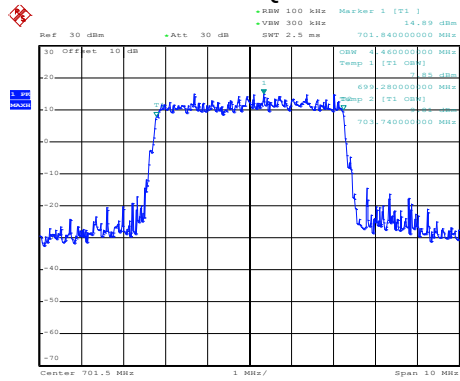


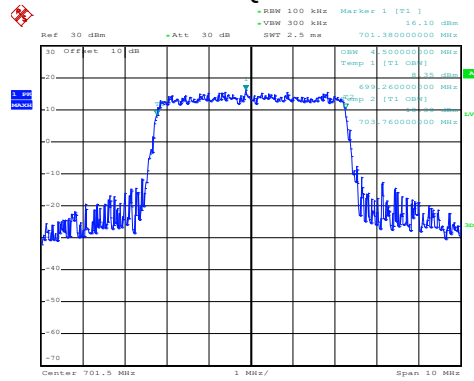
LTE Band 12: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 11.OCT.2019 16:54:01

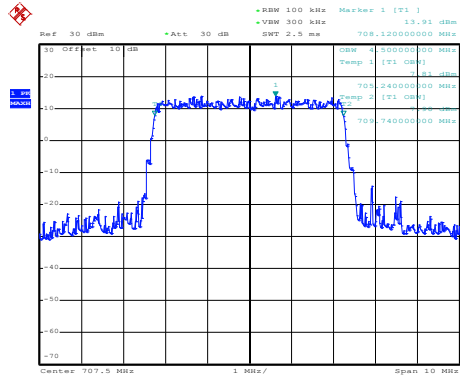
QPSK



Date: 11.OCT.2019 16:53:57

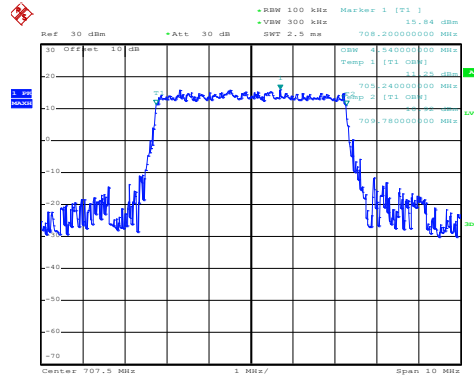
Lowest channel

16QAM



Date: 11.OCT.2019 16:54:38

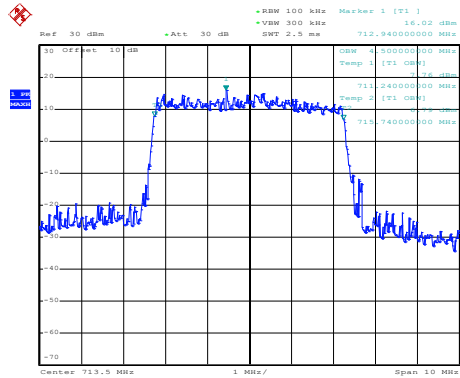
QPSK



Date: 11.OCT.2019 16:54:35

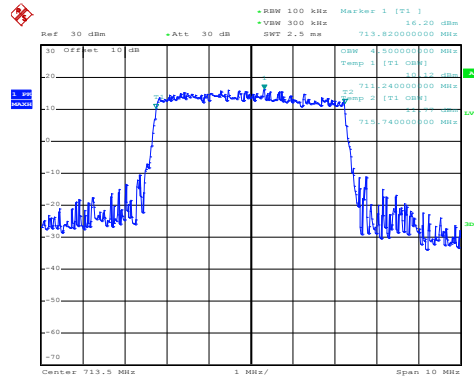
Middle channel

16QAM



Date: 11.OCT.2019 16:54:53

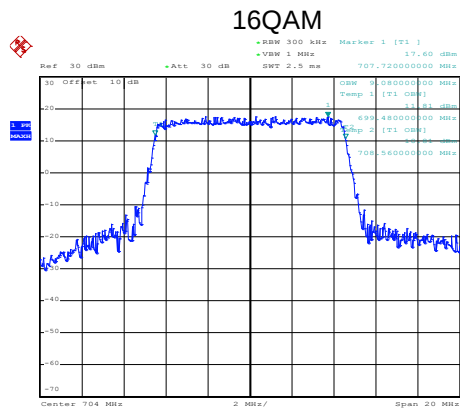
QPSK



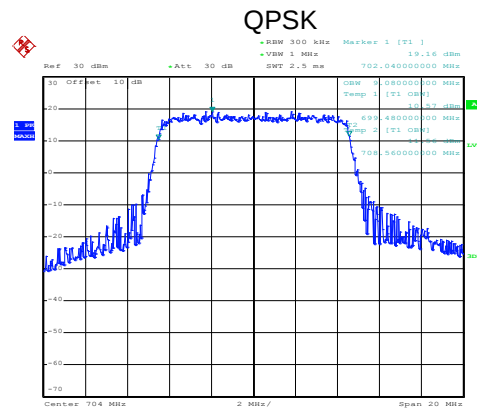
Date: 11.OCT.2019 16:54:49

Highest channel

LTE Band 12: 99% Occupy bandwidth
BW: 10MHz

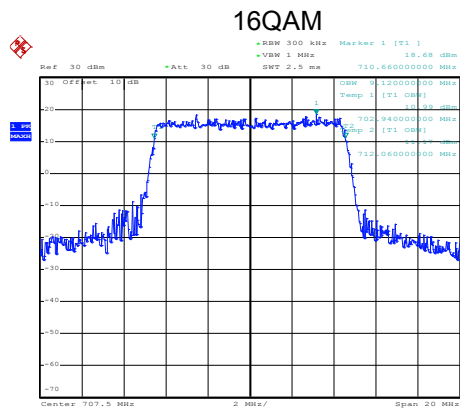


Date: 11.OCT.2019 16:56:34

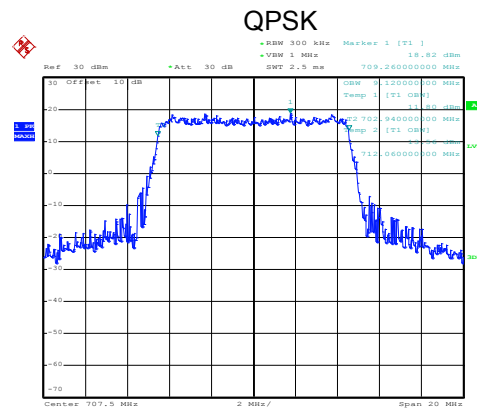


Date: 11.OCT.2019 16:56:17

Lowest channel

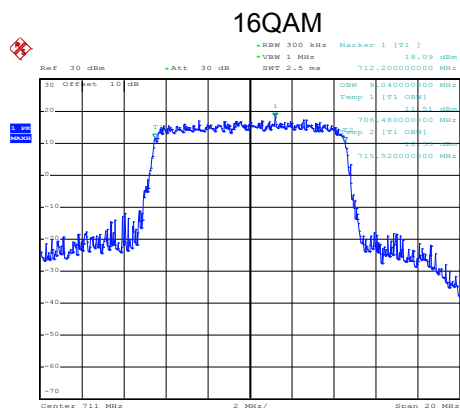


Date: 11.OCT.2019 16:57:09

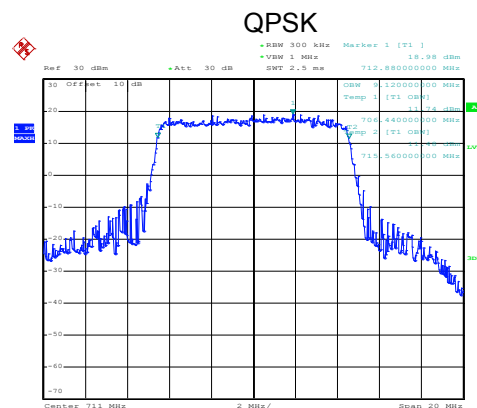


Date: 11.OCT.2019 16:57:03

Middle channel



Date: 11.OCT.2019 16:57:50

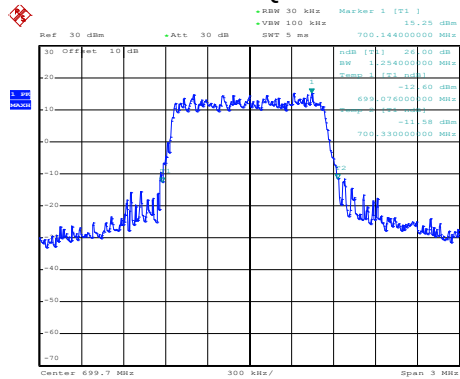


Date: 11.OCT.2019 16:57:46

Highest channel

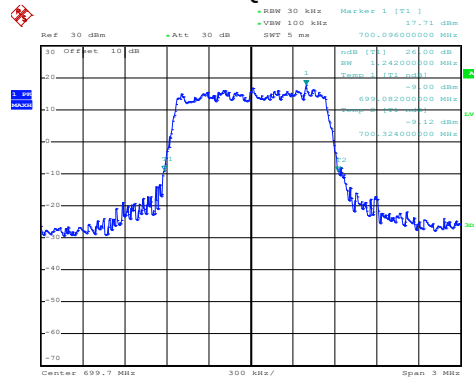
LTE Band 12: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 11.OCT.2019 16:50:14

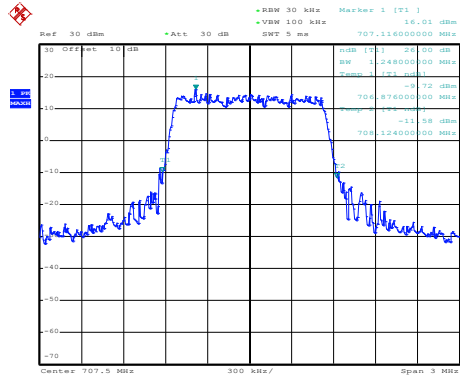
QPSK



Date: 11.OCT.2019 16:50:10

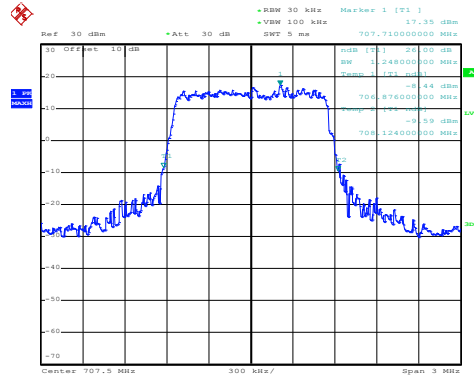
Lowest channel

16QAM



Date: 11.OCT.2019 16:50:51

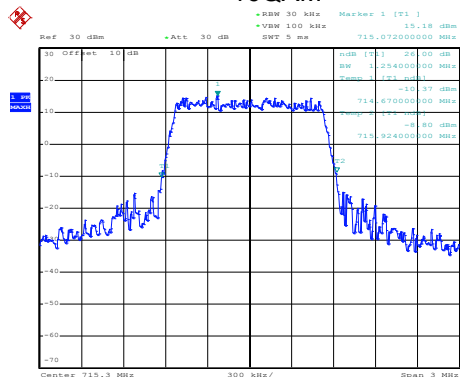
QPSK



Date: 11.OCT.2019 16:50:46

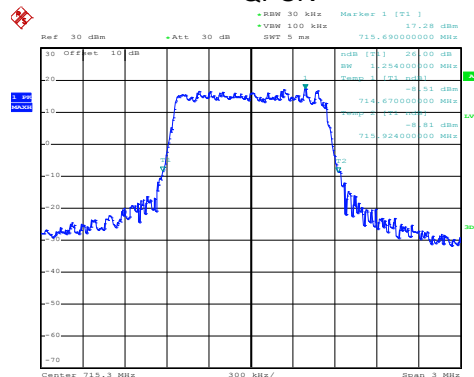
Middle channel

16QAM



Date: 11.OCT.2019 16:51:34

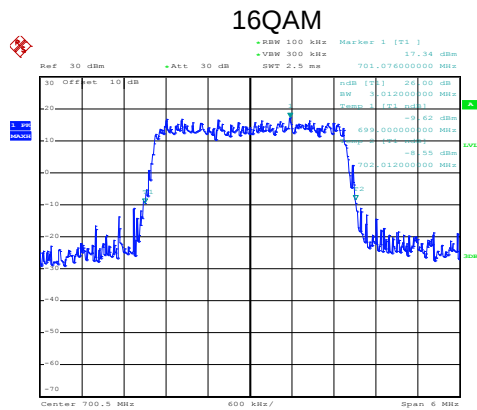
QPSK



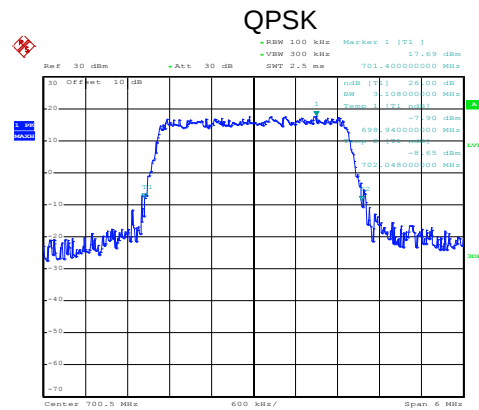
Date: 11.OCT.2019 16:51:30

Highest channel

LTE Band 12: -26dBc bandwidth
BW: 3MHz

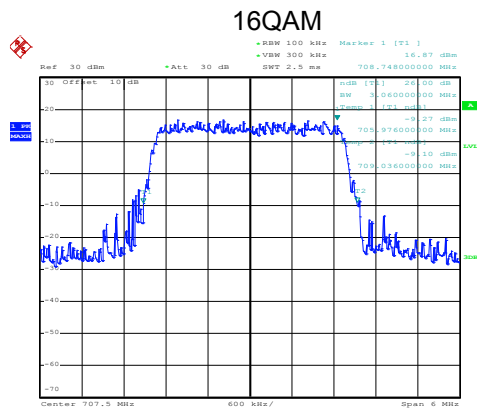


Date: 11.OCT.2019 16:52:11

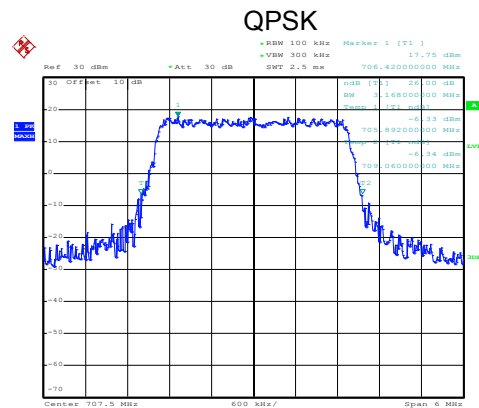


Date: 11.OCT.2019 16:52:07

Lowest channel

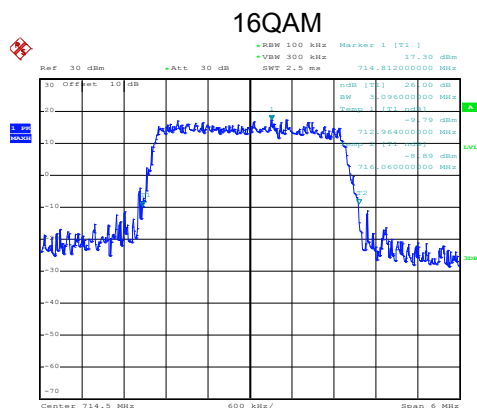


Date: 11.OCT.2019 16:53:03

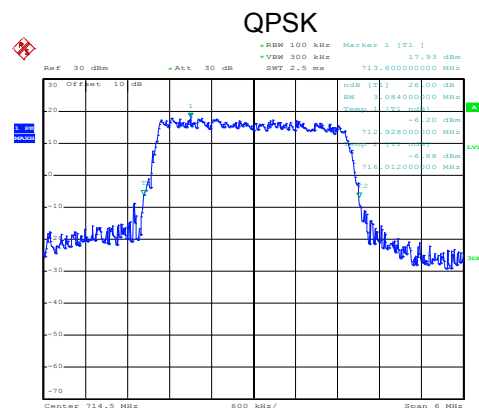


Date: 11.OCT.2019 16:52:59

Middle channel



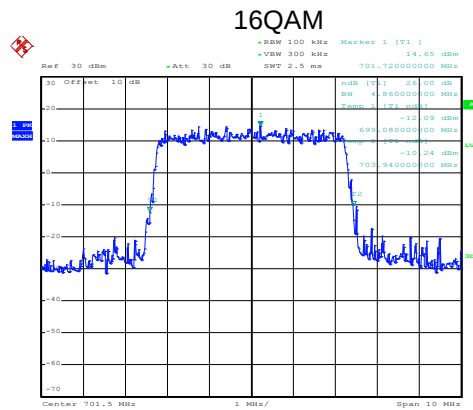
Date: 11.OCT.2019 16:53:18



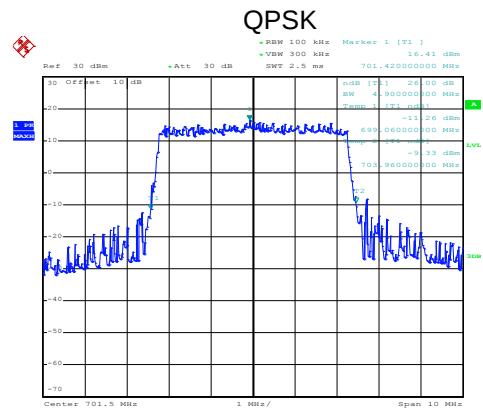
Date: 11.OCT.2019 16:53:14

Highest channel

LTE Band 12: -26dBc bandwidth
BW: 5MHz

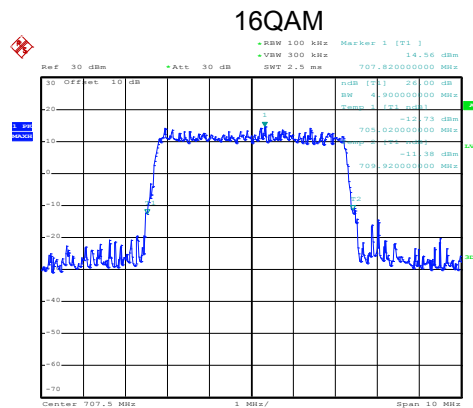


Date: 11.OCT.2019 16:54:11

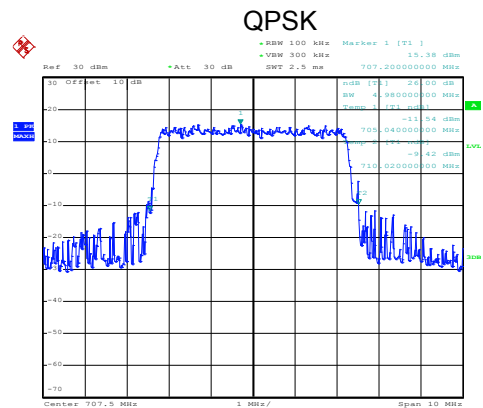


Date: 11.OCT.2019 16:54:08

Lowest channel

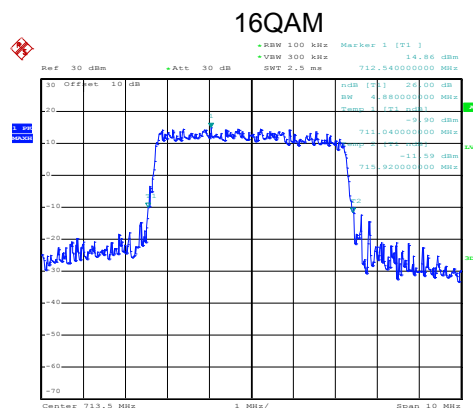


Date: 11.OCT.2019 16:54:25

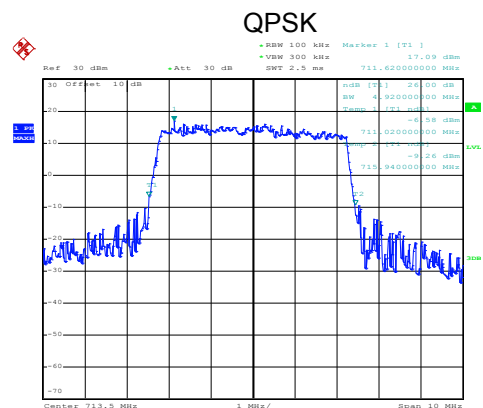


Date: 11.OCT.2019 16:54:21

Middle channel



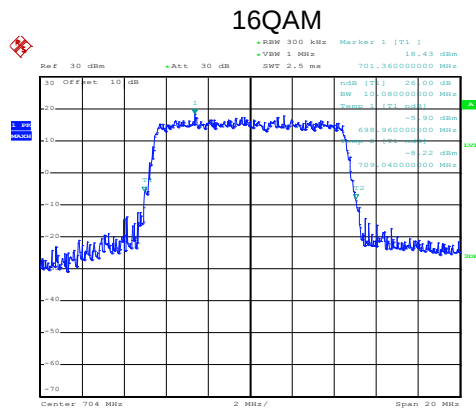
Date: 11.OCT.2019 16:55:04



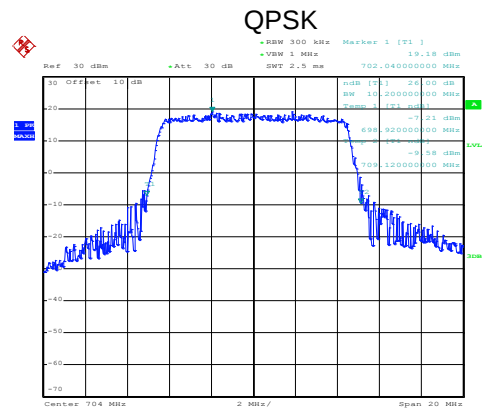
Date: 11.OCT.2019 16:55:00

Highest channel

LTE Band 12: -26dBc bandwidth
BW: 10MHz

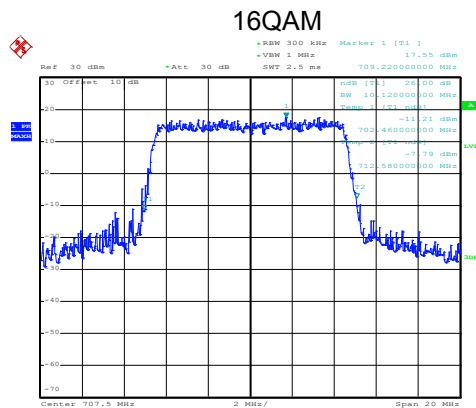


Date: 11.OCT.2019 16:56:10

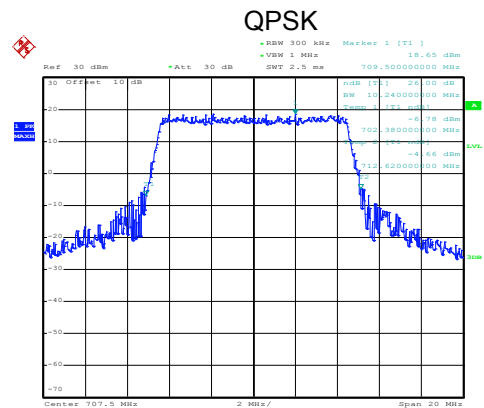


Date: 11.OCT.2019 16:56:05

Lowest channel

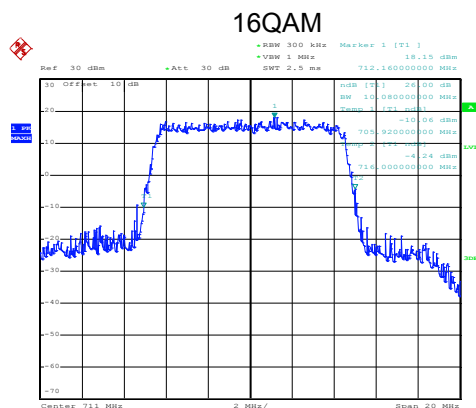


Date: 11.OCT.2019 16:57:22

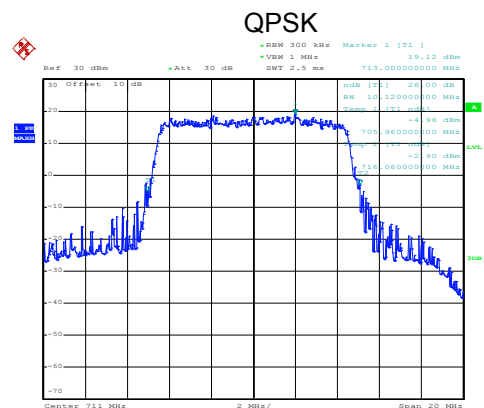


Date: 11.OCT.2019 16:57:18

Middle channel



Date: 11.OCT.2019 16:57:39

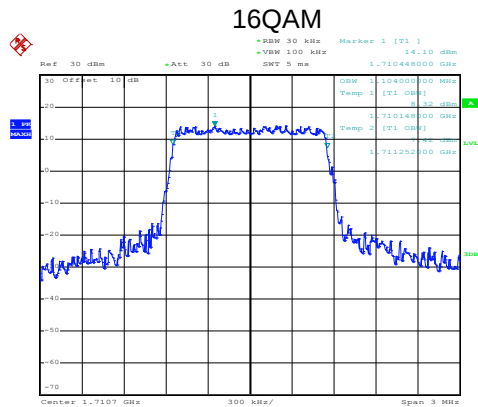


Date: 11.OCT.2019 16:57:34

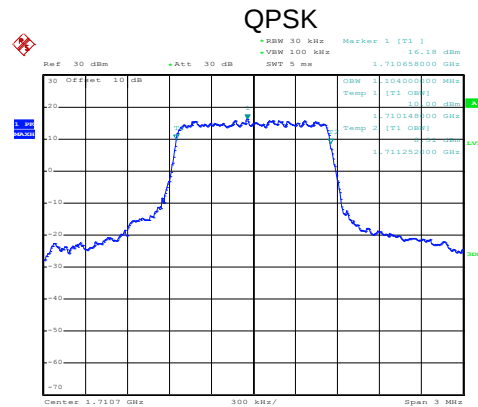
Highest channel

LTE Band 66 part:

LTE Band 66: 99% Occupy bandwidth
BW: 1.4MHz

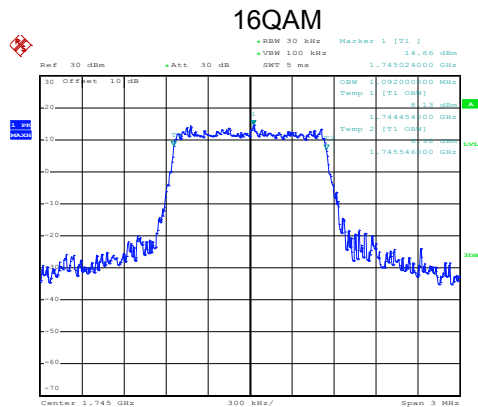


Date: 14.OCT.2019 15:47:41

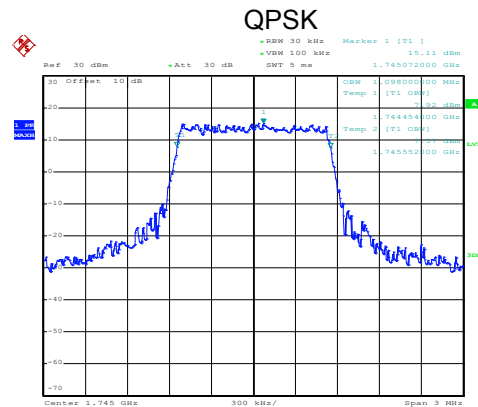


Date: 14.OCT.2019 15:47:29

Lowest channel

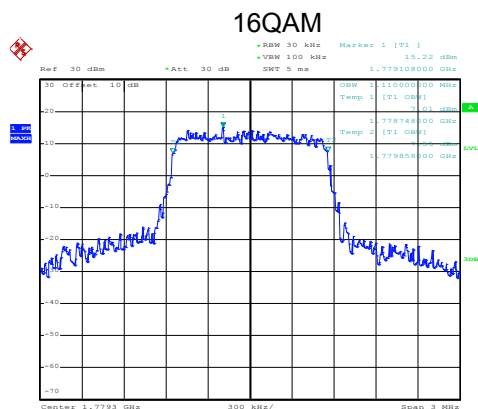


Date: 14.OCT.2019 15:49:02

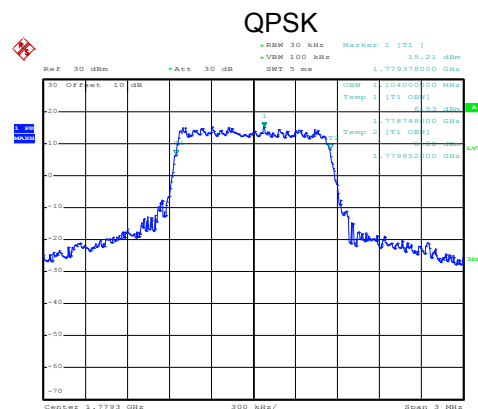


Date: 14.OCT.2019 15:48:56

Middle channel



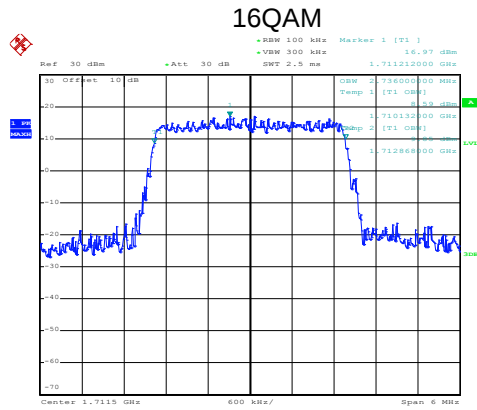
Date: 14.OCT.2019 15:49:33



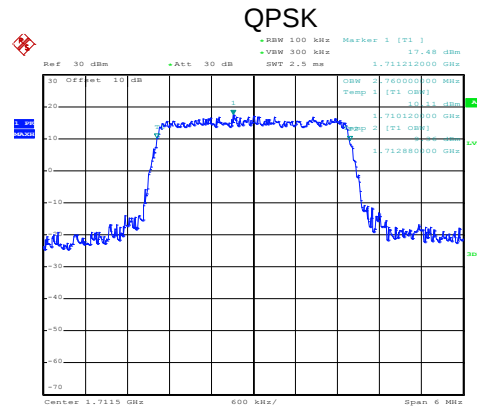
Date: 14.OCT.2019 15:49:28

Highest channel

LTE Band 66: 99% Occupy bandwidth BW: 3MHz

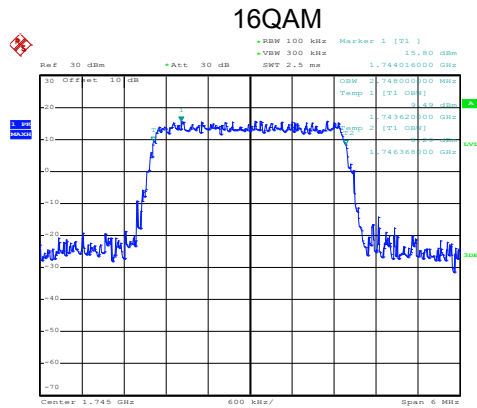


Date: 14.OCT.2019 15:51:11

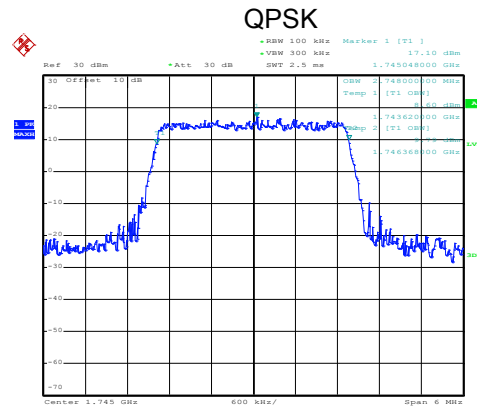


Date: 14.OCT.2019 15:51:08

Lowest channel

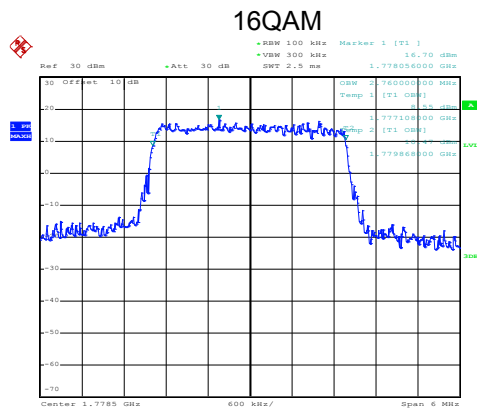


Date: 14.OCT.2019 15:51:28

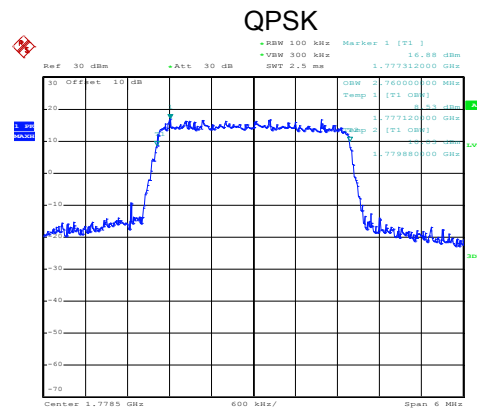


Date: 14.OCT.2019 15:51:24

Middle channel



Date: 14.OCT.2019 15:52:07

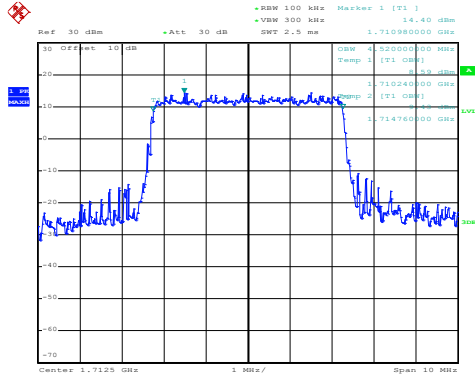


Date: 14.OCT.2019 15:52:03

Highest channel

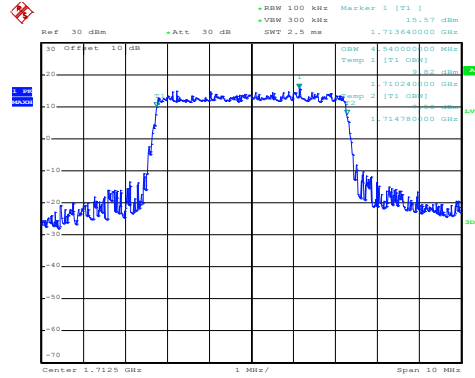
LTE Band 66: 99% Occupancy bandwidth
BW: 5MHz

16QAM



Date: 14.OCT.2019 15:52:37

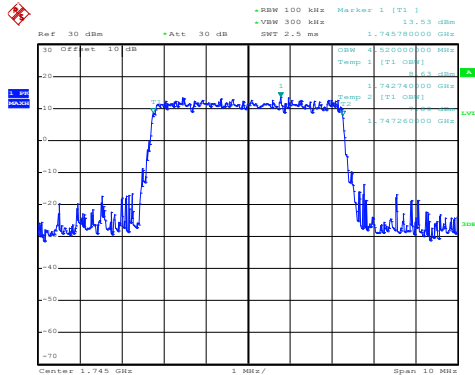
QPSK



Date: 14.OCT.2019 15:52:34

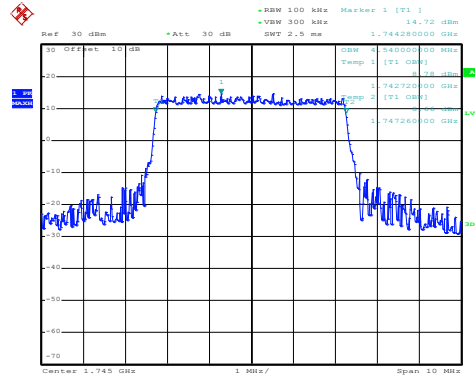
Lowest channel

16QAM



Date: 14.OCT.2019 15:53:12

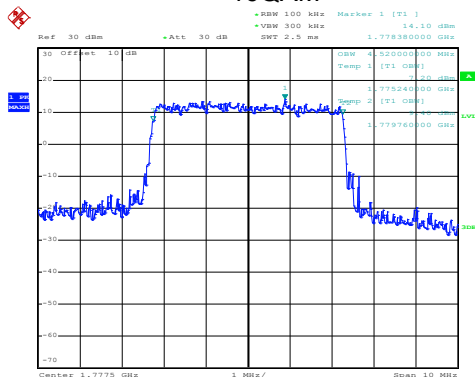
QPSK



Date: 14.OCT.2019 15:53:09

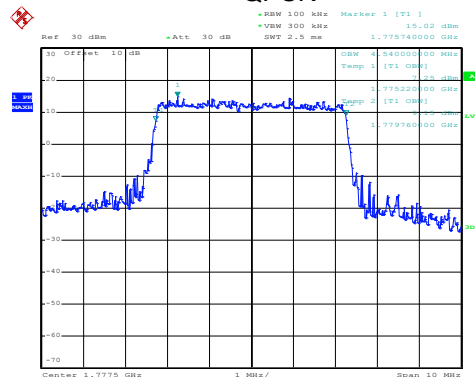
Middle channel

16QAM



Date: 14.OCT.2019 15:53:29

QPSK

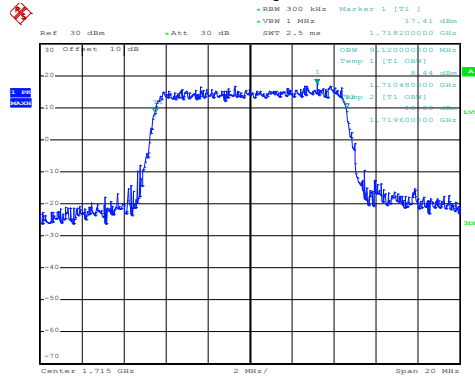


Date: 14.OCT.2019 15:53:26

Highest channel

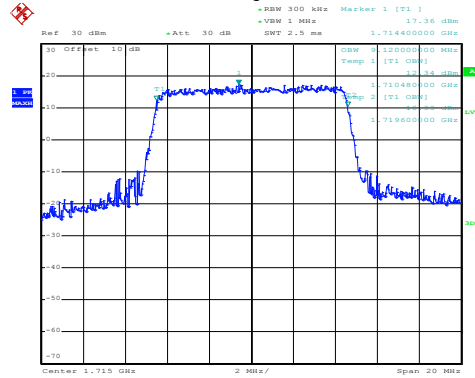
LTE Band 66: 99% Occupy bandwidth BW: 10MHz

16QAM



Date: 14.OCT.2019 15:54:26

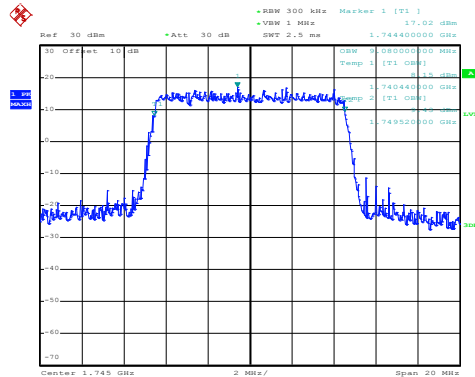
QPSK



Date: 14.OCT.2019 15:54:23

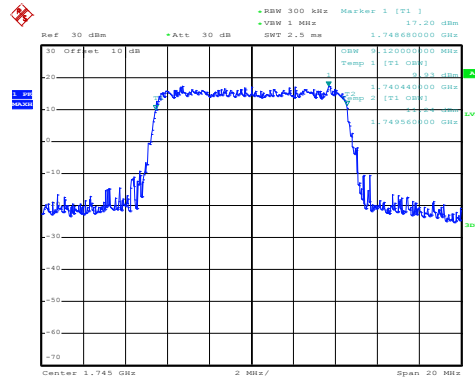
Lowest channel

16QAM



Date: 14.OCT.2019 15:54:42

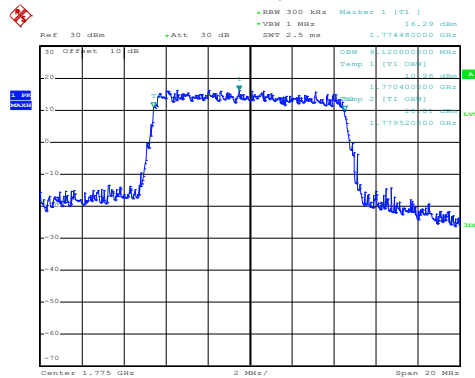
QPSK



Date: 14.OCT.2019 15:54:39

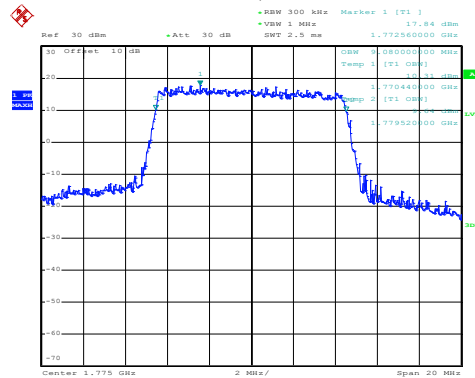
Middle channel

16QAM



Date: 14.OCT.2019 15:55:23

QPSK

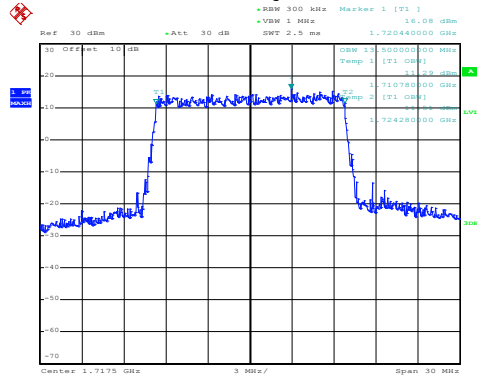


Date: 14.OCT.2019 15:55:20

Highest channel

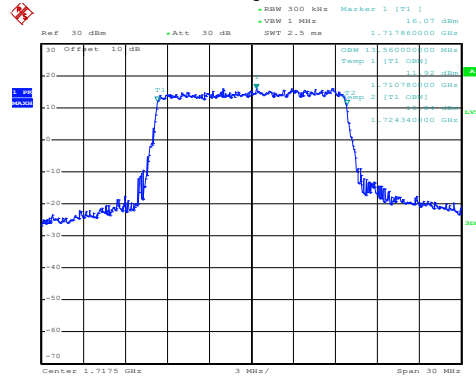
LTE Band 66: 99% Occupy bandwidth BW: 15MHz

16QAM



Date: 14.OCT.2019 15:55:54

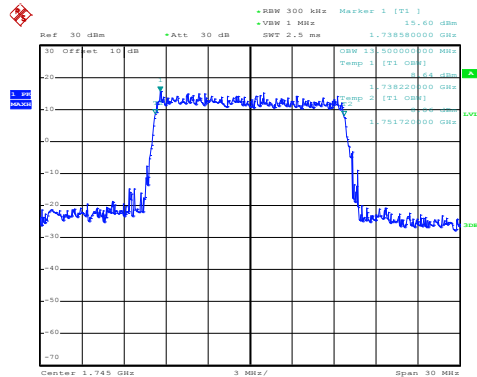
QPSK



Date: 14.OCT.2019 15:55:51

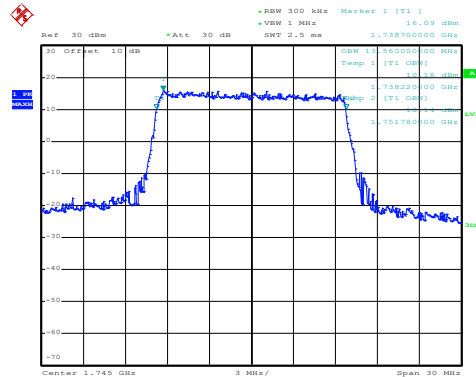
Lowest channel

16QAM



Date: 14.OCT.2019 15:56:39

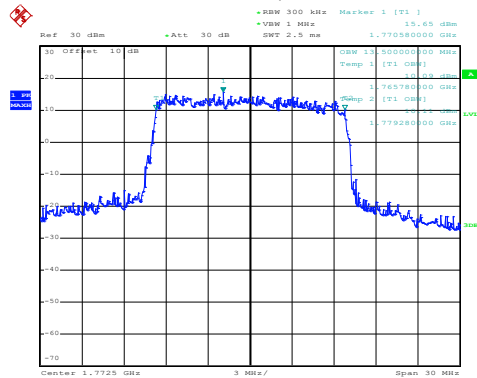
QPSK



Date: 14.OCT.2019 15:56:36

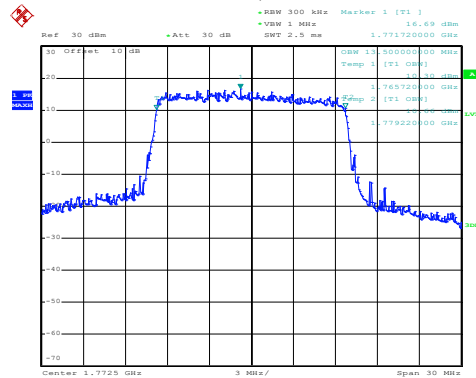
Middle channel

16QAM



Date: 14.OCT.2019 15:56:53

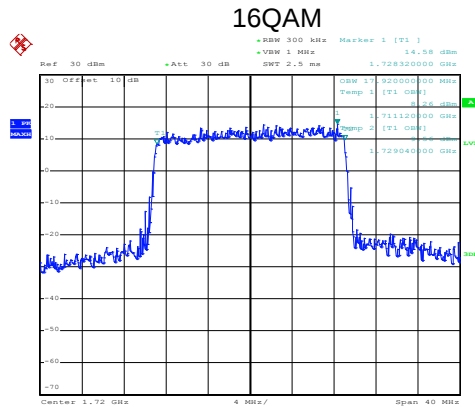
QPSK



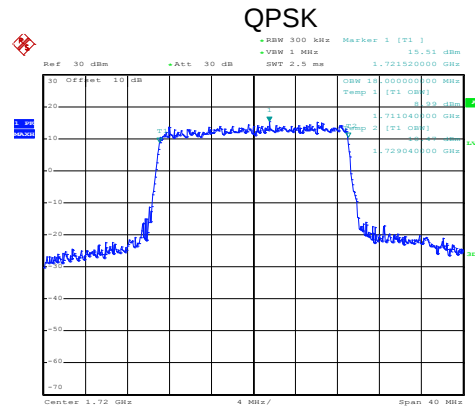
Date: 14.OCT.2019 15:56:51

Highest channel

LTE Band 66: 99% Occupy bandwidth BW: 20MHz

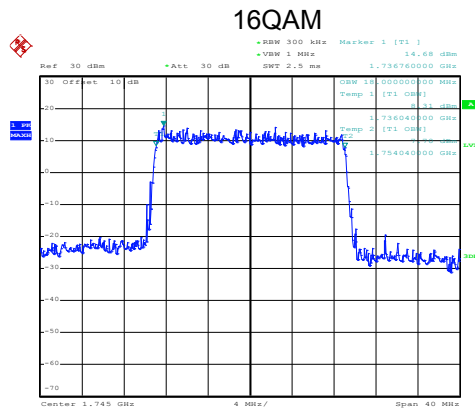


Date: 14.OCT.2019 15:57:38

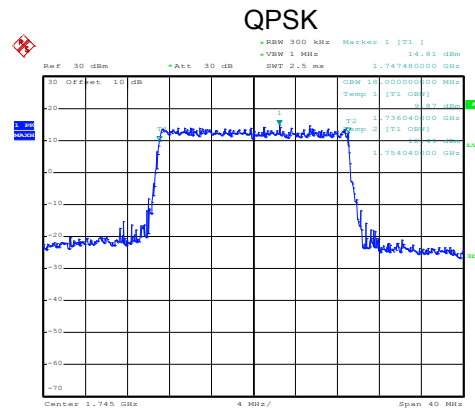


Date: 14.OCT.2019 15:57:35

Lowest channel

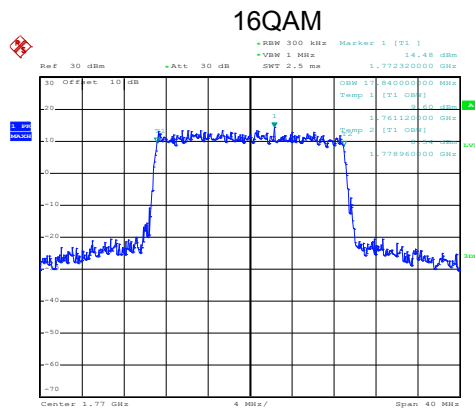


Date: 14.OCT.2019 15:57:56

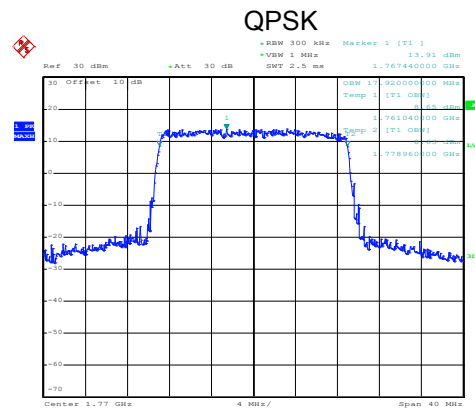


Date: 14.OCT.2019 15:57:53

Middle channel



Date: 14.OCT.2019 15:58:33

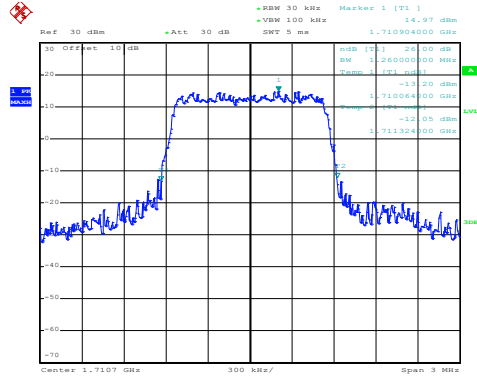


Date: 14.OCT.2019 15:58:30

Highest channel

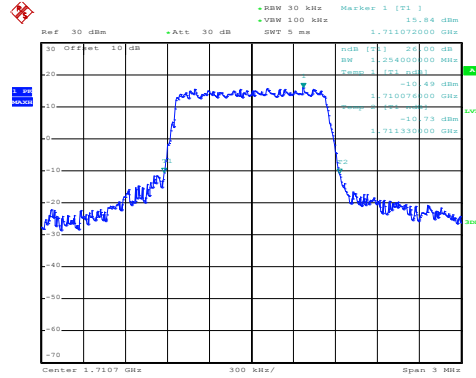
LTE Band 66: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 14.OCT.2019 15:48:05

