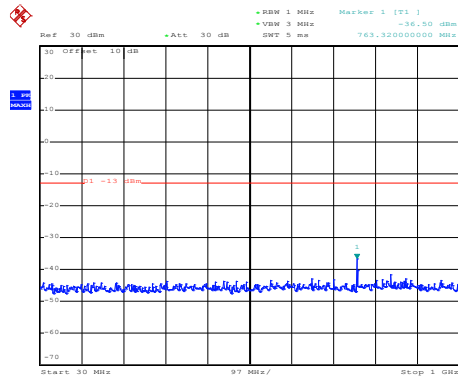
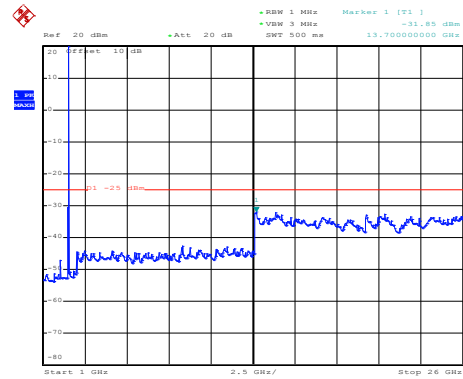


LTE Band 7: 16 QAM & RB Size 1 BW: 20MHz Lowest channel



Date: 28.AUG.2019 19:30:11

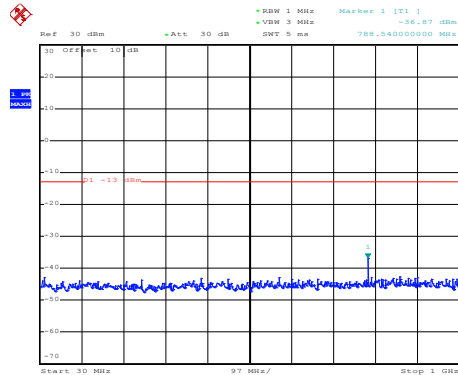
30MHz~1GHz



Date: 28.AUG.2019 19:24:35

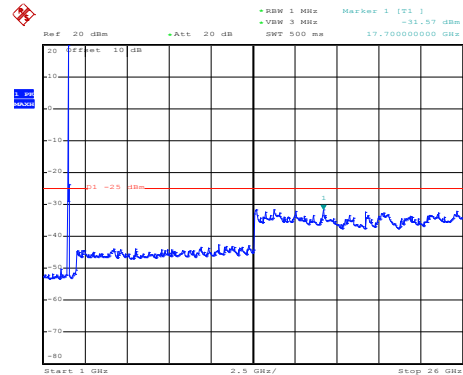
1GHz~25GHz

Middle channel



Date: 28.AUG.2019 19:29:48

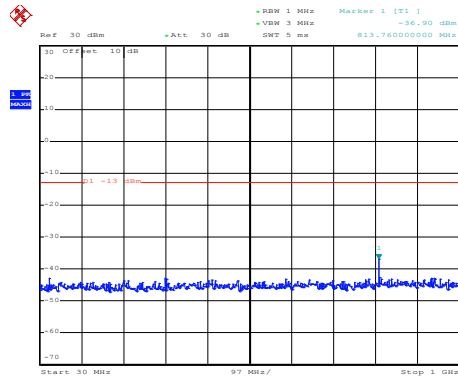
30MHz~1GHz



Date: 28.AUG.2019 19:25:43

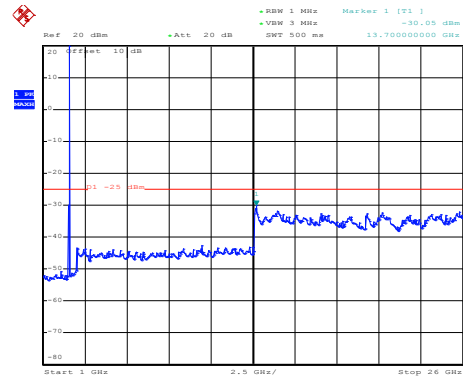
1GHz~25GHz

High channel



Date: 28.AUG.2019 19:29:05

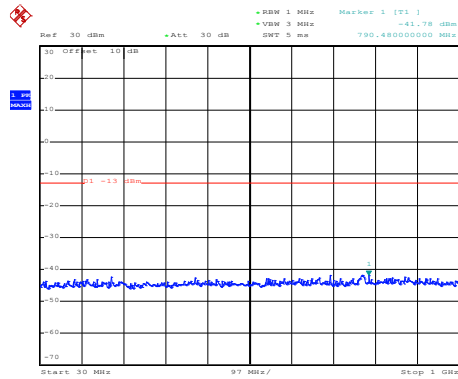
30MHz~1GHz



Date: 28.AUG.2019 19:26:13

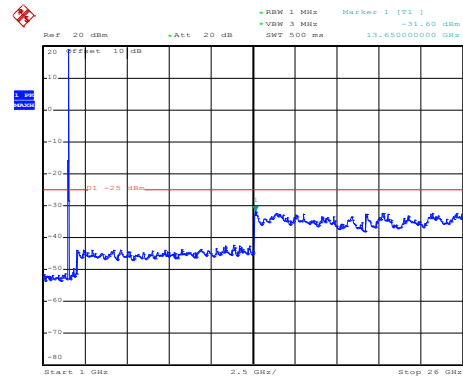
1GHz~25GHz

LTE Band 7: 16 QAM & RB Size 100
BW: 20MHz
Lowest channel



Date: 28.AUG.2019 19:30:33

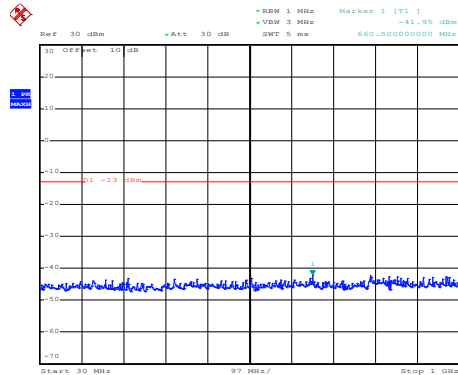
30MHz~1GHz



Date: 28.AUG.2019 19:24:52

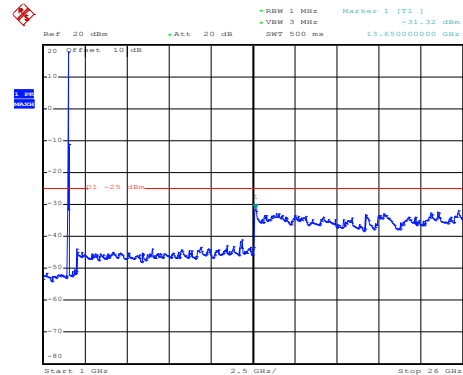
1GHz~25GHz

Middle channel



Date: 28.AUG.2019 19:29:36

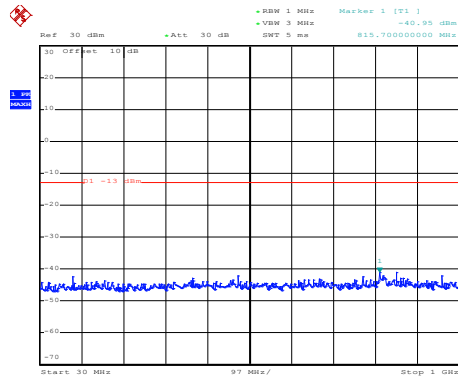
30MHz~1GHz



Date: 28.AUG.2019 19:25:11

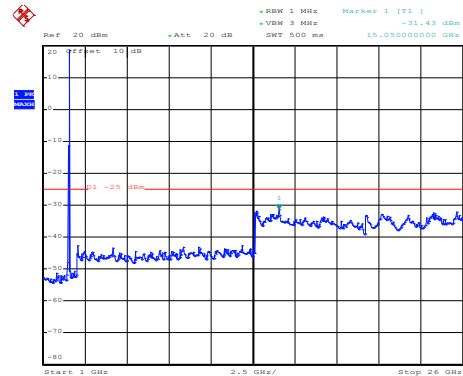
1GHz~25GHz

High channel



Date: 28.AUG.2019 19:29:19

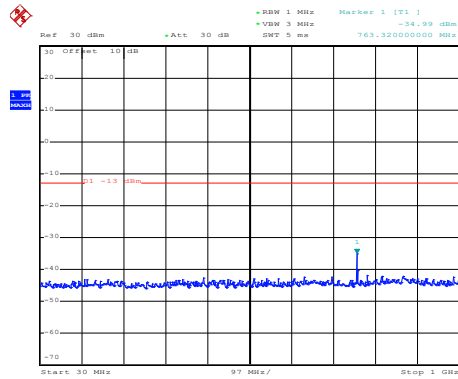
30MHz~1GHz



Date: 28.AUG.2019 19:26:28

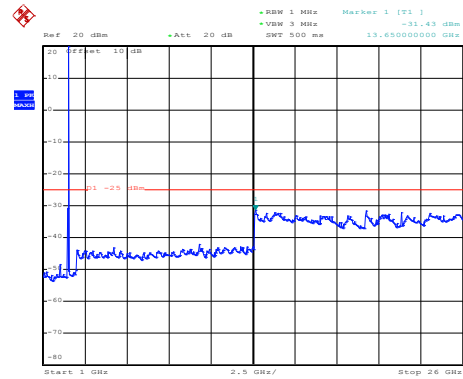
1GHz~25GHz

LTE Band 7: QPSK & RB Size 1 BW: 20MHz Lowest channel



Date: 28.AUG.2019 19:30:07

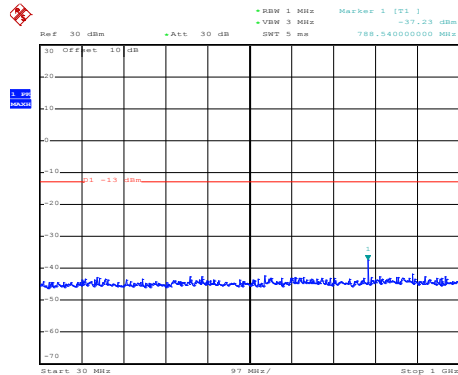
30MHz~1GHz



Date: 28.AUG.2019 19:24:30

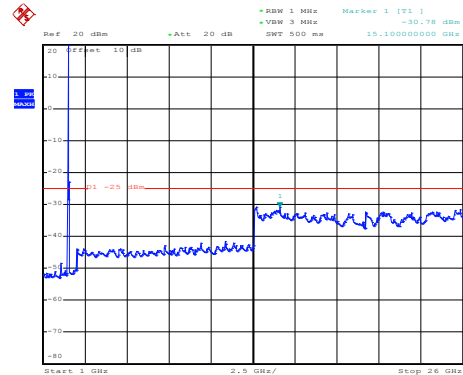
1GHz~25GHz

Middle channel



Date: 28.AUG.2019 19:29:44

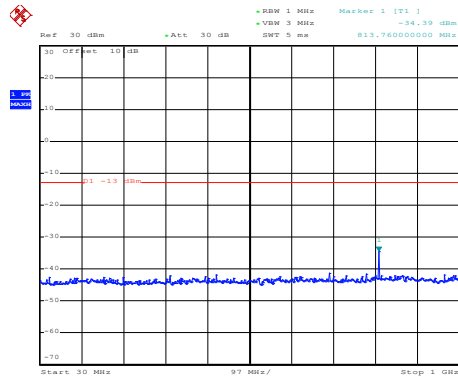
30MHz~1GHz



Date: 28.AUG.2019 19:25:34

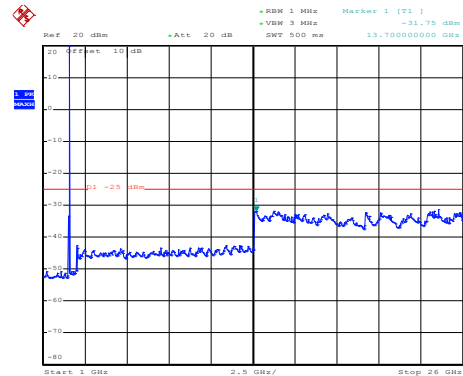
1GHz~25GHz

High channel



Date: 28.AUG.2019 19:28:58

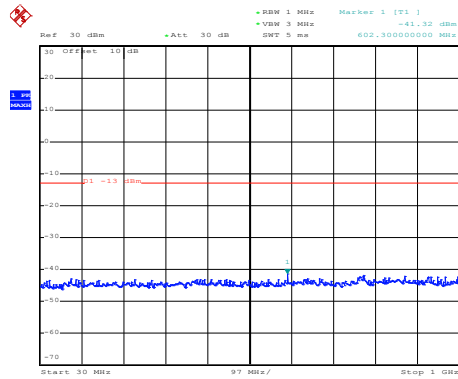
30MHz~1GHz



Date: 28.AUG.2019 19:26:06

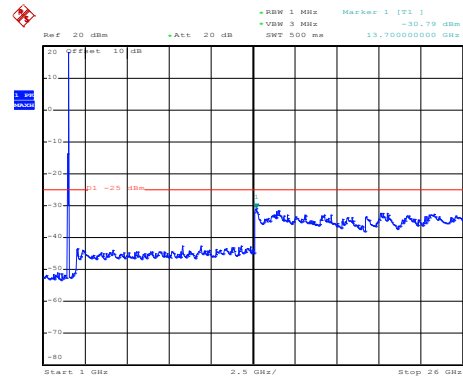
1GHz~25GHz

LTE Band 7: QPSK & RB Size 100
BW: 20MHz
Lowest channel



Date: 28.AUG.2019 19:30:21

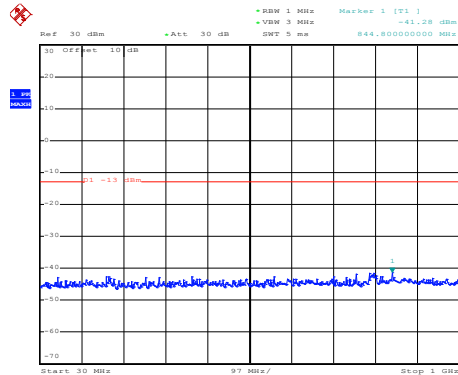
30MHz~1GHz



Date: 28.AUG.2019 19:24:44

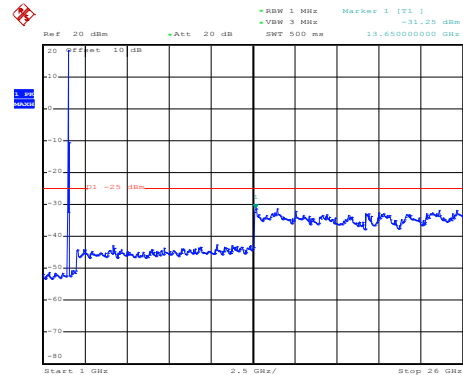
1GHz~25GHz

Middle channel



Date: 28.AUG.2019 19:29:30

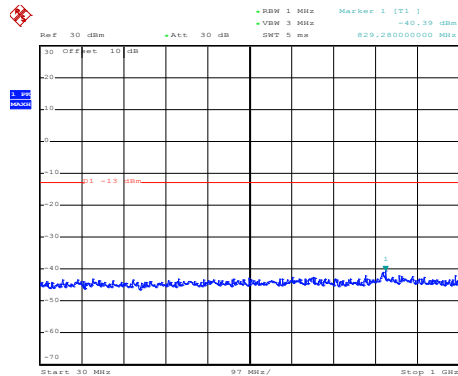
30MHz~1GHz



Date: 28.AUG.2019 19:25:06

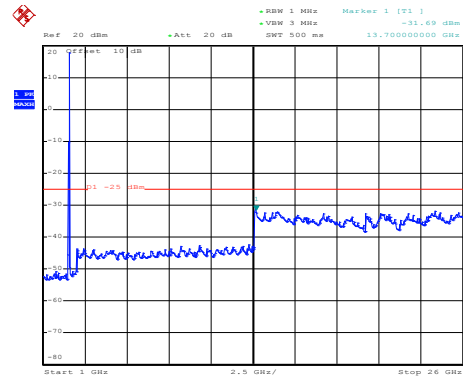
1GHz~25GHz

High channel



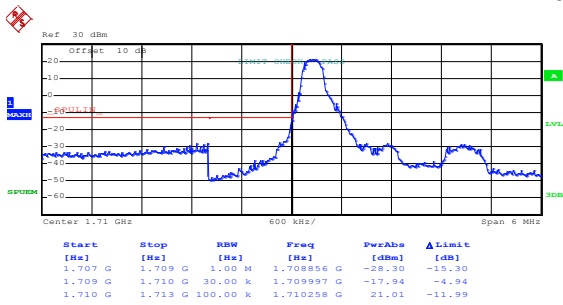
Date: 28.AUG.2019 19:29:14

30MHz~1GHz



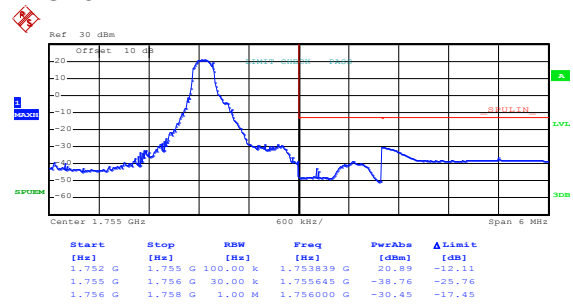
Date: 28.AUG.2019 19:26:23

1GHz~25GHz

Band edge emission:**LTE Band 4 part:****LTE Band 4, BW: 1.4MHz
16QAM & RB Size 1**

