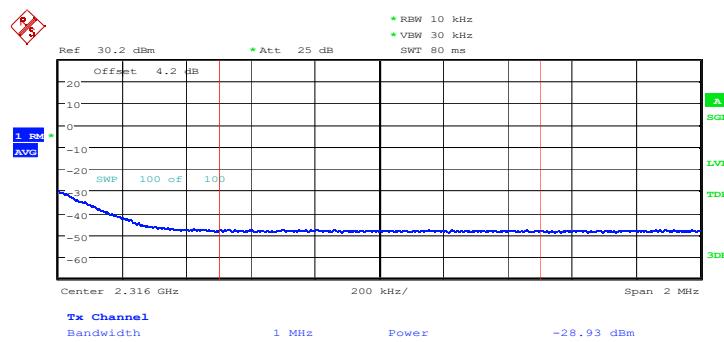
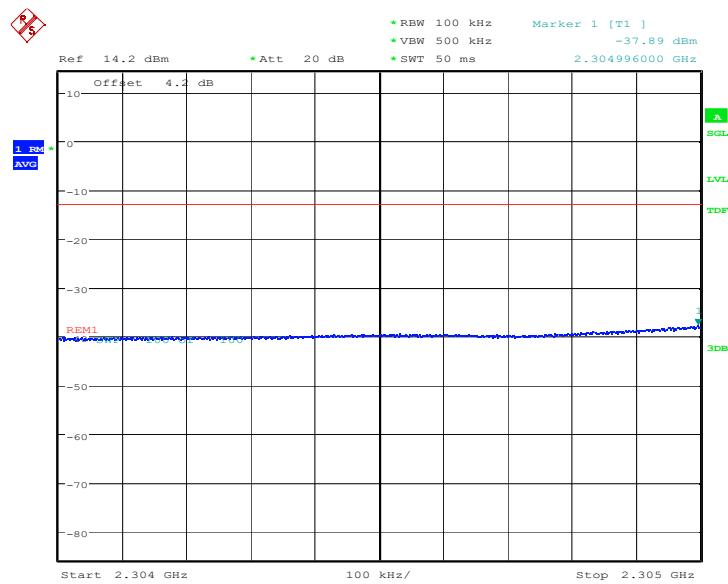