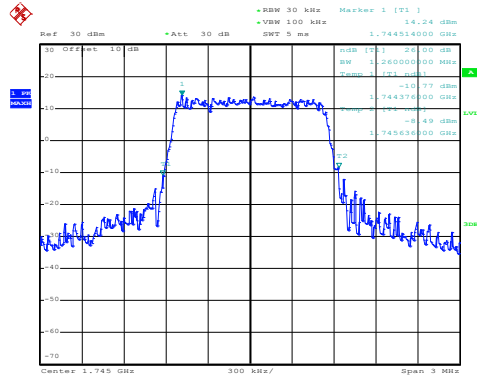
QPSK



Date: 14.OCT.2019 15:47:58

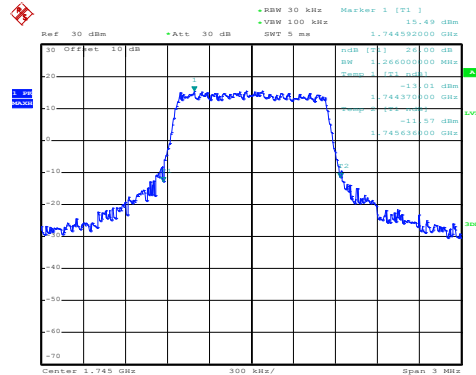
Lowest channel

16QAM



Date: 14.OCT.2019 15:48:47

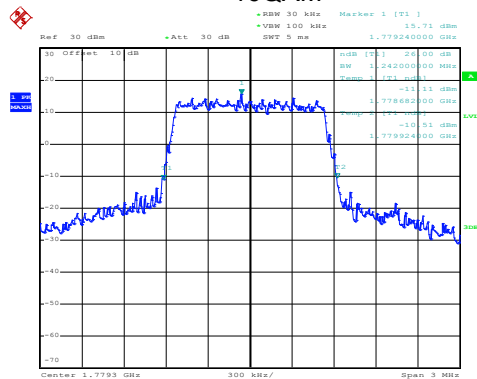
QPSK



Date: 14.OCT.2019 15:48:40

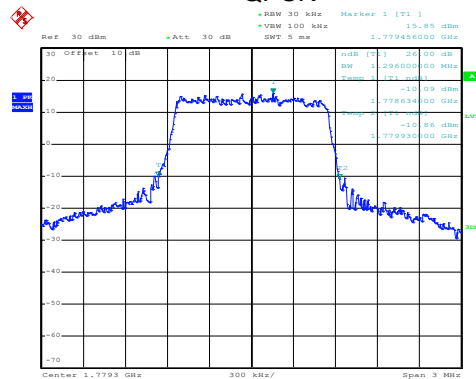
Middle channel

16QAM



Date: 14.OCT.2019 15:49:48

QPSK

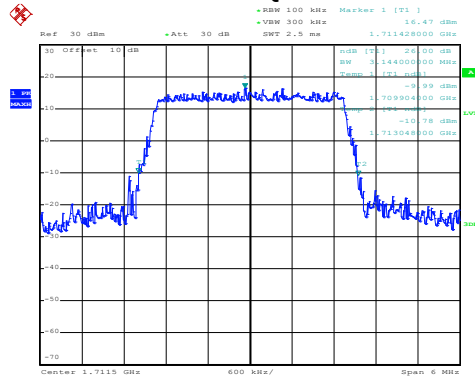


Date: 14.OCT.2019 15:49:44

Highest channel

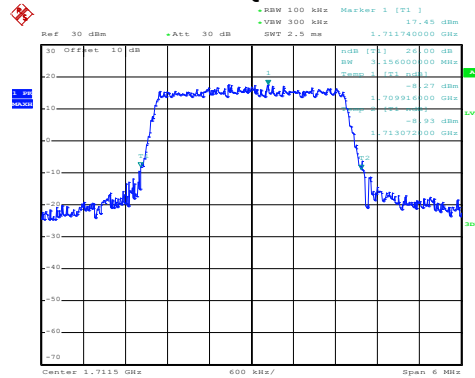
LTE Band 66: -26dBc bandwidth BW: 3MHz

16QAM



Date: 14.OCT.2019 15:50:58

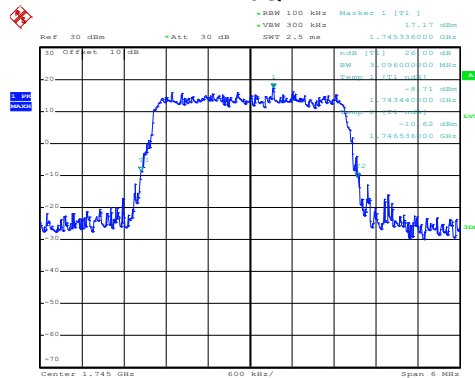
QPSK



Date: 14.OCT.2019 15:50:51

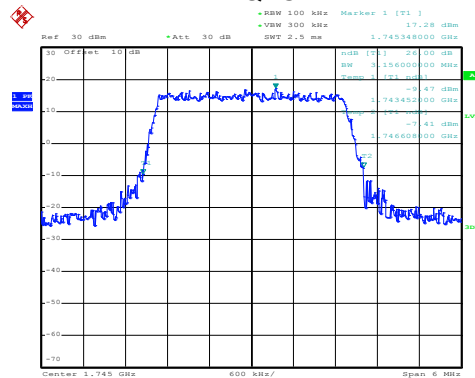
Lowest channel

16QAM



Date: 14.OCT.2019 15:51:38

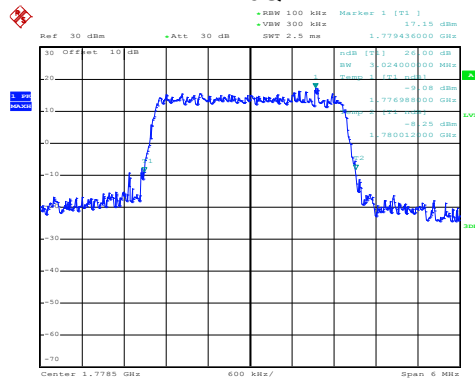
QPSK



Date: 14.OCT.2019 15:51:35

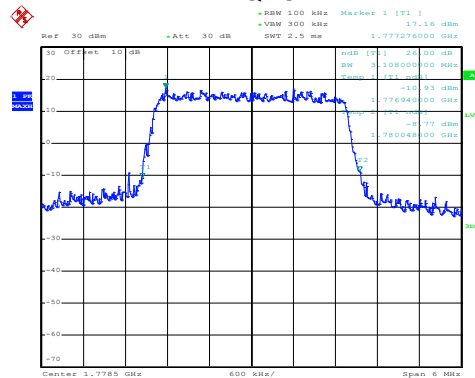
Middle channel

16QAM



Date: 14.OCT.2019 15:51:57

QPSK

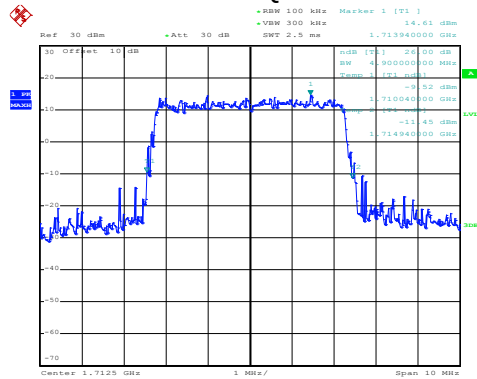


Date: 14.OCT.2019 15:51:54

Highest channel

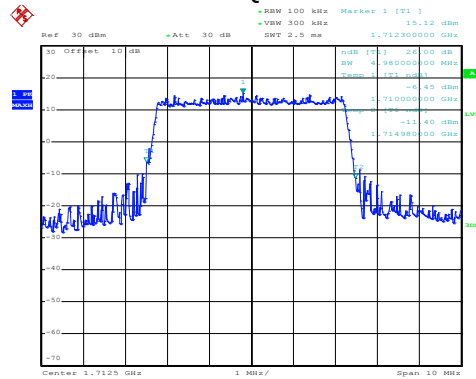
LTE Band 66: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 14.OCT.2019 15:52:46

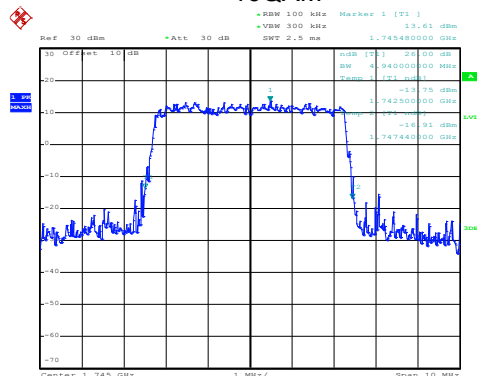
QPSK



Date: 14.OCT.2019 15:52:43

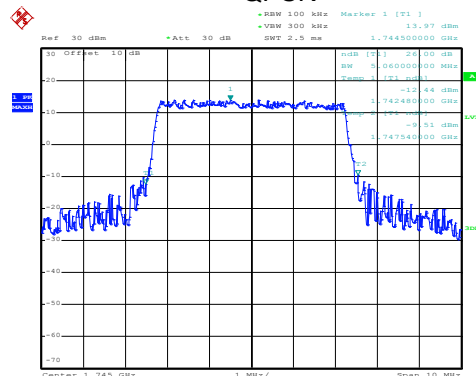
Lowest channel

16QAM



Date: 14.OCT.2019 15:53:02

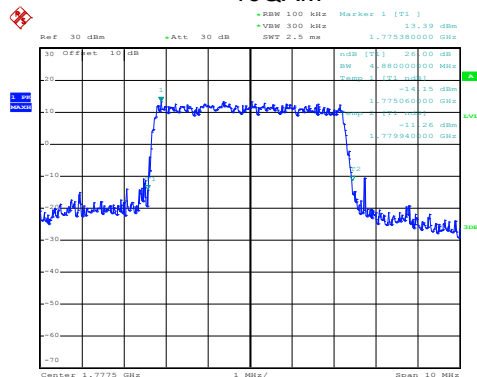
QPSK



Date: 14.OCT.2019 15:53:00

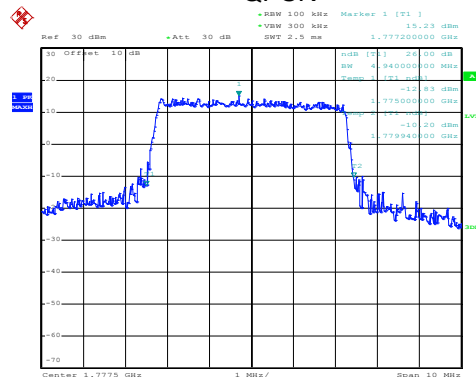
Middle channel

16QAM



Date: 14.OCT.2019 15:53:39

QPSK

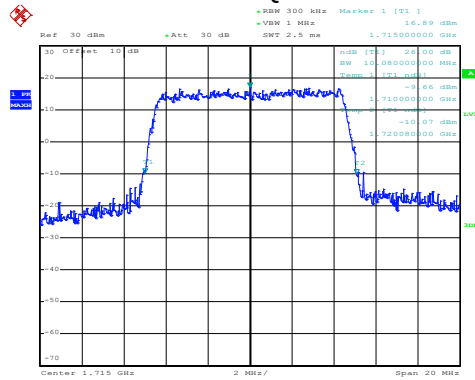


Date: 14.OCT.2019 15:53:36

Highest channel

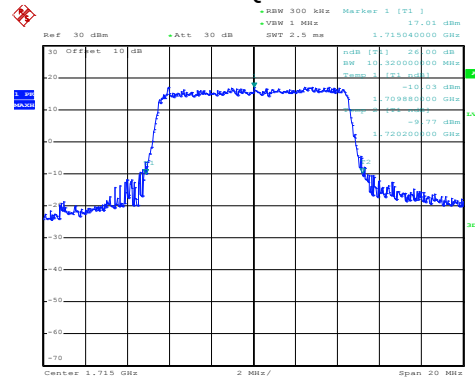
LTE Band 66: -26dBc bandwidth BW: 10MHz

16QAM



Date: 14.OCT.2019 15:54:17

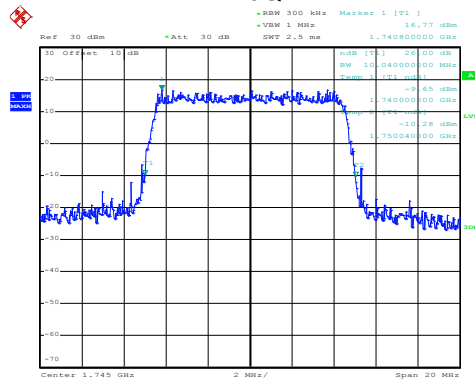
QPSK



Date: 14.OCT.2019 15:54:14

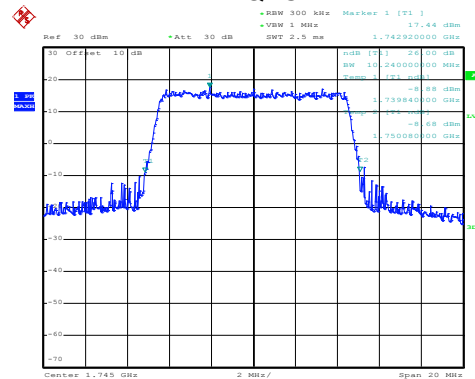
Lowest channel

16QAM



Date: 14.OCT.2019 15:54:52

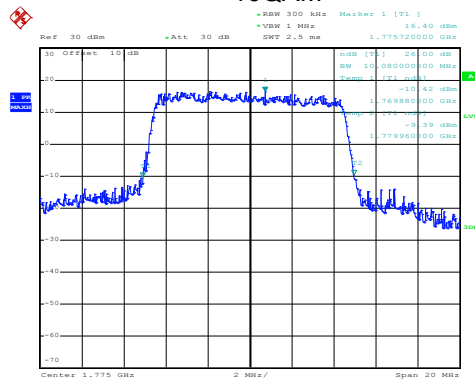
QPSK



Date: 14.OCT.2019 15:54:48

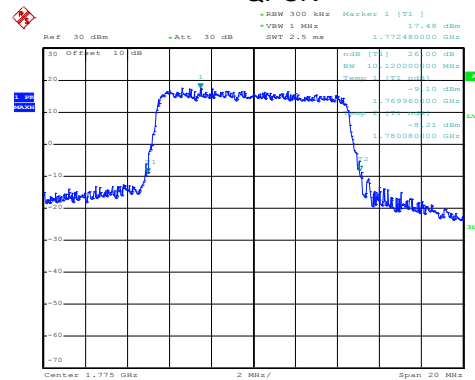
Middle channel

16QAM



Date: 14.OCT.2019 15:55:14

QPSK

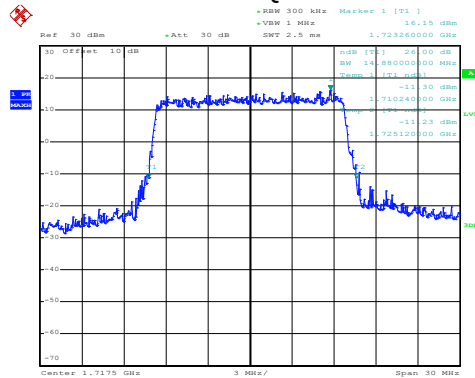


Date: 14.OCT.2019 15:55:11

Highest channel

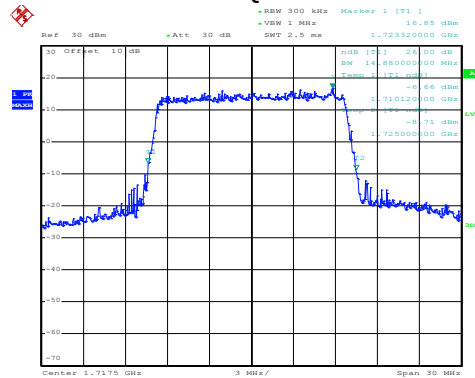
LTE Band 66: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 14.OCT.2019 15:56:04

