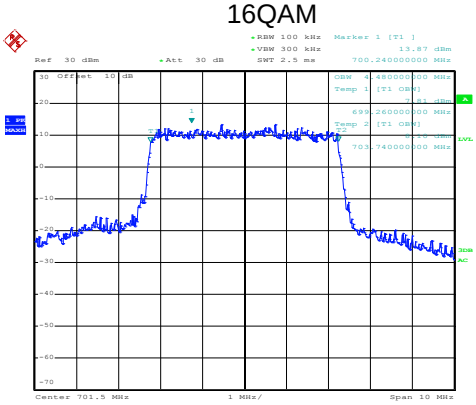
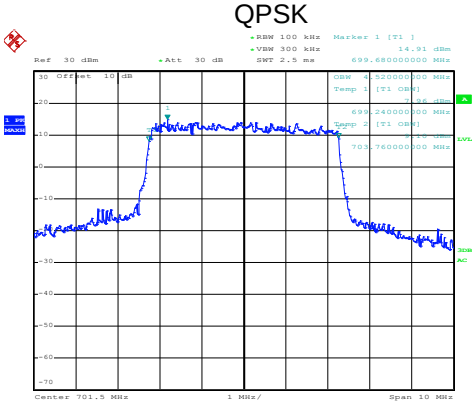
LTE Band 12: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 20.APR.2020 15:04:56

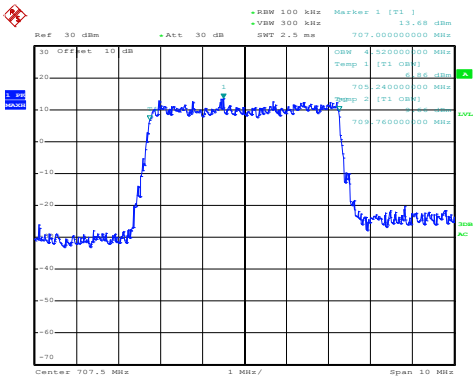
QPSK



Date: 20.APR.2020 15:04:51

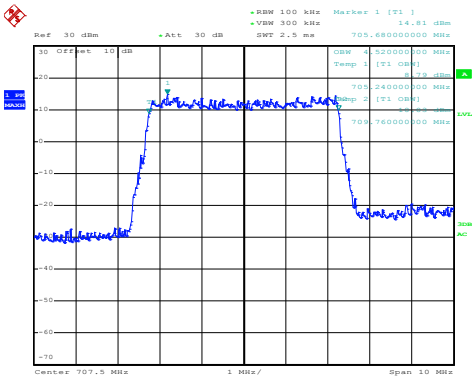
Lowest channel

16QAM



Date: 20.APR.2020 15:05:44

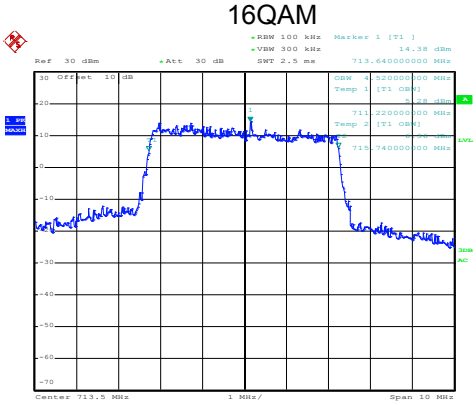
QPSK



Date: 20.APR.2020 15:05:40

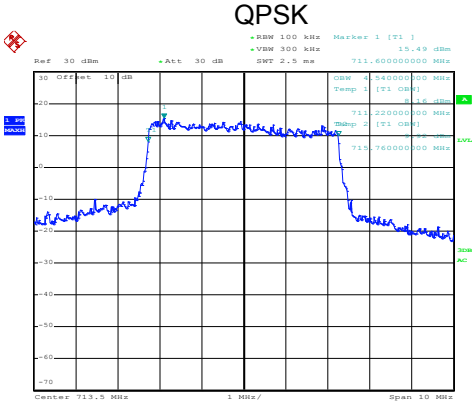
Middle channel

16QAM



Date: 20.APR.2020 15:06:34

QPSK

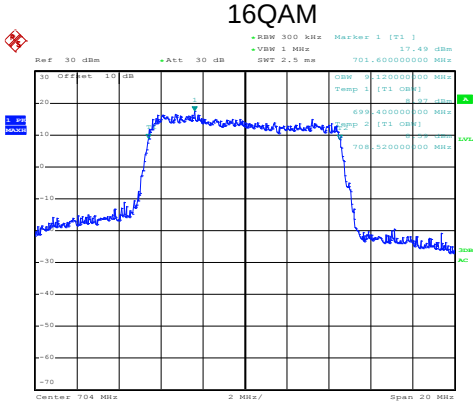


Date: 20.APR.2020 15:06:28

Highest channel

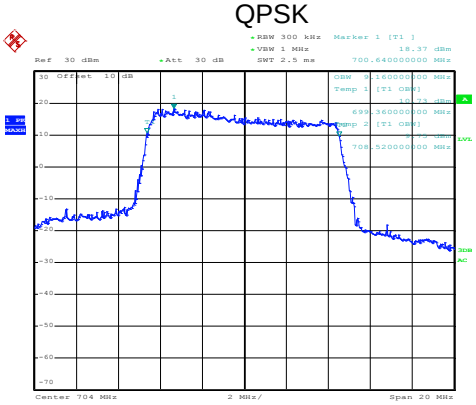
LTE Band 12: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 20.APR.2020 15:07:19

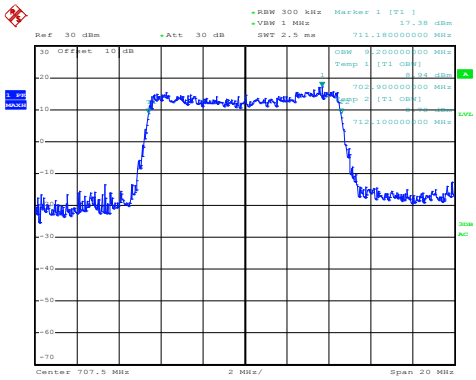
QPSK



Date: 20.APR.2020 15:07:13

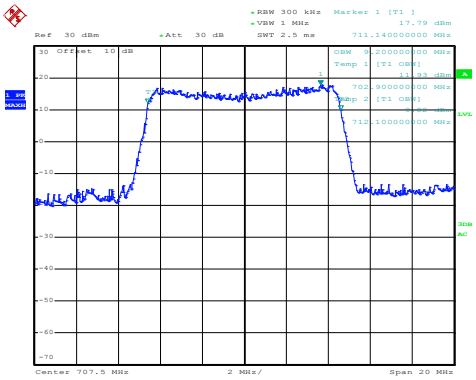
Lowest channel

16QAM



Date: 20.APR.2020 15:08:08

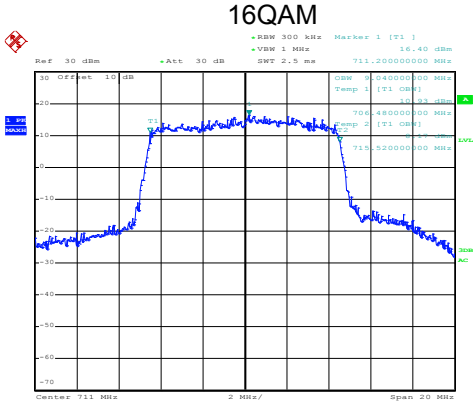
QPSK



Date: 20.APR.2020 15:08:03

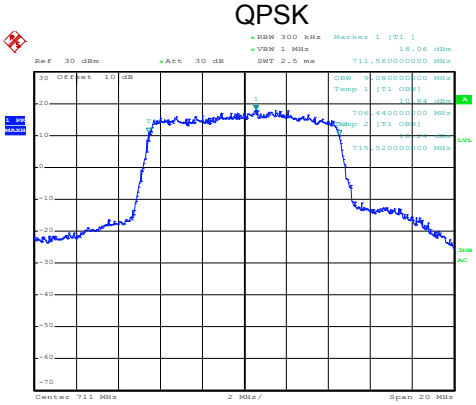
Middle channel

16QAM



Date: 20.APR.2020 15:08:32

QPSK

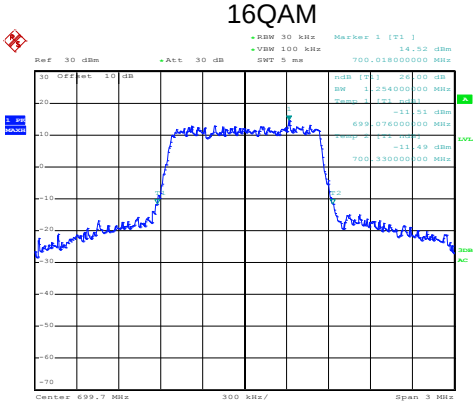


Date: 20.APR.2020 15:08:27

Highest channel

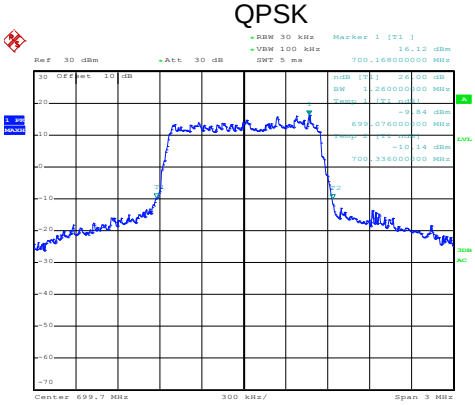
LTE Band 12: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 20.APR.2020 14:59:20

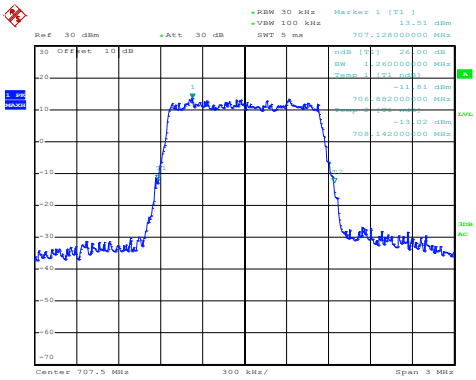
QPSK



Date: 20.APR.2020 14:59:15

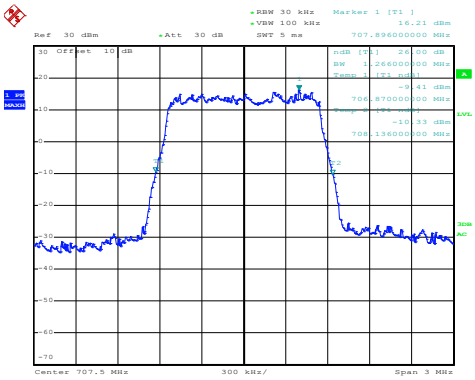
Lowest channel

16QAM



Date: 20.APR.2020 15:01:08

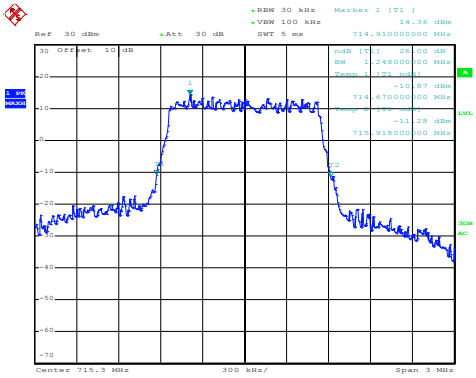
QPSK



Date: 20.APR.2020 15:01:03

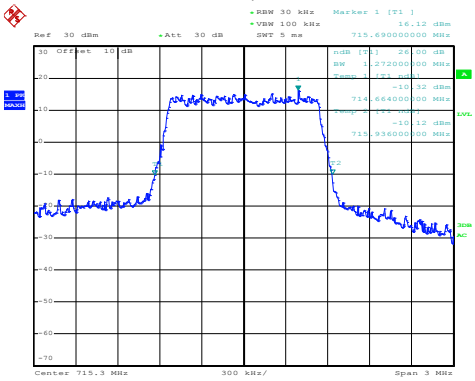
Middle channel

16QAM



Date: 20.APR.2020 15:01:54

QPSK

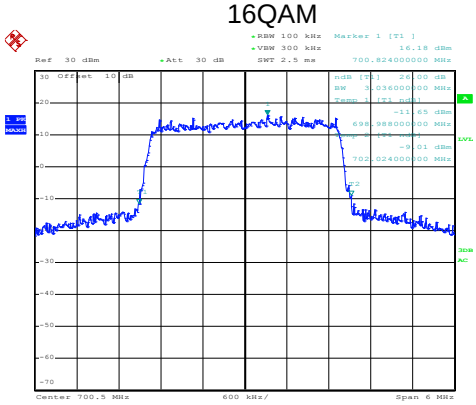


Date: 20.APR.2020 15:01:50

Highest channel

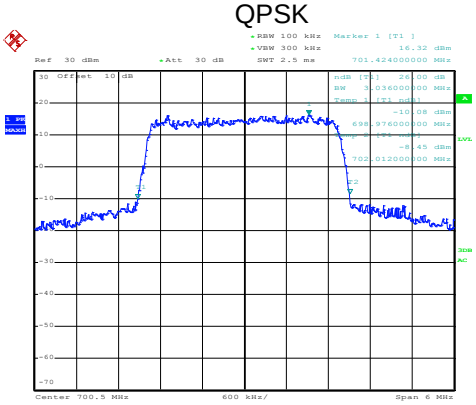
LTE Band 12: -26dBc bandwidth
BW: 3MHz

16QAM



Date: 20.APR.2020 15:02:49

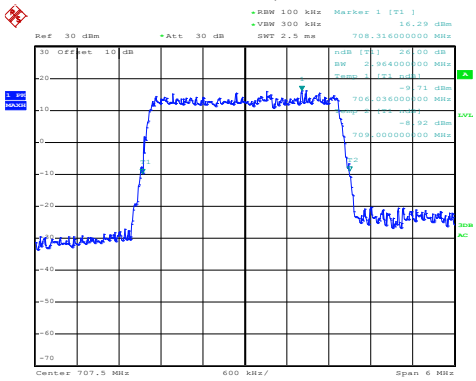
QPSK



Date: 20.APR.2020 15:02:40

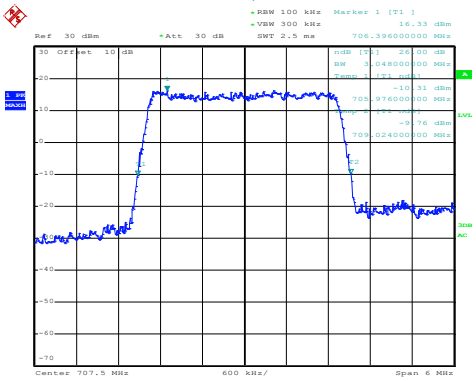
Lowest channel

16QAM



Date: 20.APR.2020 15:03:39

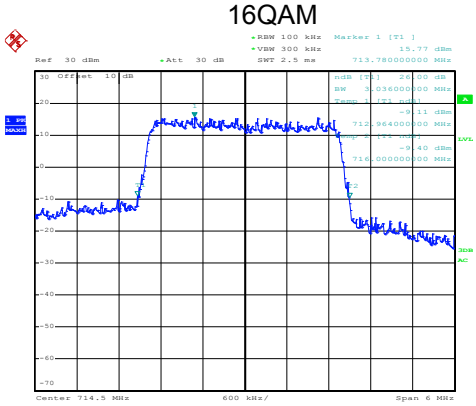
QPSK



Date: 20.APR.2020 15:03:34

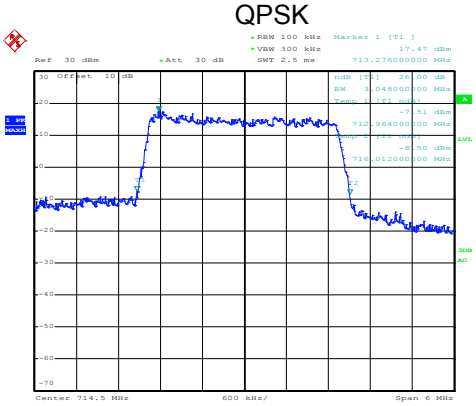
Middle channel

16QAM



Date: 20.APR.2020 15:04:00

QPSK

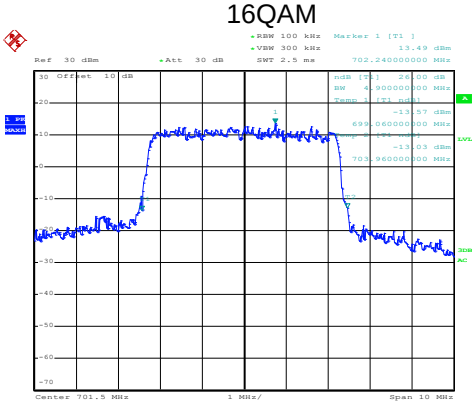


Date: 20.APR.2020 15:03:54

Highest channel

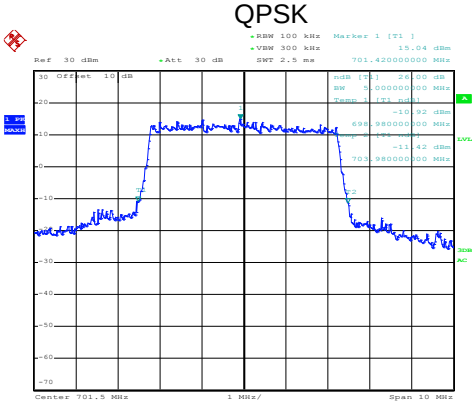
LTE Band 12: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 20.APR.2020 15:05:11

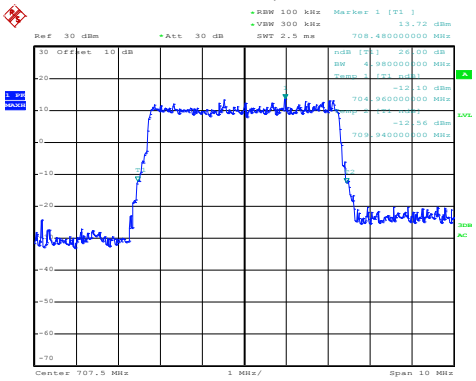
QPSK



Date: 20.APR.2020 15:05:05

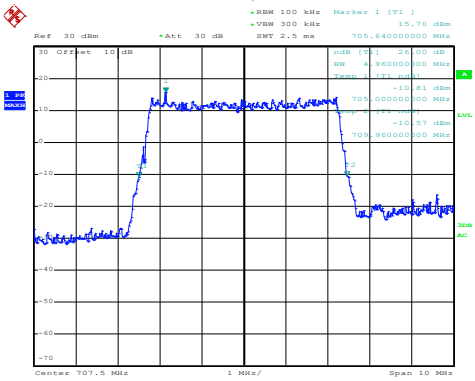
Lowest channel

16QAM



Date: 20.APR.2020 15:05:57

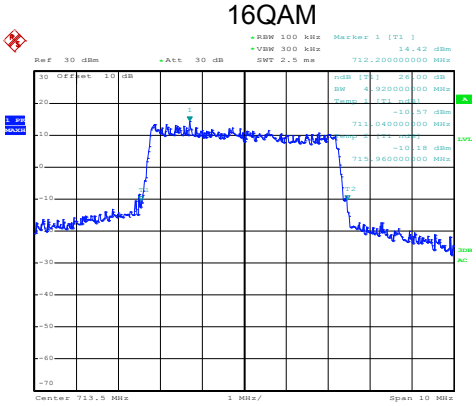
QPSK



Date: 20.APR.2020 15:05:52

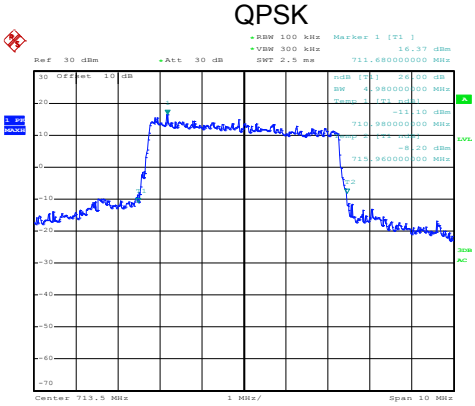
Middle channel

16QAM



Date: 20.APR.2020 15:06:19

QPSK

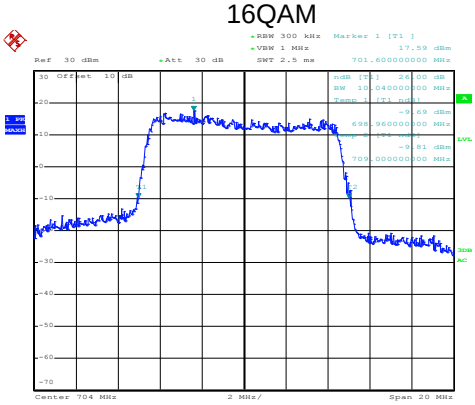


Date: 20.APR.2020 15:06:14

Highest channel

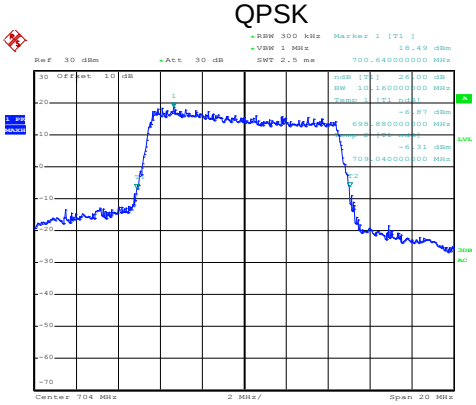
LTE Band 12: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 20.APR.2020 15:07:32

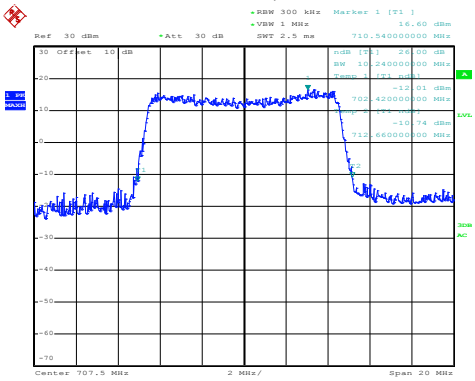
QPSK



Date: 20.APR.2020 15:07:27

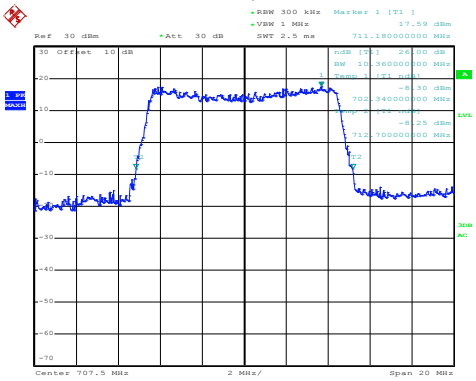
Lowest channel

16QAM



Date: 20.APR.2020 15:07:51

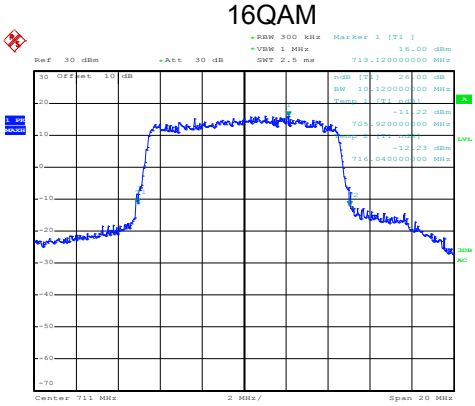
QPSK



Date: 20.APR.2020 15:07:46

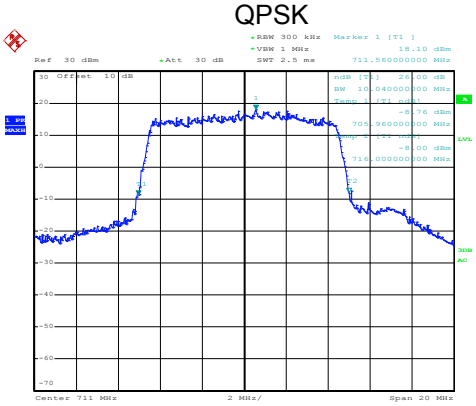
Middle channel

16QAM



Date: 20.APR.2020 15:08:46

QPSK



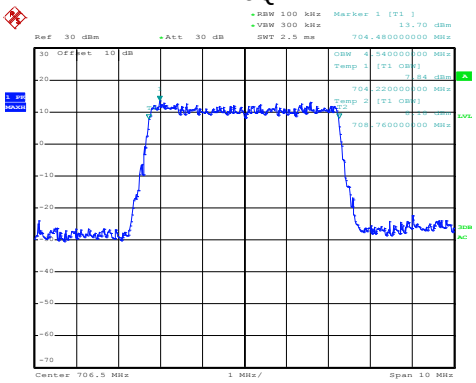
Date: 20.APR.2020 15:08:41

Highest channel

LTE Band 17 part:

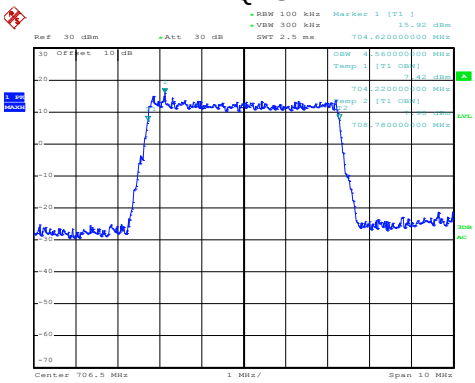
LTE Band 17: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 20.APR.2020 15:09:49

