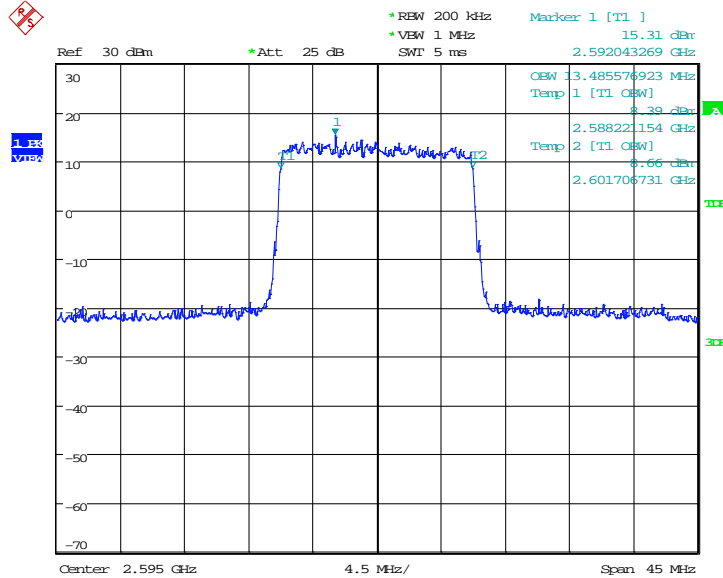


**LTE band 38, 15MHz (99%)**

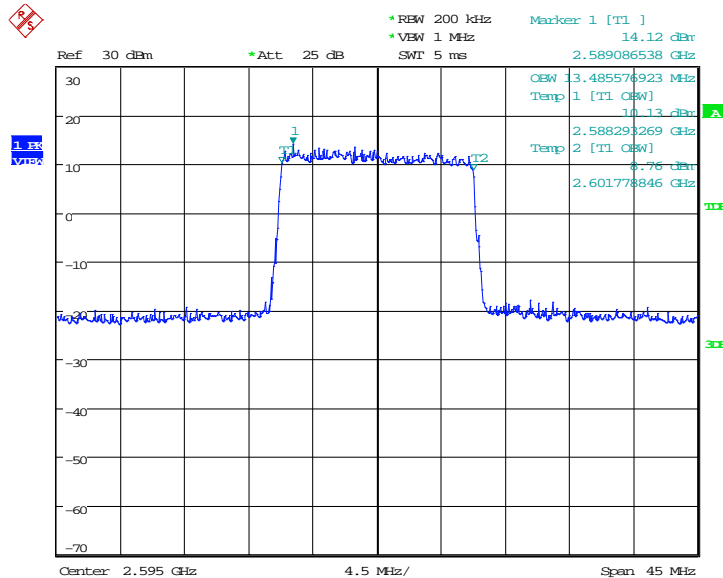
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
2595.0	QPSK	16QAM
	13485.58	13485.58

**LTE band 38, 15MHz Bandwidth, QPSK (99% BW)**



Date: 17.MAY.2018 06:47:41

**LTE band 38, 15MHz Bandwidth, 16QAM (99% BW)**

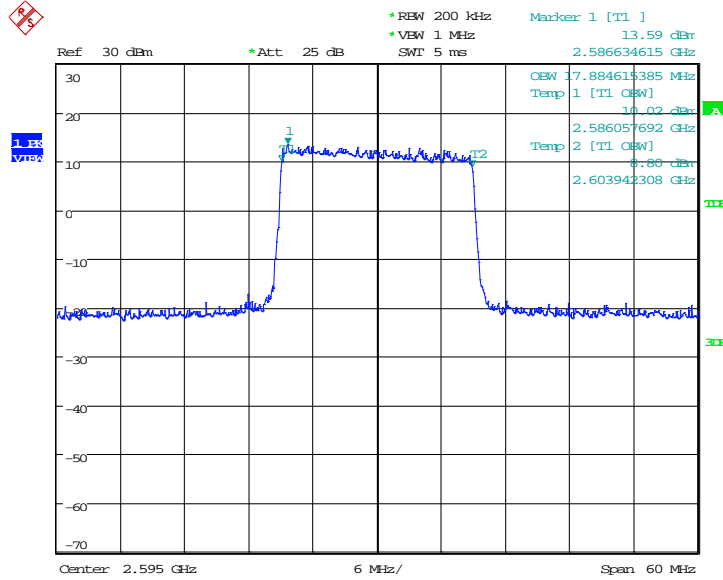


Date: 17.MAY.2018 06:47:55

**LTE band 38, 20MHz (99%)**

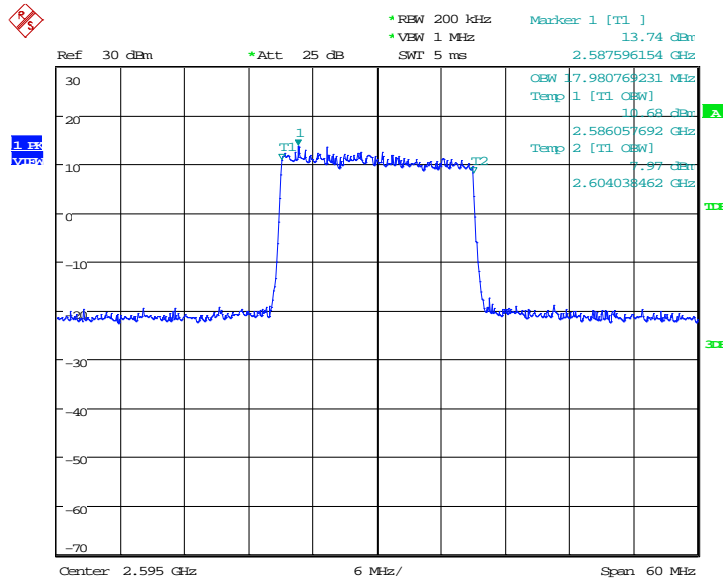
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
2595.0	QPSK	16QAM
	17884.62	17980.77

**LTE band 38, 20MHz Bandwidth, QPSK (99% BW)**



Date: 17.MAY.2018 06:56:09

**LTE band 38, 20MHz Bandwidth, 16QAM (99% BW)**

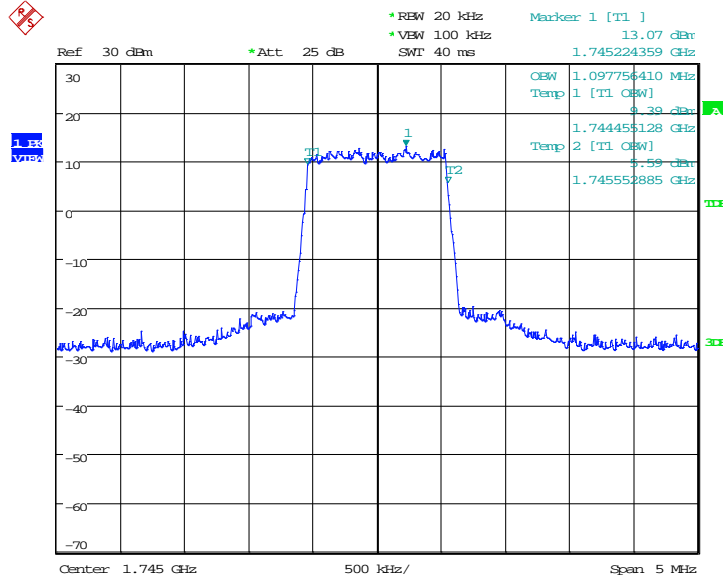


Date: 17.MAY.2018 06:56:23

**LTE band 66, 1.4MHz (99%)**

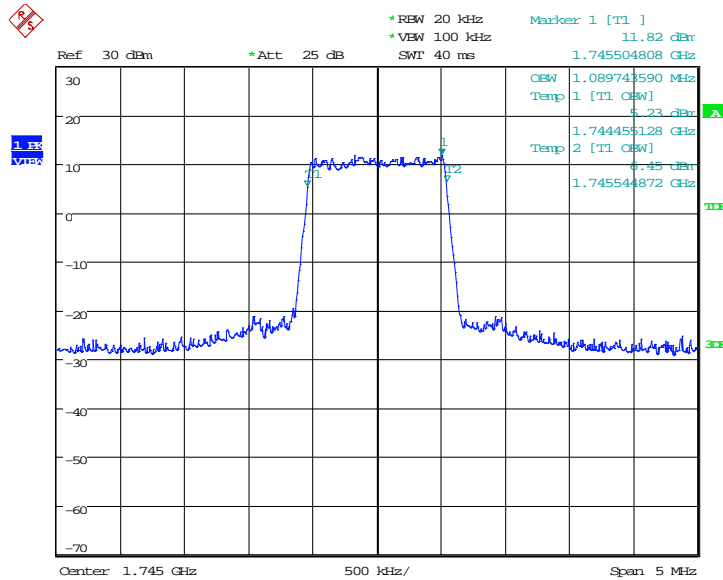
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	1097.76	1089.74

**LTE band 66, 1.4MHz Bandwidth, QPSK (99% BW)**



Date: 17.MAY.2018 13:30:01

**LTE band 66, 1.4MHz Bandwidth, 16QAM (99% BW)**

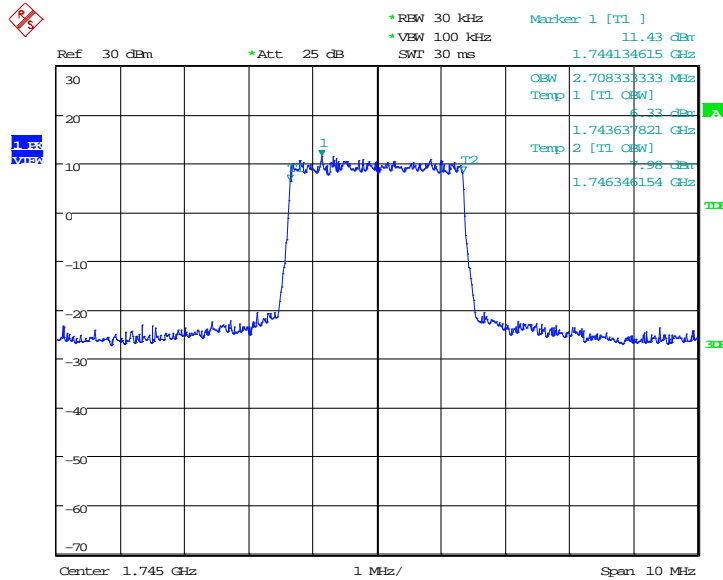


Date: 17.MAY.2018 13:30:15

**LTE band 66, 3MHz (99%)**

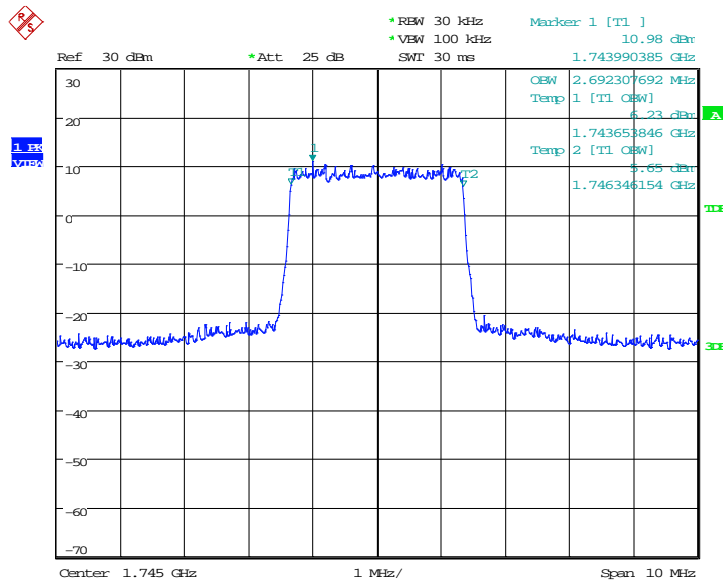
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	2708.33	2692.31

**LTE band 66, 3MHz Bandwidth, QPSK (99% BW)**



Date: 17.MAY.2018 13:38:54

**LTE band 66, 3MHz Bandwidth, 16QAM (99% BW)**

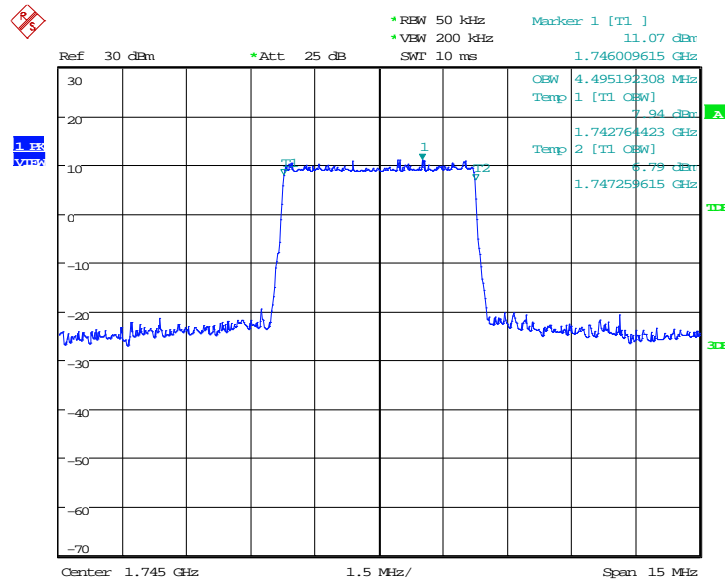


Date: 17.MAY.2018 13:39:08

**LTE band 66, 5MHz (99%)**

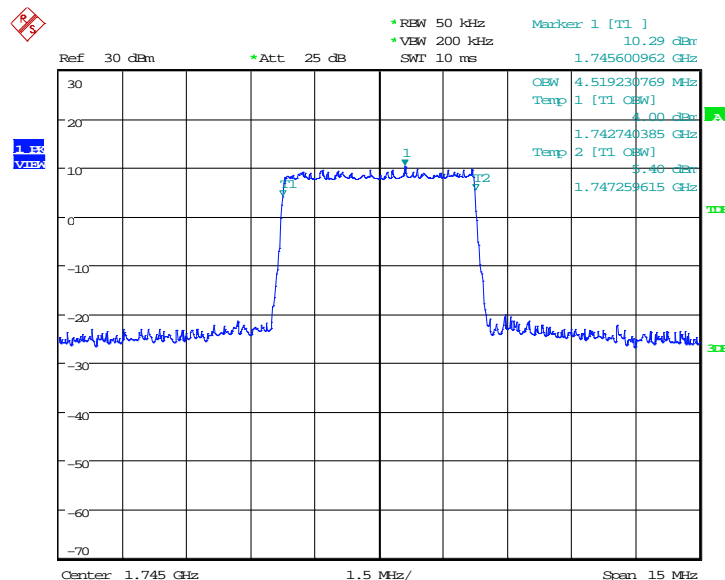
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	4495.19	4519.23

**LTE band 66, 5MHz Bandwidth, QPSK (99% BW)**



Date: 17.MAY.2018 13:47:50

**LTE band 66, 5MHz Bandwidth,16QAM (99% BW)**

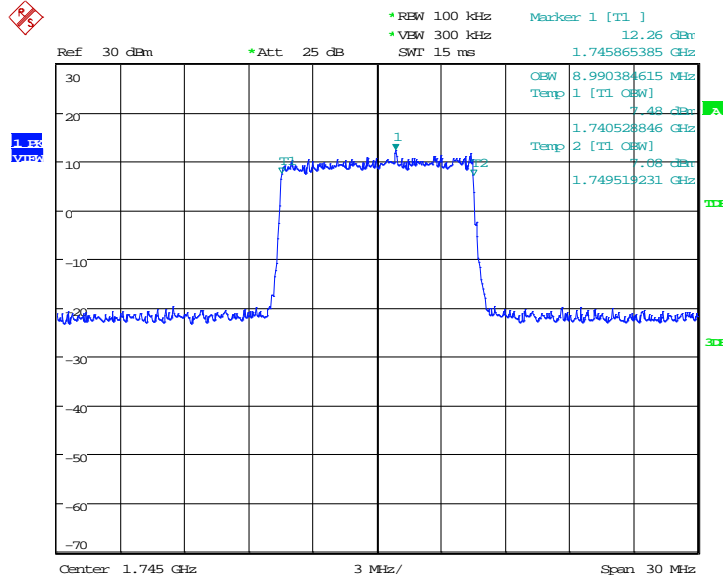


Date: 17.MAY.2018 13:48:04

**LTE band 66, 10MHz (99%)**

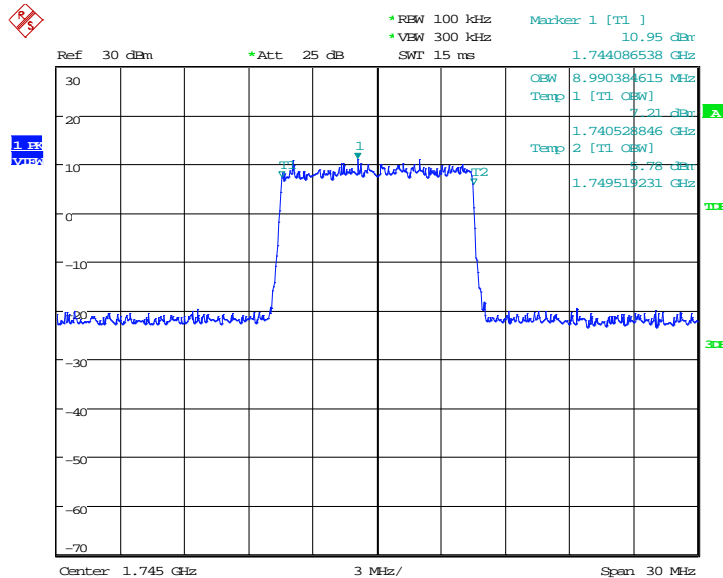
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	8990.38	8990.38

**LTE band 66, 10MHz Bandwidth, QPSK (99% BW)**



Date: 18.MAY.2018 05:33:57

**LTE band 66, 10MHz Bandwidth, 16QAM (99% BW)**

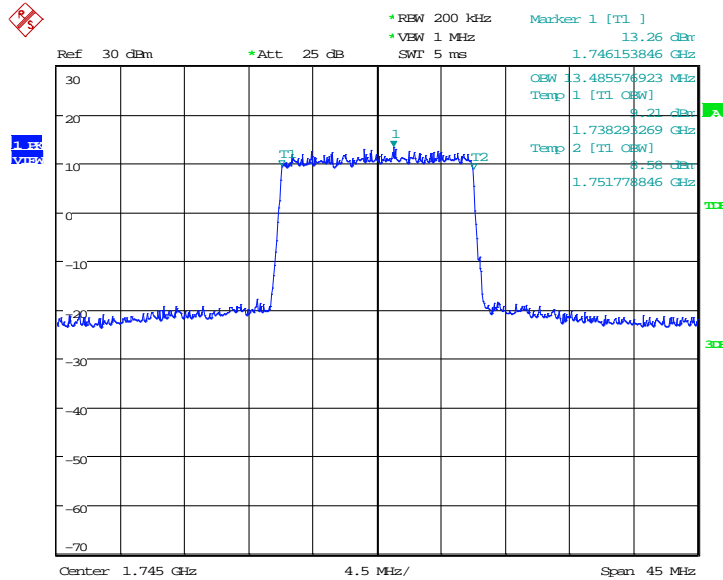


Date: 18.MAY.2018 05:34:11

**LTE band 66, 15MHz (99%)**

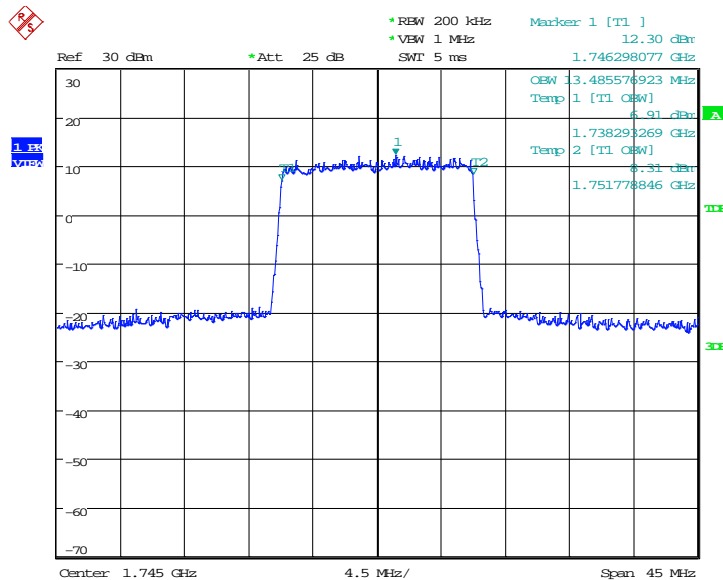
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	13485.58	13485.58

**LTE band 66, 15MHz Bandwidth, QPSK (99% BW)**



Date: 18.MAY.2018 05:43:30

**LTE band 66, 15MHz Bandwidth, 16QAM (99% BW)**

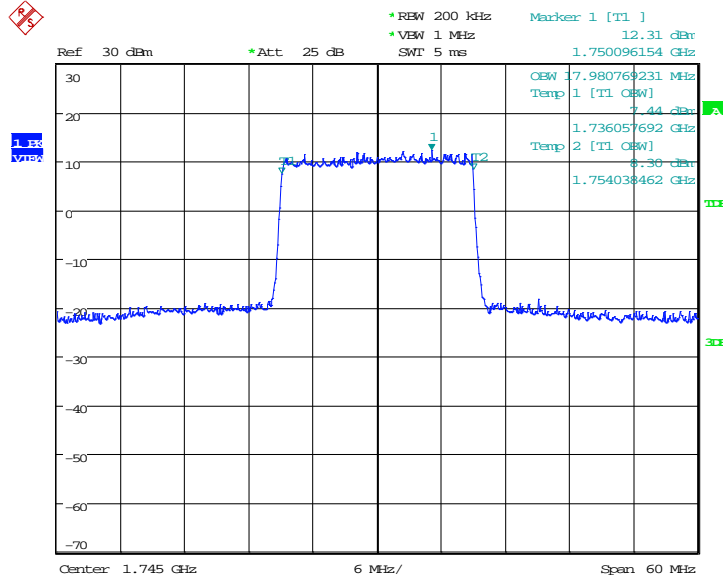


Date: 18.MAY.2018 05:43:44

**LTE band 66, 20MHz (99%)**

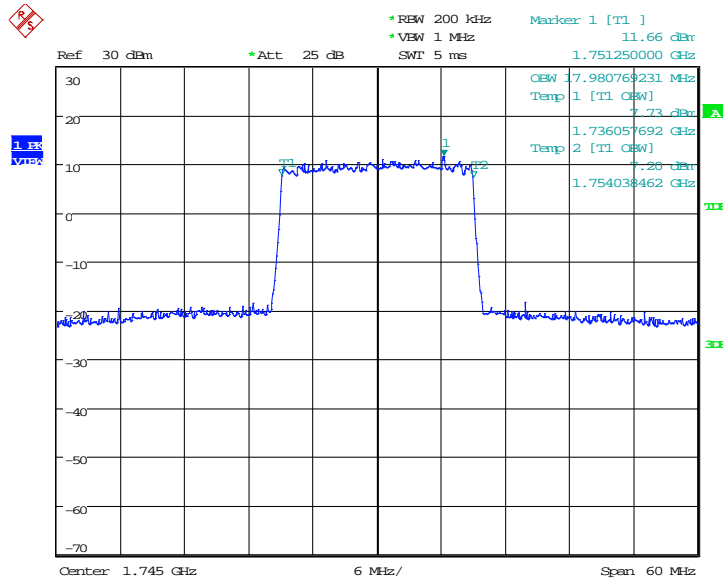
Frequency(MHz)	Occupied Bandwidth (99%)( kHz)	
1745.0	QPSK	16QAM
	17980.77	17980.77

**LTE band 66, 20MHz Bandwidth, QPSK (99% BW)**



Date: 18.MAY.2018 05:55:34

**LTE band 66, 20MHz Bandwidth, 16QAM (99% BW)**



Date: 18.MAY.2018 05:55:48

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



## A.5 EMISSION BANDWIDTH

### Reference

FCC: CFR Part 2.1049, 22.917, 24.238, 27.53, 90.1215

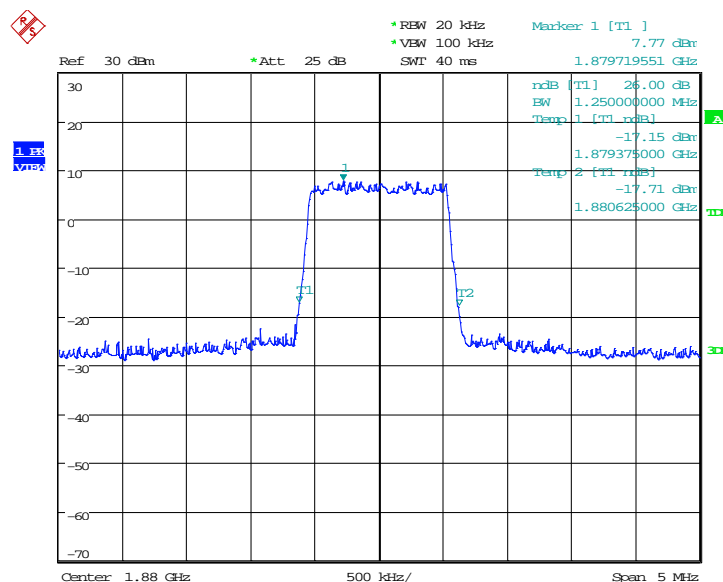
### A.5.1 Emission Bandwidth Results

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)

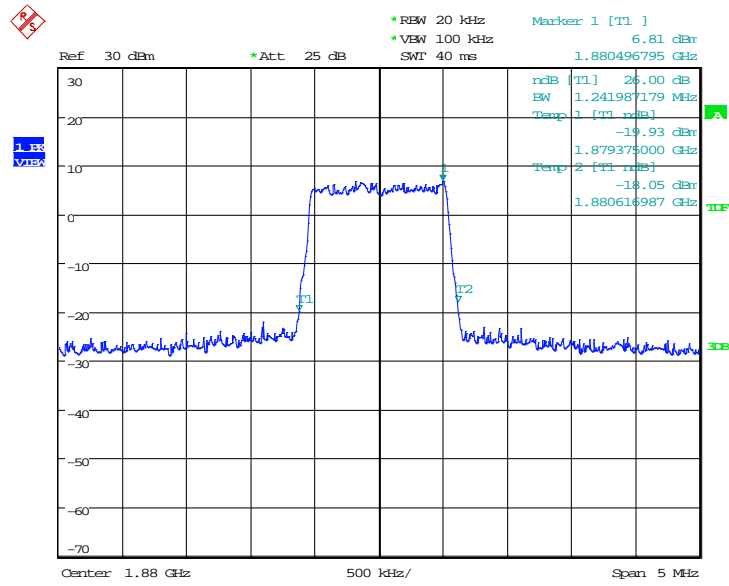
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
	1250.00	1241.99

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



Date: 17.MAY.2018 07:59:05

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

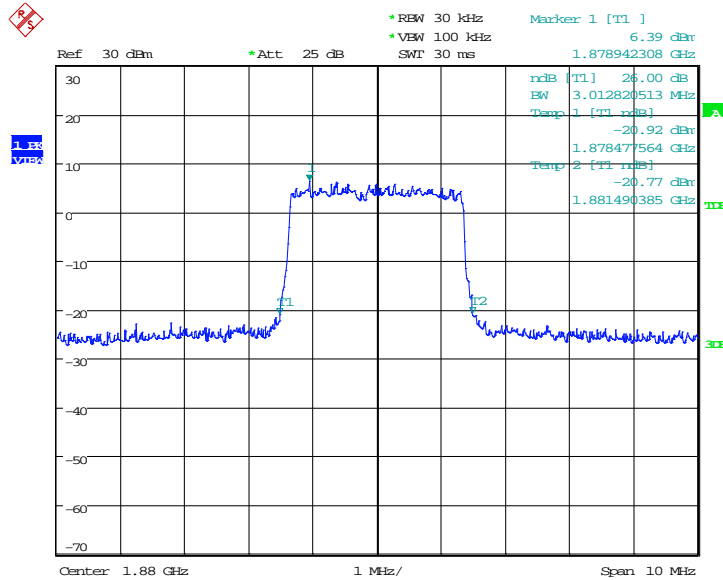


Date: 17.MAY.2018 07:59:21

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

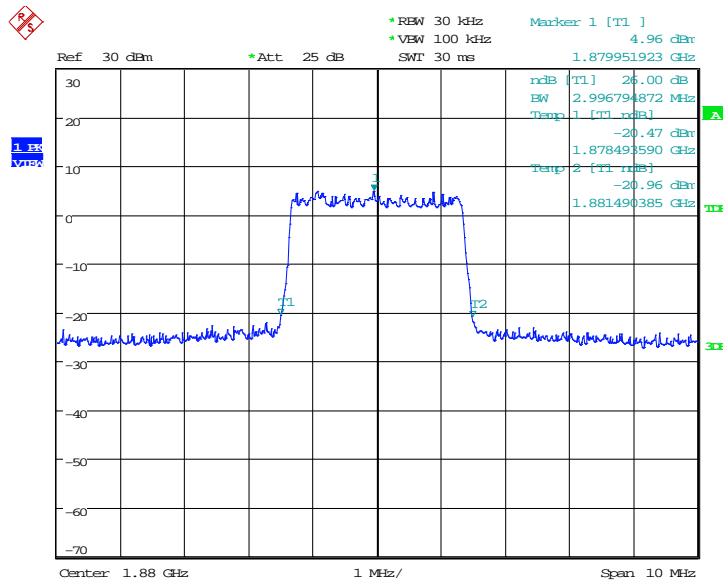
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
3012.82		2996.79

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



Date: 17.MAY.2018 08:06:50

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

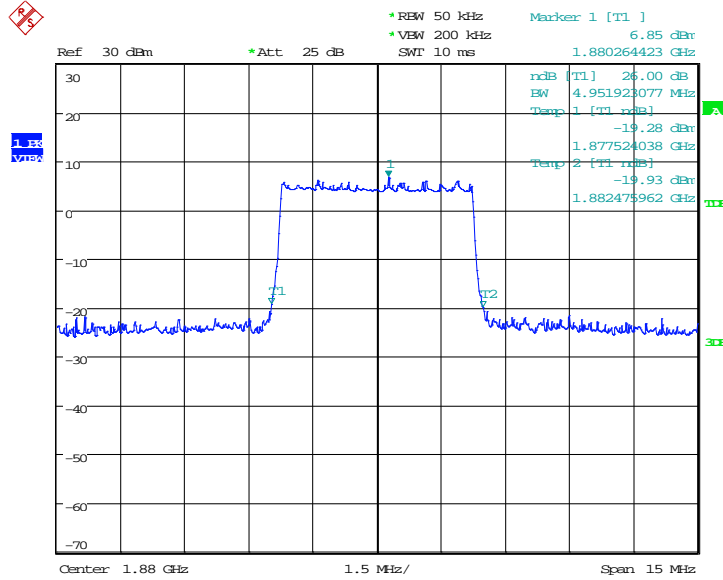


Date: 17.MAY.2018 08:07:06

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

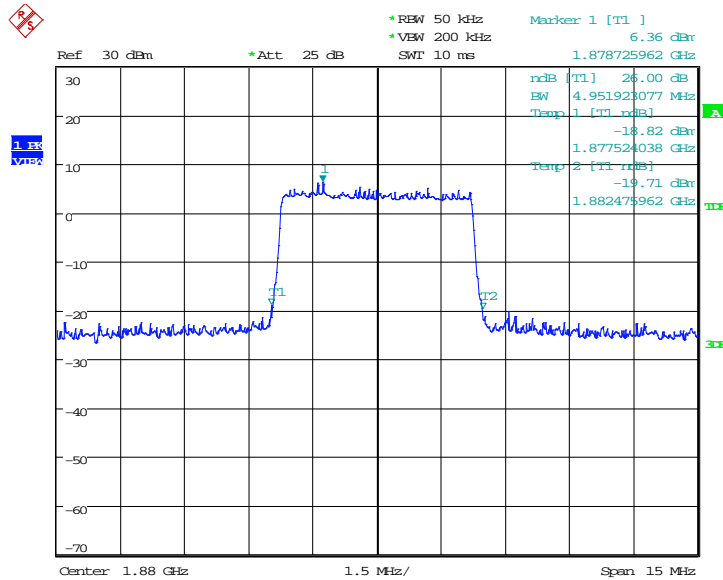
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
4951.92		4951.92

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



Date: 17.MAY.2018 08:15:05

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

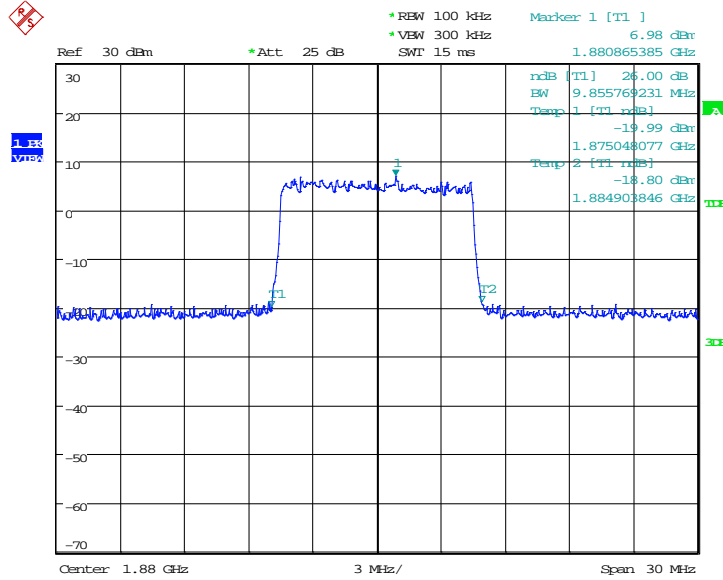


Date: 17.MAY.2018 08:15:21

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

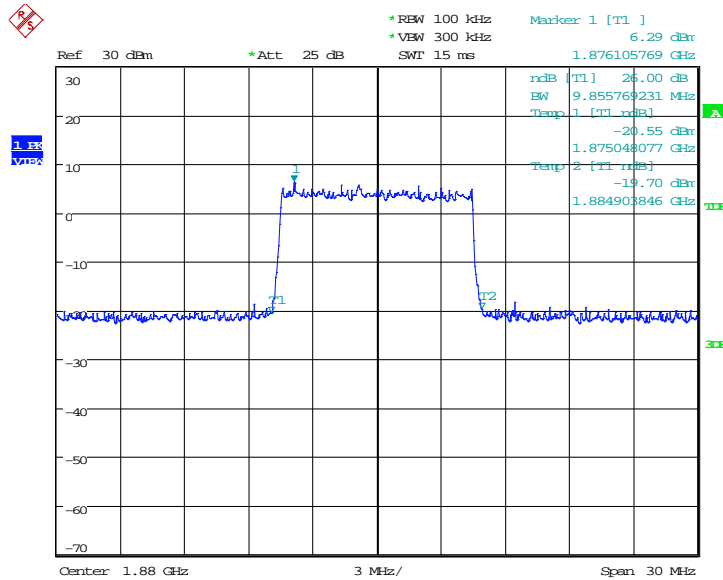
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
9855.77		9855.77

