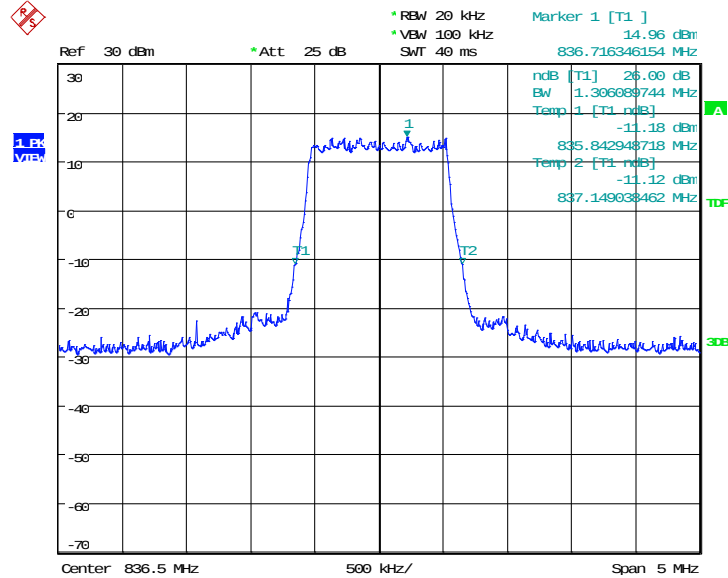


LTE band 26(Part 22), 1.4MHz (-26dBc)

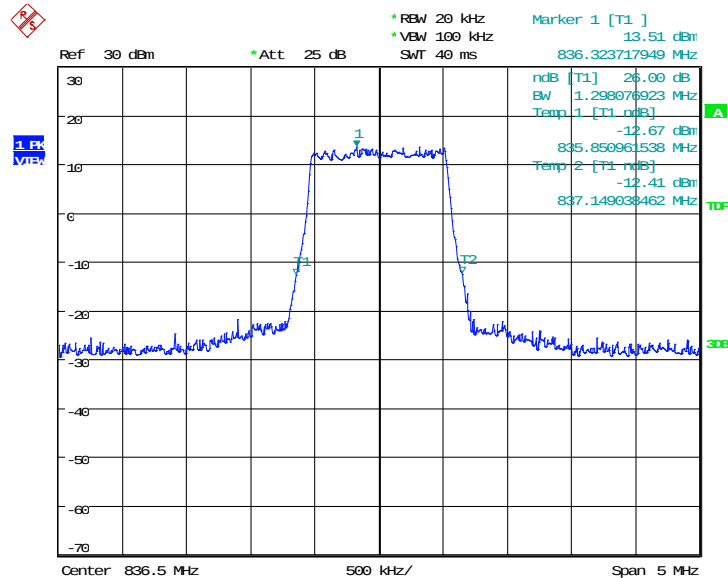
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	1306.09	1298.08

LTE band 26(Part 22), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:25:45

LTE band 26(Part 22), 1.4MHz Bandwidth, 16QAM (-26dBc BW)

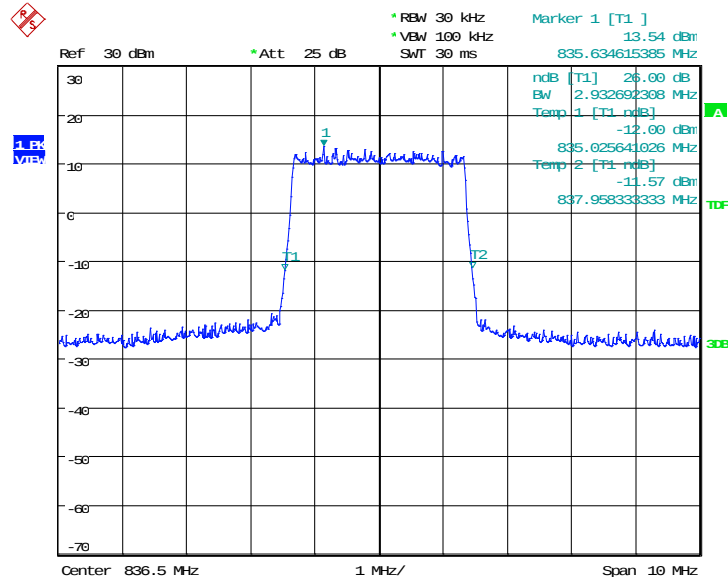


Date: 1.JAN.2019 11:26:01

LTE band 26(Part 22), 3MHz (-26dBc)

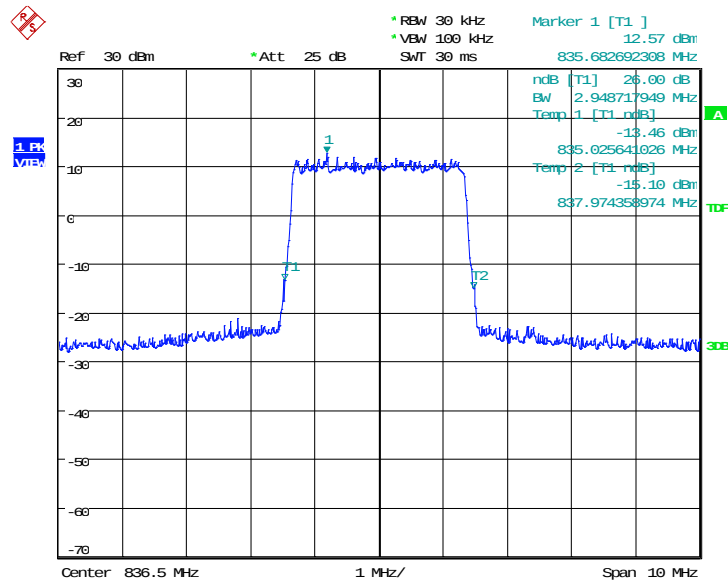
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	2932.69	2948.72

LTE band 26(Part 22), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:30:03

LTE band 26(Part 22), 3MHz Bandwidth, 16QAM (-26dBc BW)

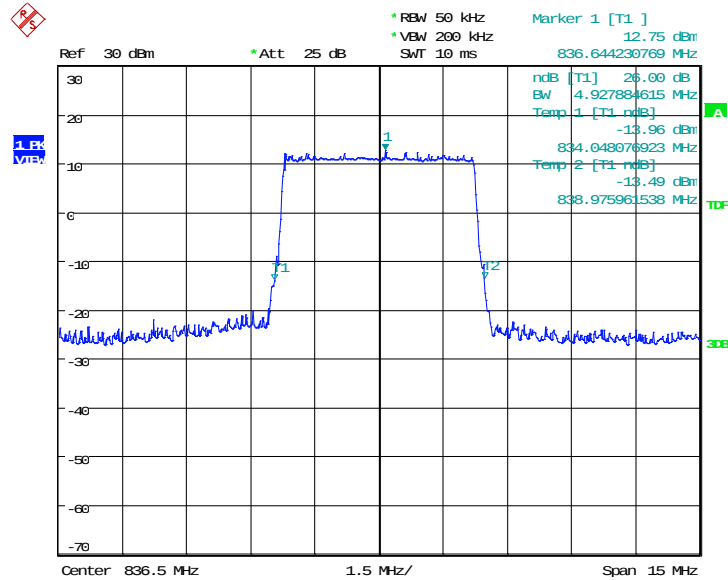


Date: 1.JAN.2019 11:30:19

LTE band 26(Part 22), 5MHz (-26dBc)

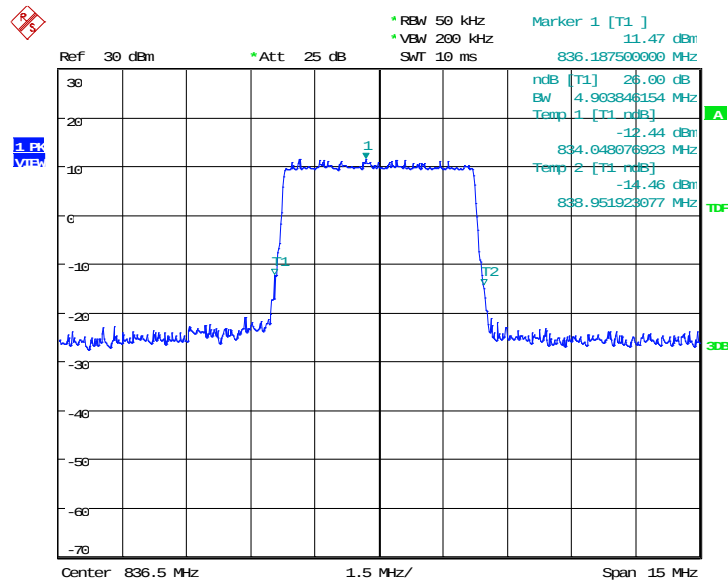
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	4927.88	4903.85

LTE band 26(Part 22), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:34:20

LTE band 26(Part 22), 5MHz Bandwidth,16QAM (-26dBc BW)

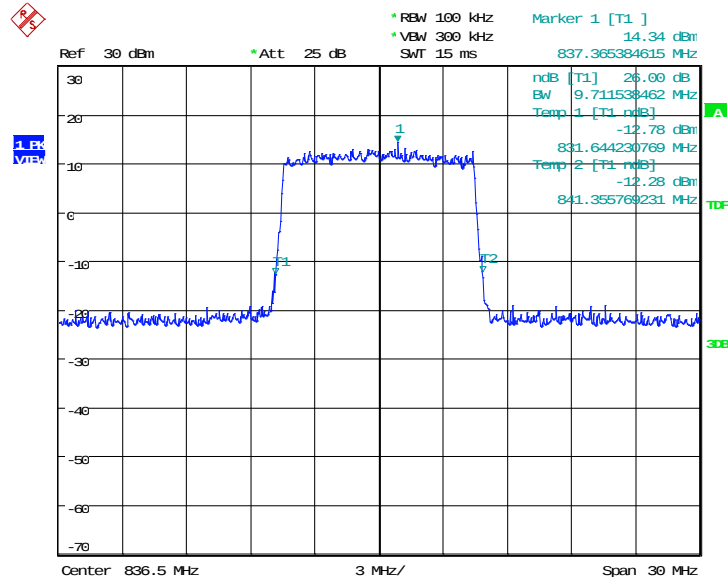


Date: 1.JAN.2019 11:34:36

LTE band 26(Part 22), 10MHz (-26dBc)

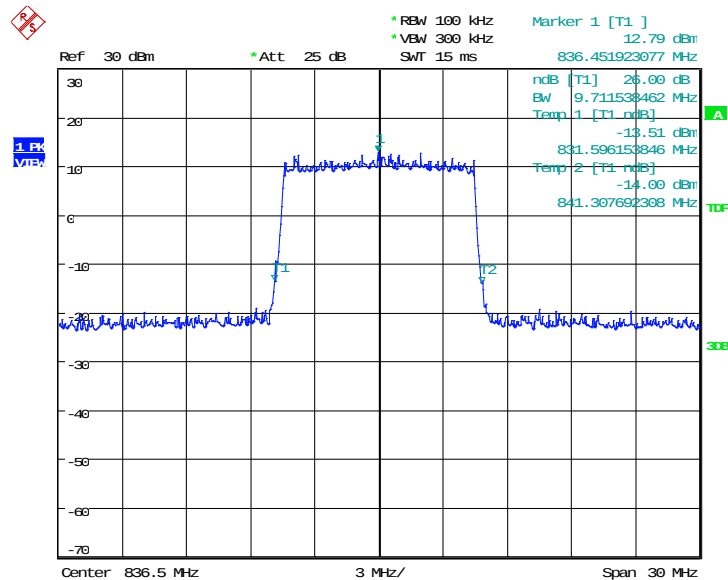
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	9711.54	9711.54

LTE band 26(Part 22), 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:38:40

LTE band 26(Part 22), 10MHz Bandwidth, 16QAM (-26dBc BW)

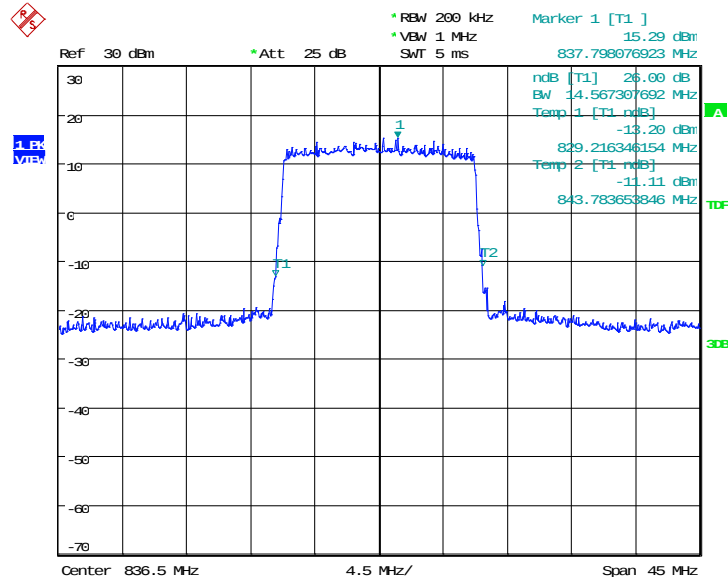


Date: 1.JAN.2019 11:38:56

LTE band 26(Part 22), 15MHz (-26dBc)

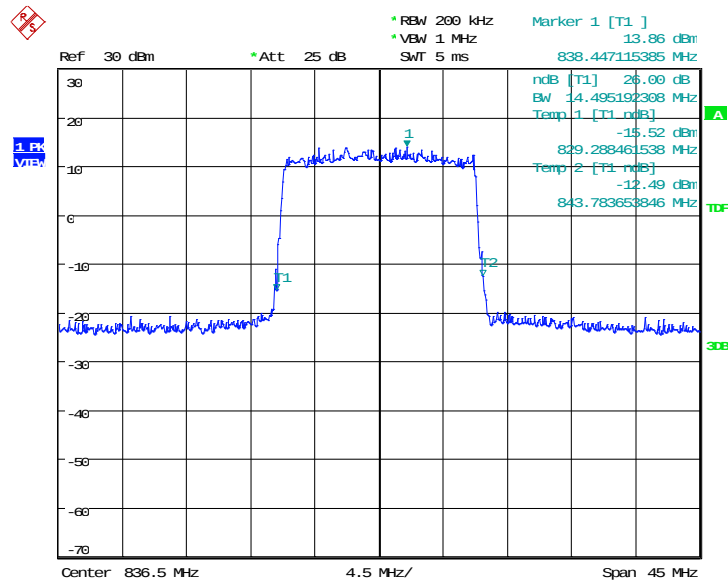
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	14567.31	14495.19

LTE band 26(Part 22), 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:43:01

LTE band 26(Part 22), 15MHz Bandwidth, 16QAM (-26dBc BW)

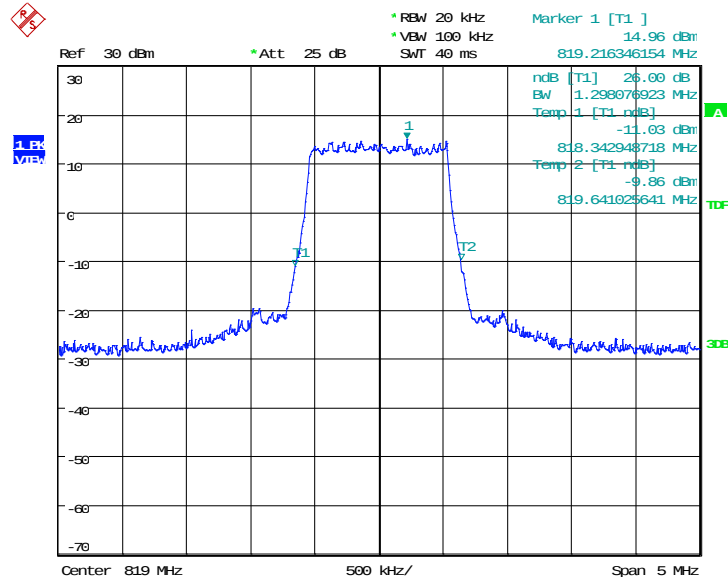


Date: 1.JAN.2019 11:43:16

LTE band 26(Part 90), 1.4MHz (-26dBc)

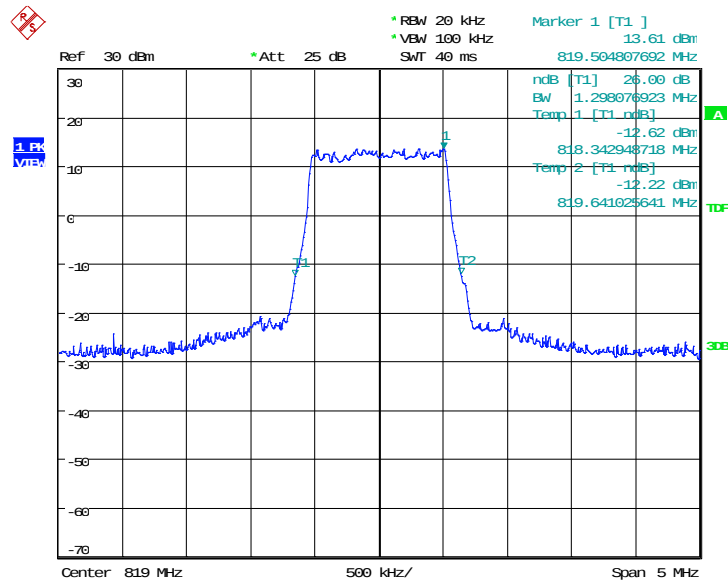
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	1298.08	1298.08

LTE band 26(Part 90), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:47:23

LTE band 26(Part 90), 1.4MHz Bandwidth, 16QAM (-26dBc BW)

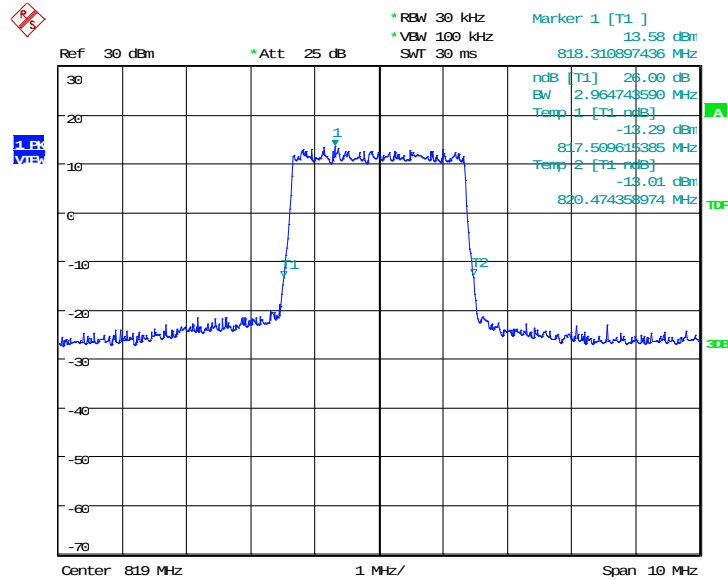


Date: 1.JAN.2019 11:47:39

LTE band 26(Part 90), 3MHz (-26dBc)

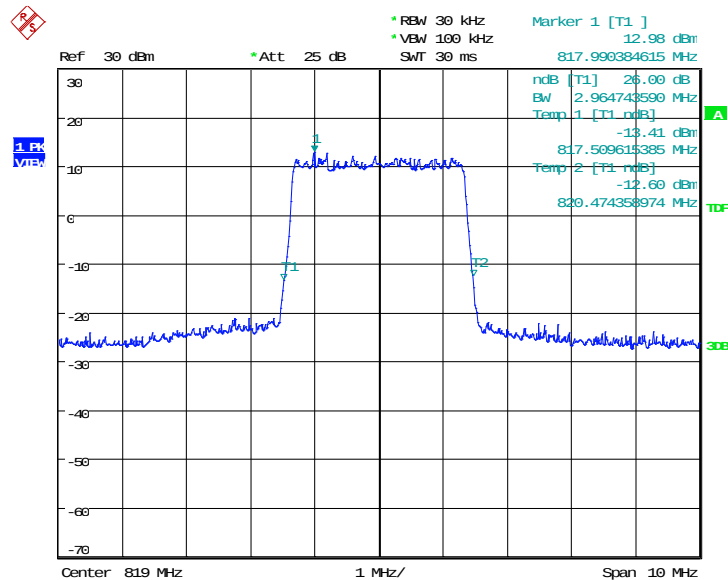
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	2964.74	2964.74

LTE band 26(Part 90), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:51:43

LTE band 26(Part 90), 3MHz Bandwidth, 16QAM (-26dBc BW)

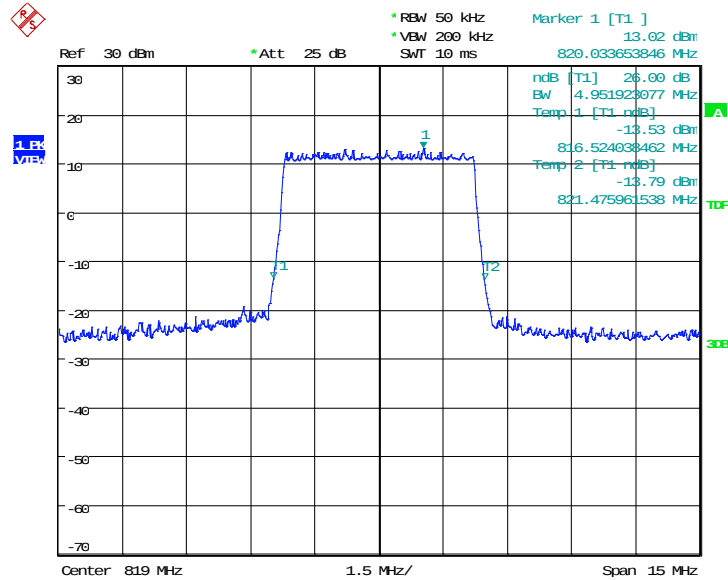


Date: 1.JAN.2019 11:51:59

LTE band 26(Part 90), 5MHz (-26dBc)

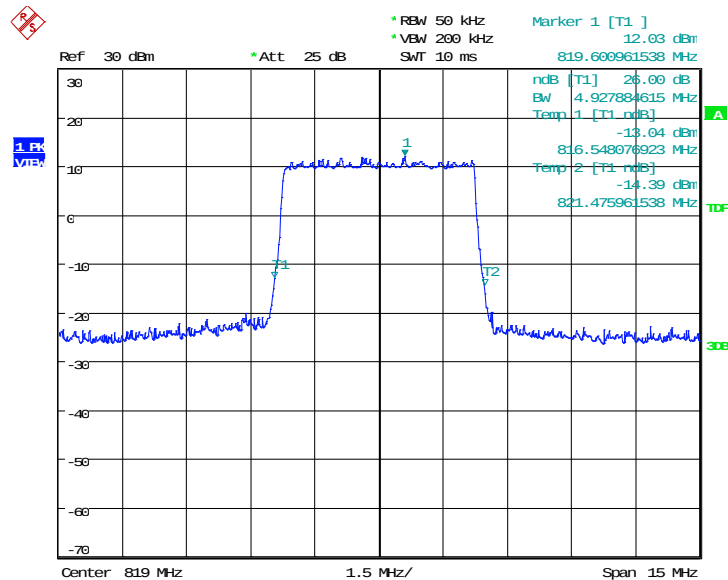
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	4951.92	4927.88

