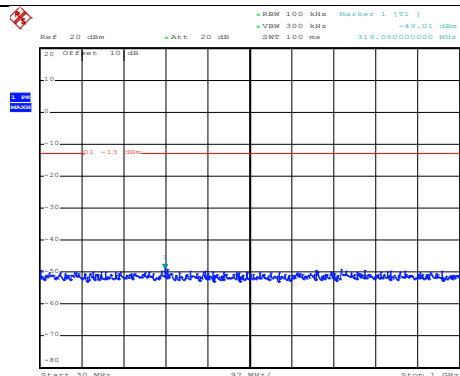


LTE Band 4: 16 QAM & RB Size 75

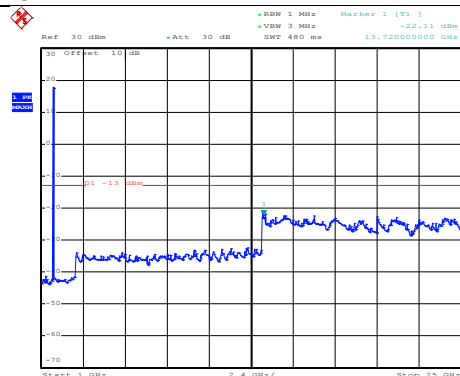
BW: 15MHz

Lowest channel



Date: 31.OCT.2018 00:53:52

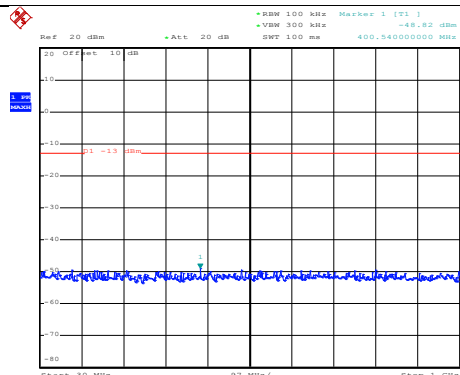
30MHz~1GHz



Date: 24.OCT.2018 17:59:38

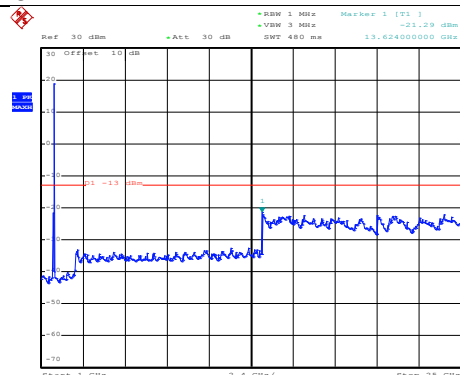
1GHz~25GHz

Middle channel



Date: 31.OCT.2018 00:54:12

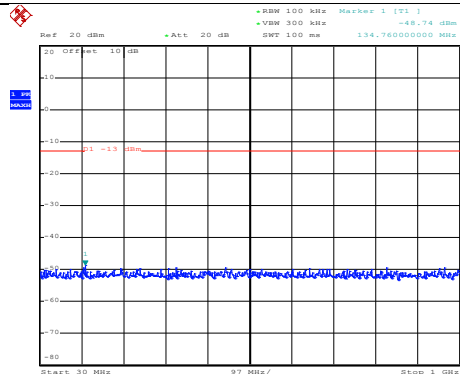
30MHz~1GHz



Date: 24.OCT.2018 18:00:32

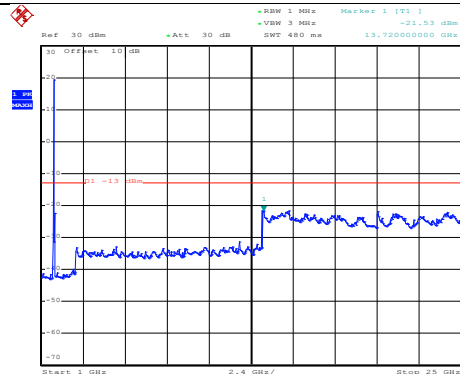
1GHz~25GHz

High channel



Date: 31.OCT.2018 00:55:20

30MHz~1GHz



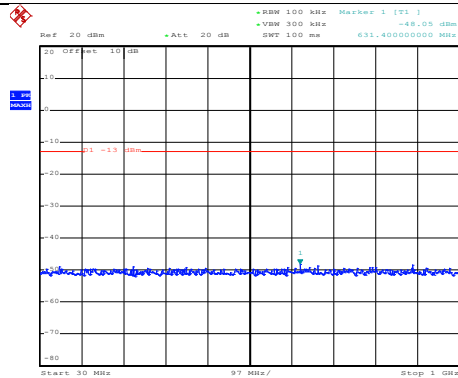
Date: 24.OCT.2018 18:01:56

1GHz~25GHz

LTE Band 4: QPSK & RB Size 1

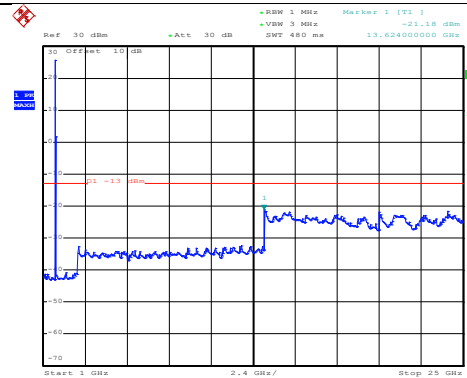
BW: 15MHz

Lowest channel



Date: 31.OCT.2018 00:53:26

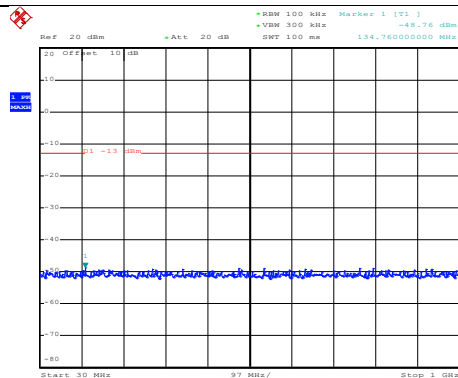
30MHz~1GHz



Date: 24.OCT.2018 17:59:03

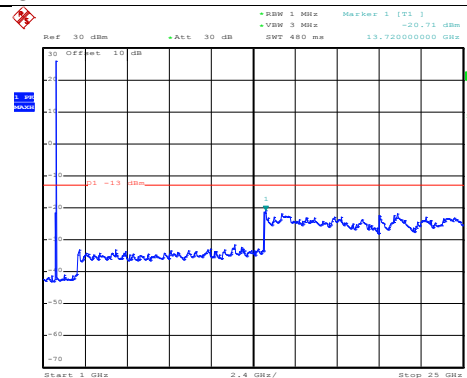
1GHz~25GHz

Middle channel



Date: 31.OCT.2018 00:54:26

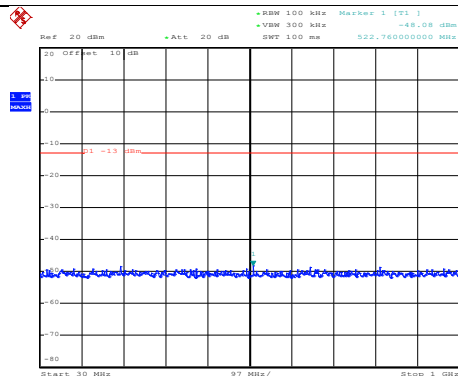
30MHz~1GHz



Date: 24.OCT.2018 18:00:00

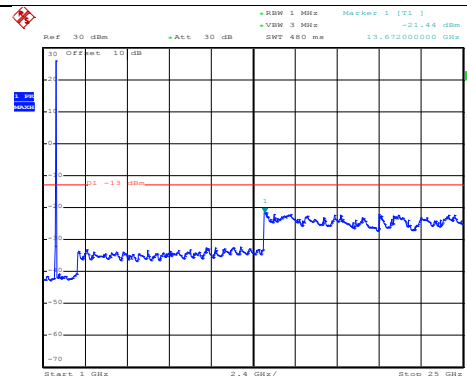
1GHz~25GHz

High channel



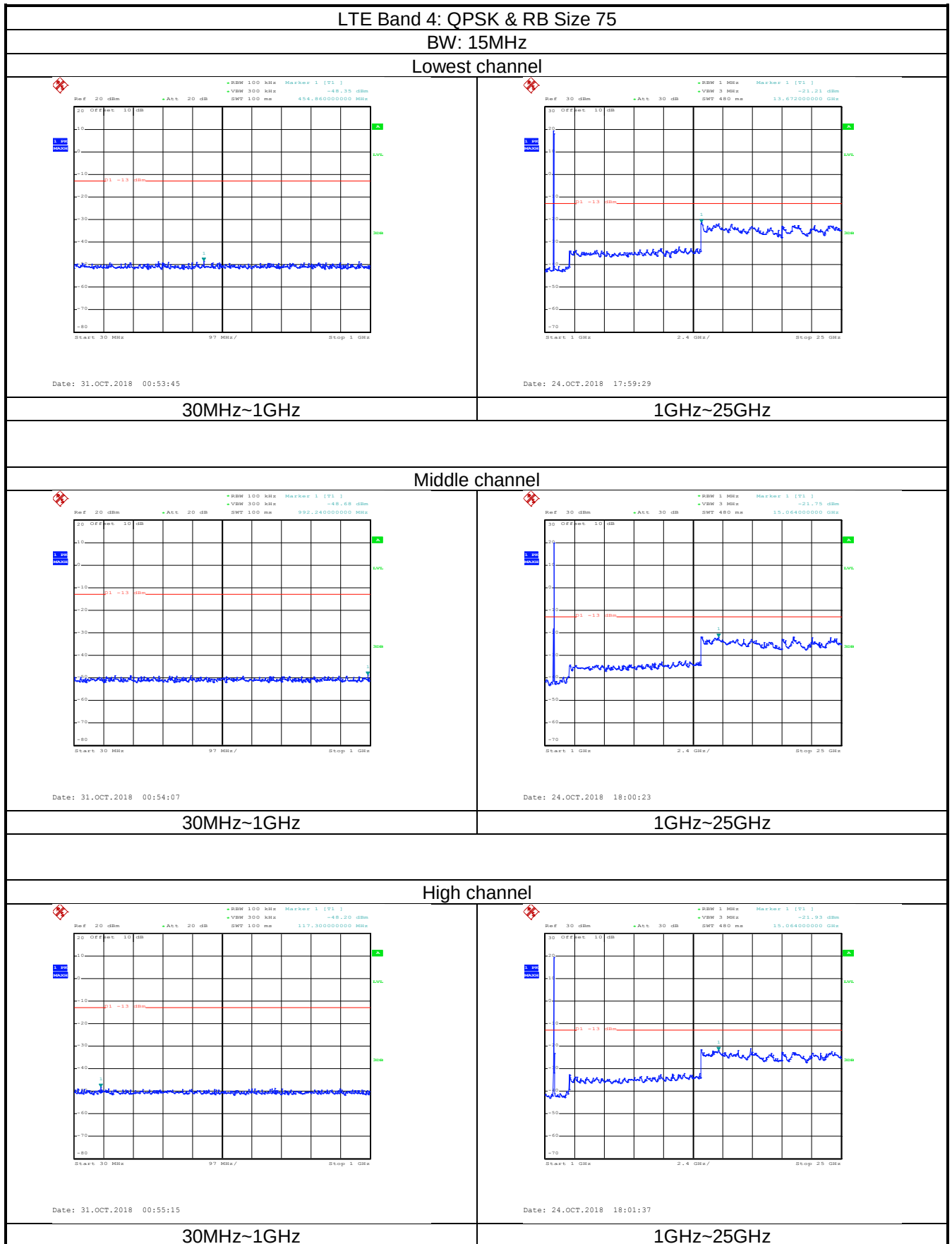
Date: 31.OCT.2018 00:54:47