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



Date: 17.MAY.2018 08:22:51

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

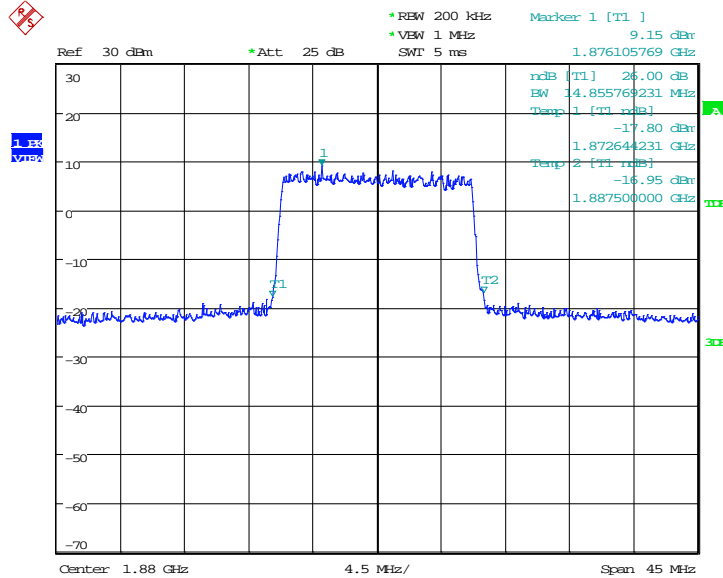


Date: 17.MAY.2018 08:23:07

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

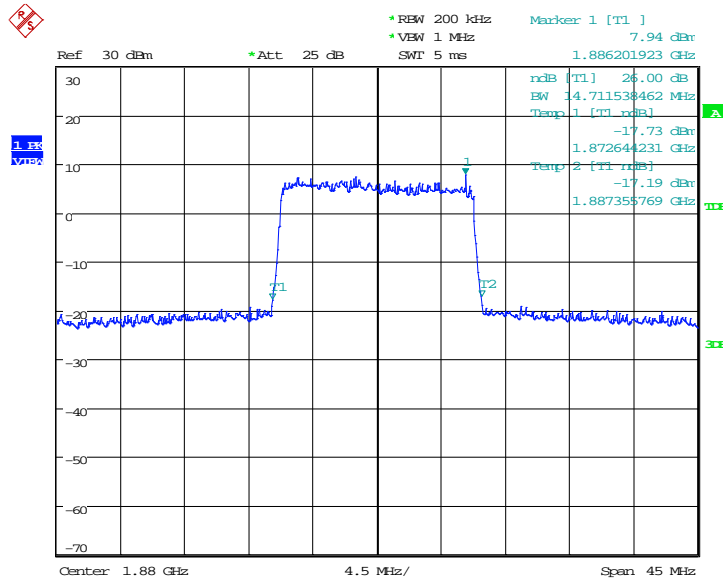
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
14855.77		14711.54

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



Date: 17.MAY.2018 08:33:14

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

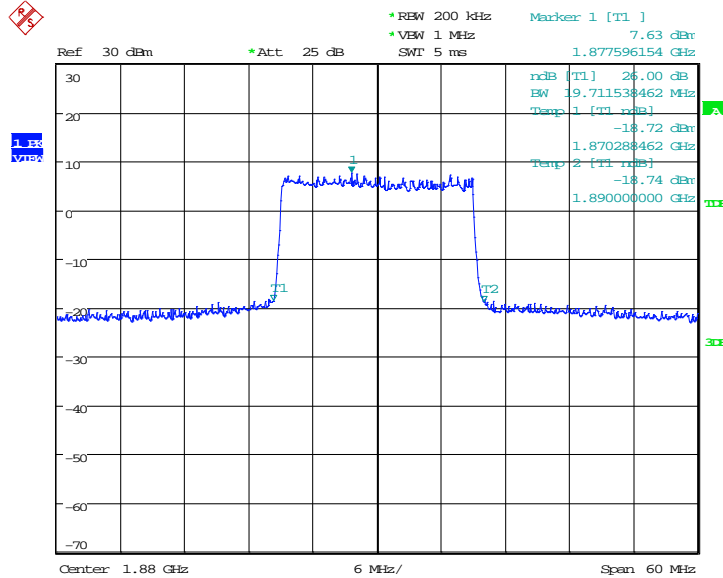


Date: 17.MAY.2018 08:33:29

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

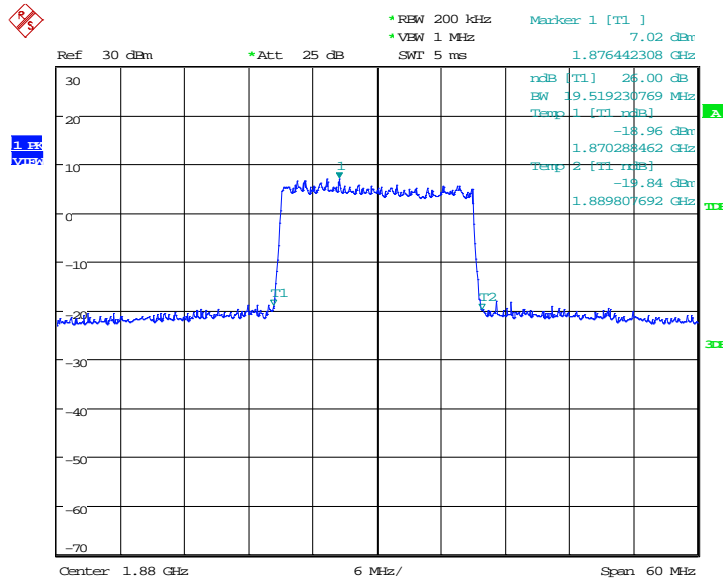
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1880.0	QPSK
	19711.54	19519.23

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



Date: 17.MAY.2018 08:46:40

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

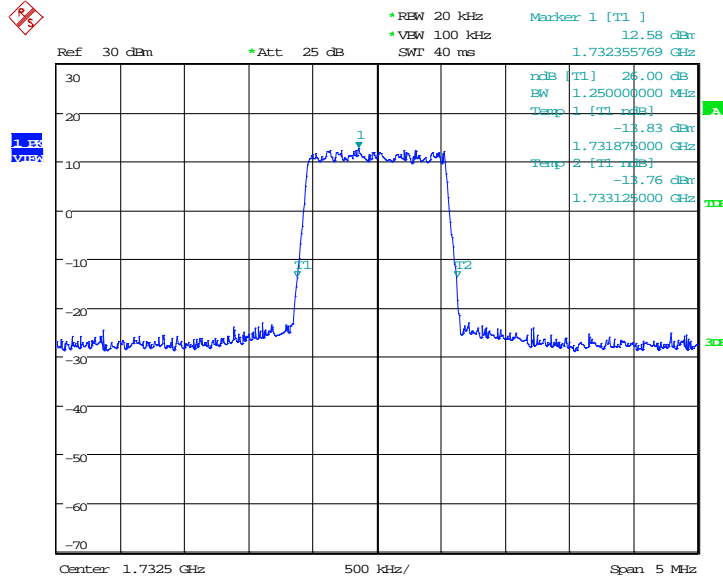


Date: 17.MAY.2018 08:46:56

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

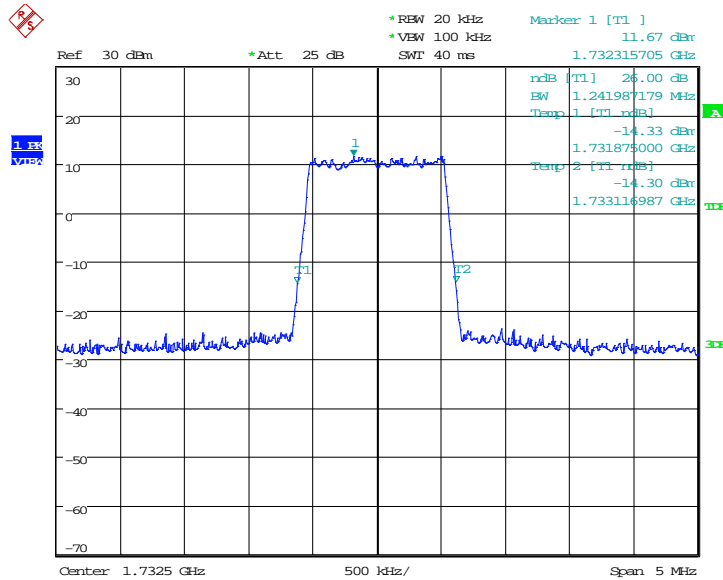
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1732.5	QPSK
	1250.00	1241.99

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



Date: 17.MAY.2018 08:55:02

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



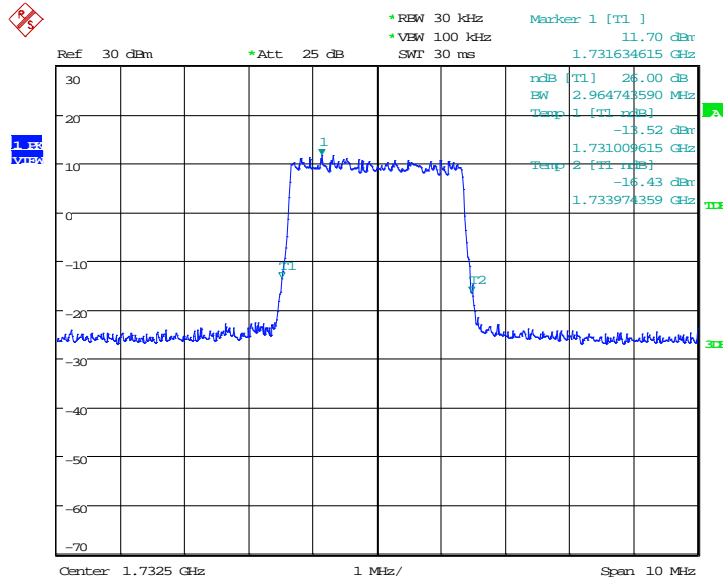
Date: 17.MAY.2018 08:55:18



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

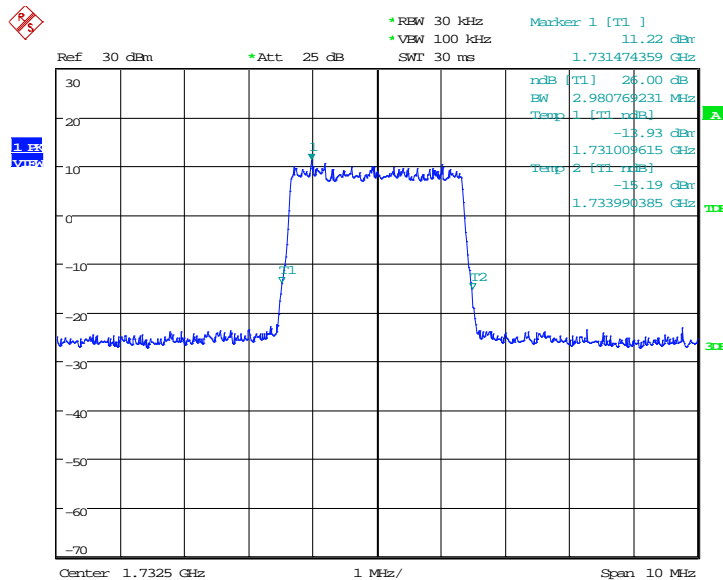
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1732.5	QPSK
	2964.74	2980.77

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



Date: 17.MAY.2018 09:02:47

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

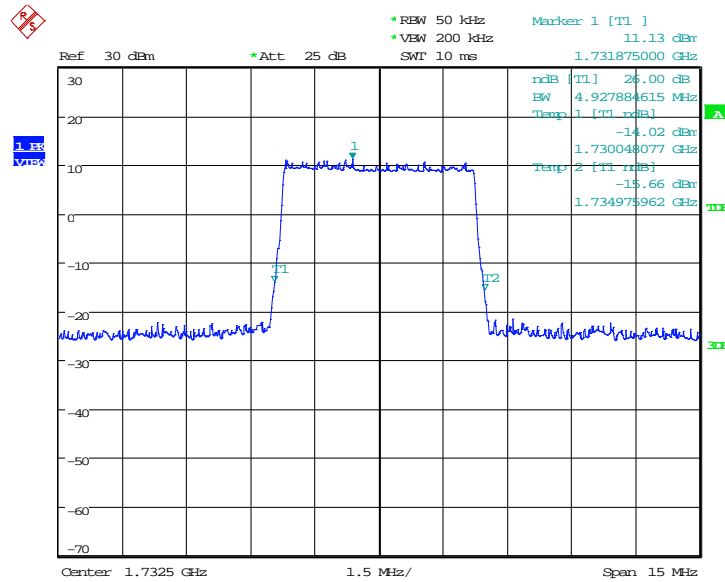


Date: 17.MAY.2018 09:03:03

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

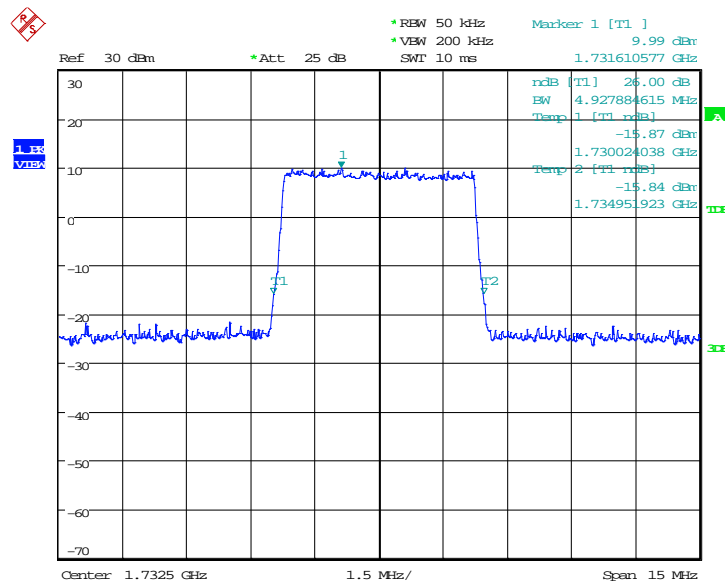
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1732.5	QPSK	16QAM
	4927.88	4927.88

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



Date: 17.MAY.2018 09:10:34

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

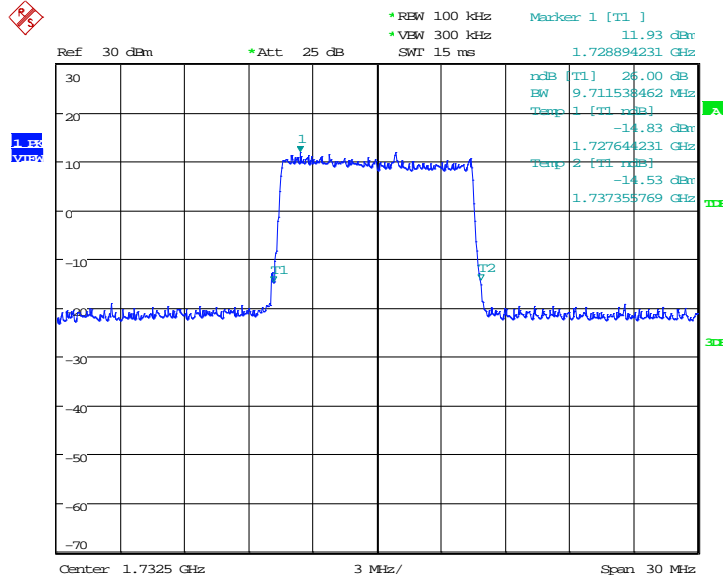


Date: 17.MAY.2018 09:10:50

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

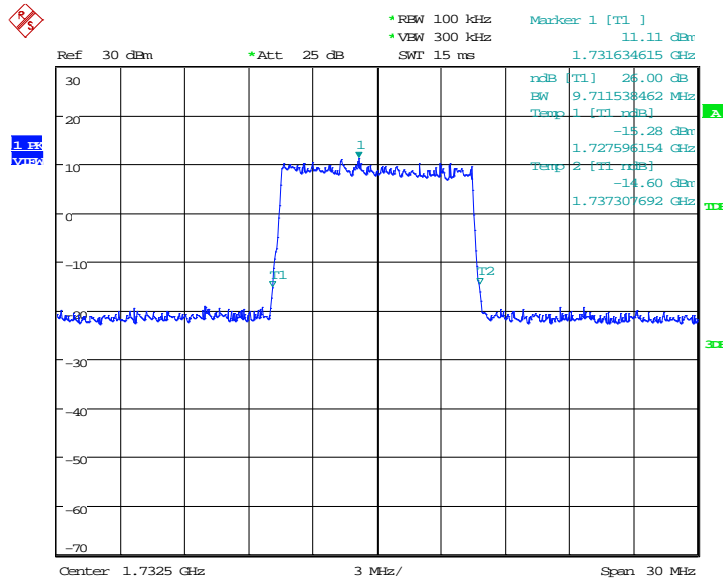
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1732.5	QPSK	16QAM
	9711.54	9711.54

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



Date: 17.MAY.2018 09:18:19

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

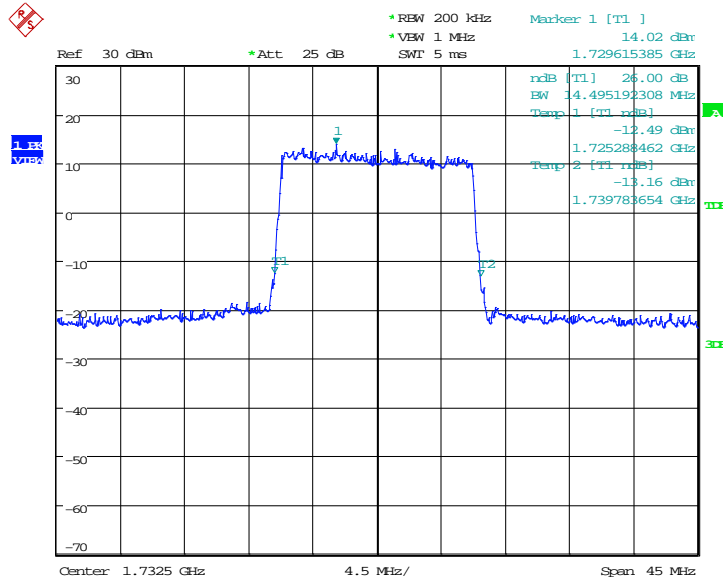


Date: 17.MAY.2018 09:18:35

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

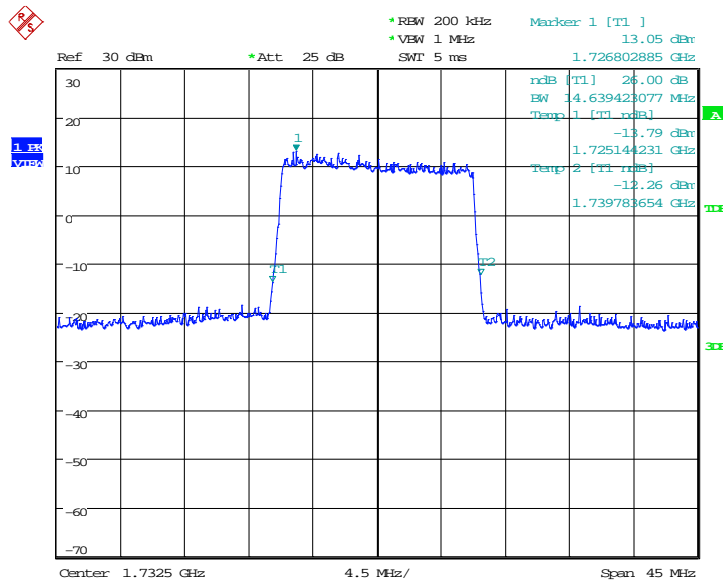
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1732.5	QPSK	16QAM
	14495.19	14639.42

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



Date: 17.MAY.2018 09:26:42

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

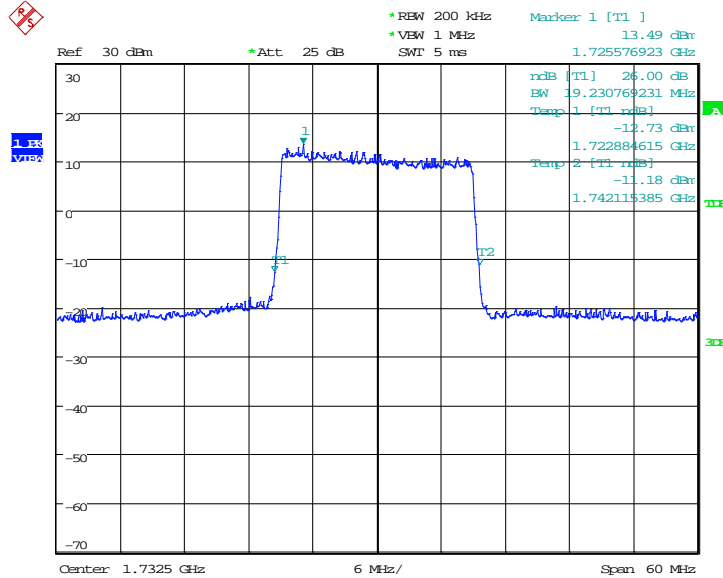


Date: 17.MAY.2018 09:26:58

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

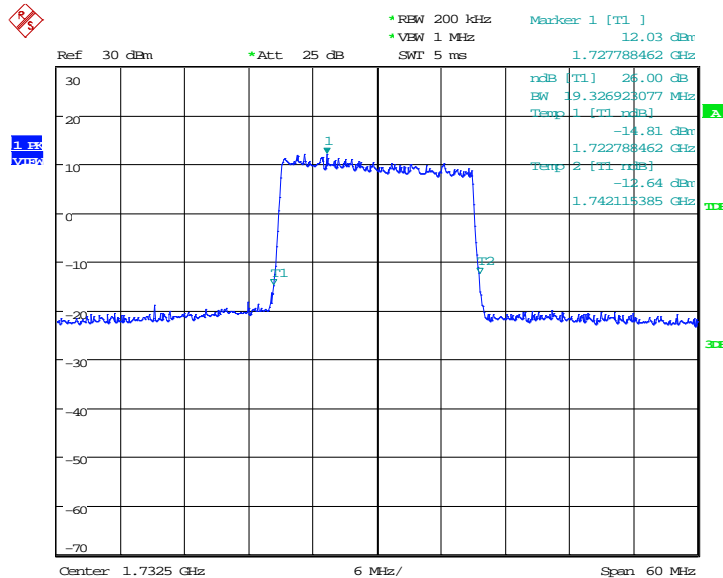
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1732.5	QPSK
19230.77		19326.92

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



Date: 17.MAY.2018 09:35:08

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

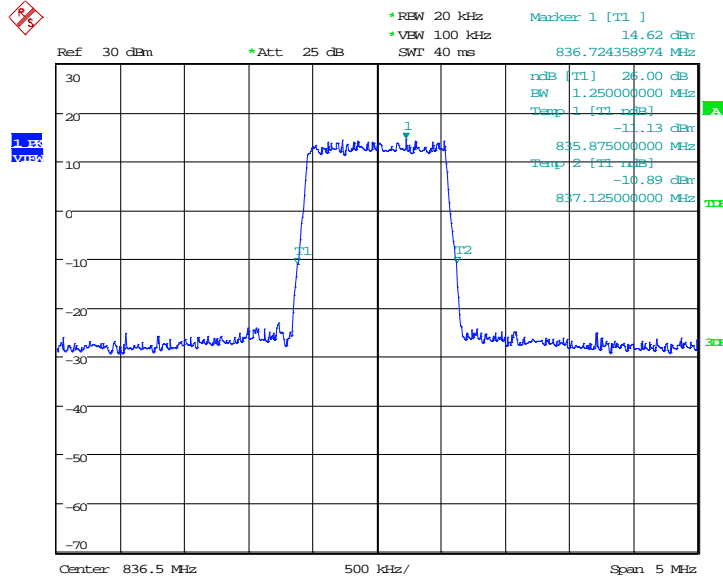


Date: 17.MAY.2018 09:35:24

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

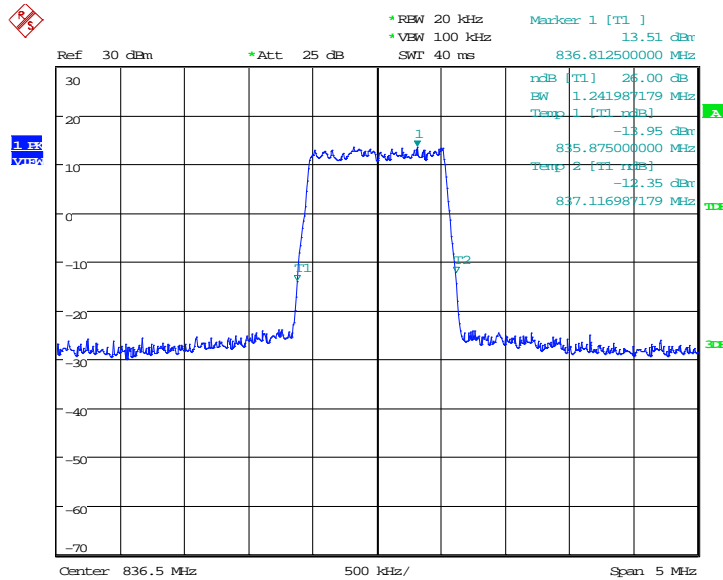
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
836.5	QPSK	16QAM
	1250.00	1241.99

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



Date: 17.MAY.2018 07:27:51

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

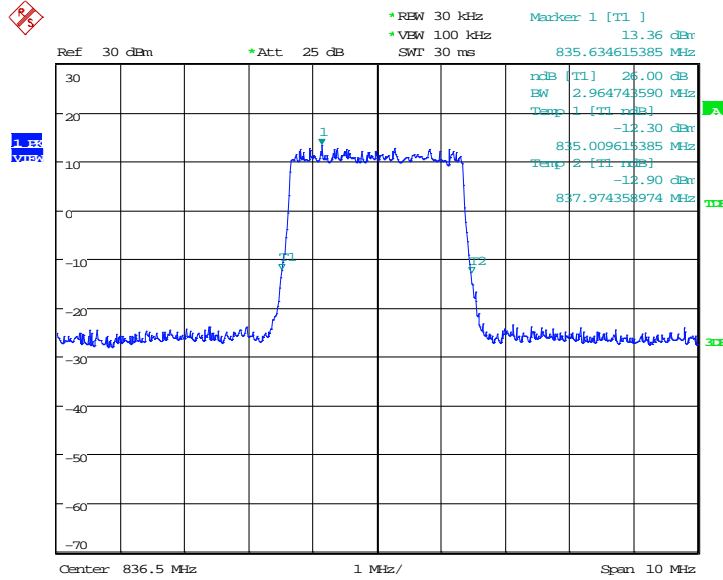


Date: 17.MAY.2018 07:28:06

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

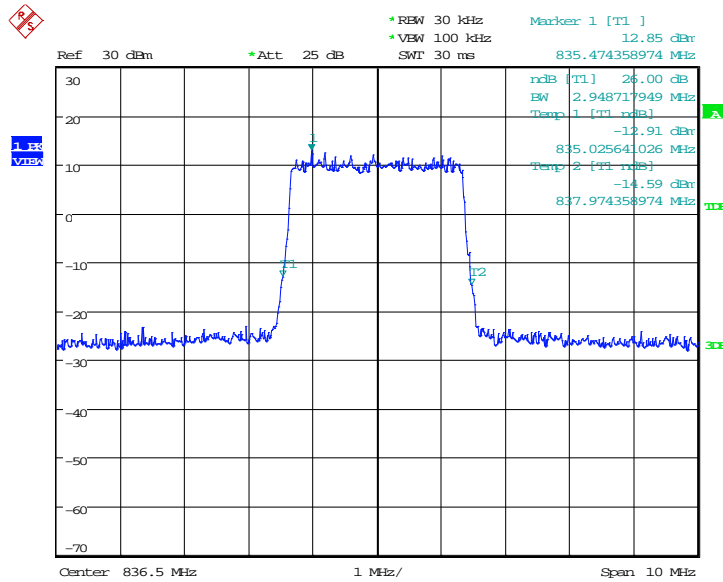
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
2964.74		2948.72

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



Date: 17.MAY.2018 07:35:38

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

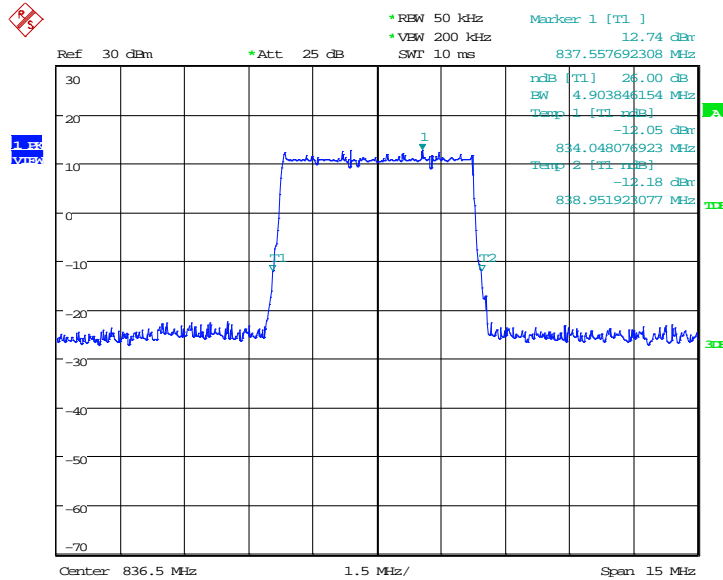


Date: 17.MAY.2018 07:35:54

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

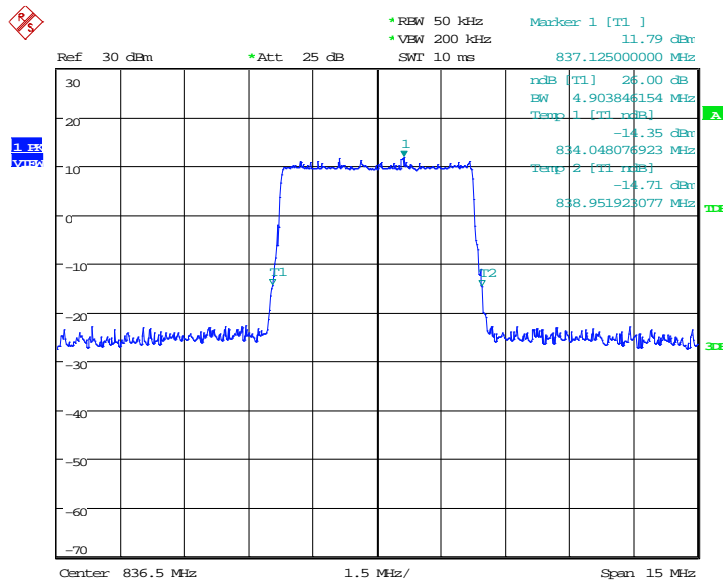
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
836.5	QPSK	16QAM
	4903.85	4903.85

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



Date: 17.MAY.2018 07:43:26

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



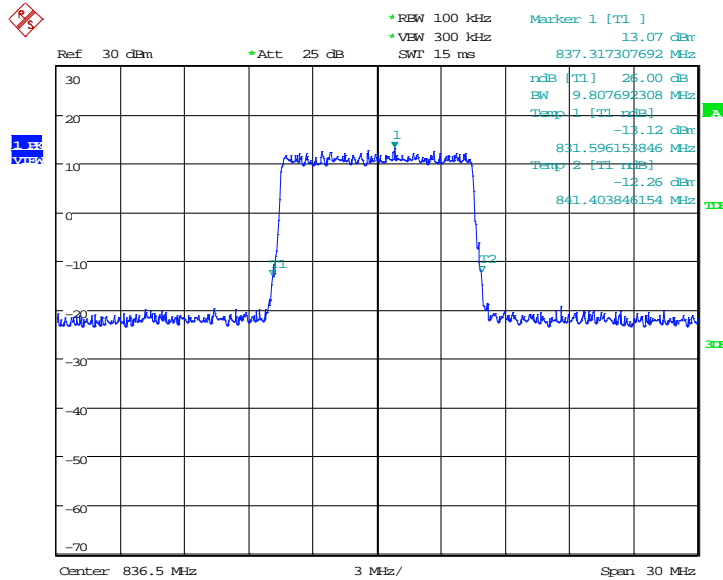
Date: 17.MAY.2018 07:43:41



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

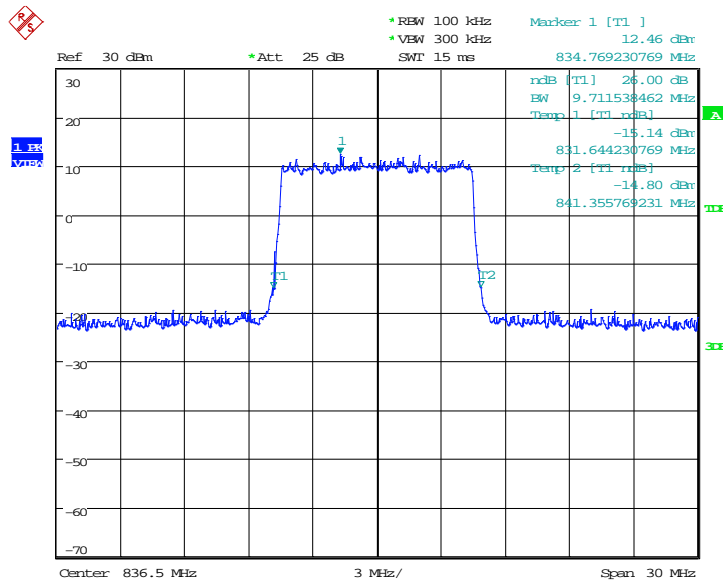
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
836.5	QPSK	16QAM
	9807.69	9711.54

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



Date: 17.MAY.2018 07:51:11

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

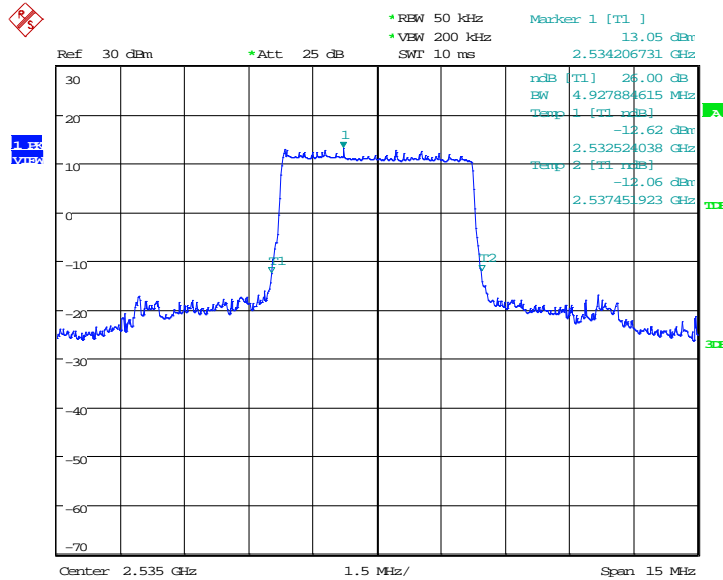


Date: 17.MAY.2018 07:51:26

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

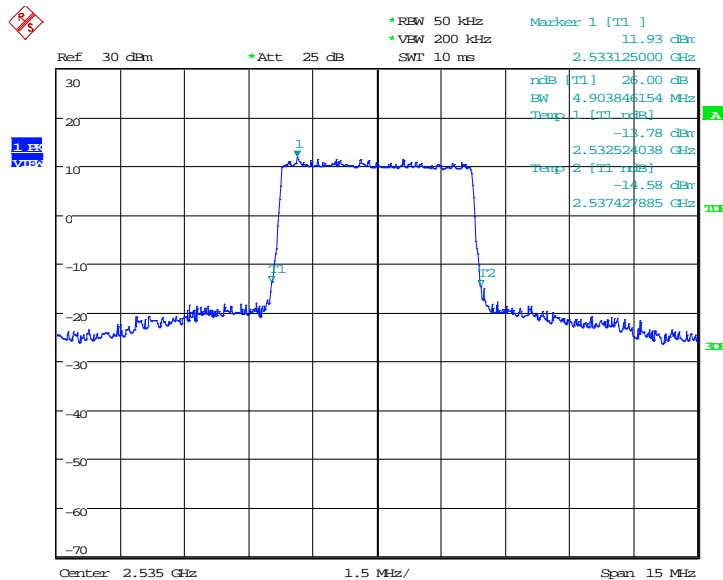
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2535.0	QPSK
4927.88		4903.85