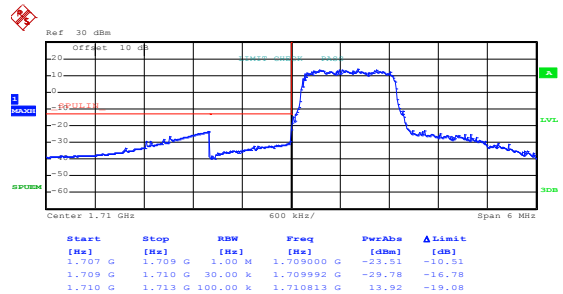
Date: 28.AUG.2019 16:36:00

Lowest channel



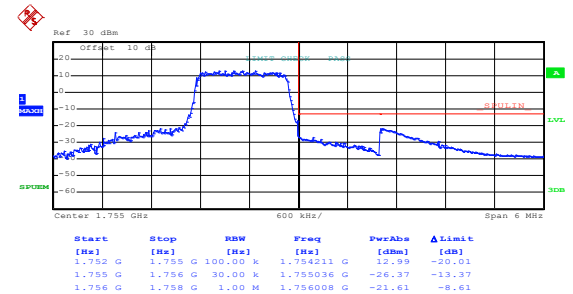
Date: 28.AUG.2019 16:38:40

Highest channel

16QAM & RB Size 6

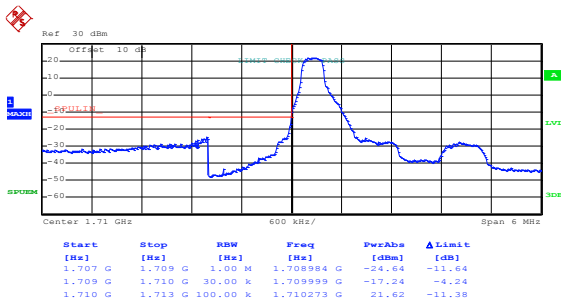
Date: 28.AUG.2019 16:36:37

Lowest channel



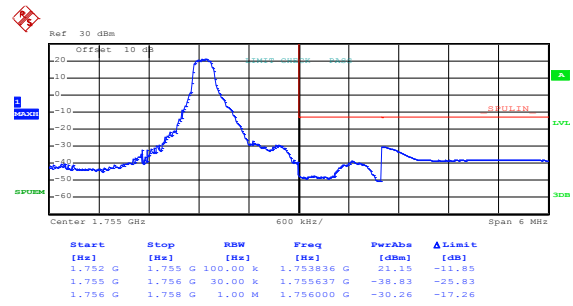
Date: 28.AUG.2019 16:37:26

Highest channel

LTE Band 4, BW: 1.4MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:35:55

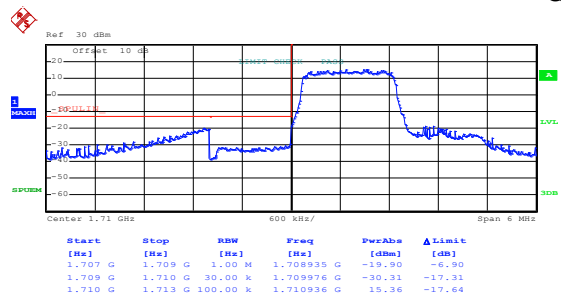
Lowest channel



Date: 28.AUG.2019 16:38:49

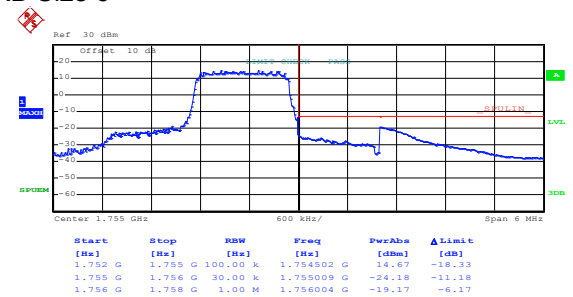
Highest channel

QPSK & RB Size 6



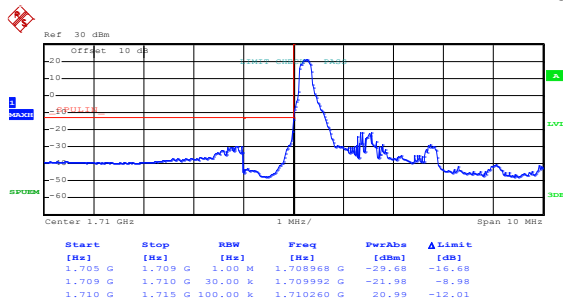
Date: 28.AUG.2019 16:36:30

Lowest channel



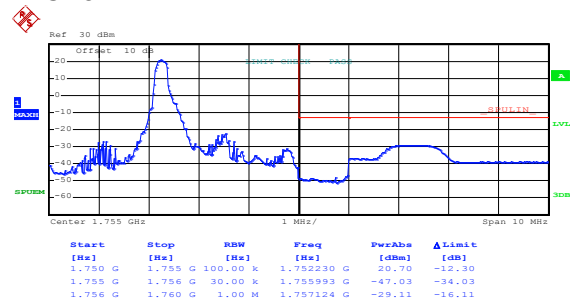
Date: 28.AUG.2019 16:37:20

Highest channel

LTE Band 4, BW: 3MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:56:03

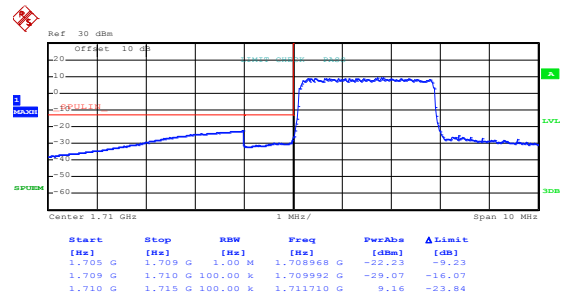
Lowest channel



Date: 28.AUG.2019 16:57:20

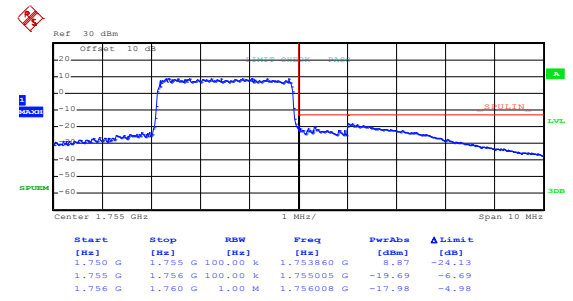
Highest channel

16QAM & RB Size 15



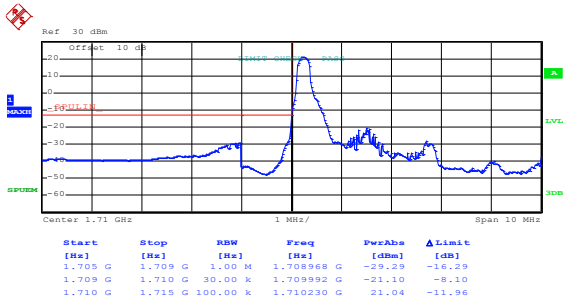
Date: 28.AUG.2019 16:56:32

Lowest channel



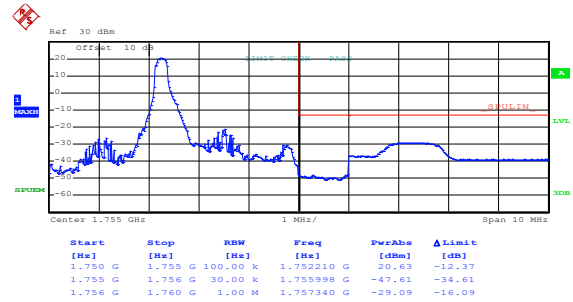
Date: 28.AUG.2019 16:56:53

Highest channel

LTE Band 4, BW: 3MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:55:58

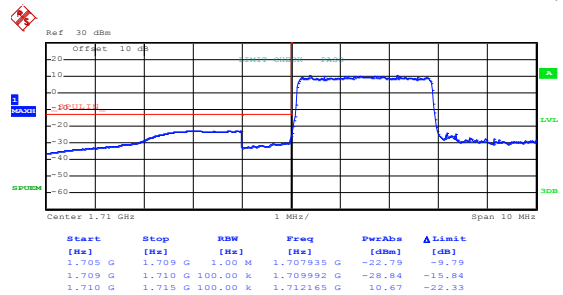
Lowest channel



Date: 28.AUG.2019 16:57:12

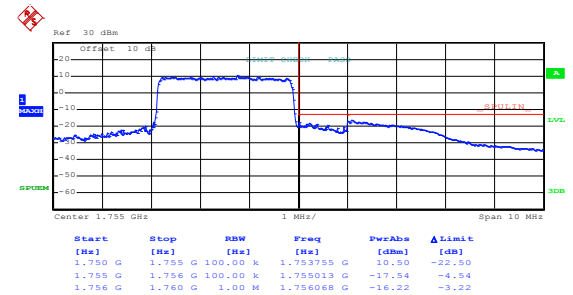
Highest channel

QPSK & RB Size 15



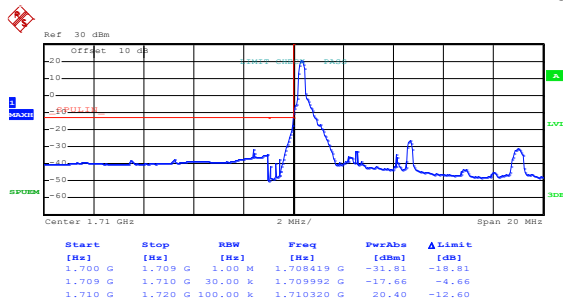
Date: 28.AUG.2019 16:56:22

Lowest channel



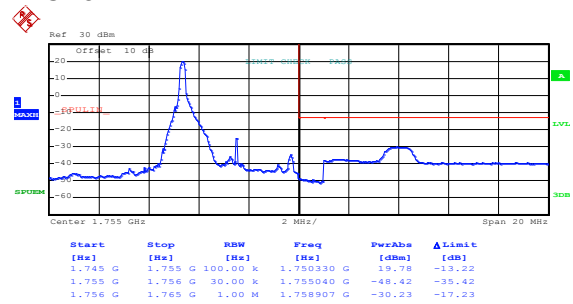
Date: 28.AUG.2019 16:56:46

Highest channel

LTE Band 4, BW: 5MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:55:29

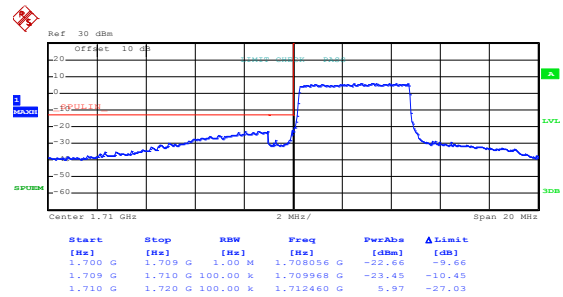
Lowest channel



Date: 28.AUG.2019 16:53:53

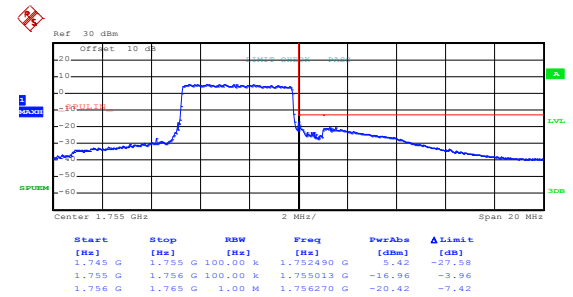
Highest channel

16QAM & RB Size 25



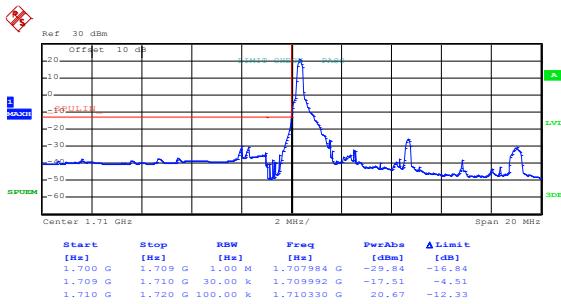
Date: 28.AUG.2019 16:54:50

Lowest channel



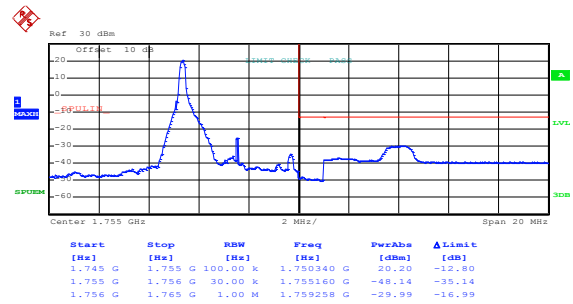
Date: 28.AUG.2019 16:54:19

Highest channel

LTE Band 4, BW: 5MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:55:24

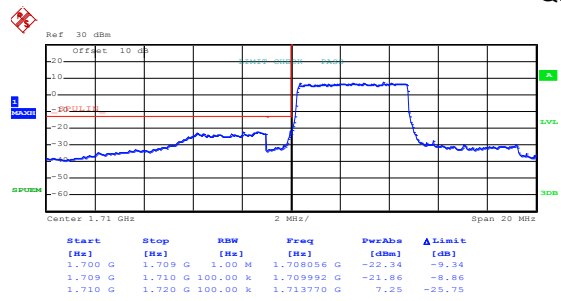
Lowest channel



Date: 28.AUG.2019 16:53:48

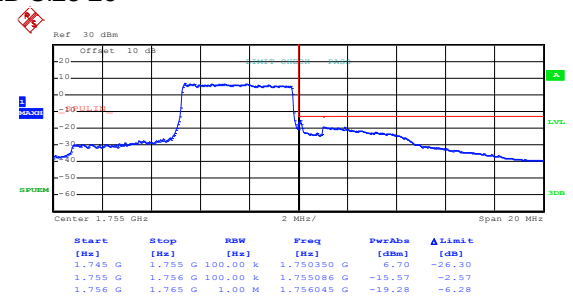
Highest channel

QPSK & RB Size 25



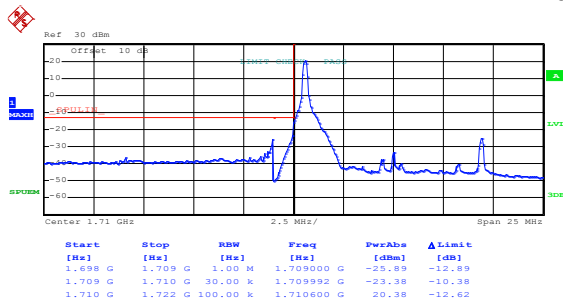
Date: 28.AUG.2019 16:54:43

Lowest channel



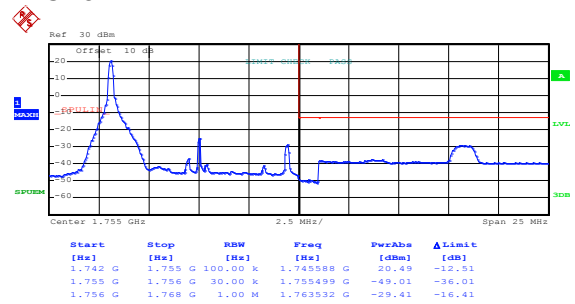
Date: 28.AUG.2019 16:54:13

Highest channel

