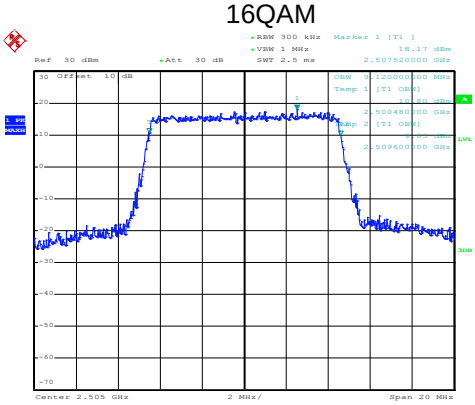
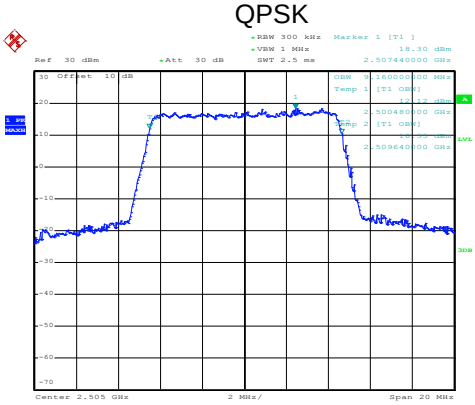
LTE Band 7: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 30.DEC.2019 17:05:56

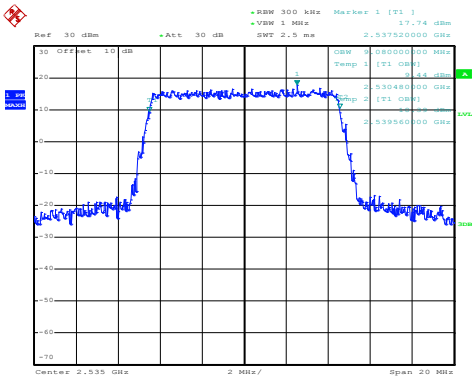
QPSK



Date: 30.DEC.2019 17:05:48

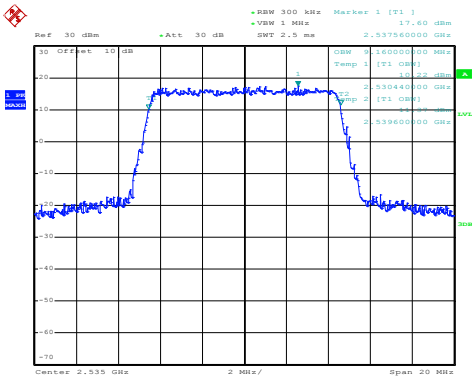
Lowest channel

16QAM



Date: 30.DEC.2019 17:07:37

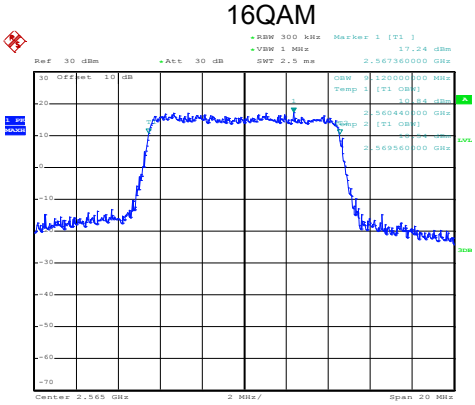
QPSK



Date: 30.DEC.2019 17:07:32

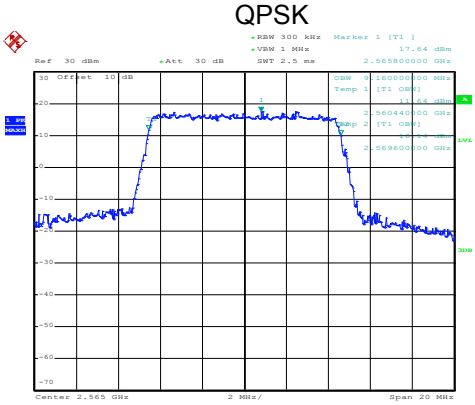
Middle channel

16QAM



Date: 30.DEC.2019 17:08:22

QPSK

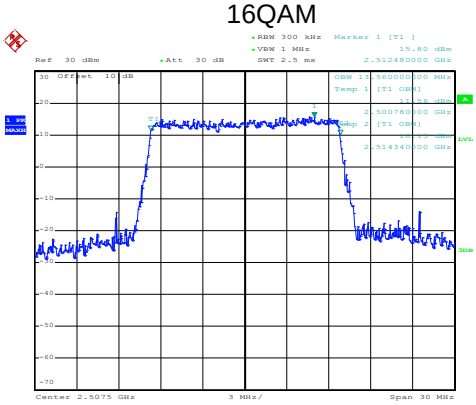


Date: 30.DEC.2019 17:08:16

Highest channel

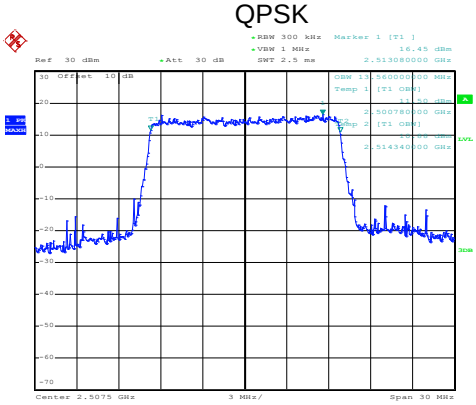
LTE Band 7: 99% Occupy bandwidth
BW: 15MHz

16QAM



Date: 30.DEC.2019 17:11:23

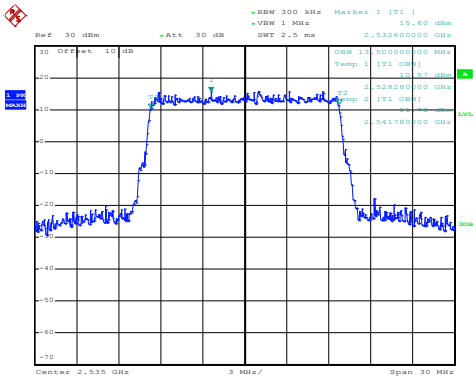
QPSK



Date: 30.DEC.2019 17:11:18

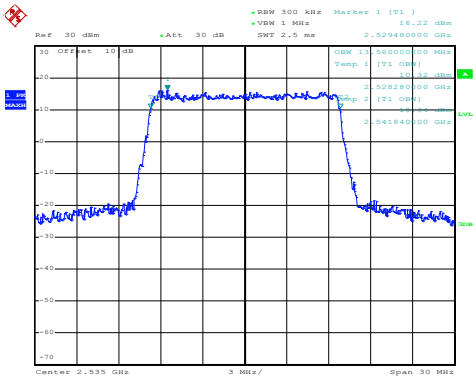
Lowest channel

16QAM



Date: 30.DEC.2019 17:12:15

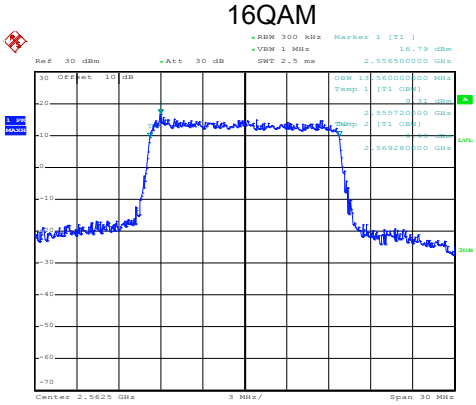
QPSK



Date: 30.DEC.2019 17:12:10

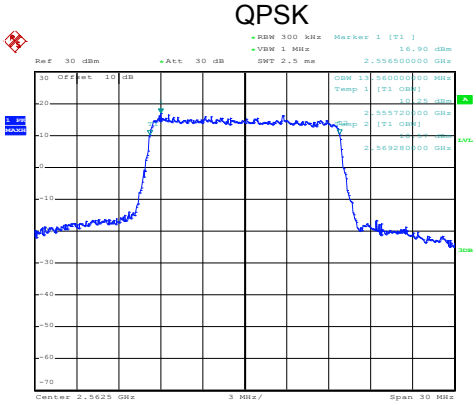
Middle channel

16QAM



Date: 30.DEC.2019 17:14:27

QPSK

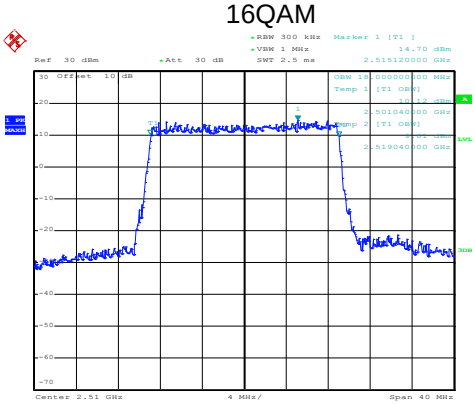


Date: 30.DEC.2019 17:14:21

Highest channel

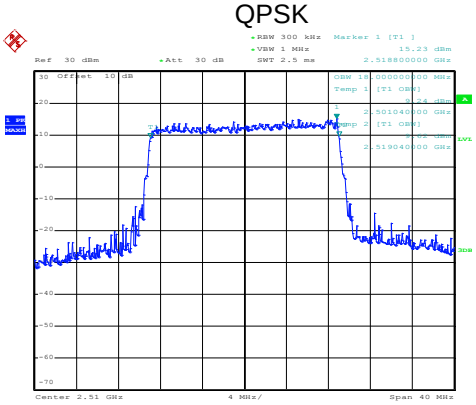
LTE Band 7: 99% Occupy bandwidth
BW: 20MHz

16QAM



Date: 30.DEC.2019 17:16:19

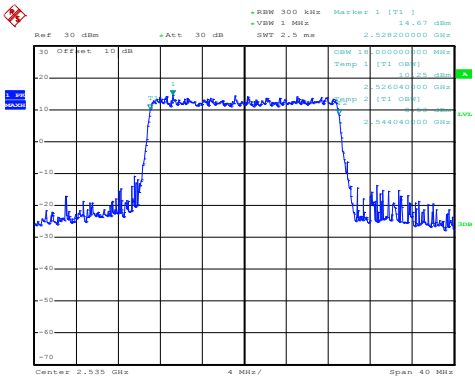
QPSK



Date: 30.DEC.2019 17:16:08

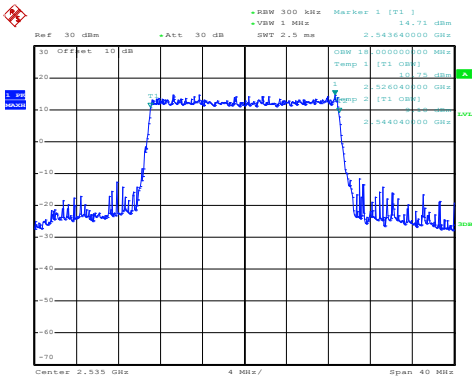
Lowest channel

16QAM



Date: 30.DEC.2019 17:21:29

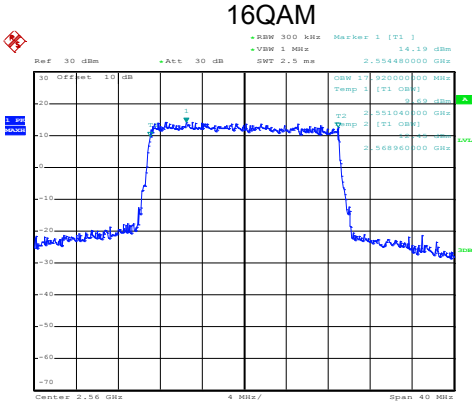
QPSK



Date: 30.DEC.2019 17:21:17

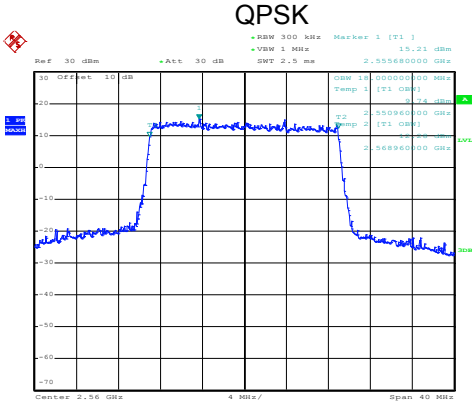
Middle channel

16QAM



Date: 30.DEC.2019 17:24:44

QPSK

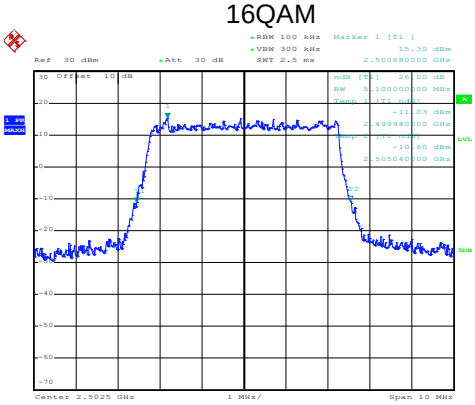


Date: 30.DEC.2019 17:24:37

Highest channel

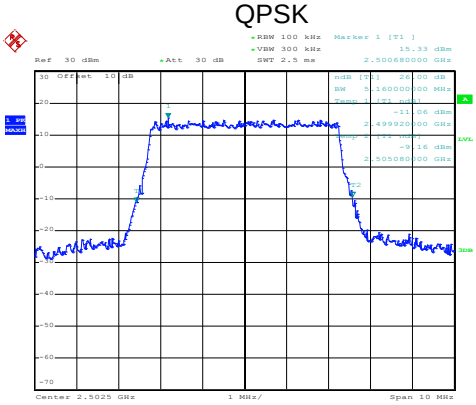
LTE Band 7: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 30.DEC.2019 17:00:49

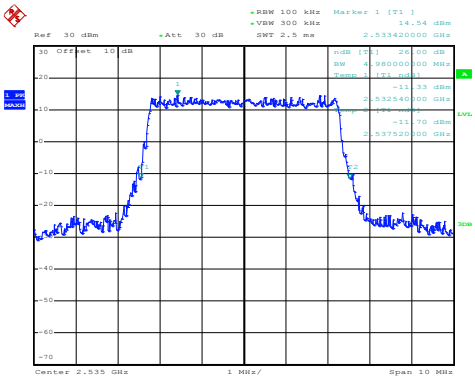
QPSK



Date: 30.DEC.2019 17:00:40

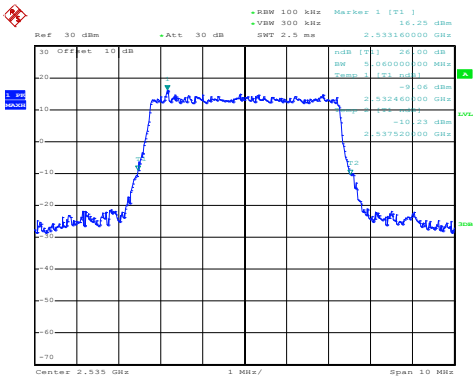
Lowest channel

16QAM



Date: 30.DEC.2019 17:02:58

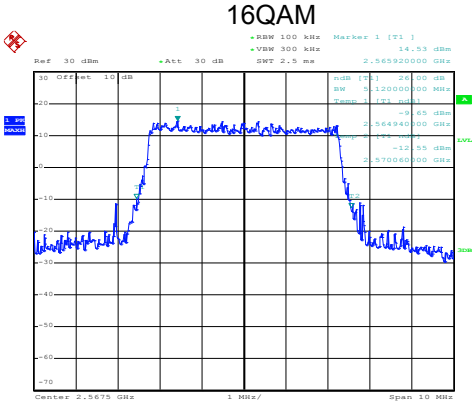
QPSK



Date: 30.DEC.2019 17:02:46

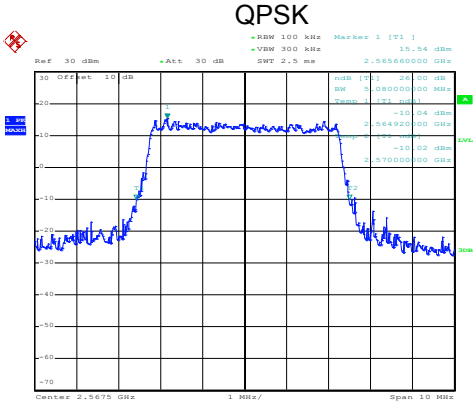
Middle channel

16QAM



Date: 30.DEC.2019 17:03:50

QPSK

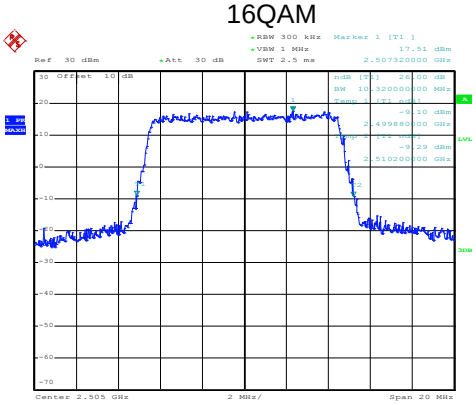


Date: 30.DEC.2019 17:03:45

Highest channel

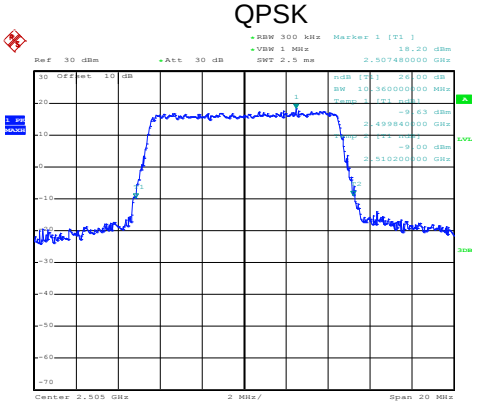
LTE Band 7: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 30.DEC.2019 17:06:30

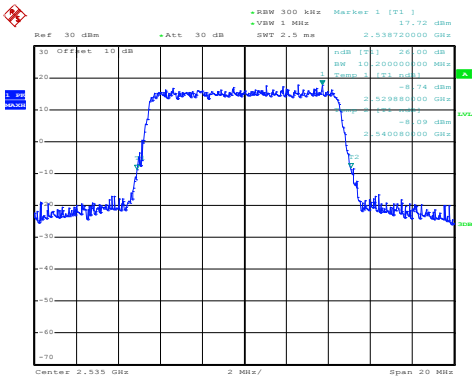
QPSK



Date: 30.DEC.2019 17:06:23

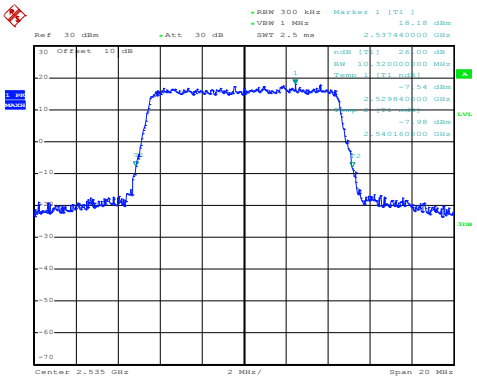
Lowest channel

16QAM



Date: 30.DEC.2019 17:07:12

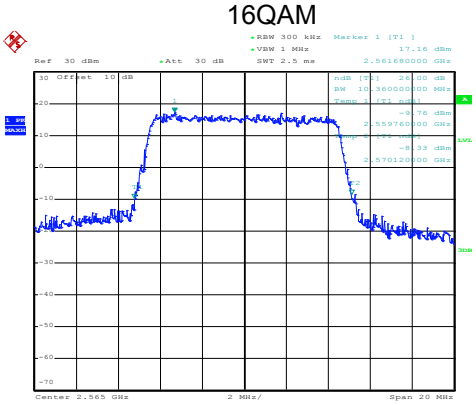
QPSK



Date: 30.DEC.2019 17:07:06

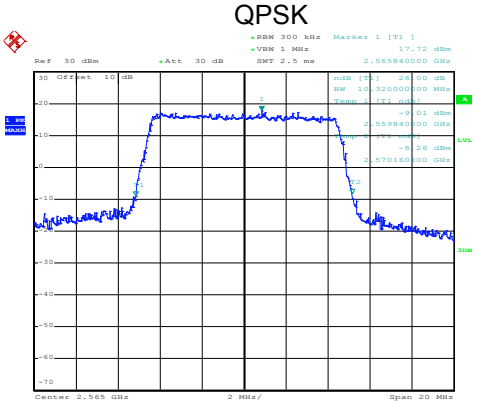
Middle channel

16QAM



Date: 30.DEC.2019 17:08:52

QPSK

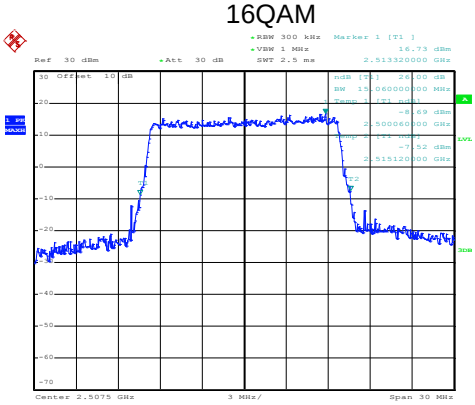


Date: 30.DEC.2019 17:08:46

Highest channel

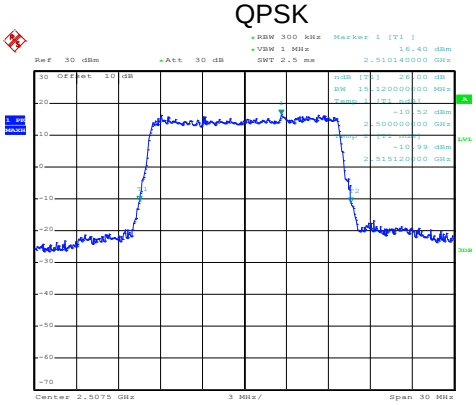
LTE Band 7: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 30.DEC.2019 17:10:54

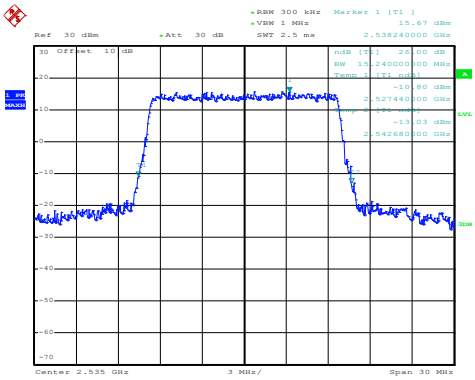
QPSK



Date: 30.DEC.2019 17:10:47

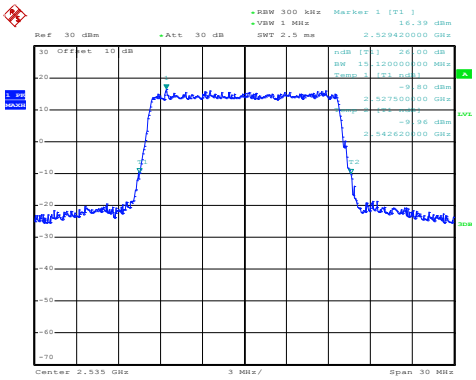
Lowest channel

16QAM



Date: 30.DEC.2019 17:12:50

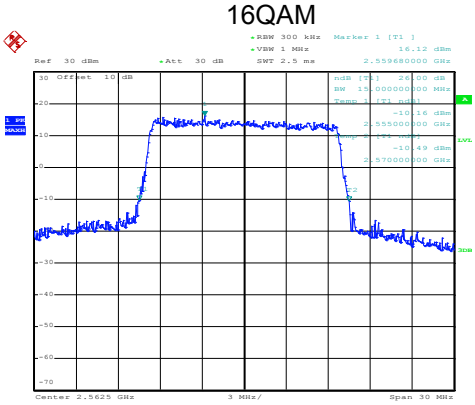
QPSK



Date: 30.DEC.2019 17:12:42

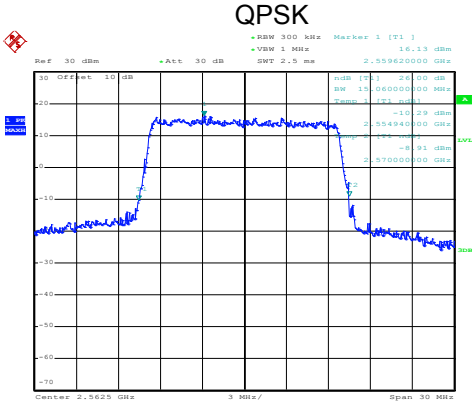
Middle channel

16QAM



Date: 30.DEC.2019 17:13:46

QPSK

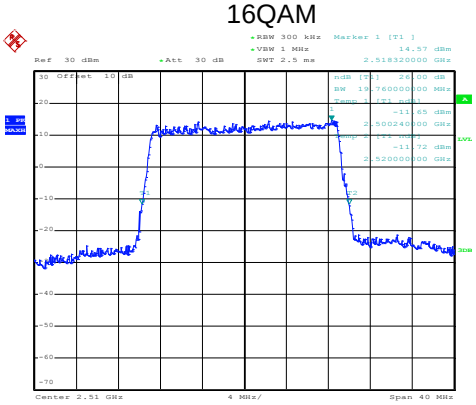


Date: 30.DEC.2019 17:13:39

Highest channel

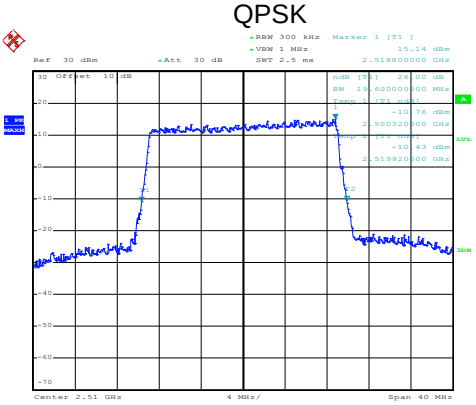
LTE Band 7: -26dBc bandwidth
BW: 20MHz

16QAM



Date: 30.DEC.2019 17:17:03

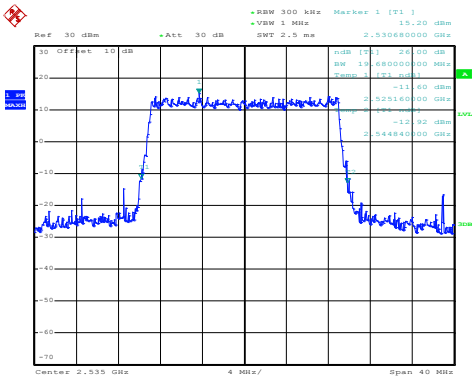
QPSK



Date: 30.DEC.2019 17:16:53

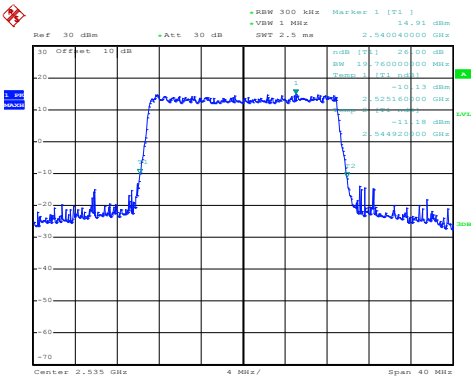
Lowest channel

16QAM



Date: 30.DEC.2019 17:23:25

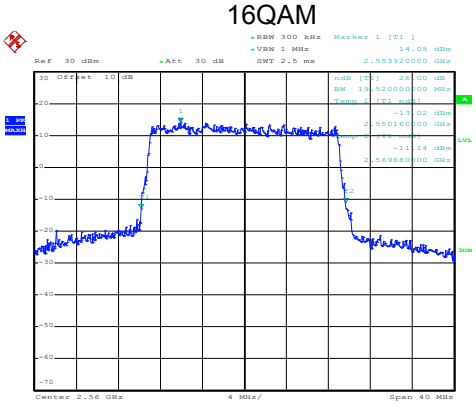
QPSK



Date: 30.DEC.2019 17:23:20

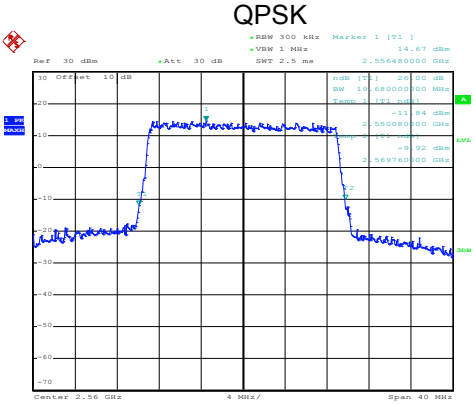
Middle channel

16QAM



Date: 30.DEC.2019 17:24:12

QPSK



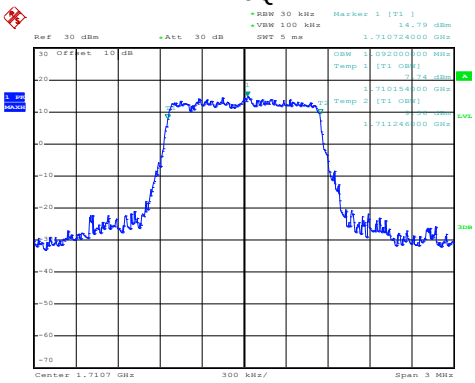
Date: 30.DEC.2019 17:24:07

Highest channel

LTE Band 66 part:

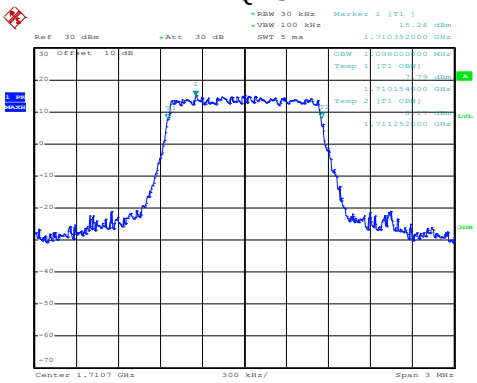
LTE Band 66: 99% Occupy bandwidth
BW: 1.4MHz

