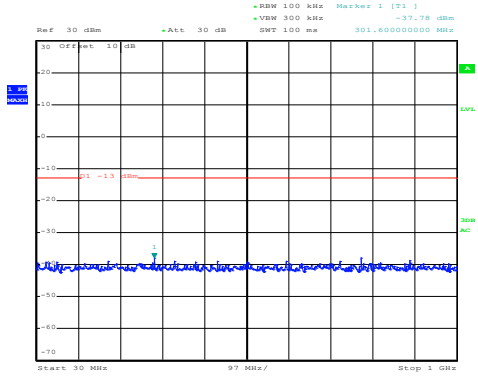
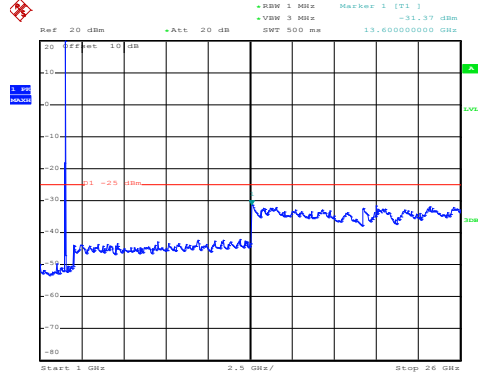


LTE Band 7: QPSK & RB Size 25  
 BW: 5MHz  
 Lowest channel



Date: 31.JUL.2019 11:24:13

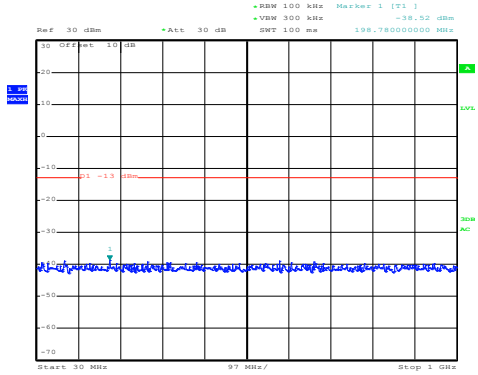
30MHz~1GHz



Date: 1.AUG.2019 11:34:42

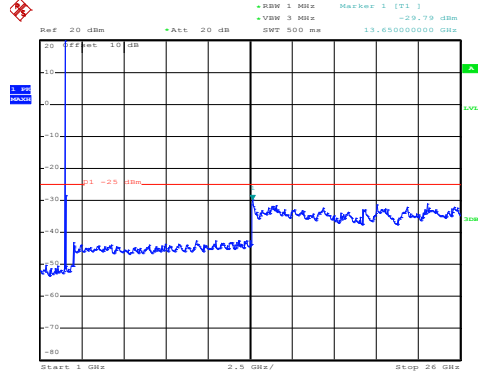
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:24:26

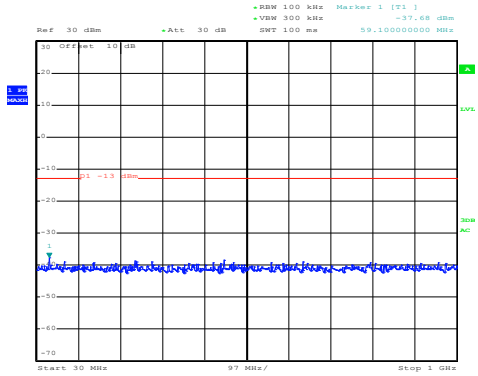
30MHz~1GHz



Date: 1.AUG.2019 11:35:10

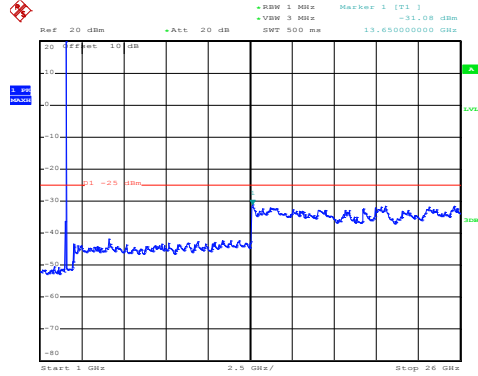
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:25:07

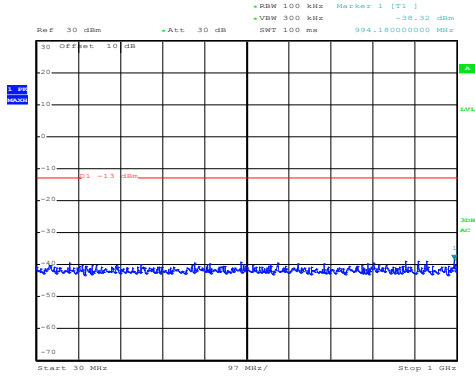
30MHz~1GHz



Date: 1.AUG.2019 11:36:41

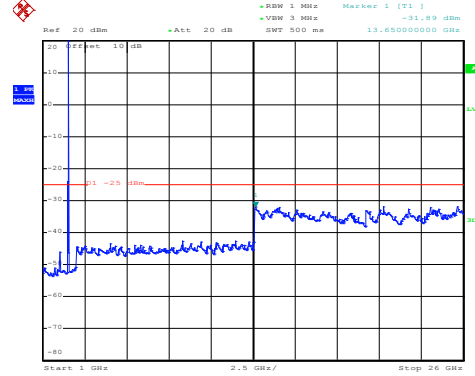
1GHz~25GHz

## LTE Band 7: 16 QAM & RB Size 1 BW: 10MHz Lowest channel



Date: 31.JUL.2019 11:21:37

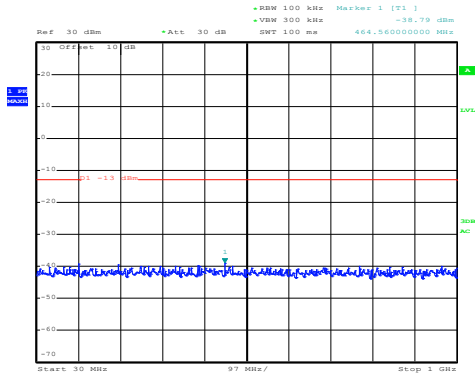
30MHz~1GHz



Date: 1.AUG.2019 11:37:40

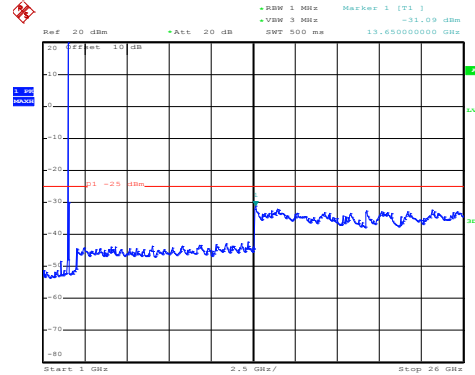
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:22:34

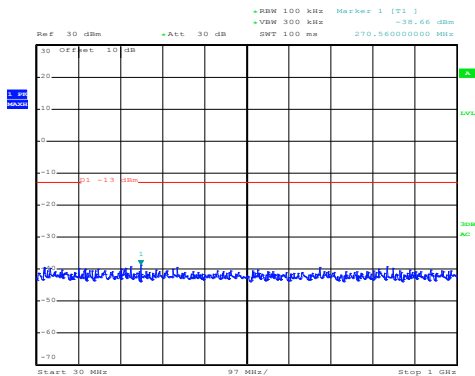
30MHz~1GHz



Date: 1.AUG.2019 11:38:49

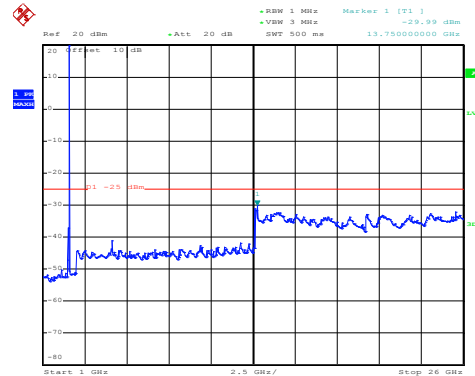
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:22:58

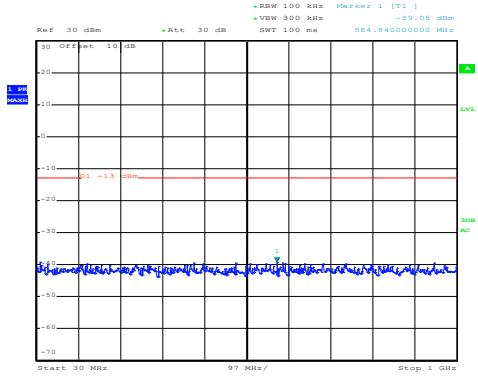
30MHz~1GHz



Date: 1.AUG.2019 11:39:13

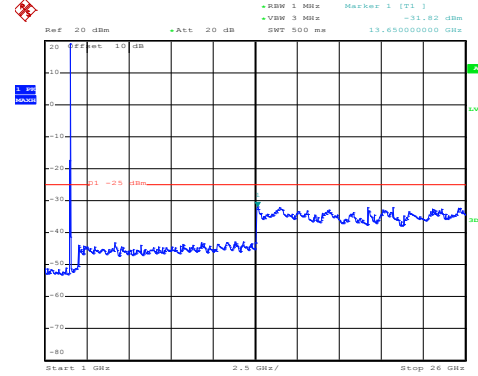
1GHz~25GHz

LTE Band 7: 16 QAM & RB Size 50  
 BW: 10MHz  
 Lowest channel



Date: 31.JUL.2019 11:21:55

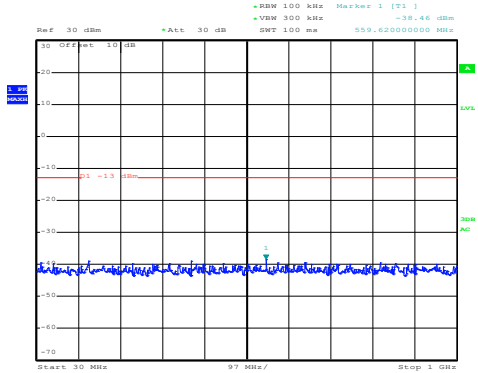
30MHz~1GHz



Date: 1.AUG.2019 11:38:02

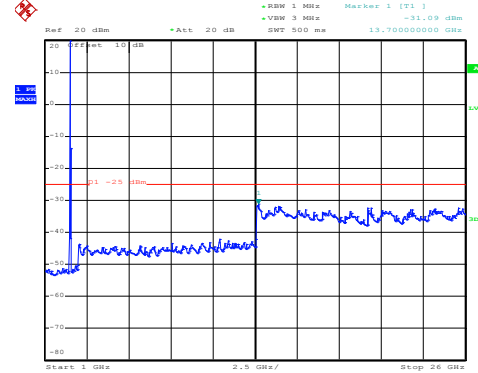
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:22:15

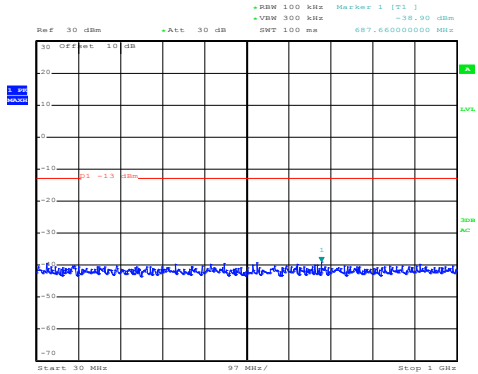
30MHz~1GHz



Date: 1.AUG.2019 11:38:29

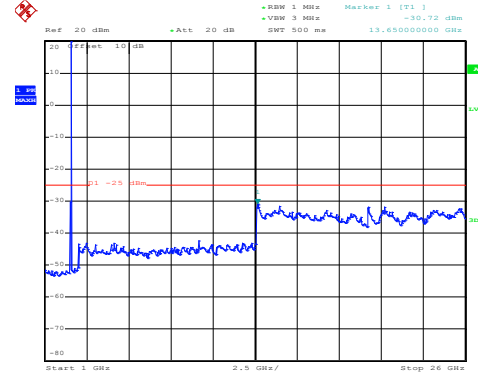
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:23:16

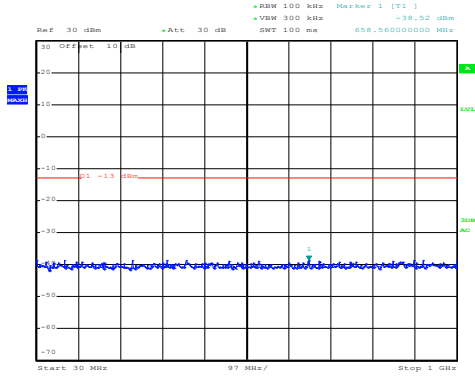
30MHz~1GHz



Date: 1.AUG.2019 11:39:35

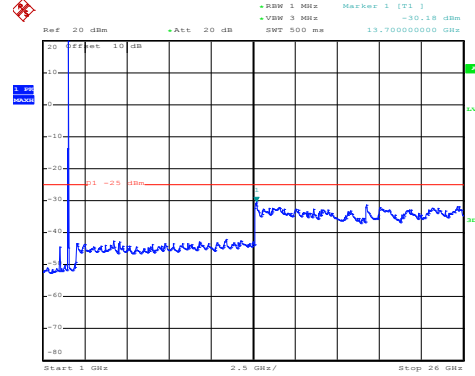
1GHz~25GHz

## LTE Band 7: QPSK & RB Size 1 BW: 10MHz Lowest channel



Date: 31.JUL.2019 11:21:31

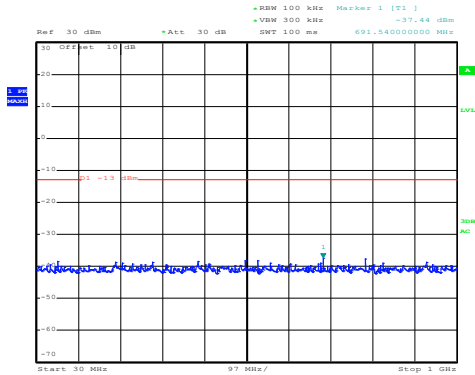
30MHz~1GHz



Date: 1.AUG.2019 11:37:32

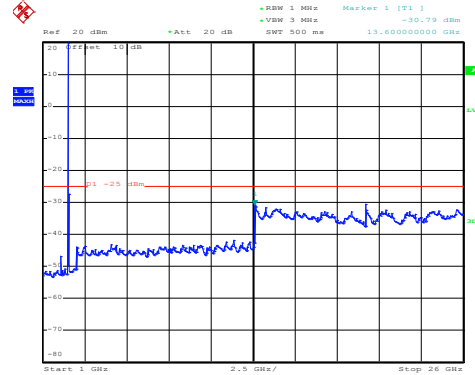
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:22:27

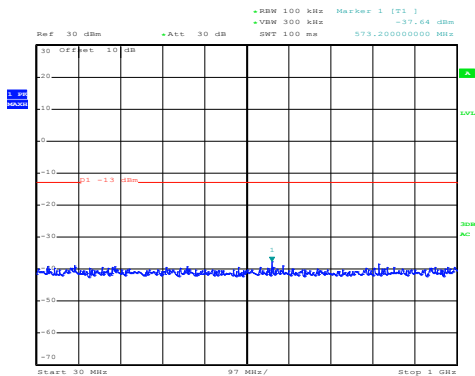
30MHz~1GHz



Date: 1.AUG.2019 11:38:41

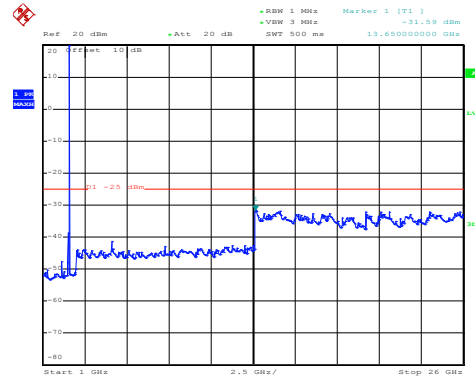
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:22:53

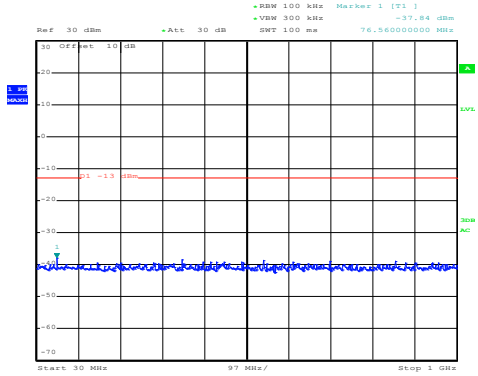
30MHz~1GHz



Date: 1.AUG.2019 11:39:05

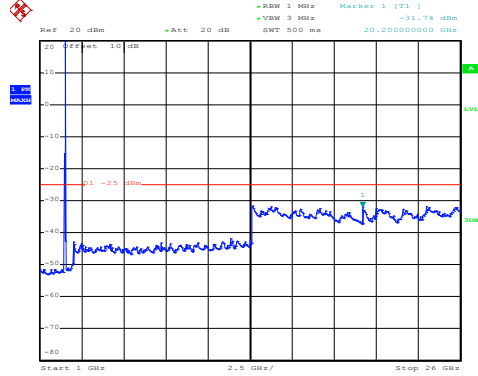
1GHz~25GHz

LTE Band 7: QPSK & RB Size 50  
 BW: 10MHz  
 Lowest channel



Date: 31.JUL.2019 11:21:50

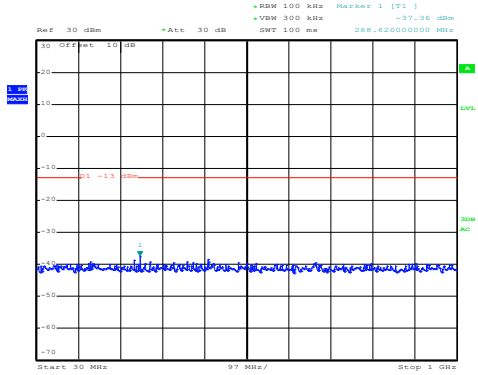
30MHz~1GHz



Date: 1.AUG.2019 11:37:54

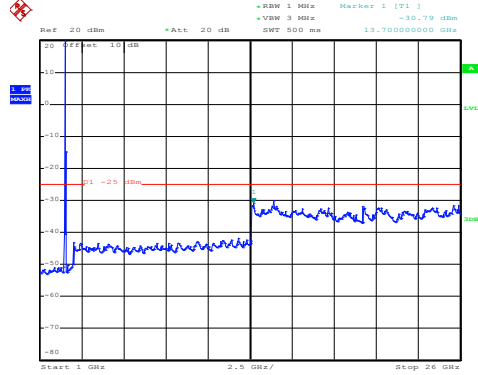
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:22:08

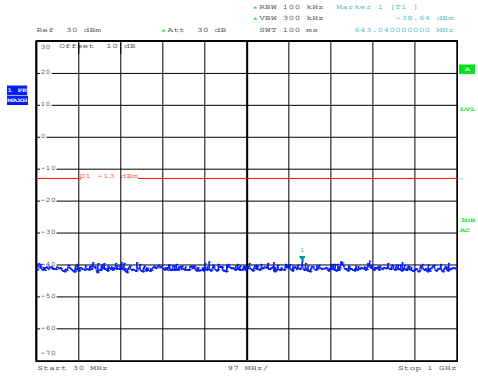
30MHz~1GHz



Date: 1.AUG.2019 11:38:22

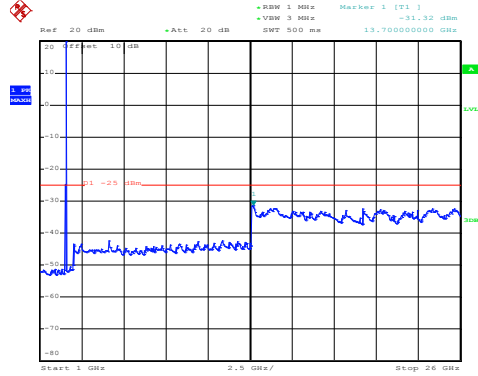
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:23:10

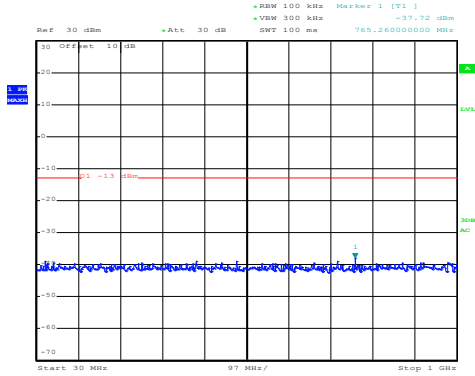
30MHz~1GHz



Date: 1.AUG.2019 11:39:26

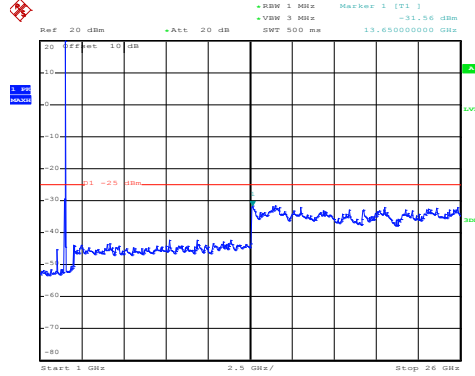
1GHz~25GHz

## LTE Band 7: 16 QAM & RB Size 1 BW: 15MHz Lowest channel



Date: 31.JUL.2019 11:18:00

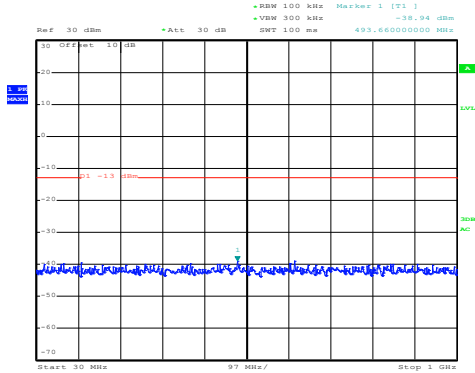
30MHz~1GHz



Date: 1.AUG.2019 11:40:16

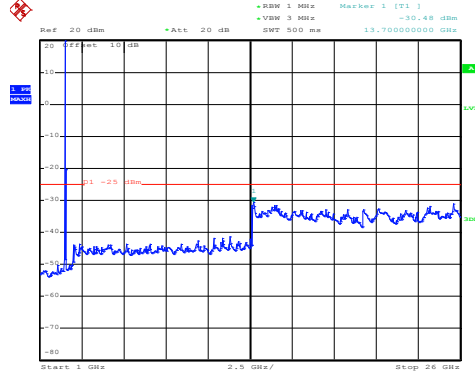
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:19:13

