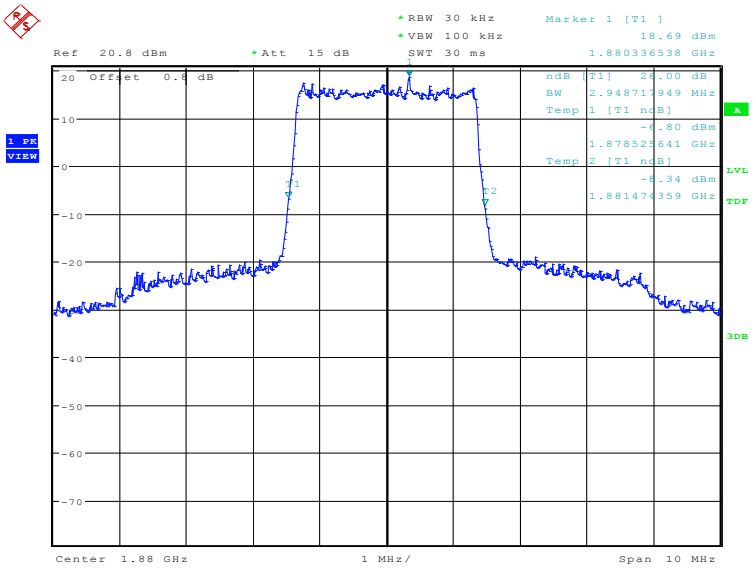
LTE band 2, 3MHz (-26dBc)

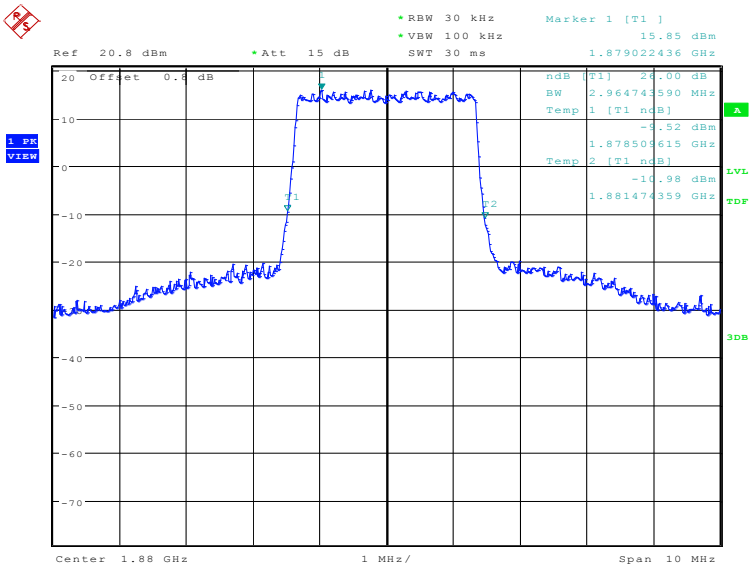
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	2948.72	2964.74	2948.72

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



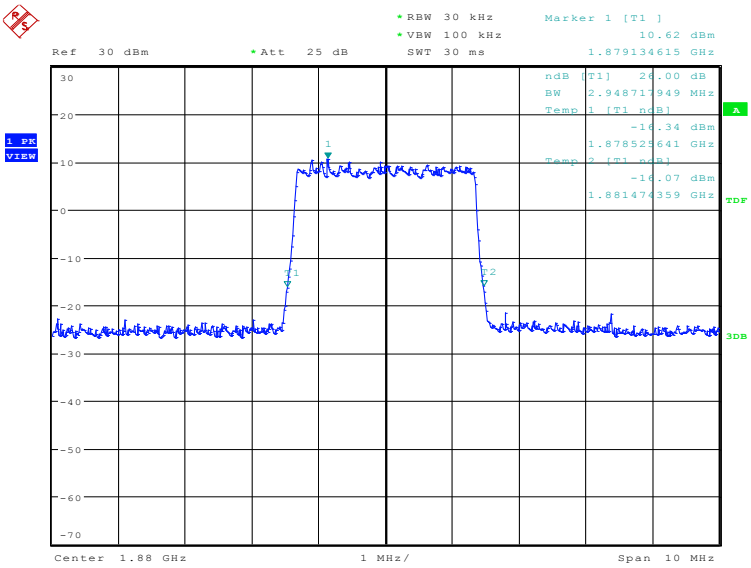
Date: 27.MAY.2020 17:42:18

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



Date: 27.MAY.2020 17:42:57

LTE band 2, 3MHz Bandwidth, 64QAM (-26dBc BW)

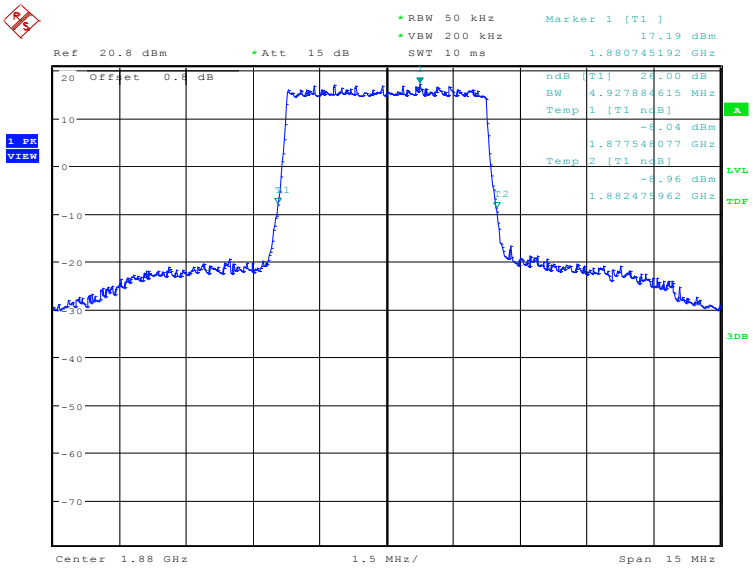


Date: 1.JUN.2020 09:27:57

LTE band 2, 5MHz (-26dBc)

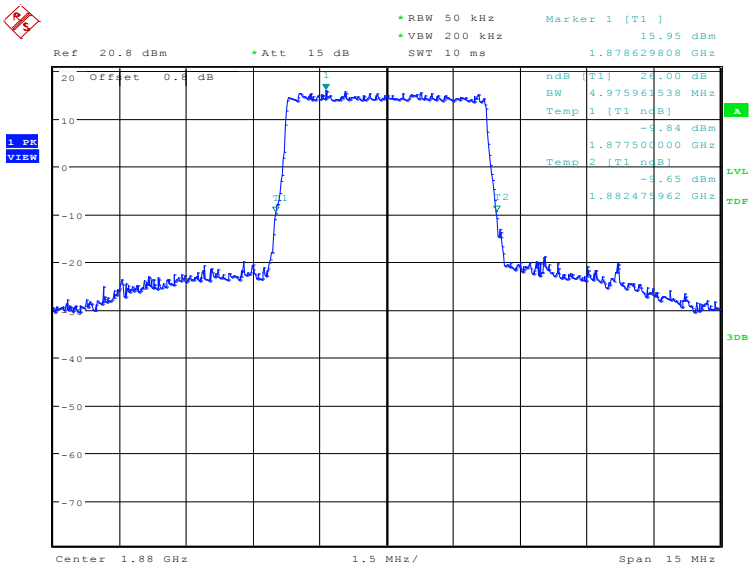
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	4927.88	4975.96	4927.88

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



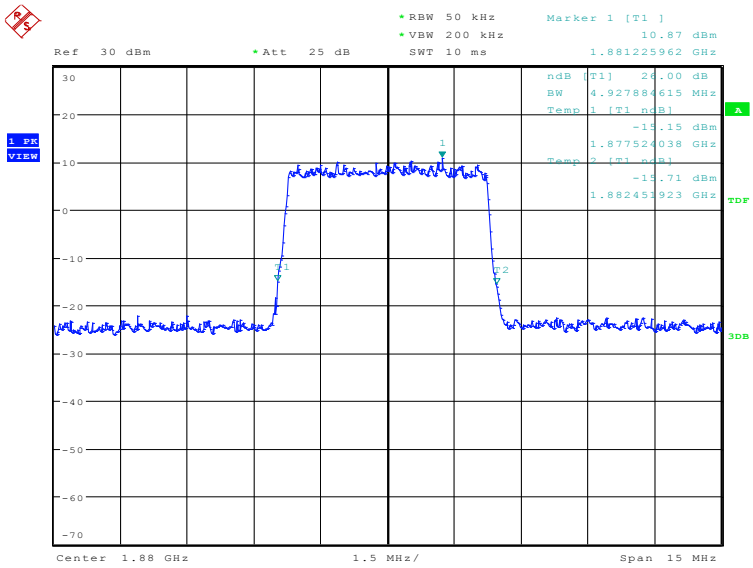
Date: 27.MAY.2020 17:43:38

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



Date: 27.MAY.2020 17:44:17

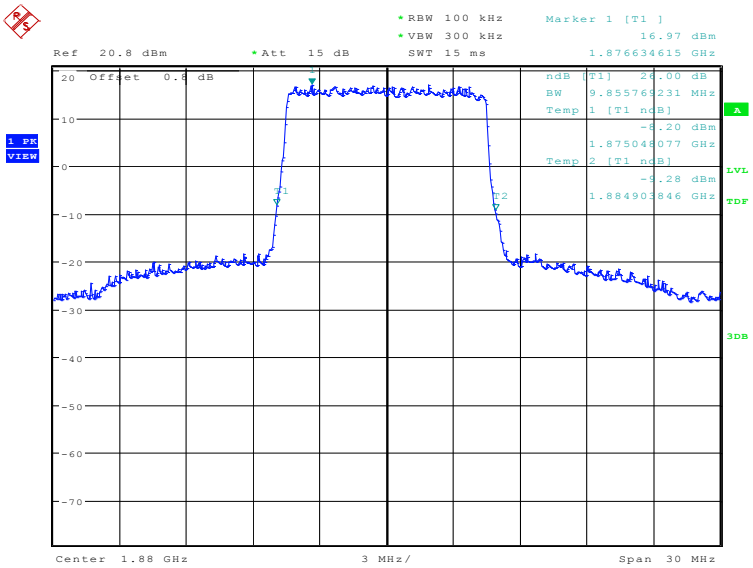
LTE band 2, 5MHz Bandwidth,64QAM (-26dBc BW)



LTE band 2, 10MHz (-26dBc)

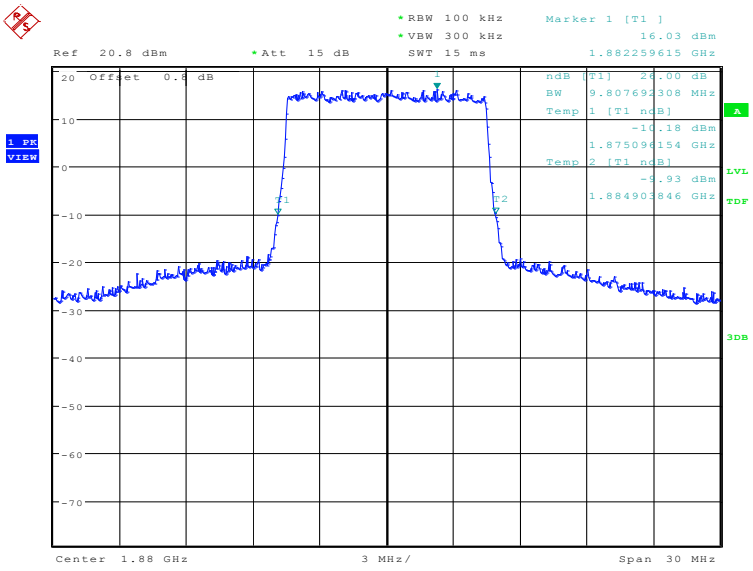
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	9855.77	9807.69	9759.62

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



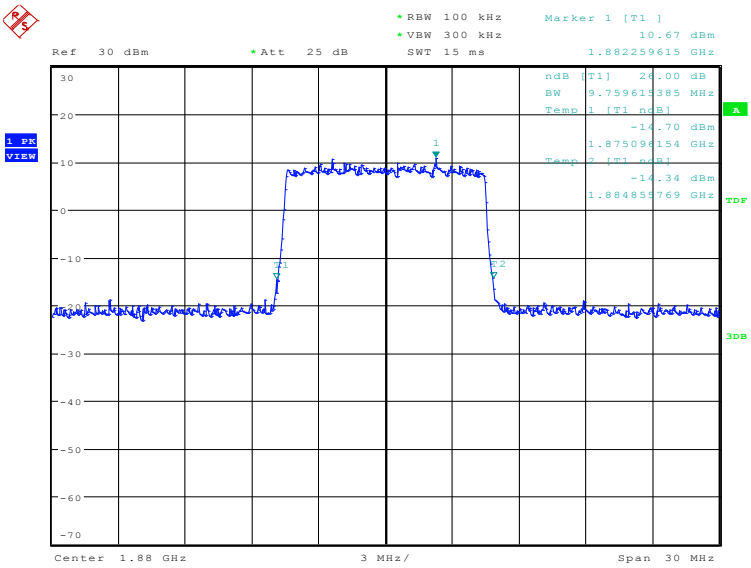
Date: 27.MAY.2020 17:44:58

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



Date: 27.MAY.2020 17:45:37

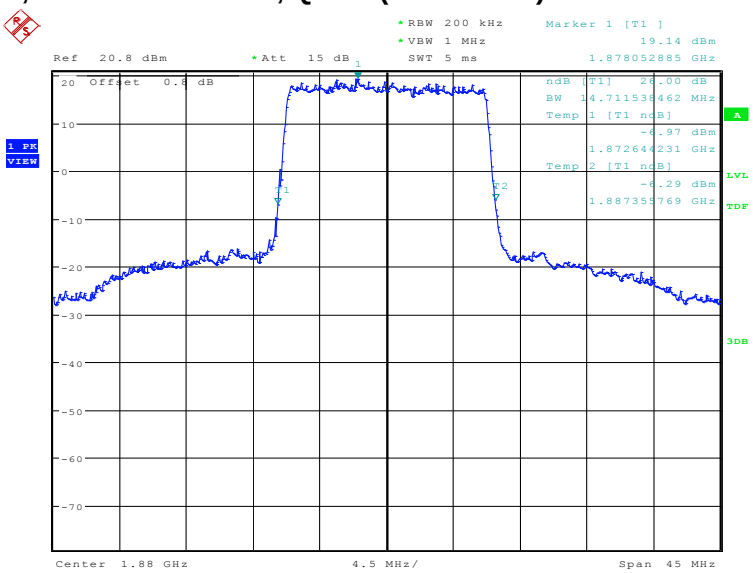
LTE band 2, 10MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 2, 15MHz (-26dBc)

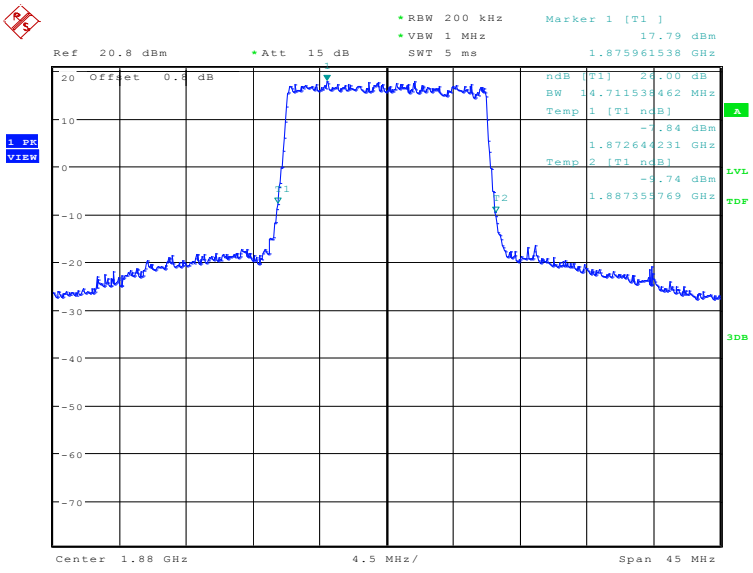
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	14711.54	14711.54	14711.54

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



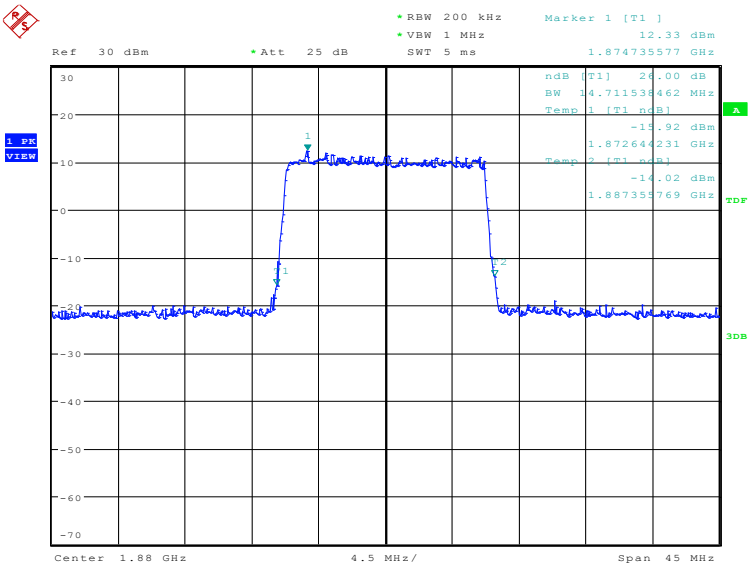
Date: 27.MAY.2020 17:46:17

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



Date: 27.MAY.2020 17:46:56

LTE band 2, 15MHz Bandwidth, 64QAM (-26dBc BW)

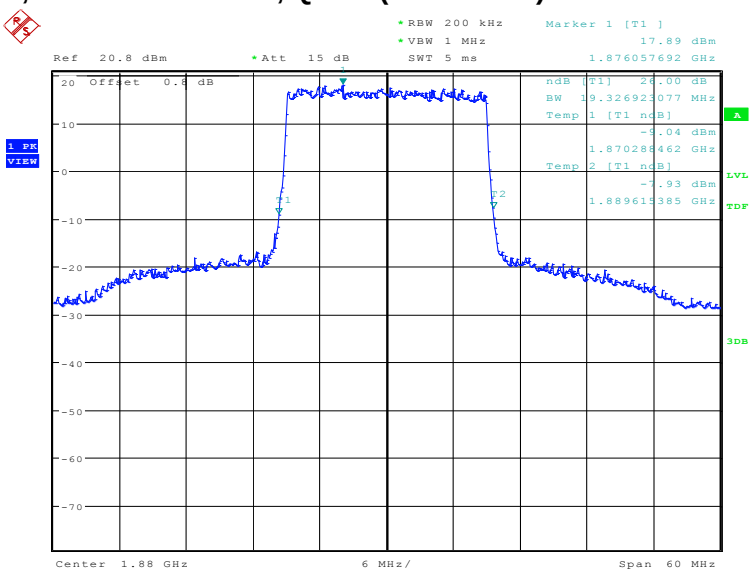


Date: 1.JUN.2020 09:31:24

LTE band 2, 20MHz (-26dBc)

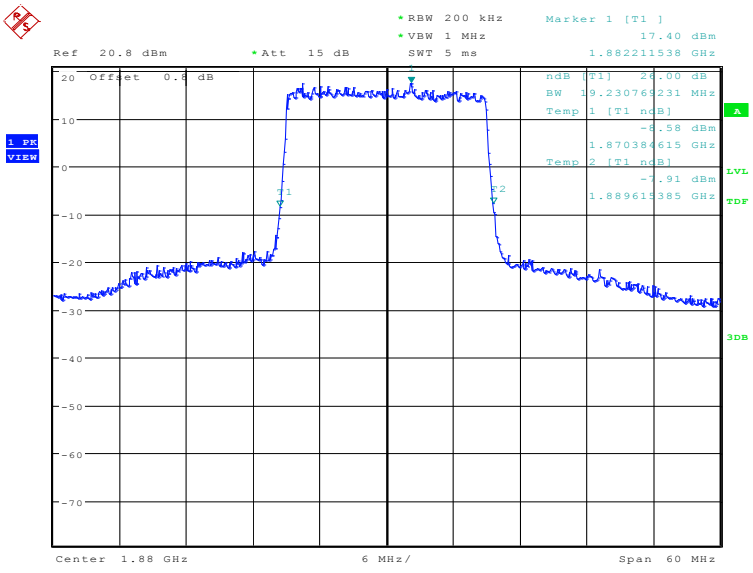
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	19326.92	19230.77	19326.92

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



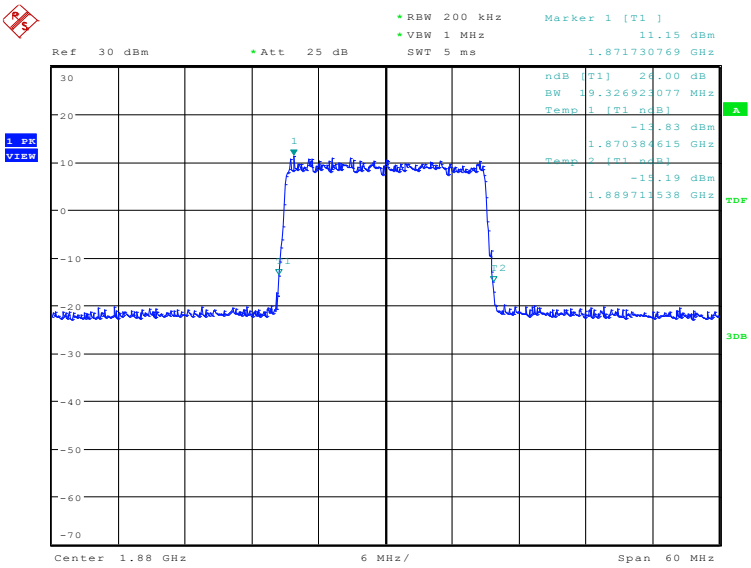
Date: 27.MAY.2020 17:47:37

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



Date: 27.MAY.2020 17:48:16

LTE band 2, 20MHz Bandwidth, 64QAM (-26dBc BW)

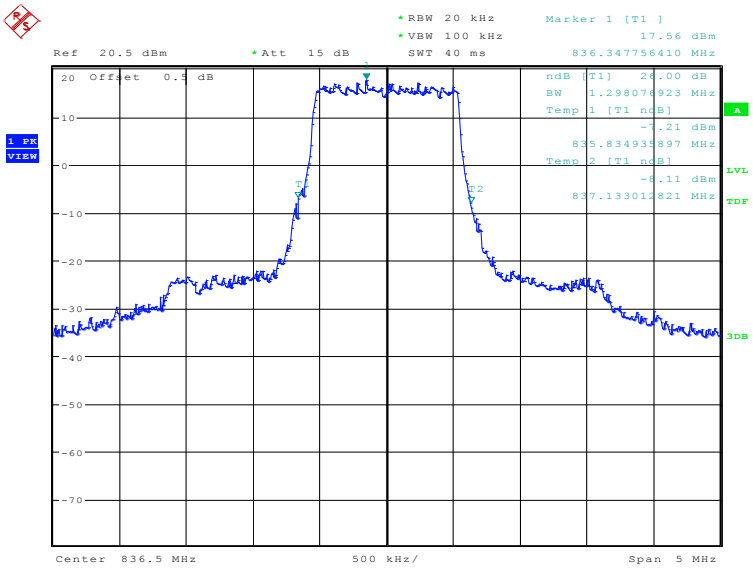


Date: 1.JUN.2020 09:32:28

LTE band 5, 1.4MHz (-26dBc)

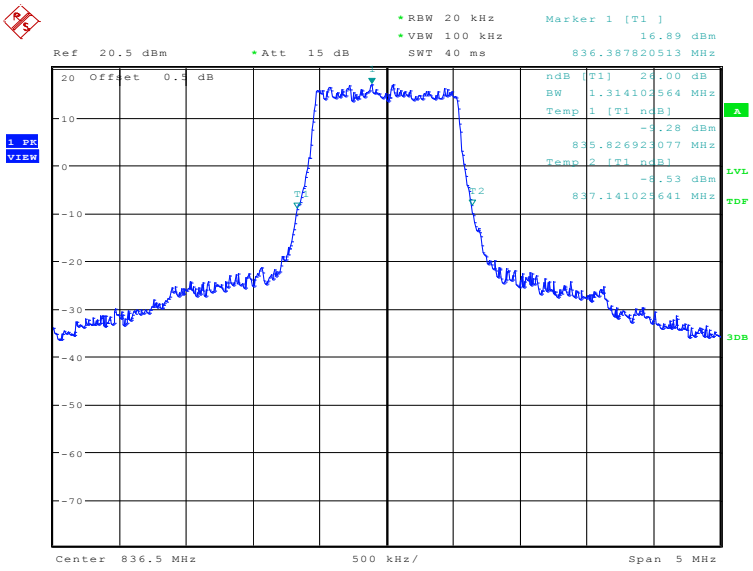
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	1298.08	1314.10	1290.06

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



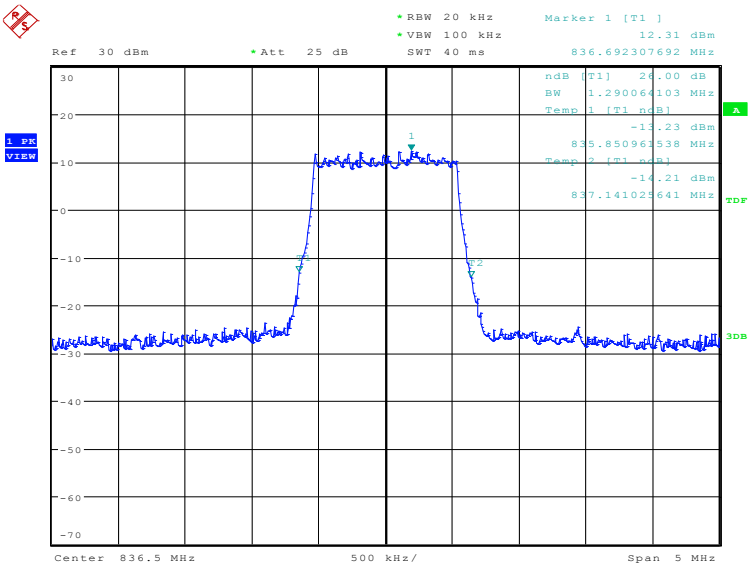
Date: 27.MAY.2020 17:49:47

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



Date: 27.MAY.2020 17:50:26

LTE band 5, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

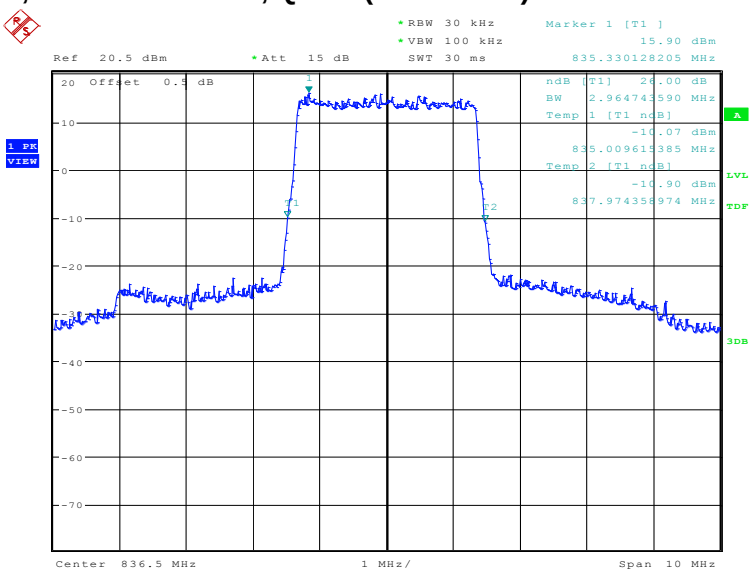


Date: 1.JUN.2020 09:33:57

LTE band 5, 3MHz (-26dBc)

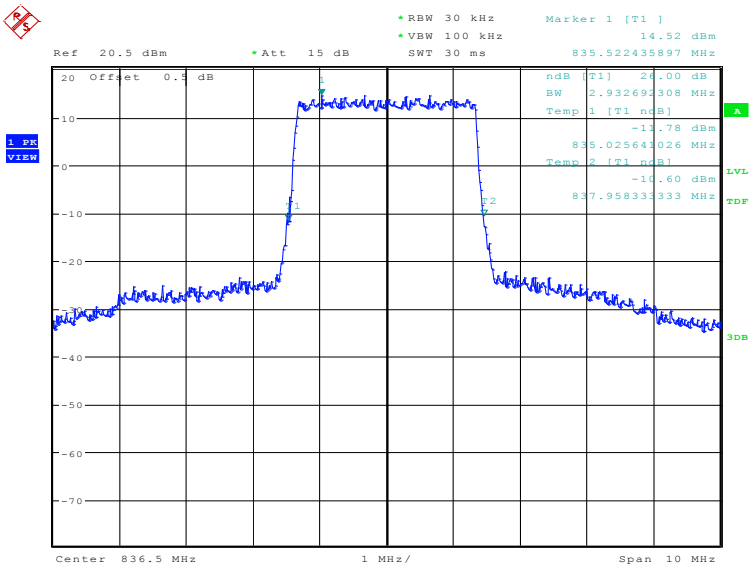
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	2964.74	2932.69	2932.69

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



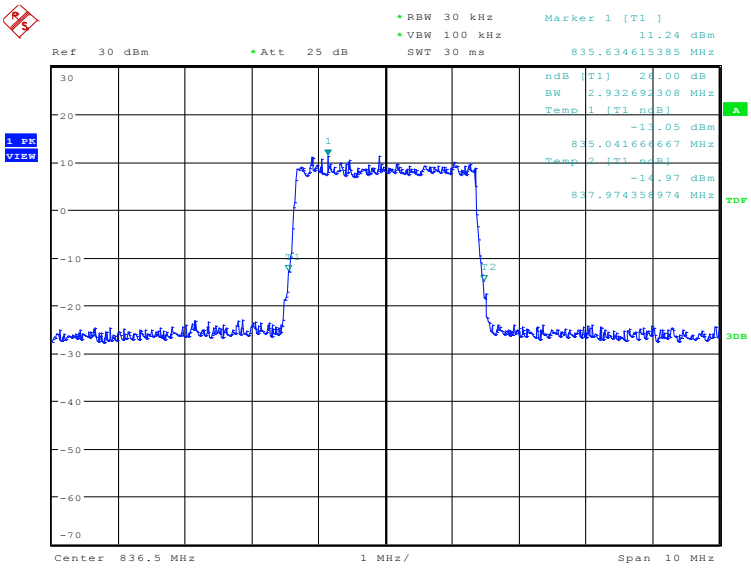
Date: 27.MAY.2020 17:51:07

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



Date: 27.MAY.2020 17:51:46

LTE band 5, 3MHz Bandwidth, 64QAM (-26dBc BW)

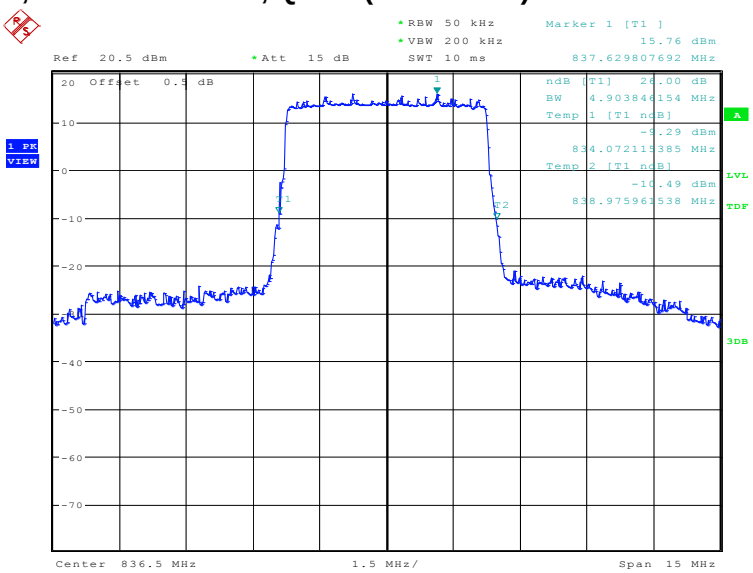


Date: 1.JUN.2020 09:34:58

LTE band 5, 5MHz (-26dBc)