16QAM



Date: 29.DEC.2019 21:03:53

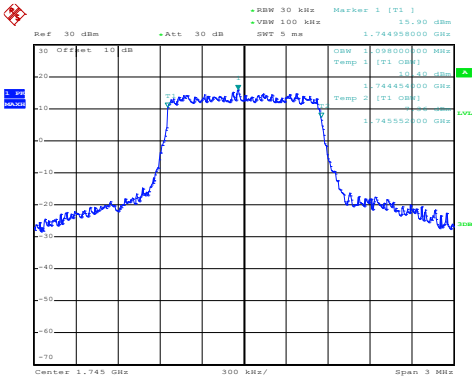
QPSK



Date: 29.DEC.2019 21:03:49

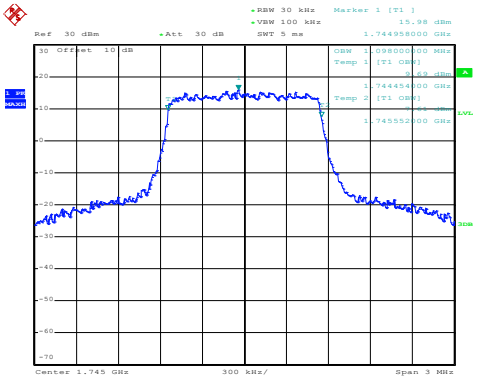
Lowest channel

16QAM



Date: 29.DEC.2019 21:03:30

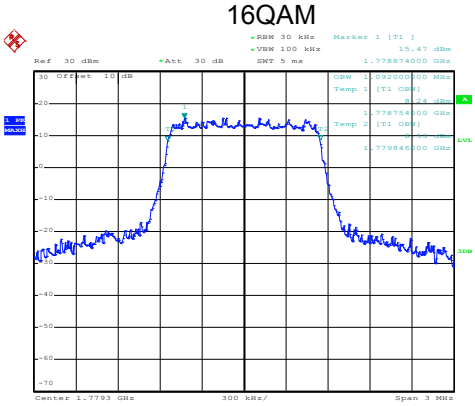
QPSK



Date: 29.DEC.2019 21:03:25

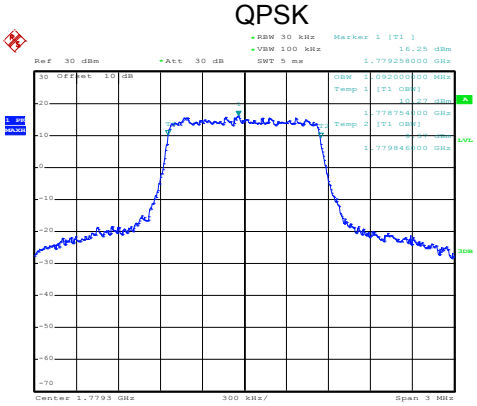
Middle channel

16QAM



Date: 29.DEC.2019 21:02:05

QPSK

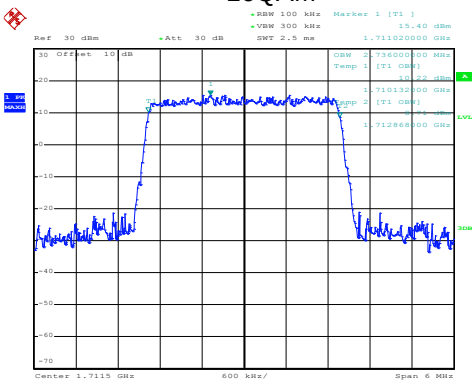


Date: 29.DEC.2019 21:02:00

Highest channel

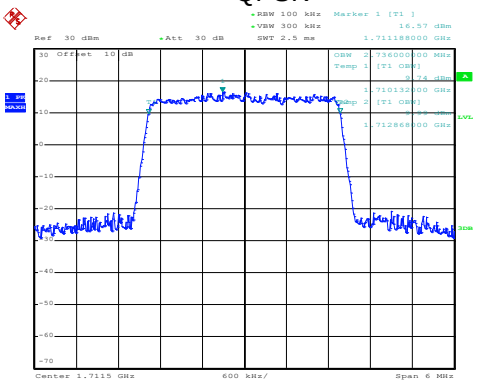
LTE Band 66: 99% Occupy bandwidth
BW: 3MHz

16QAM



Date: 29.DEC.2019 21:11:19

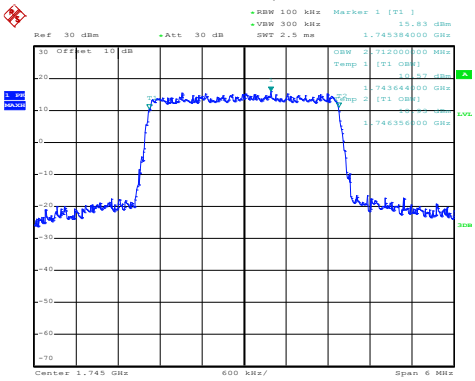
QPSK



Date: 29.DEC.2019 21:11:13

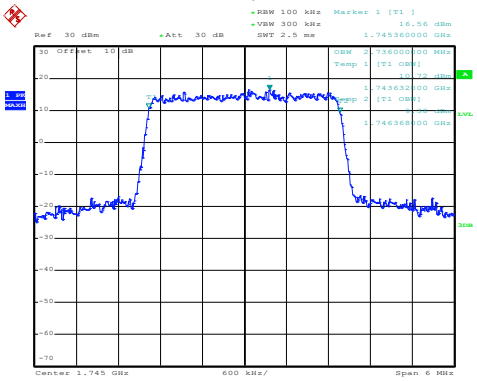
Lowest channel

16QAM



Date: 29.DEC.2019 21:11:57

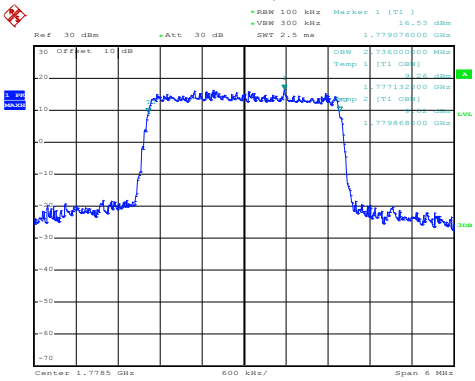
QPSK



Date: 29.DEC.2019 21:11:52

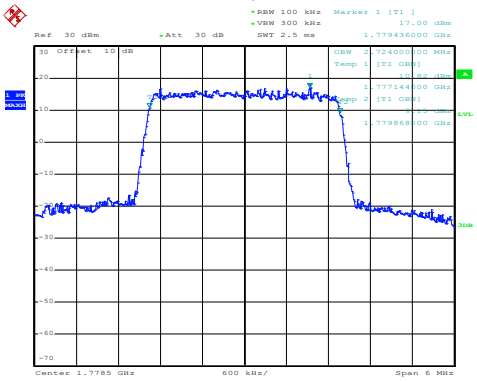
Middle channel

16QAM



Date: 29.DEC.2019 21:13:13

QPSK

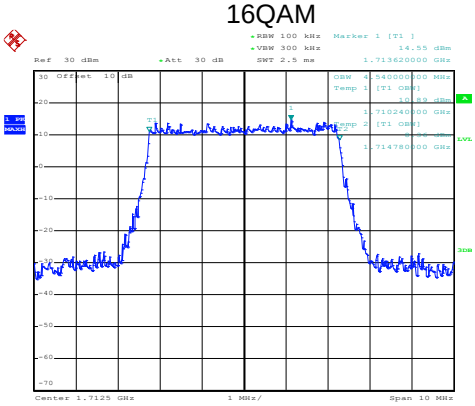


Date: 29.DEC.2019 21:13:04

Highest channel

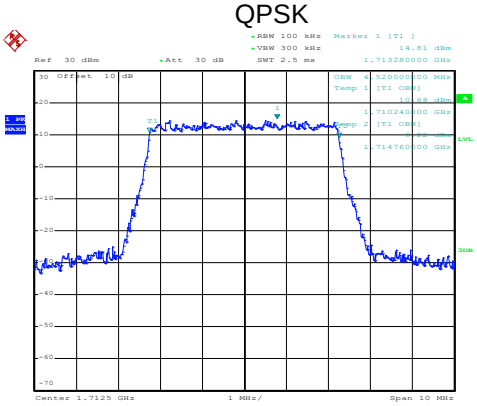
LTE Band 66: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 29.DEC.2019 21:14:22

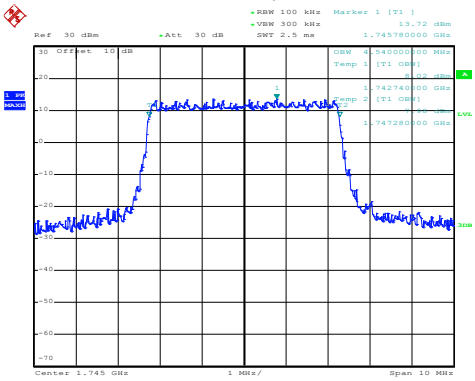
QPSK



Date: 29.DEC.2019 21:14:16

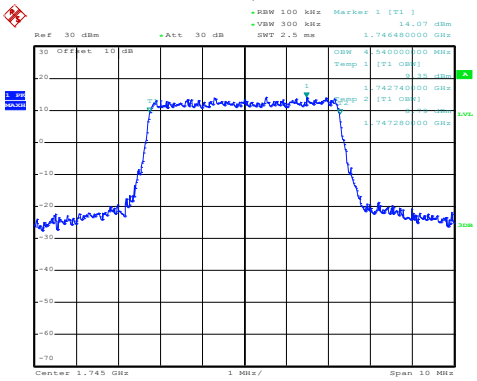
Lowest channel

16QAM



Date: 29.DEC.2019 21:15:18

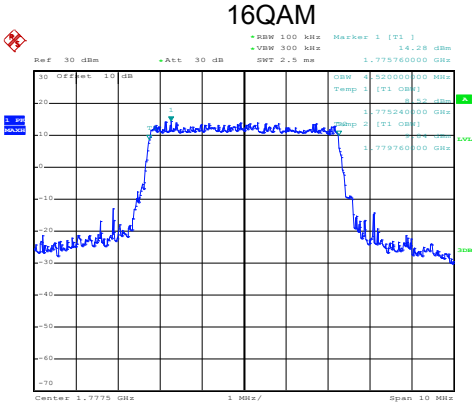
QPSK



Date: 29.DEC.2019 21:15:13

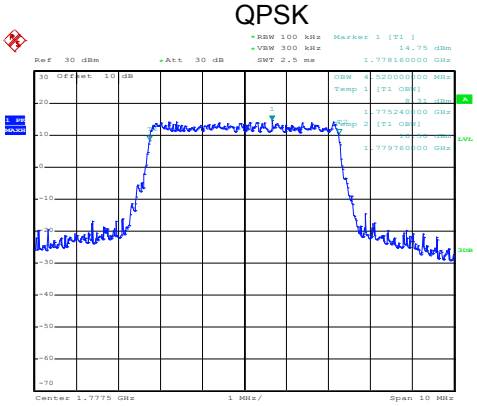
Middle channel

16QAM



Date: 29.DEC.2019 21:15:47

QPSK

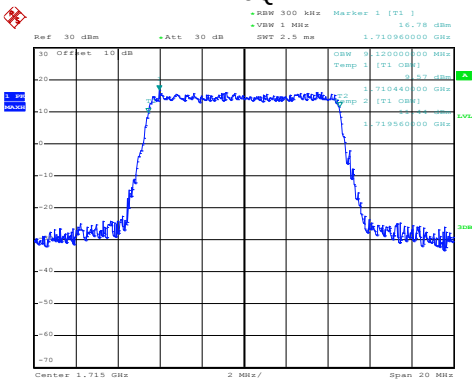


Date: 29.DEC.2019 21:15:41

Highest channel

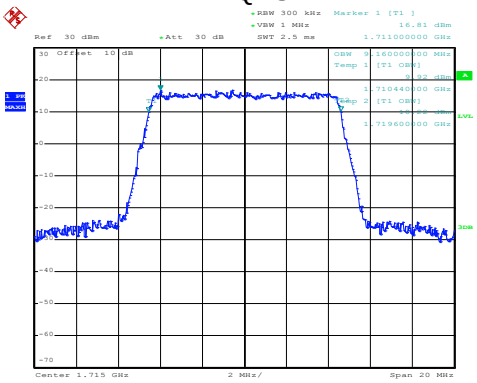
LTE Band 66: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 29.DEC.2019 21:17:34

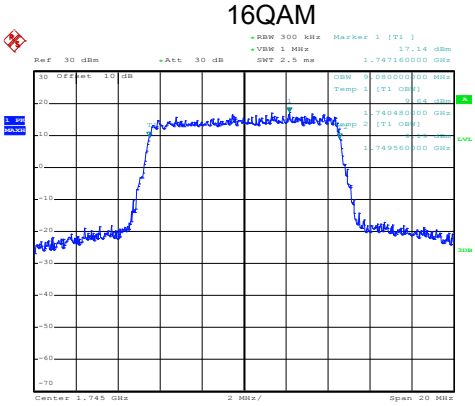
QPSK



Date: 29.DEC.2019 21:17:29

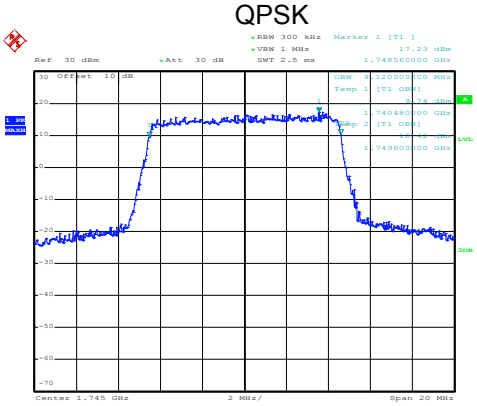
Lowest channel

16QAM



Date: 29.DEC.2019 21:18:01

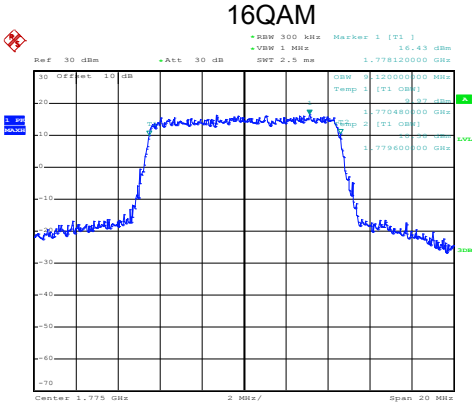
QPSK



Date: 29.DEC.2019 21:17:57

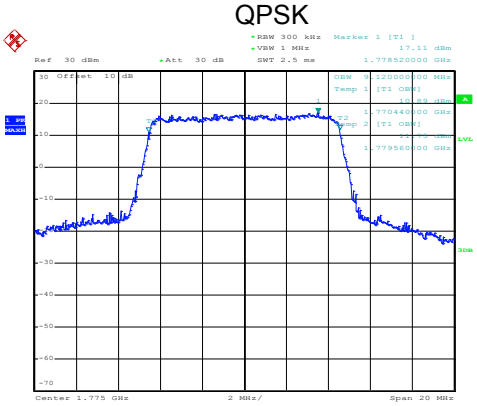
Middle channel

16QAM



Date: 29.DEC.2019 21:19:41

QPSK

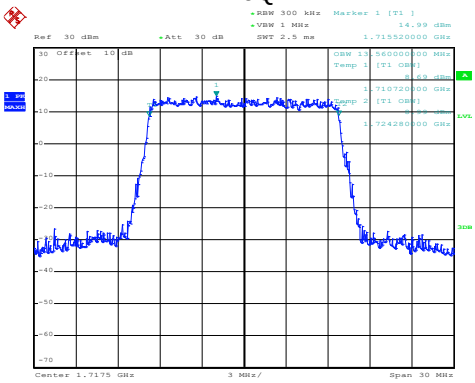


Date: 29.DEC.2019 21:19:36

Highest channel

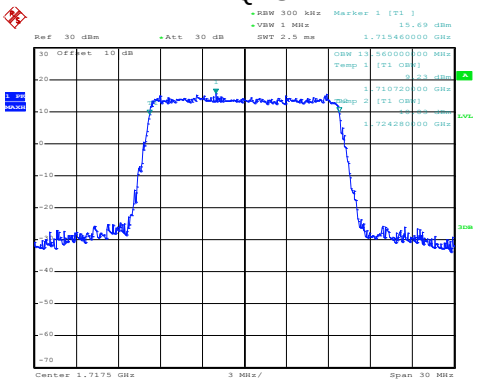
LTE Band 66: 99% Occupy bandwidth
BW: 15MHz

16QAM



Date: 29.DEC.2019 21:20:36

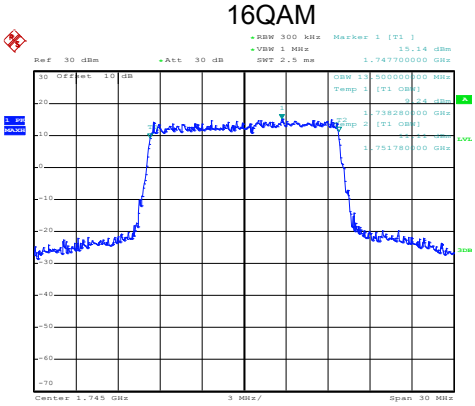
QPSK



Date: 29.DEC.2019 21:20:31

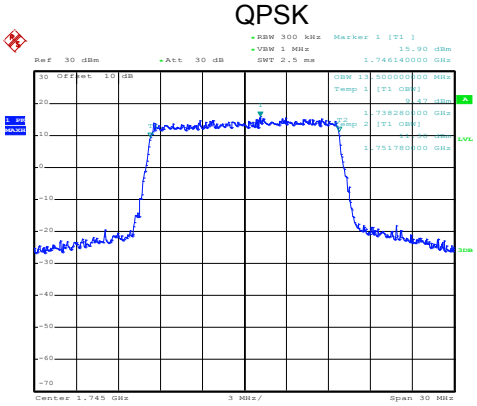
Lowest channel

16QAM



Date: 29.DEC.2019 21:21:34

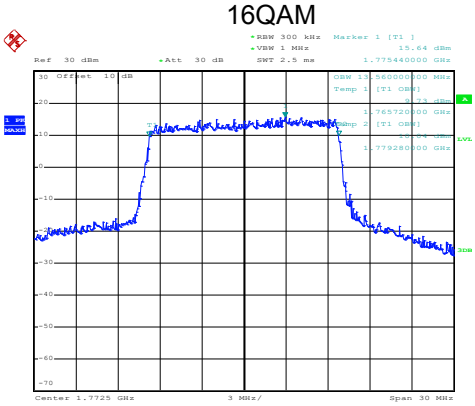
QPSK



Date: 29.DEC.2019 21:21:29

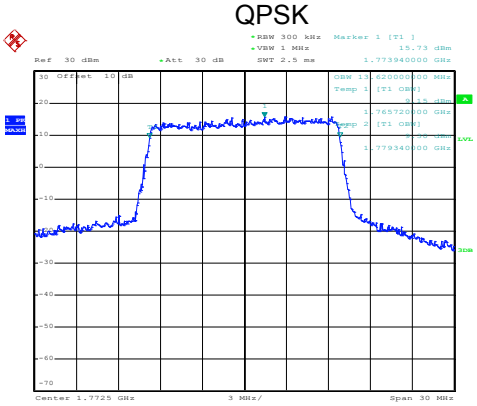
Middle channel

16QAM



Date: 29.DEC.2019 21:21:56

QPSK

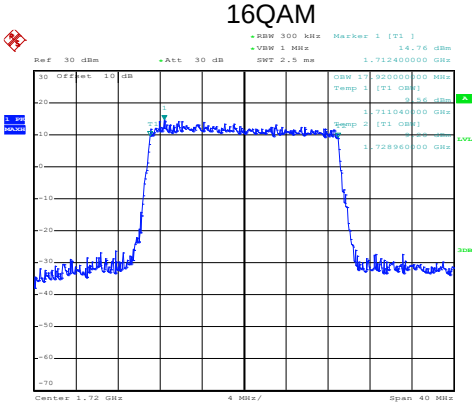


Date: 29.DEC.2019 21:21:52

Highest channel

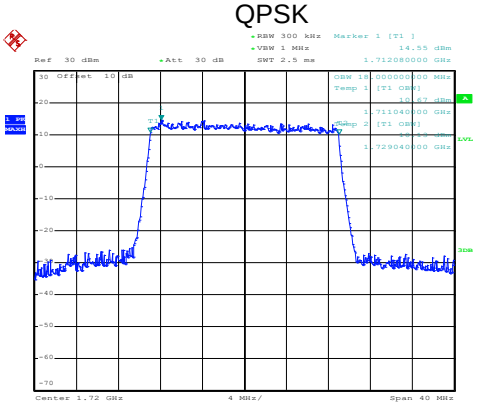
LTE Band 66: 99% Occupy bandwidth
BW: 20MHz

16QAM



Date: 29.DEC.2019 21:23:25

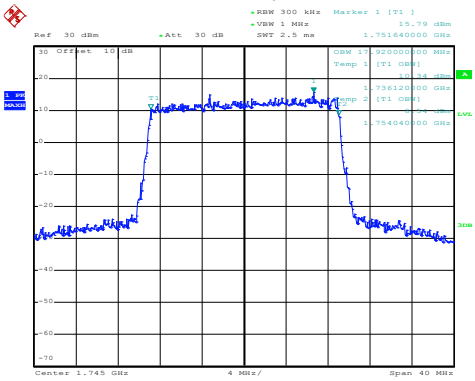
QPSK



Date: 29.DEC.2019 21:23:21

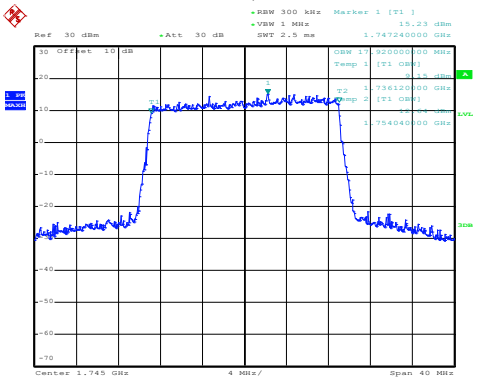
Lowest channel

16QAM



Date: 29.DEC.2019 21:23:50

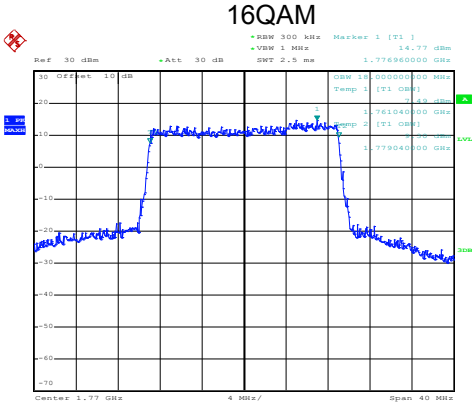
QPSK



Date: 29.DEC.2019 21:23:43

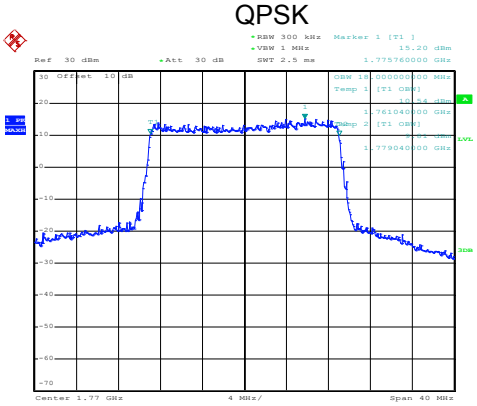
Middle channel

16QAM



Date: 29.DEC.2019 21:24:44

QPSK

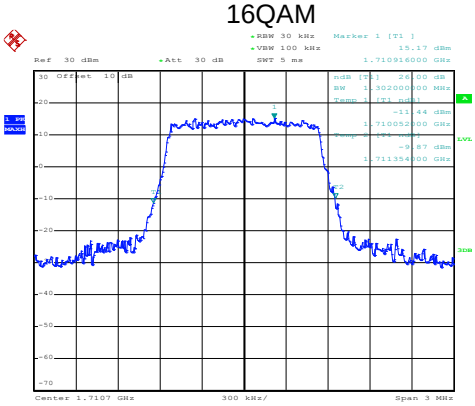


Date: 29.DEC.2019 21:24:38

Highest channel

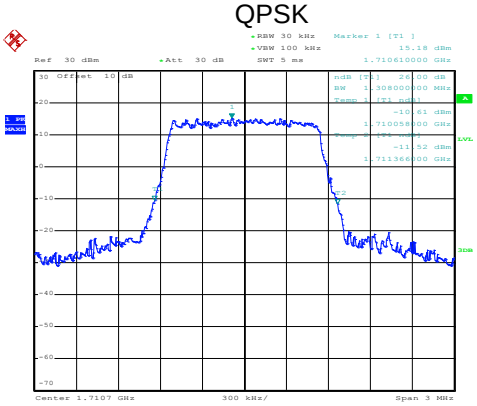
LTE Band 66: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 29.DEC.2019 21:04:16

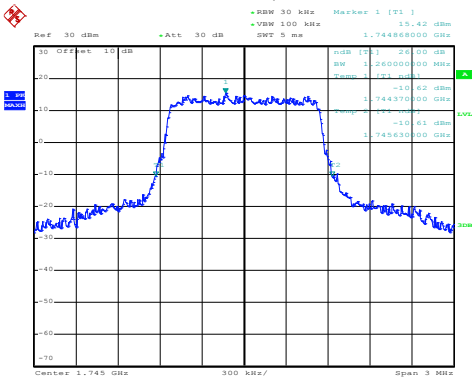
QPSK



Date: 29.DEC.2019 21:04:05

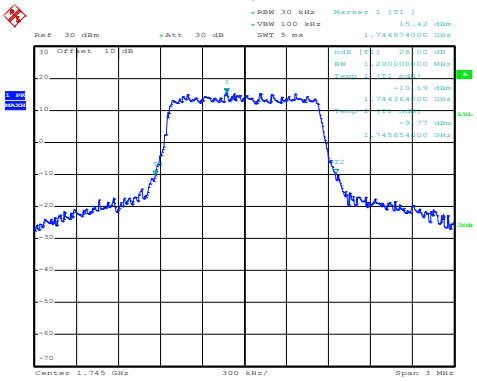
Lowest channel

16QAM



Date: 29.DEC.2019 21:03:07

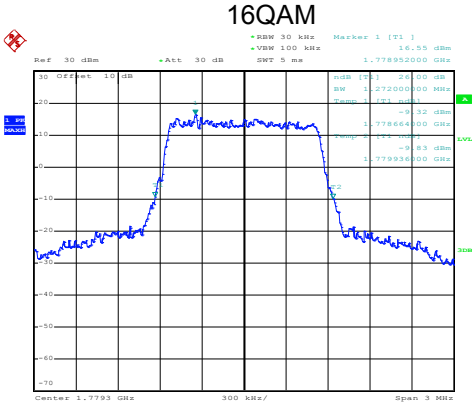
QPSK



Date: 29.DEC.2019 21:03:02

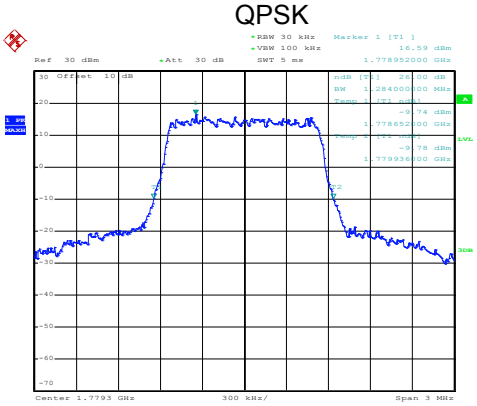
Middle channel

16QAM



Date: 29.DEC.2019 21:02:46

QPSK



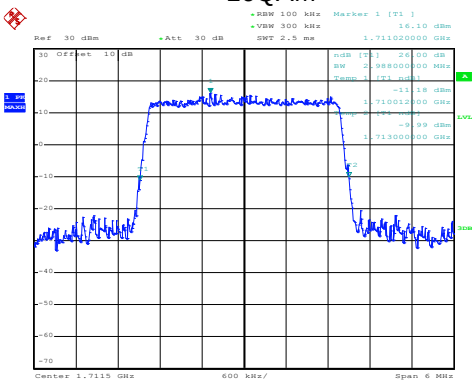
Date: 29.DEC.2019 21:02:40

Highest channel

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366

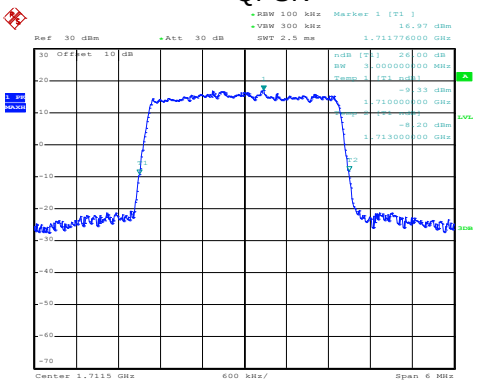
BW: 3MHz

16QAM



Date: 29.DEC.2019 21:10:58

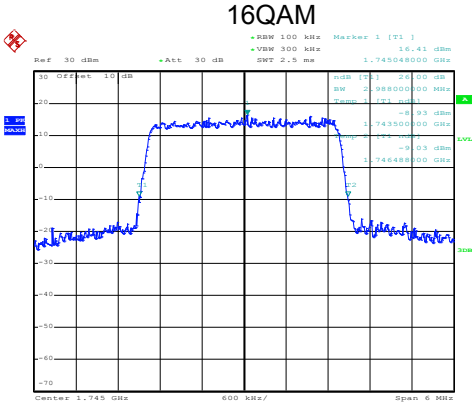
QPSK



Date: 29.DEC.2019 21:10:54

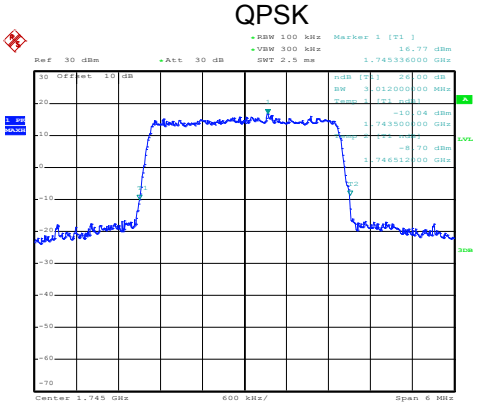
Lowest channel

16QAM



Date: 29.DEC.2019 21:12:13

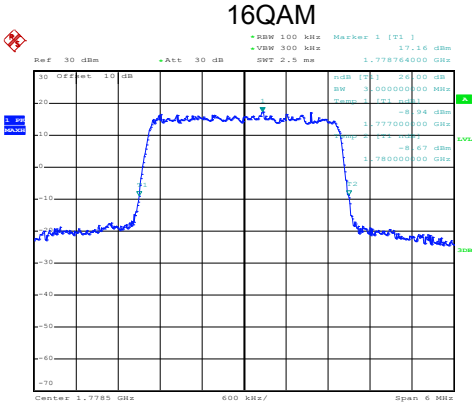
QPSK



Date: 29.DEC.2019 21:12:08

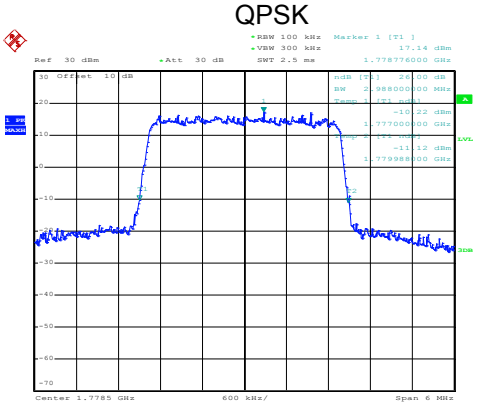
Middle channel

16QAM



Date: 29.DEC.2019 21:12:50

QPSK

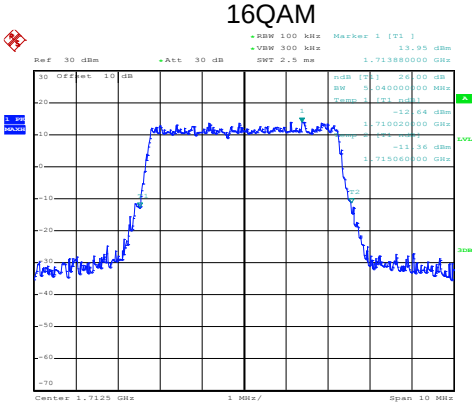


Date: 29.DEC.2019 21:12:36

Highest channel

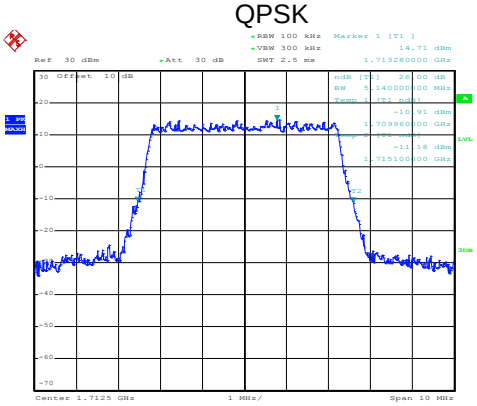
LTE Band 66: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 29.DEC.2019 21:14:37