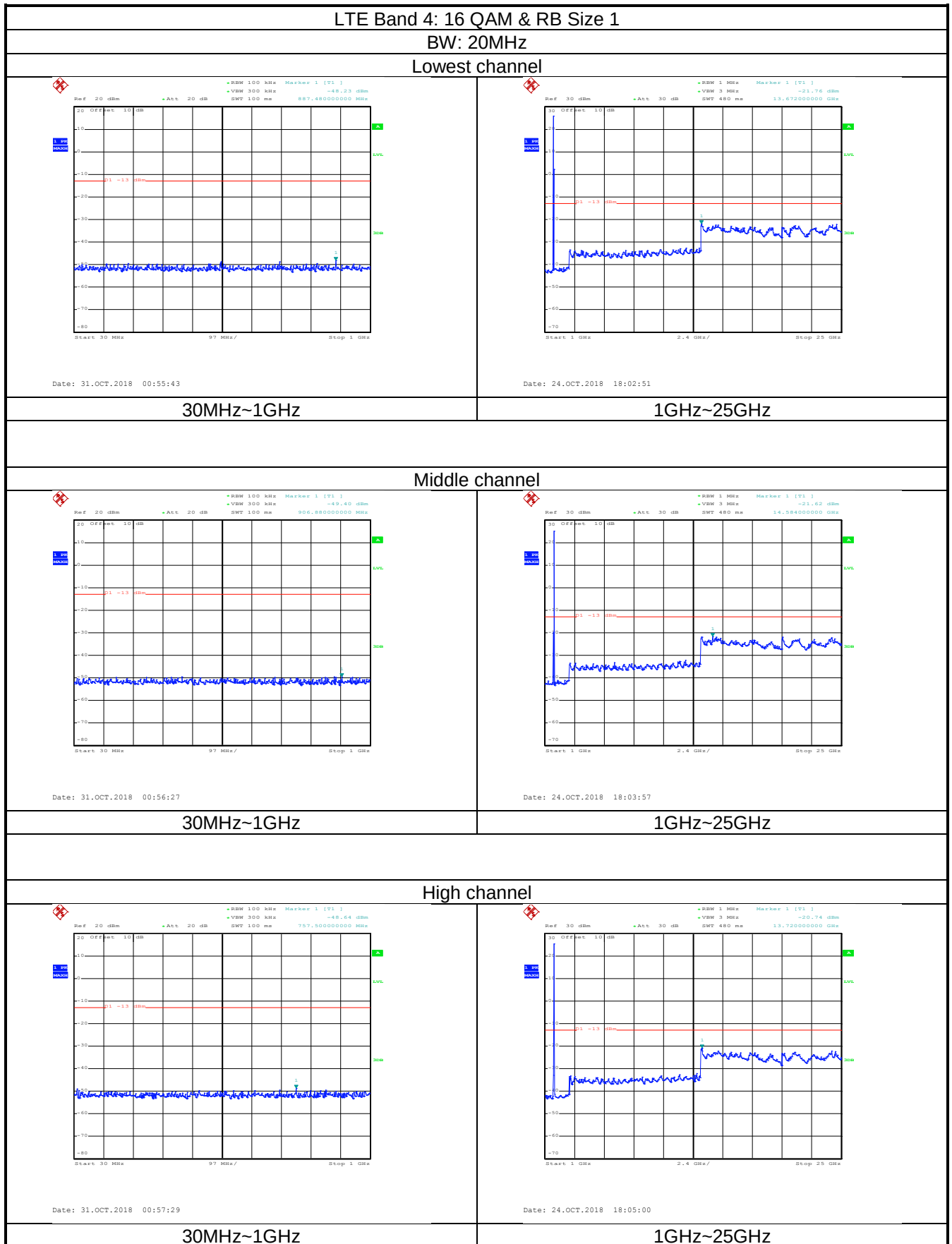
30MHz~1GHz

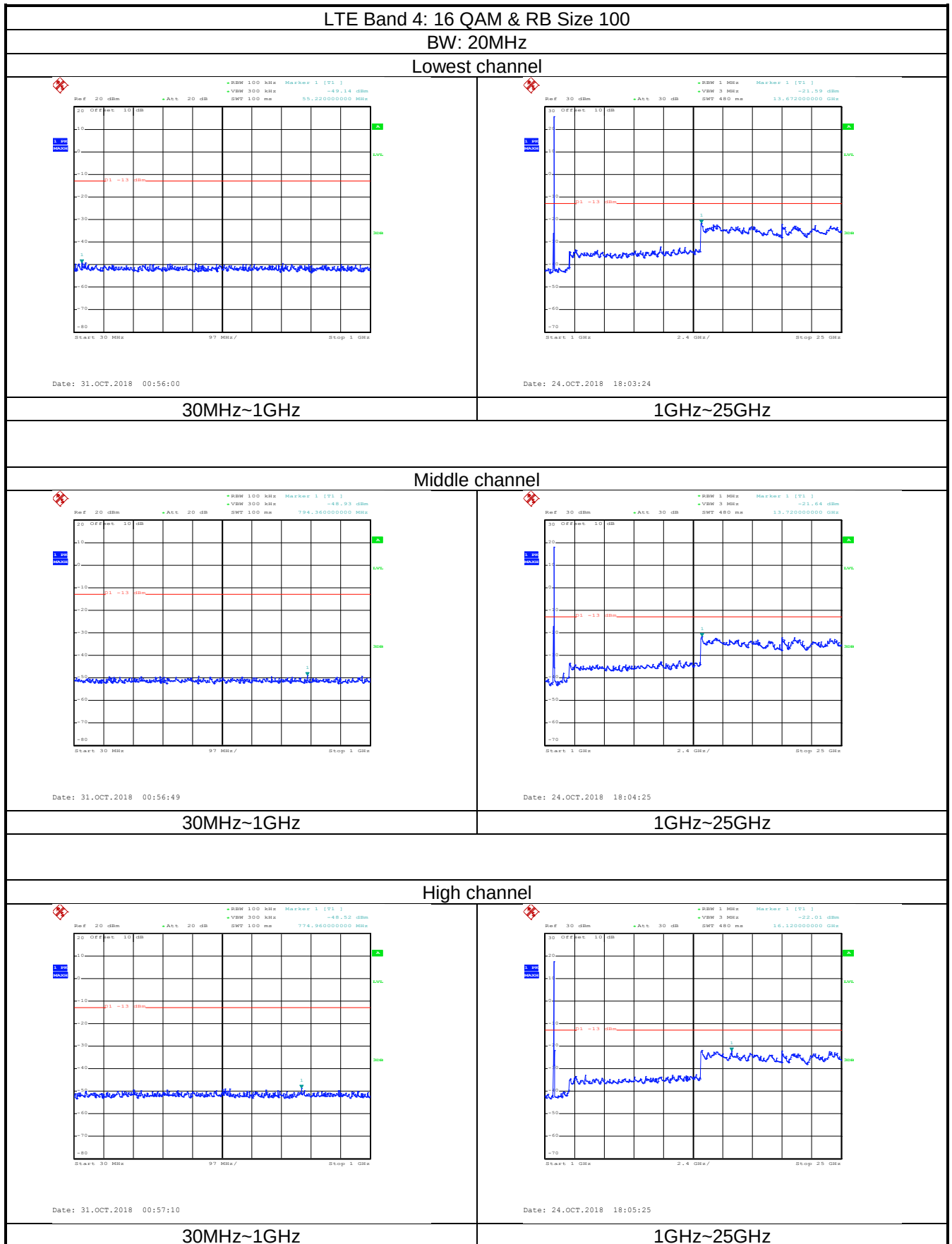


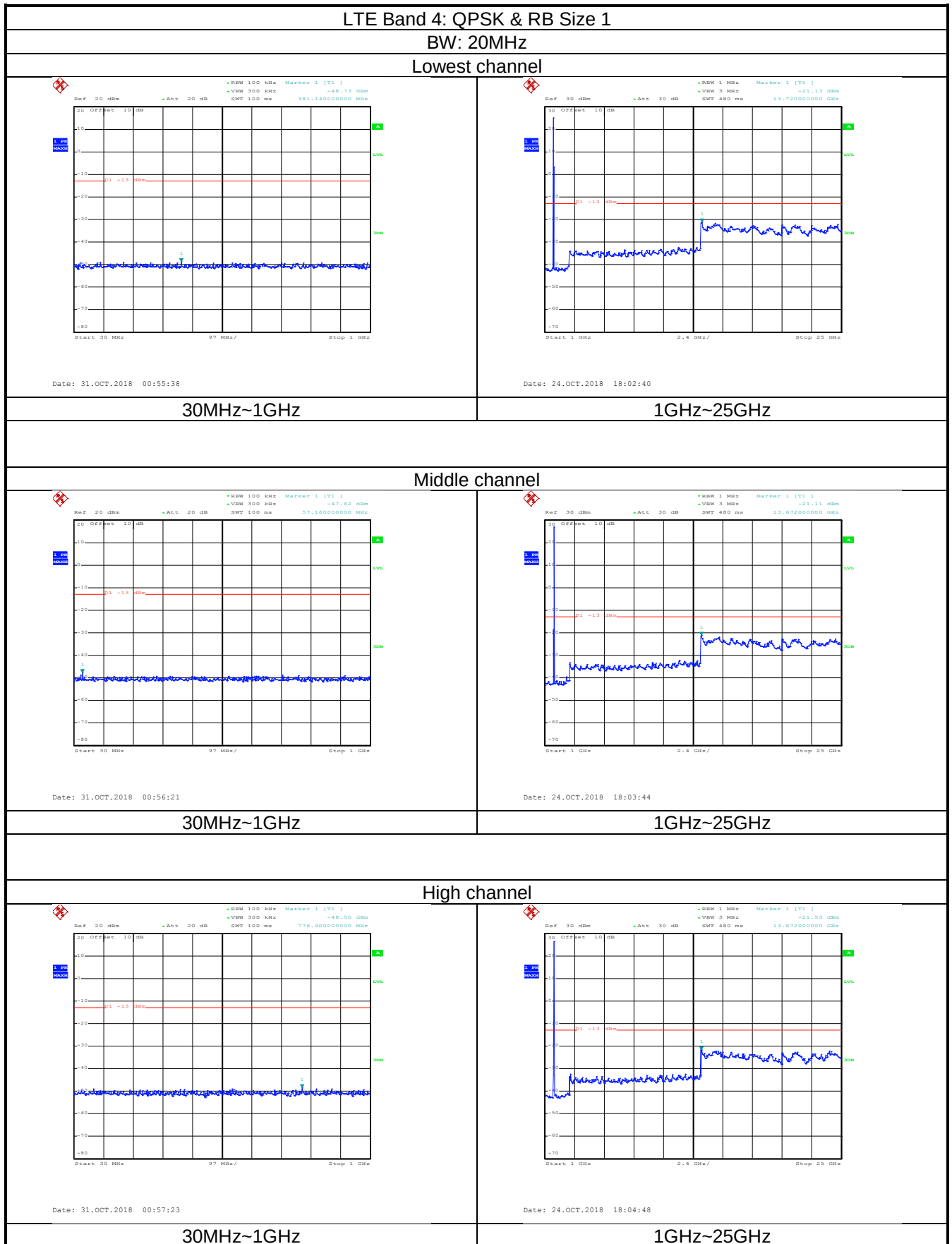
Date: 24.OCT.2018 18:01:01

1GHz~25GHz





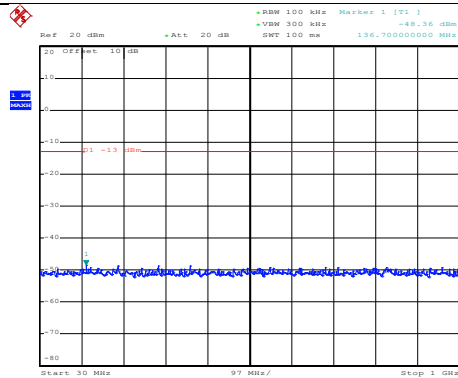




LTE Band 4: QPSK & RB Size 100

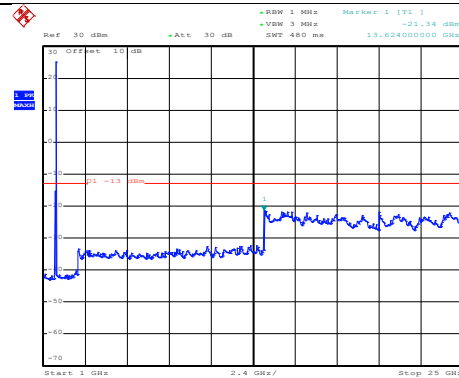
BW: 20MHz

Lowest channel



Date: 31.OCT.2018 00:55:55

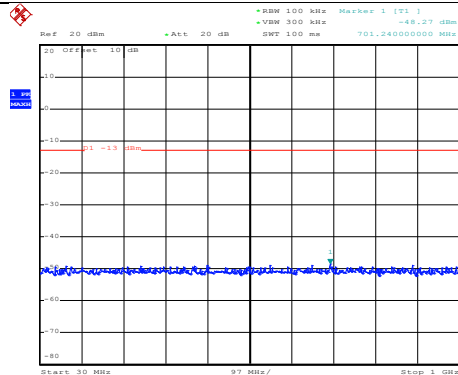
30MHz~1GHz



Date: 24.OCT.2018 18:03:15

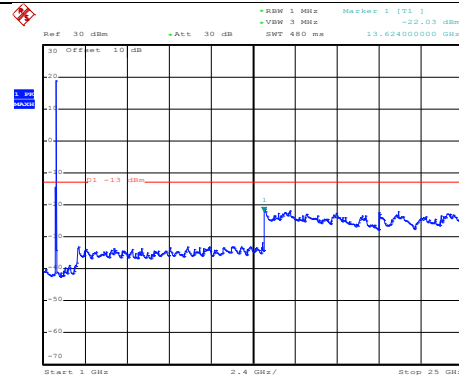
1GHz~25GHz

Middle channel



Date: 31.OCT.2018 00:56:41

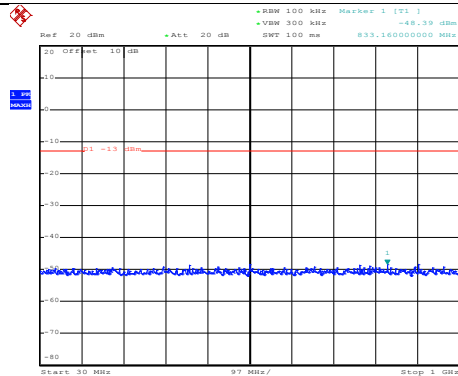
30MHz~1GHz



Date: 24.OCT.2018 18:04:14

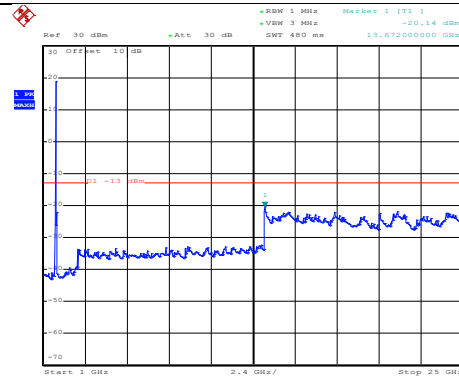
1GHz~25GHz

High channel



Date: 31.OCT.2018 00:57:04

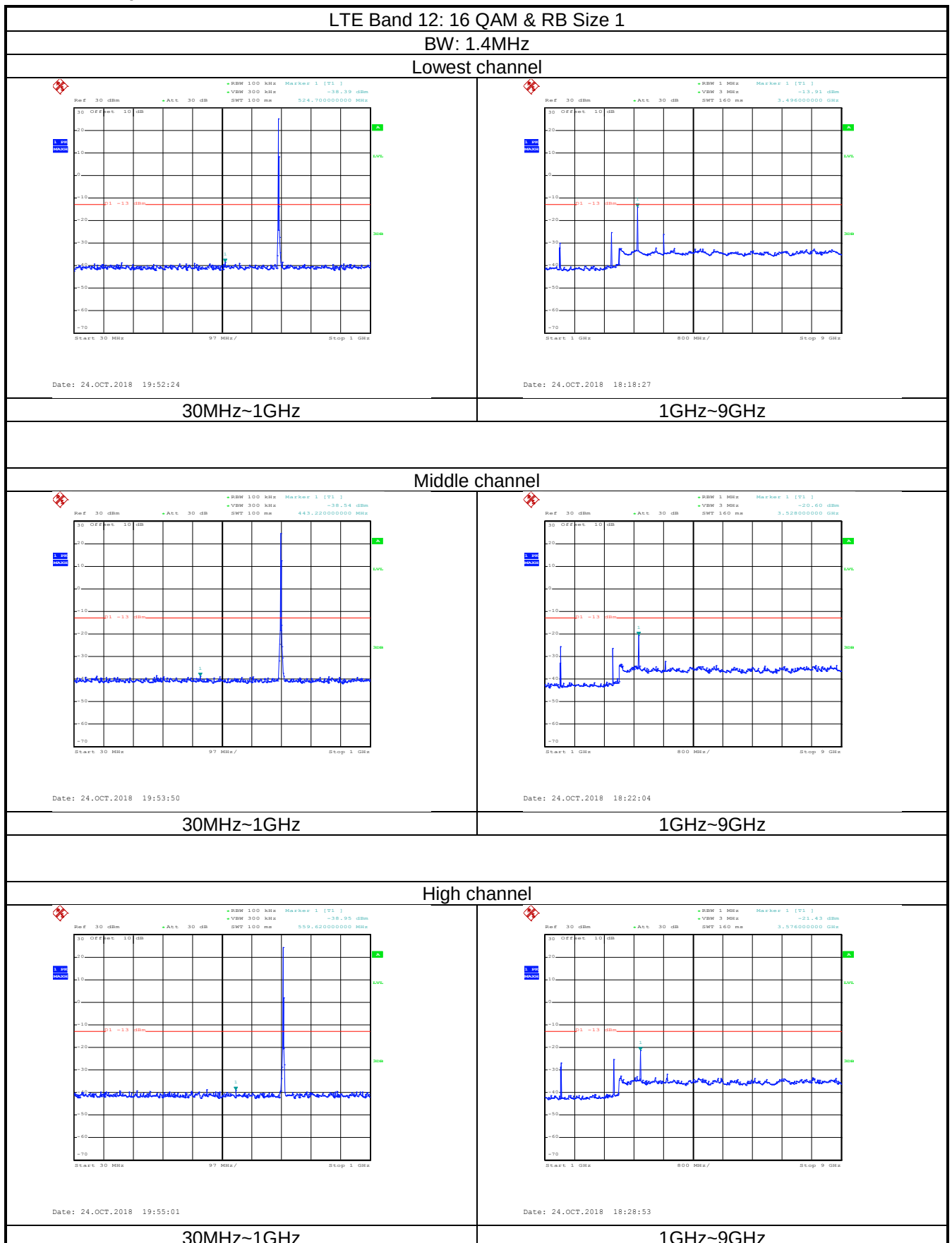
30MHz~1GHz



Date: 24.OCT.2018 18:05:15

1GHz~25GHz

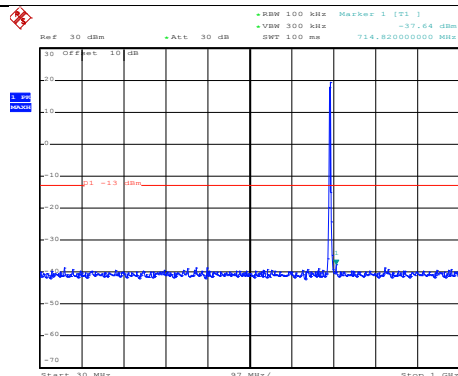
LTE Band 12 part:



LTE Band 12: 16 QAM & RB Size 6

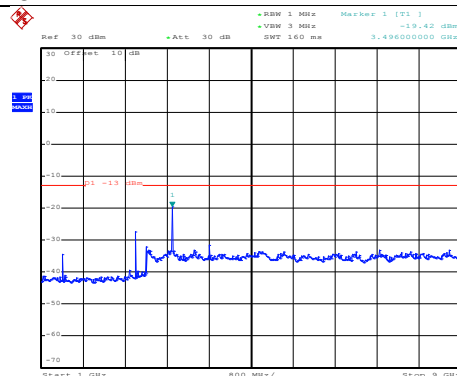
BW: 1.4MHz

Lowest channel



Date: 24.OCT.2018 19:52:59

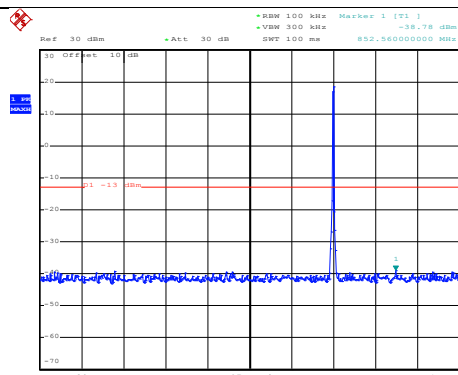
30MHz~1GHz



Date: 24.OCT.2018 18:21:00

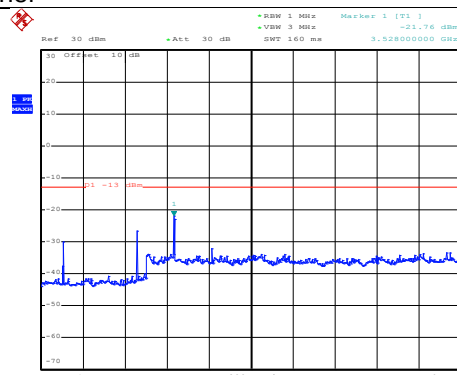
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 19:54:16

