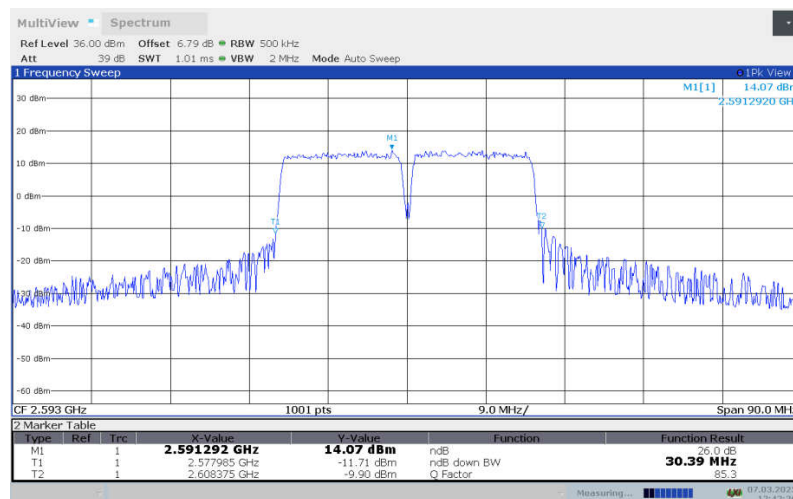
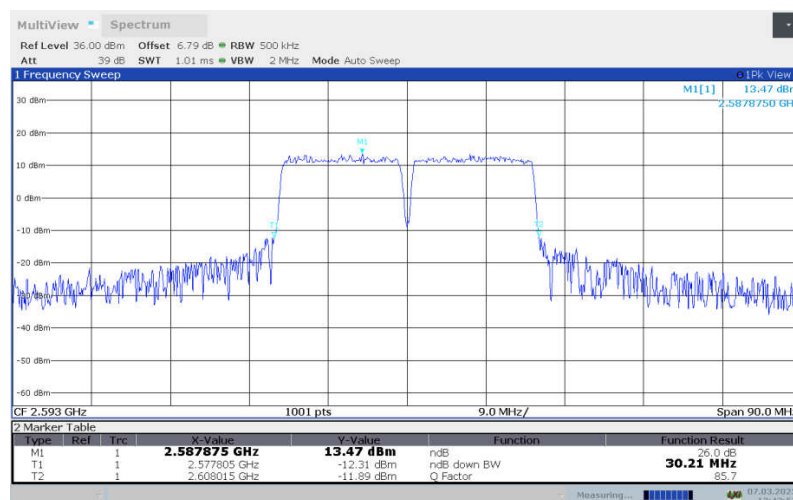


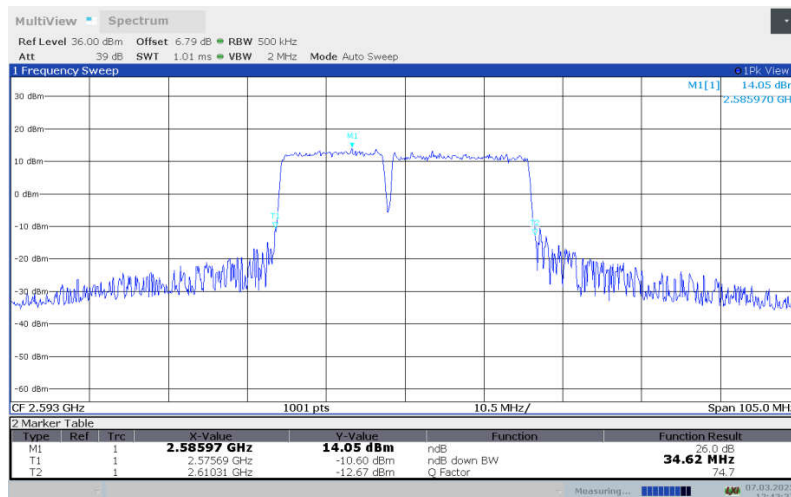
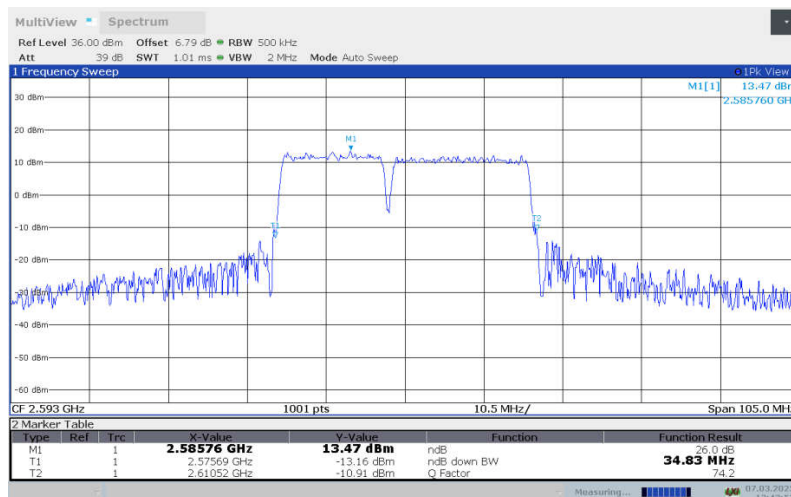
**LTE CA band 41C, 15MHz+15MHz(-26dBc OBW)**

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	30.390	30.210

LTE CA band 41C , 15MHz+15MHz Bandwidth,QPSK (-26dBc OBW)**LTE CA band 41C , 15MHz+15MHz Bandwidth,16QAM (-26dBc OBW)**

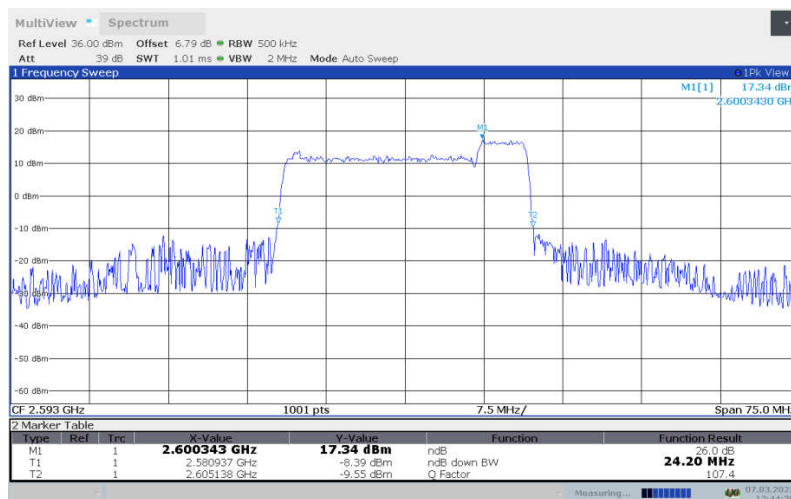
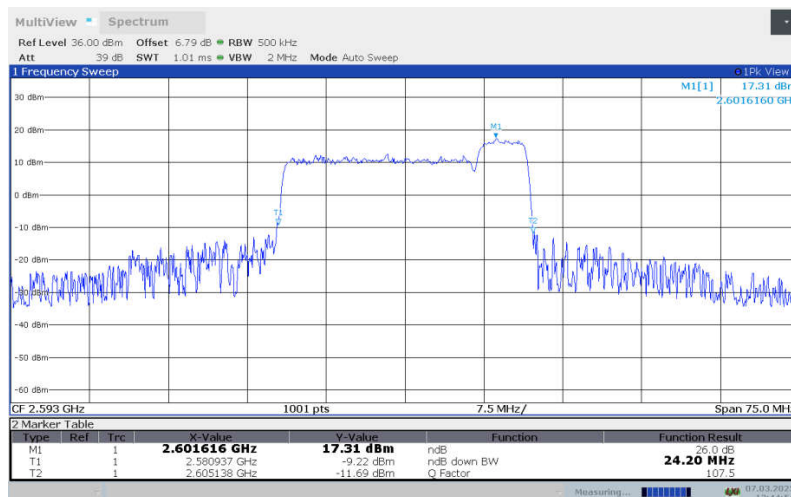
**LTE CA band 41C, 15MHz+20MHz(-26dBc OBW)**

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	34.620	34.830

LTE CA band 41C , 15MHz+20MHz Bandwidth,QPSK (-26dBc OBW)**LTE CA band 41C , 15MHz+20MHz Bandwidth,16QAM (-26dBc OBW)**

**LTE CA band 41C, 20MHz+5MHz(-26dBc OBW)**

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	24.201	24.201

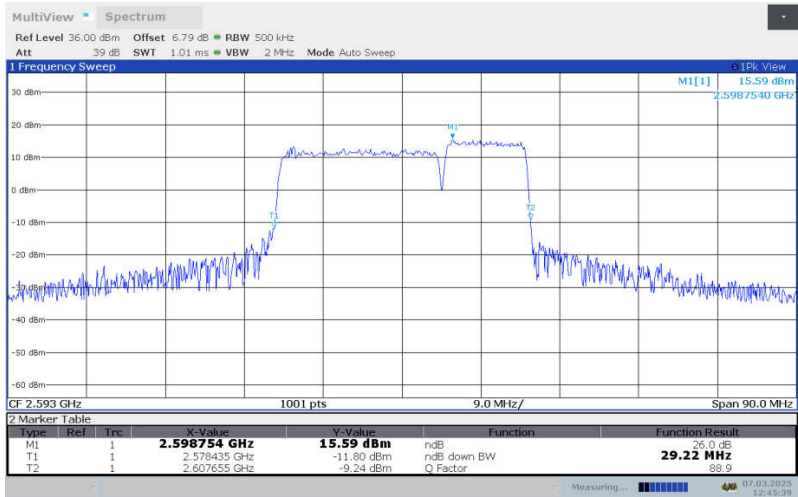
LTE CA band 41C , 20MHz+5MHz Bandwidth,QPSK (-26dBc OBW)**LTE CA band 41C , 20MHz+5MHz Bandwidth,16QAM (-26dBc OBW)**



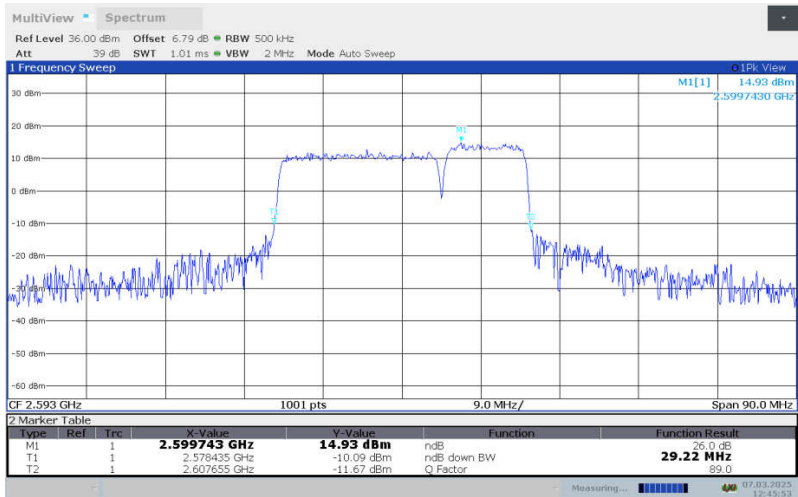
LTE CA band 41C, 20MHz+10MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	29.221	29.221

LTE CA band 41C , 20MHz+10MHz Bandwidth,QPSK (-26dBc OBW)

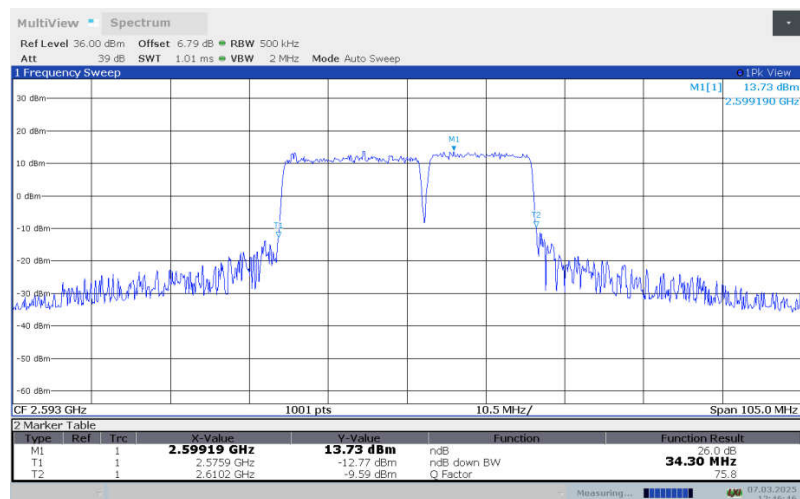
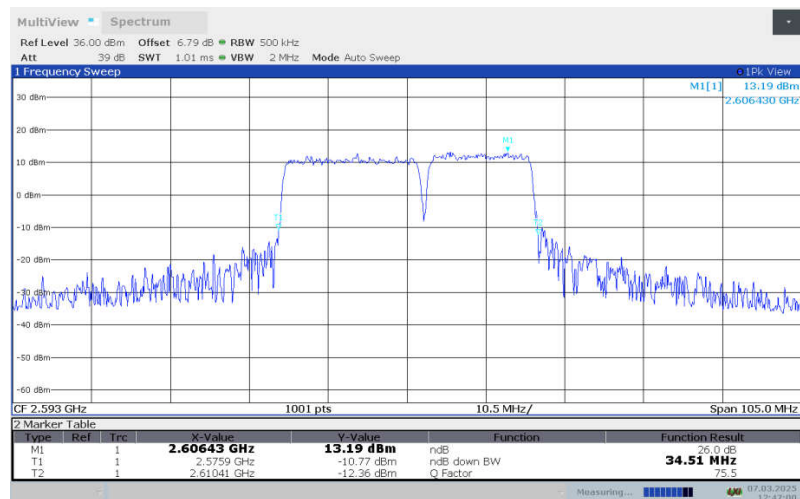


LTE CA band 41C , 20MHz+10MHz Bandwidth,16QAM (-26dBc OBW)



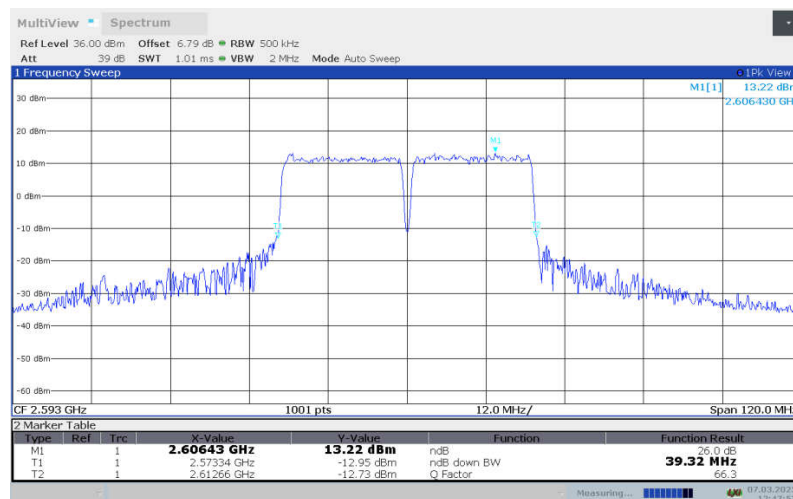
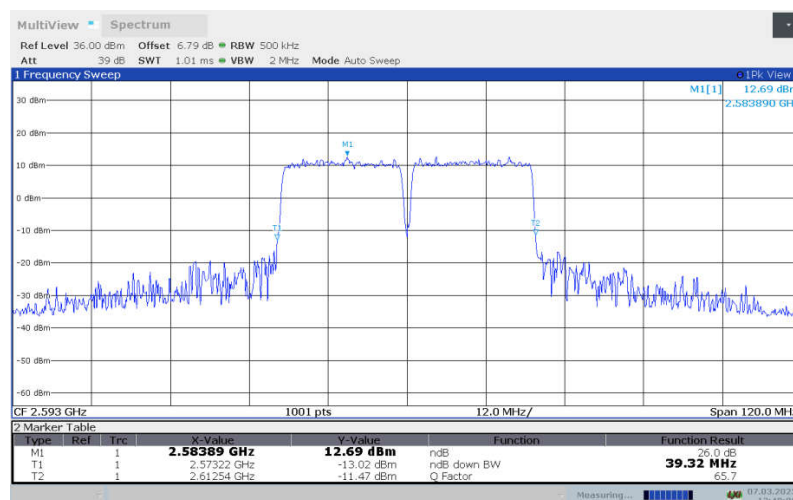
**LTE CA band 41C, 20MHz+15MHz(-26dBc OBW)**

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	34.300	34.510

LTE CA band 41C , 20MHz+15MHz Bandwidth,QPSK (-26dBc OBW)**LTE CA band 41C , 20MHz+15MHz Bandwidth,16QAM (-26dBc OBW)**

**LTE CA band 41C, 20MHz+20MHz(-26dBc OBW)**

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	39.320	39.320

LTE CA band 41C , 20MHz+20MHz Bandwidth,QPSK (-26dBc OBW)**LTE CA band 41C , 20MHz+20MHz Bandwidth,16QAM (-26dBc OBW)**

Note: Expanded measurement uncertainty is $U = 3428$ Hz, $k = 2$

A.6 BAND EDGE COMPLIANCE

A.6.1 Measurement limit

Part 22.917 For operations in the 824–849MHz band, the FCC limit is $43 + 10 \log(P)$ dB below the transmitter power(P) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

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 than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5MHz. 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(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 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