LTE Band 4, BW: 10MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:52:00

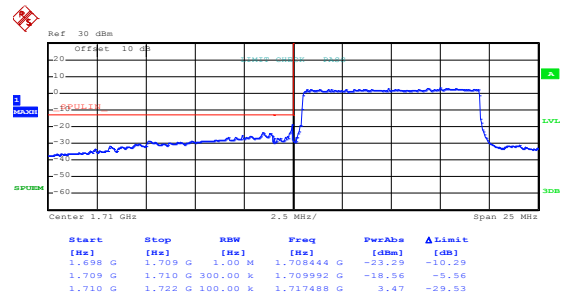
Lowest channel



Date: 28.AUG.2019 16:53:06

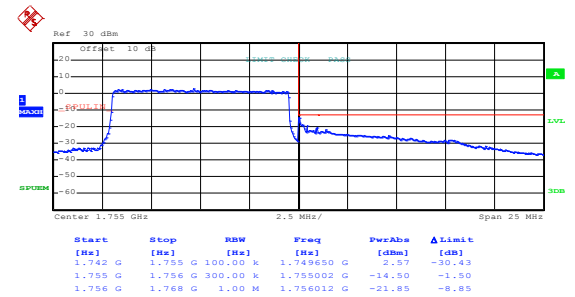
Highest channel

16QAM & RB Size 50



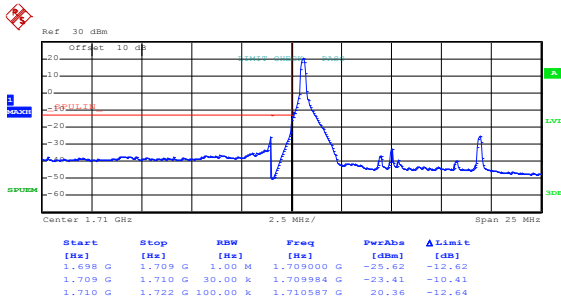
Date: 28.AUG.2019 16:52:24

Lowest channel



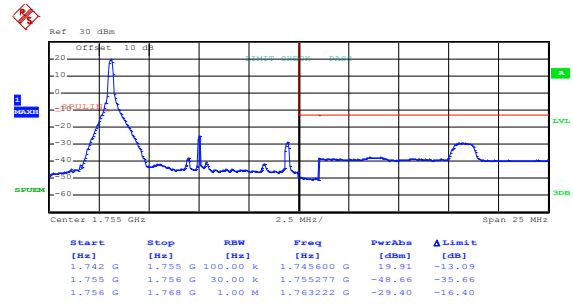
Date: 28.AUG.2019 16:52:47

Highest channel

LTE Band 4, BW: 10MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:51:52

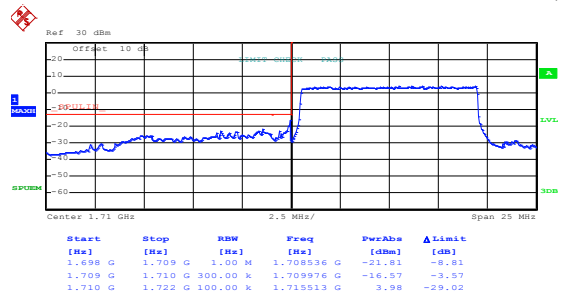
Lowest channel



Date: 28.AUG.2019 16:52:59

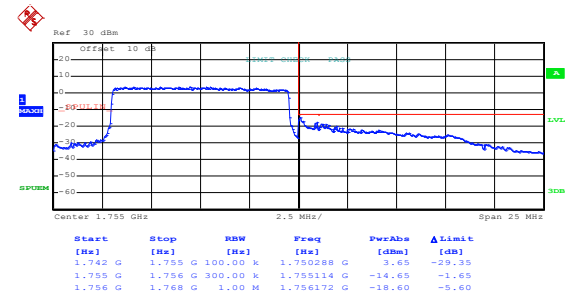
Highest channel

QPSK & RB Size 50



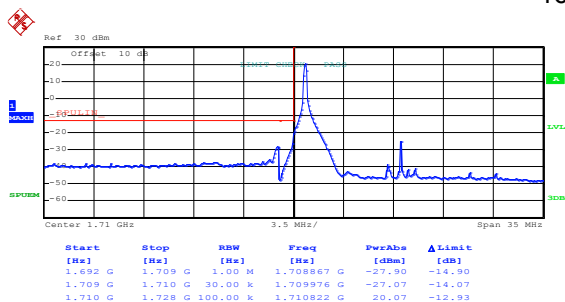
Date: 28.AUG.2019 16:52:18

Lowest channel



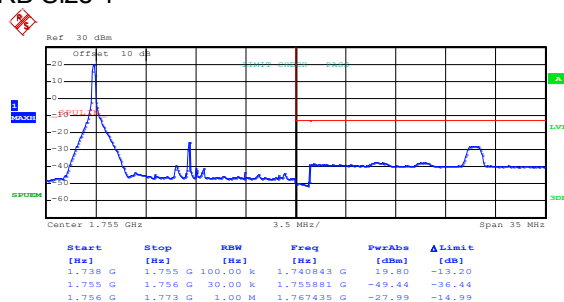
Date: 28.AUG.2019 16:52:40

Highest channel

LTE Band 4, BW: 15MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:48:02

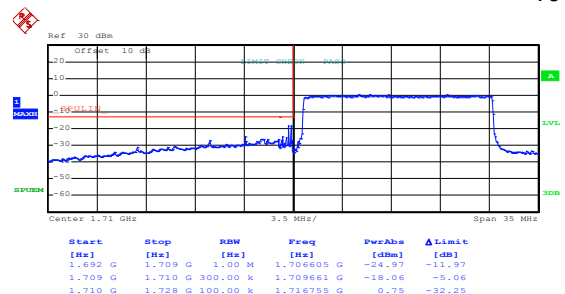
Lowest channel



Date: 28.AUG.2019 16:49:28

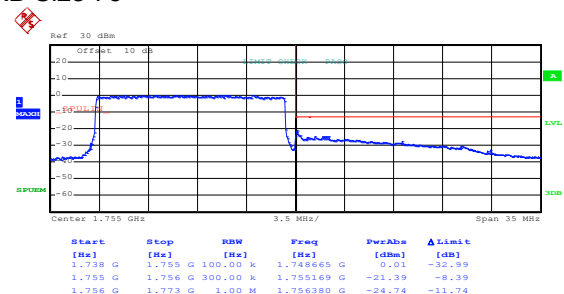
Highest channel

16QAM & RB Size 75



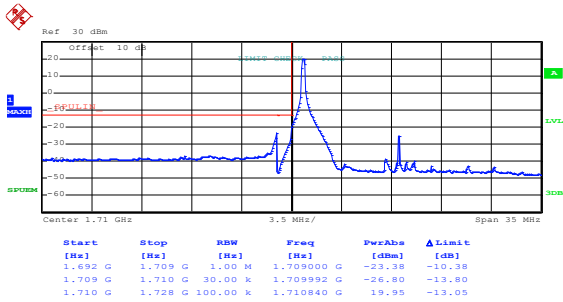
Date: 28.AUG.2019 16:48:31

Lowest channel



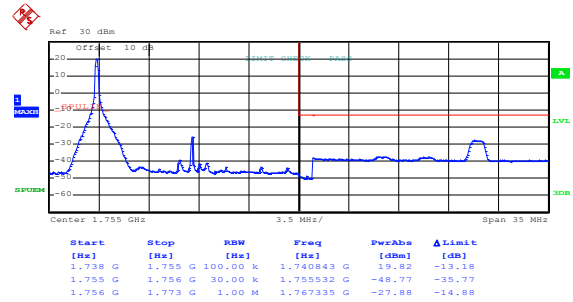
Date: 28.AUG.2019 16:49:08

Highest channel

LTE Band 4, BW: 15MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:47:56

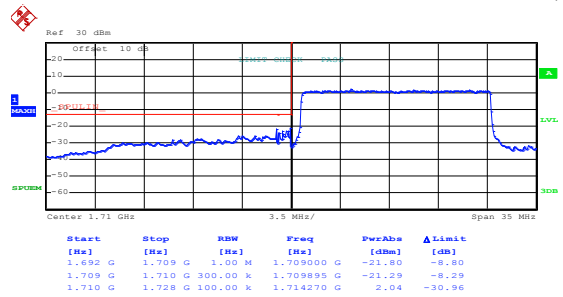
Lowest channel



Date: 28.AUG.2019 16:49:24

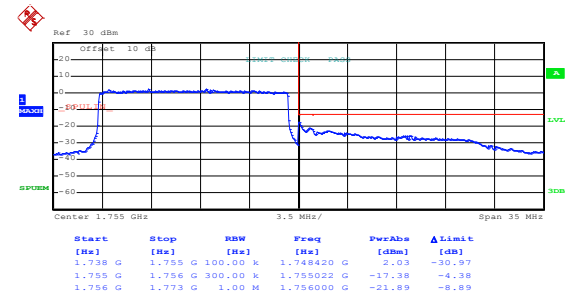
Highest channel

QPSK & RB Size 75



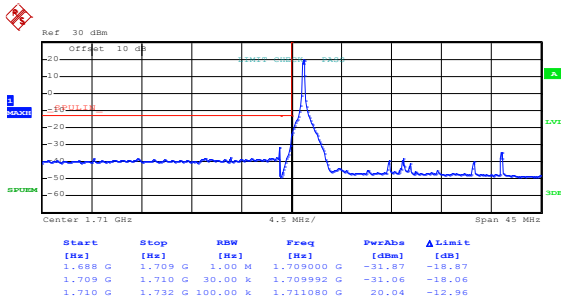
Date: 28.AUG.2019 16:48:25

Lowest channel



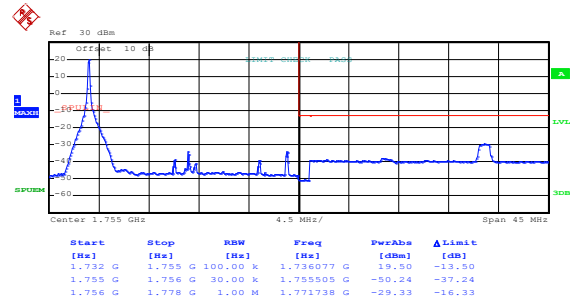
Date: 28.AUG.2019 16:49:03

Highest channel

LTE Band 4, BW: 20MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:51:03

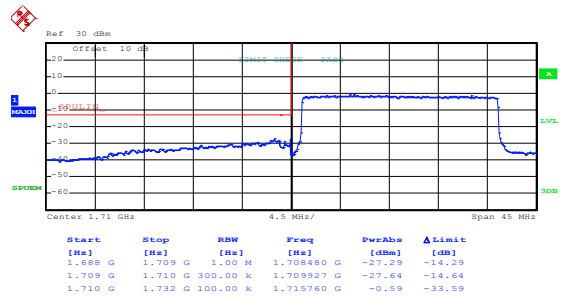
Lowest channel



Date: 28.AUG.2019 16:50:02

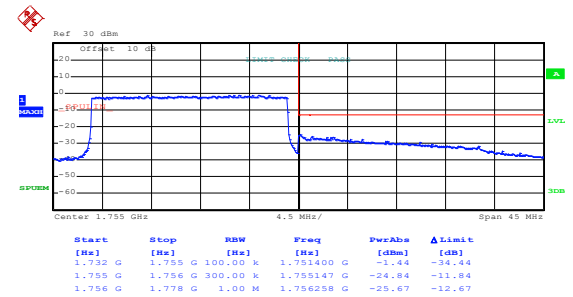
Highest channel

16QAM & RB Size 100



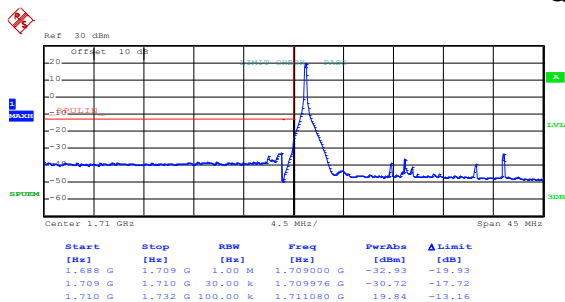
Date: 28.AUG.2019 16:50:45

Lowest channel



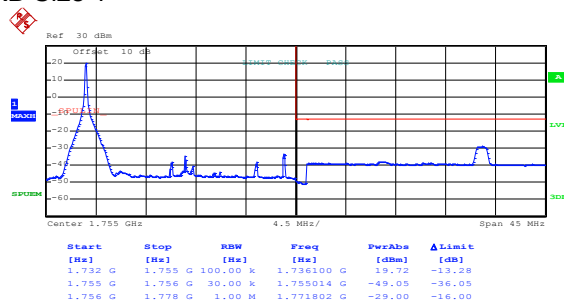
Date: 28.AUG.2019 16:50:25

Highest channel

LTE Band 4, BW: 20MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:50:59

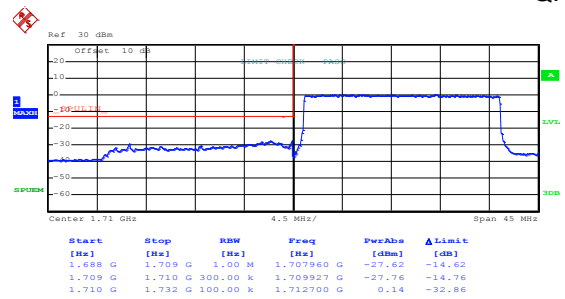
Lowest channel



Date: 28.AUG.2019 16:49:58

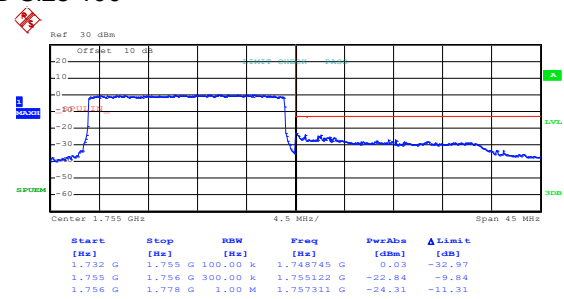
Highest channel

QPSK & RB Size 100



Date: 28.AUG.2019 16:50:40

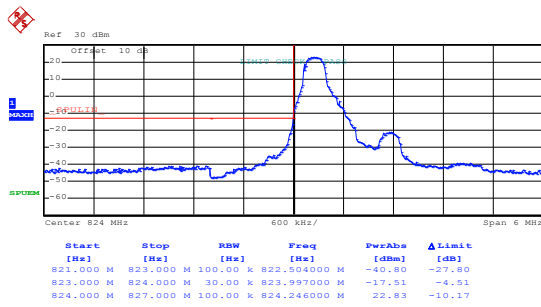
Lowest channel



Date: 28.AUG.2019 16:50:19

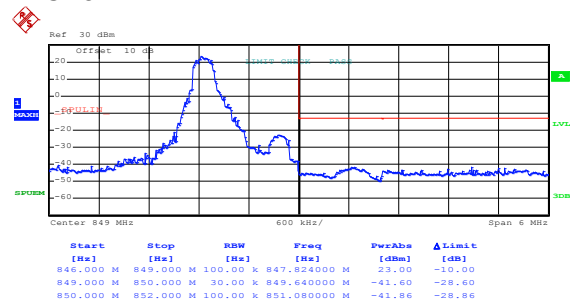
Highest channel

LTE Band 5 part:

LTE Band 5, BW: 1.4MHz
16QAM & RB Size 1

Date: 28.AUG.2019 16:58:46

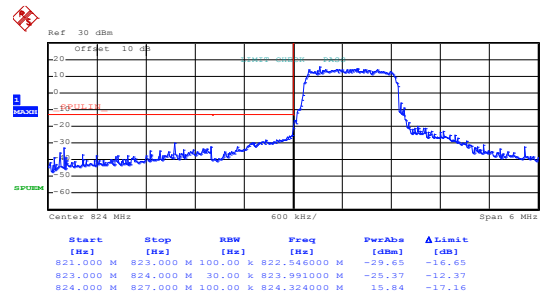
Lowest channel



Date: 28.AUG.2019 16:59:31

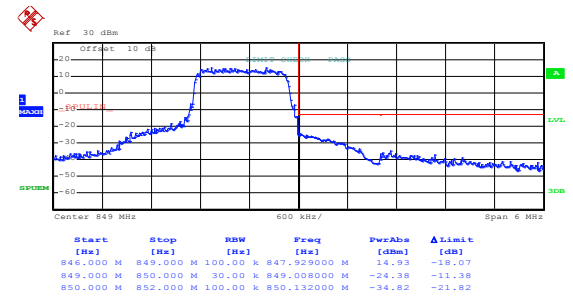
Highest channel

16QAM & RB Size 6



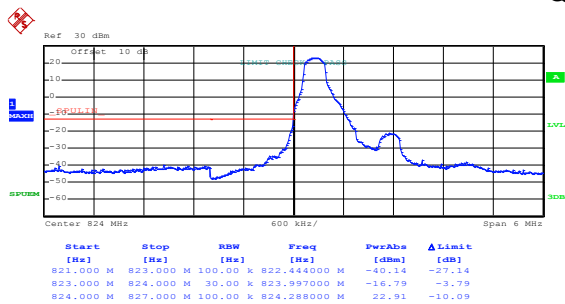
Date: 28.AUG.2019 16:58:59

Lowest channel



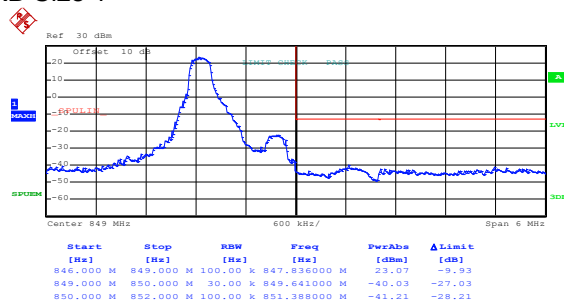
Date: 28.AUG.2019 16:59:19

Highest channel

LTE Band 5, BW: 1.4MHz
QPSK & RB Size 1

Date: 28.AUG.2019 16:58:36

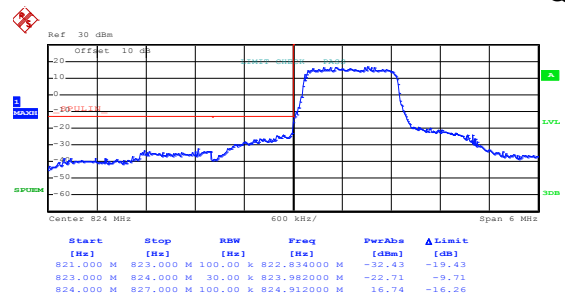
Lowest channel



Date: 28.AUG.2019 16:59:27

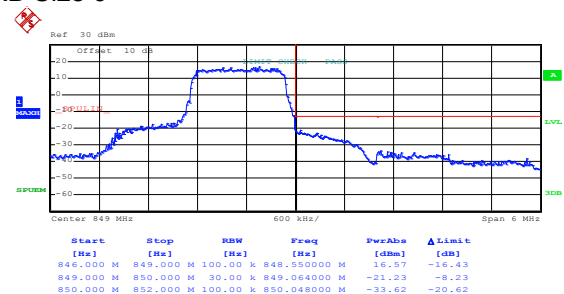
Highest channel

QPSK & RB Size 6



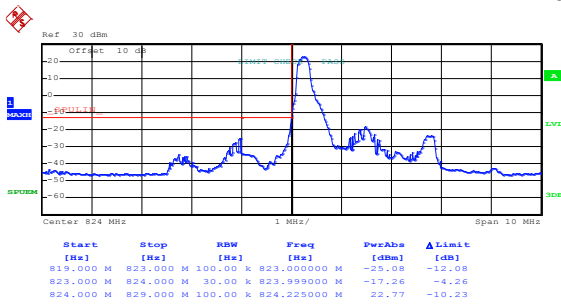
Date: 28.AUG.2019 16:58:54

Lowest channel



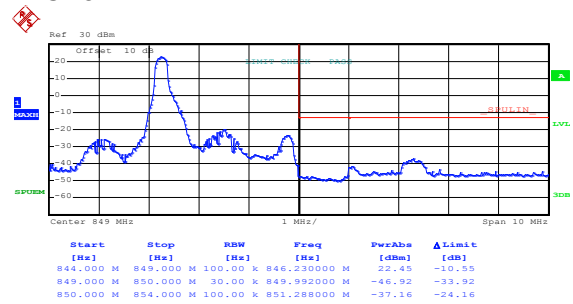
Date: 28.AUG.2019 16:59:13

Highest channel

LTE Band 5, BW: 3MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:03:34

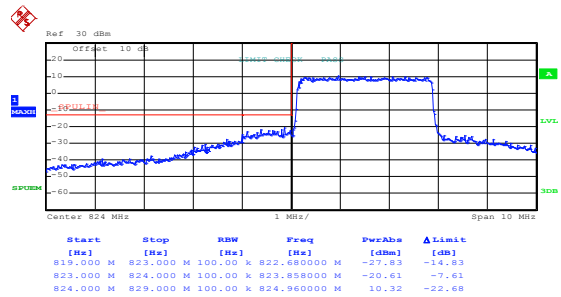
Lowest channel



Date: 28.AUG.2019 17:02:03

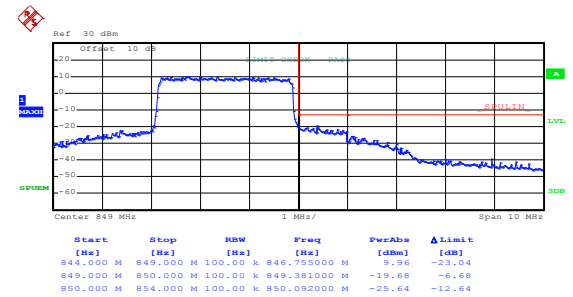
Highest channel

16QAM & RB Size 15



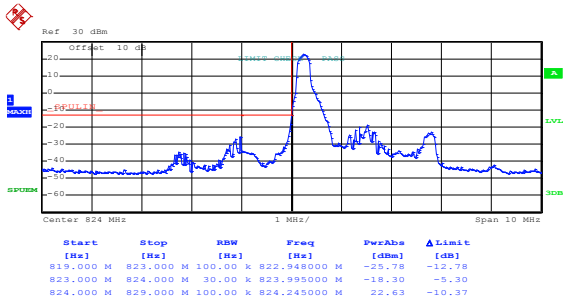
Date: 28.AUG.2019 17:03:01

Lowest channel



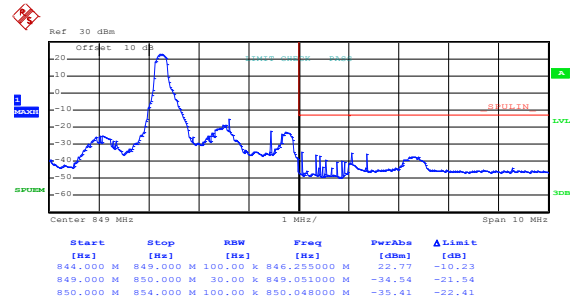
Date: 28.AUG.2019 17:02:27

Highest channel

LTE Band 5, BW: 3MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:03:19

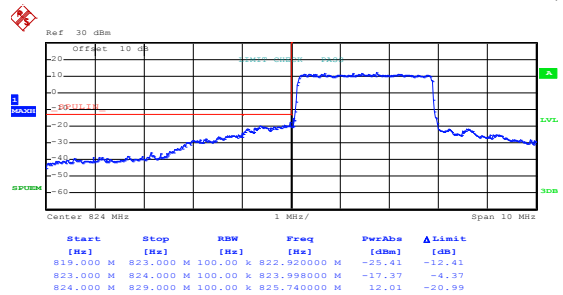
Lowest channel



Date: 28.AUG.2019 17:01:53

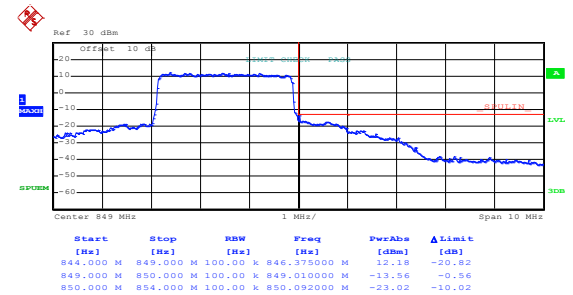
Highest channel

QPSK & RB Size 15



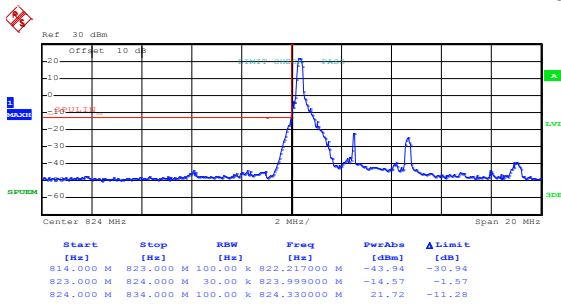
Date: 28.AUG.2019 17:02:56

Lowest channel



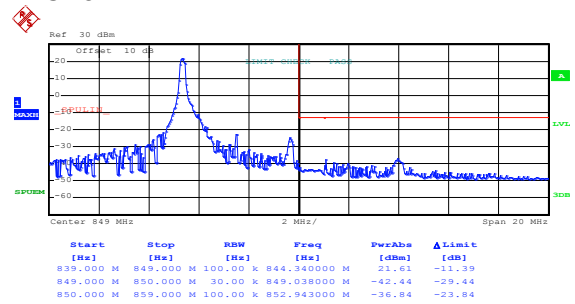
Date: 28.AUG.2019 17:02:22

Highest channel