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



Date: 17.MAY.2018 05:44:20

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

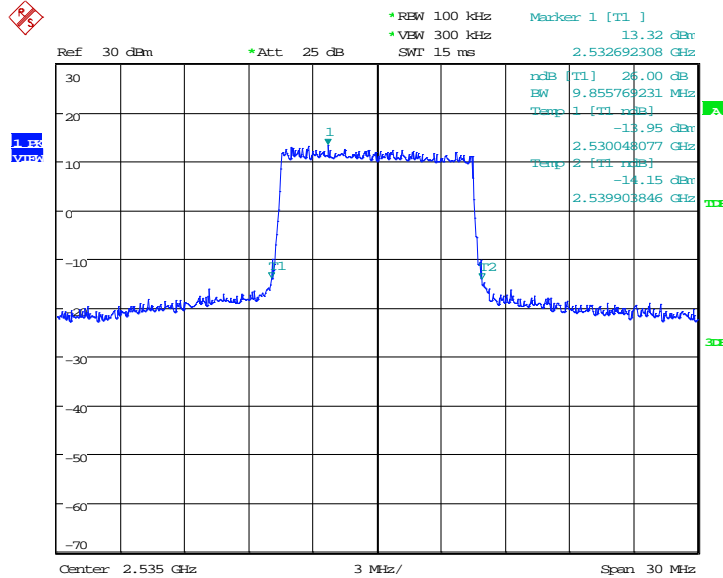


Date: 17.MAY.2018 05:44:36

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

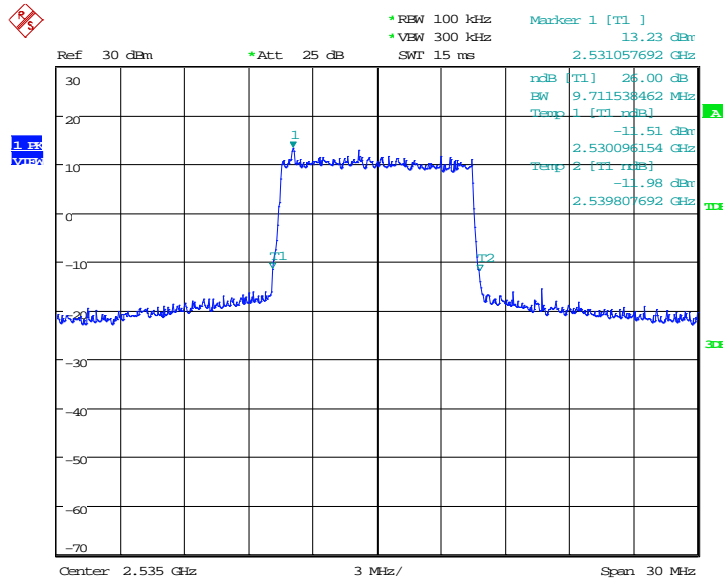
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2535.0	QPSK
9855.77		9711.54

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



Date: 17.MAY.2018 05:52:06

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

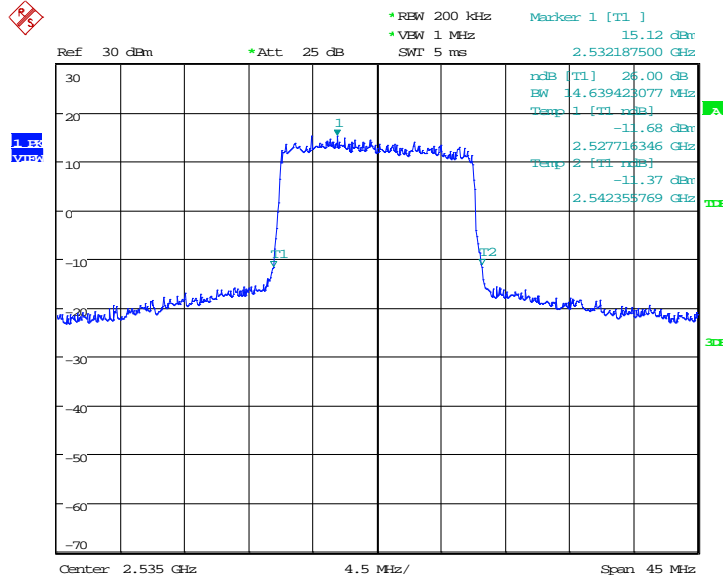


Date: 17.MAY.2018 05:52:22

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

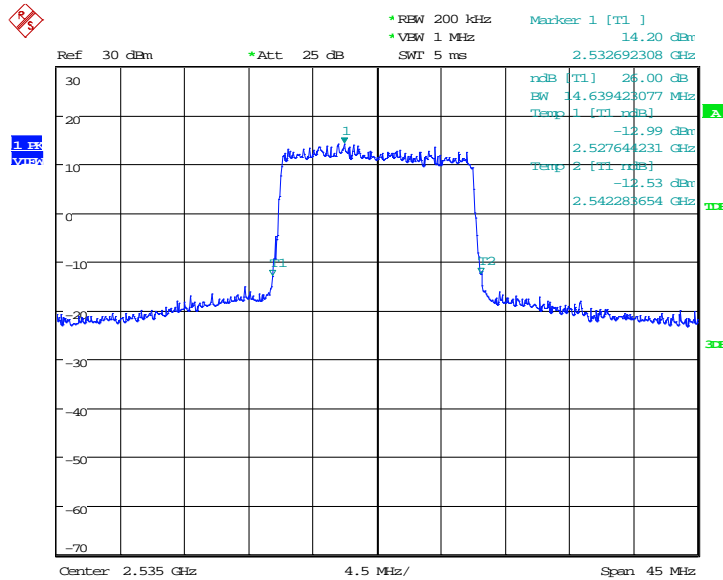
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2535.0	QPSK
14639.42		14639.42

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



Date: 17.MAY.2018 06:00:31

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

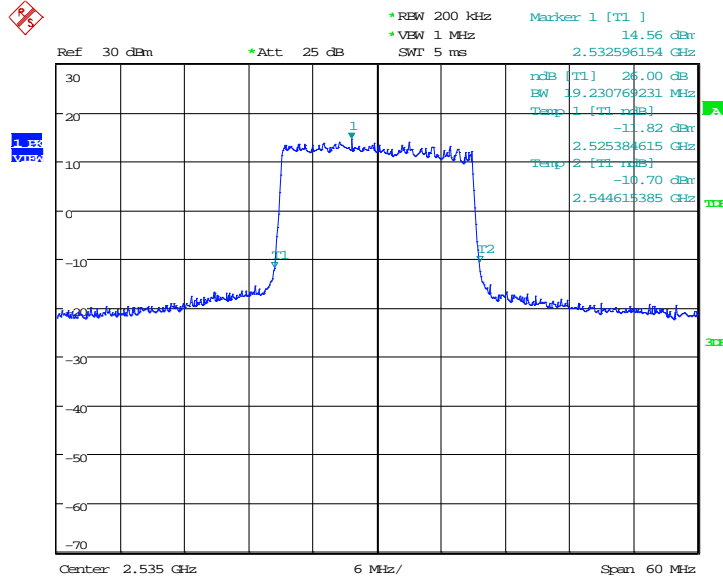


Date: 17.MAY.2018 06:00:47

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

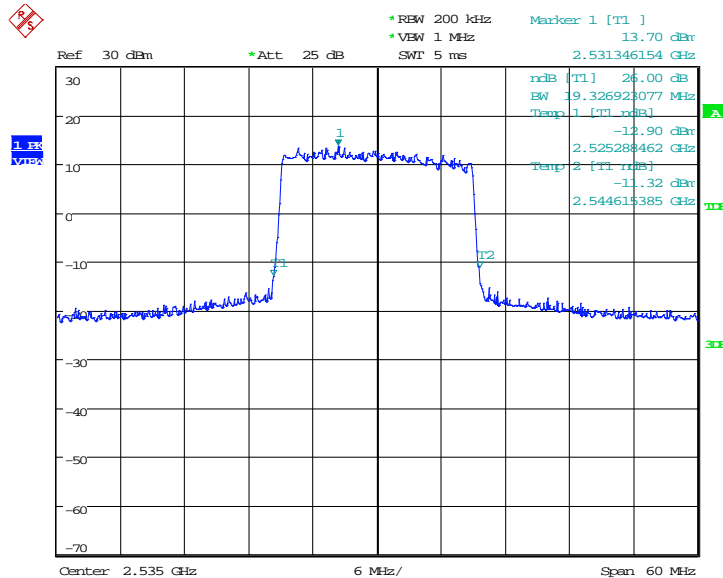
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2535.0	QPSK
	19230.77	19326.92

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



Date: 17.MAY.2018 06:08:57

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

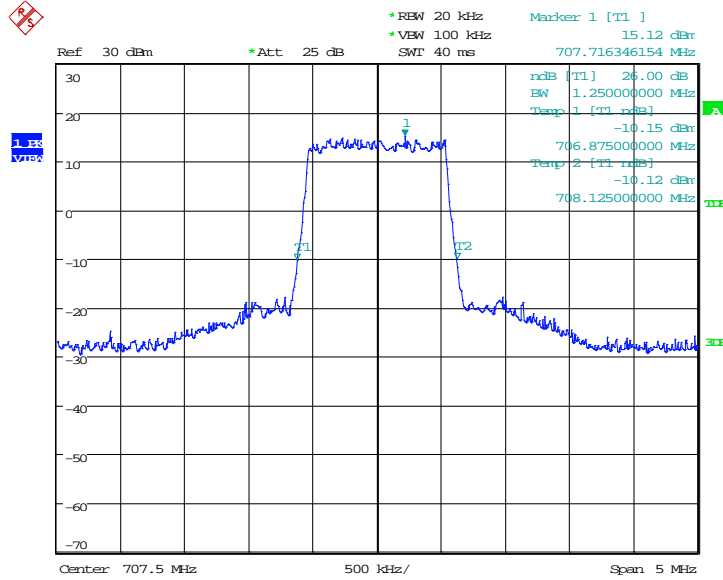


Date: 17.MAY.2018 06:09:13

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

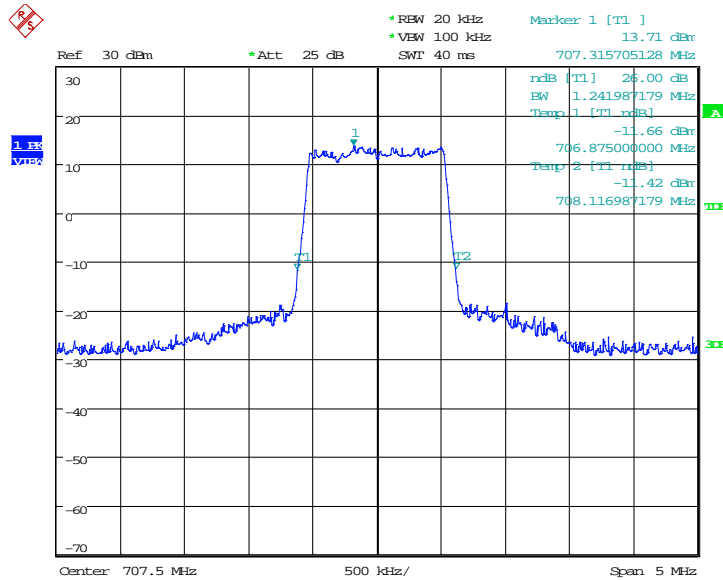
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
707.5	QPSK	16QAM
	1250.00	1241.99

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



Date: 17.MAY.2018 09:43:01

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

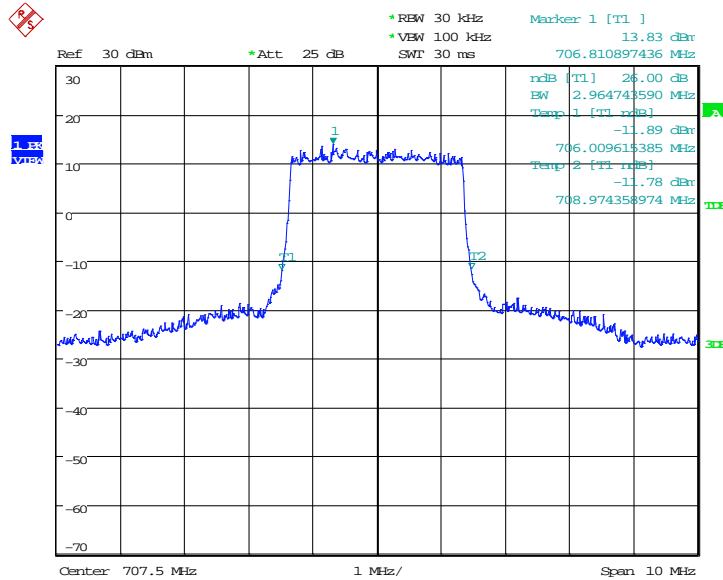


Date: 17.MAY.2018 09:43:17

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

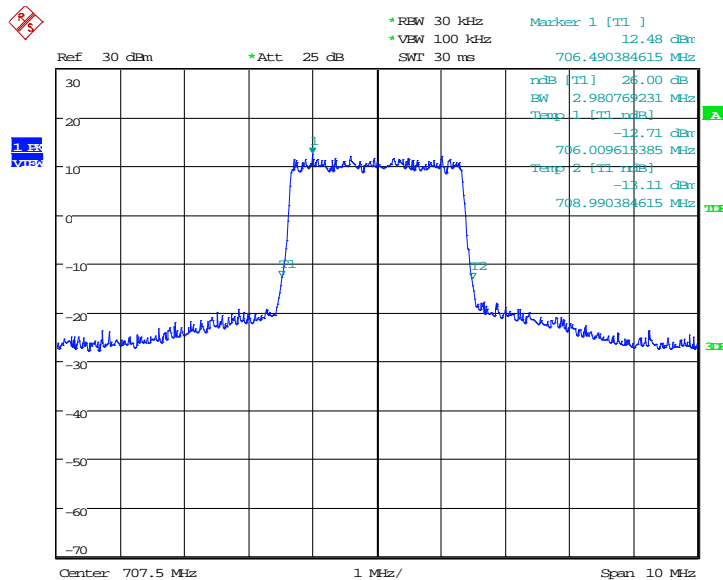
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
707.5	QPSK	16QAM
	2964.74	2980.77

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



Date: 17.MAY.2018 09:50:48

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

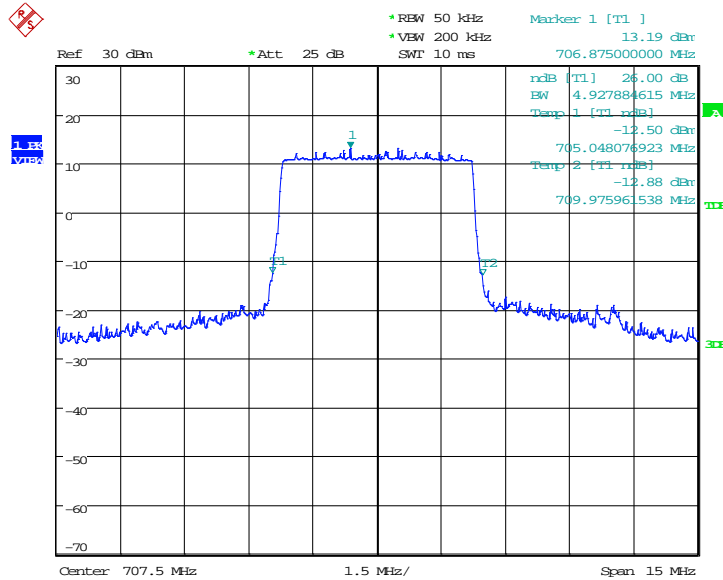


Date: 17.MAY.2018 09:51:04

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

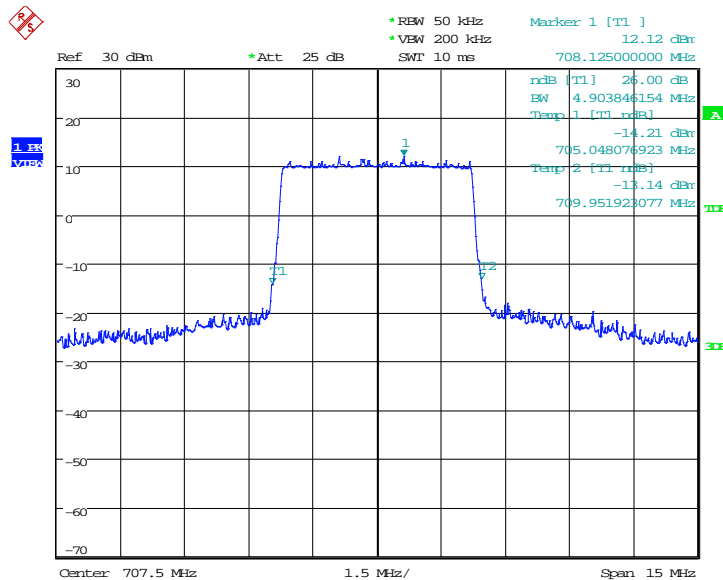
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
707.5	QPSK	16QAM
	4927.88	4903.85

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



Date: 17.MAY.2018 09:58:33

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



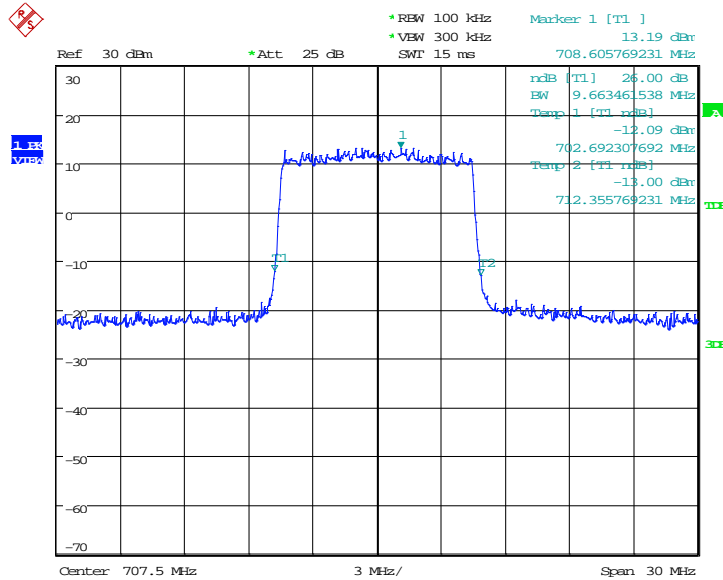
Date: 17.MAY.2018 09:58:49



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

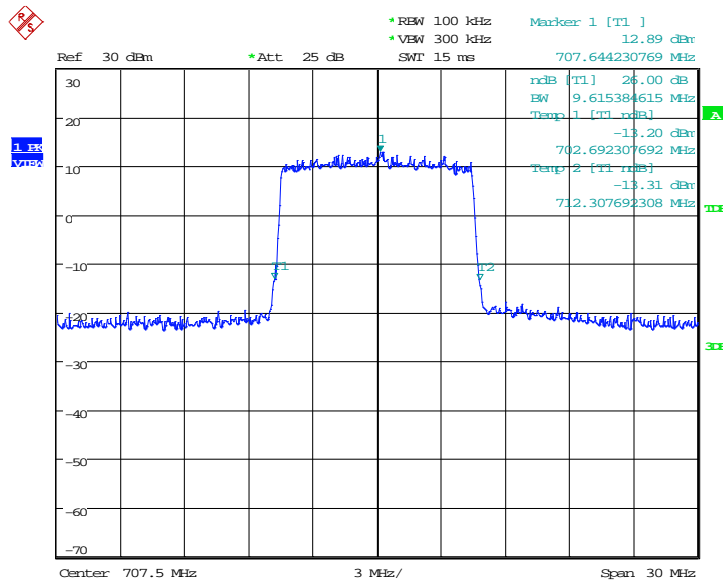
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
707.5	QPSK	16QAM
	9663.46	9615.38

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



Date: 17.MAY.2018 10:27:41

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

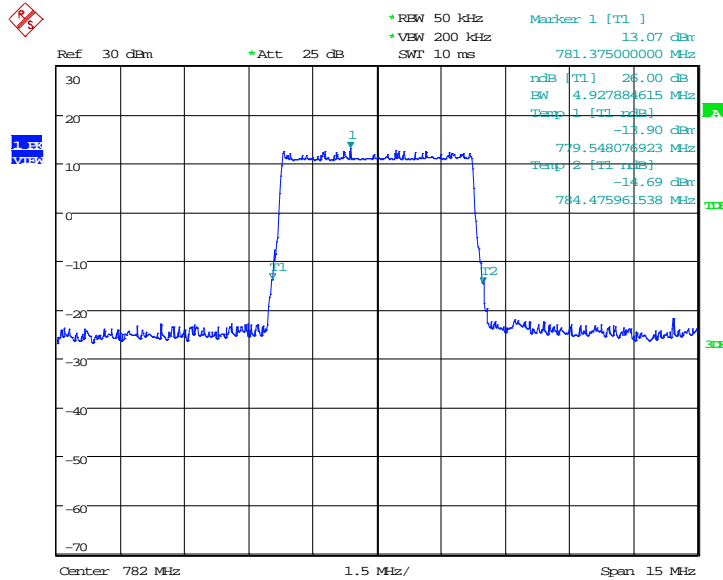


Date: 17.MAY.2018 10:27:57

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

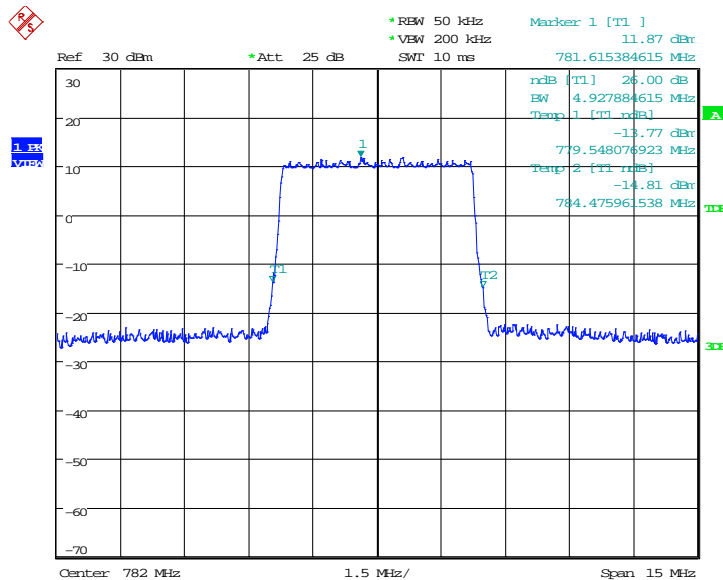
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
782.0	QPSK	16QAM
	4927.88	4927.88

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



Date: 17.MAY.2018 06:16:57

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

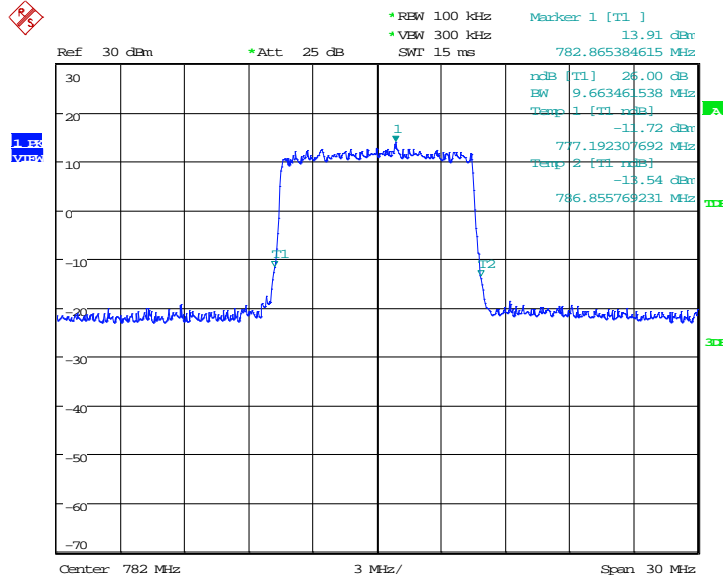


Date: 17.MAY.2018 06:17:13

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

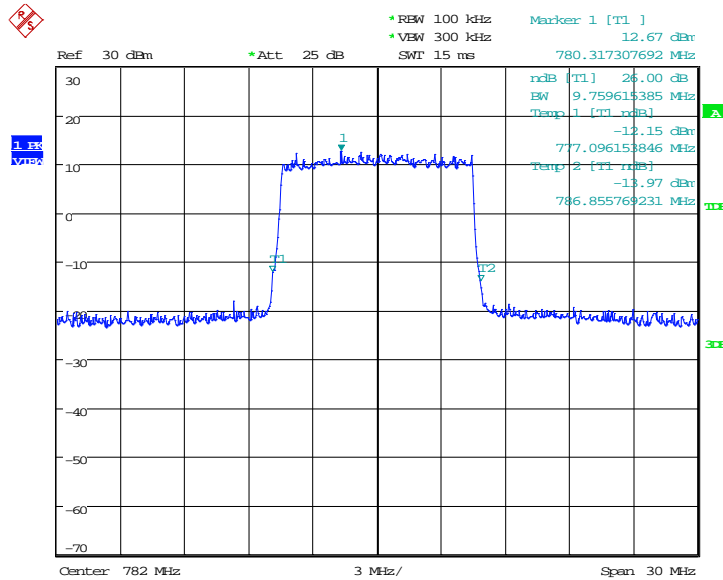
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
782.0	QPSK	16QAM
	9663.46	9759.62

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



Date: 17.MAY.2018 06:24:44

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

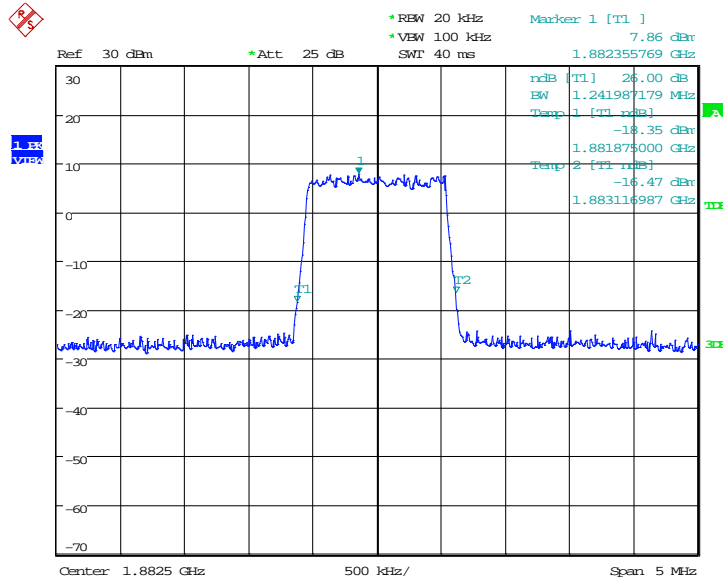


Date: 17.MAY.2018 06:25:00

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

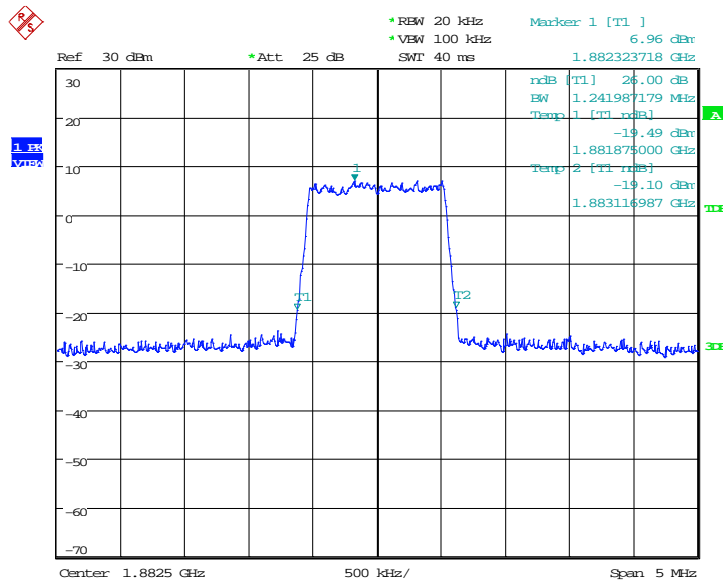
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1882.5	QPSK	16QAM
	1241.99	1241.99

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



Date: 17.MAY.2018 10:35:34

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

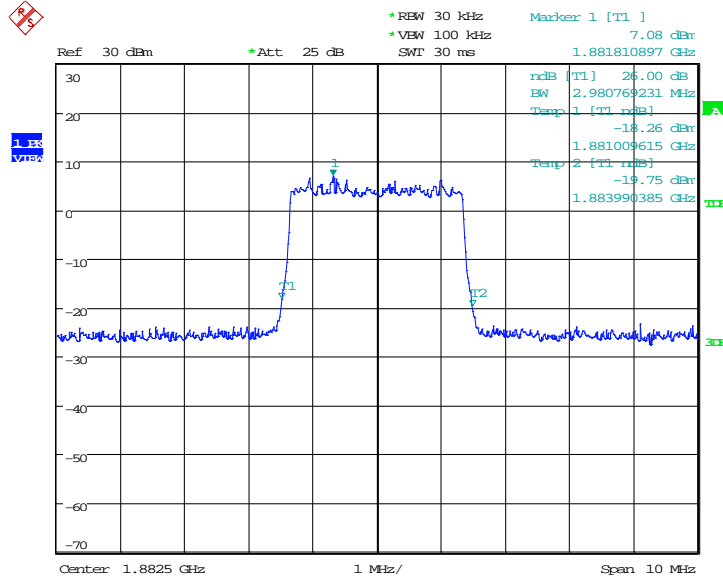


Date: 17.MAY.2018 10:35:50

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

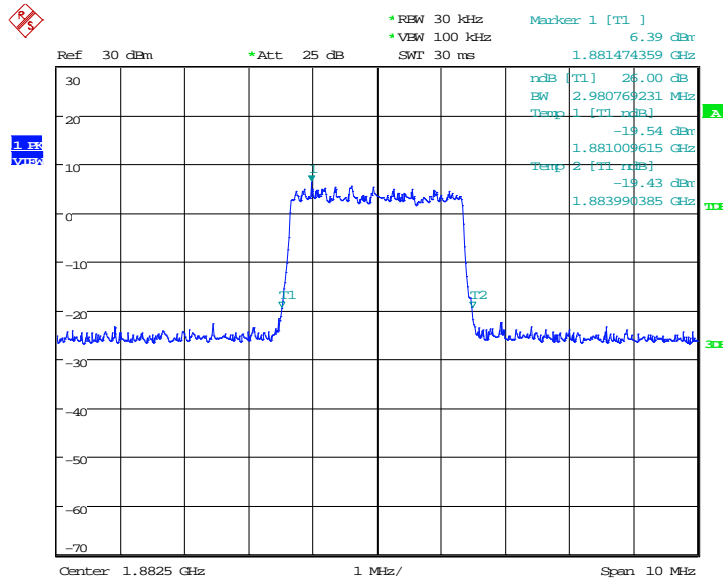
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1882.5	QPSK
	2980.77	2980.77

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



Date: 17.MAY.2018 10:43:19

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

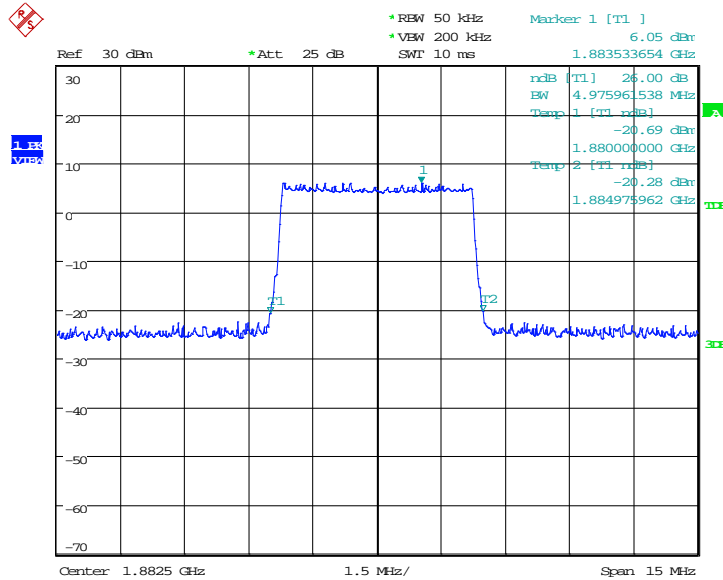


Date: 17.MAY.2018 10:43:35

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

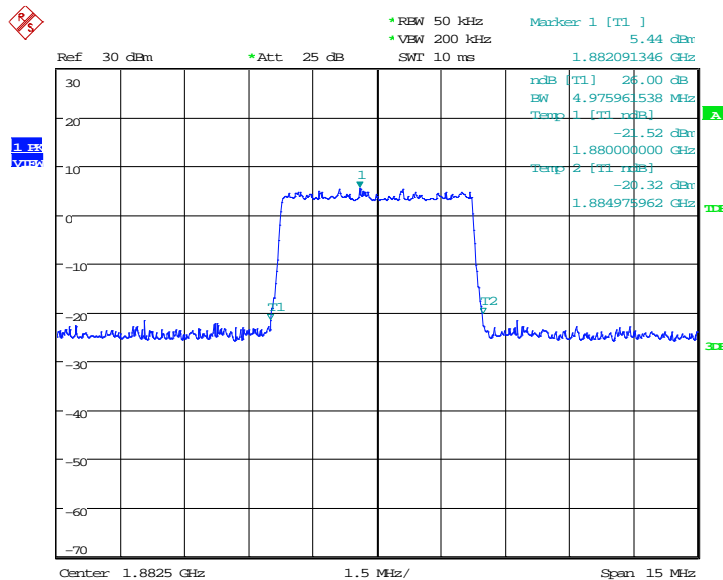
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1882.5	QPSK	16QAM
	4975.96	4975.96

