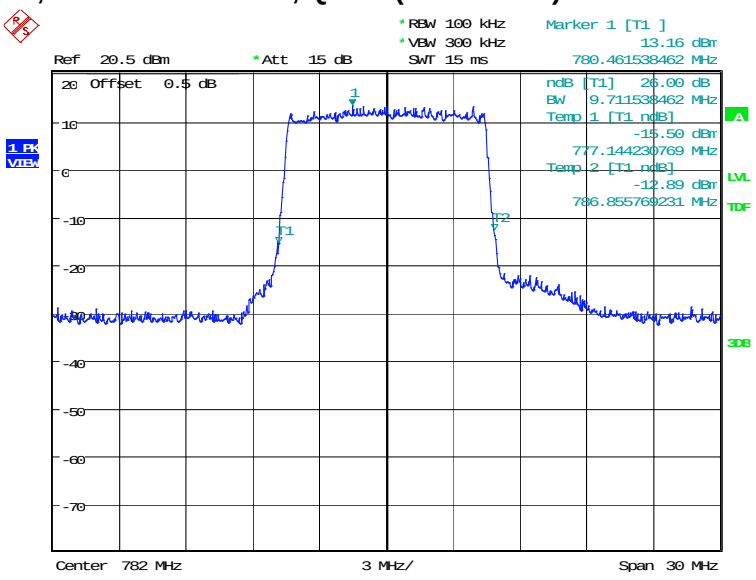
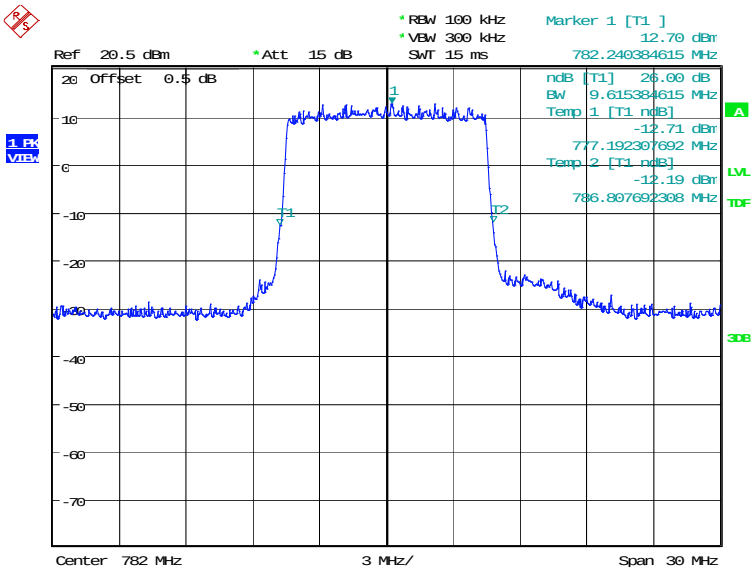
LTE band 13, 10MHz (-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	9711.54	9615.38

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



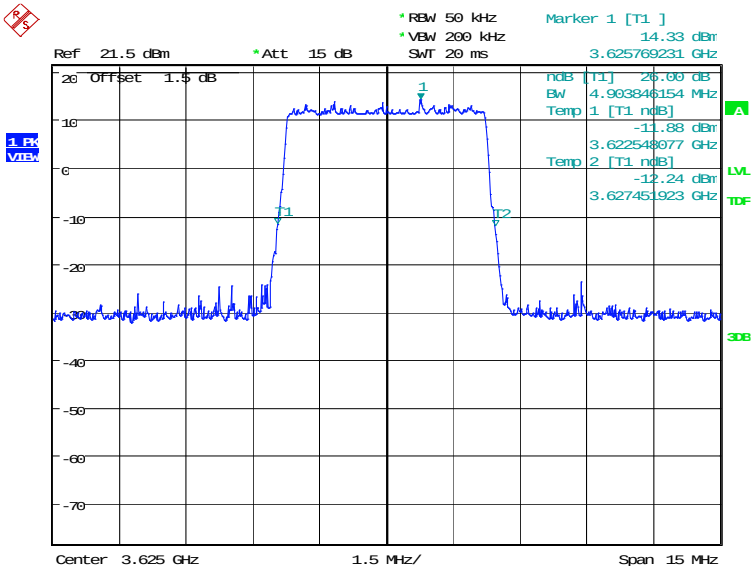
LTE band 13, 10MHz Bandwidth,16QAM (-26dBc BW)



LTE band 48, 5MHz (-26dBc)

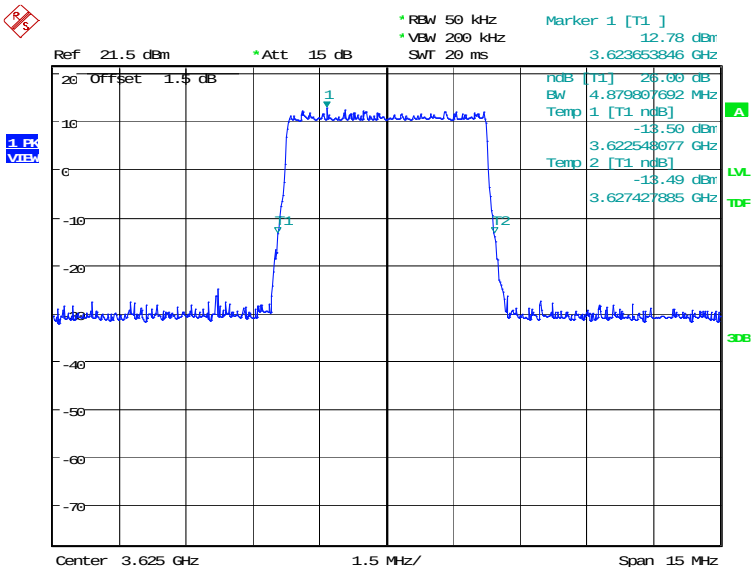
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
3625.0	QPSK	16QAM
	4903.85	4879.81

LTE band 48, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 14:54:35

LTE band 48, 5MHz Bandwidth,16QAM (-26dBc BW)

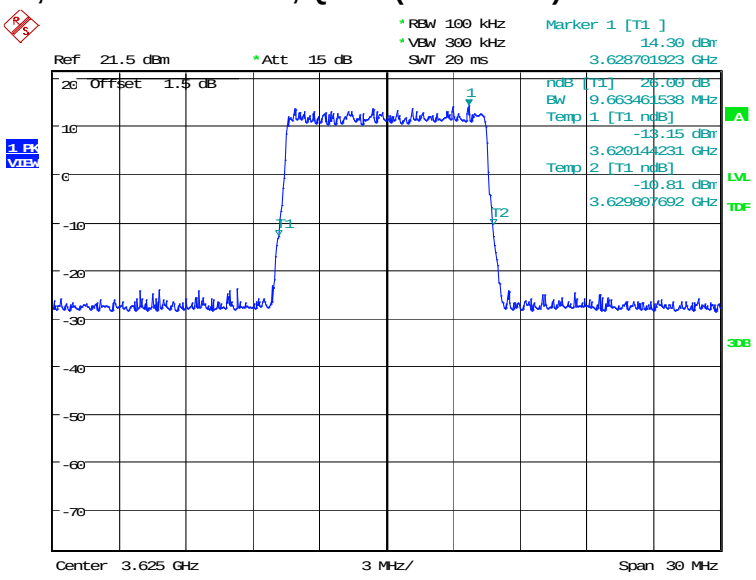


Date: 14.MAY.2022 14:55:14

LTE band 48, 10MHz (-26dBc)

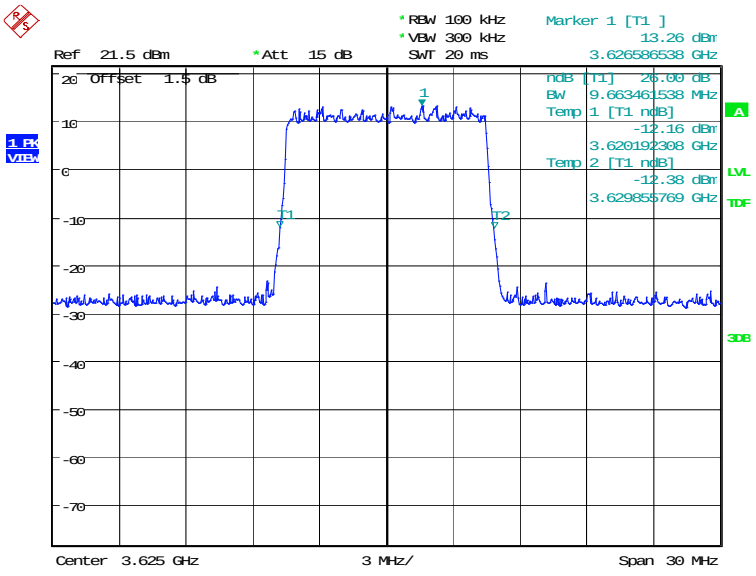
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
	QPSK	16QAM
3625.0	9663.46	9663.46

LTE band 48, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 14:55:57

LTE band 48, 10MHz Bandwidth,16QAM (-26dBc BW)

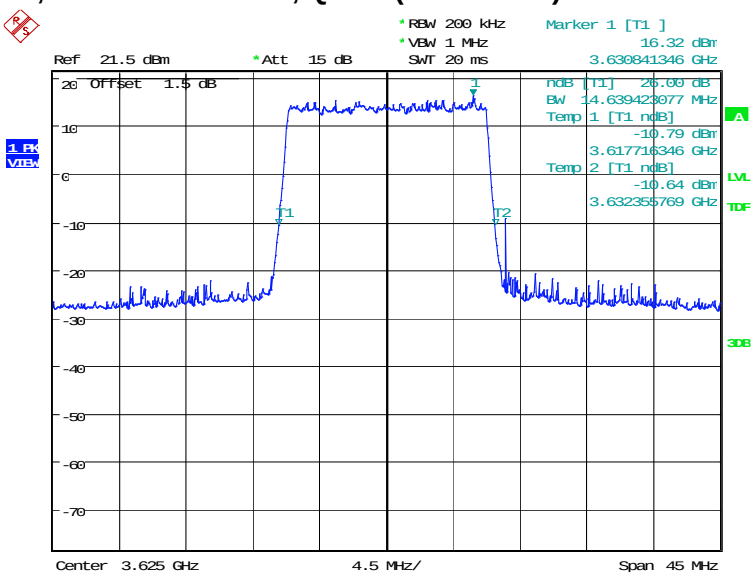


Date: 14.MAY.2022 14:56:36

LTE band 48, 15MHz (-26dBc)

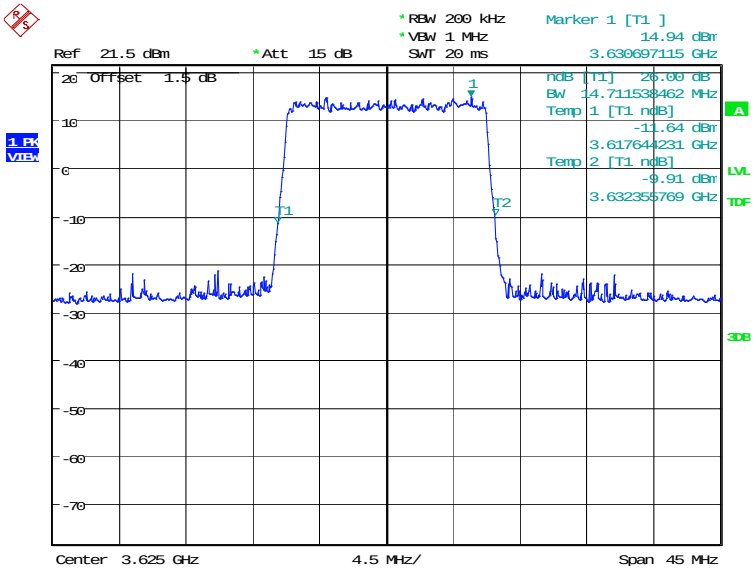
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
3625.0	QPSK	16QAM
	14639.42	14711.54

LTE band 48, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 14:57:20

LTE band 48, 15MHz Bandwidth,16QAM (-26dBc BW)

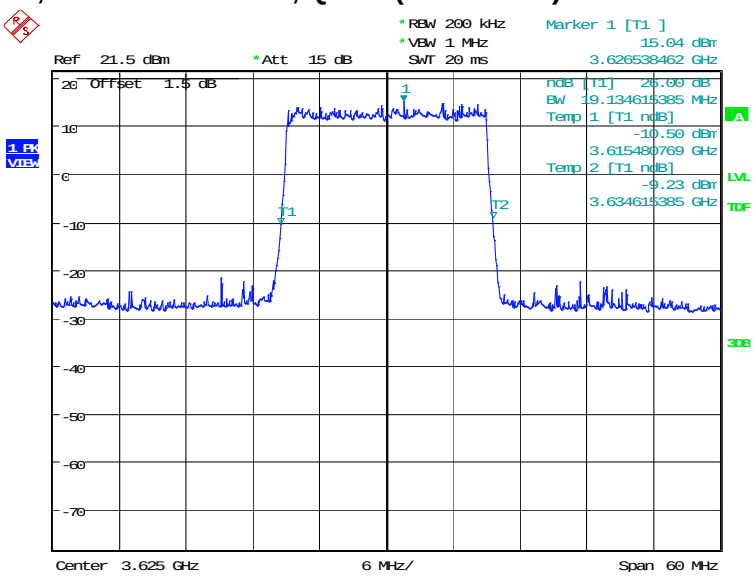


Date: 14.MAY.2022 14:57:58

LTE band 48, 20MHz (-26dBc)

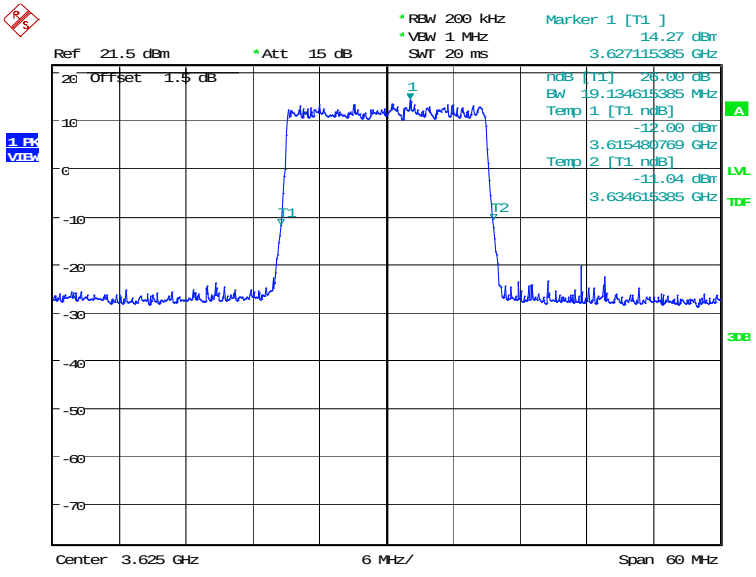
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
3625.0	QPSK	16QAM
	19134.62	19134.62

LTE band 48, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 14:58:42

LTE band 48, 20MHz Bandwidth,16QAM (-26dBc BW)

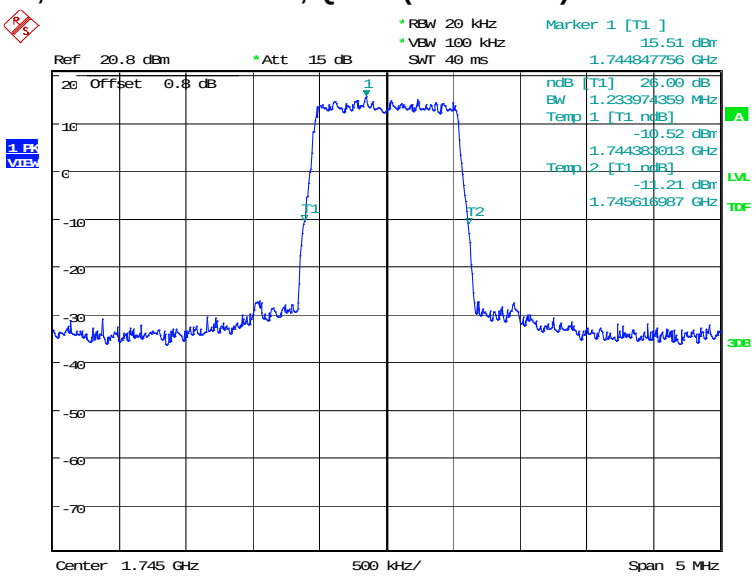


Date: 14.MAY.2022 14:59:20

LTE band 66, 1.4MHz (-26dBc)

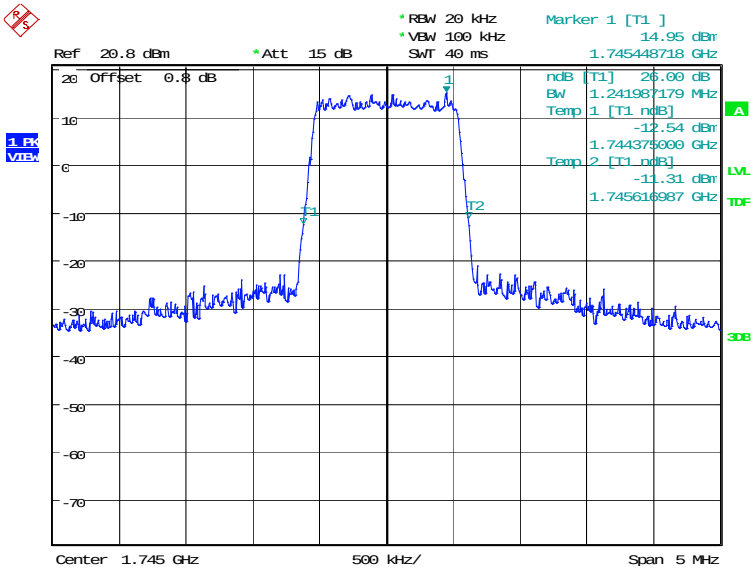
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	1233.97	1241.99

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



Date: 13.MAY.2022 17:07:19

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

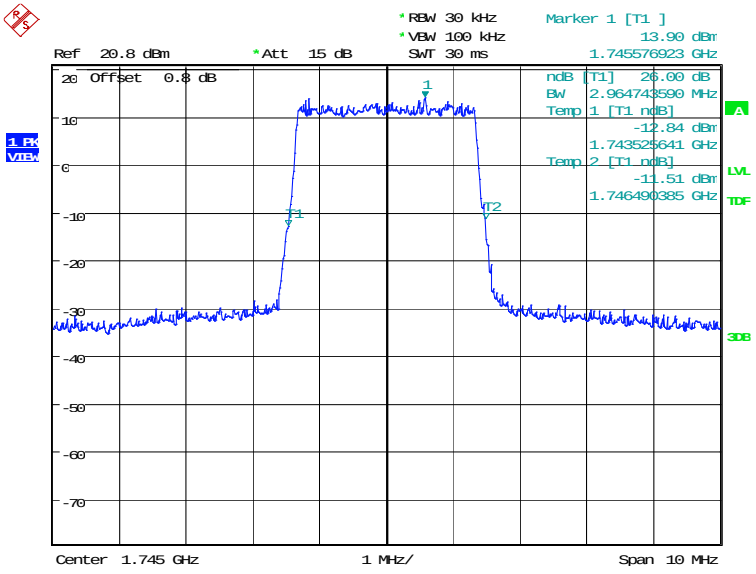


Date: 13.MAY.2022 17:07:58

LTE band 66, 3MHz (-26dBc)

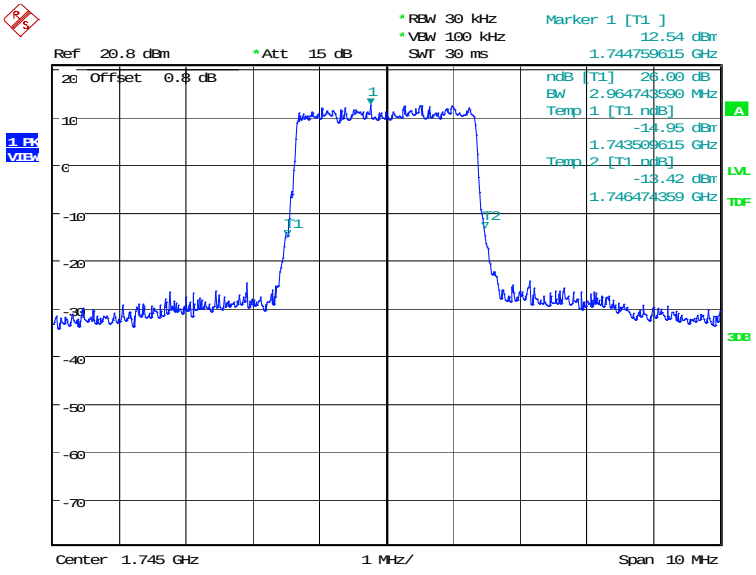
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	2964.74	2964.74

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



Date: 13.MAY.2022 17:08:42

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

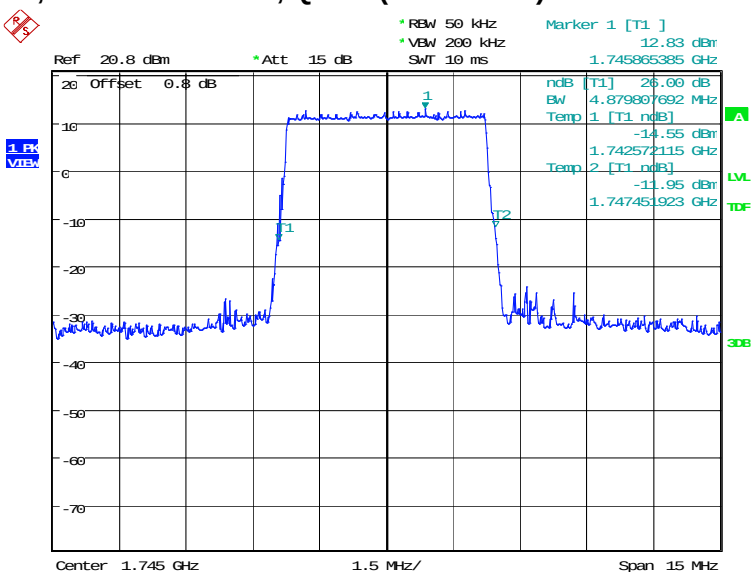


Date: 13.MAY.2022 17:09:22

LTE band 66, 5MHz (-26dBc)

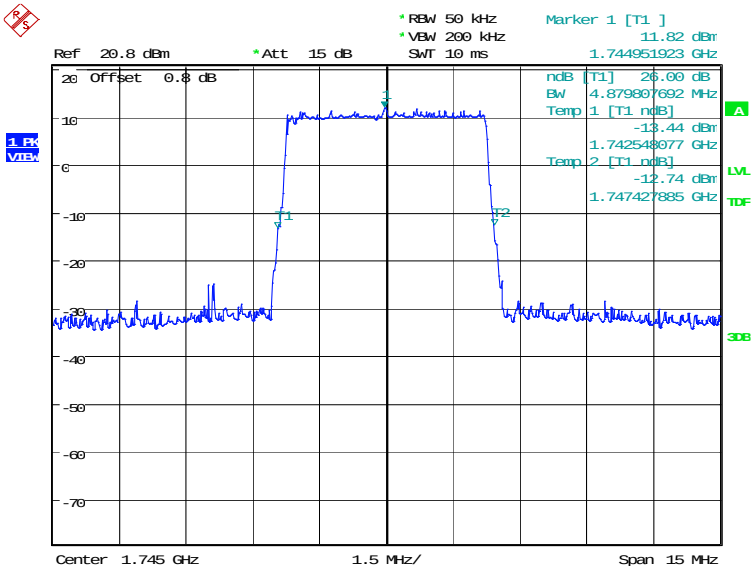
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	4879.81	4879.81

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



Date: 13.MAY.2022 17:10:06

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

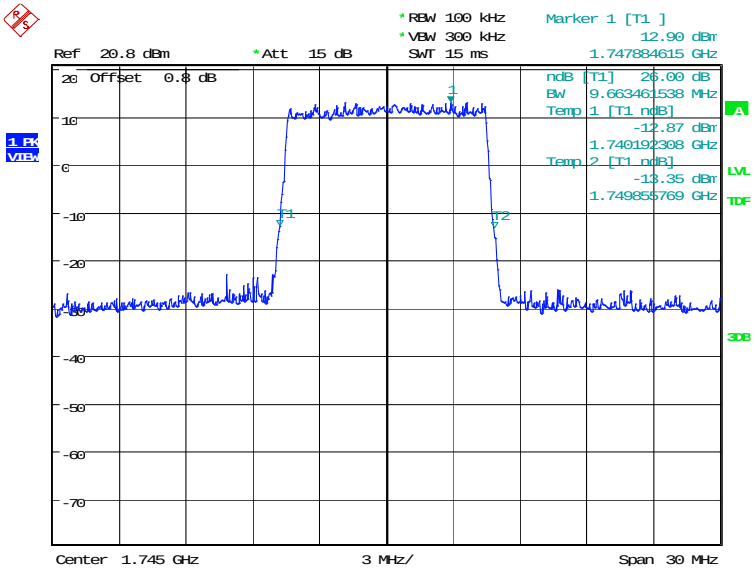


Date: 13.MAY.2022 17:10:46

LTE band 66, 10MHz (-26dBc)

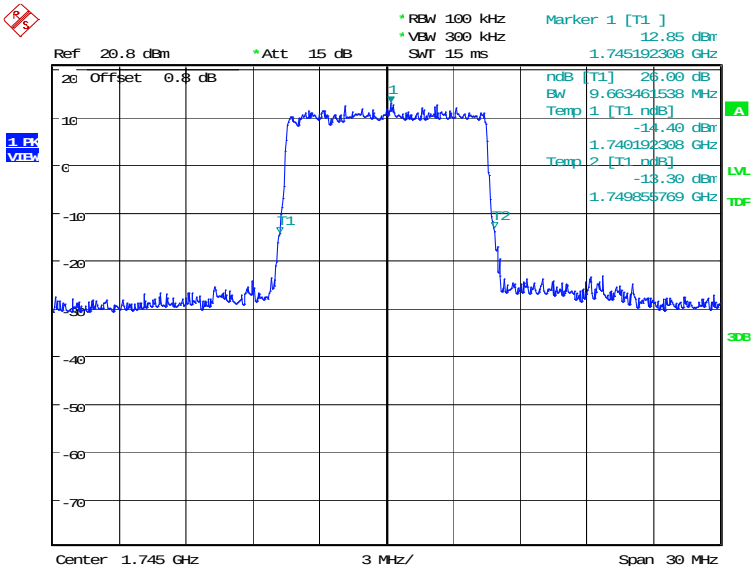
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	9663.46	9663.46

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



Date: 13.MAY.2022 17:11:30

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

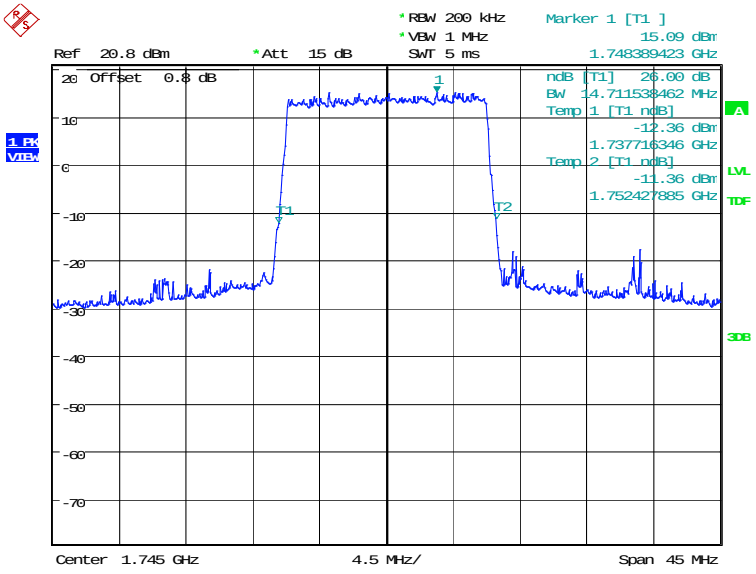


Date: 13.MAY.2022 17:12:10

LTE band 66, 15MHz (-26dBc)

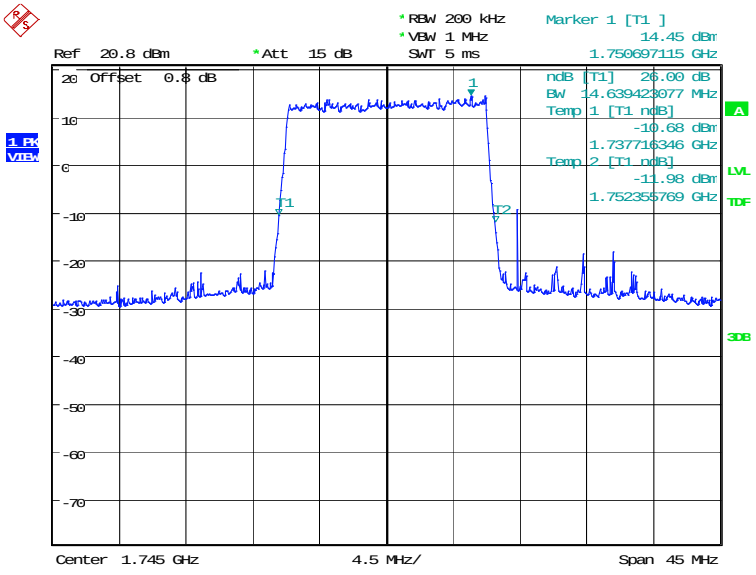
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	14711.54	14639.42