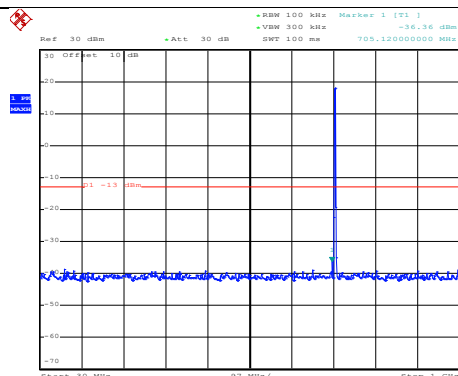
30MHz~1GHz



Date: 24.OCT.2018 18:22:29

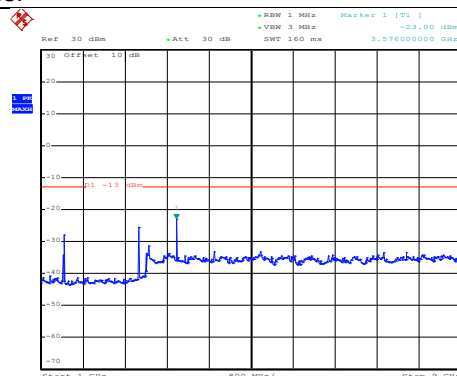
1GHz~9GHz

High channel



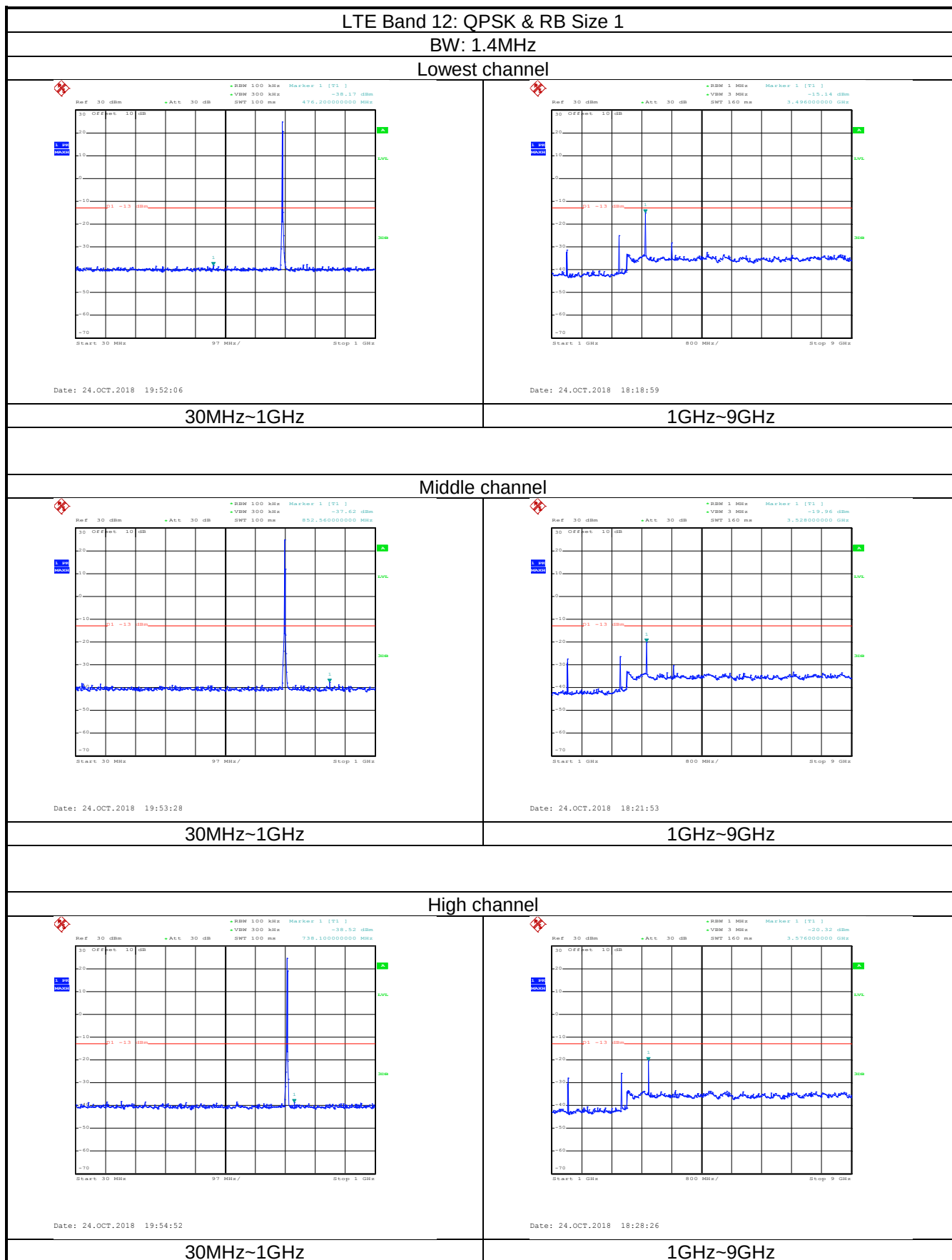
Date: 24.OCT.2018 20:30:42

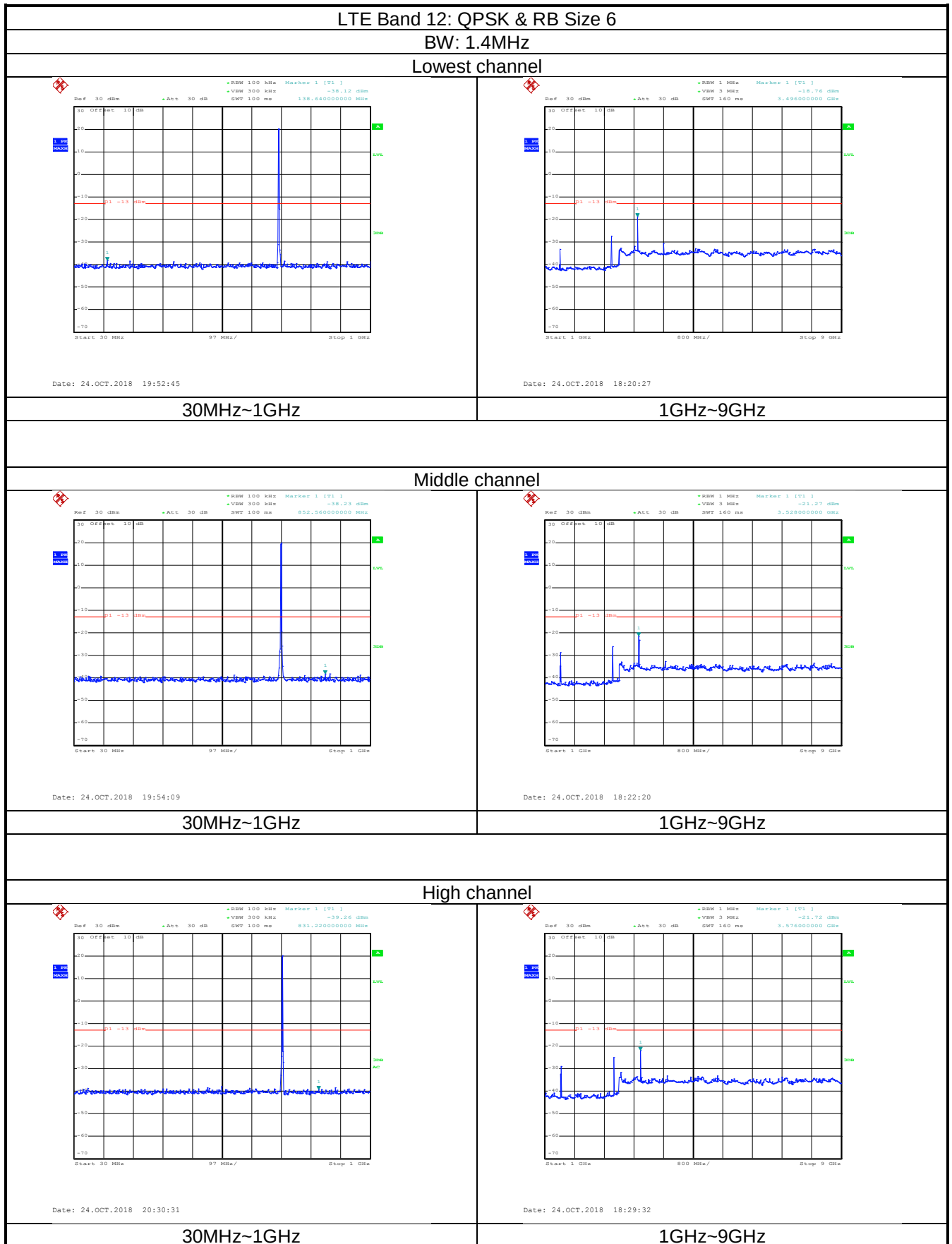
30MHz~1GHz



Date: 24.OCT.2018 18:29:49

1GHz~9GHz

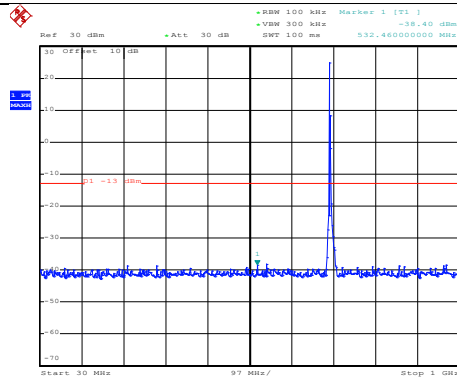




LTE Band 12: 16 QAM & RB Size 1

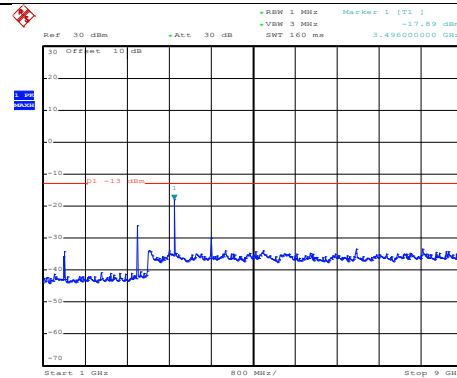
BW: 3MHz

Lowest channel



Date: 24.OCT.2018 20:11:44

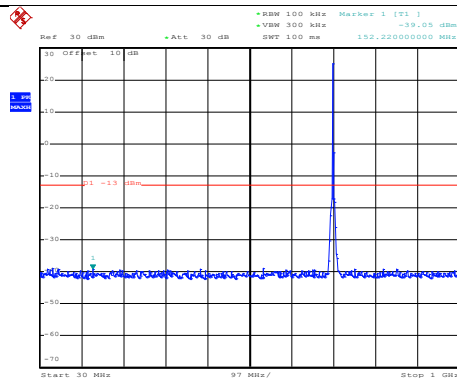
30MHz~1GHz



Date: 24.OCT.2018 18:31:25

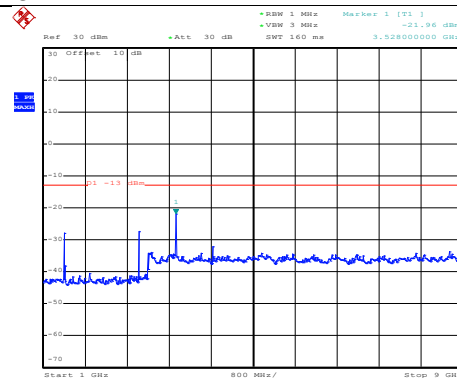
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:12:42

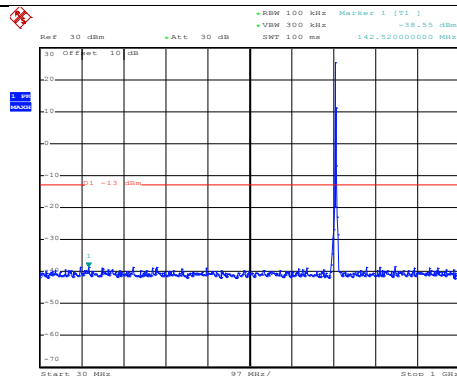
30MHz~1GHz



Date: 24.OCT.2018 18:32:20

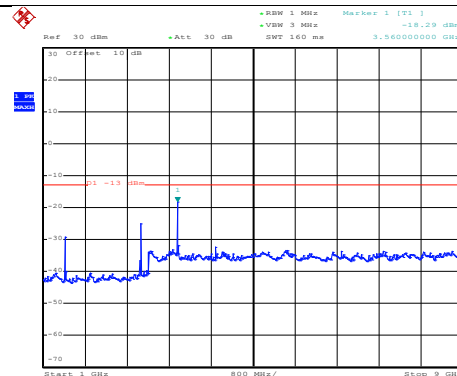
1GHz~9GHz

High channel



Date: 24.OCT.2018 20:13:51

30MHz~1GHz



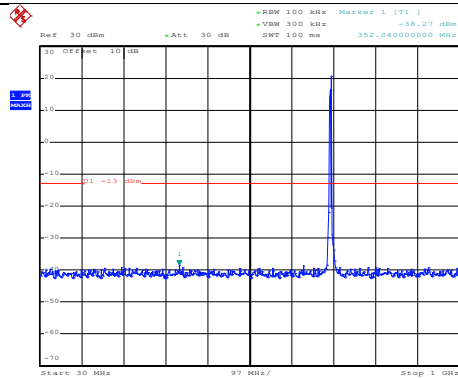
Date: 24.OCT.2018 18:33:35

1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 15

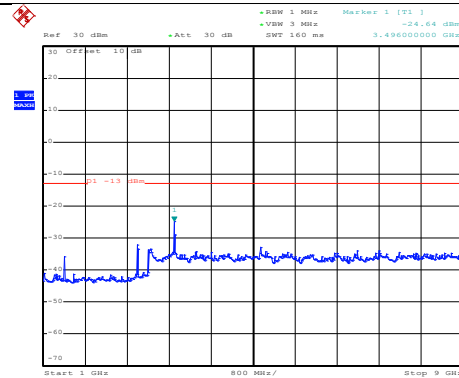
BW: 3MHz

Lowest channel



Date: 24.OCT.2018 20:12:09

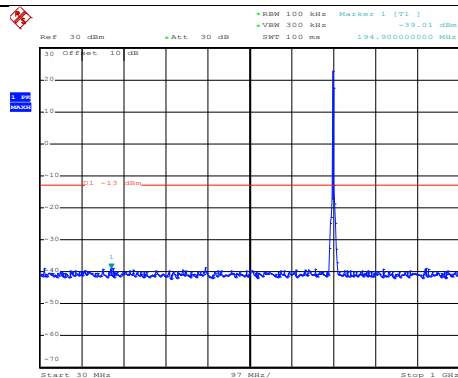
30MHz~1GHz



Date: 24.OCT.2018 18:31:48

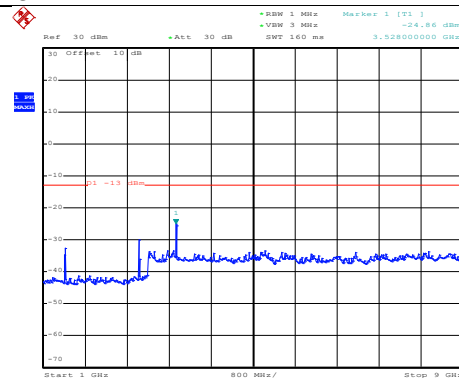
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:13:09

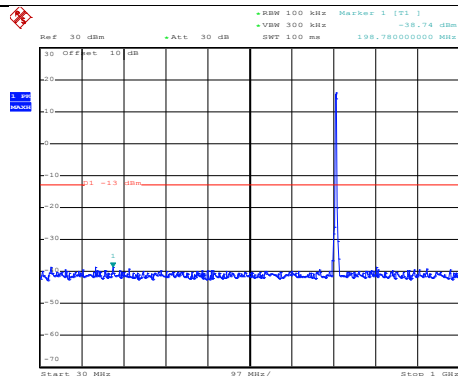
30MHz~1GHz



Date: 24.OCT.2018 18:32:47

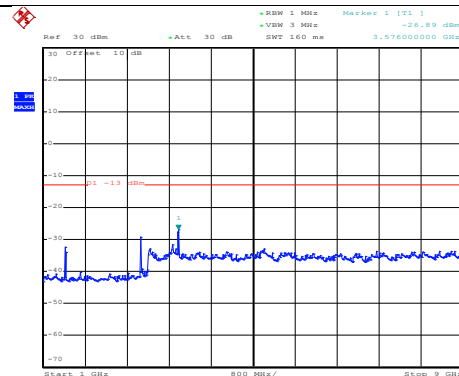
1GHz~9GHz

High channel



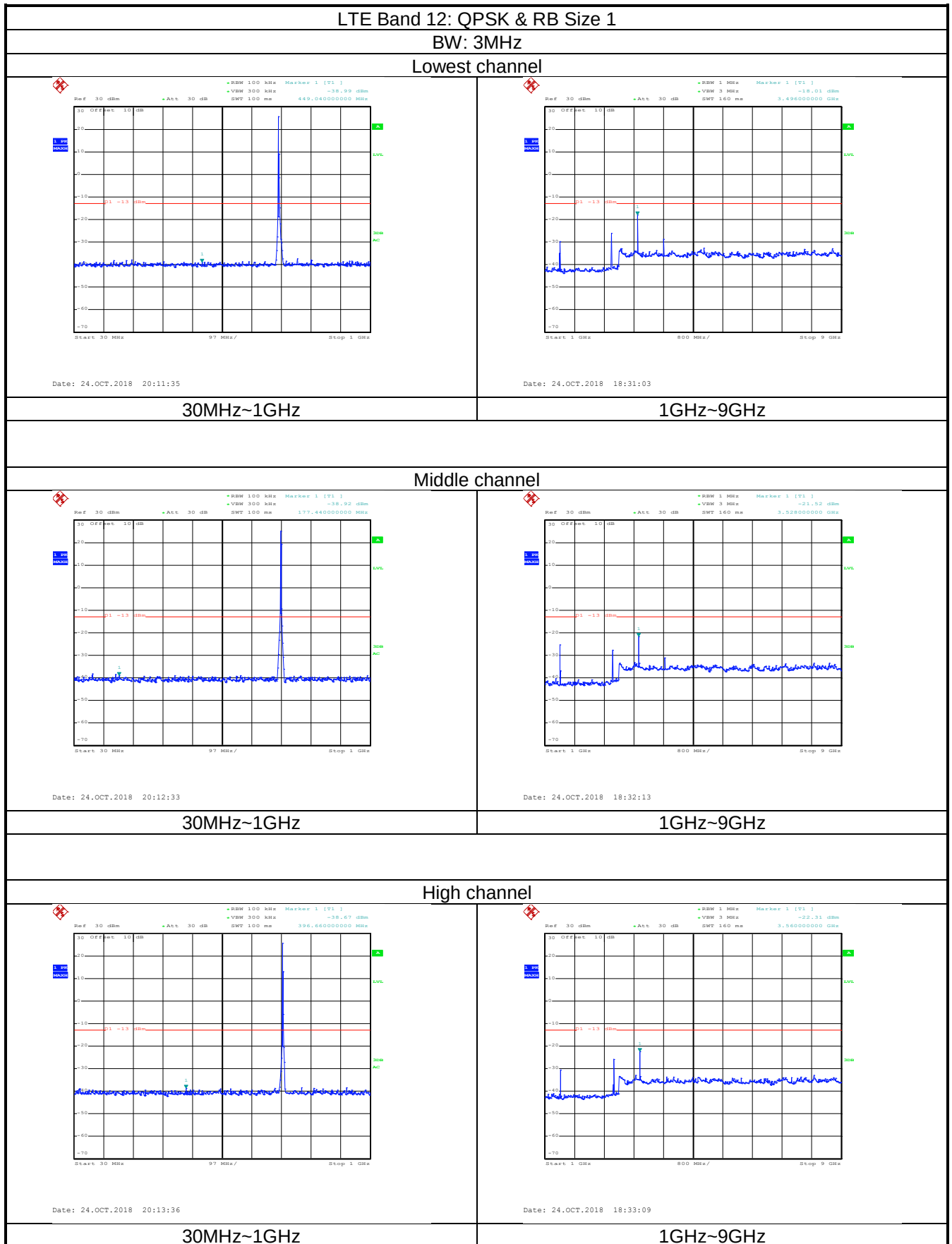
Date: 24.OCT.2018 20:14:16

30MHz~1GHz



Date: 24.OCT.2018 18:34:02

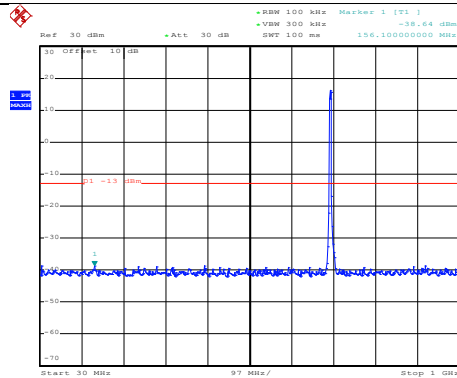
1GHz~9GHz



LTE Band 12: QPSK & RB Size 15

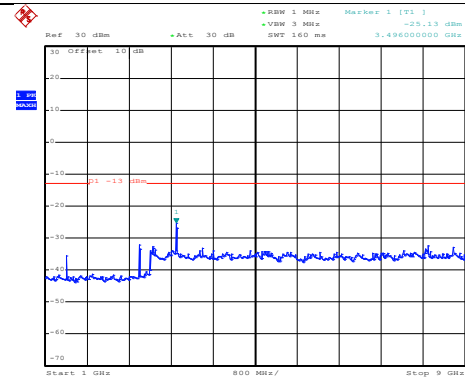
BW: 3MHz

Lowest channel



Date: 24.OCT.2018 20:11:59

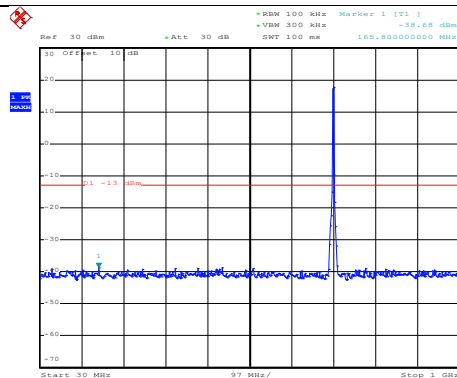
30MHz~1GHz



Date: 24.OCT.2018 18:31:41

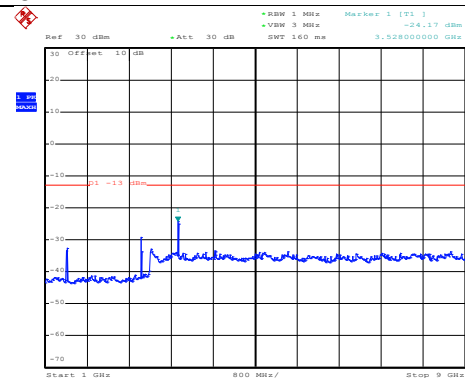
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:12:54

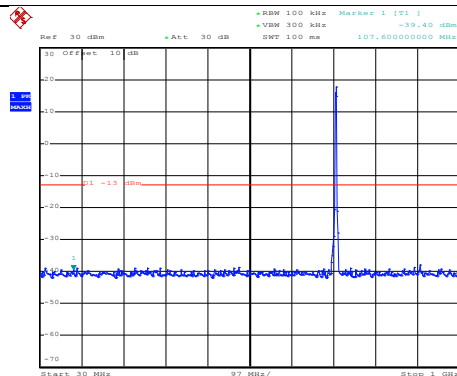
30MHz~1GHz



Date: 24.OCT.2018 18:32:37

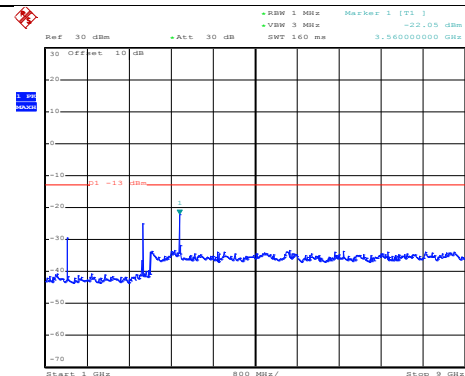
1GHz~9GHz

High channel



Date: 24.OCT.2018 20:14:06

30MHz~1GHz



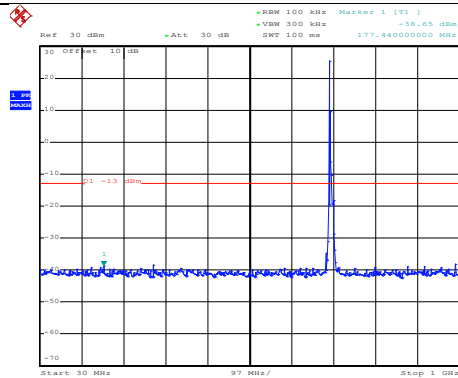
Date: 24.OCT.2018 18:33:26

1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 1

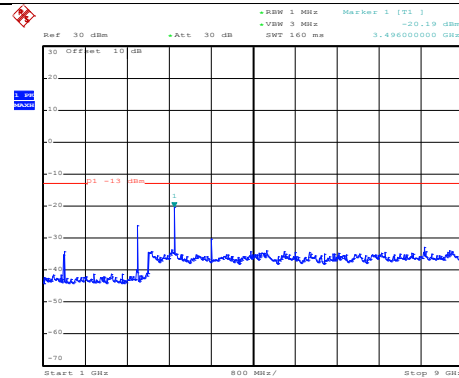
BW: 5MHz

Lowest channel



Date: 24.OCT.2018 20:15:00

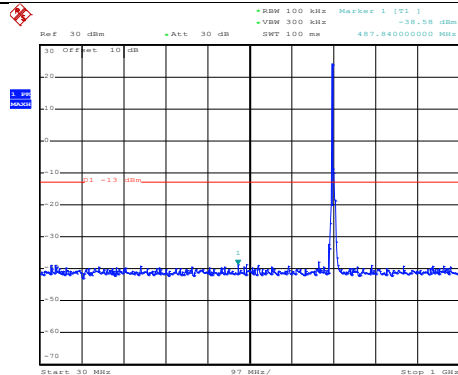
30MHz~1GHz



Date: 24.OCT.2018 18:35:06

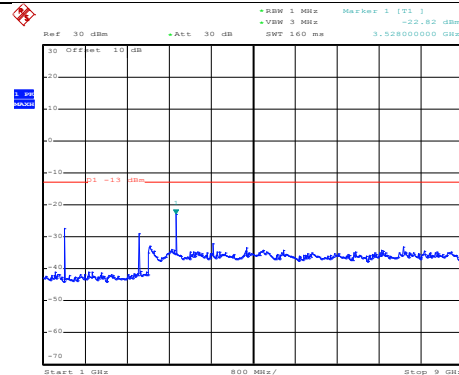
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:16:04

