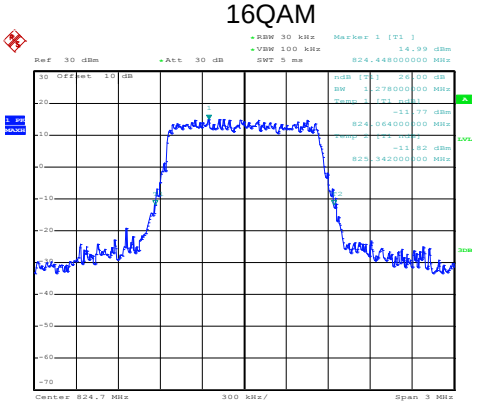
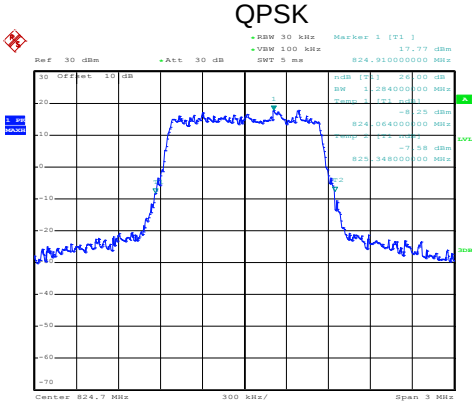
LTE Band 5: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 10.OCT.2019 09:40:09

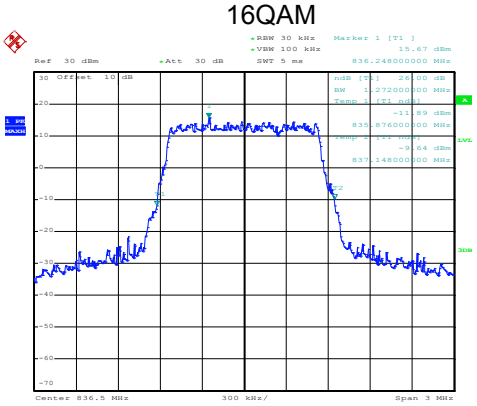
QPSK



Date: 10.OCT.2019 09:40:05

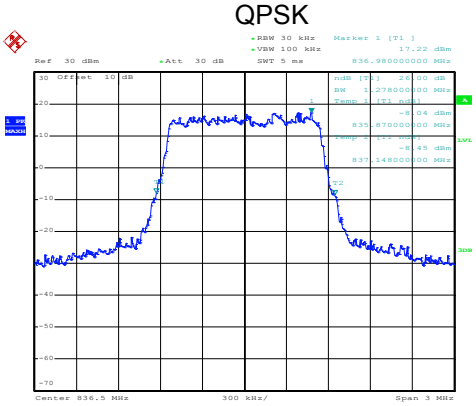
Lowest channel

16QAM



Date: 10.OCT.2019 09:40:28

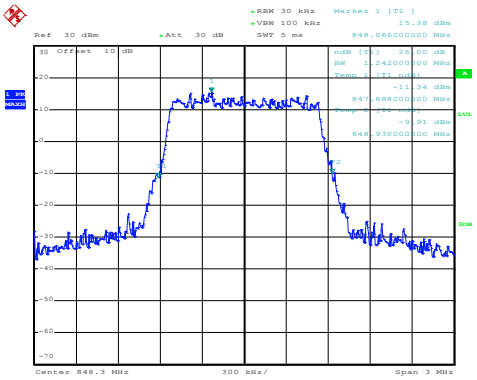
QPSK



Date: 10.OCT.2019 09:40:47

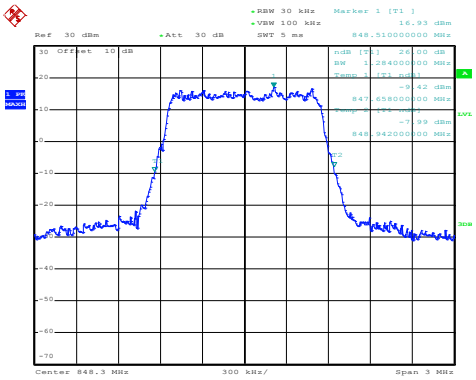
Middle channel

16QAM



Date: 10.OCT.2019 09:41:05

QPSK

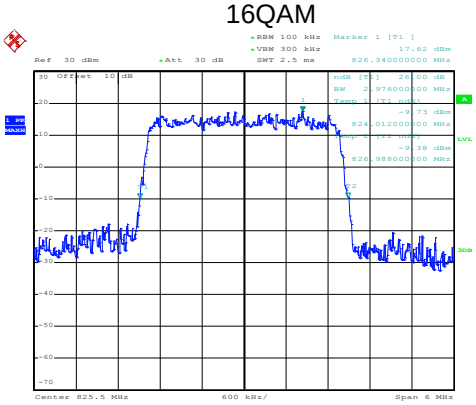


Date: 10.OCT.2019 09:41:26

Highest channel

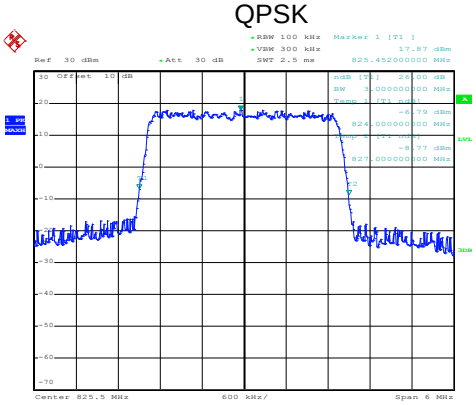
LTE Band 5: -26dBc bandwidth
BW: 3MHz

16QAM



Date: 10.OCT.2019 09:41:58

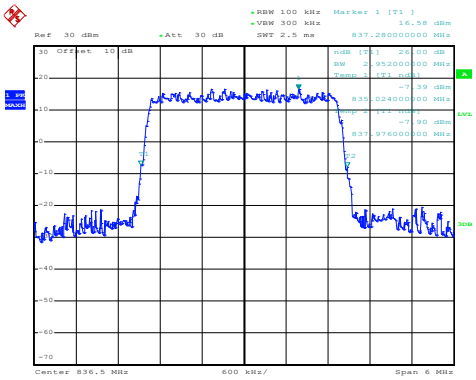
QPSK



Date: 10.OCT.2019 09:41:54

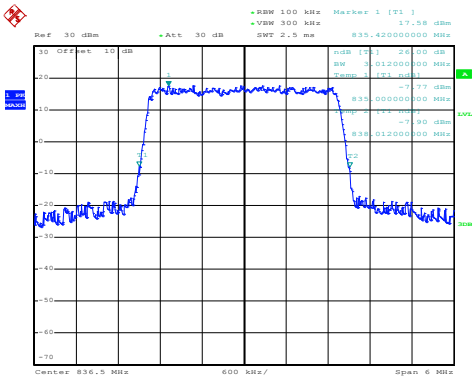
Lowest channel

16QAM



Date: 10.OCT.2019 09:42:39

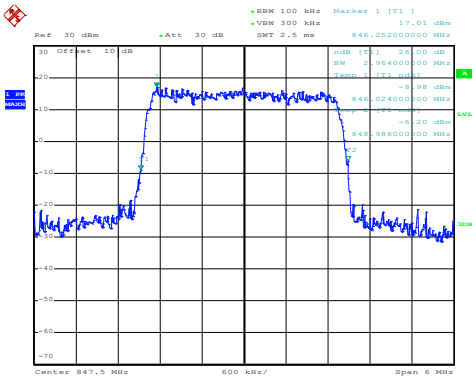
QPSK



Date: 10.OCT.2019 09:42:35

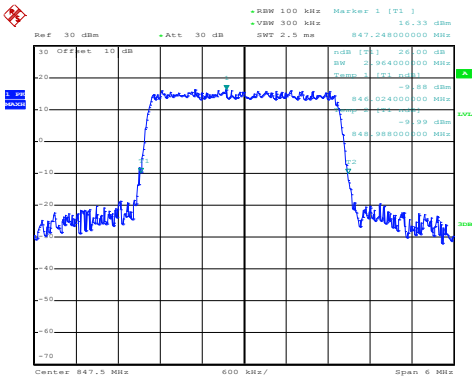
Middle channel

16QAM



Date: 10.OCT.2019 09:42:57

QPSK

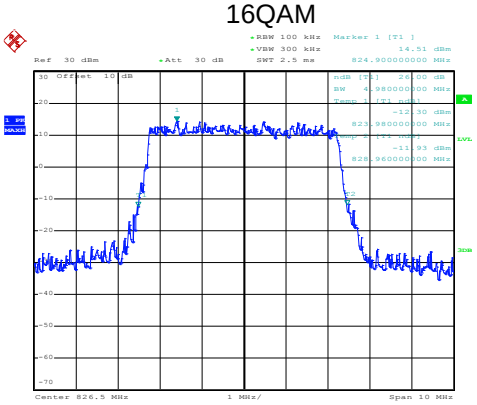


Date: 10.OCT.2019 09:42:53

Highest channel

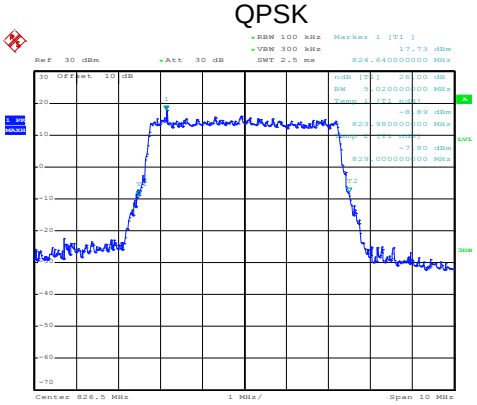
LTE Band 5: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 10.OCT.2019 09:43:55

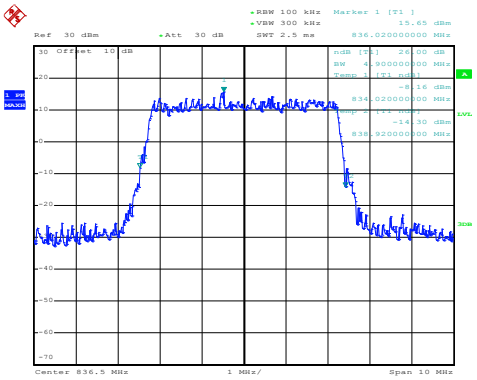
QPSK



Date: 10.OCT.2019 09:43:51

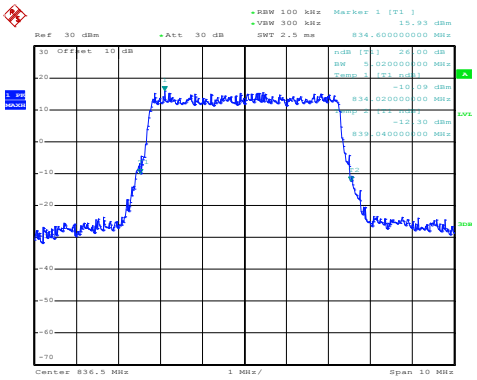
Lowest channel

16QAM



Date: 10.OCT.2019 09:44:07

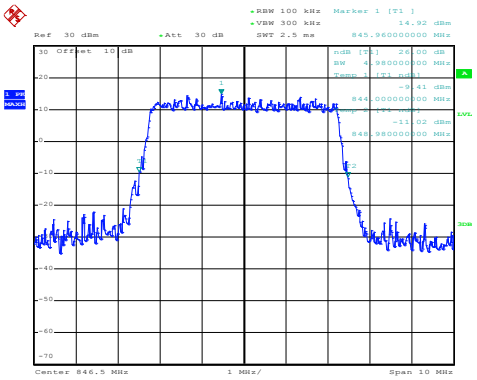
QPSK



Date: 10.OCT.2019 09:44:04

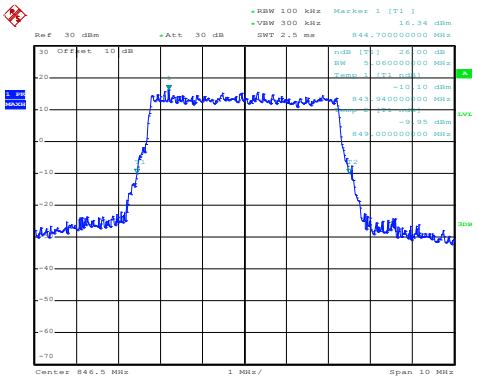
Middle channel

16QAM



Date: 10.OCT.2019 09:44:46

QPSK

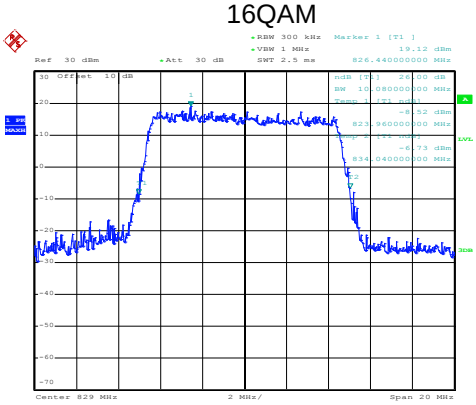


Date: 10.OCT.2019 09:44:42

Highest channel

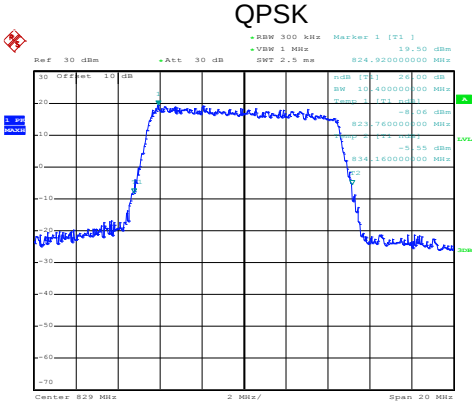
LTE Band 5: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 10.OCT.2019 09:45:22

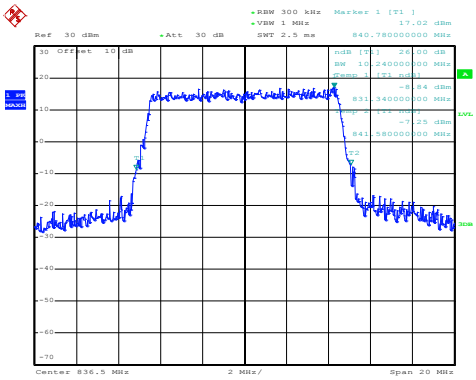
QPSK



Date: 10.OCT.2019 09:45:42

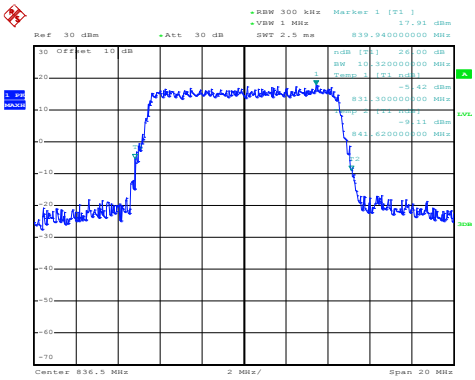
Lowest channel

16QAM



Date: 10.OCT.2019 09:45:55

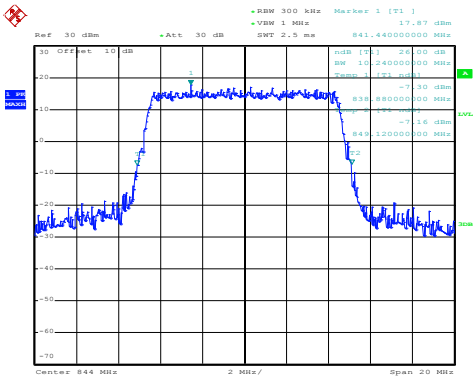
QPSK



Date: 10.OCT.2019 09:45:51

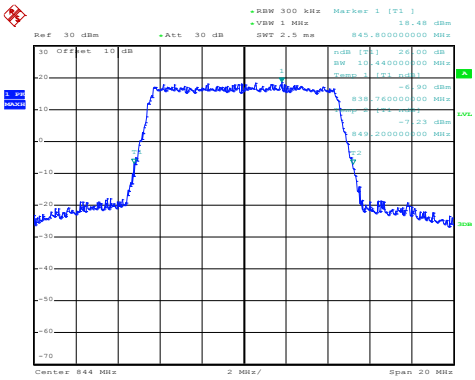
Middle channel

16QAM



Date: 10.OCT.2019 09:46:39

QPSK



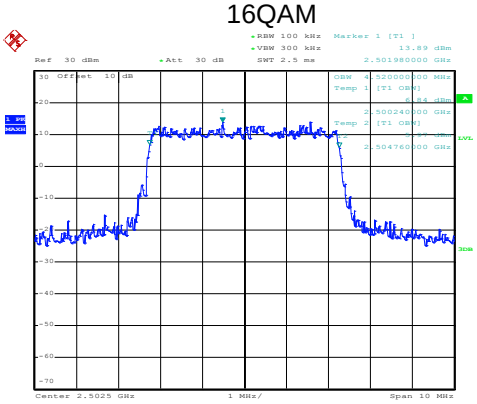
Date: 10.OCT.2019 09:46:35

Highest channel

LTE-Band 7 part:

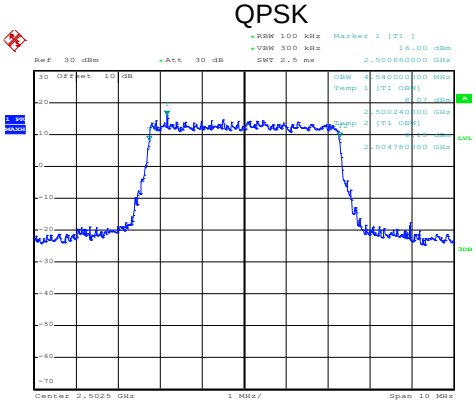
LTE Band 7: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 10.OCT.2019 09:49:16

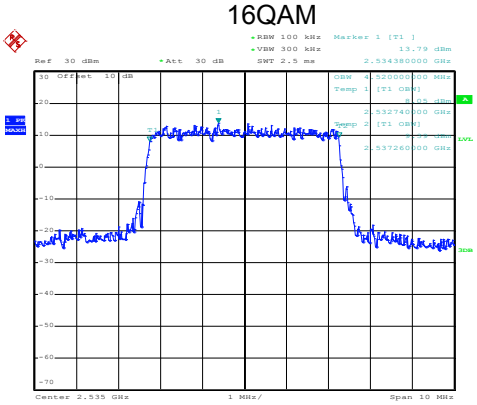
QPSK



Date: 10.OCT.2019 09:49:12

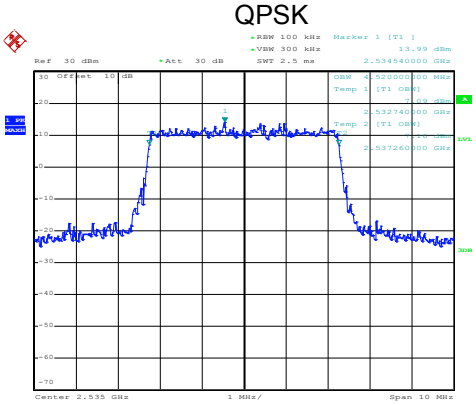
Lowest channel

16QAM



Date: 10.OCT.2019 09:49:29

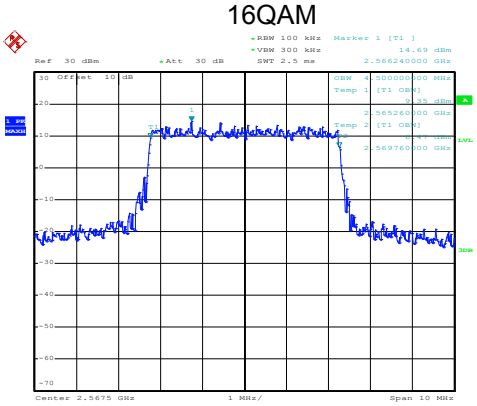
QPSK



Date: 10.OCT.2019 09:49:26

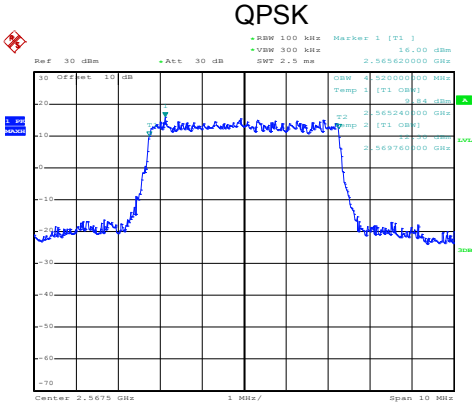
Middle channel

16QAM



Date: 10.OCT.2019 09:50:08

QPSK

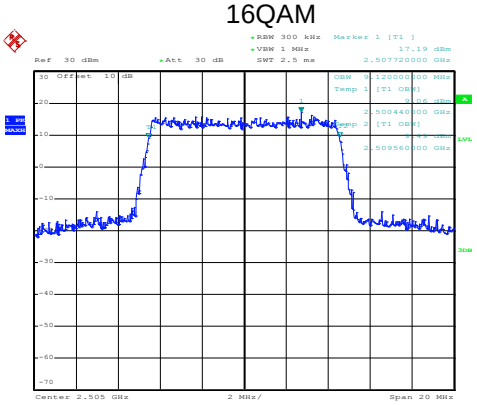


Date: 10.OCT.2019 09:50:04

Highest channel

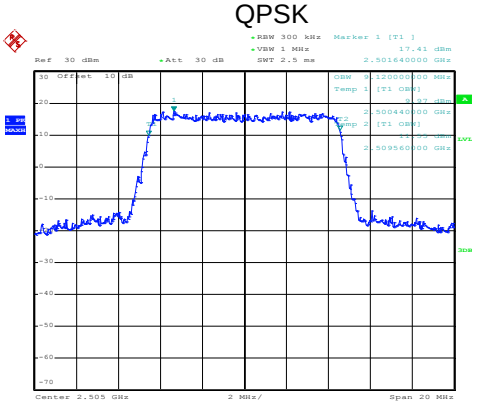
LTE Band 7: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 10.OCT.2019 09:51:04