LTE band 26(Part 90), 5MHz Bandwidth, QPSK (-26dB BW)



Date: 1.JAN.2019 11:56:03

LTE band 26(Part 90), 5MHz Bandwidth,16QAM (-26dB BW)

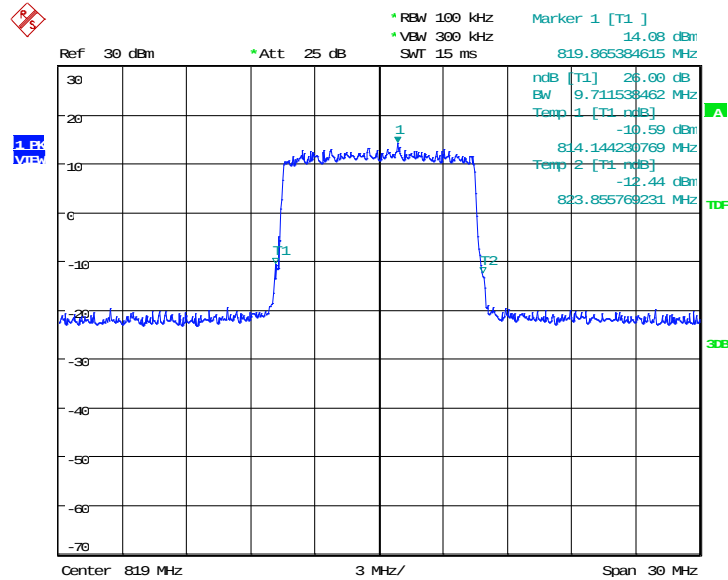


Date: 1.JAN.2019 11:56:19

LTE band 26(Part 90), 10MHz (-26dBc)

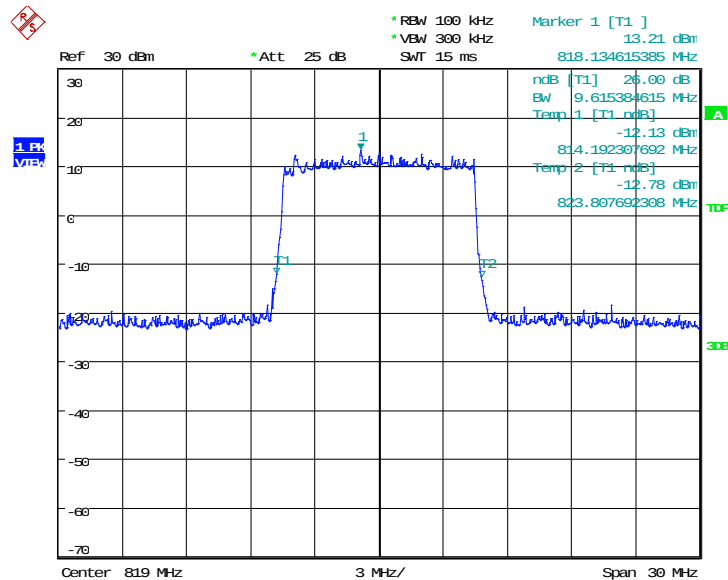
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	9711.54	9615.38

LTE band 26(Part 90), 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 1. JAN.2019 12:00:23

LTE band 26(Part 90), 10MHz Bandwidth, 16QAM (-26dBc BW)

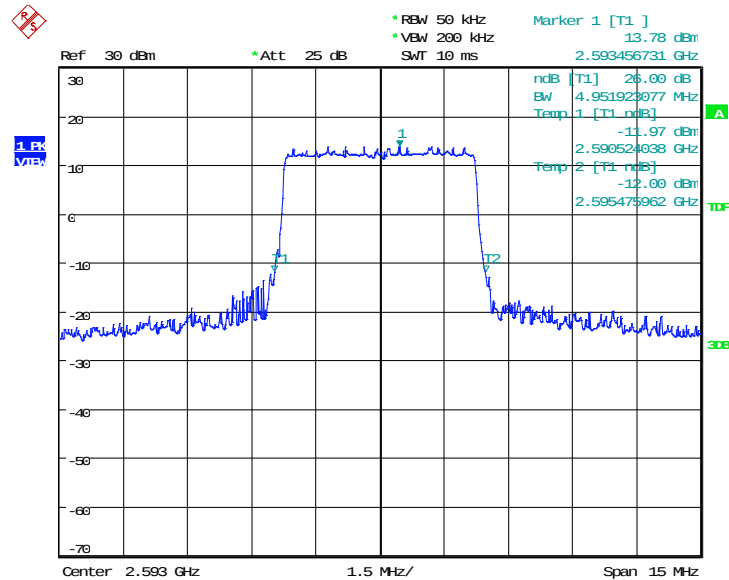


Date: 1. JAN.2019 12:00:39

LTE band 41, 5MHz (-26dBc)

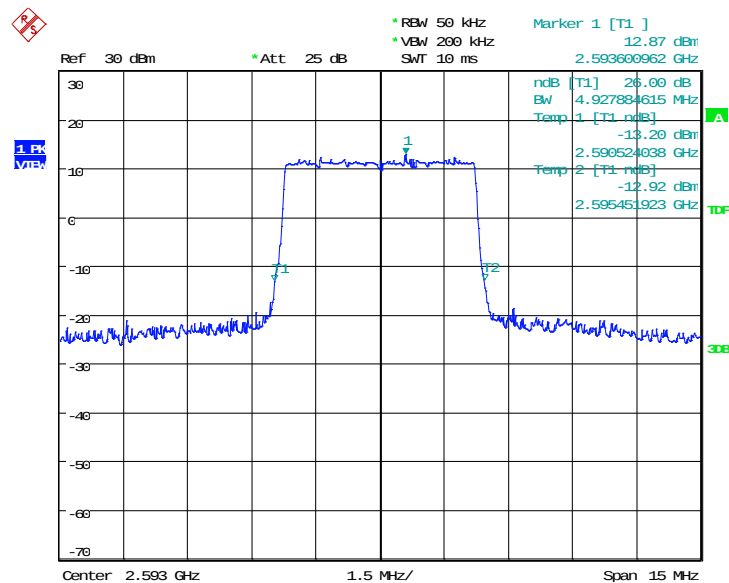
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
2600.0	QPSK	16QAM
	4951.92	4927.88

LTE band 41, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 11:00:45

LTE band 41, 5MHz Bandwidth,16QAM (-26dBc BW)

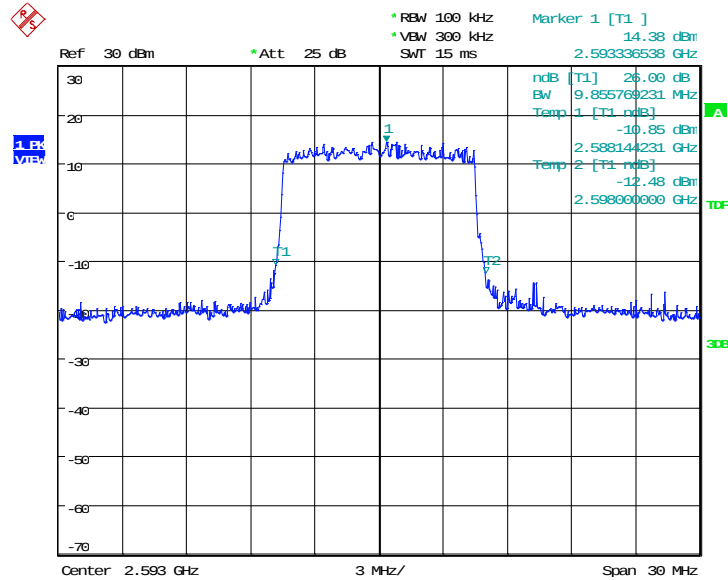


Date: 1.JAN.2019 11:01:01

LTE band 41, 10MHz (-26dBc)

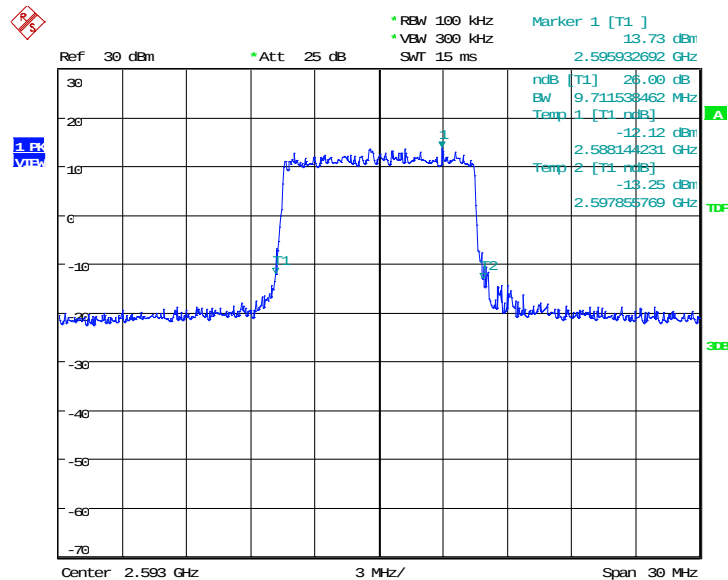
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
2600.0	QPSK	16QAM
	9855.77	9711.54

LTE band 41, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:36:14

LTE band 41, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 1.JAN.2019 12:36:30

Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
2600.0	QPSK	16QAM
	14711.54	14711.54

ALEx VITE!

Ref 30 dBm *Att 25 dB *RBW 200 kHz *VBW 1 MHz Marker 1 [T1] 16.02 dBm

SWT 5 ms 2.589826923 GHz

ndB [T1] 26.00 dB
 BW 14.71153462 MHz
 Temp 1 [T1 ndB] -10.64 dBm
 Temp 2 [T1 ndB] -10.42 dBm
 2.58578462 GHz
 2.60500000 GHz

Center 2.593 GHz 4.5 MHz/ Span 45 MHz

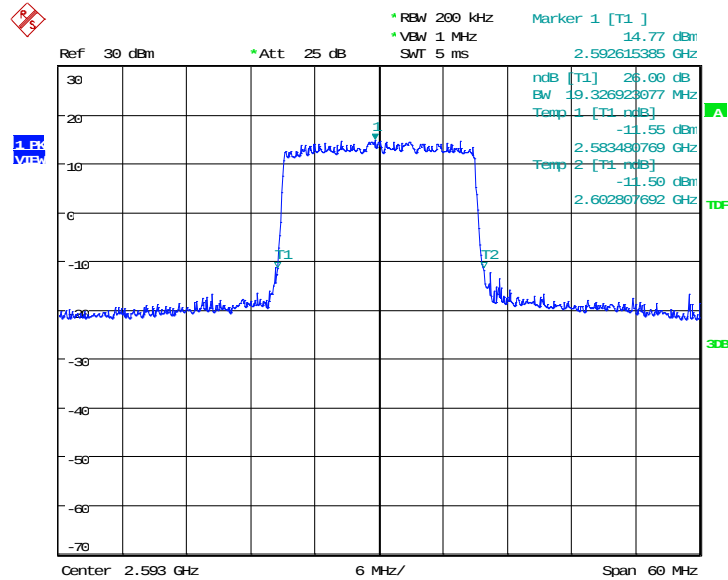
[illegible]

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LTE band 41, 20MHz (-26dBc)

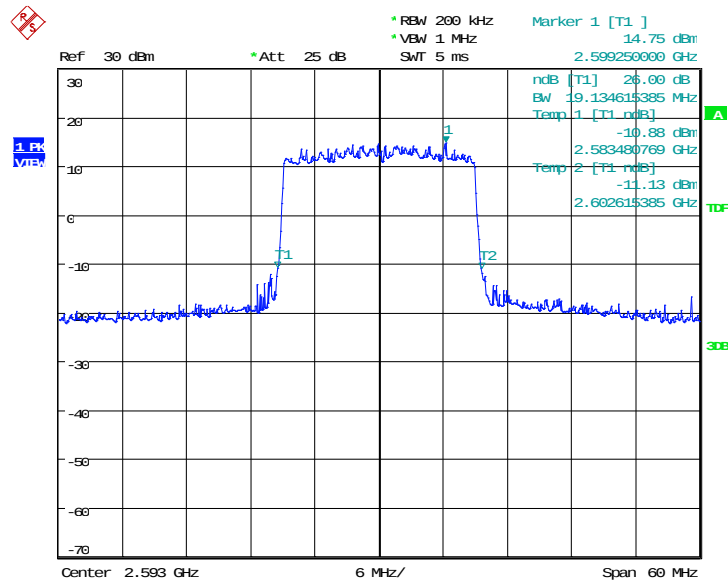
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
2600.0	QPSK	16QAM
	19326.92	19134.62

LTE band 41, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:44:56

LTE band 41, 20MHz Bandwidth, 16QAM (-26dBc BW)



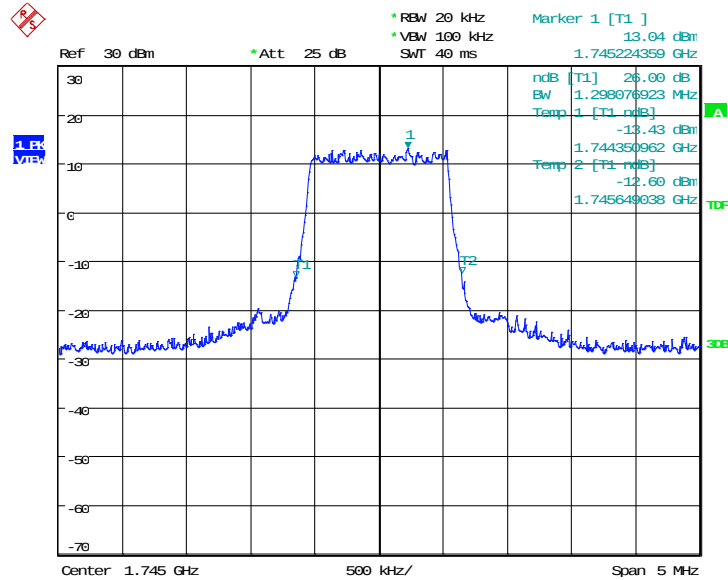
Date: 1.JAN.2019 12:45:12

Note: Expanded measurement uncertainty is $U = 3428 \text{ Hz}$, $k = 2$

LTE band 66, 1.4MHz (-26dBc)

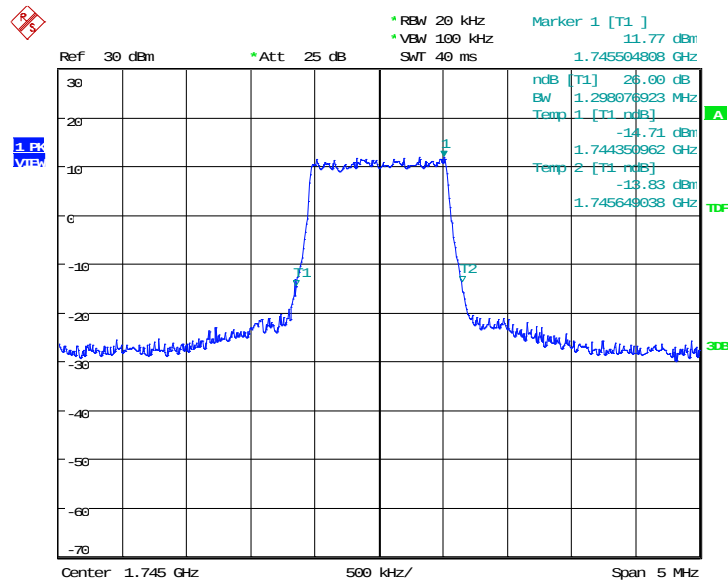
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	1298.08	1298.08

LTE band 66, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:04:45

LTE band 66, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

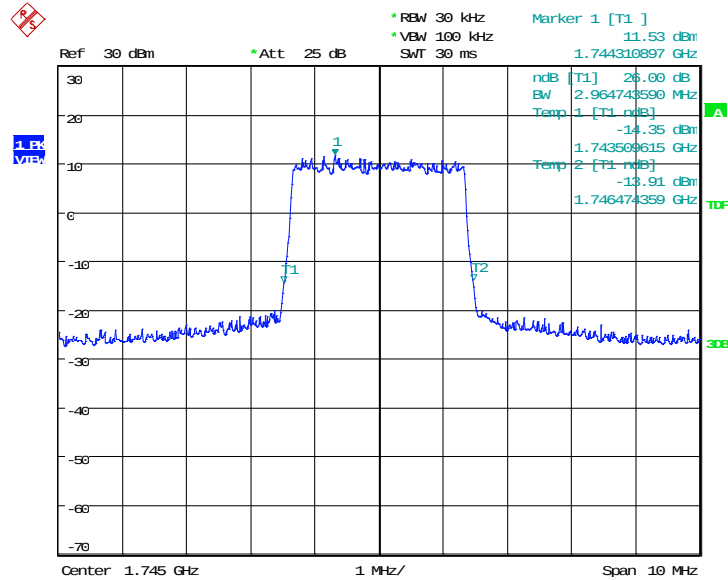


Date: 1.JAN.2019 12:05:01

LTE band 66, 3MHz (-26dBc)

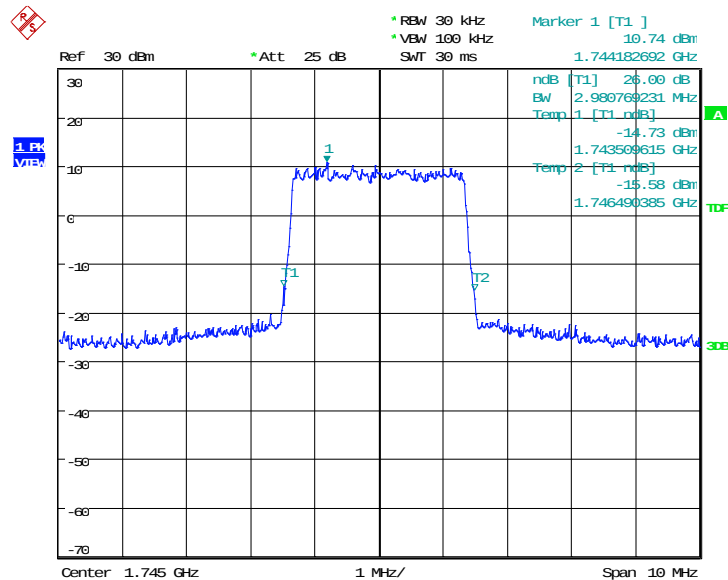
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	2964.74	2980.77

LTE band 66, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:09:05

LTE band 66, 3MHz Bandwidth, 16QAM (-26dBc BW)

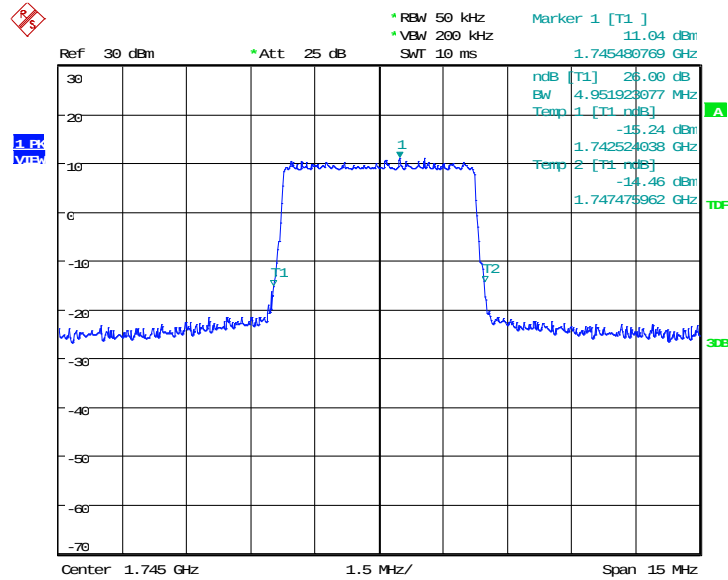


Date: 1.JAN.2019 12:09:21

LTE band 66, 5MHz (-26dBc)

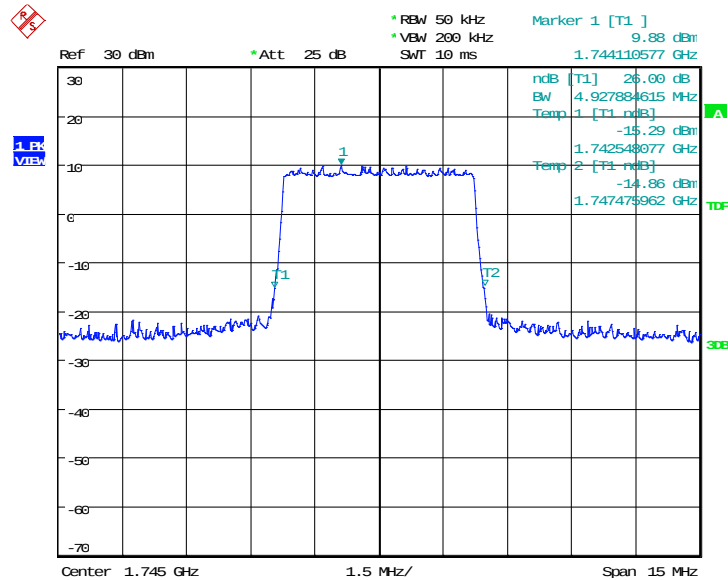
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	4951.92	4927.88

LTE band 66, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 1. JAN. 2019 12:13:25

LTE band 66, 5MHz Bandwidth, 16QAM (-26dBc BW)