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

A.6.2 Measurement result

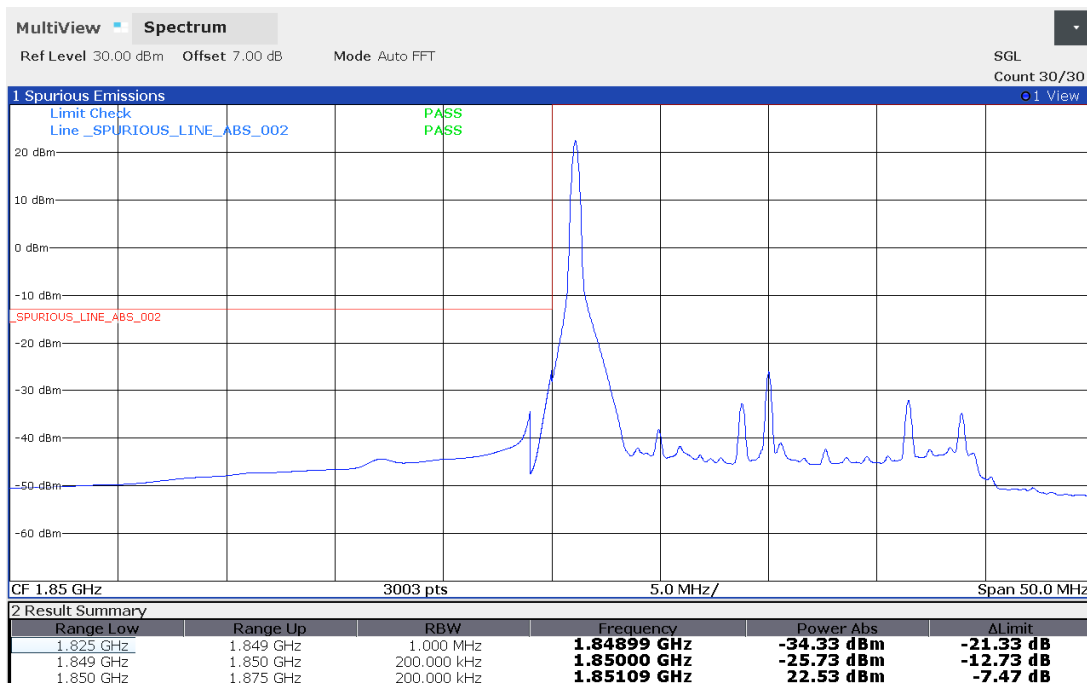
Only worst case result is given below



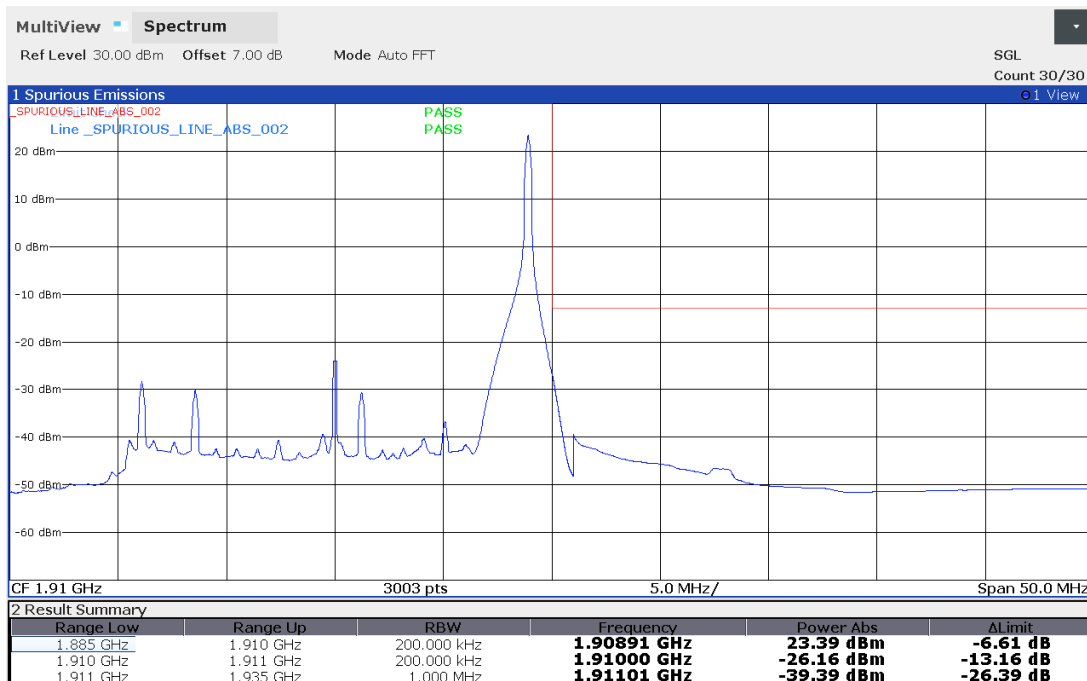
No.25T04N000127-003-RF LTE

LTE Band 2

LOW BAND EDGE BLOCK-1RB-low_offset



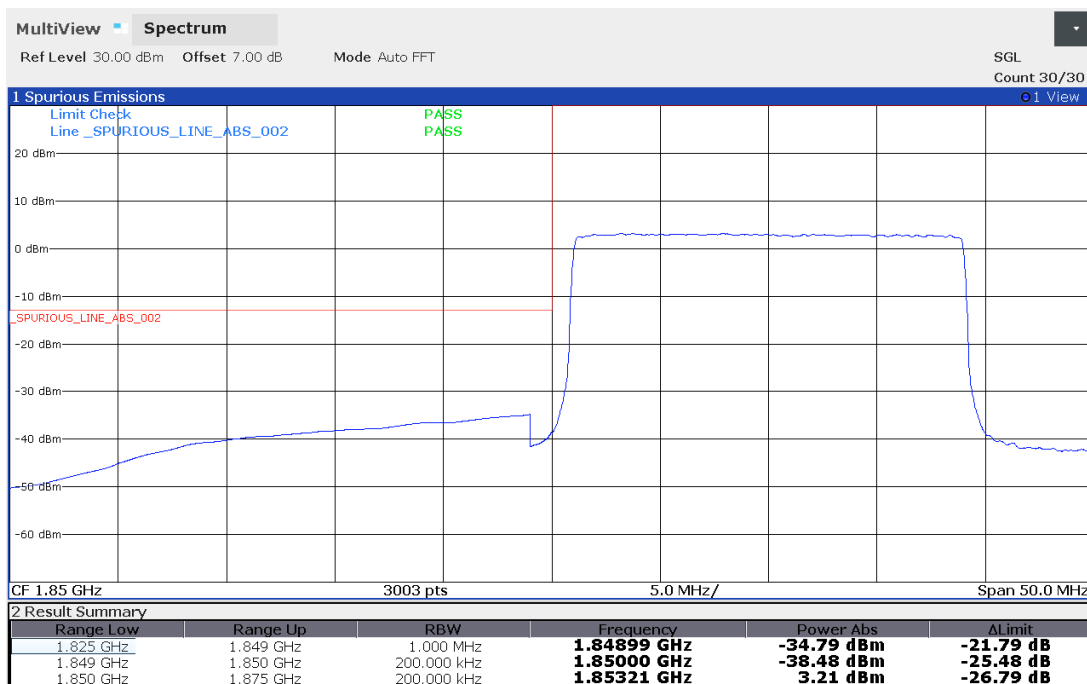
HIGH BAND EDGE BLOCK-1RB-high_offset





No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-20MHz-100%RB



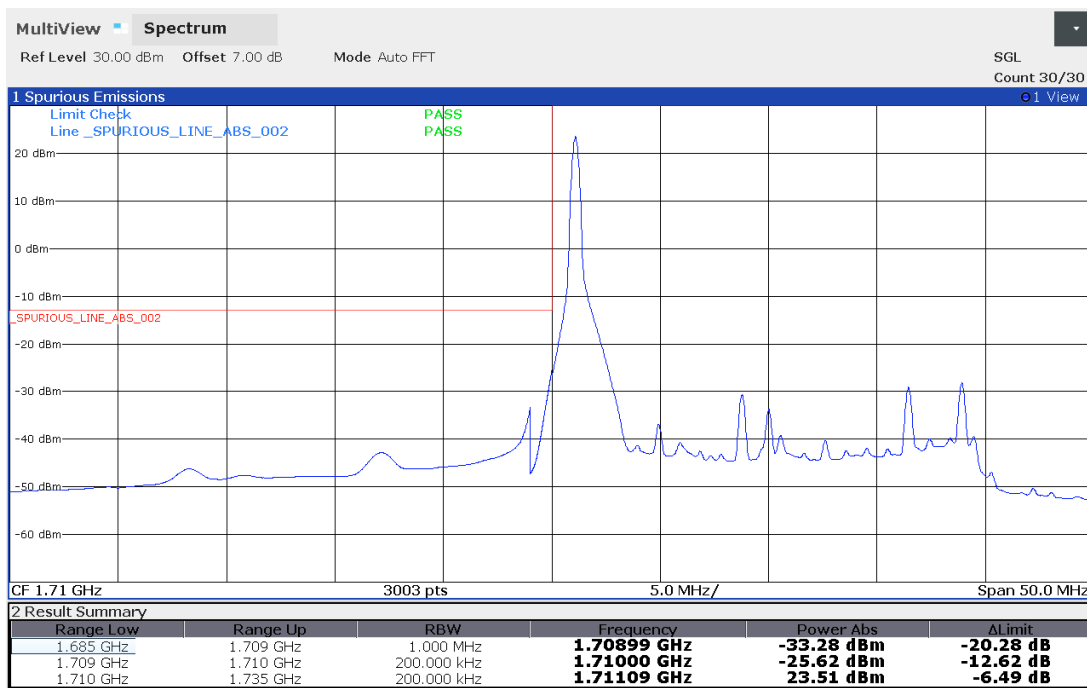
HIGH BAND EDGE BLOCK-20MHz-100%RB



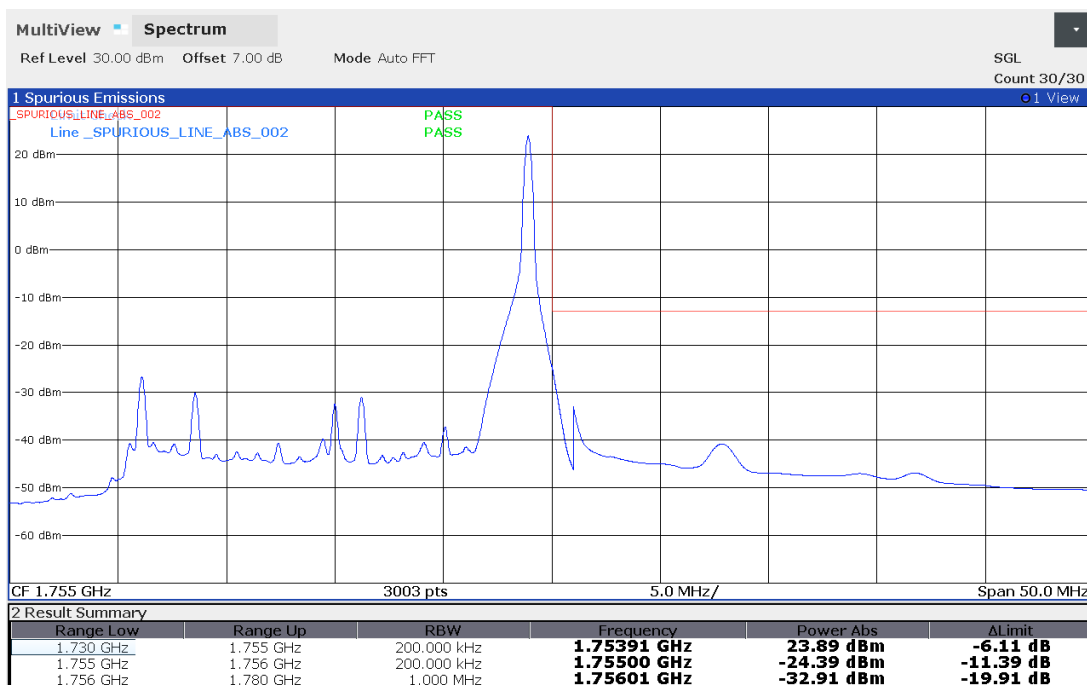


LTE Band 4

LOW BAND EDGE BLOCK-1RB-low_offset



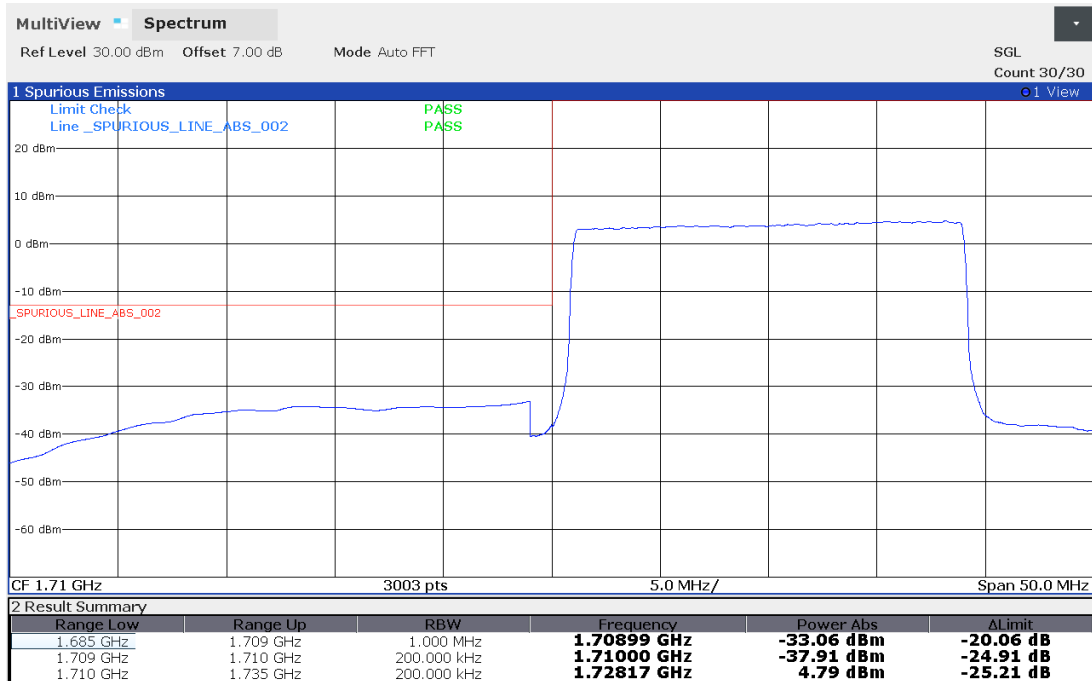
HIGH BAND EDGE BLOCK-1RB-high_offset



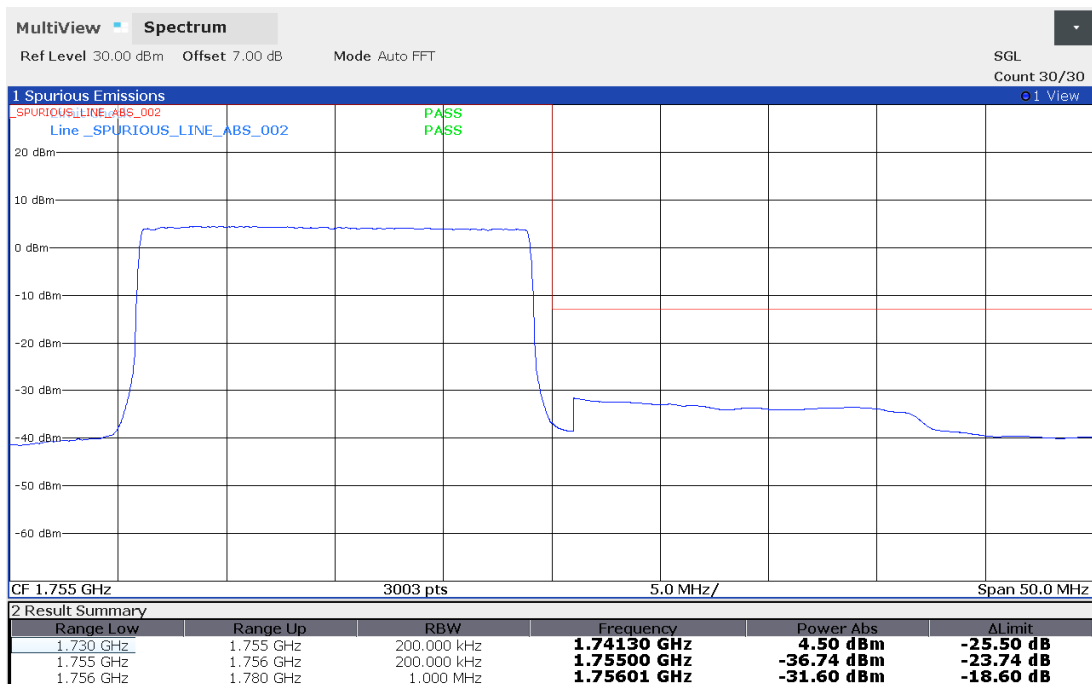


No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

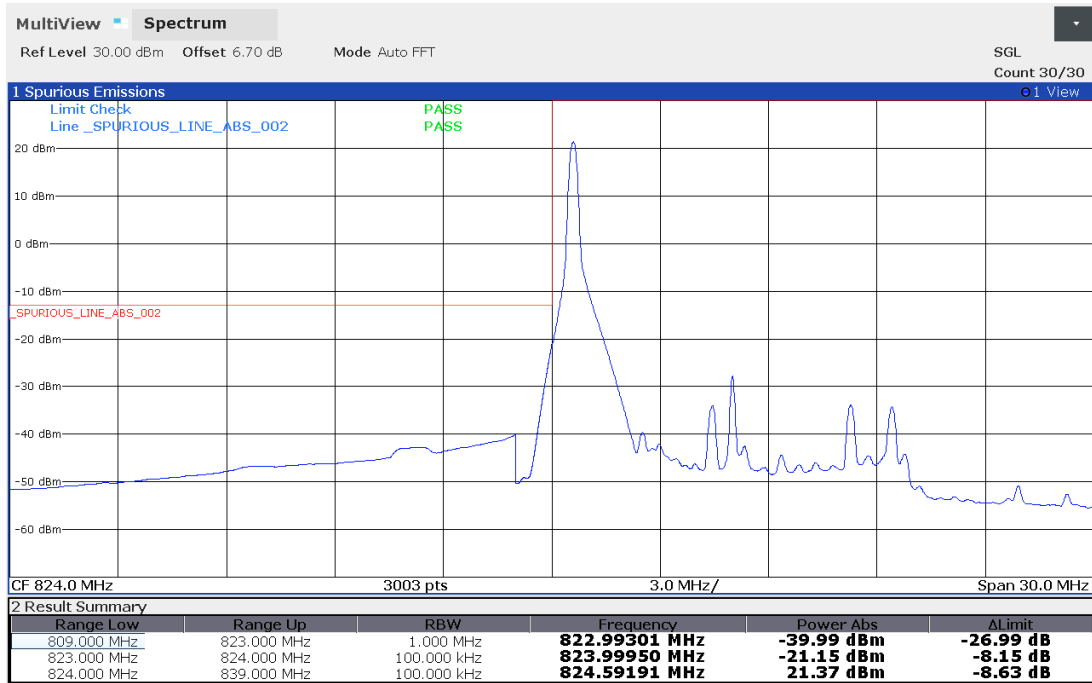




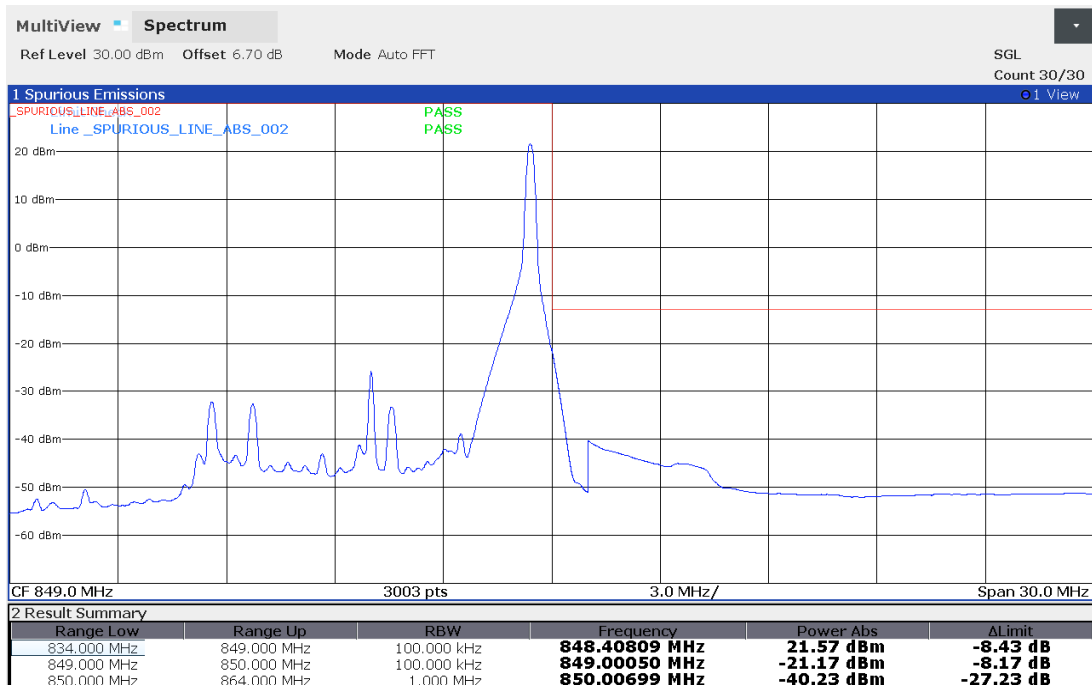
No.25T04N000127-003-RF LTE

LTE Band 5

LOW BAND EDGE BLOCK-1RB-low_offset

