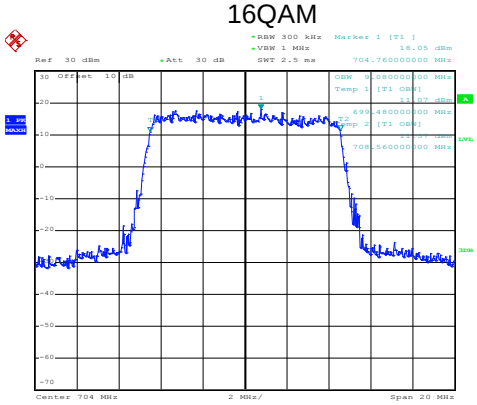
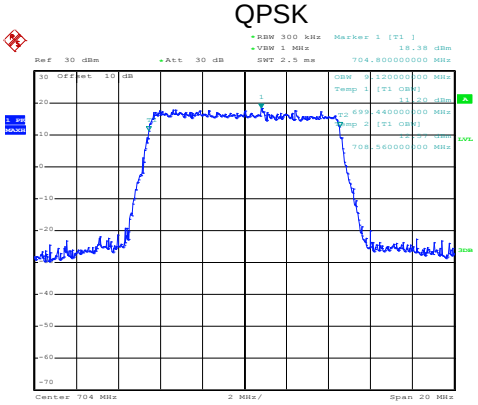
LTE Band 12: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 14.JUL.2020 12:03:44

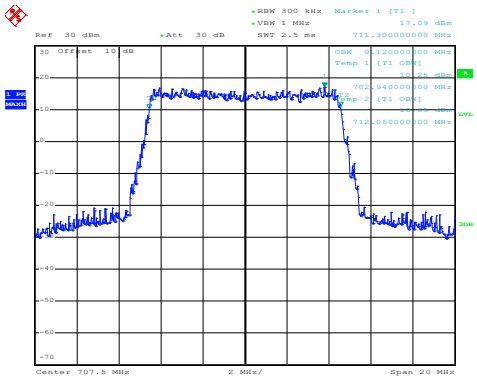
QPSK



Date: 14.JUL.2020 12:03:41

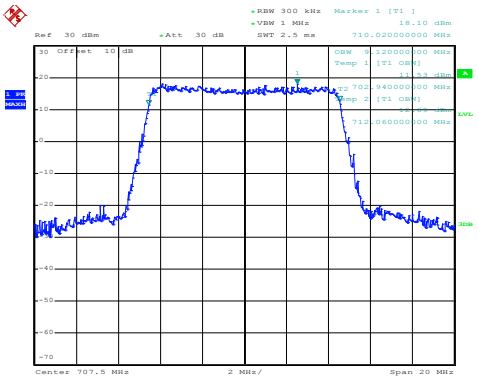
Lowest channel

16QAM



Date: 14.JUL.2020 12:04:28

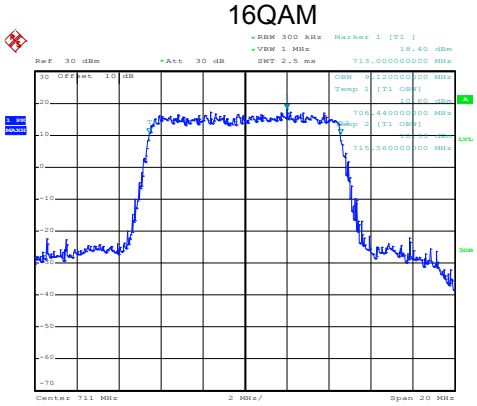
QPSK



Date: 14.JUL.2020 12:04:23

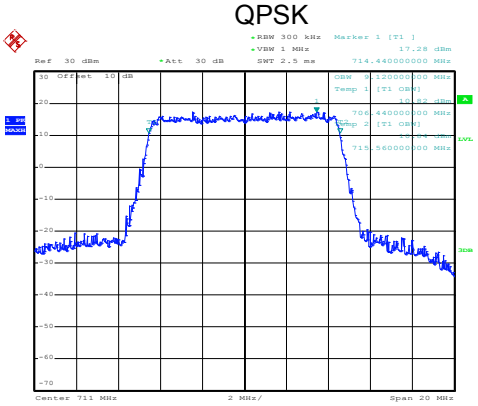
Middle channel

16QAM



Date: 14.JUL.2020 12:04:47

QPSK

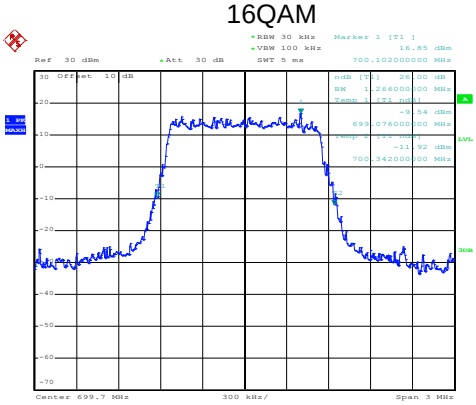


Date: 14.JUL.2020 12:04:43

Highest channel

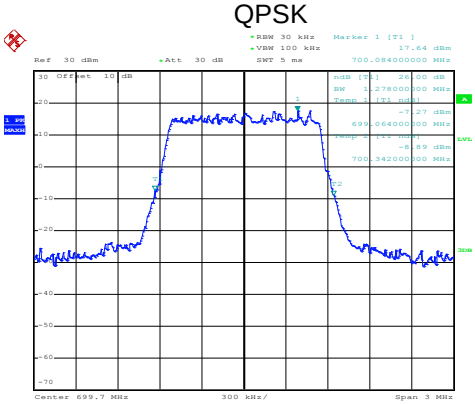
LTE Band 12: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 14.JUL.2020 11:54:12

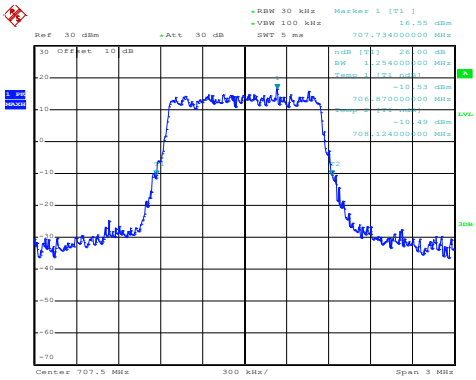
QPSK



Date: 14.JUL.2020 11:54:07

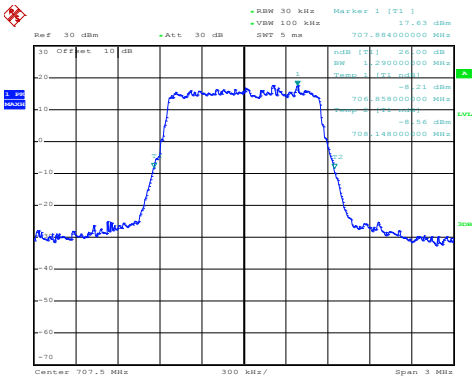
Lowest channel

16QAM



Date: 14.JUL.2020 11:57:30

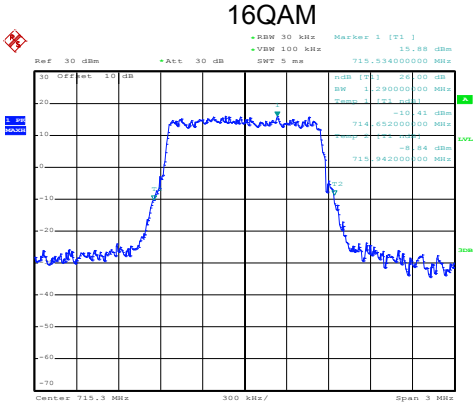
QPSK



Date: 14.JUL.2020 11:57:27

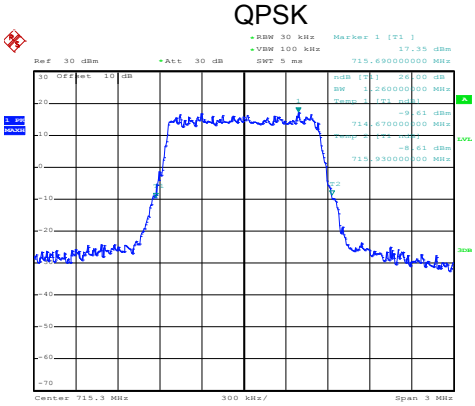
Middle channel

16QAM



Date: 14.JUL.2020 11:58:10

QPSK

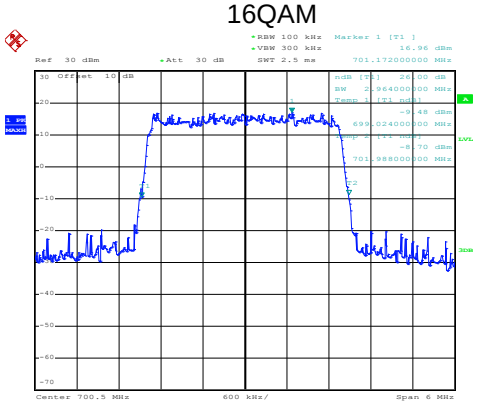


Date: 14.JUL.2020 11:58:05

Highest channel

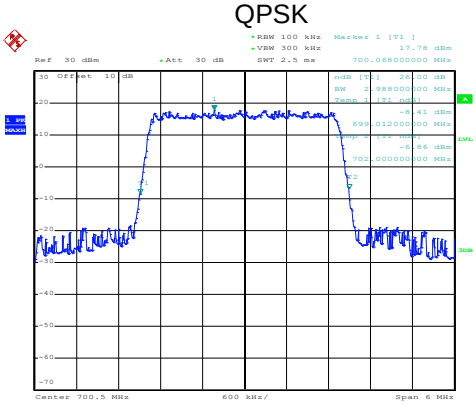
LTE Band 12: -26dBc bandwidth
BW: 3MHz

16QAM



Date: 14.JUL.2020 11:58:45

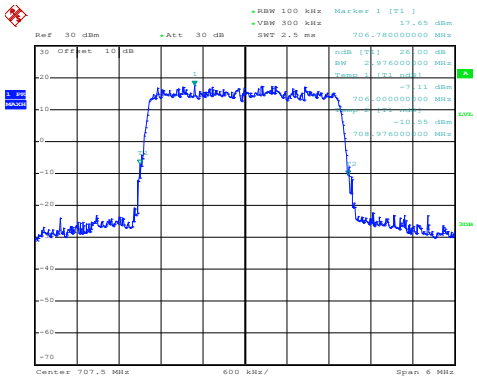
QPSK



Date: 14.JUL.2020 11:58:40

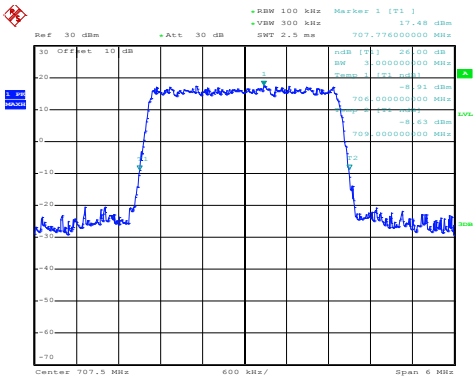
Lowest channel

16QAM



Date: 14.JUL.2020 11:59:41

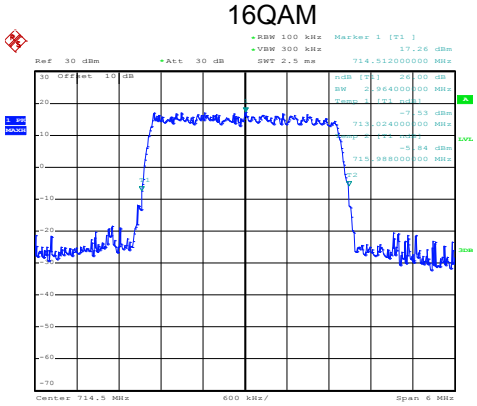
QPSK



Date: 14.JUL.2020 11:59:37

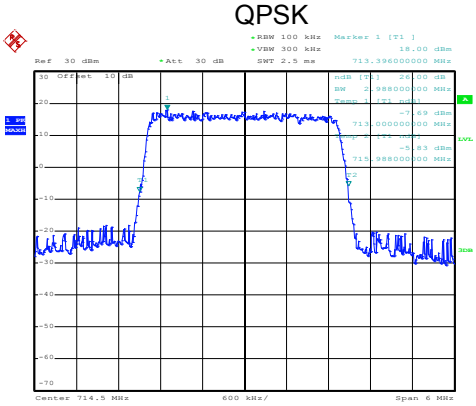
Middle channel

16QAM



Date: 14.JUL.2020 11:59:58

QPSK

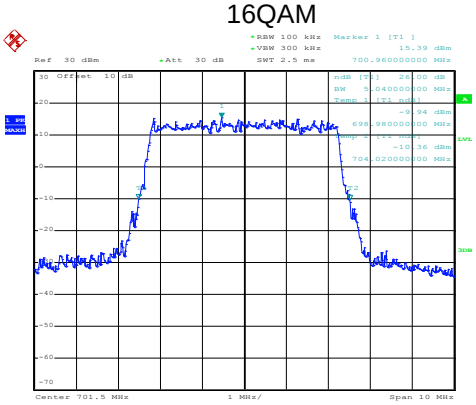


Date: 14.JUL.2020 11:59:55

Highest channel

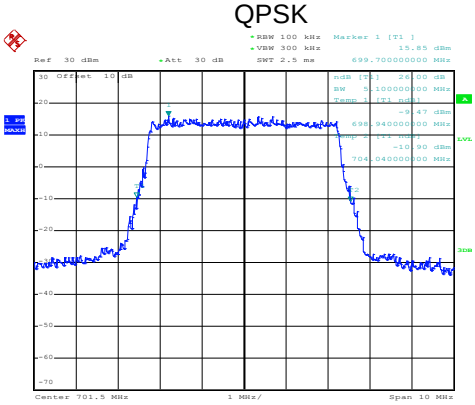
LTE Band 12: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 14.JUL.2020 12:01:42

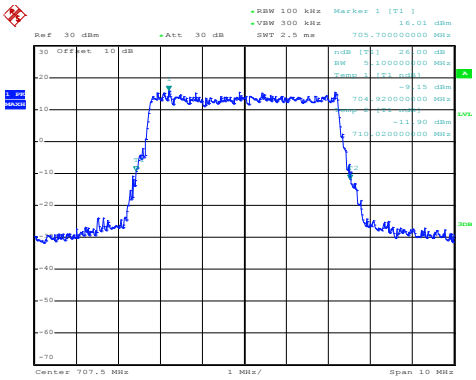
QPSK



Date: 14.JUL.2020 12:01:09

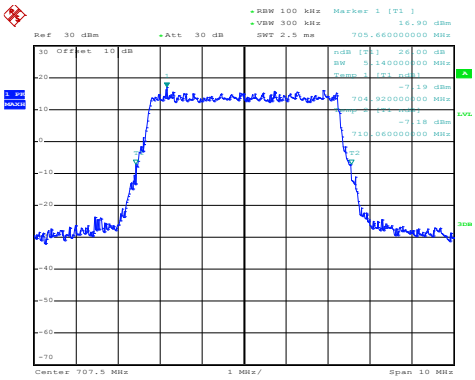
Lowest channel

16QAM



Date: 14.JUL.2020 12:02:38

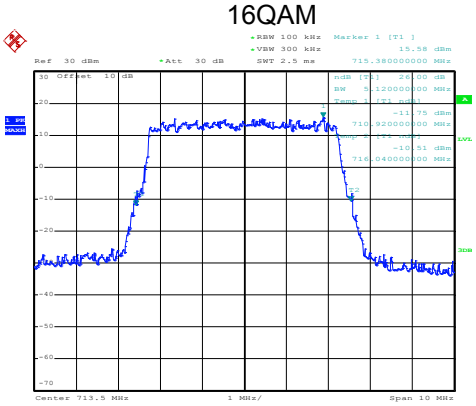
QPSK



Date: 14.JUL.2020 12:02:32

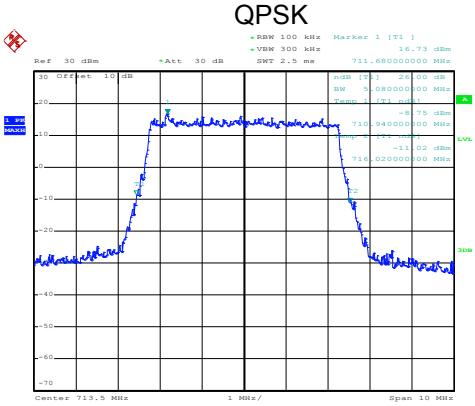
Middle channel

16QAM



Date: 14.JUL.2020 12:03:01

QPSK

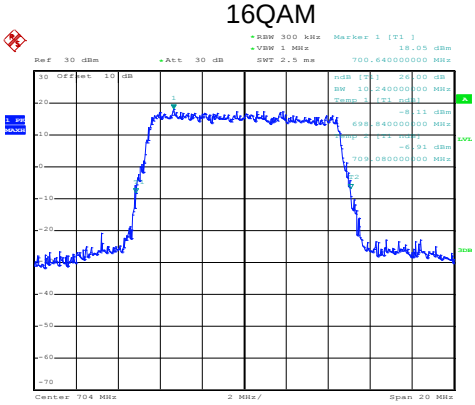


Date: 14.JUL.2020 12:02:56

Highest channel

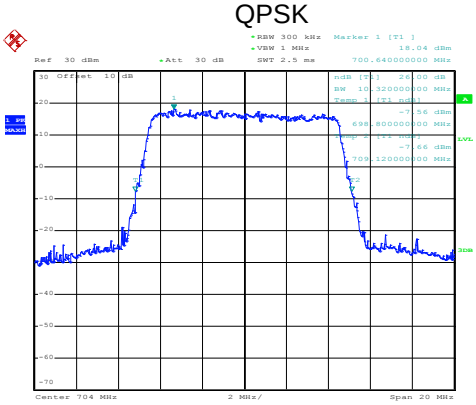
LTE Band 12: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 14.JUL.2020 12:03:55

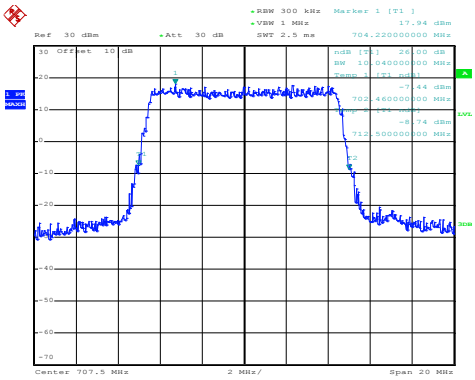
QPSK



Date: 14.JUL.2020 12:03:51

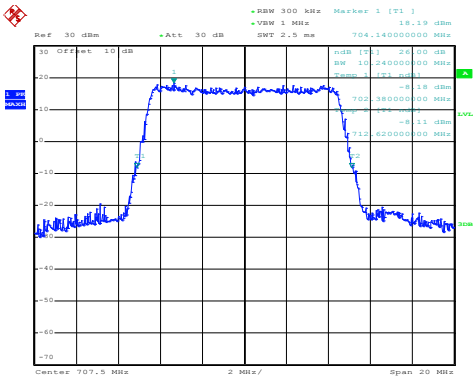
Lowest channel

16QAM



Date: 14.JUL.2020 12:04:16

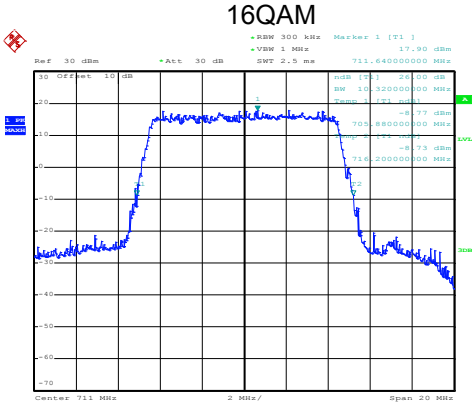
QPSK



Date: 14.JUL.2020 12:04:12

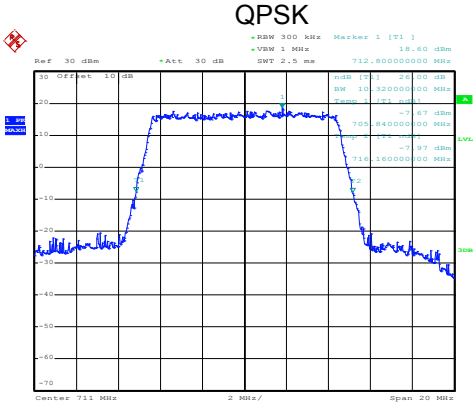
Middle channel

16QAM



Date: 14.JUL.2020 12:05:01

QPSK



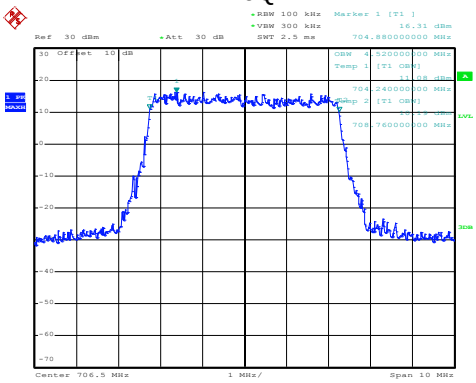
Date: 14.JUL.2020 12:04:57

Highest channel

LTE Band 17 part:

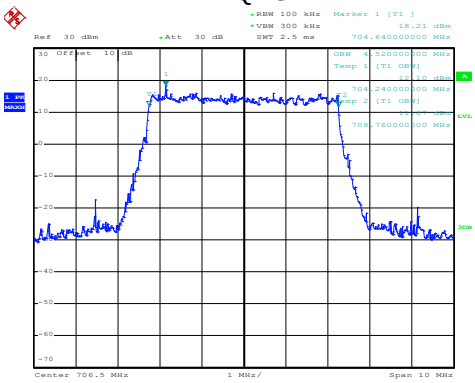
LTE Band 17: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 14.JUL.2020 12:06:08

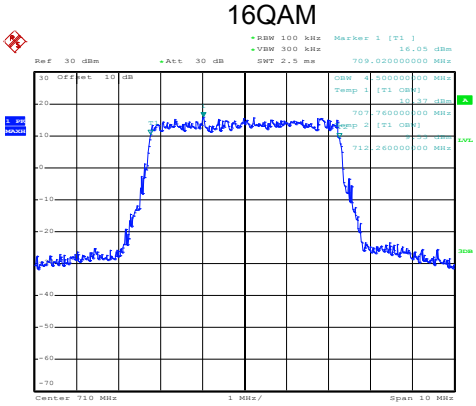
QPSK



Date: 14.JUL.2020 12:06:02

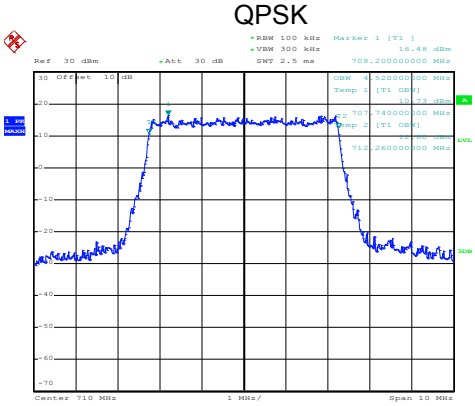
Lowest channel

16QAM



Date: 14.JUL.2020 12:06:30

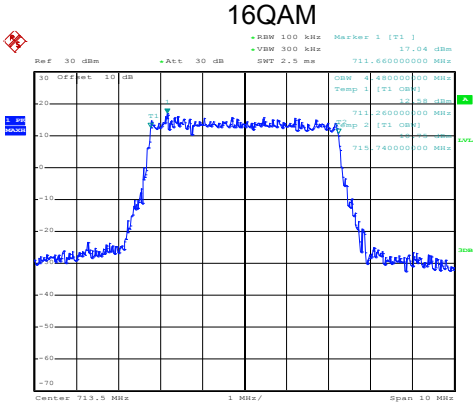
QPSK



Date: 14.JUL.2020 12:06:26

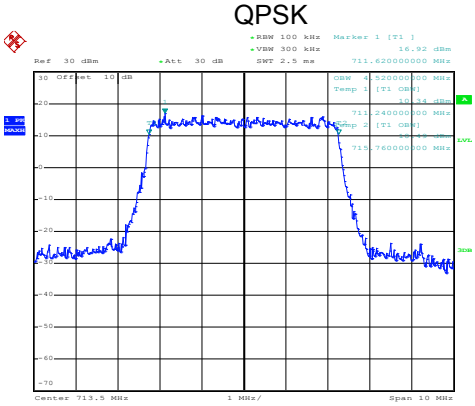
Middle channel

16QAM



Date: 14.JUL.2020 12:07:13

QPSK

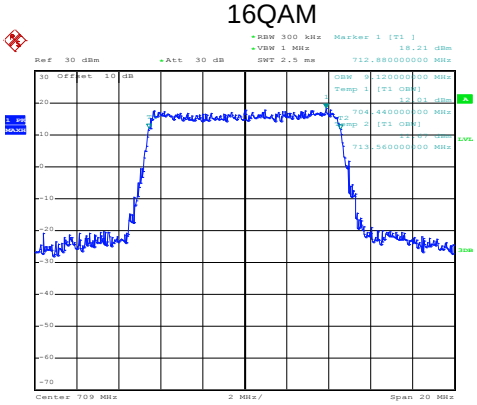


Date: 14.JUL.2020 12:07:09

Highest channel

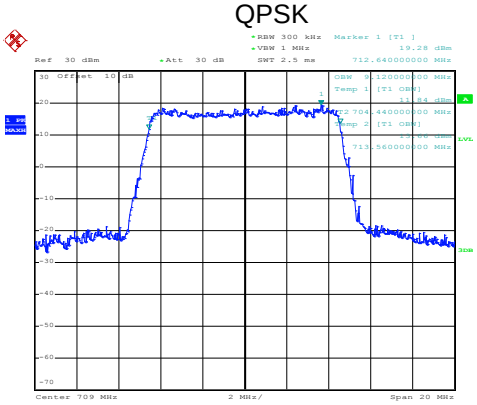
LTE Band 17: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 14.JUL.2020 12:07:47

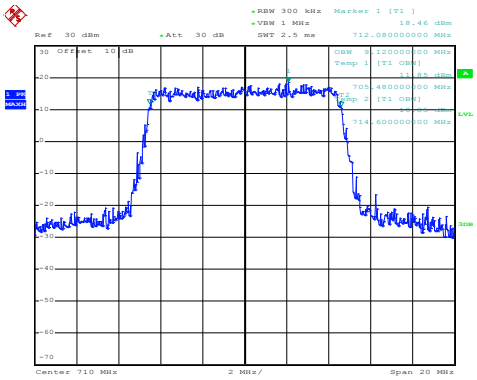
QPSK



Date: 14.JUL.2020 12:07:43

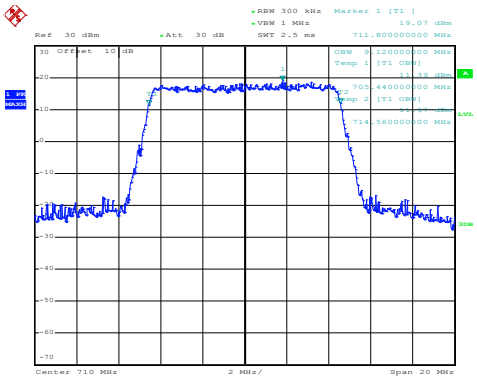
Lowest channel

16QAM



Date: 14.JUL.2020 12:08:38

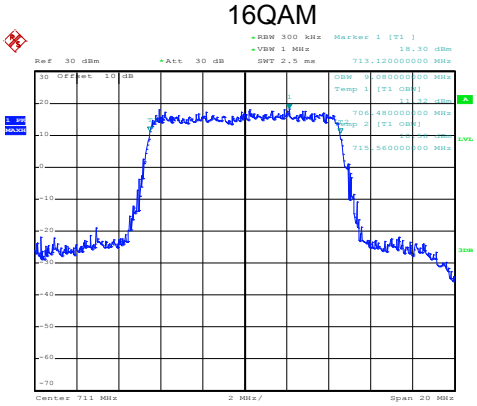
QPSK



Date: 14.JUL.2020 12:08:34

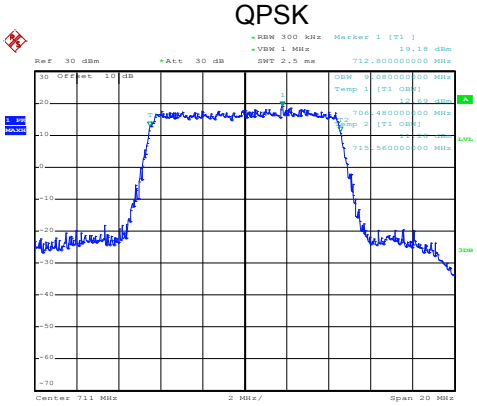
Middle channel

16QAM



Date: 14.JUL.2020 12:08:54

QPSK

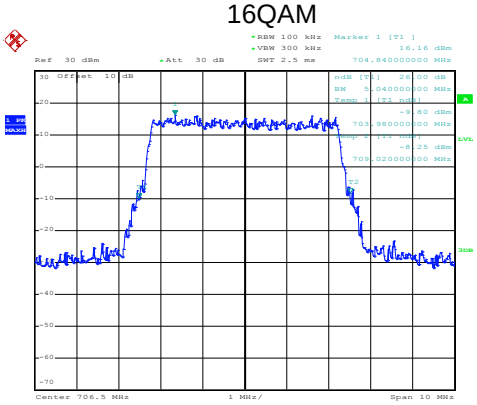


Date: 14.JUL.2020 12:08:50

Highest channel

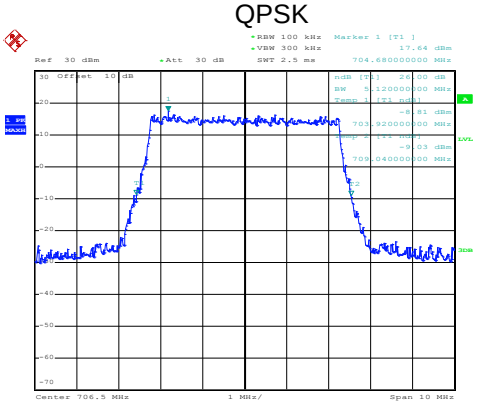
LTE Band 17: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 14.JUL.2020 12:05:51