Date: 20.JUN.2022 17:31:04

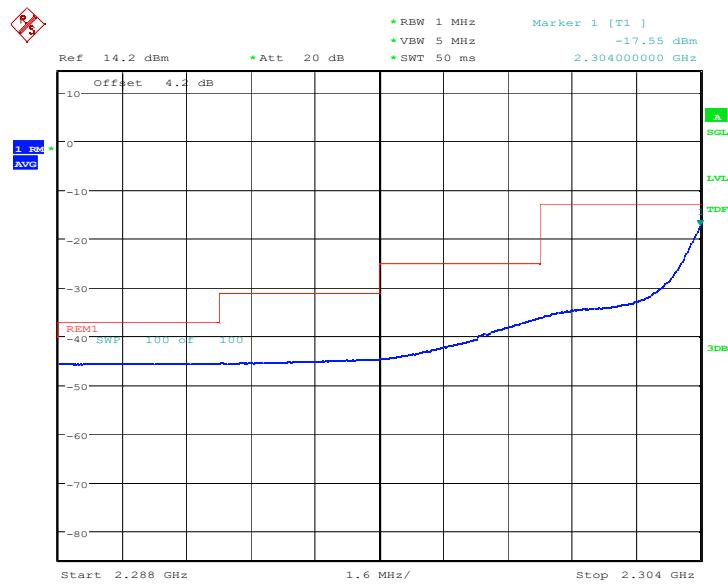
## Channel Power



Date: 20.JUN.2022 17:31:38

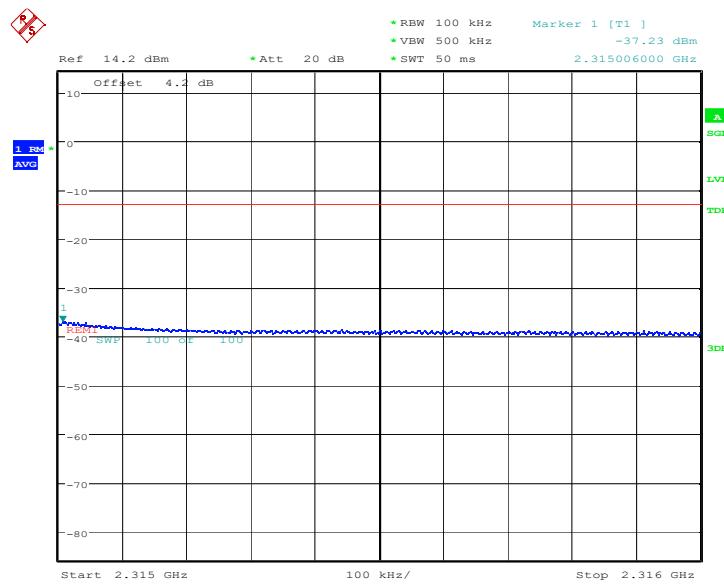
**LOW BAND EDGE BLOCK-10MHz-100%RB**


Date: 17.JUN.2022 15:07:34

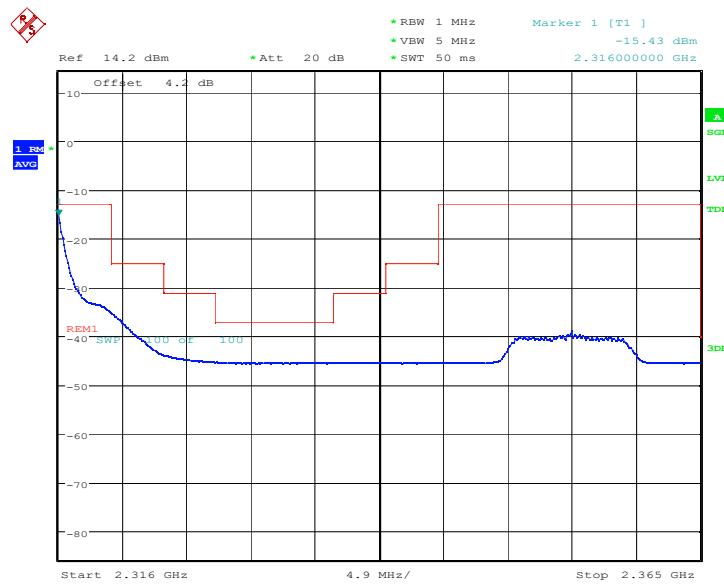


Date: 17.JUN.2022 15:08:28

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



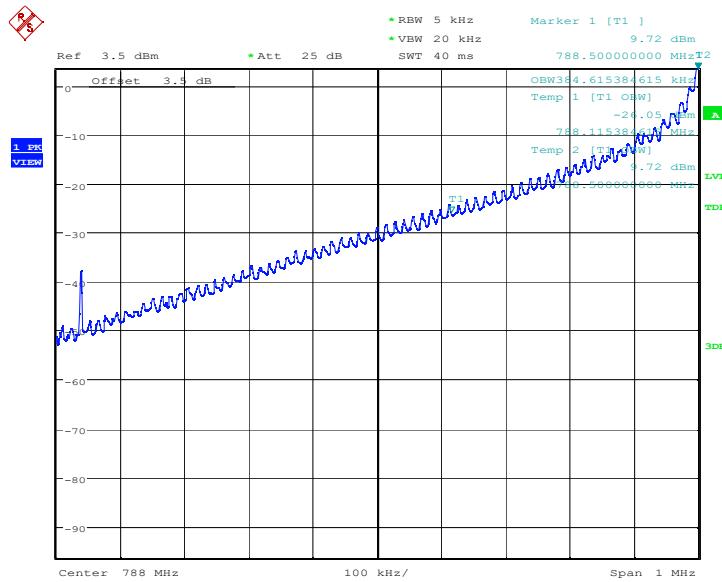
Date: 20.JUN.2022 17:49:43



Date: 20.JUN.2022 17:50:32

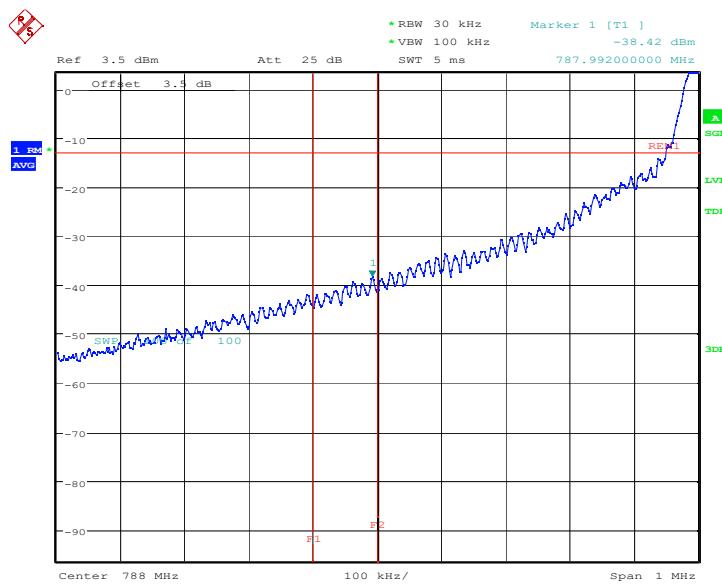
### LTE band 14@CA\_14A-66A

#### OBW: 1RB-LOW\_offset



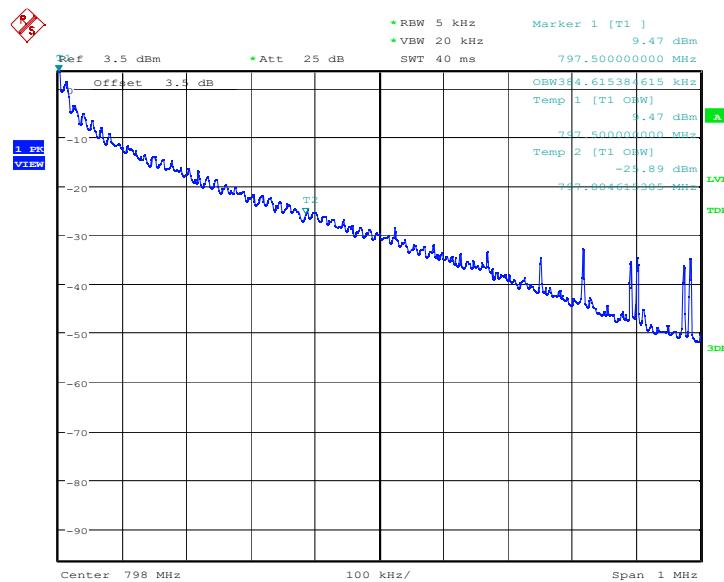
