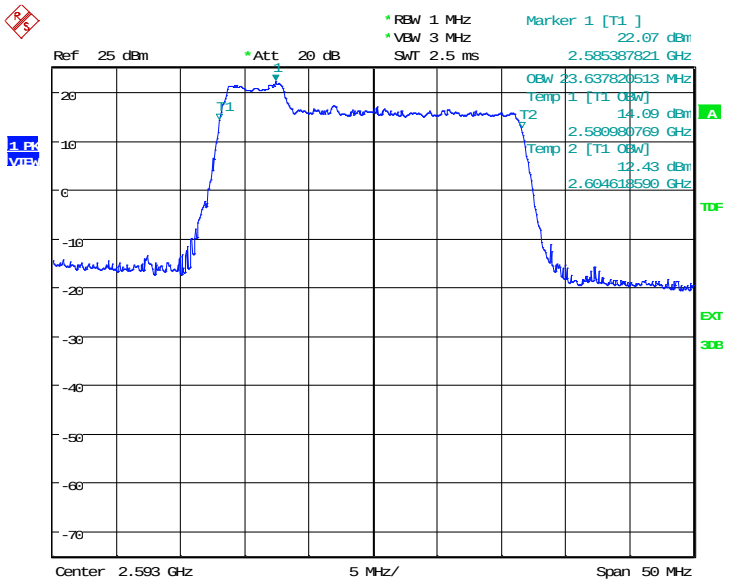
LTE Band CA_41C, 5MHz+20MHz (99% BW)

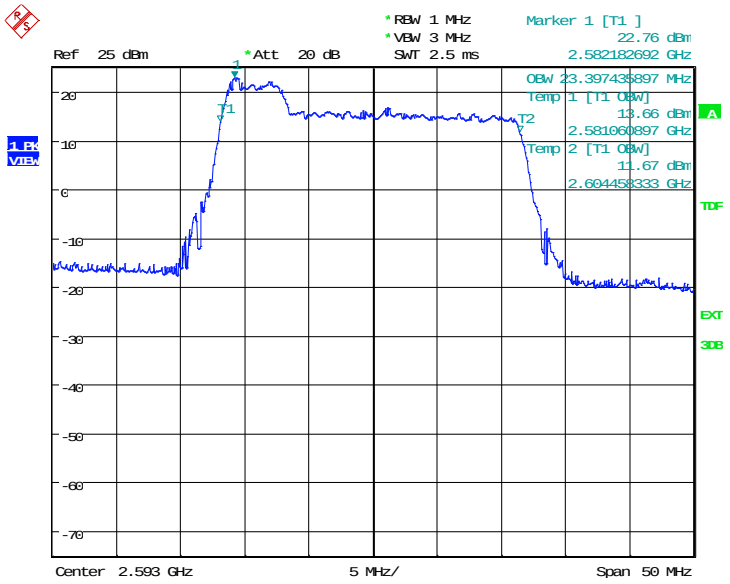
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	23637.82	23397.44

LTE Band CA_41C, 5MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:11:42

LTE Band CA_41C, 5MHz+20MHz Bandwidth, 16QAM (99% BW)

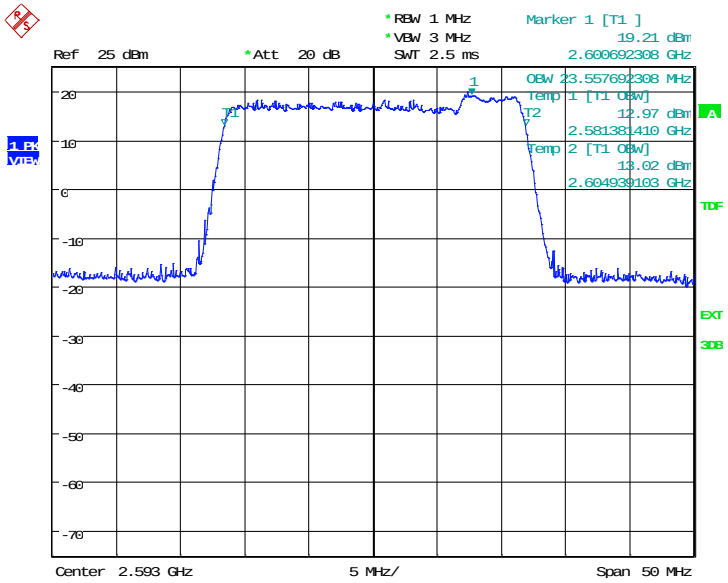


Date: 13.APR.2019 07:13:54

LTE Band CA_41C, 20MHz+5MHz (99% BW)

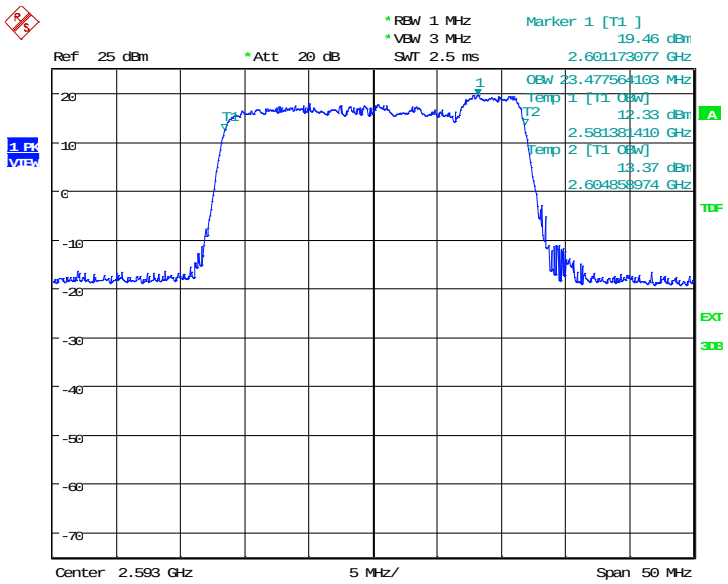
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	23557.69	23477.56

LTE Band CA_41C, 20MHz+5MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:21:19

LTE Band CA_41C, 20MHz+5MHz Bandwidth, 16QAM (99% BW)

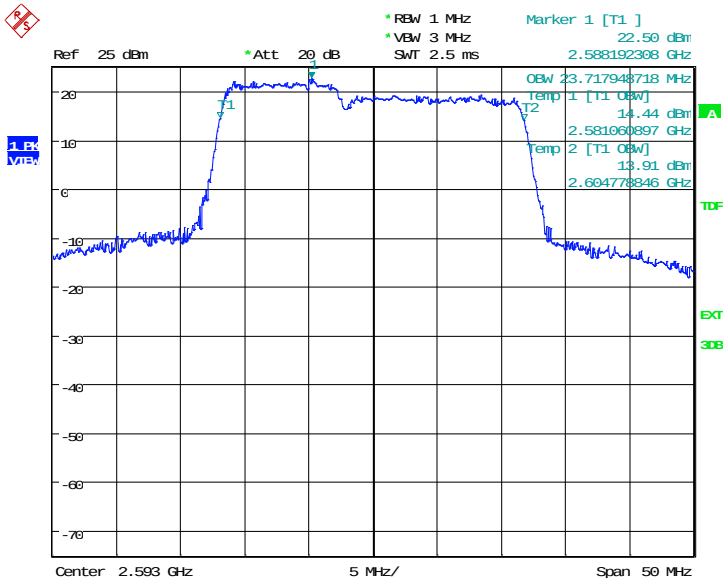


Date: 13.APR.2019 07:20:34

LTE Band CA_41C, 10MHz+15MHz (99% BW)

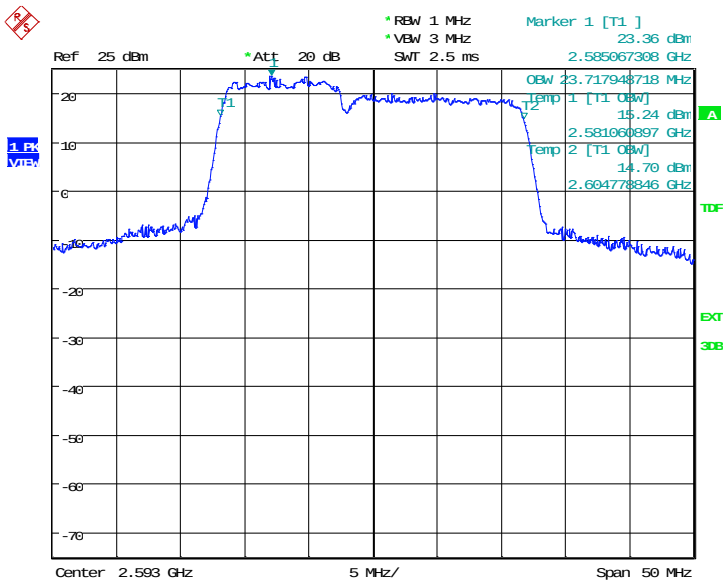
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	23717.95	23717.95

LTE Band CA_41C, 10MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:25:11

LTE Band CA_41C, 10MHz+15MHz Bandwidth, 16QAM (99% BW)

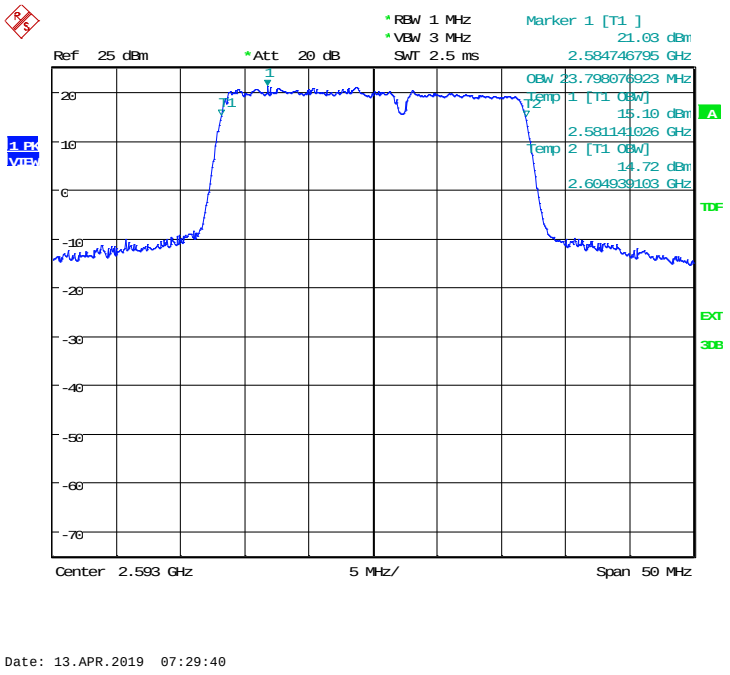


Date: 13.APR.2019 07:27:31

LTE Band CA_41C, 15MHz+10MHz (99% BW)

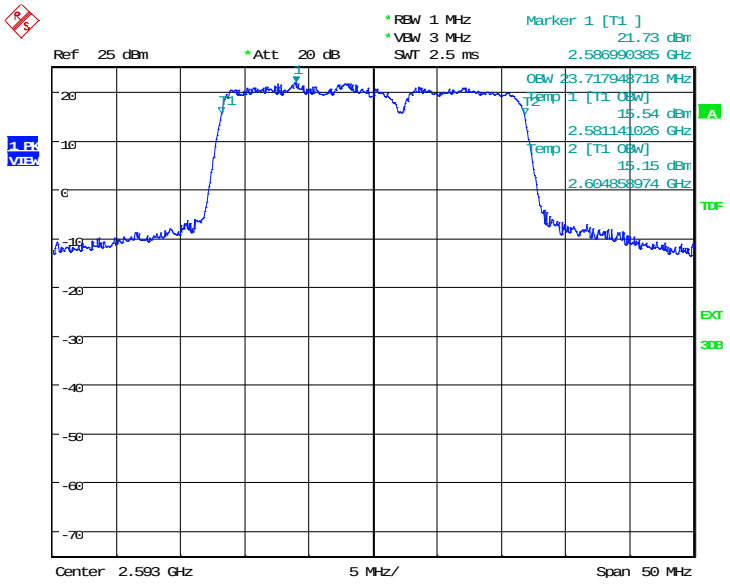
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
2593.0	QPSK	16QAM
	23798.08	23717.95

LTE Band CA_41C, 15MHz+10MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:29:40

LTE Band CA_41C, 15MHz+10MHz Bandwidth, 16QAM (99% BW)

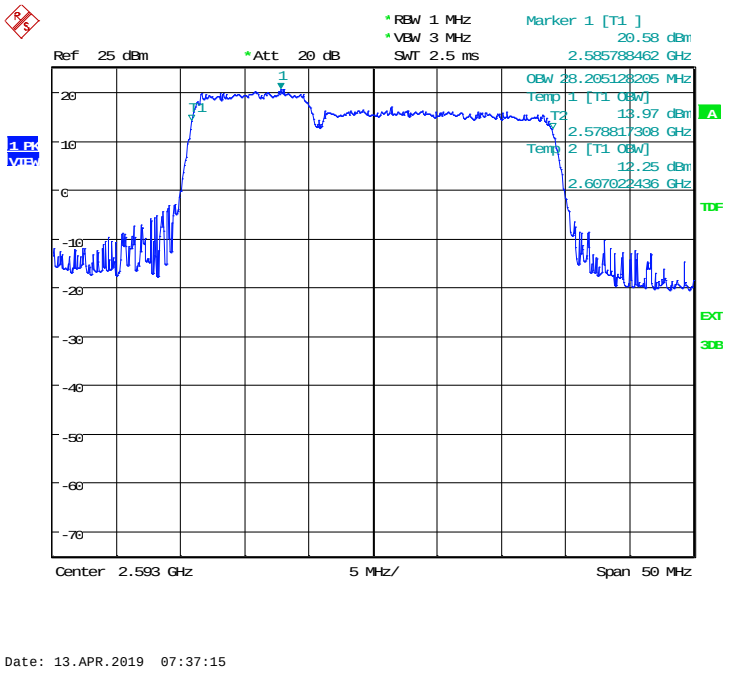


Date: 13.APR.2019 07:32:01

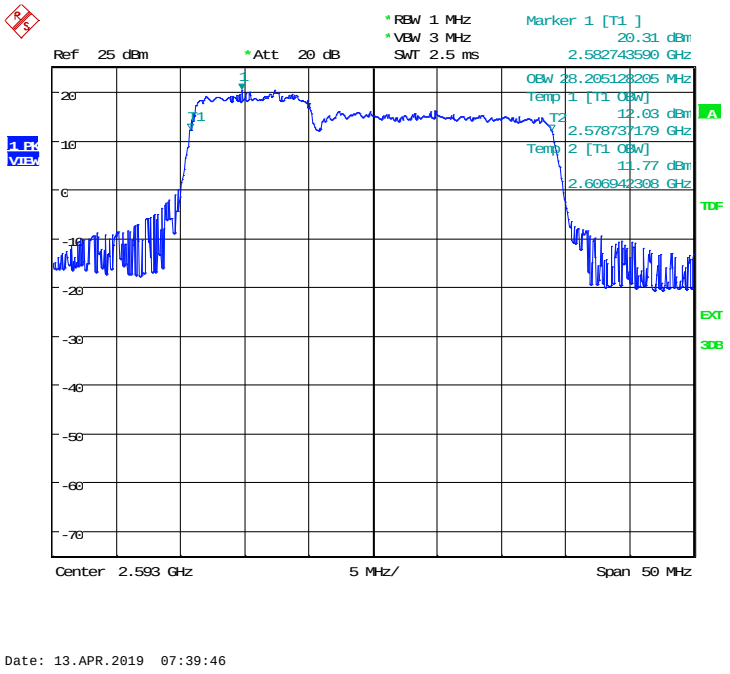
LTE Band CA_41C, 10MHz+20MHz (99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
2593.0	QPSK	16QAM
	28205.13	28205.13

LTE Band CA_41C, 10MHz+20MHz Bandwidth, QPSK (99% BW)



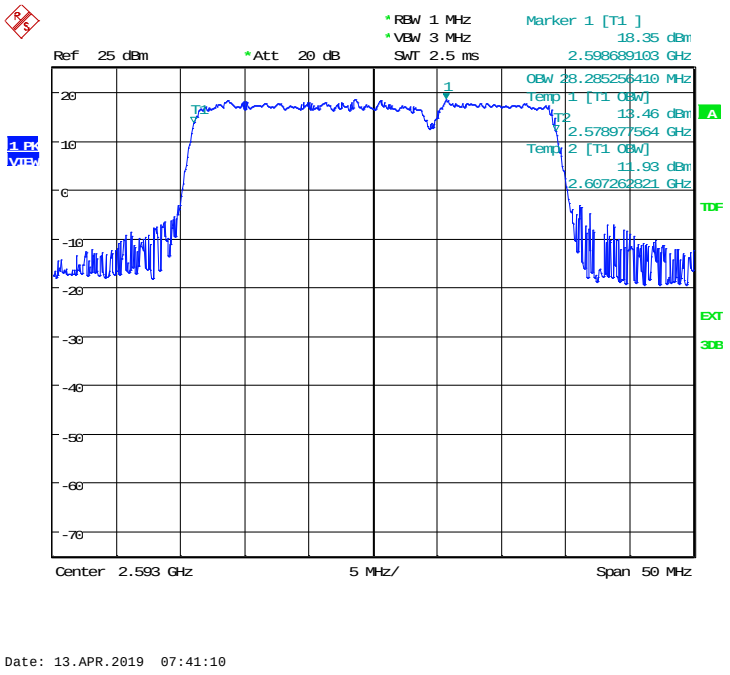
LTE Band CA_41C, 10MHz+20MHz Bandwidth, 16QAM (99% BW)



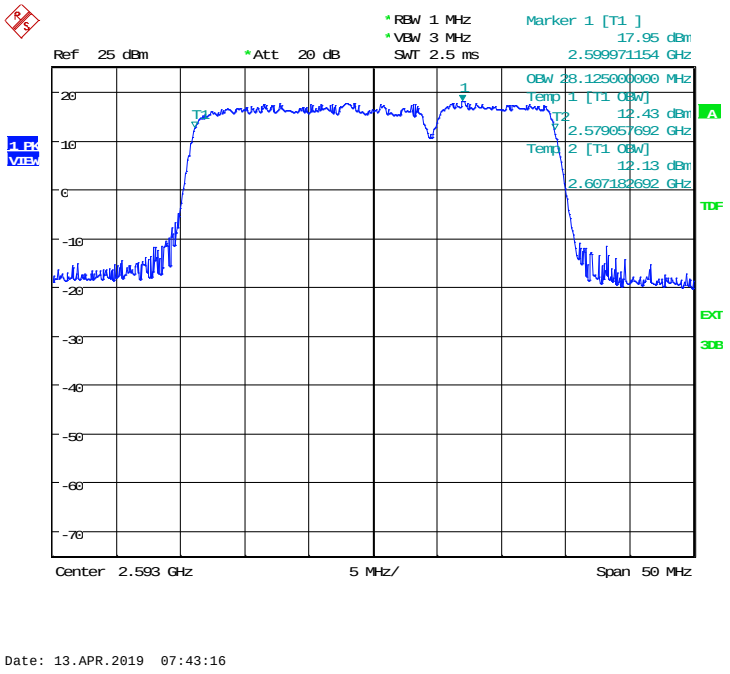
LTE Band CA_41C, 20MHz+10MHz (99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
2593.0	QPSK	16QAM
	28285.26	28125.00

LTE Band CA_41C, 20MHz+10MHz Bandwidth, QPSK (99% BW)



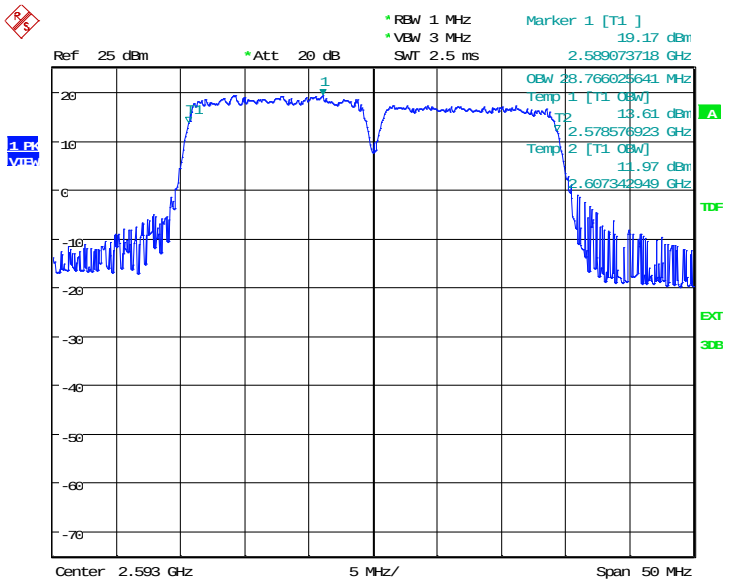
LTE Band CA_41C, 20MHz+10MHz Bandwidth, 16QAM (99% BW)



LTE Band CA_41C, 15MHz+15MHz (99% BW)

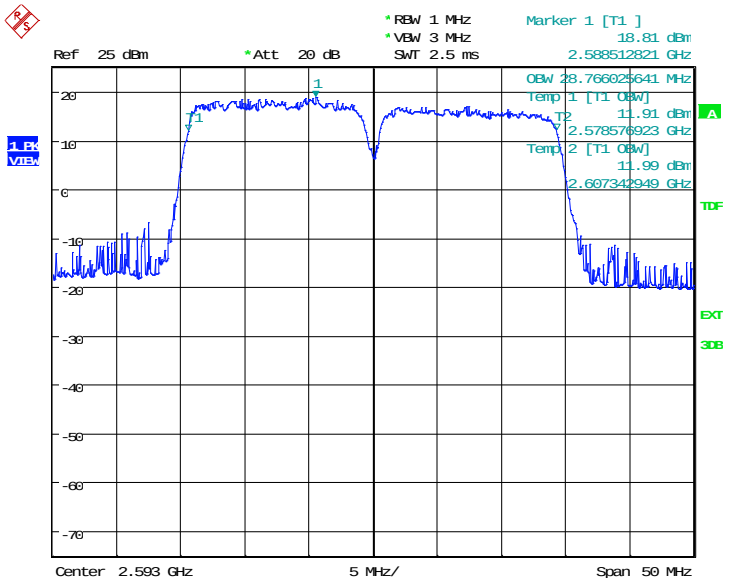
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	28766.03	28766.03

LTE Band CA_41C, 15MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:45:21

LTE Band CA_41C, 15MHz+15MHz Bandwidth, 16QAM (99% BW)

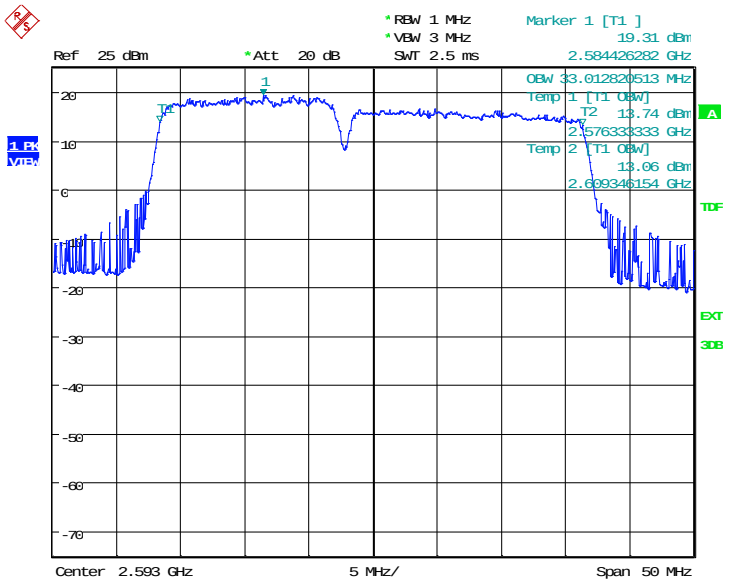


Date: 13.APR.2019 07:48:20

LTE Band CA_41C, 15MHz+20MHz (99% BW)

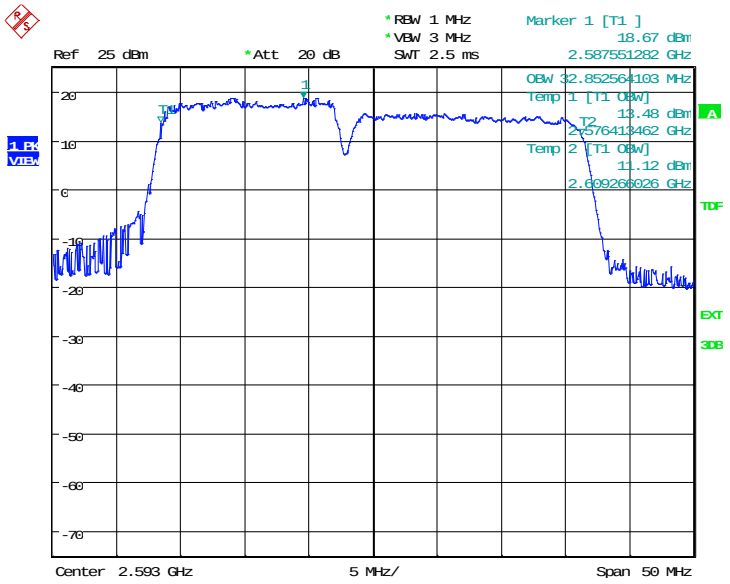
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	33012.82	32852.56

LTE Band CA_41C, 15MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:51:43

LTE Band CA_41C, 15MHz+20MHz Bandwidth, 16QAM (99% BW)

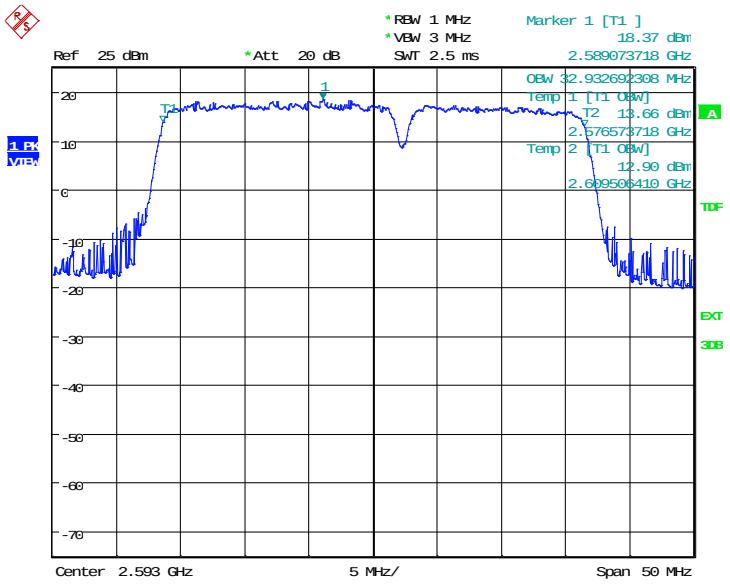


Date: 13.APR.2019 07:53:49

LTE Band CA_41C, 20MHz+15MHz (99% BW)

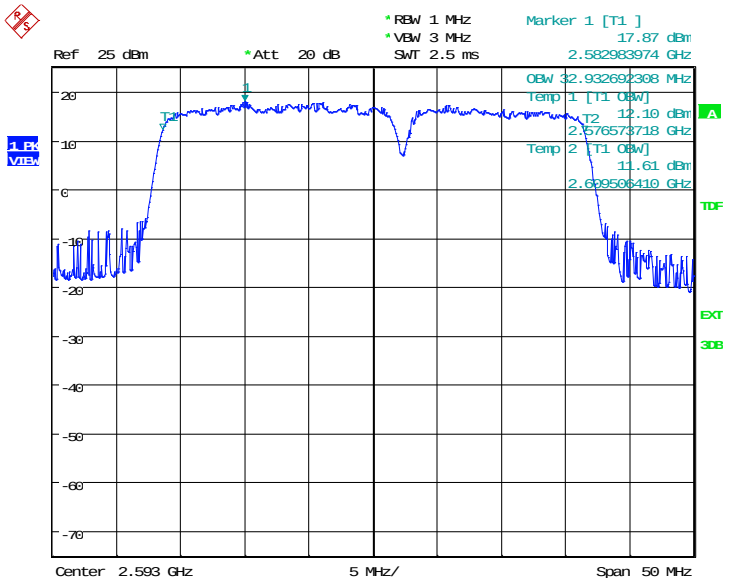
Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
	QPSK	16QAM
2593.0	32932.69	32932.69

LTE Band CA_41C, 20MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 13.APR.2019 07:55:53

LTE Band CA_41C, 20MHz+15MHz Bandwidth, 16QAM (99% BW)

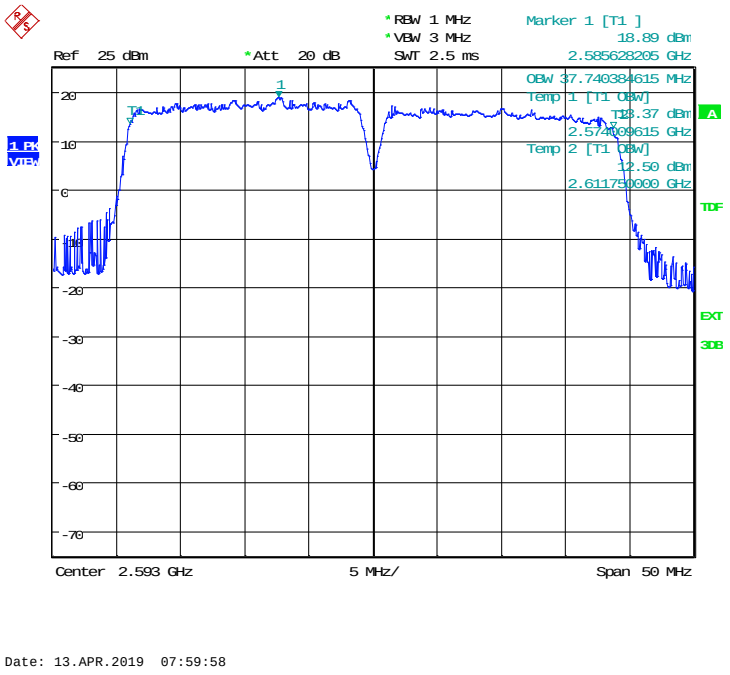


Date: 13.APR.2019 07:58:25

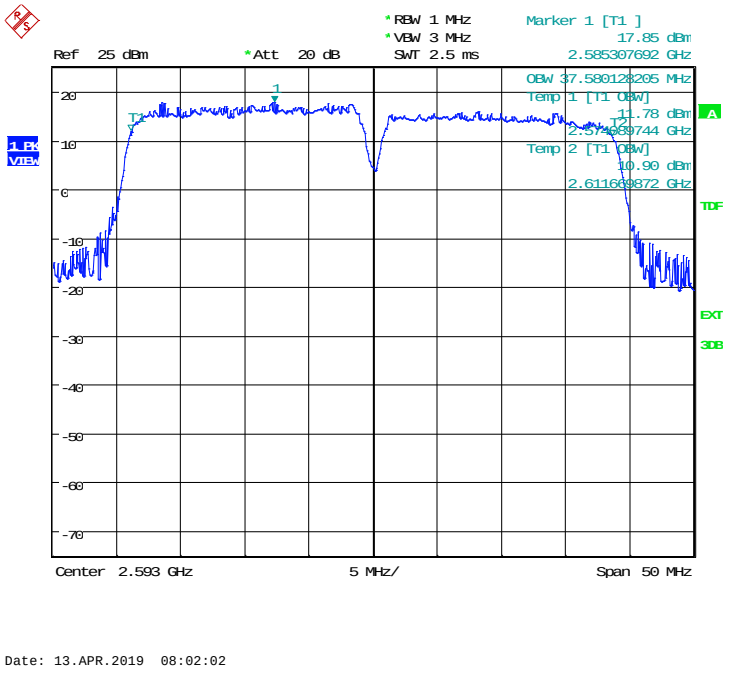
LTE Band CA_41C, 20MHz+20MHz (99% BW)

Frequency(MHz)	Occupied Bandwidth (99% BW)(kHz)	
2593.0	QPSK	16QAM
	37740.38	37580.13

LTE Band CA_41C, 20MHz+20MHz Bandwidth, QPSK (99% BW)



LTE Band CA_41C, 20MHz+20MHz Bandwidth, 16QAM (99% BW)



Note: Expanded measurement uncertainty is U = 3428 Hz, k = 2

A.5 EMISSION BANDWIDTH

Reference

FCC: CFR Part 2.1049, 22.917, 24.238, 27.53.

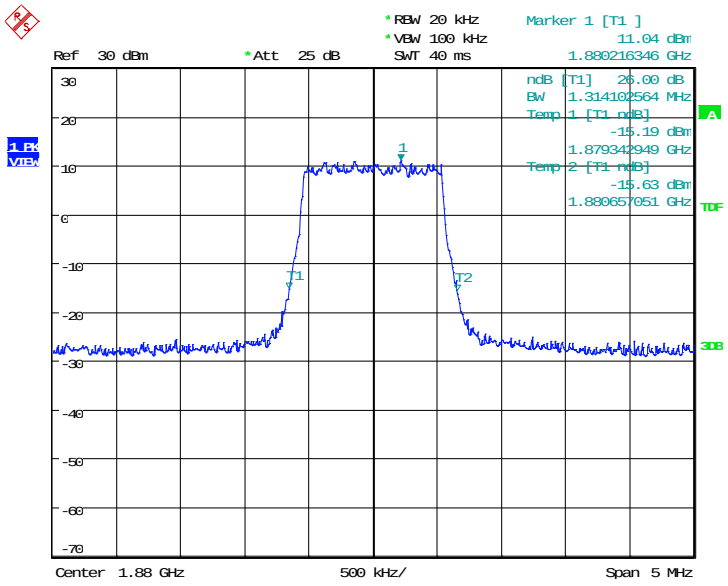
A.5.1Emission Bandwidth Results

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

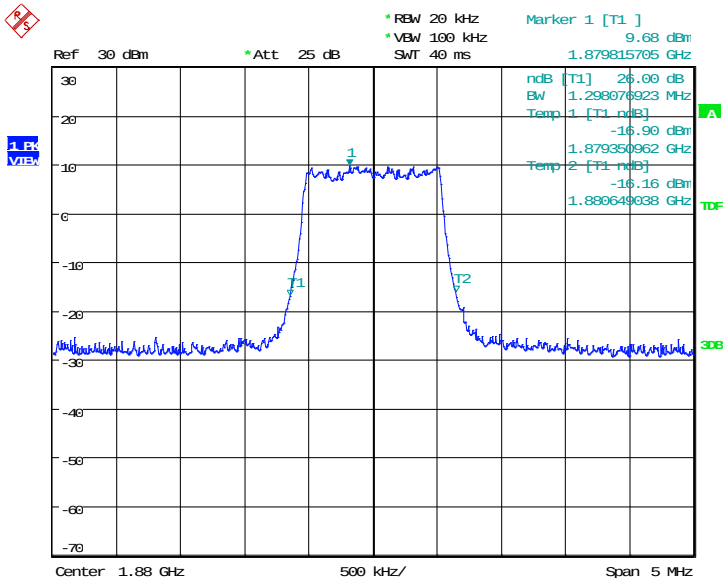
LTE band 2, 1.4MHz (-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1880.0	QPSK	16QAM
	1314.10	1298.08

LTE band 2, 1.4MHz Bandwidth, QPSK (-26dBc BW)



LTE band 2, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

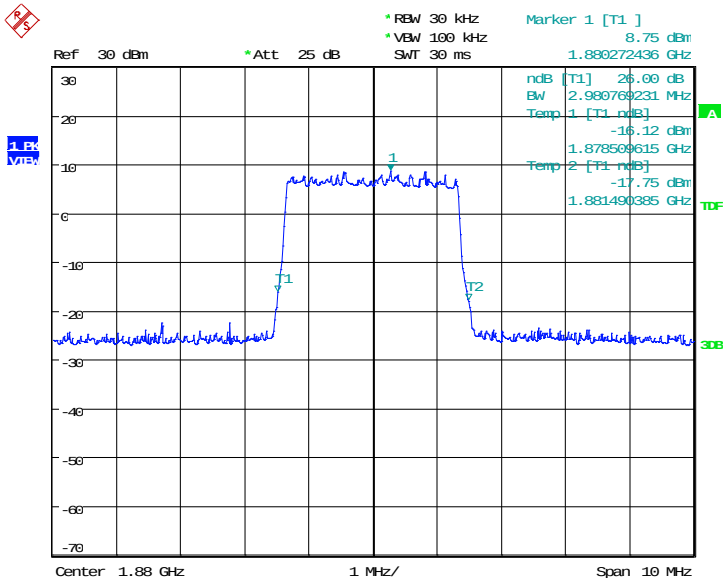


Date: 24.MAR.2019 19:42:28

LTE band 2, 3MHz (-26dBc BW)

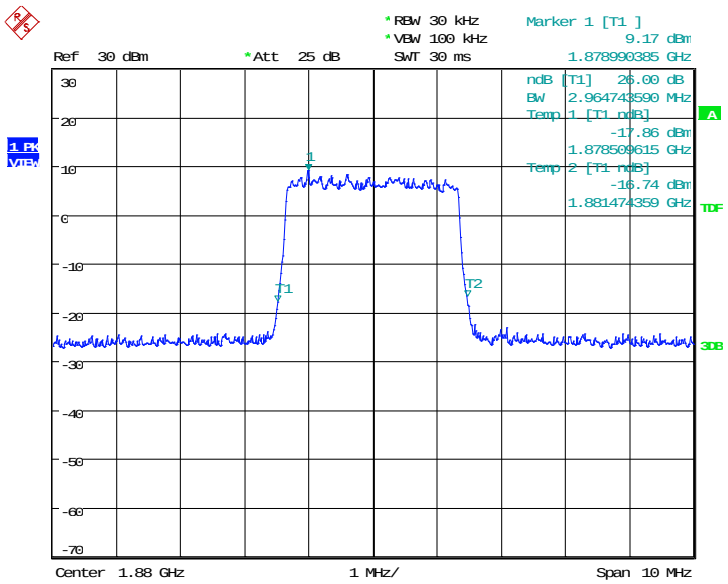
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1880.0	2980.77	2964.74

LTE band 2, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:45:21

LTE band 2, 3MHz Bandwidth, 16QAM (-26dBc BW)

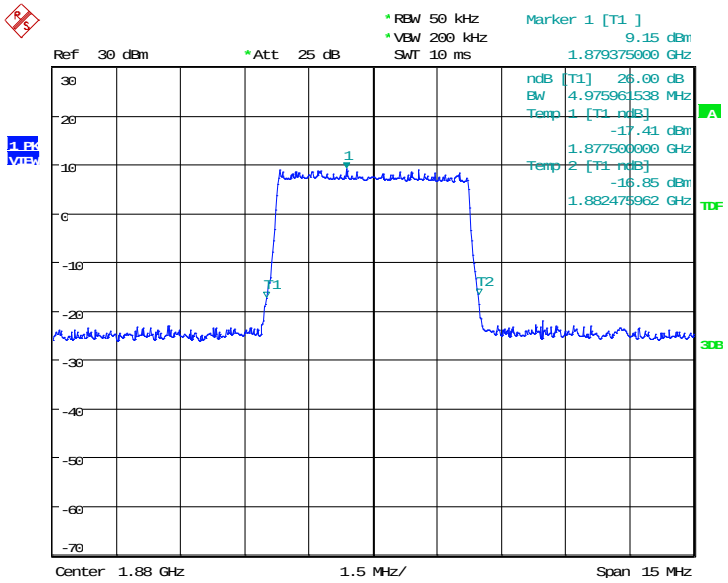


Date: 24.MAR.2019 19:45:36

LTE band 2, 5MHz (-26dBc BW)

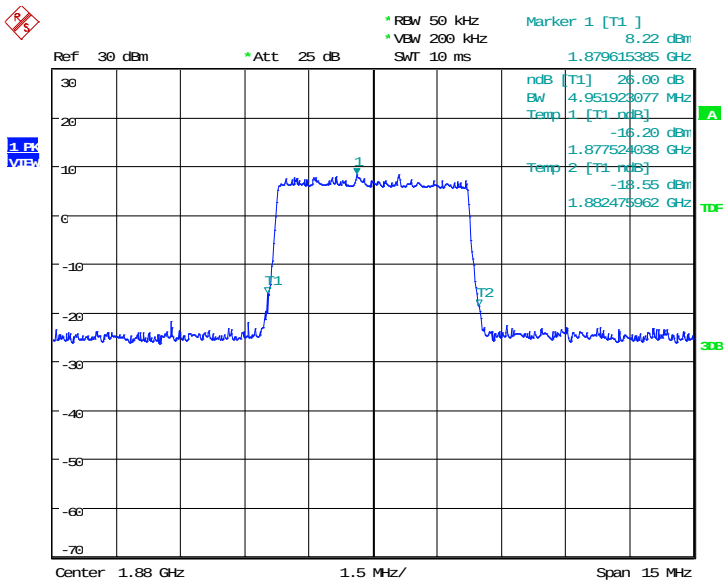
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1880.0	QPSK	16QAM
	4975.96	4951.92

LTE band 2, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:48:30

LTE band 2, 5MHz Bandwidth,16QAM (-26dBc BW)

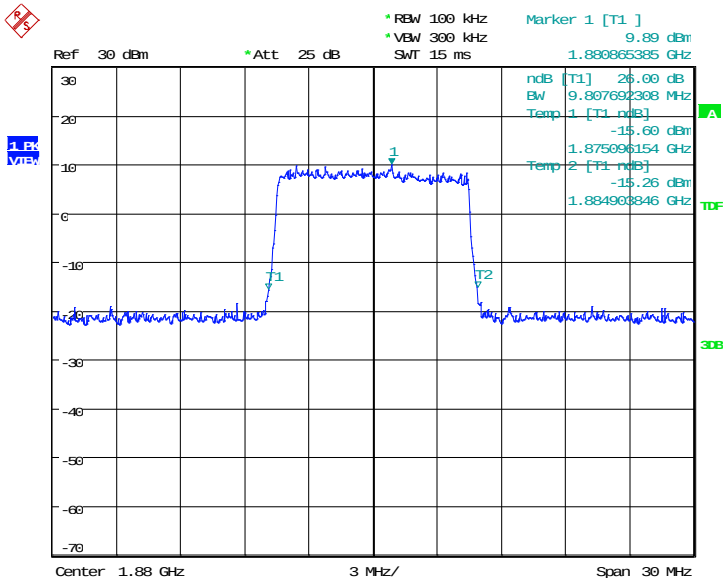


Date: 24.MAR.2019 19:48:45

LTE band 2, 10MHz (-26dBc BW)

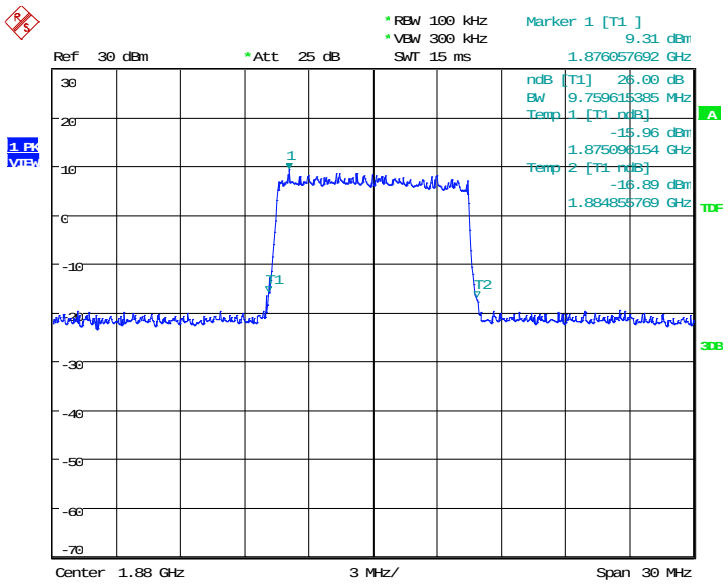
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1880.0	9807.69	9759.62

LTE band 2, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:51:39

LTE band 2, 10MHz Bandwidth, 16QAM (-26dBc BW)

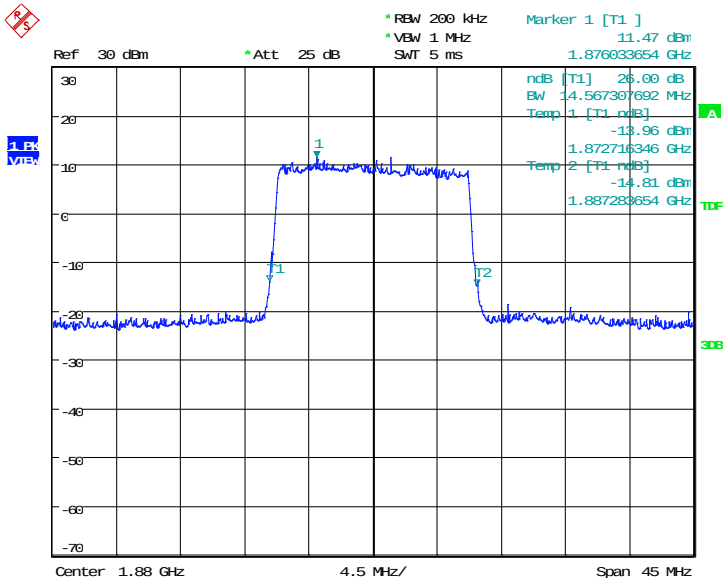


Date: 24.MAR.2019 19:51:55

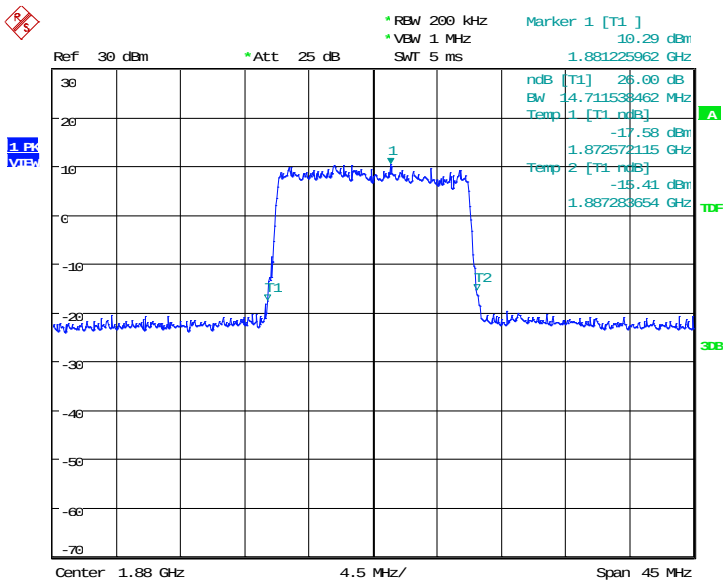
LTE band 2, 15MHz (-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1880.0	14567.31	14711.54