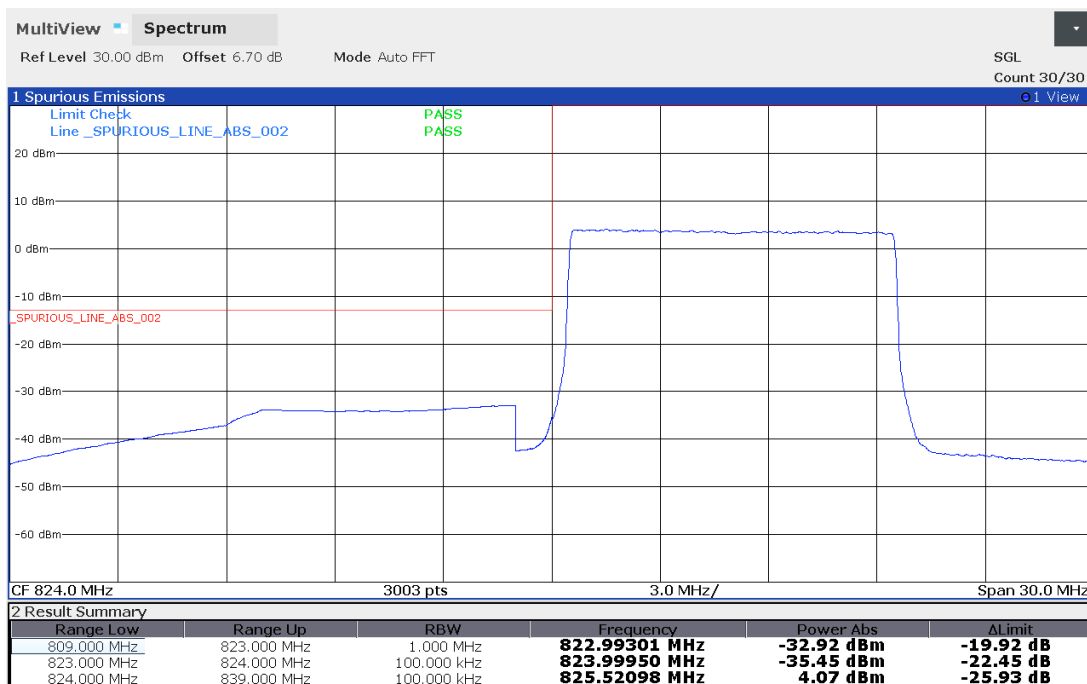


HIGH BAND EDGE BLOCK-1RB-high_offset





LOW BAND EDGE BLOCK-10MHz-100%RB



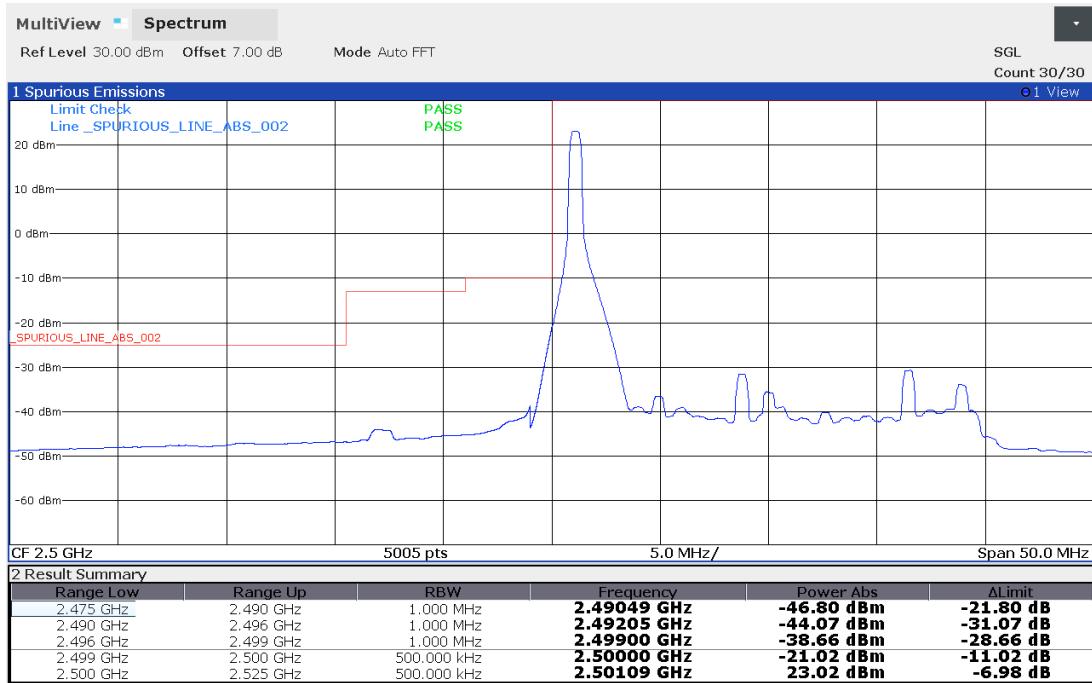
HIGH BAND EDGE BLOCK-10MHz-100%RB



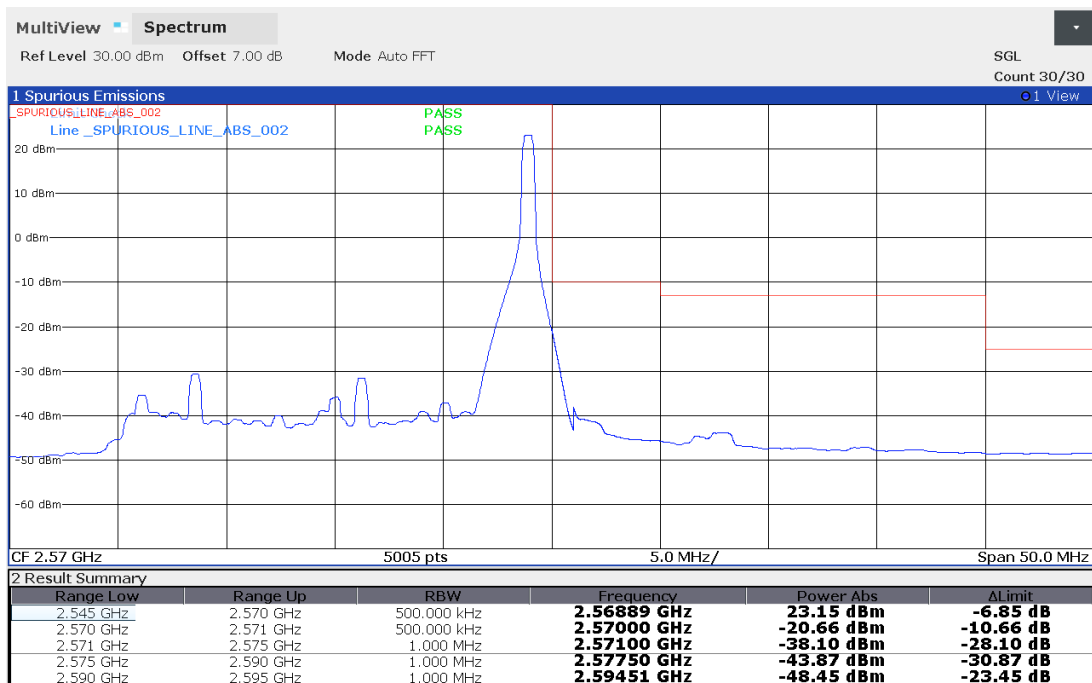


LTE Band 7

LOW BAND EDGE BLOCK-1RB-low_offset

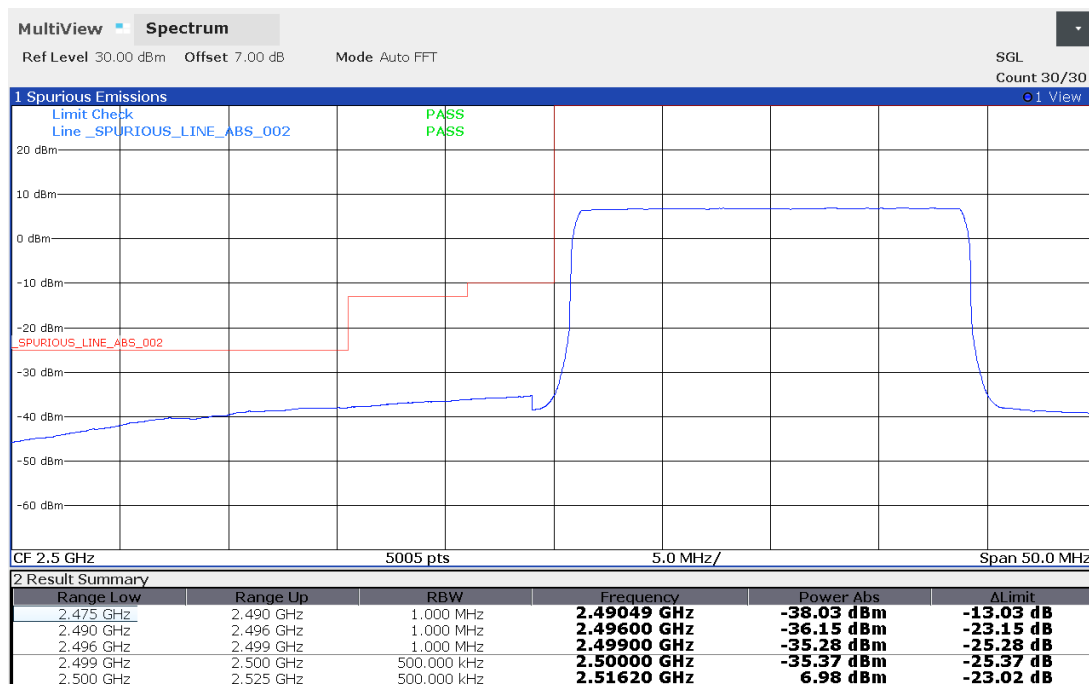


HIGH BAND EDGE BLOCK-1RB-high_offset

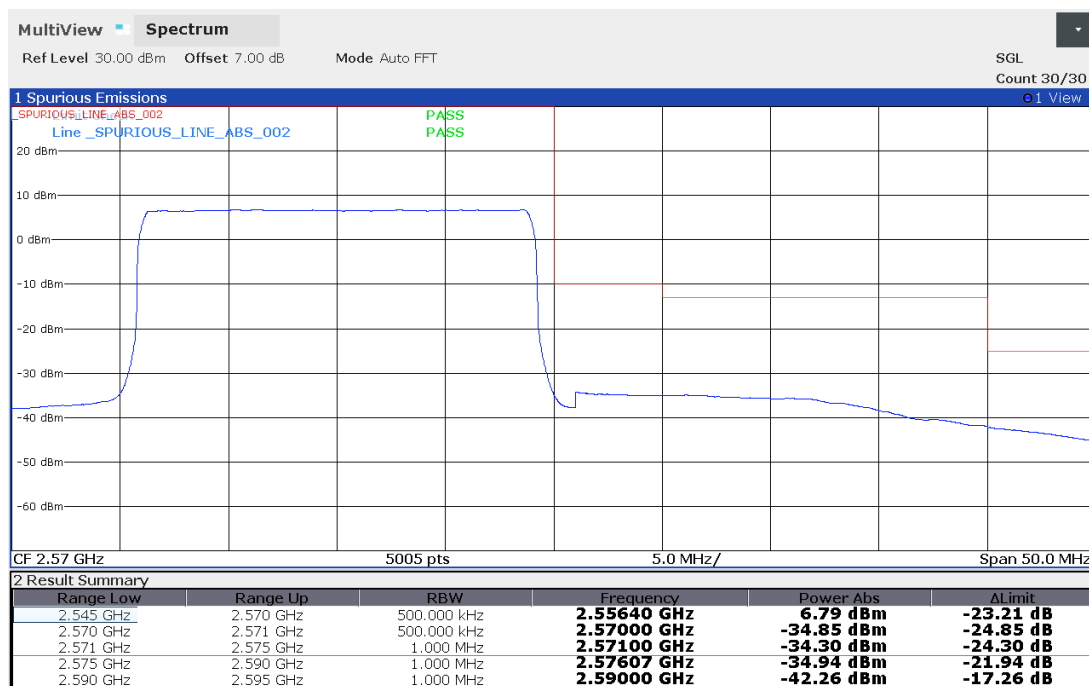




LOW BAND EDGE BLOCK-20MHz-100%RB



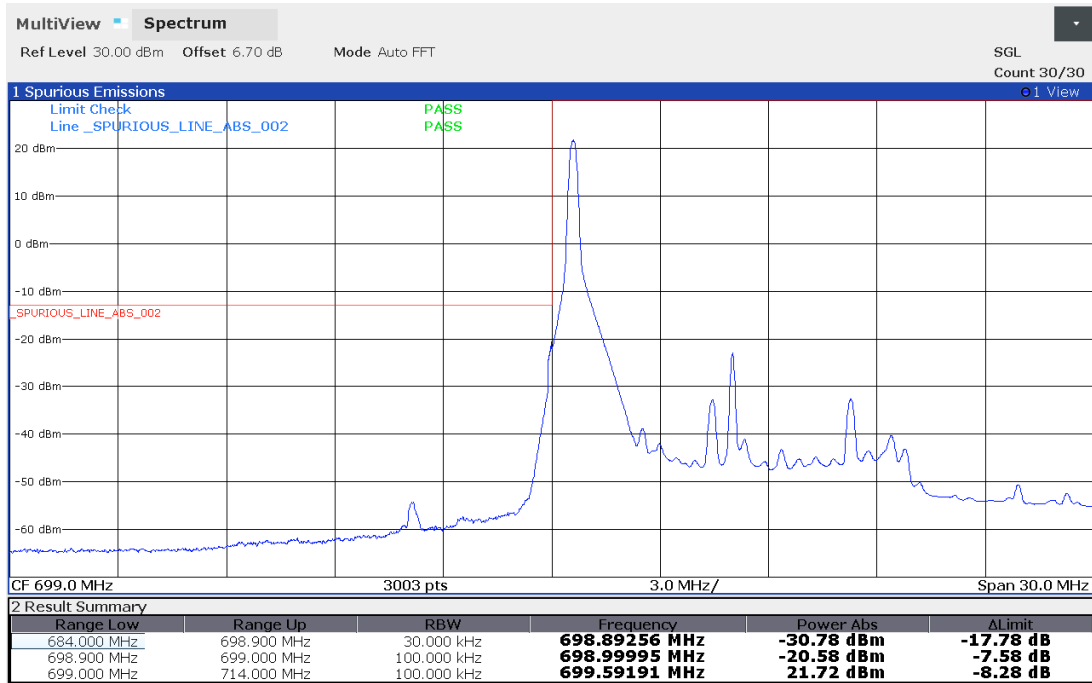
HIGH BAND EDGE BLOCK-20MHz-100%RB



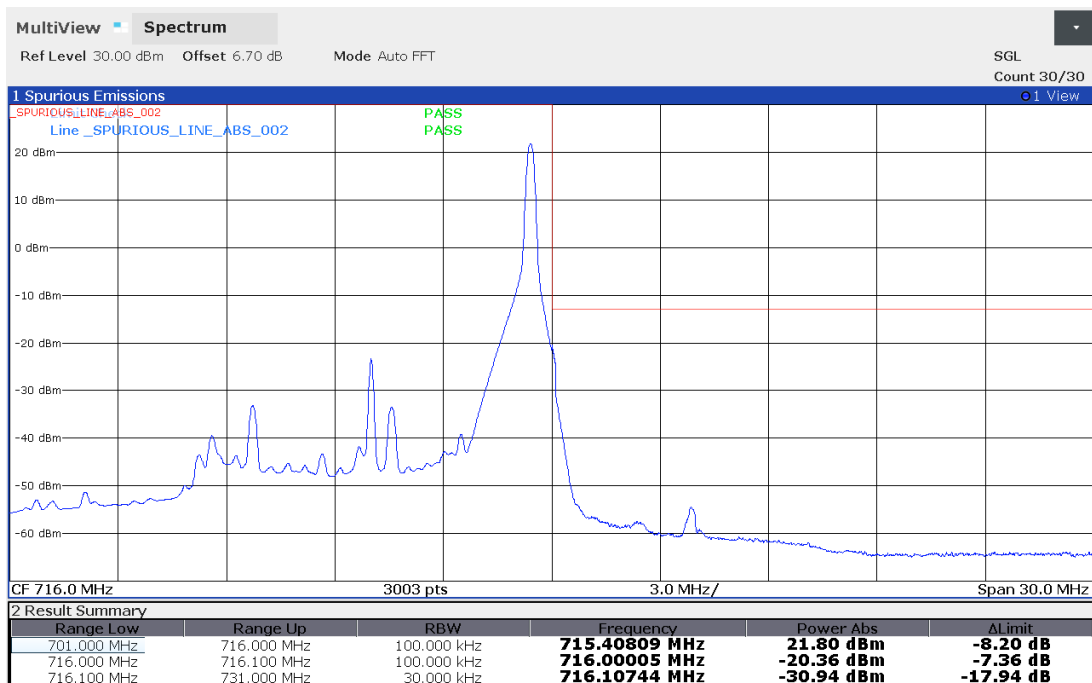


LTE Band 12

LOW BAND EDGE BLOCK-1RB-low_offset

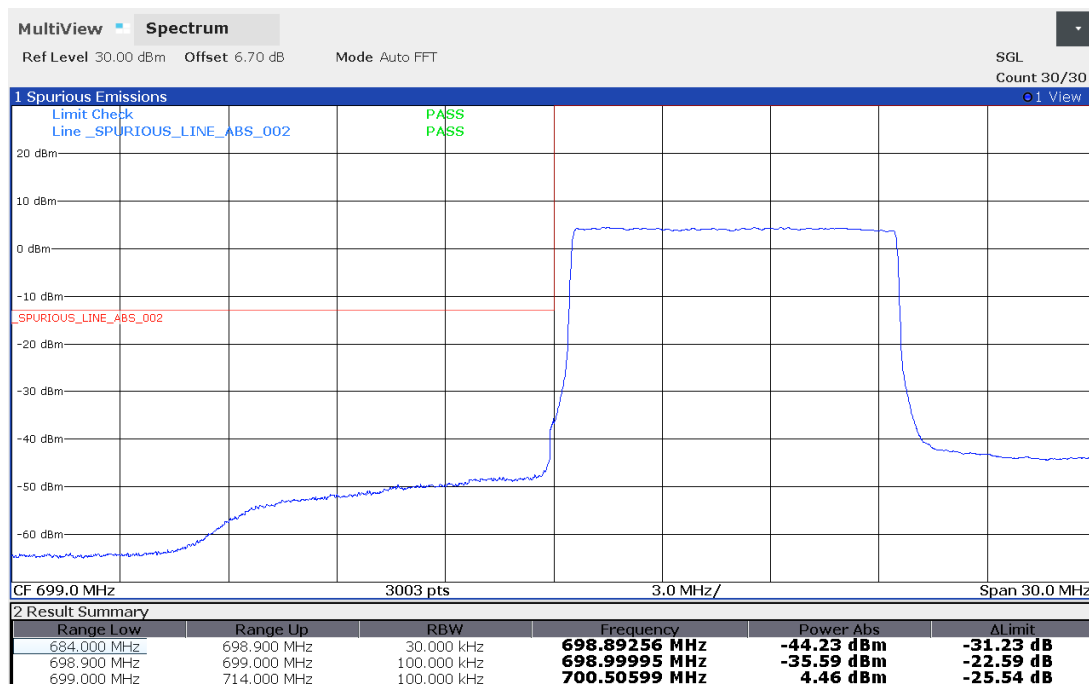


HIGH BAND EDGE BLOCK-1RB-high_offset

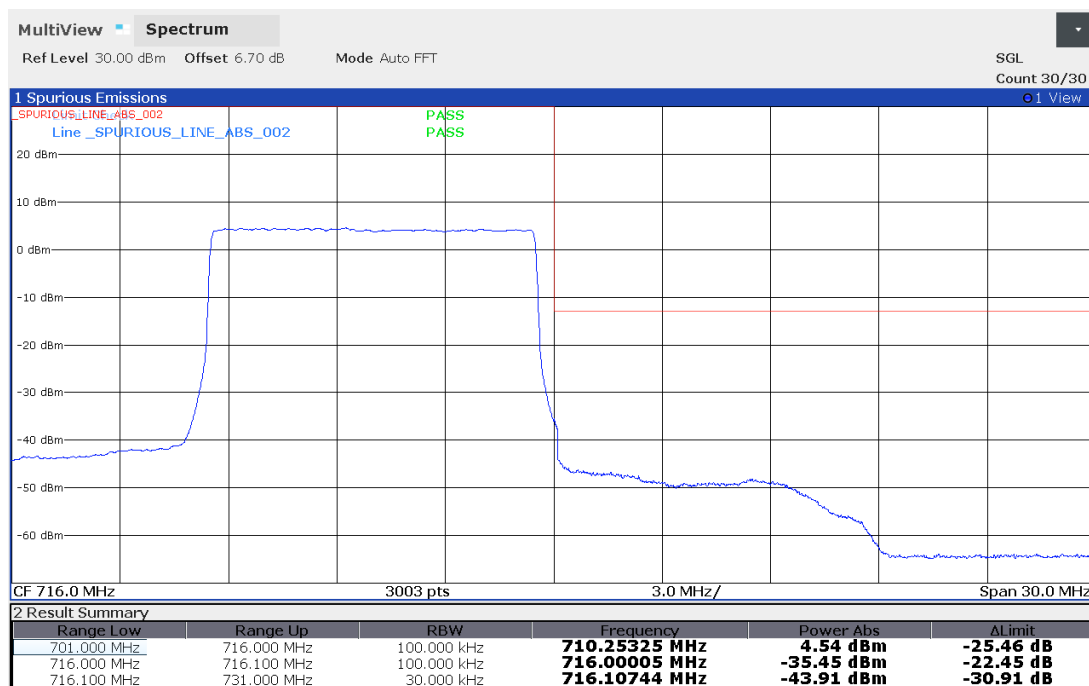




LOW BAND EDGE BLOCK-10MHz-100%RB



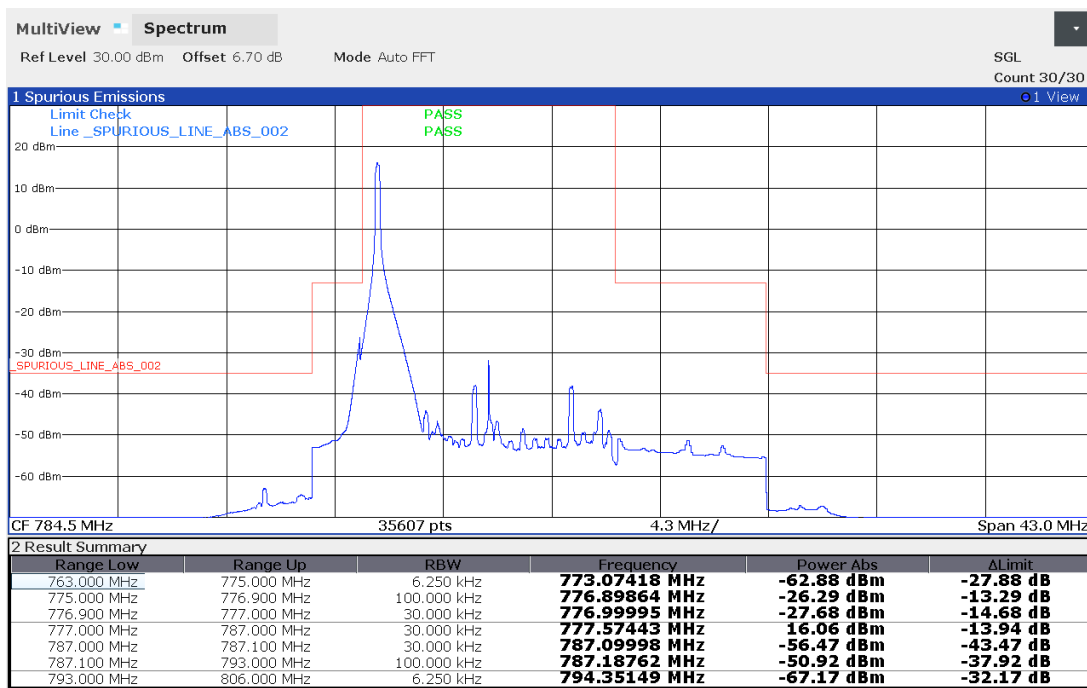
HIGH BAND EDGE BLOCK-10MHz-100%RB



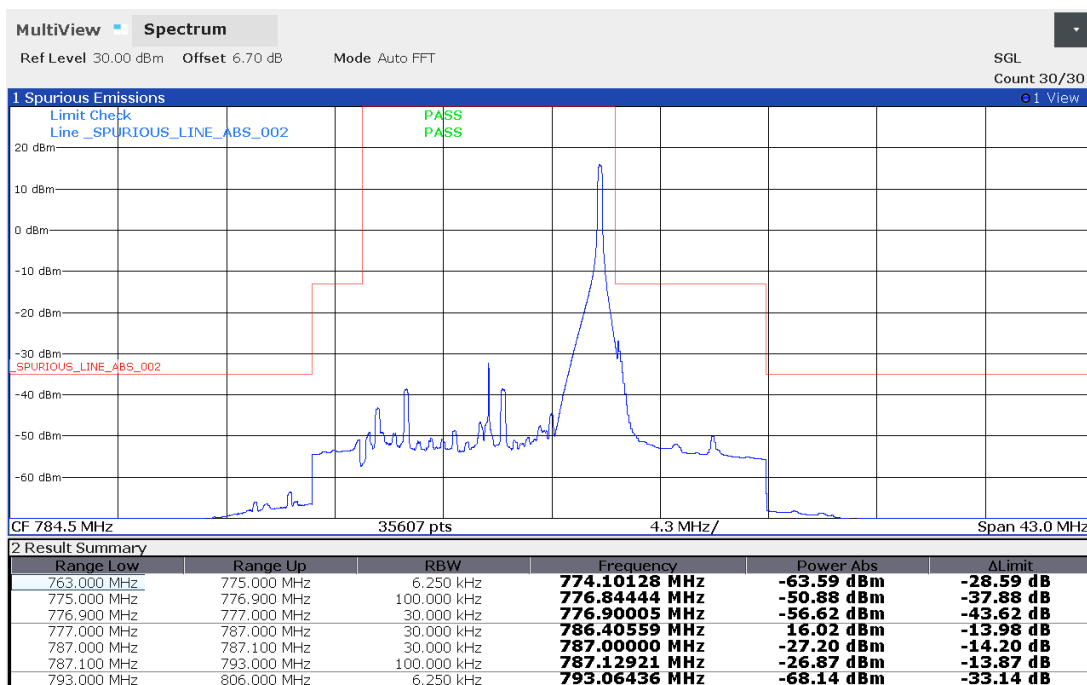


LTE Band 13

LOW BAND EDGE BLOCK-1RB-low_offset

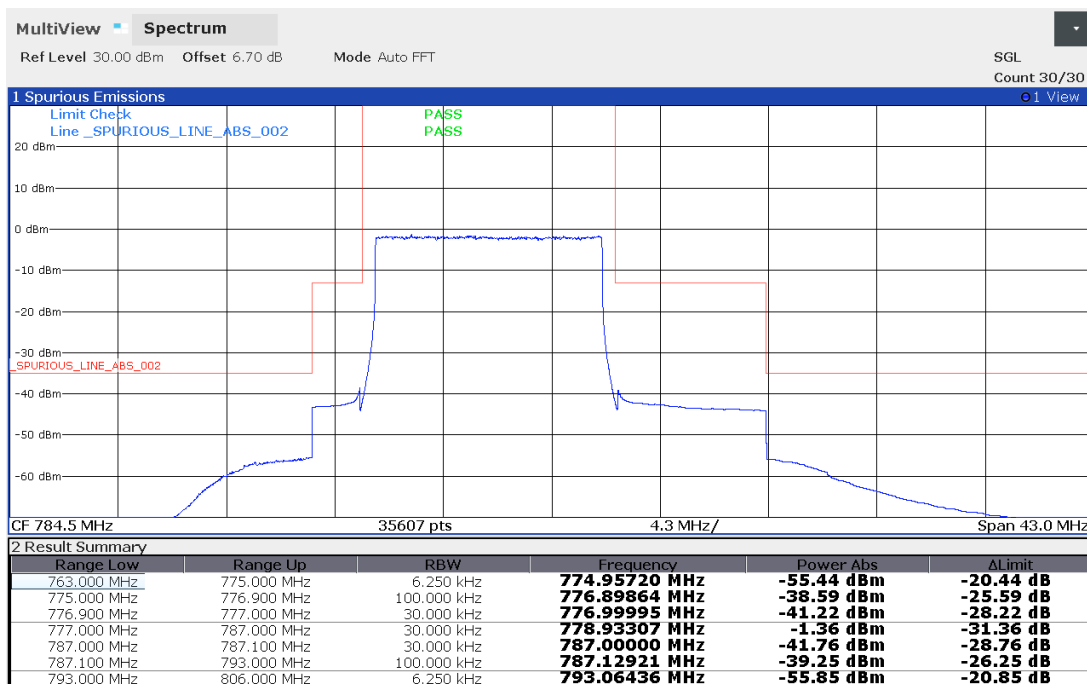