Date: 20.JUN.2022 18:48:53

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



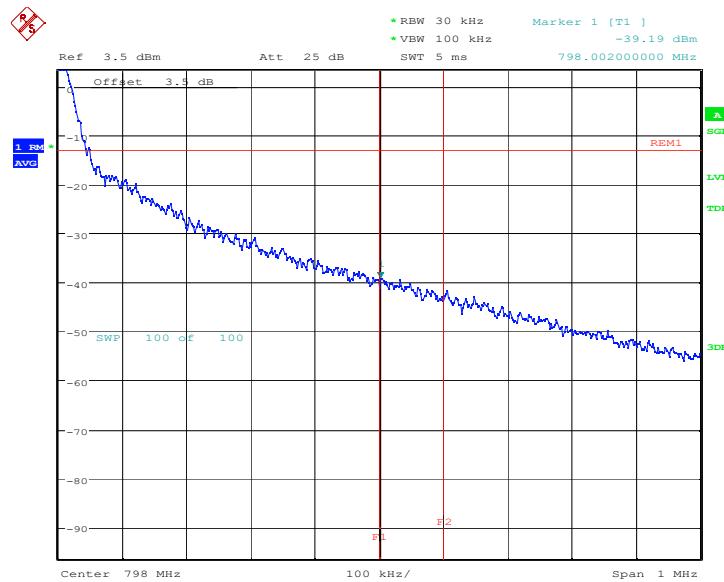
Date: 20.JUN.2022 18:49:33

### OBW: 1RB-HIGH\_offset



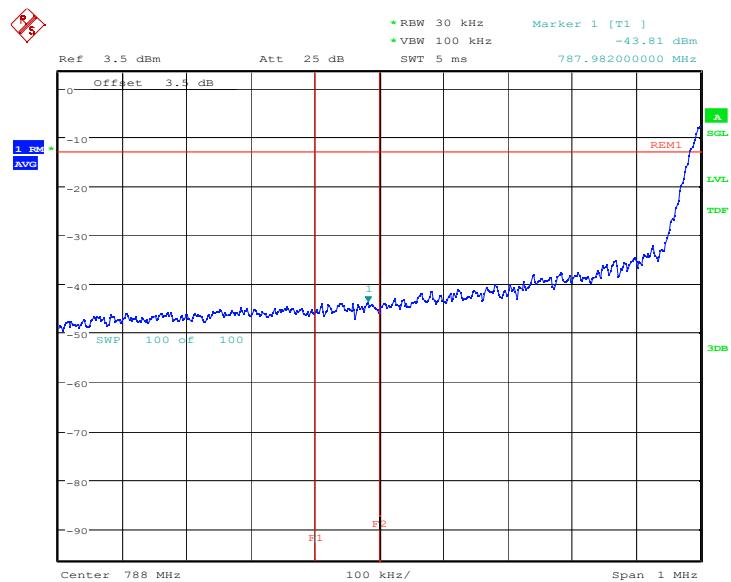
Date: 20.JUN.2022 18:52:56

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



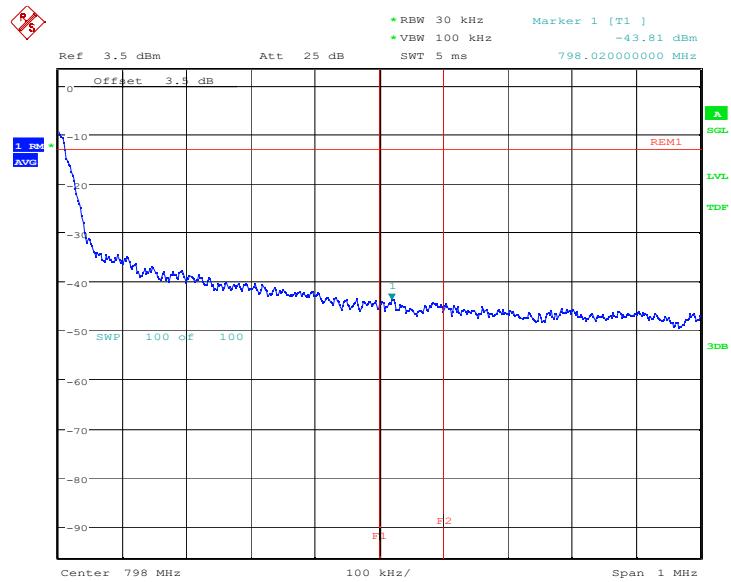
Date: 20.JUN.2022 18:53:35

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



Date: 20.JUN.2022 18:47:53

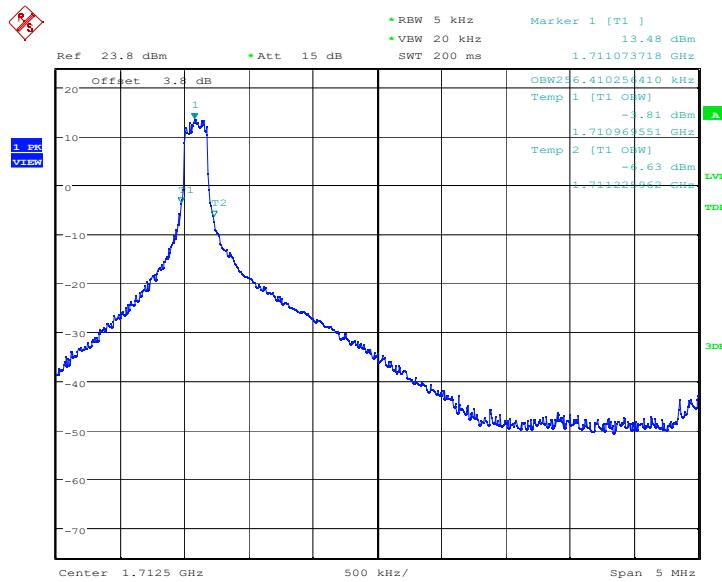
### HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 20.JUN.2022 18:51:56