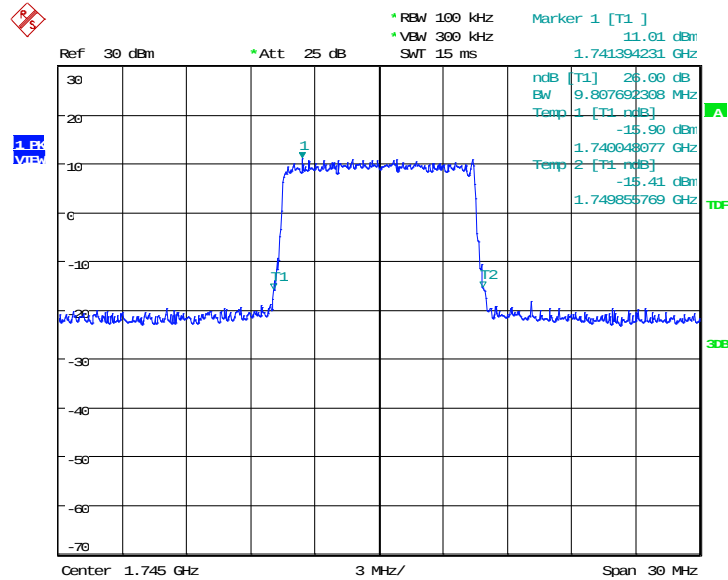


Date: 1. JAN. 2019 12:13:41

LTE band 66, 10MHz (-26dBc)

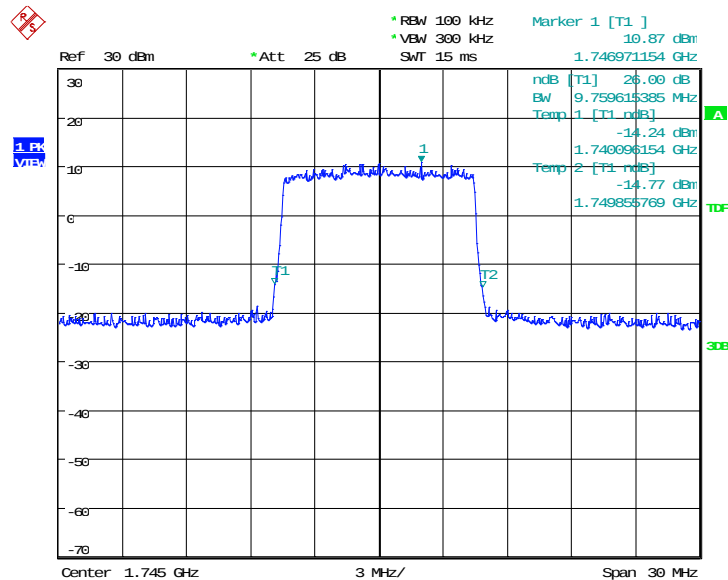
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	9807.69	9759.62

LTE band 66, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:17:45

LTE band 66, 10MHz Bandwidth, 16QAM (-26dBc BW)

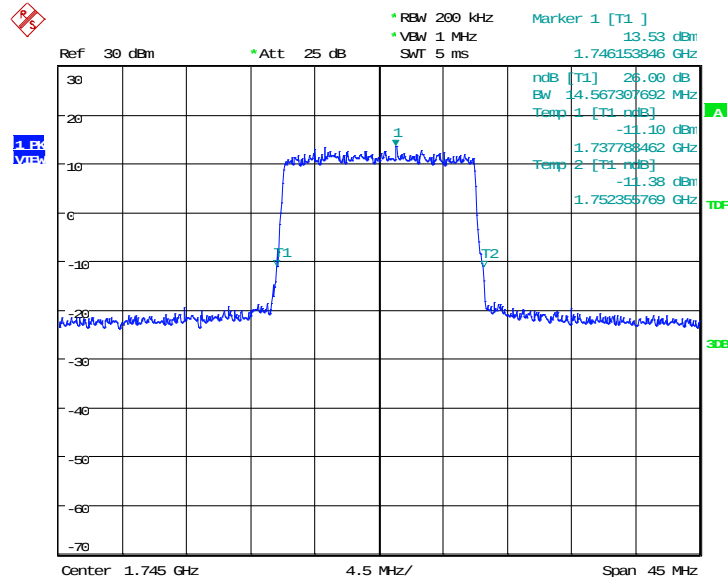


Date: 1.JAN.2019 12:18:01

LTE band 66, 15MHz (-26dBc)

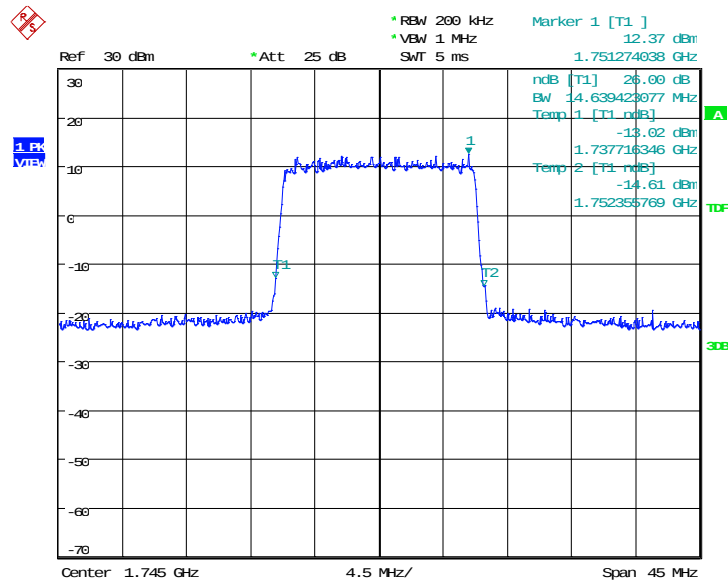
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	14567.31	14639.42

LTE band 66, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 1.JAN.2019 12:22:03

LTE band 66, 15MHz Bandwidth, 16QAM (-26dBc BW)

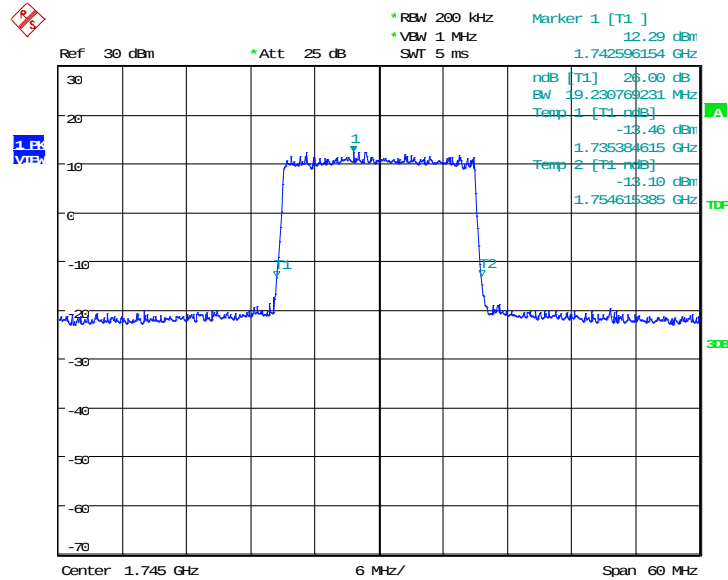


Date: 1.JAN.2019 12:22:19

LTE band 66, 20MHz (-26dBc)

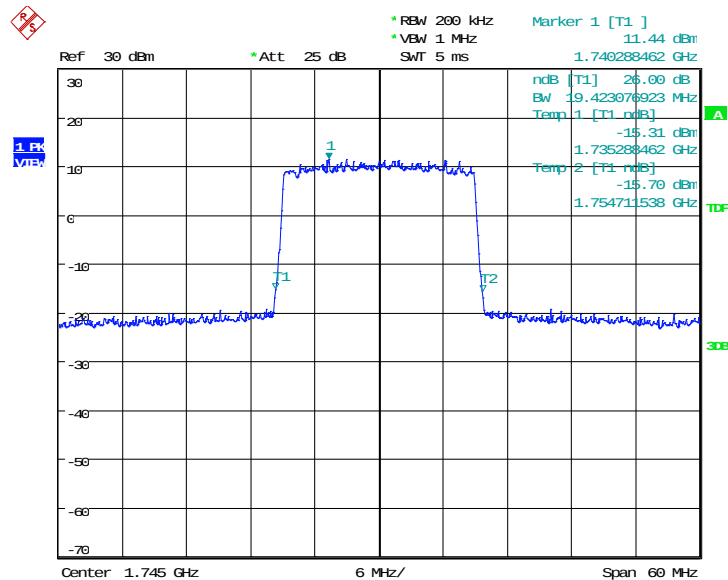
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	19230.77	19423.08

LTE band 66, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 1. JAN. 2019 12:26:23

LTE band 66, 20MHz Bandwidth, 16QAM (-26dBc BW)



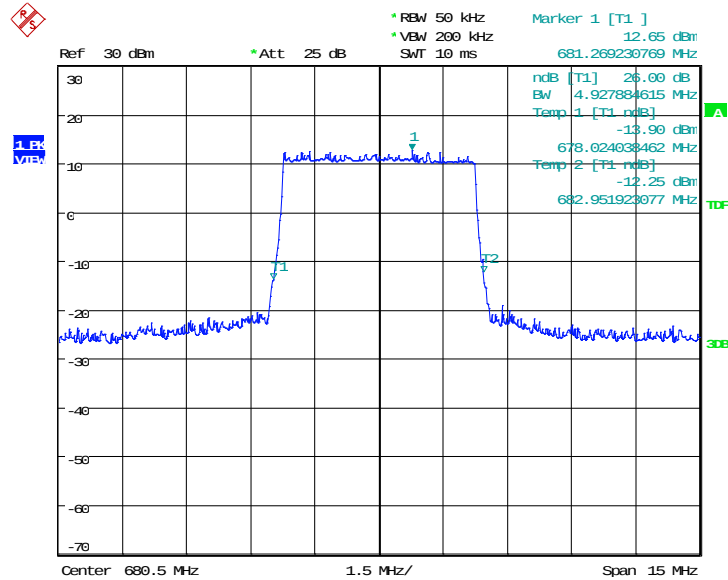
Date: 1. JAN. 2019 12:26:39

Note: Expanded measurement uncertainty is $U = 3428\text{Hz}$, $k = 2$

LTE band 71, 5MHz (-26dBc)

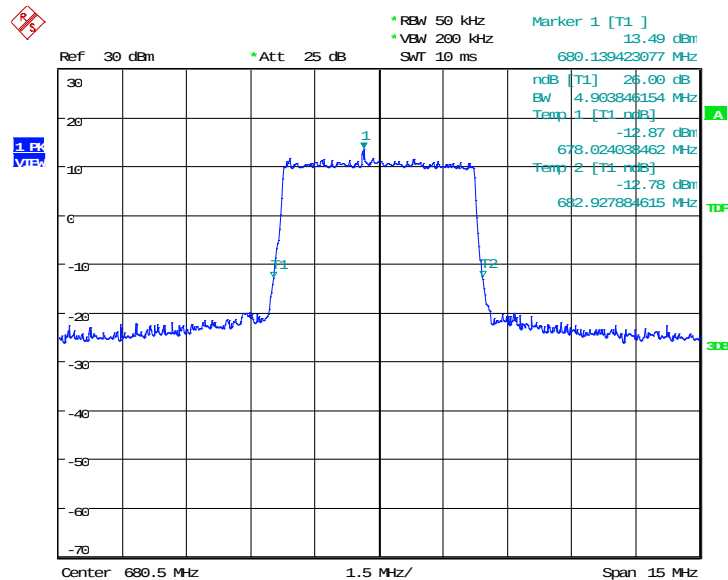
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
680.5	QPSK	16QAM
	4927.88	4903.85

LTE band 71, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 2.JAN.2019 06:47:24

LTE band 71, 5MHz Bandwidth,16QAM (-26dBc BW)

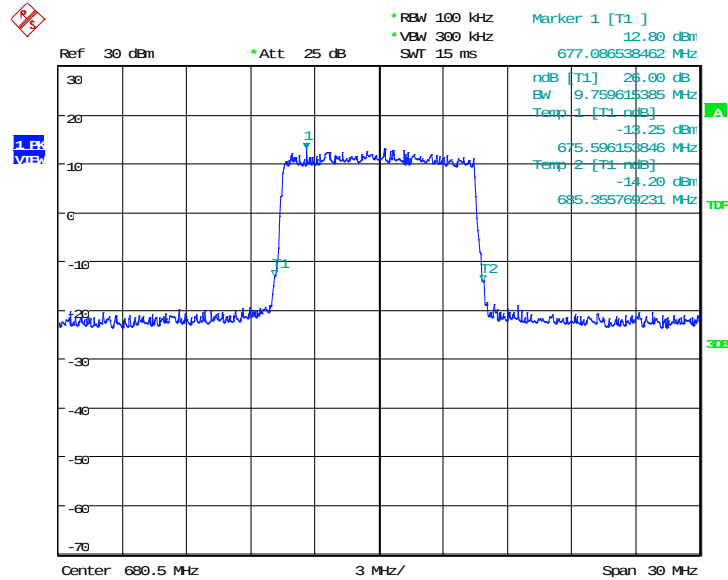


Date: 2.JAN.2019 06:46:58

LTE band 71, 10MHz (-26dBc)

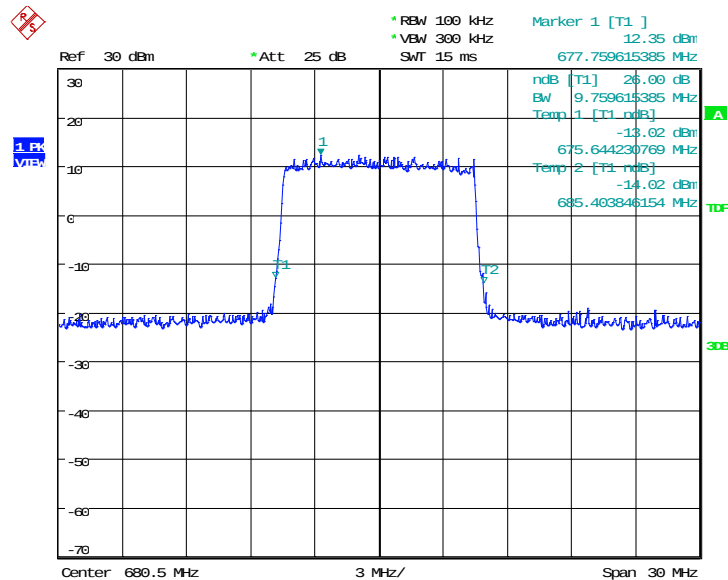
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
680.5	QPSK	16QAM
	9759.62	9759.62

LTE band 71, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 2.JAN.2019 06:48:17

LTE band 71, 10MHz Bandwidth, 16QAM (-26dBc BW)

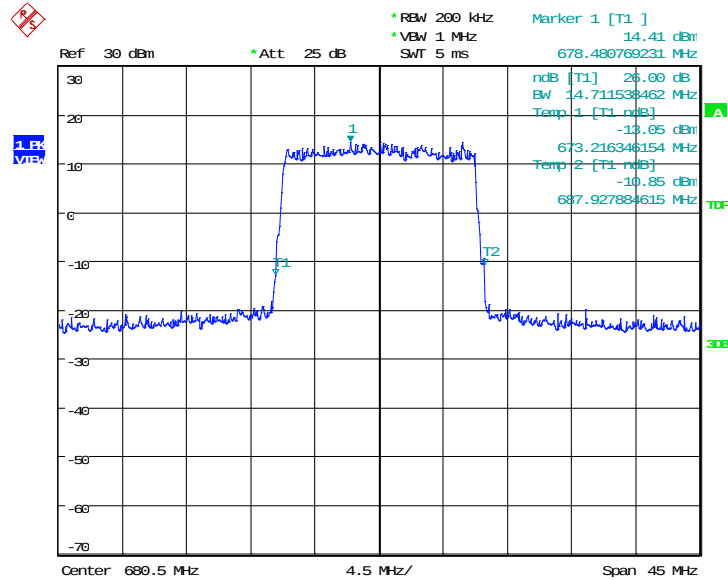


Date: 2.JAN.2019 06:48:43

LTE band 71, 15MHz (-26dBc)

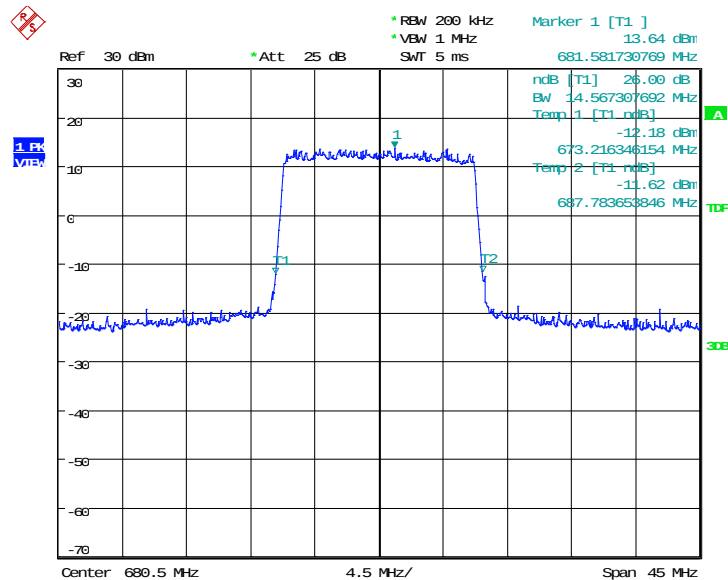
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
680.5	QPSK	16QAM
	14711.54	14567.31

LTE band 71, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 2.JAN.2019 06:52:23

LTE band 71, 15MHz Bandwidth, 16QAM (-26dBc BW)

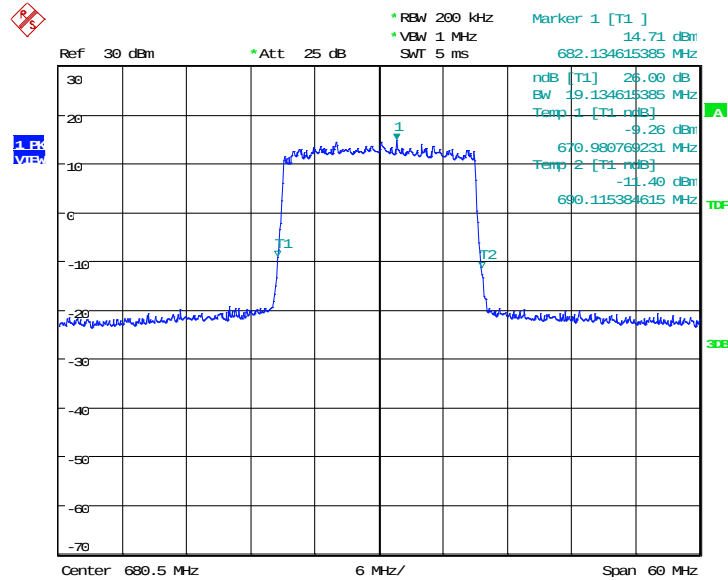


Date: 2.JAN.2019 06:51:58

LTE band 71, 20MHz (-26dBc)

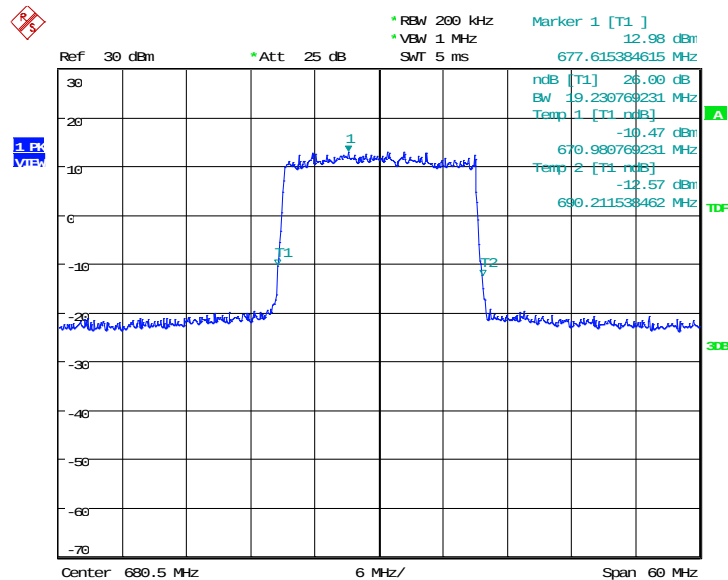
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)	
680.5	QPSK	16QAM
	19134.62	19230.77

LTE band 71, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 2.JAN.2019 06:53:13

LTE band 71, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 2.JAN.2019 06:53:39

Note: Expanded measurement uncertainty is $U = 3428\text{Hz}$, $k = 2$

A.6 BAND EDGE COMPLIANCE

Reference

FCC: CFR Part 2.1051, 22.917, 24.238, 27.53, 90.691.

