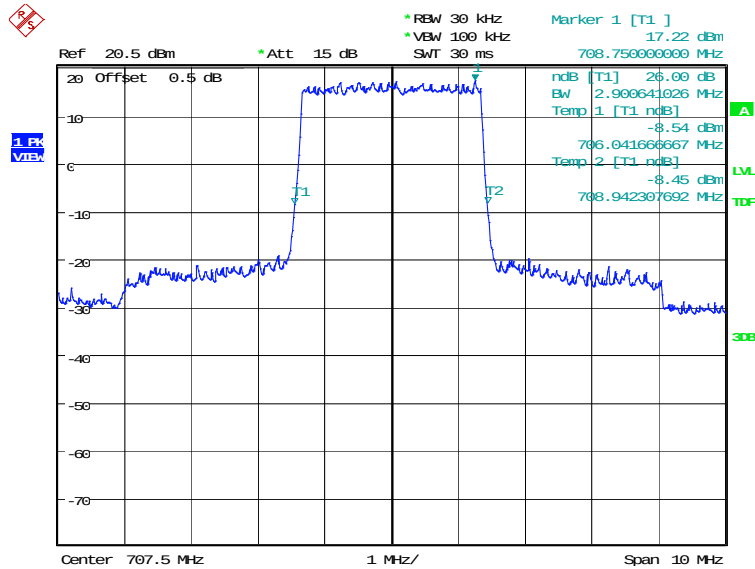


LTE band 12, 3MHz (-26dBc)

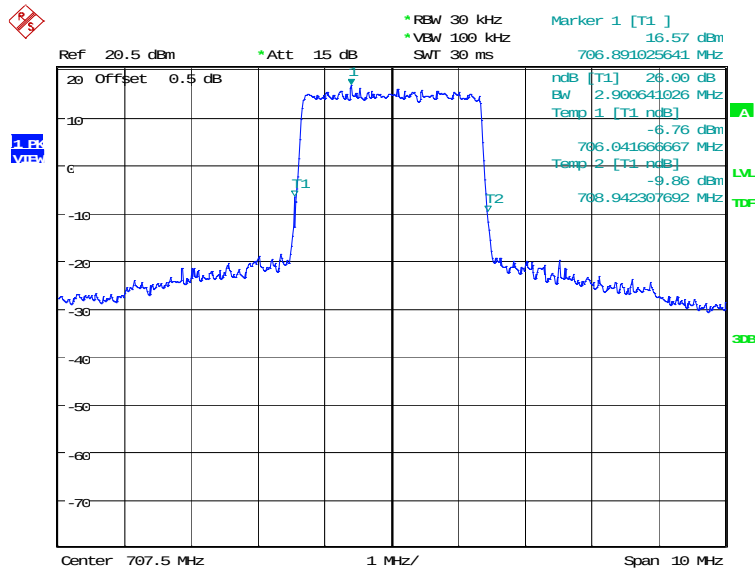
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	2900.64	2900.64	2884.62

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



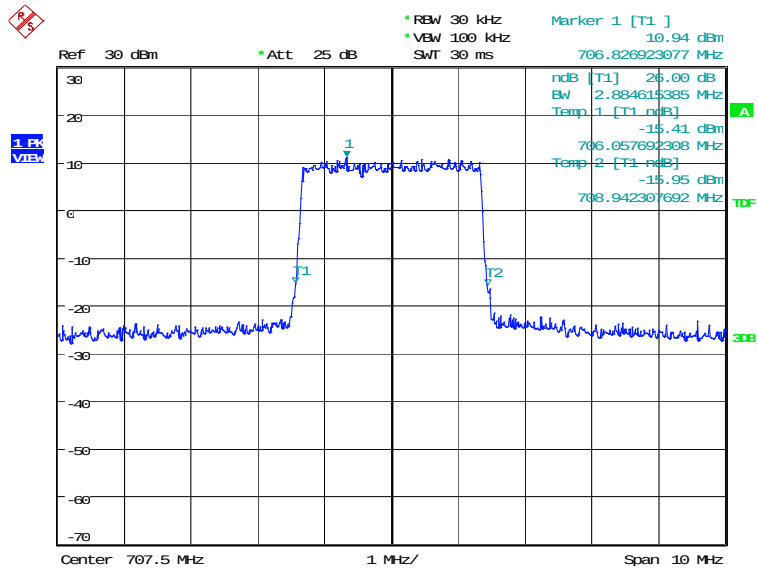
Date: 3.SEP.2019 19:13:58

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



Date: 3.SEP.2019 19:15:22

LTE band 12, 3MHz Bandwidth, 64QAM (-26dBc BW)

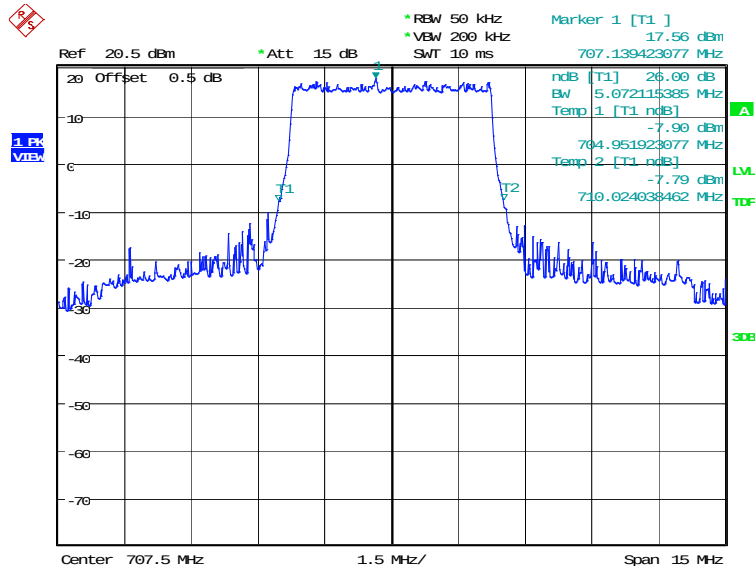


Date: 19.SEP.2019 15:21:25

LTE band 12, 5MHz (-26dBc)

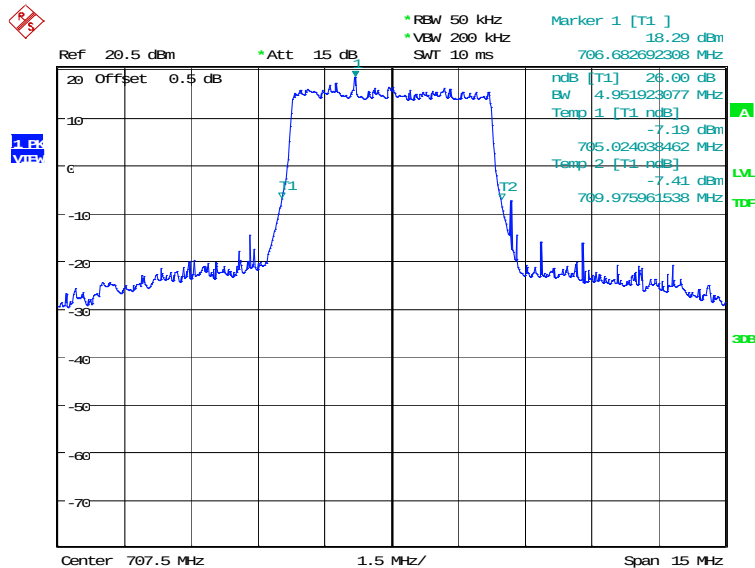
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	5072.12	4951.92	5000.00

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



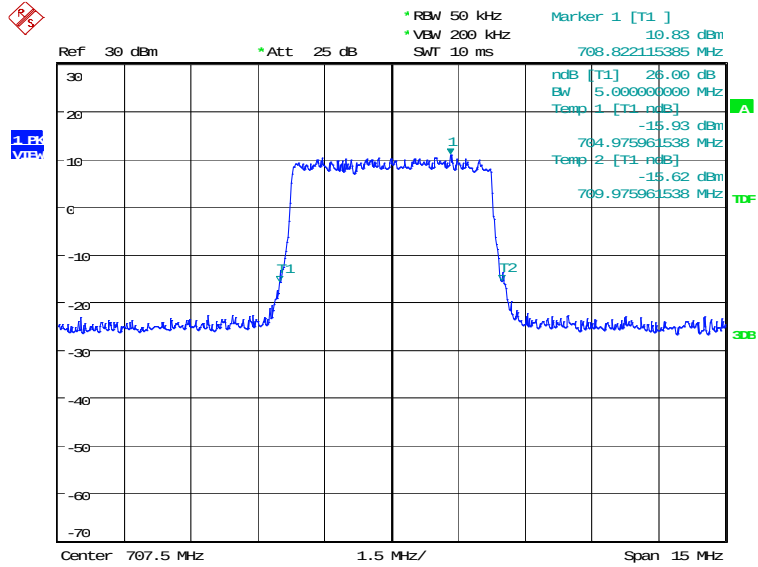
Date: 3.SEP.2019 19:17:35

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



Date: 3.SEP.2019 19:18:59

LTE band 12, 5MHz Bandwidth,64QAM (-26dBc BW)

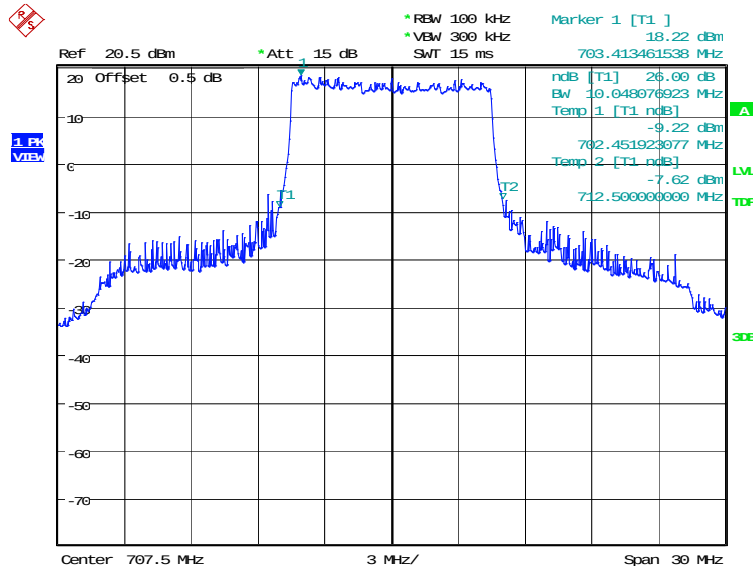


Date: 19.SEP.2019 15:22:32

LTE band 12, 10MHz (-26dBc)

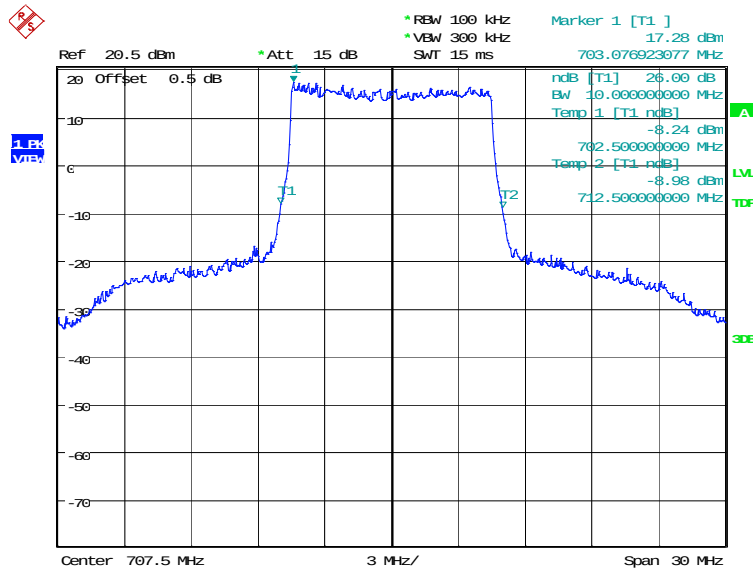
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	10048.08	10000.00	9759.62

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



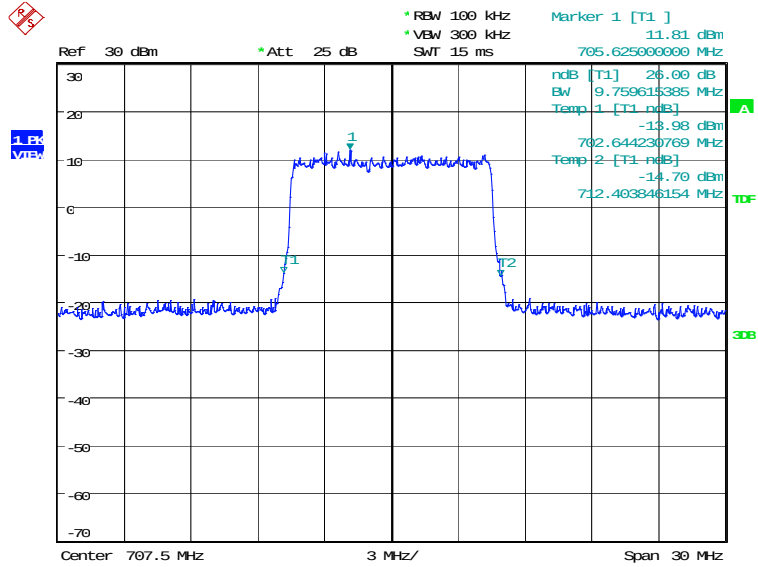
Date: 3.SEP.2019 19:21:13

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



Date: 3.SEP.2019 19:22:37

LTE band 12, 10MHz Bandwidth, 64QAM (-26dBc BW)

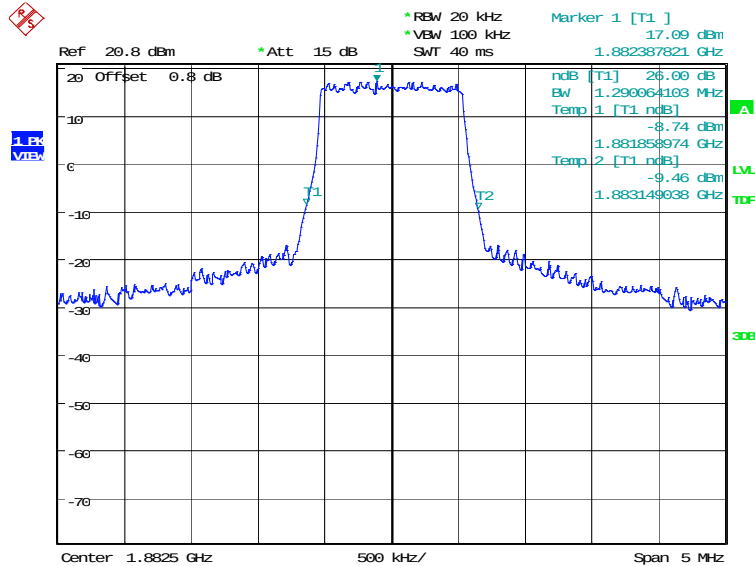


Date: 19.SEP.2019 15:23:33

LTE band 25, 1.4MHz (-26dBc)

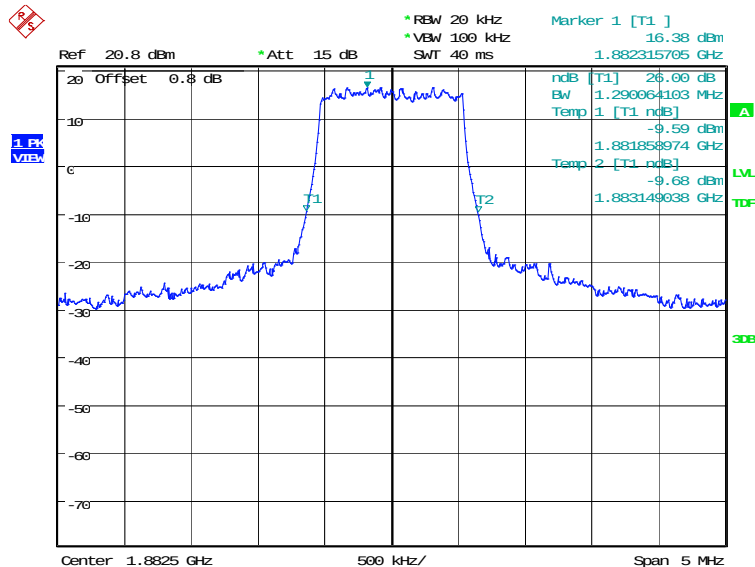
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	1290.06	1290.06	1290.06

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



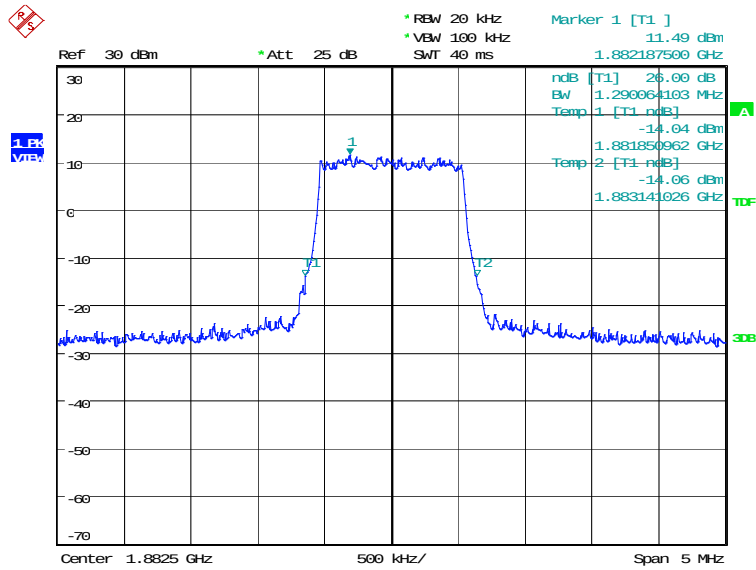
Date: 3.SEP.2019 19:24:51

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



Date: 3.SEP.2019 19:26:15

LTE band 25, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

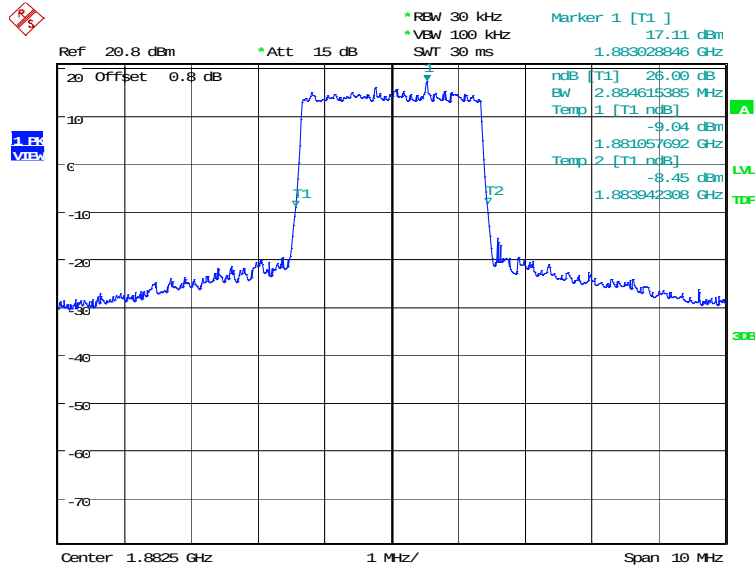


Date: 19.SEP.2019 15:25:48

LTE band 25, 3MHz (-26dBc)

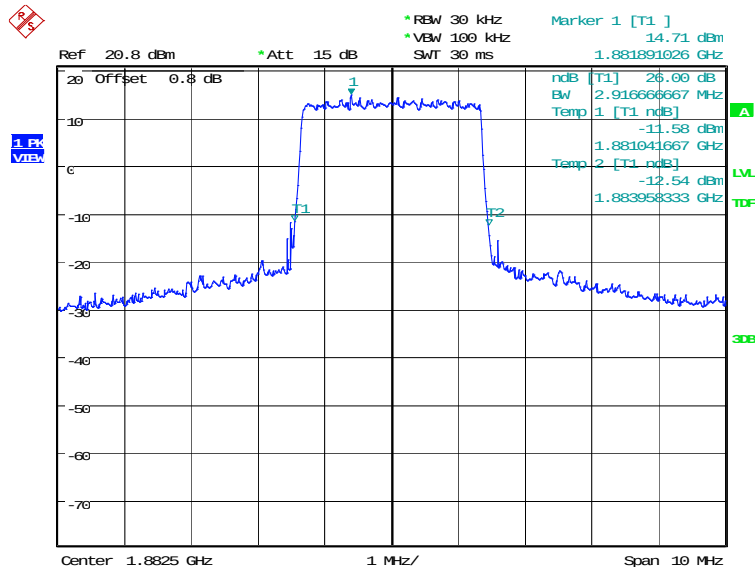
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	2884.62	2916.67	2916.67

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



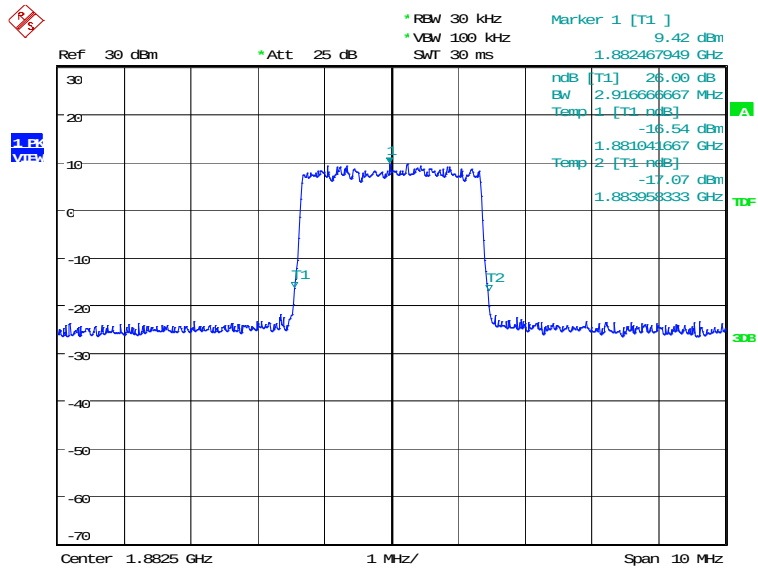
Date: 3.SEP.2019 19:28:28

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



Date: 3.SEP.2019 19:29:53

LTE band 25, 3MHz Bandwidth, 64QAM (-26dBc BW)

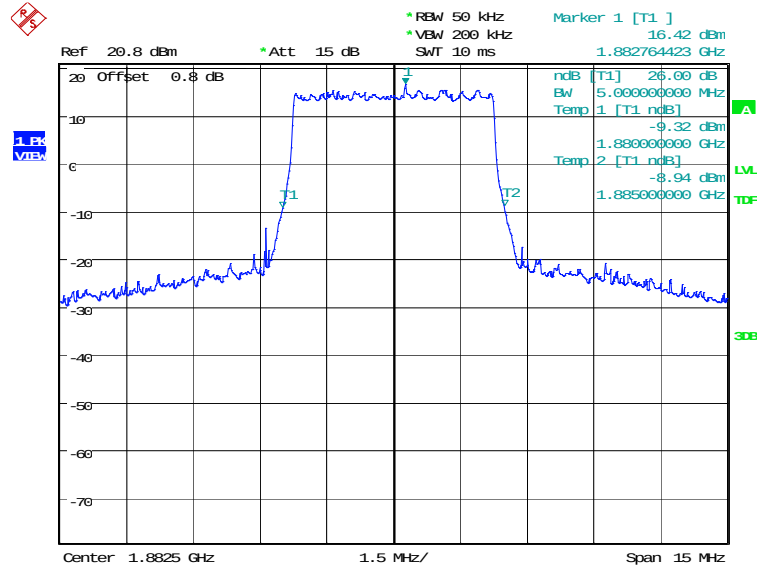


Date: 19.SEP.2019 15:26:55

LTE band 25, 5MHz (-26dBc)

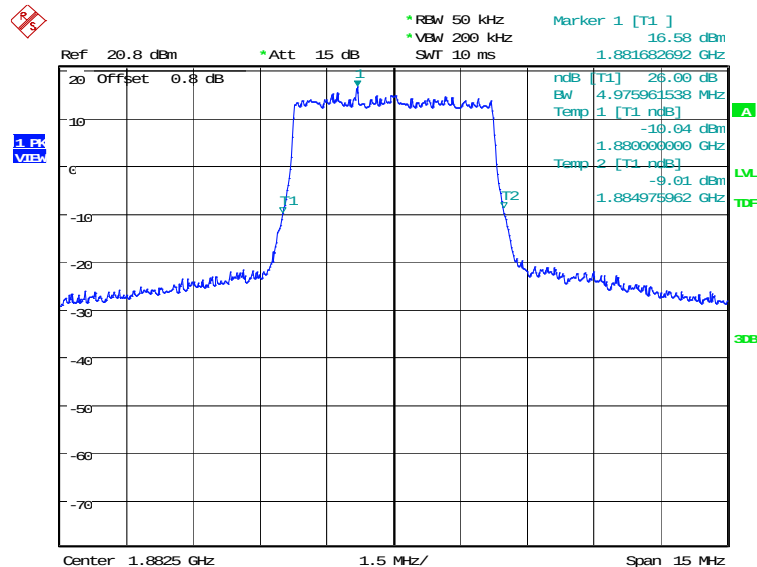
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1882.5	QPSK	16QAM	64QAM
	5000.00	4975.96	5048.08

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



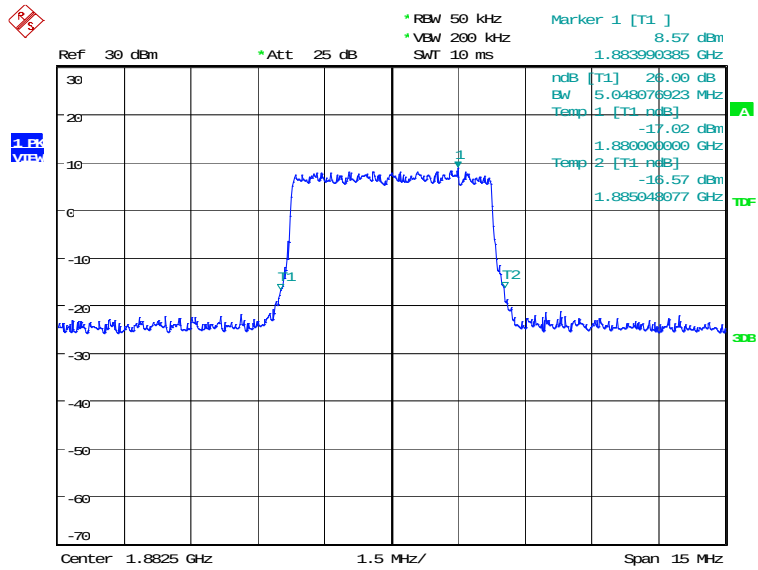
Date: 3.SEP.2019 19:32:06

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



Date: 3.SEP.2019 19:33:30

LTE band 25, 5MHz Bandwidth,64QAM (-26dBc BW)

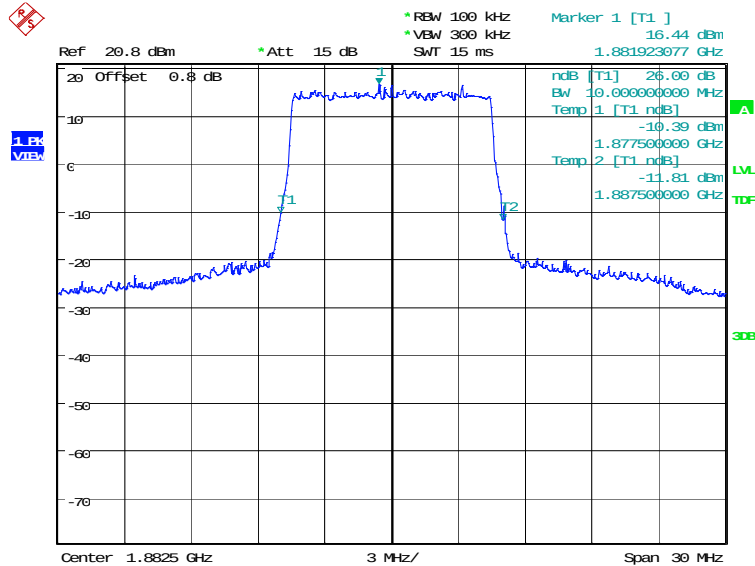


Date: 19.SEP.2019 15:28:15

LTE band 25, 10MHz (-26dBc)

