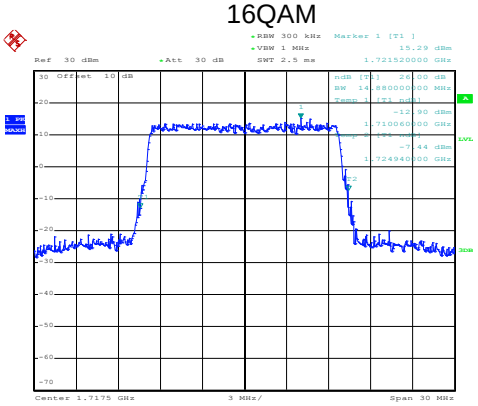
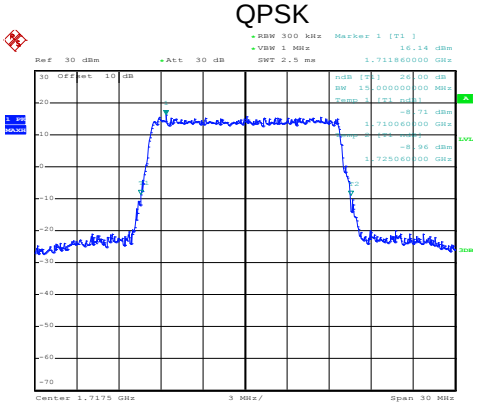
LTE Band 4: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 19.SEP.2019 18:59:25

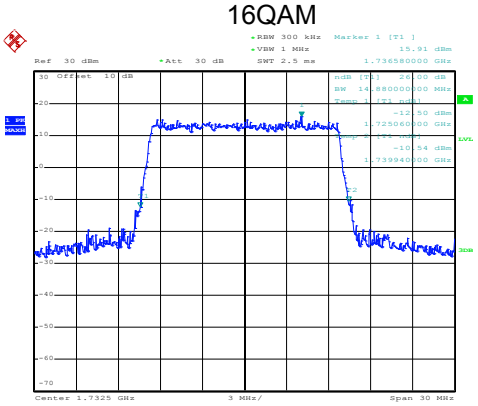
QPSK



Date: 19.SEP.2019 18:59:21

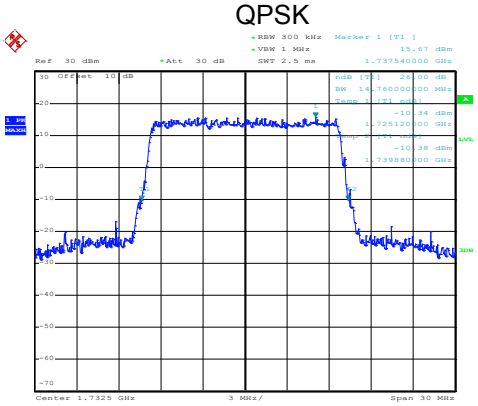
Lowest channel

16QAM



Date: 19.SEP.2019 18:59:39

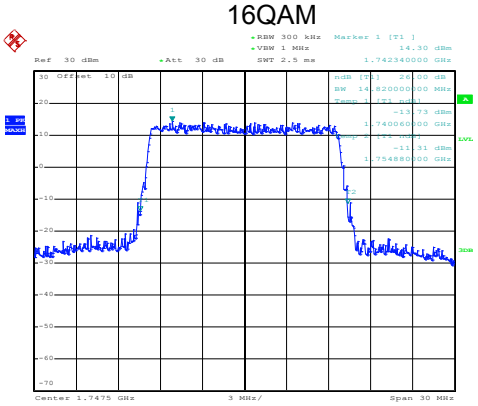
QPSK



Date: 19.SEP.2019 18:59:34

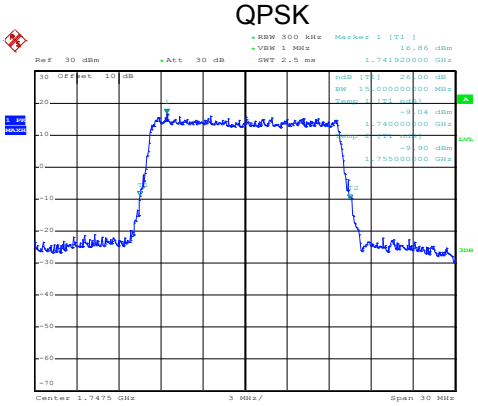
Middle channel

16QAM



Date: 19.SEP.2019 19:00:28

QPSK

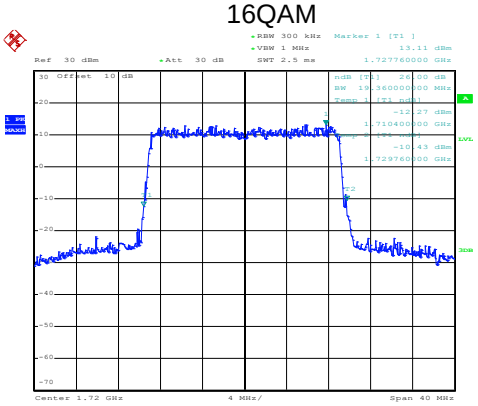


Date: 19.SEP.2019 19:00:25

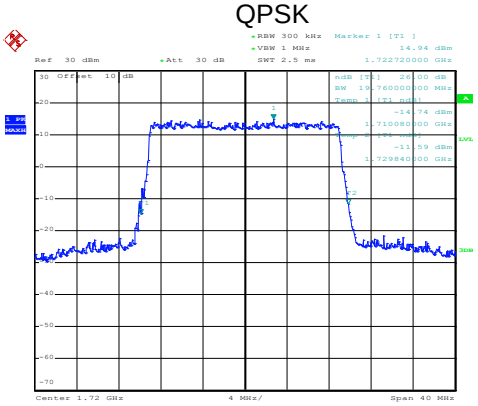
Highest channel

LTE Band 4: -26dBc bandwidth
BW: 20MHz

16QAM

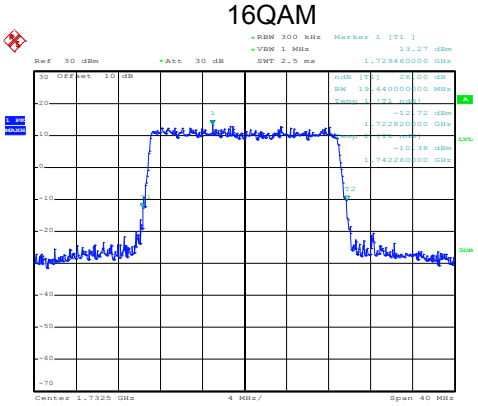


QPSK

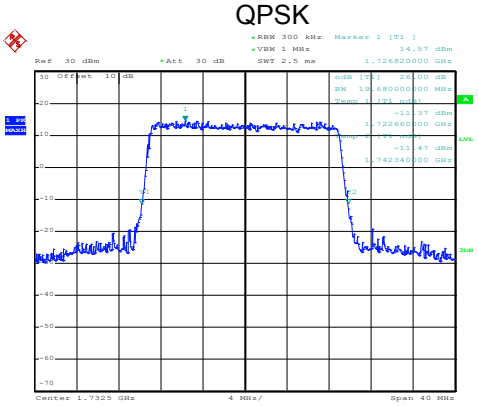


Lowest channel

16QAM

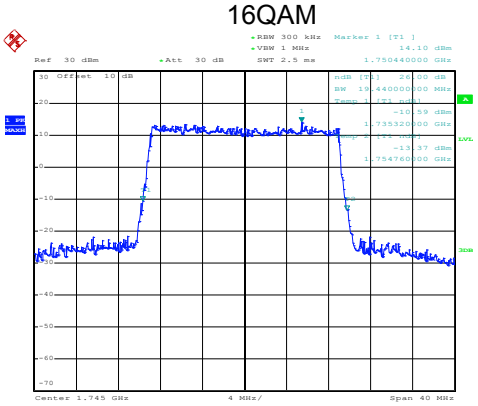


QPSK

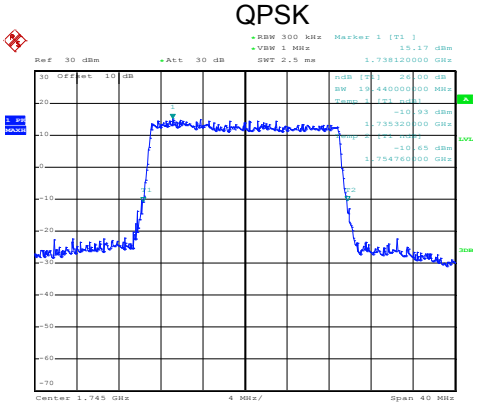


Middle channel

16QAM

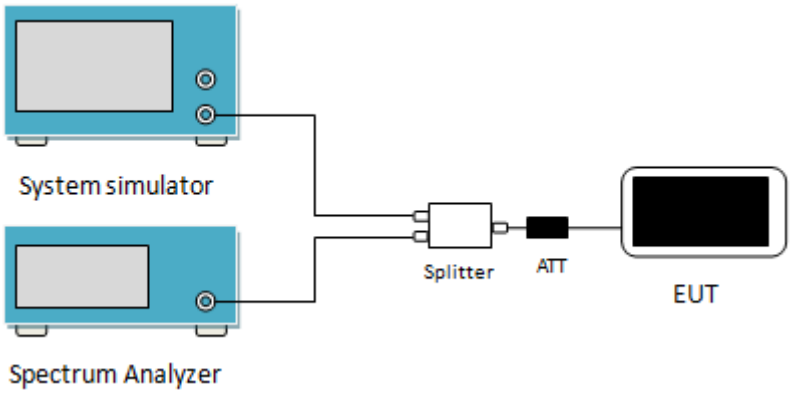


QPSK



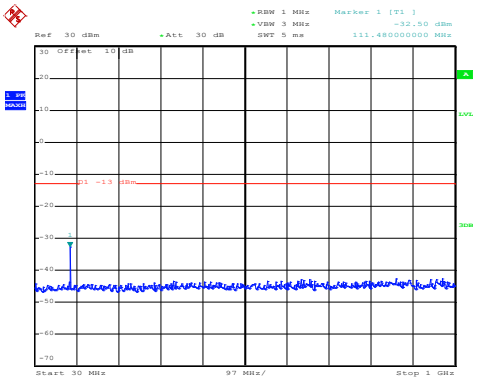
Highest channel

6.4 Out of band emission at antenna terminals

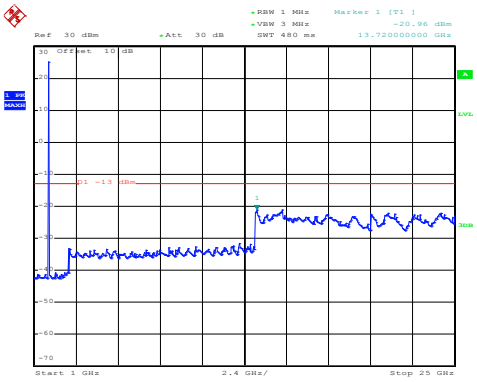
Test Requirement:	Part 22.917(b), Part 24.238 (a), part 27.53(g), part 27.53(h), Part 27.53(m)
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm). LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.
Test Setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 The resolution bandwidth of the spectrum analyzer was set at 100 kHz when below 1GHz, 1MHz when above 1 GHz; sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic. 3 For the out of band: Set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic. 4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	Pre-scan all RB Size and offset, and found the RB Size and offset of worst case, so the report shows only the worst case test data.

Test plots as follows (Conducted spurious emission) (worst case):
LTE Band 2 part:

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

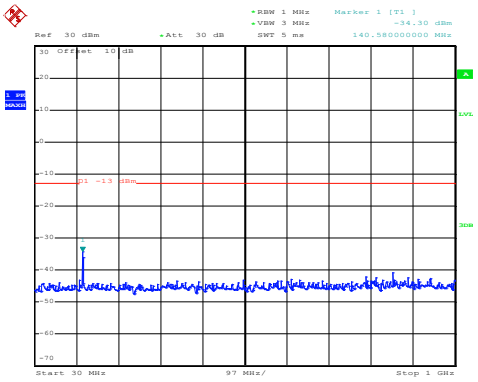


30MHz~1GHz

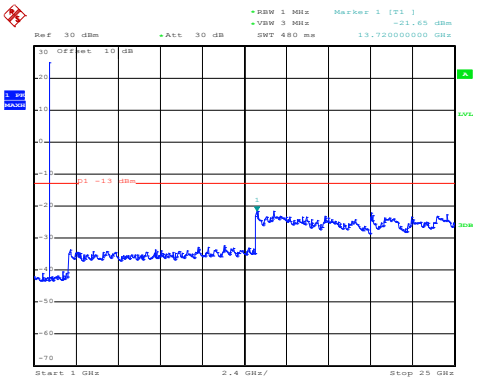


1GHz~25GHz

Middle channel

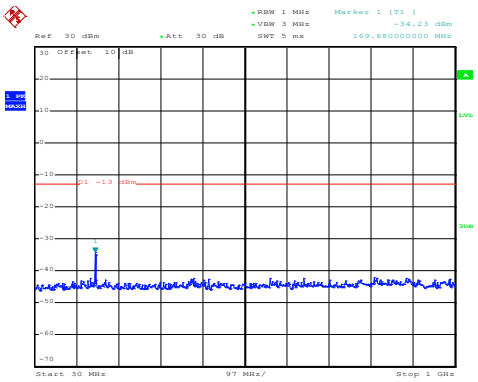


30MHz~1GHz

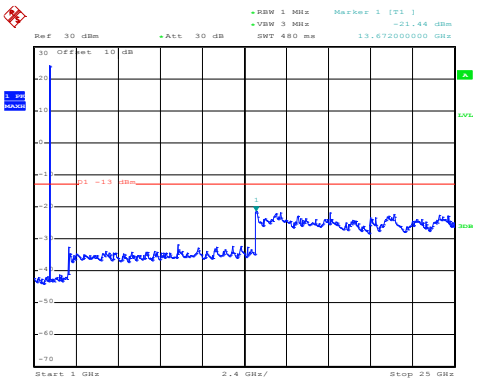


1GHz~25GHz

High channel

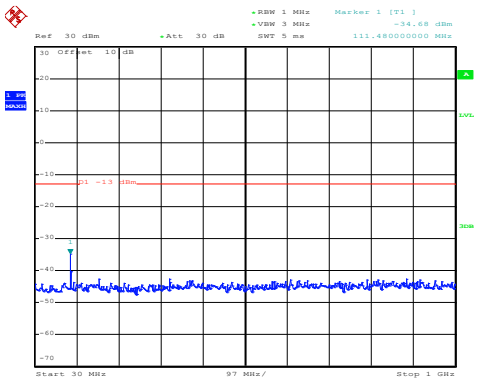


30MHz~1GHz

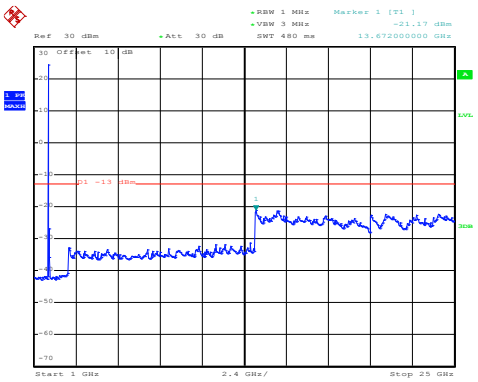


1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 6
BW: 1.4MHz
Lowest channel

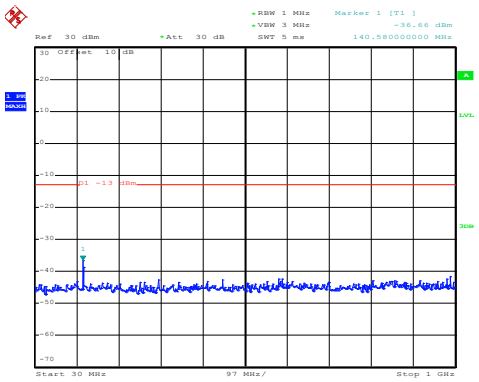


30MHz~1GHz

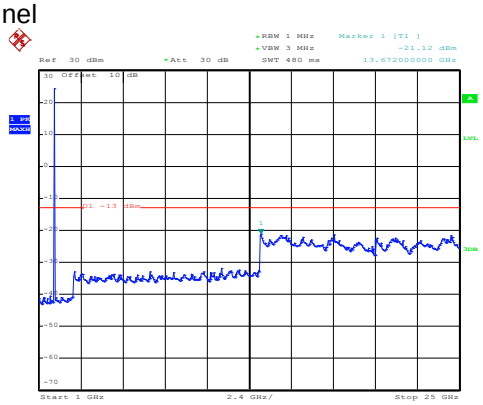


1GHz~25GHz

Middle channel

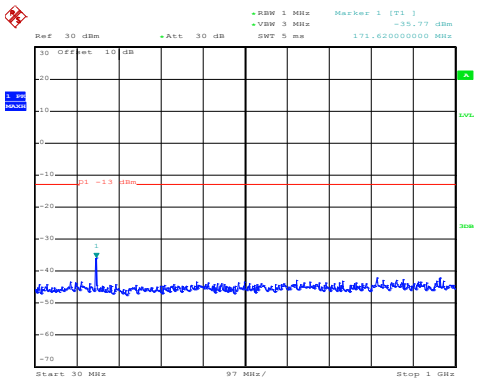


30MHz~1GHz

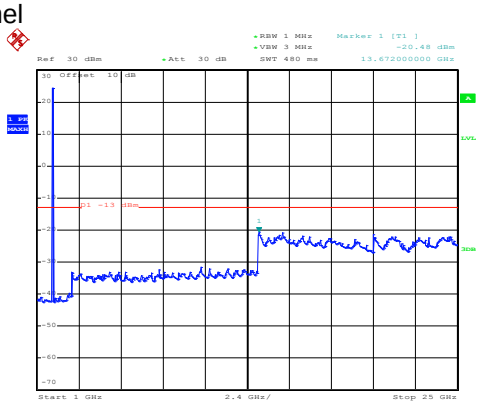


1GHz~25GHz

High channel

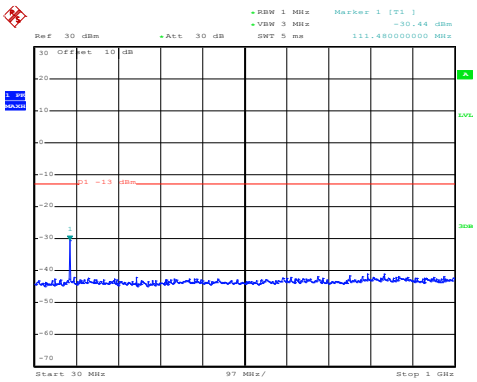


30MHz~1GHz



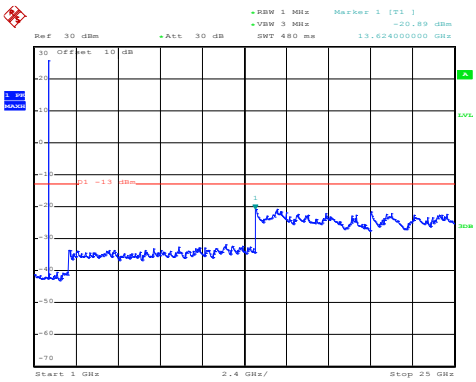
1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 1.4MHz
Lowest channel



Date: 19.SEP.2019 19:37:50

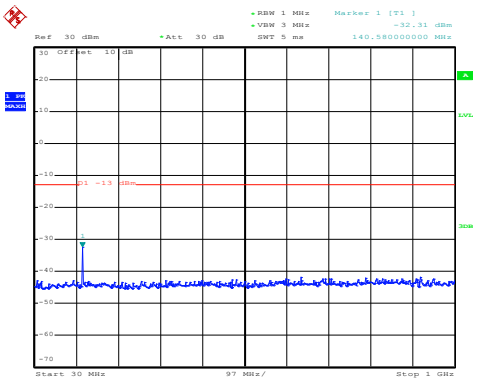
30MHz~1GHz



Date: 19.SEP.2019 20:06:39

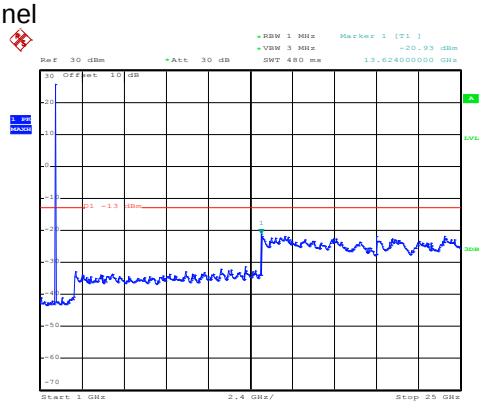
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:38:48

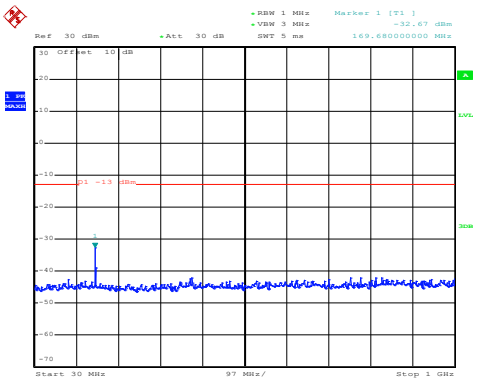
30MHz~1GHz



Date: 19.SEP.2019 20:08:09

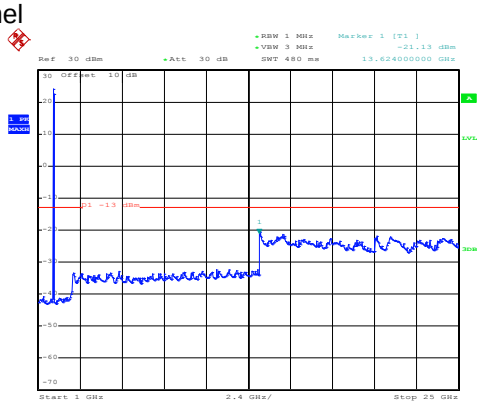
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:39:07