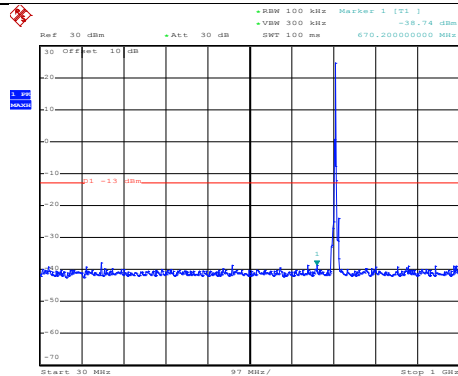
30MHz~1GHz



Date: 24.OCT.2018 18:35:58

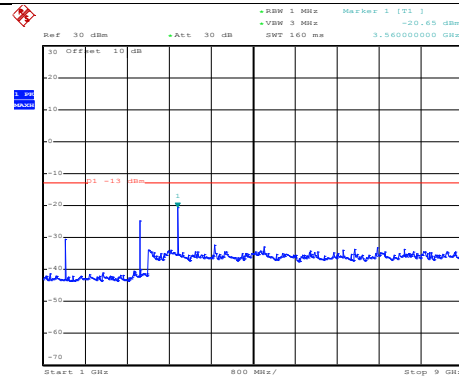
1GHz~9GHz

High channel



Date: 24.OCT.2018 20:17:26

30MHz~1GHz



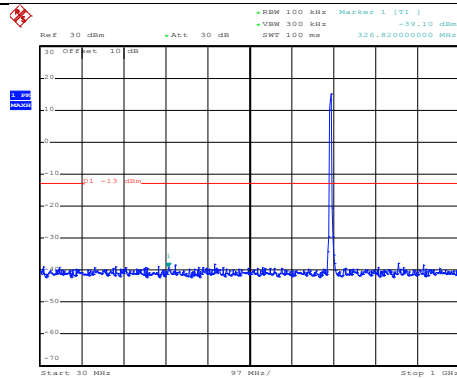
Date: 24.OCT.2018 18:39:17

1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 25

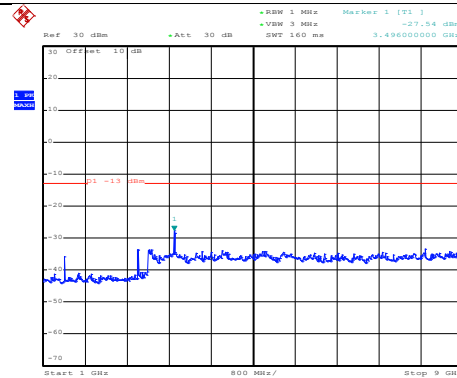
BW: 5MHz

Lowest channel



Date: 24.OCT.2018 20:15:28

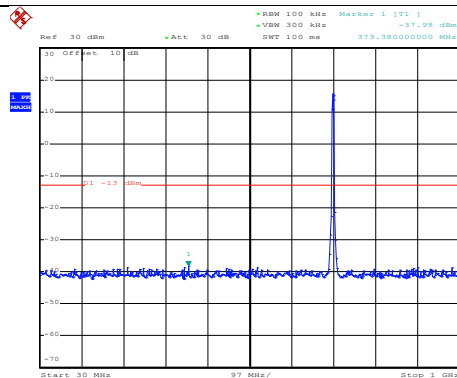
30MHz~1GHz



Date: 24.OCT.2018 18:35:26

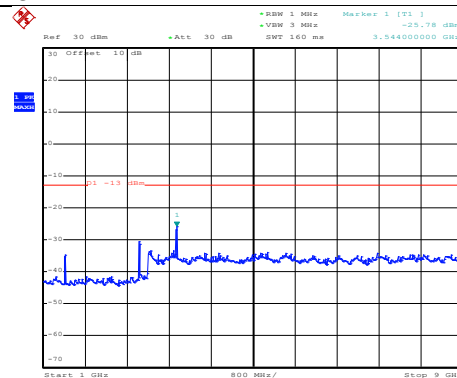
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:16:32

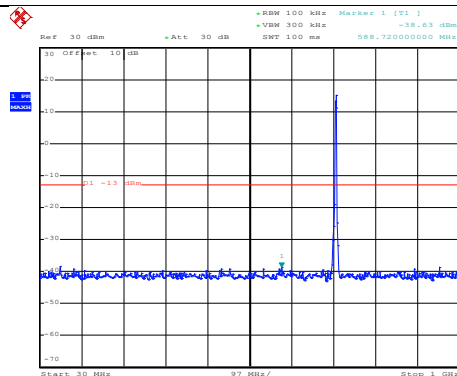
30MHz~1GHz



Date: 24.OCT.2018 18:36:15

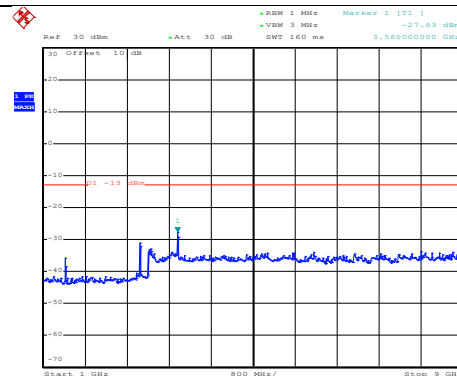
1GHz~9GHz

High channel



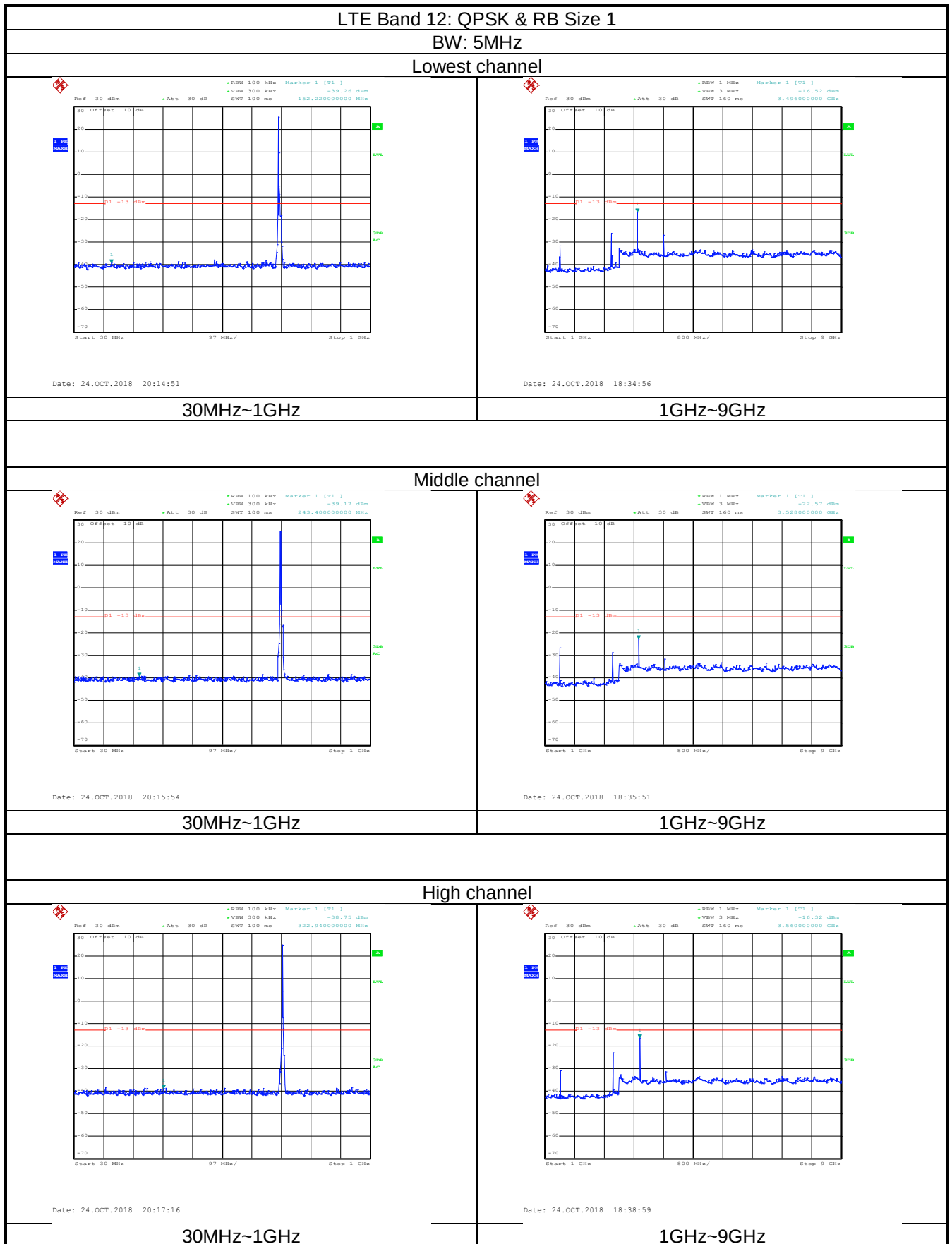
Date: 24.OCT.2018 20:17:49

30MHz~1GHz



Date: 24.OCT.2018 18:40:21

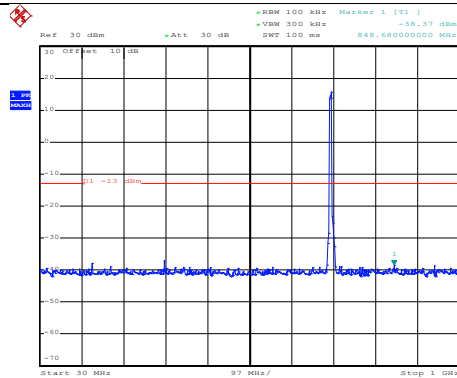
1GHz~9GHz



LTE Band 12: QPSK & RB Size 25

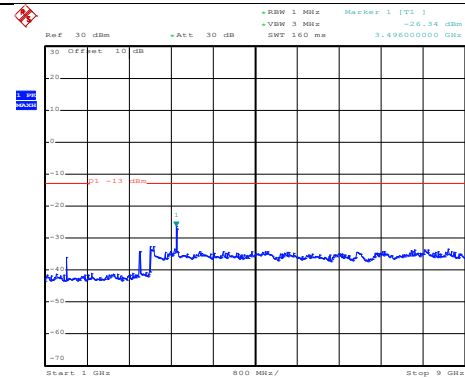
BW: 5MHz

Lowest channel



Date: 24.OCT.2018 20:15:15

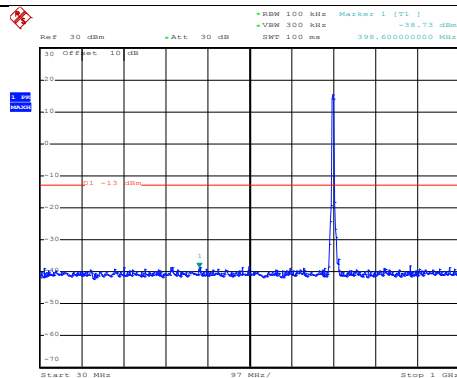
30MHz~1GHz



Date: 24.OCT.2018 18:35:19

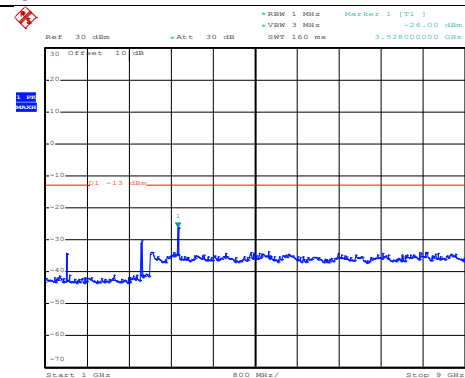
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:16:19

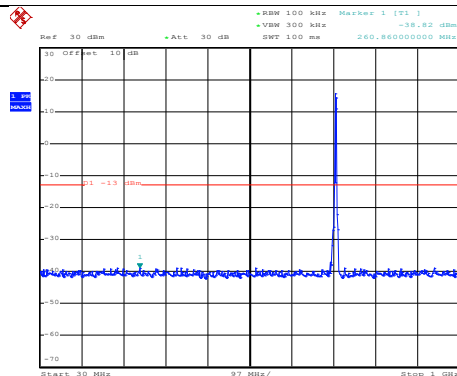
30MHz~1GHz



Date: 24.OCT.2018 18:36:09

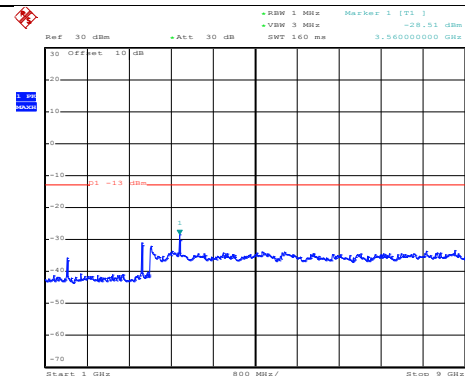
1GHz~9GHz

High channel



Date: 24.OCT.2018 20:17:40

30MHz~1GHz



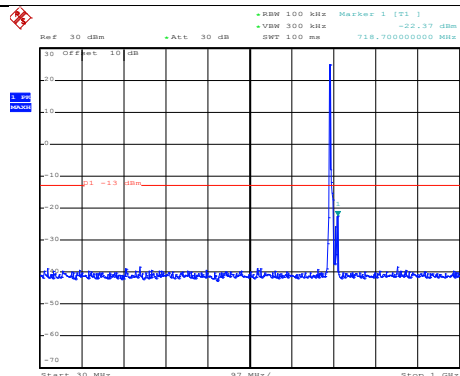
Date: 24.OCT.2018 18:40:12

1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 1

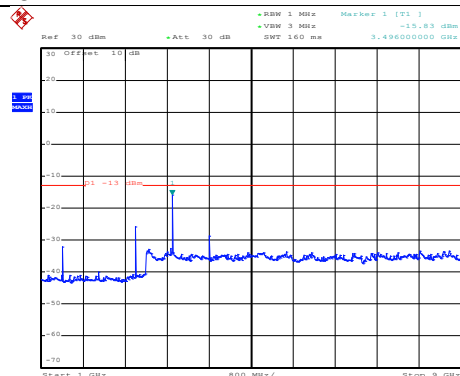
BW: 10MHz

Lowest channel



Date: 24.OCT.2018 20:18:39

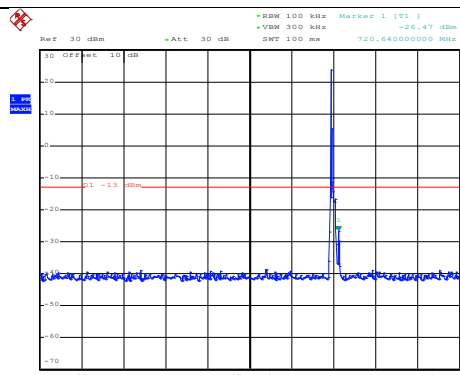
30MHz~1GHz



Date: 24.OCT.2018 18:42:11

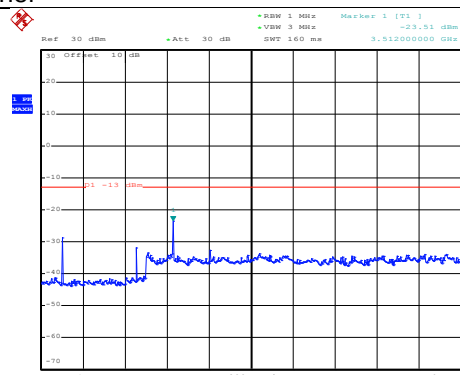
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:20:01

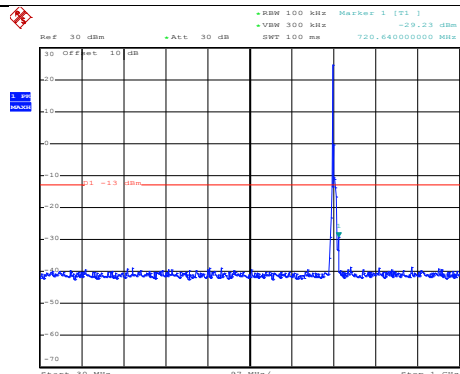
30MHz~1GHz



Date: 24.OCT.2018 18:43:45

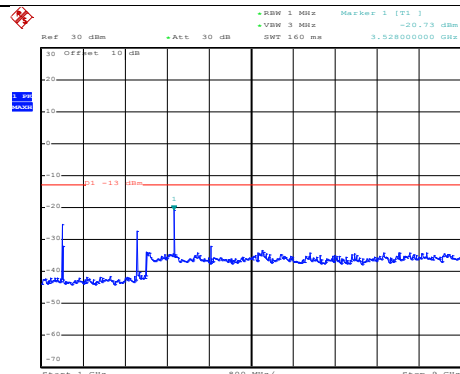
1GHz~9GHz

High channel



Date: 24.OCT.2018 20:21:03

30MHz~1GHz



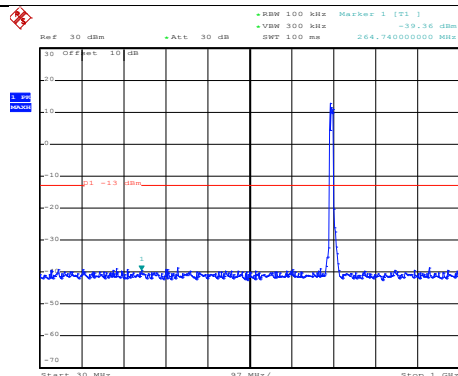
Date: 24.OCT.2018 18:45:00

1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 50

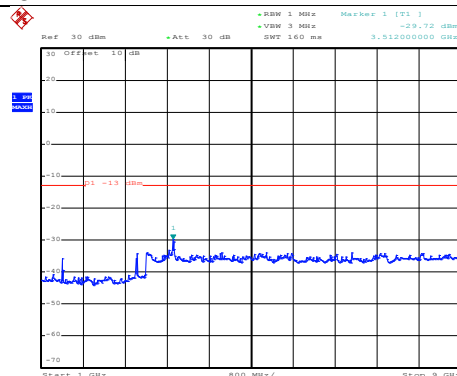
BW: 10MHz

Lowest channel



Date: 24.OCT.2018 20:19:26

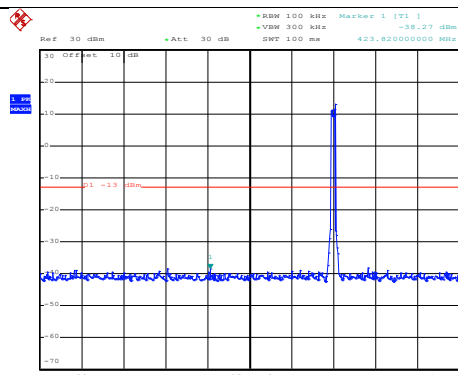
30MHz~1GHz



Date: 24.OCT.2018 18:43:01

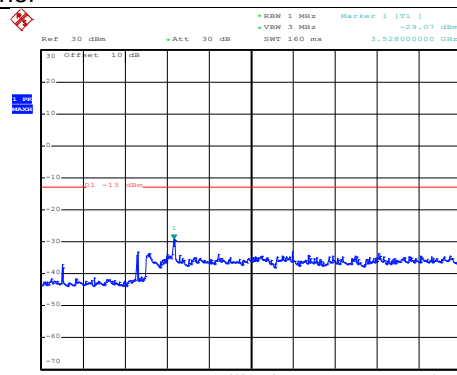
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:20:28