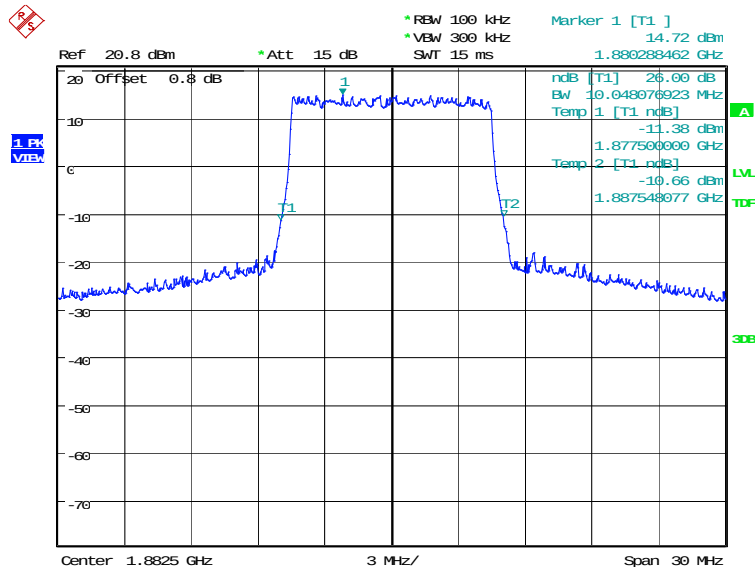
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	10000.00	10048.08	9903.85

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



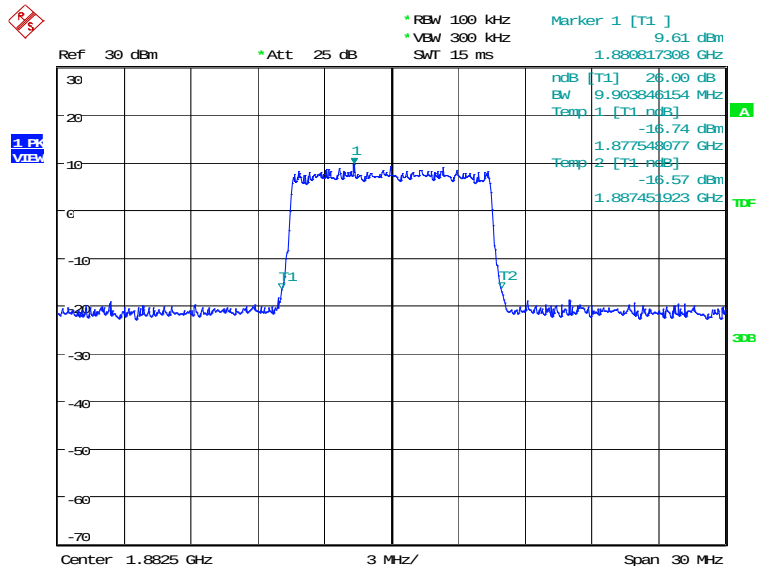
Date: 3.SEP.2019 19:35:43

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



Date: 3.SEP.2019 19:37:07

LTE band 25, 10MHz Bandwidth, 64QAM (-26dBc BW)

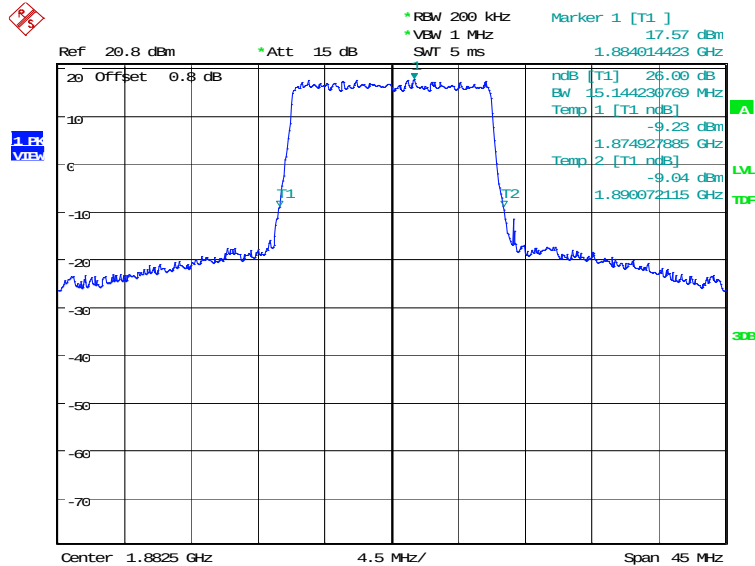


Date: 19.SEP.2019 15:29:34

LTE band 25, 15MHz (-26dBc)

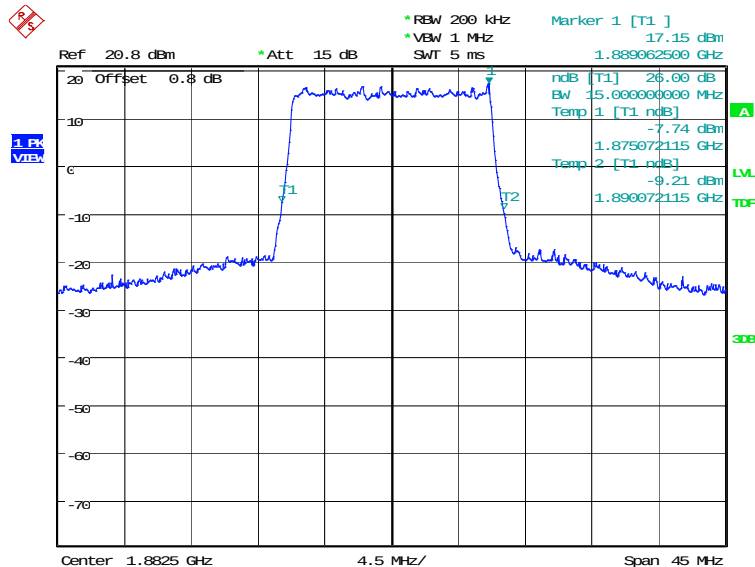
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	15144.23	15000.00	15144.23

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



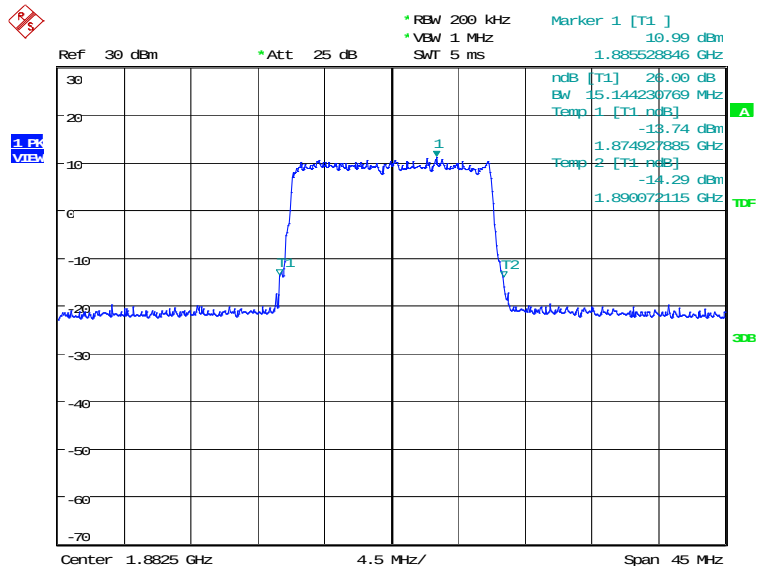
Date: 3.SEP.2019 19:39:23

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



Date: 3.SEP.2019 19:40:47

LTE band 25, 15MHz Bandwidth, 64QAM (-26dBc BW)

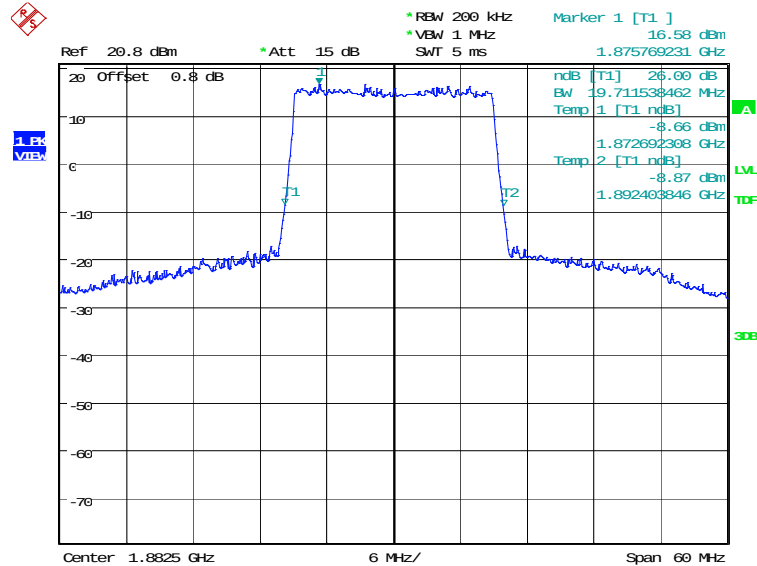


Date: 19.SEP.2019 15:30:40

LTE band 25, 20MHz (-26dBc)

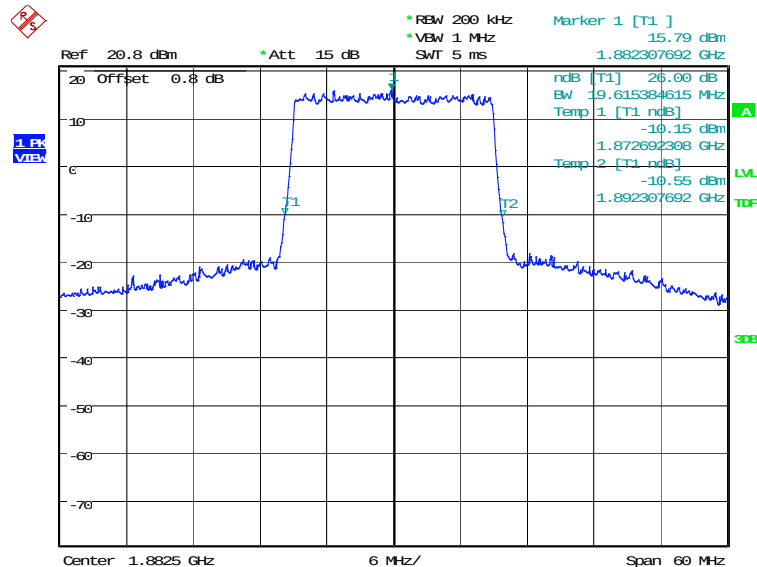
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	19711.54	19615.38	19519.23

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



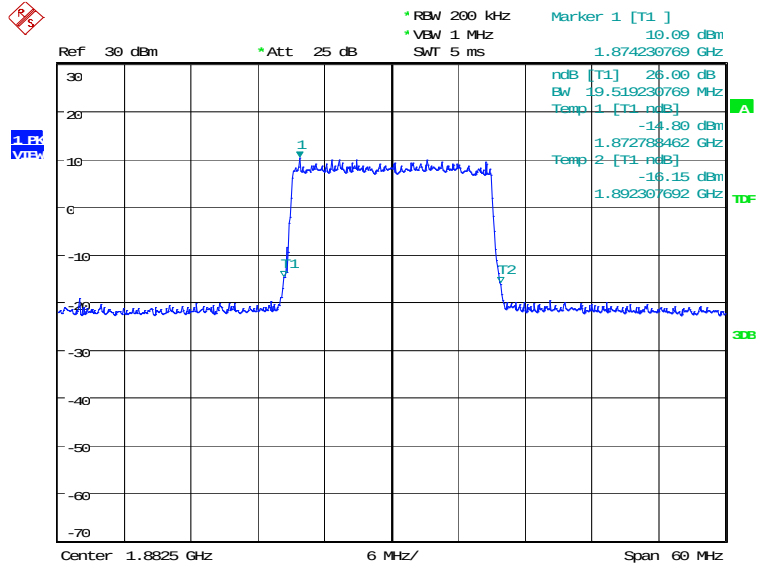
Date: 3.SEP.2019 19:43:09

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



Date: 3.SEP.2019 19:44:33

LTE band 25, 20MHz Bandwidth, 64QAM (-26dBc BW)

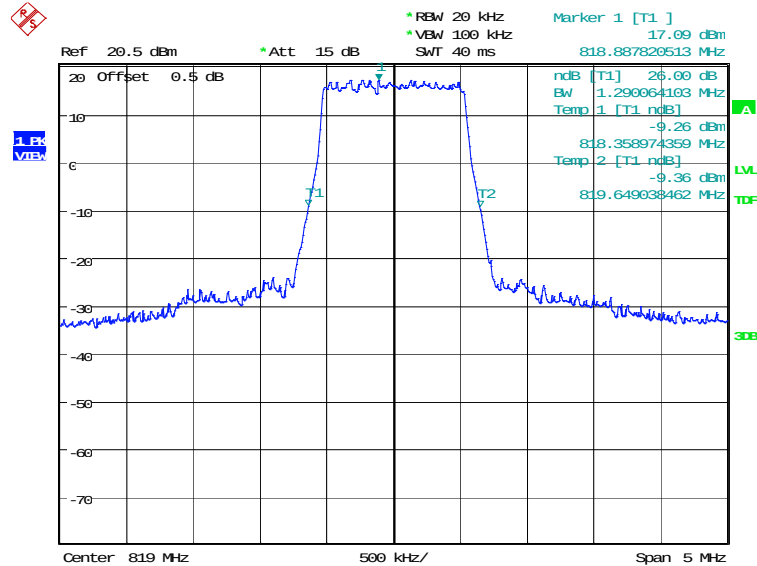


Date: 19.SEP.2019 15:31:48

LTE band 26(814MHz~824MHz), 1.4MHz (-26dBc)

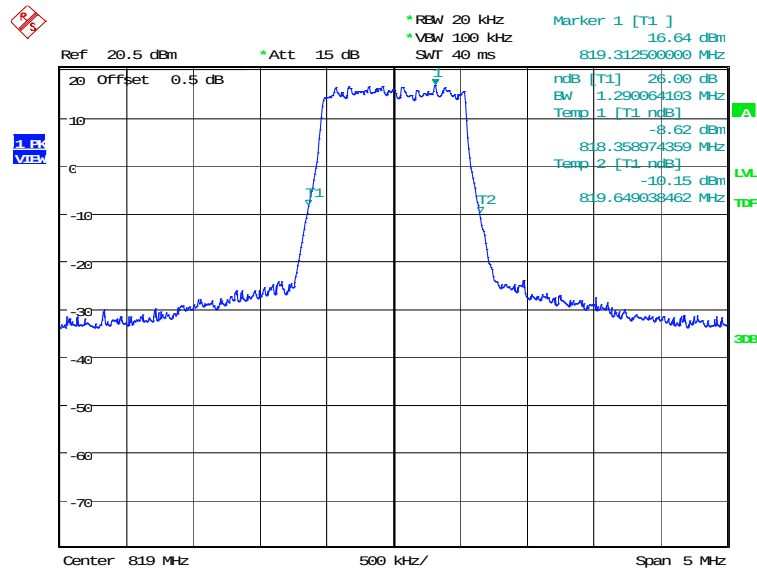
Frequency (MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.0	QPSK	16QAM	64QAM
	1290.06	1290.06	1282.05

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, QPSK (-26dB BW)



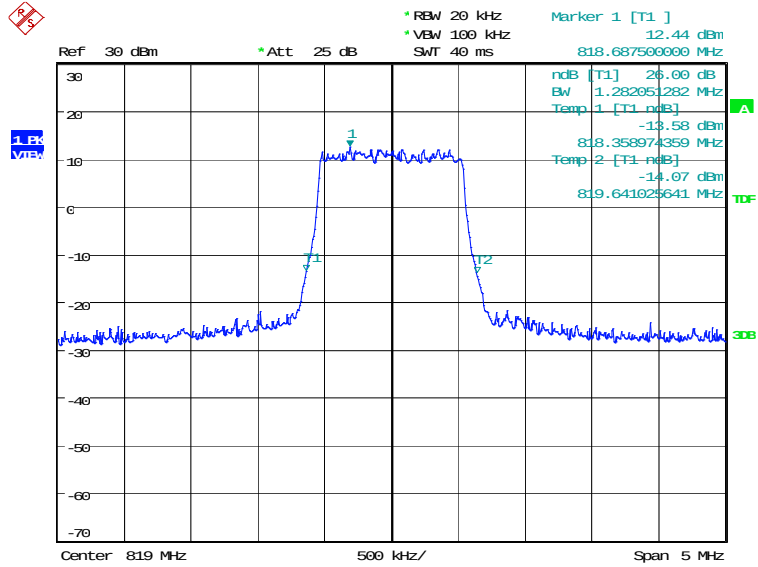
Date: 3.SEP.2019 20:04:04

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 16QAM (-26dB BW)



Date: 3.SEP.2019 20:05:28

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

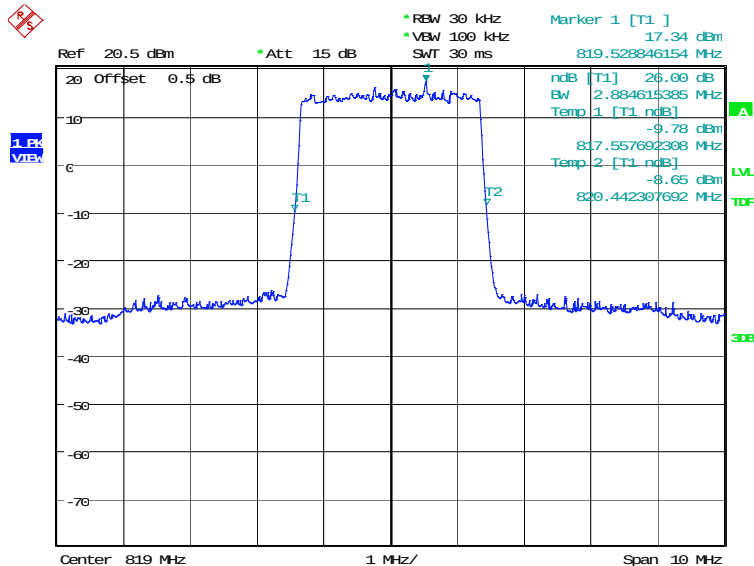


Date: 19.SEP.2019 15:40:25

LTE band 26(814MHz~824MHz), 3MHz (-26dBc)

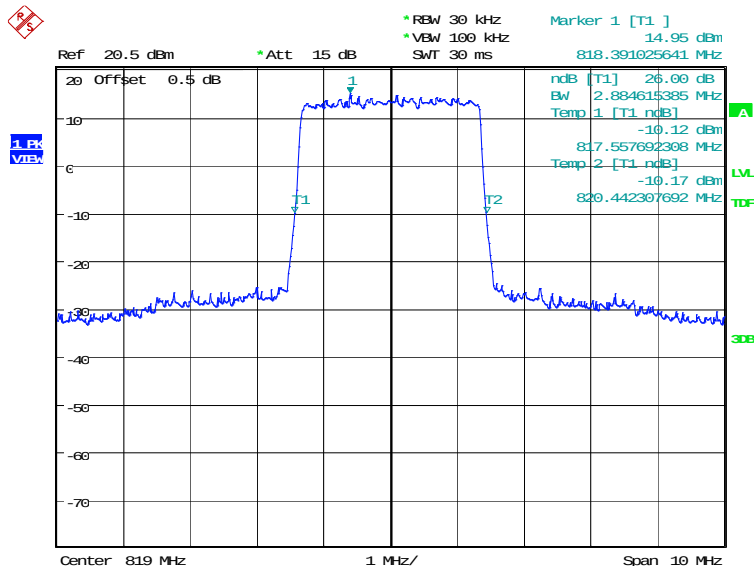
Frequency (MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.0	QPSK	16QAM	64QAM
	2884.62	2884.62	2900.64

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



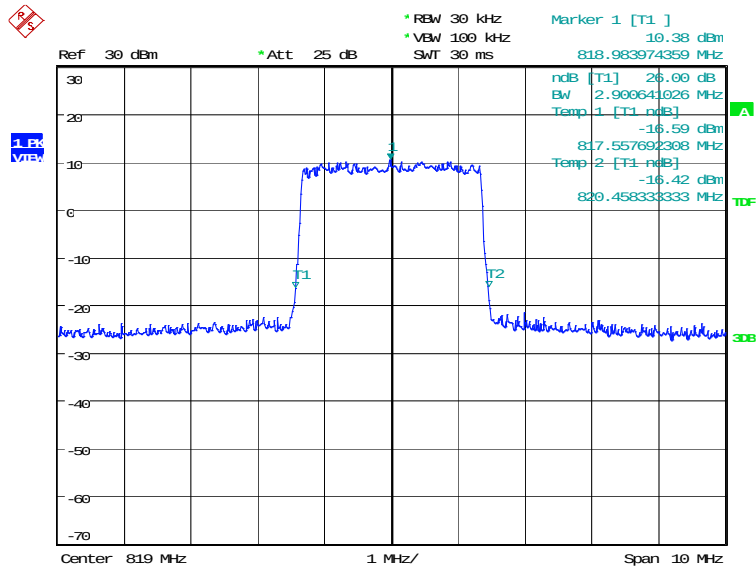
Date: 3.SEP.2019 20:07:41

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:09:05

LTE band 26(814MHz~824MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

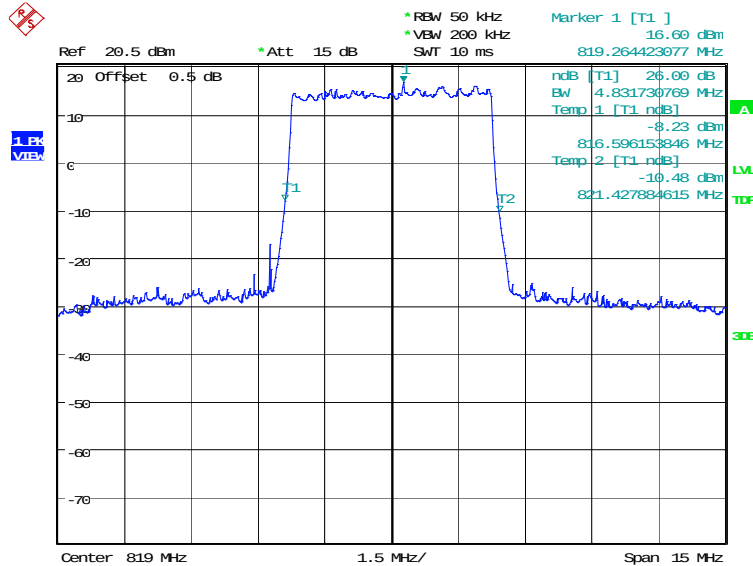


Date: 19.SEP.2019 15:42:02

LTE band 26(814MHz~824MHz), 5MHz (-26dBc)

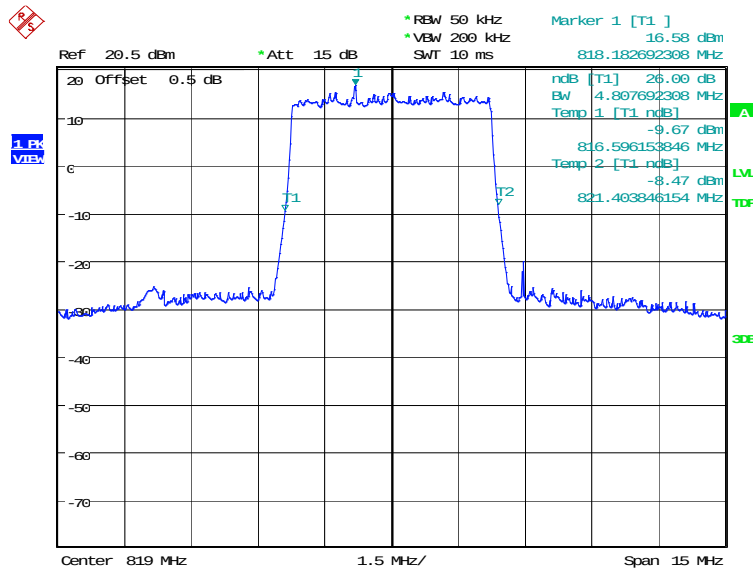
Frequency (MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.0	QPSK	16QAM	64QAM
	4831.73	4807.69	4855.77

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



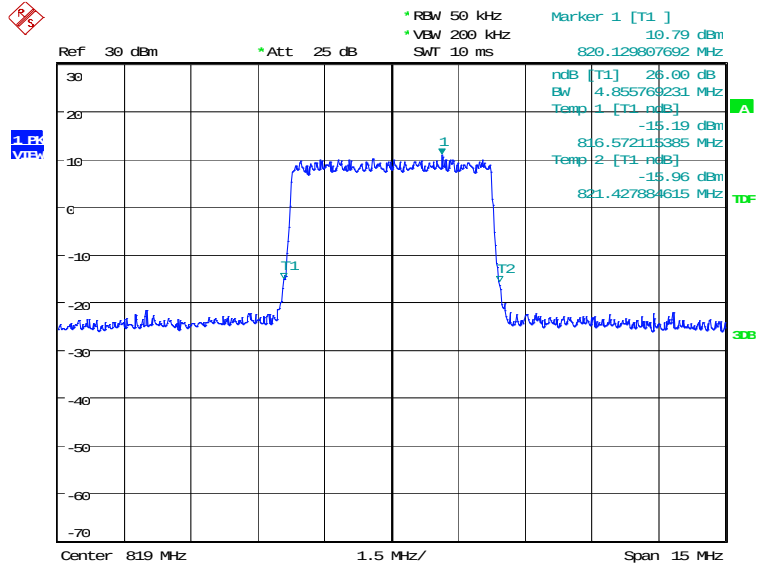
Date: 3.SEP.2019 20:11:19

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:12:43

LTE band 26(814MHz~824MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

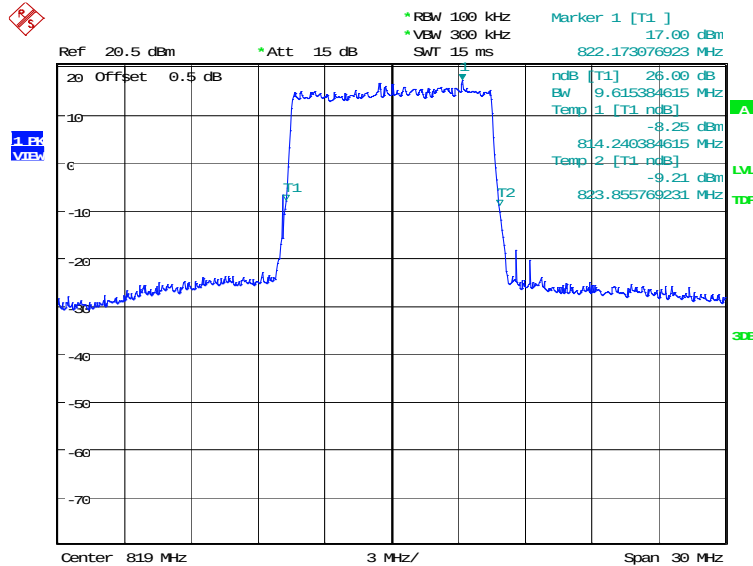


Date: 19.SEP.2019 15:43:31

LTE band 26(814MHz~824MHz), 10MHz (-26dBc)