HIGH BAND EDGE BLOCK-1RB-high_offset

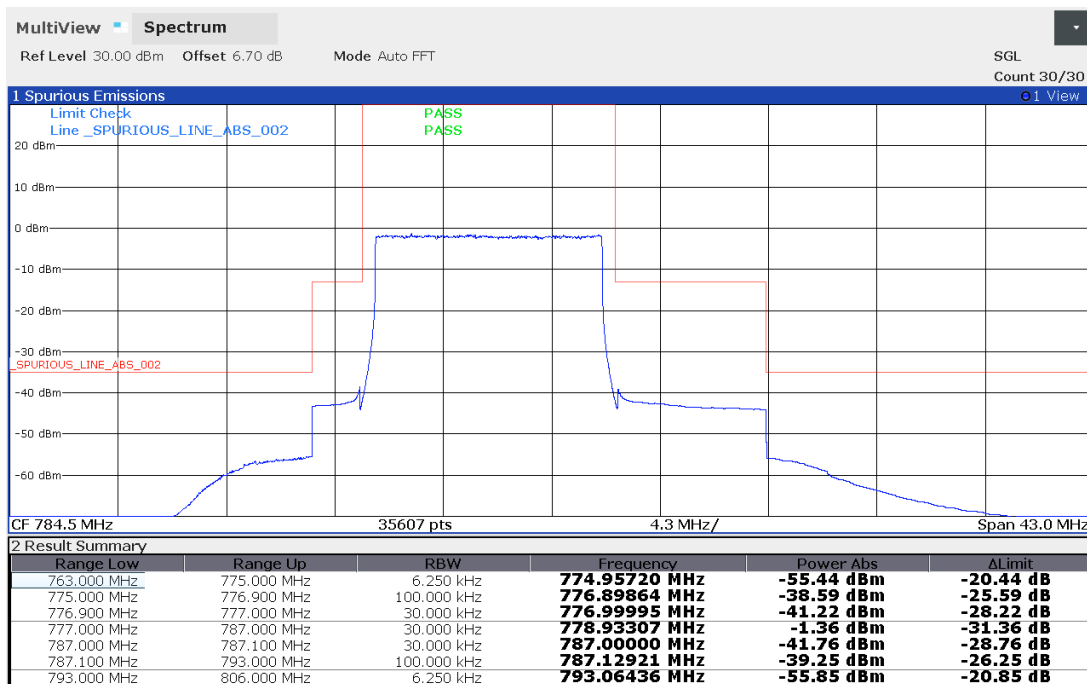




LOW BAND EDGE BLOCK-10MHz-100%RB



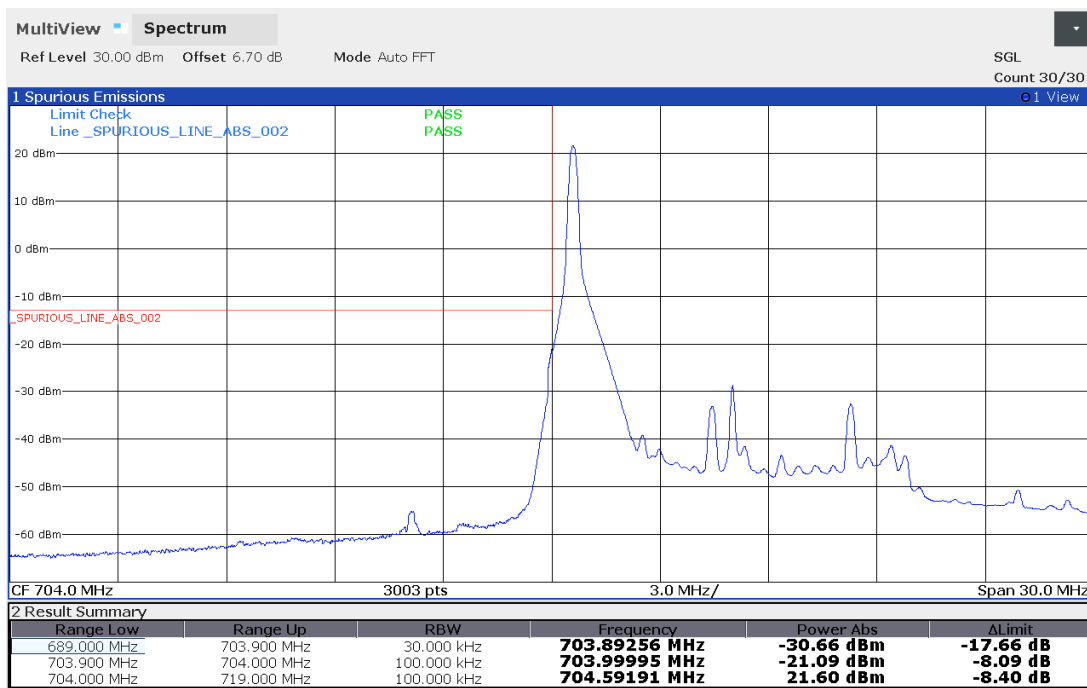
HIGH BAND EDGE BLOCK-10MHz-100%RB



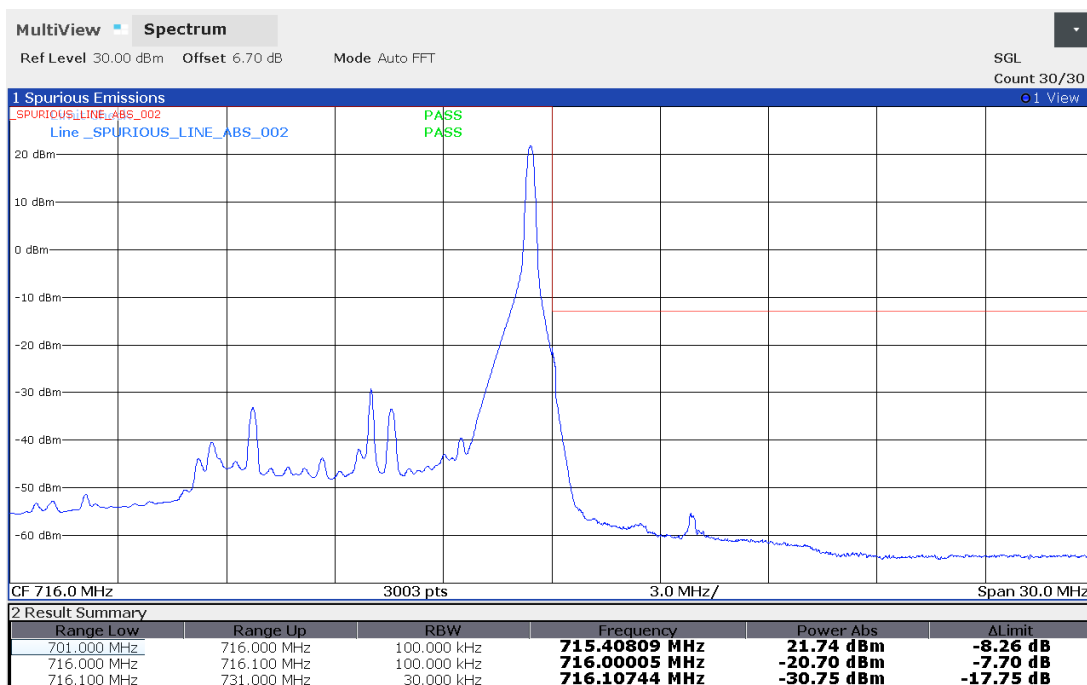


LTE Band 17

LOW BAND EDGE BLOCK-1RB-low_offset

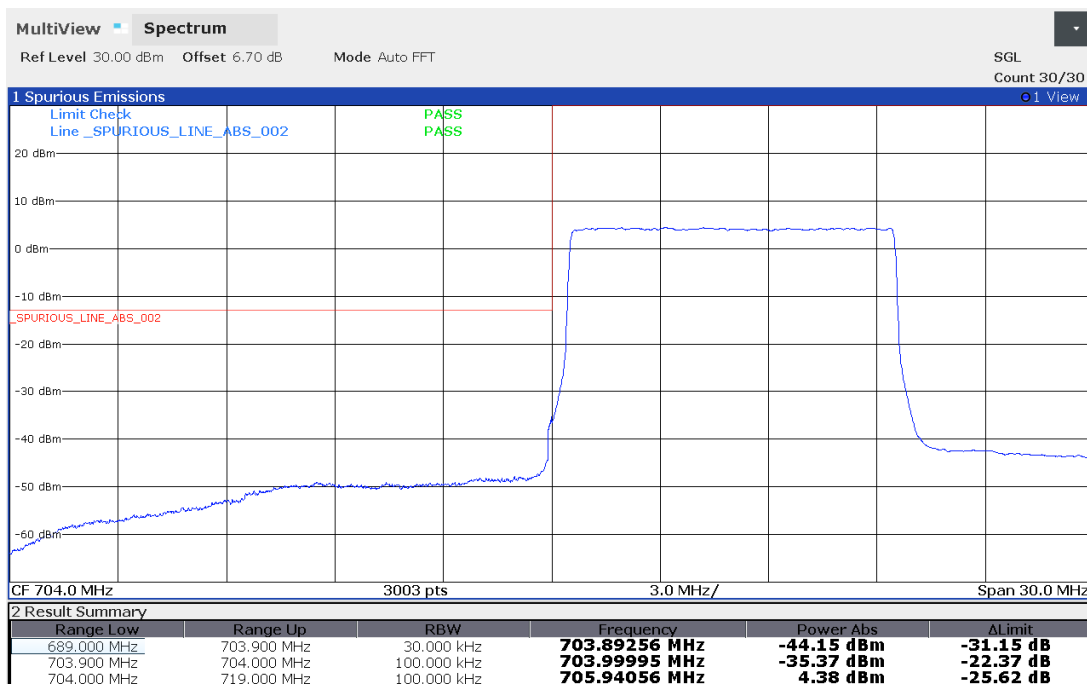


HIGH BAND EDGE BLOCK-1RB-high_offset

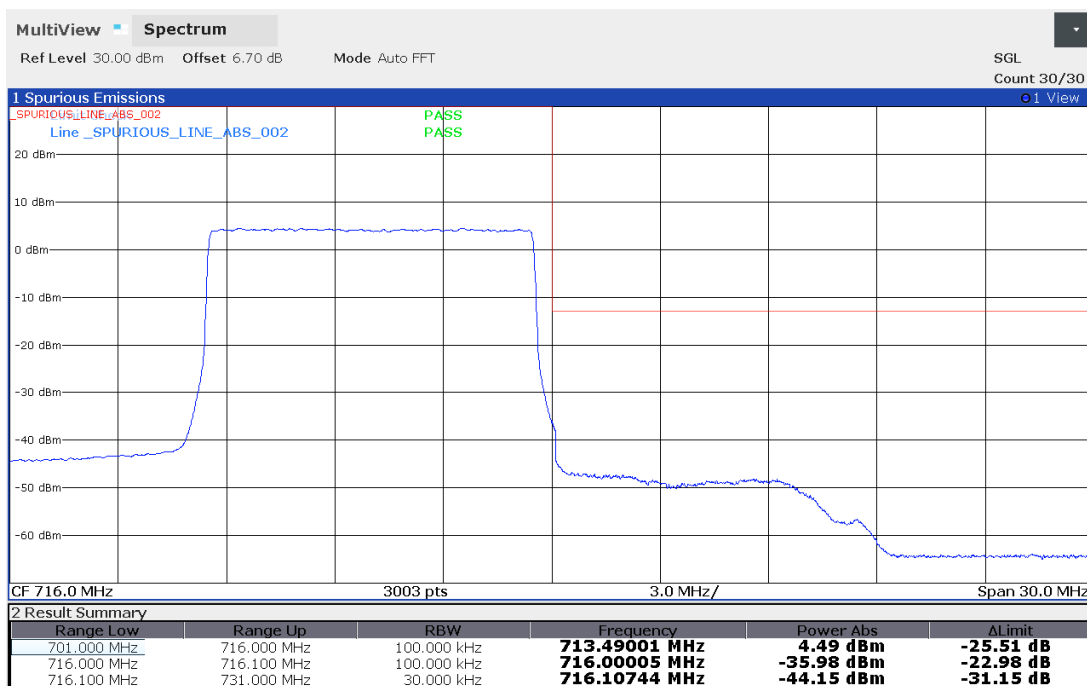




LOW BAND EDGE BLOCK-10MHz-100%RB



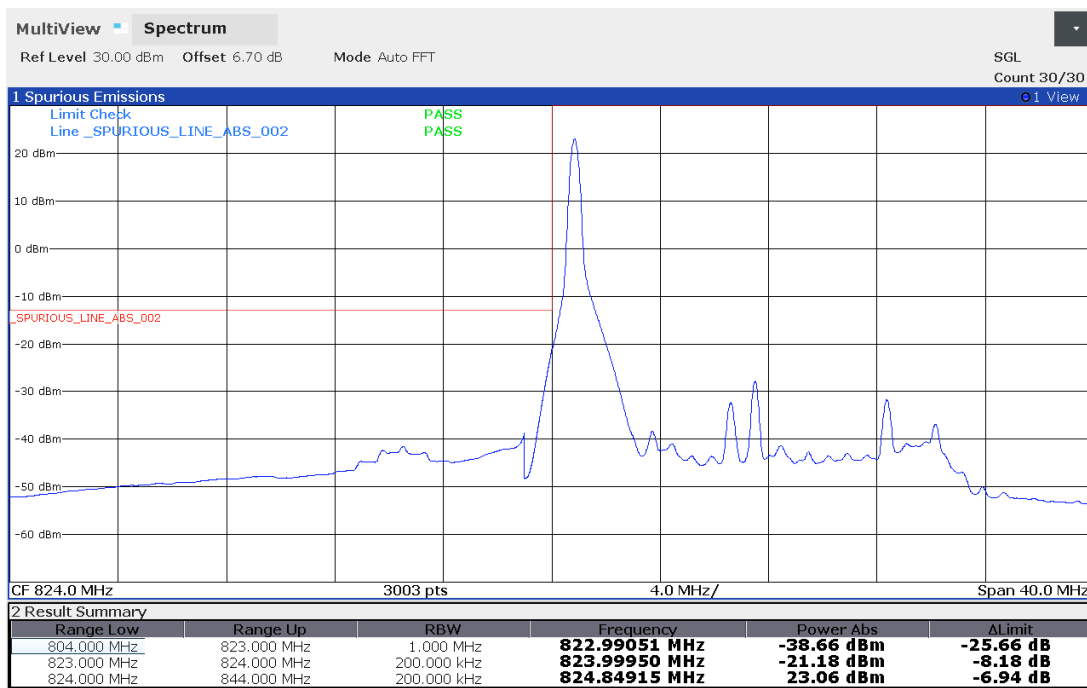
HIGH BAND EDGE BLOCK-10MHz-100%RB



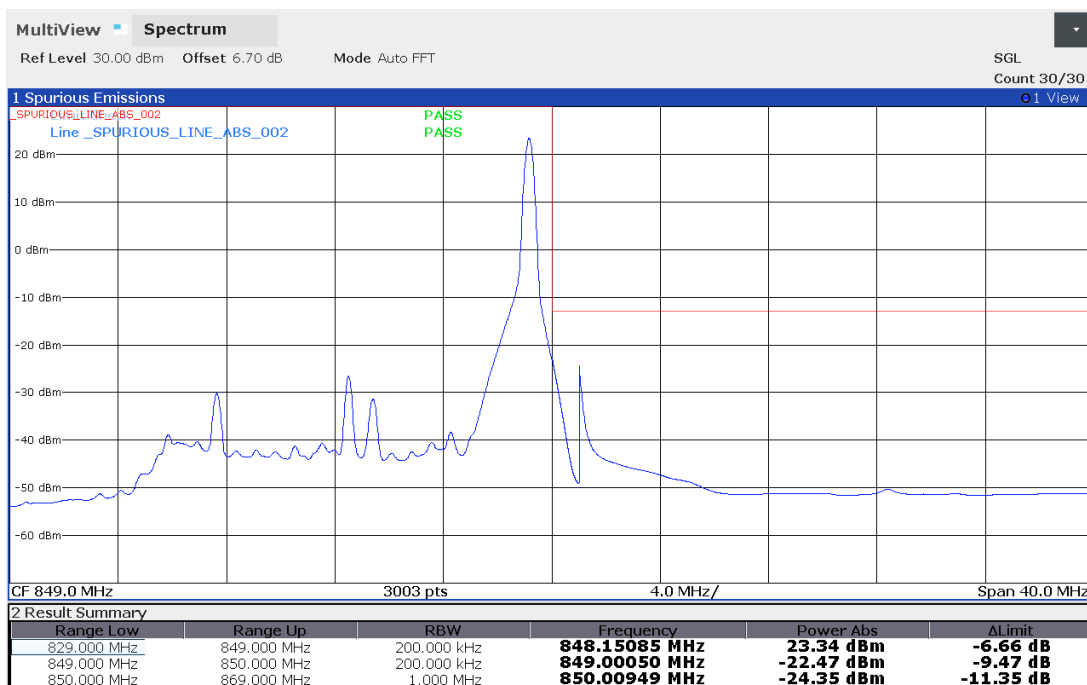


LTE Band 26 (824MHz-849MHz)

LOW BAND EDGE BLOCK-1RB-low_offset

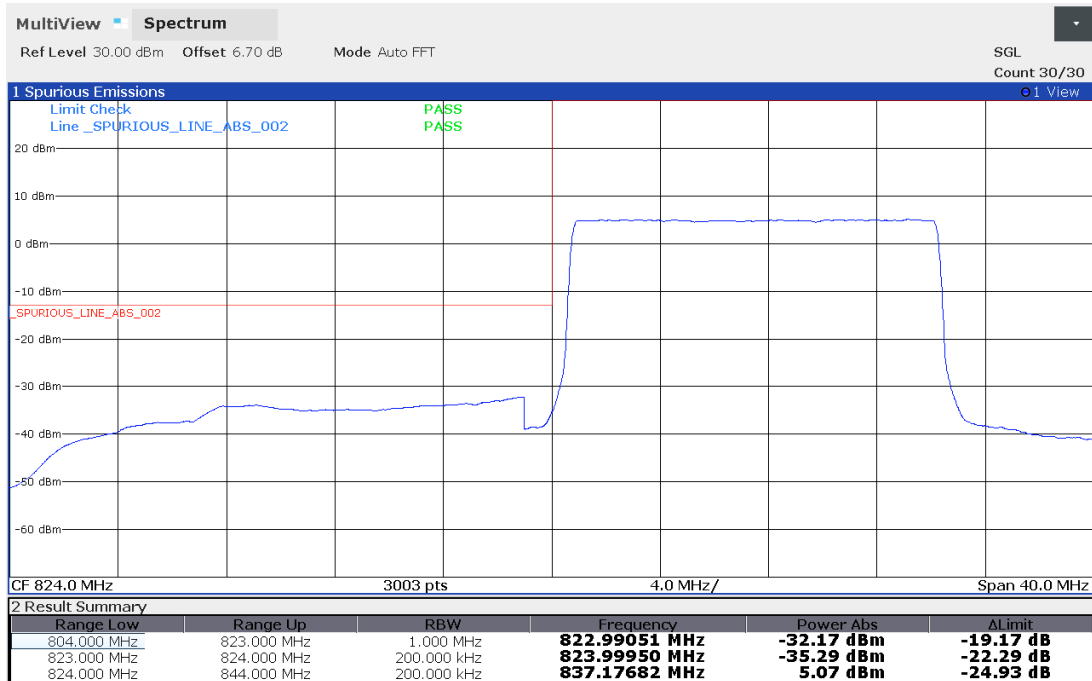


HIGH BAND EDGE BLOCK-1RB-high_offset

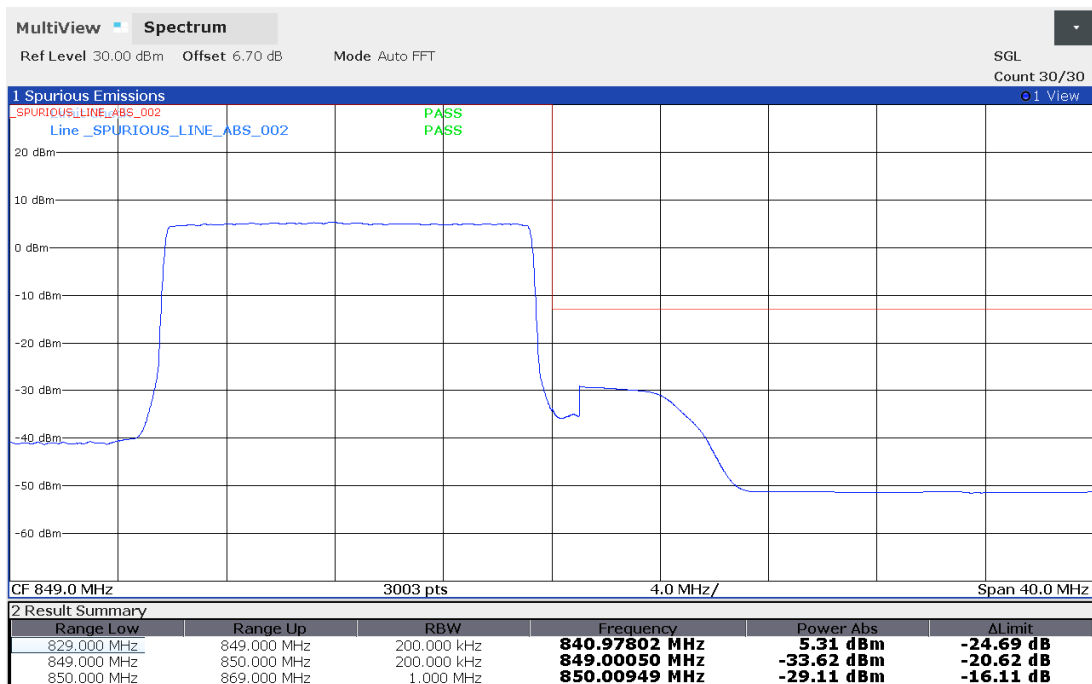




LOW BAND EDGE BLOCK-15MHz-100%RB



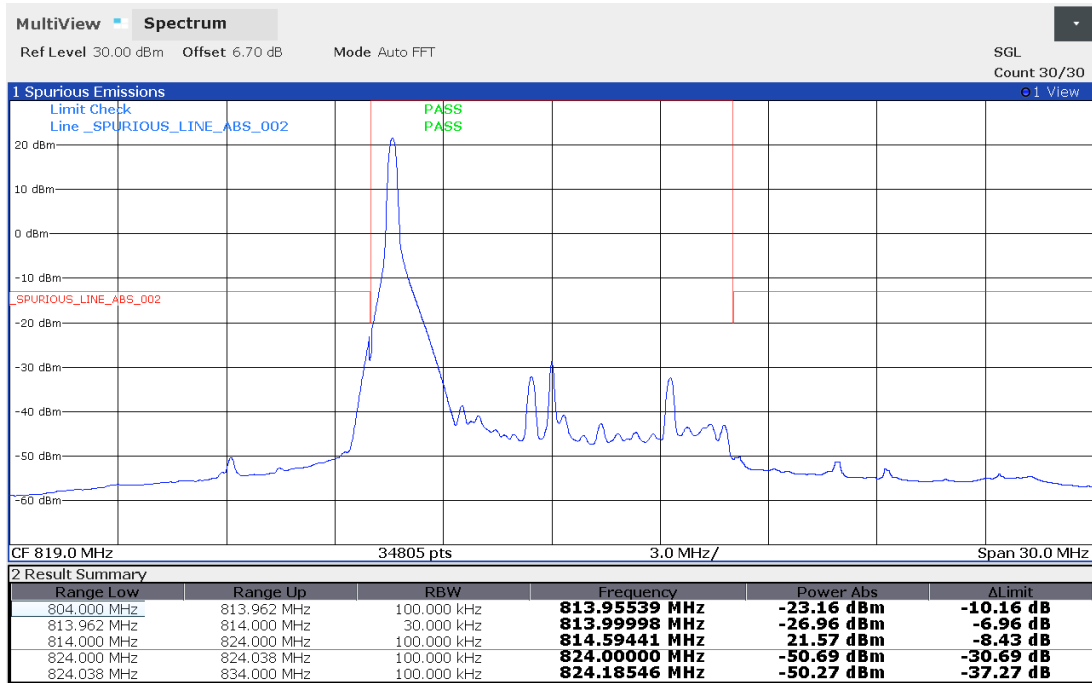
HIGH BAND EDGE BLOCK-15MHz-100%RB



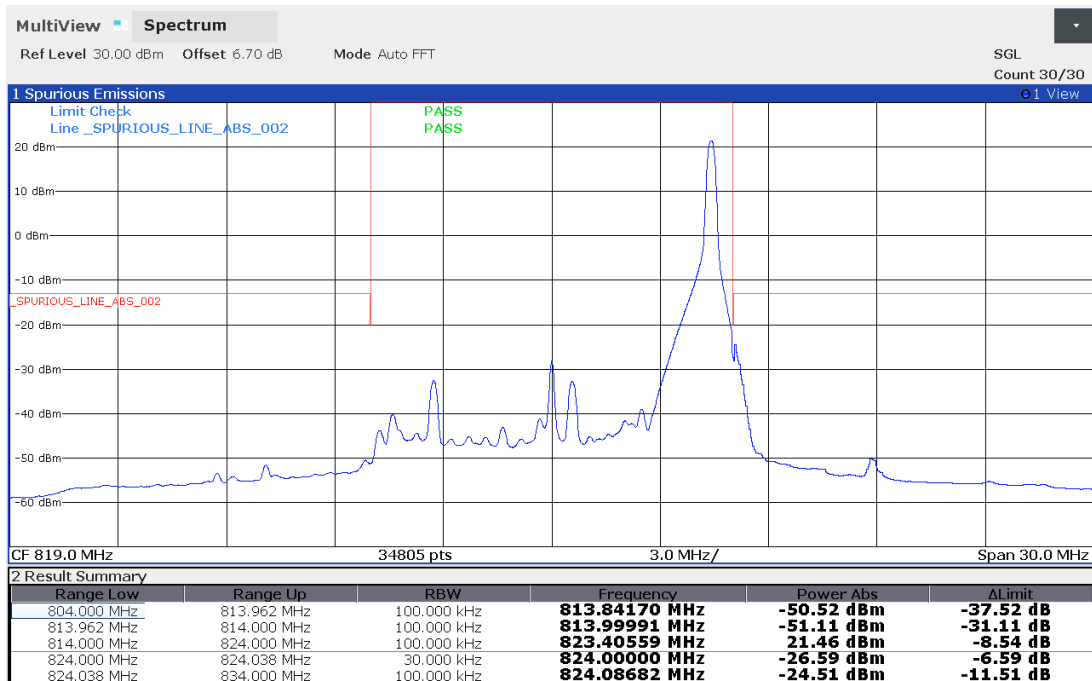


LTE Band 26 (814MHz-824MHz)