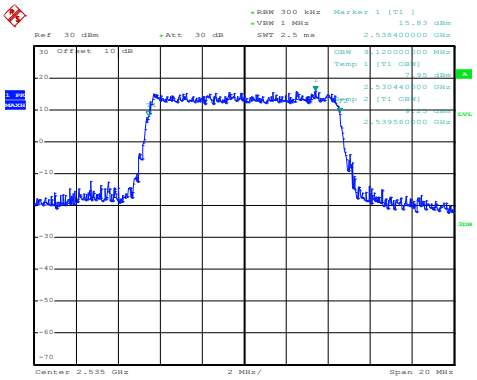
QPSK



Date: 10.OCT.2019 09:51:01

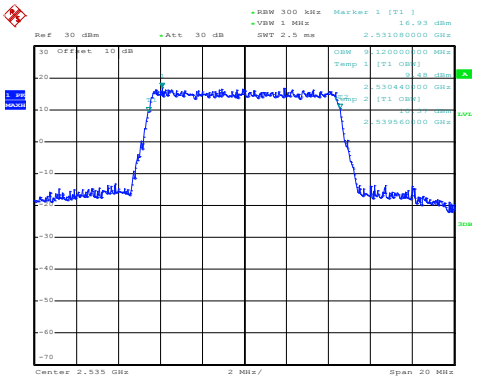
Lowest channel

16QAM



Date: 10.OCT.2019 09:51:39

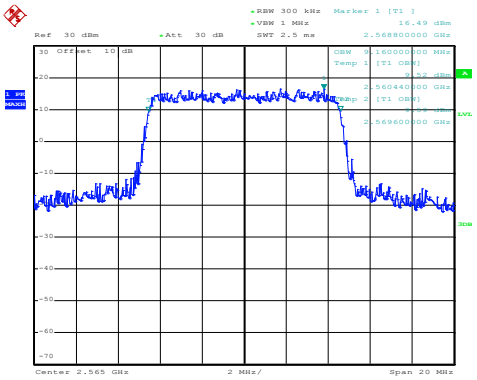
QPSK



Date: 10.OCT.2019 09:51:35

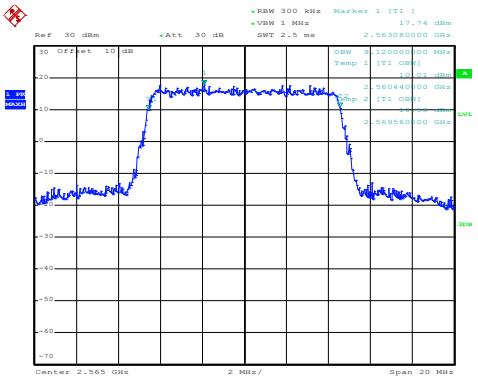
Middle channel

16QAM



Date: 10.OCT.2019 09:52:18

QPSK

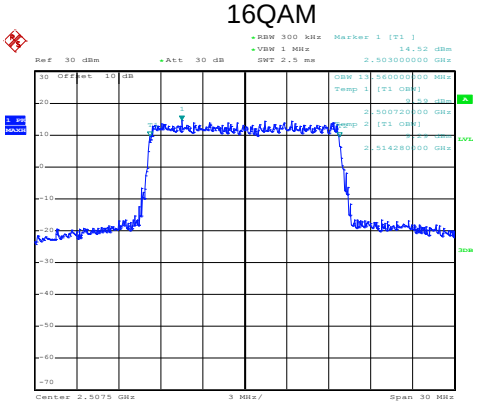


Date: 10.OCT.2019 09:52:14

Highest channel

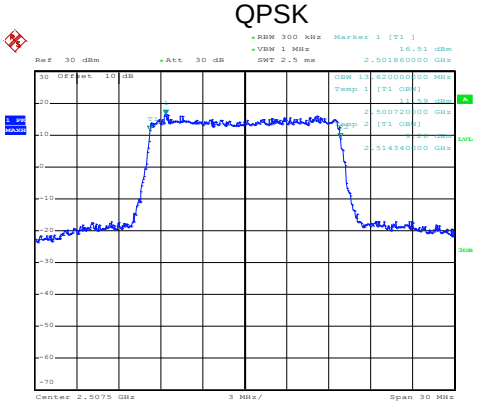
LTE Band 7: 99% Occupy bandwidth
BW: 15MHz

16QAM



Date: 10.OCT.2019 09:52:48

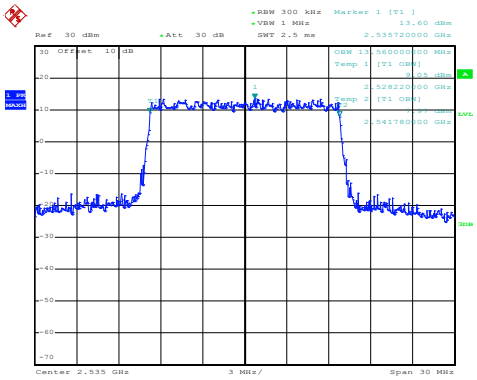
QPSK



Date: 10.OCT.2019 09:52:45

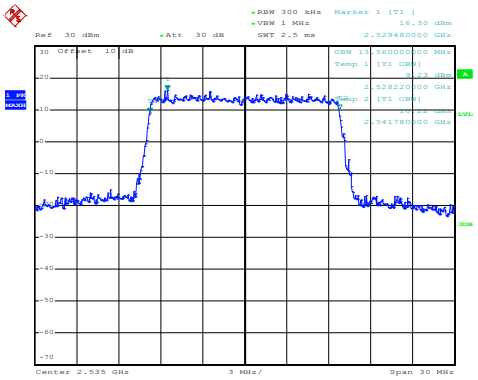
Lowest channel

16QAM



Date: 10.OCT.2019 09:53:24

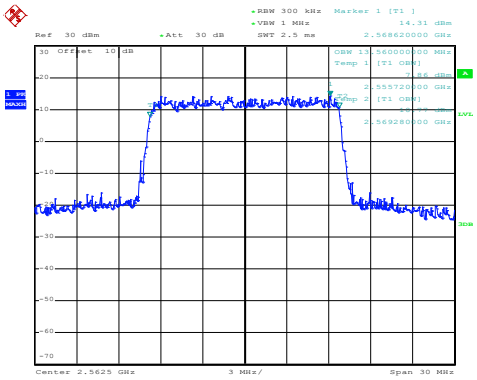
QPSK



Date: 10.OCT.2019 09:53:20

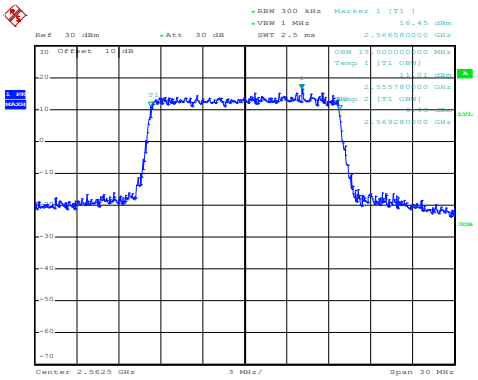
Middle channel

16QAM



Date: 10.OCT.2019 09:53:41

QPSK

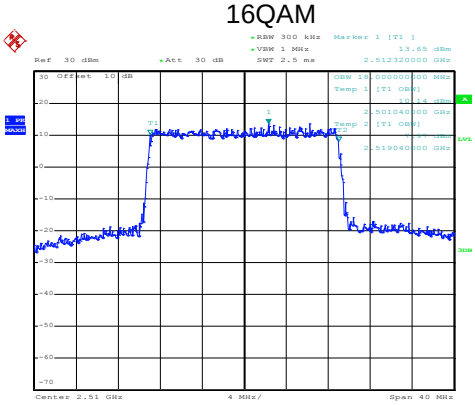


Date: 10.OCT.2019 09:53:38

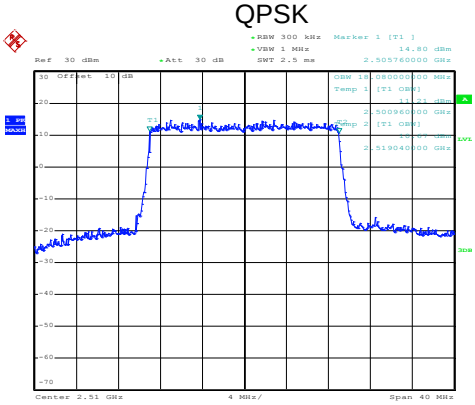
Highest channel

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

16QAM

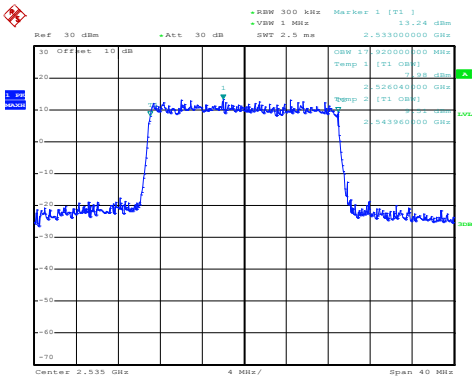


QPSK

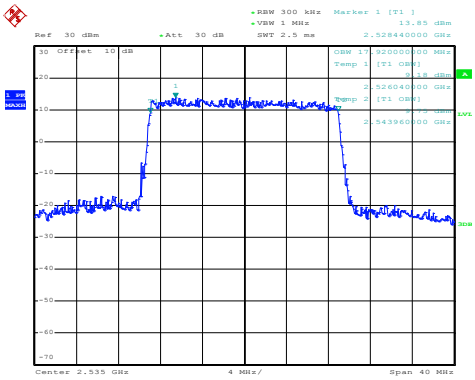


Lowest channel

16QAM

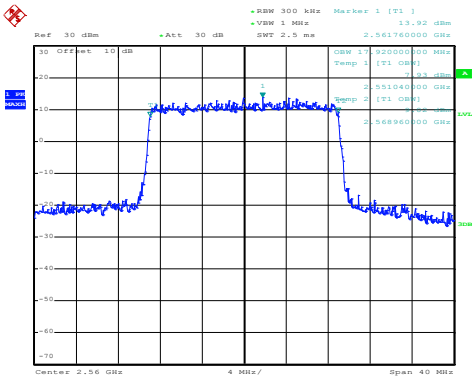


QPSK

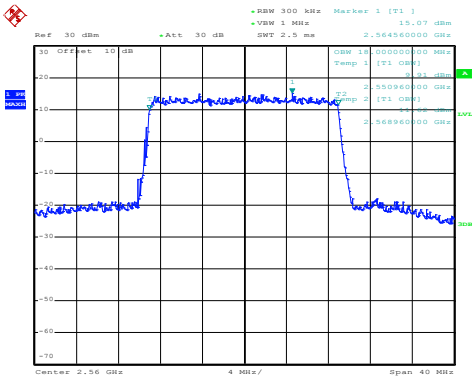


Middle channel

16QAM



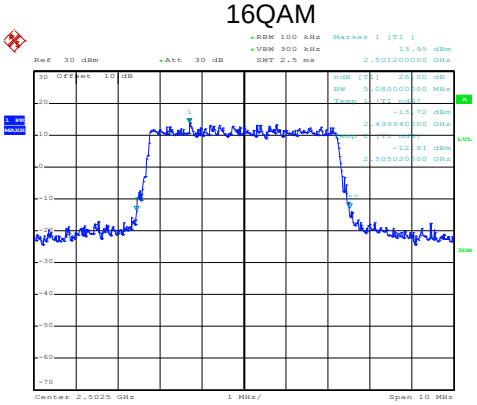
QPSK



Highest channel

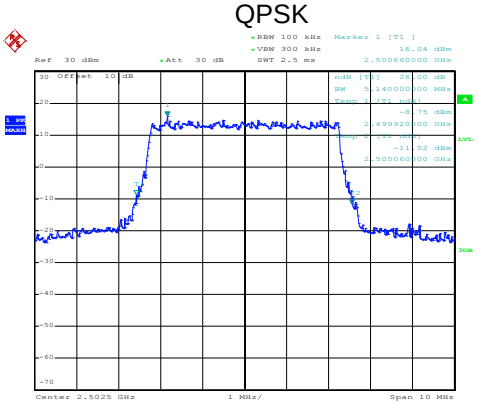
LTE Band 7: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 10.OCT.2019 09:49:05

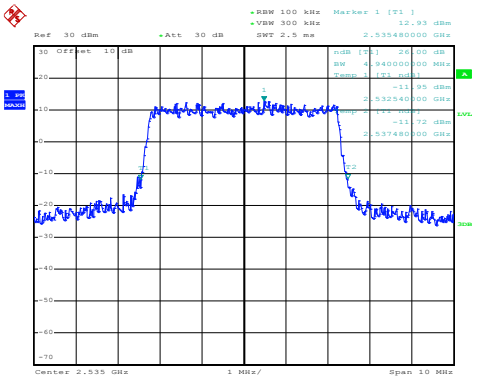
QPSK



Date: 10.OCT.2019 09:49:00

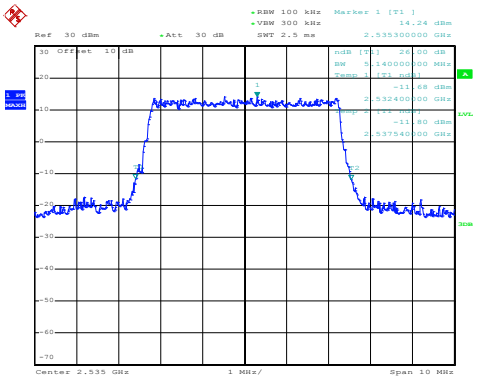
Lowest channel

16QAM



Date: 10.OCT.2019 09:49:40

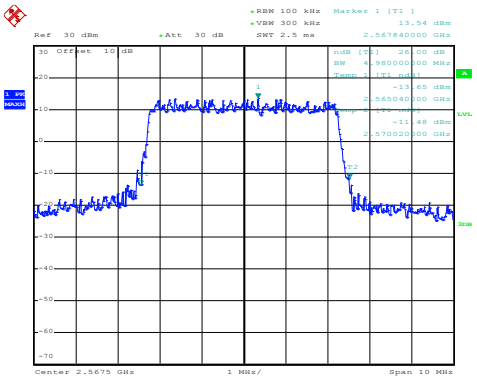
QPSK



Date: 10.OCT.2019 09:49:37

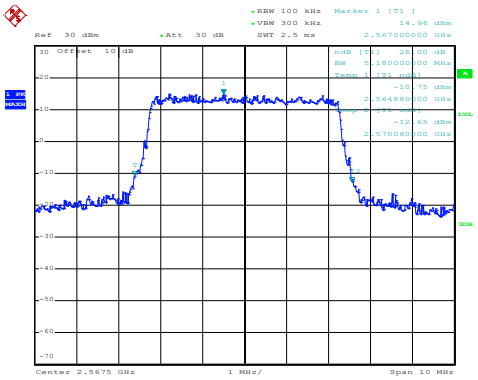
Middle channel

16QAM



Date: 10.OCT.2019 09:49:57

QPSK

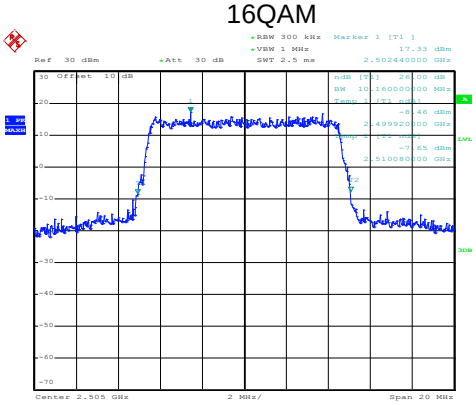


Date: 10.OCT.2019 09:50:17

Highest channel

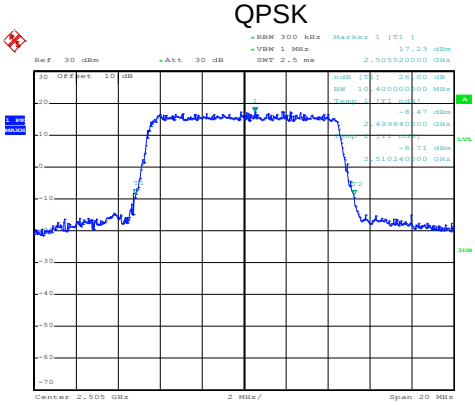
LTE Band 7: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 10.OCT.2019 09:50:54

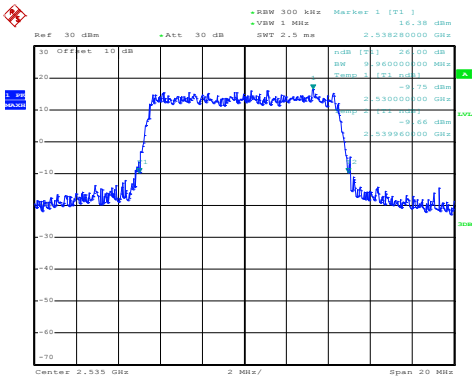
QPSK



Date: 10.OCT.2019 09:50:51

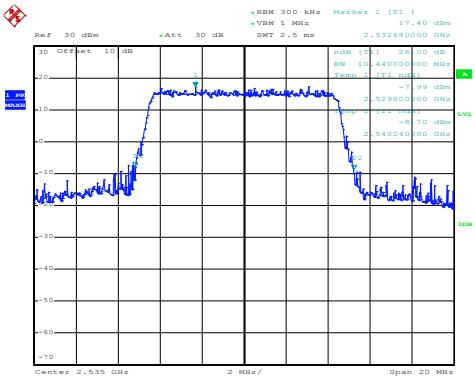
Lowest channel

16QAM



Date: 10.OCT.2019 09:51:50

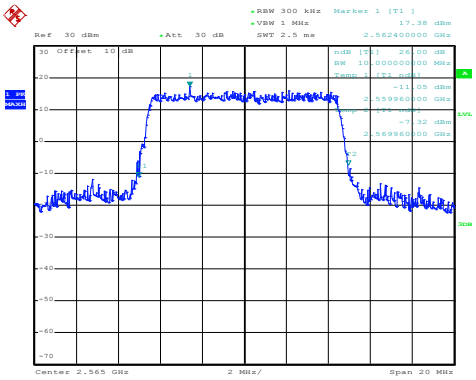
QPSK



Date: 10.OCT.2019 09:51:46

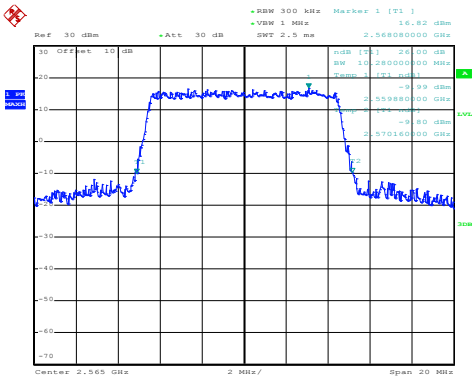
Middle channel

16QAM



Date: 10.OCT.2019 09:52:08

QPSK

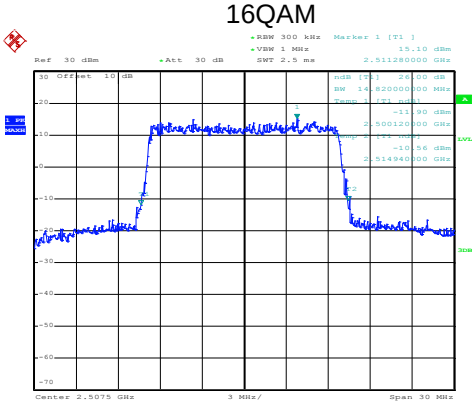


Date: 10.OCT.2019 09:52:04

Highest channel

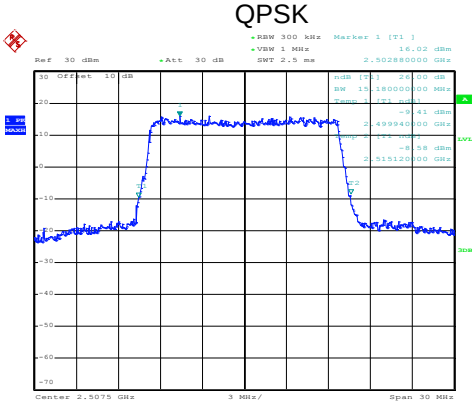
LTE Band 7: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 10.OCT.2019 09:53:01

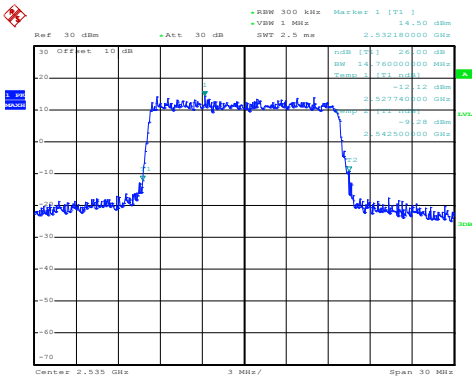
QPSK



Date: 10.OCT.2019 09:52:57

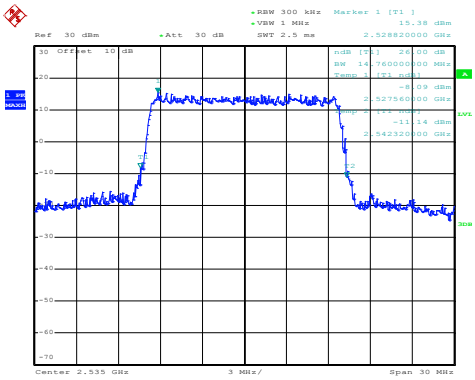
Lowest channel

16QAM



Date: 10.OCT.2019 09:53:13

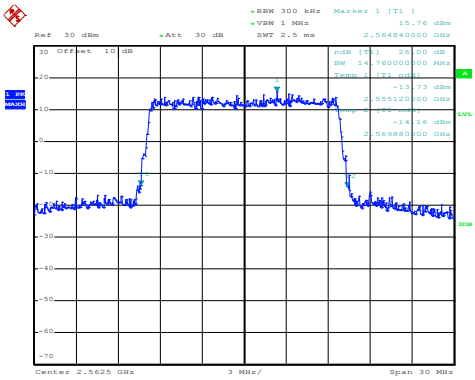
QPSK



Date: 10.OCT.2019 09:53:09

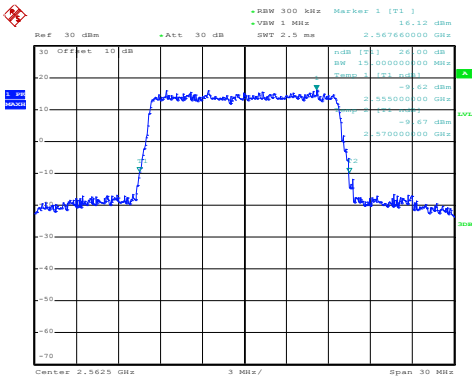
Middle channel

16QAM



Date: 10.OCT.2019 09:53:51

QPSK

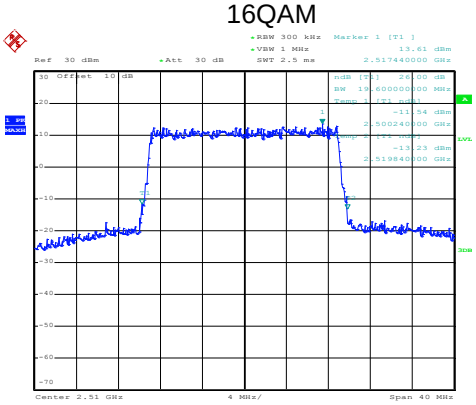


Date: 10.OCT.2019 09:53:48

Highest channel

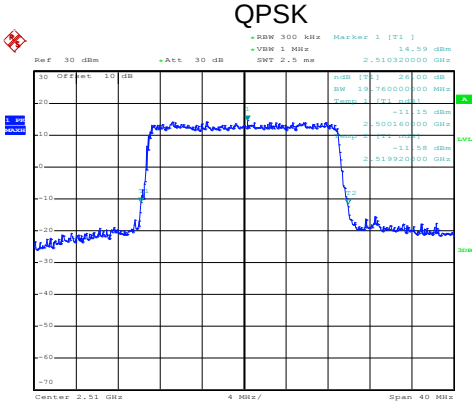
LTE Band 7: -26dBc bandwidth
BW: 20MHz

16QAM



Date: 10.OCT.2019 09:54:19

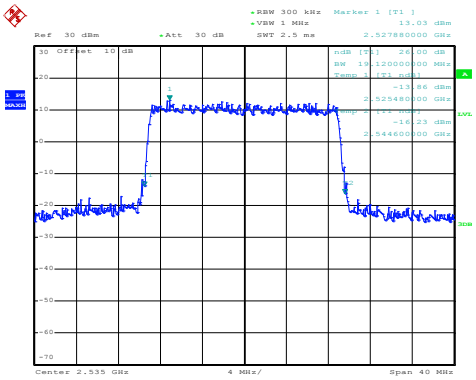
QPSK



Date: 10.OCT.2019 09:54:16

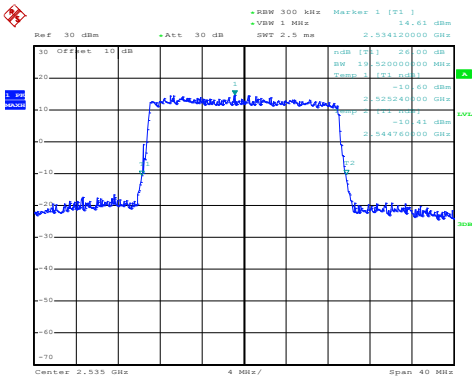
Lowest channel

16QAM



Date: 10.OCT.2019 09:54:56

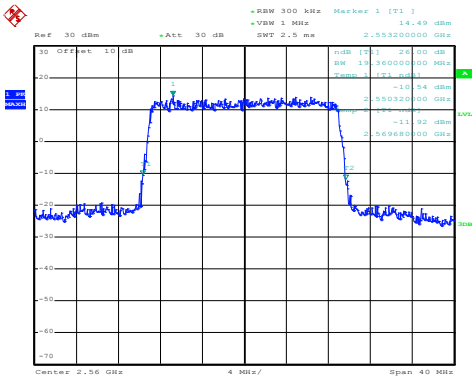
QPSK



Date: 10.OCT.2019 09:54:53

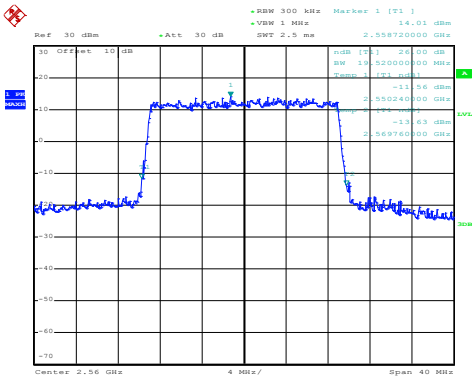
Middle channel

16QAM



Date: 10.OCT.2019 09:55:11

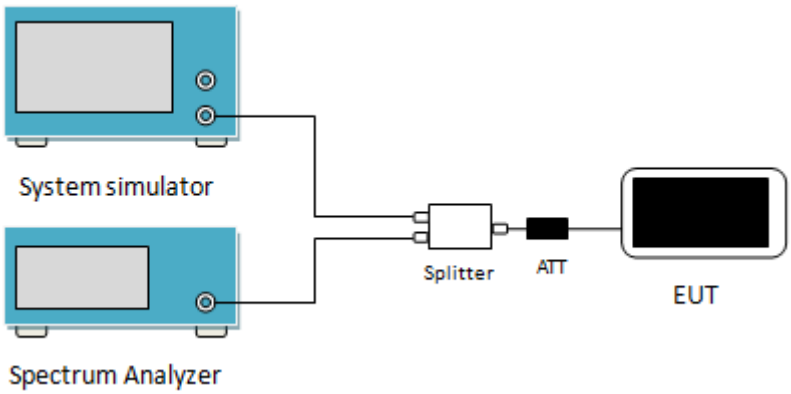
QPSK



Date: 10.OCT.2019 09:55:07

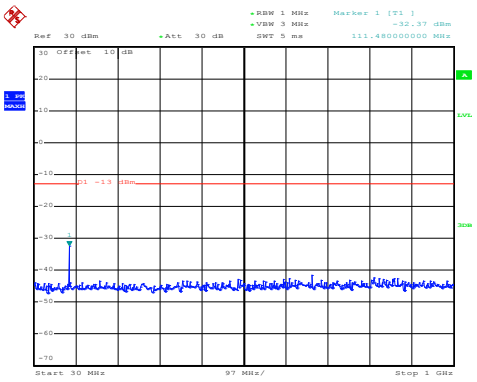
Highest channel

6.4 Out of band emission at antenna terminals

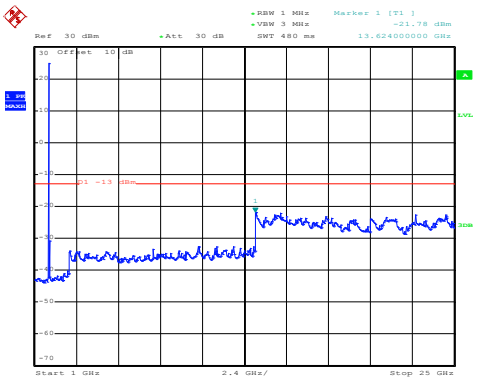
Test Requirement:	Part 22.917(b), Part 24.238 (a), part 27.53(g), part 27.53(h), Part 27.53(m)
Limit:	LTE Band 2 & 4 & 5 & 12 & 17: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$(P) dB (-13 dBm).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