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



Date: 13.MAY.2022 17:12:54

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

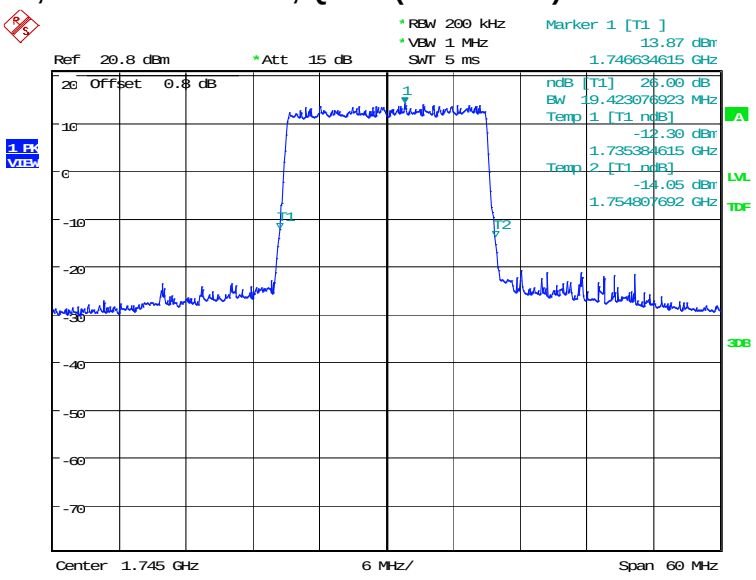


Date: 13.MAY.2022 17:13:33

LTE band 66, 20MHz (-26dBc)

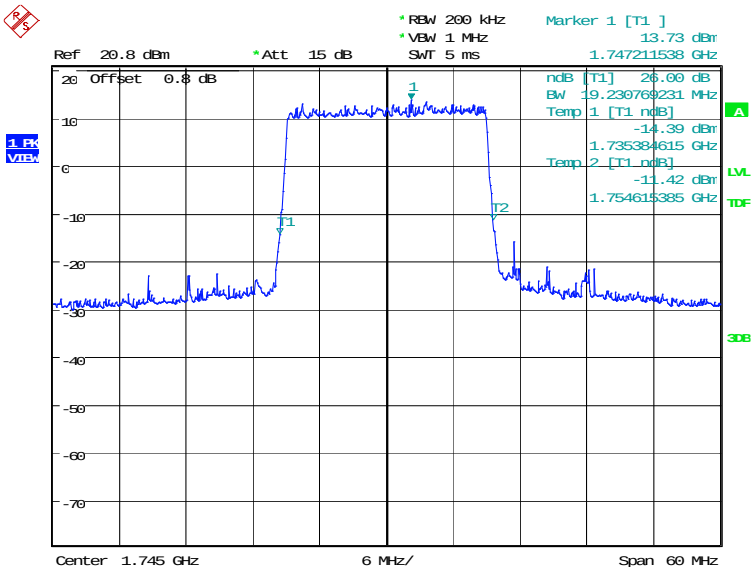
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	19423.08	19230.77

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



Date: 13.MAY.2022 17:14:18

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

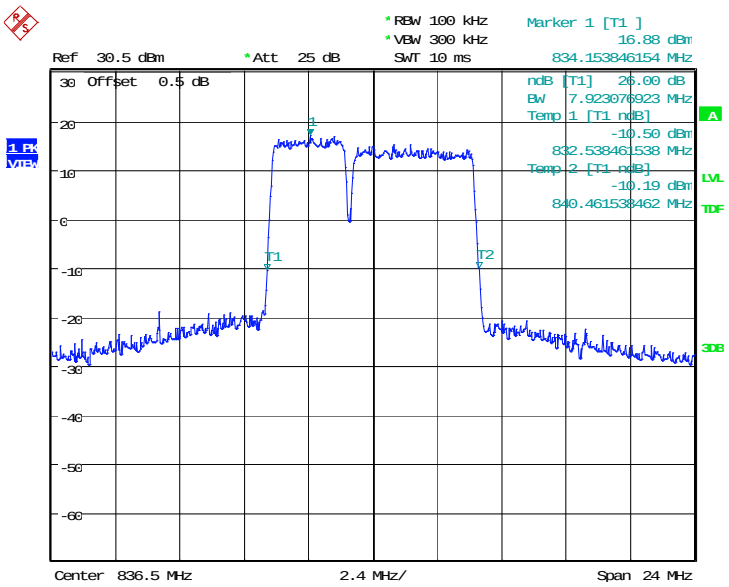


Date: 13.MAY.2022 17:14:57

LTE CA Band 5B , 3MHz+5MHz (-26dBc)

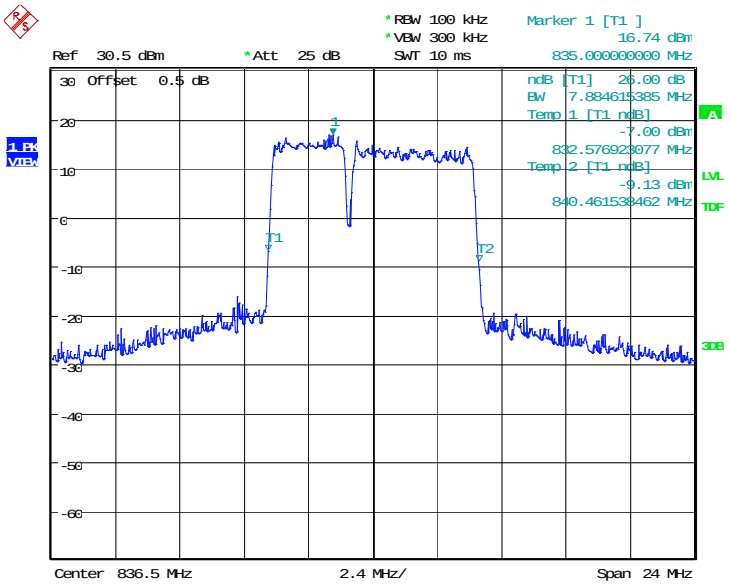
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
836.5	7.923	7.885

LTE CA Band 5B , 3MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 21:42:45

LTE CA Band 5B , 3MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

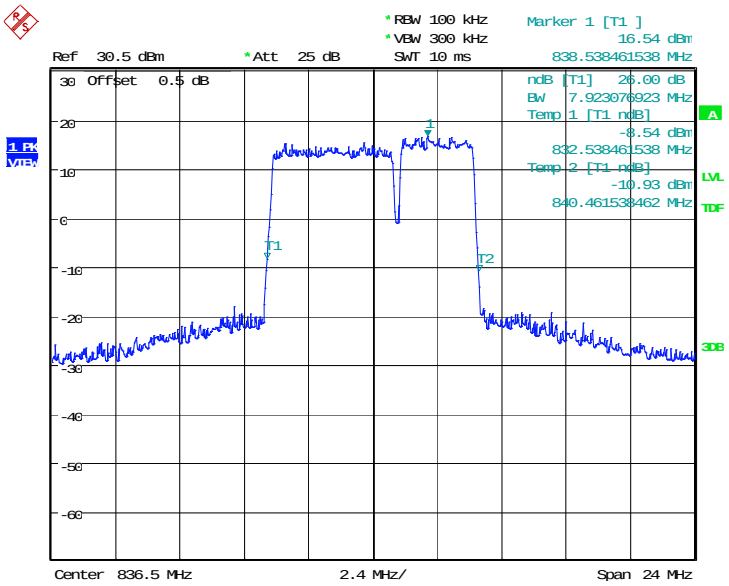


Date: 14.MAY.2022 21:43:07

LTE CA Band 5B , 5MHz+3MHz (-26dBc)

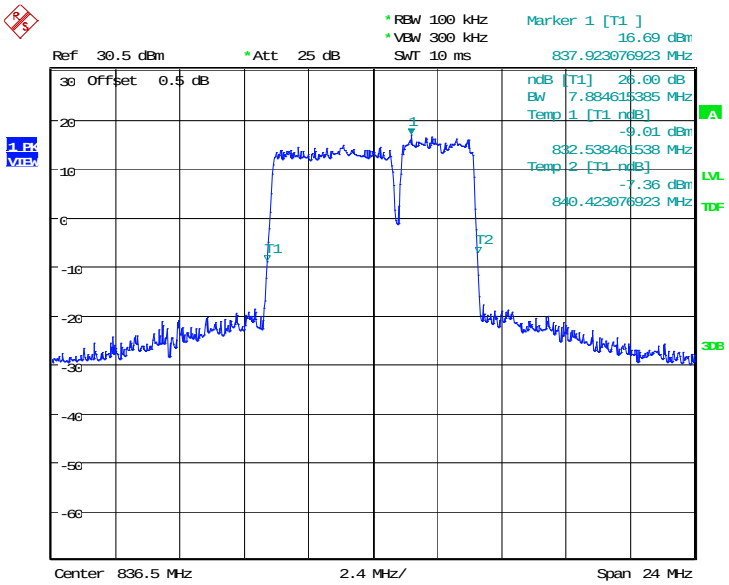
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
836.5	7.923	7.885

LTE CA Band 5B , 5MHz+3MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 21:44:11

LTE CA Band 5B , 5MHz+3MHz Bandwidth, 16QAM (-26dBc BW)

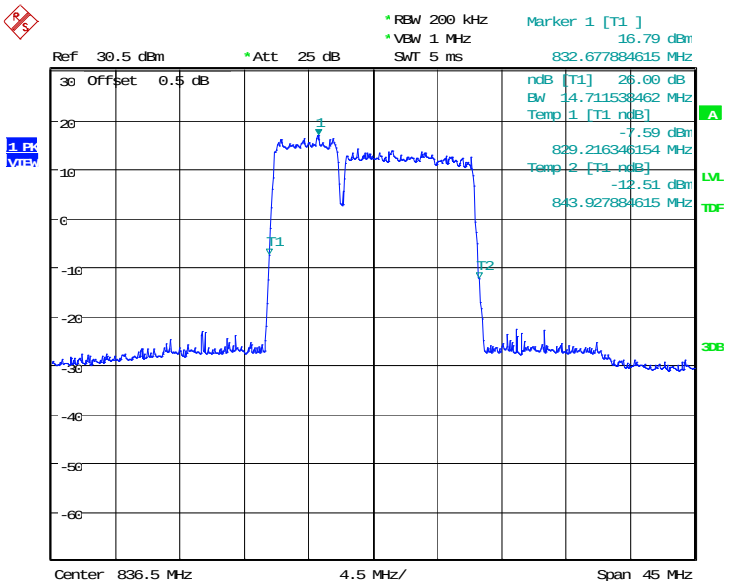


Date: 14.MAY.2022 21:44:33

LTE CA Band 5B , 5MHz+10MHz (-26dBc)

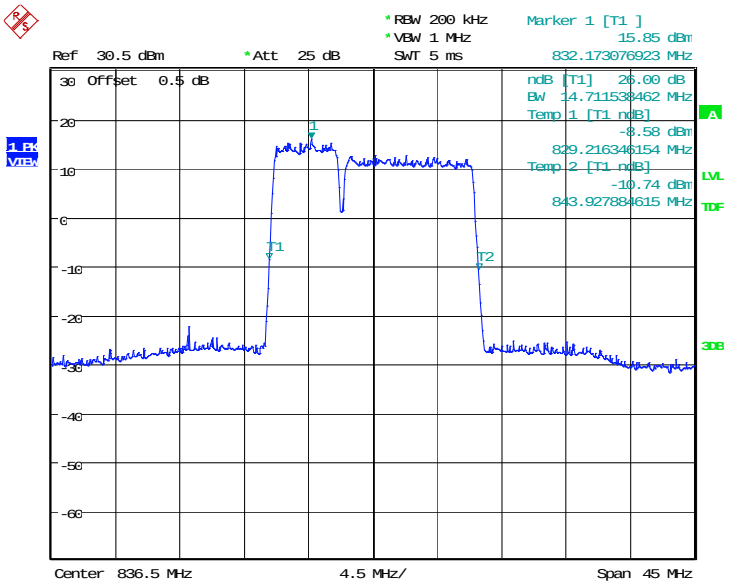
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
836.5	14.712	14.712

LTE CA Band 5B , 5MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 21:45:36

LTE CA Band 5B , 5MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

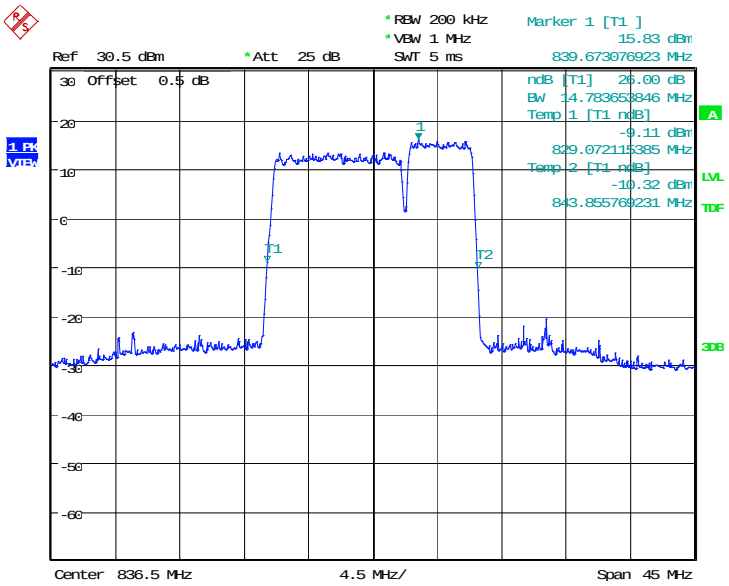


Date: 14.MAY.2022 21:45:58

LTE CA Band 5B , 10MHz+5MHz (-26dBc)

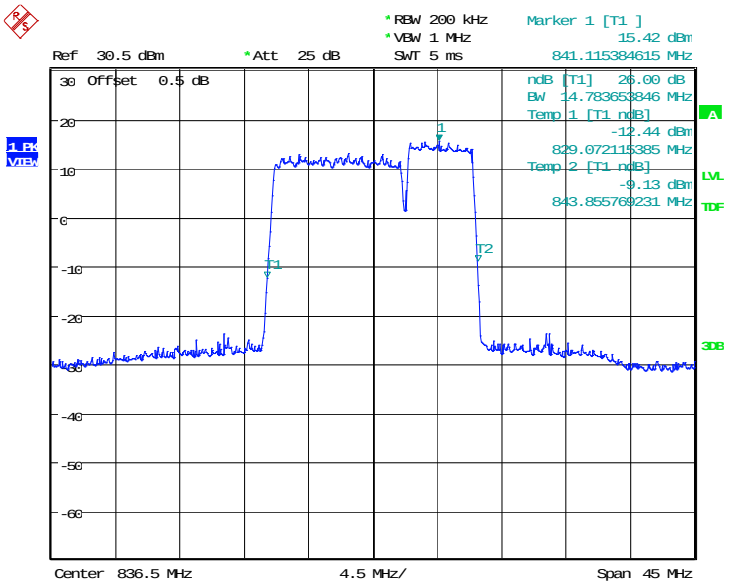
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
836.5	14.784	14.784

LTE CA Band 5B , 10MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 21:47:03

LTE CA Band 5B , 10MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

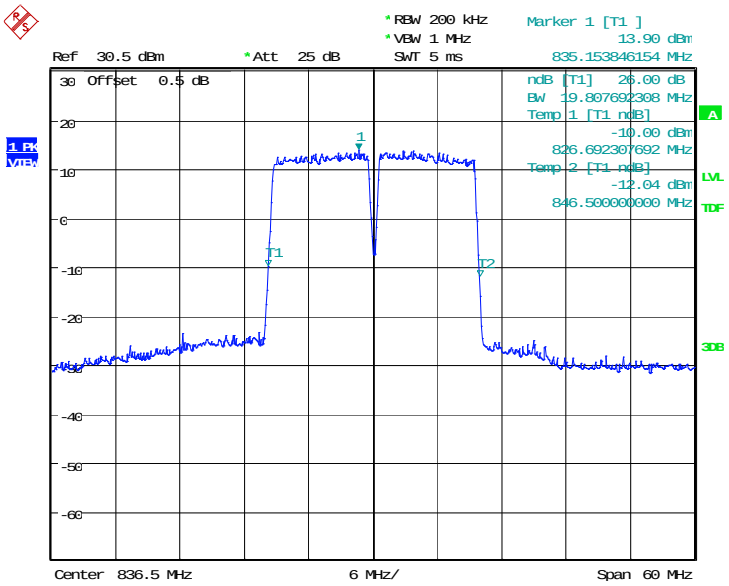


Date: 14.MAY.2022 21:47:25

LTE CA Band 5B , 10MHz+10MHz (-26dBc)

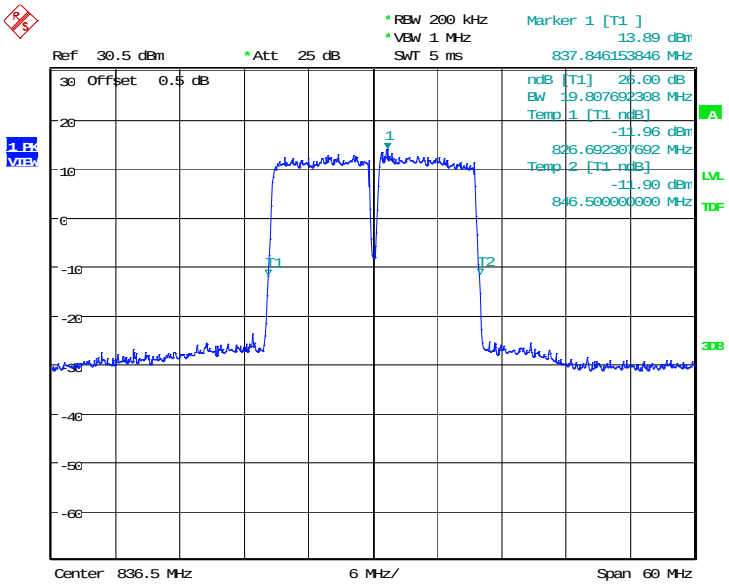
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
836.5	19.808	19.808

LTE CA Band 5B , 10MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 21:48:28

LTE CA Band 5B , 10MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

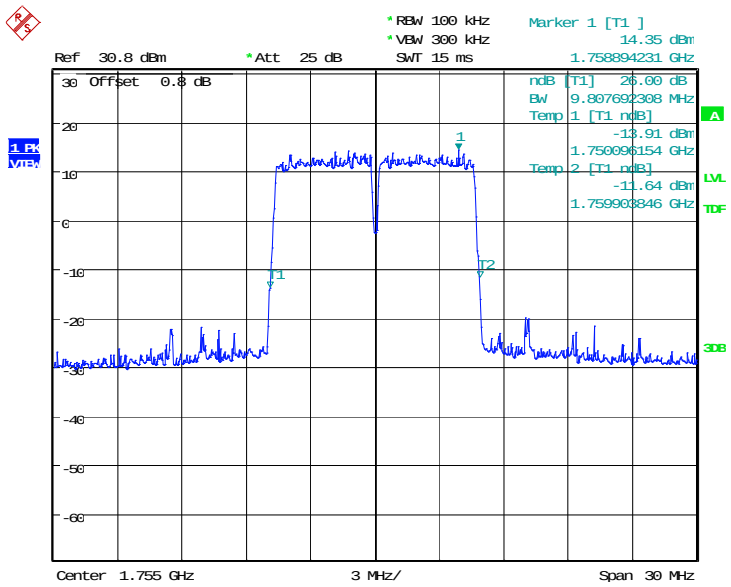


Date: 14.MAY.2022 21:48:50

LTE CA Band 66B , 5MHz+5MHz (-26dBc)

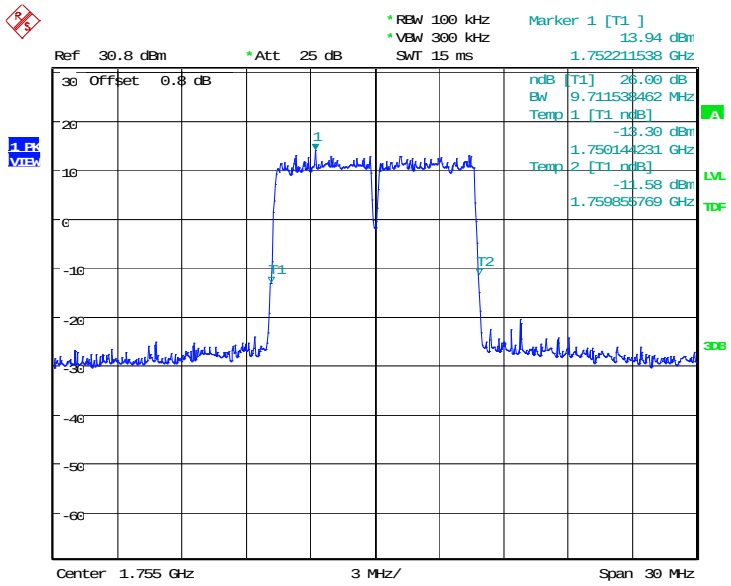
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	9.808	9.712

LTE CA Band 66B , 5MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:46:41

LTE CA Band 66B , 5MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

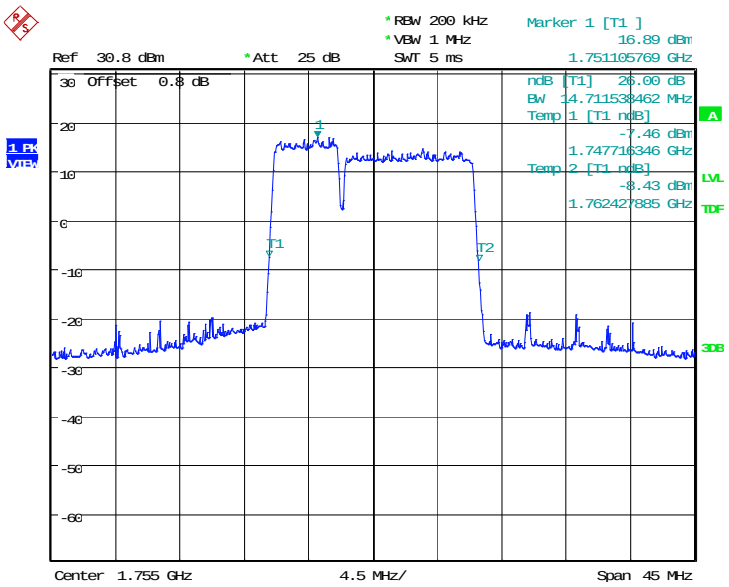


Date: 14.MAY.2022 19:47:03

LTE CA Band 66B , 5MHz+10MHz (-26dBc)

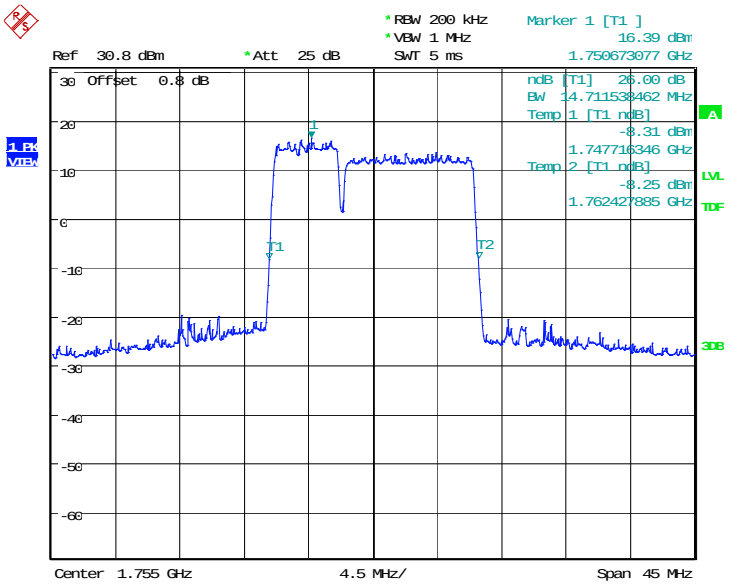
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	14.712	14.712

LTE CA Band 66B , 5MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:48:06

LTE CA Band 66B , 5MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

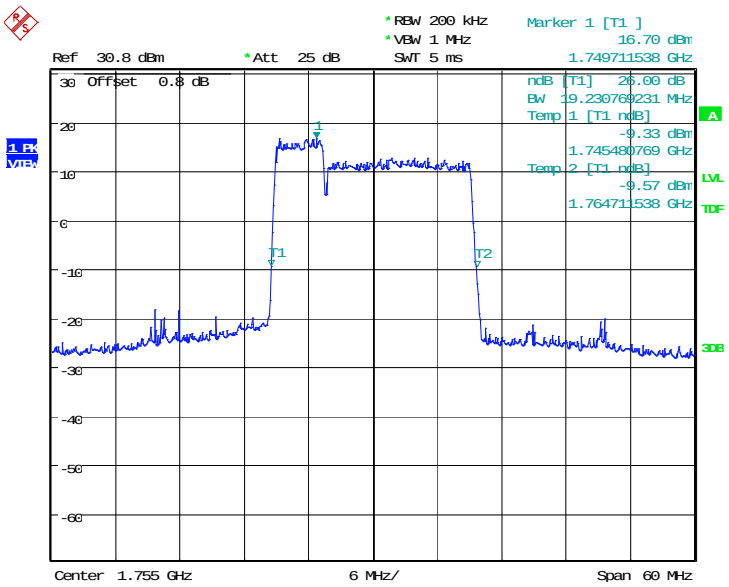


Date: 14.MAY.2022 19:48:28

LTE CA Band 66B , 5MHz+15MHz (-26dBc)

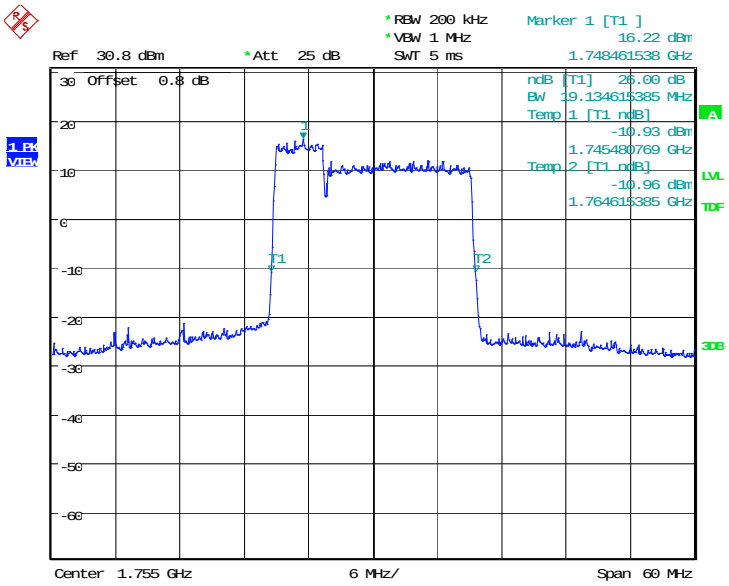
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	19.231	19.135

LTE CA Band 66B , 5MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:49:32

LTE CA Band 66B , 5MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

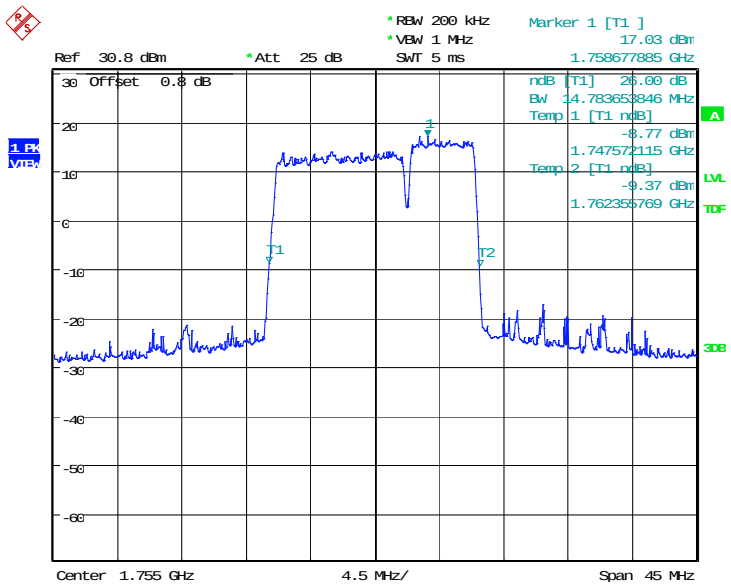


Date: 14.MAY.2022 19:49:54

LTE CA Band 66B , 10MHz+5MHz (-26dBc)

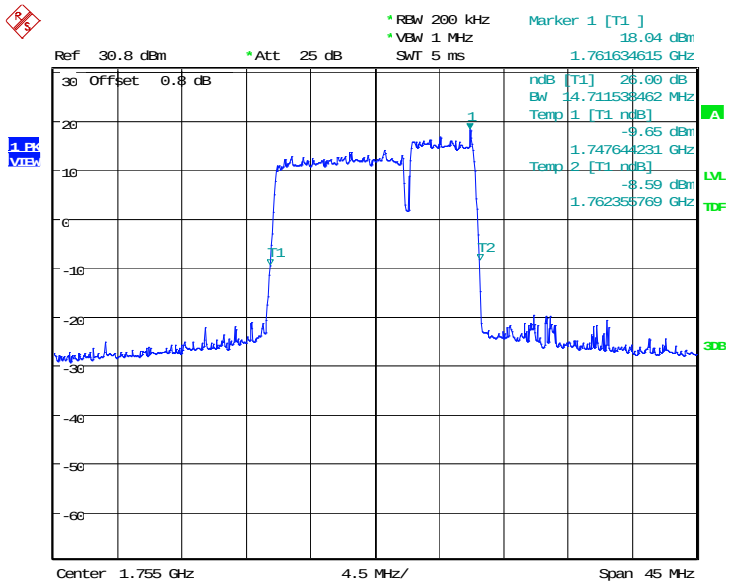
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	14.784	14.712