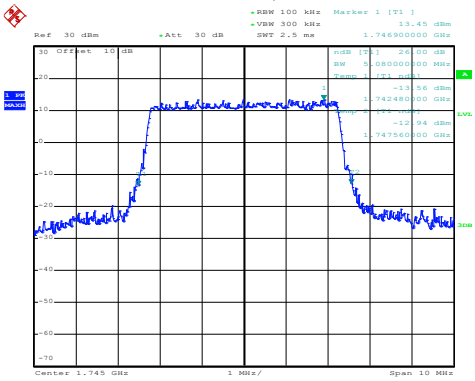
QPSK



Date: 29.DEC.2019 21:14:33

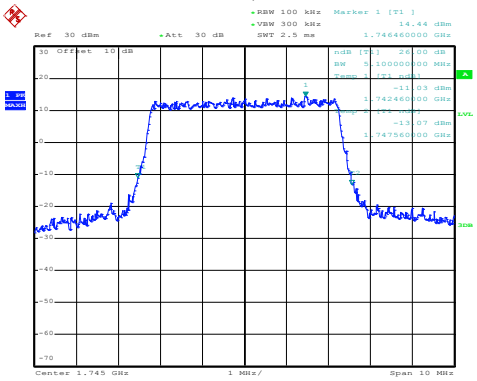
Lowest channel

16QAM



Date: 29.DEC.2019 21:15:02

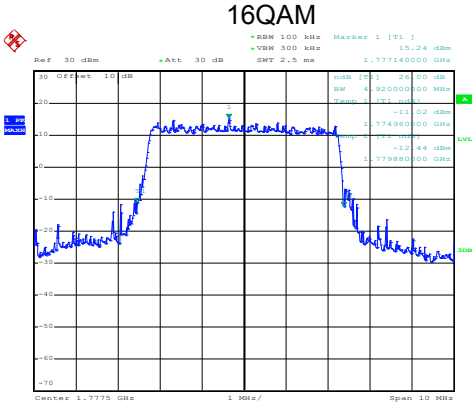
QPSK



Date: 29.DEC.2019 21:14:56

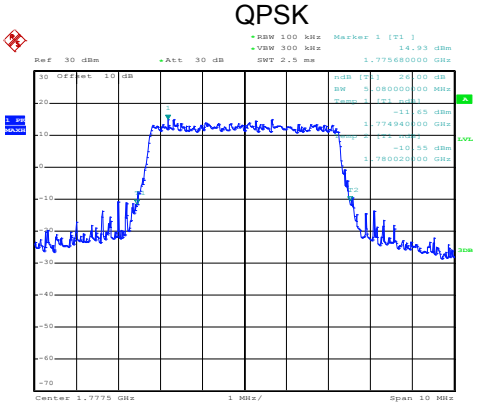
Middle channel

16QAM



Date: 29.DEC.2019 21:16:01

QPSK

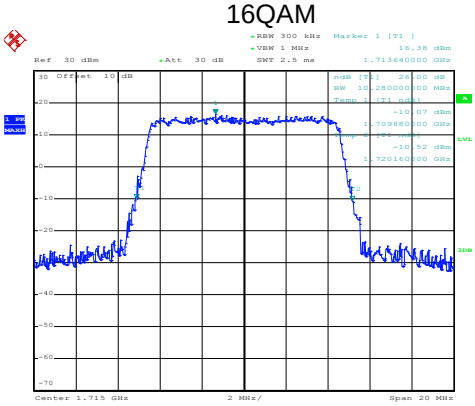


Date: 29.DEC.2019 21:15:56

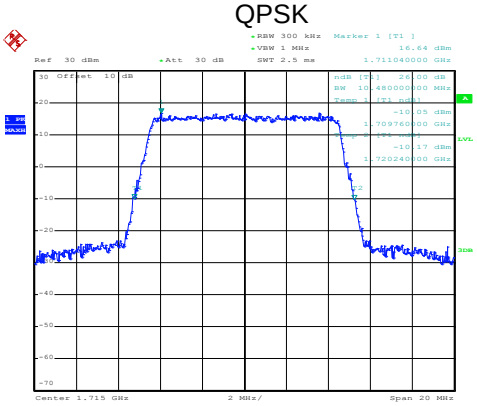
Highest channel

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

16QAM

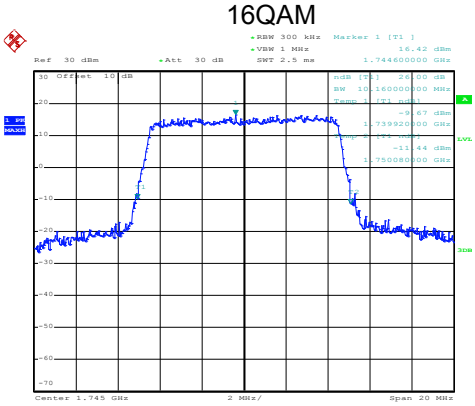


QPSK

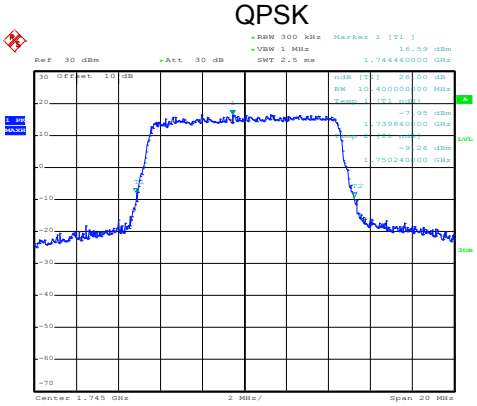


Lowest channel

16QAM

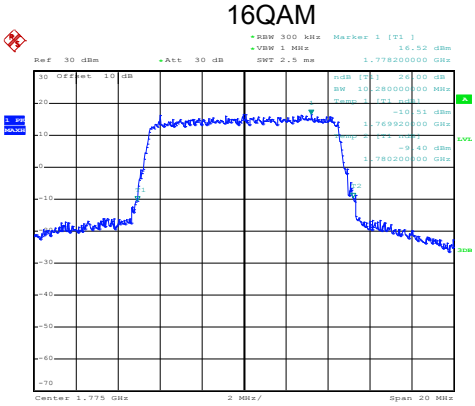


QPSK

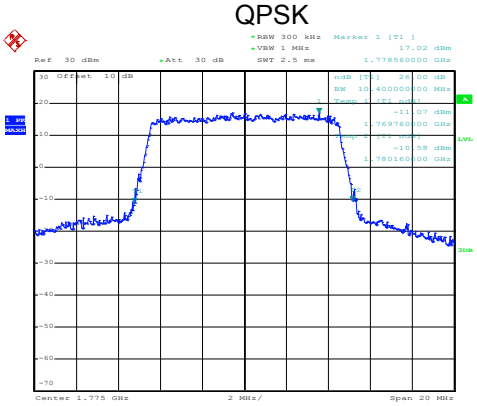


Middle channel

16QAM



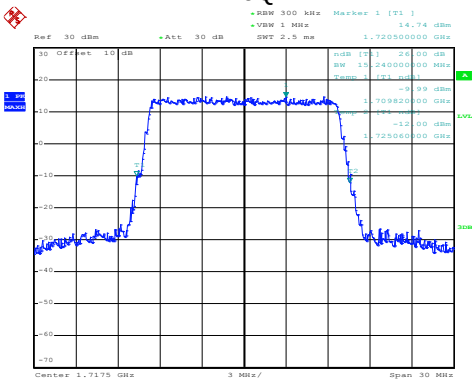
QPSK



Highest channel

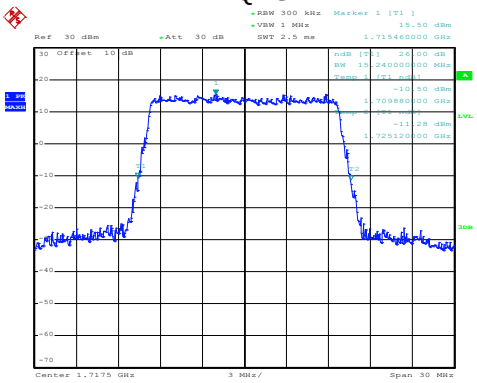
LTE Band 66: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 29.DEC.2019 21:20:55

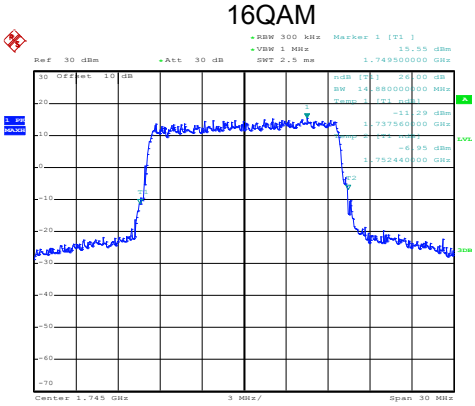
QPSK



Date: 29.DEC.2019 21:20:48

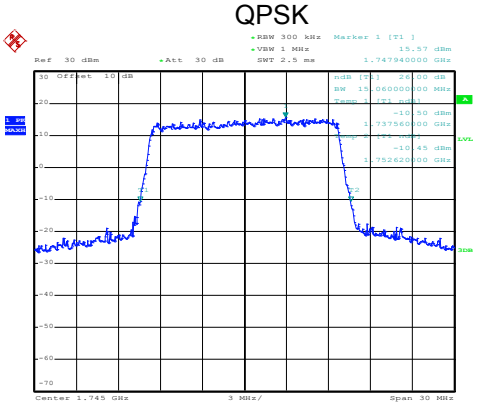
Lowest channel

16QAM



Date: 29.DEC.2019 21:21:20

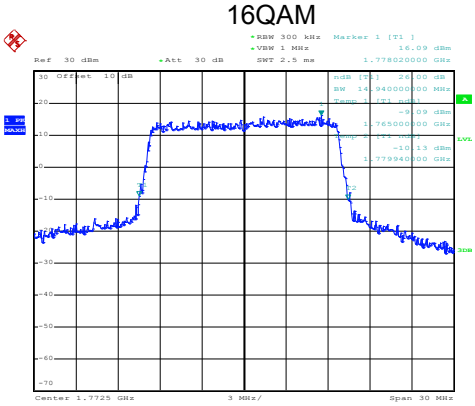
QPSK



Date: 29.DEC.2019 21:21:16

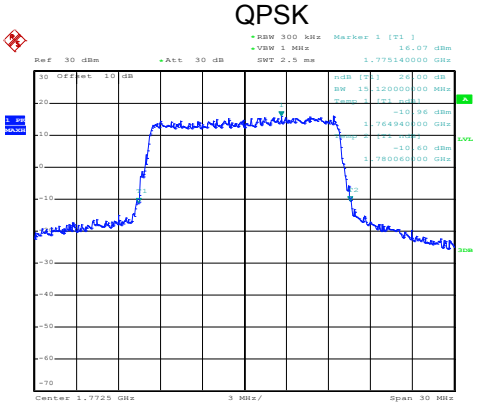
Middle channel

16QAM



Date: 29.DEC.2019 21:22:12

QPSK

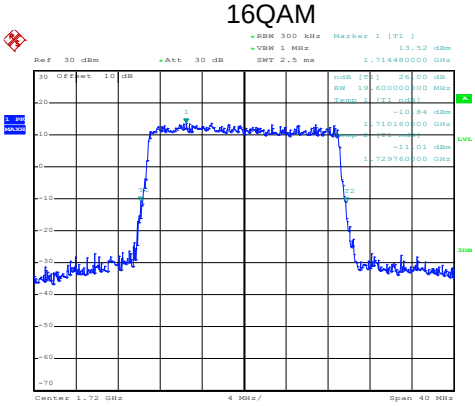


Date: 29.DEC.2019 21:22:08

Highest channel

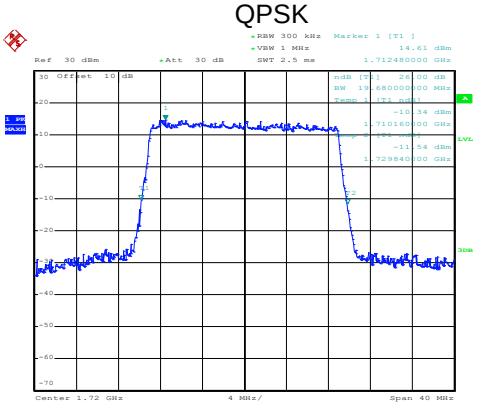
LTE Band 66: -26dBc bandwidth
BW: 20MHz

16QAM



Date: 29.DEC.2019 21:23:10

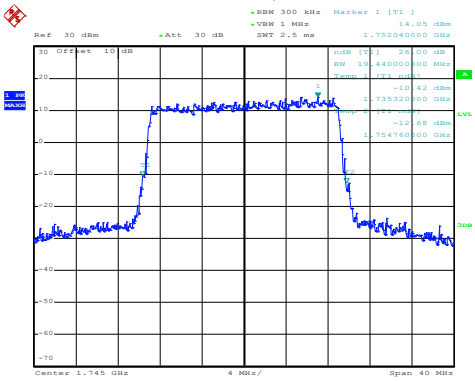
QPSK



Date: 29.DEC.2019 21:23:06

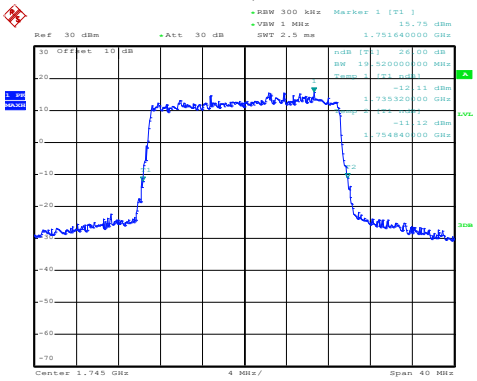
Lowest channel

16QAM



Date: 29.DEC.2019 21:24:05

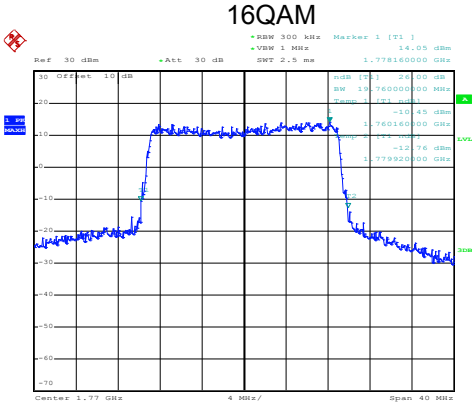
QPSK



Date: 29.DEC.2019 21:24:01

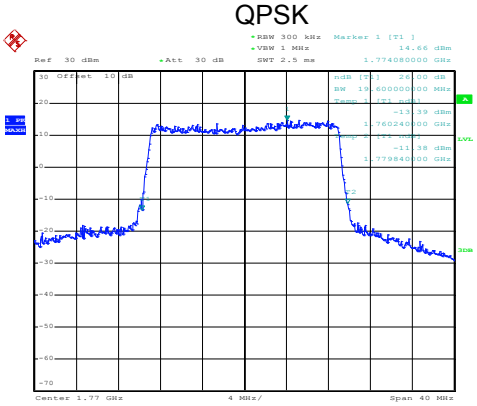
Middle channel

16QAM



Date: 29.DEC.2019 21:24:27

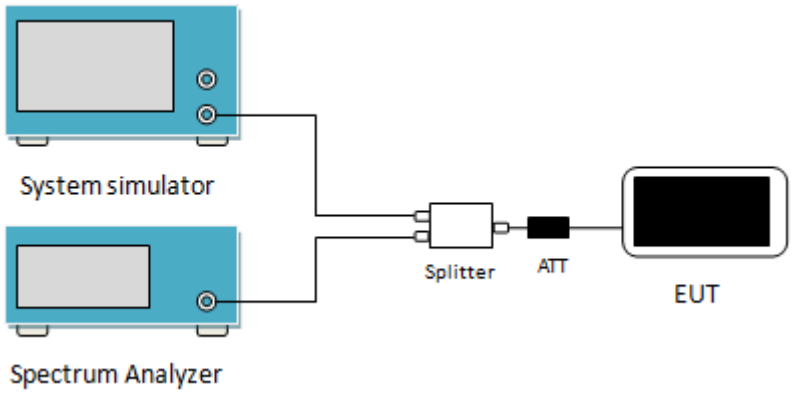
QPSK



Date: 29.DEC.2019 21:24:22

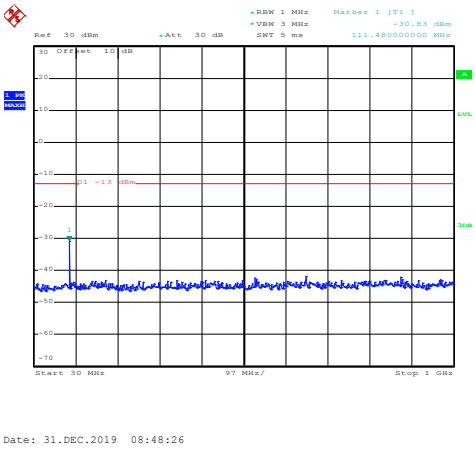
Highest channel

6.4 Out of band emission at antenna terminals

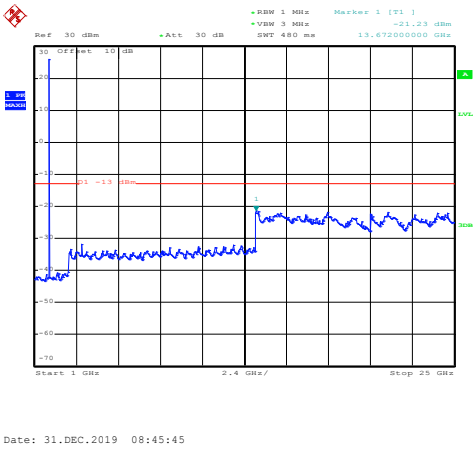
Test Requirement:	Part 22.917(b), Part 24.238 (a), part 27.53(h), Part 27.53(m)
Limit:	LTE Band 2 & 4 & 5 & 66: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm). LTE Band 7: For 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