LTE Band 5, BW: 5MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:04:09

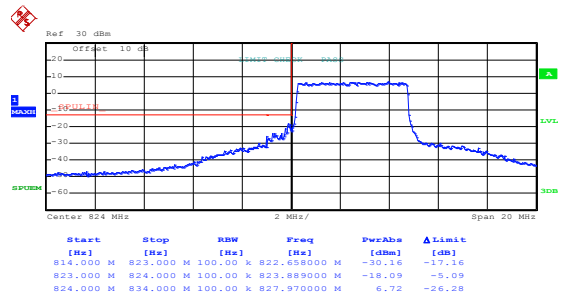
Lowest channel



Date: 28.AUG.2019 17:06:48

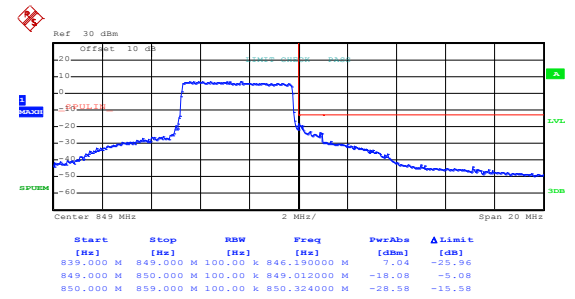
Highest channel

16QAM & RB Size 25



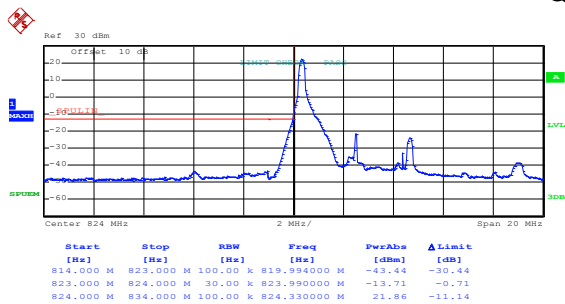
Date: 28.AUG.2019 17:05:44

Lowest channel



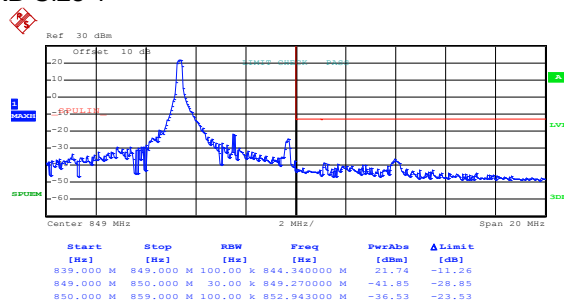
Date: 28.AUG.2019 17:06:20

Highest channel

LTE Band 5, BW: 5MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:04:05

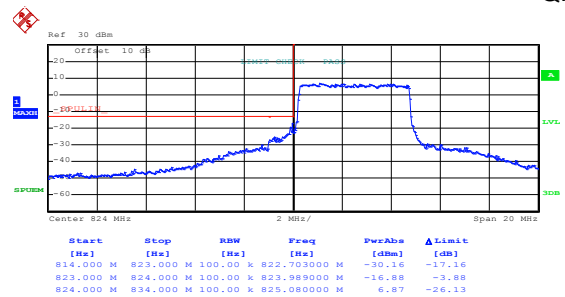
Lowest channel



Date: 28.AUG.2019 17:06:40

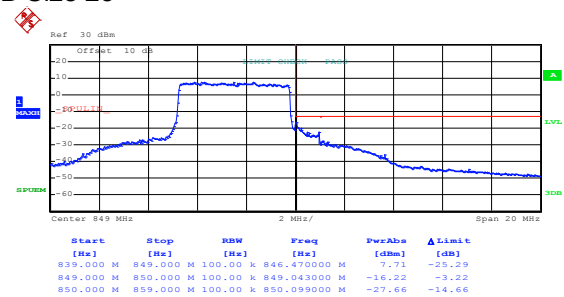
Highest channel

QPSK & RB Size 25



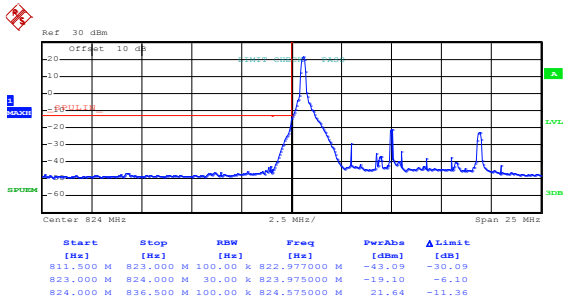
Date: 28.AUG.2019 17:04:46

Lowest channel



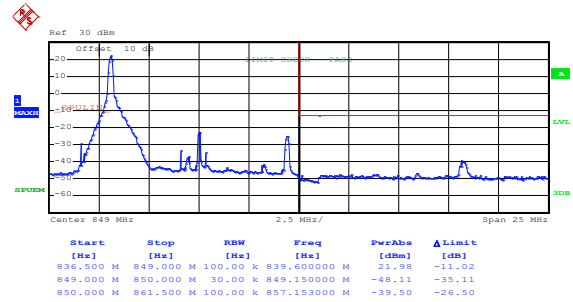
Date: 28.AUG.2019 17:06:16

Highest channel

LTE Band 5, BW: 10MHz
16QAM & RB Size 1

Date: 28.AUG.2019 20:39:54

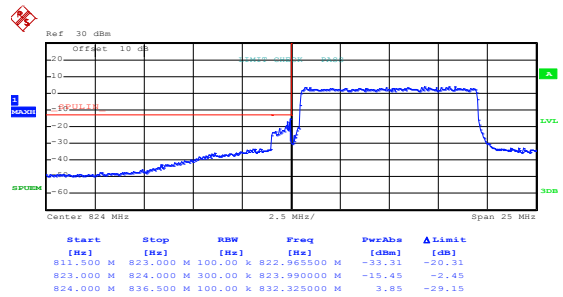
Lowest channel



Date: 28.AUG.2019 17:07:19

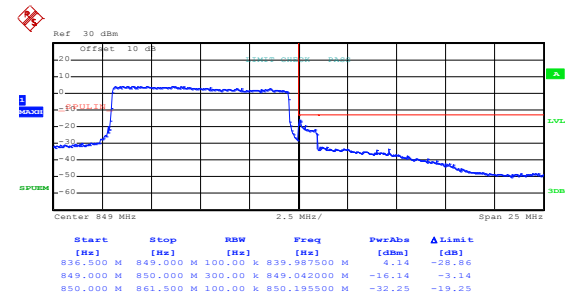
Highest channel

16QAM & RB Size 50



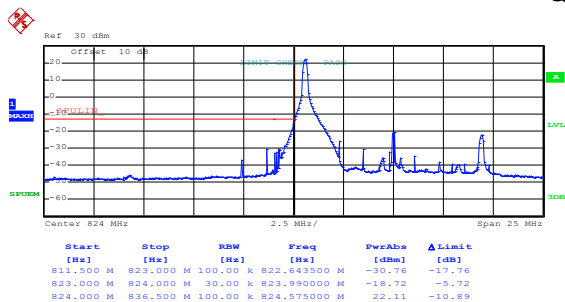
Date: 28.AUG.2019 17:08:47

Lowest channel



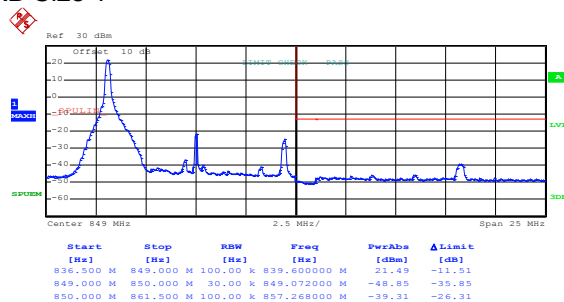
Date: 28.AUG.2019 17:07:53

Highest channel

LTE Band 5, BW: 10MHz
QPSK & RB Size 1

Date: 28.AUG.2019 20:39:47

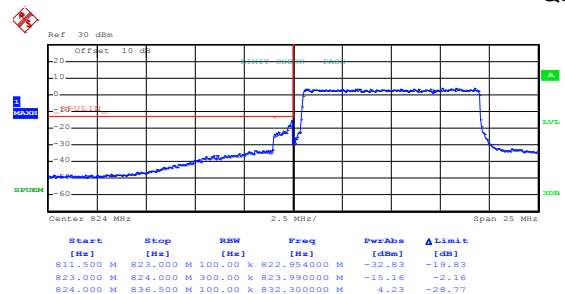
Lowest channel



Date: 28.AUG.2019 17:07:16

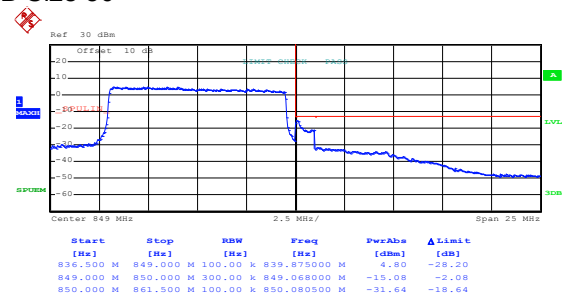
Highest channel

QPSK & RB Size 50



Date: 28.AUG.2019 17:08:31

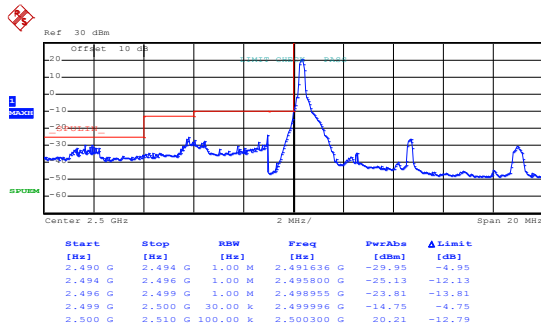
Lowest channel



Date: 28.AUG.2019 17:07:49

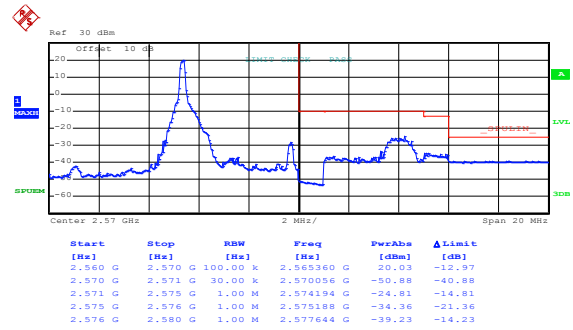
Highest channel

LTE Band 7 part:

LTE Band 7, BW: 5MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:19:24

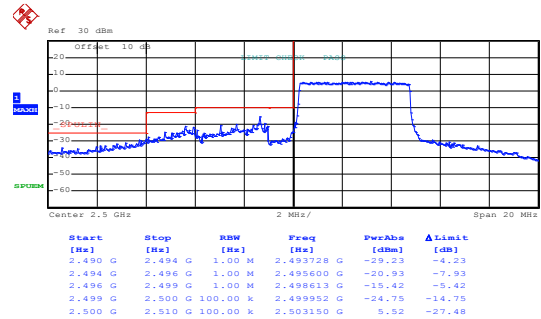
Lowest channel



Date: 28.AUG.2019 17:21:25

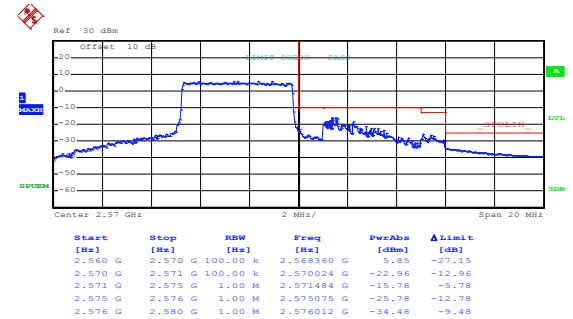
Highest channel

16QAM & RB Size 25



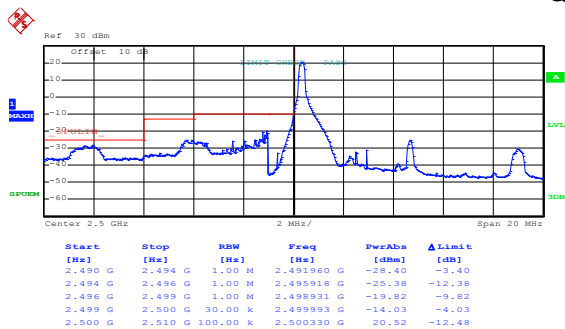
Date: 28.AUG.2019 17:20:19

Lowest channel



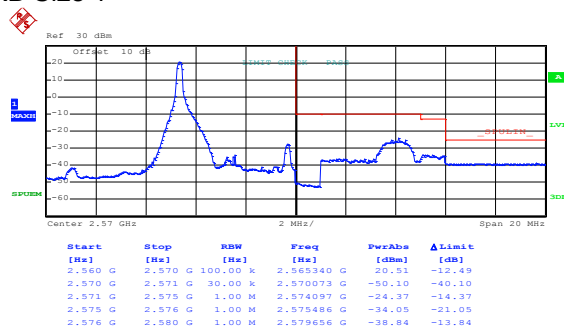
Date: 28.AUG.2019 17:20:59

Highest channel

LTE Band 7, BW: 5MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:19:19

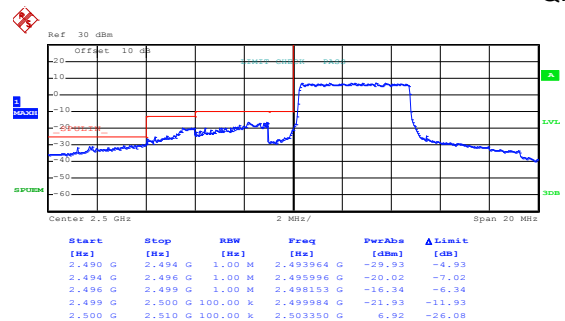
Lowest channel



Date: 28.AUG.2019 17:21:21

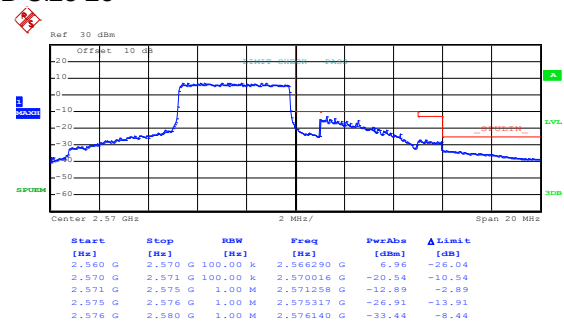
Highest channel

QPSK & RB Size 25



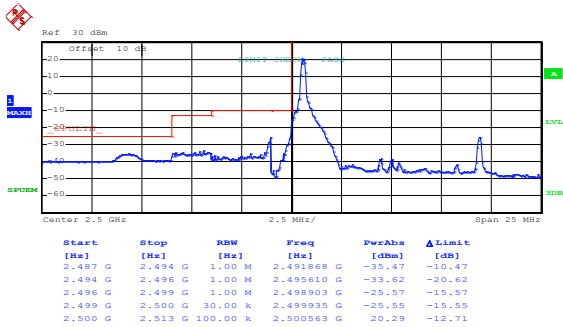
Date: 28.AUG.2019 17:20:12

Lowest channel



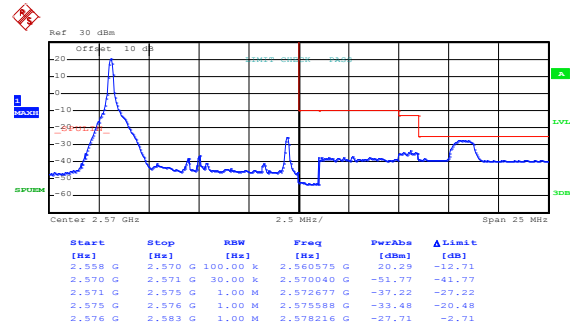
Date: 28.AUG.2019 17:20:53

Highest channel

LTE Band 7, BW: 10MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:25:21

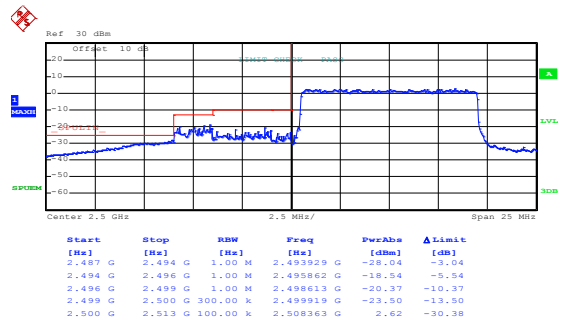
Lowest channel



Date: 28.AUG.2019 17:22:05

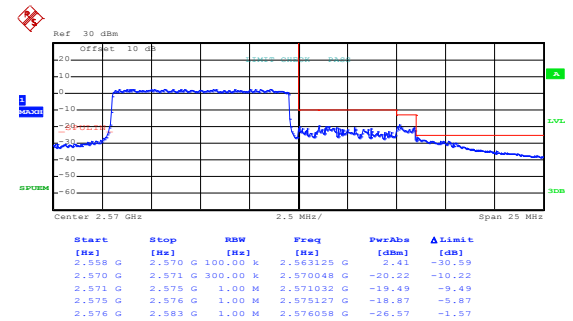
Highest channel

16QAM & RB Size 50



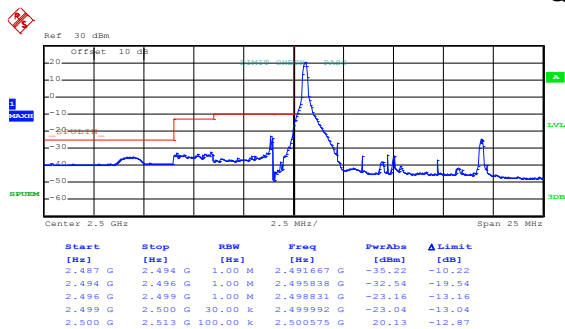
Date: 28.AUG.2019 17:24:58

Lowest channel



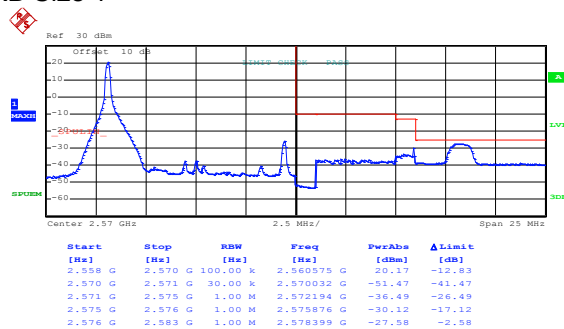
Date: 28.AUG.2019 17:22:56

Highest channel

LTE Band 7, BW: 10MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:25:17

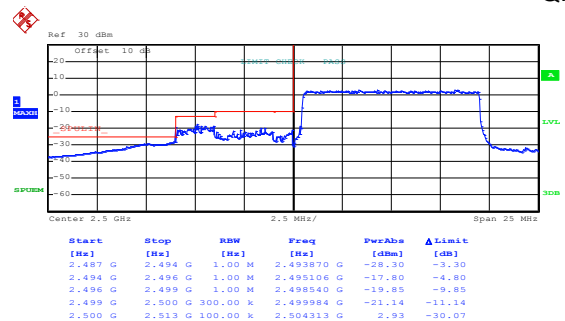
Lowest channel



Date: 28.AUG.2019 17:21:59

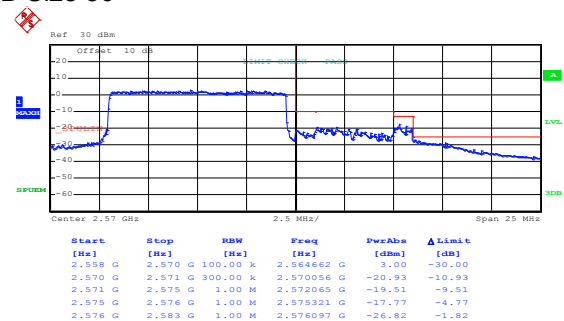
Highest channel

QPSK & RB Size 50



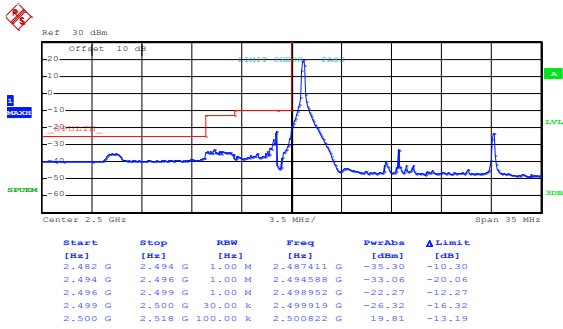
Date: 28.AUG.2019 17:24:53

Lowest channel



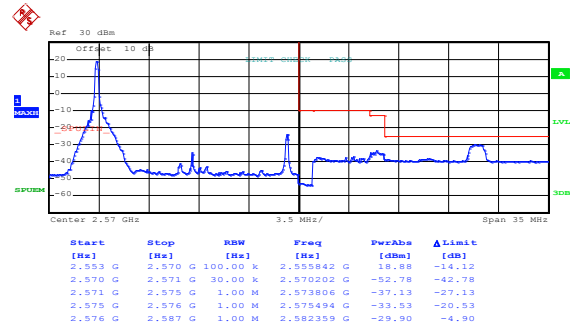
Date: 28.AUG.2019 17:22:46

Highest channel

LTE Band 7, BW: 15MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:25:57

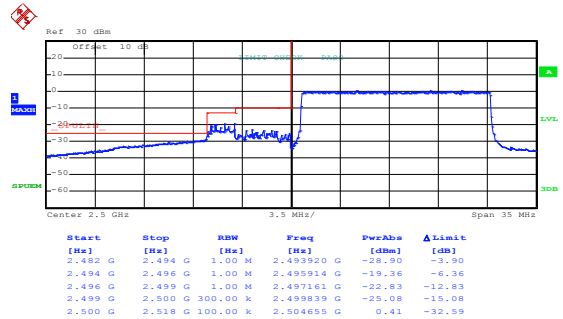
Lowest channel



Date: 28.AUG.2019 17:27:33

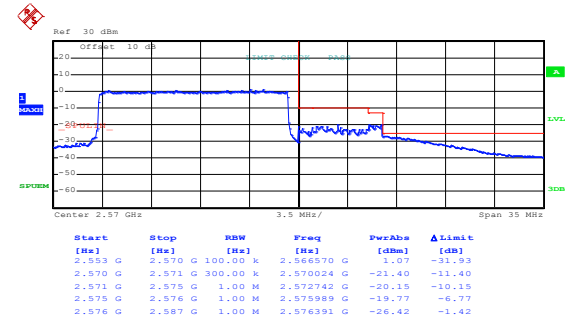
Highest channel

16QAM & RB Size 75



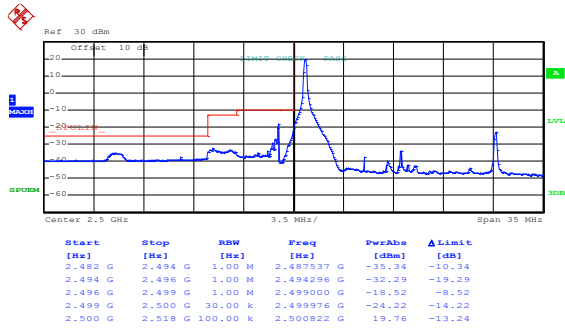
Date: 28.AUG.2019 17:26:22

Lowest channel



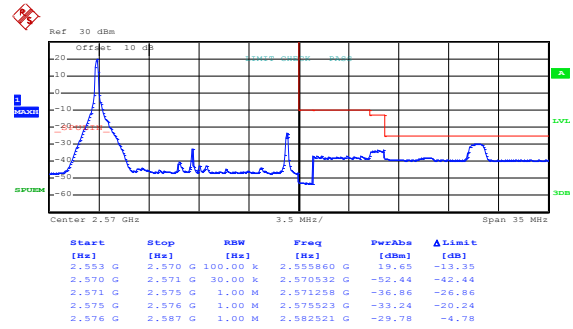
Date: 28.AUG.2019 17:27:05

Highest channel

LTE Band 7, BW: 15MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:25:52

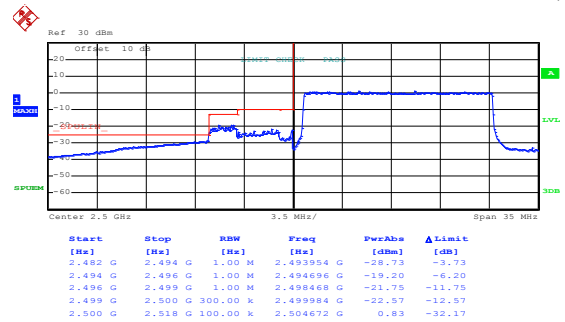
Lowest channel



Date: 28.AUG.2019 17:27:28

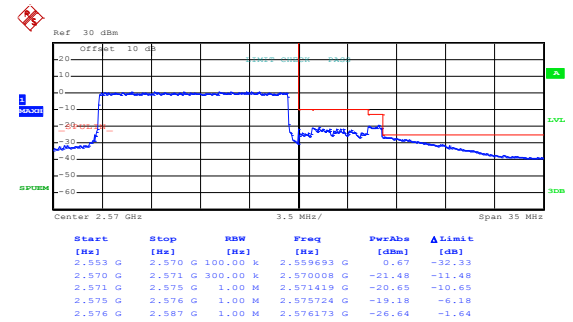
Highest channel

QPSK & RB Size 75



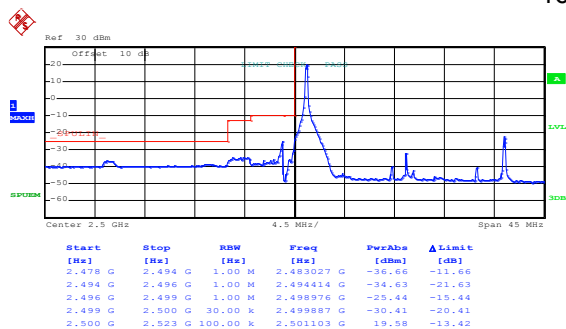
Date: 28.AUG.2019 17:26:18

Lowest channel



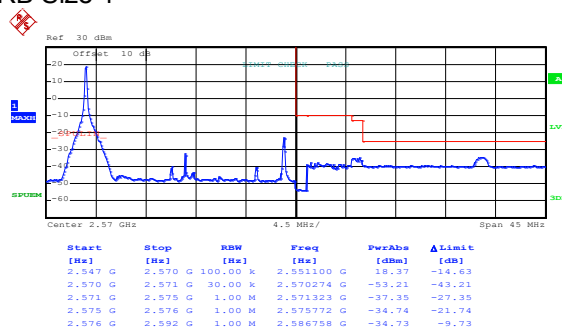
Date: 28.AUG.2019 17:27:00

Highest channel

LTE Band 7, BW: 20MHz
16QAM & RB Size 1

Date: 28.AUG.2019 17:29:33

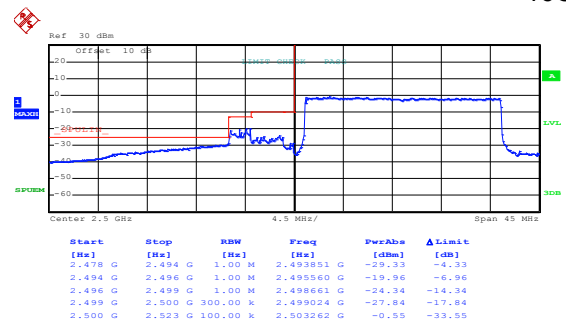
Lowest channel



Date: 28.AUG.2019 17:28:10

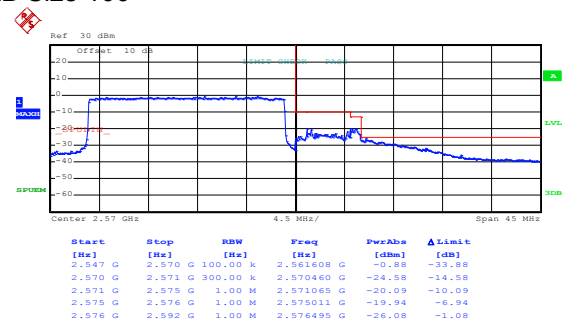
Highest channel

16QAM & RB Size 100



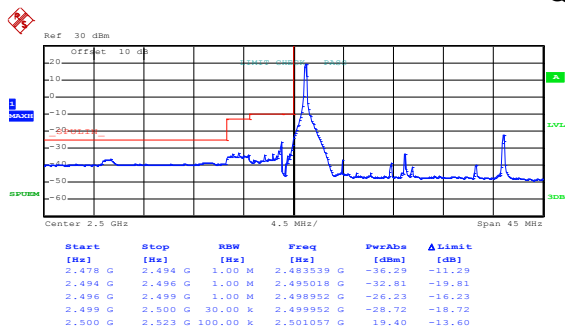
Date: 28.AUG.2019 17:29:12

Lowest channel



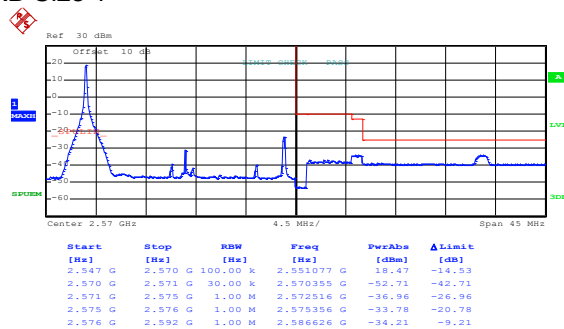
Date: 28.AUG.2019 17:28:39

Highest channel

LTE Band 7, BW: 20MHz
QPSK & RB Size 1

Date: 28.AUG.2019 17:29:28

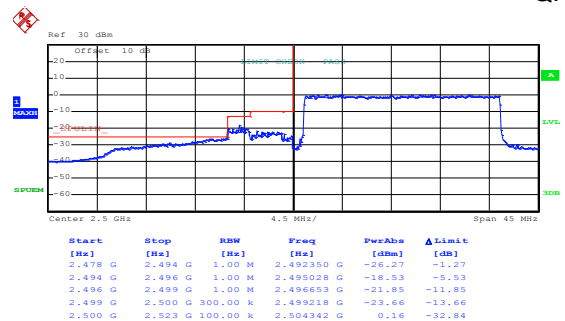
Lowest channel



Date: 28.AUG.2019 17:28:06

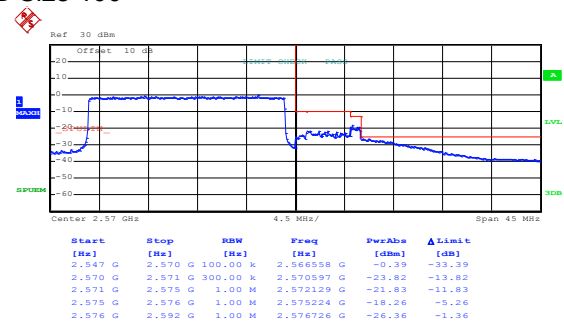
Highest channel

QPSK & RB Size 100



Date: 28.AUG.2019 17:29:06

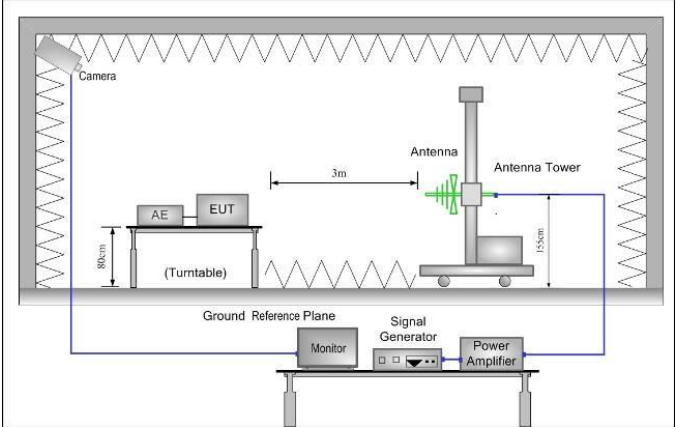
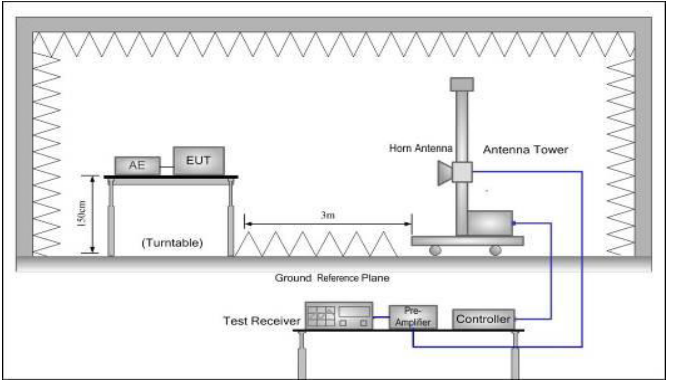
Lowest channel



Date: 28.AUG.2019 17:28:34

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 22.917(b), Part 27.53(m), Part 27.53(h)
Test Method:	ANSI/TIA-603-D 2010
Limit:	<p>LTE Band 4 & 5: 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).</p> <p>LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz.</p>
