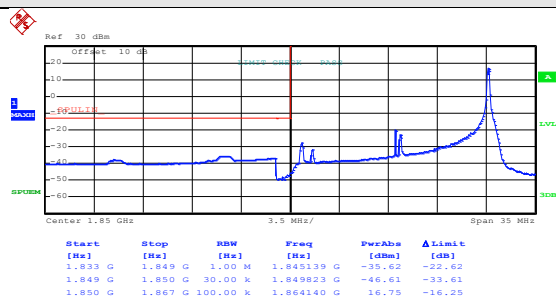


Date: 3.JUL.2017 10:46:44

Highest channel

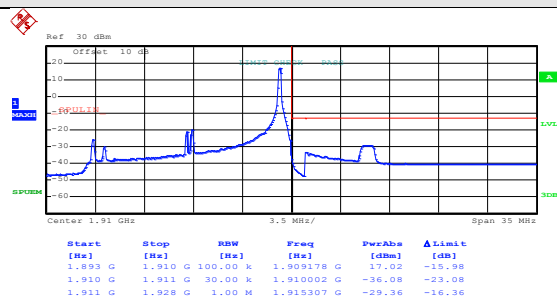
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 74)



Date: 3.JUL.2017 10:44:37

Lowest channel

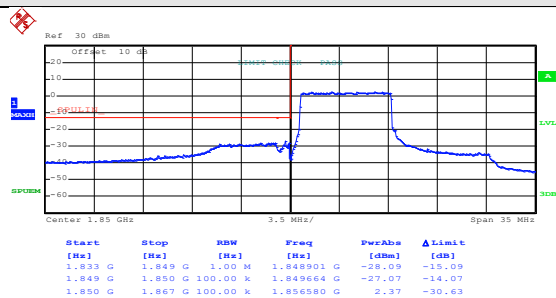


Date: 3.JUL.2017 10:47:18

Highest channel

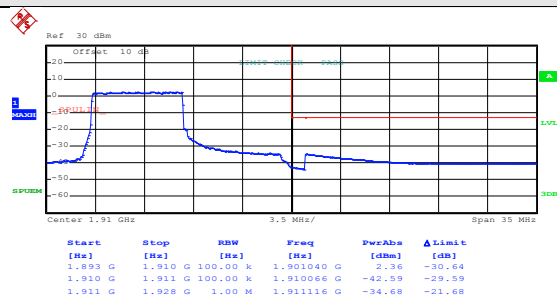
Test Mode:

LTE band 2(16QAM RB Size 36 & RB Offset 0)



Date: 3.JUL.2017 11:18:06

Lowest channel

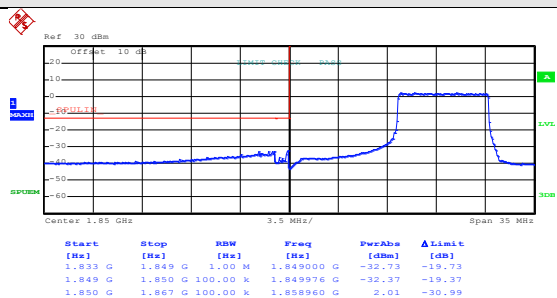


Date: 3.JUL.2017 10:48:20

Highest channel

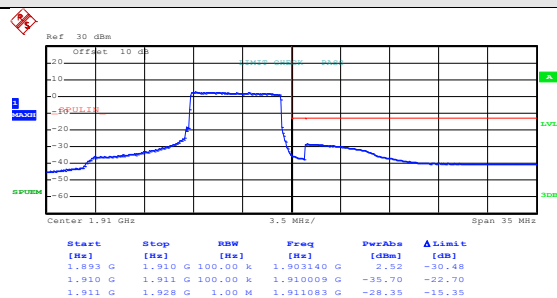
Test Mode:

LTE band 2(16QAM RB Size 36 & RB Offset 35)



Date: 3.JUL.2017 11:18:27

Lowest channel

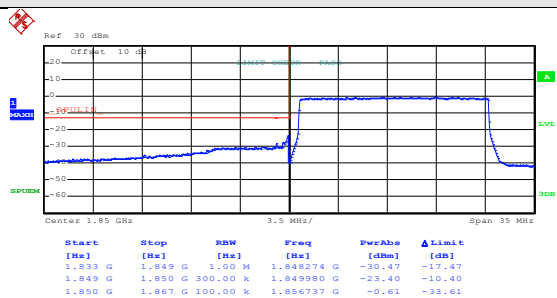


Date: 3.JUL.2017 10:48:51

Highest channel

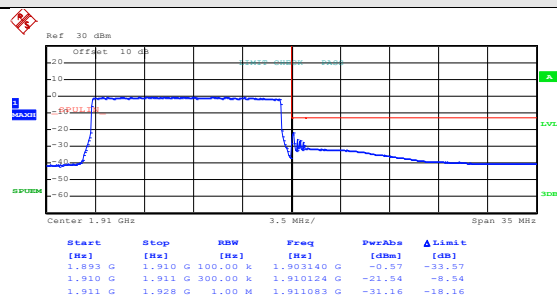
Test Mode:

LTE band 2(16QAM RB Size 75 & RB Offset 0)



Date: 3.JUL.2017 11:33:45

Lowest channel



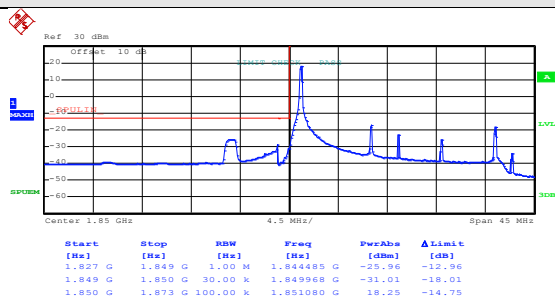
Date: 3.JUL.2017 11:34:29

Highest channel

20MHz:

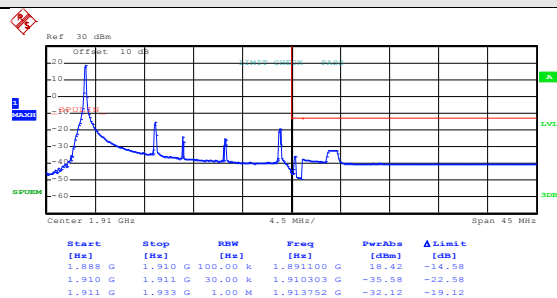
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 13:51:24

Lowest channel

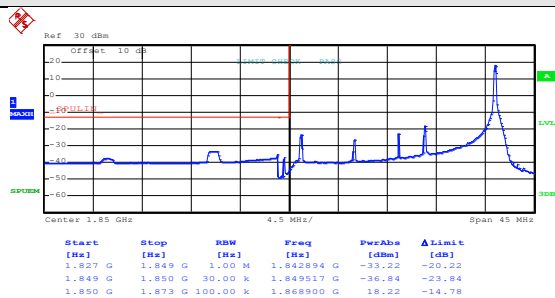


Date: 3.JUL.2017 13:57:28

Highest channel

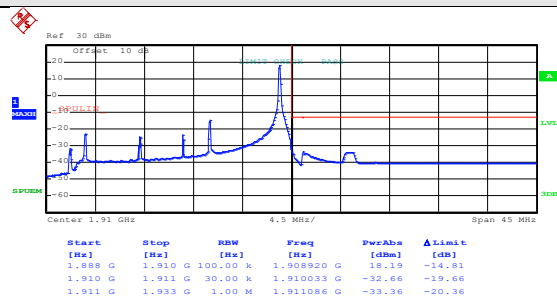
Test Mode:

LTE band 2(QPSK RB Size 1 & RB Offset 99)



Date: 3.JUL.2017 13:54:54

Lowest channel

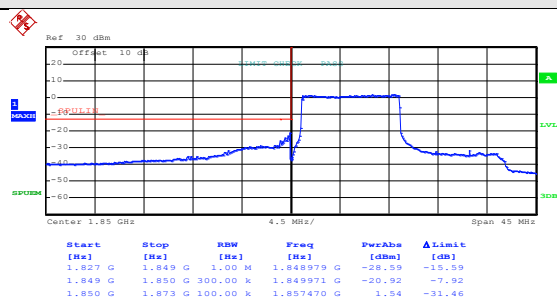


Date: 3.JUL.2017 14:03:19

Highest channel

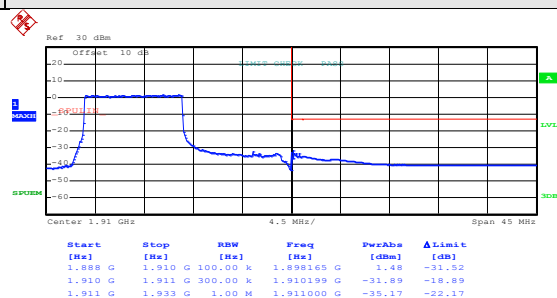
Test Mode:

LTE band 2(QPSK RB Size 50 & RB Offset 0)



Date: 3.JUL.2017 11:35:39

Lowest channel

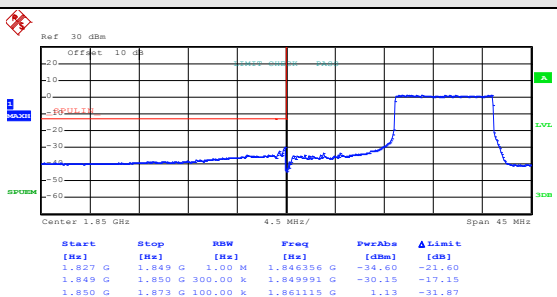


Date: 3.JUL.2017 11:39:20

Highest channel

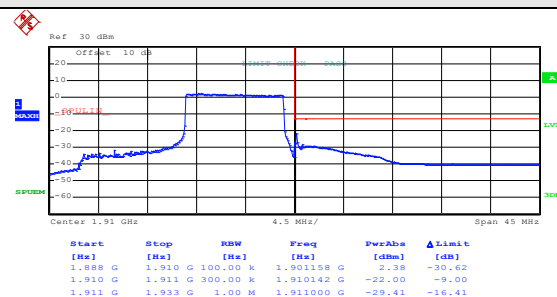
Test Mode:

LTE band 2(QPSK RB Size 50 & RB Offset 49)



Date: 3.JUL.2017 11:36:13

Lowest channel

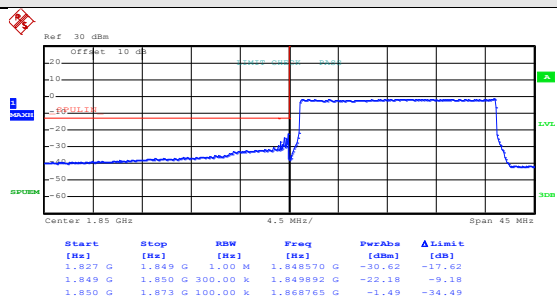


Date: 3.JUL.2017 11:39:57

Highest channel

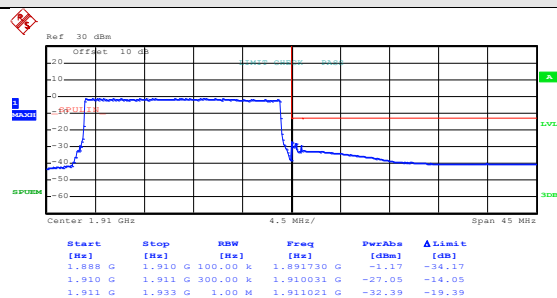
Test Mode:

LTE band 2(QPSK RB Size 100 & RB Offset 0)



Date: 3.JUL.2017 11:37:38

Lowest channel

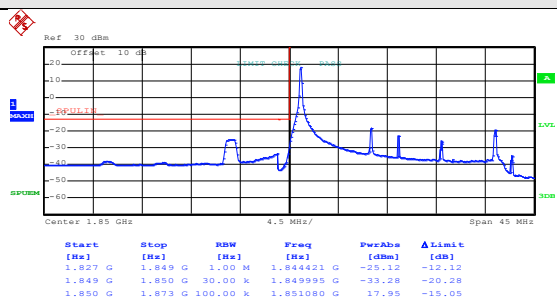


Date: 3.JUL.2017 11:40:26

Highest channel

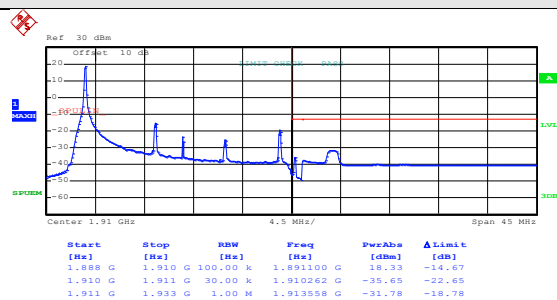
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 0)



Date: 3.JUL.2017 13:54:18

Lowest channel

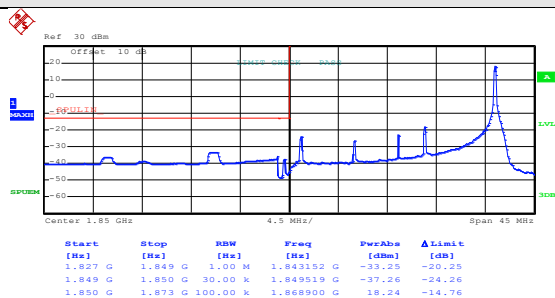


Date: 3.JUL.2017 13:57:46

Highest channel

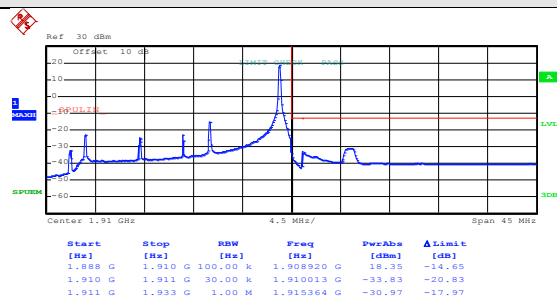
Test Mode:

LTE band 2(16QAM RB Size 1 & RB Offset 99)