LTE CA Band 66B , 10MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:50:58

LTE CA Band 66B , 10MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

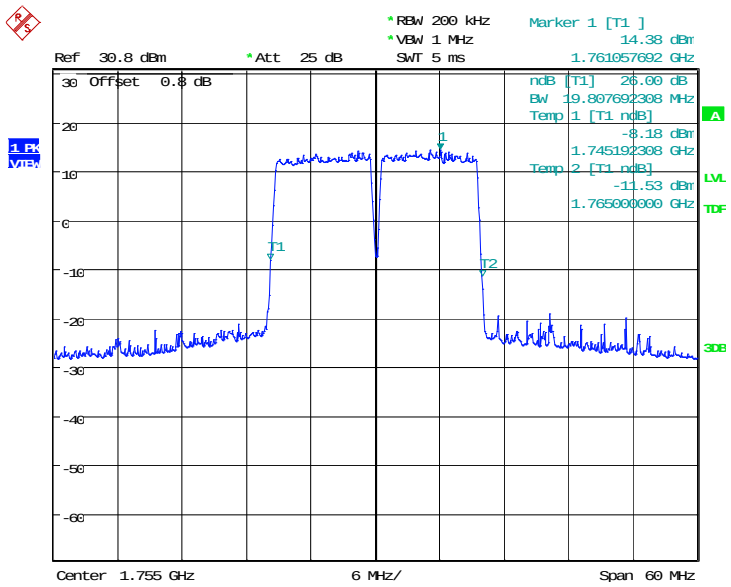


Date: 14.MAY.2022 19:51:20

LTE CA Band 66B , 10MHz+10MHz (-26dBc)

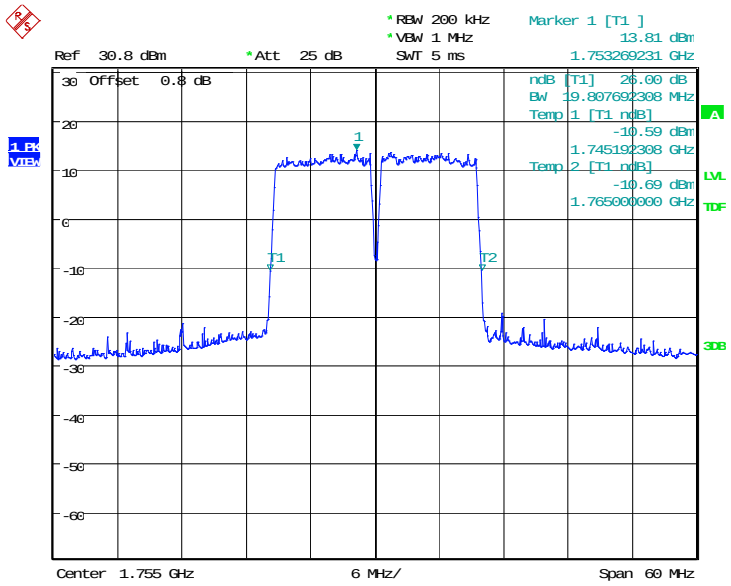
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	19.808	19.808

LTE CA Band 66B , 10MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:52:24

LTE CA Band 66B , 10MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

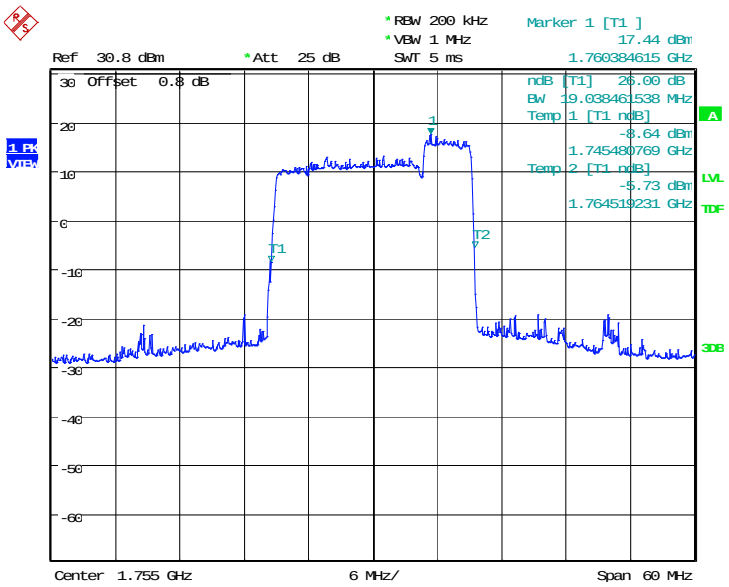


Date: 14.MAY.2022 19:52:46

LTE CA Band 66B , 15MHz+5MHz (-26dBc)

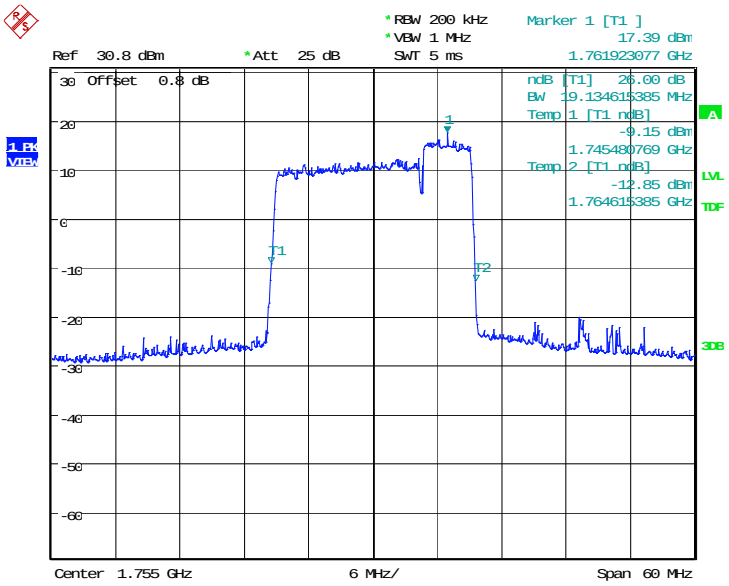
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	19.038	19.135

LTE CA Band 66B , 15MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:53:50

LTE CA Band 66B , 15MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

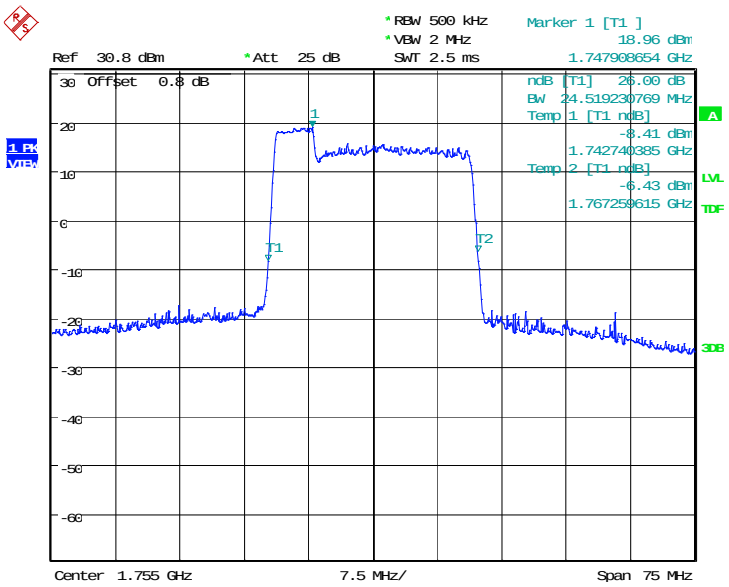


Date: 14.MAY.2022 19:54:12

LTE CA Band 66C , 5MHz+20MHz (-26dBc)

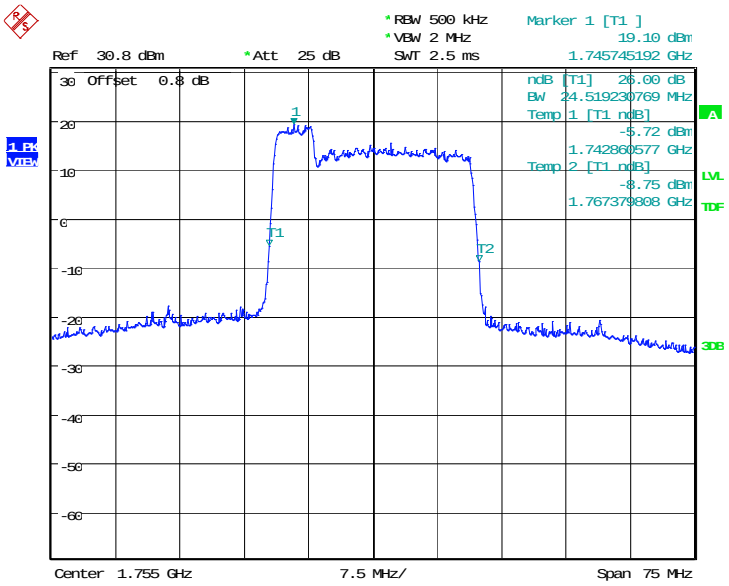
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	24.519	24.519

LTE CA Band 66C , 5MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:55:17

LTE CA Band 66C , 5MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

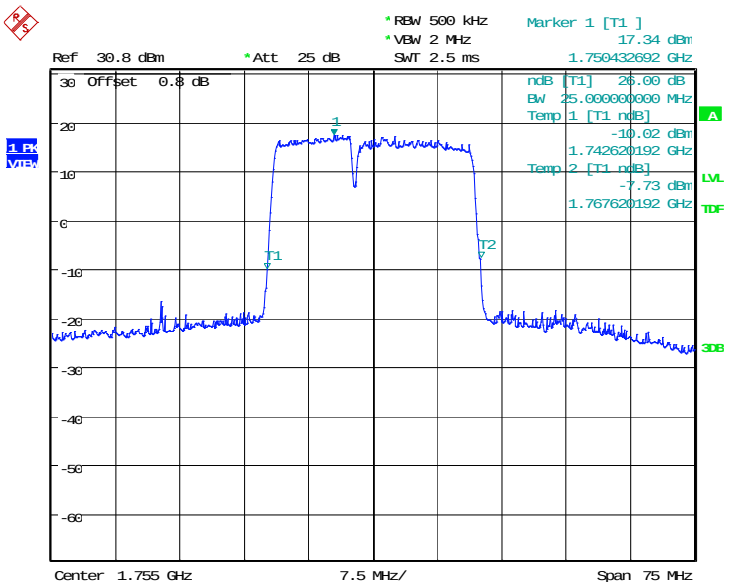


Date: 14.MAY.2022 19:55:42

LTE CA Band 66C , 10MHz+15MHz (-26dBc)

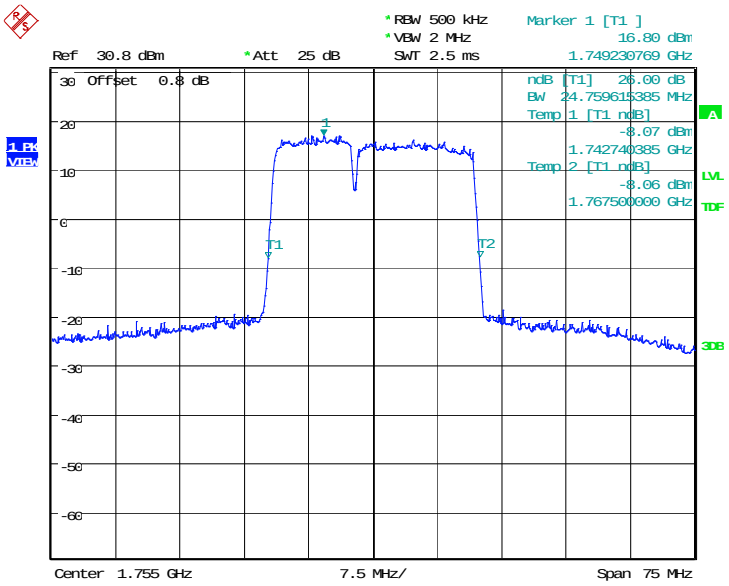
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	25.000	24.760

LTE CA Band 66C , 10MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:56:46

LTE CA Band 66C , 10MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

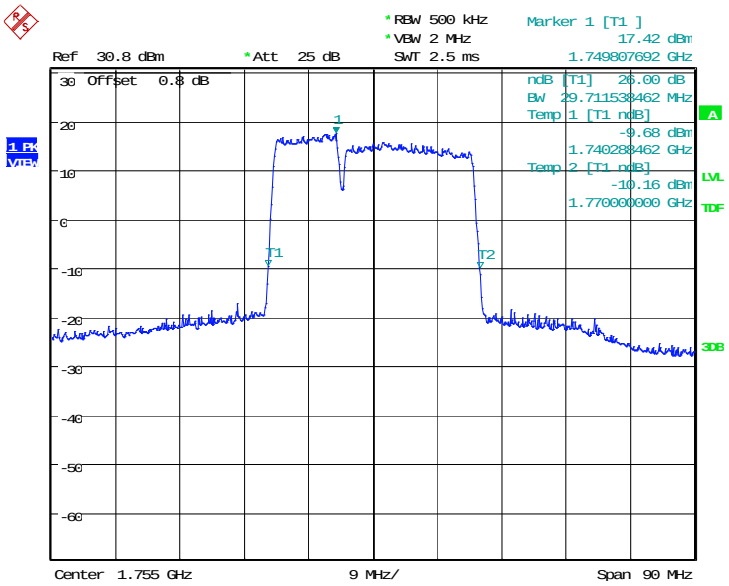


Date: 14.MAY.2022 19:57:08

LTE CA Band 66C , 10MHz+20MHz (-26dBc)

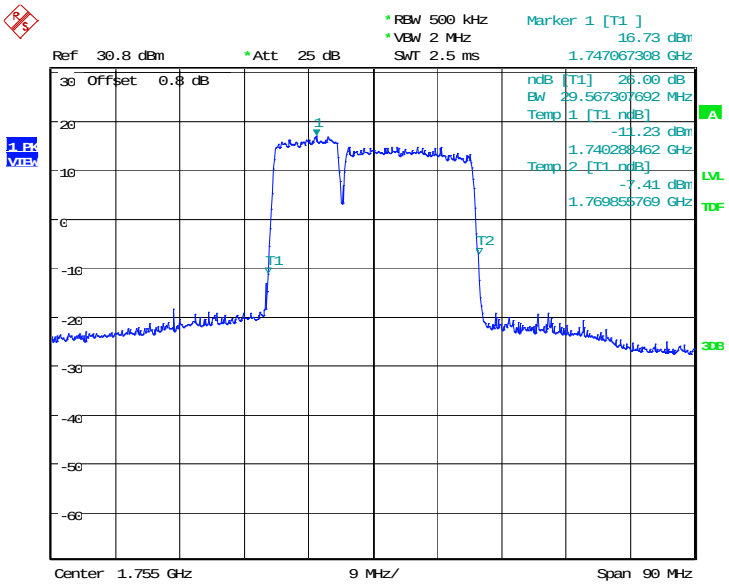
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	29.712	29.567

LTE CA Band 66C , 10MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 19:58:34

LTE CA Band 66C , 10MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

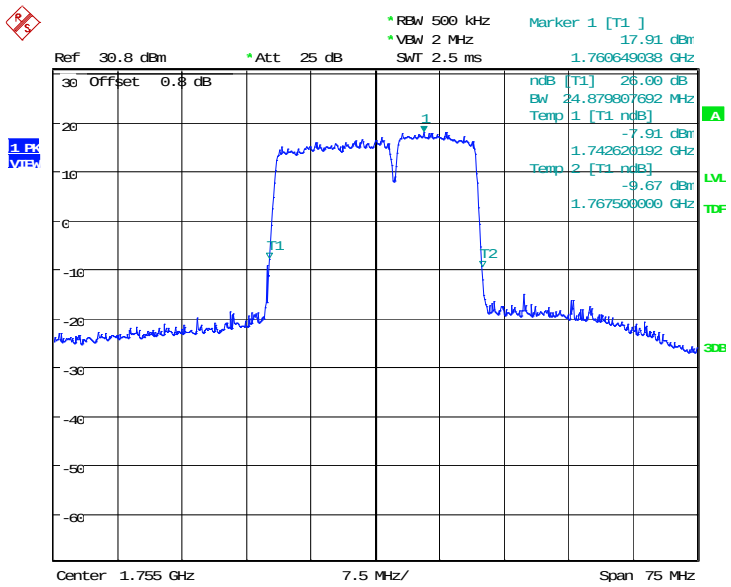


Date: 14.MAY.2022 19:58:56

LTE CA Band 66C , 15MHz+10MHz (-26dBc)

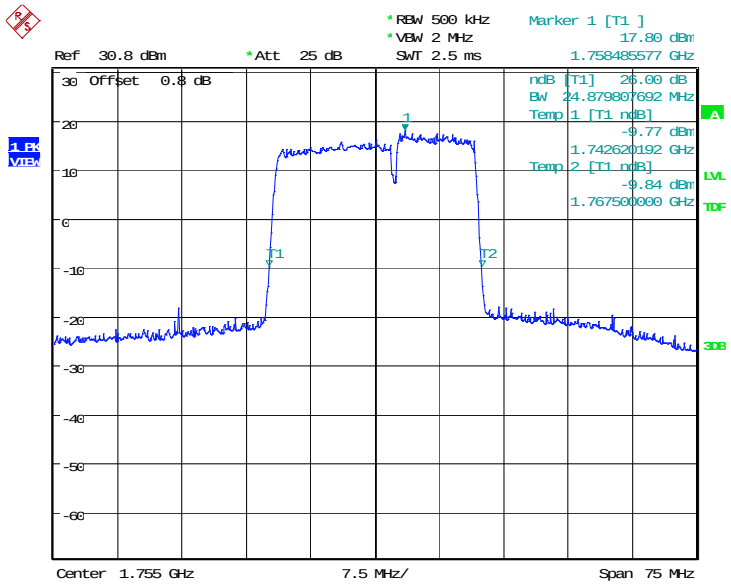
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	24.880	24.880

LTE CA Band 66C , 15MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:00:00

LTE CA Band 66C , 15MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

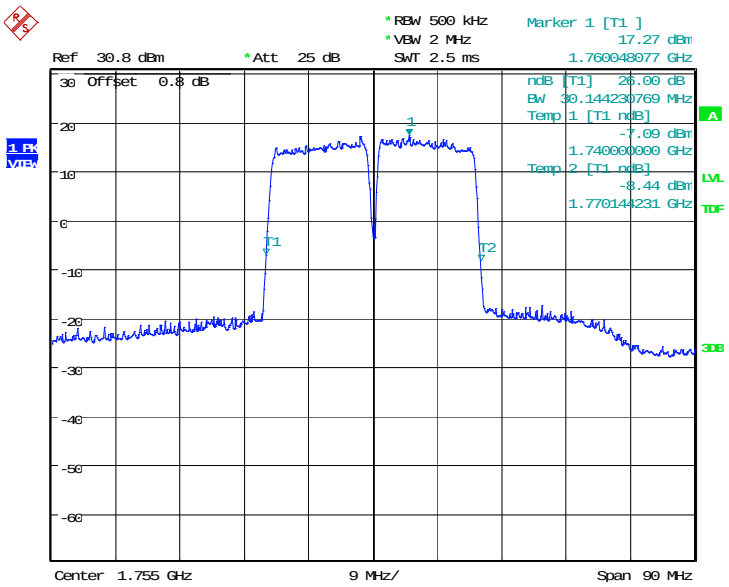


Date: 14.MAY.2022 20:00:22

LTE CA Band 66C , 15MHz+15MHz (-26dBc)

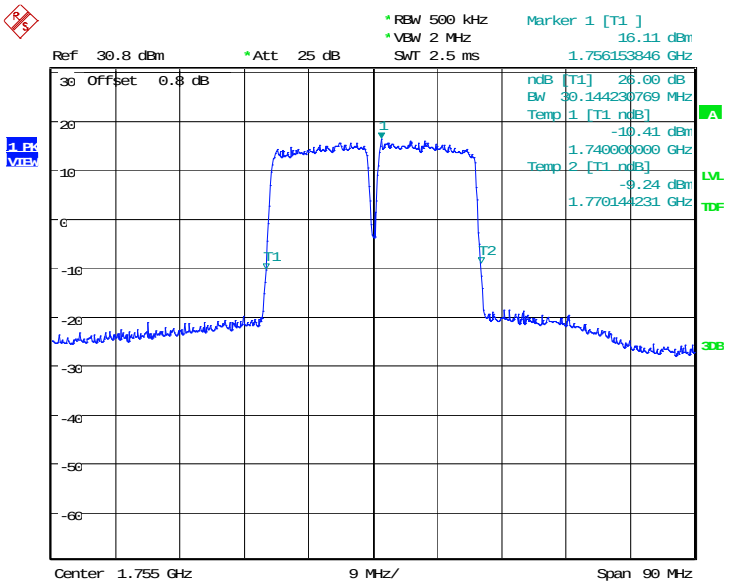
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	30.144	30.144

LTE CA Band 66C , 15MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:01:25

LTE CA Band 66C , 15MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

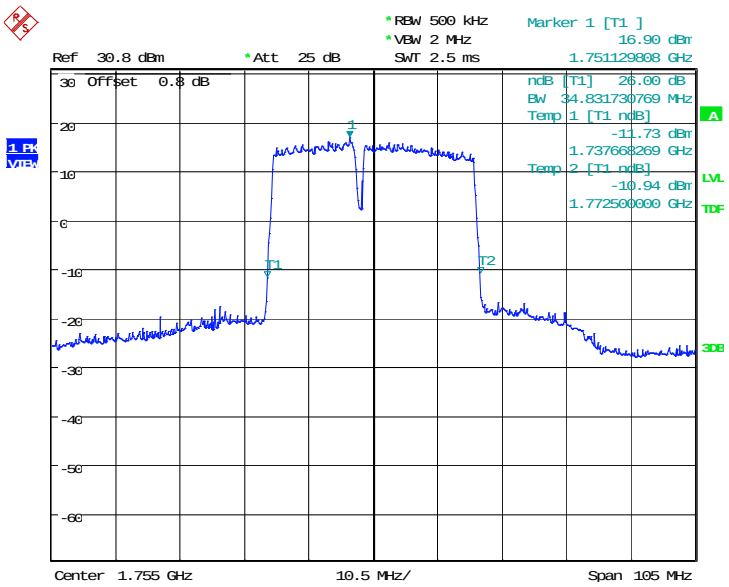


Date: 14.MAY.2022 20:01:47

LTE CA Band 66C , 15MHz+20MHz (-26dBc)

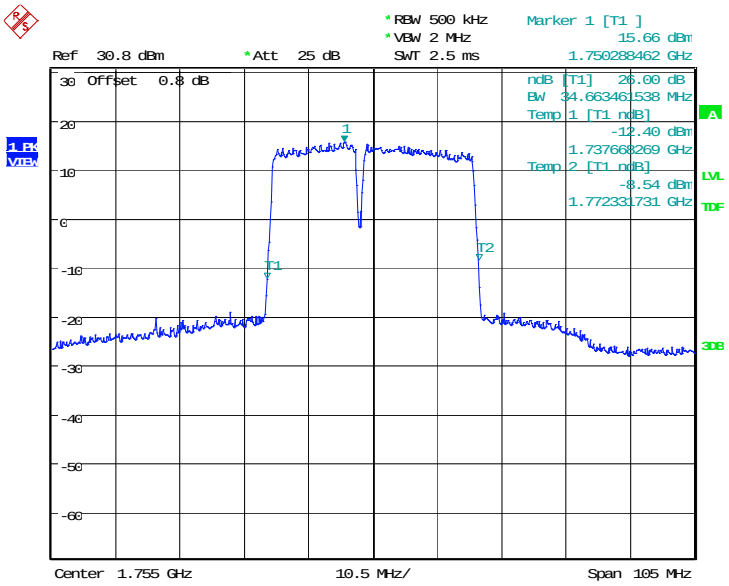
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	34.832	34.663

LTE CA Band 66C , 15MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:02:51

LTE CA Band 66C , 15MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

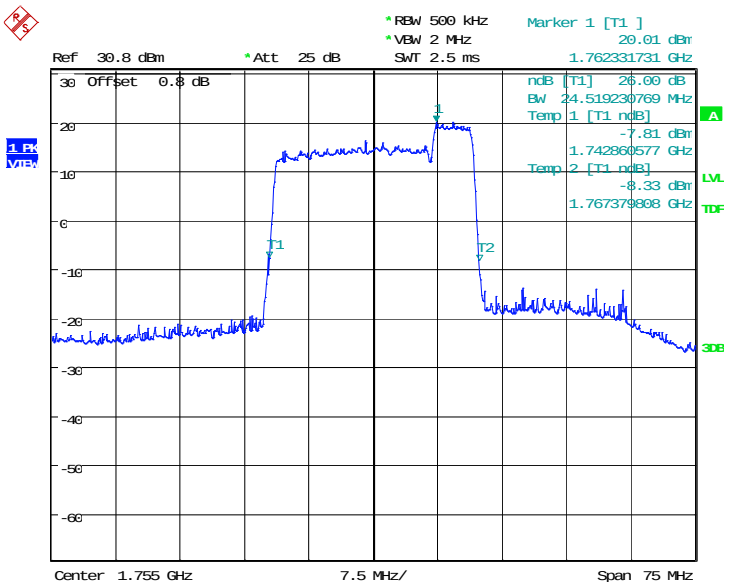


Date: 14.MAY.2022 20:03:16

LTE CA Band 66C , 20MHz+5MHz (-26dBc)

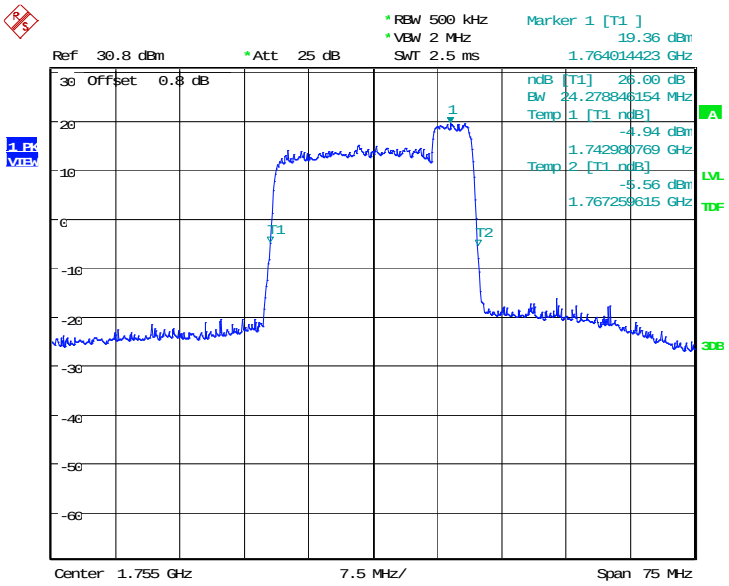
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	24.519	24.279

LTE CA Band 66C , 20MHz+5MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:04:20

LTE CA Band 66C , 20MHz+5MHz Bandwidth, 16QAM (-26dBc BW)

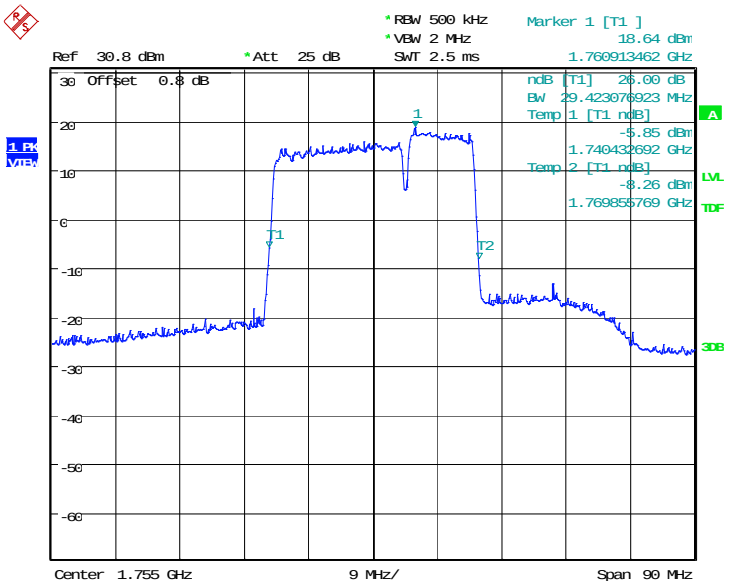


Date: 14.MAY.2022 20:04:41

LTE CA Band 66C , 20MHz+10MHz (-26dBc)

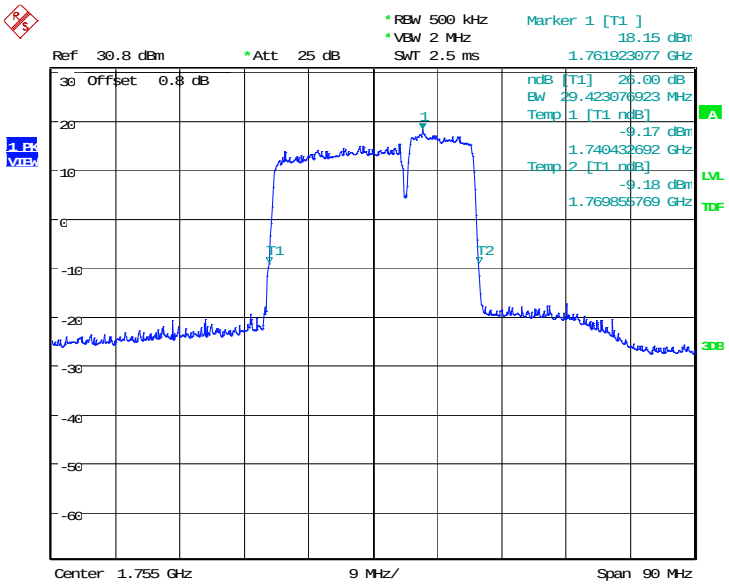
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	29.423	29.423