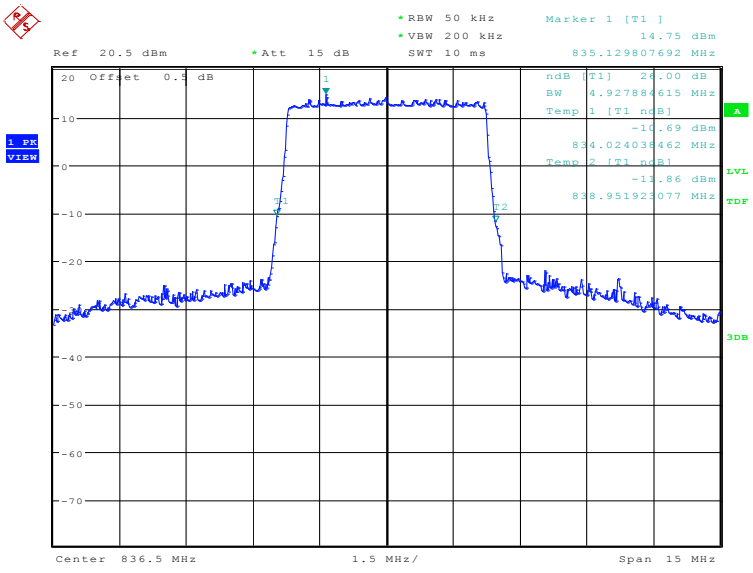
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	4903.85	4927.88	4879.81

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



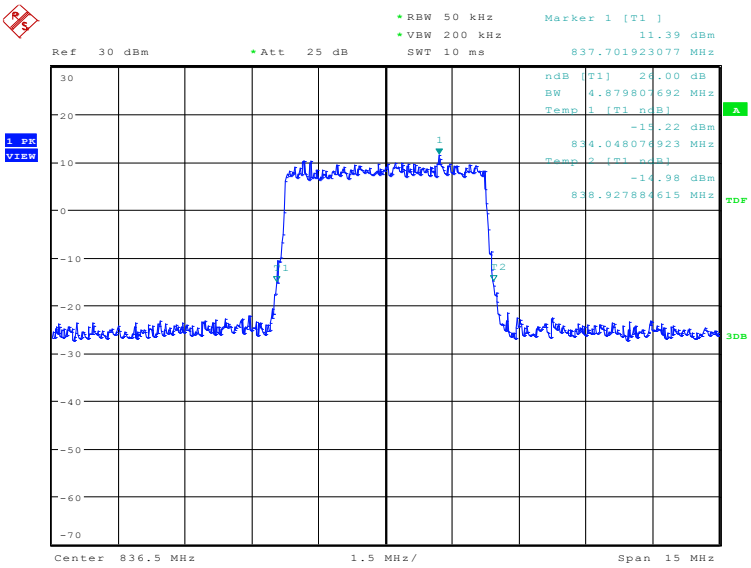
Date: 27.MAY.2020 17:52:27

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



Date: 27.MAY.2020 17:53:06

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

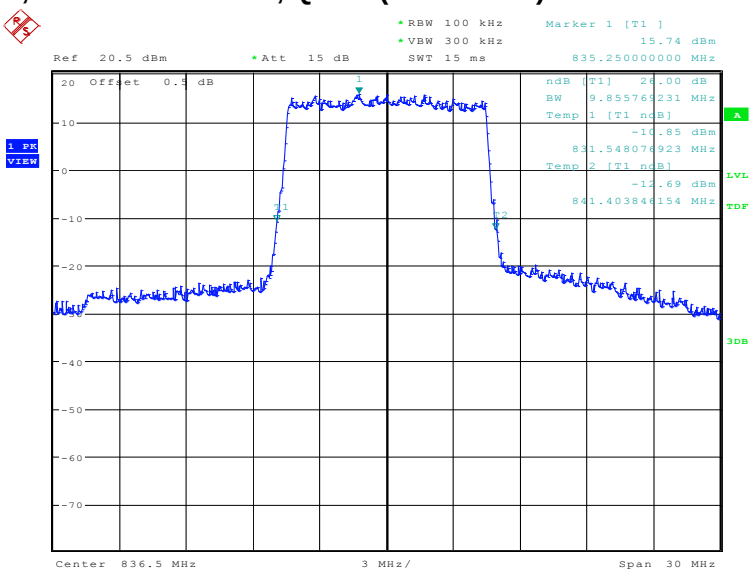


Date: 1.JUN.2020 09:36:02

LTE band 5, 10MHz (-26dBc)

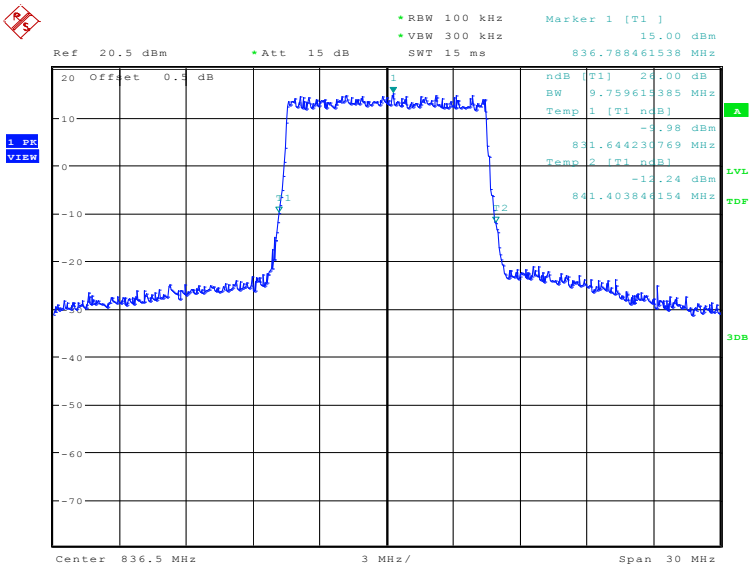
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	9855.77	9759.62	9711.54

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



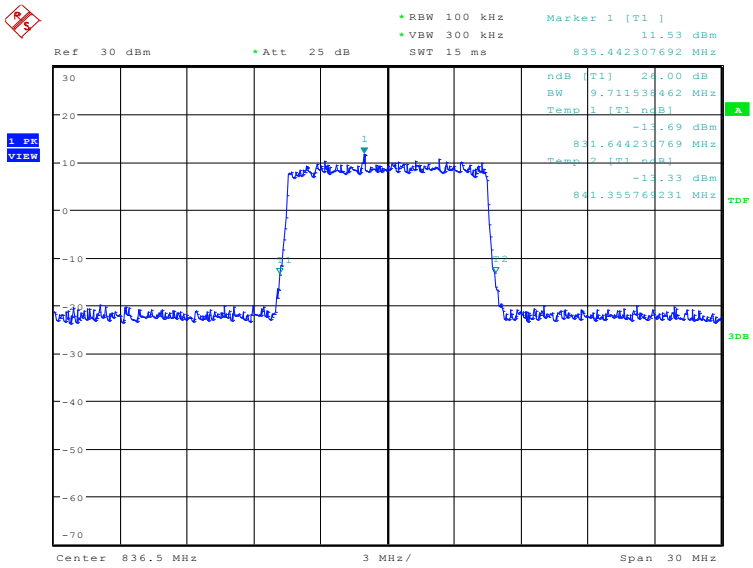
Date: 27.MAY.2020 17:53:46

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



Date: 27.MAY.2020 17:54:25

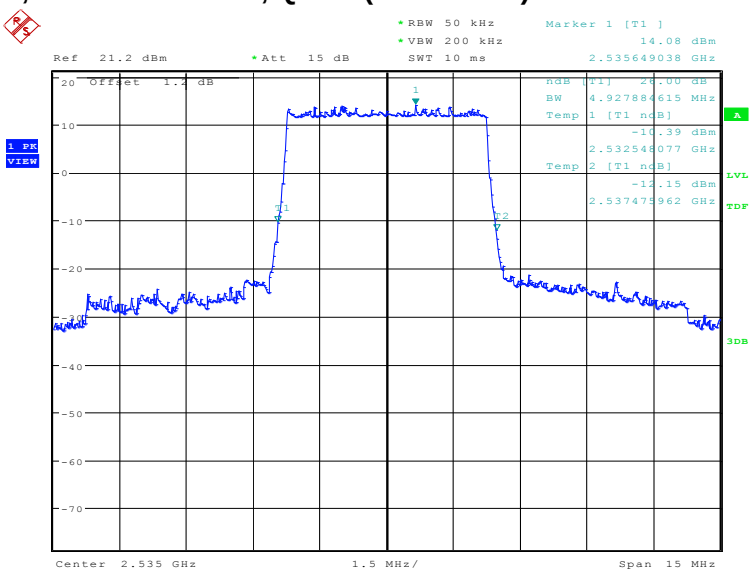
LTE band 5, 10MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 7, 5MHz (-26dBc)

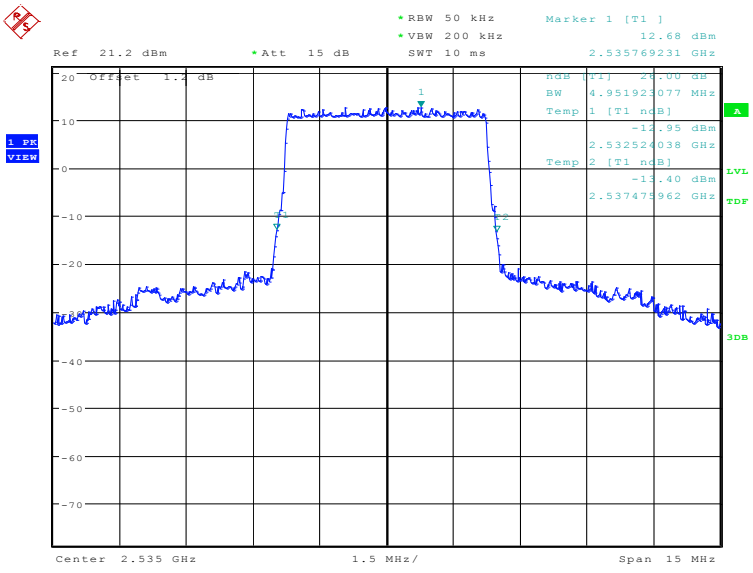
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2535.0	QPSK	16QAM	64QAM
	4927.88	4951.92	4903.85

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



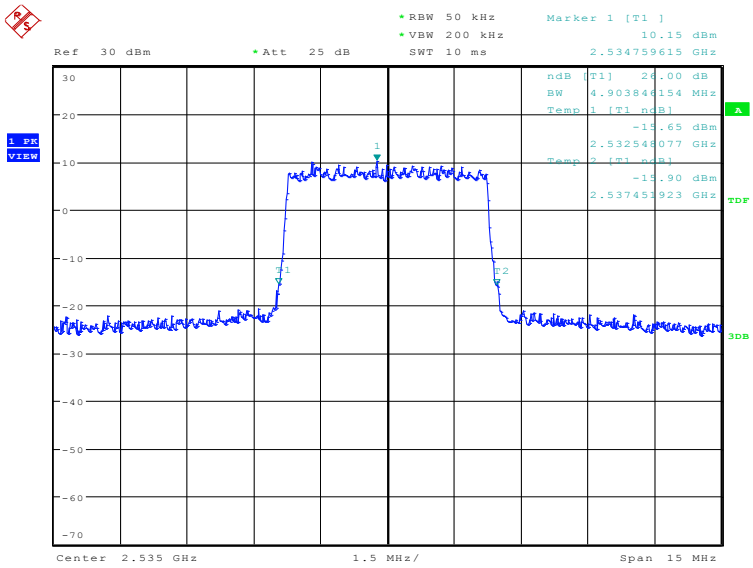
Date: 28.MAY.2020 08:11:52

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



Date: 28.MAY.2020 08:12:31

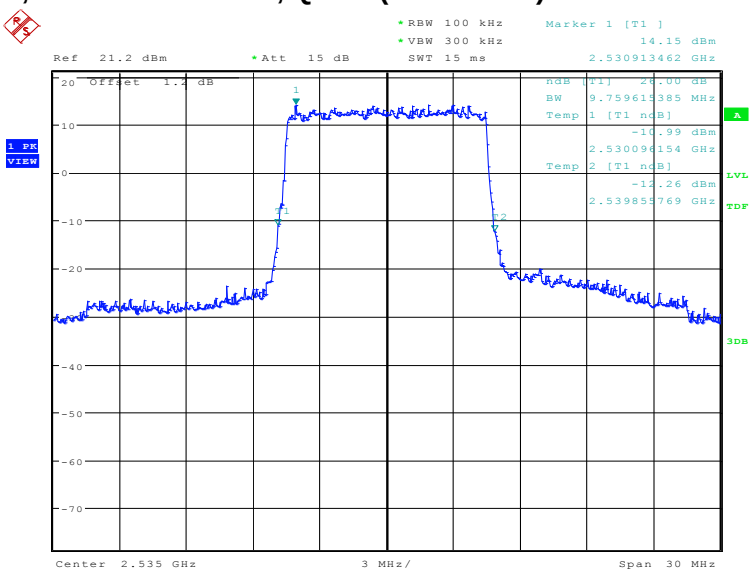
LTE band 7, 5MHz Bandwidth,64QAM (-26dBc BW)



LTE band 7, 10MHz (-26dBc)

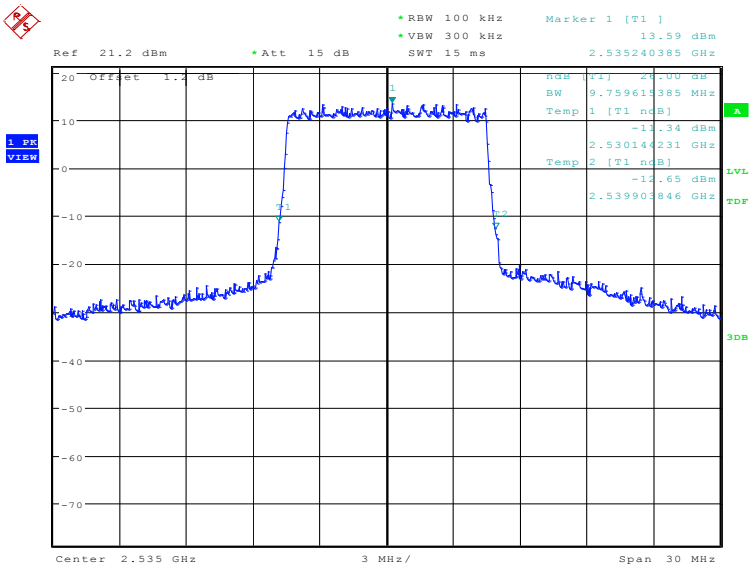
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2535.0	QPSK	16QAM	64QAM
	9759.62	9759.62	9807.69

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



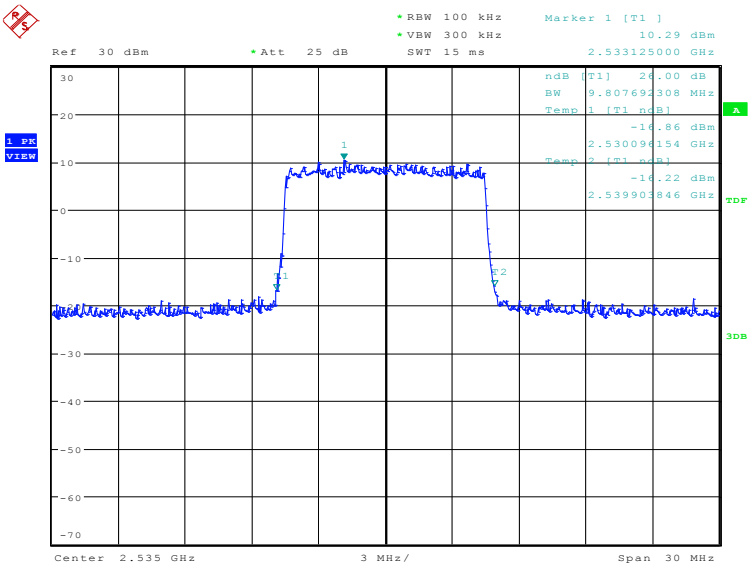
Date: 28.MAY.2020 08:13:11

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



Date: 28.MAY.2020 08:13:50

LTE band 7, 10MHz Bandwidth, 64QAM (-26dBc BW)

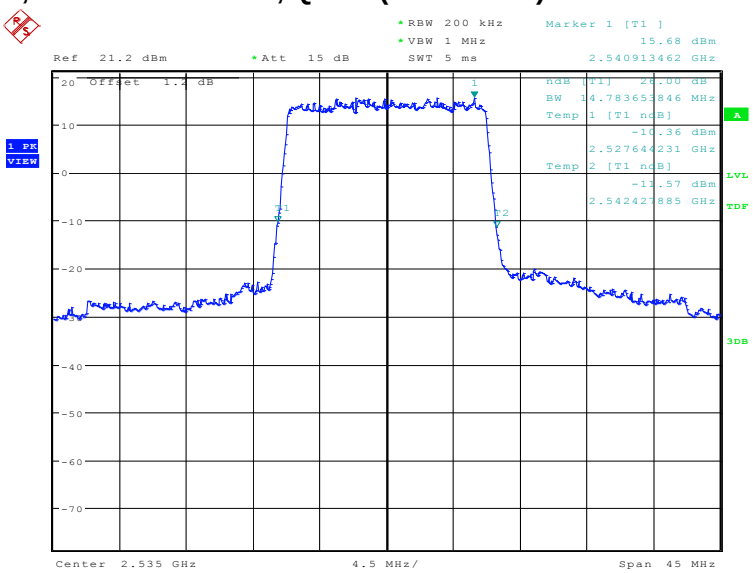


Date: 1.JUN.2020 09:10:13

LTE band 7, 15MHz (-26dBc)

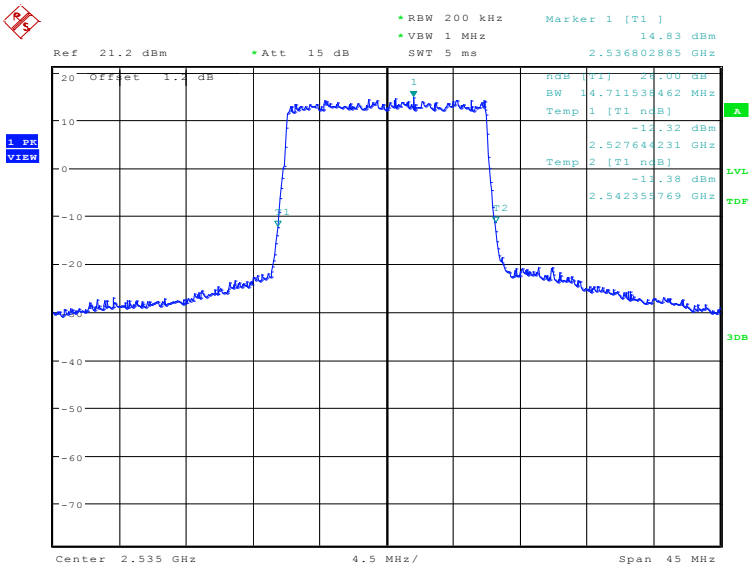
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2535.0	QPSK	16QAM	64QAM
	14783.65	14711.54	14639.42

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



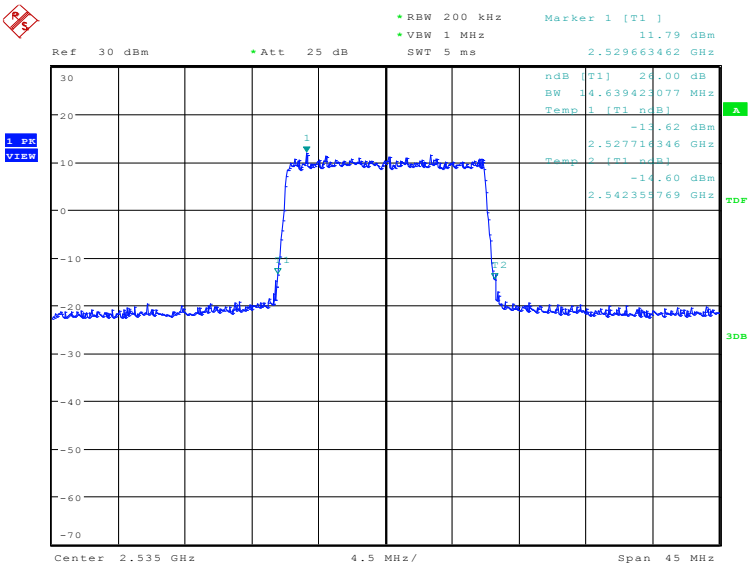
Date: 28.MAY.2020 08:14:31

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



Date: 28.MAY.2020 08:15:09

LTE band 7, 15MHz Bandwidth, 64QAM (-26dBc BW)

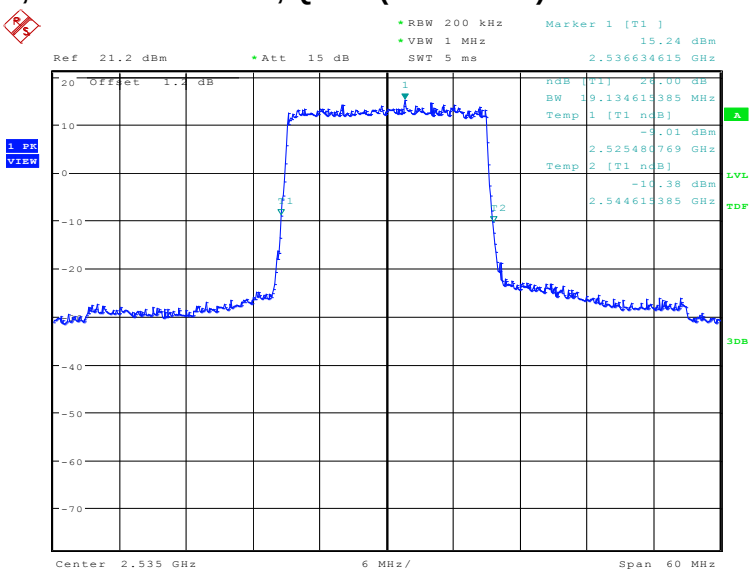


Date: 1.JUN.2020 09:11:23

LTE band 7, 20MHz (-26dBc)

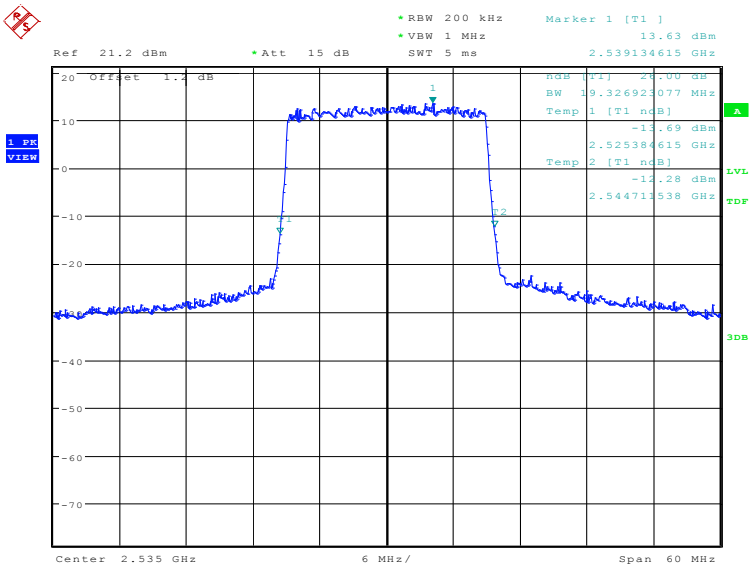
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2535.0	QPSK	16QAM	64QAM
	19134.62	19326.92	19519.23

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



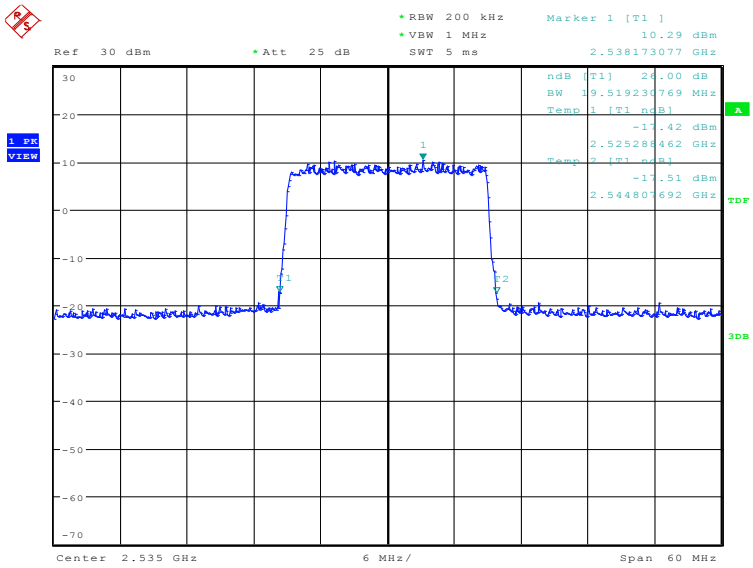
Date: 28.MAY.2020 08:15:50

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



Date: 28.MAY.2020 08:16:29

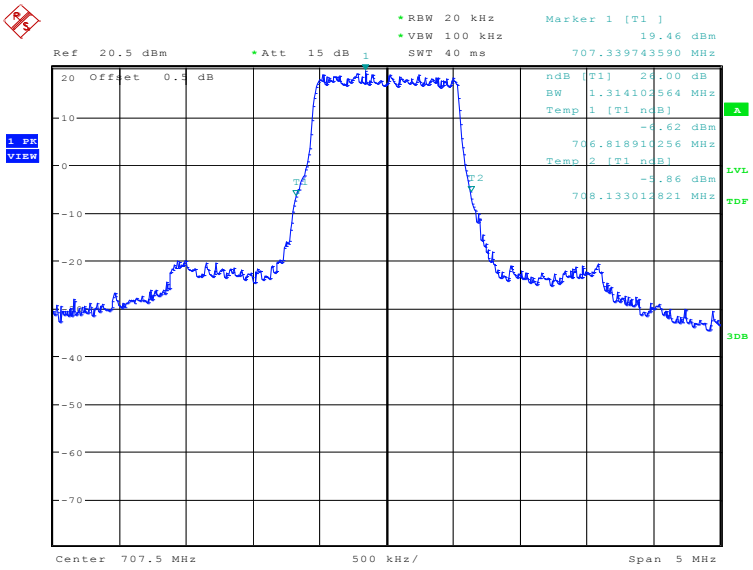
LTE band 7, 20MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 12, 1.4MHz (-26dBc)

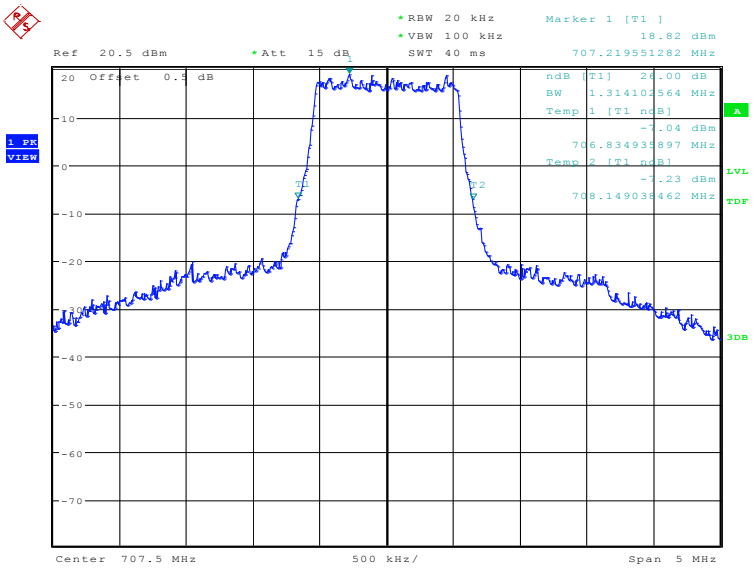
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	1314.10	1314.10	1274.04

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



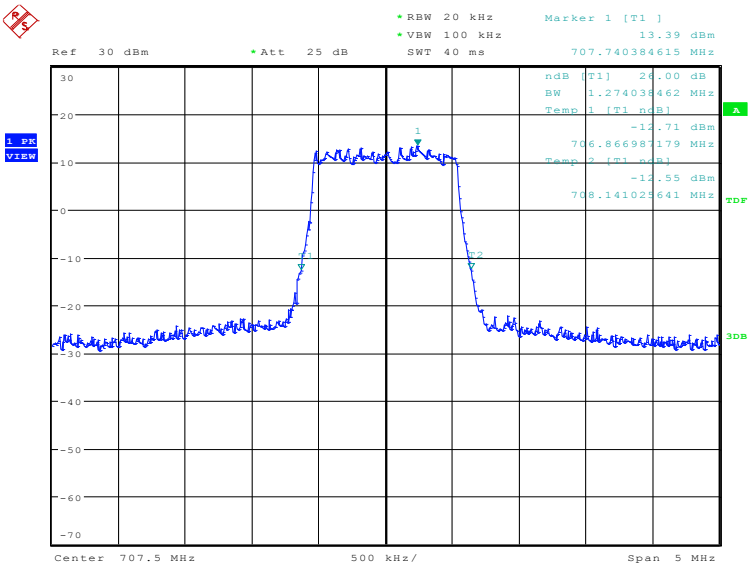
Date: 27.MAY.2020 17:55:11

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



Date: 27.MAY.2020 17:55:50

LTE band 12, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

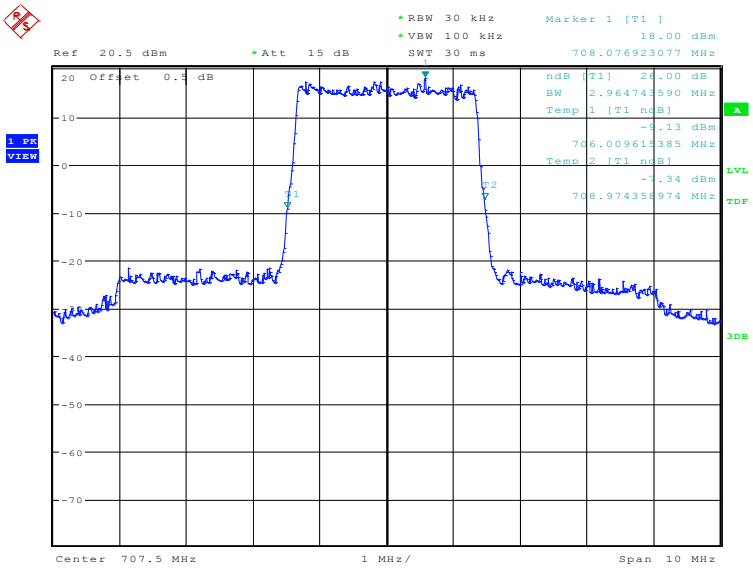


Date: 1.JUN.2020 09:39:01

LTE band 12, 3MHz (-26dBc)