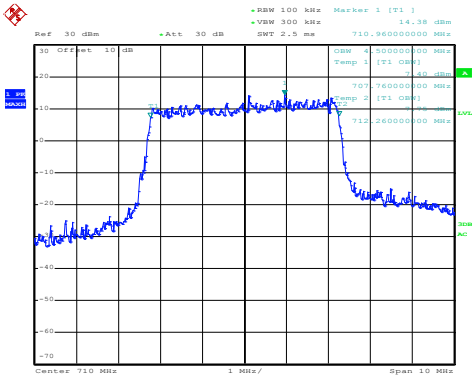
QPSK



Date: 20.APR.2020 15:09:43

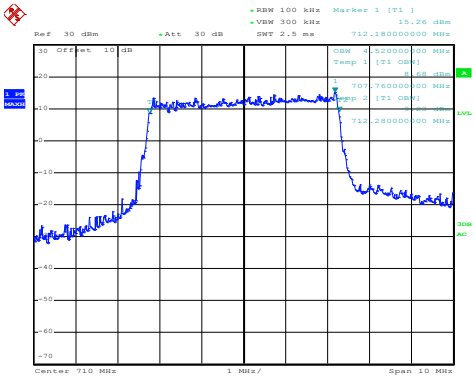
Lowest channel

16QAM



Date: 20.APR.2020 15:10:09

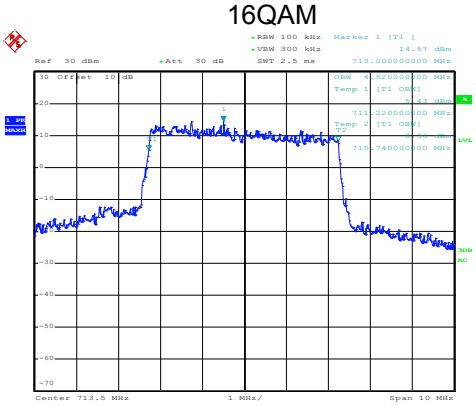
QPSK



Date: 20.APR.2020 15:10:05

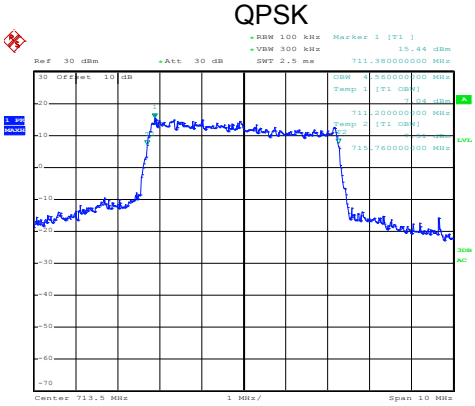
Middle channel

16QAM



Date: 20.APR.2020 15:11:07

QPSK

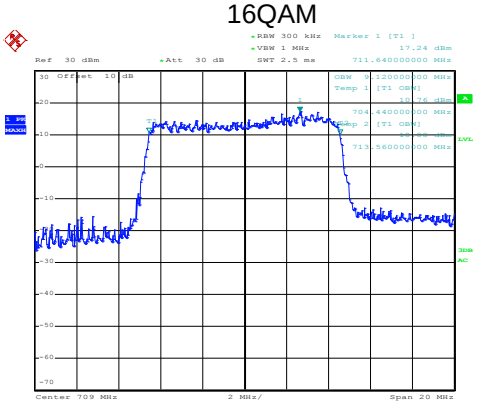


Date: 20.APR.2020 15:11:01

Highest channel

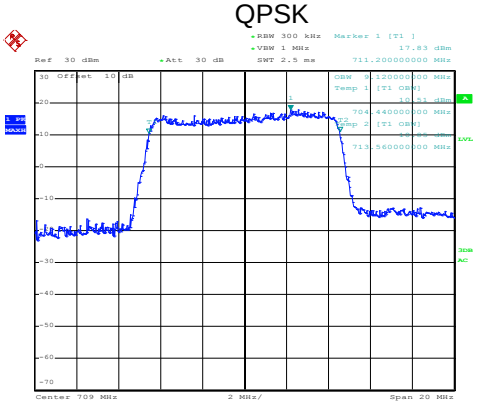
LTE Band 17: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 20.APR.2020 15:12:24

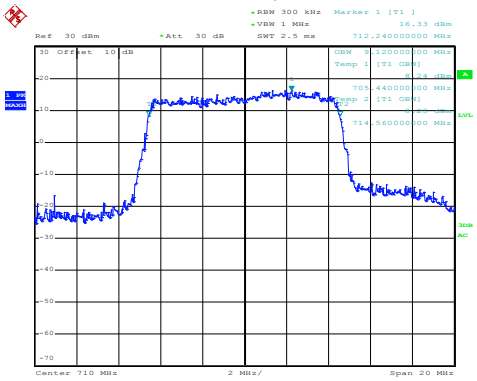
QPSK



Date: 20.APR.2020 15:12:20

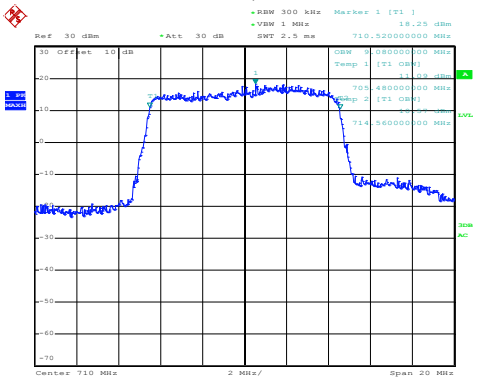
Lowest channel

16QAM



Date: 20.APR.2020 15:13:13

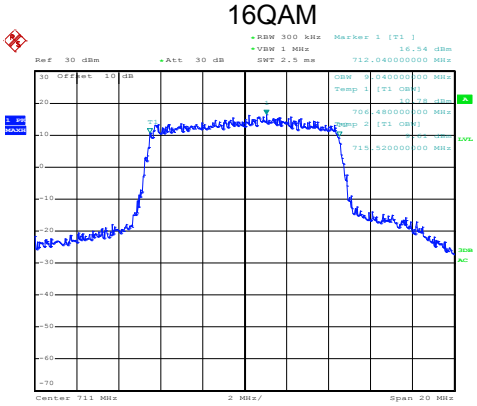
QPSK



Date: 20.APR.2020 15:13:02

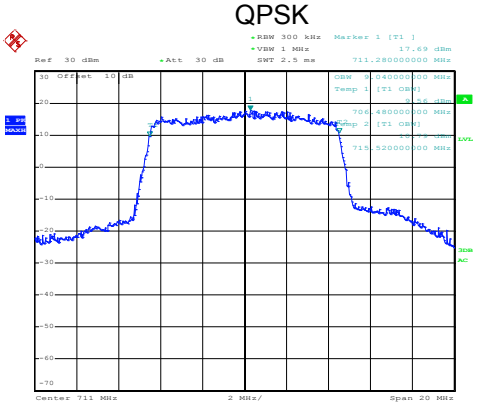
Middle channel

16QAM



Date: 20.APR.2020 15:13:35

QPSK

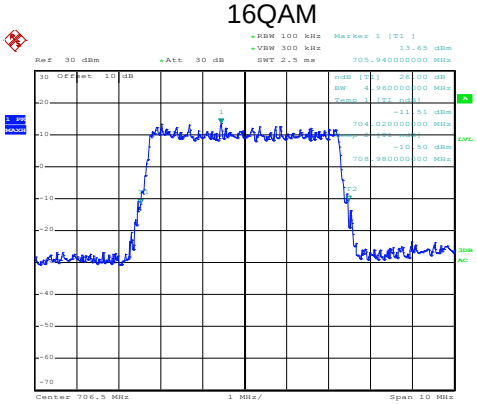


Date: 20.APR.2020 15:13:30

Highest channel

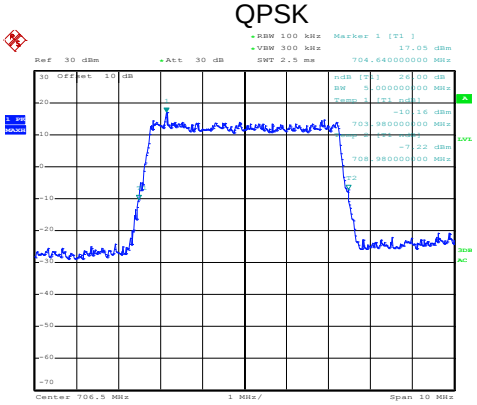
LTE Band 17: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 20.APR.2020 15:09:33

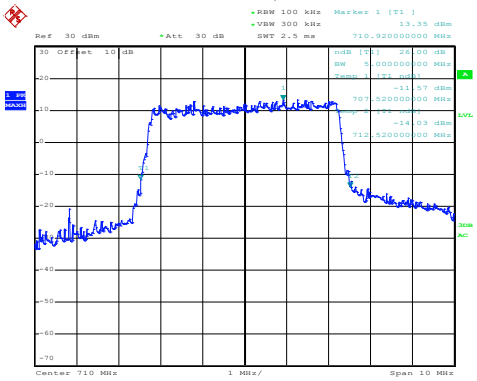
QPSK



Date: 20.APR.2020 15:09:29

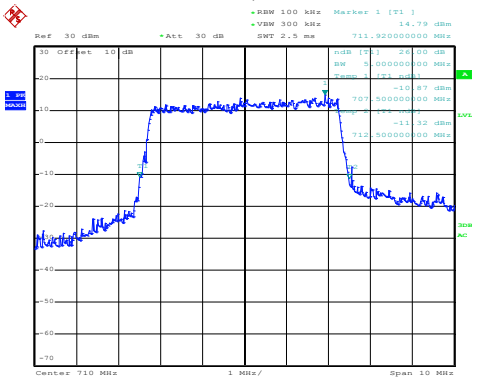
Lowest channel

16QAM



Date: 20.APR.2020 15:10:32

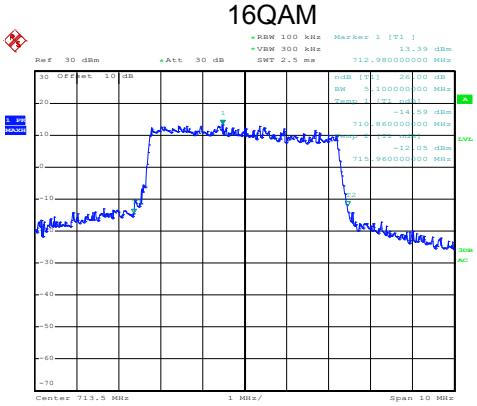
QPSK



Date: 20.APR.2020 15:10:26

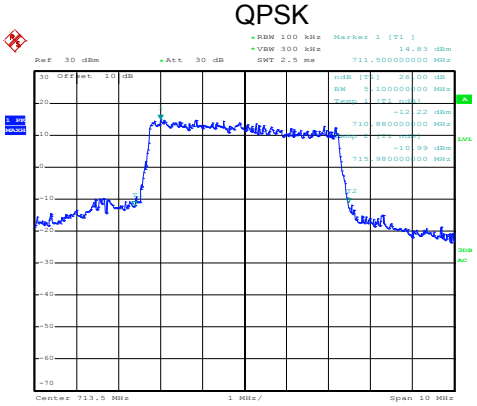
Middle channel

16QAM



Date: 20.APR.2020 15:11:20

QPSK

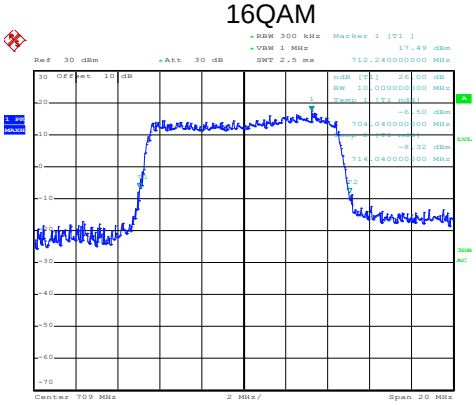


Date: 20.APR.2020 15:11:14

Highest channel

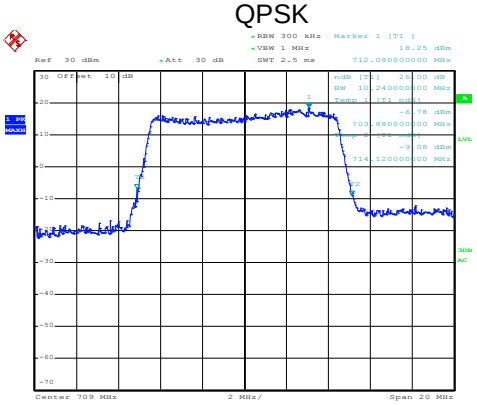
LTE Band 17: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 20.APR.2020 15:12:12

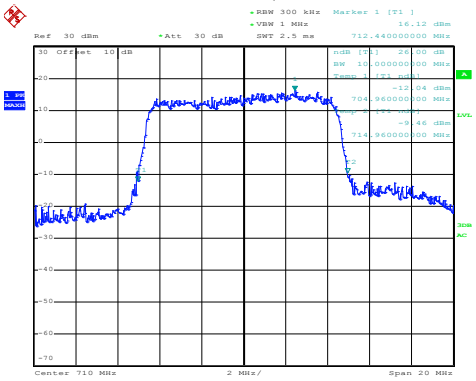
QPSK



Date: 20.APR.2020 15:12:07

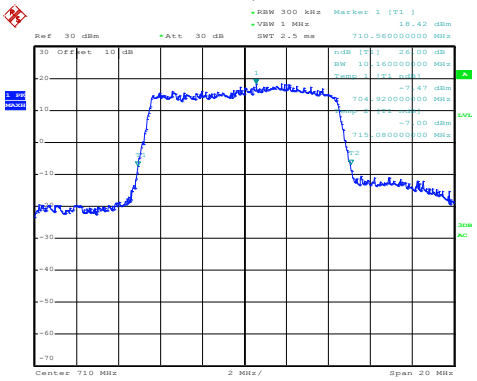
Lowest channel

16QAM



Date: 20.APR.2020 15:12:54

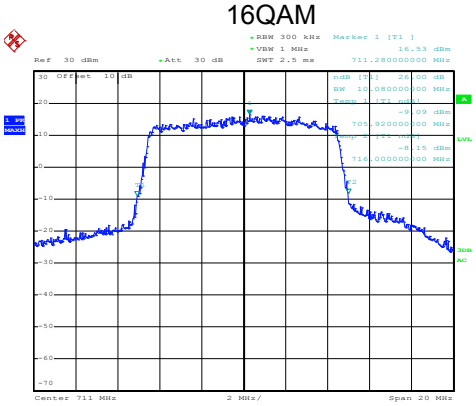
QPSK



Date: 20.APR.2020 15:12:50

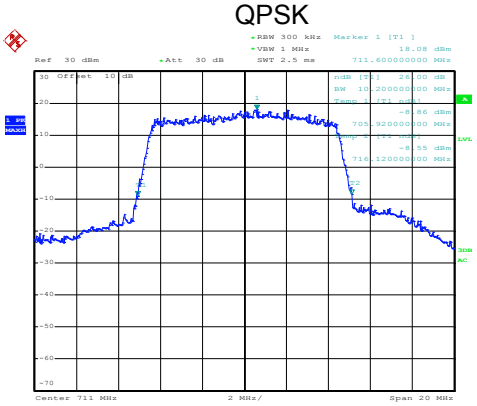
Middle channel

16QAM



Date: 20.APR.2020 15:13:51

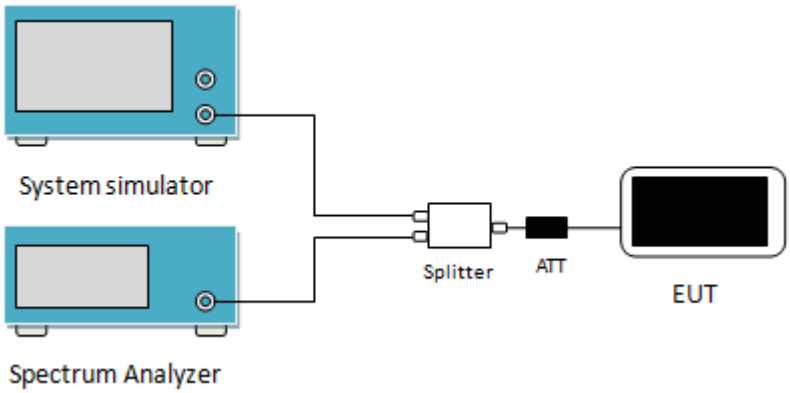
QPSK



Date: 20.APR.2020 15:13:44

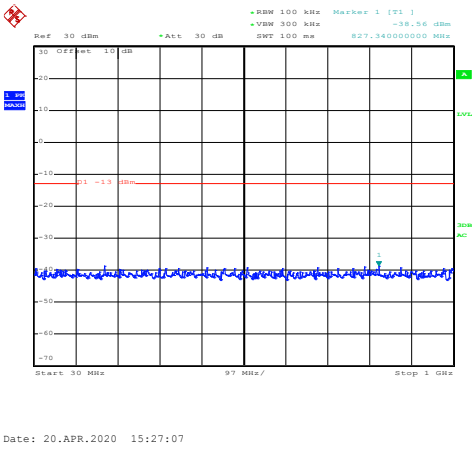
Highest channel

6.4 Out of band emission at antenna terminals

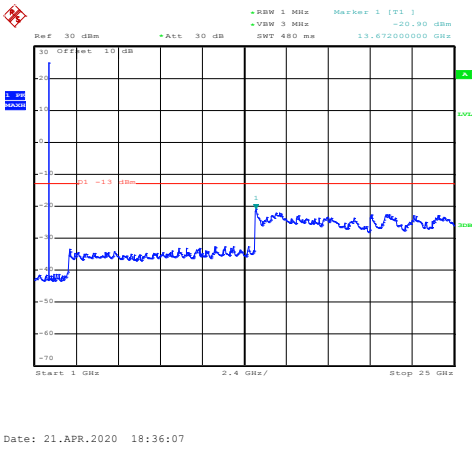
Test Requirement:	Part 22.917(a), Part 24.238 (a), part 27.53(g), part 27.53(h),
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm).
Test Setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 For the out of band: For Band 5 & 12 & 17 set the RBW=100 kHz, VBW=300 kHz and for Band 2 & 4 & 7 set the RBW=1 MHz, VBW=3 MHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic. 3 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

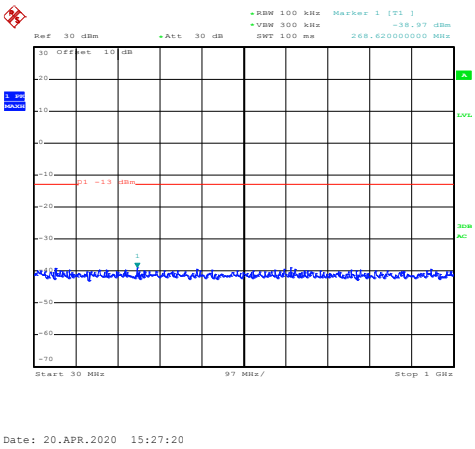


30MHz~1GHz

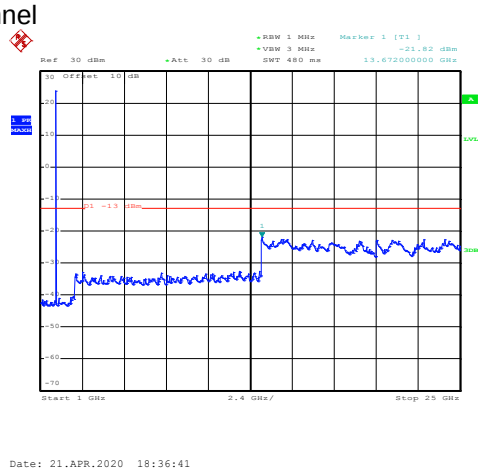


1GHz~25GHz

Middle channel

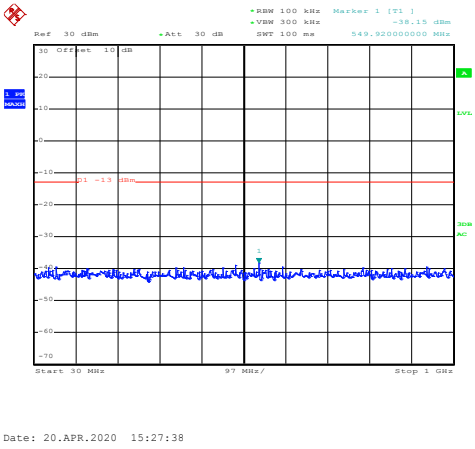


30MHz~1GHz

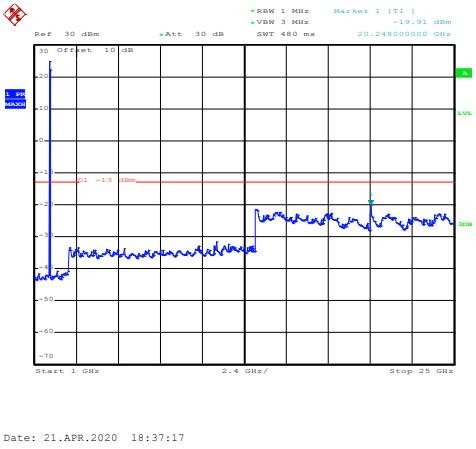


1GHz~25GHz

High channel

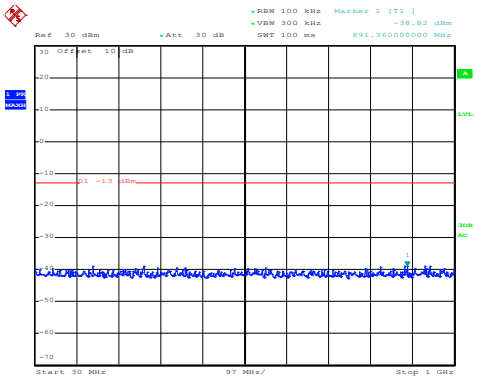


30MHz~1GHz



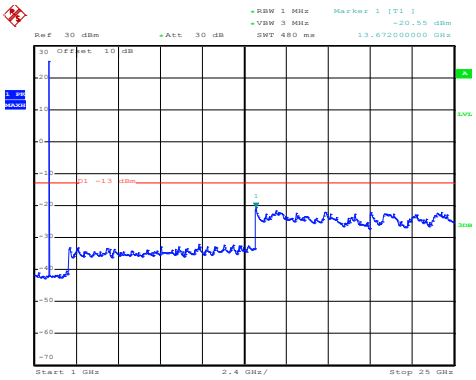
1GHz~25GHz

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



Date: 20.APR.2020 15:27:01

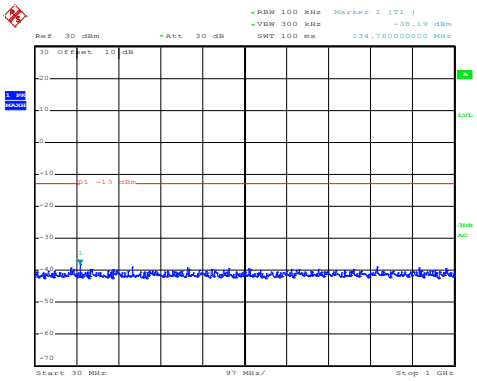
30MHz~1GHz



Date: 21.APR.2020 18:35:55

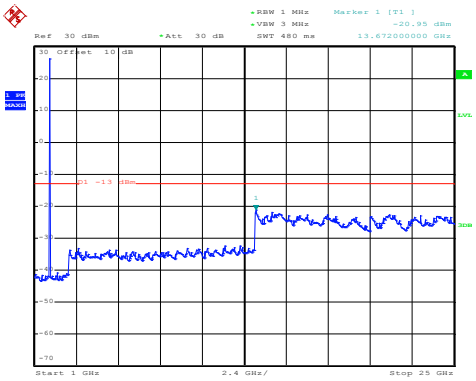
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:27:14

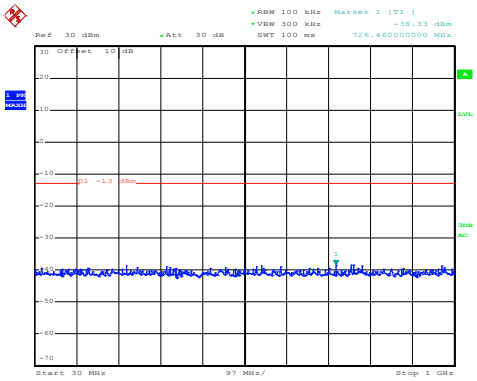
30MHz~1GHz



Date: 21.APR.2020 18:36:33

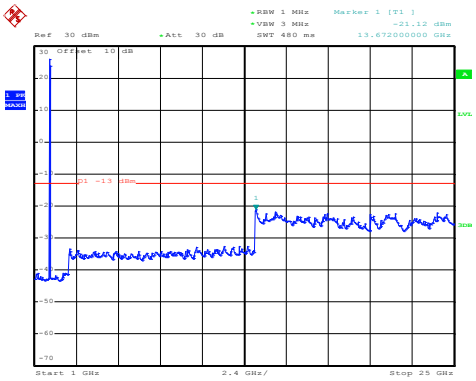
1GHz~25GHz

High channel



Date: 20.APR.2020 15:27:35

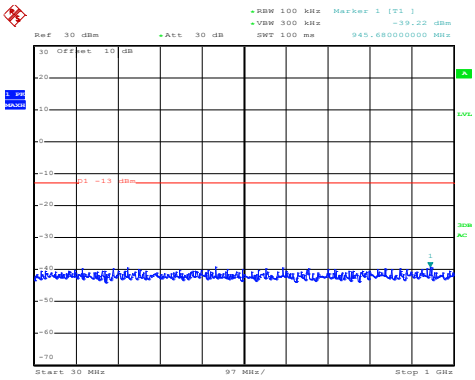
30MHz~1GHz



Date: 21.APR.2020 18:37:02

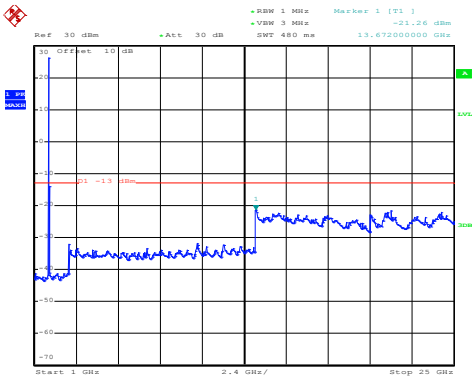
1GHz~25GHz

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



Date: 20.APR.2020 15:27:56

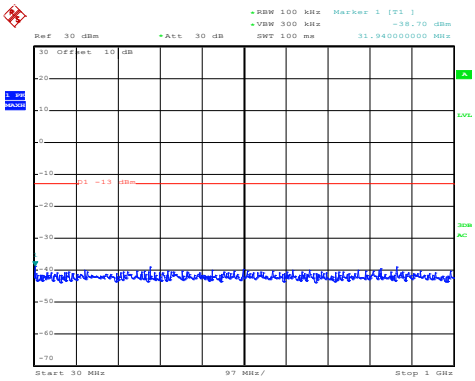
30MHz~1GHz



Date: 21.APR.2020 18:38:09

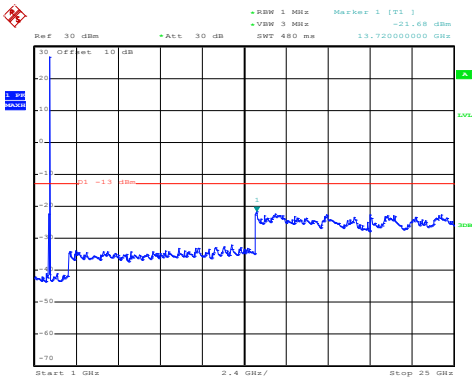
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:28:08