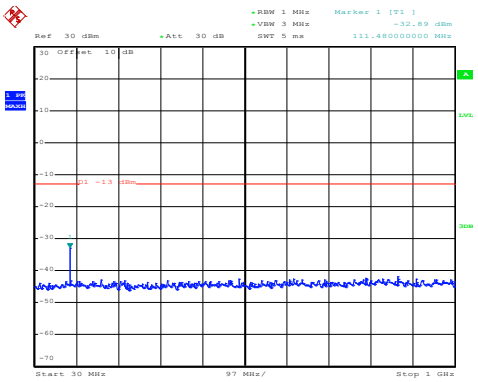
30MHz~1GHz



Date: 19.SEP.2019 20:08:36

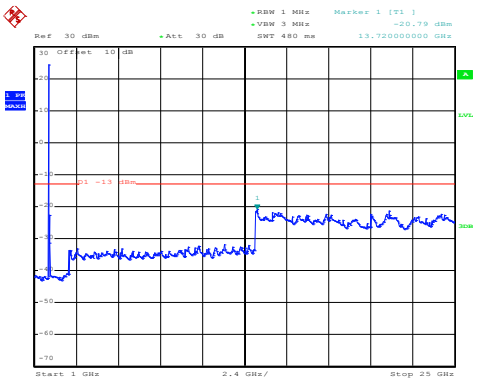
1GHz~25GHz

LTE Band 2: QPSK & RB Size 6
BW: 1.4MHz
Lowest channel



Date: 19.SEP.2019 19:38:08

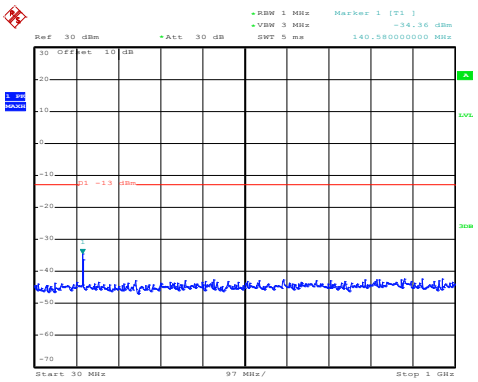
30MHz~1GHz



Date: 19.SEP.2019 20:07:14

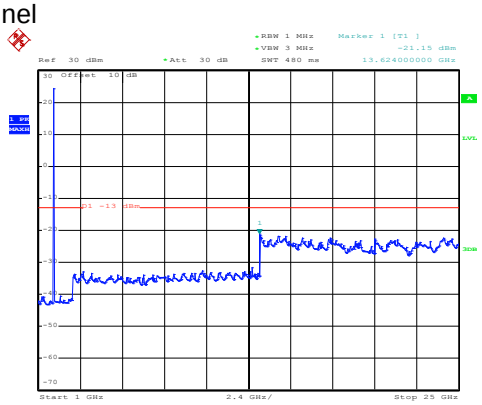
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:38:29

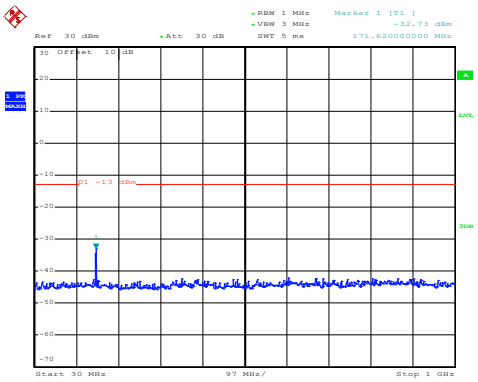
30MHz~1GHz



Date: 19.SEP.2019 20:07:40

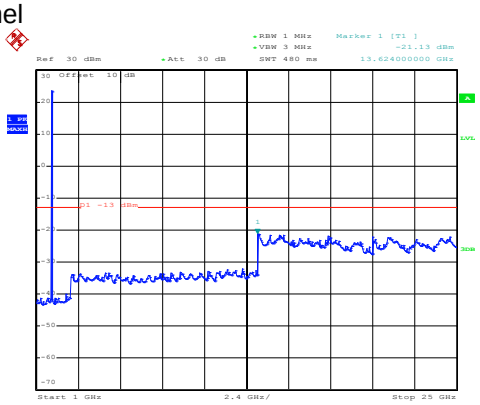
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:39:24

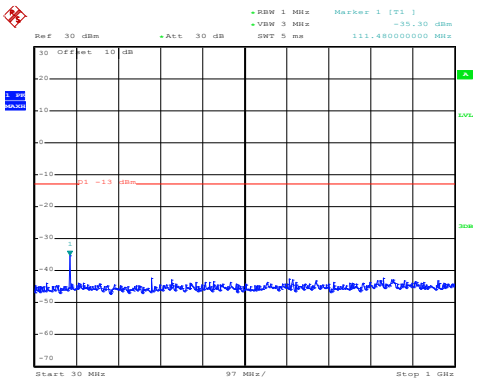
30MHz~1GHz



Date: 19.SEP.2019 20:09:01

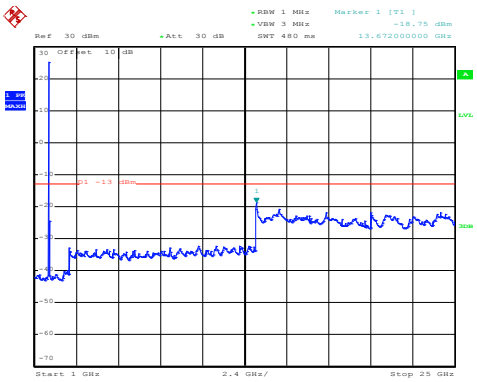
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 1
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 19:39:58

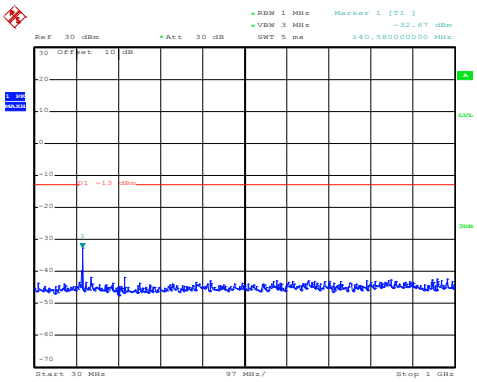
30MHz~1GHz



Date: 19.SEP.2019 20:03:58

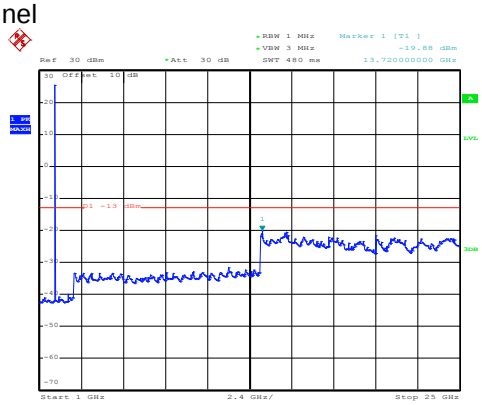
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:40:44

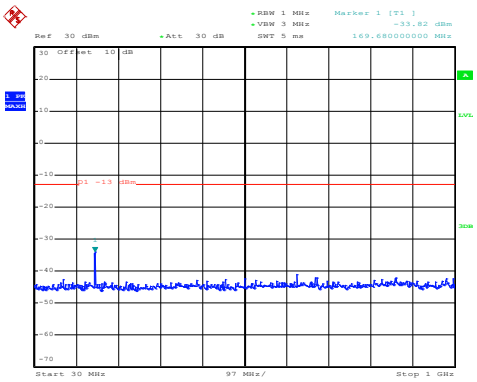
30MHz~1GHz



Date: 19.SEP.2019 20:05:26

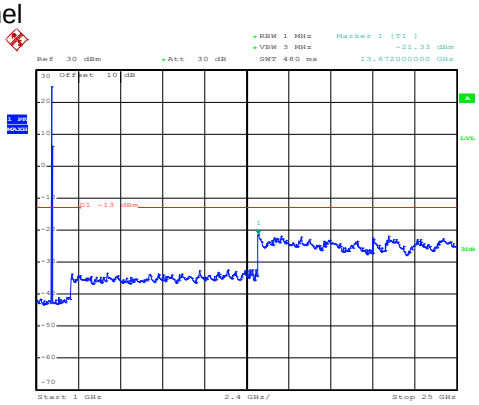
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:41:03

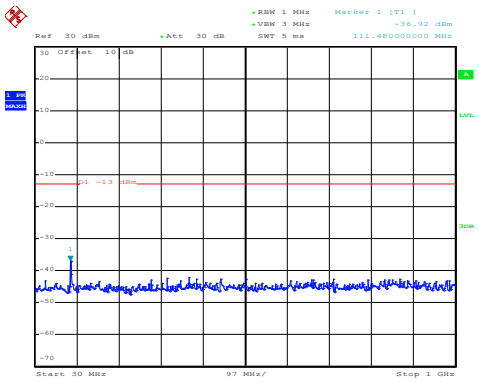
30MHz~1GHz



Date: 19.SEP.2019 20:05:54

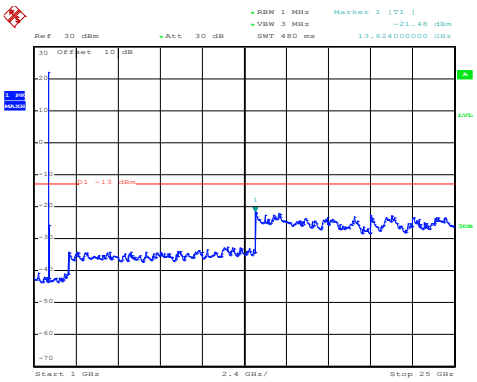
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 15
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 19:40:13

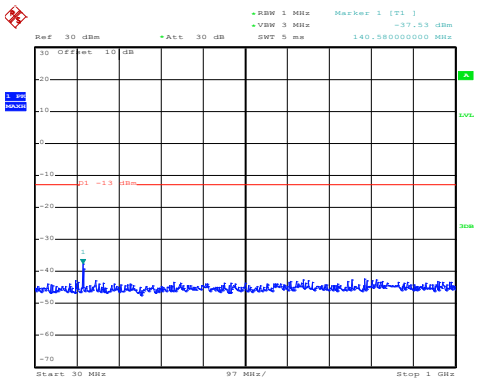
30MHz~1GHz



Date: 19.SEP.2019 20:04:17

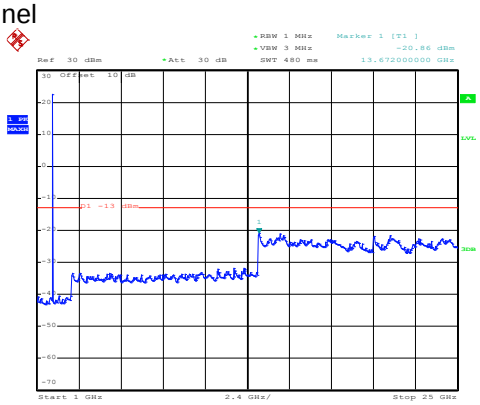
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:40:32

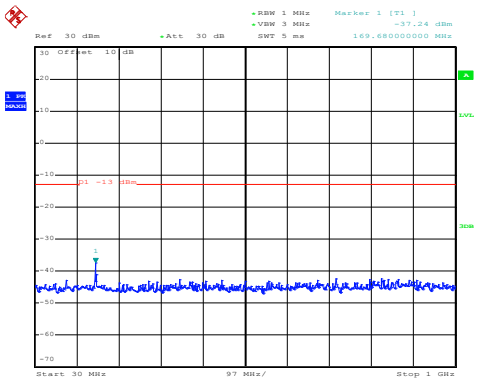
30MHz~1GHz



Date: 19.SEP.2019 20:04:50

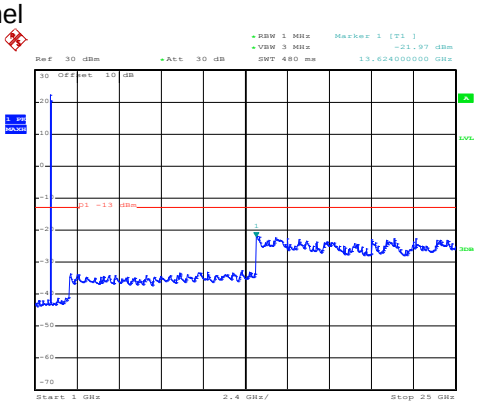
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:41:16

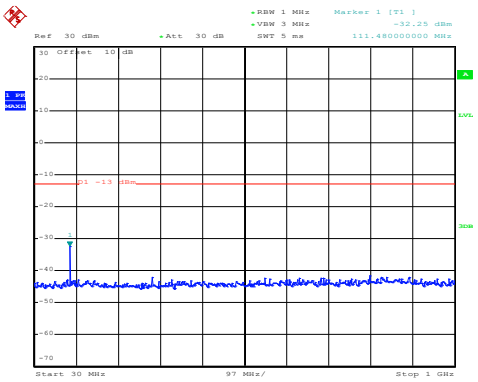
30MHz~1GHz



Date: 19.SEP.2019 20:06:11

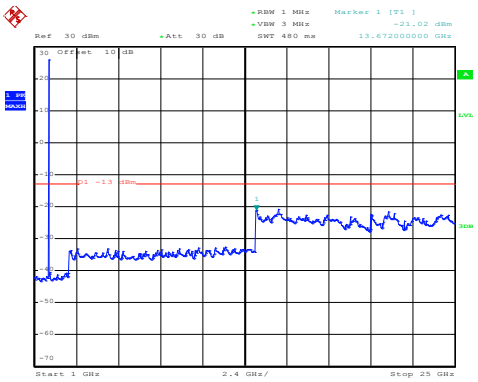
1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 19:39:53

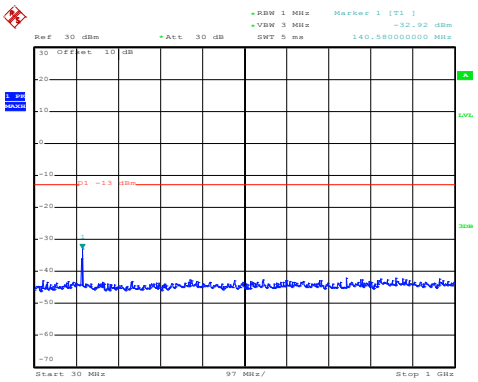
30MHz~1GHz



Date: 19.SEP.2019 20:03:35

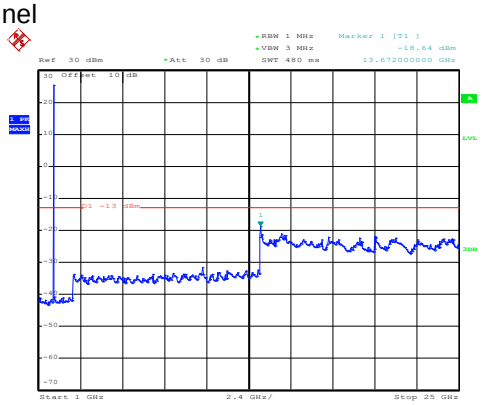
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:40:40

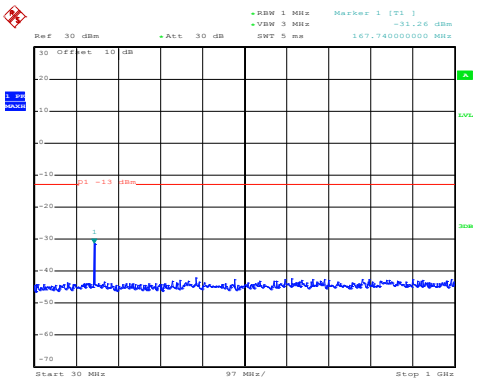
30MHz~1GHz



Date: 19.SEP.2019 20:05:05

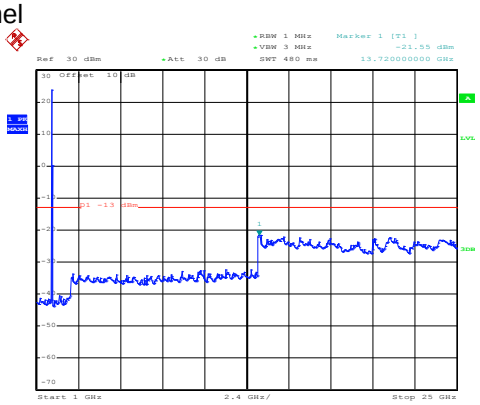
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:40:56

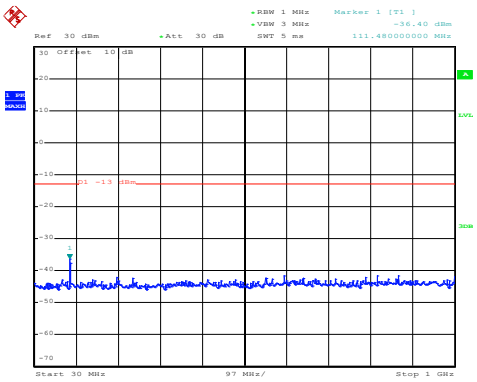
30MHz~1GHz



Date: 19.SEP.2019 20:05:39

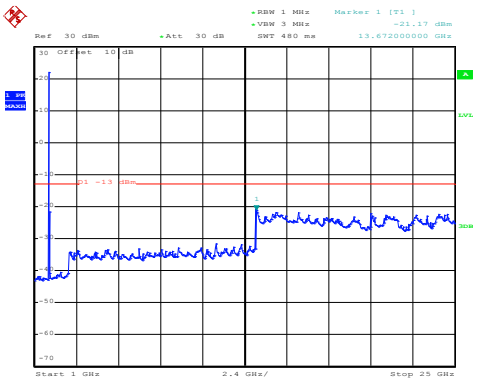
1GHz~25GHz

LTE Band 2: QPSK & RB Size 15
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 19:40:07

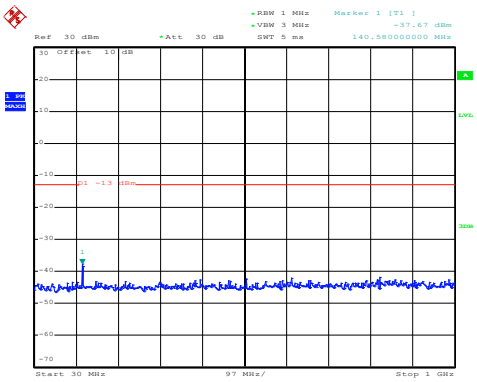
30MHz~1GHz



Date: 19.SEP.2019 20:04:10

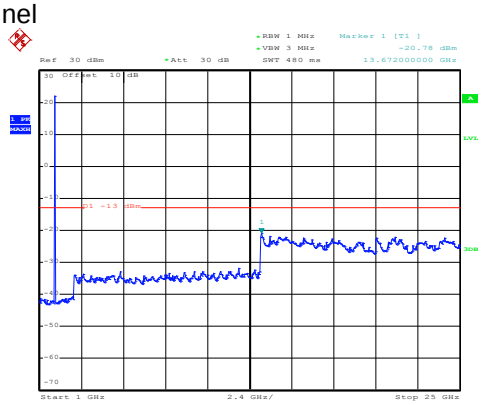
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:40:28

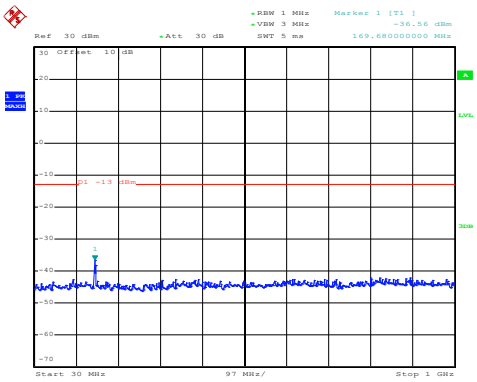
30MHz~1GHz



Date: 19.SEP.2019 20:04:34

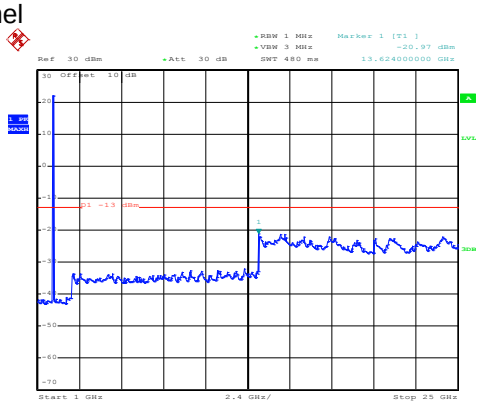
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:41:11

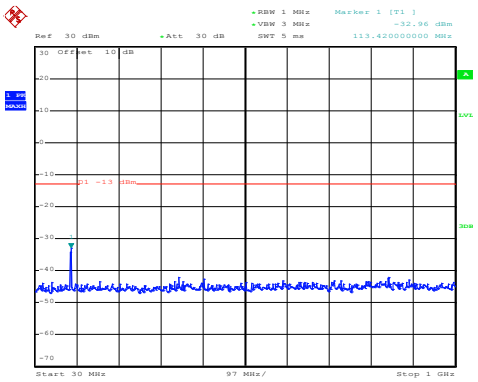
30MHz~1GHz



Date: 19.SEP.2019 20:06:04

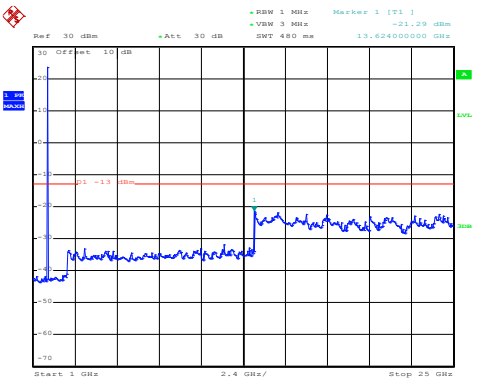
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 1
BW: 5MHz
Lowest channel



Date: 19.SEP.2019 19:41:51

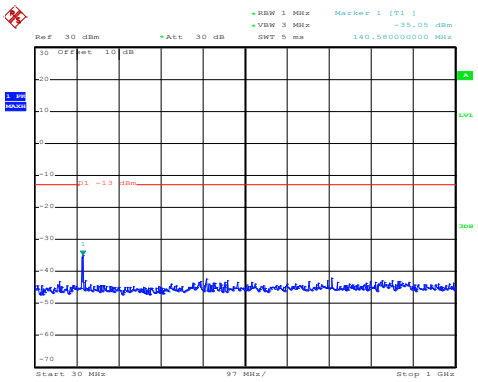
30MHz~1GHz



Date: 19.SEP.2019 20:01:08

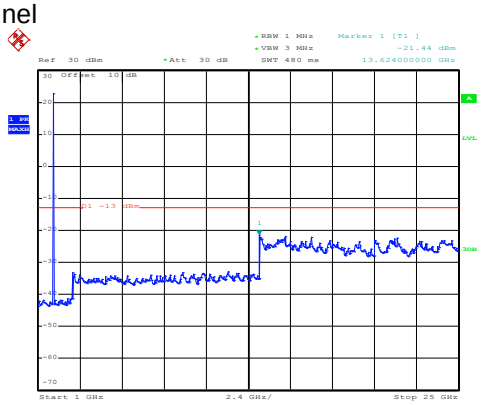
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:42:34