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



Date: 17.MAY.2018 10:51:04

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

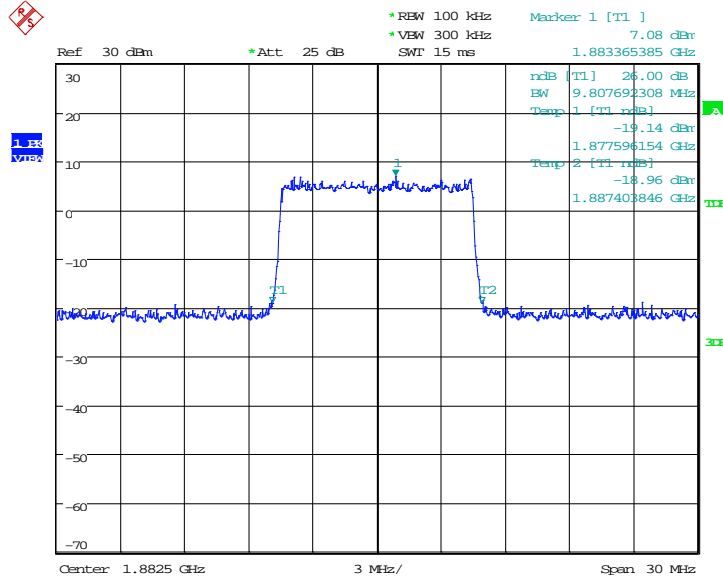


Date: 17.MAY.2018 10:51:20

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

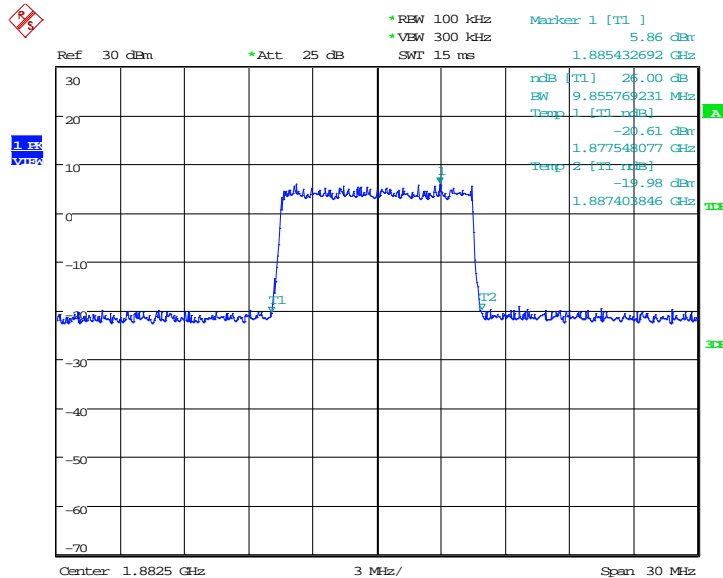
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1882.5	QPSK	16QAM
	9807.69	9855.77

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



Date: 17.MAY.2018 10:58:49

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

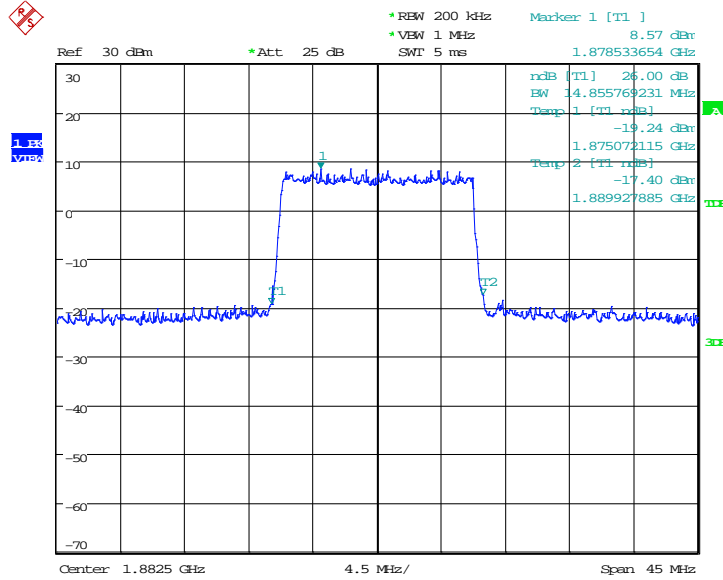


Date: 17.MAY.2018 10:59:05

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

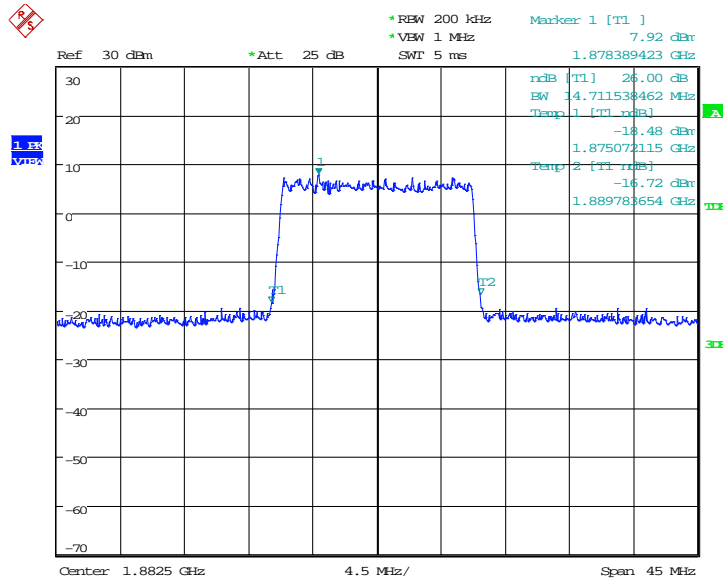
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1882.5	QPSK
	14855.77	14711.54

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



Date: 18.MAY.2018 07:16:37

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



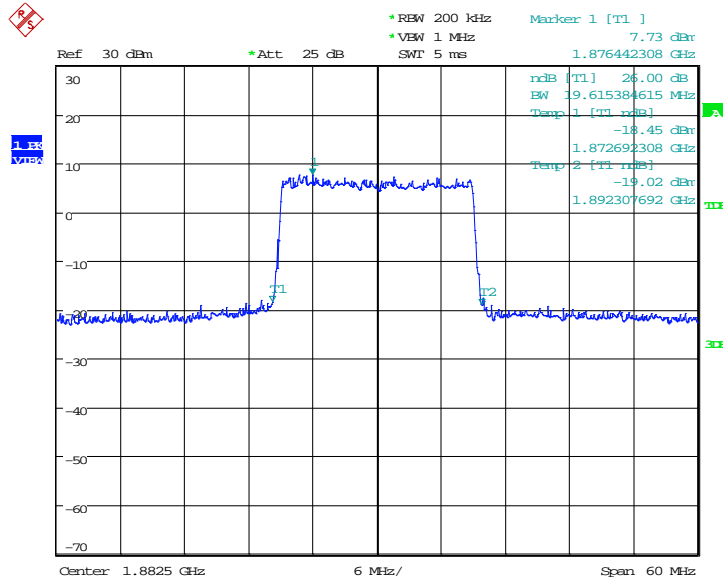
Date: 18.MAY.2018 07:16:53



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

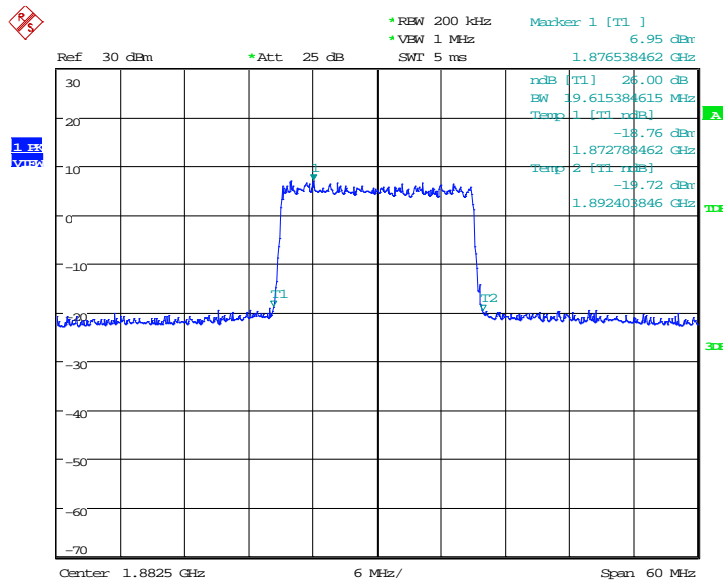
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1882.5	QPSK
	19615.38	19615.38

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



Date: 18.MAY.2018 07:33:44

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

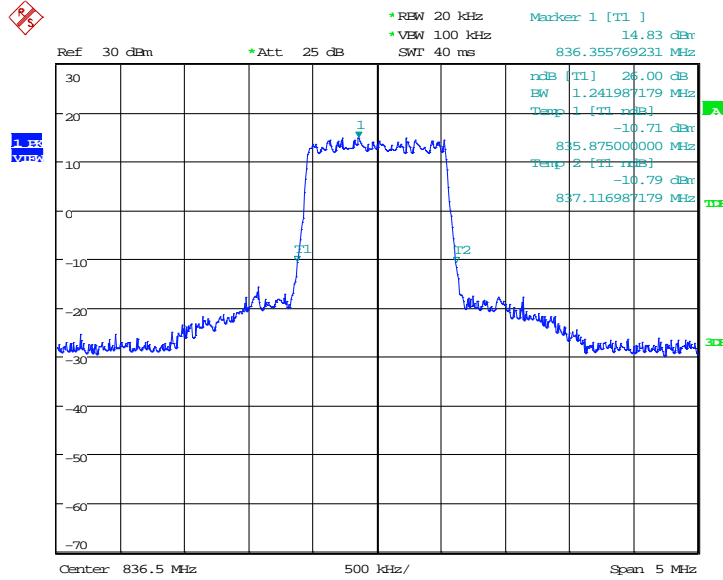


Date: 18.MAY.2018 07:34:00

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

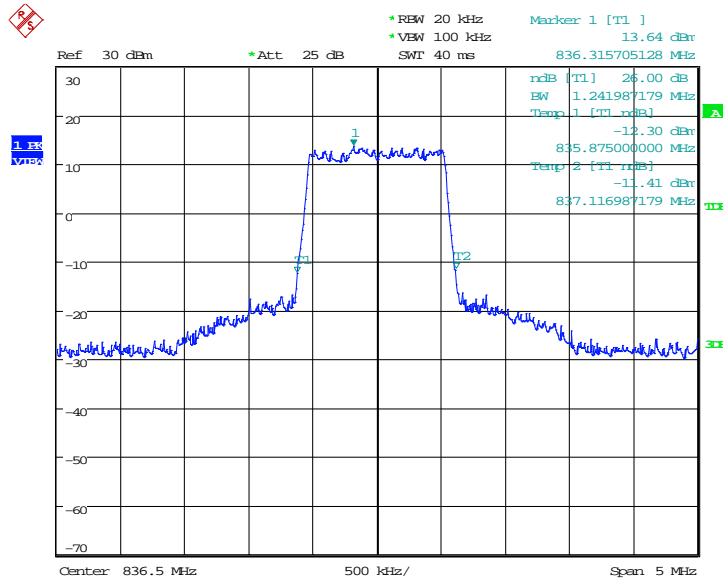
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
	1241.99	1241.99

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



Date: 17.MAY.2018 11:35:21

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

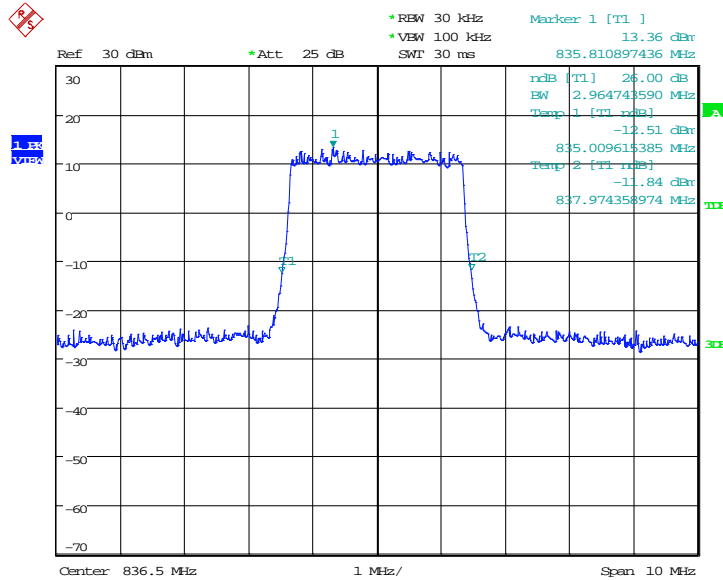


Date: 17.MAY.2018 11:35:36

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

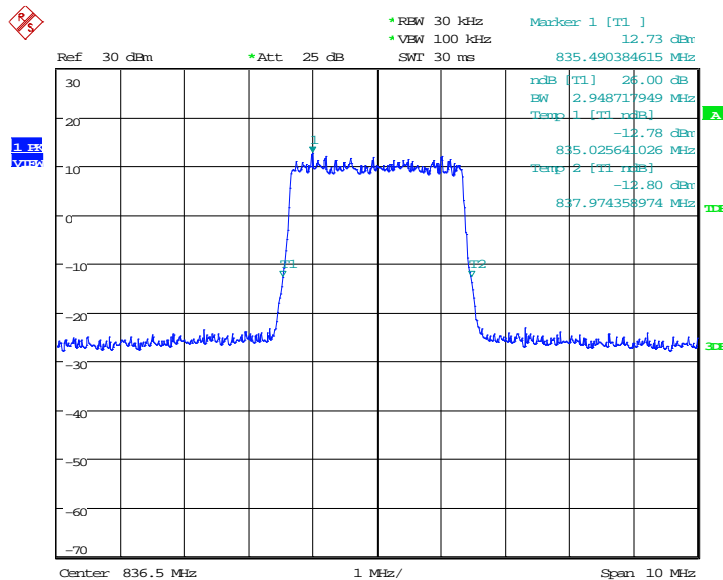
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
2964.74		2948.72

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



Date: 17.MAY.2018 12:18:56

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

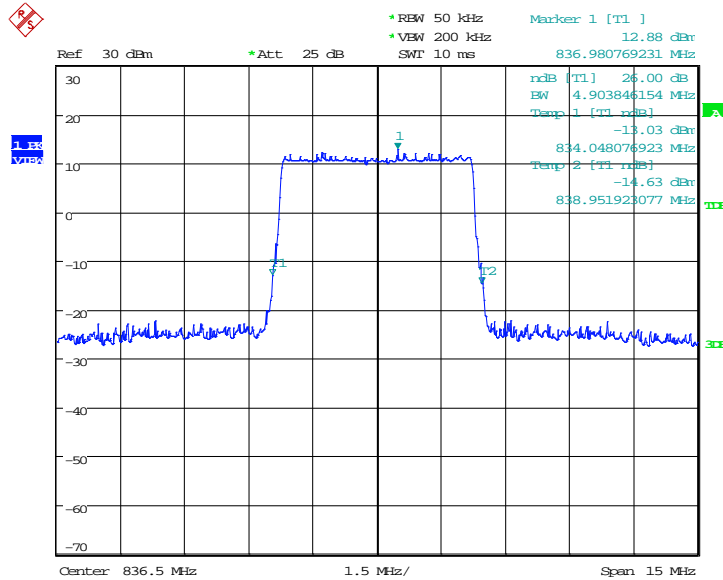


Date: 17.MAY.2018 12:19:12

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

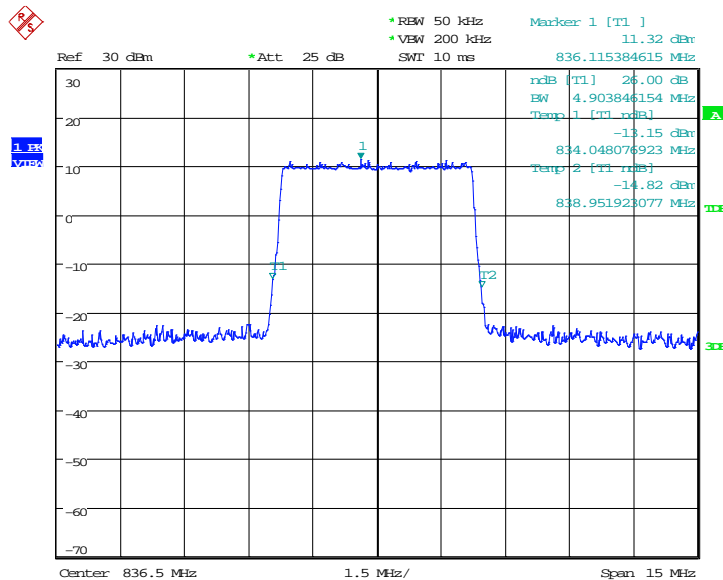
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
4903.85		4903.85

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



Date: 17.MAY.2018 12:27:51

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

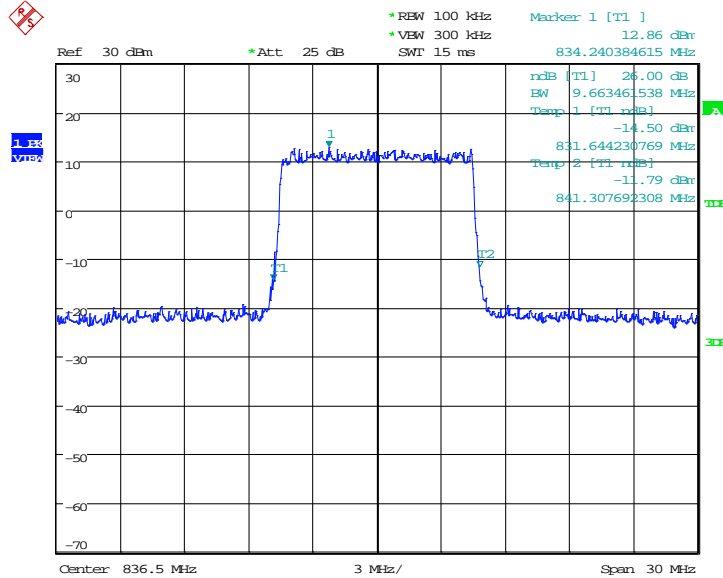


Date: 17.MAY.2018 12:28:07

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

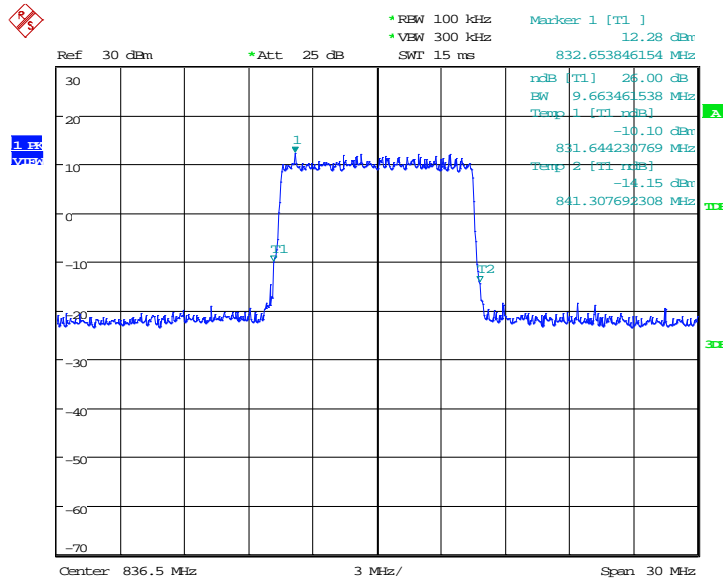
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
	9663.46	9663.46

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



Date: 17.MAY.2018 12:36:47

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

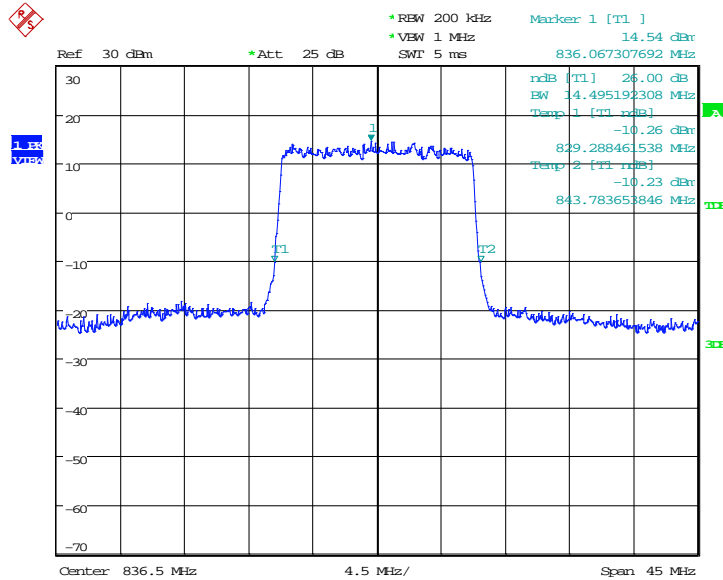


Date: 17.MAY.2018 12:37:03

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

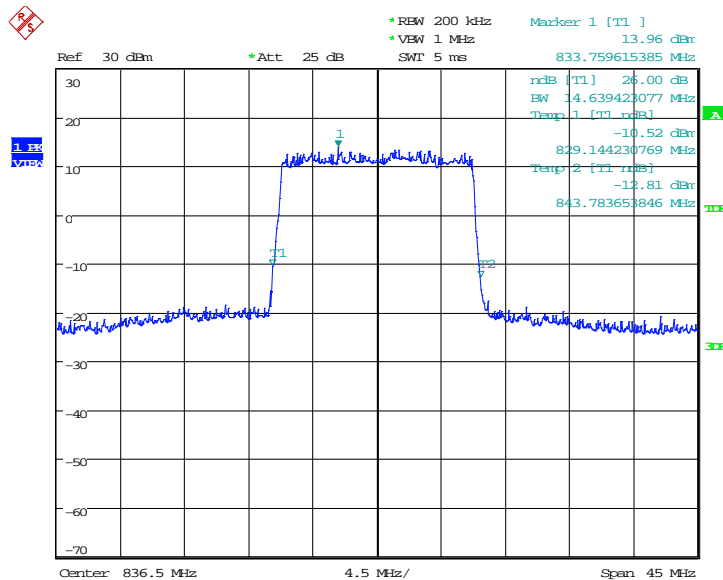
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	836.5	QPSK
	14495.19	14639.42

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



Date: 17.MAY.2018 12:46:20

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

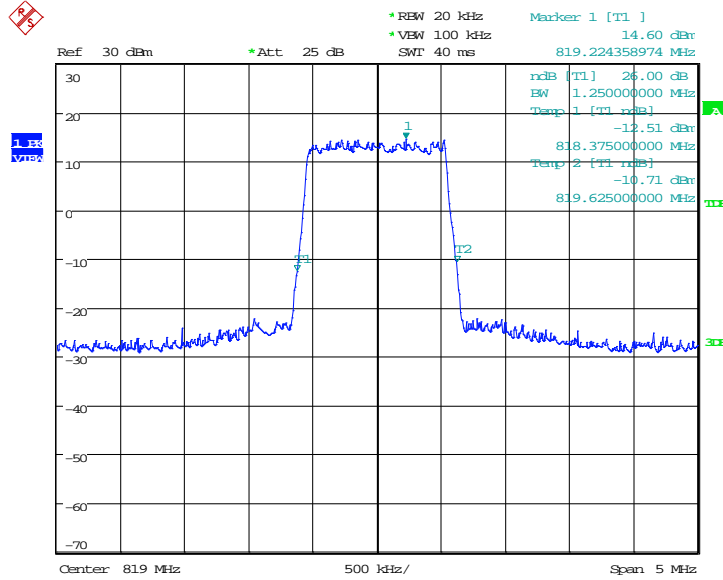


Date: 17.MAY.2018 12:46:36

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

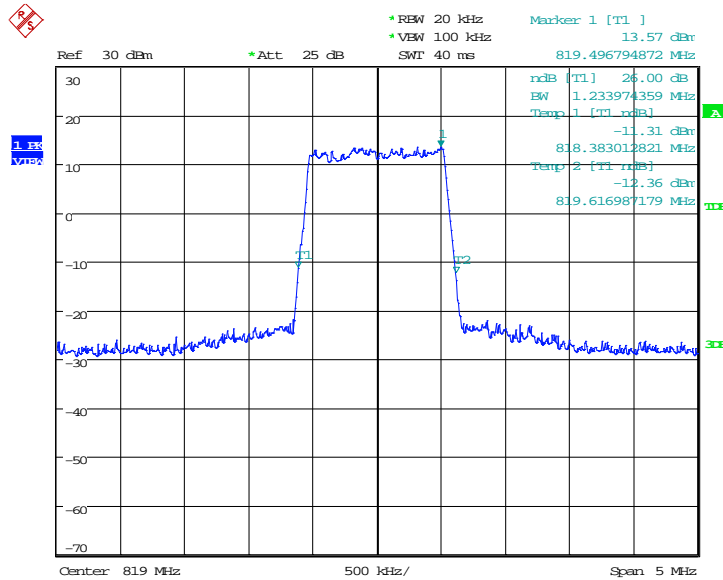
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	819.0	QPSK
	1250.00	1233.97

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



Date: 17.MAY.2018 12:55:23

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

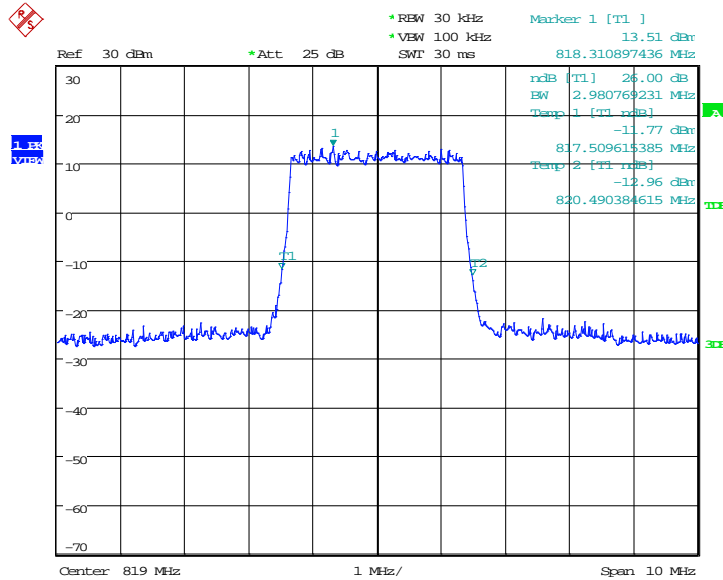


Date: 17.MAY.2018 12:55:39

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

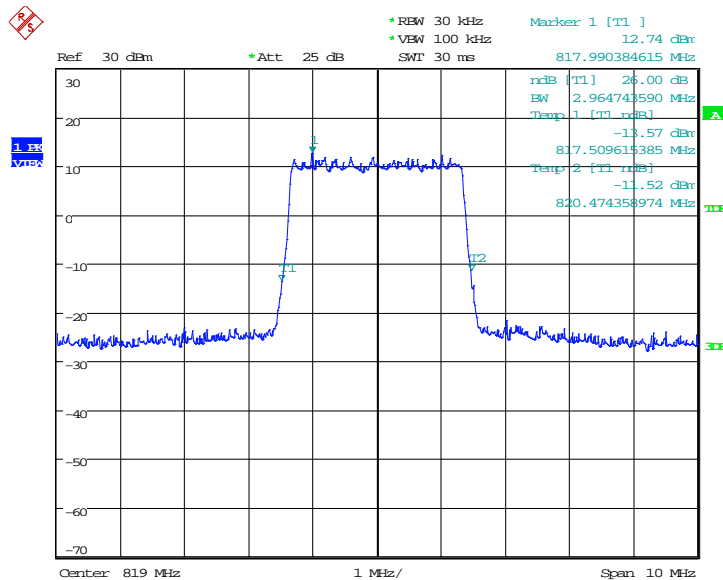
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	819.0	QPSK
2980.77		2964.74

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



Date: 17.MAY.2018 13:04:18

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



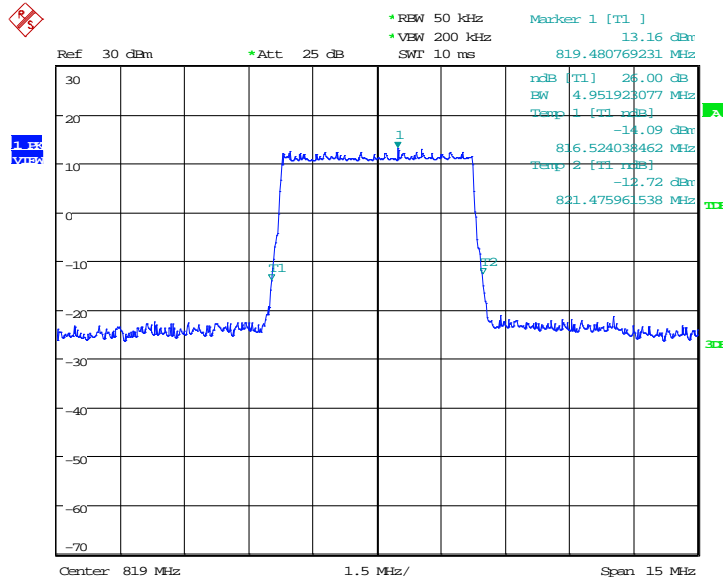
Date: 17.MAY.2018 13:04:34



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

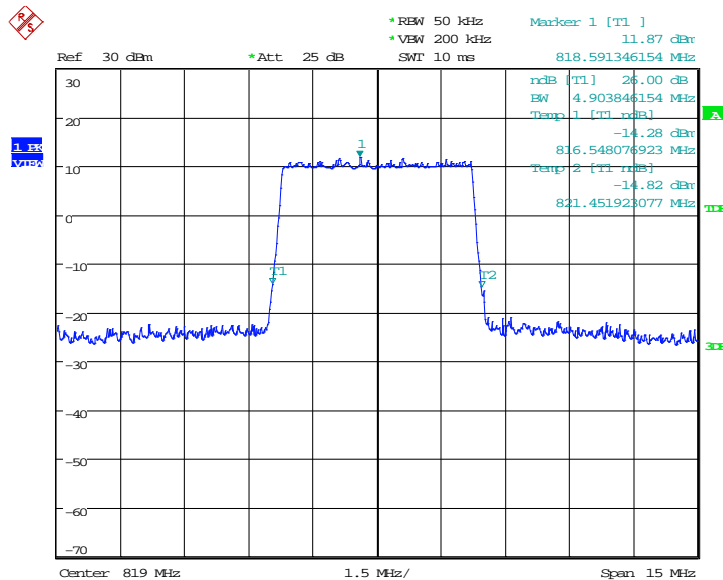
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	819.0	QPSK
4951.92		4903.85

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



Date: 17.MAY.2018 13:13:11

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

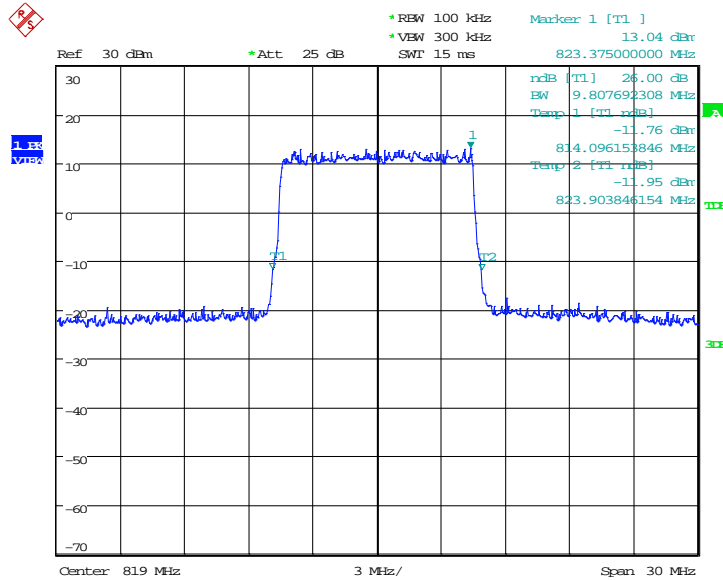


Date: 17.MAY.2018 13:13:27

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

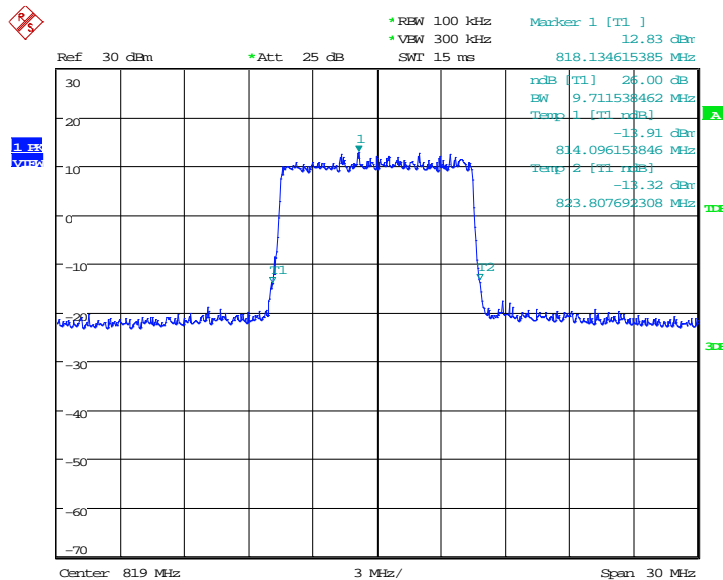
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	819.0	QPSK
	9807.69	9711.54

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



Date: 17.MAY.2018 13:22:07

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

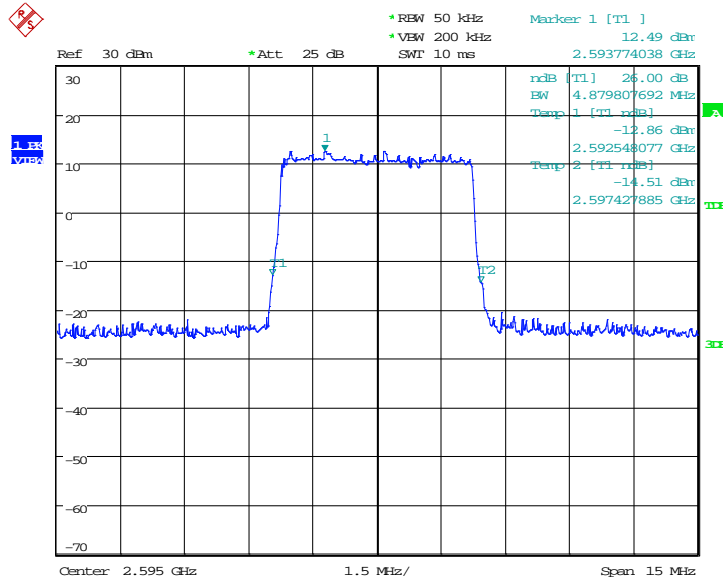


Date: 17.MAY.2018 13:22:23

**LTE band 38, 5MHz (-26dBc)**

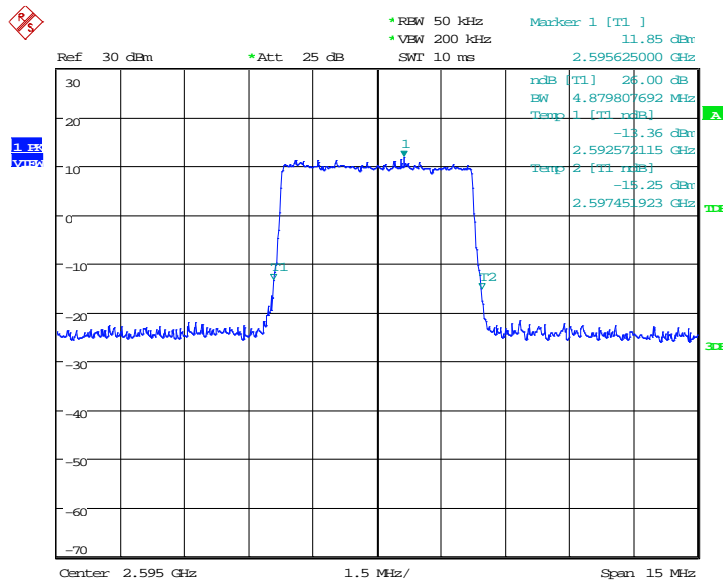
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
2595.0	QPSK	16QAM
	4879.81	4879.81