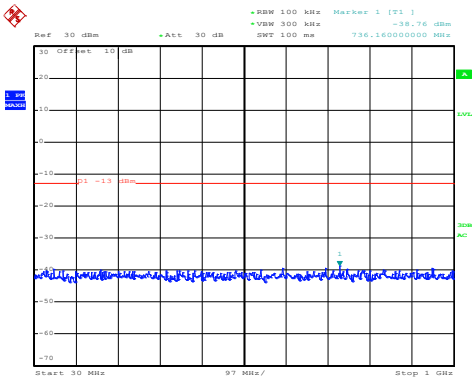
30MHz~1GHz



Date: 21.APR.2020 18:38:44

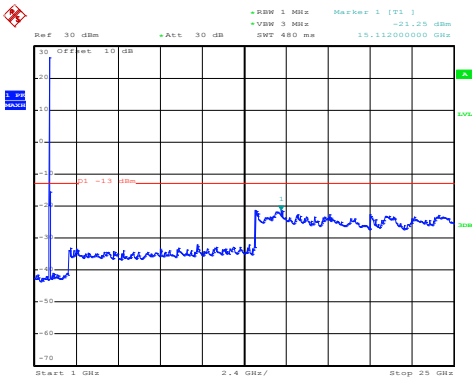
1GHz~25GHz

High channel



Date: 20.APR.2020 15:28:19

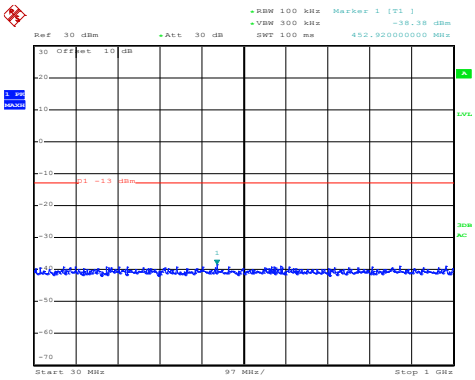
30MHz~1GHz



Date: 21.APR.2020 18:39:14

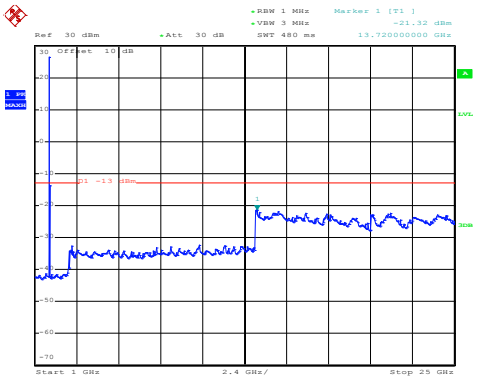
1GHz~25GHz

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



Date: 20.APR.2020 15:27:53

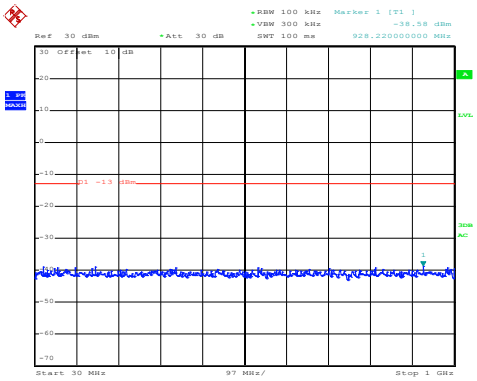
30MHz~1GHz



Date: 21.APR.2020 18:37:59

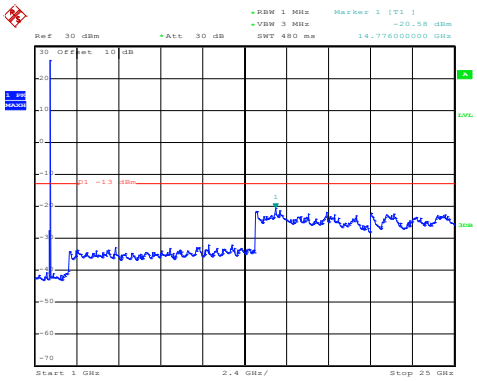
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:28:05

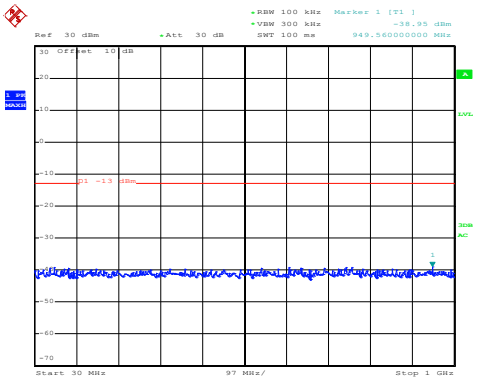
30MHz~1GHz



Date: 21.APR.2020 18:38:34

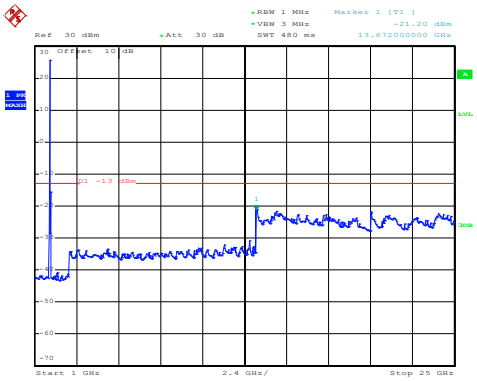
1GHz~25GHz

High channel



Date: 20.APR.2020 15:28:16

30MHz~1GHz

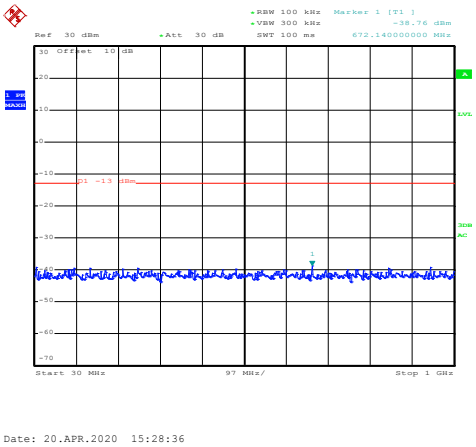


Date: 21.APR.2020 18:39:01

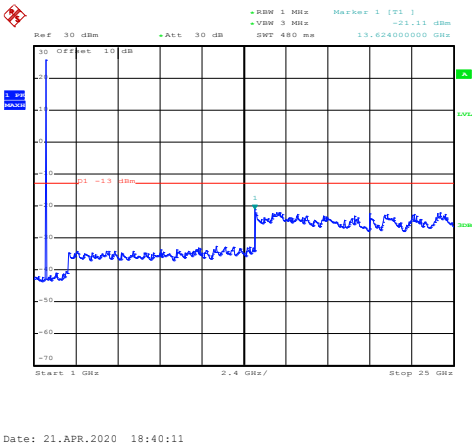
1GHz~25GHz

LTE Band 4 part:

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

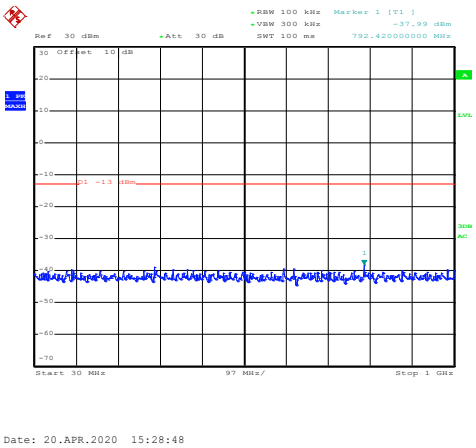


30MHz~1GHz

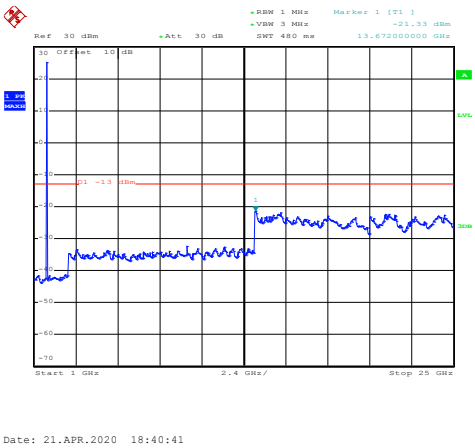


1GHz~25GHz

Middle channel

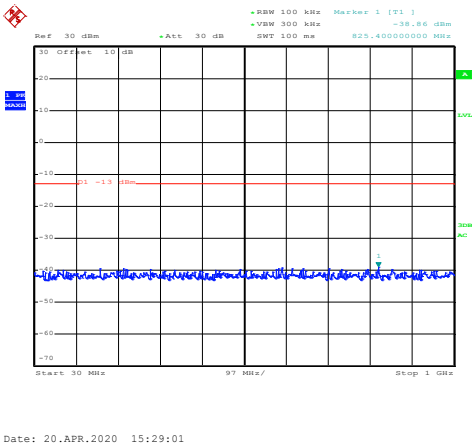


30MHz~1GHz

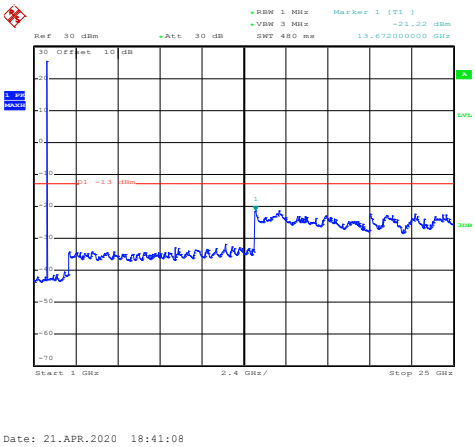


1GHz~25GHz

High channel

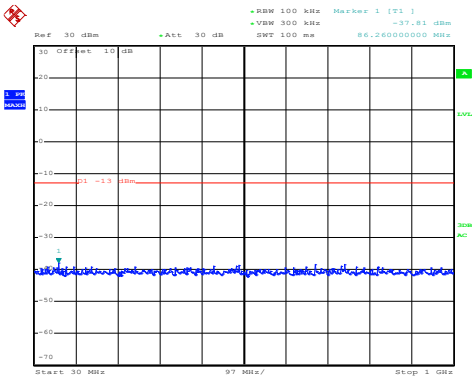


30MHz~1GHz



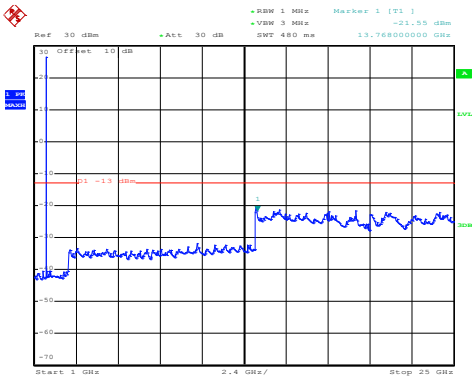
1GHz~25GHz

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



Date: 20.APR.2020 15:28:32

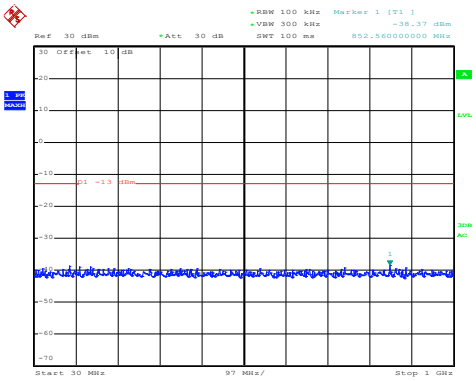
30MHz~1GHz



Date: 21.APR.2020 18:39:59

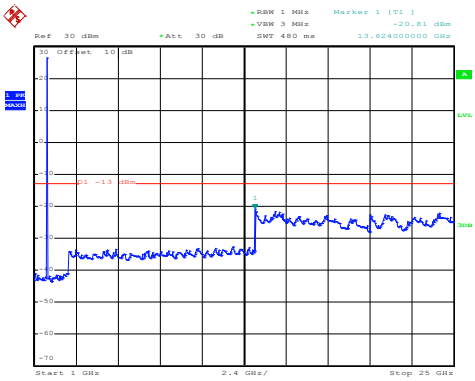
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:28:45

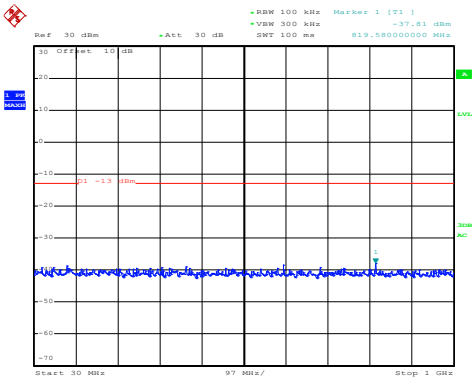
30MHz~1GHz



Date: 21.APR.2020 18:40:30

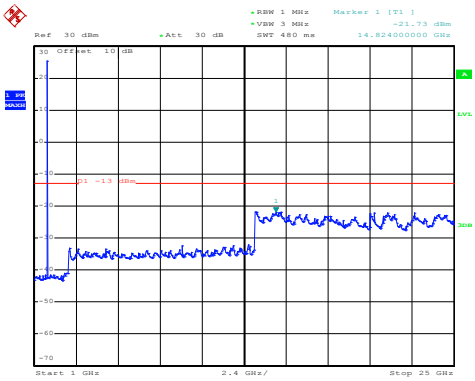
1GHz~25GHz

High channel



Date: 20.APR.2020 15:28:57

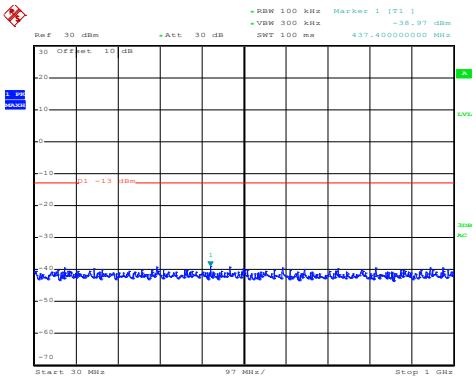
30MHz~1GHz



Date: 21.APR.2020 18:40:59

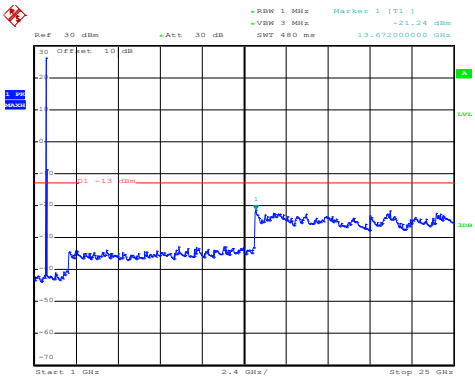
1GHz~25GHz

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



Date: 20.APR.2020 15:29:19

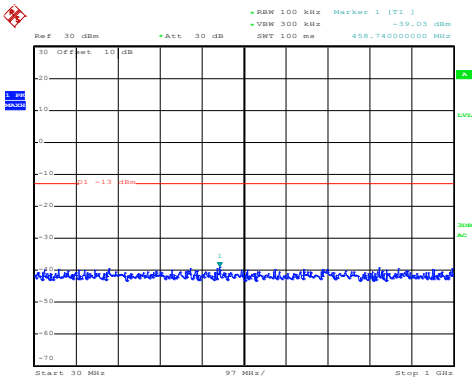
30MHz~1GHz



Date: 21.APR.2020 18:42:08

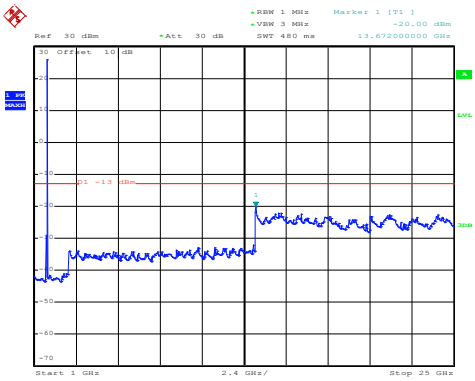
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:29:32

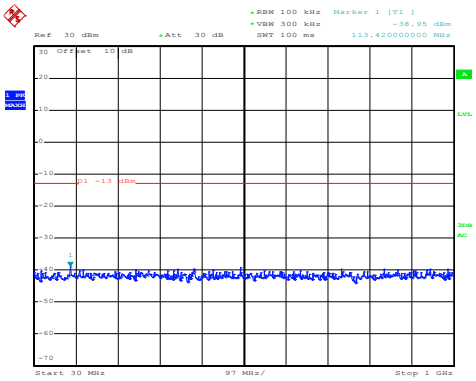
30MHz~1GHz



Date: 21.APR.2020 18:42:35

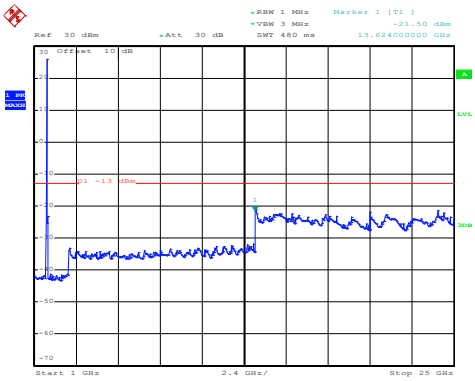
1GHz~25GHz

High channel



Date: 20.APR.2020 15:29:44

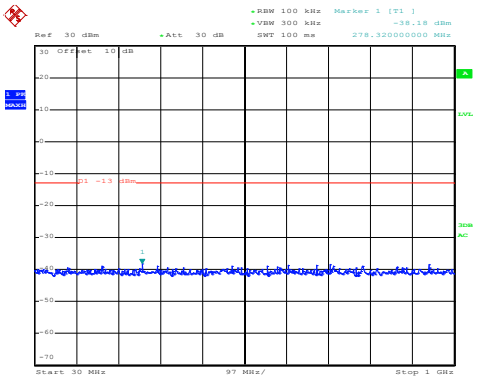
30MHz~1GHz



Date: 21.APR.2020 18:43:06

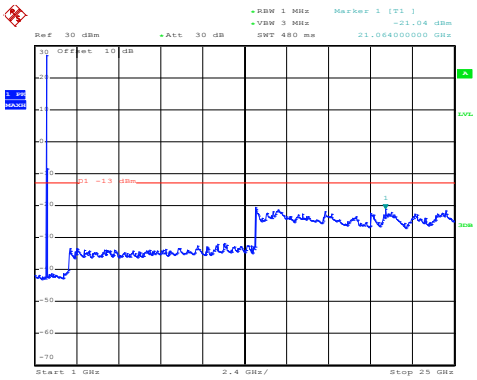
1GHz~25GHz

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



Date: 20.APR.2020 15:29:15

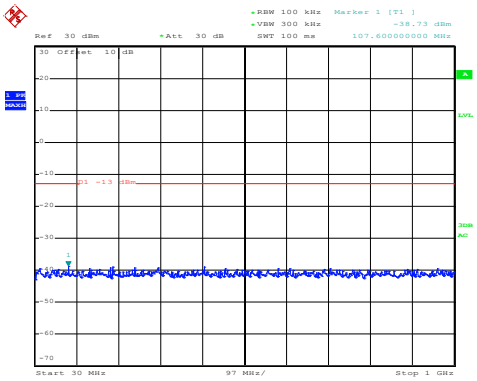
30MHz~1GHz



Date: 21.APR.2020 18:41:58

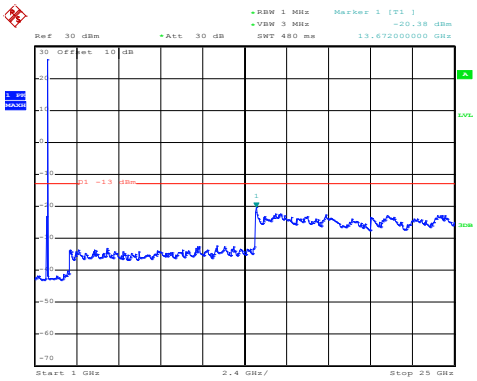
1GHz~25GHz

Middle channel



Date: 20.APR.2020 15:29:28

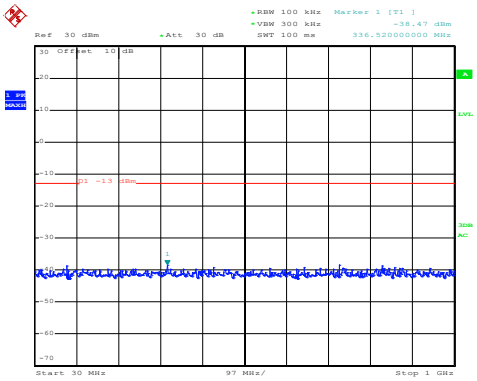
30MHz~1GHz



Date: 21.APR.2020 18:42:26

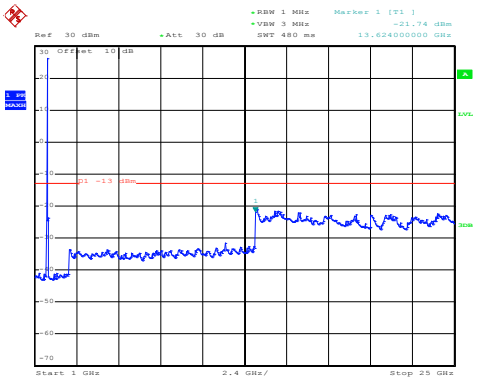
1GHz~25GHz

High channel



Date: 20.APR.2020 15:29:40

30MHz~1GHz

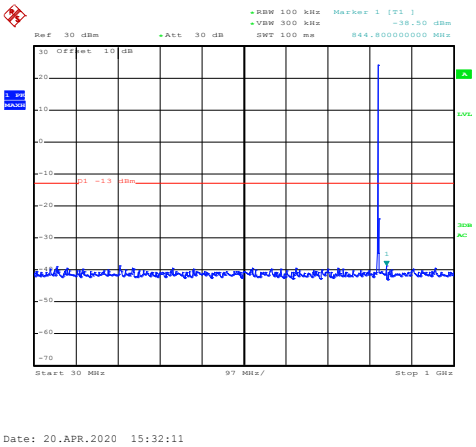


Date: 21.APR.2020 18:42:53

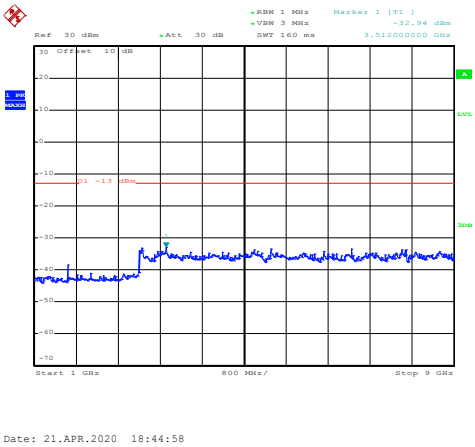
1GHz~25GHz

LTE Band 5 part:

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

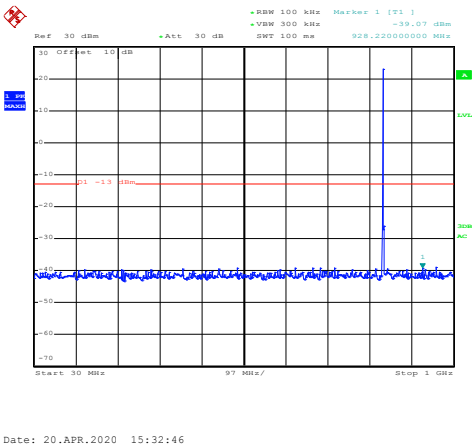


30MHz~1GHz

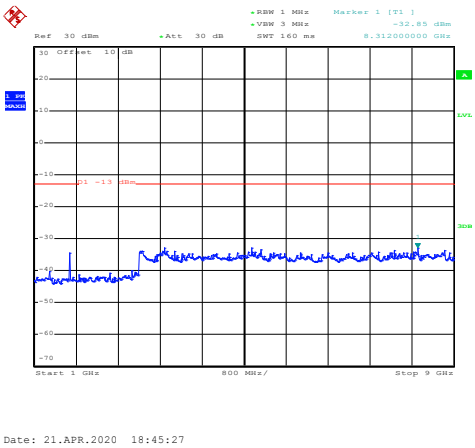


1GHz~9GHz

Middle channel

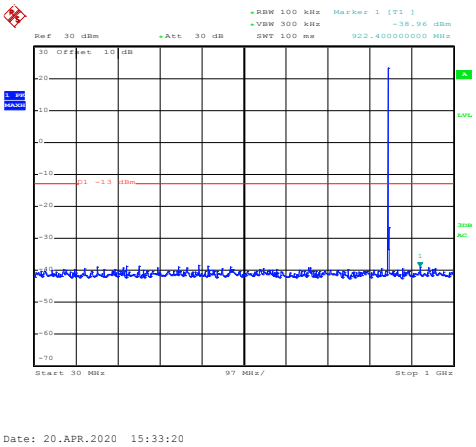


30MHz~1GHz

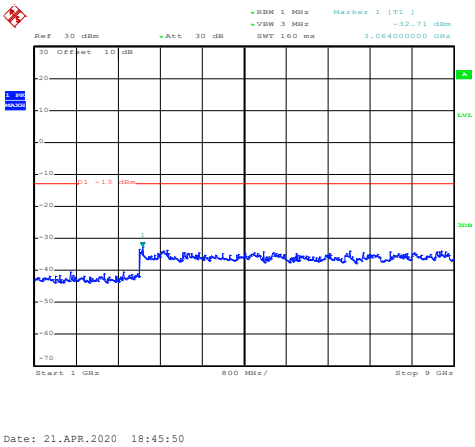


1GHz~9GHz

High channel

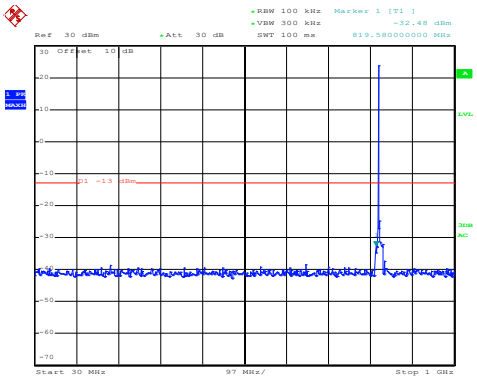


30MHz~1GHz

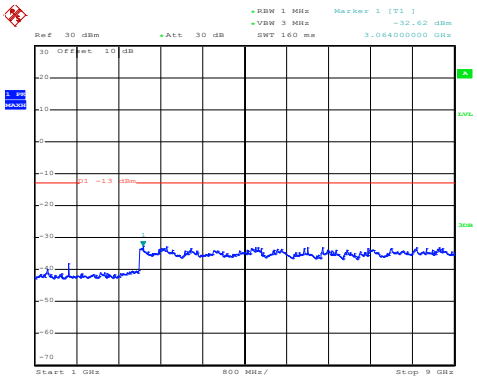


1GHz~9GHz

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

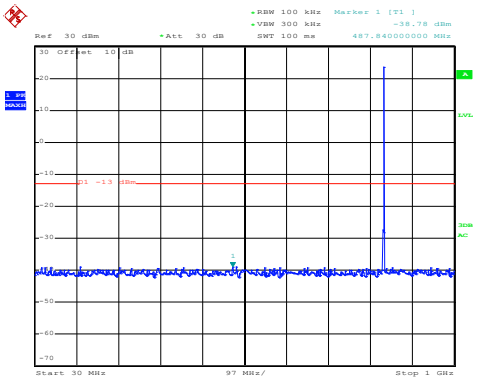


30MHz~1GHz

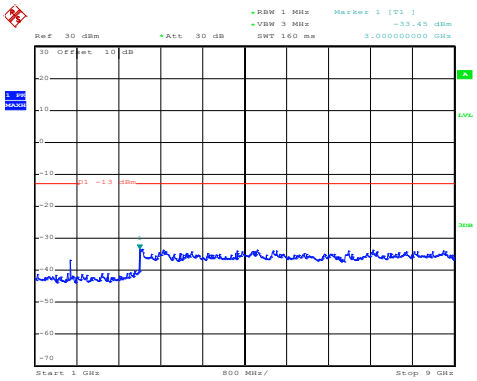


1GHz~9GHz

Middle channel

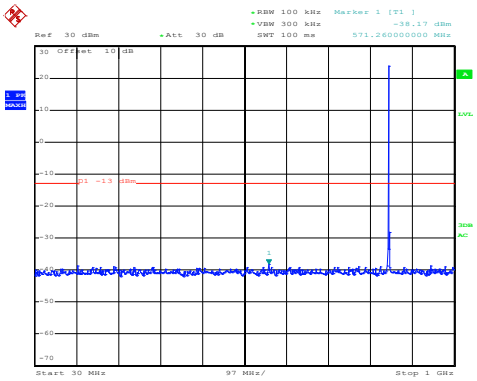


30MHz~1GHz

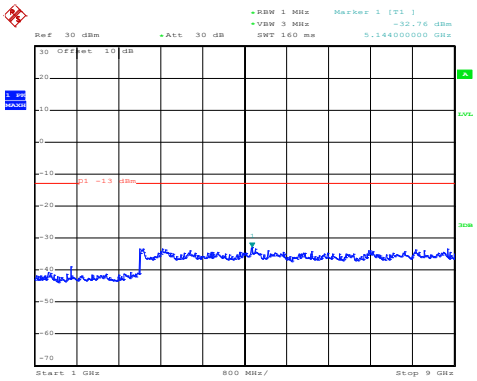


1GHz~9GHz

High channel

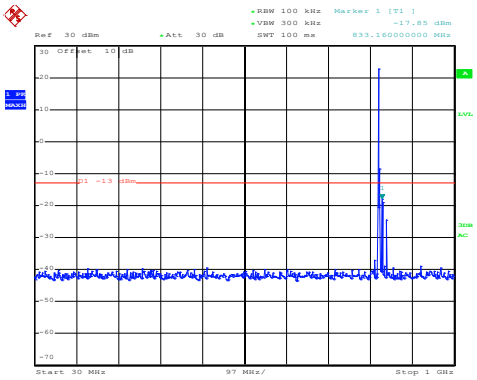


30MHz~1GHz



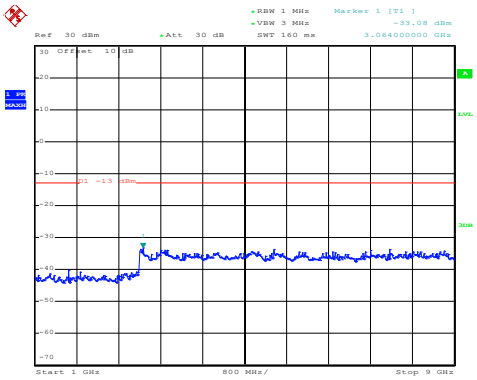
1GHz~9GHz

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



Date: 20.APR.2020 15:34:16

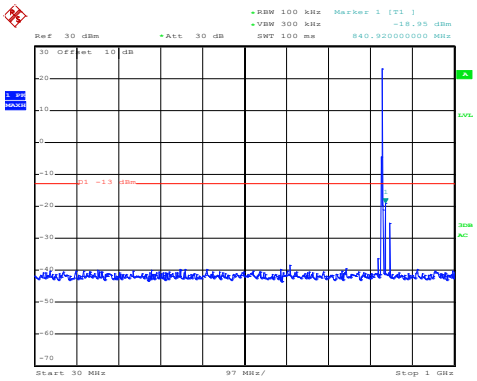
30MHz~1GHz



Date: 21.APR.2020 18:47:10

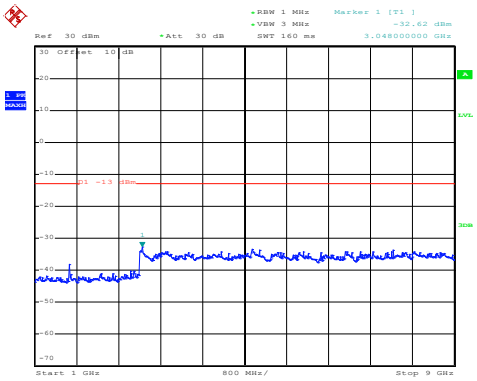
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:34:49

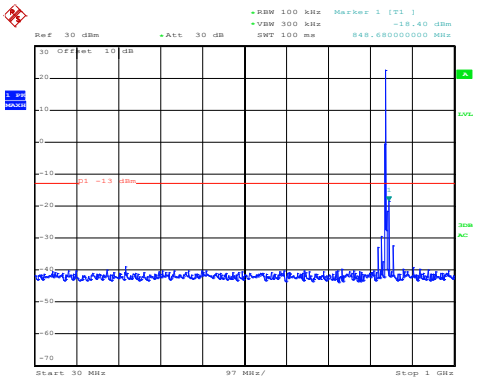
30MHz~1GHz



Date: 21.APR.2020 18:47:38

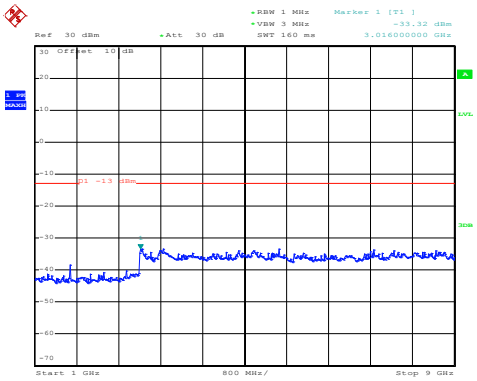
1GHz~9GHz

High channel



Date: 20.APR.2020 15:35:17

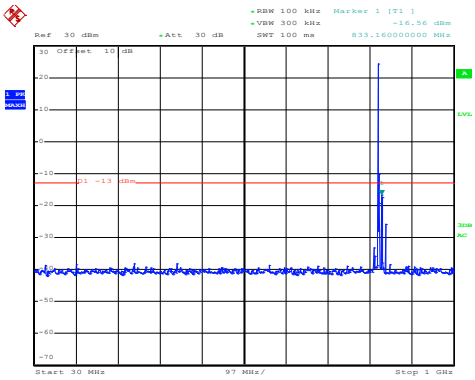
30MHz~1GHz



Date: 21.APR.2020 18:48:06

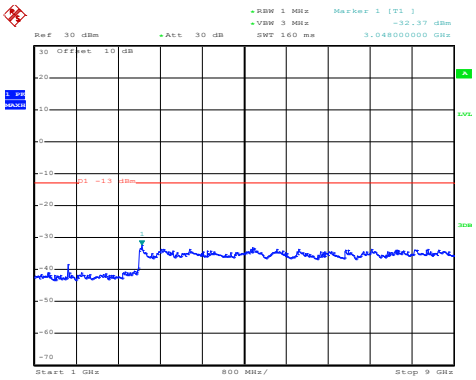
1GHz~9GHz

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



Date: 20.APR.2020 15:34:10

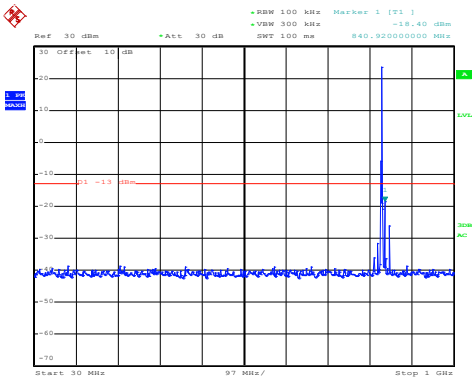
30MHz~1GHz



Date: 21.APR.2020 18:47:01

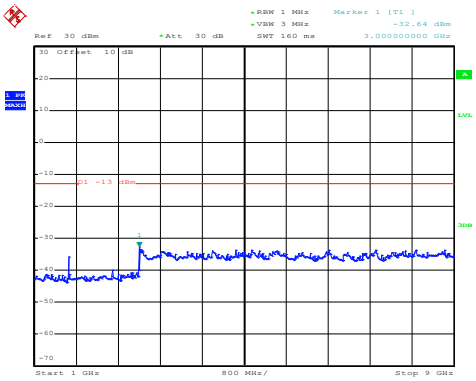
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:34:43

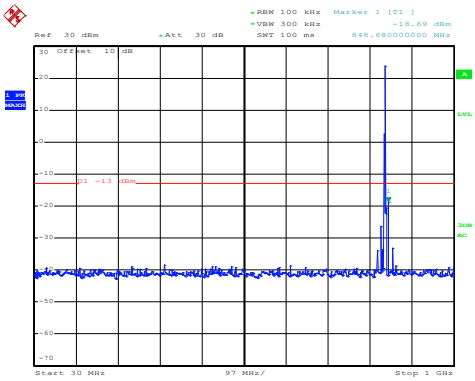
30MHz~1GHz



Date: 21.APR.2020 18:47:28

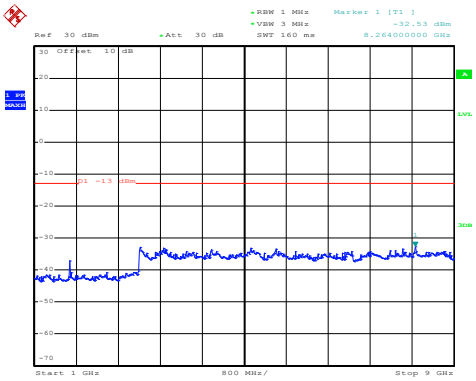
1GHz~9GHz

High channel



Date: 20.APR.2020 15:35:10

30MHz~1GHz

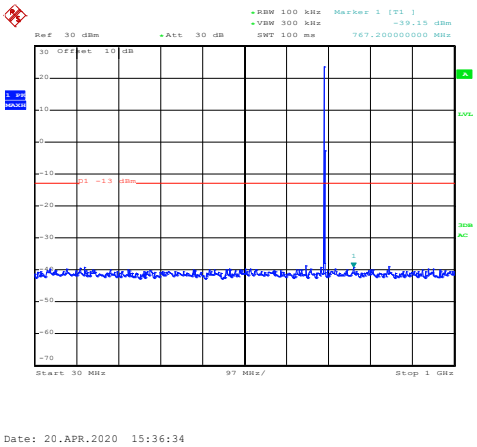


Date: 21.APR.2020 18:47:57

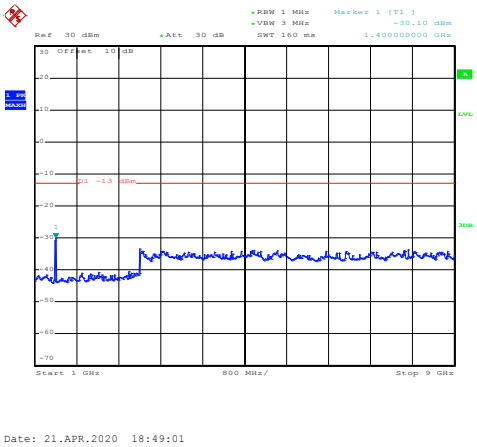
1GHz~9GHz

LTE Band 12 part:

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

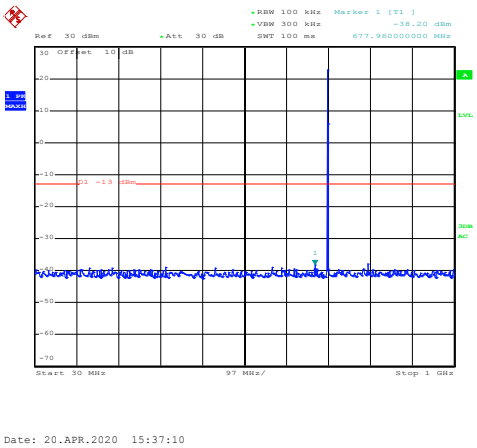


30MHz~1GHz

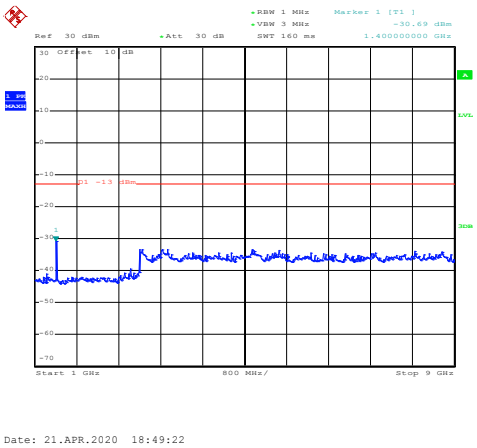


1GHz~9GHz

Middle channel

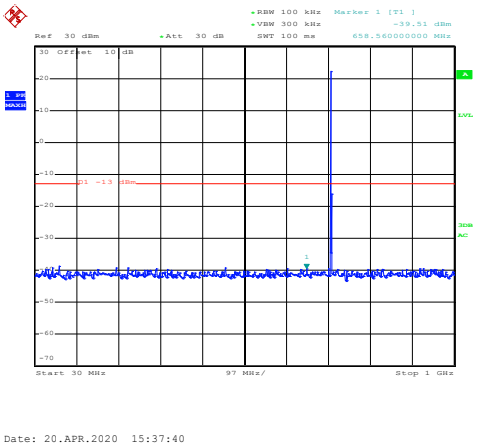


30MHz~1GHz

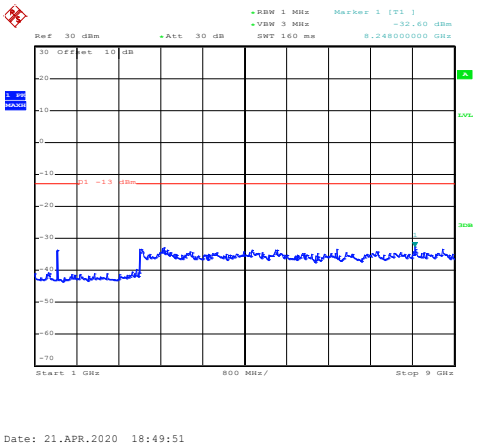


1GHz~9GHz

High channel

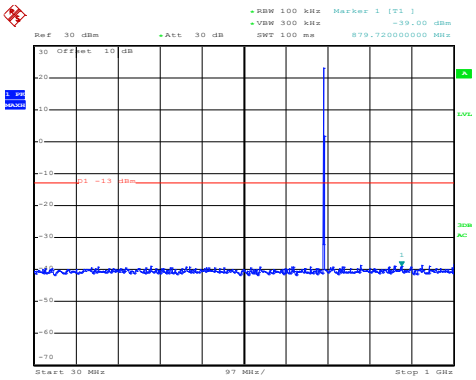


30MHz~1GHz



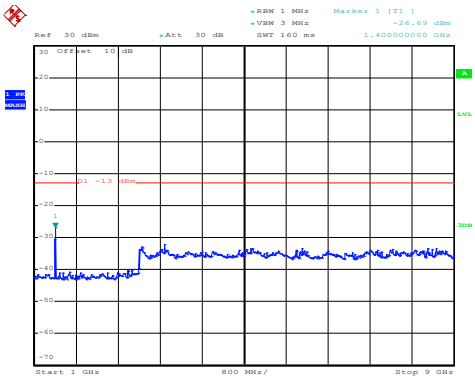
1GHz~9GHz

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



Date: 20.APR.2020 15:36:23

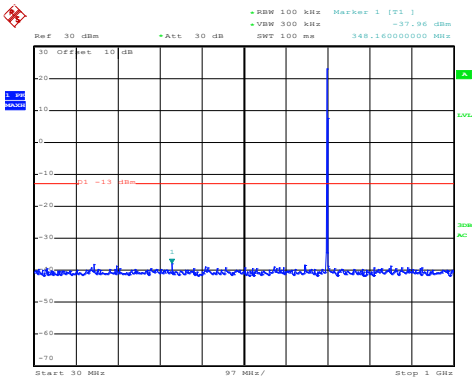
30MHz~1GHz



Date: 21.APR.2020 18:48:51

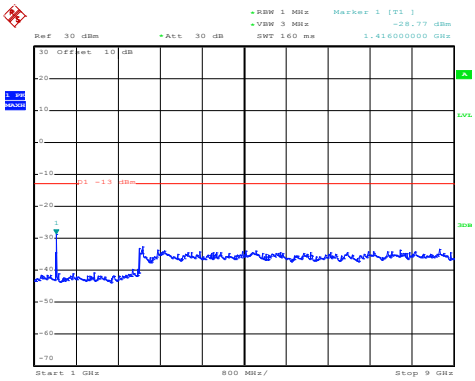
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:37:00

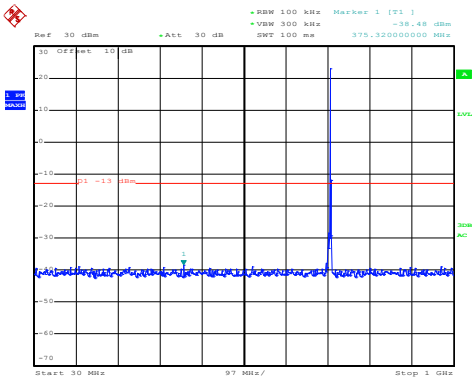
30MHz~1GHz



Date: 21.APR.2020 18:49:14

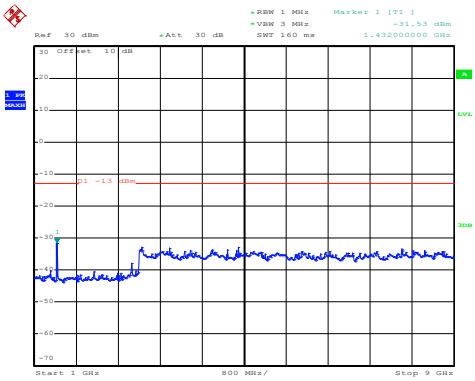
1GHz~9GHz

High channel



Date: 20.APR.2020 15:37:31

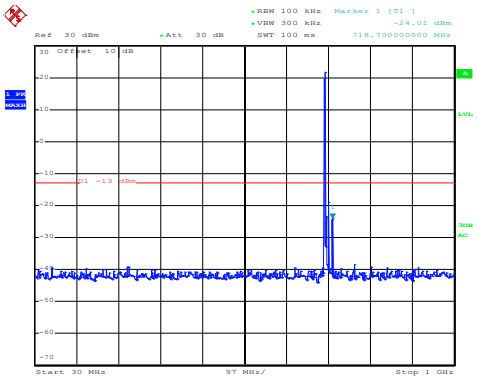
30MHz~1GHz



Date: 21.APR.2020 18:49:39

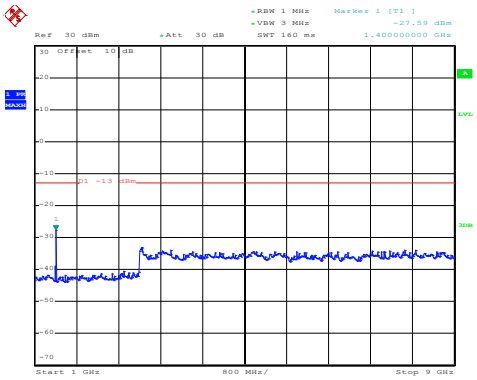
1GHz~9GHz

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



Date: 20.APR.2020 15:38:42

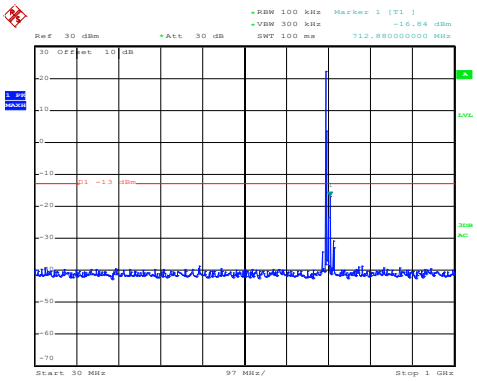
30MHz~1GHz



Date: 21.APR.2020 18:50:45

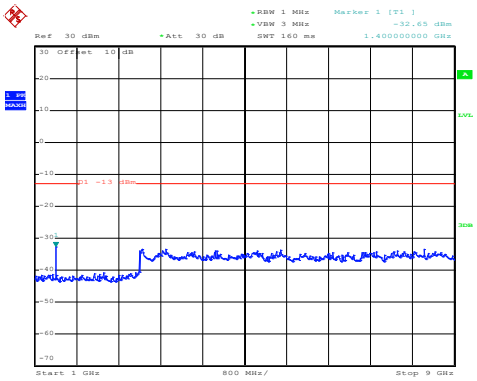
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:39:14

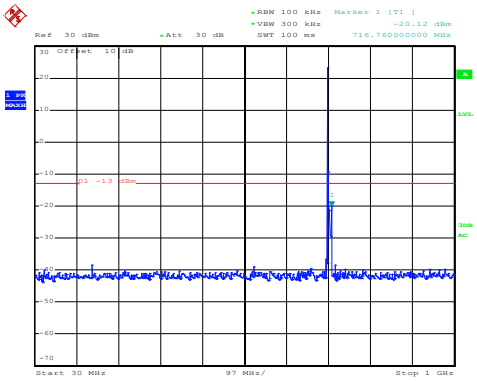
30MHz~1GHz



Date: 21.APR.2020 18:51:10

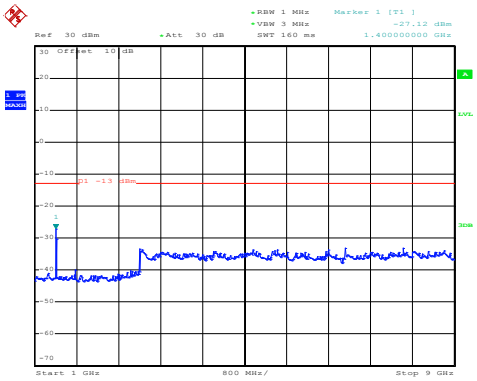
1GHz~9GHz

High channel



Date: 20.APR.2020 15:39:37

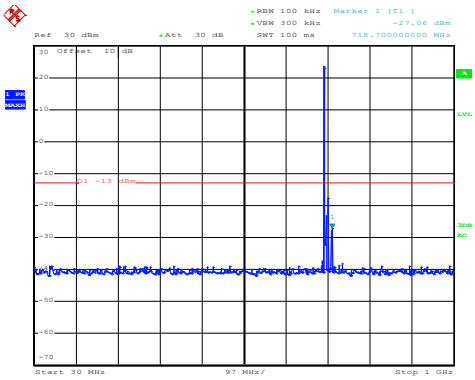
30MHz~1GHz



Date: 21.APR.2020 18:51:42

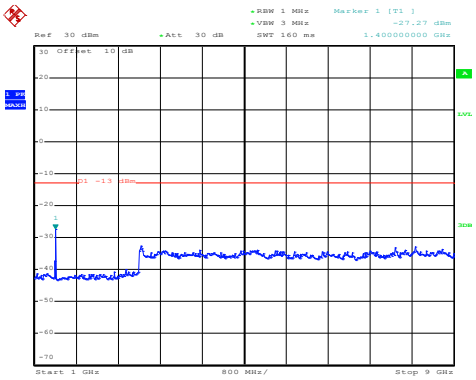
1GHz~9GHz

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



Date: 20.APR.2020 15:38:35

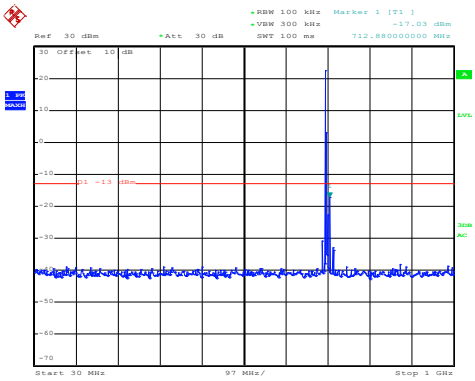
30MHz~1GHz



Date: 21.APR.2020 18:50:35

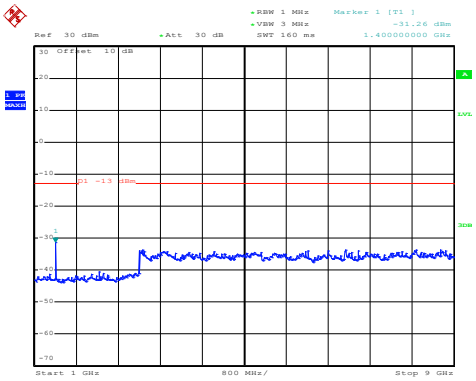
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:39:04