Date: 3.JUL.2017 13:55:12

Lowest channel

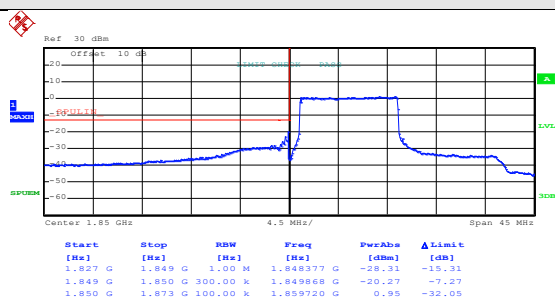


Date: 3.JUL.2017 14:03:48

Highest channel

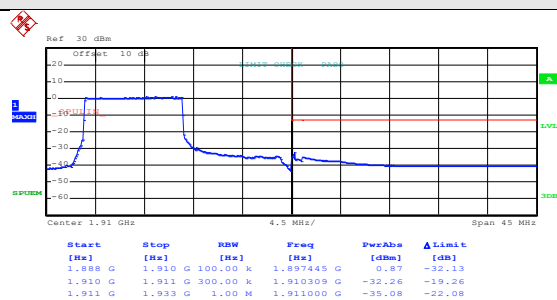
Test Mode:

LTE band 2(16QAM RB Size 50 & RB Offset 0)



Date: 3.JUL.2017 11:35:53

Lowest channel

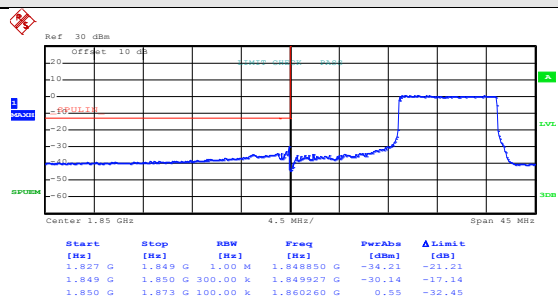


Date: 3.JUL.2017 11:39:36

Highest channel

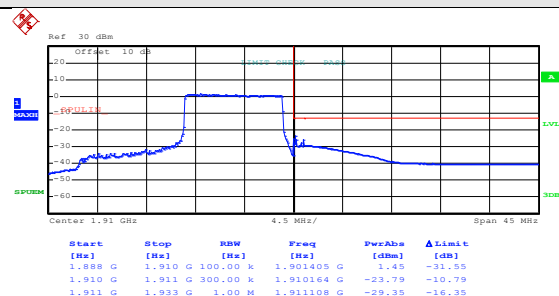
Test Mode:

LTE band 2(16QAM RB Size 50 & RB Offset 49)



Date: 3.JUL.2017 11:36:25

Lowest channel

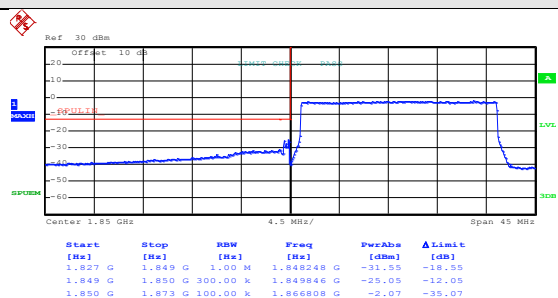


Date: 3.JUL.2017 11:40:11

Highest channel

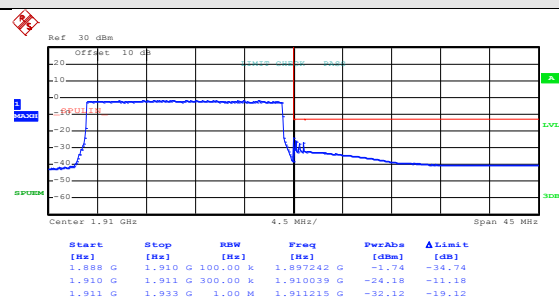
Test Mode:

LTE band 2(16QAM RB Size 100 & RB Offset 0)



Date: 3.JUL.2017 11:37:50

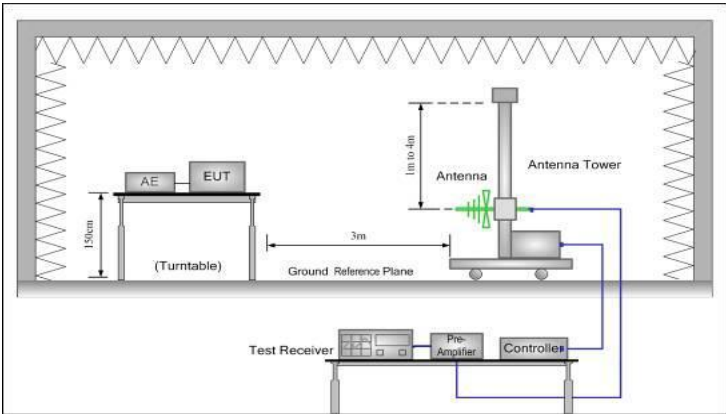
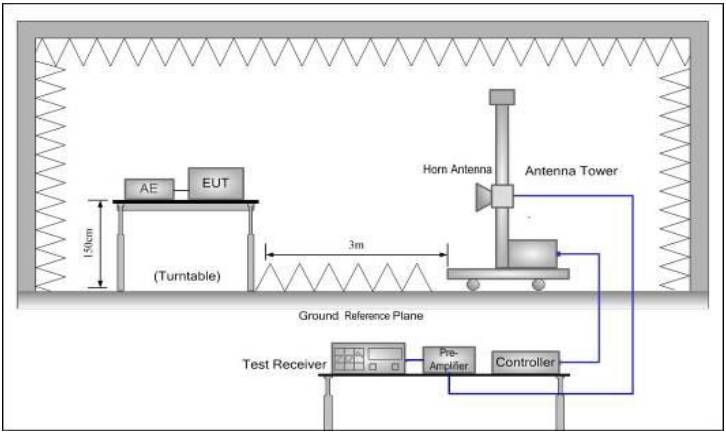
Lowest channel