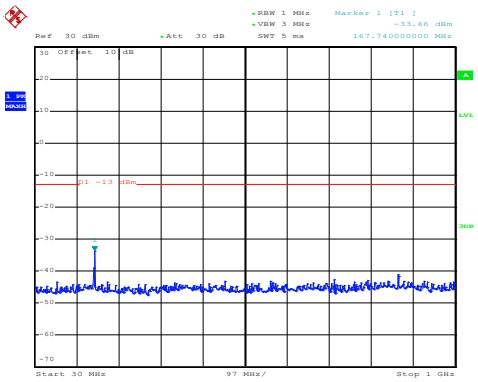
30MHz~1GHz



Date: 19.SEP.2019 20:02:04

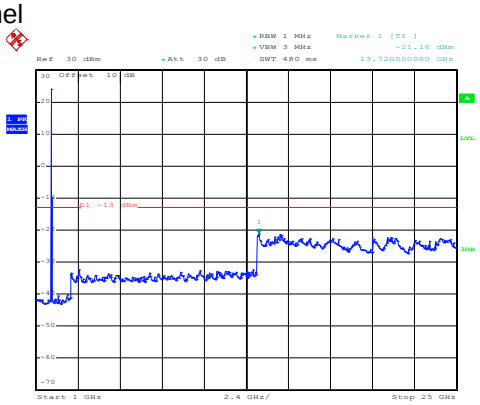
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:42:47

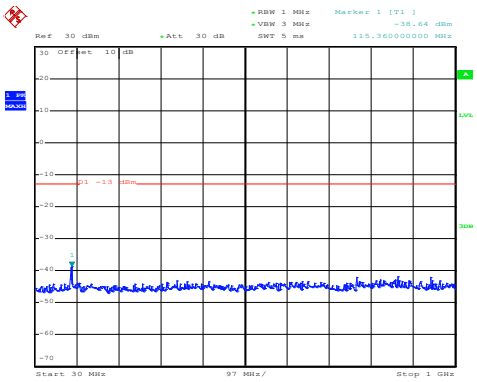
30MHz~1GHz



Date: 19.SEP.2019 20:02:41

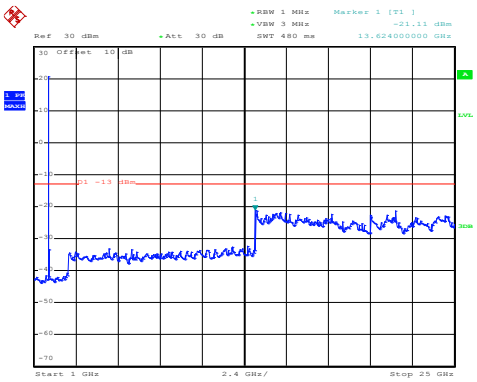
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 25
BW: 5MHz
Lowest channel



Date: 19.SEP.2019 19:42:06

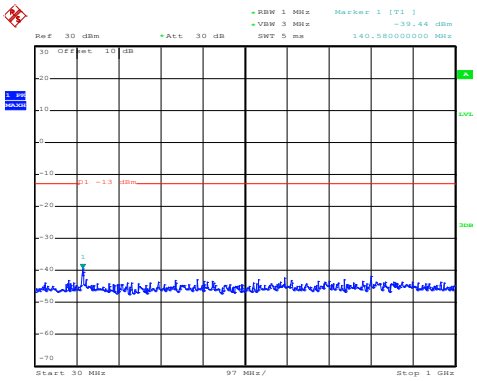
30MHz~1GHz



Date: 19.SEP.2019 20:01:26

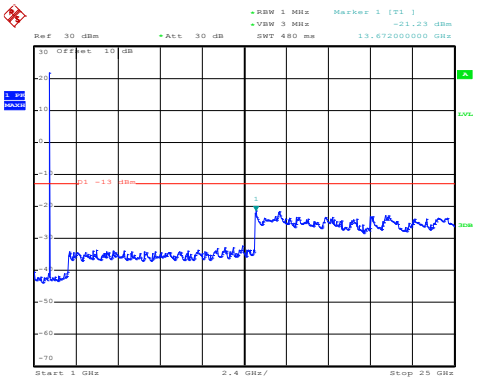
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:42:19

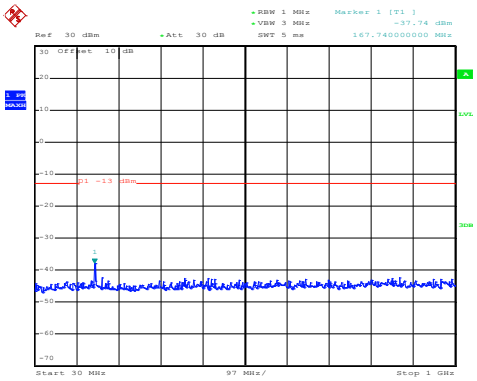
30MHz~1GHz



Date: 19.SEP.2019 20:01:46

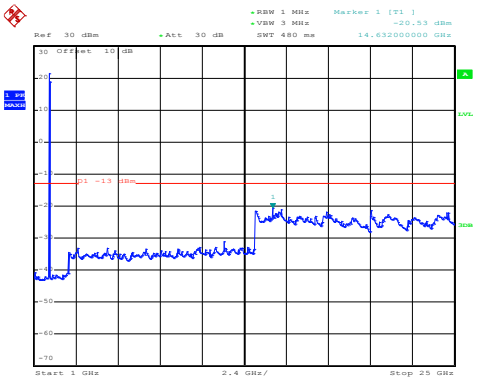
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:43:01

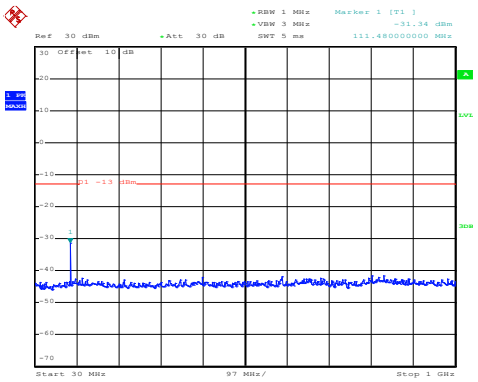
30MHz~1GHz



Date: 19.SEP.2019 20:03:05

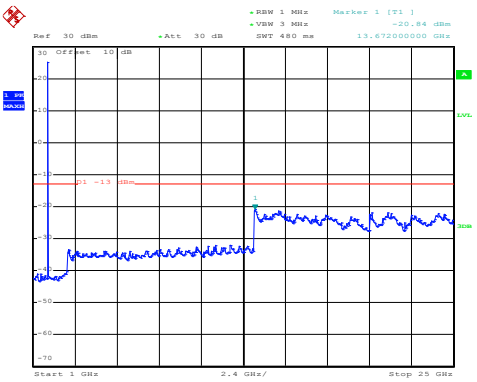
1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 5MHz
Lowest channel



Date: 19.SEP.2019 19:41:46

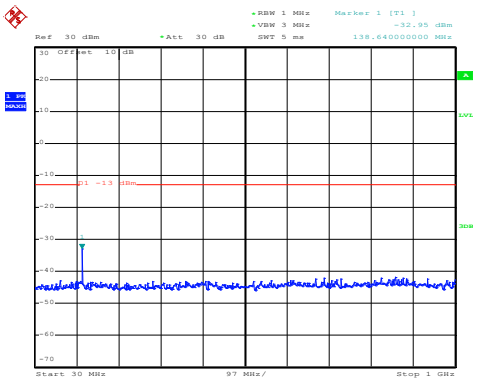
30MHz~1GHz



Date: 19.SEP.2019 20:01:01

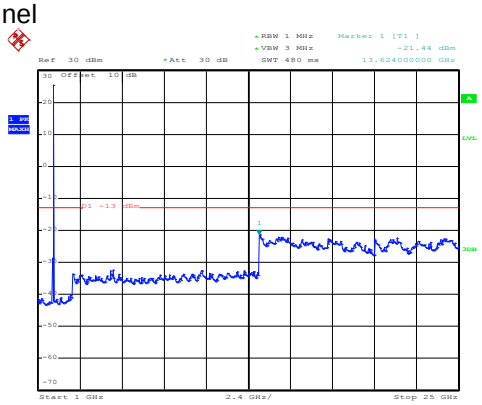
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:42:29

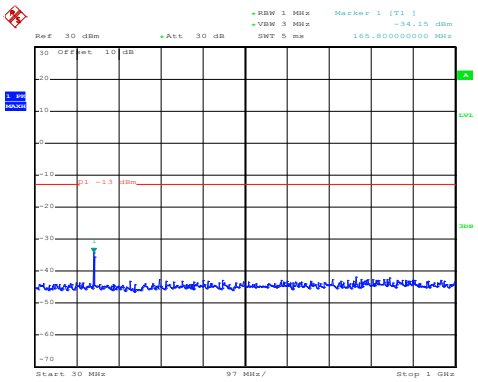
30MHz~1GHz



Date: 19.SEP.2019 20:01:57

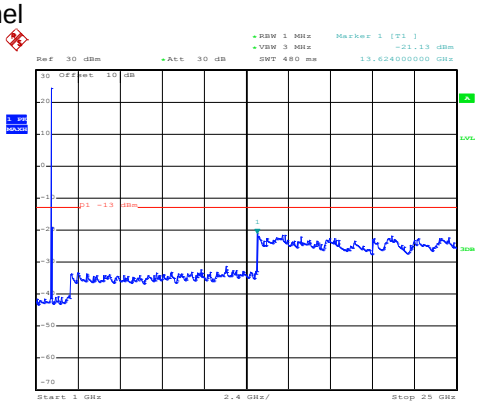
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:42:43

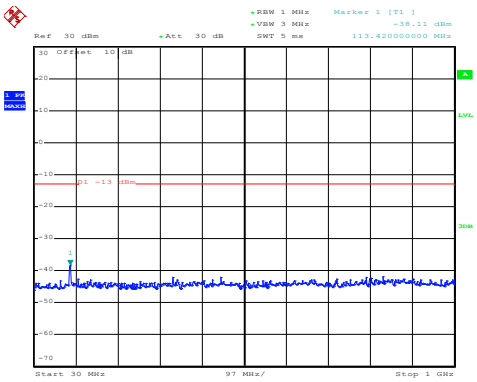
30MHz~1GHz



Date: 19.SEP.2019 20:02:21

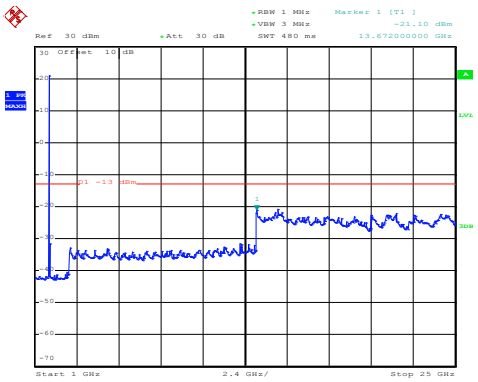
1GHz~25GHz

LTE Band 2: QPSK & RB Size 25
BW: 5MHz
Lowest channel



Date: 19.SEP.2019 19:42:00

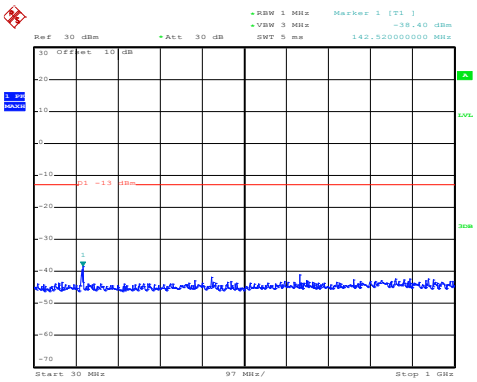
30MHz~1GHz



Date: 19.SEP.2019 20:01:19

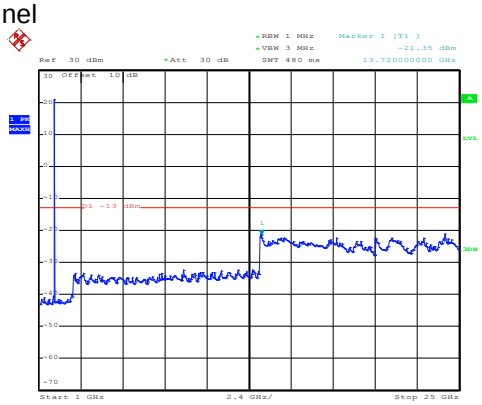
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:42:15

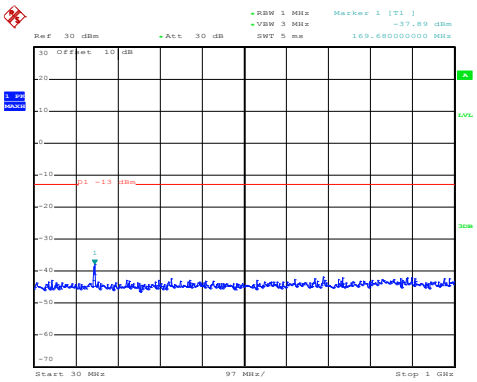
30MHz~1GHz



Date: 19.SEP.2019 20:01:39

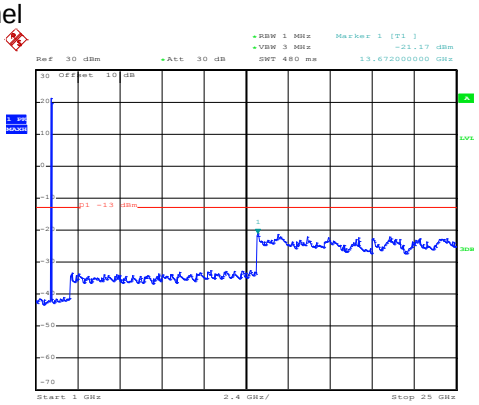
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:42:55

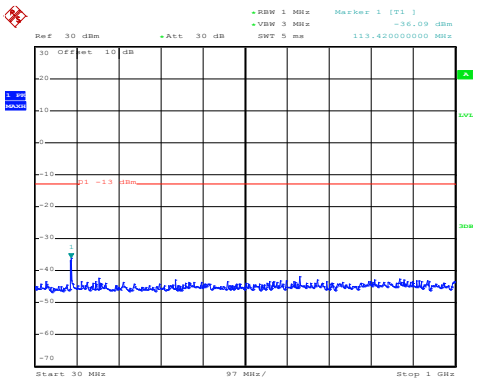
30MHz~1GHz



Date: 19.SEP.2019 20:02:54

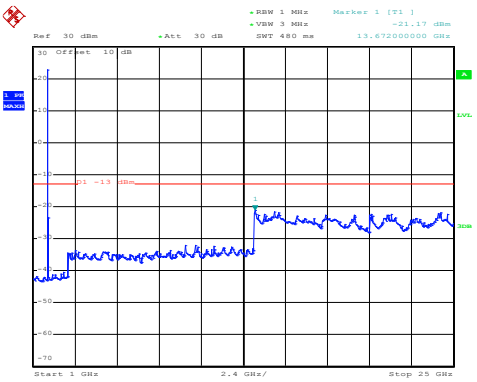
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 1
BW: 10MHz
Lowest channel



Date: 19.SEP.2019 19:43:30

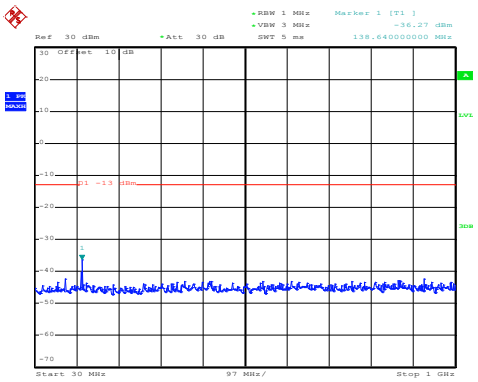
30MHz~1GHz



Date: 19.SEP.2019 19:58:34

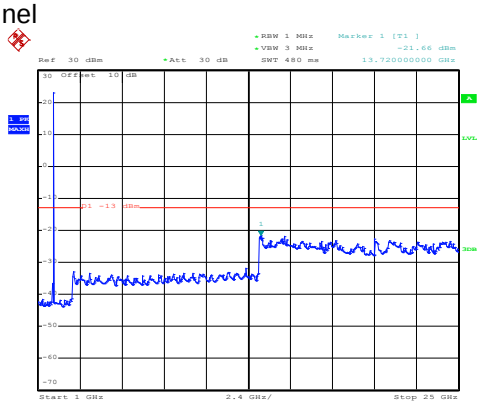
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:44:10

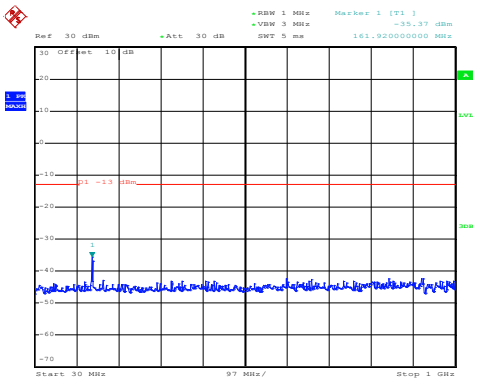
30MHz~1GHz



Date: 19.SEP.2019 19:59:39

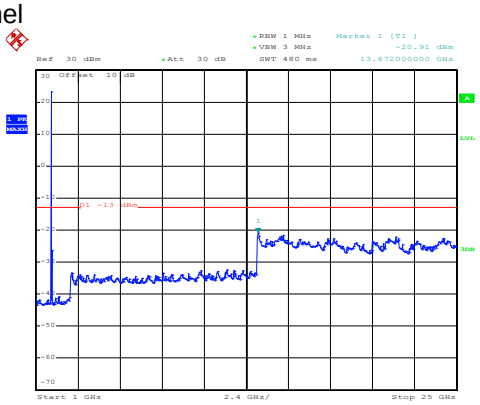
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:44:26

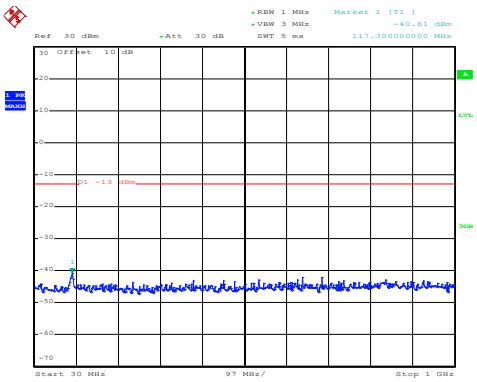
30MHz~1GHz



Date: 19.SEP.2019 20:00:03

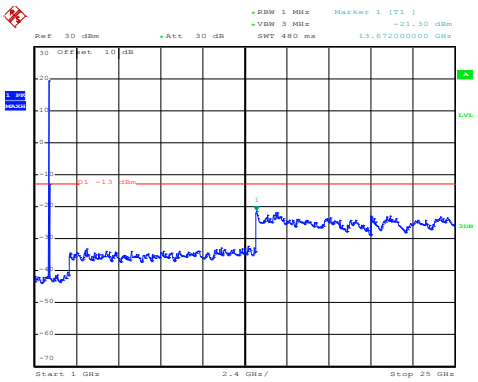
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 50
BW: 10MHz
Lowest channel



Date: 19.SEP.2019 19:43:43

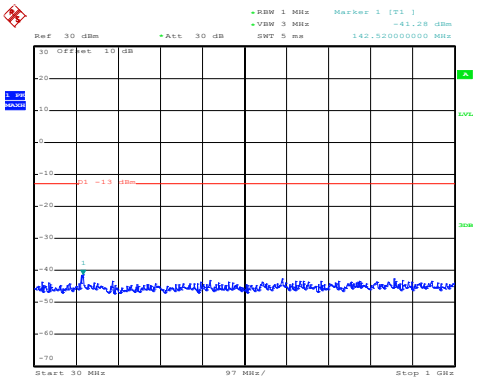
30MHz~1GHz



Date: 19.SEP.2019 19:58:54

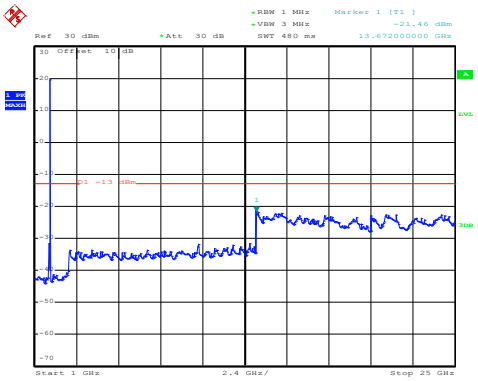
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:43:57

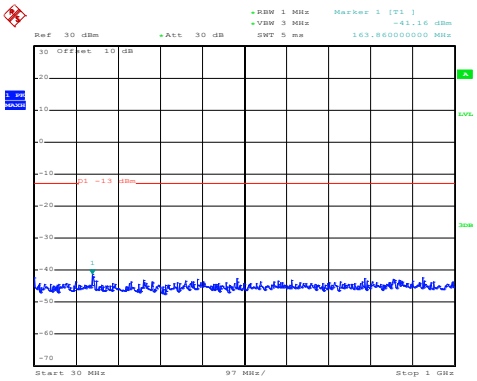
30MHz~1GHz



Date: 19.SEP.2019 19:59:13

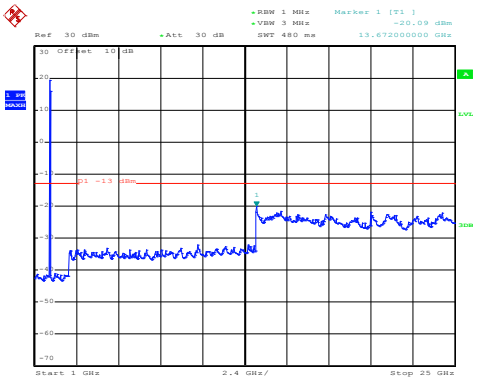
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:44:39