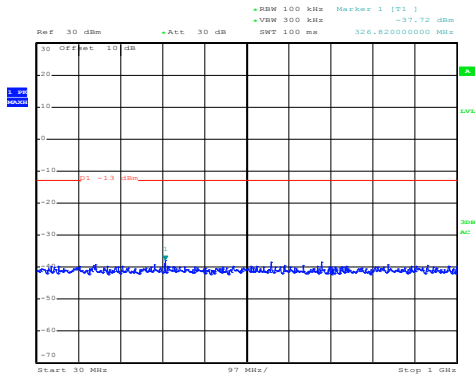
30MHz~1GHz



Date: 1.AUG.2019 11:41:30

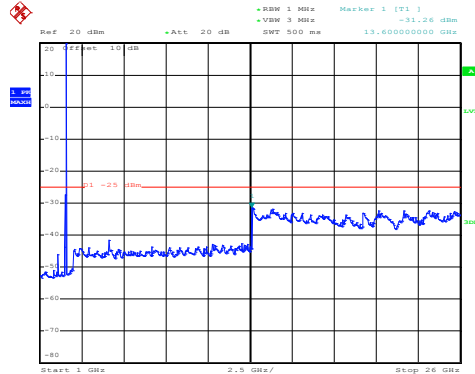
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:19:43

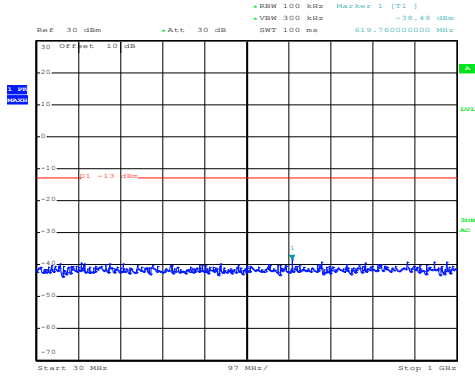
30MHz~1GHz



Date: 1.AUG.2019 11:42:04

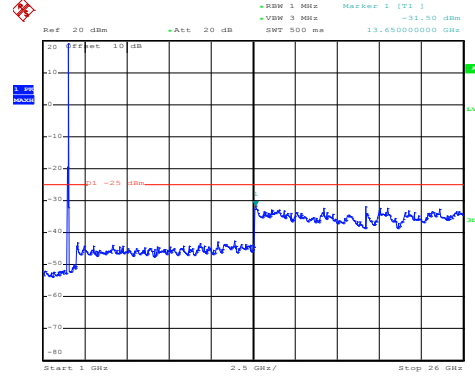
1GHz~25GHz

LTE Band 7: 16 QAM & RB Size 75  
 BW: 15MHz  
 Lowest channel



Date: 31.JUL.2019 11:18:33

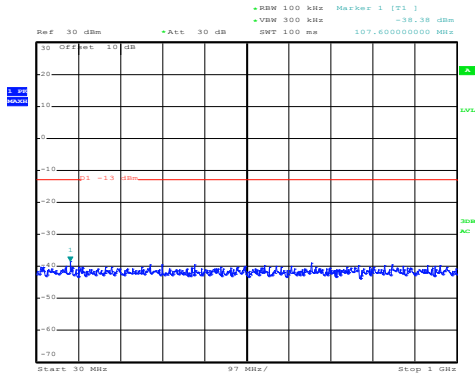
30MHz~1GHz



Date: 1.AUG.2019 11:40:49

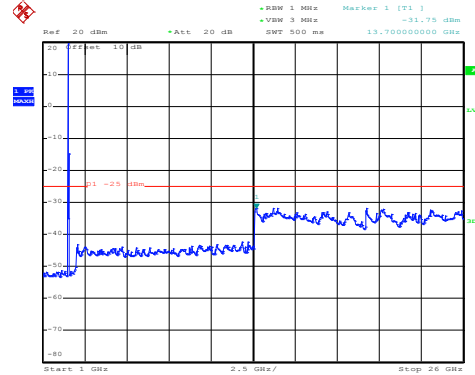
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:18:55

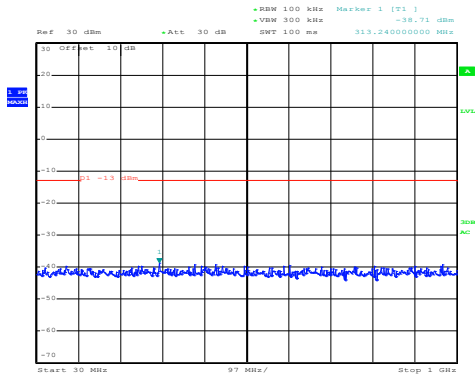
30MHz~1GHz



Date: 1.AUG.2019 11:41:12

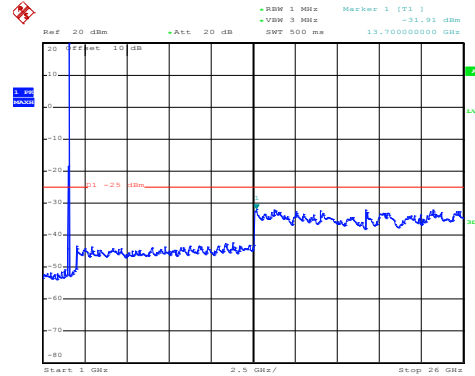
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:20:07

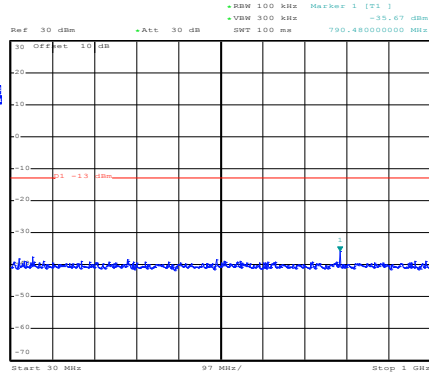
30MHz~1GHz



Date: 1.AUG.2019 11:42:36

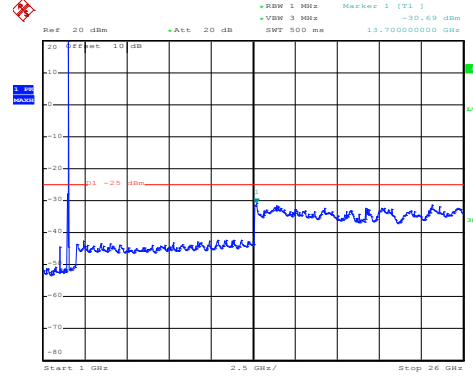
1GHz~25GHz

## LTE Band 7: QPSK & RB Size 1 BW: 15MHz Lowest channel



Date: 31.JUL.2019 11:17:25

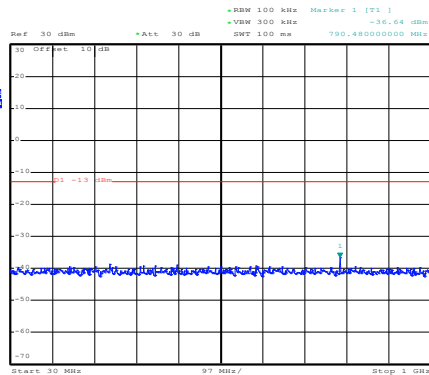
30MHz~1GHz



Date: 1.AUG.2019 11:40:09

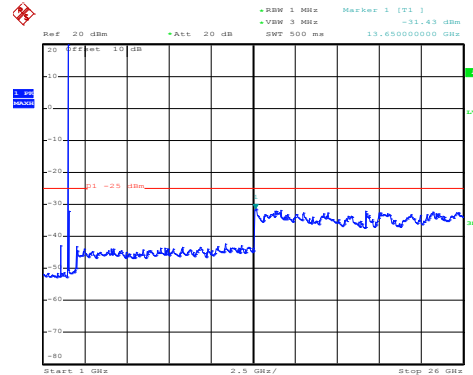
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:19:06

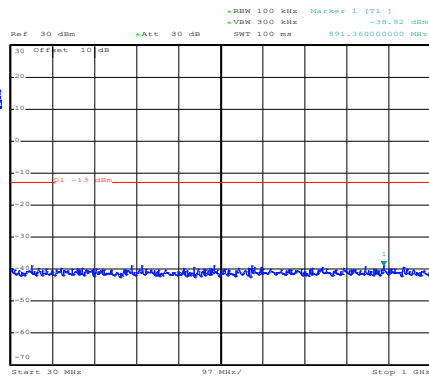
30MHz~1GHz



Date: 1.AUG.2019 11:41:23

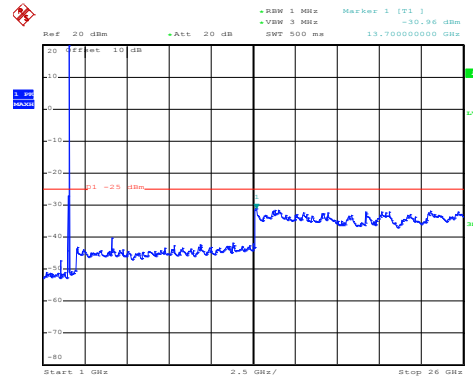
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:19:31

30MHz~1GHz

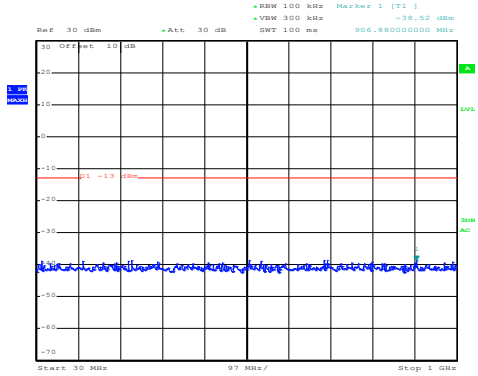


Date: 1.AUG.2019 11:41:57

1GHz~25GHz

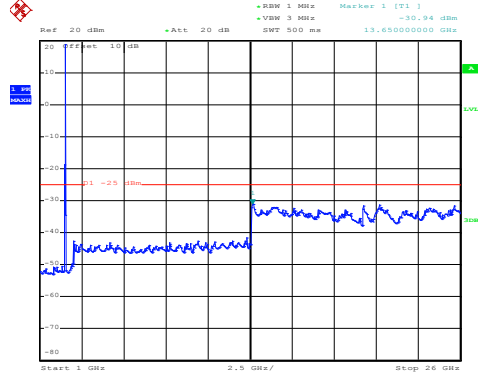


LTE Band 7: QPSK & RB Size 75  
 BW: 15MHz  
 Lowest channel



Date: 31.JUL.2019 11:18:27

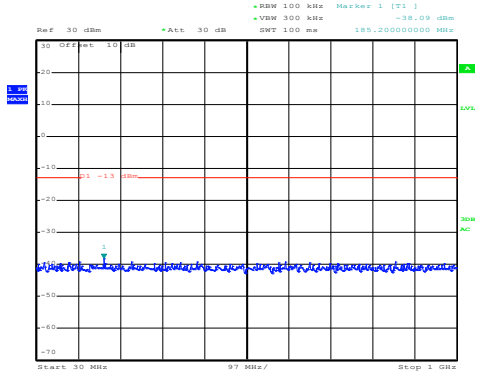
30MHz~1GHz



Date: 1.AUG.2019 11:40:43

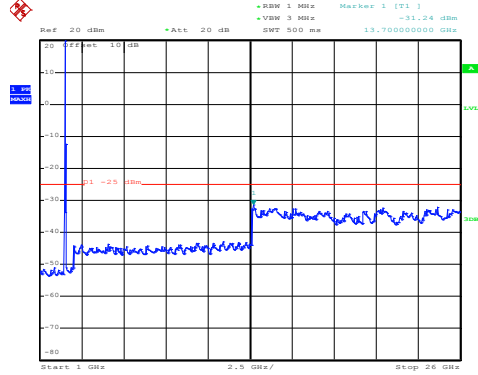
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:18:48

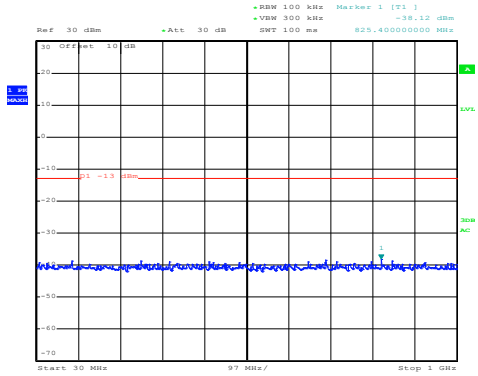
30MHz~1GHz



Date: 1.AUG.2019 11:41:05

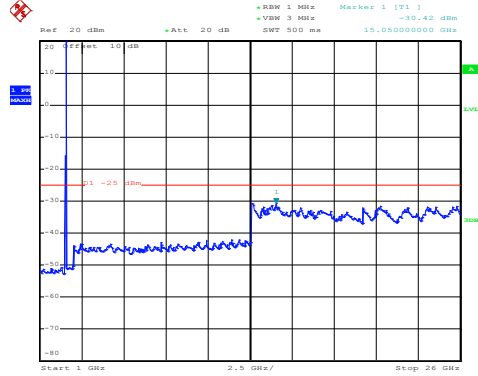
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:20:00

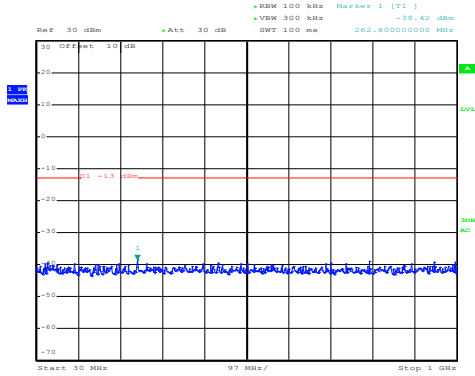
30MHz~1GHz



Date: 1.AUG.2019 11:42:28

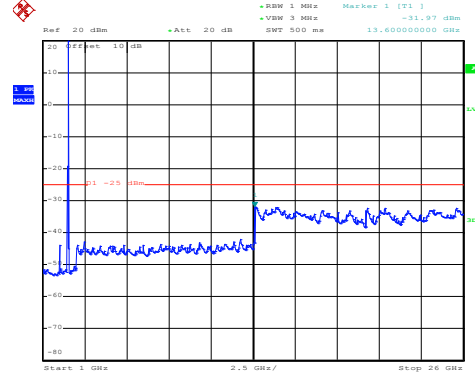
1GHz~25GHz

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



Date: 31.JUL.2019 11:14:58

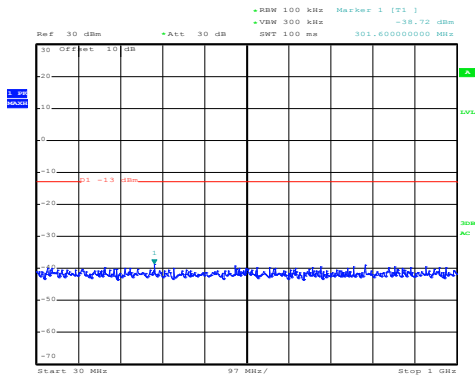
30MHz~1GHz



Date: 1.AUG.2019 11:43:17

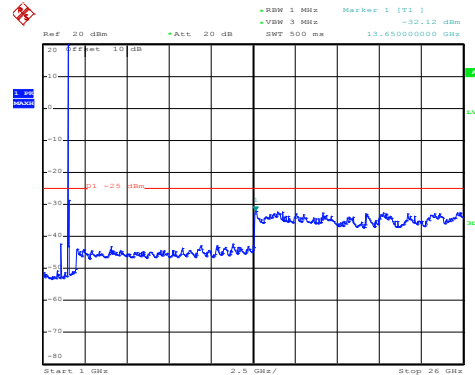
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:15:33

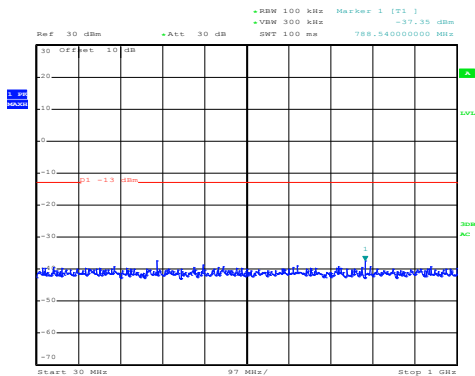
30MHz~1GHz



Date: 1.AUG.2019 11:44:33

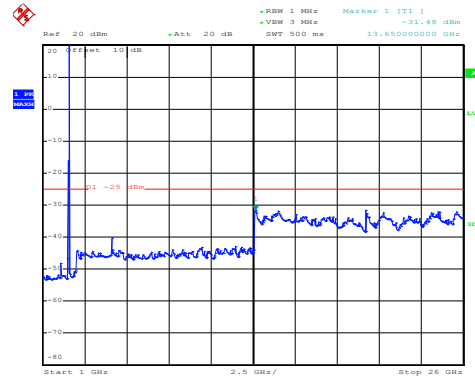
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:16:28

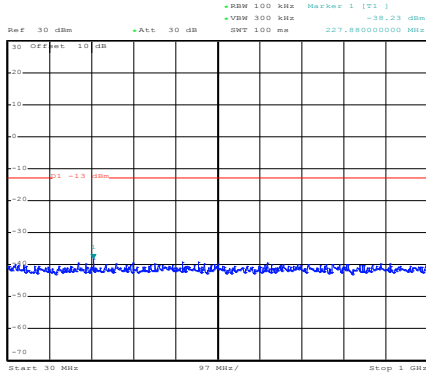
30MHz~1GHz



Date: 1.AUG.2019 11:45:02

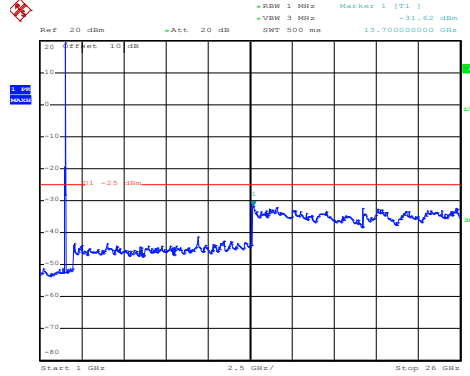
1GHz~25GHz

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



Date: 31.JUL.2019 11:14:38

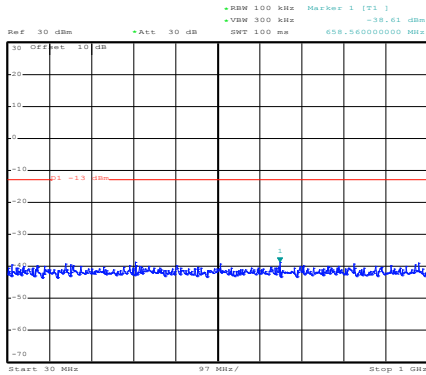
30MHz~1GHz



Date: 1.AUG.2019 11:43:43

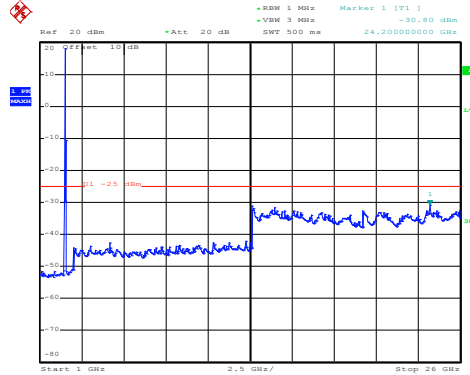
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:15:49

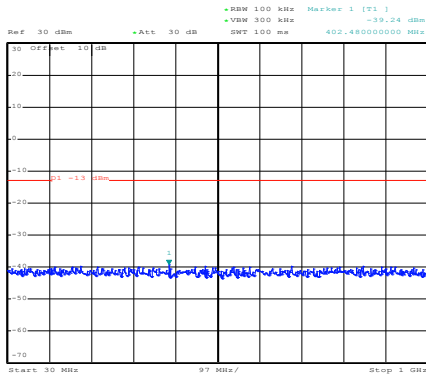
30MHz~1GHz



Date: 1.AUG.2019 11:44:14

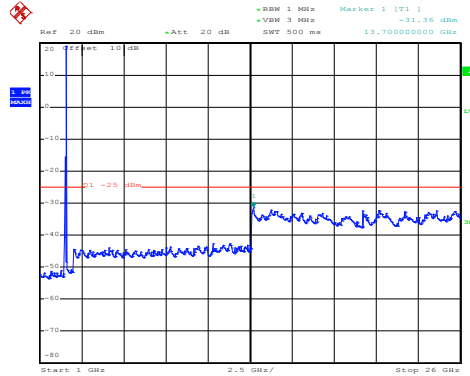
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:16:06