LOW BAND EDGE BLOCK-1RB-low_offset

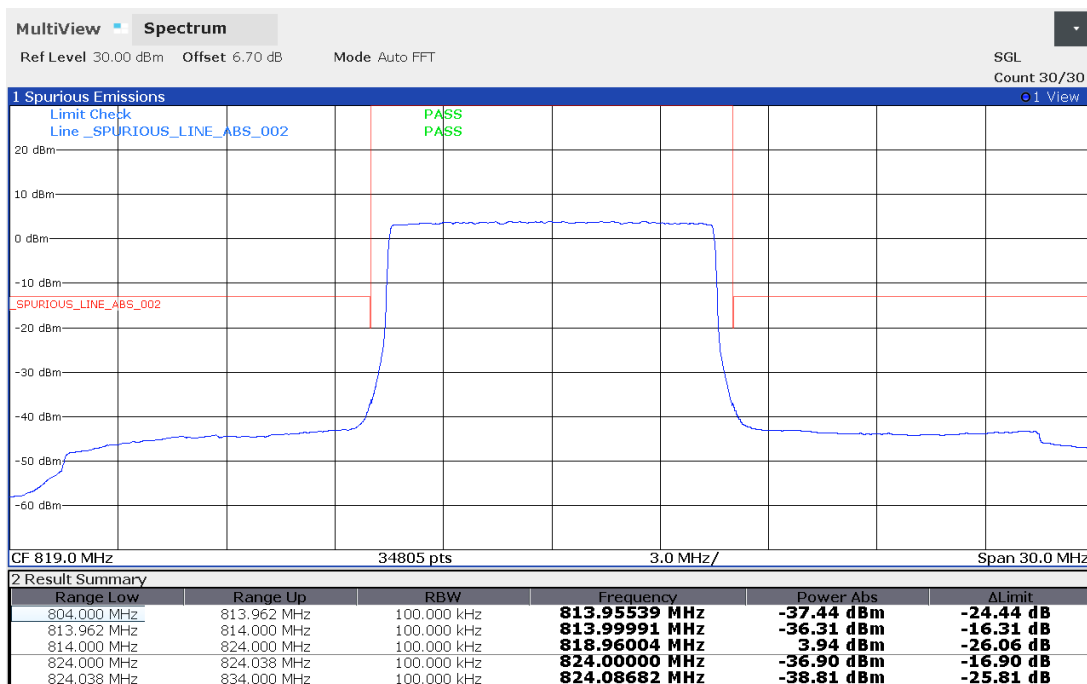


HIGH BAND EDGE BLOCK-1RB-high_offset

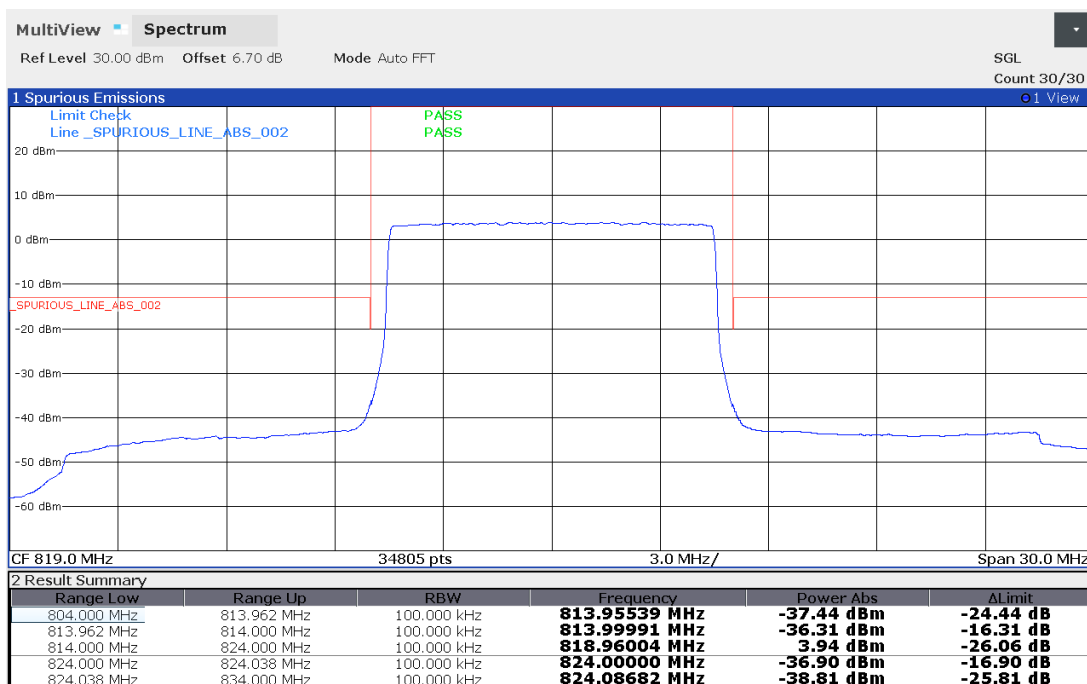




LOW BAND EDGE BLOCK-10MHz-100%RB



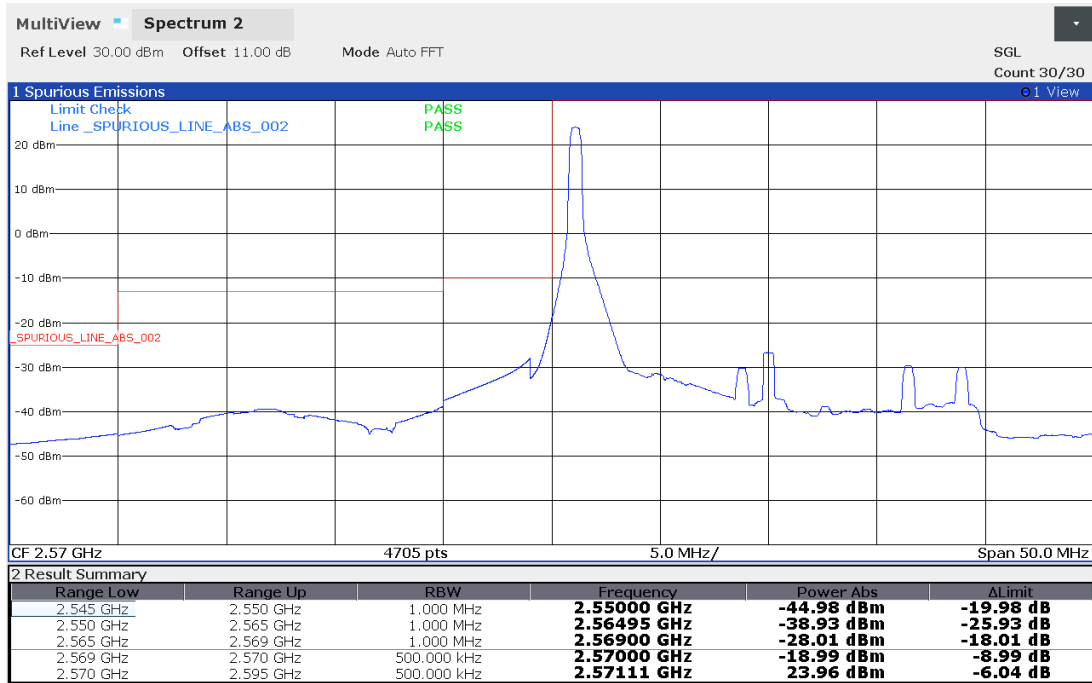
HIGH BAND EDGE BLOCK-10MHz-100%RB



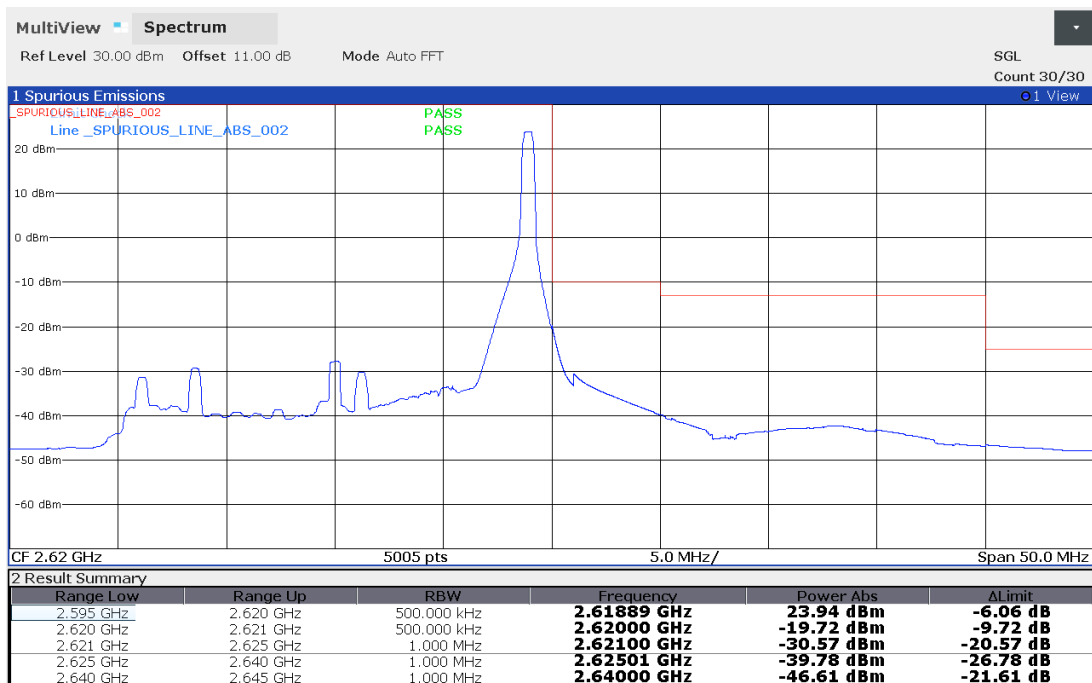


LTE Band 38

LOW BAND EDGE BLOCK-1RB-low_offset



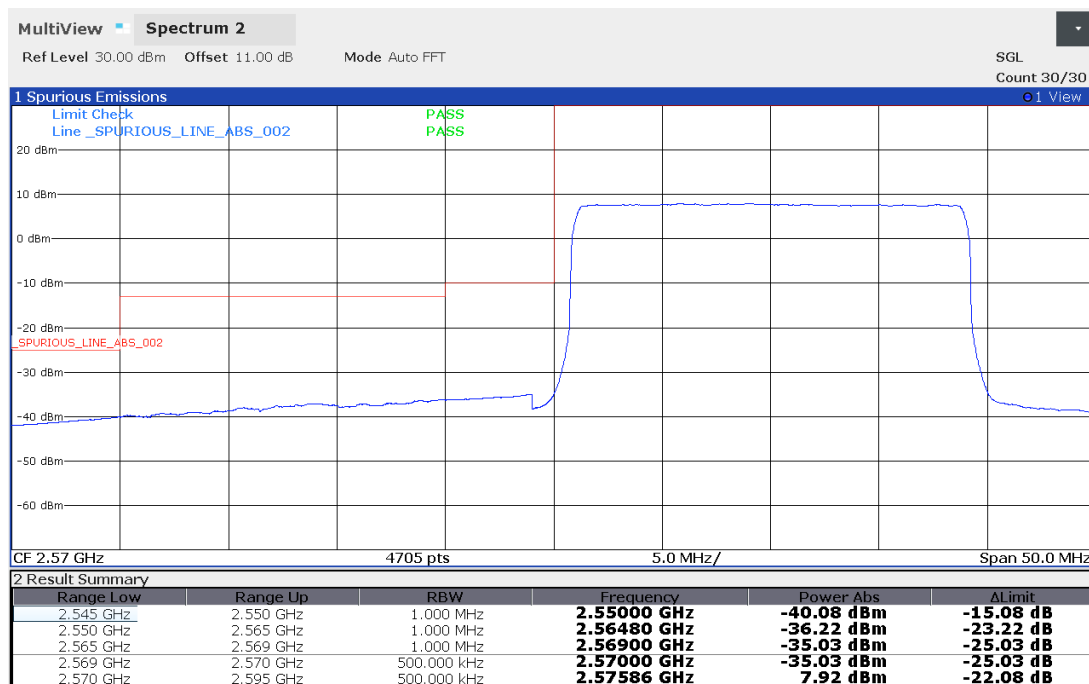
HIGH BAND EDGE BLOCK-1RB-high_offset



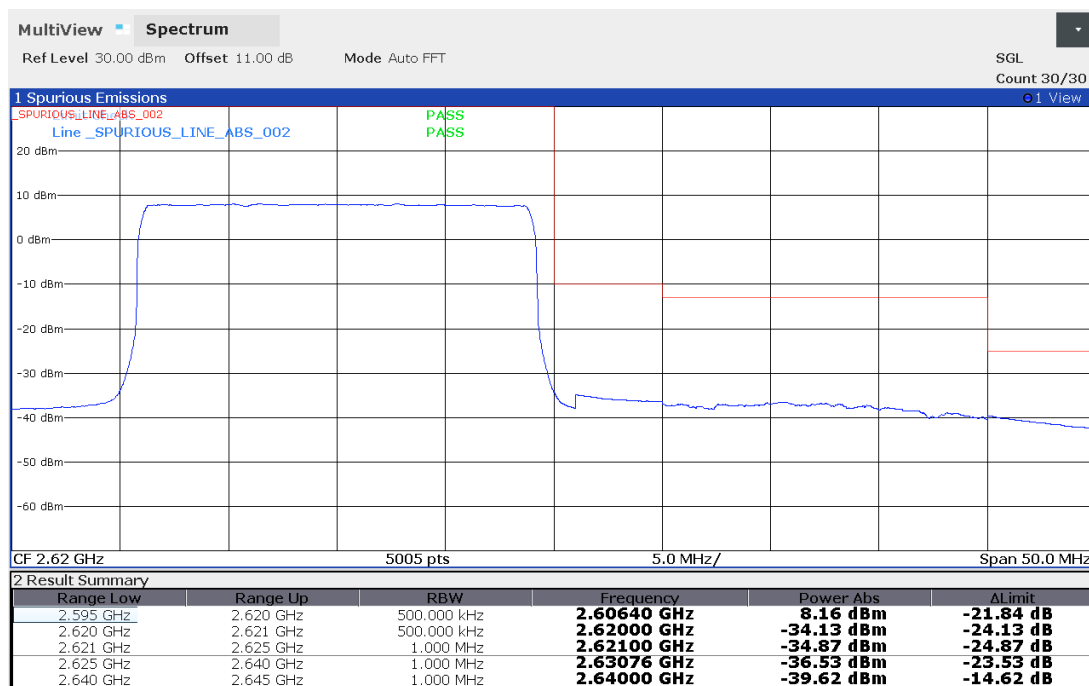


No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

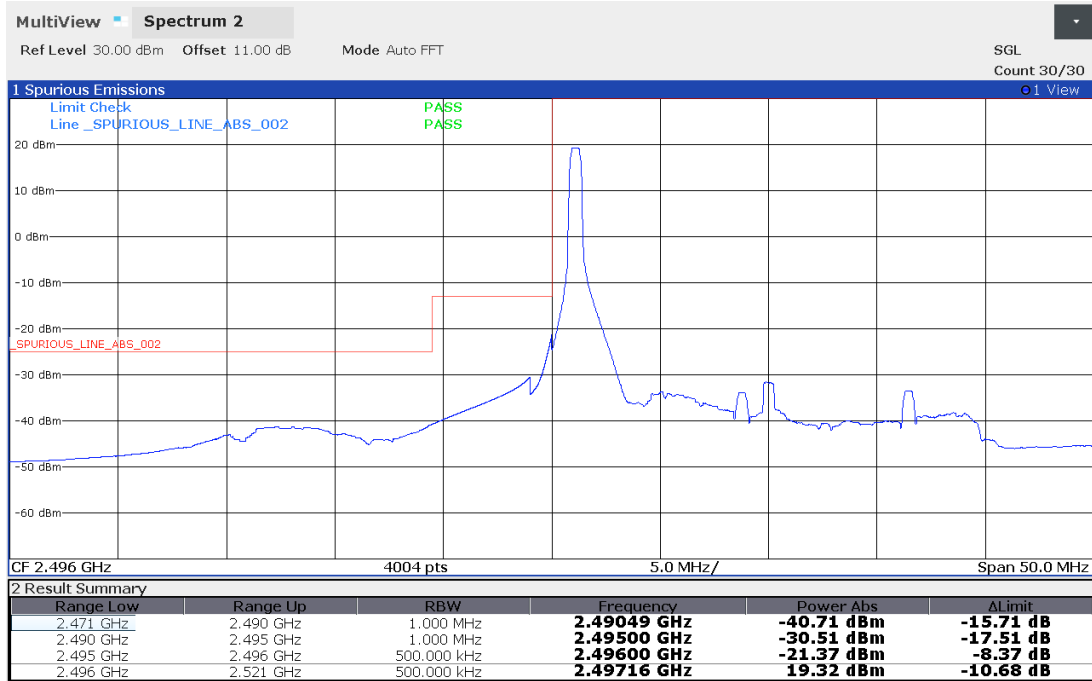




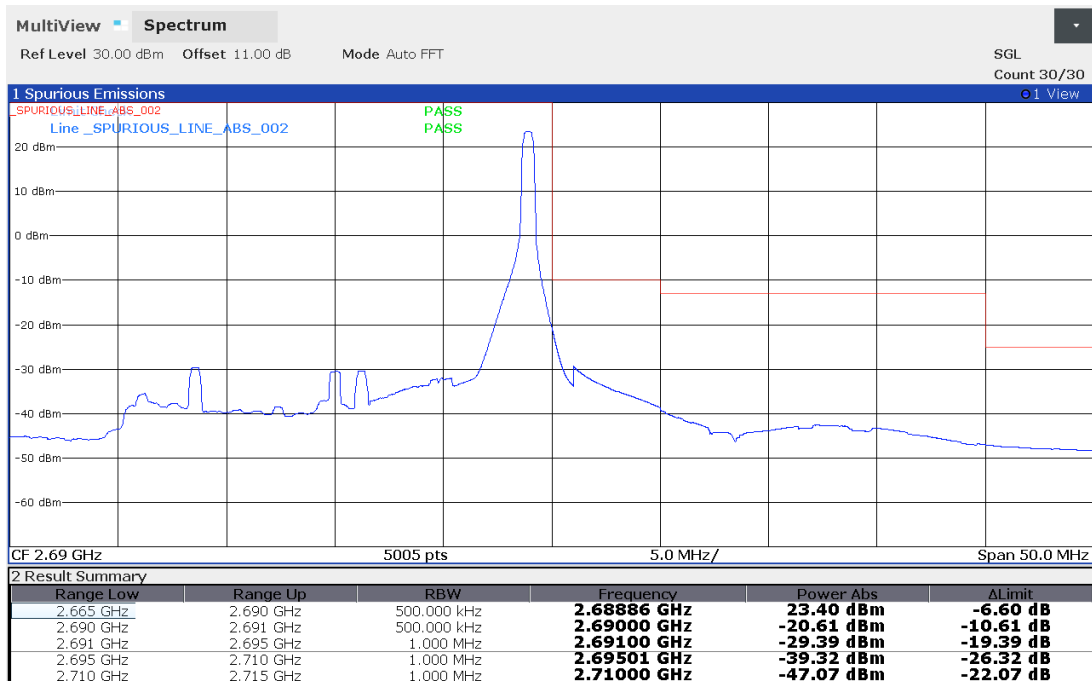
No.25T04N000127-003-RF LTE

LTE Band 41

LOW BAND EDGE BLOCK-1RB-low_offset



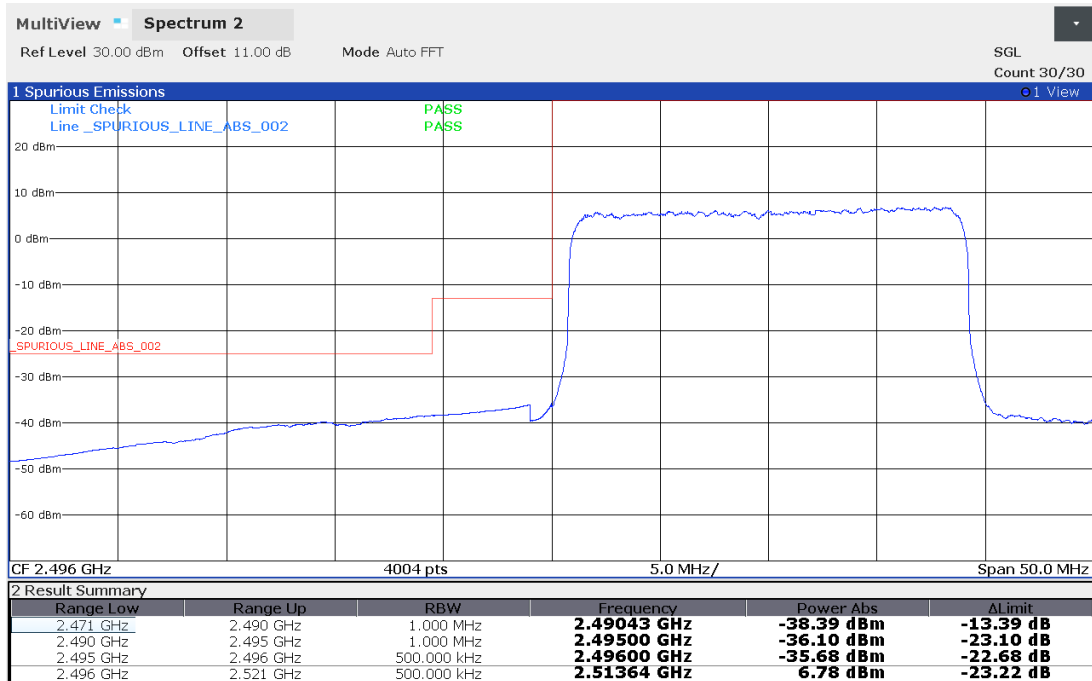
HIGH BAND EDGE BLOCK-1RB-high_offset



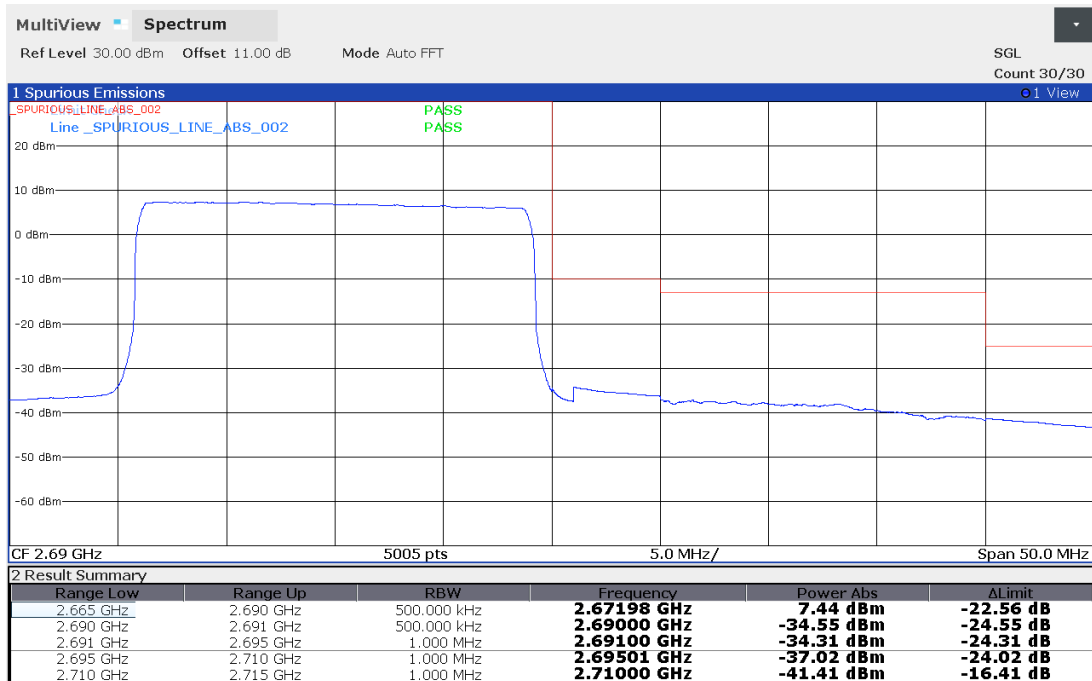


No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-20MHz-100%RB



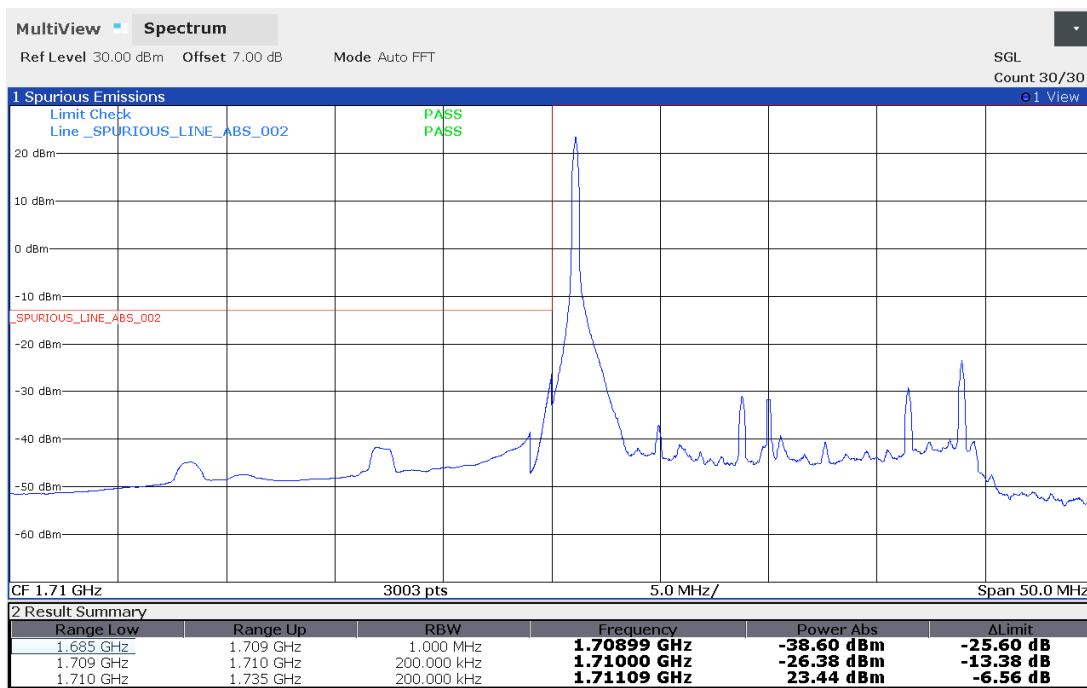
HIGH BAND EDGE BLOCK-20MHz-100%RB



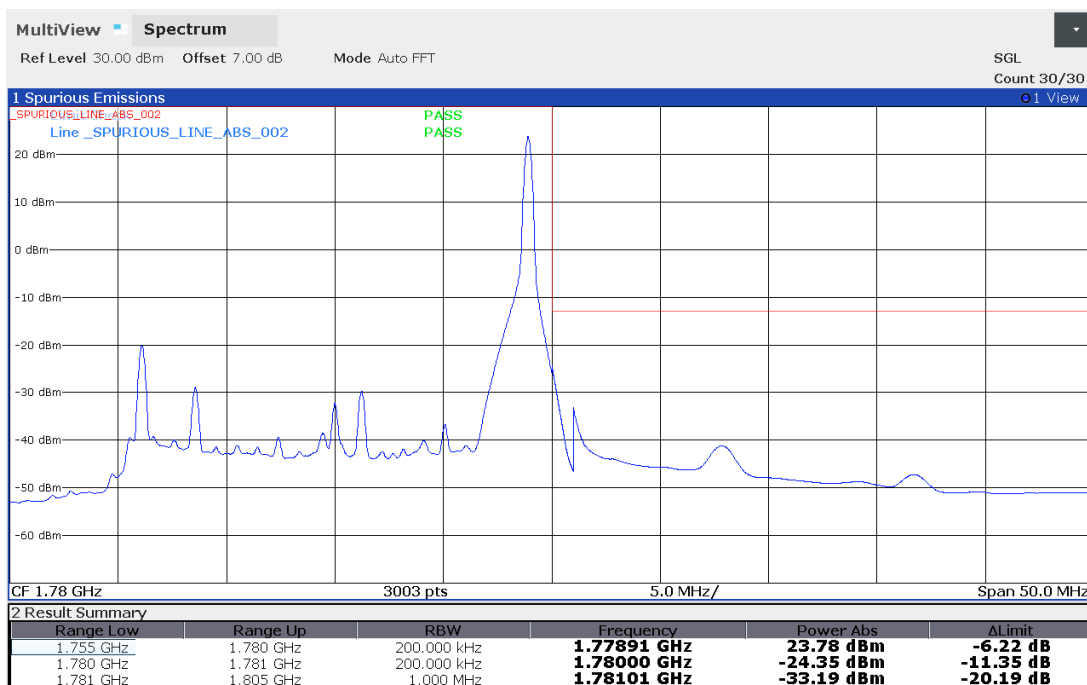


LTE Band 66

LOW BAND EDGE BLOCK-1RB-low_offset