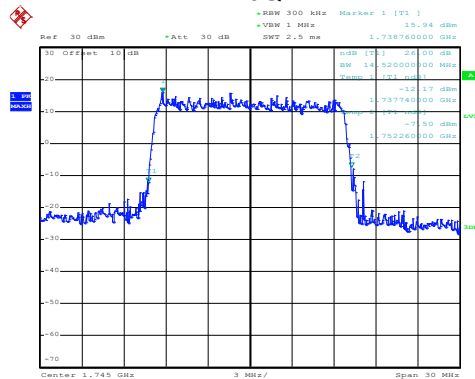
QPSK



Date: 14.OCT.2019 15:56:01

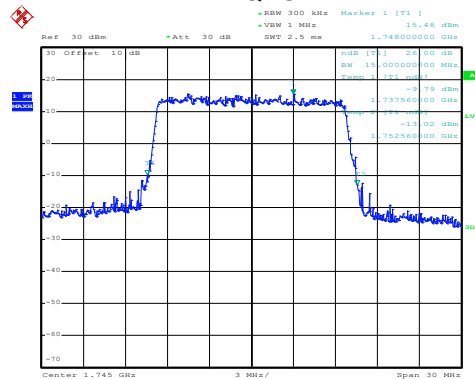
Lowest channel

16QAM



Date: 14.OCT.2019 15:56:21

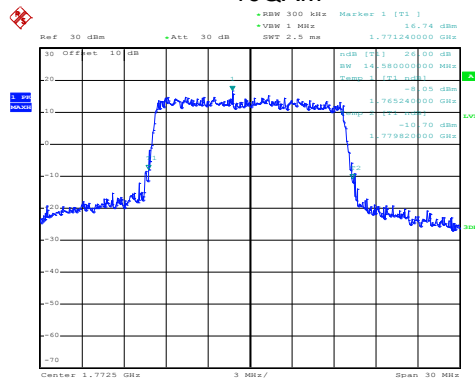
QPSK



Date: 14.OCT.2019 15:56:19

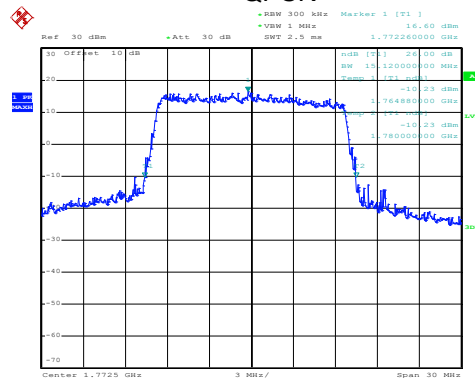
Middle channel

16QAM



Date: 14.OCT.2019 15:57:03

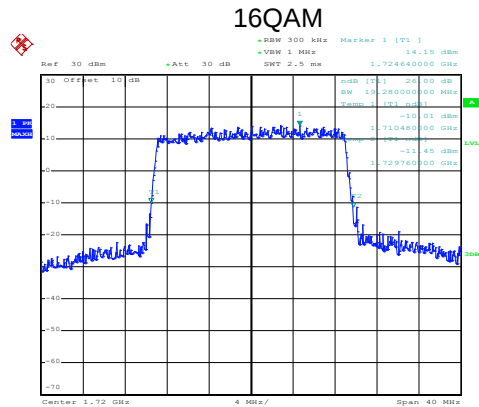
QPSK



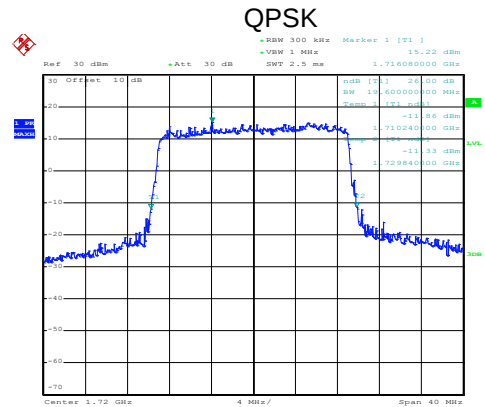
Date: 14.OCT.2019 15:57:00

Highest channel

LTE Band 66: -26dBc bandwidth
BW: 20MHz

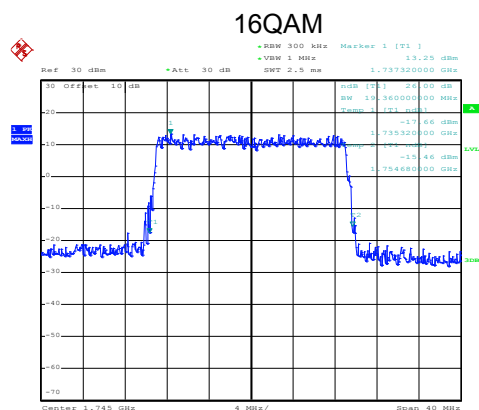


Date: 14.OCT.2019 15:57:30

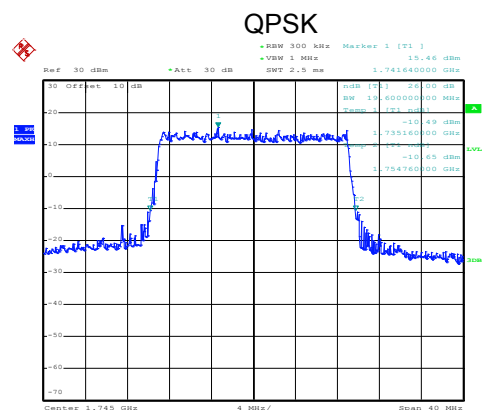


Date: 14.OCT.2019 15:57:27

Lowest channel

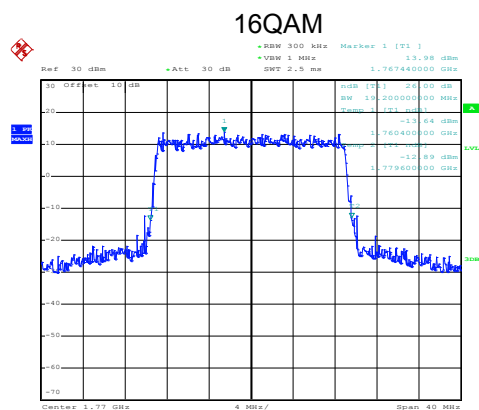


Date: 14.OCT.2019 15:58:05

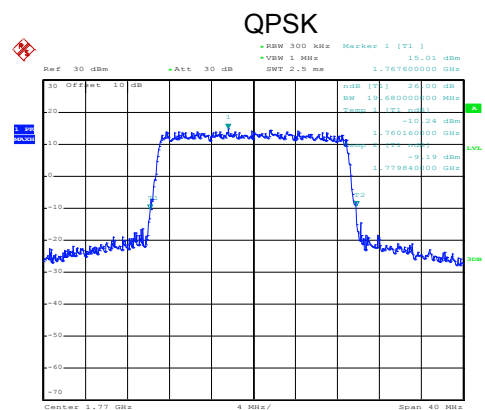


Date: 14.OCT.2019 15:58:02

Middle channel



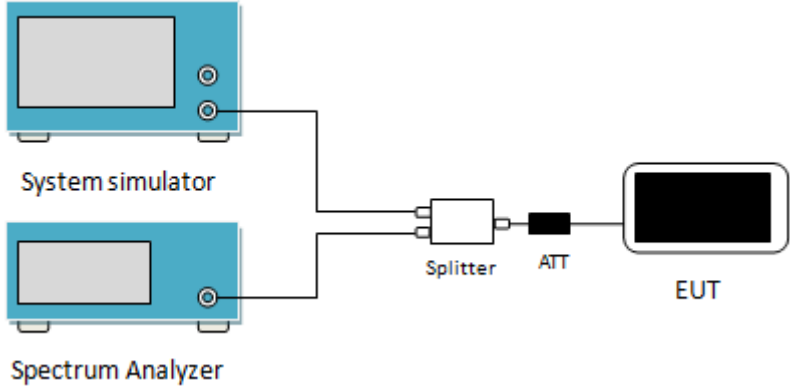
Date: 14.OCT.2019 15:58:22



Date: 14.OCT.2019 15:58:20

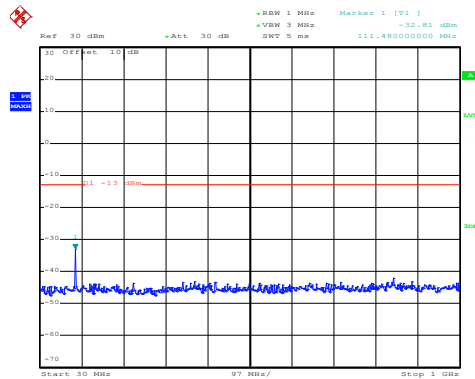
Highest channel

6.4 Out of band emission at antenna terminals

Test Requirement:	Part 24.238 (a), Part 27.53 (g), part 27.53(h)
Limit:	LTE Band 2 & 4 & 12 & 66: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB (-13 dBm).
Test Setup:	 The diagram illustrates the test setup. On the left, there are two blue rectangular units: the top one is labeled 'System simulator' and the bottom one is labeled 'Spectrum Analyzer'. Both have a single output port. These two ports are connected to a single input port of a white rectangular unit labeled 'Splitter'. The 'Splitter' has two output ports. One output port is connected to a black rectangular unit labeled 'ATT' (attenuator). The other output port of the 'Splitter' is connected to the input port of a black rectangular unit labeled 'EUT' (Equipment Under Test).
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: For Band 12 set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, For Band 2/4/66 set the RBW=1 MHz, VBW=3 MHz 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.

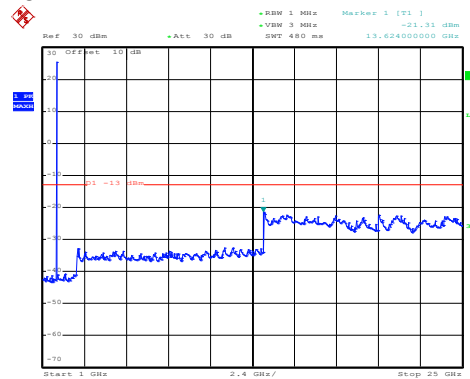
Test plots as follows (Conducted spurious emission) (worst case):
LTE Band 2 part:

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



Date: 11.OCT.2019 18:01:35

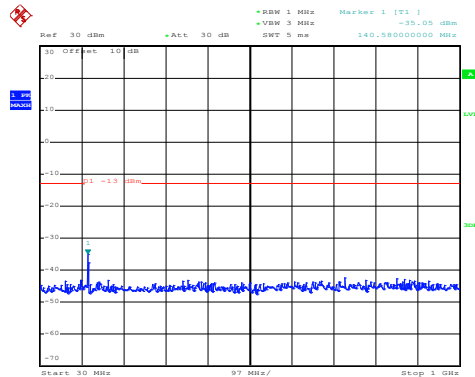
30MHz~1GHz



Date: 11.OCT.2019 18:07:26

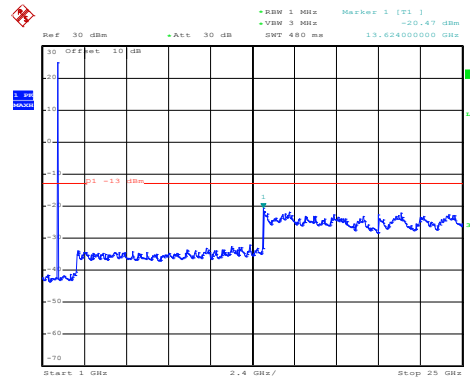
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 18:02:08

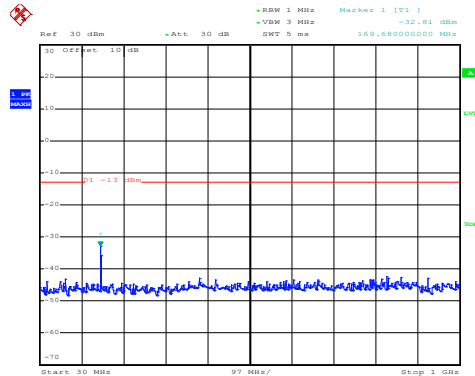
30MHz~1GHz



Date: 11.OCT.2019 18:08:34

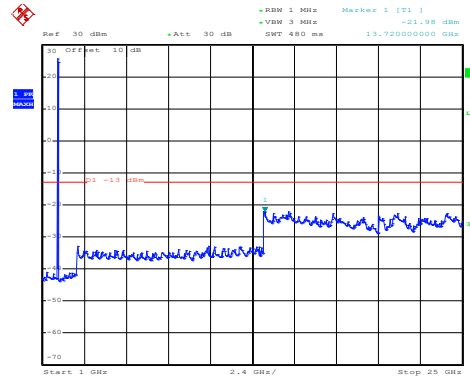
1GHz~25GHz

High channel



Date: 11.OCT.2019 18:02:20

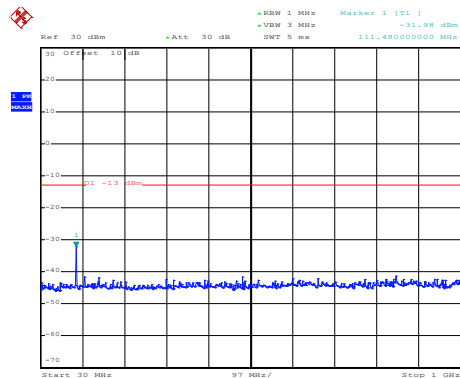
30MHz~1GHz



Date: 11.OCT.2019 18:09:03

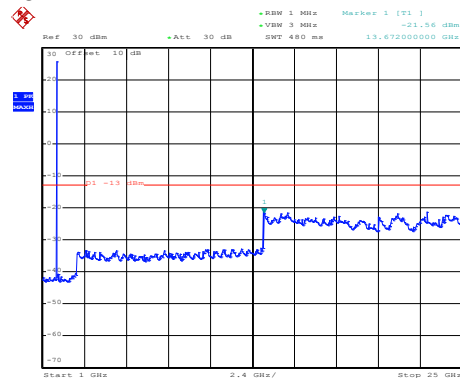
1GHz~25GHz

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



Date: 11.OCT.2019 18:01:31

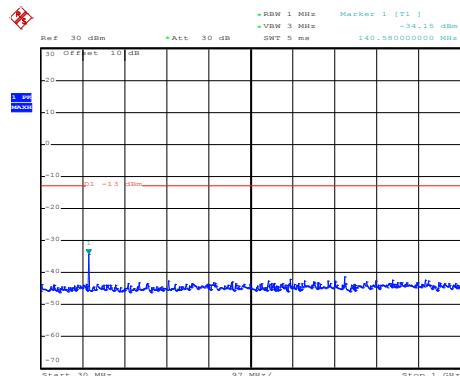
30MHz~1GHz



Date: 11.OCT.2019 18:07:17

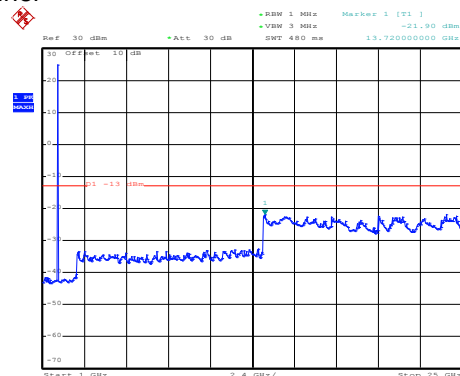
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 18:02:04

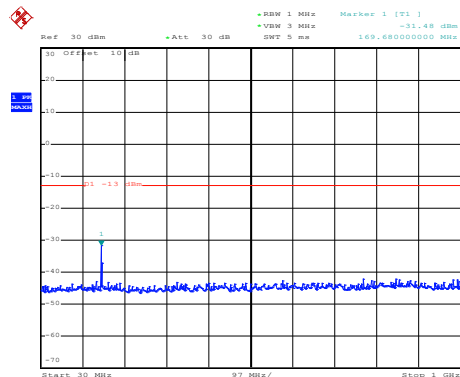
30MHz~1GHz



Date: 11.OCT.2019 18:08:27

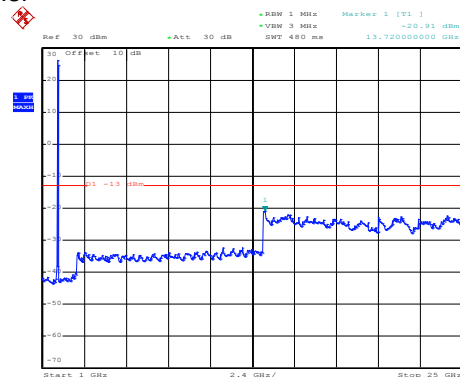
1GHz~25GHz

High channel



Date: 11.OCT.2019 18:02:17

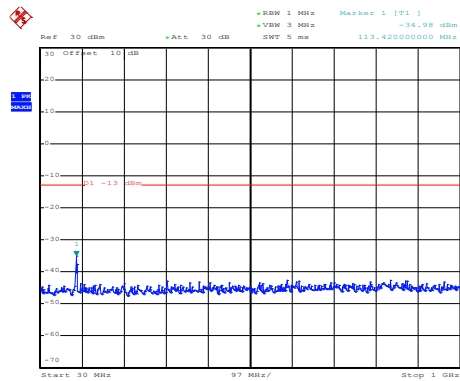
30MHz~1GHz



Date: 11.OCT.2019 18:08:56

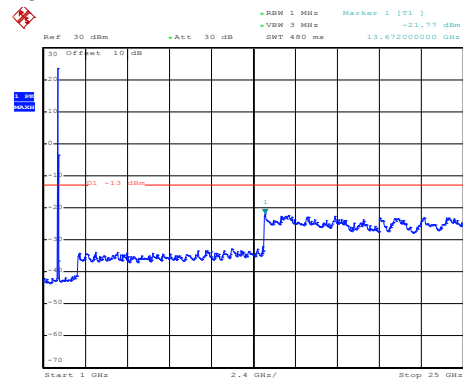
1GHz~25GHz

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



Date: 11.OCT.2019 18:02:57

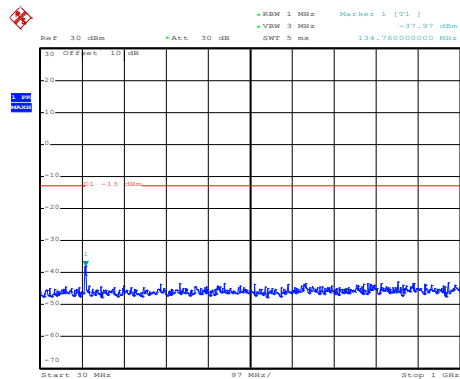
30MHz~1GHz



Date: 11.OCT.2019 18:06:26

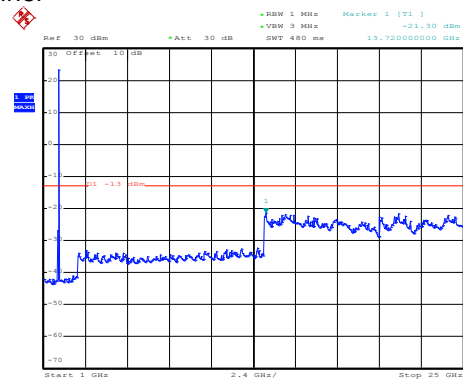
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 18:03:39

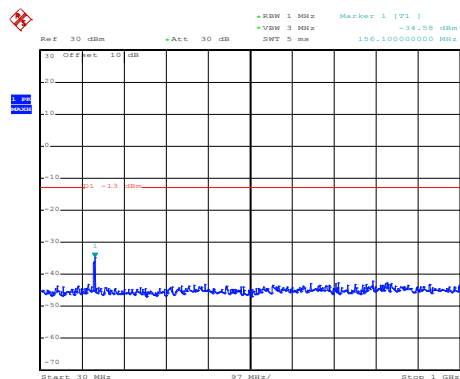
30MHz~1GHz



Date: 11.OCT.2019 18:06:05

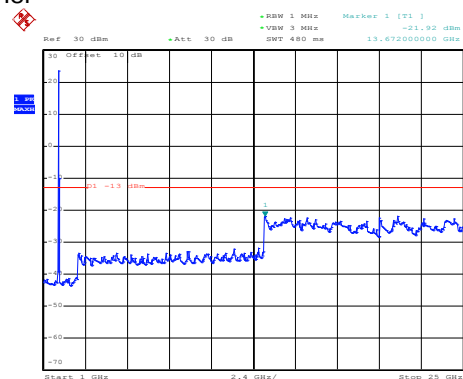
1GHz~25GHz

High channel



Date: 11.OCT.2019 18:03:56

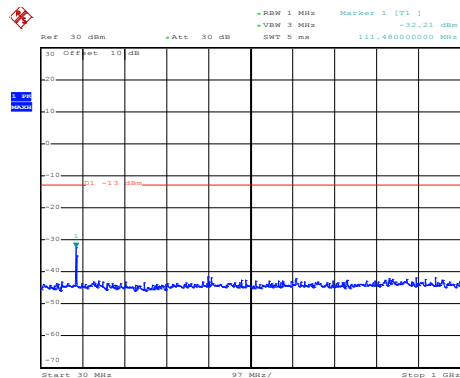
30MHz~1GHz



Date: 11.OCT.2019 18:05:03

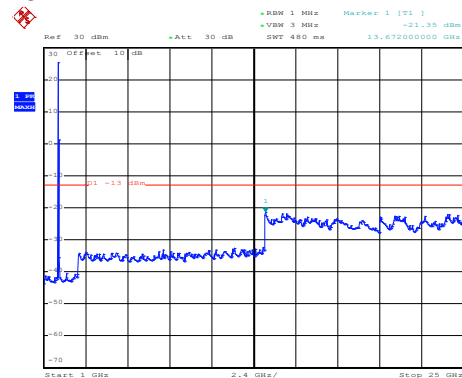
1GHz~25GHz

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



Date: 11.OCT.2019 18:02:53

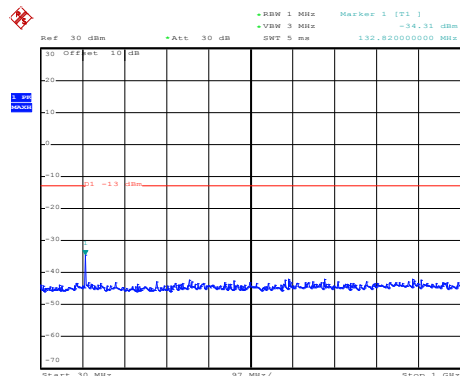
30MHz~1GHz



Date: 11.OCT.2019 18:06:19

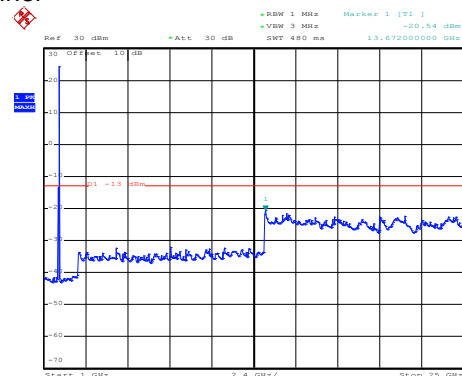
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 18:03:35

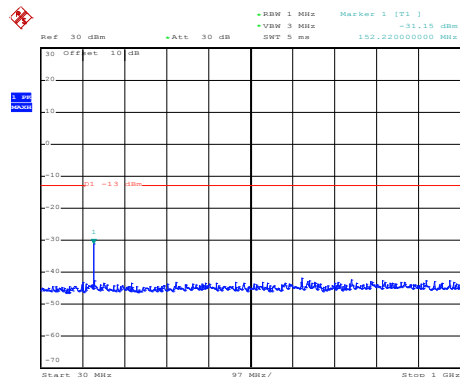
30MHz~1GHz



Date: 11.OCT.2019 18:05:58

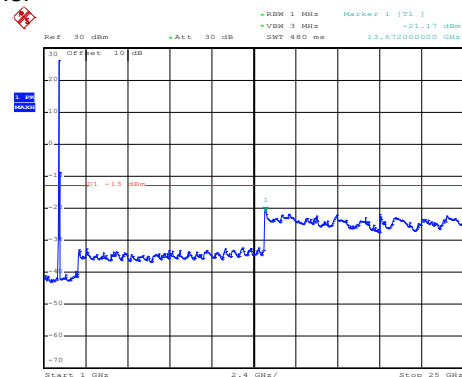
1GHz~25GHz

High channel



Date: 11.OCT.2019 18:03:51

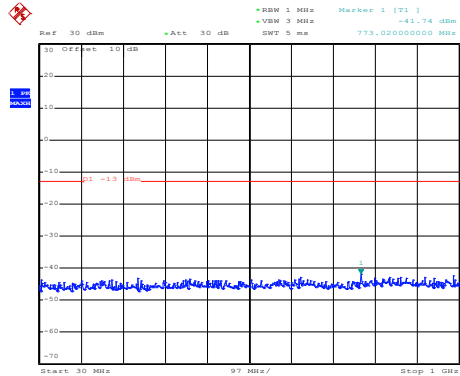
30MHz~1GHz



Date: 11.OCT.2019 18:04:54

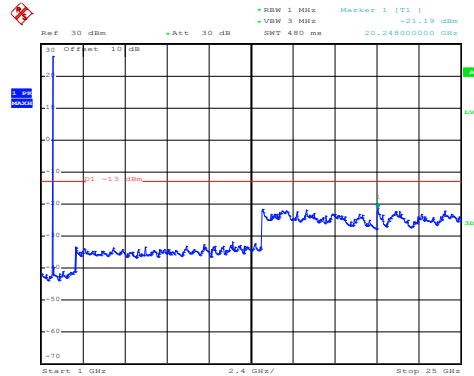
1GHz~25GHz

LTE Band 4 part:

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

Date: 11.OCT.2019 17:59:02

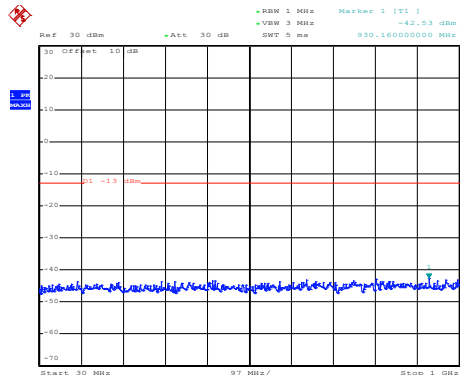
30MHz~1GHz



Date: 11.OCT.2019 17:52:25

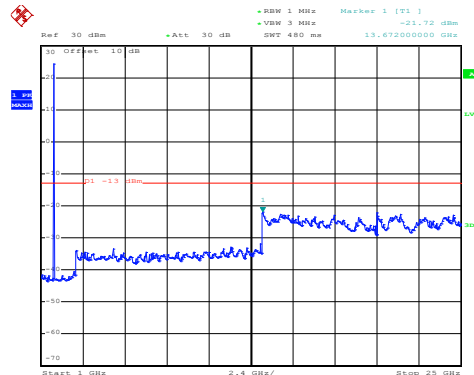
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 17:59:38

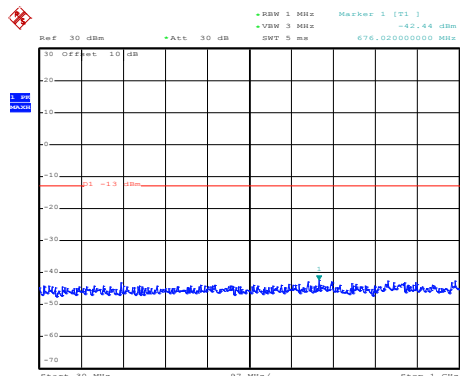
30MHz~1GHz



Date: 11.OCT.2019 17:53:34

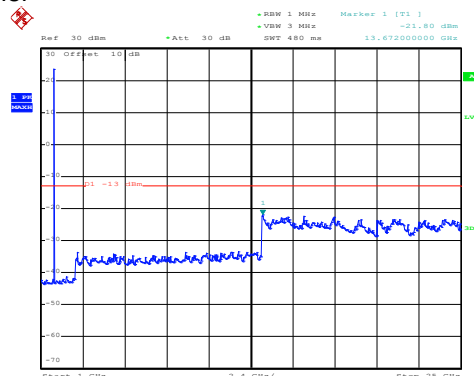
1GHz~25GHz

High channel



Date: 11.OCT.2019 17:59:56

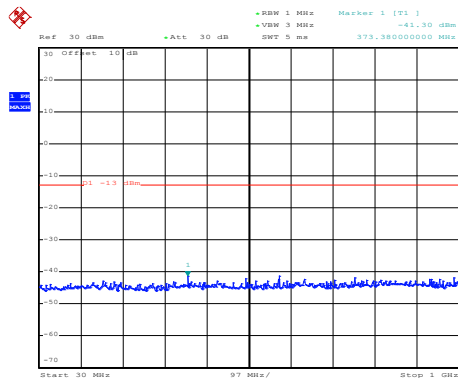
30MHz~1GHz



Date: 11.OCT.2019 17:53:57

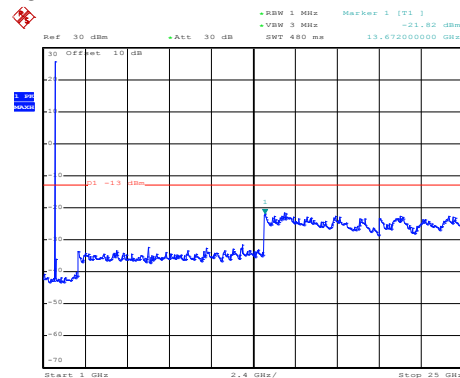
1GHz~25GHz

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



Date: 11.OCT.2019 17:58:58

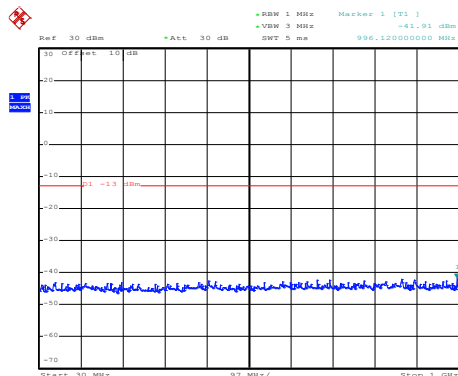
30MHz~1GHz



Date: 11.OCT.2019 17:52:32

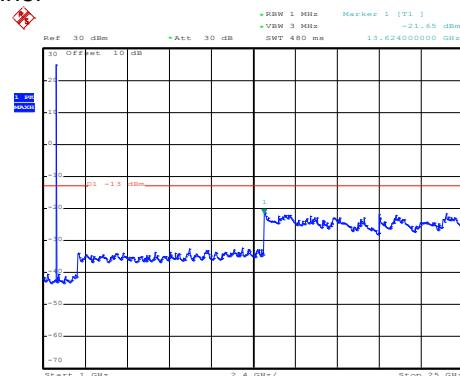
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 17:59:34