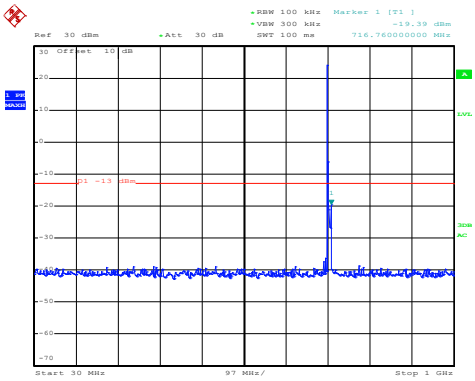
30MHz~1GHz



Date: 21.APR.2020 18:51:00

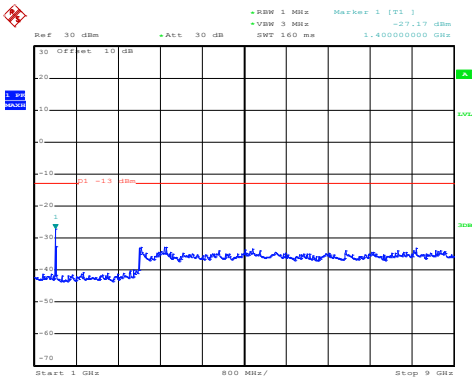
1GHz~9GHz

High channel



Date: 20.APR.2020 15:39:27

30MHz~1GHz

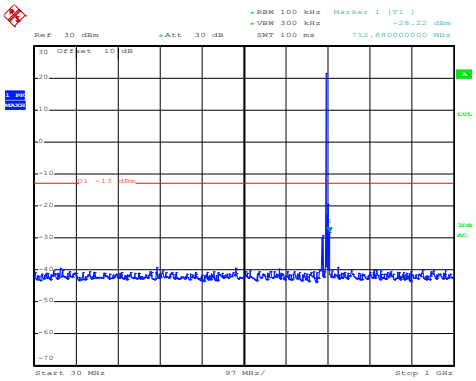


Date: 21.APR.2020 18:51:30

1GHz~9GHz

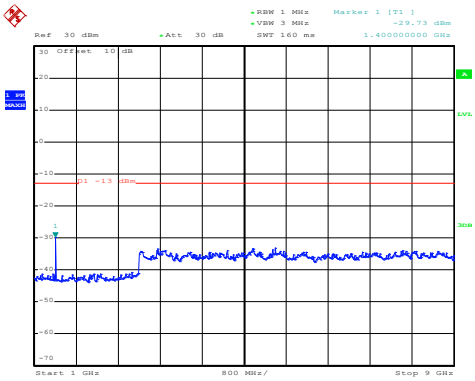
LTE Band 17 part:

LTE Band 17: 16 QAM & RB Size 1
BW: 5MHz
Lowest channel



Date: 20.APR.2020 15:40:28

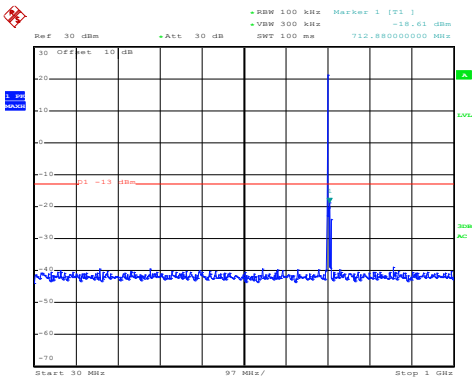
30MHz~1GHz



Date: 21.APR.2020 18:52:38

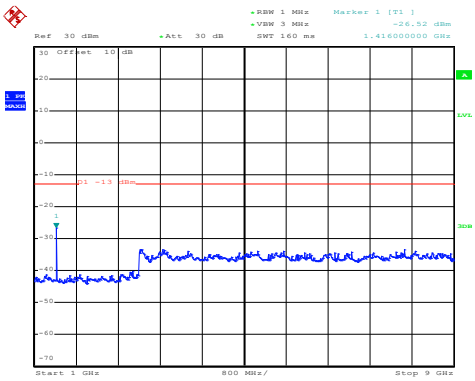
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:40:48

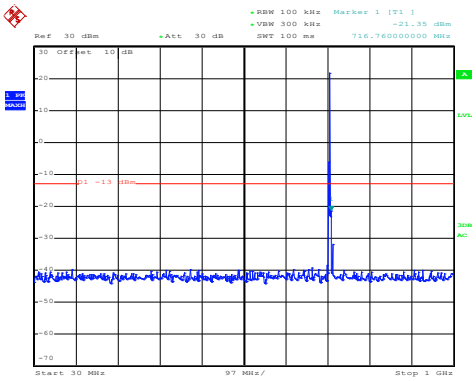
30MHz~1GHz



Date: 21.APR.2020 18:53:05

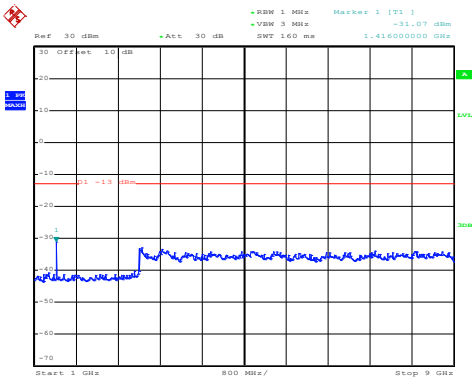
1GHz~9GHz

High channel



Date: 20.APR.2020 15:41:12

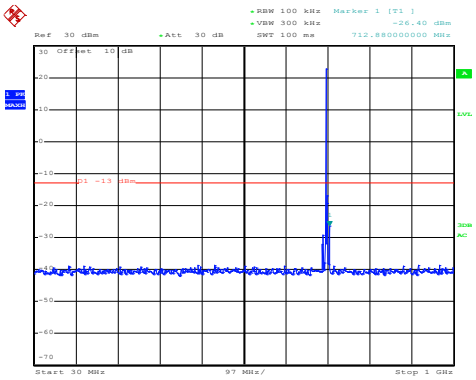
30MHz~1GHz



Date: 21.APR.2020 18:53:37

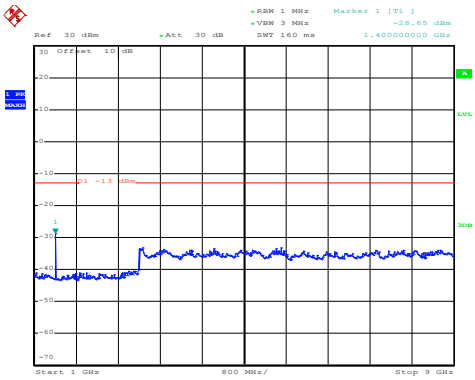
1GHz~9GHz

LTE Band 17: QPSK & RB Size 1
BW: 5MHz
Lowest channel



Date: 20.APR.2020 15:40:22

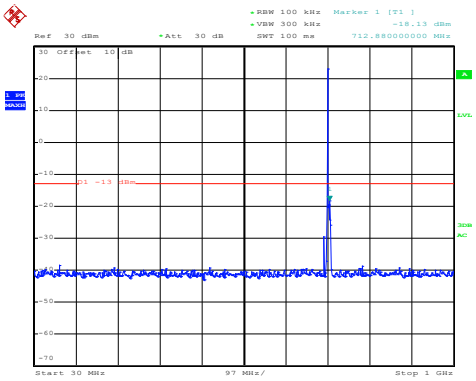
30MHz~1GHz



Date: 21.APR.2020 18:52:26

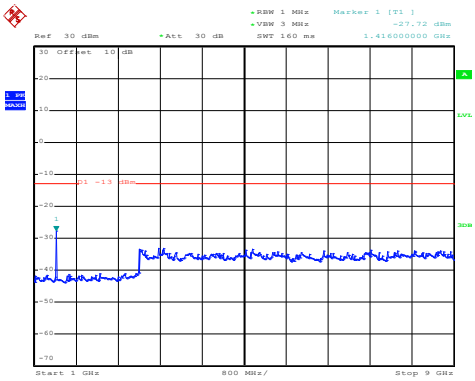
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:40:41

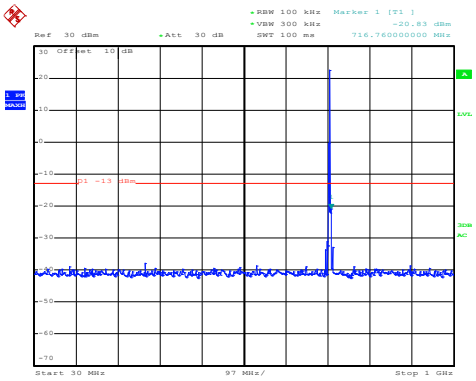
30MHz~1GHz



Date: 21.APR.2020 18:52:56

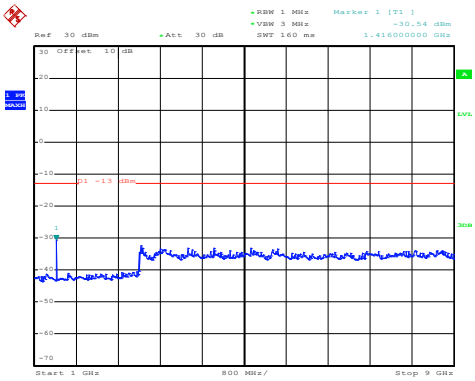
1GHz~9GHz

High channel



Date: 20.APR.2020 15:41:06

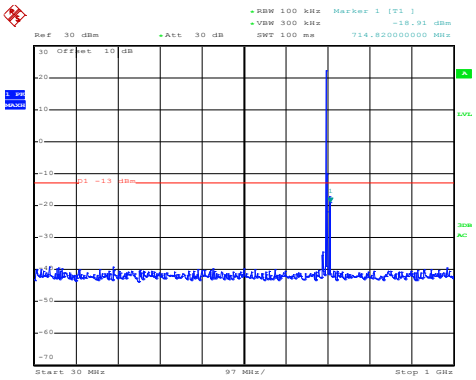
30MHz~1GHz



Date: 21.APR.2020 18:53:25

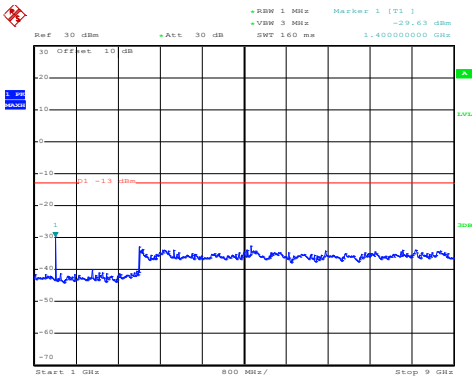
1GHz~9GHz

LTE Band 17: 16 QAM & RB Size 1
BW: 10MHz
Lowest channel



Date: 20.APR.2020 15:42:04

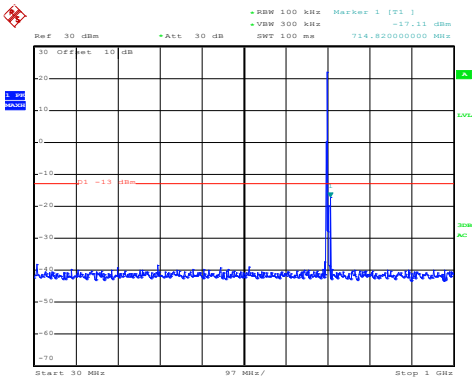
30MHz~1GHz



Date: 21.APR.2020 18:54:29

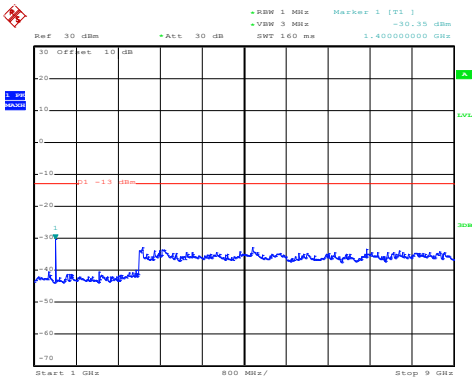
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:42:25

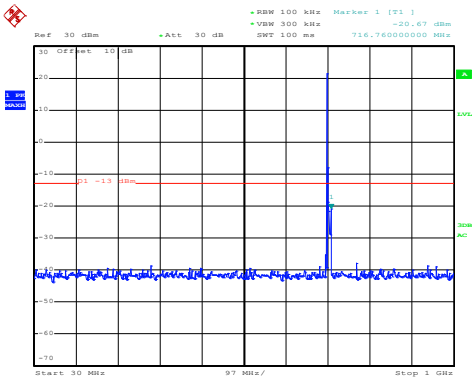
30MHz~1GHz



Date: 21.APR.2020 18:54:55

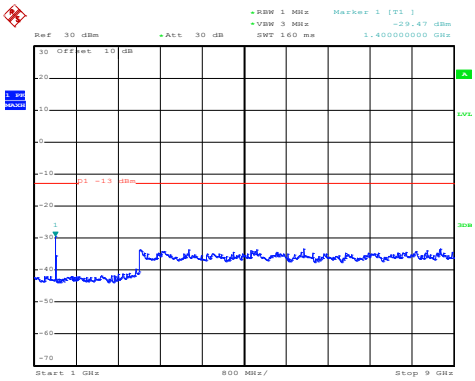
1GHz~9GHz

High channel



Date: 20.APR.2020 15:42:51

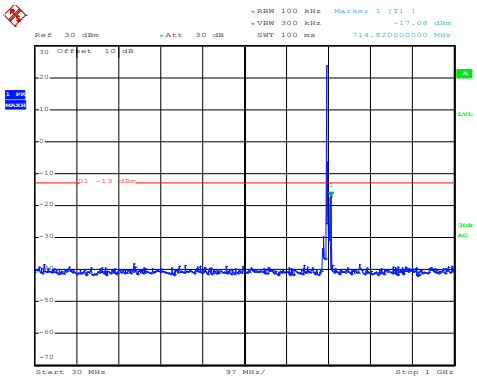
30MHz~1GHz



Date: 21.APR.2020 18:55:19

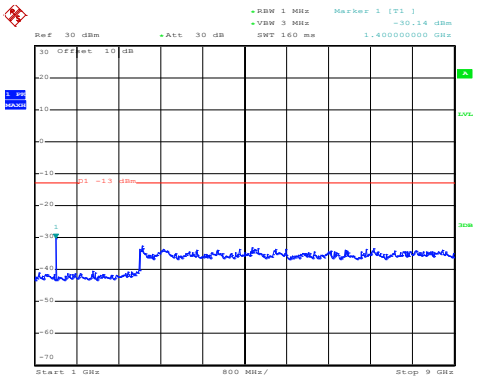
1GHz~9GHz

LTE Band 17: QPSK & RB Size 1
BW: 10MHz
Lowest channel



Date: 20.APR.2020 15:41:58

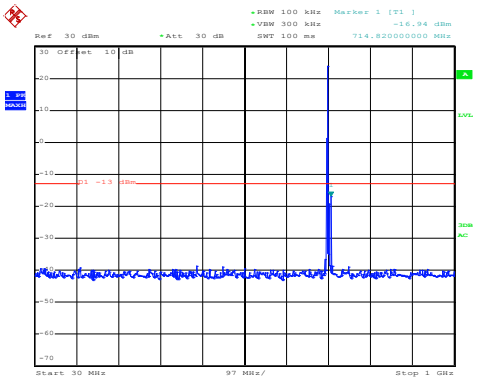
30MHz~1GHz



Date: 21.APR.2020 18:54:19

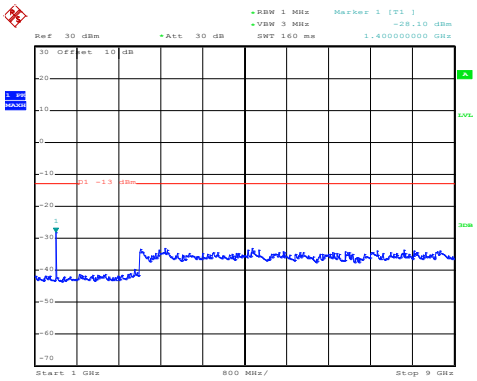
1GHz~9GHz

Middle channel



Date: 20.APR.2020 15:42:18

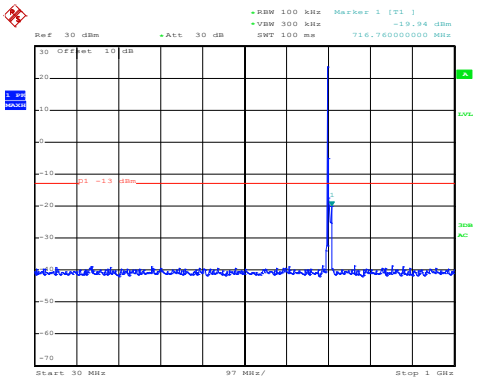
30MHz~1GHz



Date: 21.APR.2020 18:54:45

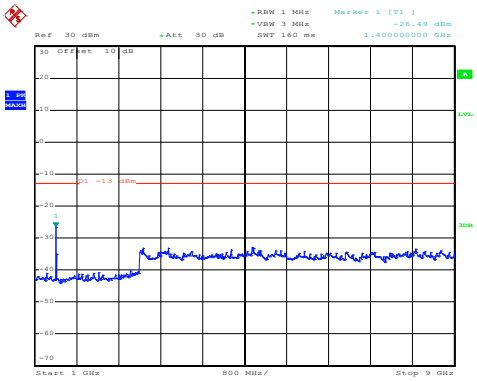
1GHz~9GHz

High channel



Date: 20.APR.2020 15:42:45

30MHz~1GHz



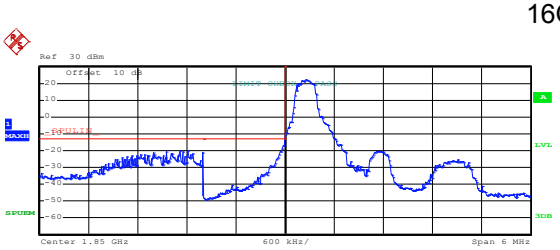
Date: 21.APR.2020 18:55:11

1GHz~9GHz

Band edge emission:

LTE Band 2 part:

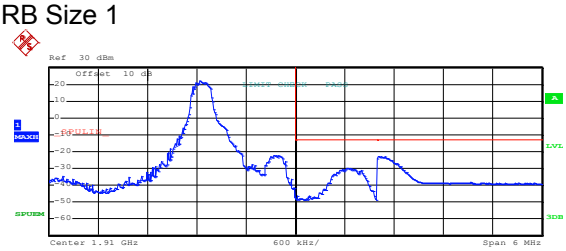
LTE Band 2, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848814 G	-19.71	-6.71
1.849 G	1.850 G	30.00 k	1.849991 G	-17.20	-4.20
1.850 G	1.853 G	100.00 k	1.850267 G	21.89	-11.11

Date: 21.APR.2020 19:02:38

Lowest channel

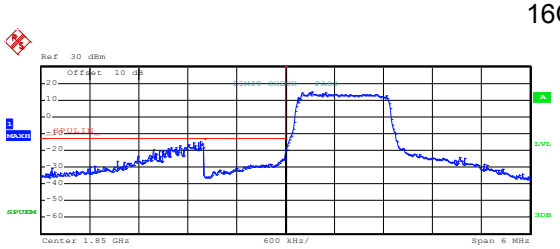


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908836 G	21.97	-11.03
1.910 G	1.911 G	30.00 k	1.910645 G	-29.80	-16.80
1.911 G	1.913 G	1.00 M	1.911008 G	-22.71	-9.71

Date: 21.APR.2020 19:01:42

Highest channel

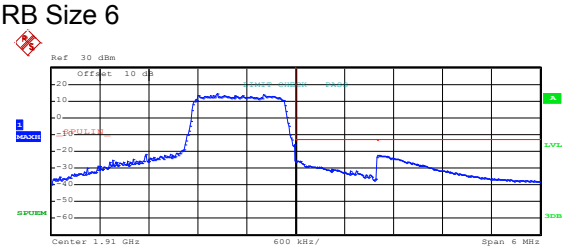
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848952 G	-14.92	-1.92
1.849 G	1.850 G	30.00 k	1.849987 G	-24.63	-11.63
1.850 G	1.853 G	100.00 k	1.850324 G	14.83	-18.17

Date: 21.APR.2020 19:04:03

Lowest channel



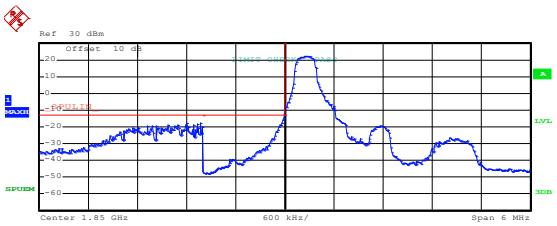
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909040 G	14.39	-18.61
1.910 G	1.911 G	30.00 k	1.910031 G	-25.09	-12.09
1.911 G	1.913 G	1.00 M	1.911012 G	-22.06	-9.06

Date: 21.APR.2020 19:02:04

Highest channel

LTE Band 2, BW: 1.4MHz

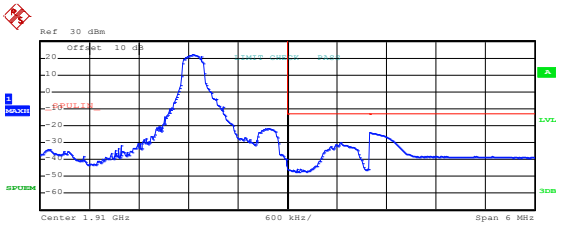
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848966 G	-17.52	-4.52
1.849 G	1.850 G	30.00 k	1.849991 G	-14.59	-1.59
1.850 G	1.853 G	100.00 k	1.850276 G	22.30	-10.70

Date: 21.APR.2020 19:02:30

Lowest channel

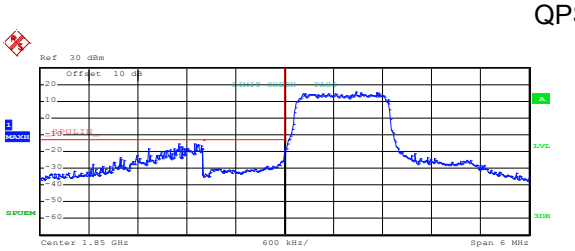


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908860 G	21.90	-11.10
1.910 G	1.911 G	30.00 k	1.910645 G	-29.74	-16.74
1.911 G	1.913 G	1.00 M	1.911000 G	-24.18	-11.18

Date: 21.APR.2020 19:01:31

Highest channel

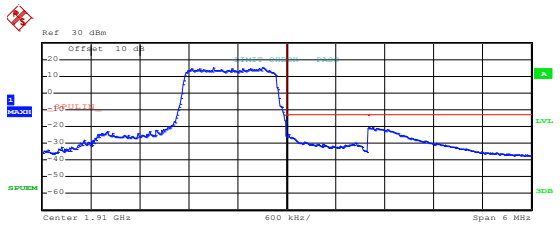
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848696 G	-15.32	-2.32
1.849 G	1.850 G	30.00 k	1.849996 G	-25.53	-12.53
1.850 G	1.853 G	100.00 k	1.850879 G	15.62	-17.38

Date: 21.APR.2020 19:03:52

Lowest channel

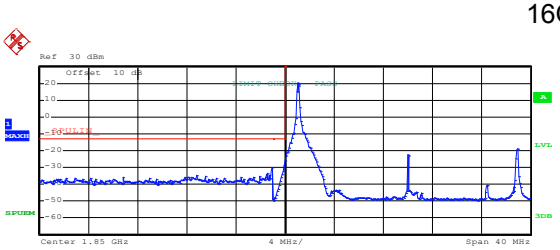


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909103 G	15.04	-17.96
1.910 G	1.911 G	30.00 k	1.910018 G	-24.74	-11.74
1.911 G	1.913 G	1.00 M	1.911002 G	-20.74	-7.74

Date: 21.APR.2020 19:01:54

Highest channel

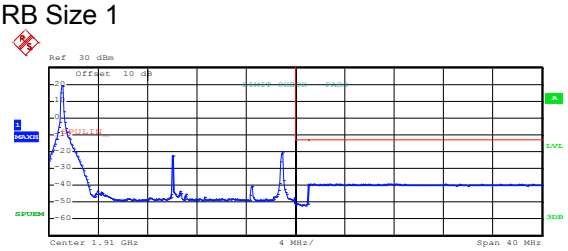
LTE Band 2, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.830 G	1.849 G	1.00 M	1.849000 G	-29.80	-16.80
1.849 G	1.850 G	30.00 k	1.849999 G	-29.05	-16.05
1.850 G	1.870 G	100.00 k	1.851060 G	20.27	-12.73