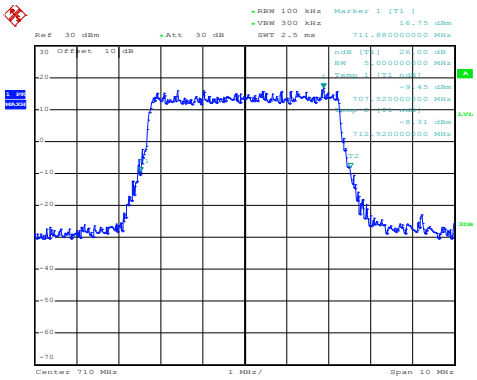
QPSK



Date: 14.JUL.2020 12:05:46

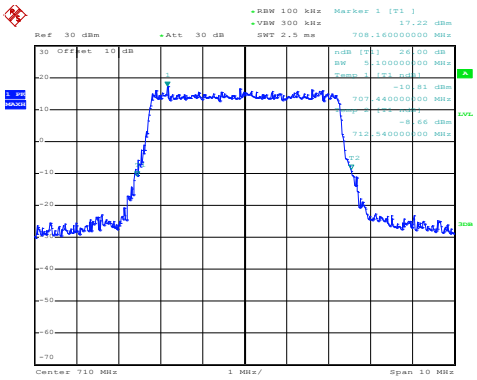
Lowest channel

16QAM



Date: 14.JUL.2020 12:06:44

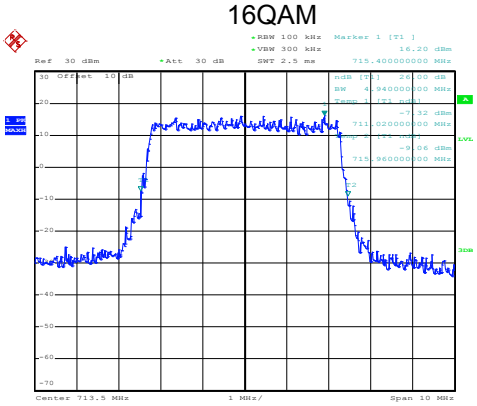
QPSK



Date: 14.JUL.2020 12:06:39

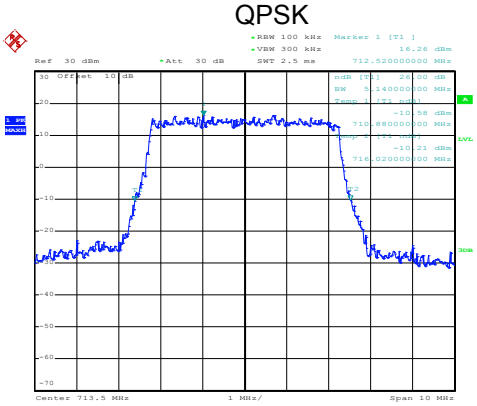
Middle channel

16QAM



Date: 14.JUL.2020 12:07:01

QPSK

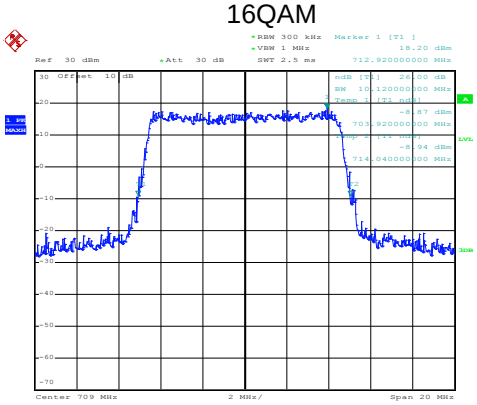


Date: 14.JUL.2020 12:06:58

Highest channel

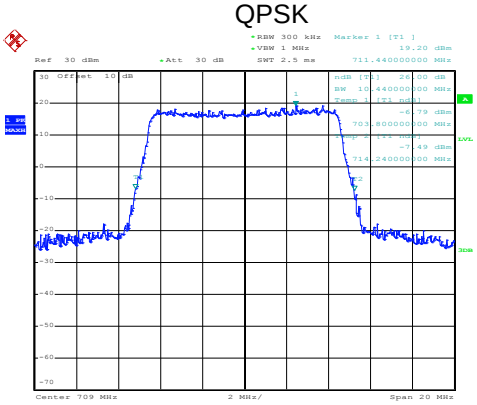
LTE Band 17: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 14.JUL.2020 12:07:59

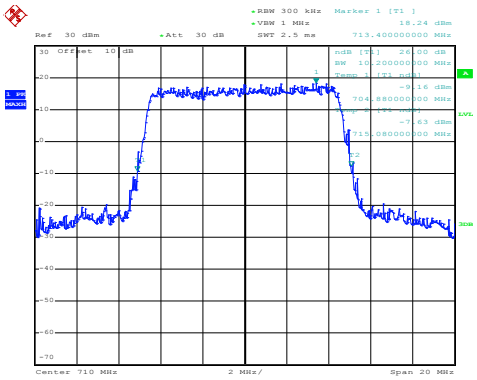
QPSK



Date: 14.JUL.2020 12:07:56

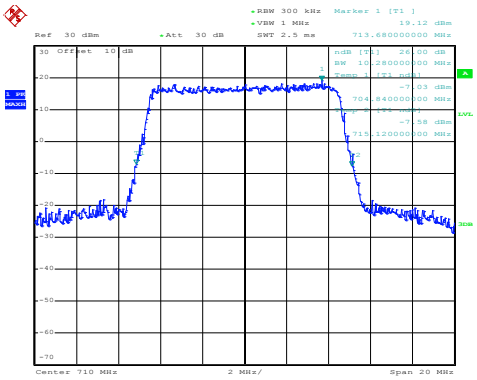
Lowest channel

16QAM



Date: 14.JUL.2020 12:08:20

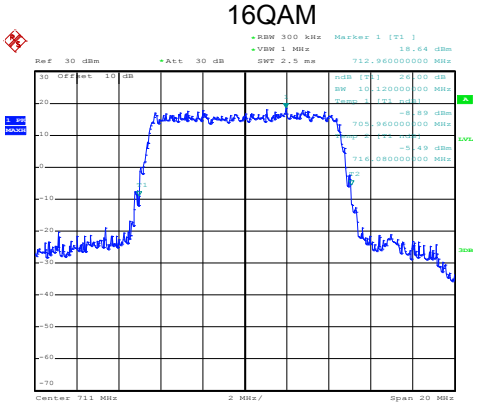
QPSK



Date: 14.JUL.2020 12:08:16

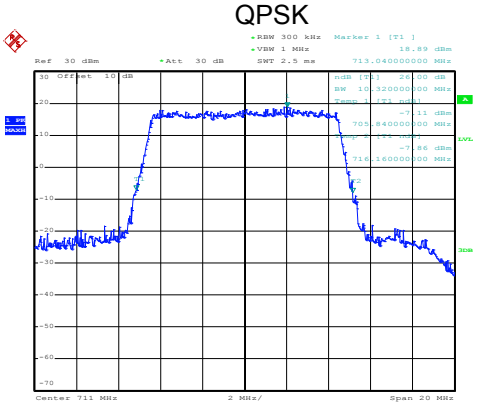
Middle channel

16QAM



Date: 14.JUL.2020 12:09:07

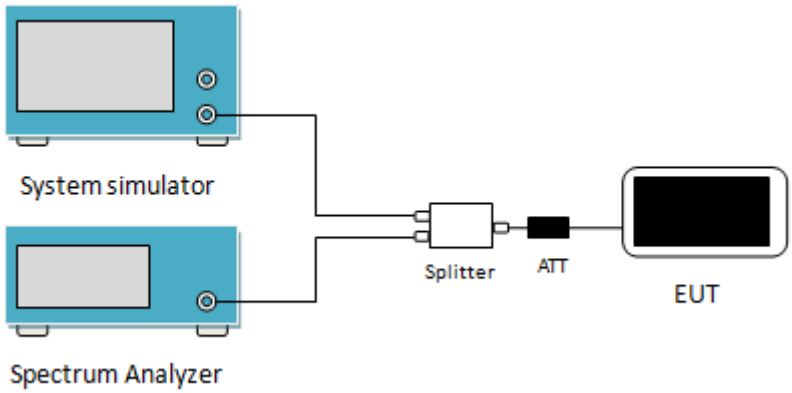
QPSK



Date: 14.JUL.2020 12:09:04

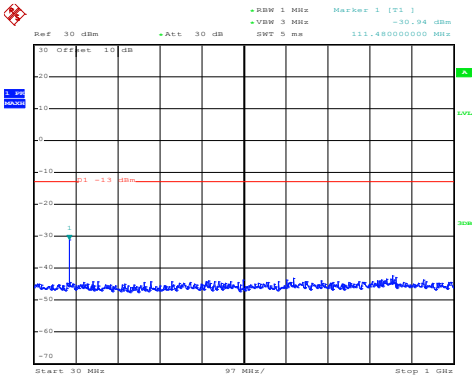
Highest channel

6.4 Out of band emission at antenna terminals

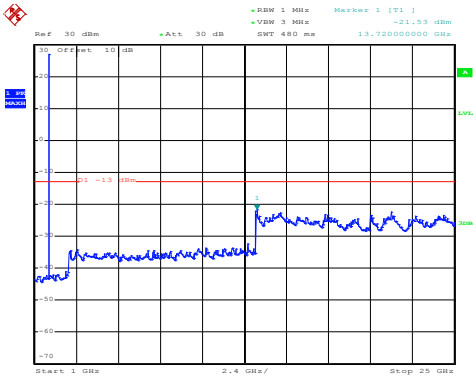
Test Requirement:	Part 22.917(a), Part 24.238 (a), part 27.53(g), part 27.53(h), Part 27.53(m)
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm). LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.
Test Setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 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

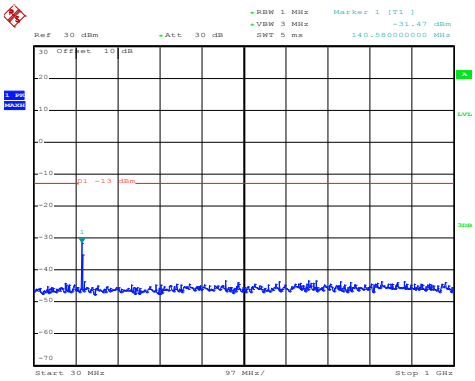


30MHz~1GHz

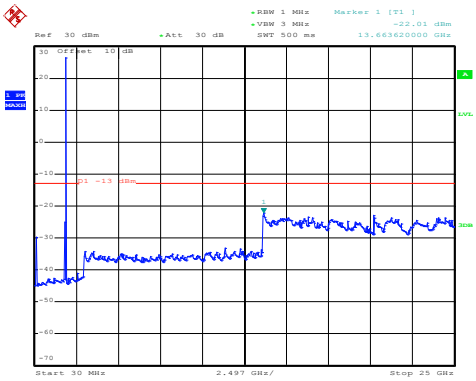


1GHz~25GHz

Middle channel

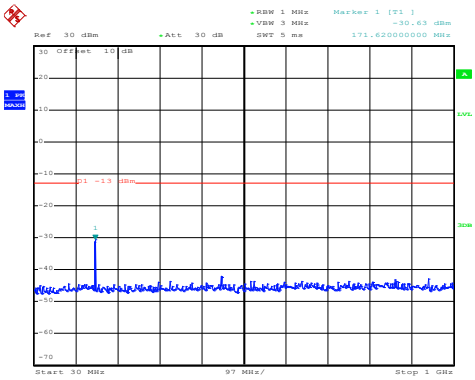


30MHz~1GHz

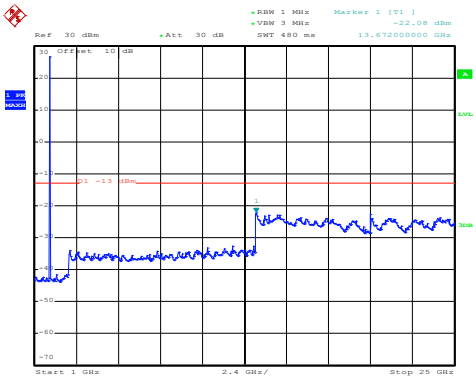


1GHz~25GHz

High channel

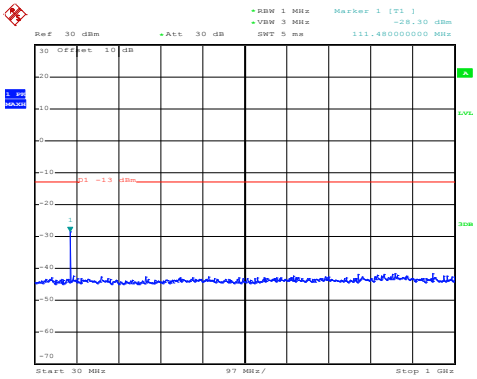


30MHz~1GHz

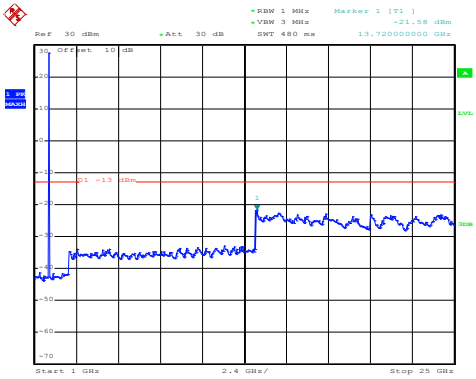


1GHz~25GHz

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

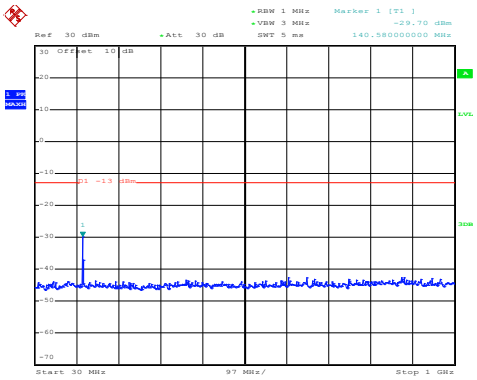


30MHz~1GHz

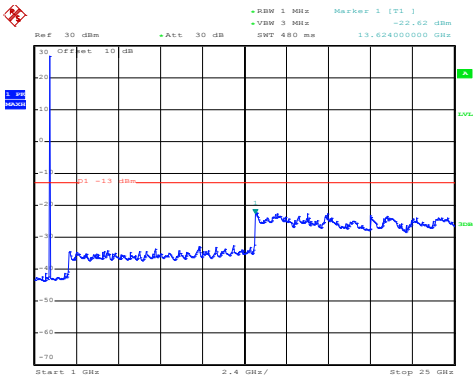


1GHz~25GHz

Middle channel

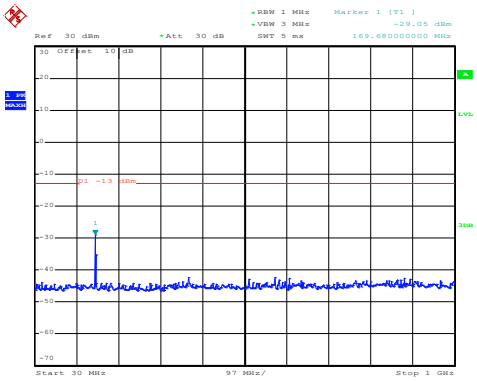


30MHz~1GHz

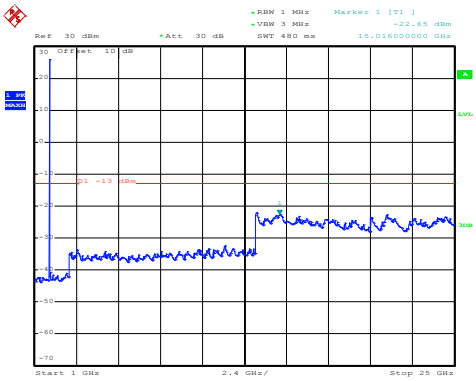


1GHz~25GHz

High channel

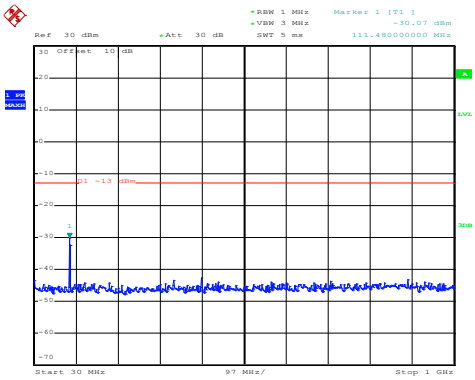


30MHz~1GHz



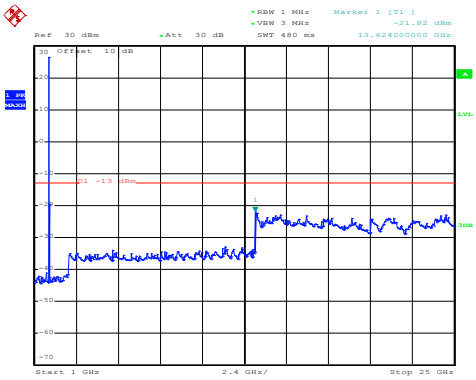
1GHz~25GHz

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



Date: 15.JUL.2020 19:23:18

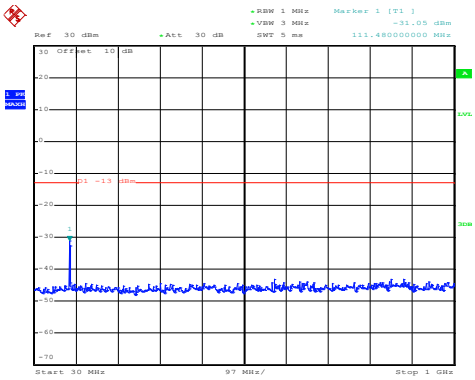
30MHz~1GHz



Date: 15.JUL.2020 19:53:48

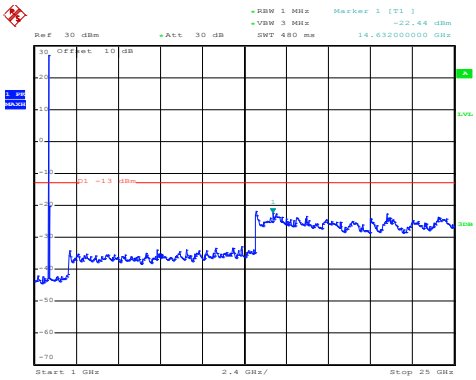
1GHz~25GHz

Middle channel



Date: 15.JUL.2020 19:23:34

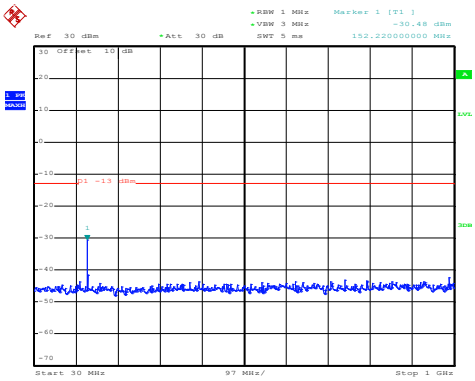
30MHz~1GHz



Date: 15.JUL.2020 19:54:11

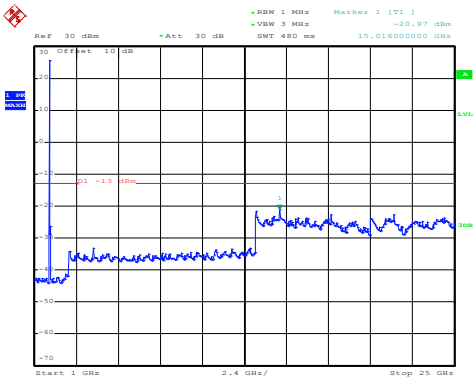
1GHz~25GHz

High channel



Date: 15.JUL.2020 19:23:48

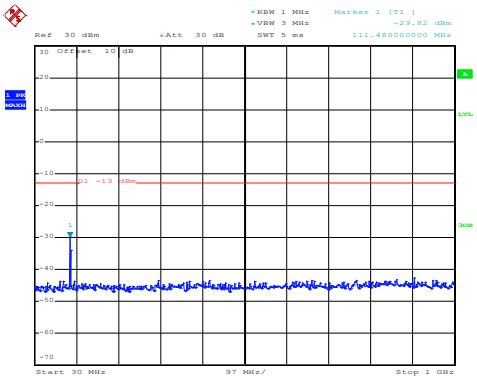
30MHz~1GHz



Date: 15.JUL.2020 19:54:35

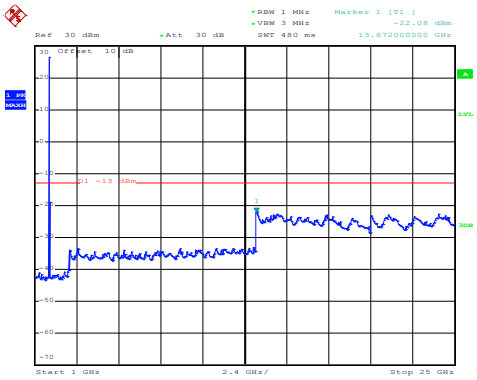
1GHz~25GHz

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



Date: 15.JUL.2020 19:23:15

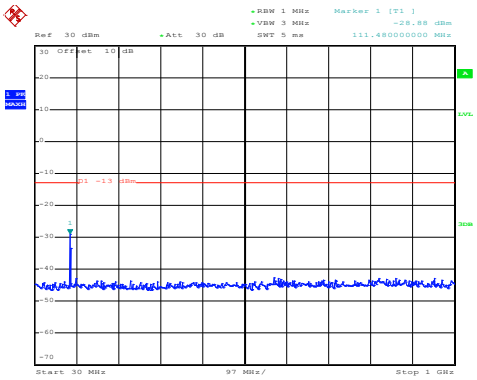
30MHz~1GHz



Date: 15.JUL.2020 19:53:40

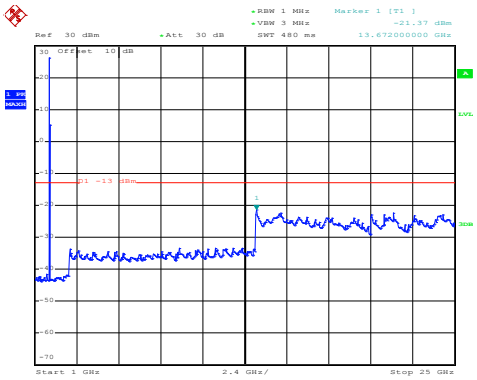
1GHz~25GHz

Middle channel



Date: 15.JUL.2020 19:23:30

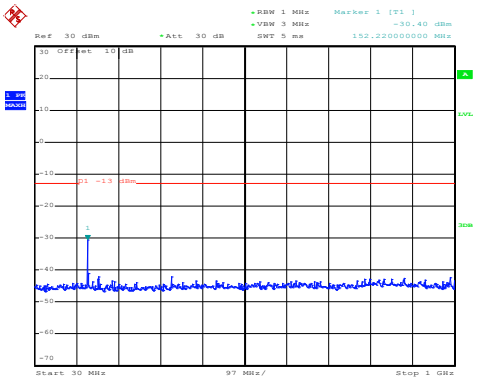
30MHz~1GHz



Date: 15.JUL.2020 19:54:05

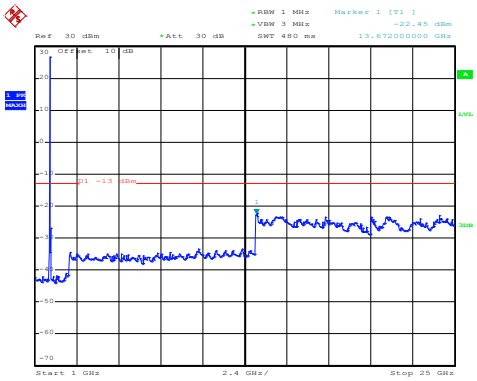
1GHz~25GHz

High channel



Date: 15.JUL.2020 19:23:44

30MHz~1GHz

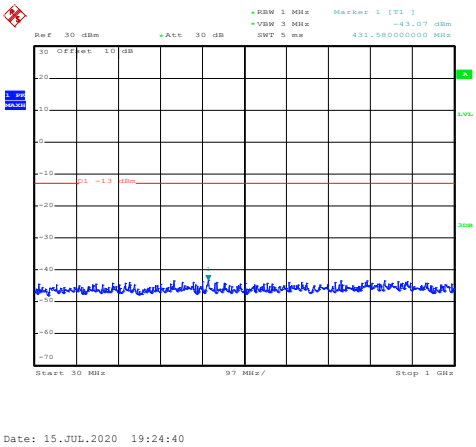


Date: 15.JUL.2020 19:54:27

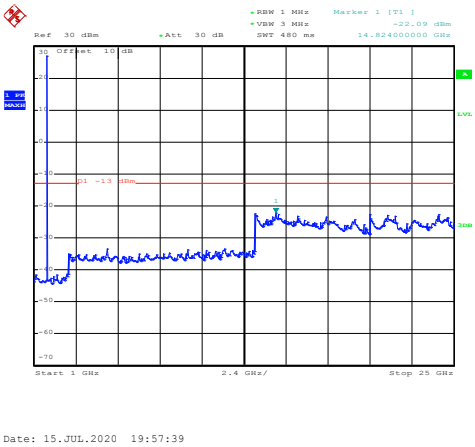
1GHz~25GHz

LTE Band 4 part:

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

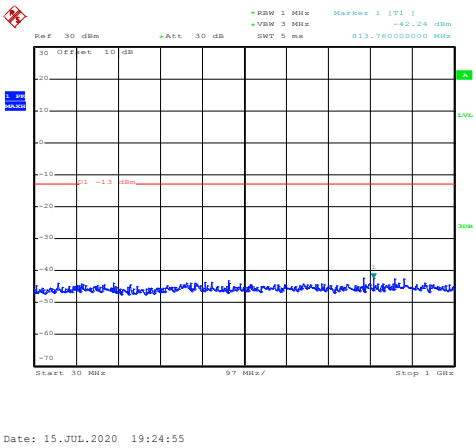


30MHz~1GHz

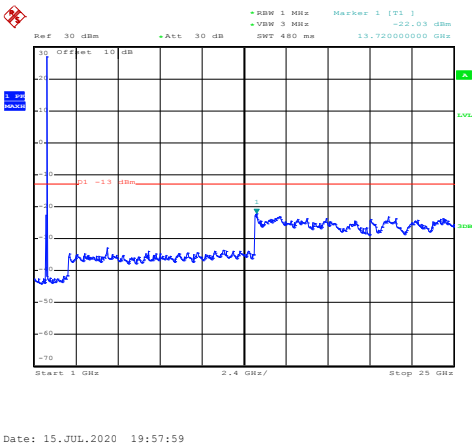


1GHz~25GHz

Middle channel

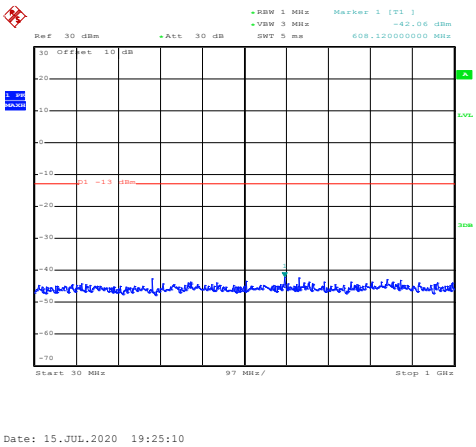


30MHz~1GHz

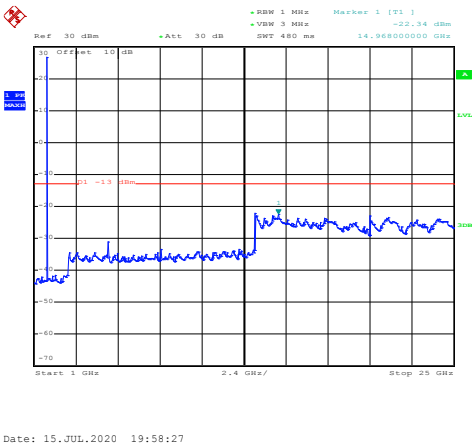


1GHz~25GHz

High channel

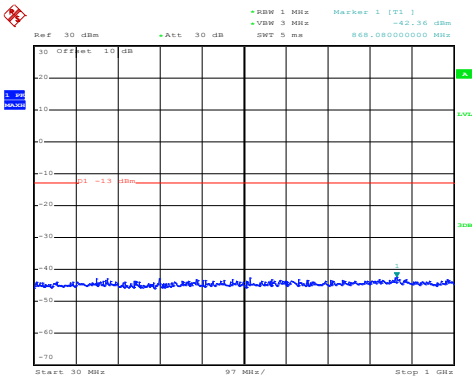


30MHz~1GHz



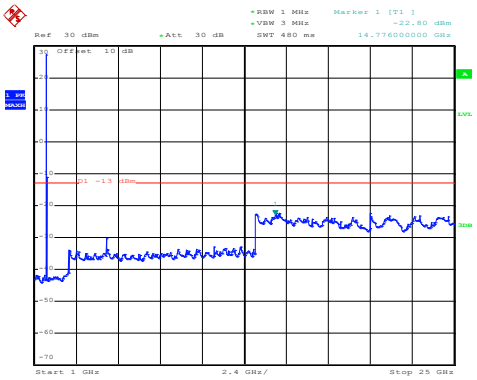
1GHz~25GHz

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



Date: 15.JUL.2020 19:24:37

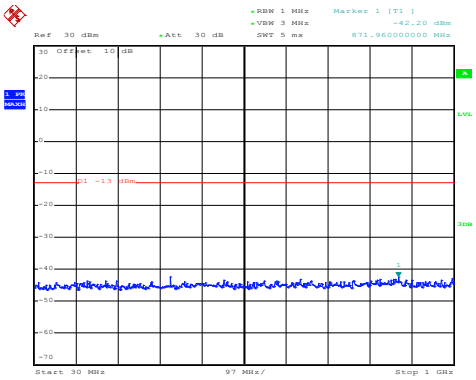
30MHz~1GHz



Date: 15.JUL.2020 19:56:22

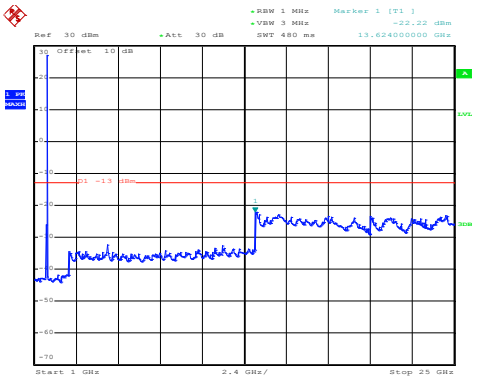
1GHz~25GHz

Middle channel



Date: 15.JUL.2020 19:24:52

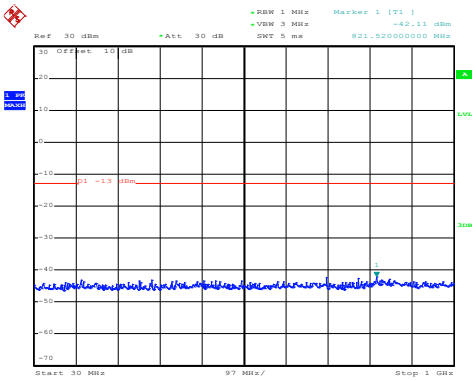
30MHz~1GHz



Date: 15.JUL.2020 19:57:50

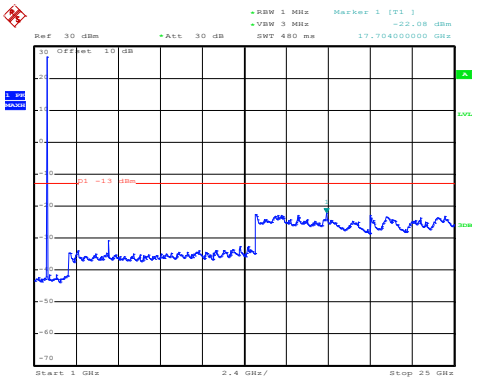
1GHz~25GHz

High channel



Date: 15.JUL.2020 19:25:07

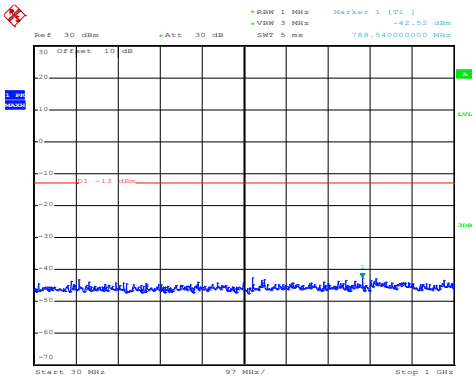
30MHz~1GHz



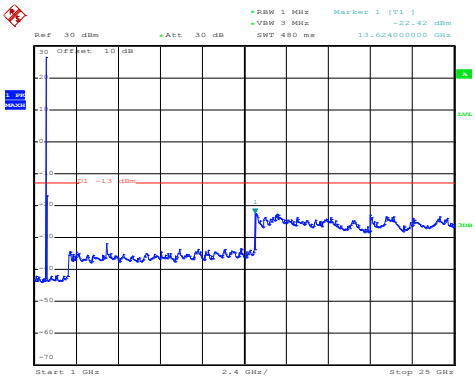
Date: 15.JUL.2020 19:58:17

1GHz~25GHz

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

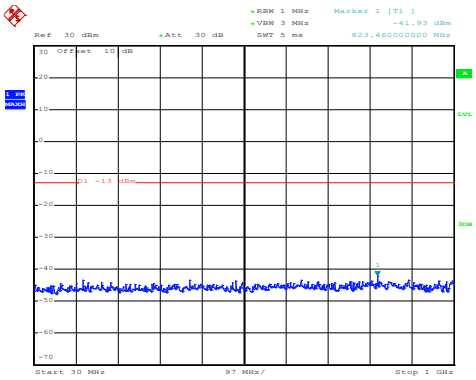


30MHz~1GHz

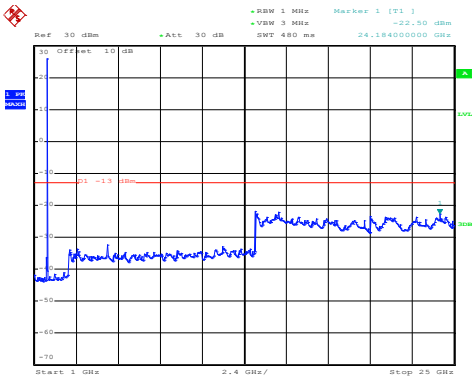


1GHz~25GHz

Middle channel

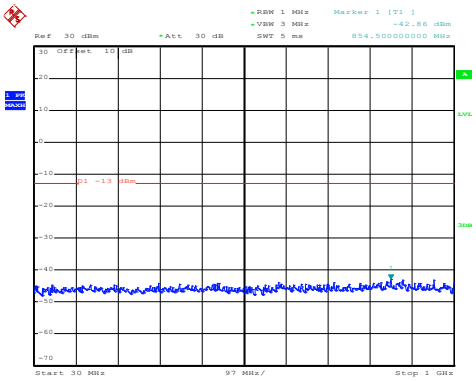


30MHz~1GHz

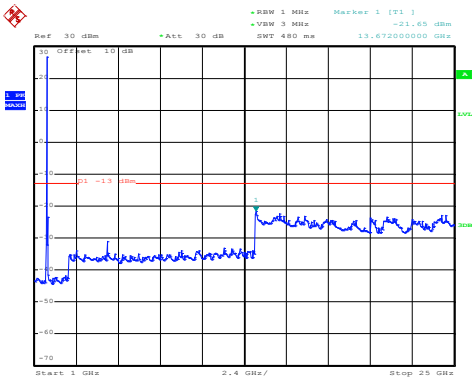


1GHz~25GHz

High channel

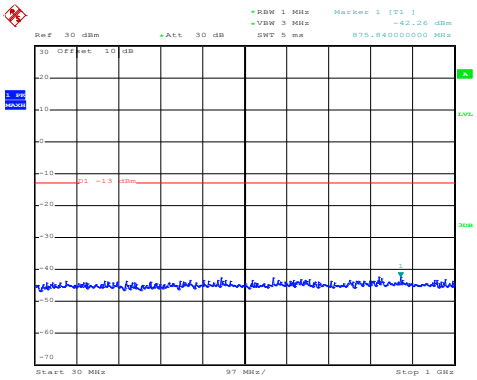


30MHz~1GHz



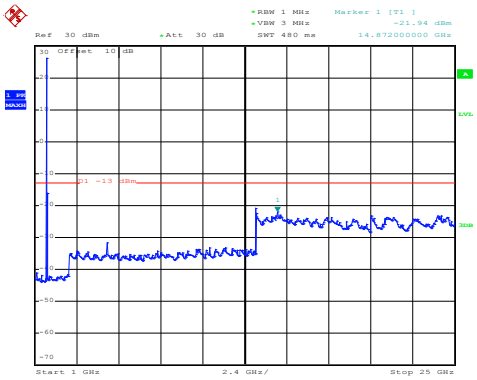
1GHz~25GHz

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



Date: 15.JUL.2020 19:25:40

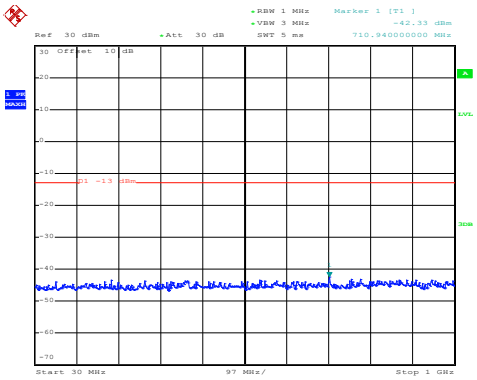
30MHz~1GHz



Date: 15.JUL.2020 20:00:07

1GHz~25GHz

Middle channel



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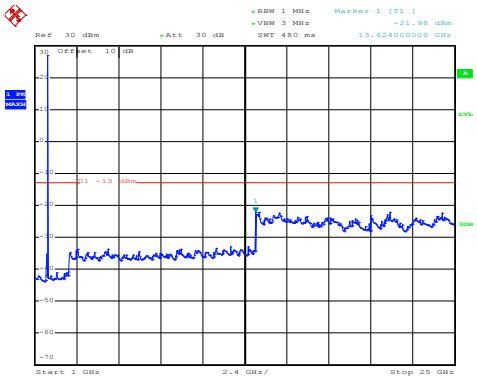
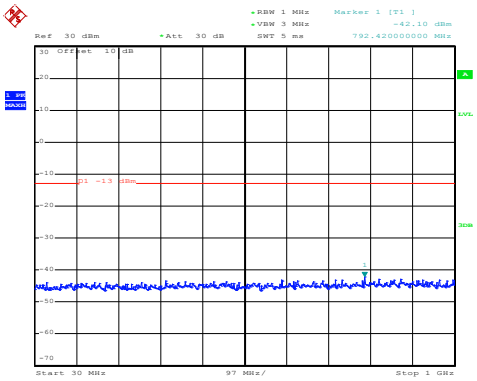
30MHz~1GHz



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

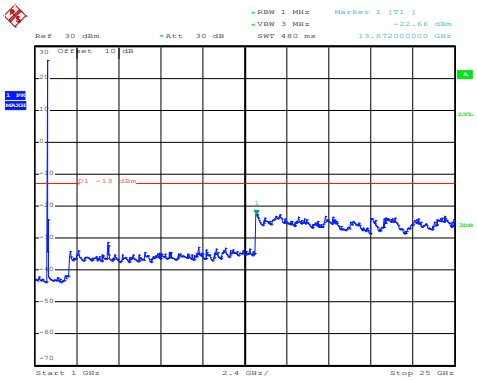
1GHz~25GHz

High channel



Date: 15.JUL.2020 19:26:37

30MHz~1GHz

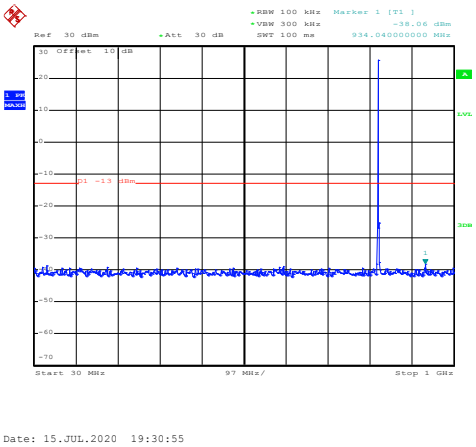


Date: 15.JUL.2020 20:01:02

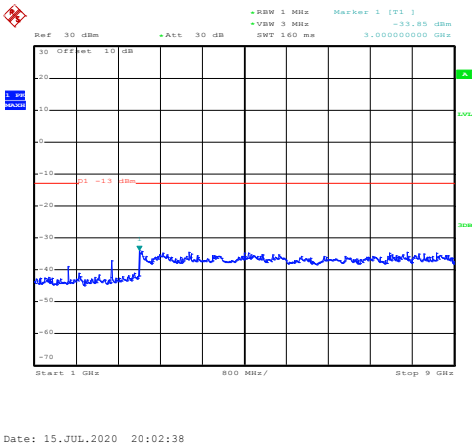
1GHz~25GHz

LTE Band 5 part:

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

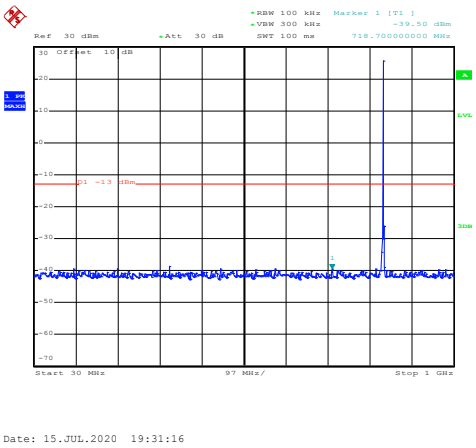


30MHz~1GHz

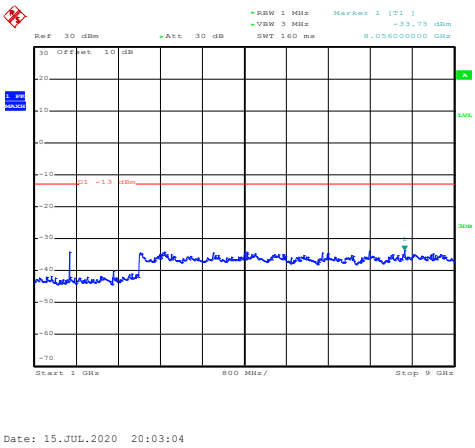


1GHz~9GHz

Middle channel

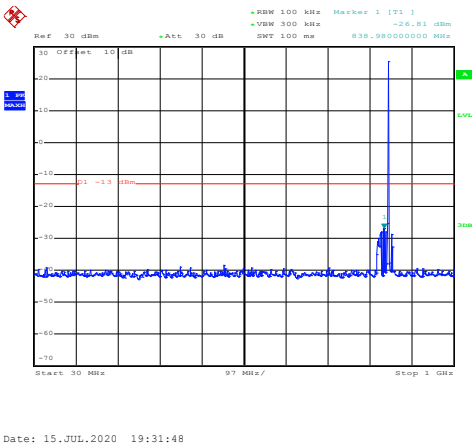


30MHz~1GHz

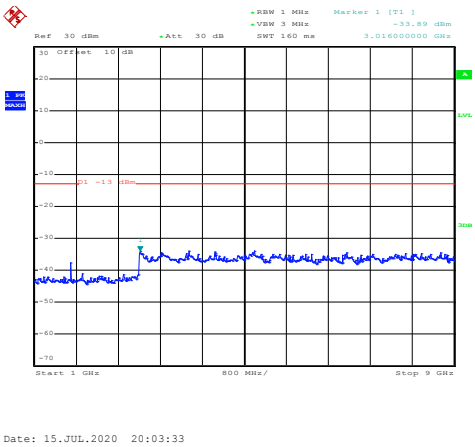


1GHz~9GHz

High channel

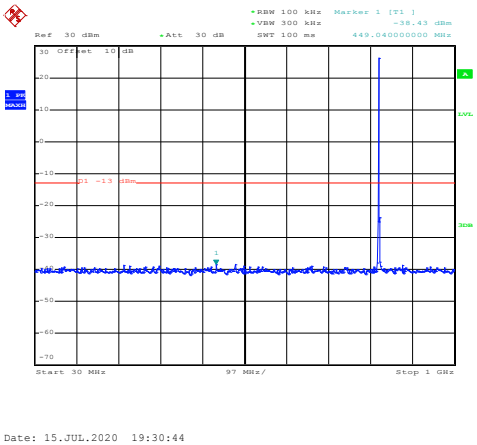


30MHz~1GHz

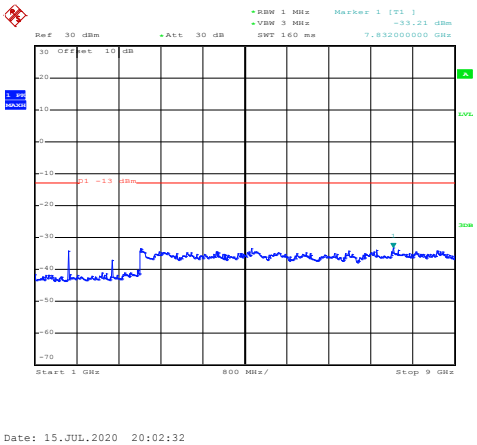


1GHz~9GHz

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

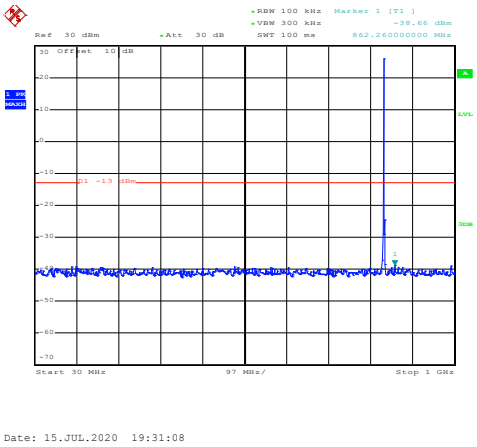


30MHz~1GHz

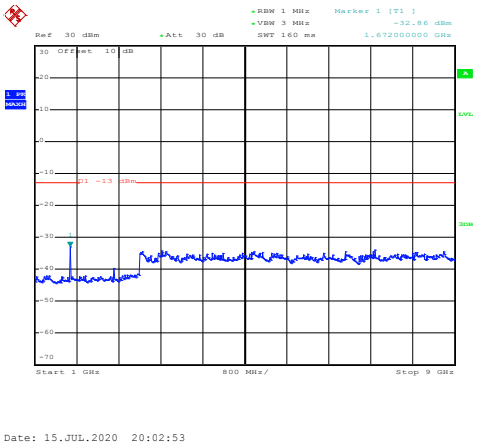


1GHz~9GHz

Middle channel

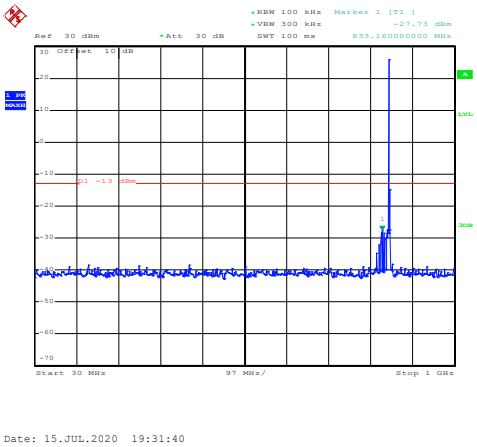


30MHz~1GHz

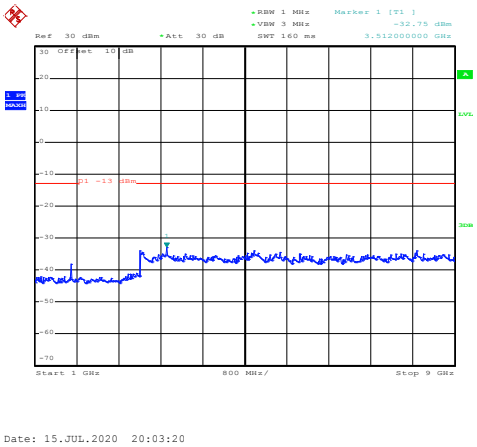


1GHz~9GHz

High channel

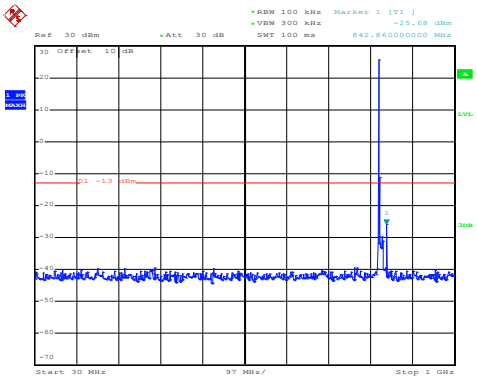


30MHz~1GHz

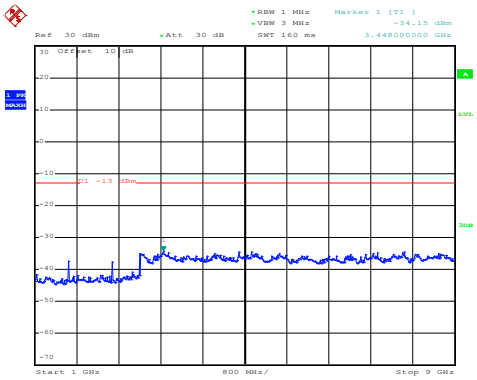


1GHz~9GHz

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

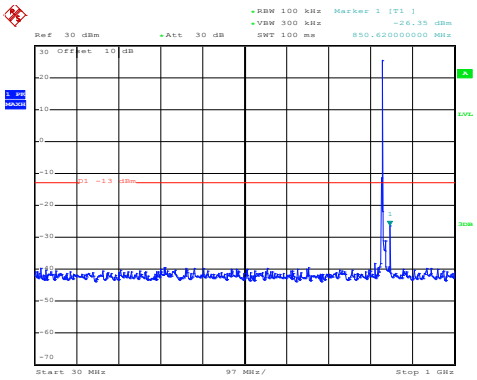


30MHz~1GHz

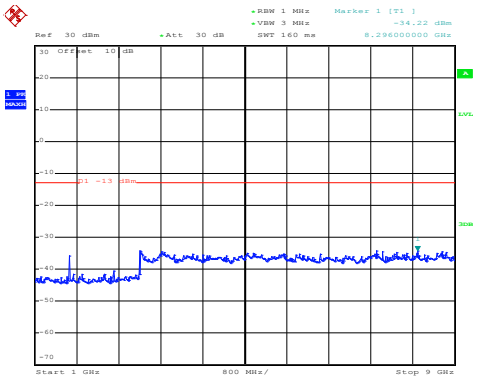


1GHz~9GHz

Middle channel

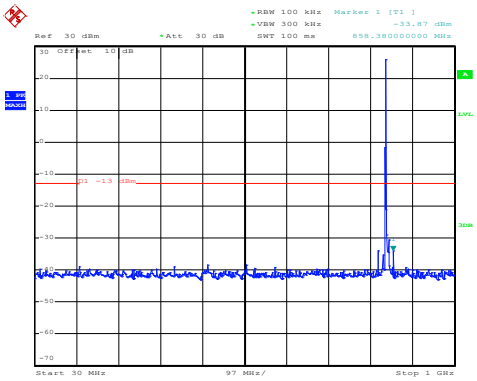


30MHz~1GHz

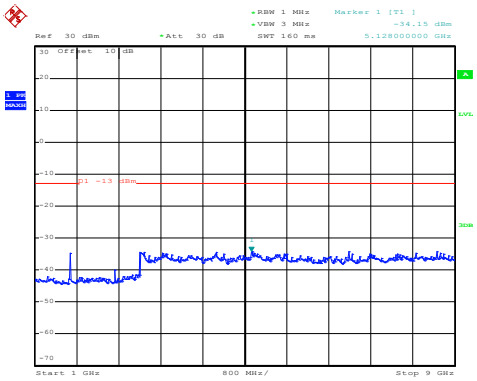


1GHz~9GHz

High channel

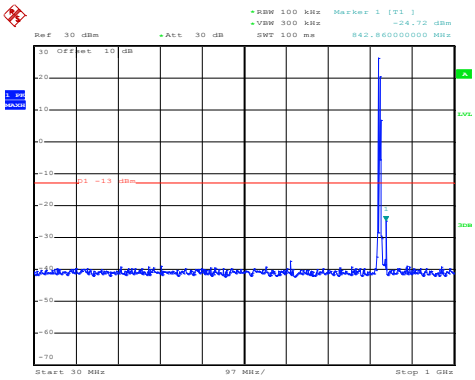


30MHz~1GHz



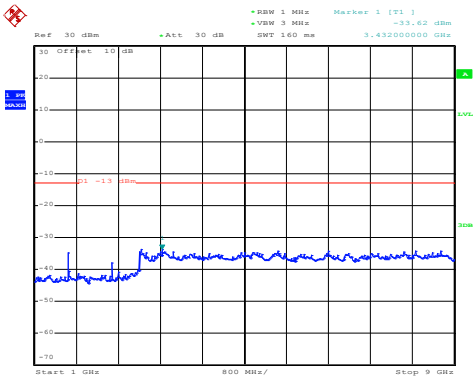
1GHz~9GHz

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



Date: 15.JUL.2020 19:32:39

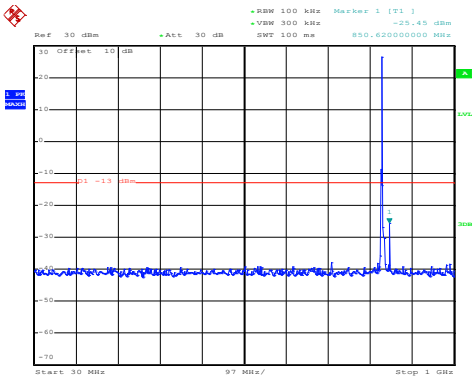
30MHz~1GHz



Date: 15.JUL.2020 20:04:23

1GHz~9GHz

Middle channel



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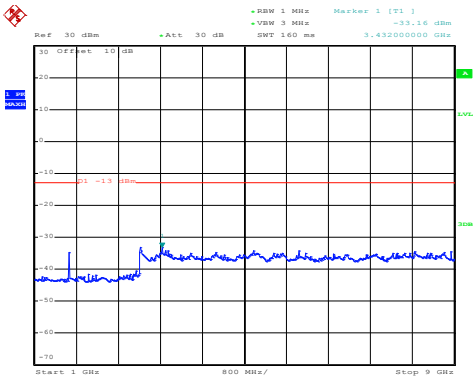
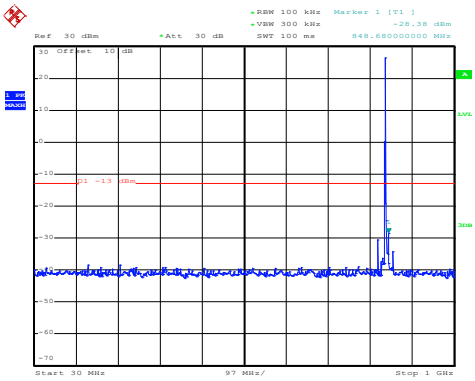
30MHz~1GHz



Date: 15.JUL.2020 20:04:48

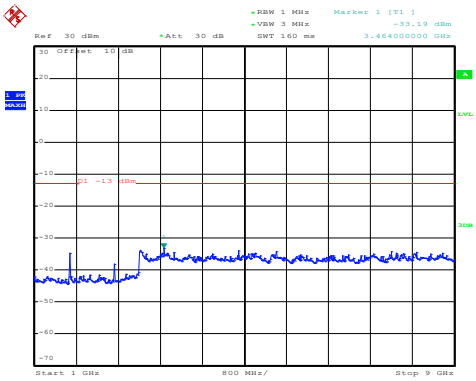
1GHz~9GHz

High channel



Date: 15.JUL.2020 19:33:18

30MHz~1GHz

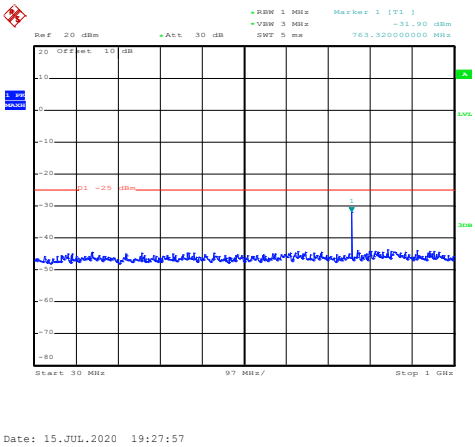


Date: 15.JUL.2020 20:05:13

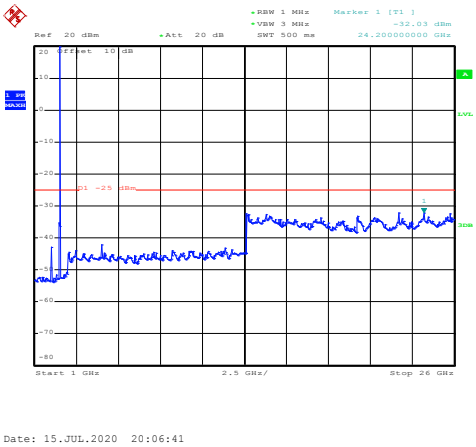
1GHz~9GHz

LTE Band 7 part:

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

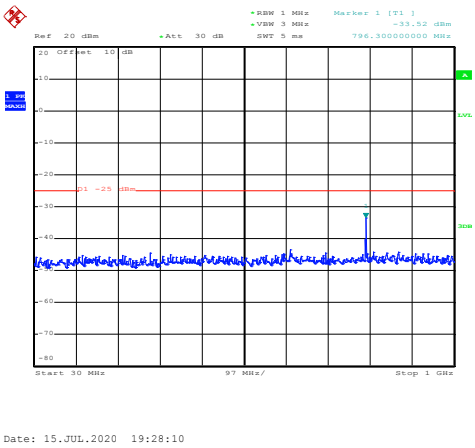


30MHz~1GHz

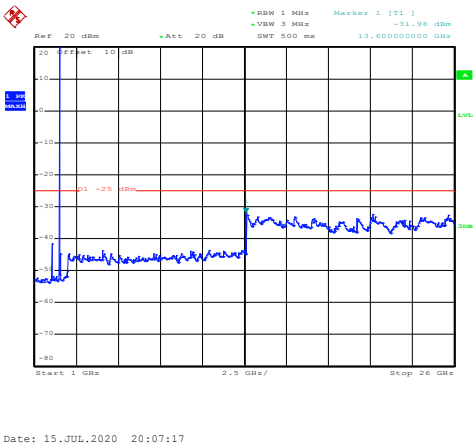


1GHz~25GHz

Middle channel

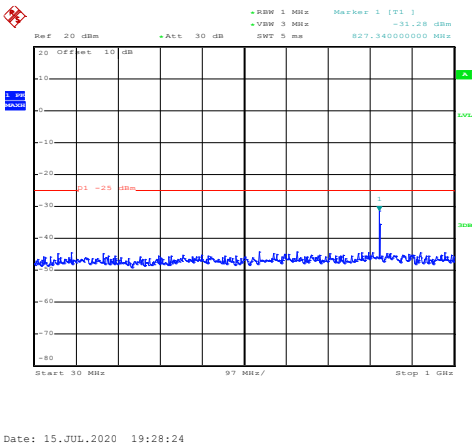


30MHz~1GHz

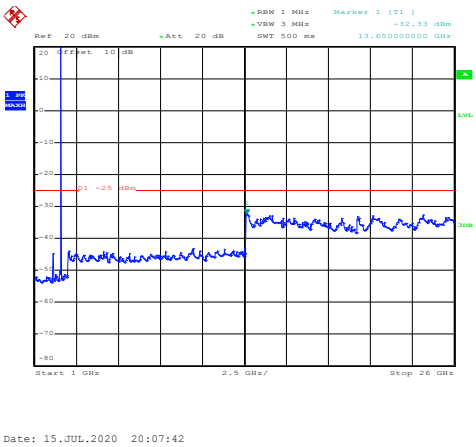


1GHz~25GHz

High channel

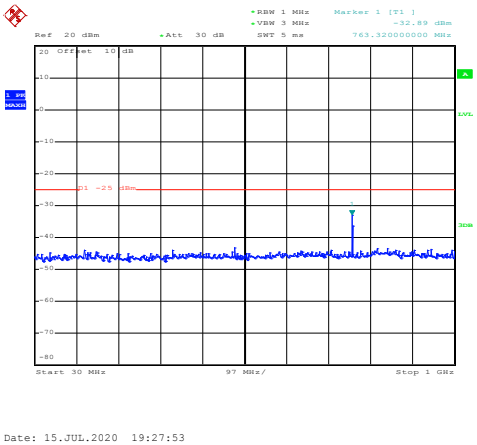


30MHz~1GHz

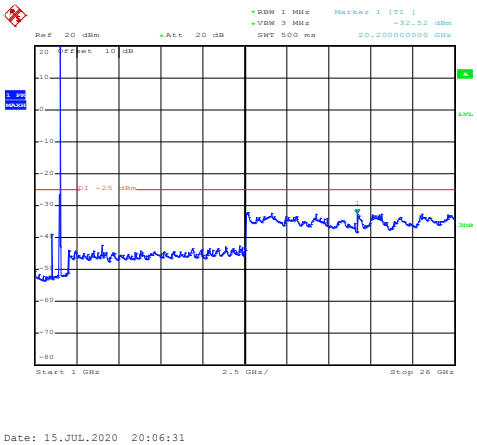


1GHz~25GHz

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

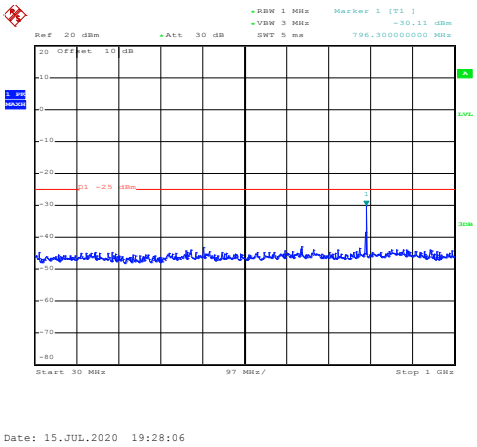


30MHz~1GHz

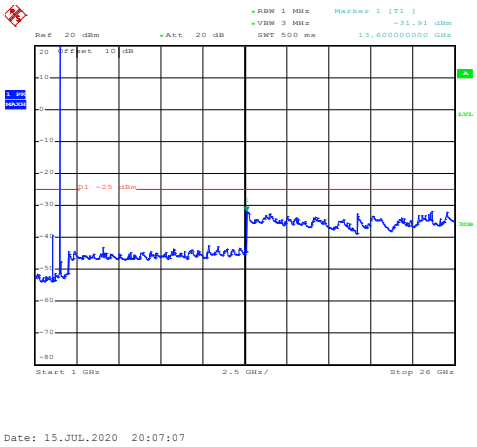


1GHz~25GHz

Middle channel

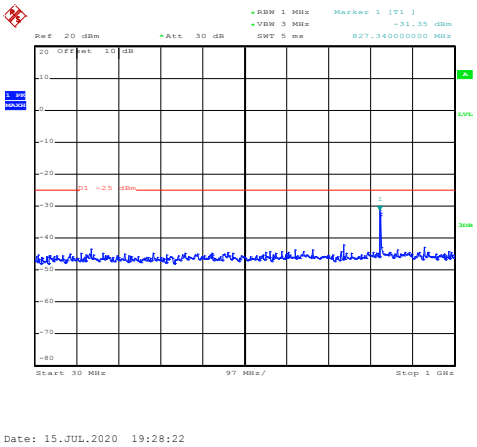


30MHz~1GHz

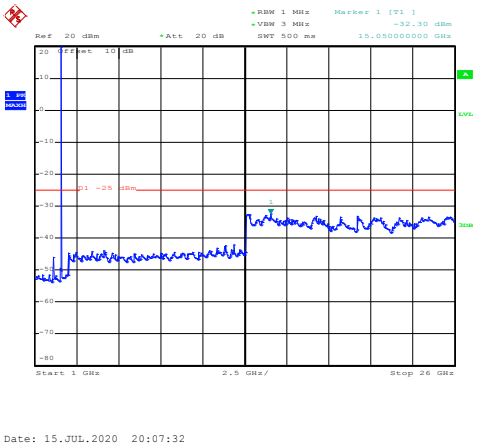


1GHz~25GHz

High channel

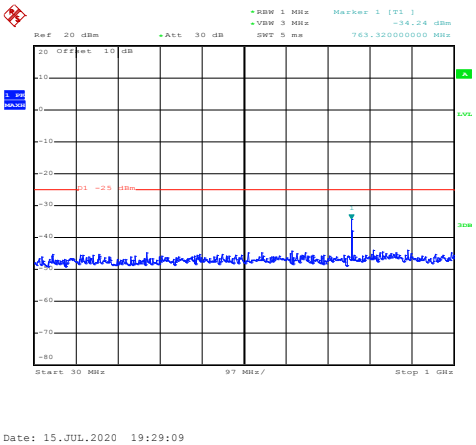


30MHz~1GHz

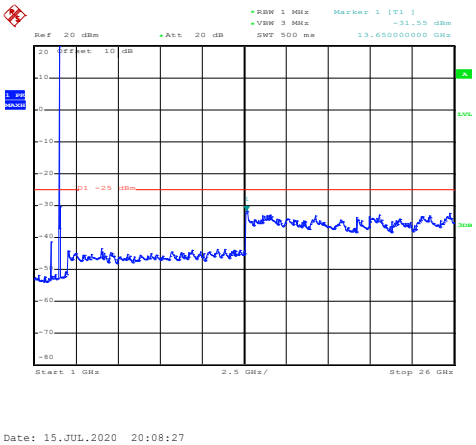


1GHz~25GHz

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

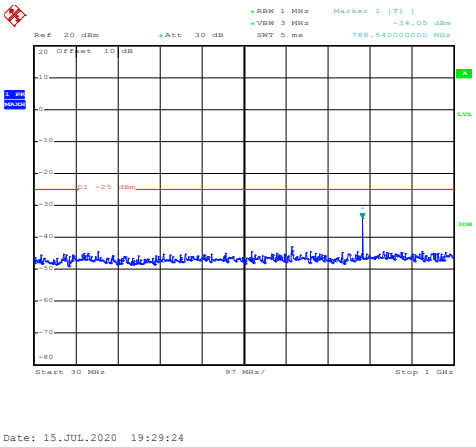


30MHz~1GHz

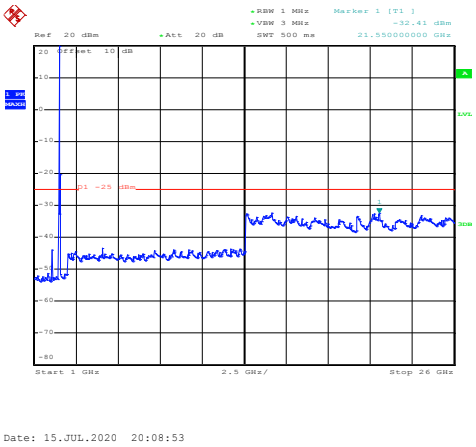


1GHz~25GHz

Middle channel

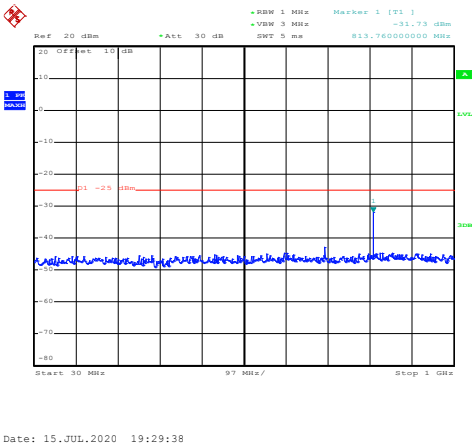


30MHz~1GHz

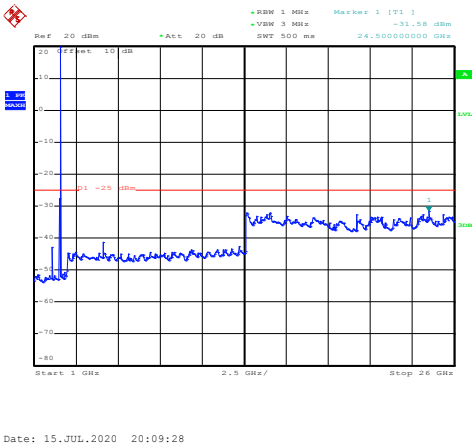


1GHz~25GHz

High channel

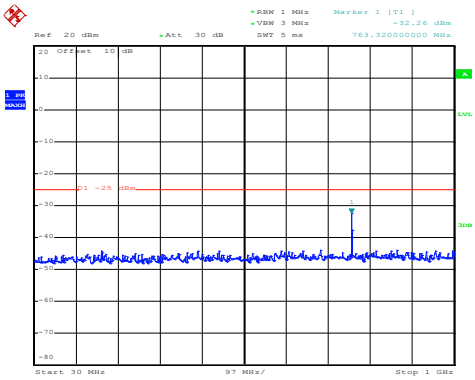


30MHz~1GHz



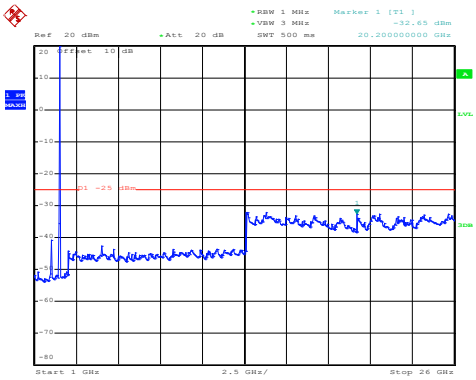
1GHz~25GHz

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



Date: 15.JUL.2020 19:29:06

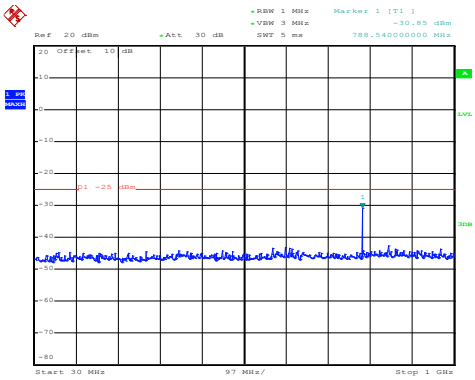
30MHz~1GHz



Date: 15.JUL.2020 20:08:18

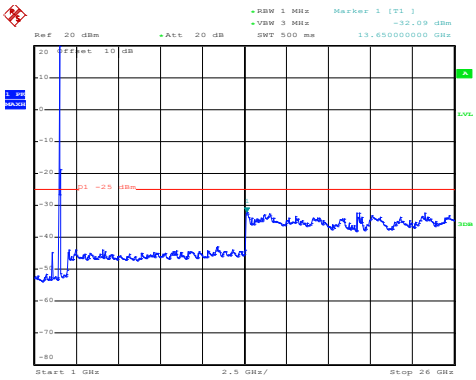
1GHz~25GHz

Middle channel



Date: 15.JUL.2020 19:29:21

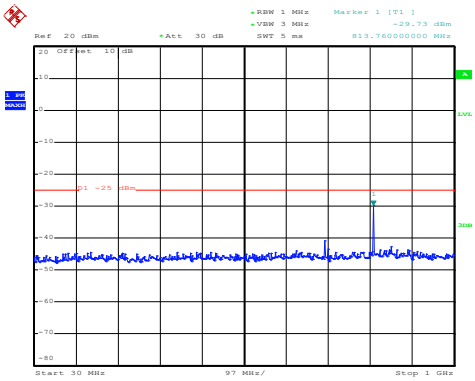
30MHz~1GHz



Date: 15.JUL.2020 20:08:43

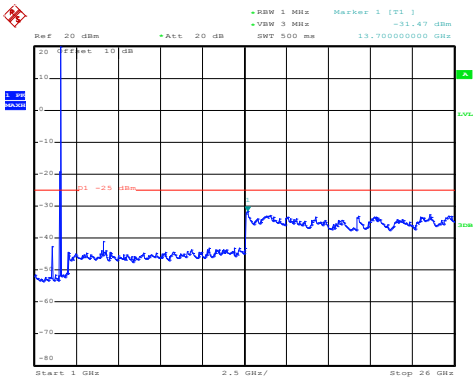
1GHz~25GHz

High channel



Date: 15.JUL.2020 19:29:35

30MHz~1GHz

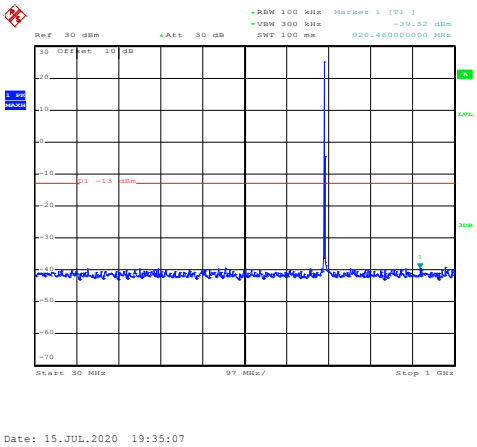


Date: 15.JUL.2020 20:09:13

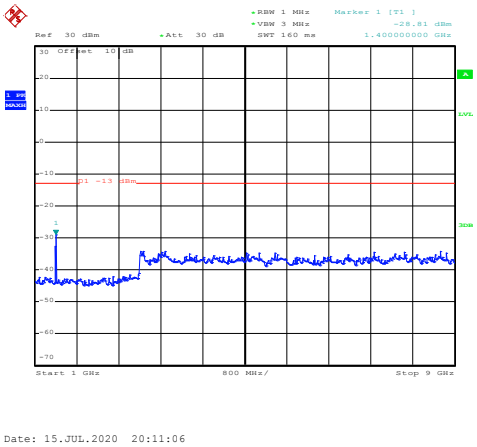
1GHz~25GHz

LTE Band 12 part:

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

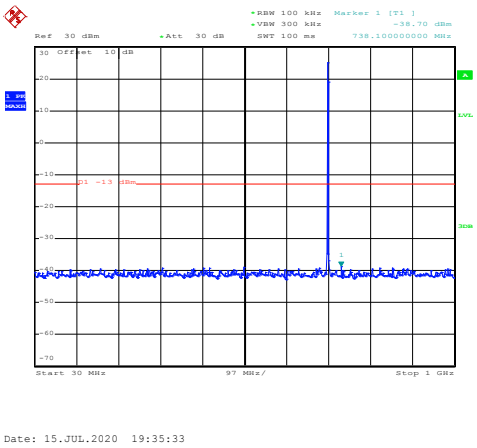


30MHz~1GHz

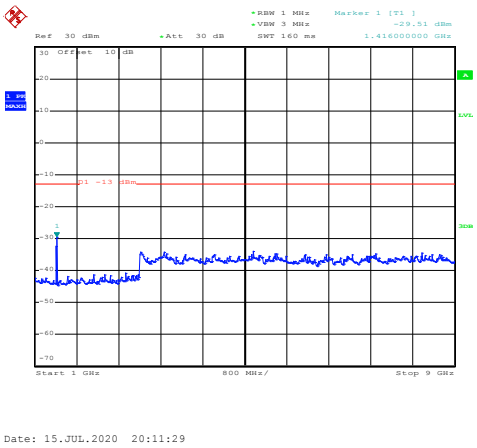


1GHz~9GHz

Middle channel

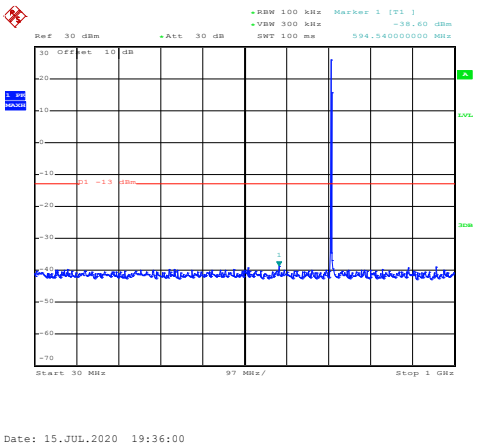


30MHz~1GHz

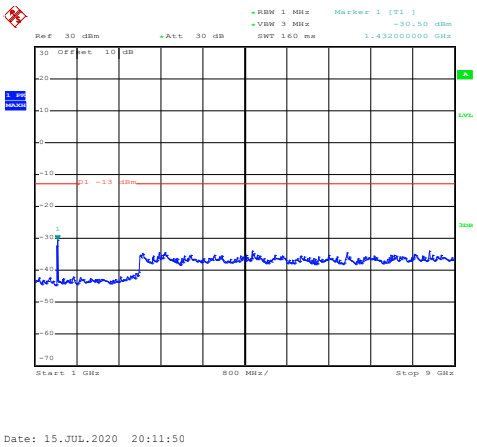


1GHz~9GHz

High channel

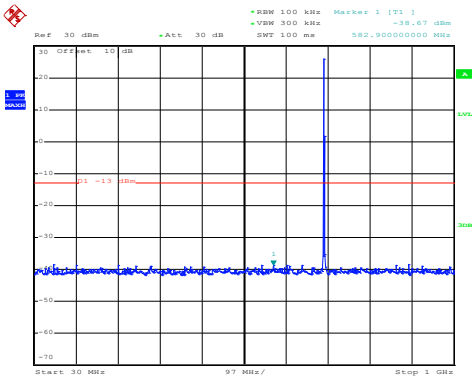


30MHz~1GHz



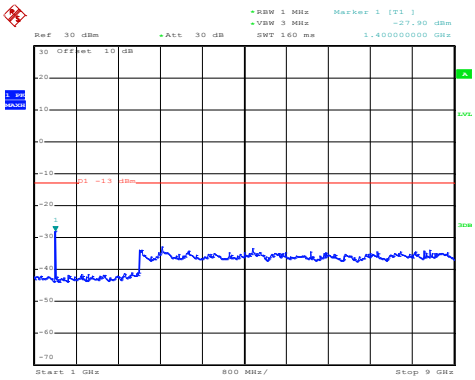
1GHz~9GHz

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



Date: 15.JUL.2020 19:35:00

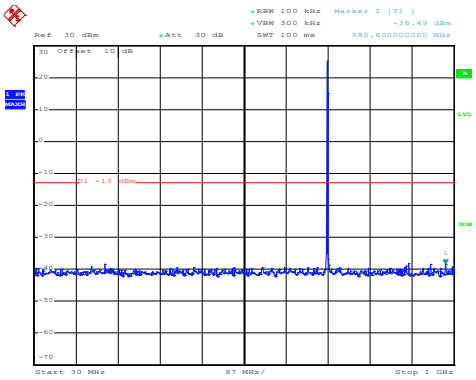
30MHz~1GHz



Date: 15.JUL.2020 20:10:58

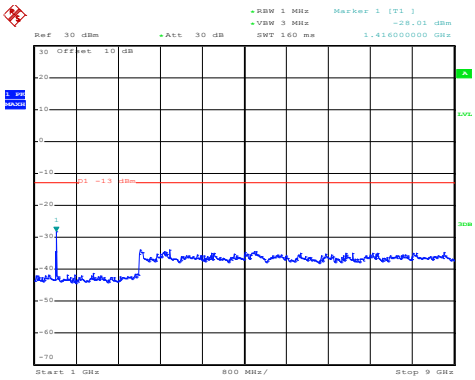
1GHz~9GHz

Middle channel



Date: 15.JUL.2020 19:35:24

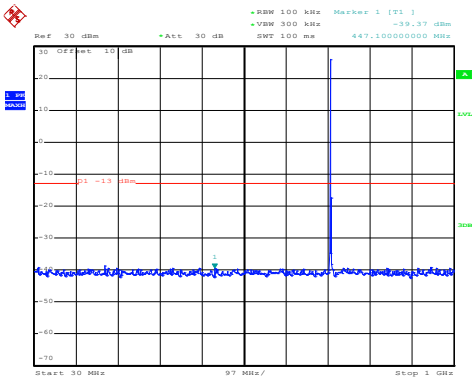
30MHz~1GHz



Date: 15.JUL.2020 20:11:22

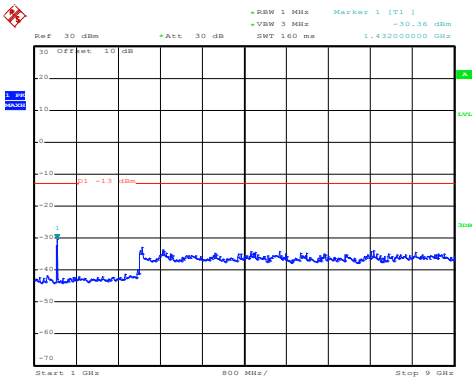
1GHz~9GHz

High channel



Date: 15.JUL.2020 19:35:53

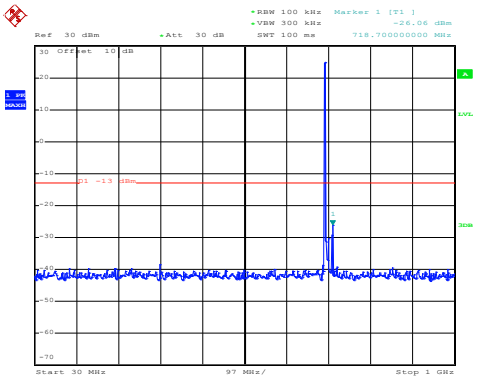
30MHz~1GHz



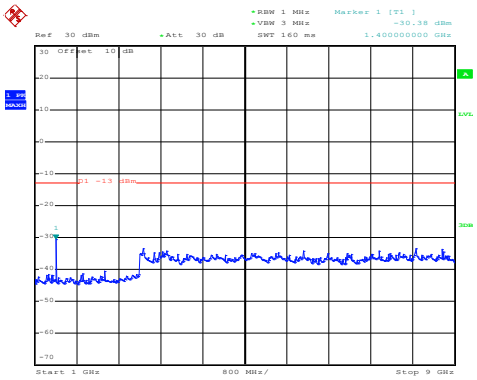
Date: 15.JUL.2020 20:11:43

1GHz~9GHz

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

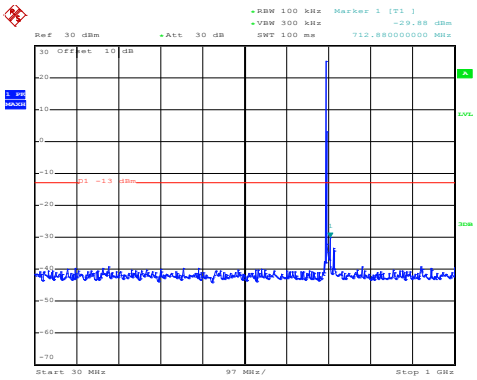


30MHz~1GHz

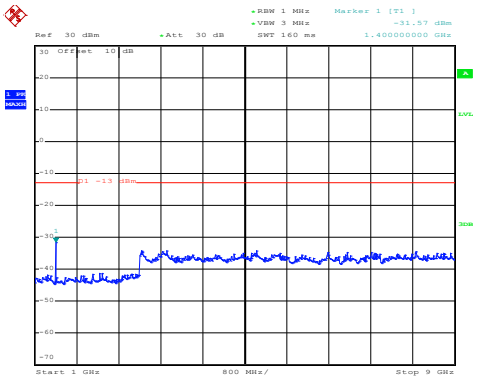


1GHz~9GHz

Middle channel

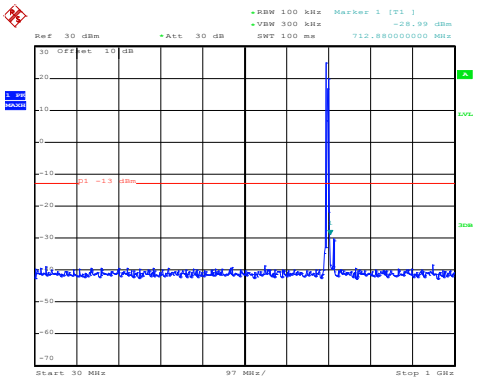


30MHz~1GHz

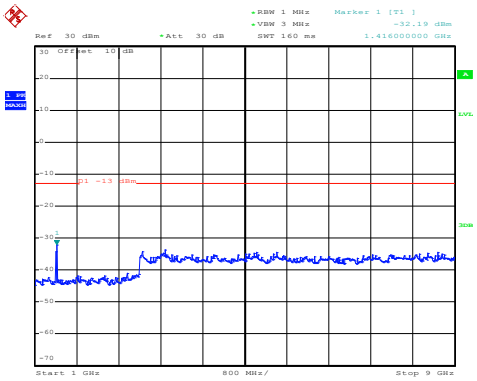


1GHz~9GHz

High channel

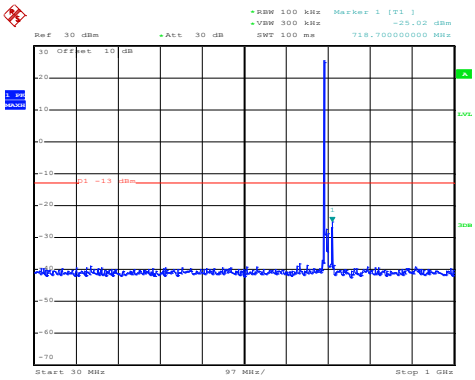


30MHz~1GHz



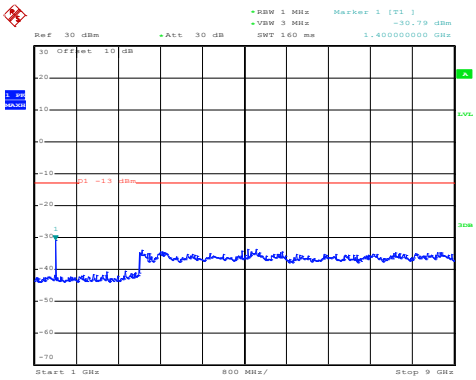
1GHz~9GHz

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



Date: 15.JUL.2020 19:36:46

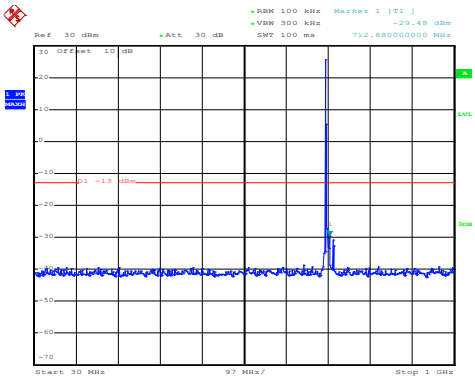
30MHz~1GHz



Date: 15.JUL.2020 20:12:23

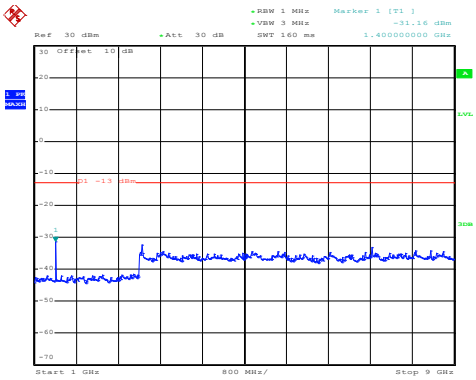
1GHz~9GHz

Middle channel



Date: 15.JUL.2020 19:37:11

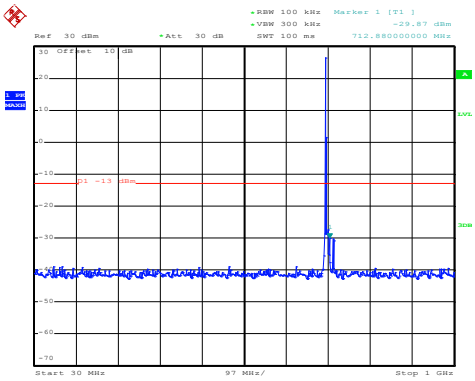
30MHz~1GHz



Date: 15.JUL.2020 20:12:46

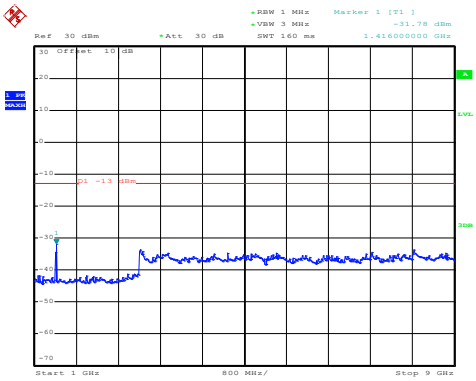
1GHz~9GHz

High channel



Date: 15.JUL.2020 19:37:26

30MHz~1GHz

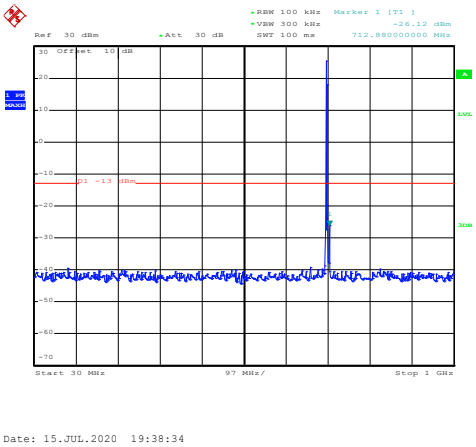


Date: 15.JUL.2020 20:13:15

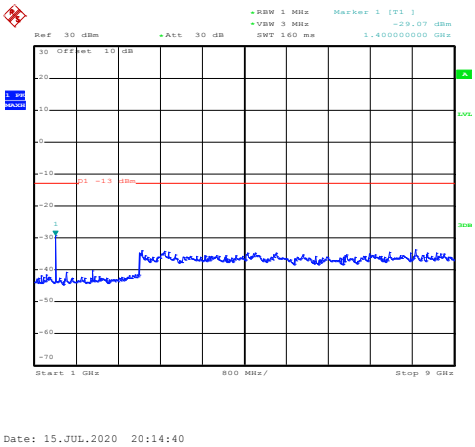
1GHz~9GHz

LTE Band 17 part:

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

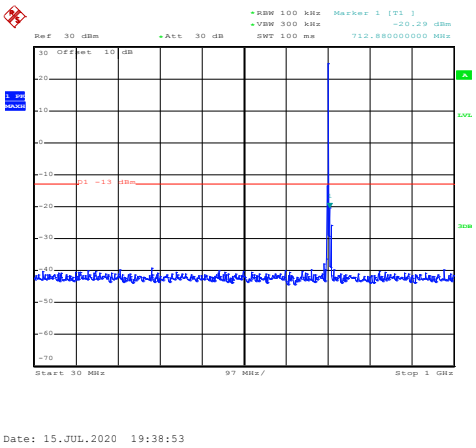


30MHz~1GHz

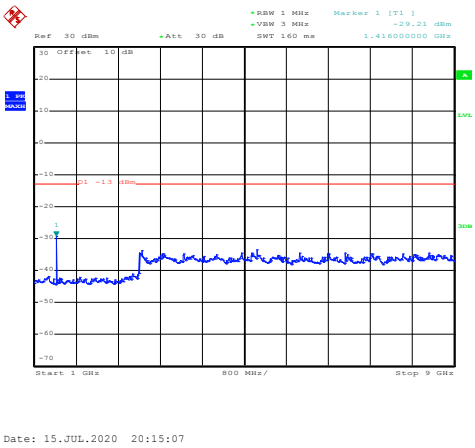


1GHz~9GHz

Middle channel

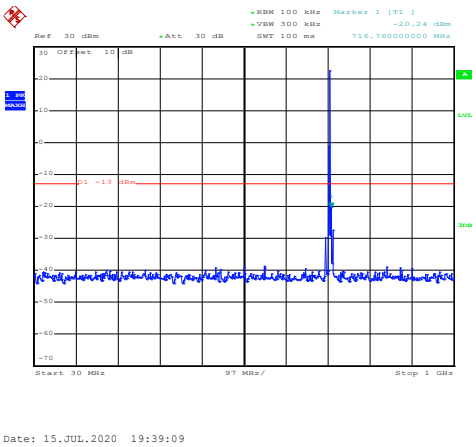


30MHz~1GHz

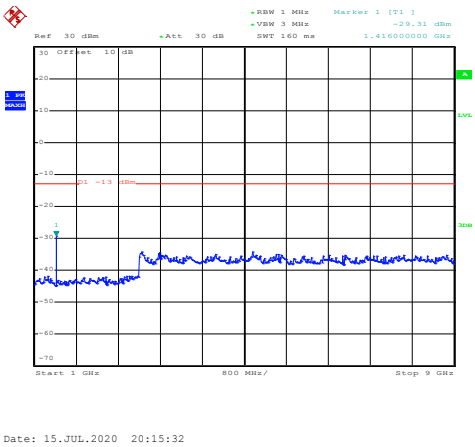


1GHz~9GHz

High channel

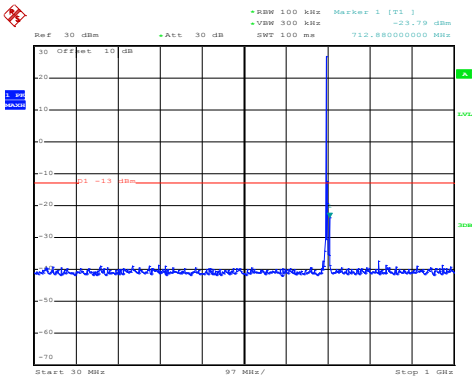


30MHz~1GHz



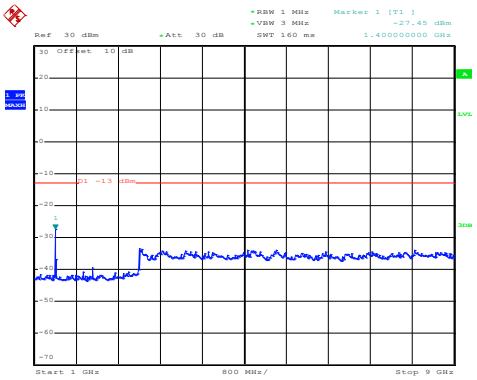
1GHz~9GHz

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



Date: 15.JUL.2020 19:38:30

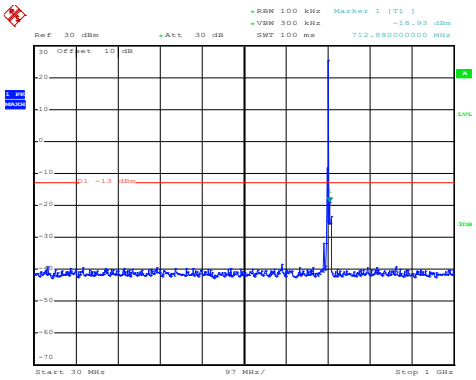
30MHz~1GHz



Date: 15.JUL.2020 20:14:30

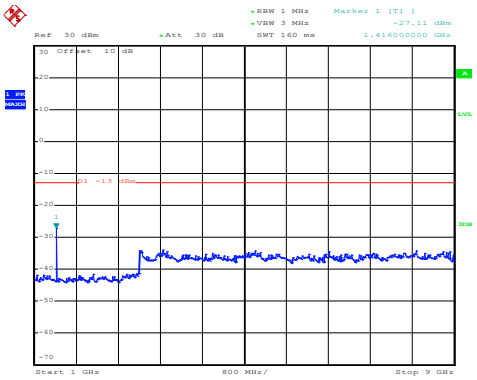
1GHz~9GHz

Middle channel



Date: 15.JUL.2020 19:38:49

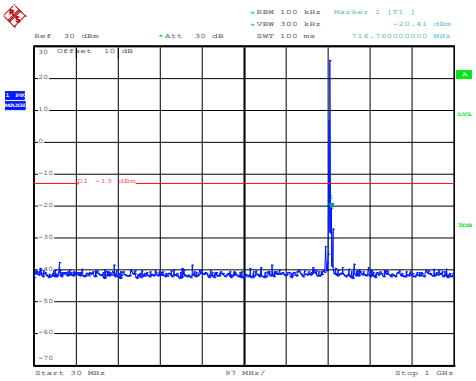
30MHz~1GHz



Date: 15.JUL.2020 20:14:57

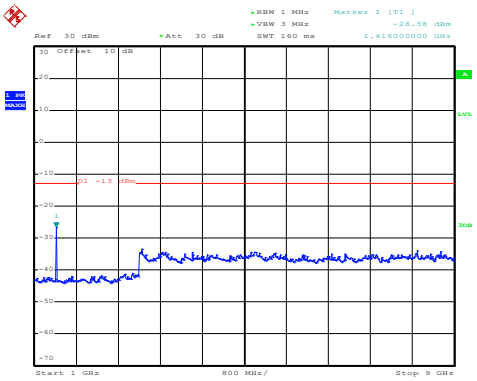
1GHz~9GHz

High channel



Date: 15.JUL.2020 19:39:05

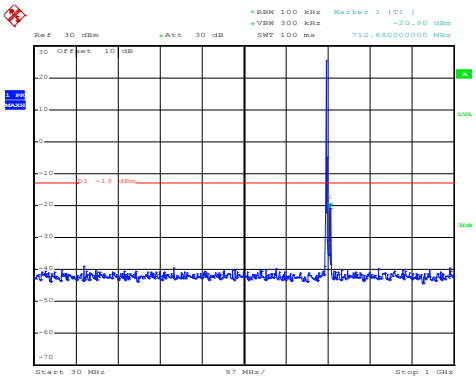
30MHz~1GHz



Date: 15.JUL.2020 20:15:25

1GHz~9GHz

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



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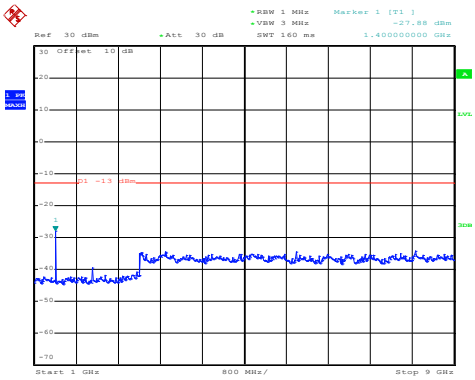
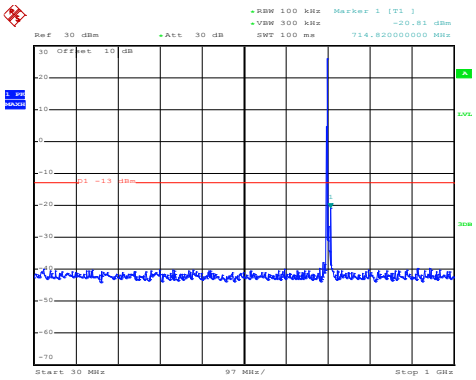
30MHz~1GHz



Date: 15.JUL.2020 20:16:13

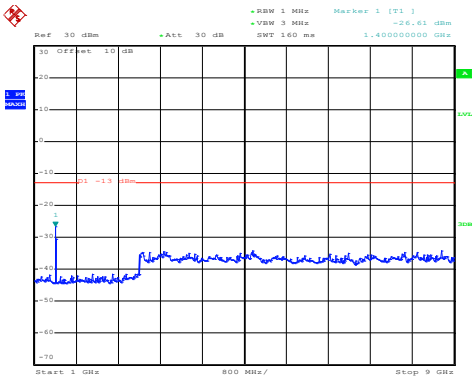
1GHz~9GHz

Middle channel



Date: 15.JUL.2020 19:39:58

30MHz~1GHz



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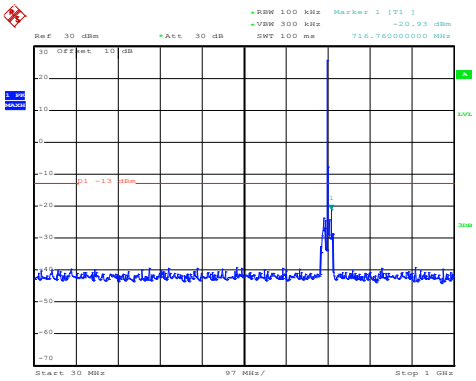
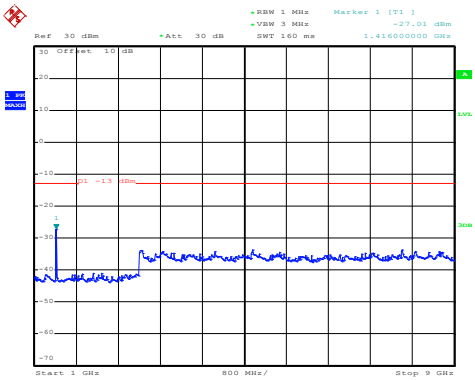
1GHz~9GHz

High channel



Date: 15.JUL.2020 19:40:17

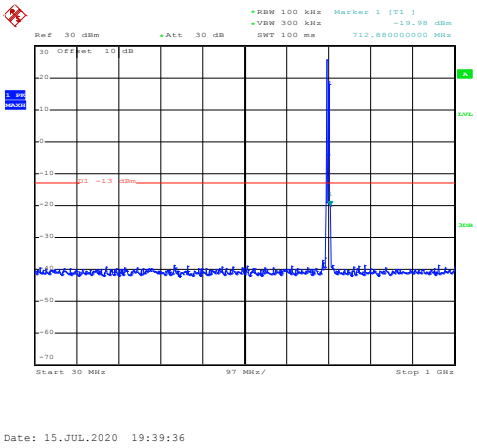
30MHz~1GHz



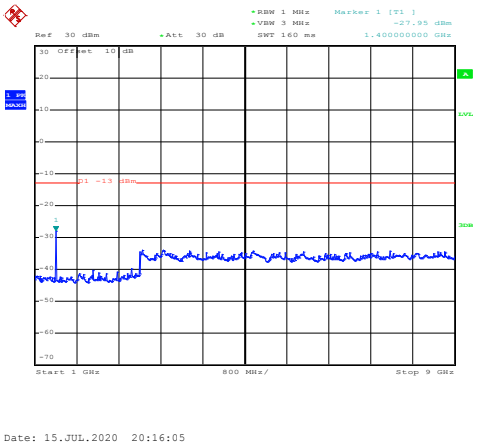
Date: 15.JUL.2020 20:17:30

1GHz~9GHz

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

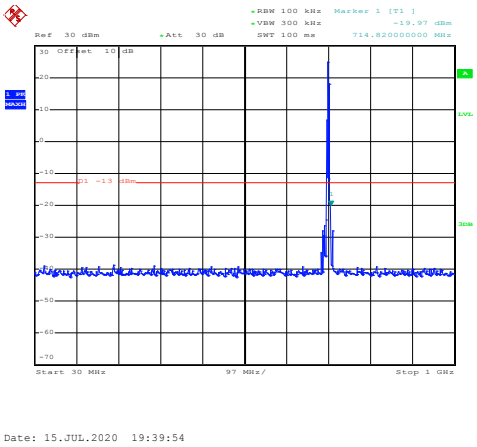


30MHz~1GHz

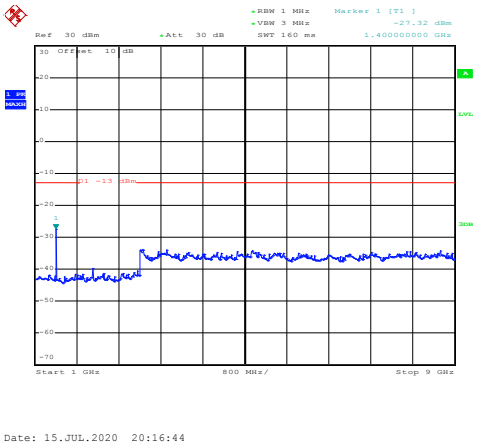


1GHz~9GHz

Middle channel

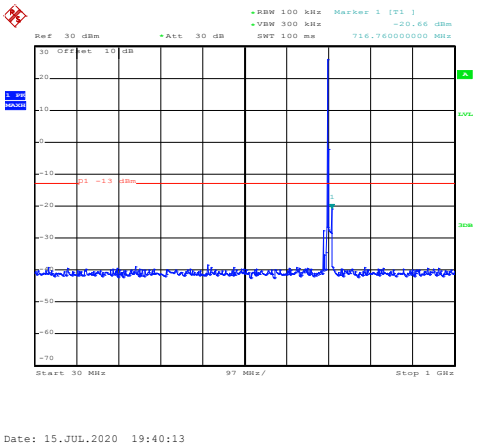


30MHz~1GHz

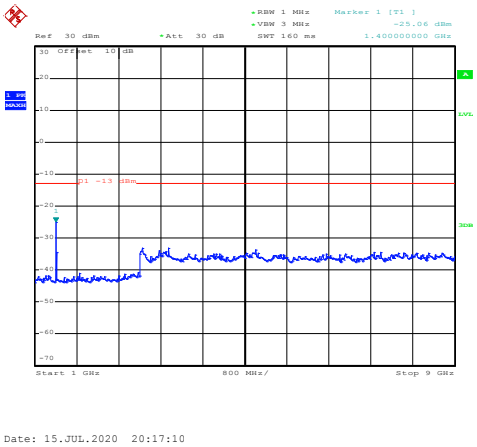


1GHz~9GHz

High channel



30MHz~1GHz

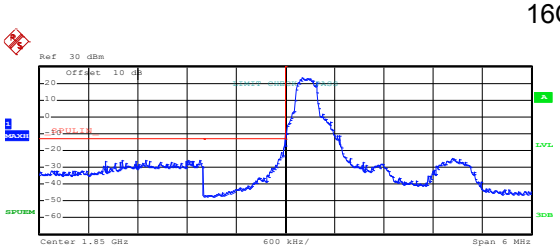


1GHz~9GHz

Band edge emission:

LTE Band 2 part:

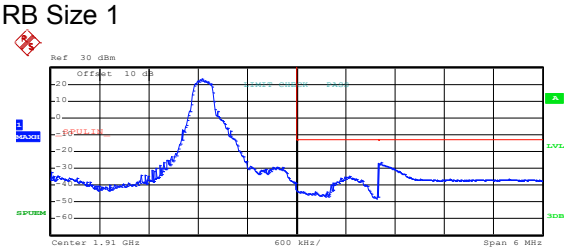
LTE Band 2, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848296 G	-25.56	-12.56
1.849 G	1.850 G	30.00 k	1.849994 G	-16.89	-3.89
1.850 G	1.853 G	100.00 k	1.850207 G	23.47	-9.53

Date: 15.JUL.2020 16:57:15

Lowest channel

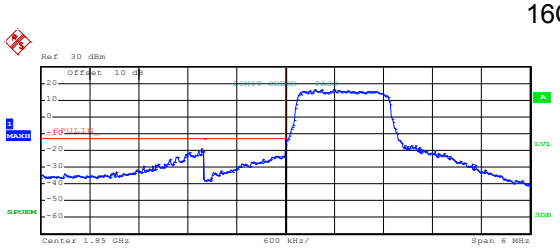


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908848 G	23.31	-9.69
1.910 G	1.911 G	30.00 k	1.910646 G	-34.86	-21.86
1.911 G	1.913 G	1.00 M	1.911028 G	-26.64	-13.64

Date: 15.JUL.2020 16:58:51

Highest channel

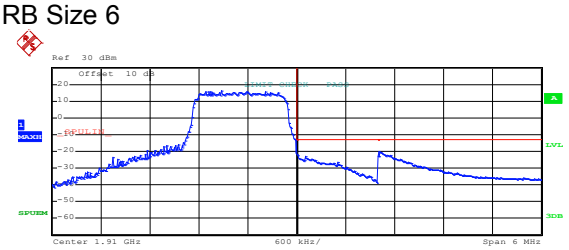
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848968 G	-18.96	-5.96
1.849 G	1.850 G	30.00 k	1.849918 G	-23.23	-10.23
1.850 G	1.853 G	100.00 k	1.850594 G	16.29	-16.71

Date: 15.JUL.2020 16:58:10

Lowest channel



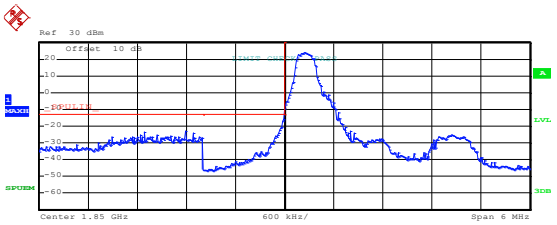
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909076 G	16.32	-16.68
1.910 G	1.911 G	30.00 k	1.910012 G	-21.31	-8.31
1.911 G	1.913 G	1.00 M	1.911006 G	-20.27	-7.27

Date: 15.JUL.2020 16:59:15

Highest channel

LTE Band 2, BW: 1.4MHz

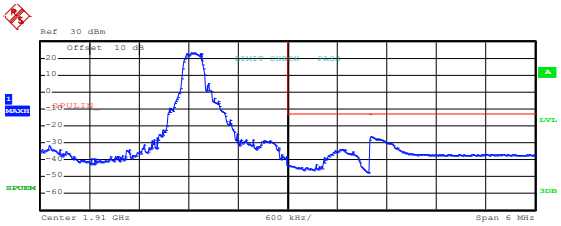
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848788 G	-23.14	-10.14
1.849 G	1.850 G	30.00 k	1.849997 G	-15.62	-2.62
1.850 G	1.853 G	100.00 k	1.850249 G	23.95	-9.05

Date: 15.JUL.2020 16:56:56

Lowest channel

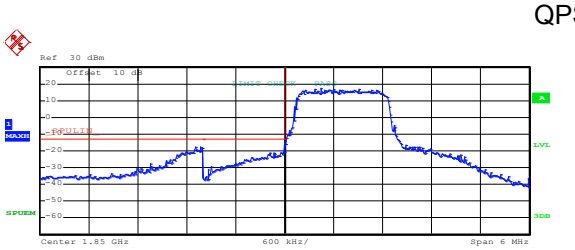


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908872 G	23.26	-9.74
1.910 G	1.911 G	30.00 k	1.910661 G	-33.75	-20.75
1.911 G	1.913 G	1.00 M	1.911016 G	-26.33	-13.33

Date: 15.JUL.2020 16:58:32

Highest channel

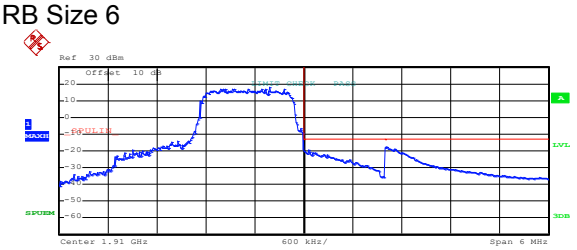
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848903 G	-17.72	-4.72
1.849 G	1.850 G	30.00 k	1.849985 G	-20.61	-7.61
1.850 G	1.853 G	100.00 k	1.850441 G	17.24	-15.76

Date: 15.JUL.2020 16:57:57

Lowest channel

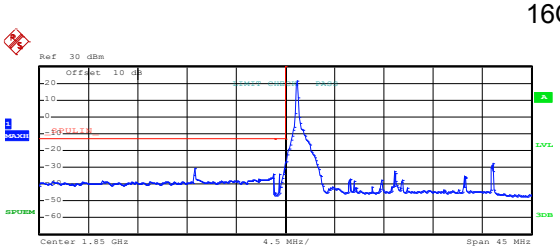


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909580 G	18.15	-14.85
1.910 G	1.911 G	30.00 k	1.910062 G	-19.45	-6.45
1.911 G	1.913 G	1.00 M	1.911012 G	-17.72	-4.72

Date: 15.JUL.2020 16:59:08

Highest channel

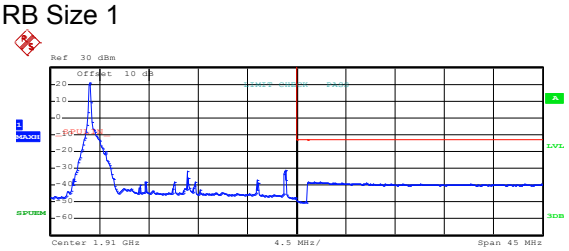
LTE Band 2, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.827 G	1.849 G	1.00 M	1.841718 G	-30.24	-17.24
1.849 G	1.850 G	30.00 k	1.849997 G	-30.71	-17.71
1.850 G	1.873 G	100.00 k	1.851058 G	21.35	-11.65

Date: 15.JUL.2020 17:00:35

Lowest channel

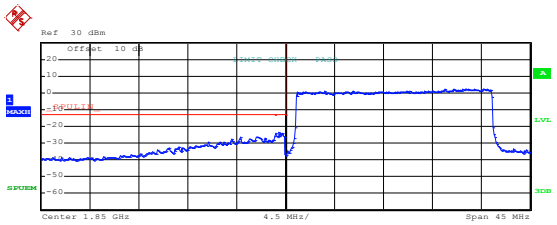


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.888 G	1.910 G	100.00 k	1.891123 G	20.83	-12.17
1.910 G	1.911 G	30.00 k	1.910373 G	-49.22	-36.22
1.911 G	1.933 G	1.00 M	1.912118 G	-38.32	-25.32

Date: 15.JUL.2020 17:01:35

Highest channel

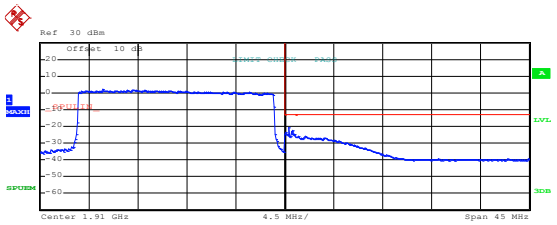
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.827 G	1.849 G	1.00 M	1.847266 G	-26.22	-13.22
1.849 G	1.850 G	300.00 k	1.849353 G	-23.73	-10.73
1.850 G	1.873 G	100.00 k	1.866785 G	2.42	-30.58

Date: 15.JUL.2020 17:00:56

Lowest channel



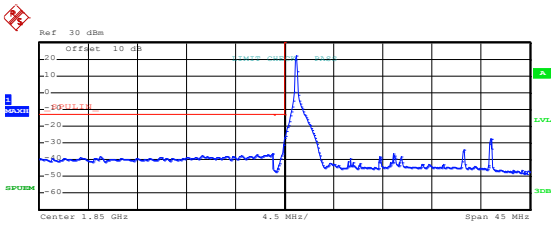
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.888 G	1.910 G	100.00 k	1.893283 G	1.98	-31.02
1.910 G	1.911 G	300.00 k	1.910344 G	-20.60	-7.60
1.911 G	1.933 G	1.00 M	1.911882 G	-25.20	-12.20

Date: 15.JUL.2020 17:02:01

Highest channel

LTE Band 2, BW: 20MHz

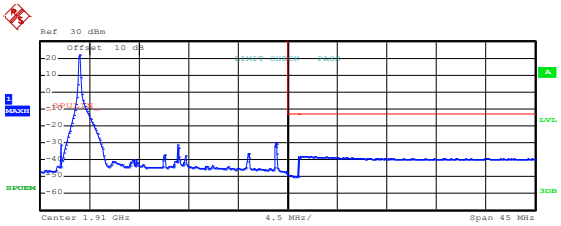
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.849000 G	-36.54	-23.54
1.849 G	1.850 G	30.00 k	1.849998 G	-31.09	-18.09
1.850 G	1.873 G	100.00 k	1.851080 G	21.82	-11.18

Date: 15.JUL.2020 17:00:24

Lowest channel

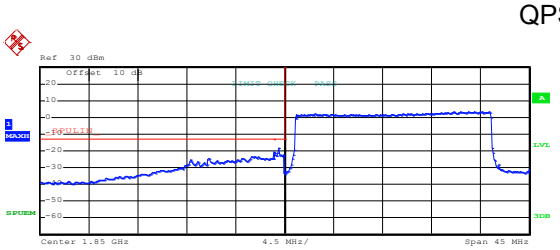


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.891078 G	22.14	-10.86
1.910 G	1.911 G	30.00 k	1.910484 G	-48.99	-35.99
1.911 G	1.933 G	1.00 M	1.911946 G	-38.02	-25.02

Date: 15.JUL.2020 17:01:27

Highest channel

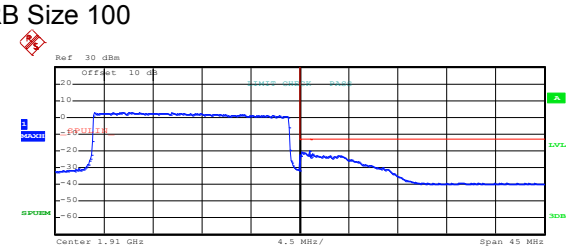
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.847613 G	-23.43	-10.43
1.849 G	1.850 G	300.00 k	1.849462 G	-18.18	-5.18
1.850 G	1.873 G	100.00 k	1.868810 G	3.31	-29.69

Date: 15.JUL.2020 17:00:50

Lowest channel



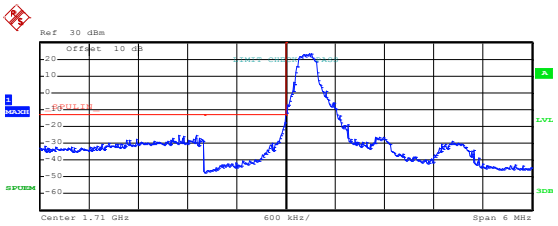
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.893755 G	3.06	-29.94
1.910 G	1.911 G	300.00 k	1.910950 G	-20.15	-7.15
1.911 G	1.933 G	1.00 M	1.911108 G	-21.62	-8.62

Date: 15.JUL.2020 17:01:54

Highest channel

LTE Band 4 part:

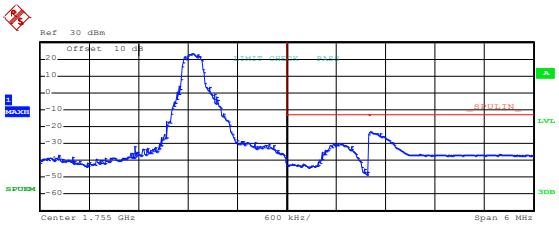
LTE Band 4, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708692 G	-25.02	-12.02
1.709 G	1.710 G	30.00 k	1.709996 G	-17.41	-4.41
1.710 G	1.713 G	100.00 k	1.710306 G	23.56	-9.44

Date: 15.JUL.2020 17:04:50

Lowest channel

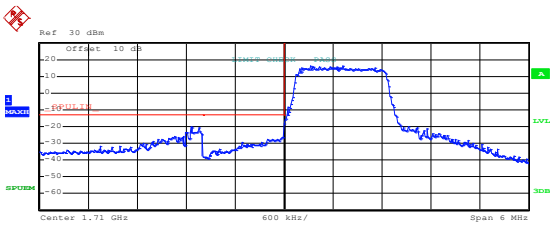


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753863 G	23.52	-9.48
1.755 G	1.756 G	30.00 k	1.755634 G	-29.99	-16.99
1.756 G	1.758 G	1.00 M	1.756016 G	-22.93	-9.93