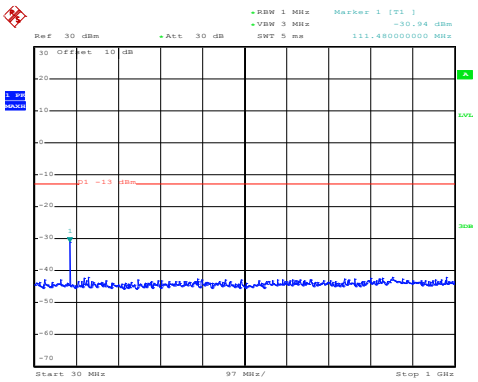
30MHz~1GHz



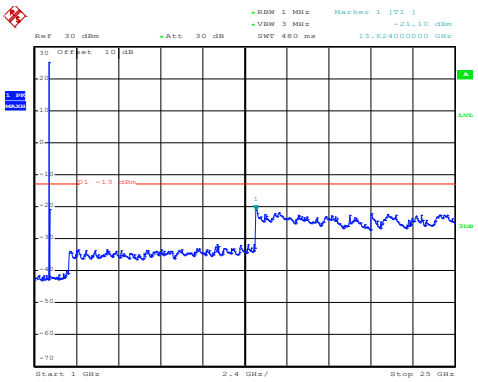
Date: 19.SEP.2019 20:00:34

1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 10MHz
Lowest channel

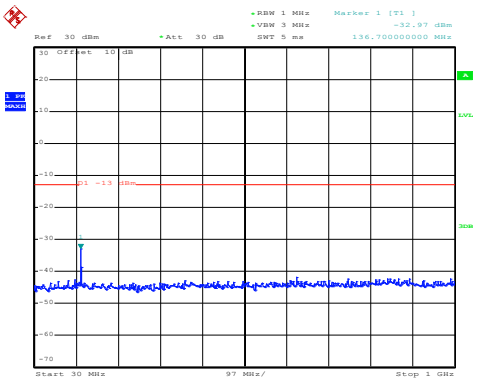


30MHz~1GHz

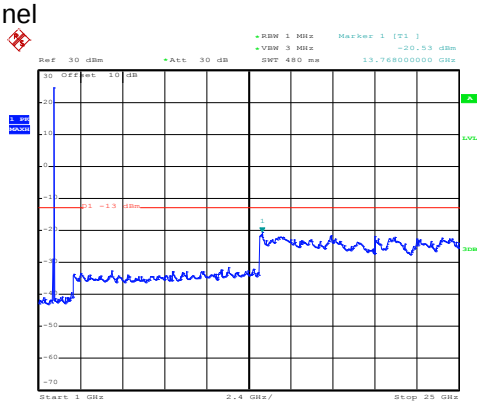


1GHz~25GHz

Middle channel

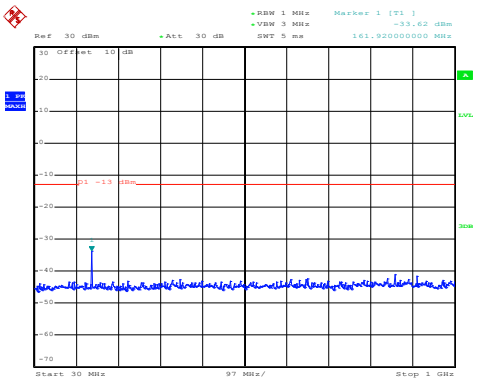


30MHz~1GHz

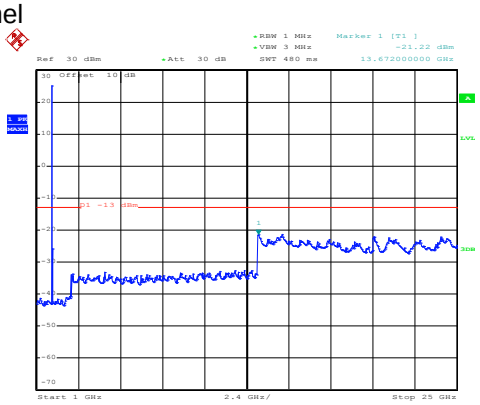


1GHz~25GHz

High channel

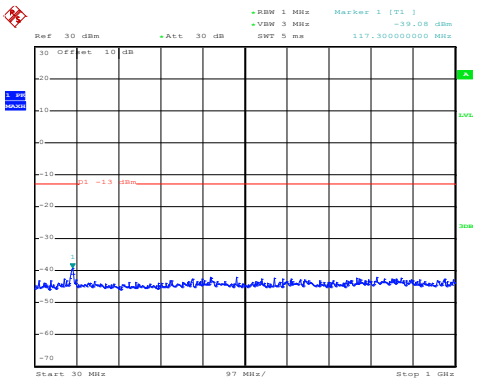


30MHz~1GHz



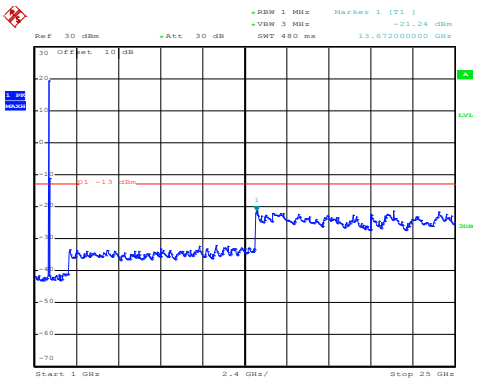
1GHz~25GHz

LTE Band 2: QPSK & RB Size 50
BW: 10MHz
Lowest channel



Date: 19.SEP.2019 19:43:39

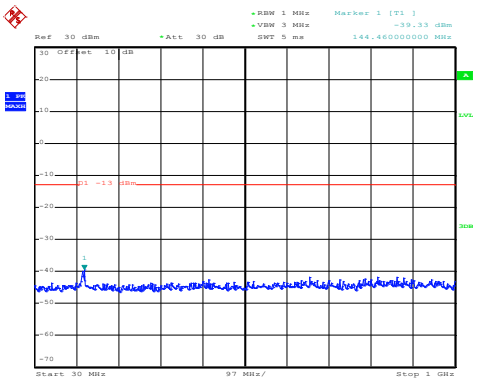
30MHz~1GHz



Date: 19.SEP.2019 19:58:47

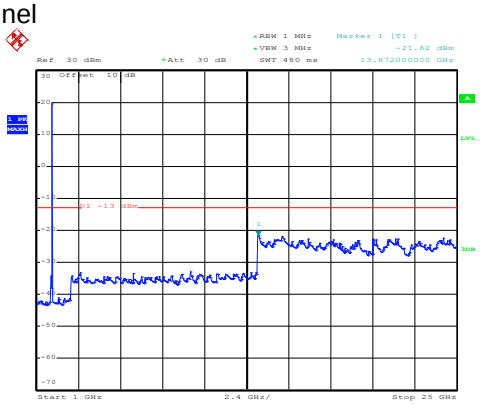
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:43:53

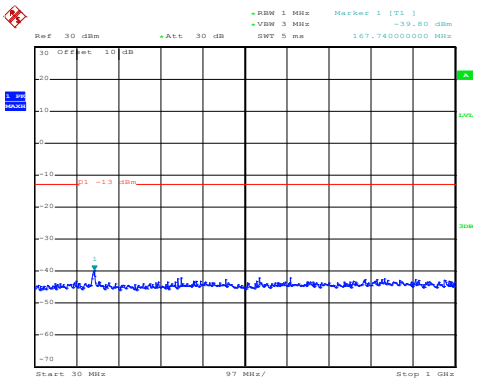
30MHz~1GHz



Date: 19.SEP.2019 19:59:04

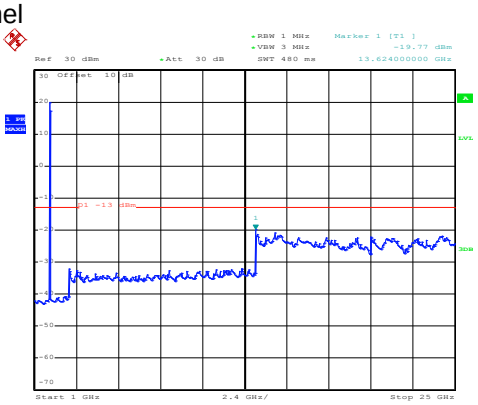
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:44:34

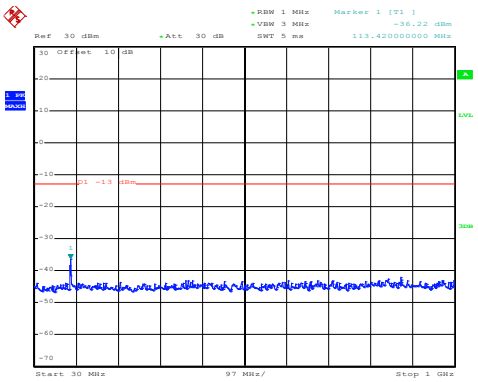
30MHz~1GHz



Date: 19.SEP.2019 20:00:23

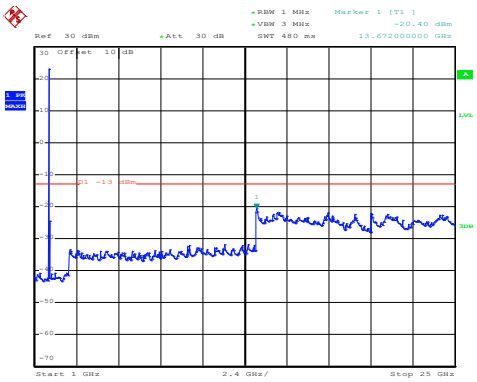
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 1
BW: 15MHz
Lowest channel



Date: 19.SEP.2019 19:48:50

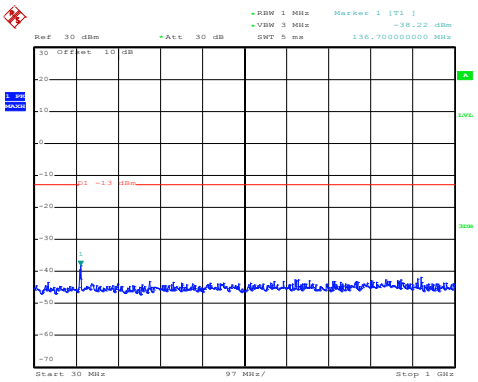
30MHz~1GHz



Date: 19.SEP.2019 19:56:10

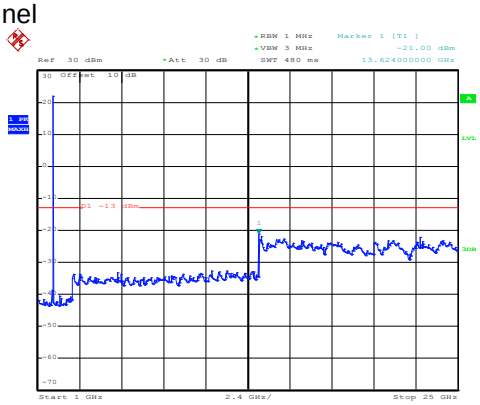
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:49:30

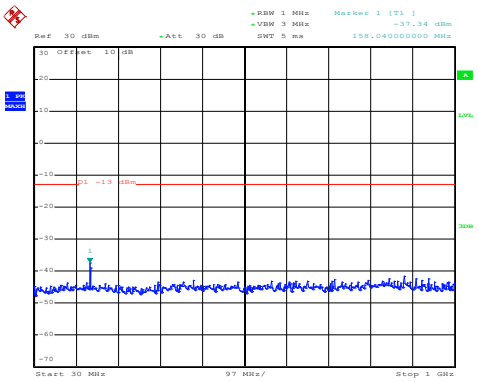
30MHz~1GHz



Date: 19.SEP.2019 19:57:17

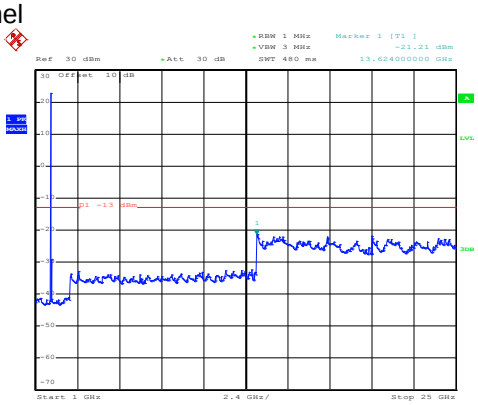
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:49:54

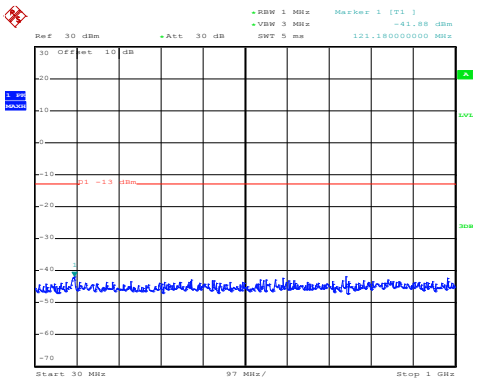
30MHz~1GHz



Date: 19.SEP.2019 19:57:38

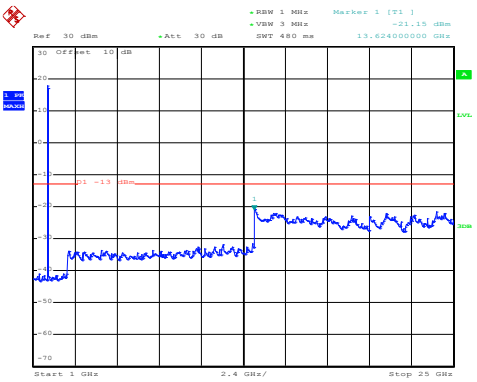
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 75
BW: 15MHz
Lowest channel



Date: 19.SEP.2019 19:49:03

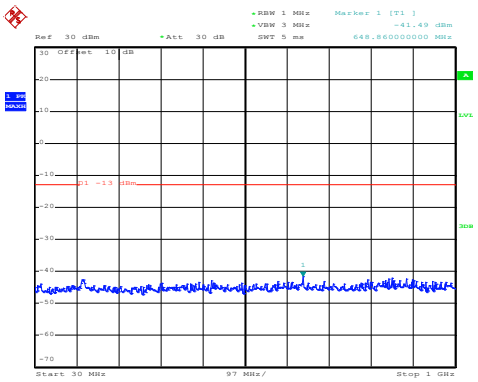
30MHz~1GHz



Date: 19.SEP.2019 19:56:34

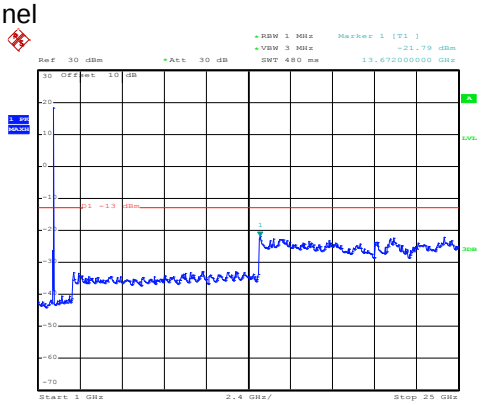
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:49:16

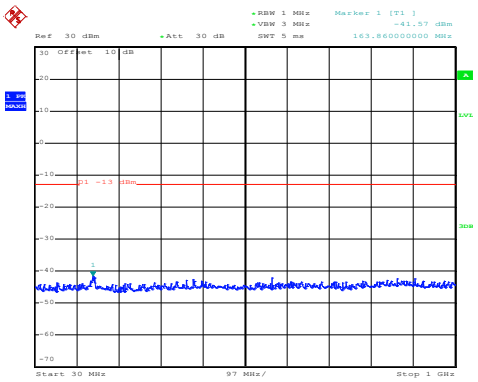
30MHz~1GHz



Date: 19.SEP.2019 19:56:52

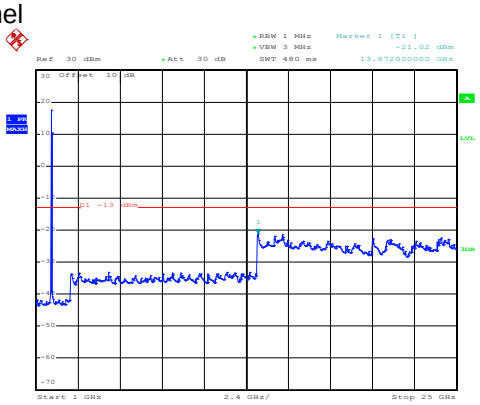
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:50:10

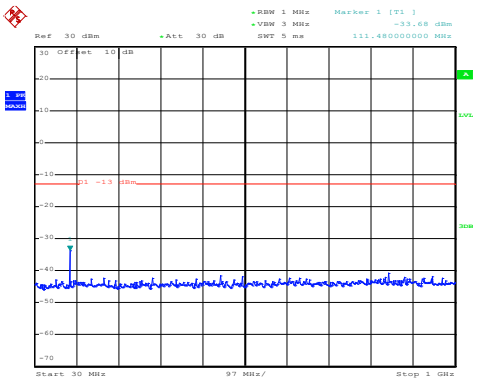
30MHz~1GHz



Date: 19.SEP.2019 19:57:55

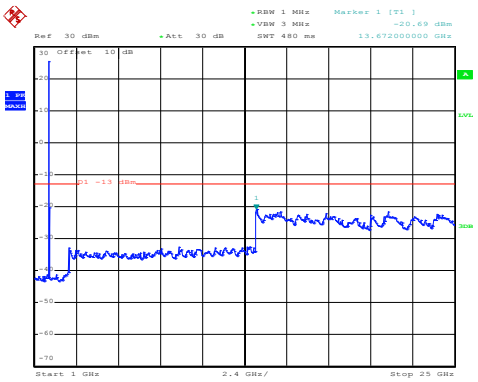
1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 15MHz
Lowest channel



Date: 19.SEP.2019 19:48:44

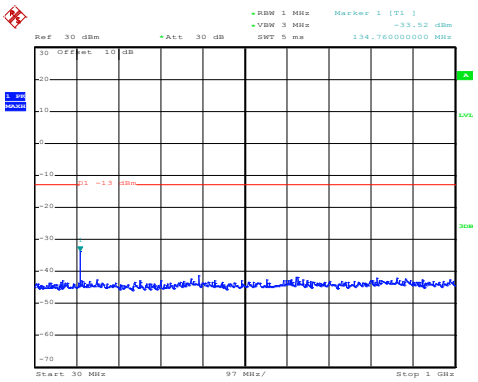
30MHz~1GHz



Date: 19.SEP.2019 19:55:59

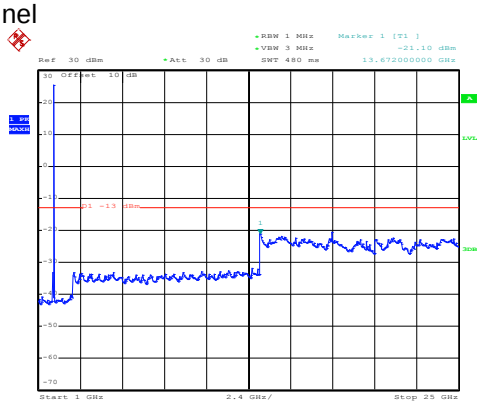
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:49:26

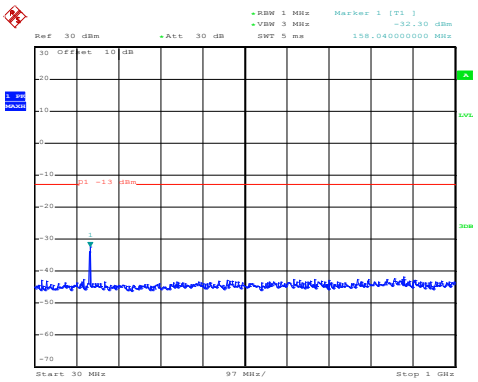
30MHz~1GHz



Date: 19.SEP.2019 19:57:09

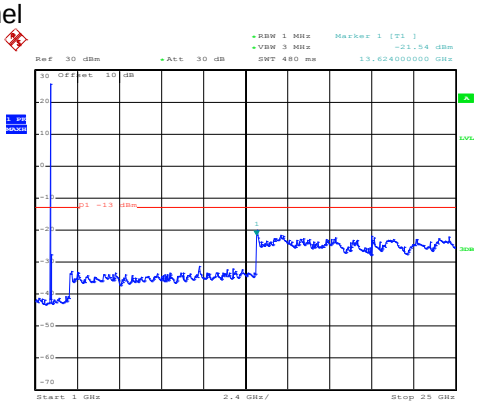
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:49:50

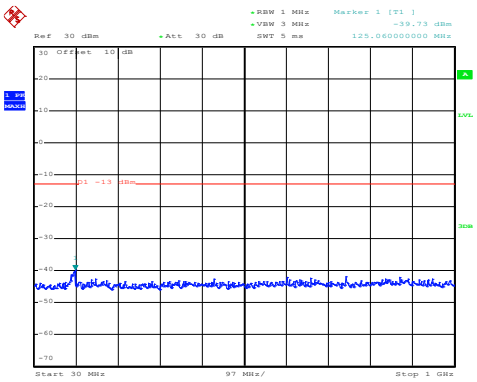
30MHz~1GHz



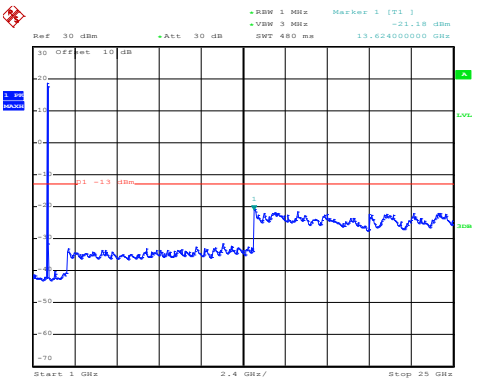
Date: 19.SEP.2019 19:57:30

1GHz~25GHz

LTE Band 2: QPSK & RB Size 75
BW: 15MHz
Lowest channel

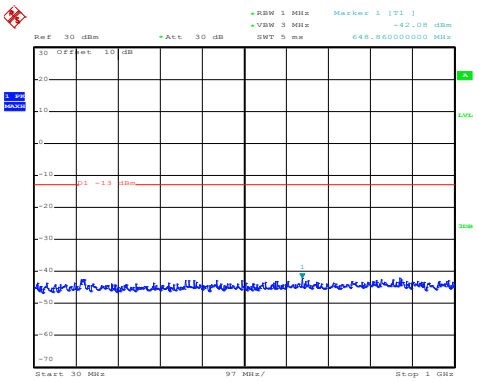


30MHz~1GHz

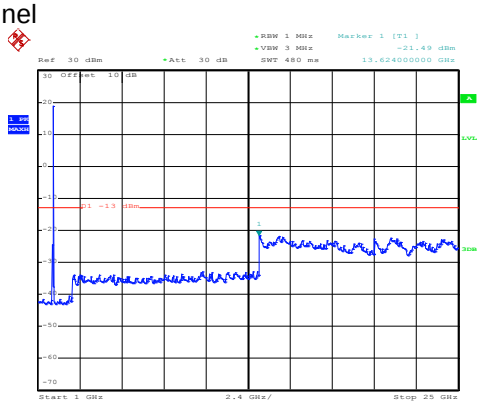


1GHz~25GHz

Middle channel

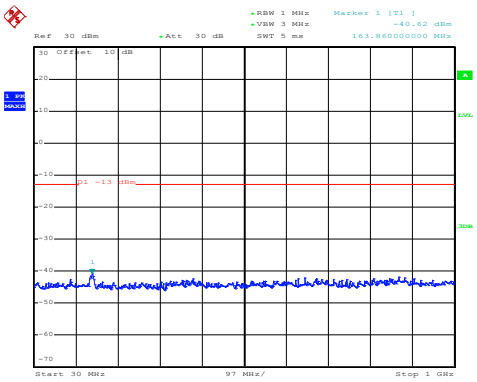


30MHz~1GHz

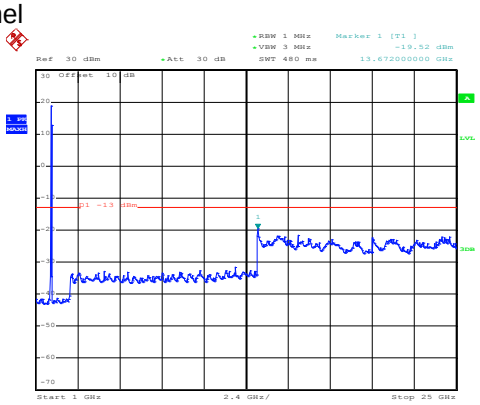


1GHz~25GHz

High channel

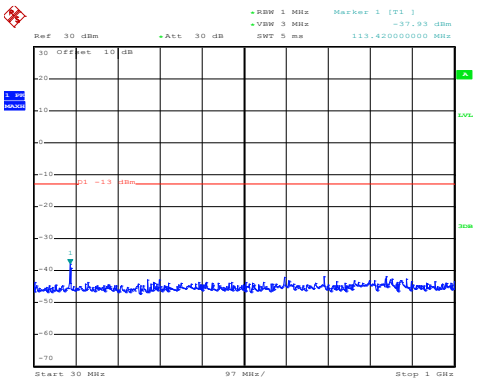


30MHz~1GHz



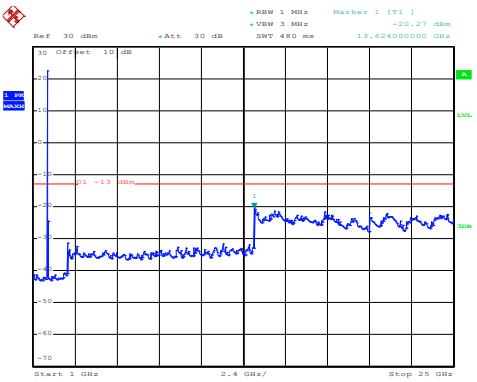
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 1
BW: 20MHz
Lowest channel