**LTE band 38, 5MHz Bandwidth, QPSK (-26dBc BW)**



Date: 17.MAY.2018 06:32:38

**LTE band 38, 5MHz Bandwidth,16QAM (-26dBc BW)**

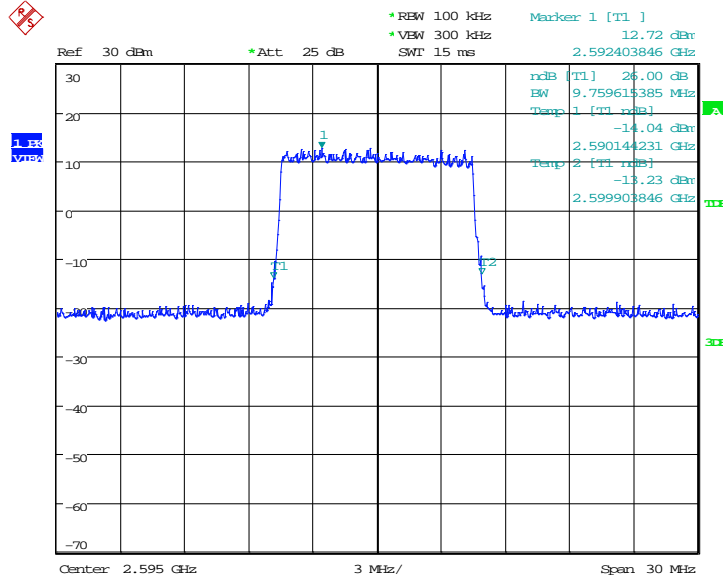


Date: 17.MAY.2018 06:32:54

**LTE band 38, 10MHz (-26dBc)**

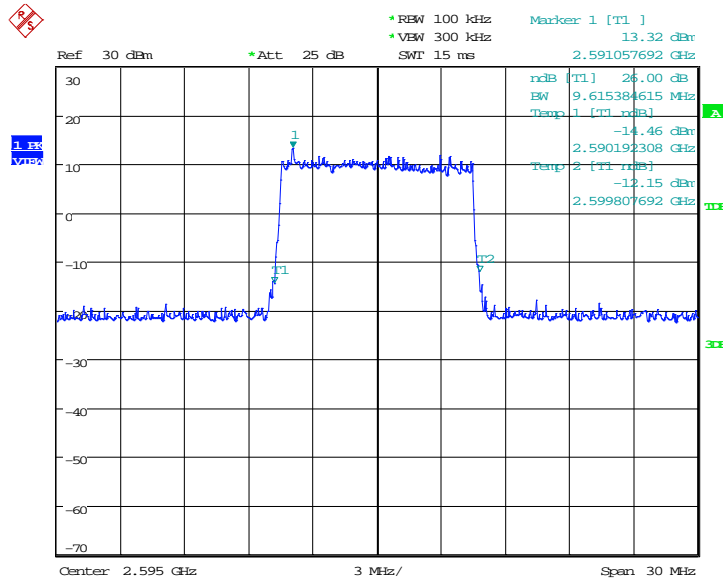
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
2595.0	QPSK	16QAM
	9759.62	9615.38

**LTE band 38, 10MHz Bandwidth, QPSK (-26dBc BW)**



Date: 17.MAY.2018 06:40:26

**LTE band 38, 10MHz Bandwidth, 16QAM (-26dBc BW)**

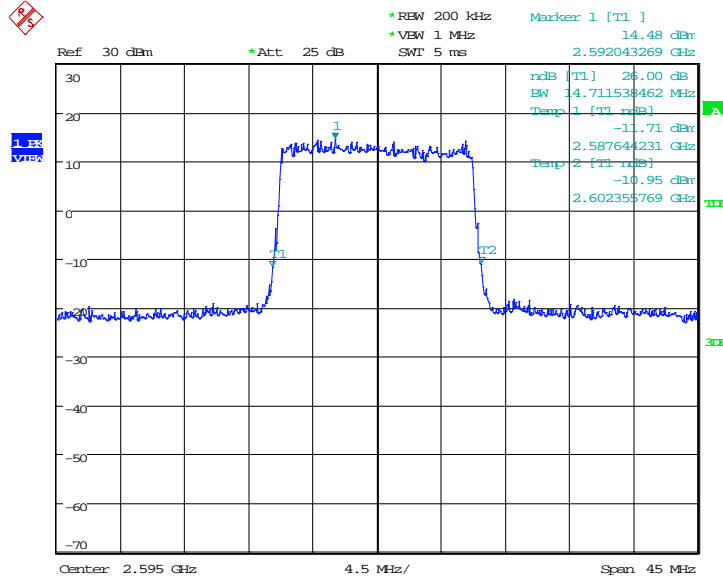


Date: 17.MAY.2018 06:40:42

**LTE band 38, 15MHz (-26dBc)**

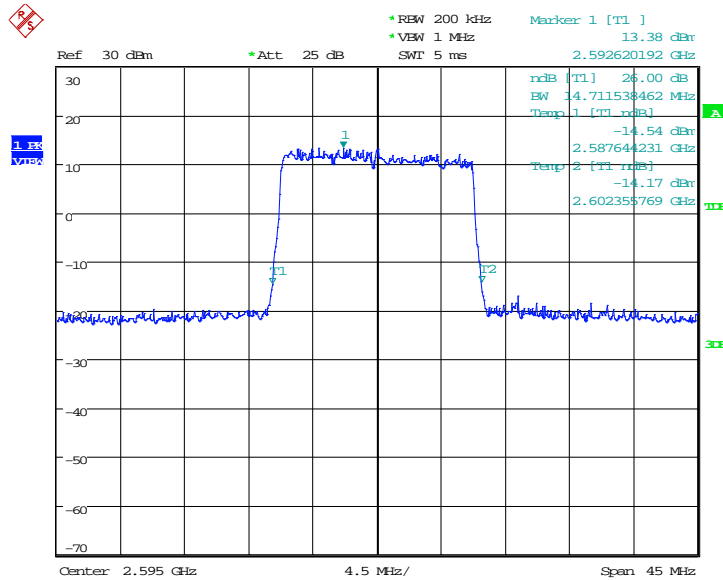
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2595.0	QPSK
	14711.54	14711.54

**LTE band 38, 15MHz Bandwidth, QPSK (-26dBc BW)**



Date: 17.MAY.2018 06:48:49

**LTE band 38, 15MHz Bandwidth, 16QAM (-26dBc BW)**

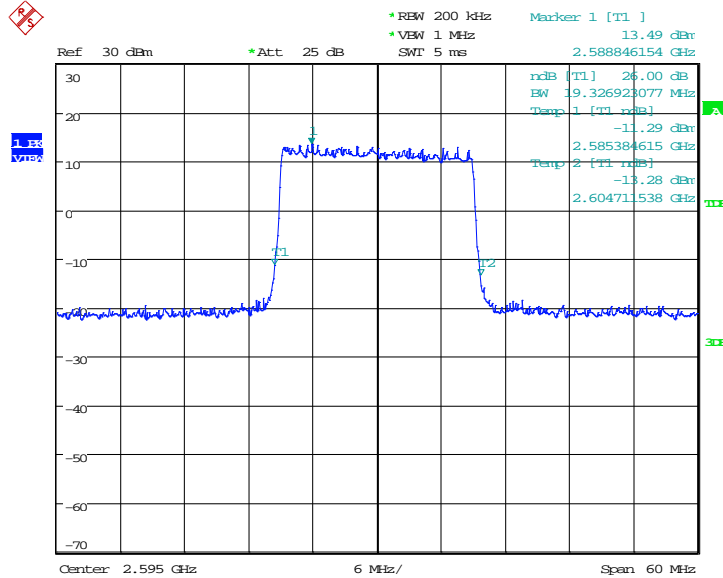


Date: 17.MAY.2018 06:49:04

**LTE band 38, 20MHz (-26dBc)**

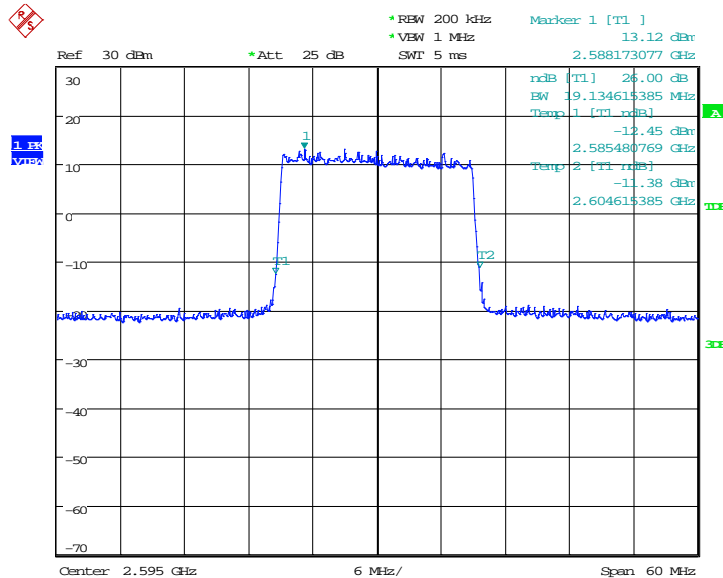
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	2595.0	QPSK
19326.92		19134.62

**LTE band 38, 20MHz Bandwidth, QPSK (-26dBc BW)**



Date: 17.MAY.2018 06:57:17

**LTE band 38, 20MHz Bandwidth, 16QAM (-26dBc BW)**

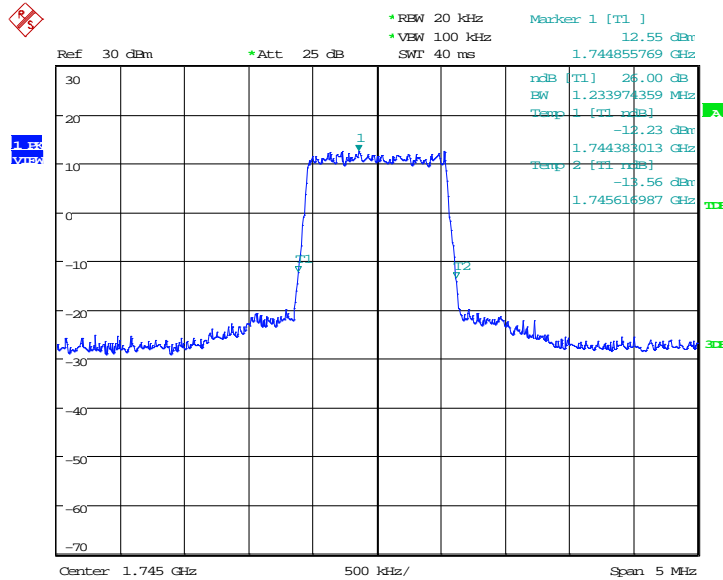


Date: 17.MAY.2018 06:57:33

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

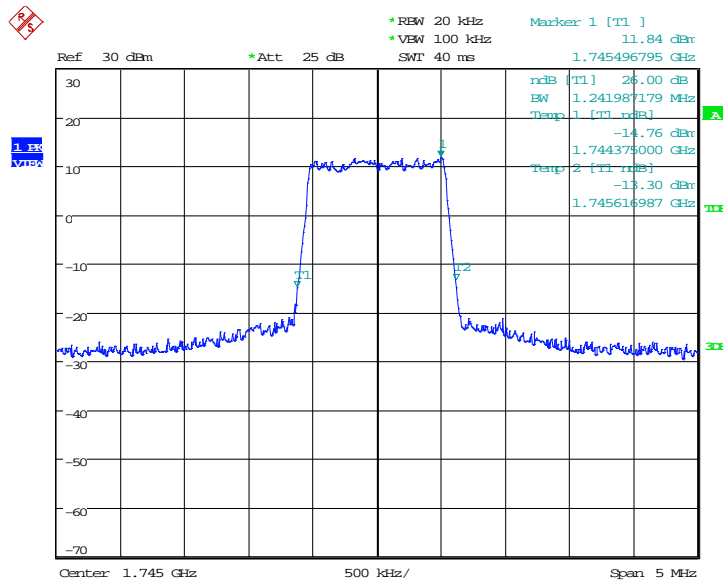
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1745.0	QPSK	16QAM
	1233.97	1241.99

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



Date: 17.MAY.2018 13:31:09

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

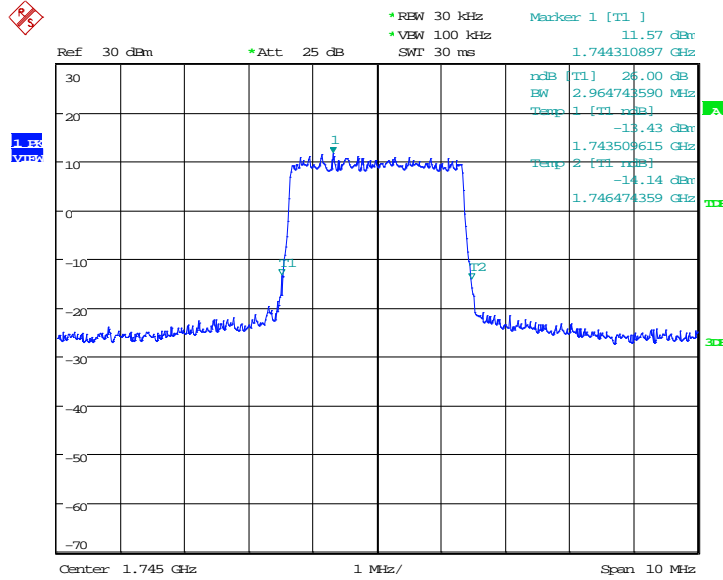


Date: 17.MAY.2018 13:31:25

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

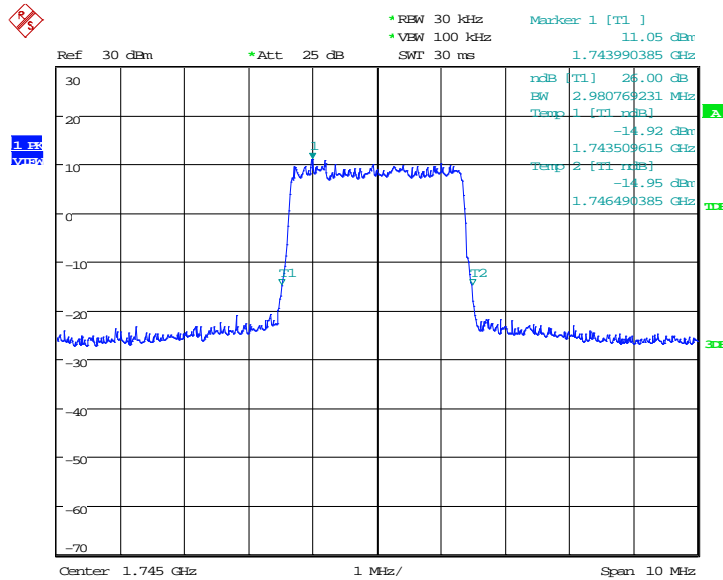
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1745.0	QPSK
	2964.74	2980.77

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



Date: 17.MAY.2018 13:40:02

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



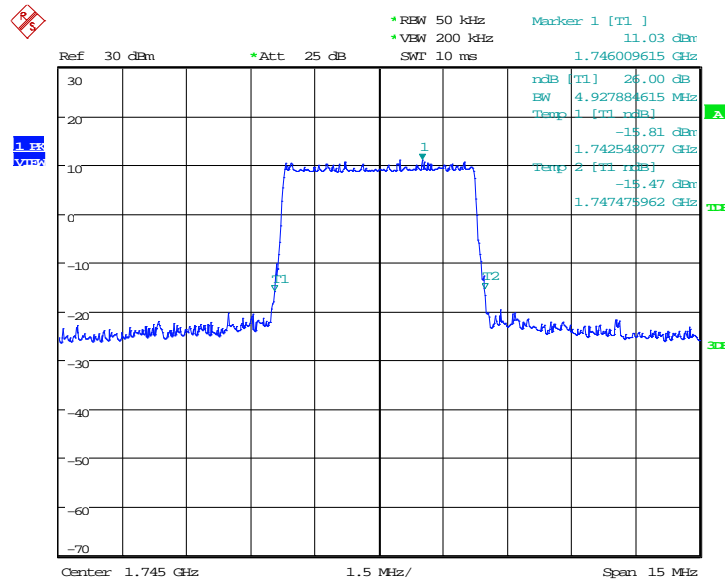
Date: 17.MAY.2018 13:40:18



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

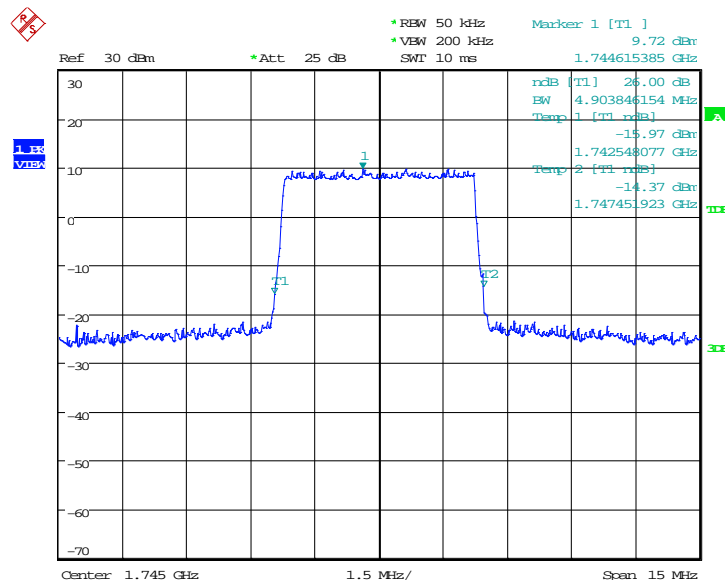
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
1745.0	QPSK	16QAM
	4927.88	4903.85

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



Date: 17.MAY.2018 13:48:58

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

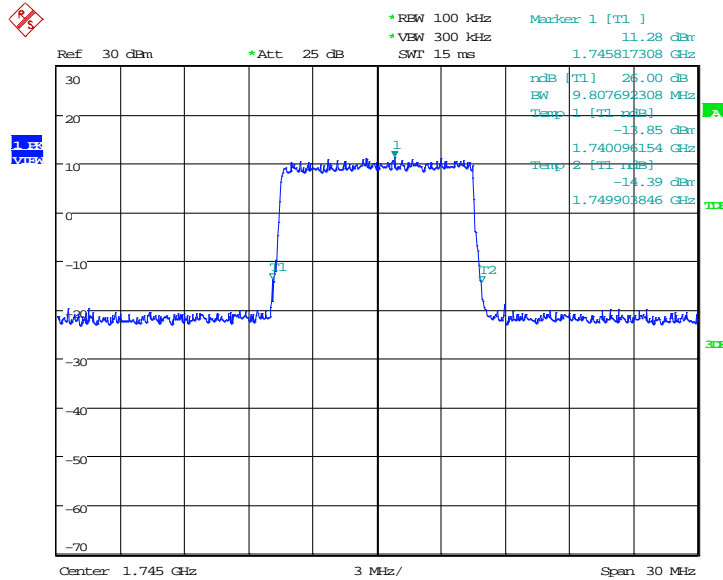


Date: 17.MAY.2018 13:49:14

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

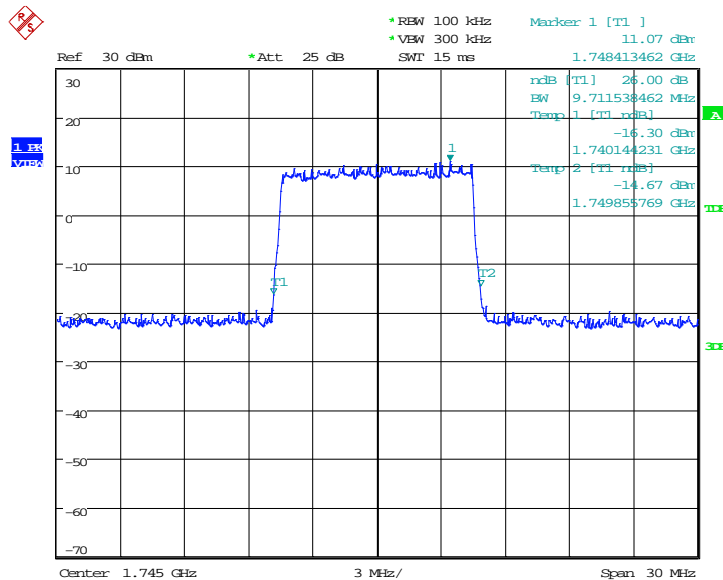
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1745.0	QPSK
	9807.69	9711.54

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



Date: 18.MAY.2018 05:35:05

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

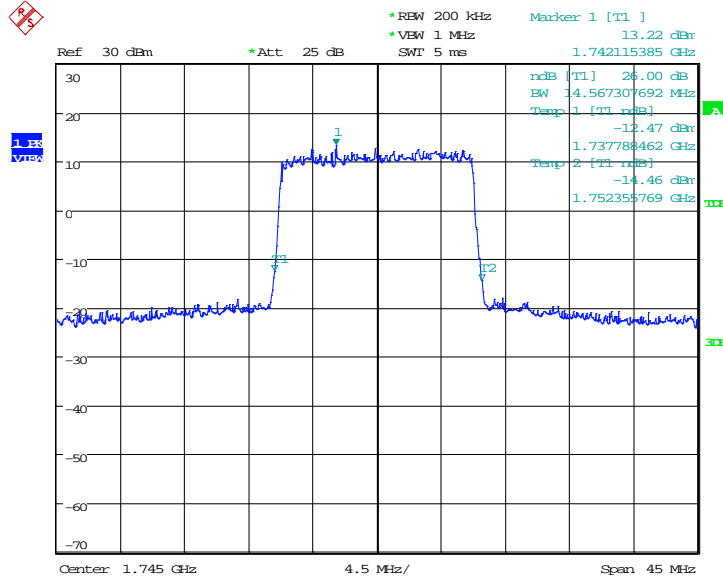


Date: 18.MAY.2018 05:35:21

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

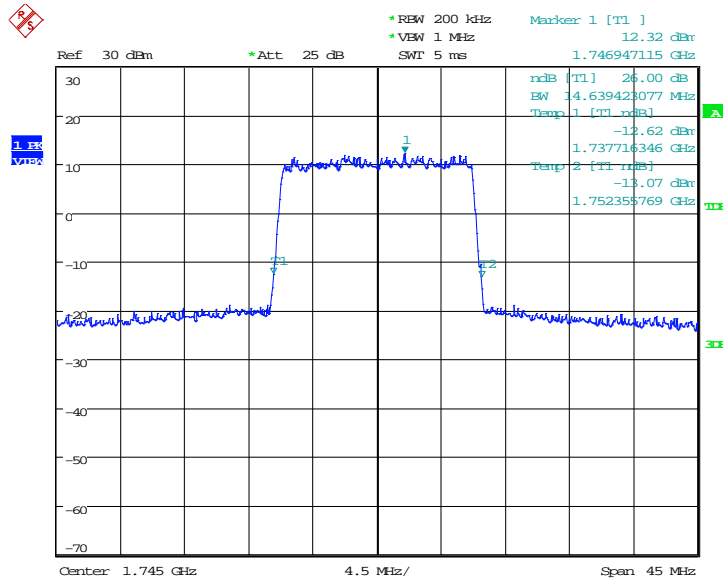
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1745.0	QPSK
14567.31		14639.42

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



Date: 18.MAY.2018 05:44:38

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

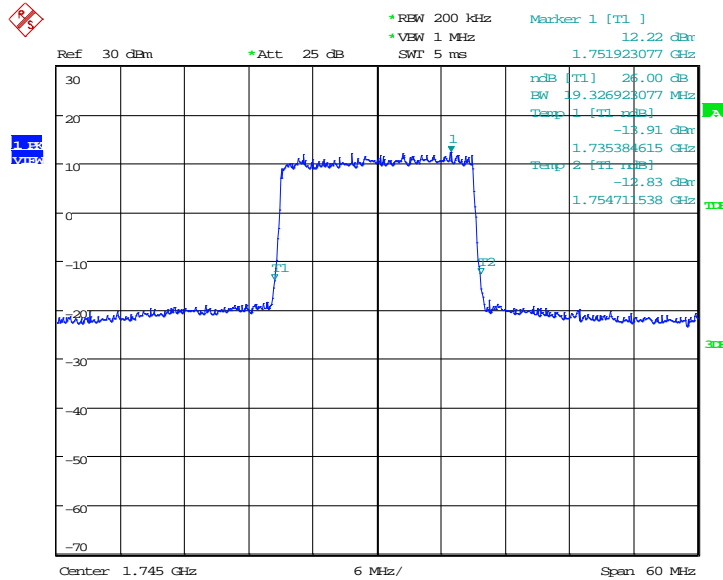


Date: 18.MAY.2018 05:44:54

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

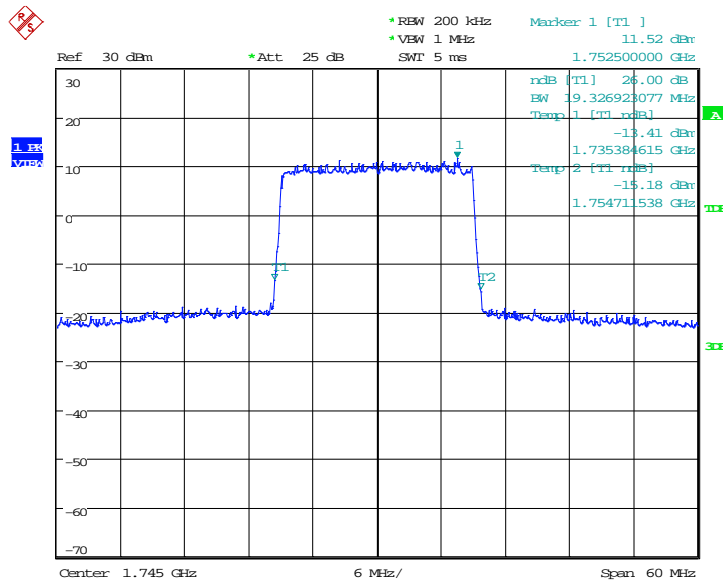
Frequency(MHz)	Occupied Bandwidth (-26dBc)( kHz)	
	1745.0	QPSK
	19326.92	19326.92

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



Date: 18.MAY.2018 05:56:42

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



Date: 18.MAY.2018 05:56:58

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

## A.6 BAND EDGE COMPLIANCE

### Reference

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

### A.6.1 Measurement limit

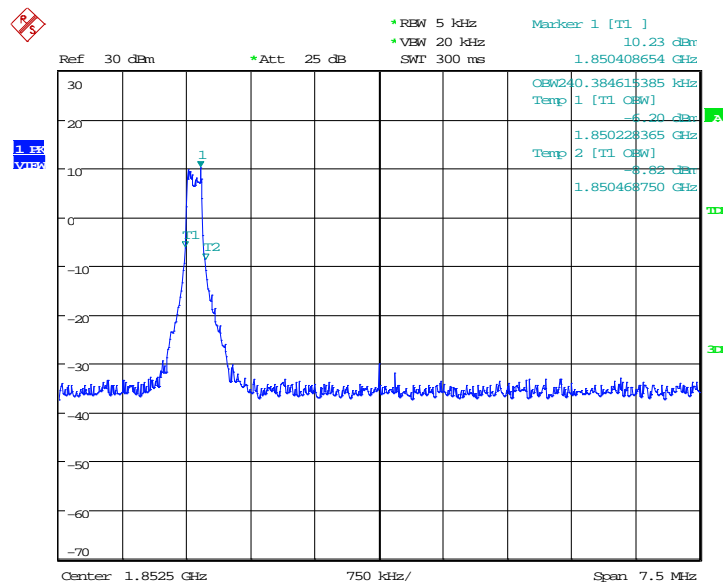
On any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least  $43+10\log(P)$  dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm. According to KDB 971168 D01 6.0, 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