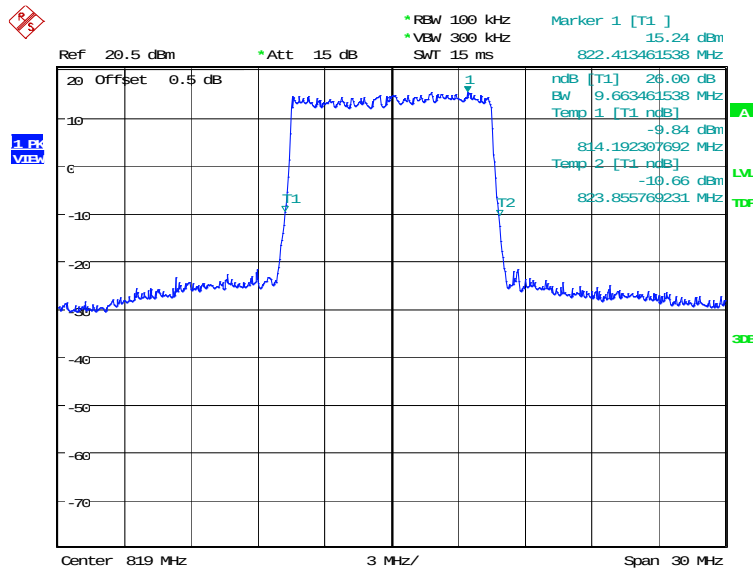
Frequency (MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.0	QPSK	16QAM	64QAM
	9615.38	9663.46	9615.38

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



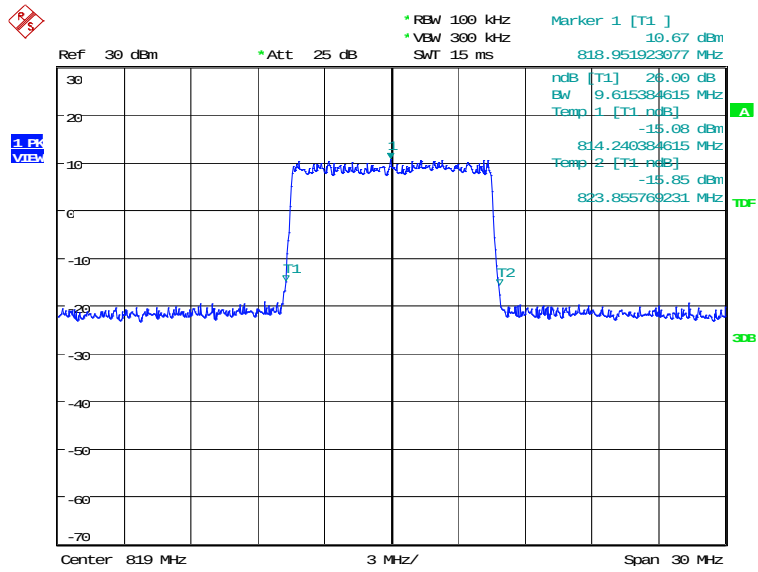
Date: 3.SEP.2019 20:14:56

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:16:21

LTE band 26(814MHz~824MHz), 10MHz Bandwidth, 64QAM (-26dBc BW)

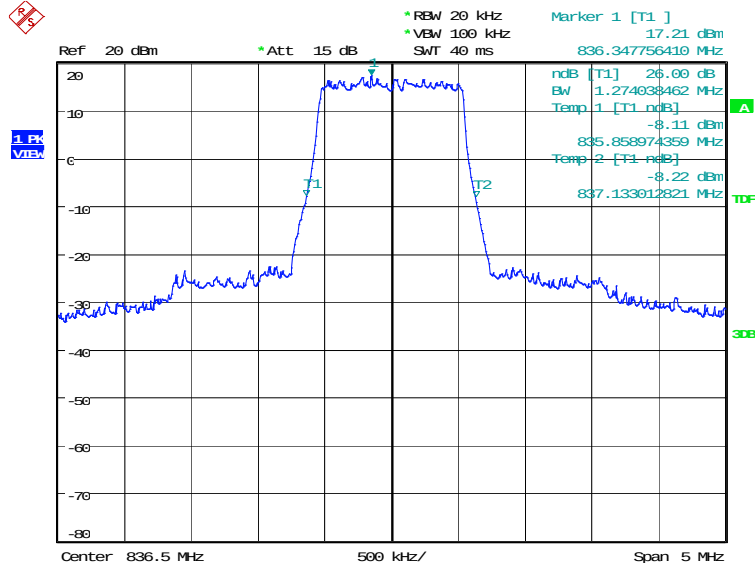


Date: 19.SEP.2019 15:45:04

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

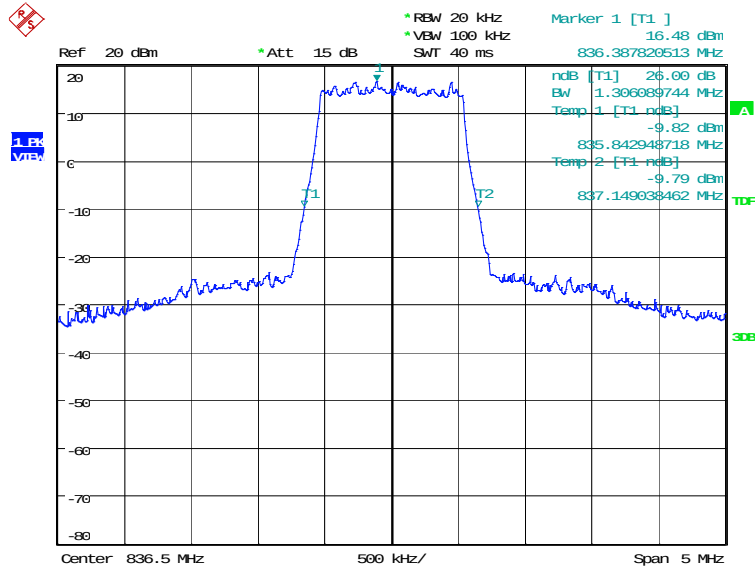
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	1274.04	1306.09	1266.03

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



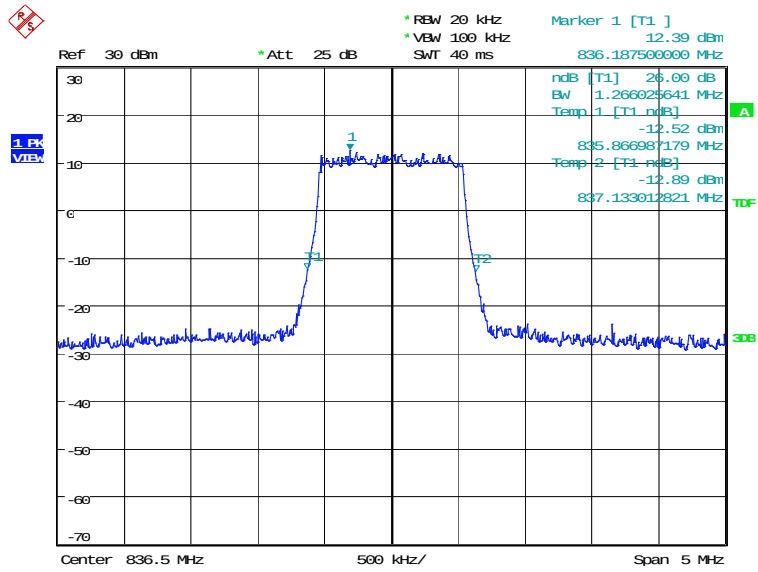
Date: 3.SEP.2019 19:46:06

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



Date: 3.SEP.2019 19:47:30

LTE band 26(824MHz~849MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

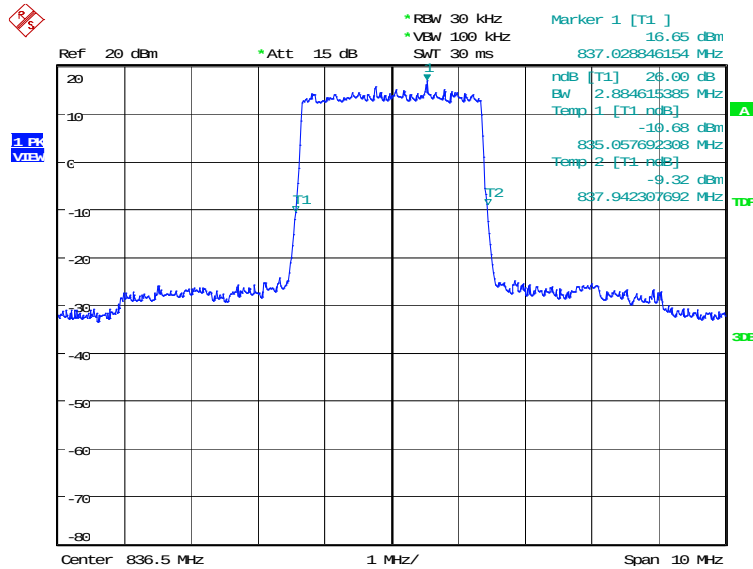


Date: 19.SEP.2019 15:34:32

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

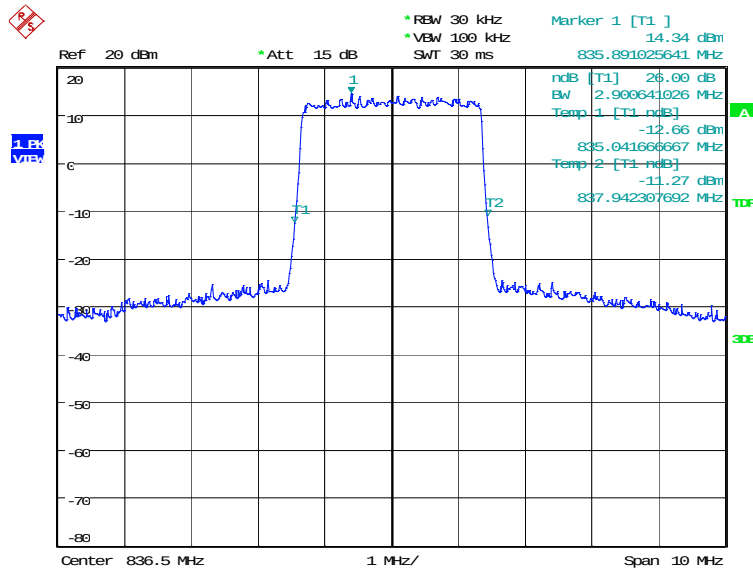
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	2884.62	2900.64	2868.59

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



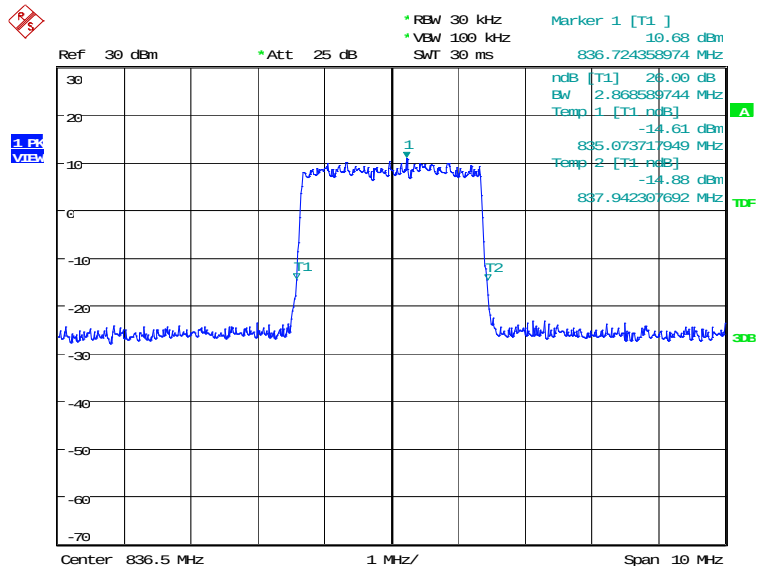
Date: 3.SEP.2019 19:49:43

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



Date: 3.SEP.2019 19:51:07

LTE band 26(824MHz~849MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

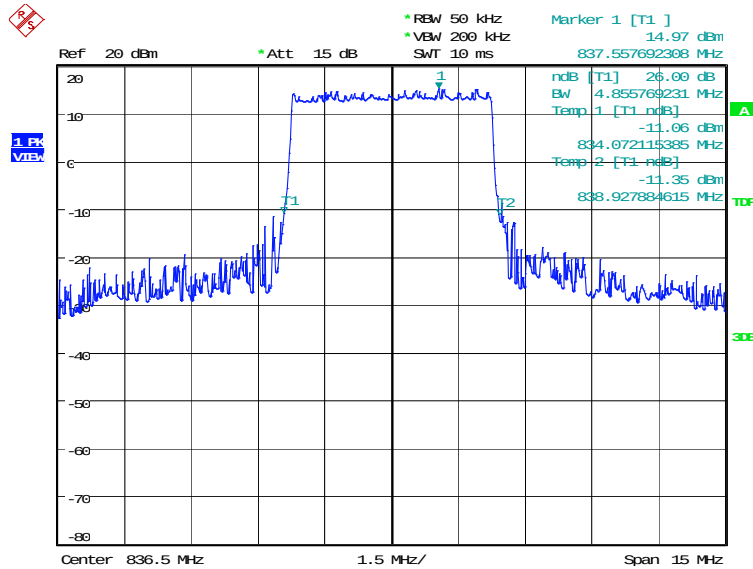


Date: 19.SEP.2019 15:35:37

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

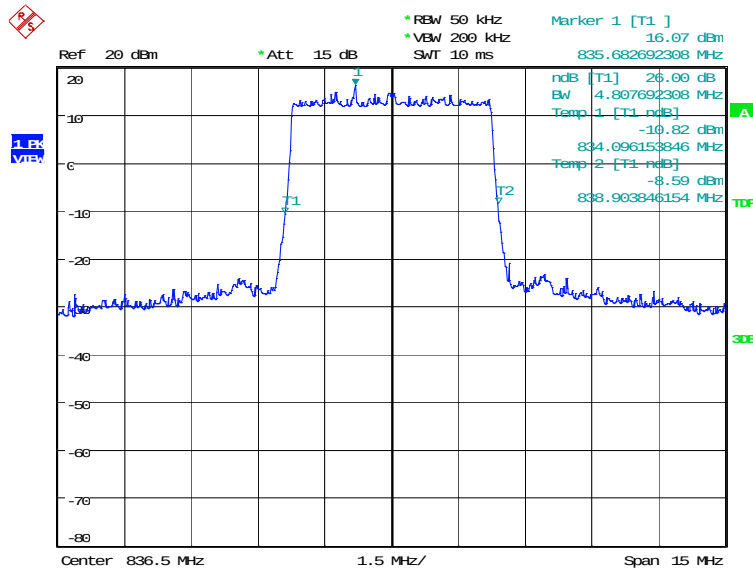
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	4855.77	4807.69	4831.73

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



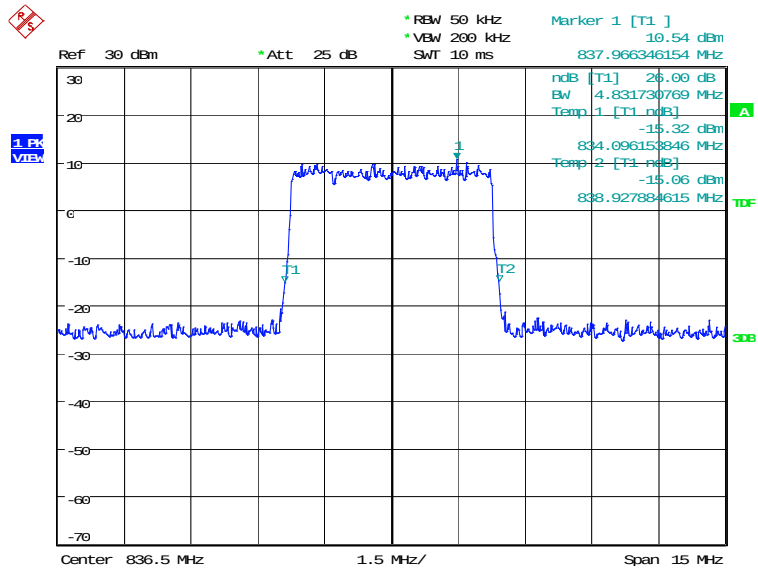
Date: 3.SEP.2019 19:53:21

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



Date: 3.SEP.2019 19:54:45

LTE band 26(824MHz~849MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

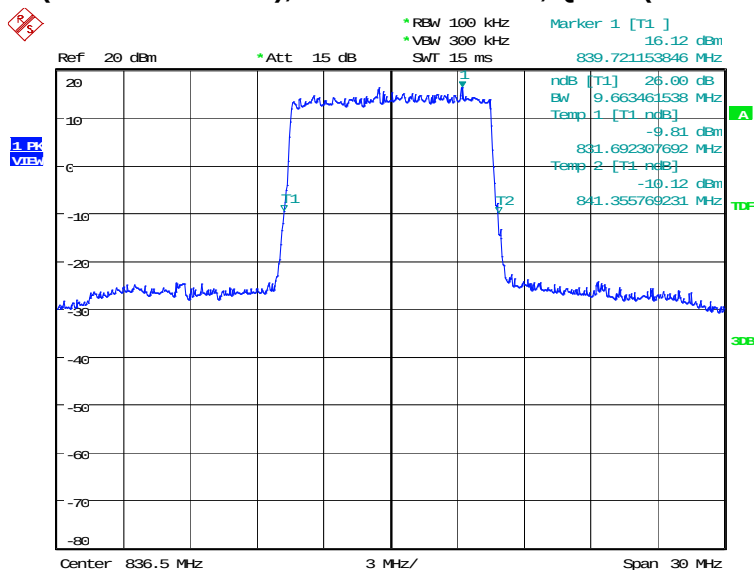


Date: 19.SEP.2019 15:36:42

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

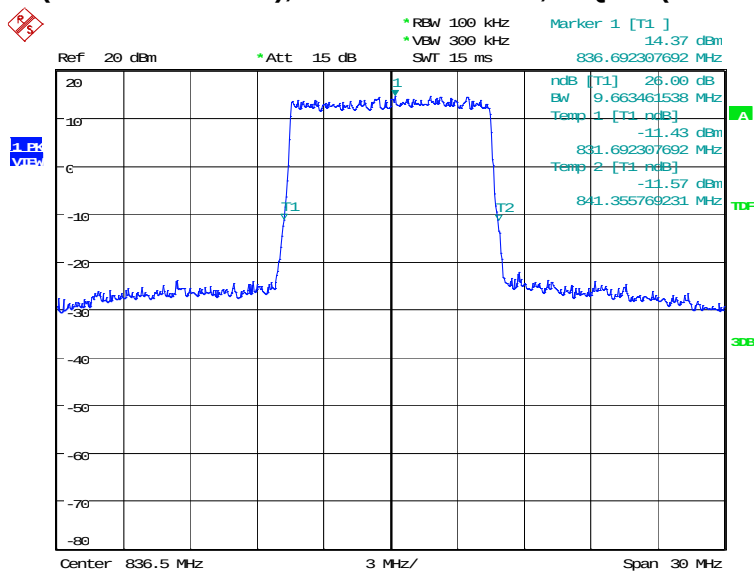
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	9663.46	9663.46	9567.31

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



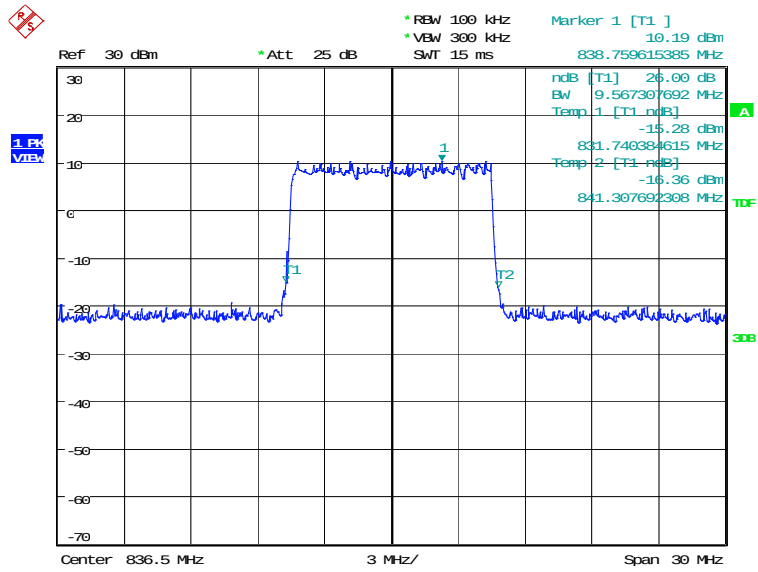
Date: 3.SEP.2019 19:56:58

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



Date: 3.SEP.2019 19:58:22

LTE band 26(824MHz~849MHz), 10MHz Bandwidth, 64QAM (-26dBc BW)

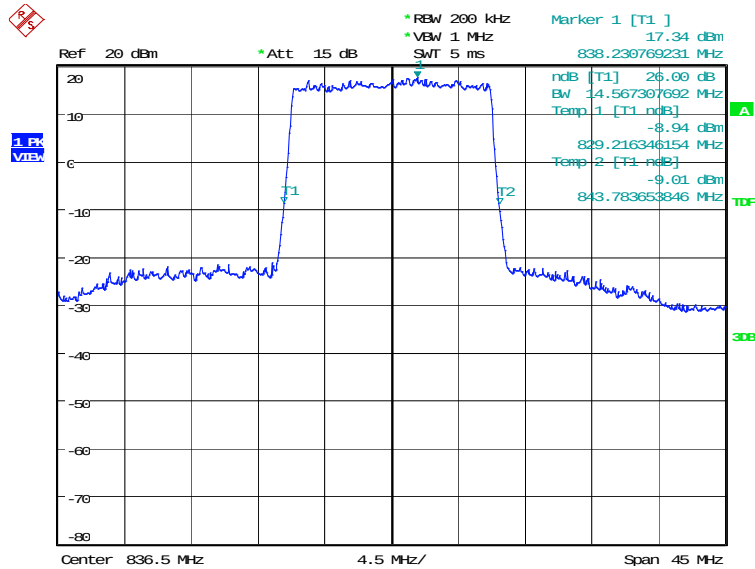


Date: 19.SEP.2019 15:37:46

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

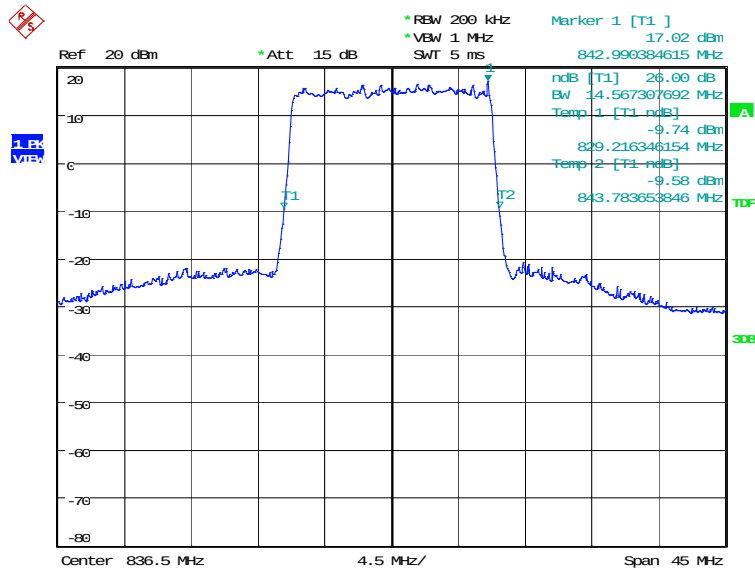
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	14567.31	14567.31	14567.31

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



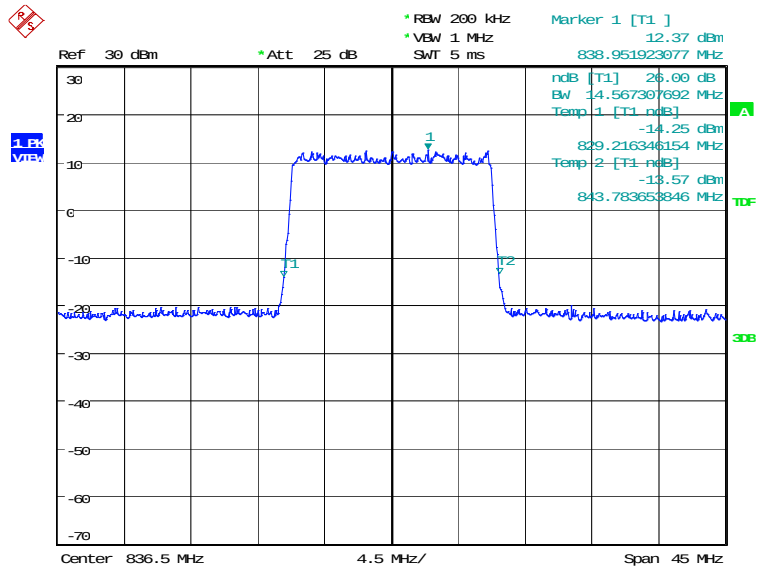
Date: 3.SEP.2019 20:00:36

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



Date: 3.SEP.2019 20:02:00

LTE band 26(824MHz~849MHz), 15MHz Bandwidth, 64QAM (-26dBc BW)

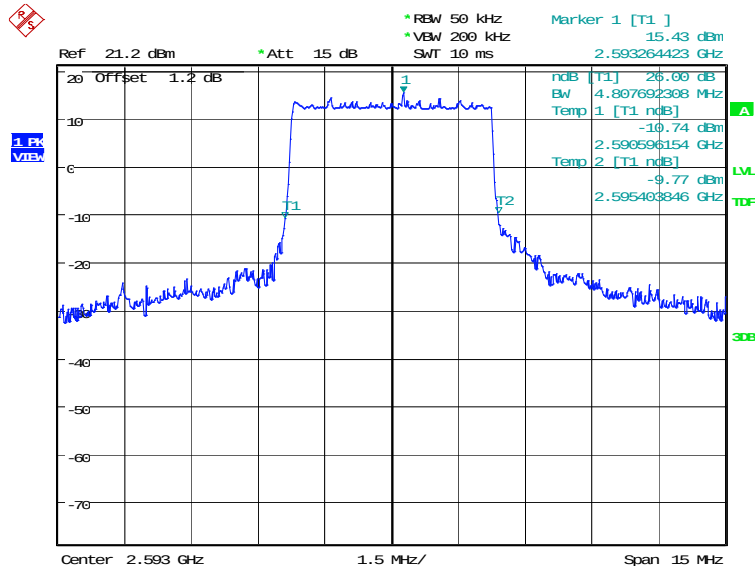


Date: 19.SEP.2019 15:38:51

LTE band 41(PC2), 5MHz (-26dBc)

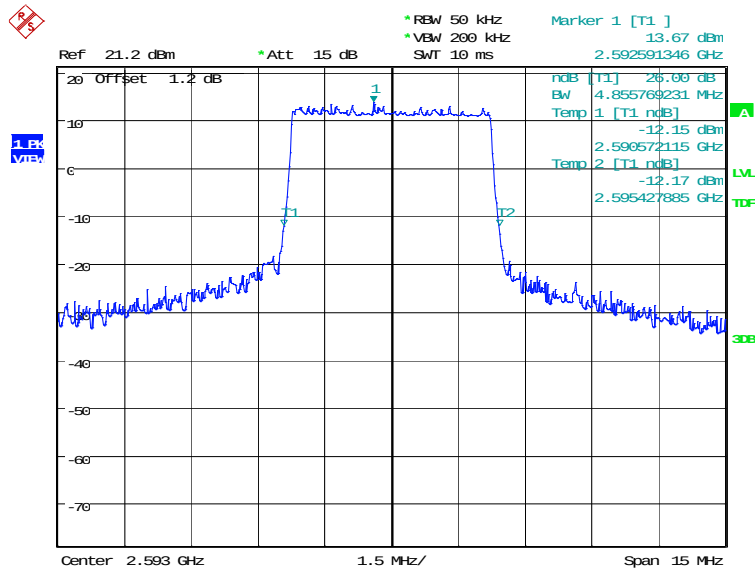
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	4807.69	4855.77	4735.58