LTE band 2, 15MHz Bandwidth, QPSK (-26dBc BW)



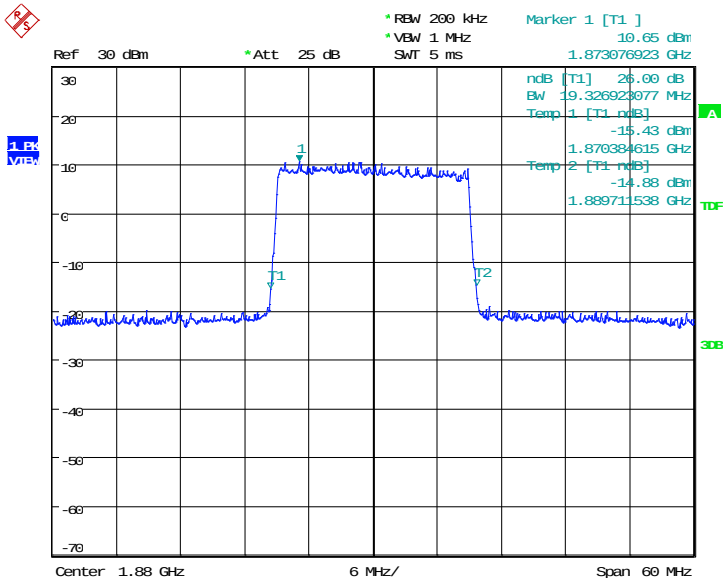
LTE band 2, 15MHz Bandwidth, 16QAM (-26dBc BW)



LTE band 2, 20MHz (-26dBc BW)

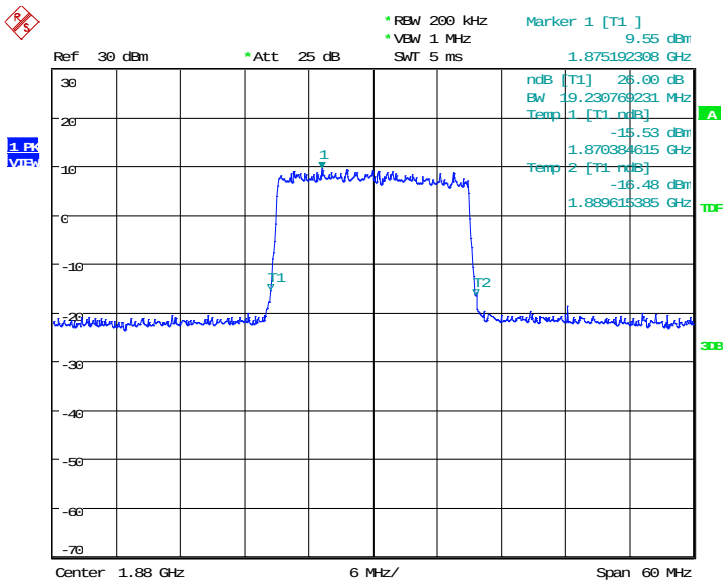
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1880.0	19326.92	19230.77

LTE band 2, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:57:57

LTE band 2, 20MHz Bandwidth, 16QAM (-26dBc BW)

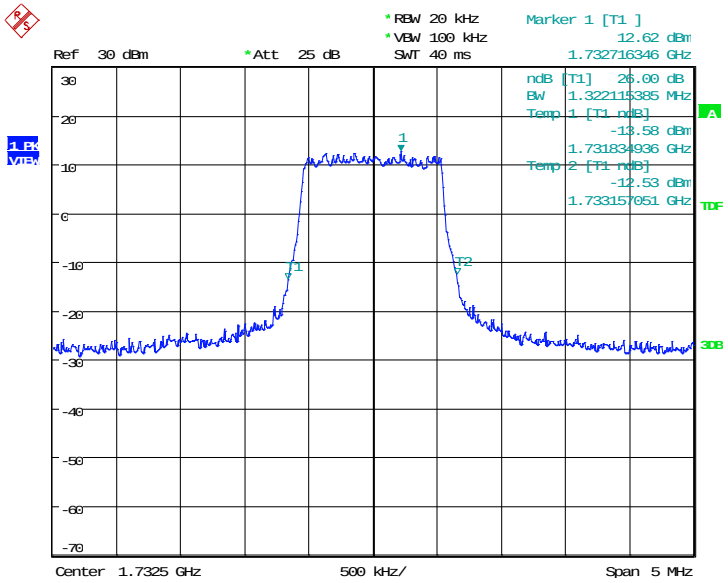


Date: 24.MAR.2019 19:58:13

LTE band 4, 1.4MHz (-26dBc BW)

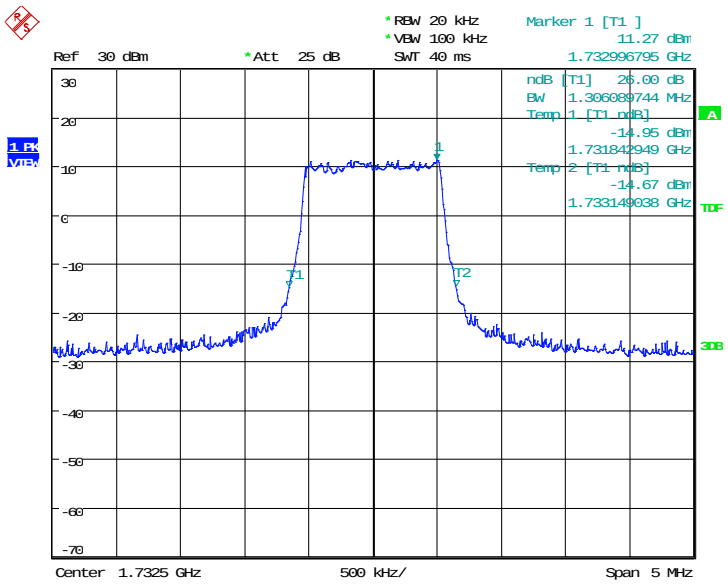
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1732.5	1322.12	1306.09

LTE band 4, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:01:11

LTE band 4, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

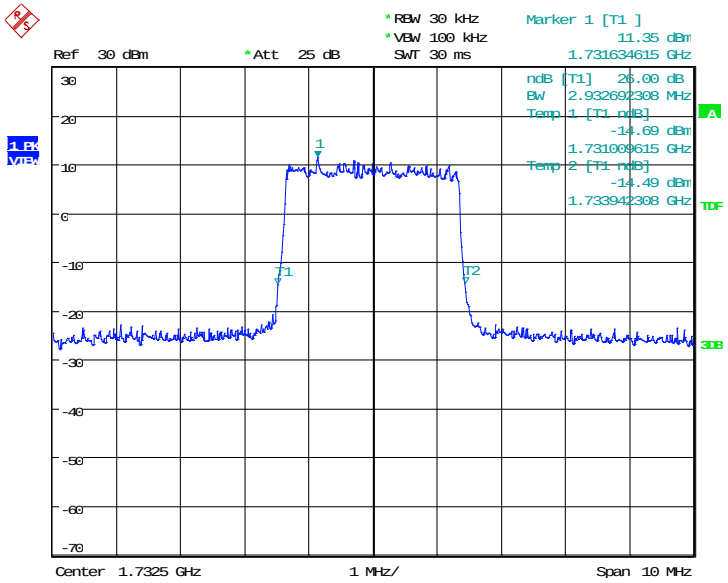


Date: 24.MAR.2019 20:01:26

LTE band 4, 3MHz (-26dBc BW)

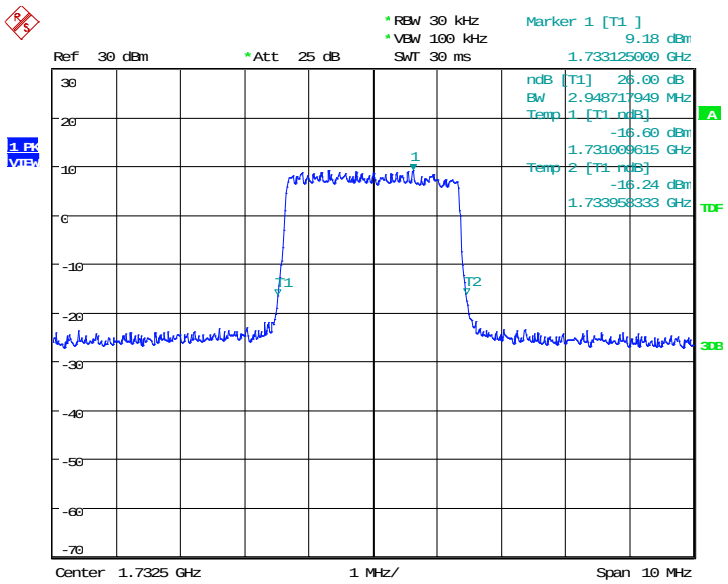
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1732.5	2932.69	2948.72

LTE band 4, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:04:19

LTE band 4, 3MHz Bandwidth, 16QAM (-26dBc BW)

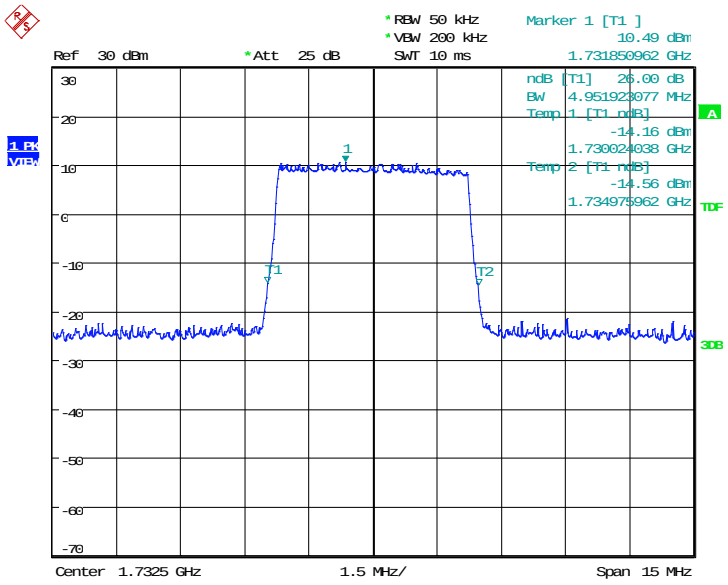


Date: 24.MAR.2019 20:04:35

LTE band 4, 5MHz (-26dBc BW)

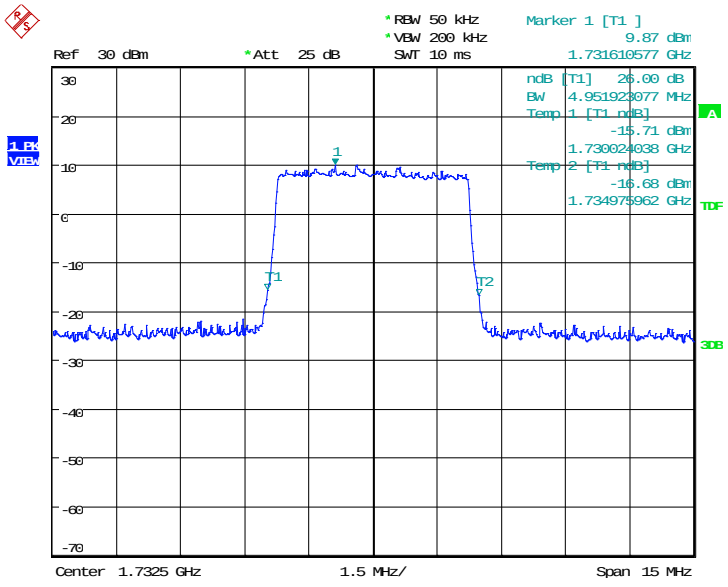
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1732.5	QPSK	16QAM
	4951.92	4951.92

LTE band 4, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:07:28

LTE band 4, 5MHz Bandwidth,16QAM (-26dBc BW)

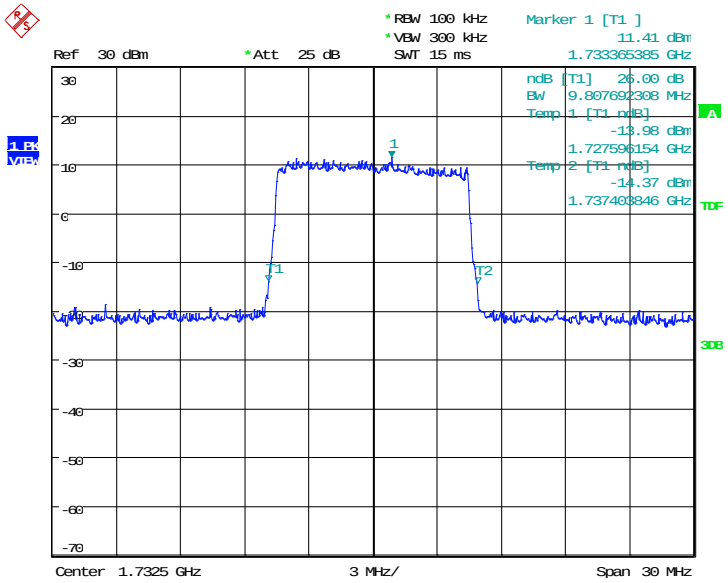


Date: 24.MAR.2019 20:07:44

LTE band 4, 10MHz (-26dBc BW)

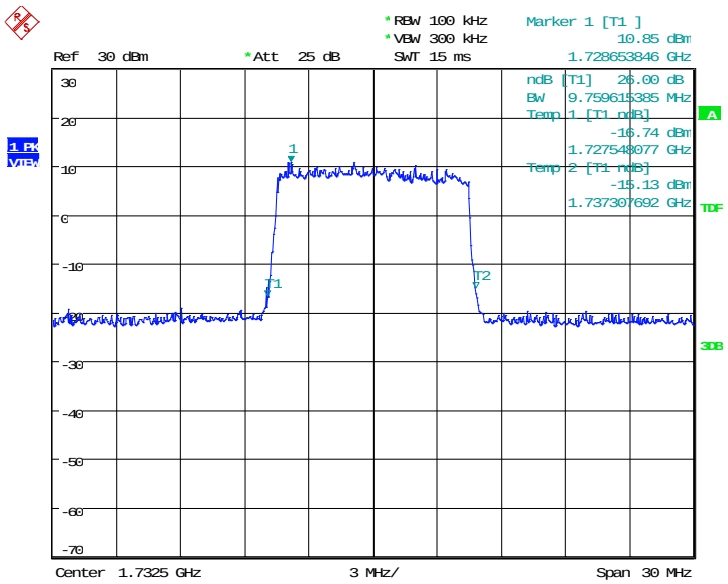
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1732.5	9807.69	9759.62

LTE band 4, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:10:37

LTE band 4, 10MHz Bandwidth, 16QAM (-26dBc BW)

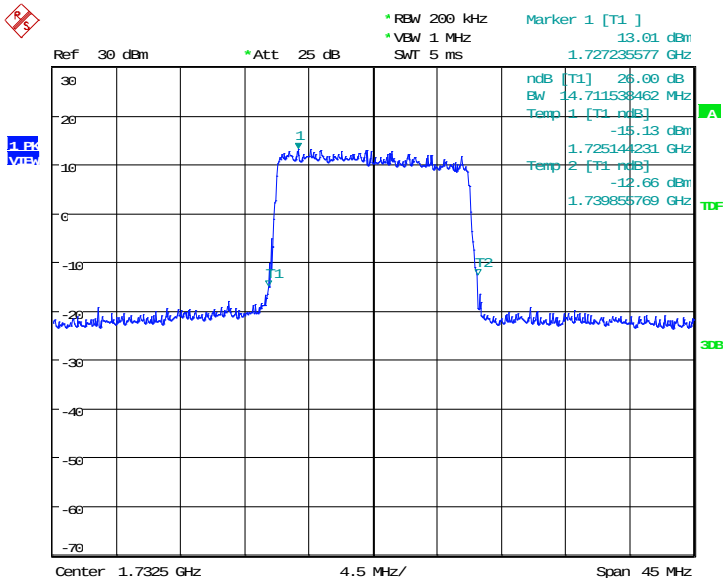


Date: 24.MAR.2019 20:10:53

LTE band 4, 15MHz (-26dBc BW)

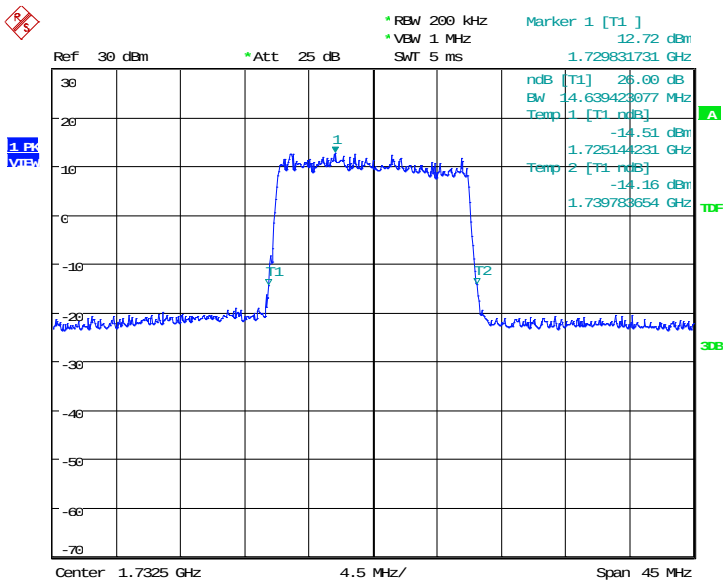
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1732.5	QPSK	16QAM
	14711.54	14639.42

LTE band 4, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:13:47

LTE band 4, 15MHz Bandwidth, 16QAM (-26dBc BW)

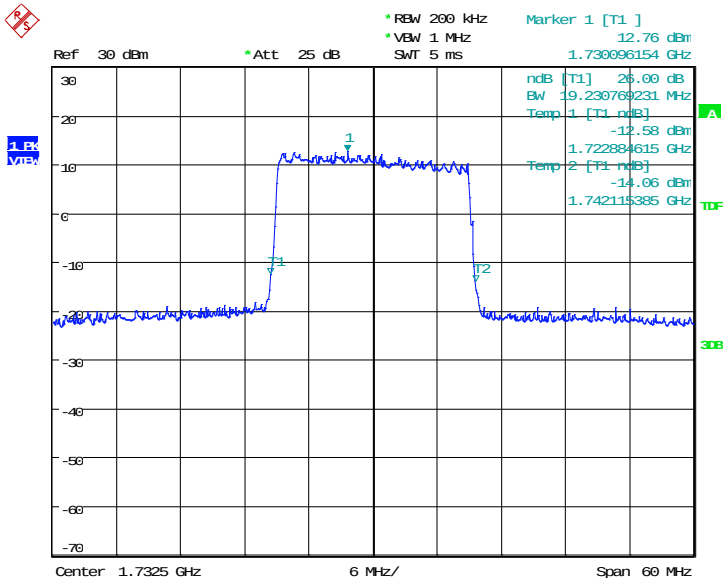


Date: 24.MAR.2019 20:14:02

LTE band 4, 20MHz (-26dBc BW)

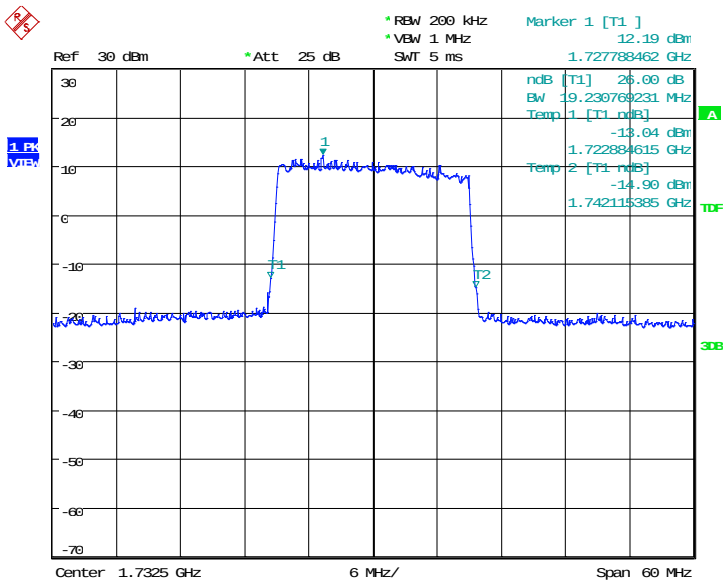
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1732.5	QPSK	16QAM
	19230.77	19230.77

LTE band 4, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:16:56

LTE band 4, 20MHz Bandwidth, 16QAM (-26dBc BW)

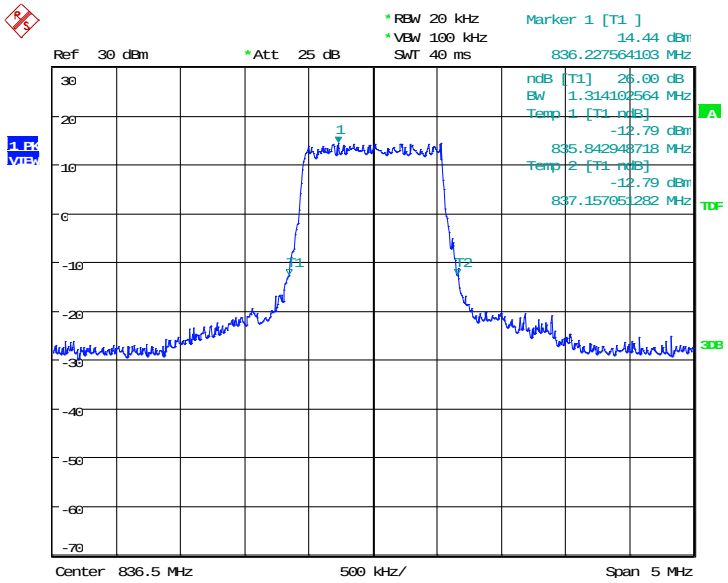


Date: 24.MAR.2019 20:17:12

LTE band 5, 1.4MHz (-26dBc BW)

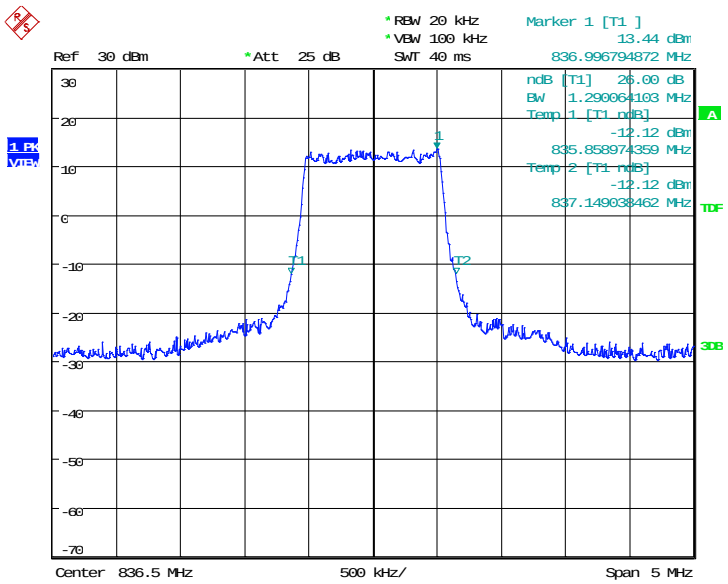
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
836.5	1314.10	1290.06

LTE band 5, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:29:35

LTE band 5, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

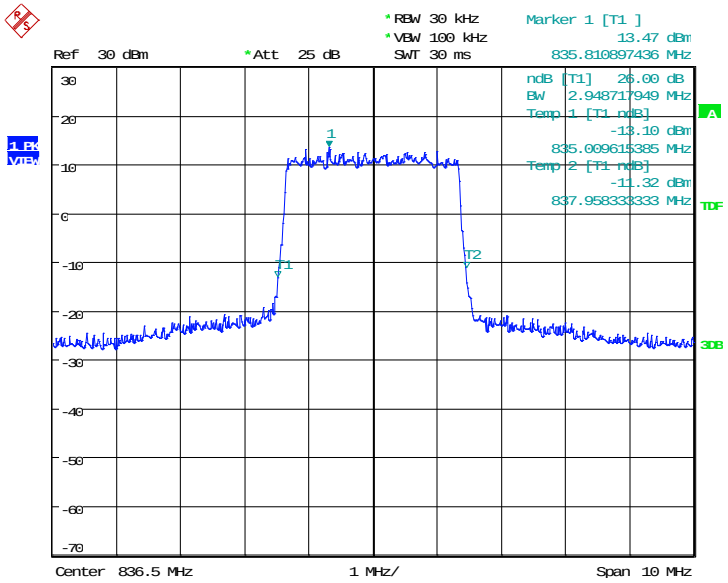


Date: 24.MAR.2019 19:29:50

LTE band 5, 3MHz (-26dBc BW)

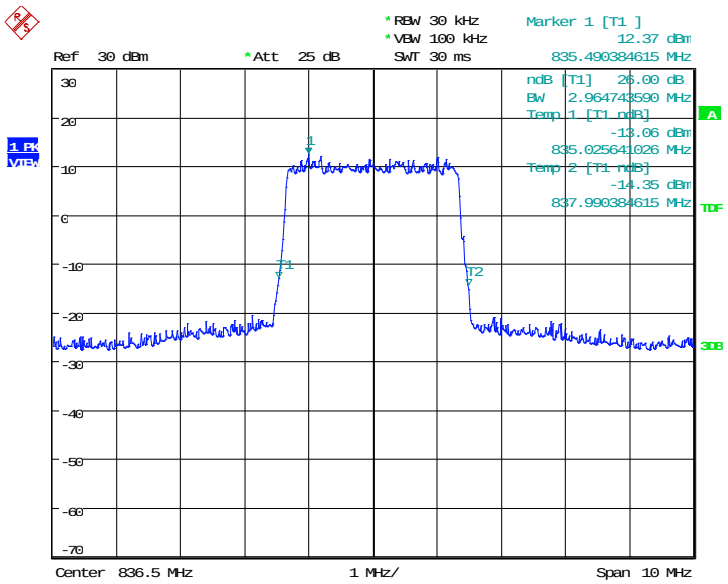
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	2948.72	2964.74

LTE band 5, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:32:43

LTE band 5, 3MHz Bandwidth, 16QAM (-26dBc BW)

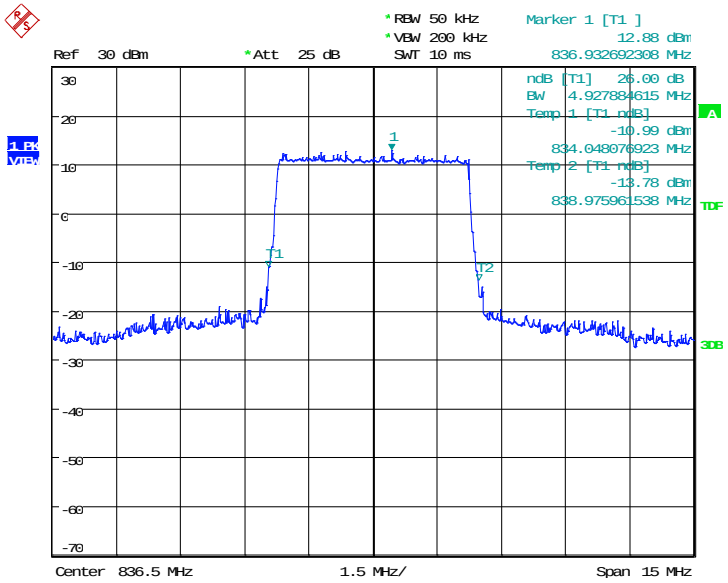


Date: 24.MAR.2019 19:32:59

LTE band 5, 5MHz (-26dBc BW)

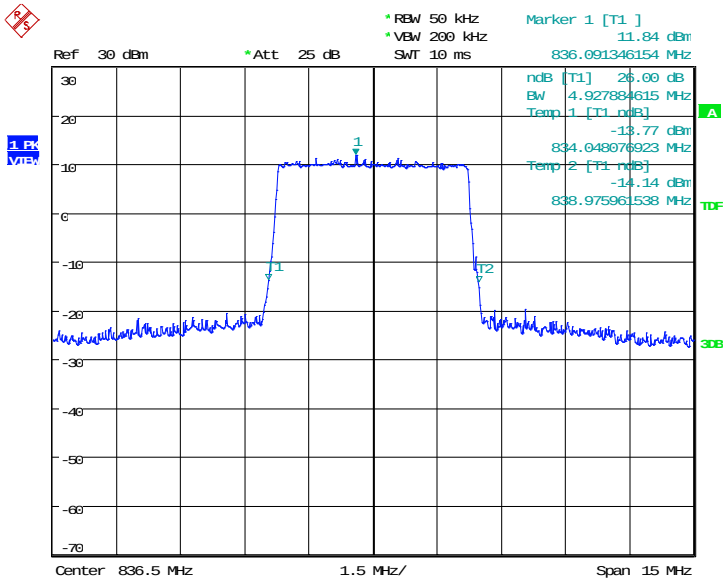
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	4927.88	4927.88

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



Date: 24.MAR.2019 19:35:52

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

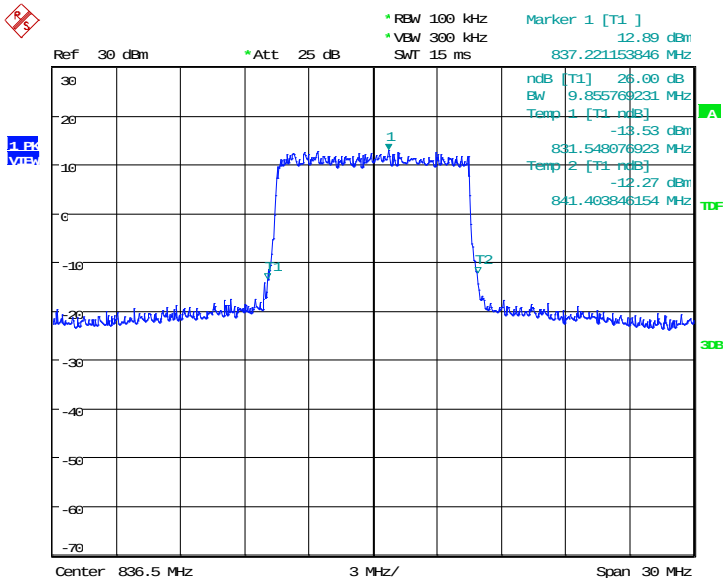


Date: 24.MAR.2019 19:36:08

LTE band 5, 10MHz (-26dBc BW)

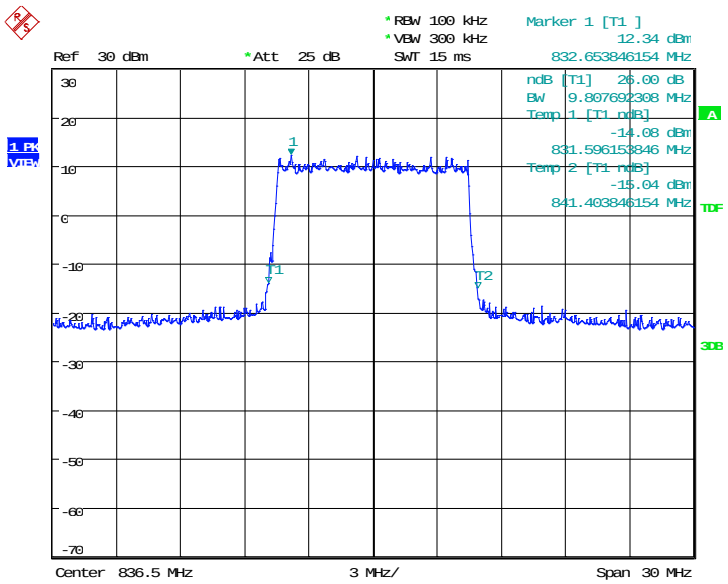
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	9855.77	9807.69

LTE band 5, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:39:01

LTE band 5, 10MHz Bandwidth, 16QAM (-26dBc BW)

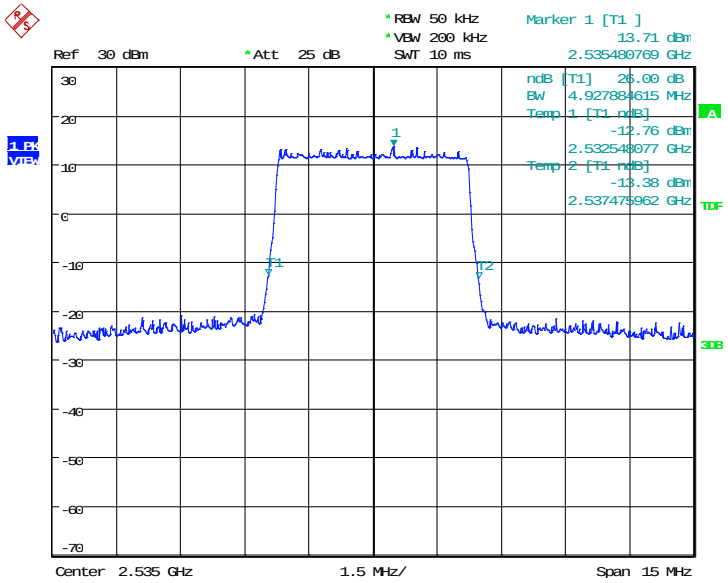


Date: 24.MAR.2019 19:39:17

LTE band 7, 5MHz (-26dBc BW)

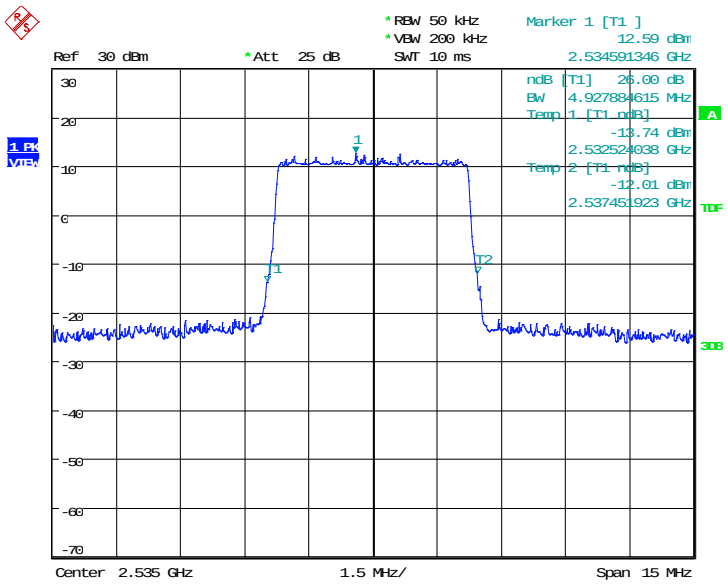
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2535.0	QPSK	16QAM
	4927.88	4927.88

LTE band 7, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 18:27:59

LTE band 7, 5MHz Bandwidth,16QAM (-26dBc BW)

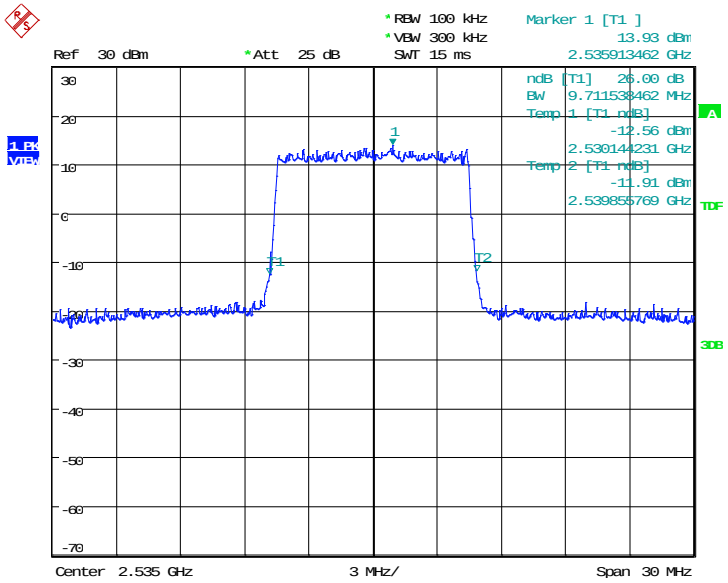


Date: 24.MAR.2019 18:28:15

LTE band 7, 10MHz (-26dBc BW)

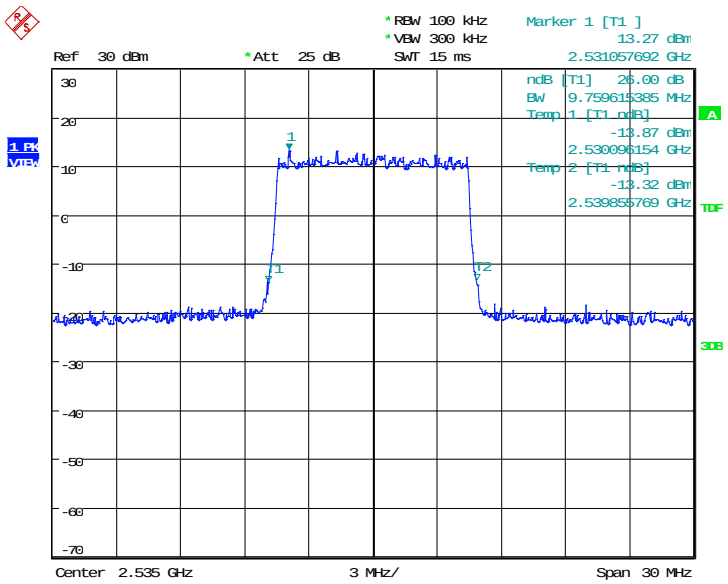
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2535.0	9711.54	9759.62

LTE band 7, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 18:31:08

LTE band 7, 10MHz Bandwidth, 16QAM (-26dBc BW)

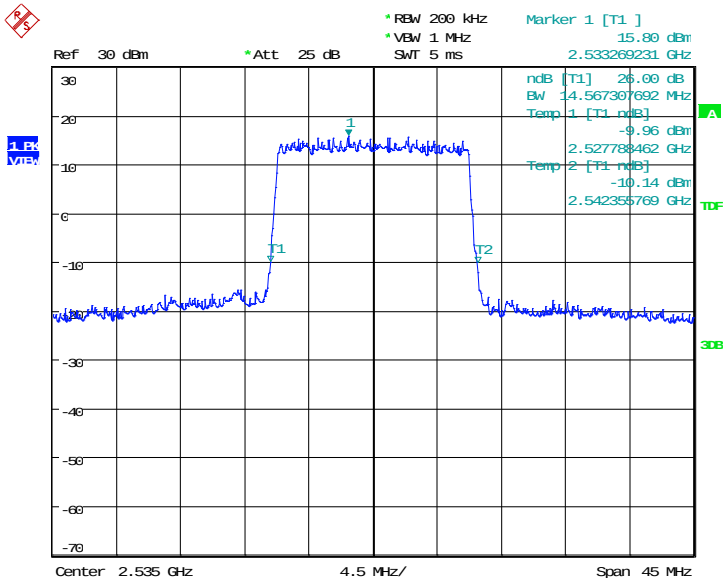


Date: 24.MAR.2019 18:31:24

LTE band 7, 15MHz (-26dBc BW)

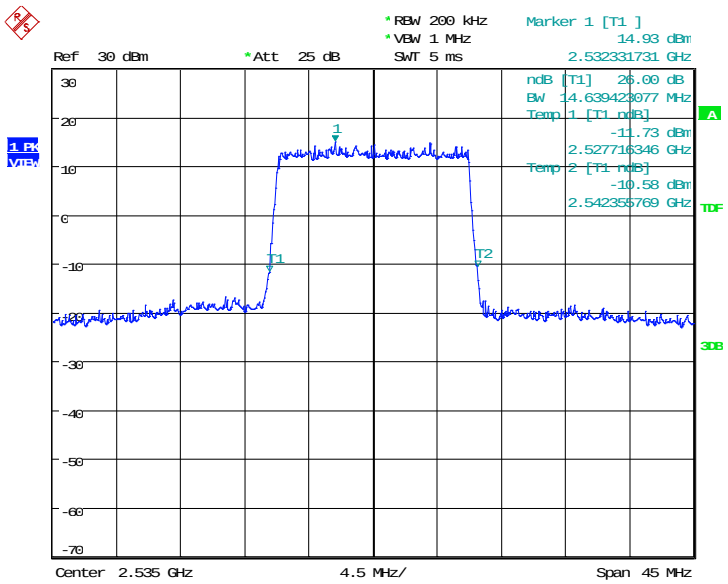
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2535.0	14567.31	14639.42

LTE band 7, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 18:34:17

LTE band 7, 15MHz Bandwidth, 16QAM (-26dBc BW)

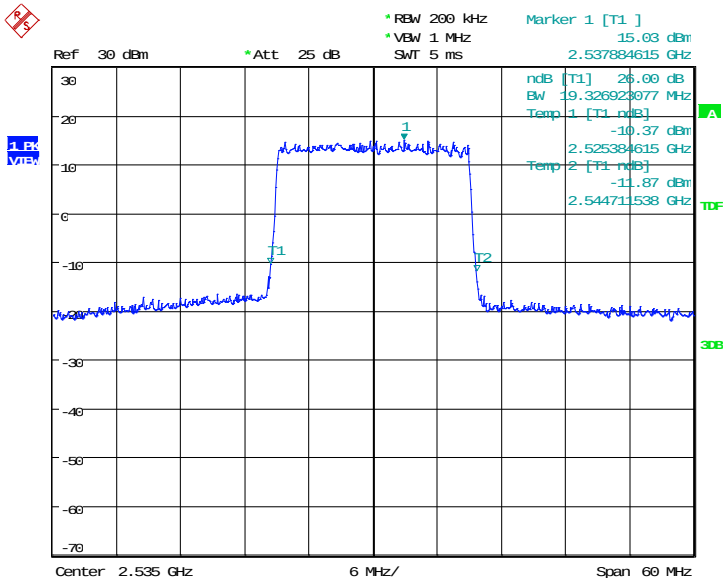


Date: 24.MAR.2019 18:34:33

LTE band 7, 20MHz (-26dBc BW)

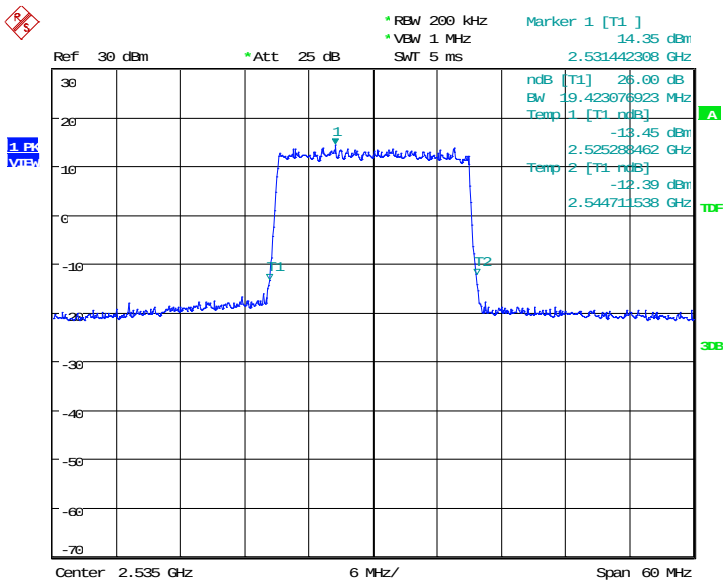
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2535.0	QPSK	16QAM
	19326.92	19423.08

LTE band 7, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 18:37:26

LTE band 7, 20MHz Bandwidth, 16QAM (-26dBc BW)

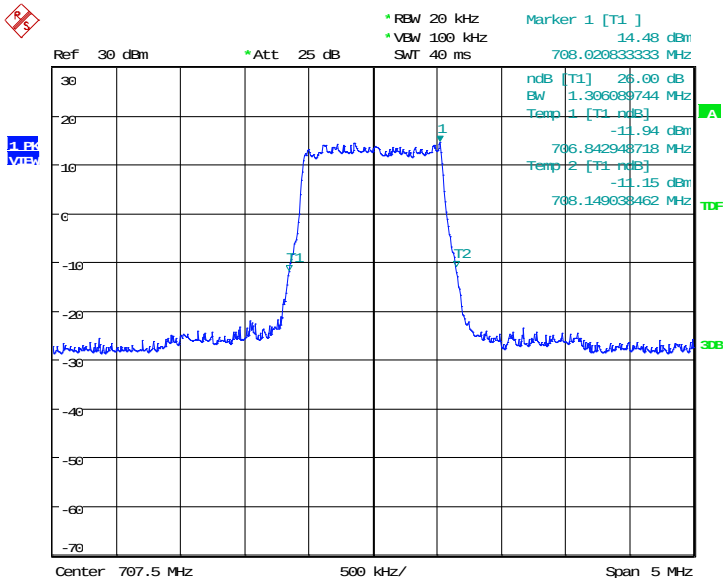


Date: 24.MAR.2019 18:37:42

LTE band 12, 1.4MHz (-26dBc BW)

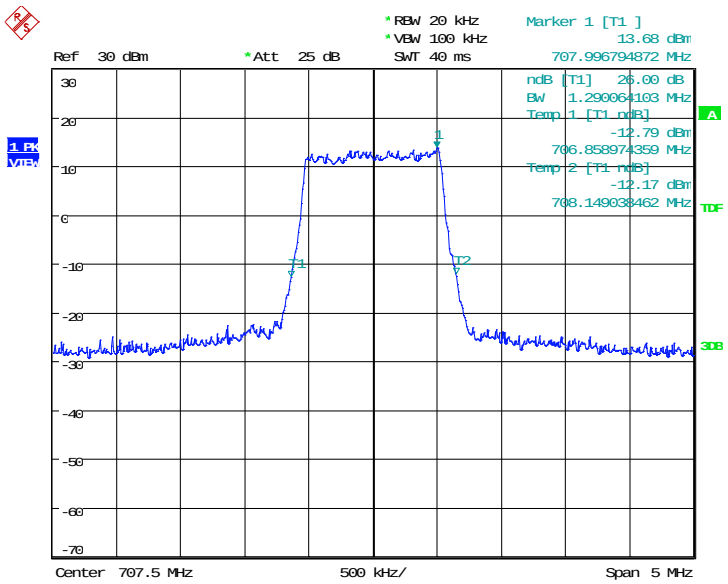
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
707.5	1306.09	1290.06