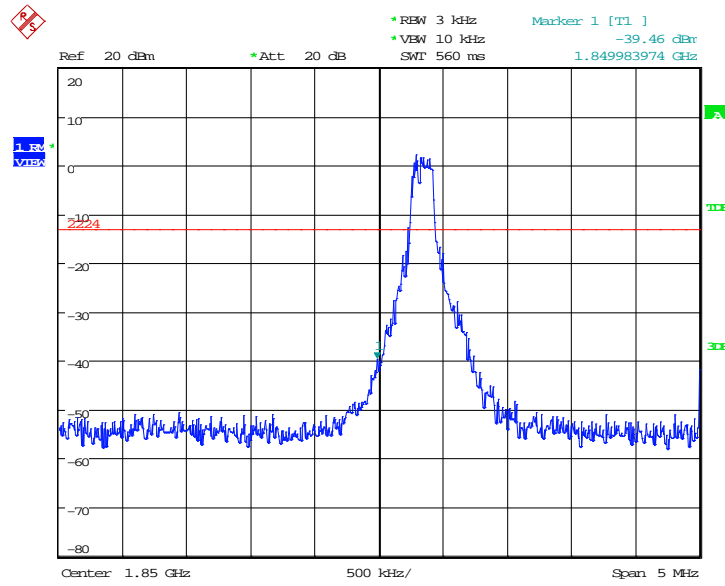
LTE band 2

OBW: 1RB-low\_offset



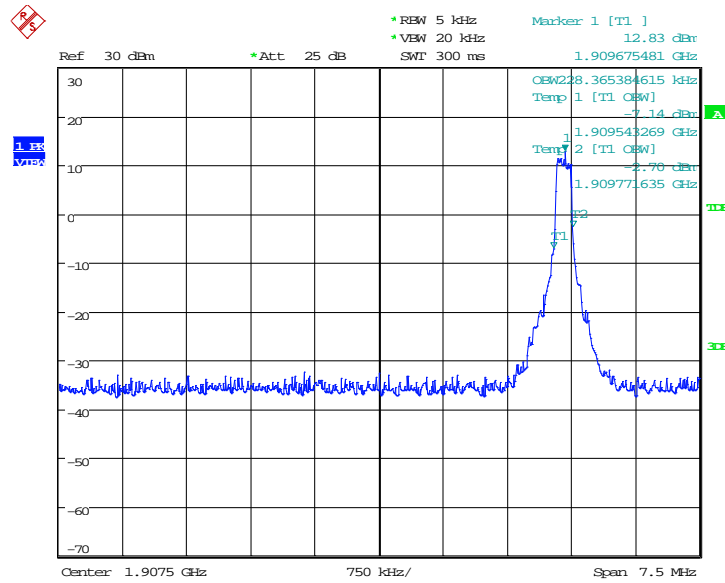
Date: 18.MAY.2018 11:36:10

### LOW BAND EDGE BLOCK-1RB-low\_offset



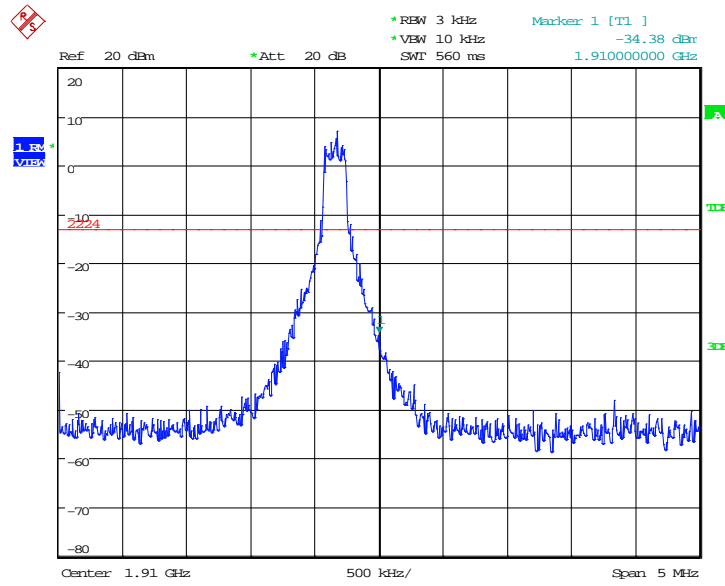
Date: 18.MAY.2018 11:36:54

### OBW: 1RB-high\_offset



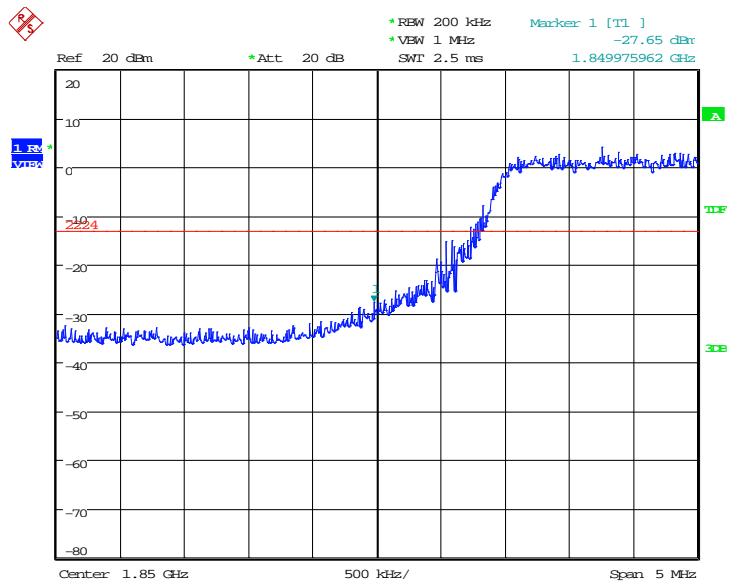
Date: 18.MAY.2018 11:58:07

### HIGH BAND EDGE BLOCK-1RB-high\_offset



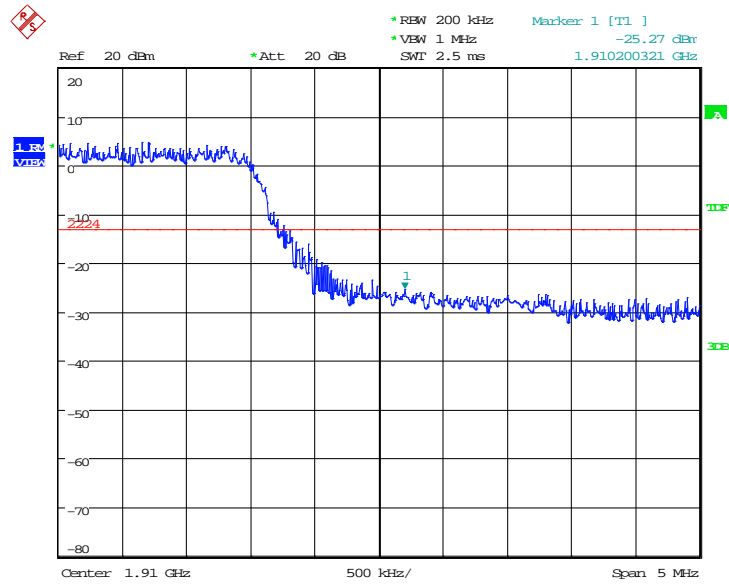
Date: 18.MAY.2018 11:58:51

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



Date: 18.MAY.2018 08:36:07

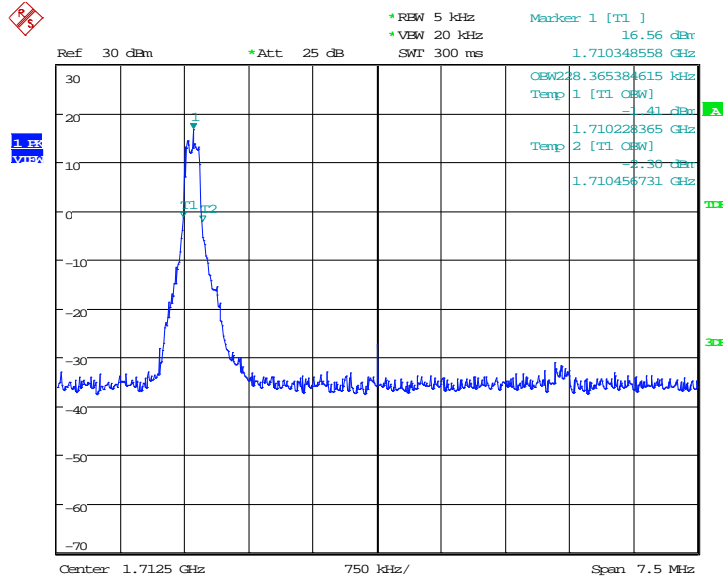
**HIGH BAND EDGE BLOCK-20MHz-100%RB**



Date: 18.MAY.2018 10:38:47

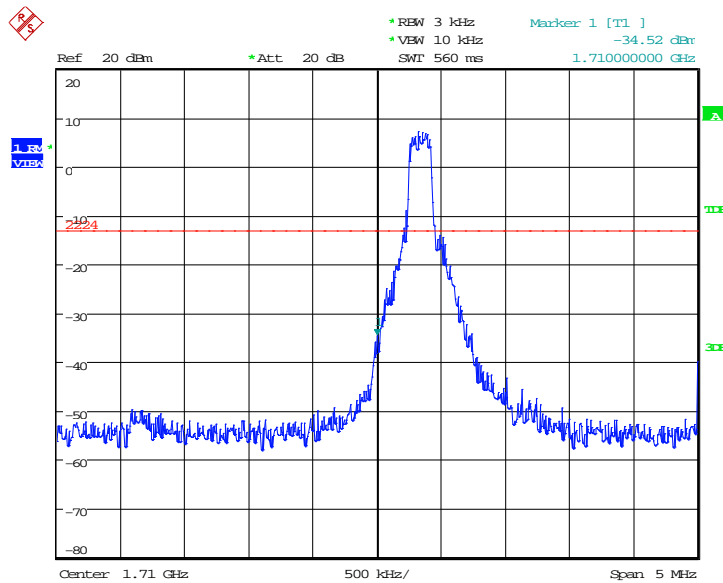


LTE band 4  
OBW: 1RB-low\_offset



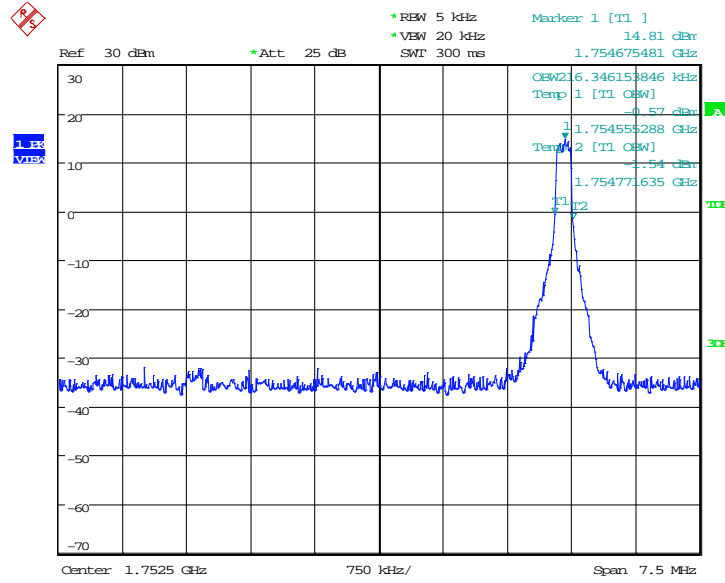
Date: 18.MAY.2018 11:37:52

LOW BAND EDGE BLOCK-1RB-low\_offset



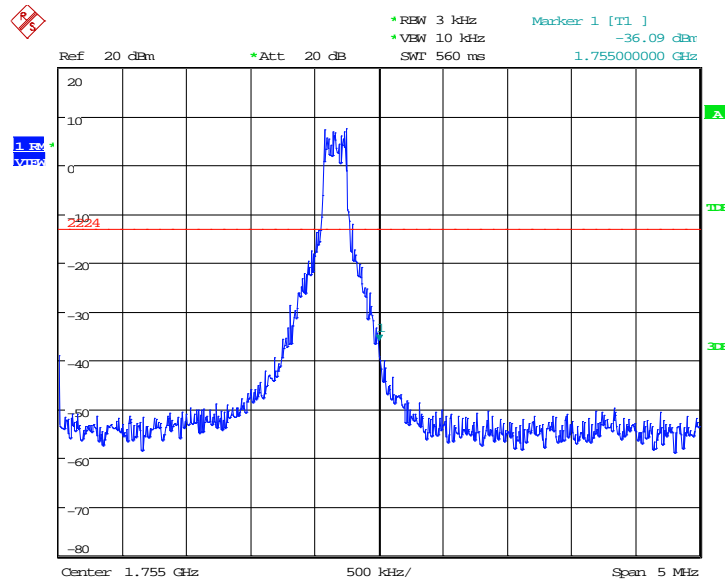
Date: 18.MAY.2018 11:38:36

**OBW: 1RB-high\_offset**



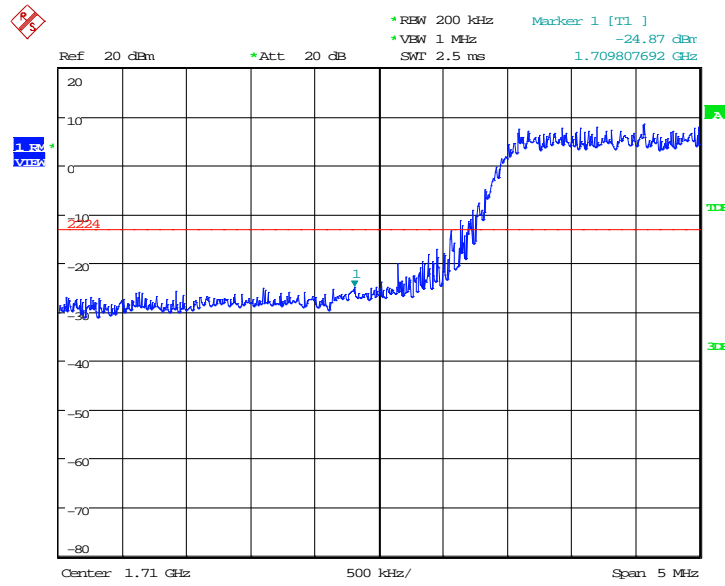
Date: 18.MAY.2018 11:59:47

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



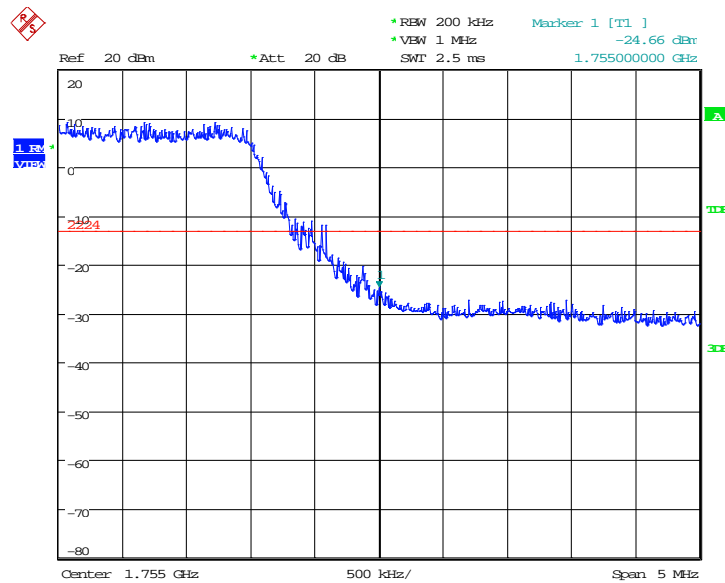
Date: 18.MAY.2018 12:00:32

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



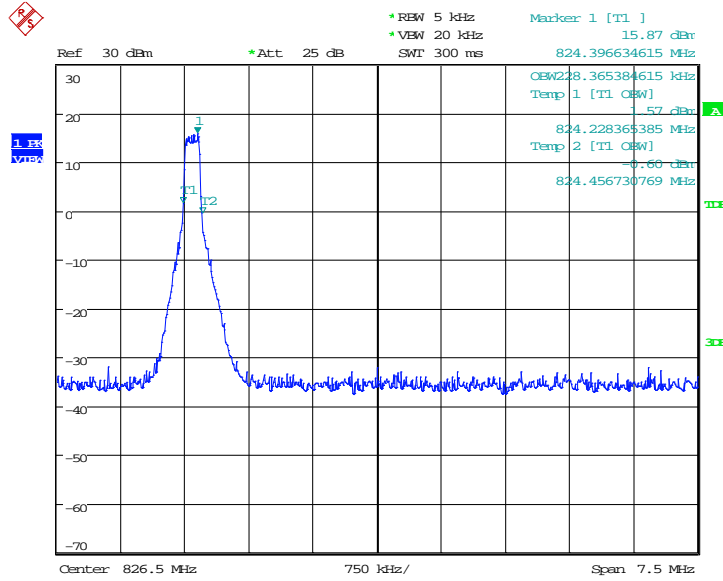
Date: 18.MAY.2018 10:25:15

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



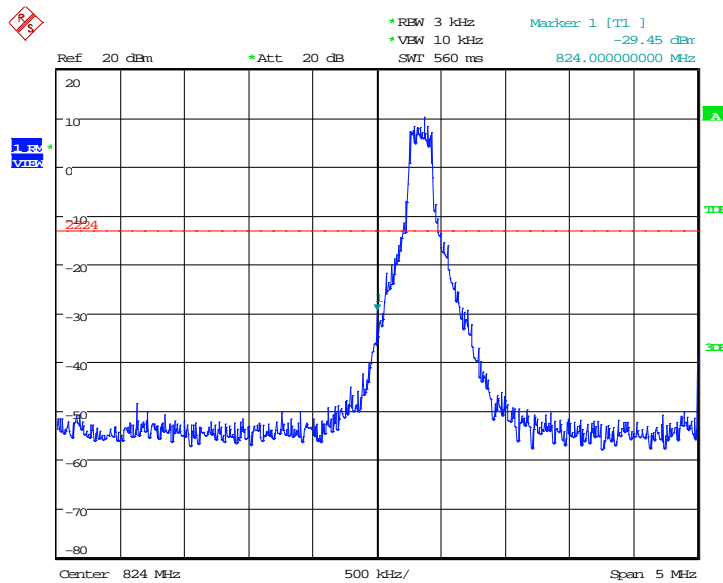
Date: 18.MAY.2018 08:38:28

LTE band 5  
OBW: 1RB-low\_offset



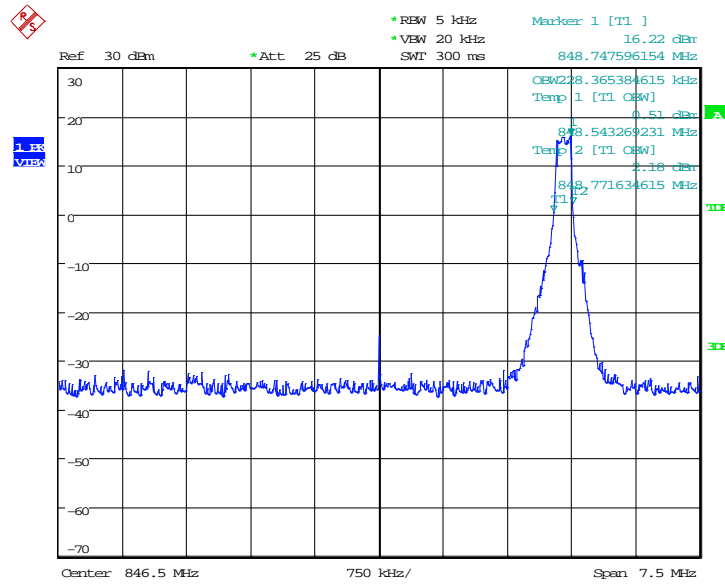
Date: 18.MAY.2018 11:34:27

LOW BAND EDGE BLOCK-1RB-low\_offset



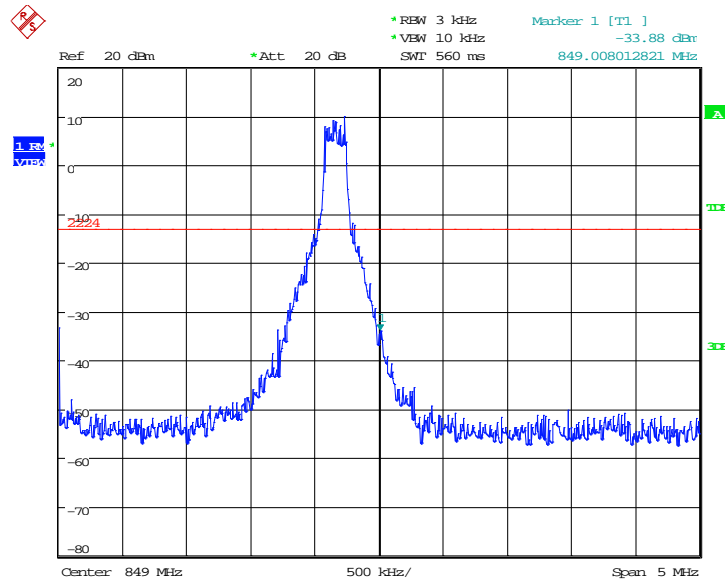
Date: 18.MAY.2018 11:35:11

**OBW: 1RB-high\_offset**



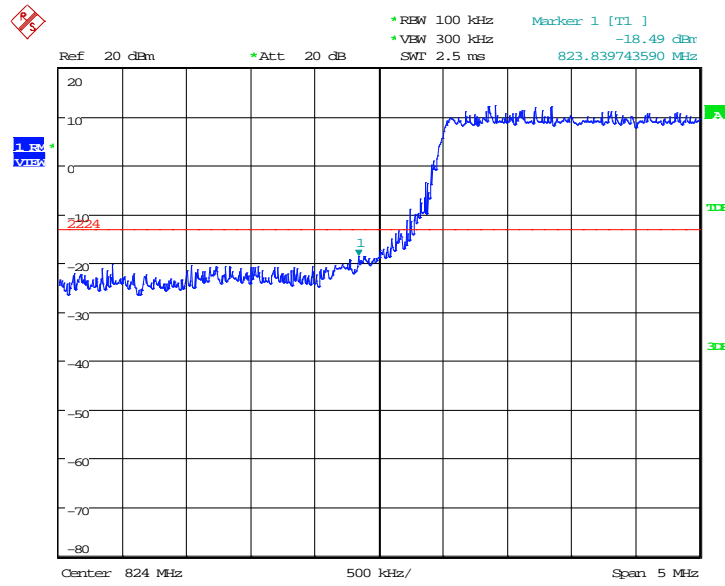
Date: 18.MAY.2018 11:56:27

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



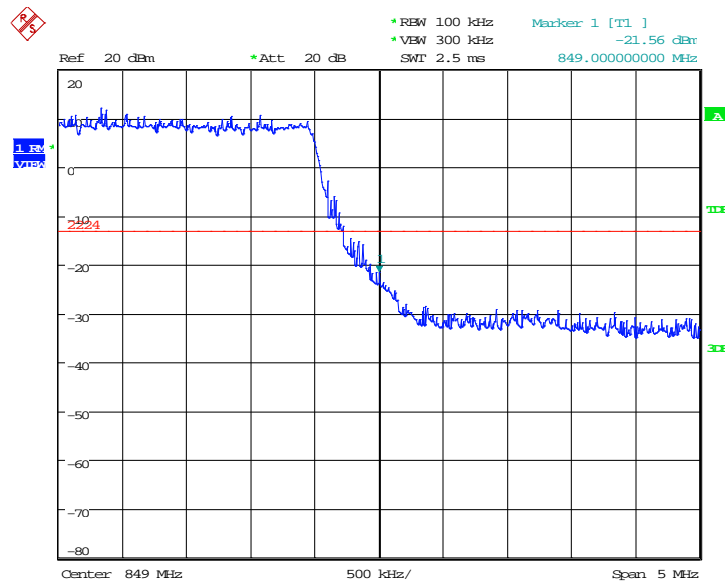
Date: 18.MAY.2018 11:57:11

### LOW BAND EDGE BLOCK-10MHz-100%RB



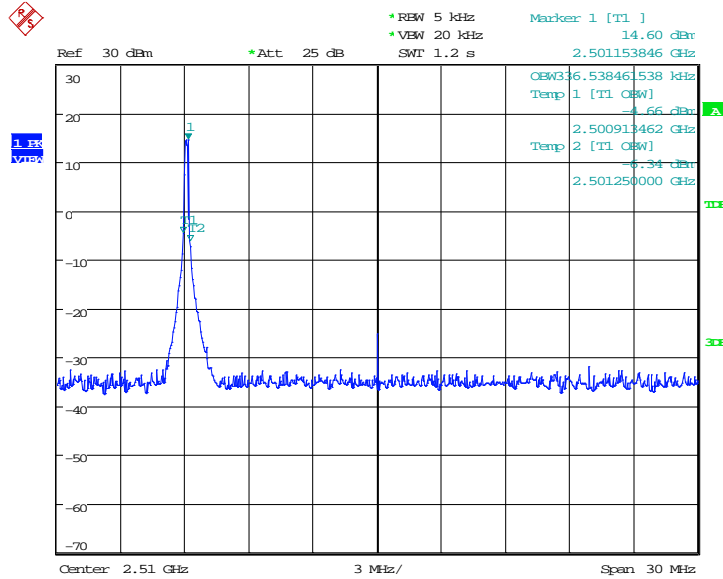
Date: 18.MAY.2018 10:47:32

### HIGH BAND EDGE BLOCK-10MHz-100%RB



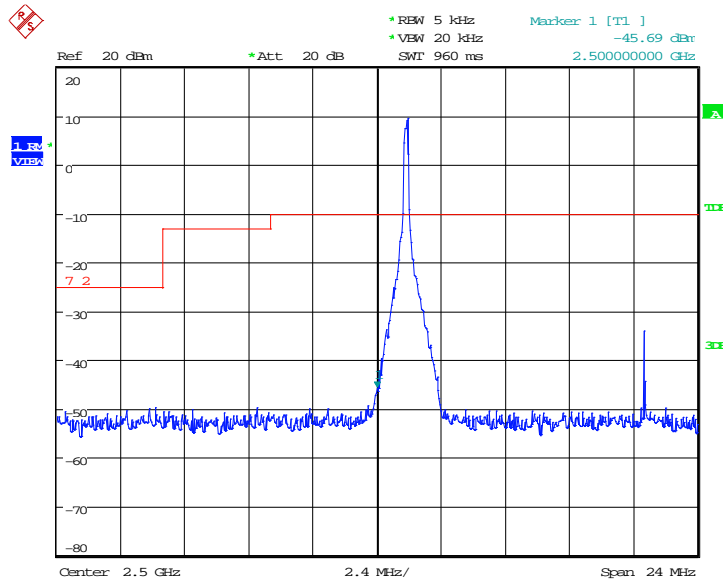
Date: 18.MAY.2018 10:48:18

LTE band 7  
OBW: 1RB-low\_offset



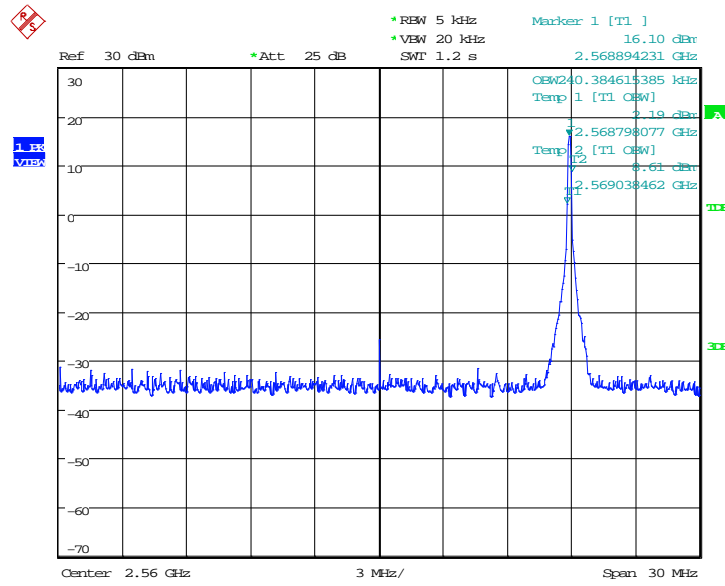
Date: 29.MAY.2018 13:30:01

LOW BAND EDGE BLOCK-1RB-low\_offset



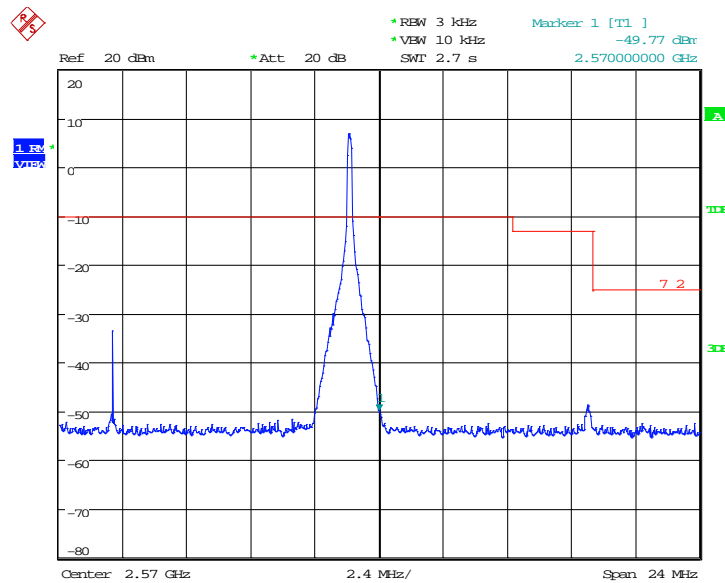
Date: 29.MAY.2018 13:30:46

**OBW: 1RB-high\_offset**



Date: 29.MAY.2018 13:32:24

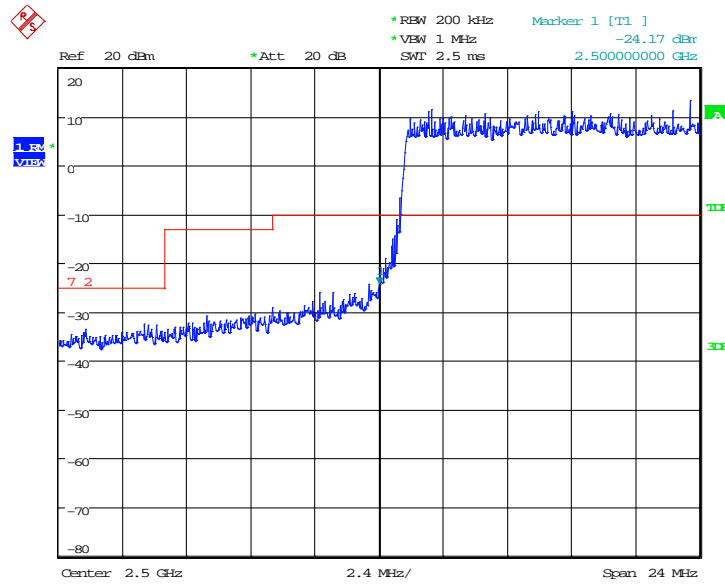
**HIGH BAND EDGE BLOCK-1RB-high\_offset**