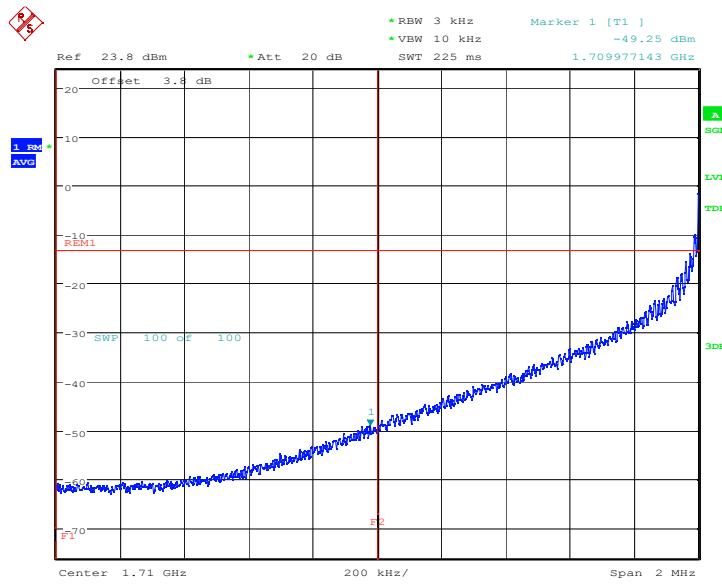
### LTE band 66@CA\_14A-66A

#### OBW: 1RB-LOW\_offset



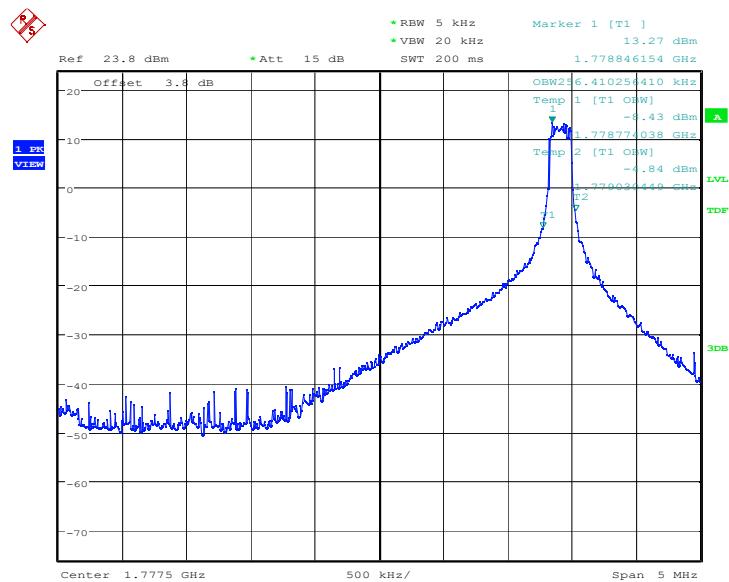
Date: 20.JUN.2022 18:49:51

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



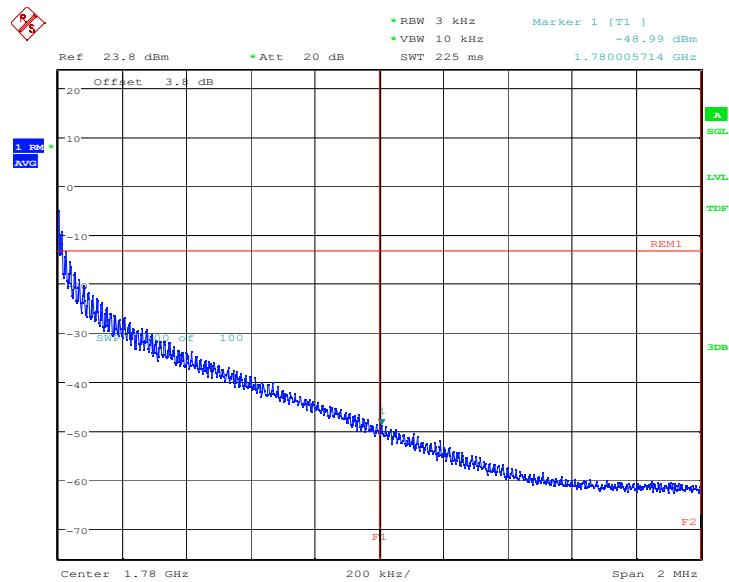
Date: 20.JUN.2022 18:50:52

## OBW: 1RB-HIGH\_offset



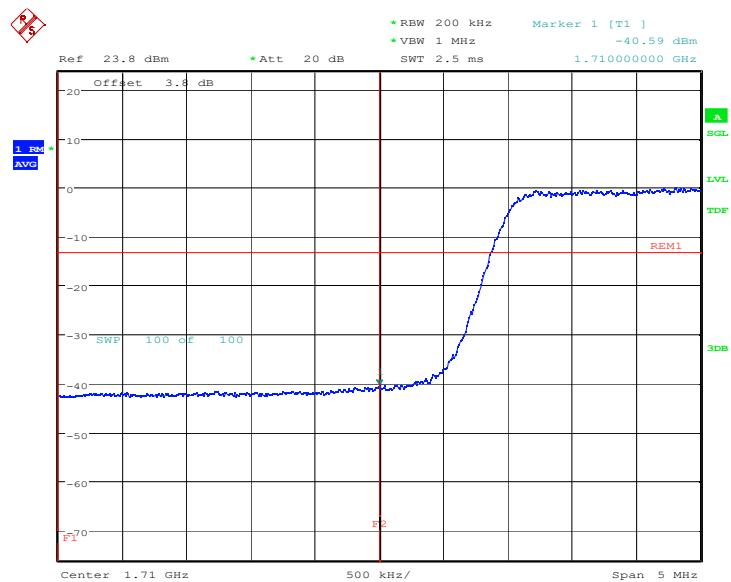
Date: 20.JUN.2022 18:53:53

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



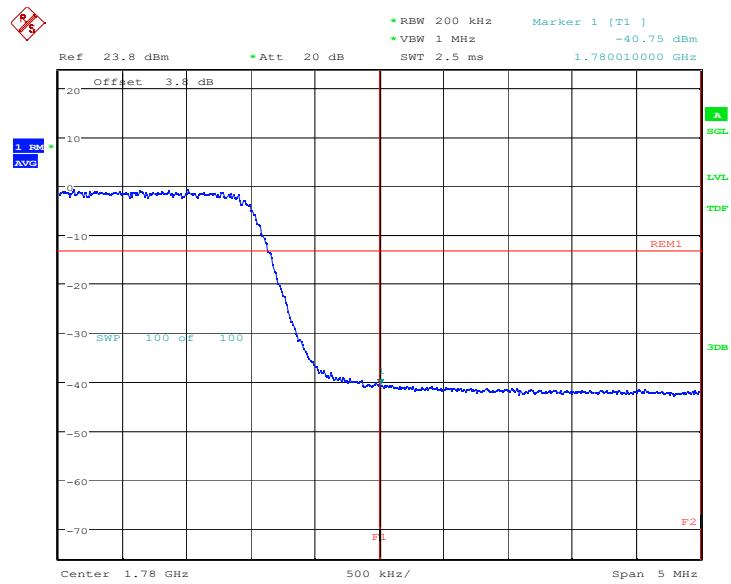
Date: 20.JUN.2022 18:54:55

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



Date: 20.JUN.2022 18:48:33

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



Date: 20.JUN.2022 18:52:36

## **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  $2 \times \text{span}/\text{RBW}$ .

### **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(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 27.53(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than:  $43 + 10 \log(P)$  dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than  $55 + 10 \log(P)$  dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than  $61 + 10 \log(P)$  dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than  $67 + 10 \log(P)$  dB on all frequencies between 2328 and 2337 MHz; By a factor of not less than  $43 + 10 \log(P)$  dB on all frequencies between 2300 and 2305 MHz,  $55 + 10 \log(P)$  dB on all frequencies between 2296 and 2300 MHz,  $61 + 10 \log(P)$  dB on all frequencies between 2292 and 2296 MHz,  $67 + 10 \log(P)$  dB on all frequencies between 2288 and 2292 MHz, and  $70 + 10 \log(P)$  dB below 2288 MHz; By a factor of not less than  $43 + 10 \log(P)$  dB on all frequencies between 2360 and 2365 MHz, and not less than  $70 + 10 \log(P)$  dB above 2365 MHz.