Date: 3.JUL.2017 11:40:50

Highest channel

6.10 ERP, EIRP Measurement

Test Requirement:	Part 24.232 (c)
Test Method:	FCC part2.1046
Limit:	LTE Band 2: 2W EIRP
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p> 

Test Procedure:	<ol style="list-style-type: none">1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.3. ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows: $\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}$4. EIRP in frequency band above 1GHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: $\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$5. The worse case was relating to the conducted output power.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE band 2 part

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1.4MHz(RB size 1 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	24.48	33.00	Pass
					H	23.26		
1850.70	18607	16QAM	1.4	H	V	24.09		
					H	22.91		
1.4MHz(RB size 3 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	24.43	33.00	Pass
					H	23.02		
1850.70	18607	16QAM	1.4	H	V	24.25		
					H	22.96		
1.4MHz(RB size 6 & RB offset 0)								
1850.70	18607	QPSK	1.4	H	V	24.07	33.00	Pass
					H	22.80		
1850.70	18607	16QAM	1.4	H	V	24.44		
					H	23.15		

Middle channel

Middle Channel								
Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1.4MHz(RB size 1 & RB offset 0)								
1880.00	18900	QPSK	1.4	H	V	24.37	33.00	Pass
					H	23.31		
1880.00	18900	16QAM	1.4	H	V	24.17		
					H	22.76		
1.4MHz(RB size 3 & RB offset 0)								
1880.00	18900	QPSK	1.4	H	V	24.56	33.00	Pass
					H	23.15		
1880.00	18900	16QAM	1.4	H	V	24.14		
					H	22.78		
1.4MHz(RB size 6 & RB offset 0)								
1880.00	18900	QPSK	1.40	H	V	24.11	33.00	Pass
					H	22.65		
1880.00	18900	16QAM	1.40	H	V	24.23		
					H	22.98		

Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
1.4MHz(RB size 1 & RB offset 0)								
1909.30	19193	QPSK	1.4	H	V	24.55	33.00	Pass
					H	23.53		
1909.30	19193	16QAM	1.4	H	V	24.20		
					H	22.85		
1.4MHz(RB size 3 & RB offset 0)								
1909.30	19193	QPSK	1.4	H	V	24.15	33.00	Pass
					H	23.22		
1909.30	19193	16QAM	1.4	H	V	24.16		
					H	22.87		
1.4MHz(RB size 6 & RB offset 0)								
1909.30	19193	QPSK	1.4	H	V	24.18	33.00	Pass
					H	22.79		
1909.30	19193	16QAM	1.4	H	V	24.33		
					H	23.11		

Lowest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
20MHz(RB size 1 & RB offset 0)								
1860.00	18700	QPSK	20	H	V	24.58	33.00	Pass
					H	23.37		
1860.00	18700	16QAM	20	H	V	24.14		
					H	22.64		
20MHz(RB size 50 & RB offset 0)								
1860.00	18700	QPSK	20	H	V	23.79	33.00	Pass
					H	22.42		
1860.00	18700	16QAM	20	H	V	24.56		
					H	23.03		
20MHz(RB size 100 & RB offset 0)								
1860.00	18700	QPSK	20	H	V	23.05	33.00	Pass
					H	20.64		
1860.00	18700	16QAM	20	H	V	22.56		
					H	21.31		