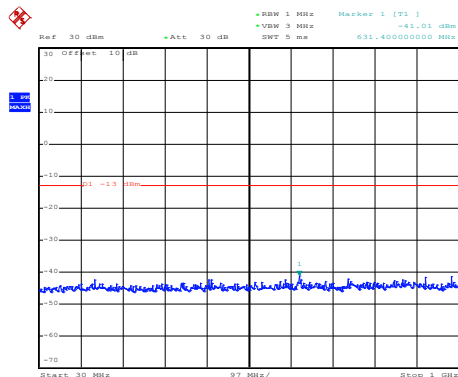
30MHz~1GHz



Date: 11.OCT.2019 17:53:29

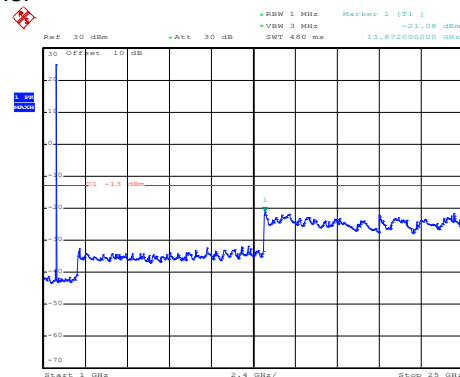
1GHz~25GHz

High channel



Date: 11.OCT.2019 17:59:52

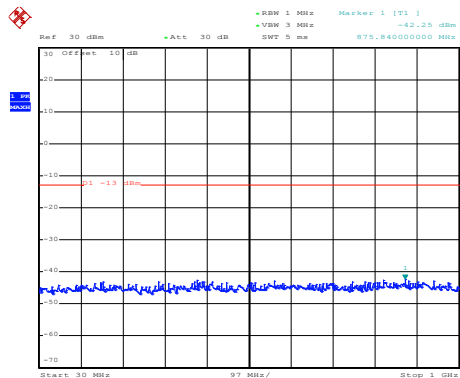
30MHz~1GHz



Date: 11.OCT.2019 17:53:52

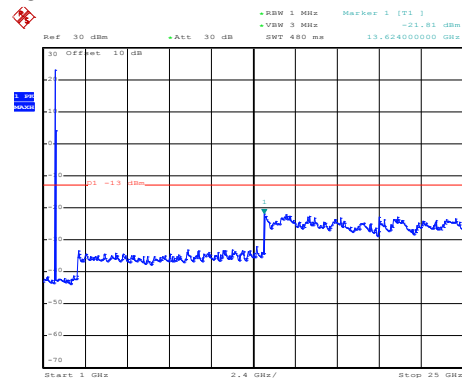
1GHz~25GHz

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



Date: 11.OCT.2019 17:58:19

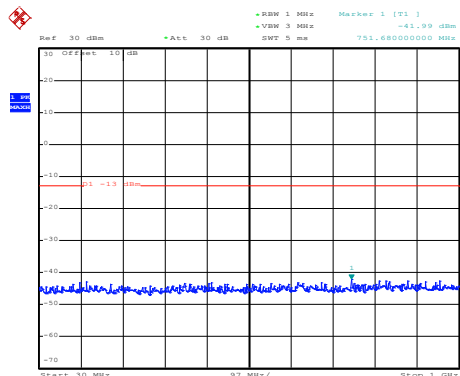
30MHz~1GHz



Date: 11.OCT.2019 17:55:23

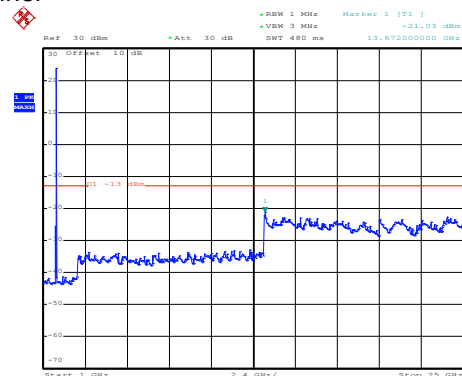
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 17:58:04

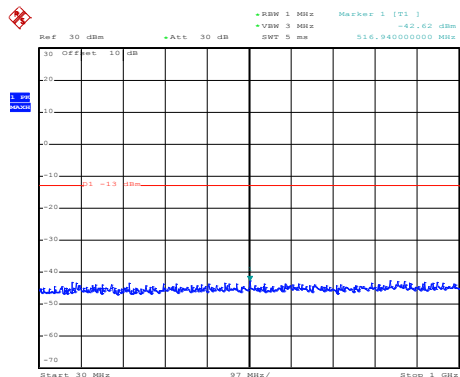
30MHz~1GHz



Date: 11.OCT.2019 17:56:23

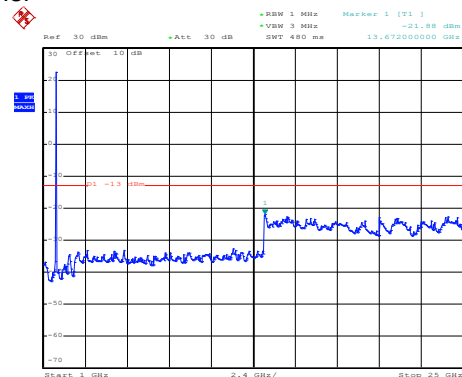
1GHz~25GHz

High channel



Date: 11.OCT.2019 17:57:29

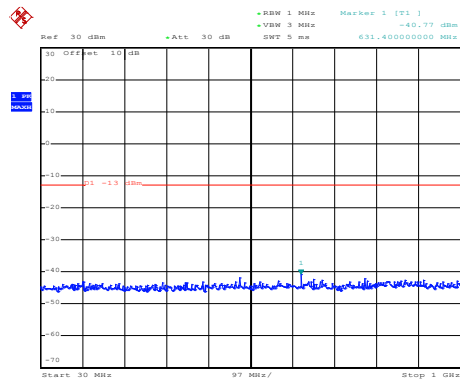
30MHz~1GHz



Date: 11.OCT.2019 17:56:39

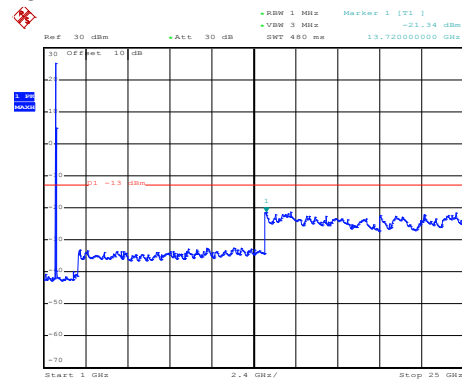
1GHz~25GHz

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



Date: 11.OCT.2019 17:58:14

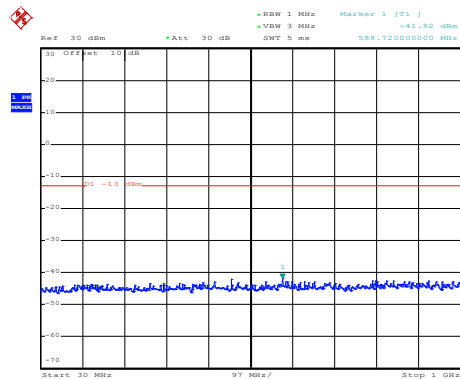
30MHz~1GHz



Date: 11.OCT.2019 17:55:14

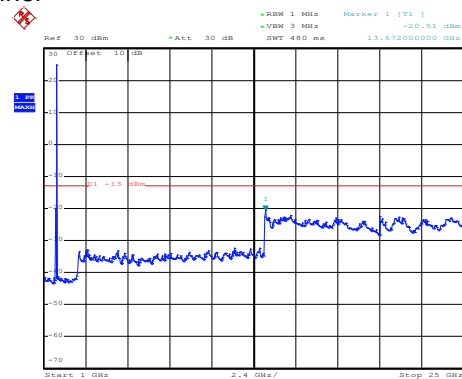
1GHz~25GHz

Middle channel



Date: 11.OCT.2019 17:58:00

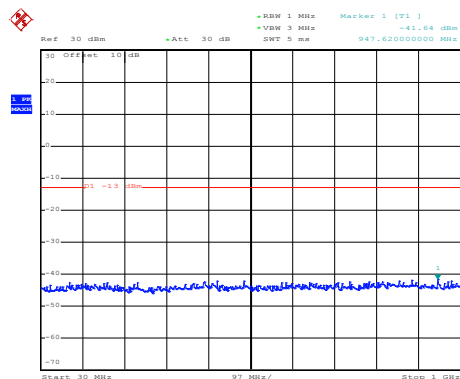
30MHz~1GHz



Date: 11.OCT.2019 17:56:16

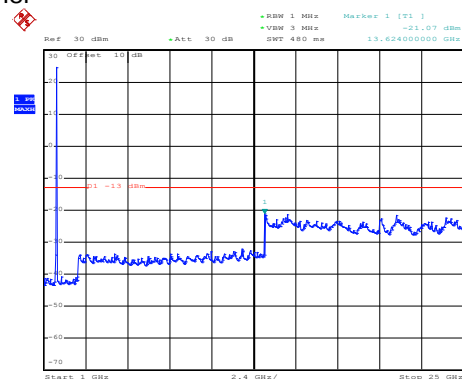
1GHz~25GHz

High channel



Date: 11.OCT.2019 17:57:23

30MHz~1GHz

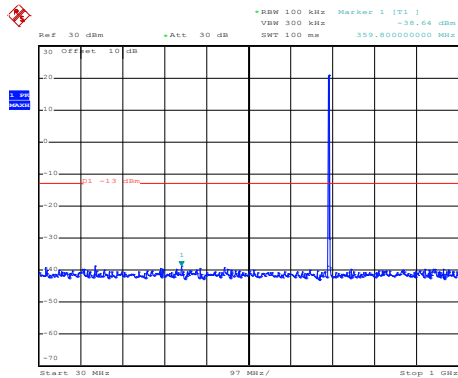


Date: 11.OCT.2019 17:56:34

1GHz~25GHz

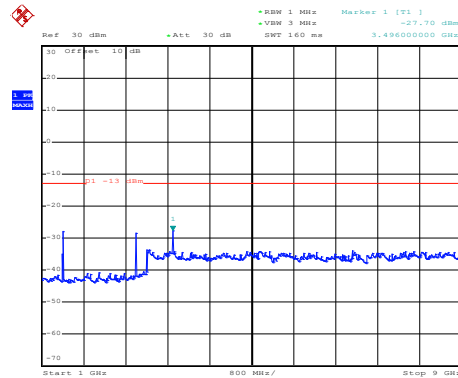
LTE Band 12 part:

LTE Band 12: 16 QAM & RB Size 1 BW: 1.4MHz Lowest channel



Date: 11.OCT.2019 17:44:57

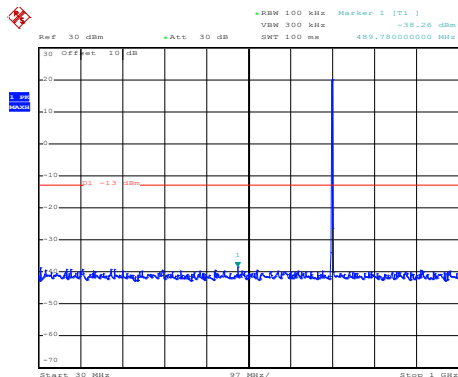
30MHz~1GHz



Date: 11.OCT.2019 17:48:49

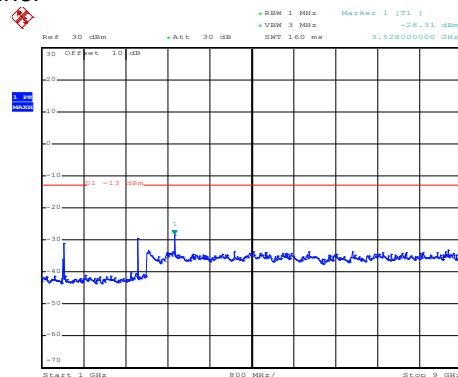
1GHz~9GHz

Middle channel



Date: 11.OCT.2019 17:45:57

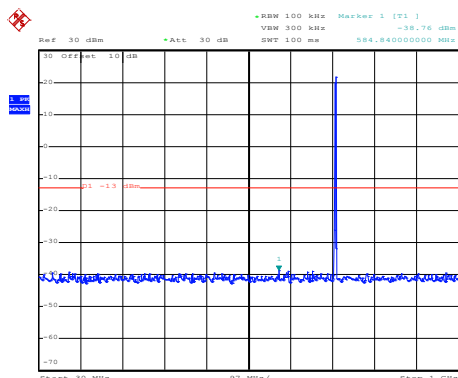
30MHz~1GHz



Date: 11.OCT.2019 17:48:31

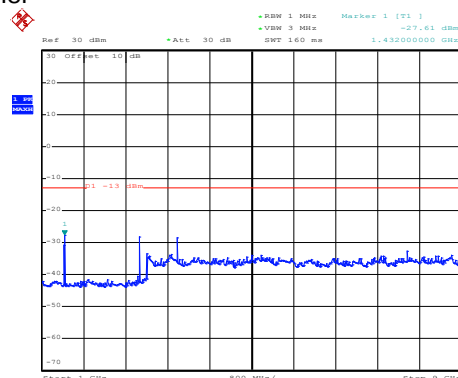
1GHz~9GHz

High channel



Date: 11.OCT.2019 17:46:20

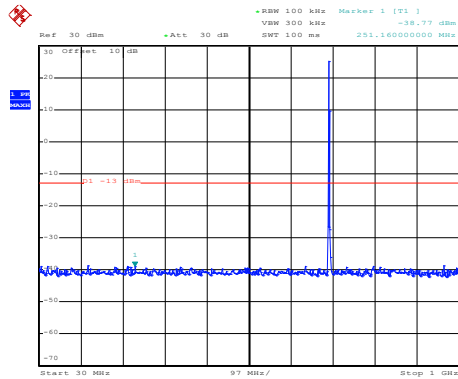
30MHz~1GHz



Date: 11.OCT.2019 17:47:22

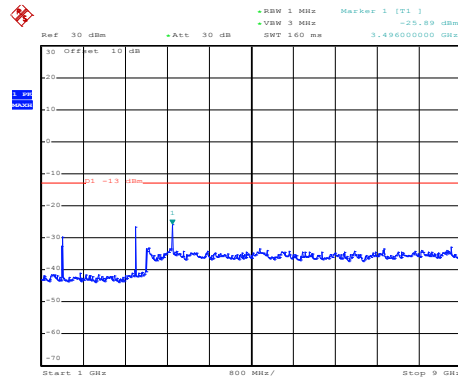
1GHz~9GHz

LTE Band 12: QPSK & RB Size 1 BW: 1.4MHz Lowest channel



Date: 11.OCT.2019 17:44:50

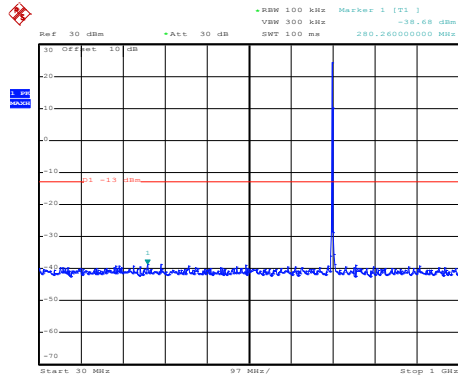
30MHz~1GHz



Date: 11.OCT.2019 17:48:42

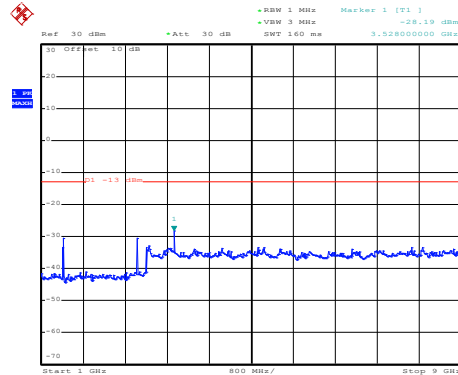
1GHz~9GHz

Middle channel



Date: 11.OCT.2019 17:45:48

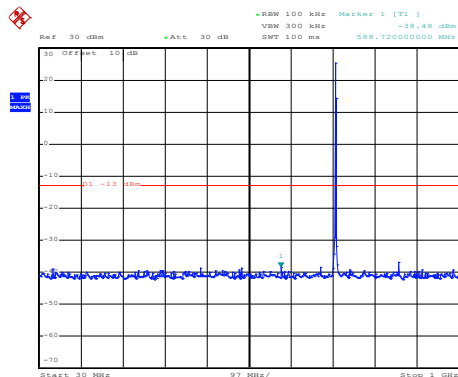
30MHz~1GHz



Date: 11.OCT.2019 17:48:21

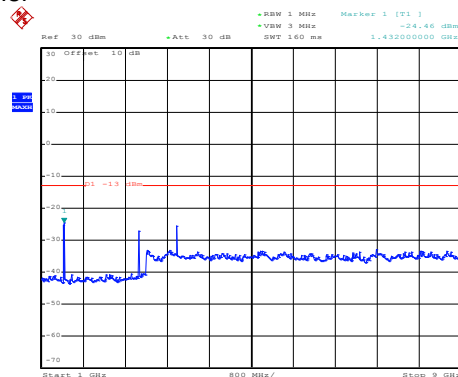
1GHz~9GHz

High channel



Date: 11.OCT.2019 17:46:11

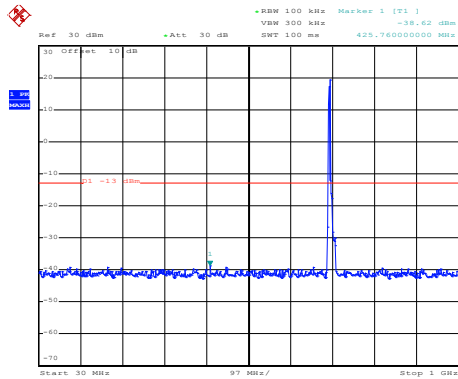
30MHz~1GHz



Date: 11.OCT.2019 17:47:16

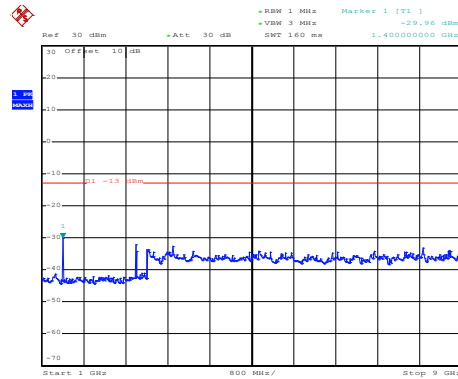
1GHz~9GHz

LTE Band 12: 16 QAM & RB Size 1
BW: 10MHz
Lowest channel



Date: 11.OCT.2019 17:42:28

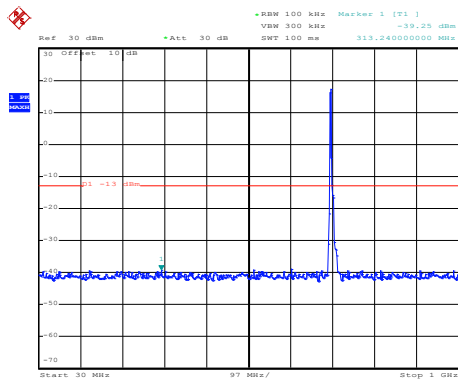
30MHz~1GHz



Date: 11.OCT.2019 17:49:51

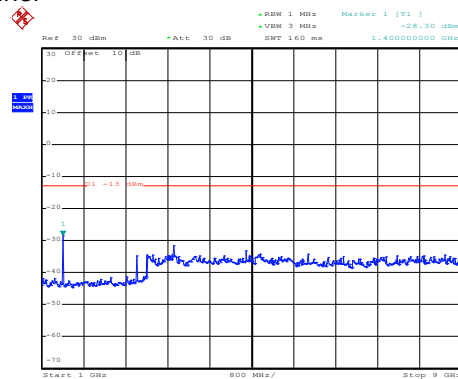
1GHz~9GHz

Middle channel



Date: 11.OCT.2019 17:43:34

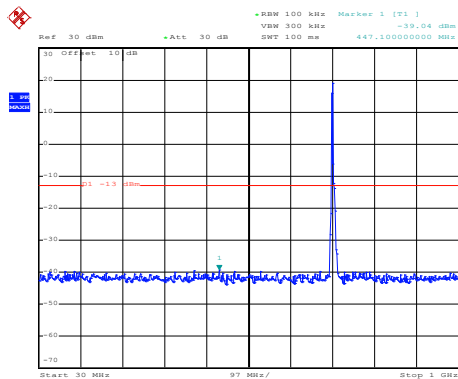
30MHz~1GHz



Date: 11.OCT.2019 17:50:41

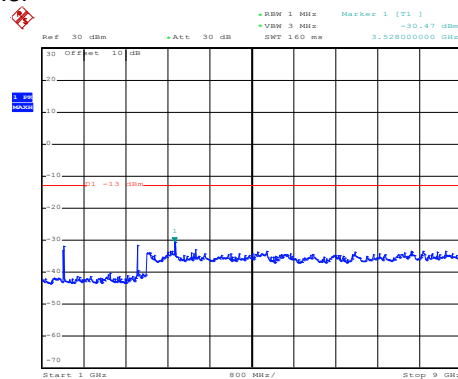
1GHz~9GHz

High channel



Date: 11.OCT.2019 17:43:53

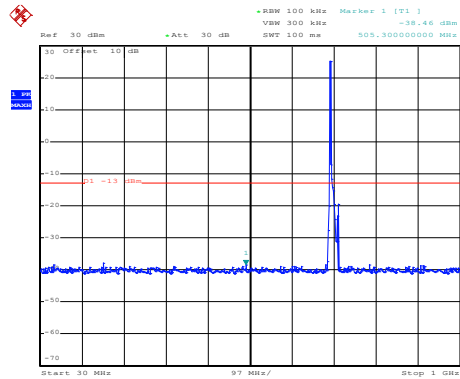
30MHz~1GHz



Date: 11.OCT.2019 17:51:03

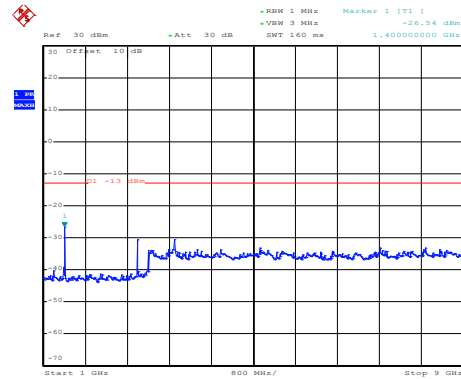
1GHz~9GHz

LTE Band 12: QPSK & RB Size 1 BW: 10MHz Lowest channel



Date: 11.OCT.2019 17:42:17

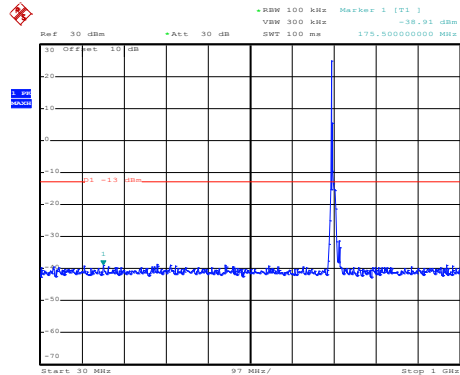
30MHz~1GHz



Date: 11.OCT.2019 17:49:36

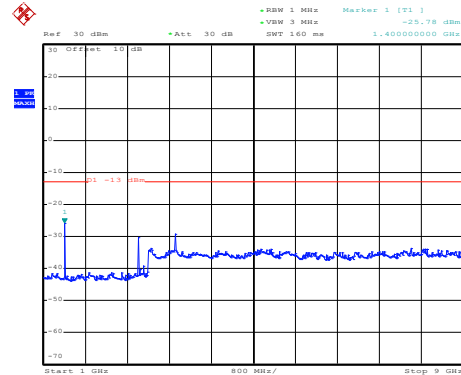
1GHz~9GHz

Middle channel



Date: 11.OCT.2019 17:43:25

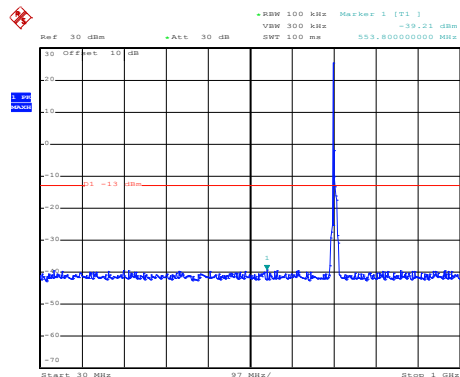
30MHz~1GHz



Date: 11.OCT.2019 17:50:36

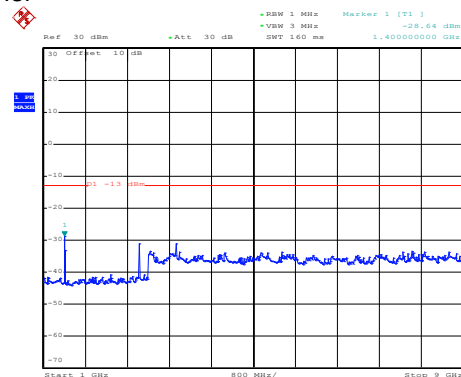
1GHz~9GHz

High channel



Date: 11.OCT.2019 17:43:48

30MHz~1GHz

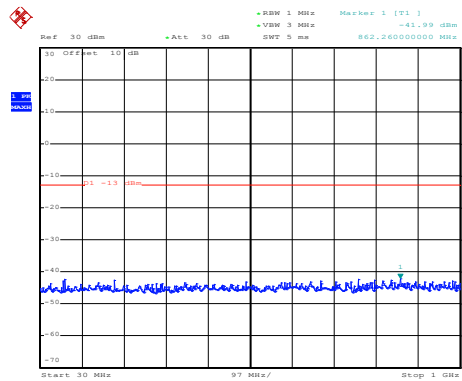


Date: 11.OCT.2019 17:50:53

1GHz~9GHz

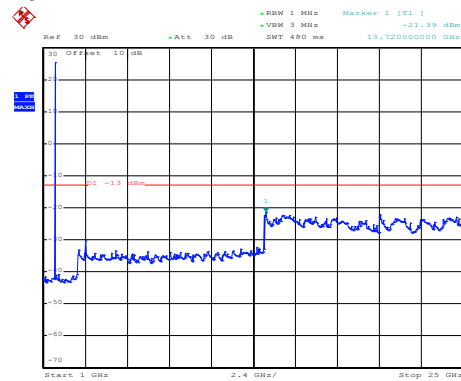
LTE Band 66 part:

LTE Band 66: 16 QAM & RB Size 1 BW: 1.4MHz Lowest channel



Date: 14.OCT.2019 16:32:07

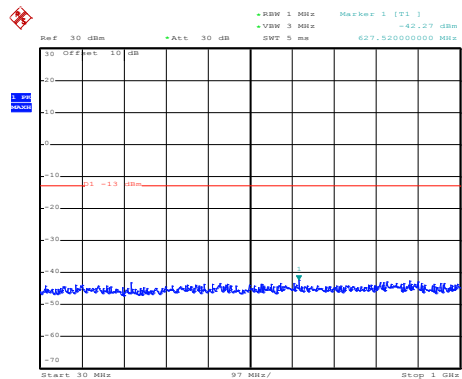
30MHz~1GHz



Date: 14.OCT.2019 16:34:39

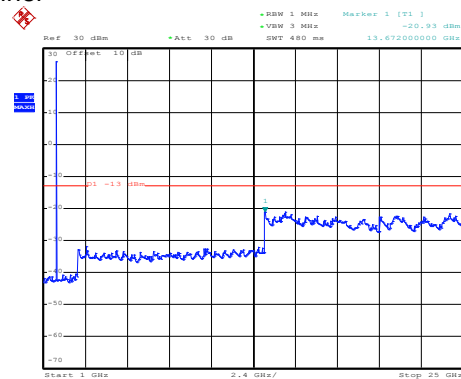
1GHz~25GHz

Middle channel



Date: 14.OCT.2019 16:32:31

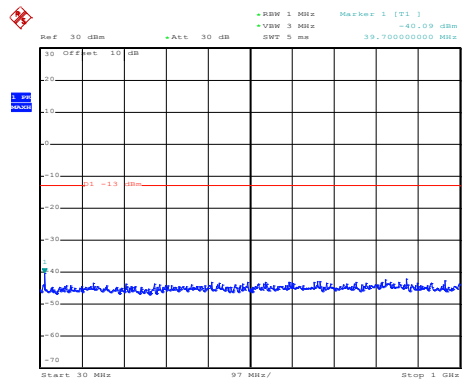
30MHz~1GHz



Date: 14.OCT.2019 16:34:20

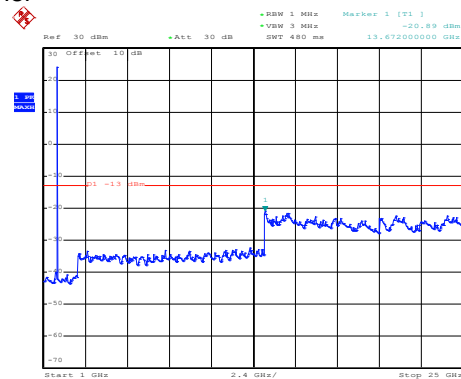
1GHz~25GHz

High channel



Date: 14.OCT.2019 16:32:45

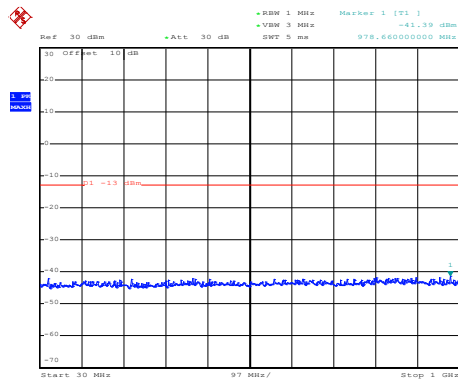
30MHz~1GHz



Date: 14.OCT.2019 16:33:32

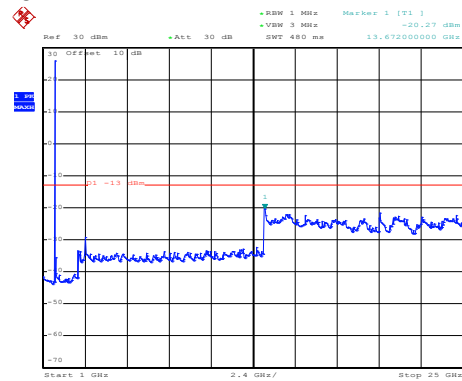
1GHz~25GHz

LTE Band 66: QPSK & RB Size 1 BW: 1.4MHz Lowest channel



Date: 14.OCT.2019 16:32:02

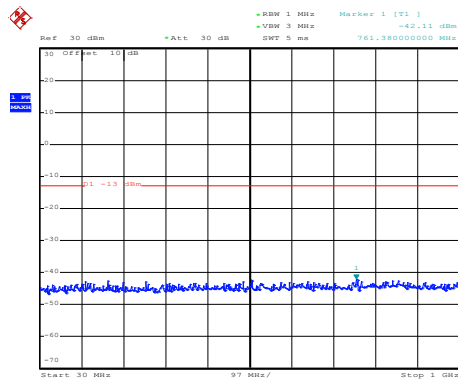
30MHz~1GHz



Date: 14.OCT.2019 16:34:32

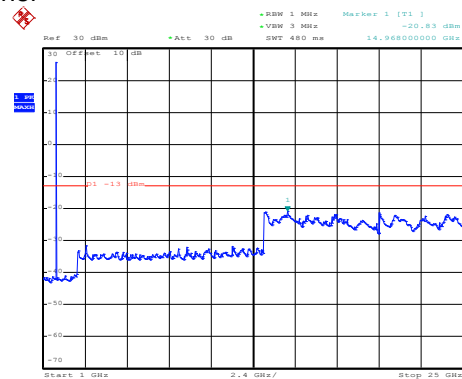
1GHz~25GHz

Middle channel



Date: 14.OCT.2019 16:32:27

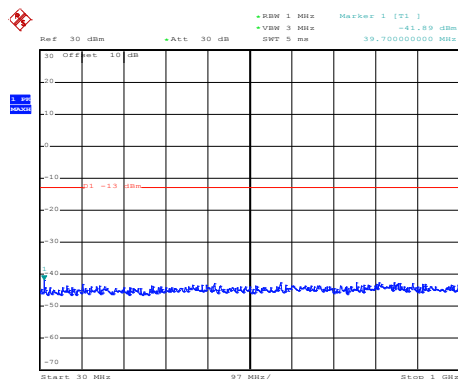
30MHz~1GHz



Date: 14.OCT.2019 16:34:05

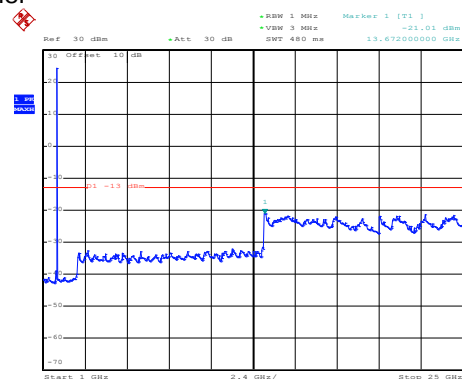
1GHz~25GHz

High channel



Date: 14.OCT.2019 16:32:41

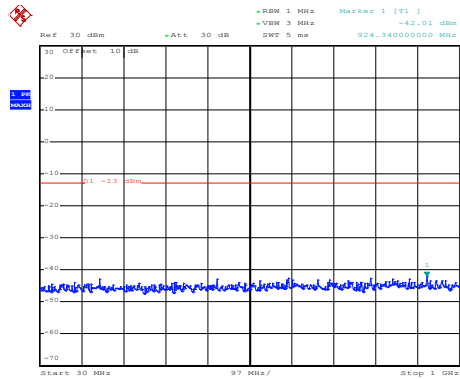
30MHz~1GHz



Date: 14.OCT.2019 16:33:19

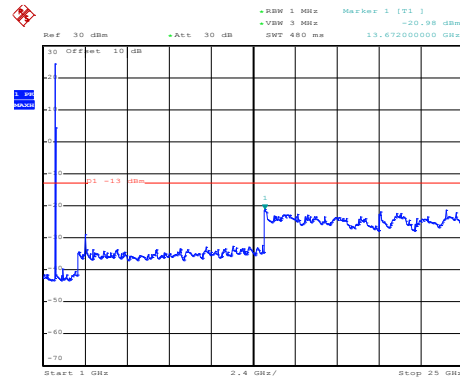
1GHz~25GHz

LTE Band 66: 16 QAM & RB Size 1 BW: 20MHz Lowest channel



Date: 14.OCT.2019 16:37:35

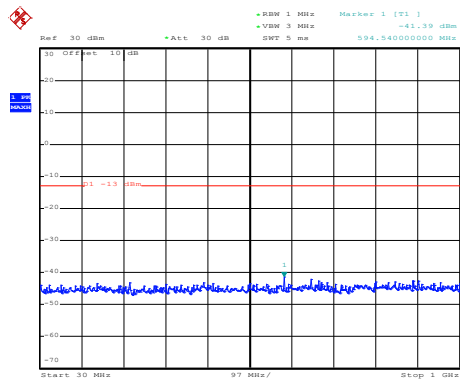
30MHz~1GHz



Date: 14.OCT.2019 16:35:25

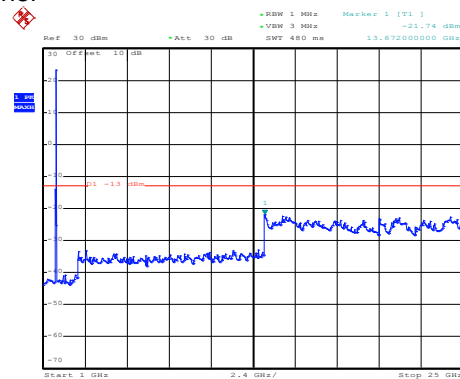
1GHz~25GHz

Middle channel



Date: 14.OCT.2019 16:37:19

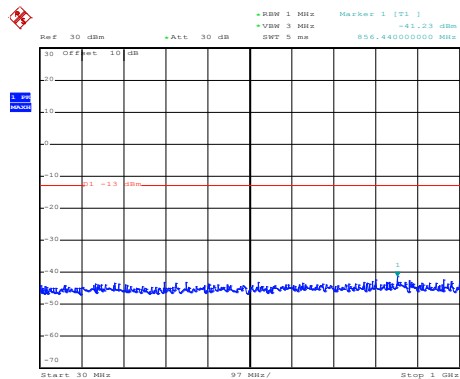
30MHz~1GHz



Date: 14.OCT.2019 16:35:44

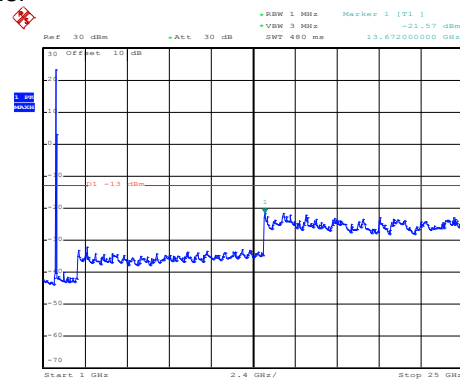
1GHz~25GHz

High channel



Date: 14.OCT.2019 16:37:04

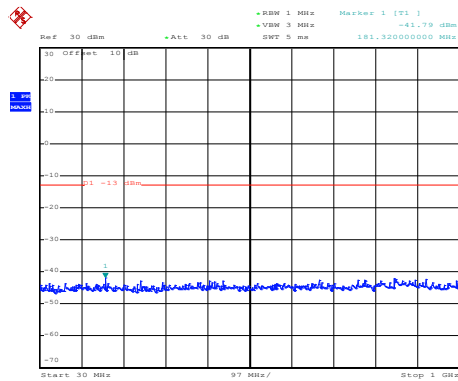
30MHz~1GHz



Date: 14.OCT.2019 16:36:33

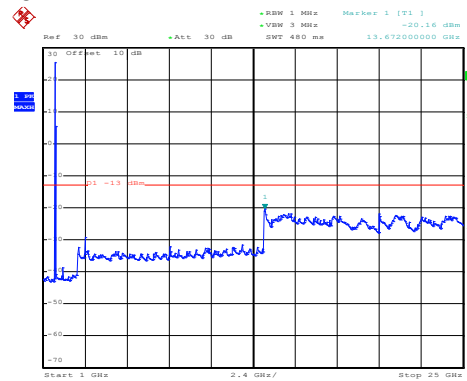
1GHz~25GHz

LTE Band 66: QPSK & RB Size 1
BW: 20MHz
Lowest channel



Date: 14.OCT.2019 16:37:31

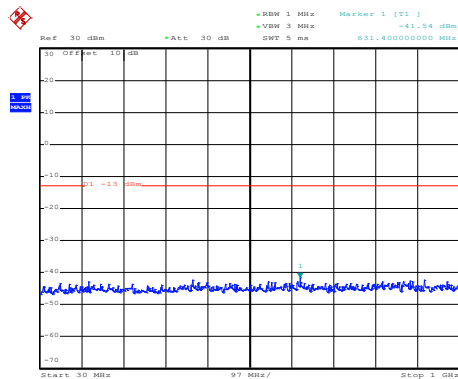
30MHz~1GHz



Date: 14.OCT.2019 16:35:17

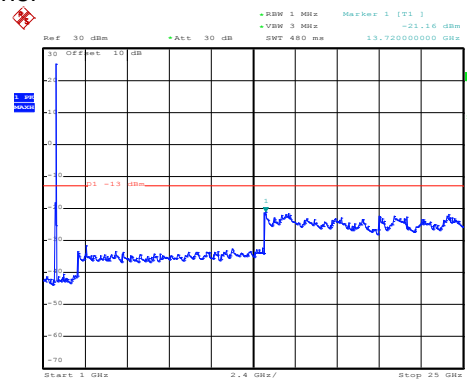
1GHz~25GHz

Middle channel



Date: 14.OCT.2019 16:37:15

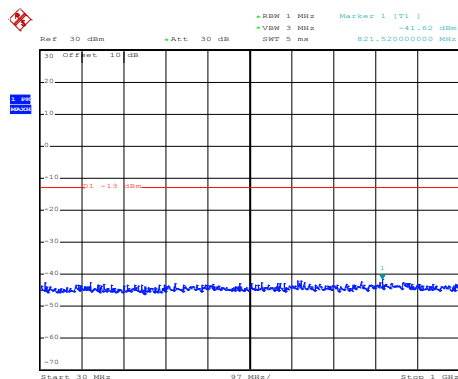
30MHz~1GHz



Date: 14.OCT.2019 16:35:39

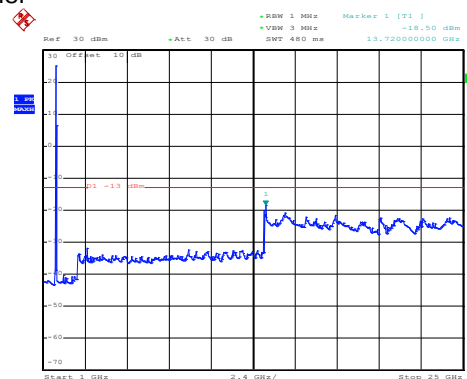
1GHz~25GHz

High channel



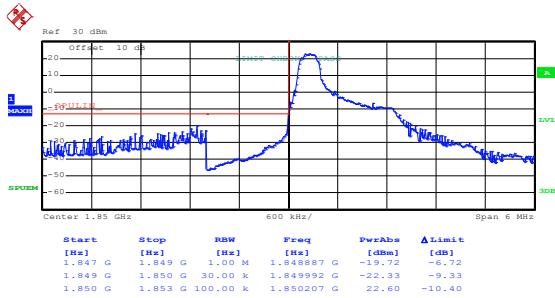
Date: 14.OCT.2019 16:37:00

30MHz~1GHz



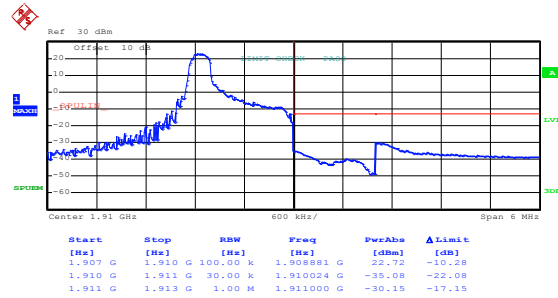
Date: 14.OCT.2019 16:36:46

1GHz~25GHz

Band edge emission:**LTE Band 2 part:****LTE Band 2, BW: 1.4MHz
16QAM & RB Size 1**