Date: 21.APR.2020 19:05:06

Lowest channel

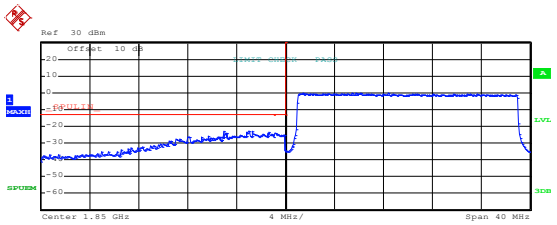


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.890 G	1.910 G	100.00 k	1.891060 G	19.18	-13.82
1.910 G	1.911 G	30.00 k	1.910251 G	-50.13	-37.13
1.911 G	1.930 G	1.00 M	1.912767 G	-39.07	-26.07

Date: 21.APR.2020 19:06:10

Highest channel

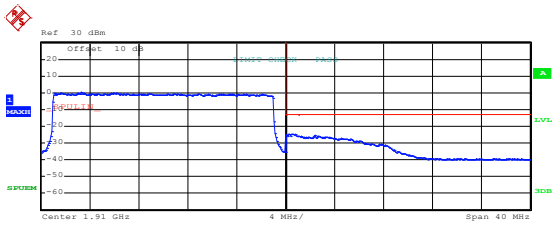
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.830 G	1.849 G	1.00 M	1.847252 G	-22.95	-9.95
1.849 G	1.850 G	300.00 k	1.849227 G	-23.99	-10.99
1.850 G	1.870 G	100.00 k	1.856140 G	-0.24	-33.24

Date: 21.APR.2020 19:05:31

Lowest channel



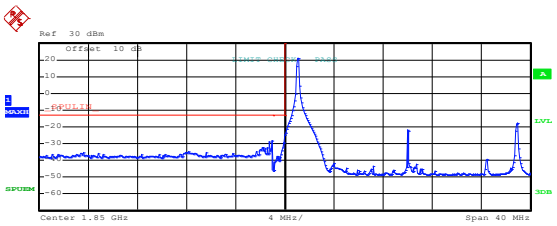
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.890 G	1.910 G	100.00 k	1.893280 G	0.18	-32.82
1.910 G	1.911 G	300.00 k	1.910762 G	-24.56	-11.56
1.911 G	1.930 G	1.00 M	1.912368 G	-25.39	-12.39

Date: 21.APR.2020 19:06:42

Highest channel

LTE Band 2, BW: 20MHz

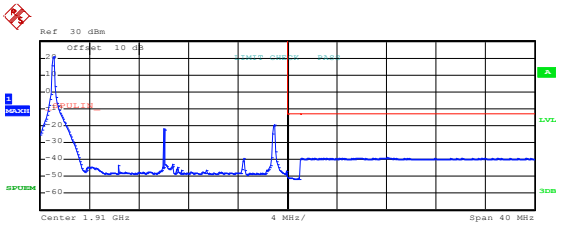
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.830 G	1.849 G	1.00 M	1.849000 G	-28.43	-15.43
1.849 G	1.850 G	30.00 k	1.849980 G	-29.07	-16.07
1.850 G	1.870 G	100.00 k	1.851080 G	21.18	-11.82

Date: 21.APR.2020 19:04:56

Lowest channel

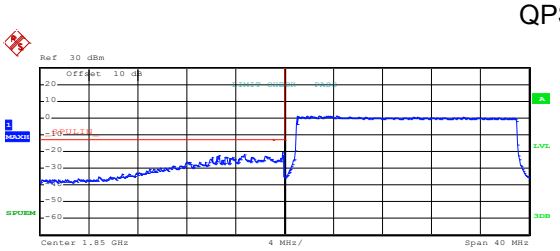


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.890 G	1.910 G	100.00 k	1.891100 G	20.77	-12.23
1.910 G	1.911 G	30.00 k	1.910889 G	-50.15	-37.15
1.911 G	1.930 G	1.00 M	1.918049 G	-38.89	-25.89

Date: 21.APR.2020 19:06:00

Highest channel

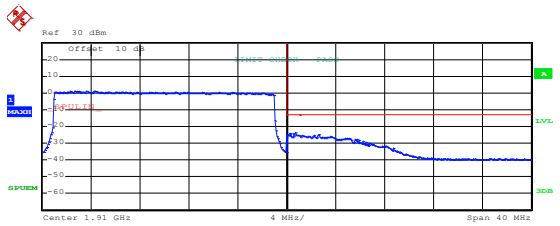
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.830 G	1.849 G	1.00 M	1.846644 G	-21.99	-8.99
1.849 G	1.850 G	300.00 k	1.849861 G	-20.69	-7.69
1.850 G	1.870 G	100.00 k	1.854200 G	1.16	-31.84

Date: 21.APR.2020 19:05:23

Lowest channel



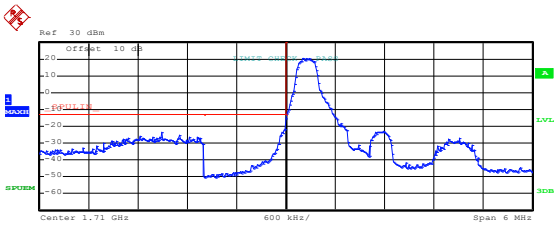
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.890 G	1.910 G	100.00 k	1.892720 G	1.25	-31.75
1.910 G	1.911 G	300.00 k	1.910708 G	-23.80	-10.80
1.911 G	1.930 G	1.00 M	1.912615 G	-24.85	-11.85

Date: 21.APR.2020 19:06:31

Highest channel

LTE Band 4 part:

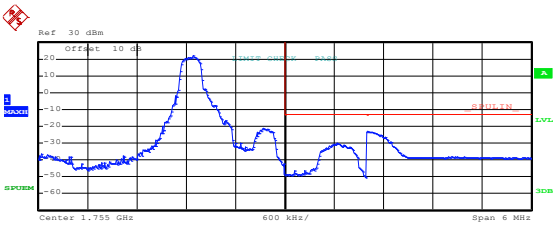
LTE Band 4, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708482 G	-23.67	-10.67
1.709 G	1.710 G	30.00 k	1.709997 G	-21.61	-8.61
1.710 G	1.713 G	100.00 k	1.710216 G	20.45	-12.55

Date: 21.APR.2020 19:17:09

Lowest channel

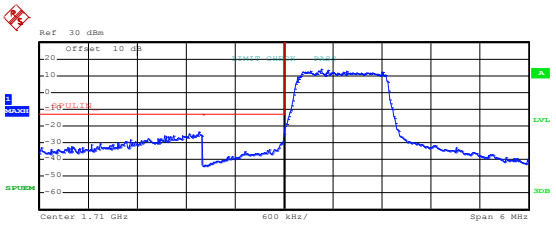


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753881 G	21.92	-11.08
1.755 G	1.756 G	30.00 k	1.755635 G	-30.04	-17.04
1.756 G	1.758 G	1.00 M	1.756010 G	-23.09	-10.09

Date: 21.APR.2020 19:18:26

Highest channel

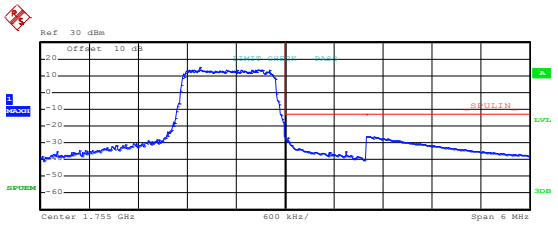
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708952 G	-23.72	-10.72
1.709 G	1.710 G	30.00 k	1.709996 G	-29.61	-16.61
1.710 G	1.713 G	100.00 k	1.710453 G	13.68	-19.32

Date: 21.APR.2020 19:17:33

Lowest channel



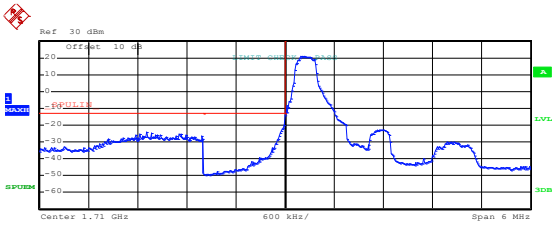
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753950 G	14.83	-18.17
1.755 G	1.756 G	30.00 k	1.755036 G	-27.25	-14.25
1.756 G	1.758 G	1.00 M	1.756000 G	-26.27	-13.27

Date: 21.APR.2020 19:18:45

Highest channel

LTE Band 4, BW: 1.4MHz

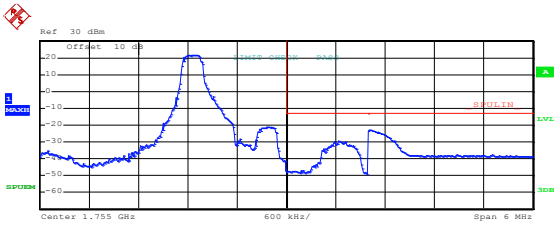
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.708302 G	-24.26	-11.26
1.709 G	1.710 G	30.00 k	1.709996 G	-20.05	-7.05
1.710 G	1.713 G	100.00 k	1.710240 G	20.93	-12.07

Date: 21.APR.2020 19:16:49

Lowest channel

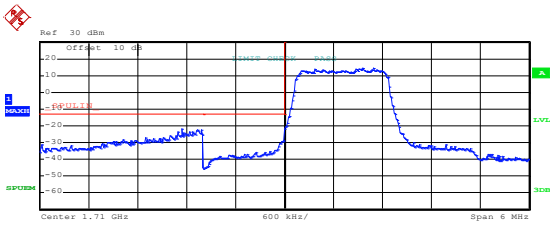


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.752 G	1.755 G	100.00 k	1.753857 G	21.80	-11.20
1.755 G	1.756 G	30.00 k	1.755639 G	-29.16	-16.16
1.756 G	1.758 G	1.00 M	1.756002 G	-22.95	-9.95

Date: 21.APR.2020 19:18:17

Highest channel

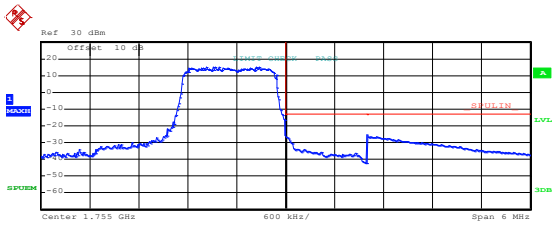
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.708740 G	-21.92	-8.92
1.709 G	1.710 G	30.00 k	1.709996 G	-28.88	-15.88
1.710 G	1.713 G	100.00 k	1.711086 G	14.40	-18.60

Date: 21.APR.2020 19:17:24

Lowest channel

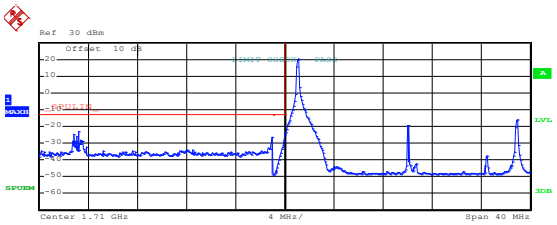


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.752 G	1.755 G	100.00 k	1.754130 G	15.17	-17.83
1.755 G	1.756 G	30.00 k	1.755031 G	-26.66	-13.66
1.756 G	1.758 G	1.00 M	1.756000 G	-25.39	-12.39

Date: 21.APR.2020 19:18:37

Highest channel

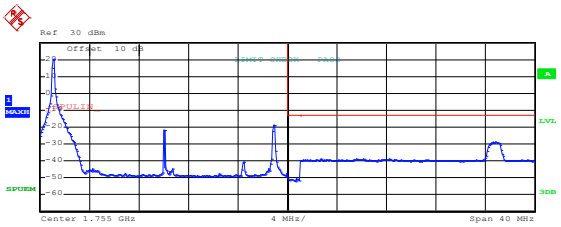
LTE Band 4, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.690 G	1.709 G	1.00 M	1.693211 G	-23.09	-10.09
1.709 G	1.710 G	30.00 k	1.709982 G	-29.05	-16.05
1.710 G	1.730 G	100.00 k	1.711080 G	20.23	-12.77

Date: 21.APR.2020 19:20:06

Lowest channel

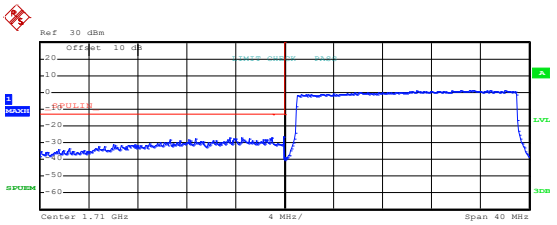


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.735 G	1.755 G	100.00 k	1.736080 G	20.16	-12.84
1.755 G	1.756 G	30.00 k	1.755724 G	-50.63	-37.63
1.756 G	1.775 G	1.00 M	1.771789 G	-28.81	-15.81

Date: 21.APR.2020 19:21:12

Highest channel

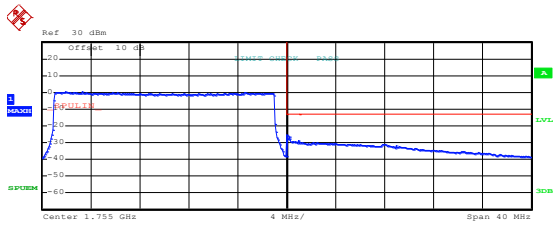
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.690 G	1.709 G	1.00 M	1.709000 G	-27.13	-14.13
1.709 G	1.710 G	300.00 k	1.709982 G	-26.57	-13.57
1.710 G	1.730 G	100.00 k	1.724400 G	1.19	-31.81

Date: 21.APR.2020 19:20:35

Lowest channel



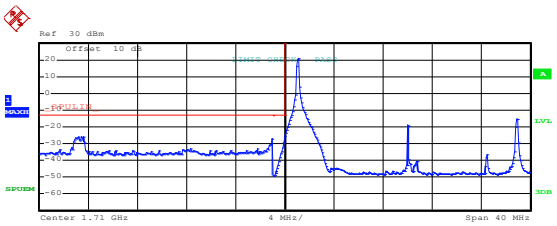
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.735 G	1.755 G	100.00 k	1.738300 G	0.26	-32.74
1.755 G	1.756 G	300.00 k	1.755021 G	-25.14	-12.14
1.756 G	1.775 G	1.00 M	1.756095 G	-29.61	-16.61

Date: 21.APR.2020 19:21:40

Highest channel

LTE Band 4, BW: 20MHz

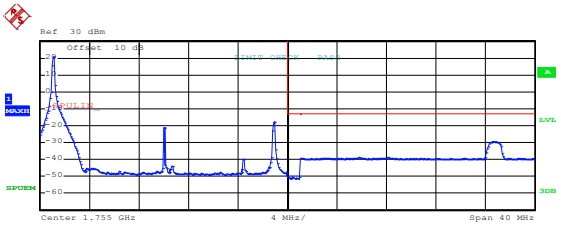
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.690 G	1.709 G	1.00 M	1.693458 G	-25.71	-12.71
1.709 G	1.710 G	30.00 k	1.709996 G	-29.44	-16.44
1.710 G	1.730 G	100.00 k	1.711100 G	21.12	-11.88

Date: 21.APR.2020 19:19:49

Lowest channel

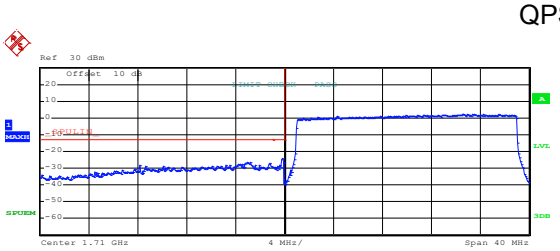


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.735 G	1.755 G	100.00 k	1.736080 G	20.85	-12.15
1.755 G	1.756 G	30.00 k	1.755046 G	-49.92	-36.92
1.756 G	1.775 G	1.00 M	1.771523 G	-29.59	-16.59

Date: 21.APR.2020 19:21:01

Highest channel

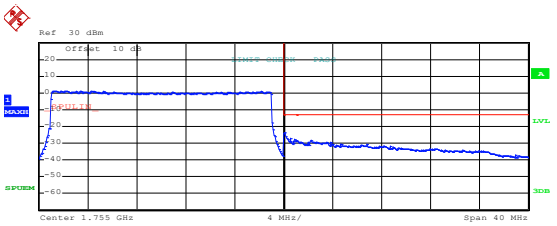
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.690 G	1.709 G	1.00 M	1.706948 G	-26.28	-13.28
1.709 G	1.710 G	300.00 k	1.709868 G	-24.30	-11.30
1.710 G	1.730 G	100.00 k	1.724580 G	2.13	-30.87

Date: 21.APR.2020 19:20:27

Lowest channel



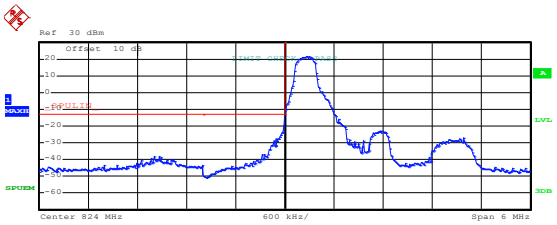
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.735 G	1.755 G	100.00 k	1.739200 G	1.33	-31.67
1.755 G	1.756 G	300.00 k	1.755054 G	-23.42	-10.42
1.756 G	1.775 G	1.00 M	1.757197 G	-28.44	-15.44

Date: 21.APR.2020 19:21:31

Highest channel

LTE Band 5 part:

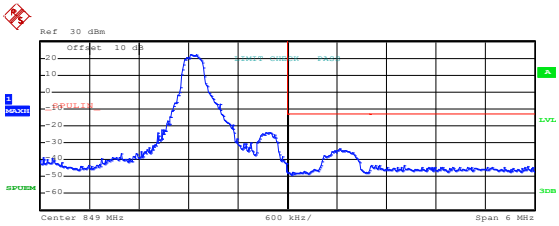
LTE Band 5, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.460000 M	-38.00	-25.00
823.000 M	824.000 M	30.00 k	823.997000 M	-19.74	-6.74
824.000 M	827.000 M	100.00 k	824.273000 M	21.74	-11.26

Date: 21.APR.2020 19:23:26

Lowest channel

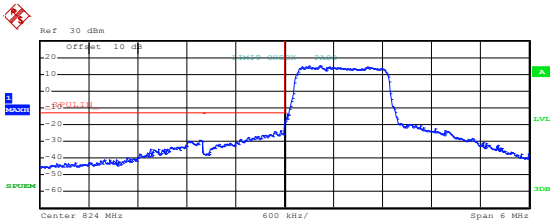


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.821000 M	22.05	-10.95
849.000 M	850.000 M	30.00 k	849.633000 M	-33.62	-20.62
850.000 M	852.000 M	100.00 k	850.420000 M	-43.13	-30.13

Date: 21.APR.2020 19:24:30

Highest channel

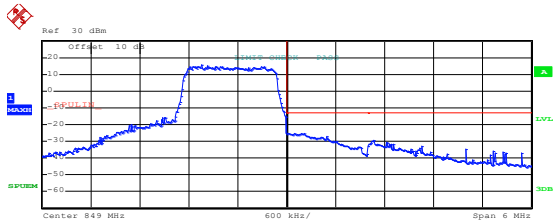
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.970000 M	-29.37	-16.37
823.000 M	824.000 M	30.00 k	823.956000 M	-23.79	-10.79
824.000 M	827.000 M	100.00 k	824.435000 M	15.02	-17.98

Date: 21.APR.2020 19:23:57

Lowest channel



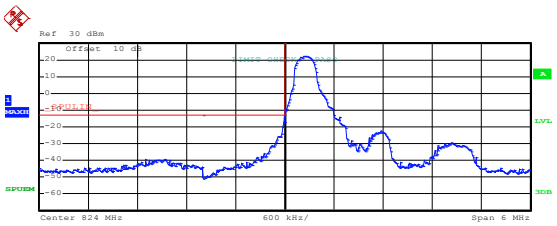
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.950000 M	15.47	-17.53
849.000 M	850.000 M	30.00 k	849.102000 M	-23.91	-10.91
850.000 M	852.000 M	100.00 k	850.062000 M	-29.59	-16.59

Date: 21.APR.2020 19:25:03

Highest channel

LTE Band 5, BW: 1.4MHz

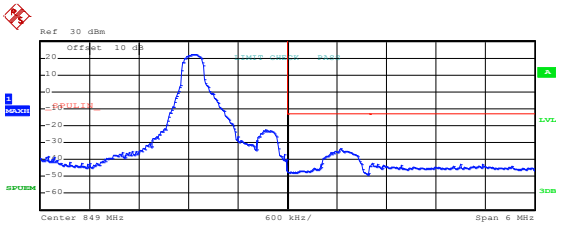
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.294000 M	-39.31	-26.31
823.000 M	824.000 M	30.00 k	823.993000 M	-17.56	-4.56
824.000 M	827.000 M	100.00 k	824.231000 M	22.27	-10.73

Date: 21.APR.2020 19:23:16

Lowest channel

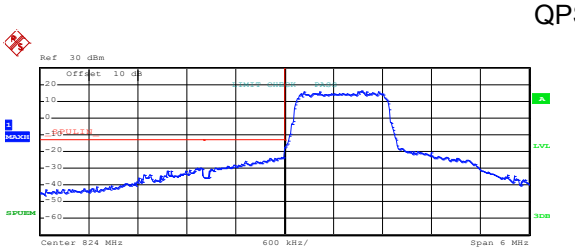


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.842000 M	22.32	-10.68
849.000 M	850.000 M	30.00 k	849.646000 M	-33.66	-20.66
850.000 M	852.000 M	100.00 k	850.030000 M	-42.20	-29.20

Date: 21.APR.2020 19:24:21

Highest channel

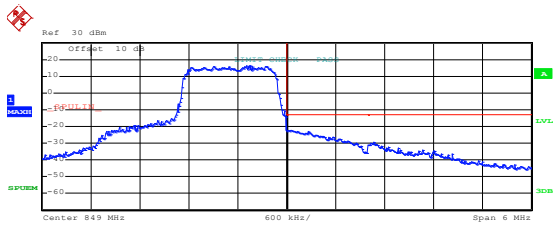
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.934000 M	-29.71	-16.71
823.000 M	824.000 M	30.00 k	823.986000 M	-23.23	-10.23
824.000 M	827.000 M	100.00 k	824.942000 M	16.33	-16.67

Date: 21.APR.2020 19:23:38

Lowest channel

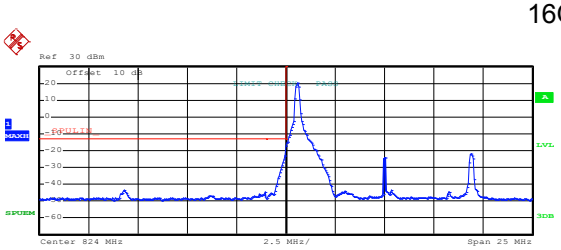


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.547000 M	16.46	-16.54
849.000 M	850.000 M	30.00 k	849.062000 M	-21.76	-8.76
850.000 M	852.000 M	100.00 k	850.068000 M	-29.22	-16.22

Date: 21.APR.2020 19:24:41

Highest channel

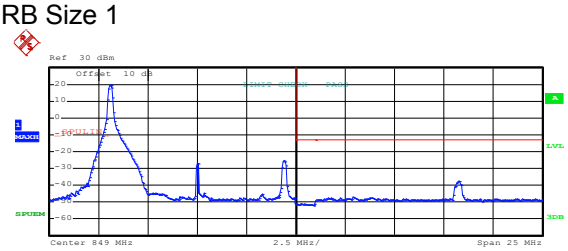
LTE Band 5, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	815.766500 M	-43.65	-30.65
823.000 M	824.000 M	30.00 k	823.997000 M	-22.67	-9.67
824.000 M	836.500 M	100.00 k	824.587500 M	20.40	-12.60

Date: 21.APR.2020 19:26:41

Lowest channel

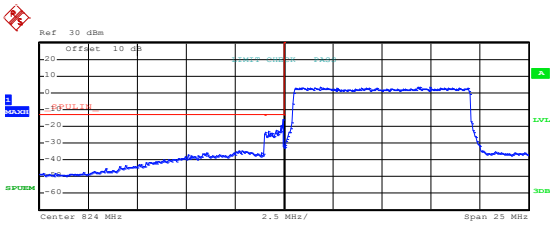


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.612500 M	20.05	-12.95
849.000 M	850.000 M	30.00 k	849.860000 M	-50.62	-37.62
850.000 M	861.500 M	100.00 k	857.268000 M	-37.51	-24.51

Date: 21.APR.2020 19:28:09

Highest channel

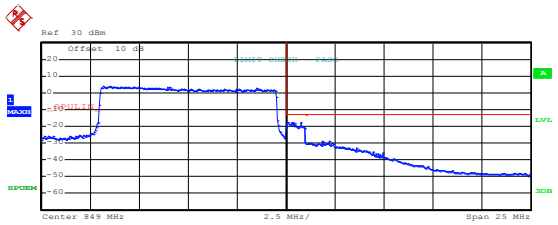
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	821.827000 M	-34.49	-21.49
823.000 M	824.000 M	300.00 k	823.999000 M	-15.82	-2.82
824.000 M	836.500 M	100.00 k	825.837500 M	3.63	-29.37