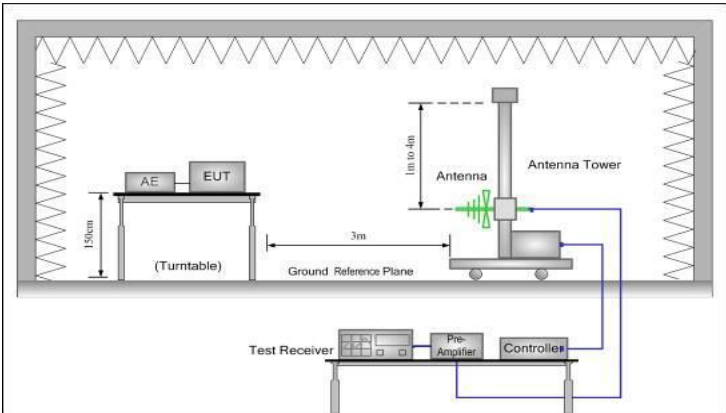
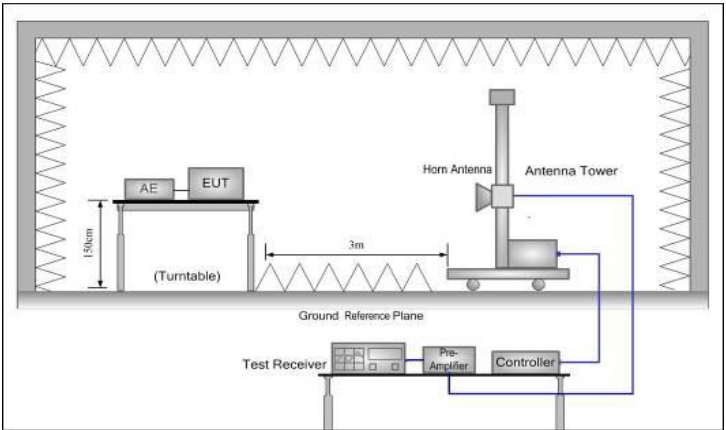
Middle channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
20MHz(RB size 1 & RB offset 0)								
1880.00	18900	QPSK	20	H	V	24.43	33.00	Pass
					H	23.35		
1880.00	18900	16QAM	20	H	V	24.25		
					H	22.77		
20MHz(RB size 50 & RB offset 0)								
1880.00	18900	QPSK	20	H	V	23.62	33.00	Pass
					H	22.54		
1880.00	18900	16QAM	20	H	V	24.51		
					H	23.13		
20MHz(RB size 100 & RB offset 0)								
1880.00	18900	QPSK	20	H	V	23.14	33.00	Pass
					H	20.87		
1880.00	18900	16QAM	20	H	V	22.36		
					H	21.42		

Highest channel

Frequency (MHz)	UL Channel	Modulation	BW (MHz)	EUT Pol.	Antenna Pol.	EIRP(dBm)	Limit (dBm)	Result
20MHz(RB size 1 & RB offset 0)								
1900.00	19100	QPSK	20	H	V	24.65	33.00	Pass
					H	23.38		
1900.00	19100	16QAM	20	H	V	24.14		
					H	22.82		
20MHz(RB size 50 & RB offset 0)								
1900.00	19100	QPSK	20	H	V	23.69	33.00	Pass
					H	22.63		
1900.00	19100	16QAM	20	H	V	24.82		
					H	23.01		
20MHz(RB size 100 & RB offset 0)								
1900.00	19100	QPSK	20	H	V	23.15	33.00	Pass
					H	20.71		
1900.00	19100	16QAM	20	H	V	22.58		
					H	21.46		

6.11 Field strength of spurious radiation measurement

Test Requirement:	Part 24.238 (a)
Test Method:	FCC part2.1053
Limit:	LTE Band 2: -13dBm,
Test setup:	<p>Below 1GHz</p>  <p>Above 1GHz</p> 
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $ERP / EIRP = S.G. \text{ output (dBm) } + \text{Antenna Gain(dB/dBi) } - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data (worst case):**Below 1GHz:**

The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

Above 1GHz

For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE band 2 part:

1.4MHz(RB size 1 & RB offset 0) for QPSK

1.4MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3701.40	Vertical	-53.67	-13.00	Pass
5552.10	V	-47.81		
7402.00	V	-43.02		
3701.40	Horizontal	-54.04		
5552.10	H	-47.50		
7402.00	H	-41.50		
Middle				
3760.00	Vertical	-53.38	-13.00	Pass
5640.00	V	-48.34		
7520.00	V	-42.87		
3760.00	Horizontal	-54.67		
5640.00	H	-47.76		
7520.00	H	-44.45		
Highest				
3816.60	Vertical	-53.58	-13.00	Pass
5724.90	V	-48.44		
7633.20	V	-43.86		
3816.60	Horizontal	-53.27		
5724.90	H	-48.99		
7633.20	H	-43.32		

3MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3703.00	Vertical	-52.12	-13.00	Pass
5554.50	V	-45.62		
7406.00	V	-41.72		
3703.00	Horizontal	-54.17		
5554.50	H	-45.33		
7406.00	H	-42.12		
Middle				
3760.00	Vertical	-52.36	-13.00	Pass
5640.00	V	-48.12		
7520.00	V	-41.23		
3760.00	Horizontal	-53.26		
5640.00	H	-57.13		
7520.00	H	-43.69		
Highest				
3817.00	Vertical	-53.67	-13.00	Pass
5725.50	V	-47.56		
7634.00	V	-42.69		
3817.00	Horizontal	-54.75		
5725.50	H	-47.52		
7634.00	H	-41.22		