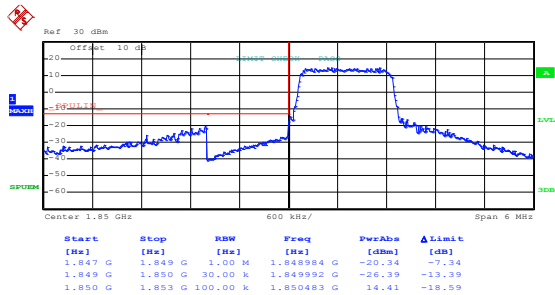
Date: 11.OCT.2019 17:24:49

Lowest channel



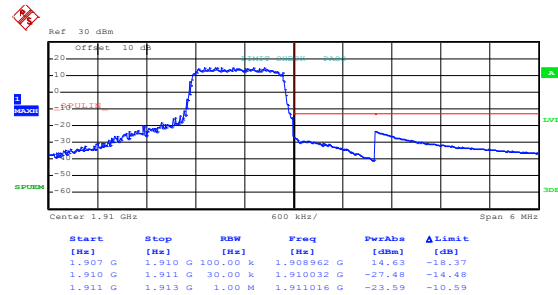
Date: 11.OCT.2019 17:25:37

Highest channel

16QAM & RB Size 6

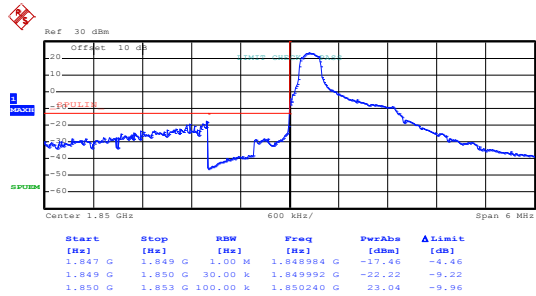
Date: 11.OCT.2019 17:25:01

Lowest channel



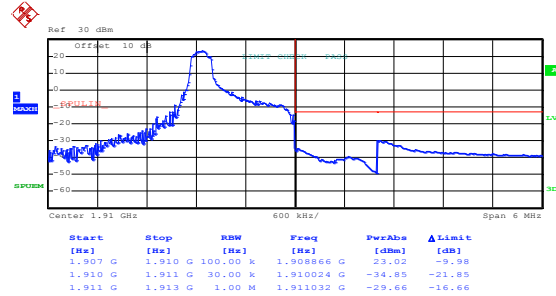
Date: 11.OCT.2019 17:25:18

Highest channel

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

Date: 11.OCT.2019 17:24:41

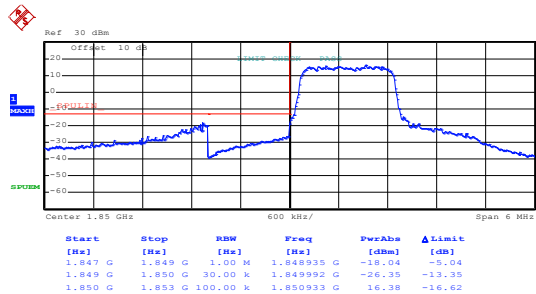
Lowest channel



Date: 11.OCT.2019 17:25:28

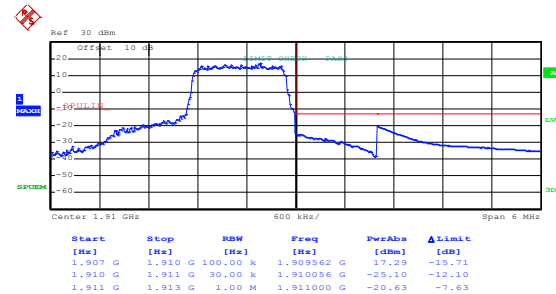
Highest channel

QPSK & RB Size 6



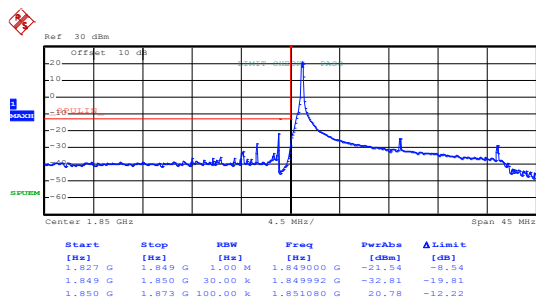
Date: 11.OCT.2019 17:24:56

Lowest channel



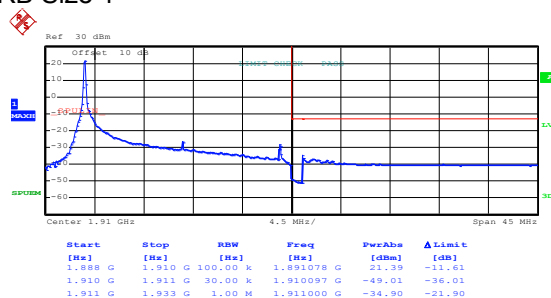
Date: 11.OCT.2019 17:25:14

Highest channel

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

Date: 11.OCT.2019 17:27:26

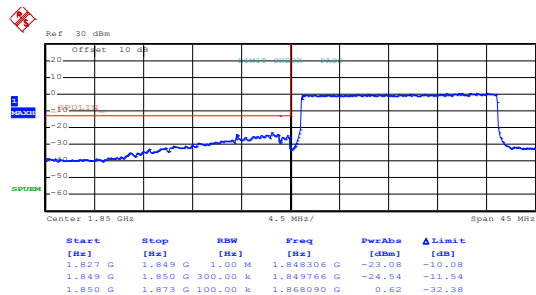
Lowest channel



Date: 11.OCT.2019 17:26:20

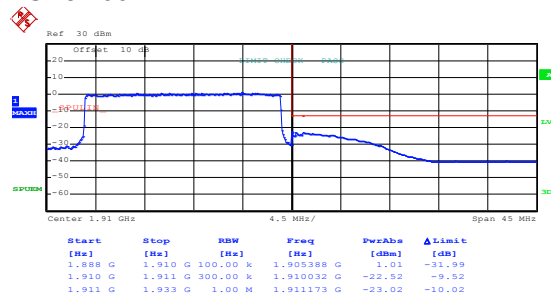
Highest channel

16QAM & RB Size 100



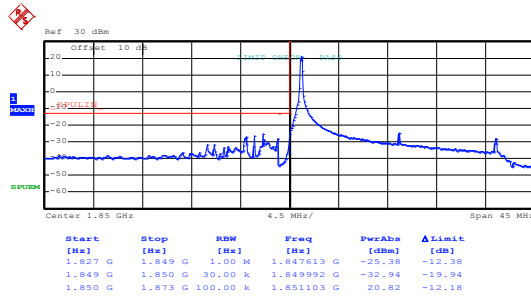
Date: 11.OCT.2019 17:27:10

Lowest channel



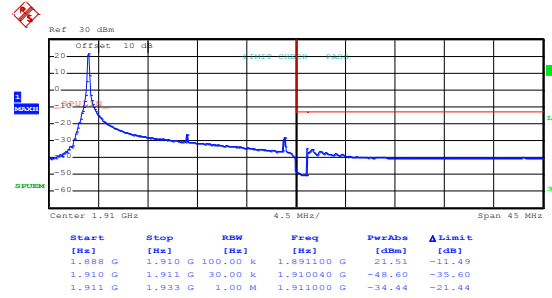
Date: 11.OCT.2019 17:26:42

Highest channel

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

Date: 11.OCT.2019 17:27:22

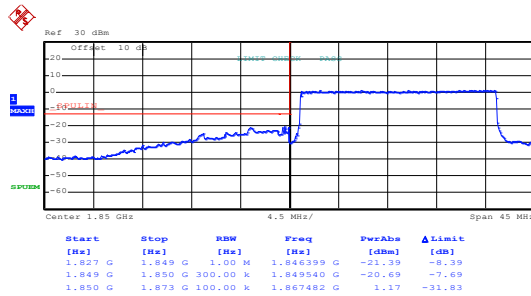
Lowest channel



Date: 11.OCT.2019 17:26:13

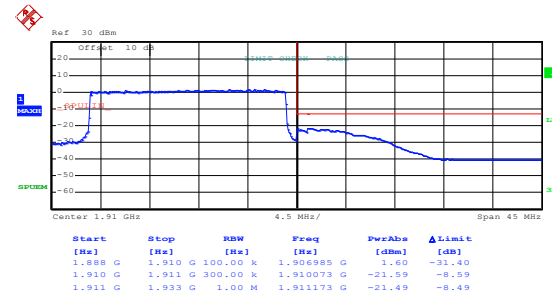
Highest channel

QPSK & RB Size 100



Date: 11.OCT.2019 17:27:05

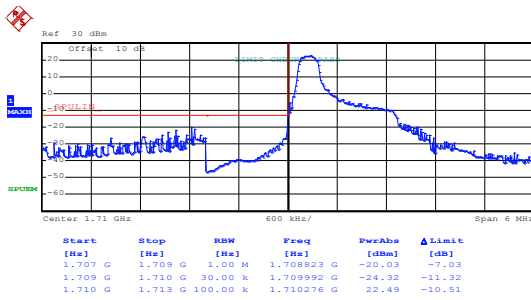
Lowest channel



Date: 11.OCT.2019 17:26:37

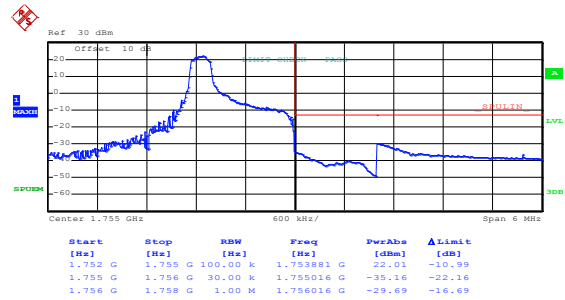
Highest channel

LTE Band 4 part:

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

Date: 11.OCT.2019 17:28:29

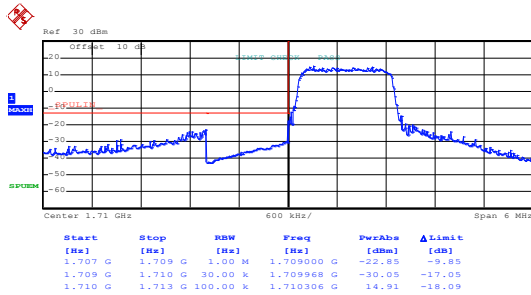
Lowest channel



Date: 11.OCT.2019 17:29:22

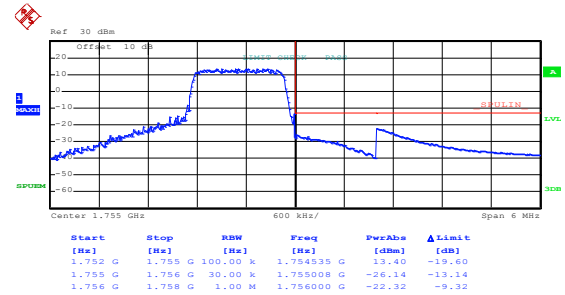
Highest channel

16QAM & RB Size 6



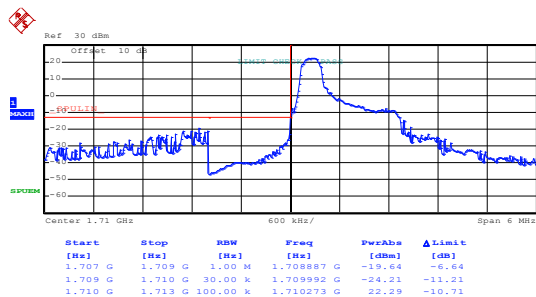
Date: 11.OCT.2019 17:28:42

Lowest channel



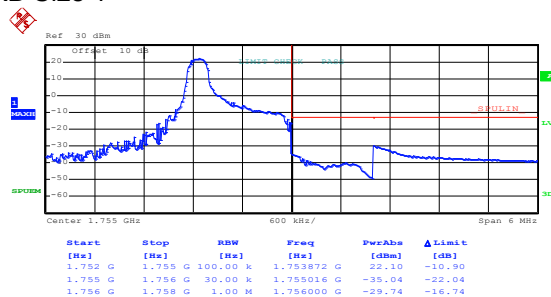
Date: 11.OCT.2019 17:29:02

Highest channel

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

Date: 11.OCT.2019 17:28:19

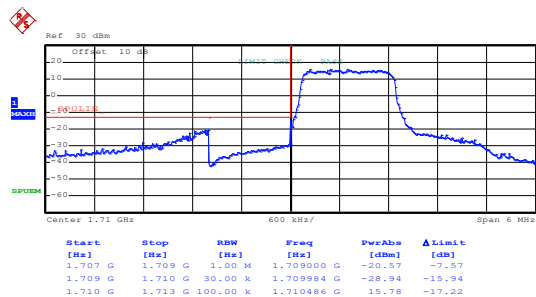
Lowest channel



Date: 11.OCT.2019 17:29:11

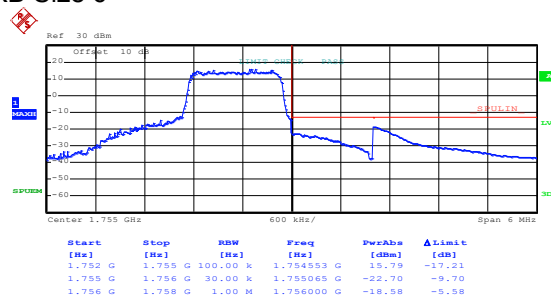
Highest channel

QPSK & RB Size 6



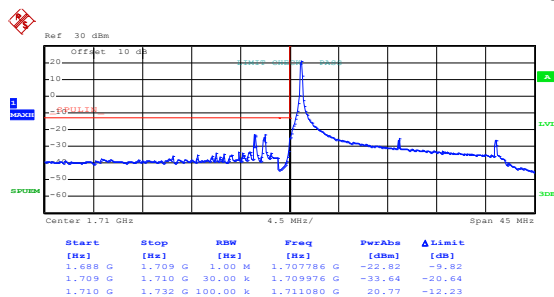
Date: 11.OCT.2019 17:28:38

Lowest channel



Date: 11.OCT.2019 17:28:57

Highest channel

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

Date: 11.OCT.2019 17:32:01

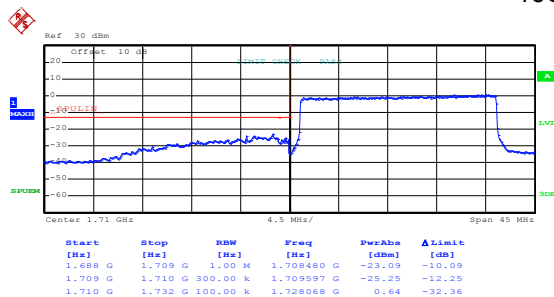
Lowest channel



Date: 11.OCT.2019 17:29:56

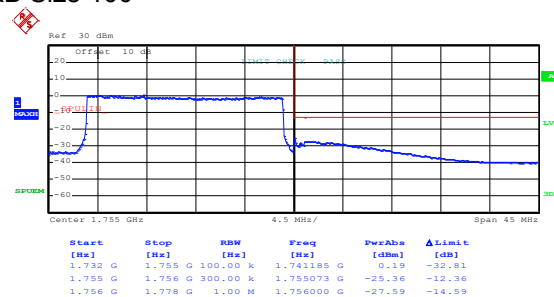
Highest channel

16QAM & RB Size 100



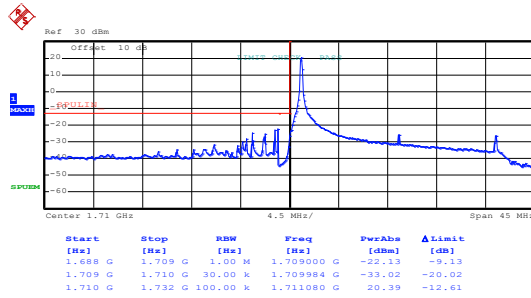
Date: 11.OCT.2019 17:31:36

Lowest channel



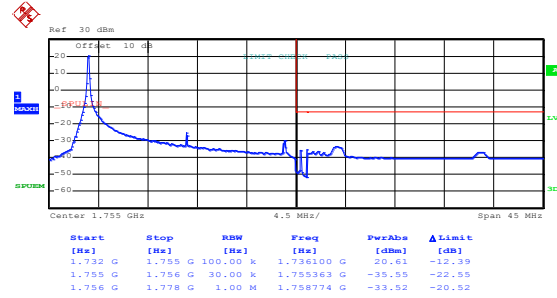
Date: 11.OCT.2019 17:30:12

Highest channel

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

Date: 11.OCT.2019 17:31:55

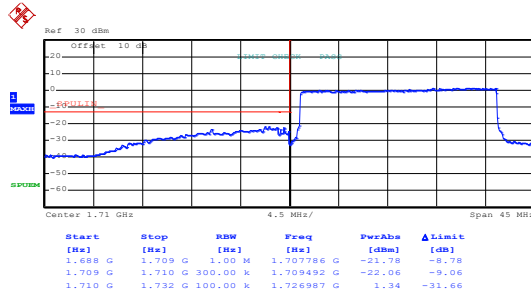
Lowest channel



Date: 11.OCT.2019 17:29:51

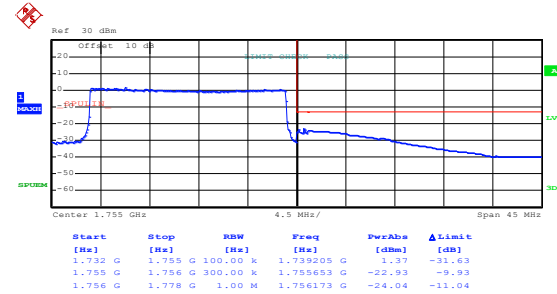
Highest channel

QPSK & RB Size 100



Date: 11.OCT.2019 17:31:32

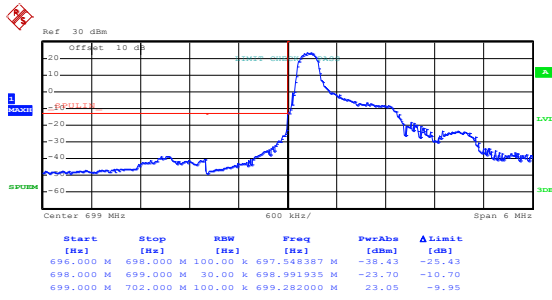
Lowest channel



Date: 11.OCT.2019 17:30:08

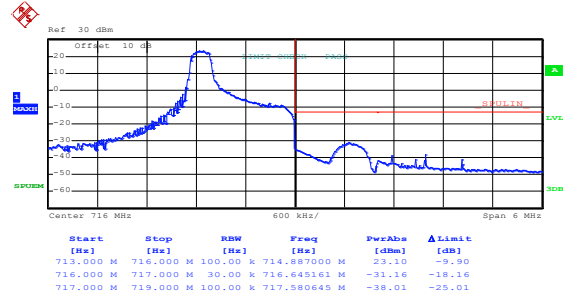
Highest channel

LTE band 12 part:

LTE Band 12, BW: 1.4MHz
16QAM & RB Size 1

Date: 11.OCT.2019 17:37:54

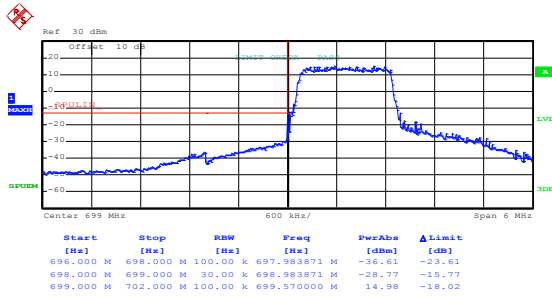
Lowest channel



Date: 11.OCT.2019 17:39:00

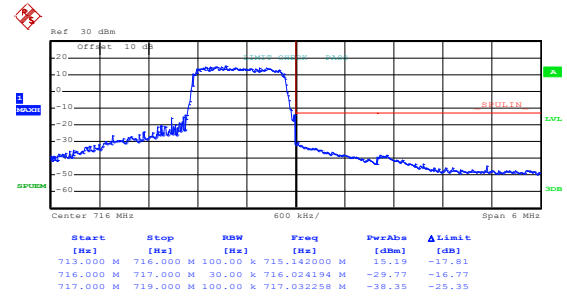
Highest channel

16QAM & RB Size 6



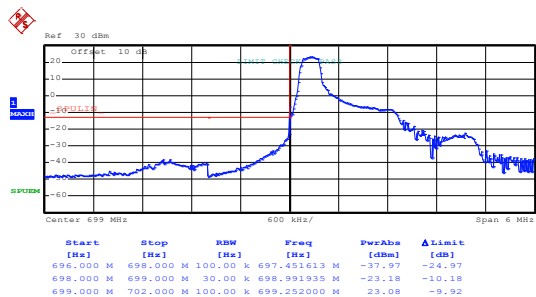
Date: 11.OCT.2019 17:38:06

Lowest channel



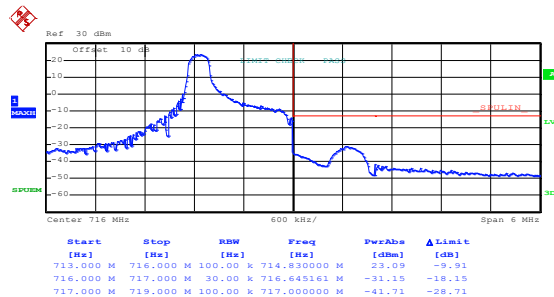
Date: 11.OCT.2019 17:38:27

Highest channel

LTE Band 12, BW: 1.4MHz
QPSK & RB Size 1

Date: 11.OCT.2019 17:37:46

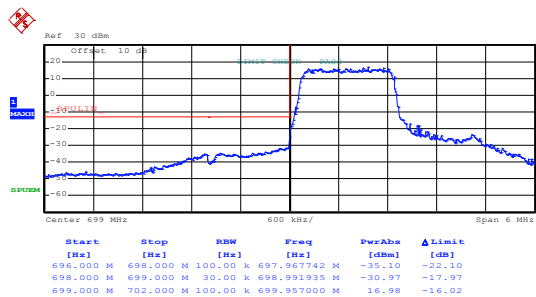
Lowest channel



Date: 11.OCT.2019 17:38:44

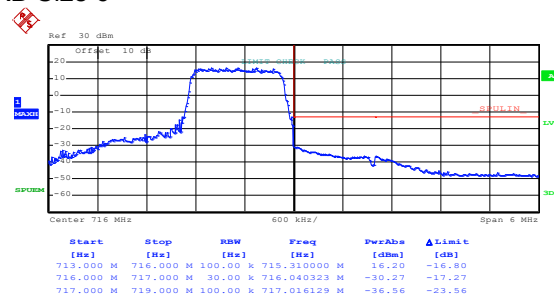
Highest channel

QPSK & RB Size 6



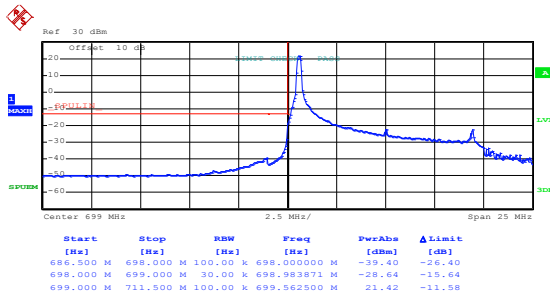
Date: 11.OCT.2019 17:38:02

Lowest channel



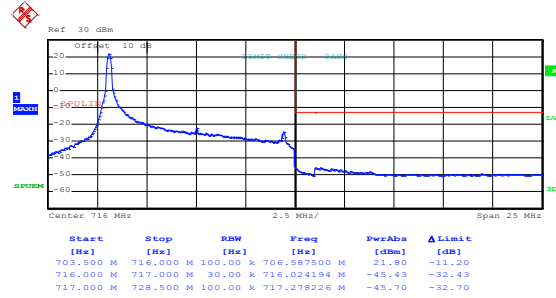
Date: 11.OCT.2019 17:38:22

Highest channel

LTE Band 12, BW: 10MHz
16QAM & RB Size 1

Date: 11.OCT.2019 17:40:42

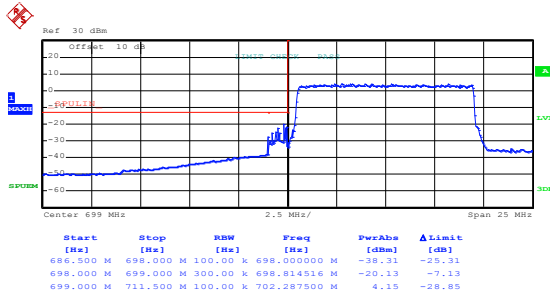
Lowest channel



Date: 11.OCT.2019 17:39:39

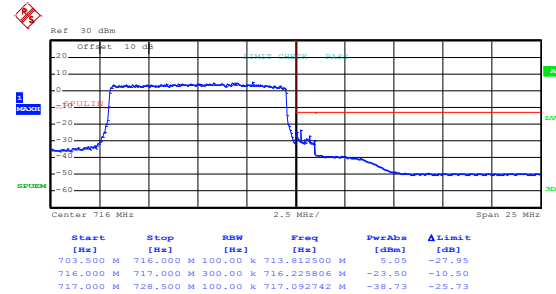
Highest channel

16QAM & RB Size 50



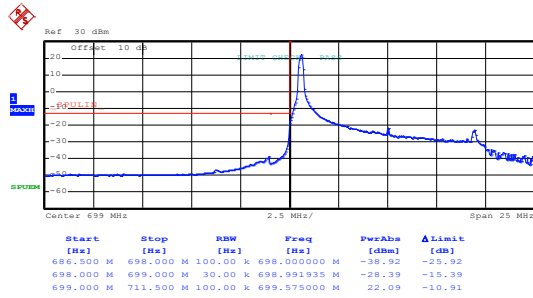
Date: 11.OCT.2019 17:40:23

Lowest channel



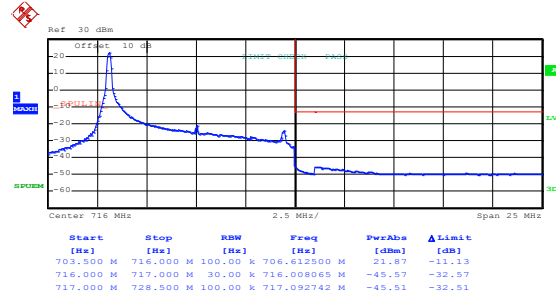
Date: 11.OCT.2019 17:39:59

Highest channel

LTE Band 12, BW: 10MHz
QPSK & RB Size 1

Date: 11.OCT.2019 17:40:36

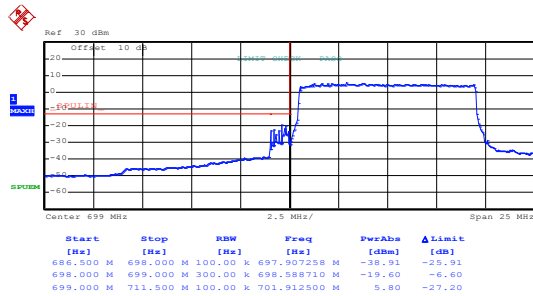
Lowest channel



Date: 11.OCT.2019 17:39:32

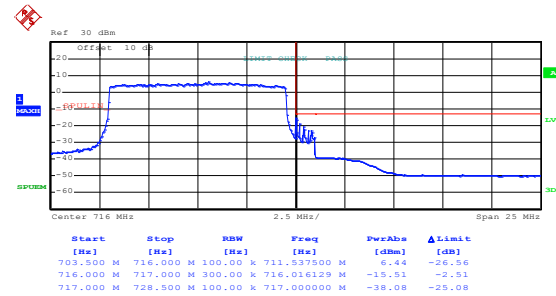
Highest channel

QPSK & RB Size 50



Date: 11.OCT.2019 17:40:18

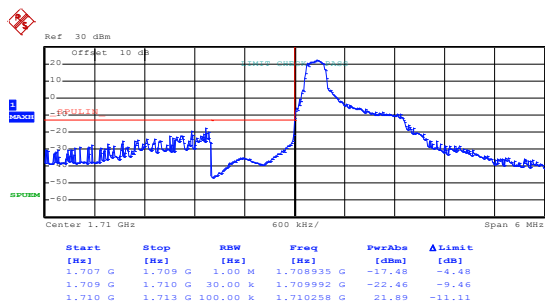
Lowest channel



Date: 11.OCT.2019 17:39:52

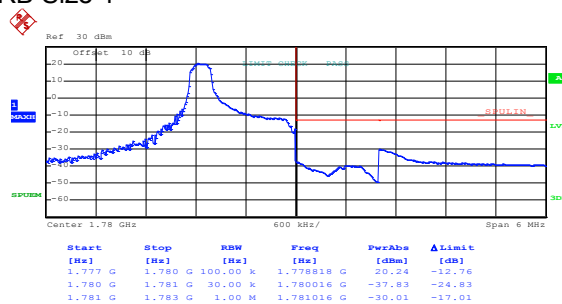
Highest channel

LTE Band 66 part:

LTE Band 66, BW: 1.4MHz
16QAM & RB Size 1

Date: 14.OCT.2019 16:31:00

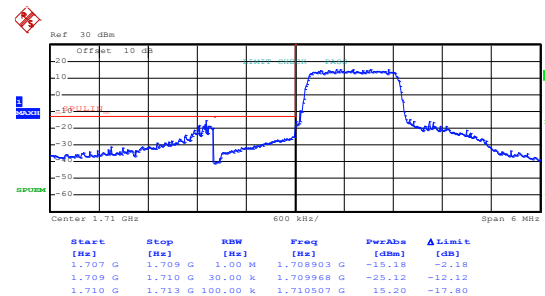
Lowest channel



Date: 14.OCT.2019 16:29:46

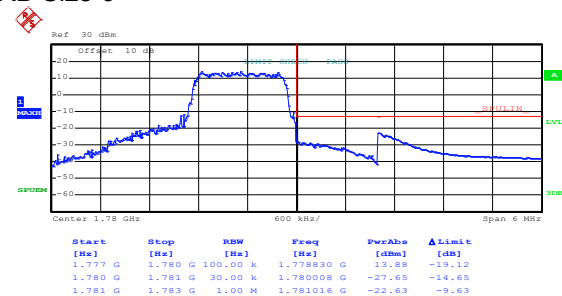
Highest channel

16QAM & RB Size 6



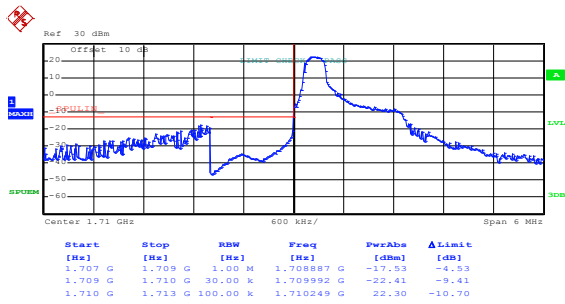
Date: 14.OCT.2019 16:30:28

Lowest channel



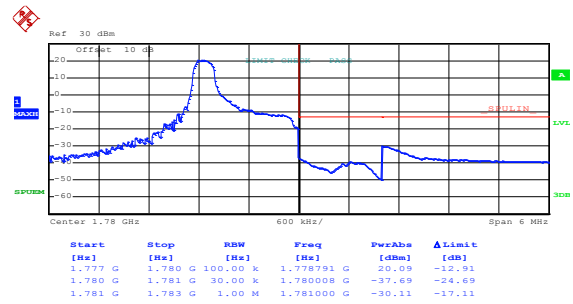
Date: 14.OCT.2019 16:30:00

Highest channel

LTE Band 66, BW: 1.4MHz
QPSK & RB Size 1

Date: 14.OCT.2019 16:30:46

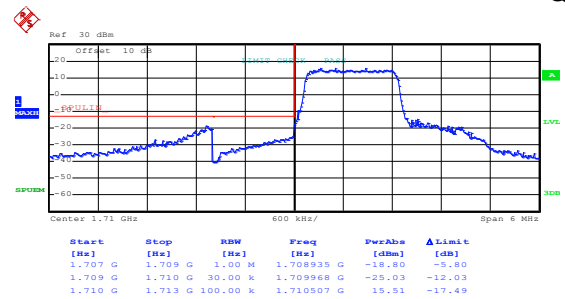
Lowest channel



Date: 14.OCT.2019 16:29:31

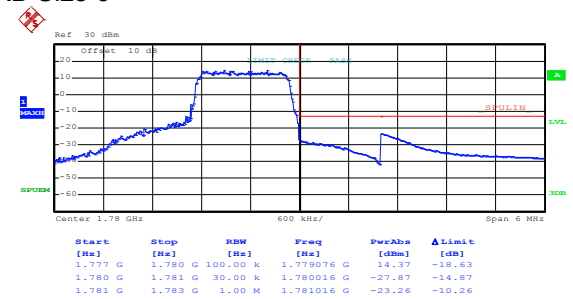
Highest channel

QPSK & RB Size 6



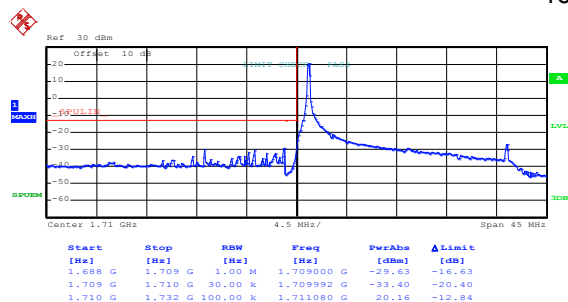
Date: 14.OCT.2019 16:30:24

Lowest channel



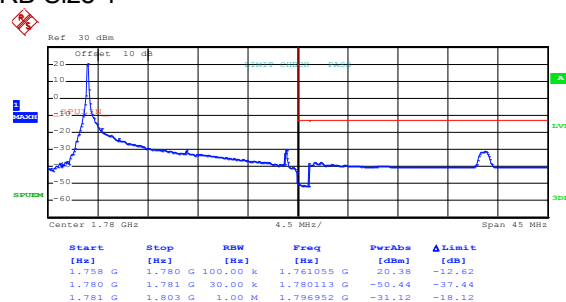
Date: 14.OCT.2019 16:29:56

Highest channel

LTE Band 66, BW: 20MHz
16QAM & RB Size 1

Date: 14.OCT.2019 16:26:26

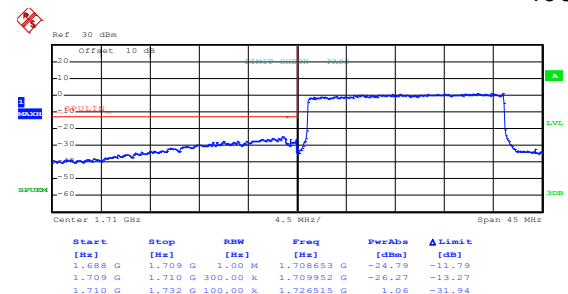
Lowest channel



Date: 14.OCT.2019 16:27:49

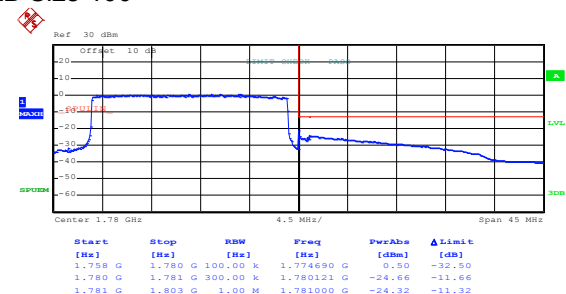
Highest channel

16QAM & RB Size 100



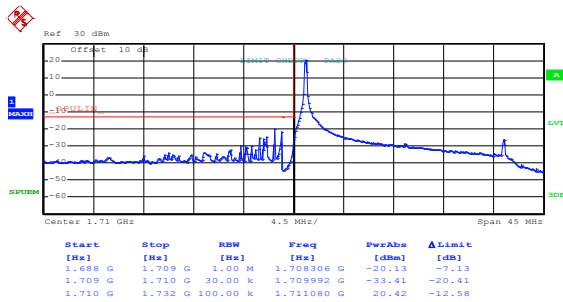
Date: 14.OCT.2019 16:26:46

Lowest channel



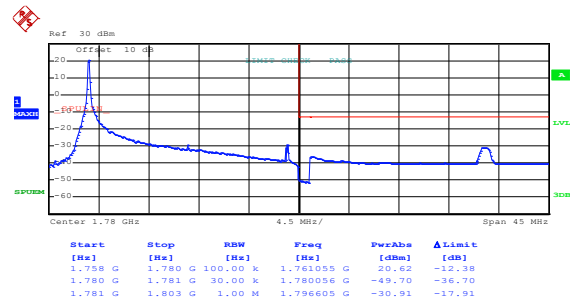
Date: 14.OCT.2019 16:27:24

Highest channel

LTE Band 66, BW: 20MHz
QPSK & RB Size 1

Date: 14.OCT.2019 16:26:21

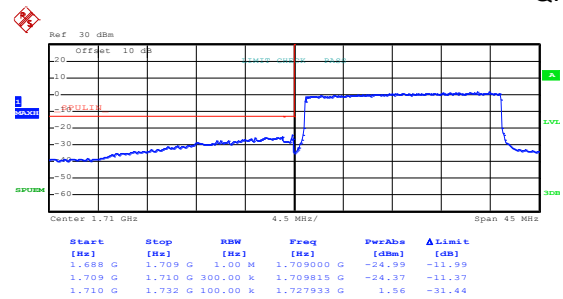
Lowest channel



Date: 14.OCT.2019 16:27:45

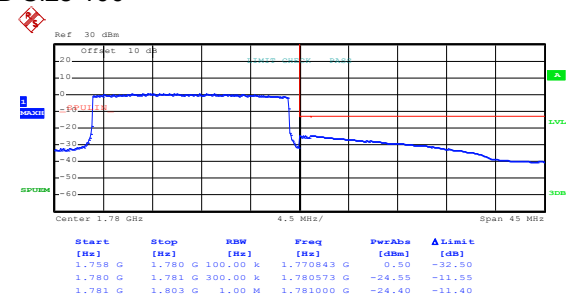
Highest channel

QPSK & RB Size 100



Date: 14.OCT.2019 16:26:42

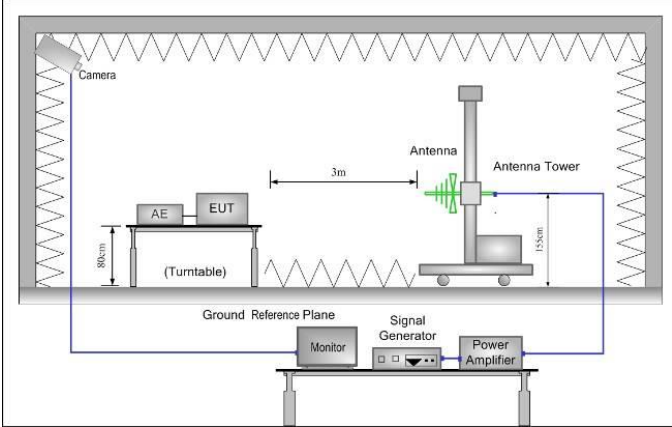
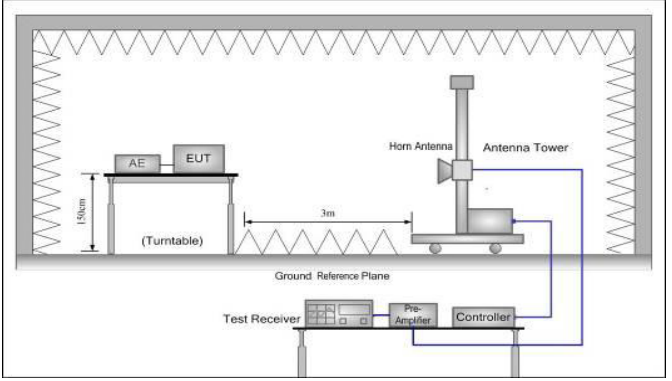
Lowest channel



Date: 14.OCT.2019 16:27:14

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 24.238 (a), Part 27.53 (g), Part 27.53 (h)
Limit:	LTE Band 2 & 4 12 & 66: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB (-13 dBm).
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $ERP / EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 5.10 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)		
Lowest Channel				
3701.40	Vertical	-47.74	-13.00	Pass
5552.10	V	-42.31		
7402.00	V	-38.84		
3701.40	Horizontal	-49.46		
5552.10	H	-42.61		
7402.00	H	-38.43		
Middle Channel				
3760.00	Vertical	-47.86	-13.00	Pass
5640.00	V	-42.49		
7520.00	V	-39.15		
3760.00	Horizontal	-49.36		
5640.00	H	-43.08		
7520.00	H	-38.07		
Highest Channel				
3816.60	Vertical	-48.12	-13.00	Pass
5724.90	V	-41.95		
7633.20	V	-39.15		
3816.60	Horizontal	-49.89		
5724.90	H	-42.42		
7633.20	H	-38.87		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 2, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3720.00	Vertical	-48.12	-13.00	Pass
5580.00	V	-41.95		
7440.00	V	-39.15		
3720.00	Horizontal	-49.89		
5580.00	H	-42.42		
7440.00	H	-38.87		
Middle Channel				
3760.00	Vertical	-48.12	-13.00	Pass
5640.00	V	-41.95		
7520.00	V	-39.15		
3760.00	Horizontal	-49.89		
5640.00	H	-42.42		
7520.00	H	-38.87		
Highest Channel				
3800.00	Vertical	-48.12	-13.00	Pass
5700.00	V	-41.95		
7600.00	V	-39.15		
3800.00	Horizontal	-49.89		
5700.00	H	-42.42		
7600.00	H	-38.87		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4 part:

LTE Band 4, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3421.40	Vertical	-44.66	-13.00	Pass
5132.10	V	-44.38		
6842.80	V	-38.63		
3421.40	Horizontal	-47.09		
5132.10	H	-44.16		
6842.80	H	-38.93		
Middle Channel				
3465.00	Vertical	-44.39	-13.00	Pass
5197.50	V	-44.57		
6930.00	V	-38.49		
3465.00	Horizontal	-46.75		
5197.50	H	-44.52		
6930.00	H	-38.92		
Highest Channel				
3508.60	Vertical	-44.56	-13.00	Pass
5262.90	V	-44.88		
7017.20	V	-38.21		
3508.60	Horizontal	-46.77		
5262.90	H	-44.48		
7017.20	H	-38.62		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 4, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3440.00	Vertical	-44.56	-13.00	Pass
5160.00	V	-44.88		
6880.00	V	-38.21		
3440.00	Horizontal	-46.77		
5160.00	H	-44.48		
6880.00	H	-38.62		
Middle Channel				
3465.00	Vertical	-44.08	-13.00	Pass
5197.50	V	-44.87		
6930.00	V	-37.81		
3465.00	Horizontal	-46.50		
5197.50	H	-44.84		
6930.00	H	-38.54		
Highest Channel				
3490.00	Vertical	-44.08	-13.00	Pass
5235.00	V	-44.87		
6980.00	V	-37.81		
3490.00	Horizontal	-46.50		
5235.00	H	-44.84		
6980.00	H	-38.54		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 12 part:

LTE Band 12, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1399.40	Vertical	-46.21	-13.00	Pass
2099.10	V	-58.66		
2798.80	V	-35.14		
1399.40	Horizontal	-46.48		
2099.10	H	-57.49		
2798.80	H	-30.19		
Middle Channel				
1415.00	Vertical	-46.68	-13.00	Pass
2122.50	V	-58.66		
2830.00	V	-34.88		
1415.00	Horizontal	-46.02		
2122.50	H	-57.67		
2830.00	H	-30.12		
Highest Channel				
1430.60	Vertical	-46.68	-13.00	Pass
2145.90	V	-58.66		
2861.20	V	-34.88		
1430.60	Horizontal	-46.02		
2145.90	H	-57.67		
2861.20	H	-30.12		
Note: 1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report. 2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

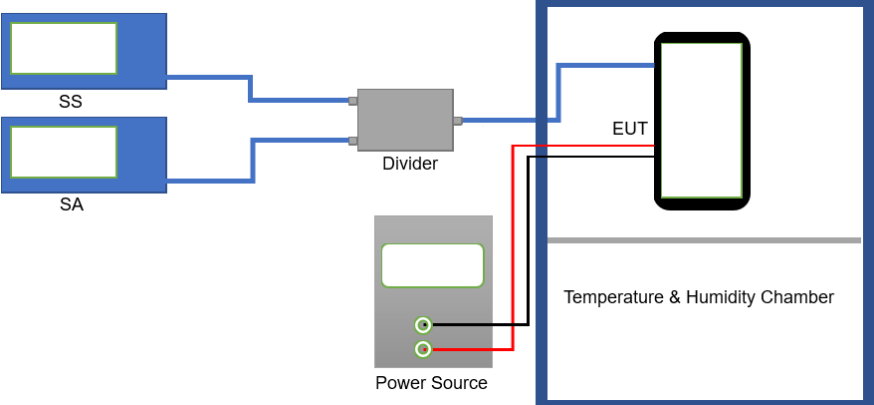
LTE Band 12, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1408.00	Vertical	-46.68	-13.00	Pass
2112.00	V	-58.66		
2816.00	V	-34.88		
1408.00	Horizontal	-46.02		
2112.00	H	-57.67		
2816.00	H	-30.12		
Middle Channel				
1415.00	Vertical	-46.68	-13.00	Pass
2122.50	V	-58.66		
2830.00	V	-34.88		
1415.00	Horizontal	-46.02		
2122.50	H	-57.67		
2830.00	H	-30.12		
Highest Channel				
1422.00	Vertical	-46.68	-13.00	Pass
2133.00	V	-58.66		
2844.00	V	-34.88		
1422.00	Horizontal	-46.02		
2133.00	H	-57.67		
2844.00	H	-30.12		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 66 part:

LTE Band 66, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3421.40	Vertical	-41.38	-13.00	Pass
5132.10	V	-43.92		
6842.80	V	-39.15		
3421.40	Horizontal	-40.06		
5132.10	H	-44.28		
6842.80	H	-38.96		
Middle Channel				
3490.00	Vertical	-41.47	-13.00	Pass
5235.00	V	-44.14		
6980.00	V	-38.76		
3490.00	Horizontal	-40.19		
5235.00	H	-43.80		
6980.00	H	-38.57		
Highest Channel				
3558.60	Vertical	-41.47	-13.00	Pass
5337.90	V	-44.14		
7117.20	V	-38.76		
3558.60	Horizontal	-40.19		
5337.90	H	-43.80		
7117.20	H	-38.57		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

LTE Band 66, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3440.00	Vertical	-41.47	-13.00	Pass
5160.00	V	-44.14		
6880.00	V	-38.76		
3440.00	Horizontal	-40.19		
5160.00	H	-43.80		
6880.00	H	-38.57		
Middle Channel				
3490.00	Vertical	-41.47	-13.00	Pass
5235.00	V	-44.14		
6980.00	V	-38.76		
3490.00	Horizontal	-40.19		
5235.00	H	-43.80		
6980.00	H	-38.57		
Highest Channel				
3540.00	Vertical	-41.47	-13.00	Pass
5310.00	V	-44.14		
7080.00	V	-38.76		
3540.00	Horizontal	-40.19		
5310.00	H	-43.80		
7080.00	H	-38.57		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)
Limit:	Within authorized band for Band 2/4/12/66
Test setup:	
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached
Test Instruments:	Refer to section 5.10 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		
QPSK					
3.80	-30	176	0.093617	Within authorized band 2	Pass
	-20	138	0.073404		
	-10	149	0.079255		
	0	152	0.080851		
	10	162	0.086170		
	20	147	0.078191		
	30	158	0.084043		
	40	169	0.089894		
	50	130	0.069149		
16QAM					
3.80	-30	180	0.095745	Within authorized band 2	Pass
	-20	175	0.093085		
	-10	148	0.078723		
	0	109	0.057979		
	10	112	0.059574		
	20	136	0.072340		
	30	174	0.092553		
	40	160	0.085106		
	50	123	0.065426		
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					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	163	0.094084	Within authorized band 4	Pass
	-20	145	0.083694		
	-10	155	0.089466		
	0	157	0.090620		
	10	128	0.073882		
	20	119	0.068687		
	30	107	0.061760		
	40	162	0.093506		
	50	148	0.085426		
16QAM					
3.80	-30	185	0.106782	Within authorized band 4	Pass
	-20	149	0.086003		
	-10	167	0.096392		
	0	150	0.086580		
	10	134	0.077345		
	20	148	0.085426		
	30	152	0.087734		
	40	106	0.061183		
	50	128	0.073882		
Note: Only the worst case shown in the report.					

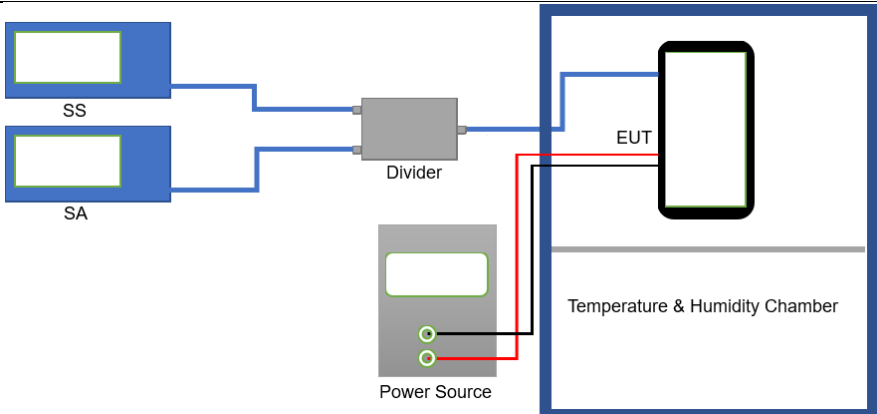
LTE Band 12 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=707.50MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	190	0.268551	Within authorized band 12	Pass
	-20	187	0.264311		
	-10	180	0.254417		
	0	137	0.193640		
	10	156	0.220495		
	20	182	0.257244		
	30	177	0.250177		
	40	146	0.206360		
	50	133	0.187986		
16QAM					
3.80	-30	176	0.248763	Within authorized band 12	Pass
	-20	157	0.221908		
	-10	148	0.209187		
	0	120	0.169611		
	10	136	0.192226		
	20	171	0.241696		
	30	142	0.200707		
	40	165	0.233216		
	50	158	0.223322		
Note: Only the worst case shown in the report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 channel=1745.00MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	176	0.100860	Within authorized band 66	Pass
	-20	158	0.090544		
	-10	149	0.085387		
	0	163	0.093410		
	10	120	0.068768		
	20	144	0.082521		
	30	158	0.090544		
	40	162	0.092837		
	50	130	0.074499		
16QAM					
3.80	-30	186	0.106590	Within authorized band 66	Pass
	-20	147	0.084241		
	-10	159	0.091117		
	0	183	0.104871		
	10	155	0.088825		
	20	146	0.083668		
	30	137	0.078510		
	40	142	0.081375		
	50	159	0.091117		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 24.235, Part 27.54, Part 2.1055(d)(2)
Limit:	Within authorized band for Band 2/4/12/66
Test setup:	 The diagram illustrates the test setup. A Power Source (represented by a green box with two terminals) is connected to a Divider (a grey box). The Divider is connected to two Spectrum Analyzers, labeled SS and SA (blue boxes). The Divider is also connected to an EUT (Equipment Under Test, a black rectangle) which is placed inside a Temperature & Humidity Chamber (a large blue rectangle). The EUT is also connected to the Power Source.
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.10 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	75	0.039894	Within authorized band 2	Pass
	3.80	63	0.033511		
	3.50	55	0.029255		
16QAM					
25	4.35	70	0.037234	Within authorized band 2	Pass
	3.80	60	0.031915		
	3.50	50	0.026596		
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	80	0.046176	Within authorized band 4	Pass
	3.80	36	0.020779		
	3.50	47	0.027128		
16QAM					
25	4.35	56	0.032323	Within authorized band 4	Pass
	3.80	34	0.019625		
	3.50	48	0.027706		
Note: Only the worst case shown in the report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 channel=707.50MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	96	0.135689	Within authorized band 12	Pass
	3.80	38	0.053710		
	3.50	74	0.104594		
16QAM					
25	4.35	82	0.115901	Within authorized band 12	Pass
	3.80	56	0.079152		
	3.50	69	0.097527		
Note: Only the worst case shown in the report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66(10MHz) Middle channel=132332 channel=1745.00MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.20	87	0.049857	Within authorized band 66	Pass
	3.70	65	0.037249		
	3.50	38	0.021777		
16QAM					
25	4.20	77	0.044126	Within authorized band 66	Pass
	3.70	58	0.033238		
	3.50	63	0.036103		
Note: Only the worst case shown in the report.					