A.6.1 Measurement limit

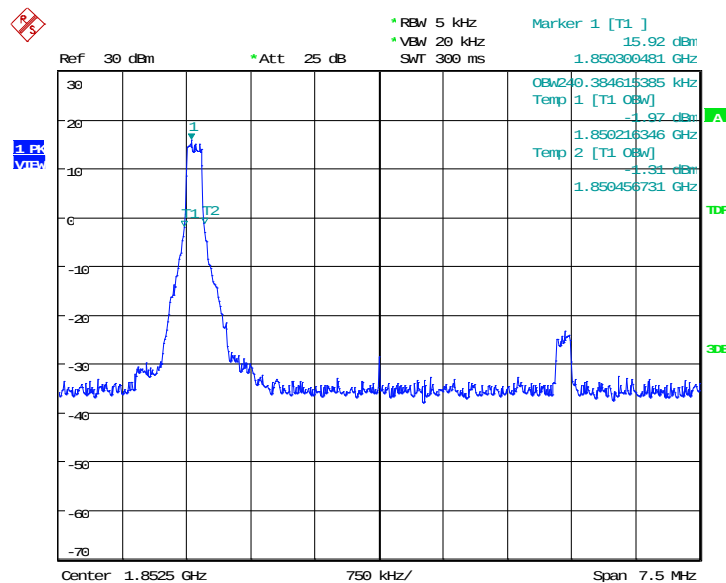
On any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least $43+10\log(P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm. A relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

A.6.2 Measurement result

Only worst case result is given below

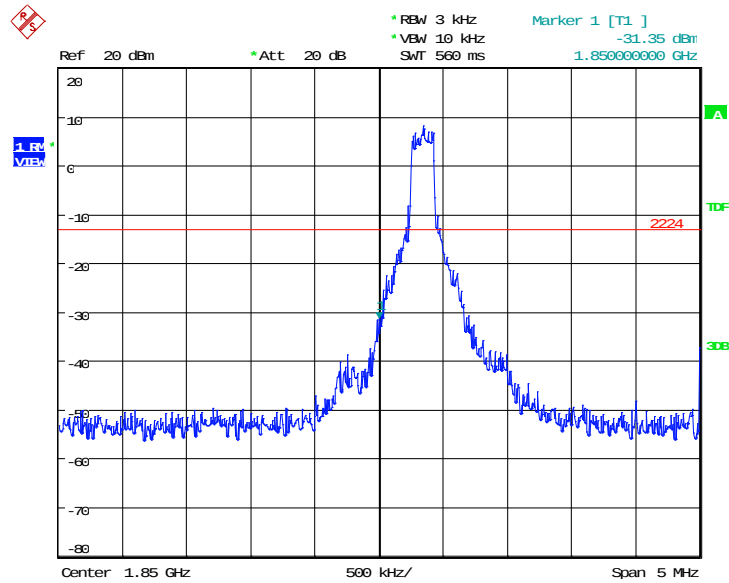
LTE band 2

OBW: 1RB-low_offset



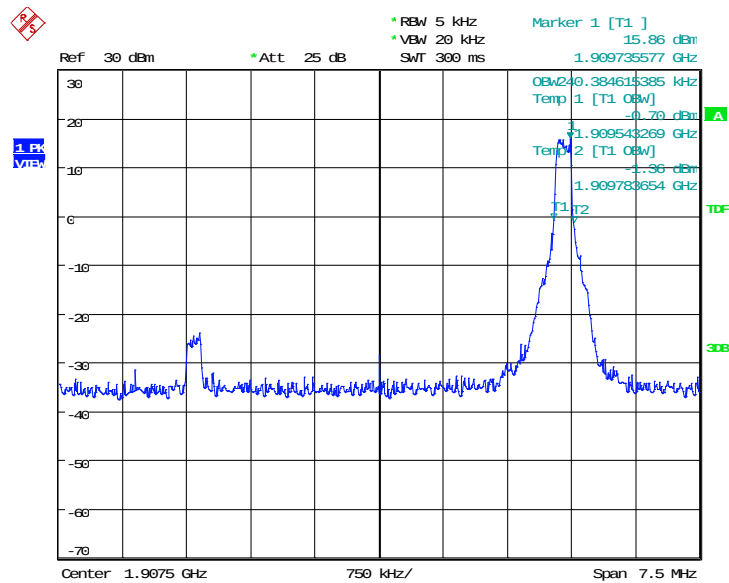
Date: 1. JAN. 2019 14:08:58

LOW BAND EDGE BLOCK-1RB-low_offset



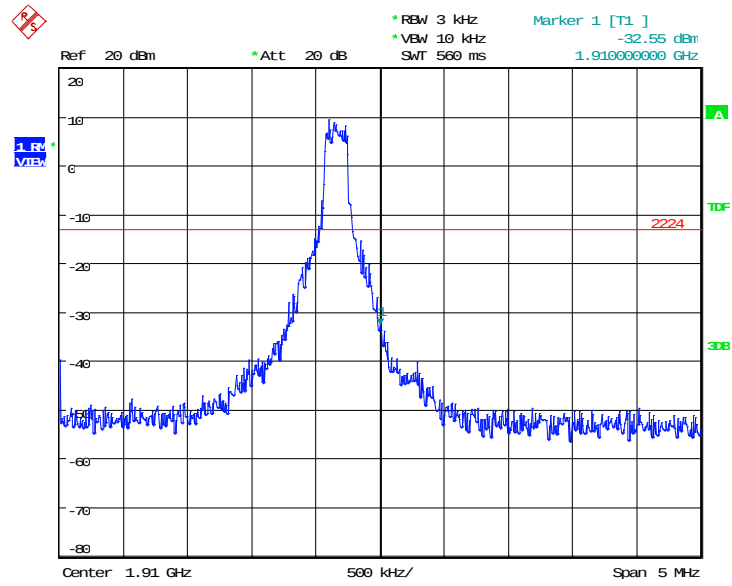
Date: 1.JAN.2019 14:09:42

OBW: 1RB-high_offset



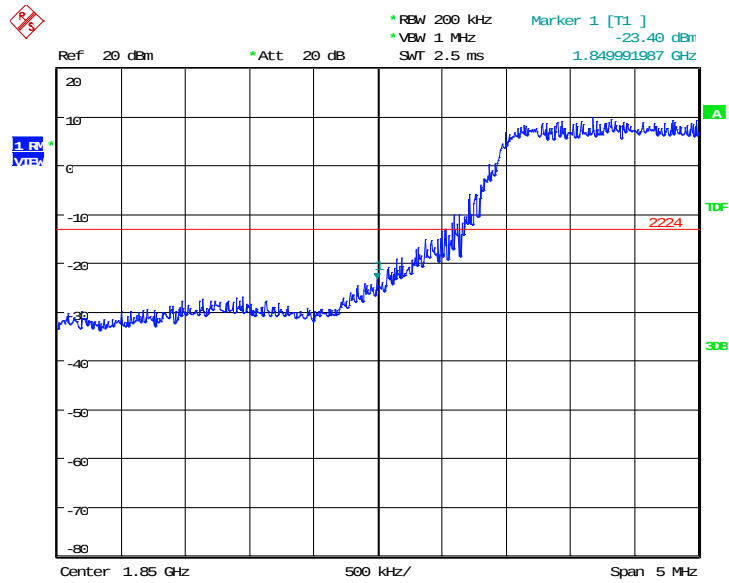
Date: 1.JAN.2019 13:50:33

HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 1.JAN.2019 13:51:18

LOW BAND EDGE BLOCK-20MHz-100%RB

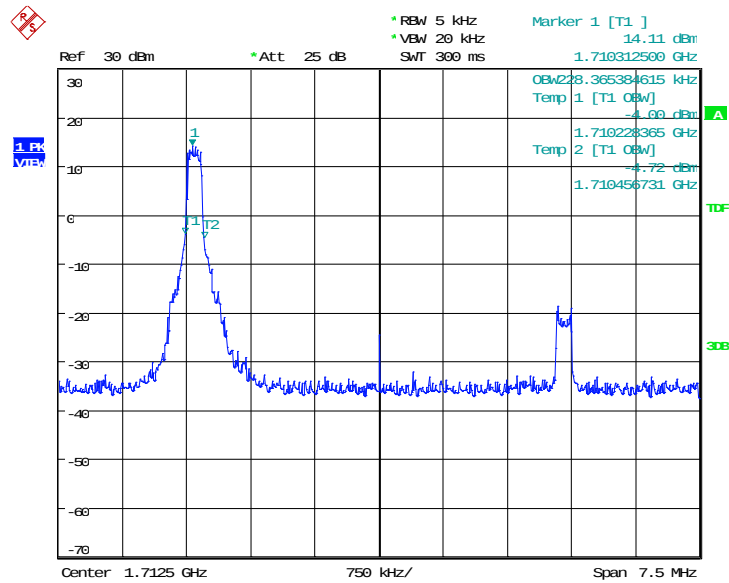


Date: 2.JAN.2019 05:42:03

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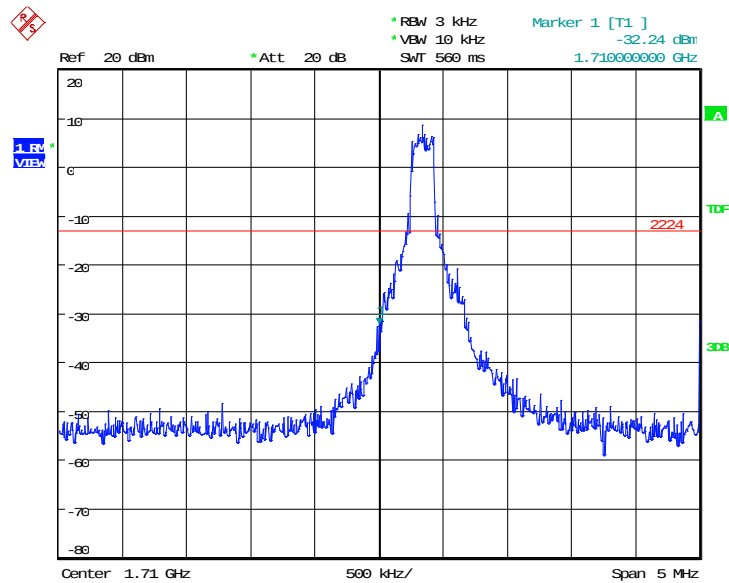
LTE band 4

OBW: 1RB-low_offset



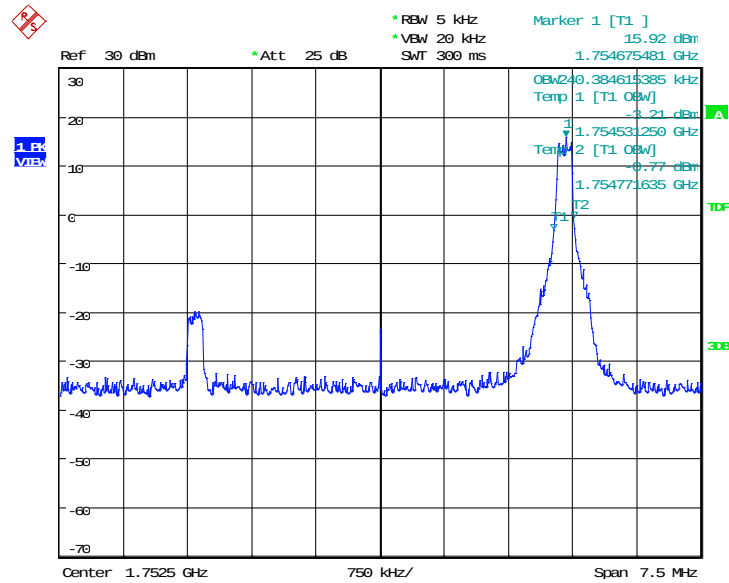
Date: 1.JAN.2019 14:10:40

LOW BAND EDGE BLOCK-1RB-low_offset



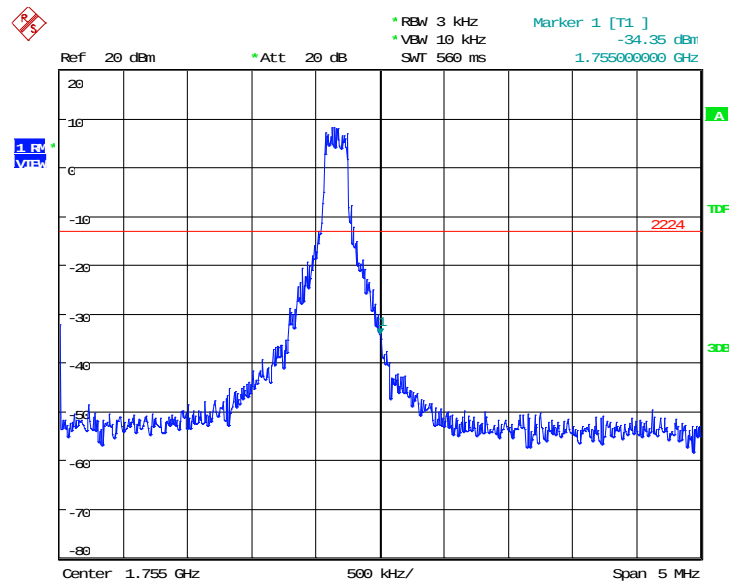
Date: 1.JAN.2019 14:11:25

OBW: 1RB-high_offset



Date: 1.JAN.2019 13:52:16

HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 1.JAN.2019 13:53:00

* RBW 200 kHz
 * VBW 1 MHz
 * Att 20 dB
 * SWT 2.5 ms
 Marker 1 [T1]
 -26.05 dBm
 1.709967949 GHz

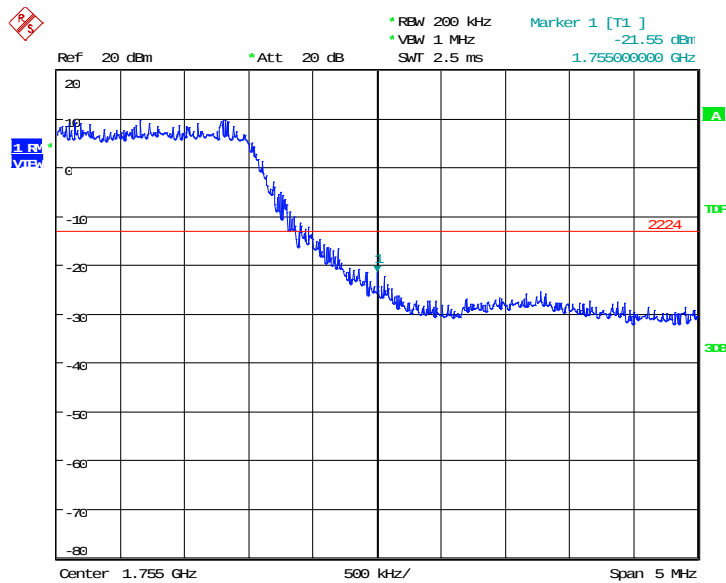
Ref 20 dBm
 20 dBm

20
 10
 0
 -10
 -20
 -30
 -40
 -50
 -60
 -70
 -80

1.71 GHz
 500 kHz/
 Span 5 MHz

2224

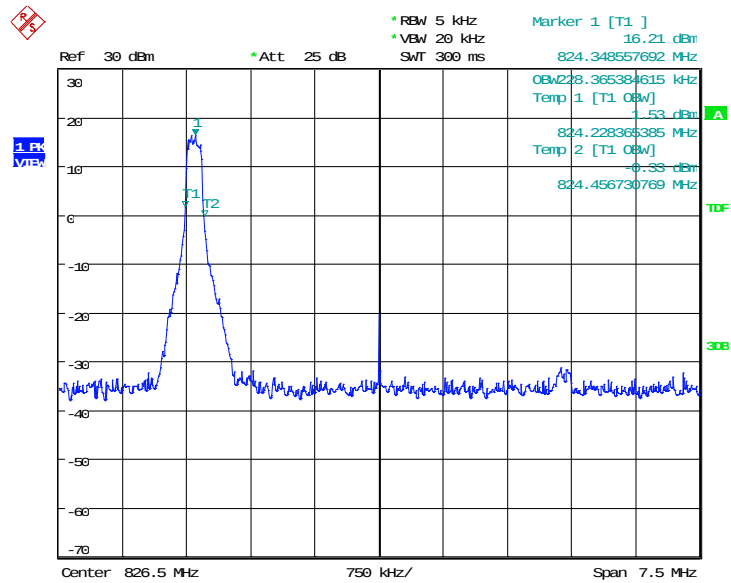
HIGH BAND EDGE BLOCK-20MHz-100%RB



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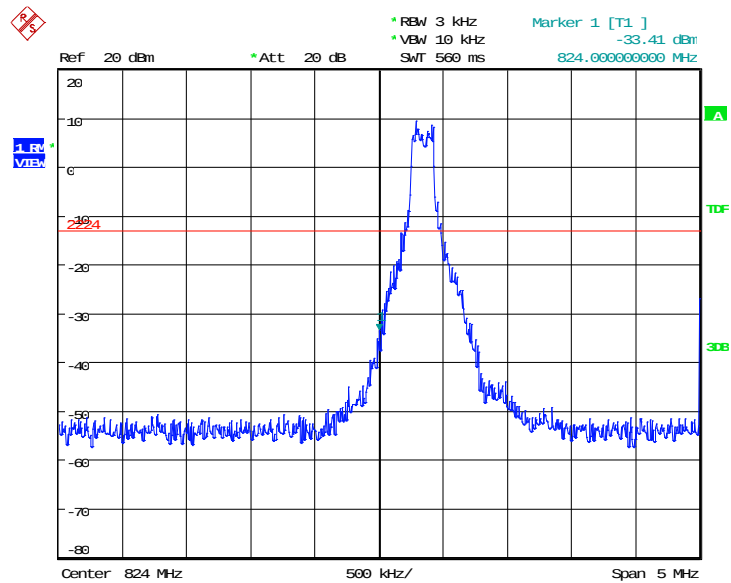
LTE band 5

OBW: 1RB-low_offset



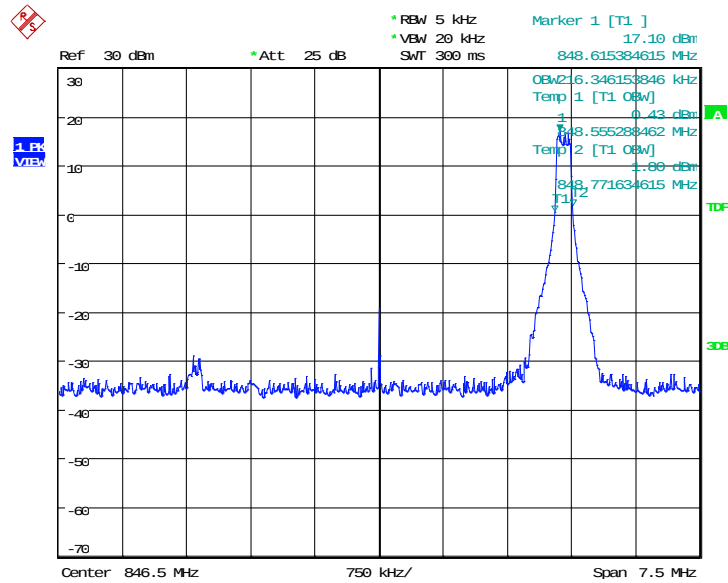
Date: 1.JAN.2019 14:07:18

LOW BAND EDGE BLOCK-1RB-low_offset



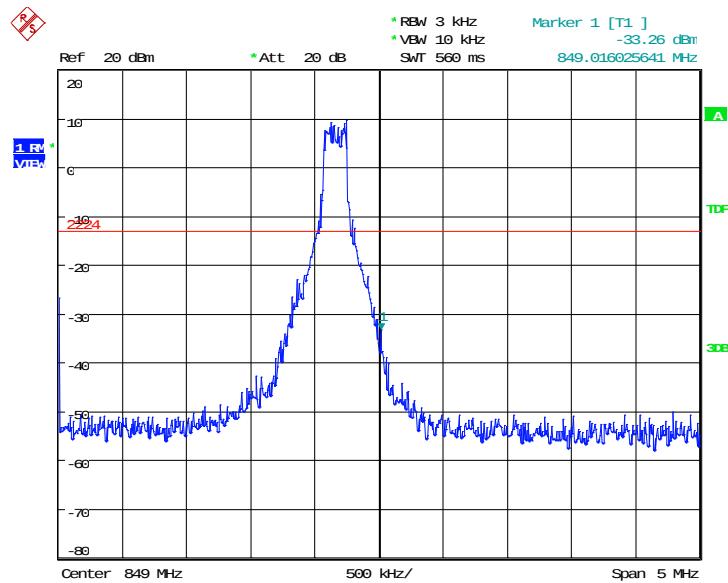
Date: 1.JAN.2019 14:08:02

OBW: 1RB-high_offset



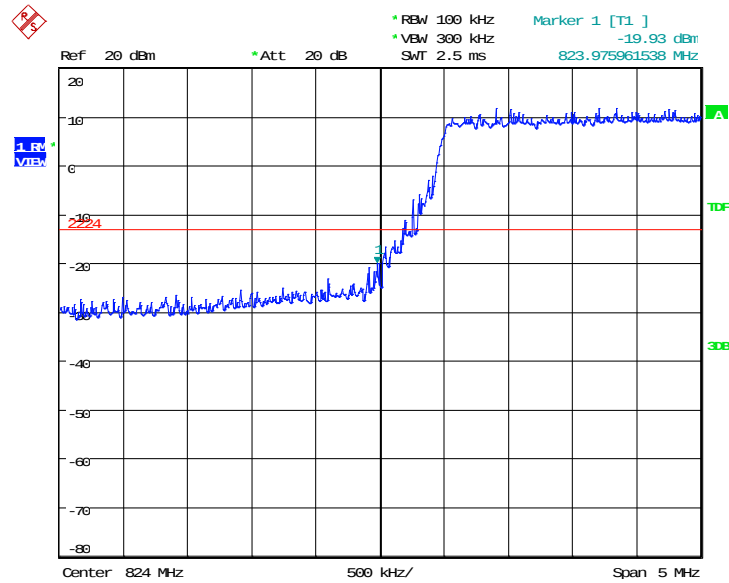
Date: 1.JAN.2019 13:48:51

HIGH BAND EDGE BLOCK-1RB-high_offset



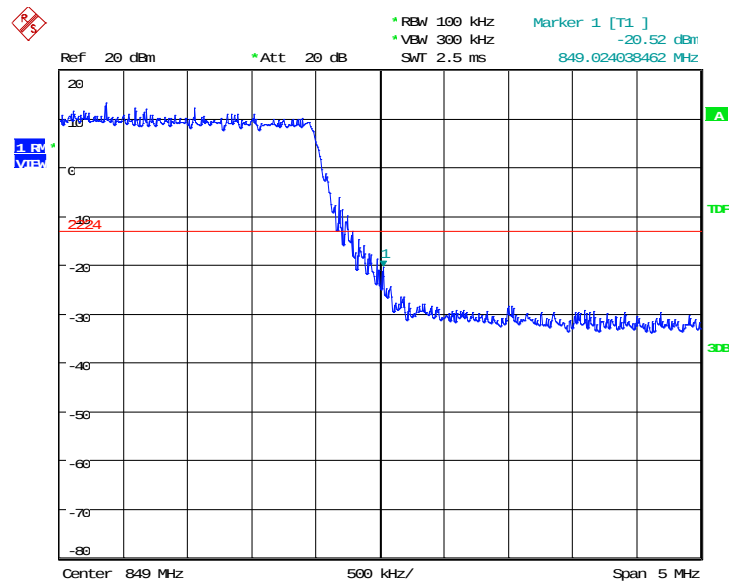
Date: 1.JAN.2019 13:49:35

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 2.JAN.2019 05:15:20

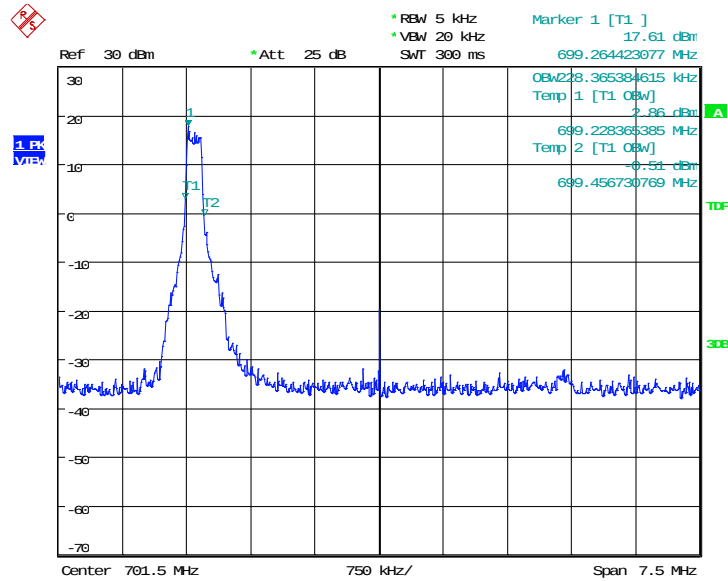
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 2.JAN.2019 05:16:07