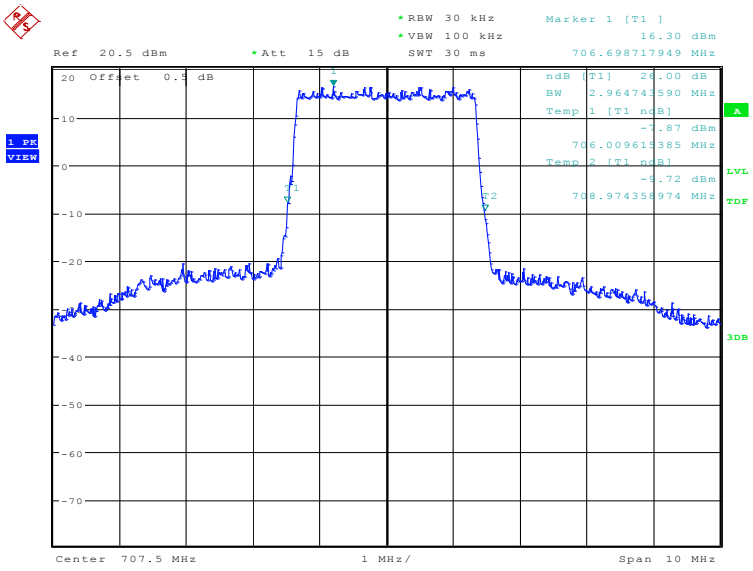
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	2964.74	2964.74	2916.67

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



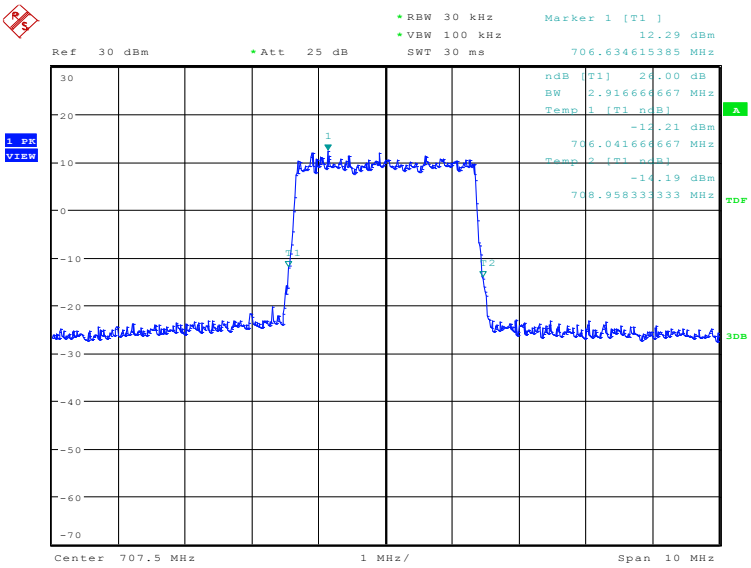
Date: 27.MAY.2020 17:56:30

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



Date: 27.MAY.2020 17:57:09

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

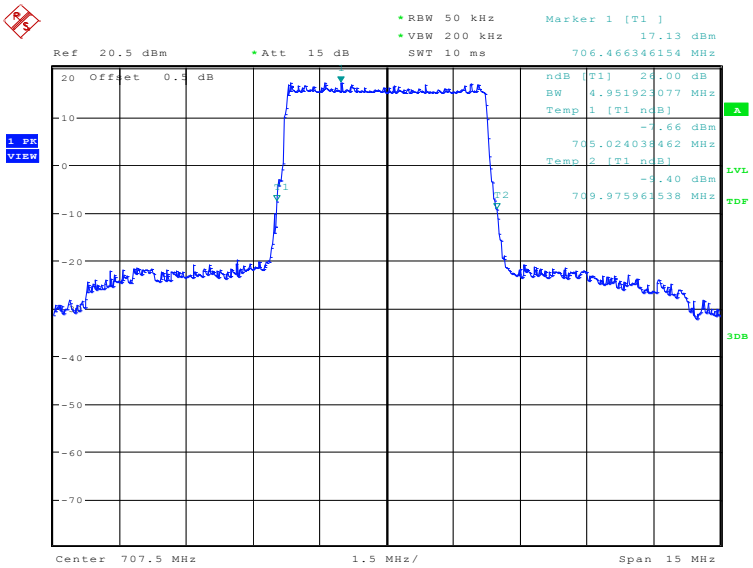


Date: 1.JUN.2020 09:40:14

LTE band 12, 5MHz (-26dBc)

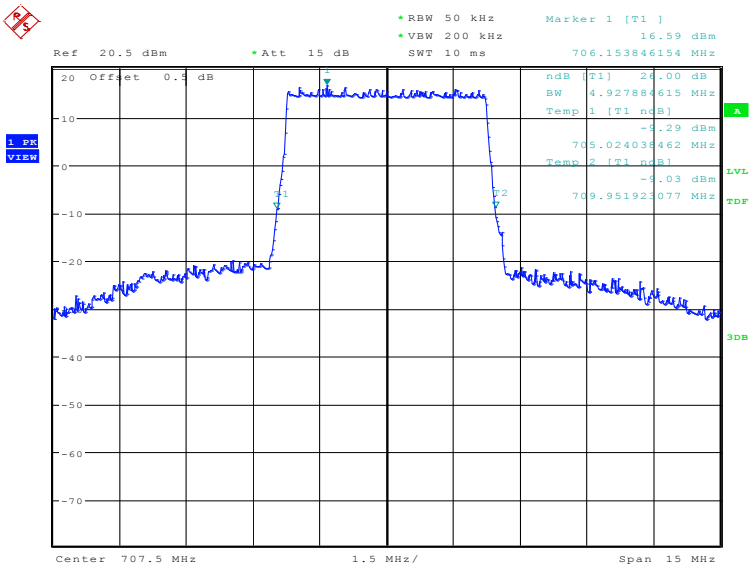
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	4951.92	4927.88	4951.92

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



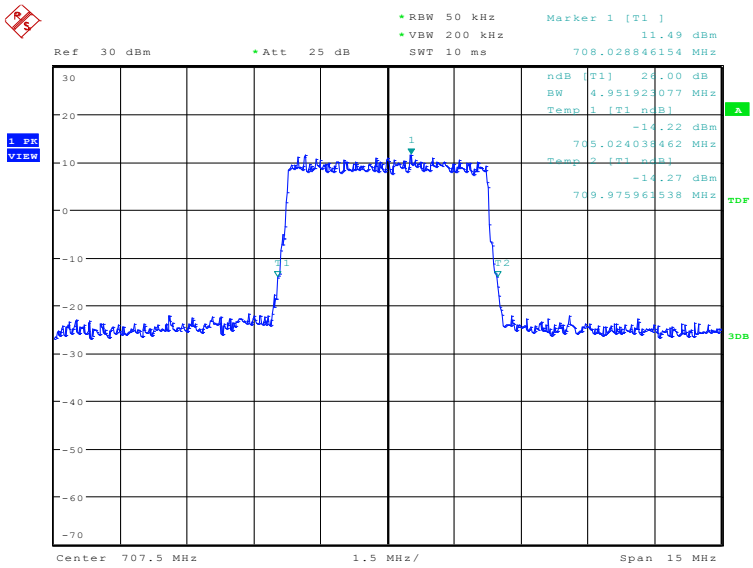
Date: 27.MAY.2020 17:57:50

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



Date: 27.MAY.2020 17:58:29

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

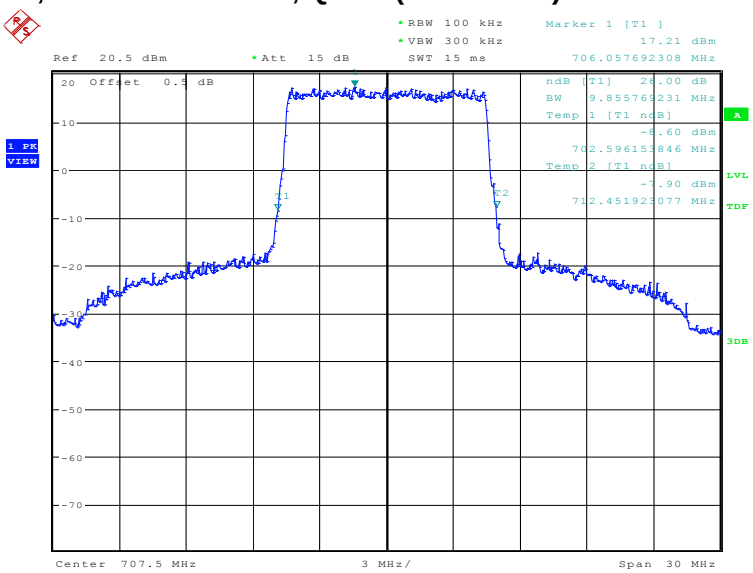


Date: 1.JUN.2020 09:41:16

LTE band 12, 10MHz (-26dBc)

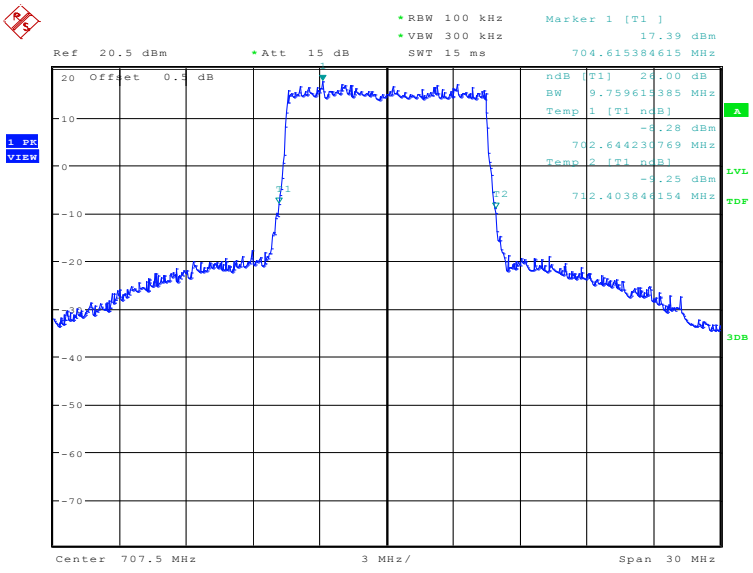
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	9855.77	9759.62	9711.54

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



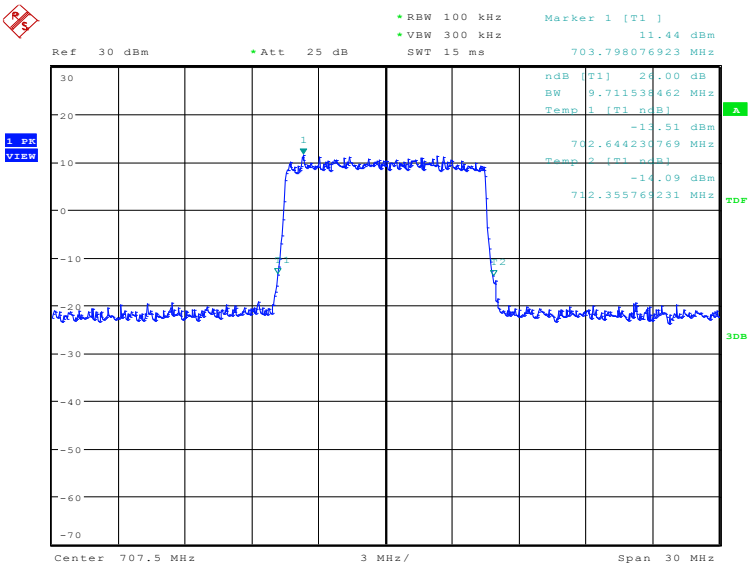
Date: 27.MAY.2020 17:59:10

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



Date: 27.MAY.2020 17:59:49

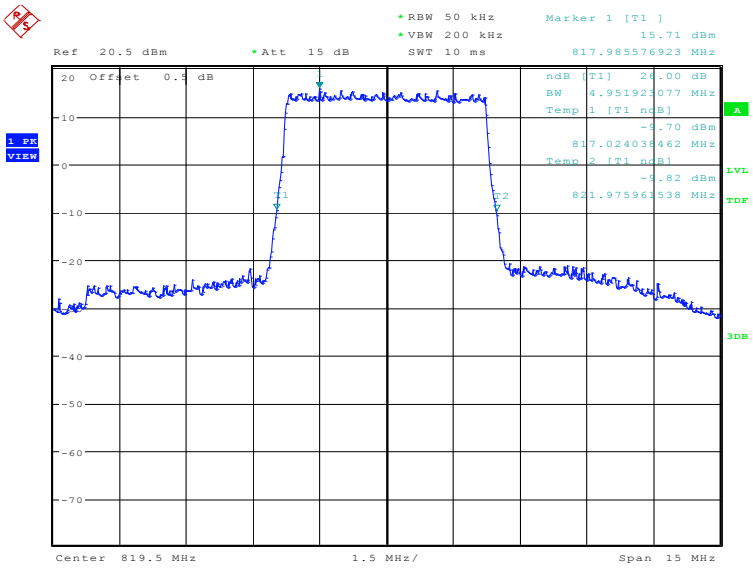
LTE band 12, 10MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 18(815MHz~824MHz), 5MHz (-26dBc)

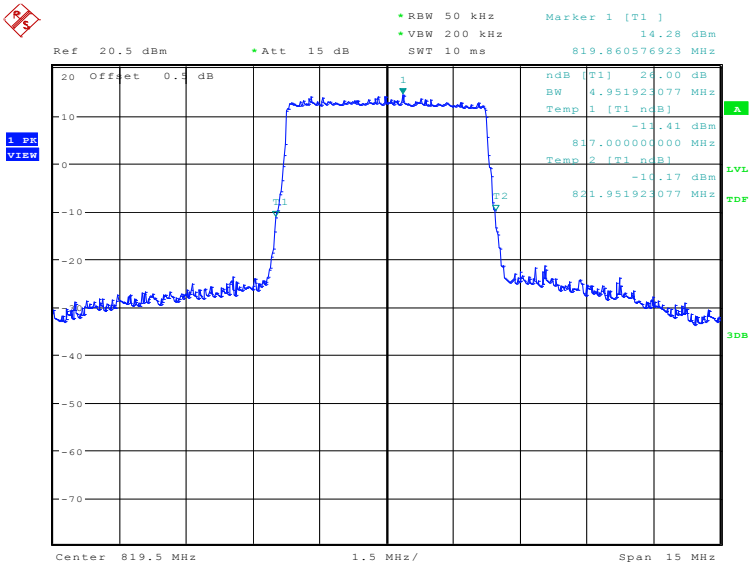
Frequency (MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.5	QPSK	16QAM	64QAM
	4951.92	4951.92	4927.88

LTE band 18(815MHz~824MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



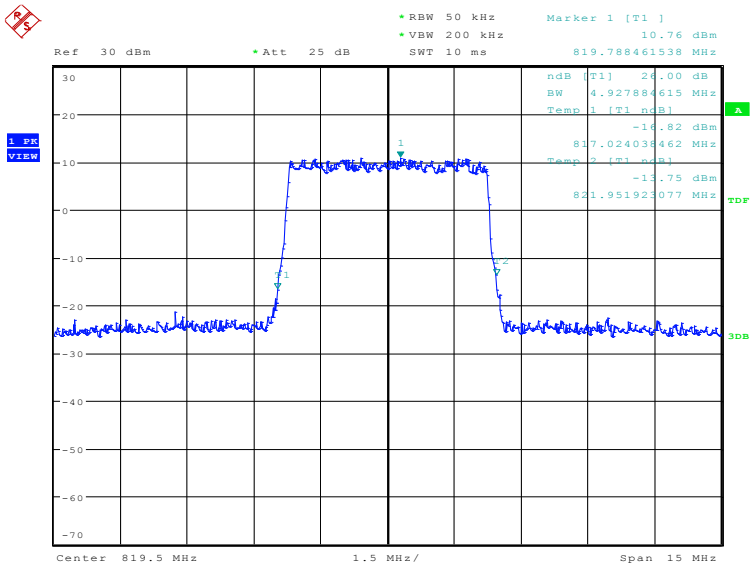
Date: 24.JUN.2020 13:42:00

LTE band 18(815MHz~824MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 24.JUN.2020 13:43:27

LTE band 18(815MHz~824MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

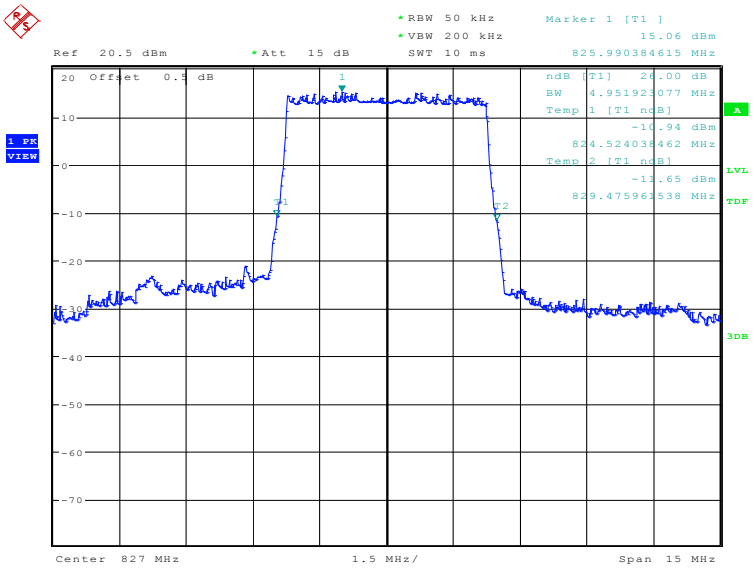


Date: 25.JUN.2020 11:27:13

LTE band 18(824MHz~830MHz), 5MHz (-26dBc)

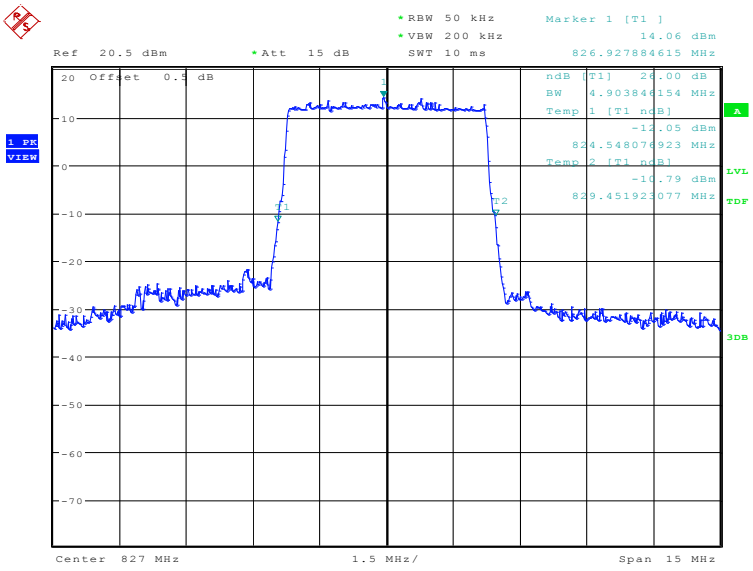
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
827.0	QPSK	16QAM	64QAM
	4951.92	4903.85	4855.77

LTE band 18(824MHz~830MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



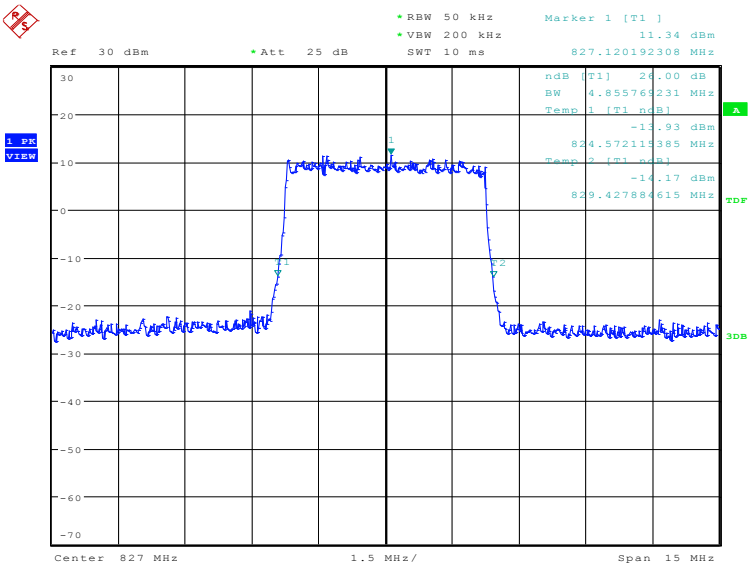
Date: 24.JUN.2020 13:35:41

LTE band 18(824MHz~830MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 24.JUN.2020 13:39:39

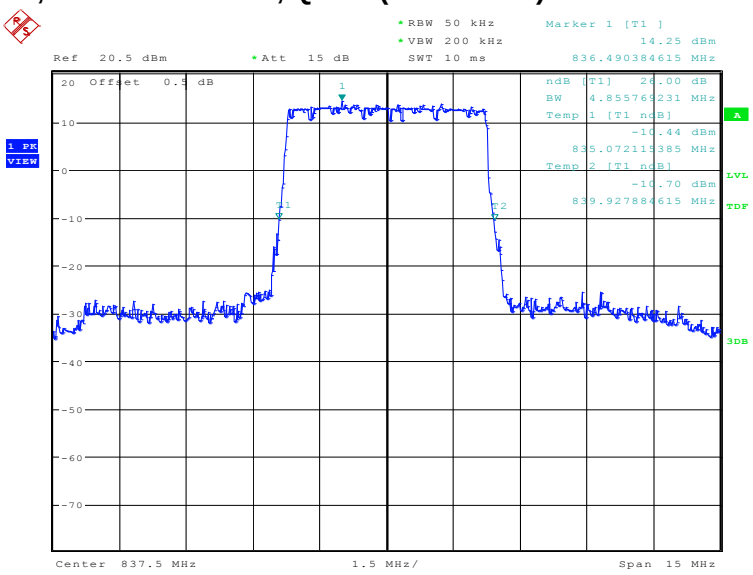
LTE band 18(824MHz~830MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 19, 5MHz (-26dBc)

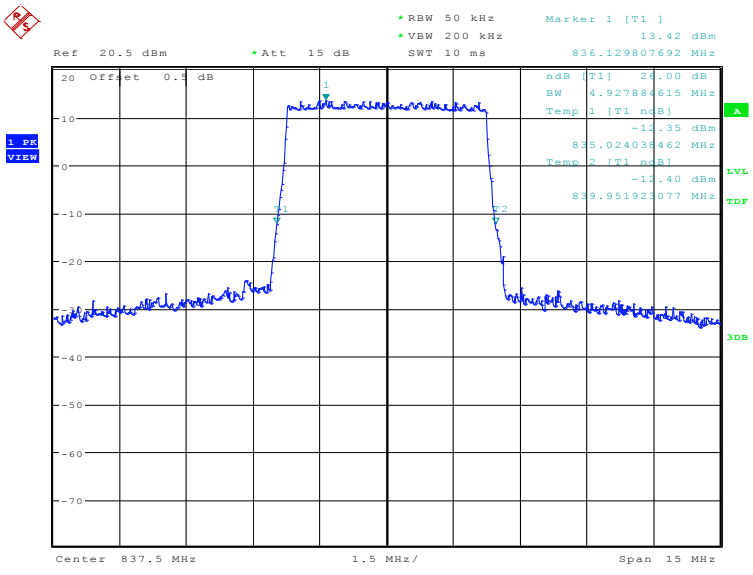
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
837.5	QPSK	16QAM	64QAM
	4855.77	4927.88	4927.88

LTE band 19, 5MHz Bandwidth, QPSK (-26dBc BW)



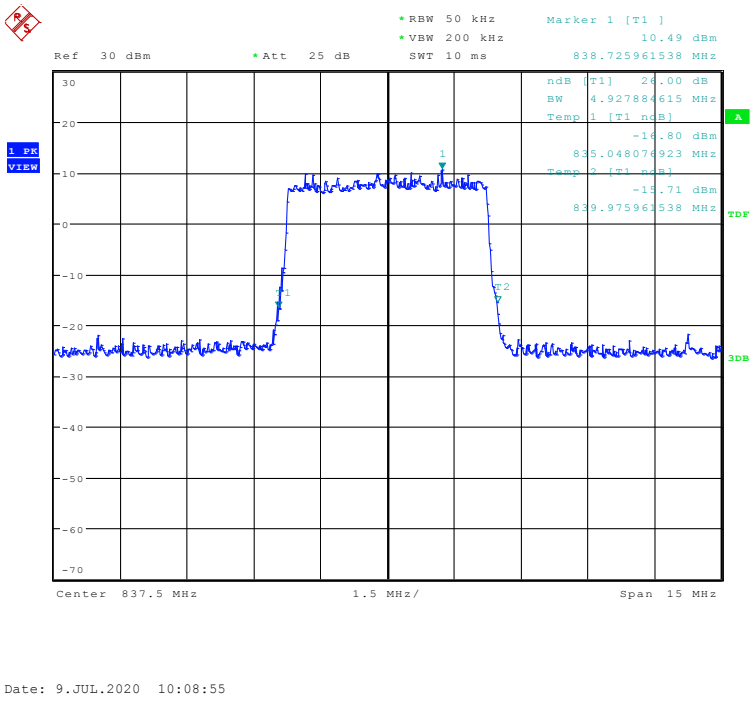
Date: 9.JUL.2020 09:01:06

LTE band 19, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.JUL.2020 09:03:30

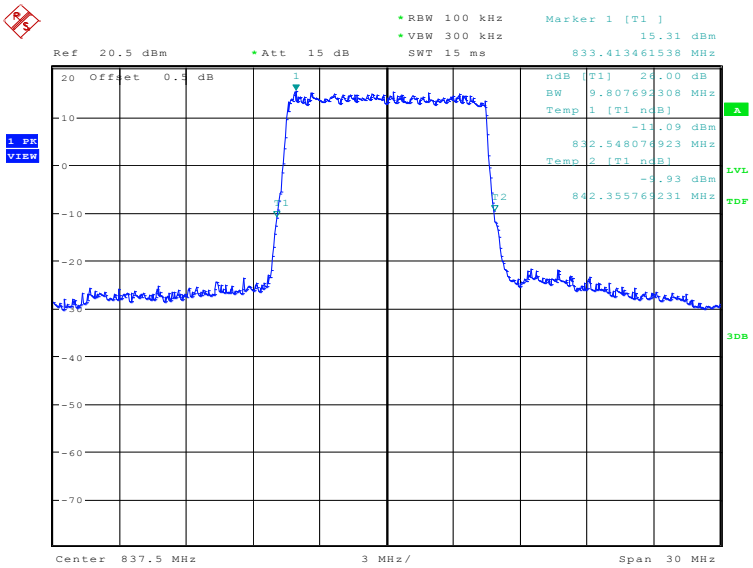
LTE band 19, 5MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 19, 10MHz (-26dBc)

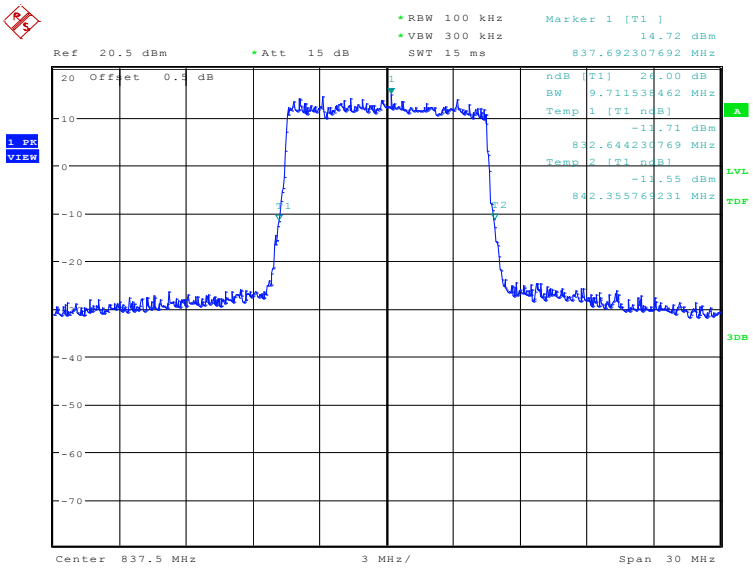
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
837.5	QPSK	16QAM	64QAM
	9807.69	9711.54	9711.54

LTE band 19, 10MHz Bandwidth, QPSK (-26dBc BW)



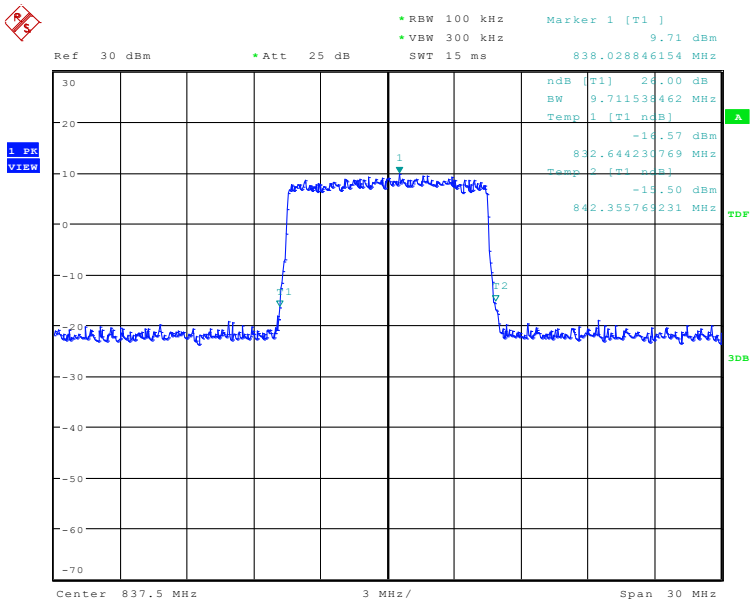
Date: 9.JUL.2020 09:07:19

LTE band 19, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.JUL.2020 09:09:49

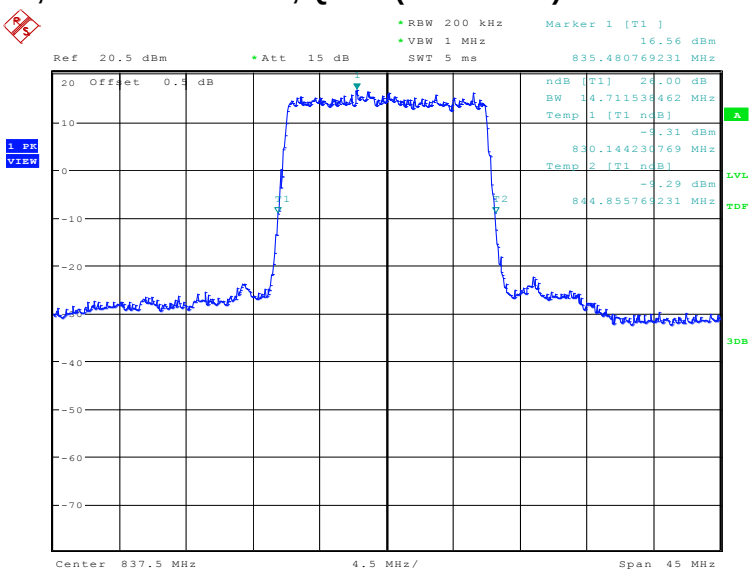
LTE band 19, 10MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 19, 15MHz (-26dBc)

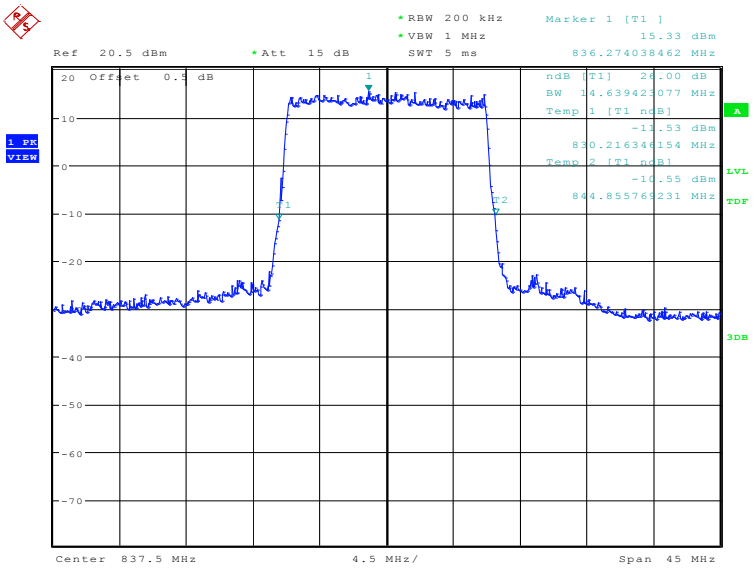
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
837.5	QPSK	16QAM	64QAM
	14711.54	14639.42	14711.54