LTE band 41(PC2), 5MHz Bandwidth, QPSK (-26dBc BW)



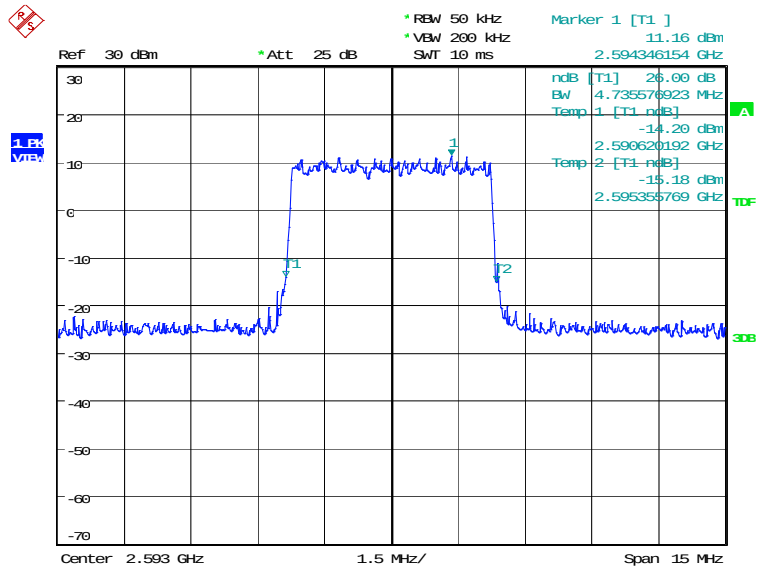
Date: 3.SEP.2019 20:40:28

LTE band 41(PC2), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:41:53

LTE band 41(PC2), 5MHz Bandwidth,64QAM (-26dBc BW)

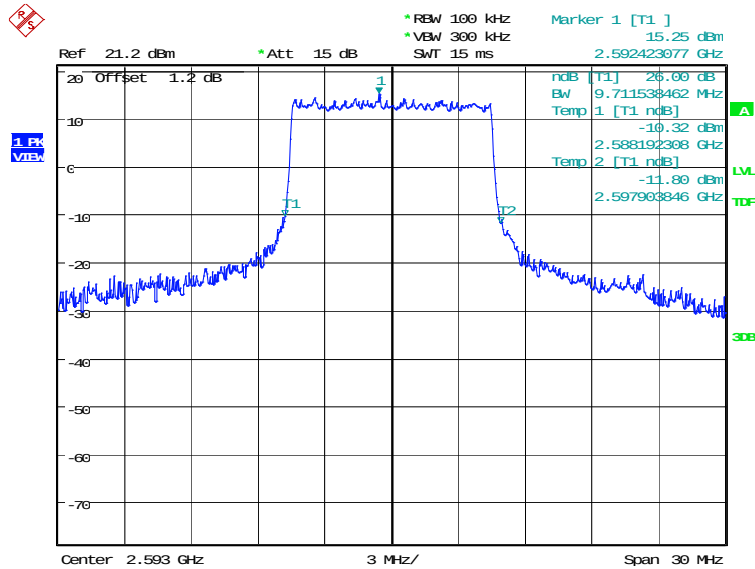


Date: 19.SEP.2019 15:46:43

LTE band 41(PC2), 10MHz (-26dBc)

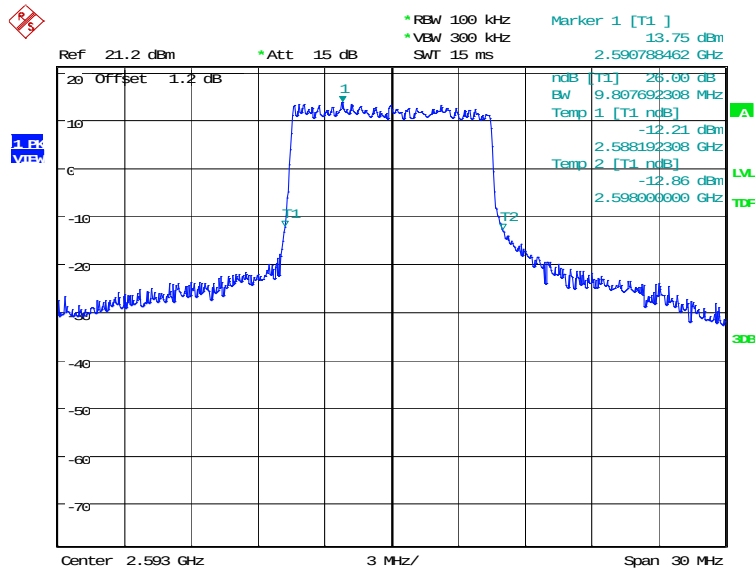
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	9711.54	9807.69	9567.31

LTE band 41(PC2), 10MHz Bandwidth, QPSK (-26dBc BW)



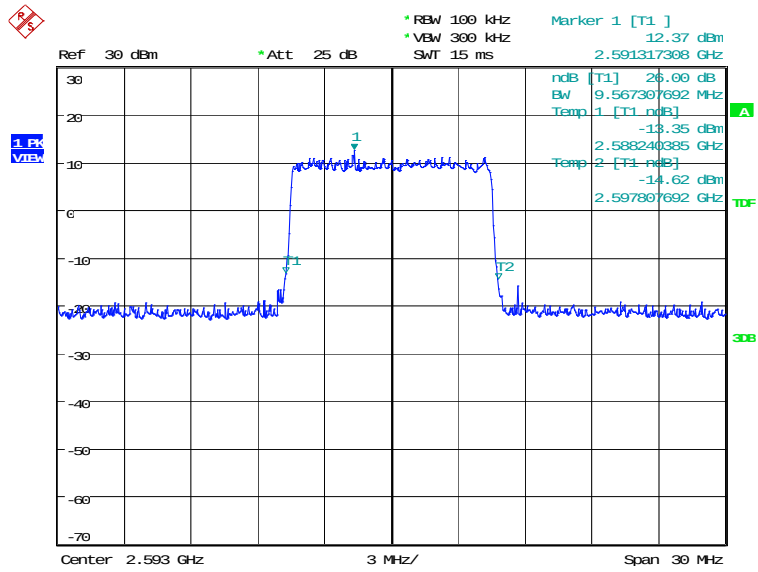
Date: 3.SEP.2019 20:44:06

LTE band 41(PC2), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:45:31

LTE band 41(PC2), 10MHz Bandwidth, 64QAM (-26dBc BW)

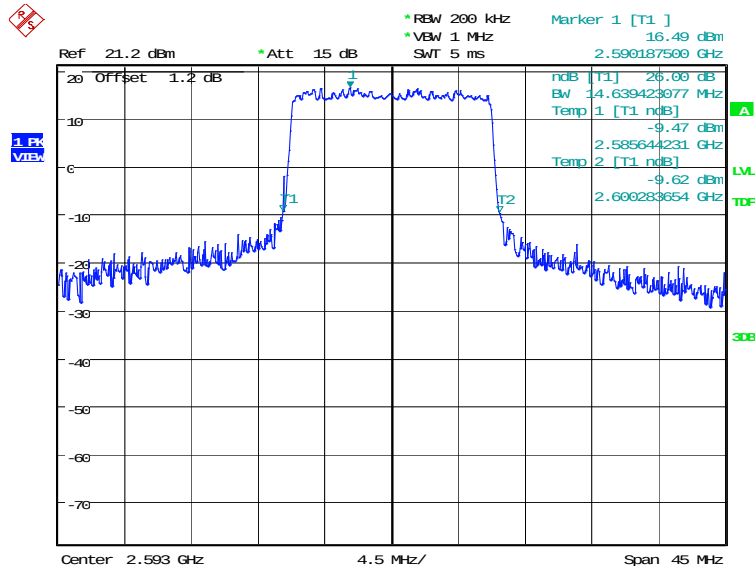


Date: 19.SEP.2019 15:48:08

LTE band 41(PC2), 15MHz (-26dBc)

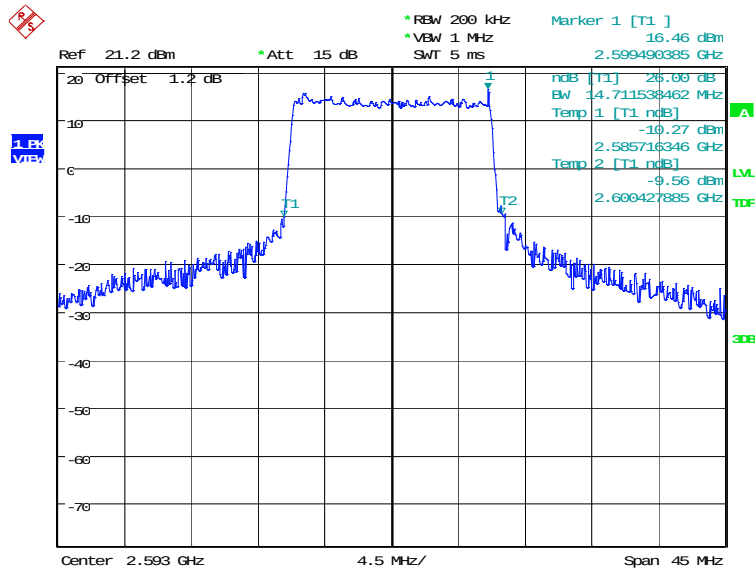
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	14639.42	14711.54	14495.19

LTE band 41(PC2), 15MHz Bandwidth, QPSK (-26dBc BW)



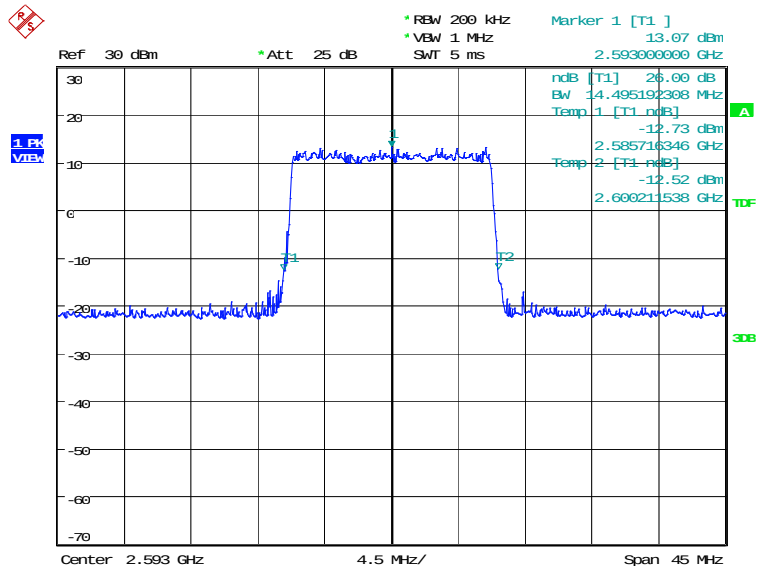
Date: 3.SEP.2019 20:47:46

LTE band 41(PC2), 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 3.SEP.2019 20:49:11

LTE band 41(PC2), 15MHz Bandwidth, 64QAM (-26dBc BW)

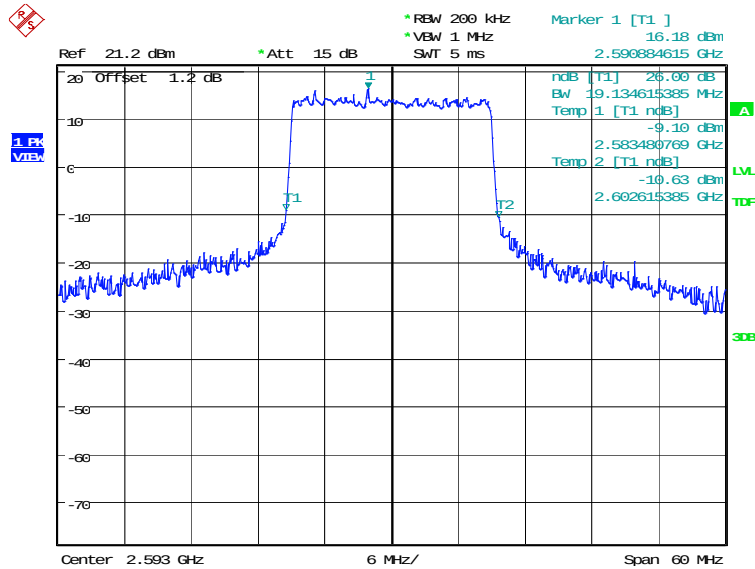


Date: 19.SEP.2019 15:49:48

LTE band 41(PC2), 20MHz (-26dBc)

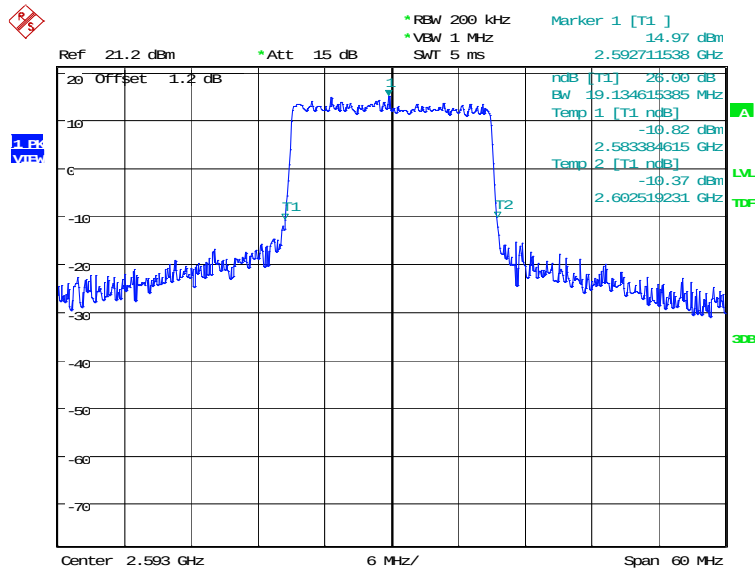
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	19134.62	19134.62	19134.62

LTE band 41(PC2), 20MHz Bandwidth, QPSK (-26dBc BW)

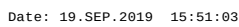


Date: 3.SEP.2019 20:51:29

LTE band 41(PC2), 20MHz Bandwidth, 16QAM (-26dBc BW)



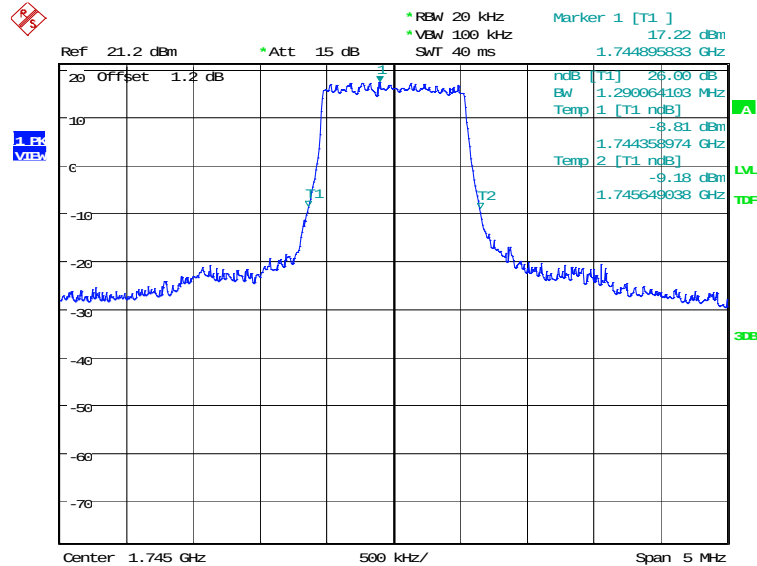
Date: 3.SEP.2019 20:52:53



LTE band 66, 1.4MHz (-26dBc)

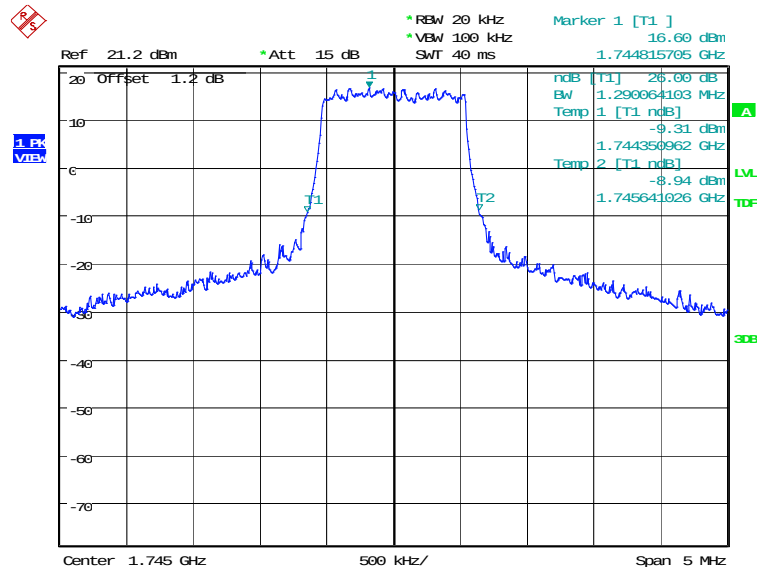
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	1290.06	1290.06	1282.05

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



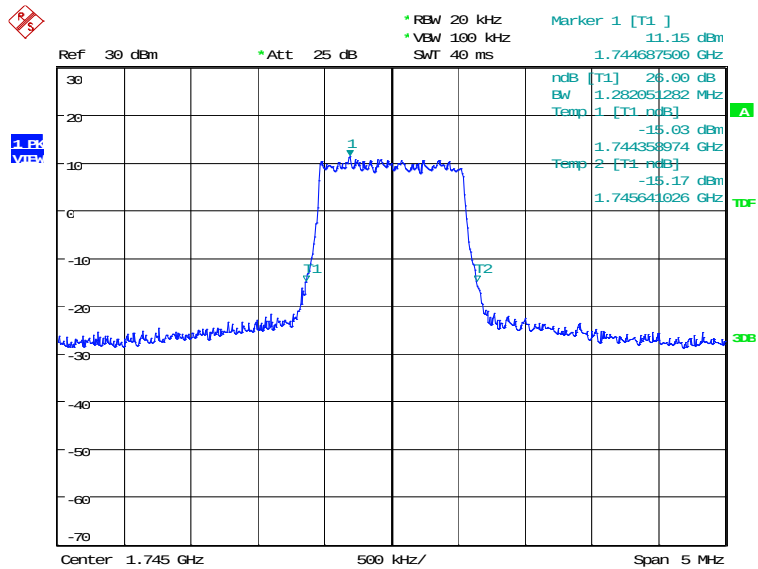
Date: 3.SEP.2019 20:18:35

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



Date: 3.SEP.2019 20:19:59

LTE band 66, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

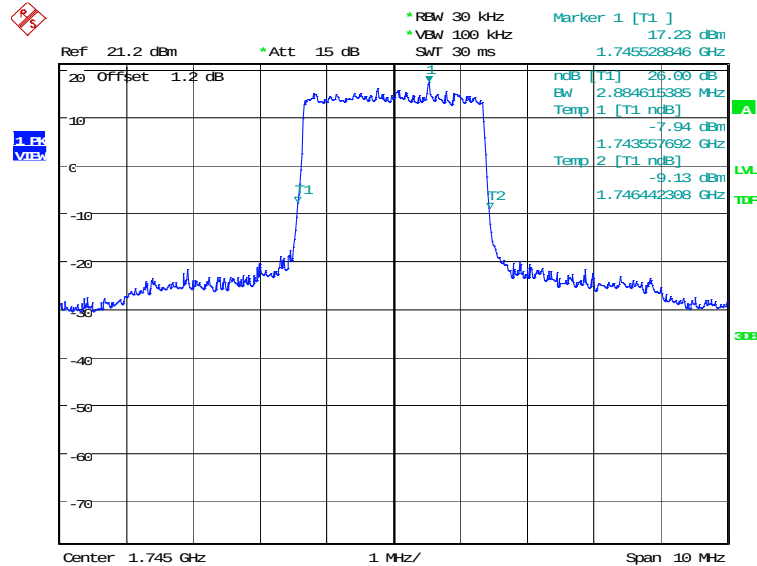


Date: 19.SEP.2019 15:53:15

LTE band 66, 3MHz (-26dBc)

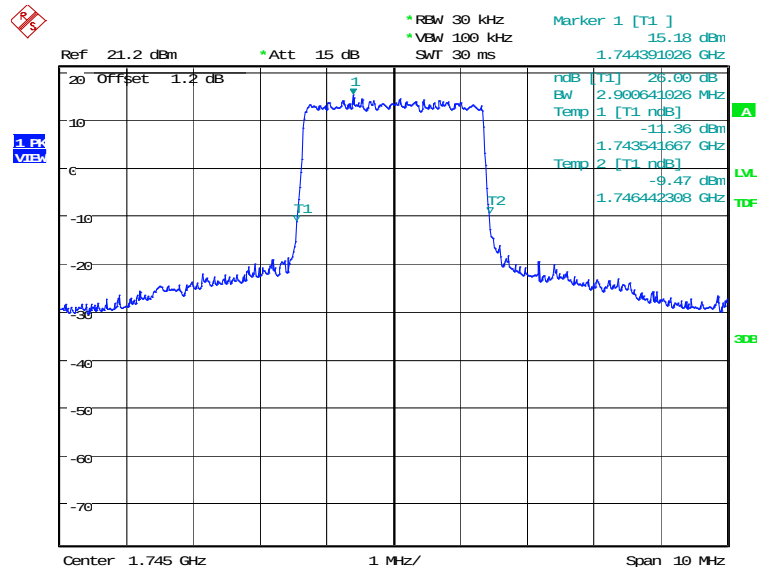
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	2884.62	2900.64	2900.64

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



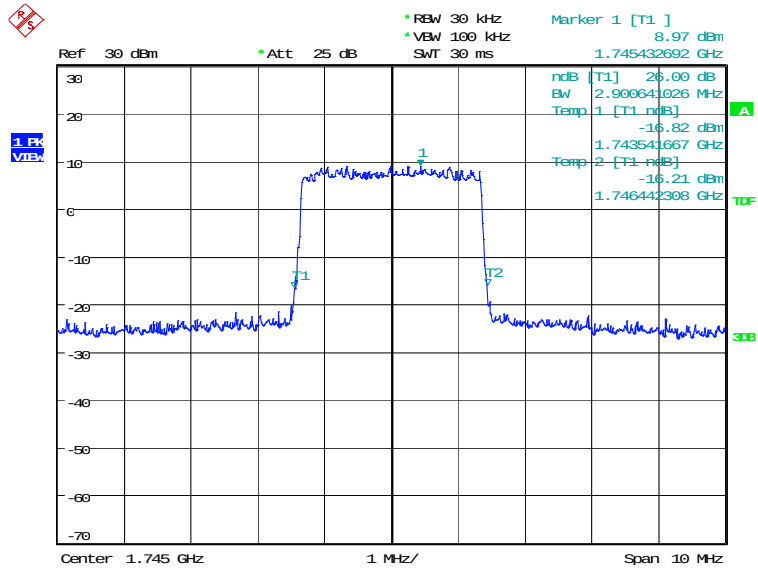
Date: 3.SEP.2019 20:22:13

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



Date: 3.SEP.2019 20:23:37

LTE band 66, 3MHz Bandwidth, 64QAM (-26dBc BW)

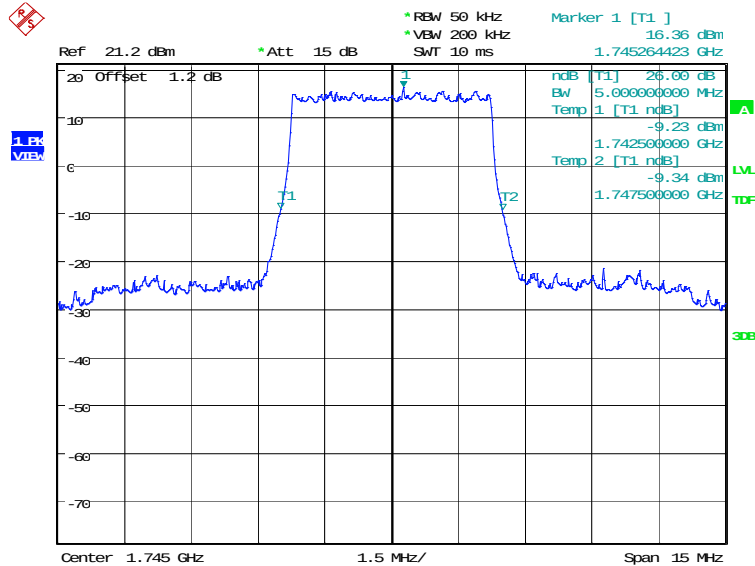


Date: 19.SEP.2019 15:54:44

LTE band 66, 5MHz (-26dBc)

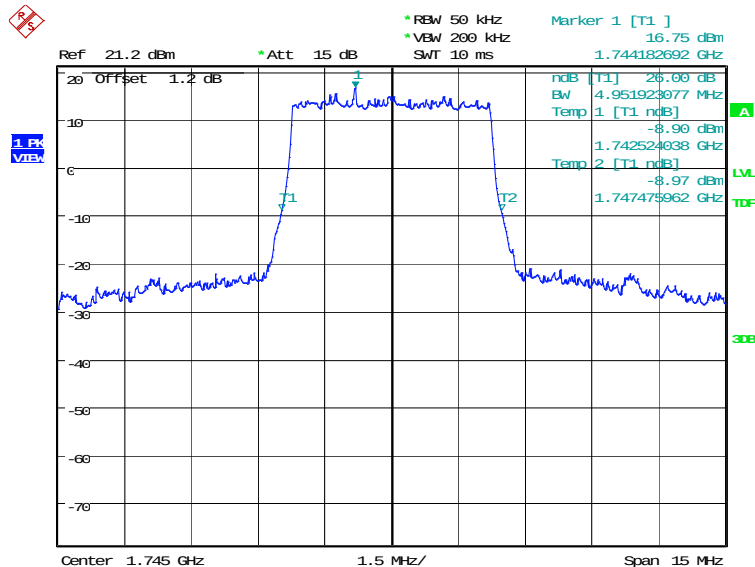
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	5000.00	4951.92	5024.04

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



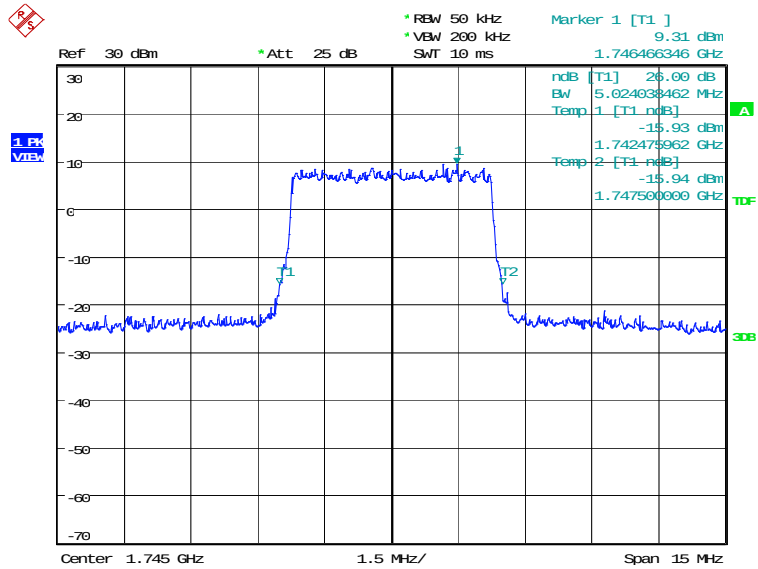
Date: 3.SEP.2019 20:25:51

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



Date: 3.SEP.2019 20:27:15

LTE band 66, 5MHz Bandwidth,64QAM (-26dBc BW)