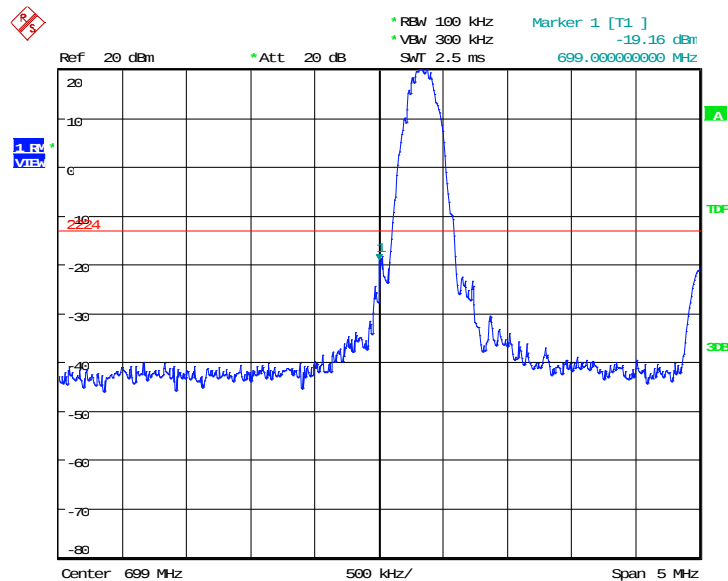
LTE band 12

OBW: 1RB-low_offset



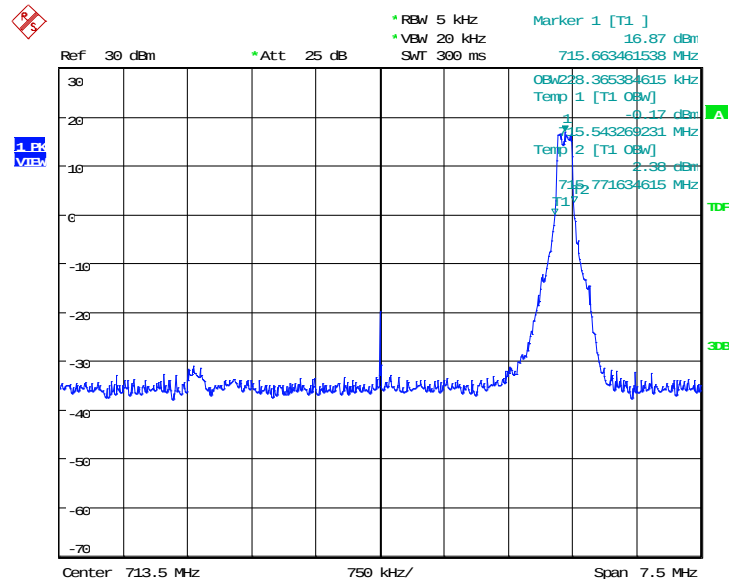
Date: 1.JAN.2019 14:12:22

LOW BAND EDGE BLOCK-1RB-low_offset



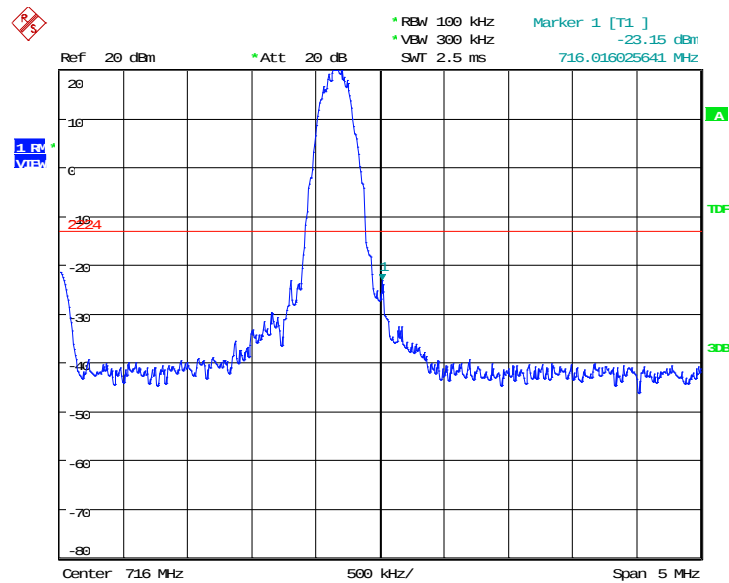
Date: 1.JAN.2019 14:13:07

OBW: 1RB-high_offset



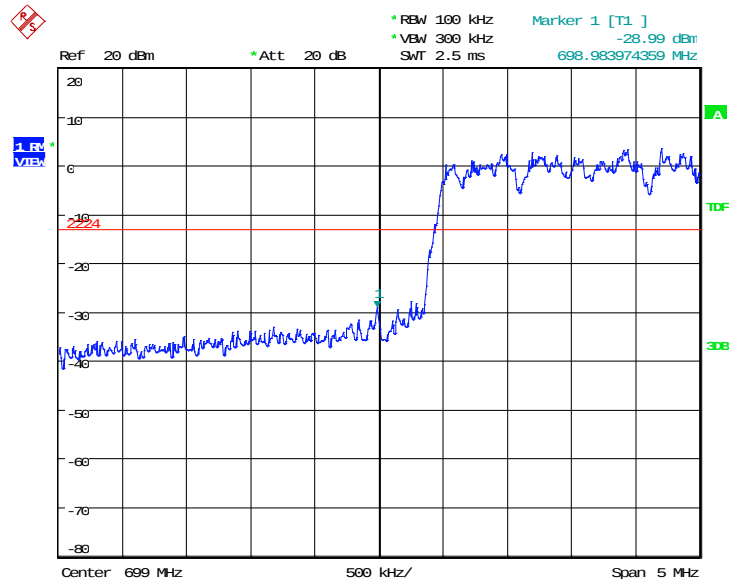
Date: 1.JAN.2019 13:53:58

HIGH BAND EDGE BLOCK-1RB-high_offset



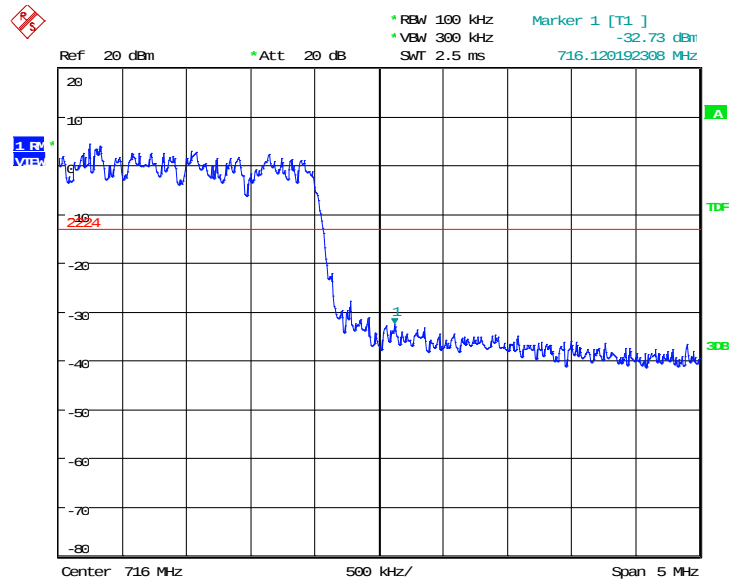
Date: 1.JAN.2019 13:54:43

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 15. JAN. 2019 05:15:49

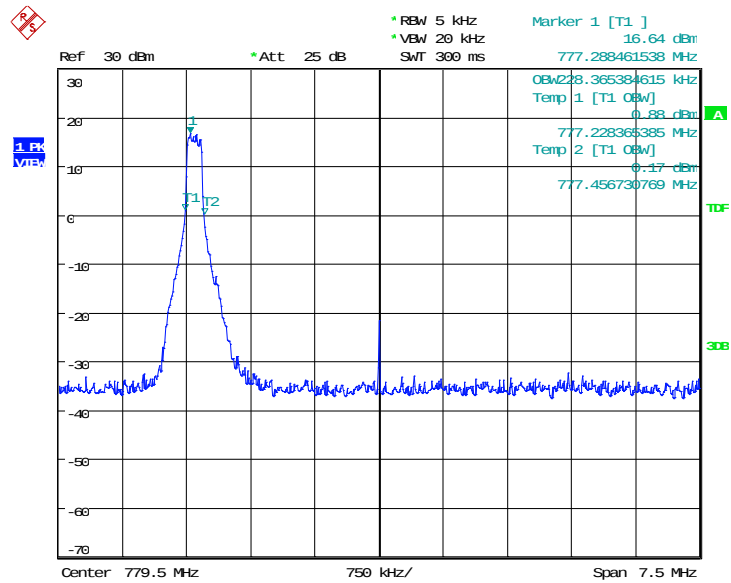
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 15. JAN. 2019 05:16:35