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).

	<p>Once spurious emission was identified, the power of the emission was determined using the substitution method.</p> <p>4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.</p> <p>ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)</p>
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	-50.43	-13.00	Pass
5132.10	V	-40.88		
6842.80	V	-39.57		
3421.40	Horizontal	-49.82		
5132.10	H	-37.24		
6842.80	H	-39.11		
Middle Channel				
3465.00	Vertical	-50.91	-13.00	Pass
5197.50	V	-40.23		
6930.00	V	-39.51		
3465.00	Horizontal	-49.74		
5197.50	H	-37.85		
6930.00	H	-39.96		
Highest Channel				
3508.60	Vertical	-50.91	-13.00	Pass
5262.90	V	-40.92		
7017.20	V	-39.58		
3508.60	Horizontal	-49.37		
5262.90	H	-37.15		
7017.20	H	-39.55		
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	-50.47	-13.00	Pass
5160.00	V	-40.16		
6880.00	V	-39.51		
3440.00	Horizontal	-49.30		
5160.00	H	-37.16		
6880.00	H	-39.54		
Middle Channel				
3465.00	Vertical	-50.19	-13.00	Pass
5197.50	V	-40.97		
6930.00	V	-39.41		
3465.00	Horizontal	-49.26		
5197.50	H	-37.61		
6930.00	H	-39.47		
Highest Channel				
3490.00	Vertical	-50.16	-13.00	Pass
5235.00	V	-40.73		
6980.00	V	-39.64		
3490.00	Horizontal	-49.28		
5235.00	H	-37.61		
6980.00	H	-39.11		
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 5 part:

LTE Band 5, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1649.40	Vertical	-56.73	-13.00	Pass
2474.10	V	-54.92		
3298.80	V	-51.23		
1649.40	Horizontal	-55.92		
2474.10	H	-53.41		
3298.80	H	-51.74		
Middle Channel				
1673.00	Vertical	-56.85	-13.00	Pass
2509.50	V	-54.19		
3346.00	V	-51.73		
1673.00	Horizontal	-55.16		
2509.50	H	-53.85		
3346.00	H	-51.26		
Highest Channel				
1696.60	Vertical	-56.61	-13.00	Pass
2544.90	V	-54.23		
3393.20	V	-51.85		
1696.60	Horizontal	-55.70		
2544.90	H	-53.16		
3393.20	H	-51.84		
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.				

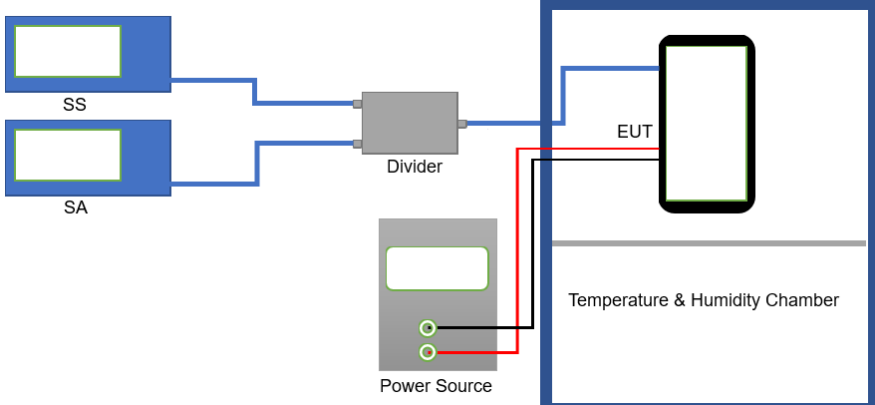
LTE Band 5, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1658.00	Vertical	-56.91	-13.00	Pass
2487.00	V	-54.16		
3316.00	V	-51.85		
1658.00	Horizontal	-55.73		
2487.00	H	-53.16		
3316.00	H	-51.88		
Middle Channel				
1673.00	Vertical	-56.16	-13.00	Pass
2509.50	V	-54.99		
3346.00	V	-51.34		
1673.00	Horizontal	-55.29		
2509.50	H	-53.16		
3346.00	H	-51.75		
Highest Channel				
1688.00	Vertical	-56.22	-13.00	Pass
2532.00	V	-54.19		
3376.00	V	-51.73		
1688.00	Horizontal	-55.85		
2532.00	H	-53.94		
3376.00	H	-51.37		
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 7 part:

LTE Band 7, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5005.00	Vertical	-47.37	-25.00	Pass
7507.50	V	-39.51		
10010.00	V	-36.52		
5005.00	Horizontal	-47.52		
7507.50	H	-39.57		
10010.00	H	-36.23		
Middle Channel				
5070.00	Vertical	-47.15	-25.00	Pass
7605.00	V	-39.71		
10140.00	V	-36.55		
5070.00	Horizontal	-47.13		
7605.00	H	-39.85		
10140.00	H	-36.71		
Highest Channel				
5135.00	Vertical	-47.53	-25.00	Pass
7702.50	V	-39.54		
10270.00	V	-36.26		
5135.00	Horizontal	-47.52		
7702.50	H	-39.16		
10270.00	H	-36.54		
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 7, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5020.00	Vertical	-47.94	-25.00	Pass
7530.00	V	-39.15		
10040.00	V	-36.84		
5020.00	Horizontal	-47.55		
7530.00	H	-39.43		
10040.00	H	-36.18		
Middle Channel				
5070.00	Vertical	-47.85	-25.00	Pass
7605.00	V	-39.82		
10140.00	V	-36.40		
5070.00	Horizontal	-47.53		
7605.00	H	-39.85		
10140.00	H	-36.81		
Highest Channel				
5120.00	Vertical	-47.51	-25.00	Pass
7680.00	V	-39.50		
10240.00	V	-36.81		
5120.00	Horizontal	-47.44		