LTE band 12, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:20:07

LTE band 12, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

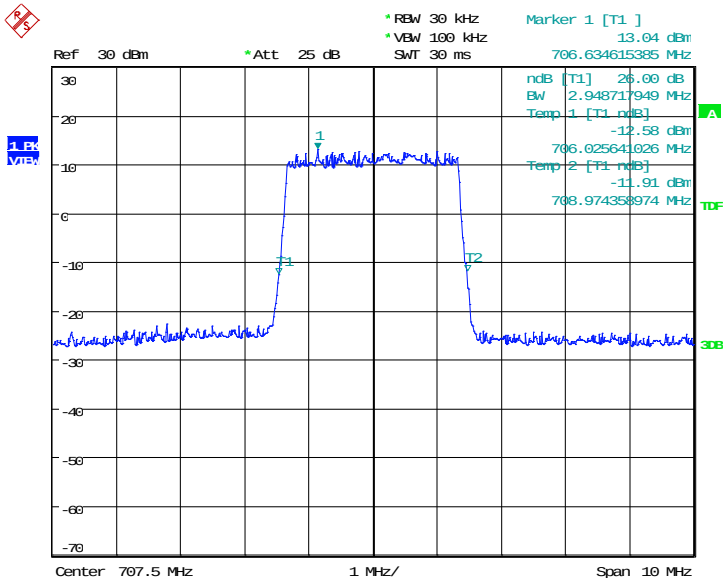


Date: 24.MAR.2019 20:20:23

LTE band 12, 3MHz (-26dBc BW)

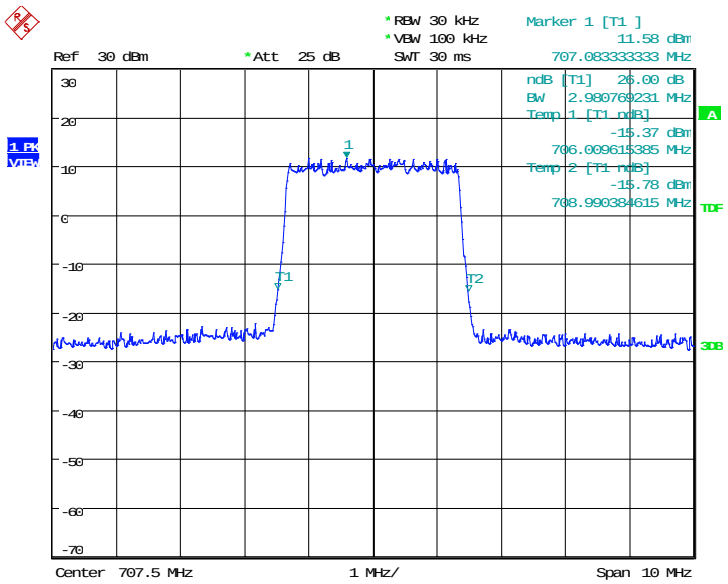
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
707.5	QPSK	16QAM
	2948.72	2980.77

LTE band 12, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:23:16

LTE band 12, 3MHz Bandwidth, 16QAM (-26dBc BW)

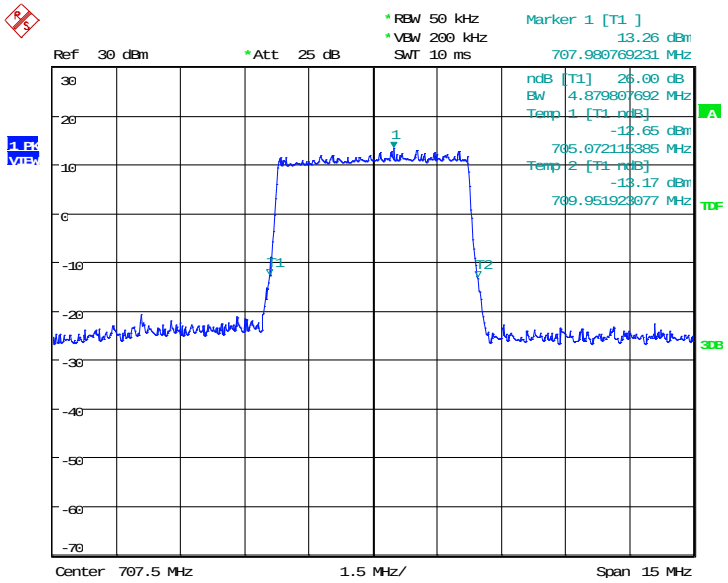


Date: 24.MAR.2019 20:23:31

LTE band 12, 5MHz (-26dBc BW)

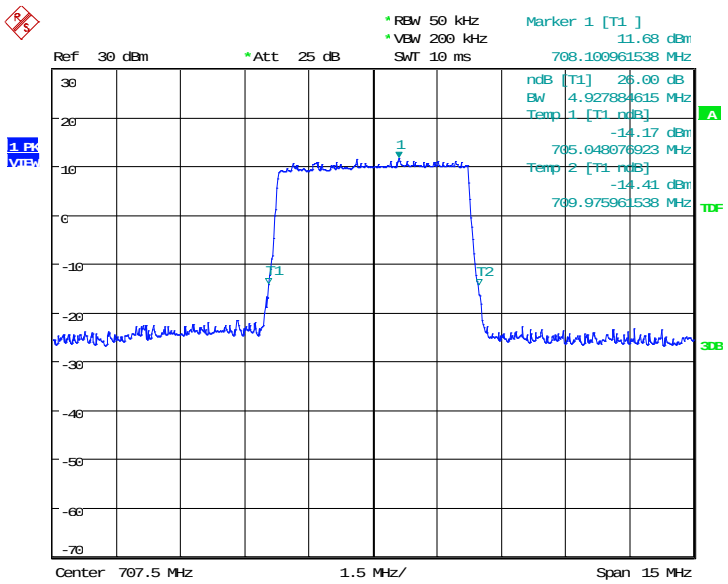
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
707.5	QPSK	16QAM
	4879.81	4927.88

LTE band 12, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:26:24

LTE band 12, 5MHz Bandwidth,16QAM (-26dBc BW)

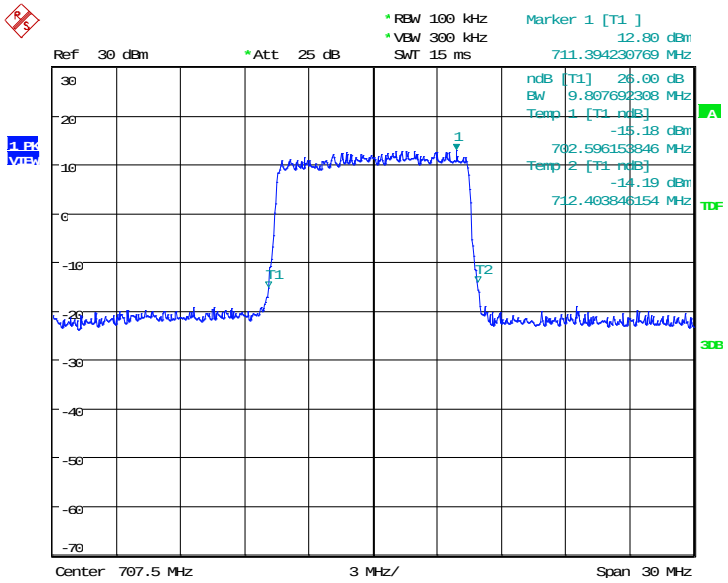


Date: 24.MAR.2019 20:26:40

LTE band 12, 10MHz (-26dBc BW)

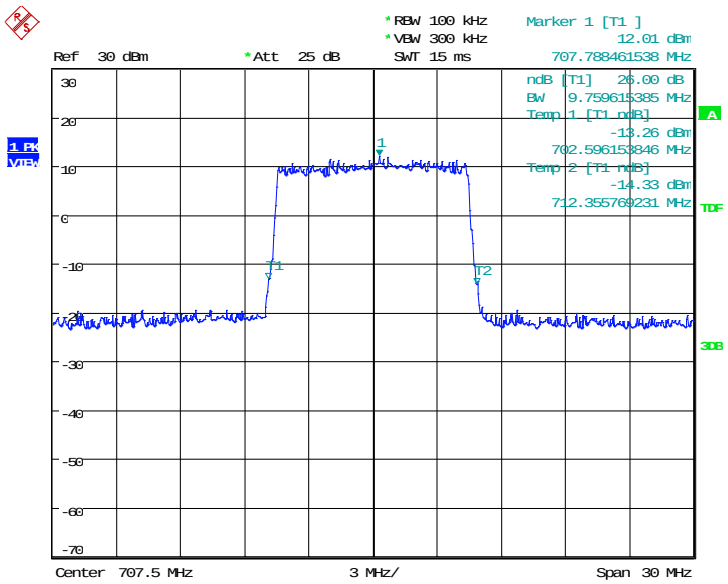
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
707.5	QPSK	16QAM
	9807.69	9759.62

LTE band 12, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:29:33

LTE band 12, 10MHz Bandwidth, 16QAM (-26dBc BW)

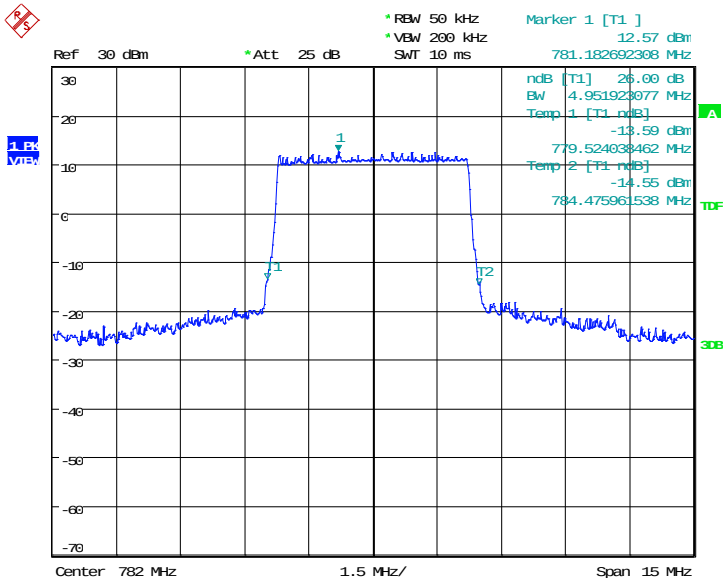


Date: 24.MAR.2019 20:29:49

LTE band 13, 5MHz (-26dBc BW)

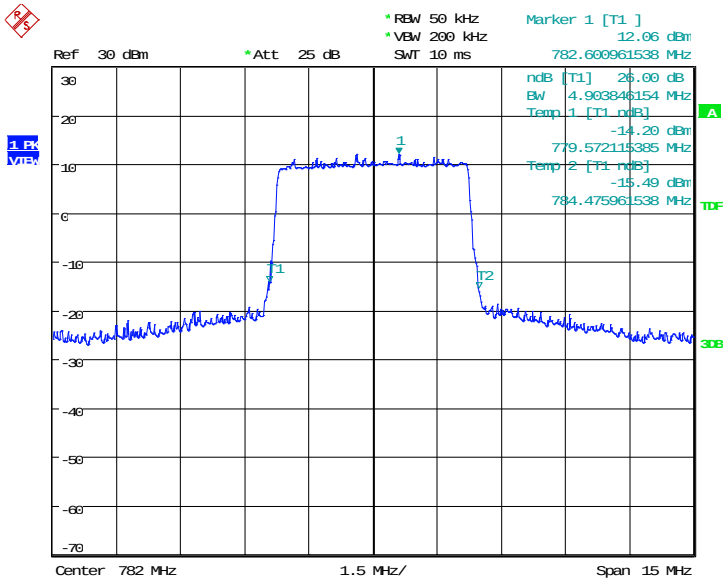
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
782.0	QPSK	16QAM
	4951.92	4903.85

LTE band 13, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:23:13

LTE band 13, 5MHz Bandwidth,16QAM (-26dBc BW)

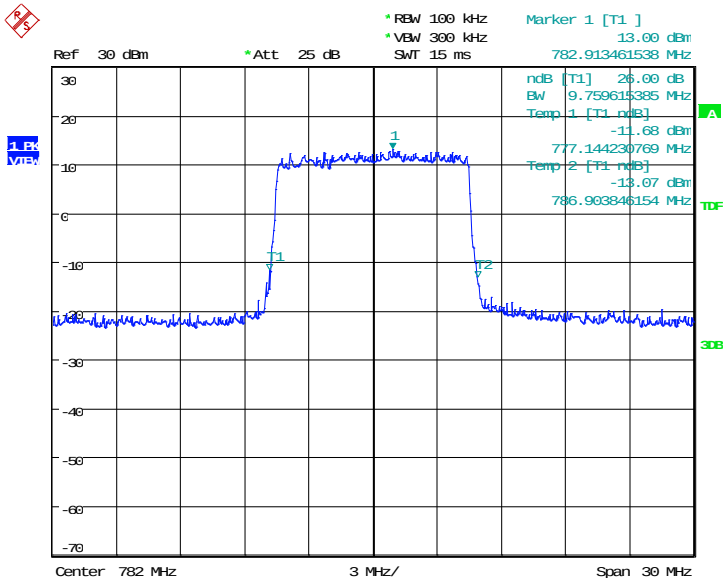


Date: 24.MAR.2019 19:23:28

LTE band 13, 10MHz (-26dBc BW)

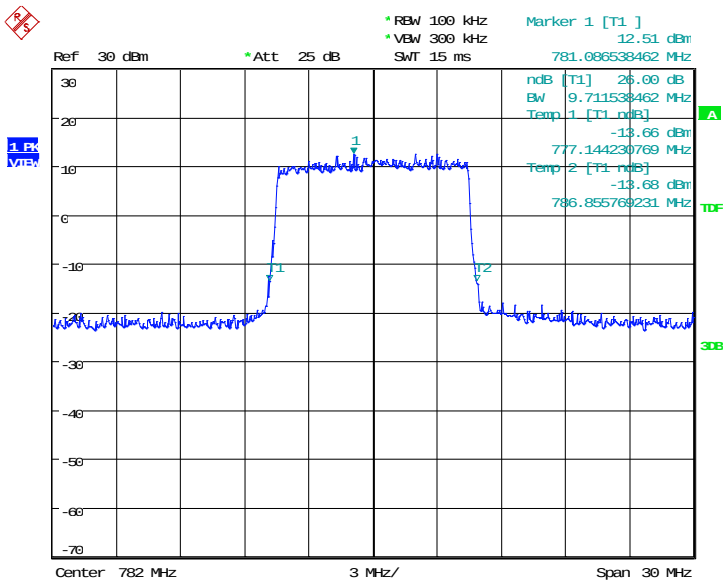
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
782.0	QPSK	16QAM
	9759.62	9711.54

LTE band 13, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 19:26:21

LTE band 13, 10MHz Bandwidth, 16QAM (-26dBc BW)

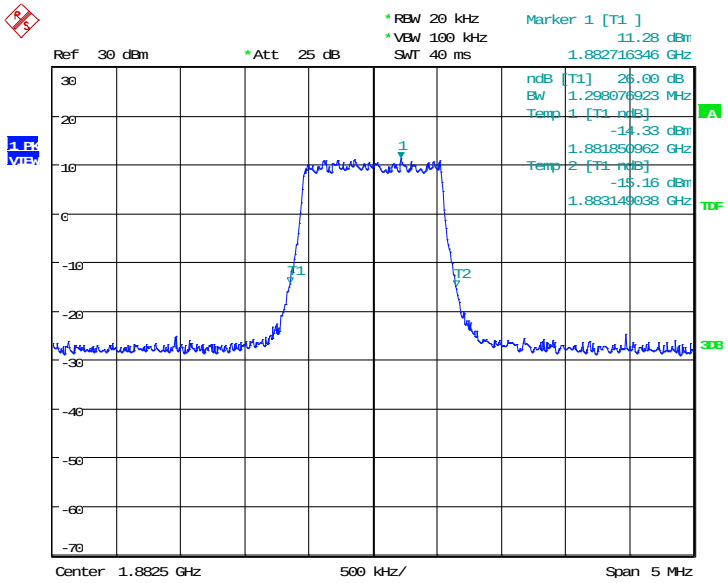


Date: 24.MAR.2019 19:26:37

LTE band 25, 1.4MHz (-26dBc BW)

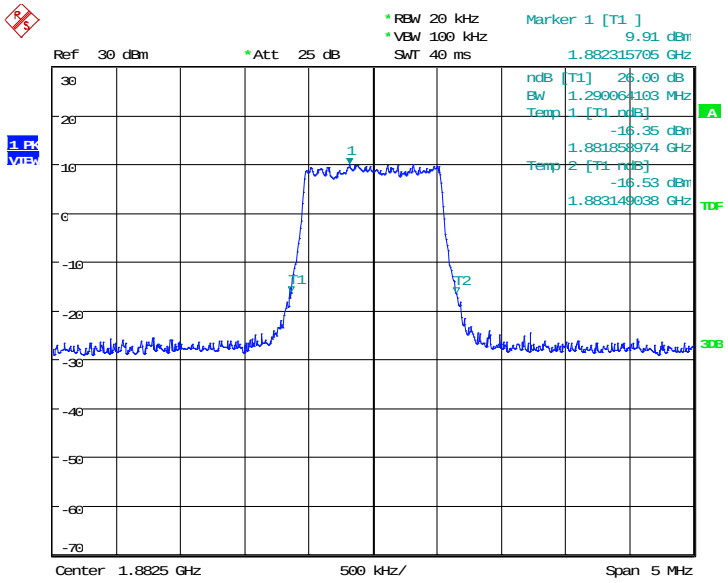
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1882.5	1298.08	1290.06

LTE band 25, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:34:18

LTE band 25, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

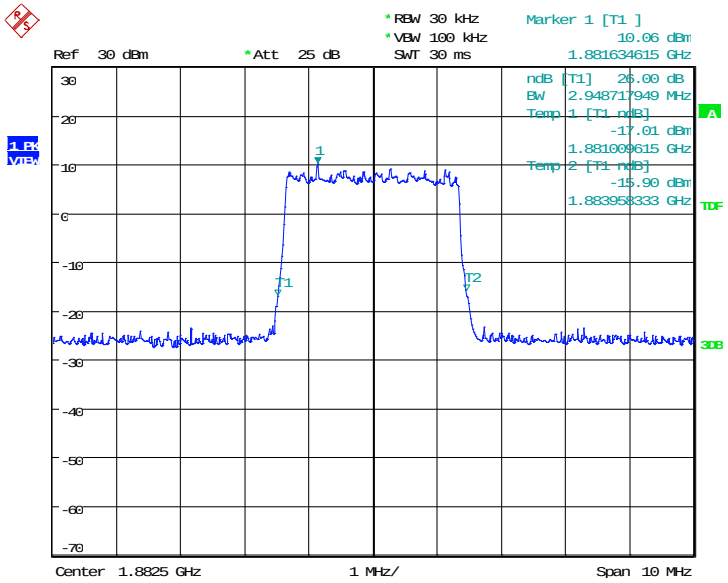


Date: 24.MAR.2019 20:34:33

LTE band 25, 3MHz (-26dBc BW)

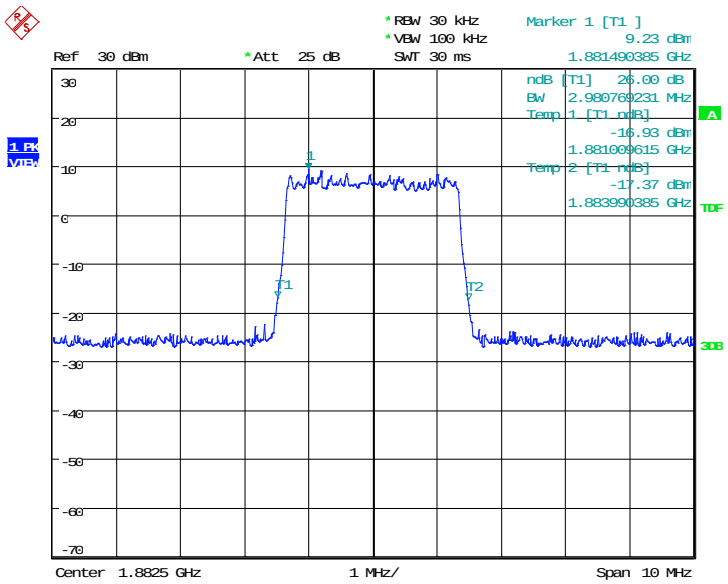
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1882.5	QPSK	16QAM
	2948.72	2980.77

LTE band 25, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:37:26

LTE band 25, 3MHz Bandwidth, 16QAM (-26dBc BW)

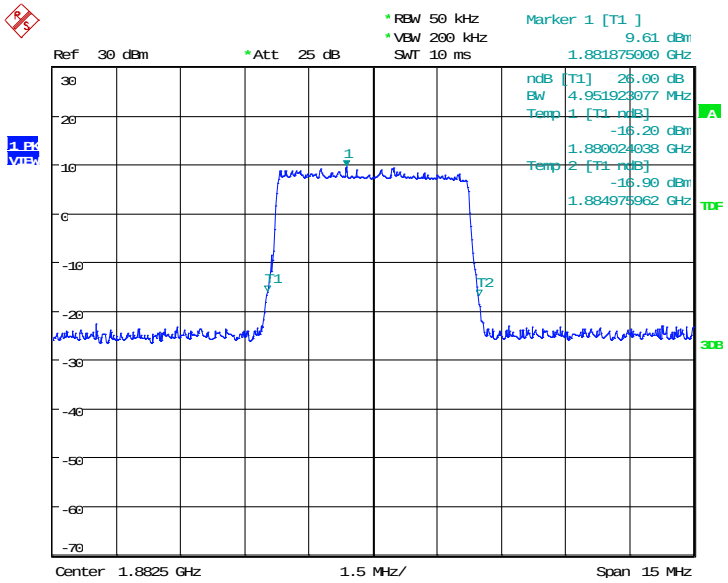


Date: 24.MAR.2019 20:37:42

LTE band 25, 5MHz (-26dBc BW)

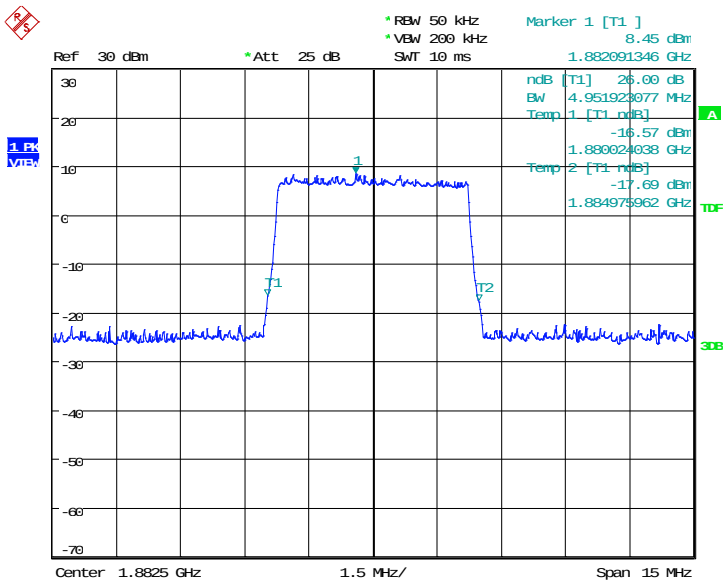
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1882.5	QPSK	16QAM
	4951.92	4951.92

LTE band 25, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:40:35

LTE band 25, 5MHz Bandwidth,16QAM (-26dBc BW)

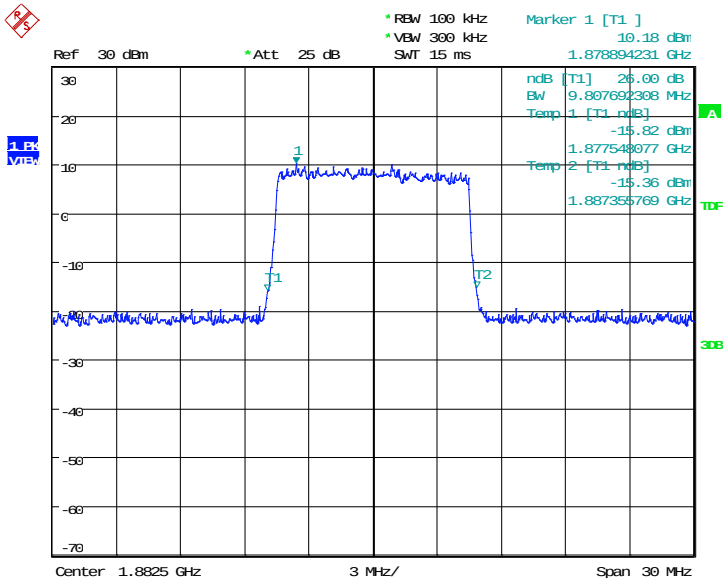


Date: 24.MAR.2019 20:40:51

LTE band 25, 10MHz (-26dBc BW)

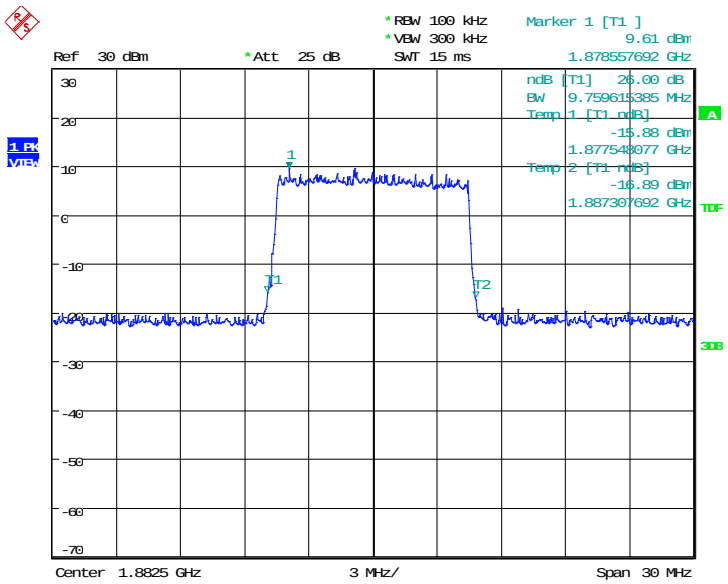
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1882.5	9807.69	9759.62

LTE band 25, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:43:44

LTE band 25, 10MHz Bandwidth, 16QAM (-26dBc BW)

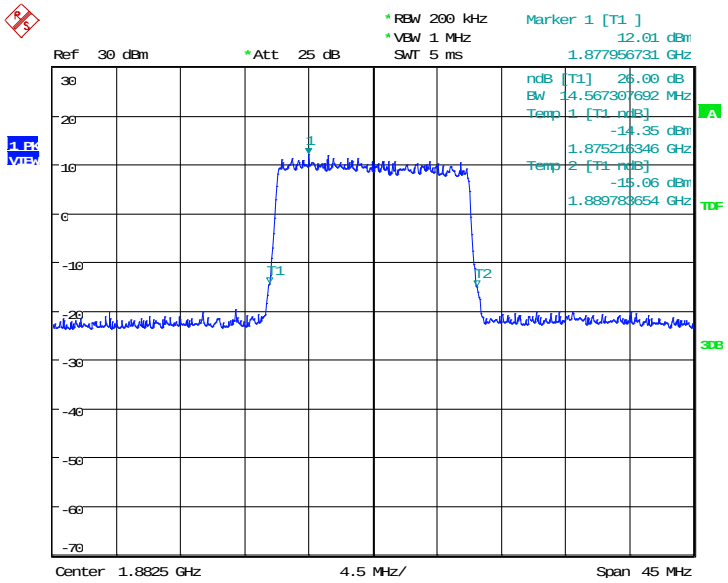


Date: 24.MAR.2019 20:44:00

LTE band 25, 15MHz (-26dBc BW)

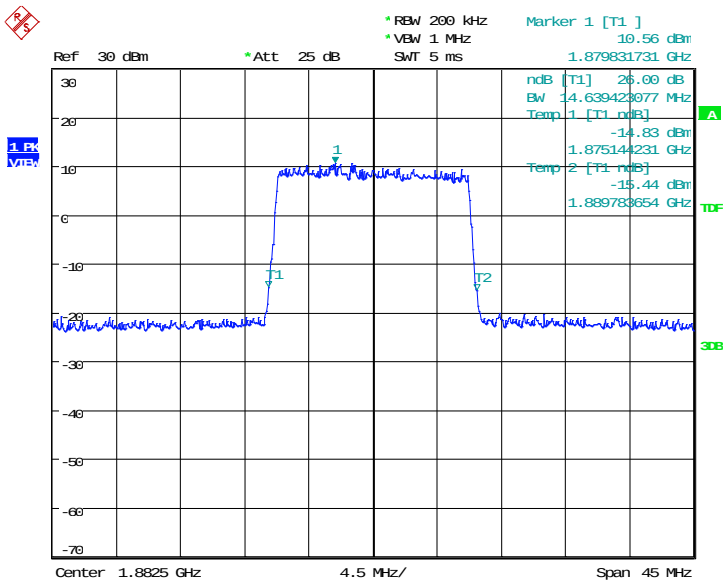
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1882.5	14567.31	14639.42

LTE band 25, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:46:53

LTE band 25, 15MHz Bandwidth, 16QAM (-26dBc BW)

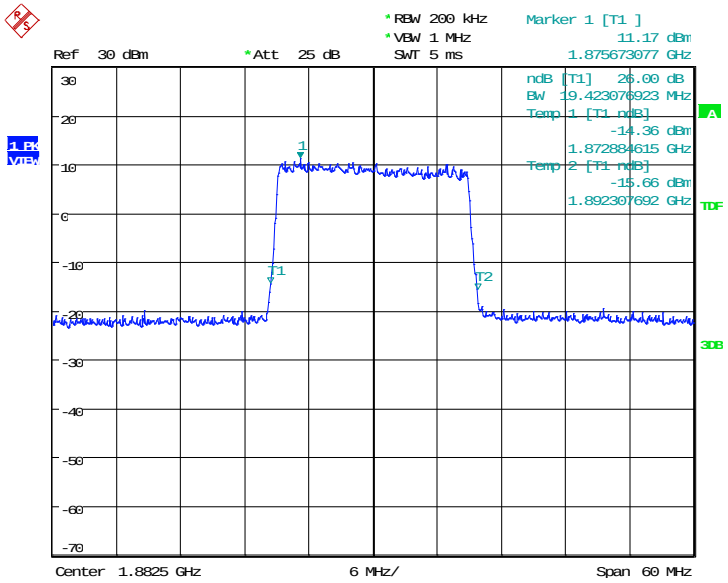


Date: 24.MAR.2019 20:47:09

LTE band 25, 20MHz (-26dBc BW)

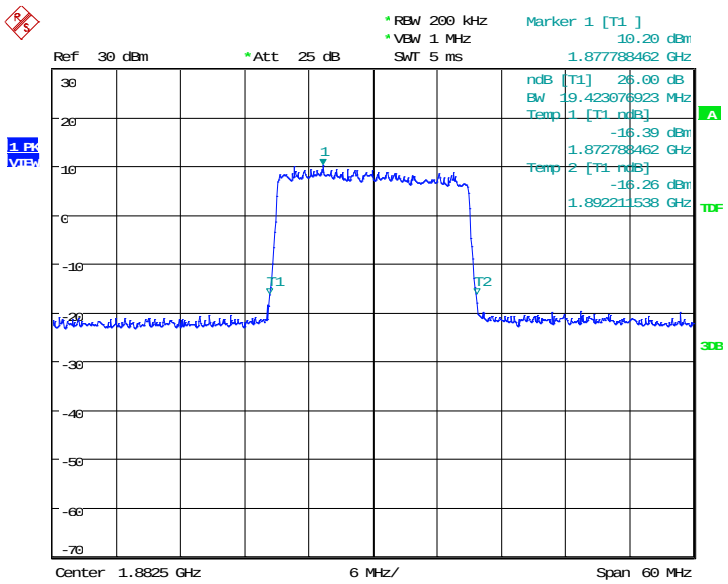
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1882.5	QPSK	16QAM
	19423.08	19423.08

LTE band 25, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:50:03

LTE band 25, 20MHz Bandwidth, 16QAM (-26dBc BW)

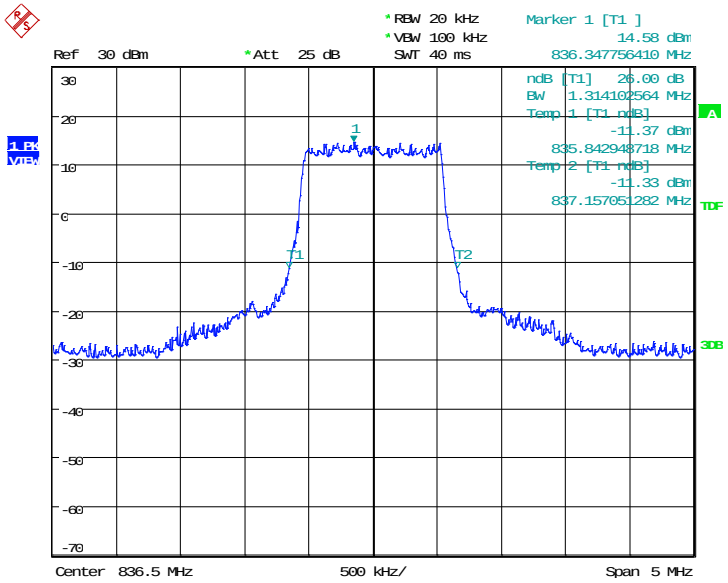


Date: 24.MAR.2019 20:50:19

LTE band 26(824MHz-849MHz), 1.4MHz (-26dBc BW)

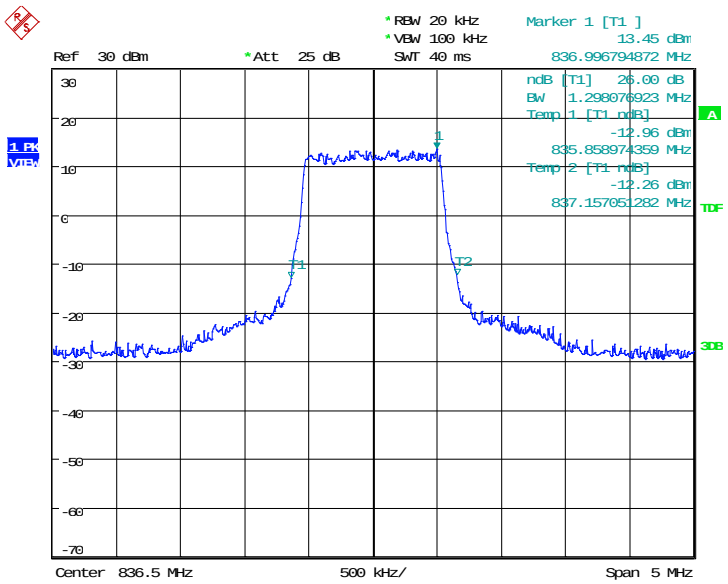
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	1314.10	1298.08

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:53:16

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)

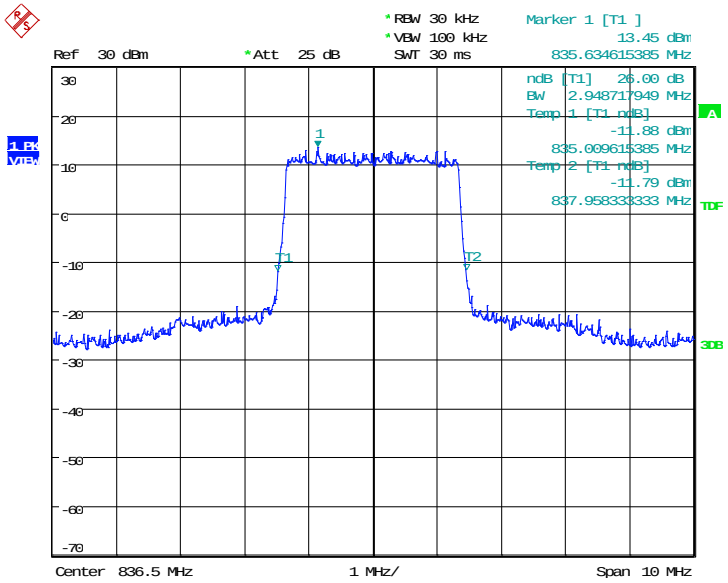


Date: 24.MAR.2019 20:53:32

LTE band 26(824MHz-849MHz), 3MHz (-26dBc BW)

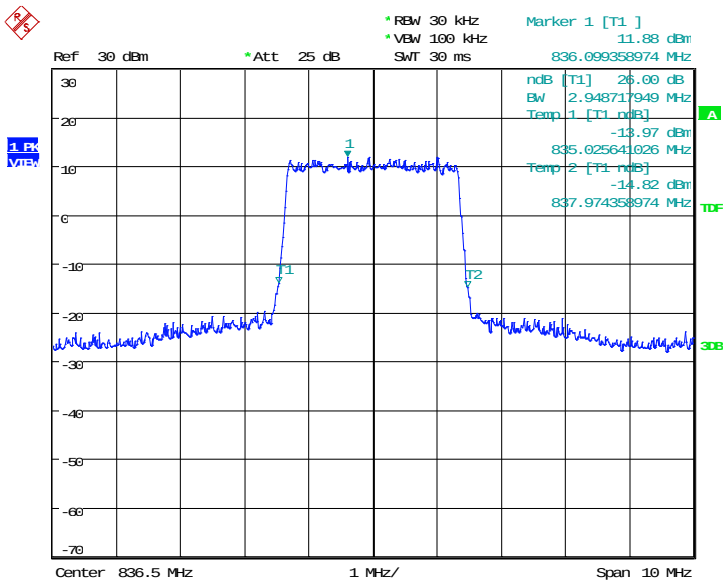
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	2948.72	2948.72

LTE band 26(824MHz-849MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:56:25

LTE band 26(824MHz-849MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)

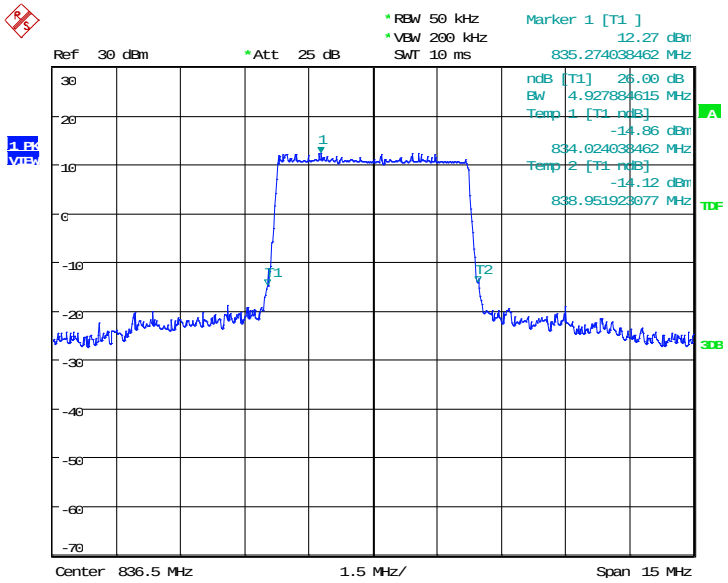


Date: 24.MAR.2019 20:56:41

LTE band 26(824MHz-849MHz), 5MHz (-26dBc BW)

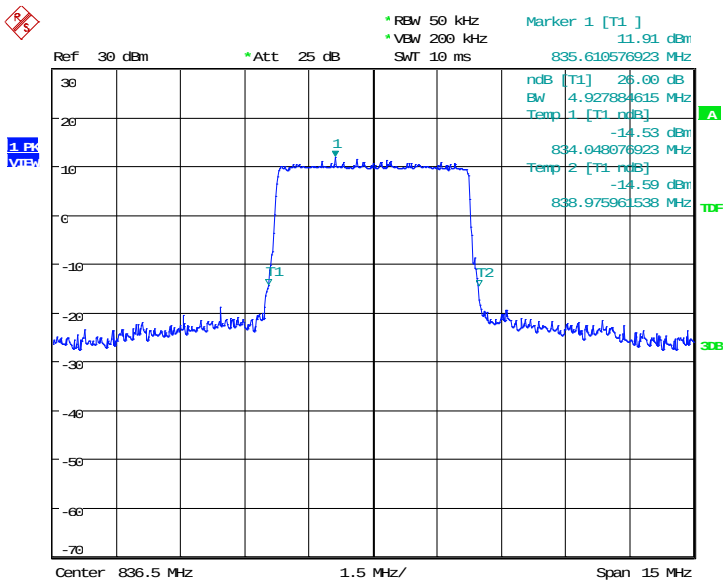
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	4927.88	4927.88

LTE band 26(824MHz-849MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 20:59:34

LTE band 26(824MHz-849MHz), 5MHz Bandwidth,16QAM (-26dBc BW)

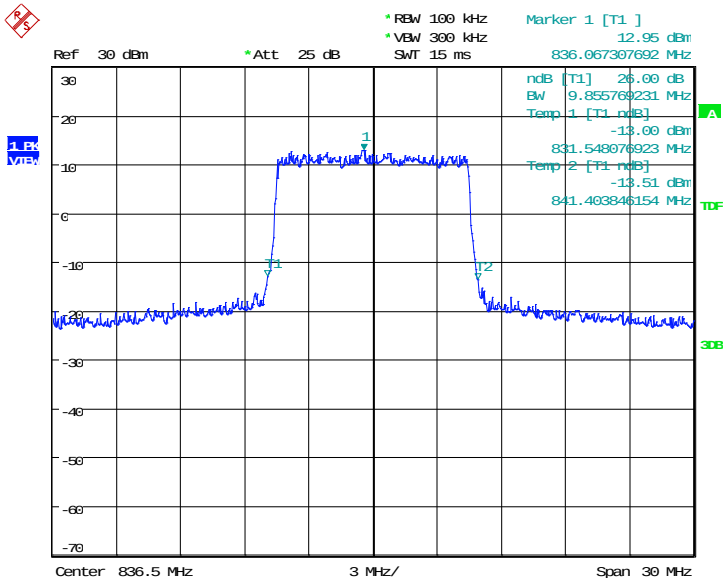


Date: 24.MAR.2019 20:59:49

LTE band 26(824MHz-849MHz), 10MHz (-26dBc BW)

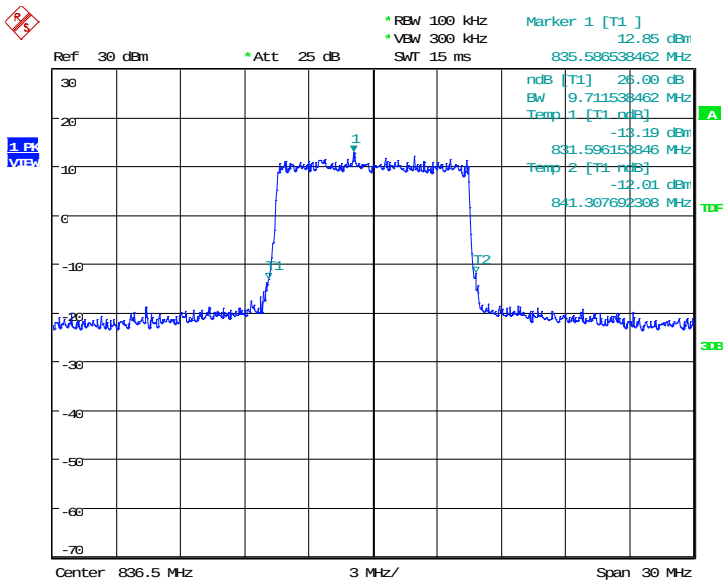
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	9855.77	9711.54

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 21:02:43

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)

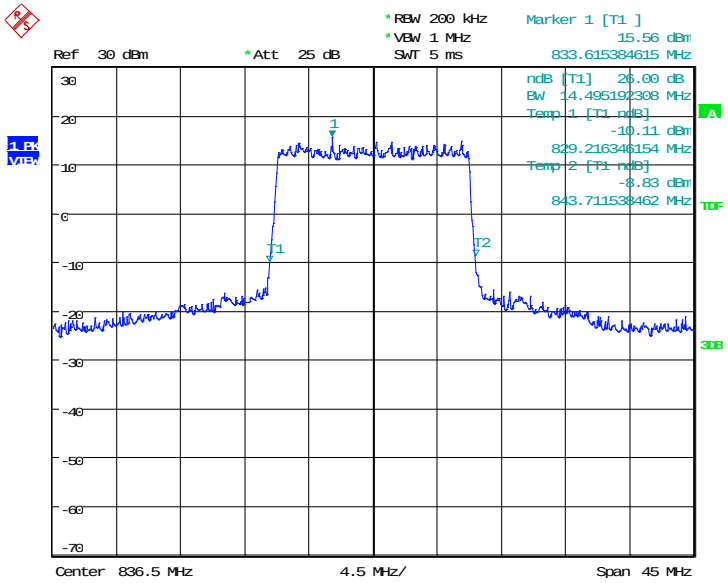


Date: 24.MAR.2019 21:02:58

LTE band 26(824MHz-849MHz), 15MHz (-26dBc BW)

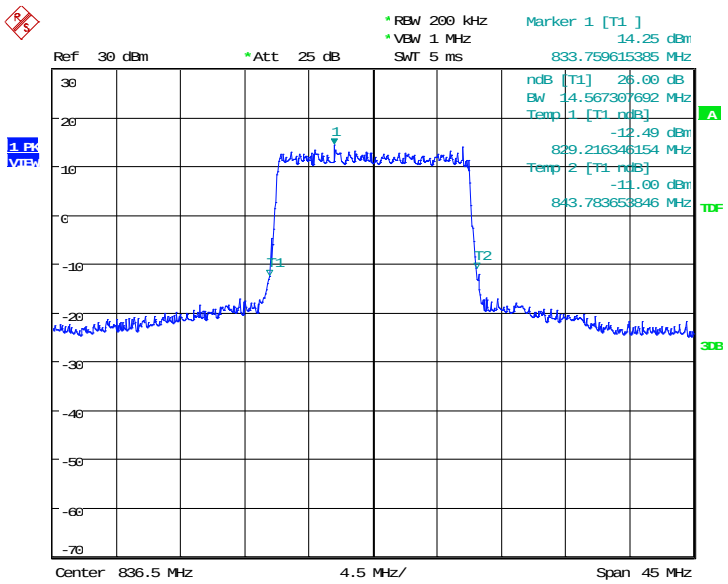
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
836.5	QPSK	16QAM
	14495.19	14567.31