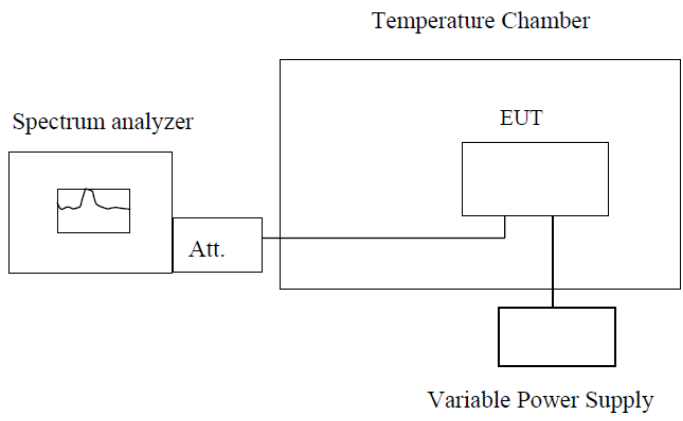
5MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3705.00	Vertical	-52.36	-13.00	Pass
5557.50	V	-47.16		
7410.00	V	-43.26		
3705.00	Horizontal	-54.26		
5557.50	H	-47.77		
7410.00	H	-41.28		
Middle				
3760.00	Vertical	-53.26	-13.00	Pass
5640.00	V	-48.57		
7520.00	V	-42.69		
3760.00	Horizontal	-52.37		
5640.00	H	-47.46		
7520.00	H	-44.69		
Highest				
3815.00	Vertical	-52.36	-13.00	Pass
5722.50	V	-48.77		
7630.00	V	-42.16		
3815.00	Horizontal	-54.16		
5722.50	H	-47.16		
7630.00	H	-42.38		

10MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3710.00	Vertical	-51.77	-13.00	Pass
5565.00	V	-47.82		
7420.00	V	-43.65		
3710.00	Horizontal	-53.23		
5565.00	H	-48.52		
7420.00	H	-42.73		
Middle				
3760.00	Vertical	-53.76	-13.00	Pass
5640.00	V	-47.25		
7520.00	V	-42.55		
3760.00	Horizontal	-54.72		
5640.00	H	-48.96		
7520.00	H	-43.68		
Highest				
3810.00	Vertical	-54.11	-13.00	Pass
5715.00	V	-47.26		
7620.00	V	-43.26		
3810.00	Horizontal	-52.77		
5715.00	H	-46.28		
7620.00	H	-41.79		

15MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3715.00	Vertical	-54.13	-13.00	Pass
5572.50	V	-46.59		
7430.00	V	-42.11		
3715.00	Horizontal	-54.26		
5572.50	H	-46.23		
7430.00	H	-42.23		
Middle				
3760.00	Vertical	-53.69	-13.00	Pass
5640.00	V	-48.15		
7520.00	V	-42.51		
3760.00	Horizontal	-54.17		
5640.00	H	-47.16		
7520.00	H	-43.89		
Highest				
3805.00	Vertical	-53.69	-13.00	Pass
5707.50	V	-47.15		
7610.00	V	-42.36		
3805.00	Horizontal	-54.11		
5707.50	H	-47.13		
7610.00	H	-41.53		

20MHz(RB size 1 & RB offset 0) for QPSK				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest				
3720.00	Vertical	-53.69	-13.00	Pass
5580.00	V	-47.85		
7440.00	V	-42.66		
3720.00	Horizontal	-52.16		
5580.00	H	-46.58		
7440.00	H	-42.44		
Middle				
3760.00	Vertical	-54.42	-13.00	Pass
5640.00	V	-46.79		
7520.00	V	-42.84		
3760.00	Horizontal	-54.95		
5640.00	H	-48.50		
7520.00	H	-42.38		
Highest				
3800.00	Vertical	-54.72	-13.00	Pass
5700.00	V	-48.62		
7600.00	V	-42.16		
3800.00	Horizontal	-51.47		
5700.00	H	-47.16		
7600.00	H	-41.88		

6.12 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 24.235, Part 2.1055(a)(1)(b)
Test Method:	FCC Part2.1055(a)(1)(b)
Limit:	$\pm 2.5\text{ppm}$
Test setup:	 <p>Note : Measurement setup for testing on Antenna connector</p>
Test procedure:	<ol style="list-style-type: none"> 1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	All three channels of all modulations have been tested, but only the worst channel and the worst modulation show in this test item.