LTE band 19, 15MHz Bandwidth, QPSK (-26dBc BW)



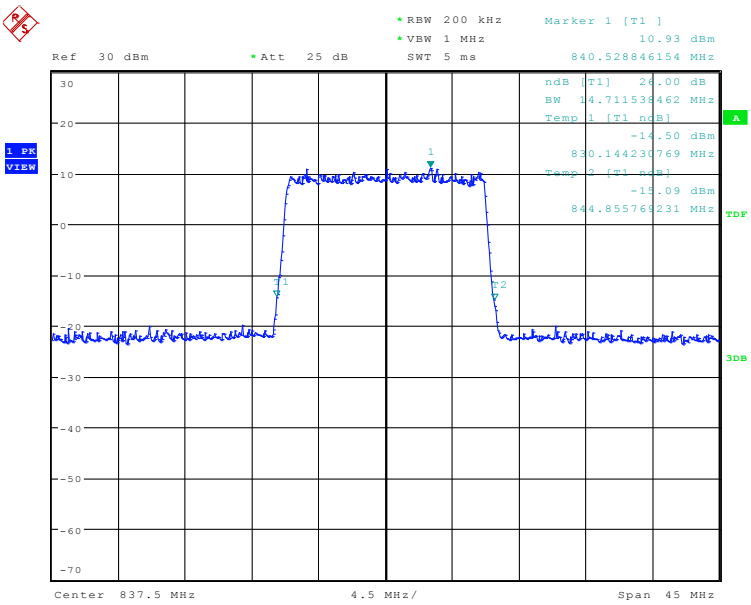
Date: 9.JUL.2020 09:11:28

LTE band 19, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 9.JUL.2020 09:12:51

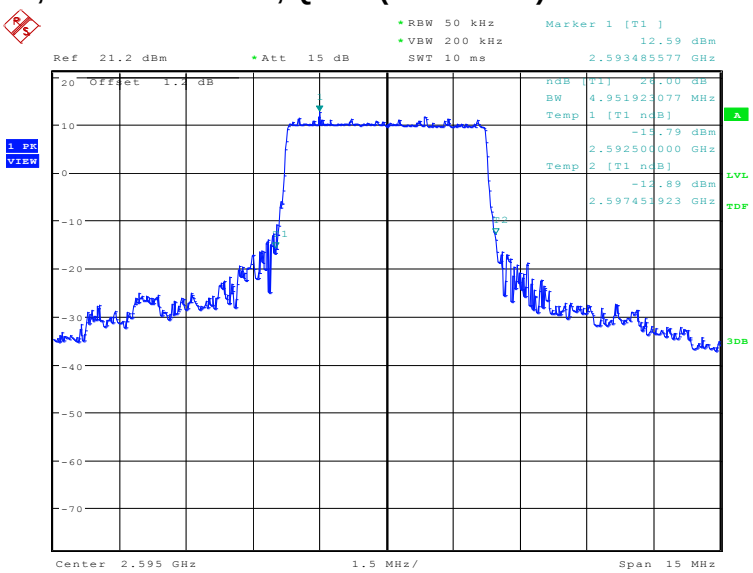
LTE band 19, 15MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 38, 5MHz (-26dBc)

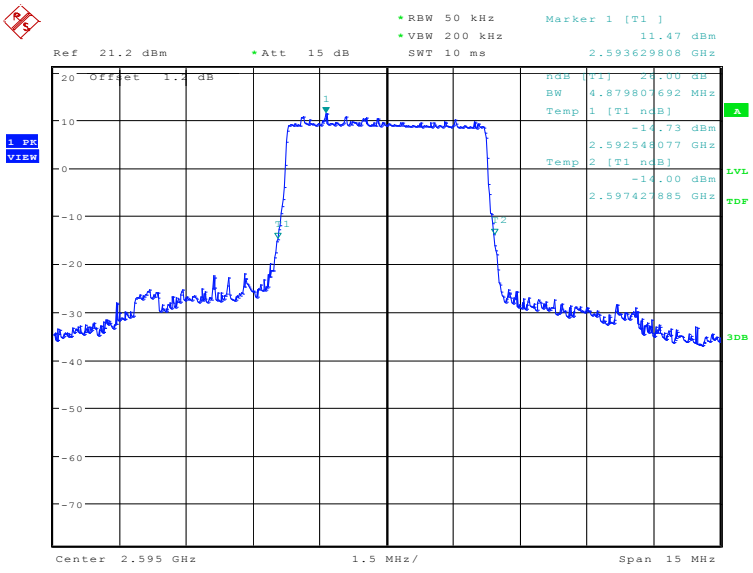
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2595.0	QPSK	16QAM	64QAM
	4951.92	4879.81	4879.81

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



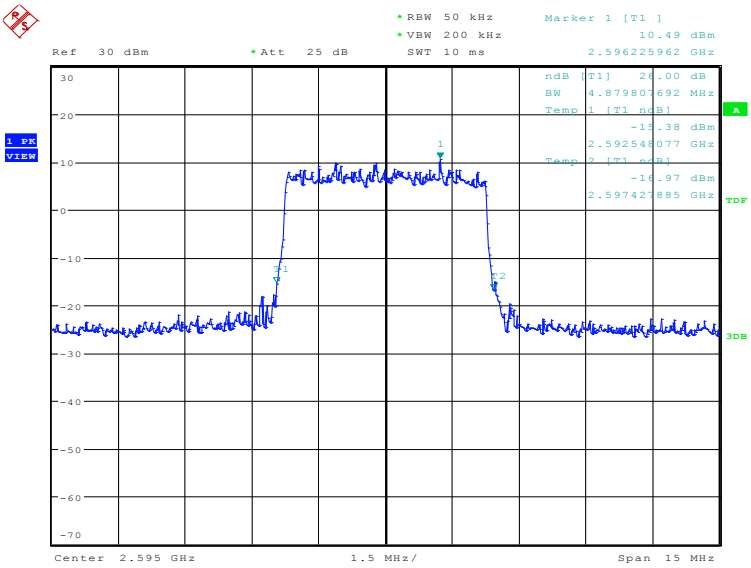
Date: 28.MAY.2020 08:20:14

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



Date: 28.MAY.2020 08:20:52

LTE band 38, 5MHz Bandwidth,64QAM (-26dBc BW)

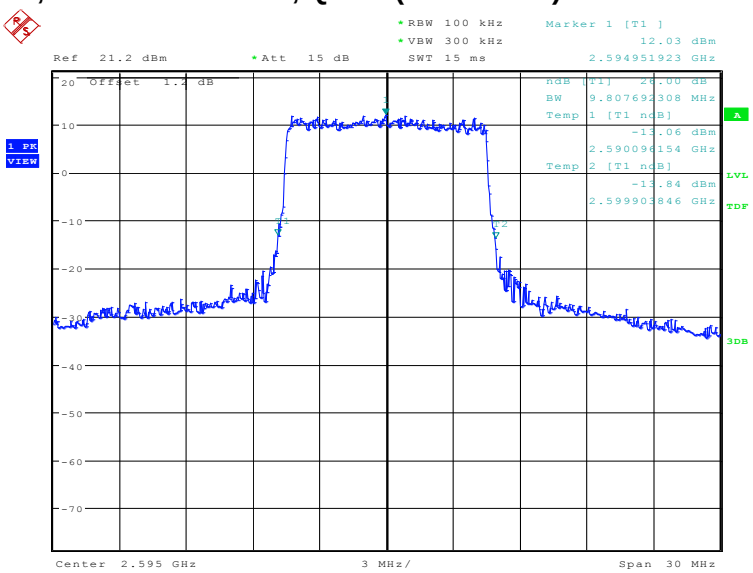


Date: 1.JUN.2020 09:16:58

LTE band 38, 10MHz (-26dBc)

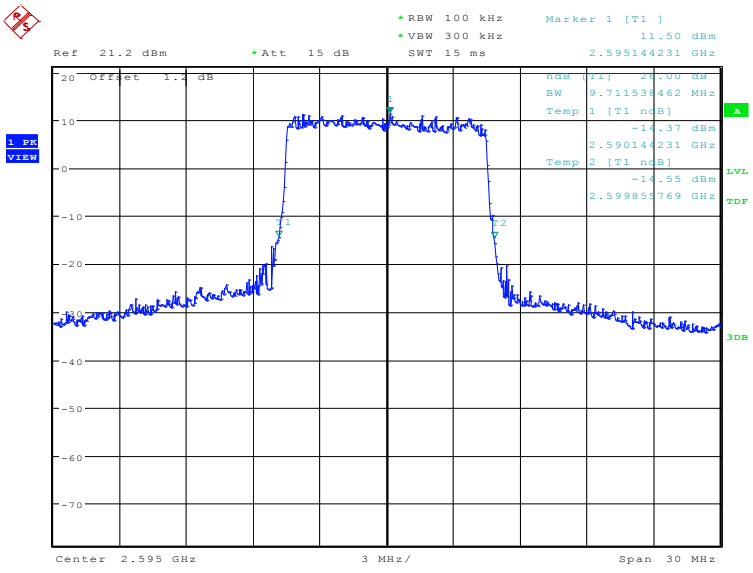
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2595.0	QPSK	16QAM	64QAM
	9807.69	9711.54	9807.69

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



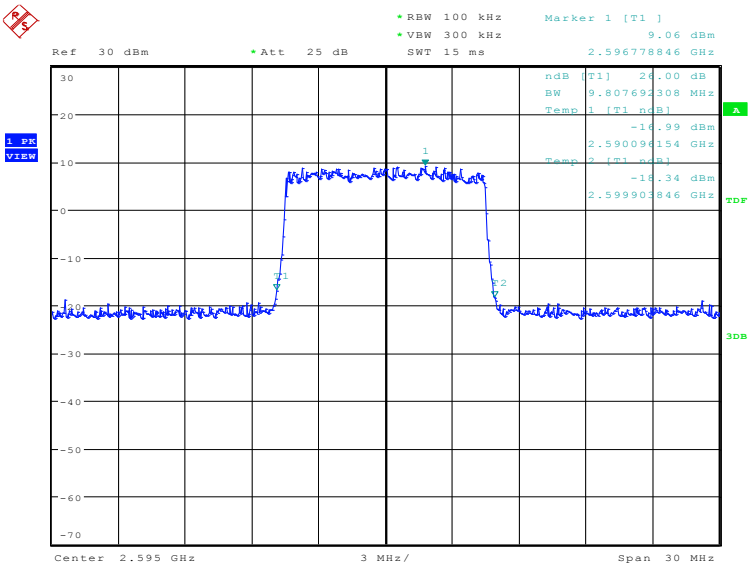
Date: 28.MAY.2020 08:21:33

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



Date: 28.MAY.2020 08:22:12

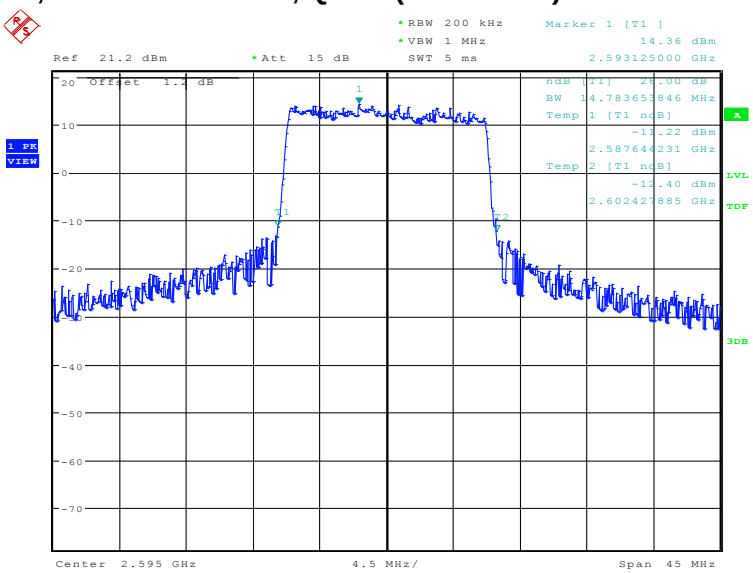
LTE band 38, 10MHz Bandwidth,64QAM (-26dBc BW)



LTE band 38, 15MHz (-26dBc)

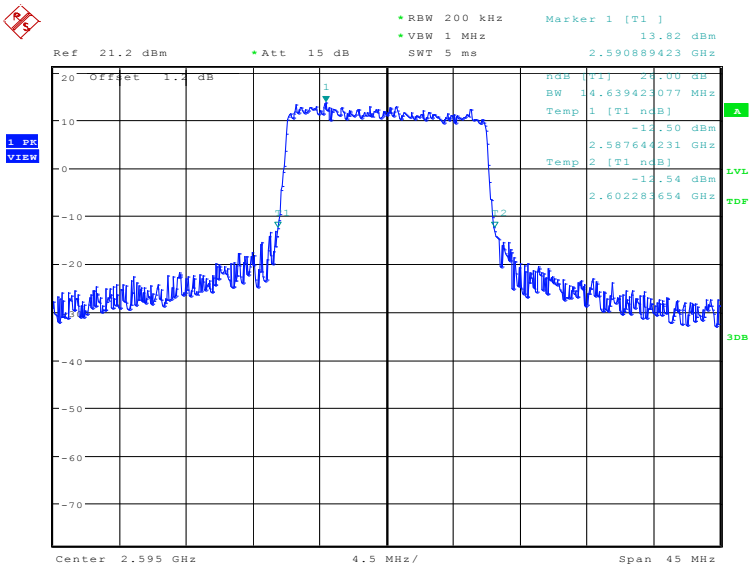
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2595.0	QPSK	16QAM	64QAM
	14783.65	14639.42	14711.54

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



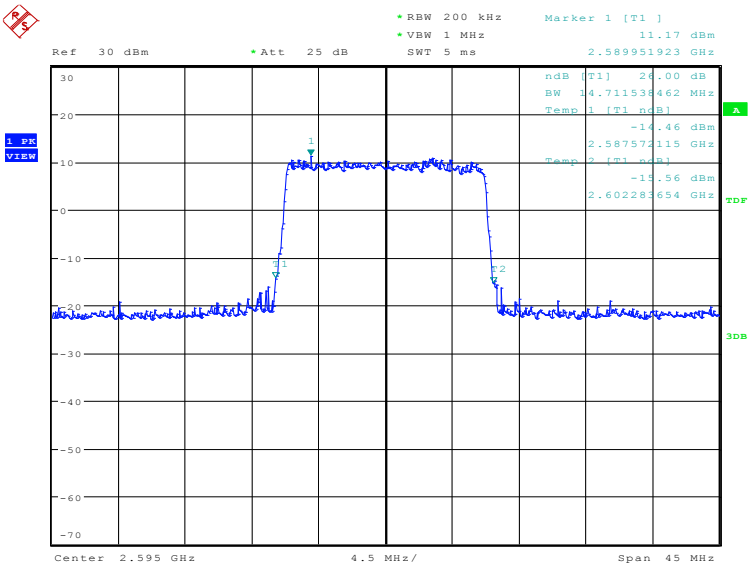
Date: 28.MAY.2020 08:22:53

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



Date: 28.MAY.2020 08:23:32

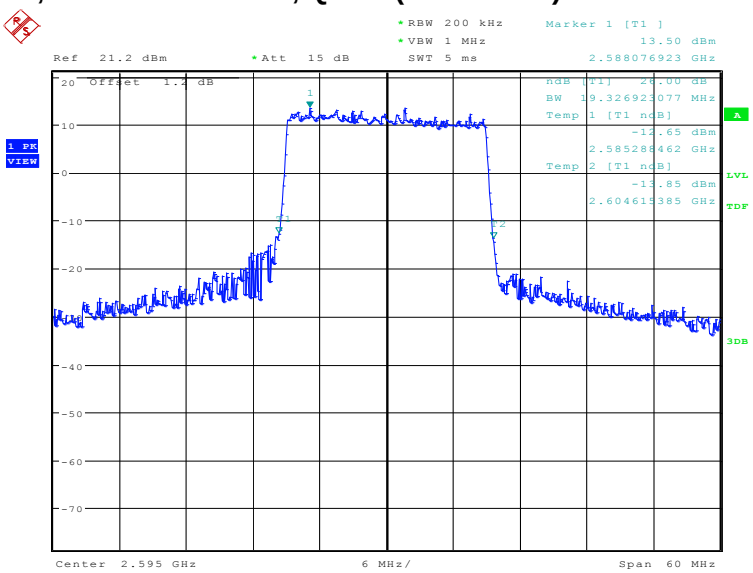
LTE band 38, 15MHz Bandwidth,64QAM (-26dBc BW)



LTE band 38, 20MHz (-26dBc)

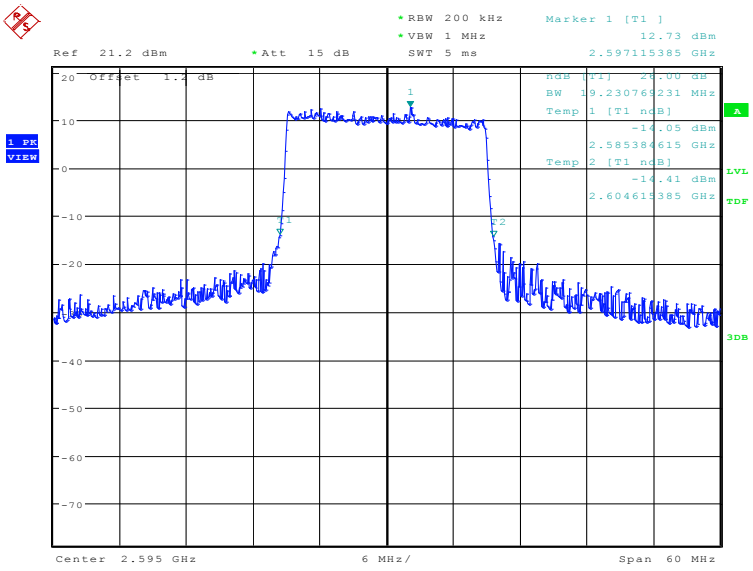
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2595.0	QPSK	16QAM	64QAM
	19326.92	19230.77	19230.77

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



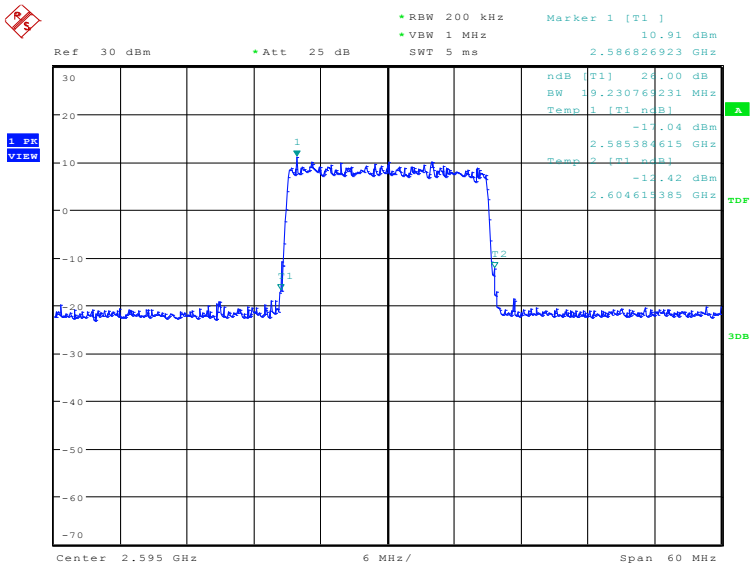
Date: 28.MAY.2020 08:24:13

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



Date: 28.MAY.2020 08:24:52

LTE band 38, 20MHz Bandwidth,64QAM (-26dBc BW)

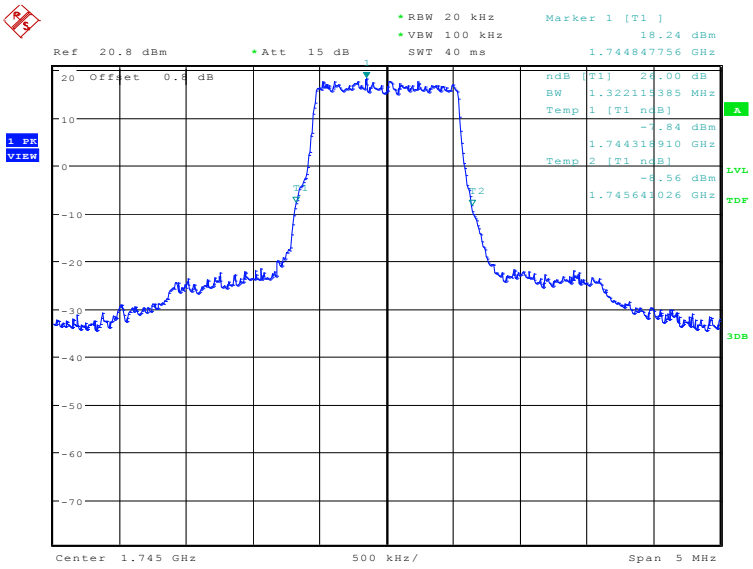


Date: 1.JUN.2020 09:21:15

LTE band 66, 1.4MHz (-26dBc)

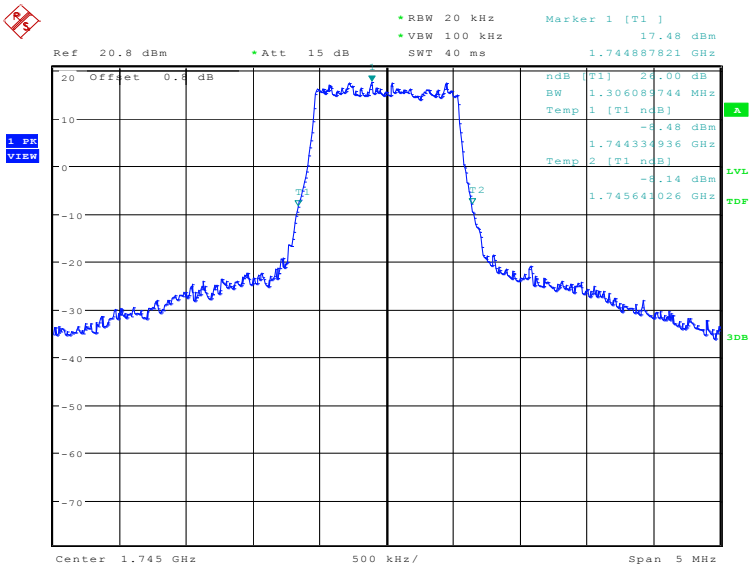
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	1322.12	1306.09	1274.04

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



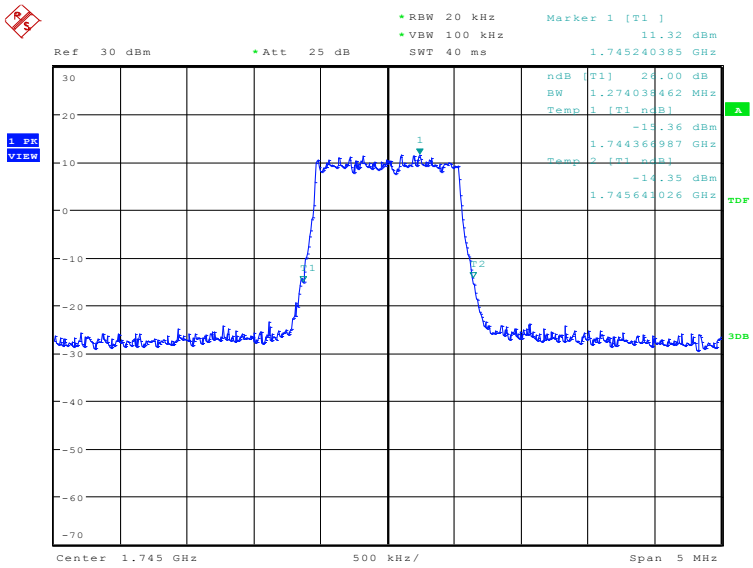
Date: 27.MAY.2020 18:00:33

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



Date: 27.MAY.2020 18:01:12

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

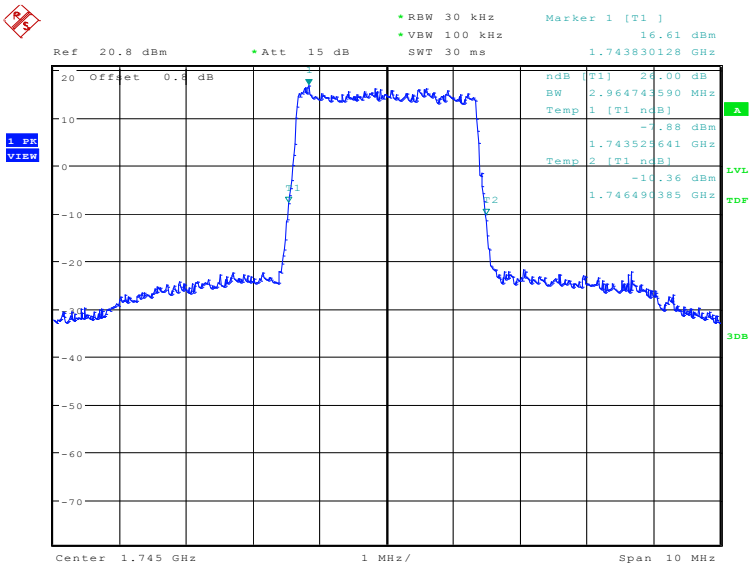


Date: 1.JUN.2020 09:45:23

LTE band 66, 3MHz (-26dBc)

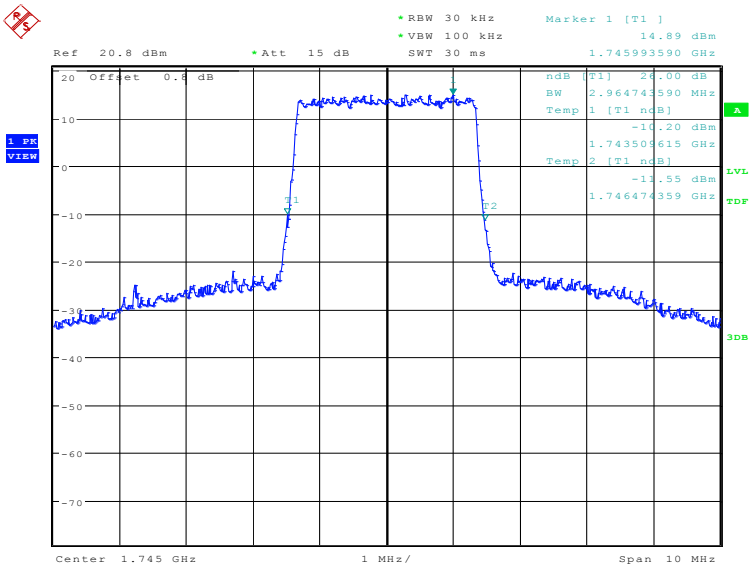
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	2964.74	2964.74	2916.67

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



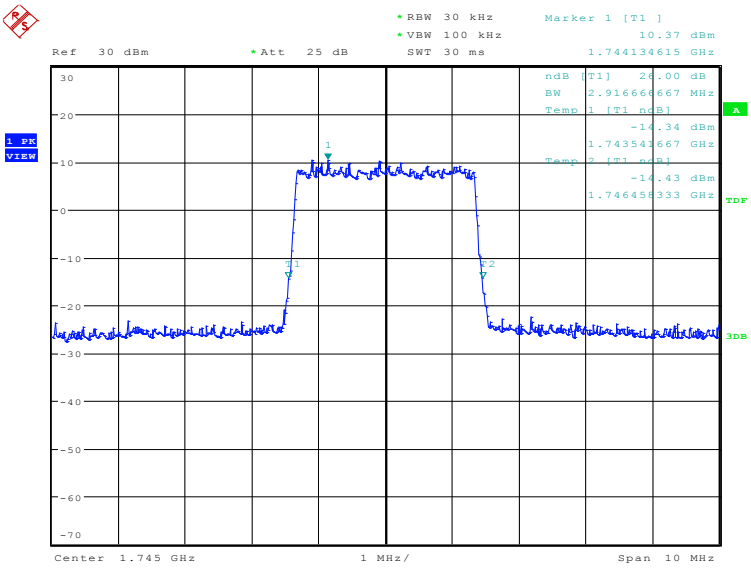
Date: 27.MAY.2020 18:01:53

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



Date: 27.MAY.2020 18:02:32

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

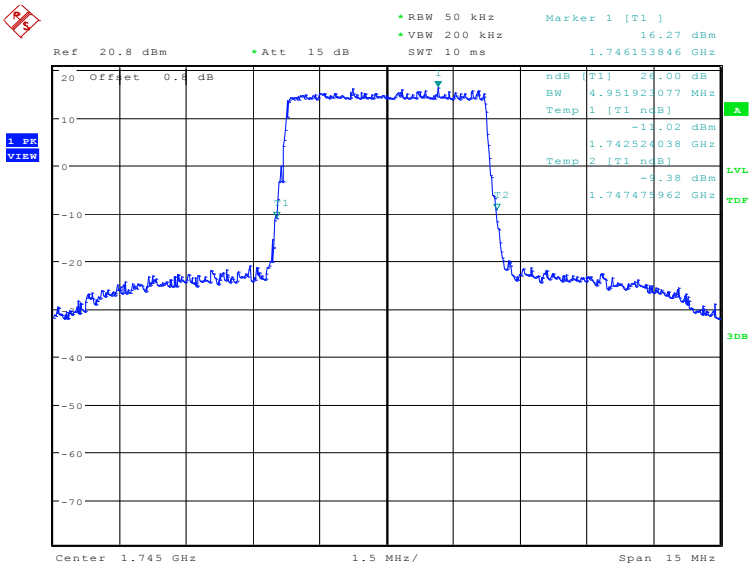


Date: 1.JUN.2020 09:46:24

LTE band 66, 5MHz (-26dBc)

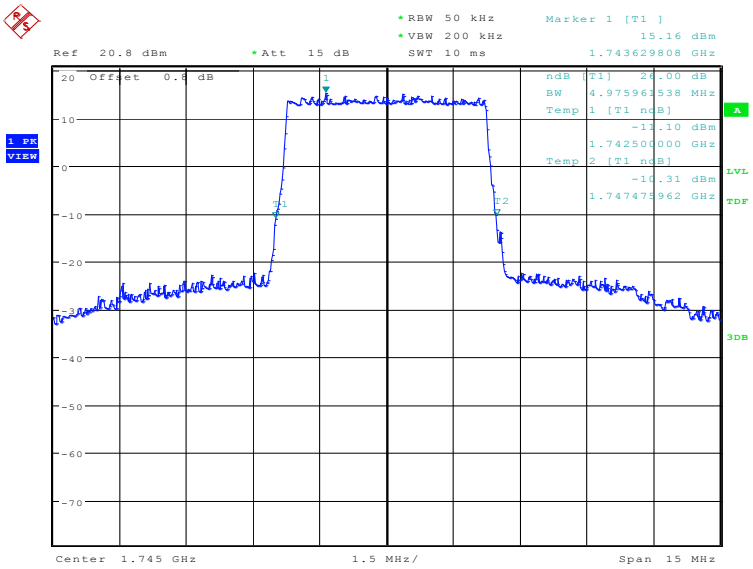
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	4951.92	4975.96	4879.81