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 21:05:52

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, 16QAM (-26dBc BW)



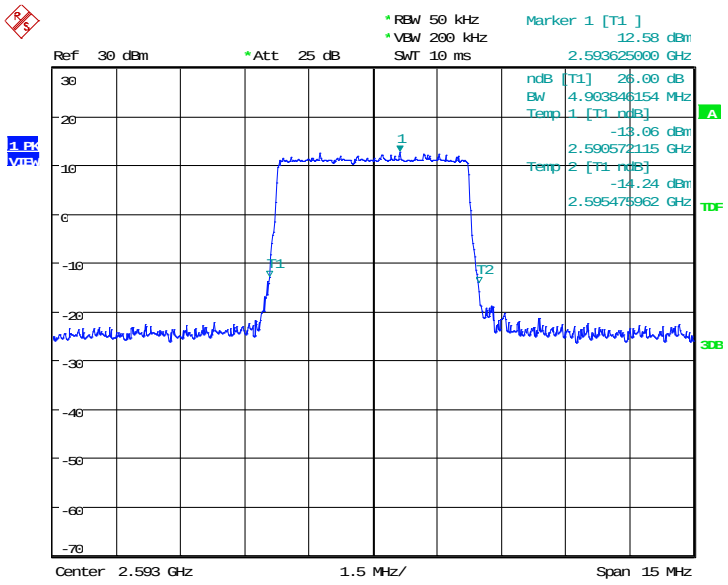
Date: 24.MAR.2019 21:06:08

Normal Power

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

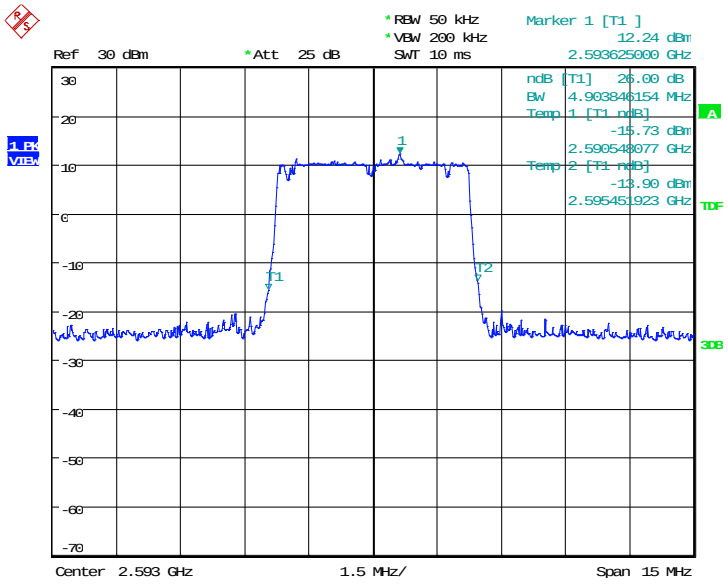
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2593.0	4903.85	4903.85

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



Date: 24.MAR.2019 18:40:37

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

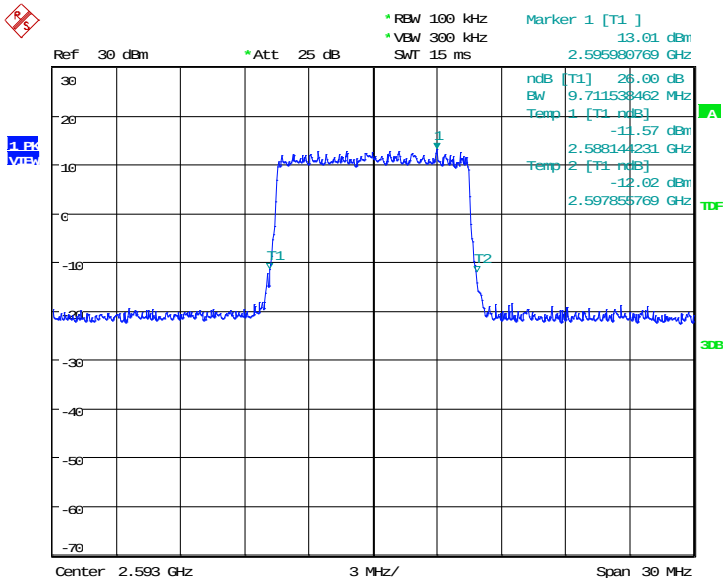


Date: 24.MAR.2019 18:40:53

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

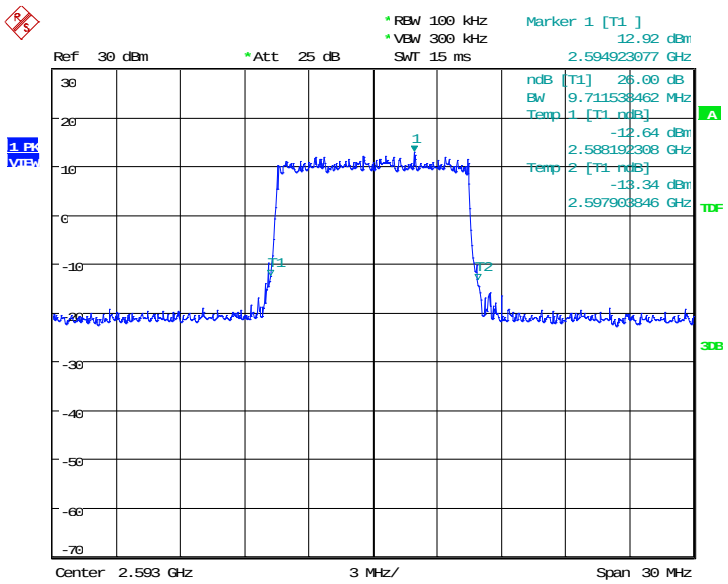
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	9711.54	9711.54

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



Date: 24.MAR.2019 18:43:46

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

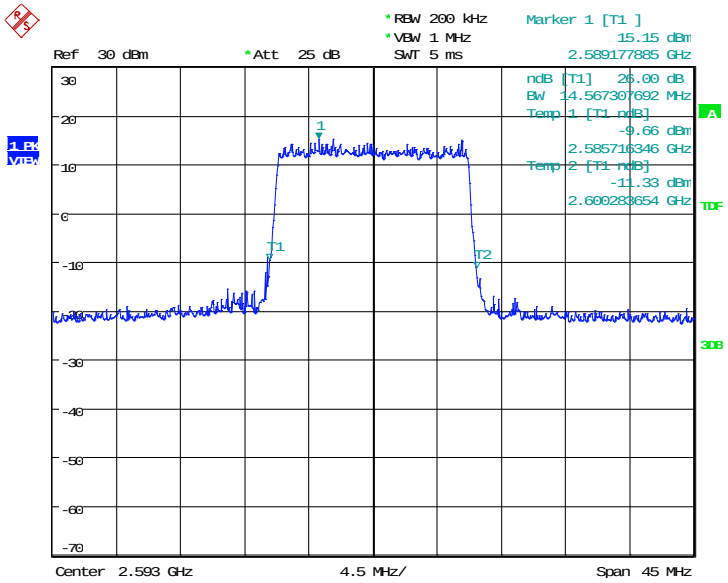


Date: 24.MAR.2019 18:44:02

LTE band 41, 15MHz (-26dBc BW)

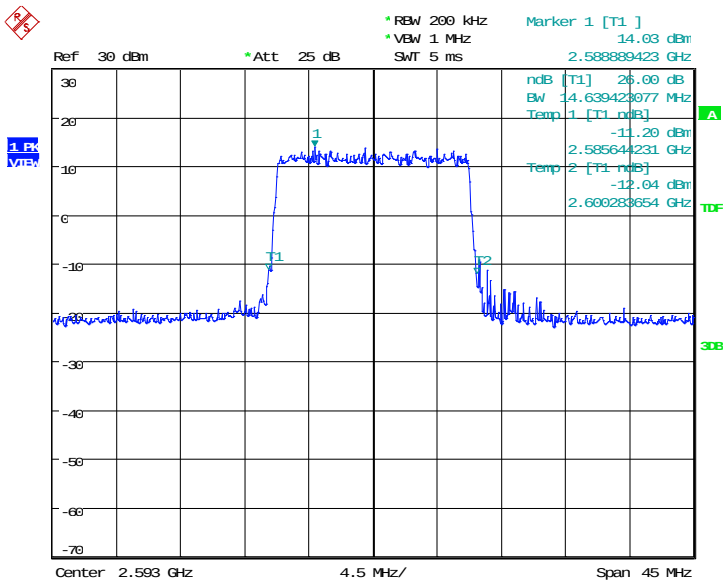
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2593.0	14567.31	14639.42

LTE band 41, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 24.MAR.2019 18:46:56

LTE band 41, 15MHz Bandwidth, 16QAM (-26dBc BW)

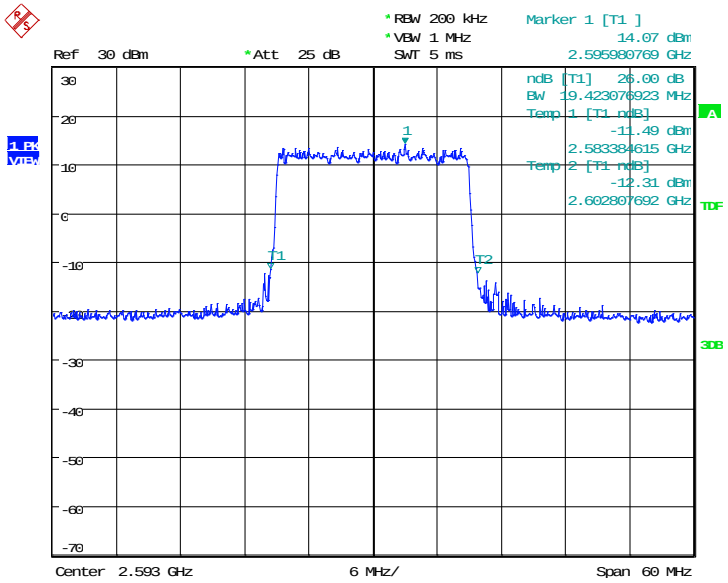


Date: 24.MAR.2019 19:19:37

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

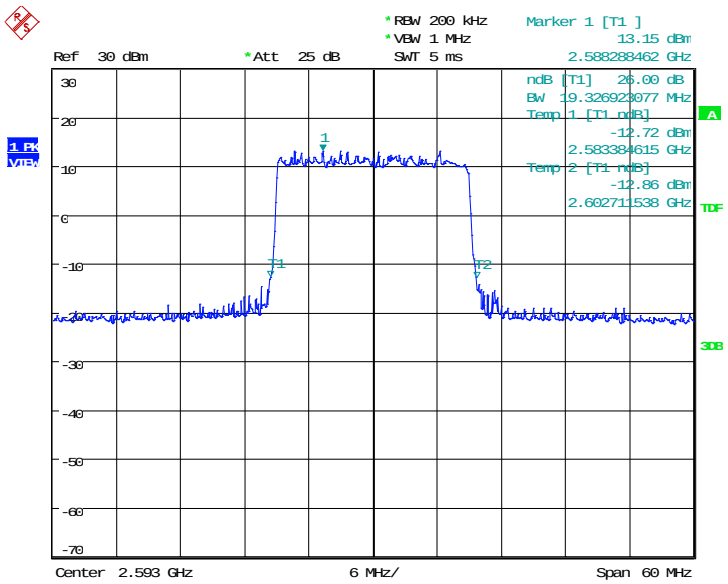
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2593.0	19423.08	19326.92

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



Date: 24.MAR.2019 18:50:05

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



Date: 24.MAR.2019 18:50:21

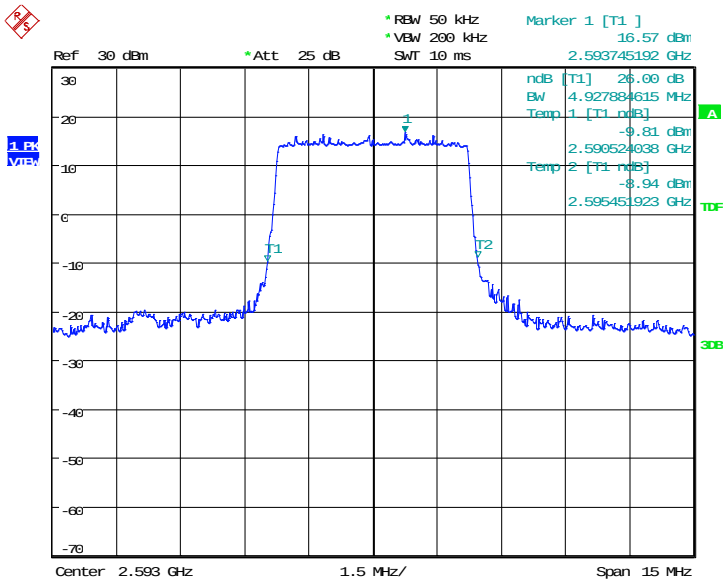
Note: Expanded measurement uncertainty is U = 3428 Hz, k = 2

HPUE

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

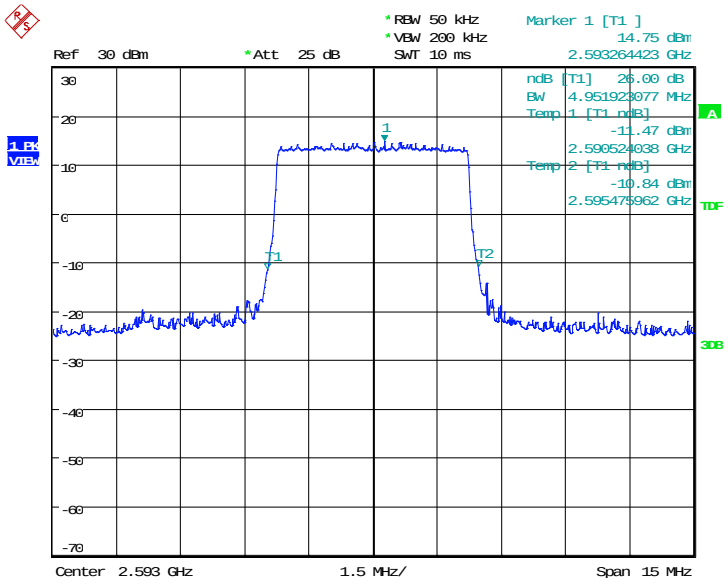
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2593.0	4927.88	4951.92

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



Date: 15.MAY.2019 06:44:27

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

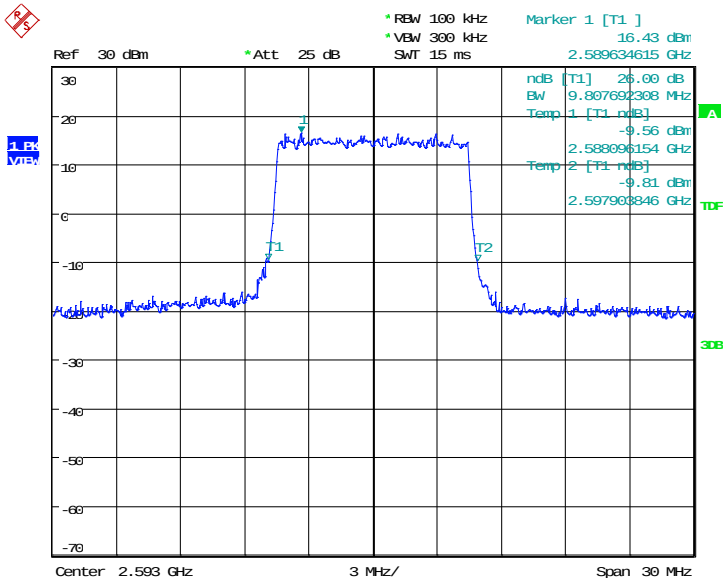


Date: 15.MAY.2019 06:43:26

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

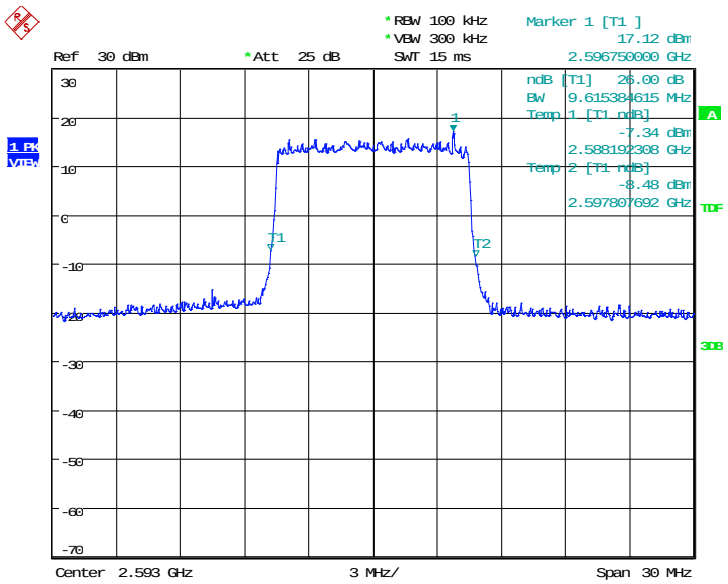
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
2593.0	9807.69	9615.38

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



Date: 15.MAY.2019 06:46:04

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

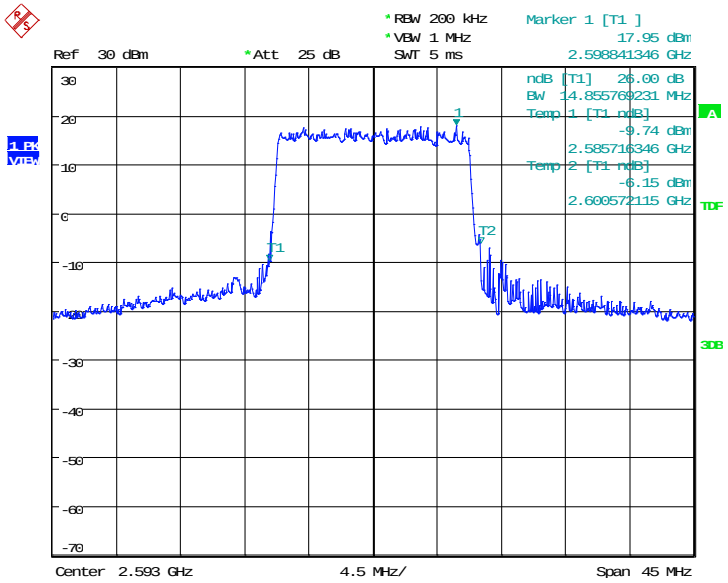


Date: 15.MAY.2019 06:46:59

LTE band 41, 15MHz (-26dBc BW)

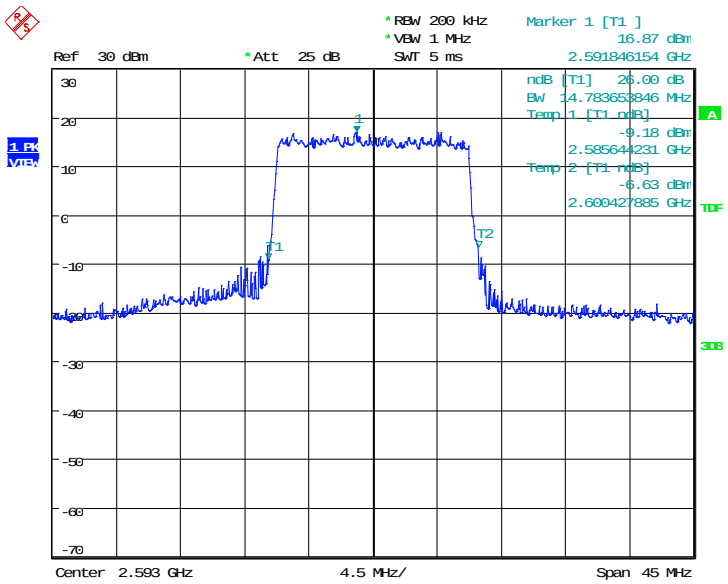
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	14855.77	14783.65

LTE band 41, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 15.MAY.2019 06:51:49

LTE band 41, 15MHz Bandwidth, 16QAM (-26dBc BW)

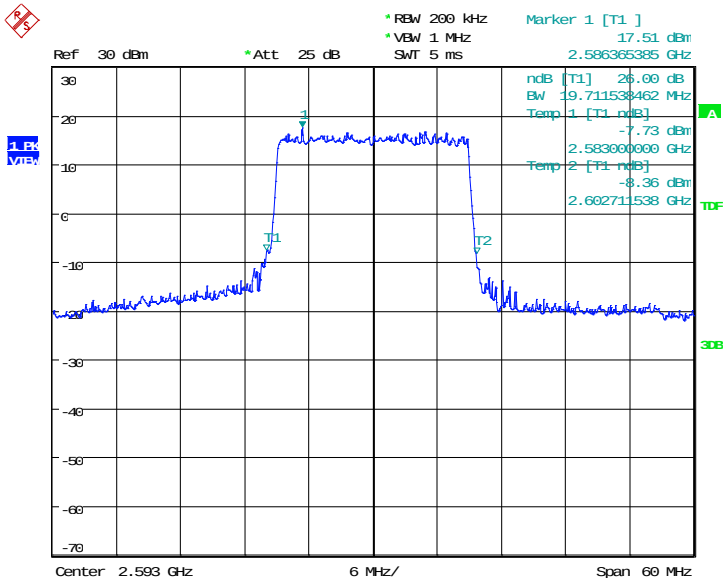


Date: 15.MAY.2019 06:51:12

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

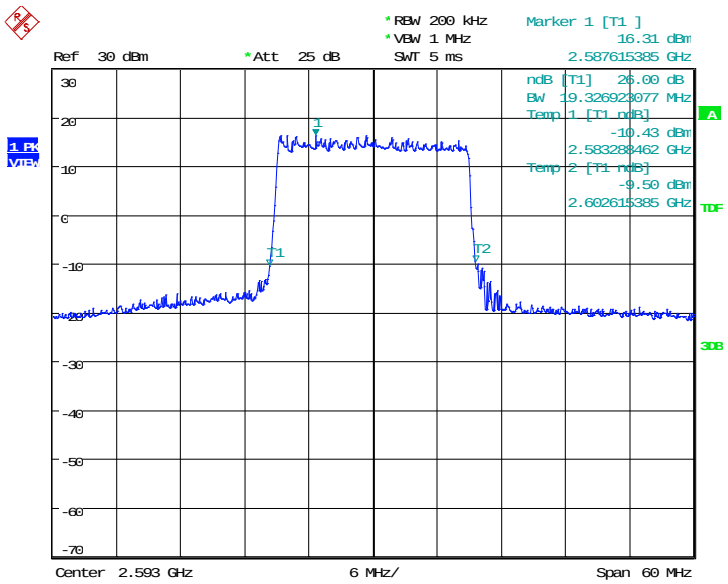
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	19711.54	19326.92

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



Date: 15.MAY.2019 06:53:30

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



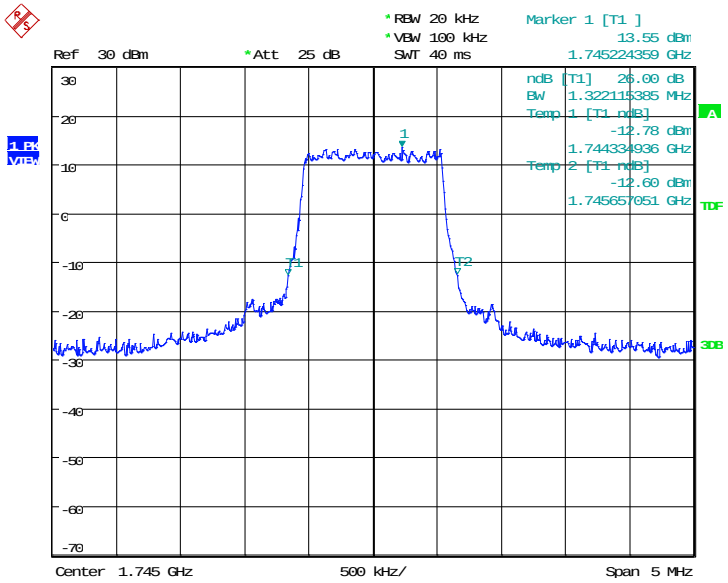
Date: 15.MAY.2019 06:54:24

Note: Expanded measurement uncertainty is U = 3428 Hz, k = 2

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

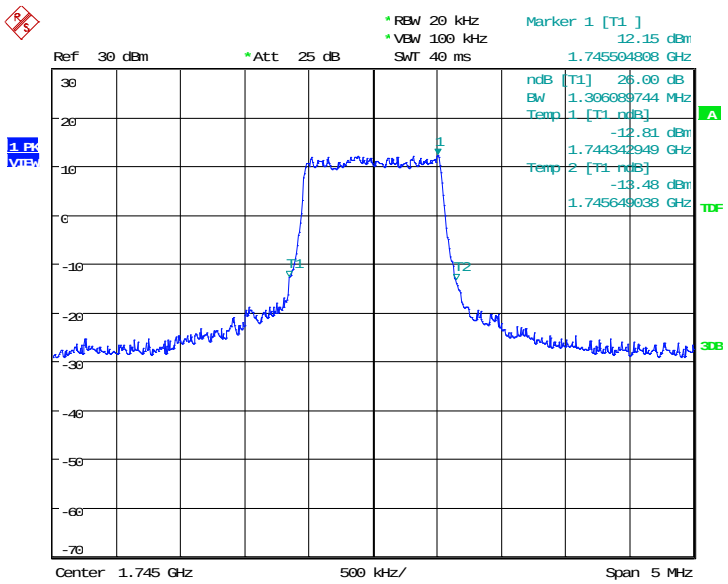
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1745.0	1322.12	1306.09

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



Date: 24.MAR.2019 21:21:44

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

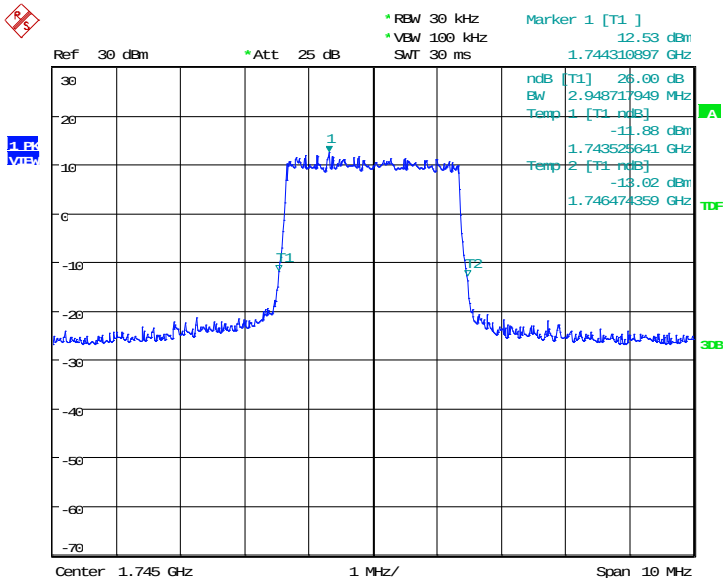


Date: 24.MAR.2019 21:21:59

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

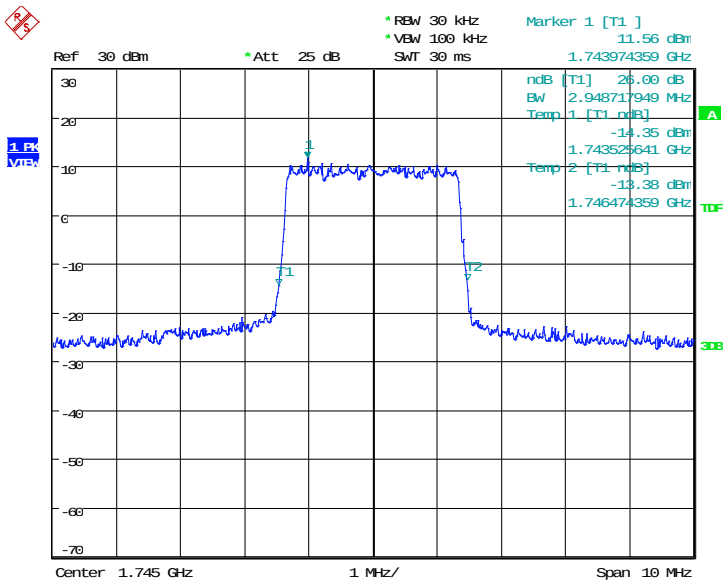
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1745.0	QPSK	16QAM
	2948.72	2948.72

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



Date: 24.MAR.2019 21:24:52

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

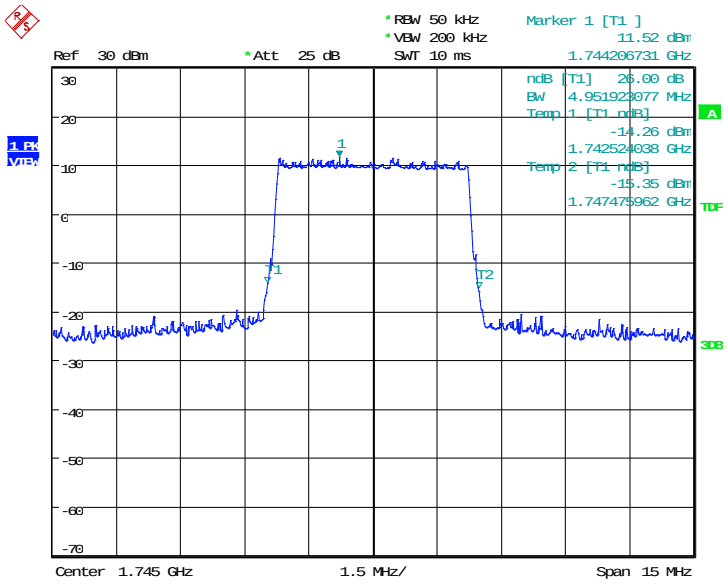


Date: 24.MAR.2019 21:25:08

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

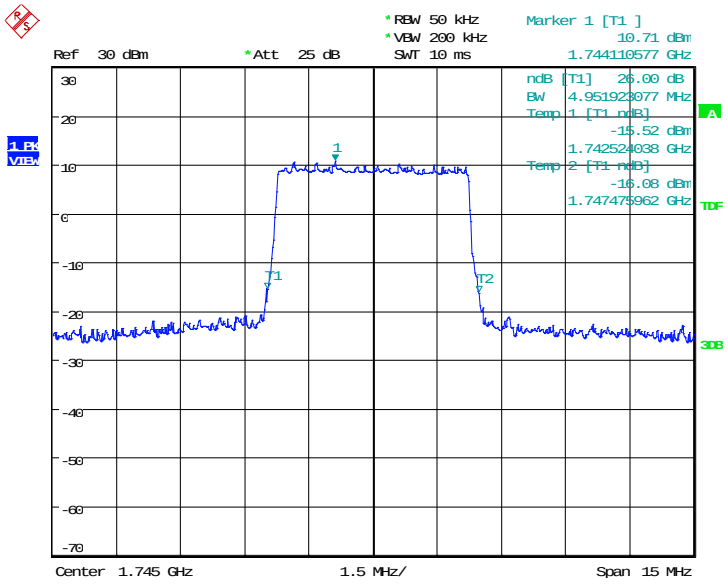
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
1745.0	QPSK	16QAM
	4951.92	4951.92

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



Date: 24.MAR.2019 21:28:01

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

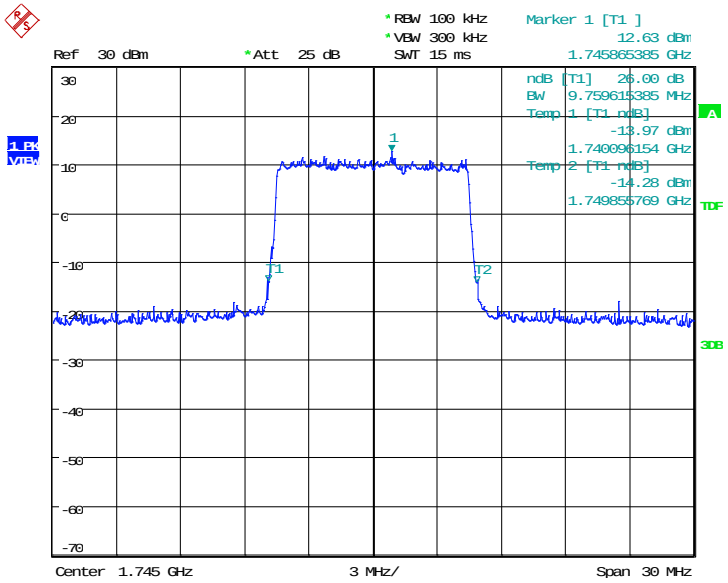


Date: 24.MAR.2019 21:28:17

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

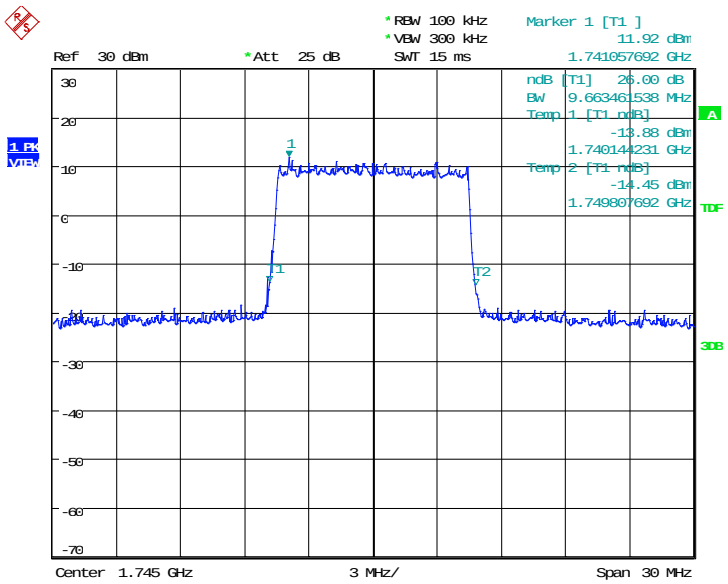
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1745.0	9759.62	9663.46

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



Date: 24.MAR.2019 21:31:10

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

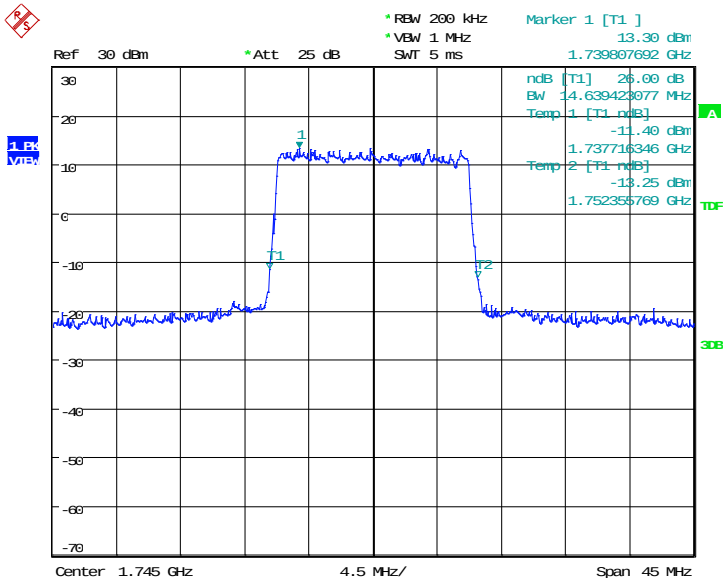


Date: 24.MAR.2019 21:31:26

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

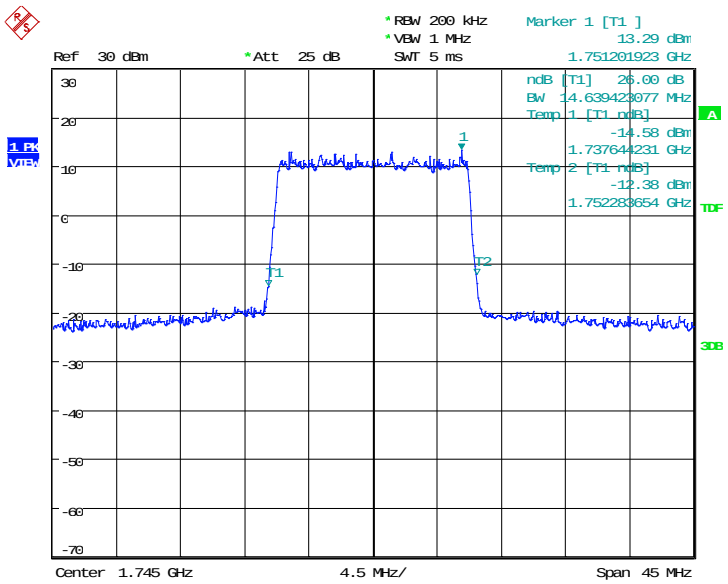
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1745.0	14639.42	14639.42

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



Date: 24.MAR.2019 21:34:19

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

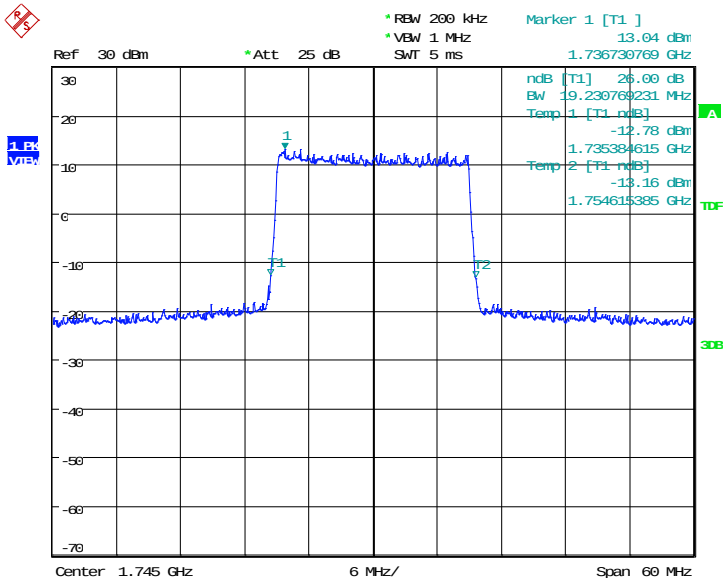


Date: 24.MAR.2019 21:34:35

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

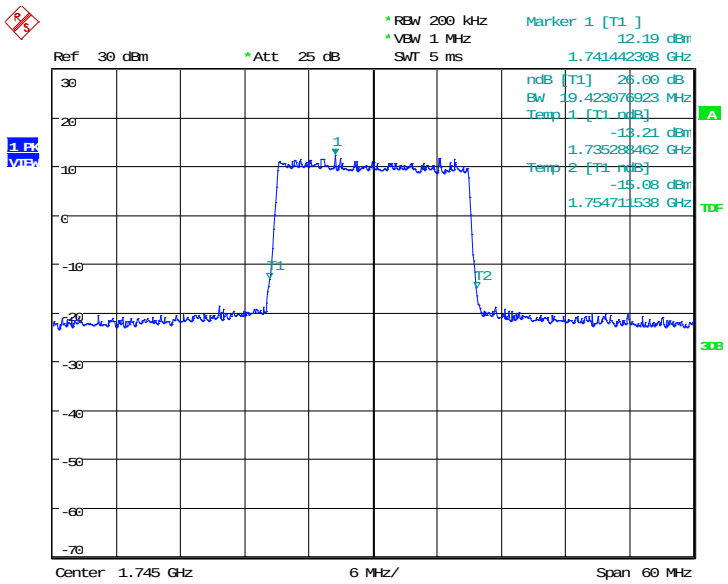
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
	QPSK	16QAM
1745.0	19230.77	19423.08

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



Date: 24.MAR.2019 21:37:59

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



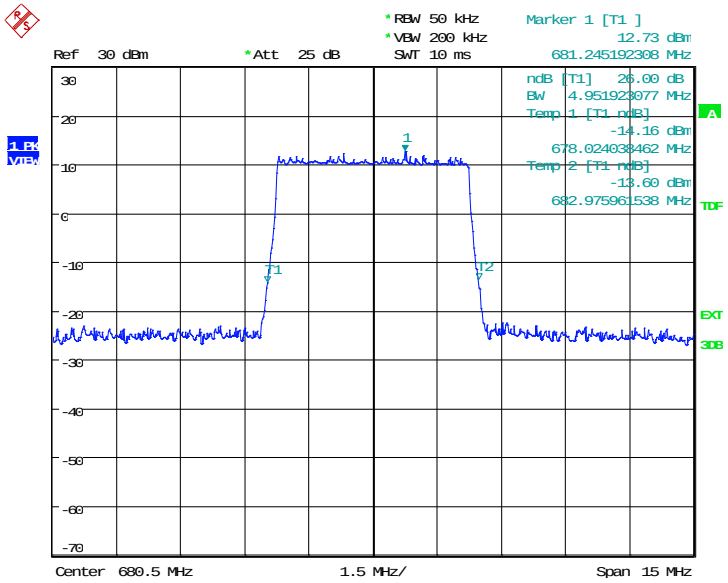
Date: 24.MAR.2019 21:38:15

Note: Expanded measurement uncertainty is U = 3428Hz, k = 2

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

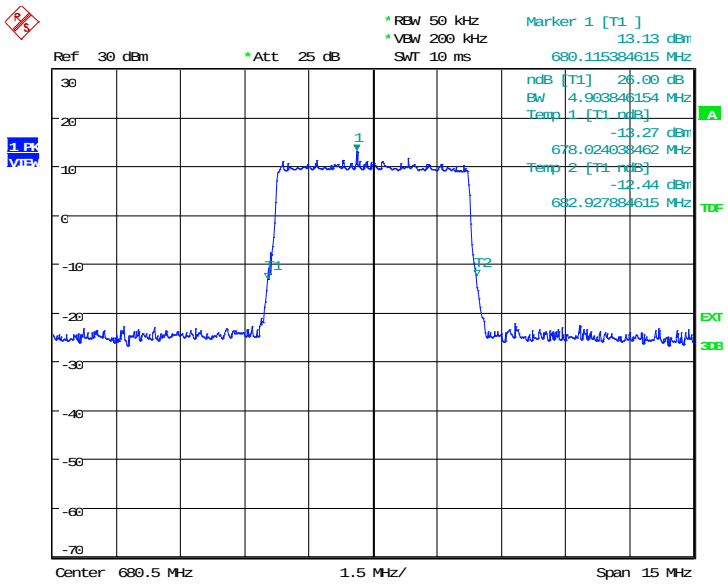
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
680.5	QPSK	16QAM
	4951.92	4903.85

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



Date: 25.MAR.2019 06:53:04

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

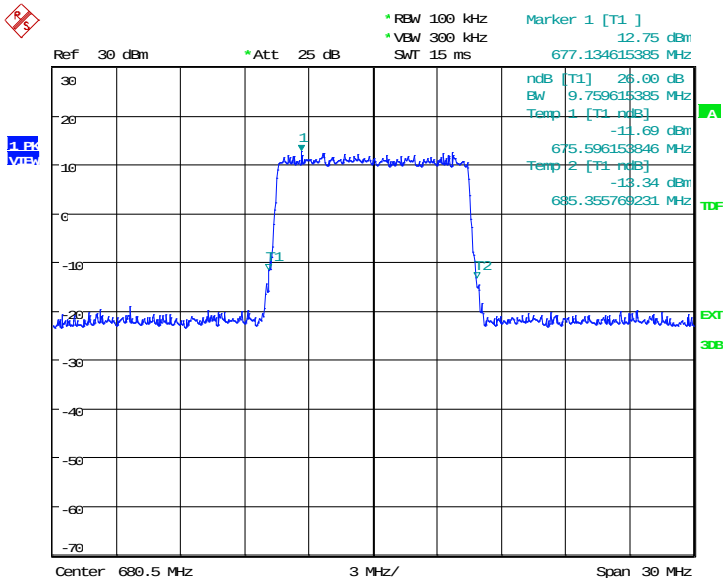


Date: 25.MAR.2019 06:52:27

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

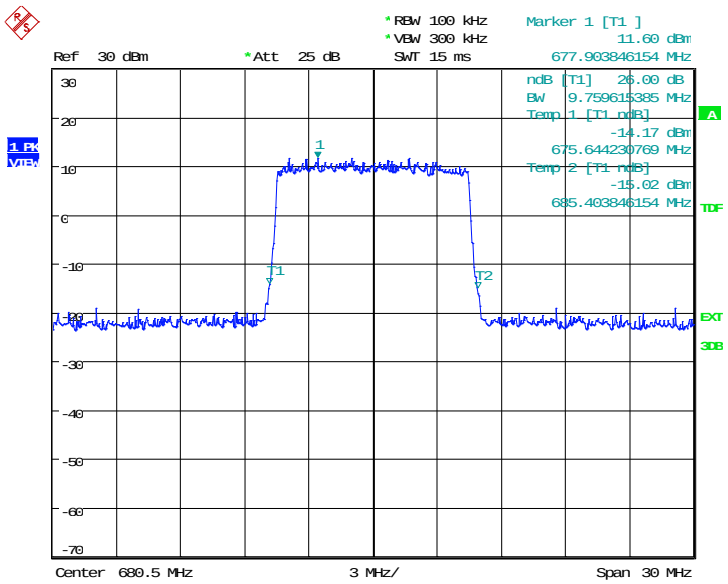
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
680.5	QPSK	16QAM
	9759.62	9759.62