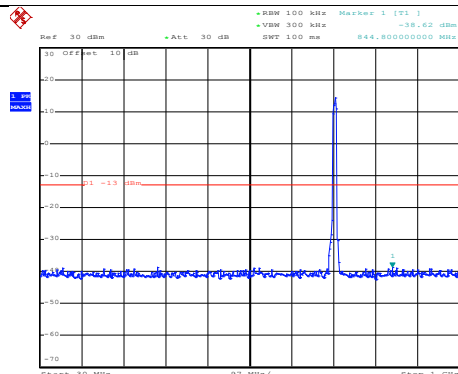
30MHz~1GHz



Date: 24.OCT.2018 18:44:08

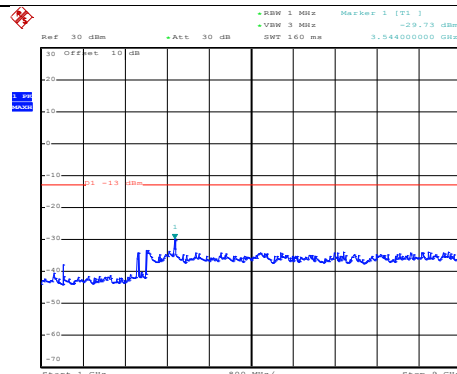
1GHz~9GHz

High channel



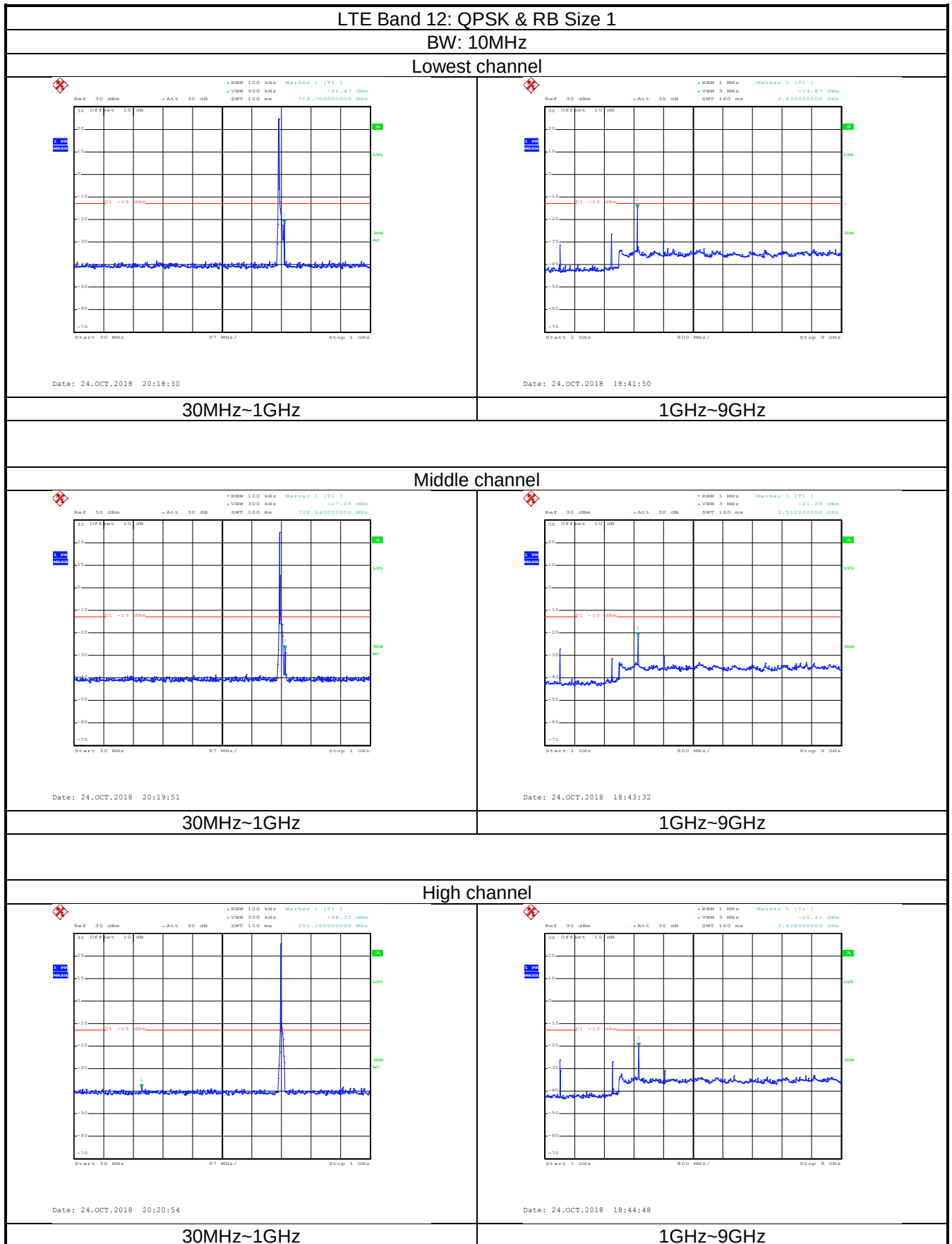
Date: 24.OCT.2018 20:21:30

30MHz~1GHz



Date: 24.OCT.2018 18:45:28

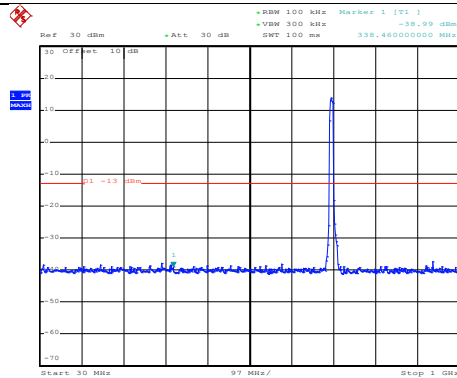
1GHz~9GHz



LTE Band 12: QPSK & RB Size 50

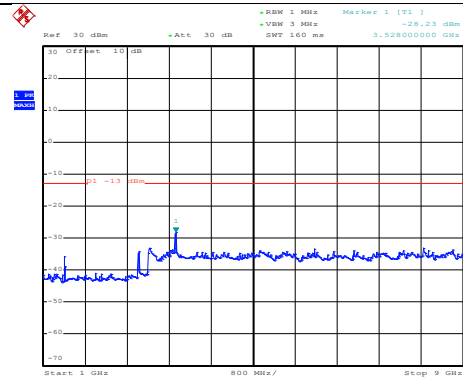
BW: 10MHz

Lowest channel



Date: 24.OCT.2018 20:19:17

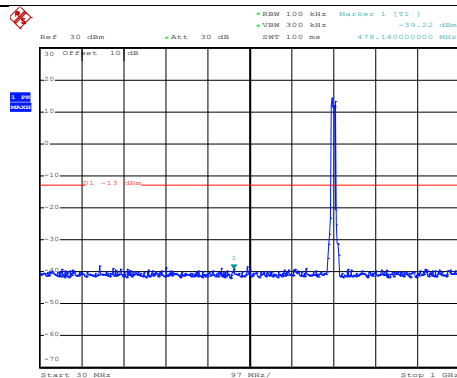
30MHz~1GHz



Date: 24.OCT.2018 18:42:51

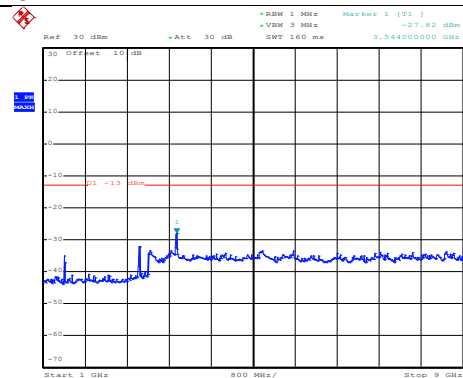
1GHz~9GHz

Middle channel



Date: 24.OCT.2018 20:20:18

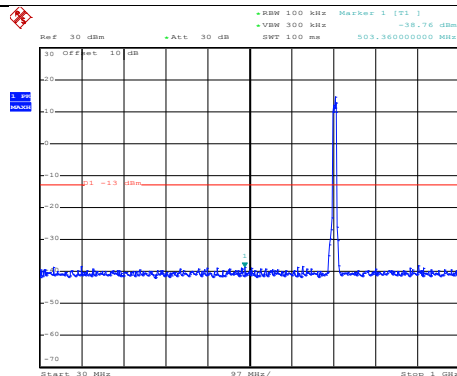
30MHz~1GHz



Date: 24.OCT.2018 18:43:58

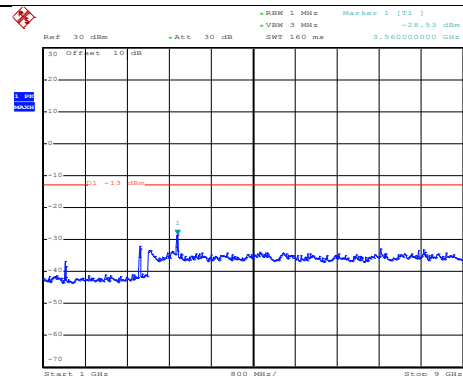
1GHz~9GHz

High channel



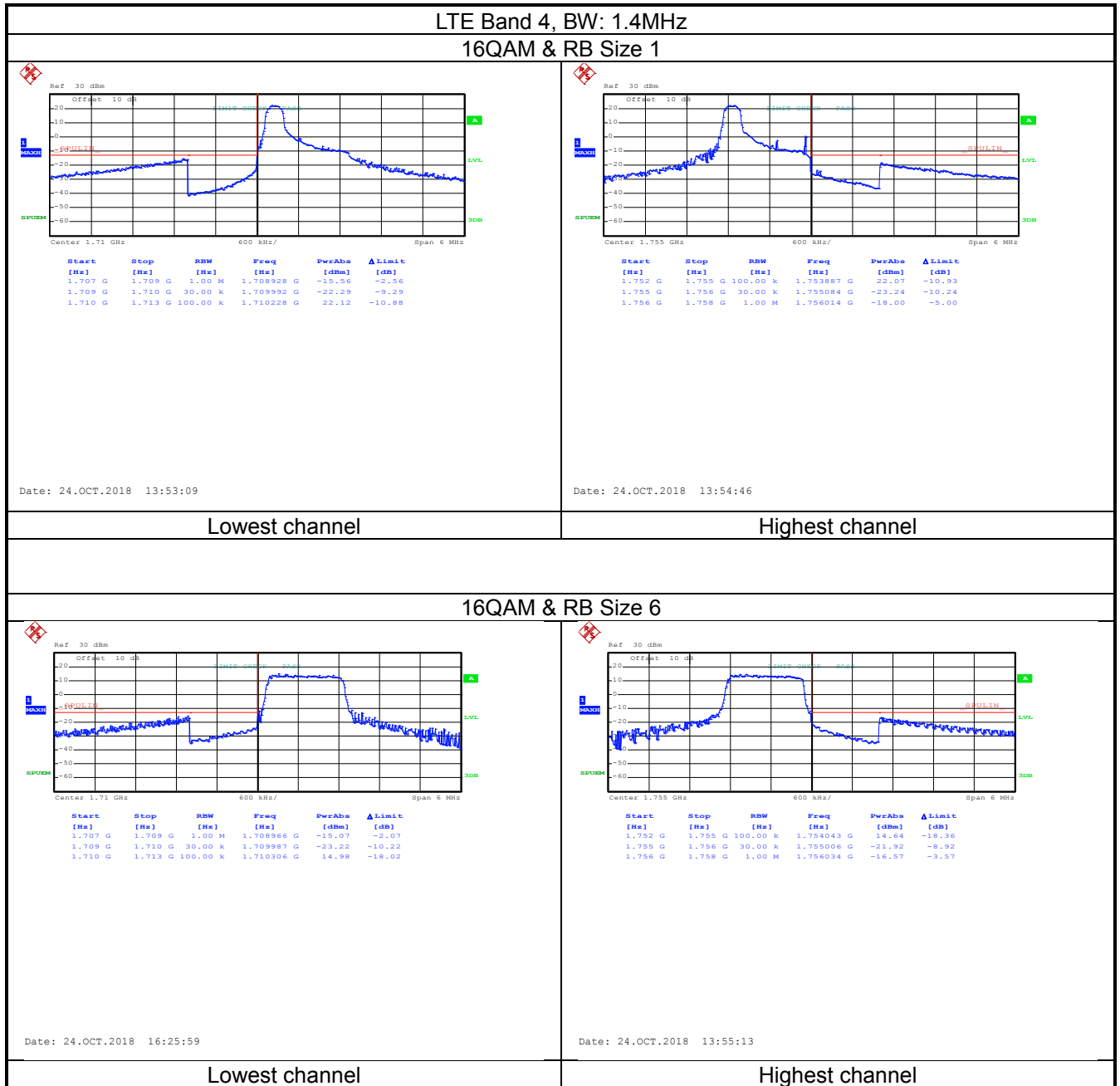
Date: 24.OCT.2018 20:21:19

30MHz~1GHz



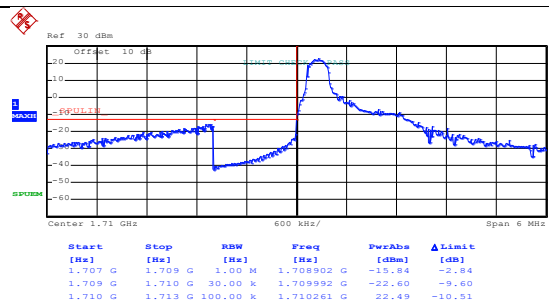
Date: 24.OCT.2018 18:45:18

1GHz~9GHz

Band edge emission:**LTE Band 4 part:**

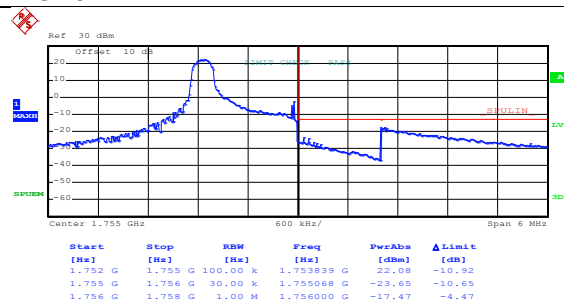
LTE Band 4, BW: 1.4MHz

QPSK & RB Size 1



Date: 24.OCT.2018 13:52:14

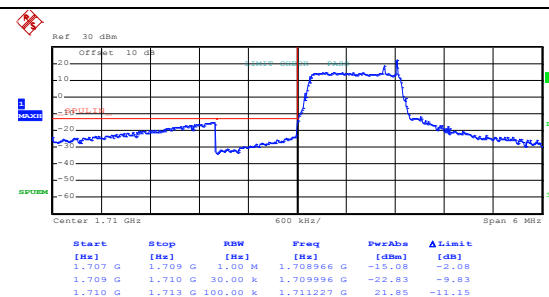
Lowest channel



Date: 24.OCT.2018 13:54:19

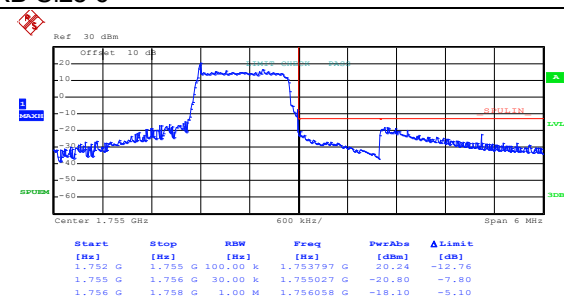
Highest channel

QPSK & RB Size 6



Date: 24.OCT.2018 16:25:42

Lowest channel

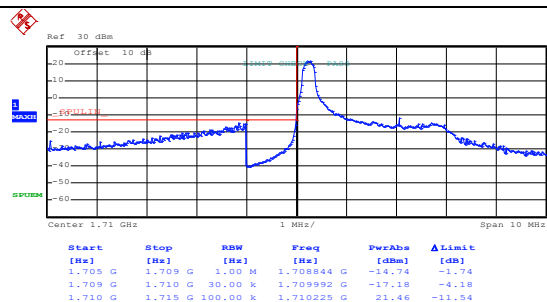


Date: 24.OCT.2018 13:55:00

Highest channel

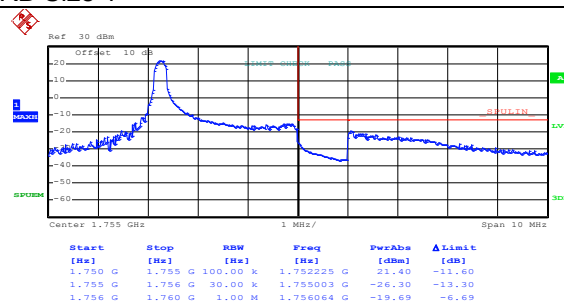
LTE Band 4, BW: 3MHz

16QAM & RB Size 1



Date: 24.OCT.2018 13:57:17

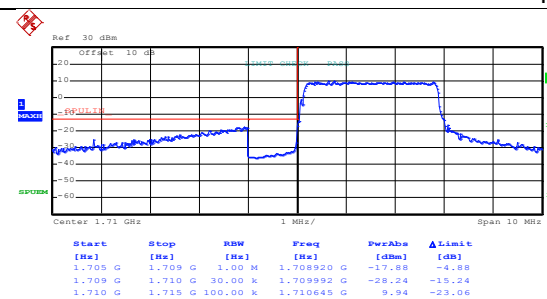
Lowest channel



Date: 24.OCT.2018 13:59:09

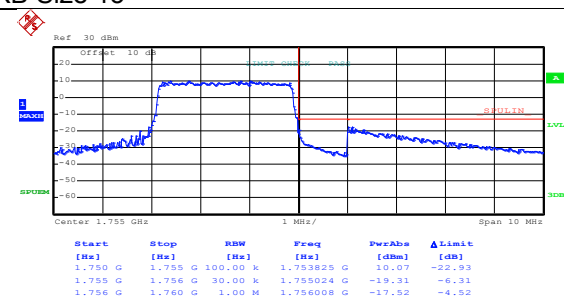
Highest channel

16QAM & RB Size 15



Date: 24.OCT.2018 13:58:04

Lowest channel

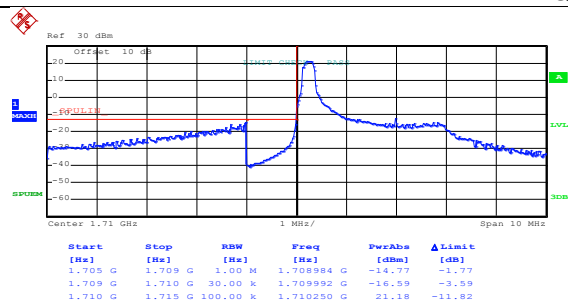


Date: 24.OCT.2018 13:59:33

Highest channel

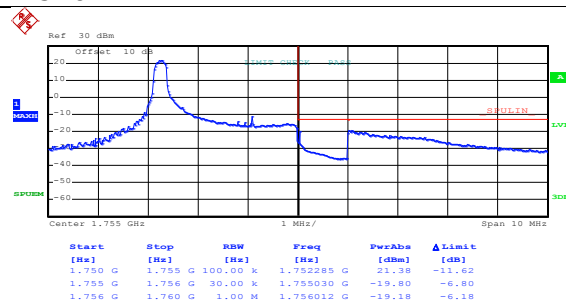
LTE Band 4, BW: 3MHz

QPSK & RB Size 1



Date: 24.OCT.2018 13:56:59

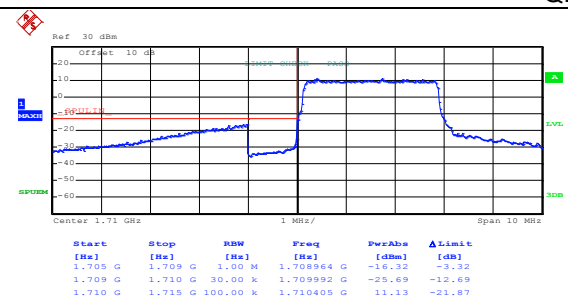
Lowest channel



Date: 24.OCT.2018 13:58:54

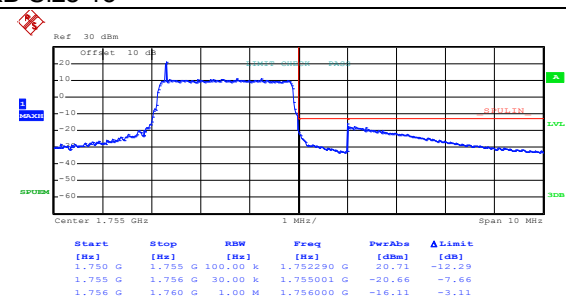
Highest channel

QPSK & RB Size 15



Date: 24.OCT.2018 13:57:52

Lowest channel

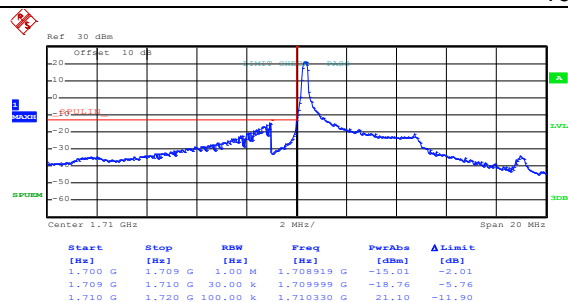


Date: 24.OCT.2018 13:59:25

Highest channel

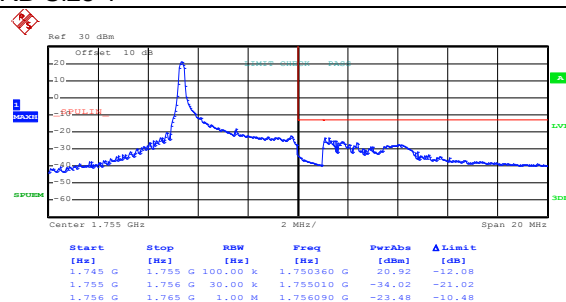
LTE Band 4, BW: 5MHz

16QAM & RB Size 1



Date: 24.OCT.2018 16:30:33

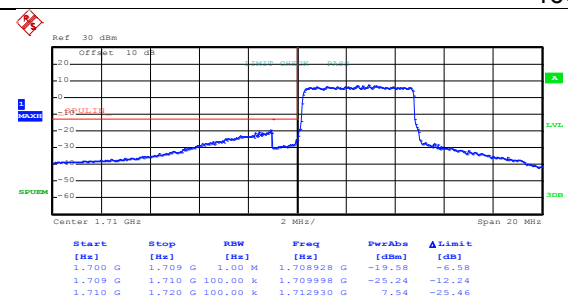
Lowest channel



Date: 24.OCT.2018 16:33:02

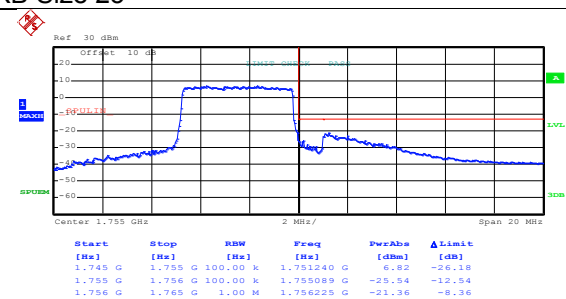
Highest channel

16QAM & RB Size 25



Date: 24.OCT.2018 16:32:24

Lowest channel