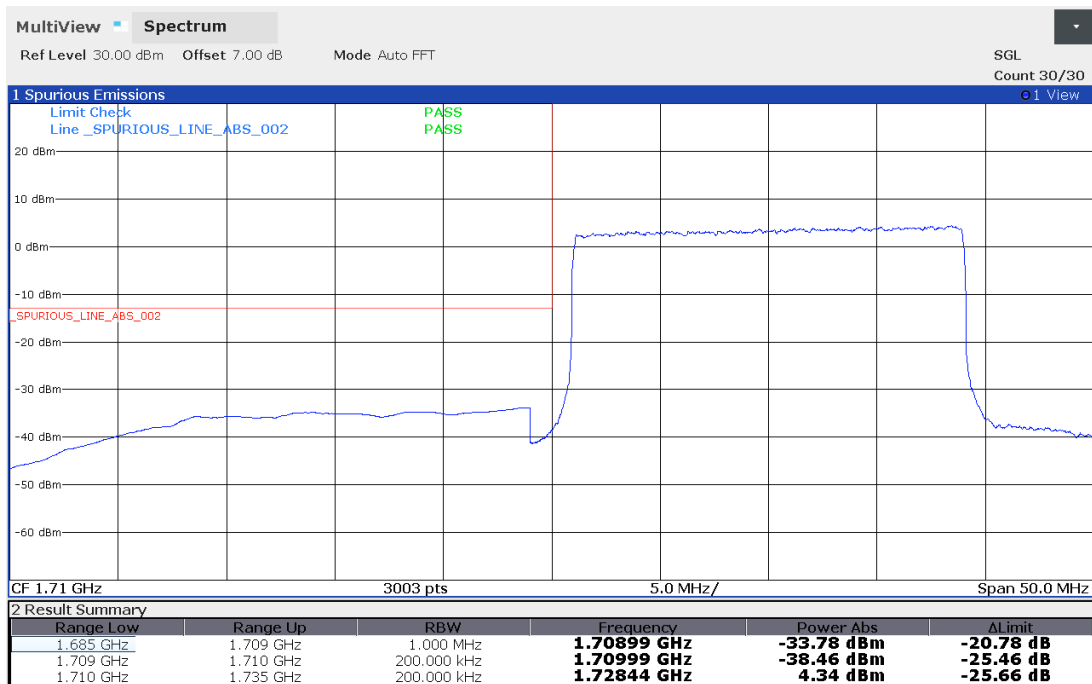


HIGH BAND EDGE BLOCK-1RB-high_offset





LOW BAND EDGE BLOCK-20MHz-100%RB



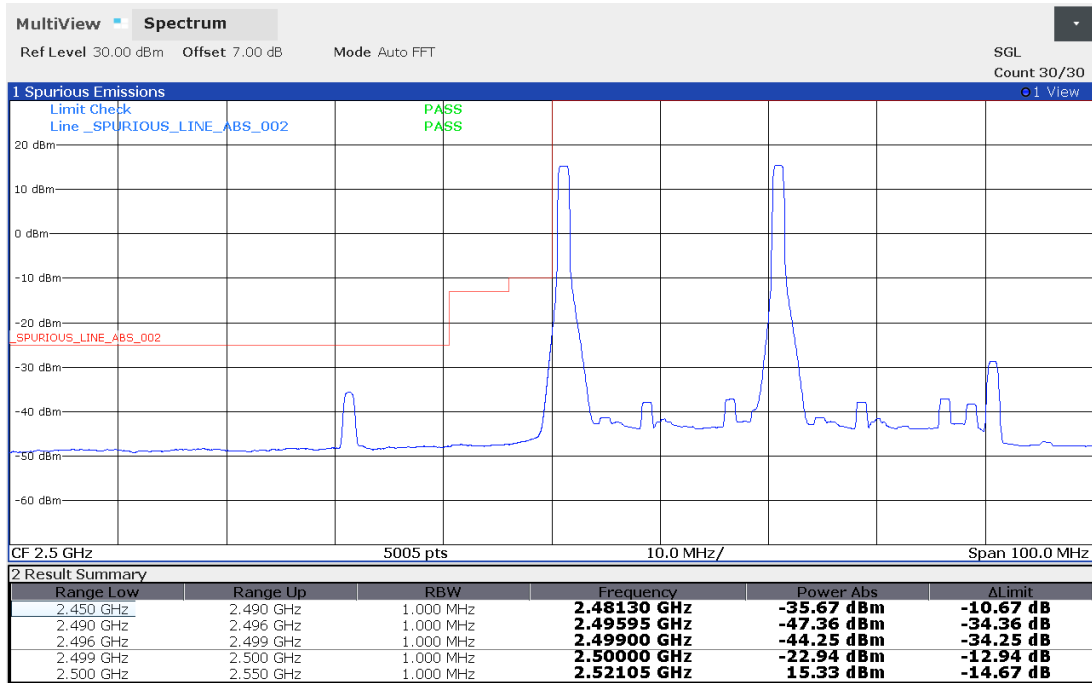
HIGH BAND EDGE BLOCK-20MHz-100%RB



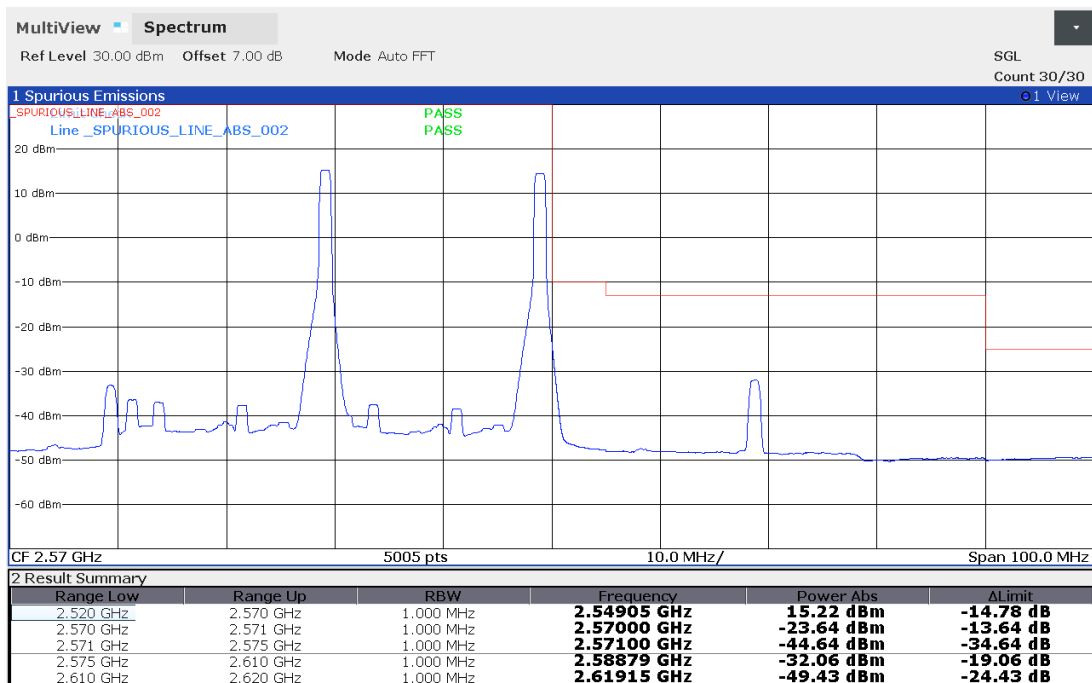


LTE CA_7C

LOW BAND EDGE BLOCK-1RB-low_offset

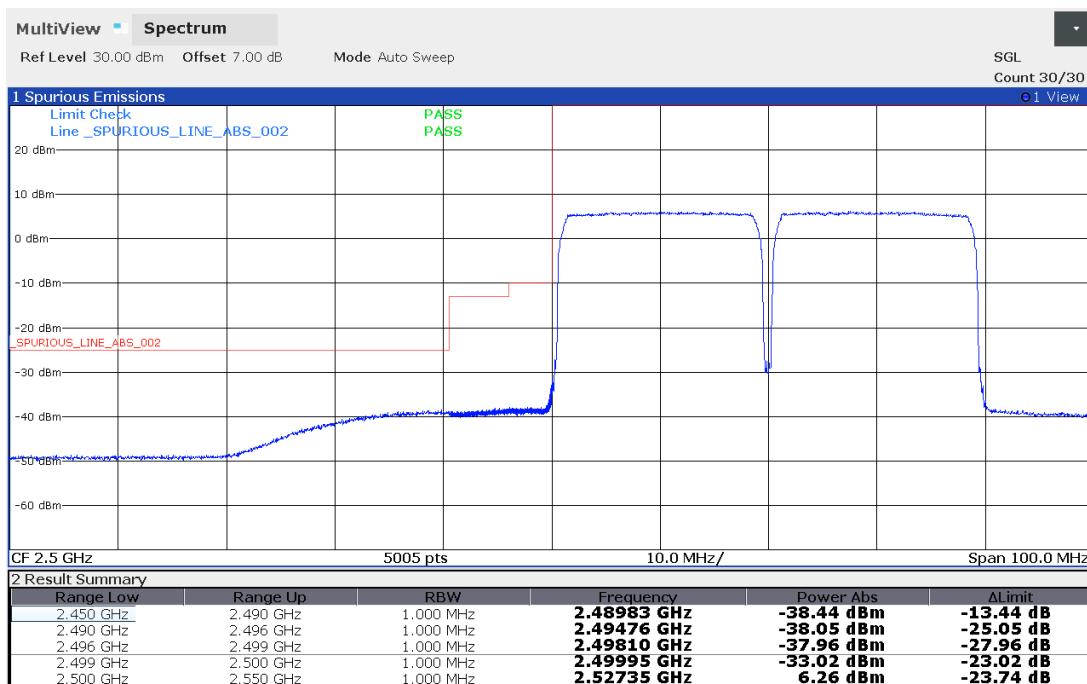


HIGH BAND EDGE BLOCK-1RB-high_offset

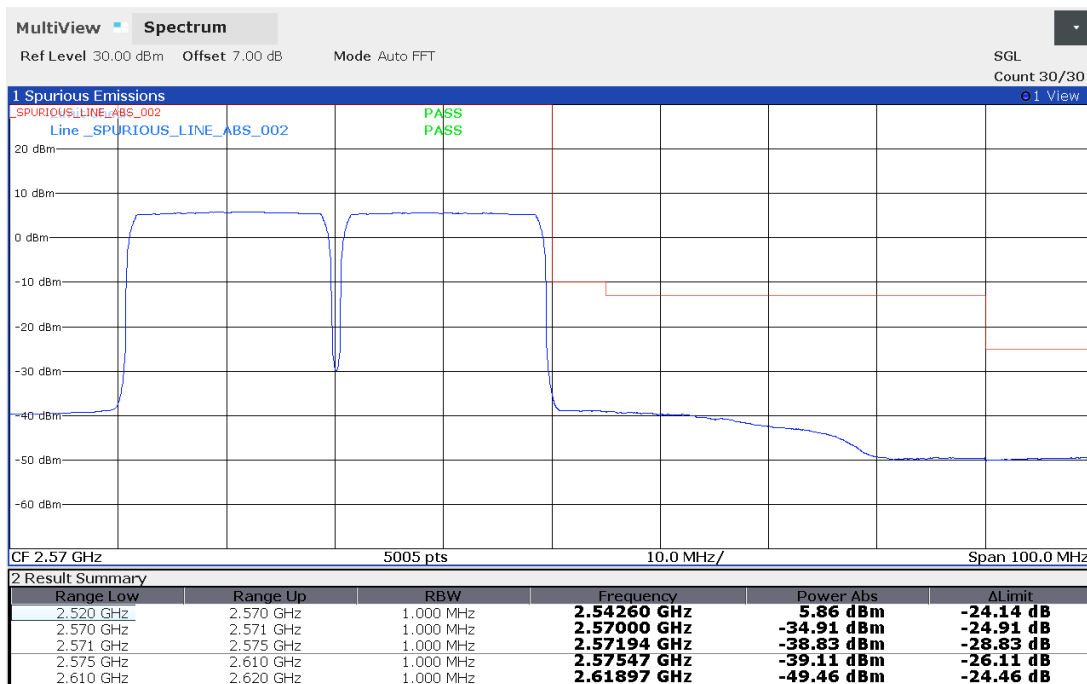




LOW BAND EDGE BLOCK-40MHz-100%RB



HIGH BAND EDGE BLOCK-40MHz-100%RB

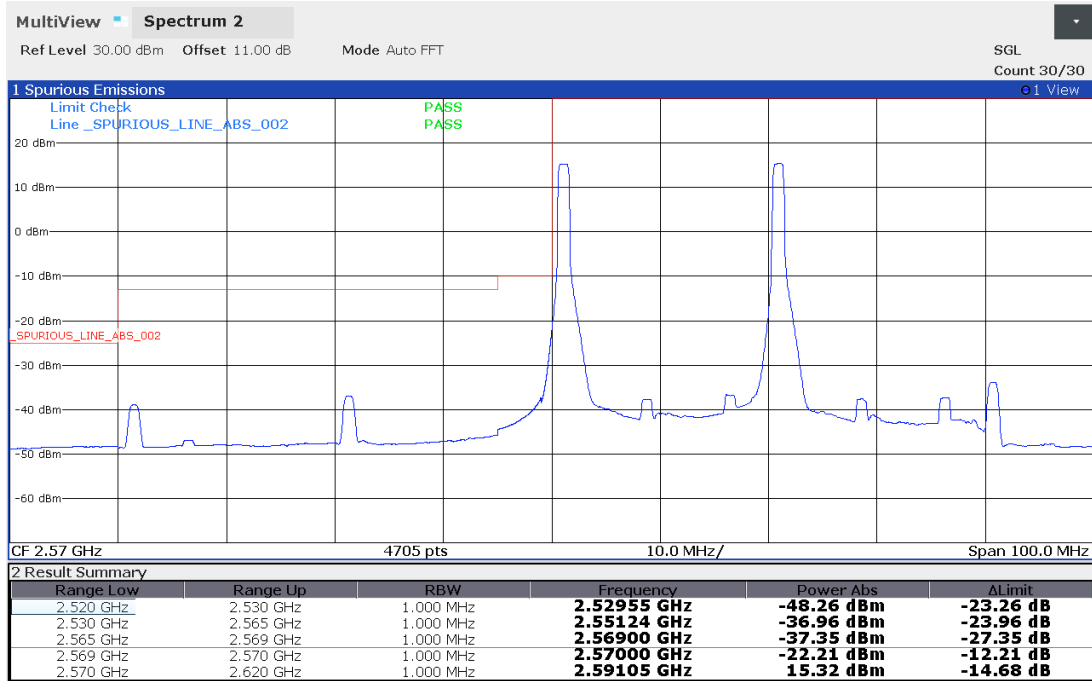




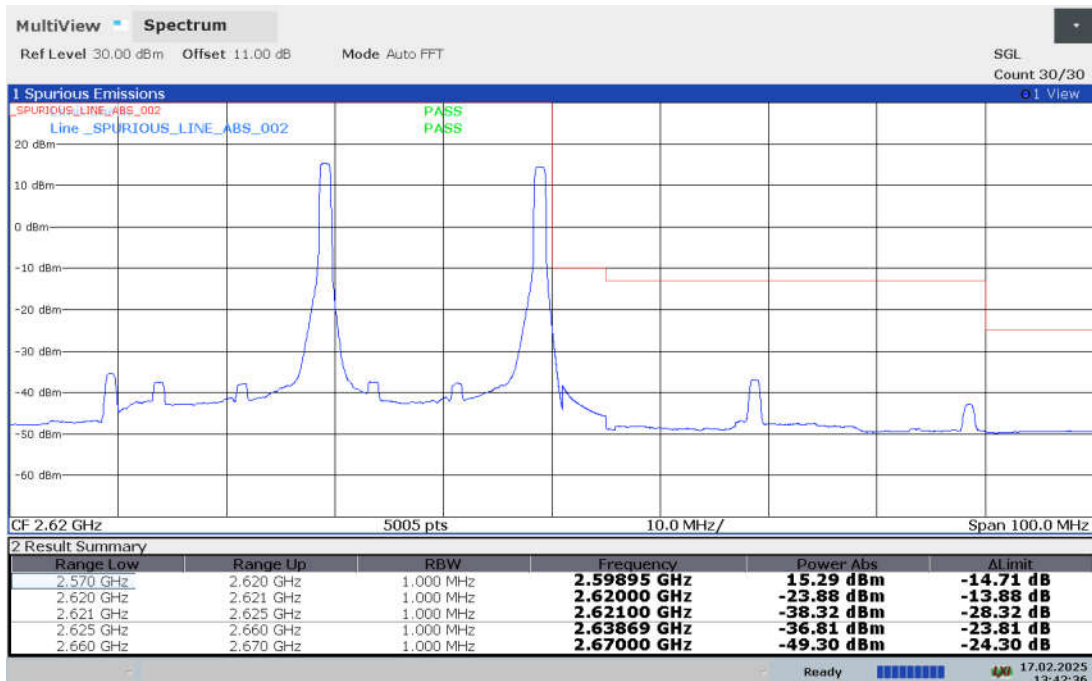
No.25T04N000127-003-RF LTE

LTE CA_38C

LOW BAND EDGE BLOCK-1RB-low_offset



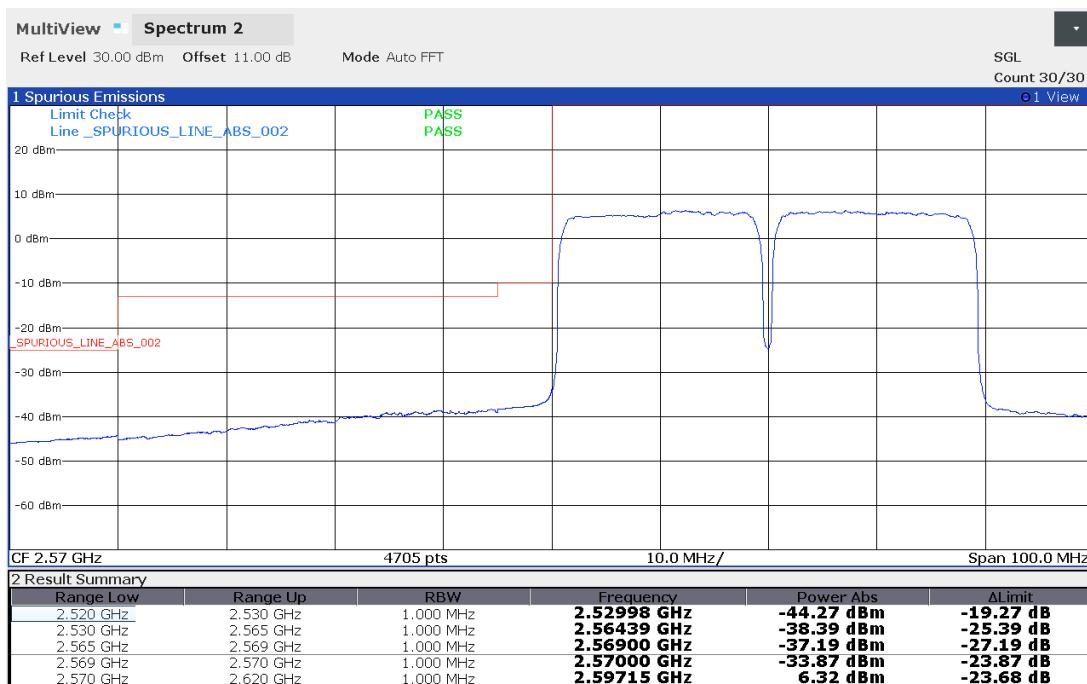
HIGH BAND EDGE BLOCK-1RB-high_offset



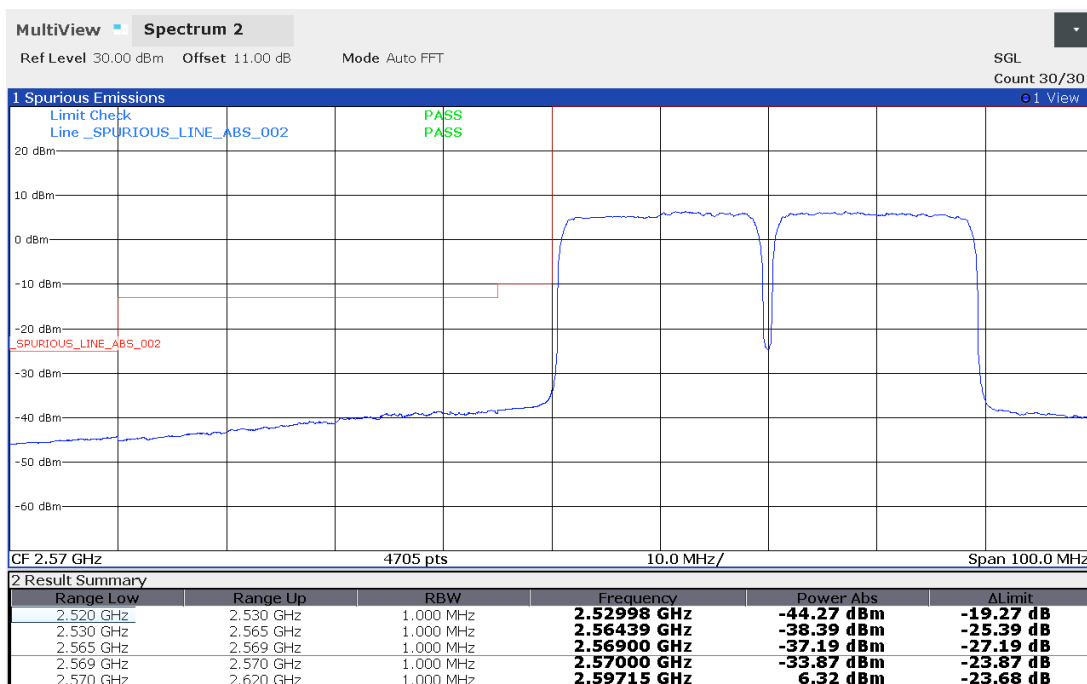


No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-40MHz-100%RB



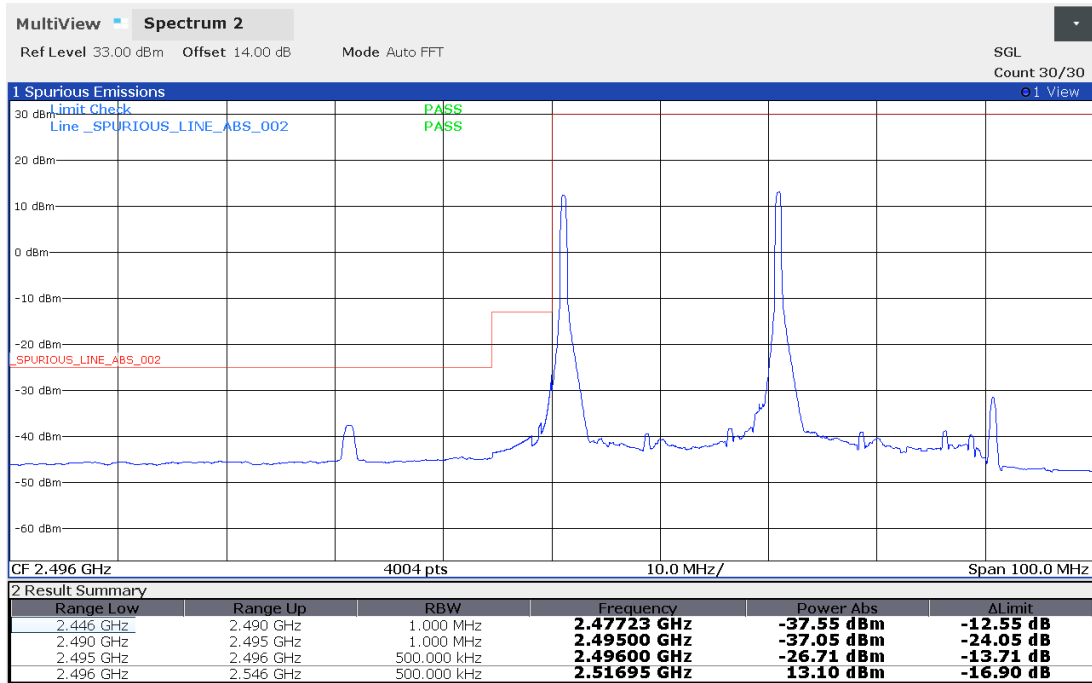
HIGH BAND EDGE BLOCK-40MHz-100%RB



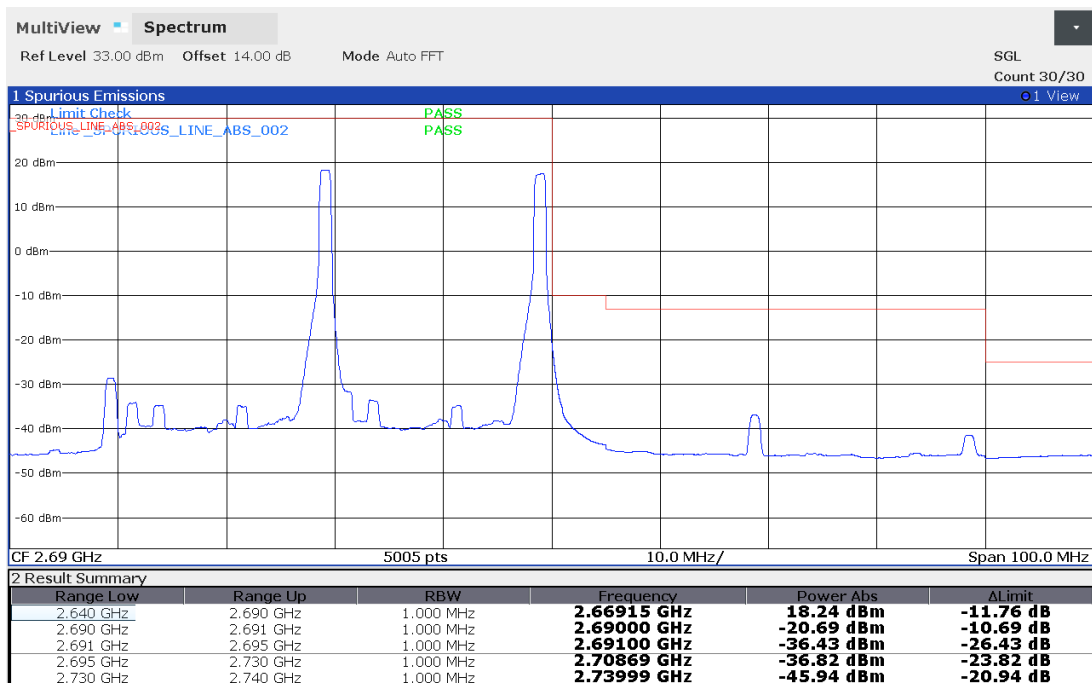


LTE CA_41C

LOW BAND EDGE BLOCK-1RB-low_offset



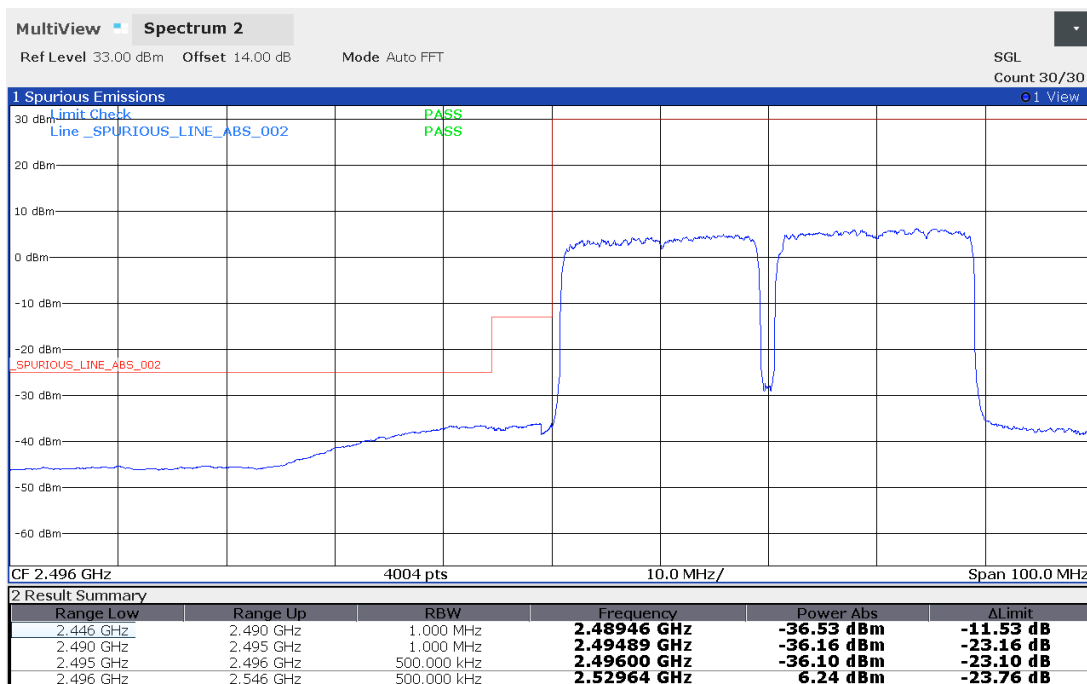
HIGH BAND EDGE BLOCK-1RB-high_offset