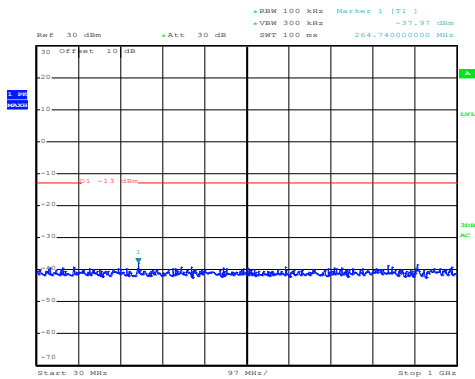
30MHz~1GHz



Date: 1.AUG.2019 11:45:46

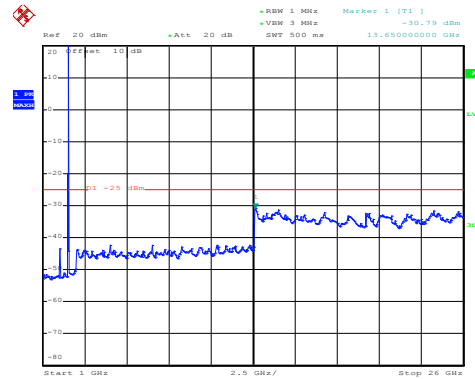
1GHz~25GHz

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



Date: 31.JUL.2019 11:14:53

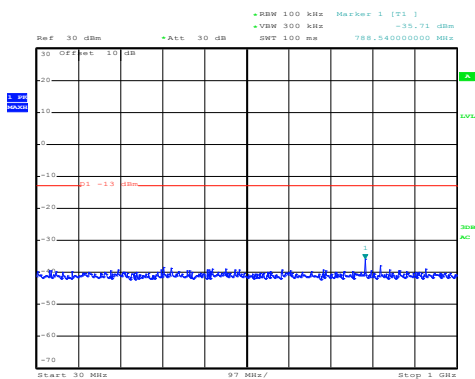
30MHz~1GHz



Date: 1.AUG.2019 11:43:10

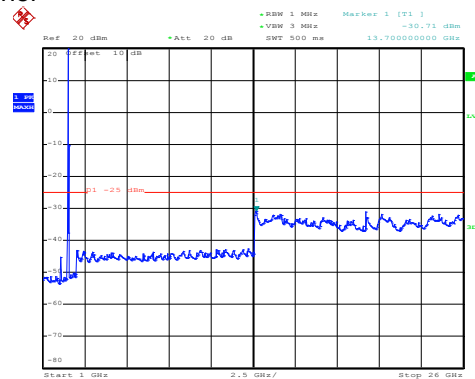
1GHz~25GHz

## Middle channel



Date: 31.JUL.2019 11:15:27

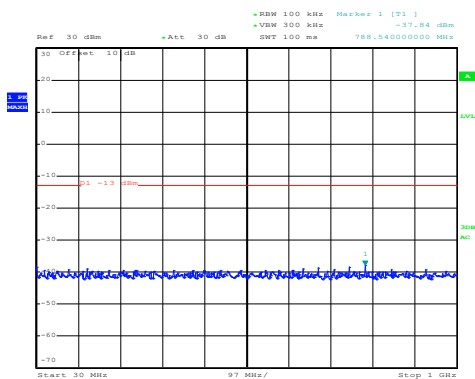
30MHz~1GHz



Date: 1.AUG.2019 11:44:25

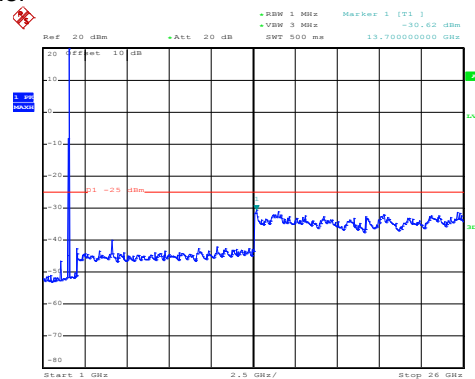
1GHz~25GHz

## High channel



Date: 31.JUL.2019 11:16:20

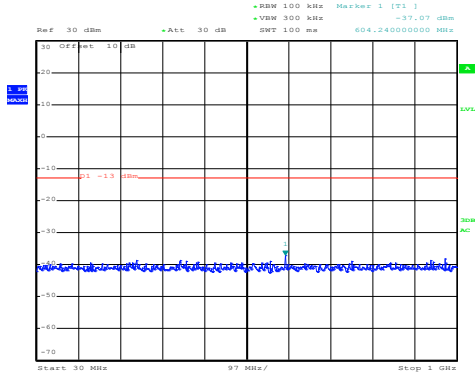
30MHz~1GHz



Date: 1.AUG.2019 11:44:53

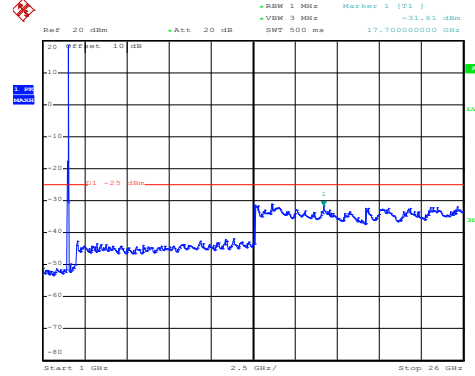
1GHz~25GHz

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



Date: 31.JUL.2019 11:14:31

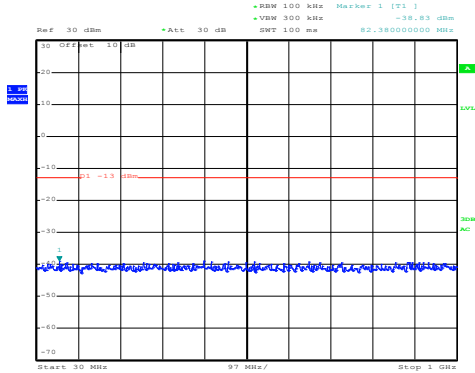
30MHz~1GHz



Date: 1.AUG.2019 11:43:36

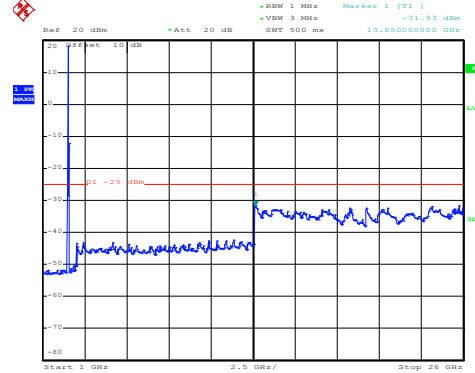
1GHz~25GHz

Middle channel



Date: 31.JUL.2019 11:15:43

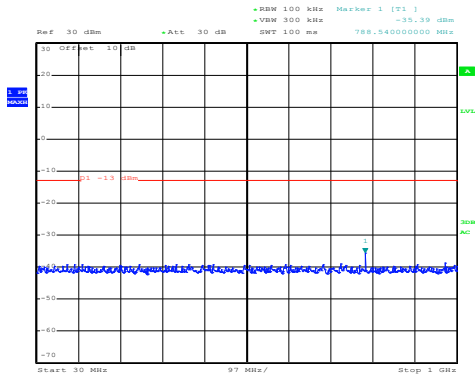
30MHz~1GHz



Date: 1.AUG.2019 11:44:06

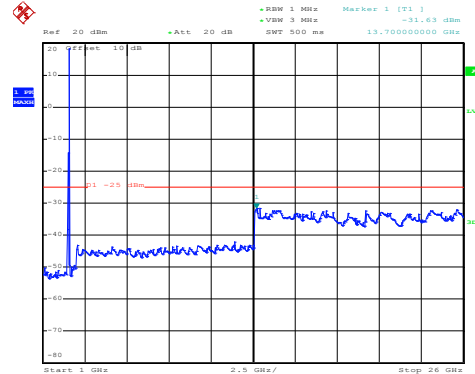
1GHz~25GHz

High channel



Date: 31.JUL.2019 11:16:46

30MHz~1GHz

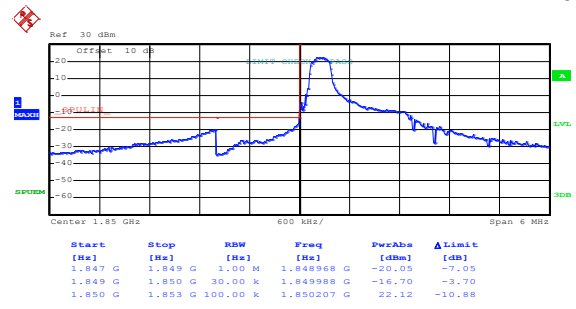


Date: 1.AUG.2019 11:45:39

1GHz~25GHz

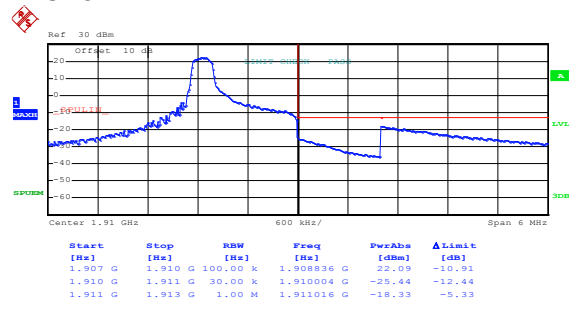
**Band edge emission:**  
**LTE Band 2 part:**