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



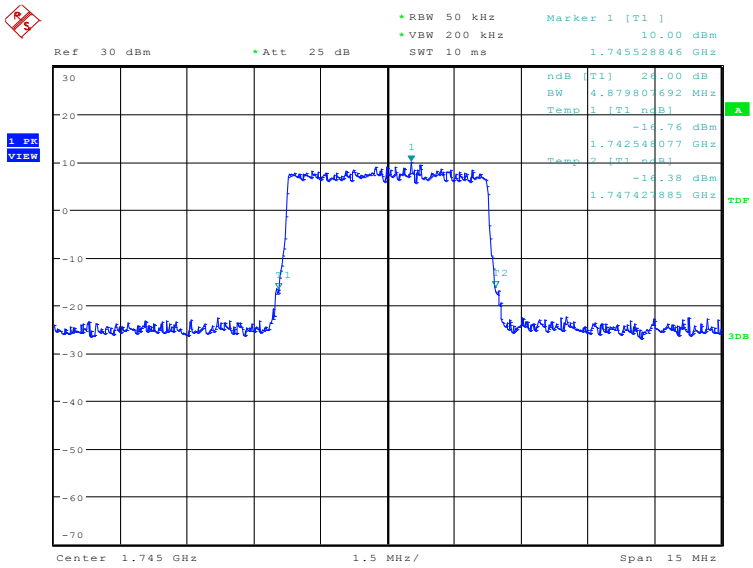
Date: 27.MAY.2020 18:03:13

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



Date: 27.MAY.2020 18:03:52

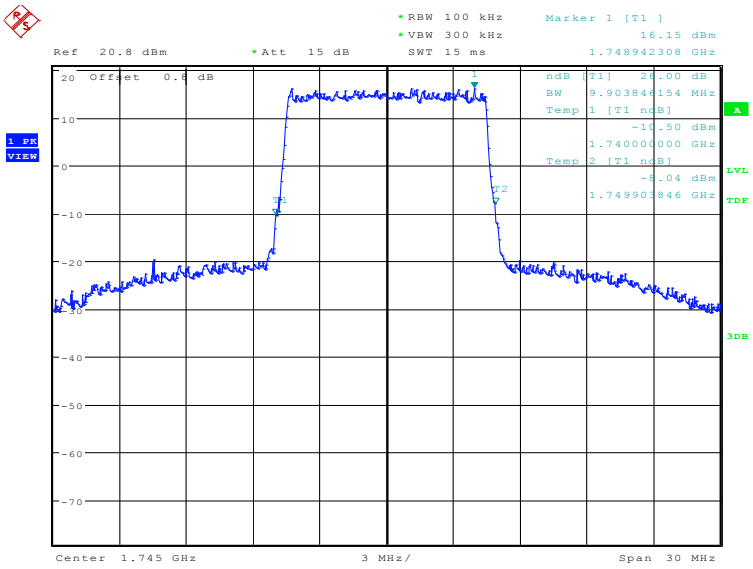
LTE band 66, 5MHz Bandwidth,64QAM (-26dBc BW)



LTE band 66, 10MHz (-26dBc)

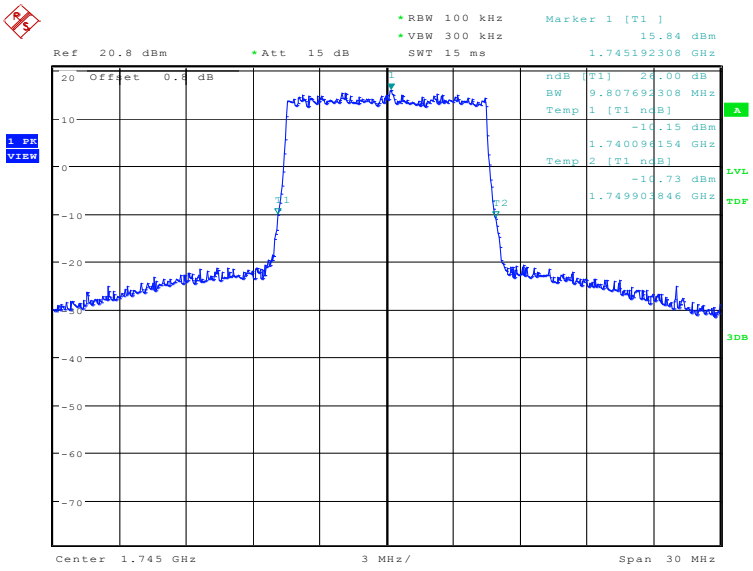
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	9903.85	9807.69	9711.54

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



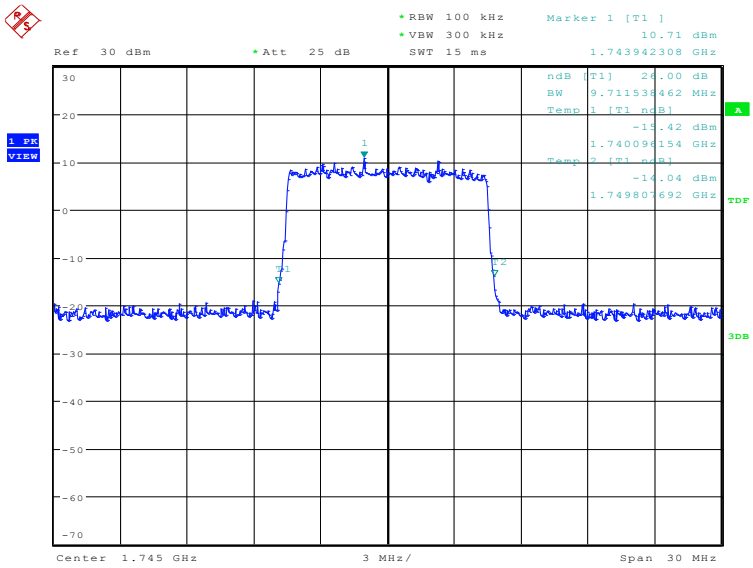
Date: 27.MAY.2020 18:04:33

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



Date: 27.MAY.2020 18:05:12

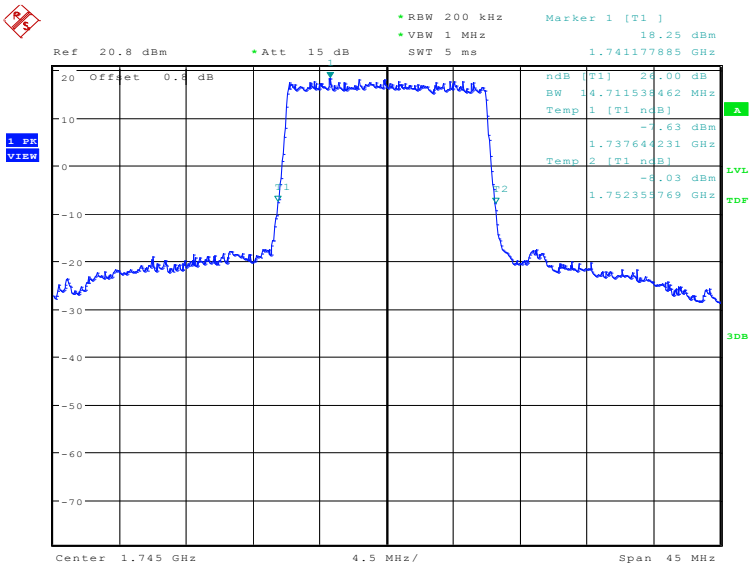
LTE band 66, 10MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 66, 15MHz (-26dBc)

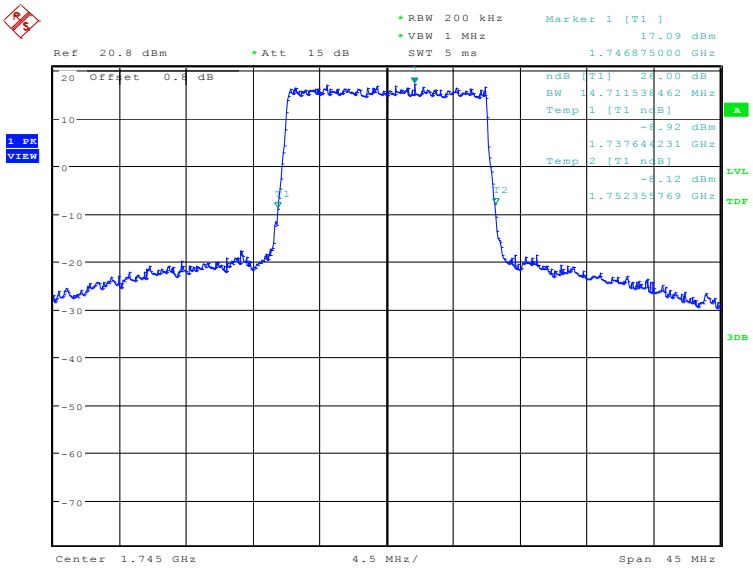
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	14711.54	14711.54	14639.42

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



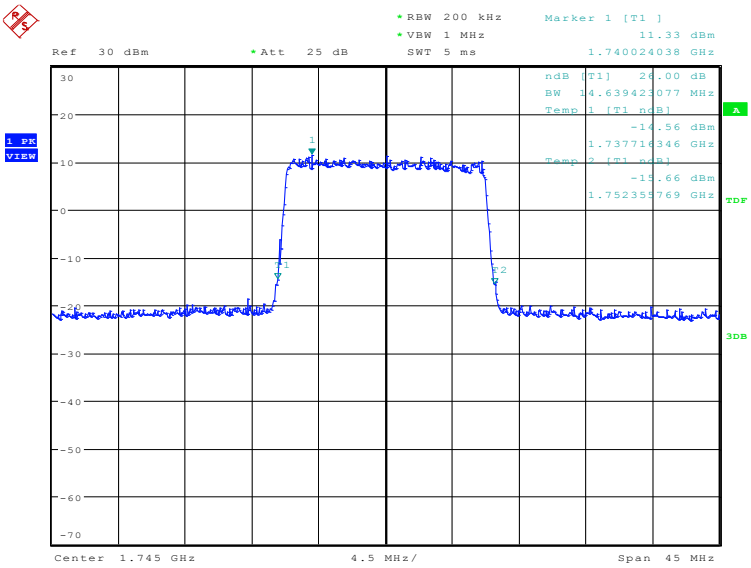
Date: 27.MAY.2020 18:05:53

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



Date: 27.MAY.2020 18:06:32

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

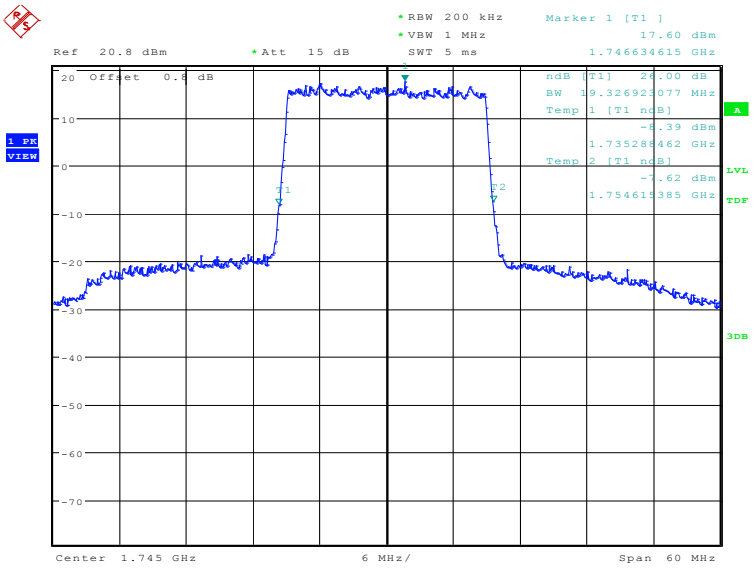


Date: 1.JUN.2020 09:49:36

LTE band 66, 20MHz (-26dBc)

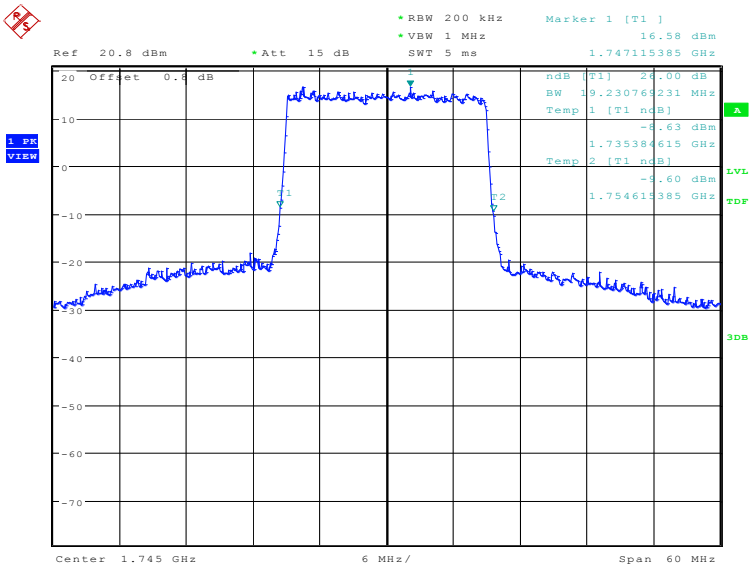
Frequency (MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1745.0	QPSK	16QAM	64QAM
	19326.92	19230.77	19326.92

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



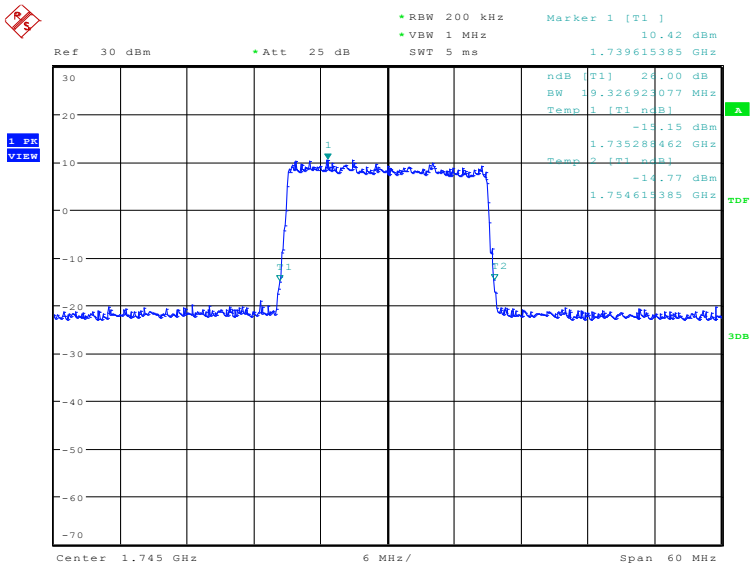
Date: 27.MAY.2020 18:07:13

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



Date: 27.MAY.2020 18:07:52

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



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.

Part 27.53(m) 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(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

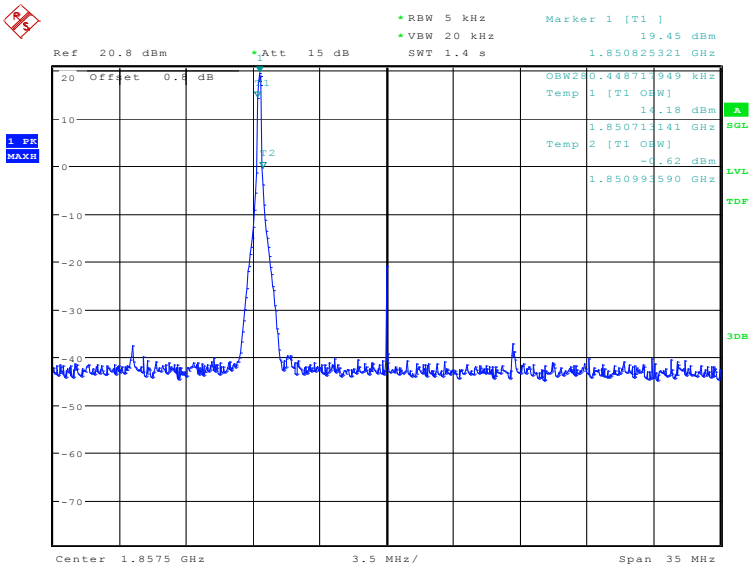
Part 90.691 states that out-of-band emission requirement shall apply only to the ‘‘outer’’ channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee’s frequency block 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 $116Log_{10}(f/6.1)$ 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 + $10Log_{10}(P)$ 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

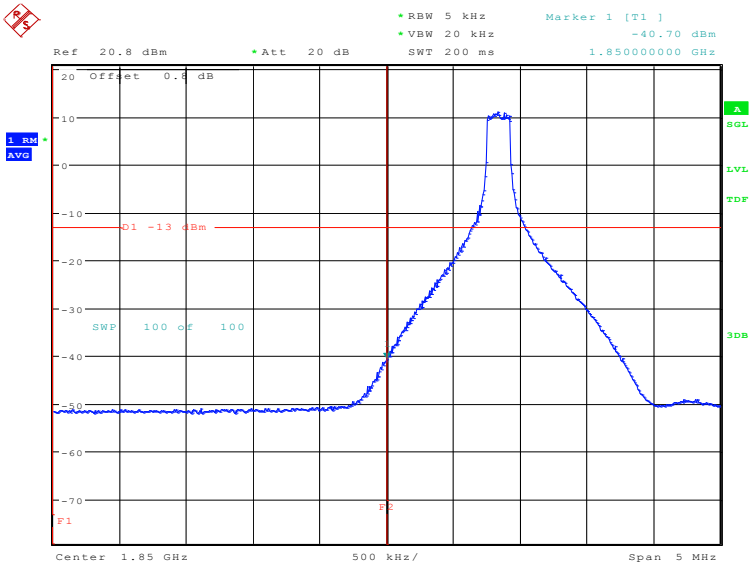
LTE band 2

OBW: 1RB-low_offset



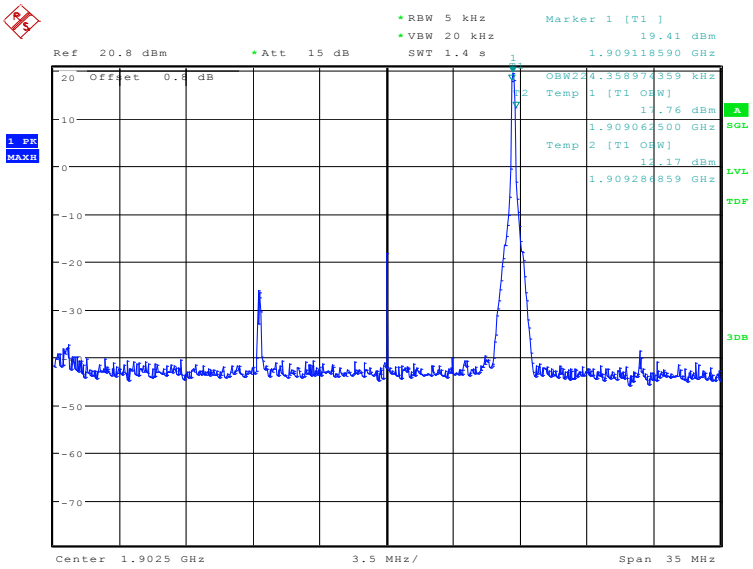
Date: 25.JUN.2020 09:23:01

LOW BAND EDGE BLOCK-1RB-low_offset



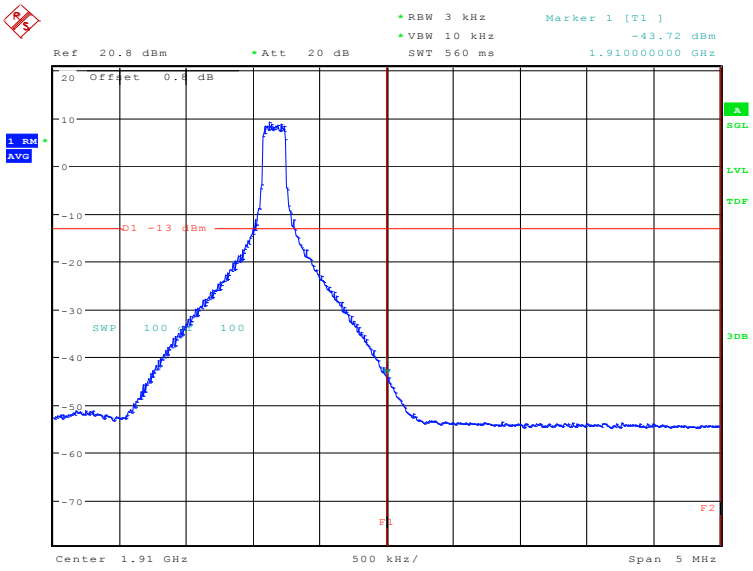
Date: 25.JUN.2020 09:24:14

OBW: 1RB-high_offset



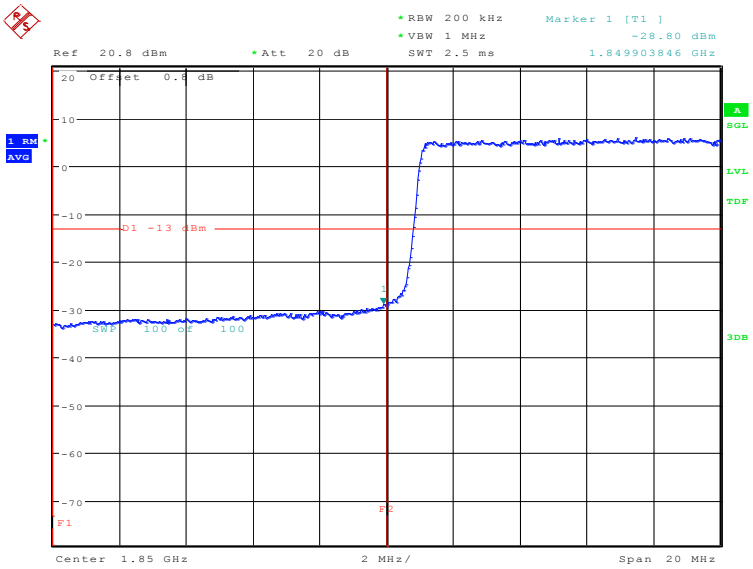
Date: 25.JUN.2020 09:24:49

HIGH BAND EDGE BLOCK-1RB-high_offset



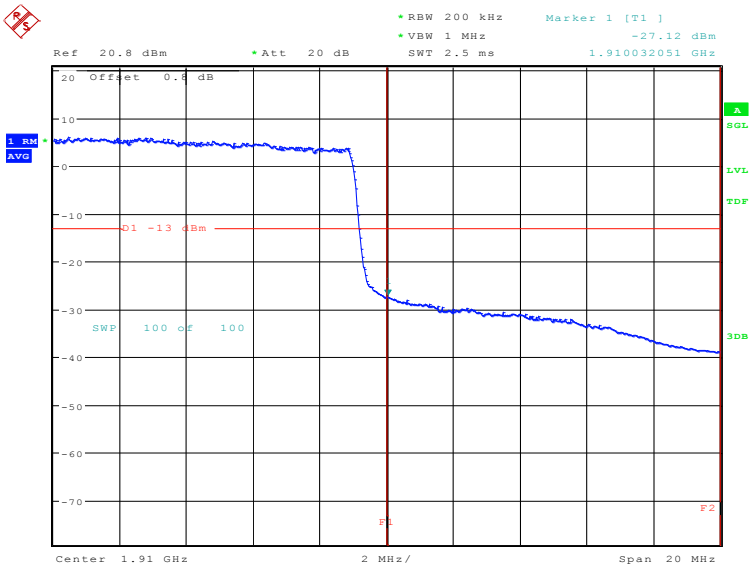
Date: 25.JUN.2020 09:26:02

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 27.MAY.2020 18:08:54

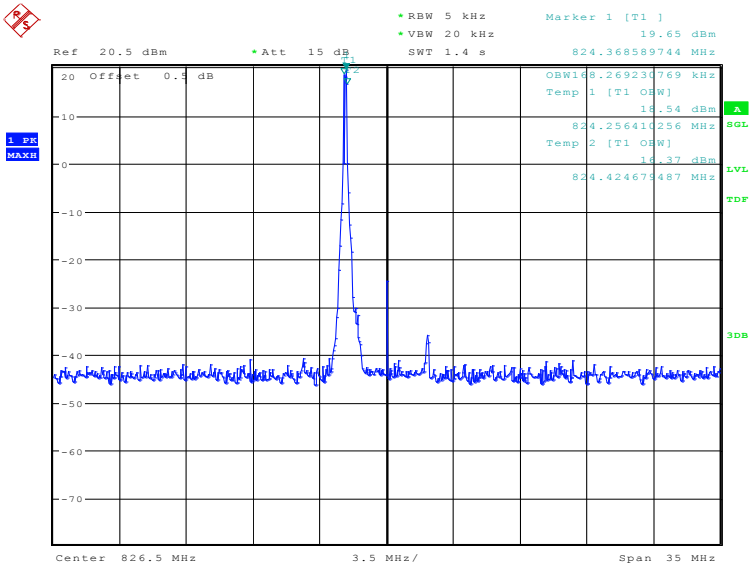
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 27.MAY.2020 18:10:14

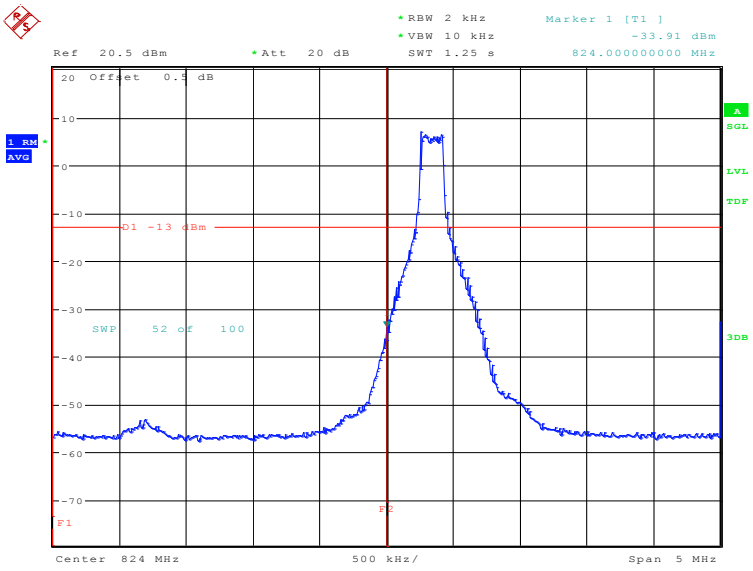
LTE band 5

OBW: 1RB-low_offset



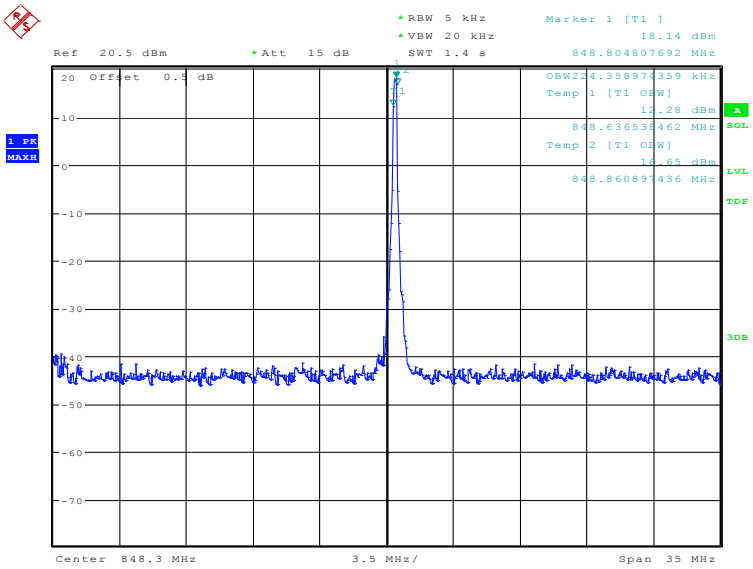
Date: 3.JUL.2020 09:35:28

LOW BAND EDGE BLOCK-1RB-low_offset



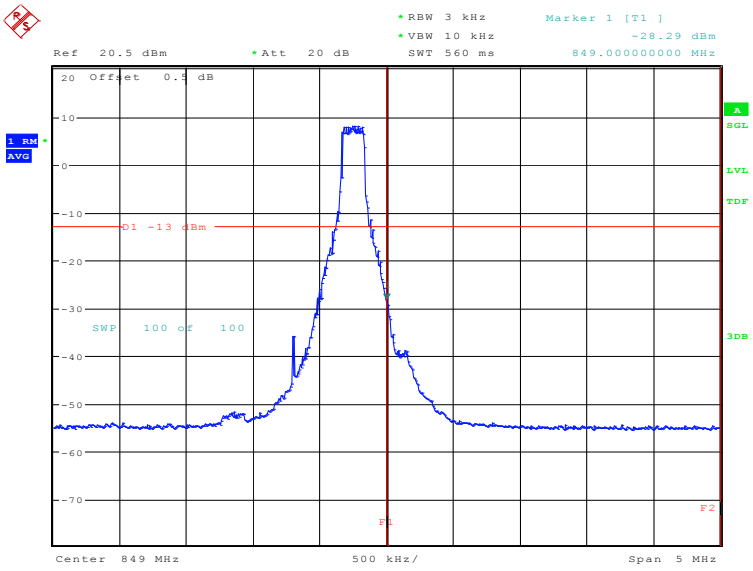
Date: 3.JUL.2020 09:36:41

OBW: 1RB-high_offset



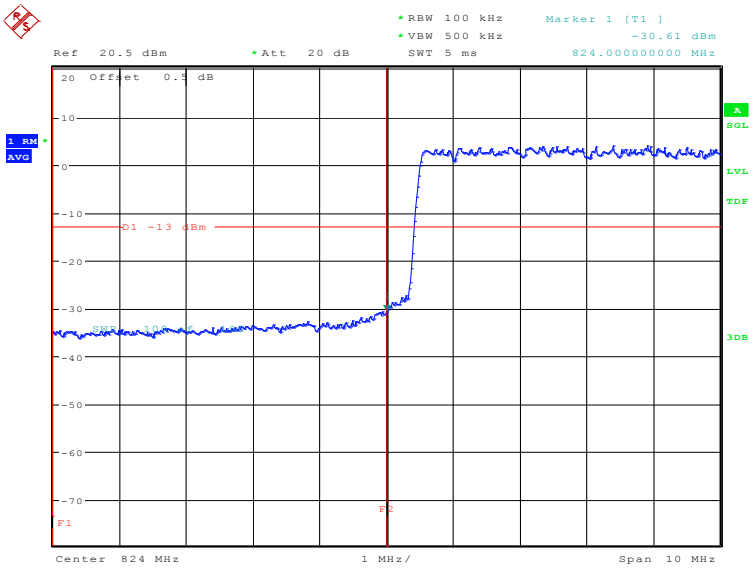
Date: 3.JUL.2020 09:37:54

HIGH BAND EDGE BLOCK-1RB-high_offset



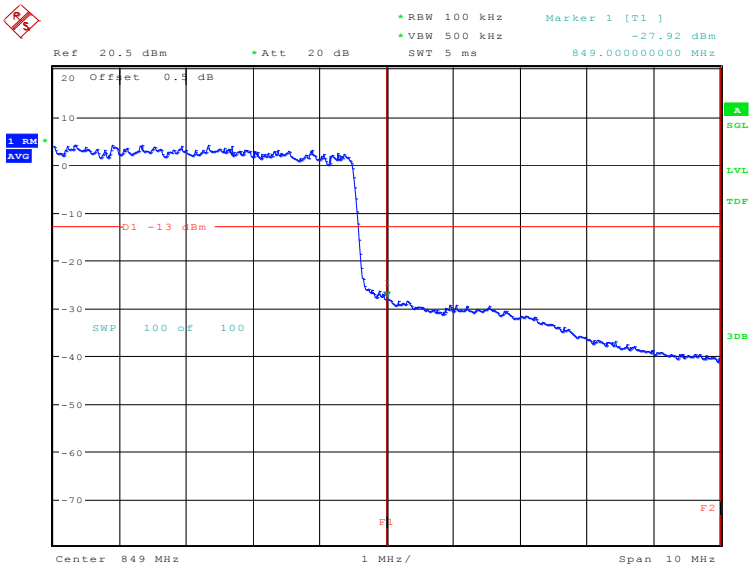
Date: 3.JUL.2020 09:39:07

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 27.MAY.2020 18:12:28

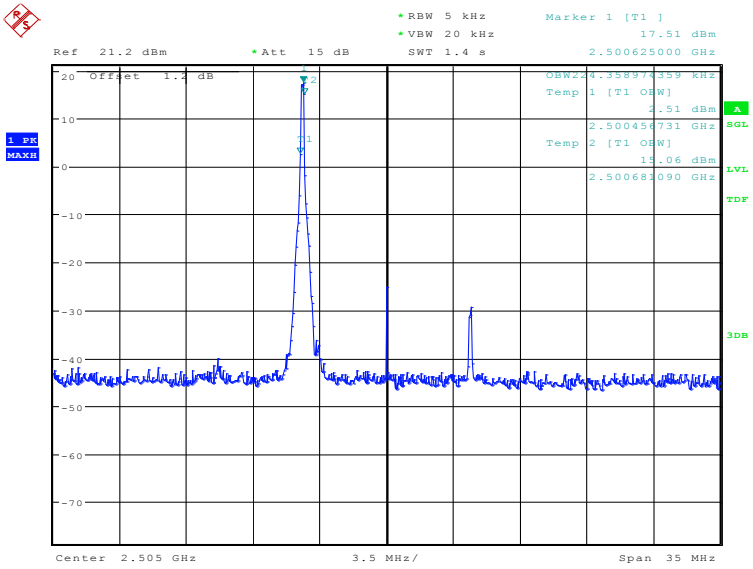
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 27.MAY.2020 18:13:48