Date: 19.SEP.2019 19:50:39

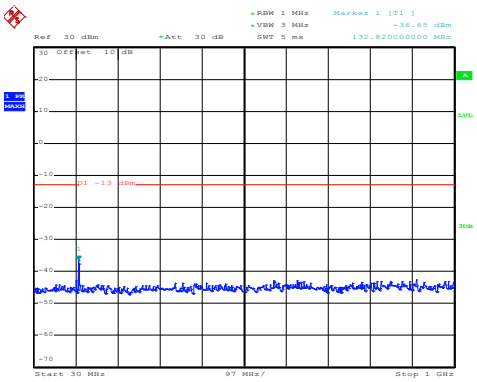
30MHz~1GHz



Date: 19.SEP.2019 19:55:35

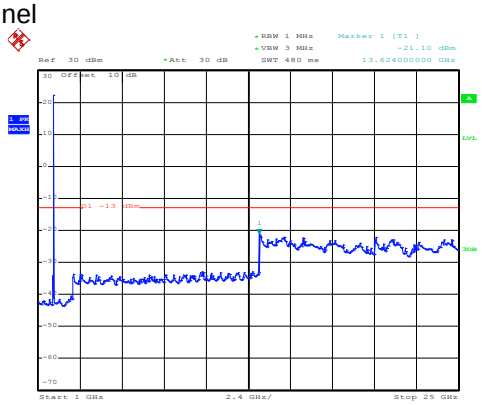
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:51:34

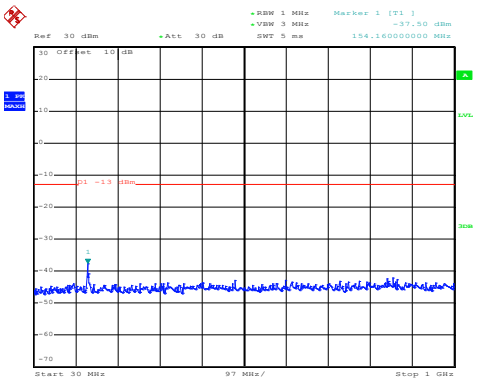
30MHz~1GHz



Date: 19.SEP.2019 19:53:55

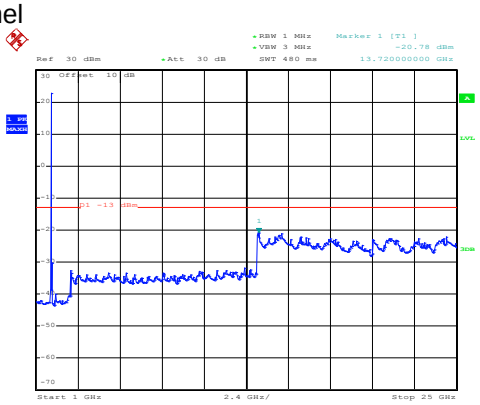
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:51:49

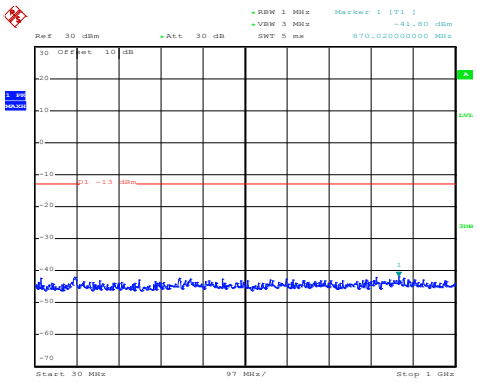
30MHz~1GHz



Date: 19.SEP.2019 19:53:33

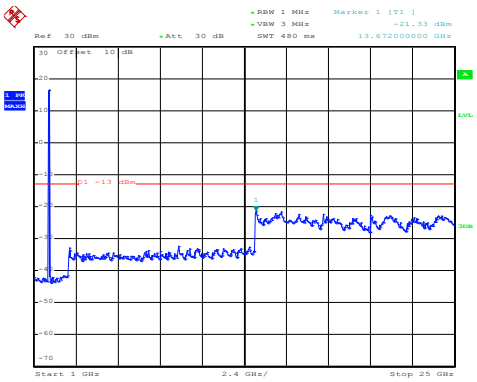
1GHz~25GHz

LTE Band 2: 16 QAM & RB Size 100
BW: 20MHz
Lowest channel



Date: 19.SEP.2019 19:50:54

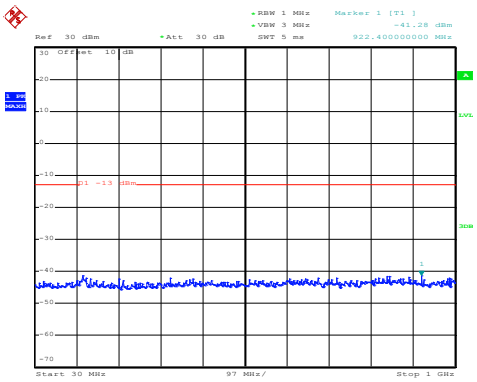
30MHz~1GHz



Date: 19.SEP.2019 19:55:09

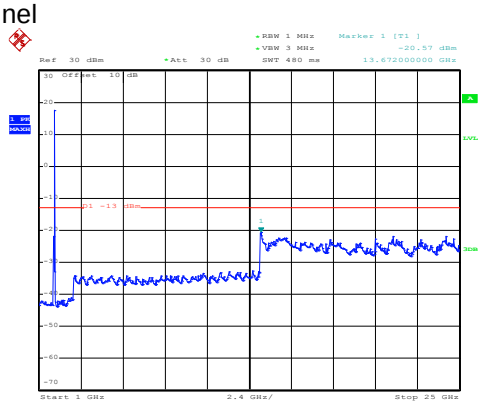
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:51:20

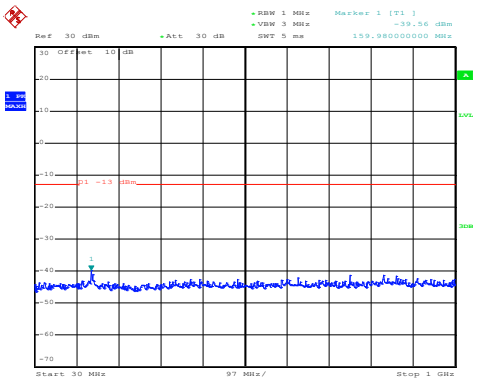
30MHz~1GHz



Date: 19.SEP.2019 19:54:38

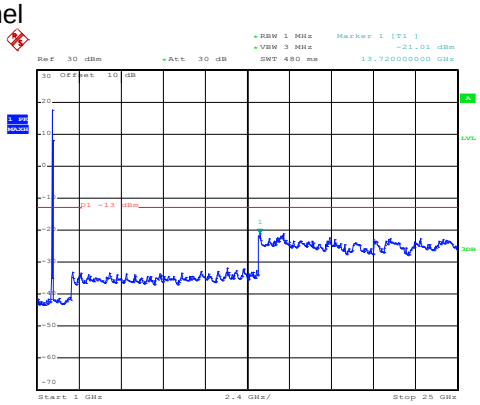
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:52:05

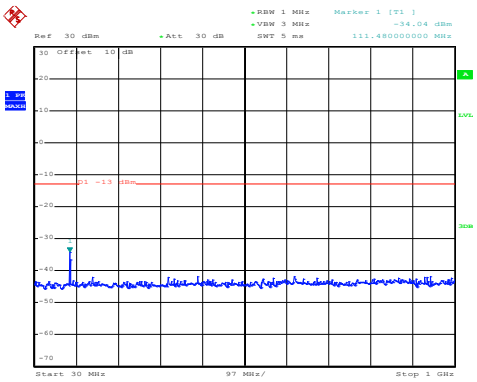
30MHz~1GHz



Date: 19.SEP.2019 19:53:09

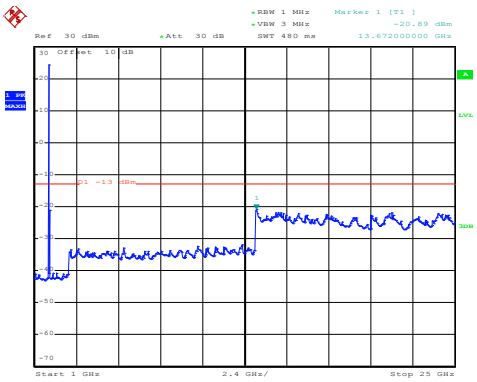
1GHz~25GHz

LTE Band 2: QPSK & RB Size 1
BW: 20MHz
Lowest channel



Date: 19.SEP.2019 19:50:33

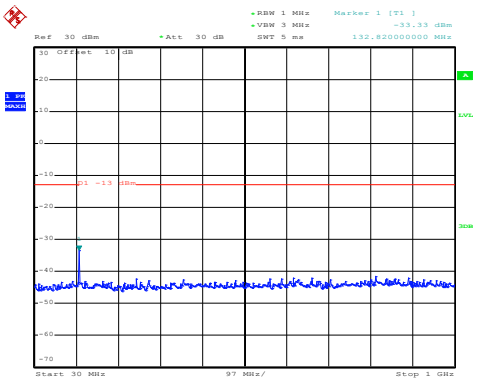
30MHz~1GHz



Date: 19.SEP.2019 19:55:23

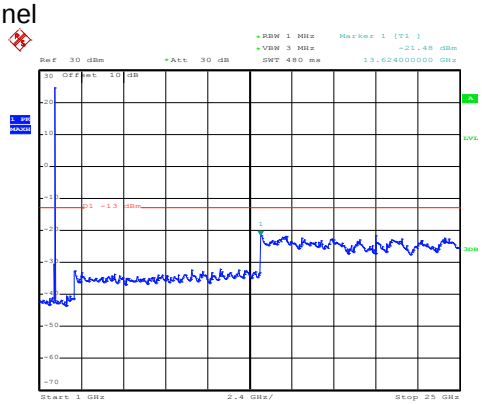
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:51:29

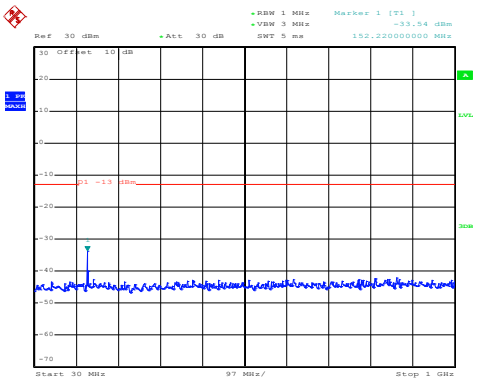
30MHz~1GHz



Date: 19.SEP.2019 19:53:47

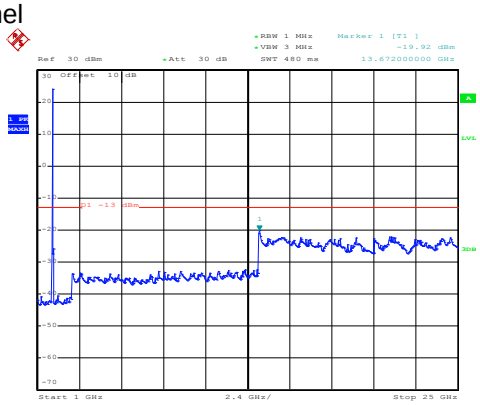
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:51:44

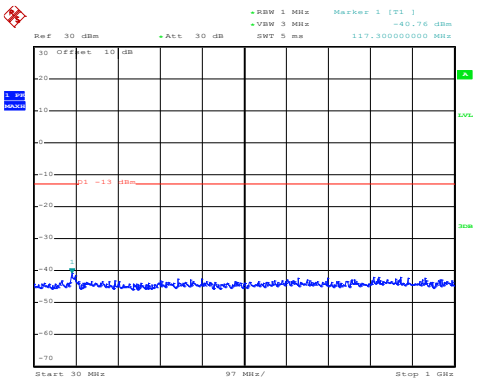
30MHz~1GHz



Date: 19.SEP.2019 19:53:20

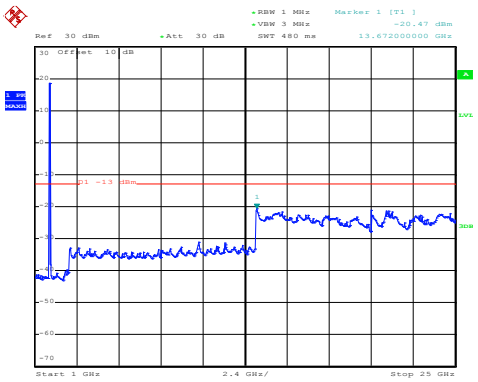
1GHz~25GHz

LTE Band 2: QPSK & RB Size 100
BW: 20MHz
Lowest channel



Date: 19.SEP.2019 19:50:47

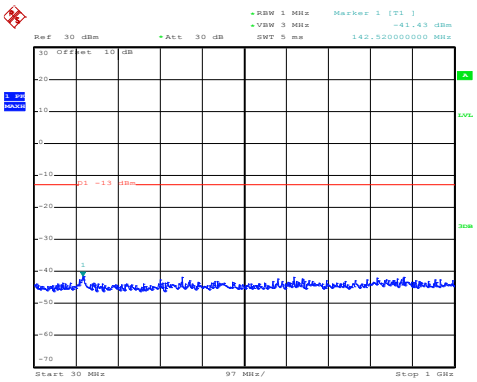
30MHz~1GHz



Date: 19.SEP.2019 19:55:01

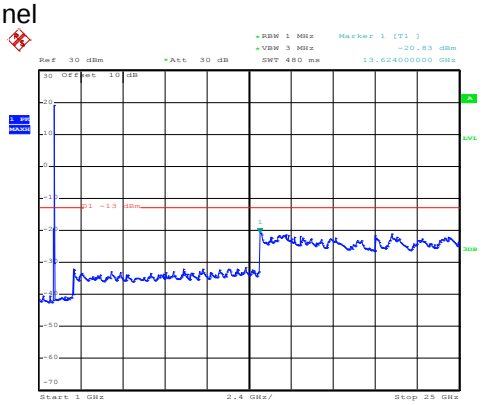
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 19:51:06

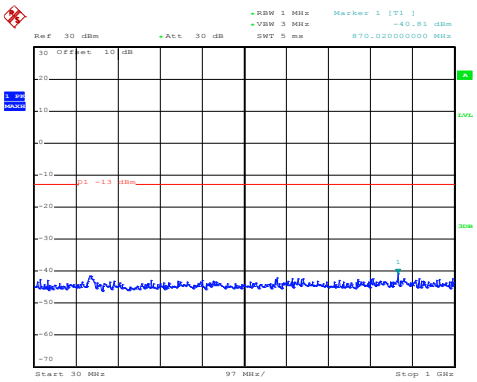
30MHz~1GHz



Date: 19.SEP.2019 19:54:31

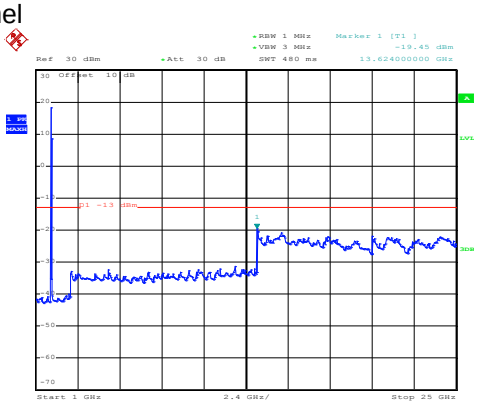
1GHz~25GHz

High channel



Date: 19.SEP.2019 19:51:57

30MHz~1GHz

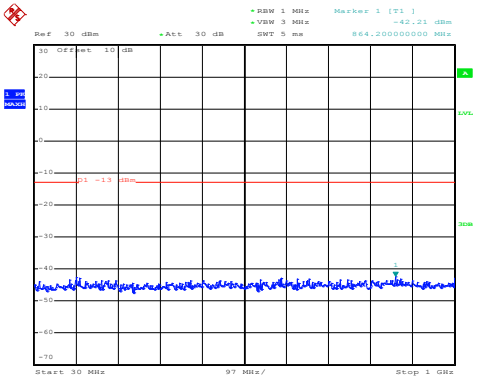


Date: 19.SEP.2019 19:53:00

1GHz~25GHz

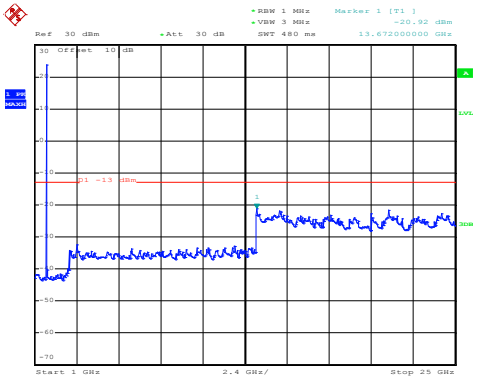
LTE Band 4 part:

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



Date: 19.SEP.2019 20:37:59

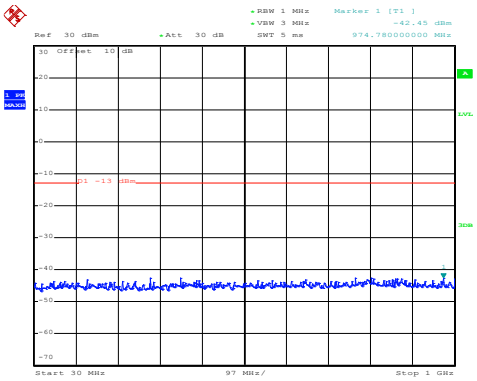
30MHz~1GHz



Date: 19.SEP.2019 20:10:14

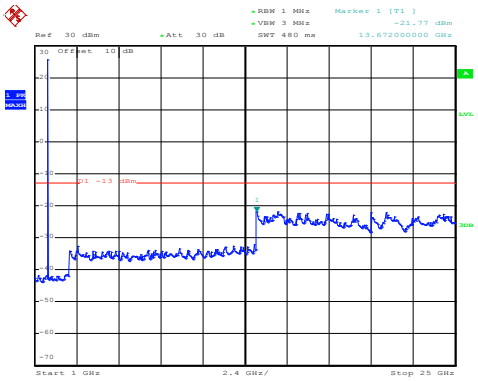
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:38:49

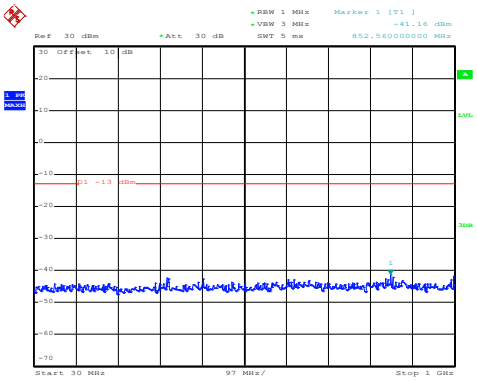
30MHz~1GHz



Date: 19.SEP.2019 20:11:25

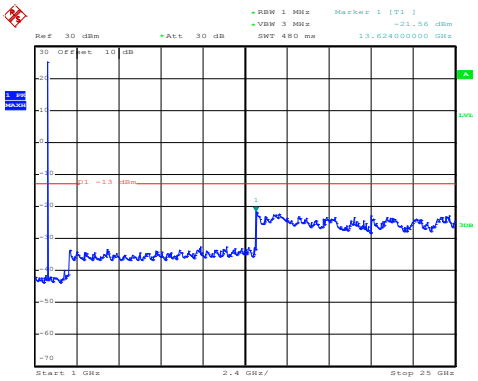
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:39:03