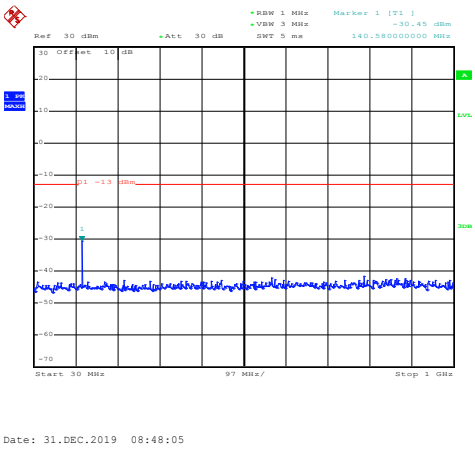


30MHz~1GHz

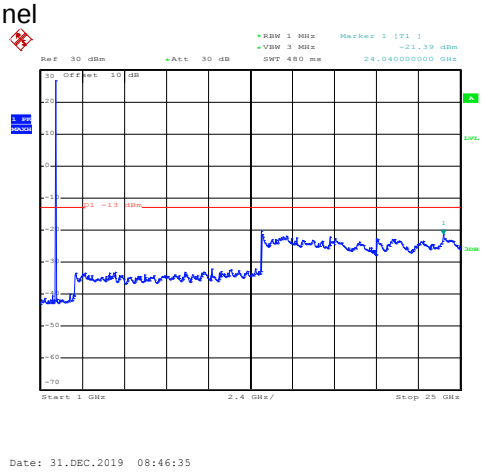


1GHz~25GHz

Middle channel

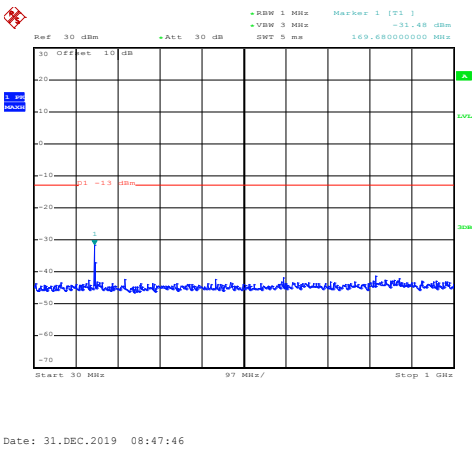


30MHz~1GHz

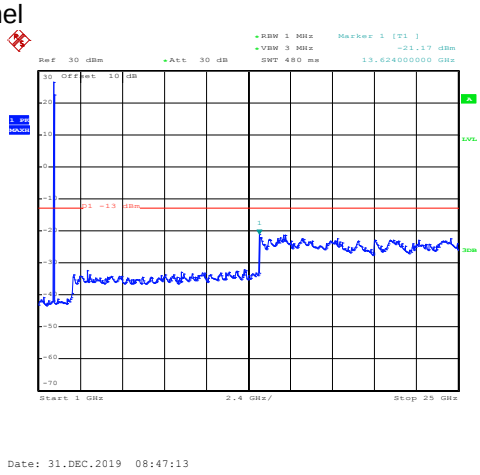


1GHz~25GHz

High channel

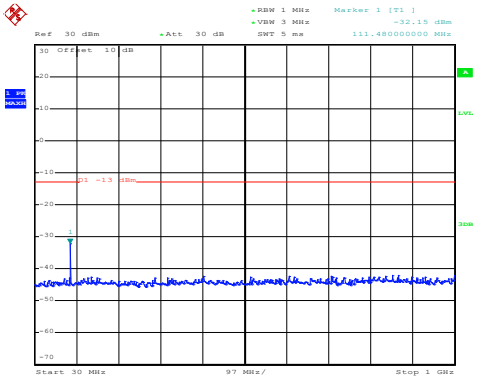


30MHz~1GHz

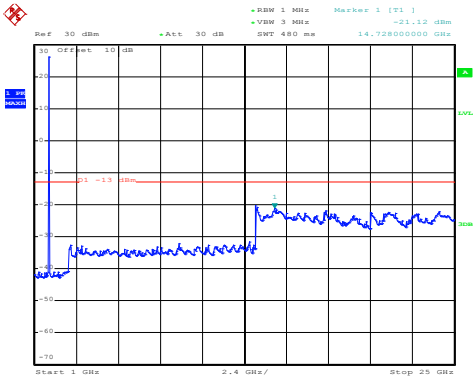


1GHz~25GHz

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

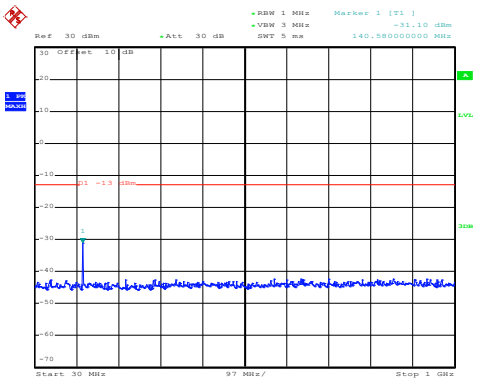


30MHz~1GHz

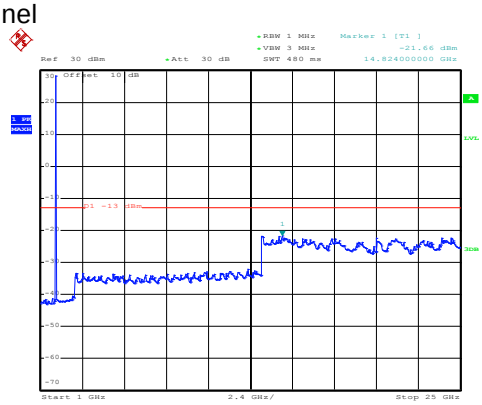


1GHz~25GHz

Middle channel

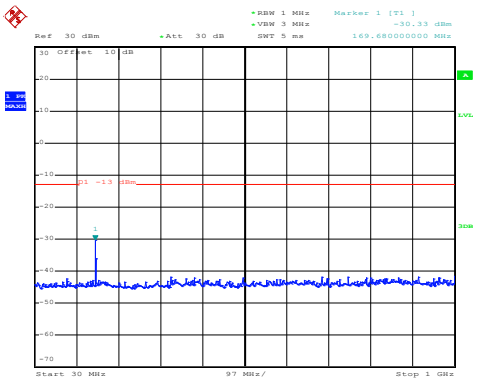


30MHz~1GHz

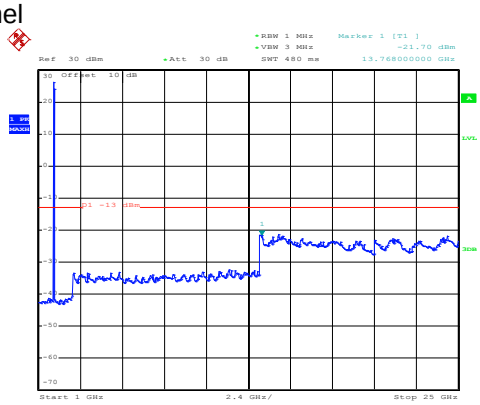


1GHz~25GHz

High channel

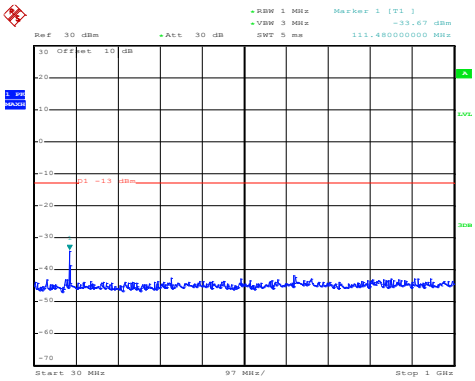


30MHz~1GHz



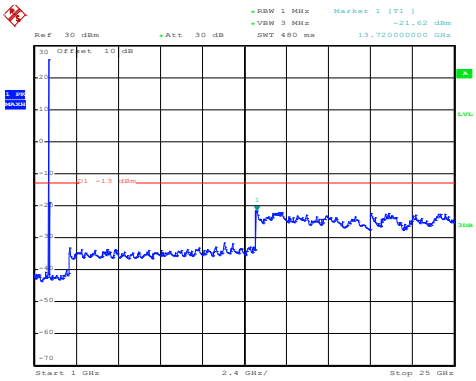
1GHz~25GHz

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



Date: 31.DEC.2019 08:48:56

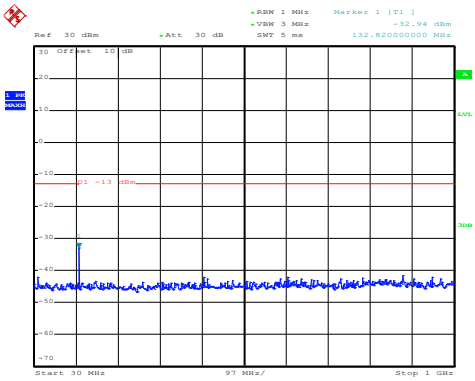
30MHz~1GHz



Date: 31.DEC.2019 08:44:54

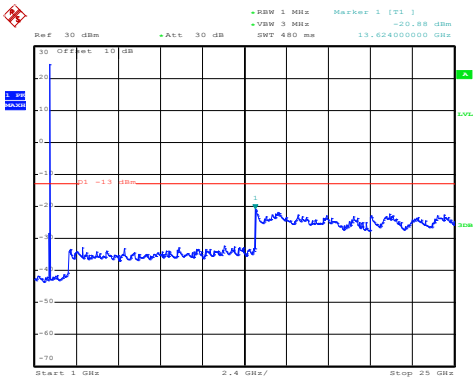
1GHz~25GHz

Middle channel



Date: 31.DEC.2019 08:49:21

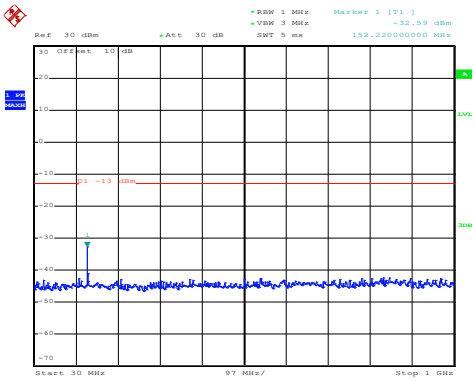
30MHz~1GHz



Date: 31.DEC.2019 08:44:19

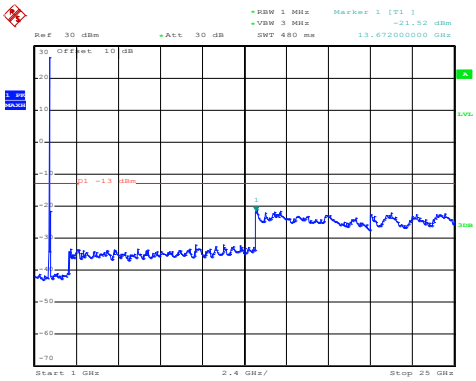
1GHz~25GHz

High channel



Date: 31.DEC.2019 08:49:42

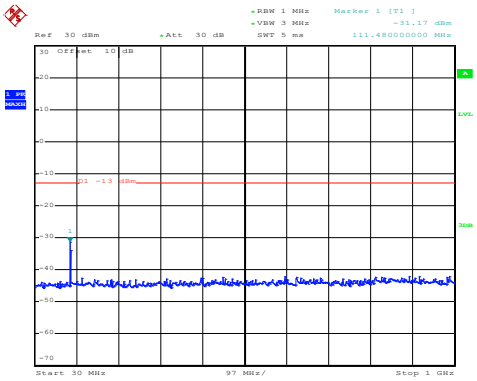
30MHz~1GHz



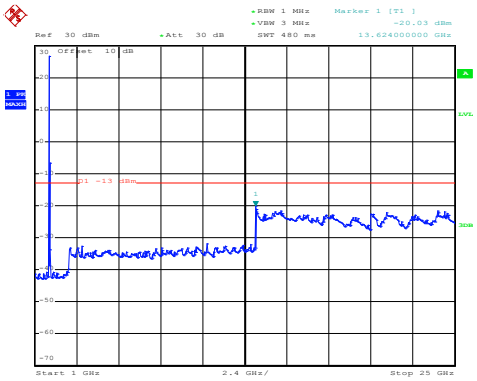
Date: 31.DEC.2019 08:43:50

1GHz~25GHz

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

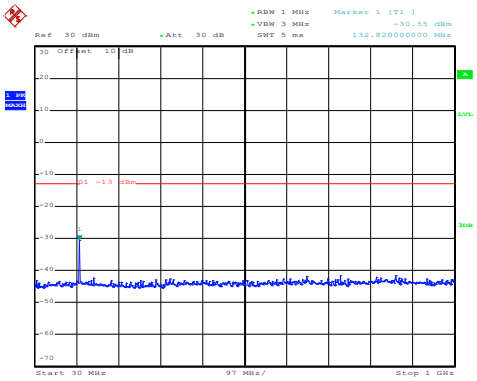


30MHz~1GHz

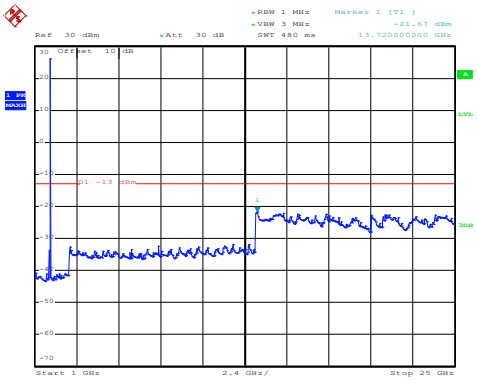


1GHz~25GHz

Middle channel

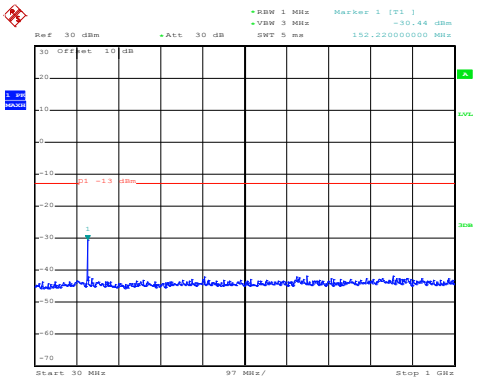


30MHz~1GHz

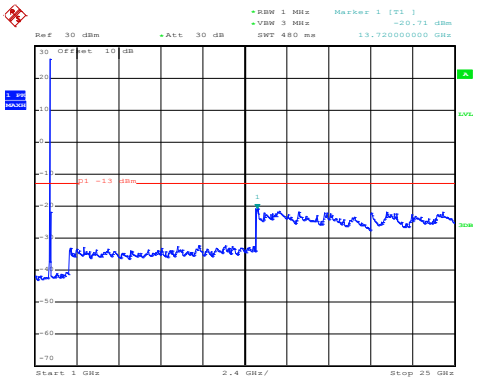


1GHz~25GHz

High channel



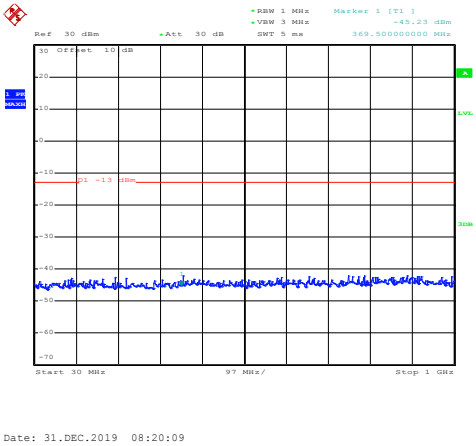
30MHz~1GHz



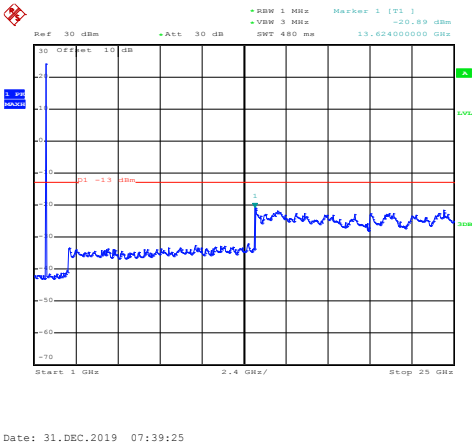
1GHz~25GHz

LTE Band 4 part:

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

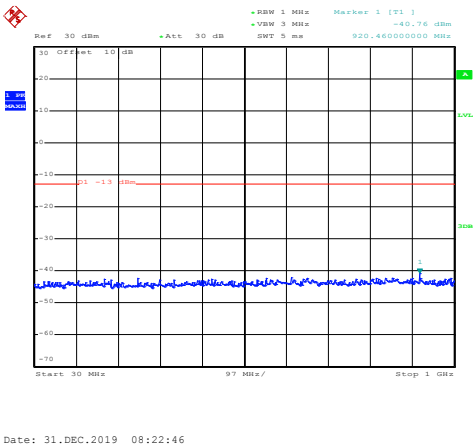


30MHz~1GHz

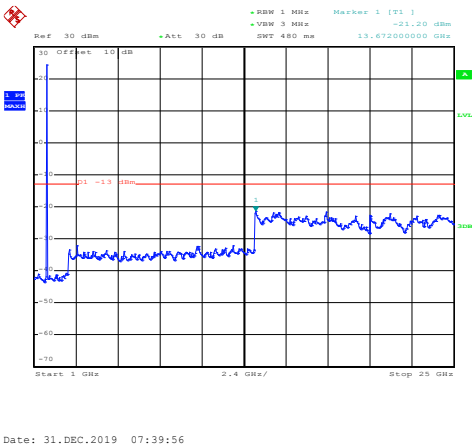


1GHz~25GHz

Middle channel

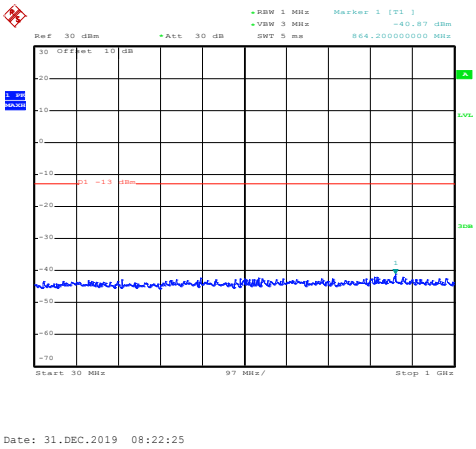


30MHz~1GHz

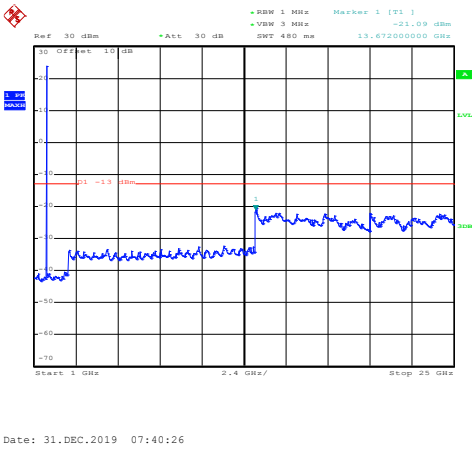


1GHz~25GHz

High channel

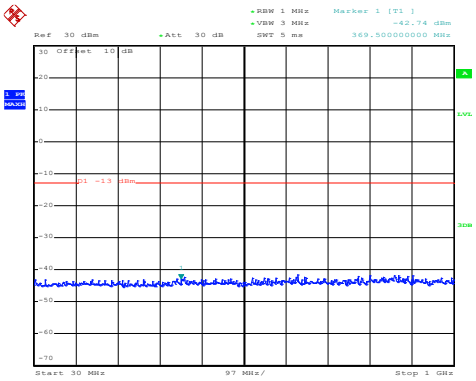


30MHz~1GHz

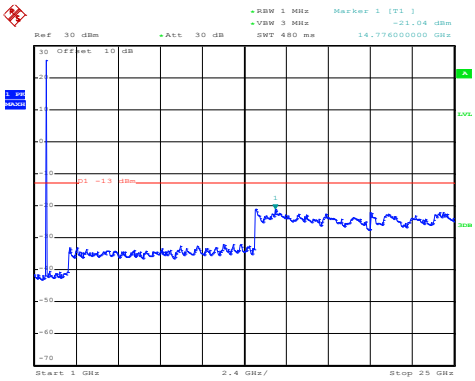


1GHz~25GHz

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

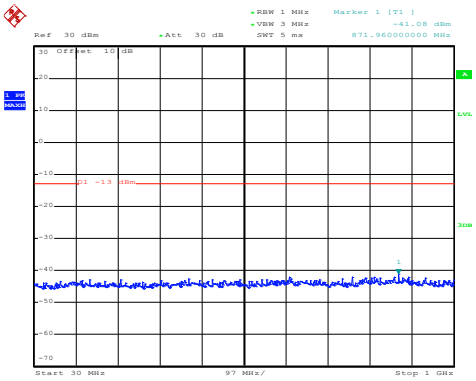


30MHz~1GHz

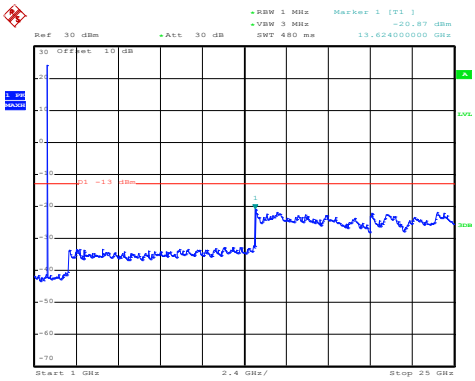


1GHz~25GHz

Middle channel

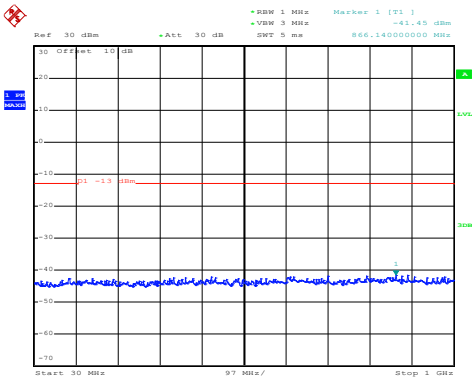


30MHz~1GHz

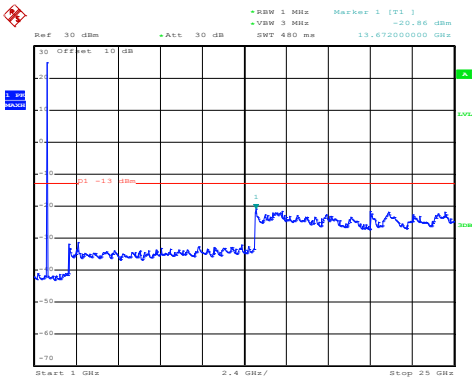


1GHz~25GHz

High channel

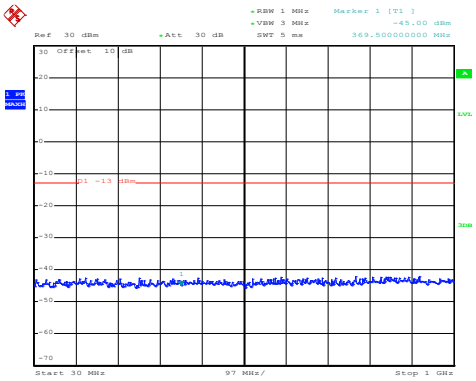


30MHz~1GHz

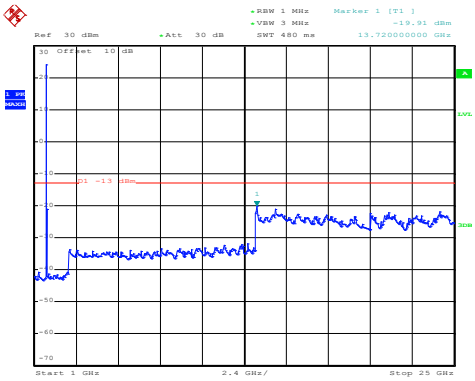


1GHz~25GHz

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

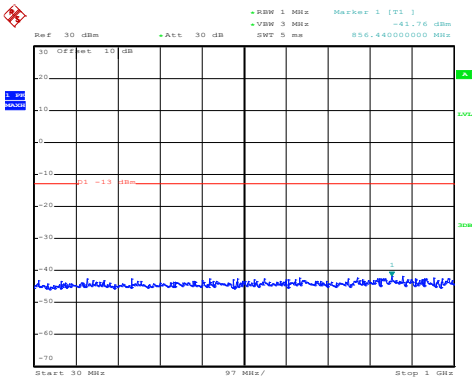


30MHz~1GHz

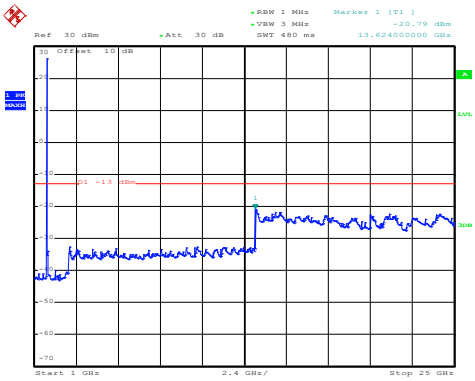


1GHz~25GHz

Middle channel

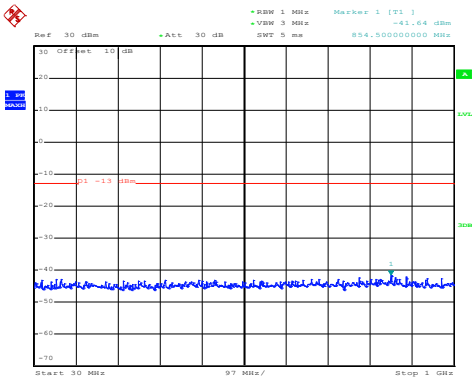


30MHz~1GHz

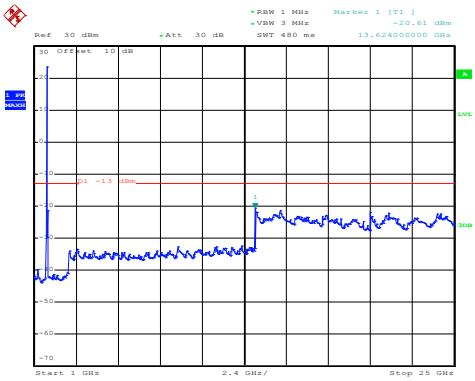


1GHz~25GHz

High channel

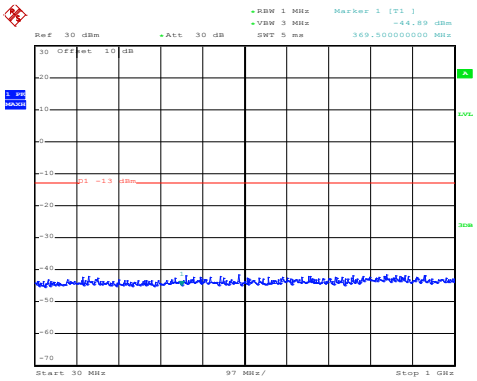


30MHz~1GHz

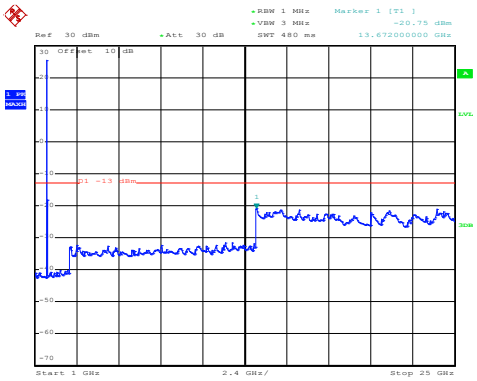


1GHz~25GHz

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

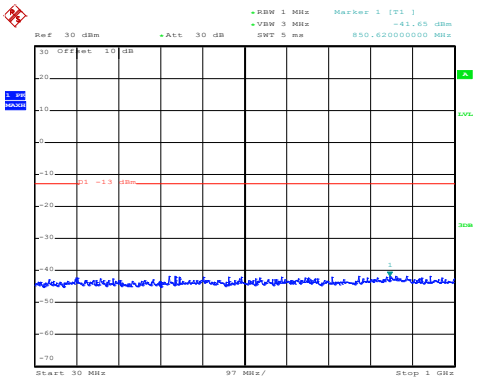


30MHz~1GHz

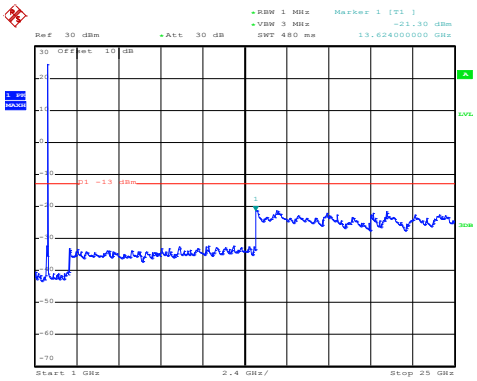


1GHz~25GHz

Middle channel

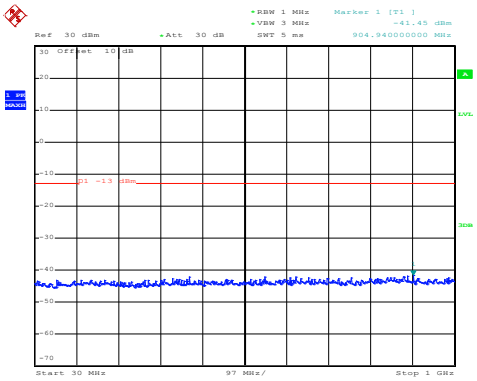


30MHz~1GHz

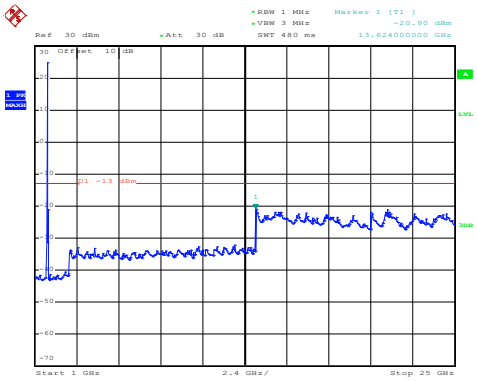


1GHz~25GHz

High channel



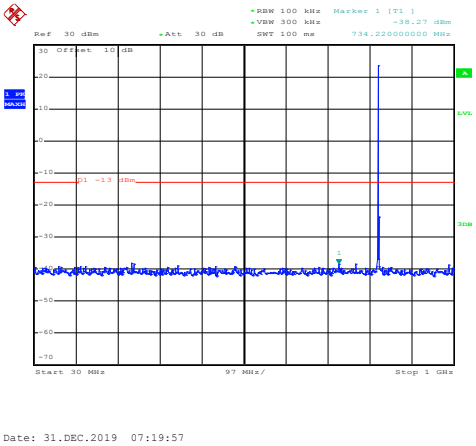
30MHz~1GHz



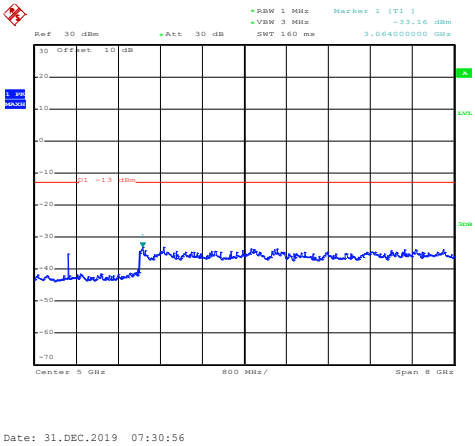
1GHz~25GHz

LTE Band 5 part:

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

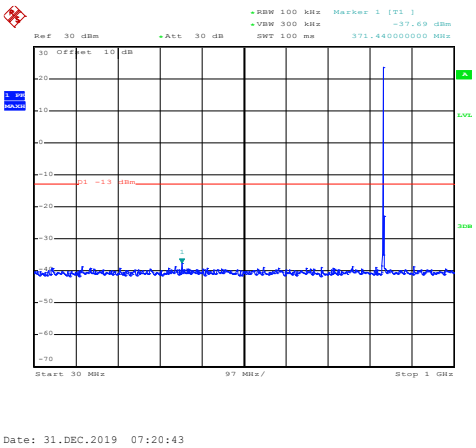


30MHz~1GHz

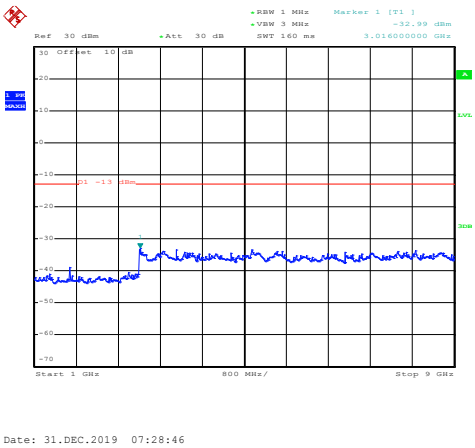


1GHz~9GHz

Middle channel

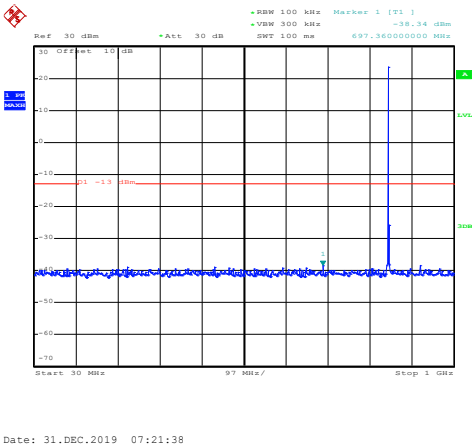


30MHz~1GHz

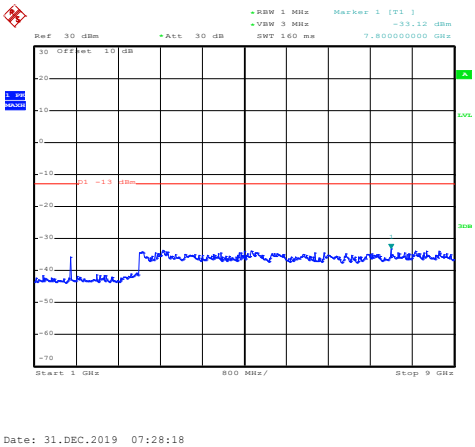


1GHz~9GHz

High channel

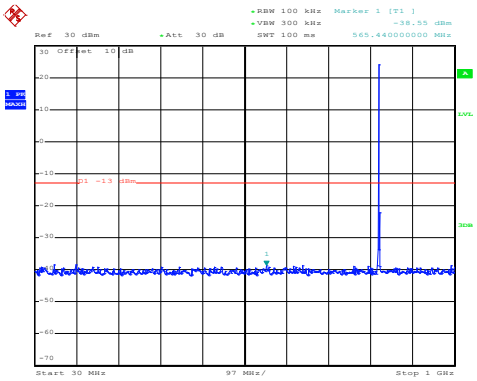


30MHz~1GHz



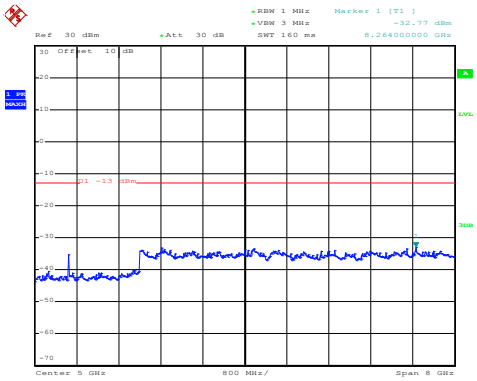
1GHz~9GHz

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



Date: 31.DEC.2019 07:19:43

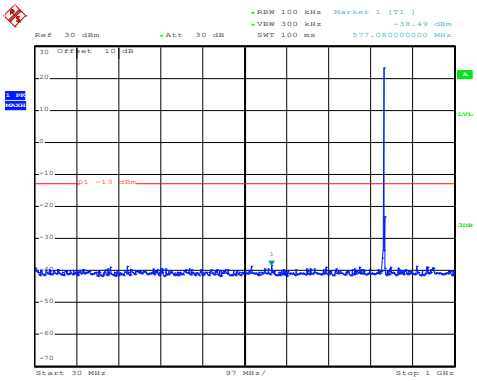
30MHz~1GHz



Date: 31.DEC.2019 07:30:47

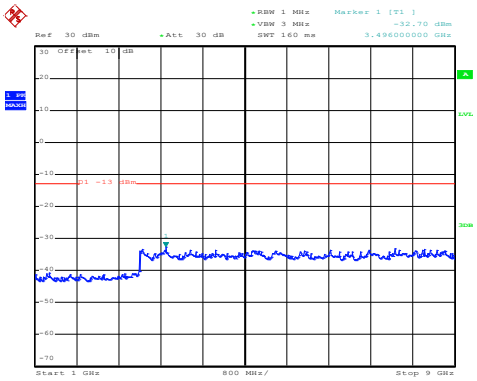
1GHz~9GHz

Middle channel



Date: 31.DEC.2019 07:20:20

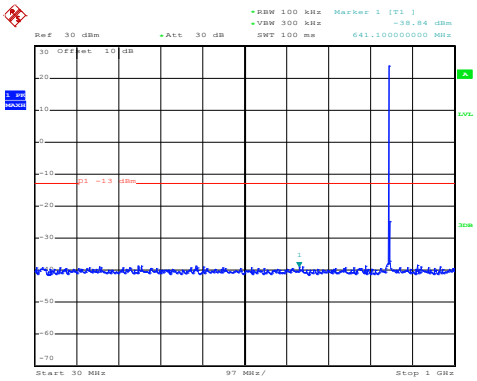
30MHz~1GHz



Date: 31.DEC.2019 07:28:39

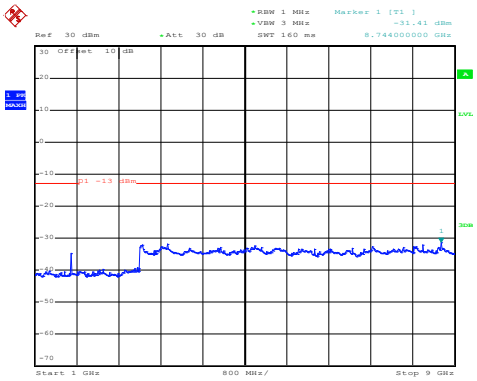
1GHz~9GHz

High channel



Date: 31.DEC.2019 07:21:23

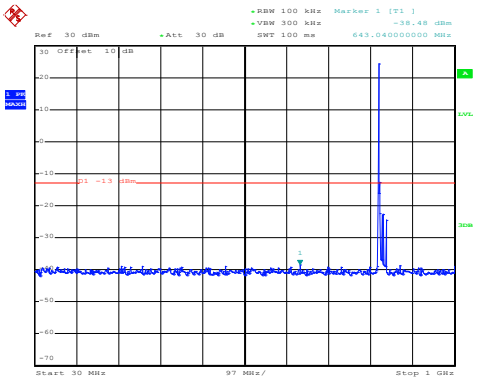
30MHz~1GHz



Date: 31.DEC.2019 07:28:12

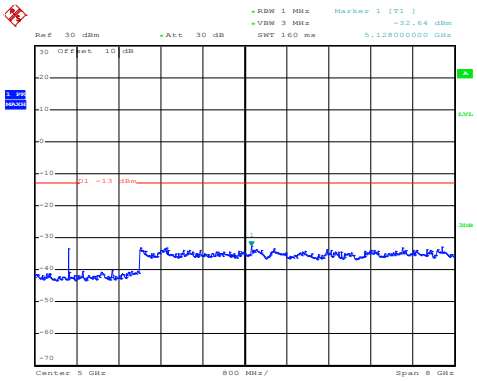
1GHz~9GHz

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



Date: 31.DEC.2019 07:17:32

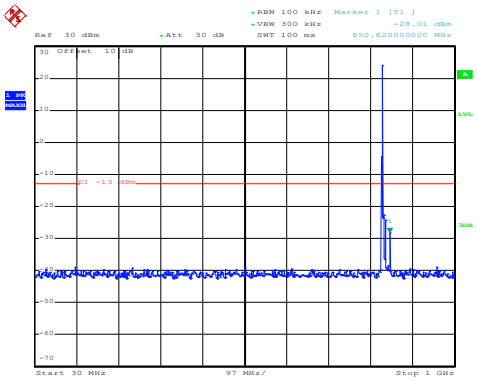
30MHz~1GHz



Date: 31.DEC.2019 07:32:35

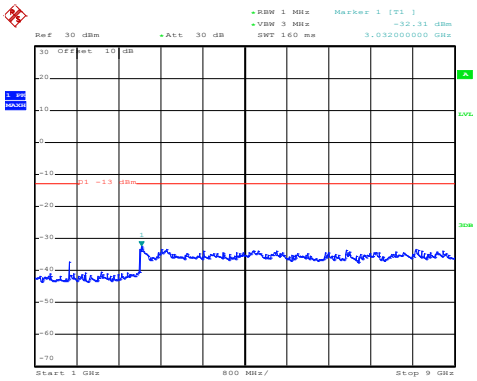
1GHz~9GHz

Middle channel



Date: 31.DEC.2019 07:18:22

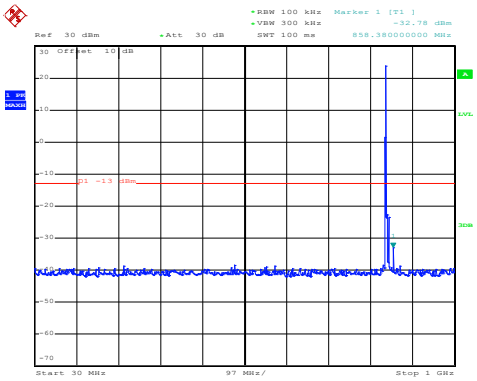
30MHz~1GHz



Date: 31.DEC.2019 07:35:15

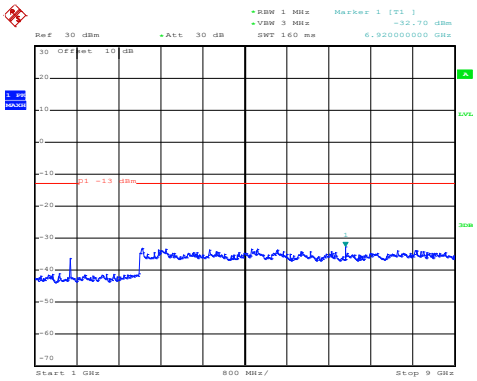
1GHz~9GHz

High channel



Date: 31.DEC.2019 07:18:56

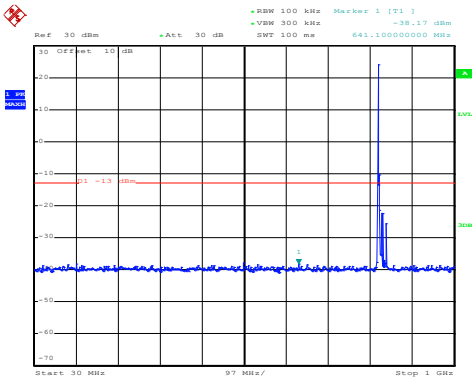
30MHz~1GHz



Date: 31.DEC.2019 07:34:38

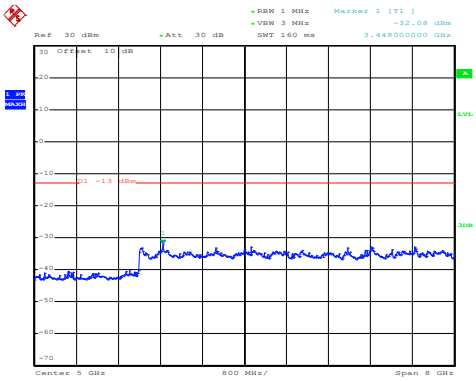
1GHz~9GHz

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



Date: 31.DEC.2019 07:17:13

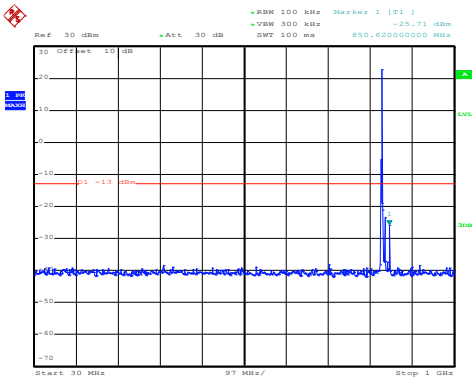
30MHz~1GHz



Date: 31.DEC.2019 07:32:18

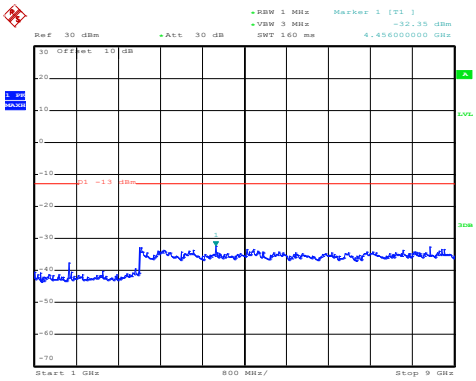
1GHz~9GHz

Middle channel



Date: 31.DEC.2019 07:18:14

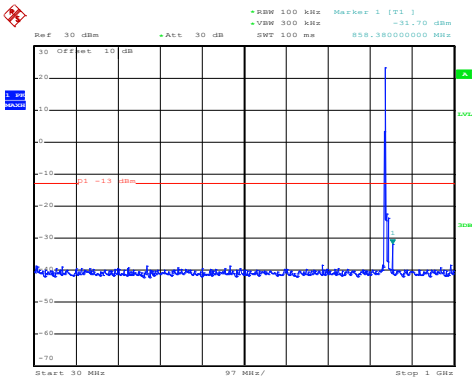
30MHz~1GHz



Date: 31.DEC.2019 07:35:01

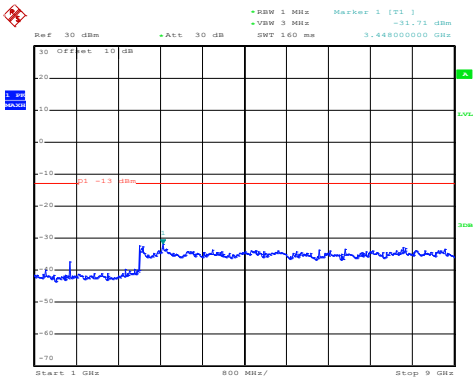
1GHz~9GHz

High channel



Date: 31.DEC.2019 07:18:42

30MHz~1GHz

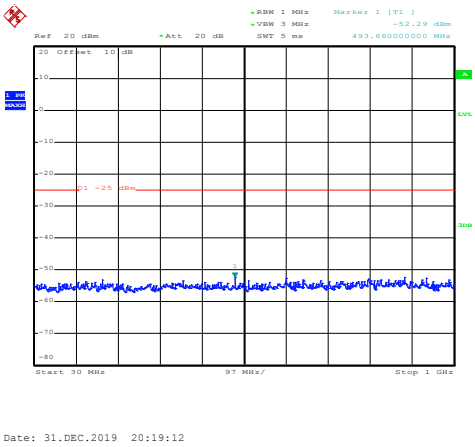


Date: 31.DEC.2019 07:34:27

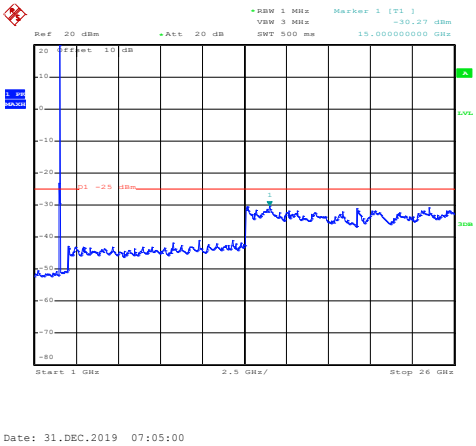
1GHz~9GHz

LTE Band 7 part:

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

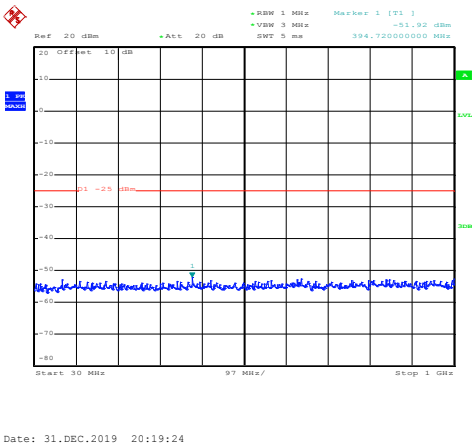


30MHz~1GHz

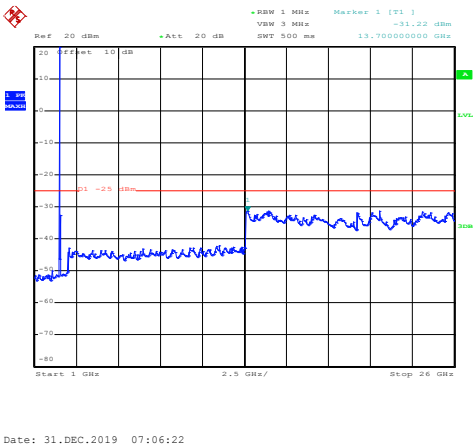


1GHz~25GHz

Middle channel

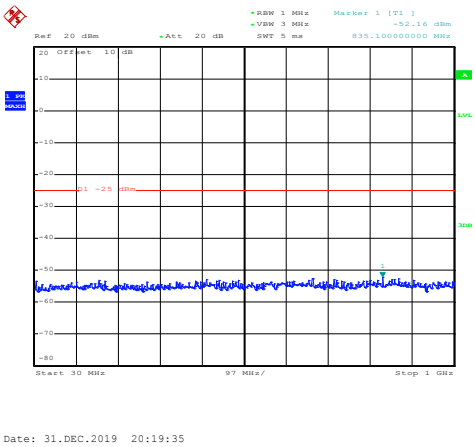


30MHz~1GHz

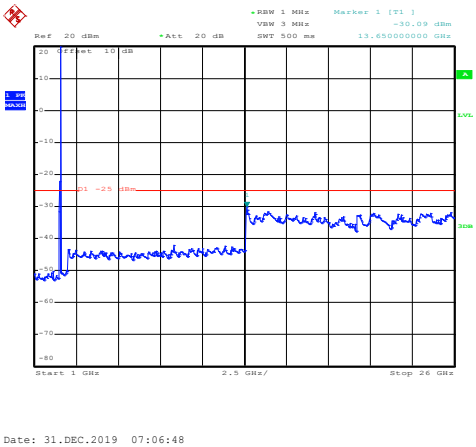


1GHz~25GHz

High channel

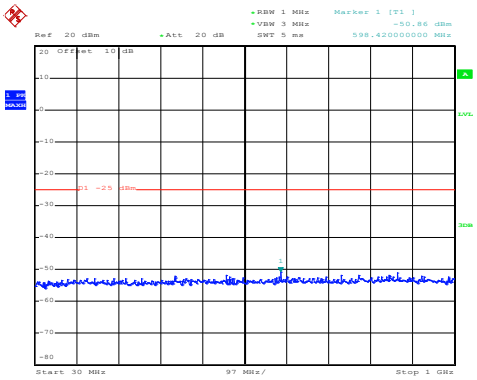


30MHz~1GHz

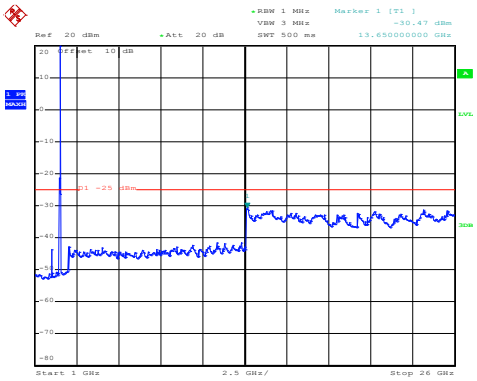


1GHz~25GHz

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

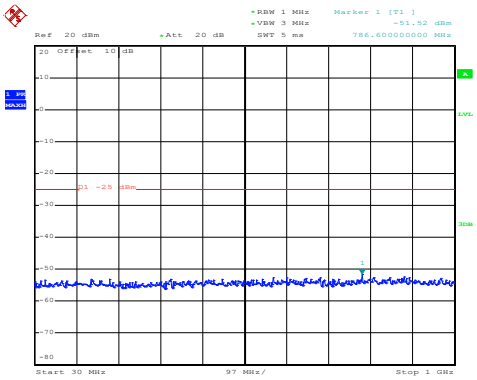


30MHz~1GHz

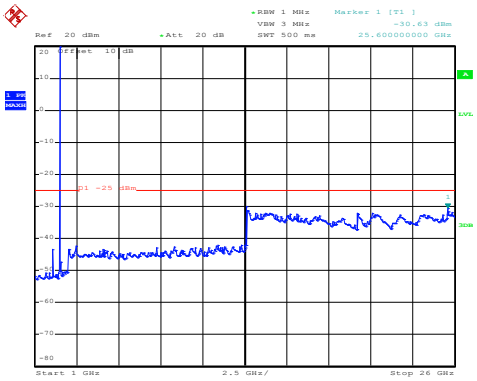


1GHz~25GHz

Middle channel

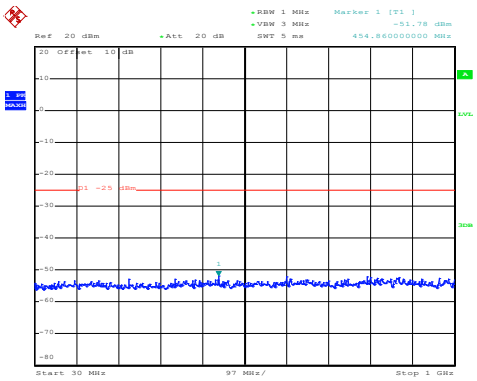


30MHz~1GHz

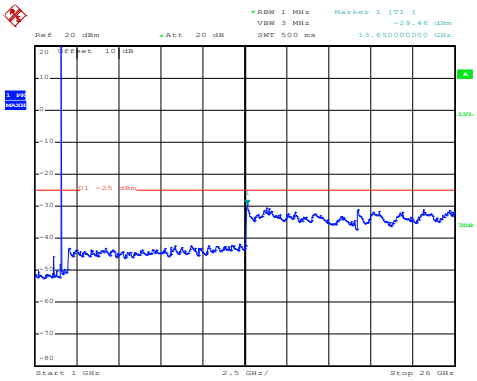


1GHz~25GHz

High channel

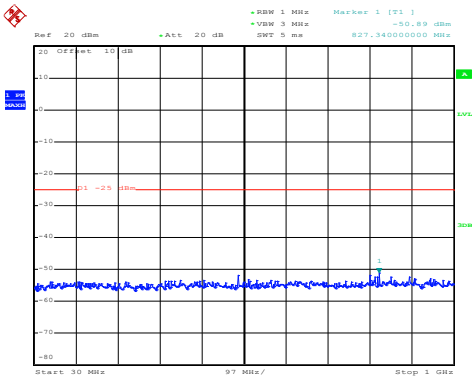


30MHz~1GHz

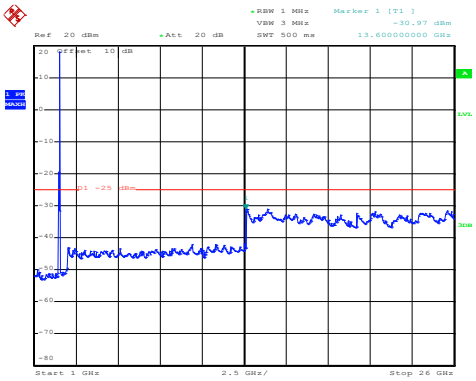


1GHz~25GHz

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

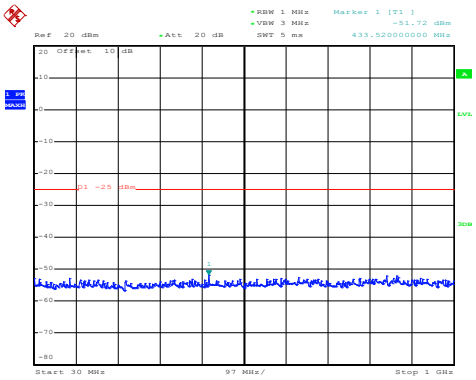


30MHz~1GHz

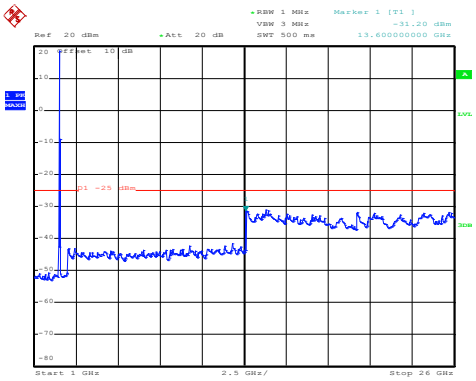


1GHz~25GHz

Middle channel

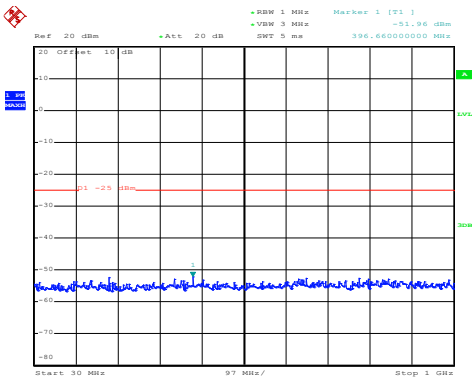


30MHz~1GHz

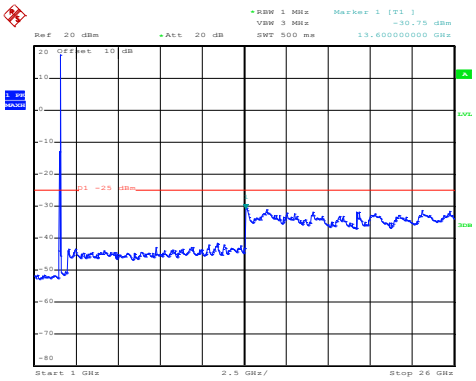


1GHz~25GHz

High channel

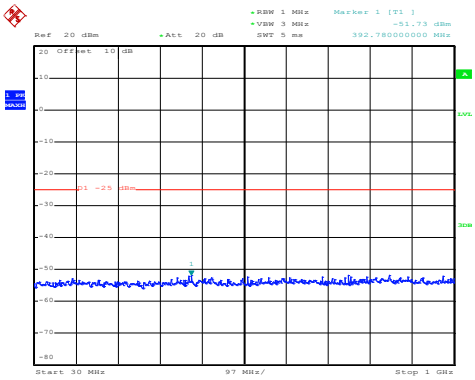


30MHz~1GHz

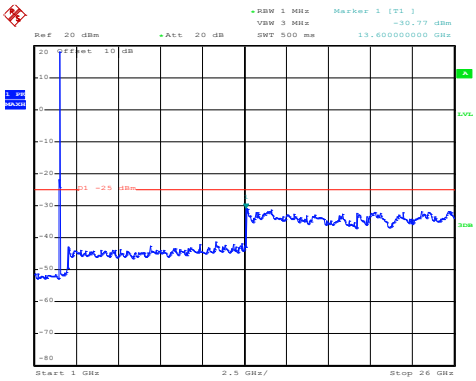


1GHz~25GHz

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

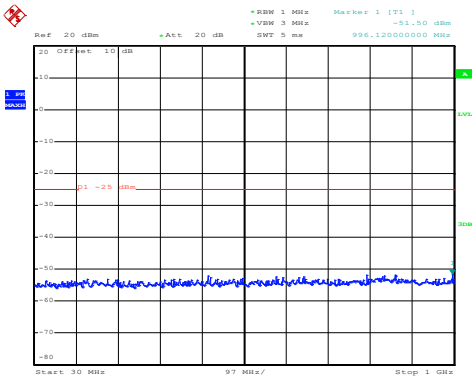


30MHz~1GHz

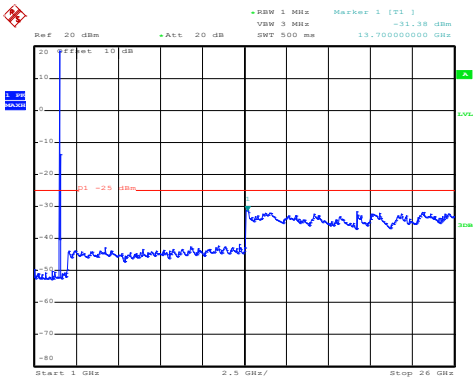


1GHz~25GHz

Middle channel

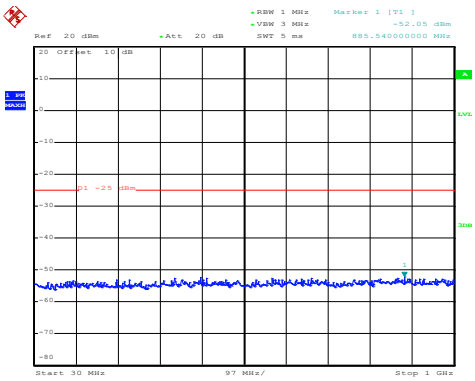


30MHz~1GHz

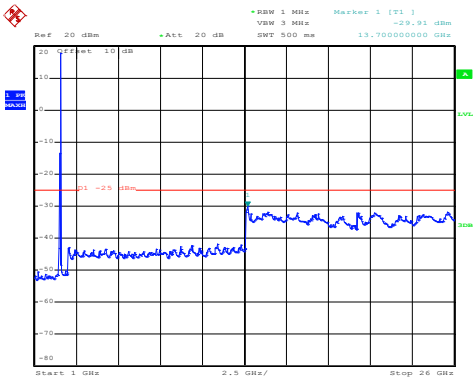


1GHz~25GHz

High channel



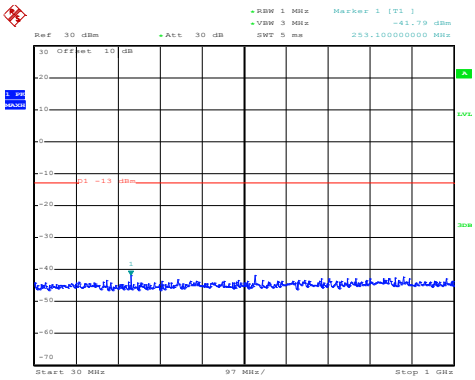
30MHz~1GHz



1GHz~25GHz

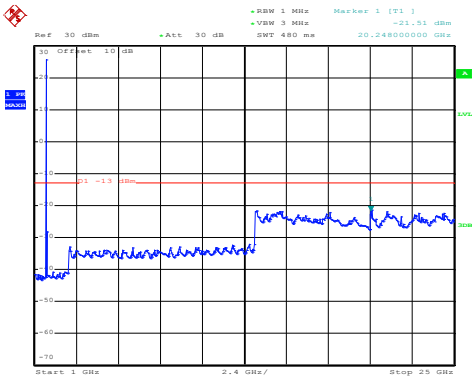
LTE Band 66 part:

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



Date: 29.DEC.2019 20:25:35

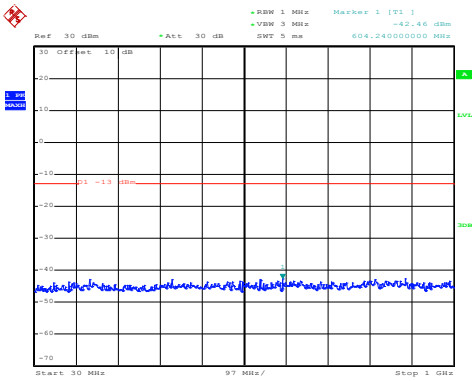
30MHz~1GHz



Date: 29.DEC.2019 20:39:40

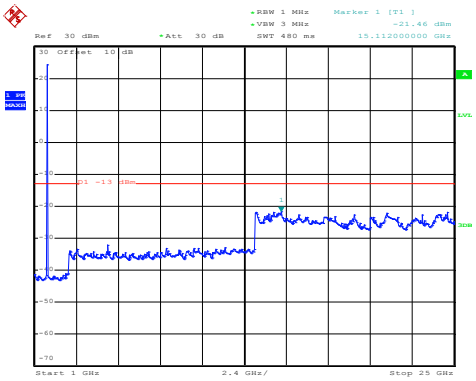
1GHz~25GHz

Middle channel



Date: 29.DEC.2019 20:24:54

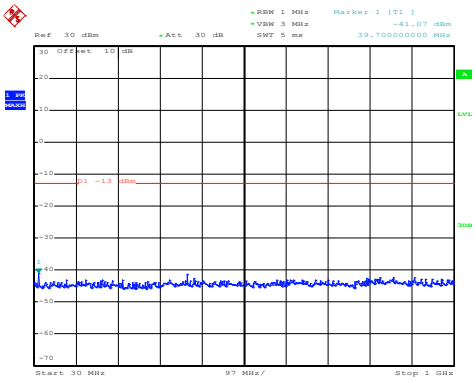
30MHz~1GHz



Date: 29.DEC.2019 20:40:50

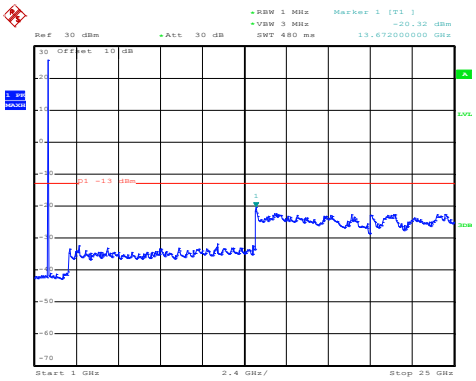
1GHz~25GHz

High channel



Date: 29.DEC.2019 20:24:01

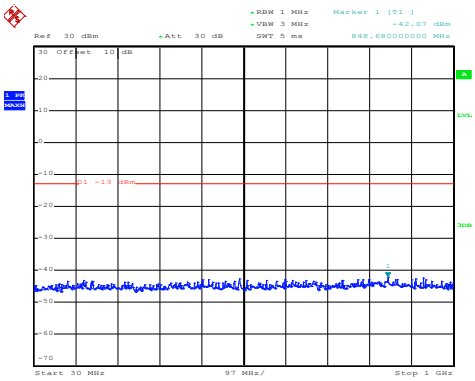
30MHz~1GHz



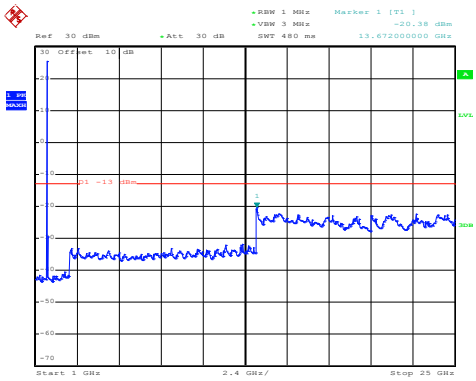
Date: 29.DEC.2019 20:41:55

1GHz~25GHz

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

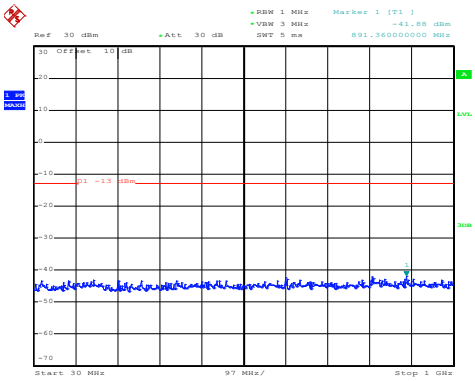


30MHz~1GHz

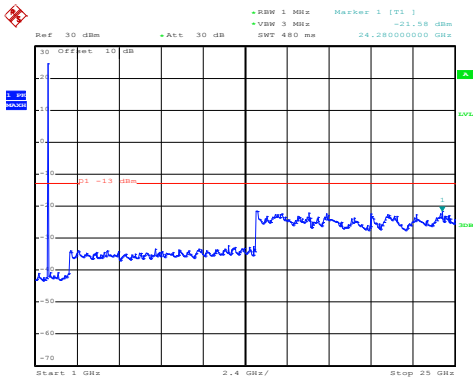


1GHz~25GHz

Middle channel

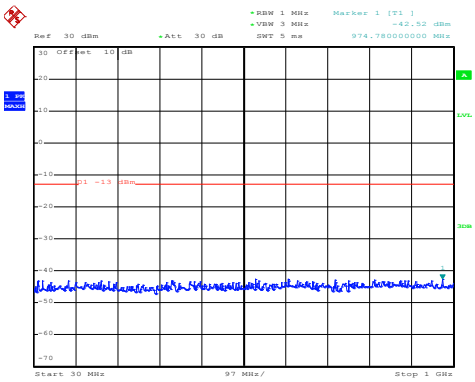


30MHz~1GHz

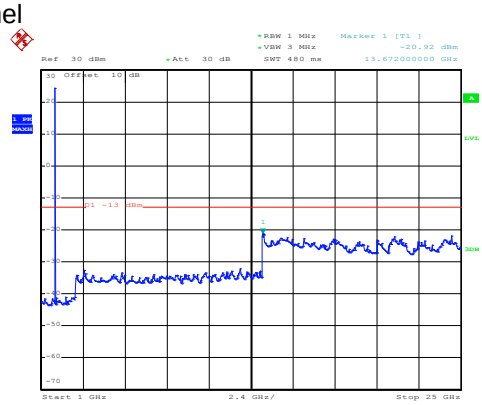


1GHz~25GHz

High channel

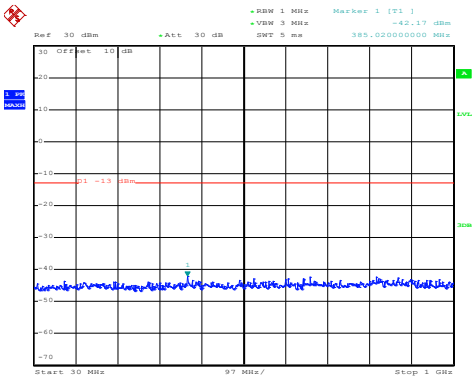


30MHz~1GHz



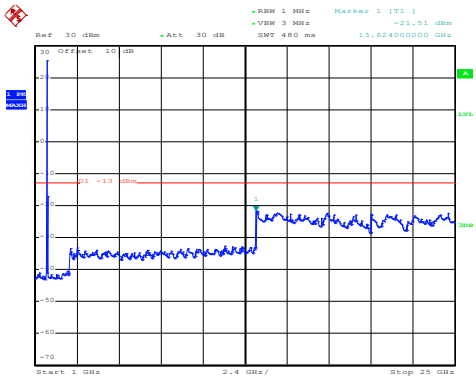
1GHz~25GHz

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



Date: 29.DEC.2019 20:32:14

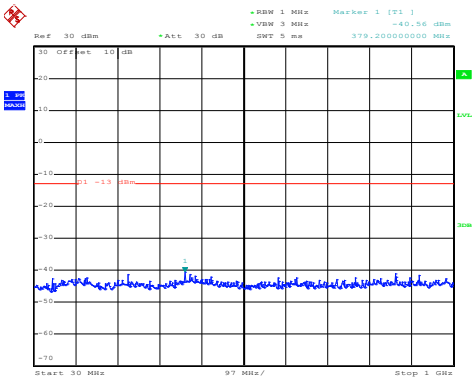
30MHz~1GHz



Date: 29.DEC.2019 20:38:13

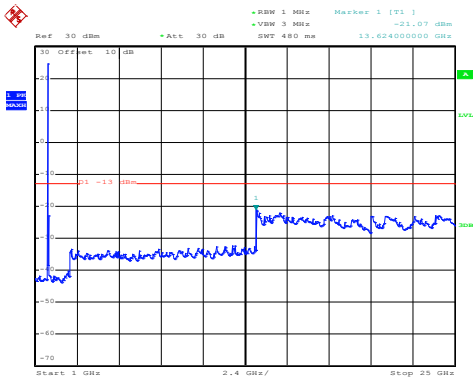
1GHz~25GHz

Middle channel



Date: 29.DEC.2019 20:32:56

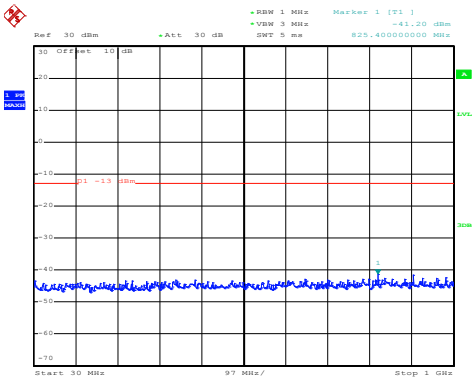
30MHz~1GHz



Date: 29.DEC.2019 20:36:32

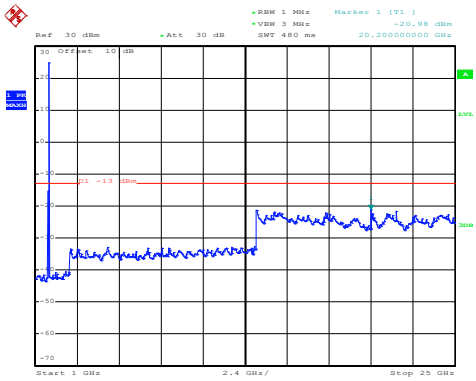
1GHz~25GHz

High channel



Date: 29.DEC.2019 20:33:42

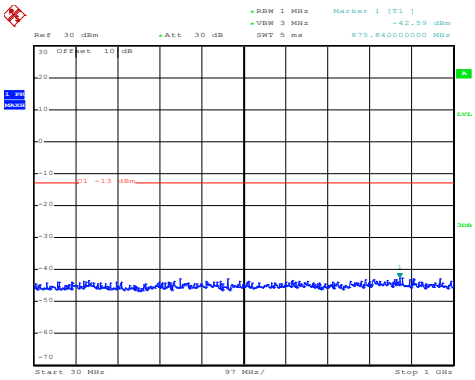
30MHz~1GHz



Date: 29.DEC.2019 20:35:31

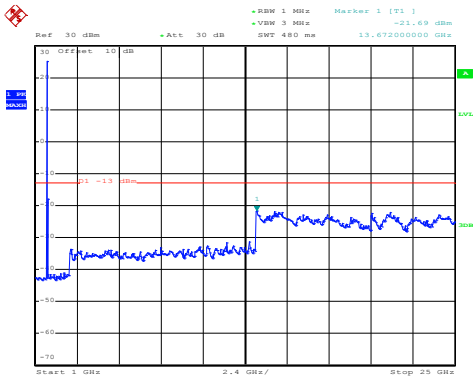
1GHz~25GHz

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



Date: 29.DEC.2019 20:32:08

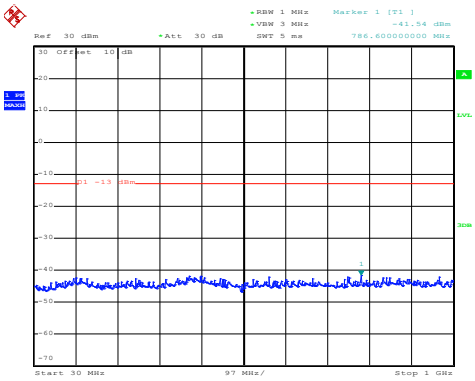
30MHz~1GHz



Date: 29.DEC.2019 20:38:00

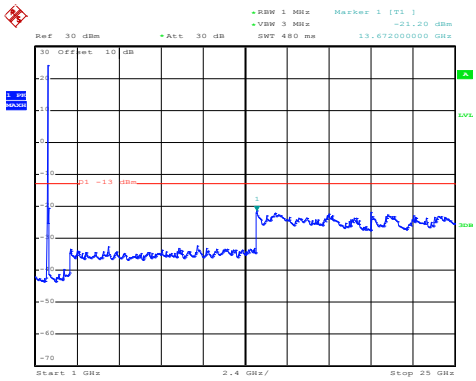
1GHz~25GHz

Middle channel



Date: 29.DEC.2019 20:32:50

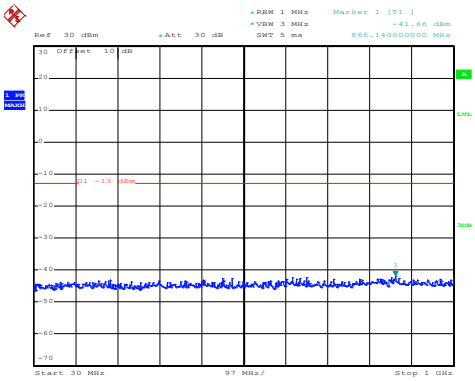
30MHz~1GHz



Date: 29.DEC.2019 20:36:20

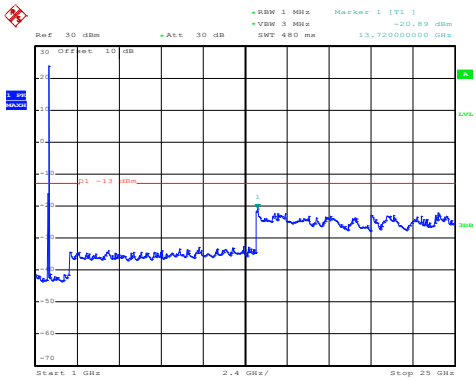
1GHz~25GHz

High channel



Date: 29.DEC.2019 20:33:37

30MHz~1GHz



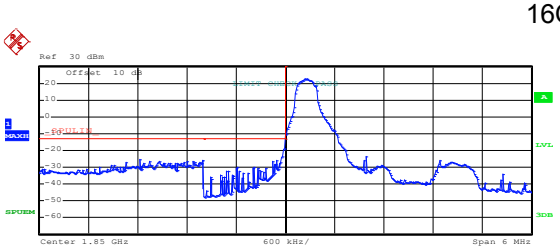
Date: 29.DEC.2019 20:35:17

1GHz~25GHz

Band edge emission:

LTE Band 2 part:

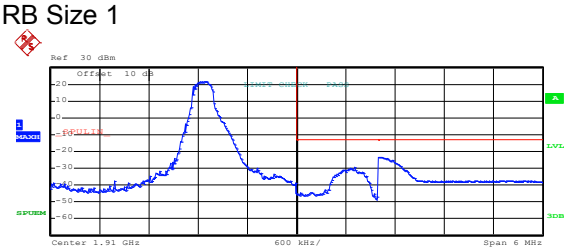
LTE Band 2, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848222 G	-25.40	-12.40
1.849 G	1.850 G	30.00 k	1.849999 G	-18.76	-5.76
1.850 G	1.853 G	100.00 k	1.850261 G	22.47	-10.53

Date: 31.DEC.2019 05:30:15

Lowest channel

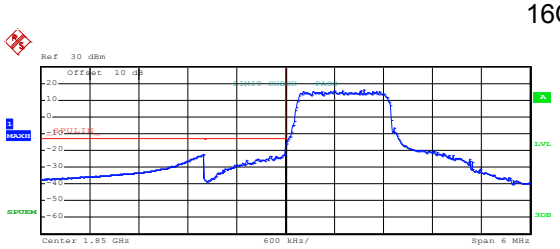


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908878 G	21.79	-11.21
1.910 G	1.911 G	30.00 k	1.910705 G	-29.61	-16.61
1.911 G	1.913 G	1.00 M	1.911002 G	-23.58	-10.58

Date: 31.DEC.2019 05:40:04

Highest channel

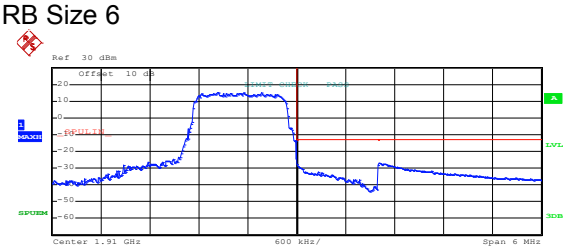
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.849000 G	-22.54	-9.54
1.849 G	1.850 G	30.00 k	1.849991 G	-22.46	-9.46
1.850 G	1.853 G	100.00 k	1.850954 G	16.49	-16.51

Date: 31.DEC.2019 05:37:46

Lowest channel



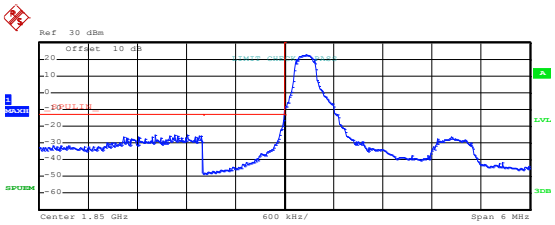
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909025 G	15.22	-17.78
1.910 G	1.911 G	30.00 k	1.910001 G	-27.25	-14.25
1.911 G	1.913 G	1.00 M	1.911024 G	-26.77	-13.77

Date: 31.DEC.2019 05:39:21

Highest channel

LTE Band 2, BW: 1.4MHz

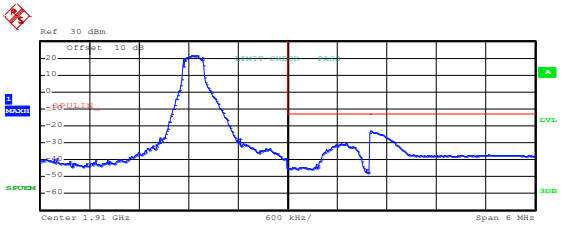
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848812 G	-25.07	-12.07
1.849 G	1.850 G	30.00 k	1.849994 G	-16.55	-3.55
1.850 G	1.853 G	100.00 k	1.850264 G	22.62	-10.38

Date: 31.DEC.2019 05:34:00

Lowest channel

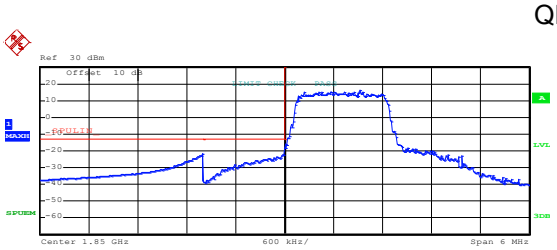


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908836 G	21.54	-11.46
1.910 G	1.911 G	30.00 k	1.910708 G	-30.14	-17.14
1.911 G	1.913 G	1.00 M	1.911004 G	-23.11	-10.11

Date: 31.DEC.2019 05:40:16

Highest channel

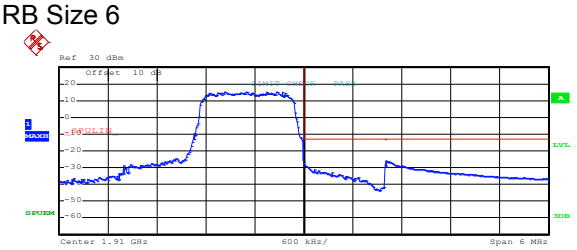
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.849000 G	-21.97	-8.97
1.849 G	1.850 G	30.00 k	1.849996 G	-22.48	-9.48
1.850 G	1.853 G	100.00 k	1.850927 G	16.04	-16.96

Date: 31.DEC.2019 05:37:53

Lowest channel

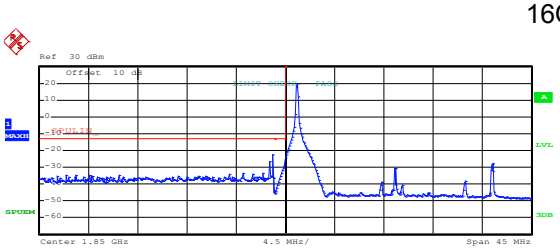


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909289 G	15.21	-17.79
1.910 G	1.911 G	30.00 k	1.910005 G	-26.62	-13.62
1.911 G	1.913 G	1.00 M	1.911006 G	-26.12	-13.12

Date: 31.DEC.2019 05:39:31

Highest channel

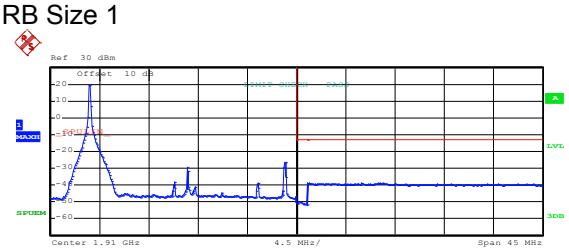
LTE Band 2, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.848807 G	-22.05	-9.05
1.849 G	1.850 G	30.00 k	1.849990 G	-28.11	-15.11
1.850 G	1.873 G	100.00 k	1.851103 G	19.96	-13.04

Date: 31.DEC.2019 05:48:54

Lowest channel

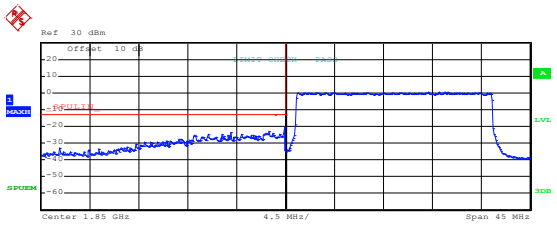


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.891078 G	19.94	-13.06
1.910 G	1.911 G	30.00 k	1.910282 G	-50.05	-37.05
1.911 G	1.933 G	1.00 M	1.917601 G	-38.63	-25.63

Date: 31.DEC.2019 05:43:04

Highest channel

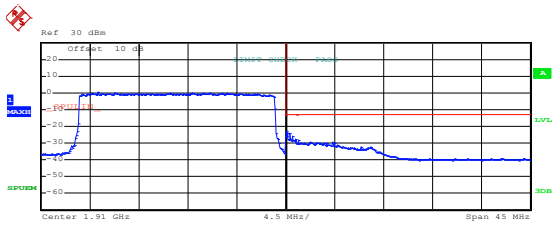
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.848441 G	-22.66	-9.66
1.849 G	1.850 G	300.00 k	1.849962 G	-20.87	-7.87
1.850 G	1.873 G	100.00 k	1.863163 G	0.67	-32.33

Date: 31.DEC.2019 05:50:07

Lowest channel



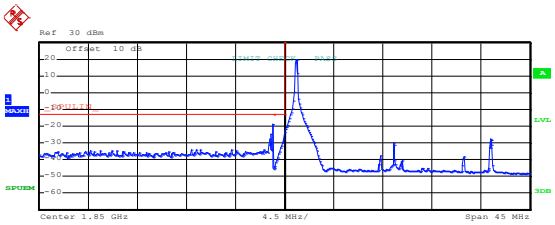
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.892720 G	0.19	-32.81
1.910 G	1.911 G	300.00 k	1.910065 G	-23.21	-10.21
1.911 G	1.933 G	1.00 M	1.911129 G	-28.33	-15.33

Date: 31.DEC.2019 05:50:47

Highest channel

LTE Band 2, BW: 20MHz

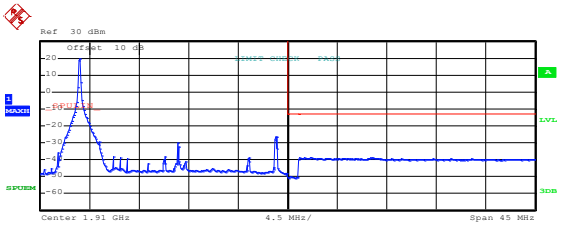
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.849000 G	-18.61	-5.61
1.849 G	1.850 G	30.00 k	1.849961 G	-27.79	-14.79
1.850 G	1.873 G	100.00 k	1.851058 G	19.95	-13.05

Date: 31.DEC.2019 05:49:00

Lowest channel

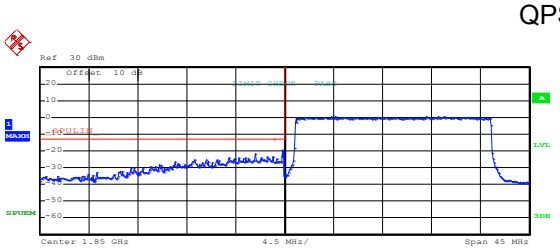


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.891100 G	19.82	-13.18
1.910 G	1.911 G	30.00 k	1.910263 G	-49.40	-36.40
1.911 G	1.933 G	1.00 M	1.912011 G	-38.88	-25.88

Date: 31.DEC.2019 05:43:11

Highest channel

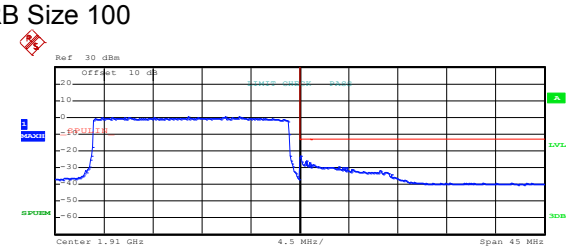
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.847237 G	-21.63	-8.63
1.849 G	1.850 G	300.00 k	1.849835 G	-19.70	-6.70
1.850 G	1.873 G	100.00 k	1.854275 G	0.31	-32.69

Date: 31.DEC.2019 05:50:12

Lowest channel



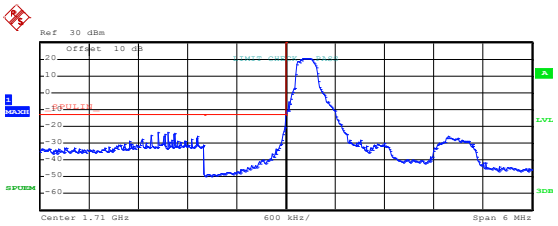
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.903137 G	0.26	-32.74
1.910 G	1.911 G	300.00 k	1.910058 G	-22.70	-9.70
1.911 G	1.933 G	1.00 M	1.911258 G	-28.35	-15.35

Date: 31.DEC.2019 05:50:54

Highest channel

LTE Band 4 part:

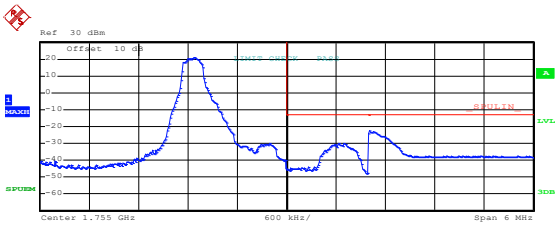
LTE Band 4, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708562 G	-23.58	-10.58
1.709 G	1.710 G	30.00 k	1.709994 G	-20.60	-7.60
1.710 G	1.713 G	100.00 k	1.710228 G	20.52	-12.48

Date: 31.DEC.2019 05:52:52

Lowest channel

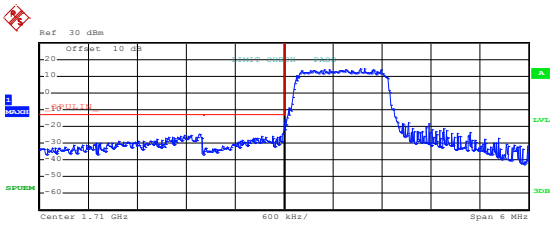


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753881 G	20.84	-12.16
1.755 G	1.756 G	30.00 k	1.755639 G	-29.76	-16.76
1.756 G	1.758 G	1.00 M	1.756004 G	-22.16	-9.16

Date: 31.DEC.2019 05:56:24

Highest channel

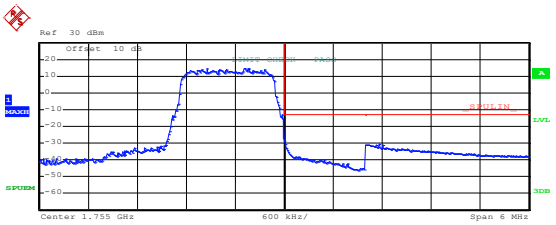
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708968 G	-24.57	-11.57
1.709 G	1.710 G	30.00 k	1.709985 G	-24.07	-11.07
1.710 G	1.713 G	100.00 k	1.710930 G	14.72	-18.28

Date: 31.DEC.2019 05:54:47

Lowest channel



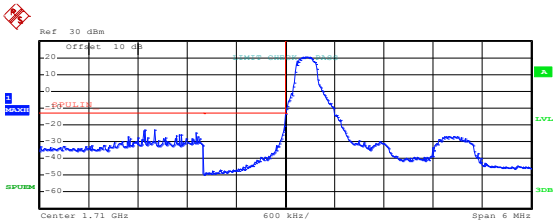
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.754565 G	14.72	-18.28
1.755 G	1.756 G	30.00 k	1.755004 G	-28.10	-15.10
1.756 G	1.758 G	1.00 M	1.756168 G	-30.54	-17.54

Date: 31.DEC.2019 05:55:42

Highest channel

LTE Band 4, BW: 1.4MHz

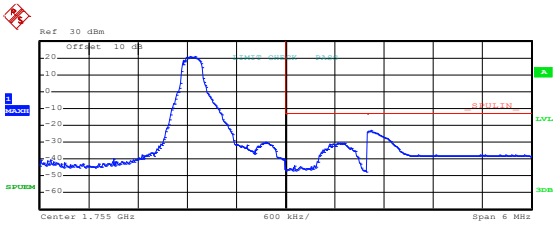
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708280 G	-22.79	-9.79
1.709 G	1.710 G	30.00 k	1.709998 G	-20.44	-7.44
1.710 G	1.713 G	100.00 k	1.710243 G	20.47	-12.53

Date: 31.DEC.2019 05:52:59

Lowest channel

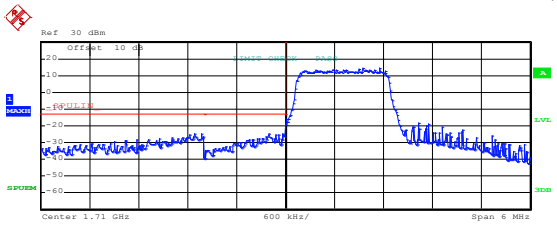


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753836 G	20.78	-12.22
1.755 G	1.756 G	30.00 k	1.755637 G	-30.34	-17.34
1.756 G	1.758 G	1.00 M	1.756040 G	-22.76	-9.76

Date: 31.DEC.2019 05:56:30

Highest channel

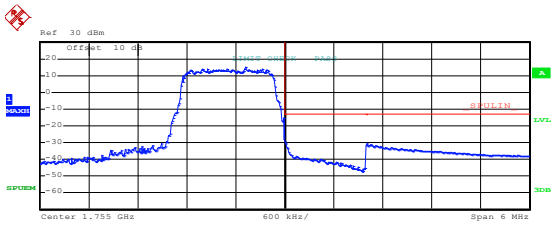
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708887 G	-24.55	-11.55
1.709 G	1.710 G	30.00 k	1.709796 G	-24.60	-11.60
1.710 G	1.713 G	100.00 k	1.710948 G	14.60	-18.40

Date: 31.DEC.2019 05:54:53

Lowest channel

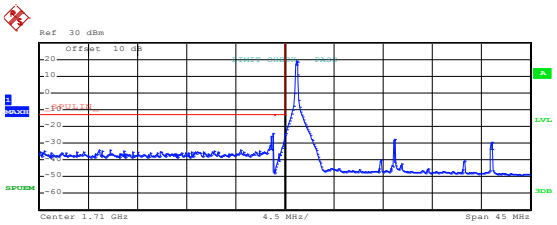


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.754520 G	15.10	-17.90
1.755 G	1.756 G	30.00 k	1.755003 G	-29.01	-16.01
1.756 G	1.758 G	1.00 M	1.756004 G	-30.53	-17.53

Date: 31.DEC.2019 05:55:48

Highest channel

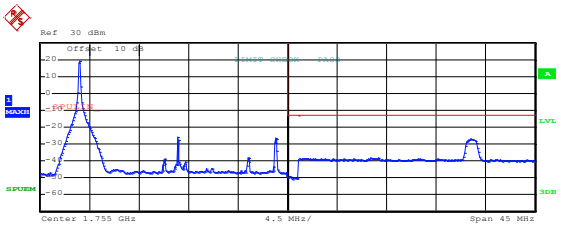
LTE Band 4, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708957 G	-24.30	-11.30
1.709 G	1.710 G	30.00 k	1.709984 G	-29.32	-16.32
1.710 G	1.732 G	100.00 k	1.711080 G	19.05	-13.95

Date: 31.DEC.2019 05:58:50

Lowest channel

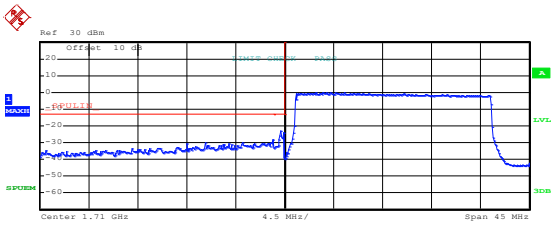


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736077 G	18.99	-14.01
1.755 G	1.756 G	30.00 k	1.755247 G	-49.01	-36.01
1.756 G	1.778 G	1.00 M	1.771652 G	-26.99	-13.99

Date: 31.DEC.2019 05:59:52

Highest channel

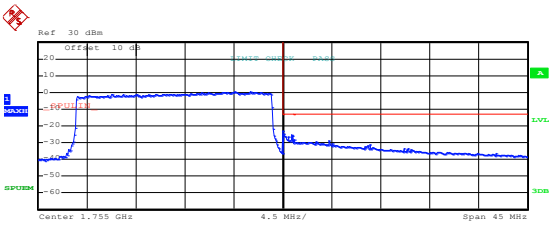
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708871 G	-28.35	-15.35
1.709 G	1.710 G	300.00 k	1.709672 G	-22.72	-9.72
1.710 G	1.732 G	100.00 k	1.713465 G	-0.17	-33.17

Date: 31.DEC.2019 06:02:29

Lowest channel

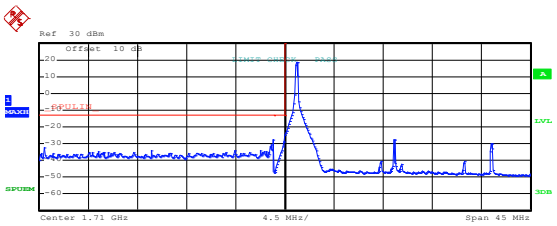


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.750568 G	0.25	-32.75
1.755 G	1.756 G	300.00 k	1.755033 G	-22.94	-9.94
1.756 G	1.778 G	1.00 M	1.756064 G	-27.97	-14.97

Date: 31.DEC.2019 06:01:35

Highest channel

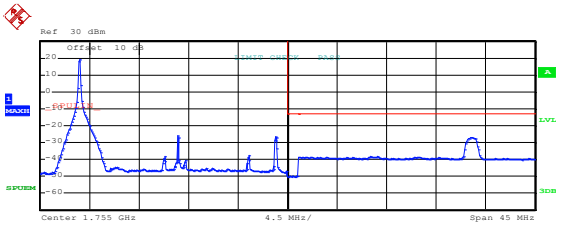
LTE Band 4, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.688 G	1.709 G	1.00 M	1.708914 G	-27.46	-14.46
1.709 G	1.710 G	30.00 k	1.709999 G	-28.82	-15.82
1.710 G	1.732 G	100.00 k	1.711080 G	18.85	-14.15

Date: 31.DEC.2019 05:58:56

Lowest channel

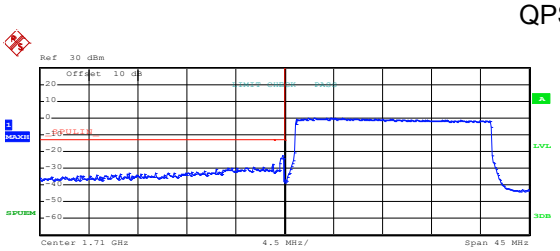


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.732 G	1.755 G	100.00 k	1.736077 G	18.98	-14.02
1.755 G	1.756 G	30.00 k	1.755232 G	-48.96	-35.96
1.756 G	1.778 G	1.00 M	1.771846 G	-26.90	-13.90

Date: 31.DEC.2019 05:59:59

Highest channel

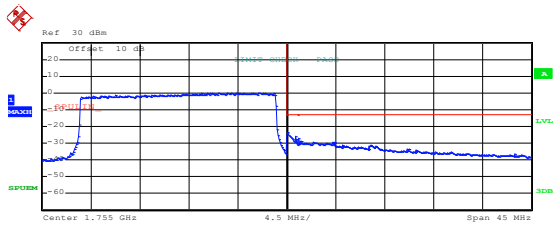
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.688 G	1.709 G	1.00 M	1.708957 G	-27.83	-14.83
1.709 G	1.710 G	300.00 k	1.709789 G	-22.51	-9.51
1.710 G	1.732 G	100.00 k	1.714320 G	0.13	-32.87

Date: 31.DEC.2019 06:02:40

Lowest channel



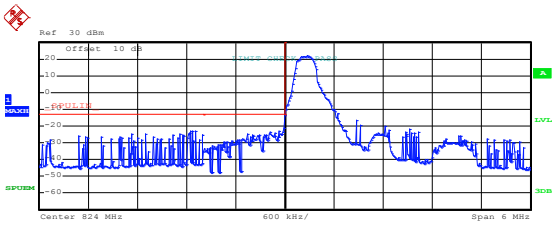
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.732 G	1.755 G	100.00 k	1.751963 G	0.11	-32.89
1.755 G	1.756 G	300.00 k	1.755057 G	-23.25	-10.25
1.756 G	1.778 G	1.00 M	1.756043 G	-27.12	-14.12

Date: 31.DEC.2019 06:01:44

Highest channel

LTE Band 5 part:

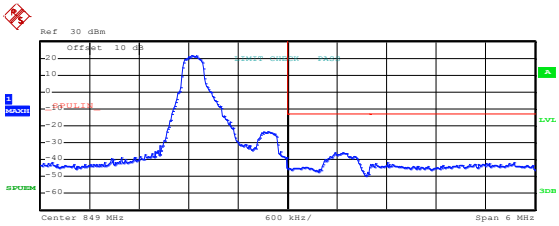
LTE Band 5, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.848000 M	-22.68	-9.68
823.000 M	824.000 M	30.00 k	823.989000 M	-21.07	-8.07
824.000 M	827.000 M	100.00 k	824.276000 M	22.20	-10.80

Date: 31.DEC.2019 06:08:29

Lowest channel

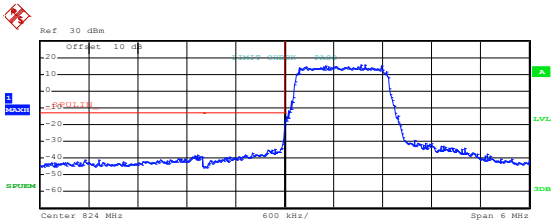


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.893000 M	21.74	-11.26
849.000 M	850.000 M	30.00 k	849.580000 M	-35.84	-22.84
850.000 M	852.000 M	100.00 k	850.212000 M	-41.75	-28.75

Date: 31.DEC.2019 06:10:49

Highest channel

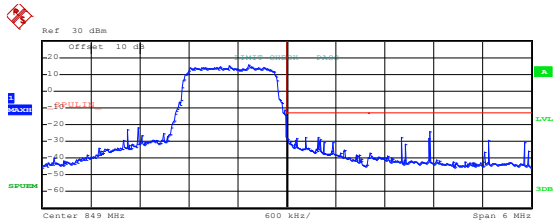
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.928000 M	-38.19	-25.19
823.000 M	824.000 M	30.00 k	823.999000 M	-28.56	-15.56
824.000 M	827.000 M	100.00 k	824.978000 M	15.50	-17.50

Date: 31.DEC.2019 06:09:08

Lowest channel



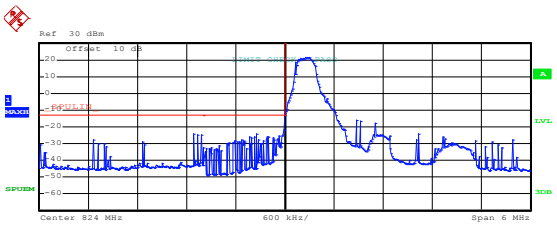
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.526000 M	15.75	-17.25
849.000 M	850.000 M	30.00 k	849.006000 M	-27.02	-14.02
850.000 M	852.000 M	100.00 k	850.746000 M	-24.14	-11.14