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

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

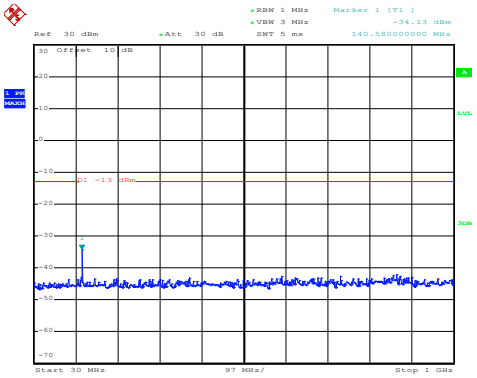


30MHz~1GHz

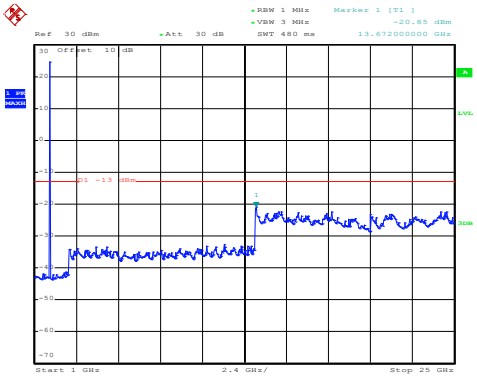


1GHz~25GHz

Middle channel

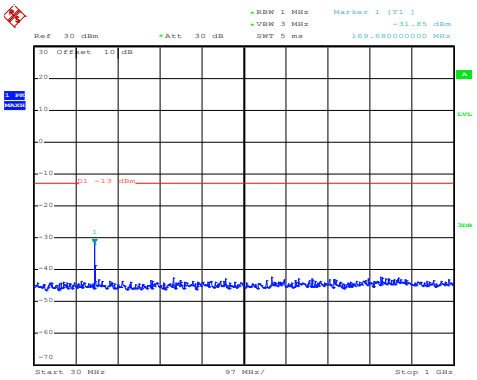


30MHz~1GHz

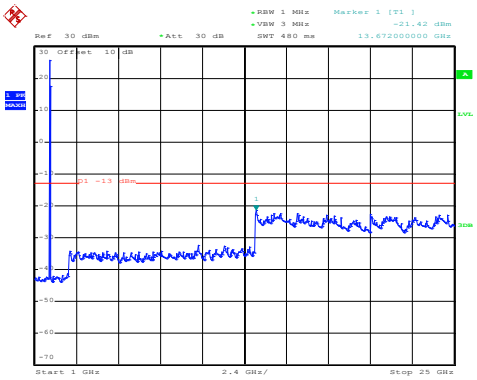


1GHz~25GHz

High channel

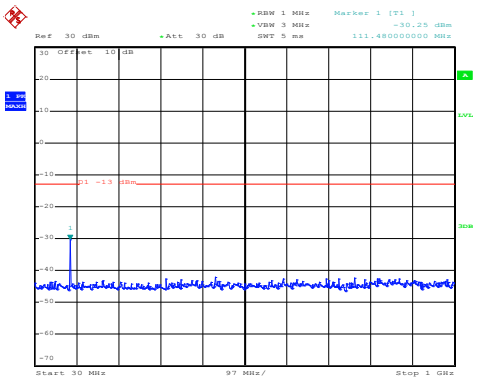


30MHz~1GHz



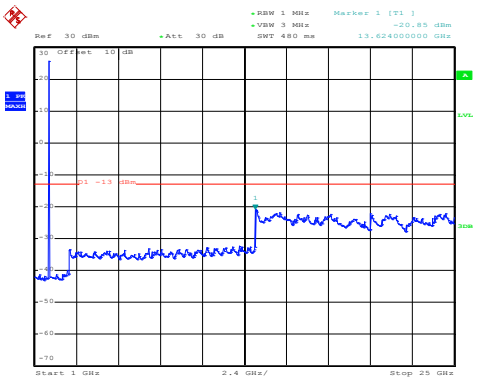
1GHz~25GHz

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



Date: 12.OCT.2019 10:07:52

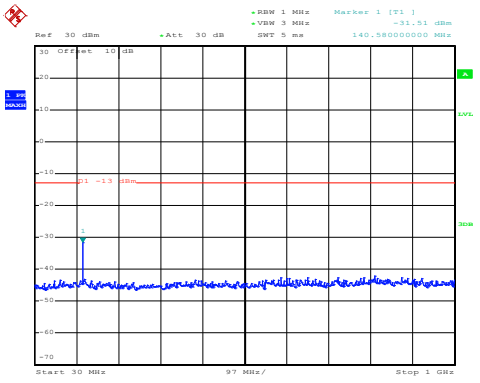
30MHz~1GHz



Date: 12.OCT.2019 10:04:53

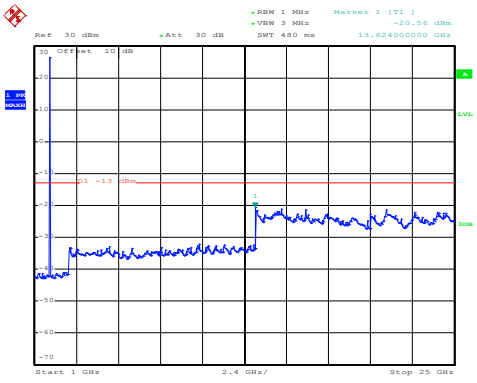
1GHz~25GHz

Middle channel



Date: 12.OCT.2019 10:07:15

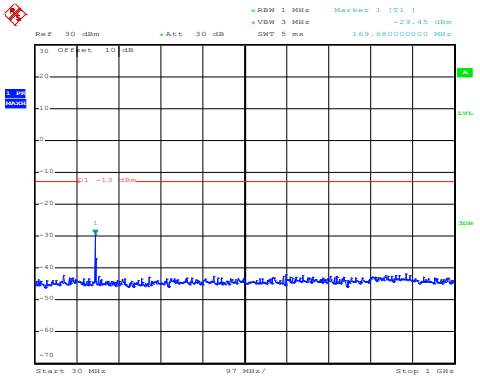
30MHz~1GHz



Date: 12.OCT.2019 10:05:24

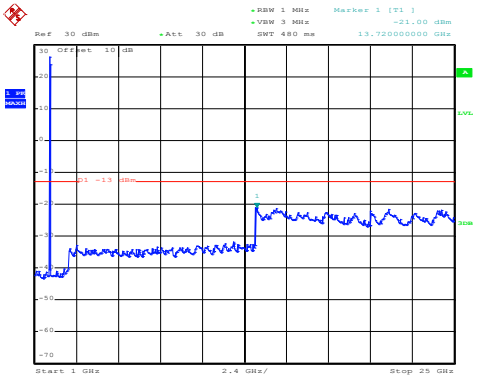
1GHz~25GHz

High channel



Date: 12.OCT.2019 10:06:57

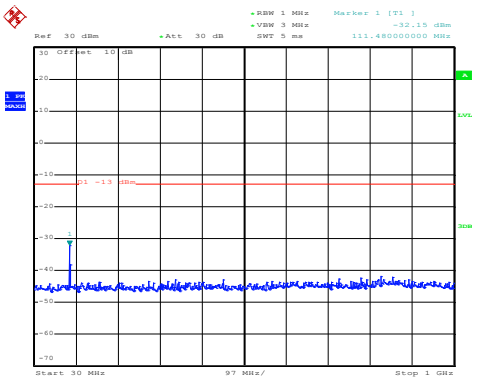
30MHz~1GHz



Date: 12.OCT.2019 10:06:29

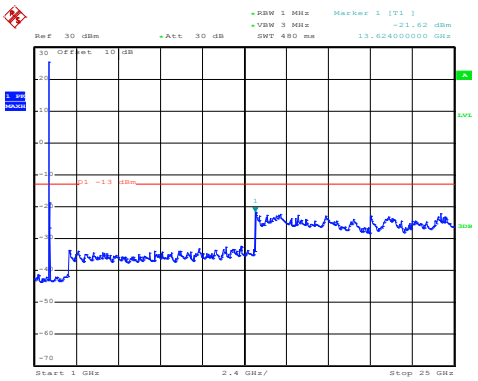
1GHz~25GHz

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



Date: 12.OCT.2019 10:01:44

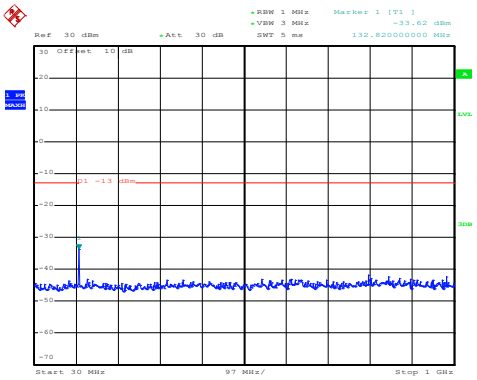
30MHz~1GHz



Date: 12.OCT.2019 10:04:00

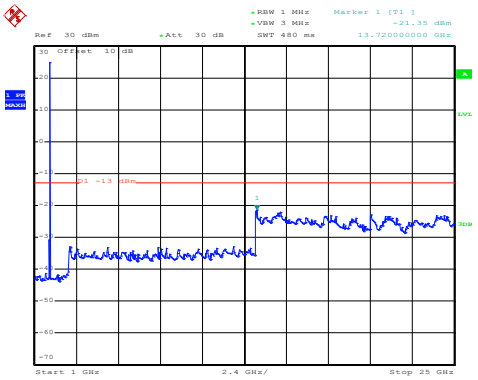
1GHz~25GHz

Middle channel



Date: 12.OCT.2019 10:02:08

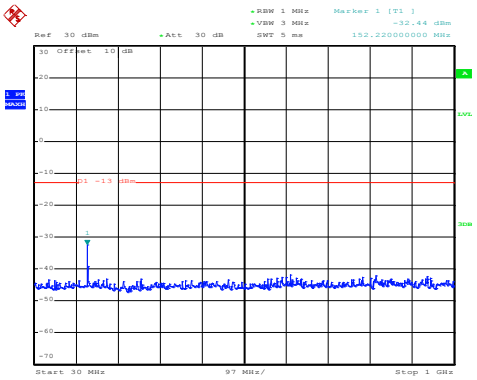
30MHz~1GHz



Date: 12.OCT.2019 10:03:32

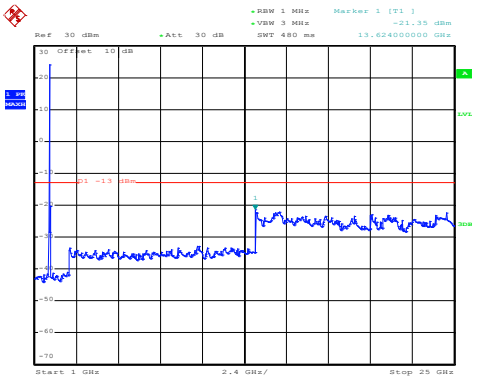
1GHz~25GHz

High channel



Date: 12.OCT.2019 10:02:35

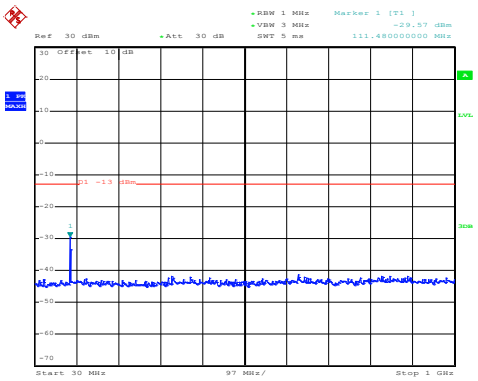
30MHz~1GHz



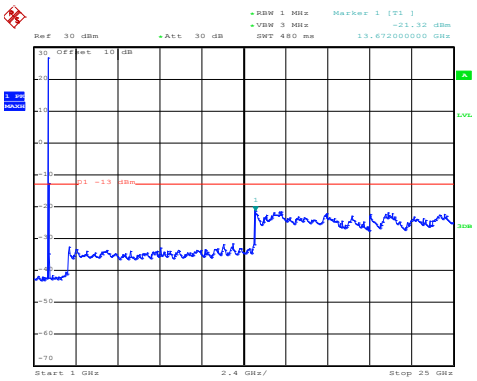
Date: 12.OCT.2019 10:03:08

1GHz~25GHz

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

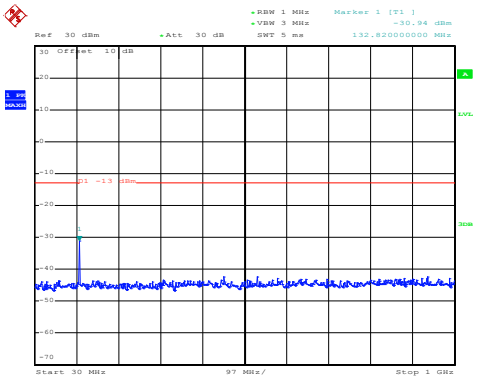


30MHz~1GHz

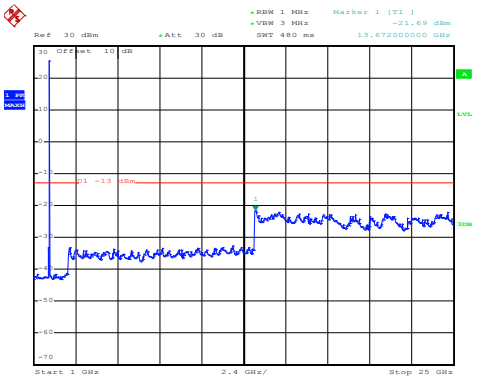


1GHz~25GHz

Middle channel

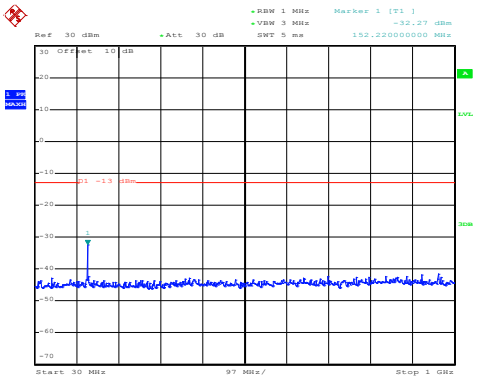


30MHz~1GHz

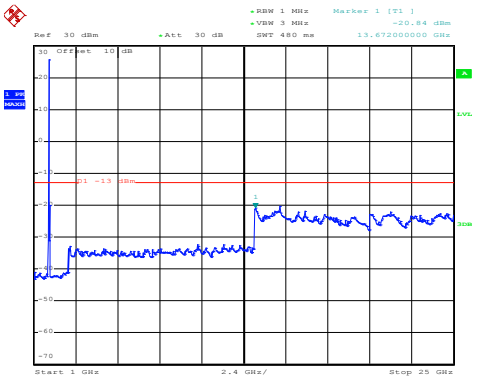


1GHz~25GHz

High channel



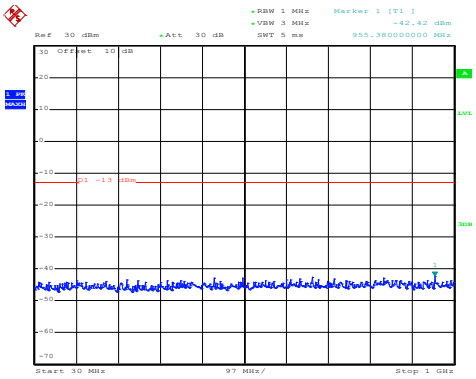
30MHz~1GHz



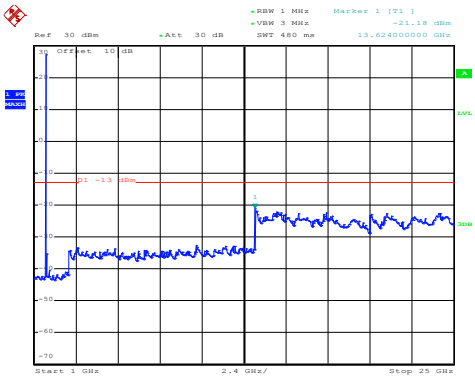
1GHz~25GHz

LTE Band 4 part:

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

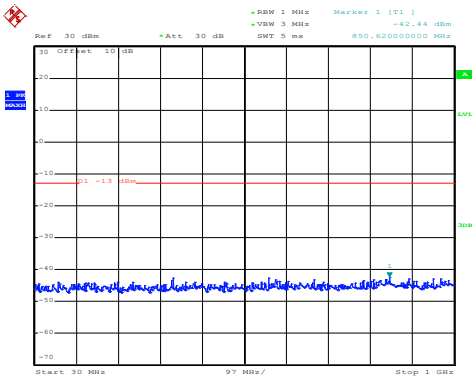


30MHz~1GHz

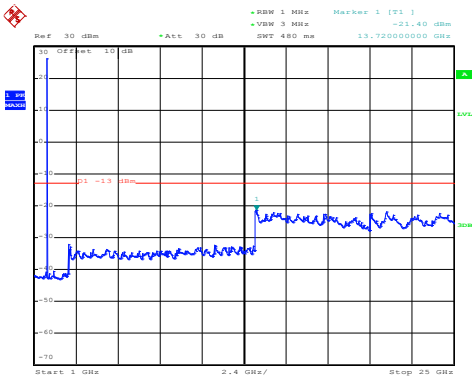


1GHz~25GHz

Middle channel

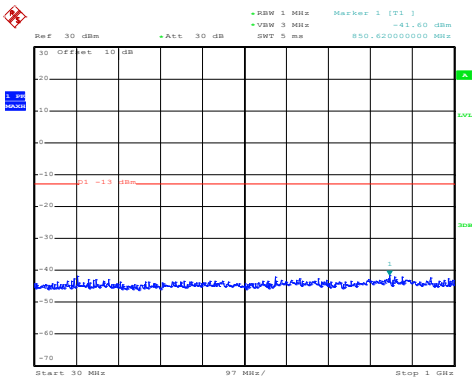


30MHz~1GHz

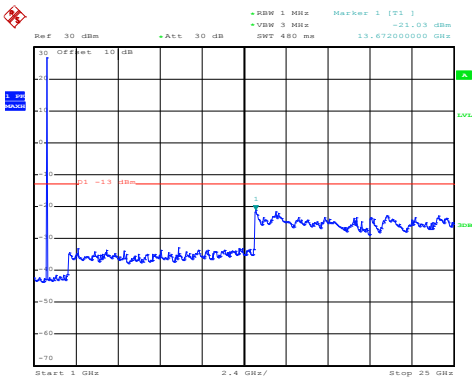


1GHz~25GHz

High channel

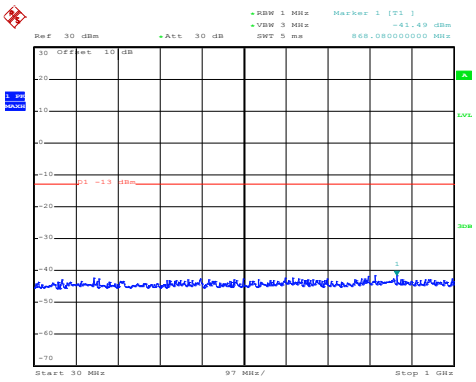


30MHz~1GHz



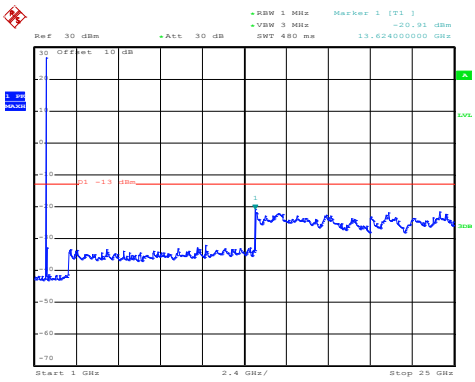
1GHz~25GHz

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



Date: 12.OCT.2019 10:08:36

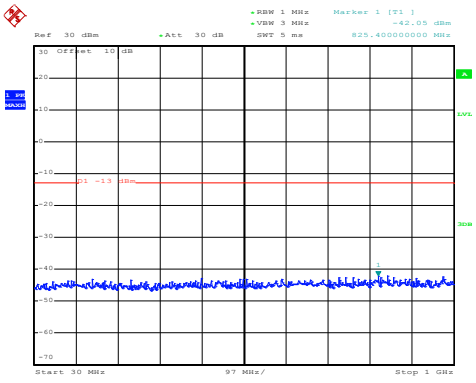
30MHz~1GHz



Date: 12.OCT.2019 10:11:00

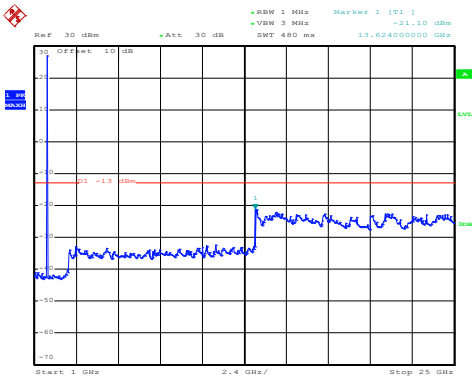
1GHz~25GHz

Middle channel



Date: 12.OCT.2019 10:08:53

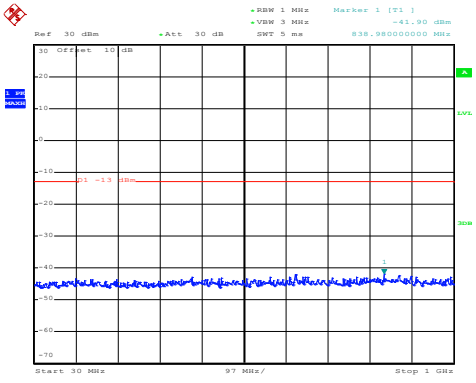
30MHz~1GHz



Date: 12.OCT.2019 10:10:32

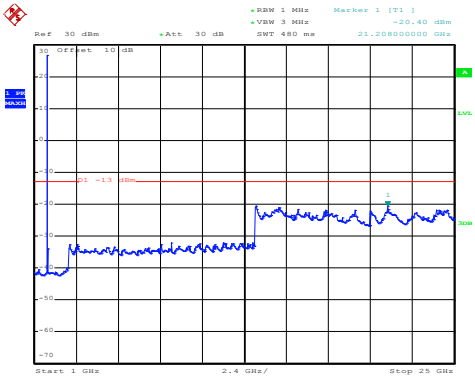
1GHz~25GHz

High channel



Date: 12.OCT.2019 10:09:09

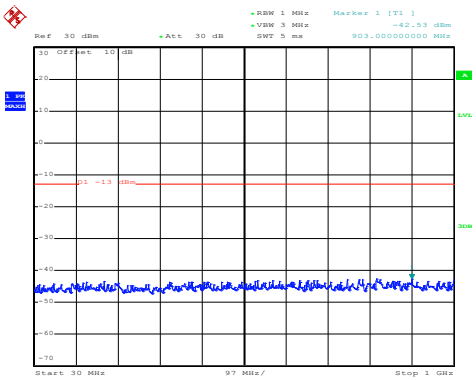
30MHz~1GHz



Date: 12.OCT.2019 10:10:07

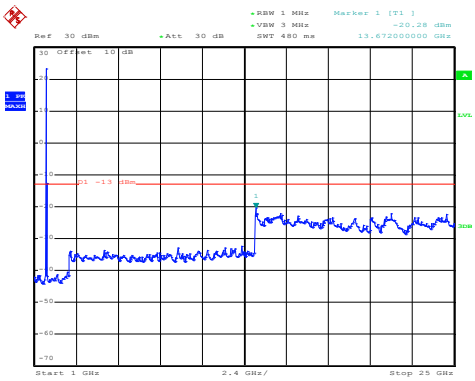
1GHz~25GHz

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



Date: 12.OCT.2019 10:14:08

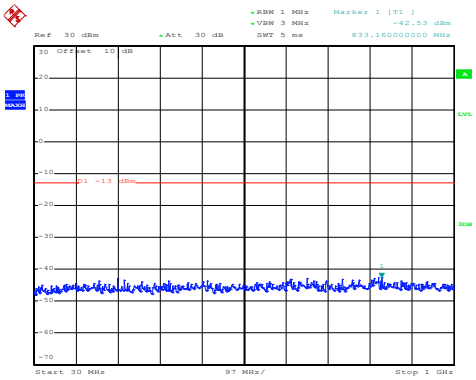
30MHz~1GHz



Date: 12.OCT.2019 10:12:11

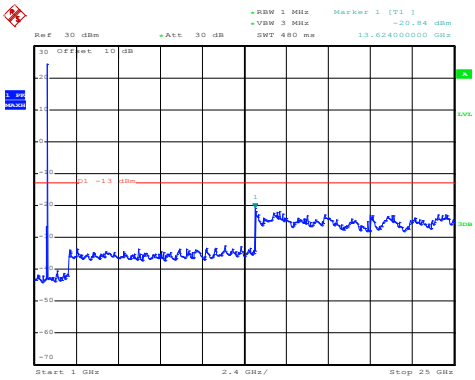
1GHz~25GHz

Middle channel



Date: 12.OCT.2019 10:13:54

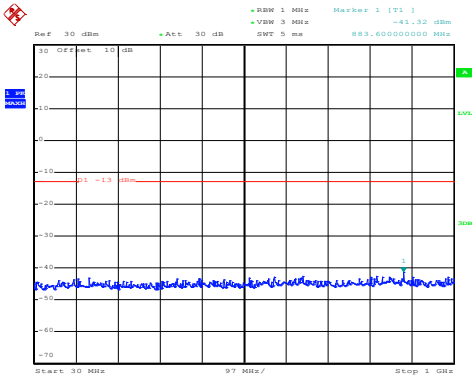
30MHz~1GHz



Date: 12.OCT.2019 10:12:32

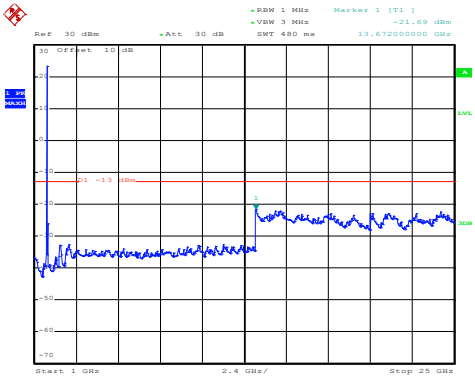
1GHz~25GHz

High channel



Date: 12.OCT.2019 10:13:40

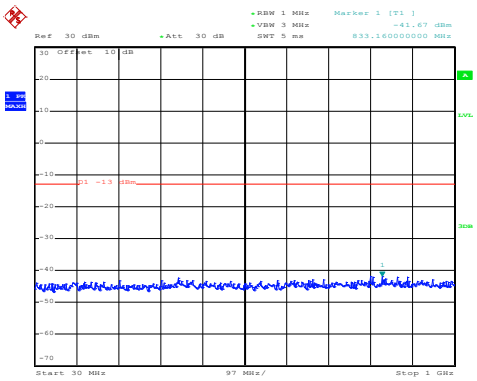
30MHz~1GHz



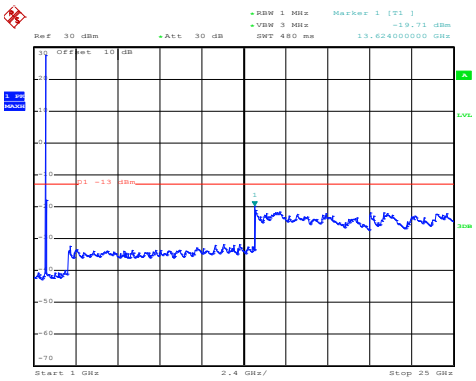
Date: 12.OCT.2019 10:13:02

1GHz~25GHz

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

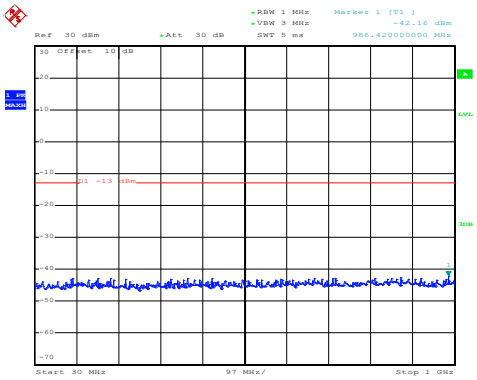


30MHz~1GHz

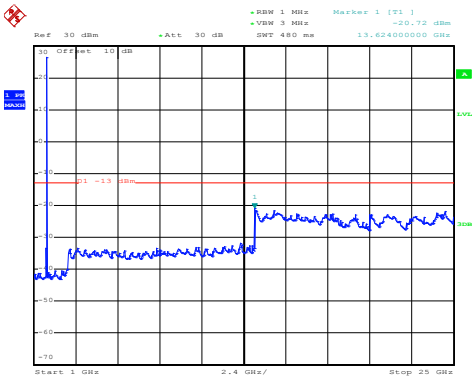


1GHz~25GHz

Middle channel

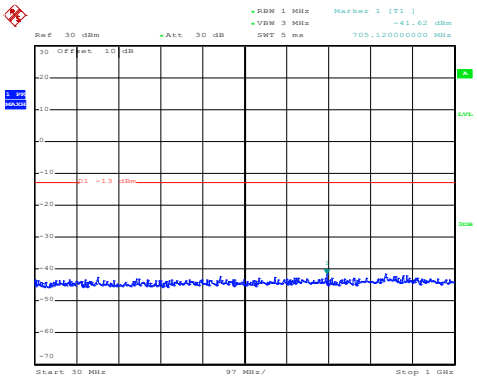


30MHz~1GHz

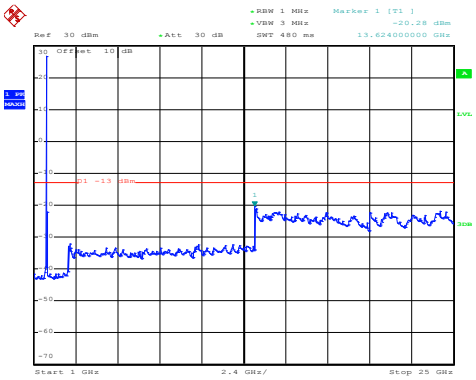


1GHz~25GHz

High channel



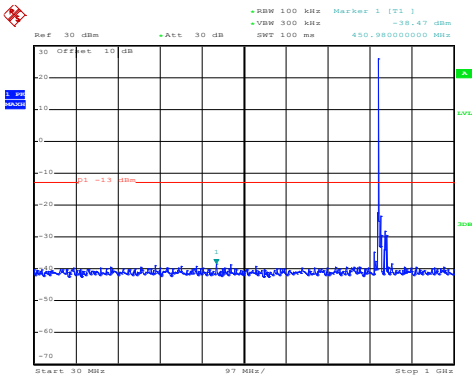
30MHz~1GHz



1GHz~25GHz

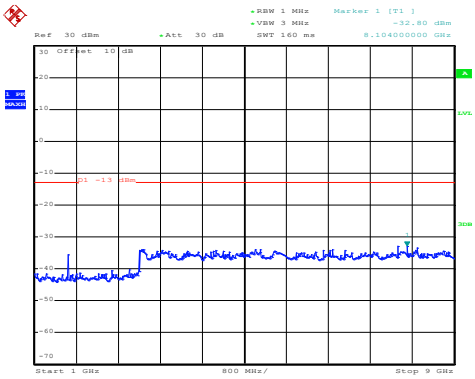
LTE Band 5 part:

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



Date: 12.OCT.2019 10:15:35

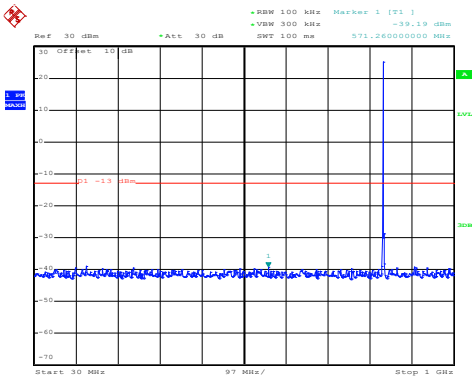
30MHz~1GHz



Date: 12.OCT.2019 10:18:03

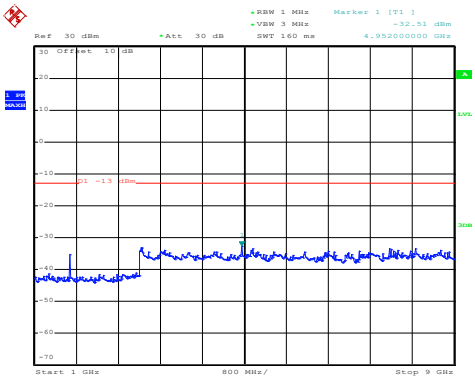
1GHz~9GHz

Middle channel



Date: 12.OCT.2019 10:16:11

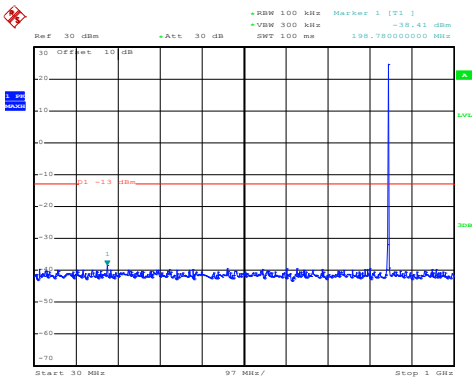
30MHz~1GHz



Date: 12.OCT.2019 10:17:38

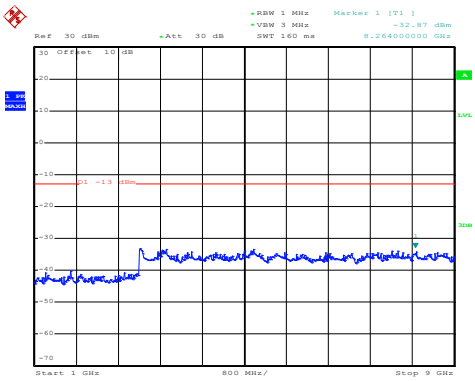
1GHz~9GHz

High channel



Date: 12.OCT.2019 10:16:40

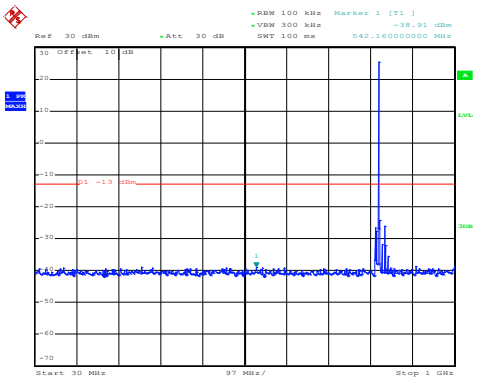
30MHz~1GHz



Date: 12.OCT.2019 10:17:16

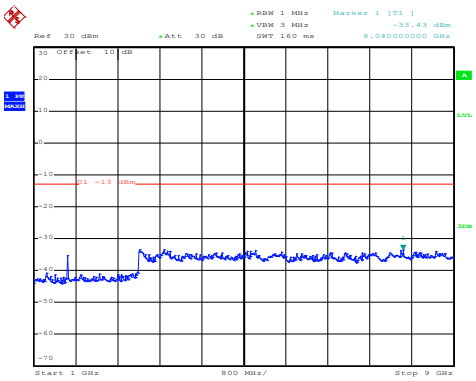
1GHz~9GHz

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



Date: 12.OCT.2019 10:15:23

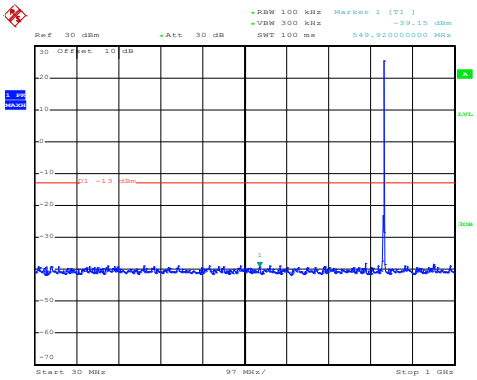
30MHz~1GHz



Date: 12.OCT.2019 10:17:55

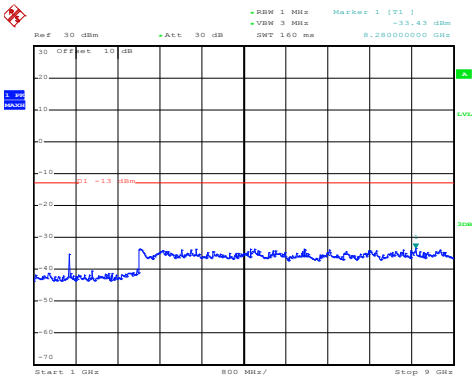
1GHz~9GHz

Middle channel



Date: 12.OCT.2019 10:16:02

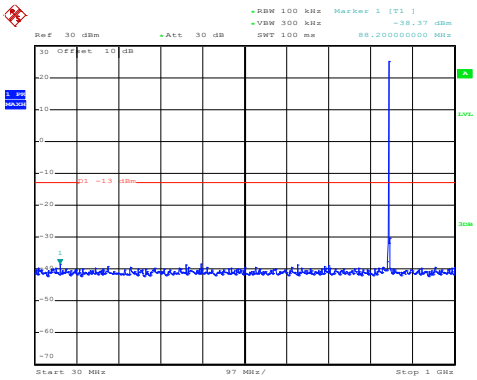
30MHz~1GHz



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

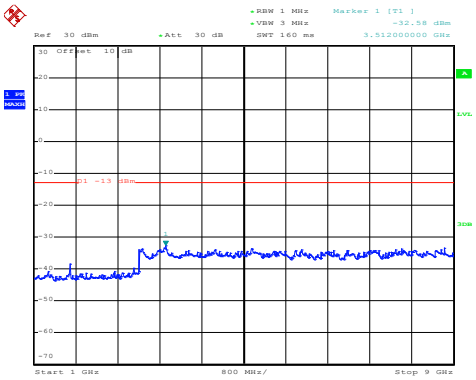
1GHz~9GHz

High channel



Date: 12.OCT.2019 10:16:32

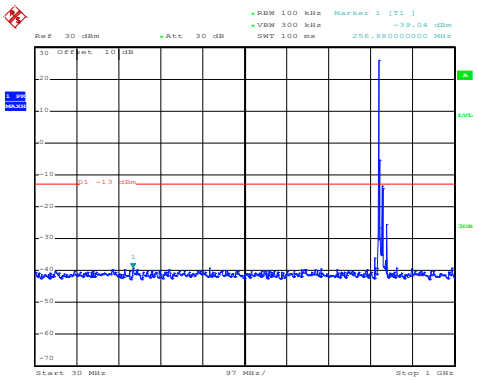
30MHz~1GHz



Date: 12.OCT.2019 10:17:08

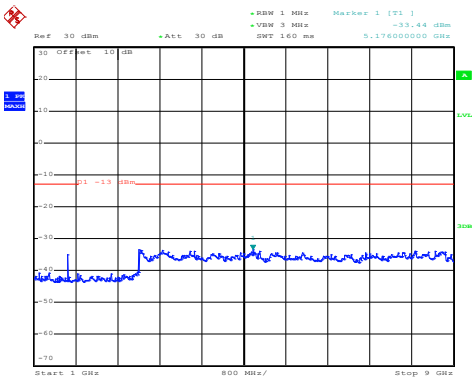
1GHz~9GHz

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



Date: 12.OCT.2019 10:22:04

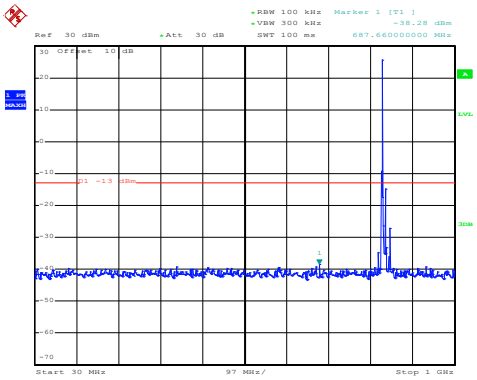
30MHz~1GHz



Date: 12.OCT.2019 10:18:43

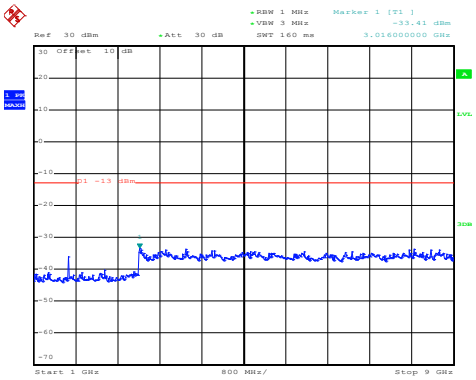
1GHz~9GHz

Middle channel



Date: 12.OCT.2019 10:21:33

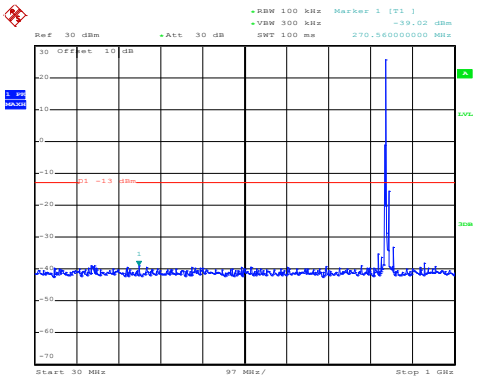
30MHz~1GHz



Date: 12.OCT.2019 10:19:06

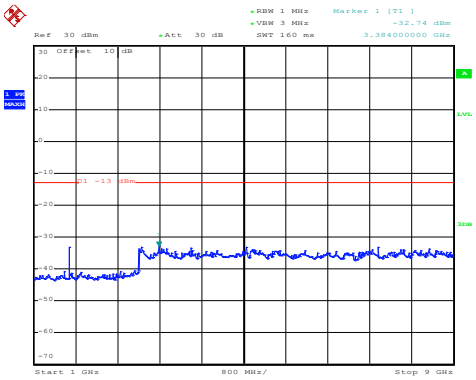
1GHz~9GHz

High channel



Date: 12.OCT.2019 10:20:10

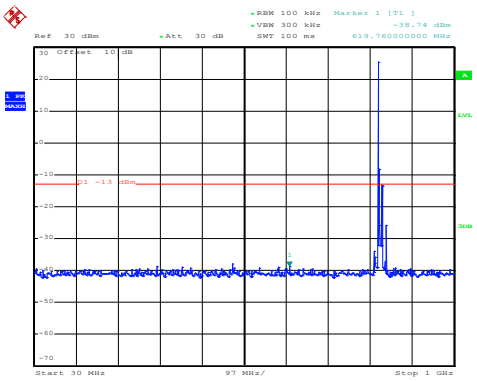
30MHz~1GHz



Date: 12.OCT.2019 10:19:32

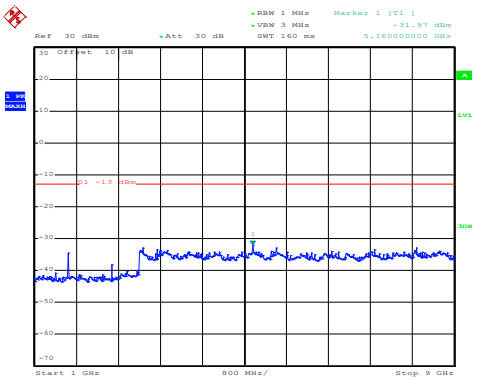
1GHz~9GHz

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



Date: 12.OCT.2019 10:21:52

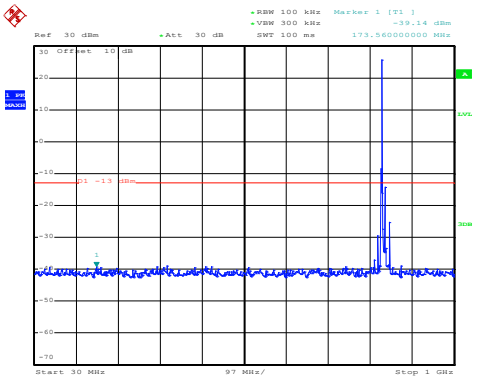
30MHz~1GHz



Date: 12.OCT.2019 10:18:34

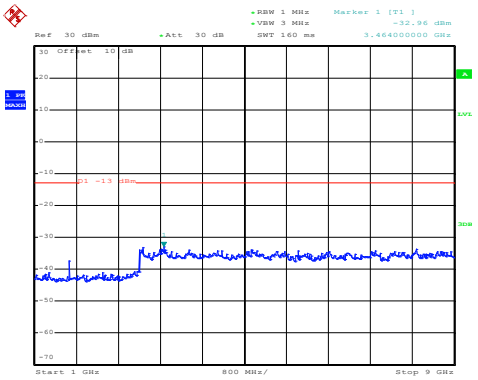
1GHz~9GHz

Middle channel



Date: 12.OCT.2019 10:21:23

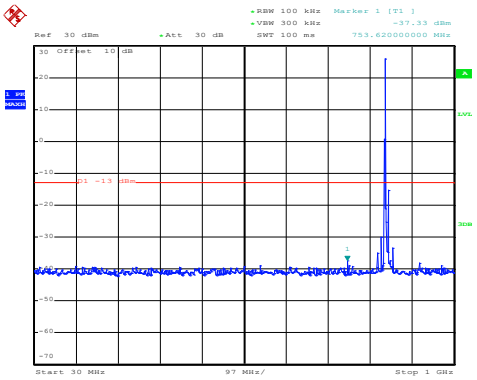
30MHz~1GHz



Date: 12.OCT.2019 10:18:58

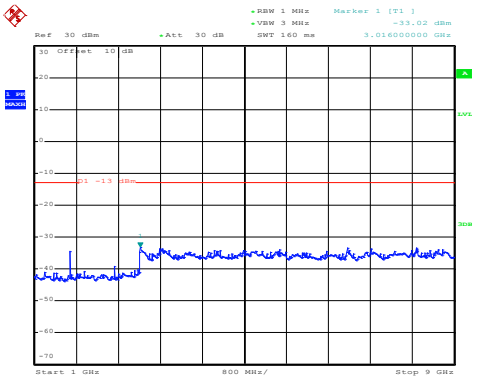
1GHz~9GHz

High channel



Date: 12.OCT.2019 10:19:58

30MHz~1GHz

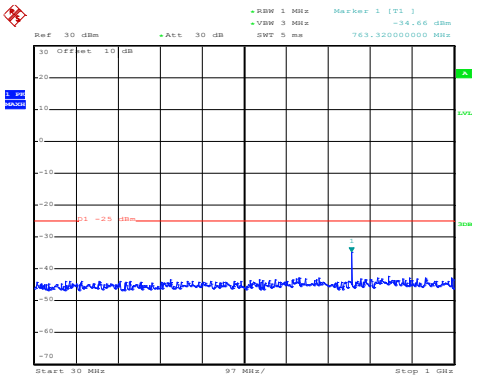


Date: 12.OCT.2019 10:19:20

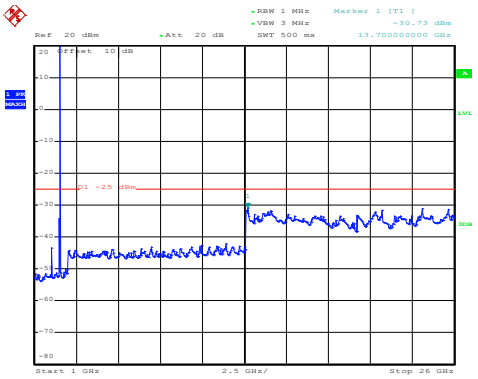
1GHz~9GHz

LTE Band 7 part:

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

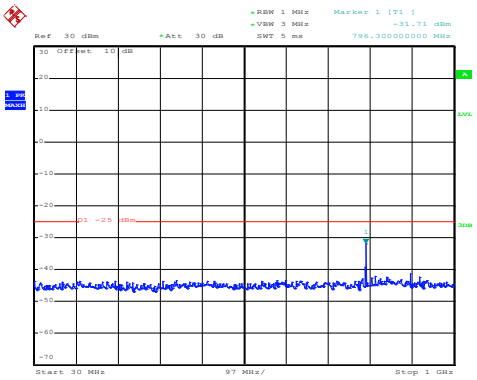


30MHz~1GHz

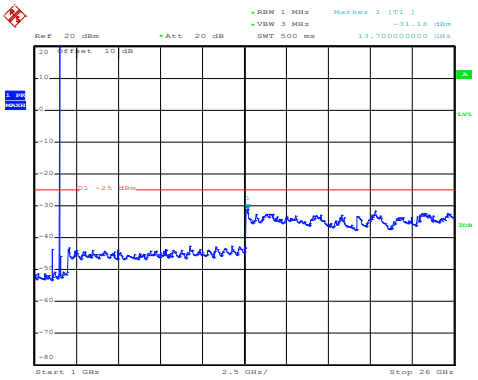


1GHz~26GHz

Middle channel

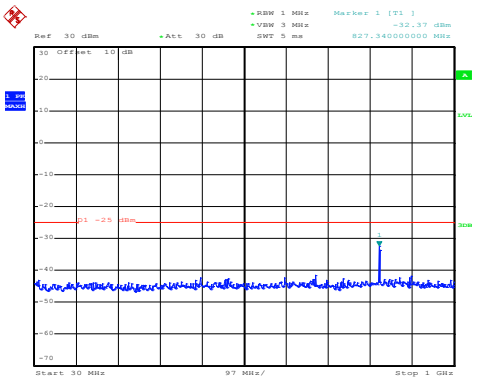


30MHz~1GHz

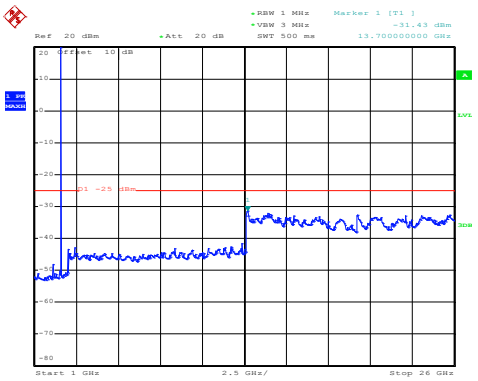


1GHz~26GHz

High channel

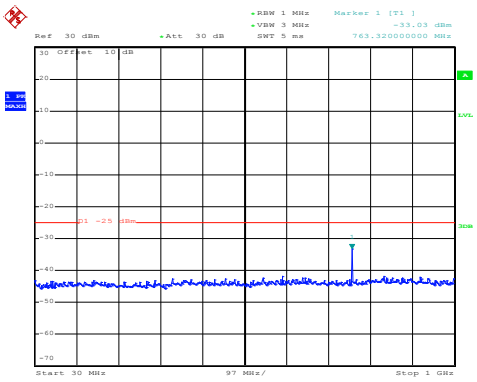


30MHz~1GHz



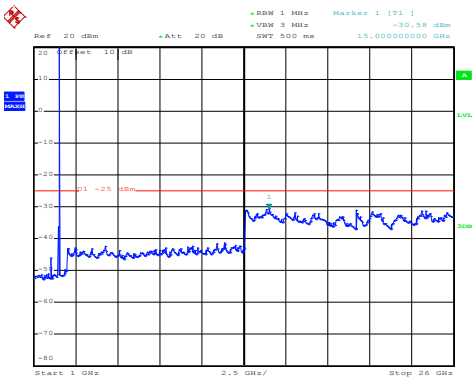
1GHz~26GHz

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



Date: 12.OCT.2019 10:22:46

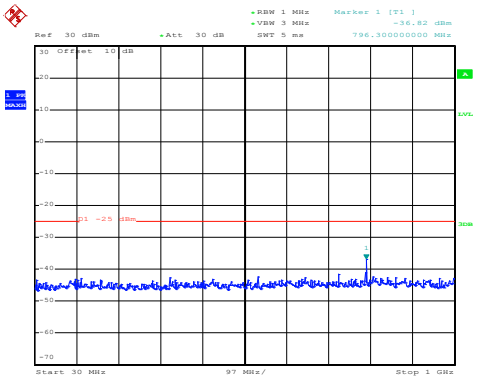
30MHz~1GHz



Date: 12.OCT.2019 10:25:33

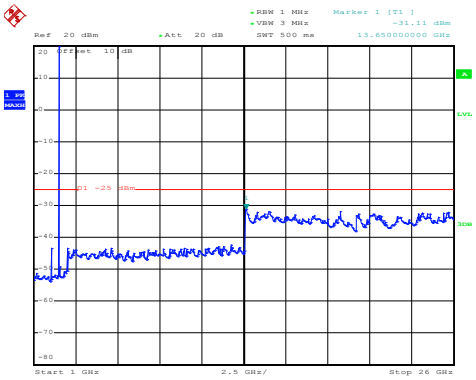
1GHz~26GHz

Middle channel



Date: 12.OCT.2019 10:23:11

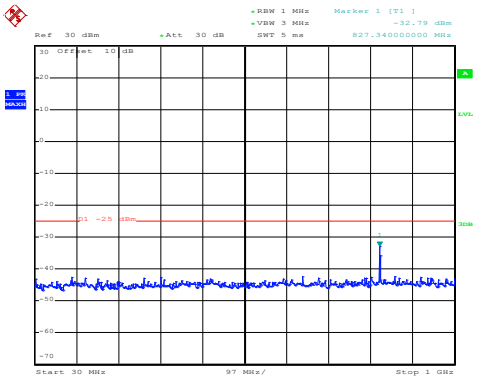
30MHz~1GHz



Date: 12.OCT.2019 10:24:42

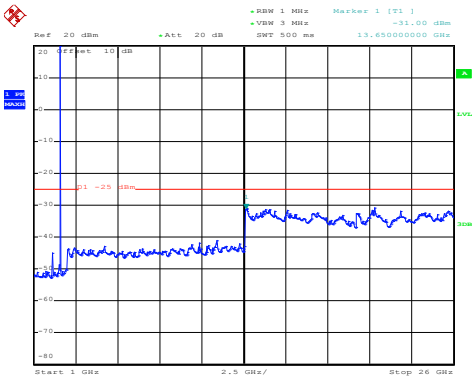
1GHz~26GHz

High channel



Date: 12.OCT.2019 10:23:28

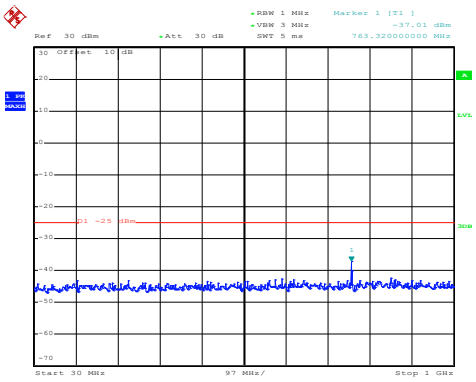
30MHz~1GHz



Date: 12.OCT.2019 10:24:19

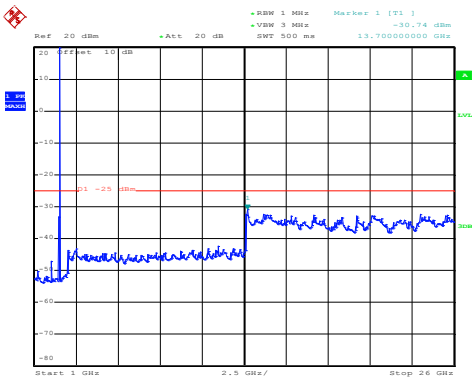
1GHz~26GHz

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



Date: 12.OCT.2019 10:28:26

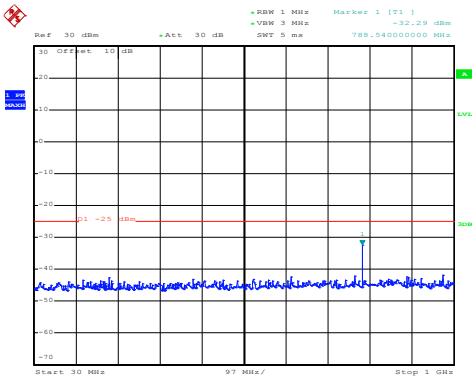
30MHz~1GHz



Date: 12.OCT.2019 10:26:29

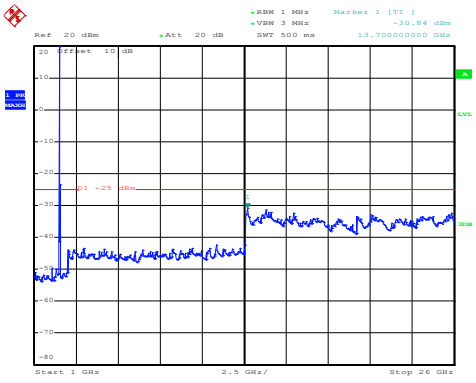
1GHz~26GHz

Middle channel



Date: 12.OCT.2019 10:28:09

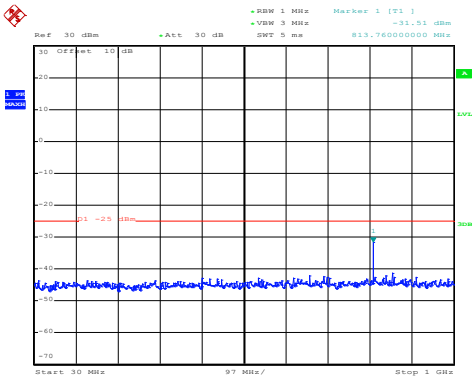
30MHz~1GHz



Date: 12.OCT.2019 10:26:51

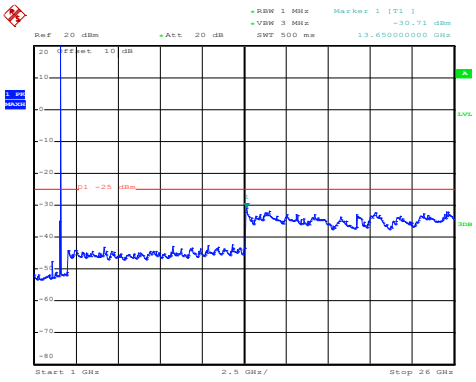
1GHz~26GHz

High channel



Date: 12.OCT.2019 10:27:55

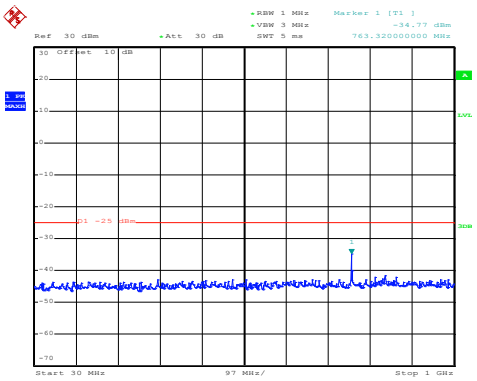
30MHz~1GHz



Date: 12.OCT.2019 10:27:24

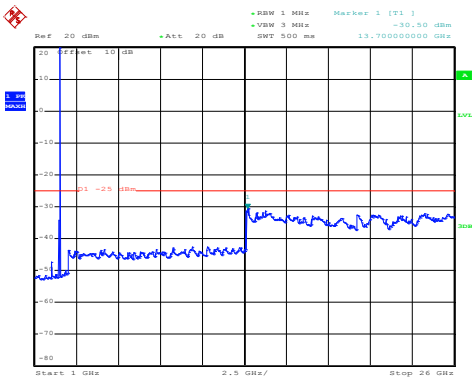
1GHz~26GHz

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



Date: 12.OCT.2019 10:28:20

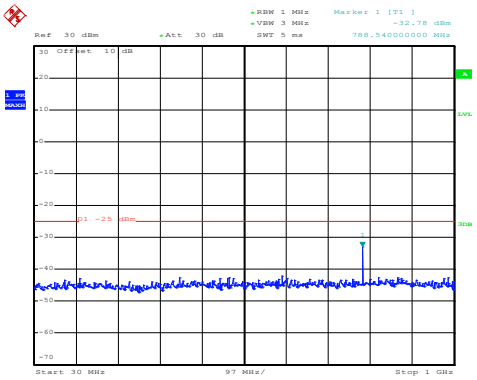
30MHz~1GHz



Date: 12.OCT.2019 10:26:22

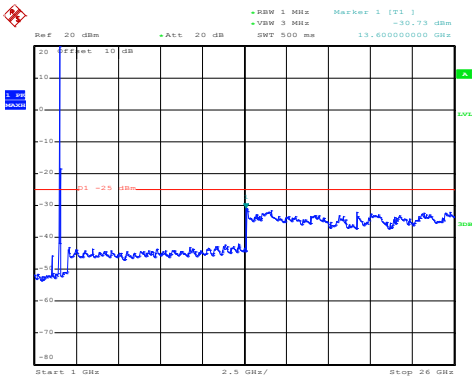
1GHz~26GHz

Middle channel



Date: 12.OCT.2019 10:28:03

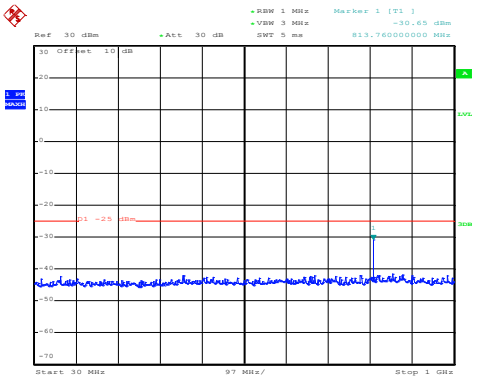
30MHz~1GHz



Date: 12.OCT.2019 10:26:44

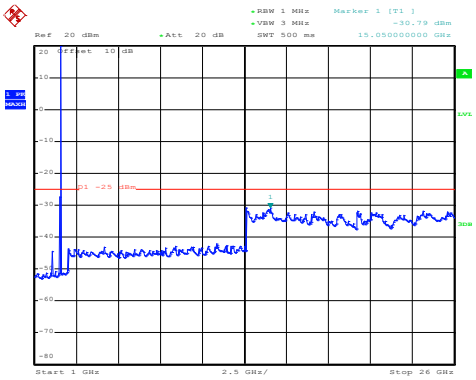
1GHz~26GHz

High channel



Date: 12.OCT.2019 10:27:48

30MHz~1GHz



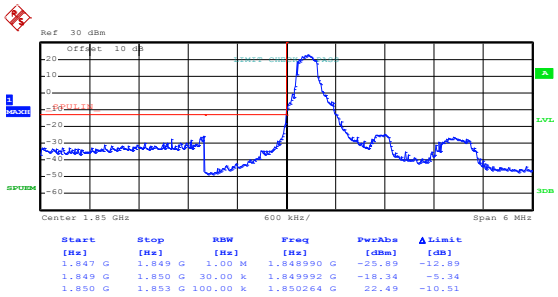
Date: 12.OCT.2019 10:27:13

1GHz~26GHz

Band edge emission:

LTE Band 2 part:

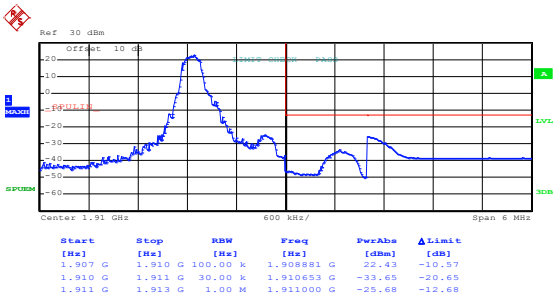
LTE Band 2, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848990 G	-25.89	-12.89
1.849 G	1.850 G	30.00 k	1.849992 G	-18.34	-5.34
1.850 G	1.853 G	100.00 k	1.850264 G	22.49	-10.51

Date: 12.OCT.2019 09:57:30

Lowest channel

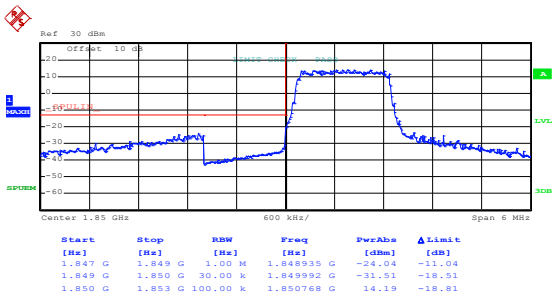


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908881 G	22.43	-10.57
1.910 G	1.911 G	30.00 k	1.910653 G	-33.65	-20.65
1.911 G	1.913 G	1.00 M	1.911000 G	-25.68	-12.68

Date: 12.OCT.2019 09:58:17

Highest channel

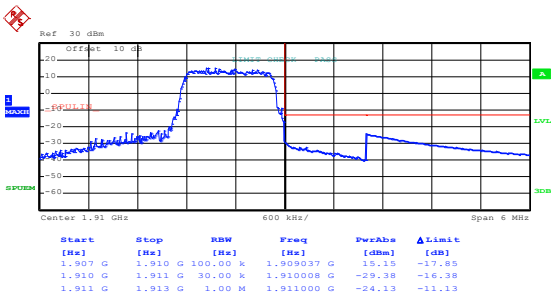
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848935 G	-24.04	-11.04
1.849 G	1.850 G	30.00 k	1.849992 G	-31.51	-18.51
1.850 G	1.853 G	100.00 k	1.850768 G	14.19	-18.81

Date: 12.OCT.2019 09:57:51

Lowest channel

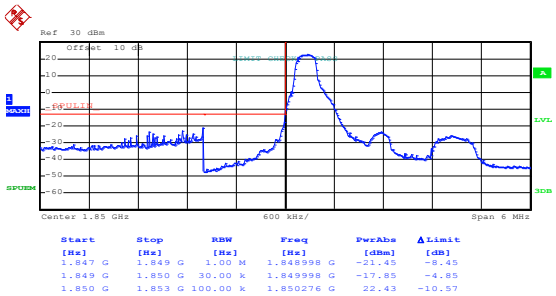


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909037 G	15.15	-17.85
1.910 G	1.911 G	30.00 k	1.910008 G	-29.38	-16.38
1.911 G	1.913 G	1.00 M	1.911000 G	-24.13	-11.13

Date: 12.OCT.2019 09:58:05

Highest channel

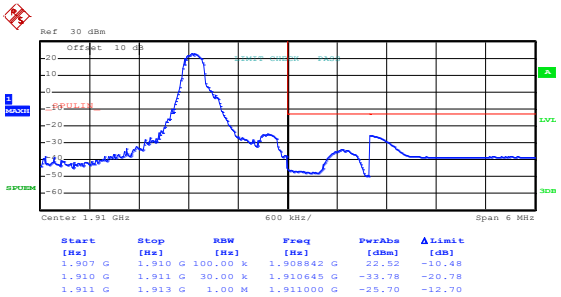
LTE Band 2, BW: 1.4MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848998 G	-21.45	-8.45
1.849 G	1.850 G	30.00 k	1.849998 G	-17.85	-4.85
1.850 G	1.853 G	100.00 k	1.850276 G	22.43	-10.57

Date: 12.OCT.2019 09:57:25

Lowest channel

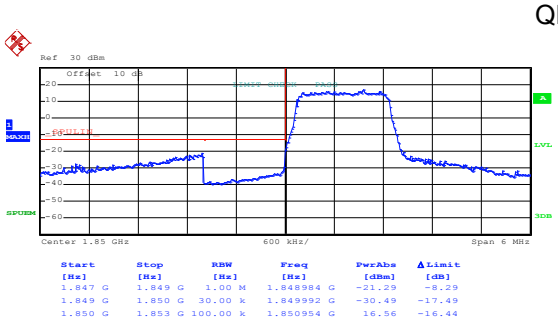


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.908842 G	22.52	-10.48
1.910 G	1.911 G	30.00 k	1.910645 G	-33.78	-20.78
1.911 G	1.913 G	1.00 M	1.911000 G	-25.70	-12.70

Date: 12.OCT.2019 09:58:13

Highest channel

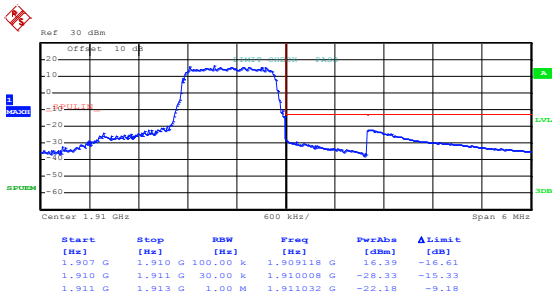
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.847 G	1.849 G	1.00 M	1.848984 G	-21.29	-8.29
1.849 G	1.850 G	30.00 k	1.849992 G	-30.49	-17.49
1.850 G	1.853 G	100.00 k	1.850954 G	16.56	-16.44