Date: 29.MAY.2018 13:39:20

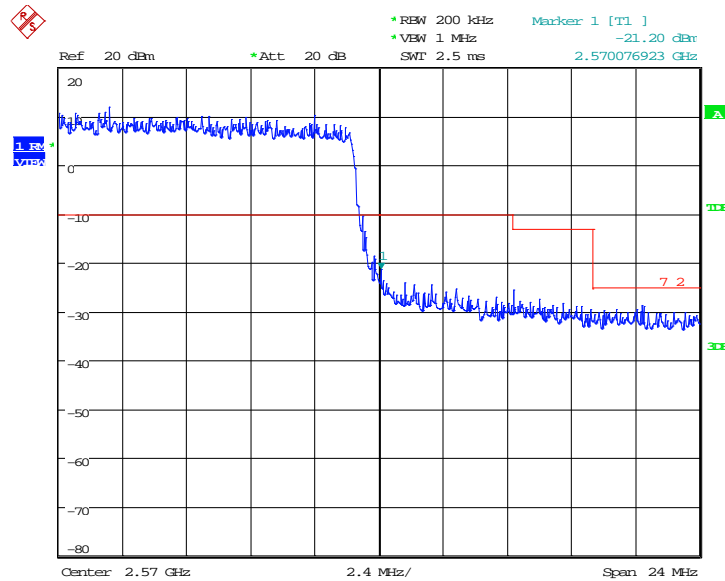


### LOW BAND EDGE BLOCK-20MHz-100%RB



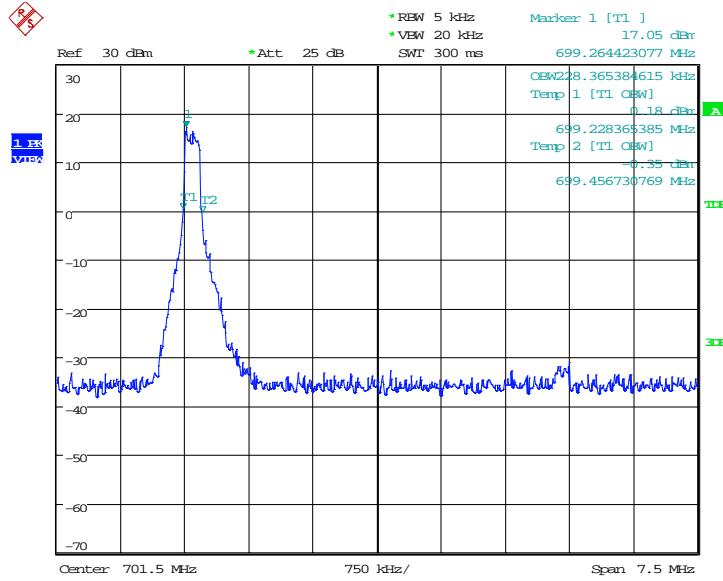
Date: 29.MAY.2018 13:34:52

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



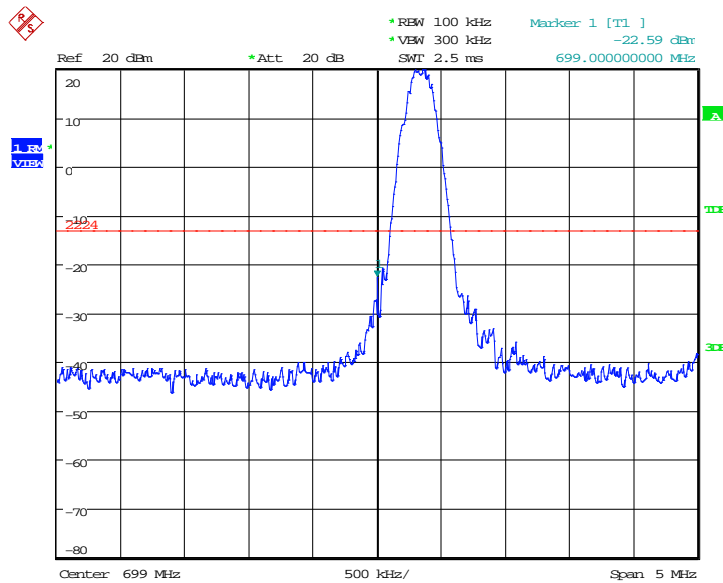
Date: 29.MAY.2018 13:35:38

LTE band 12  
OBW: 1RB-low\_offset



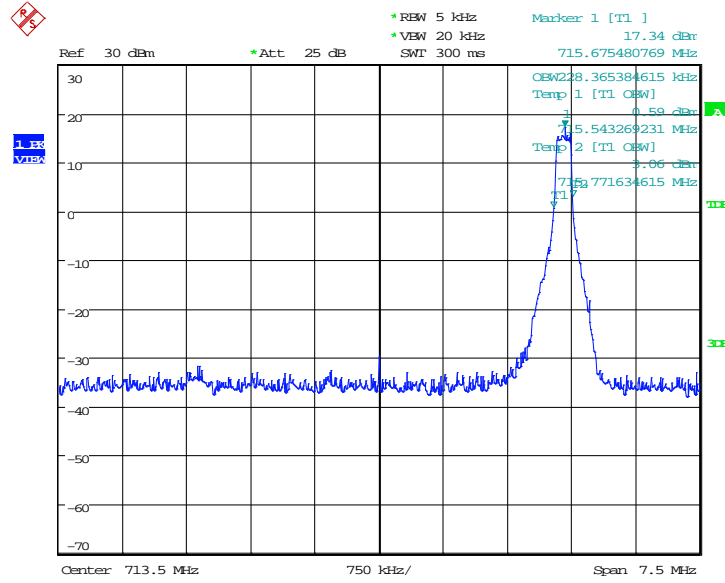
Date: 18.MAY.2018 11:39:35

LOW BAND EDGE BLOCK-1RB-low\_offset



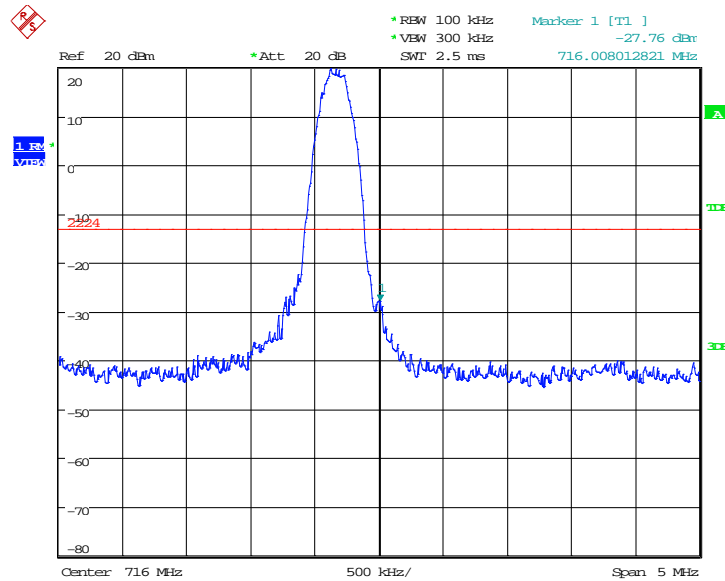
Date: 18.MAY.2018 11:40:19

**OBW: 1RB-high\_offset**



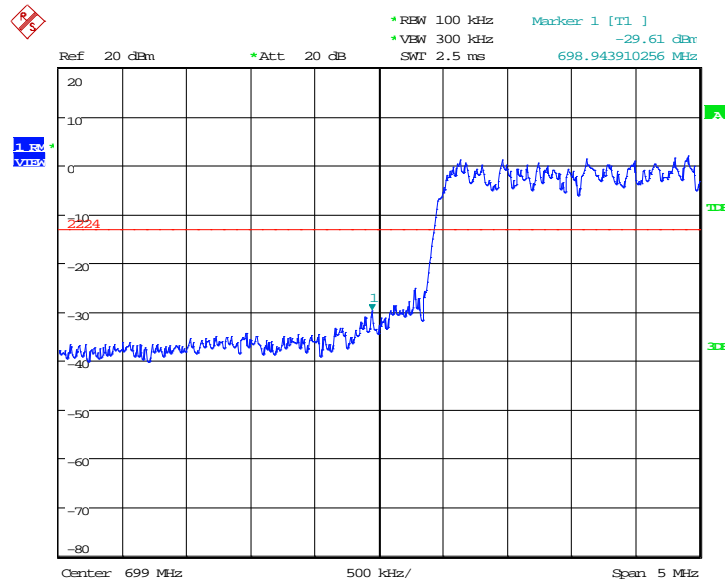
Date: 18.MAY.2018 12:01:30

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



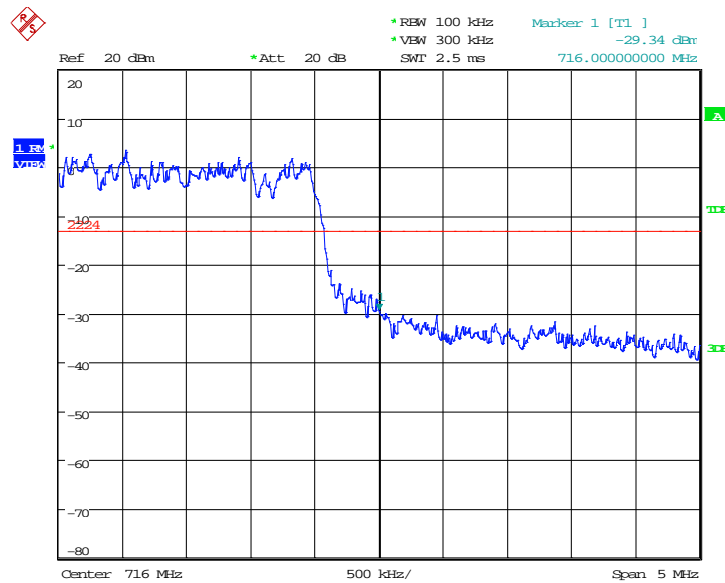
Date: 18.MAY.2018 12:02:14

### LOW BAND EDGE BLOCK-10MHz-100%RB



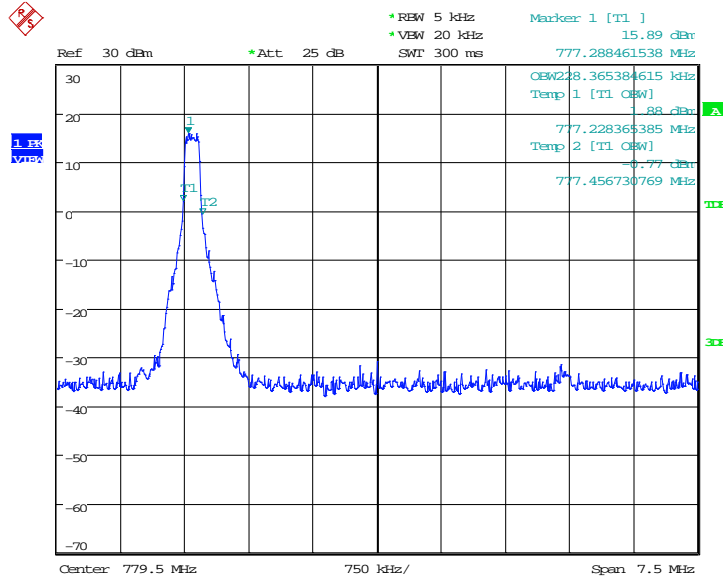
Date: 18.MAY.2018 10:49:38

### HIGH BAND EDGE BLOCK-10MHz-100%RB



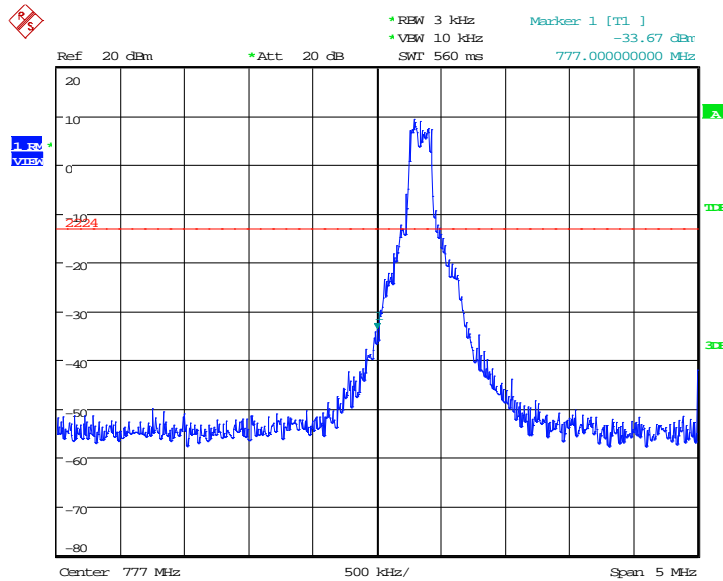
Date: 18.MAY.2018 10:50:54

LTE band 13  
OBW: 1RB-low\_offset



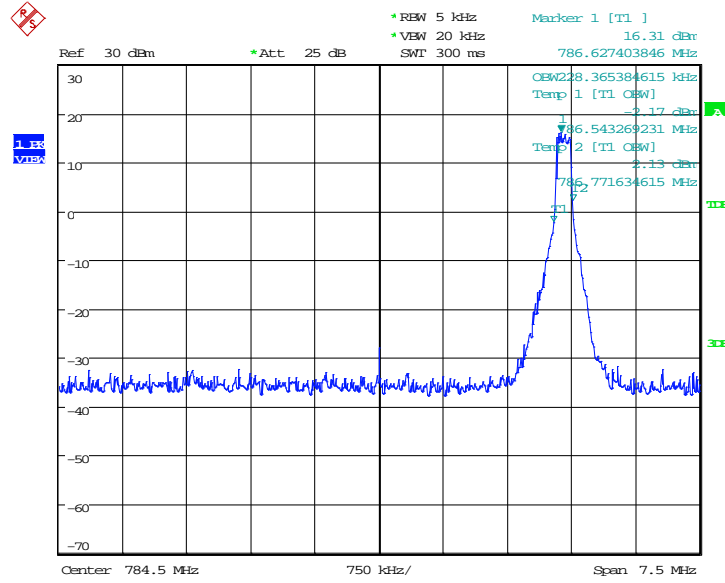
Date: 18.MAY.2018 11:31:06

LOW BAND EDGE BLOCK-1RB-low\_offset



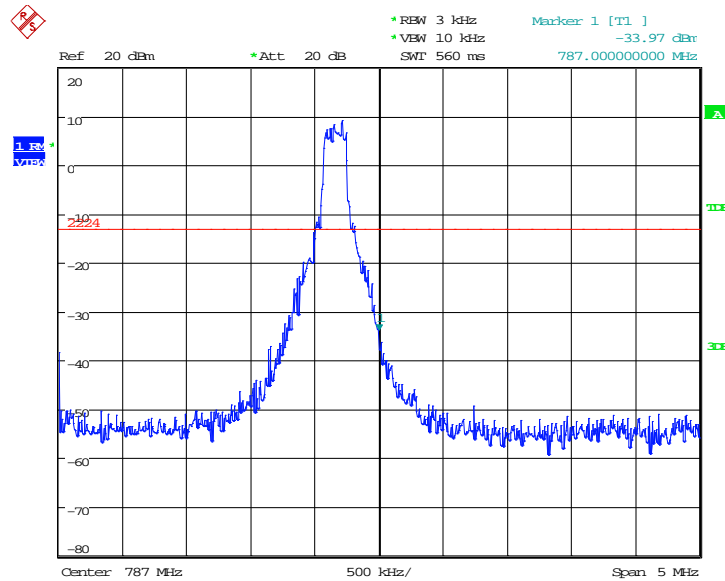
Date: 18.MAY.2018 11:31:50

**OBW: 1RB-high\_offset**



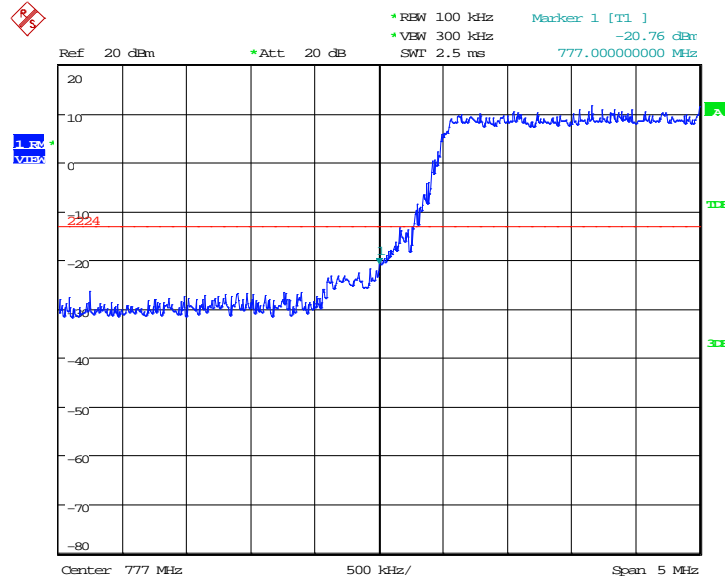
Date: 18.MAY.2018 11:53:04

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



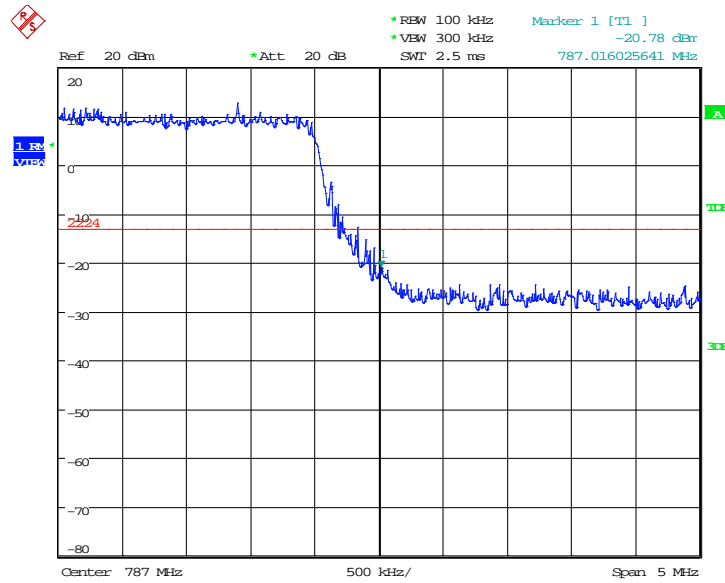
Date: 18.MAY.2018 11:53:48

### LOW BAND EDGE BLOCK-5MHz-100%RB



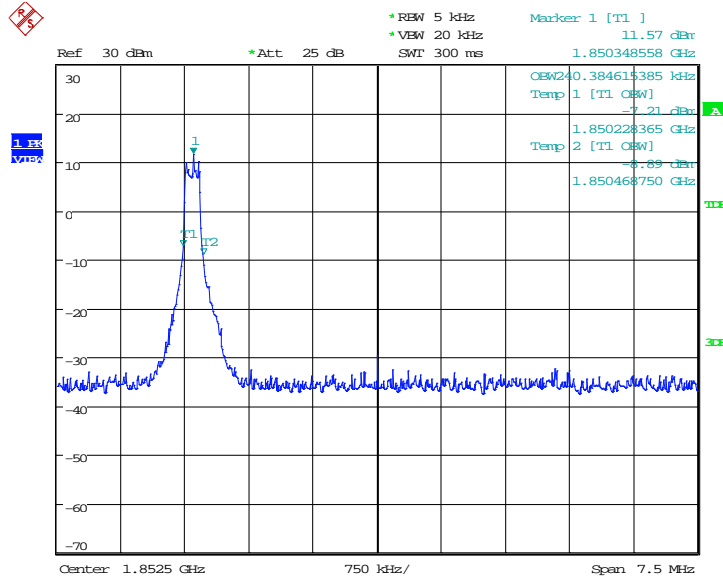
Date: 18.MAY.2018 10:45:58

### HIGH BAND EDGE BLOCK-5MHz-100%RB



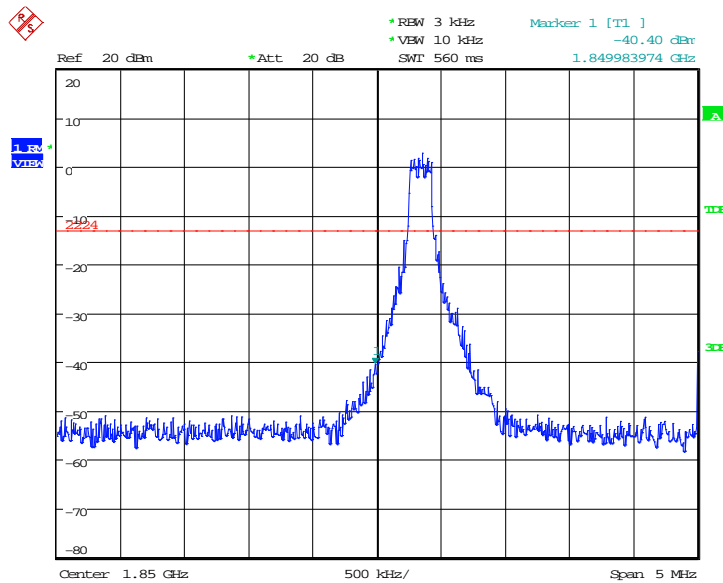
Date: 18.MAY.2018 10:46:44

LTE band 25  
OBW: 1RB-low\_offset



Date: 18.MAY.2018 11:41:17

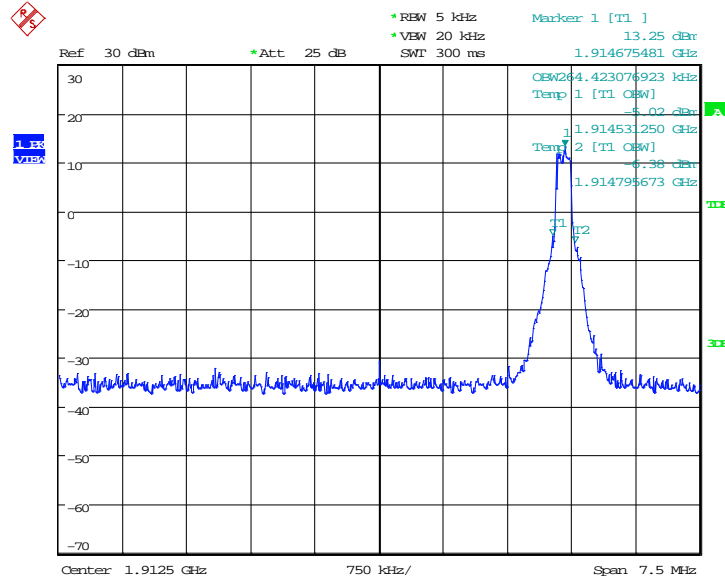
LOW BAND EDGE BLOCK-1RB-low\_offset



Date: 18.MAY.2018 11:42:01

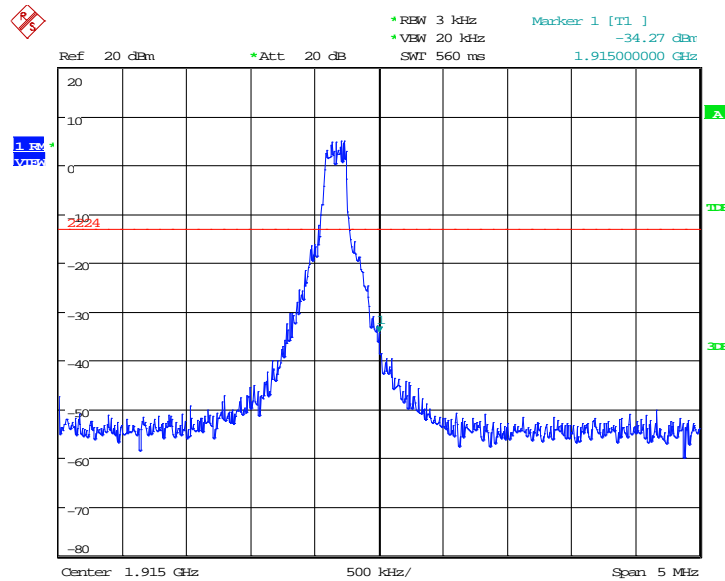


**OBW: 1RB-high\_offset**



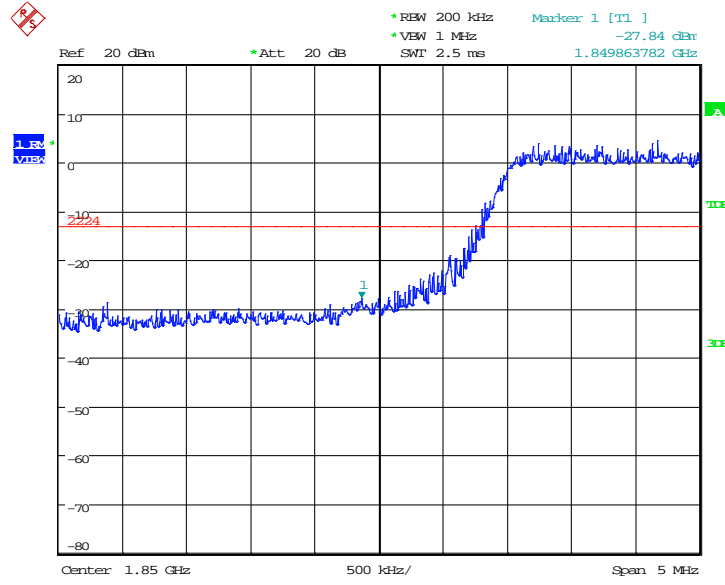
Date: 18.MAY.2018 12:03:10

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



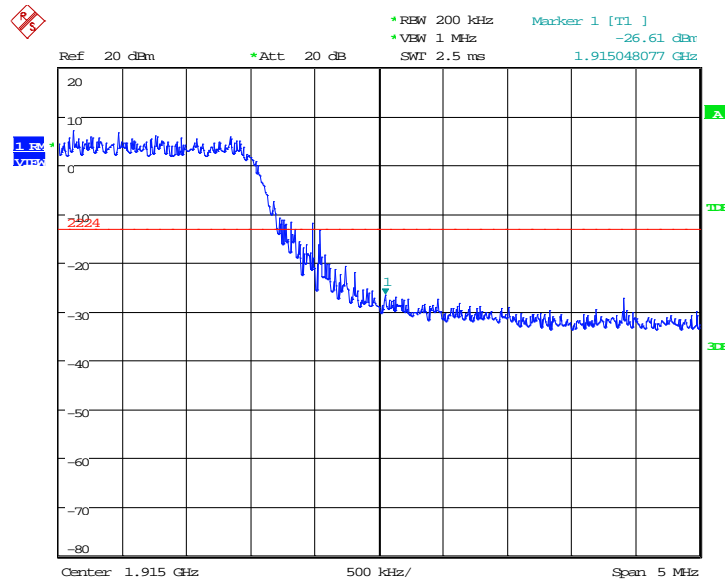
Date: 18.MAY.2018 12:03:54

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



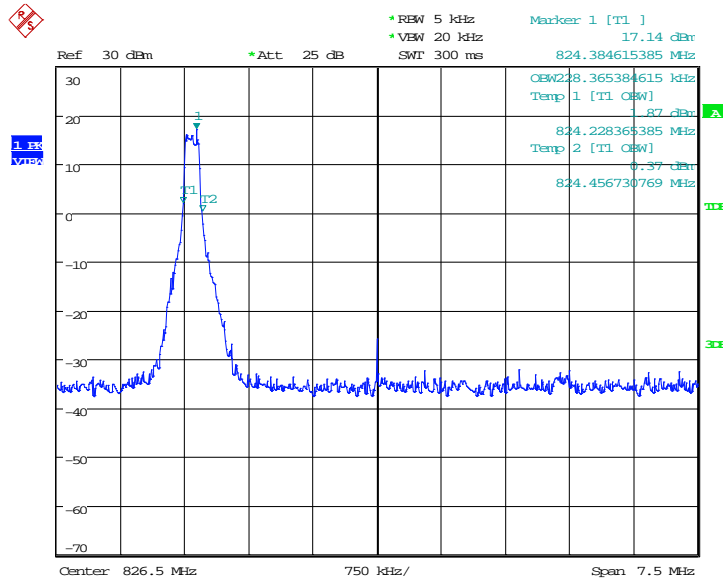
Date: 18.MAY.2018 08:39:15

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



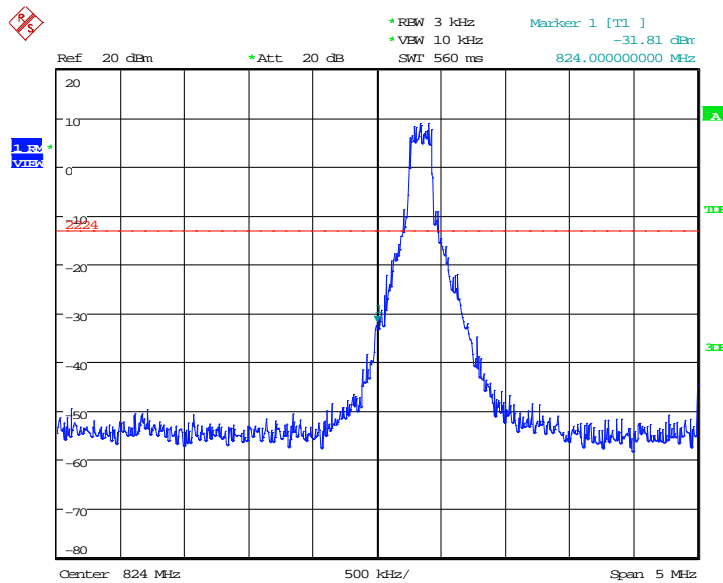
Date: 18.MAY.2018 08:40:32

LTE band 26(Part 22)  
OBW: 1RB-low\_offset



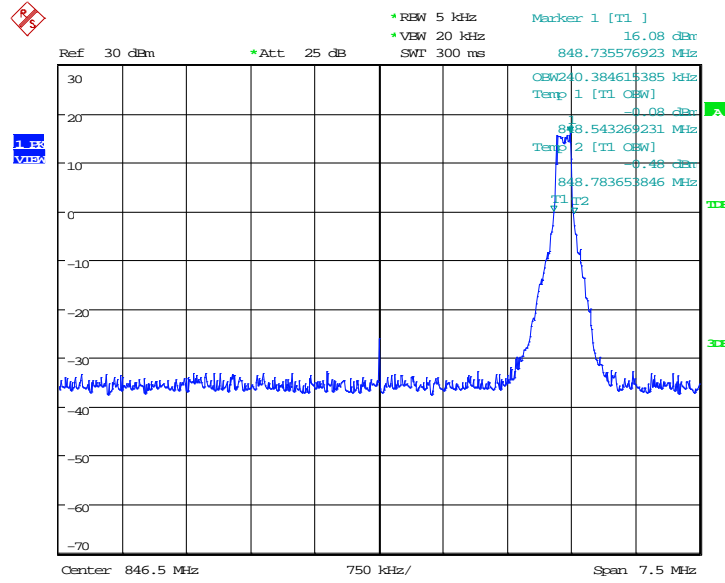
Date: 18.MAY.2018 11:43:00

LOW BAND EDGE BLOCK-1RB-low\_offset



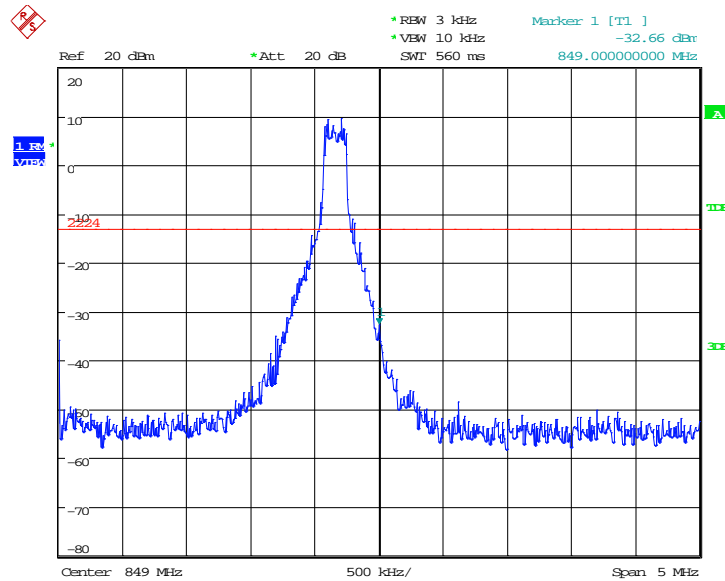
Date: 18.MAY.2018 11:43:44

**OBW: 1RB-high\_offset**



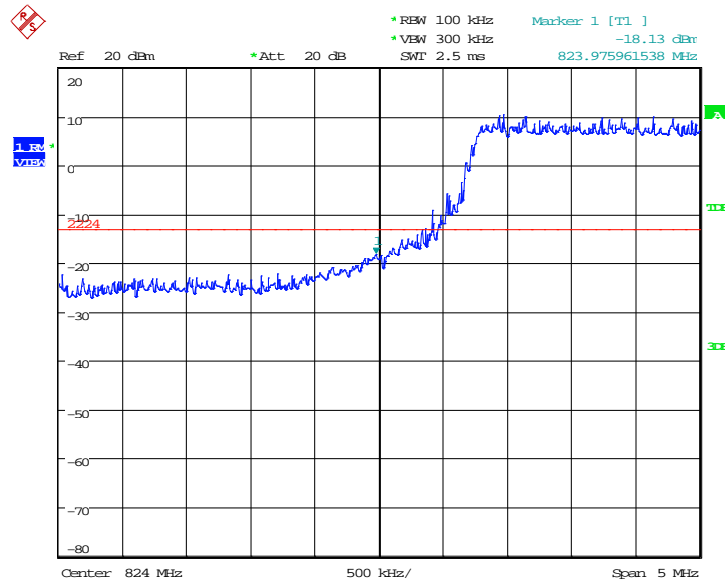
Date: 18.MAY.2018 12:04:53

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



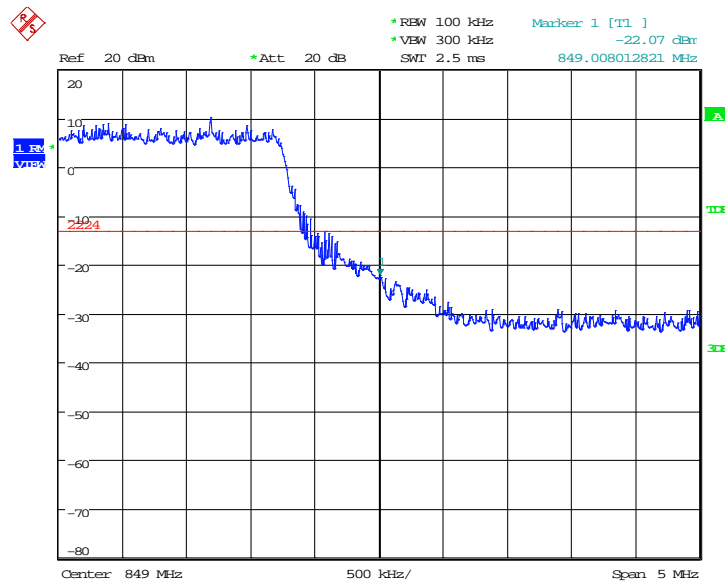
Date: 18.MAY.2018 12:05:37

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



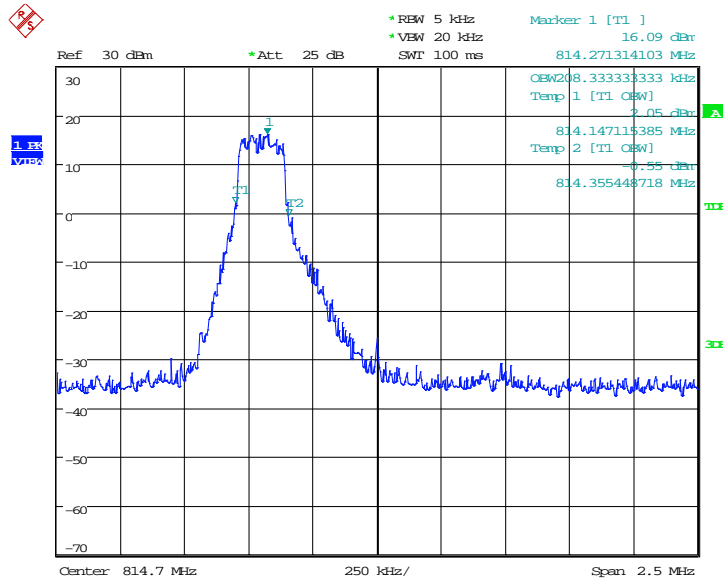
Date: 18.MAY.2018 11:06:35

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



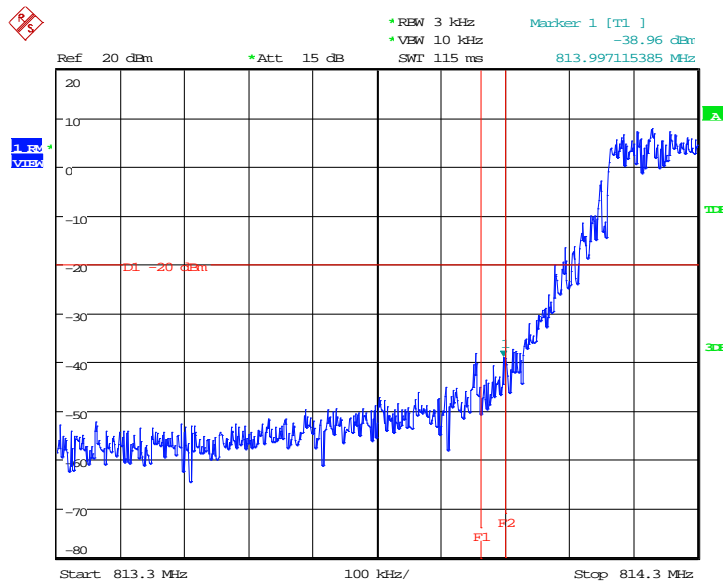
Date: 18.MAY.2018 11:04:58

LTE band 26(Part 90)  
OBW: 1RB-low\_offset



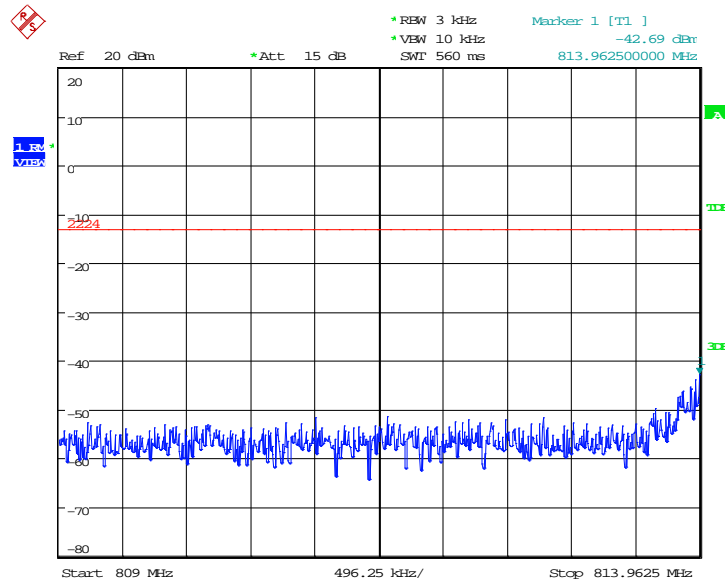
Date: 18.MAY.2018 13:12:10

LOW Emission Mask -1RB-low\_offset



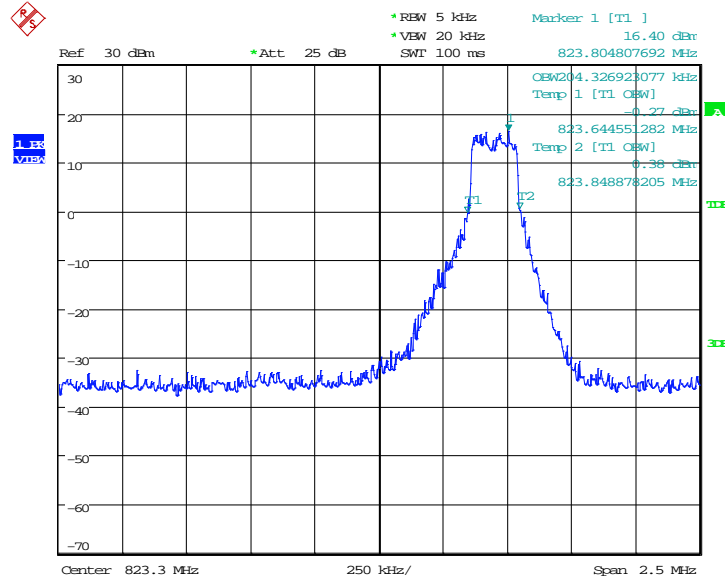
Date: 18.MAY.2018 13:12:53

### LOW BAND EDGE BLOCK-1RB-low\_offset



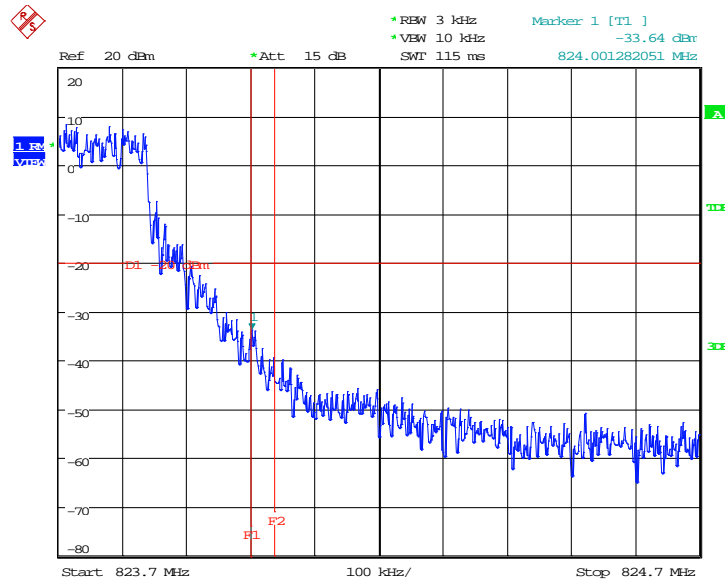
Date: 18.MAY.2018 13:12:56

**OBW: 1RB-high\_offset**



Date: 18.MAY.2018 13:09:12

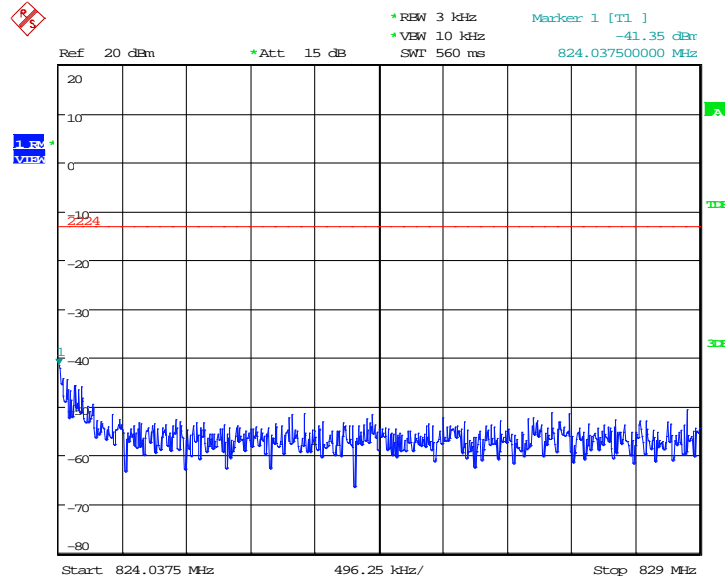
**HIGH Emission Mask -1RB-high\_offset**