Part 90.543 states that for operations in the 758–768 MHz and the 788–798 MHz bands, 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 all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations. (2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations. (3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB. (4) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment. (5) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

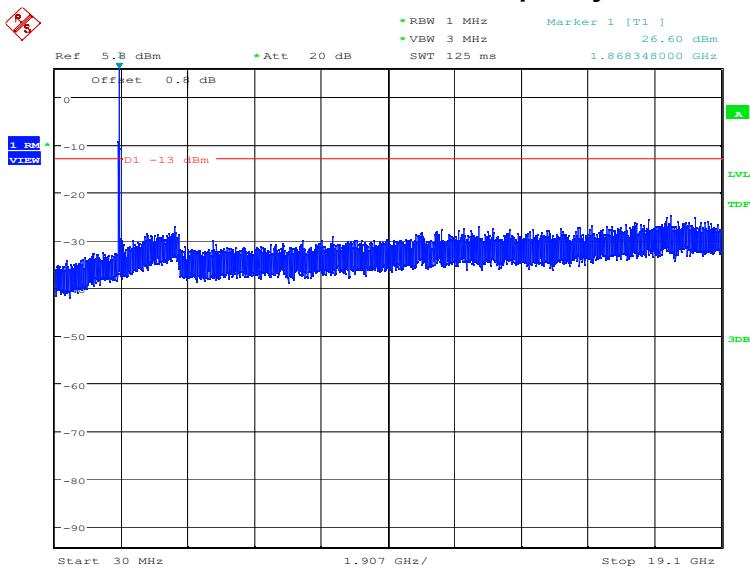
Part 96.41(e) states for channel and frequency assignments made by a CBSD to End User Devices, the conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed  $-13 \text{ dBm/MHz}$  within 0 to B megahertz (where B 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  $-25 \text{ dBm/MHz}$ .

### A. 7.3 Measurement result

**Only the worst case result is given below**

### LTE band 2: 30MHz – 19.1GHz

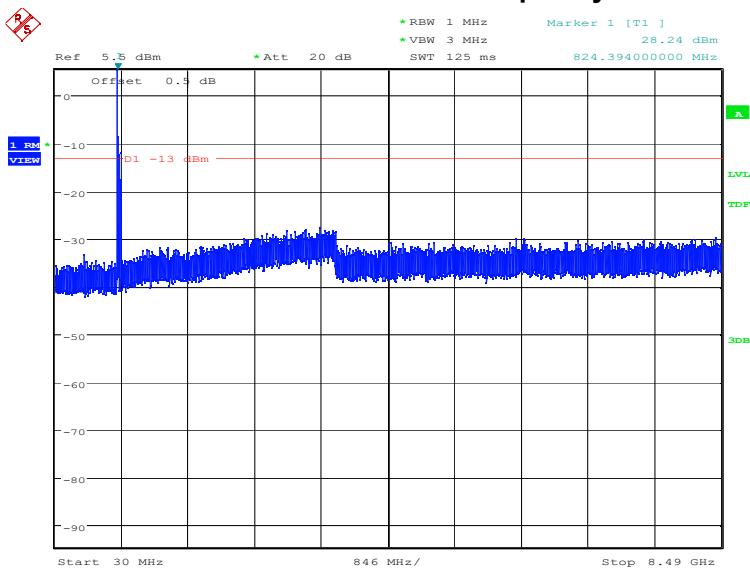
**NOTE: peak above the limit line is the carrier frequency.**



Date: 17.JUN.2022 08:51:49

## LTE band 5: 30MHz – 8.49GHz

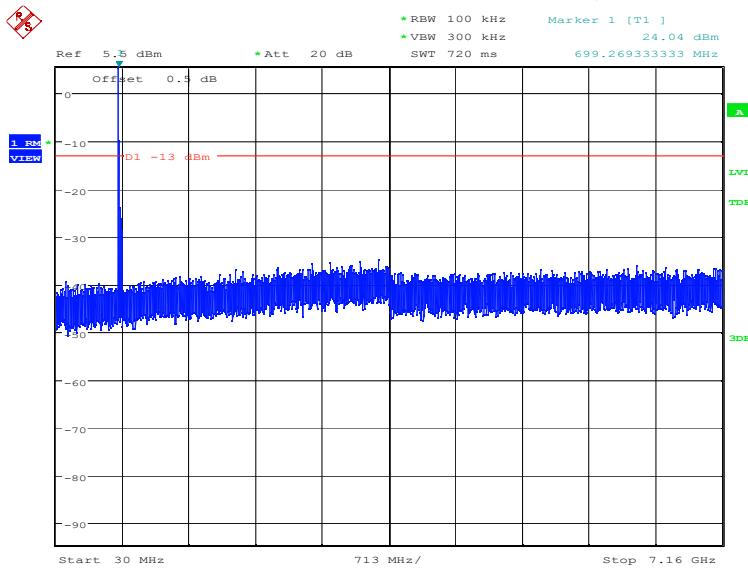
**NOTE: peak above the limit line is the carrier frequency.**



Date: 17.JUN.2022 08:53:13

### LTE band 12: 30MHz – 7.16GHz

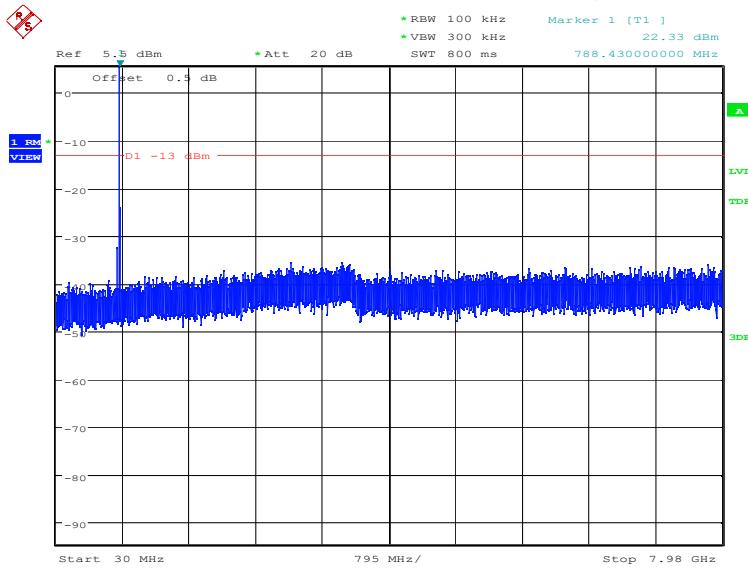
NOTE: peak above the limit line is the carrier frequency.