Date: 12.OCT.2019 09:57:47

Lowest channel



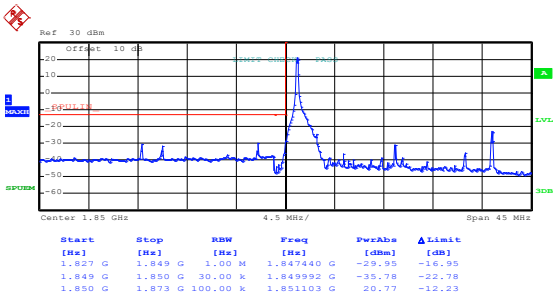
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.907 G	1.910 G	100.00 k	1.909118 G	16.39	-16.61
1.910 G	1.911 G	30.00 k	1.910008 G	-28.33	-15.33
1.911 G	1.913 G	1.00 M	1.911032 G	-22.18	-9.18

Date: 12.OCT.2019 09:58:01

Highest channel

LTE Band 2, BW: 20MHz

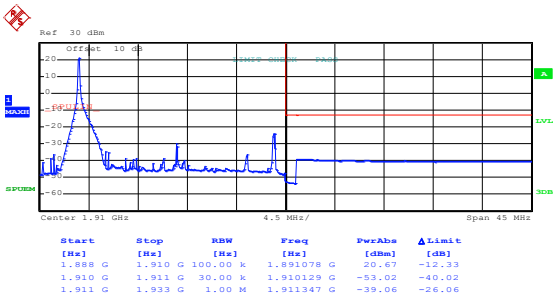
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.847440 G	-29.95	-16.95
1.849 G	1.850 G	30.00 k	1.849992 G	-35.78	-22.78
1.850 G	1.873 G	100.00 k	1.851103 G	20.77	-12.23

Date: 12.OCT.2019 09:59:52

Lowest channel

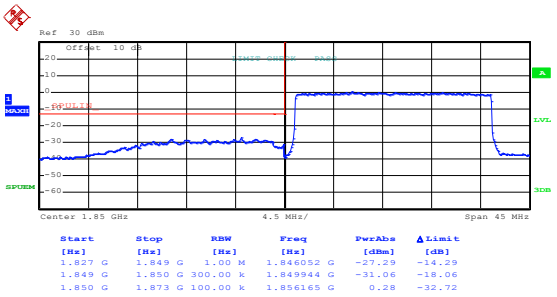


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.891078 G	20.67	-12.33
1.910 G	1.911 G	30.00 k	1.910129 G	-53.02	-40.02
1.911 G	1.933 G	1.00 M	1.911347 G	-39.06	-26.06

Date: 12.OCT.2019 09:59:01

Highest channel

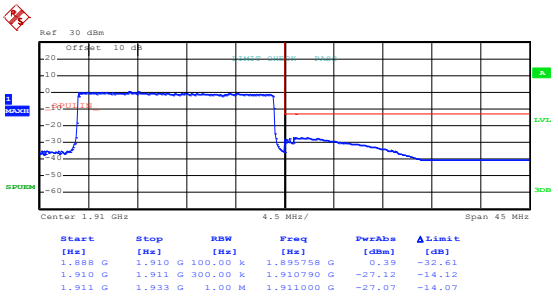
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.846052 G	-27.29	-14.29
1.849 G	1.850 G	300.00 k	1.849944 G	-31.06	-18.06
1.850 G	1.873 G	100.00 k	1.856165 G	0.28	-32.72

Date: 12.OCT.2019 10:00:17

Lowest channel

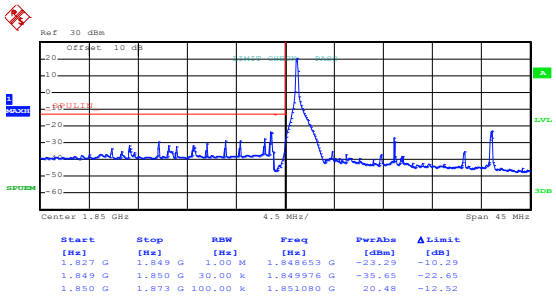


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.895758 G	0.39	-32.61
1.910 G	1.911 G	300.00 k	1.910790 G	-27.12	-14.12
1.911 G	1.933 G	1.00 M	1.911000 G	-27.07	-14.07

Date: 12.OCT.2019 09:59:27

Highest channel

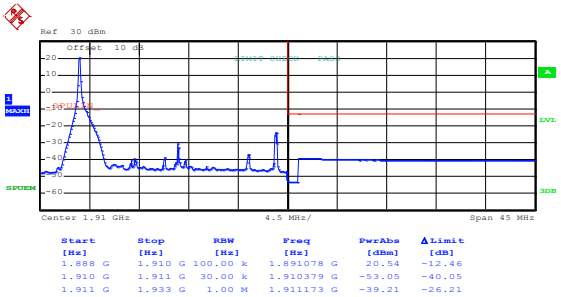
LTE Band 2, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.848653 G	-23.29	-10.29
1.849 G	1.850 G	30.00 k	1.849976 G	-35.65	-22.65
1.850 G	1.873 G	100.00 k	1.851080 G	20.48	-12.52

Date: 12.OCT.2019 09:59:48

Lowest channel

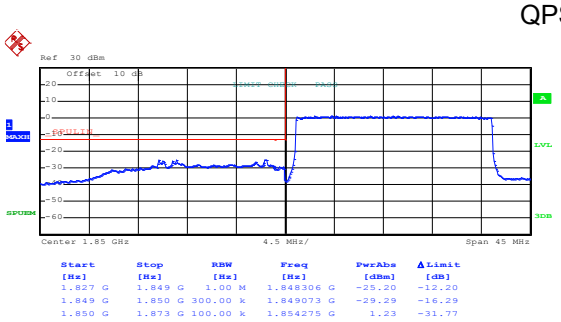


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.891078 G	20.54	-12.46
1.910 G	1.911 G	30.00 k	1.910379 G	-53.05	-40.05
1.911 G	1.933 G	1.00 M	1.911173 G	-39.21	-26.21

Date: 12.OCT.2019 09:58:56

Highest channel

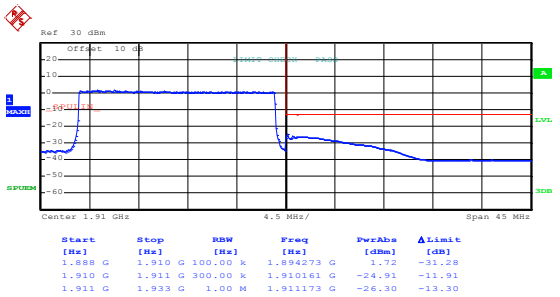
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.827 G	1.849 G	1.00 M	1.848306 G	-25.20	-12.20
1.849 G	1.850 G	300.00 k	1.849073 G	-29.29	-16.29
1.850 G	1.873 G	100.00 k	1.854275 G	1.23	-31.77

Date: 12.OCT.2019 10:00:07

Lowest channel



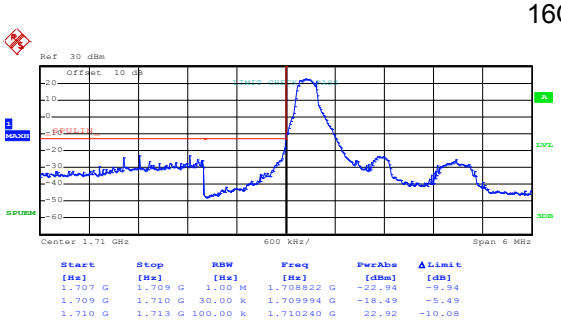
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.888 G	1.910 G	100.00 k	1.894273 G	1.72	-31.28
1.910 G	1.911 G	300.00 k	1.910161 G	-24.91	-11.91
1.911 G	1.933 G	1.00 M	1.911173 G	-26.30	-13.30

Date: 12.OCT.2019 09:59:22

Highest channel

LTE Band 4 part:

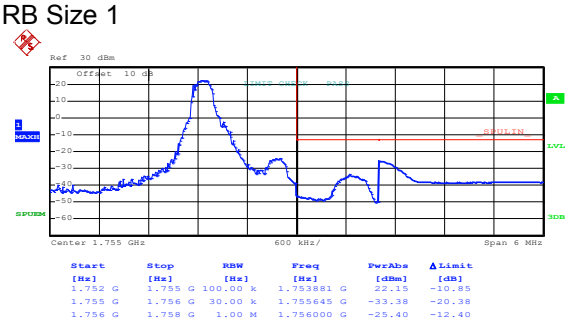
LTE Band 4, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708822 G	-22.94	-9.94
1.709 G	1.710 G	30.00 k	1.709994 G	-18.49	-5.49
1.710 G	1.713 G	100.00 k	1.710240 G	22.92	-10.08

Date: 12.OCT.2019 09:54:17

Lowest channel

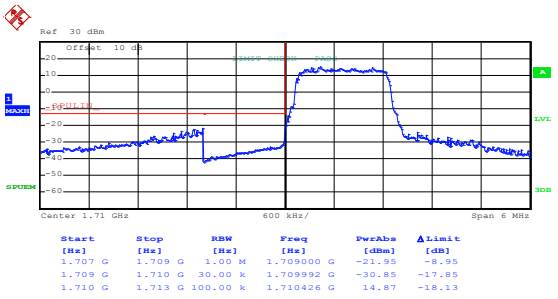


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753881 G	22.15	-10.85
1.755 G	1.756 G	30.00 k	1.755645 G	-33.38	-20.38
1.756 G	1.758 G	1.00 M	1.756000 G	-25.40	-12.40

Date: 12.OCT.2019 09:55:09

Highest channel

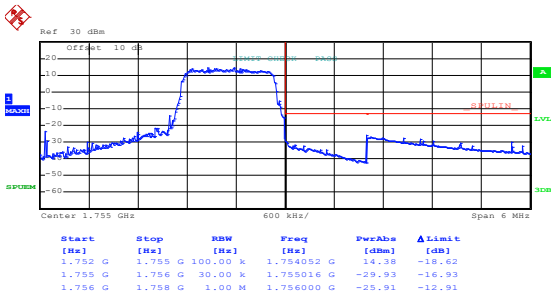
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.709000 G	-21.95	-8.95
1.709 G	1.710 G	30.00 k	1.709992 G	-30.85	-17.85
1.710 G	1.713 G	100.00 k	1.710426 G	14.87	-18.13

Date: 12.OCT.2019 09:54:40

Lowest channel

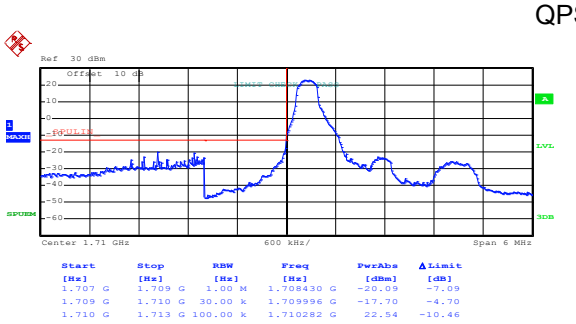


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.754052 G	14.38	-18.62
1.755 G	1.756 G	30.00 k	1.755016 G	-29.93	-16.93
1.756 G	1.758 G	1.00 M	1.756000 G	-25.91	-12.91

Date: 12.OCT.2019 09:54:57

Highest channel

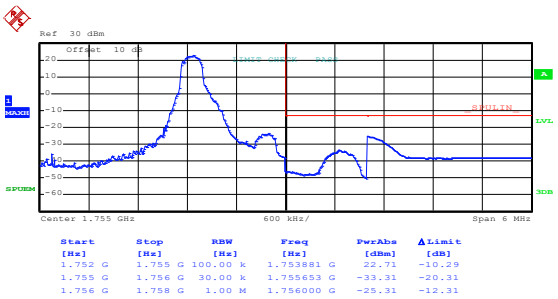
LTE Band 4, BW: 1.4MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708430 G	-20.09	-7.09
1.709 G	1.710 G	30.00 k	1.709996 G	-17.70	-4.70
1.710 G	1.713 G	100.00 k	1.710282 G	22.54	-10.46

Date: 12.OCT.2019 09:54:12

Lowest channel

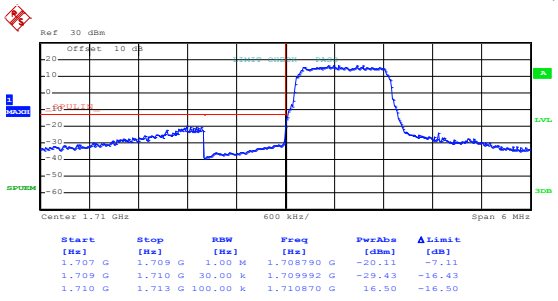


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.753881 G	22.71	-10.29
1.755 G	1.756 G	30.00 k	1.755653 G	-33.31	-20.31
1.756 G	1.758 G	1.00 M	1.756000 G	-25.31	-12.31

Date: 12.OCT.2019 09:55:05

Highest channel

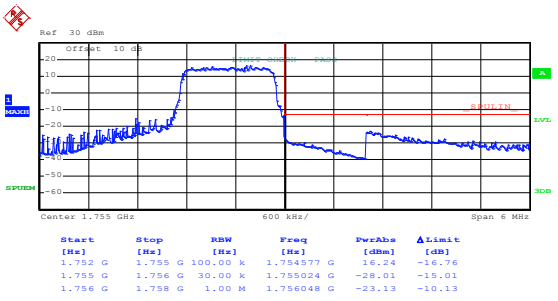
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.707 G	1.709 G	1.00 M	1.708790 G	-20.11	-7.11
1.709 G	1.710 G	30.00 k	1.709992 G	-29.43	-16.43
1.710 G	1.713 G	100.00 k	1.710870 G	16.50	-16.50

Date: 12.OCT.2019 09:54:35

Lowest channel

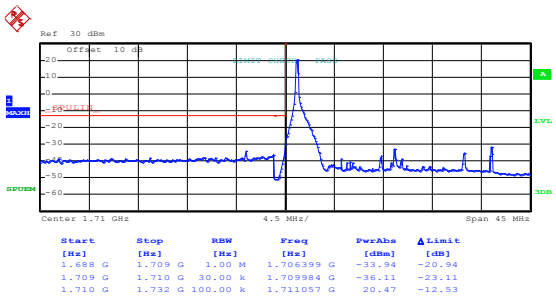


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.752 G	1.755 G	100.00 k	1.754577 G	16.24	-16.76
1.755 G	1.756 G	30.00 k	1.755024 G	-28.01	-15.01
1.756 G	1.758 G	1.00 M	1.756048 G	-23.13	-10.13

Date: 12.OCT.2019 09:54:53

Highest channel

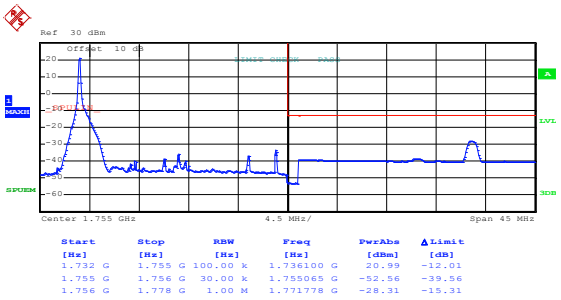
LTE Band 4, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.706399 G	-33.94	-20.94
1.709 G	1.710 G	30.00 k	1.709984 G	-36.11	-23.11
1.710 G	1.732 G	100.00 k	1.711057 G	20.47	-12.53

Date: 12.OCT.2019 09:56:45

Lowest channel

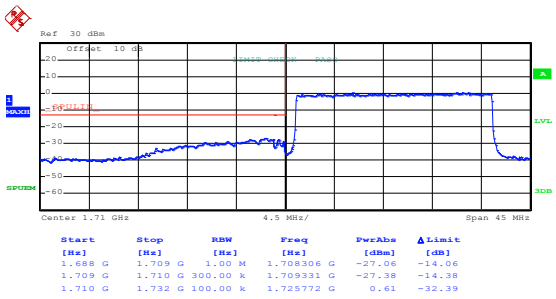


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736100 G	20.99	-12.01
1.755 G	1.756 G	30.00 k	1.755065 G	-52.56	-39.56
1.756 G	1.778 G	1.00 M	1.771778 G	-28.31	-15.31

Date: 12.OCT.2019 09:55:44

Highest channel

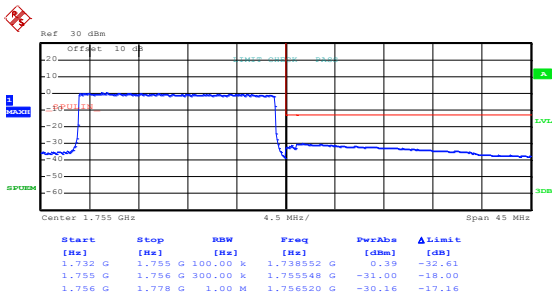
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.708306 G	-27.06	-14.06
1.709 G	1.710 G	300.00 k	1.709331 G	-27.38	-14.38
1.710 G	1.732 G	100.00 k	1.725772 G	0.61	-32.39

Date: 12.OCT.2019 09:56:27

Lowest channel

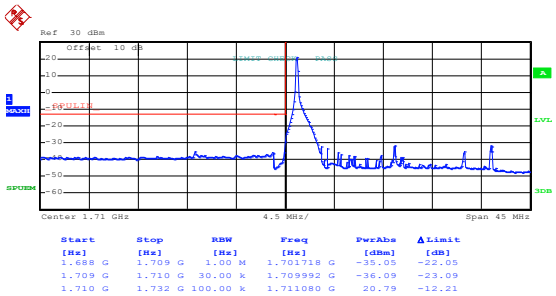


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.738552 G	0.39	-32.61
1.755 G	1.756 G	300.00 k	1.755548 G	-31.00	-18.00
1.756 G	1.778 G	1.00 M	1.756520 G	-30.16	-17.16

Date: 12.OCT.2019 09:56:03

Highest channel

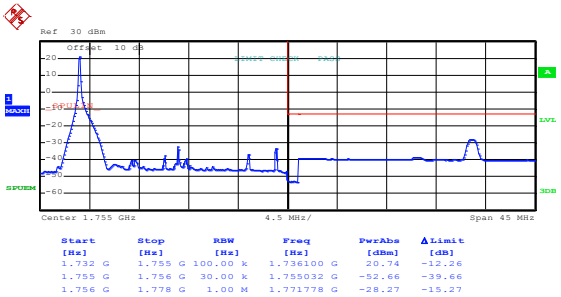
LTE Band 4, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.701718 G	-35.05	-22.05
1.709 G	1.710 G	30.00 k	1.709992 G	-36.09	-23.09
1.710 G	1.732 G	100.00 k	1.711080 G	20.79	-12.21

Date: 12.OCT.2019 09:56:41

Lowest channel

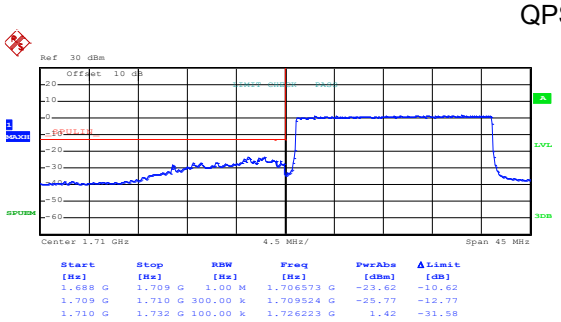


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.736100 G	20.74	-12.26
1.755 G	1.756 G	30.00 k	1.755032 G	-52.66	-39.66
1.756 G	1.778 G	1.00 M	1.771778 G	-28.27	-15.27

Date: 12.OCT.2019 09:55:38

Highest channel

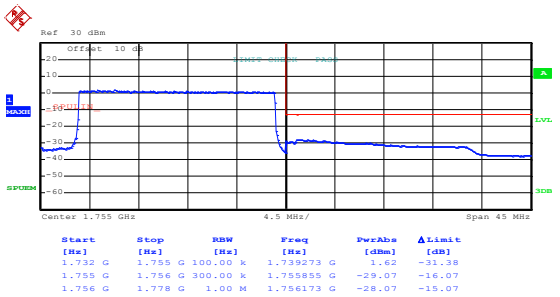
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.688 G	1.709 G	1.00 M	1.706573 G	-23.62	-10.62
1.709 G	1.710 G	300.00 k	1.709524 G	-25.77	-12.77
1.710 G	1.732 G	100.00 k	1.726223 G	1.42	-31.58

Date: 12.OCT.2019 09:56:22

Lowest channel



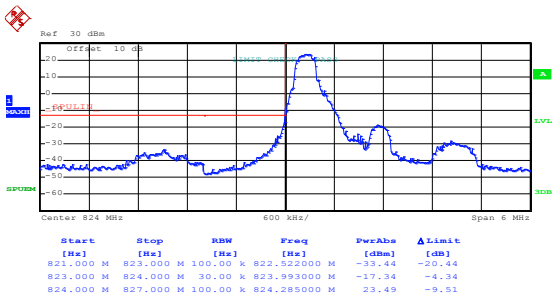
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.732 G	1.755 G	100.00 k	1.739273 G	1.62	-31.38
1.755 G	1.756 G	300.00 k	1.755855 G	-29.07	-16.07
1.756 G	1.778 G	1.00 M	1.756173 G	-28.07	-15.07

Date: 12.OCT.2019 09:55:59

Highest channel

LTE Band 5 part:

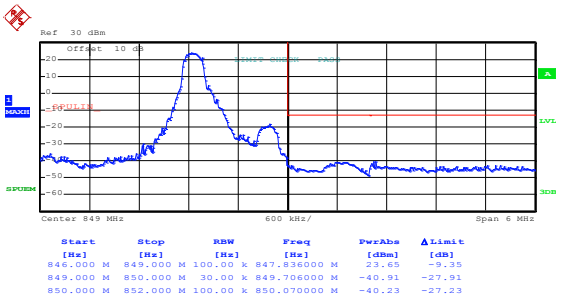
LTE Band 5, BW: 1.4MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.522000 M	-33.44	-20.44
823.000 M	824.000 M	30.00 k	823.993000 M	-17.34	-4.34
824.000 M	827.000 M	100.00 k	824.285000 M	23.49	-9.51

Date: 12.OCT.2019 09:51:08

Lowest channel

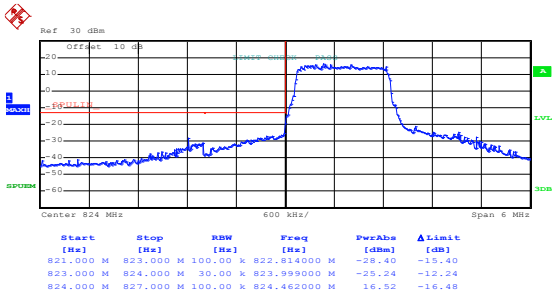


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.836000 M	23.65	-9.35
849.000 M	850.000 M	30.00 k	849.706000 M	-40.91	-27.91
850.000 M	852.000 M	100.00 k	850.070000 M	-40.23	-27.23

Date: 12.OCT.2019 09:51:51

Highest channel

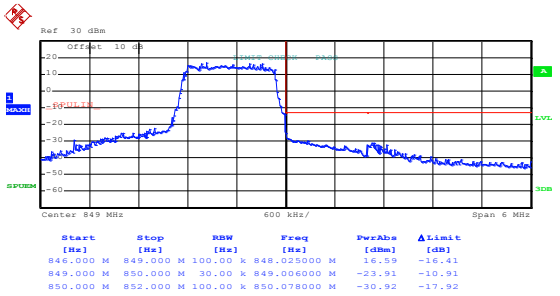
16QAM & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.814000 M	-28.40	-15.40
823.000 M	824.000 M	30.00 k	823.999000 M	-25.24	-12.24
824.000 M	827.000 M	100.00 k	824.462000 M	16.52	-16.48