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



Date: 25.MAR.2019 06:54:12

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

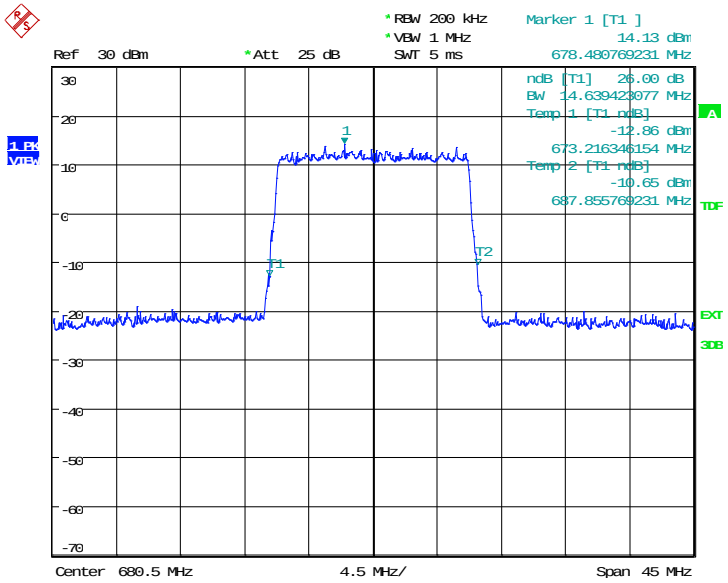


Date: 25.MAR.2019 06:54:37

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

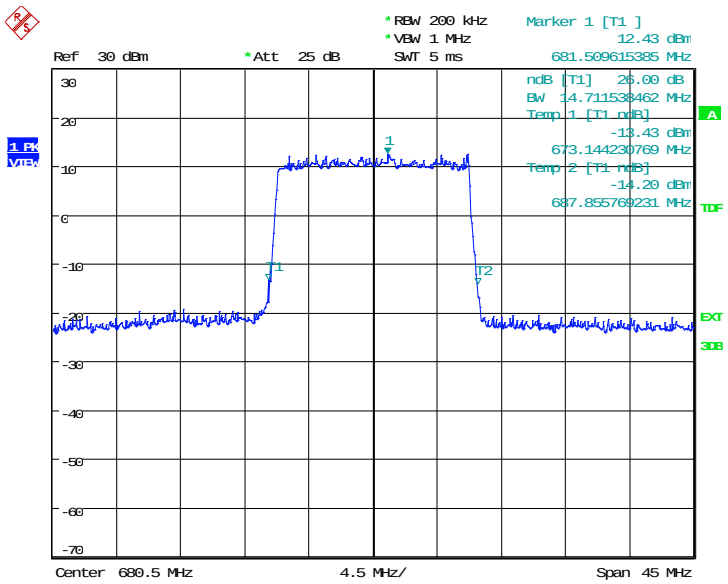
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
680.5	QPSK	16QAM
	14639.42	14711.54

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



Date: 25.MAR.2019 06:58:16

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

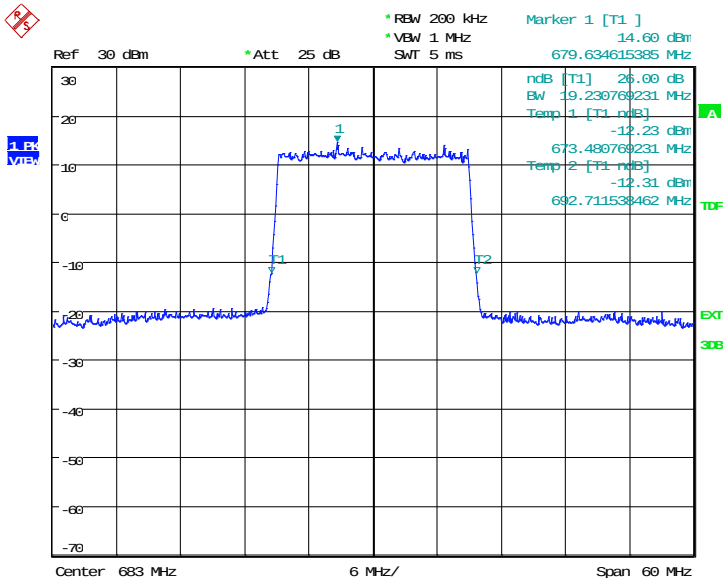


Date: 25.MAR.2019 06:57:29

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

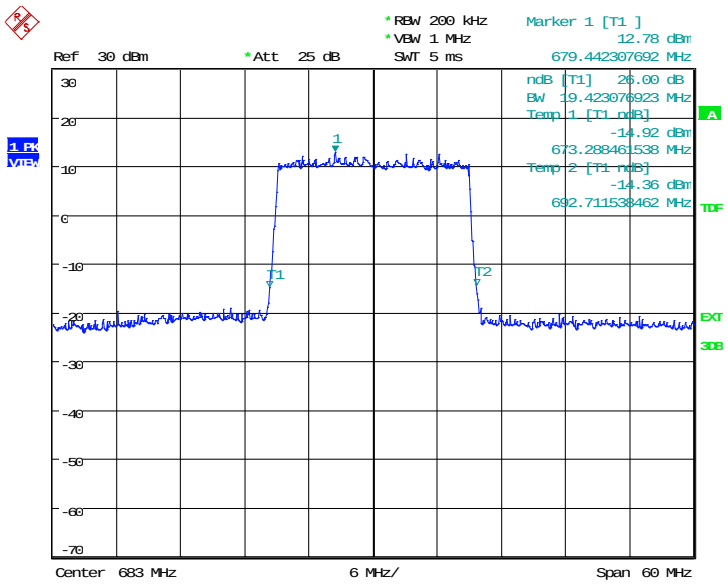
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
683.0	QPSK	16QAM
	19230.77	19423.08

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



Date: 25.MAR.2019 07:00:10

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



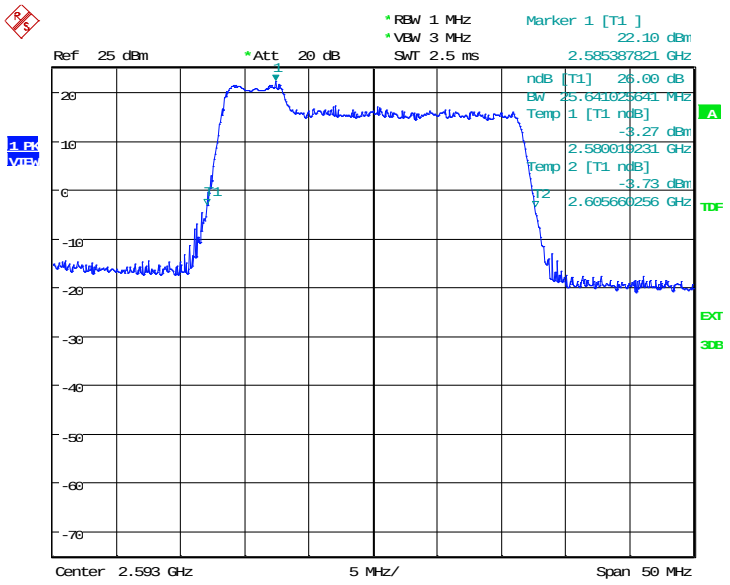
Date: 25.MAR.2019 07:00:35

Note: Expanded measurement uncertainty is U = 3428Hz, k = 2

LTE Band CA_41C, 5MHz+20MHz (-26dBc BW)

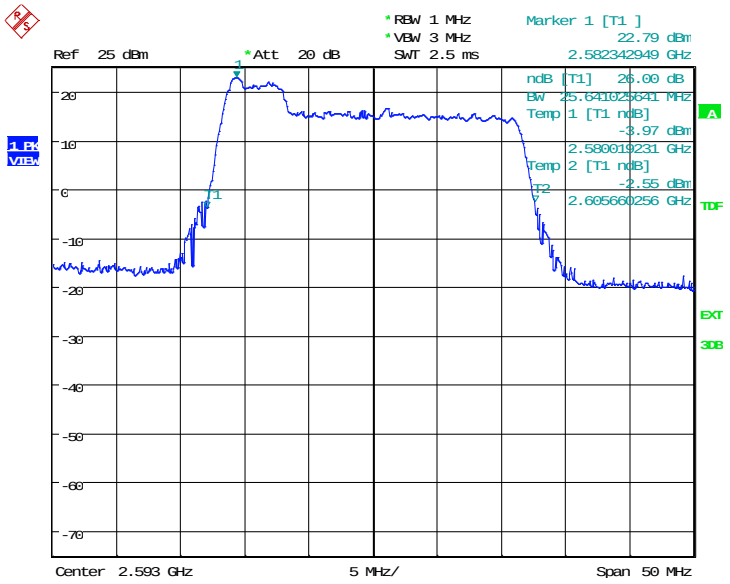
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	25641.03	25641.03

LTE Band CA_41C, 5MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:16:15

LTE Band CA_41C, 5MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

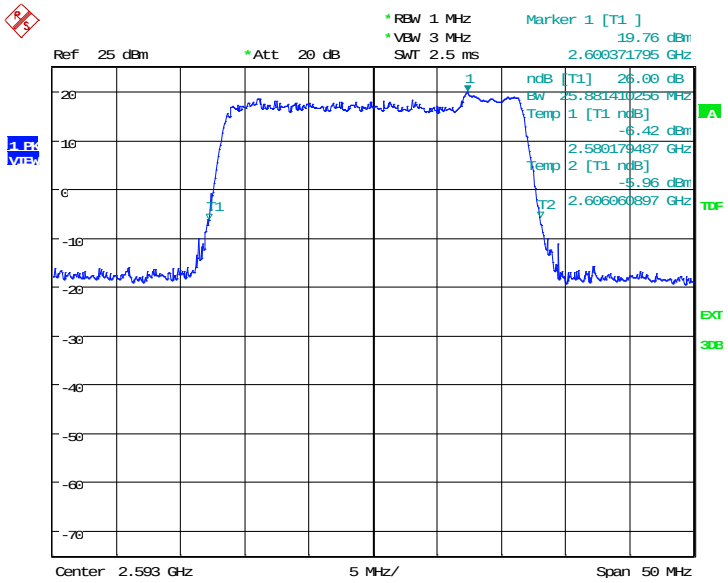


Date: 13.APR.2019 07:15:30

LTE Band CA_41C, 20MHz+5MHz (-26dBc BW)

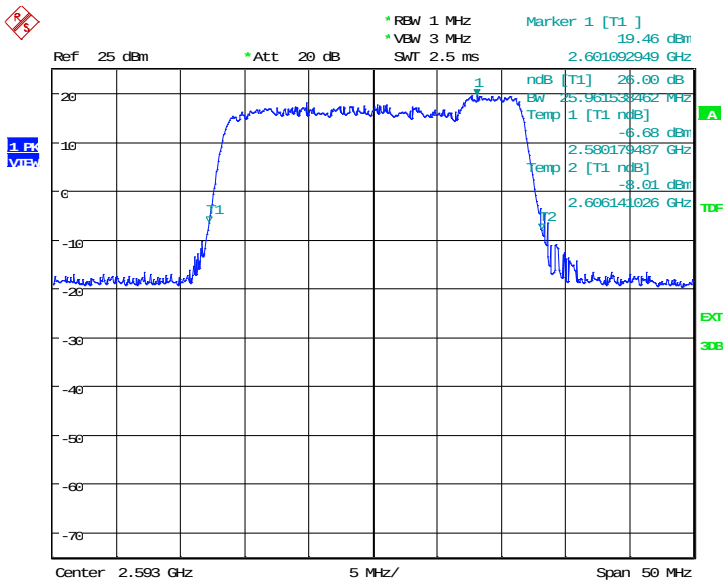
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	25881.41	25961.54

LTE Band CA_41C, 20MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:18:30

LTE Band CA_41C, 20MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

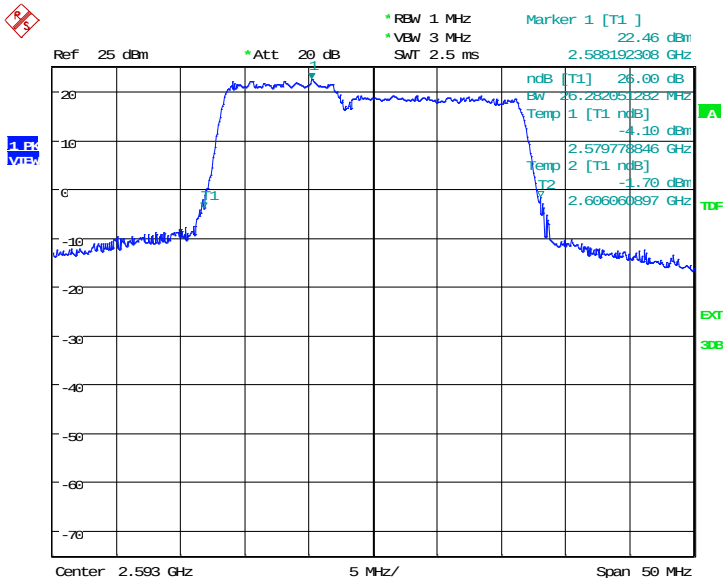


Date: 13.APR.2019 07:19:57

LTE Band CA_41C, 10MHz+15MHz (-26dBc BW)

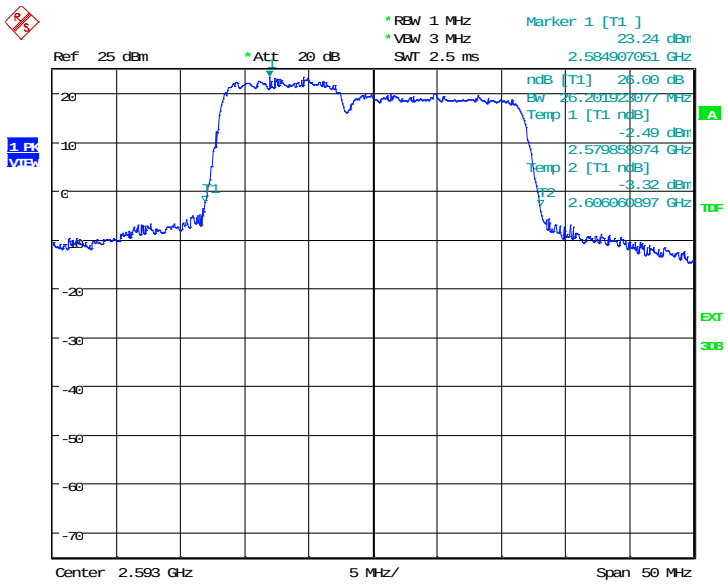
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	26282.05	26201.92

LTE Band CA_41C, 10MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:26:02

LTE Band CA_41C, 10MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

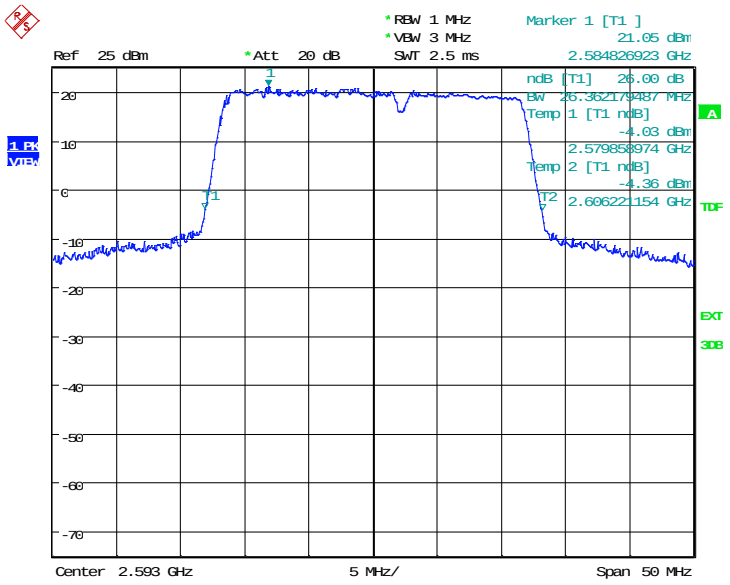


Date: 13.APR.2019 07:26:56

LTE Band CA_41C, 15MHz+10MHz (-26dBc BW)

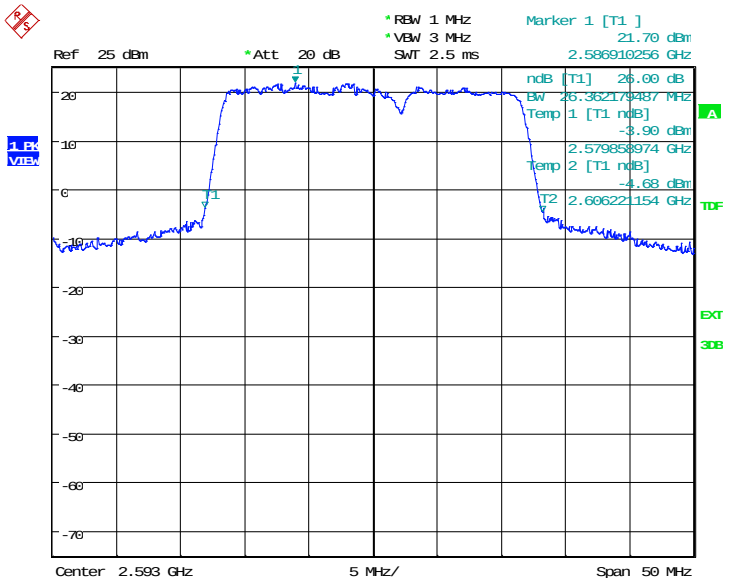
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	26362.18	26362.18

LTE Band CA_41C, 15MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:30:22

LTE Band CA_41C, 15MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

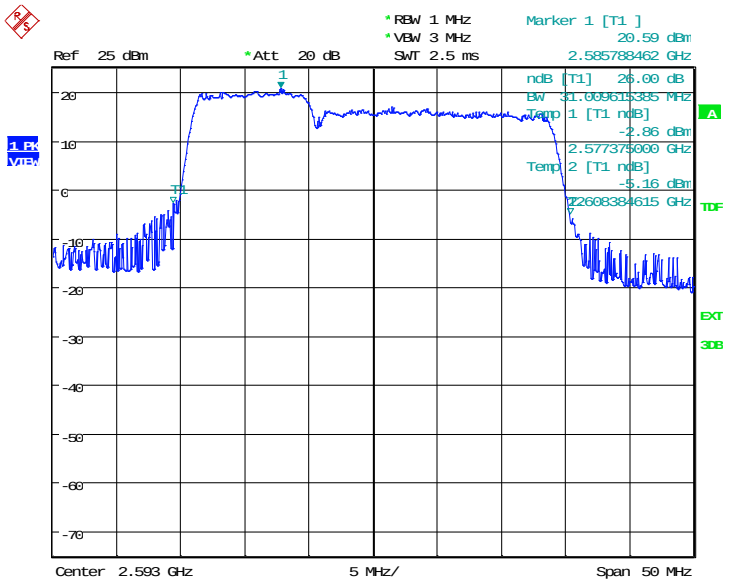


Date: 13.APR.2019 07:31:22

LTE Band CA_41C, 10MHz+20MHz (-26dBc BW)

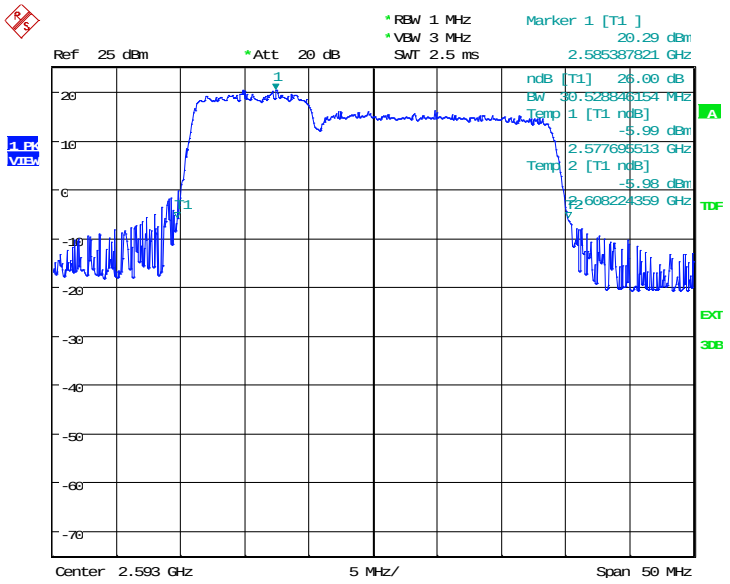
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	31009.62	30528.85

LTE Band CA_41C, 10MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:37:54

LTE Band CA_41C, 10MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

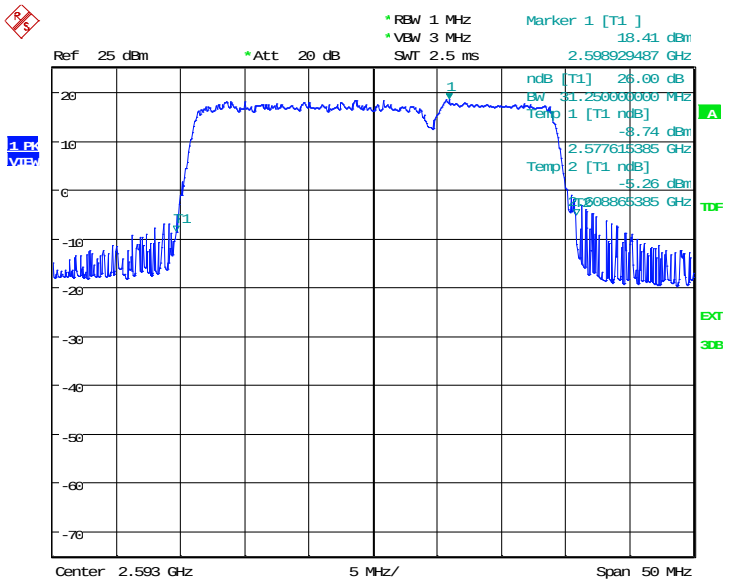


Date: 13.APR.2019 07:38:59

LTE Band CA_41C, 20MHz+10MHz (-26dBc BW)

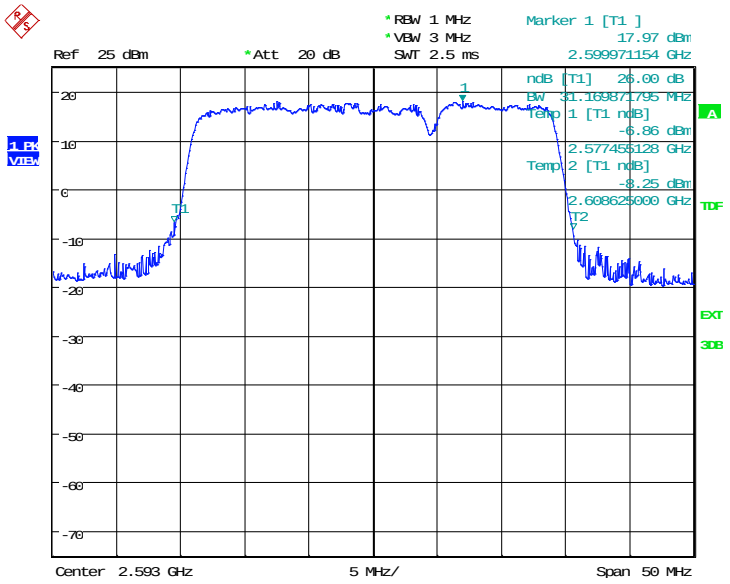
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	31250.00	31169.87

LTE Band CA_41C, 20MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:41:40

LTE Band CA_41C, 20MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

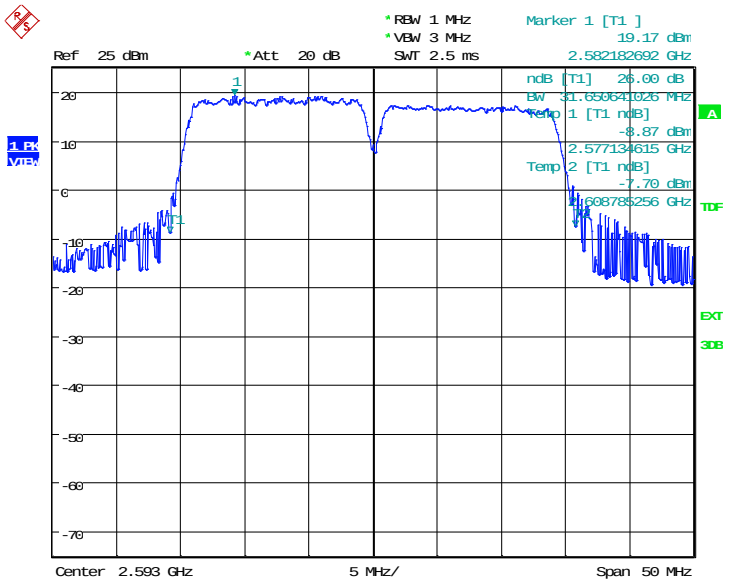


Date: 13.APR.2019 07:42:43

LTE Band CA_41C, 15MHz+15MHz (-26dBc BW)

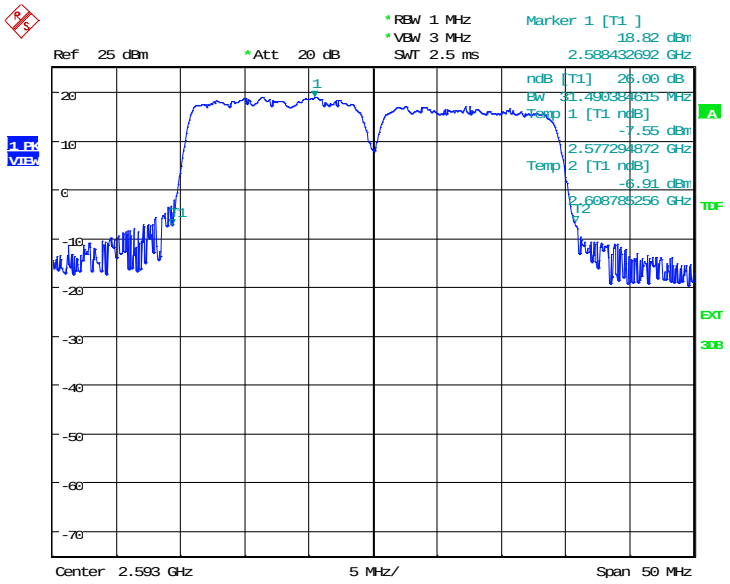
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	31650.64	31490.38

LTE Band CA_41C, 15MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:49:32

LTE Band CA_41C, 15MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

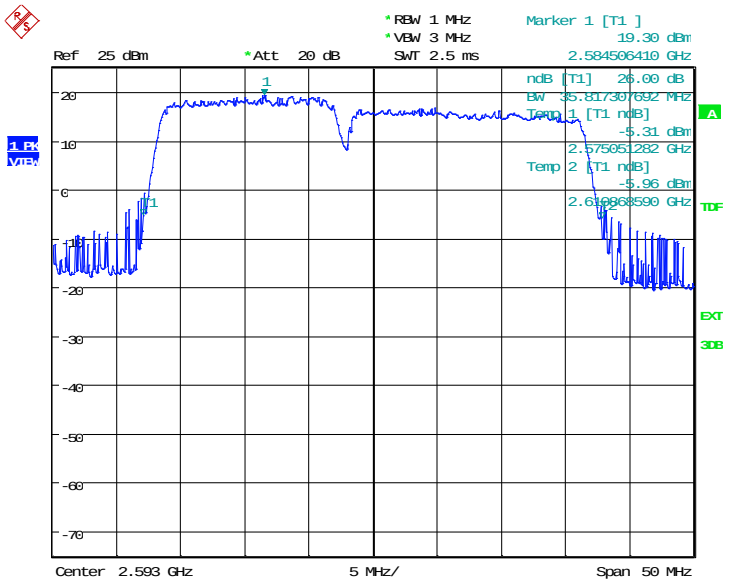


Date: 13.APR.2019 07:47:46

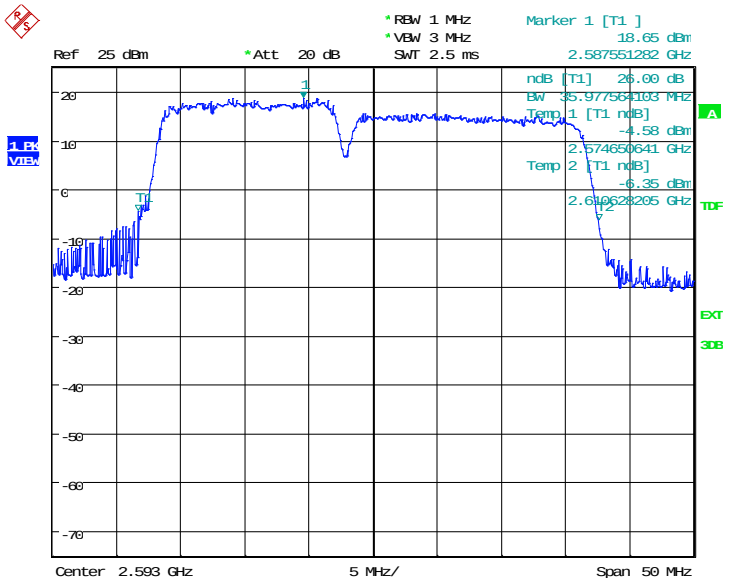
LTE Band CA_41C, 15MHz+20MHz (-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	35817.31	35977.56

LTE Band CA_41C, 15MHz+20MHz Bandwidth, QPSK (-26dBc BW)



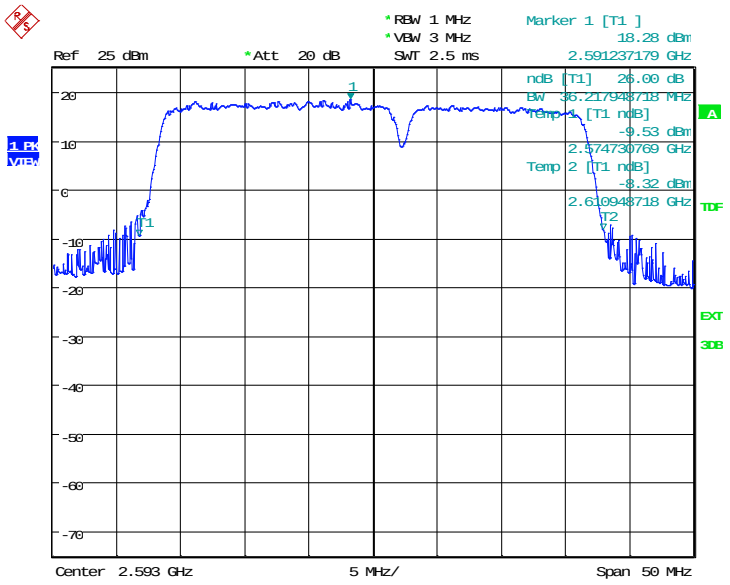
LTE Band CA_41C, 15MHz+20MHz Bandwidth, 16QAM (-26dBc BW)



LTE Band CA_41C, 20MHz+15MHz (-26dBc BW)

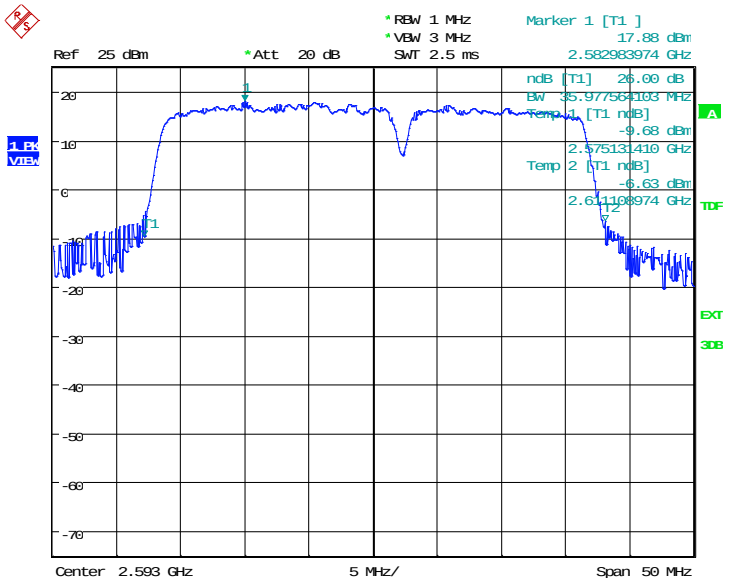
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	36217.95	35977.56

LTE Band CA_41C, 20MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 07:56:41

LTE Band CA_41C, 20MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

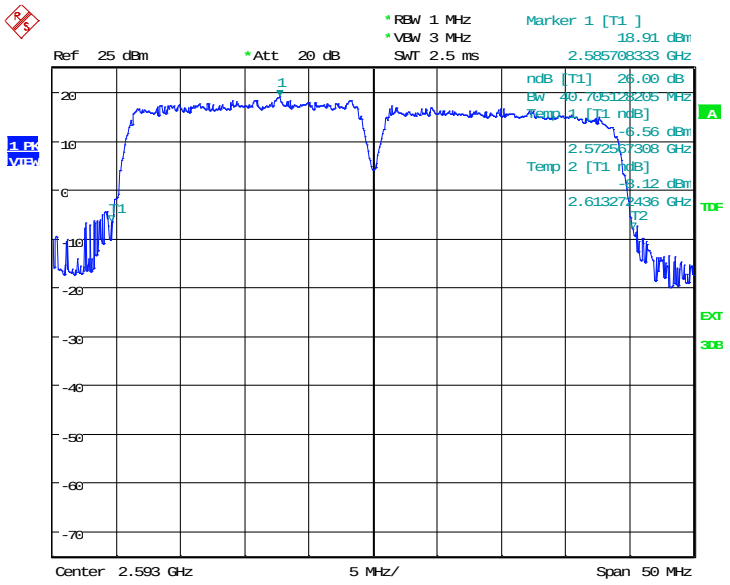


Date: 13.APR.2019 07:57:46

LTE Band CA_41C, 20MHz+20MHz (-26dBc BW)

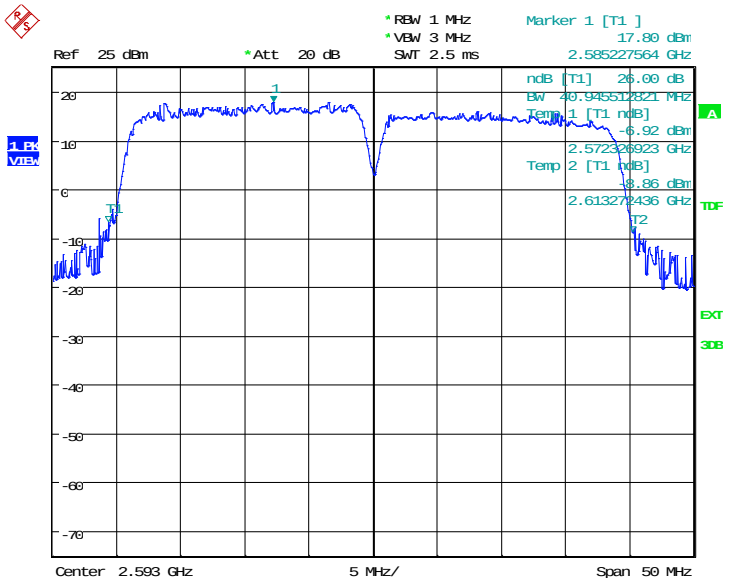
Frequency(MHz)	Emission Bandwidth (-26dBc BW)(kHz)	
2593.0	QPSK	16QAM
	40705.13	40945.51

LTE Band CA_41C, 20MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 13.APR.2019 08:00:37

LTE Band CA_41C, 20MHz+20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 13.APR.2019 08:01:29

Note: Expanded measurement uncertainty is U = 3428 Hz, k = 2

A.6 BAND EDGE COMPLIANCE

Reference

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

A.6.1 Measurement limit

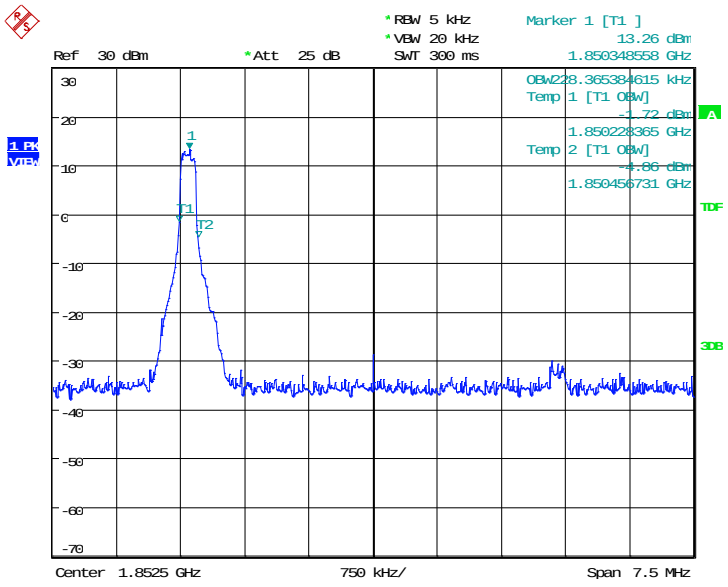
On any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log (P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm. A relaxation of 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

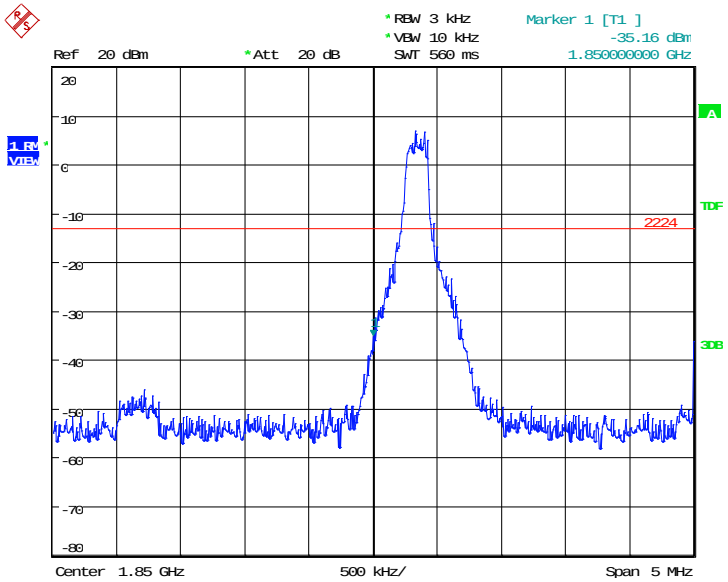
LTE band 2

OBW: 1RB-low_offset

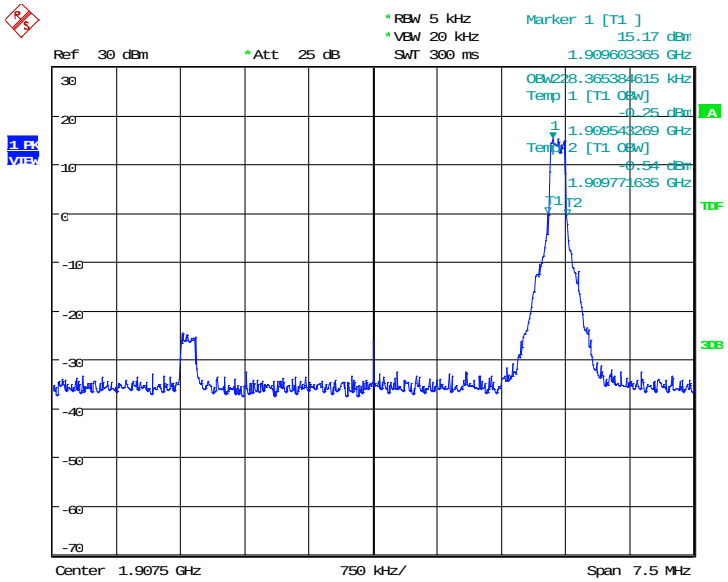


Date: 24.MAR.2019 17:23:35

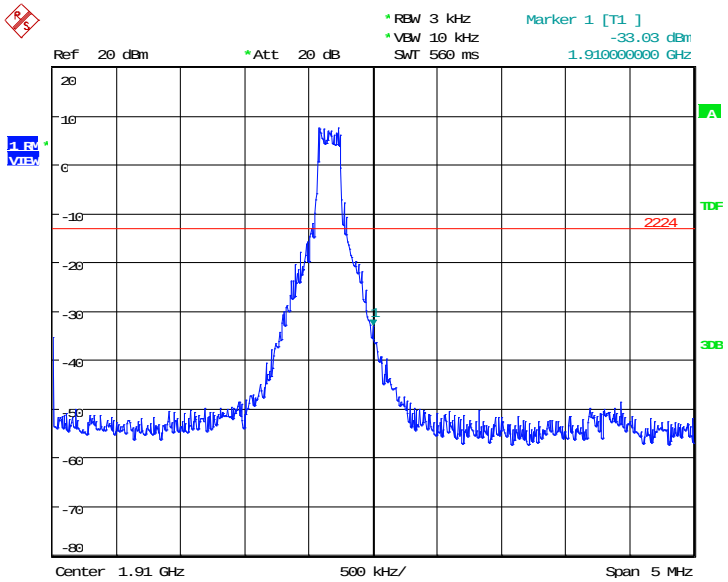
LOW BAND EDGE BLOCK-1RB-low_offset



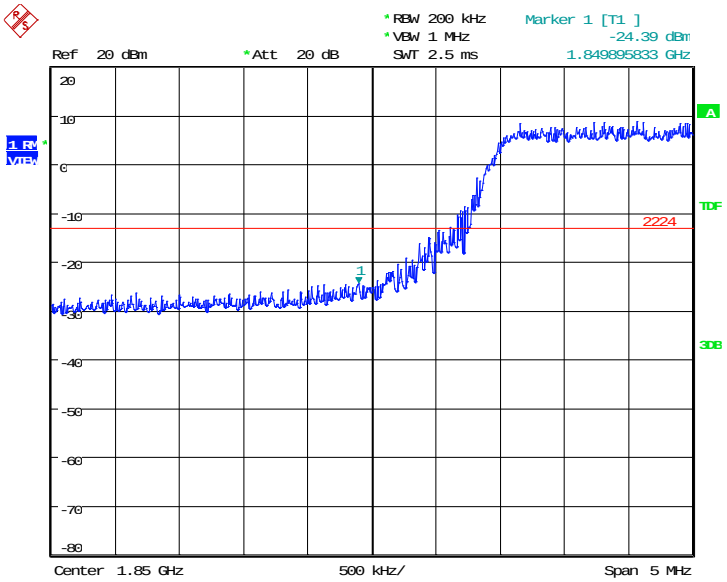
OBW: 1RB-high_offset



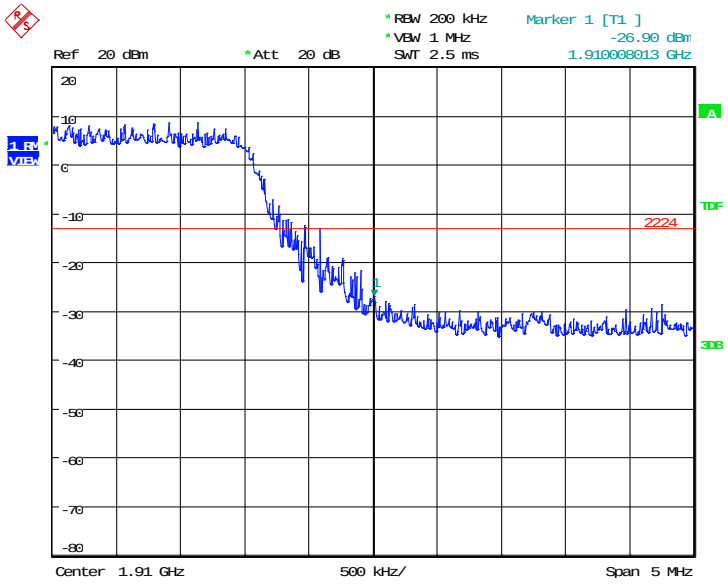
HIGH BAND EDGE BLOCK-1RB-high_offset



LOW BAND EDGE BLOCK-20MHz-100%RB



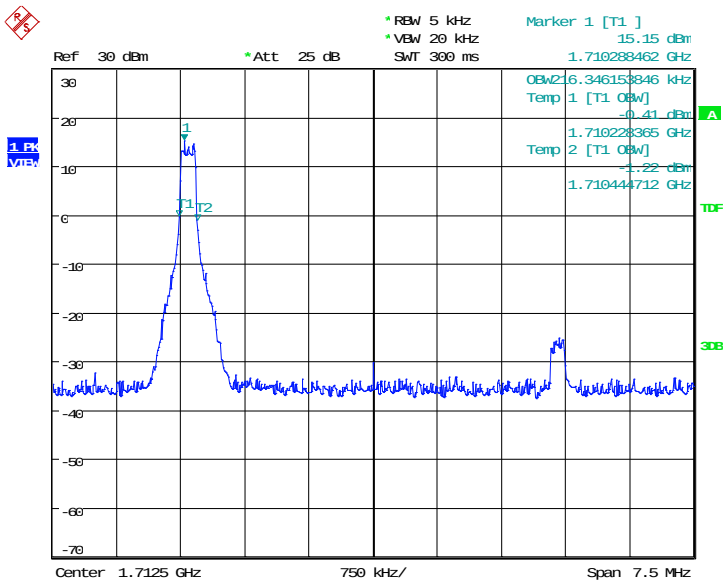
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 24.MAR.2019 17:38:47