Date: 15.JUL.2020 17:05:55

Highest channel

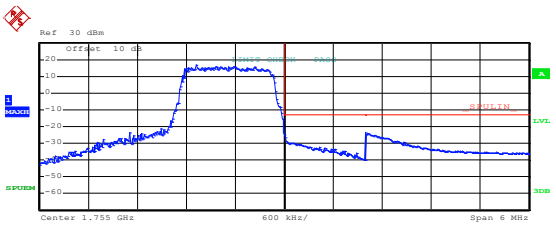
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708855 G	-20.05	-7.05
1.709 G	1.710 G	30.00 k	1.709985 G	-26.23	-13.23
1.710 G	1.713 G	100.00 k	1.710321 G	16.20	-16.80

Date: 15.JUL.2020 17:05:14

Lowest channel



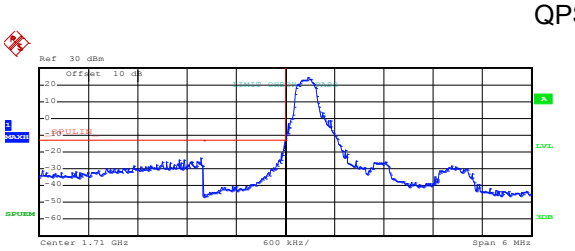
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753914 G	16.92	-16.08
1.755 G	1.756 G	30.00 k	1.755001 G	-24.97	-11.97
1.756 G	1.758 G	1.00 M	1.756000 G	-23.58	-10.58

Date: 15.JUL.2020 17:06:12

Highest channel

LTE Band 4, BW: 1.4MHz

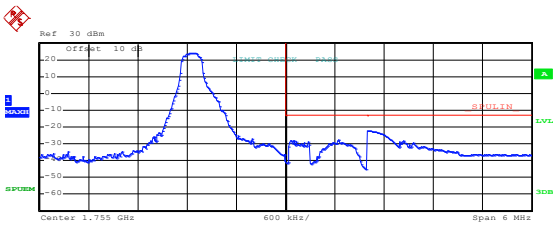
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.708972 G	-23.58	-10.58
1.709 G	1.710 G	30.00 k	1.709995 G	-15.56	-2.56
1.710 G	1.713 G	100.00 k	1.710273 G	24.30	-8.70

Date: 15.JUL.2020 17:03:57

Lowest channel

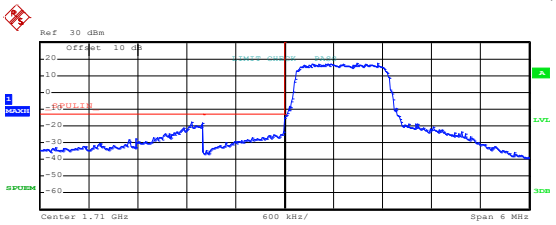


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.752 G	1.755 G	100.00 k	1.753842 G	23.94	-9.06
1.755 G	1.756 G	30.00 k	1.755643 G	-27.54	-14.54
1.756 G	1.758 G	1.00 M	1.756010 G	-22.35	-9.35

Date: 15.JUL.2020 17:05:48

Highest channel

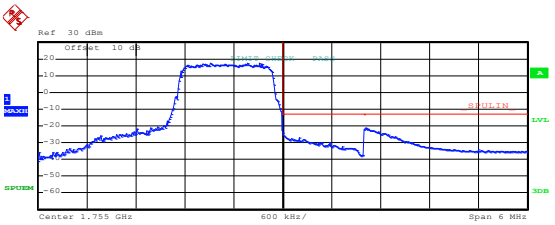
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.707 G	1.709 G	1.00 M	1.708855 G	-17.68	-4.68
1.709 G	1.710 G	30.00 k	1.709986 G	-23.28	-10.28
1.710 G	1.713 G	100.00 k	1.710885 G	17.62	-15.38

Date: 15.JUL.2020 17:05:08

Lowest channel

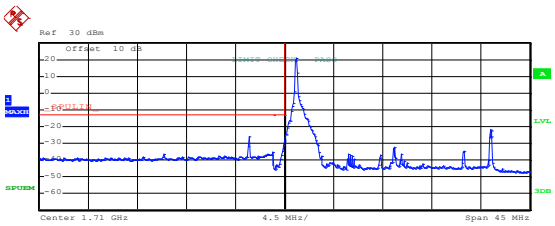


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	Δ Limit [dB]
1.752 G	1.755 G	100.00 k	1.754565 G	17.41	-15.59
1.755 G	1.756 G	30.00 k	1.755003 G	-23.65	-10.65
1.756 G	1.758 G	1.00 M	1.756014 G	-21.27	-8.27

Date: 15.JUL.2020 17:06:05

Highest channel

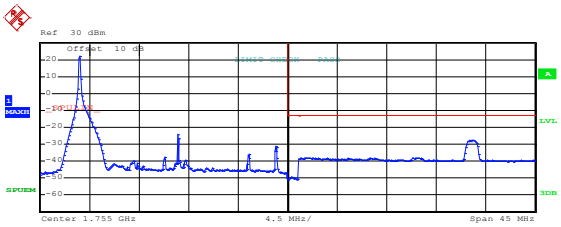
LTE Band 4, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.706746 G	-25.59	-12.59
1.709 G	1.710 G	30.00 k	1.709985 G	-31.32	-18.32
1.710 G	1.732 G	100.00 k	1.711103 G	20.91	-12.09

Date: 15.JUL.2020 17:07:46

Lowest channel

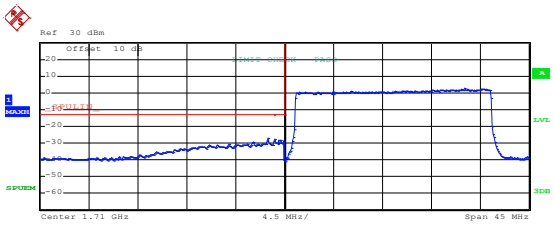


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736077 G	22.15	-10.85
1.755 G	1.756 G	30.00 k	1.755606 G	-49.43	-36.43
1.756 G	1.778 G	1.00 M	1.771695 G	-27.72	-14.72

Date: 15.JUL.2020 17:09:59

Highest channel

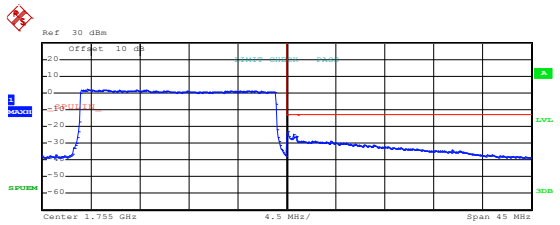
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708480 G	-26.95	-13.95
1.709 G	1.710 G	300.00 k	1.709091 G	-27.81	-14.81
1.710 G	1.732 G	100.00 k	1.726538 G	2.60	-30.40

Date: 15.JUL.2020 17:08:16

Lowest channel

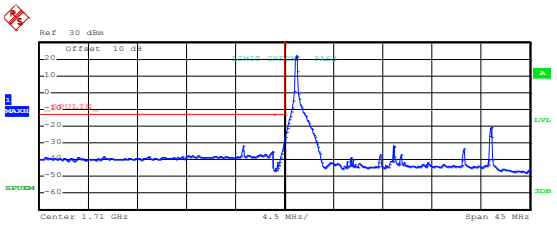


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736640 G	2.03	-30.97
1.755 G	1.756 G	300.00 k	1.755101 G	-23.18	-10.18
1.756 G	1.778 G	1.00 M	1.756021 G	-28.02	-15.02

Date: 15.JUL.2020 17:10:27

Highest channel

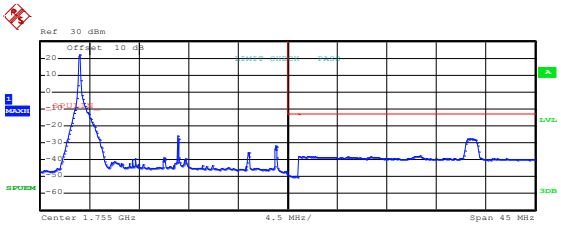
LTE Band 4, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.706226 G	-31.80	-18.80
1.709 G	1.710 G	30.00 k	1.709987 G	-31.65	-18.65
1.710 G	1.732 G	100.00 k	1.711080 G	22.09	-10.91

Date: 15.JUL.2020 17:07:28

Lowest channel

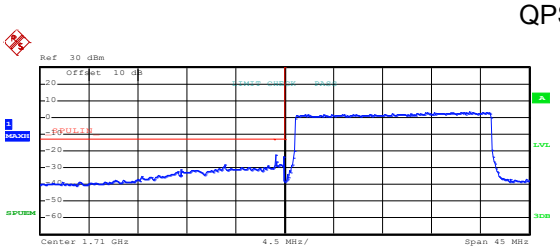


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736077 G	21.90	-11.10
1.755 G	1.756 G	30.00 k	1.755073 G	-48.87	-35.87
1.756 G	1.778 G	1.00 M	1.771502 G	-27.60	-14.60

Date: 15.JUL.2020 17:09:50

Highest channel

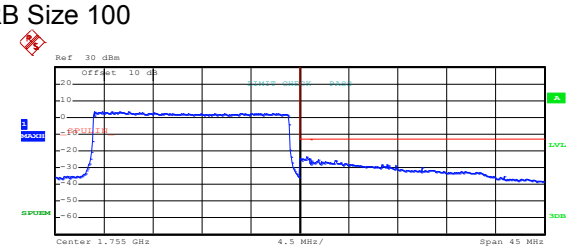
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.704492 G	-28.35	-15.35
1.709 G	1.710 G	300.00 k	1.709184 G	-22.56	-9.56
1.710 G	1.732 G	100.00 k	1.726987 G	3.31	-29.69

Date: 15.JUL.2020 17:08:09

Lowest channel



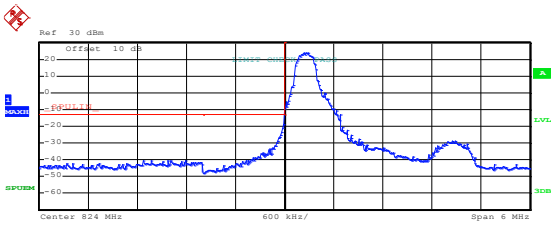
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.739205 G	3.48	-29.52
1.755 G	1.756 G	300.00 k	1.755654 G	-23.49	-10.49
1.756 G	1.778 G	1.00 M	1.756731 G	-25.22	-12.22

Date: 15.JUL.2020 17:10:18

Highest channel

LTE Band 5 part:

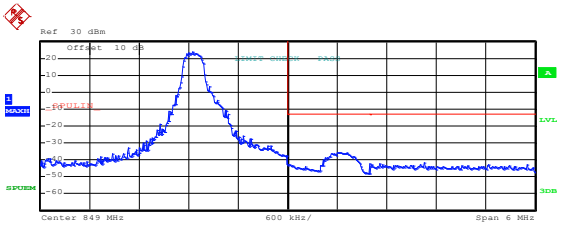
LTE Band 5, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.270000 M	-40.33	-27.33
823.000 M	824.000 M	30.00 k	823.997000 M	-19.07	-6.07
824.000 M	827.000 M	100.00 k	824.291000 M	24.02	-8.98

Date: 15.JUL.2020 17:14:02

Lowest channel

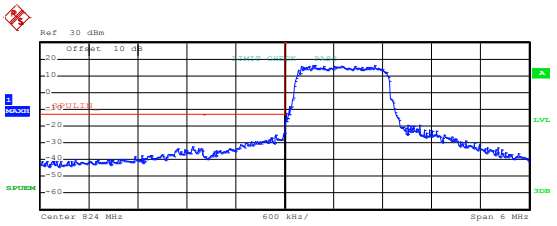


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.845000 M	23.71	-9.29
849.000 M	850.000 M	30.00 k	849.635000 M	-35.55	-22.55
850.000 M	852.000 M	100.00 k	850.654000 M	-41.41	-28.41

Date: 15.JUL.2020 17:14:49

Highest channel

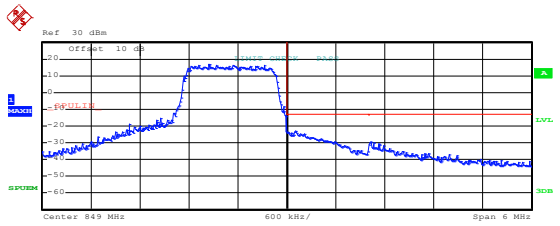
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.874000 M	-32.24	-19.24
823.000 M	824.000 M	30.00 k	823.988000 M	-24.70	-11.70
824.000 M	827.000 M	100.00 k	824.345000 M	16.29	-16.71

Date: 15.JUL.2020 17:14:22

Lowest channel



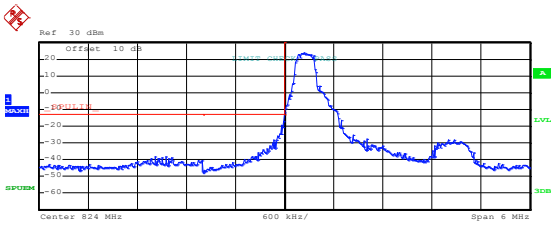
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.040000 M	16.73	-16.27
849.000 M	850.000 M	30.00 k	849.106000 M	-22.96	-9.96
850.000 M	852.000 M	100.00 k	850.030000 M	-29.27	-16.27

Date: 15.JUL.2020 17:15:07

Highest channel

LTE Band 5, BW: 1.4MHz

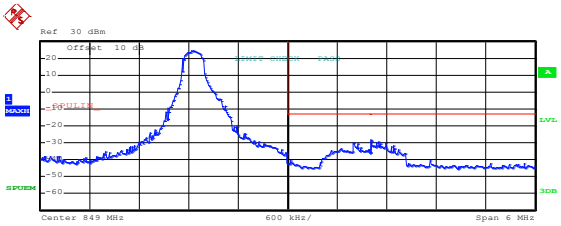
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.420000 M	-38.24	-25.24
823.000 M	824.000 M	30.00 k	823.999000 M	-18.81	-5.81
824.000 M	827.000 M	100.00 k	824.237000 M	23.92	-9.08

Date: 15.JUL.2020 17:13:53

Lowest channel

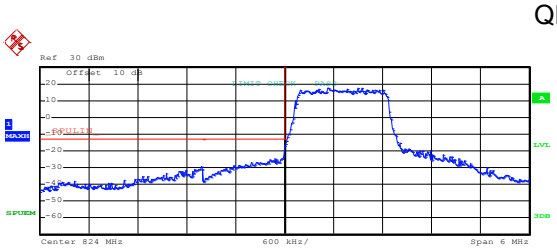


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.836000 M	24.42	-8.58
849.000 M	850.000 M	30.00 k	849.800000 M	-29.74	-16.74
850.000 M	852.000 M	100.00 k	850.004000 M	-28.34	-15.34

Date: 15.JUL.2020 17:14:42

Highest channel

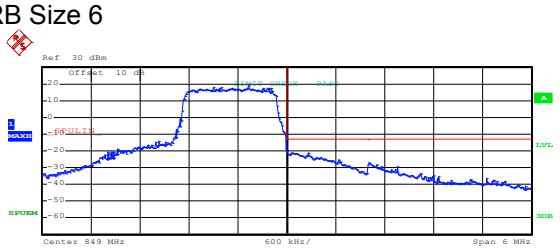
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.982000 M	-29.30	-16.30
823.000 M	824.000 M	30.00 k	823.996000 M	-23.41	-10.41
824.000 M	827.000 M	100.00 k	824.948000 M	17.60	-15.40

Date: 15.JUL.2020 17:14:15

Lowest channel

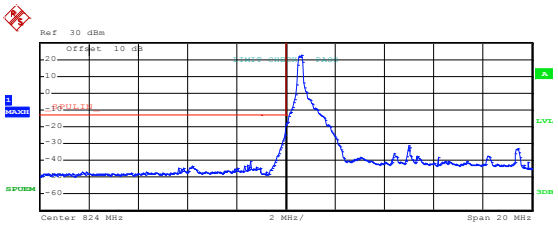


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.526000 M	18.90	-14.10
849.000 M	850.000 M	30.00 k	849.001000 M	-20.21	-7.21
850.000 M	852.000 M	100.00 k	850.008000 M	-27.23	-14.23

Date: 15.JUL.2020 17:15:00

Highest channel

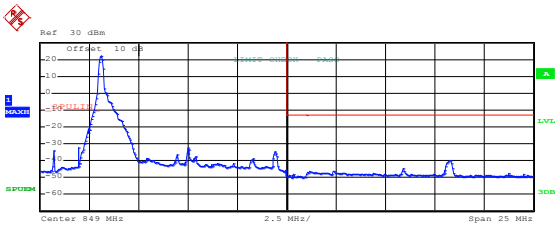
LTE Band 5, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
814.000 M	823.000 M	100.00 k	822.559000 M	-40.70	-27.70
823.000 M	824.000 M	30.00 k	823.998000 M	-24.92	-11.92
824.000 M	834.000 M	100.00 k	824.620000 M	22.97	-10.03

Date: 15.JUL.2020 17:16:56

Lowest channel

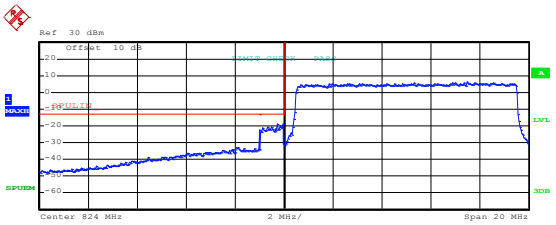


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.600000 M	21.93	-11.07
849.000 M	850.000 M	30.00 k	849.347000 M	-47.87	-34.87
850.000 M	861.500 M	100.00 k	857.279500 M	-39.84	-26.84

Date: 15.JUL.2020 17:18:22

Highest channel

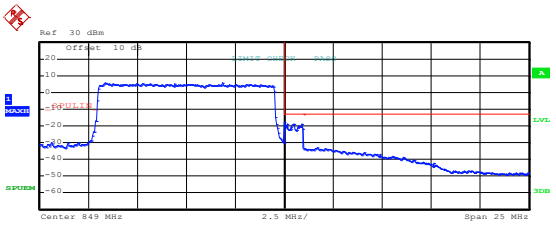
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
814.000 M	823.000 M	100.00 k	822.037000 M	-32.75	-19.75
823.000 M	824.000 M	300.00 k	823.997000 M	-18.59	-5.59
824.000 M	834.000 M	100.00 k	831.480000 M	6.53	-26.47

Date: 15.JUL.2020 17:17:22

Lowest channel

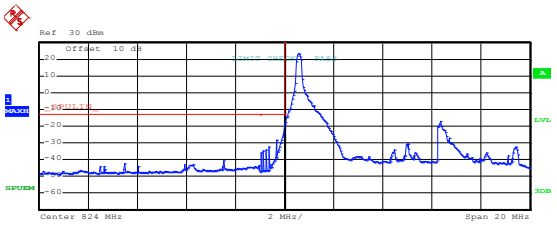


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.825000 M	5.73	-27.27
849.000 M	850.000 M	300.00 k	849.012000 M	-17.55	-4.55
850.000 M	861.500 M	100.00 k	850.609500 M	-32.73	-19.73

Date: 15.JUL.2020 17:18:45

Highest channel

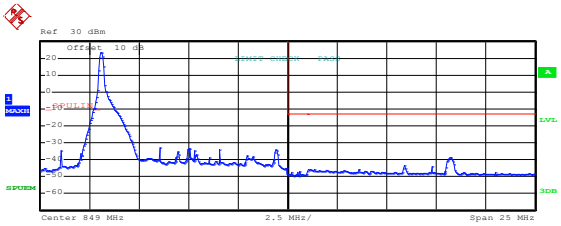
LTE Band 5, BW: 10MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
814.000 M	823.000 M	100.00 k	821.506000 M	-40.67	-27.67
823.000 M	824.000 M	30.00 k	823.990000 M	-23.91	-10.91
824.000 M	834.000 M	100.00 k	824.610000 M	23.25	-9.75

Date: 15.JUL.2020 17:16:48

Lowest channel

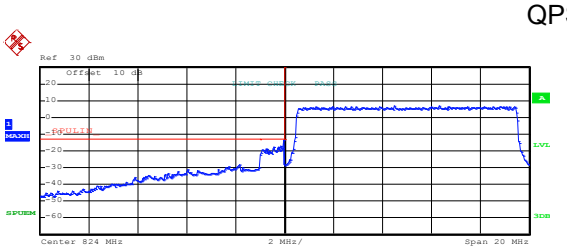


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.587500 M	23.16	-9.84
849.000 M	850.000 M	30.00 k	849.612000 M	-47.08	-34.08
850.000 M	861.500 M	100.00 k	857.233500 M	-38.52	-25.52

Date: 15.JUL.2020 17:18:13

Highest channel

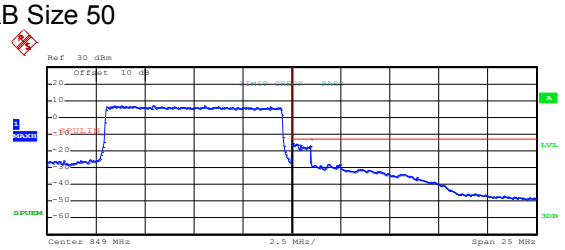
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
814.000 M	823.000 M	100.00 k	822.145000 M	-28.45	-15.45
823.000 M	824.000 M	300.00 k	823.967000 M	-16.10	-3.10
824.000 M	834.000 M	100.00 k	828.480000 M	6.67	-26.33

Date: 15.JUL.2020 17:17:15

Lowest channel



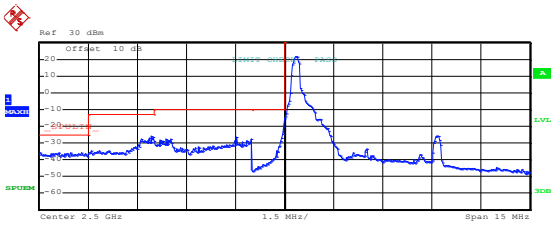
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	840.275000 M	7.03	-25.97
849.000 M	850.000 M	300.00 k	849.029000 M	-15.58	-2.58
850.000 M	861.500 M	100.00 k	850.885500 M	-28.15	-15.15

Date: 15.JUL.2020 17:18:38

Highest channel

LTE Band 7 part:

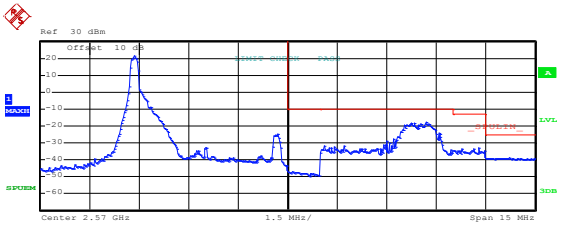
LTE Band 7, BW: 5MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.493 G	2.494 G	1.00 M	2.493453 G	-35.61	-10.61
2.494 G	2.496 G	1.00 M	2.495918 G	-25.95	-12.95
2.496 G	2.499 G	1.00 M	2.498523 G	-26.58	-16.58
2.499 G	2.500 G	30.00 k	2.499997 G	-20.25	-10.25
2.500 G	2.507 G	100.00 k	2.500367 G	21.75	-11.25

Date: 15.JUL.2020 17:22:22

Lowest channel

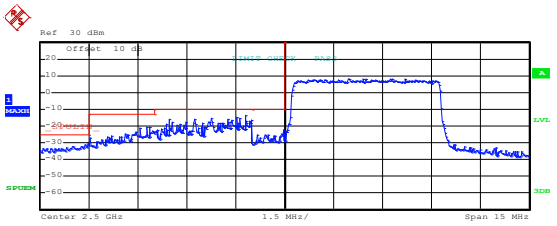


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.563 G	2.570 G	100.00 k	2.565342 G	21.35	-11.65
2.570 G	2.571 G	30.00 k	2.570010 G	-46.86	-36.86
2.571 G	2.575 G	1.00 M	2.574204 G	-17.89	-7.89
2.575 G	2.576 G	1.00 M	2.575783 G	-33.07	-20.07
2.576 G	2.578 G	1.00 M	2.576309 G	-38.96	-13.96

Date: 15.JUL.2020 17:23:29

Highest channel

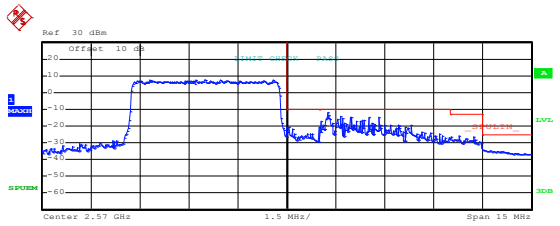
16QAM & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.493 G	2.494 G	1.00 M	2.493982 G	-30.41	-5.41
2.494 G	2.496 G	1.00 M	2.495778 G	-20.49	-7.49
2.496 G	2.499 G	1.00 M	2.498802 G	-13.84	-3.84
2.499 G	2.500 G	100.00 k	2.499998 G	-22.54	-12.54
2.500 G	2.507 G	100.00 k	2.503690 G	8.15	-24.85

Date: 15.JUL.2020 17:22:51

Lowest channel

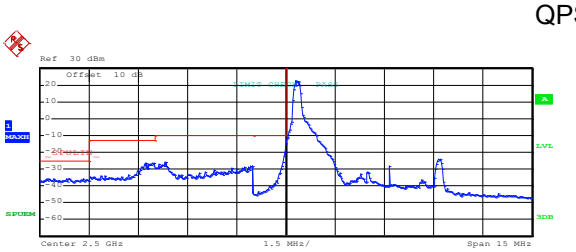


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.563 G	2.570 G	100.00 k	2.567195 G	7.60	-25.40
2.570 G	2.571 G	100.00 k	2.570074 G	-20.57	-10.57
2.571 G	2.575 G	1.00 M	2.571264 G	-11.70	-1.70
2.575 G	2.576 G	1.00 M	2.575286 G	-25.76	-12.76
2.576 G	2.578 G	1.00 M	2.576014 G	-34.17	-9.17

Date: 15.JUL.2020 17:24:02

Highest channel

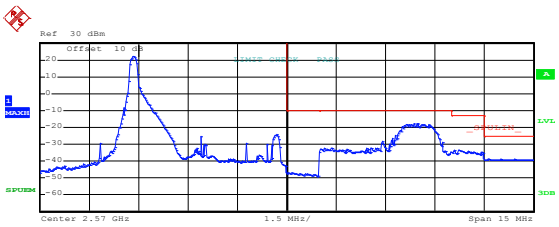
LTE Band 7, BW: 5MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.493 G	2.494 G	1.00 M	2.492706 G	-35.50	-10.50
2.494 G	2.496 G	1.00 M	2.495916 G	-26.50	-13.50
2.496 G	2.499 G	1.00 M	2.496324 G	-25.62	-15.62
2.499 G	2.500 G	30.00 k	2.499997 G	-20.02	-10.02
2.500 G	2.507 G	100.00 k	2.500307 G	22.49	-10.51

Date: 15.JUL.2020 17:22:15

Lowest channel

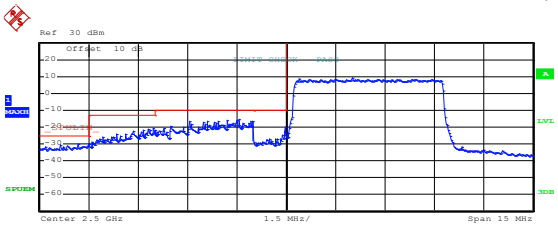


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.563 G	2.570 G	100.00 k	2.565358 G	21.93	-11.07
2.570 G	2.571 G	30.00 k	2.570054 G	-46.44	-36.44
2.571 G	2.575 G	1.00 M	2.573864 G	-17.82	-7.82
2.575 G	2.576 G	1.00 M	2.575236 G	-33.36	-20.36
2.576 G	2.578 G	1.00 M	2.576160 G	-38.74	-13.74

Date: 15.JUL.2020 17:23:21

Highest channel

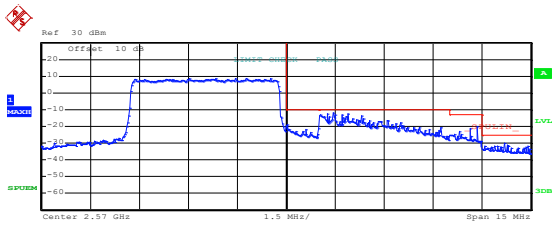
QPSK & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.493 G	2.494 G	1.00 M	2.493666 G	-29.83	-4.83
2.494 G	2.496 G	1.00 M	2.495948 G	-20.64	-7.64
2.496 G	2.499 G	1.00 M	2.498550 G	-15.27	-5.27
2.499 G	2.500 G	100.00 k	2.499991 G	-20.73	-10.73
2.500 G	2.507 G	100.00 k	2.502010 G	9.20	-23.80

Date: 15.JUL.2020 17:22:43

Lowest channel

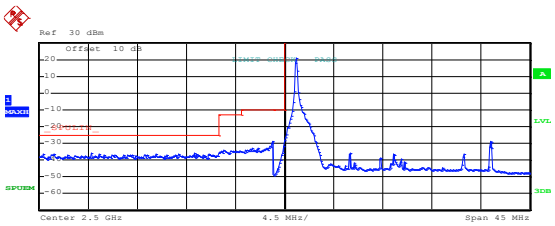


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.563 G	2.570 G	100.00 k	2.567015 G	8.77	-24.23
2.570 G	2.571 G	100.00 k	2.570044 G	-18.97	-8.97
2.571 G	2.575 G	1.00 M	2.571448 G	-11.56	-1.56
2.575 G	2.576 G	1.00 M	2.575845 G	-19.87	-6.87
2.576 G	2.578 G	1.00 M	2.576703 G	-29.91	-4.91

Date: 15.JUL.2020 17:23:53

Highest channel

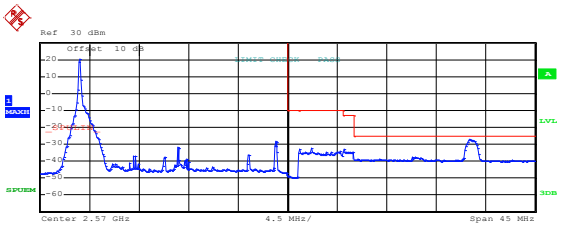
LTE Band 7, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.482269 G	-35.72	-10.72
2.494 G	2.496 G	1.00 M	2.494440 G	-34.31	-21.31
2.496 G	2.499 G	1.00 M	2.498973 G	-28.94	-18.94
2.499 G	2.500 G	30.00 k	2.499997 G	-31.89	-21.89
2.500 G	2.523 G	100.00 k	2.501057 G	20.66	-12.34