Date: 17.JUN.2022 08:55:06

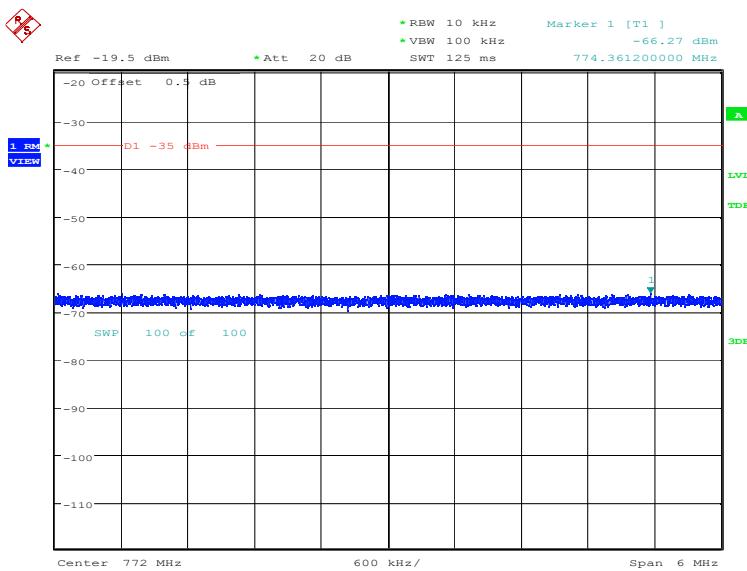
### LTE band 14: 30MHz – 7.98GHz

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



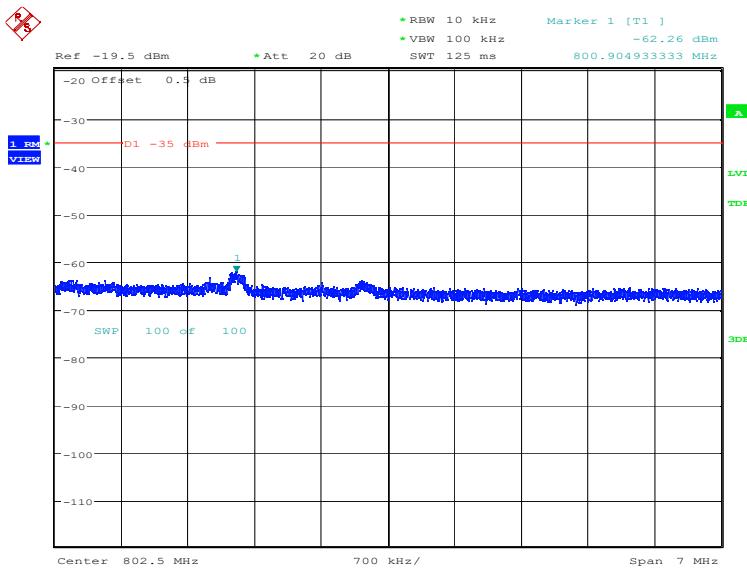
Date: 17.JUN.2022 09:03:03

### LTE band 14: 769MHz~775MHz



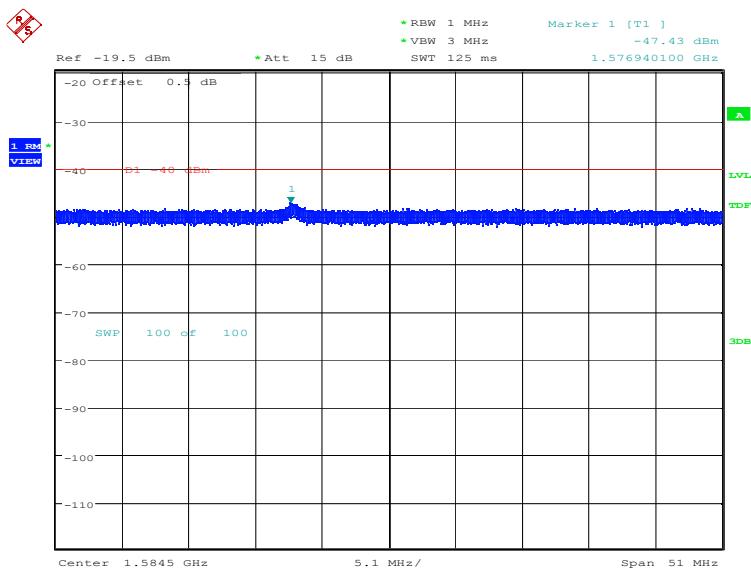
Date: 17.JUN.2022 09:04:05

### LTE band 14: 799MHz~806MHz



Date: 17.JUN.2022 09:04:59

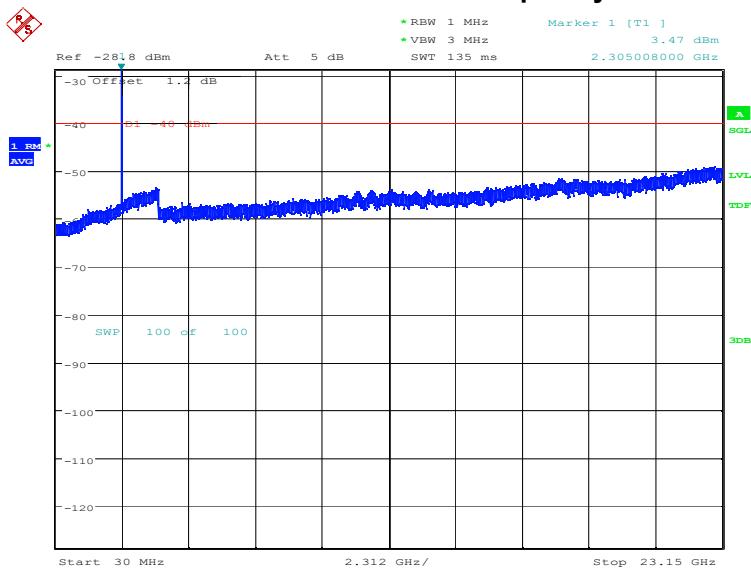
### LTE band 14: 1559MHz~1610MHz



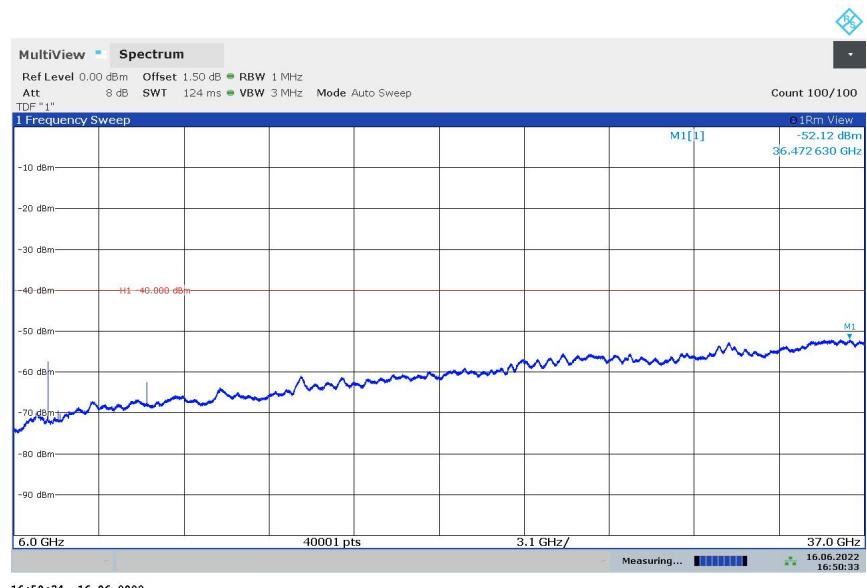
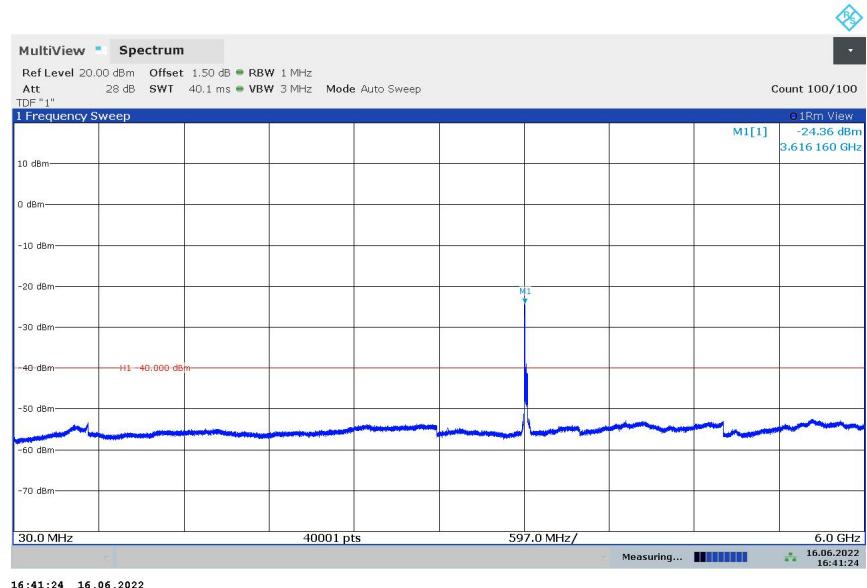
Date: 17.JUN.2022 09:05:46

### LTE band 30: 30MHz – 23.15GHz

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