Date: 31.DEC.2019 06:10:10

Highest channel

LTE Band 5, BW: 1.4MHz

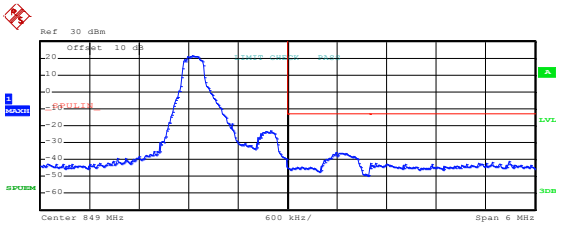
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
821.000 M	823.000 M	100.00 k	822.882000 M	-24.24	-11.24
823.000 M	824.000 M	30.00 k	823.999000 M	-21.79	-8.79
824.000 M	827.000 M	100.00 k	824.294000 M	21.30	-11.70

Date: 31.DEC.2019 06:08:36

Lowest channel

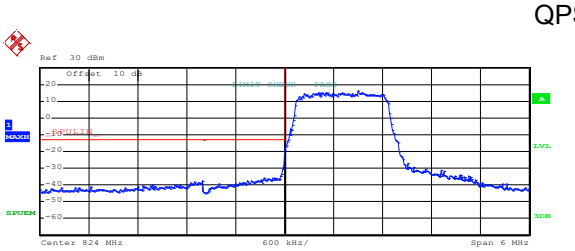


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	847.845000 M	21.48	-11.52
849.000 M	850.000 M	30.00 k	849.588000 M	-35.77	-22.77
850.000 M	852.000 M	100.00 k	851.682000 M	-41.04	-28.04

Date: 31.DEC.2019 06:10:55

Highest channel

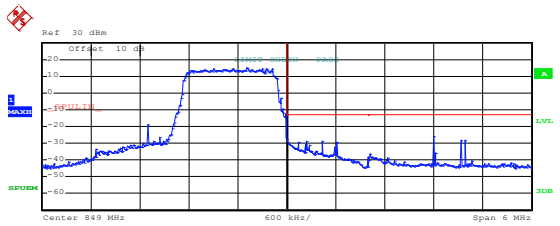
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
821.000 M	823.000 M	100.00 k	822.990000 M	-37.81	-24.81
823.000 M	824.000 M	30.00 k	823.997000 M	-28.61	-15.61
824.000 M	827.000 M	100.00 k	824.894000 M	15.97	-17.03

Date: 31.DEC.2019 06:09:18

Lowest channel

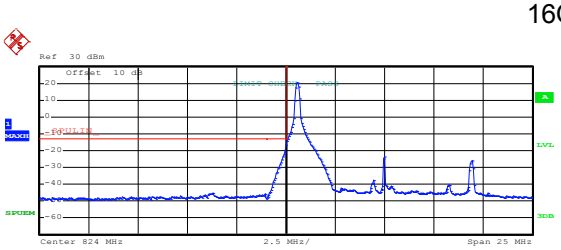


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
846.000 M	849.000 M	100.00 k	848.511000 M	14.87	-18.13
849.000 M	850.000 M	30.00 k	849.002000 M	-27.89	-14.89
850.000 M	852.000 M	100.00 k	850.796000 M	-25.64	-12.64

Date: 31.DEC.2019 06:10:18

Highest channel

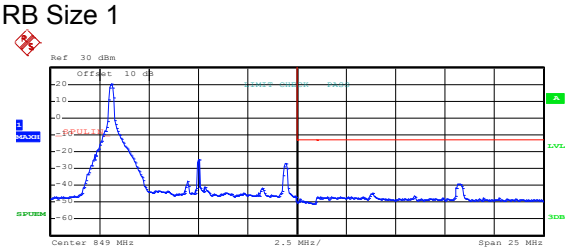
LTE Band 5, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	820.286000 M	-45.41	-32.41
823.000 M	824.000 M	30.00 k	823.983000 M	-20.47	-7.47
824.000 M	836.500 M	100.00 k	824.600000 M	20.26	-12.74

Date: 31.DEC.2019 06:12:57

Lowest channel

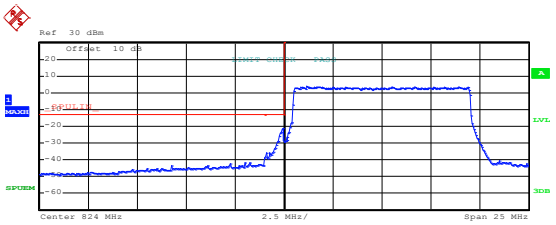


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.587500 M	20.61	-12.39
849.000 M	850.000 M	30.00 k	849.127000 M	-48.29	-35.29
850.000 M	861.500 M	100.00 k	857.233500 M	-39.26	-26.26

Date: 31.DEC.2019 06:13:48

Highest channel

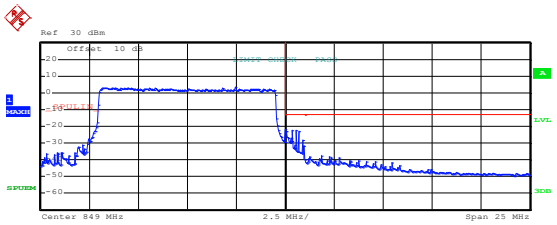
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	822.229500 M	-41.84	-28.84
823.000 M	824.000 M	300.00 k	823.943548 M	-21.44	-8.44
824.000 M	836.500 M	100.00 k	825.125000 M	3.80	-29.20

Date: 31.DEC.2019 06:17:30

Lowest channel

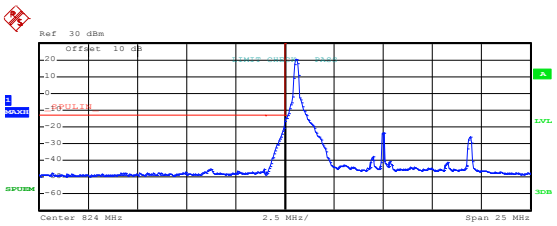


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	846.425000 M	3.18	-29.82
849.000 M	850.000 M	300.00 k	849.008065 M	-21.74	-8.74
850.000 M	861.500 M	100.00 k	850.839500 M	-37.34	-24.34

Date: 31.DEC.2019 06:16:17

Highest channel

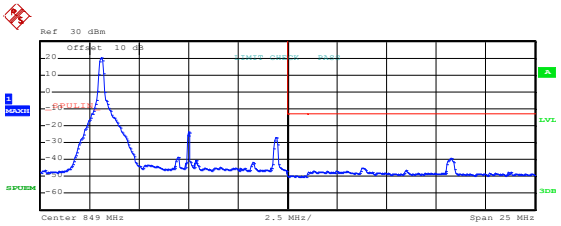
LTE Band 5, BW: 10MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
811.500 M	823.000 M	100.00 k	820.263000 M	-45.09	-32.09
823.000 M	824.000 M	30.00 k	823.977000 M	-20.77	-7.77
824.000 M	836.500 M	100.00 k	824.562500 M	20.36	-12.64

Date: 31.DEC.2019 06:13:03

Lowest channel

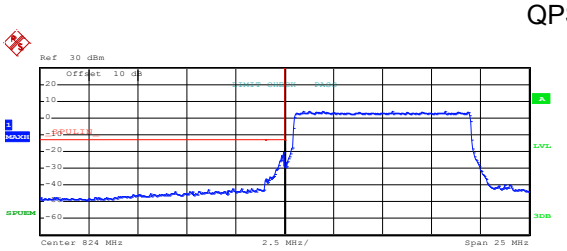


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
836.500 M	849.000 M	100.00 k	839.575000 M	20.28	-12.72
849.000 M	850.000 M	30.00 k	849.086000 M	-49.27	-36.27
850.000 M	861.500 M	100.00 k	857.222000 M	-39.30	-26.30

Date: 31.DEC.2019 06:13:56

Highest channel

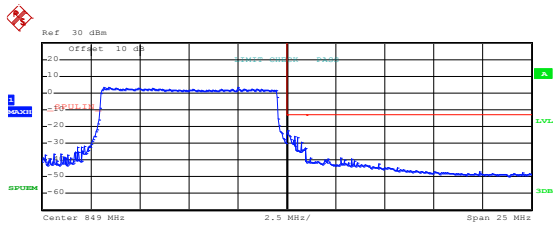
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
811.500 M	823.000 M	100.00 k	822.298500 M	-42.16	-29.16
823.000 M	824.000 M	300.00 k	823.967742 M	-20.35	-7.35
824.000 M	836.500 M	100.00 k	824.962500 M	4.01	-28.99

Date: 31.DEC.2019 06:17:39

Lowest channel



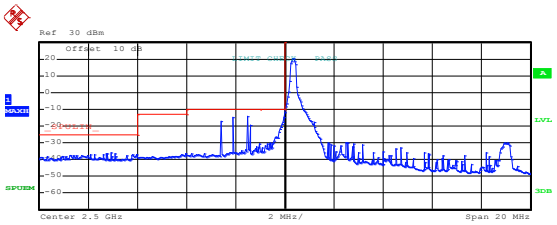
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
836.500 M	849.000 M	100.00 k	839.875000 M	3.28	-29.72
849.000 M	850.000 M	300.00 k	849.048387 M	-22.44	-9.44
850.000 M	861.500 M	100.00 k	850.184000 M	-38.61	-25.61

Date: 31.DEC.2019 06:16:23

Highest channel

LTE Band 7 part:

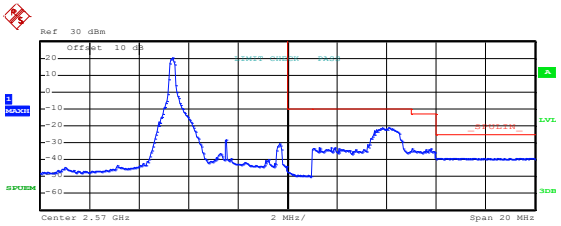
LTE Band 7, BW: 5MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.492871 G	-36.03	-11.03
2.494 G	2.496 G	1.00 M	2.495984 G	-37.07	-24.07
2.496 G	2.499 G	1.00 M	2.498444 G	-13.88	-3.88
2.499 G	2.500 G	30.00 k	2.499995 G	-14.87	-4.87
2.500 G	2.510 G	100.00 k	2.500330 G	20.38	-12.62

Date: 31.DEC.2019 06:24:35

Lowest channel

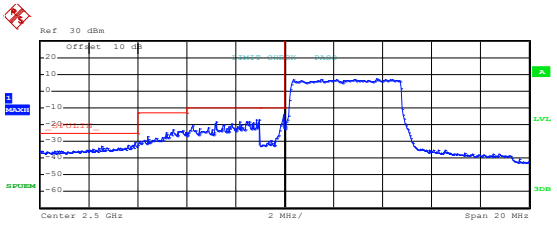


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565340 G	20.24	-12.76
2.570 G	2.571 G	30.00 k	2.570015 G	-47.56	-37.56
2.571 G	2.575 G	1.00 M	2.574088 G	-21.06	-11.06
2.575 G	2.576 G	1.00 M	2.575785 G	-33.45	-20.45
2.576 G	2.580 G	1.00 M	2.576132 G	-39.16	-14.16

Date: 31.DEC.2019 06:25:41

Highest channel

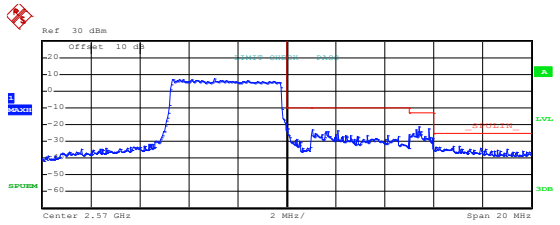
16QAM & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.493872 G	-30.61	-5.61
2.494 G	2.496 G	1.00 M	2.495426 G	-22.72	-9.72
2.496 G	2.499 G	1.00 M	2.498970 G	-16.78	-6.78
2.499 G	2.500 G	100.00 k	2.499993 G	-15.00	-5.00
2.500 G	2.510 G	100.00 k	2.503770 G	7.27	-25.73

Date: 31.DEC.2019 06:28:33

Lowest channel

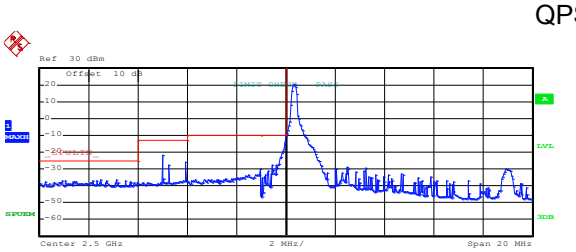


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.567040 G	7.28	-25.72
2.570 G	2.571 G	100.00 k	2.570048 G	-22.17	-12.17
2.571 G	2.575 G	1.00 M	2.571032 G	-22.95	-12.95
2.575 G	2.576 G	1.00 M	2.575386 G	-21.38	-8.38
2.576 G	2.580 G	1.00 M	2.577036 G	-32.59	-7.59

Date: 31.DEC.2019 06:27:39

Highest channel

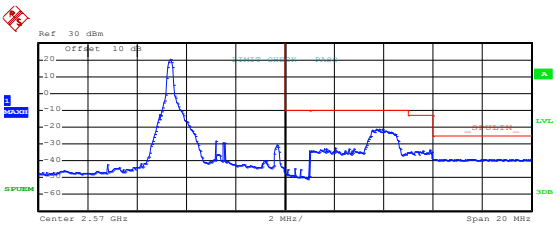
LTE Band 7, BW: 5MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.492452 G	-36.59	-11.59
2.494 G	2.496 G	1.00 M	2.495000 G	-21.49	-8.49
2.496 G	2.499 G	1.00 M	2.498976 G	-30.18	-20.18
2.499 G	2.500 G	30.00 k	2.499993 G	-14.34	-4.34
2.500 G	2.510 G	100.00 k	2.500310 G	20.46	-12.54

Date: 31.DEC.2019 06:24:43

Lowest channel

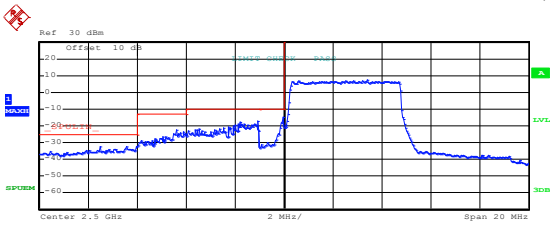


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565350 G	20.27	-12.73
2.570 G	2.571 G	30.00 k	2.570401 G	-44.64	-34.64
2.571 G	2.575 G	1.00 M	2.573840 G	-21.22	-11.22
2.575 G	2.576 G	1.00 M	2.575883 G	-33.51	-20.51
2.576 G	2.580 G	1.00 M	2.579984 G	-38.89	-13.89

Date: 31.DEC.2019 06:25:49

Highest channel

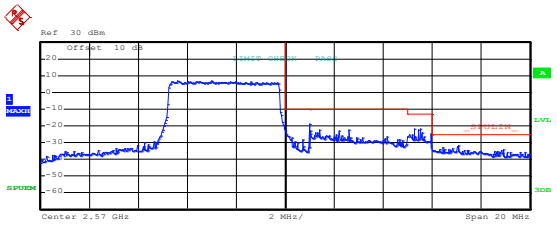
QPSK & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.493568 G	-32.37	-7.37
2.494 G	2.496 G	1.00 M	2.495584 G	-22.55	-9.55
2.496 G	2.499 G	1.00 M	2.498904 G	-17.11	-7.11
2.499 G	2.500 G	100.00 k	2.499996 G	-14.48	-4.48
2.500 G	2.510 G	100.00 k	2.503390 G	7.31	-25.69

Date: 31.DEC.2019 06:28:39

Lowest channel

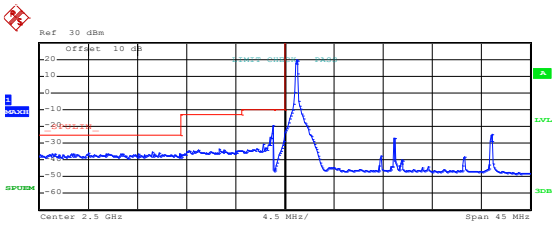


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565600 G	6.93	-26.07
2.570 G	2.571 G	100.00 k	2.570008 G	-22.89	-12.89
2.571 G	2.575 G	1.00 M	2.571000 G	-18.66	-8.66
2.575 G	2.576 G	1.00 M	2.575283 G	-21.80	-8.80
2.576 G	2.580 G	1.00 M	2.577092 G	-31.41	-6.41

Date: 31.DEC.2019 06:27:45

Highest channel

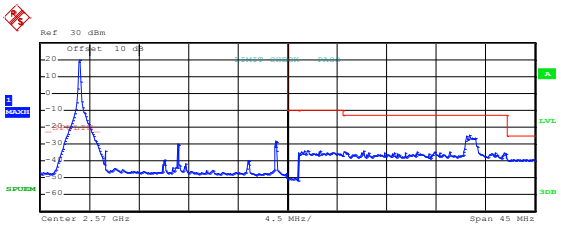
LTE Band 7, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.490 G	1.00 M	2.487848 G	-35.22	-10.22
2.490 G	2.496 G	1.00 M	2.493932 G	-33.66	-20.66
2.496 G	2.499 G	1.00 M	2.498973 G	-19.27	-9.27
2.499 G	2.500 G	30.00 k	2.499985 G	-28.62	-18.62
2.500 G	2.523 G	100.00 k	2.501103 G	19.51	-13.49

Date: 31.DEC.2019 06:31:06

Lowest channel

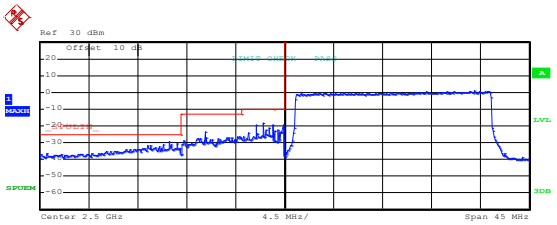


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551100 G	19.84	-13.16
2.570 G	2.571 G	30.00 k	2.570223 G	-50.00	-40.00
2.571 G	2.575 G	1.00 M	2.572956 G	-33.82	-23.82
2.575 G	2.590 G	1.00 M	2.586505 G	-24.97	-11.97
2.590 G	2.592 G	1.00 M	2.591737 G	-39.12	-14.12

Date: 31.DEC.2019 06:32:17

Highest channel

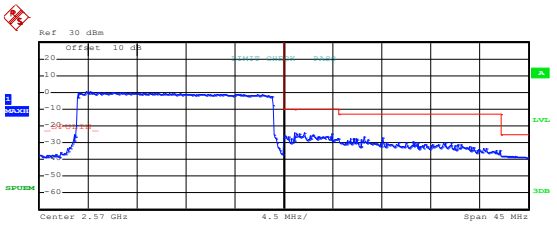
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.490 G	1.00 M	2.489330 G	-29.27	-4.27
2.490 G	2.496 G	1.00 M	2.492694 G	-23.61	-10.61
2.496 G	2.499 G	1.00 M	2.498016 G	-18.09	-8.09
2.499 G	2.500 G	300.00 k	2.499974 G	-19.60	-9.60
2.500 G	2.523 G	100.00 k	2.517460 G	0.92	-32.08

Date: 31.DEC.2019 06:36:47

Lowest channel

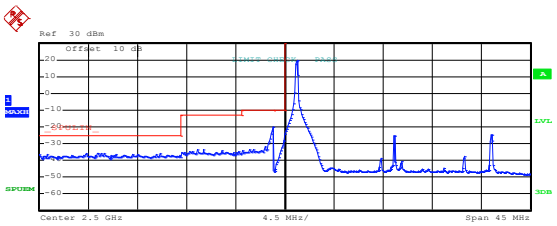


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551798 G	0.51	-32.49
2.570 G	2.571 G	300.00 k	2.570086 G	-25.70	-15.70
2.571 G	2.575 G	1.00 M	2.571004 G	-23.86	-13.86
2.575 G	2.590 G	1.00 M	2.577385 G	-26.52	-13.52
2.590 G	2.592 G	1.00 M	2.590717 G	-37.70	-12.70

Date: 31.DEC.2019 06:35:26

Highest channel

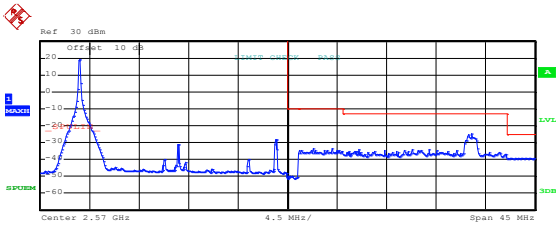
LTE Band 7, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.478 G	2.490 G	1.00 M	2.483129 G	-35.69	-10.69
2.490 G	2.496 G	1.00 M	2.492524 G	-33.23	-20.23
2.496 G	2.499 G	1.00 M	2.498934 G	-20.27	-10.27
2.499 G	2.500 G	30.00 k	2.499973 G	-28.00	-18.00
2.500 G	2.523 G	100.00 k	2.501125 G	19.49	-13.51

Date: 31.DEC.2019 06:31:13

Lowest channel

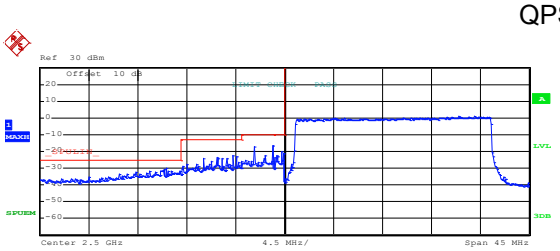


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.547 G	2.570 G	100.00 k	2.551077 G	19.43	-13.57
2.570 G	2.571 G	30.00 k	2.570051 G	-49.79	-39.79
2.571 G	2.575 G	1.00 M	2.572300 G	-33.36	-23.36
2.575 G	2.590 G	1.00 M	2.586760 G	-24.89	-11.89
2.590 G	2.592 G	1.00 M	2.592130 G	-39.20	-14.20

Date: 31.DEC.2019 06:32:23

Highest channel

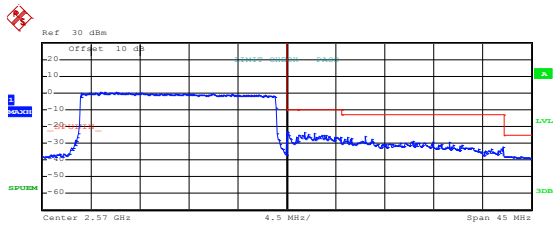
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.478 G	2.490 G	1.00 M	2.489057 G	-30.13	-5.13
2.490 G	2.496 G	1.00 M	2.495219 G	-22.28	-9.28
2.496 G	2.499 G	1.00 M	2.498874 G	-16.33	-6.33
2.499 G	2.500 G	300.00 k	2.499693 G	-20.03	-10.03
2.500 G	2.523 G	100.00 k	2.516043 G	0.88	-32.12

Date: 31.DEC.2019 06:36:53

Lowest channel



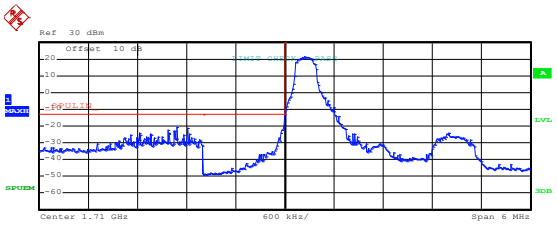
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
2.547 G	2.570 G	100.00 k	2.552855 G	0.60	-32.40
2.570 G	2.571 G	300.00 k	2.570017 G	-23.06	-13.06
2.571 G	2.575 G	1.00 M	2.571628 G	-23.29	-13.29
2.575 G	2.590 G	1.00 M	2.577160 G	-25.57	-12.57
2.590 G	2.592 G	1.00 M	2.590855 G	-37.65	-12.65

Date: 31.DEC.2019 06:35:32

Highest channel

LTE band 66 part:

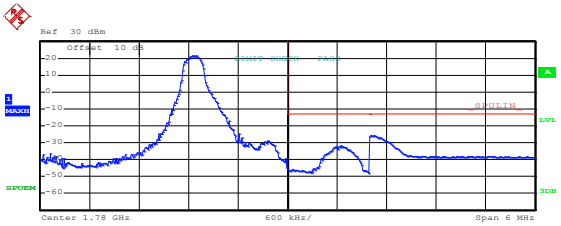
LTE Band 66, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708674 G	-20.82	-7.82
1.709 G	1.710 G	30.00 k	1.709999 G	-20.17	-7.17
1.710 G	1.713 G	100.00 k	1.710240 G	21.42	-11.58

Date: 29.DEC.2019 20:14:28

Lowest channel

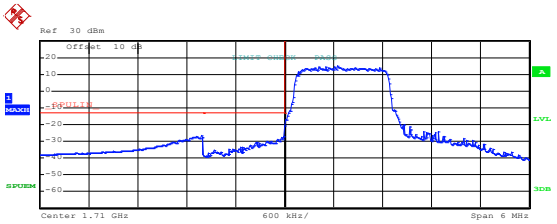


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.777 G	1.780 G	100.00 k	1.778848 G	21.67	-11.33
1.780 G	1.781 G	30.00 k	1.780653 G	-31.66	-18.66
1.781 G	1.783 G	1.00 M	1.781018 G	-25.57	-12.57

Date: 29.DEC.2019 20:17:56

Highest channel

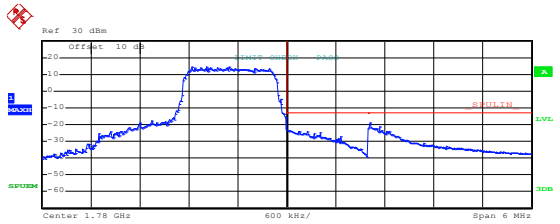
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708984 G	-26.61	-13.61
1.709 G	1.710 G	30.00 k	1.709996 G	-27.05	-14.05
1.710 G	1.713 G	100.00 k	1.710642 G	14.99	-18.01

Date: 29.DEC.2019 20:16:25

Lowest channel



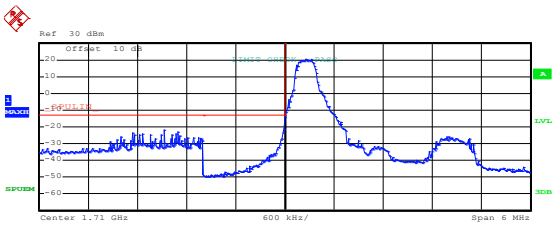
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.777 G	1.780 G	100.00 k	1.778830 G	14.48	-18.52
1.780 G	1.781 G	30.00 k	1.780005 G	-23.24	-10.24
1.781 G	1.783 G	1.00 M	1.781016 G	-18.94	-5.94

Date: 29.DEC.2019 20:18:39

Highest channel

LTE Band 66, BW: 1.4MHz

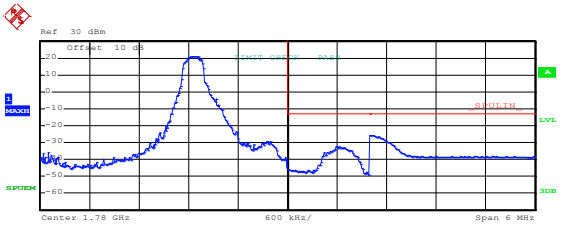
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.708518 G	-21.91	-8.91
1.709 G	1.710 G	30.00 k	1.709995 G	-21.25	-8.25
1.710 G	1.713 G	100.00 k	1.710255 G	20.43	-12.57

Date: 29.DEC.2019 20:14:38

Lowest channel



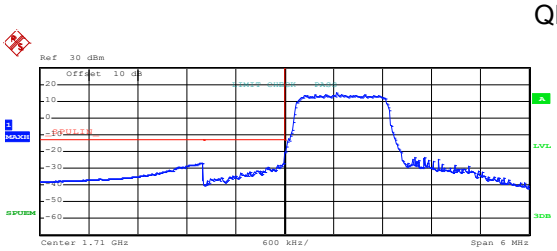
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.777 G	1.780 G	100.00 k	1.778887 G	21.12	-11.88
1.780 G	1.781 G	30.00 k	1.780628 G	-32.32	-19.32
1.781 G	1.783 G	1.00 M	1.781028 G	-25.69	-12.69

Date: 29.DEC.2019 20:18:00

Lowest channel

Highest channel

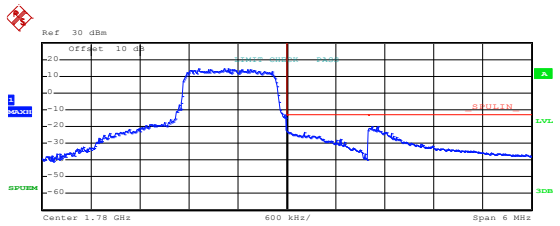
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.709000 G	-26.75	-13.75
1.709 G	1.710 G	30.00 k	1.709976 G	-27.44	-14.44
1.710 G	1.713 G	100.00 k	1.710633 G	15.22	-17.78

Date: 29.DEC.2019 20:16:34

Lowest channel

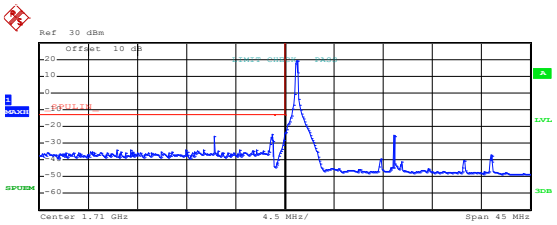


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.777 G	1.780 G	100.00 k	1.779235 G	14.64	-18.36
1.780 G	1.781 G	30.00 k	1.780007 G	-22.38	-9.38
1.781 G	1.783 G	1.00 M	1.781042 G	-19.99	-6.99

Date: 29.DEC.2019 20:18:44

Highest channel

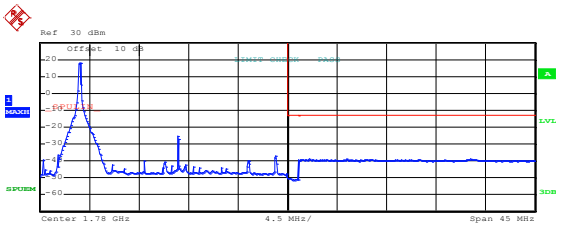
LTE Band 66, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708828 G	-24.80	-11.80
1.709 G	1.710 G	30.00 k	1.709995 G	-28.17	-15.17
1.710 G	1.732 G	100.00 k	1.711080 G	19.07	-13.93