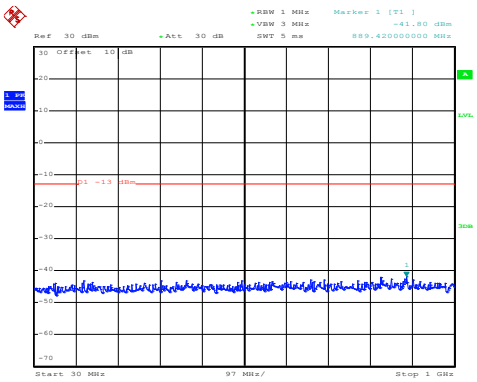
30MHz~1GHz



Date: 19.SEP.2019 20:11:55

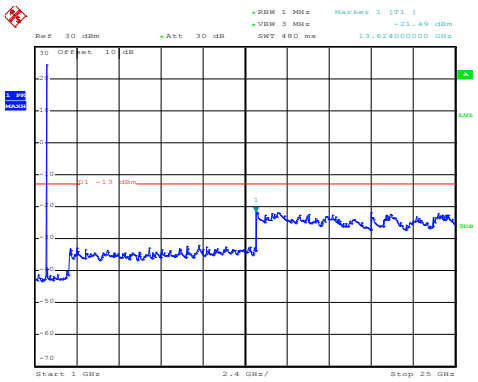
1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 6
BW: 1.4MHz
Lowest channel



Date: 19.SEP.2019 20:38:16

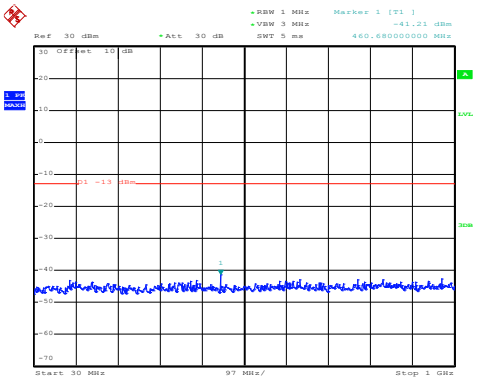
30MHz~1GHz



Date: 19.SEP.2019 20:10:37

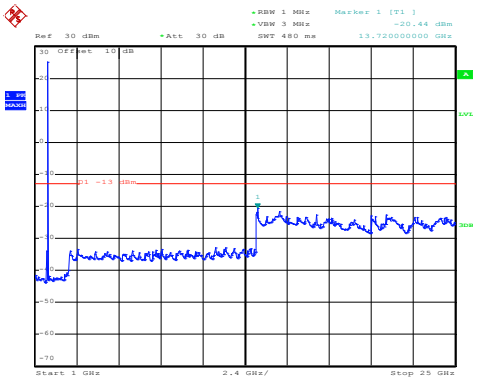
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:38:34

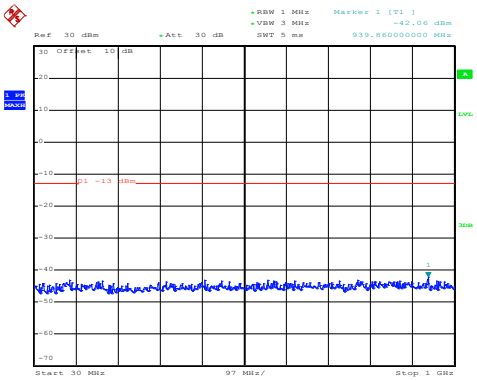
30MHz~1GHz



Date: 19.SEP.2019 20:11:03

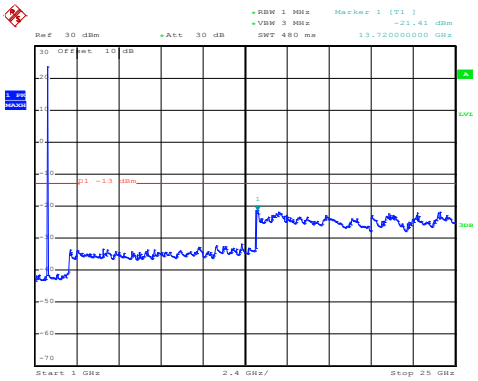
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:39:18

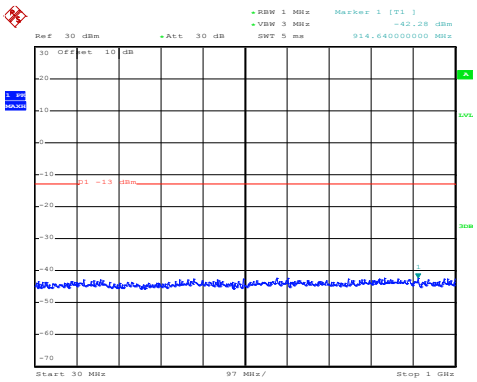
30MHz~1GHz



Date: 19.SEP.2019 20:12:16

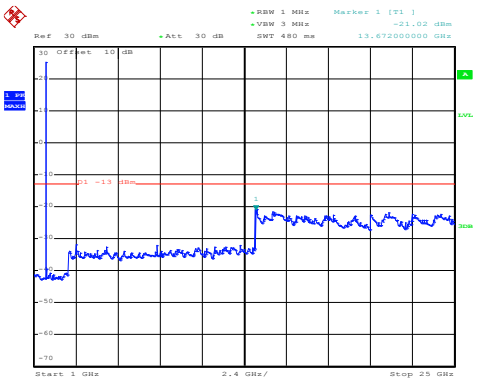
1GHz~25GHz

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



Date: 19.SEP.2019 20:37:54

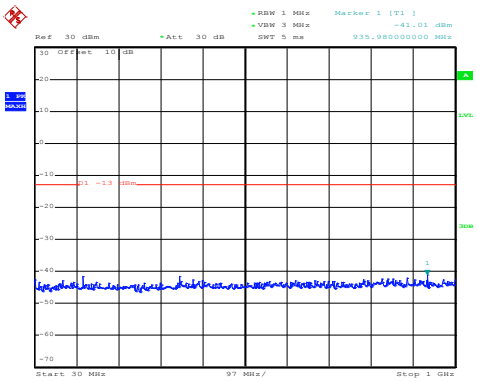
30MHz~1GHz



Date: 19.SEP.2019 20:10:07

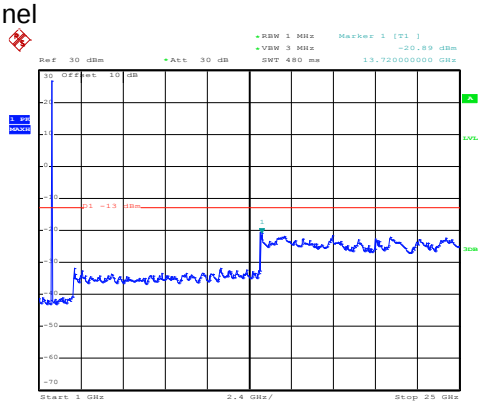
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:38:43

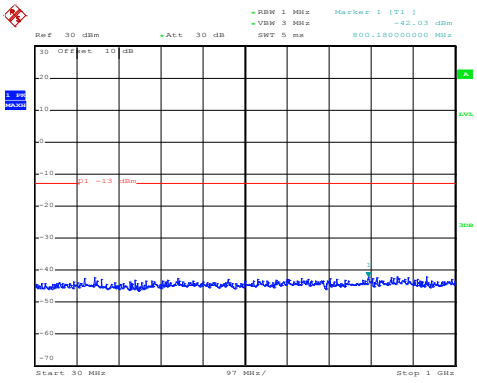
30MHz~1GHz



Date: 19.SEP.2019 20:11:17

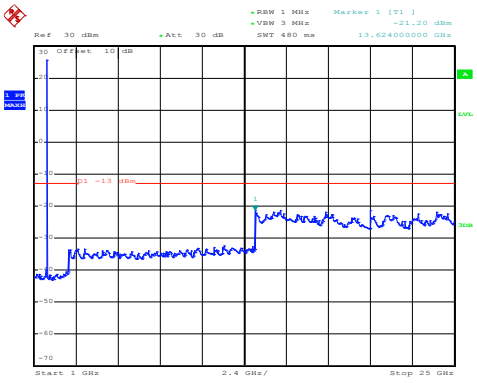
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:38:58

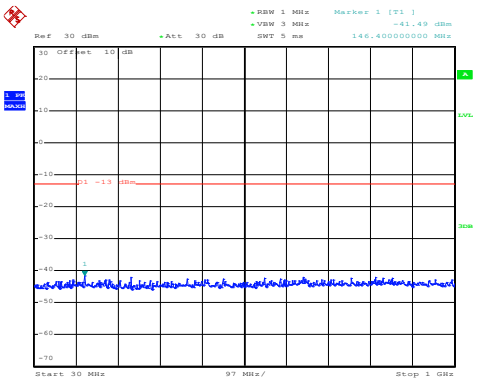
30MHz~1GHz



Date: 19.SEP.2019 20:11:47

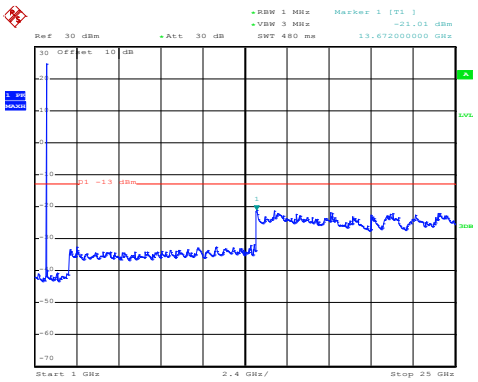
1GHz~25GHz

LTE Band 4: QPSK & RB Size 6
BW: 1.4MHz
Lowest channel



Date: 19.SEP.2019 20:38:10

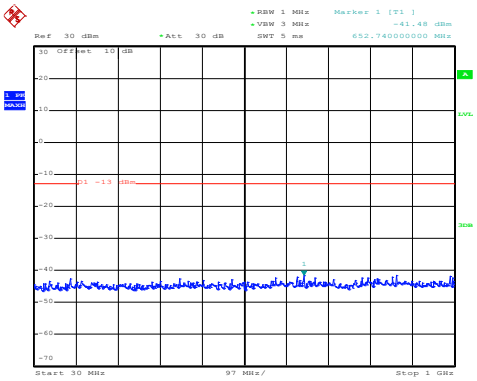
30MHz~1GHz



Date: 19.SEP.2019 20:10:26

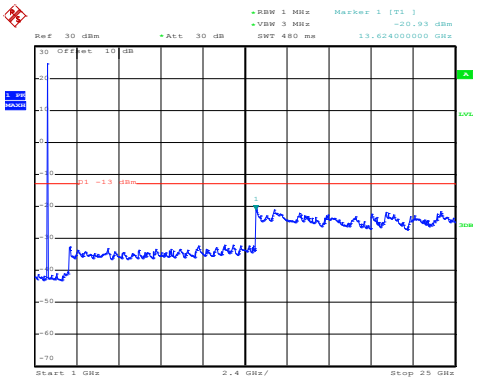
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:38:28

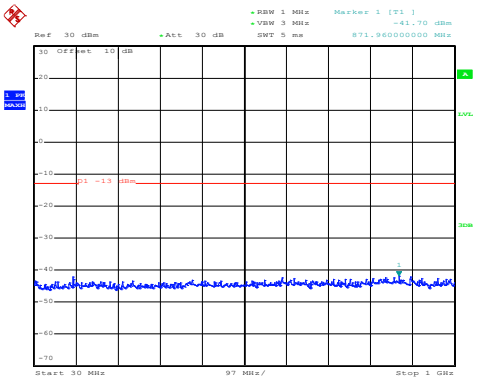
30MHz~1GHz



Date: 19.SEP.2019 20:10:57

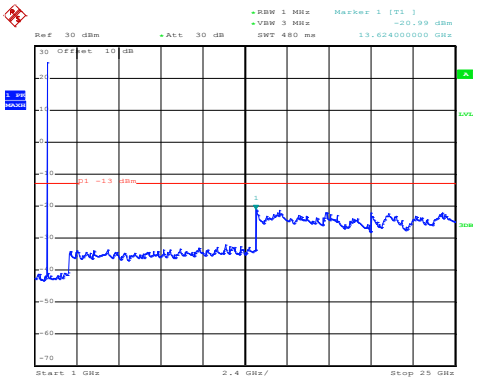
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:39:12

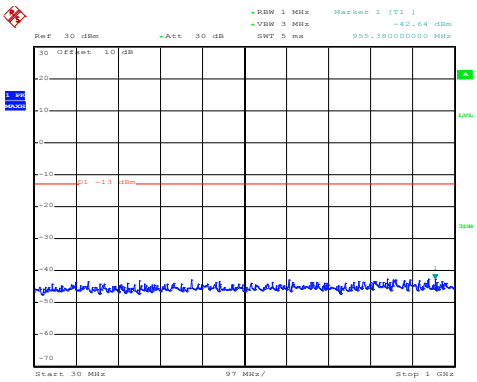
30MHz~1GHz



Date: 19.SEP.2019 20:12:06

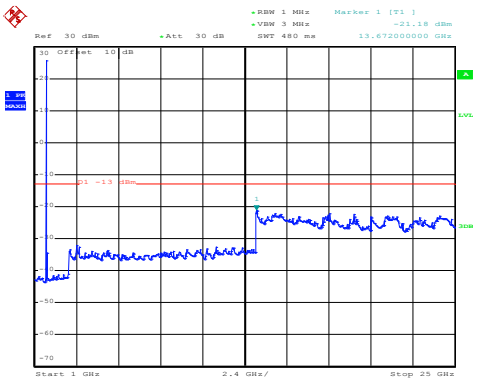
1GHz~25GHz

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



Date: 19.SEP.2019 20:36:10

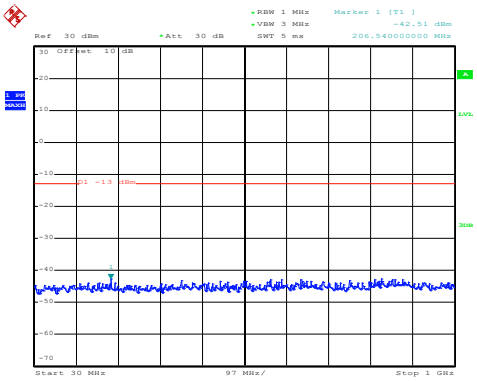
30MHz~1GHz



Date: 19.SEP.2019 20:12:58

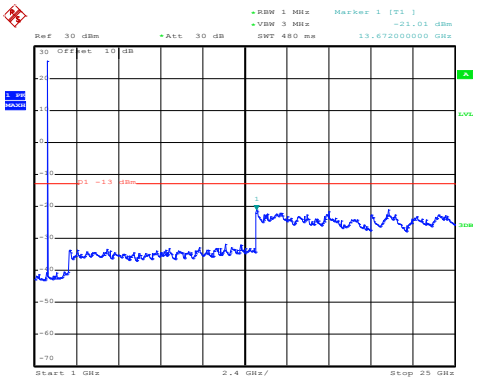
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:36:57

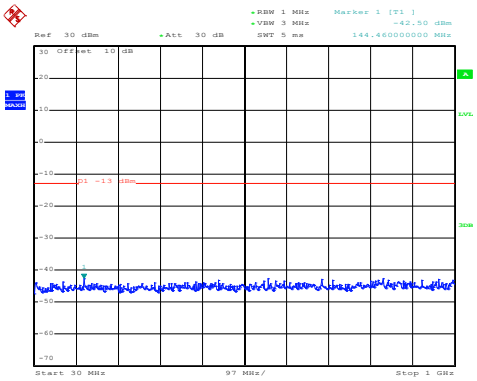
30MHz~1GHz



Date: 19.SEP.2019 20:14:08

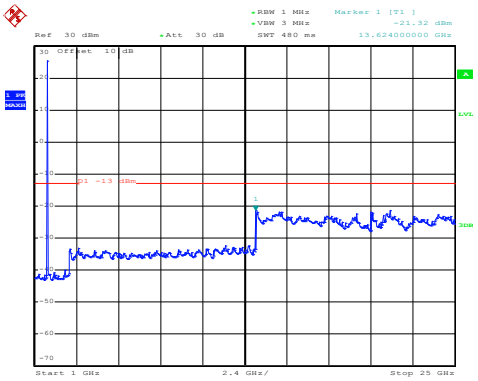
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:37:15

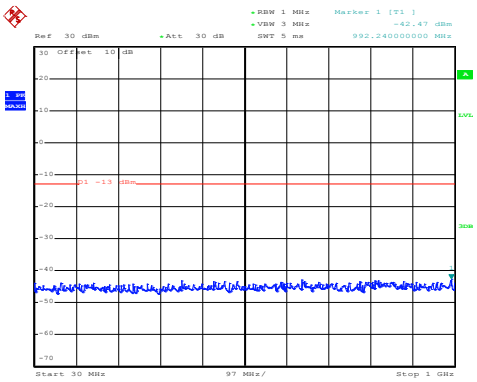
30MHz~1GHz



Date: 19.SEP.2019 20:14:56

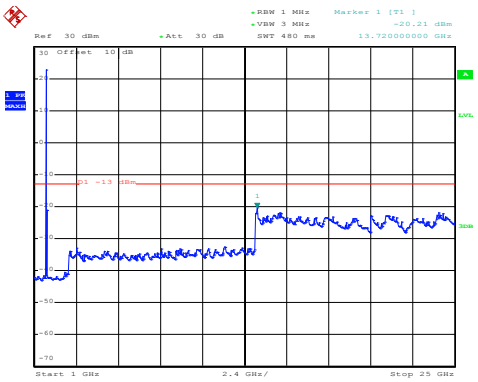
1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 15
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 20:36:24

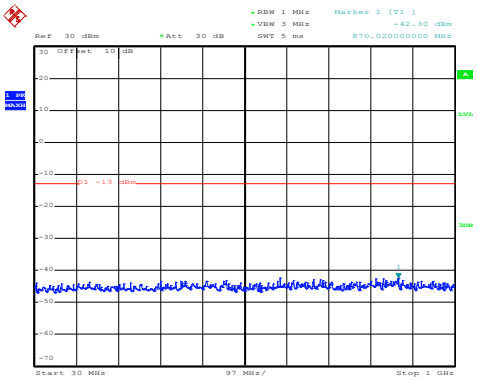
30MHz~1GHz



Date: 19.SEP.2019 20:13:20

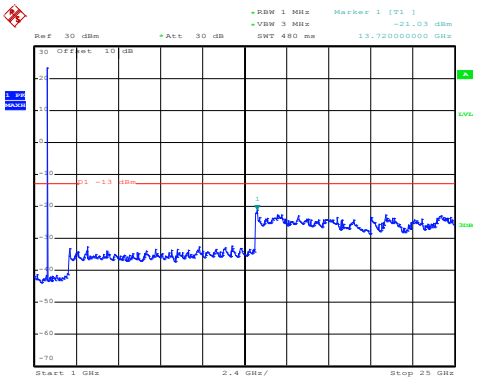
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:36:41

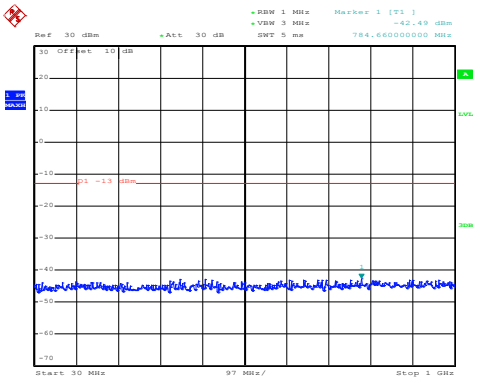
30MHz~1GHz



Date: 19.SEP.2019 20:13:40

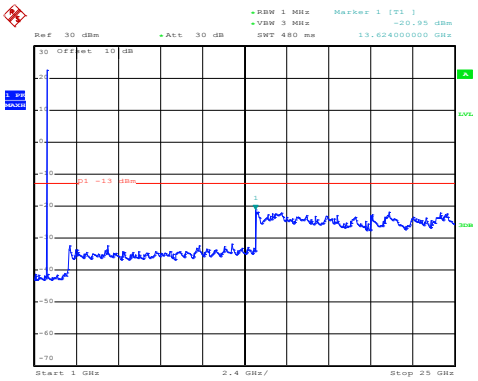
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:37:32

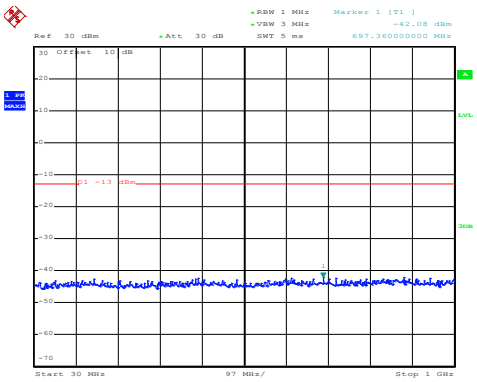
30MHz~1GHz



Date: 19.SEP.2019 20:15:29

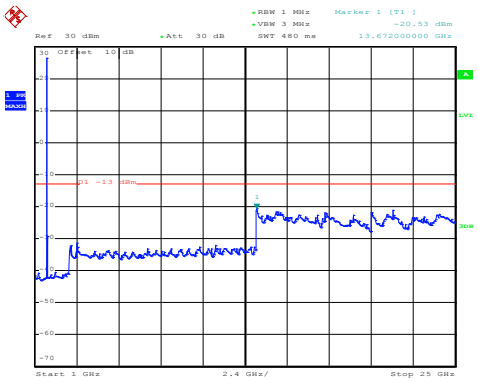
1GHz~25GHz

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



Date: 19.SEP.2019 20:36:05

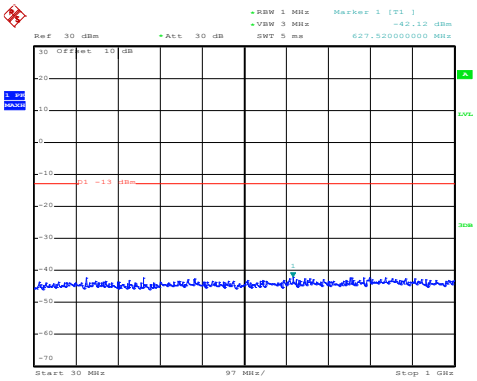
30MHz~1GHz



Date: 19.SEP.2019 20:12:49

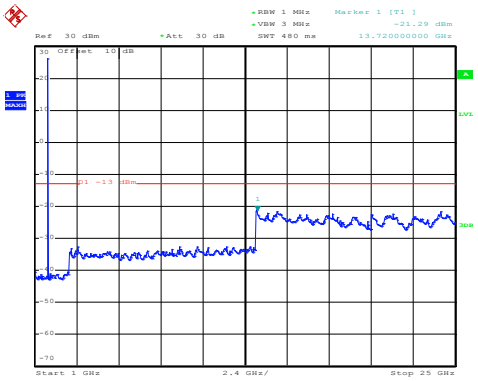
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:36:51