Date: 21.APR.2020 19:30:05

Lowest channel



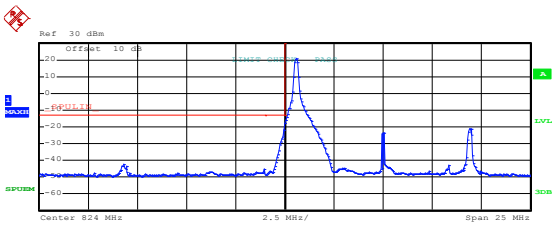
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.975000 M	3.93	-29.07
849.000 M	850.000 M	300.00 k	849.311000 M	-17.45	-4.45
850.000 M	861.500 M	100.00 k	850.839500 M	-28.53	-15.53

Date: 21.APR.2020 19:30:49

Highest channel

LTE Band 5, BW: 10MHz

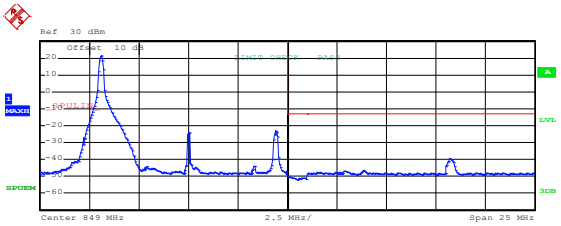
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	815.812500 M	-42.01	-29.01
823.000 M	824.000 M	30.00 k	823.989000 M	-21.83	-8.83
824.000 M	836.500 M	100.00 k	824.600000 M	21.11	-11.89

Date: 21.APR.2020 19:26:27

Lowest channel

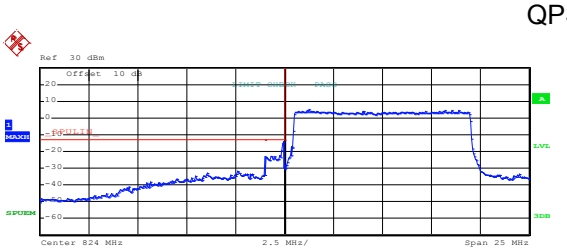


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.587500 M	21.52	-11.48
849.000 M	850.000 M	30.00 k	849.006000 M	-49.94	-36.94
850.000 M	861.500 M	100.00 k	857.176000 M	-39.35	-26.35

Date: 21.APR.2020 19:27:43

Highest channel

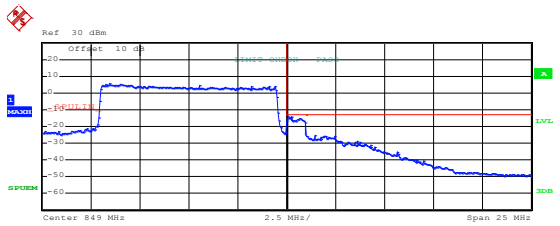
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	821.574000 M	-31.99	-18.99
823.000 M	824.000 M	300.00 k	823.964000 M	-14.42	-1.42
824.000 M	836.500 M	100.00 k	825.237500 M	5.04	-27.96

Date: 21.APR.2020 19:29:55

Lowest channel



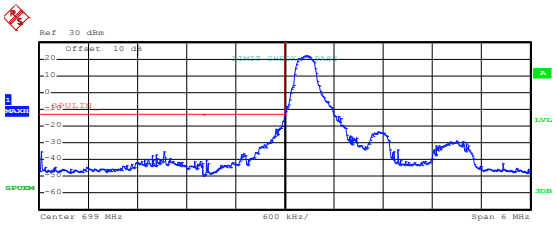
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.962500 M	5.59	-27.41
849.000 M	850.000 M	300.00 k	849.264000 M	-13.93	-0.93
850.000 M	861.500 M	100.00 k	850.414000 M	-25.41	-12.41

Date: 21.APR.2020 19:30:41

Highest channel

LTE band 12 part:

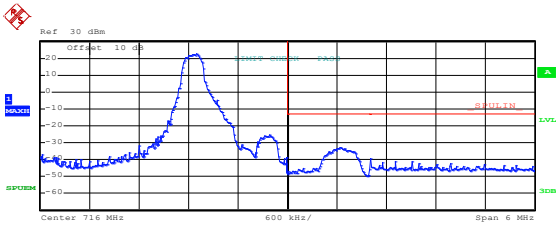
LTE Band 12, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	696.020000 M	-35.21	-22.21
698.000 M	699.000 M	30.00 k	698.982000 M	-16.81	-3.81
699.000 M	702.000 M	100.00 k	699.252000 M	22.18	-10.82

Date: 21.APR.2020 19:33:00

Lowest channel

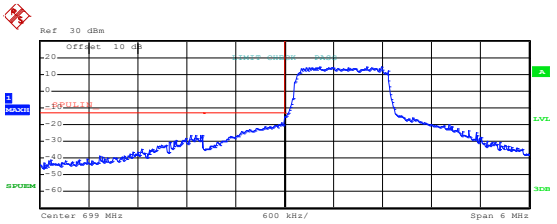


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	714.896000 M	22.87	-10.13
716.000 M	717.000 M	30.00 k	716.650000 M	-32.86	-19.86
717.000 M	719.000 M	100.00 k	717.010000 M	-39.25	-26.25

Date: 21.APR.2020 19:34:45

Highest channel

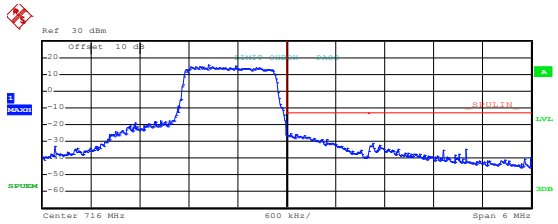
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.902000 M	-26.22	-13.22
698.000 M	699.000 M	30.00 k	698.959000 M	-19.11	-6.11
699.000 M	702.000 M	100.00 k	699.435000 M	14.67	-18.33

Date: 21.APR.2020 19:34:00

Lowest channel



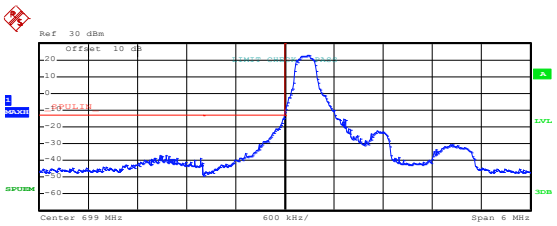
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	715.034000 M	15.58	-17.42
716.000 M	717.000 M	30.00 k	716.044000 M	-25.46	-12.46
717.000 M	719.000 M	100.00 k	717.052000 M	-31.00	-18.00

Date: 21.APR.2020 19:35:04

Highest channel

LTE Band 12, BW: 1.4MHz

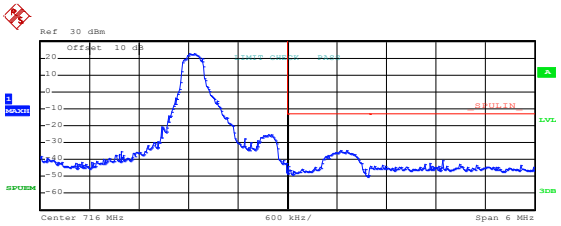
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.470000 M	-37.06	-24.06
698.000 M	699.000 M	30.00 k	698.988000 M	-14.91	-1.91
699.000 M	702.000 M	100.00 k	699.279000 M	22.91	-10.09

Date: 21.APR.2020 19:32:52

Lowest channel

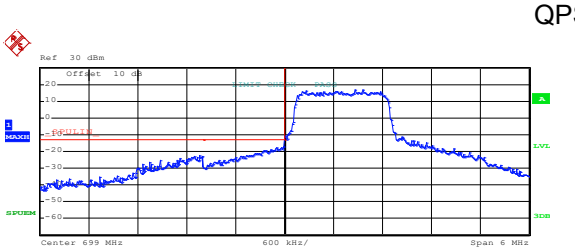


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	714.872000 M	22.78	-10.22
716.000 M	717.000 M	30.00 k	716.643000 M	-34.37	-21.37
717.000 M	719.000 M	100.00 k	717.878000 M	-40.57	-27.57

Date: 21.APR.2020 19:34:35

Highest channel

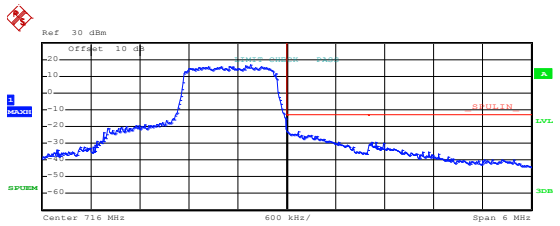
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.958000 M	-22.52	-9.52
698.000 M	699.000 M	30.00 k	698.998000 M	-17.13	-4.13
699.000 M	702.000 M	100.00 k	699.963000 M	16.63	-16.37

Date: 21.APR.2020 19:33:52

Lowest channel

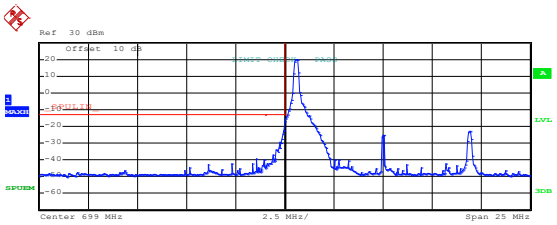


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	715.550000 M	16.69	-16.31
716.000 M	717.000 M	30.00 k	716.005000 M	-22.49	-9.49
717.000 M	719.000 M	100.00 k	717.044000 M	-29.28	-16.28

Date: 21.APR.2020 19:34:55

Highest channel

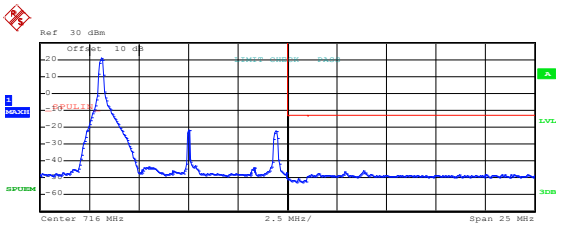
LTE Band 12, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.517000 M	-39.57	-26.57
698.000 M	699.000 M	30.00 k	698.991000 M	-22.26	-9.26
699.000 M	711.500 M	100.00 k	699.575000 M	20.02	-12.98

Date: 21.APR.2020 19:35:59

Lowest channel

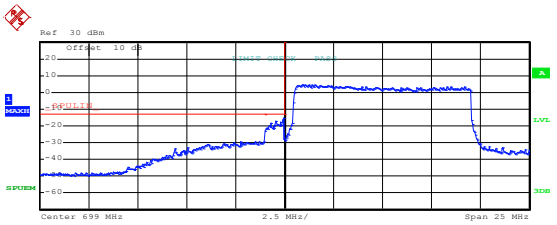


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	706.587500 M	20.70	-12.30
716.000 M	717.000 M	30.00 k	716.533000 M	-50.39	-37.39
717.000 M	728.500 M	100.00 k	719.829000 M	-45.98	-32.98

Date: 21.APR.2020 19:37:04

Highest channel

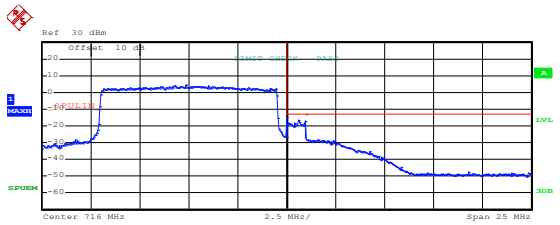
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.482500 M	-29.22	-16.22
698.000 M	699.000 M	300.00 k	698.992000 M	-15.14	-2.14
699.000 M	711.500 M	100.00 k	699.875000 M	4.74	-28.26

Date: 21.APR.2020 19:36:30

Lowest channel



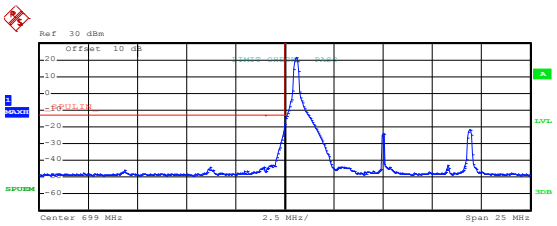
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	710.837500 M	4.28	-28.72
716.000 M	717.000 M	300.00 k	716.014000 M	-14.68	-1.68
717.000 M	728.500 M	100.00 k	717.195500 M	-27.95	-14.95

Date: 21.APR.2020 19:37:33

Highest channel

LTE Band 12, BW: 10MHz

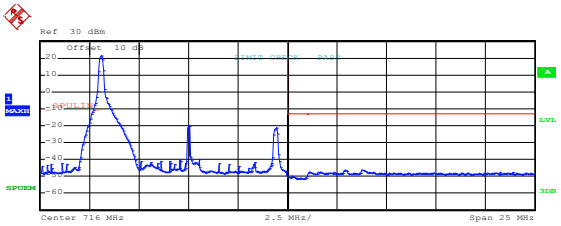
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.965500 M	-43.70	-30.70
698.000 M	699.000 M	30.00 k	698.993000 M	-22.76	-9.76
699.000 M	711.500 M	100.00 k	699.575000 M	21.25	-11.75

Date: 21.APR.2020 19:35:50

Lowest channel

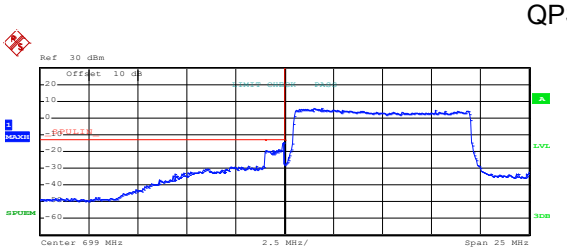


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	706.575000 M	21.48	-11.52
716.000 M	717.000 M	30.00 k	716.227000 M	-49.67	-36.67
717.000 M	728.500 M	100.00 k	718.943500 M	-46.03	-33.03

Date: 21.APR.2020 19:36:55

Highest channel

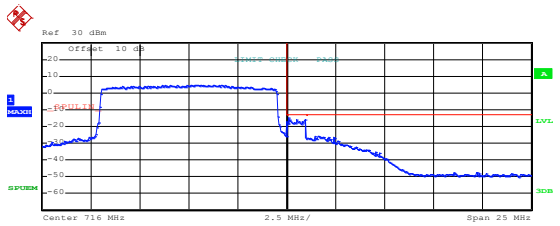
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.551500 M	-28.49	-15.49
698.000 M	699.000 M	300.00 k	698.960000 M	-14.49	-1.49
699.000 M	711.500 M	100.00 k	700.875000 M	5.70	-27.30

Date: 21.APR.2020 19:36:16

Lowest channel



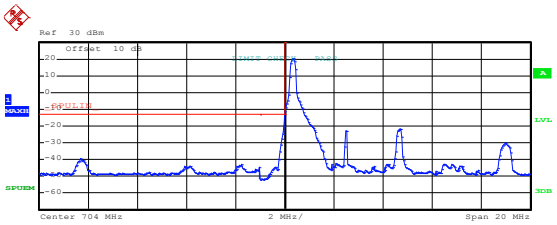
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	712.275000 M	4.69	-28.31
716.000 M	717.000 M	300.00 k	716.095000 M	-14.76	-1.76
717.000 M	728.500 M	100.00 k	717.448500 M	-25.96	-12.96

Date: 21.APR.2020 19:37:23

Highest channel

LTE Band 17 part:

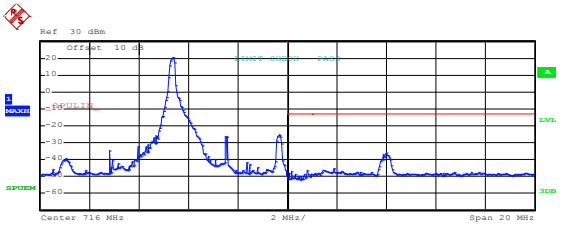
LTE Band 17, BW: 5MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	695.665000 M	-39.50	-26.50
703.000 M	704.000 M	30.00 k	703.991935 M	-20.42	-7.42
704.000 M	714.000 M	100.00 k	704.330000 M	20.31	-12.69

Date: 21.APR.2020 20:23:08

Lowest channel

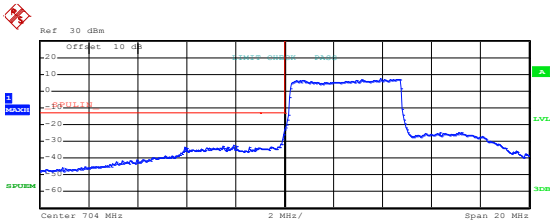


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.360000 M	20.59	-12.41
716.000 M	717.000 M	30.00 k	716.808000 M	-46.47	-33.47
717.000 M	726.000 M	100.00 k	719.979000 M	-35.95	-22.95

Date: 21.APR.2020 20:25:48

Highest channel

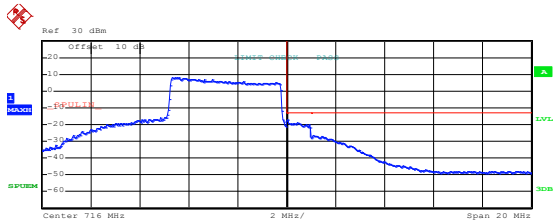
16QAM & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	701.911000 M	-32.50	-19.50
703.000 M	704.000 M	100.00 k	703.991935 M	-25.64	-12.64
704.000 M	714.000 M	100.00 k	707.930000 M	7.67	-25.33

Date: 21.APR.2020 20:23:47

Lowest channel

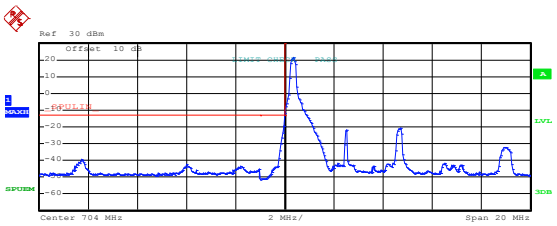


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.320000 M	7.82	-25.18
716.000 M	717.000 M	100.00 k	716.024000 M	-16.87	-3.87
717.000 M	726.000 M	100.00 k	717.054000 M	-26.25	-13.25

Date: 21.APR.2020 20:26:13

Highest channel

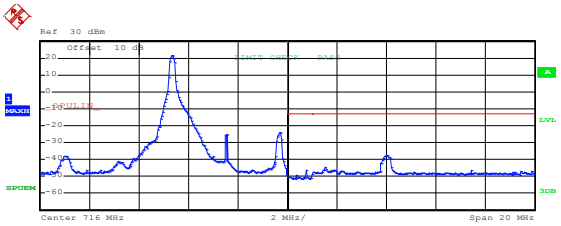
LTE Band 17, BW: 5MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	695.719000 M	-39.03	-26.03
703.000 M	704.000 M	30.00 k	703.991935 M	-19.42	-6.42
704.000 M	714.000 M	100.00 k	704.350000 M	21.27	-11.73

Date: 21.APR.2020 20:22:55

Lowest channel

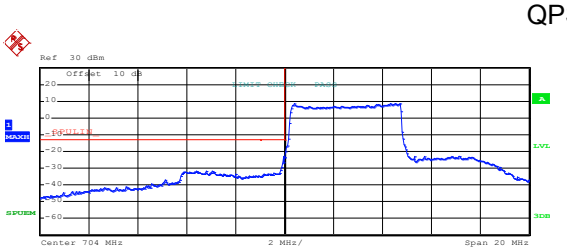


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.360000 M	21.55	-11.45
716.000 M	717.000 M	30.00 k	716.750000 M	-46.45	-33.45
717.000 M	726.000 M	100.00 k	719.979000 M	-37.59	-24.59

Date: 21.APR.2020 20:25:32

Highest channel

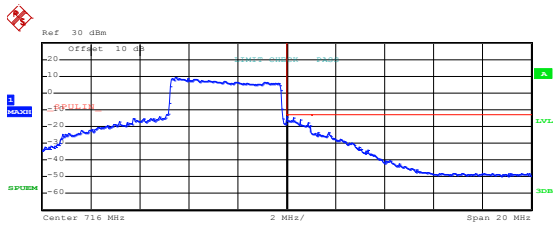
QPSK & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	700.399000 M	-31.65	-18.65
703.000 M	704.000 M	100.00 k	703.983871 M	-24.30	-11.30
704.000 M	714.000 M	100.00 k	708.510000 M	8.95	-24.05

Date: 21.APR.2020 20:23:37

Lowest channel

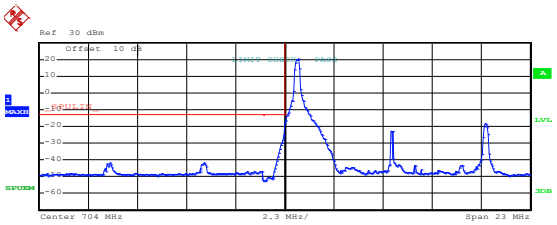


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.490000 M	8.99	-24.01
716.000 M	717.000 M	100.00 k	716.003000 M	-14.43	-1.43
717.000 M	726.000 M	100.00 k	717.729000 M	-23.55	-10.55

Date: 21.APR.2020 20:26:05

Highest channel

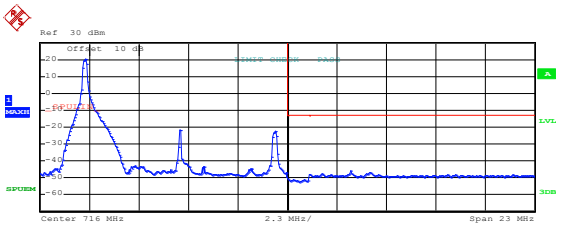
LTE Band 17, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	695.786500 M	-41.83	-28.83
703.000 M	704.000 M	30.00 k	703.991935 M	-25.10	-12.10
704.000 M	715.500 M	100.00 k	704.621000 M	20.11	-12.89

Date: 21.APR.2020 20:27:32

Lowest channel

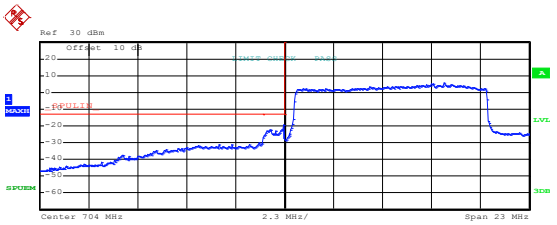


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	706.593000 M	20.41	-12.59
716.000 M	717.000 M	30.00 k	716.106000 M	-50.14	-37.14
717.000 M	727.500 M	100.00 k	718.911000 M	-45.83	-32.83

Date: 21.APR.2020 20:29:09

Highest channel

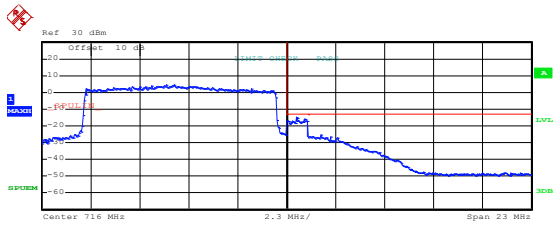
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	702.779500 M	-30.03	-17.03
703.000 M	704.000 M	300.00 k	703.991935 M	-19.27	-6.27
704.000 M	715.500 M	100.00 k	711.498000 M	5.52	-27.48

Date: 21.APR.2020 20:28:01

Lowest channel



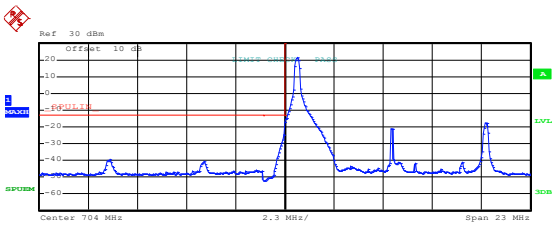
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	710.330500 M	4.72	-28.28
716.000 M	717.000 M	300.00 k	716.465000 M	-14.87	-1.87
717.000 M	727.500 M	100.00 k	717.609000 M	-25.55	-12.55

Date: 21.APR.2020 20:29:45

Highest channel

LTE Band 17, BW: 10MHz

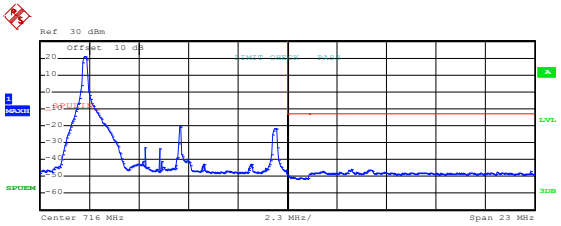
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	695.818000 M	-39.37	-26.37
703.000 M	704.000 M	30.00 k	703.991935 M	-24.71	-11.71
704.000 M	715.500 M	100.00 k	704.575000 M	21.31	-11.69

Date: 21.APR.2020 20:27:20

Lowest channel

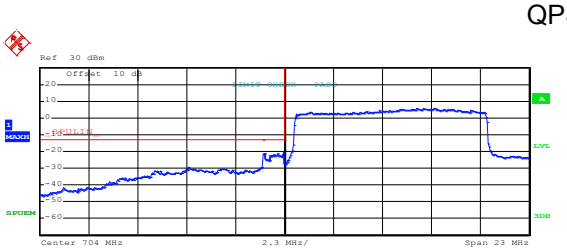


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	706.593000 M	21.19	-11.81
716.000 M	717.000 M	30.00 k	716.004000 M	-49.44	-36.44
717.000 M	727.500 M	100.00 k	718.963500 M	-45.92	-32.92

Date: 21.APR.2020 20:29:00

Highest channel

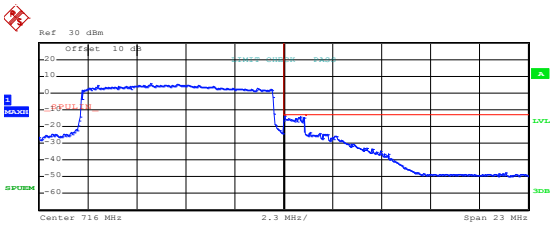
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	699.493000 M	-29.34	-16.34
703.000 M	704.000 M	300.00 k	703.991935 M	-20.85	-7.85
704.000 M	715.500 M	100.00 k	710.543500 M	5.69	-27.31