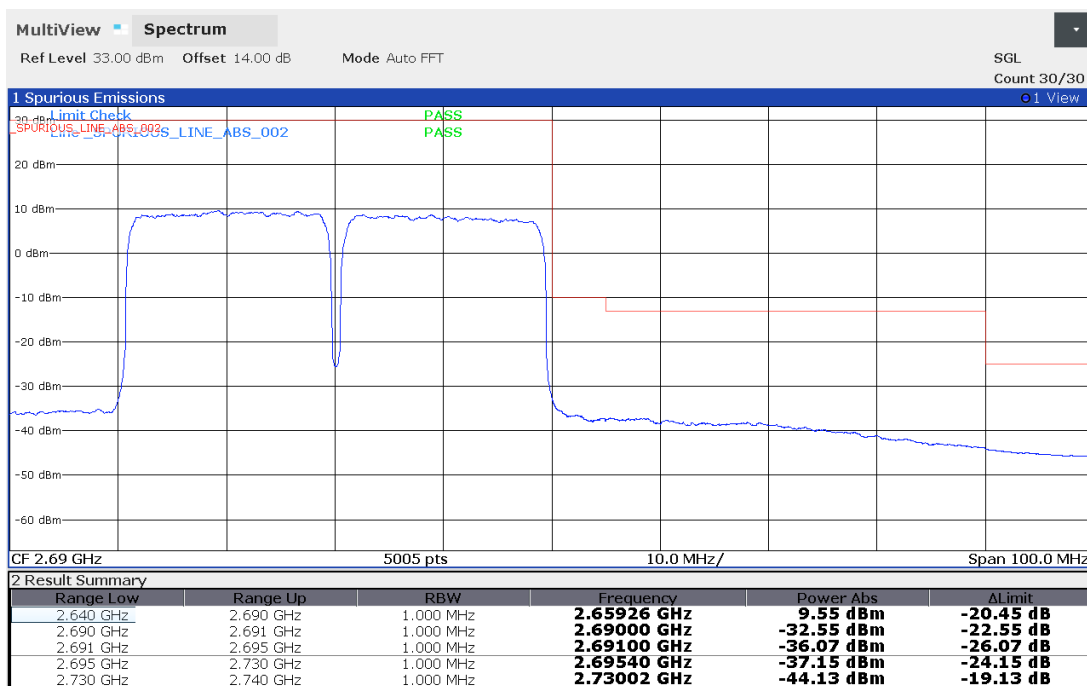


No.25T04N000127-003-RF LTE

LOW BAND EDGE BLOCK-40MHz-100%RB



HIGH BAND EDGE BLOCK-40MHz-100%RB



Note: Expanded measurement uncertainty is $U = 0.49\text{dB}(100\text{kHz}-2\text{GHz})/1.21\text{dB}(2\text{GHz}-26.5\text{GHz})$, $k = 1.96$



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 For operations in the 824–849MHz band, the FCC limit is $43 + 10 \log (P)$ dB below the transmitter power(P) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

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 than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5MHz. 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(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 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee's



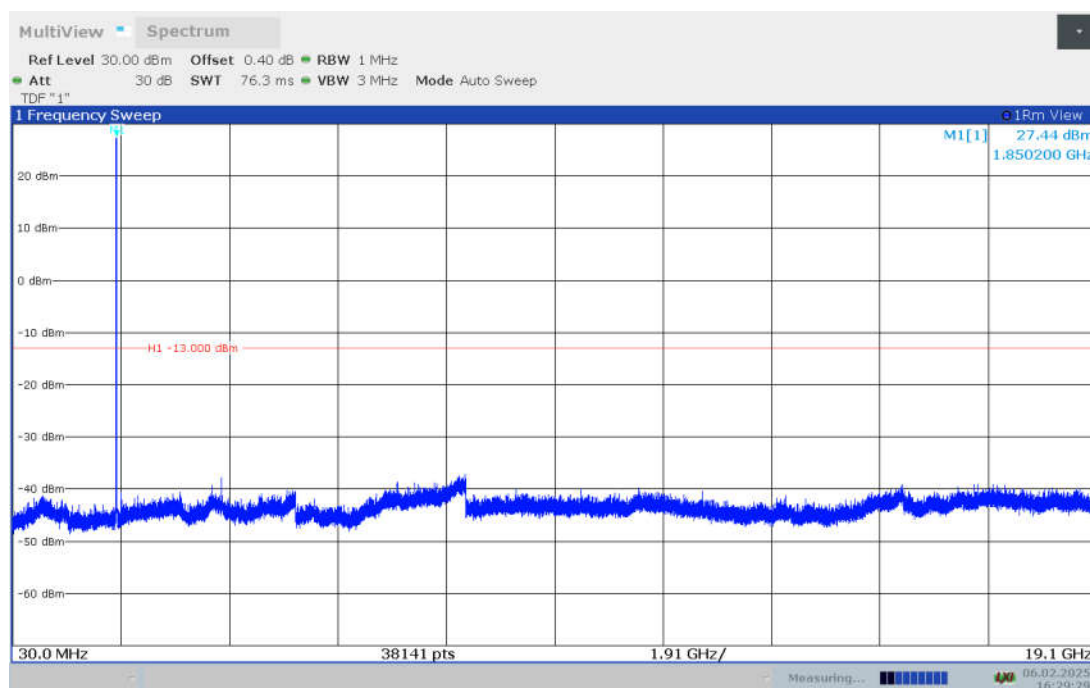
frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

A. 7.3 Measurement result

Only worst case result is given below

LTE Band 2

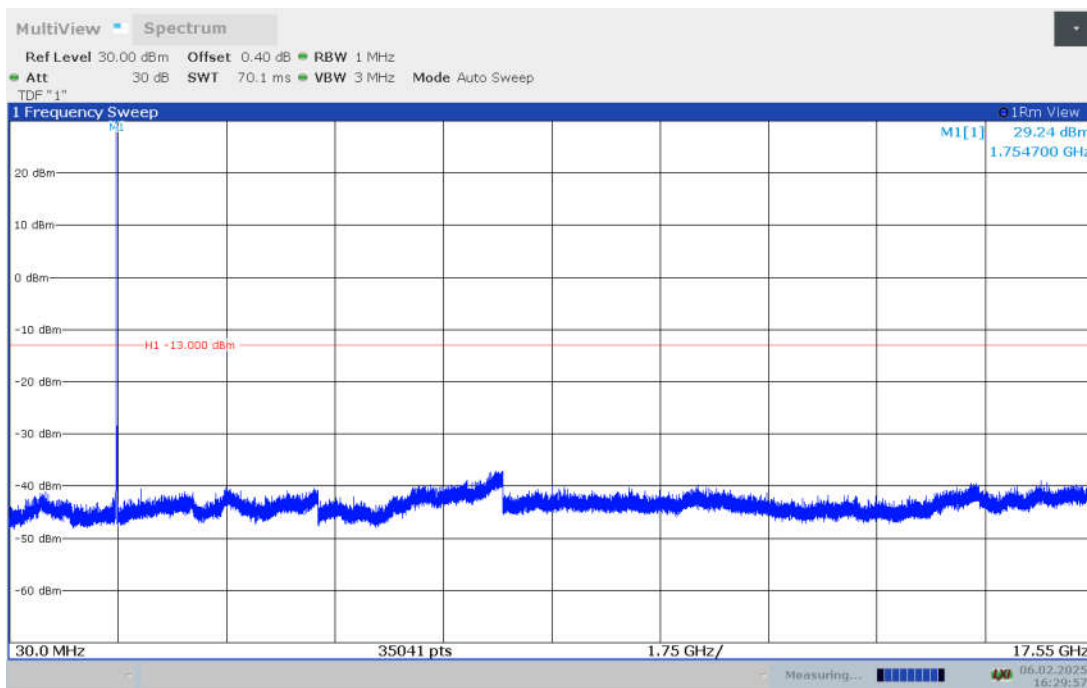
NOTE: peak above the limit line is the carrier frequency.