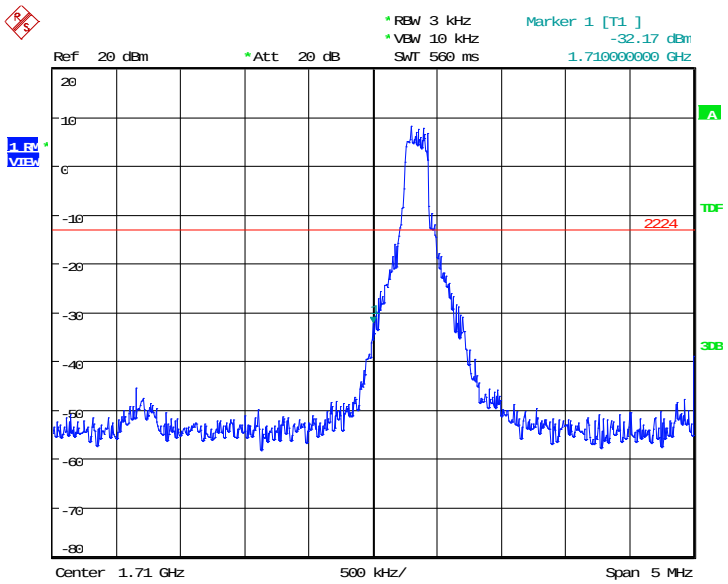
LTE band 4

OBW: 1RB-low_offset



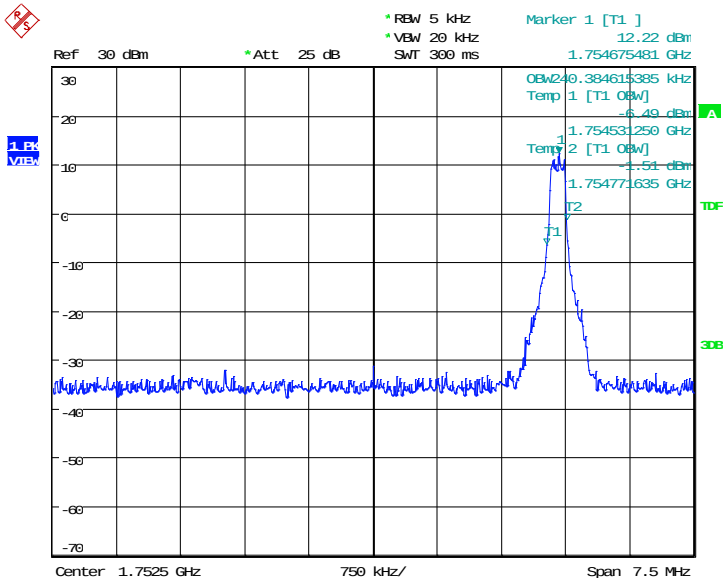
Date: 24.MAR.2019 17:25:15

LOW BAND EDGE BLOCK-1RB-low_offset



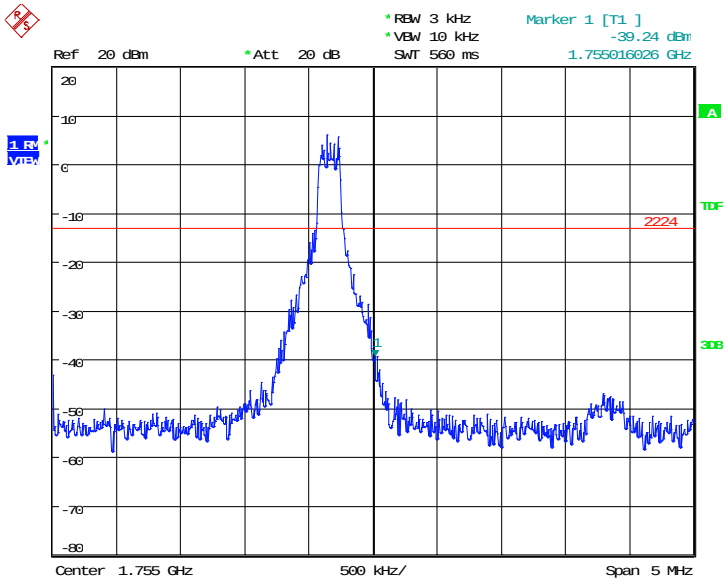
Date: 24.MAR.2019 17:26:00

OBW: 1RB-high_offset



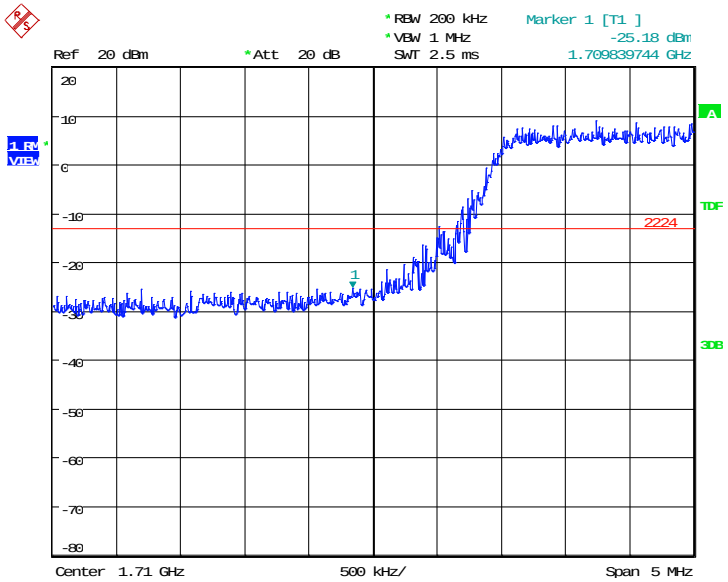
Date: 24.MAR.2019 17:09:22

HIGH BAND EDGE BLOCK-1RB-high_offset

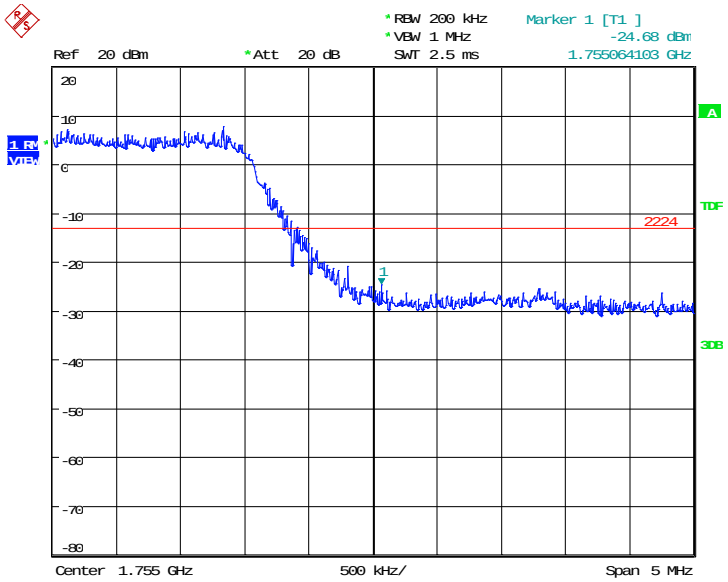


Date: 24.MAR.2019 17:10:06

LOW BAND EDGE BLOCK-20MHz-100%RB

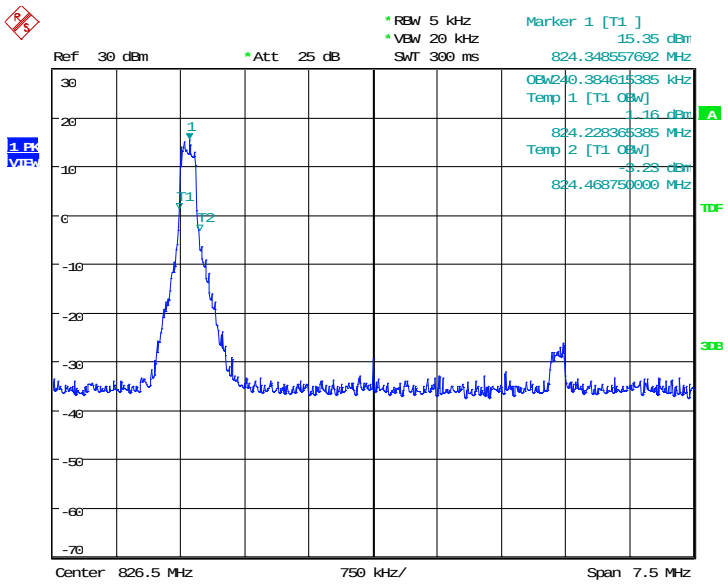


HIGH BAND EDGE BLOCK-20MHz-100%RB



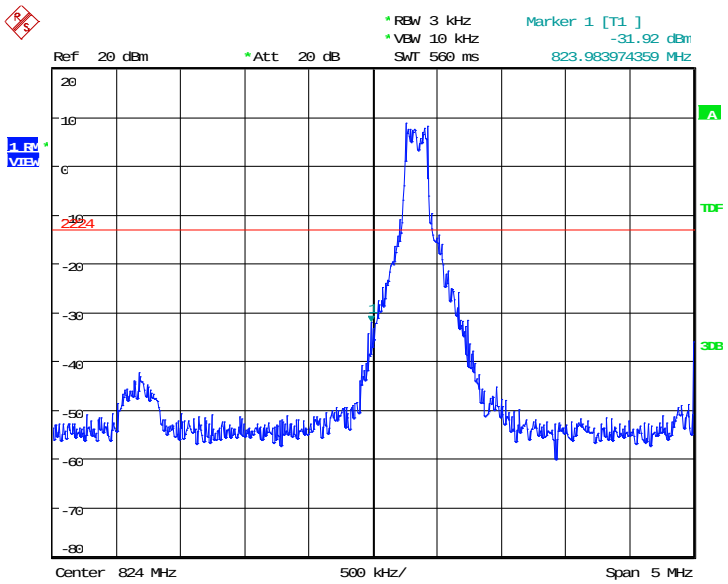
LTE band 5

OBW: 1RB-low_offset



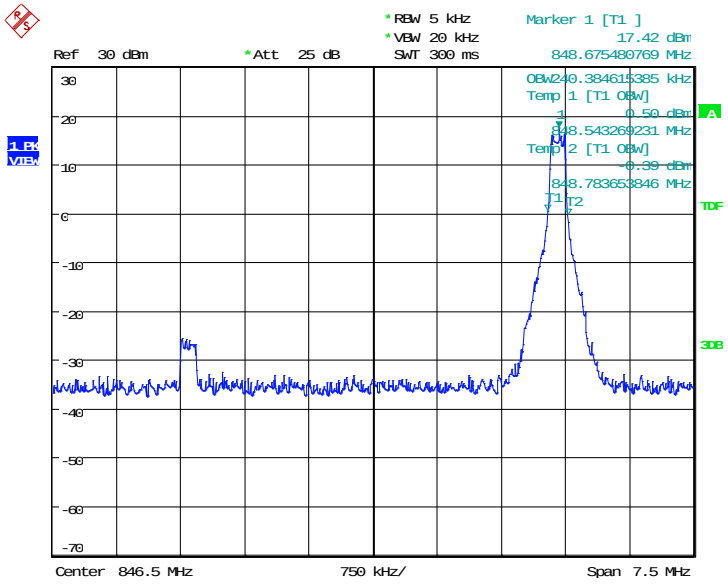
Date: 24.MAR.2019 17:21:55

LOW BAND EDGE BLOCK-1RB-low_offset



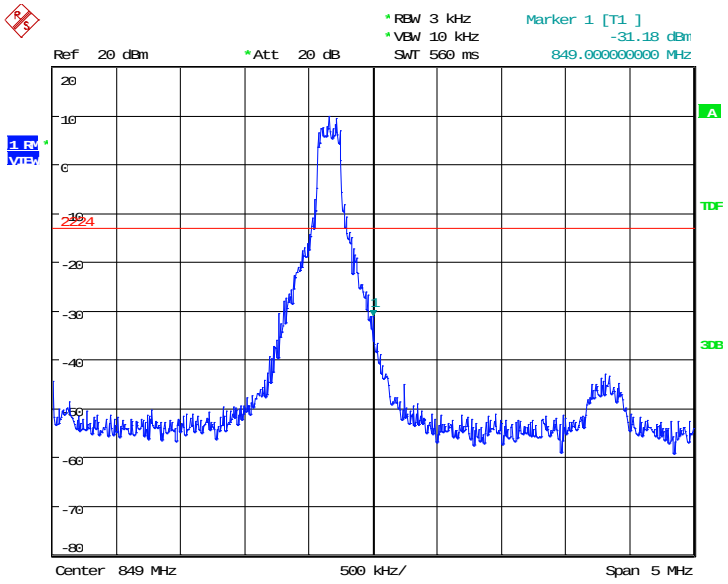
Date: 24.MAR.2019 17:22:39

OBW: 1RB-high_offset



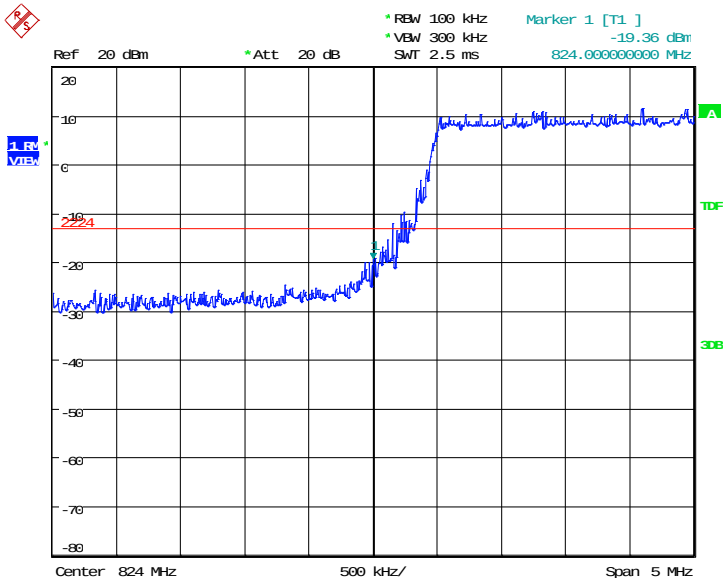
Date: 24.MAR.2019 17:05:57

HIGH BAND EDGE BLOCK-1RB-high_offset



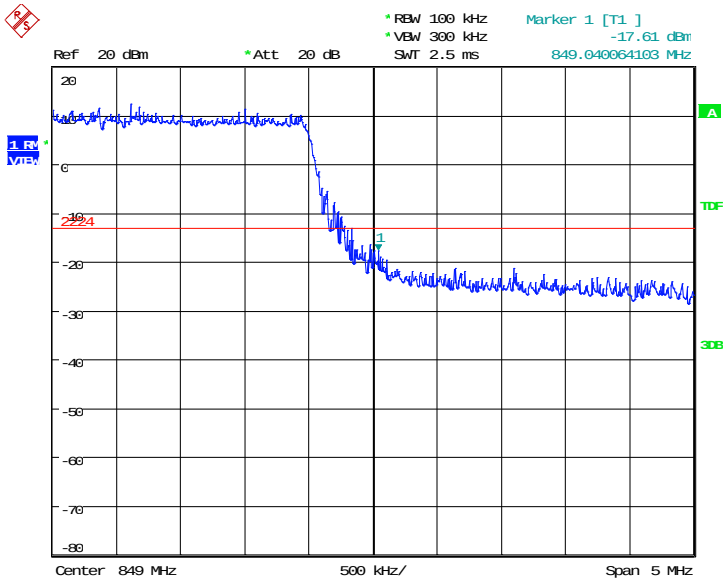
Date: 24.MAR.2019 17:06:41

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 24.MAR.2019 17:49:37

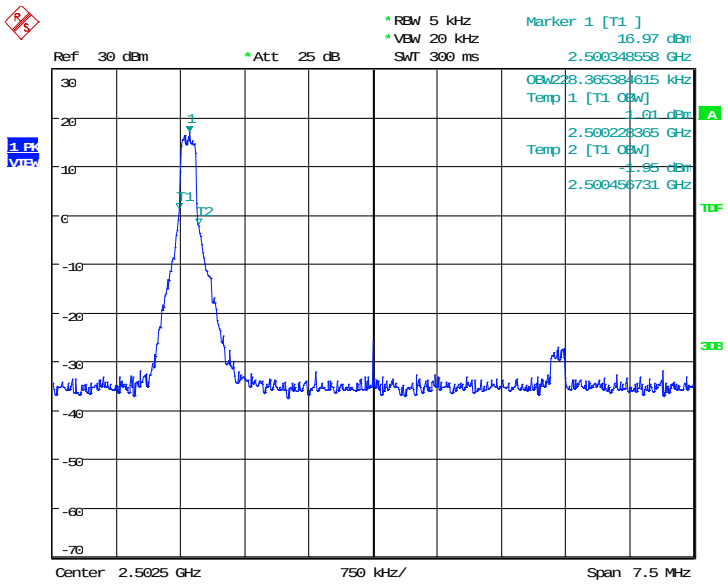
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 24.MAR.2019 17:50:23

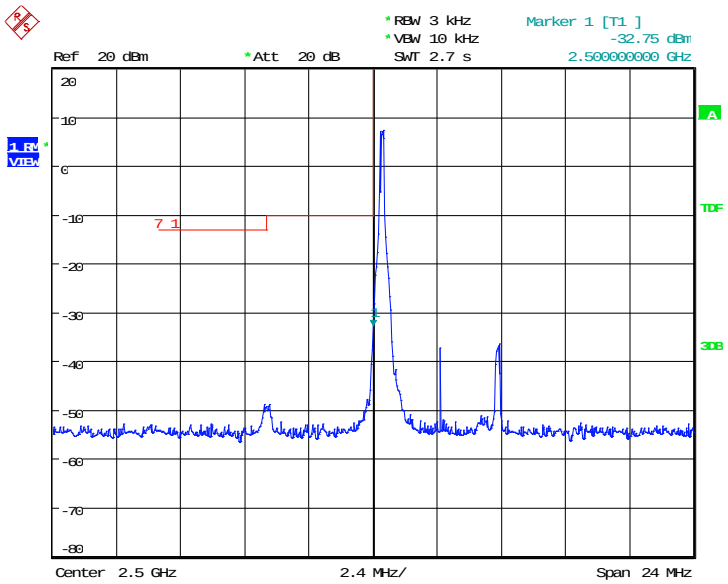
LTE band 7

OBW: 1RB-low_offset



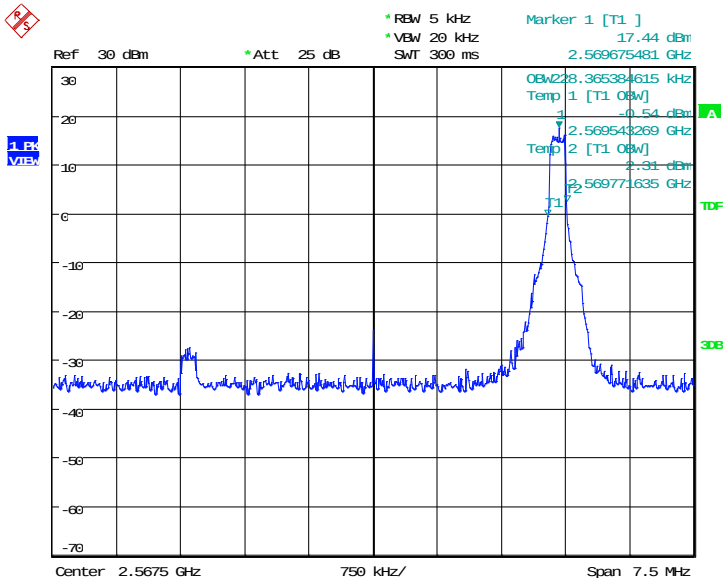
Date: 24.MAR.2019 18:08:37

LOW BAND EDGE BLOCK-1RB-low_offset



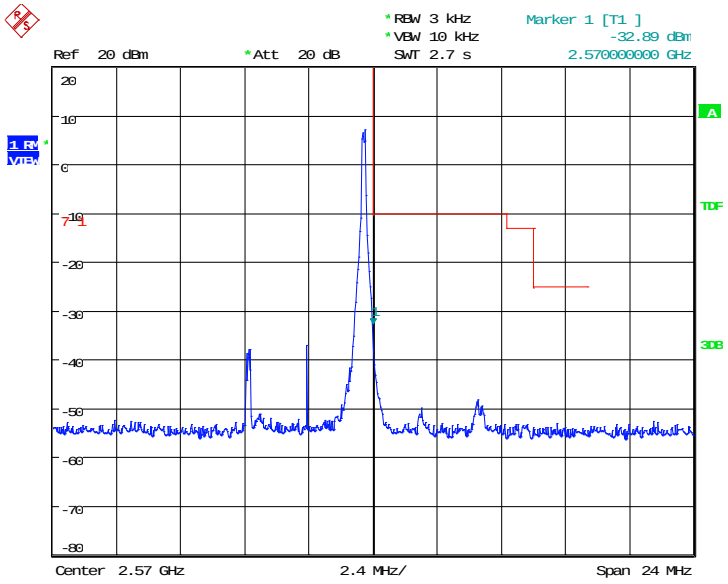
Date: 24.MAR.2019 18:18:06

OBW: 1RB-high_offset



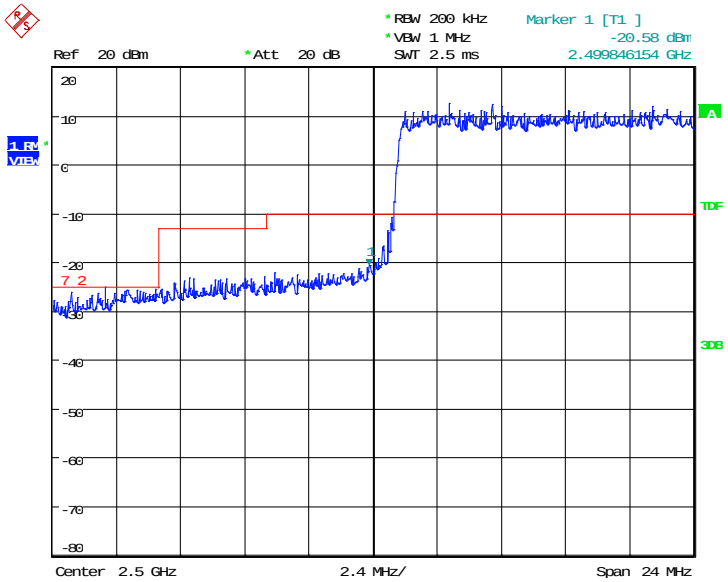
Date: 24.MAR.2019 18:03:54

HIGH BAND EDGE BLOCK-1RB-high_offset



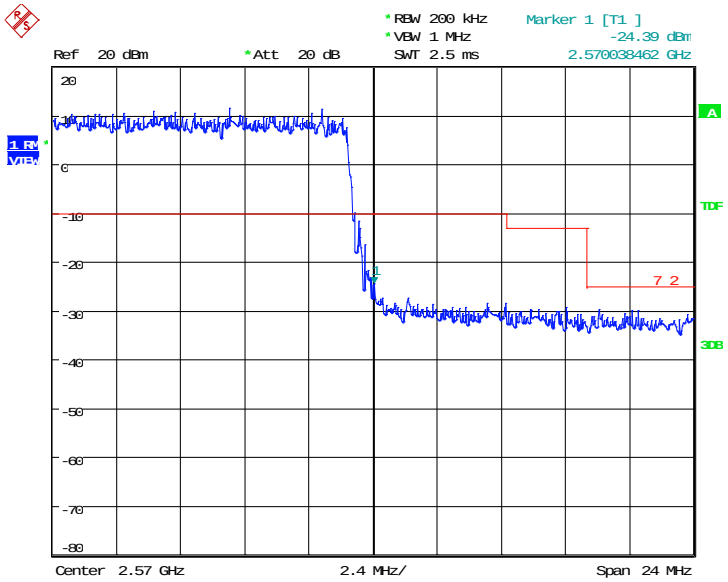
Date: 24.MAR.2019 18:19:19

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 24.MAR.2019 17:59:35

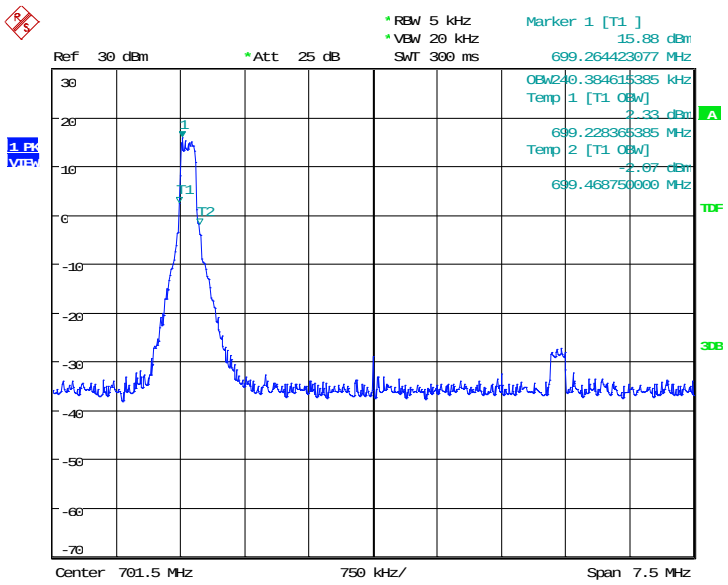
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 24.MAR.2019 18:00:21

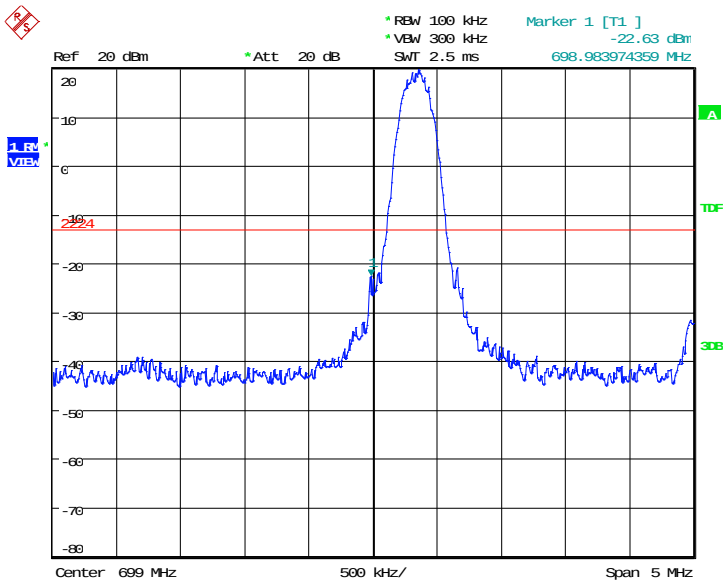
LTE band 12

OBW: 1RB-low_offset



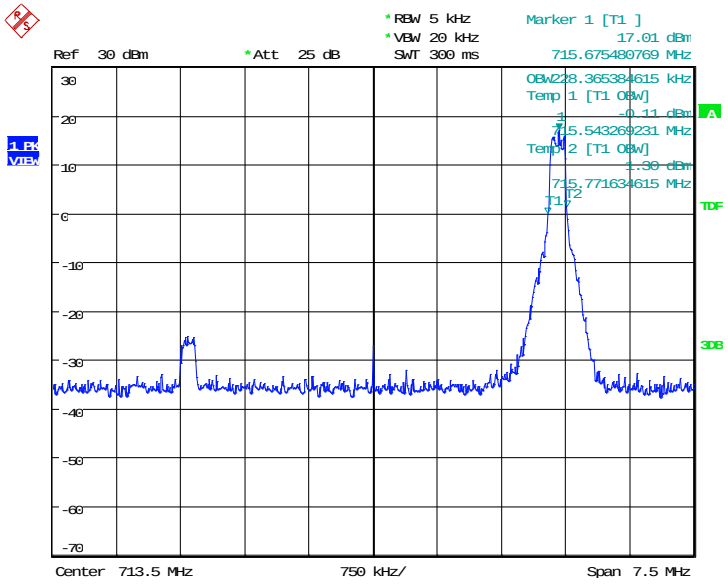
Date: 24.MAR.2019 17:26:58

LOW BAND EDGE BLOCK-1RB-low_offset



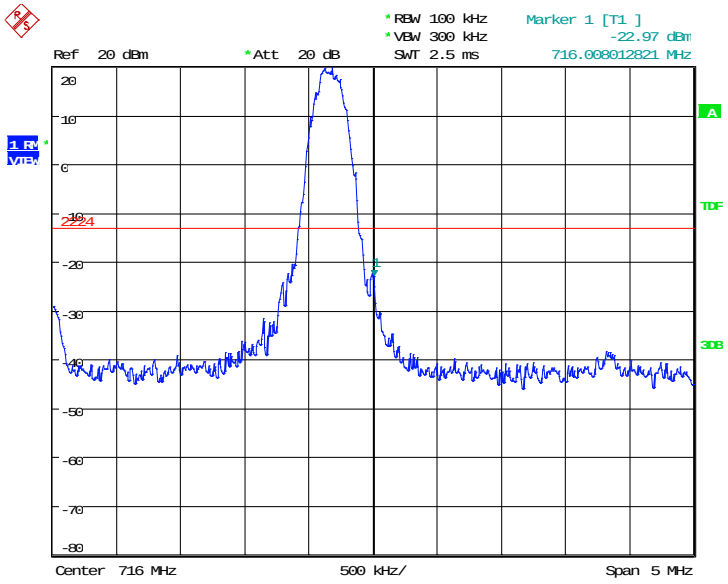
Date: 24.MAR.2019 17:27:42

OBW: 1RB-high_offset



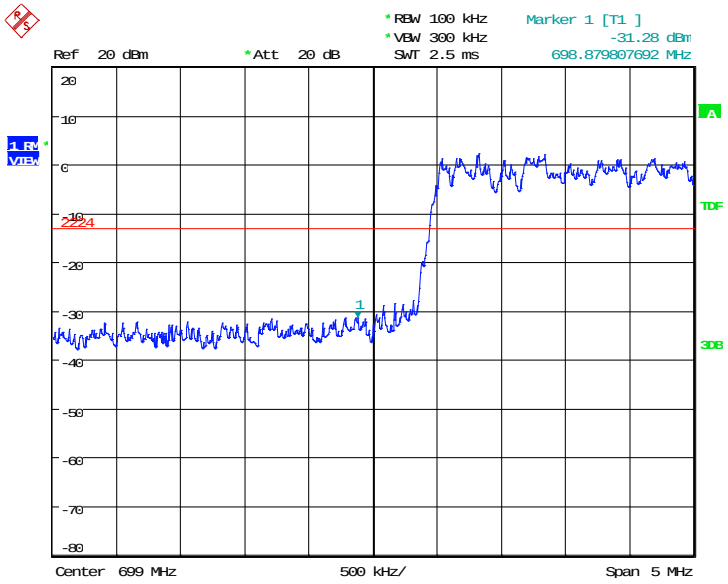
Date: 24.MAR.2019 17:11:05

HIGH BAND EDGE BLOCK-1RB-high_offset



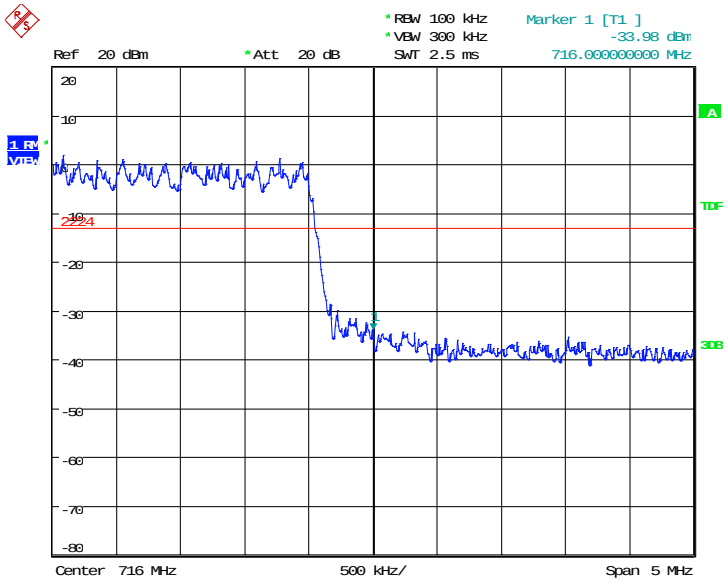
Date: 24.MAR.2019 17:11:49

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 24.MAR.2019 17:51:11

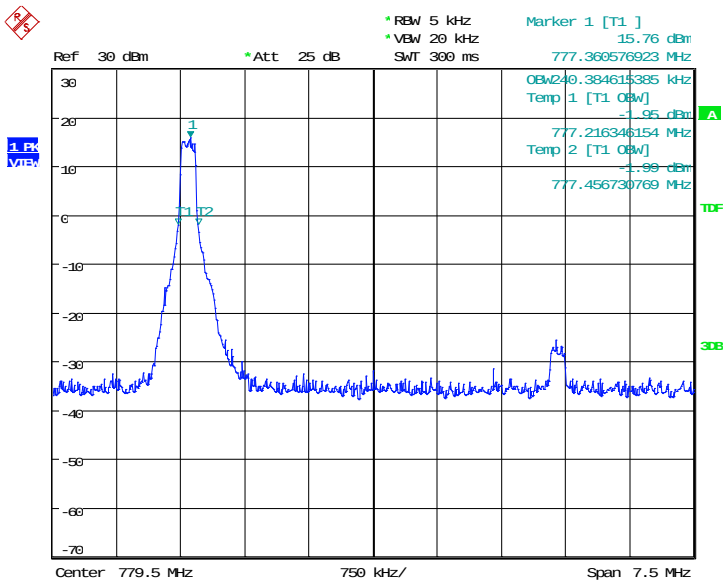
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 24.MAR.2019 17:52:27

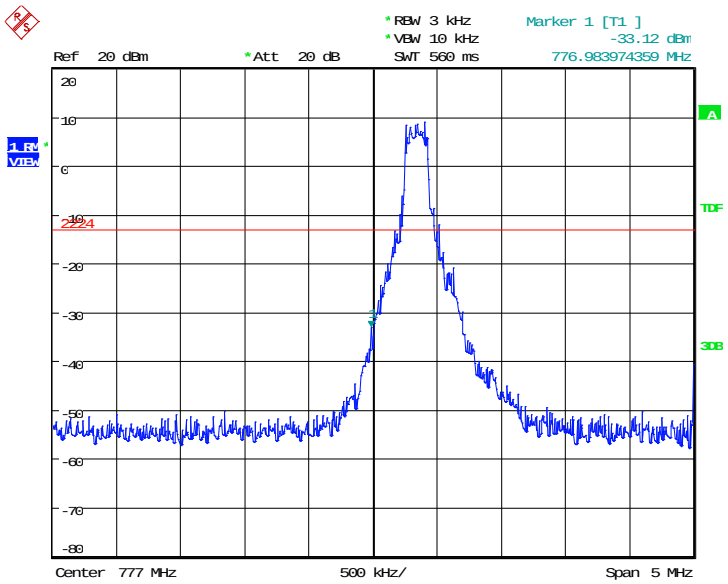
LTE band 13

OBW: 1RB-low_offset



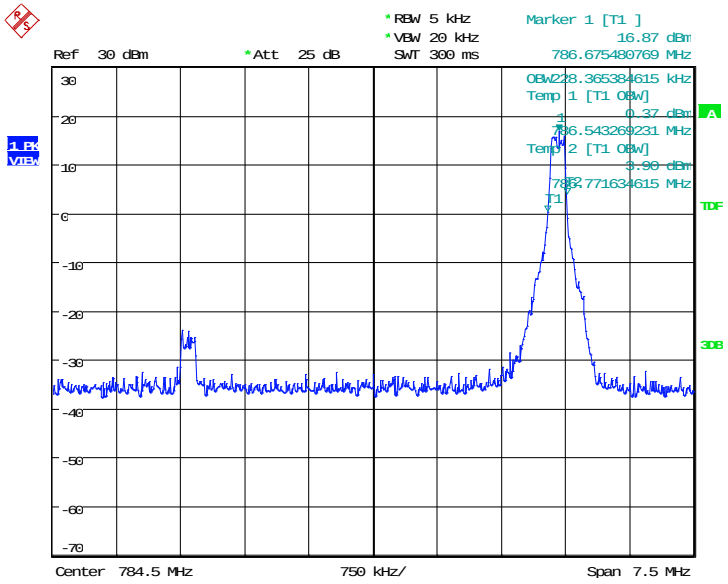
Date: 24.MAR.2019 17:20:13

LOW BAND EDGE BLOCK-1RB-low_offset



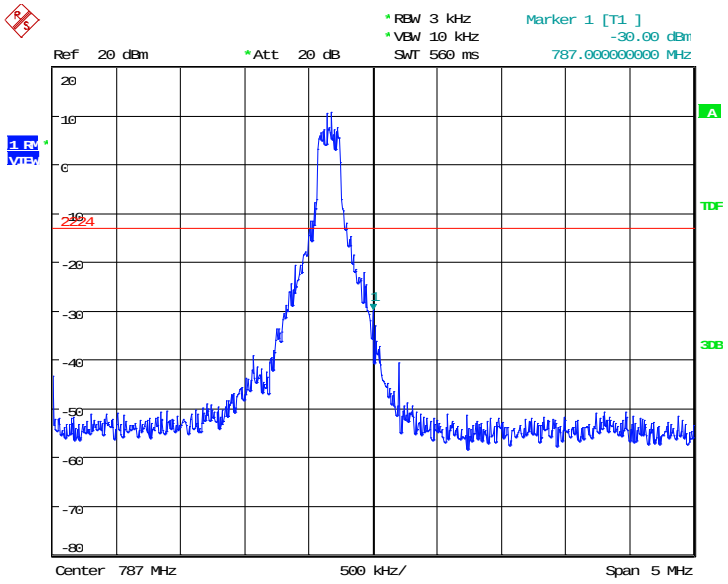
Date: 24.MAR.2019 17:20:57

OBW: 1RB-high_offset



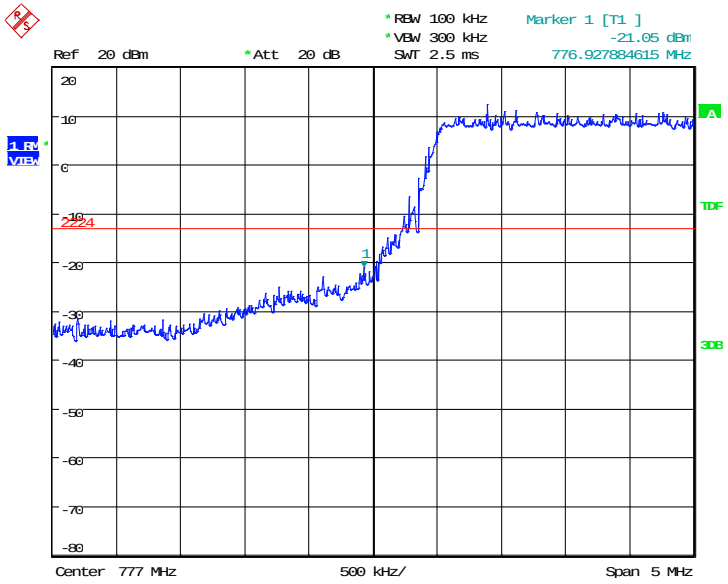
Date: 24.MAR.2019 17:03:44

HIGH BAND EDGE BLOCK-1RB-high_offset



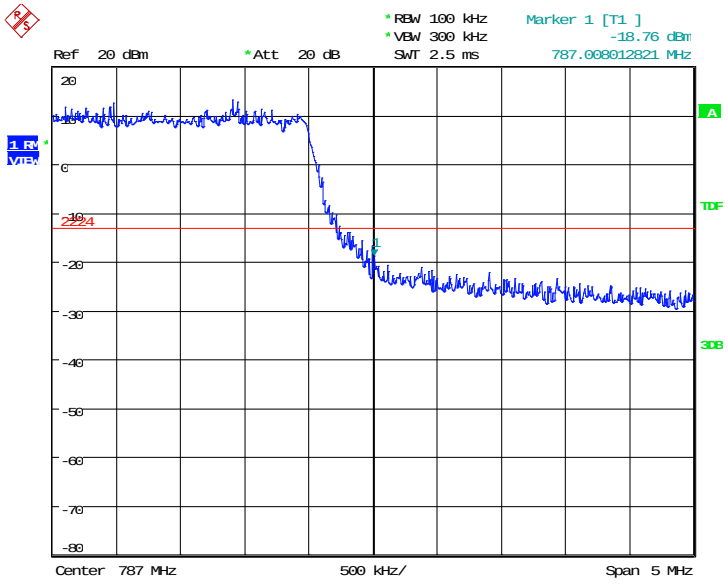
Date: 24.MAR.2019 17:04:28

LOW BAND EDGE BLOCK-5MHz-100%RB



Date: 24.MAR.2019 17:48:04

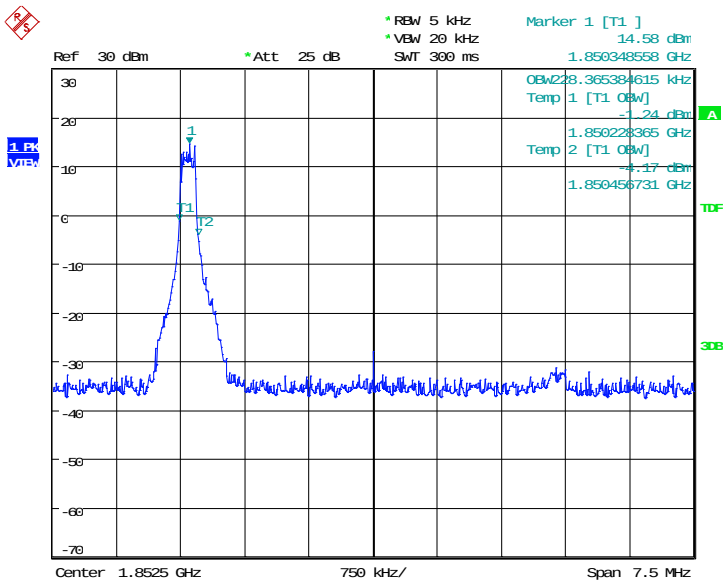
HIGH BAND EDGE BLOCK-5MHz-100%RB



Date: 24.MAR.2019 17:48:50

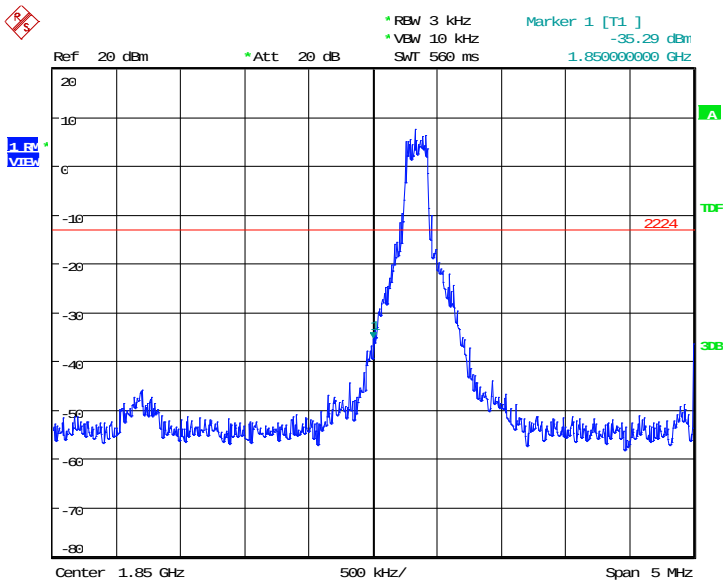
LTE band 25

OBW: 1RB-low_offset



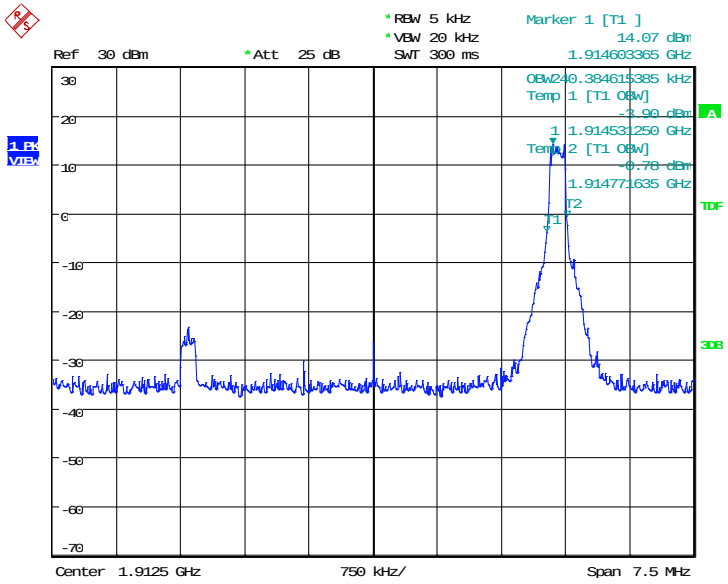
Date: 24.MAR.2019 17:28:41

LOW BAND EDGE BLOCK-1RB-low_offset



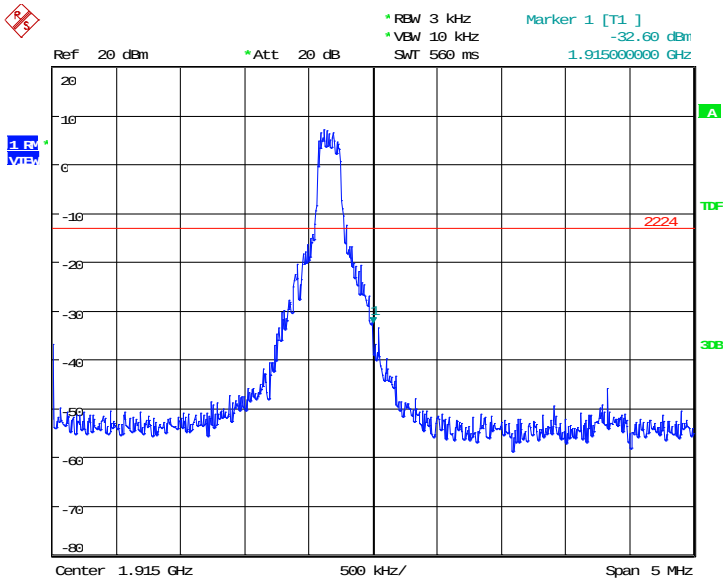
Date: 24.MAR.2019 17:29:25

OBW: 1RB-high_offset



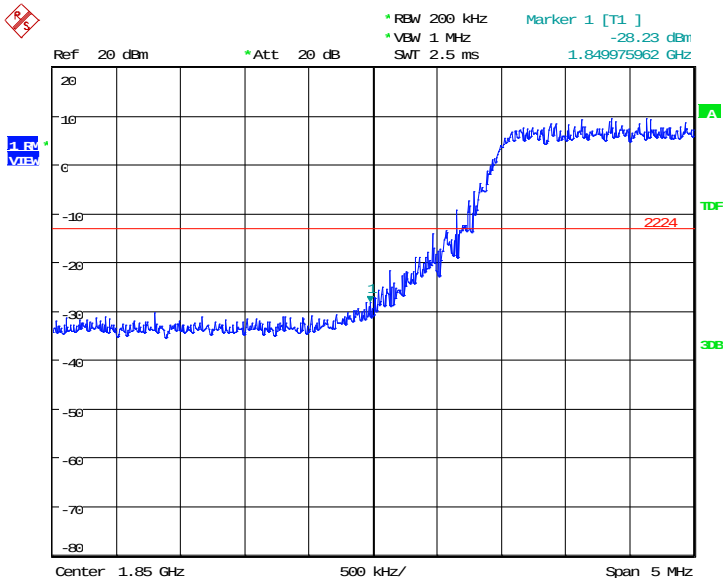
Date: 24.MAR.2019 17:12:48

HIGH BAND EDGE BLOCK-1RB-high_offset

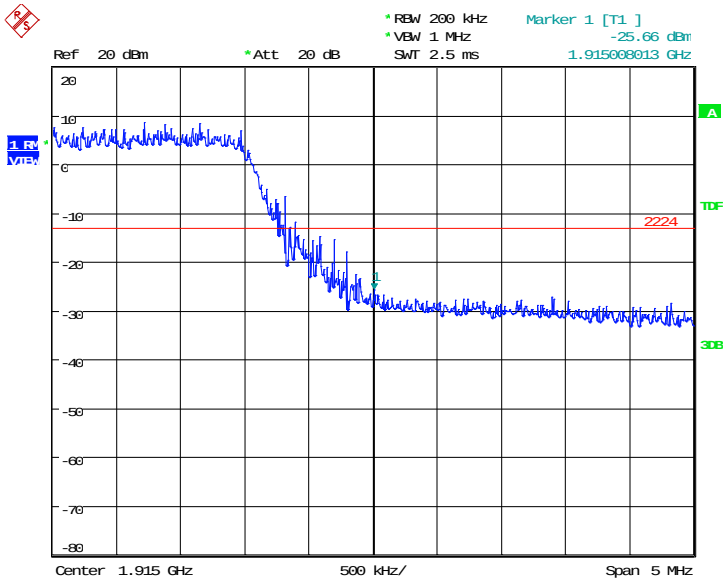


Date: 24.MAR.2019 17:13:32

LOW BAND EDGE BLOCK-20MHz-100%RB

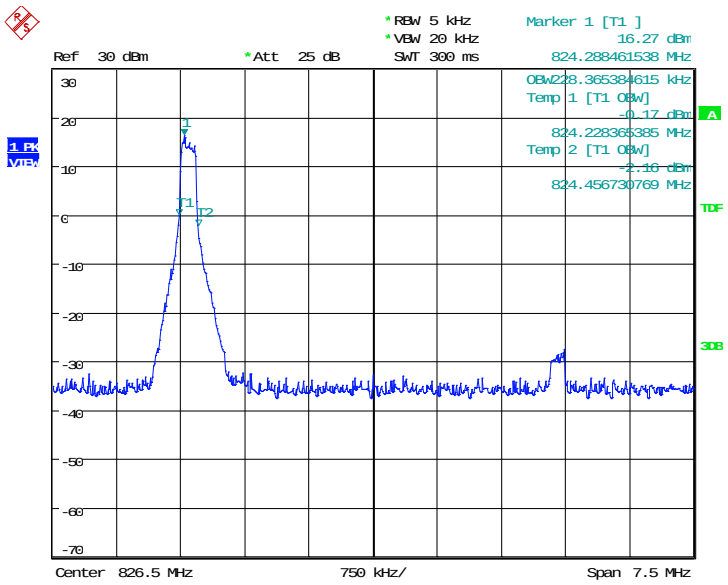


HIGH BAND EDGE BLOCK-20MHz-100%RB



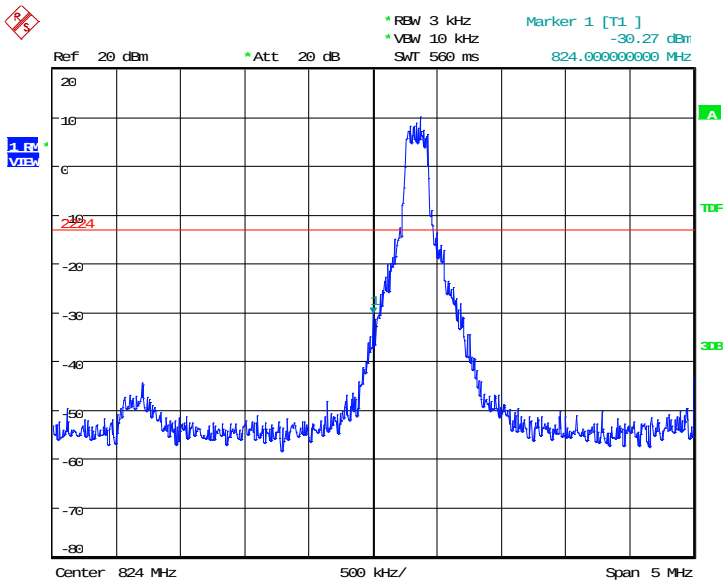
LTE band 26(824MHz-849MHz)