Date: 29.DEC.2019 20:03:40

Lowest channel

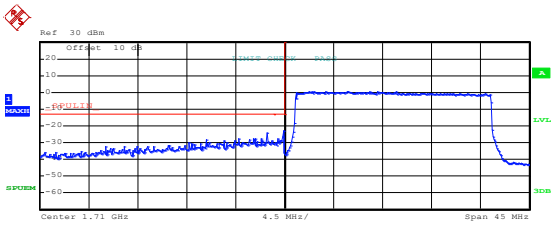


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.758 G	1.780 G	100.00 k	1.761122 G	18.17	-14.83
1.780 G	1.781 G	30.00 k	1.780013 G	-50.23	-37.23
1.781 G	1.803 G	1.00 M	1.796631 G	-38.64	-25.64

Date: 29.DEC.2019 20:02:14

Highest channel

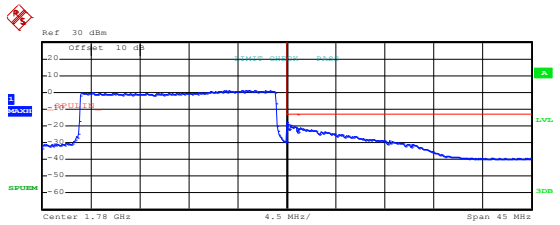
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708398 G	-24.25	-11.25
1.709 G	1.710 G	300.00 k	1.709920 G	-23.20	-10.20
1.710 G	1.732 G	100.00 k	1.712722 G	0.44	-32.56

Date: 29.DEC.2019 20:58:24

Lowest channel



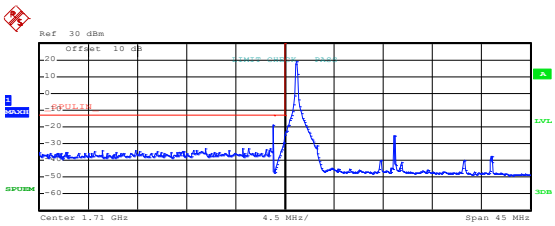
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.758 G	1.780 G	100.00 k	1.778020 G	1.23	-31.77
1.780 G	1.781 G	300.00 k	1.780007 G	-17.69	-4.69
1.781 G	1.803 G	1.00 M	1.781215 G	-21.22	-8.22

Date: 29.DEC.2019 21:00:40

Highest channel

LTE Band 66, BW: 20MHz

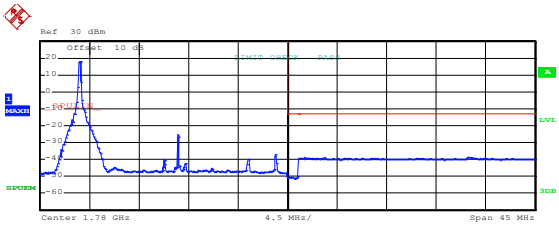
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708979 G	-19.01	-6.01
1.709 G	1.710 G	30.00 k	1.709983 G	-29.16	-16.16
1.710 G	1.732 G	100.00 k	1.711057 G	18.99	-14.01

Date: 29.DEC.2019 20:03:46

Lowest channel

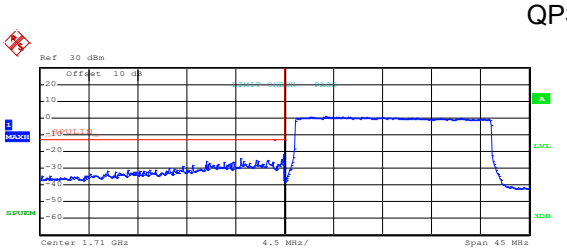


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.758 G	1.780 G	100.00 k	1.761145 G	18.23	-14.77
1.780 G	1.781 G	30.00 k	1.780882 G	-50.05	-37.05
1.781 G	1.803 G	1.00 M	1.796480 G	-38.79	-25.79

Date: 29.DEC.2019 20:02:22

Highest channel

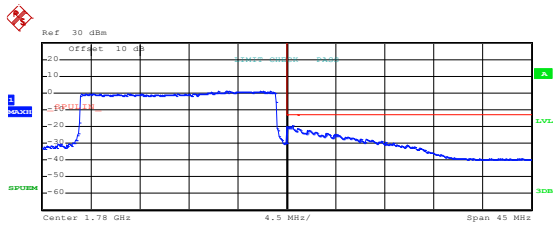
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.705969 G	-24.13	-11.13
1.709 G	1.710 G	300.00 k	1.709988 G	-21.70	-8.70
1.710 G	1.732 G	100.00 k	1.713780 G	0.93	-32.07

Date: 29.DEC.2019 20:58:37

Lowest channel

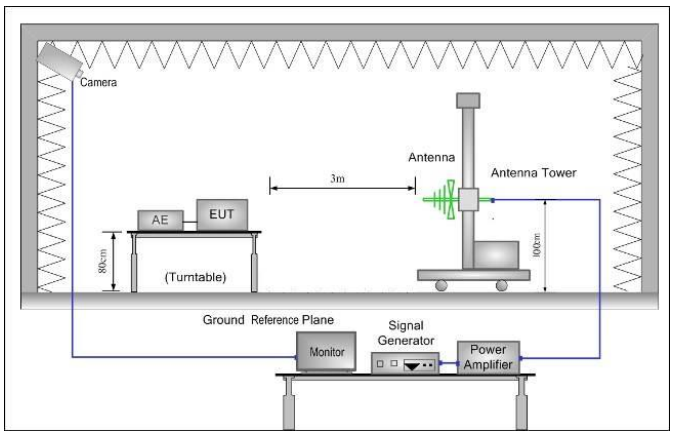
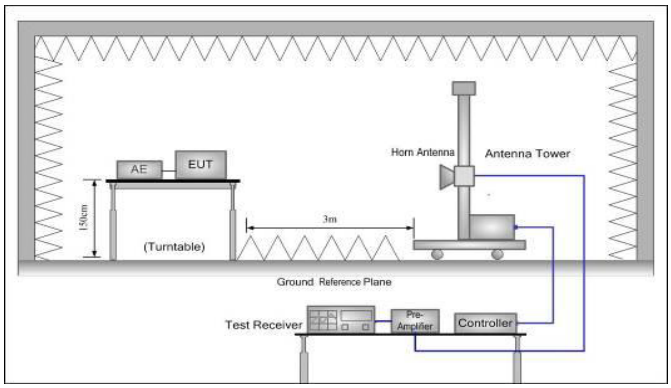


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.758 G	1.780 G	100.00 k	1.773678 G	1.27	-31.73
1.780 G	1.781 G	300.00 k	1.780500 G	-19.19	-6.19
1.781 G	1.803 G	1.00 M	1.781000 G	-20.99	-7.99

Date: 29.DEC.2019 21:00:49

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 22.917(b), Part 24.238 (a), Part 27.53(m), Part 27.53(h)
Limit:	LTE Band 2 & 4 & 5 & 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). 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:	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. output (dBm) + Antenna Gain(dB/dBi) – 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:

Band 2 (1.4MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3701.40	-57.37	12.26	0.75	-45.86	-13.00	-32.86	Vertical
5552.10	-56.41	12.47	1.13	-45.07	-13.00	-32.07	Vertical
7402.00	-47.73	11.26	1.63	-38.10	-13.00	-25.10	Vertical
3701.40	-57.42	12.26	0.75	-45.91	-13.00	-32.91	Horizontal
5552.10	-55.10	12.47	1.13	-43.76	-13.00	-30.76	Horizontal
7402.00	-47.84	11.26	1.63	-38.21	-13.00	-25.21	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3760.00	-56.79	12.19	0.79	-45.39	-13.00	-32.39	Vertical
5640.00	-56.03	12.60	1.15	-44.58	-13.00	-31.58	Vertical
7520.00	-47.21	11.18	1.66	-37.69	-13.00	-24.69	Vertical
3760.00	-57.36	12.19	0.79	-45.96	-13.00	-32.96	Horizontal
5640.00	-55.13	12.60	1.15	-43.68	-13.00	-30.68	Horizontal
7520.00	-47.80	11.18	1.66	-38.28	-13.00	-25.28	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3816.60	-56.27	12.12	0.81	-44.96	-13.00	-31.96	Vertical
5724.90	-56.42	12.71	1.19	-44.90	-13.00	-31.90	Vertical
7633.20	-46.66	11.09	1.71	-37.28	-13.00	-24.28	Vertical
3816.60	-57.54	12.12	0.81	-46.23	-13.00	-33.23	Horizontal
5724.90	-55.65	12.71	1.19	-44.13	-13.00	-31.13	Horizontal
7633.20	-48.07	11.09	1.71	-38.69	-13.00	-25.69	Horizontal

Remark:

1. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

Band 2 (20MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3720.00	-56.47	12.24	0.77	-45.00	-13.00	-32.00	Vertical
5580.00	-56.56	12.51	1.15	-45.20	-13.00	-32.20	Vertical
7440.00	-47.15	11.24	1.64	-37.55	-13.00	-24.55	Vertical
3720.00	-57.38	12.24	0.77	-45.91	-13.00	-32.91	Horizontal
5580.00	-55.65	12.51	1.15	-44.29	-13.00	-31.29	Horizontal
7440.00	-48.05	11.24	1.64	-38.45	-13.00	-25.45	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3760.00	-55.94	12.19	0.79	-44.54	-13.00	-31.54	Vertical
5640.00	-56.80	12.60	1.15	-45.35	-13.00	-32.35	Vertical
7520.00	-46.64	11.18	1.66	-37.12	-13.00	-24.12	Vertical
3760.00	-57.06	12.19	0.79	-45.66	-13.00	-32.66	Horizontal
5640.00	-56.23	12.60	1.15	-44.78	-13.00	-31.78	Horizontal
7520.00	-47.79	11.18	1.66	-38.27	-13.00	-25.27	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3800.00	-55.58	12.14	0.79	-44.23	-13.00	-31.23	Vertical
5700.00	-56.46	12.68	1.18	-44.96	-13.00	-31.96	Vertical
7600.00	-46.65	11.12	1.69	-37.22	-13.00	-24.22	Vertical
3800.00	-56.65	12.14	0.79	-45.30	-13.00	-32.30	Horizontal
5700.00	-56.39	12.68	1.18	-44.89	-13.00	-31.89	Horizontal
7600.00	-47.64	11.12	1.69	-38.21	-13.00	-25.21	Horizontal

Remark:

2. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

LTE Band 4 part:

Band 4 (1.4MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3421.40	-59.52	12.30	0.70	-47.92	-13.00	-34.92	Vertical
5132.10	-56.36	12.69	1.01	-44.68	-13.00	-31.68	Vertical
6842.80	-48.28	11.56	1.53	-38.25	-13.00	-25.25	Vertical
3421.40	-59.27	12.30	0.70	-47.67	-13.00	-34.67	Horizontal
5132.10	-56.24	12.69	1.01	-44.56	-13.00	-31.56	Horizontal
6842.80	-48.39	11.56	1.53	-38.36	-13.00	-25.36	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3465.00	-59.84	12.41	0.72	-48.15	-13.00	-35.15	Vertical
5197.50	-56.07	12.64	1.04	-44.47	-13.00	-31.47	Vertical
6930.00	-47.93	11.53	1.56	-37.96	-13.00	-24.96	Vertical
3465.00	-59.34	12.41	0.72	-47.65	-13.00	-34.65	Horizontal
5197.50	-56.19	12.64	1.04	-44.59	-13.00	-31.59	Horizontal
6930.00	-48.27	11.53	1.56	-38.30	-13.00	-25.30	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3508.60	-59.99	12.49	0.74	-48.24	-13.00	-35.24	Vertical
5262.90	-55.81	12.59	1.07	-44.29	-13.00	-31.29	Vertical
7017.20	-47.44	11.49	1.58	-37.53	-13.00	-24.53	Vertical
3508.60	-58.91	12.49	0.74	-47.16	-13.00	-34.16	Horizontal
5262.90	-56.36	12.59	1.07	-44.84	-13.00	-31.84	Horizontal
7017.20	-48.41	11.49	1.58	-38.50	-13.00	-25.50	Horizontal

Remark:

3. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

Band 4 (20MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3440.00	-60.34	12.34	0.71	-48.71	-13.00	-35.71	Vertical
5160.00	-55.65	12.67	1.03	-44.01	-13.00	-31.01	Vertical
6880.00	-47.49	11.55	1.54	-37.48	-13.00	-24.48	Vertical
3440.00	-58.40	12.34	0.71	-46.77	-13.00	-33.77	Horizontal
5160.00	-56.15	12.67	1.03	-44.51	-13.00	-31.51	Horizontal
6880.00	-48.51	11.55	1.54	-38.50	-13.00	-25.50	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3465.00	-60.44	12.41	0.72	-48.75	-13.00	-35.75	Vertical
5197.50	-55.66	12.64	1.04	-44.06	-13.00	-31.06	Vertical
6930.00	-47.95	11.53	1.56	-37.98	-13.00	-24.98	Vertical
3465.00	-58.38	12.41	0.72	-46.69	-13.00	-33.69	Horizontal
5197.50	-56.43	12.64	1.04	-44.83	-13.00	-31.83	Horizontal
6930.00	-48.33	11.53	1.56	-38.36	-13.00	-25.36	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3490.00	-60.13	12.49	0.73	-48.37	-13.00	-35.37	Vertical
5235.00	-55.53	12.61	1.06	-43.98	-13.00	-30.98	Vertical
6980.00	-47.77	11.51	1.57	-37.83	-13.00	-24.83	Vertical
3490.00	-58.09	12.49	0.73	-46.33	-13.00	-33.33	Horizontal
5235.00	-56.20	12.61	1.06	-44.65	-13.00	-31.65	Horizontal
6980.00	-48.50	11.51	1.57	-38.56	-13.00	-25.56	Horizontal

Remark:

4. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

LTE Band 5 part:

Band 5 (1.4MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1649.40	-61.91	9.58	0.20	-52.53	-13.00	-39.53	Vertical
2474.10	-66.01	10.79	0.43	-55.65	-13.00	-42.65	Vertical
3298.80	-61.01	12.14	0.64	-49.51	-13.00	-36.51	Vertical
1649.40	-60.36	9.58	0.20	-50.98	-13.00	-37.98	Horizontal
2474.10	-65.72	10.79	0.43	-55.36	-13.00	-42.36	Horizontal
3298.80	-61.71	12.14	0.64	-50.21	-13.00	-37.21	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1673.30	-61.78	9.62	0.22	-52.38	-13.00	-39.38	Vertical
2509.50	-65.64	10.83	0.46	-55.27	-13.00	-42.27	Vertical
3346.00	-60.60	12.23	0.66	-49.03	-13.00	-36.03	Vertical
1673.30	-60.19	9.62	0.22	-50.79	-13.00	-37.79	Horizontal
2509.50	-65.65	10.83	0.46	-55.28	-13.00	-42.28	Horizontal
3346.00	-61.36	12.23	0.66	-49.79	-13.00	-36.79	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1696.60	-61.76	9.66	0.23	-52.33	-13.00	-39.33	Vertical
2544.90	-65.38	10.88	0.49	-54.99	-13.00	-41.99	Vertical
3393.20	-60.27	12.32	0.68	-48.63	-13.00	-35.63	Vertical
1696.60	-60.11	9.66	0.23	-50.68	-13.00	-37.68	Horizontal
2544.90	-65.69	10.88	0.49	-55.30	-13.00	-42.30	Horizontal
3393.20	-61.31	12.32	0.68	-49.67	-13.00	-36.67	Horizontal

Remark:

5. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

Band 5 (10MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1658.00	-61.40	9.58	0.21	-52.03	-13.00	-39.03	Vertical
2487.00	-64.08	10.79	0.45	-53.74	-13.00	-40.74	Vertical
3316.00	-60.45	12.14	0.65	-48.96	-13.00	-35.96	Vertical
1658.00	-59.84	9.58	0.21	-50.47	-13.00	-37.47	Horizontal
2487.00	-65.41	10.79	0.45	-55.07	-13.00	-42.07	Horizontal
3316.00	-61.98	12.14	0.65	-50.49	-13.00	-37.49	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1673.30	-61.57	9.62	0.21	-52.16	-13.00	-39.16	Vertical
2509.50	-64.50	10.83	0.46	-54.13	-13.00	-41.13	Vertical
3346.00	-60.63	12.23	0.66	-49.06	-13.00	-36.06	Vertical
1673.30	-60.32	9.62	0.21	-50.91	-13.00	-37.91	Horizontal
2509.50	-64.95	10.83	0.46	-54.58	-13.00	-41.58	Horizontal
3346.00	-61.57	12.23	0.66	-50.00	-13.00	-37.00	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1688.00	-61.58	9.66	0.23	-52.15	-13.00	-39.15	Vertical
2532.00	-64.95	10.88	0.48	-54.55	-13.00	-41.55	Vertical
3376.00	-60.24	12.32	0.67	-48.59	-13.00	-35.59	Vertical
1688.00	-60.33	9.66	0.23	-50.90	-13.00	-37.90	Horizontal
2532.00	-65.35	10.88	0.48	-54.95	-13.00	-41.95	Horizontal
3376.00	-61.65	12.32	0.67	-50.00	-13.00	-37.00	Horizontal

Remark:

6. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

LTE Band 7 part:

Band 7 (5MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5005.00	-55.88	12.80	0.94	-44.02	-25.00	-19.02	Vertical
7507.50	-48.07	11.19	1.65	-38.53	-25.00	-13.53	Vertical
10010.00	-44.00	11.70	1.91	-34.21	-25.00	-9.21	Vertical
5005.00	-55.75	12.80	0.94	-43.89	-25.00	-18.89	Horizontal
7507.50	-46.77	11.19	1.65	-37.23	-25.00	-12.23	Horizontal
10010.00	-44.12	11.70	1.91	-34.33	-25.00	-9.33	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5070.00	-55.82	12.74	0.98	-44.06	-25.00	-19.06	Vertical
7605.00	-47.97	11.12	1.69	-38.54	-25.00	-13.54	Vertical
10140.00	-44.12	11.69	1.94	-34.37	-25.00	-9.37	Vertical
5070.00	-56.10	12.74	0.98	-44.34	-25.00	-19.34	Horizontal
7605.00	-46.24	11.12	1.69	-36.81	-25.00	-11.81	Horizontal
10140.00	-43.79	11.69	1.94	-34.04	-25.00	-9.04	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5135.00	-56.05	12.69	1.01	-44.37	-25.00	-19.37	Vertical
7702.50	-47.65	11.04	1.72	-38.33	-25.00	-13.33	Vertical
10270.00	-44.16	11.67	1.95	-34.44	-25.00	-9.44	Vertical
5135.00	-55.99	12.69	1.01	-44.31	-25.00	-19.31	Horizontal
7702.50	-46.28	11.04	1.72	-36.96	-25.00	-11.96	Horizontal
10270.00	-43.38	11.67	1.95	-33.66	-25.00	-8.66	Horizontal
Remark:							
7. The emission levels of below 1 GHz are very lower than the limit and not show in test report.							

Band 7 (20MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5020.00	-56.63	12.78	0.97	-44.82	-25.00	-19.82	Vertical
7530.00	-47.92	11.18	1.68	-38.42	-25.00	-13.42	Vertical
10040.00	-43.67	11.70	1.94	-33.91	-25.00	-8.91	Vertical
5020.00	-56.75	12.78	0.97	-44.94	-25.00	-19.94	Horizontal
7530.00	-46.78	11.18	1.68	-37.28	-25.00	-12.28	Horizontal
10040.00	-43.07	11.70	1.94	-33.31	-25.00	-8.31	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5070.00	-57.01	12.74	0.98	-45.25	-25.00	-20.25	Vertical
7605.00	-47.55	11.12	1.69	-38.12	-25.00	-13.12	Vertical
10140.00	-43.60	11.69	1.94	-33.85	-25.00	-8.85	Vertical
5070.00	-56.36	12.74	0.98	-44.60	-25.00	-19.60	Horizontal
7605.00	-46.71	11.12	1.69	-37.28	-25.00	-12.28	Horizontal
10140.00	-43.49	11.69	1.94	-33.74	-25.00	-8.74	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5120.00	-56.48	12.70	1.00	-44.78	-25.00	-19.78	Vertical
7680.00	-47.85	11.06	1.72	-38.51	-25.00	-13.51	Vertical
10240.00	-43.79	11.68	1.95	-34.06	-25.00	-9.06	Vertical
5120.00	-56.28	12.70	1.00	-44.58	-25.00	-19.58	Horizontal
7680.00	-46.61	11.06	1.72	-37.27	-25.00	-12.27	Horizontal
10240.00	-43.39	11.68	1.95	-33.66	-25.00	-8.66	Horizontal

Remark:

8. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

LTE Band 66 part:

Band 66 (1.4MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3421.40	-57.38	12.30	0.70	-45.78	-13.00	-32.78	Vertical
5132.10	-55.88	12.69	1.01	-44.20	-13.00	-31.20	Vertical
6842.80	-47.91	11.56	1.53	-37.88	-13.00	-24.88	Vertical
3421.40	-57.46	12.30	0.70	-45.86	-13.00	-32.86	Horizontal
5132.10	-54.89	12.69	1.01	-43.21	-13.00	-30.21	Horizontal
6842.80	-47.97	11.56	1.53	-37.94	-13.00	-24.94	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3490.00	-57.89	12.49	0.73	-46.13	-13.00	-33.13	Vertical
5235.00	-56.10	12.61	1.06	-44.55	-13.00	-31.55	Vertical
6980.00	-48.27	11.51	1.57	-38.33	-13.00	-25.33	Vertical
3490.00	-57.56	12.49	0.73	-45.80	-13.00	-32.80	Horizontal
5235.00	-54.81	12.61	1.06	-43.26	-13.00	-30.26	Horizontal
6980.00	-48.00	11.51	1.57	-38.06	-13.00	-25.06	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3558.60	-58.39	12.61	0.77	-46.55	-13.00	-33.55	Vertical
5337.90	-56.22	12.64	1.08	-44.66	-13.00	-31.66	Vertical
7117.20	-48.30	11.47	1.59	-38.42	-13.00	-25.42	Vertical
3558.60	-57.62	12.61	0.77	-45.78	-13.00	-32.78	Horizontal
5337.90	-54.78	12.64	1.08	-43.22	-13.00	-30.22	Horizontal
7117.20	-47.78	11.47	1.59	-37.90	-13.00	-24.90	Horizontal

Remark:

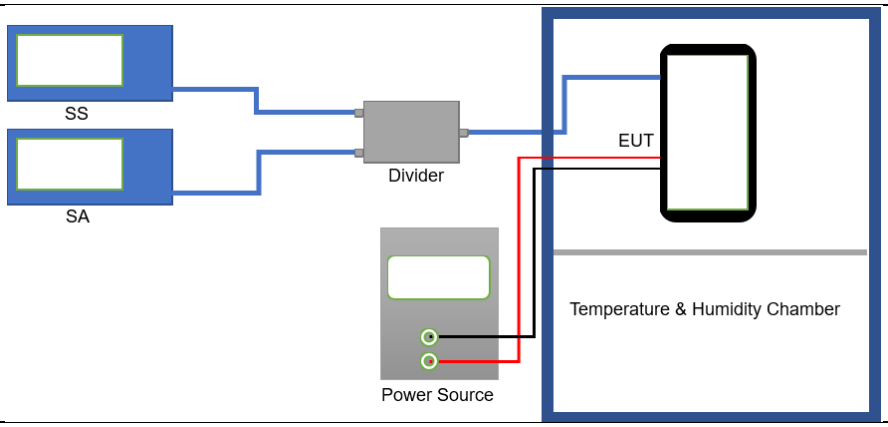
9. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

Band 66 (20MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3440.00	-58.21	12.34	0.71	-46.58	-13.00	-33.58	Vertical
5160.00	-56.79	12.67	1.03	-45.15	-13.00	-32.15	Vertical
6880.00	-48.44	11.55	1.54	-38.43	-13.00	-25.43	Vertical
3440.00	-57.79	12.34	0.71	-46.16	-13.00	-33.16	Horizontal
5160.00	-54.48	12.67	1.03	-42.84	-13.00	-29.84	Horizontal
6880.00	-48.06	11.55	1.54	-38.05	-13.00	-25.05	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3490.00	-58.40	12.49	0.73	-46.64	-13.00	-33.64	Vertical
5235.00	-56.57	12.61	1.06	-45.02	-13.00	-32.02	Vertical
6980.00	-48.65	11.51	1.57	-38.71	-13.00	-25.71	Vertical
3490.00	-58.32	12.49	0.73	-46.56	-13.00	-33.56	Horizontal
5235.00	-54.43	12.61	1.06	-42.88	-13.00	-29.88	Horizontal
6980.00	-47.77	11.51	1.57	-37.83	-13.00	-24.83	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
3540.00	-57.99	12.58	0.75	-46.16	-13.00	-33.16	Vertical
5310.00	-57.08	12.60	1.02	-45.50	-13.00	-32.50	Vertical
7080.00	-48.68	11.53	1.58	-38.73	-13.00	-25.73	Vertical
3540.00	-57.99	12.58	0.75	-46.16	-13.00	-33.16	Horizontal
5310.00	-54.66	12.60	1.02	-43.08	-13.00	-30.08	Horizontal
7080.00	-47.43	11.53	1.58	-37.48	-13.00	-24.48	Horizontal

Remark:

10. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)
Limit:	±2.5ppm
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℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ 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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	196	0.104255	±2.5	Pass
	-20	135	0.071809		
	-10	145	0.077128		
	0	120	0.063830		
	10	137	0.072872		
	20	152	0.080851		
	30	116	0.061702		
	40	120	0.063830		
	50	166	0.088298		
16QAM					
3.80	-30	187	0.099468	±2.5	Pass
	-20	145	0.077128		
	-10	122	0.064894		
	0	120	0.063830		
	10	176	0.093617		
	20	158	0.084043		
	30	132	0.070213		
	40	123	0.065426		
	50	121	0.064362		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	190	0.109668	±2.5	Pass
	-20	157	0.090620		
	-10	184	0.106205		
	0	169	0.097547		
	10	127	0.073304		
	20	132	0.076190		
	30	108	0.062338		
	40	125	0.072150		
	50	124	0.071573		
16QAM					
3.80	-30	156	0.090043	±2.5	Pass
	-20	155	0.089466		
	-10	130	0.075036		
	0	144	0.083117		
	10	123	0.070996		
	20	132	0.076190		
	30	156	0.090043		
	40	111	0.064069		
	50	107	0.061760		
Note: Only the worst case shown in the report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5 (10MHz) Middle channel=20525 channel=836.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	193	0.230723	±2.5	Pass
	-20	187	0.223551		
	-10	145	0.173341		
	0	163	0.194860		
	10	123	0.147041		
	20	145	0.173341		
	30	165	0.197250		
	40	114	0.136282		
	50	122	0.145846		
16QAM					
3.80	-30	174	0.208010	±2.5	Pass
	-20	146	0.174537		
	-10	168	0.200837		
	0	158	0.188882		
	10	125	0.149432		
	20	139	0.166169		
	30	148	0.176928		
	40	149	0.178123		
	50	130	0.155409		
Note: Only the worst case shown in the report.					

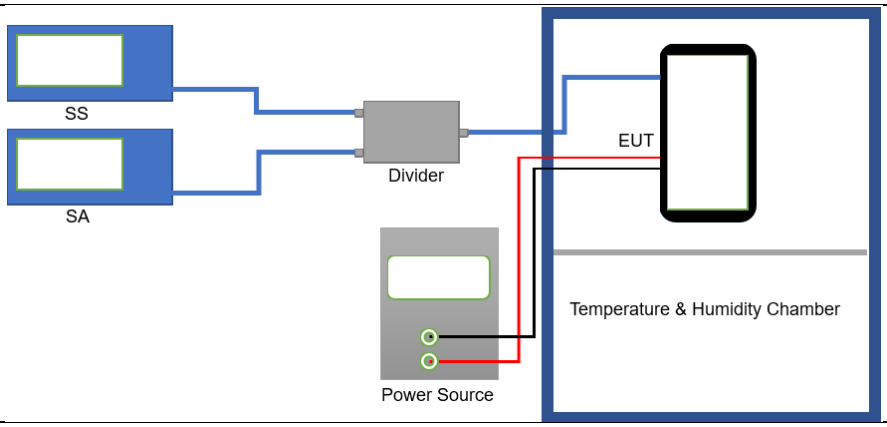
LTE Band 7 part:

Reference Frequency: LTE Band 7 (10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	186	0.073373	±2.5	Pass
	-20	154	0.060750		
	-10	132	0.052071		
	0	102	0.040237		
	10	130	0.051282		
	20	147	0.057988		
	30	158	0.062327		
	40	149	0.058777		
	50	165	0.065089		
16QAM					
3.80	-30	177	0.069822	±2.5	Pass
	-20	146	0.057594		
	-10	123	0.048521		
	0	138	0.054438		
	10	120	0.047337		
	20	109	0.042998		
	30	114	0.044970		
	40	155	0.061144		
	50	167	0.065878		
Note: Only the worst case shown in the report.					

LTE Band 66 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=1745.00MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.80	-30	166	0.095129	±2.5	Pass
	-20	148	0.084814		
	-10	157	0.089971		
	0	139	0.079656		
	10	120	0.068768		
	20	113	0.064756		
	30	124	0.071060		
	40	157	0.089971		
	50	143	0.081948		
16QAM					
3.80	-30	176	0.100860	±2.5	Pass
	-20	141	0.080802		
	-10	162	0.092837		
	0	153	0.087679		
	10	168	0.096275		
	20	149	0.085387		
	30	157	0.089971		
	40	137	0.078510		
	50	144	0.082521		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(d)(2)
Limit:	±2.5ppm
Test setup:	
Test procedure:	1. Set chamber temperature to 25℃. 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 (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	96	0.051064	±2.5	Pass
	3.80	57	0.030319		
	3.50	47	0.025000		
16QAM					
25	4.35	85	0.045213	±2.5	Pass
	3.80	63	0.033511		
	3.50	24	0.012766		
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 (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	76	0.043867	±2.5	Pass
	3.80	64	0.036941		
	3.50	51	0.029437		
16QAM					
25	4.35	69	0.039827	±2.5	Pass
	3.80	57	0.032900		
	3.50	48	0.027706		
Note: Only the worst case shown in the report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 channel=836.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	99	0.118350	±2.5	Pass
	3.80	86	0.102809		
	3.50	45	0.053796		
16QAM					
25	4.35	88	0.105200	±2.5	Pass
	3.80	74	0.088464		
	3.50	60	0.071727		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	97	0.038264	±2.5	Pass
	3.80	45	0.017751		
	3.50	63	0.024852		
16QAM					
25	4.35	85	0.033531	±2.5	Pass
	3.80	60	0.023669		
	3.50	75	0.029586		
Note: Only the worst case shown in the report.					

LTE Band 66 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 channel=1745.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.35	93	0.053295	±2.5	Pass
	3.80	84	0.048138		
	3.50	76	0.043553		
16QAM					
25	4.35	88	0.050430	±2.5	Pass
	3.80	56	0.032092		
	3.50	70	0.040115		
Note: Only the worst case shown in the report.					

8 EUT Constructional Details

Reference to the test report No. CCISE191210101

------End of report------