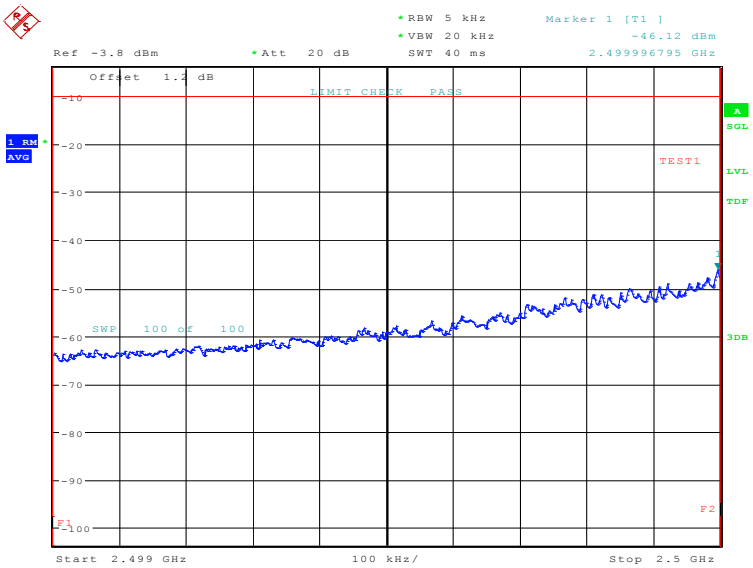
LTE band 7

OBW: 1RB-low_offset

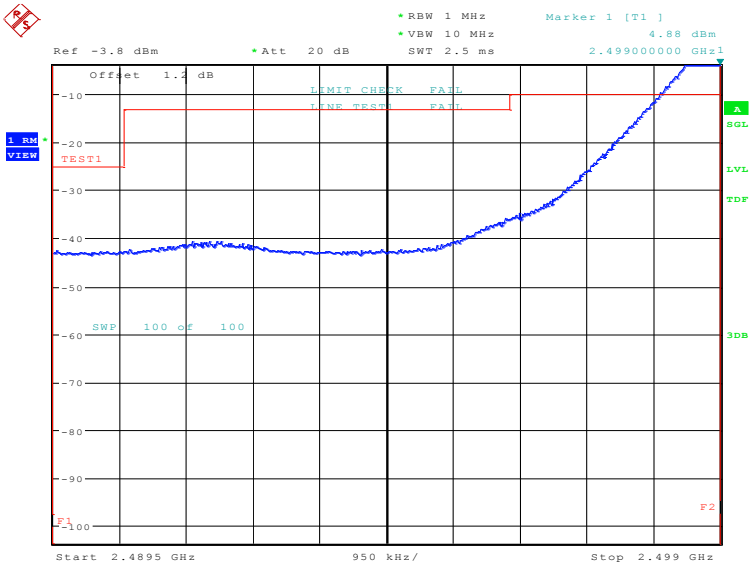


Date: 29.JUN.2020 09:01:58

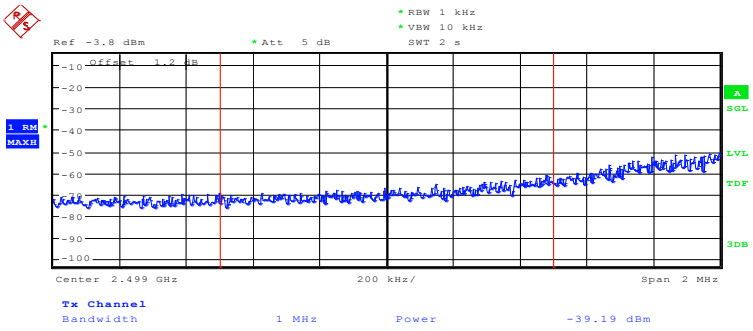
LOW BAND EDGE BLOCK-1RB-low_offset



Date: 29.JUN.2020 09:03:18

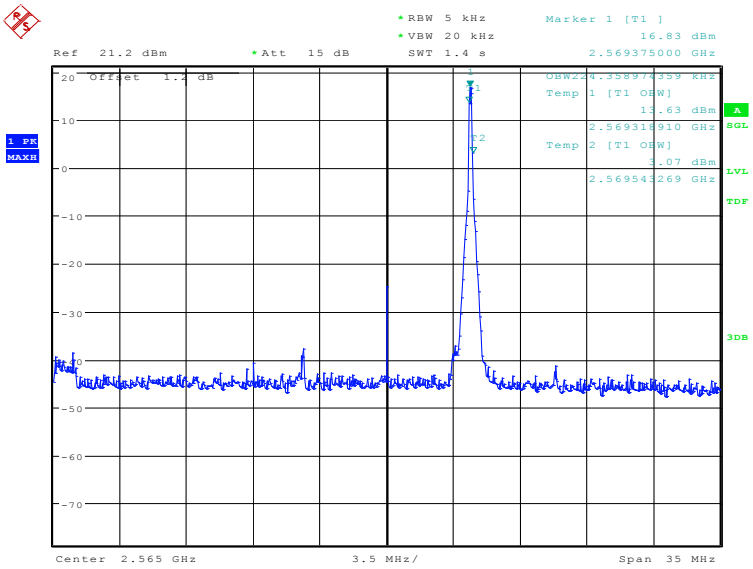


Date: 29.JUN.2020 09:03:35



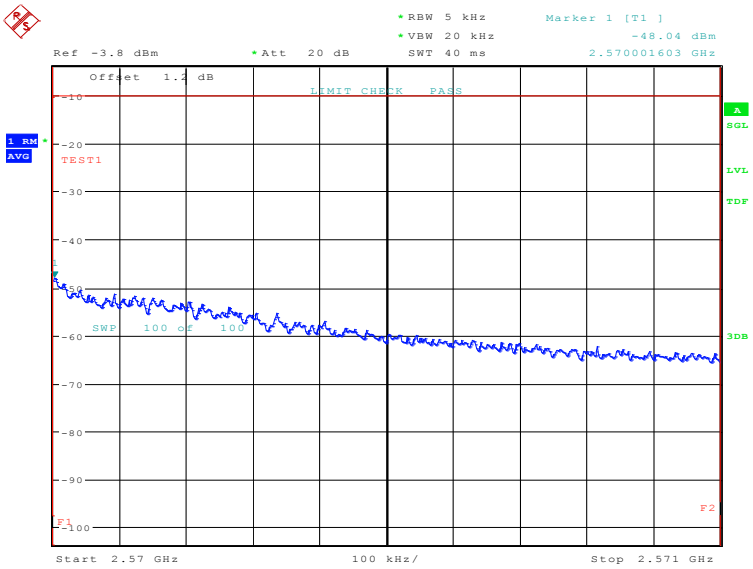
Date: 29.JUN.2020 09:03:46

OBW: 1RB-high_offset

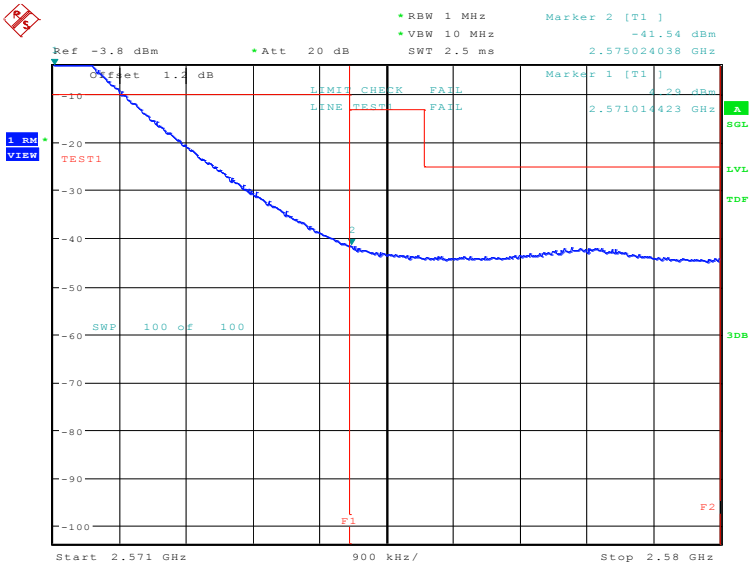


Date: 29.JUN.2020 09:04:20

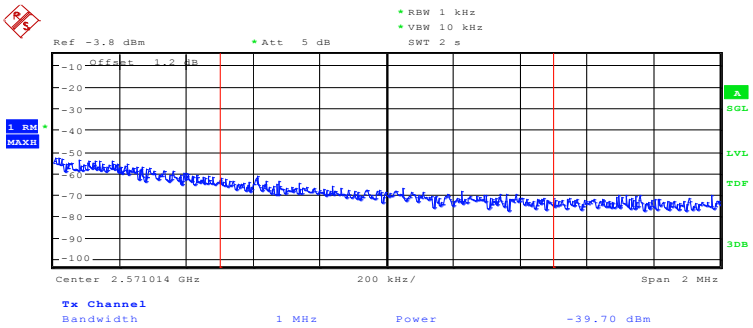
HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 29.JUN.2020 09:05:39

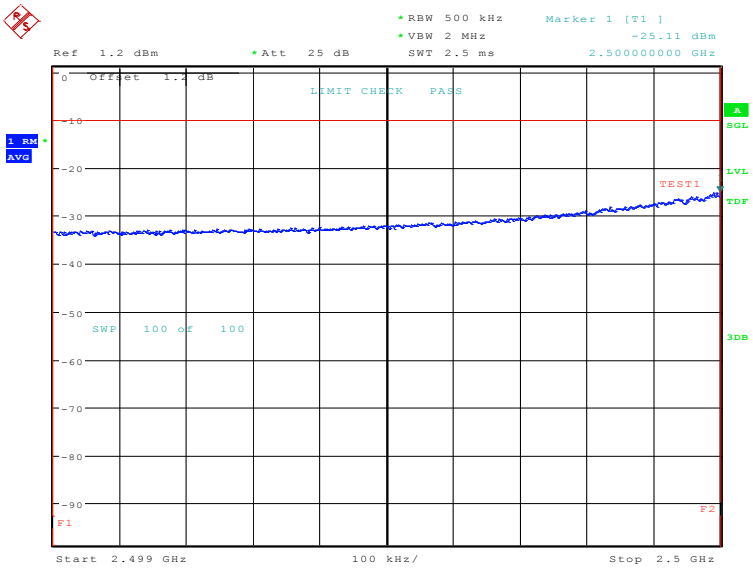


Date: 29.JUN.2020 09:05:58

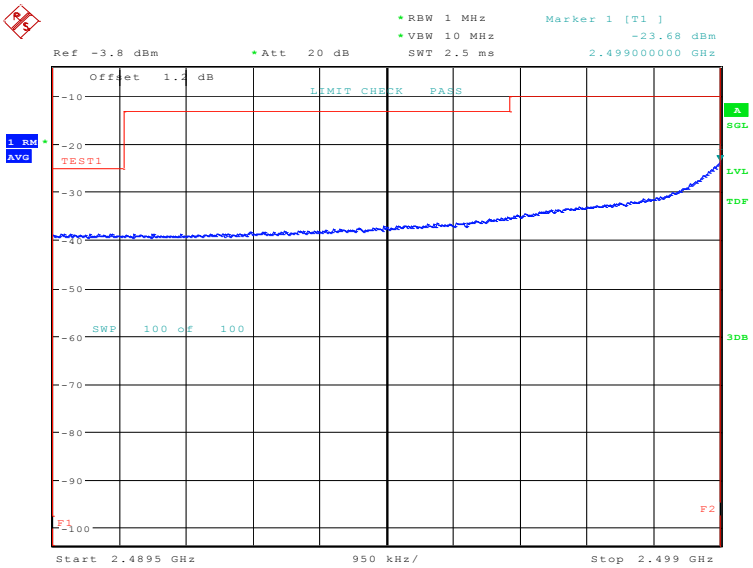


Date: 29.JUN.2020 09:06:09

LOW BAND EDGE BLOCK-20MHz-100%RB

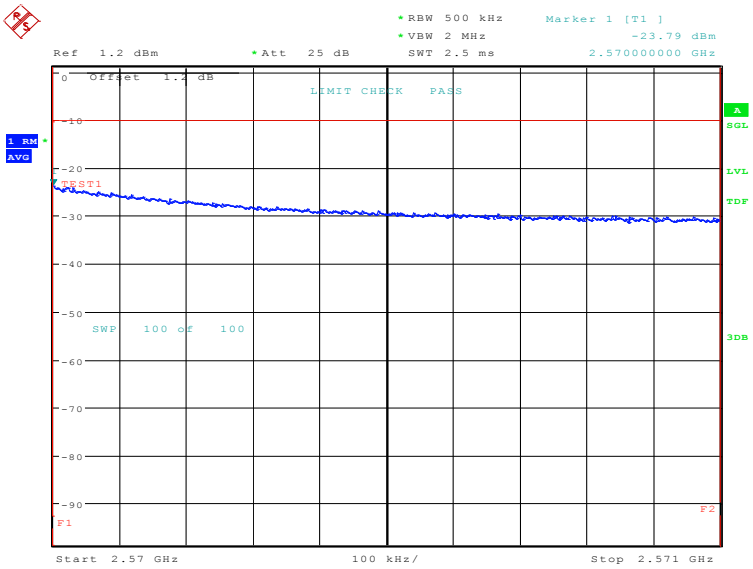


Date: 28.MAY.2020 08:26:01

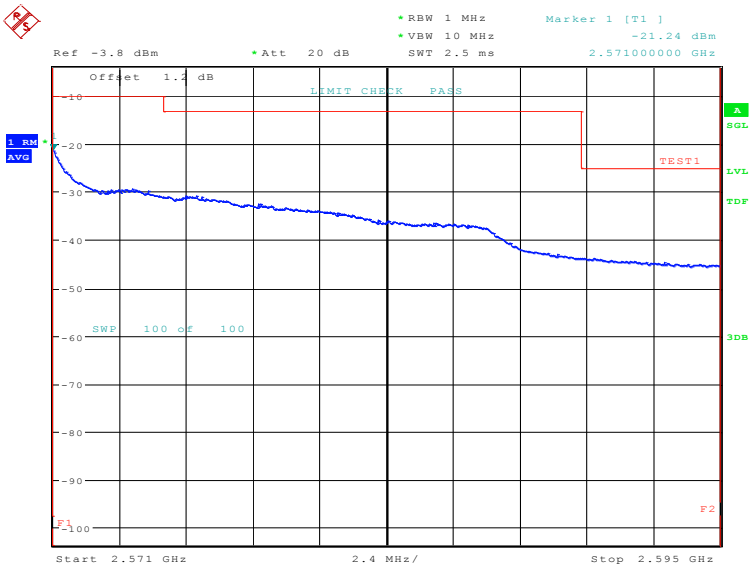


Date: 28.MAY.2020 08:26:15

HIGH BAND EDGE BLOCK-20MHz-100%RB



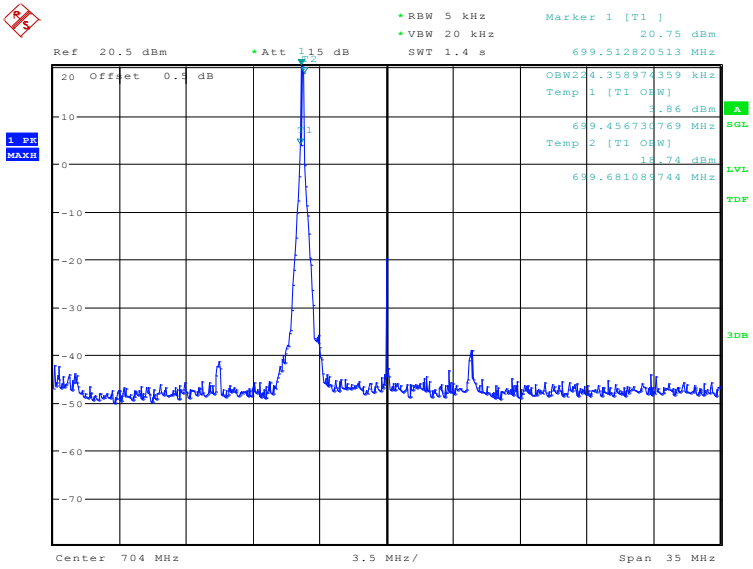
Date: 28.MAY.2020 08:27:39



Date: 28.MAY.2020 08:27:53

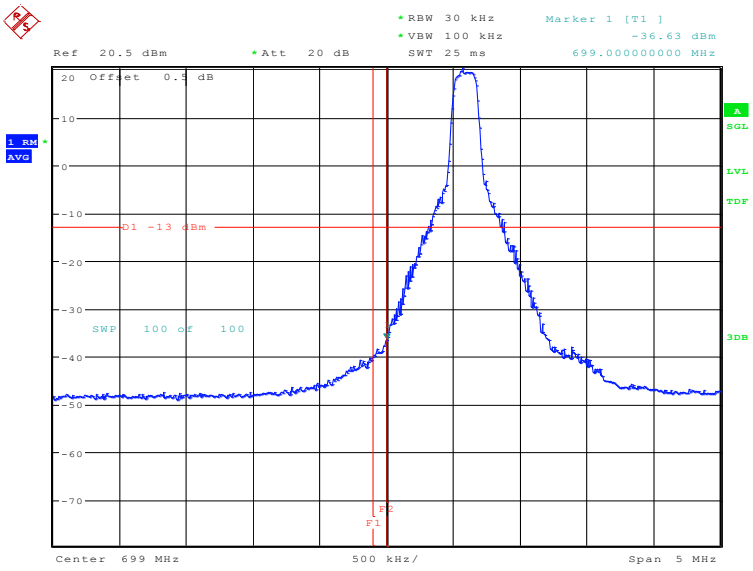
LTE band 12

OBW: 1RB-low_offset



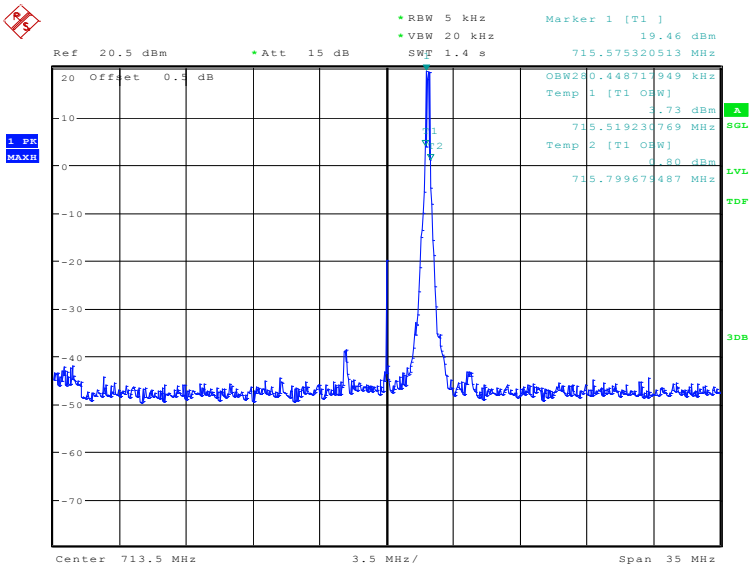
Date: 25.JUN.2020 09:31:02

LOW BAND EDGE BLOCK-1RB-low_offset



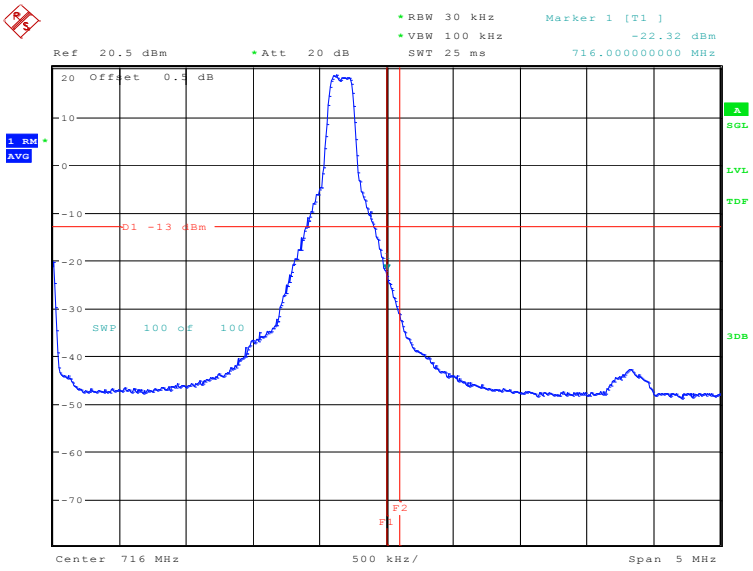
Date: 25.JUN.2020 09:31:15

OBW: 1RB-high_offset



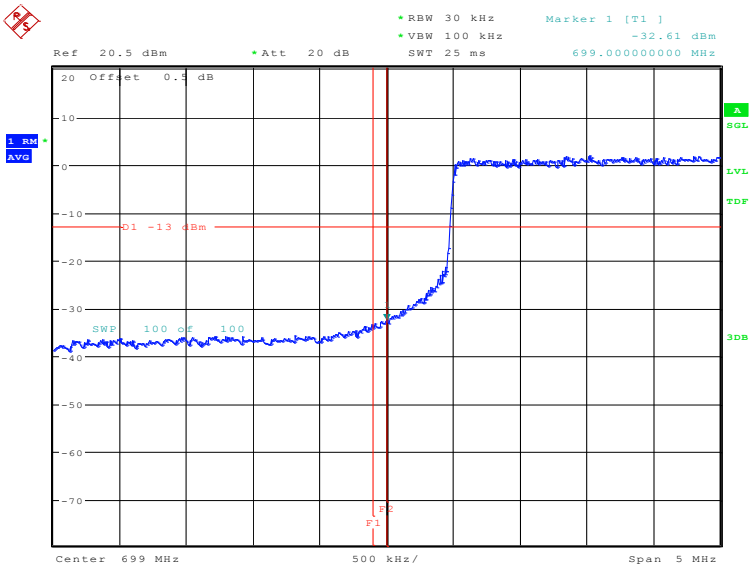
Date: 25.JUN.2020 09:32:33

HIGH BAND EDGE BLOCK-1RB-high_offset



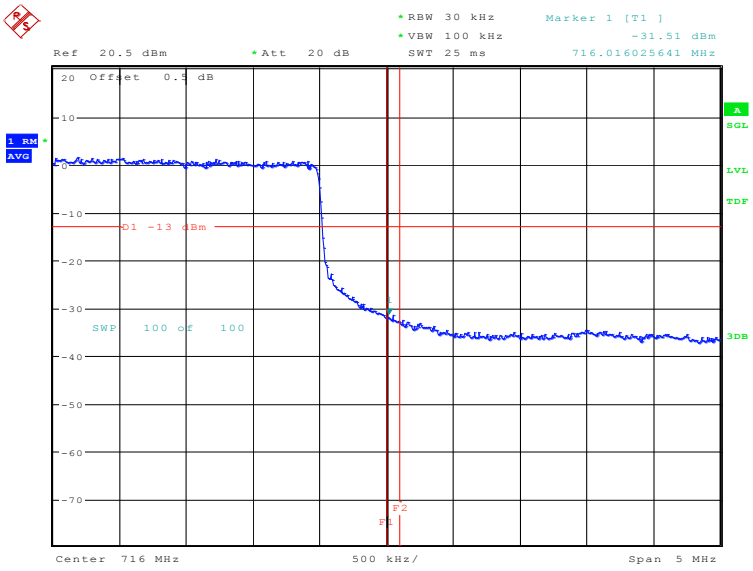
Date: 25.JUN.2020 09:32:46

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 27.MAY.2020 18:15:10

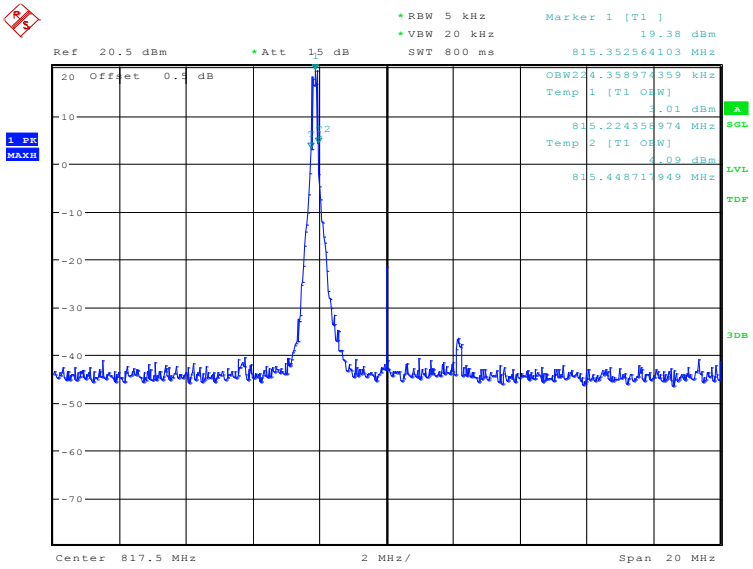
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 27.MAY.2020 18:16:30

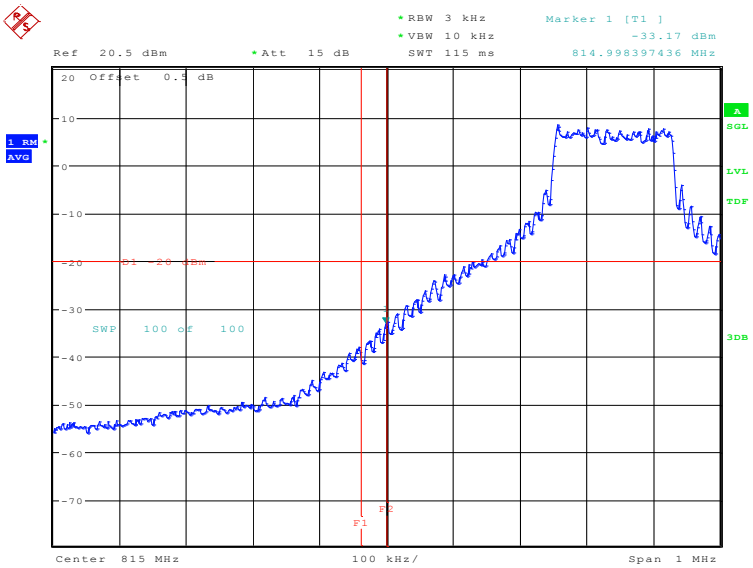
LTE band 18(815MHz~824MHz)