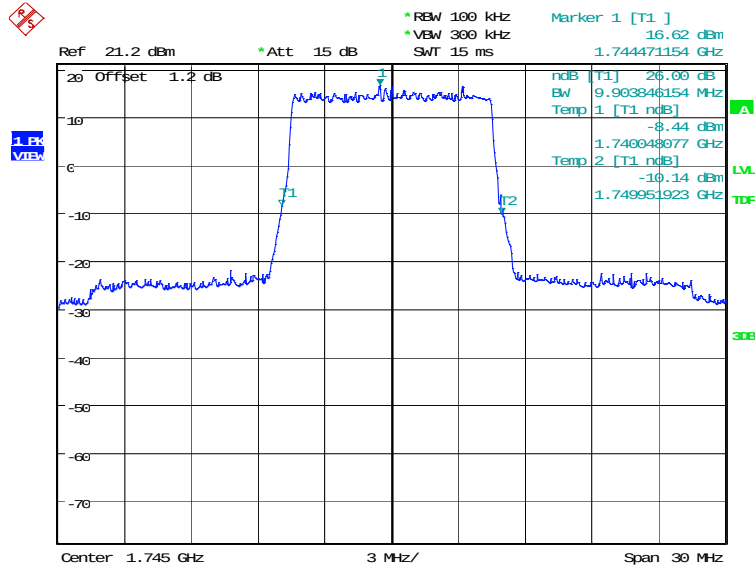


Date: 19.SEP.2019 15:56:24

LTE band 66, 10MHz (-26dBc)

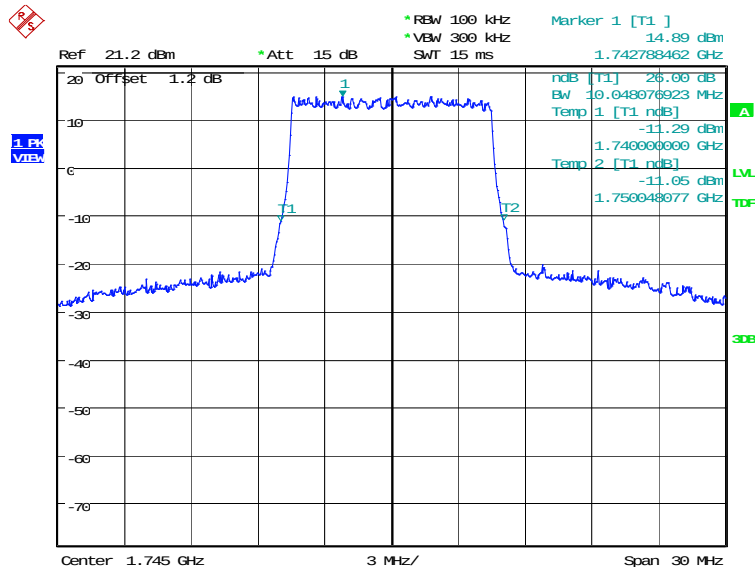
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	9903.85	10048.08	10000.00

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



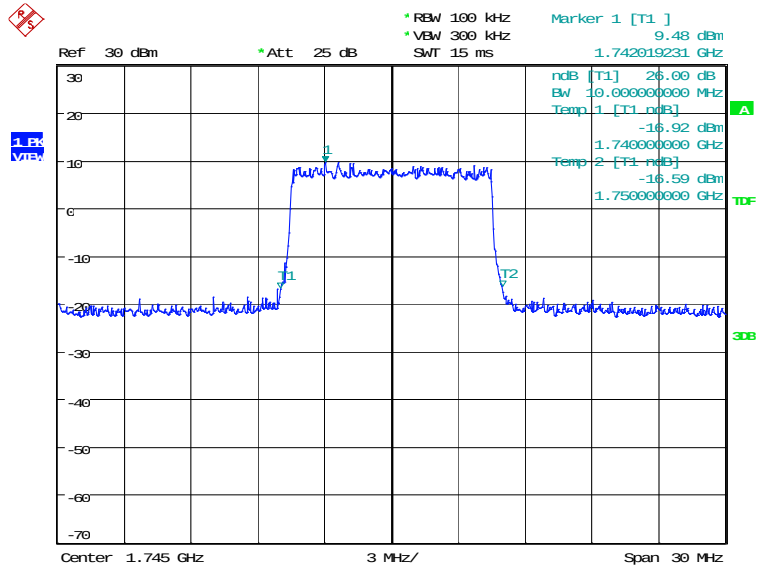
Date: 3.SEP.2019 20:29:28

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



Date: 3.SEP.2019 20:30:52

LTE band 66, 10MHz Bandwidth, 64QAM (-26dBc BW)

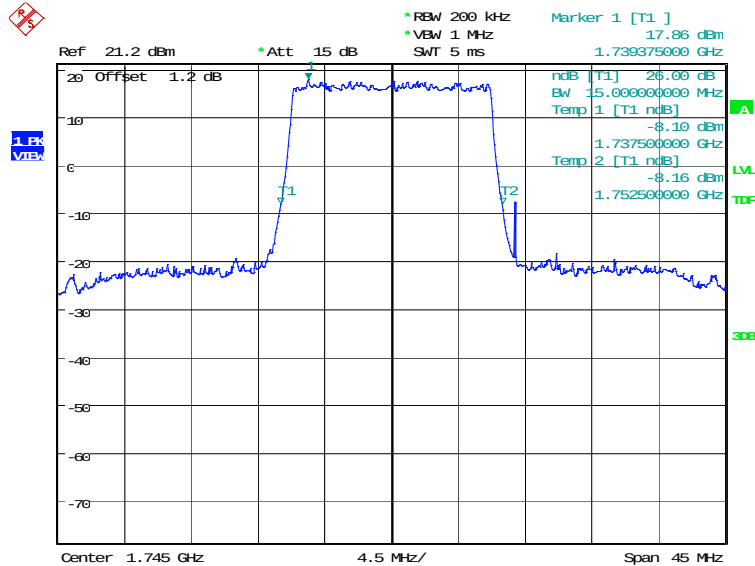


Date: 19.SEP.2019 15:58:12

LTE band 66, 15MHz (-26dBc)

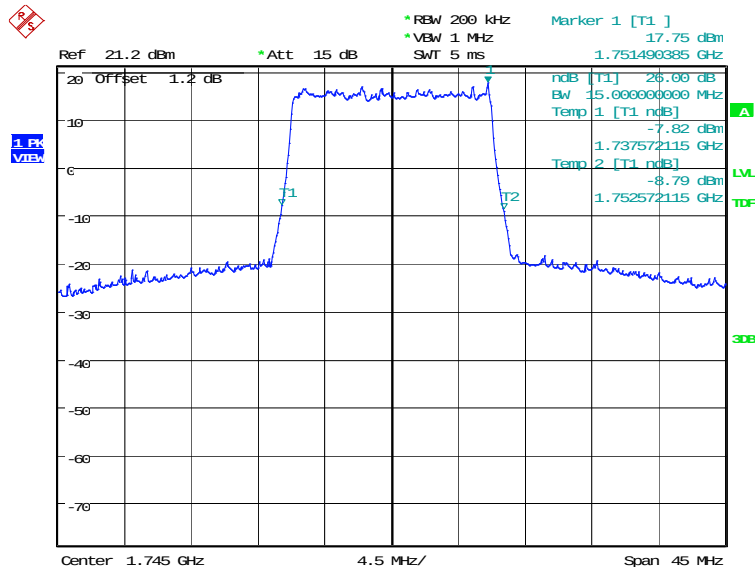
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	15000.00	15000.00	15072.12

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



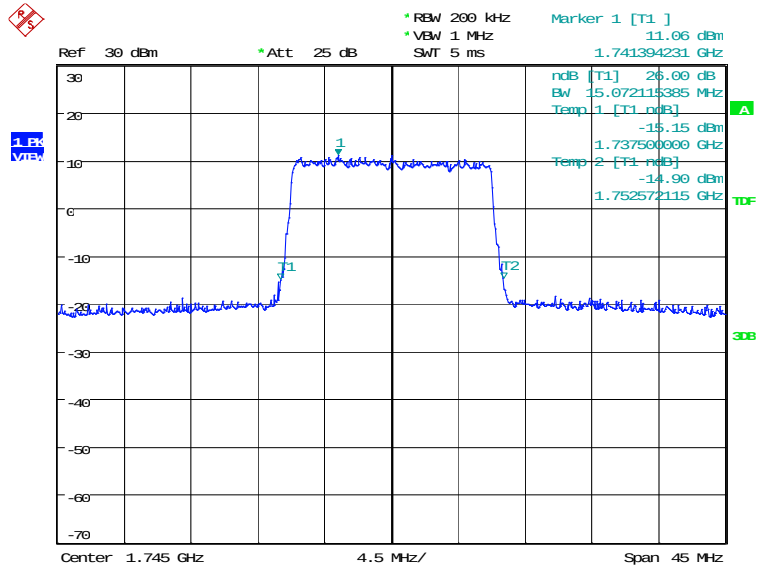
Date: 3.SEP.2019 20:33:06

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



Date: 3.SEP.2019 20:34:30

LTE band 66, 15MHz Bandwidth, 64QAM (-26dBc BW)

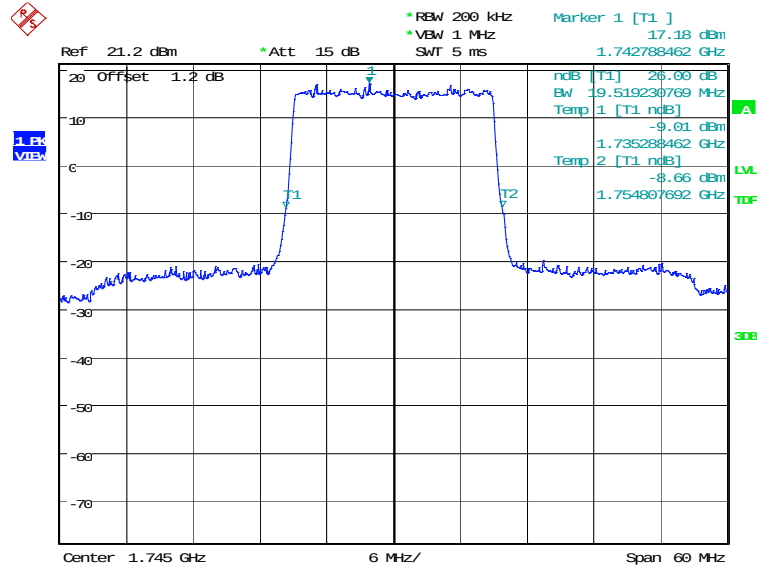


Date: 19.SEP.2019 16:00:54

LTE band 66, 20MHz (-26dBc)

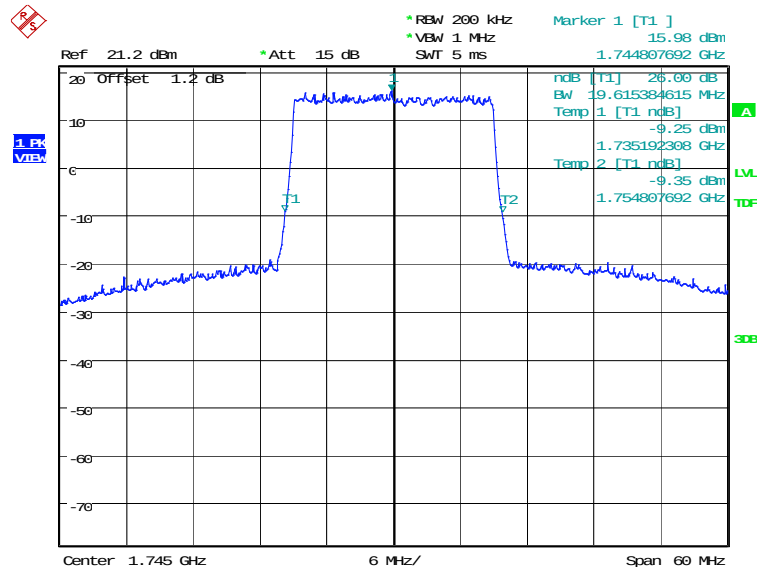
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	19519.23	19615.38	19519.23

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



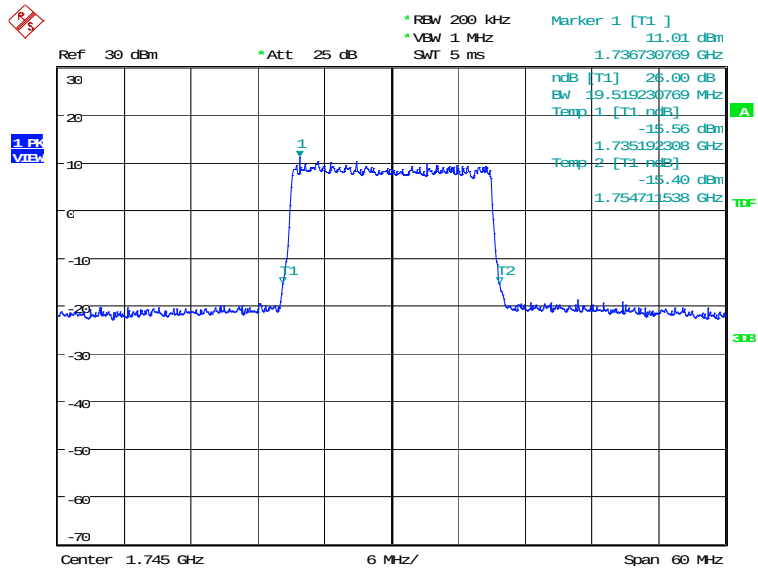
Date: 3.SEP.2019 20:36:44

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



Date: 3.SEP.2019 20:38:08

LTE band 66, 20MHz Bandwidth, 64QAM (-26dBc BW)

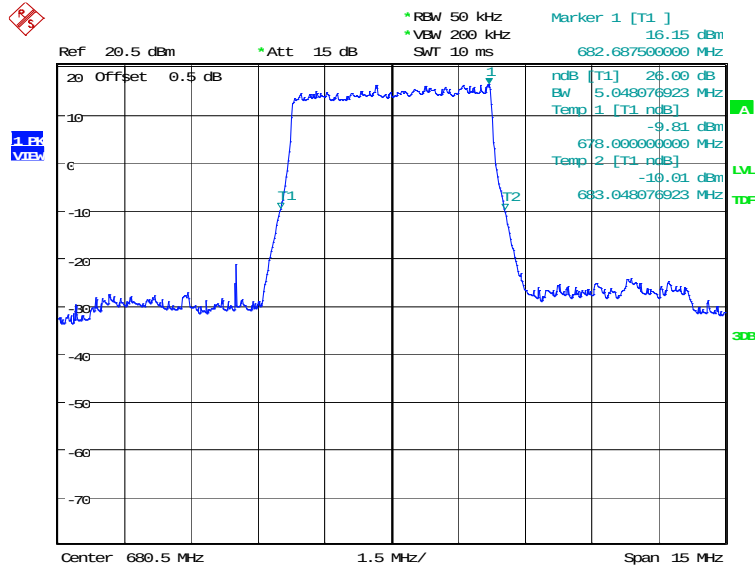


Date: 19.SEP.2019 16:03:59

LTE band 71, 5MHz (-26dBc)

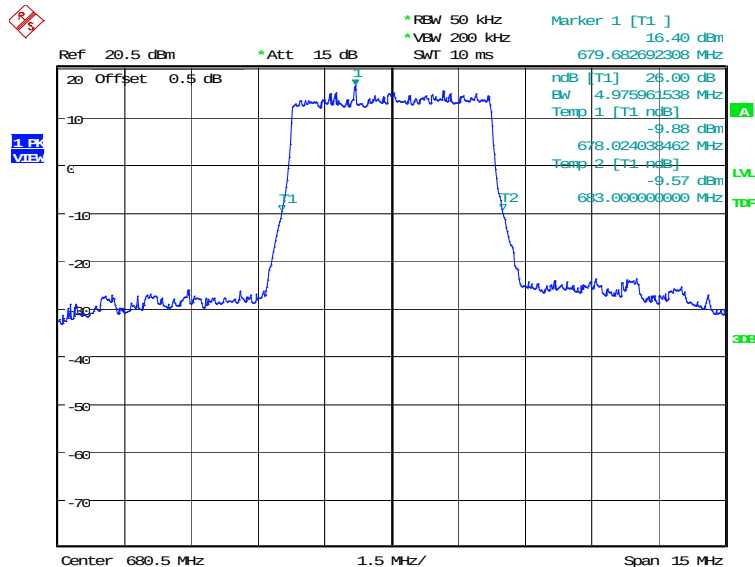
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
680.5	QPSK	16QAM	64QAM
	5048.08	4975.96	5048.08

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



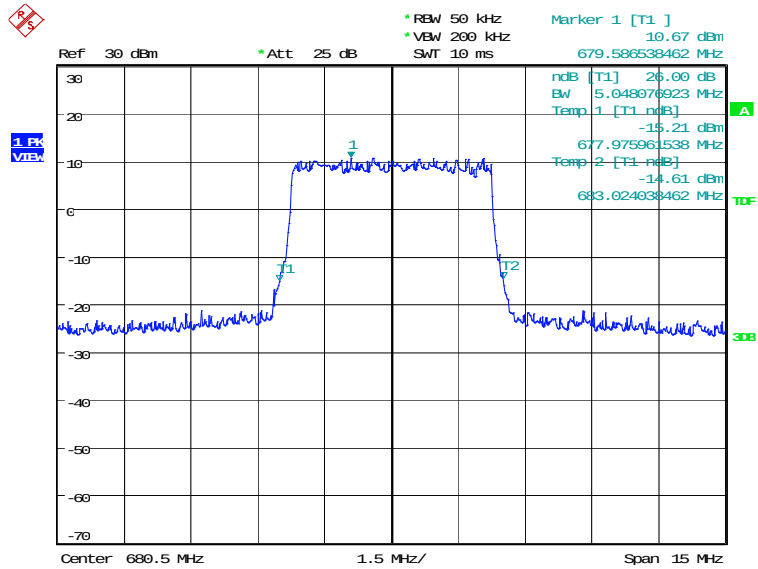
Date: 4.SEP.2019 08:26:15

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



Date: 4.SEP.2019 08:27:38

LTE band 71, 5MHz Bandwidth,64QAM (-26dBc BW)

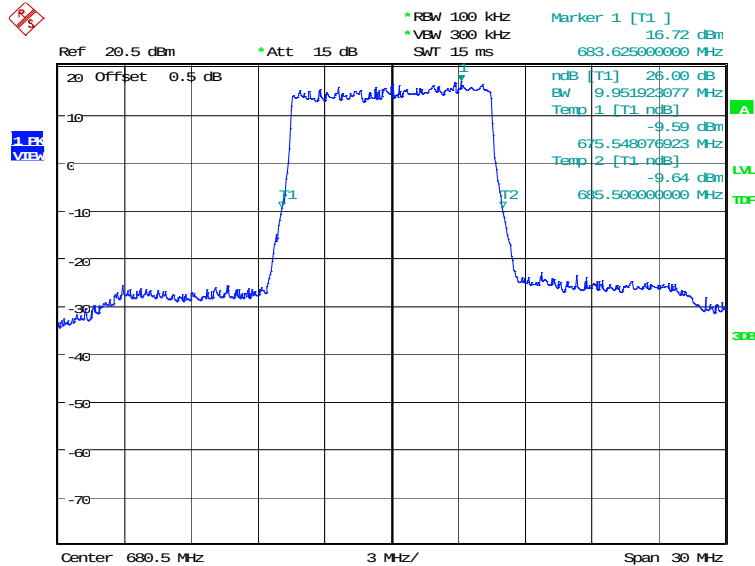


Date: 19.SEP.2019 16:07:45

LTE band 71, 10MHz (-26dBc)

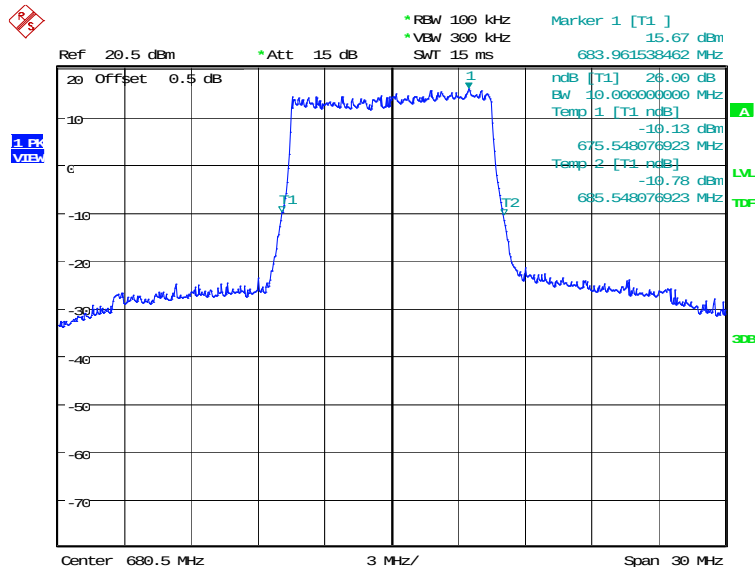
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
680.5	QPSK	16QAM	64QAM
	9951.92	10000.00	9903.85

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



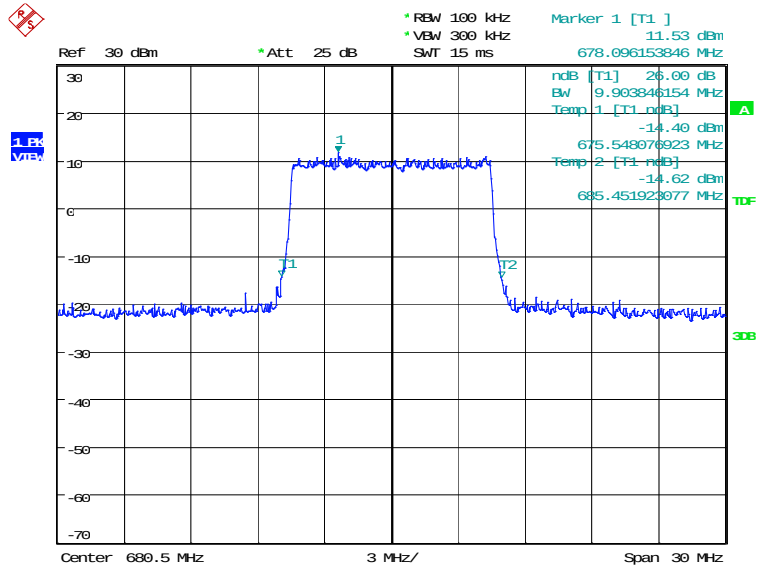
Date: 4.SEP.2019 08:29:52

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



Date: 4.SEP.2019 08:31:15

LTE band 71, 10MHz Bandwidth, 64QAM (-26dBc BW)

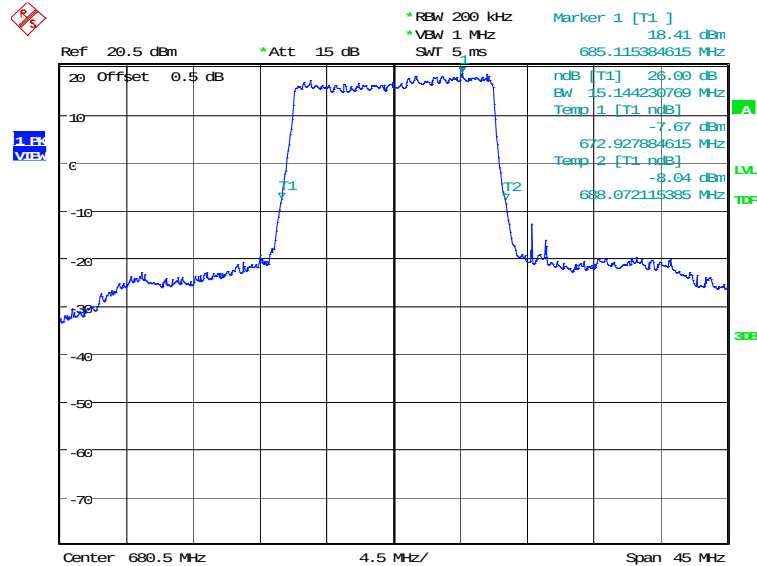


Date: 19.SEP.2019 16:09:05

LTE band 71, 15MHz (-26dBc)

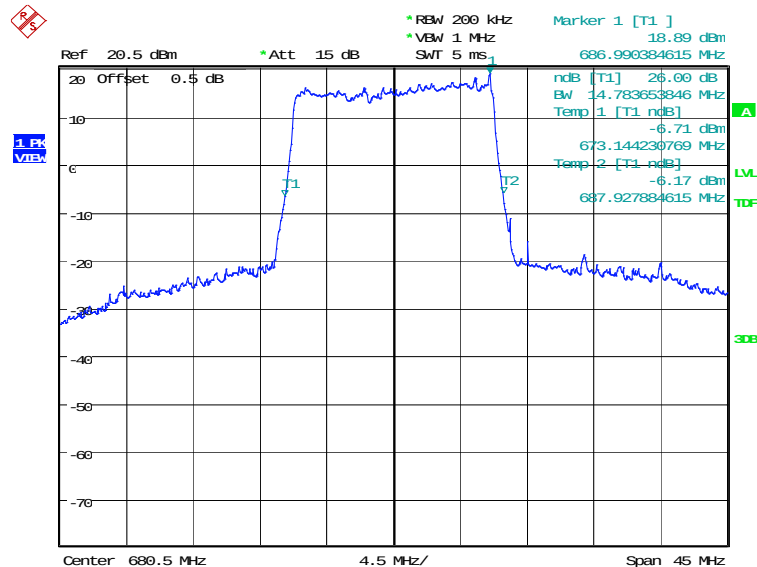
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
680.5	QPSK	16QAM	64QAM
	15144.23	14783.65	15072.12

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



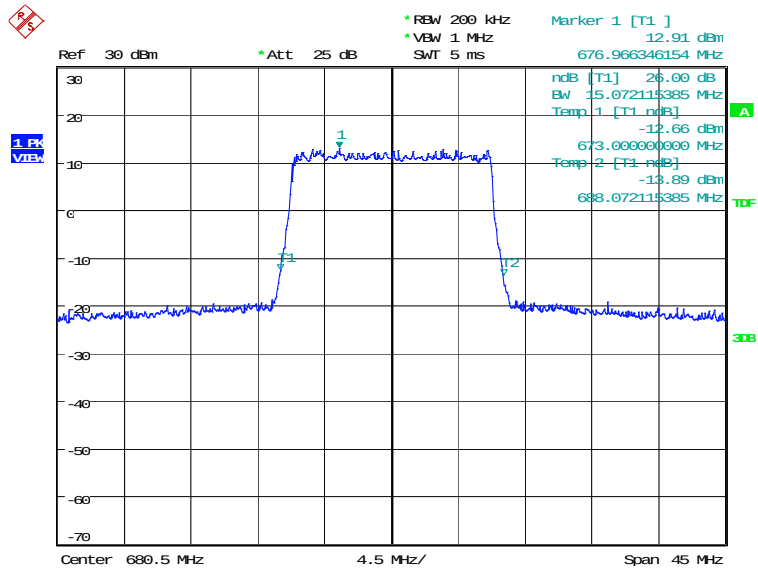
Date: 4.SEP.2019 08:33:28

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



Date: 4.SEP.2019 08:34:52

LTE band 71, 15MHz Bandwidth, 64QAM (-26dBc BW)