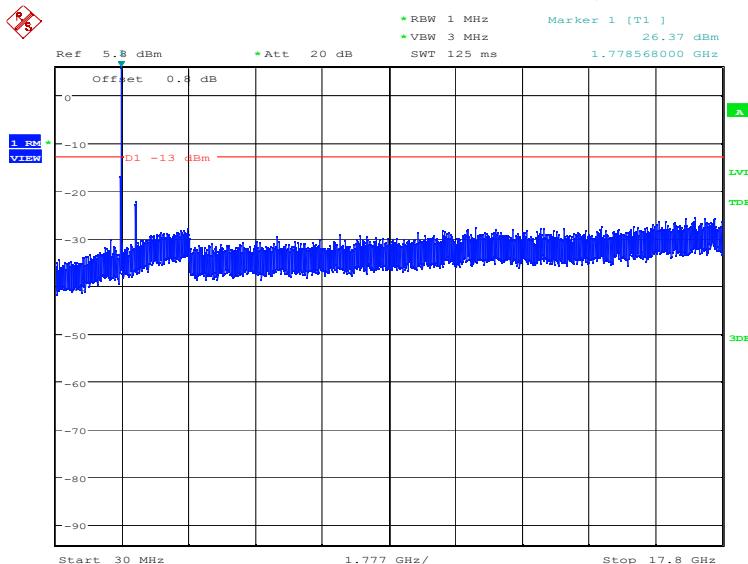


Date: 17.JUN.2022 09:31:39

**LTE band 48: 30MHz – 37.0GHz**
**NOTE: peak above the limit line is the carrier frequency.**


### LTE band 66: 30MHz – 17.8GHz

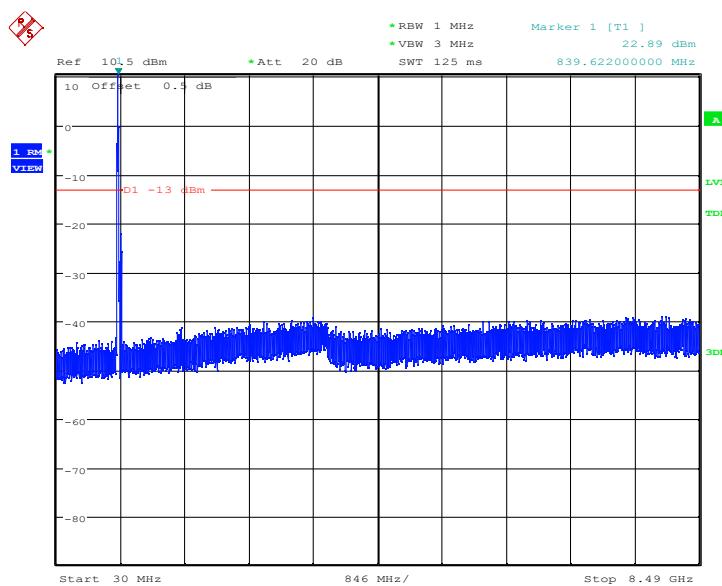
NOTE: peak above the limit line is the carrier frequency.



Date: 17.JUN.2022 09:06:32

### LTE CA Band 5B: 30MHz – 8.49GHz

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



Date: 18.MAY.2022 14:58:45

### **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  $\geq$  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)		
	QPSK	16QAM	64QAM
	6.73	7.40	7.44