LTE Band 2, BW: 1.4MHz  
 16QAM & RB Size 1



Date: 13.AUG.2019 13:54:49

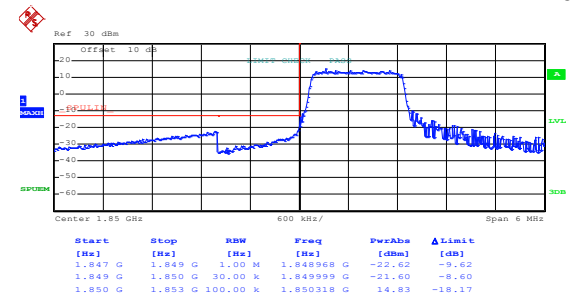
Lowest channel



Date: 13.AUG.2019 13:56:36

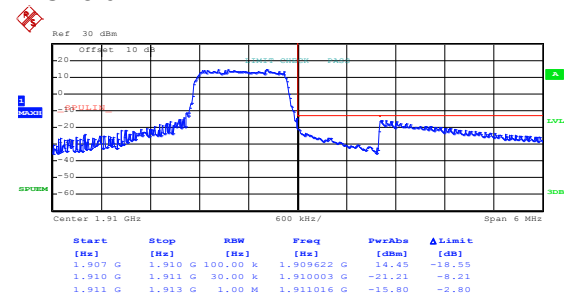
Highest channel

16QAM & RB Size 6



Date: 13.AUG.2019 13:55:12

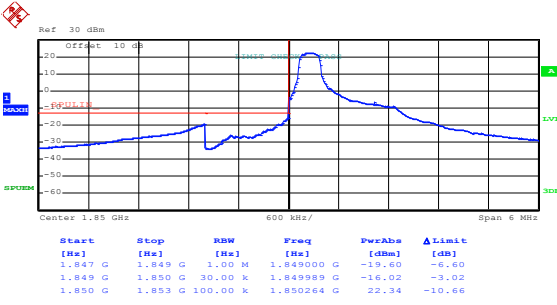
Lowest channel



Date: 13.AUG.2019 13:55:55

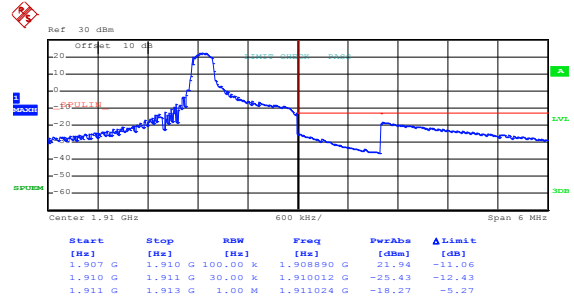
Highest channel

## LTE Band 2, BW: 1.4MHz QPSK & RB Size 1



Date: 13.AUG.2019 13:54:31

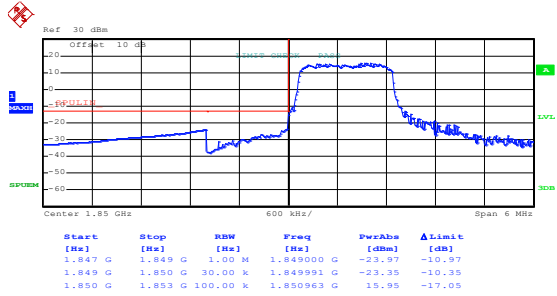
Lowest channel



Date: 13.AUG.2019 13:56:11

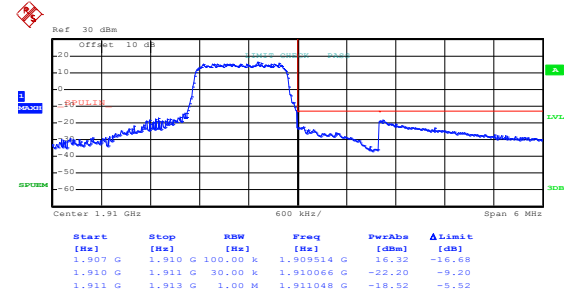
Highest channel

## QPSK & RB Size 6



Date: 13.AUG.2019 13:55:02

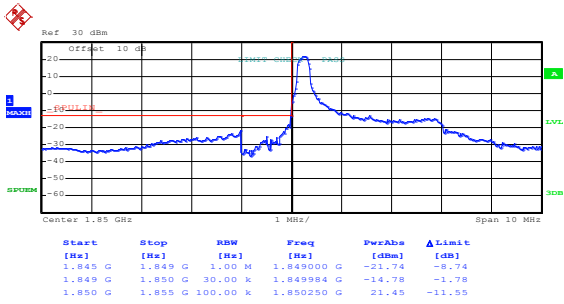
Lowest channel



Date: 13.AUG.2019 13:55:45

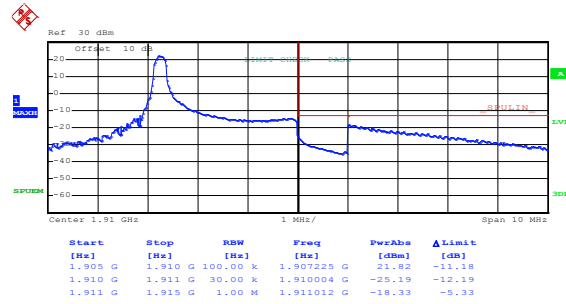
Highest channel

## LTE Band 2, BW: 3MHz 16QAM & RB Size 1



Date: 13.AUG.2019 14:00:26

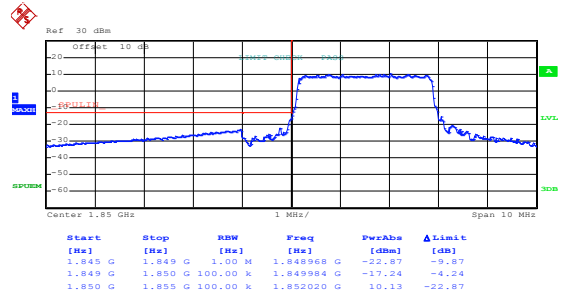
Lowest channel



Date: 13.AUG.2019 13:58:19

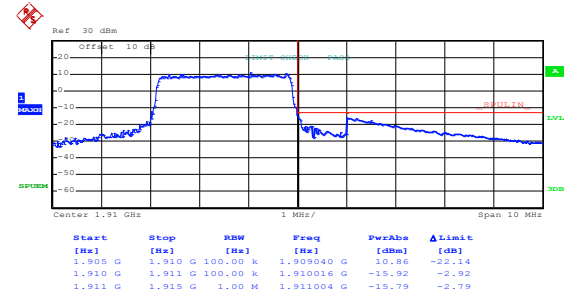
Highest channel

## 16QAM & RB Size 15



Date: 13.AUG.2019 13:59:59

Lowest channel

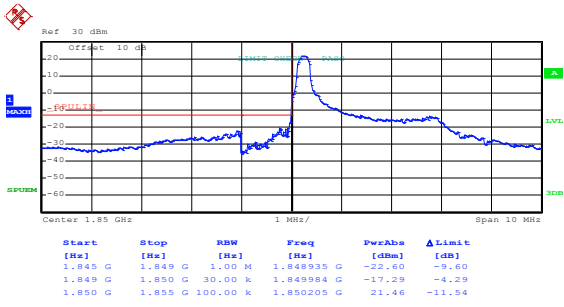


Date: 13.AUG.2019 13:59:12

Highest channel

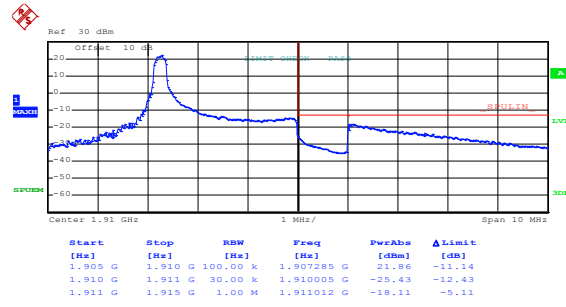


## LTE Band 2, BW: 3MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:00:19

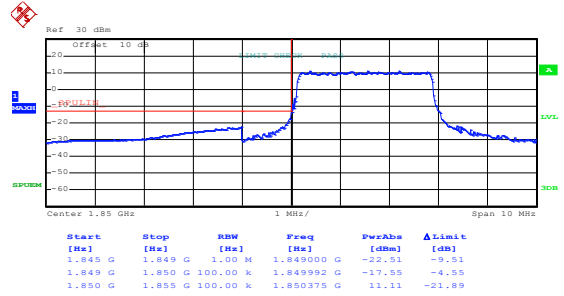
Lowest channel



Date: 13.AUG.2019 13:58:01

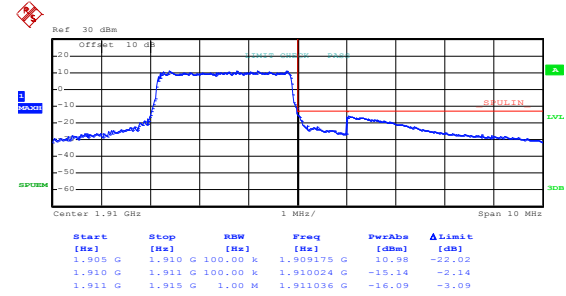
Highest channel

## QPSK & RB Size 15



Date: 13.AUG.2019 13:59:50

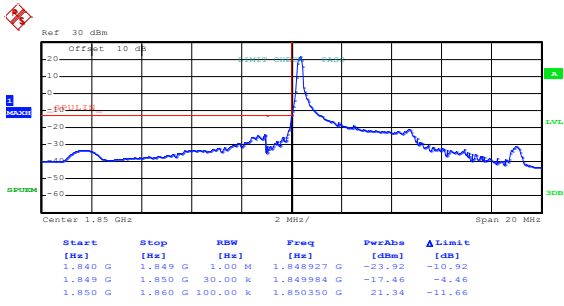
Lowest channel



Date: 13.AUG.2019 13:59:03

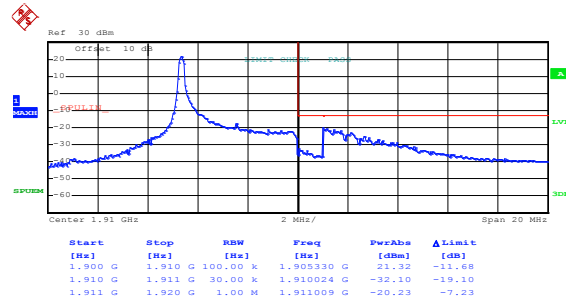
Highest channel

## LTE Band 2, BW: 5MHz 16QAM & RB Size 1



Date: 13.AUG.2019 14:01:07

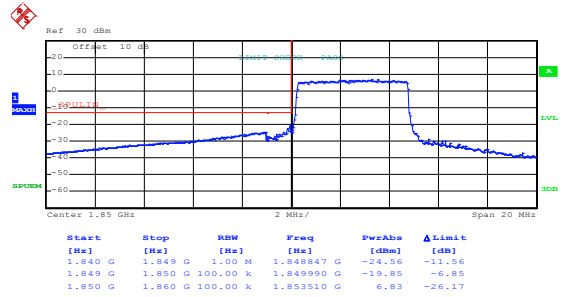
Lowest channel



Date: 13.AUG.2019 14:02:48

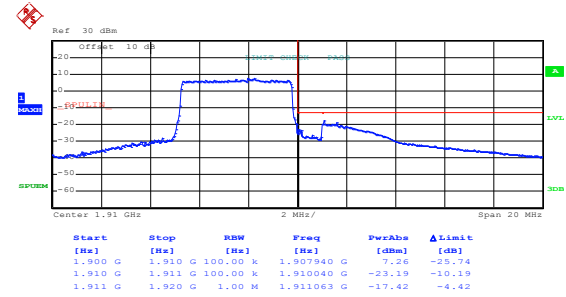
Highest channel

## 16QAM & RB Size 25



Date: 13.AUG.2019 14:01:49

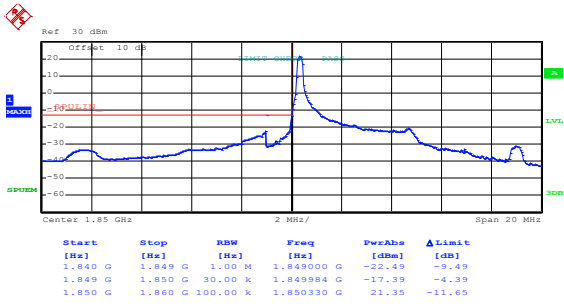
Lowest channel



Date: 13.AUG.2019 14:02:18

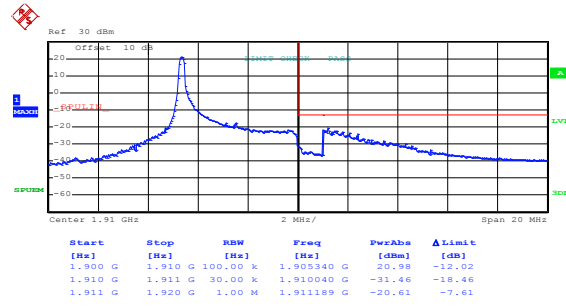
Highest channel

## LTE Band 2, BW: 5MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:01:00

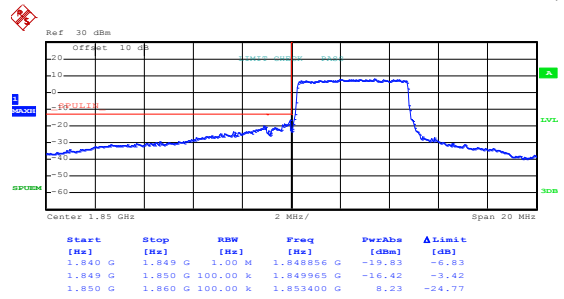
Lowest channel



Date: 13.AUG.2019 14:02:41

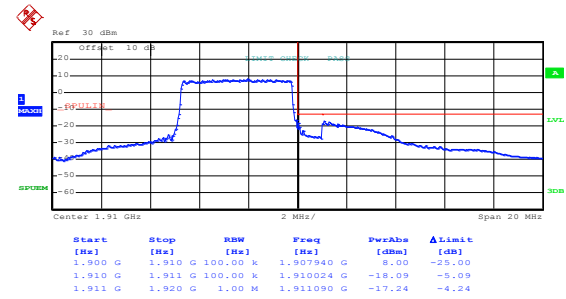
Highest channel

## QPSK & RB Size 25



Date: 13.AUG.2019 14:01:41

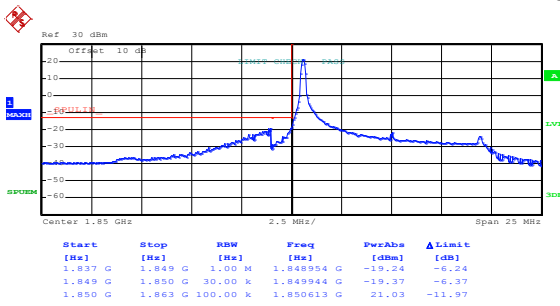
Lowest channel



Date: 13.AUG.2019 14:02:04

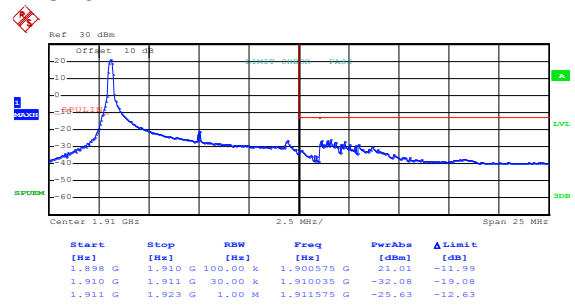
Highest channel

## LTE Band 2, BW: 10MHz 16QAM & RB Size 1



Date: 13.AUG.2019 14:05:43

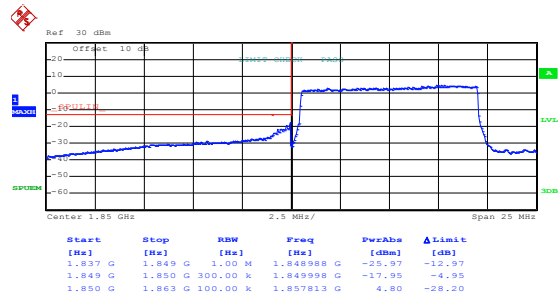
Lowest channel



Date: 13.AUG.2019 14:03:52

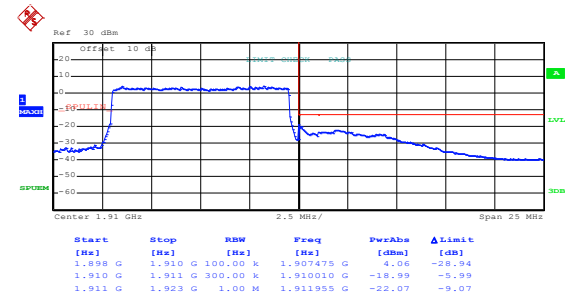
Highest channel

## 16QAM & RB Size 50



Date: 13.AUG.2019 14:05:13

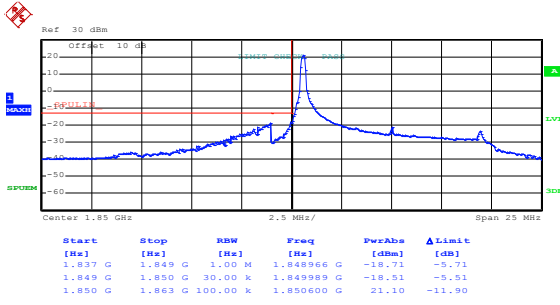
Lowest channel



Date: 13.AUG.2019 14:04:36

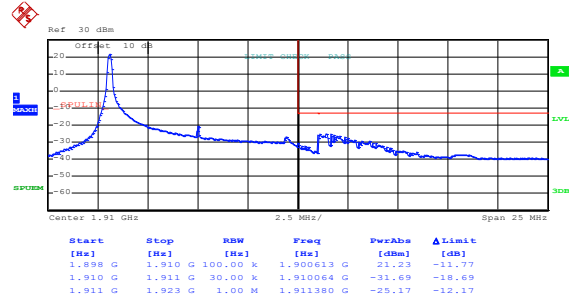
Highest channel

## LTE Band 2, BW: 10MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:05:33

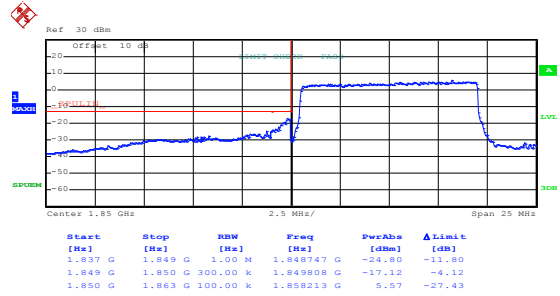
Lowest channel



Date: 13.AUG.2019 14:03:43

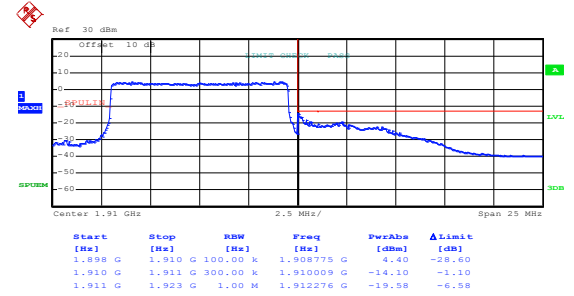
Highest channel

## QPSK & RB Size 50



Date: 13.AUG.2019 14:05:03

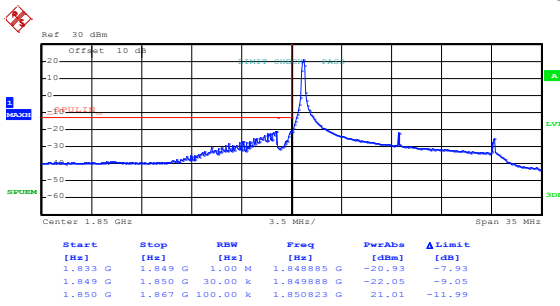
Lowest channel



Date: 13.AUG.2019 14:04:25

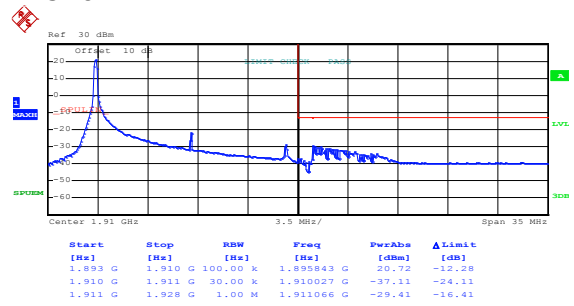
Highest channel

## LTE Band 2, BW: 15MHz 16QAM & RB Size 1



Date: 13.AUG.2019 14:06:40

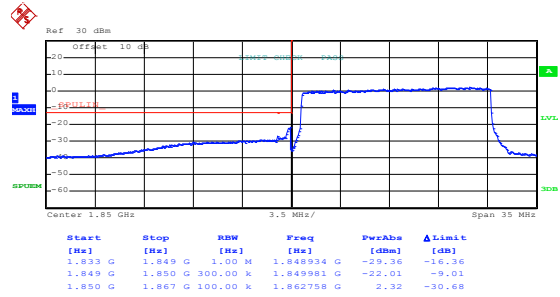
Lowest channel



Date: 13.AUG.2019 14:08:01

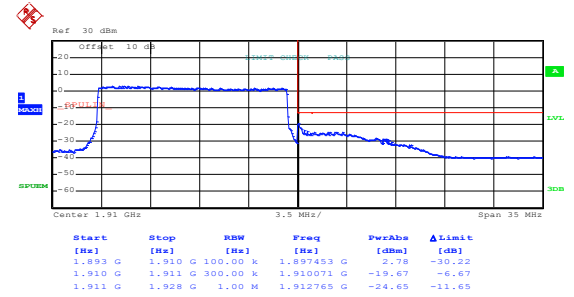
Highest channel

## 16QAM & RB Size 75



Date: 13.AUG.2019 14:07:05

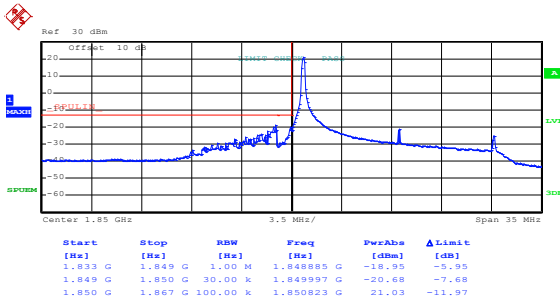
Lowest channel



Date: 13.AUG.2019 14:07:35

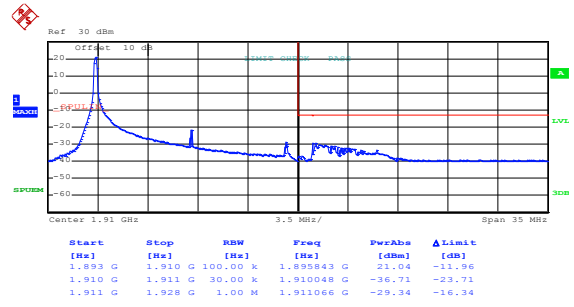
Highest channel

## LTE Band 2, BW: 15MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:06:31

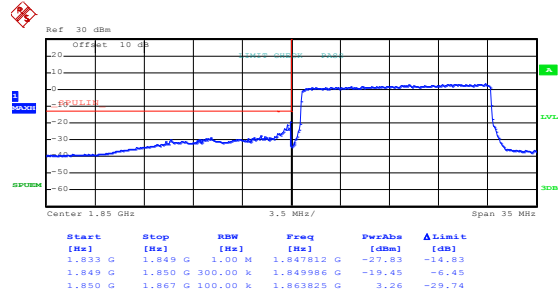
Lowest channel



Date: 13.AUG.2019 14:07:55

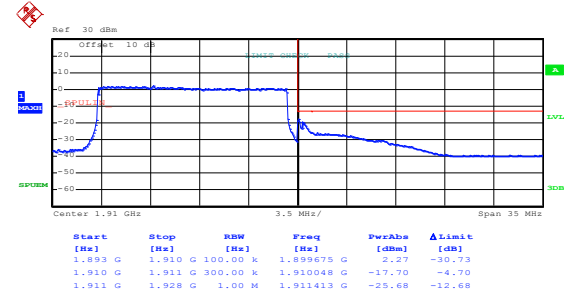
Highest channel

## QPSK & RB Size 75



Date: 13.AUG.2019 14:06:57

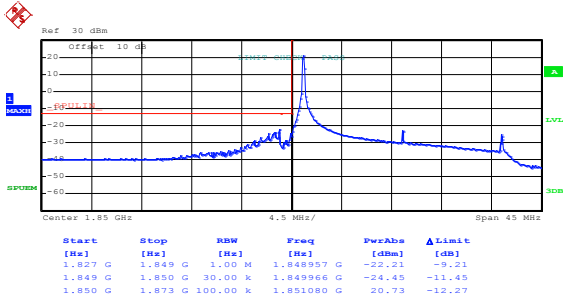
Lowest channel



Date: 13.AUG.2019 14:07:25

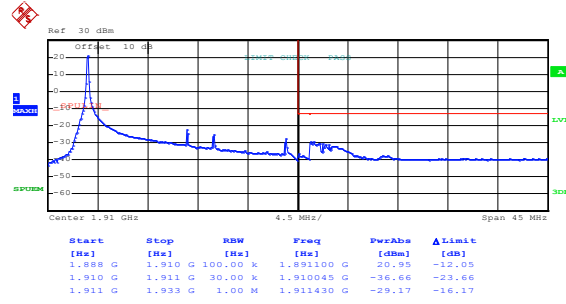
Highest channel

## LTE Band 2, BW: 20MHz 16QAM & RB Size 1



Date: 13.AUG.2019 14:11:08

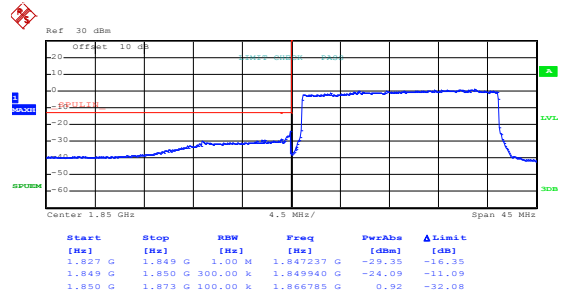
Lowest channel



Date: 13.AUG.2019 14:09:29

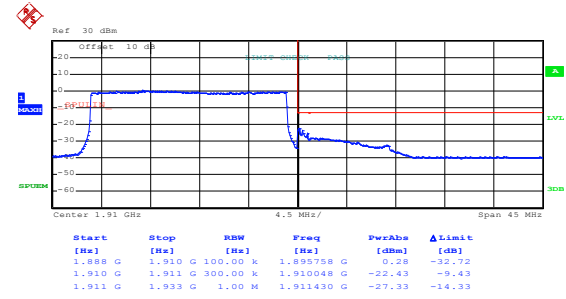
Highest channel

## 16QAM & RB Size 100



Date: 13.AUG.2019 14:10:44

Lowest channel

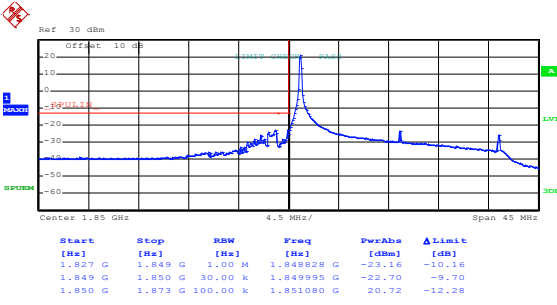


Date: 13.AUG.2019 14:10:04

Highest channel

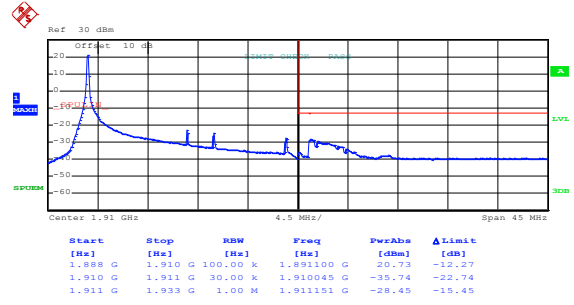


## LTE Band 2, BW: 20MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:11:01

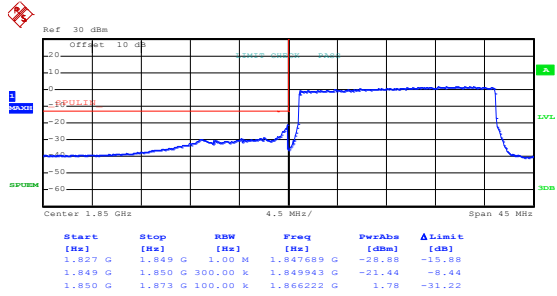
Lowest channel



Date: 13.AUG.2019 14:09:20

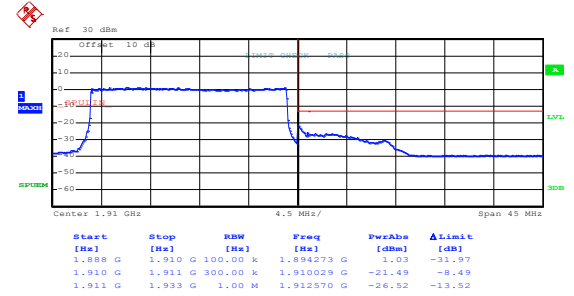
Highest channel

## QPSK & RB Size 100



Date: 13.AUG.2019 14:10:35

Lowest channel

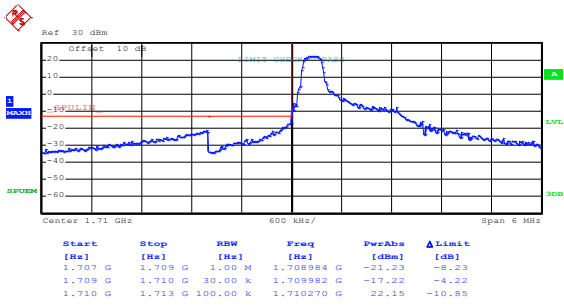


Date: 13.AUG.2019 14:09:52

Highest channel

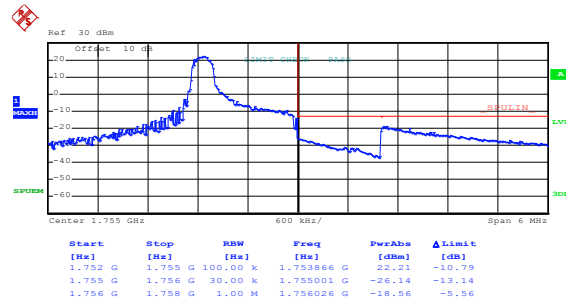
LTE Band 4 part:

LTE Band 4, BW: 1.4MHz  
16QAM & RB Size 1



Date: 13.AUG.2019 14:19:50

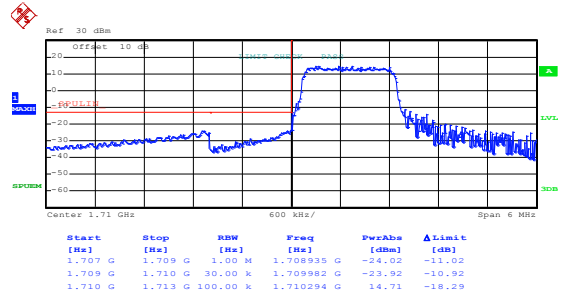
Lowest channel



Date: 13.AUG.2019 14:21:41

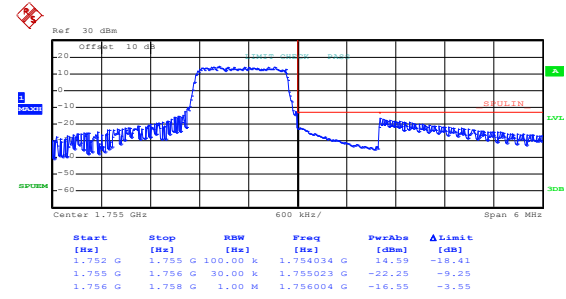
Highest channel

16QAM & RB Size 6



Date: 13.AUG.2019 14:20:10

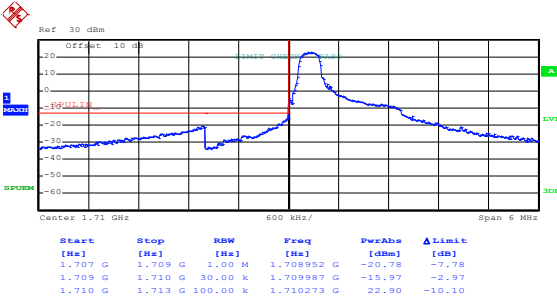
Lowest channel



Date: 13.AUG.2019 14:21:15

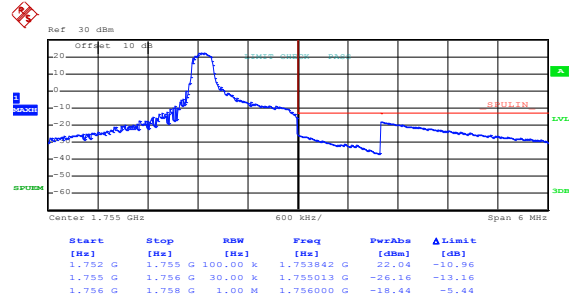
Highest channel

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



Date: 13.AUG.2019 14:19:37

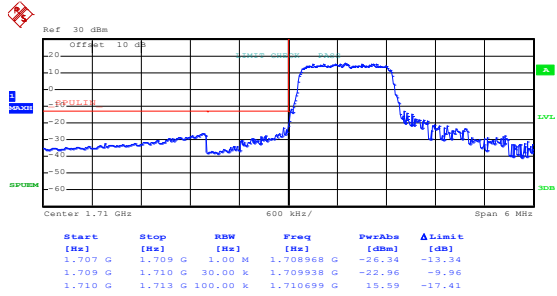
Lowest channel



Date: 13.AUG.2019 14:21:31

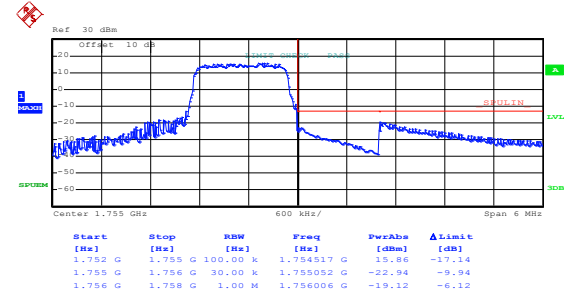
Highest channel

## QPSK & RB Size 6



Date: 13.AUG.2019 14:20:01

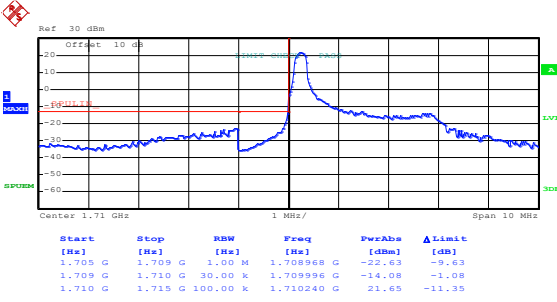
Lowest channel



Date: 13.AUG.2019 14:21:05

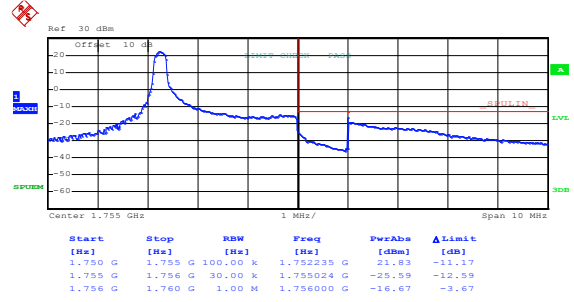
Highest channel

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



Date: 13.AUG.2019 14:28:41

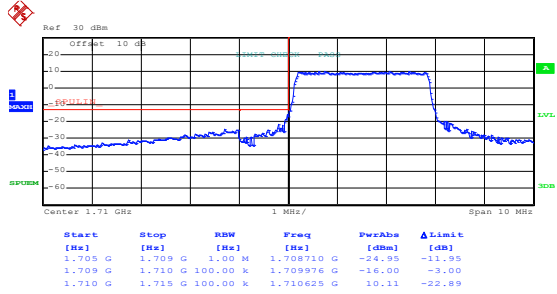
Lowest channel



Date: 13.AUG.2019 14:26:38

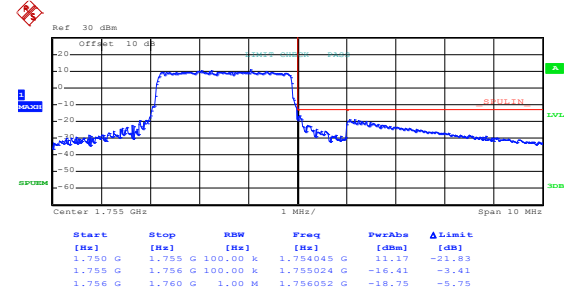
Highest channel

## 16QAM & RB Size 15



Date: 13.AUG.2019 14:29:22

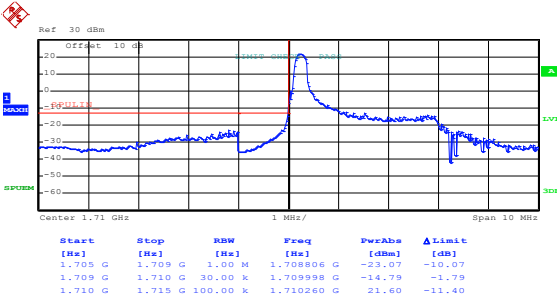
Lowest channel



Date: 13.AUG.2019 14:25:56

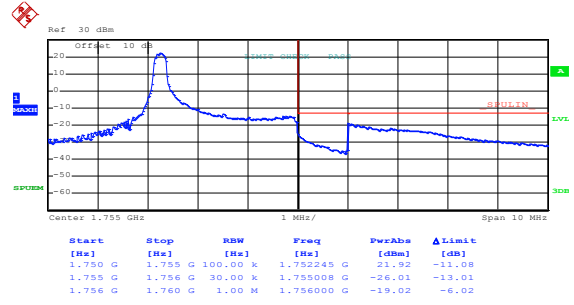
Highest channel

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



Date: 13.AUG.2019 14:26:15

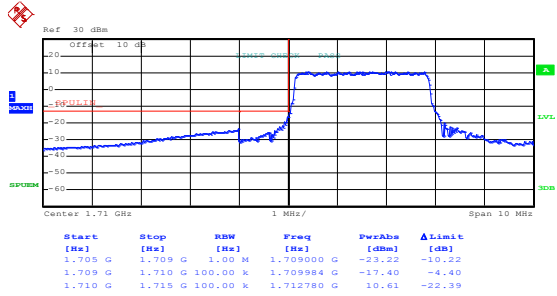
Lowest channel



Date: 13.AUG.2019 14:26:17

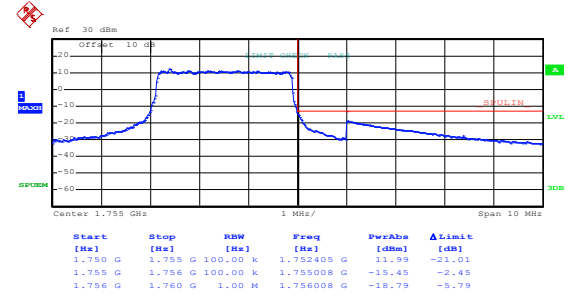
Highest channel

## QPSK & RB Size 15



Date: 13.AUG.2019 14:29:12

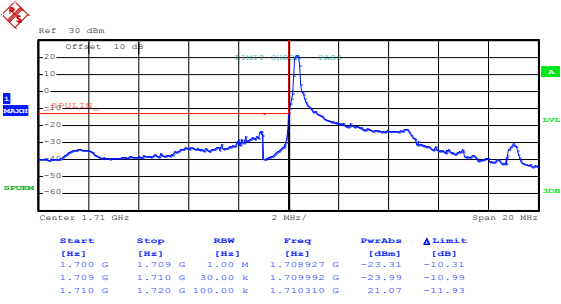
Lowest channel



Date: 13.AUG.2019 14:25:44

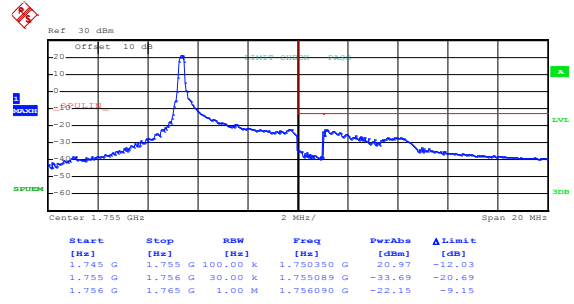
Highest channel

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



Date: 13.AUG.2019 14:30:49

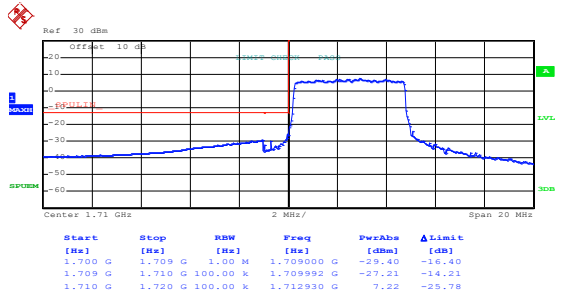
Lowest channel



Date: 13.AUG.2019 14:31:13

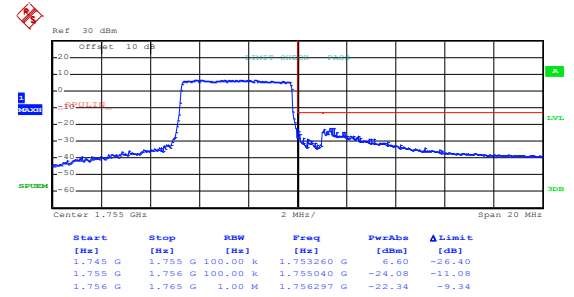
Highest channel

## 16QAM & RB Size 25



Date: 13.AUG.2019 14:30:24

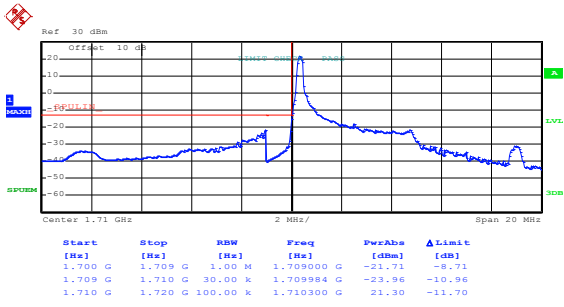
Lowest channel



Date: 13.AUG.2019 14:31:44

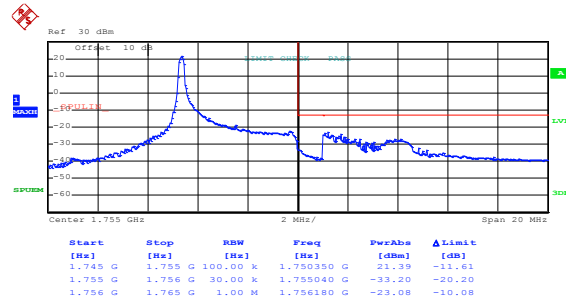
Highest channel

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



Date: 13.AUG.2019 14:30:42

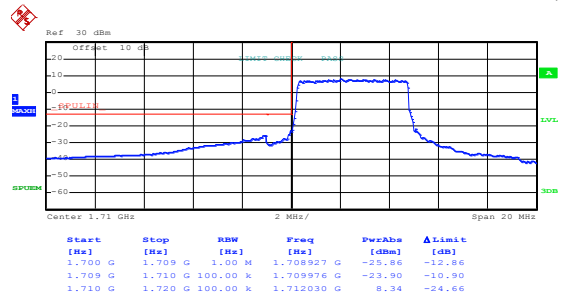
Lowest channel



Date: 13.AUG.2019 14:31:04

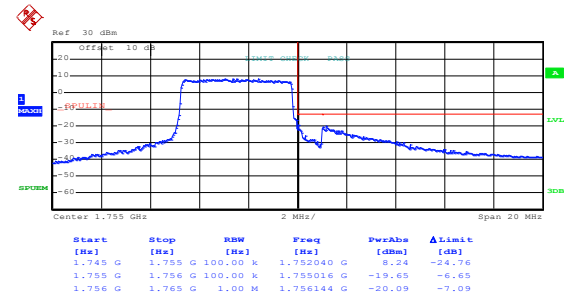
Highest channel

## QPSK & RB Size 25



Date: 13.AUG.2019 14:30:10

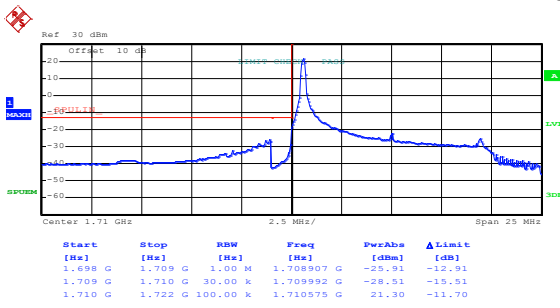
Lowest channel



Date: 13.AUG.2019 14:31:36

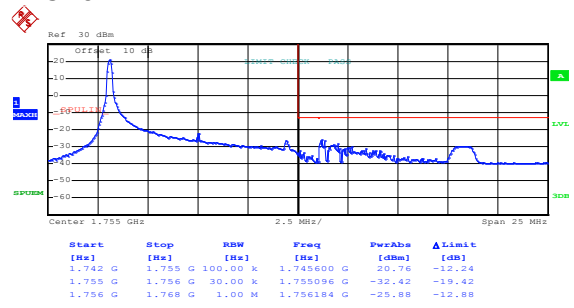
Highest channel

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



Date: 13.AUG.2019 14:37:58

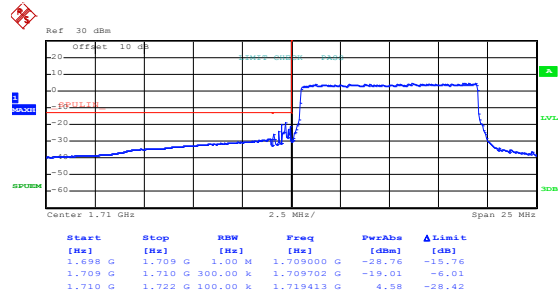
Lowest channel



Date: 13.AUG.2019 14:33:11

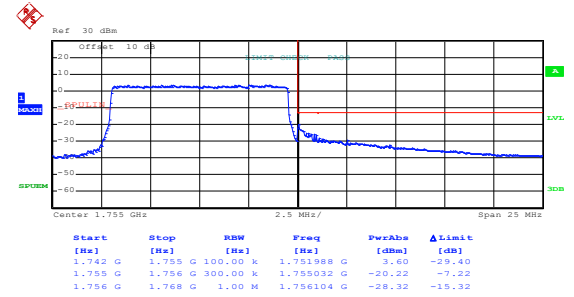
Highest channel

## 16QAM & RB Size 50



Date: 13.AUG.2019 14:38:30

Lowest channel

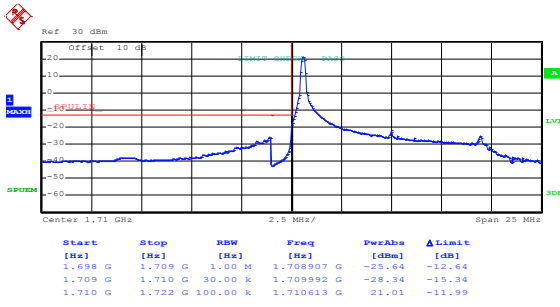


Date: 13.AUG.2019 14:32:34

Highest channel

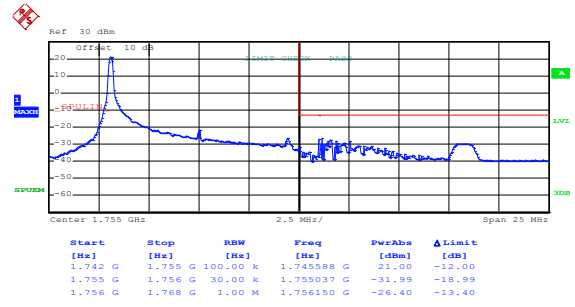


## LTE Band 4, BW: 10MHz QPSK & RB Size 1



Date: 13.AUG.2019 14:37:51

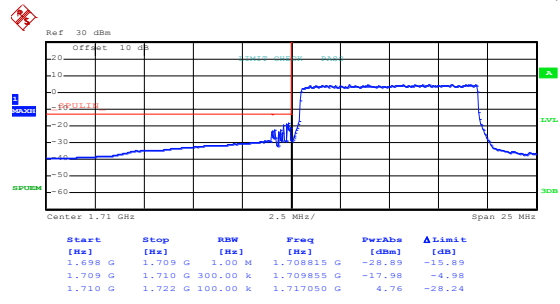
Lowest channel



Date: 13.AUG.2019 14:33:04

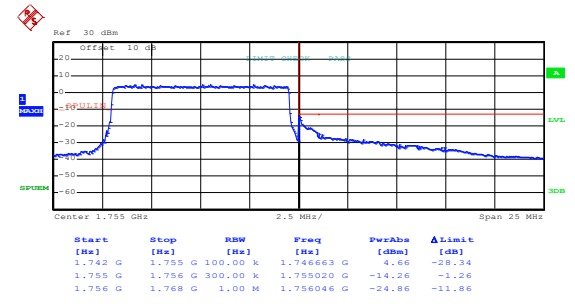
Highest channel

## QPSK & RB Size 50



Date: 13.AUG.2019 14:38:22

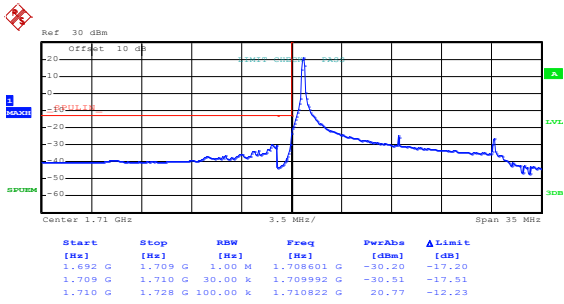
Lowest channel



Date: 13.AUG.2019 14:32:25

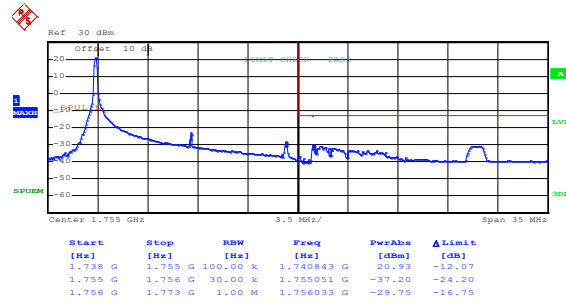
Highest channel

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



Date: 13.AUG.2019 14:43:28

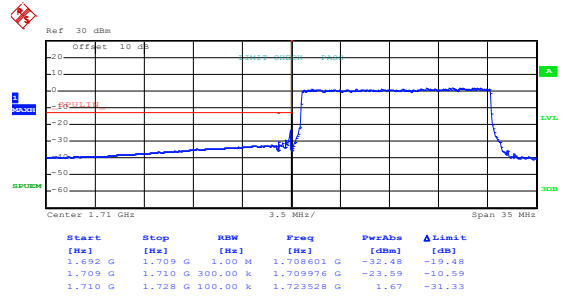
Lowest channel



Date: 13.AUG.2019 14:43:57

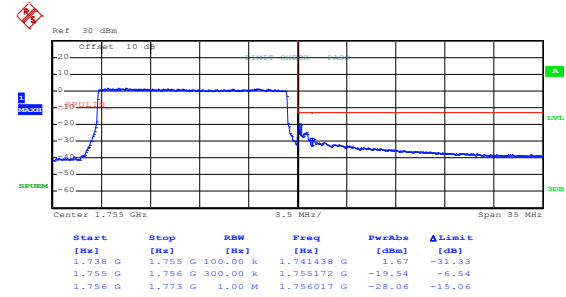
Highest channel

## 16QAM & RB Size 75



Date: 13.AUG.2019 14:43:03

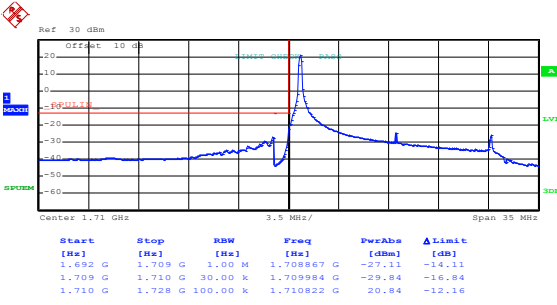
Lowest channel



Date: 13.AUG.2019 14:44:38

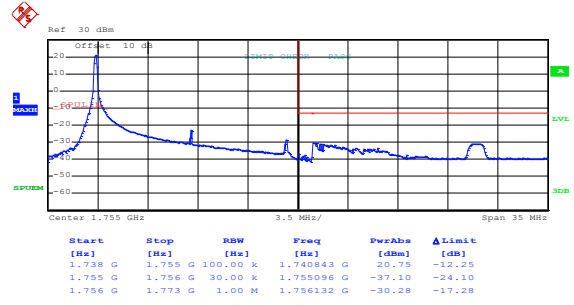
Highest channel

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



Date: 13.AUG.2019 14:43:22

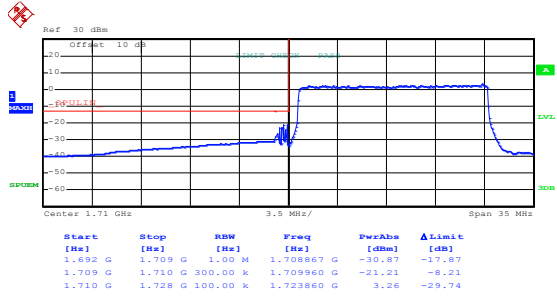
Lowest channel



Date: 13.AUG.2019 14:43:49

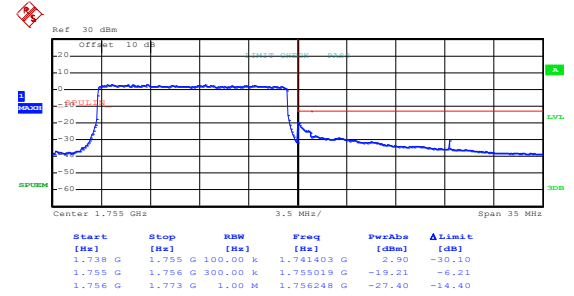
Highest channel

## QPSK & RB Size 75



Date: 13.AUG.2019 14:42:57

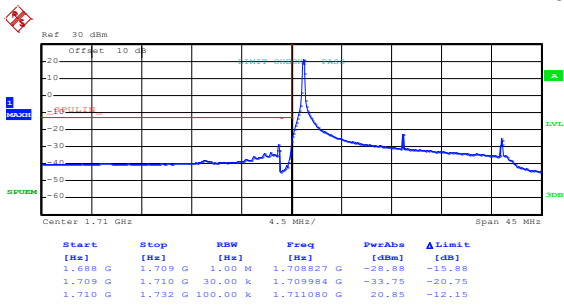
Lowest channel



Date: 13.AUG.2019 14:44:29

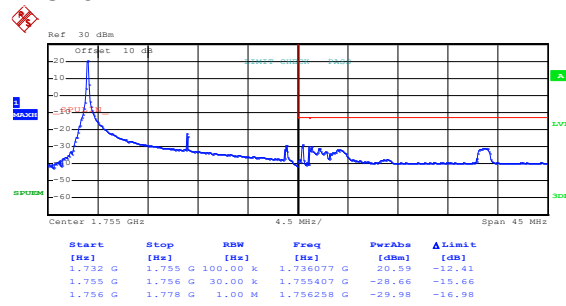
Highest channel

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



Date: 13.AUG.2019 14:46:11

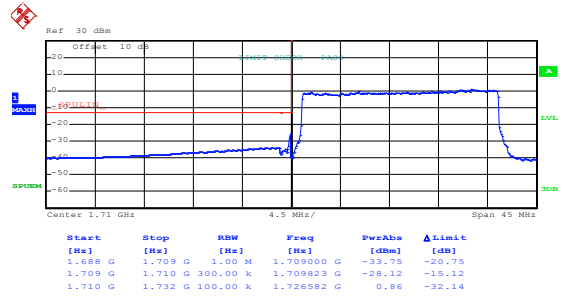
Lowest channel



Date: 13.AUG.2019 14:45:49

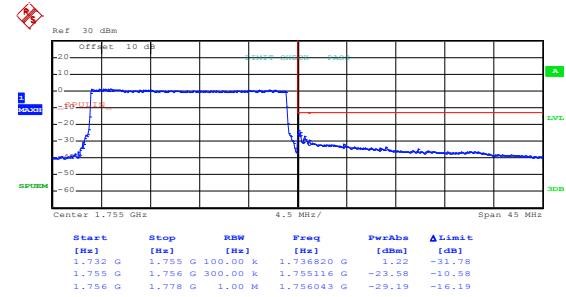
Highest channel

## 16QAM & RB Size 100



Date: 13.AUG.2019 14:46:35

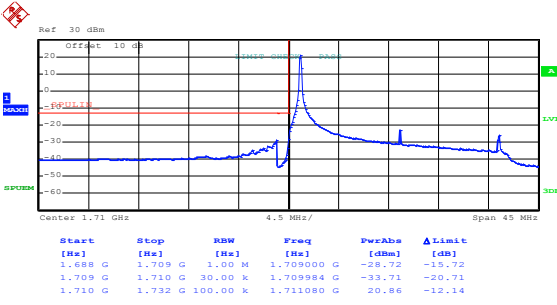
Lowest channel



Date: 13.AUG.2019 14:45:20

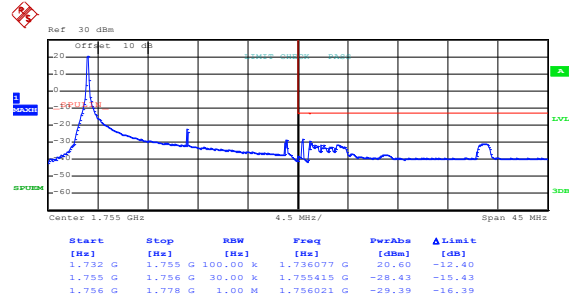
Highest channel

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



Date: 13.AUG.2019 14:46:03

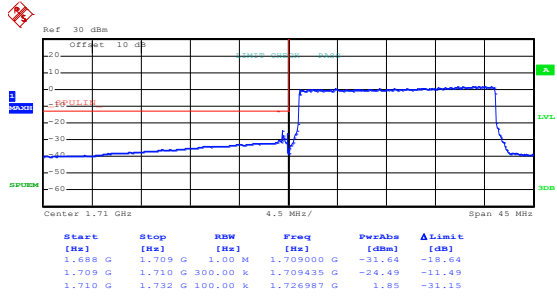
Lowest channel



Date: 13.AUG.2019 14:45:41

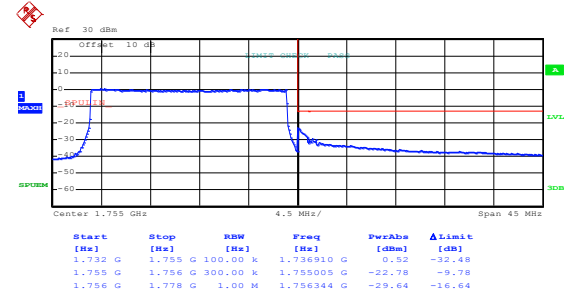
Highest channel

## QPSK & RB Size 100



Date: 13.AUG.2019 14:46:27

Lowest channel

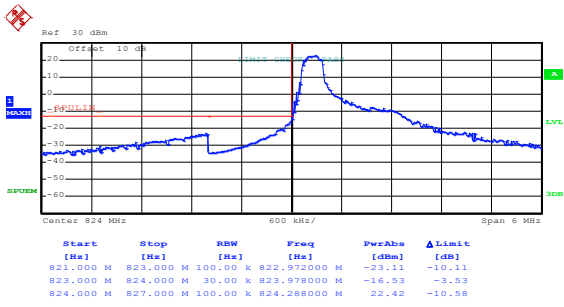


Date: 13.AUG.2019 14:45:11

Highest channel

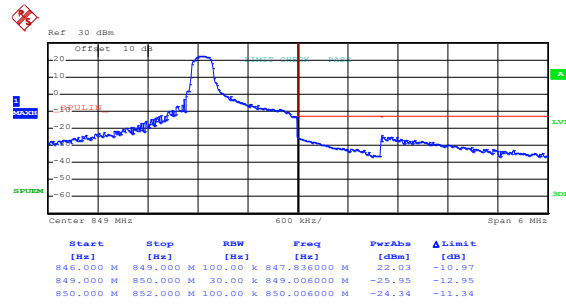
LTE Band 5 part:

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



Date: 13.AUG.2019 14:54:56

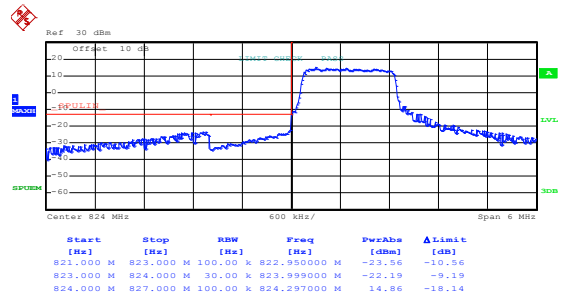
Lowest channel



Date: 13.AUG.2019 14:57:20

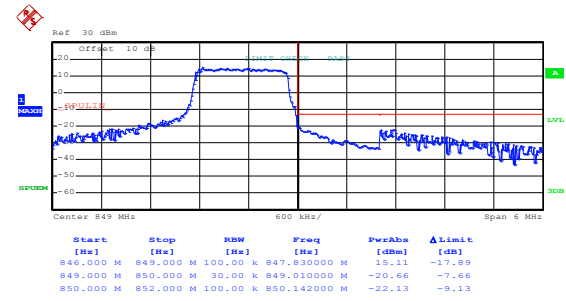
Highest channel

16QAM & RB Size 6



Date: 13.AUG.2019 14:55:53

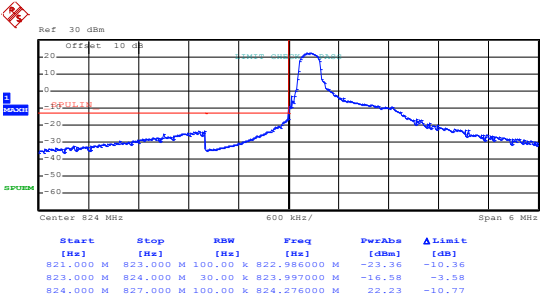
Lowest channel



Date: 13.AUG.2019 14:56:50

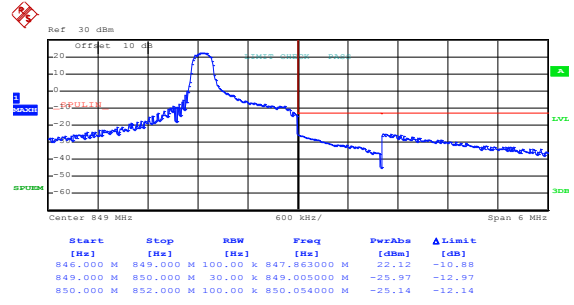
Highest channel

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



Date: 13.AUG.2019 14:54:44

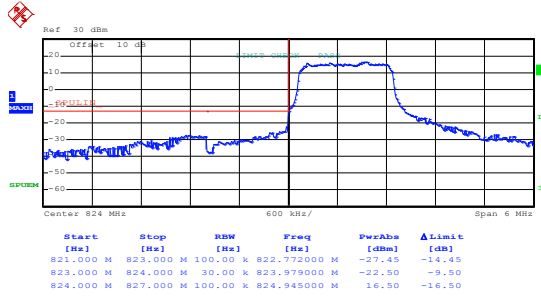
Lowest channel



Date: 13.AUG.2019 14:57:04

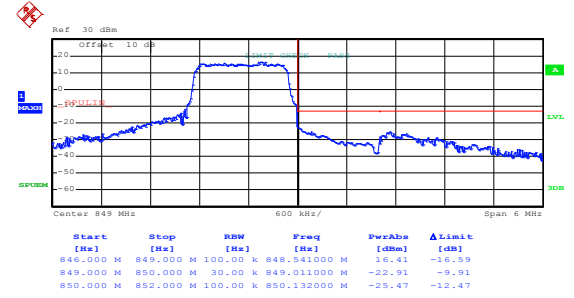
Highest channel

## QPSK & RB Size 6



Date: 13.AUG.2019 14:55:33

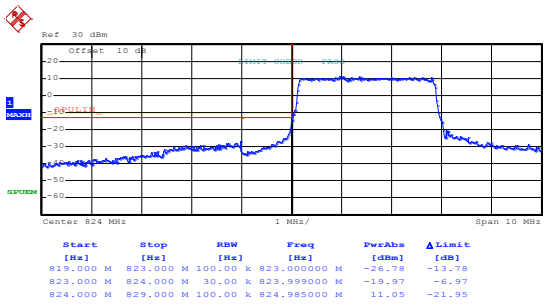
Lowest channel



Date: 13.AUG.2019 14:56:34

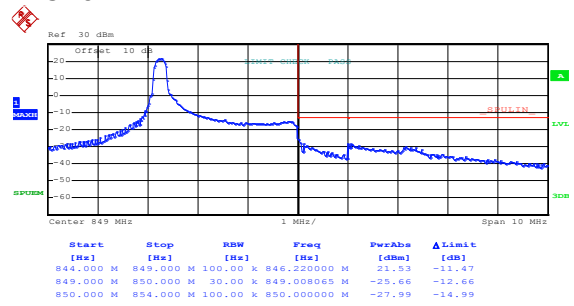
Highest channel

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



Date: 13.AUG.2019 15:00:20

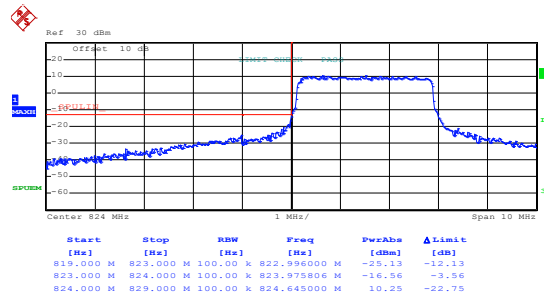
Lowest channel



Date: 13.AUG.2019 15:03:02

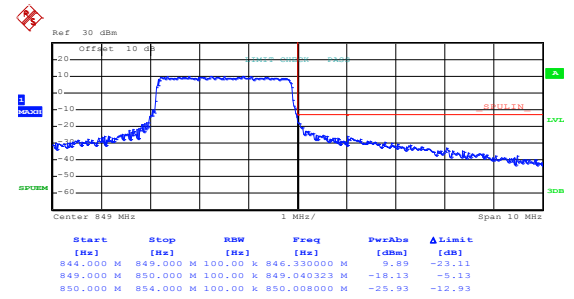
Highest channel

## 16QAM & RB Size 15



Date: 13.AUG.2019 15:01:32

Lowest channel

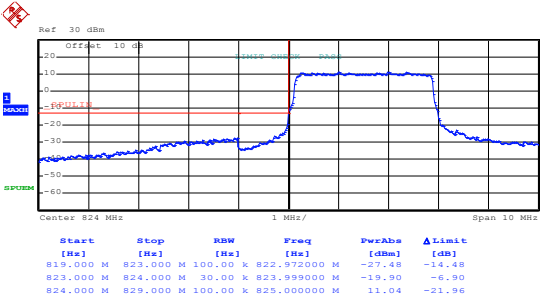


Date: 13.AUG.2019 15:02:31

Highest channel

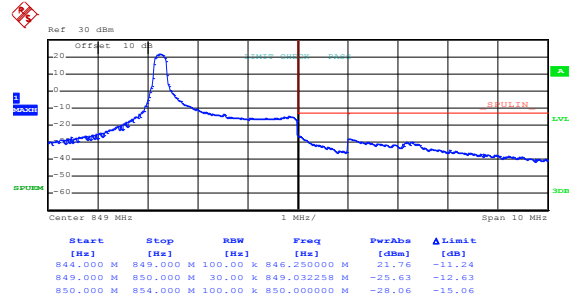


## LTE Band 5, BW: 3MHz QPSK & RB Size 1



Date: 13.AUG.2019 15:00:11

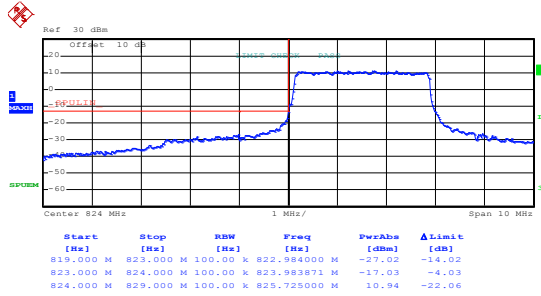
Lowest channel



Date: 13.AUG.2019 15:02:54

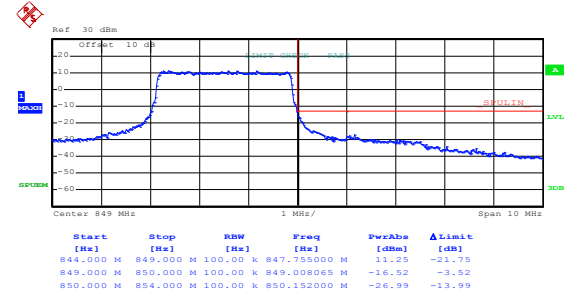
Highest channel

## QPSK & RB Size 15



Date: 13.AUG.2019 15:01:25

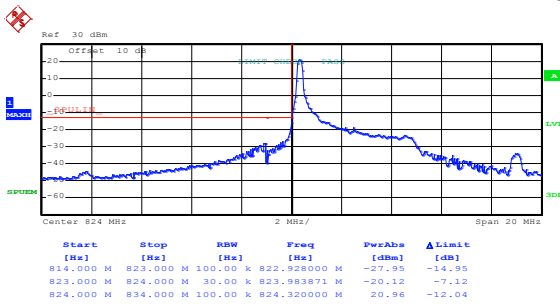
Lowest channel



Date: 13.AUG.2019 15:02:25

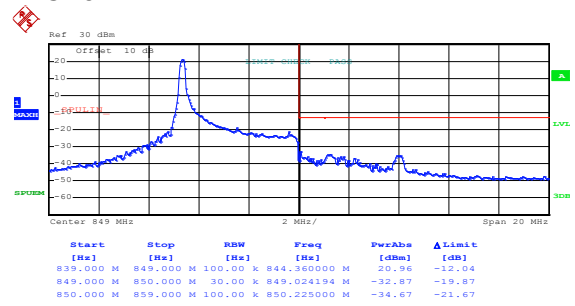
Highest channel

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



Date: 13.AUG.2019 15:04:36

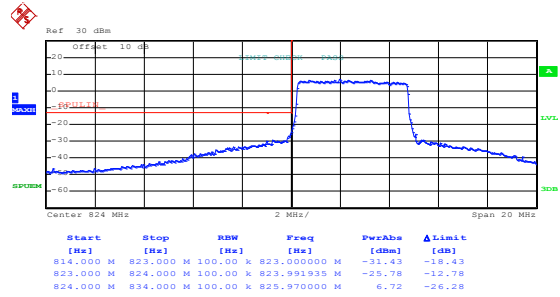
Lowest channel



Date: 13.AUG.2019 15:05:16

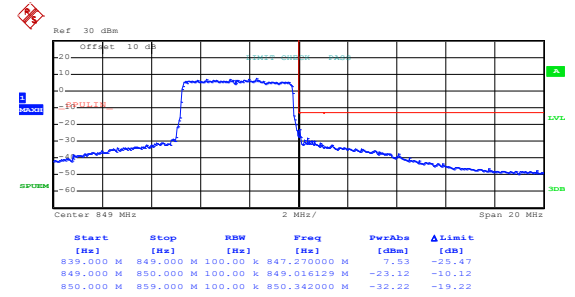
Highest channel

## 16QAM & RB Size 25



Date: 13.AUG.2019 15:04:10

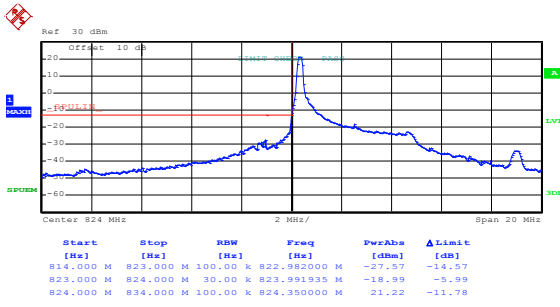
Lowest channel



Date: 13.AUG.2019 15:05:42

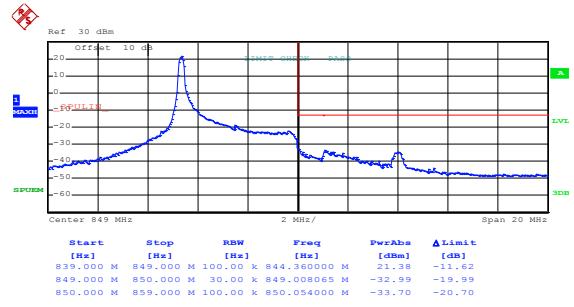
Highest channel

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



Date: 13.AUG.2019 15:04:31

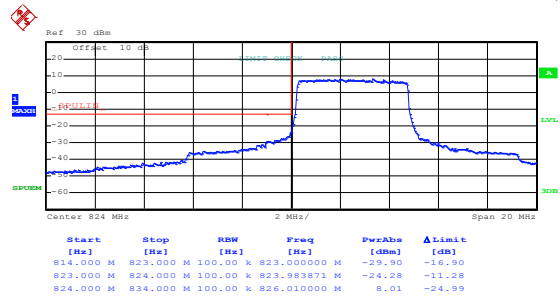
Lowest channel



Date: 13.AUG.2019 15:05:10

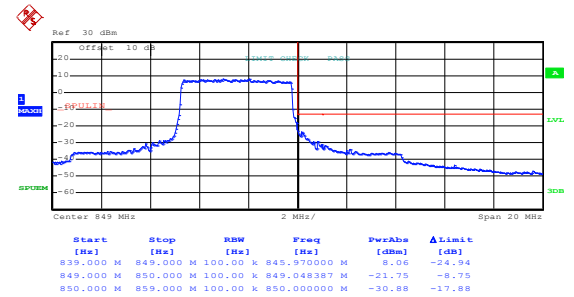
Highest channel

## QPSK & RB Size 25



Date: 13.AUG.2019 15:04:04

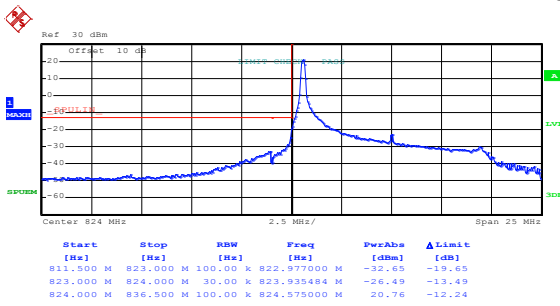
Lowest channel



Date: 13.AUG.2019 15:05:36

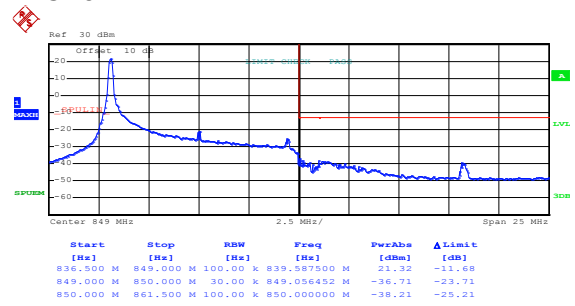
Highest channel

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



Date: 13.AUG.2019 15:07:57

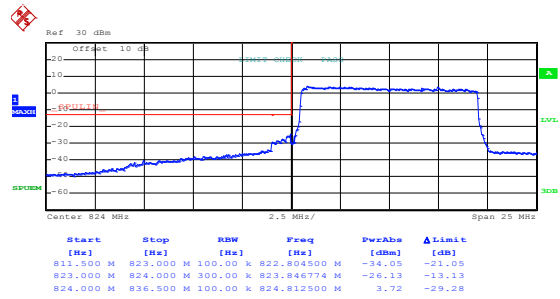
Lowest channel



Date: 13.AUG.2019 15:06:40

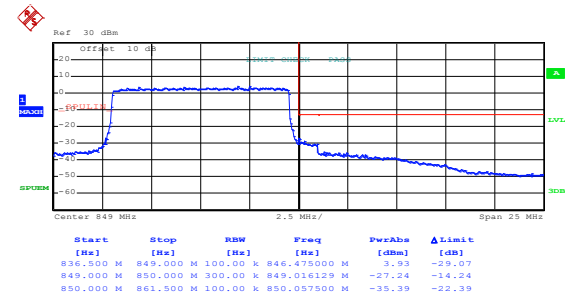
Highest channel

## 16QAM & RB Size 50



Date: 13.AUG.2019 15:07:37

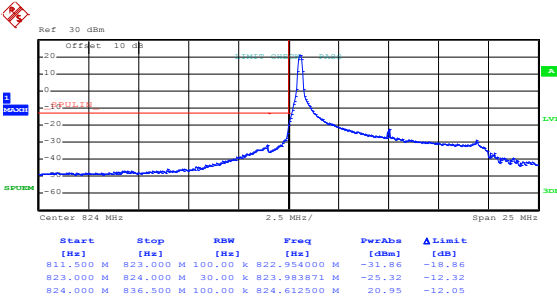
Lowest channel



Date: 13.AUG.2019 15:07:06

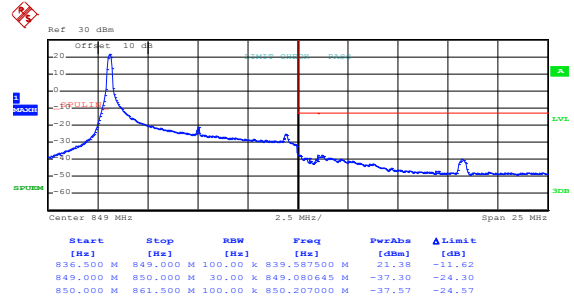
Highest channel

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



Date: 13.AUG.2019 15:07:52

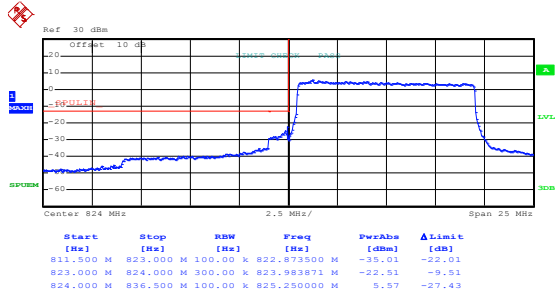
Lowest channel



Date: 13.AUG.2019 15:06:34

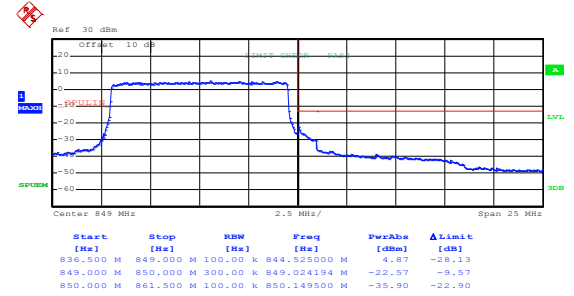
Highest channel

## QPSK & RB Size 50



Date: 13.AUG.2019 15:07:31

Lowest channel

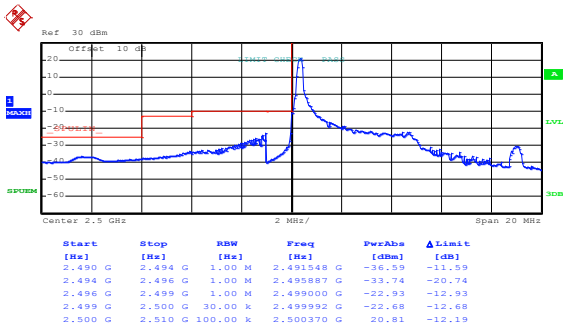


Date: 13.AUG.2019 15:07:00

Highest channel

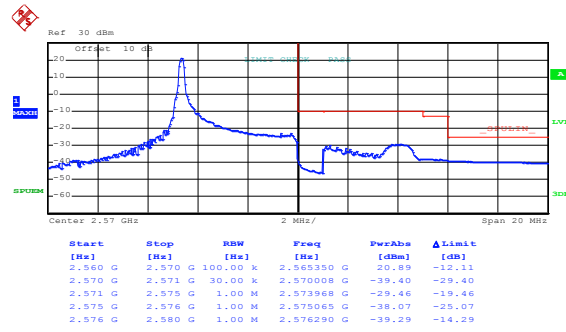
LTE Band 7 part:

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



Date: 13.AUG.2019 15:14:00

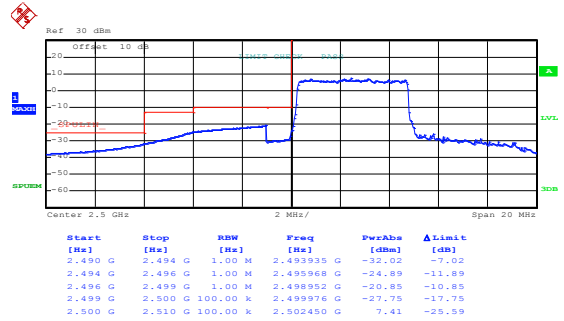
Lowest channel



Date: 13.AUG.2019 15:18:58

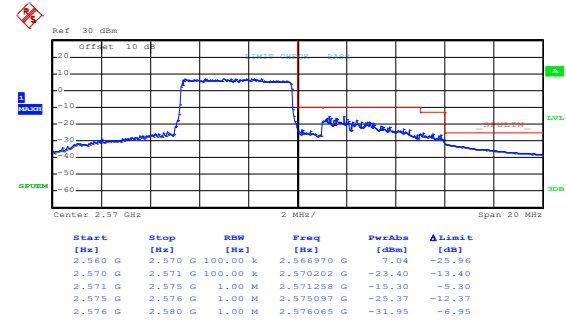
Highest channel

16QAM & RB Size 25



Date: 13.AUG.2019 15:14:41

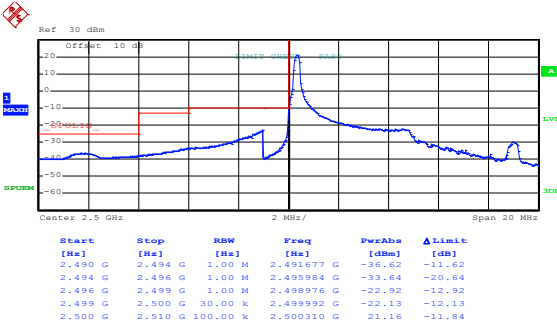
Lowest channel



Date: 13.AUG.2019 15:17:06

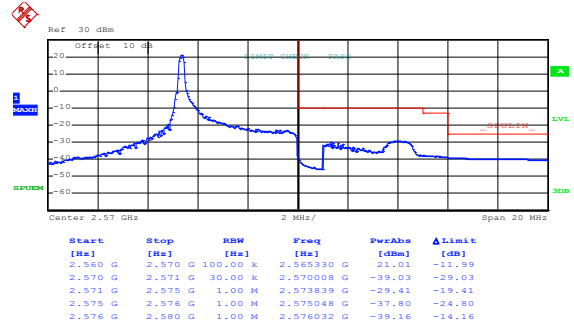
Highest channel

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



Date: 13.AUG.2019 15:13:51

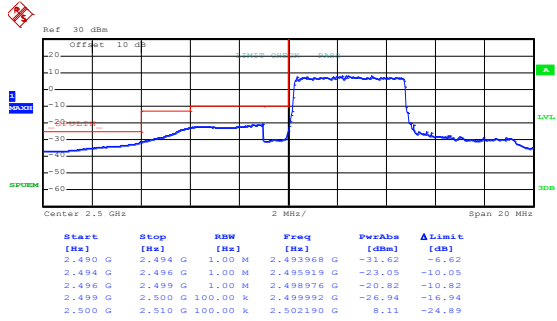
Lowest channel



Date: 13.AUG.2019 15:18:45

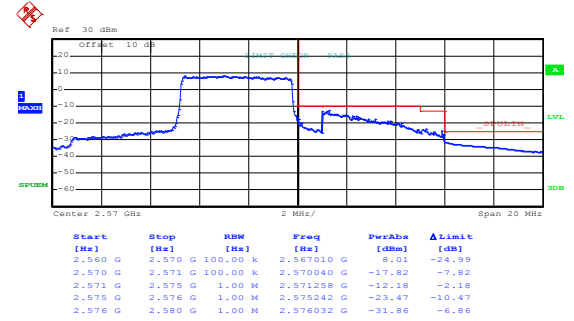
Highest channel

## QPSK & RB Size 25



Date: 13.AUG.2019 15:14:32

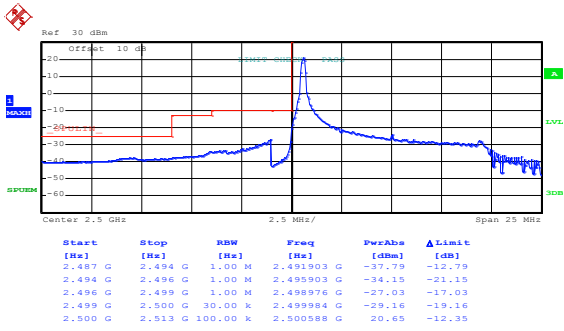
Lowest channel



Date: 13.AUG.2019 15:16:58

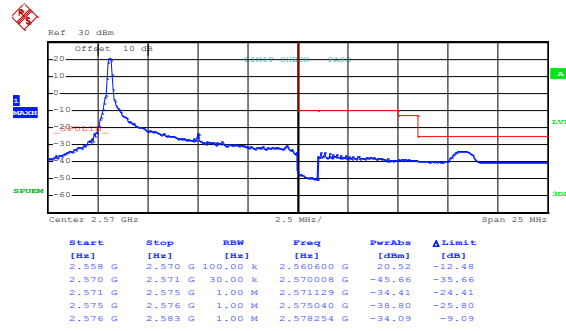
Highest channel

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



Date: 13.AUG.2019 15:24:54

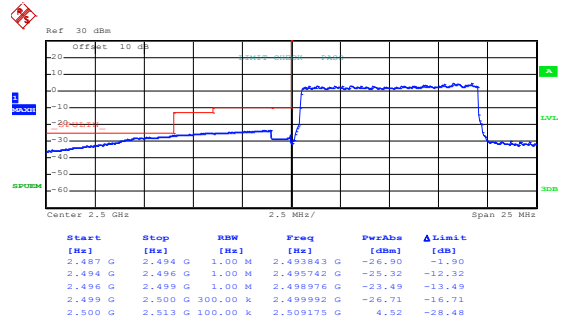
Lowest channel



Date: 13.AUG.2019 15:21:36

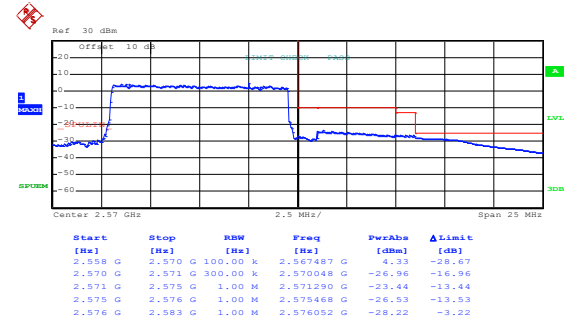
Highest channel

## 16QAM & RB Size 50



Date: 13.AUG.2019 15:24:11

Lowest channel

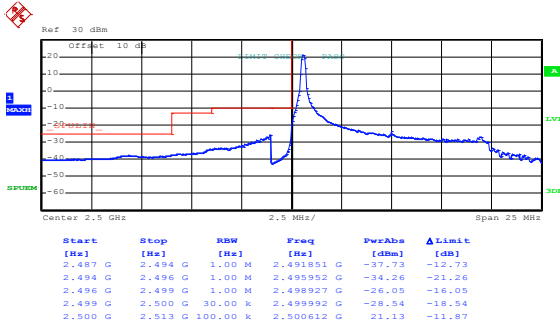


Date: 13.AUG.2019 15:22:17

Highest channel

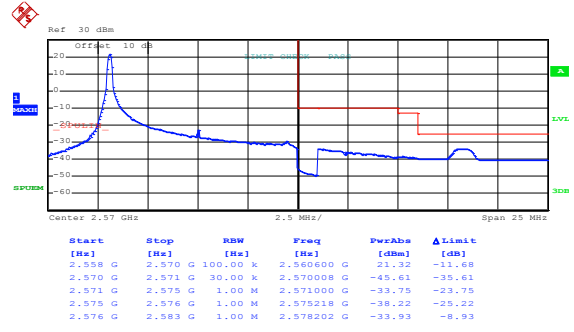


## LTE Band 7, BW: 10MHz QPSK & RB Size 1



Date: 13.AUG.2019 15:24:47

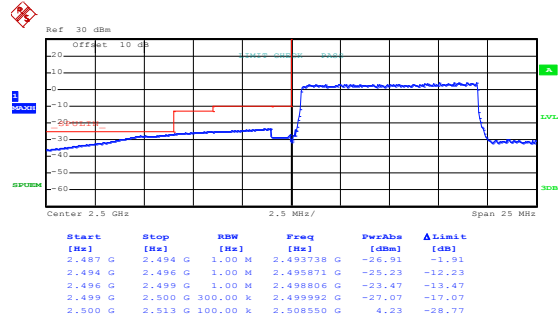
Lowest channel



Date: 13.AUG.2019 15:21:27

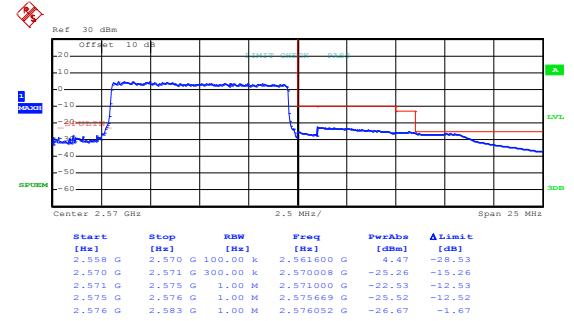
Highest channel

## QPSK & RB Size 50



Date: 13.AUG.2019 15:24:21

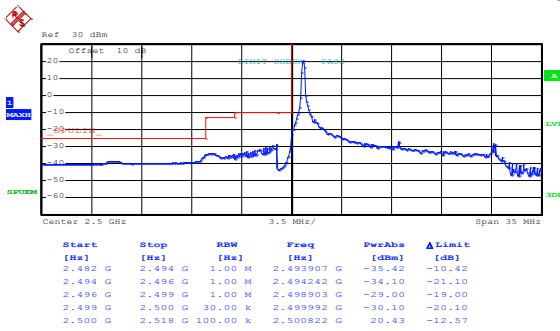
Lowest channel



Date: 13.AUG.2019 15:22:35

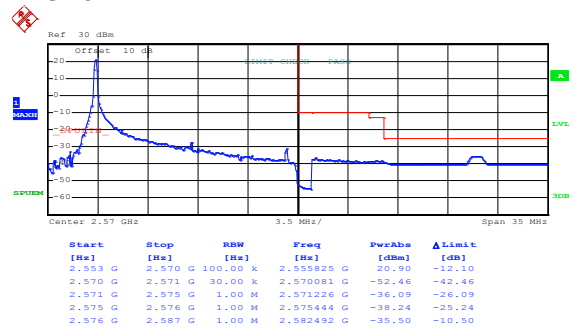
Highest channel

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



Date: 13.AUG.2019 15:25:51

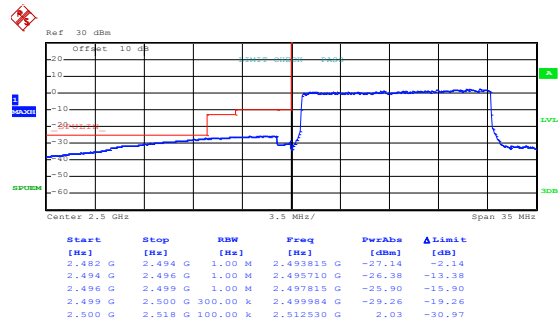
Lowest channel



Date: 13.AUG.2019 15:27:36

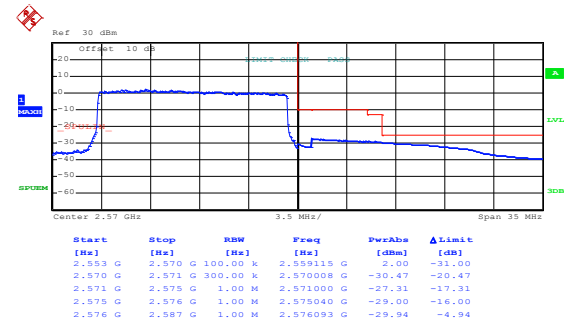
Highest channel

## 16QAM & RB Size 75



Date: 13.AUG.2019 15:26:16

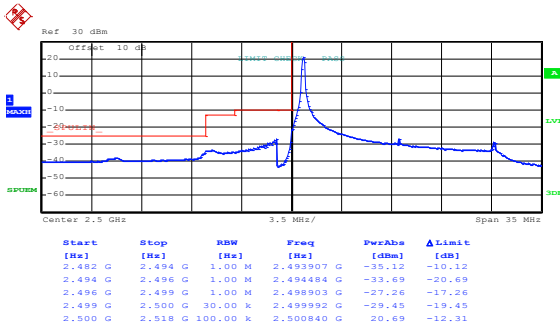
Lowest channel



Date: 13.AUG.2019 15:27:06

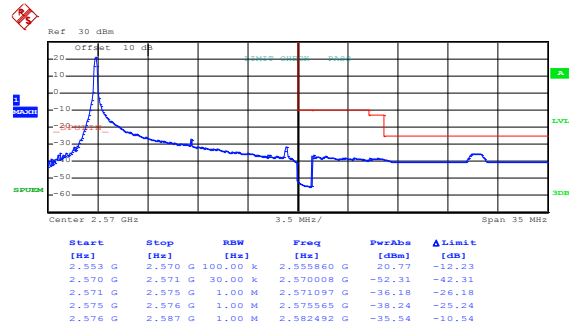
Highest channel

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



Date: 13.AUG.2019 15:25:45

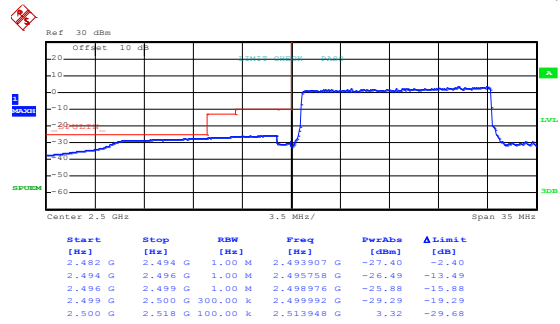
Lowest channel



Date: 13.AUG.2019 15:27:29

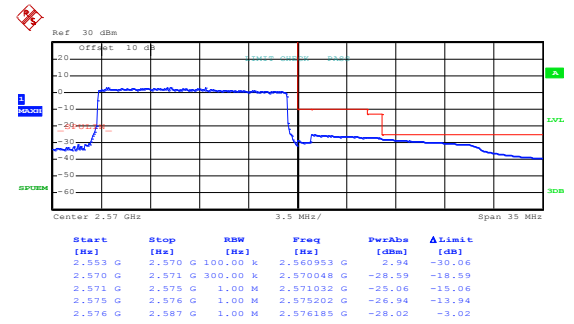
Highest channel

## QPSK & RB Size 75



Date: 13.AUG.2019 15:26:08

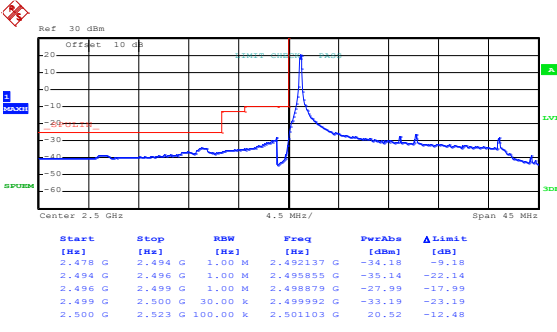
Lowest channel



Date: 13.AUG.2019 15:26:58

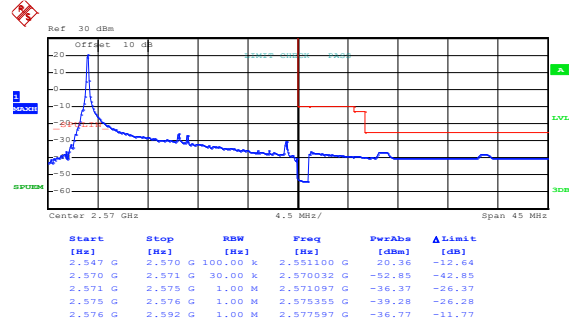
Highest channel

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



Date: 13.AUG.2019 15:29:53

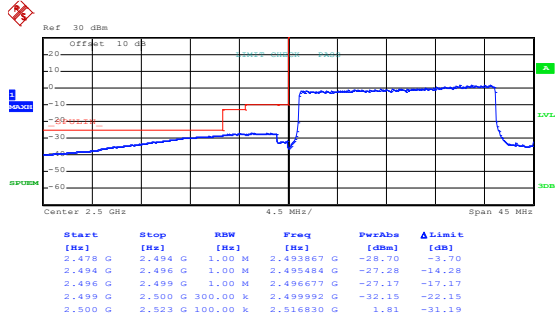
Lowest channel



Date: 13.AUG.2019 15:28:23

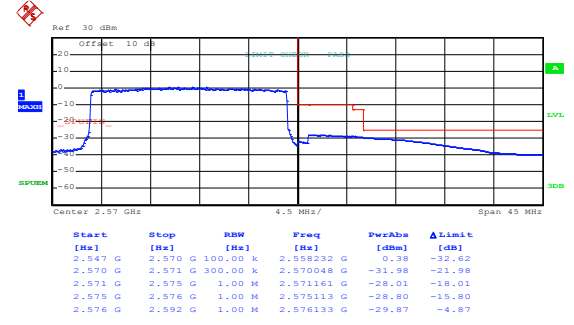
Highest channel

## 16QAM & RB Size 100



Date: 13.AUG.2019 15:29:27

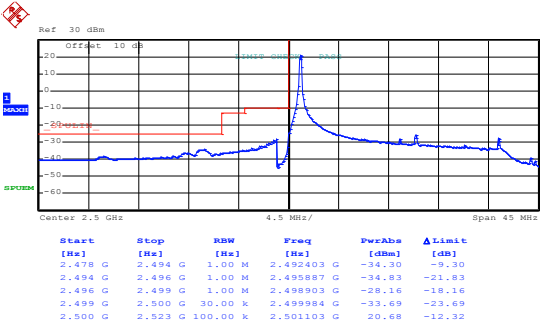
Lowest channel



Date: 13.AUG.2019 15:28:51

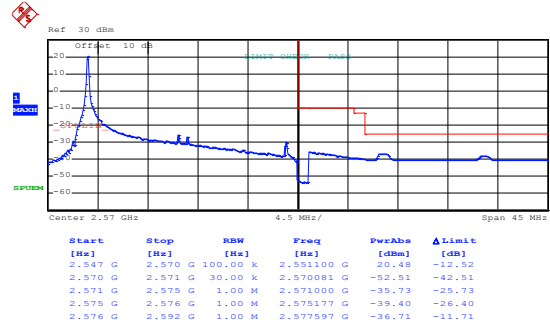
Highest channel

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



Date: 13.AUG.2019 15:29:45

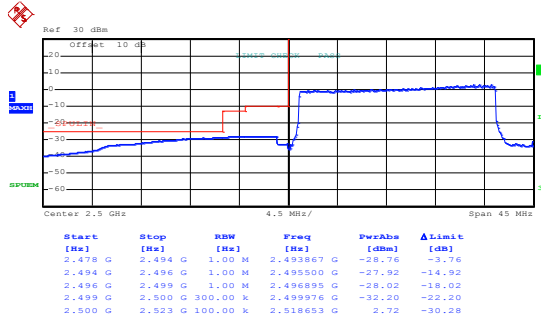
Lowest channel



Date: 13.AUG.2019 15:28:15

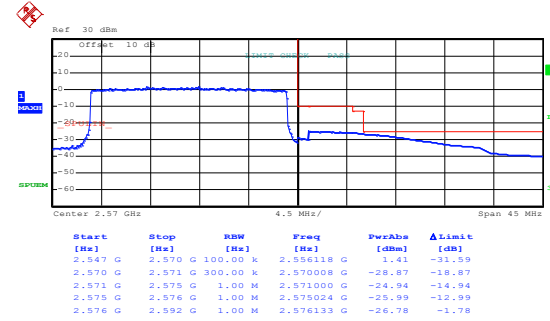
Highest channel

## QPSK & RB Size 100



Date: 13.AUG.2019 15:29:20

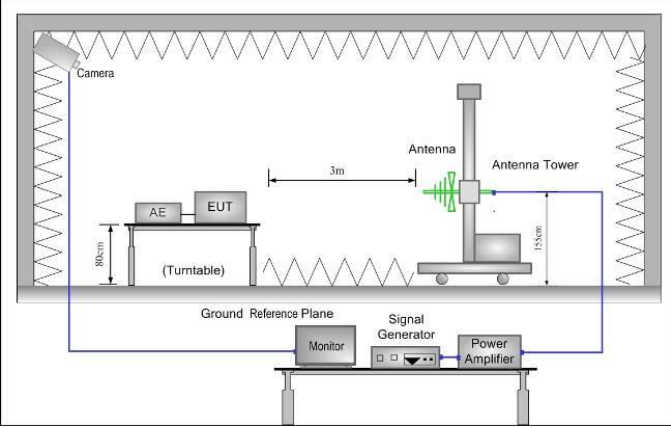
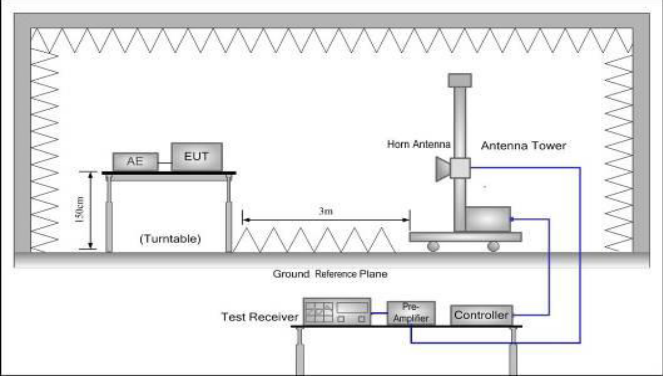
Lowest channel