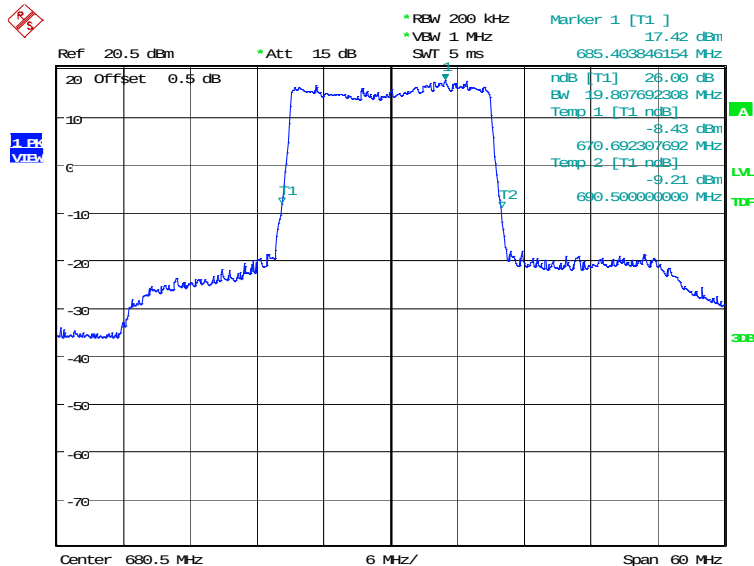


Date: 19.SEP.2019 16:10:56

LTE band 71, 20MHz (-26dBc)

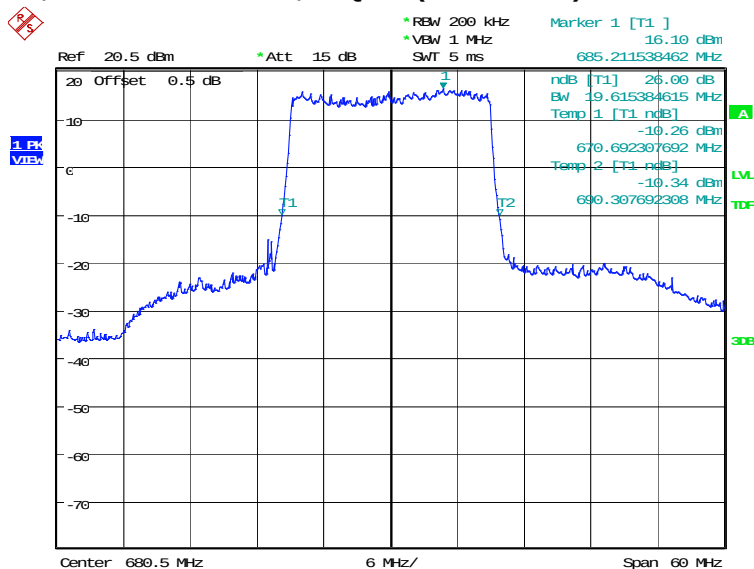
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
680.5	QPSK	16QAM	64QAM
	19807.69	19615.38	19423.08

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



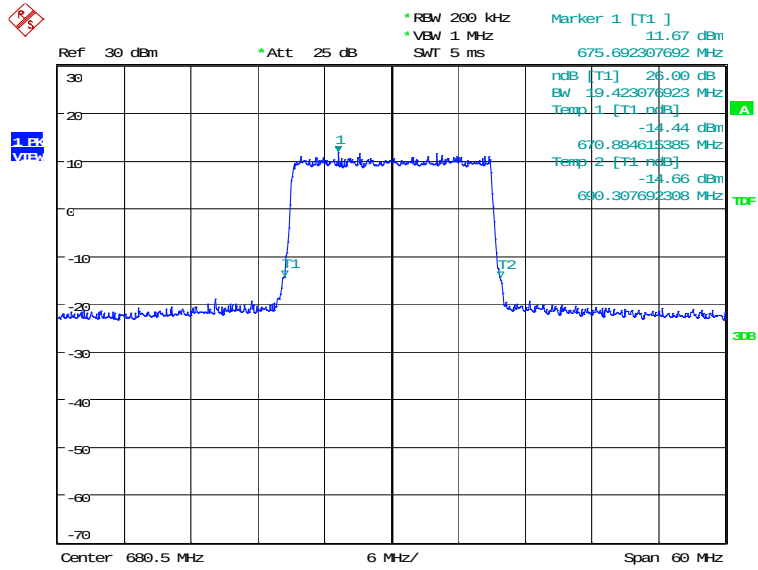
Date: 4.SEP.2019 08:37:05

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



Date: 4.SEP.2019 08:38:29

LTE band 71, 20MHz Bandwidth, 64QAM (-26dBc BW)



Date: 19.SEP.2019 16:13:08

A.6 BAND EDGE COMPLIANCE

A.6.1 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.

According to KDB 971168 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.

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

Part 27.53(m)(4) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

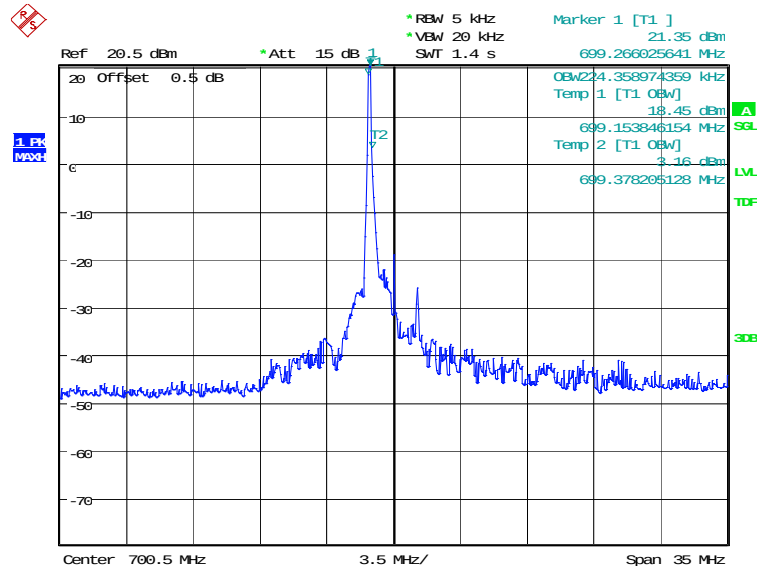
Part 90.691 states that out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee’s frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee’s frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

A.6.2 Measurement result

Only the worst case result is given below

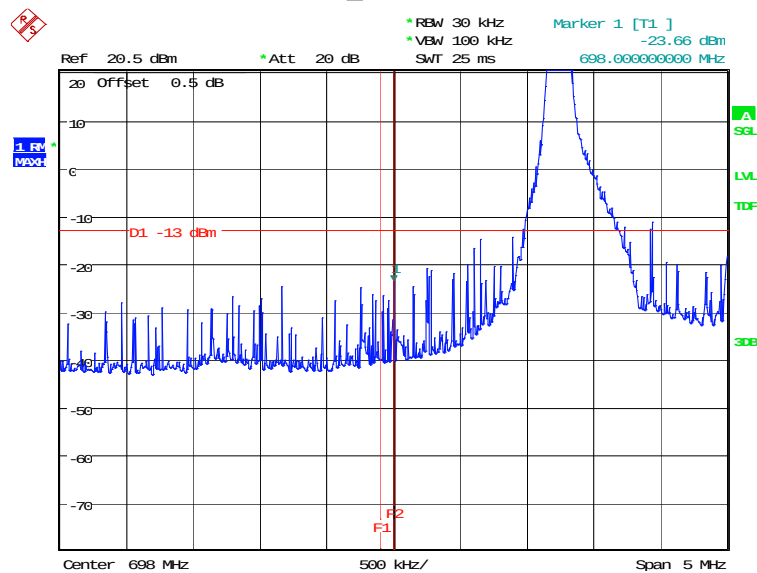
LTE band 12

OBW: 1RB-low_offset



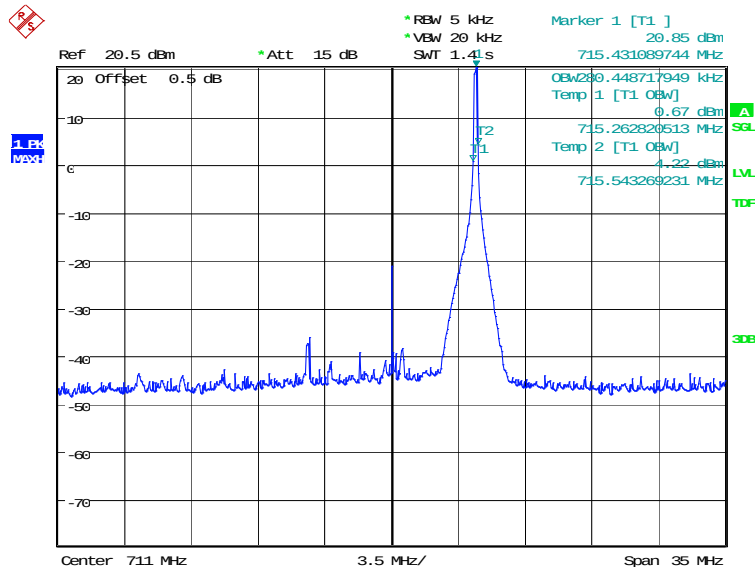
Date: 9.OCT.2019 10:58:30

LOW BAND EDGE BLOCK-1RB-low_offset



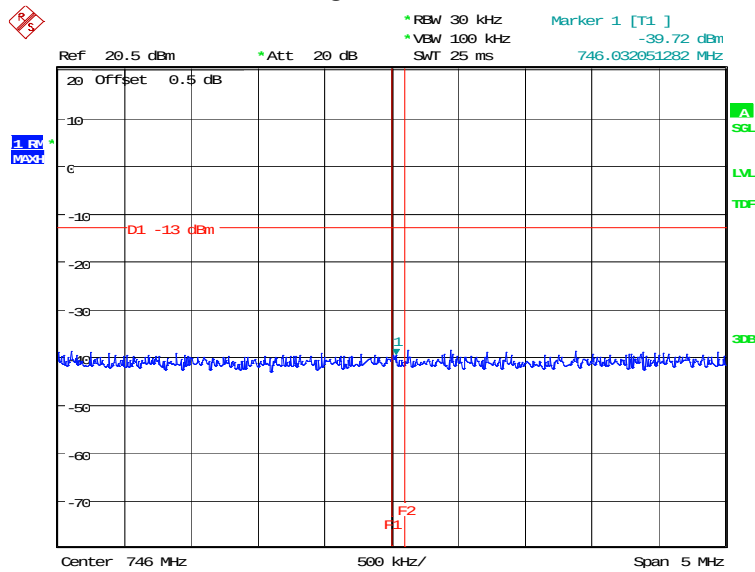
Date: 9.OCT.2019 10:58:45

OBW: 1RB-high_offset



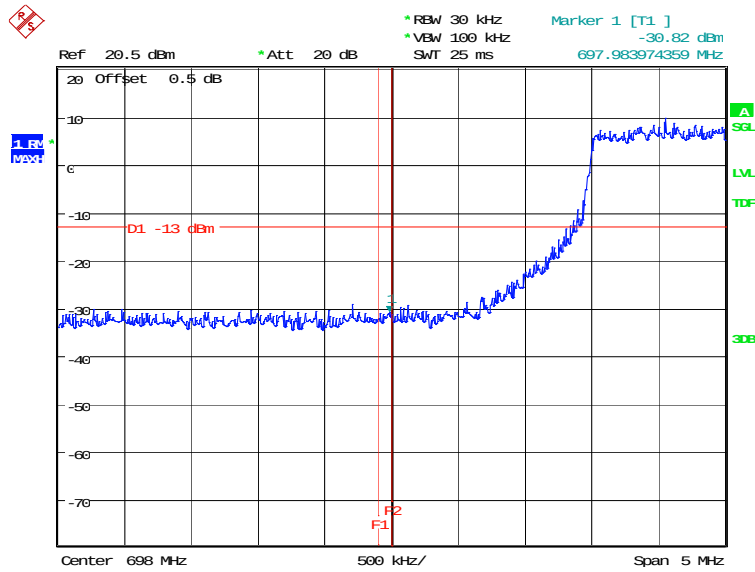
Date: 9.OCT.2019 11:01:22

HIGH BAND EDGE BLOCK-1RB-high_offset



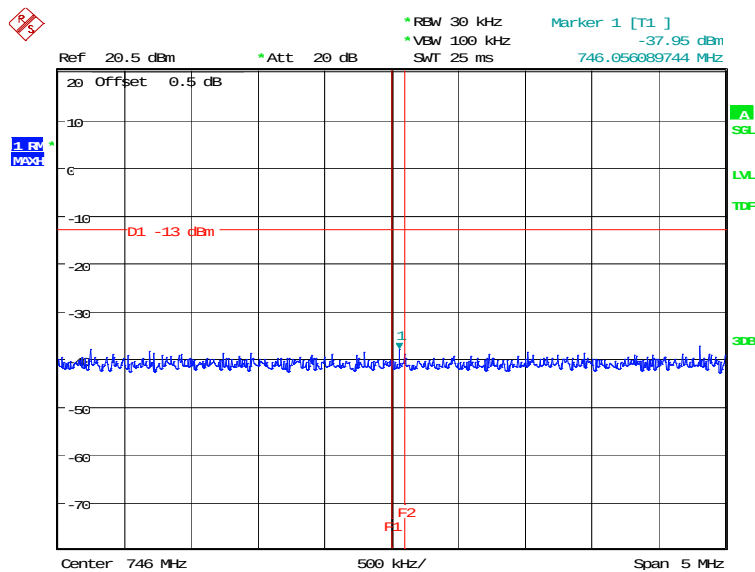
Date: 9.OCT.2019 11:01:37

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 11.OCT.2019 10:31:18

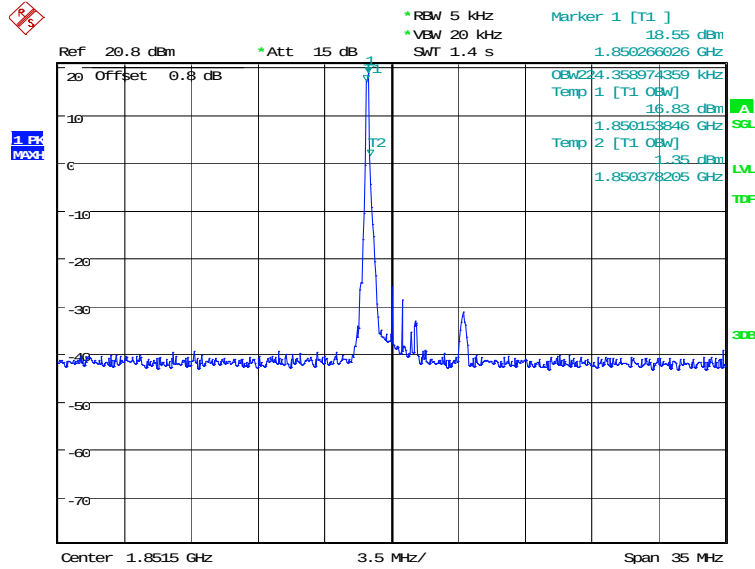
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 11.OCT.2019 10:31:48

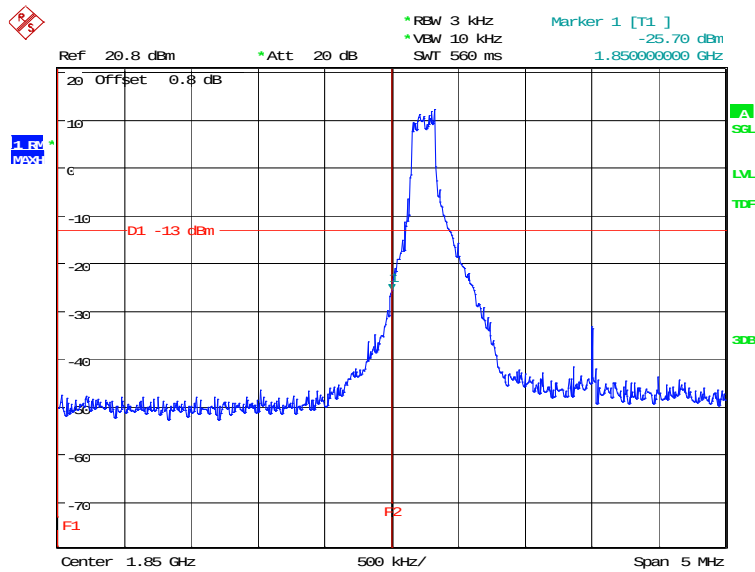
LTE band 25

OBW: 1RB-low_offset



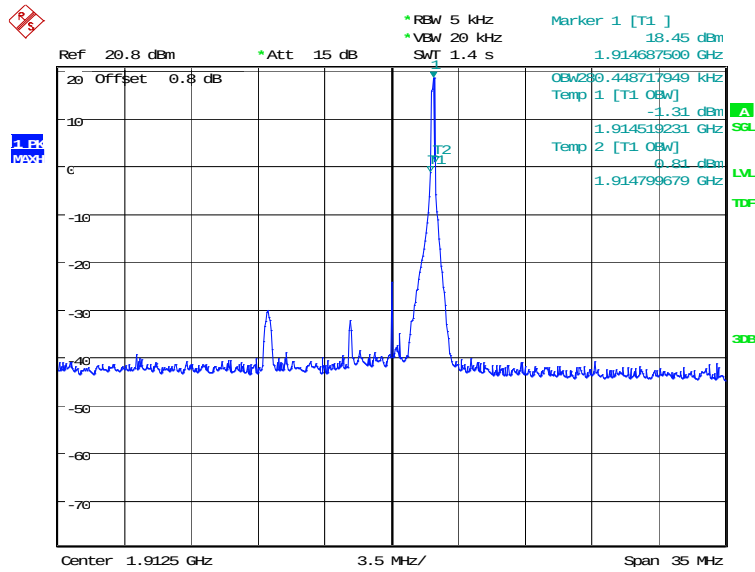
Date: 9.OCT.2019 11:05:23

LOW BAND EDGE BLOCK-1RB-low_offset



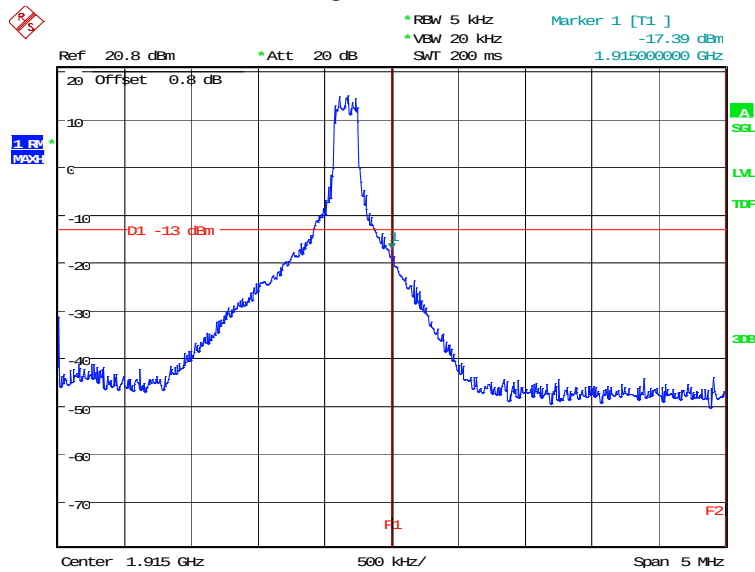
Date: 9.OCT.2019 11:05:38

OBW: 1RB-high_offset



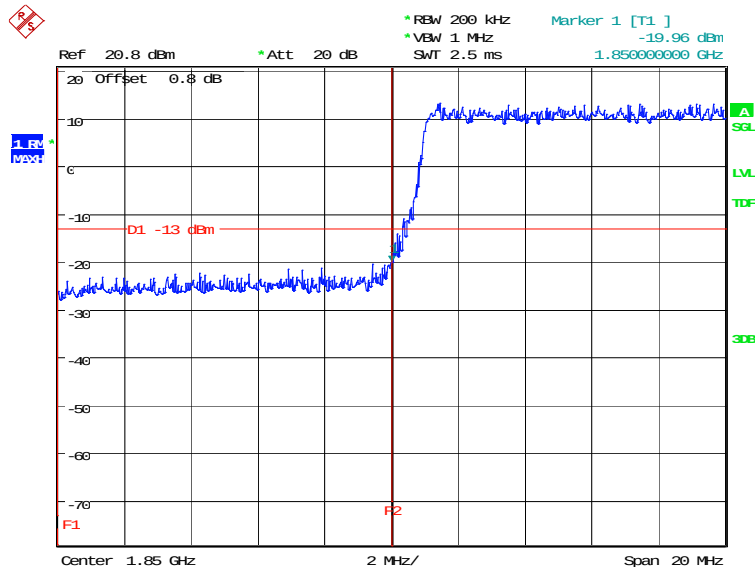
Date: 9.OCT.2019 11:08:14

HIGH BAND EDGE BLOCK-1RB-high_offset



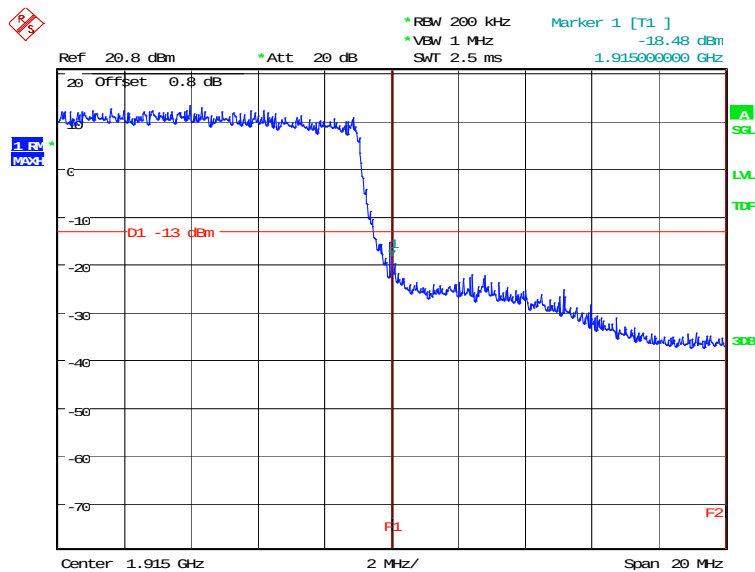
Date: 9.OCT.2019 11:08:29

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 9.OCT.2019 11:06:15

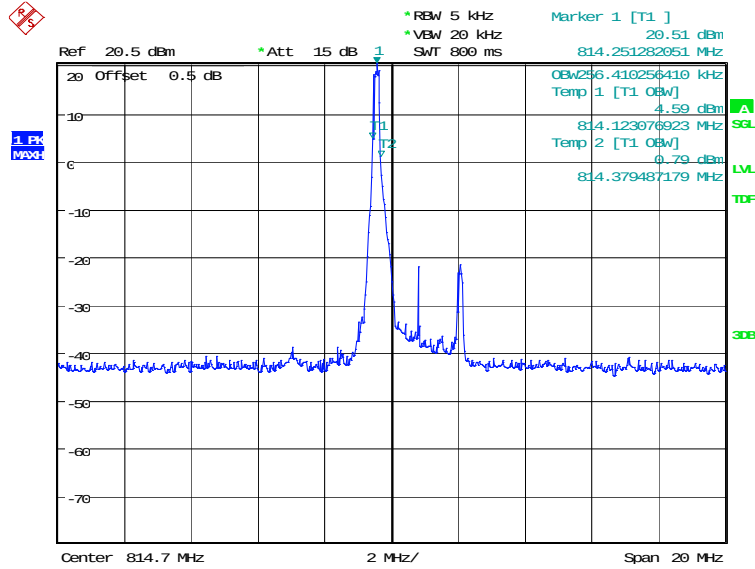
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 9.OCT.2019 11:14:24

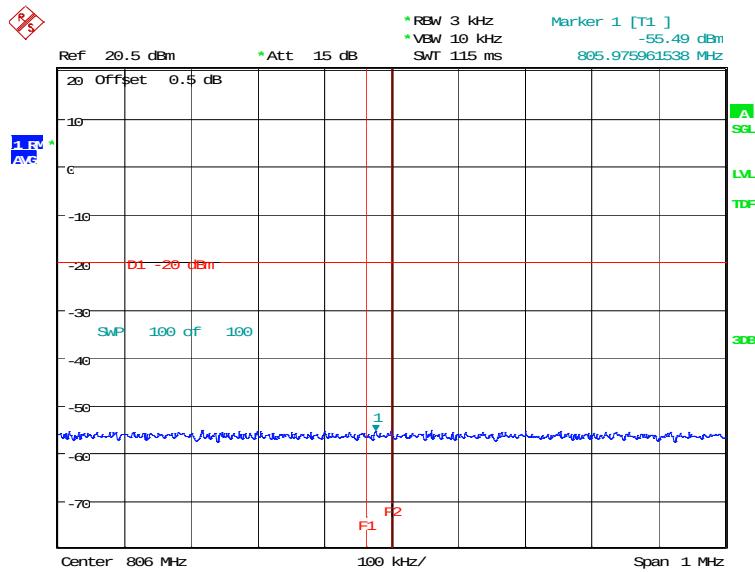
LTE band 26(814MHz~824MHz)