OBW: 1RB-low_offset



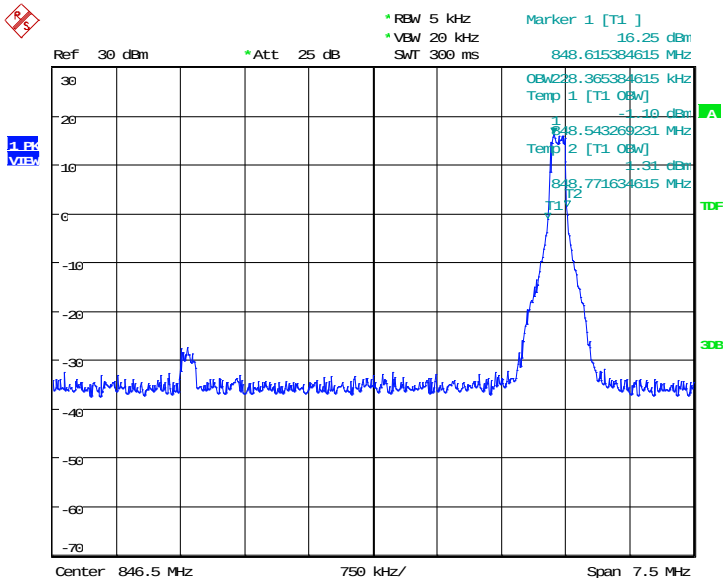
Date: 24.MAR.2019 17:30:21

LOW BAND EDGE BLOCK-1RB-low_offset



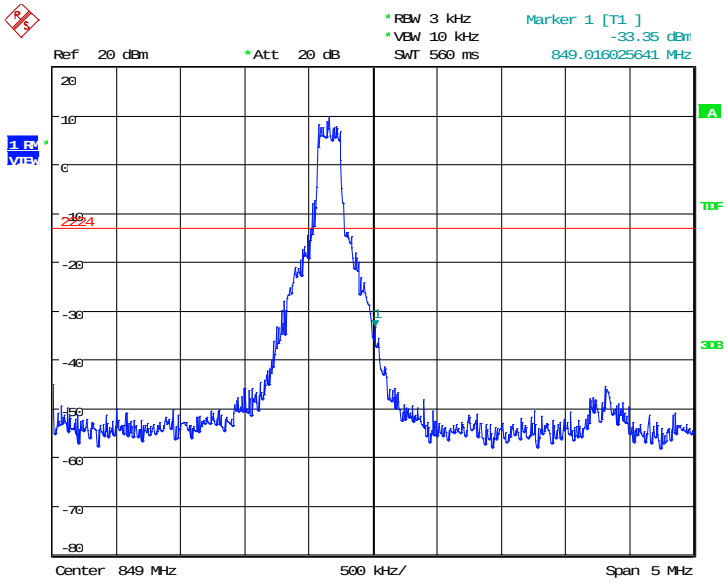
Date: 24.MAR.2019 17:31:05

OBW: 1RB-high_offset



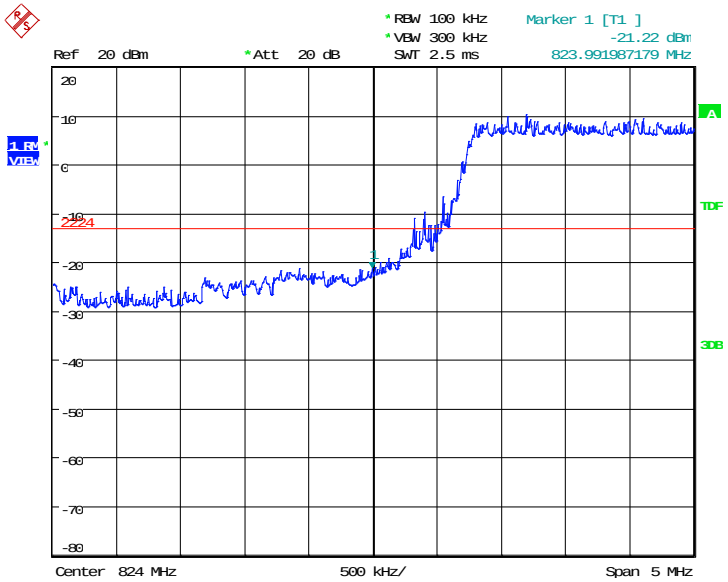
Date: 24.MAR.2019 17:14:30

HIGH BAND EDGE BLOCK-1RB-high_offset



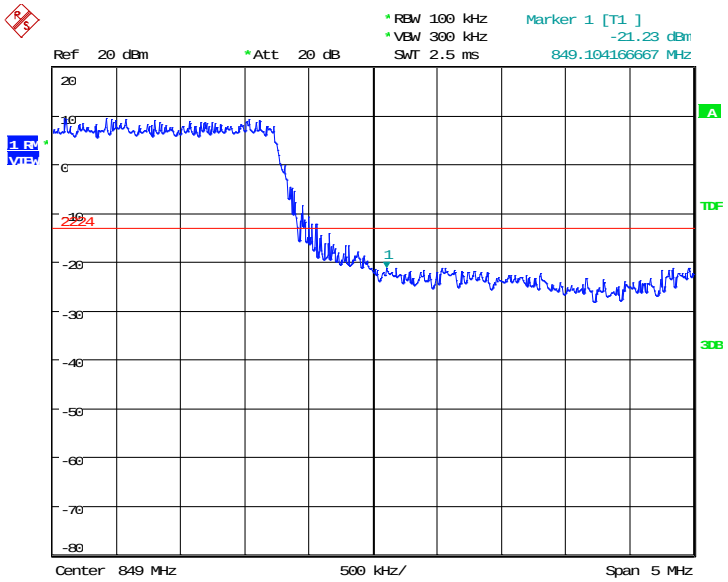
Date: 24.MAR.2019 17:15:14

LOW BAND EDGE BLOCK-15MHz-100%RB



Date: 24.MAR.2019 17:56:50

HIGH BAND EDGE BLOCK-15MHz-100%RB

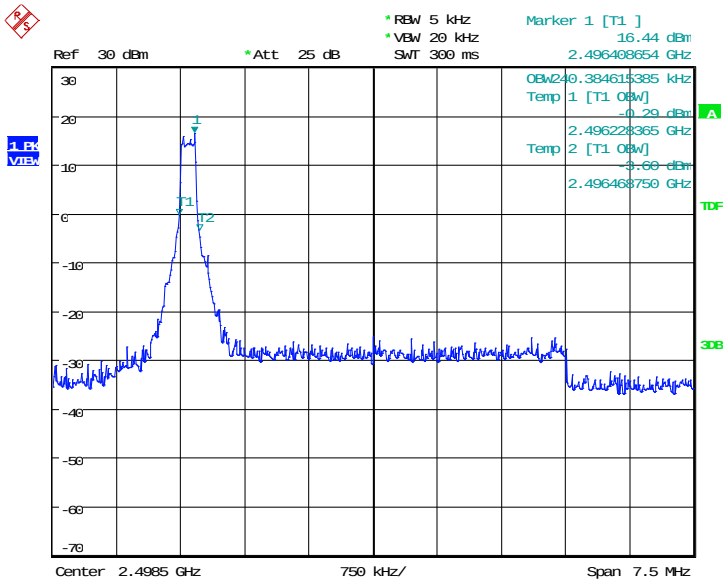


Date: 24.MAR.2019 17:57:36

Normal Power

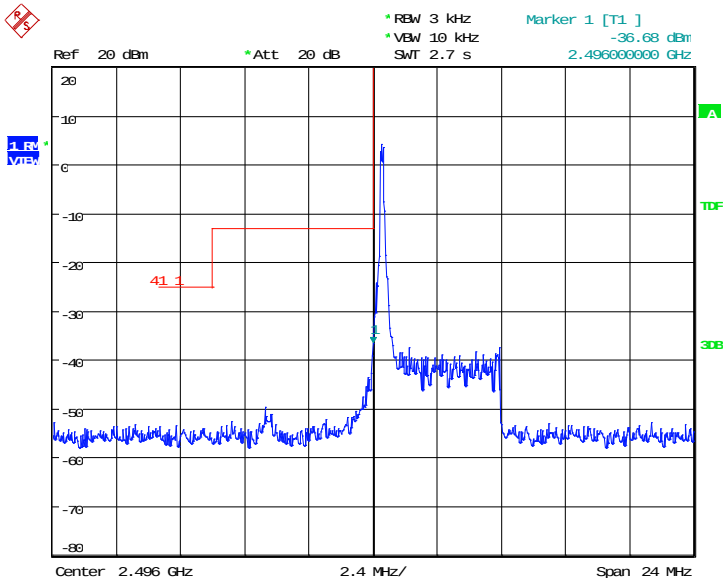
LTE band 41

OBW: 1RB-low_offset



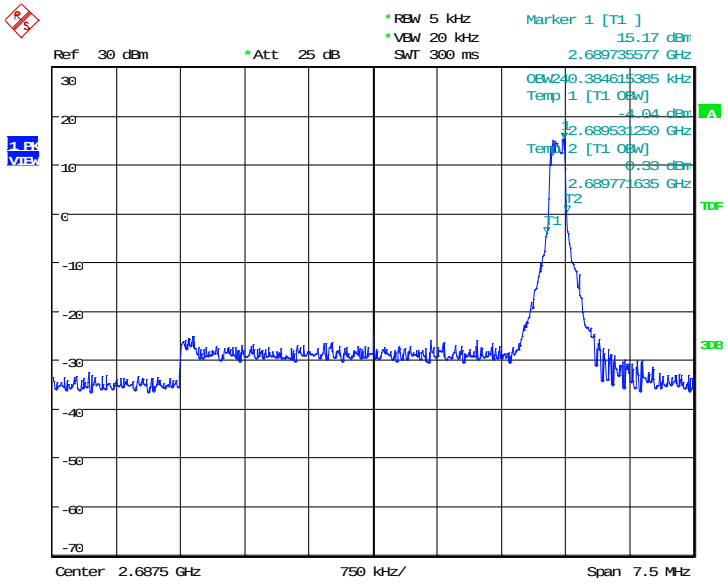
Date: 24.MAR.2019 18:10:20

LOW BAND EDGE BLOCK-1RB-low_offset



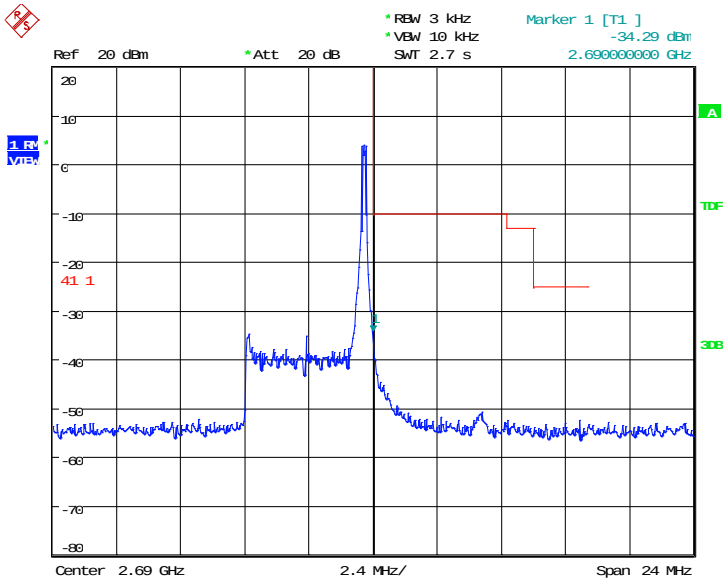
Date: 24.MAR.2019 18:14:05

OBW: 1RB-high_offset



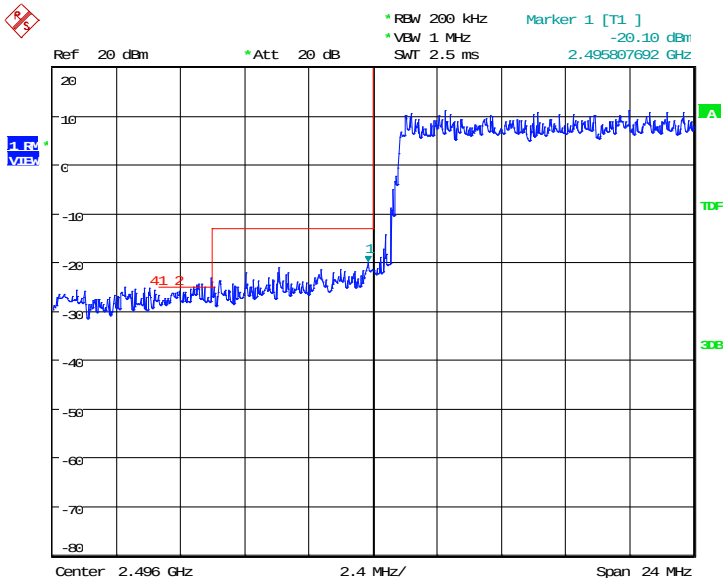
Date: 24.MAR.2019 18:05:37

HIGH BAND EDGE BLOCK-1RB-high_offset

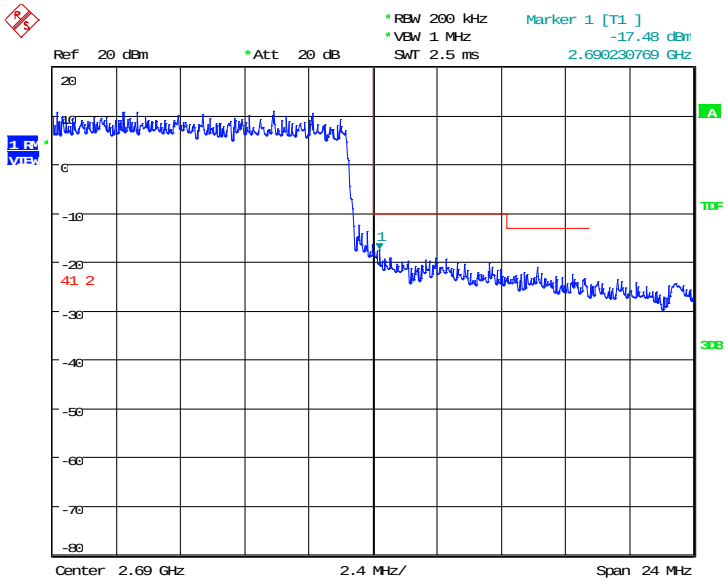


Date: 24.MAR.2019 18:15:07

LOW BAND EDGE BLOCK-10MHz-100%RB



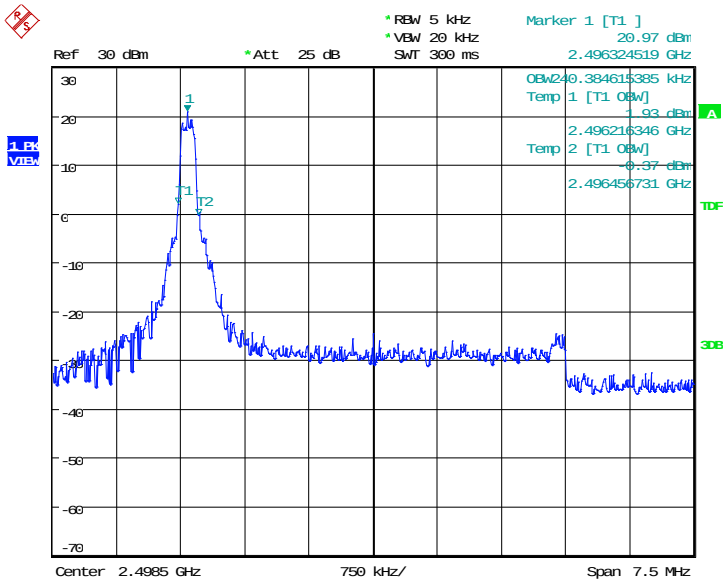
HIGH BAND EDGE BLOCK-10MHz-100%RB



HPUE

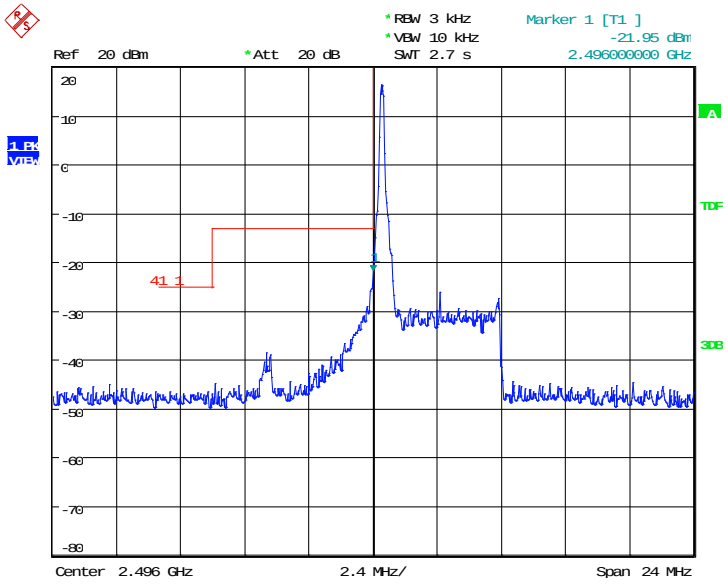
LTE band 41

OBW: 1RB-low_offset



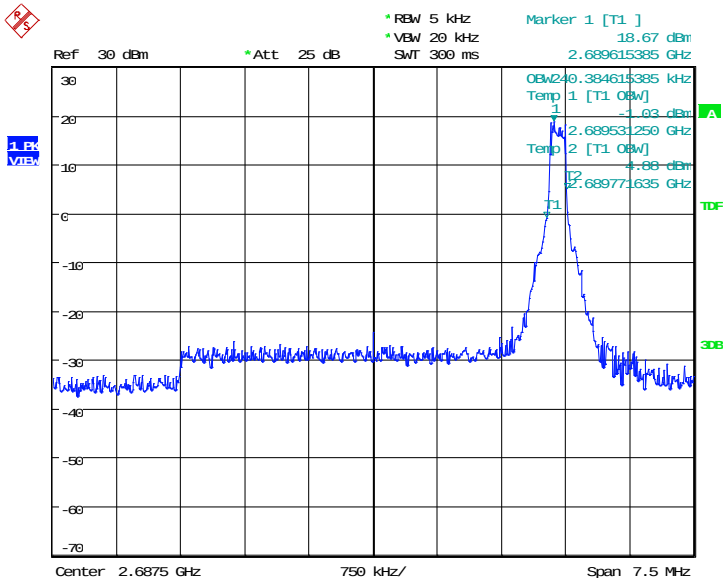
Date: 15.MAY.2019 08:52:32

LOW BAND EDGE BLOCK-1RB-low_offset



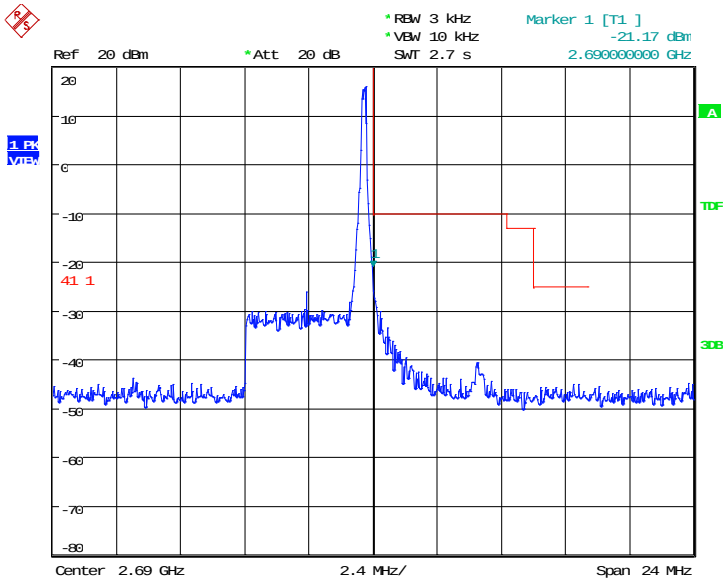
Date: 15.MAY.2019 08:55:40

OBW: 1RB-high_offset



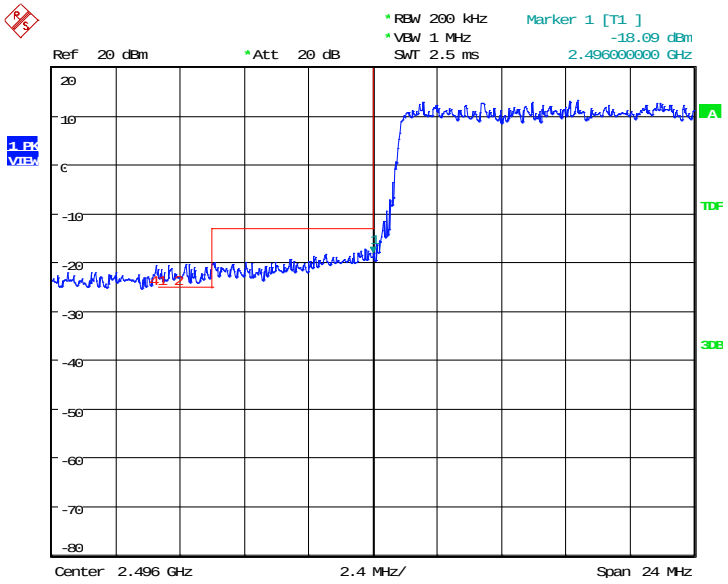
Date: 15.MAY.2019 08:53:16

HIGH BAND EDGE BLOCK-1RB-high_offset



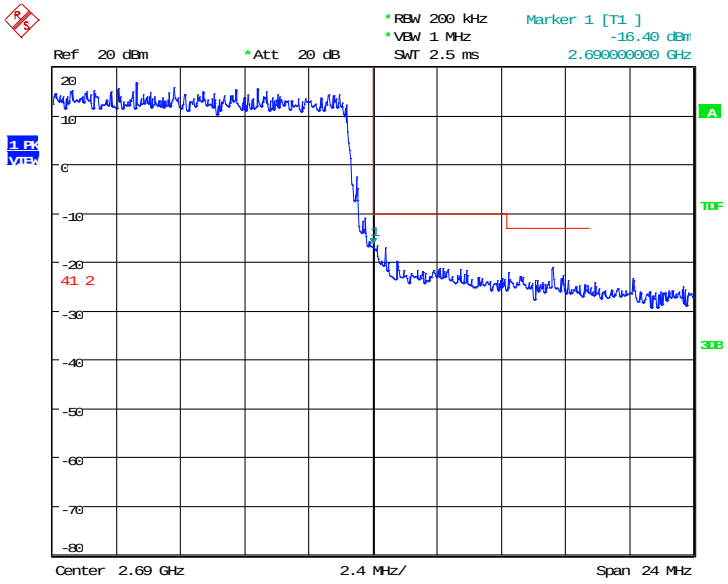
Date: 15.MAY.2019 08:54:46

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 15.MAY.2019 07:45:59

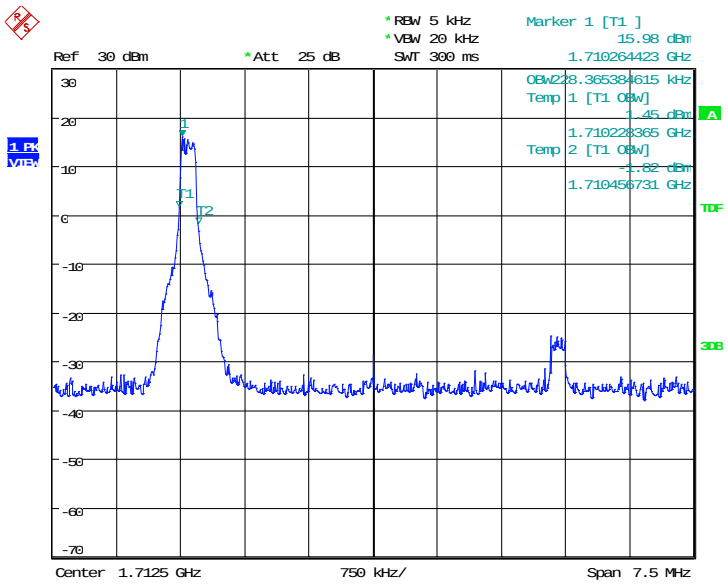
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 15.MAY.2019 07:16:11

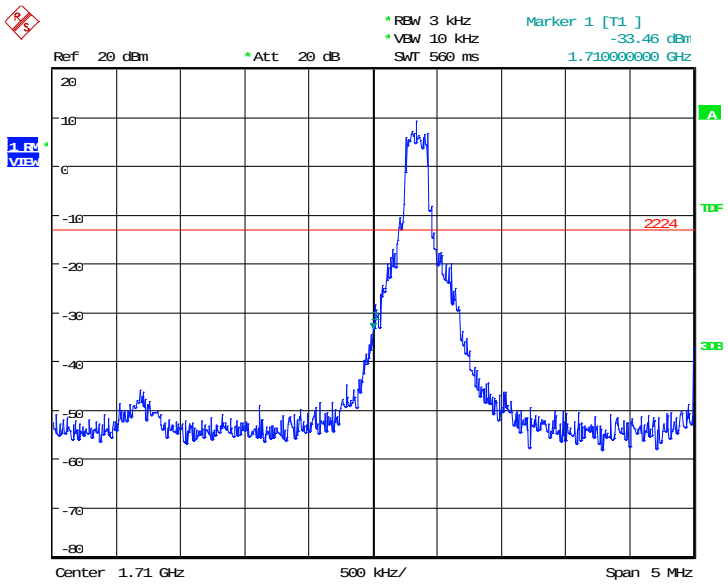
LTE band 66

OBW: 1RB-low_offset



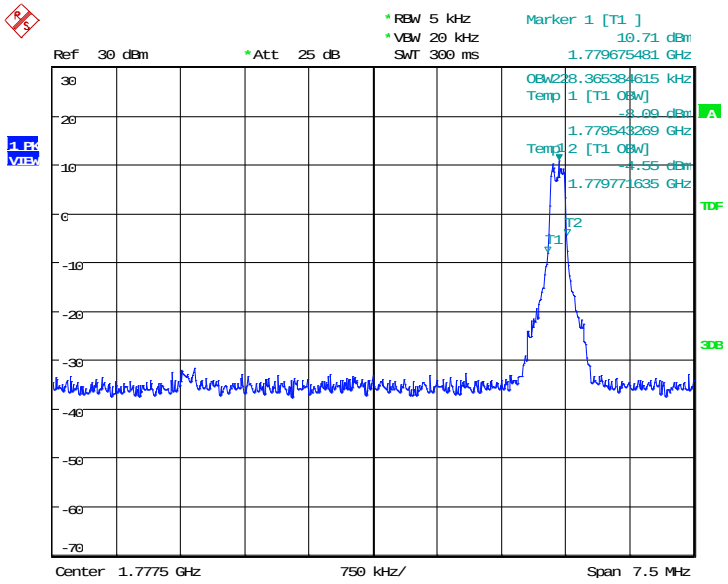
Date: 24.MAR.2019 17:33:41

LOW BAND EDGE BLOCK-1RB-low_offset



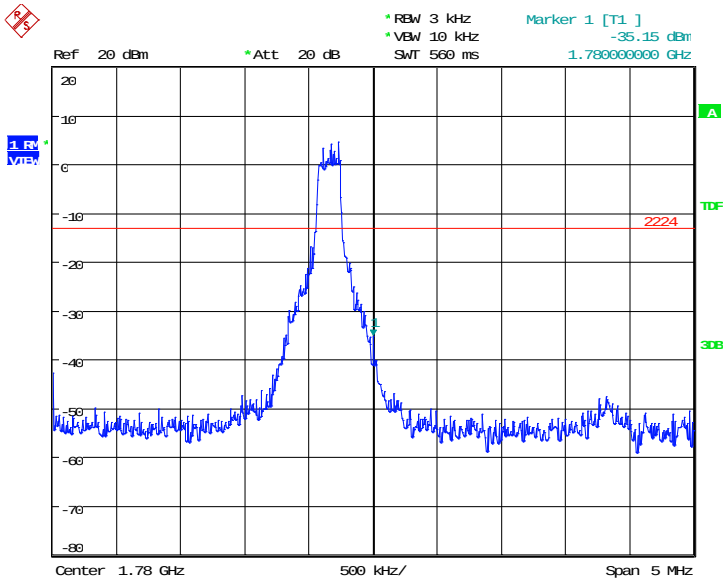
Date: 24.MAR.2019 17:34:25

OBW: 1RB-high_offset



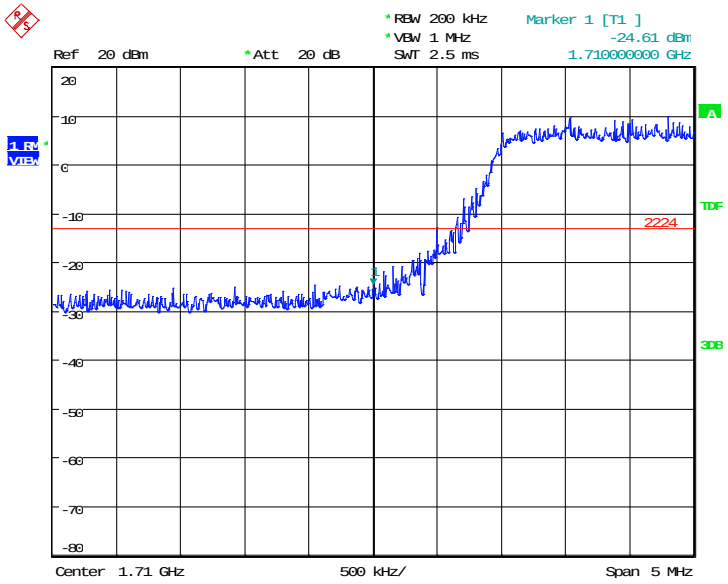
Date: 24.MAR.2019 17:17:52

HIGH BAND EDGE BLOCK-1RB-high_offset

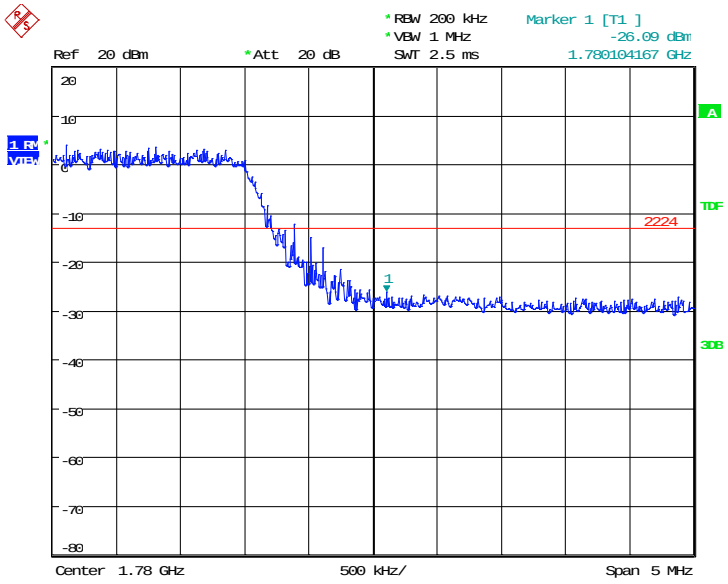


Date: 24.MAR.2019 17:18:36

LOW BAND EDGE BLOCK-20MHz-100%RB

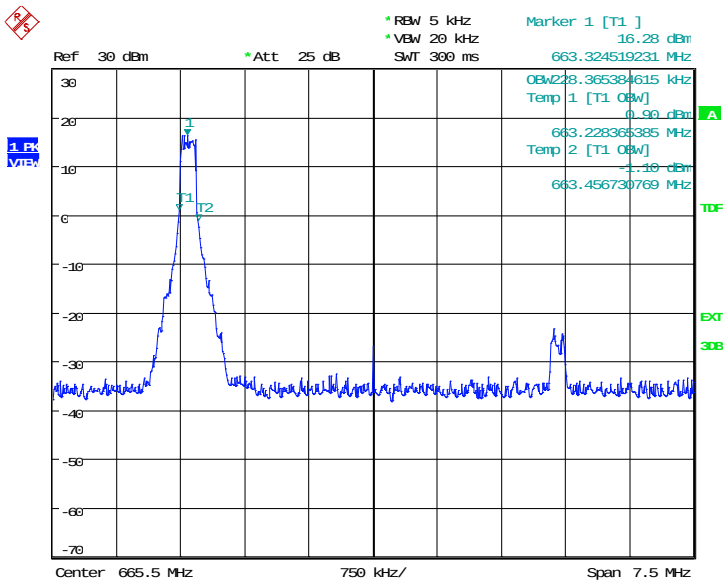


HIGH BAND EDGE BLOCK-20MHz-100%RB



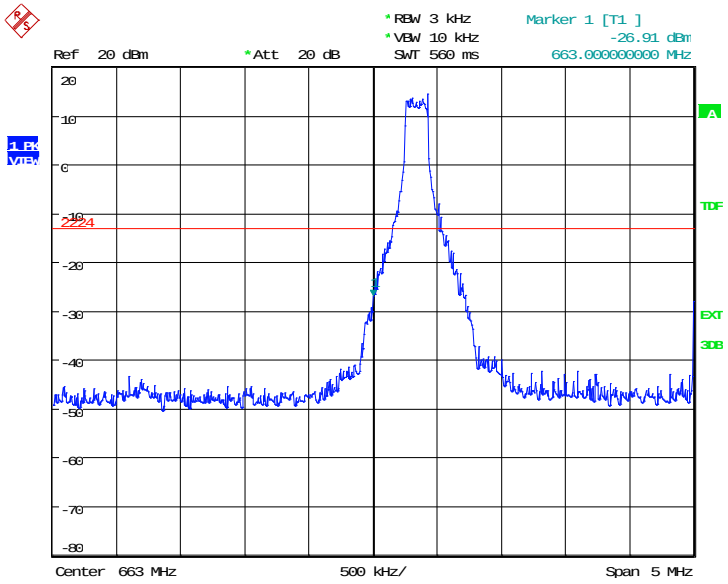
LTE band 71

OBW: 1RB-low_offset



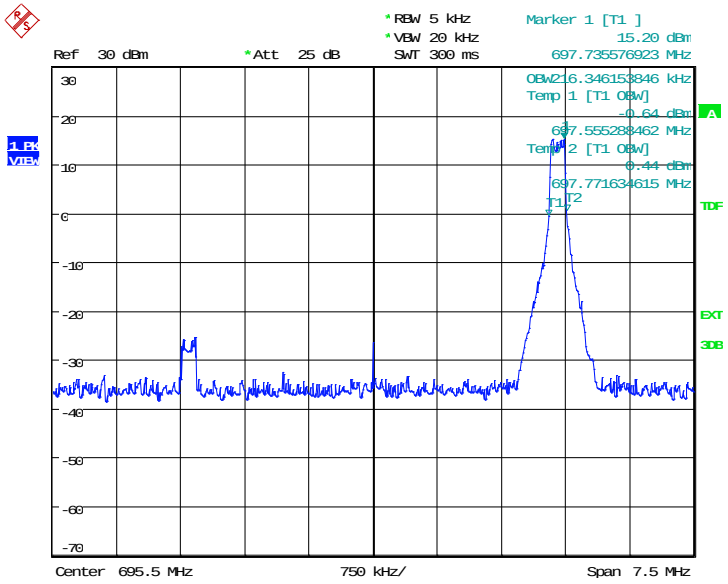
Date: 25.MAR.2019 07:13:36

LOW BAND EDGE BLOCK-1RB-low_offset



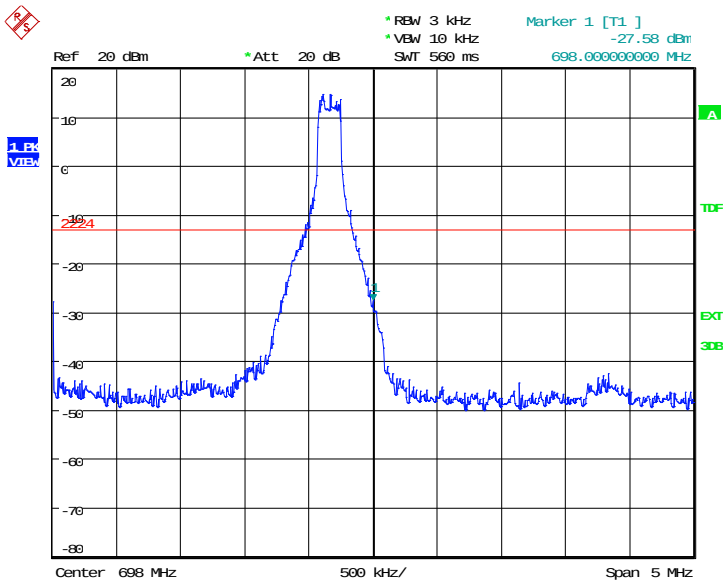
Date: 25.MAR.2019 07:14:54

OBW: 1RB-high_offset



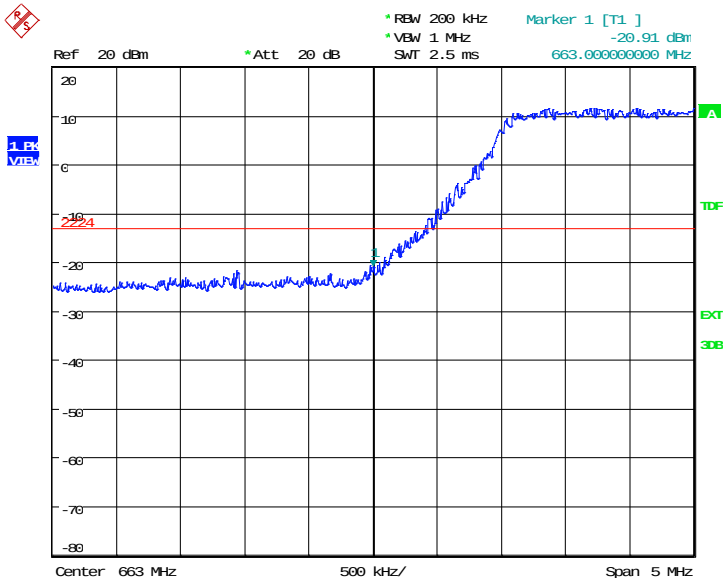
Date: 25.MAR.2019 07:17:21

HIGH BAND EDGE BLOCK-1RB-high_offset



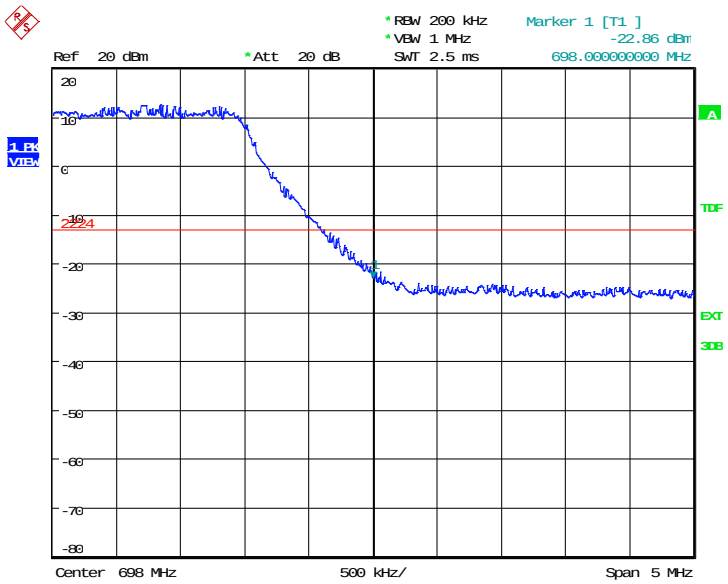
Date: 25.MAR.2019 07:15:41

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 25.MAR.2019 07:28:35

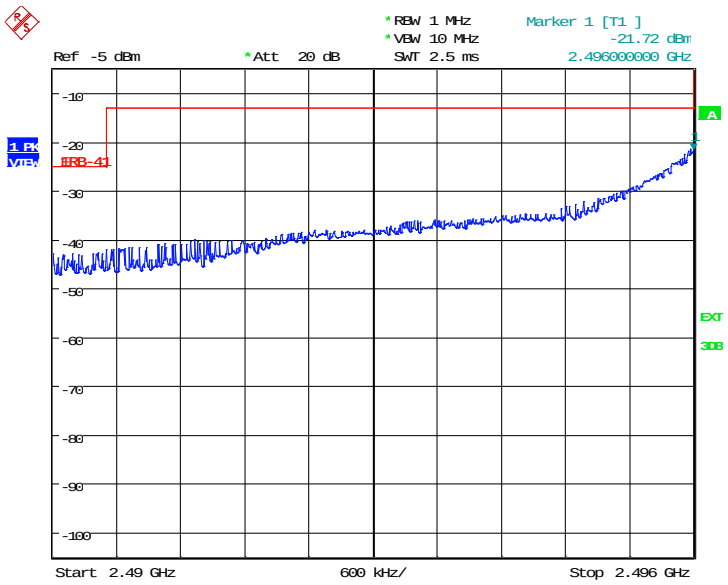
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 25.MAR.2019 07:29:30