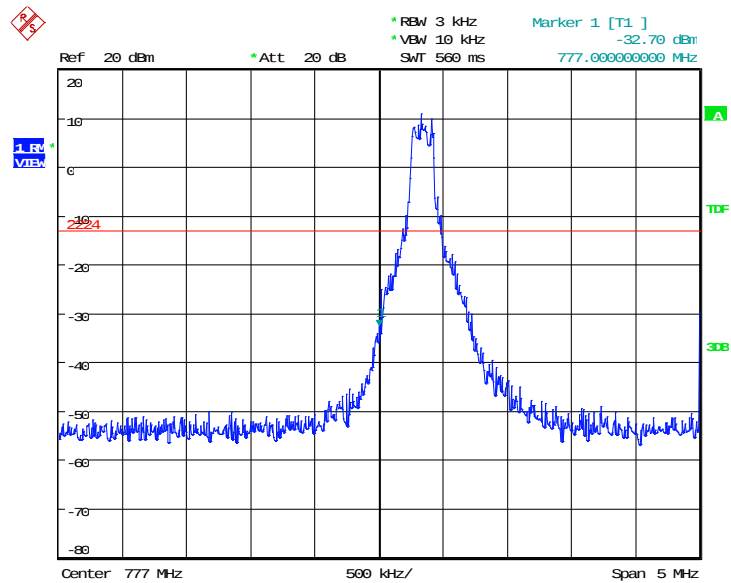
LTE band 13

OBW: 1RB-low_offset



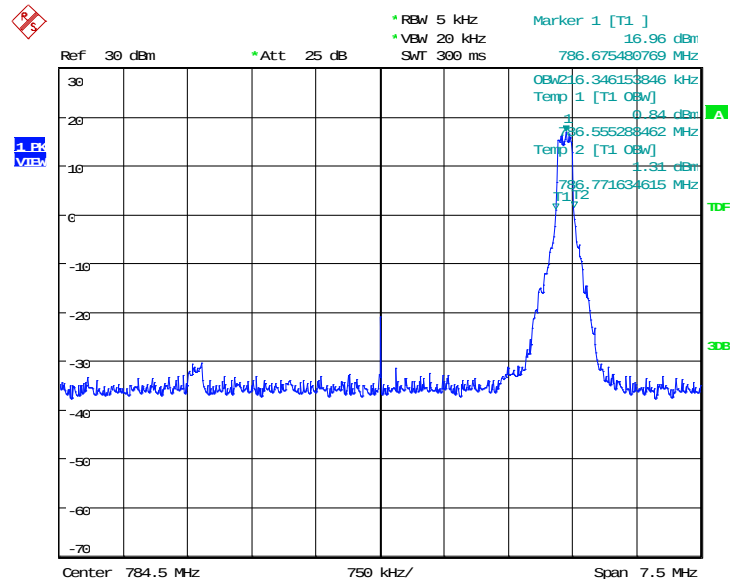
Date: 1.JAN.2019 14:05:38

LOW BAND EDGE BLOCK-1RB-low_offset



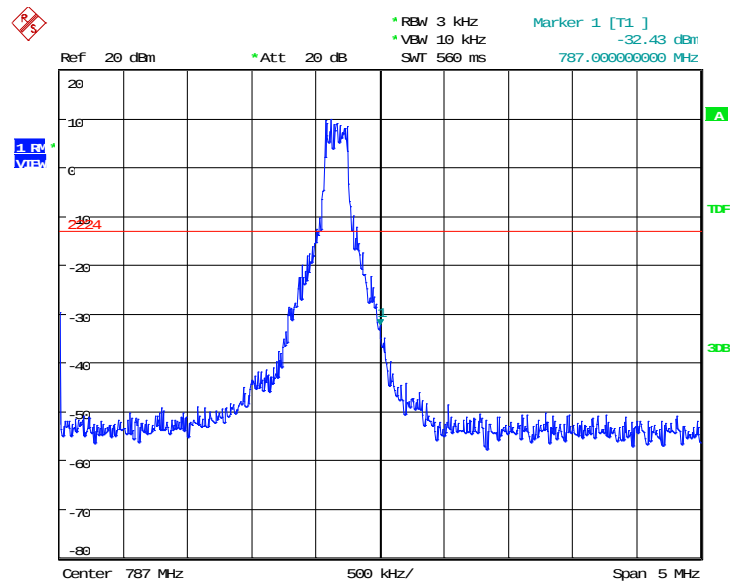
Date: 1.JAN.2019 14:06:22

OBW: 1RB-high_offset



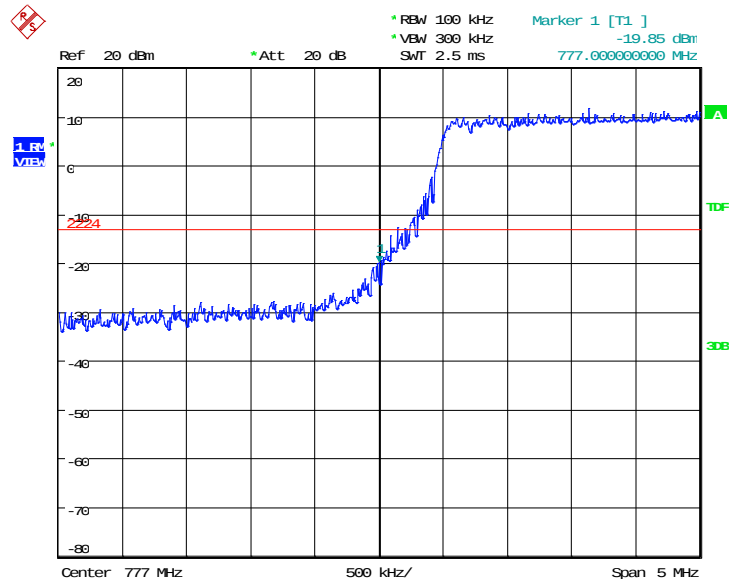
Date: 1.JAN.2019 13:47:12

HIGH BAND EDGE BLOCK-1RB-high_offset



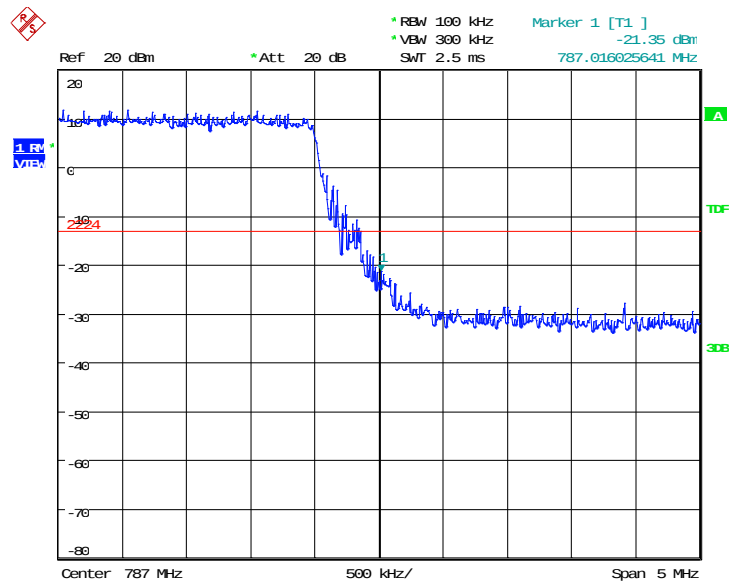
Date: 1.JAN.2019 13:47:56

LOW BAND EDGE BLOCK-5MHz-100%RB



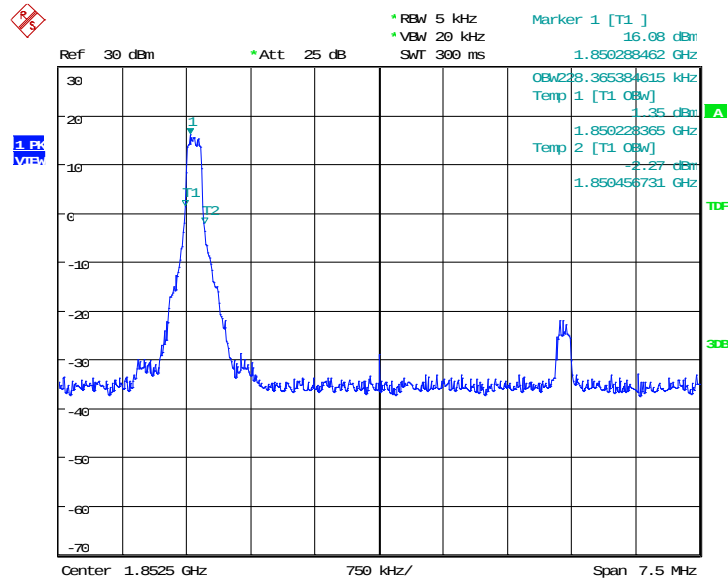
Date: 2.JAN.2019 05:13:45

HIGH BAND EDGE BLOCK-5MHz-100%RB



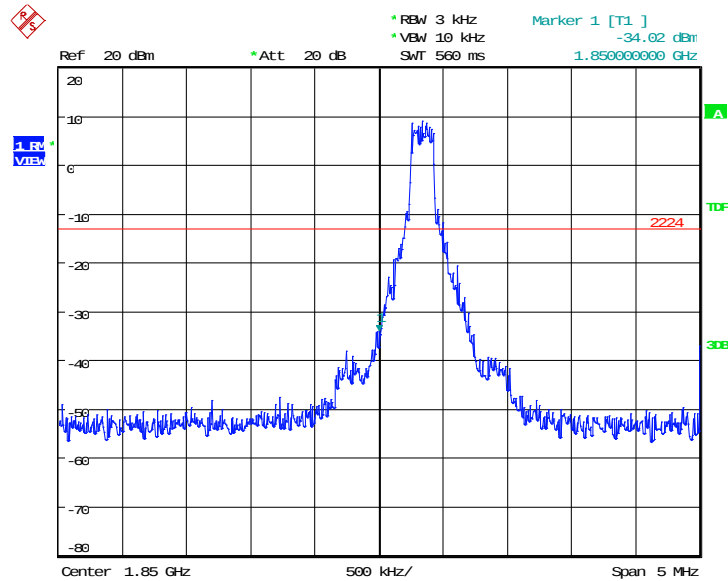
Date: 2.JAN.2019 05:14:31

LTE band 25
OBW: 1RB-low_offset



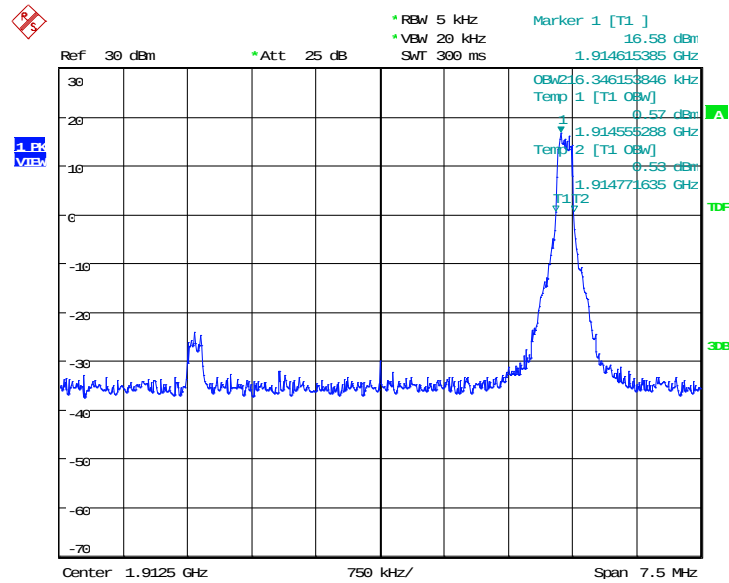
Date: 1.JAN.2019 14:14:02

LOW BAND EDGE BLOCK-1RB-low_offset



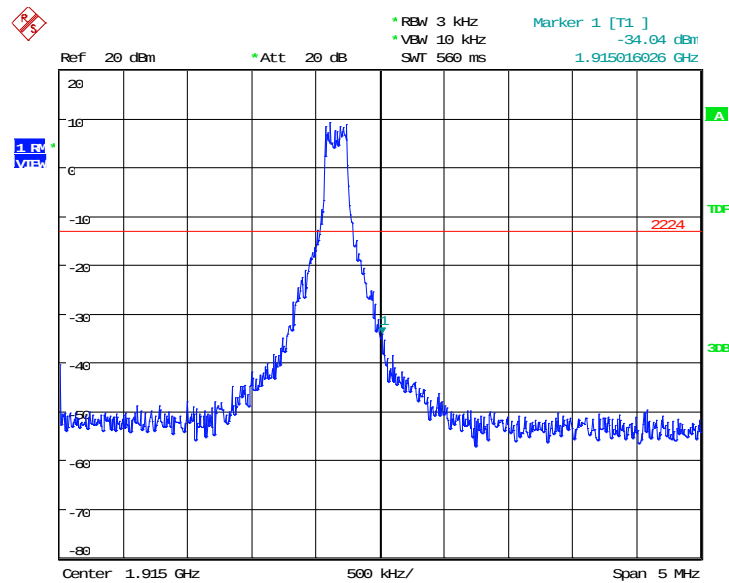
Date: 1.JAN.2019 14:14:47

OBW: 1RB-high_offset



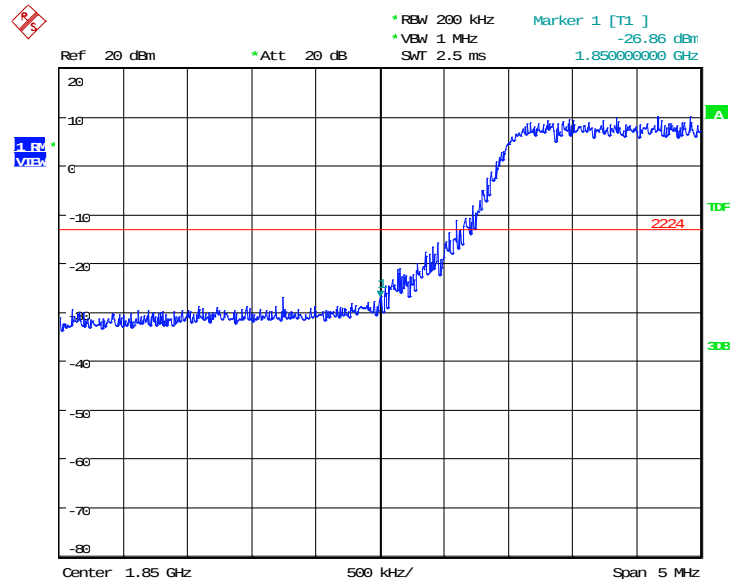
Date: 1.JAN.2019 13:55:38

HIGH BAND EDGE BLOCK-1RB-high_offset



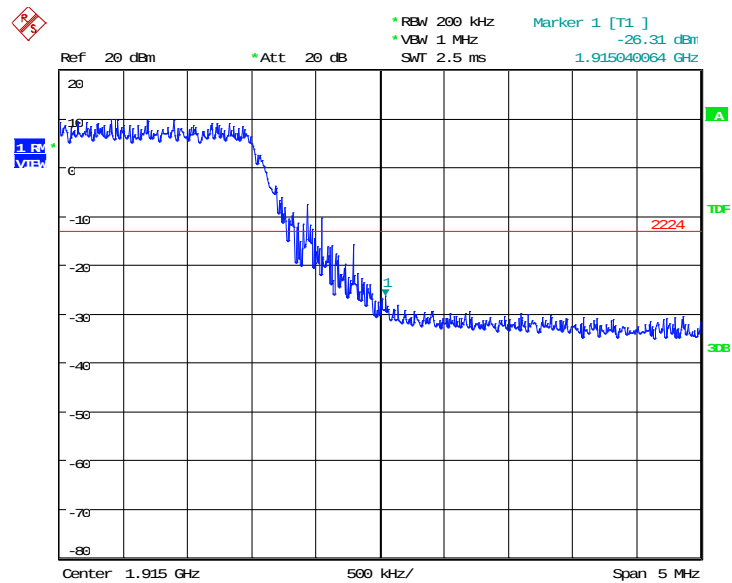
Date: 1.JAN.2019 13:56:23

LOW BAND EDGE BLOCK-20MHz-100%RB



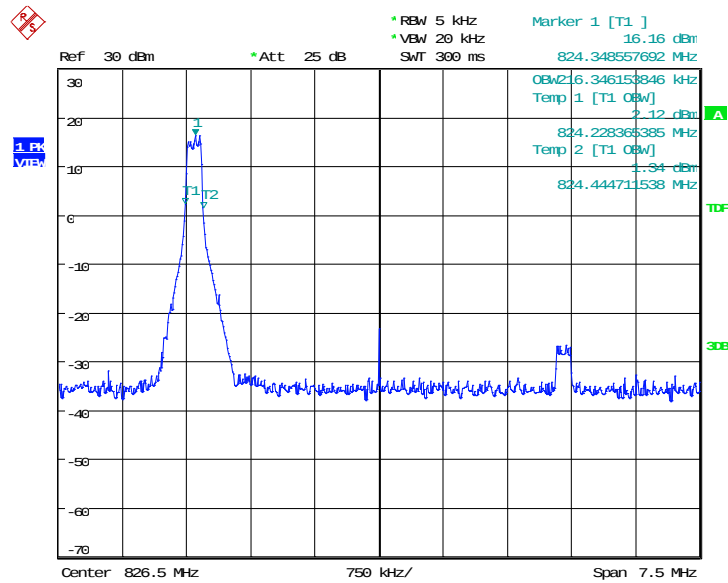
Date: 2.JAN.2019 05:47:41

HIGH BAND EDGE BLOCK-20MHz-100%RB



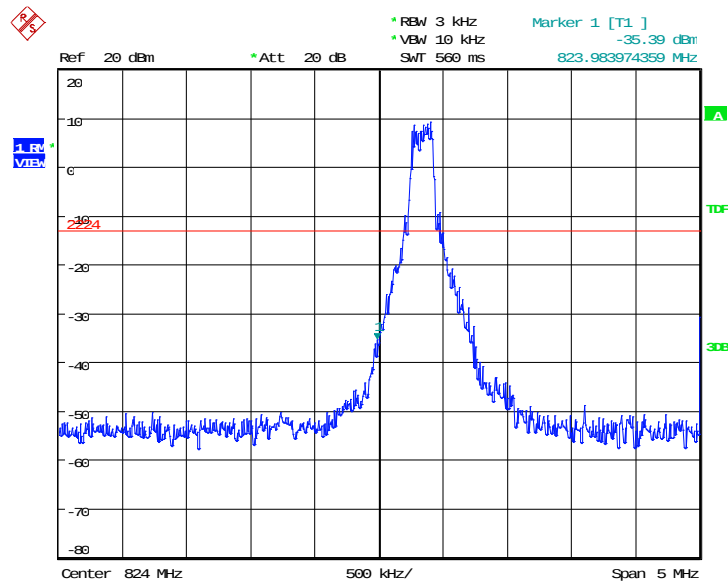
Date: 2.JAN.2019 05:48:27

LTE band 26(Part 22)
OBW: 1RB-low_offset



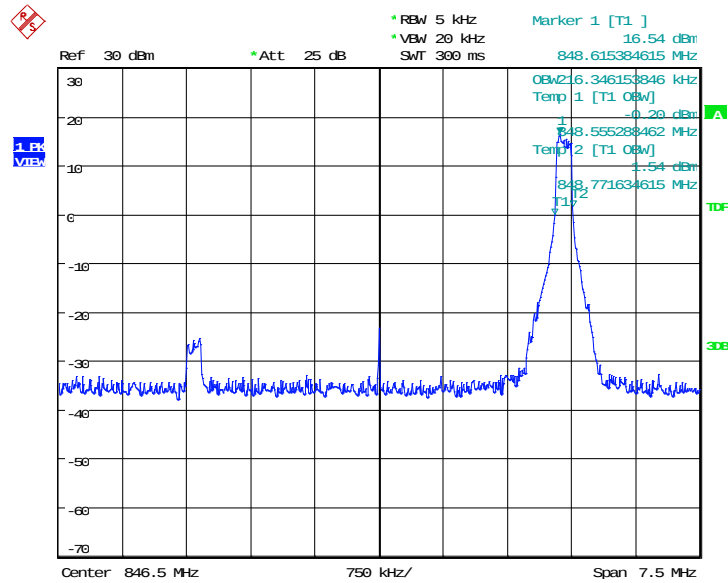
Date: 1.JAN.2019 14:17:23

LOW BAND EDGE BLOCK-1RB-low_offset



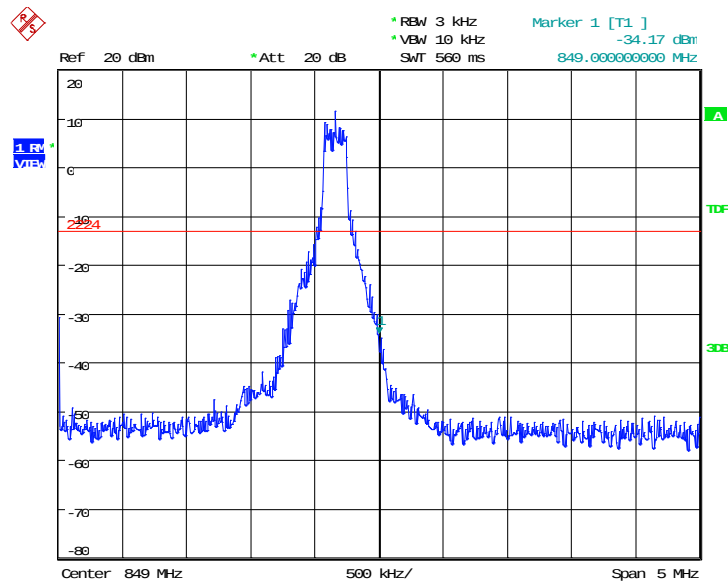
Date: 1.JAN.2019 14:18:07

OBW: 1RB-high_offset



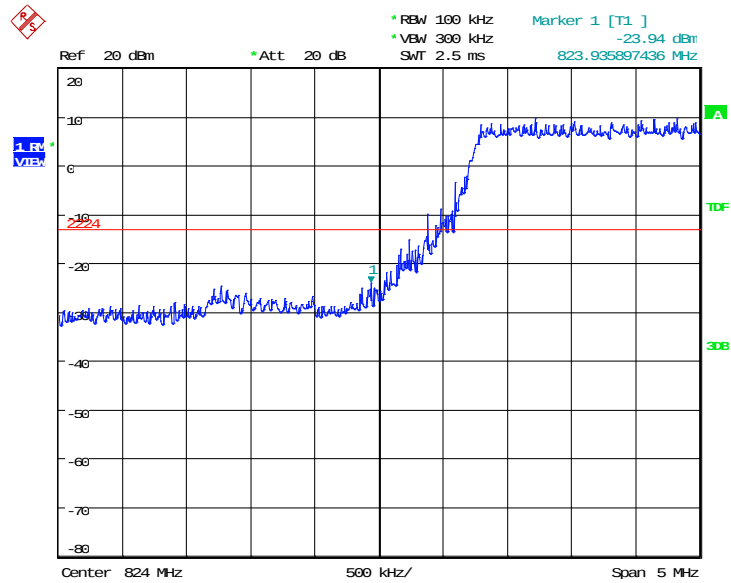
Date: 1.JAN.2019 13:59:01

HIGH BAND EDGE BLOCK-1RB-high_offset



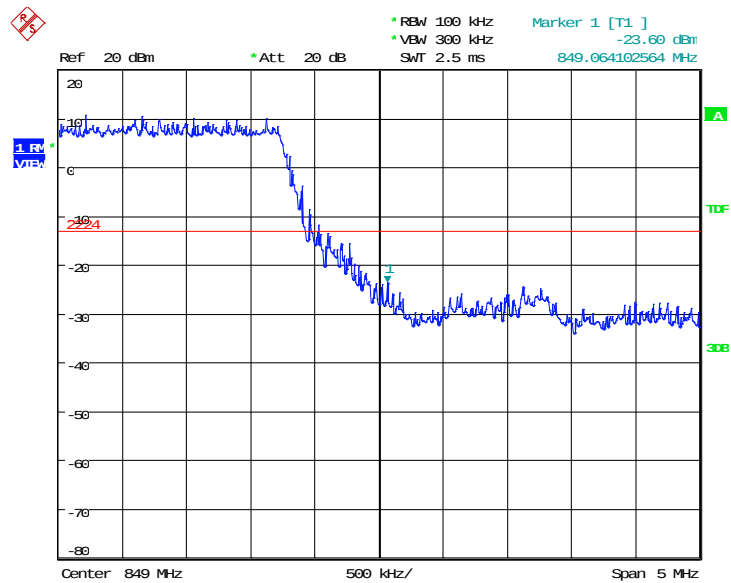
Date: 1.JAN.2019 13:59:45

LOW BAND EDGE BLOCK-15MHz-100%RB



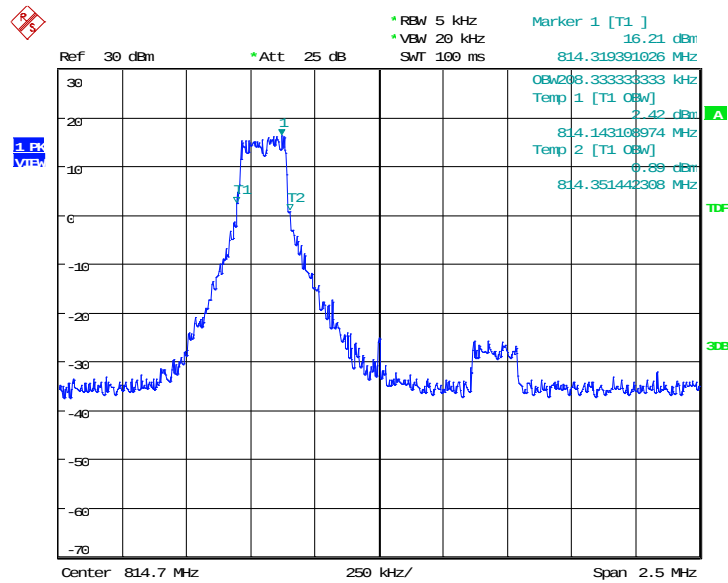
Date: 2.JAN.2019 05:38:44

HIGH BAND EDGE BLOCK-15MHz-100%RB



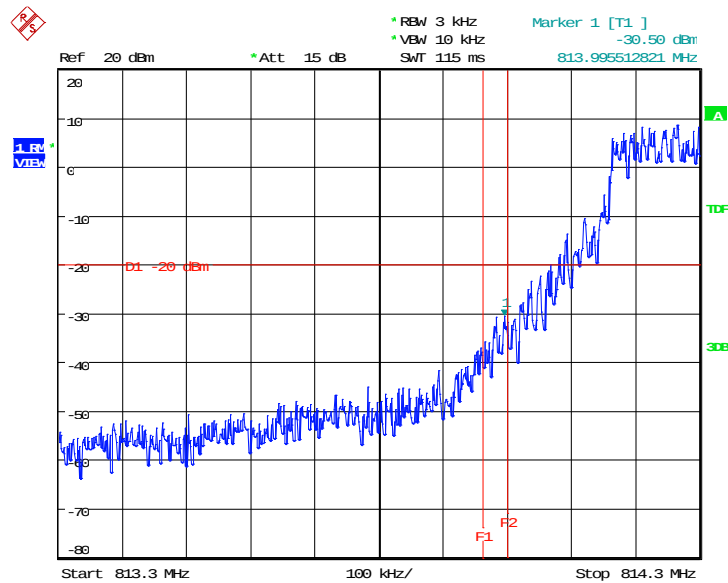
Date: 2.JAN.2019 06:15:00

LTE band 26(Part 90)
OBW: 1RB-low_offset



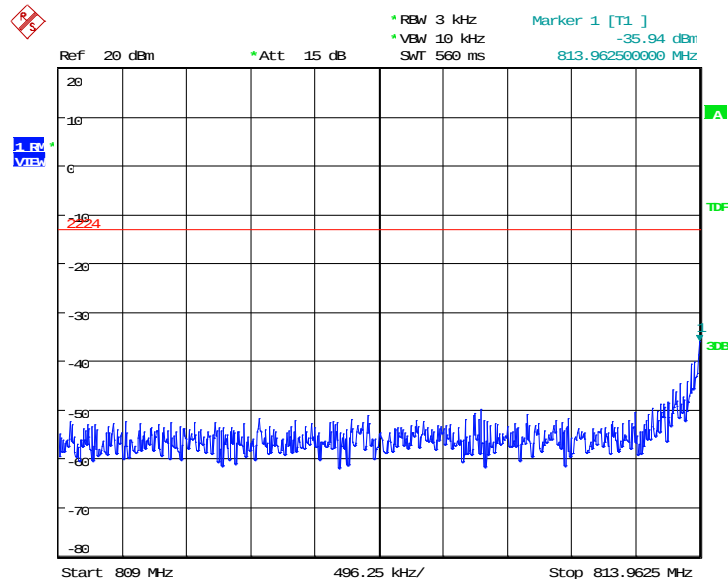
Date: 2.JAN.2019 10:57:31

LOW Emission Mask -1RB-low_offset



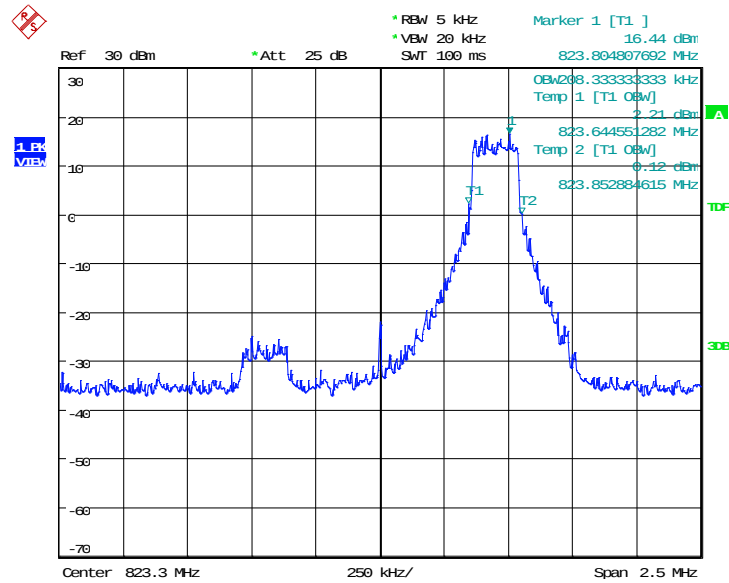