7680.00	H	-39.16		
10240.00	H	-36.18		
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 22.355, Part 27.54, Part 2.1055(a)(1)(b)
Test Method:	ANSI/TIA-603-D 2010
Limit:	± 2.5 ppm for band 5 within authorized band for band 4 and 7
Test setup:	
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 5.9 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					
3.80	-30	196	0.113131	within authorized band	Pass
	-20	184	0.106205		
	-10	173	0.099856		
	0	165	0.095238		
	10	157	0.090620		
	20	146	0.084271		
	30	133	0.076768		
	40	125	0.072150		
	50	118	0.068110		
16QAM					
3.80	-30	163	0.094084	within authorized band	Pass
	-20	154	0.088889		
	-10	141	0.081385		
	0	134	0.077345		
	10	126	0.072727		
	20	112	0.064646		
	30	109	0.062915		
	40	117	0.067532		
	50	145	0.083694		
Note: Only the worst case shown in the report.					

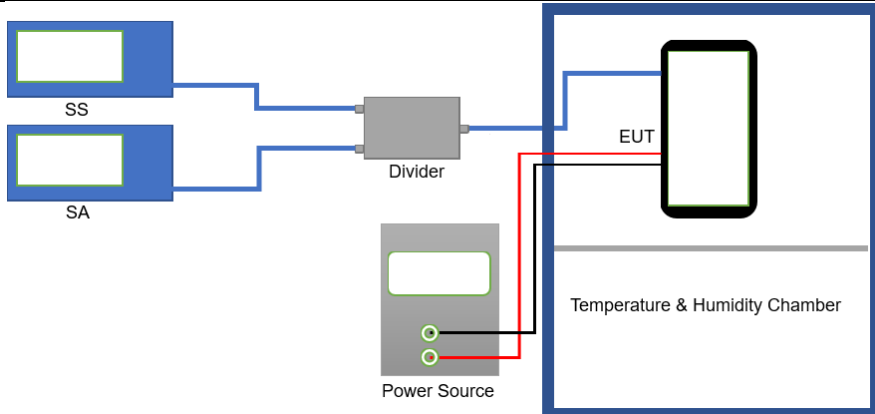
LTE Band 5 part:

Reference Frequency: LTE Band 5 (10MHz) Middle channel=20525 channel=836.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	197	0.235505	±2.5	Pass
	-20	188	0.224746		
	-10	179	0.213987		
	0	170	0.203228		
	10	166	0.198446		
	20	159	0.190078		
	30	148	0.176928		
	40	139	0.166169		
	50	120	0.143455		
16QAM					
3.80	-30	167	0.199641	±2.5	Pass
	-20	158	0.188882		
	-10	149	0.178123		
	0	138	0.164973		
	10	130	0.155409		
	20	126	0.150628		
	30	119	0.142259		
	40	110	0.131500		
	50	140	0.167364		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7 (10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	194	0.076529	within authorized band	Pass
	-20	185	0.072978		
	-10	177	0.069822		
	0	168	0.066272		
	10	157	0.061933		
	20	149	0.058777		
	30	137	0.054043		
	40	123	0.048521		
	50	116	0.045759		
16QAM					
3.80	-30	161	0.063511	within authorized band	Pass
	-20	150	0.059172		
	-10	145	0.057199		
	0	134	0.052860		
	10	123	0.048521		
	20	112	0.044181		
	30	101	0.039842		
	40	129	0.050888		
	50	154	0.060750		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 27.54, Part 2.1055(d)(2)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm for band 5 within authorized band for 4 and 7
Test setup:	 <p>The diagram illustrates the test setup. On the left, there are two blue rectangular blocks labeled 'SS' (Signal Source) and 'SA' (Spectrum Analyzer). They are connected to a central grey block labeled 'Divider'. The 'Divider' is connected to a black rectangular block labeled 'EUT' (Equipment Under Test) which is located inside a larger blue rectangular box labeled 'Temperature & Humidity Chamber'. Below the 'Divider' is a grey block labeled 'Power Source' with two green circular terminals. Red and black wires connect the 'Power Source' to the 'EUT'.</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 5.9 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 (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	96	0.055411	within authorized band	Pass
	3.80	80	0.046176		
	3.50	74	0.042713		
16QAM					
25	4.35	92	0.053102	within authorized band	Pass
	3.80	83	0.047908		
	3.50	71	0.040981		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 channel=836.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	95	0.113568	±2.5	Pass
	3.80	80	0.095637		
	3.50	69	0.082487		
16QAM					
25	4.35	90	0.107591	±2.5	Pass
	3.80	79	0.094441		
	3.50	56	0.066946		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	91	0.035897	within authorized band	Pass
	3.80	72	0.028402		
	3.50	53	0.020907		
16QAM					
25	4.35	92	0.036292	within authorized band	Pass
	3.80	86	0.033925		
	3.50	68	0.026824		
Note: Only the worst case shown in the report.					

Note: Only the worst case shown in the report.