OBW: 1RB-low_offset



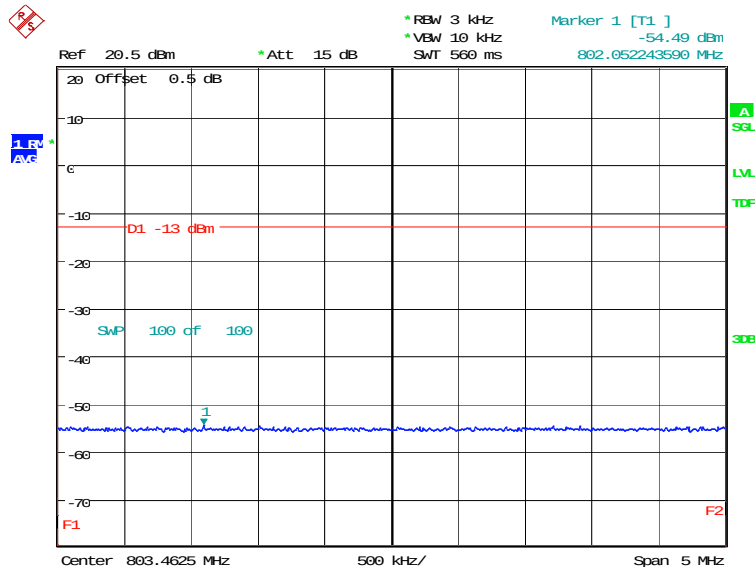
Date: 10.OCT.2019 13:47:27

LOW BAND EDGE BLOCK-1RB-low_offset



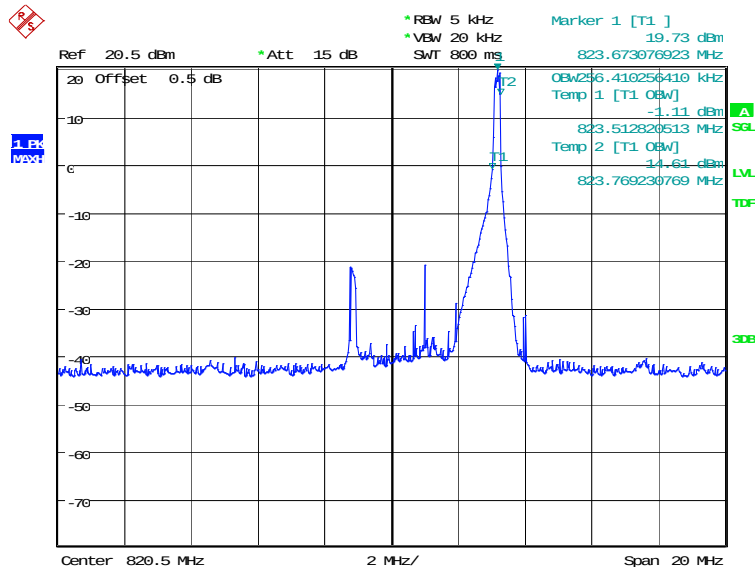
Date: 10.OCT.2019 13:47:53

LOW Emission Mask -1RB-low_offset



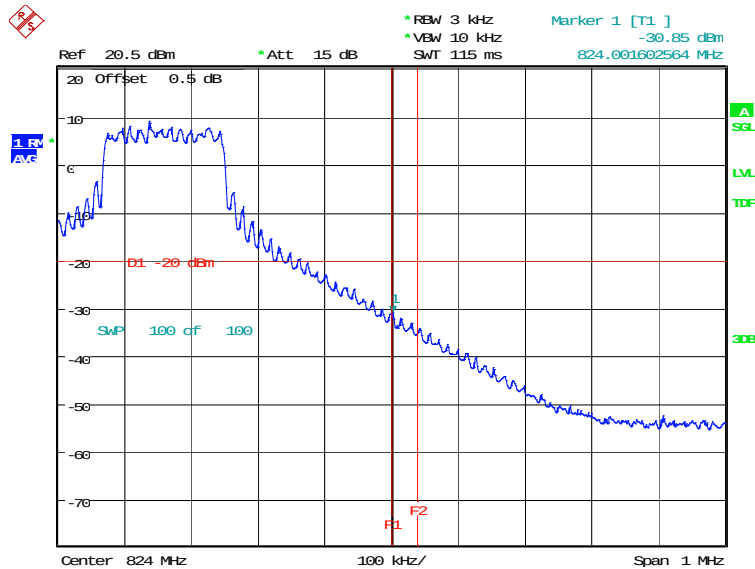
Date: 10.OCT.2019 13:49:07

OBW: 1RB-high_offset



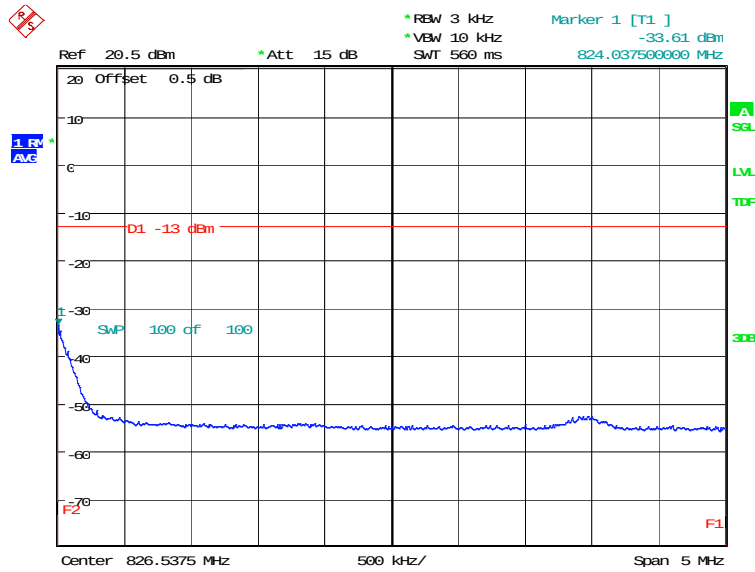
Date: 10.OCT.2019 13:51:29

HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 10.OCT.2019 13:51:54

HIGH Emission Mask -1RB-high_offset

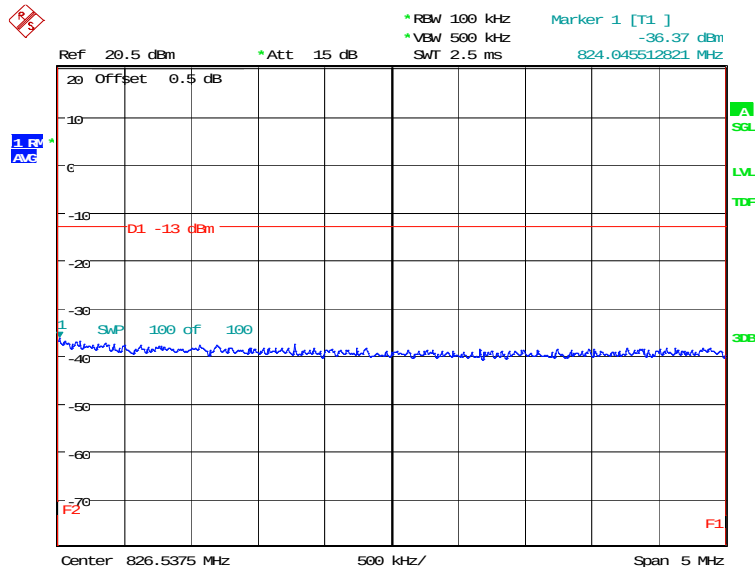


Date: 10.OCT.2019 13:53:06

Date: 10.OCT.2019 13:50:02

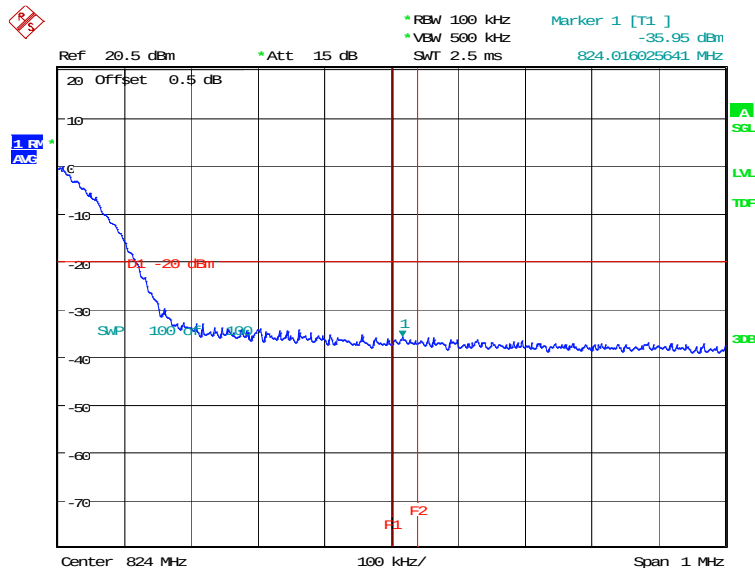
Date: 10.OCT.2019 13:49:44

HIGH Emission Mask -10MHz-100%RB



Date: 10.OCT.2019 13:54:42

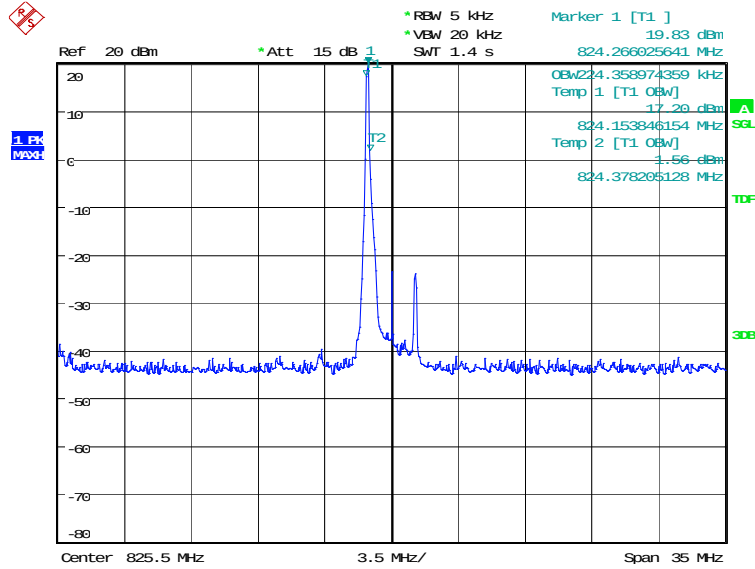
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 10.OCT.2019 13:54:25

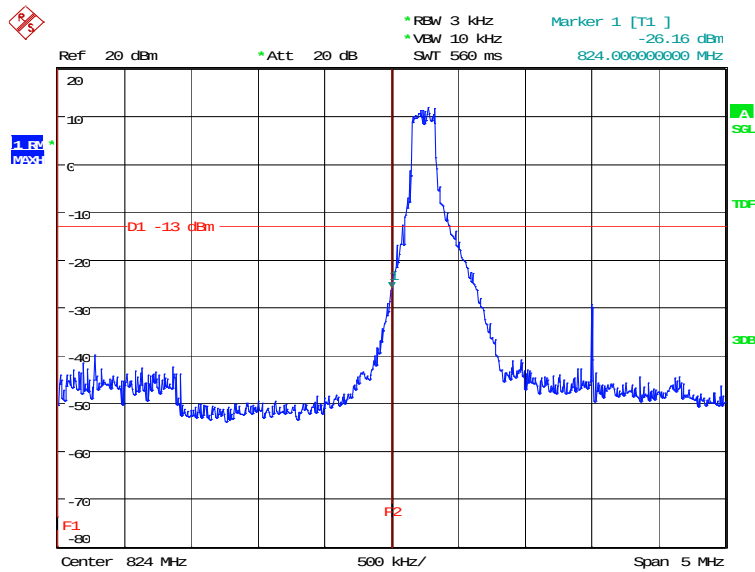
LTE band 26(824MHz~849MHz)

OBW: 1RB-low_offset



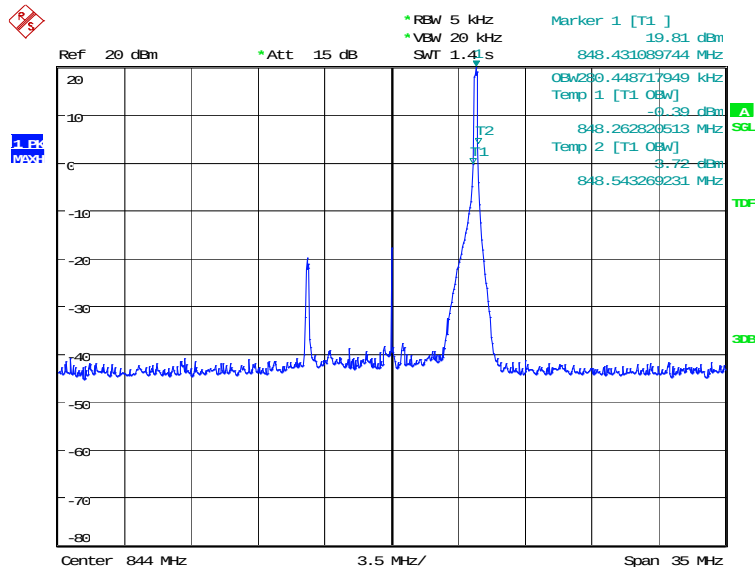
Date: 10.OCT.2019 13:40:11

LOW BAND EDGE BLOCK-1RB-low_offset



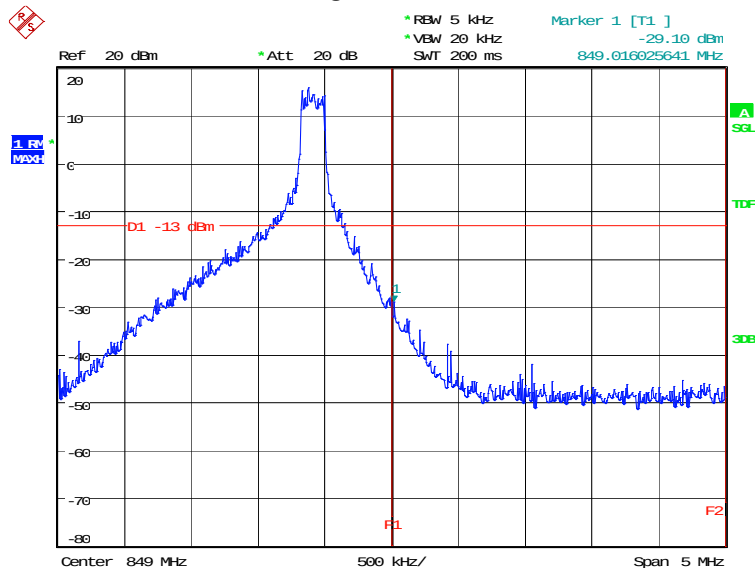
Date: 10.OCT.2019 13:40:27

OBW: 1RB-high_offset



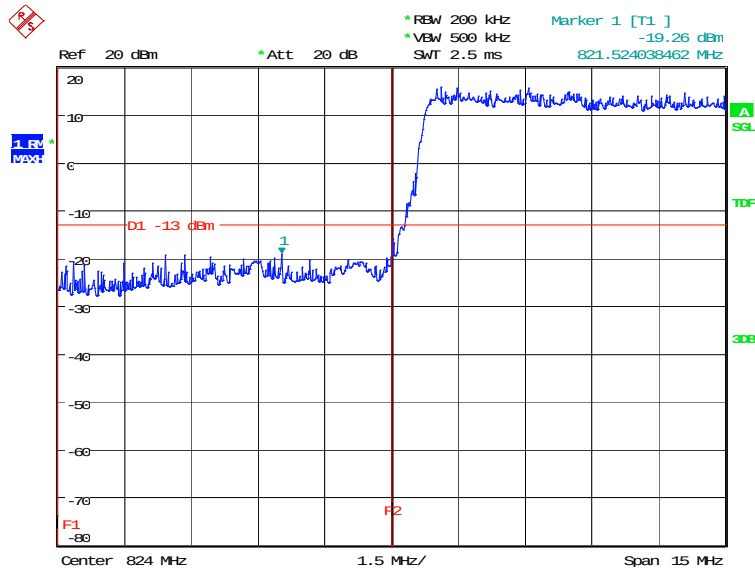
Date: 10.OCT.2019 13:43:02

HIGH BAND EDGE BLOCK-1RB-high_offset



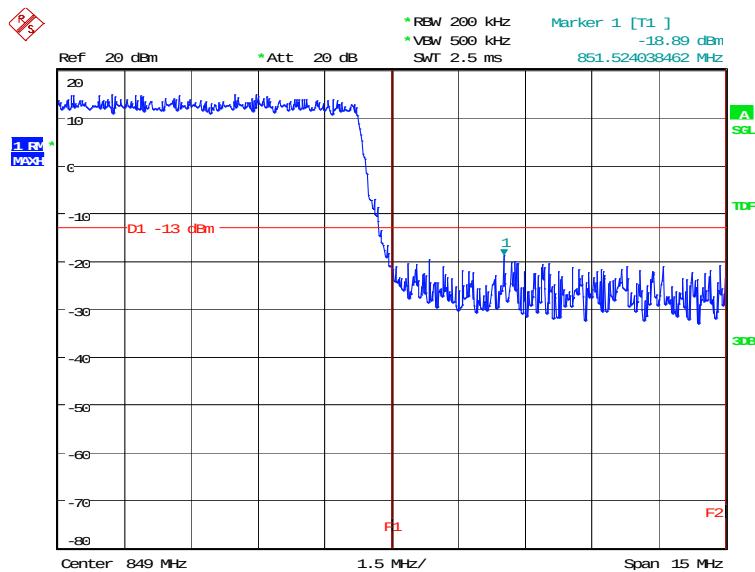
Date: 10.OCT.2019 13:43:23

LOW BAND EDGE BLOCK-15MHz-100%RB



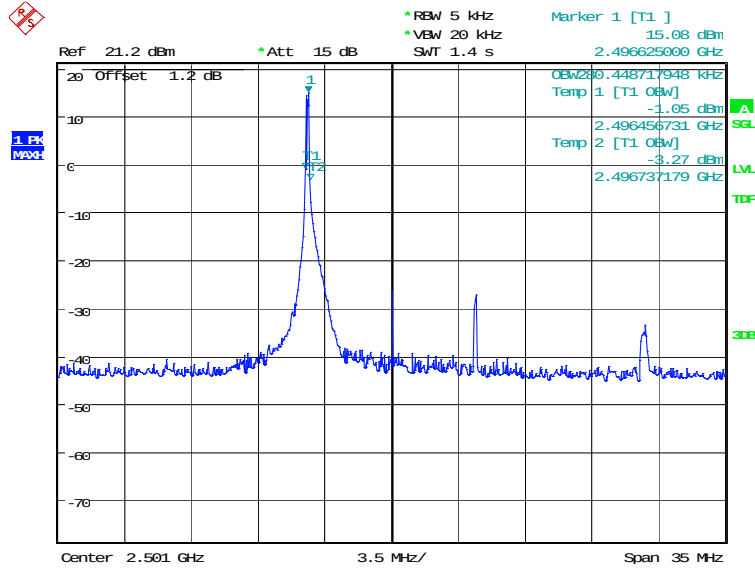
Date: 10.OCT.2019 13:41:03

HIGH BAND EDGE BLOCK-15MHz-100%RB

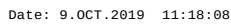
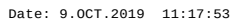


Date: 10.OCT.2019 13:44:00

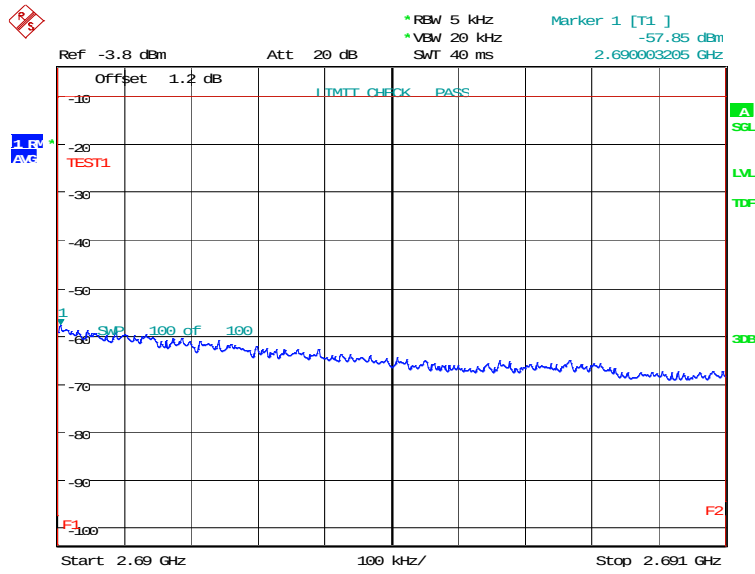
LTE band 41(PC2) OBW: 1RB-low_offset



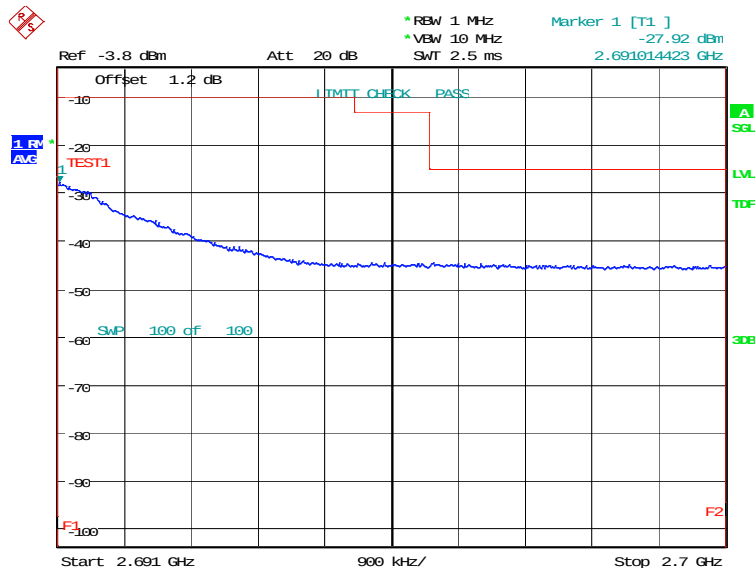
Date: 9.OCT.2019 11:17:32



HIGH BAND EDGE BLOCK-1RB-high_offset

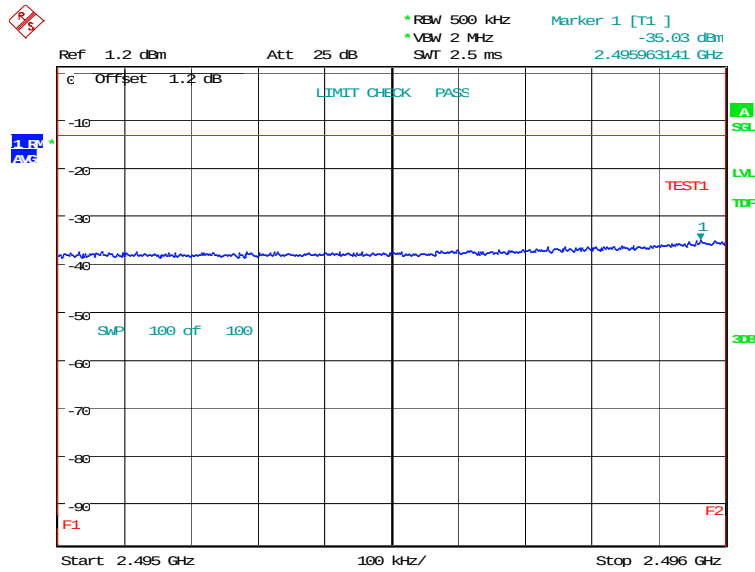


Date: 9.OCT.2019 11:21:20

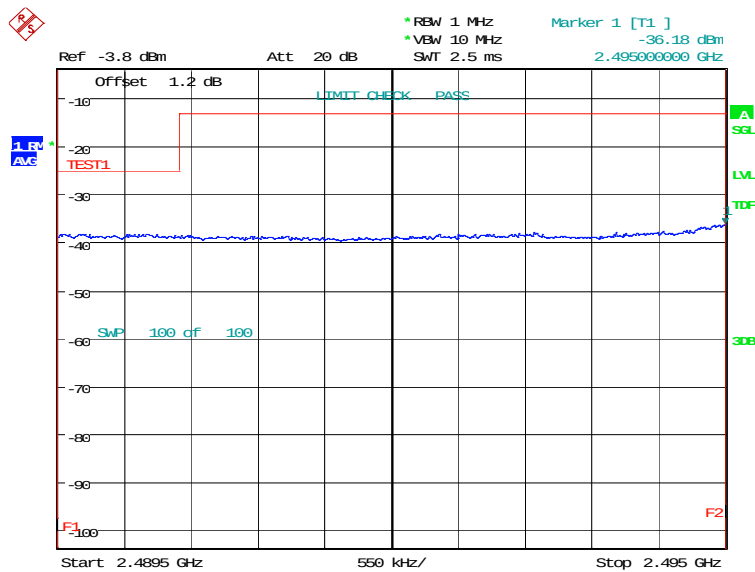


Date: 9.OCT.2019 11:21:35

LOW BAND EDGE BLOCK-20MHz-100%RB

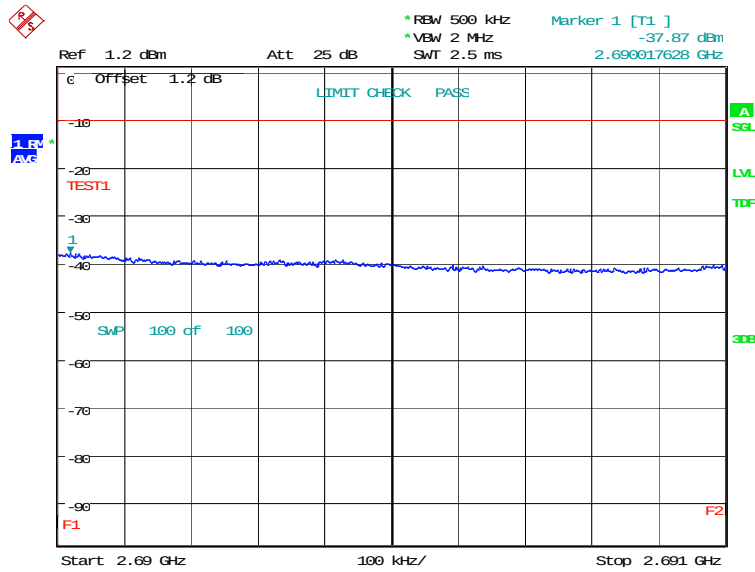


Date: 9.OCT.2019 11:18:43

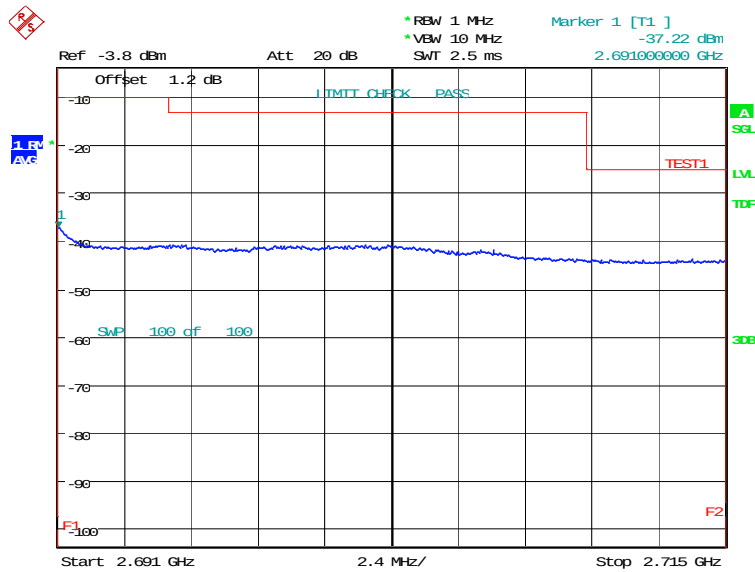


Date: 9.OCT.2019 11:18:58

HIGH BAND EDGE BLOCK-20MHz-100%RB



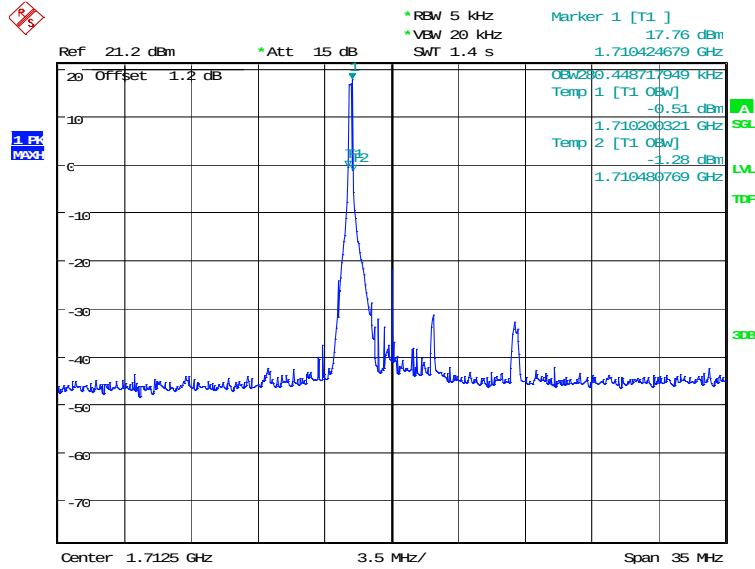
Date: 9.OCT.2019 11:22:10



Date: 9.OCT.2019 11:22:25

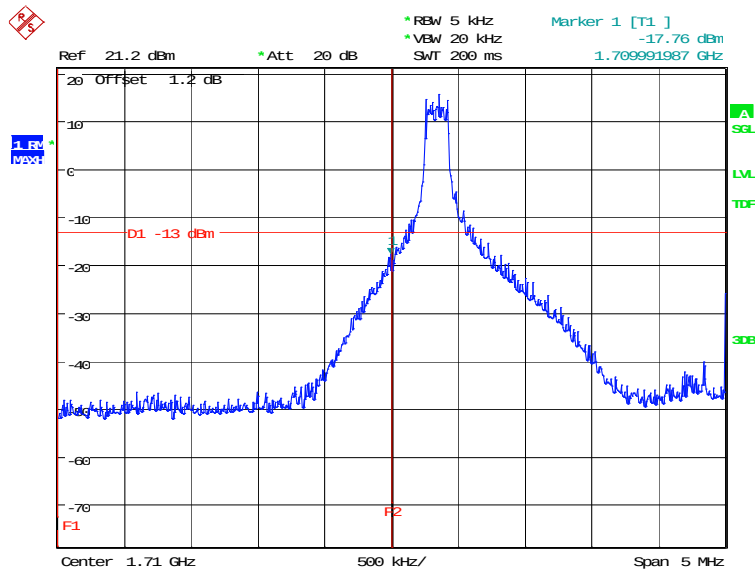
LTE band 66

OBW: 1RB-low_offset



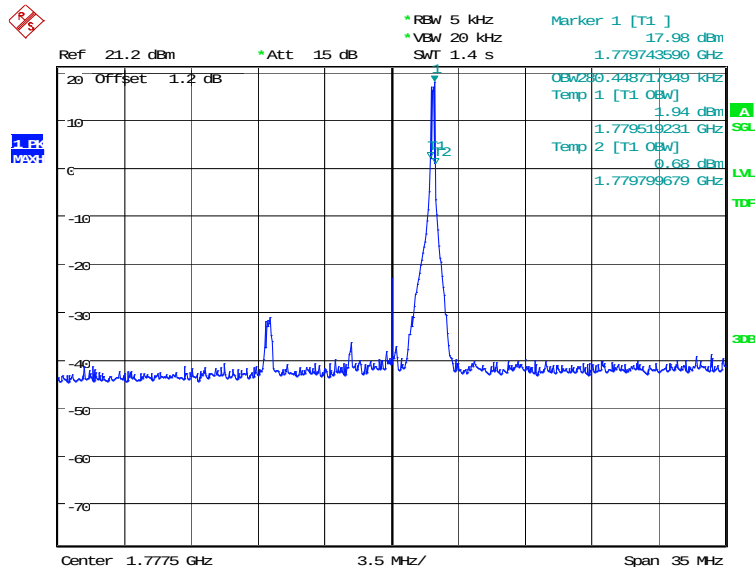
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LOW BAND EDGE BLOCK-1RB-low_offset