LTE CA Band 66C , 20MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:05:43

LTE CA Band 66C , 20MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

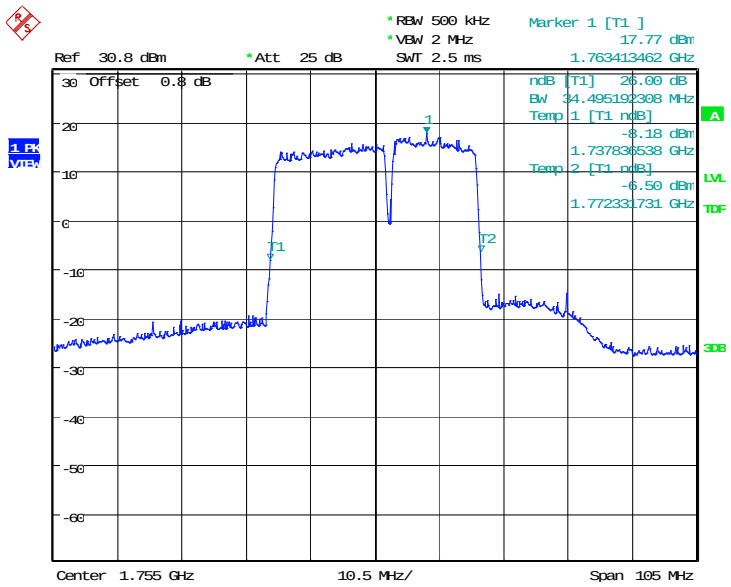


Date: 14.MAY.2022 20:06:04

LTE CA Band 66C , 20MHz+15MHz (-26dBc)

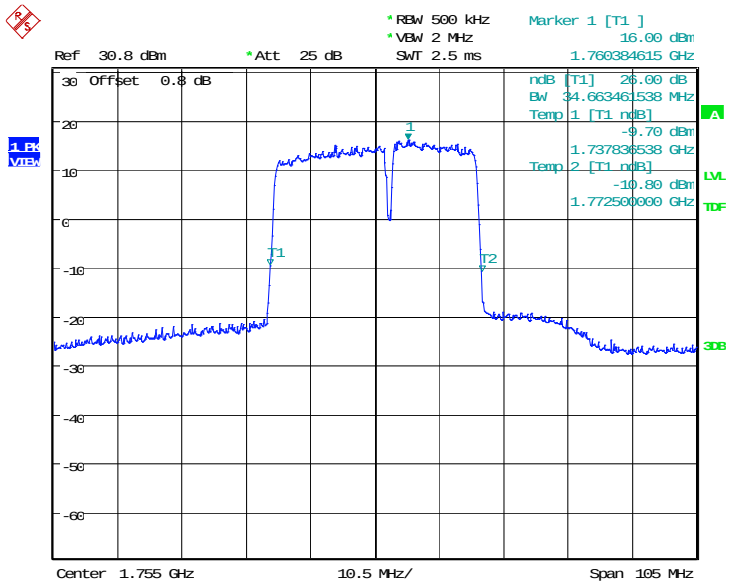
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	34.495	34.663

LTE CA Band 66C , 20MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:07:06

LTE CA Band 66C , 20MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

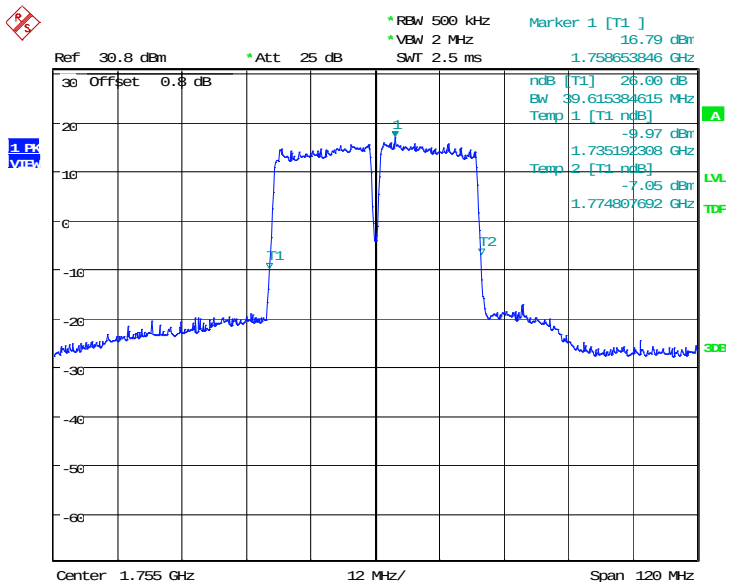


Date: 14.MAY.2022 20:07:26

LTE CA Band 66C , 20MHz+20MHz (-26dBc)

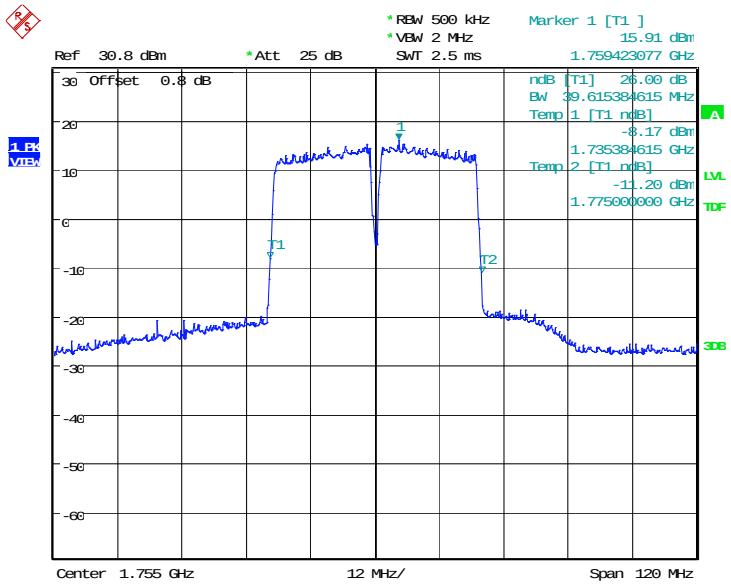
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
1755.0	39.615	39.615

LTE CA Band 66C , 20MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.MAY.2022 20:08:28

LTE CA Band 66C , 20MHz+20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 14.MAY.2022 20:08:48

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(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 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a 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, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee’s frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 96.41(e) states for channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed −25 dBm/MHz. Notwithstanding the emission limits in this paragraph, the Adjacent Channel Leakage Ratio for End User Devices shall be at least 30 dB.

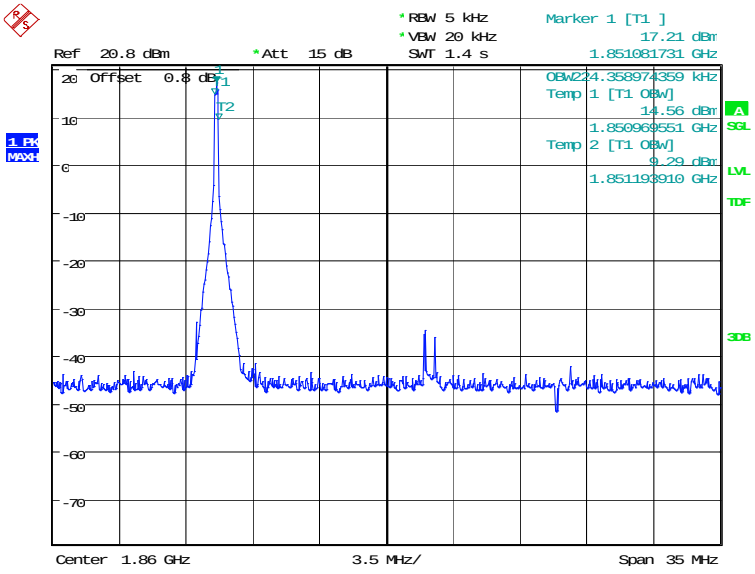
The spectrum analyzer readings are corrected by [10 log (1/duty cycle)] for the non-continuous transmitting scenario.

A.6.2 Measurement result

Only the worst case result is given below

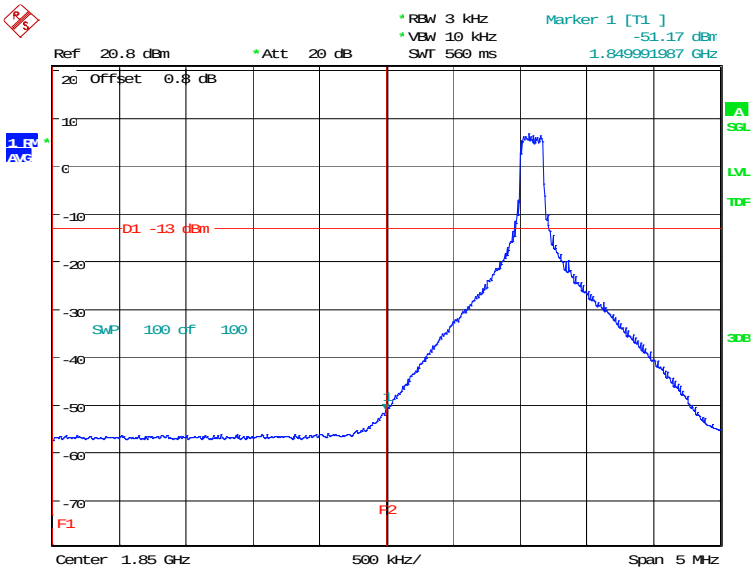
LTE band 2

OBW: 1RB-low_offset



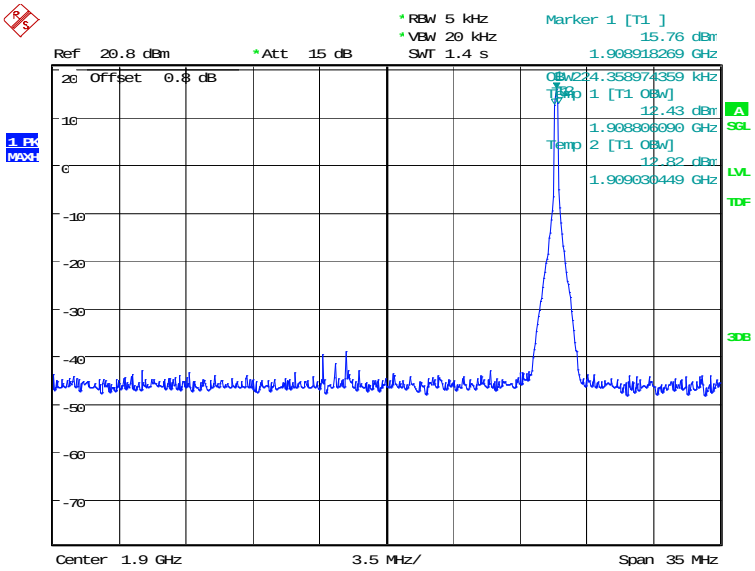
Date: 21.JUN.2022 19:39:31

LOW BAND EDGE BLOCK-1RB-low_offset



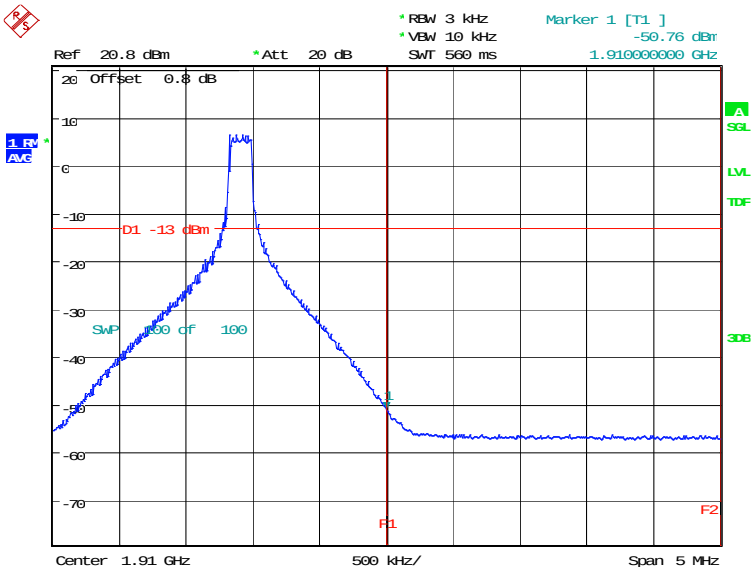
Date: 21.JUN.2022 19:40:45

OBW: 1RB-high_offset



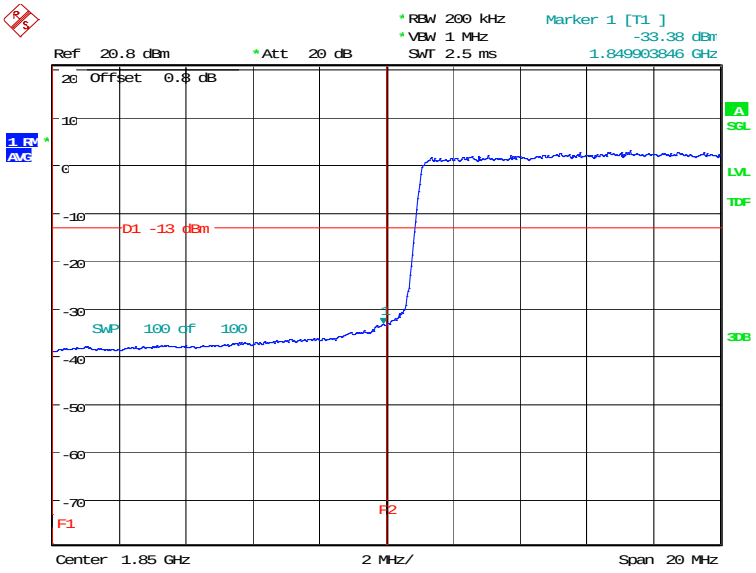
Date: 21.JUN.2022 19:41:20

HIGH BAND EDGE BLOCK-1RB-high_offset



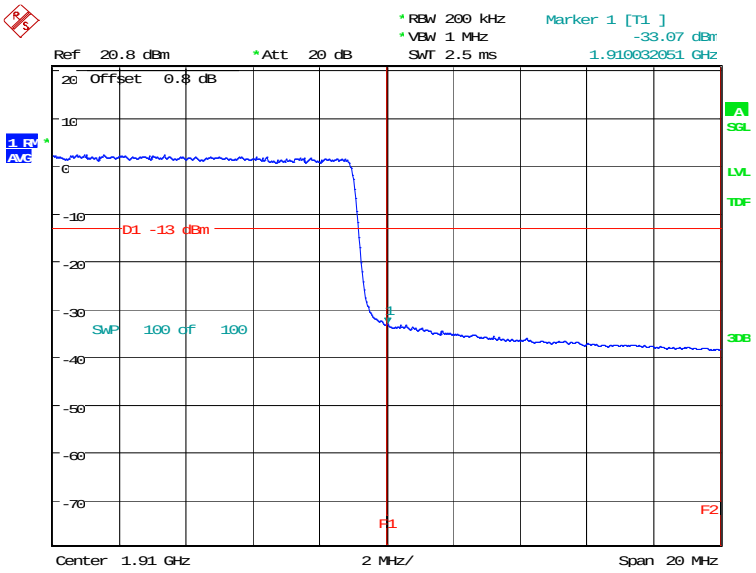
Date: 21.JUN.2022 19:42:34

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 22.JUN.2022 15:37:24

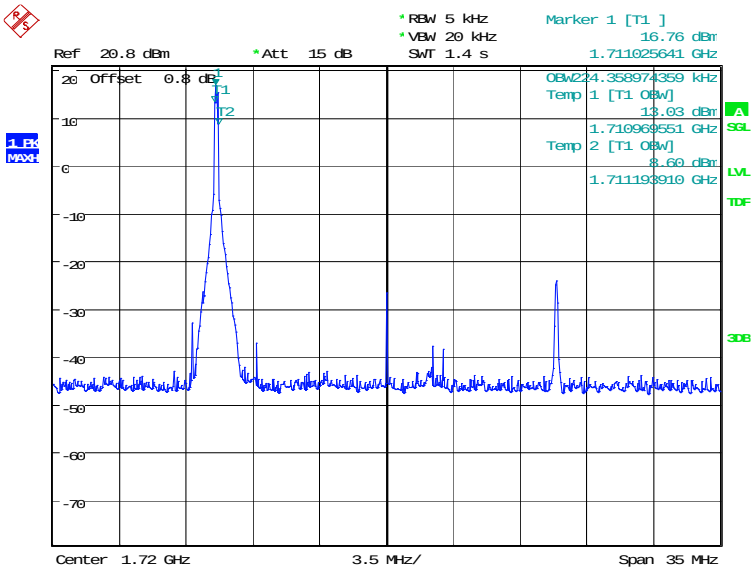
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 22.JUN.2022 15:38:54

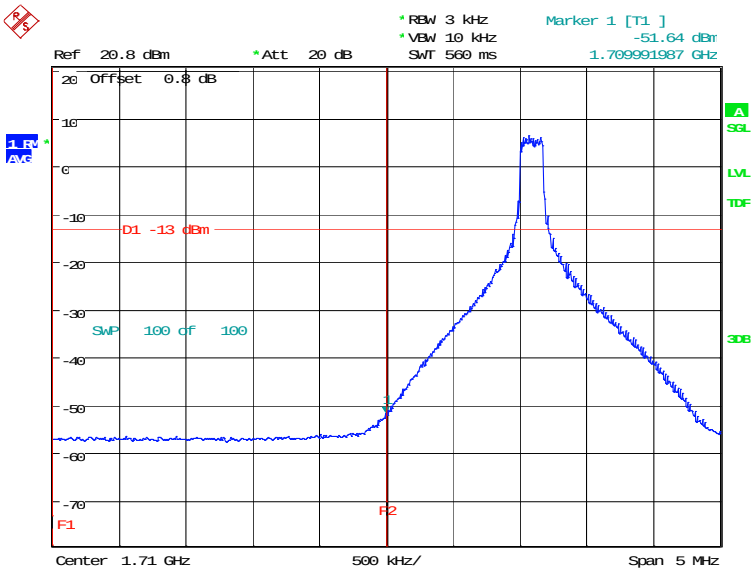
LTE band 4

OBW: 1RB-low_offset



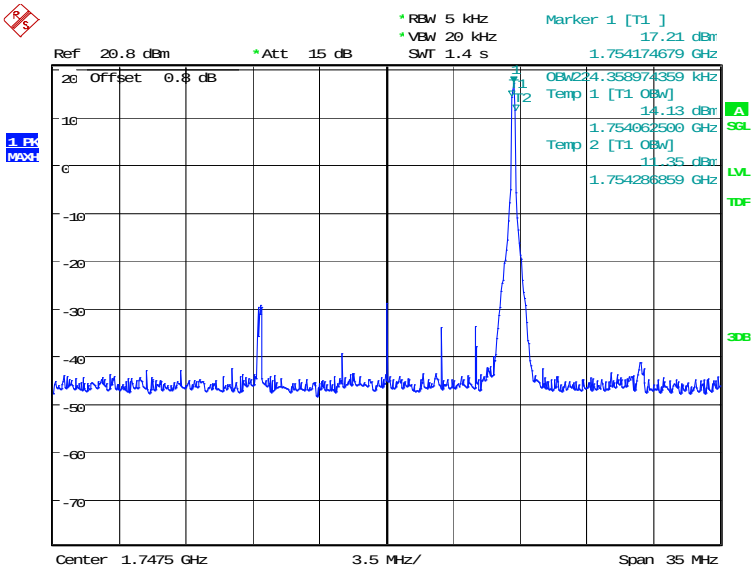
Date: 21.JUN.2022 19:43:51

LOW BAND EDGE BLOCK-1RB-low_offset



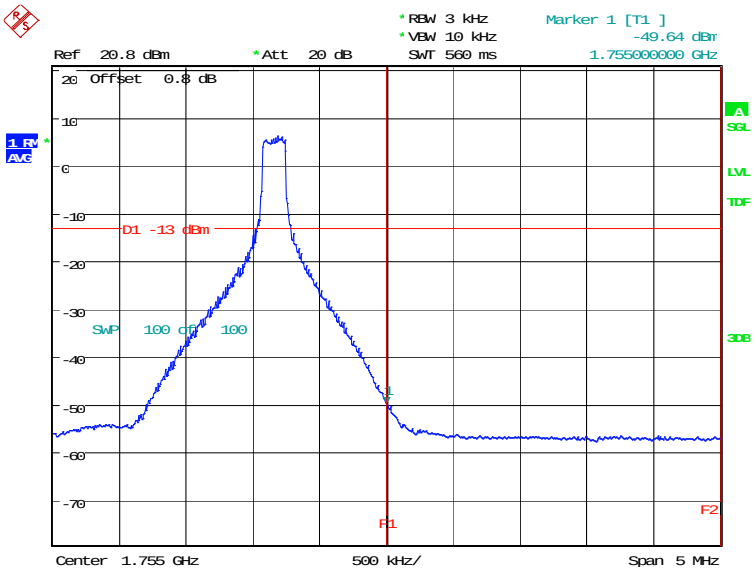
Date: 21.JUN.2022 19:45:05

OBW: 1RB-high_offset



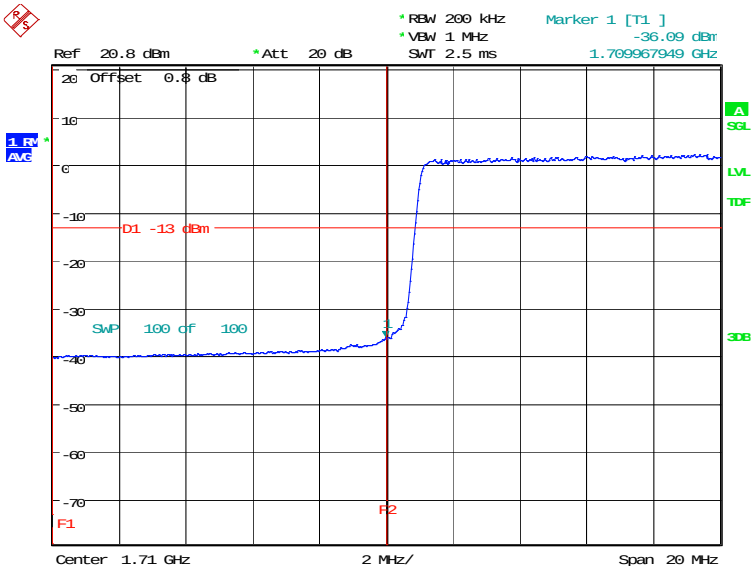
Date: 21.JUN.2022 19:48:26

HIGH BAND EDGE BLOCK-1RB-high_offset



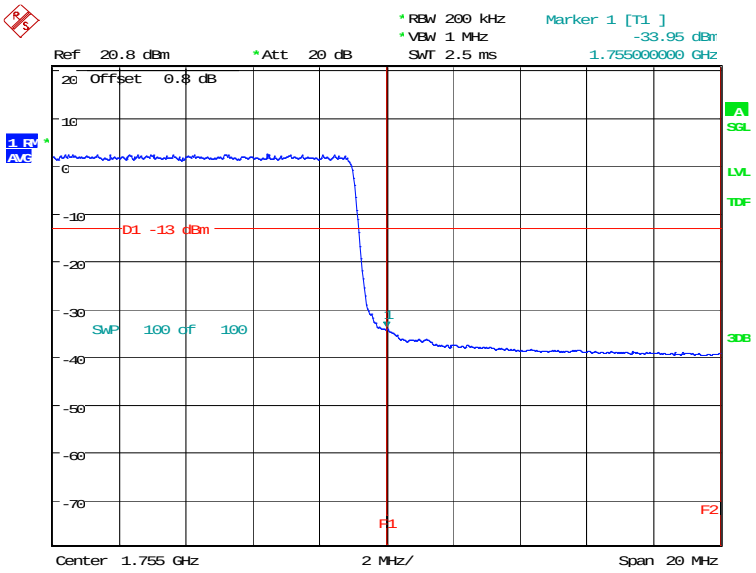
Date: 21.JUN.2022 19:49:39

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 21.JUN.2022 19:45:38

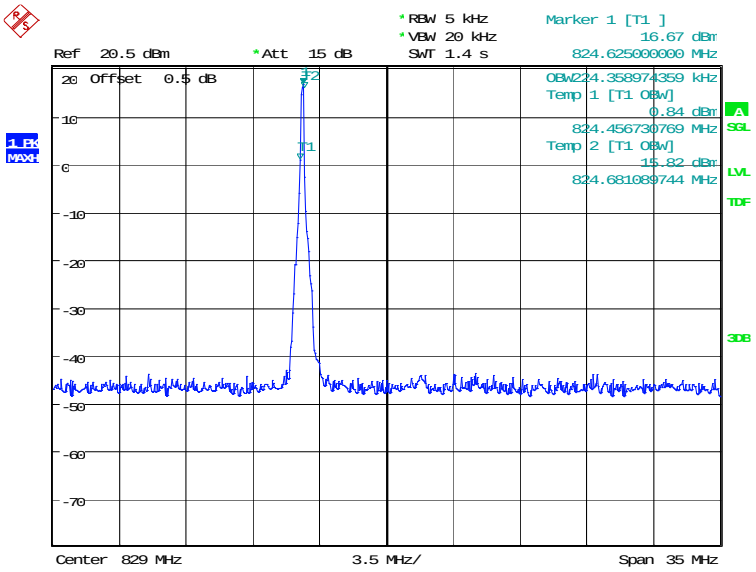
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 21.JUN.2022 19:50:56

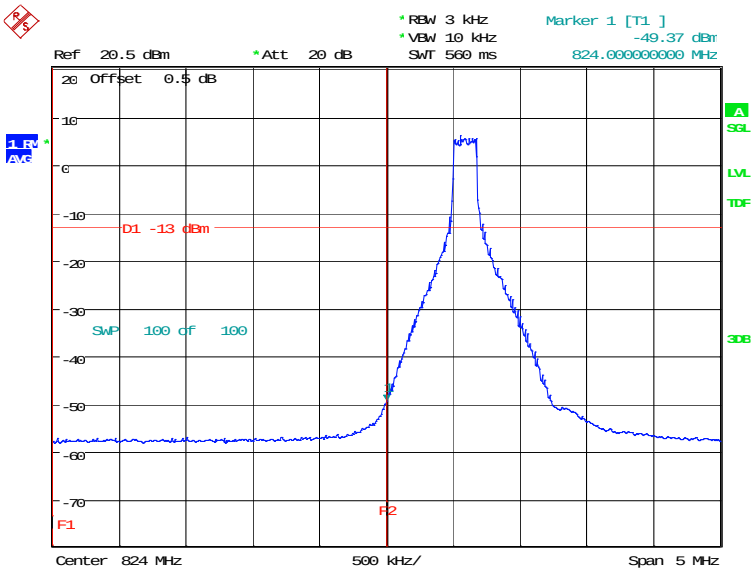
LTE band 5

OBW: 1RB-low_offset



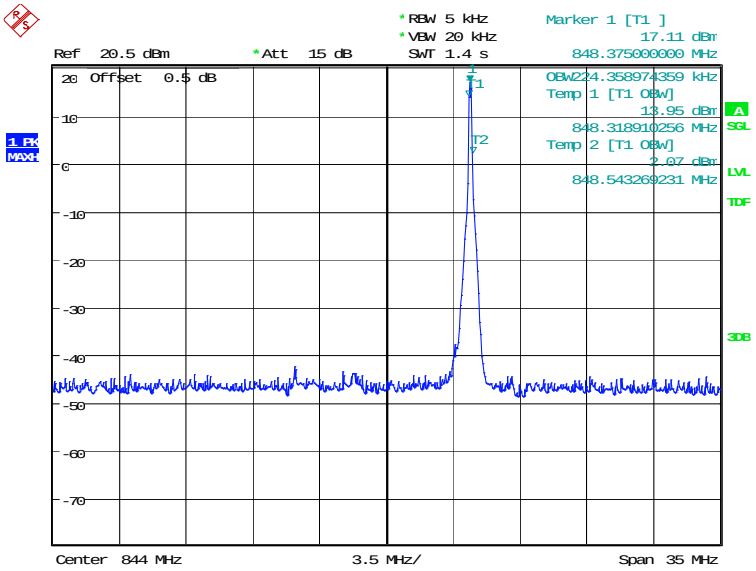
Date: 21.JUN.2022 19:21:40

LOW BAND EDGE BLOCK-1RB-low_offset



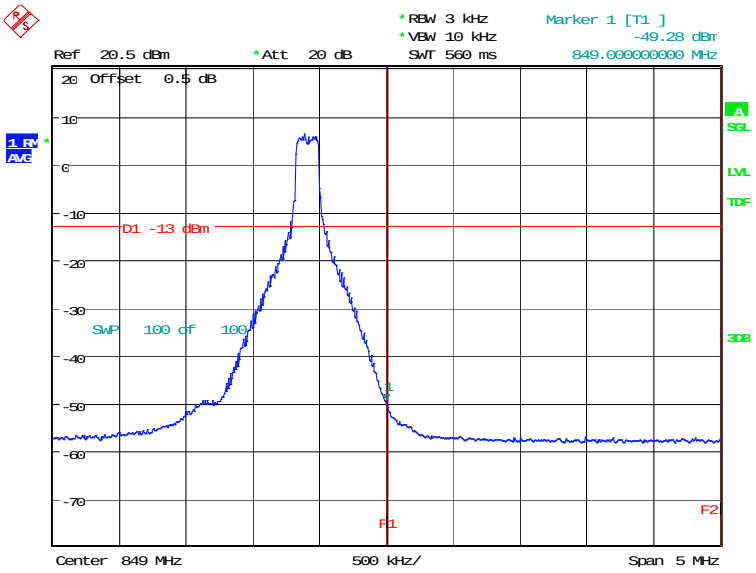
Date: 21.JUN.2022 19:22:54

OBW: 1RB-high_offset



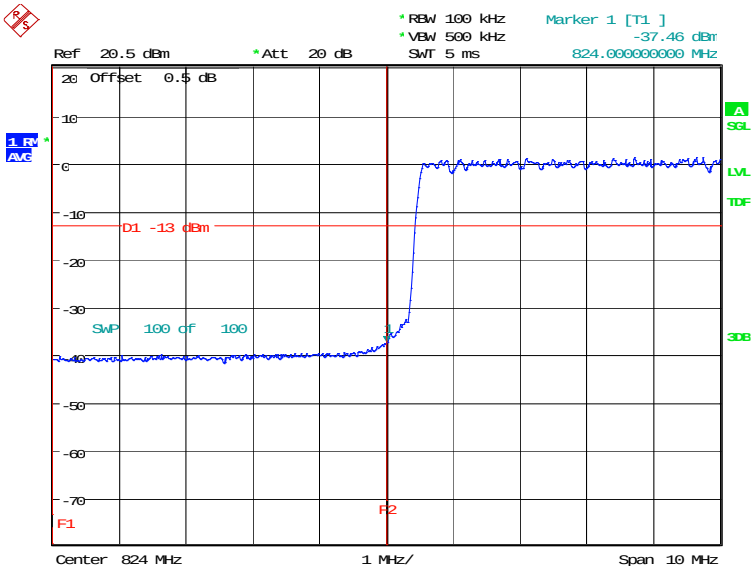
Date: 21.JUN.2022 19:23:29

HIGH BAND EDGE BLOCK-1RB-high_offset



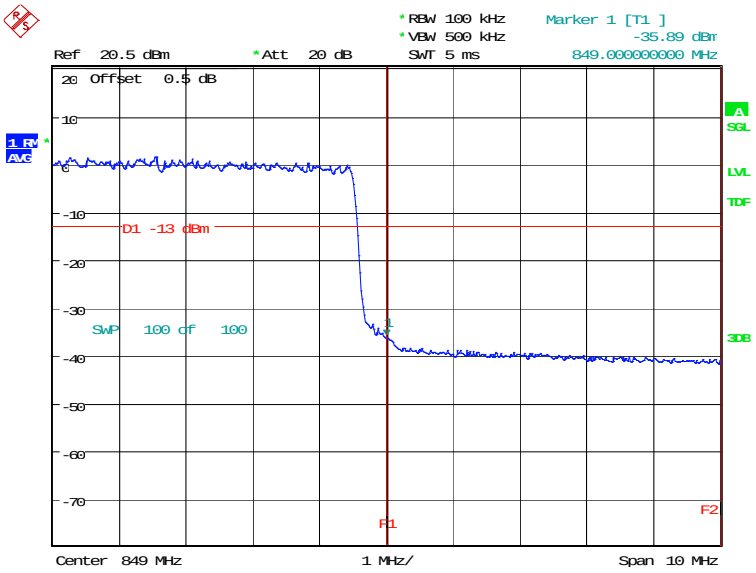
Date: 21.JUN.2022 19:24:43

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 14.MAY.2022 13:20:32

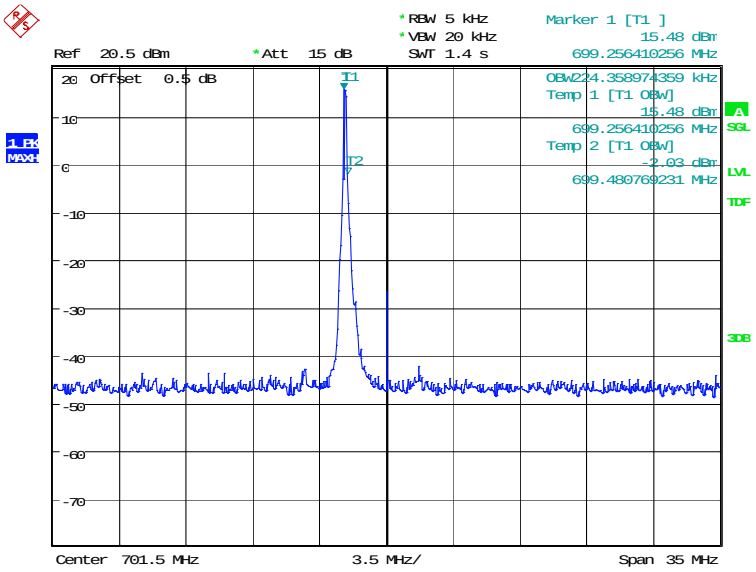
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 14.MAY.2022 13:21:55