OBW: 1RB-low_offset



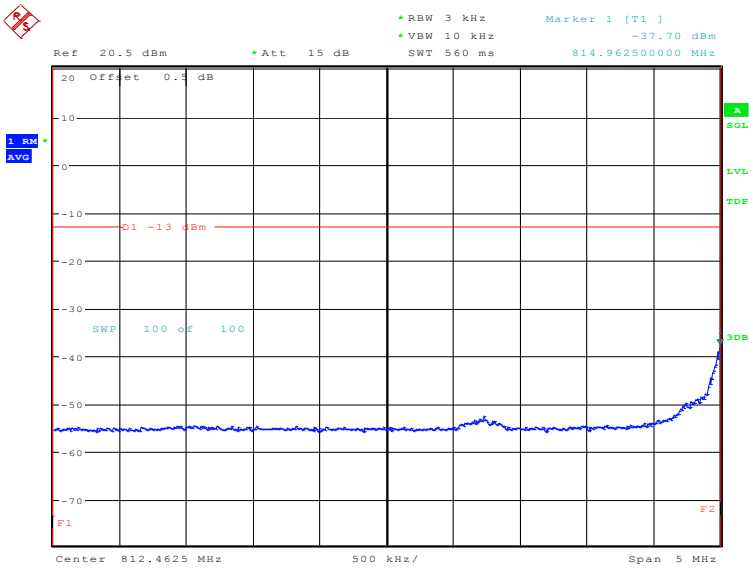
Date: 25.JUN.2020 10:38:25

LOW BAND EDGE BLOCK-1RB-low_offset



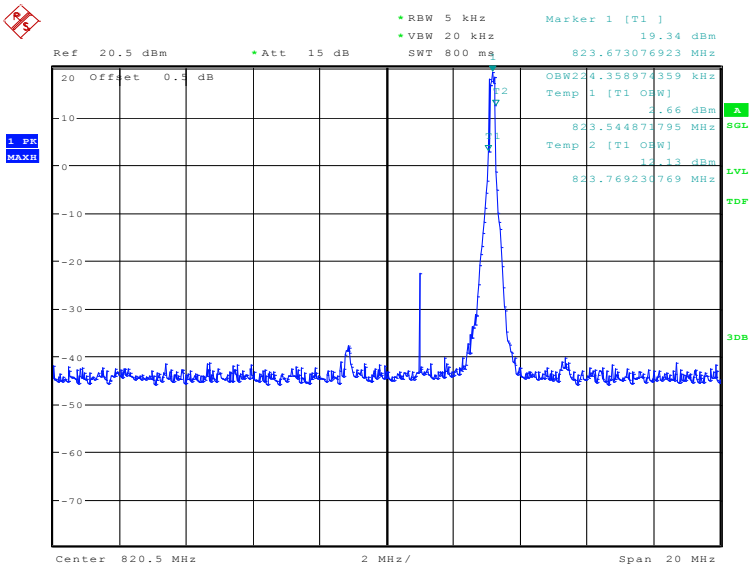
Date: 25.JUN.2020 10:41:04

LOW Emission Mask -1RB-low_offset



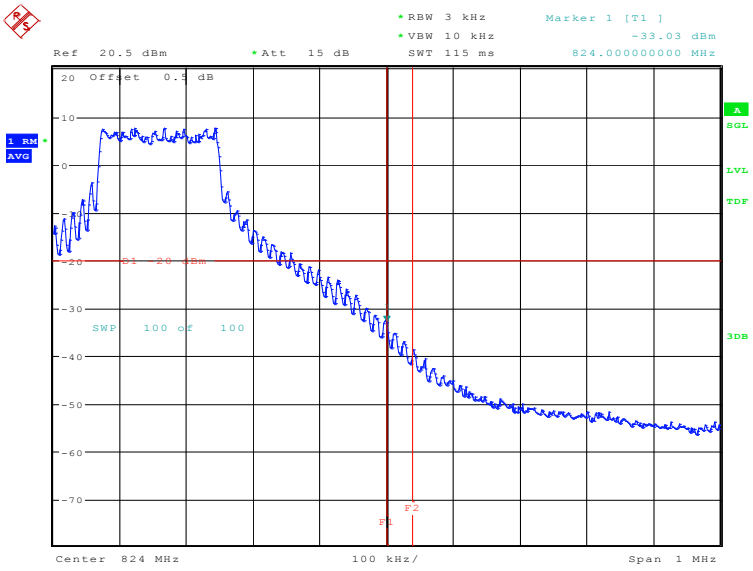
Date: 25.JUN.2020 10:44:28

OBW: 1RB-high_offset



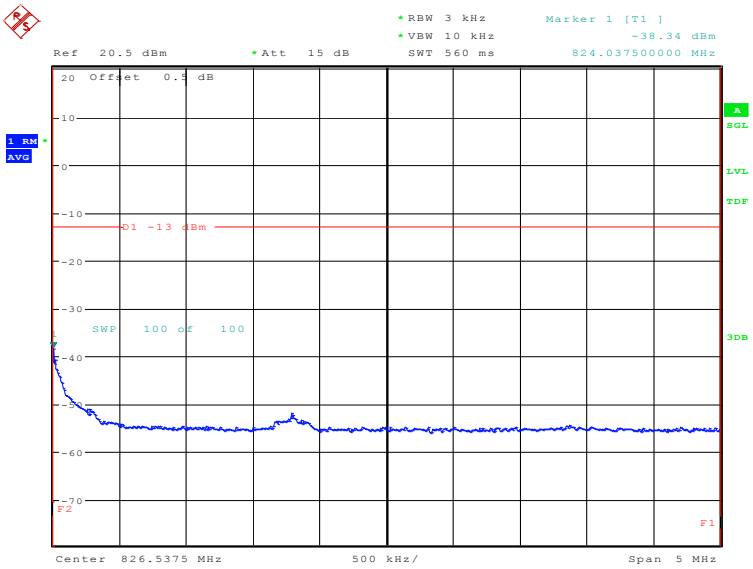
Date: 25.JUN.2020 10:53:31

HIGH BAND EDGE BLOCK-1RB-high_offset



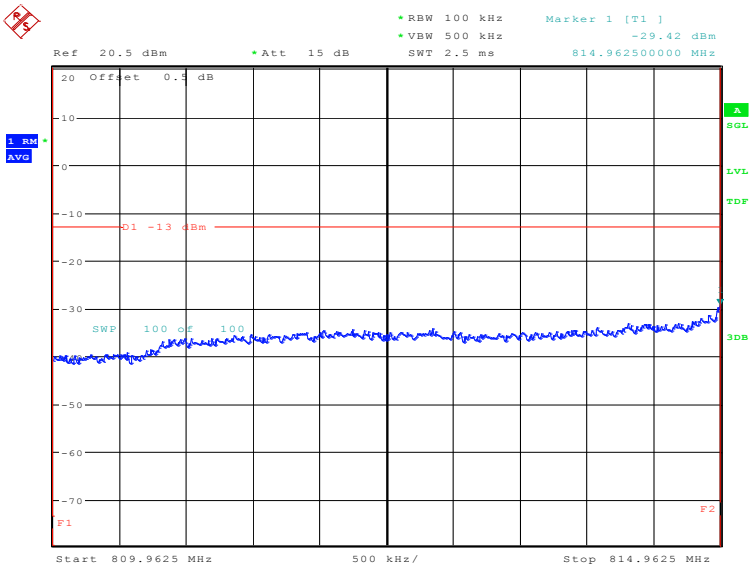
Date: 25.JUN.2020 10:55:02

HIGH Emission Mask -1RB-high_offset



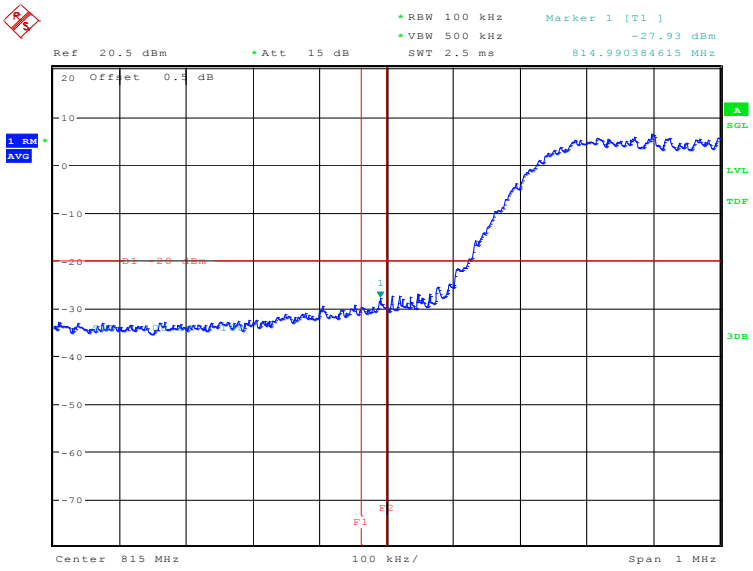
Date: 25.JUN.2020 10:57:18

LOW Emission Mask -10MHz-100%RB



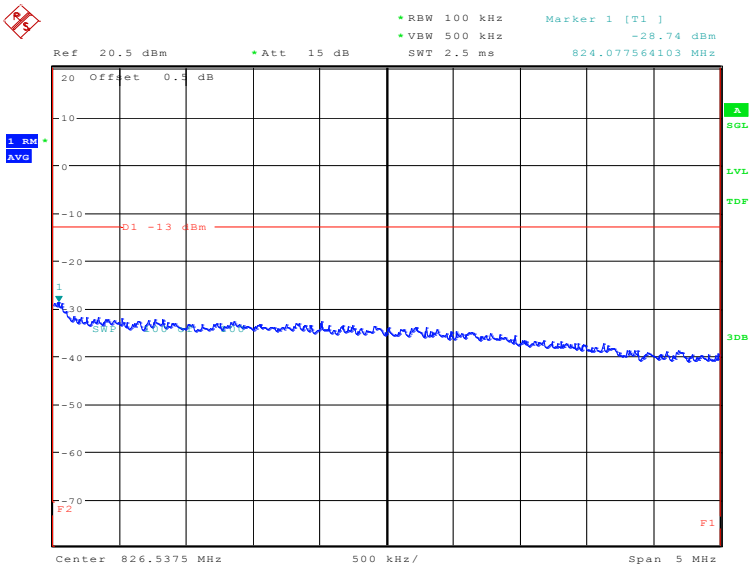
Date: 25.JUN.2020 10:50:27

LOW BAND EDGE BLOCK-10MHz-100%RB



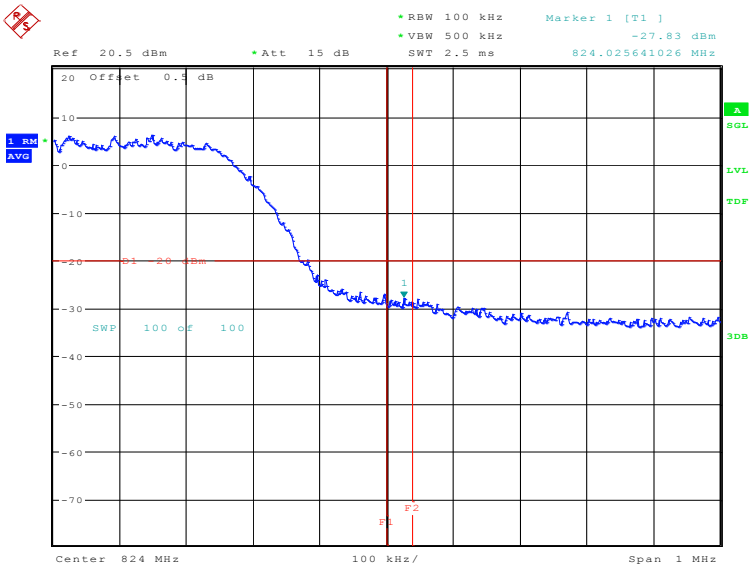
Date: 25.JUN.2020 10:49:16

HIGH Emission Mask -10MHz-100%RB



Date: 25.JUN.2020 10:59:01

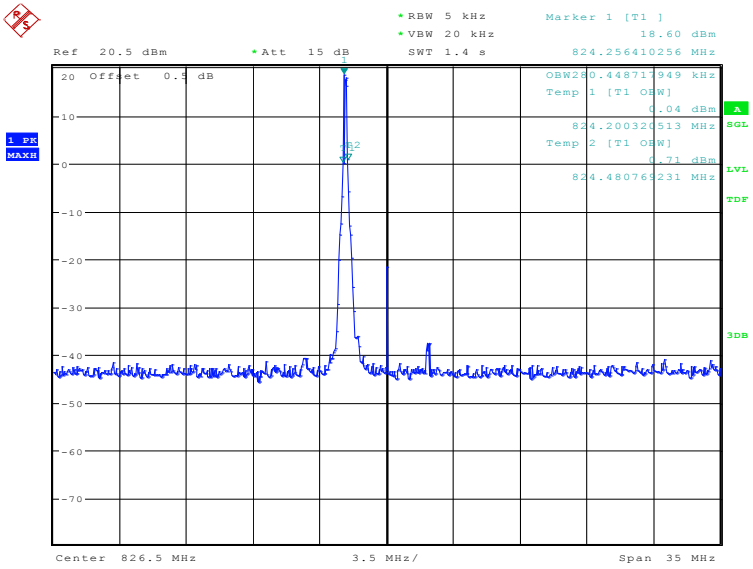
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 25.JUN.2020 10:58:39

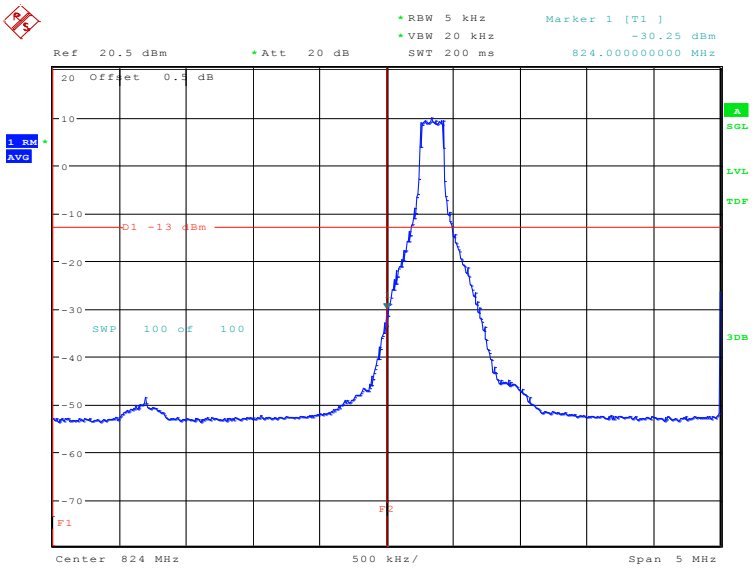
LTE band 18(824MHz~830MHz)