Date: 21.APR.2020 20:27:50

Lowest channel

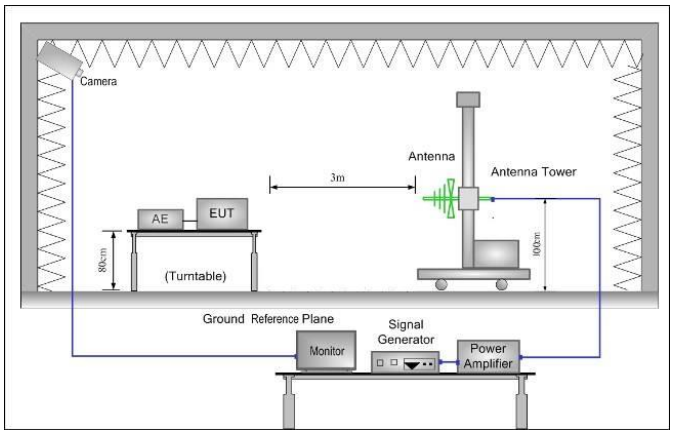
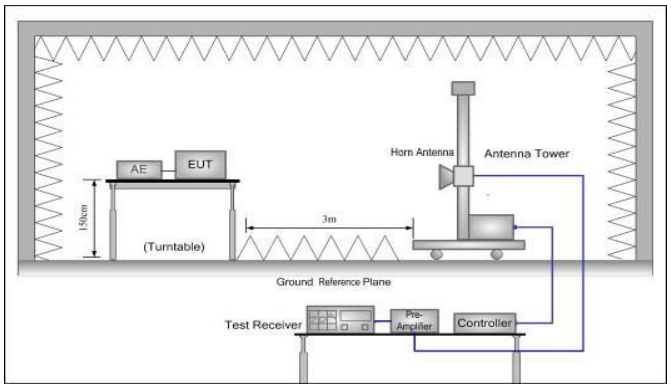


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	709.721000 M	5.66	-27.34
716.000 M	717.000 M	300.00 k	716.067000 M	-13.56	-0.56
717.000 M	727.500 M	100.00 k	717.252000 M	-23.59	-10.59

Date: 21.APR.2020 20:29:35

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 22.917(a), Part 24.238 (a), Part 27.53(g), Part 27.53(h)
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm).
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. 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	-58.93	12.26	0.75	-47.42	-13.00	-34.42	Vertical
5552.10	-52.94	12.47	1.13	-41.60	-13.00	-28.60	Vertical
7402.00	-47.54	11.26	1.63	-37.91	-13.00	-24.91	Vertical
3701.40	-60.83	12.26	0.75	-49.32	-13.00	-36.32	Horizontal
5552.10	-55.00	12.47	1.13	-43.66	-13.00	-30.66	Horizontal
7402.00	-48.14	11.26	1.63	-38.51	-13.00	-25.51	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	-57.65	12.19	0.79	-46.25	-13.00	-33.25	Vertical
5640.00	-52.97	12.60	1.15	-41.52	-13.00	-28.52	Vertical
7520.00	-45.77	11.18	1.66	-36.25	-13.00	-23.25	Vertical
3760.00	-61.64	12.19	0.79	-50.24	-13.00	-37.24	Horizontal
5640.00	-54.14	12.60	1.15	-42.69	-13.00	-29.69	Horizontal
7520.00	-48.69	11.18	1.66	-39.17	-13.00	-26.17	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	-56.56	12.12	0.81	-45.25	-13.00	-32.25	Vertical
5724.90	-51.65	12.71	1.19	-40.13	-13.00	-27.13	Vertical
7633.20	-44.64	11.09	1.71	-35.26	-13.00	-22.26	Vertical
3816.60	-60.93	12.12	0.81	-49.62	-13.00	-36.62	Horizontal
5724.90	-52.77	12.71	1.19	-41.25	-13.00	-28.25	Horizontal
7633.20	-48.15	11.09	1.71	-38.77	-13.00	-25.77	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB 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	-57.72	12.24	0.77	-46.25	-13.00	-33.25	Vertical
5580.00	-53.98	12.51	1.15	-42.62	-13.00	-29.62	Vertical
7440.00	-45.97	11.24	1.64	-36.37	-13.00	-23.37	Vertical
3720.00	-61.16	12.24	0.77	-49.69	-13.00	-36.69	Horizontal
5580.00	-53.94	12.51	1.15	-42.58	-13.00	-29.58	Horizontal
7440.00	-46.79	11.24	1.64	-37.19	-13.00	-24.19	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	-56.65	12.19	0.79	-45.25	-13.00	-32.25	Vertical
5640.00	-50.76	12.60	1.15	-39.31	-13.00	-26.31	Vertical
7520.00	-45.10	11.18	1.66	-35.58	-13.00	-22.58	Vertical
3760.00	-61.03	12.19	0.79	-49.63	-13.00	-36.63	Horizontal
5640.00	-53.60	12.60	1.15	-42.15	-13.00	-29.15	Horizontal
7520.00	-49.57	11.18	1.66	-40.05	-13.00	-27.05	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	-55.47	12.14	0.79	-44.12	-13.00	-31.12	Vertical
5700.00	-50.82	12.68	1.18	-39.32	-13.00	-26.32	Vertical
7600.00	-45.68	11.12	1.69	-36.25	-13.00	-23.25	Vertical
3800.00	-58.60	12.14	0.79	-47.25	-13.00	-34.25	Horizontal
5700.00	-53.71	12.68	1.18	-42.21	-13.00	-29.21	Horizontal
7600.00	-50.60	11.12	1.69	-41.17	-13.00	-28.17	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB 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	-59.48	12.30	0.70	-47.88	-13.00	-34.88	Vertical
5132.10	-56.23	12.69	1.01	-44.55	-13.00	-31.55	Vertical
6842.80	-48.21	11.56	1.53	-38.18	-13.00	-25.18	Vertical
3421.40	-60.79	12.30	0.70	-49.19	-13.00	-36.19	Horizontal
5132.10	-54.83	12.69	1.01	-43.15	-13.00	-30.15	Horizontal
6842.80	-48.85	11.56	1.53	-38.82	-13.00	-25.82	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	-58.01	12.41	0.72	-46.32	-13.00	-33.32	Vertical
5197.50	-55.85	12.64	1.04	-44.25	-13.00	-31.25	Vertical
6930.00	-49.59	11.53	1.56	-39.62	-13.00	-26.62	Vertical
3465.00	-60.21	12.41	0.72	-48.52	-13.00	-35.52	Horizontal
5197.50	-53.77	12.64	1.04	-42.17	-13.00	-29.17	Horizontal
6930.00	-47.45	11.53	1.56	-37.48	-13.00	-24.48	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	-57.00	12.49	0.74	-45.25	-13.00	-32.25	Vertical
5262.90	-55.15	12.59	1.07	-43.63	-13.00	-30.63	Vertical
7017.20	-50.12	11.49	1.58	-40.21	-13.00	-27.21	Vertical
3508.60	-55.37	12.49	0.74	-43.62	-13.00	-30.62	Horizontal
5262.90	-53.29	12.59	1.07	-41.77	-13.00	-28.77	Horizontal
7017.20	-46.53	11.49	1.58	-36.62	-13.00	-23.62	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB 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	-57.78	12.34	0.71	-46.15	-13.00	-33.15	Vertical
5160.00	-57.23	12.67	1.03	-45.59	-13.00	-32.59	Vertical
6880.00	-46.42	11.55	1.54	-36.41	-13.00	-23.41	Vertical
3440.00	-60.38	12.34	0.71	-48.75	-13.00	-35.75	Horizontal
5160.00	-54.35	12.67	1.03	-42.71	-13.00	-29.71	Horizontal
6880.00	-49.47	11.55	1.54	-39.46	-13.00	-26.46	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	-56.94	12.41	0.72	-45.25	-13.00	-32.25	Vertical
5197.50	-54.85	12.64	1.04	-43.25	-13.00	-30.25	Vertical
6930.00	-50.22	11.53	1.56	-40.25	-13.00	-27.25	Vertical
3465.00	-56.98	12.41	0.72	-45.29	-13.00	-32.29	Horizontal
5197.50	-52.92	12.64	1.04	-41.32	-13.00	-28.32	Horizontal
6930.00	-46.66	11.53	1.56	-36.69	-13.00	-23.69	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	-56.01	12.49	0.73	-44.25	-13.00	-31.25	Vertical
5235.00	-54.80	12.61	1.06	-43.25	-13.00	-30.25	Vertical
6980.00	-49.59	11.51	1.57	-39.65	-13.00	-26.65	Vertical
3490.00	-53.91	12.49	0.73	-42.15	-13.00	-29.15	Horizontal
5235.00	-54.34	12.61	1.06	-42.79	-13.00	-29.79	Horizontal
6980.00	-45.52	11.51	1.57	-35.58	-13.00	-22.58	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

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	-61.60	9.58	0.20	-52.22	-13.00	-39.22	Vertical
2474.10	-63.43	10.79	0.43	-53.07	-13.00	-40.07	Vertical
3298.80	-62.26	12.14	0.64	-50.76	-13.00	-37.76	Vertical
1649.40	-64.74	9.58	0.20	-55.36	-13.00	-42.36	Horizontal
2474.10	-63.39	10.79	0.43	-53.03	-13.00	-40.03	Horizontal
3298.80	-61.80	12.14	0.64	-50.30	-13.00	-37.30	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	-60.65	9.62	0.22	-51.25	-13.00	-38.25	Vertical
2509.50	-59.99	10.83	0.46	-49.62	-13.00	-36.62	Vertical
3346.00	-61.76	12.23	0.66	-50.19	-13.00	-37.19	Vertical
1673.30	-63.66	9.62	0.22	-54.26	-13.00	-41.26	Horizontal
2509.50	-62.63	10.83	0.46	-52.26	-13.00	-39.26	Horizontal
3346.00	-60.95	12.23	0.66	-49.38	-13.00	-36.38	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	-60.68	9.66	0.23	-51.25	-13.00	-38.25	Vertical
2544.90	-62.82	10.88	0.49	-52.43	-13.00	-39.43	Vertical
3393.20	-61.26	12.32	0.68	-49.62	-13.00	-36.62	Vertical
1696.60	-62.68	9.66	0.23	-53.25	-13.00	-40.25	Horizontal
2544.90	-63.17	10.88	0.49	-52.78	-13.00	-39.78	Horizontal
3393.20	-60.96	12.32	0.68	-49.32	-13.00	-36.32	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB 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	-60.60	9.58	0.21	-51.23	-13.00	-38.23	Vertical
2487.00	-62.97	10.79	0.45	-52.63	-13.00	-39.63	Vertical
3316.00	-61.11	12.14	0.65	-49.62	-13.00	-36.62	Vertical
1658.00	-63.62	9.58	0.21	-54.25	-13.00	-41.25	Horizontal
2487.00	-63.59	10.79	0.45	-53.25	-13.00	-40.25	Horizontal
3316.00	-61.26	12.14	0.65	-49.77	-13.00	-36.77	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	-61.64	9.62	0.21	-52.23	-13.00	-39.23	Vertical
2509.50	-58.93	10.83	0.46	-48.56	-13.00	-35.56	Vertical
3346.00	-61.19	12.23	0.66	-49.62	-13.00	-36.62	Vertical
1673.30	-62.55	9.62	0.21	-53.14	-13.00	-40.14	Horizontal
2509.50	-63.14	10.83	0.46	-52.77	-13.00	-39.77	Horizontal
3346.00	-60.39	12.23	0.66	-48.82	-13.00	-35.82	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	-61.69	9.66	0.23	-52.26	-13.00	-39.26	Vertical
2532.00	-61.76	10.88	0.48	-51.36	-13.00	-38.36	Vertical
3376.00	-60.47	12.32	0.67	-48.82	-13.00	-35.82	Vertical
1688.00	-60.68	9.66	0.23	-51.25	-13.00	-38.25	Horizontal
2532.00	-64.03	10.88	0.48	-53.63	-13.00	-40.63	Horizontal
3376.00	-59.82	12.32	0.67	-48.17	-13.00	-35.17	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

LTE Band 12 part:

Band 12 (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
1399.40	-61.76	8.30	0.11	-53.57	-13.00	-40.57	Vertical
2099.10	-68.09	10.48	0.29	-57.90	-13.00	-44.90	Vertical
2798.80	-63.90	11.04	0.53	-53.39	-13.00	-40.39	Vertical
1399.40	-61.49	8.30	0.11	-53.30	-13.00	-40.30	Horizontal
2099.10	-67.43	10.48	0.29	-57.24	-13.00	-44.24	Horizontal
2798.80	-63.31	11.04	0.53	-52.80	-13.00	-39.80	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
1415.00	-60.47	8.35	0.13	-52.25	-13.00	-39.25	Vertical
2122.50	-66.50	10.50	0.32	-56.32	-13.00	-43.32	Vertical
2830.00	-62.94	11.06	0.55	-52.43	-13.00	-39.43	Vertical
1415.00	-62.38	8.35	0.13	-54.16	-13.00	-41.16	Horizontal
2122.50	-66.43	10.50	0.32	-56.25	-13.00	-43.25	Horizontal
2830.00	-62.09	11.06	0.55	-51.58	-13.00	-38.58	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
1430.60	-61.55	8.39	0.16	-53.32	-13.00	-40.32	Vertical
2145.90	-64.42	10.52	0.35	-54.25	-13.00	-41.25	Vertical
2861.20	-61.98	11.09	0.58	-51.47	-13.00	-38.47	Vertical
1430.60	-61.92	8.39	0.16	-53.69	-13.00	-40.69	Horizontal
2145.90	-65.69	10.52	0.35	-55.52	-13.00	-42.52	Horizontal
2861.20	-62.30	11.09	0.58	-51.79	-13.00	-38.79	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

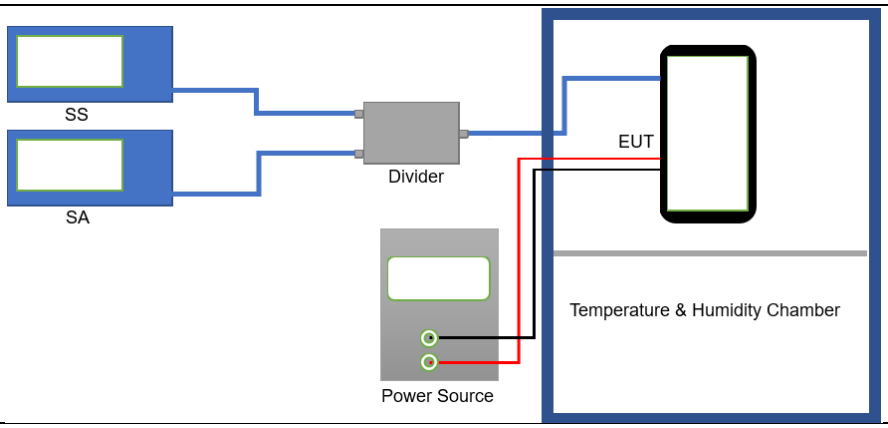
Band 12 (10MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1408.00	-60.43	8.32	0.12	-52.23	-13.00	-39.23	Vertical
2112.00	-66.31	10.49	0.30	-56.12	-13.00	-43.12	Vertical
2816.00	-63.24	11.05	0.54	-52.73	-13.00	-39.73	Vertical
1408.00	-59.62	8.32	0.12	-51.42	-13.00	-38.42	Horizontal
2112.00	-66.82	10.49	0.30	-56.63	-13.00	-43.63	Horizontal
2816.00	-63.22	11.05	0.54	-52.71	-13.00	-39.71	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
1415.00	-60.43	8.35	0.13	-52.21	-13.00	-39.21	Vertical
2122.50	-65.81	10.50	0.32	-55.63	-13.00	-42.63	Vertical
2830.00	-63.00	11.06	0.55	-52.49	-13.00	-39.49	Vertical
1415.00	-61.84	8.35	0.13	-53.62	-13.00	-40.62	Horizontal
2122.50	-65.45	10.50	0.32	-55.27	-13.00	-42.27	Horizontal
2830.00	-62.30	11.06	0.55	-51.79	-13.00	-38.79	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
1422.00	-60.48	8.37	0.15	-52.26	-13.00	-39.26	Vertical
2133.00	-62.43	10.51	0.34	-52.26	-13.00	-39.26	Vertical
2844.00	-61.98	11.08	0.57	-51.47	-13.00	-38.47	Vertical
1422.00	-60.47	8.37	0.15	-52.25	-13.00	-39.25	Horizontal
2133.00	-64.30	10.51	0.34	-54.13	-13.00	-41.13	Horizontal
2844.00	-63.30	11.08	0.57	-52.79	-13.00	-39.79	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

LTE Band 17 part:

Band 17 (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
1413.00	-59.74	8.34	0.12	-51.52	-13.00	-38.52	Vertical
2119.50	-67.33	10.50	0.31	-57.14	-13.00	-44.14	Vertical
2826.00	-63.51	11.06	0.54	-52.99	-13.00	-39.99	Vertical
1413.00	-58.87	8.34	0.12	-50.65	-13.00	-37.65	Horizontal
2119.50	-66.41	10.50	0.31	-56.22	-13.00	-43.22	Horizontal
2826.00	-62.76	11.06	0.54	-52.24	-13.00	-39.24	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
1420.00	-60.47	8.36	0.14	-52.25	-13.00	-39.25	Vertical
2130.00	-66.49	10.50	0.33	-56.32	-13.00	-43.32	Vertical
2840.00	-61.76	11.07	0.56	-51.25	-13.00	-38.25	Vertical
1420.00	-57.84	8.36	0.14	-49.62	-13.00	-36.62	Horizontal
2130.00	-65.36	10.50	0.33	-55.19	-13.00	-42.19	Horizontal
2840.00	-63.24	11.07	0.56	-52.73	-13.00	-39.73	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
1427.00	-60.48	8.38	0.16	-52.26	-13.00	-39.26	Vertical
2140.50	-66.91	10.51	0.34	-56.74	-13.00	-43.74	Vertical
2854.00	-61.93	11.08	0.57	-51.42	-13.00	-38.42	Vertical
1427.00	-57.90	8.38	0.16	-49.68	-13.00	-36.68	Horizontal
2140.50	-65.42	10.51	0.34	-55.25	-13.00	-42.25	Horizontal
2854.00	-61.98	11.08	0.57	-51.47	-13.00	-38.47	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

Band 17 (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
1418.00	-60.45	8.35	0.13	-52.23	-13.00	-39.23	Vertical
2127.00	-66.50	10.50	0.32	-56.32	-13.00	-43.32	Vertical
2836.00	-61.93	11.07	0.56	-51.42	-13.00	-38.42	Vertical
1418.00	-59.20	8.35	0.13	-50.98	-13.00	-37.98	Horizontal
2127.00	-65.70	10.50	0.32	-55.52	-13.00	-42.52	Horizontal
2836.00	-61.98	11.07	0.56	-51.47	-13.00	-38.47	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
1420.00	-59.54	8.36	0.14	-51.32	-13.00	-38.32	Vertical
2130.00	-65.69	10.50	0.33	-55.52	-13.00	-42.52	Vertical
2840.00	-59.80	11.07	0.56	-49.29	-13.00	-36.29	Vertical
1420.00	-56.48	8.36	0.14	-48.26	-13.00	-35.26	Horizontal
2130.00	-64.42	10.50	0.33	-54.25	-13.00	-41.25	Horizontal
2840.00	-61.90	11.07	0.56	-51.39	-13.00	-38.39	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
1422.00	-59.48	8.37	0.15	-51.26	-13.00	-38.26	Vertical
2133.00	-66.49	10.51	0.34	-56.32	-13.00	-43.32	Vertical
2844.00	-62.76	11.08	0.57	-52.25	-13.00	-39.25	Vertical
1422.00	-57.95	8.37	0.15	-49.73	-13.00	-36.73	Horizontal
2133.00	-64.30	10.51	0.34	-54.13	-13.00	-41.13	Horizontal
2844.00	-63.08	11.08	0.57	-52.57	-13.00	-39.57	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB 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:	±2.5 ppm for Band 5 Within authorized band for Band 2 & 4 & 5 & 12 & 17
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					
3.70	-30	170	0.090426	Within authorized band for Band 2	Pass
	-20	165	0.087766		
	-10	157	0.083511		
	0	152	0.080851		
	10	146	0.077660		
	20	139	0.073936		
	30	134	0.071277		
	40	126	0.067021		
	50	115	0.061170		
16QAM					
3.70	-30	168	0.089362	Within authorized band for Band 2	Pass
	-20	160	0.085106		
	-10	154	0.081915		
	0	137	0.072872		
	10	133	0.070745		
	20	127	0.067553		
	30	123	0.065426		
	40	117	0.062234		
	50	110	0.058511		
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					
3.70	-30	173	0.099856	Within authorized band for Band 4	Pass
	-20	167	0.096392		
	-10	159	0.091775		
	0	153	0.088312		
	10	144	0.083117		
	20	136	0.078499		
	30	130	0.075036		
	40	124	0.071573		
	50	113	0.065224		
16QAM					
3.70	-30	170	0.098124	Within authorized band for Band 4	Pass
	-20	160	0.092352		
	-10	154	0.088889		
	0	144	0.083117		
	10	136	0.078499		
	20	130	0.075036		
	30	124	0.071573		
	40	119	0.068687		
	50	112	0.064646		
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					
3.70	-30	168	0.200837	±2.5	Pass
	-20	162	0.193664		
	-10	156	0.186491		
	0	149	0.178123		
	10	142	0.169755		
	20	135	0.161387		
	30	127	0.151823		
	40	121	0.144650		
	50	113	0.135087		
16QAM					
3.70	-30	166	0.198446	±2.5	Pass
	-20	159	0.190078		
	-10	153	0.182905		
	0	146	0.174537		
	10	139	0.166169		
	20	134	0.160191		
	30	127	0.151823		
	40	121	0.144650		
	50	111	0.132696		
Note: Only the worst case shown in the report.					

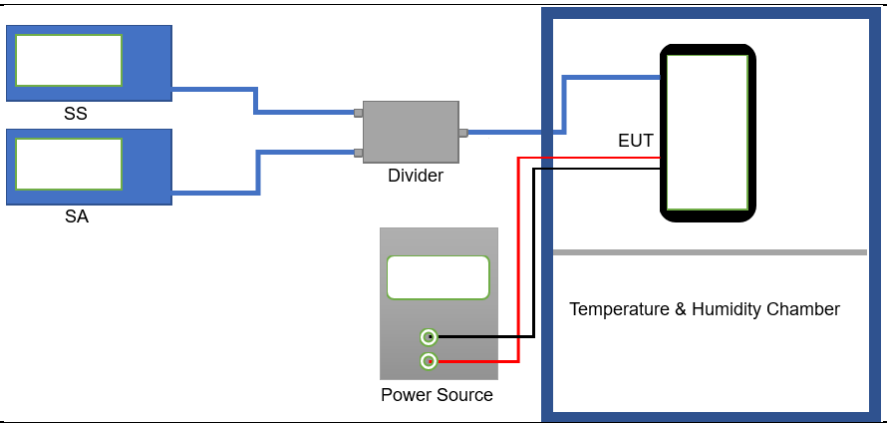
LTE Band 12 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=707.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	173	0.244523	Within authorized band for Band 12	Pass
	-20	156	0.220495		
	-10	140	0.197880		
	0	130	0.183746		
	10	120	0.169611		
	20	110	0.155477		
	30	134	0.189399		
	40	148	0.209187		
	50	162	0.228975		
16QAM					
3.70	-30	170	0.240283	Within authorized band for Band 12	Pass
	-20	166	0.234629		
	-10	157	0.221908		
	0	150	0.212014		
	10	143	0.202120		
	20	134	0.189399		
	30	125	0.176678		
	40	118	0.166784		
	50	109	0.154064		
Note: Only the worst case shown in the report.					

LTE Band 17 part:

Reference Frequency: LTE Band 17 (10MHz) Middle channel=23790 channel=710.00MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	170	0.239437	Within authorized band for Band 17	Pass
	-20	160	0.225352		
	-10	153	0.215493		
	0	145	0.204225		
	10	136	0.191549		
	20	130	0.183099		
	30	121	0.170423		
	40	116	0.163380		
	50	107	0.150704		
16QAM					
3.70	-30	167	0.235211	Within authorized band for Band 17	Pass
	-20	159	0.223944		
	-10	154	0.216901		
	0	143	0.201408		
	10	136	0.191549		
	20	130	0.183099		
	30	124	0.174648		
	40	116	0.163380		
	50	105	0.147887		
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:	±2.5 ppm for Band 5 Within authorized band for Band 2 & 4 & 5 & 12 & 17
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	4.20	80	0.042553	Within authorized band for Band 2	Pass
	3.70	71	0.037766		
	3.50	58	0.030851		
16QAM					
25	4.20	79	0.042021	Within authorized band for Band 2	Pass
	3.70	61	0.032447		
	3.50	54	0.028723		
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	4.20	83	0.047908	Within authorized band for Band 4	Pass
	3.70	70	0.040404		
	3.50	57	0.032900		
16QAM					
25	4.20	80	0.046176	Within authorized band for Band 4	Pass
	3.70	69	0.039827		
	3.50	54	0.031169		
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	4.20	84	0.100418	±2.5	Pass
	3.70	73	0.087268		
	3.50	61	0.072923		
16QAM					
25	4.20	82	0.098027	±2.5	Pass
	3.70	70	0.083682		
	3.50	63	0.075314		
Note: Only the worst case shown in the report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 channel=707.50MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.20	85	0.120141	Within authorized band for Band 12	Pass
	3.70	73	0.103180		
	3.50	61	0.086219		
16QAM					
25	4.20	82	0.115901	Within authorized band for Band 12	Pass
	3.70	74	0.104594		
	3.50	64	0.090459		
Note: Only the worst case shown in the report.					

LTE Band 17 part:

Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 channel=710.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.20	80	0.112676	Within authorized band for Band 17	Pass
	3.70	70	0.098592		
	3.50	50	0.070423		
16QAM					
25	4.20	75	0.105634	Within authorized band for Band 17	Pass
	3.70	65	0.091549		
	3.50	59	0.083099		
Note: Only the worst case shown in the report.					