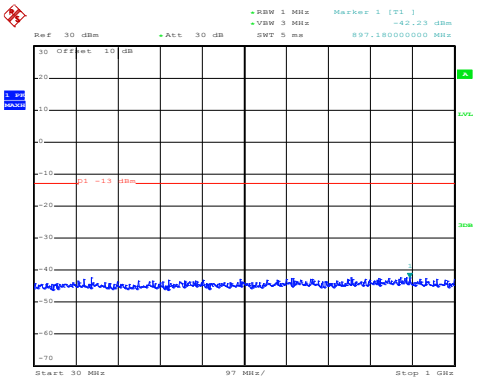
30MHz~1GHz



Date: 19.SEP.2019 20:13:54

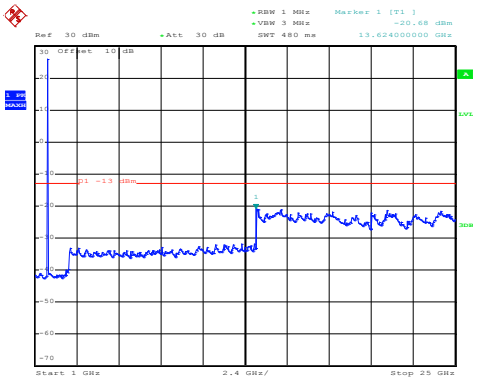
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:37:09

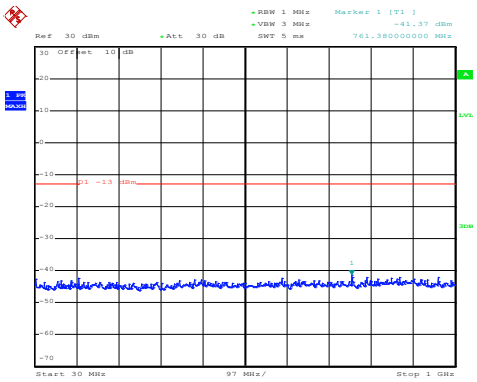
30MHz~1GHz



Date: 19.SEP.2019 20:14:44

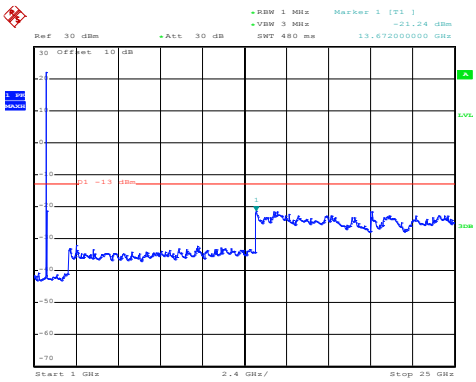
1GHz~25GHz

LTE Band 4: QPSK & RB Size 15
BW: 3MHz
Lowest channel



Date: 19.SEP.2019 20:36:19

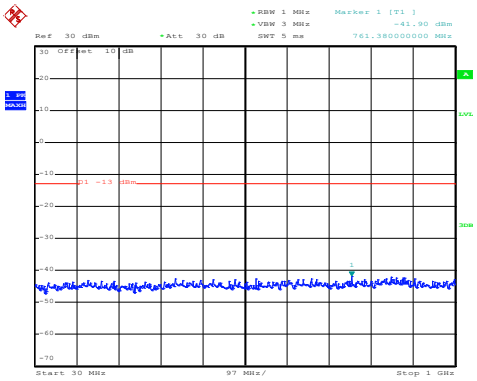
30MHz~1GHz



Date: 19.SEP.2019 20:13:09

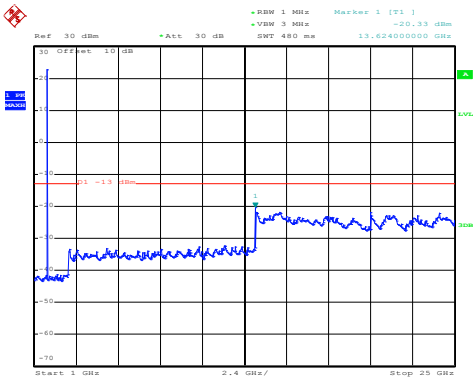
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:36:34

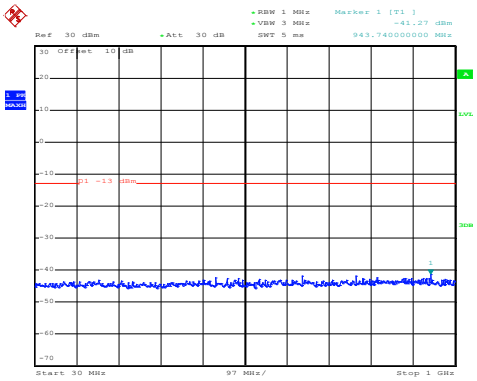
30MHz~1GHz



Date: 19.SEP.2019 20:13:33

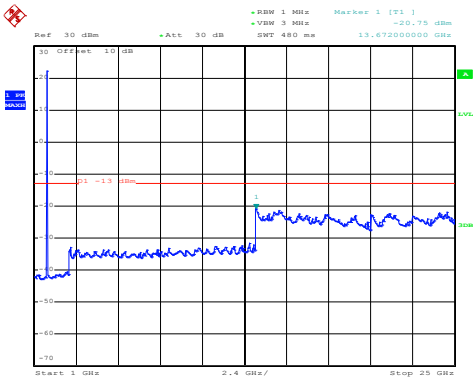
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:37:26

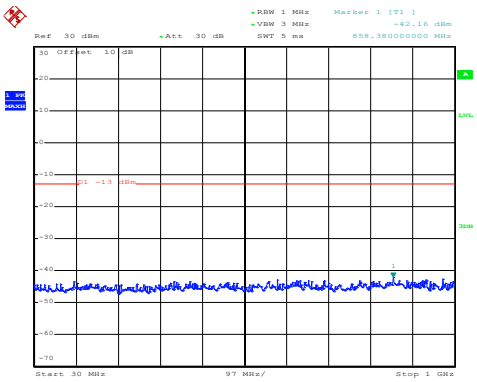
30MHz~1GHz



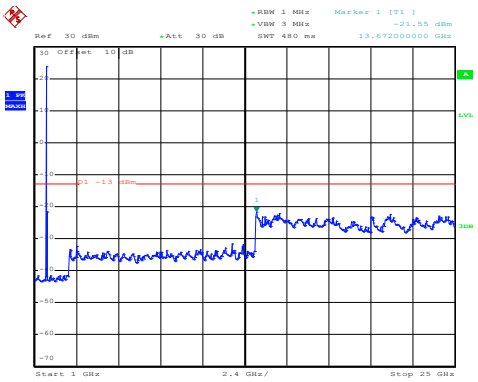
Date: 19.SEP.2019 20:15:18

1GHz~25GHz

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

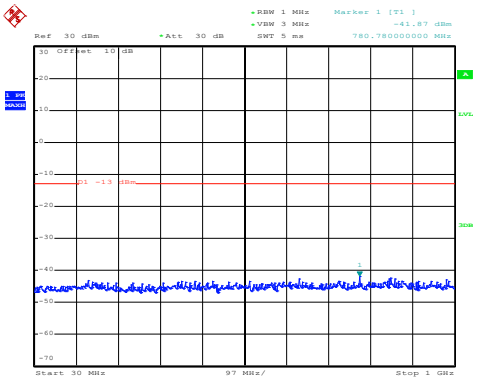


30MHz~1GHz

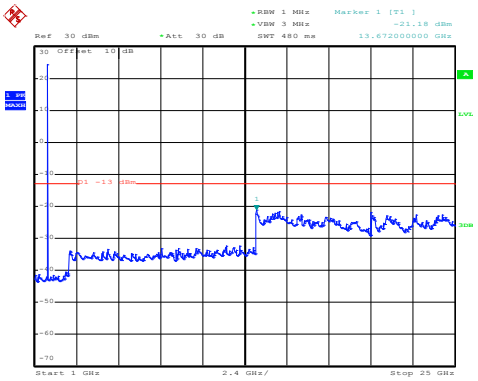


1GHz~25GHz

Middle channel

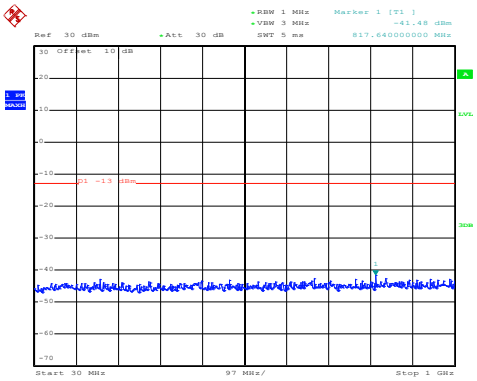


30MHz~1GHz

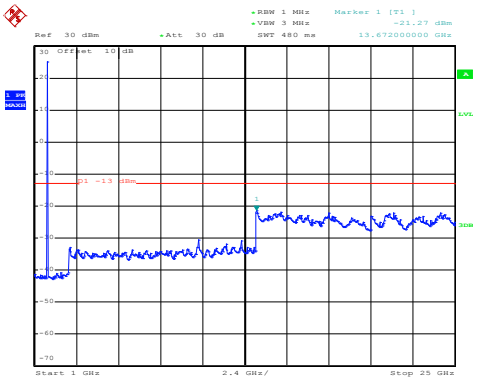


1GHz~25GHz

High channel

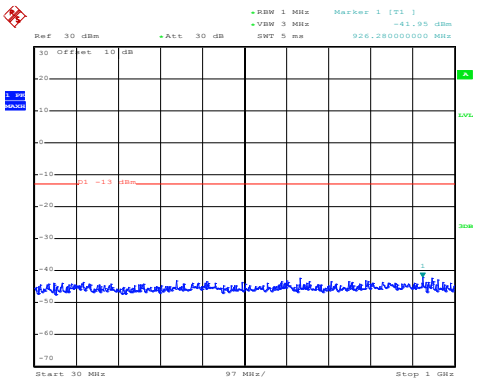


30MHz~1GHz

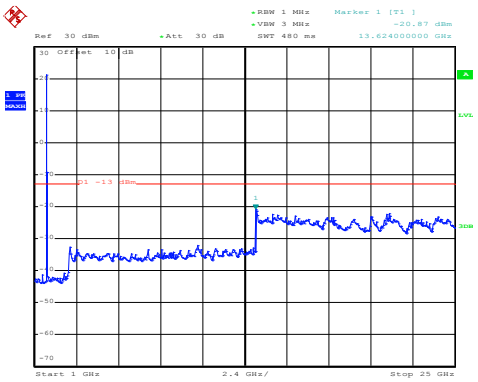


1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 25
BW: 5MHz
Lowest channel

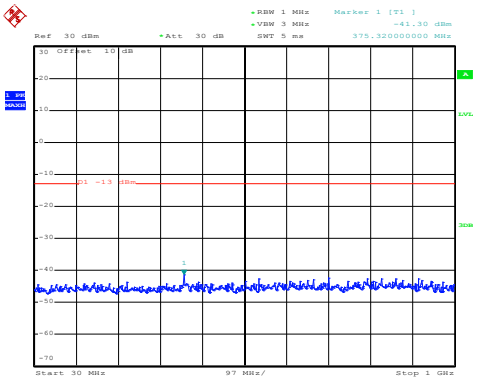


30MHz~1GHz

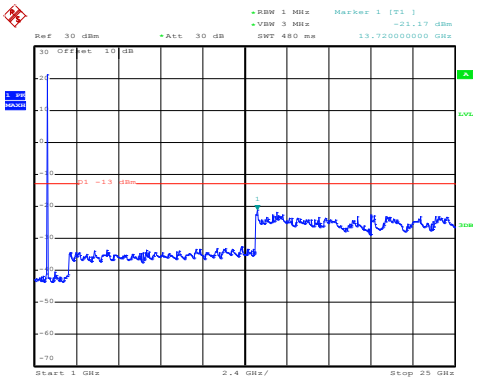


1GHz~25GHz

Middle channel

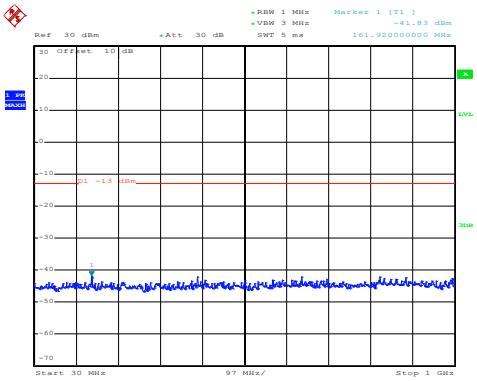


30MHz~1GHz

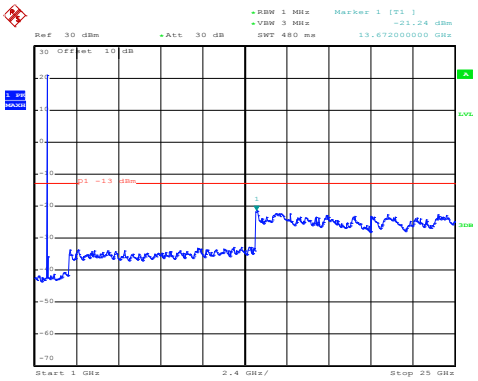


1GHz~25GHz

High channel

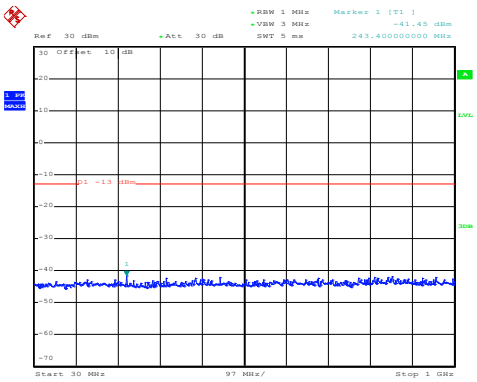


30MHz~1GHz



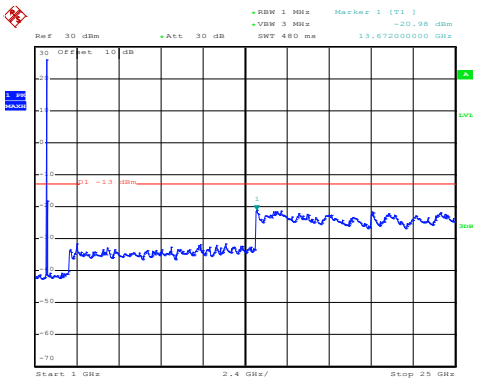
1GHz~25GHz

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



Date: 19.SEP.2019 20:34:06

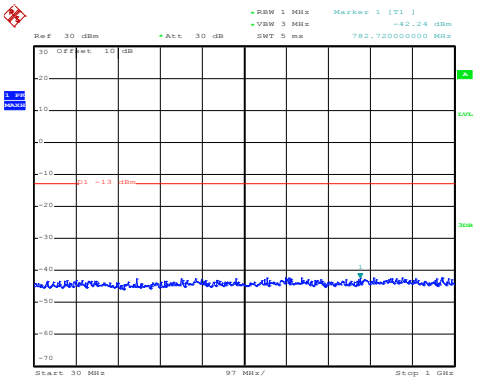
30MHz~1GHz



Date: 19.SEP.2019 20:16:18

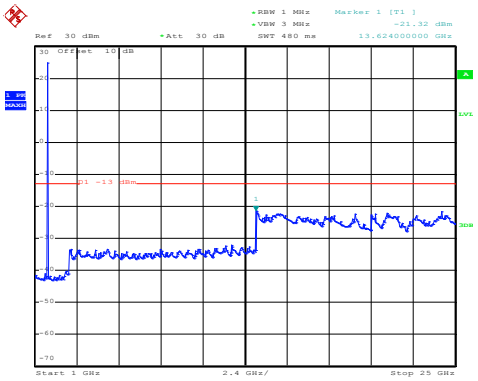
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:34:57

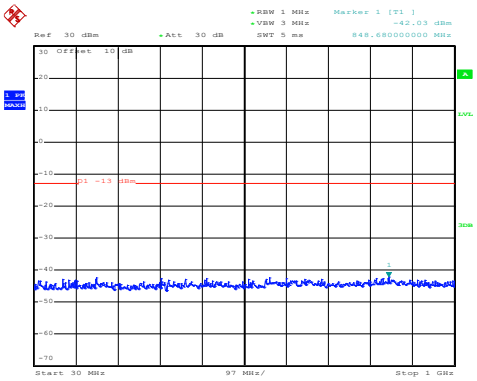
30MHz~1GHz



Date: 19.SEP.2019 20:17:27

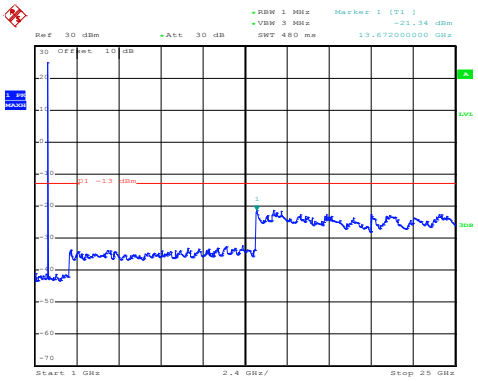
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:35:16