OBW: 1RB-low_offset



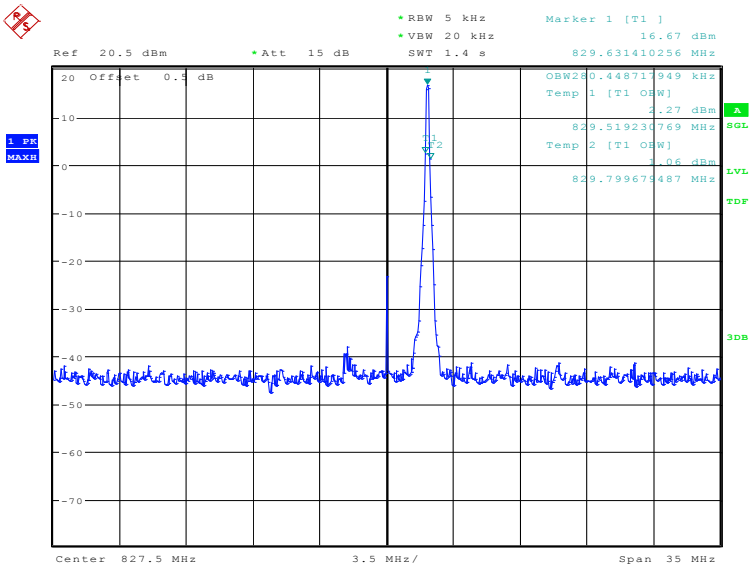
Date: 25.JUN.2020 10:20:06

LOW BAND EDGE BLOCK-1RB-low_offset



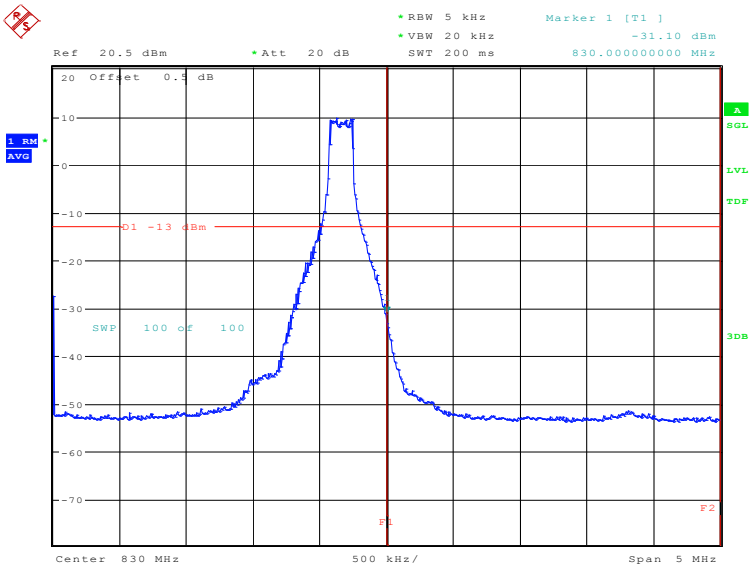
Date: 25.JUN.2020 10:21:19

OBW: 1RB-high_offset



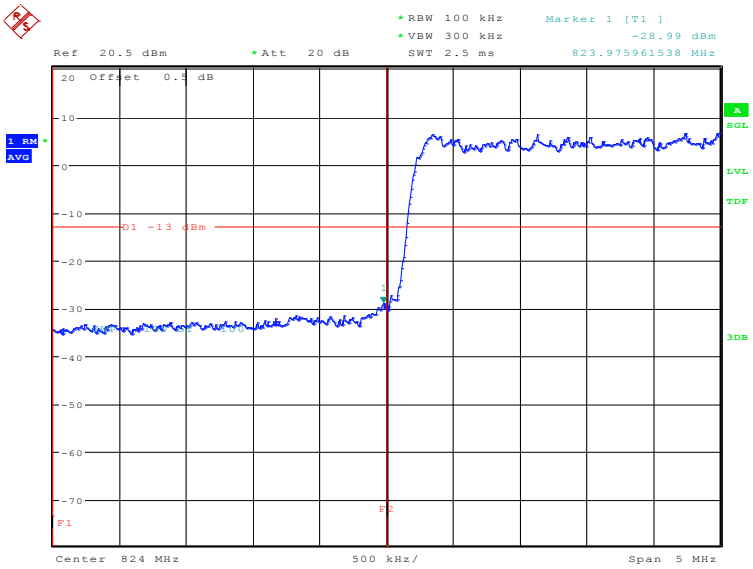
Date: 25.JUN.2020 10:29:53

HIGH BAND EDGE BLOCK-1RB-high_offset



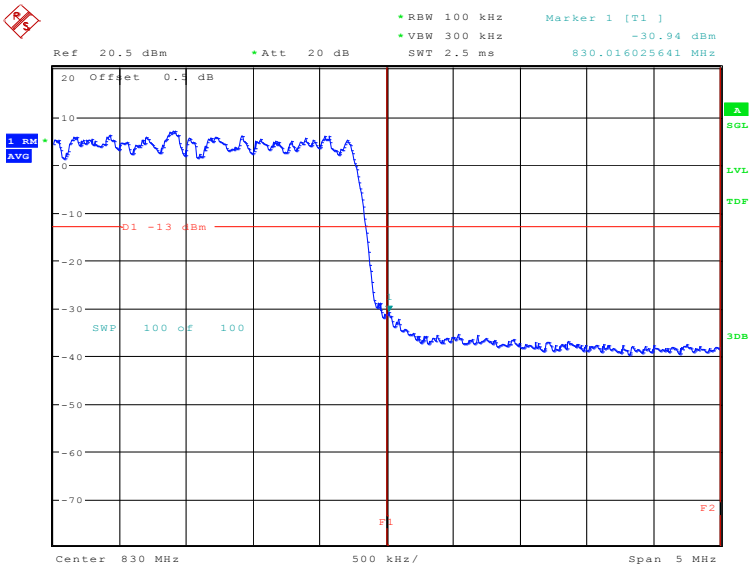
Date: 25.JUN.2020 10:31:46

LOW BAND EDGE BLOCK-15MHz-100%RB



Date: 25.JUN.2020 10:26:41

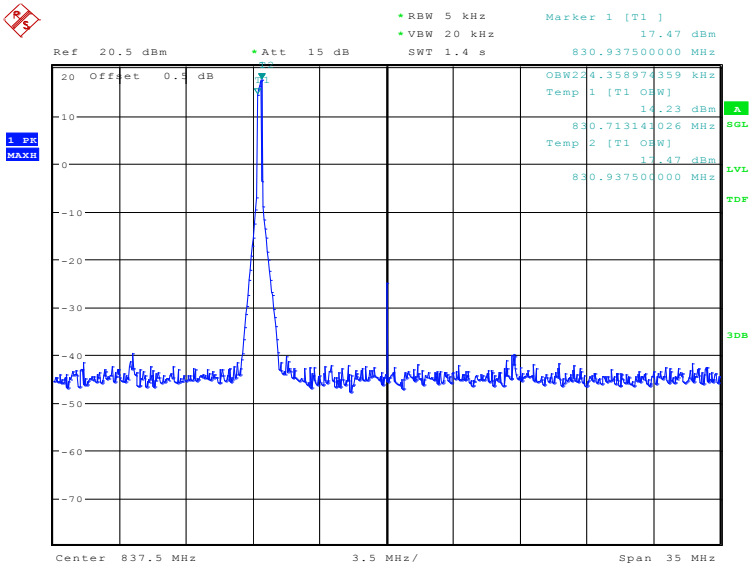
HIGH BAND EDGE BLOCK-15MHz-100%RB



Date: 25.JUN.2020 10:34:08

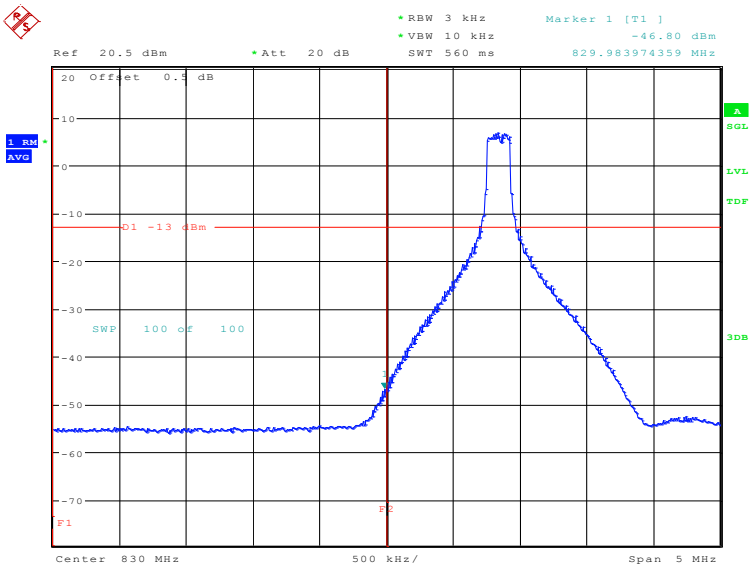
LTE band 19

OBW: 1RB-low_offset



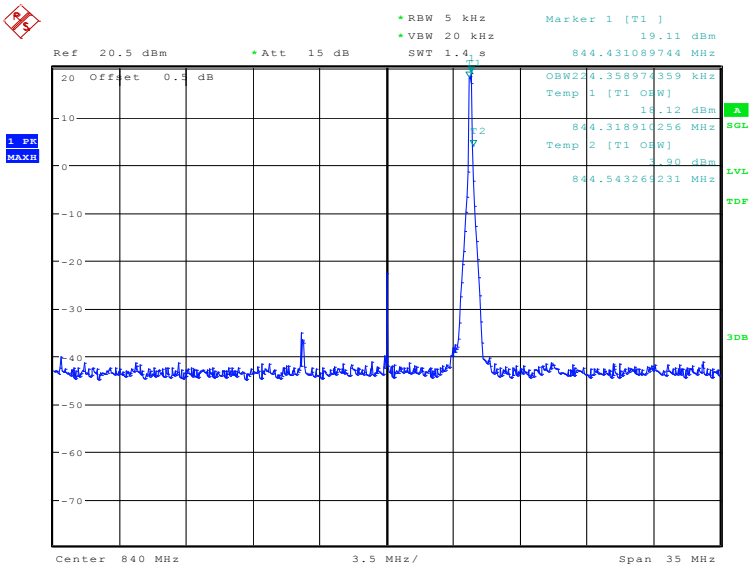
Date: 9.JUL.2020 11:07:09

LOW BAND EDGE BLOCK-1RB-low_offset



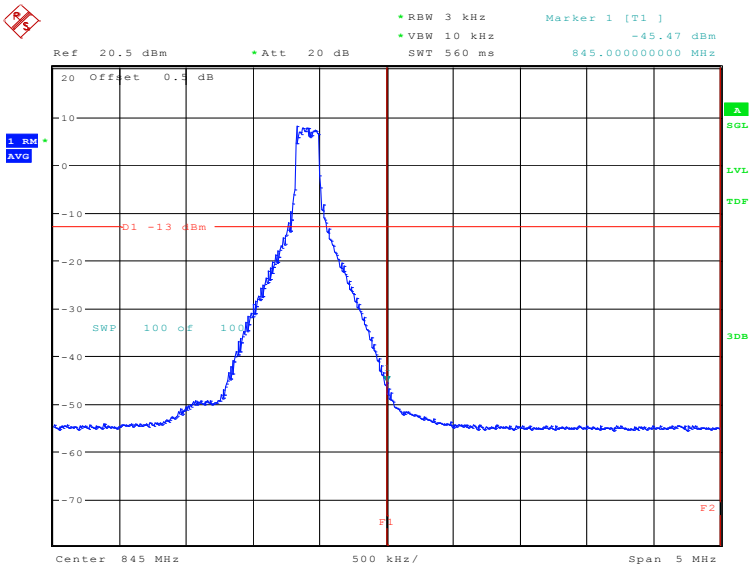
Date: 9.JUL.2020 11:12:03

OBW: 1RB-high_offset



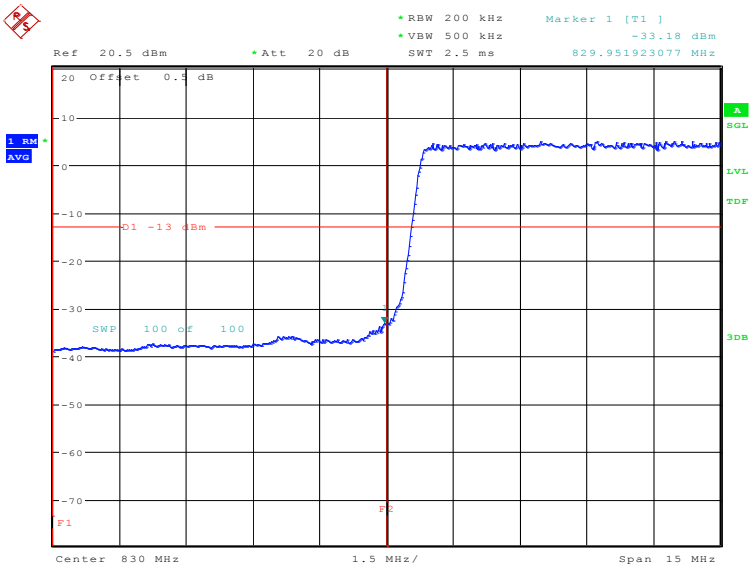
Date: 9.JUL.2020 11:15:34

HIGH BAND EDGE BLOCK-1RB-high_offset



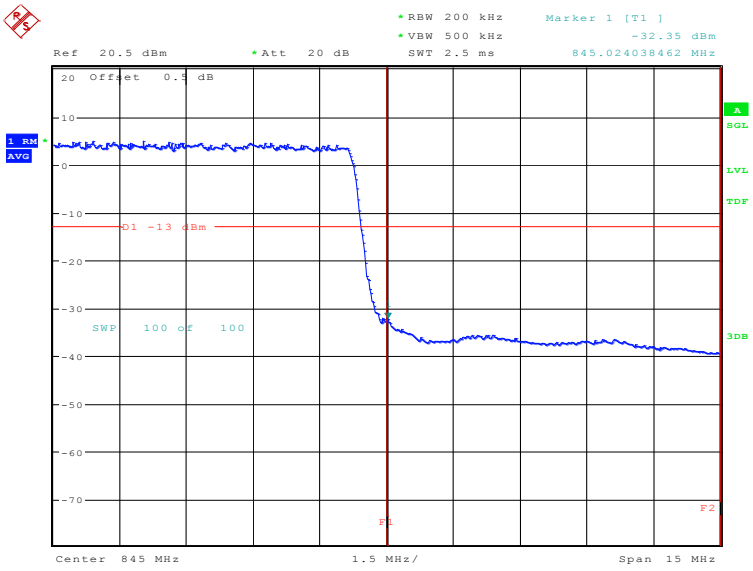
Date: 9.JUL.2020 11:18:41

LOW BAND EDGE BLOCK-15MHz-100%RB



Date: 9.JUL.2020 09:15:46

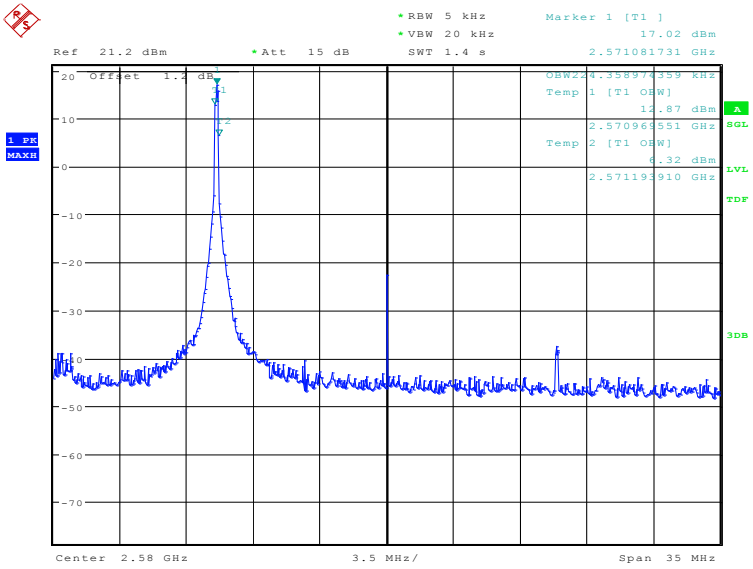
HIGH BAND EDGE BLOCK-15MHz-100%RB



Date: 9.JUL.2020 09:19:50

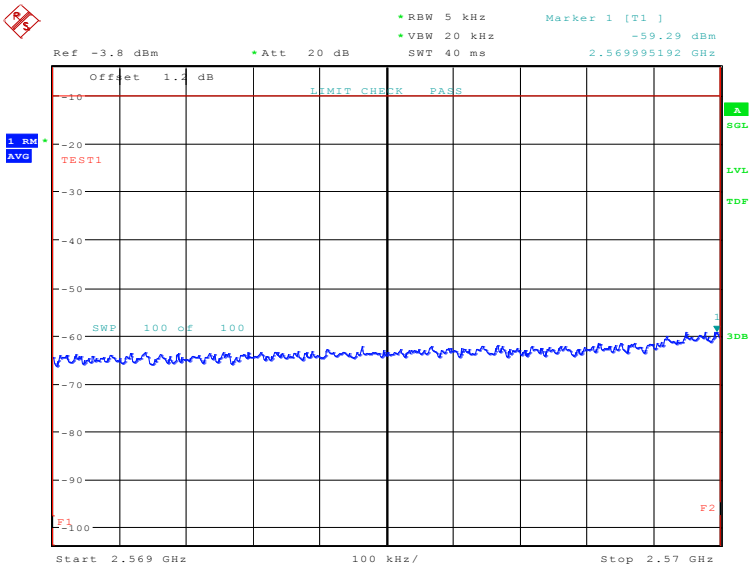
LTE band 38

OBW: 1RB-low_offset

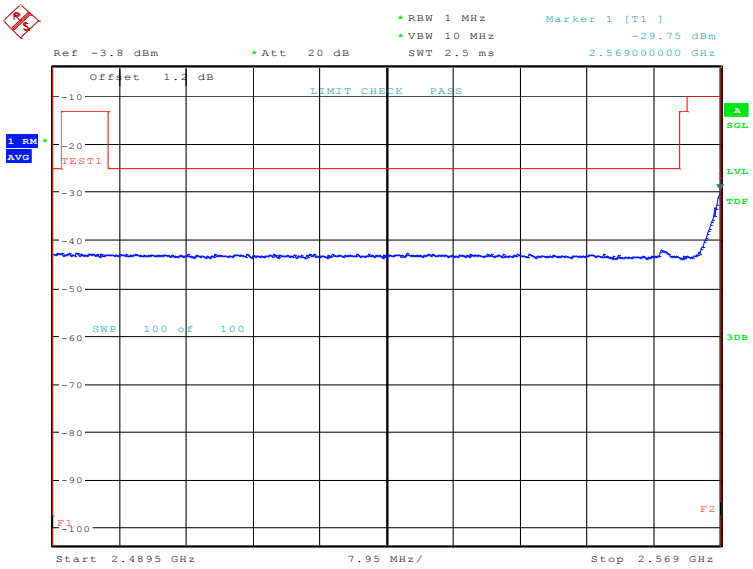


Date: 25.JUN.2020 09:43:29

LOW BAND EDGE BLOCK-1RB-low_offset

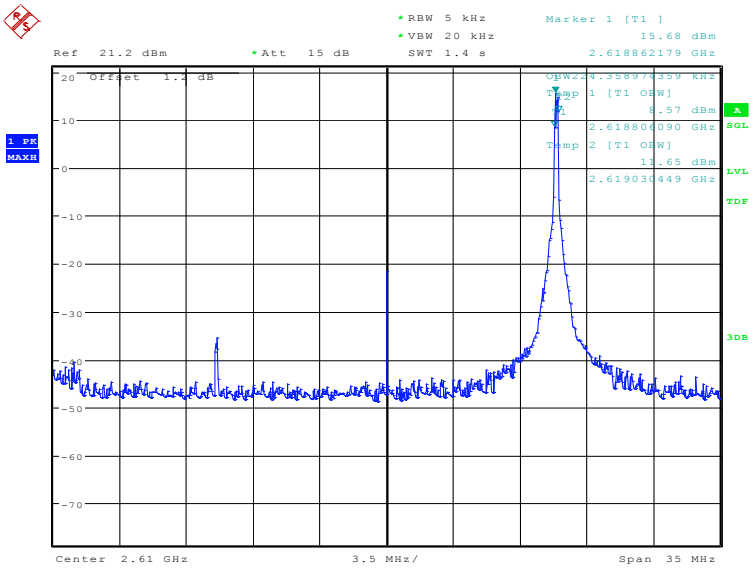


Date: 25.JUN.2020 09:44:51



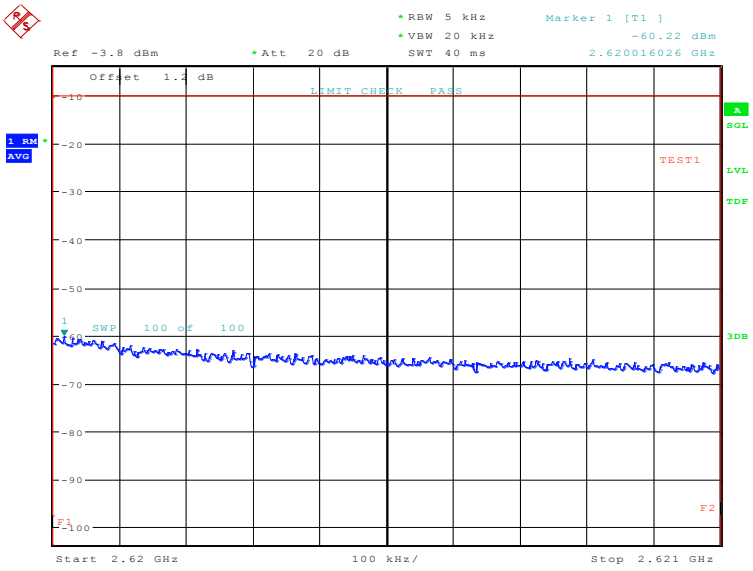
Date: 25.JUN.2020 09:45:05

OBW: 1RB-high_offset

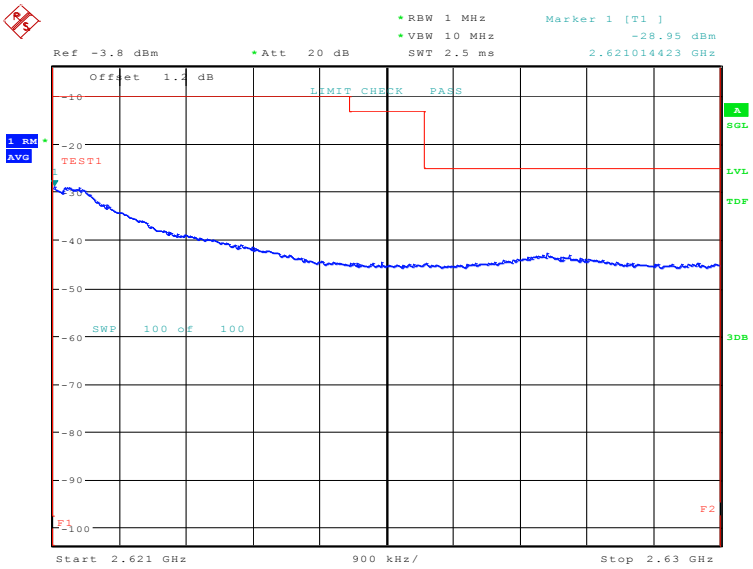


Date: 25.JUN.2020 09:45:41

HIGH BAND EDGE BLOCK-1RB-high_offset

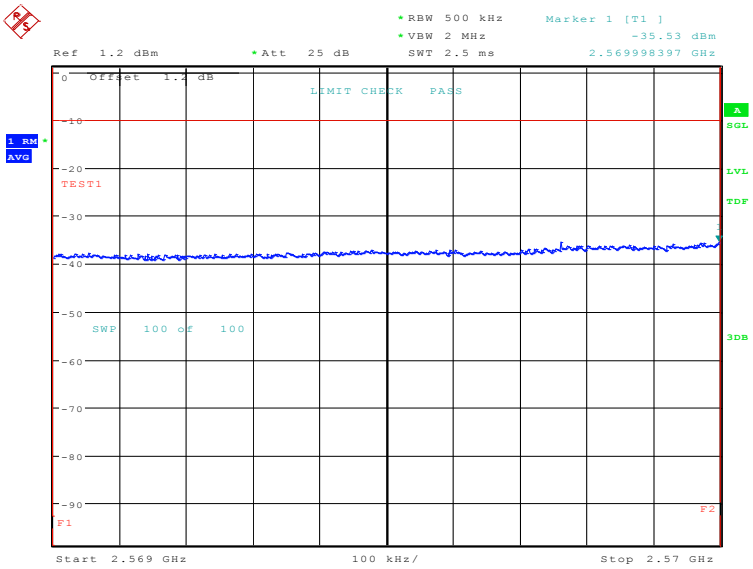


Date: 25.JUN.2020 09:47:00

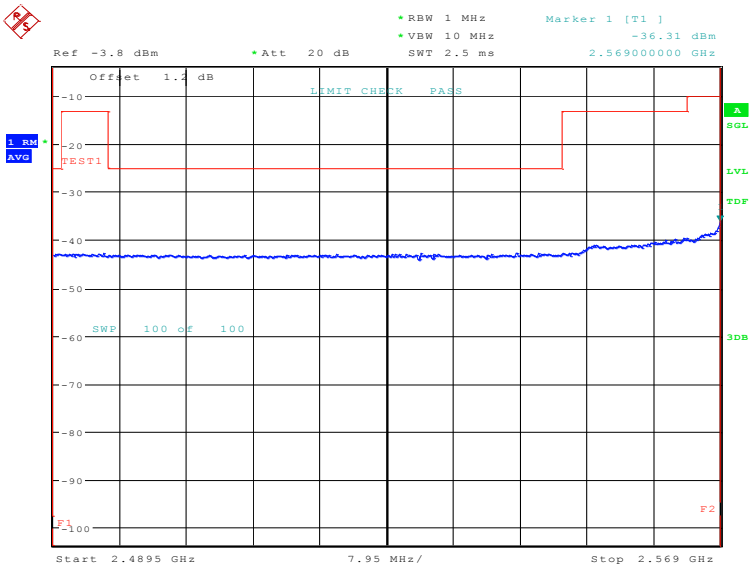


Date: 25.JUN.2020 09:47:14

LOW BAND EDGE BLOCK-20MHz-100%RB

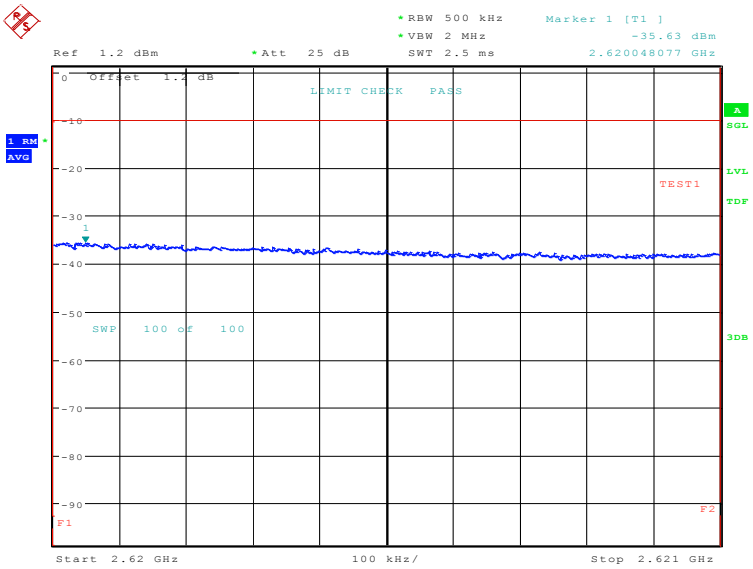


Date: 28.MAY.2020 08:29:59

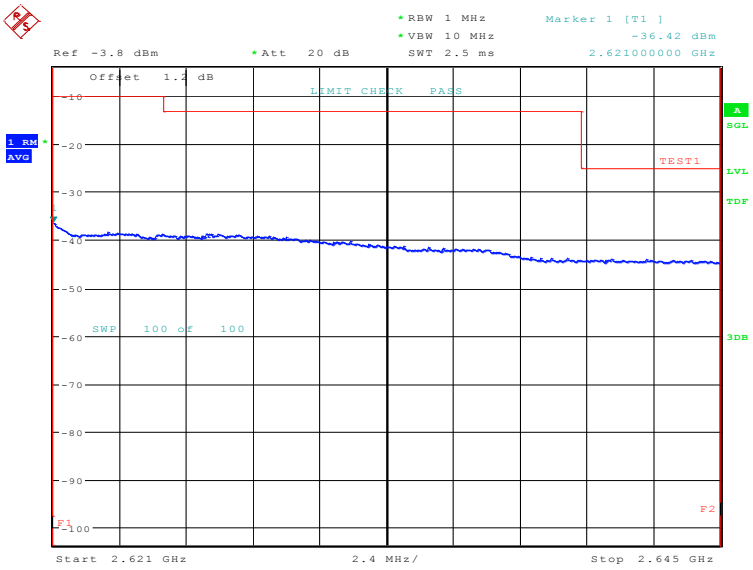


Date: 28.MAY.2020 08:30:13

HIGH BAND EDGE BLOCK-20MHz-100%RB



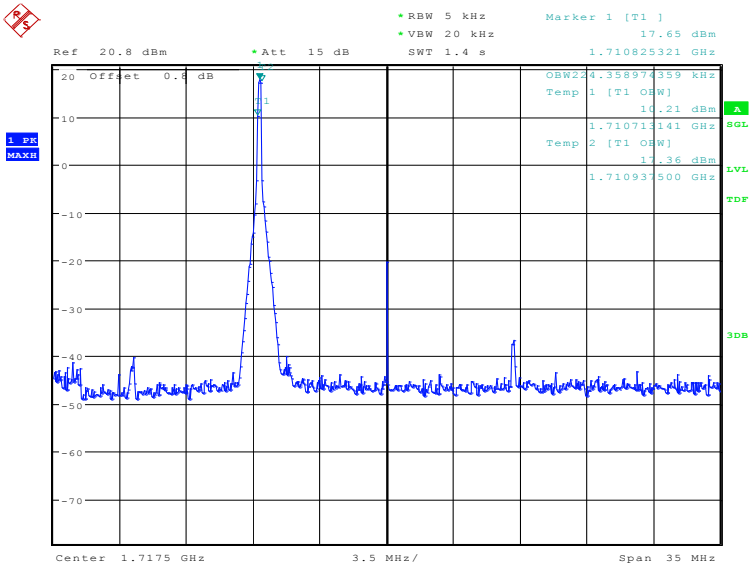
Date: 28.MAY.2020 08:31:38



Date: 28.MAY.2020 08:31:51

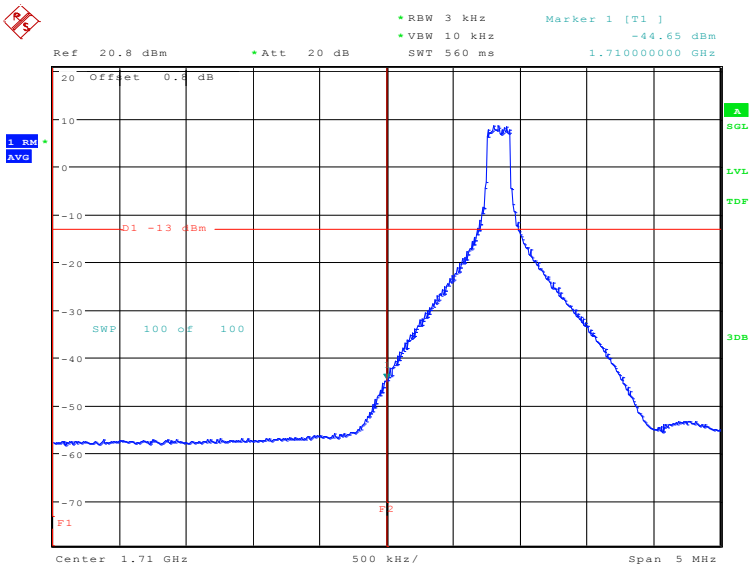
LTE band 66

OBW: 1RB-low_offset



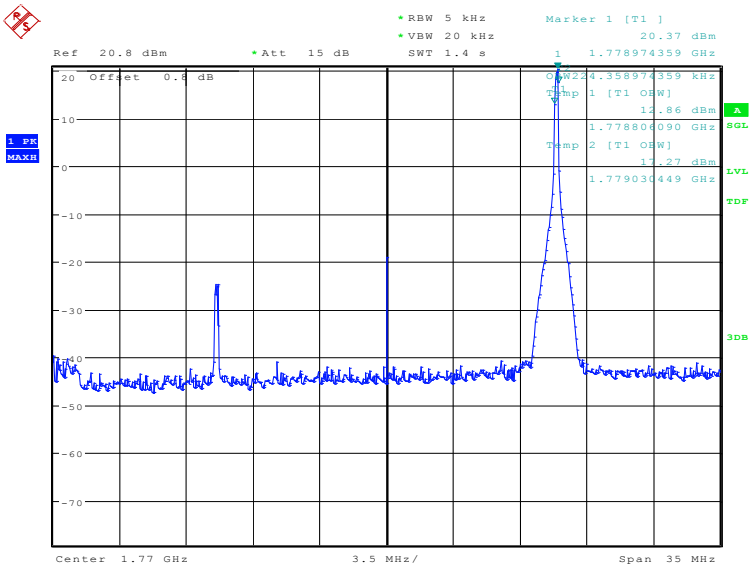
Date: 25.JUN.2020 09:33:23

LOW BAND EDGE BLOCK-1RB-low_offset



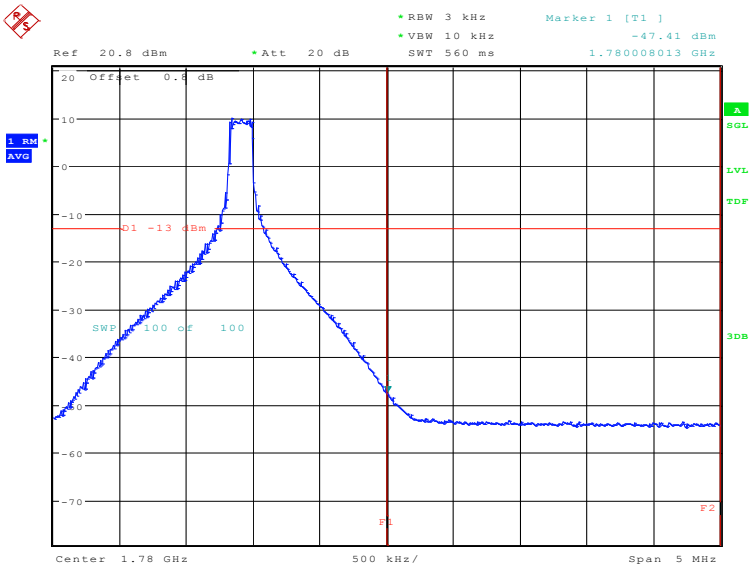
Date: 25.JUN.2020 09:34:36

OBW: 1RB-high_offset



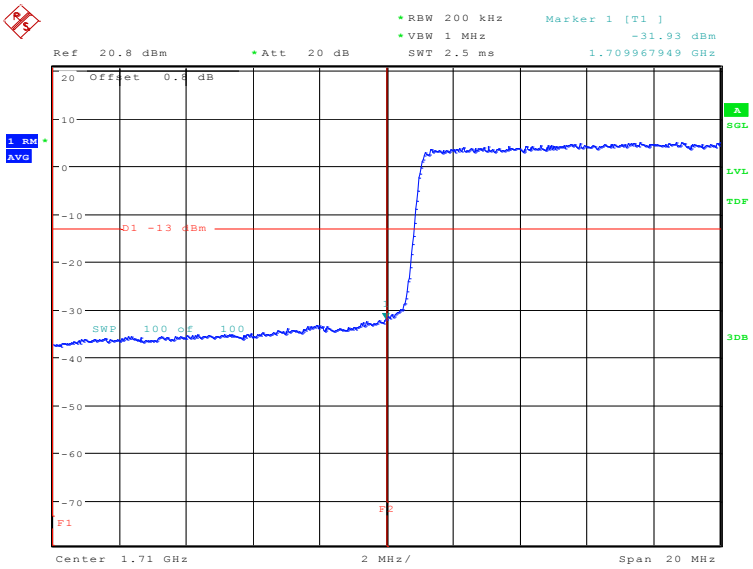
Date: 25.JUN.2020 09:35:12

HIGH BAND EDGE BLOCK-1RB-high_offset



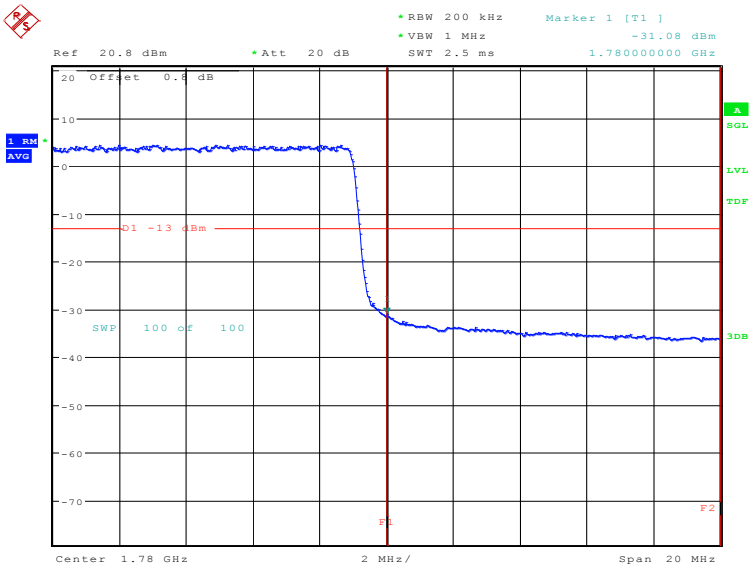
Date: 25.JUN.2020 09:36:25

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 27.MAY.2020 18:17:53

HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 27.MAY.2020 18:19:13

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. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:
   (a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
   (b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
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.

Part 27.53(m) 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(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

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

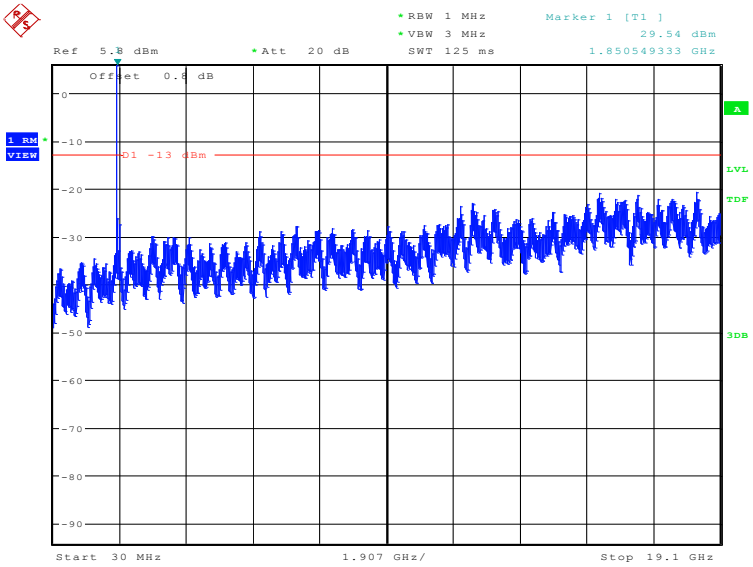
licensees. The emission limits are as follows:For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116\text{Log}_{10}(f/6.1)$ decibels or 50 + 10 $\text{Log}_{10}(P)$ 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 + $10\text{Log}_{10}(P)$ 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. 7.3 Measurement result

Only the worst case result is given below

LTE band 2: 30MHz – 19.1GHz

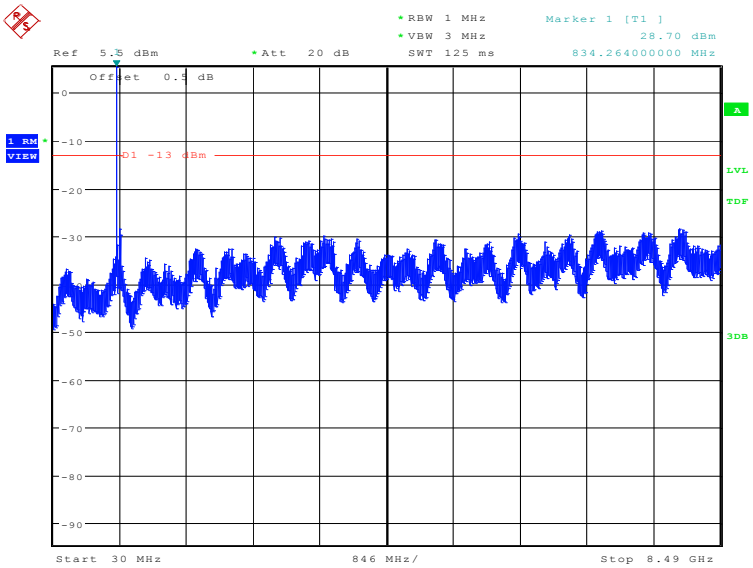
NOTE: peak above the limit line is the carrier frequency.



Date: 25.JUN.2020 09:37:41

LTE band 5: 30MHz – 8.49GHz

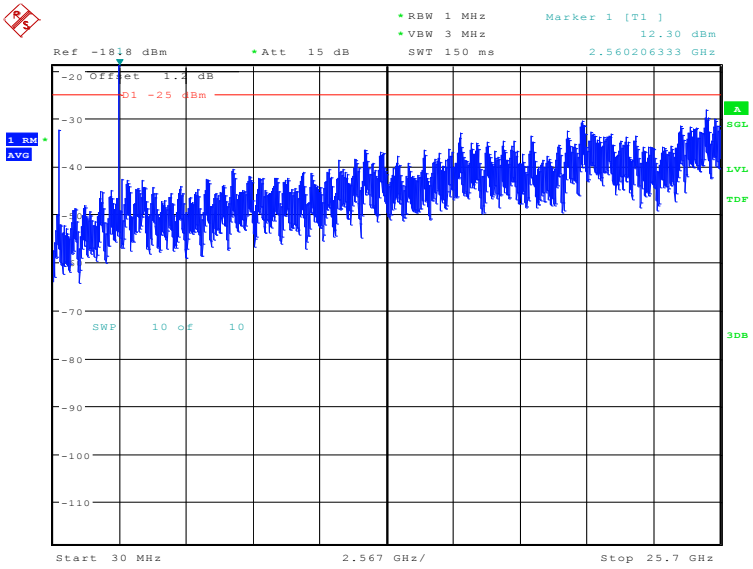
NOTE: peak above the limit line is the carrier frequency.



Date: 3.JUL.2020 09:40:21

LTE band 7: 30MHz – 25.7GHz

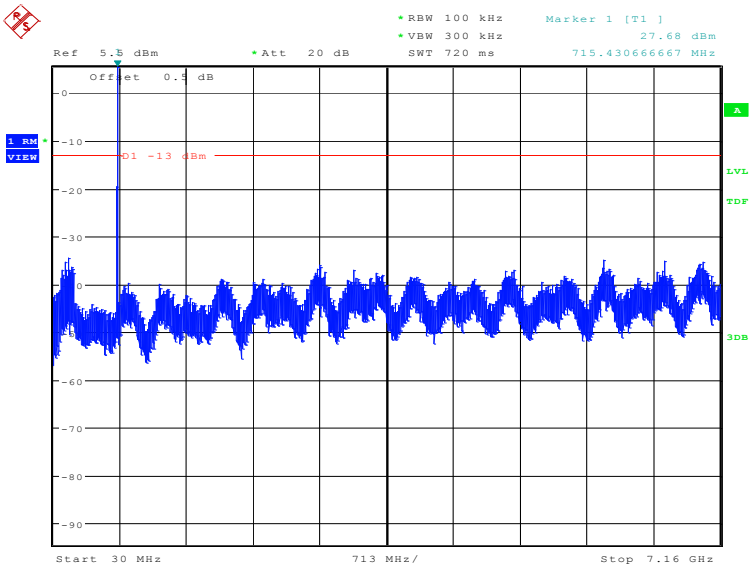
NOTE: peak above the limit line is the carrier frequency.



Date: 29.JUN.2020 09:07:07

LTE band 12: 30MHz – 7.16GHz

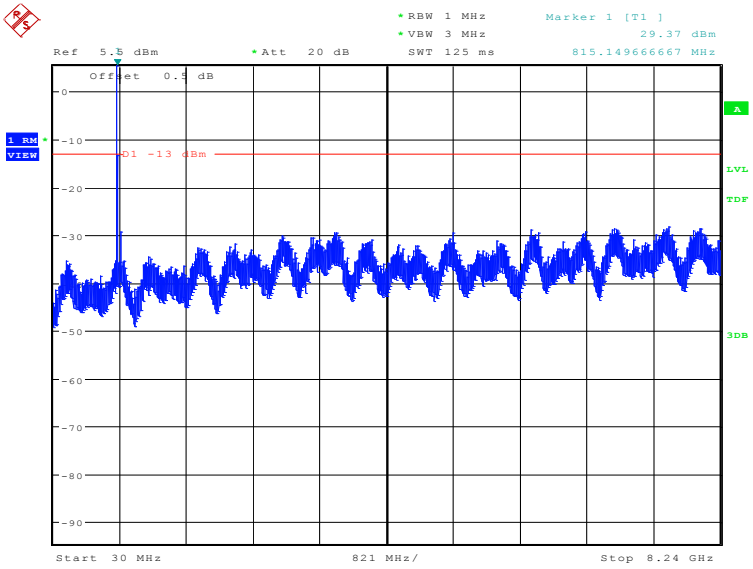
NOTE: peak above the limit line is the carrier frequency.



Date: 25.JUN.2020 09:40:30

LTE band 18(815MHz~824MHz): 30MHz – 8.24GHz

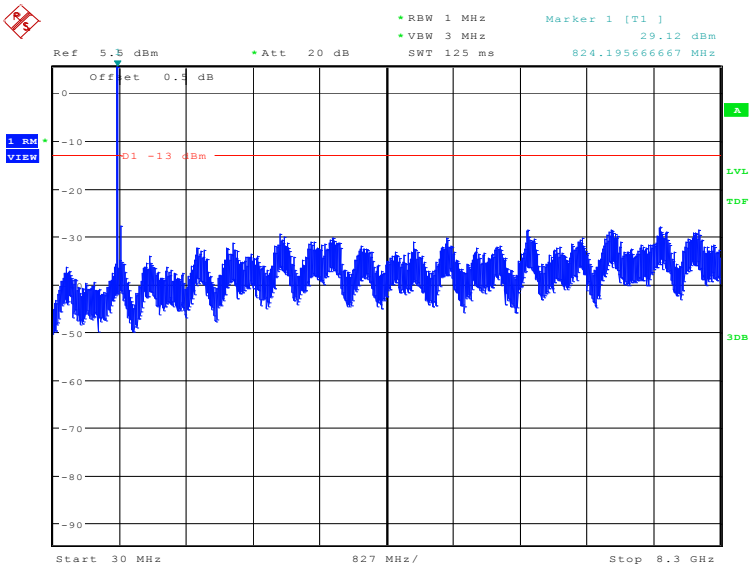
NOTE: peak above the limit line is the carrier frequency.



Date: 25.JUN.2020 14:15:26

LTE band 18(824MHz~830MHz): 30MHz – 8.30GHz

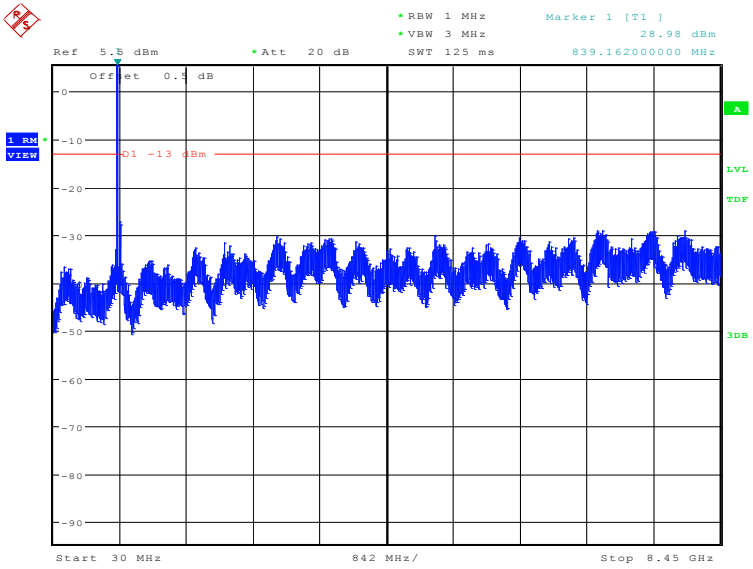
NOTE: peak above the limit line is the carrier frequency.



Date: 25.JUN.2020 14:13:51

LTE band 19: 30MHz – 8.49GHz

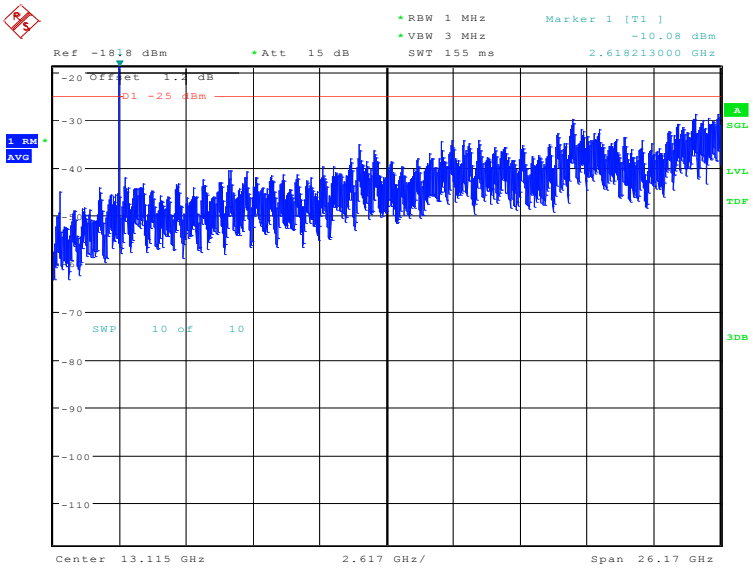
NOTE: peak above the limit line is the carrier frequency.



Date: 9.JUL.2020 11:55:09

LTE band 38: 30MHz – 26.2GHz

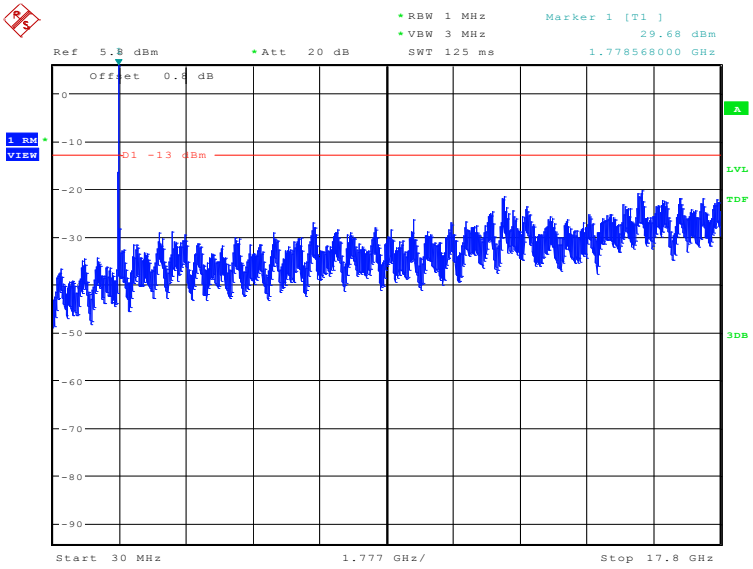
NOTE: peak above the limit line is the carrier frequency.



Date: 25.JUN.2020 09:49:35

LTE band 66: 30MHz – 17.8GHz

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



Date: 25.JUN.2020 09:41:13

A.8 Peak-to-Average Power Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB
a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
c) Set the number of counts to a value that stabilizes the measured CCDF curve;
d) Record the maximum PAPR level associated with a probability of 0.1%.

Measurement results

LTE band 2, 20MHz

Frequency (MHz)	PAPR (dB)		
1880.0	QPSK	16QAM	64QAM
	6.70	7.24	7.66

LTE band 7, 20MHz

Frequency (MHz)	PAPR (dB)		
2535.0	QPSK	16QAM	64QAM
	6.83	7.37	7.79

LTE band 12, 10MHz

Frequency (MHz)	PAPR (dB)		
707.5	QPSK	16QAM	64QAM
	5.16	5.99	6.57

LTE band 38, 20MHz

Frequency (MHz)	PAPR (dB)		
2595.0	QPSK	16QAM	64QAM
	8.21	8.94	10.10

LTE band 66, 20MHz

Frequency (MHz)	PAPR (dB)		
1745.0	QPSK	16QAM	64QAM
	6.57	7.24	7.53

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

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

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).

2019-09-26 through 2020-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

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