Date: 2.JAN.2019 10:58:15

LOW BAND EDGE BLOCK-1RB-low_offset



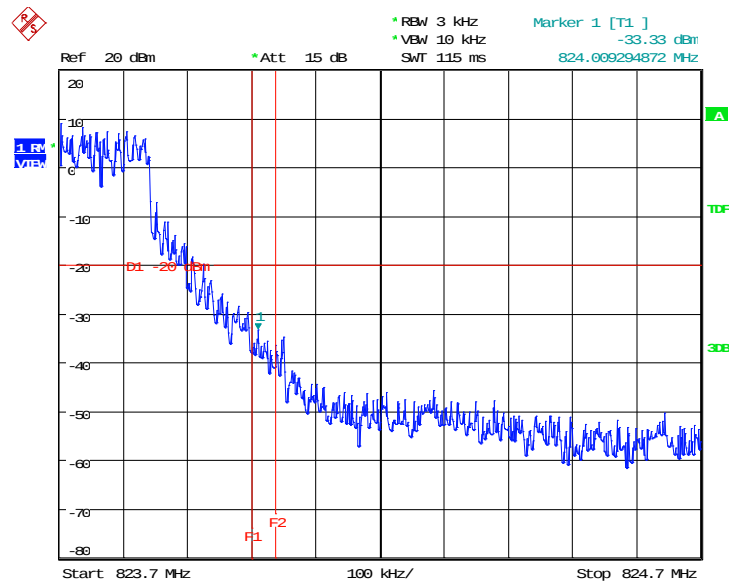
Date: 2.JAN.2019 10:58:17

OBW: 1RB-high_offset



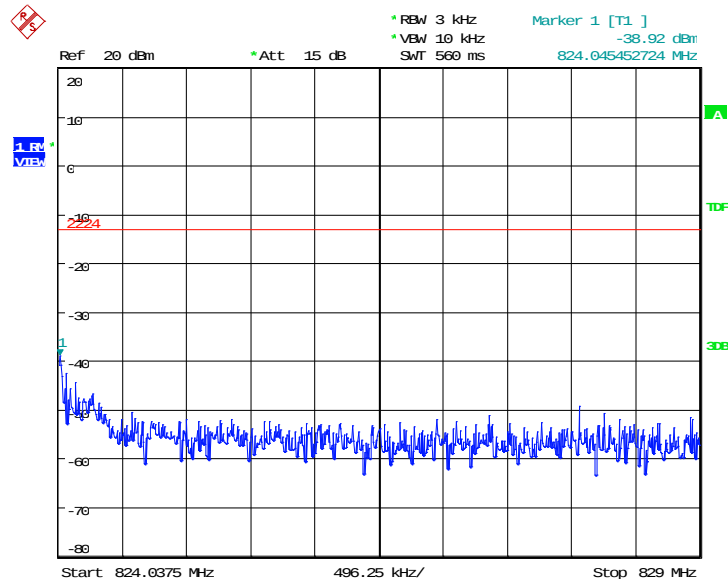
Date: 2.JAN.2019 10:55:20

HIGH Emission Mask -1RB-high_offset



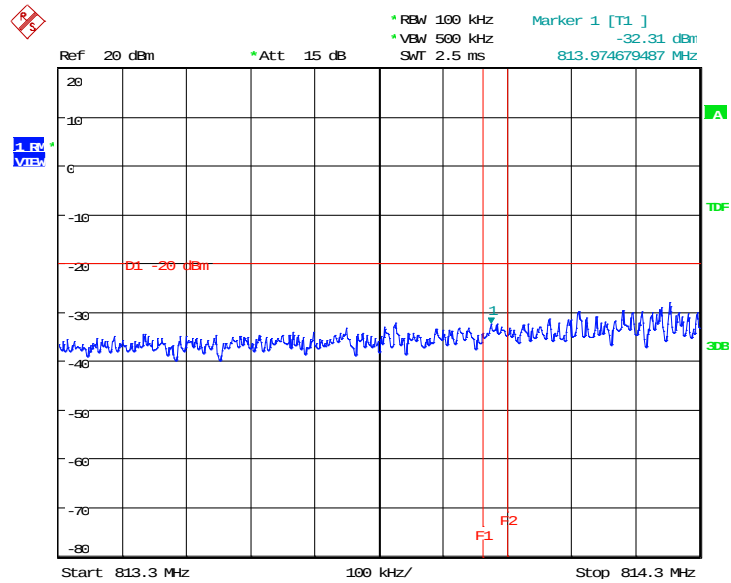
Date: 2.JAN.2019 10:56:03

HIGH BAND EDGE BLOCK-1RB-high_offset



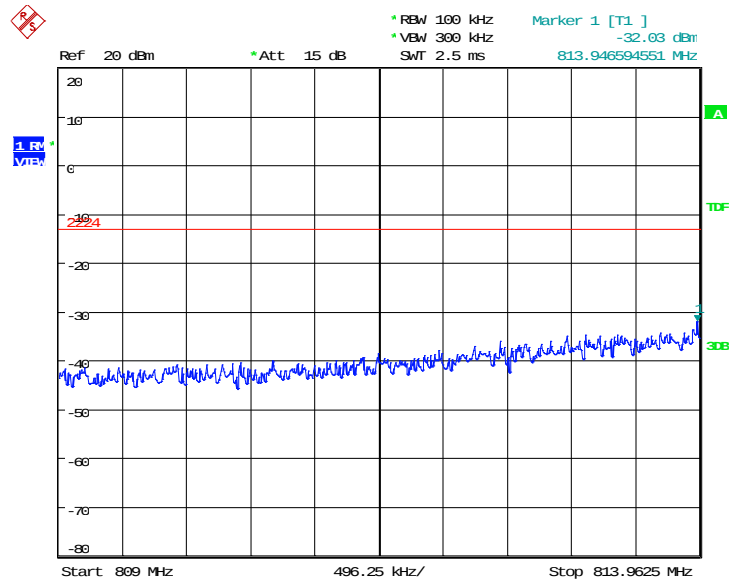
Date: 2.JAN.2019 10:56:06

LOW Emission Mask -10MHz-100%RB



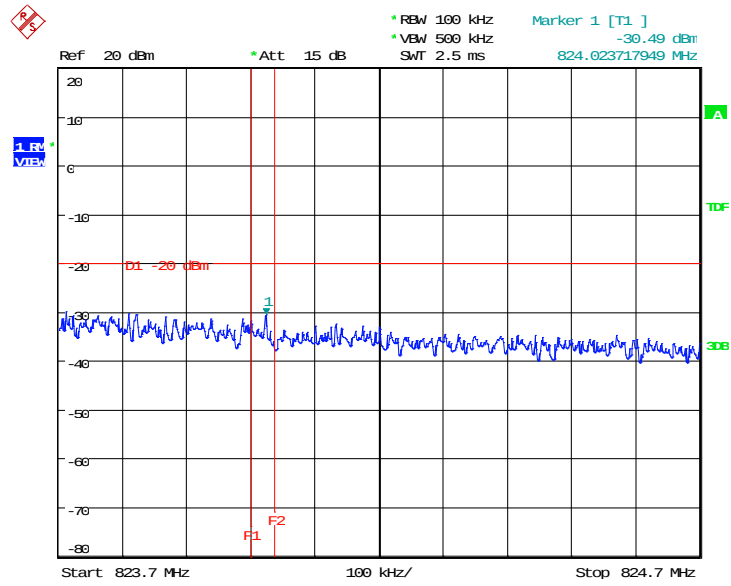
Date: 2.JAN.2019 11:03:20

LOW BAND EDGE BLOCK-10MHz-100%RB



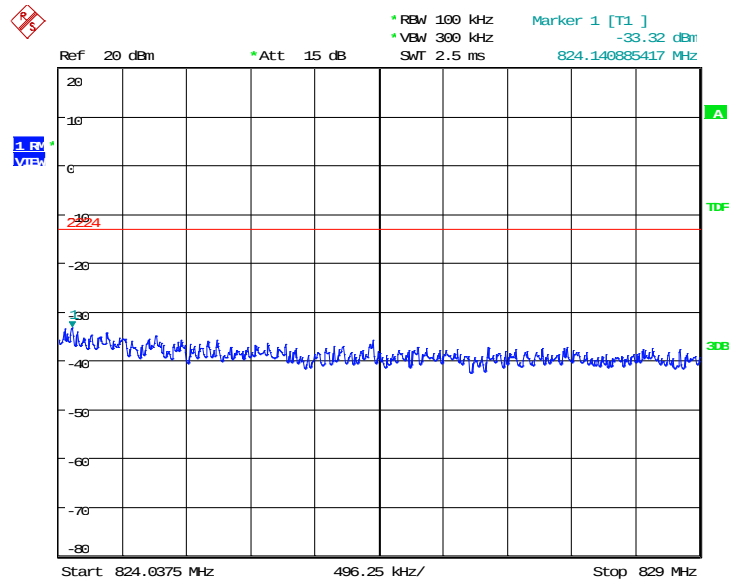
Date: 2.JAN.2019 11:03:22

HIGH Emission Mask -10MHz-100%RB



Date: 2.JAN.2019 11:07:37

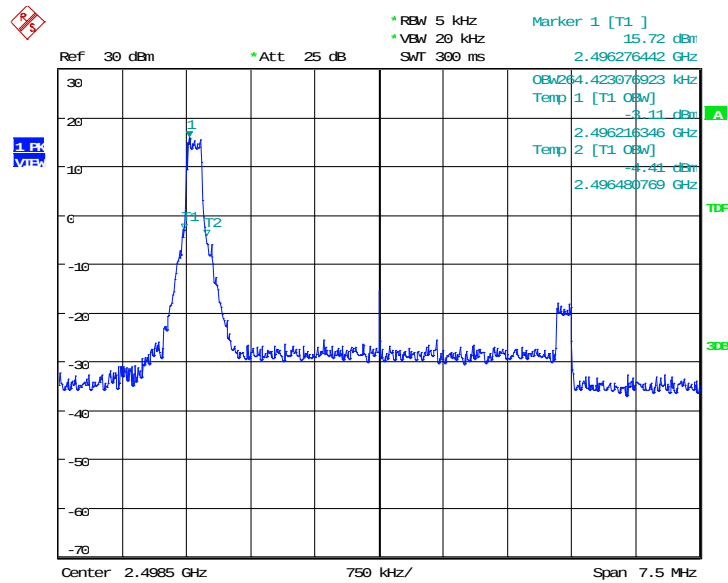
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 2.JAN.2019 11:07:39

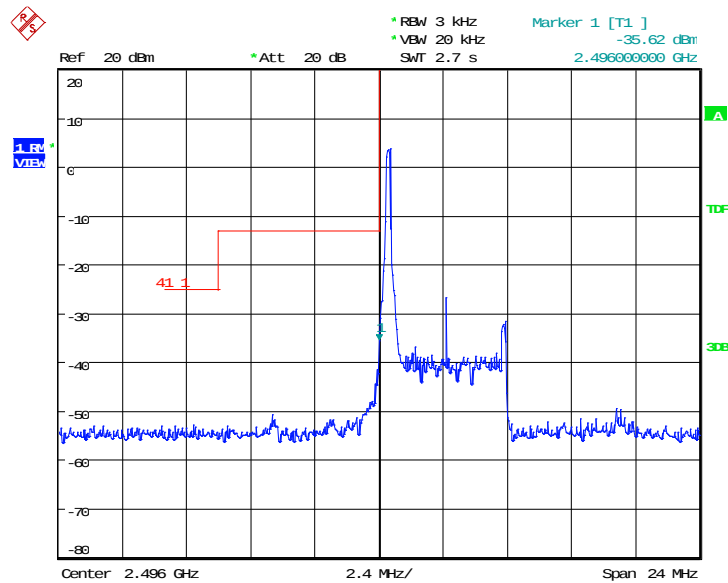
LTE band 41

OBW: 1RB-low_offset



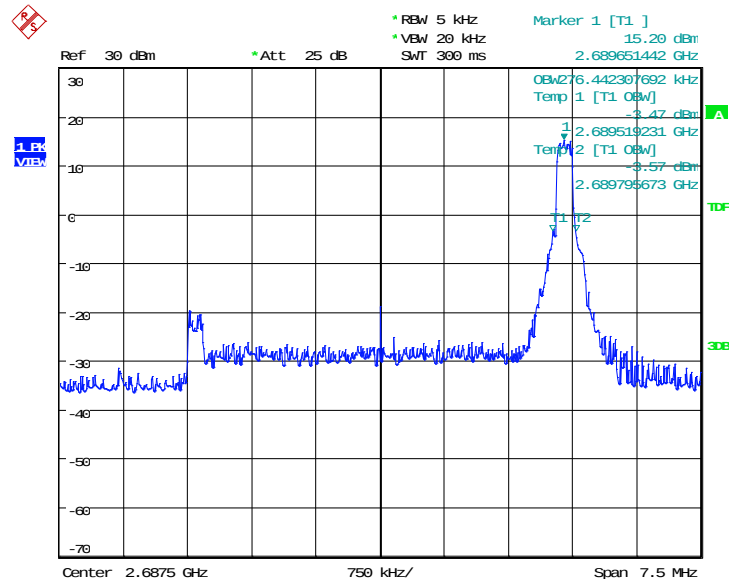
Date: 1.JAN.2019 14:15:43

LOW BAND EDGE BLOCK-1RB-low_offset



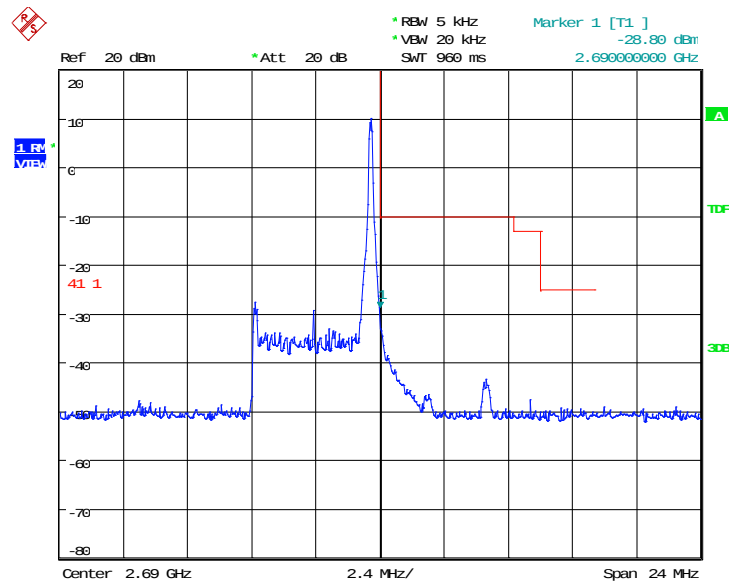
Date: 2.JAN.2019 06:27:55

OBW: 1RB-high_offset



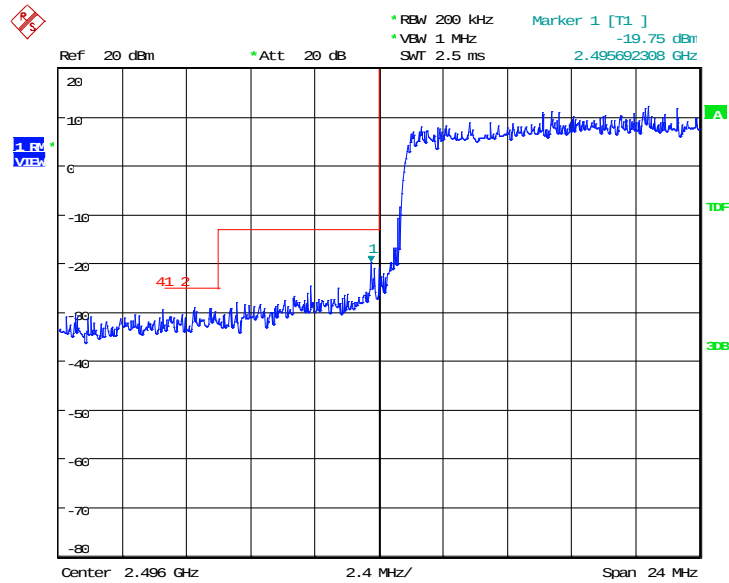
Date: 1.JAN.2019 13:57:19

HIGH BAND EDGE BLOCK-1RB-high_offset



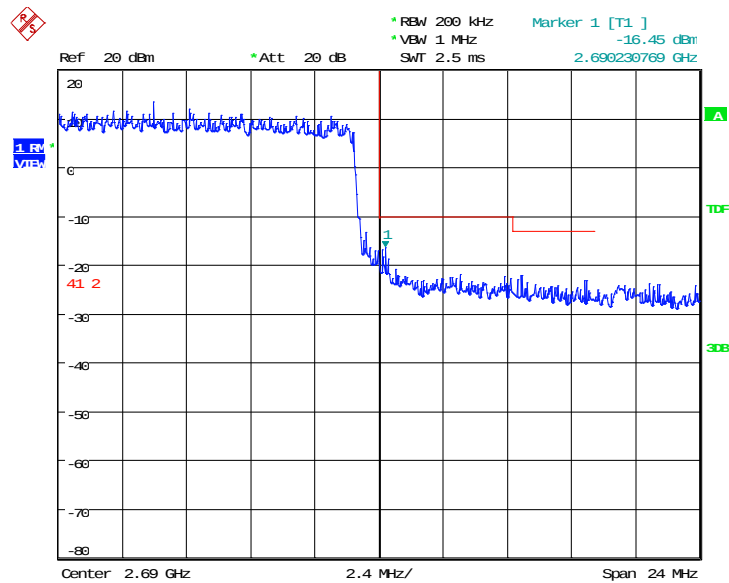
Date: 2.JAN.2019 06:30:09

LOW BAND EDGE BLOCK-10MHz-100%RB



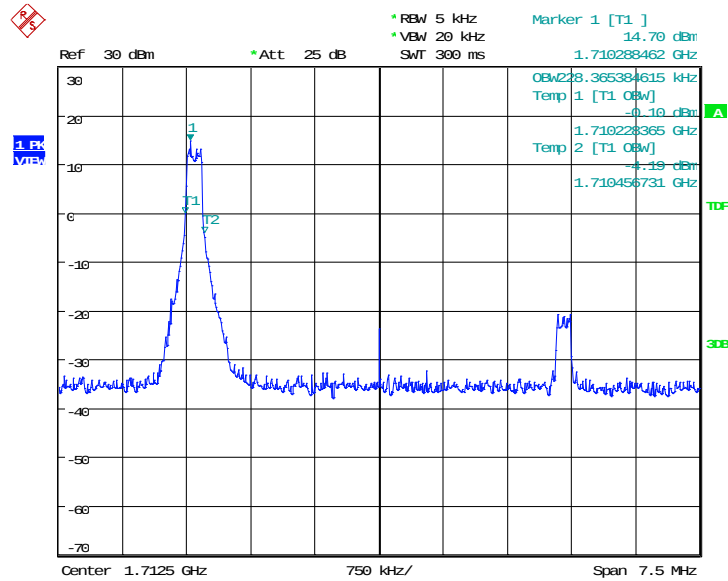
Date: 2.JAN.2019 05:49:20

HIGH BAND EDGE BLOCK-10MHz-100%RB



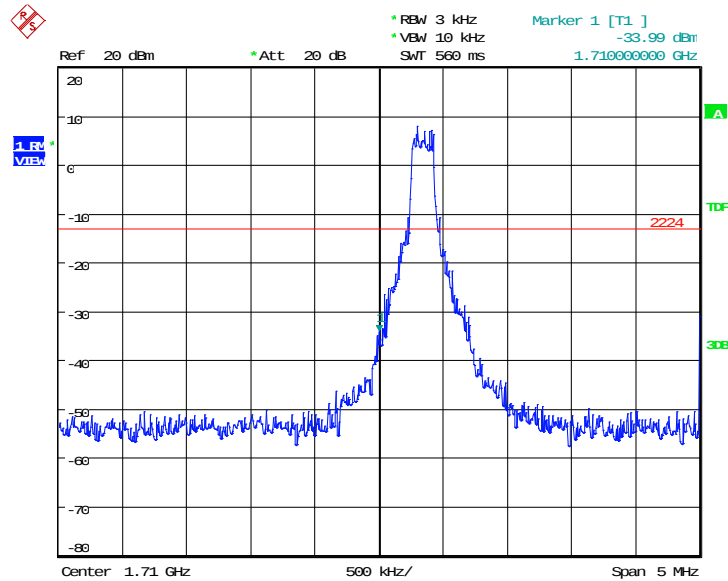
Date: 2.JAN.2019 06:19:58

LTE band 66
OBW: 1RB-low_offset



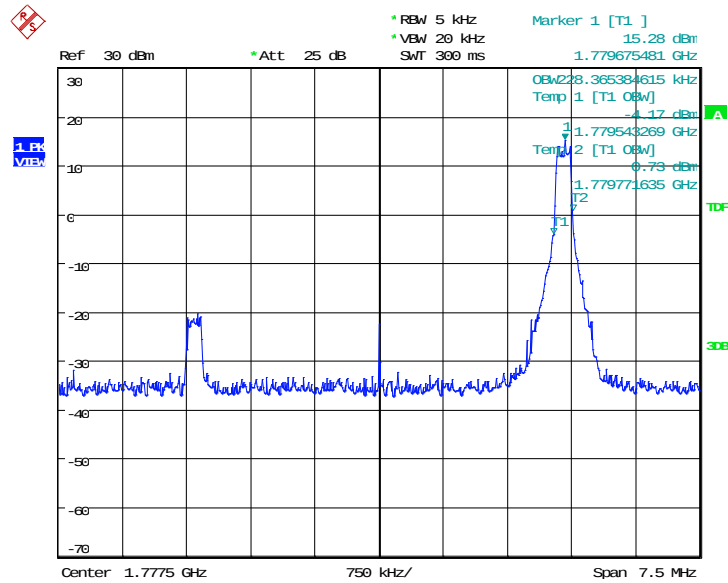
Date: 1.JAN.2019 14:20:43

LOW BAND EDGE BLOCK-1RB-low_offset



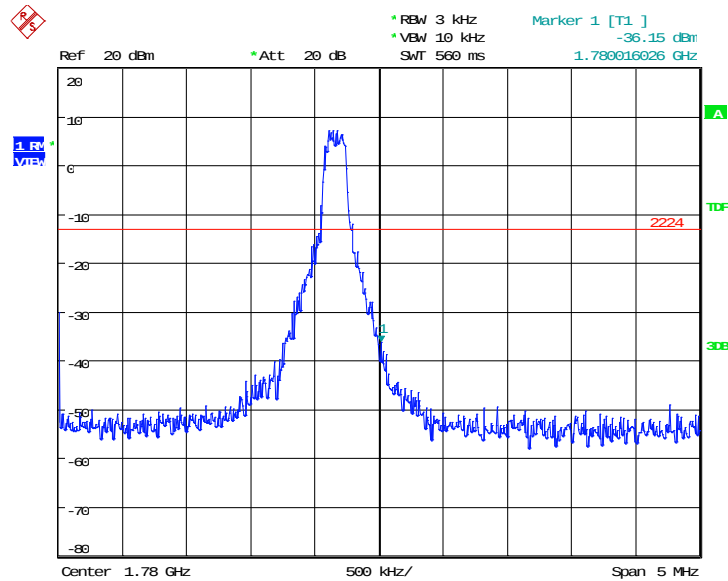
Date: 1.JAN.2019 14:21:27

OBW: 1RB-high_offset



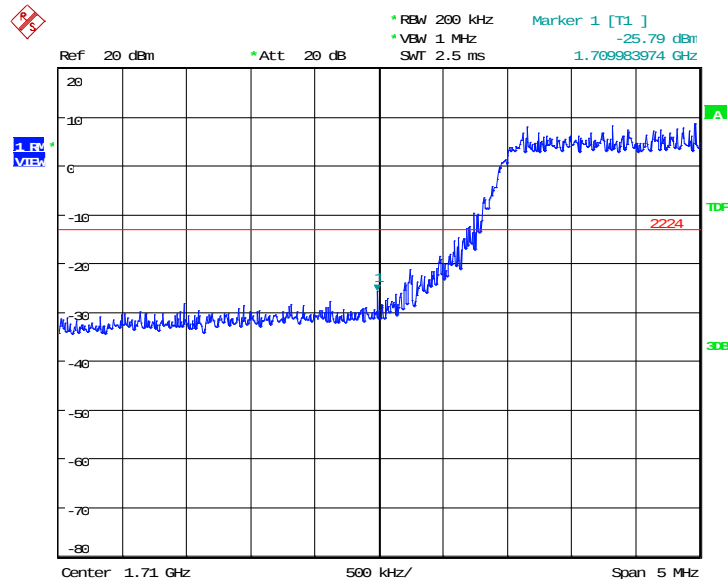
Date: 1.JAN.2019 14:02:26

HIGH BAND EDGE BLOCK-1RB-high_offset



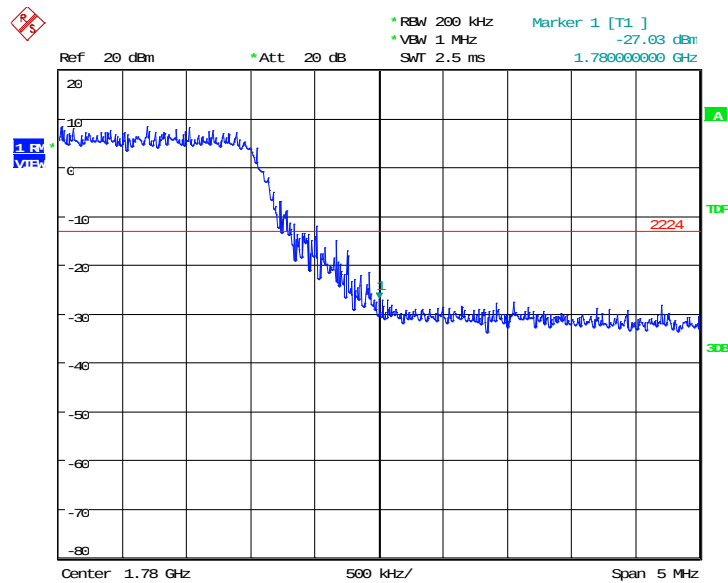
Date: 1.JAN.2019 14:03:11

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 2.JAN.2019 06:01:01

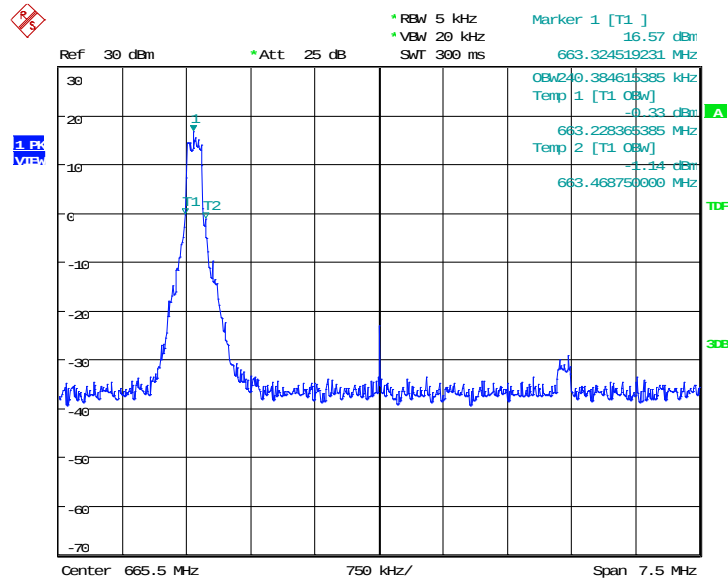
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 2.JAN.2019 06:01:47