Date: 15.JUL.2020 17:25:06

Lowest channel

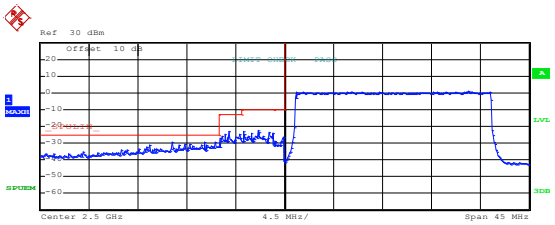


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551077 G	20.32	-12.68
2.570 G	2.571 G	30.00 k	2.570095 G	-48.57	-38.57
2.571 G	2.575 G	1.00 M	2.572160 G	-32.14	-22.14
2.575 G	2.576 G	1.00 M	2.575167 G	-32.90	-19.90
2.576 G	2.592 G	1.00 M	2.586560 G	-27.21	-2.21

Date: 15.JUL.2020 17:26:32

Highest channel

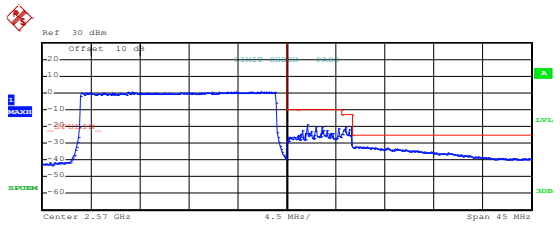
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.493621 G	-29.09	-4.09
2.494 G	2.496 G	1.00 M	2.494870 G	-23.11	-10.11
2.496 G	2.499 G	1.00 M	2.497581 G	-22.51	-12.51
2.499 G	2.500 G	300.00 k	2.499994 G	-26.46	-16.46
2.500 G	2.523 G	100.00 k	2.516875 G	0.81	-32.19

Date: 15.JUL.2020 17:25:34

Lowest channel

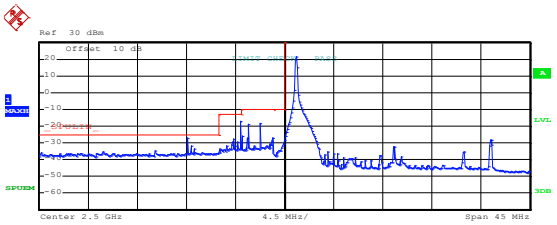


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.566760 G	0.74	-32.26
2.570 G	2.571 G	300.00 k	2.570398 G	-26.31	-16.31
2.571 G	2.575 G	1.00 M	2.571908 G	-18.98	-8.98
2.575 G	2.576 G	1.00 M	2.575986 G	-20.26	-7.26
2.576 G	2.592 G	1.00 M	2.577023 G	-31.70	-6.70

Date: 15.JUL.2020 17:27:00

Highest channel

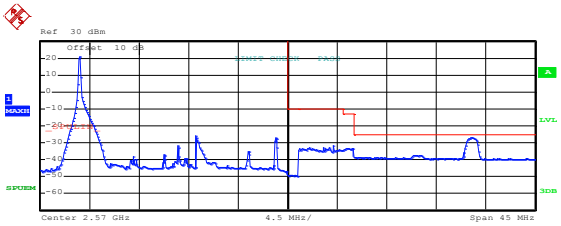
LTE Band 7, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.491063 G	-26.74	-1.74
2.494 G	2.496 G	1.00 M	2.495912 G	-17.24	-4.24
2.496 G	2.499 G	1.00 M	2.497770 G	-18.37	-8.37
2.499 G	2.500 G	30.00 k	2.499920 G	-30.34	-20.34
2.500 G	2.523 G	100.00 k	2.501103 G	21.51	-11.49

Date: 15.JUL.2020 17:24:58

Lowest channel

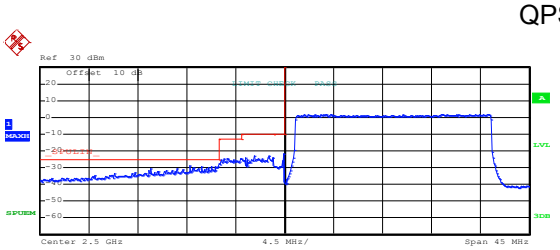


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551100 G	21.12	-11.88
2.570 G	2.571 G	30.00 k	2.570747 G	-48.52	-38.52
2.571 G	2.575 G	1.00 M	2.574108 G	-31.94	-21.94
2.575 G	2.576 G	1.00 M	2.575589 G	-33.33	-20.33
2.576 G	2.592 G	1.00 M	2.586692 G	-27.19	-2.19

Date: 15.JUL.2020 17:26:24

Highest channel

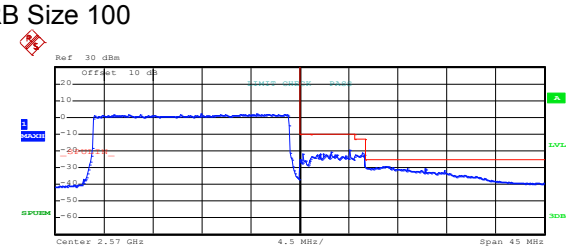
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.491211 G	-28.85	-3.85
2.494 G	2.496 G	1.00 M	2.494396 G	-24.77	-11.77
2.496 G	2.499 G	1.00 M	2.498541 G	-22.88	-12.88
2.499 G	2.500 G	300.00 k	2.499968 G	-21.89	-11.89
2.500 G	2.523 G	100.00 k	2.518698 G	1.90	-31.10

Date: 15.JUL.2020 17:25:21

Lowest channel



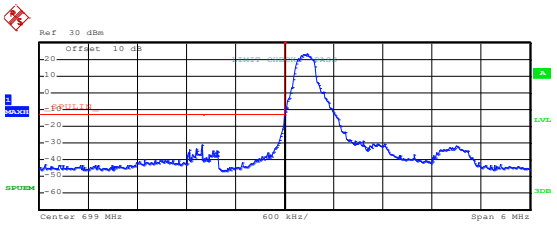
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.566040 G	2.23	-30.77
2.570 G	2.571 G	300.00 k	2.570233 G	-22.03	-12.03
2.571 G	2.575 G	1.00 M	2.574580 G	-19.46	-9.46
2.575 G	2.576 G	1.00 M	2.575767 G	-21.06	-8.06
2.576 G	2.592 G	1.00 M	2.578030 G	-29.38	-4.38

Date: 15.JUL.2020 17:26:52

Highest channel

LTE band 12 part:

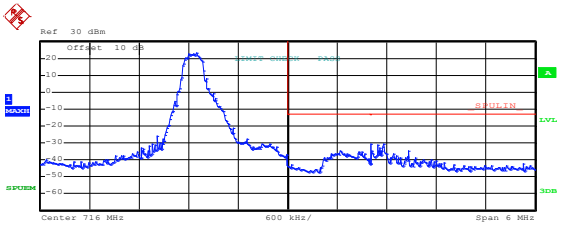
LTE Band 12, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.986000 M	-31.25	-18.25
698.000 M	699.000 M	30.00 k	698.997000 M	-20.22	-7.22
699.000 M	702.000 M	100.00 k	699.279000 M	23.06	-9.94

Date: 15.JUL.2020 17:28:39

Lowest channel

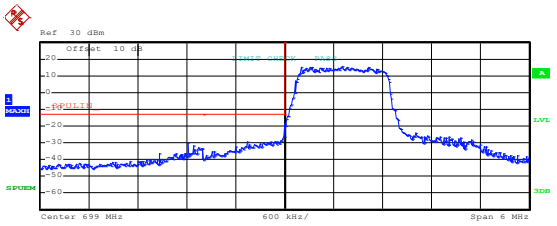


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	714.896000 M	23.04	-9.96
716.000 M	717.000 M	30.00 k	716.633000 M	-34.62	-21.62
717.000 M	719.000 M	100.00 k	717.158000 M	-30.55	-17.55

Date: 15.JUL.2020 17:29:21

Highest channel

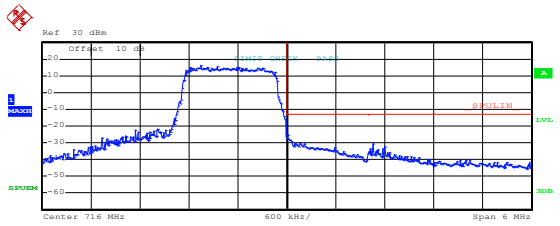
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.812000 M	-30.08	-17.08
698.000 M	699.000 M	30.00 k	698.978000 M	-27.77	-14.77
699.000 M	702.000 M	100.00 k	699.708000 M	15.62	-17.38

Date: 15.JUL.2020 17:28:53

Lowest channel



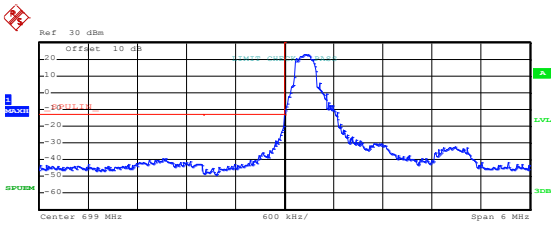
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	714.944000 M	16.14	-16.86
716.000 M	717.000 M	30.00 k	716.007000 M	-25.55	-12.55
717.000 M	719.000 M	100.00 k	717.058000 M	-30.64	-17.64

Date: 15.JUL.2020 17:29:34

Highest channel

LTE Band 12, BW: 1.4MHz

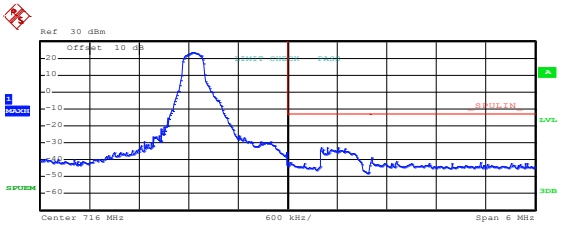
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.544000 M	-39.08	-26.08
698.000 M	699.000 M	30.00 k	698.997000 M	-19.81	-6.81
699.000 M	702.000 M	100.00 k	699.240000 M	22.80	-10.20

Date: 15.JUL.2020 17:28:32

Lowest channel

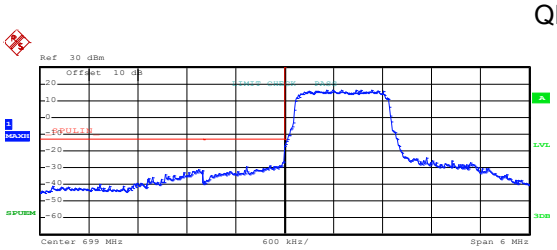


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	714.845000 M	23.55	-9.45
716.000 M	717.000 M	30.00 k	716.607000 M	-32.90	-19.90
717.000 M	719.000 M	100.00 k	717.014000 M	-38.74	-25.74

Date: 15.JUL.2020 17:29:14

Highest channel

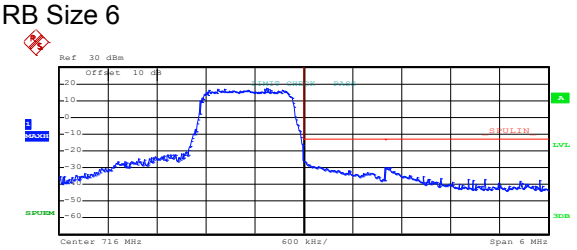
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
696.000 M	698.000 M	100.00 k	697.940000 M	-30.95	-17.95
698.000 M	699.000 M	30.00 k	698.992000 M	-26.35	-13.35
699.000 M	702.000 M	100.00 k	699.879000 M	16.35	-16.65

Date: 15.JUL.2020 17:28:47

Lowest channel

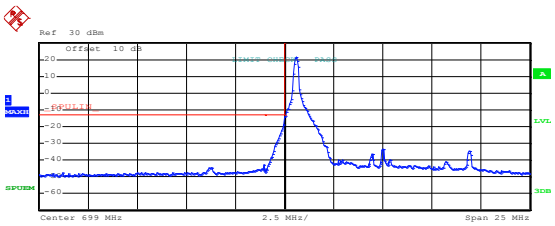


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
713.000 M	716.000 M	100.00 k	715.541000 M	17.28	-15.72
716.000 M	717.000 M	30.00 k	716.011000 M	-25.92	-12.92
717.000 M	719.000 M	100.00 k	717.018000 M	-29.92	-16.92

Date: 15.JUL.2020 17:29:29

Highest channel

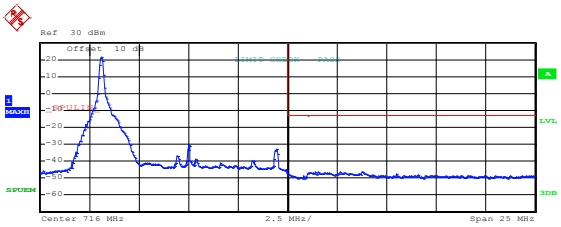
LTE Band 12, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.988500 M	-42.98	-29.98
698.000 M	699.000 M	30.00 k	698.979000 M	-18.73	-5.73
699.000 M	711.500 M	100.00 k	699.575000 M	21.28	-11.72

Date: 15.JUL.2020 17:30:45

Lowest channel

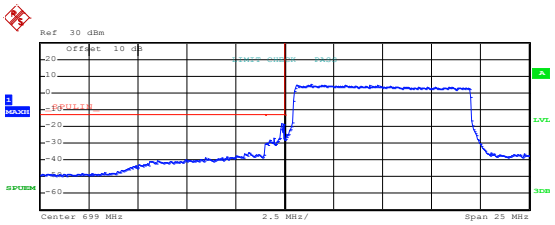


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	706.612500 M	21.81	-11.19
716.000 M	717.000 M	30.00 k	716.112000 M	-47.95	-34.95
717.000 M	728.500 M	100.00 k	717.391000 M	-46.30	-33.30

Date: 15.JUL.2020 17:32:08

Highest channel

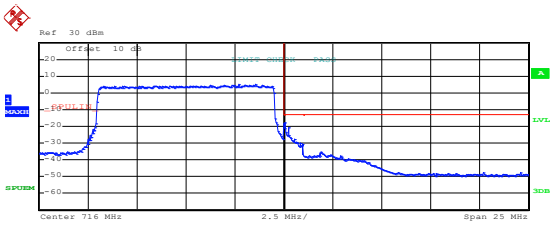
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.137500 M	-35.64	-22.64
698.000 M	699.000 M	300.00 k	698.862903 M	-18.27	-5.27
699.000 M	711.500 M	100.00 k	700.362500 M	4.90	-28.10

Date: 15.JUL.2020 17:31:28

Lowest channel



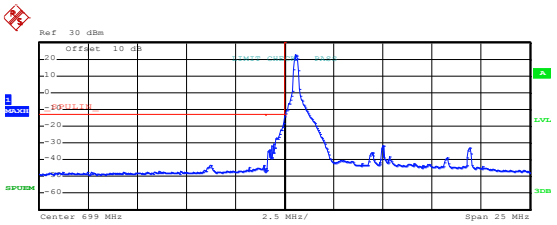
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	713.675000 M	4.96	-28.04
716.000 M	717.000 M	300.00 k	716.048387 M	-17.55	-4.55
717.000 M	728.500 M	100.00 k	717.897000 M	-35.48	-22.48

Date: 15.JUL.2020 17:32:42

Highest channel

LTE Band 12, BW: 10MHz

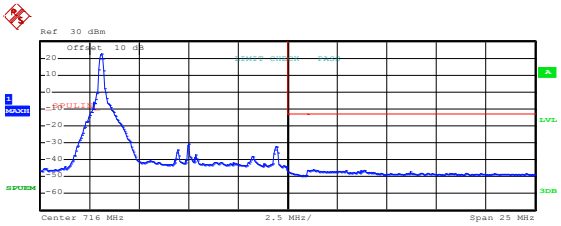
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	695.217000 M	-43.29	-30.29
698.000 M	699.000 M	30.00 k	698.990000 M	-18.15	-5.15
699.000 M	711.500 M	100.00 k	699.562500 M	22.42	-10.58

Date: 15.JUL.2020 17:30:35

Lowest channel

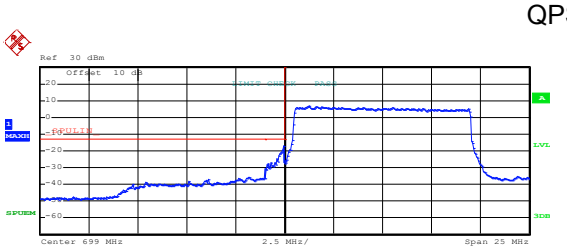


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	706.612500 M	22.62	-10.38
716.000 M	717.000 M	30.00 k	716.091000 M	-46.19	-33.19
717.000 M	728.500 M	100.00 k	717.310500 M	-45.53	-32.53

Date: 15.JUL.2020 17:31:59

Highest channel

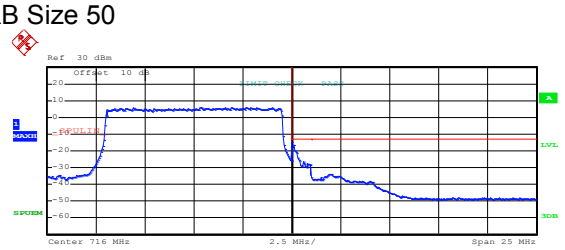
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
686.500 M	698.000 M	100.00 k	697.172000 M	-35.71	-22.71
698.000 M	699.000 M	300.00 k	698.943548 M	-18.22	-5.22
699.000 M	711.500 M	100.00 k	700.237500 M	6.73	-26.27

Date: 15.JUL.2020 17:31:22

Lowest channel



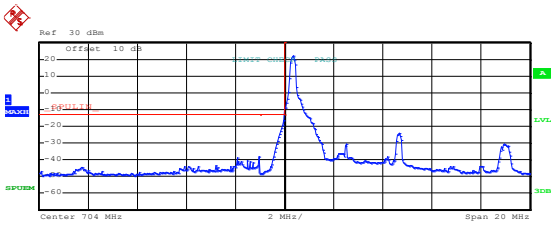
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
703.500 M	716.000 M	100.00 k	713.650000 M	5.88	-27.12
716.000 M	717.000 M	300.00 k	716.088710 M	-16.26	-3.26
717.000 M	728.500 M	100.00 k	717.931500 M	-33.83	-20.83

Date: 15.JUL.2020 17:32:35

Highest channel

LTE Band 17 part:

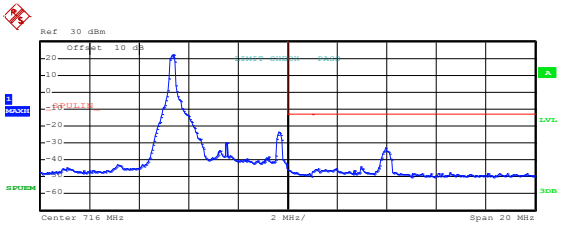
LTE Band 17, BW: 5MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	702.955000 M	-38.41	-25.41
703.000 M	704.000 M	30.00 k	703.991935 M	-16.42	-3.42
704.000 M	714.000 M	100.00 k	704.360000 M	22.34	-10.66

Date: 15.JUL.2020 17:34:11

Lowest channel

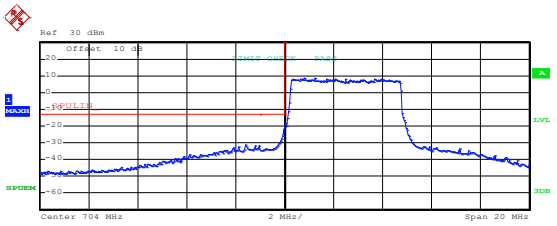


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.390000 M	22.22	-10.78
716.000 M	717.000 M	30.00 k	716.009000 M	-45.79	-32.79
717.000 M	726.000 M	100.00 k	719.970000 M	-32.90	-19.90

Date: 15.JUL.2020 17:35:17

Highest channel

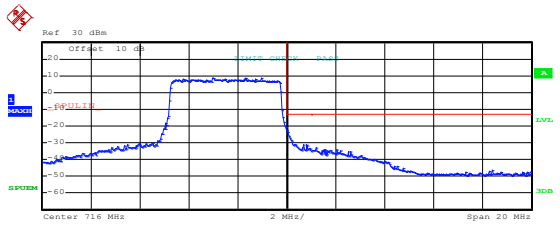
16QAM & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	702.379000 M	-31.20	-18.20
703.000 M	704.000 M	100.00 k	703.991935 M	-22.41	-9.41
704.000 M	714.000 M	100.00 k	705.240000 M	8.63	-24.37

Date: 15.JUL.2020 17:34:38

Lowest channel



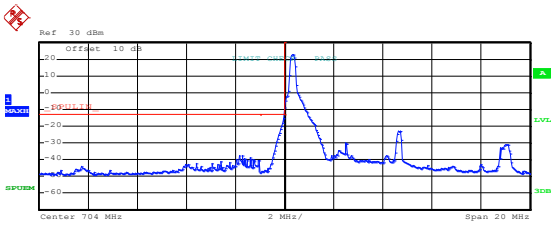
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	714.940000 M	8.85	-24.15
716.000 M	717.000 M	100.00 k	716.048387 M	-23.00	-10.00
717.000 M	726.000 M	100.00 k	717.180000 M	-32.76	-19.76

Date: 15.JUL.2020 17:36:05

Highest channel

LTE Band 17, BW: 5MHz

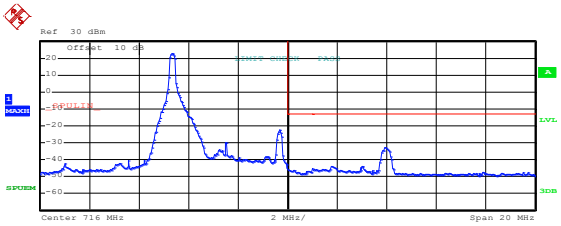
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	702.289000 M	-37.27	-24.27
703.000 M	704.000 M	30.00 k	703.991935 M	-15.26	-2.26
704.000 M	714.000 M	100.00 k	704.330000 M	22.82	-10.18

Date: 15.JUL.2020 17:34:03

Lowest channel

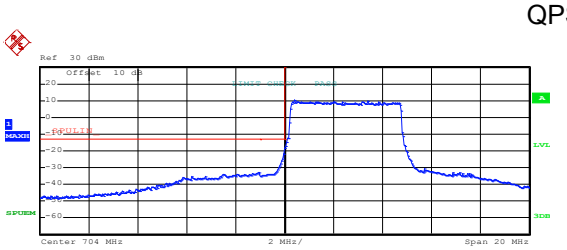


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	711.340000 M	22.78	-10.22
716.000 M	717.000 M	30.00 k	716.262000 M	-45.87	-32.87
717.000 M	726.000 M	100.00 k	719.934000 M	-32.73	-19.73

Date: 15.JUL.2020 17:35:10

Highest channel

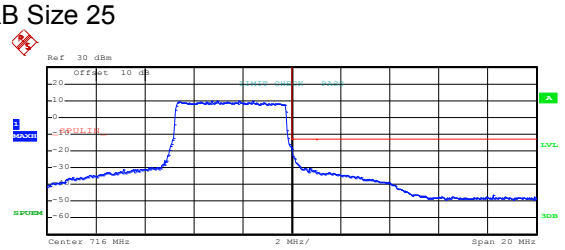
QPSK & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
694.000 M	703.000 M	100.00 k	703.000000 M	-33.03	-20.03
703.000 M	704.000 M	100.00 k	703.991935 M	-22.99	-9.99
704.000 M	714.000 M	100.00 k	704.390000 M	10.56	-22.44

Date: 15.JUL.2020 17:34:32

Lowest channel

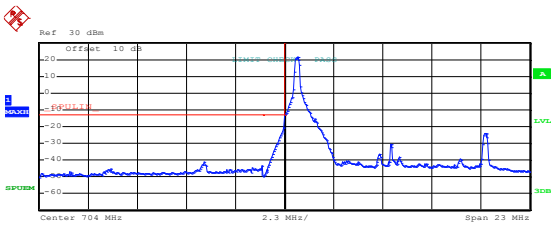


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
706.000 M	716.000 M	100.00 k	714.400000 M	9.77	-23.23
716.000 M	717.000 M	100.00 k	716.016129 M	-19.19	-6.19
717.000 M	726.000 M	100.00 k	717.036000 M	-32.20	-19.20

Date: 15.JUL.2020 17:35:58

Highest channel

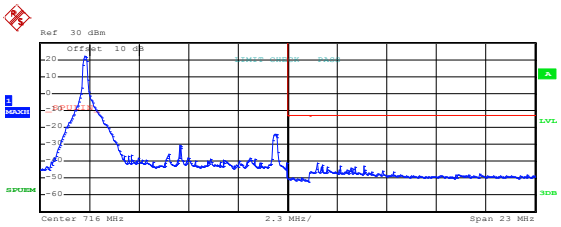
LTE Band 17, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	700.238500 M	-41.14	-28.14
703.000 M	704.000 M	30.00 k	703.991935 M	-21.03	-8.03
704.000 M	715.500 M	100.00 k	704.586500 M	21.52	-11.48

Date: 15.JUL.2020 17:37:04

Lowest channel

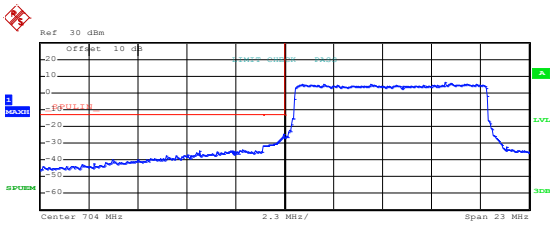


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	706.581500 M	22.14	-10.86
716.000 M	717.000 M	30.00 k	716.201613 M	-49.87	-36.87
717.000 M	727.500 M	100.00 k	717.388500 M	-40.84	-27.84

Date: 15.JUL.2020 17:38:33

Highest channel

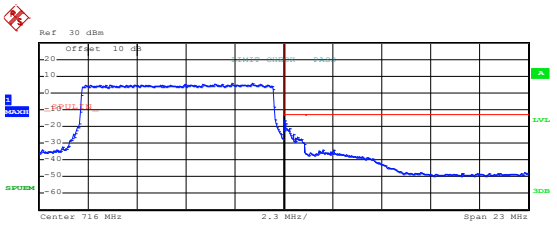
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	702.002500 M	-34.29	-21.29
703.000 M	704.000 M	300.00 k	703.991935 M	-24.42	-11.42
704.000 M	715.500 M	100.00 k	711.532500 M	6.07	-26.93

Date: 15.JUL.2020 17:37:34

Lowest channel



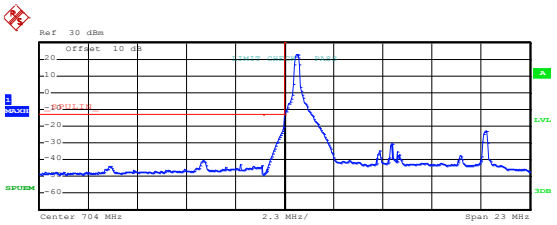
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	714.516500 M	5.50	-27.50
716.000 M	717.000 M	300.00 k	716.032258 M	-16.59	-3.59
717.000 M	727.500 M	100.00 k	717.850500 M	-34.20	-21.20

Date: 15.JUL.2020 17:38:57

Highest channel

LTE Band 17, BW: 10MHz

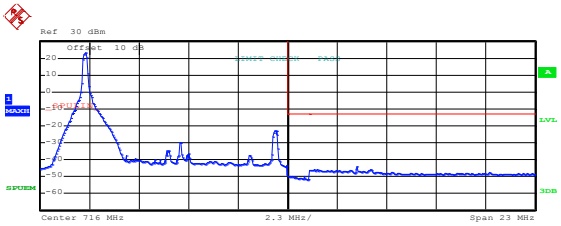
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	700.165000 M	-40.65	-27.65
703.000 M	704.000 M	30.00 k	703.991935 M	-20.60	-7.60
704.000 M	715.500 M	100.00 k	704.598000 M	22.77	-10.23

Date: 15.JUL.2020 17:36:56

Lowest channel

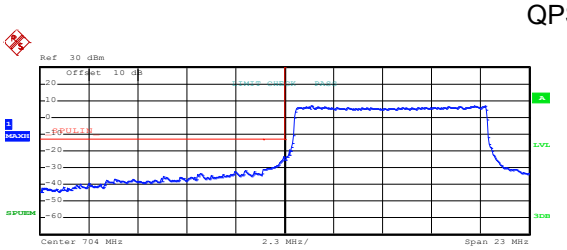


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	706.604500 M	23.03	-9.97
716.000 M	717.000 M	30.00 k	716.774194 M	-49.57	-36.57
717.000 M	727.500 M	100.00 k	719.205000 M	-43.97	-30.97

Date: 15.JUL.2020 17:38:25

Highest channel

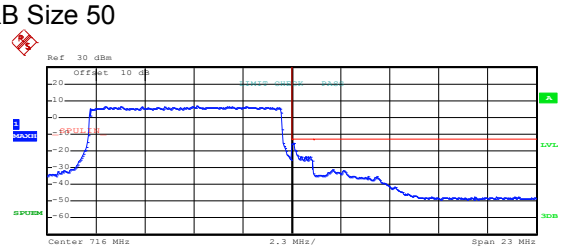
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
692.500 M	703.000 M	100.00 k	702.160000 M	-31.43	-18.43
703.000 M	704.000 M	300.00 k	703.991935 M	-23.58	-10.58
704.000 M	715.500 M	100.00 k	712.912500 M	7.11	-25.89