Date: 12.OCT.2019 09:51:21

Lowest channel

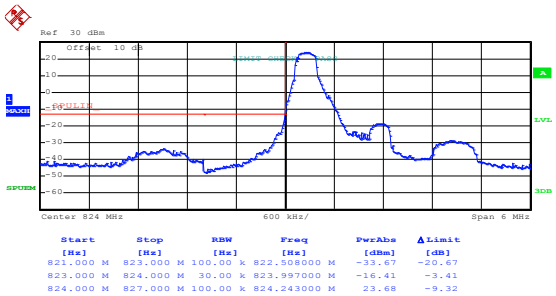


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.025000 M	16.59	-16.41
849.000 M	850.000 M	30.00 k	849.006000 M	-23.91	-10.91
850.000 M	852.000 M	100.00 k	850.078000 M	-30.92	-17.92

Date: 12.OCT.2019 09:51:39

Highest channel

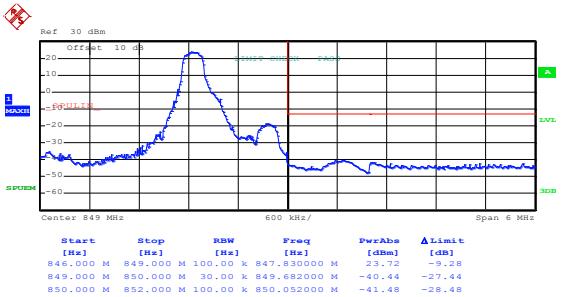
LTE Band 5, BW: 1.4MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.508000 M	-33.67	-20.67
823.000 M	824.000 M	30.00 k	823.997000 M	-16.41	-3.41
824.000 M	827.000 M	100.00 k	824.243000 M	23.68	-9.32

Date: 12.OCT.2019 09:51:04

Lowest channel

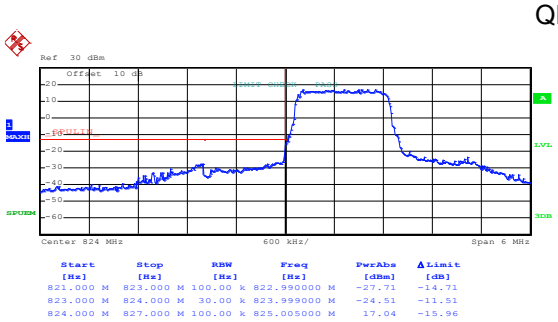


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	847.830000 M	23.72	-9.28
849.000 M	850.000 M	30.00 k	849.682000 M	-40.44	-27.44
850.000 M	852.000 M	100.00 k	850.052000 M	-41.48	-28.48

Date: 12.OCT.2019 09:51:46

Highest channel

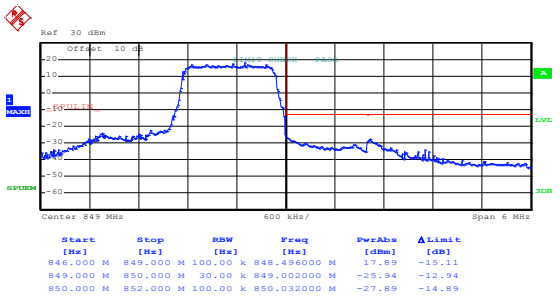
QPSK & RB Size 6



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
821.000 M	823.000 M	100.00 k	822.990000 M	-27.71	-14.71
823.000 M	824.000 M	30.00 k	823.999000 M	-24.51	-11.51
824.000 M	827.000 M	100.00 k	825.005000 M	17.04	-15.96

Date: 12.OCT.2019 09:51:16

Lowest channel

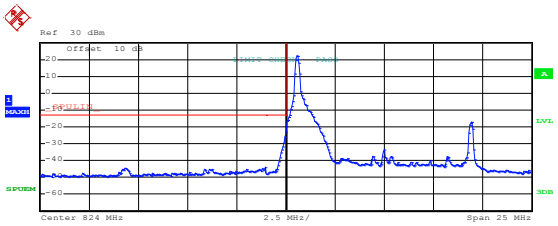


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
846.000 M	849.000 M	100.00 k	848.496000 M	17.89	-15.11
849.000 M	850.000 M	30.00 k	849.002000 M	-25.94	-12.94
850.000 M	852.000 M	100.00 k	850.032000 M	-27.89	-14.89

Date: 12.OCT.2019 09:51:35

Highest channel

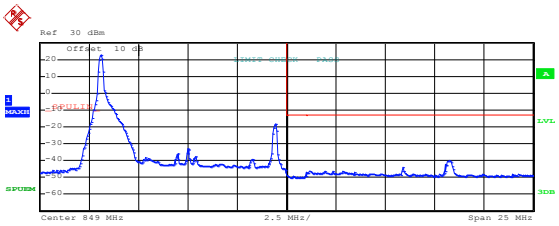
LTE Band 5, BW: 10MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	822.919500 M	-44.15	-31.15
823.000 M	824.000 M	30.00 k	823.999000 M	-25.69	-12.69
824.000 M	836.500 M	100.00 k	824.600000 M	22.21	-10.79

Date: 12.OCT.2019 09:53:06

Lowest channel

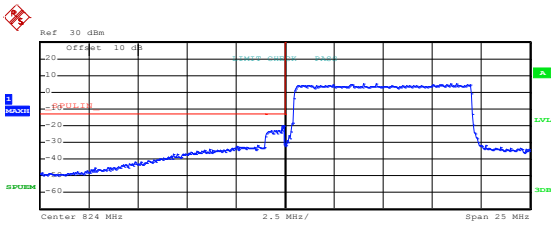


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.575000 M	22.76	-10.24
849.000 M	850.000 M	30.00 k	849.018000 M	-48.19	-35.19
850.000 M	861.500 M	100.00 k	857.256500 M	-39.88	-26.88

Date: 12.OCT.2019 09:52:24

Highest channel

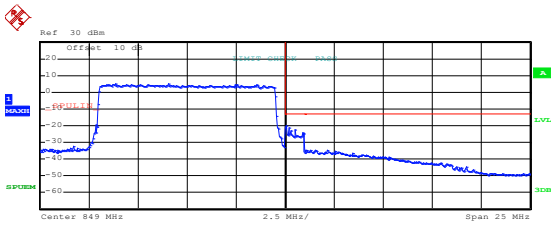
16QAM & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	822.586000 M	-31.81	-18.81
823.000 M	824.000 M	300.00 k	823.996000 M	-19.96	-6.96
824.000 M	836.500 M	100.00 k	832.762500 M	5.08	-27.92

Date: 12.OCT.2019 09:53:24

Lowest channel

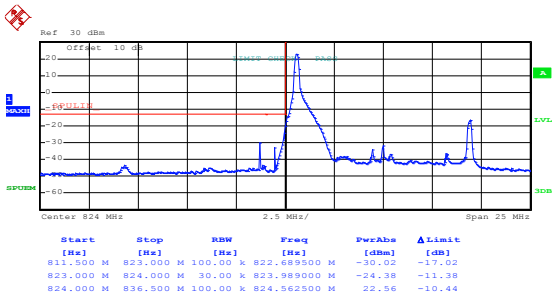


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	840.325000 M	5.24	-27.76
849.000 M	850.000 M	300.00 k	849.036000 M	-20.19	-7.19
850.000 M	861.500 M	100.00 k	850.310500 M	-34.50	-21.50

Date: 12.OCT.2019 09:52:44

Highest channel

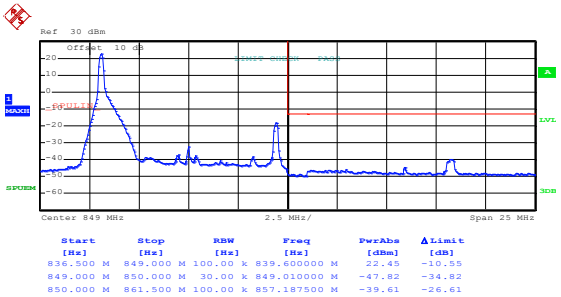
LTE Band 5, BW: 10MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	822.689500 M	-30.02	-17.02
823.000 M	824.000 M	30.00 k	823.989000 M	-24.38	-11.38
824.000 M	836.500 M	100.00 k	824.562500 M	22.56	-10.44

Date: 12.OCT.2019 09:53:02

Lowest channel

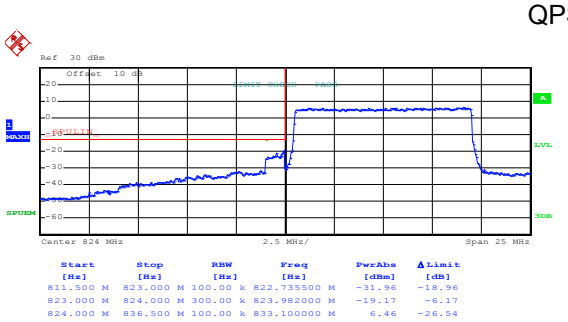


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	839.600000 M	22.45	-10.55
849.000 M	850.000 M	30.00 k	849.010000 M	-47.82	-34.82
850.000 M	861.500 M	100.00 k	857.187500 M	-39.61	-26.61

Date: 12.OCT.2019 09:52:19

Highest channel

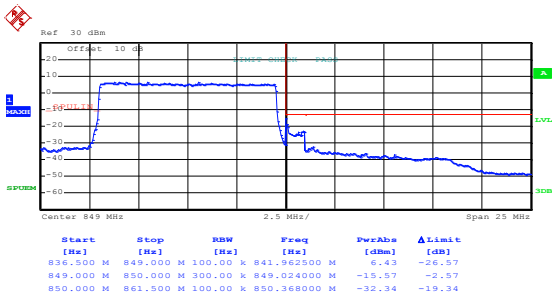
QPSK & RB Size 50



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
811.500 M	823.000 M	100.00 k	822.735500 M	-31.96	-18.96
823.000 M	824.000 M	300.00 k	823.982000 M	-19.17	-6.17
824.000 M	836.500 M	100.00 k	833.100000 M	6.46	-26.54

Date: 12.OCT.2019 09:53:19

Lowest channel



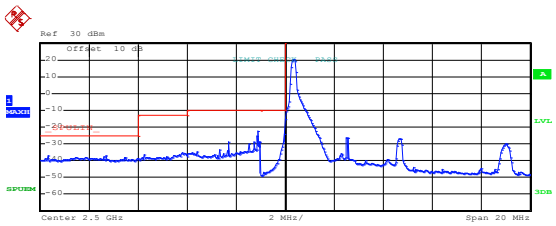
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
836.500 M	849.000 M	100.00 k	841.962500 M	6.43	-26.57
849.000 M	850.000 M	300.00 k	849.024000 M	-15.57	-2.57
850.000 M	861.500 M	100.00 k	850.368000 M	-32.34	-19.34

Date: 12.OCT.2019 09:52:39

Highest channel

LTE Band 7 part:

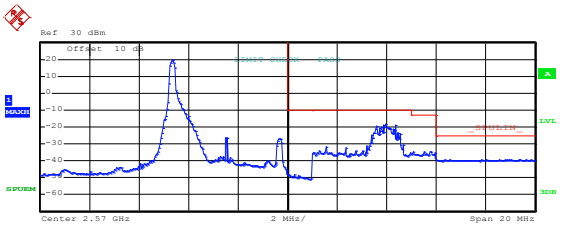
LTE Band 7, BW: 5MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.492645 G	-36.80	-11.80
2.494 G	2.496 G	1.00 M	2.495790 G	-35.03	-22.03
2.496 G	2.499 G	1.00 M	2.498855 G	-22.43	-12.43
2.499 G	2.500 G	30.00 k	2.499968 G	-25.12	-15.12
2.500 G	2.510 G	100.00 k	2.500350 G	20.38	-12.62

Date: 12.OCT.2019 09:46:55

Lowest channel

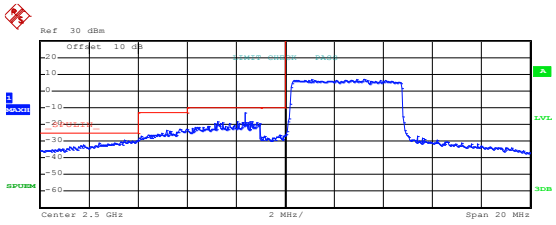


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565350 G	19.70	-13.30
2.570 G	2.571 G	30.00 k	2.570295 G	-47.80	-37.80
2.571 G	2.575 G	1.00 M	2.573956 G	-18.46	-8.46
2.575 G	2.576 G	1.00 M	2.575507 G	-34.51	-21.51
2.576 G	2.580 G	1.00 M	2.578024 G	-39.31	-14.31

Date: 12.OCT.2019 09:48:33

Highest channel

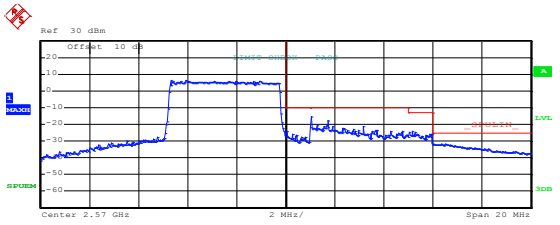
16QAM & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.493419 G	-29.31	-4.31
2.494 G	2.496 G	1.00 M	2.495984 G	-22.67	-9.67
2.496 G	2.499 G	1.00 M	2.498347 G	-13.16	-3.16
2.499 G	2.500 G	100.00 k	2.499758 G	-26.33	-16.33
2.500 G	2.510 G	100.00 k	2.501070 G	6.99	-26.01

Date: 12.OCT.2019 09:47:17

Lowest channel

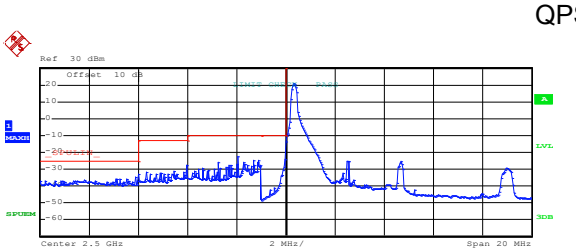


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565900 G	6.39	-26.61
2.570 G	2.571 G	100.00 k	2.570048 G	-24.25	-14.25
2.571 G	2.575 G	1.00 M	2.571052 G	-15.16	-5.16
2.575 G	2.576 G	1.00 M	2.575143 G	-24.01	-11.01
2.576 G	2.580 G	1.00 M	2.576636 G	-31.45	-6.45

Date: 12.OCT.2019 09:48:08

Highest channel

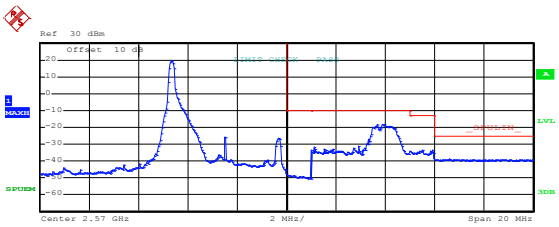
LTE Band 7, BW: 5MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.493839 G	-34.62	-9.62
2.494 G	2.496 G	1.00 M	2.496000 G	-27.80	-17.80
2.496 G	2.499 G	1.00 M	2.498032 G	-22.49	-12.49
2.499 G	2.500 G	30.00 k	2.499992 G	-23.98	-13.98
2.500 G	2.510 G	100.00 k	2.500310 G	20.81	-12.19

Date: 12.OCT.2019 09:46:49

Lowest channel

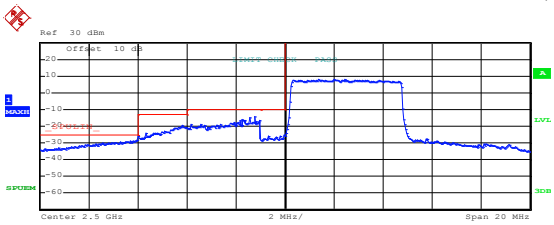


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.565350 G	19.69	-13.31
2.570 G	2.571 G	30.00 k	2.570013 G	-47.97	-37.97
2.571 G	2.575 G	1.00 M	2.573864 G	-18.15	-8.15
2.575 G	2.576 G	1.00 M	2.575535 G	-33.50	-20.50
2.576 G	2.580 G	1.00 M	2.576588 G	-38.71	-13.71

Date: 12.OCT.2019 09:48:29

Highest channel

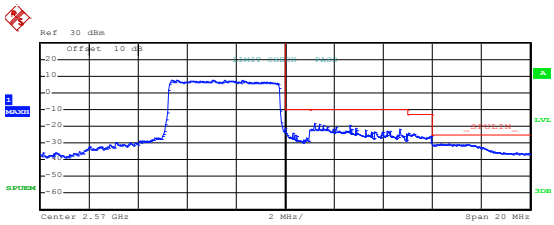
QPSK & RB Size 25



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.490 G	2.494 G	1.00 M	2.493968 G	-28.30	-3.30
2.494 G	2.496 G	1.00 M	2.495774 G	-19.53	-6.53
2.496 G	2.499 G	1.00 M	2.498734 G	-14.33	-4.33
2.499 G	2.500 G	100.00 k	2.499984 G	-25.55	-15.55
2.500 G	2.510 G	100.00 k	2.502010 G	8.21	-24.79

Date: 12.OCT.2019 09:47:12

Lowest channel

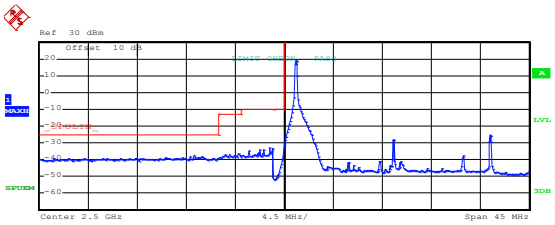


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.560 G	2.570 G	100.00 k	2.567090 G	7.72	-25.28
2.570 G	2.571 G	100.00 k	2.570001 G	-20.95	-10.95
2.571 G	2.575 G	1.00 M	2.571200 G	-18.46	-8.46
2.575 G	2.576 G	1.00 M	2.575038 G	-24.23	-11.23
2.576 G	2.580 G	1.00 M	2.577340 G	-30.56	-5.56

Date: 12.OCT.2019 09:48:04

Highest channel

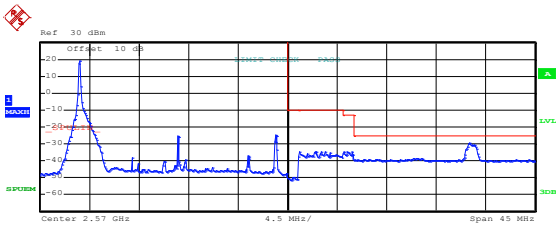
LTE Band 7, BW: 20MHz
16QAM & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.491738 G	-37.34	-12.34
2.494 G	2.496 G	1.00 M	2.495758 G	-36.16	-23.16
2.496 G	2.499 G	1.00 M	2.498637 G	-33.11	-23.11
2.499 G	2.500 G	30.00 k	2.499984 G	-37.19	-27.19
2.500 G	2.523 G	100.00 k	2.501103 G	18.91	-14.09

Date: 12.OCT.2019 09:50:17

Lowest channel

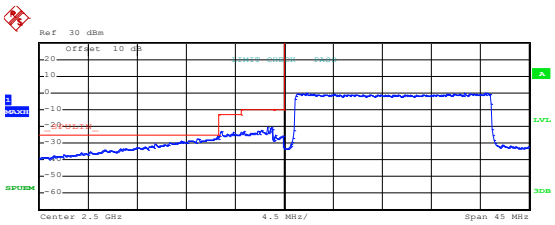


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551100 G	18.94	-14.06
2.570 G	2.571 G	30.00 k	2.570441 G	-49.73	-39.73
2.571 G	2.575 G	1.00 M	2.572648 G	-34.44	-24.44
2.575 G	2.576 G	1.00 M	2.575842 G	-34.74	-21.74
2.576 G	2.592 G	1.00 M	2.586560 G	-29.51	-4.51

Date: 12.OCT.2019 09:49:05

Highest channel

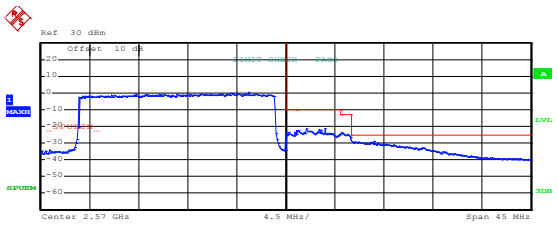
16QAM & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.493601 G	-27.40	-2.40
2.494 G	2.496 G	1.00 M	2.494194 G	-23.14	-10.14
2.496 G	2.499 G	1.00 M	2.498782 G	-20.65	-10.65
2.499 G	2.500 G	300.00 k	2.499169 G	-25.50	-15.50
2.500 G	2.523 G	100.00 k	2.516560 G	-0.11	-33.11

Date: 12.OCT.2019 09:49:58

Lowest channel

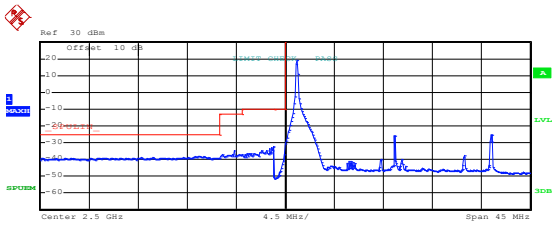


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.566558 G	0.27	-32.73
2.570 G	2.571 G	300.00 k	2.570823 G	-23.41	-13.41
2.571 G	2.575 G	1.00 M	2.573564 G	-21.30	-11.30
2.575 G	2.576 G	1.00 M	2.575158 G	-23.48	-10.48
2.576 G	2.592 G	1.00 M	2.577782 G	-28.59	-3.59

Date: 12.OCT.2019 09:49:26

Highest channel

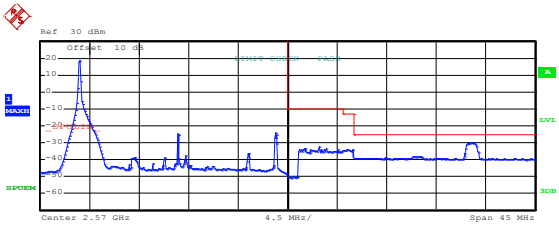
LTE Band 7, BW: 20MHz
QPSK & RB Size 1



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.492004 G	-38.04	-13.04
2.494 G	2.496 G	1.00 M	2.495274 G	-34.72	-21.72
2.496 G	2.499 G	1.00 M	2.498976 G	-32.40	-22.40
2.499 G	2.500 G	30.00 k	2.499984 G	-37.50	-27.50
2.500 G	2.523 G	100.00 k	2.501080 G	19.11	-13.89

Date: 12.OCT.2019 09:50:13

Lowest channel

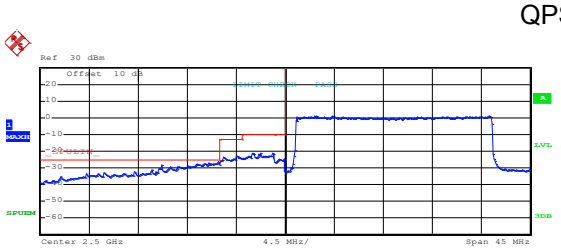


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.551100 G	18.86	-14.14
2.570 G	2.571 G	30.00 k	2.570027 G	-49.76	-39.76
2.571 G	2.575 G	1.00 M	2.572912 G	-32.28	-22.28
2.575 G	2.576 G	1.00 M	2.575962 G	-33.83	-20.83
2.576 G	2.592 G	1.00 M	2.586873 G	-29.96	-4.96

Date: 12.OCT.2019 09:49:01

Highest channel

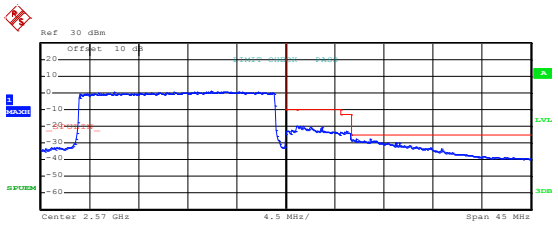
QPSK & RB Size 100



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.478 G	2.494 G	1.00 M	2.493867 G	-26.86	-1.86
2.494 G	2.496 G	1.00 M	2.495468 G	-23.14	-10.14
2.496 G	2.499 G	1.00 M	2.498831 G	-21.05	-11.05
2.499 G	2.500 G	300.00 k	2.499452 G	-24.55	-14.55
2.500 G	2.523 G	100.00 k	2.518698 G	1.22	-31.78

Date: 12.OCT.2019 09:49:52

Lowest channel

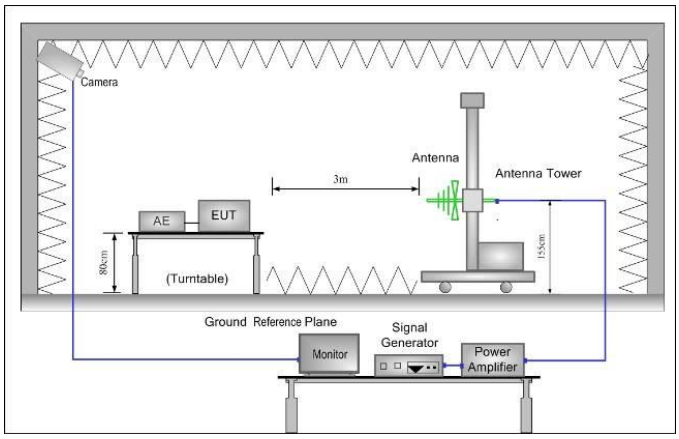
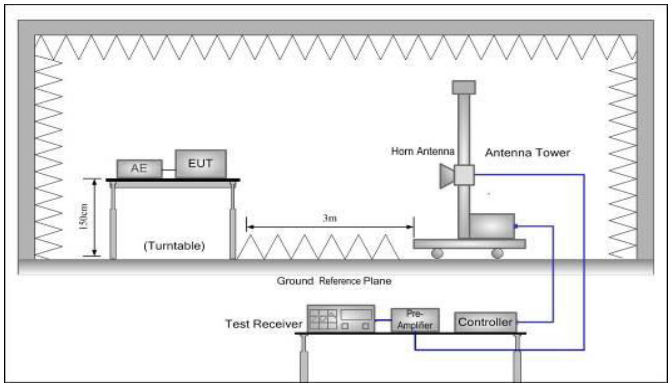


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
2.547 G	2.570 G	100.00 k	2.563160 G	0.89	-32.11
2.570 G	2.571 G	300.00 k	2.570540 G	-22.50	-12.50
2.571 G	2.575 G	1.00 M	2.571616 G	-19.97	-9.97
2.575 G	2.576 G	1.00 M	2.575598 G	-22.79	-9.79
2.576 G	2.592 G	1.00 M	2.577733 G	-27.72	-2.72

Date: 12.OCT.2019 09:49:20

Highest channel

6.5 Field strength of spurious radiation measurement

Test Requirement:	Part 22.917(b), 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 an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels).

	Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed
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.

Measurement Data:

LTE Band 2 part:

LTE Band 2, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3701.40	Vertical	-51.15	-13.00	Pass
5552.10	V	-43.23		
7402.00	V	-38.54		
3701.40	Horizontal	-48.71		
5552.10	H	-42.75		
7402.00	H	-37.22		
Middle Channel				
3760.00	Vertical	-52.25	-13.00	Pass
5640.00	V	-42.53		
7520.00	V	-39.60		
3760.00	Horizontal	-48.17		
5640.00	H	-41.52		
7520.00	H	-38.57		
Highest Channel				
3816.60	Vertical	-52.32	-13.00	Pass
5724.90	V	-43.26		
7633.20	V	-37.85		
3816.60	Horizontal	-48.52		
5724.90	H	-41.15		
7633.20	H	-36.57		

Note:
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 2, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3703.00	Vertical	-45.25	-13.00	Pass
5554.50	V	-39.63		
7406.00	V	-37.43		
3703.00	Horizontal	-46.63		
5554.50	H	-41.72		
7406.00	H	-37.58		
Middle Channel				
3760.00	Vertical	-54.52	-13.00	Pass
5640.00	V	-42.26		
7520.00	V	-39.86		
3760.00	Horizontal	-45.52		
5640.00	H	-41.27		
7520.00	H	-39.72		
Highest Channel				
3817.00	Vertical	-51.20	-13.00	Pass
5725.50	V	-42.36		
7634.00	V	-39.63		
3817.00	Horizontal	-45.75		
5725.50	H	-42.21		
7634.00	H	-36.68		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 2, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3705.00	Vertical	-49.63	-13.00	Pass
5557.50	V	-42.52		
7410.00	V	-38.66		
3705.00	Horizontal	-47.15		
5557.50	H	-41.25		
7410.00	H	-38.98		
Middle Channel				
3760.00	Vertical	-53.63	-13.00	Pass
5640.00	V	-42.15		
7520.00	V	-39.65		
3760.00	Horizontal	-48.52		
5640.00	H	-42.57		
7520.00	H	-39.21		
Highest Channel				
3815.00	Vertical	-51.26	-13.00	Pass
5722.50	V	-42.57		
7630.00	V	-38.65		
3815.00	Horizontal	-48.97		
5722.50	H	-42.15		
7630.00	H	-36.97		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 2, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3710.00	Vertical	-46.63	-13.00	Pass
5565.00	V	-39.63		
7420.00	V	-37.43		
3710.00	Horizontal	-45.52		
5565.00	H	-42.16		
7420.00	H	-39.79		
Middle Channel				
3760.00	Vertical	-55.25	-13.00	Pass
5640.00	V	-41.76		
7520.00	V	-39.56		
3760.00	Horizontal	-46.61		
5640.00	H	-42.78		
7520.00	H	-40.79		
Highest Channel				
3810.00	Vertical	-52.23	-13.00	Pass
5715.00	V	-41.79		
7620.00	V	-37.46		
3810.00	Horizontal	-46.63		
5715.00	H	-41.75		
7620.00	H	-35.23		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 2, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3715.00	Vertical	-48.63	-13.00	Pass
5572.50	V	-41.25		
7430.00	V	-37.87		
3715.00	Horizontal	-46.63		
5572.50	H	-42.26		
7430.00	H	-39.79		
Middle Channel				
3760.00	Vertical	-55.52	-13.00	Pass
5640.00	V	-43.25		
7520.00	V	-38.60		
3760.00	Horizontal	-47.12		
5640.00	H	-41.32		
7520.00	H	-40.59		
Highest Channel				
3805.00	Vertical	-52.20	-13.00	Pass
5707.50	V	-43.67		
7610.00	V	-37.49		
3805.00	Horizontal	-47.15		
5707.50	H	-42.53		
7610.00	H	-36.32		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 2, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3720.00	Vertical	-47.63	-13.00	Pass
5580.00	V	-42.52		
7440.00	V	-38.62		
3720.00	Horizontal	-46.25		
5580.00	H	-41.72		
7440.00	H	-39.75		
Middle Channel				
3760.00	Vertical	-54.12	-13.00	Pass
5640.00	V	-42.25		
7520.00	V	-39.65		
3760.00	Horizontal	-46.25		
5640.00	H	-42.52		
7520.00	H	-39.63		
Highest Channel				
3800.00	Vertical	-51.24	-13.00	Pass
5700.00	V	-42.52		
7600.00	V	-36.36		
3800.00	Horizontal	-47.19		
5700.00	H	-42.75		
7600.00	H	-36.47		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4 part:

LTE Band 4, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3421.40	Vertical	-50.27	-13.00	Pass
5132.10	V	-45.89		
6842.80	V	-38.23		
3421.40	Horizontal	-50.17		
5132.10	H	-45.36		
6842.80	H	-37.46		
Middle Channel				
3465.00	Vertical	-49.25	-13.00	Pass
5197.50	V	-46.63		
6930.00	V	-37.46		
3465.00	Horizontal	-49.63		
5197.50	H	-46.21		
6930.00	H	-38.82		
Highest Channel				
3508.60	Vertical	-51.25	-13.00	Pass
5262.90	V	-46.63		
7017.20	V	-39.67		
3508.60	Horizontal	-49.61		
5262.90	H	-44.58		
7017.20	H	-36.79		

Note:
1. *The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.*
2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3423.00	Vertical	-46.32	-13.00	Pass
5134.50	V	-45.21		
6846.00	V	-36.69		
3423.00	Horizontal	-45.52		
5134.50	H	-42.75		
6846.00	H	-41.19		
Middle Channel				
3465.00	Vertical	-52.23	-13.00	Pass
5197.50	V	-45.97		
6930.00	V	-38.96		
3465.00	Horizontal	-45.26		
5197.50	H	-45.98		
6930.00	H	-36.63		
Highest Channel				
3507.00	Vertical	-52.23	-13.00	Pass
5260.50	V	-47.91		
7014.00	V	-39.56		
3507.00	Horizontal	-46.63		
5260.50	H	-45.78		
7014.00	H	-36.29		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3425.00	Vertical	-49.63	-13.00	Pass
5137.50	V	-44.25		
6850.00	V	-39.63		
3425.00	Horizontal	-49.75		
5137.50	H	-45.51		
6850.00	H	-36.27		
Middle Channel				
3465.00	Vertical	-48.52	-13.00	Pass
5197.50	V	-45.12		
6930.00	V	-36.63		
3465.00	Horizontal	-48.72		
5197.50	H	-45.52		
6930.00	H	-39.18		
Highest Channel				
3505.00	Vertical	-52.23	-13.00	Pass
5257.50	V	-48.62		
7010.00	V	-39.76		
3505.00	Horizontal	-48.52		
5257.50	H	-44.12		
7010.00	H	-36.32		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3430.00	Vertical	-44.32	-13.00	Pass
5145.00	V	-46.63		
6860.00	V	-37.64		
3430.00	Horizontal	-45.25		
5145.00	H	-41.72		
6860.00	H	-42.25		
Middle Channel				
3465.00	Vertical	-53.23	-13.00	Pass
5197.50	V	-46.63		
6930.00	V	-38.61		
3465.00	Horizontal	-47.15		
5197.50	H	-46.63		
6930.00	H	-37.49		
Highest Channel				
3500.00	Vertical	-51.25	-13.00	Pass
5250.00	V	-48.63		
7000.00	V	-39.98		
3500.00	Horizontal	-47.15		
5250.00	H	-45.52		
7000.00	H	-36.12		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3435.00	Vertical	-40.25	-13.00	Pass
5152.50	V	-44.63		
6870.00	V	-39.56		
3435.00	Horizontal	-48.25		
5152.50	H	-46.32		
6870.00	H	-34.73		
Middle Channel				
3465.00	Vertical	-46.63	-13.00	Pass
5197.50	V	-44.12		
6930.00	V	-36.32		
3465.00	Horizontal	-47.90		
5197.50	H	-48.56		
6930.00	H	-46.97		
Highest Channel				
3495.00	Vertical	-51.23	-13.00	Pass
5242.50	V	-48.63		
6990.00	V	-39.75		
3495.00	Horizontal	-48.56		
5242.50	H	-45.25		
6990.00	H	-36.17		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 4, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
3440.00	Vertical	-45.52	-13.00	Pass
5160.00	V	-44.32		
6880.00	V	-36.19		
3440.00	Horizontal	-45.52		
5160.00	H	-42.25		
6880.00	H	-44.72		
Middle Channel				
3465.00	Vertical	-52.23	-13.00	Pass
5197.50	V	-47.61		
6930.00	V	-39.56		
3465.00	Horizontal	-48.56		
5197.50	H	-45.21		
6930.00	H	-36.79		
Highest Channel				
3490.00	Vertical	-52.23	-13.00	Pass
5235.00	V	-47.63		
6980.00	V	-39.25		
3490.00	Horizontal	-48.21		
5235.00	H	-44.39		
6980.00	H	-36.20		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 5 part:

LTE Band 5, WB: 1.4MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1649.40	Vertical	-56.81	-13.00	Pass
2474.10	V	-54.15		
3298.80	V	-50.84		
1649.40	Horizontal	-55.46		
2474.10	H	-54.76		
3298.80	H	-50.21		
Middle Channel				
1673.00	Vertical	-55.23	-13.00	Pass
2509.50	V	-54.12		
3346.00	V	-49.63		
1673.00	Horizontal	-54.25		
2509.50	H	-55.26		
3346.00	H	-49.79		
Highest Channel				
1696.60	Vertical	-54.32	-13.00	Pass
2544.90	V	-53.26		
3393.20	V	-48.52		
1696.60	Horizontal	-49.32		
2544.90	H	-52.25		
3393.20	H	-51.79		

Note:
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 5, WB: 3MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1651.00	Vertical	-53.23	-13.00	Pass
2476.50	V	-51.25		
3302.00	V	-47.98		
1651.00	Horizontal	-53.26		
2476.50	H	-55.53		
3302.00	H	-48.18		
Middle Channel				
1673.00	Vertical	-54.25	-13.00	Pass
2509.50	V	-52.61		
3346.00	V	-49.76		
1673.00	Horizontal	-52.25		
2509.50	H	-53.46		
3346.00	H	-47.19		
Highest Channel				
1695.00	Vertical	-51.23	-13.00	Pass
2542.50	V	-49.63		
3390.00	V	-47.15		
1695.00	Horizontal	-48.69		
2542.50	H	-52.24		
3390.00	H	-48.78		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 5, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1653.00	Vertical	-55.26	-13.00	Pass
2479.50	V	-54.79		
3306.00	V	-49.63		
1653.00	Horizontal	-54.52		
2479.50	H	-55.89		
3306.00	H	-49.73		
Middle Channel				
1673.00	Vertical	-54.23	-13.00	Pass
2509.50	V	-53.63		
3346.00	V	-49.51		
1673.00	Horizontal	-53.25		
2509.50	H	-54.78		
3346.00	H	-48.15		
Highest Channel				
1693.00	Vertical	-53.63	-13.00	Pass
2539.50	V	-52.60		
3386.00	V	-49.61		
1693.00	Horizontal	-48.75		
2539.50	H	-51.42		
3386.00	H	-52.19		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 5, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
1658.00	Vertical	-54.25	-13.00	Pass
2487.00	V	-53.63		
3316.00	V	-48.63		
1658.00	Horizontal	-54.12		
2487.00	H	-55.76		
3316.00	H	-49.93		
Middle Channel				
1673.00	Vertical	-55.26	-13.00	Pass
2509.50	V	-53.26		
3346.00	V	-49.63		
1673.00	Horizontal	-52.24		
2509.50	H	-53.79		
3346.00	H	-46.69		
Highest Channel				
1688.00	Vertical	-52.25	-13.00	Pass
2532.00	V	-51.34		
3376.00	V	-48.63		
1688.00	Horizontal	-47.19		
2532.00	H	-52.26		
3376.00	H	-49.74		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 7 part:

LTE Band 7, WB: 5MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5005.00	Vertical	-45.41	-25.00	Pass
7507.50	V	-39.12		
10010.00	V	-42.25		
5005.00	Horizontal	-45.57		
7507.50	H	-38.70		
10010.00	H	-41.43		
Middle Channel				
5070.00	Vertical	-44.23	-25.00	Pass
7605.00	V	-38.63		
10140.00	V	-41.25		
5070.00	Horizontal	-45.37		
7605.00	H	-39.63		
10140.00	H	-42.75		
Highest Channel				
5135.00	Vertical	-44.25	-25.00	Pass
7702.50	V	-38.63		
10270.00	V	-41.25		
5135.00	Horizontal	-44.75		
7702.50	H	-39.12		
10270.00	H	-42.19		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

LTE Band 7, WB: 10MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5010.00	Vertical	-42.23	-25.00	Pass
7515.00	V	-40.23		
10020.00	V	-41.63		
5010.00	Horizontal	-44.69		
7515.00	H	-36.12		
10020.00	H	-42.79		
Middle Channel				
5070.00	Vertical	-42.25	-25.00	Pass
7605.00	V	-38.63		
10140.00	V	-41.25		
5070.00	Horizontal	-44.59		
7605.00	H	-39.76		
10140.00	H	-41.78		
Highest Channel				
5130.00	Vertical	-45.25	-25.00	Pass
7695.00	V	-39.63		
10260.00	V	-42.25		
5130.00	Horizontal	-41.70		
7695.00	H	-39.46		
10260.00	H	-41.75		

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 7, WB: 15MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5015.00	Vertical	-44.23	-25.00	Pass
7522.50	V	-39.61		
10030.00	V	-42.21		
5015.00	Horizontal	-46.79		
7522.50	H	-37.19		
10030.00	H	-42.58		
Middle Channel				
5070.00	Vertical	-42.23	-25.00	Pass
7605.00	V	-39.61		
10140.00	V	-42.25		
5070.00	Horizontal	-46.63		
7605.00	H	-40.12		
10140.00	H	-41.79		
Highest Channel				
5125.00	Vertical	-45.23	-25.00	Pass
7687.50	V	-39.63		
10250.00	V	-42.52		
5125.00	Horizontal	-43.61		
7687.50	H	-39.75		
10250.00	H	-42.25		

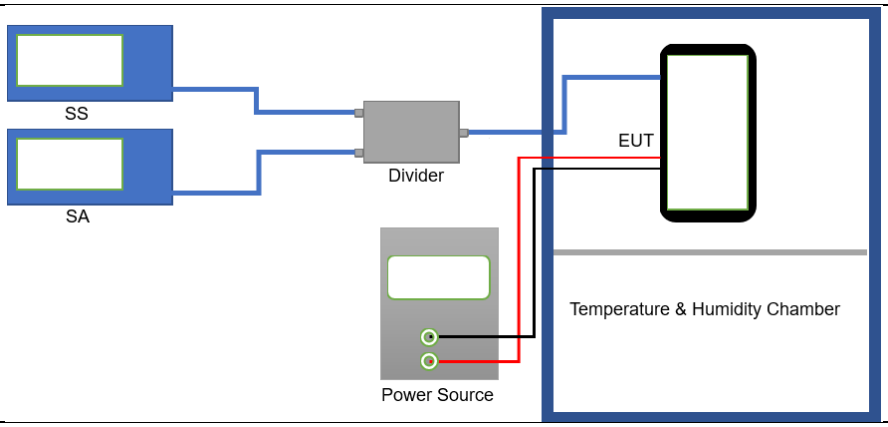
Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.

2. *For above 1 GHz, all test modes were performed, and just the worst case shown in the report.*

LTE Band 7, WB: 20MHz				
RB size 1 & RB offset 0				
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
Lowest Channel				
5020.00	Vertical	-43.23	-25.00	Pass
7530.00	V	-39.63		
10040.00	V	-41.25		
5020.00	Horizontal	-45.52		
7530.00	H	-36.63		
10040.00	H	-41.79		
Middle Channel				
5070.00	Vertical	-41.25	-25.00	Pass
7605.00	V	-39.63		
10140.00	V	-41.52		
5070.00	Horizontal	-45.25		
7605.00	H	-39.63		
10140.00	H	-42.75		
Highest Channel				
5120.00	Vertical	-46.23	-25.00	Pass
5120.00	Vertical	-46.23		
5120.00	Vertical	-46.23		
5120.00	Vertical	-46.23		
5120.00	Vertical	-46.23		
5120.00	Vertical	-46.23		
Note:				
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.				
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.				

6.6 Frequency stability V.S. Temperature measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)
Limit:	±2.5ppm
Test setup:	
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 channel=1880.00MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	198	0.105319	±2.5	Pass
	-20	151	0.080319		
	-10	132	0.070213		
	0	147	0.078191		
	10	165	0.087766		
	20	144	0.076596		
	30	120	0.063830		
	40	114	0.060638		
	50	105	0.055851		
16QAM					
3.85	-30	198	0.105319	±2.5	Pass
	-20	125	0.066489		
	-10	165	0.087766		
	0	133	0.070745		
	10	145	0.077128		
	20	174	0.092553		
	30	112	0.059574		
	40	104	0.055319		
	50	128	0.068085		
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	196	0.113131	±2.5	Pass
	-20	181	0.104473		
	-10	174	0.100433		
	0	123	0.070996		
	10	132	0.076190		
	20	155	0.089466		
	30	145	0.083694		
	40	107	0.061760		
	50	118	0.068110		
16QAM					
3.85	-30	195	0.112554	±2.5	Pass
	-20	126	0.072727		
	-10	188	0.108514		
	0	174	0.100433		
	10	161	0.092929		
	20	145	0.083694		
	30	150	0.086580		
	40	131	0.075613		
	50	107	0.061760		
Note: Only the worst case shown in the report.					

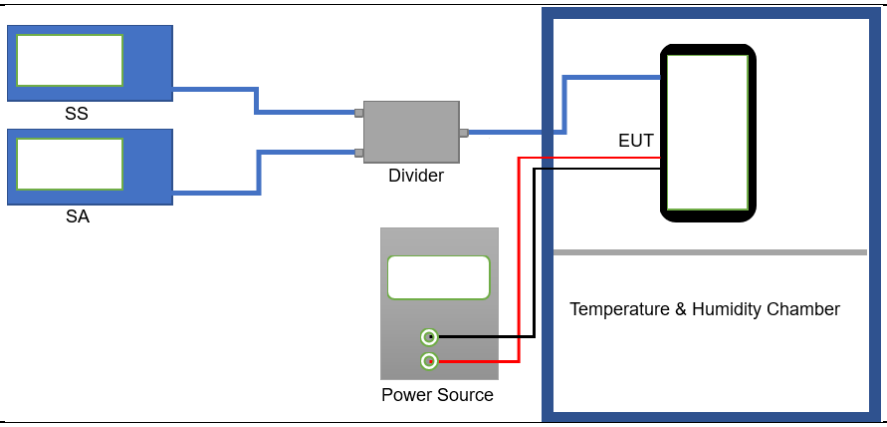
LTE Band 5 part:

Reference Frequency: LTE Band 5 (10MHz) Middle channel=20525 channel=836.50MHz					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	199	0.237896	±2.5	Pass
	-20	151	0.180514		
	-10	123	0.147041		
	0	136	0.162582		
	10	144	0.172146		
	20	105	0.125523		
	30	177	0.211596		
	40	180	0.215182		
	50	116	0.138673		
16QAM					
3.85	-30	191	0.228332	±2.5	Pass
	-20	144	0.172146		
	-10	171	0.204423		
	0	102	0.121937		
	10	181	0.216378		
	20	165	0.197250		
	30	130	0.155409		
	40	122	0.145846		
	50	107	0.127914		
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	199	0.078501	±2.5	Pass
	-20	181	0.071400		
	-10	175	0.069034		
	0	166	0.065483		
	10	123	0.048521		
	20	131	0.051677		
	30	145	0.057199		
	40	120	0.047337		
	50	104	0.041026		
16QAM					
3.85	-30	199	0.078501	±2.5	Pass
	-20	181	0.071400		
	-10	179	0.070611		
	0	165	0.065089		
	10	144	0.056805		
	20	150	0.059172		
	30	132	0.052071		
	40	149	0.058777		
	50	108	0.042604		
Note: Only the worst case shown in the report.					

6.7 Frequency stability V.S. Voltage measurement

Test Requirement:	Part 22.355, Part 24.235, Part 27.54, Part 2.1055(d)(2)
Limit:	±2.5ppm
Test setup:	
Test procedure:	1. Set chamber temperature to 25℃. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data (worst case):

LTE Band 2 part:

Reference Frequency: LTE Band 2(10MHz) Middle channel=18900 channel=1880.00MHz					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	4.40	99	0.052660	±2.5	Pass
	3.85	80	0.042553		
	3.50	74	0.039362		
16QAM					
25	4.40	88	0.046809	±2.5	Pass
	3.85	90	0.047872		
	3.50	74	0.039362		
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	90	0.051948	±2.5	Pass
	3.85	88	0.050794		
	3.50	74	0.042713		
16QAM					
25	4.40	65	0.037518	±2.5	Pass
	3.85	90	0.051948		
	3.50	74	0.042713		
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	87	0.104005		
	3.50	70	0.083682		
16QAM					
25	4.40	94	0.112373	±2.5	Pass
	3.85	80	0.095637		
	3.50	74	0.088464		
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	95	0.037475	±2.5	Pass
	3.85	65	0.025641		
	3.50	81	0.031953		
16QAM					
25	4.40	80	0.031558	±2.5	Pass
	3.85	74	0.029191		
	3.50	90	0.035503		
Note: Only the worst case shown in the report.					