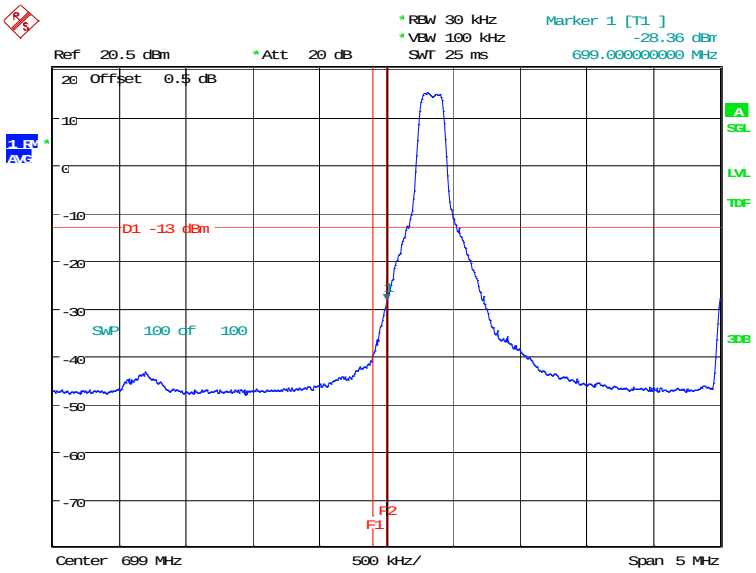
LTE band 12

OBW: 1RB-low_offset



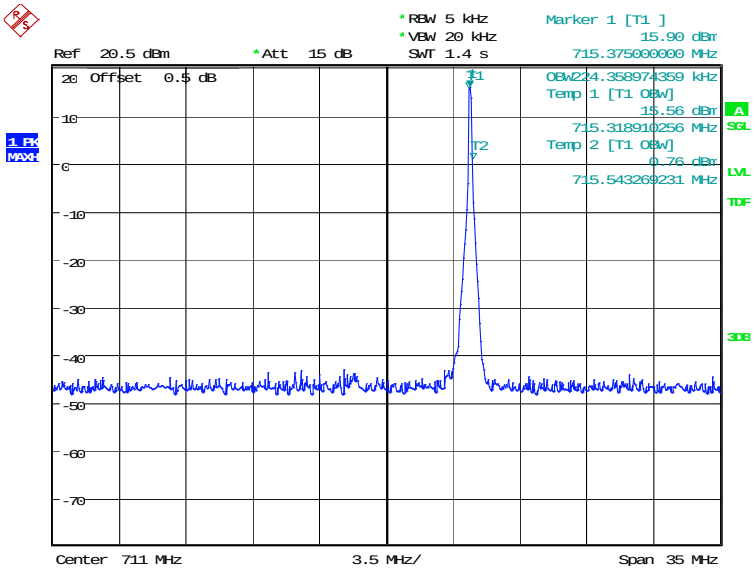
Date: 21.JUN.2022 19:26:27

LOW BAND EDGE BLOCK-1RB-low_offset



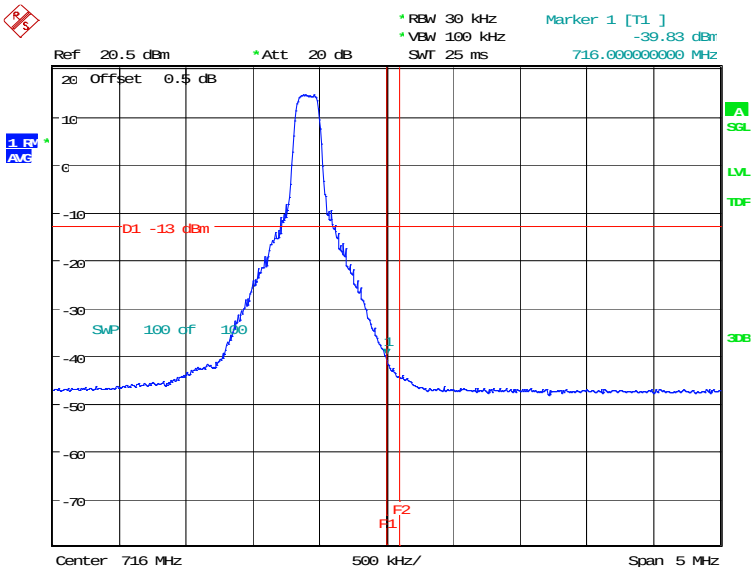
Date: 21.JUN.2022 19:26:46

OBW: 1RB-high_offset



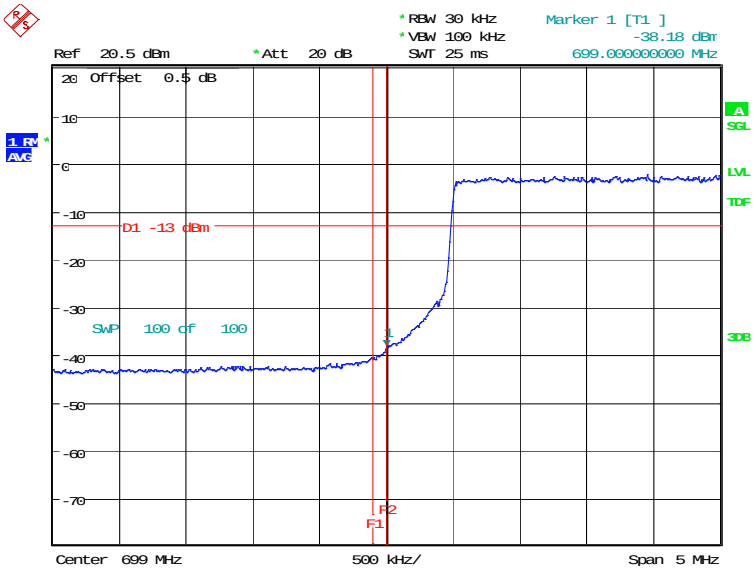
Date: 21.JUN.2022 19:28:23

HIGH BAND EDGE BLOCK-1RB-high_offset



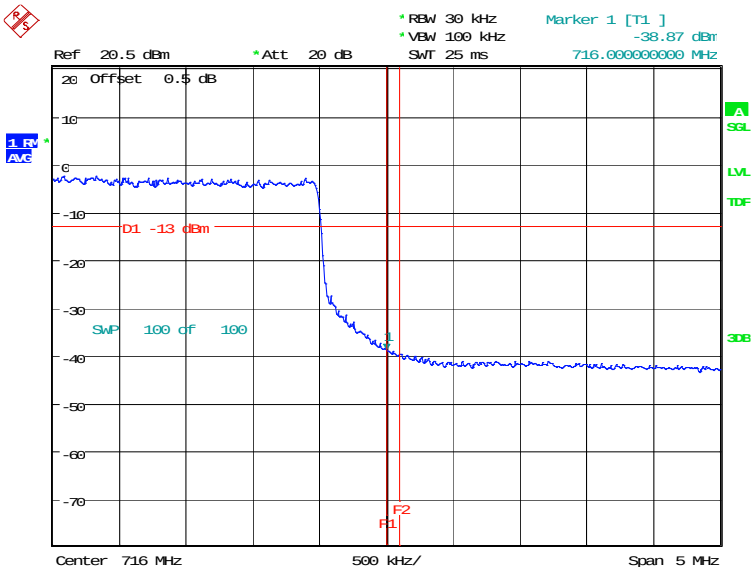
Date: 21.JUN.2022 19:28:42

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 14.MAY.2022 13:23:22

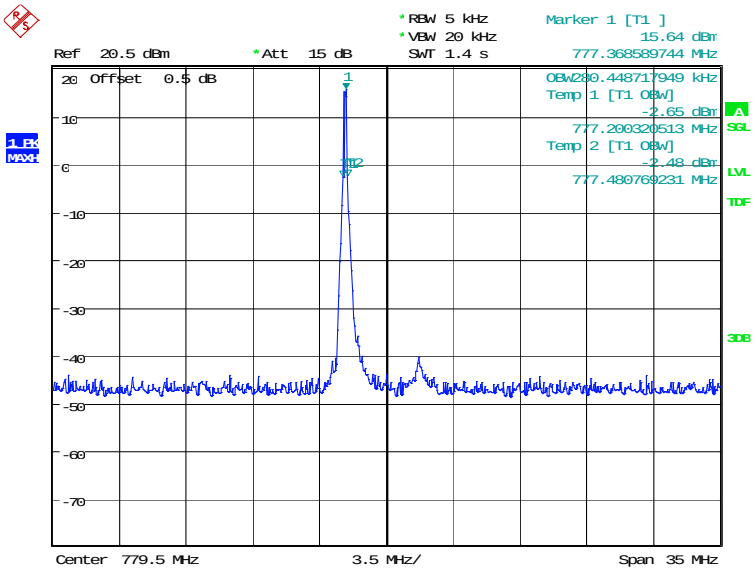
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 14.MAY.2022 13:24:44