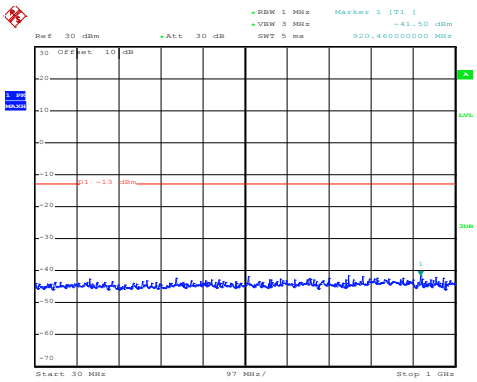
30MHz~1GHz



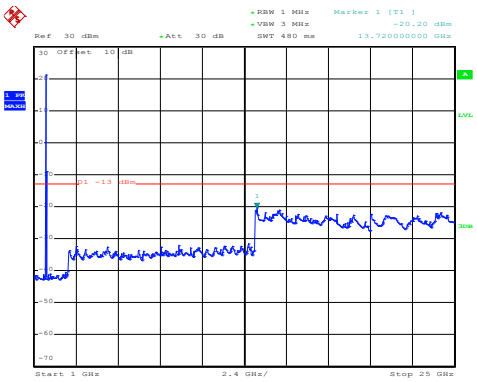
Date: 19.SEP.2019 20:17:47

1GHz~25GHz

LTE Band 4: QPSK & RB Size 25
BW: 5MHz
Lowest channel

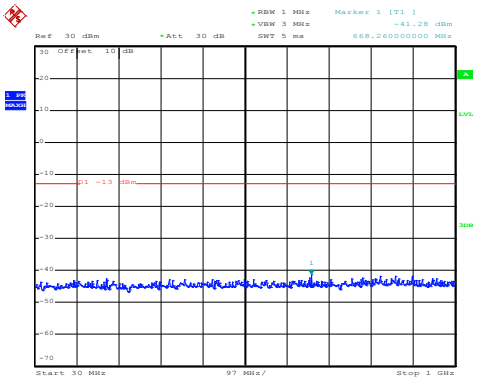


30MHz~1GHz

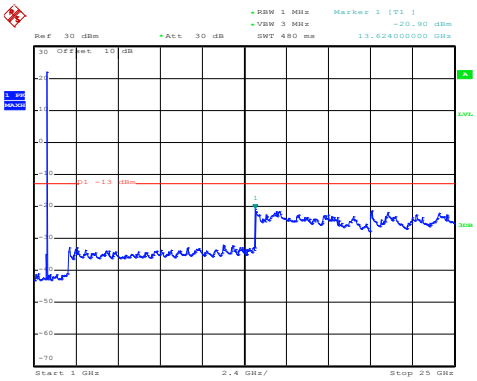


1GHz~25GHz

Middle channel

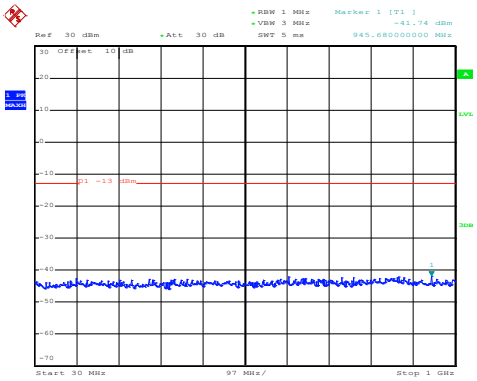


30MHz~1GHz

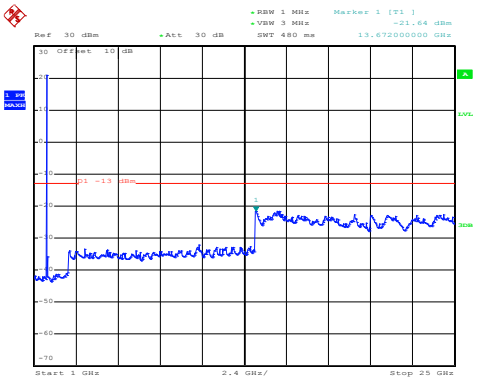


1GHz~25GHz

High channel

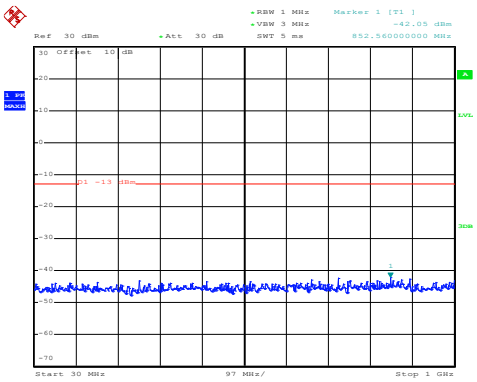


30MHz~1GHz

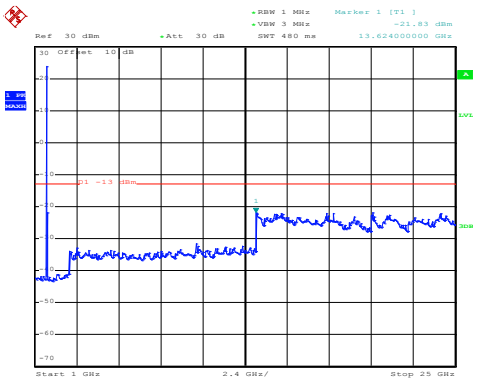


1GHz~25GHz

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

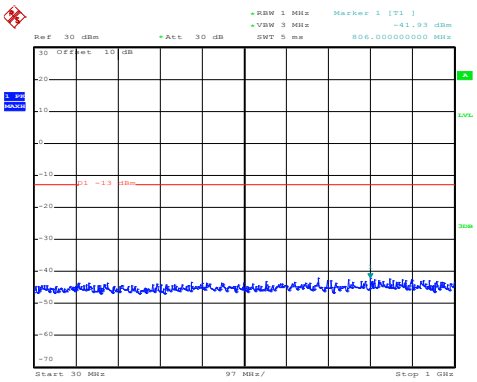


30MHz~1GHz

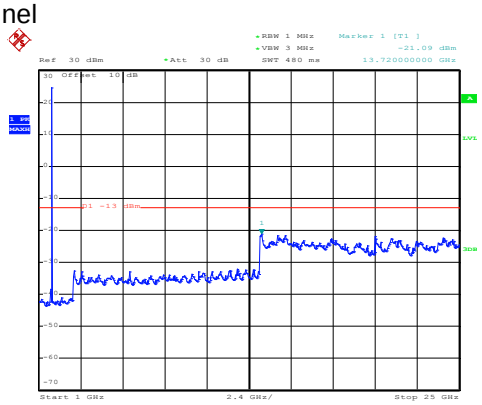


1GHz~25GHz

Middle channel

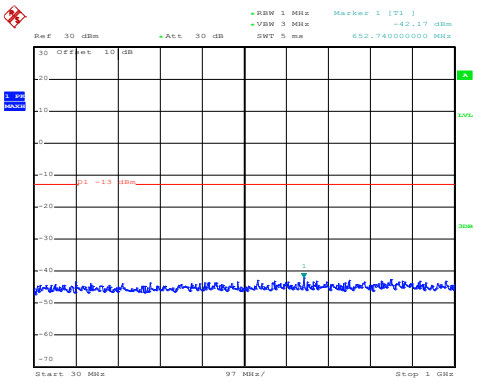


30MHz~1GHz

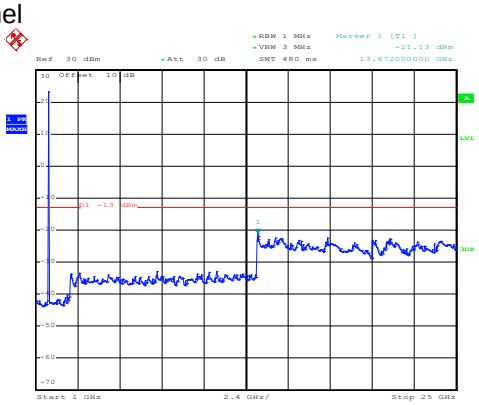


1GHz~25GHz

High channel

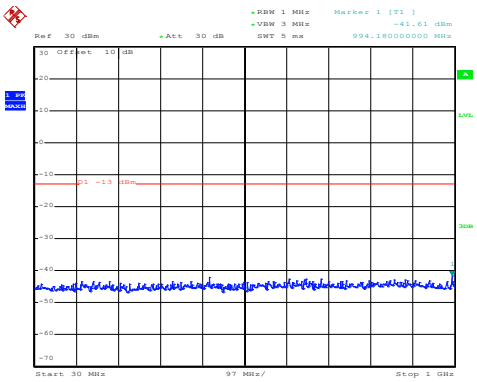


30MHz~1GHz



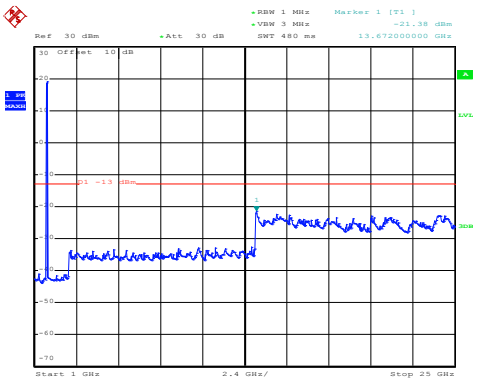
1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 50
BW: 10MHz
Lowest channel



Date: 19.SEP.2019 20:32:39

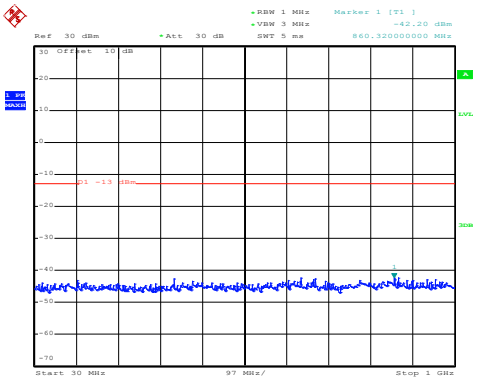
30MHz~1GHz



Date: 19.SEP.2019 20:19:28

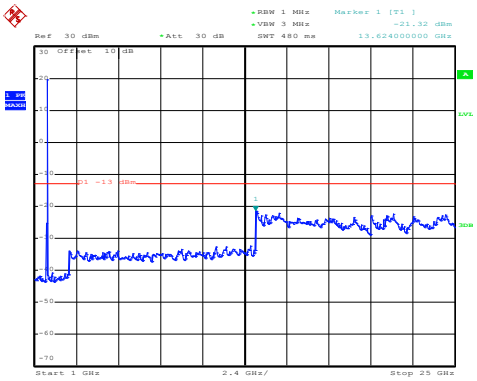
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:32:53

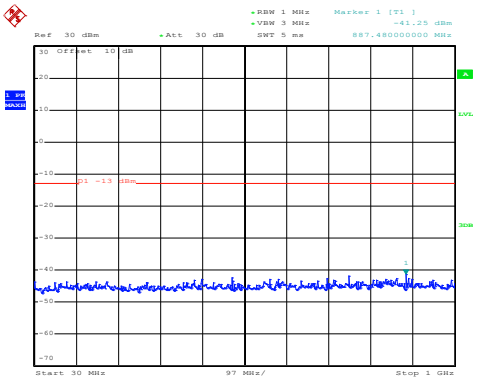
30MHz~1GHz



Date: 19.SEP.2019 20:19:50

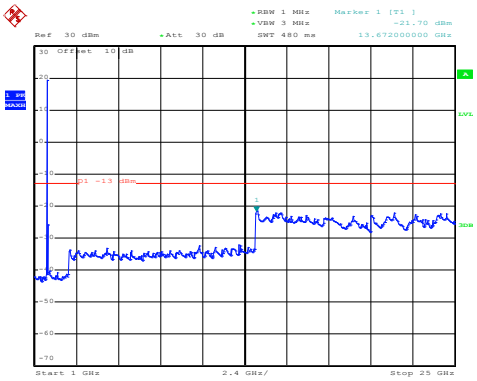
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:33:43

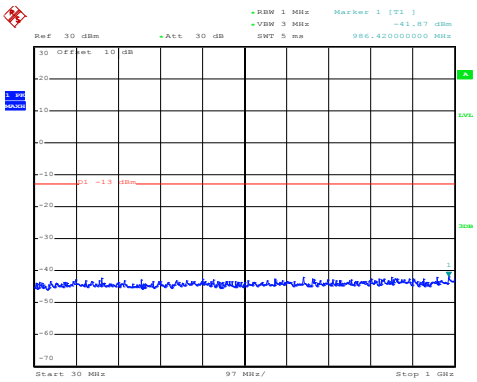
30MHz~1GHz



Date: 19.SEP.2019 20:21:06

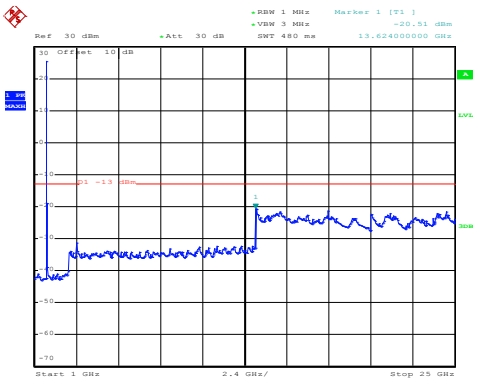
1GHz~25GHz

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



Date: 19.SEP.2019 20:32:17

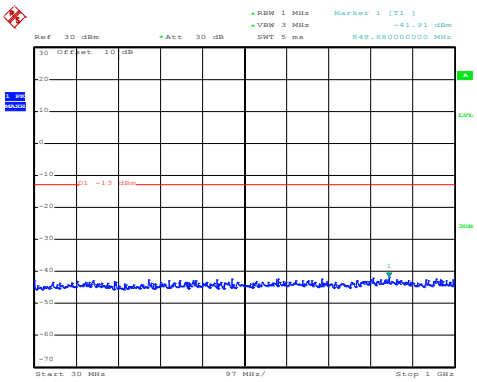
30MHz~1GHz



Date: 19.SEP.2019 20:18:51

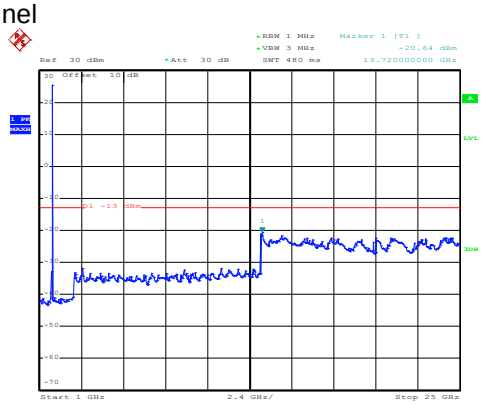
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:33:03

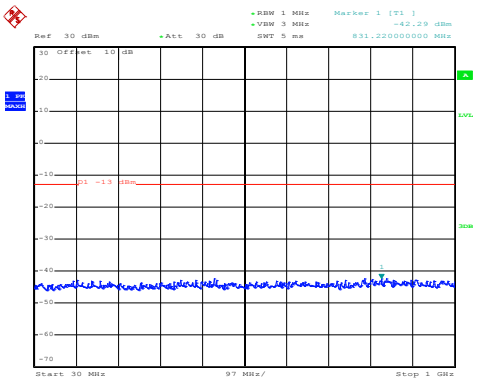
30MHz~1GHz



Date: 19.SEP.2019 20:20:12

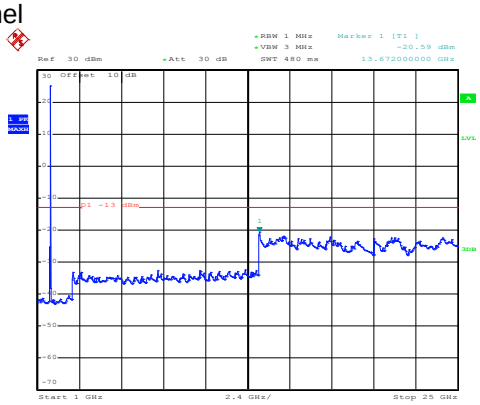
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:33:22

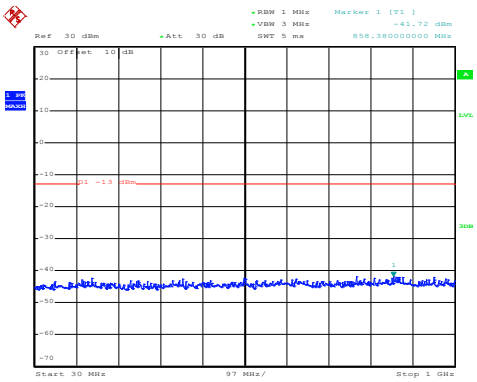
30MHz~1GHz



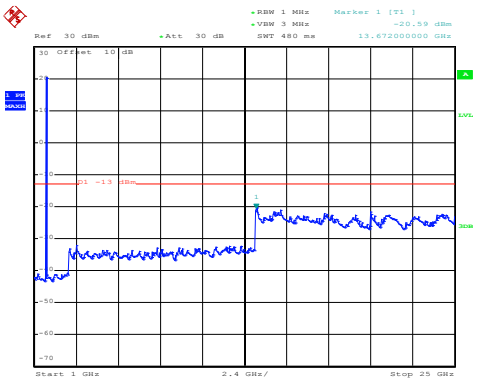
Date: 19.SEP.2019 20:20:37

1GHz~25GHz

LTE Band 4: QPSK & RB Size 50
BW: 10MHz
Lowest channel

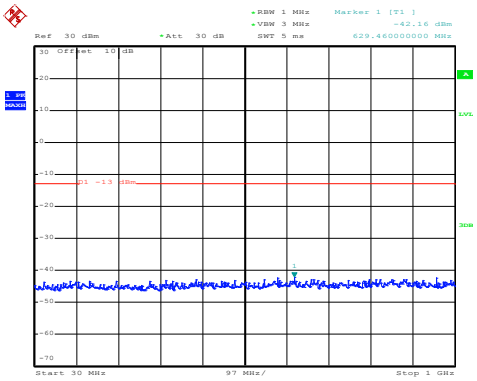


30MHz~1GHz

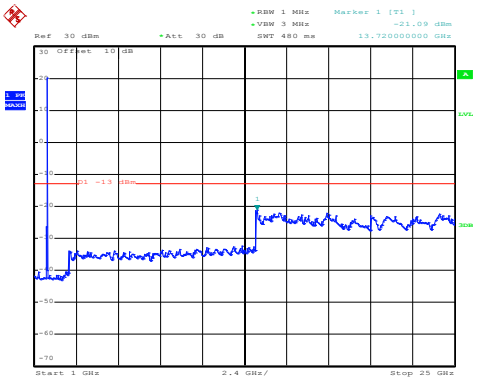


1GHz~25GHz

Middle channel

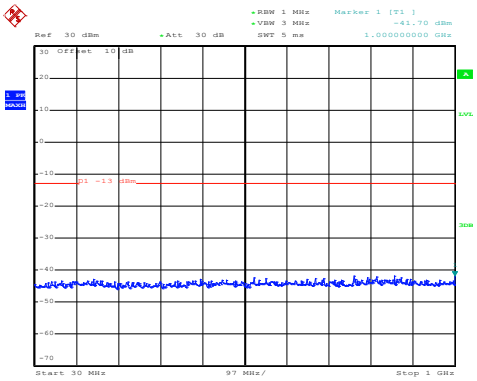


30MHz~1GHz

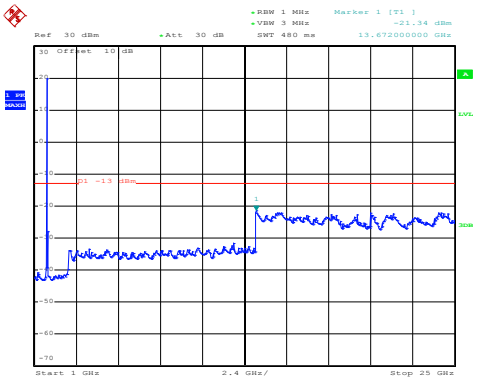


1GHz~25GHz

High channel

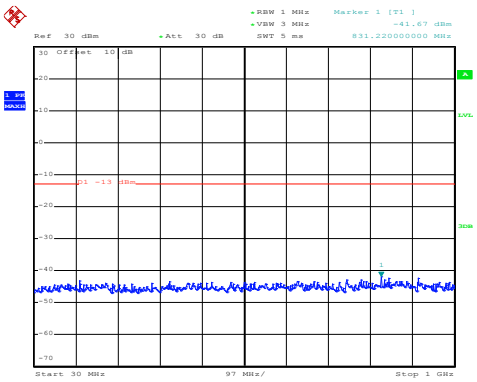


30MHz~1GHz



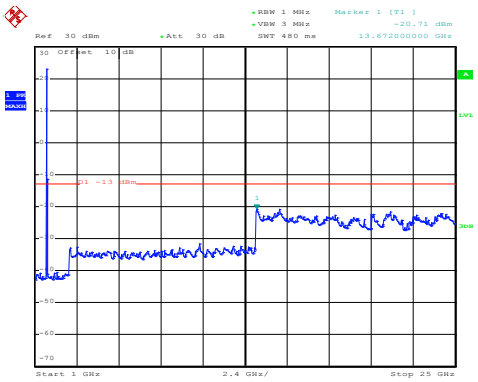
1GHz~25GHz

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



Date: 19.SEP.2019 20:30:34

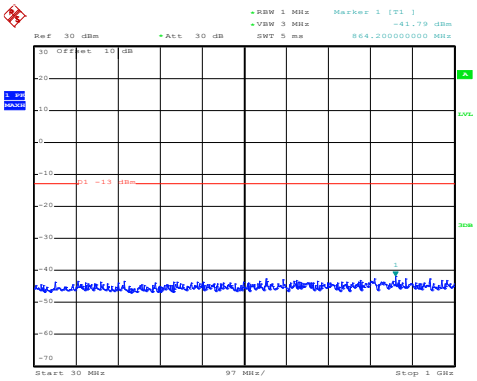
30MHz~1GHz



Date: 19.SEP.2019 20:22:26

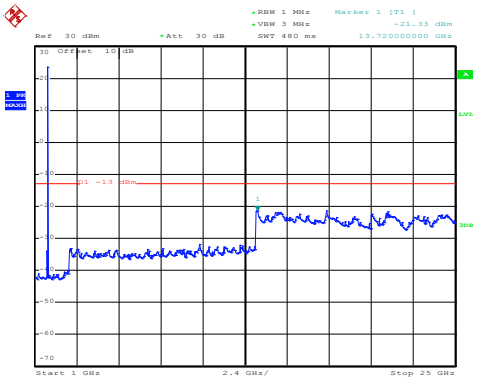
1GHz~25GHz

Middle channel



Date: 19.SEP.2019 20:31:20

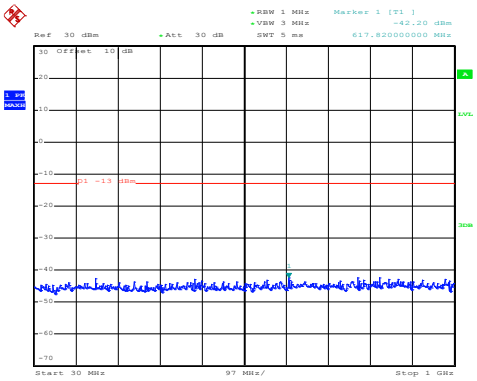
30MHz~1GHz



Date: 19.SEP.2019 20:24:00

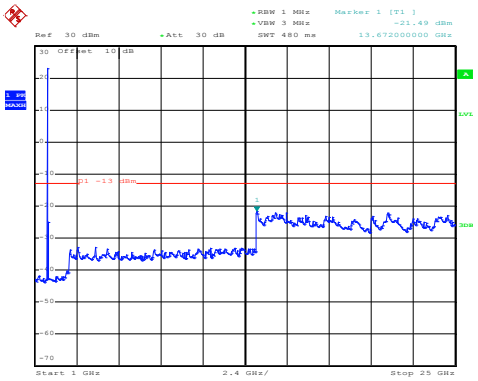
1GHz~25GHz

High channel



Date: 19.SEP.2019 20:31:40

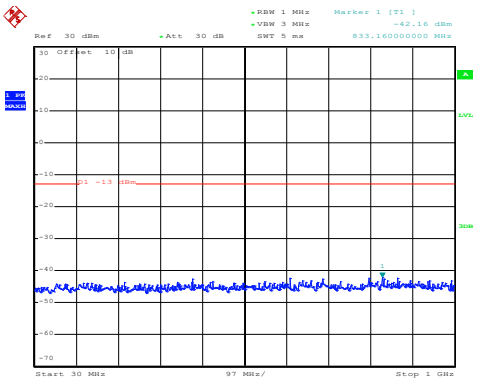
30MHz~1GHz



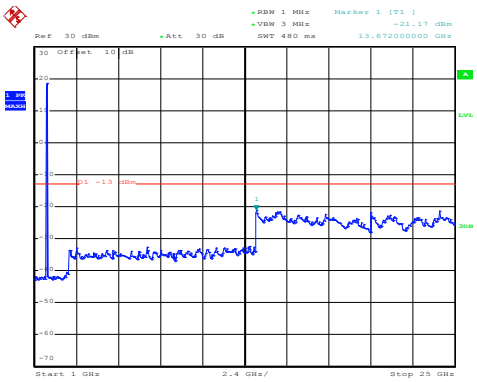
Date: 19.SEP.2019 20:24:23

1GHz~25GHz

LTE Band 4: 16 QAM & RB Size 75
BW: 15MHz
Lowest channel

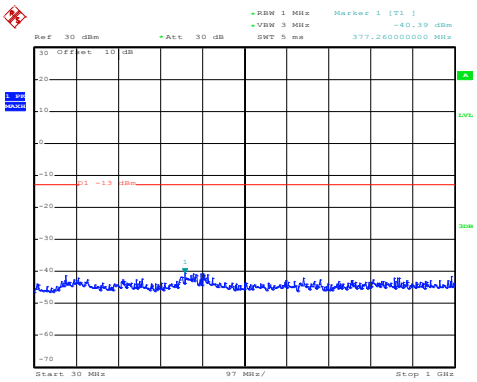


30MHz~1GHz

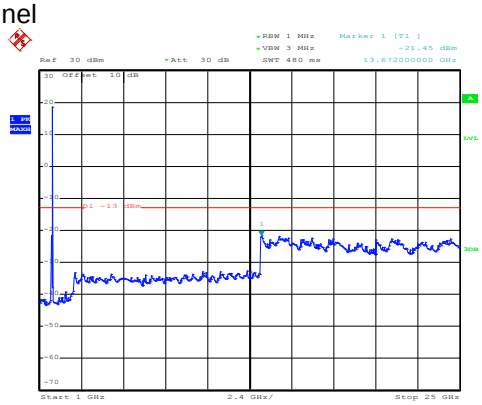


1GHz~25GHz

Middle channel

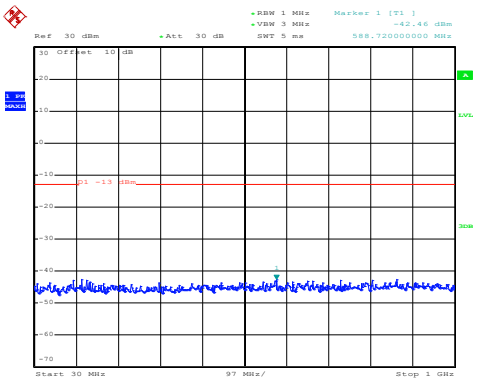


30MHz~1GHz

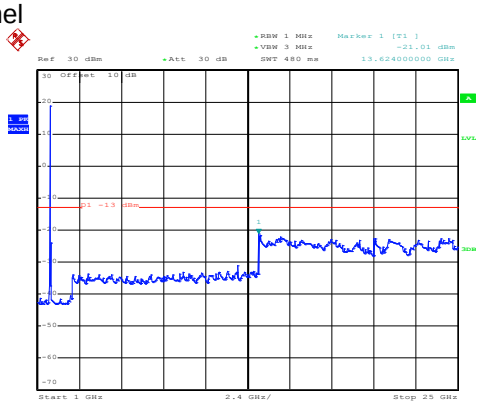


1GHz~25GHz

High channel



30MHz~1GHz



1GHz~25GHz