Date: 13.AUG.2019 15:28:42

Highest channel

## 6.5 Field strength of spurious radiation measurement

<p>Test Requirement:</p>	<p>Part 22.917(b), Part 24.238 (a), Part 27.53(m), Part 27.53(h)</p>
<p>Test Method:</p>	<p>ANSI/TIA-603-D 2010</p>
<p>Limit:</p>	<p>LTE Band 2 &amp; 4 &amp; 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 <math>43 + 10 \log_{10}(P)</math> dB (-13 dBm). LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than <math>40 + 10 \log (P)</math> dB on all frequencies between the channel edge and 5 megahertz from the channel edge, <math>43 + 10 \log (P)</math> dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and <math>55 + 10 \log (P)</math> dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that <math>43 + 10 \log (P)</math> dB on all frequencies between 2490.5 MHz and 2496 MHz and <math>55 + 10 \log (P)</math> dB at or below 2490.5 MHz.</p>
<p>Test setup:</p>	<p>Below 1GHz</p>  <p>Above 1GHz</p> 
<p>Test Procedure:</p>	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. The frequency range up to tenth harmonic was investigated for each</li> </ol>

	<p>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.</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> $\text{ERP / EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
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 2 part:**

LTE Band 2, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3701.40	Vertical	-42.96	-13.00	Pass
5552.10	V	-43.16		
7402.00	V	-39.18		
3701.40	Horizontal	-37.68		
5552.10	H	-44.38		
7402.00	H	-39.27		
<b>Middle Channel</b>				
3760.00	Vertical	-42.16	-13.00	Pass
5640.00	V	-43.96		
7520.00	V	-39.84		
3760.00	Horizontal	-37.50		
5640.00	H	-44.23		
7520.00	H	-39.51		
<b>Highest Channel</b>				
3816.60	Vertical	-42.15	-13.00	Pass
5724.90	V	-43.22		
7633.20	V	-39.85		
3816.60	Horizontal	-37.45		
5724.90	H	-44.28		
7633.20	H	-39.16		
<p>Note:</p> <ol style="list-style-type: none"> <li>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</li> <li>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</li> </ol>				

LTE Band 2, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3703.00	Vertical	-42.24	-13.00	Pass
5554.50	V	-43.61		
7406.00	V	-39.82		
3703.00	Horizontal	-37.15		
5554.50	H	-44.26		
7406.00	H	-39.13		
<b>Middle Channel</b>				
3760.00	Vertical	-42.85	-13.00	Pass
5640.00	V	-43.92		
7520.00	V	-39.16		
3760.00	Horizontal	-37.51		
5640.00	H	-44.13		
7520.00	H	-39.86		
<b>Highest Channel</b>				
3817.00	Vertical	-42.47	-13.00	Pass
5725.50	V	-43.58		
7634.00	V	-39.15		
3817.00	Horizontal	-37.51		
5725.50	H	-44.18		
7634.00	H	-39.41		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				



LTE Band 2, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3705.00	Vertical	-42.16	-13.00	Pass
5557.50	V	-43.52		
7410.00	V	-39.85		
3705.00	Horizontal	-37.64		
5557.50	H	-44.27		
7410.00	H	-39.54		
<b>Middle Channel</b>				
3760.00	Vertical	-42.62	-13.00	Pass
5640.00	V	-43.10		
7520.00	V	-39.87		
3760.00	Horizontal	-37.41		
5640.00	H	-44.51		
7520.00	H	-39.85		
<b>Highest Channel</b>				
3815.00	Vertical	-42.69	-13.00	Pass
5722.50	V	-43.17		
7630.00	V	-39.51		
3815.00	Horizontal	-37.16		
5722.50	H	-44.25		
7630.00	H	-39.71		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 2, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3710.00	Vertical	-42.61	-13.00	Pass
5565.00	V	-43.51		
7420.00	V	-39.16		
3710.00	Horizontal	-37.52		
5565.00	H	-44.28		
7420.00	H	-39.63		
<b>Middle Channel</b>				
3760.00	Vertical	-42.84	-13.00	Pass
5640.00	V	-43.16		
7520.00	V	-39.52		
3760.00	Horizontal	-37.47		
5640.00	H	-44.51		
7520.00	H	-39.63		
<b>Highest Channel</b>				
3810.00	Vertical	-42.25	-13.00	Pass
5715.00	V	-43.18		
7620.00	V	-39.87		
3810.00	Horizontal	-37.46		
5715.00	H	-44.23		
7620.00	H	-39.74		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 2, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3715.00	Vertical	-42.92	-13.00	Pass
5572.50	V	-43.10		
7430.00	V	-39.47		
3715.00	Horizontal	-37.15		
5572.50	H	-44.51		
7430.00	H	-39.51		
<b>Middle Channel</b>				
3760.00	Vertical	-42.73	-13.00	Pass
5640.00	V	-43.16		
7520.00	V	-39.25		
3760.00	Horizontal	-37.51		
5640.00	H	-44.13		
7520.00	H	-39.16		
<b>Highest Channel</b>				
3805.00	Vertical	-42.23	-13.00	Pass
5707.50	V	-43.71		
7610.00	V	-39.93		
3805.00	Horizontal	-37.25		
5707.50	H	-44.50		
7610.00	H	-39.13		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 2, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3720.00	Vertical	-42.17	-13.00	Pass
5580.00	V	-43.55		
7440.00	V	-39.62		
3720.00	Horizontal	-37.17		
5580.00	H	-44.21		
7440.00	H	-39.26		
<b>Middle Channel</b>				
3760.00	Vertical	-42.72	-13.00	Pass
5640.00	V	-43.61		
7520.00	V	-39.85		
3760.00	Horizontal	-37.41		
5640.00	H	-44.58		
7520.00	H	-39.26		
<b>Highest Channel</b>				
3800.00	Vertical	-42.67	-13.00	Pass
5700.00	V	-43.78		
7600.00	V	-39.25		
3800.00	Horizontal	-37.47		
5700.00	H	-44.19		
7600.00	H	-39.54		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

**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)		
<b>Lowest Channel</b>				
3421.40	Vertical	-46.03	-13.00	Pass
5132.10	V	-45.26		
6842.80	V	-40.16		
3421.40	Horizontal	-47.59		
5132.10	H	-45.71		
6842.80	H	-35.01		
<b>Middle Channel</b>				
3465.00	Vertical	-46.29	-13.00	Pass
5197.50	V	-45.78		
6930.00	V	-40.81		
3465.00	Horizontal	-47.16		
5197.50	H	-45.78		
6930.00	H	-35.26		
<b>Highest Channel</b>				
3508.60	Vertical	-46.16	-13.00	Pass
5262.90	V	-45.85		
7017.20	V	-40.27		
3508.60	Horizontal	-47.62		
5262.90	H	-45.13		
7017.20	H	-35.82		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 4, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3423.00	Vertical	-46.28	-13.00	Pass
5134.50	V	-45.17		
6846.00	V	-40.92		
3423.00	Horizontal	-47.51		
5134.50	H	-45.19		
6846.00	H	-35.17		
<b>Middle Channel</b>				
3465.00	Vertical	-46.26	-13.00	Pass
5197.50	V	-45.27		
6930.00	V	-40.34		
3465.00	Horizontal	-47.62		
5197.50	H	-45.18		
6930.00	H	-35.26		
<b>Highest Channel</b>				
3507.00	Vertical	-46.85	-13.00	Pass
5260.50	V	-45.17		
7014.00	V	-40.53		
3507.00	Horizontal	-47.24		
5260.50	H	-45.29		
7014.00	H	-35.16		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 4, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3425.00	Vertical	-46.72	-13.00	Pass
5137.50	V	-45.87		
6850.00	V	-40.85		
3425.00	Horizontal	-47.13		
5137.50	H	-45.28		
6850.00	H	-35.16		
<b>Middle Channel</b>				
3465.00	Vertical	-46.71	-13.00	Pass
5197.50	V	-45.25		
6930.00	V	-40.16		
3465.00	Horizontal	-47.83		
5197.50	H	-45.17		
6930.00	H	-35.23		
<b>Highest Channel</b>				
3505.00	Vertical	-46.93	-13.00	Pass
5257.50	V	-45.16		
7010.00	V	-40.38		
3505.00	Horizontal	-47.31		
5257.50	H	-45.29		
7010.00	H	-35.47		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 4, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3430.00	Vertical	-46.83	-13.00	Pass
5145.00	V	-45.18		
6860.00	V	-40.24		
3430.00	Horizontal	-47.21		
5145.00	H	-45.92		
6860.00	H	-35.39		
<b>Middle Channel</b>				
3465.00	Vertical	-46.81	-13.00	Pass
5197.50	V	-45.61		
6930.00	V	-40.13		
3465.00	Horizontal	-47.69		
5197.50	H	-45.87		
6930.00	H	-35.85		
<b>Highest Channel</b>				
3500.00	Vertical	-46.13	-13.00	Pass
5250.00	V	-45.29		
7000.00	V	-40.27		
3500.00	Horizontal	-47.51		
5250.00	H	-45.92		
7000.00	H	-35.63		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				



LTE Band 4, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3435.00	Vertical	-46.83	-13.00	Pass
5152.50	V	-45.17		
6870.00	V	-40.26		
3435.00	Horizontal	-47.38		
5152.50	H	-45.16		
6870.00	H	-35.84		
<b>Middle Channel</b>				
3465.00	Vertical	-46.29	-13.00	Pass
5197.50	V	-45.71		
6930.00	V	-40.29		
3465.00	Horizontal	-47.16		
5197.50	H	-45.85		
6930.00	H	-35.17		
<b>Highest Channel</b>				
3495.00	Vertical	-46.25	-13.00	Pass
5242.50	V	-45.71		
6990.00	V	-40.30		
3495.00	Horizontal	-47.14		
5242.50	H	-45.38		
6990.00	H	-35.97		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 4, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
3440.00	Vertical	-46.85	-13.00	Pass
5160.00	V	-45.17		
6880.00	V	-40.04		
3440.00	Horizontal	-47.26		
5160.00	H	-45.61		
6880.00	H	-35.65		
<b>Middle Channel</b>				
3465.00	Vertical	-46.57	-13.00	Pass
5197.50	V	-45.92		
6930.00	V	-40.27		
3465.00	Horizontal	-47.06		
5197.50	H	-45.16		
6930.00	H	-35.28		
<b>Highest Channel</b>				
3490.00	Vertical	-46.37	-13.00	Pass
5235.00	V	-45.65		
6980.00	V	-40.31		
3490.00	Horizontal	-47.05		
5235.00	H	-45.28		
6980.00	H	-35.61		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

**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)		
<b>Lowest Channel</b>				
1649.40	Vertical	-57.26	-13.00	Pass
2474.10	V	-52.61		
3298.80	V	-51.47		
1649.40	Horizontal	-52.55		
2474.10	H	-44.16		
3298.80	H	-48.61		
<b>Middle Channel</b>				
1673.00	Vertical	-57.61	-13.00	Pass
2509.50	V	-52.21		
3346.00	V	-51.69		
1673.00	Horizontal	-52.36		
2509.50	H	-44.61		
3346.00	H	-48.82		
<b>Highest Channel</b>				
1696.60	Vertical	-57.26	-13.00	Pass
2544.90	V	-52.64		
3393.20	V	-51.26		
1696.60	Horizontal	-52.62		
2544.90	H	-44.27		
3393.20	H	-48.36		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 5, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
1651.00	Vertical	-57.31	-13.00	Pass
2476.50	V	-52.34		
3302.00	V	-51.38		
1651.00	Horizontal	-52.93		
2476.50	H	-44.76		
3302.00	H	-48.29		
<b>Middle Channel</b>				
1673.00	Vertical	-57.19	-13.00	Pass
2509.50	V	-52.62		
3346.00	V	-51.78		
1673.00	Horizontal	-52.92		
2509.50	H	-44.16		
3346.00	H	-48.37		
<b>Highest Channel</b>				
1695.00	Vertical	-57.62	-13.00	Pass
2542.50	V	-52.84		
3390.00	V	-51.63		
1695.00	Horizontal	-52.26		
2542.50	H	-44.27		
3390.00	H	-48.61		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 5, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
1653.00	Vertical	-57.61	-13.00	Pass
2479.50	V	-52.92		
3306.00	V	-51.67		
1653.00	Horizontal	-52.68		
2479.50	H	-44.26		
3306.00	H	-48.25		
<b>Middle Channel</b>				
1673.00	Vertical	-57.64	-13.00	Pass
2509.50	V	-52.16		
3346.00	V	-51.47		
1673.00	Horizontal	-52.21		
2509.50	H	-44.61		
3346.00	H	-48.26		
<b>Highest Channel</b>				
1693.00	Vertical	-57.69	-13.00	Pass
2539.50	V	-52.27		
3386.00	V	-51.47		
1693.00	Horizontal	-52.24		
2539.50	H	-44.71		
3386.00	H	-48.17		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 5, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
1658.00	Vertical	-57.62	-13.00	Pass
2487.00	V	-52.94		
3316.00	V	-51.34		
1658.00	Horizontal	-52.26		
2487.00	H	-44.62		
3316.00	H	-48.86		
<b>Middle Channel</b>				
1673.00	Vertical	-57.67	-13.00	Pass
2509.50	V	-52.94		
3346.00	V	-51.44		
1673.00	Horizontal	-52.26		
2509.50	H	-44.92		
3346.00	H	-48.27		
<b>Highest Channel</b>				
1688.00	Vertical	-57.64	-13.00	Pass
2532.00	V	-52.61		
3376.00	V	-51.34		
1688.00	Horizontal	-52.69		
2532.00	H	-44.16		
3376.00	H	-48.85		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

**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)		
<b>Lowest Channel</b>				
5005.00	Vertical	-35.77	-25.00	Pass
7507.50	V	-32.27		
10010.00	V	-38.24		
5005.00	Horizontal	-31.08		
7507.50	H	-32.17		
10010.00	H	-38.41		
<b>Middle Channel</b>				
5070.00	Vertical	-35.16	-25.00	Pass
7605.00	V	-32.54		
10140.00	V	-38.92		
5070.00	Horizontal	-31.56		
7605.00	H	-32.84		
10140.00	H	-38.57		
<b>Highest Channel</b>				
5135.00	Vertical	-35.61	-25.00	Pass
7702.50	V	-32.52		
10270.00	V	-38.47		
5135.00	Horizontal	-31.26		
7702.50	H	-32.61		
10270.00	H	-38.57		
<p>Note:</p> <ol style="list-style-type: none"> <li>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</li> <li>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</li> </ol>				

LTE Band 7, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
5010.00	Vertical	-35.95	-25.00	Pass
7515.00	V	-32.61		
10020.00	V	-38.27		
5010.00	Horizontal	-31.44		
7515.00	H	-32.52		
10020.00	H	-38.62		
<b>Middle Channel</b>				
5070.00	Vertical	-35.92	-25.00	Pass
7605.00	V	-32.61		
10140.00	V	-38.25		
5070.00	Horizontal	-31.47		
7605.00	H	-32.52		
10140.00	H	-38.62		
<b>Highest Channel</b>				
5130.00	Vertical	-35.79	-25.00	Pass
7695.00	V	-38.51		
10260.00	V	-31.62		
5130.00	Horizontal	-31.85		
7695.00	H	-32.29		
10260.00	H	-38.55		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				



LTE Band 7, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
5015.00	Vertical	-35.94	-25.00	Pass
7522.50	V	-32.41		
10030.00	V	-38.34		
5015.00	Horizontal	-31.47		
7522.50	H	-32.19		
10030.00	H	-38.69		
<b>Middle Channel</b>				
5070.00	Vertical	-35.69	-25.00	Pass
7605.00	V	-32.41		
10140.00	V	-38.29		
5070.00	Horizontal	-31.47		
7605.00	H	-32.16		
10140.00	H	-38.92		
<b>Highest Channel</b>				
5125.00	Vertical	-35.54	-25.00	Pass
7687.50	V	-32.91		
10250.00	V	-38.62		
5125.00	Horizontal	-31.84		
7687.50	H	-32.69		
10250.00	H	-38.17		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

LTE Band 7, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
<b>Lowest Channel</b>				
5020.00	Vertical	-35.74	-25.00	Pass
7530.00	V	-32.16		
10040.00	V	-38.62		
5020.00	Horizontal	-31.49		
7530.00	H	-32.72		
10040.00	H	-38.16		
<b>Middle Channel</b>				
5070.00	Vertical	-35.85	-25.00	Pass
7605.00	V	-32.47		
10140.00	V	-38.16		
5070.00	Horizontal	-31.36		
7605.00	H	-32.84		
10140.00	H	-38.61		
<b>Highest Channel</b>				
5120.00	Vertical	-35.92	-25.00	Pass
7680.00	V	-38.47		
10240.00	V	-31.53		
5120.00	Horizontal	-31.85		
7680.00	H	-32.74		
10240.00	H	-38.16		
<p><i>Note:</i></p> <ol style="list-style-type: none"> <li><i>The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.</i></li> <li><i>For above 1 GHz, all test modes were performed, and just the worst case shown in the report.</i></li> </ol>				

## 6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)
Test Method:	ANSI/TIA-603-D 2010
Limit:	±2.5ppm for band 5 within authorized band for band 2 and 4 and 7
Test setup:	
Test procedure:	<ol style="list-style-type: none"> <li>1. The equipment under test was connected to an external DC power supply and input rated voltage.</li> <li>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</li> <li>3. The EUT was placed inside the temperature chamber.</li> <li>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</li> <li>5. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol>
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 2 part:**

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
<b>QPSK</b>					
3.80	-30	194	0.103191	within authorized band	Pass
	-20	155	0.082447		
	-10	163	0.086702		
	0	123	0.065426		
	10	188	0.100000		
	20	130	0.069149		
	30	114	0.060638		
	40	105	0.055851		
	50	151	0.080319		
<b>16QAM</b>					
3.80	-30	123	0.065426	within authorized band	Pass
	-20	150	0.079787		
	-10	165	0.087766		
	0	122	0.064894		
	10	144	0.076596		
	20	140	0.074468		
	30	156	0.082979		
	40	137	0.072872		
	50	133	0.070745		
<i>Note: Only the worst case shown in the report.</i>					

**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		
<b>QPSK</b>					
3.80	-30	196	0.113131	within authorized band	Pass
	-20	155	0.089466		
	-10	163	0.094084		
	0	123	0.070996		
	10	185	0.106782		
	20	174	0.100433		
	30	114	0.065801		
	40	105	0.060606		
	50	157	0.090620		
<b>16QAM</b>					
3.80	-30	127	0.073304	within authorized band	Pass
	-20	150	0.086580		
	-10	166	0.095815		
	0	121	0.069841		
	10	144	0.083117		
	20	145	0.083694		
	30	156	0.090043		
	40	133	0.076768		
	50	131	0.075613		

*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		
<b>QPSK</b>					
3.80	-30	198	0.236701	±2.5	Pass
	-20	155	0.185296		
	-10	163	0.194860		
	0	123	0.147041		
	10	188	0.224746		
	20	174	0.208010		
	30	114	0.136282		
	40	105	0.125523		
	50	150	0.179319		
<b>16QAM</b>					
3.80	-30	166	0.198446	±2.5	Pass
	-20	150	0.179319		
	-10	134	0.160191		
	0	122	0.145846		
	10	144	0.172146		
	20	140	0.167364		
	30	156	0.186491		
	40	133	0.158996		
	50	138	0.164973		

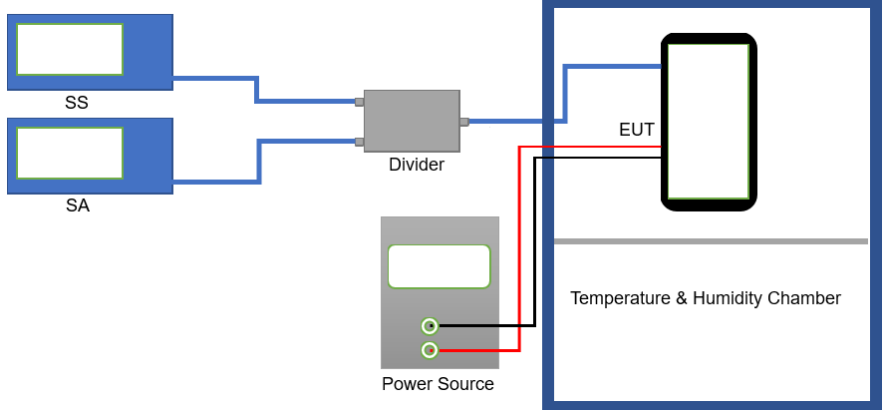
*Note: Only the worst case shown in the report.*

**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		
<b>QPSK</b>					
3.80	-30	198	0.078107	within authorized band	Pass
	-20	155	0.061144		
	-10	163	0.064300		
	0	123	0.048521		
	10	188	0.074162		
	20	174	0.068639		
	30	114	0.044970		
	40	105	0.041420		
	50	150	0.059172		
<b>16QAM</b>					
3.80	-30	167	0.065878	within authorized band	Pass
	-20	150	0.059172		
	-10	166	0.065483		
	0	122	0.048126		
	10	144	0.056805		
	20	140	0.055227		
	30	156	0.061538		
	40	133	0.052465		
	50	138	0.054438		

*Note: Only the worst case shown in the report.*

## 6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 24.235, 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 band 2 and 4 and 7
Test setup:	 <p>The diagram illustrates the test setup. On the left, a Spectrum Analyzer (SA) and a Signal Source (SS) are connected to a central Divider. The Divider is connected to an Equipment Under Test (EUT) located inside a Temperature &amp; Humidity Chamber. A Power Source is also connected to the EUT. The SA and SS are represented by blue boxes, the Divider is a grey box, and the Power Source is a grey box with two green terminals. The EUT is a black rectangle inside a blue-bordered box representing the chamber.</p>
Test procedure:	<ol style="list-style-type: none"> <li>1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</li> <li>2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</li> <li>3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</li> </ol>
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 2 part:**

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	96	0.051064	within authorized band	Pass
	3.80	74	0.039362		
	3.50	86	0.045745		
16QAM					
25	4.35	83	0.044149	within authorized band	Pass
	3.80	60	0.031915		
	3.50	74	0.039362		

*Note: Only the worst case shown in the report.*

**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	4.35	96	0.055411	within authorized band	Pass
	3.80	80	0.046176		
	3.50	74	0.042713		
16QAM					
25	4.35	78	0.045022	within authorized band	Pass
	3.80	80	0.046176		
	3.50	90	0.051948		

*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 (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	98	0.117155	±2.5	Pass
	3.80	65	0.077705		
	3.50	74	0.088464		
16QAM					
25	4.35	80	0.095637	±2.5	Pass
	3.80	96	0.114764		
	3.50	48	0.057382		

*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	98	0.038659	within authorized band	Pass
	3.80	65	0.025641		
	3.50	74	0.029191		
16QAM					
25	4.35	96	0.037870	within authorized band	Pass
	3.80	80	0.031558		
	3.50	48	0.018935		

*Note: Only the worst case shown in the report.*