Measurement Data (the worst channel):

LTE Band 2(QPSK):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	153	0.081383	±2.5	Pass
	-10	161	0.085638		
	0	121	0.064362		
	10	186	0.098936		
	20	172	0.091489		
	30	112	0.059574		
	40	103	0.054787		
	50	148	0.078723		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	148	0.078723	±2.5	Pass
	-10	164	0.087234		
	0	120	0.063830		
	10	142	0.075532		
	20	138	0.073404		
	30	154	0.081915		
	40	131	0.069681		
	50	136	0.072340		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	172	0.091489	±2.5	Pass
	-10	121	0.064362		
	0	134	0.071277		
	10	131	0.069681		
	20	102	0.054255		
	30	106	0.056383		
	40	126	0.067021		
	50	152	0.080851		

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	172	0.091489	±2.5	Pass
	-10	168	0.089362		
	0	158	0.084043		
	10	121	0.064362		
	20	132	0.070213		
	30	142	0.075532		
	40	146	0.077660		
	50	106	0.056383		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	132	0.070213		
	0	126	0.067021		
	10	135	0.071809		
	20	142	0.075532		
	30	138	0.073404		
	40	148	0.078723		
	50	154	0.081915		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	150	0.079787		
	0	163	0.086702		
	10	178	0.094681		
	20	175	0.093085		
	30	143	0.076064		
	40	106	0.056383		
	50	115	0.061170		

LTE Band 2(16QAM):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz

Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	130	0.069149		
	0	134	0.071277		
	10	136	0.072340		
	20	125	0.066489		
	30	142	0.075532		
	40	146	0.077660		
	50	105	0.055851		

Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz

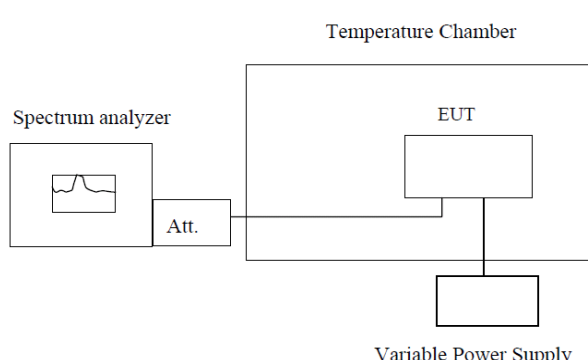
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	134	0.071277		
	0	142	0.075532		
	10	169	0.089894		
	20	118	0.062766		
	30	146	0.077660		
	40	105	0.055851		
	50	114	0.060638		

Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz

Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	139	0.073936	±2.5	Pass
	-10	121	0.064362		
	0	134	0.071277		
	10	126	0.067021		
	20	148	0.078723		
	30	149	0.079255		
	40	158	0.084043		
	50	166	0.088298		

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	163	0.086702		
	0	126	0.067021		
	10	175	0.093085		
	20	143	0.076064		
	30	138	0.073404		
	40	158	0.084043		
	50	116	0.061702		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	119	0.063298	±2.5	Pass
	-10	129	0.068617		
	0	134	0.071277		
	10	126	0.067021		
	20	142	0.075532		
	30	138	0.073404		
	40	148	0.078723		
	50	156	0.082979		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-20	121	0.064362	±2.5	Pass
	-10	142	0.075532		
	0	169	0.089894		
	10	178	0.094681		
	20	133	0.070745		
	30	106	0.056383		
	40	112	0.059574		
	50	107	0.056915		

6.13 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 24.235, Part 2.1055(d)(2)
Test Method:	FCC Part2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	 <p>Note : Measurement setup for testing on Antenna connector</p>
Test procedure:	<ol style="list-style-type: none"> 1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed

Measurement Data (the worst channel):

LTE Band 2(QPSK):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	97	0.0515957	±2.5	Pass
	3.80	63	0.0335106		
	3.50	43	0.0228723		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	79	0.0420213	±2.5	Pass
	3.80	64	0.0340426		
	3.50	34	0.0180851		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	86	0.0457447	±2.5	Pass
	3.80	72	0.0382979		
	3.50	43	0.0228723		
Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	96	0.0510638	±2.5	Pass
	3.80	63	0.0335106		
	3.50	72	0.0382979		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	78	0.0414894	±2.5	Pass
	3.80	94	0.0500000		
	3.50	46	0.0244681		
Reference Frequency: LTE Band 2(20MHz) Middle channel=20175 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	88	0.046809	±2.5	Pass
	3.80	82	0.043617		
	3.50	71	0.037766		

LTE Band 2(16QAM):

Reference Frequency: LTE Band 2(1.4MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	94	0.0500000	±2.5	Pass
	3.80	83	0.0441489		
	3.50	43	0.0228723		
Reference Frequency: LTE Band 2(3MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	64	0.0340426	±2.5	Pass
	3.80	89	0.0473404		
	3.50	82	0.0436170		
Reference Frequency: LTE Band 2(5MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	78	0.0414894	±2.5	Pass
	3.80	63	0.0335106		
	3.50	90	0.0478723		
Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	82	0.0436170	±2.5	Pass
	3.80	64	0.0340426		
	3.50	80	0.0425532		
Reference Frequency: LTE Band 2(15MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	88	0.0468085	±2.5	Pass
	3.80	61	0.0324468		
	3.50	83	0.0441489		
Reference Frequency: LTE Band 2(20MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	4.35	72	0.0382979	±2.5	Pass
	3.80	78	0.0414894		
	3.50	61	0.0324468		