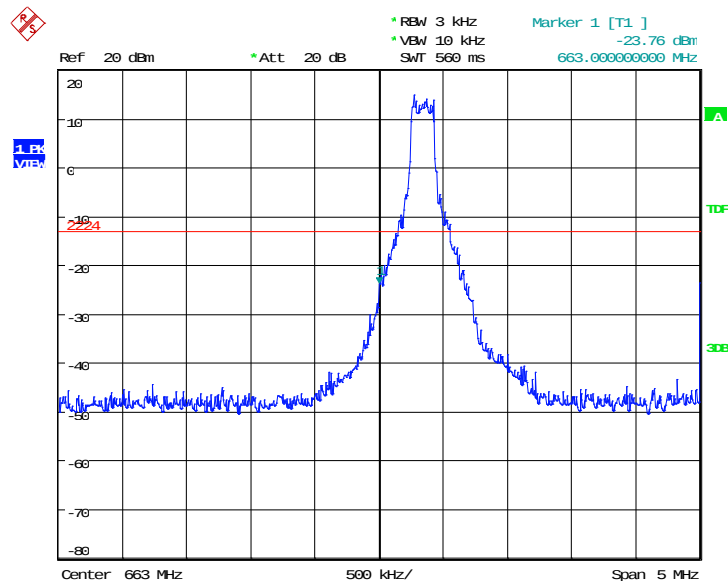
LTE band 71

OBW: 1RB-low_offset



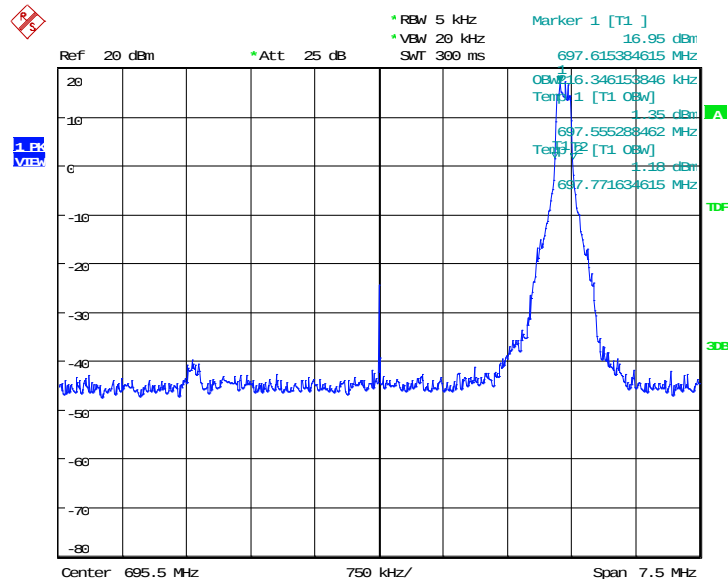
Date: 2.JAN.2019 07:00:20

LOW BAND EDGE BLOCK-1RB-low_offset



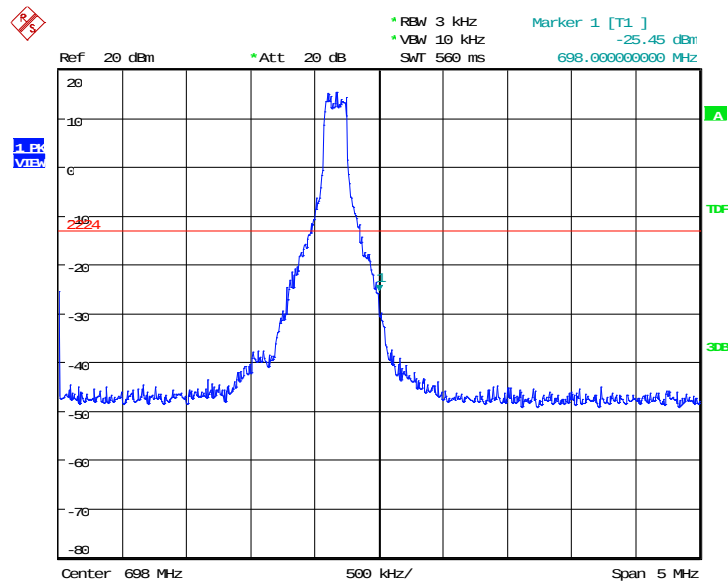
Date: 2.JAN.2019 07:01:19

OBW: 1RB-high_offset



Date: 2.JAN.2019 07:03:48

HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 2.JAN.2019 07:02:38

Ref 20 dB Att 20 dB RBW 200 kHz VBW 1 MHz SWT 2.5 ms Marker 1 [T1] 698.00000000 MHz

Center 698 MHz Span 5 MHz 500 kHz/

A

TDF

30B

Note: Expanded measurement uncertainty is $U = 0.488\text{dB}(100\text{KHz}-2\text{GHz})/1.211\text{dB}(2\text{GHz}-26.5\text{GHz})$, $k = 1.96$

A.7 CONDUCTED SPURIOUS EMISSION

Reference

FCC: CFR Part 2.1051, 22.917, 24.238, 27.53, 90.691.

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. Determine frequency range for measurements: From CFR 2.1051 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the mobile station equipment tested, this equates to a frequency range of 13 MHz to 9 GHz, data taken from 10 MHz to 25 GHz.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is set to 30001 which is greater than span/RBW.

A. 7.2 Measurement Limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Part 27.53(m)(4) specifies 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 than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Part 27.53(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than: $43 + 10 \log(P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log(P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log(P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log(P)$ dB on all frequencies between 2328 and 2337 MHz;

By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log (P)$ dB on all frequencies between 2296 and 2300MHz, $61 + 10 \log (P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log (P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.

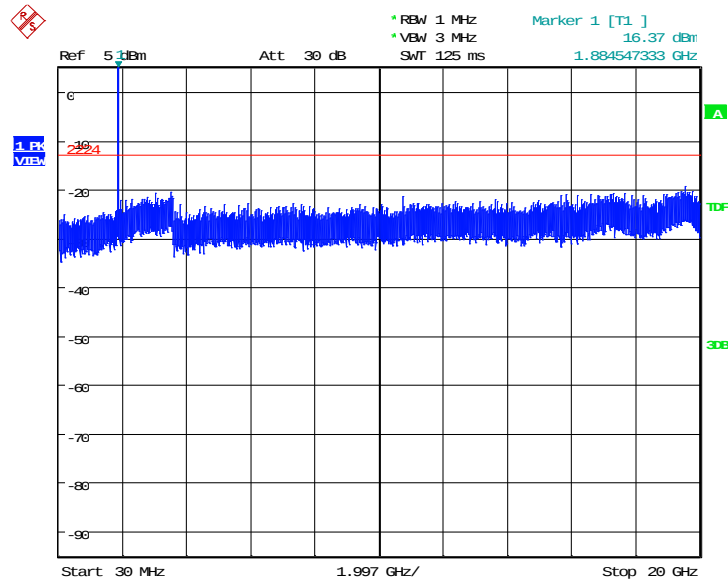
A. 7.3 Measurement result

Only worst case result is given below

LTE band 2 : 30MHz – 20GHz

Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.

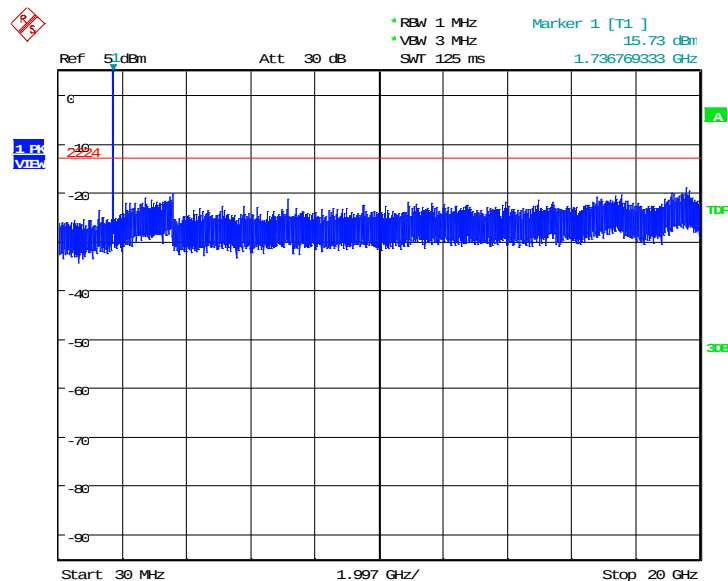


Date: 1. JAN. 2019 08:18:30

LTE band 4 : 30MHz – 20GHz

Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.

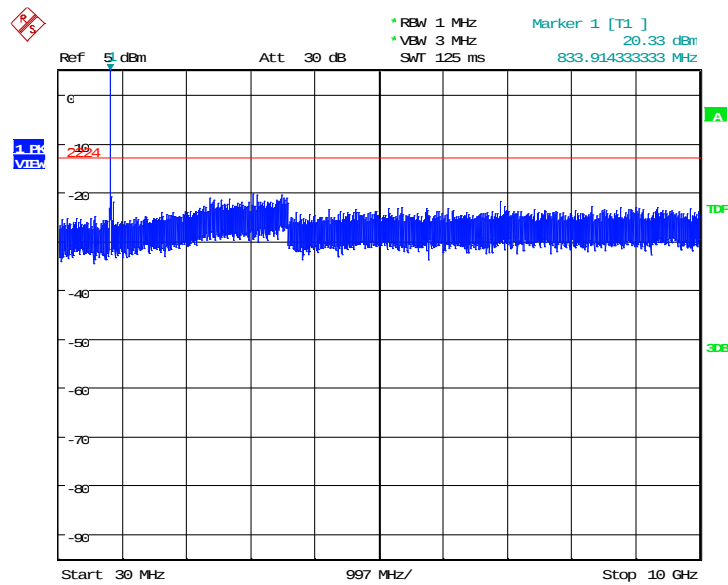


Date: 1. JAN. 2019 09:31:26

LTE band 5 : 30MHz – 10GHz

Spurious emission limit –13dBm.

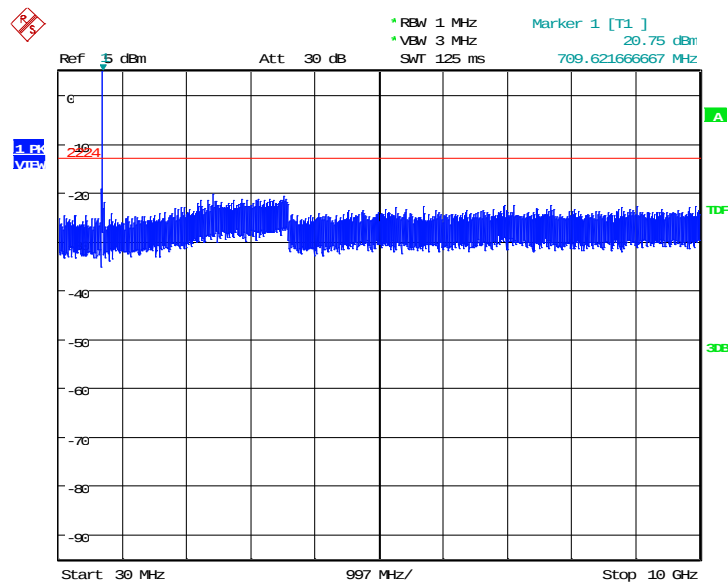
NOTE: peak above the limit line is the carrier frequency.



Date: 1.JAN.2019 07:52:25

LTE band 12: 30MHz – 10GHz

Spurious emission limit –13dBm.

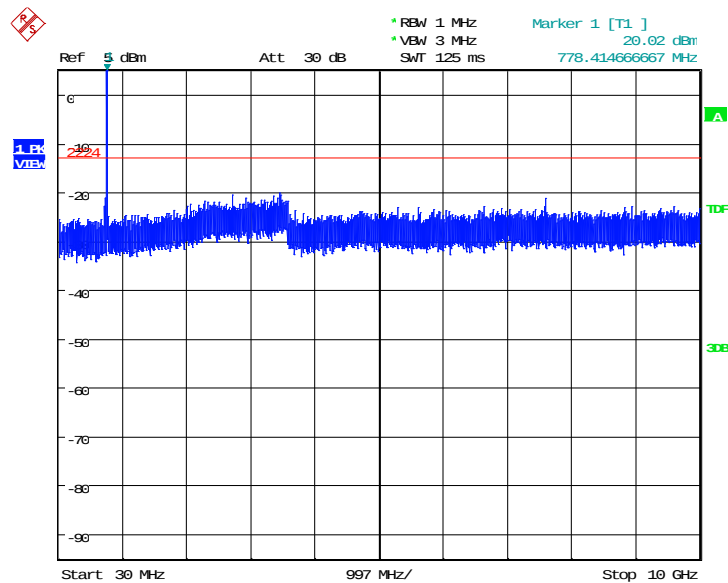


Date: 1.JAN.2019 10:06:10

LTE band 13: 30MHz – 10GHz

Spurious emission limit –13dBm.

NOTE: peak above the limit line is the carrier frequency.

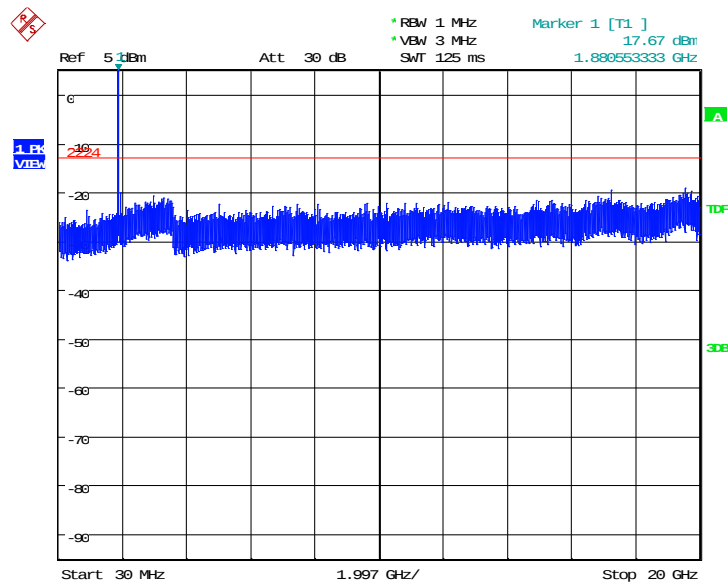


Date: 1.JAN.2019 07:35:04

LTE band 25: 30MHz – 20GHz

Spurious emission limit –13dBm.

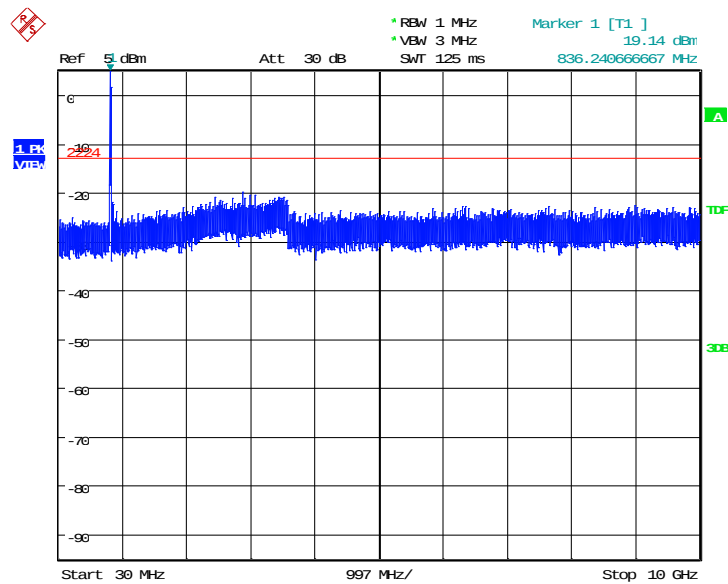
NOTE: peak above the limit line is the carrier frequency.



Date: 1.JAN.2019 13:32:19

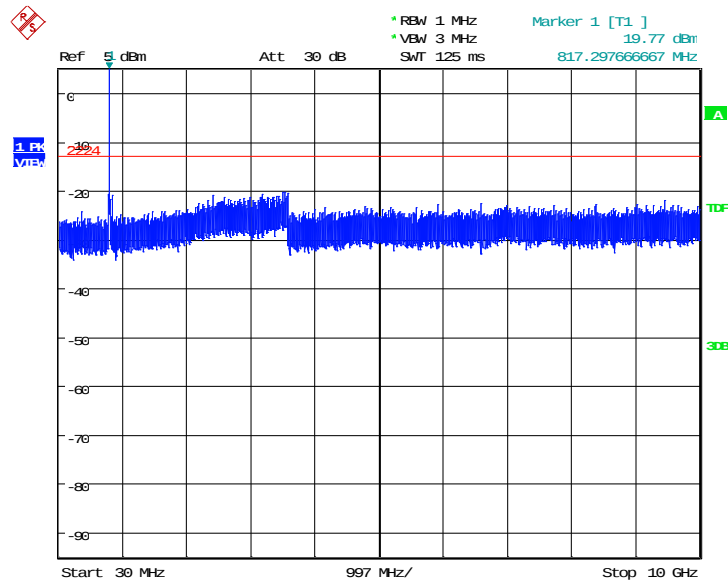
LTE band 26(Part 22): 30MHz – 10GHz

Spurious emission limit –13dBm.



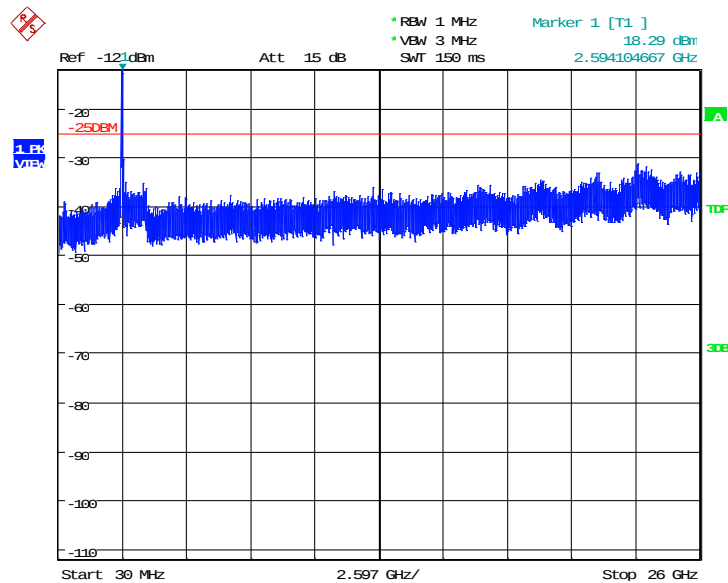
Date: 1.JAN.2019 11:44:11

LTE band 26(Part 90): 30MHz – 10GHz
Spurious emission limit –13dBm.



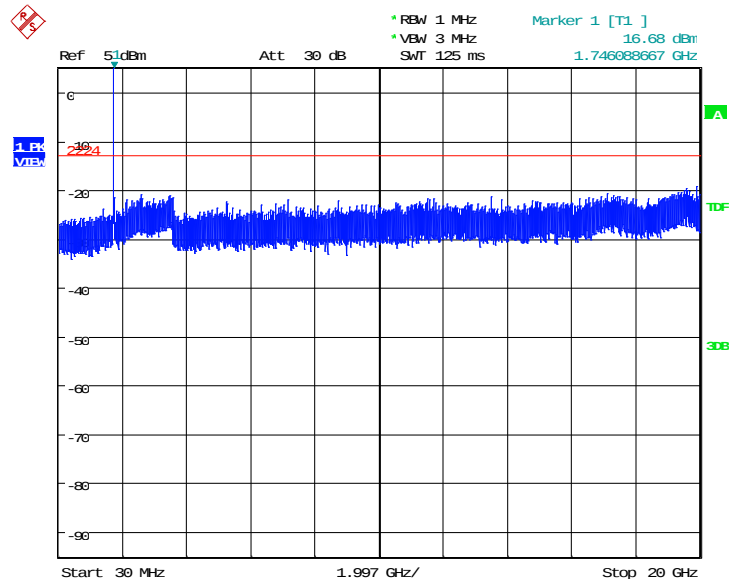
Date: 1. JAN. 2019 12:01:33

LTE band 41: 30MHz – 26GHz
Spurious emission limit –25dBm.



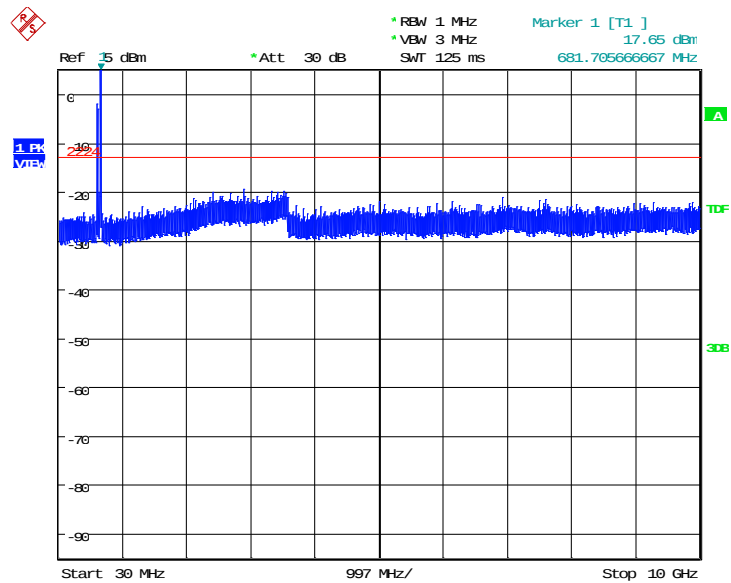
Date: 1. JAN. 2019 12:46:06

LTE band 66: 30MHz – 20GHz



Date: 1.JAN.2019 12:27:34

LTE band 71: 30MHz – 10GHz



Date: 2.JAN.2019 07:06:10

Note: Expanded measurement uncertainty is $U = 0.488\text{dB}(100\text{KHz}-2\text{GHz})/1.211\text{dB}(2\text{GHz}-26.5\text{GHz})$, $k = 1.96$

A.8 PEAK-TO-AVERAGE POWER RATIO

Reference

FCC: CFR Part 24.232, 27.50(d)

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval to 1 ms
- e) Record the maximum PAPR level associated with a probability of 0.1%

A.8.1 Measurement limit

not exceed 13 dB

A.8.2 Measurement results

LTE band 2

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1880.0	20	7.02	7.40
	15	6.63	7.12
	10	5.58	6.35
	5	5.38	6.09
	3	5.45	6.19
	1.4	5.48	6.25

LTE band 4

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1732.5	20	7.15	7.56
	15	6.51	7.21
	10	5.74	6.41
	5	5.77	6.28
	3	5.71	6.47
	1.4	5.64	6.31

LTE band 12

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
707.5	10	5.71	6.67
	5	5.83	6.67
	3	5.93	6.86
	1.4	5.87	6.79

LTE band 13

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
782.0	10	5.61	6.44
	5	5.64	6.28

LTE band 25

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1882.5	20	7.05	7.53
	15	6.51	7.28
	10	5.96	6.76
	5	5.87	6.57
	3	5.93	6.63
	1.4	5.96	6.67

LTE band 41

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2600.0	20	10.58	11.44
	15	7.63	8.24
	10	6.57	7.40
	5	6.22	7.05

LTE band 66

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1745.0	20	7.05	7.56
	15	6.44	7.34
	10	6.06	6.96
	5	6.28	7.12
	3	6.38	7.21
	1.4	6.35	7.15

LTE band 71

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
680.5	20	6.37	7.24
	15	5.75	6.85
	10	5.26	6.27
	5	4.63	5.75

Note: Expanded measurement uncertainty is $U = 0.483$, $k = 2$

*****END OF REPORT*****