#### **LTE band 4, 20MHz**

Frequency(MHz)	PAPR(dB)		
	QPSK	16QAM	64QAM
	6.70	7.31	7.47

#### **LTE band 12, 10MHz**

Frequency(MHz)	PAPR(dB)		
	QPSK	16QAM	64QAM
	5.61	6.44	6.60

#### **LTE band 30, 10MHz**

Frequency(MHz)	PAPR(dB)		
	QPSK	16QAM	64QAM
	5.96	6.76	6.96

#### **LTE band 48, 20MHz**

Frequency (MHz)	PAPR (dB)		
	QPSK	16QAM	64QAM
	8.27	8.85	9.10

#### **LTE band 66, 20MHz**

Frequency(MHz)	PAPR(dB)		
	QPSK	16QAM	64QAM
	6.76	7.37	7.40

## **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.

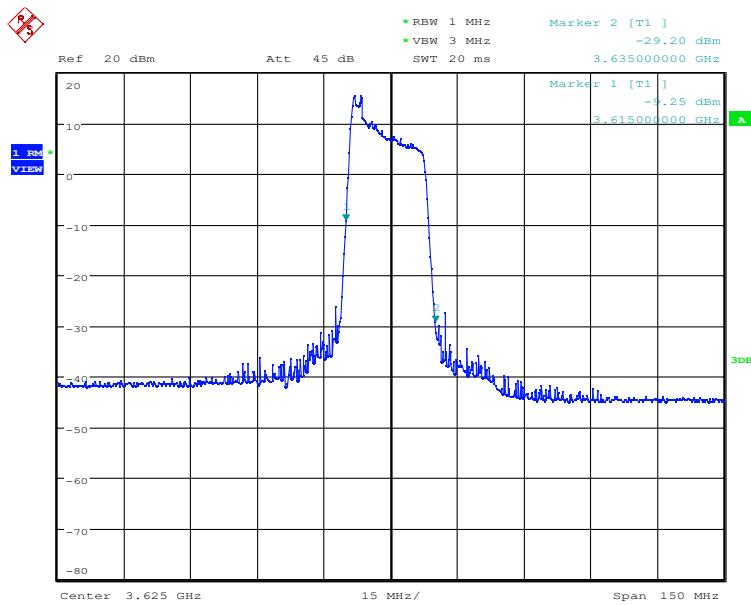
1. Run#1:

- a. Setup frequency with 3615MHz – 3635MHz.
- b. Check EUT Tx frequency.
- c. Disable AP service and check EUT stop transmission within 10s.

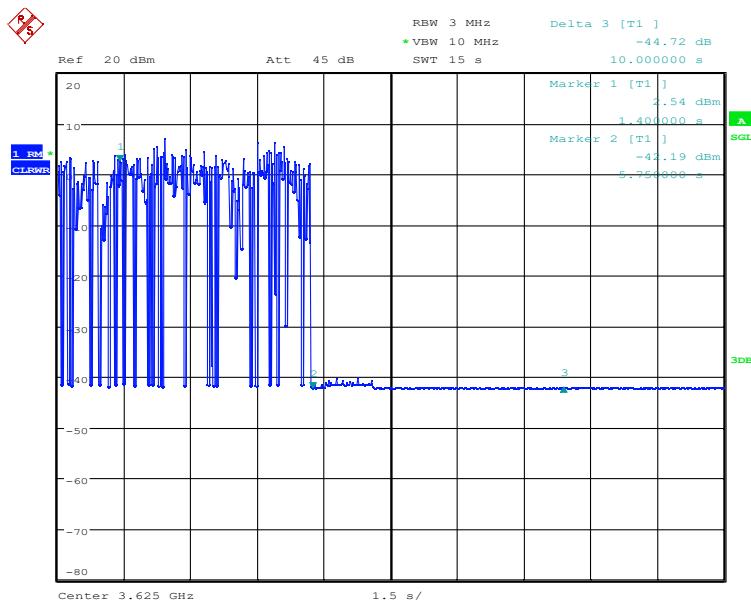
2. Run#2:

- 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: 2.JUN.2022 16:46:54



Date: 2.JUN.2022 16:50:50

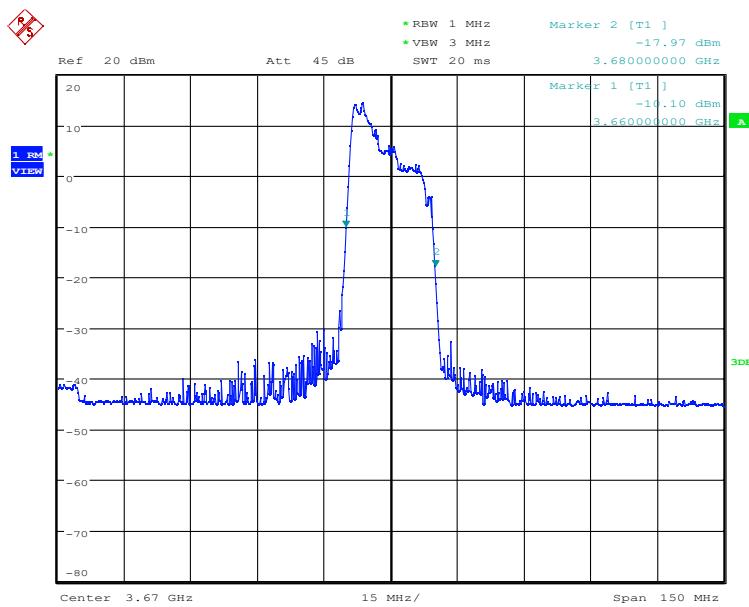
Note:

Marker 1: CBSD sends instructions to discontinue LTE operations.

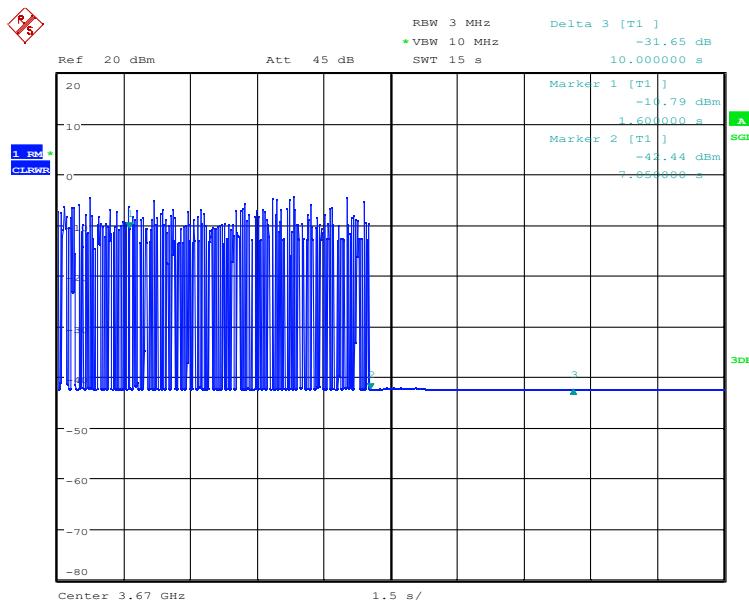
Marker 2: EUT discontinues operation.

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

RUN#2:



Date: 2.JUN.2022 17:18:38



Date: 2.JUN.2022 17:21:06

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



### **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 Communiqué dated January 2009).*

2021-09-29 through 2022-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program



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