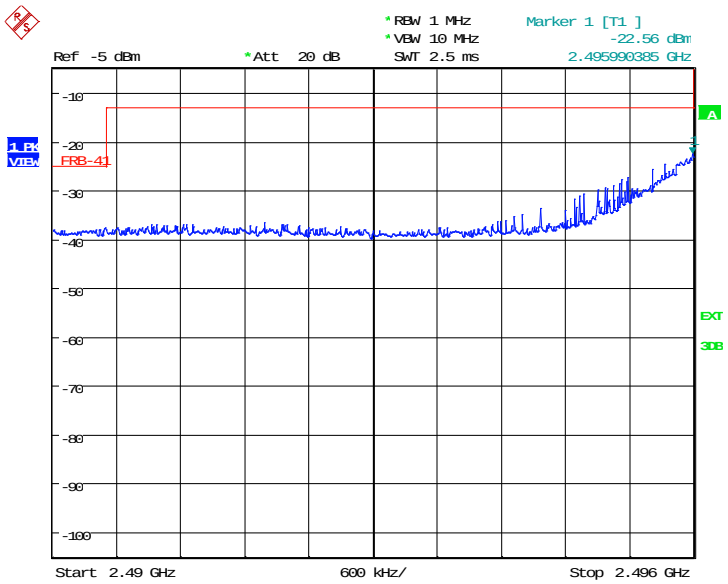
LTE Band CA_41C

LOW BAND EDGE BLOCK-5MHz+20MHz-1RB



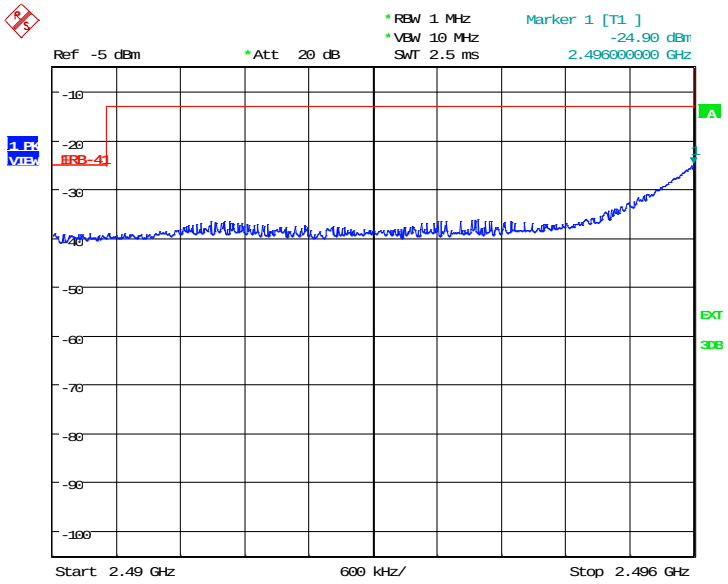
Date: 13.APR.2019 11:30:11

LOW BAND EDGE BLOCK-5MHz+20MHz-100%RB



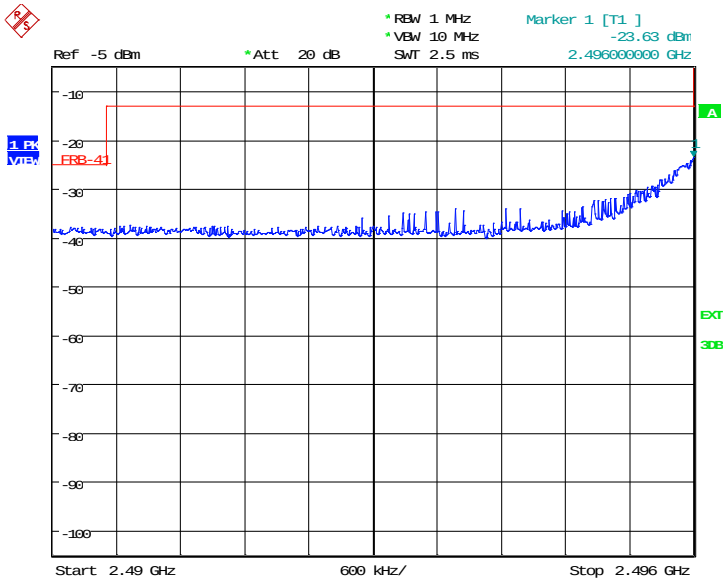
Date: 13.APR.2019 11:43:22

LOW BAND EDGE BLOCK-10MHz+20MHz-1RB



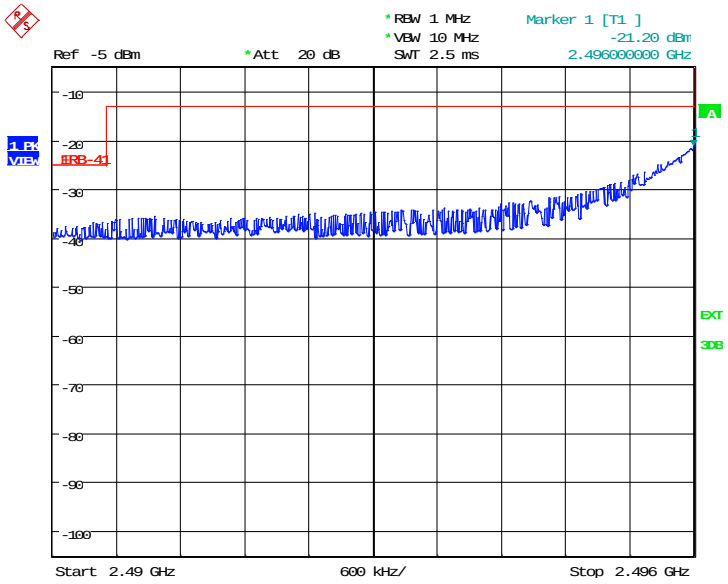
Date: 13.APR.2019 11:32:07

LOW BAND EDGE BLOCK-10MHz+20MHz-100%RB



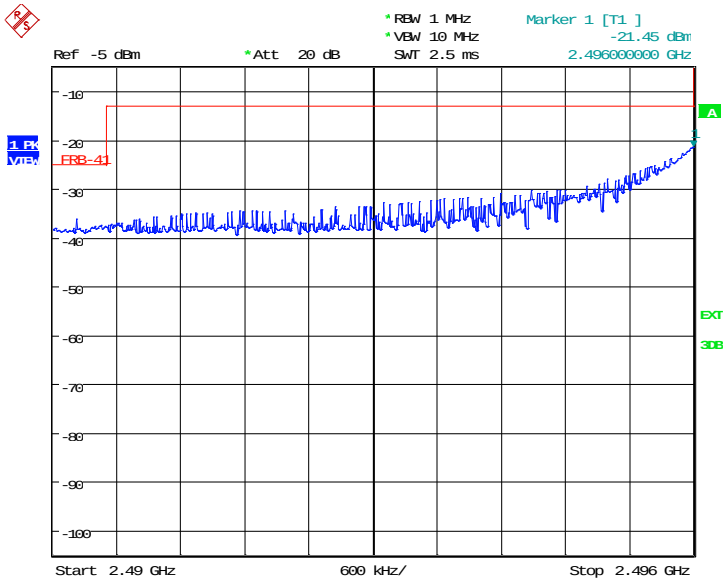
Date: 13.APR.2019 11:41:58

LOW BAND EDGE BLOCK-15MHz+15MHz-1RB



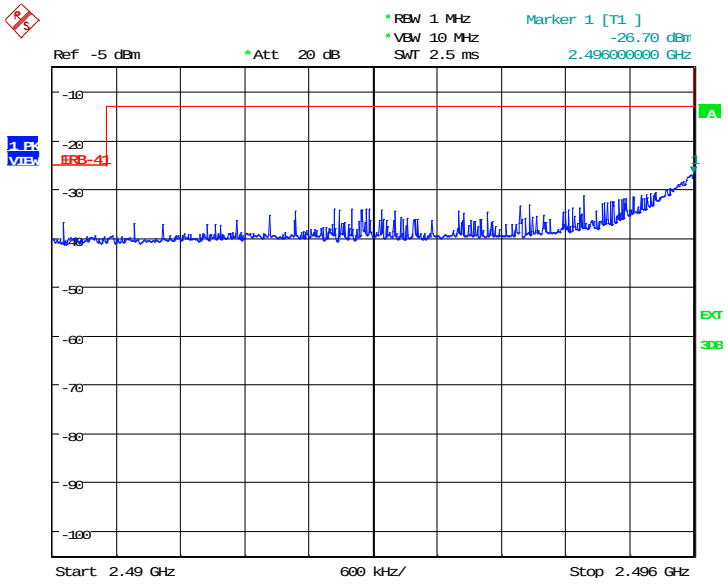
Date: 13.APR.2019 11:33:41

LOW BAND EDGE BLOCK-15MHz+15MHz-100%RB



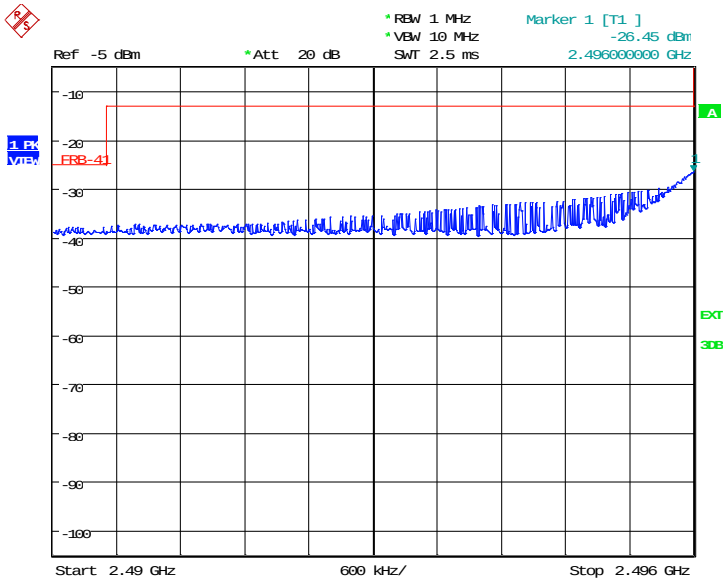
Date: 13.APR.2019 11:40:50

LOW BAND EDGE BLOCK-15MHz+20MHz-1RB



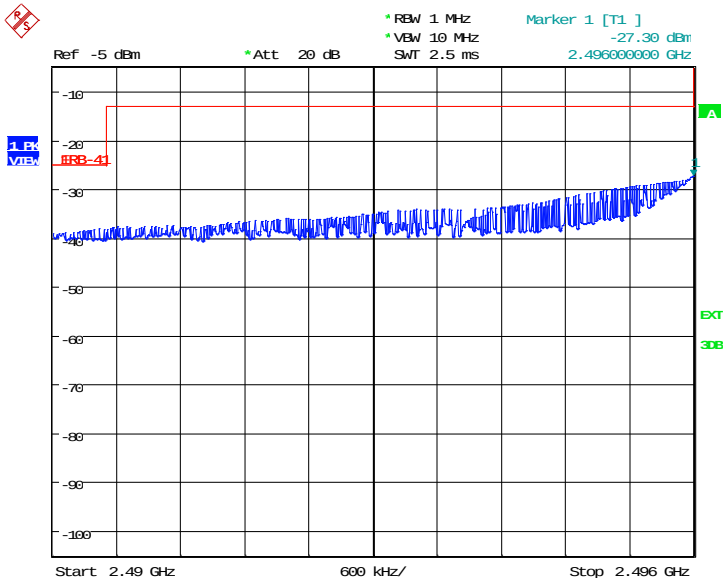
Date: 13.APR.2019 11:34:44

LOW BAND EDGE BLOCK-15MHz+20MHz-100%RB



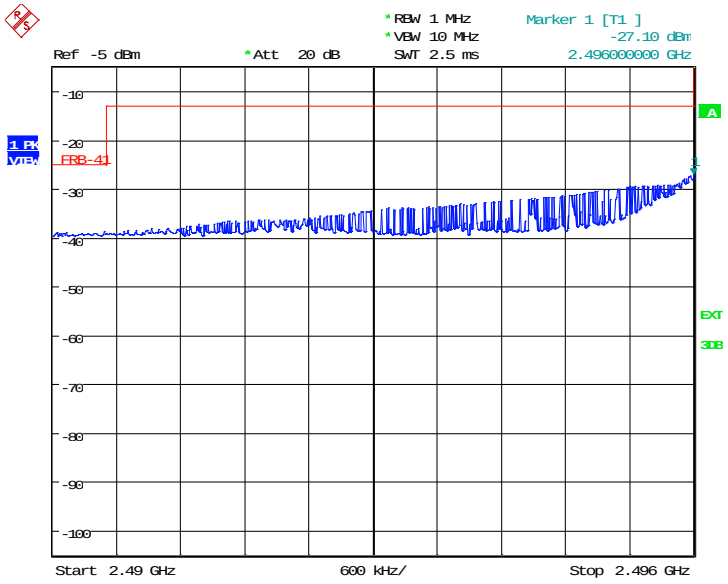
Date: 13.APR.2019 11:39:15

LOW BAND EDGE BLOCK-20MHz+20MHz-1RB



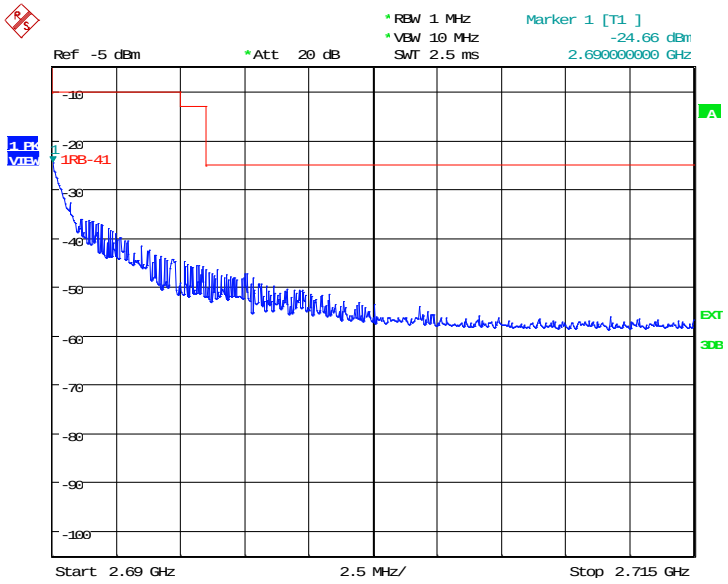
Date: 13.APR.2019 11:36:01

LOW BAND EDGE BLOCK-20MHz+20MHz-100%RB



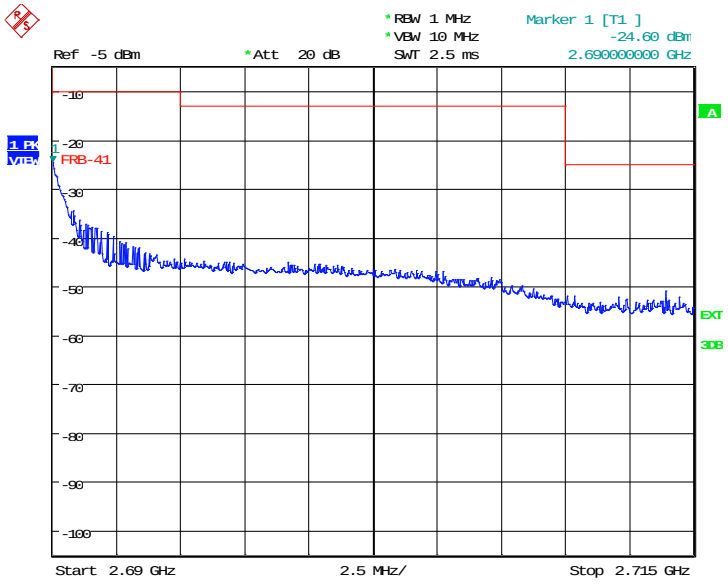
Date: 13.APR.2019 11:37:09

HIGH BAND EDGE BLOCK-20MHz+5MHz-1RB



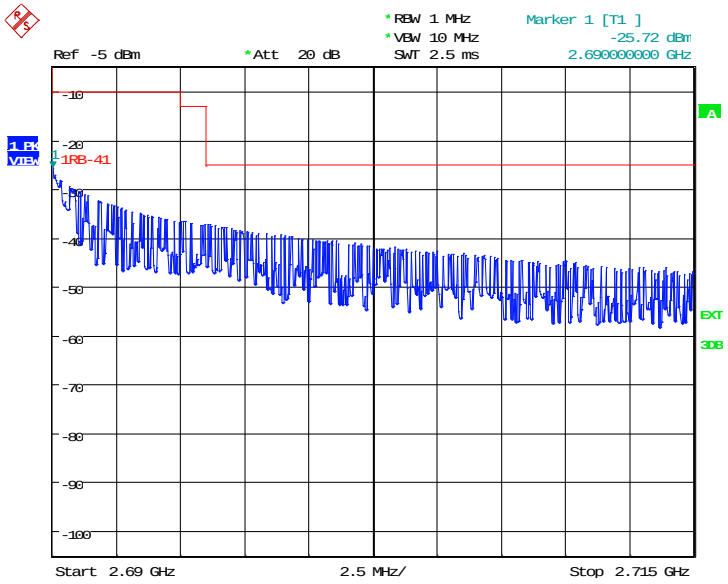
Date: 13.APR.2019 11:47:09

HIGH BAND EDGE BLOCK-20MHz+5MHz-100%RB



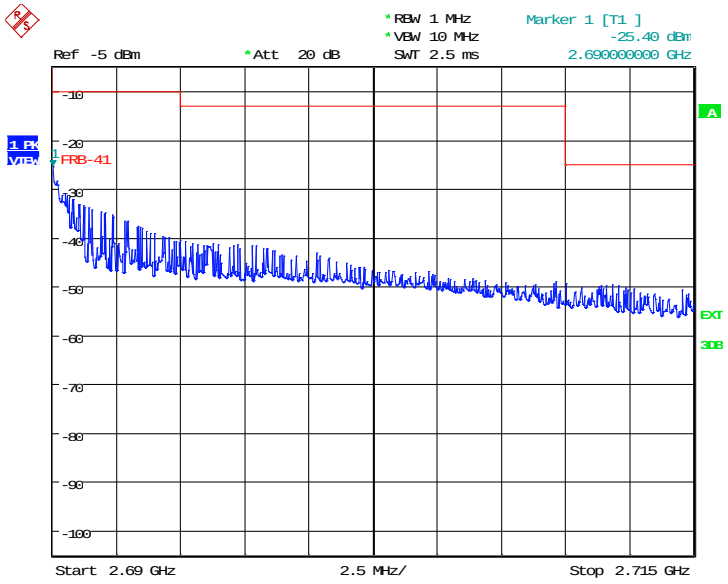
Date: 13.APR.2019 11:48:52

HIGH BAND EDGE BLOCK-20MHz+10MHz-1RB



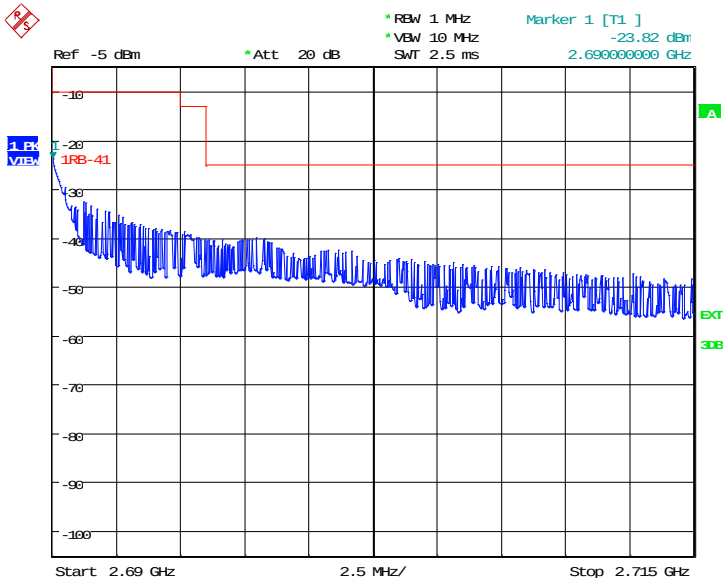
Date: 13.APR.2019 11:51:07

HIGH BAND EDGE BLOCK-20MHz+10MHz-100%RB



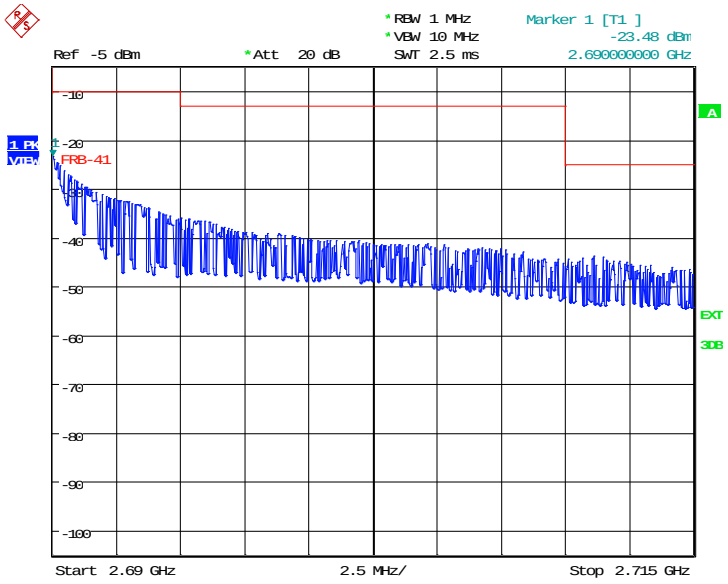
Date: 13.APR.2019 11:50:06

HIGH BAND EDGE BLOCK-15MHz+15MHz-1RB



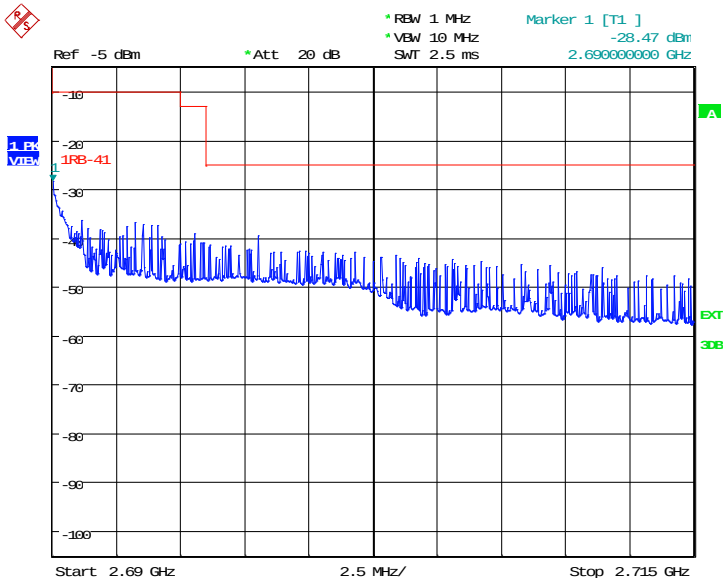
Date: 13.APR.2019 11:53:20

HIGH BAND EDGE BLOCK-15MHz+15MHz-100%RB



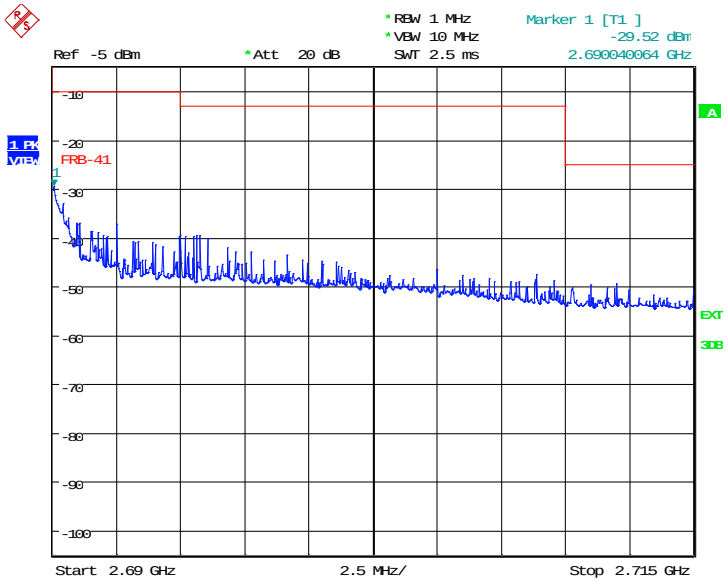
Date: 13.APR.2019 11:55:36

HIGH BAND EDGE BLOCK-20MHz+15MHz-1RB



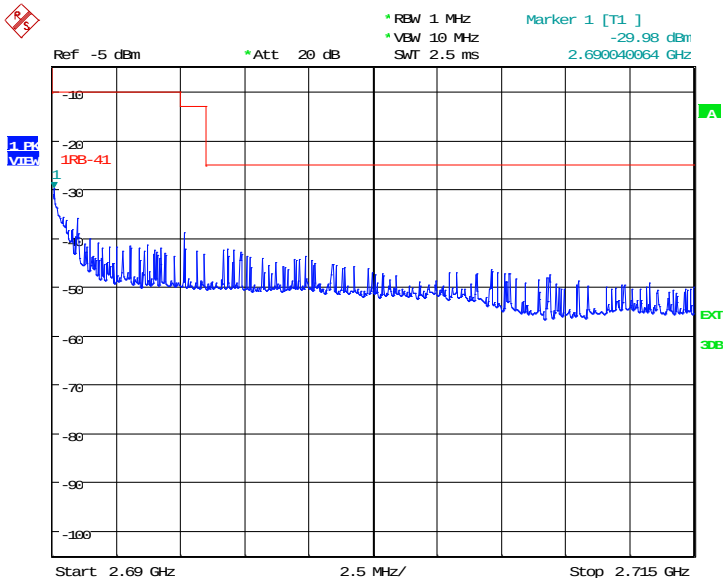
Date: 13.APR.2019 11:59:07

HIGH BAND EDGE BLOCK-20MHz+15MHz-100%RB



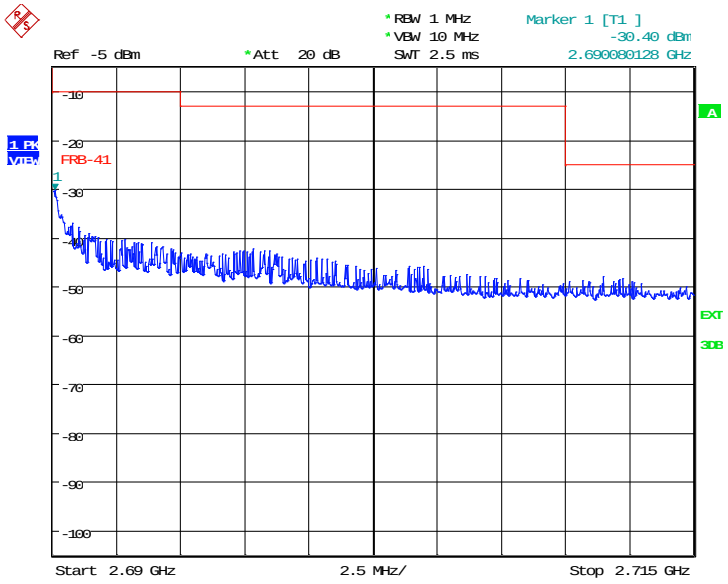
Date: 13.APR.2019 11:58:33

HIGH BAND EDGE BLOCK-20MHz+20MHz-1RB



Date: 13.APR.2019 12:00:21

HIGH BAND EDGE BLOCK-20MHz+20MHz-100%RB



Date: 13.APR.2019 12:01:04

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

A.7 CONDUCTED SPURIOUS EMISSION

Reference

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

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 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. 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 onall frequencies between 2328 and 2337MHz;

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.

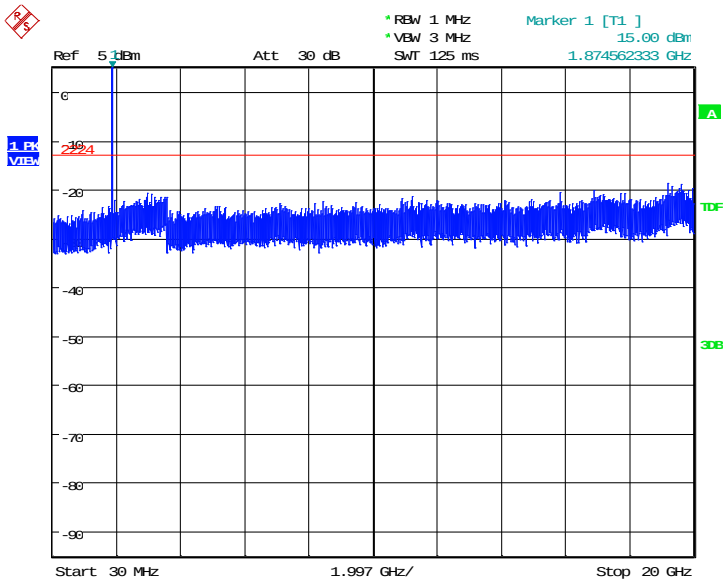
A. 7.3 Measurement result

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.

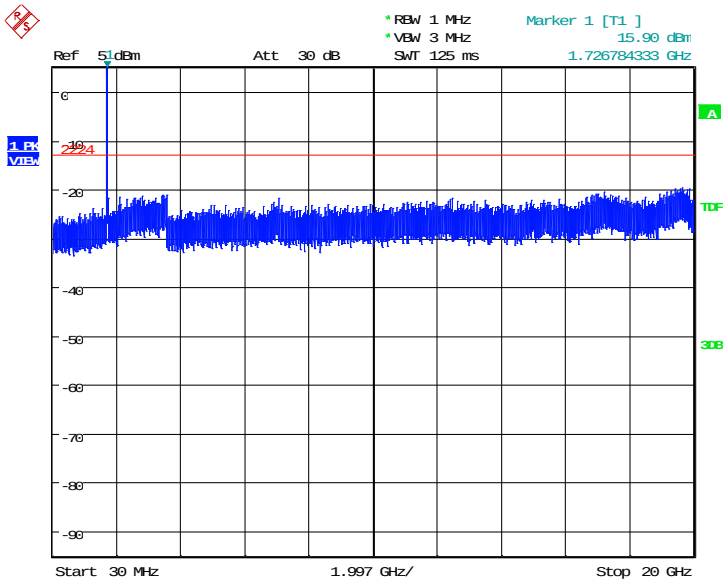


Date: 24.MAR.2019 19:05:58

LTE band 4 : 30MHz – 20GHz

Spurious emission limit –13dBm.

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

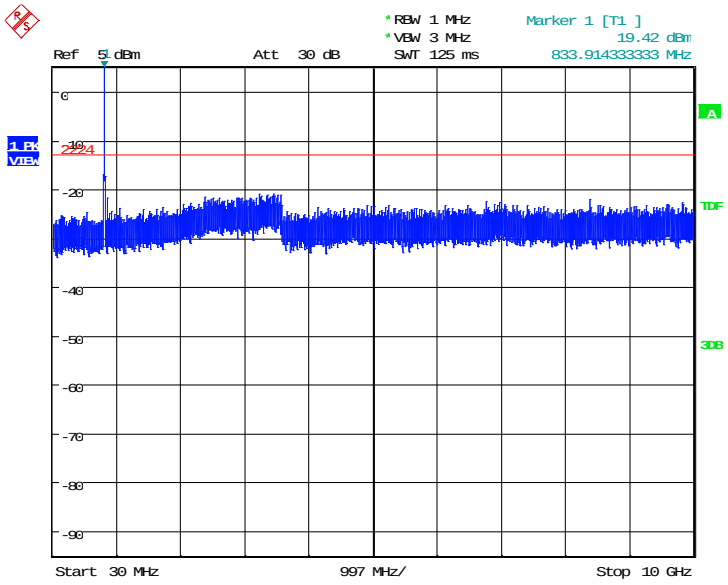


Date: 24.MAR.2019 19:07:09

LTE band 5 : 30MHz – 10GHz

Spurious emission limit –13dBm.

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

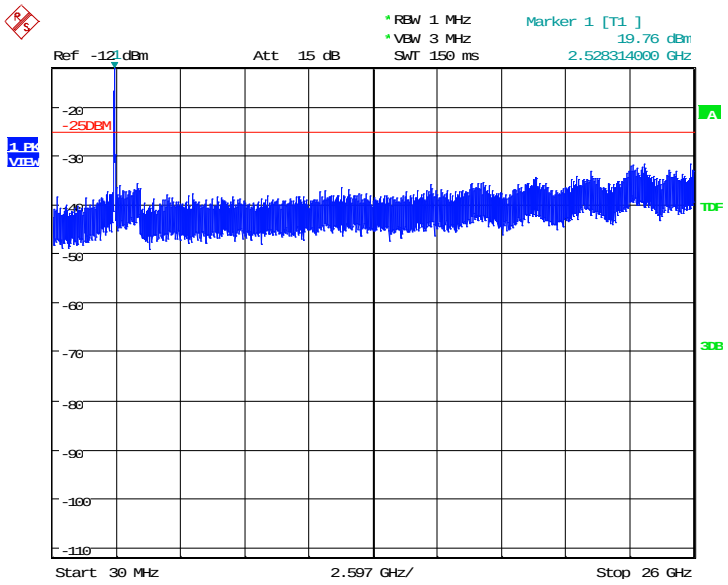


Date: 24.MAR.2019 19:12:30

LTE band 7: 30MHz – 26GHz

Spurious emission limit –13dBm.

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

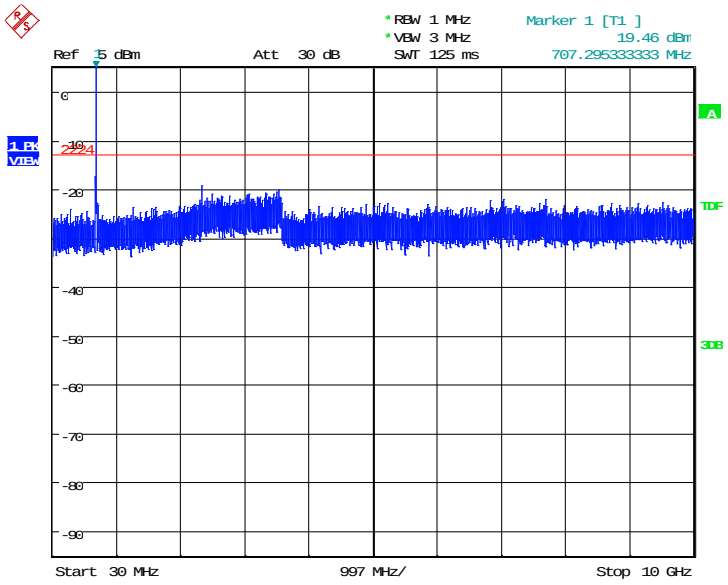


Date: 24.MAR.2019 18:22:46

LTE band 12: 30MHz – 10GHz

Spurious emission limit –13dBm.

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

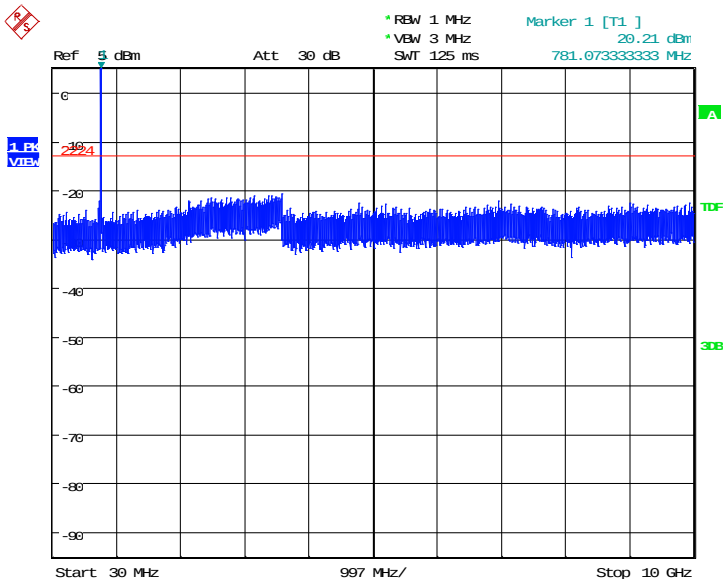


Date: 24.MAR.2019 19:15:28

LTE band 13: 30MHz – 10GHz

Spurious emission limit –13dBm.

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

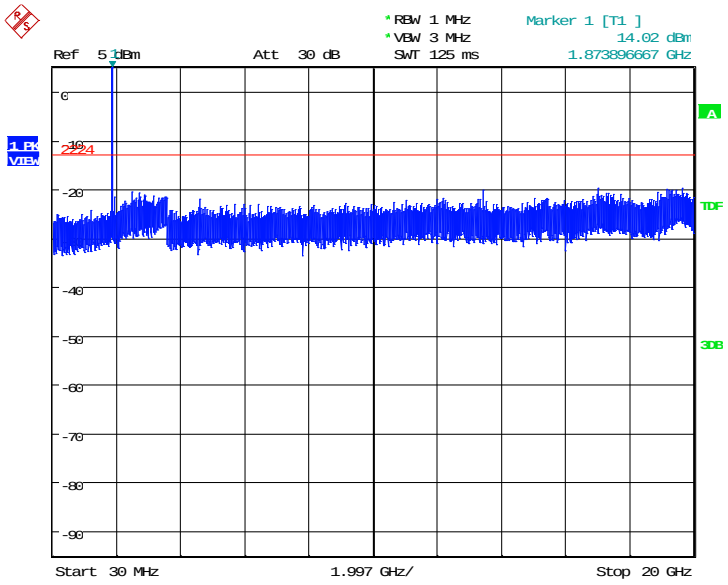


Date: 24.MAR.2019 19:11:31

LTE band 25: 30MHz – 20GHz

Spurious emission limit –13dBm.

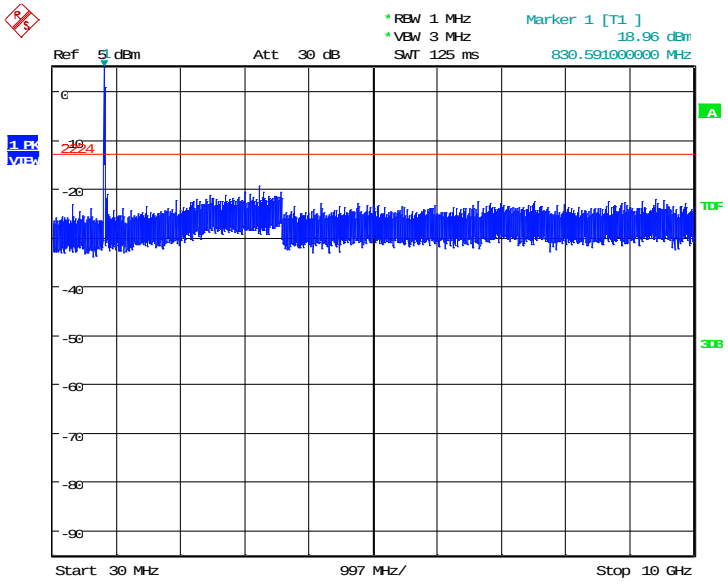
NOTE: peak above the limit line is the carrier frequency.



Date: 24.MAR.2019 19:08:20

LTE band 26(824MHz-849MHz): 30MHz – 10GHz

Spurious emission limit –13dBm.



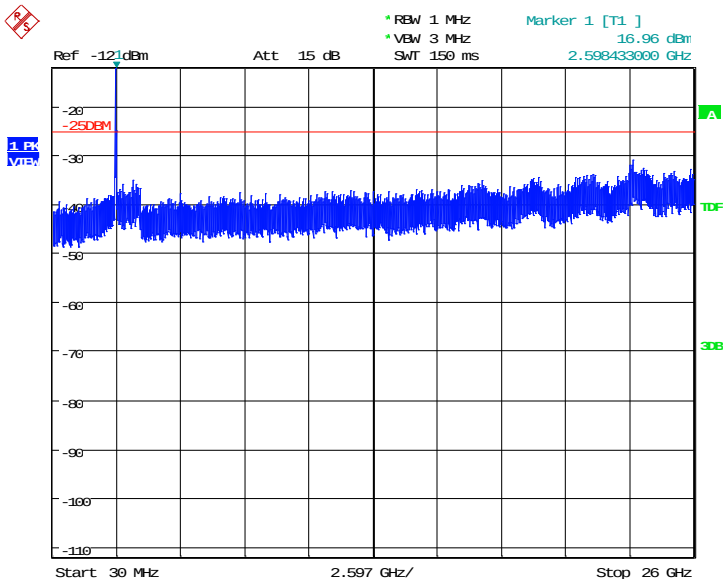
Date: 24.MAR.2019 19:18:09

Normal Power

LTE band 41: 30MHz – 26GHz

Spurious emission limit –25dBm.

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



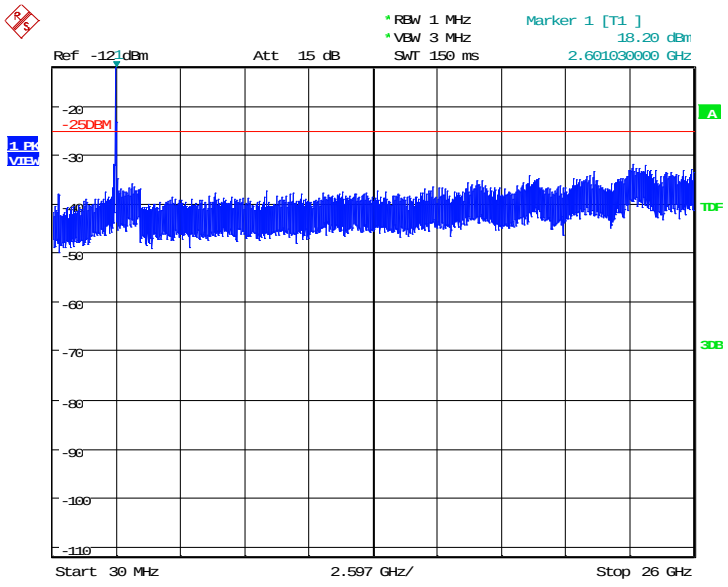
Date: 24.MAR.2019 18:23:42

HPUE

LTE band 41: 30MHz – 26GHz

Spurious emission limit –25dBm.

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

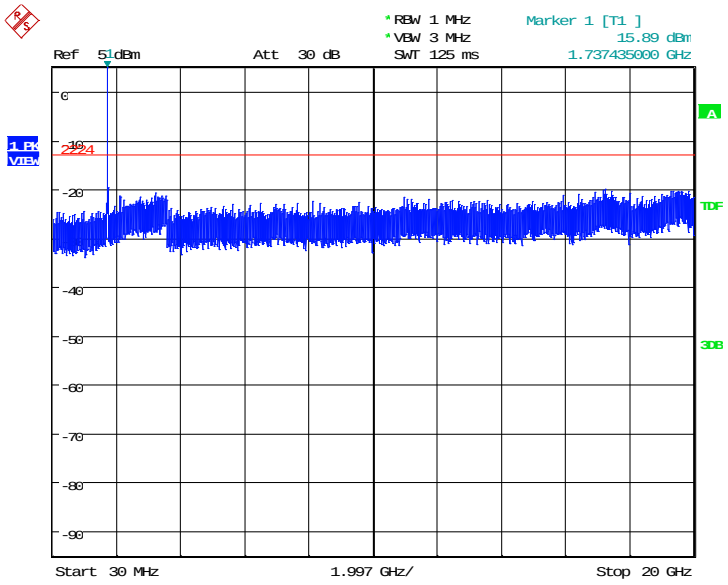


Date: 15.MAY.2019 12:39:19

LTE band 66: 30MHz – 20GHz

Spurious emission limit –13dBm.

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

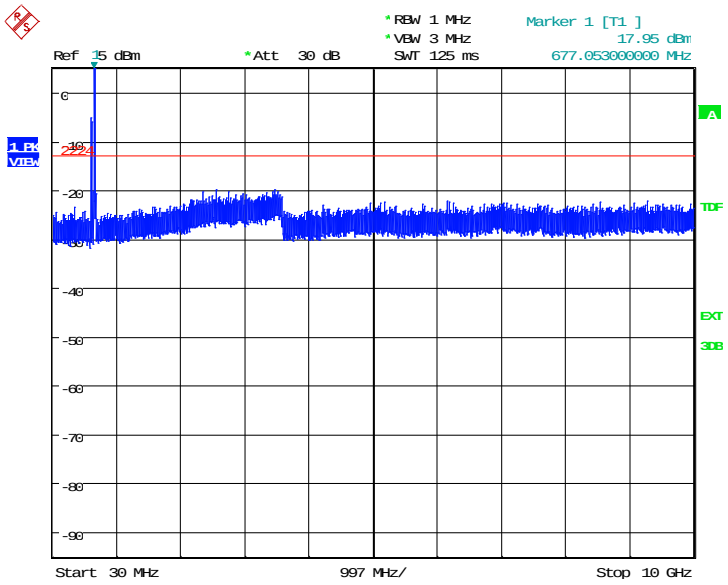


Date: 24.MAR.2019 19:09:31

LTE band 71: 30MHz – 10GHz

Spurious emission limit –13dBm.

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

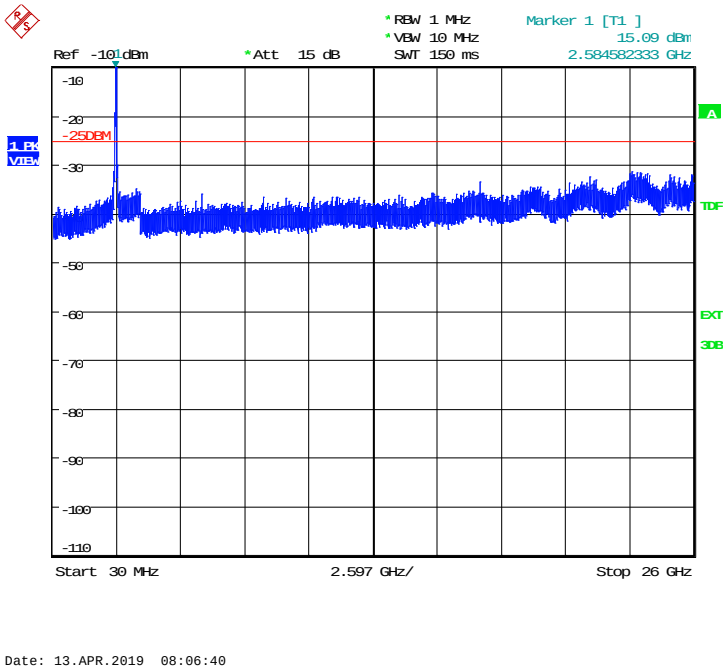


Date: 25.MAR.2019 07:03:30

LTE Band CA_41C: 30MHz – 26GHz

Spurious emission limit –25dBm.

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



Note: Expanded measurement uncertainty is U = 0.488dB(100KHz-2GHz)/1.211dB(2GHz-26.5GHz), 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 ≥ 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

Only worst case result is given below

LTE band 2

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1880.0	20	7.28	7.76

LTE band 4

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1732.5	20	6.99	7.50

LTE band 7

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2510.0	20	7.12	7.56

LTE band 12

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
707.5	10	5.61	6.31

LTE band 13

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
782.0	5	5.99	6.89

LTE band 25

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1882.5	20	7.37	7.76

Normal Power

LTE band 41

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2593.0	20	8.97	10.97

HPUE

LTE band 41

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2593.0	20	8.81	11.57

LTE band 66

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1745.0	20	7.08	7.72

LTE band 71

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
683.0	20	6.39	7.14

LTE Band CA_41C

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2593.0	20+20	10.58	11.44

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

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