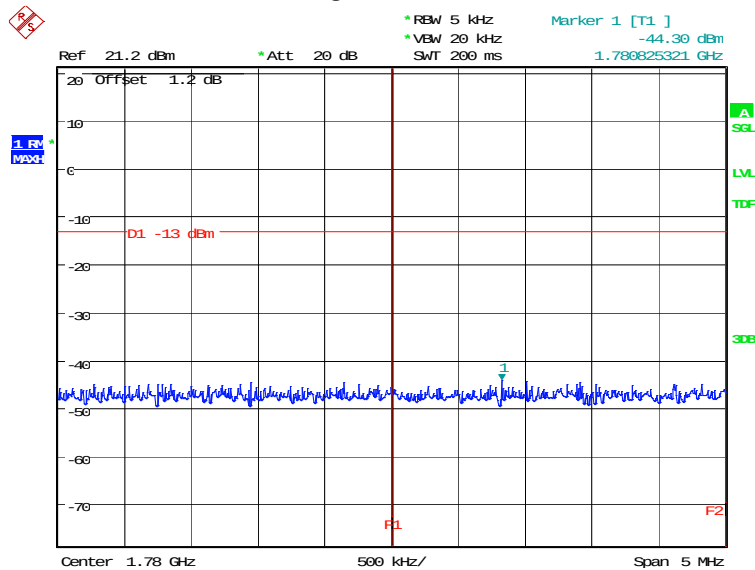
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OBW: 1RB-high_offset



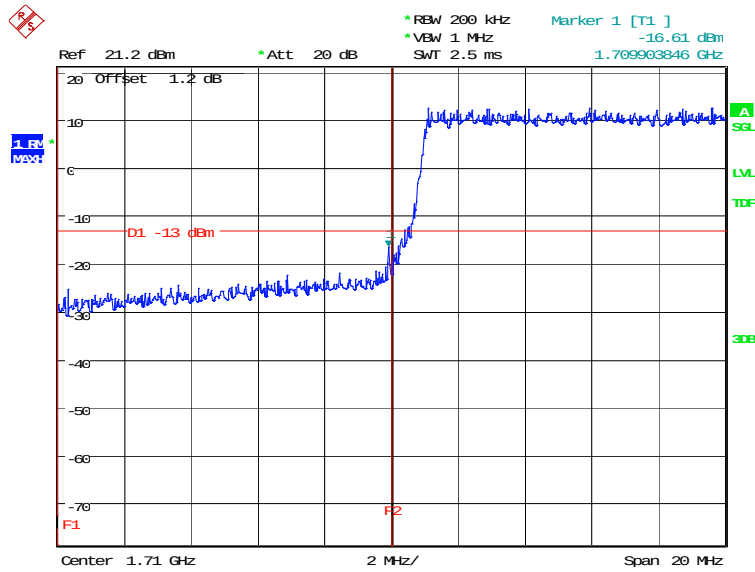
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HIGH BAND EDGE BLOCK-1RB-high_offset



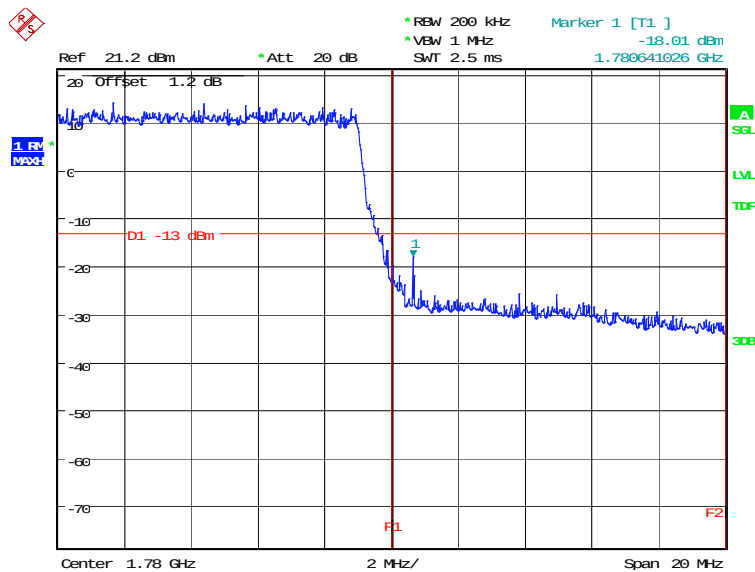
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LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 9.OCT.2019 11:27:10

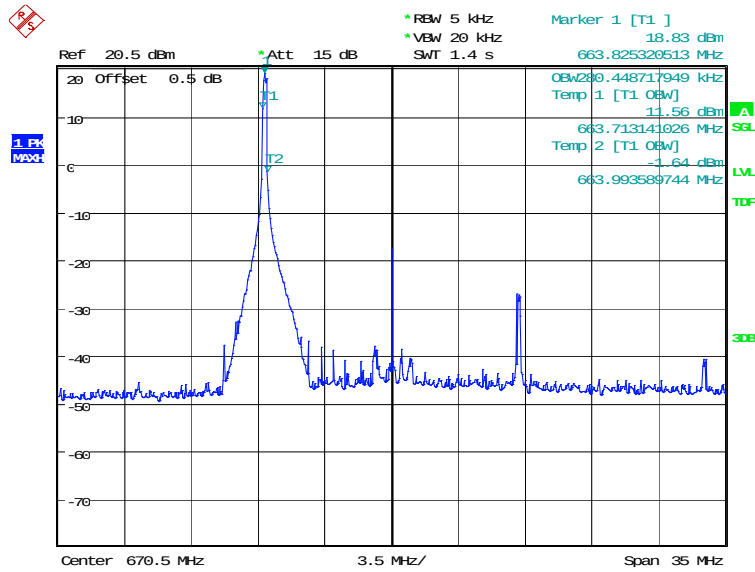
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 9.OCT.2019 11:29:53

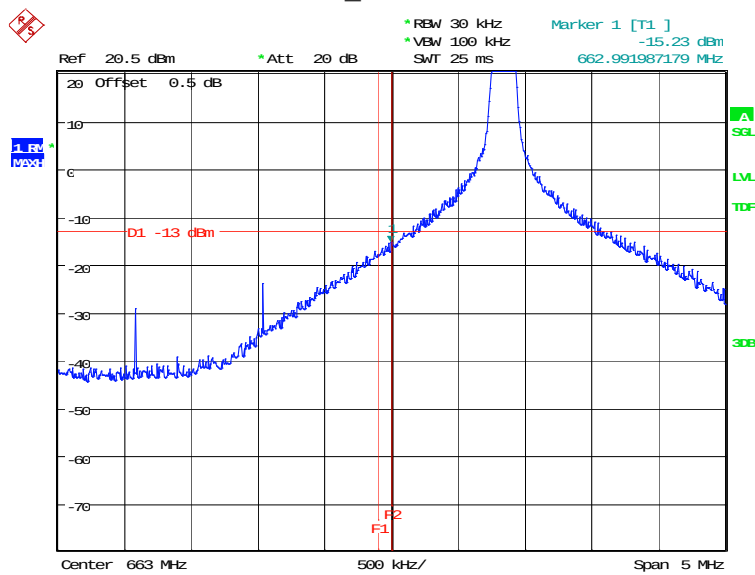
LTE band 71

OBW: 1RB-low_offset



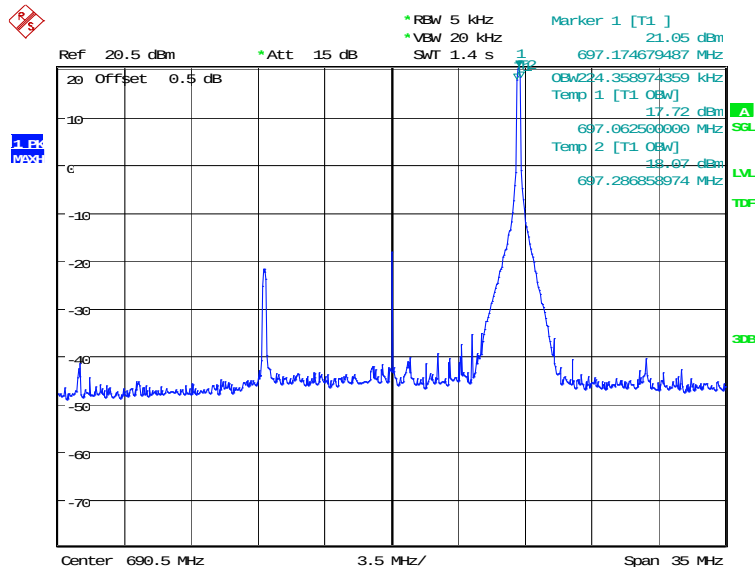
Date: 10.OCT.2019 13:28:01

LOW BAND EDGE BLOCK-1RB-low_offset



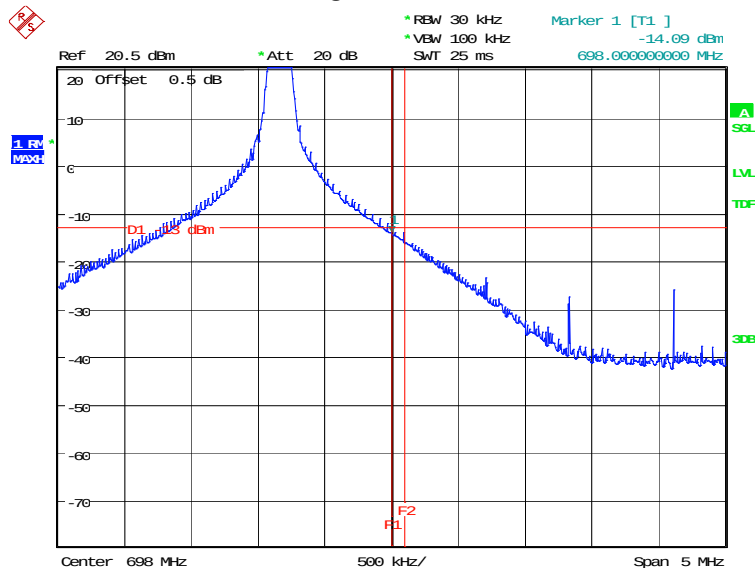
Date: 10.OCT.2019 13:28:16

OBW: 1RB-high_offset



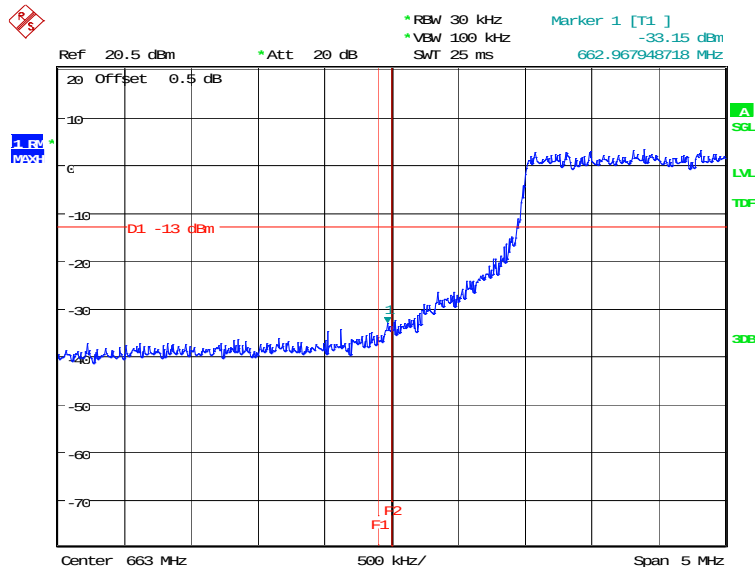
Date: 10.OCT.2019 13:37:14

HIGH BAND EDGE BLOCK-1RB-high_offset



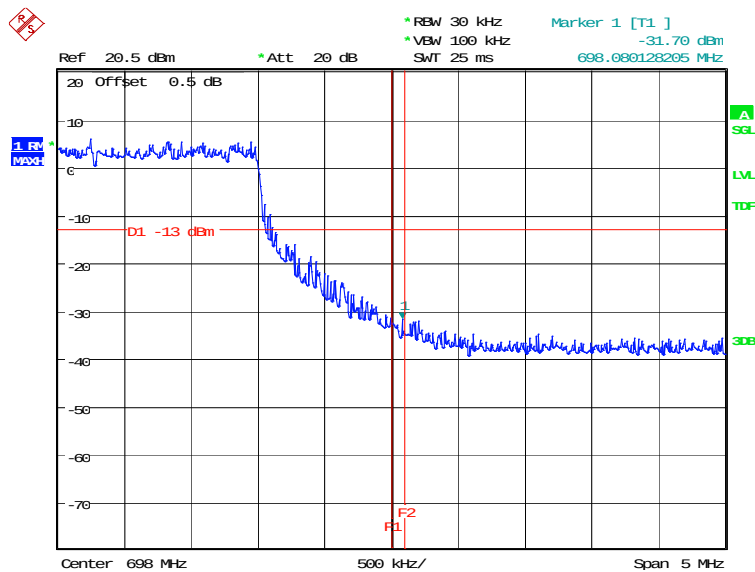
Date: 10.OCT.2019 13:37:32

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 10.OCT.2019 13:28:53

HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 10.OCT.2019 13:31:43

A.7 CONDUCTED SPURIOUS EMISSION

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 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the mobile station equipment tested, this equates to a frequency range of 13 MHz to 9 GHz, data taken from 10 MHz to 25 GHz.
2. Determine EUT transmit frequencies below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is set to 30001 which is greater than span/RBW.

A. 7.2 Measurement Limit

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

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

Part 27.53(m)(4) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

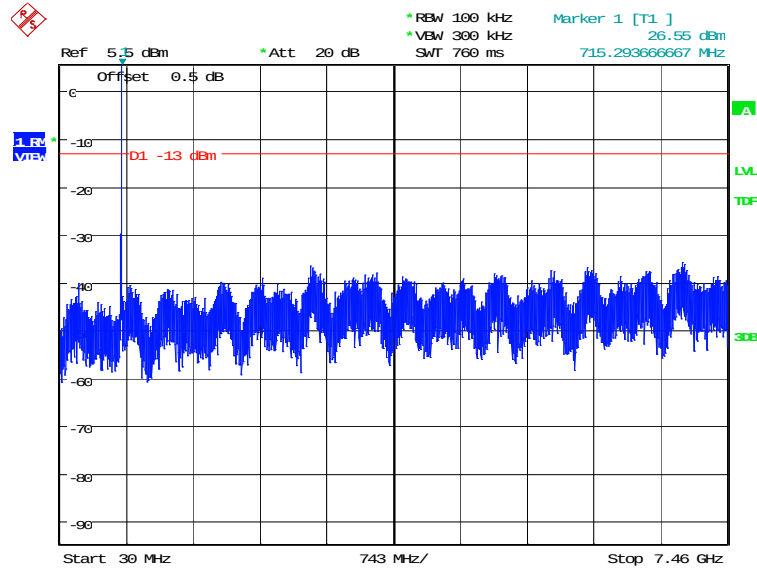
Part 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the

power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10\log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

A. 7.2 Measurement result

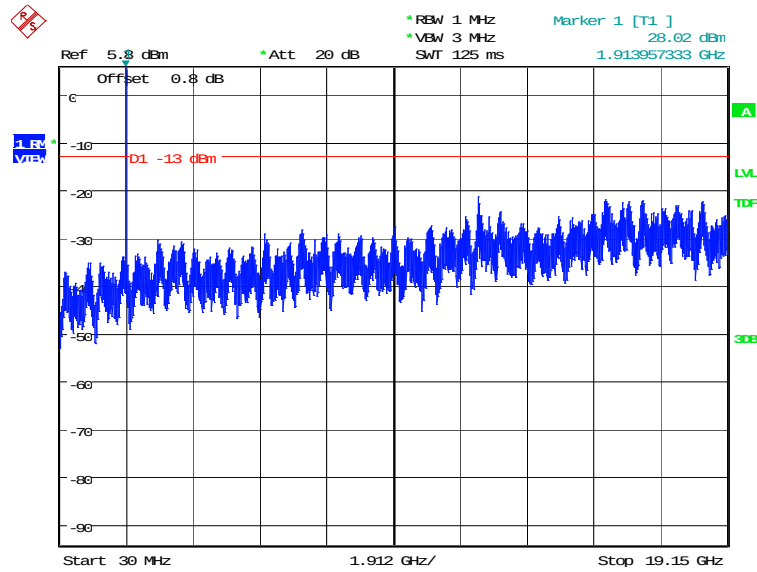
Only the worst case result is given below

LTE band 12: 30MHz – 7.46GHz



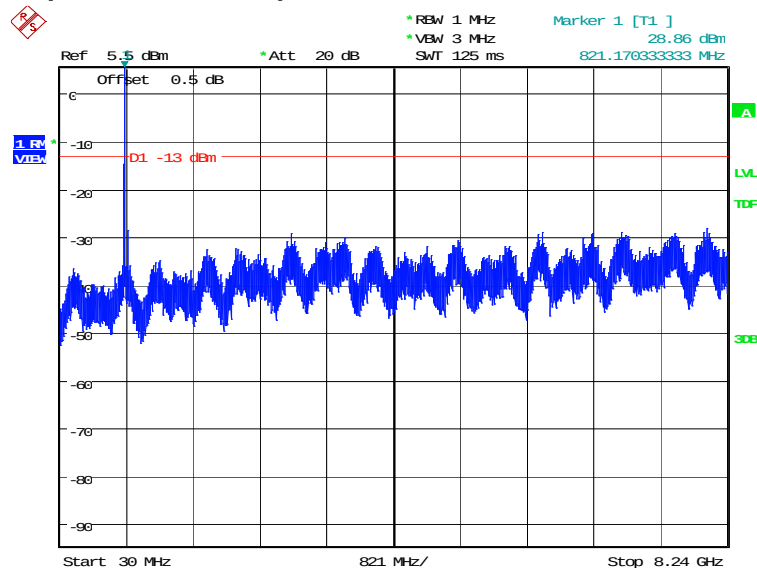
Date: 10.OCT.2019 13:58:03

LTE band 25: 30MHz – 19.15GHz



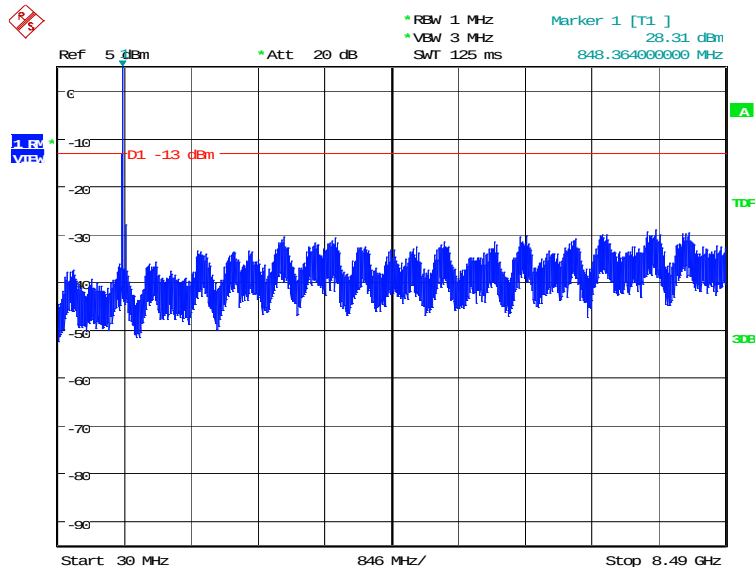
Date: 10.OCT.2019 13:59:10

LTE band 26(814MHz~824MHz): 30MHz – 8.24GHz



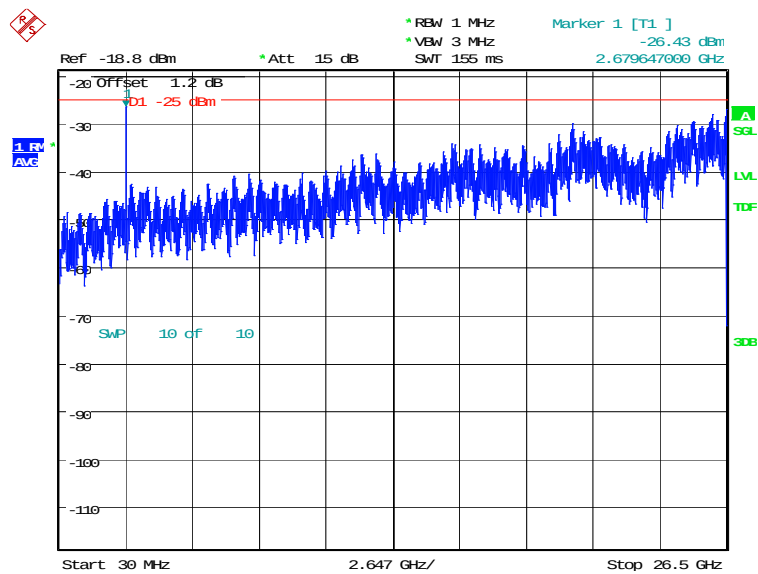
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LTE band 26(824MHz~849MHz): 30MHz – 8.49GHz



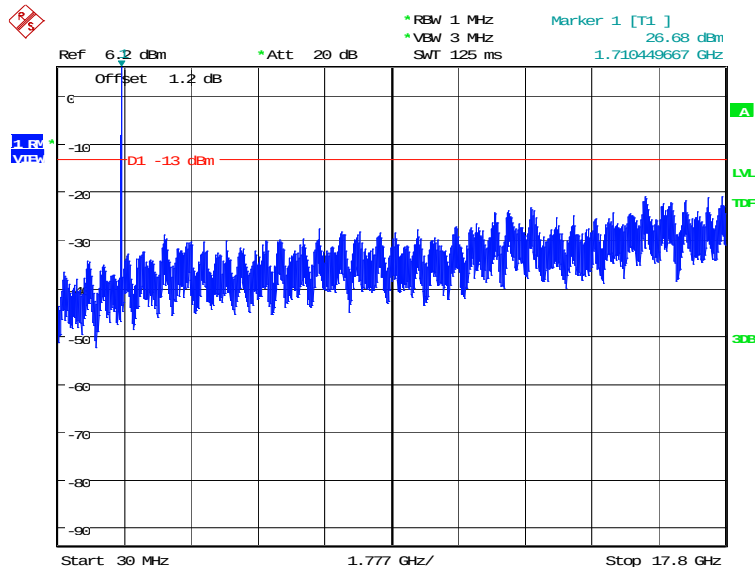
Date: 10.OCT.2019 13:45:00

LTE band 41(PC2): 30MHz – 26.5GHz



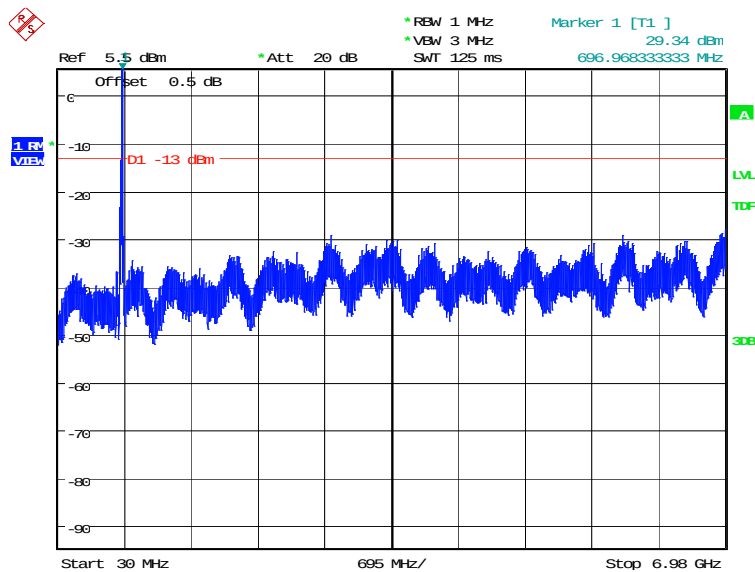
Date: 11.OCT.2019 10:36:59

LTE band 66: 30MHz – 17.8GHz



Date: 10.OCT.2019 14:00:27

LTE band 71: 30MHz – 6.98GHz



Date: 10.OCT.2019 13:32:56

A.8 PEAK-TO-AVERAGE POWER RATIO

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 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 1ms;
- 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 12, 10MHz

Frequency (MHz)	PAPR (dB)		
707.5	QPSK	16QAM	64QAM
	5.51	6.38	6.63

LTE band 25, 20MHz

Frequency (MHz)	PAPR (dB)		
1882.5	QPSK	16QAM	64QAM
	6.83	7.31	7.69

LTE band 41(PC2), 20MHz

Frequency (MHz)	PAPR (dB)		
2593.0	QPSK	16QAM	64QAM
	8.27	8.81	9.01

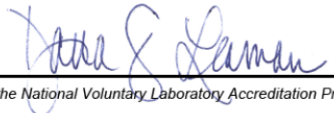
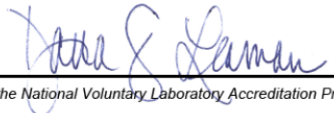
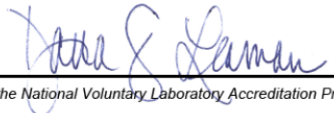
LTE band 66, 20MHz

Frequency (MHz)	PAPR (dB)		
1745.0	QPSK	16QAM	64QAM
	6.60	7.28	8.46

LTE band 71, 20MHz

Frequency (MHz)	PAPR (dB)		
680.5	QPSK	16QAM	64QAM
	8.40	8.56	7.44

ANNEX B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology NVLAP[®] Certificate of Accreditation to ISO/IEC 17025:2005 NVLAP LAB CODE: 600118-0 Telecommunication Technology Labs, CAICT Beijing China <i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i> Electromagnetic Compatibility & Telecommunications <i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).</i> <table><tr><td> 2019-09-26 through 2020-09-30 Effective Dates </td><td></td><td>  For the National Voluntary Laboratory Accreditation Program </td></tr></table>		2019-09-26 through 2020-09-30 Effective Dates		 For the National Voluntary Laboratory Accreditation Program
2019-09-26 through 2020-09-30 Effective Dates		 For the National Voluntary Laboratory Accreditation Program		

END OF REPORT