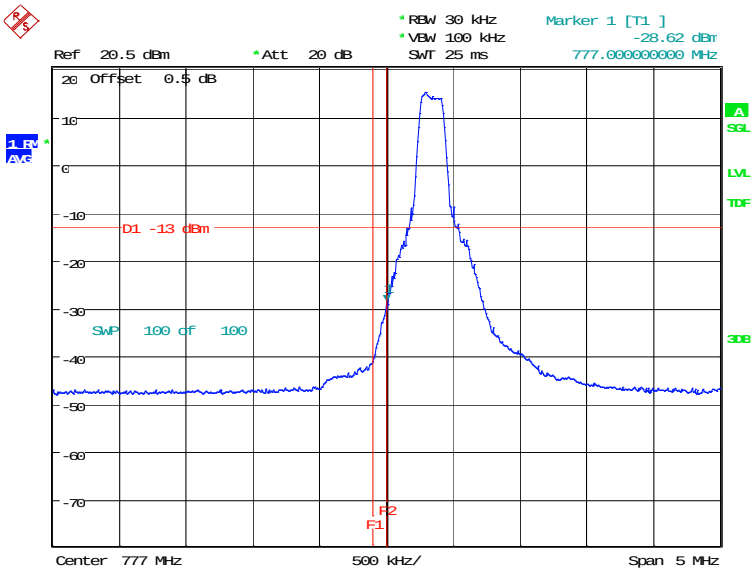
LTE band 13

OBW: 1RB-low_offset

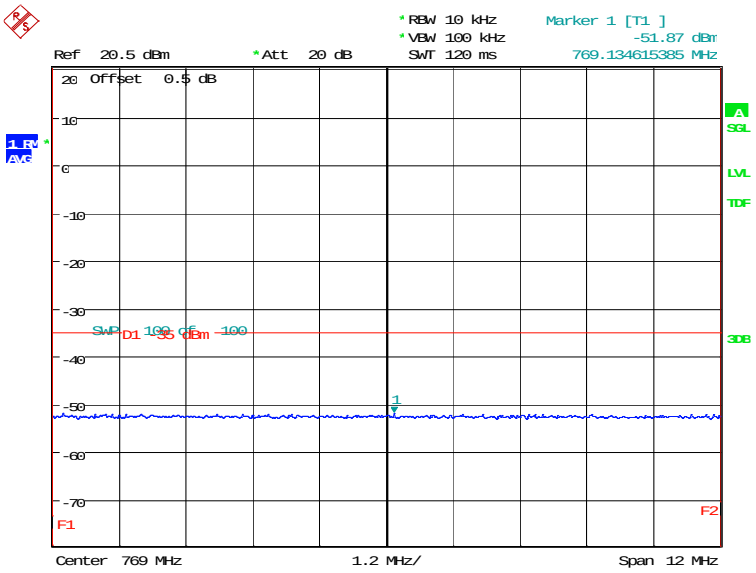


Date: 21.JUN.2022 19:30:05

LOW BAND EDGE BLOCK-1RB-low_offset

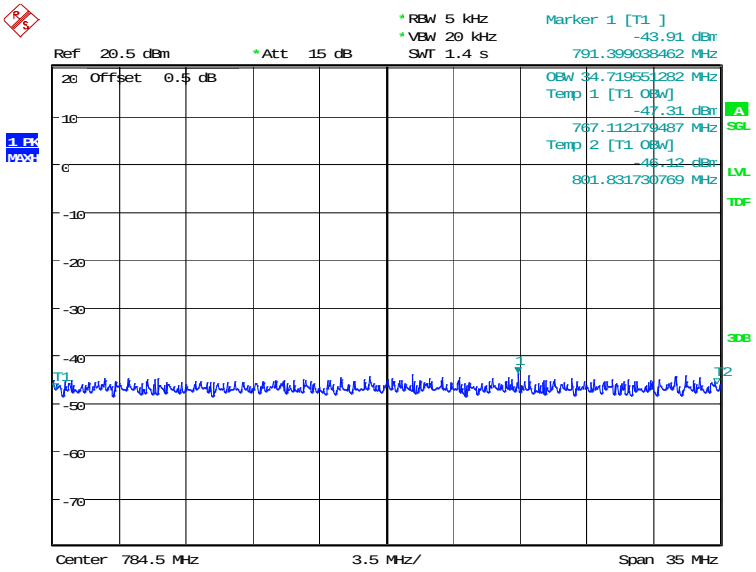


Date: 21.JUN.2022 19:30:24



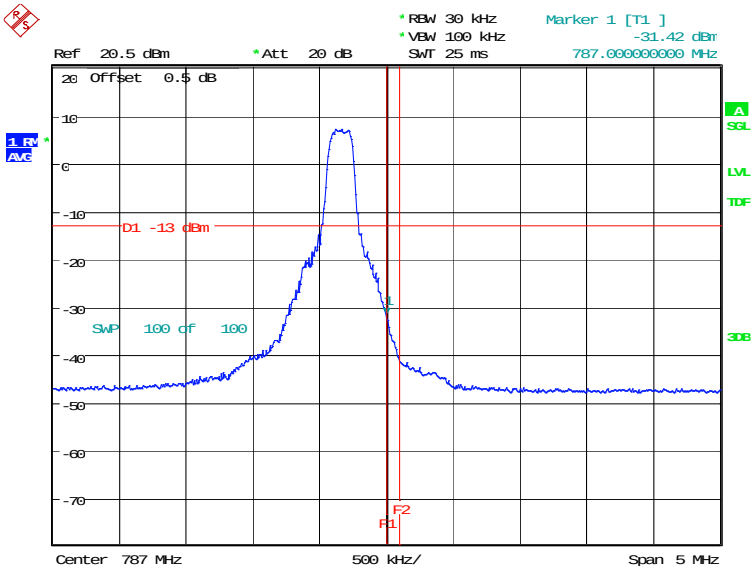
Date: 21.JUN.2022 19:31:02

OBW: 1RB-high_offset

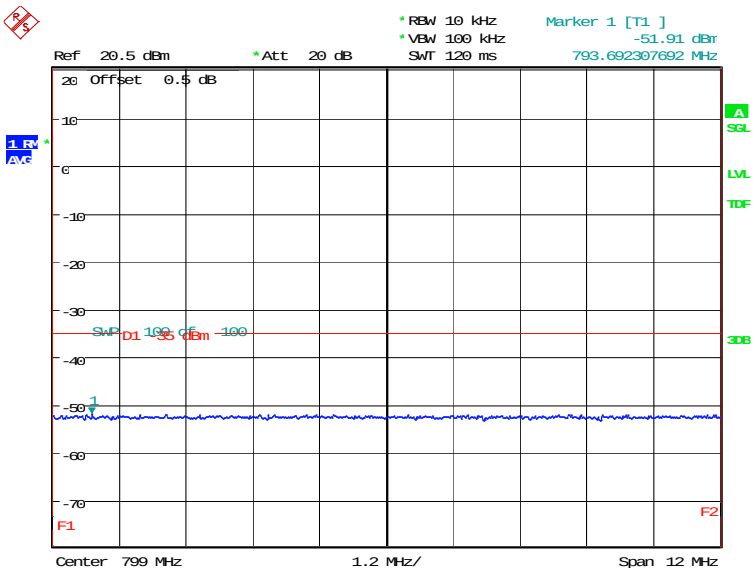


Date: 21.JUN.2022 19:31:39

HIGH BAND EDGE BLOCK-1RB-high_offset

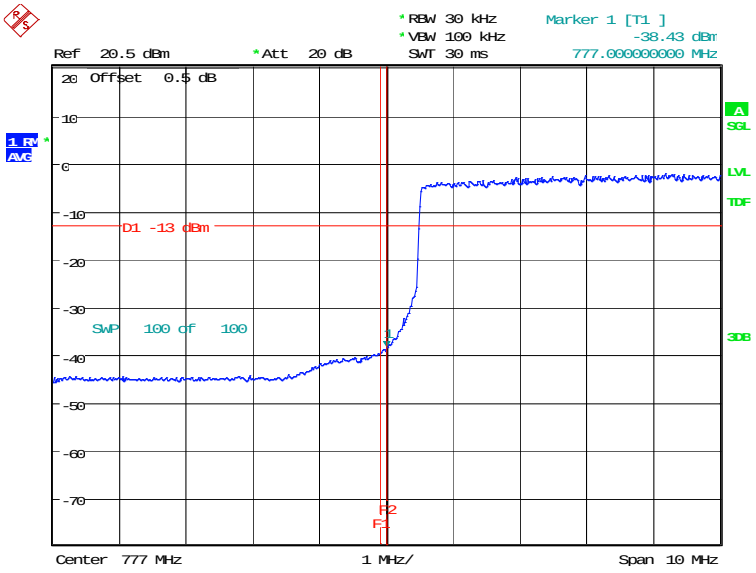


Date: 21.JUN.2022 19:31:57

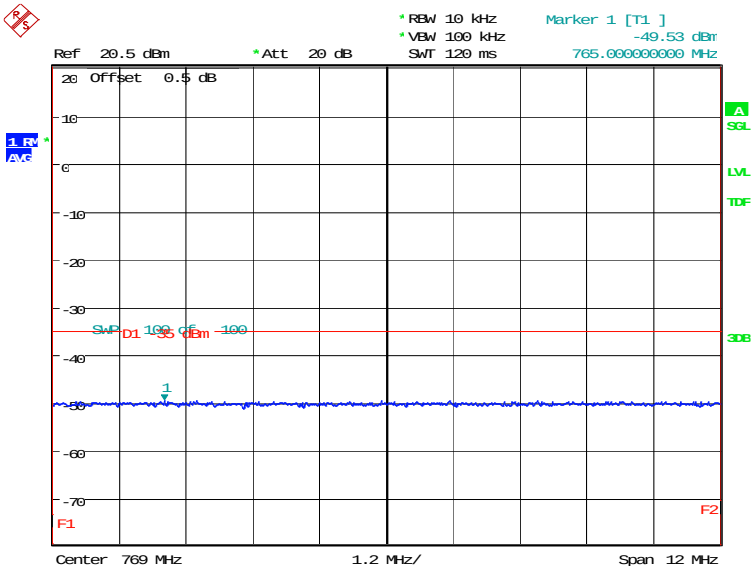


Date: 21.JUN.2022 19:32:36

LOW BAND EDGE BLOCK-10MHz-100%RB

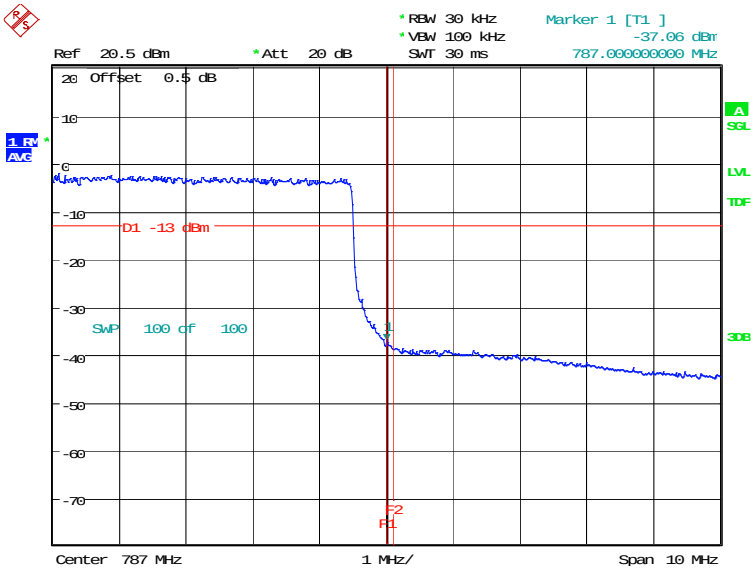


Date: 25.MAY.2022 08:21:45

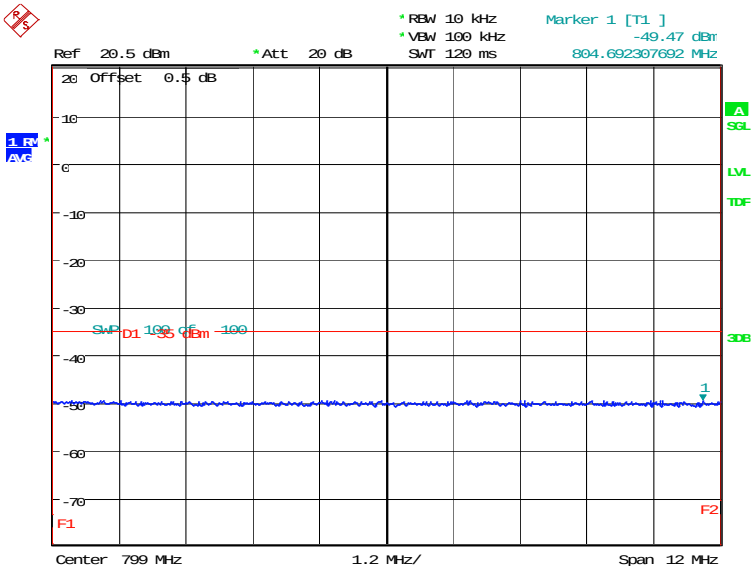


Date: 25.MAY.2022 08:22:12

HIGH BAND EDGE BLOCK-10MHz-100%RB



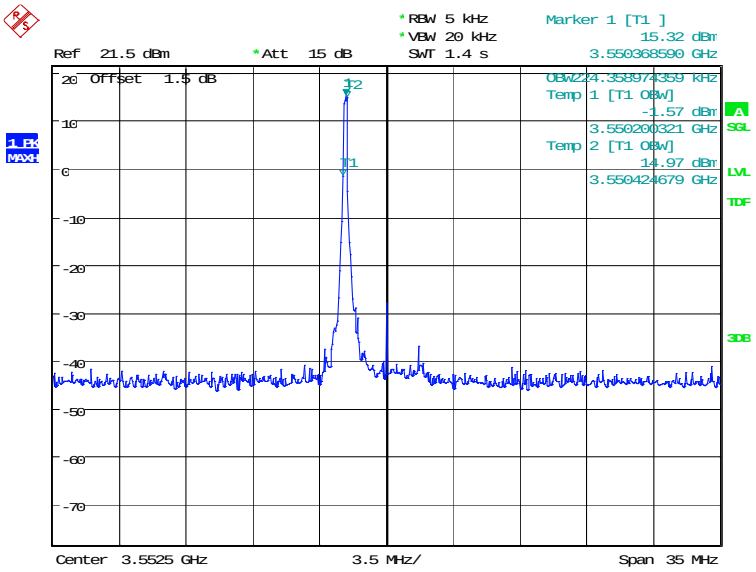
Date: 25.MAY.2022 08:23:41



Date: 25.MAY.2022 08:24:09

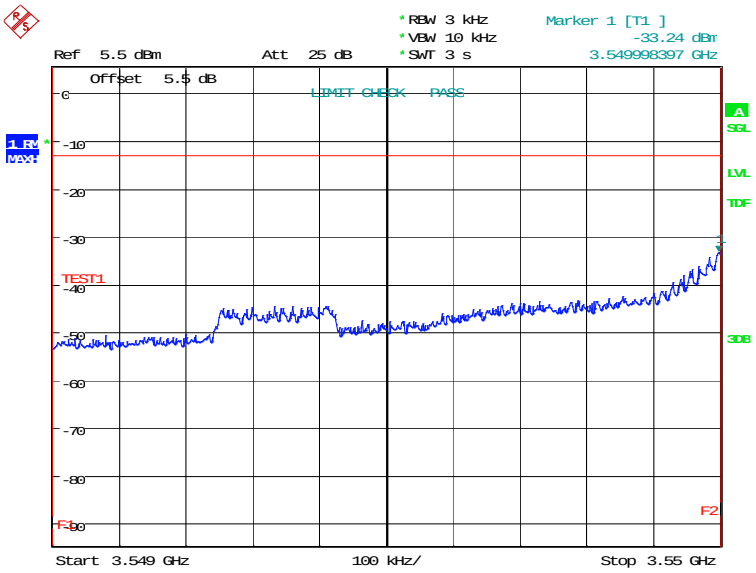
LTE band 48

OBW: 1RB-low_offset

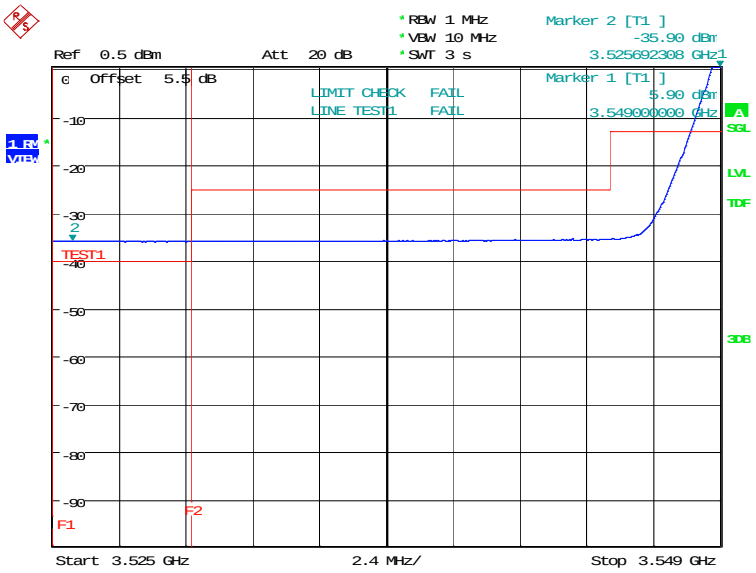


Date: 22.JUN.2022 08:26:08

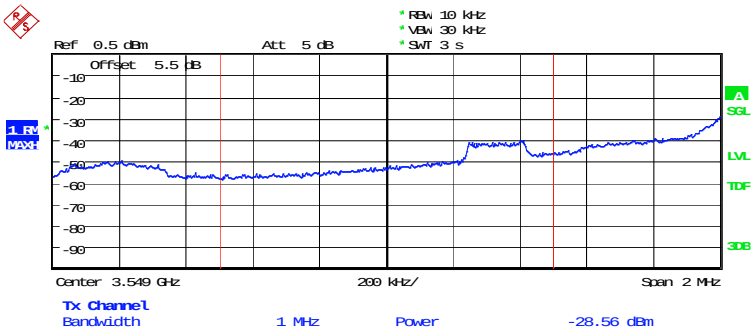
LOW BAND EDGE BLOCK-1RB-low_offset



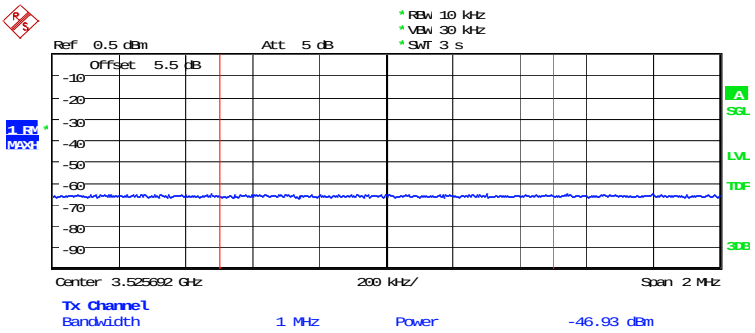
Date: 22.JUN.2022 08:26:48



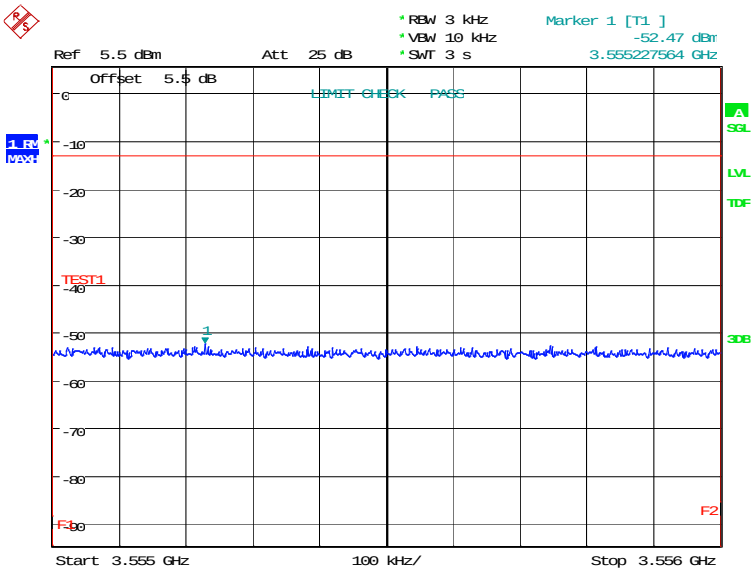
Date: 22.JUN.2022 08:28:15



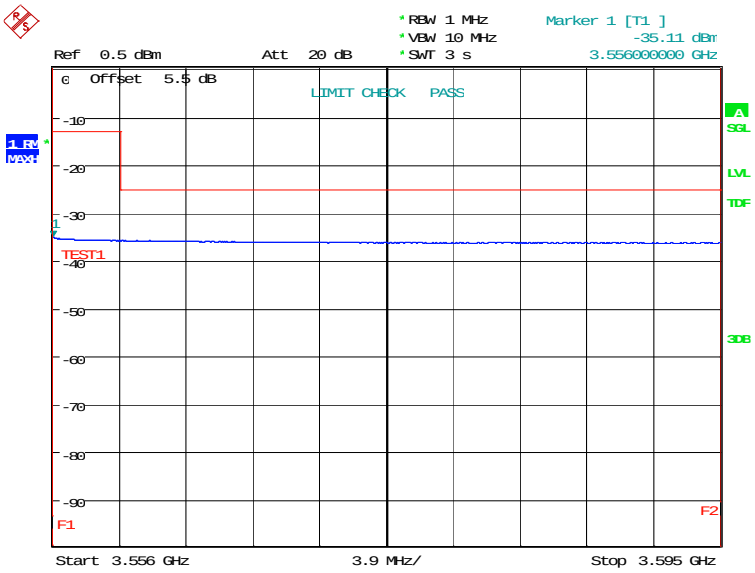
Date: 22.JUN.2022 08:28:32



Date: 22.JUN.2022 08:28:47

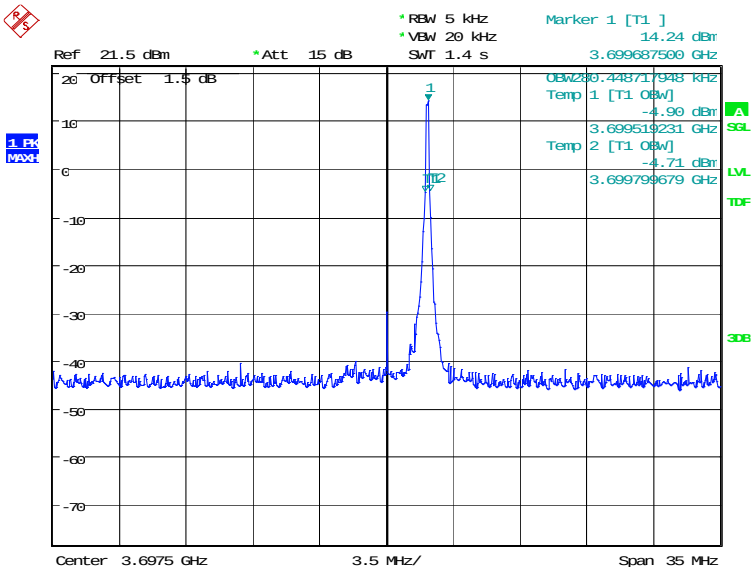


Date: 22.JUN.2022 08:27:29



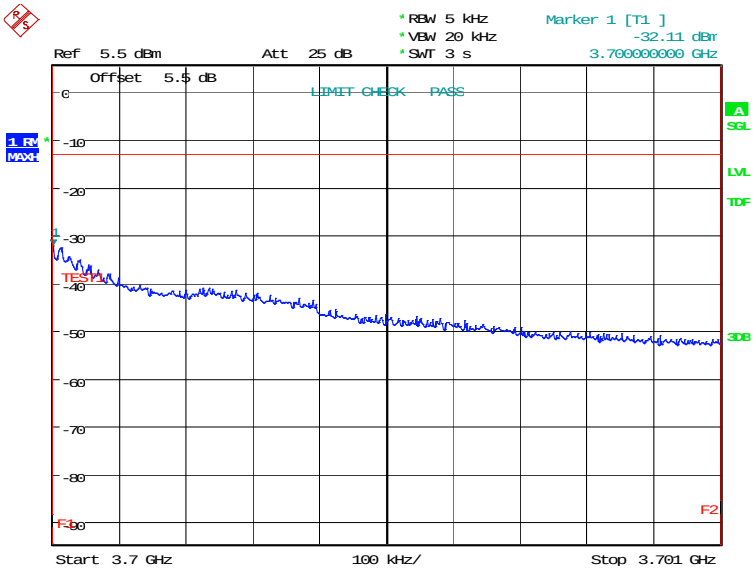
Date: 22.JUN.2022 08:29:25

OBW: 1RB-high_offset

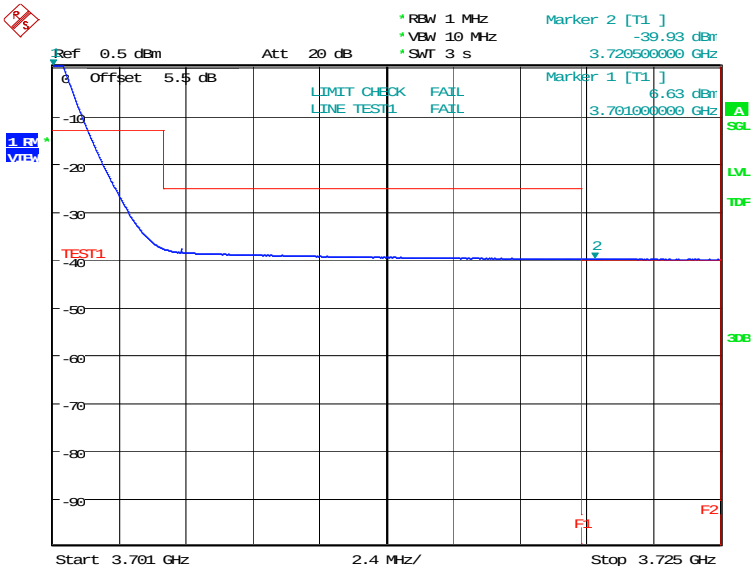


Date: 22.JUN.2022 08:30:02

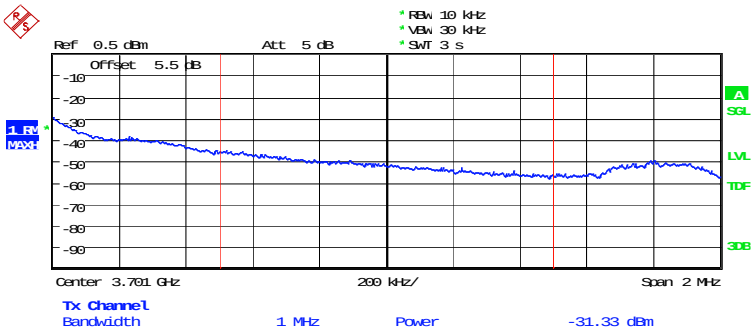
HIGH BAND EDGE BLOCK-1RB-high_offset



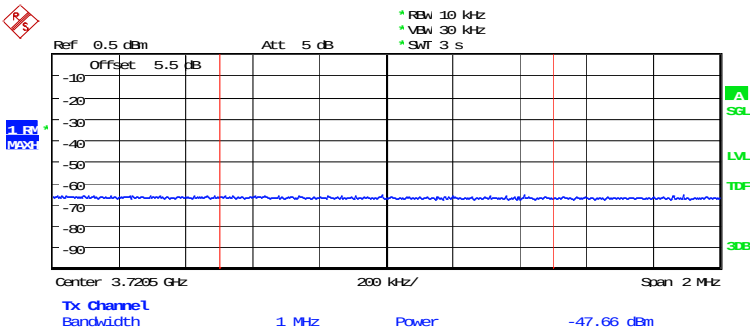
Date: 22.JUN.2022 08:30:42



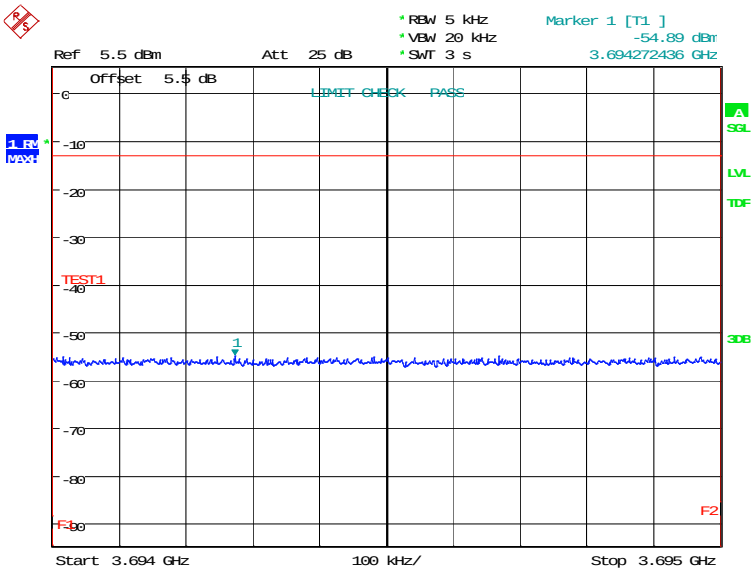
Date: 22.JUN.2022 08:32:09



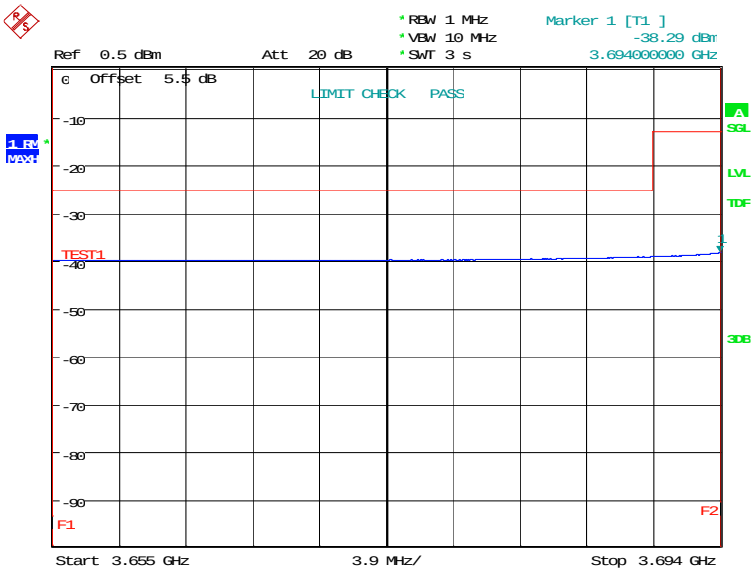
Date: 22.JUN.2022 08:32:26



Date: 22.JUN.2022 08:32:41

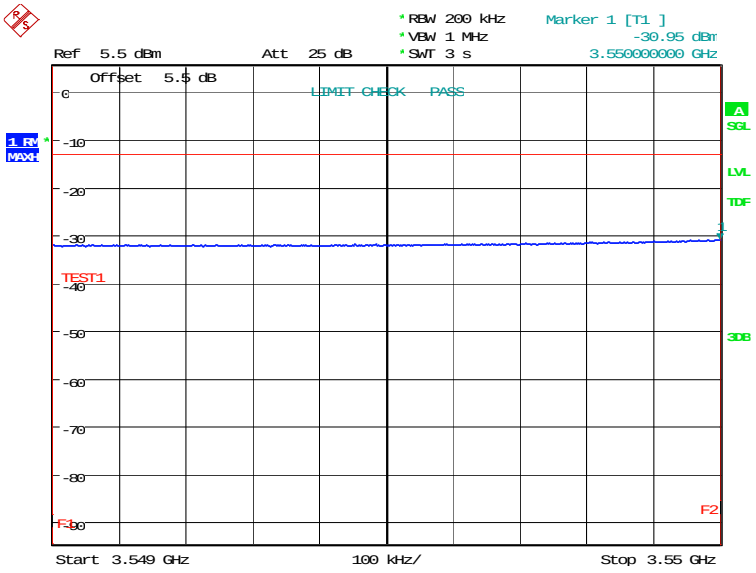


Date: 22.JUN.2022 08:31:23

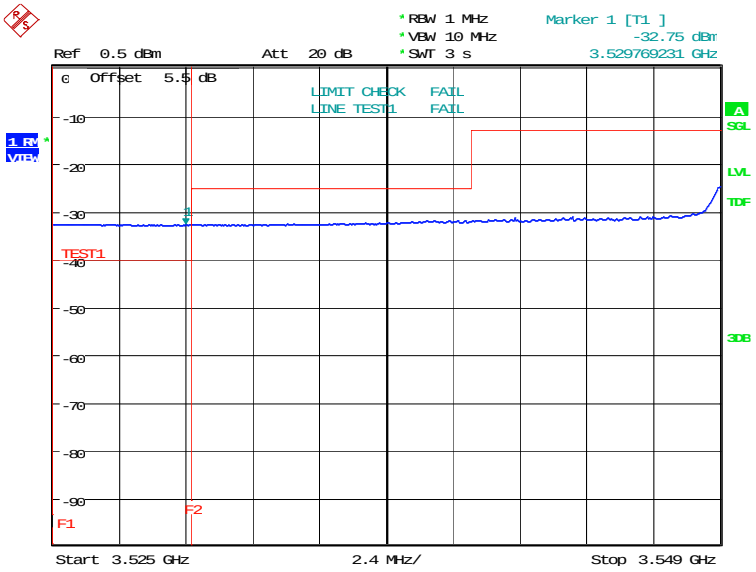


Date: 22.JUN.2022 08:33:19

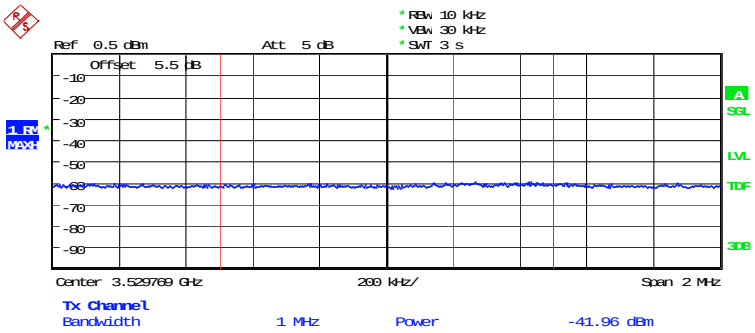
LOW BAND EDGE BLOCK-20MHz-100%RB



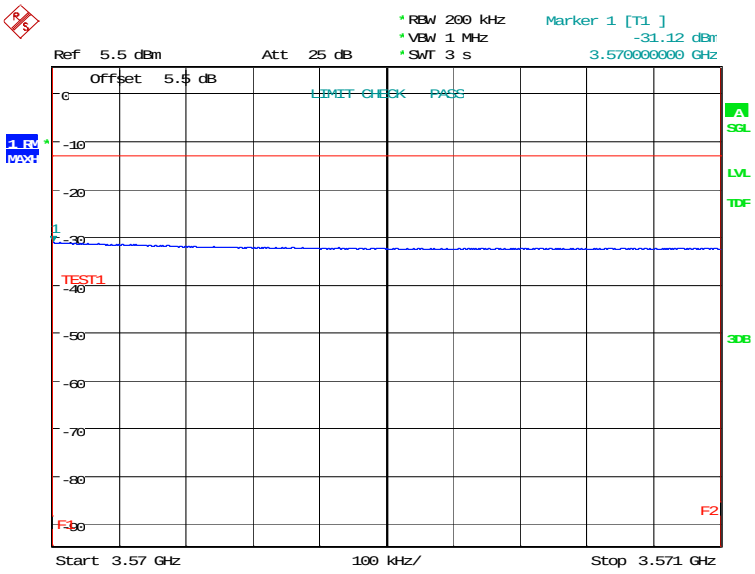
Date: 24.MAY.2022 09:57:34



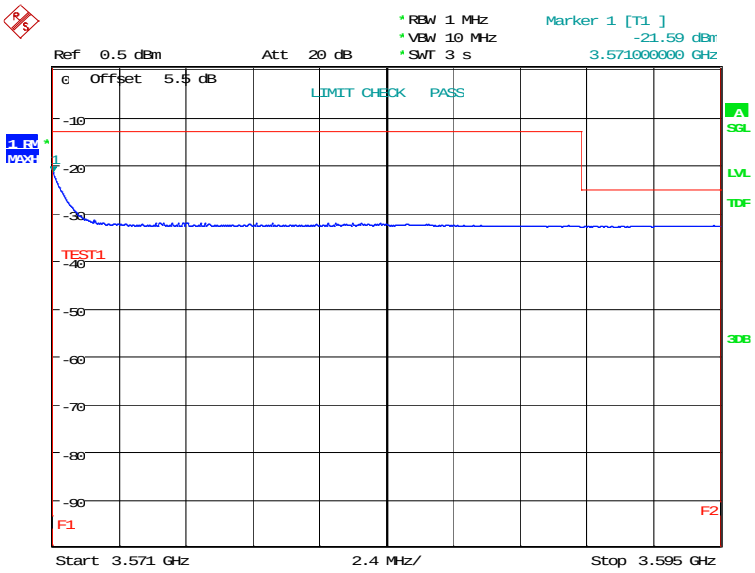
Date: 24.MAY.2022 09:58:59



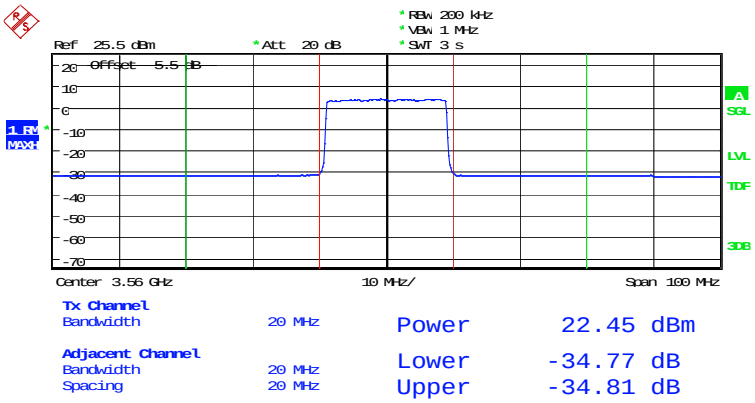
Date: 24.MAY.2022 09:59:16



Date: 24.MAY.2022 09:58:14



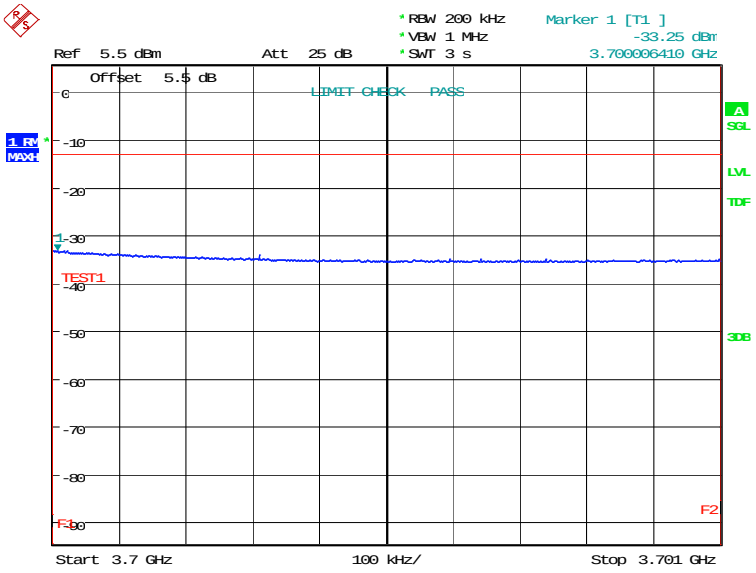
Date: 24.MAY.2022 09:59:54



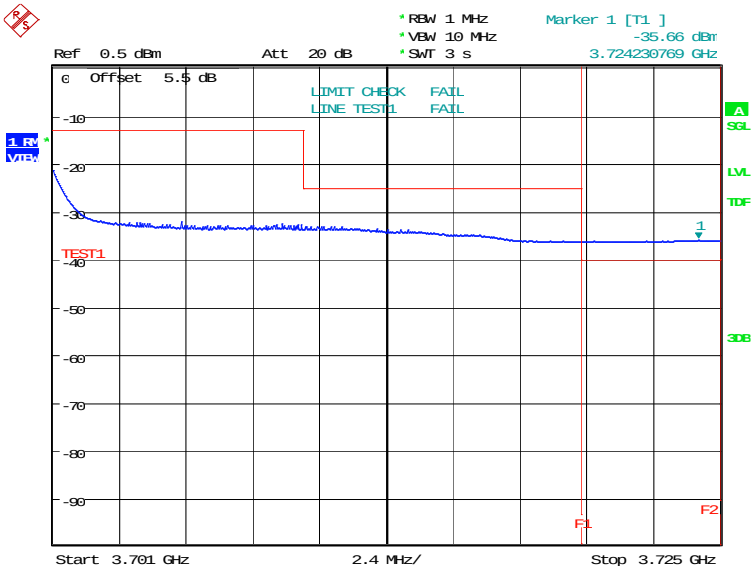
Tx Channel			
Bandwidth	20 MHz	Power	22.45 dBm
Adjacent Channel			
Bandwidth	20 MHz	Lower	-34.77 dB
Spacing	20 MHz	Upper	-34.81 dB

Date: 24.MAY.2022 10:01:10

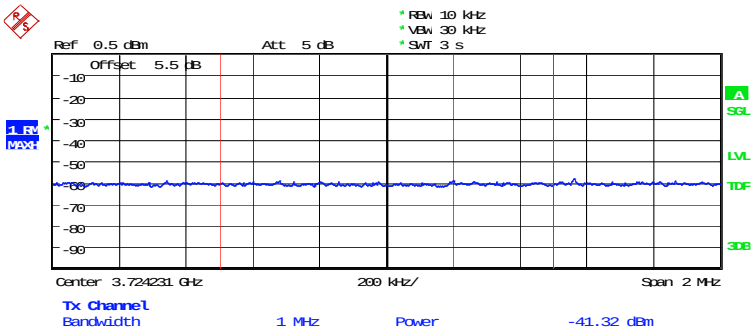
HIGH BAND EDGE BLOCK-20MHz-100%RB



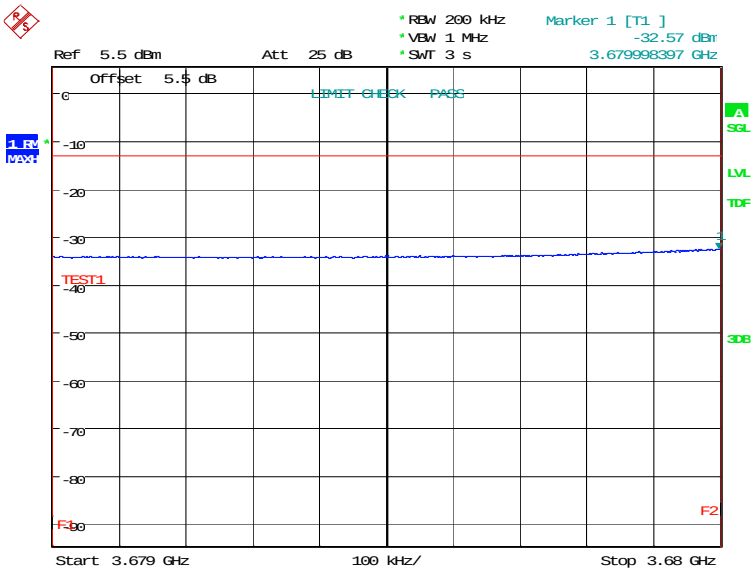
Date: 24.MAY.2022 10:02:05



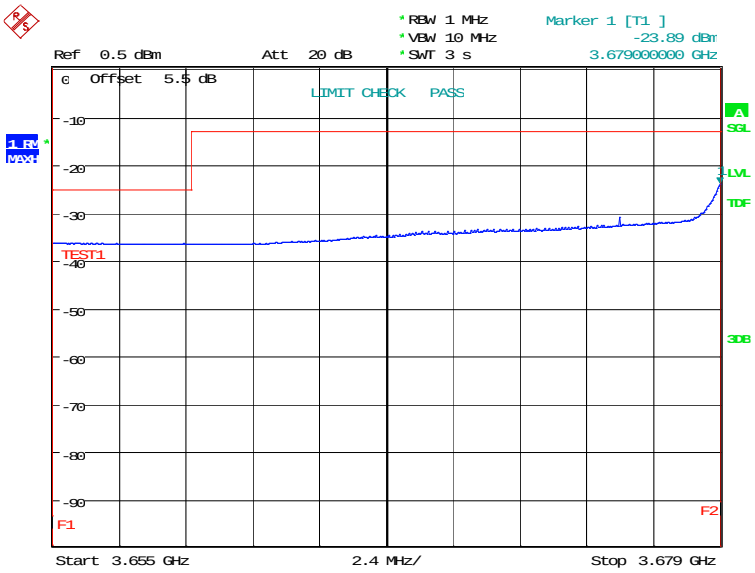
Date: 24.MAY.2022 10:03:30



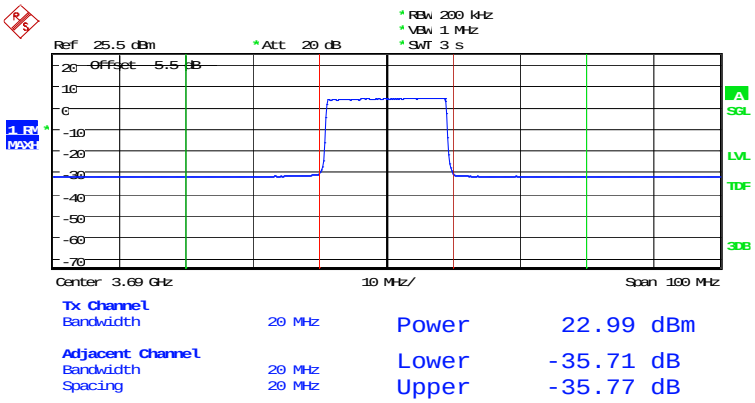
Date: 24.MAY.2022 10:03:47



Date: 24.MAY.2022 10:02:45



Date: 24.MAY.2022 10:04:25

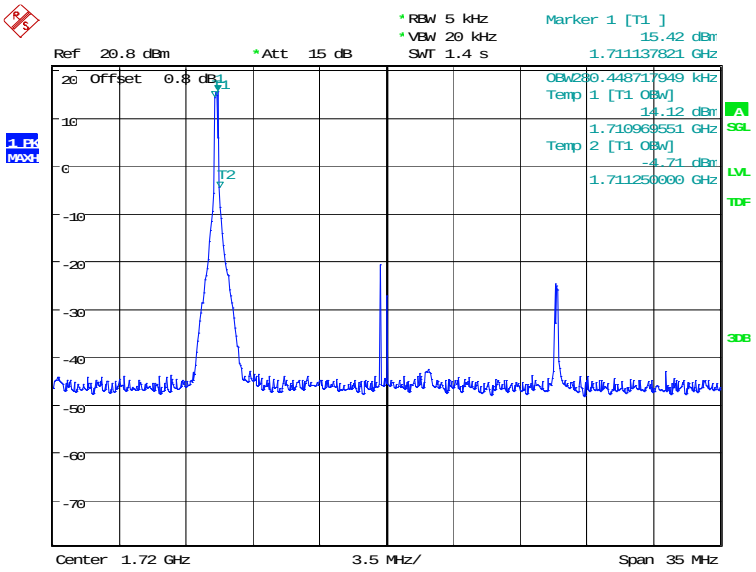


Tx Channel			
Bandwidth	20 MHz	Power	22.99 dBm
Adjacent Channel			
Bandwidth	20 MHz	Lower	-35.71 dB
Spacing	20 MHz	Upper	-35.77 dB