Date: 15.JUL.2020 17:37:27

Lowest channel

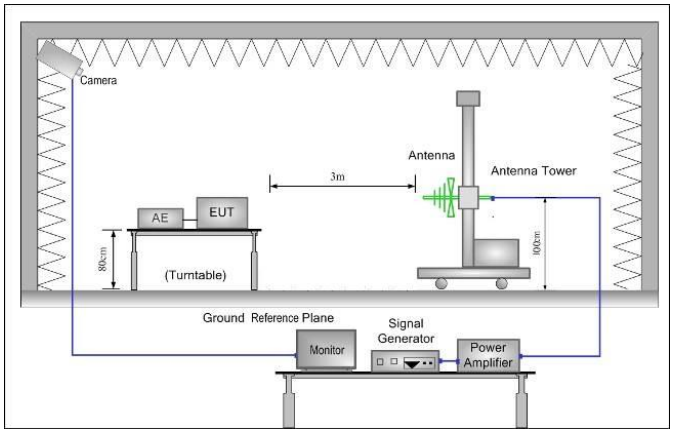
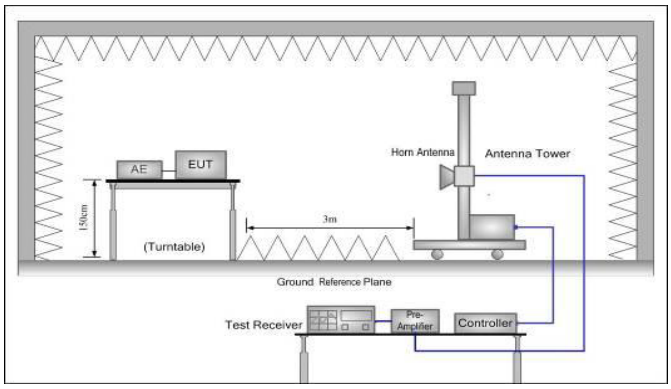


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
704.500 M	716.000 M	100.00 k	711.515000 M	6.65	-26.35
716.000 M	717.000 M	300.00 k	716.064516 M	-15.29	-2.29
717.000 M	727.500 M	100.00 k	717.882000 M	-31.17	-18.17

Date: 15.JUL.2020 17:38:50

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(m), 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). LTE Band 7: For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on 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	-56.06	12.64	0.75	-44.17	-13.00	-31.17	Vertical
5552.10	-56.07	12.76	1.13	-44.44	-13.00	-31.44	Vertical
7402.00	-48.72	11.44	1.63	-38.91	-13.00	-25.91	Vertical
3701.40	-56.22	12.64	0.75	-44.33	-13.00	-31.33	Horizontal
5552.10	-54.61	12.76	1.13	-42.98	-13.00	-29.98	Horizontal
7402.00	-48.96	11.44	1.63	-39.15	-13.00	-26.15	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	-56.24	12.71	0.79	-44.32	-13.00	-31.32	Vertical
5640.00	-55.37	12.87	1.15	-43.65	-13.00	-30.65	Vertical
7520.00	-49.47	11.48	1.66	-39.65	-13.00	-26.65	Vertical
3760.00	-57.07	12.71	0.79	-45.15	-13.00	-32.15	Horizontal
5640.00	-52.99	12.87	1.15	-41.27	-13.00	-28.27	Horizontal
7520.00	-48.85	11.48	1.66	-39.03	-13.00	-26.03	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	-55.29	12.78	0.81	-43.32	-13.00	-30.32	Vertical
5724.90	-54.47	12.97	1.19	-42.69	-13.00	-29.69	Vertical
7633.20	-49.78	11.34	1.71	-40.15	-13.00	-27.15	Vertical
3816.60	-57.76	12.78	0.81	-45.79	-13.00	-32.79	Horizontal
5724.90	-53.87	12.97	1.19	-42.09	-13.00	-29.09	Horizontal
7633.20	-49.74	11.34	1.71	-40.11	-13.00	-27.11	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	-55.58	12.66	0.77	-43.69	-13.00	-30.69	Vertical
5580.00	-53.80	12.80	1.15	-42.15	-13.00	-29.15	Vertical
7440.00	-47.74	11.46	1.64	-37.92	-13.00	-24.92	Vertical
3720.00	-54.41	12.66	0.77	-42.52	-13.00	-29.52	Horizontal
5580.00	-54.81	12.80	1.15	-43.16	-13.00	-30.16	Horizontal
7440.00	-49.49	11.46	1.64	-39.67	-13.00	-26.67	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	-57.25	12.71	0.79	-45.33	-13.00	-32.33	Vertical
5640.00	-54.37	12.87	1.15	-42.65	-13.00	-29.65	Vertical
7520.00	-48.44	11.48	1.66	-38.62	-13.00	-25.62	Vertical
3760.00	-57.09	12.71	0.79	-45.17	-13.00	-32.17	Horizontal
5640.00	-54.41	12.87	1.15	-42.69	-13.00	-29.69	Horizontal
7520.00	-49.84	11.48	1.66	-40.02	-13.00	-27.02	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	-55.62	12.76	0.79	-43.65	-13.00	-30.65	Vertical
5700.00	-53.35	12.94	1.18	-41.59	-13.00	-28.59	Vertical
7600.00	-49.55	11.38	1.69	-39.86	-13.00	-26.86	Vertical
3800.00	-56.75	12.76	0.79	-44.78	-13.00	-31.78	Horizontal
5700.00	-52.93	12.94	1.18	-41.17	-13.00	-28.17	Horizontal
7600.00	-49.36	11.38	1.69	-39.67	-13.00	-26.67	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	-54.86	12.24	0.70	-43.32	-13.00	-30.32	Vertical
5132.10	-56.05	12.92	1.01	-44.14	-13.00	-31.14	Vertical
6842.80	-49.59	11.42	1.53	-39.70	-13.00	-26.70	Vertical
3421.40	-50.31	12.24	0.70	-38.77	-13.00	-25.77	Horizontal
5132.10	-53.58	12.92	1.01	-41.67	-13.00	-28.67	Horizontal
6842.80	-45.91	11.42	1.53	-36.02	-13.00	-23.02	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	-53.80	12.33	0.72	-42.19	-13.00	-29.19	Vertical
5197.50	-55.49	12.88	1.04	-43.65	-13.00	-30.65	Vertical
6930.00	-48.50	11.30	1.56	-38.76	-13.00	-25.76	Vertical
3465.00	-48.26	12.33	0.72	-36.65	-13.00	-23.65	Horizontal
5197.50	-54.39	12.88	1.04	-42.55	-13.00	-29.55	Horizontal
6930.00	-45.53	11.30	1.56	-35.79	-13.00	-22.79	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
3508.60	-52.85	12.41	0.74	-41.18	-13.00	-28.18	Vertical
5262.90	-54.52	12.84	1.07	-42.75	-13.00	-29.75	Vertical
7017.20	-48.62	11.21	1.58	-38.99	-13.00	-25.99	Vertical
3508.60	-46.81	12.41	0.74	-35.14	-13.00	-22.14	Horizontal
5262.90	-52.94	12.84	1.07	-41.17	-13.00	-28.17	Horizontal
7017.20	-45.60	11.21	1.58	-35.97	-13.00	-22.97	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	-53.19	12.28	0.71	-41.62	-13.00	-28.62	Vertical
5160.00	-55.48	12.90	1.03	-43.61	-13.00	-30.61	Vertical
6880.00	-48.45	11.37	1.54	-38.62	-13.00	-25.62	Vertical
3440.00	-49.46	12.28	0.71	-37.89	-13.00	-24.89	Horizontal
5160.00	-54.40	12.90	1.03	-42.53	-13.00	-29.53	Horizontal
6880.00	-45.59	11.37	1.54	-35.76	-13.00	-22.76	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	-52.76	12.33	0.72	-41.15	-13.00	-28.15	Vertical
5197.50	-54.43	12.88	1.04	-42.59	-13.00	-29.59	Vertical
6930.00	-48.50	11.30	1.56	-38.76	-13.00	-25.76	Vertical
3465.00	-47.16	12.33	0.72	-35.55	-13.00	-22.55	Horizontal
5197.50	-52.97	12.88	1.04	-41.13	-13.00	-28.13	Horizontal
6930.00	-46.50	11.30	1.56	-36.76	-13.00	-23.76	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	-53.81	12.38	0.73	-42.16	-13.00	-29.16	Vertical
5235.00	-53.24	12.86	1.06	-41.44	-13.00	-28.44	Vertical
6980.00	-48.20	11.23	1.57	-38.54	-13.00	-25.54	Vertical
3490.00	-48.27	12.38	0.73	-36.62	-13.00	-23.62	Horizontal
5235.00	-53.25	12.86	1.06	-41.45	-13.00	-28.45	Horizontal
6980.00	-46.43	11.23	1.57	-36.77	-13.00	-23.77	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	-62.72	9.57	0.20	-53.35	-13.00	-40.35	Vertical
2474.10	-60.74	10.86	0.43	-50.31	-13.00	-37.31	Vertical
3298.80	-55.50	12.00	0.64	-44.14	-13.00	-31.14	Vertical
1649.40	-62.73	9.57	0.20	-53.36	-13.00	-40.36	Horizontal
2474.10	-61.07	10.86	0.43	-50.64	-13.00	-37.64	Horizontal
3298.80	-55.74	12.00	0.64	-44.38	-13.00	-31.38	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	-60.79	9.66	0.22	-51.35	-13.00	-38.35	Vertical
2509.50	-61.40	10.91	0.46	-50.95	-13.00	-37.95	Vertical
3346.00	-56.43	12.09	0.66	-45.00	-13.00	-32.00	Vertical
1673.30	-61.68	9.66	0.22	-52.24	-13.00	-39.24	Horizontal
2509.50	-59.83	10.91	0.46	-49.38	-13.00	-36.38	Horizontal
3346.00	-55.04	12.09	0.66	-43.61	-13.00	-30.61	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1696.60	-61.76	9.74	0.23	-52.25	-13.00	-39.25	Vertical
2544.90	-60.08	10.94	0.49	-49.63	-13.00	-36.63	Vertical
3393.20	-55.65	12.19	0.68	-44.14	-13.00	-31.14	Vertical
1696.60	-60.98	9.74	0.23	-51.47	-13.00	-38.47	Horizontal
2544.90	-59.24	10.94	0.49	-48.79	-13.00	-35.79	Horizontal
3393.20	-54.04	12.19	0.68	-42.53	-13.00	-29.53	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	-61.63	9.60	0.21	-52.24	-13.00	-39.24	Vertical
2487.00	-60.59	10.88	0.45	-50.16	-13.00	-37.16	Vertical
3316.00	-56.77	12.03	0.65	-45.39	-13.00	-32.39	Vertical
1658.00	-62.01	9.60	0.21	-52.62	-13.00	-39.62	Horizontal
2487.00	-60.90	10.88	0.45	-50.47	-13.00	-37.47	Horizontal
3316.00	-57.17	12.03	0.65	-45.79	-13.00	-32.79	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	-61.84	9.66	0.21	-52.39	-13.00	-39.39	Vertical
2509.50	-60.86	10.91	0.46	-50.41	-13.00	-37.41	Vertical
3346.00	-58.05	12.09	0.66	-46.62	-13.00	-33.62	Vertical
1673.30	-62.18	9.66	0.21	-52.73	-13.00	-39.73	Horizontal
2509.50	-59.34	10.91	0.46	-48.89	-13.00	-35.89	Horizontal
3346.00	-54.07	12.09	0.66	-42.64	-13.00	-29.64	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	-60.82	9.71	0.23	-51.34	-13.00	-38.34	Vertical
2532.00	-59.34	10.93	0.48	-48.89	-13.00	-35.89	Vertical
3376.00	-54.84	12.15	0.67	-43.36	-13.00	-30.36	Vertical
1688.00	-61.65	9.71	0.23	-52.17	-13.00	-39.17	Horizontal
2532.00	-59.02	10.93	0.48	-48.57	-13.00	-35.57	Horizontal
3376.00	-53.64	12.15	0.67	-42.16	-13.00	-29.16	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

LTE Band 7 part:

Band 7 (5MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5005.00	-56.21	13.00	0.94	-44.15	-25.00	-19.15	Vertical
7507.50	-43.79	11.49	1.65	-33.95	-25.00	-8.95	Vertical
10010.00	-47.34	11.69	1.91	-37.56	-25.00	-12.56	Vertical
5005.00	-56.71	13.00	0.94	-44.65	-25.00	-19.65	Horizontal
7507.50	-43.22	11.49	1.65	-33.38	-25.00	-8.38	Horizontal
10010.00	-45.96	11.69	1.91	-36.18	-25.00	-11.18	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5070.00	-55.13	12.96	0.98	-43.15	-25.00	-18.15	Vertical
7605.00	-44.33	11.37	1.69	-34.65	-25.00	-9.65	Vertical
10140.00	-46.63	11.62	1.94	-36.95	-25.00	-11.95	Vertical
5070.00	-57.15	12.96	0.98	-45.17	-25.00	-20.17	Horizontal
7605.00	-42.93	11.37	1.69	-33.25	-25.00	-8.25	Horizontal
10140.00	-45.66	11.62	1.94	-35.98	-25.00	-10.98	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5135.00	-54.06	12.92	1.01	-42.15	-25.00	-17.15	Vertical
7702.50	-45.19	11.26	1.72	-35.65	-25.00	-10.65	Vertical
10270.00	-44.99	11.54	1.95	-35.40	-25.00	-10.40	Vertical
5135.00	-48.11	12.92	1.01	-36.20	-25.00	-11.20	Horizontal
7702.50	-44.10	11.26	1.72	-34.56	-25.00	-9.56	Horizontal
10270.00	-44.68	11.54	1.95	-35.09	-25.00	-10.09	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

Band 7 (20MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5020.00	-55.38	12.99	0.97	-43.36	-25.00	-18.36	Vertical
7530.00	-43.89	11.46	1.68	-34.11	-25.00	-9.11	Vertical
10040.00	-46.39	11.68	1.94	-36.65	-25.00	-11.65	Vertical
5020.00	-57.19	12.99	0.97	-45.17	-25.00	-20.17	Horizontal
7530.00	-43.43	11.46	1.68	-33.65	-25.00	-8.65	Horizontal
10040.00	-45.71	11.68	1.94	-35.97	-25.00	-10.97	Horizontal
Middle channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5070.00	-54.23	12.96	0.98	-42.25	-25.00	-17.25	Vertical
7605.00	-46.37	11.37	1.69	-36.69	-25.00	-11.69	Vertical
10140.00	-44.93	11.62	1.94	-35.25	-25.00	-10.25	Vertical
5070.00	-56.15	12.96	0.98	-44.17	-25.00	-19.17	Horizontal
7605.00	-41.92	11.37	1.69	-32.24	-25.00	-7.24	Horizontal
10140.00	-44.29	11.62	1.94	-34.61	-25.00	-9.61	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
5120.00	-53.05	12.93	1.00	-41.12	-25.00	-16.12	Vertical
7680.00	-45.21	11.28	1.72	-35.65	-25.00	-10.65	Vertical
10240.00	-45.68	11.56	1.95	-36.07	-25.00	-11.07	Vertical
5120.00	-47.16	12.93	1.00	-35.23	-25.00	-10.23	Horizontal
7680.00	-43.75	11.28	1.72	-34.19	-25.00	-9.19	Horizontal
10240.00	-46.28	11.56	1.95	-36.67	-25.00	-11.67	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	-50.93	7.80	0.11	-43.24	-13.00	-30.24	Vertical
2099.10	-66.97	10.34	0.29	-56.92	-13.00	-43.92	Vertical
2798.80	-64.43	11.20	0.53	-53.76	-13.00	-40.76	Vertical
1399.40	-48.99	7.80	0.11	-41.30	-13.00	-28.30	Horizontal
2099.10	-62.68	10.34	0.29	-52.63	-13.00	-39.63	Horizontal
2798.80	-64.34	11.20	0.53	-53.67	-13.00	-40.67	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	-49.94	7.92	0.13	-42.15	-13.00	-29.15	Vertical
2122.50	-65.72	10.37	0.32	-55.67	-13.00	-42.67	Vertical
2830.00	-63.02	11.23	0.55	-52.34	-13.00	-39.34	Vertical
1415.00	-48.98	7.92	0.13	-41.19	-13.00	-28.19	Horizontal
2122.50	-60.39	10.37	0.32	-50.34	-13.00	-37.34	Horizontal
2830.00	-62.95	11.23	0.55	-52.27	-13.00	-39.27	Horizontal
Highest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1430.60	-48.24	8.04	0.16	-40.36	-13.00	-27.36	Vertical
2145.90	-65.64	10.40	0.35	-55.59	-13.00	-42.59	Vertical
2861.20	-62.82	11.26	0.58	-52.14	-13.00	-39.14	Vertical
1430.60	-49.27	8.04	0.16	-41.39	-13.00	-28.39	Horizontal
2145.90	-62.31	10.40	0.35	-52.26	-13.00	-39.26	Horizontal
2861.20	-64.35	11.26	0.58	-53.67	-13.00	-40.67	Horizontal
Remark: *The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.*							

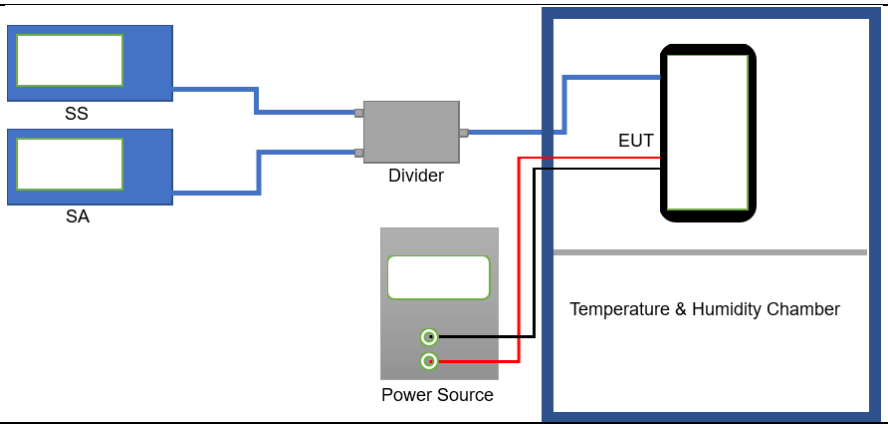
Band 12 (10MHz)							
Lowest channel							
Frequency (MHz)	Level at antenna terminals (dBm)	Substitute antenna gain (dBi)	Cable Loss (dBi)	Spurous Emission level (dBm)	Limit Line (dBm)	Over Limit (dBm)	Polarization
1408.00	-51.39	7.86	0.12	-43.65	-13.00	-30.65	Vertical
2112.00	-66.25	10.36	0.30	-56.19	-13.00	-43.19	Vertical
2816.00	-63.12	11.22	0.54	-52.44	-13.00	-39.44	Vertical
1408.00	-50.33	7.86	0.12	-42.59	-13.00	-29.59	Horizontal
2112.00	-63.21	10.36	0.30	-53.15	-13.00	-40.15	Horizontal
2816.00	-64.76	11.22	0.54	-54.08	-13.00	-41.08	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	-51.11	7.92	0.13	-43.32	-13.00	-30.32	Vertical
2122.50	-64.20	10.37	0.32	-54.15	-13.00	-41.15	Vertical
2830.00	-62.16	11.23	0.55	-51.48	-13.00	-38.48	Vertical
1415.00	-50.15	7.92	0.13	-42.36	-13.00	-29.36	Horizontal
2122.50	-60.21	10.37	0.32	-50.16	-13.00	-37.16	Horizontal
2830.00	-62.15	11.23	0.55	-51.47	-13.00	-38.47	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	-48.09	7.98	0.15	-40.26	-13.00	-27.26	Vertical
2133.00	-64.37	10.39	0.34	-54.32	-13.00	-41.32	Vertical
2844.00	-62.11	11.24	0.57	-51.44	-13.00	-38.44	Vertical
1422.00	-51.12	7.98	0.15	-43.29	-13.00	-30.29	Horizontal
2133.00	-62.29	10.39	0.34	-52.24	-13.00	-39.24	Horizontal
2844.00	-63.90	11.24	0.57	-53.23	-13.00	-40.23	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	-60.88	7.90	0.12	-53.10	-13.00	-40.10	Vertical
2119.50	-66.11	10.37	0.31	-56.05	-13.00	-43.05	Vertical
2826.00	-64.54	11.23	0.54	-53.85	-13.00	-40.85	Vertical
1413.00	-54.23	7.90	0.12	-46.45	-13.00	-33.45	Horizontal
2119.50	-63.34	10.37	0.31	-53.28	-13.00	-40.28	Horizontal
2826.00	-64.51	11.23	0.54	-53.82	-13.00	-40.82	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
1420.00	-59.97	7.96	0.14	-52.15	-13.00	-39.15	Vertical
2130.00	-65.68	10.38	0.33	-55.63	-13.00	-42.63	Vertical
2840.00	-64.13	11.24	0.56	-53.45	-13.00	-40.45	Vertical
1420.00	-53.61	7.96	0.14	-45.79	-13.00	-32.79	Horizontal
2130.00	-62.21	10.38	0.33	-52.16	-13.00	-39.16	Horizontal
2840.00	-65.40	11.24	0.56	-54.72	-13.00	-41.72	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	-58.89	8.02	0.16	-51.03	-13.00	-38.03	Vertical
2140.50	-64.68	10.40	0.34	-54.62	-13.00	-41.62	Vertical
2854.00	-64.35	11.25	0.57	-53.67	-13.00	-40.67	Vertical
1427.00	-52.01	8.02	0.16	-44.15	-13.00	-31.15	Horizontal
2140.50	-61.55	10.40	0.34	-51.49	-13.00	-38.49	Horizontal
2854.00	-64.02	11.25	0.57	-53.34	-13.00	-40.34	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	-60.24	7.94	0.13	-52.43	-13.00	-39.43	Vertical
2127.00	-67.03	10.38	0.32	-56.97	-13.00	-43.97	Vertical
2836.00	-63.82	11.24	0.56	-53.14	-13.00	-40.14	Vertical
1418.00	-53.33	7.94	0.13	-45.52	-13.00	-32.52	Horizontal
2127.00	-62.53	10.38	0.32	-52.47	-13.00	-39.47	Horizontal
2836.00	-63.84	11.24	0.56	-53.16	-13.00	-40.16	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	-59.23	7.96	0.14	-51.41	-13.00	-38.41	Vertical
2130.00	-65.44	10.38	0.33	-55.39	-13.00	-42.39	Vertical
2840.00	-64.15	11.24	0.56	-53.47	-13.00	-40.47	Vertical
1420.00	-52.47	7.96	0.14	-44.65	-13.00	-31.65	Horizontal
2130.00	-61.84	10.38	0.33	-51.79	-13.00	-38.79	Horizontal
2840.00	-64.30	11.24	0.56	-53.62	-13.00	-40.62	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	-60.04	7.98	0.15	-52.21	-13.00	-39.21	Vertical
2133.00	-65.68	10.39	0.34	-55.63	-13.00	-42.63	Vertical
2844.00	-64.07	11.24	0.57	-53.40	-13.00	-40.40	Vertical
1422.00	-53.52	7.98	0.15	-45.69	-13.00	-32.69	Horizontal
2133.00	-62.52	10.39	0.34	-52.47	-13.00	-39.47	Horizontal
2844.00	-63.96	11.24	0.57	-53.29	-13.00	-40.29	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 & 7 & 12 & 13 & 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					
3.85	-30	199	0.105851	Within authorized band for Band 2	Pass
	-20	181	0.096277		
	-10	151	0.080319		
	0	163	0.086702		
	10	125	0.066489		
	20	144	0.076596		
	30	170	0.090426		
	40	120	0.063830		
	50	137	0.072872		
16QAM					
3.85	-30	196	0.104255	Within authorized band for Band 2	Pass
	-20	151	0.080319		
	-10	180	0.095745		
	0	132	0.070213		
	10	166	0.088298		
	20	102	0.054255		
	30	144	0.076596		
	40	170	0.090426		
	50	120	0.063830		
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					
3.85	-30	199	0.114863	Within authorized band for Band 4	Pass
	-20	181	0.104473		
	-10	165	0.095238		
	0	123	0.070996		
	10	131	0.075613		
	20	102	0.058874		
	30	144	0.083117		
	40	170	0.098124		
	50	156	0.090043		
16QAM					
3.85	-30	198	0.114286	Within authorized band for Band 4	Pass
	-20	123	0.070996		
	-10	165	0.095238		
	0	177	0.102165		
	10	180	0.103896		
	20	126	0.072727		
	30	130	0.075036		
	40	144	0.083117		
	50	105	0.060606		
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					
3.85	-30	197	0.235505	±2.5	Pass
	-20	180	0.215182		
	-10	165	0.197250		
	0	123	0.147041		
	10	136	0.162582		
	20	144	0.172146		
	30	170	0.203228		
	40	120	0.143455		
	50	118	0.141064		
16QAM					
3.85	-30	198	0.236701	±2.5	Pass
	-20	165	0.197250		
	-10	121	0.144650		
	0	136	0.162582		
	10	144	0.172146		
	20	150	0.179319		
	30	128	0.153019		
	40	111	0.132696		
	50	105	0.125523		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7 (10MHz) Middle channel=21100 Frequency=2535.00MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	181	0.071400	Within authorized band for Band 7	Pass
	-20	123	0.048521		
	-10	130	0.051282		
	0	145	0.057199		
	10	165	0.065089		
	20	174	0.068639		
	30	114	0.044970		
	40	102	0.040237		
	50	169	0.066667		
16QAM					
3.85	-30	199	0.078501	Within authorized band for Band 7	Pass
	-20	180	0.071006		
	-10	123	0.048521		
	0	134	0.052860		
	10	150	0.059172		
	20	144	0.056805		
	30	170	0.067061		
	40	138	0.054438		
	50	100	0.039448		
Note: Only the worst case shown in the report.					

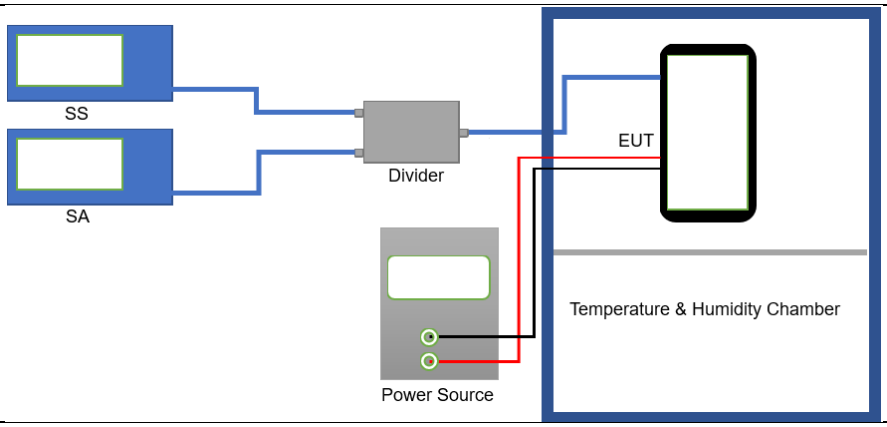
LTE Band 12 part:

Reference Frequency: LTE Band 12 (10MHz) Middle channel=23095 channel=707.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	197	0.278445	Within authorized band for Band 12	Pass
	-20	180	0.254417		
	-10	165	0.233216		
	0	174	0.245936		
	10	123	0.173852		
	20	145	0.204947		
	30	130	0.183746		
	40	115	0.162544		
	50	108	0.152650		
16QAM					
3.85	-30	196	0.277032	Within authorized band for Band 12	Pass
	-20	123	0.173852		
	-10	187	0.264311		
	0	177	0.250177		
	10	160	0.226148		
	20	132	0.186572		
	30	145	0.204947		
	40	108	0.152650		
	50	116	0.163958		
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					
3.85	-30	198	0.278873	Within authorized band for Band 17	Pass
	-20	177	0.249296		
	-10	180	0.253521		
	0	123	0.173239		
	10	136	0.191549		
	20	165	0.232394		
	30	150	0.211268		
	40	145	0.204225		
	50	111	0.156338		
16QAM					
3.85	-30	191	0.269014	Within authorized band for Band 17	Pass
	-20	150	0.211268		
	-10	171	0.240845		
	0	164	0.230986		
	10	177	0.249296		
	20	123	0.173239		
	30	134	0.188732		
	40	100	0.140845		
	50	115	0.161972		
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 & 7 & 12 & 13 & 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	4.40	99	0.052660	Within authorized band for Band 2	Pass
	3.85	88	0.046809		
	3.50	74	0.039362		
16QAM					
25	4.40	90	0.047872	Within authorized band for Band 2	Pass
	3.85	68	0.036170		
	3.50	70	0.037234		
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	4.40	98	0.056566	Within authorized band for Band 4	Pass
	3.85	78	0.045022		
	3.50	90	0.051948		
16QAM					
25	4.40	90	0.051948	Within authorized band for Band 4	Pass
	3.85	68	0.039250		
	3.50	70	0.040404		
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	4.40	99	0.118350	±2.5	Pass
	3.85	80	0.095637		
	3.50	75	0.089659		
16QAM					
25	4.40	98	0.117155	±2.5	Pass
	3.85	78	0.093246		
	3.50	65	0.077705		
Note: Only the worst case shown in the report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.40	97	0.137102	Within authorized band for Band 7	Pass
	3.85	80	0.113074		
	3.50	69	0.097527		
16QAM					
25	4.40	98	0.117155	Within authorized band for Band 7	Pass
	3.85	78	0.093246		
	3.50	65	0.077705		
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	4.40	97	0.137102	Within authorized band for Band 12	Pass
	3.85	80	0.113074		
	3.50	69	0.097527		
16QAM					
25	4.40	99	0.139929	Within authorized band for Band 12	Pass
	3.85	80	0.113074		
	3.50	74	0.104594		
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	4.40	98	0.138028	Within authorized band for Band 17	Pass
	3.85	65	0.091549		
	3.50	80	0.112676		
16QAM					
25	4.40	80	0.112676	Within authorized band for Band 17	Pass
	3.85	74	0.104225		
	3.50	65	0.091549		
Note: Only the worst case shown in the report.					

8 EUT Constructional Details

Reference to the test report No. CCISE200701601

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