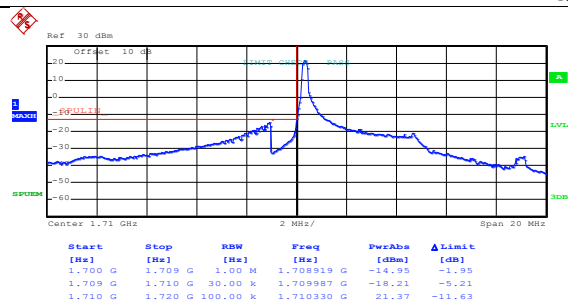


Date: 24.OCT.2018 16:34:02

Highest channel

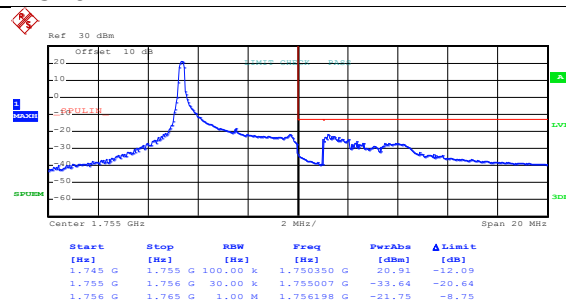
LTE Band 4, BW: 5MHz

QPSK & RB Size 1



Date: 24.OCT.2018 16:30:23

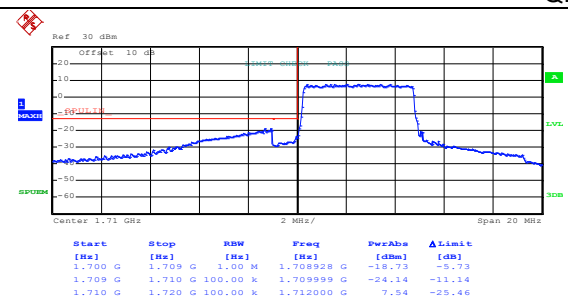
Lowest channel



Date: 24.OCT.2018 16:32:54

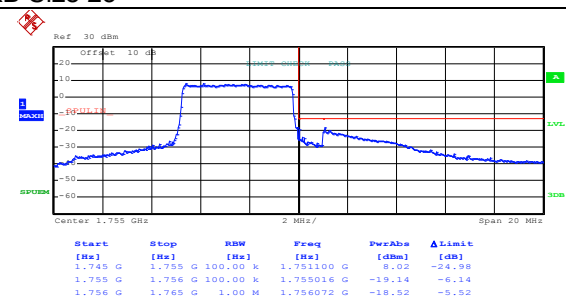
Highest channel

QPSK & RB Size 25



Date: 24.OCT.2018 16:32:11

Lowest channel

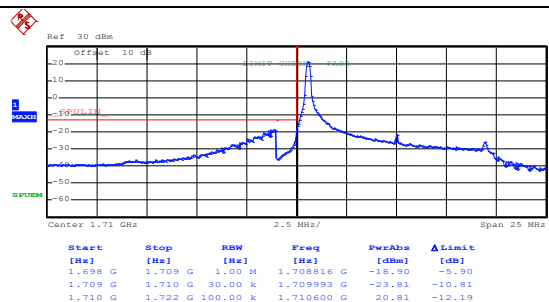


Date: 24.OCT.2018 16:33:53

Highest channel

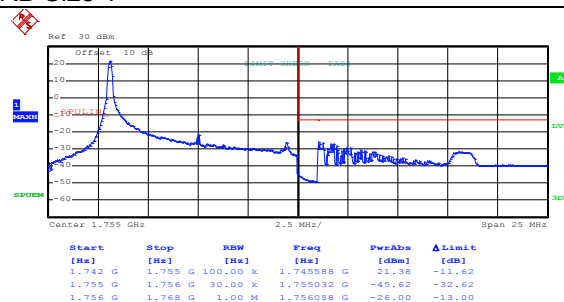
LTE Band 4, BW: 10MHz

16QAM & RB Size 1



Date: 24.OCT.2018 16:36:08

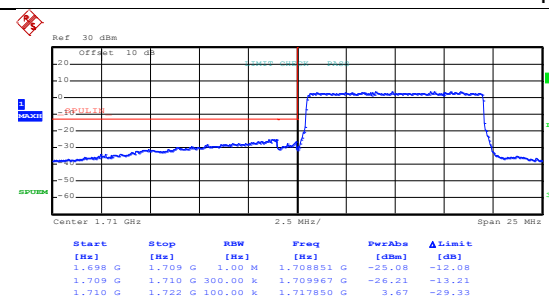
Lowest channel



Date: 24.OCT.2018 16:37:20

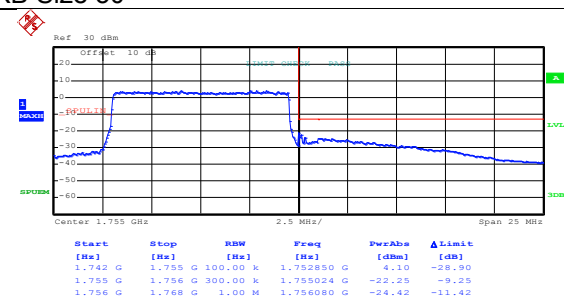
Highest channel

16QAM & RB Size 50



Date: 24.OCT.2018 16:36:39

Lowest channel

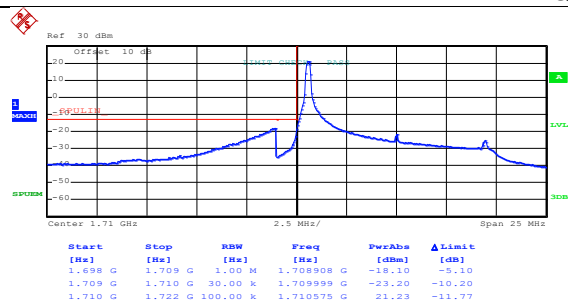


Date: 24.OCT.2018 16:37:49

Highest channel

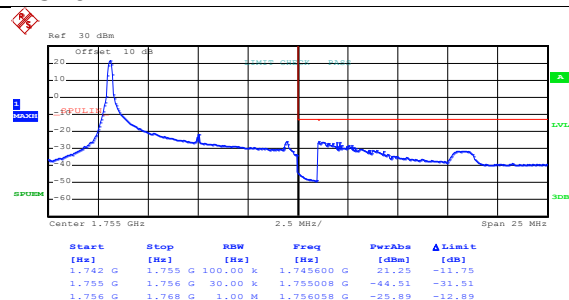
LTE Band 4, BW: 10MHz

QPSK & RB Size 1



Date: 24.OCT.2018 16:35:58

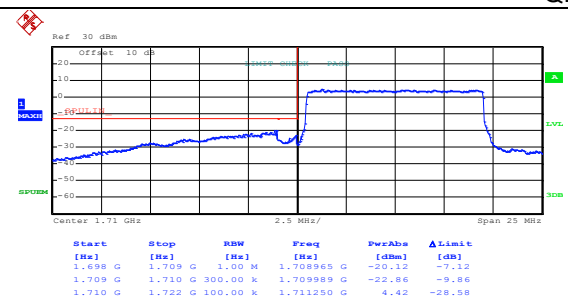
Lowest channel



Date: 24.OCT.2018 16:37:12

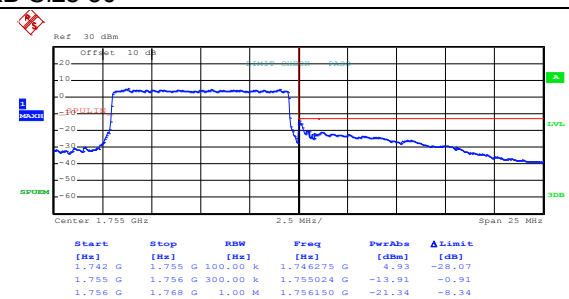
Highest channel

QPSK & RB Size 50



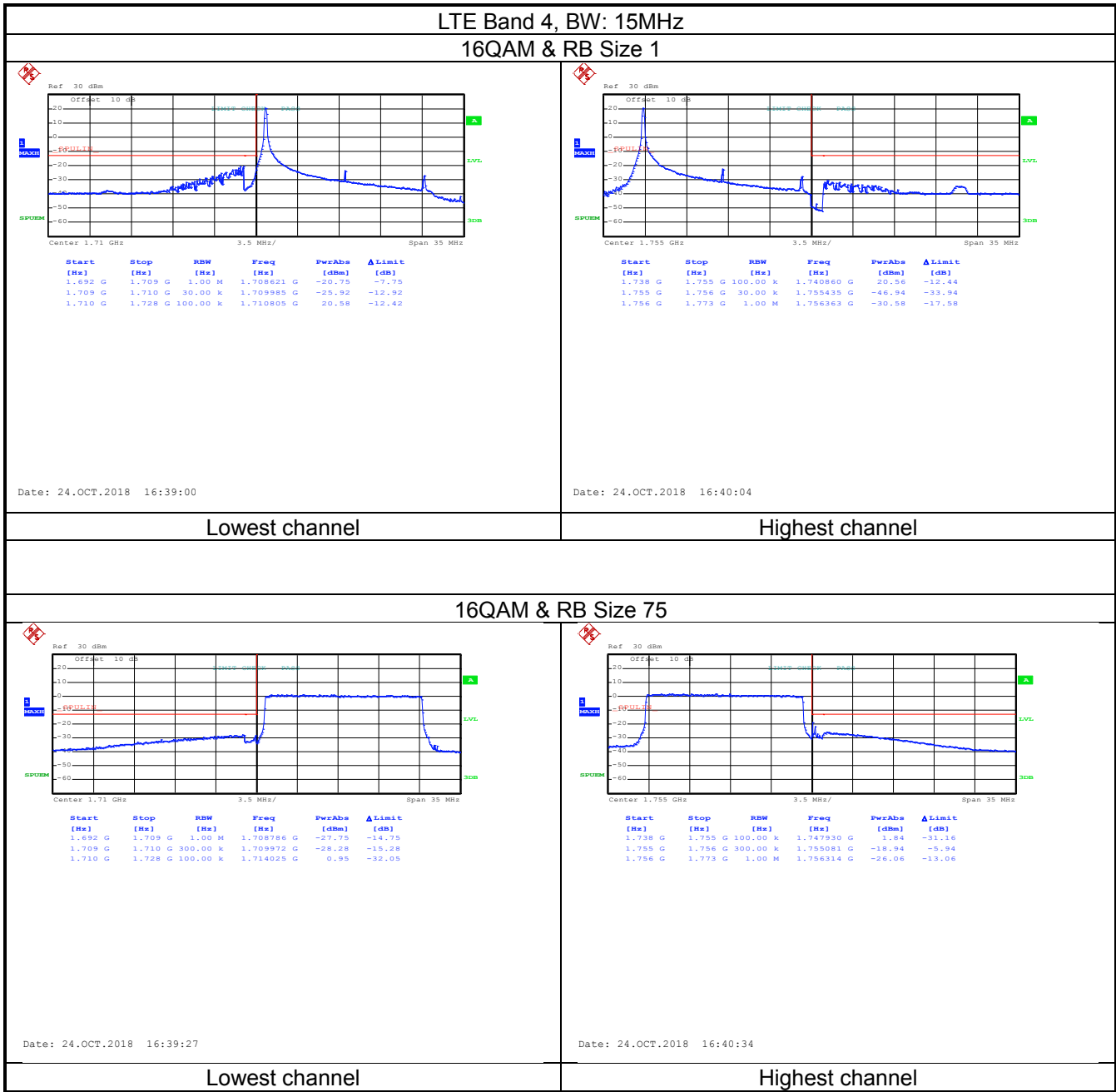
Date: 24.OCT.2018 16:36:31

Lowest channel



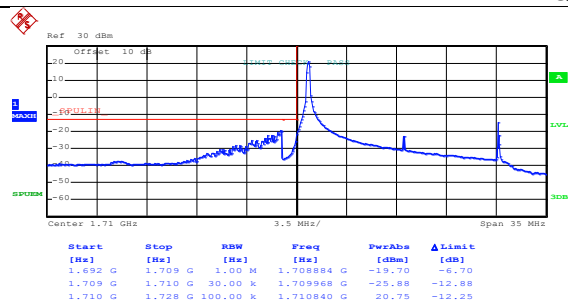
Date: 24.OCT.2018 16:37:39

Highest channel



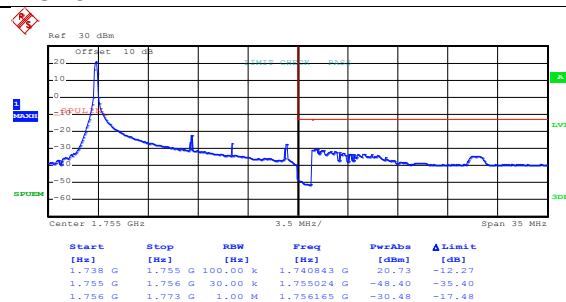
LTE Band 4, BW: 15MHz

QPSK & RB Size 1



Date: 24.OCT.2018 16:38:50

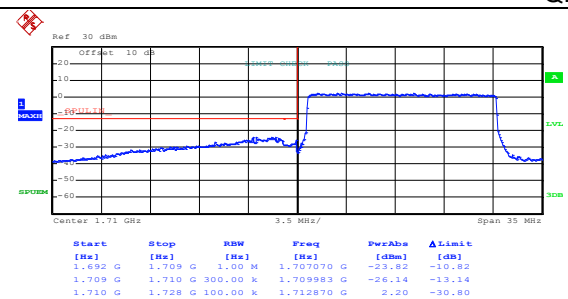
Lowest channel



Date: 24.OCT.2018 16:39:56

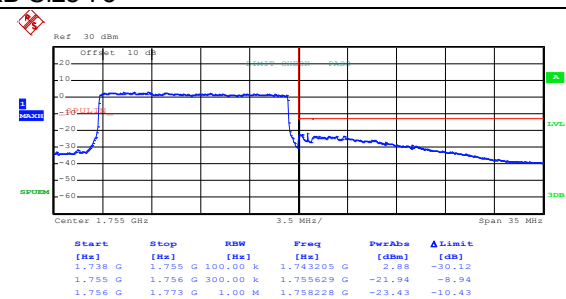
Highest channel

QPSK & RB Size 75



Date: 24.OCT.2018 16:39:19

Lowest channel

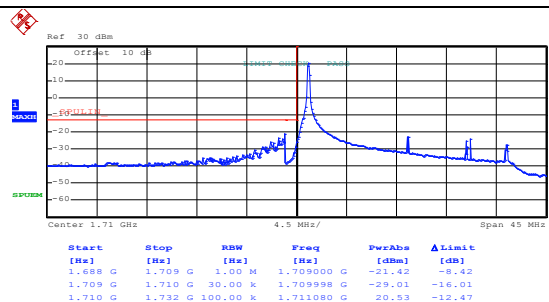


Date: 24.OCT.2018 16:40:27

Highest channel

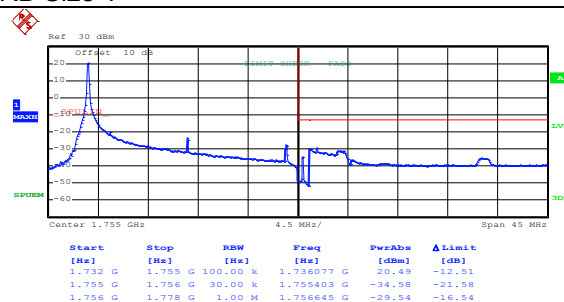
LTE Band 4, BW: 20MHz

16QAM & RB Size 1



Date: 24.OCT.2018 16:43:17

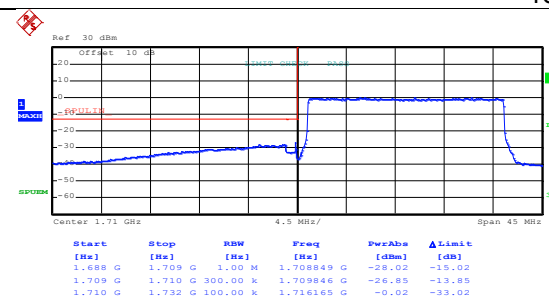
Lowest channel



Date: 24.OCT.2018 16:43:56

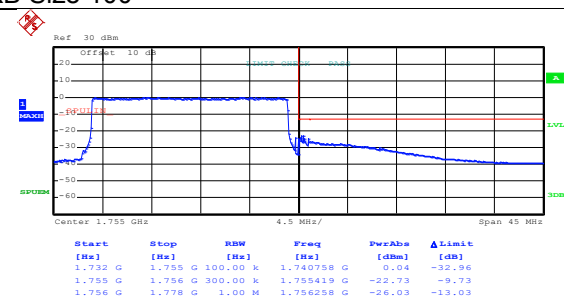
Highest channel

16QAM & RB Size 100



Date: 24.OCT.2018 16:42:47

Lowest channel

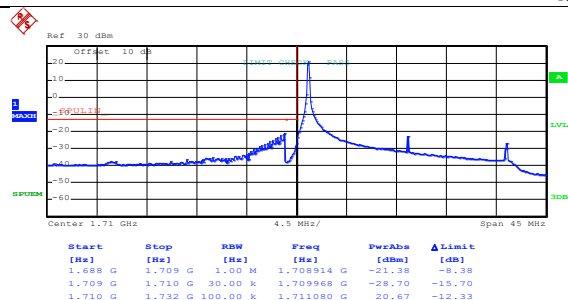


Date: 24.OCT.2018 16:44:52

Highest channel

LTE Band 4, BW: 20MHz

QPSK & RB Size 1



Date: 24.OCT.2018 16:43:09

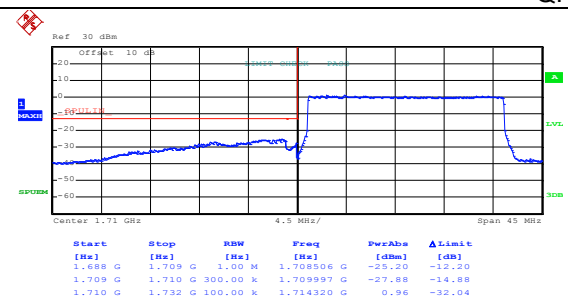
Lowest channel



Date: 24.OCT.2018 16:43:46

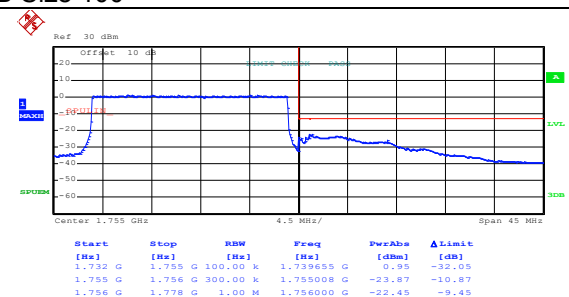
Highest channel

QPSK & RB Size 100



Date: 24.OCT.2018 16:42:35

Lowest channel



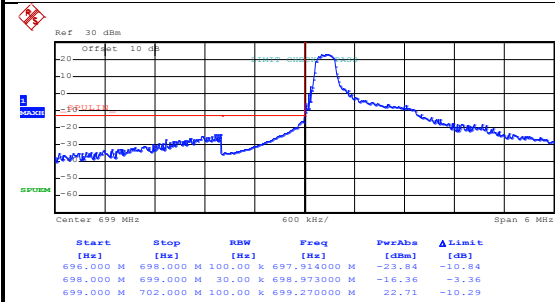
Date: 24.OCT.2018 16:44:26

Highest channel

LTE band 12 part:

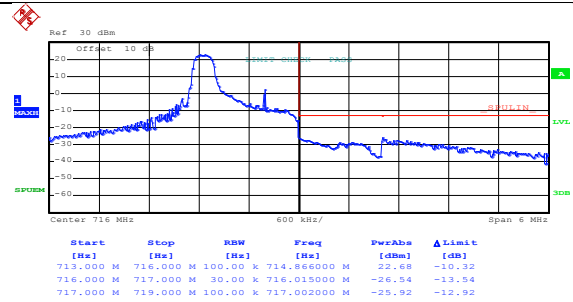
LTE Band 12, BW: 1.4MHz

16QAM & RB Size 1



Date: 24.OCT.2018 16:50:16

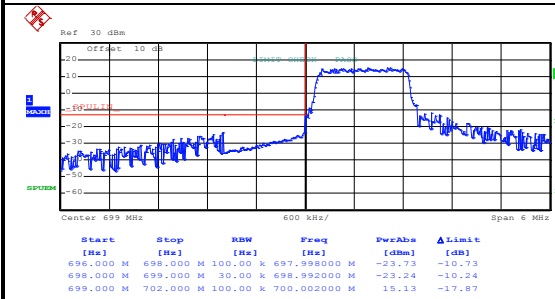
Lowest channel



Date: 24.OCT.2018 16:51:50

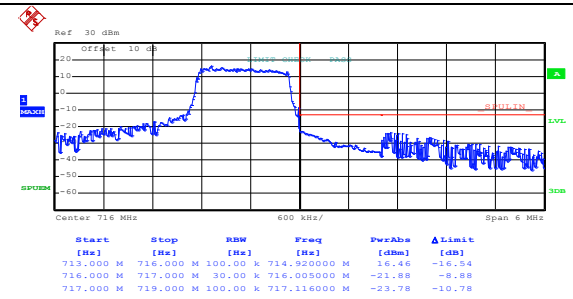
Highest channel

16QAM & RB Size 6



Date: 24.OCT.2018 16:50:42

Lowest channel

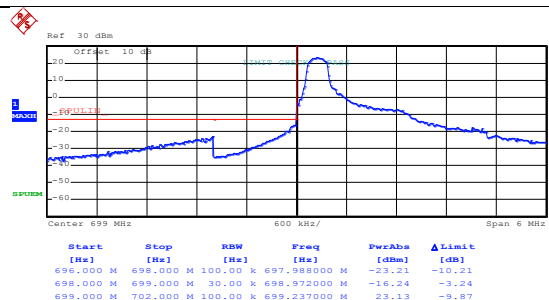


Date: 24.OCT.2018 16:51:18

Highest channel

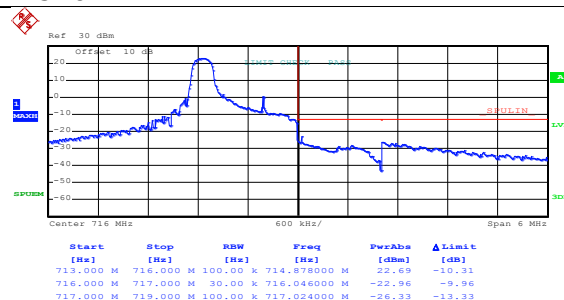
LTE Band 12, BW: 1.4MHz

QPSK & RB Size 1



Date: 24.OCT.2018 16:50:06

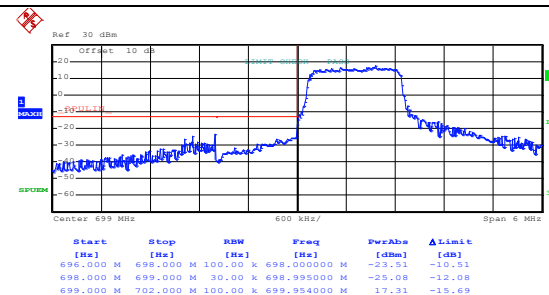
Lowest channel



Date: 24.OCT.2018 16:51:39

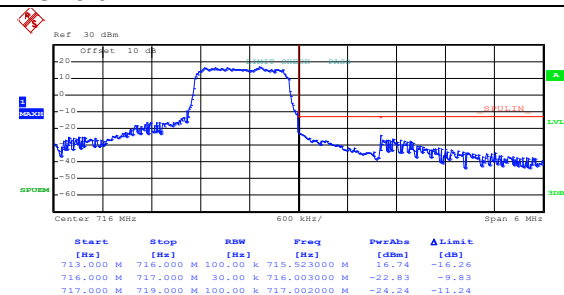
Highest channel

QPSK & RB Size 6



Date: 24.OCT.2018 16:50:31

Lowest channel

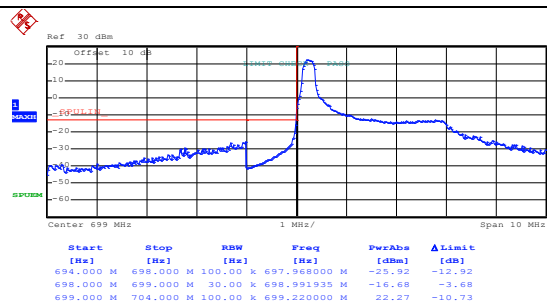


Date: 24.OCT.2018 16:51:08

Highest channel

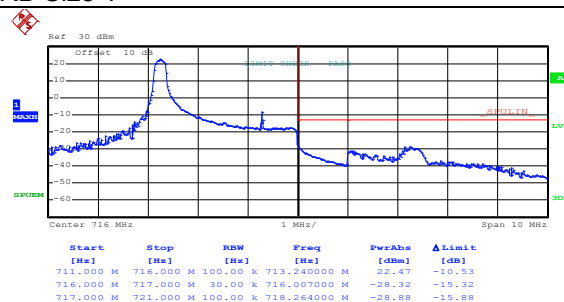
LTE Band 12, BW: 3MHz

16QAM & RB Size 1



Date: 24.OCT.2018 17:16:40

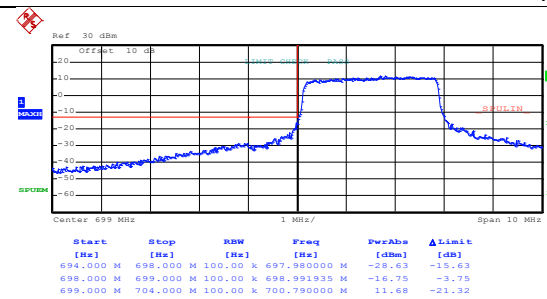
Lowest channel



Date: 24.OCT.2018 17:21:06

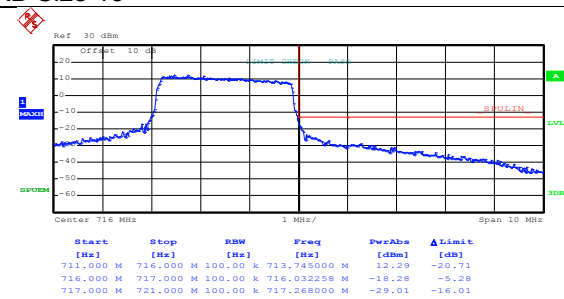
Highest channel

16QAM & RB Size 15



Date: 24.OCT.2018 17:20:09

Lowest channel

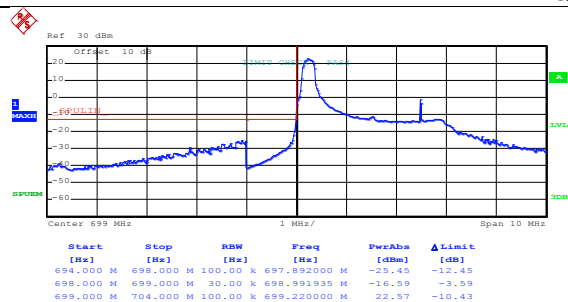


Date: 24.OCT.2018 17:21:59

Highest channel

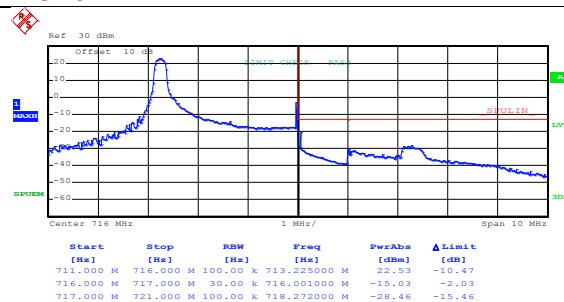
LTE Band 12, BW: 3MHz

QPSK & RB Size 1



Date: 24.OCT.2018 17:16:27

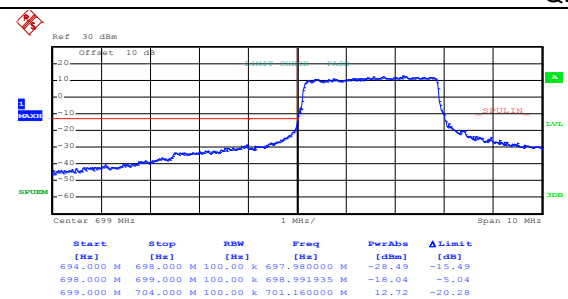
Lowest channel



Date: 24.OCT.2018 17:20:55

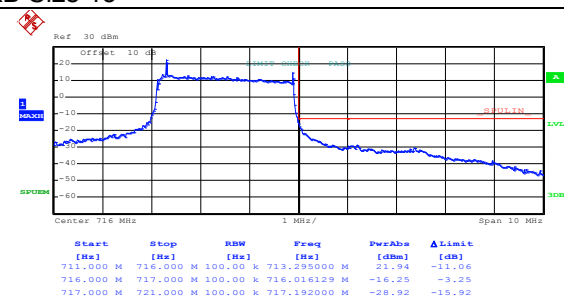
Highest channel

QPSK & RB Size 15



Date: 24.OCT.2018 17:19:57

Lowest channel

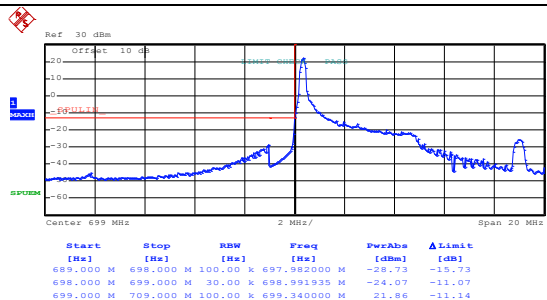


Date: 24.OCT.2018 17:21:47

Highest channel

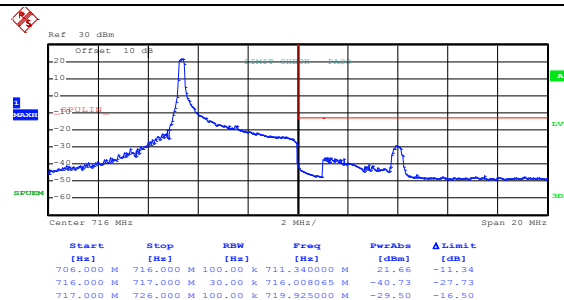
LTE Band 12, BW: 5MHz

16QAM & RB Size 1



Date: 24.OCT.2018 17:24:42

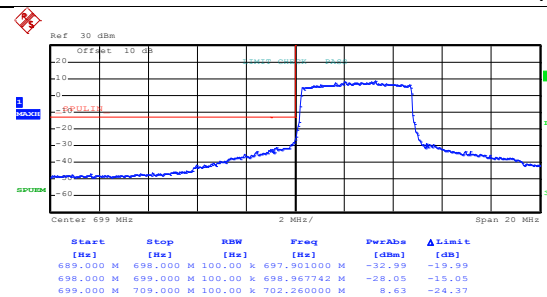
Lowest channel



Date: 24.OCT.2018 17:23:17

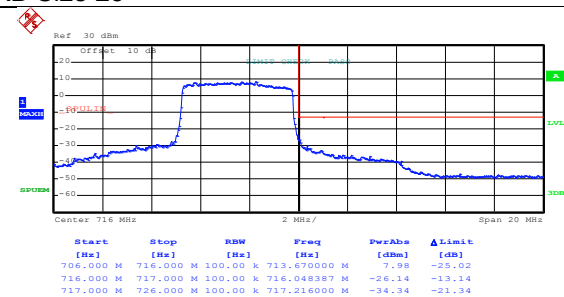
Highest channel

16QAM & RB Size 25



Date: 24.OCT.2018 17:25:15

Lowest channel

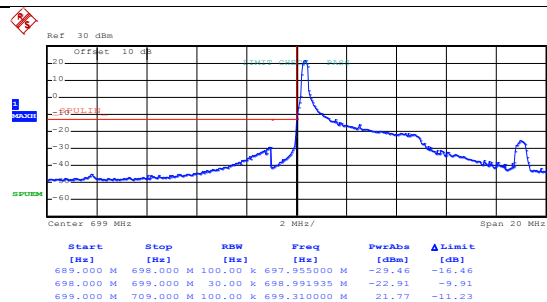


Date: 24.OCT.2018 17:24:02

Highest channel

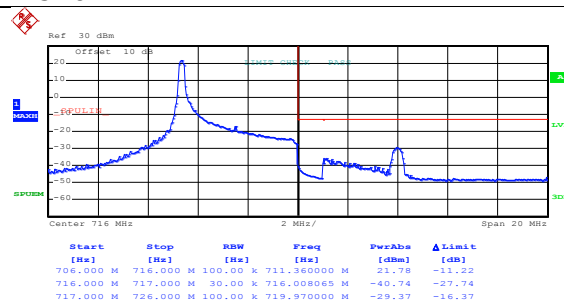
LTE Band 12, BW: 5MHz

QPSK & RB Size 1



Date: 24.OCT.2018 17:24:35

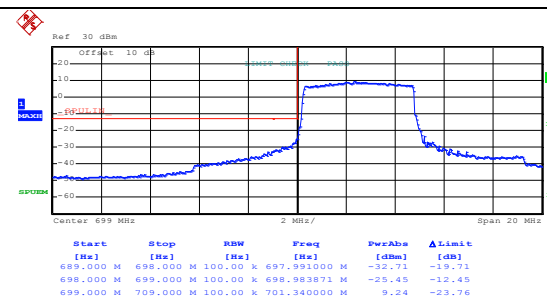
Lowest channel



Date: 24.OCT.2018 17:23:06

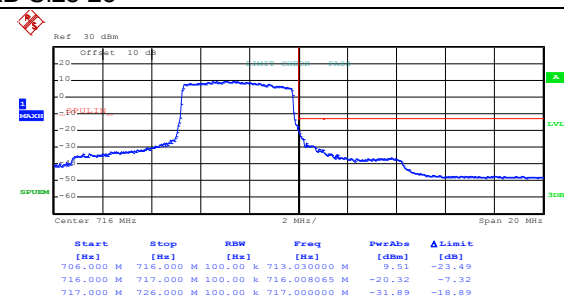
Highest channel

QPSK & RB Size 25



Date: 24.OCT.2018 17:25:03

Lowest channel

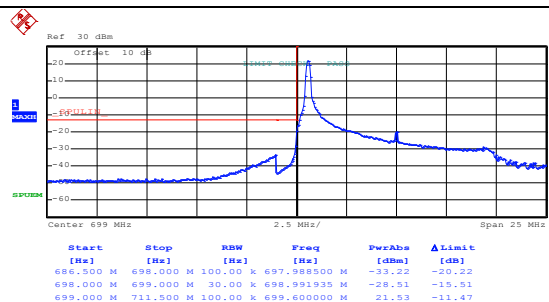


Date: 24.OCT.2018 17:23:53

Highest channel

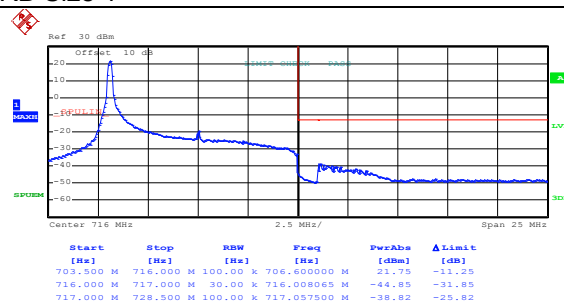
LTE Band 12, BW: 10MHz

16QAM & RB Size 1



Date: 24.OCT.2018 17:27:18

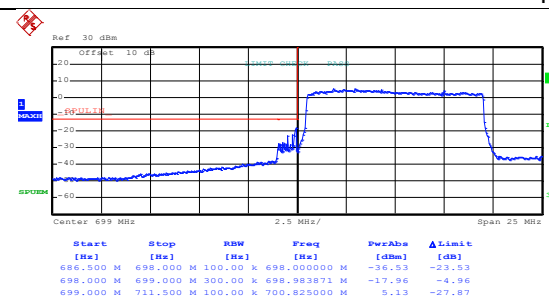
Lowest channel



Date: 24.OCT.2018 17:30:07

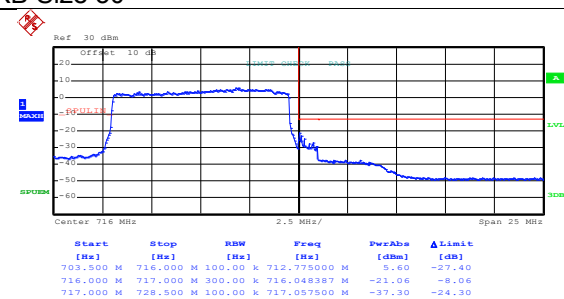
Highest channel

16QAM & RB Size 50



Date: 24.OCT.2018 17:27:55

Lowest channel

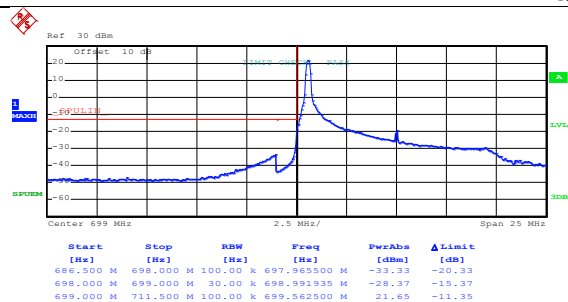


Date: 24.OCT.2018 17:29:25

Highest channel

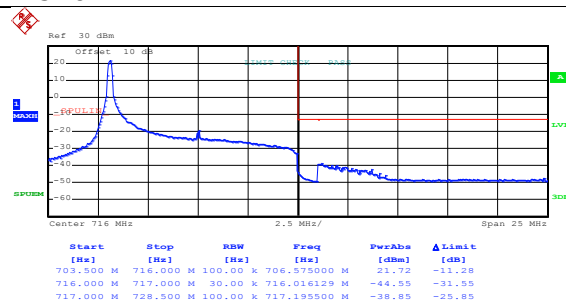
LTE Band 12, BW: 10MHz

QPSK & RB Size 1



Date: 24.OCT.2018 17:27:05

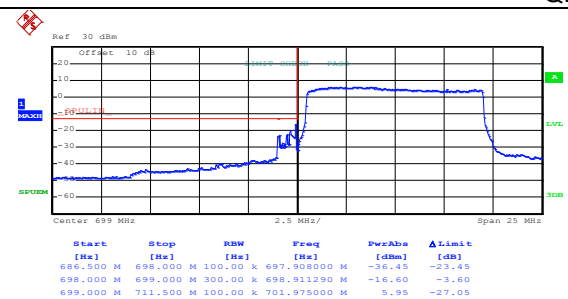
Lowest channel



Date: 24.OCT.2018 17:29:51

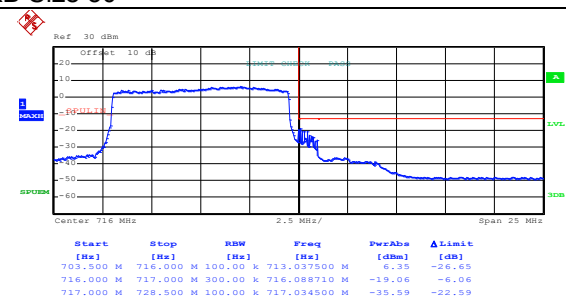
Highest channel

QPSK & RB Size 50



Date: 24.OCT.2018 17:27:47

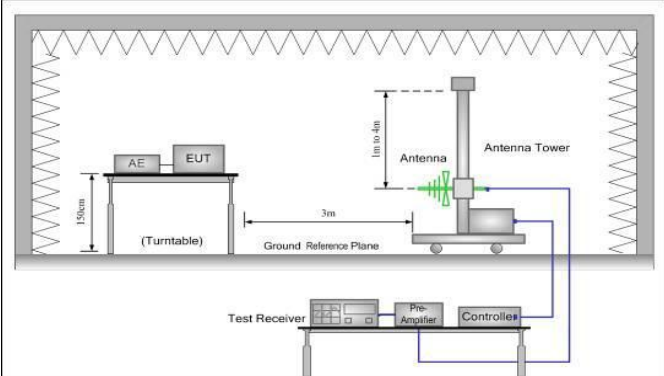
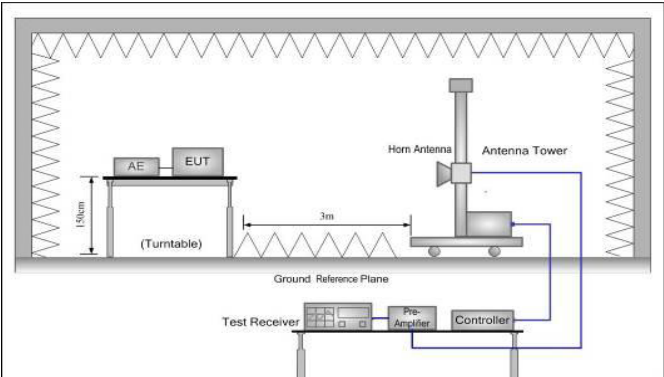
Lowest channel



Date: 24.OCT.2018 17:29:14

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 27.53(g), Part 27.53(m)
Test Method:	ANSI/TIA-603-D 2010
Limit:	LTE Band 4 & 12: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB (-13 dBm).
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on a 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. $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data:

LTE Band 4 part:

LTE Band 4, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3421.40	Vertical	-45.55	-13.00	Pass
5132.10	V	-42.26		
6842.80	V	-34.67		
3421.40	Horizontal	-45.77		
5132.10	H	-42.80		
6842.80	H	-35.27		
Middle Channel				
3465.00	Vertical	-45.21	-13.00	Pass
5197.50	V	-40.71		
6930.00	V	-37.15		
3465.00	Horizontal	-47.24		
5197.50	H	-42.31		
6930.00	H	-35.68		
Highest Channel				
3508.60	Vertical	-43.39	-13.00	Pass
5262.90	V	-40.17		
7017.20	V	-35.00		
3508.60	Horizontal	-45.57		
5262.90	H	-40.41		
7017.20	H	-35.19		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3423.00	Vertical	-46.21	-13.00	Pass
5134.50	V	-43.26		
6846.00	V	-35.37		
3423.00	Horizontal	-45.92		
5134.50	H	-42.48		
6846.00	H	-36.37		
Middle Channel				
3465.00	Vertical	45.36	-13.00	Pass
5197.50	V	-40.92		
6930.00	V	-38.26		
3465.00	Horizontal	-47.98		
5197.50	H	-42.59		
6930.00	H	-35.92		
Highest Channel				
3507.00	Vertical	-43.42	-13.00	Pass
5260.50	V	-40.24		
7014.00	V	-35.86		
3507.00	Horizontal	-45.98		
5260.50	H	-40.92		
7014.00	H	-35.34		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3425.00	Vertical	-45.42	-13.00	Pass
5137.50	V	-42.26		
6850.00	V	-34.86		
3425.00	Horizontal	-45.82		
5137.50	H	-42.98		
6850.00	H	-35.36		
Middle Channel				
3465.00	Vertical	-45.29	-13.00	Pass
5197.50	V	-40.87		
6930.00	V	-37.26		
3465.00	Horizontal	-47.52		
5197.50	H	-42.39		
6930.00	H	-35.72		
Highest Channel				
3505.00	Vertical	-43.52	-13.00	Pass
5257.50	V	-40.24		
7010.00	V	-35.12		
3505.00	Horizontal	-45.61		
5257.50	H	-40.24		
7010.00	H	-35.26		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3430.00	Vertical	-45.68	-13.00	Pass
5145.00	V	-43.26		
6860.00	V	-35.24		
3430.00	Horizontal	-45.89		
5145.00	H	-42.51		
6860.00	H	-36.02		
Middle Channel				
3465.00	Vertical	-45.37	-13.00	Pass
5197.50	V	-40.89		
6930.00	V	-38.24		
3465.00	Horizontal	-47.96		
5197.50	H	-42.52		
6930.00	H	-35.86		
Highest Channel				
3500.00	Vertical	-43.36	-13.00	Pass
5250.00	V	-40.36		
7000.00	V	-35.82		
3500.00	Horizontal	-45.87		
5250.00	H	-40.86		
7000.00	H	-35.43		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3435.00	Vertical	-45.26	-13.00	Pass