Date: 24.MAY.2022 10:05:41

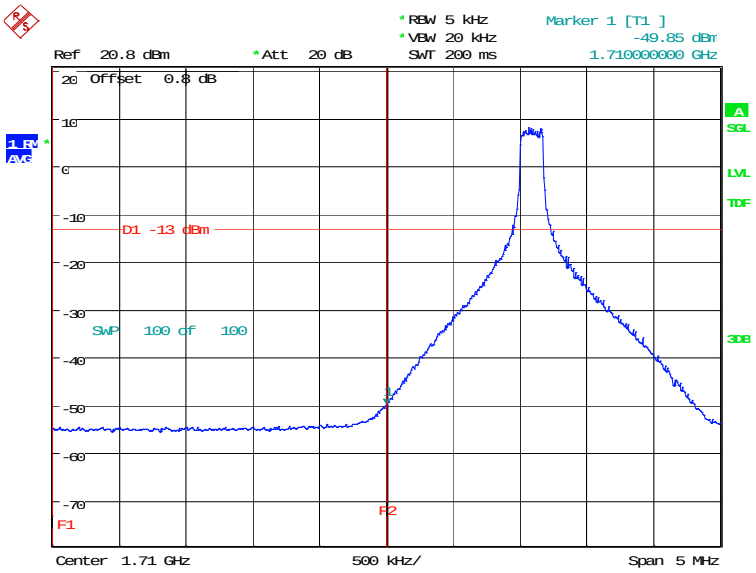
LTE band 66

OBW: 1RB-low_offset



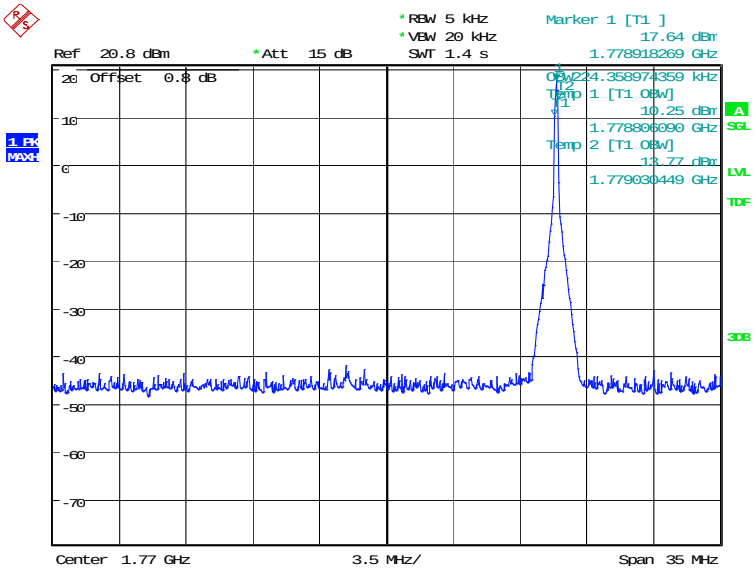
Date: 21.JUN.2022 20:02:36

LOW BAND EDGE BLOCK-1RB-low_offset



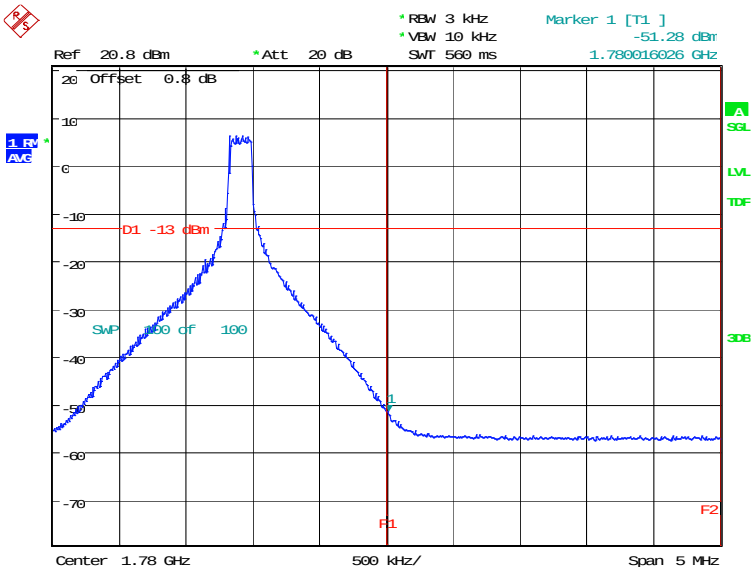
Date: 21.JUN.2022 20:03:49

OBW: 1RB-high_offset



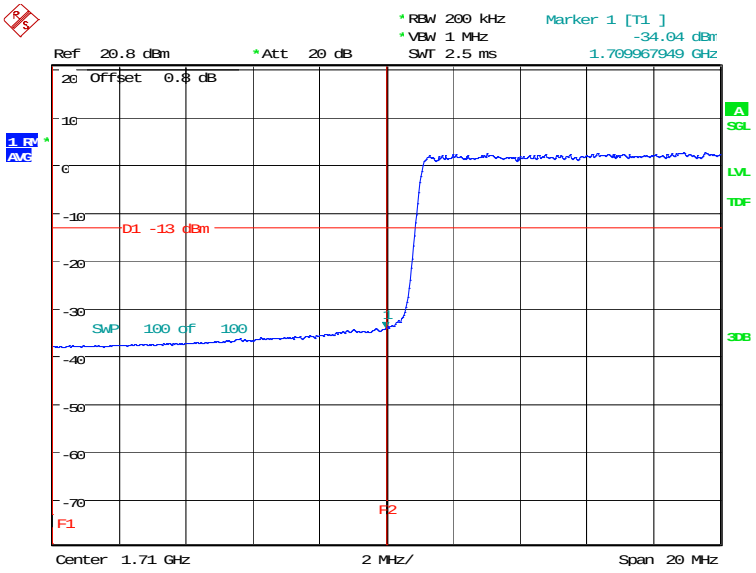
Date: 21.JUN.2022 20:04:25

HIGH BAND EDGE BLOCK-1RB-high_offset



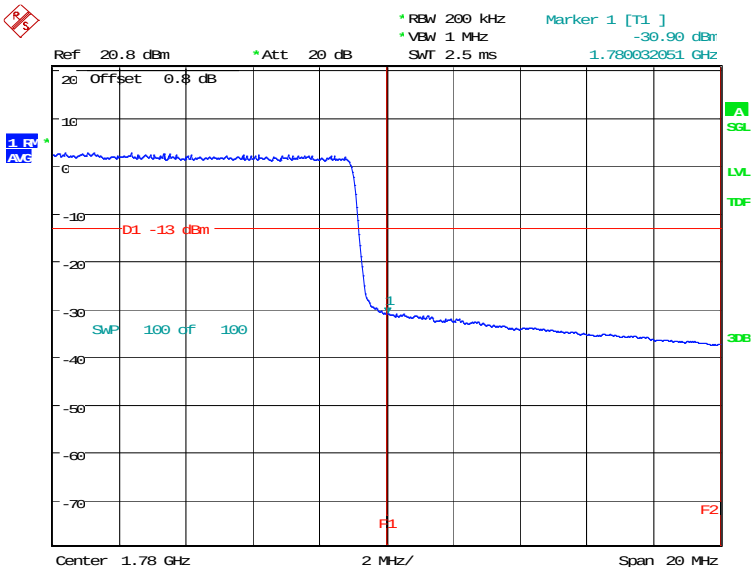
Date: 21.JUN.2022 20:05:39

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 13.MAY.2022 17:33:20

HIGH BAND EDGE BLOCK-20MHz-100%RB

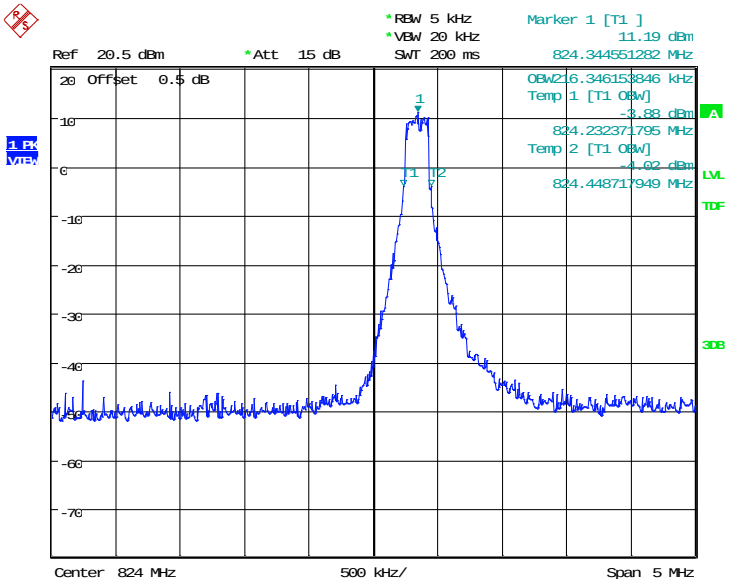


Date: 13.MAY.2022 17:34:45

LTE CA Band 5B

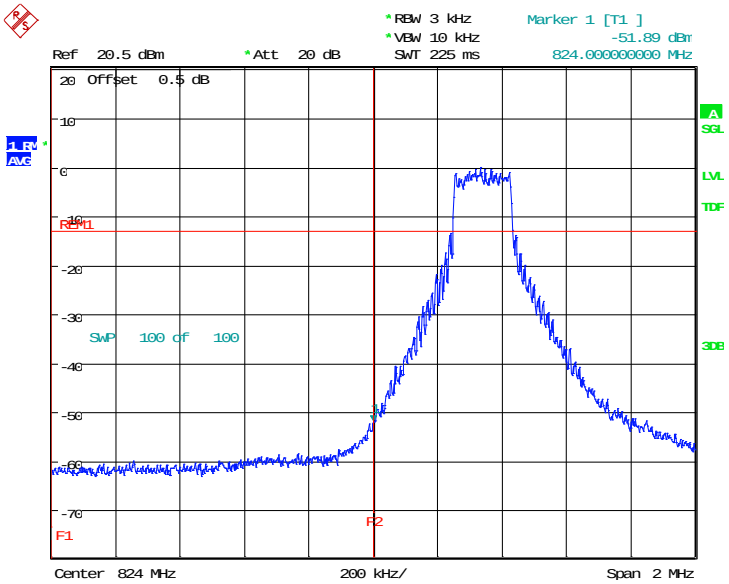
Only the worst case result is given below

OBW: 1RB-low_offset



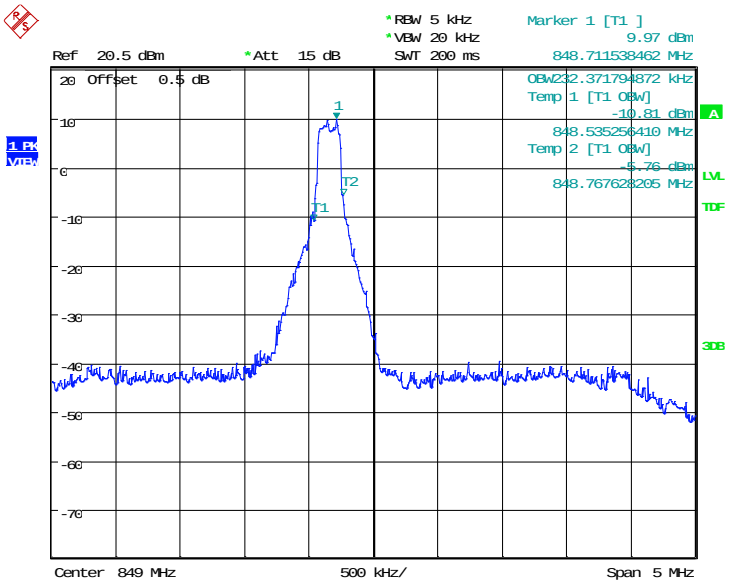
Date: 24.MAY.2022 13:38:57

LOW BAND EDGE BLOCK-3MHz+5MHz-1RB



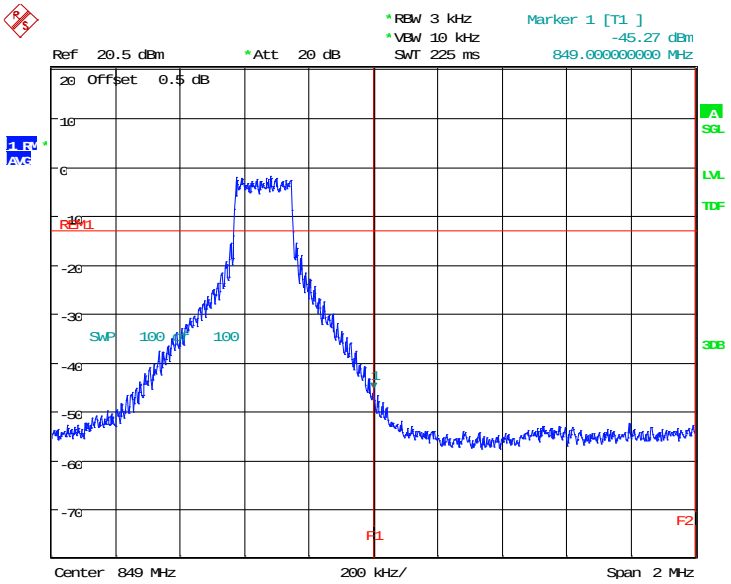
Date: 24.MAY.2022 13:39:59

OBW: 1RB-high_offset



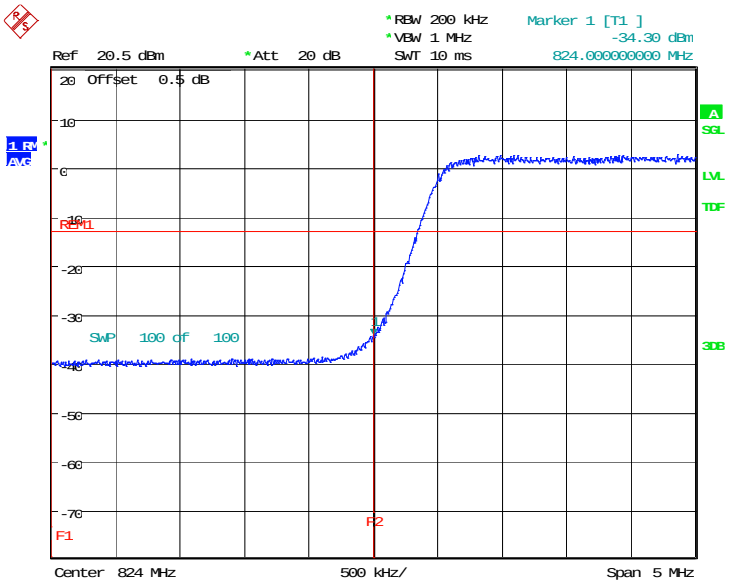
Date: 24.MAY.2022 13:44:34

HIGH BAND EDGE BLOCK-3MHz+5MHz-1RB



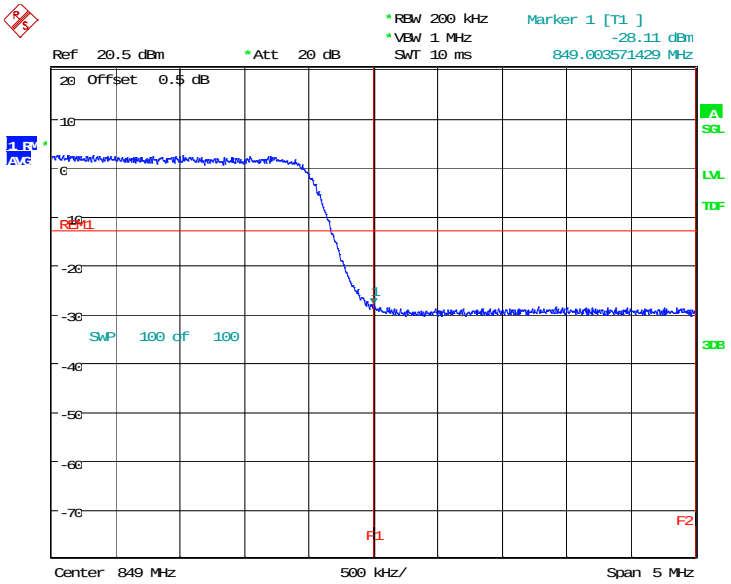
Date: 24.MAY.2022 13:45:36

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



Date: 14.MAY.2022 21:50:46

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

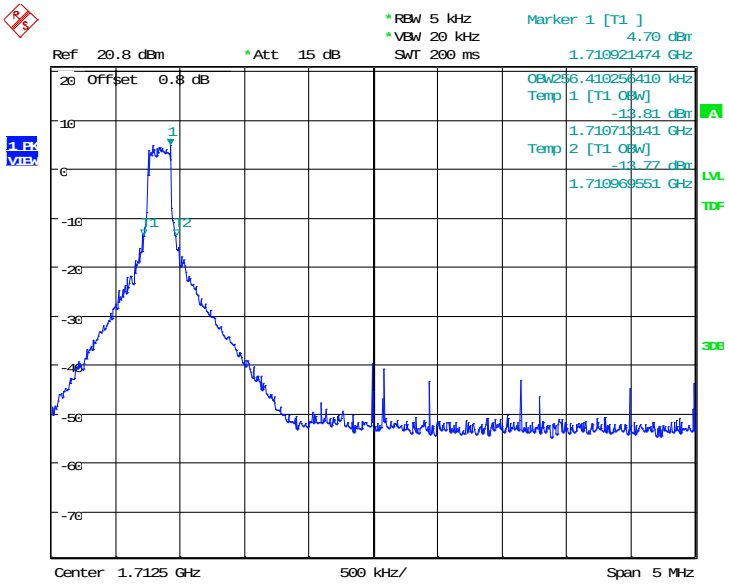


Date: 14.MAY.2022 21:52:11

LTE CA Band 66B

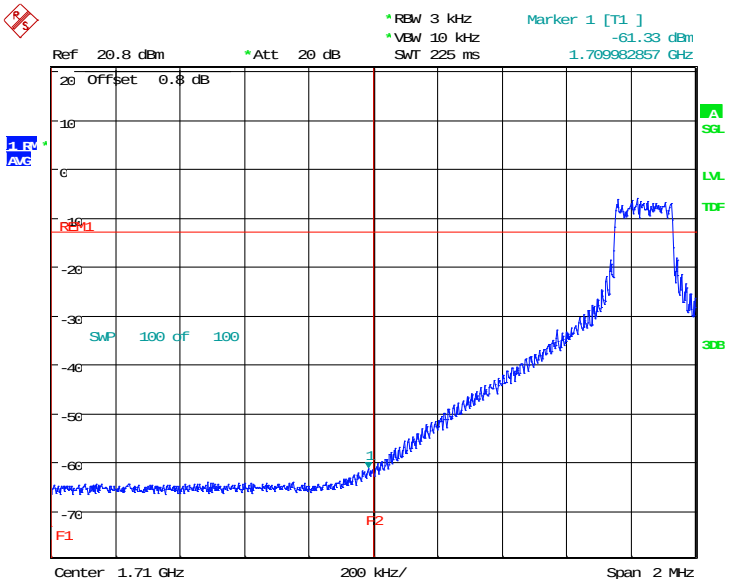
Only the worst case result is given below

OBW: 1RB-low_offset



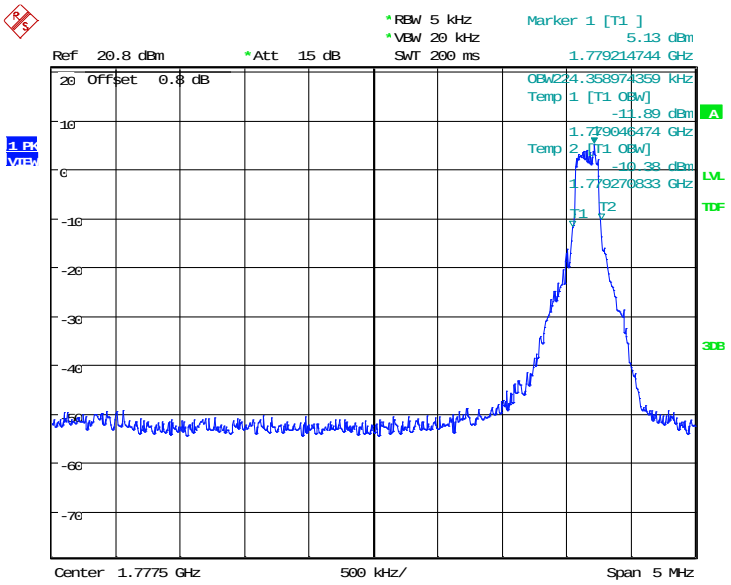
Date: 24.MAY.2022 13:50:17

LOW BAND EDGE BLOCK-15MHz+5MHz-1RB



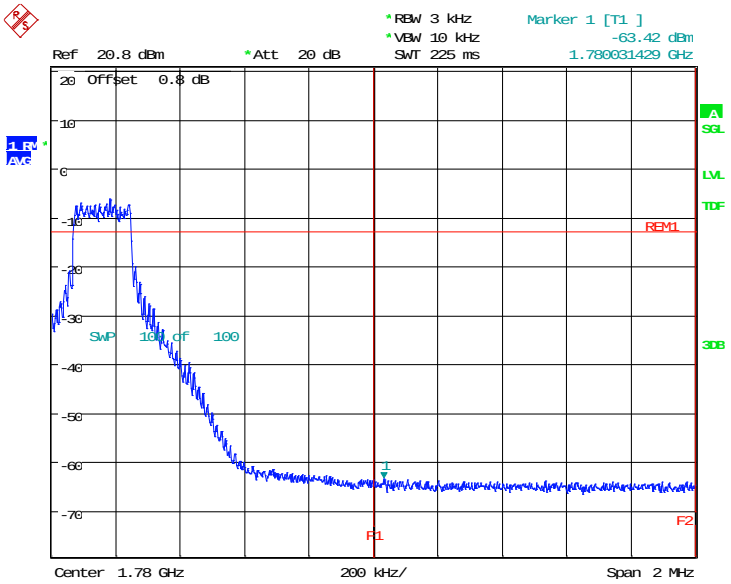
Date: 24.MAY.2022 13:51:21

OBW: 1RB-high_offset



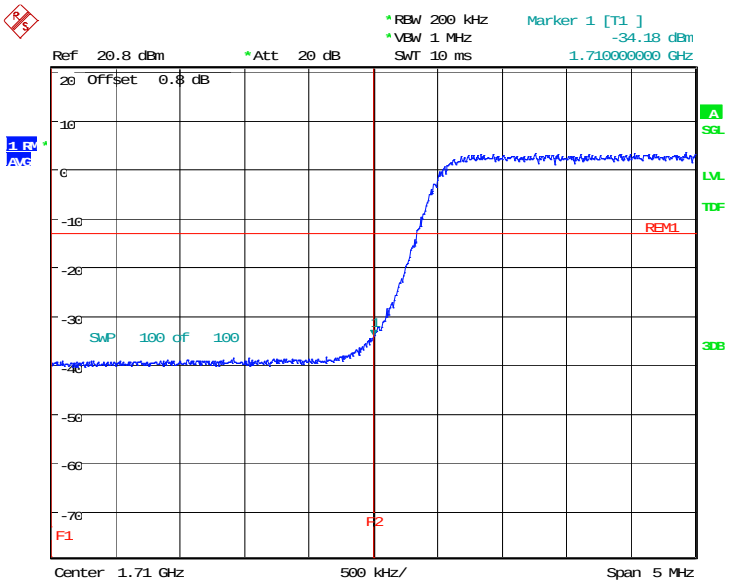
Date: 24.MAY.2022 13:52:22

HIGH BAND EDGE BLOCK-15MHz+5MHz-1RB



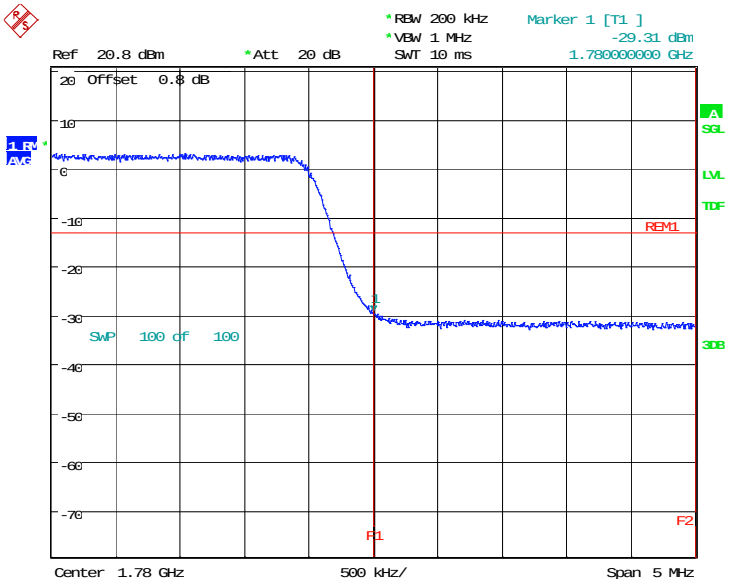
Date: 24.MAY.2022 13:53:25

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



Date: 17.MAY.2022 09:27:46

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

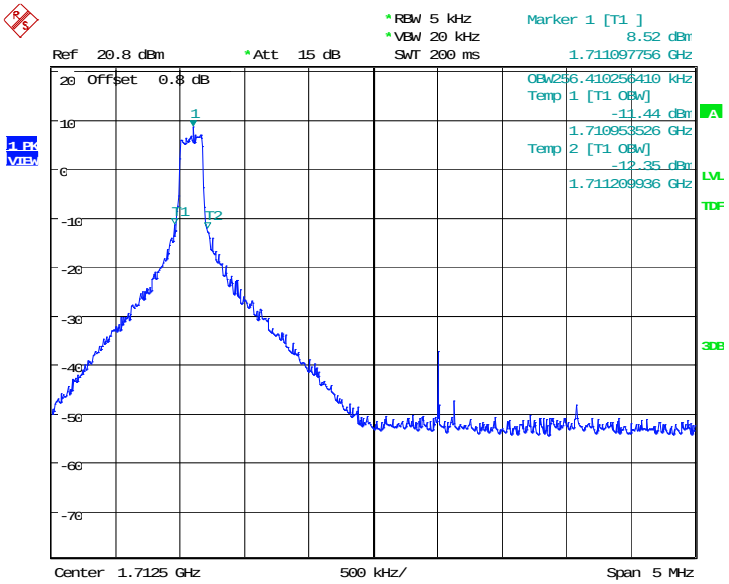


Date: 17.MAY.2022 09:29:11

LTE CA Band 66C

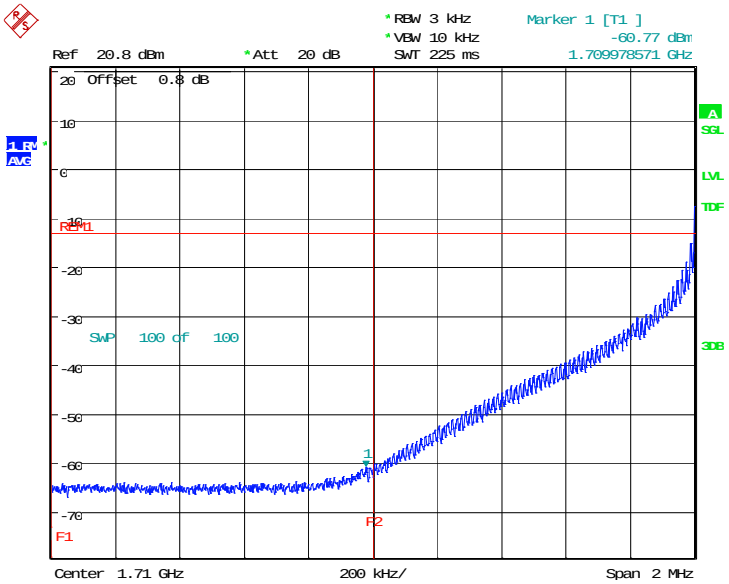
Only the worst case result is given below

OBW: 1RB-low_offset



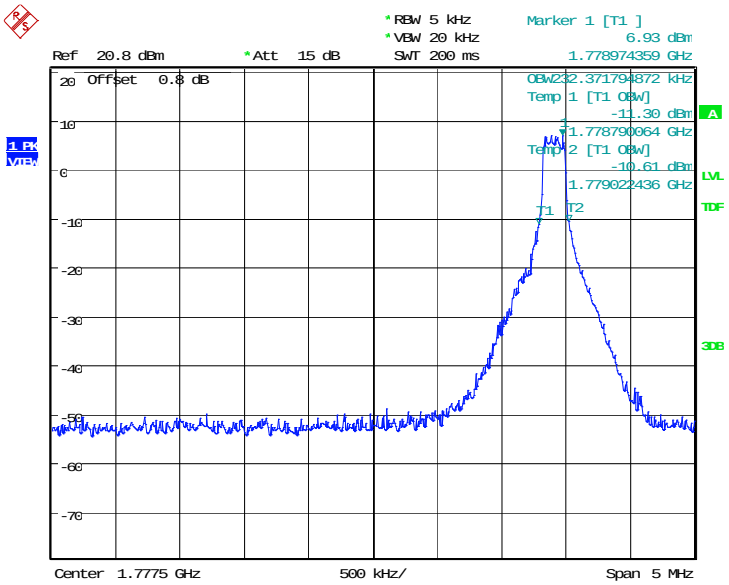
Date: 3.JUN.2022 16:58:43

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



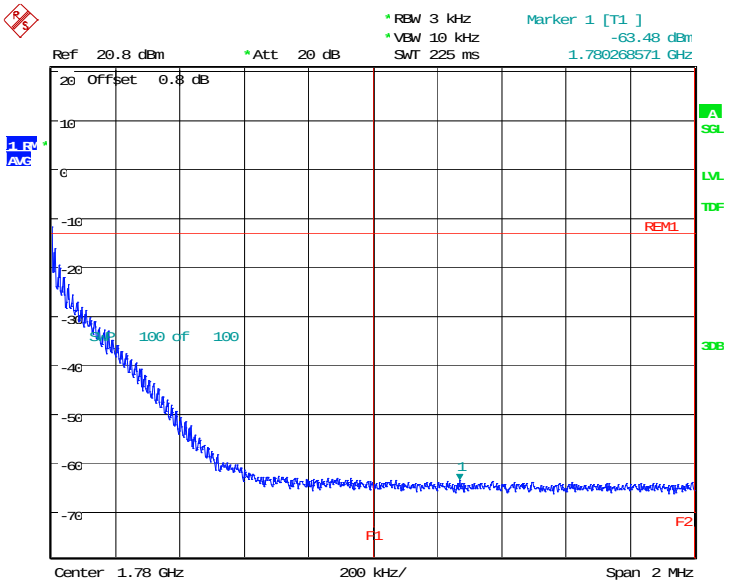
Date: 3.JUN.2022 16:59:46

OBW: 1RB-high_offset



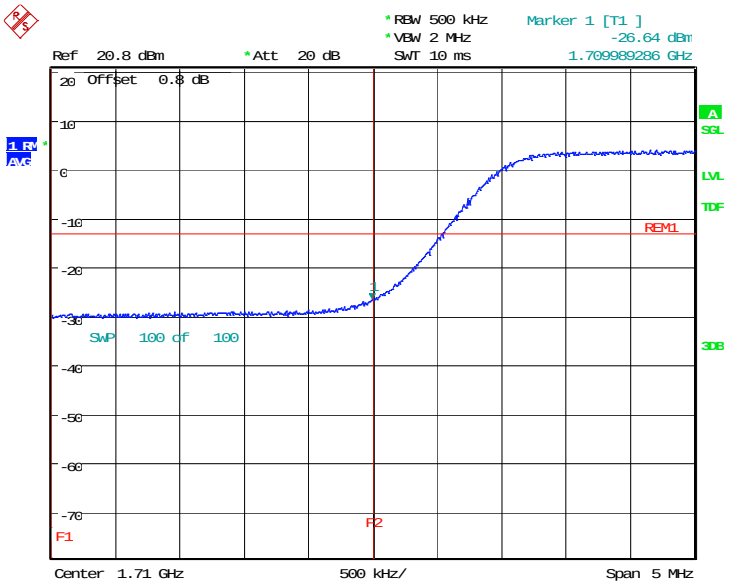
Date: 3.JUN.2022 17:00:47

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



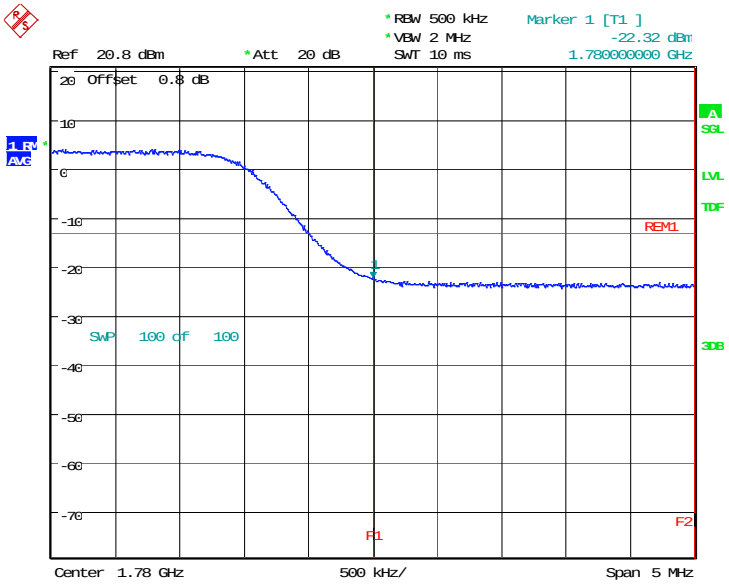
Date: 3.JUN.2022 17:01:50

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



Date: 14.MAY.2022 20:16:40

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



Date: 14.MAY.2022 20:18:02

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 greater than 2×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(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 27.53(f) states for operations in the 746–758 MHz,775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to -70dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals.

Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a 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, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee’s frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 96.41(e) states for channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed −13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater

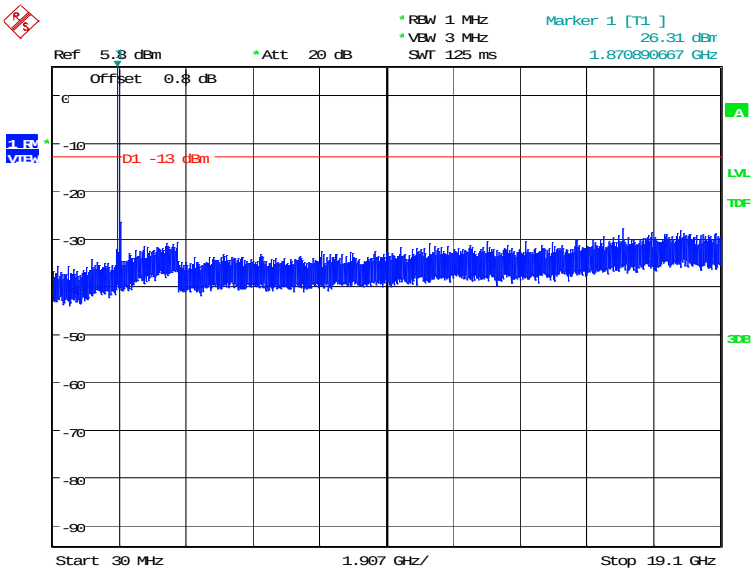
than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed −25 dBm/MHz.

A. 7.3 Measurement result

Only the worst case result is given below

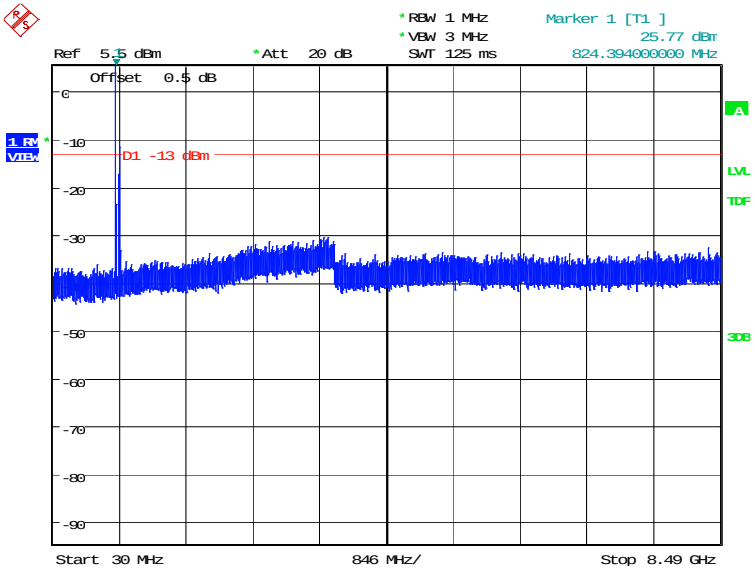
LTE band 2: 30MHz – 19.1GHz

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



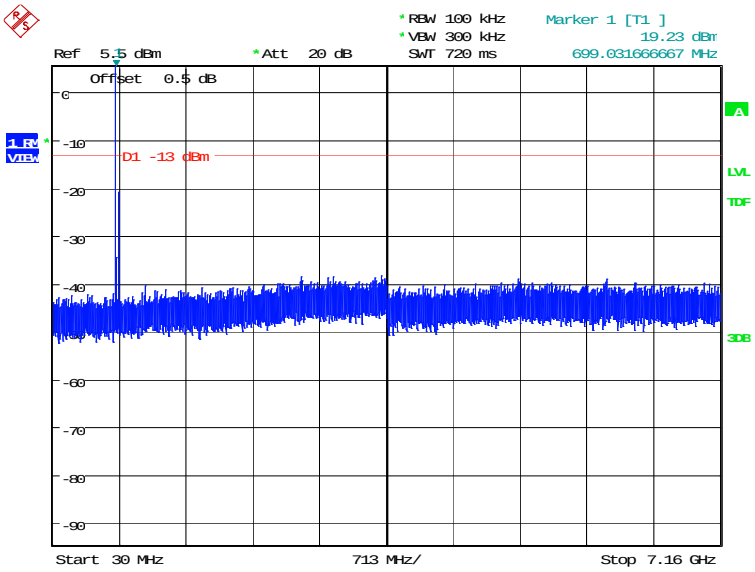
LTE band 5: 30MHz – 8.49GHz

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



LTE band 12: 30MHz – 7.16GHz

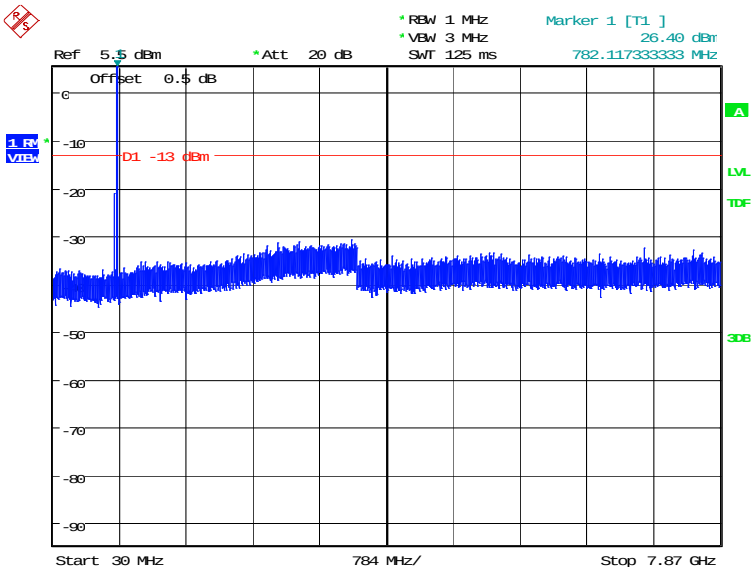
NOTE: peak above the limit line is the carrier frequency.



Date: 21.JUN.2022 19:35:23

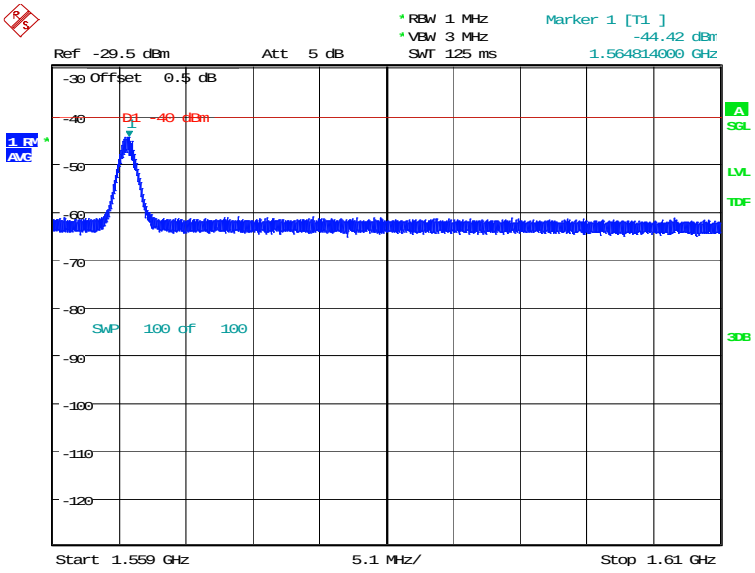
LTE band 13: 30MHz – 7.87GHz

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



Date: 22.JUN.2022 16:05:42

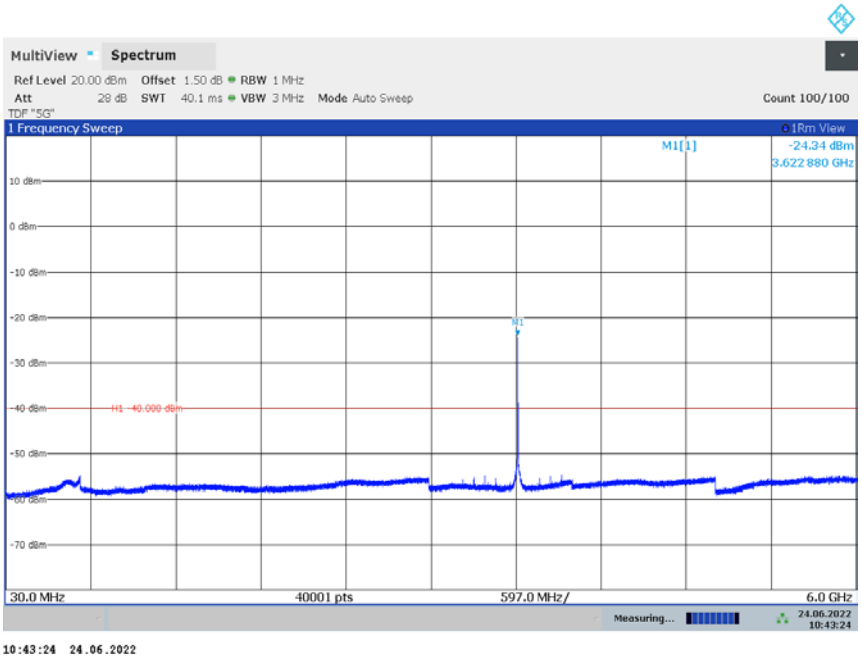
LTE band 13: 1559MHz – 1610MHz



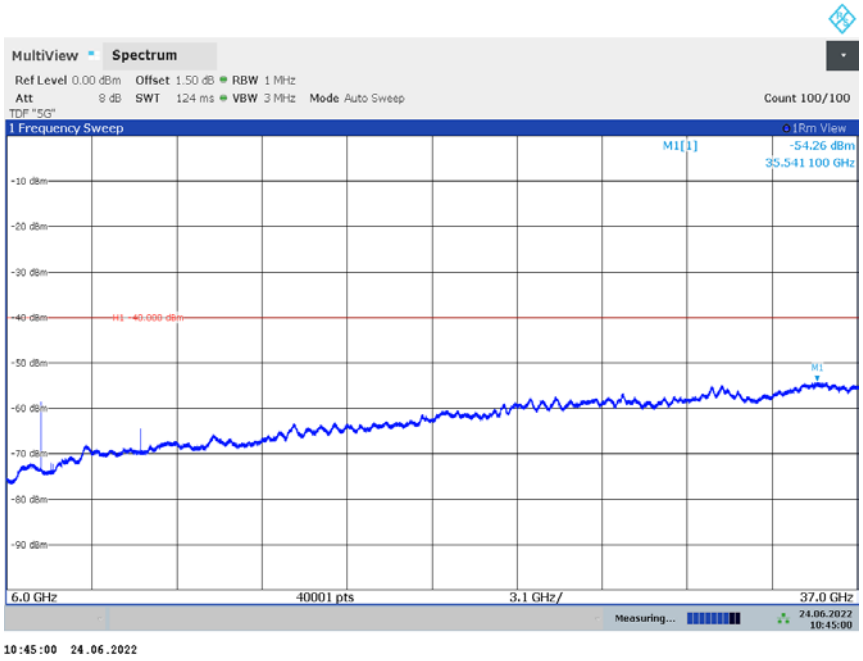
Date: 22.JUN.2022 16:06:16

LTE band 48: 30MHz – 37.0GHz

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

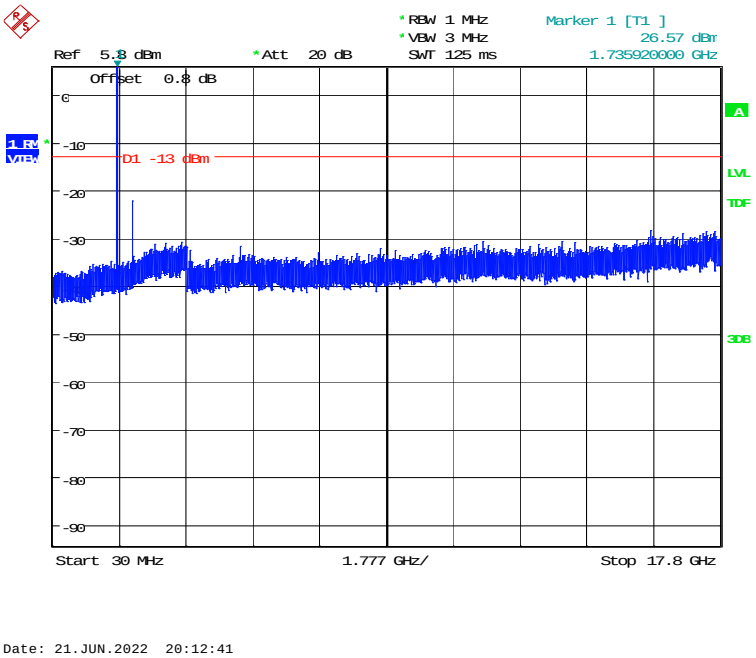


10:43:24 24.06.2022



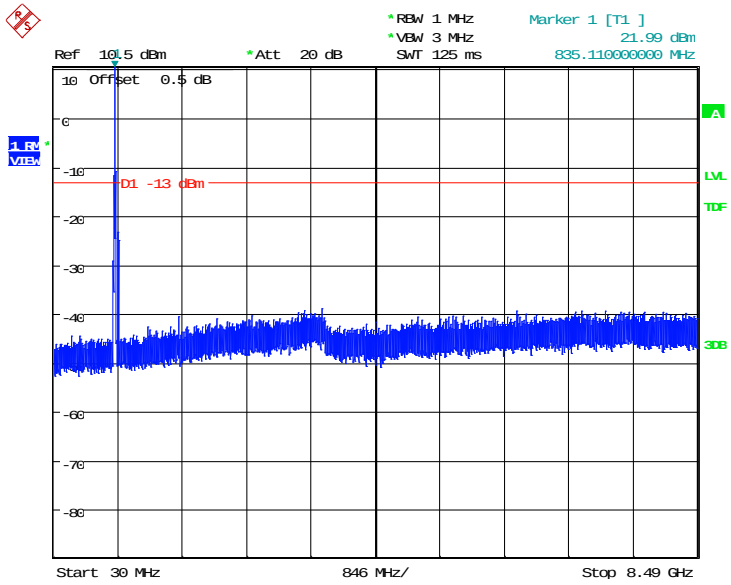
LTE band 66: 30MHz – 17.8GHz

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



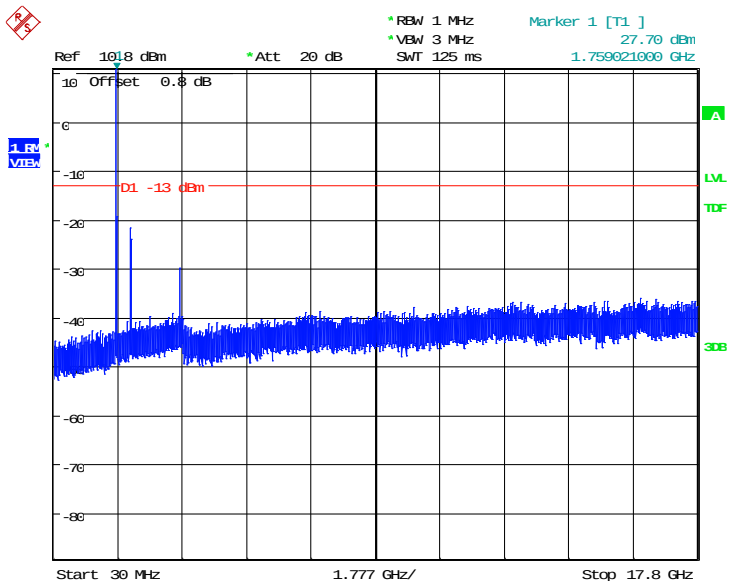
LTE CA Band 5B: 30MHz –8.49GHz

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



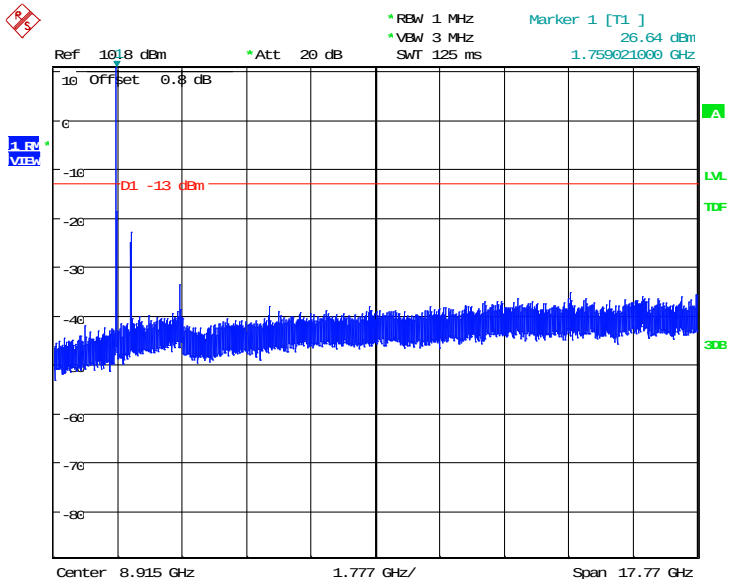
LTE CA Band 66B: 30MHz –17.8GHz

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



LTE CA Band 66C: 30MHz – 17.8GHz

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



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%.

LTE band 2, 20MHz

Frequency(MHz)	PAPR(dB)			
1880.0	QPSK	16QAM	64QAM	256QAM
	6.83	7.44	7.50	7.66

LTE band 12, 10MHz

Frequency(MHz)	PAPR(dB)			
707.5	QPSK	16QAM	64QAM	256QAM
	6.70	6.73	6.73	6.79

LTE band 13, 10MHz

Frequency(MHz)	PAPR(dB)			
782.0	QPSK	16QAM	64QAM	256QAM
	6.83	6.99	6.83	6.89

LTE band 48, 20MHz

Frequency (MHz)	PAPR (dB)			
3625.0	QPSK	16QAM	64QAM	256QAM
	8.30	8.94	9.07	9.04

LTE band 66, 20MHz

Frequency(MHz)	PAPR(dB)			
1745.0	QPSK	16QAM	64QAM	256QAM
	7.50	7.66	7.63	7.63

LTE CA band 66B, 10MHz+10MHz

Frequency (MHz)	PAPR (dB)			
	QPSK	16QAM	64QAM	256QAM
1750.1	7.37	7.76	7.88	7.79

LTE CA band 66C, 20MHz+20MHz

Frequency (MHz)	PAPR (dB)			
	QPSK	16QAM	64QAM	256QAM
1745.1	8.01	8.08	8.11	8.21

A.9 End User Device Additional Requirement (CBSD Protocol)

A. 9.1 Measurement Limit

End user device additional requirements (CBSD Protocol) are tested per the test procedures listed below. During testing, the EUT is connected to a certified CBSD (Baicells pBS2120 FCC ID: 2AG32PBS212096) as a companion device to show compliance with Part 96.47.

End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

A.9.2 Measurement Method

The EUT was connected via an RF cable to a certified CBSD and spectrum analyzer.

1. Run#1:

a. Setup frequency with 3615MHz – 3635MHz.

b. Check EUT Tx frequency.

c. Disable AP service and check EUT stop transmission within 10s.

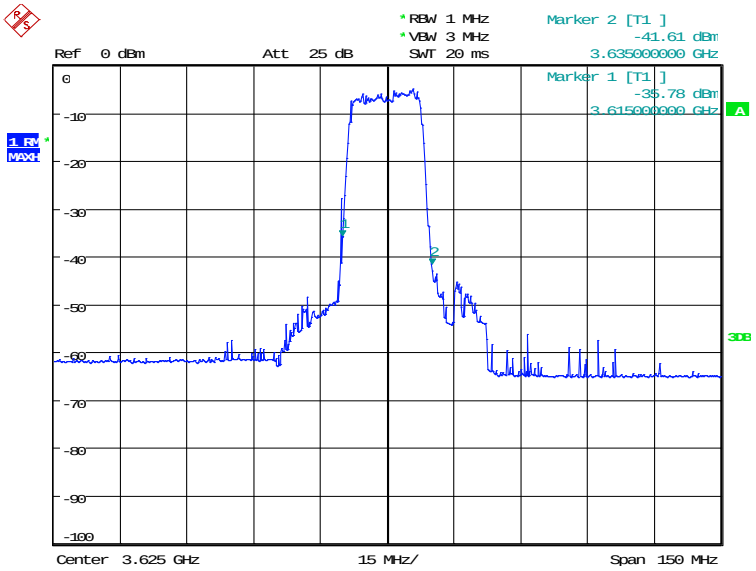
2. Run#2:

a. Setup frequency with 3660MHz – 3680MHz.

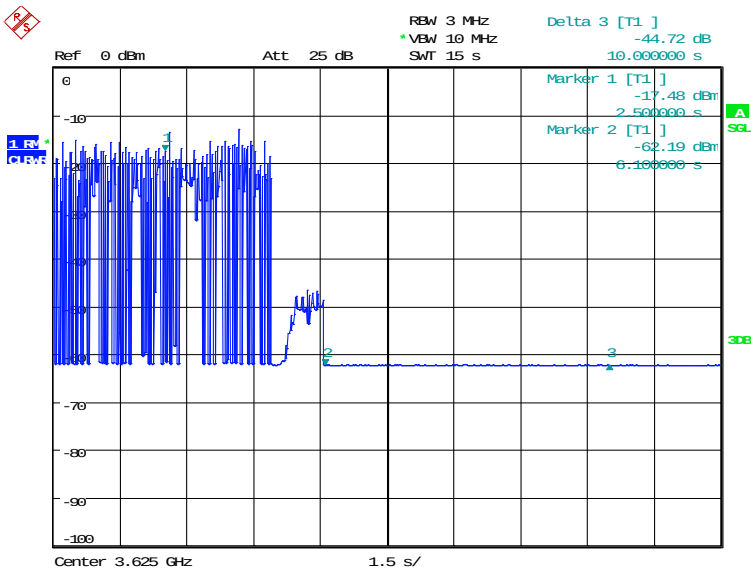
b. Check EUT Tx frequency.

c. Disable AP service and check EUT stop transmission within 10s.

RUN#1：



Date: 15.JUN.2022 16:36:39



Date: 15.JUN.2022 16:43:44

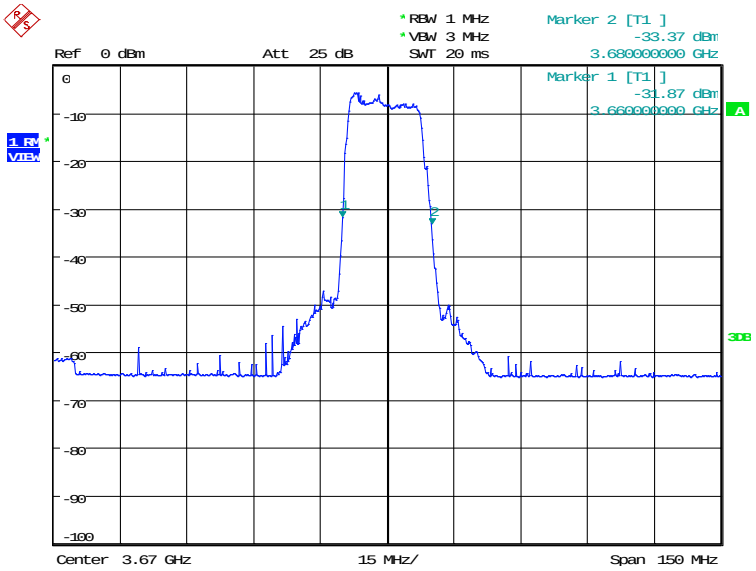
Note:

Marker 1: CBSD sends instructions to discontinue LTE operations.

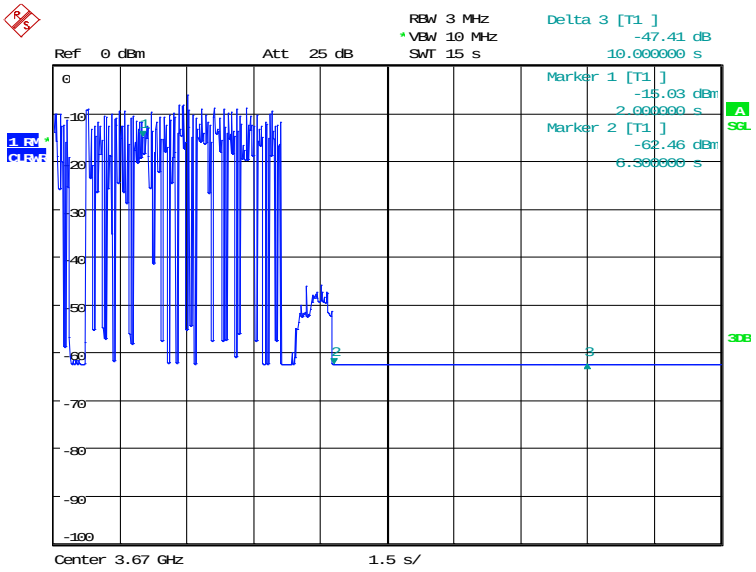
Marker 2: EUT discontinues operation.

Marker 3: 10 seconds elapsed time from CBSD sending instructions to EUT.

RUN#2：



Date: 15.JUN.2022 16:47:34



Date: 15.JUN.2022 16:53:53

Note:

Marker 1: CBSD sends instructions to discontinue LTE operations.

Marker 2: EUT discontinues operation.

Marker 3: 10 seconds elapsed time from CBSD sending instructions to EUT

Annex B: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ilac-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

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 17025:2017. 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).

2021-09-29 through 2022-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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