Date: 18.MAY.2018 13:09:55

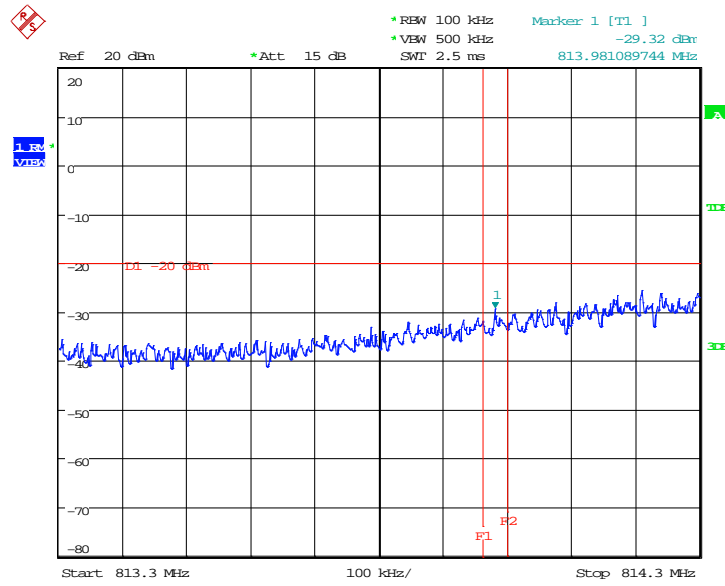


### HIGH BAND EDGE BLOCK-1RB-high\_offset



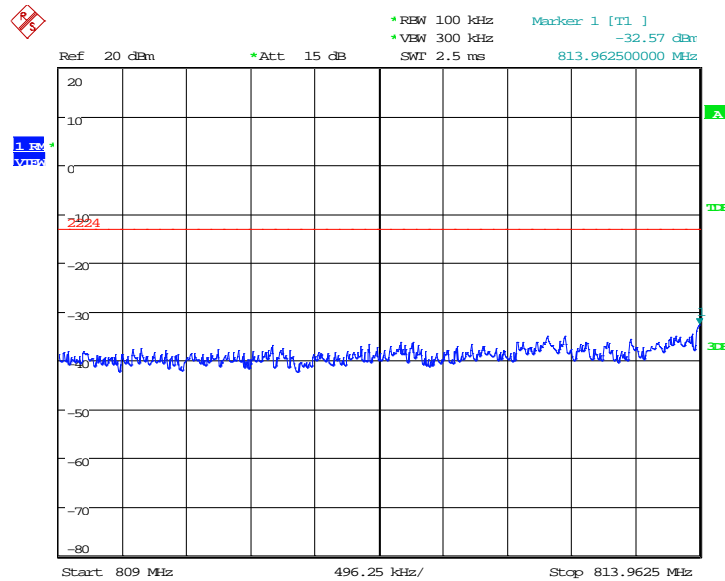
Date: 18.MAY.2018 13:09:58

### LOW Emission Mask -10MHz-100%RB



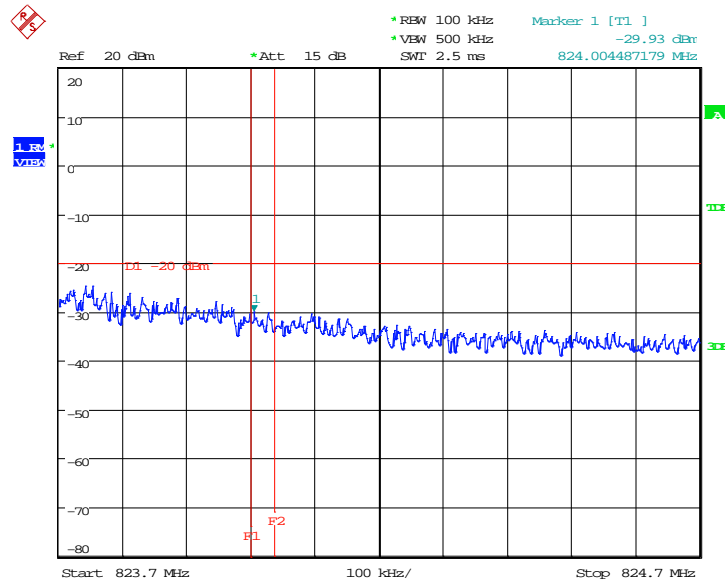
Date: 18.MAY.2018 12:57:54

### LOW BAND EDGE BLOCK-10MHz-100%RB



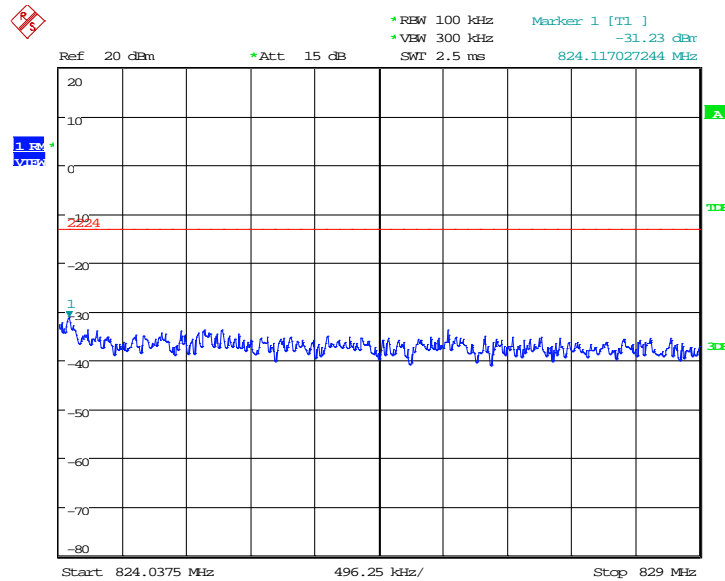
Date: 18.MAY.2018 12:57:57

### HIGH Emission Mask -10MHz-100%RB



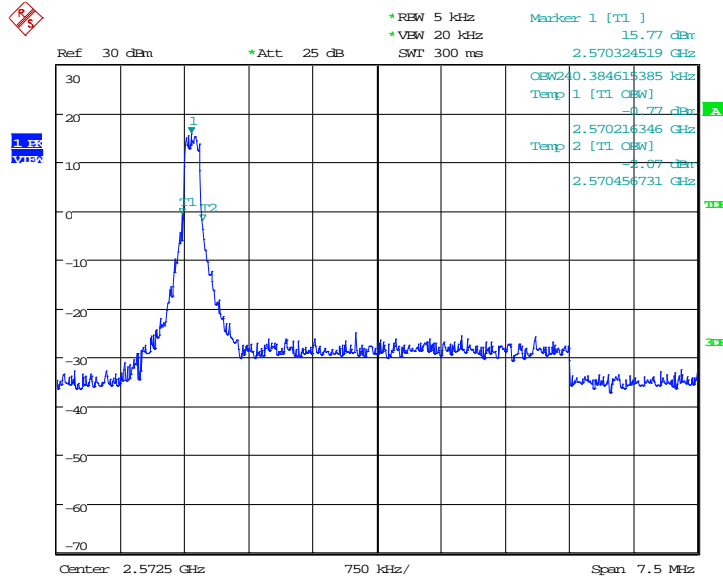
Date: 18.MAY.2018 12:58:42

### HIGH BAND EDGE BLOCK-10MHz-100%RB



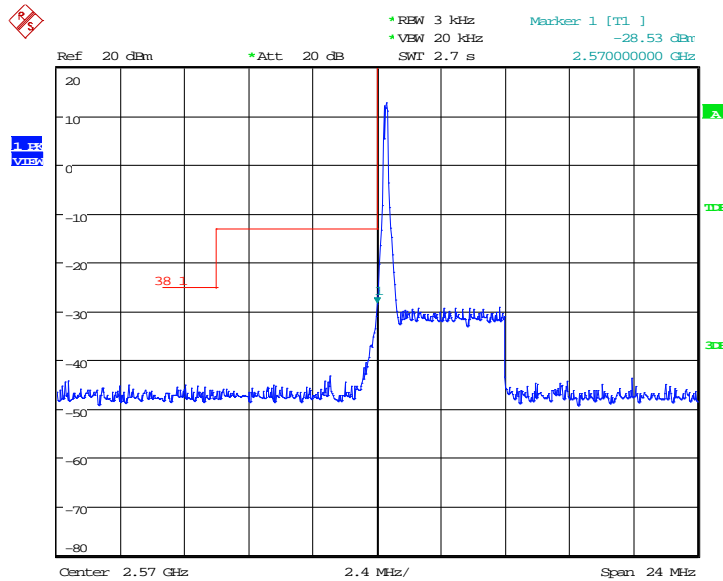
Date: 18.MAY.2018 12:58:45

LTE band 38  
OBW: 1RB-low\_offset



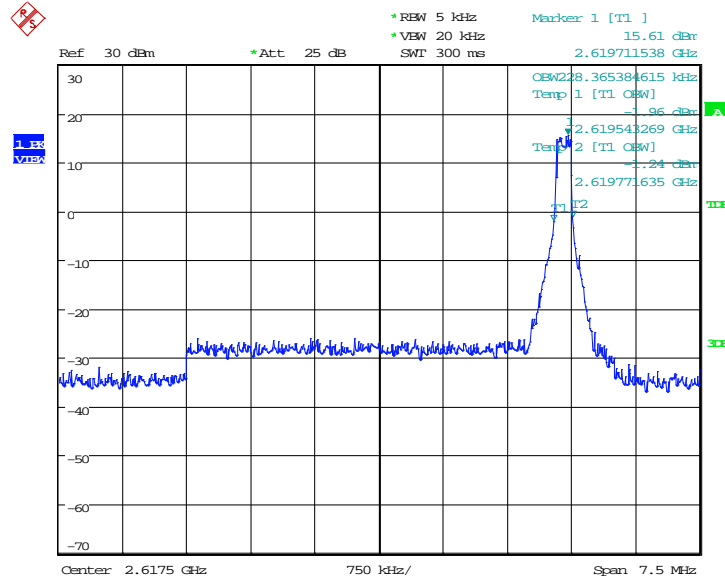
Date: 1.JUN.2018 12:37:26

LOW BAND EDGE BLOCK-1RB-low\_offset



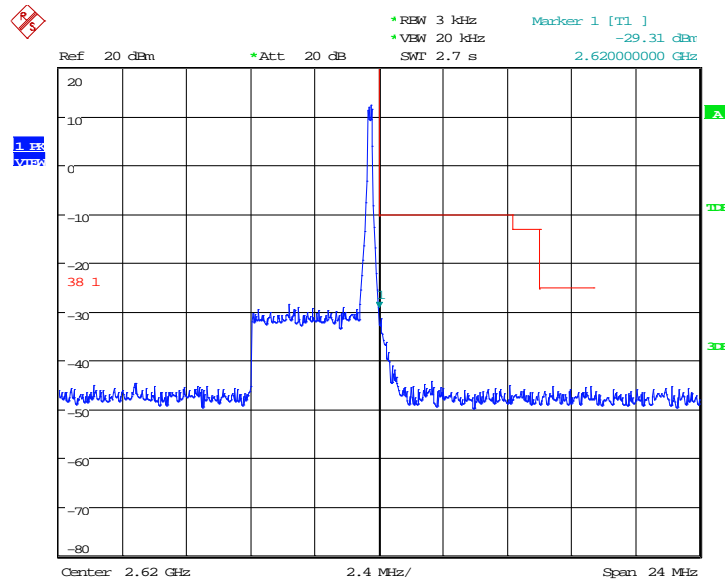
Date: 1.JUN.2018 12:49:33

**OBW: 1RB-high\_offset**



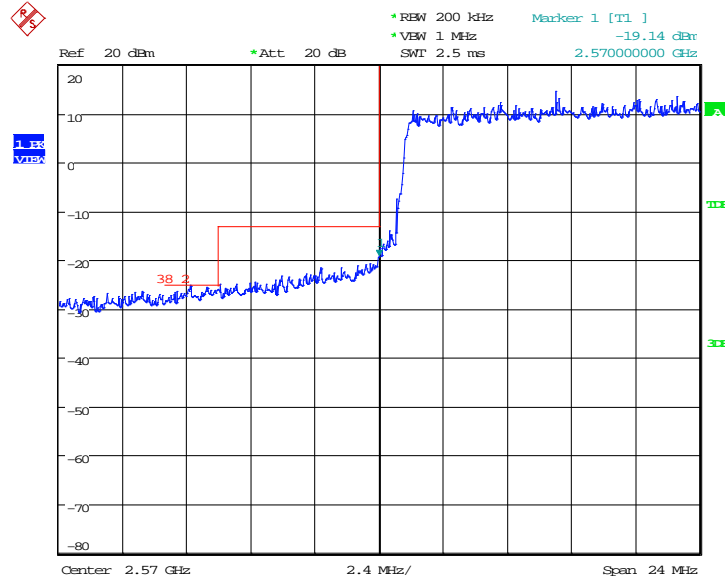
Date: 1.JUN.2018 12:38:32

**HIGH BAND EDGE BLOCK-1RB-high\_offset**



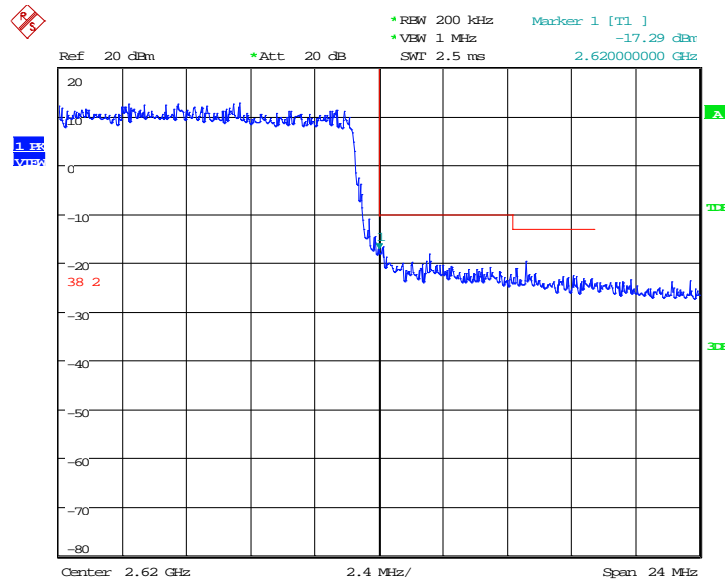
Date: 1.JUN.2018 12:48:28

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



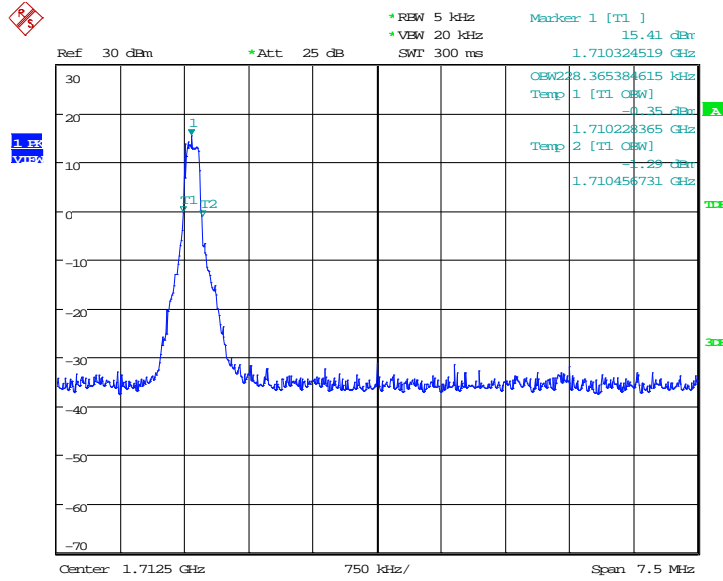
Date: 1.JUN.2018 12:51:19

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



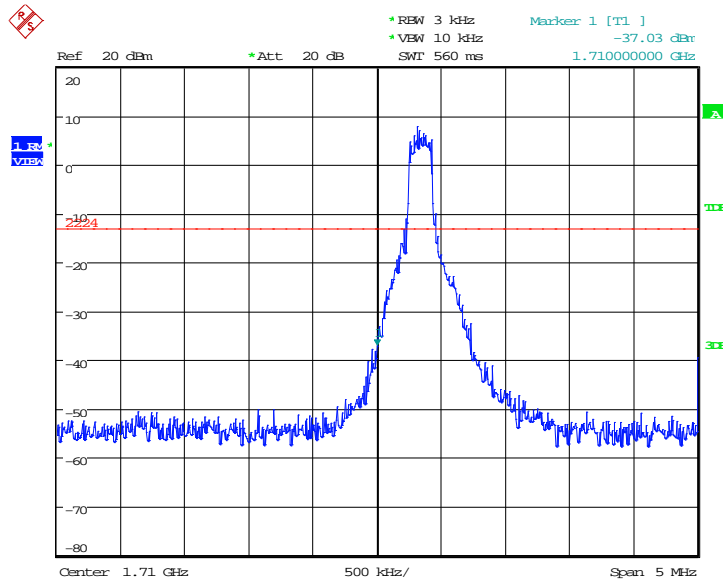
Date: 1.JUN.2018 12:52:12

LTE band 66  
OBW: 1RB-low\_offset



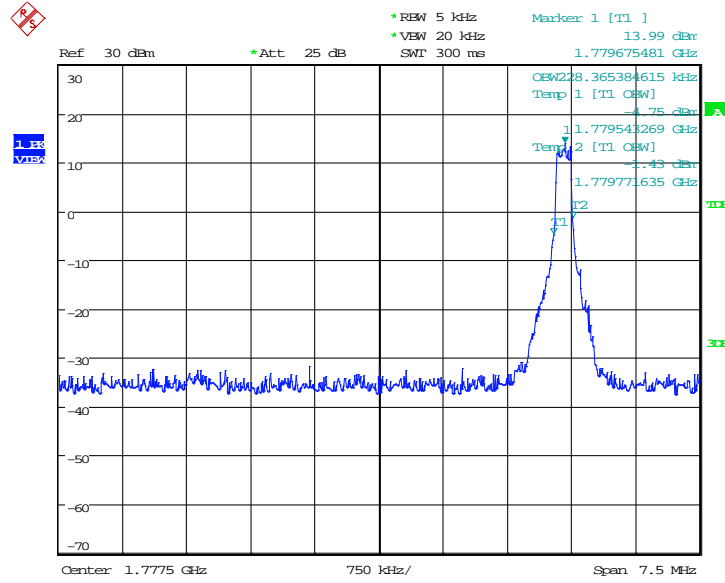
Date: 18.MAY.2018 11:44:42

LOW BAND EDGE BLOCK-1RB-low\_offset



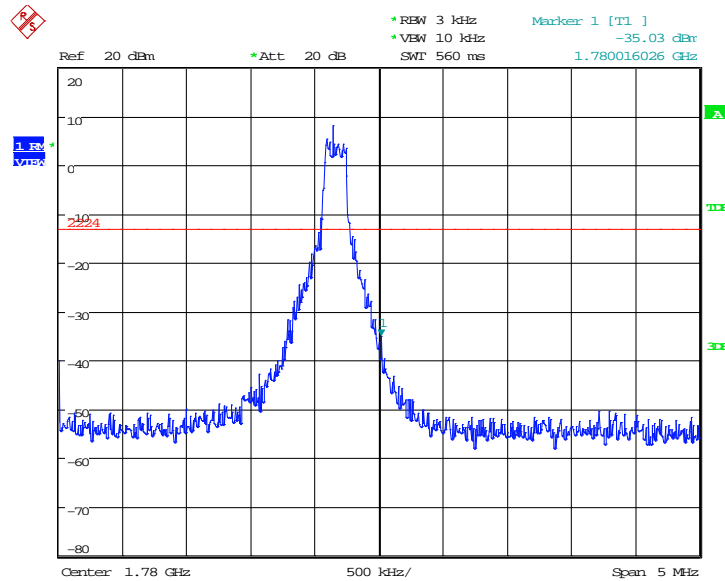
Date: 18.MAY.2018 11:45:26

**OBW: 1RB-high\_offset**



Date: 18.MAY.2018 12:06:33

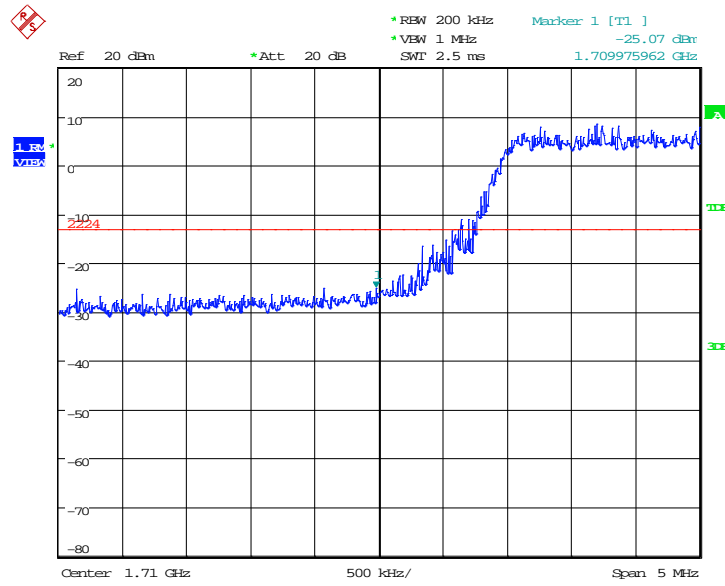
**HIGH BAND EDGE BLOCK-1RB-high\_offset**



Date: 18.MAY.2018 12:07:18

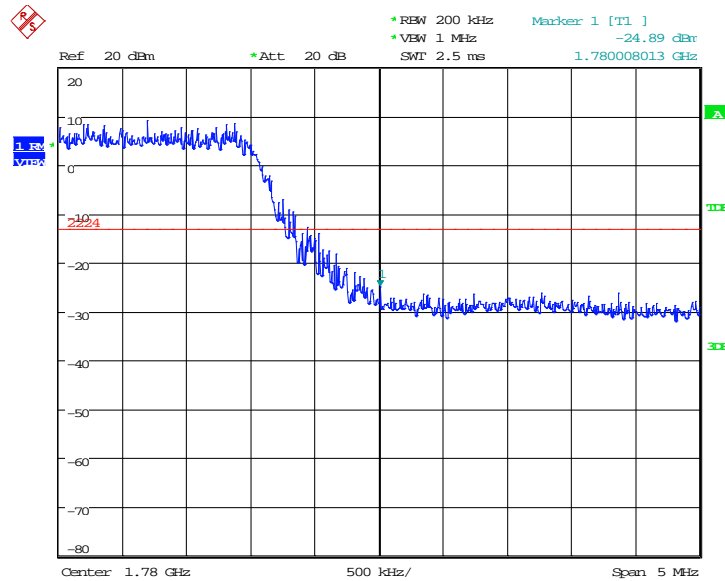


### LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 18.MAY.2018 10:30:50

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



Date: 18.MAY.2018 08:42:06

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

## **A.7 CONDUCTED SPURIOUS EMISSION**

### **Reference**

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

### **A.7.1 Measurement Method**

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

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

### **A. 7.2 Measurement Limit**

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

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

Part 27.53(m)(4) specifies for mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less 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 on all 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.

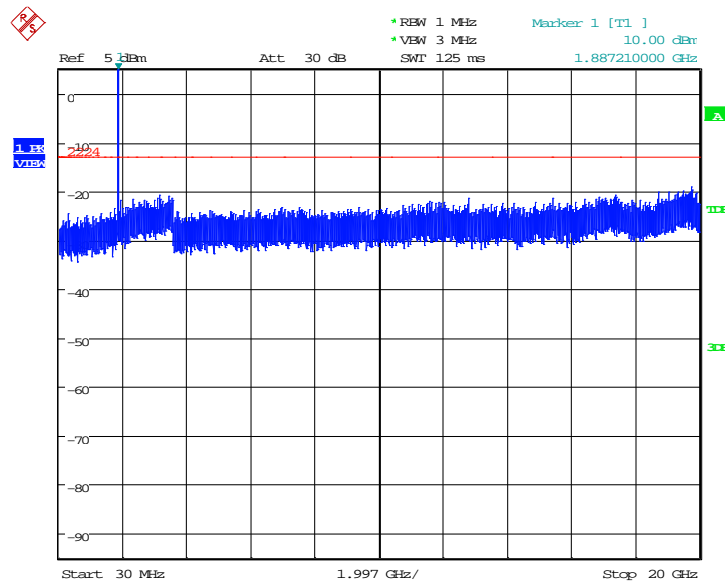
**A. 7.3 Measurement result**

**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.**

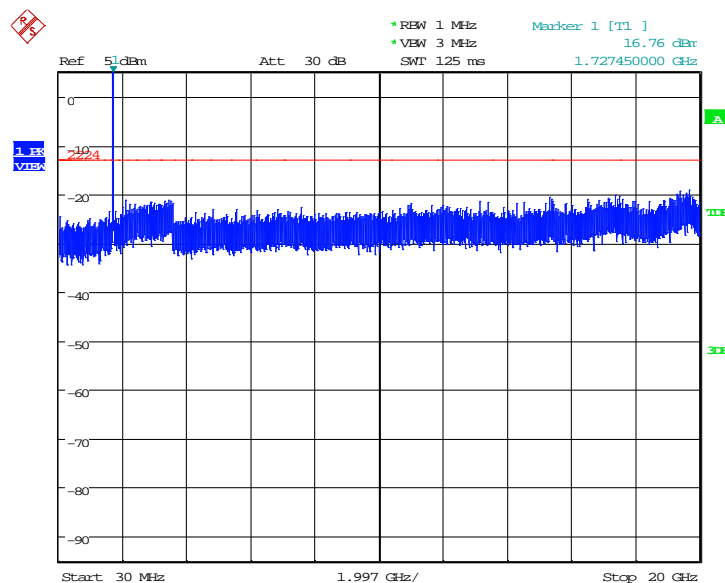


Date: 17.MAY.2018 08:47:51

**LTE band 4 : 30MHz – 20GHz**

Spurious emission limit –13dBm.

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

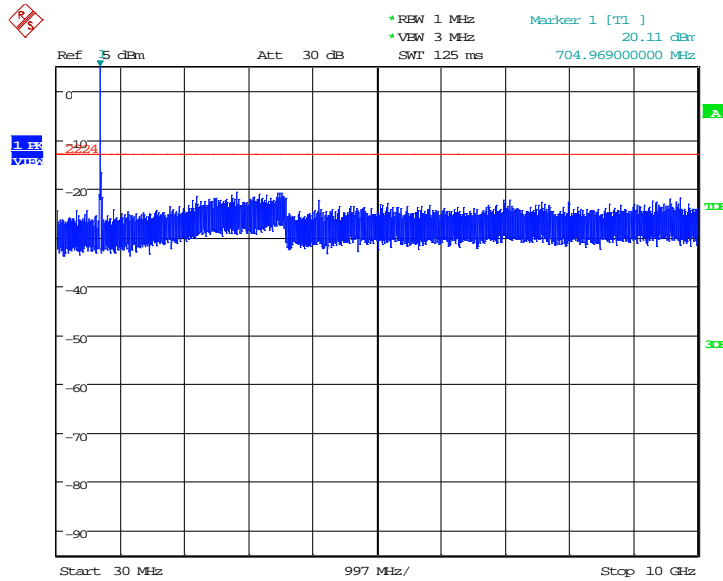


Date: 17.MAY.2018 09:36:19



**LTE band 12: 30MHz – 10GHz**

Spurious emission limit –13dBm.

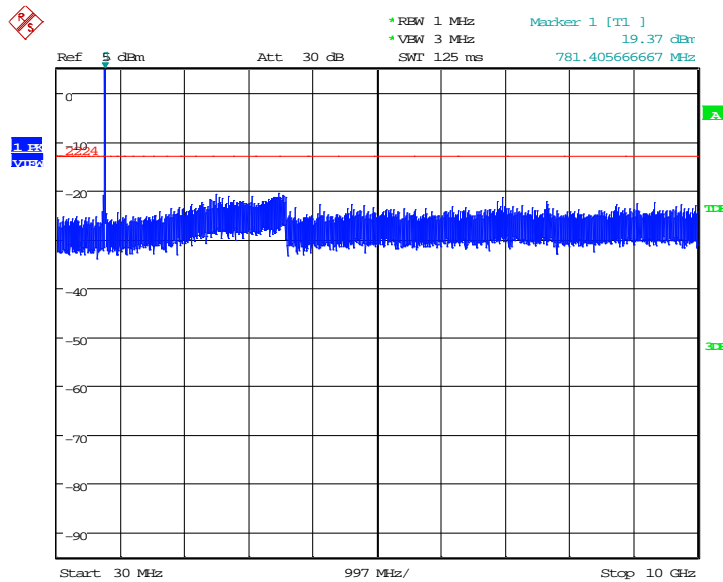


Date: 17.MAY.2018 10:28:52

**LTE band 13: 30MHz – 10GHz**

Spurious emission limit –13dBm.

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

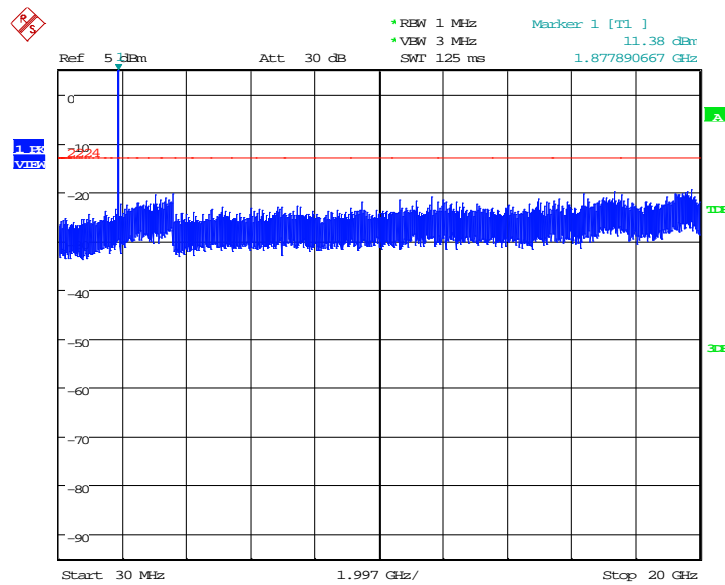


Date: 17.MAY.2018 06:25:55

**LTE band 25: 30MHz – 20GHz**

Spurious emission limit –13dBm.

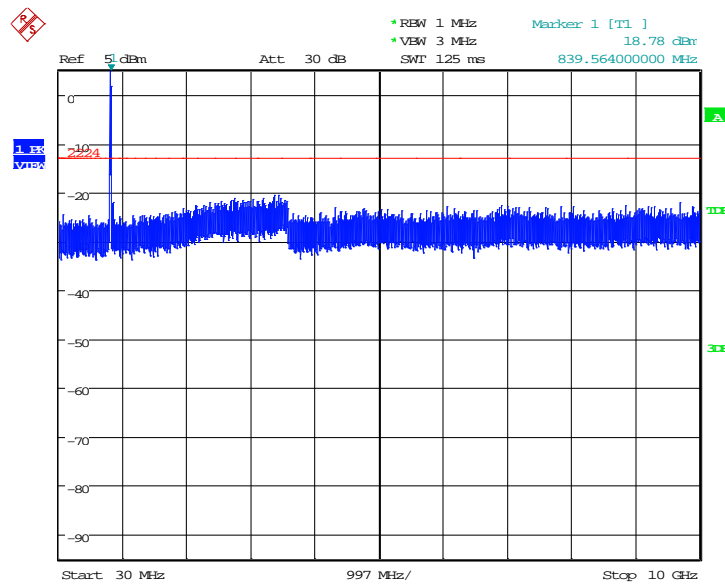
**NOTE: peak above the limit line is the carrier frequency.**



Date: 18.MAY.2018 07:34:55

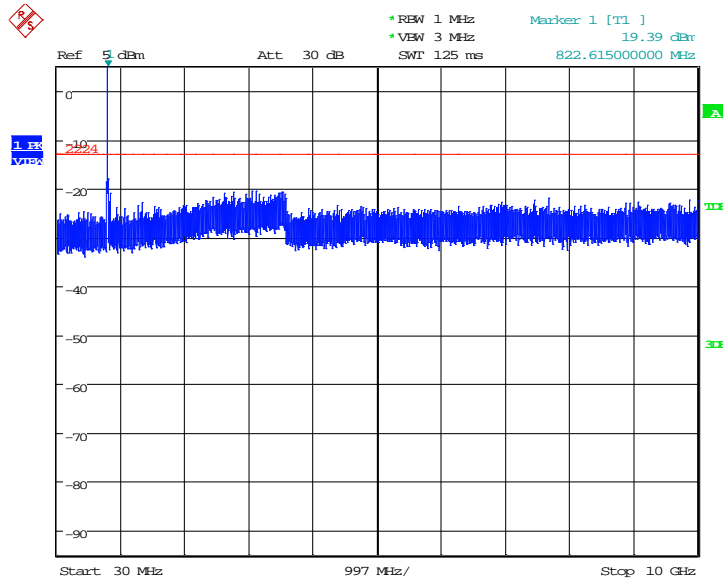
**LTE band 26(Part 22): 30MHz – 10GHz**

Spurious emission limit –13dBm.



Date: 17.MAY.2018 12:47:30

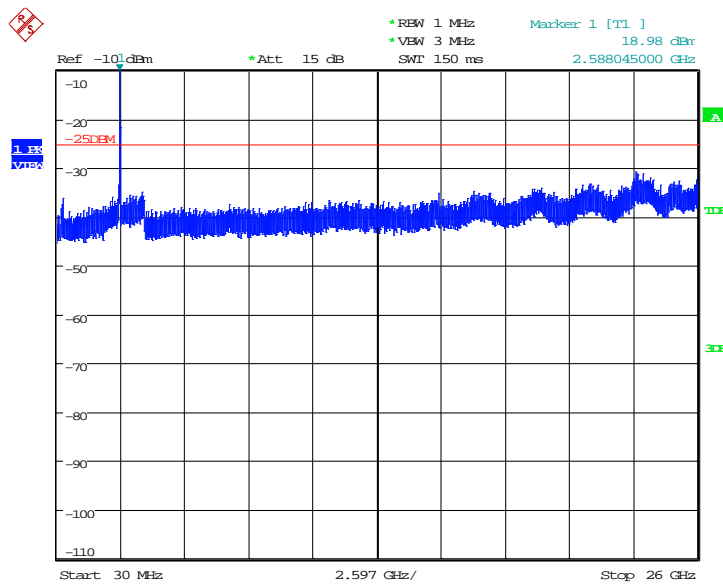
**LTE band 26(Part 90): 30MHz – 10GHz**  
Spurious emission limit –13dBm.



Date: 17.MAY.2018 13:23:17

**LTE band 38: 30MHz – 26GHz**  
Spurious emission limit –25dBm.

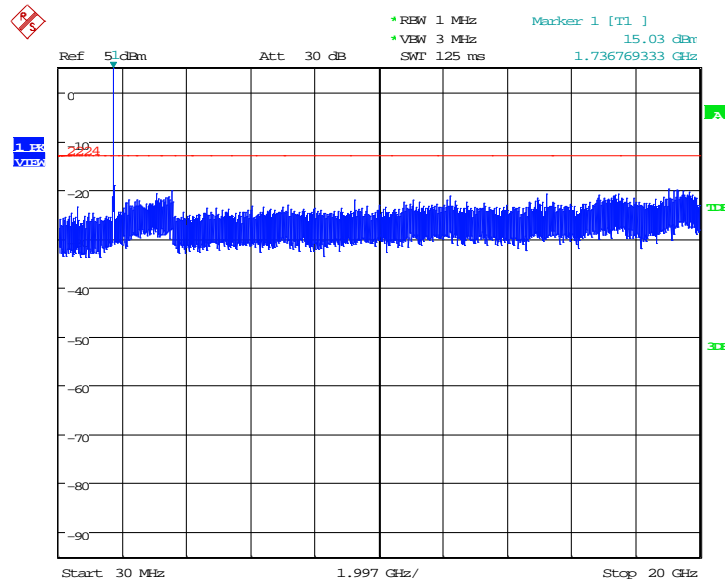
**NOTE: peak above the limit line is the carrier frequency.**



Date: 1.JUN.2018 12:56:24



LTE band 66: 30MHz – 20GHz



Date: 18.MAY.2018 05:57:53

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

## **A.8 PEAK-TO-AVERAGE POWER RATIO**

### **Reference**

FCC: CFR Part 24.232, 27.50(d), KDB971168 D01(5.7.1)

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.

According to KDB 971168 D01 5.7.1:

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

### **A.8.1 Measurement limit**

not exceed 13 dB

### **A.8.2 Measurement results**

#### **LTE band 2**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1860.0	20	7.76	7.95
	15	7.44	7.72
	10	6.73	7.24
	5	6.51	6.96
	3	6.44	7.05
	1.4	6.57	7.02

#### **LTE band 4**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1732.5	20	6.99	7.63
	15	6.67	7.24
	10	5.83	6.79
	5	5.74	6.83
	3	5.67	6.76
	1.4	6.03	6.86

**LTE band 7**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2510.0	20	7.24	7.60
	15	6.67	7.21
	10	5.74	6.57
	5	5.48	6.25

**LTE band 12**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
707.5	10	5.32	6.25
	5	4.74	5.58
	3	4.58	5.45
	1.4	4.84	5.64

**LTE band 13**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
782.0	10	5.29	6.28
	5	5.19	5.99

**LTE band 25**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1882.5	20	7.66	7.92
	15	7.47	7.76
	10	6.73	7.24
	5	6.70	7.21
	3	6.63	7.21
	1.4	6.67	7.15

**LTE band 38**

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
2595.0	20	9.33	8.81
	15	9.07	8.40
	10	6.70	7.72
	5	6.51	7.05

LTE band 66

Frequency(MHz)	Bandwidth(MHz)	PAPR(dB)	
		QPSK	16QAM
1745.0	20	7.12	7.60
	15	6.73	7.34
	10	5.96	6.86
	5	6.03	6.96
	3	5.93	6.92
	1.4	6.03	6.99

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

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