5152.50	V	-42.37		
6870.00	V	-34.87		
3435.00	Horizontal	-45.86		
5152.50	H	-42.34		
6870.00	H	-35.72		
Middle Channel				
3465.00	Vertical	-45.32	-13.00	Pass
5197.50	V	-40.93		
6930.00	V	-37.35		
3465.00	Horizontal	-47.86		
5197.50	H	-42.31		
6930.00	H	-35.81		
Highest Channel				
3495.00	Vertical	-43.26	-13.00	Pass
5242.50	V	-40.24		
6990.00	V	-35.27		
3495.00	Horizontal	-45.86		
5242.50	H	-40.54		
6990.00	H	-35.36		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3440.00	Vertical	-45.32	-13.00	Pass
5160.00	V	-42.39		
6880.00	V	-34.83		
3440.00	Horizontal	-45.98		
5160.00	H	-42.46		
6880.00	H	-35.79		
Middle Channel				
3465.00	Vertical	-45.39	-13.00	Pass
5197.50	V	-40.97		
6930.00	V	-37.86		
3465.00	Horizontal	-47.92		
5197.50	H	-42.36		
6930.00	H	-35.81		
Highest Channel				
3490.00	Vertical	-43.32	-13.00	Pass
5235.00	V	-40.29		
6980.00	V	-35.27		
3490.00	Horizontal	-45.83		
5235.00	H	-40.59		
6980.00	H	-35.36		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12 part:

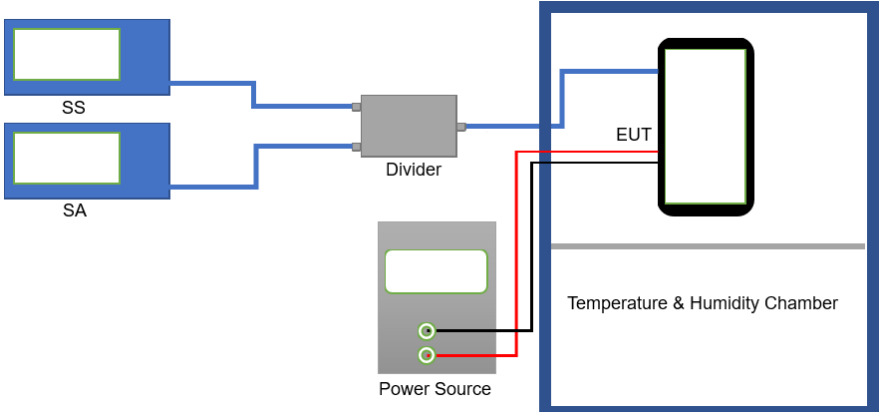
LTE Band 12, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1399.40	Vertical	-48.84	-13.00	Pass
2099.10	V	-53.81		
2798.80	V	-30.68		
1399.40	Horizontal	-49.40		
2099.10	H	-54.20		
2798.80	H	-28.38		
Middle Channel				
1415.00	Vertical	-49.26	-13.00	Pass
2122.50	V	-54.37		
2830.00	V	-32.09		
1415.00	Horizontal	-46.85		
2122.50	H	-53.29		
2830.00	H	-29.12		
Highest Channel				
1430.60	Vertical	-52.02	-13.00	Pass
2145.90	V	-54.61		
2861.20	V	-31.18		
1430.60	Horizontal	-49.71		
2145.90	H	-54.99		
2861.20	H	-33.20		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1401.00	Vertical	-48.82	-13.00	Pass
2101.50	V	-53.78		
2802.00	V	-30.63		
1401.00	Horizontal	-49.23		
2101.50	H	-54.26		
2802.00	H	-28.38		
Middle Channel				
1415.00	Vertical	-49.34	-13.00	Pass
2122.50	V	-54.52		
2830.00	V	-32.39		
1415.00	Horizontal	-46.84		
2122.50	H	-53.42		
2830.00	H	-29.37		
Highest Channel				
1429.00	Vertical	-52.12	-13.00	Pass
2143.50	V	-54.72		
2858.00	V	-31.36		
1429.00	Horizontal	-49.86		
2143.50	H	-55.34		
2858.00	H	-33.64		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1403.00	Vertical	-48.82	-13.00	Pass
2104.50	V	-52.78		
2806.00	V	-30.20		
1403.00	Horizontal	-49.38		
2104.50	H	-54.56		
2806.00	H	-28.42		
Middle Channel				
1415.00	Vertical	-49.32	-13.00	Pass
2122.50	V	-54.42		
2830.00	V	-32.14		
1415.00	Horizontal	-46.82		
2122.50	H	-53.38		
2830.00	H	-29.31		
Highest Channel				
1427.00	Vertical	-52.63	-13.00	Pass
2410.50	V	-54.67		
2854.00	V	-31.53		
1427.00	Horizontal	-49.86		
2410.50	H	-54.31		
2854.00	H	-33.26		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1408.00	Vertical	-48.89	-13.00	Pass
2112.00	V	-53.98		
2816.00	V	-30.53		
1408.00	Horizontal	-49.63		
2112.00	H	-54.32		
2816.00	H	-28.53		
Middle Channel				
1415.00	Vertical	-48.96	-13.00	Pass
2122.50	V	-53.96		
2830.00	V	-30.56		
1415.00	Horizontal	-49.86		
2122.50	H	-54.87		
2830.00	H	-28.96		
Highest Channel				
1422.00	Vertical	-48.86	-13.00	Pass
2133.00	V	-53.97		
2844.00	V	-30.59		
1422.00	Horizontal	-49.64		
2133.00	H	-54.86		
2844.00	H	-28.89		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 27.54, Part 2.1055(a)(1)(b)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm
Test setup:	 The diagram illustrates the test setup. A Signal Source (SS) and a Spectrum Analyzer (SA) are connected to a Divider. The Divider is connected to the EUT (Equipment Under Test) inside a Temperature & Humidity Chamber. A Power Source is also connected to the EUT.
Test procedure:	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 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

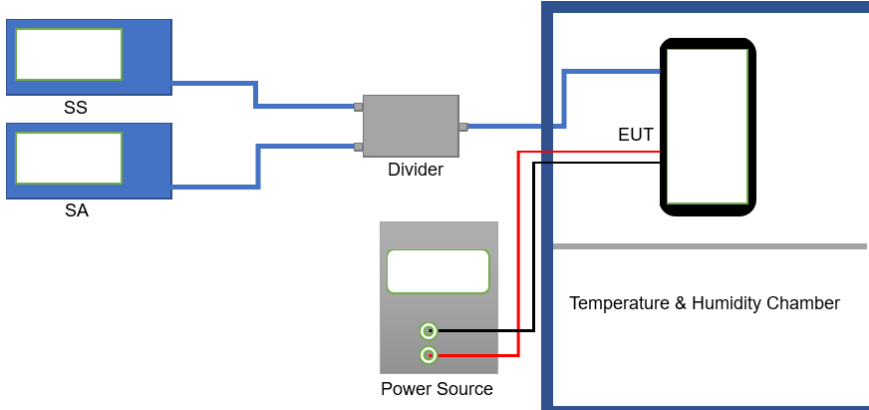
LTE Band 4 part:

Reference Frequency: LTE Band 4 (10MHz) Middle channel=20175 channel=1732.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	198	0.114286	±2.5	Pass
	-20	136	0.078499		
	-10	125	0.072150		
	0	144	0.083117		
	10	170	0.098124		
	20	188	0.108514		
	30	173	0.099856		
	40	129	0.074459		
	50	104	0.060029		
16QAM					
3.7	-30	190	0.109668	±2.5	Pass
	-20	133	0.076768		
	-10	145	0.083694		
	0	121	0.069841		
	10	165	0.095238		
	20	174	0.100433		
	30	180	0.103896		
	40	149	0.086003		
	50	111	0.064069		
Note: Only the worst case shown in the report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=707.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.7	-30	198	0.279859	±2.5	Pass
	-20	133	0.187986		
	-10	136	0.192226		
	0	165	0.233216		
	10	123	0.173852		
	20	101	0.142756		
	30	145	0.204947		
	40	180	0.254417		
	50	177	0.250177		
16QAM					
3.7	-30	196	0.277032	±2.5	Pass
	-20	123	0.173852		
	-10	165	0.233216		
	0	188	0.265724		
	10	145	0.204947		
	20	171	0.241696		
	30	102	0.144170		
	40	122	0.172438		
	50	166	0.234629		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 27.54, Part 2.1055(d)(2)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer (SA) and a Signal Source (SS) are connected to a Divider. The Divider is connected to the EUT (Equipment Under Test) inside a Temperature & Humidity Chamber. A Power Source is also connected to the EUT.
Test procedure:	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 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE Band 4 part:

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 channel=1732.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.2	99	0.057143	±2.5	Pass
	3.7	88	0.050794		
	3.5	74	0.042713		
16QAM					
25	4.2	80	0.046176	±2.5	Pass
	3.7	96	0.055411		
	3.5	77	0.044444		
Note: Only the worst case shown in the report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 channel=707.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.2	98	0.138516	±2.5	Pass
	3.7	90	0.127208		
	3.5	63	0.089046		
16QAM					
25	4.2	84	0.118728	±2.5	Pass
	3.7	75	0.106007		
	3.5	63	0.089046		
Note: Only the worst case shown in the report.					