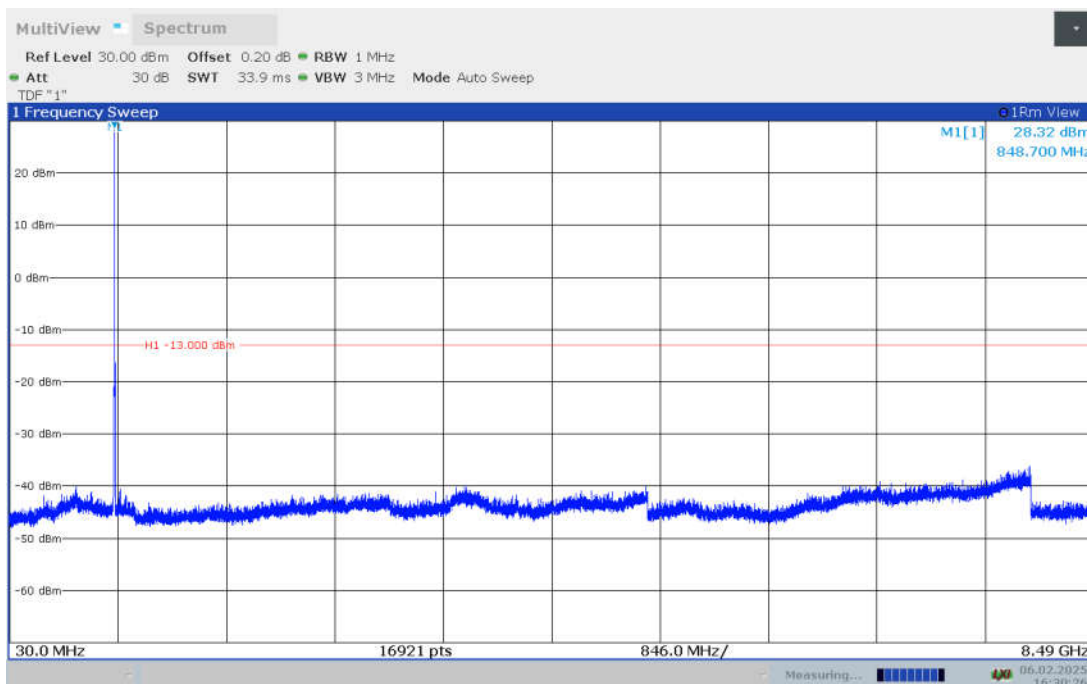
LTE Band 4

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



LTE Band 5

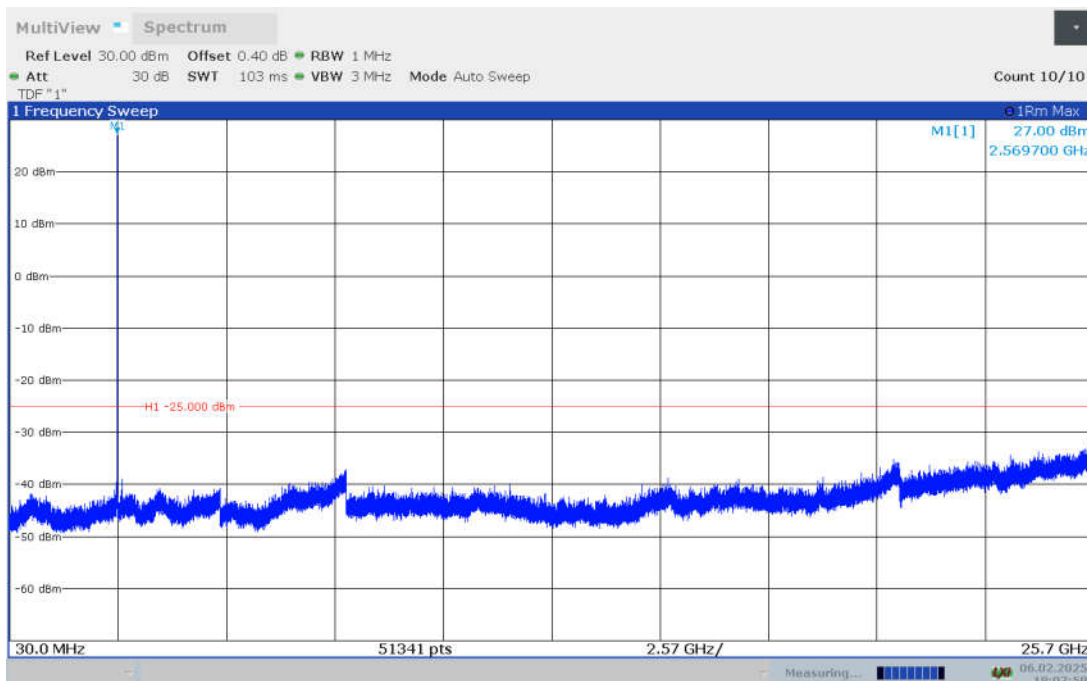
NOTE: peak above the limit line is the carrier frequency.





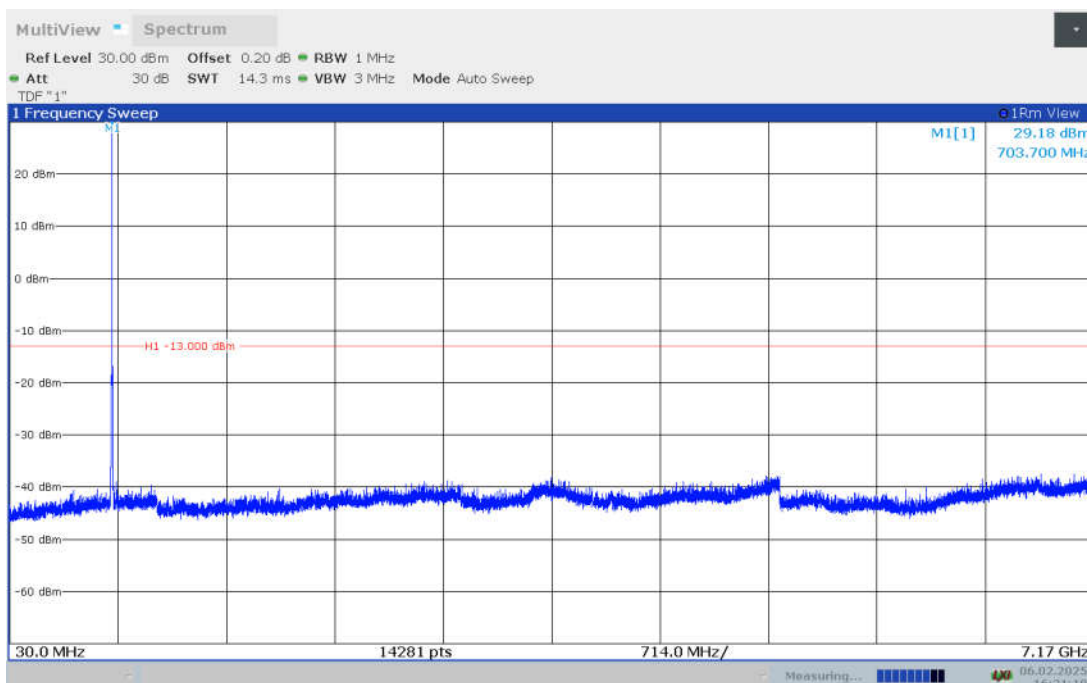
LTE Band 7

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



LTE Band 12

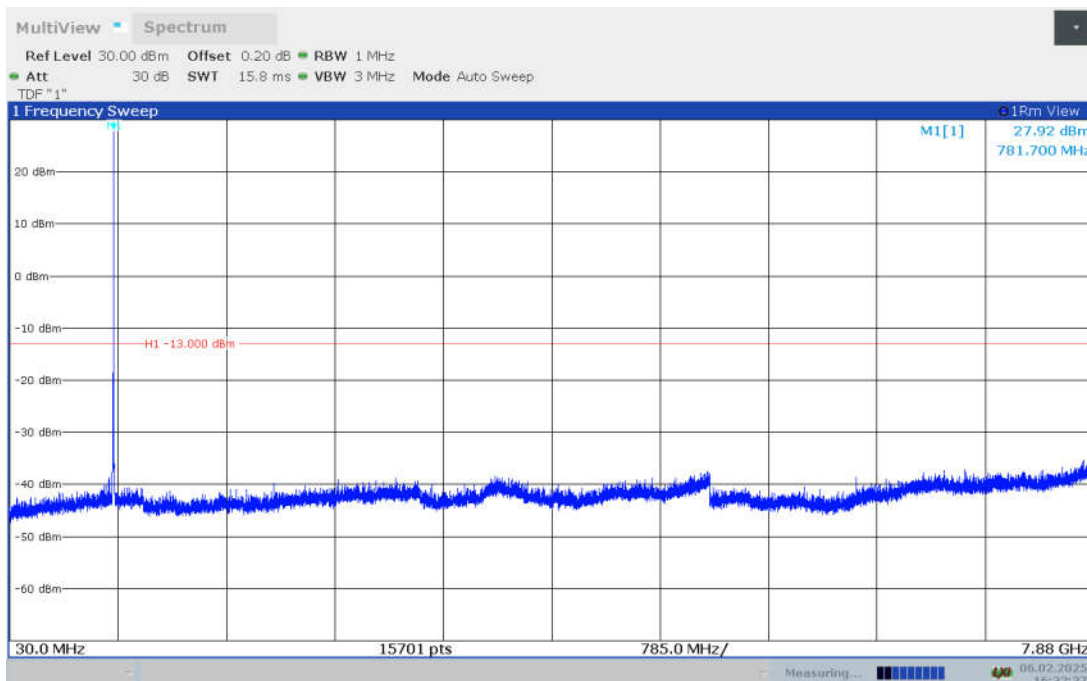
NOTE: peak above the limit line is the carrier frequency.





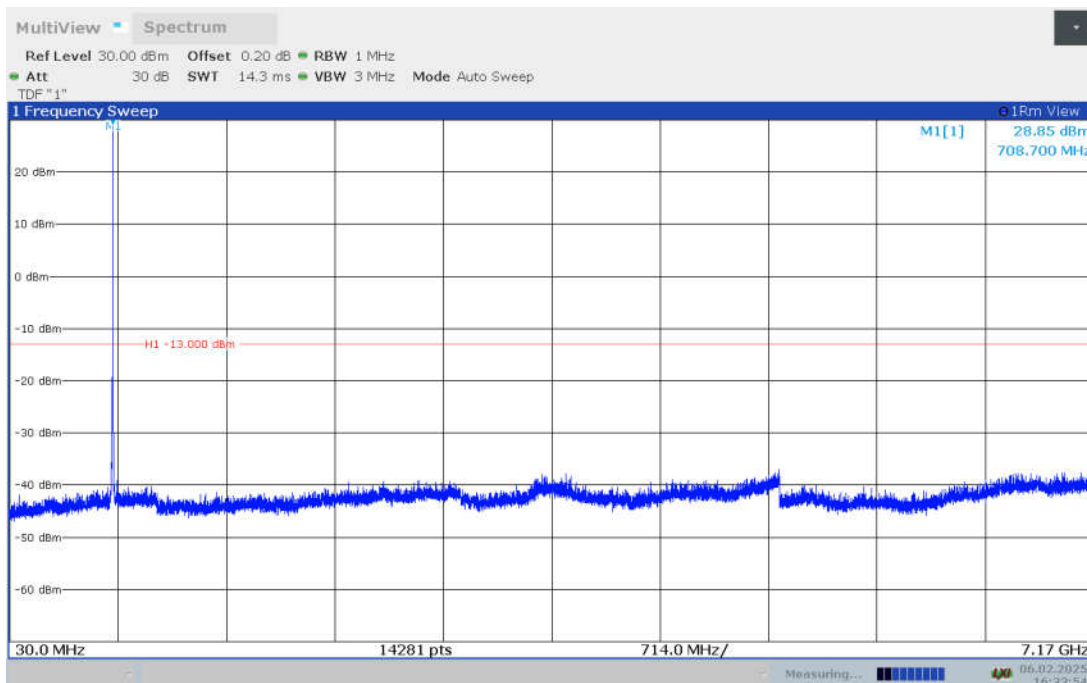
LTE Band 13

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



LTE Band 17

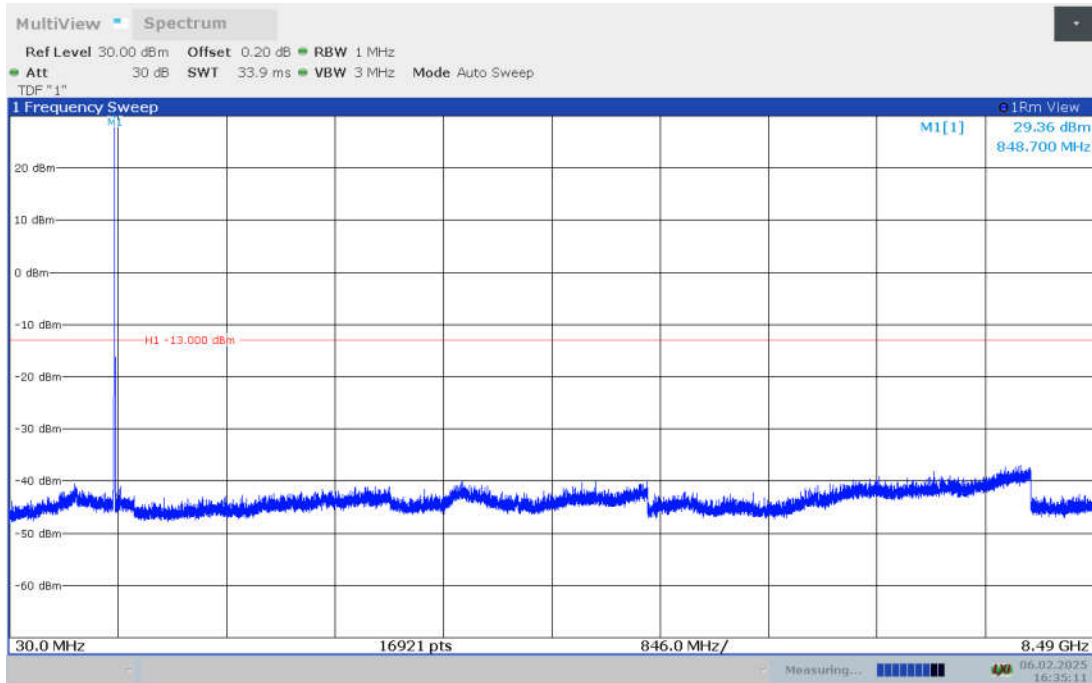
NOTE: peak above the limit line is the carrier frequency.





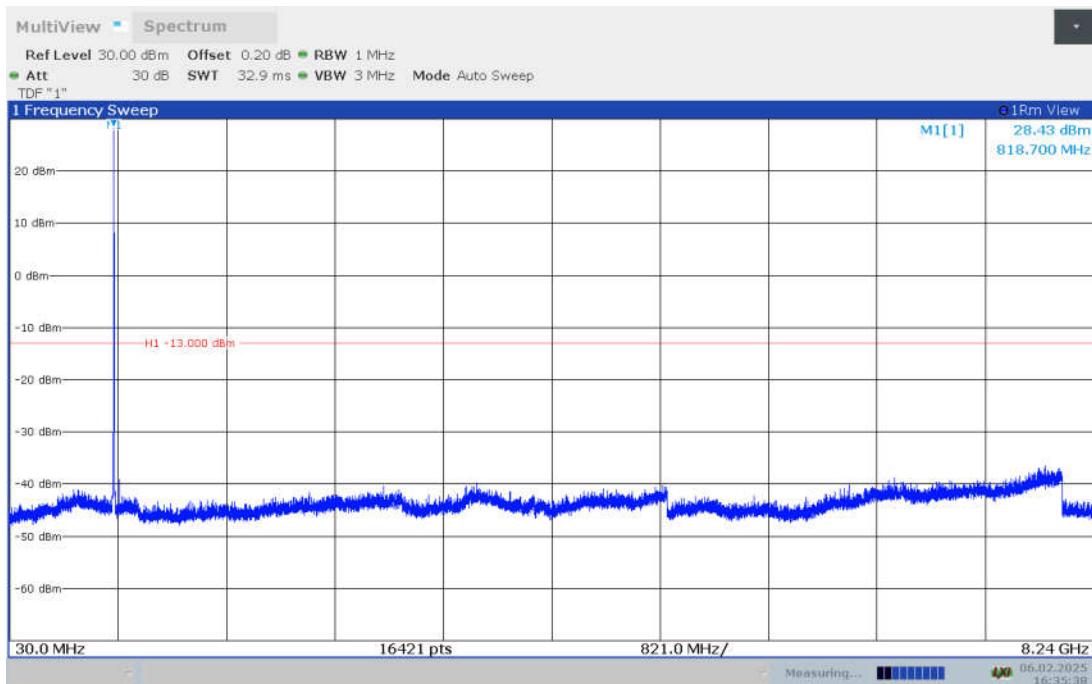
LTE Band 26 (824MHz-849MHz)

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



LTE Band 26 (814MHz-824MHz)

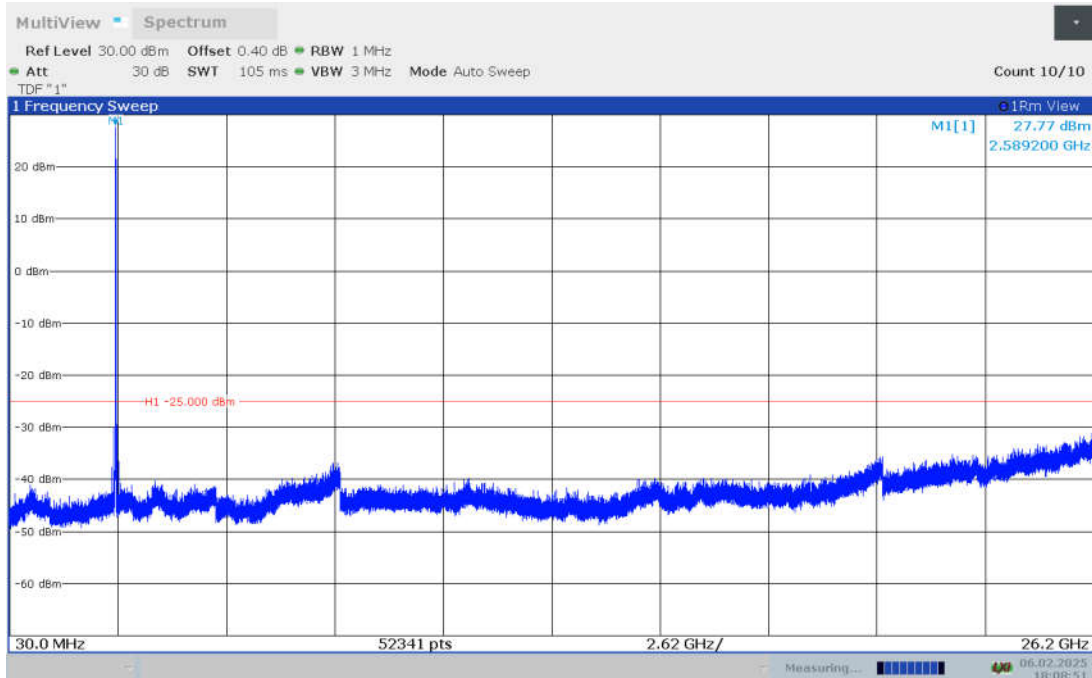
NOTE: peak above the limit line is the carrier frequency.





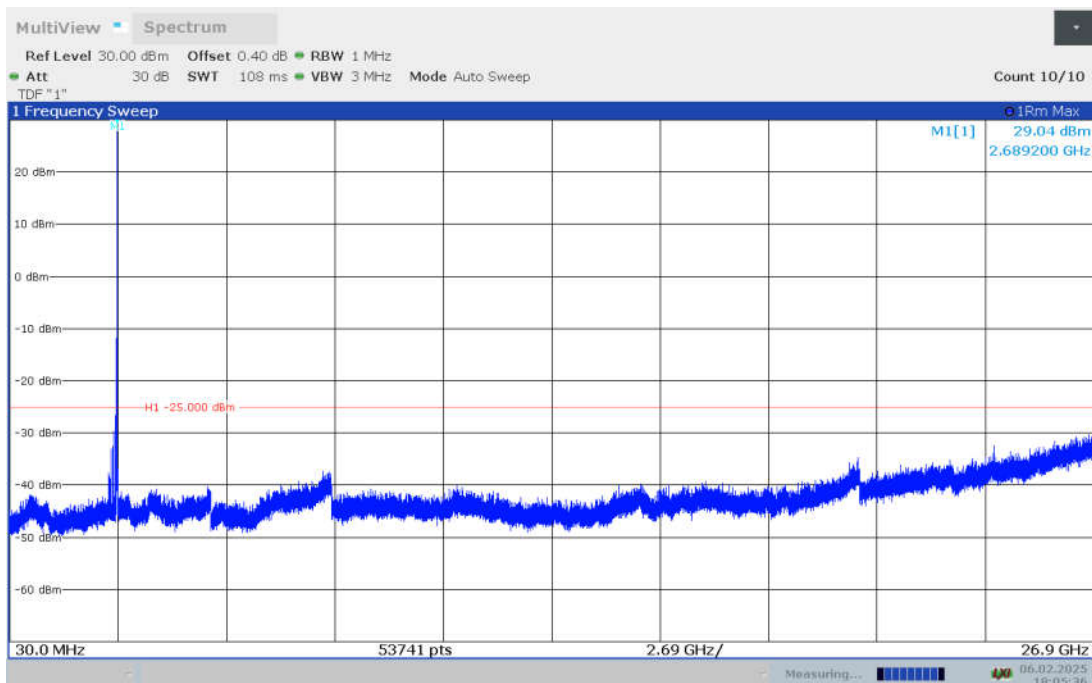
LTE Band 38

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



LTE Band 41

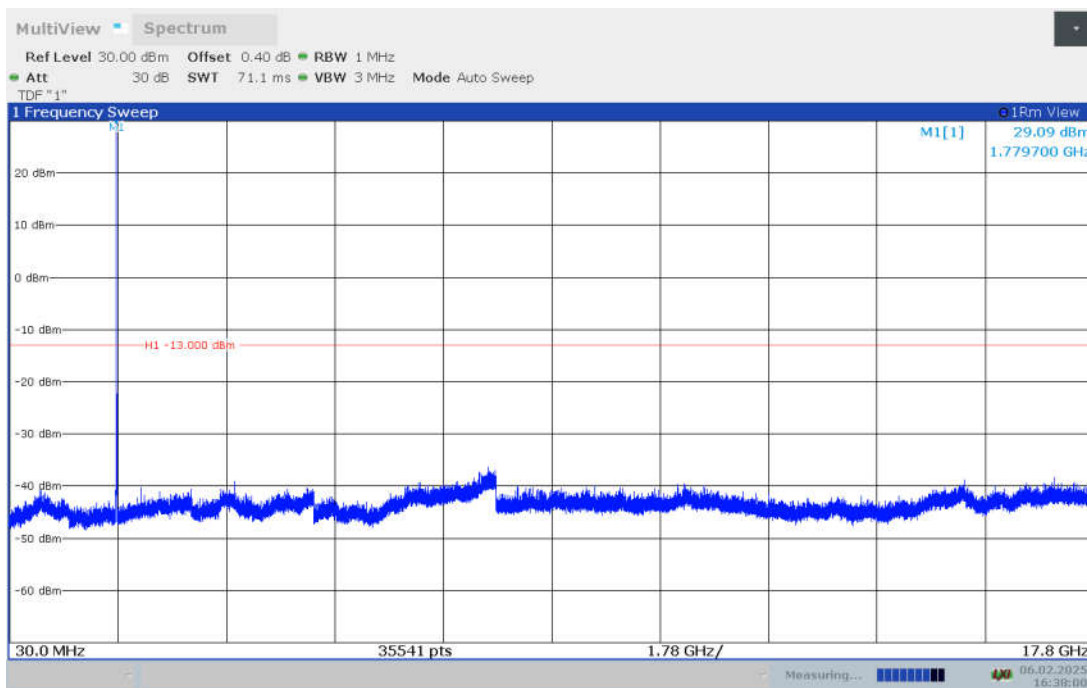
NOTE: peak above the limit line is the carrier frequency.





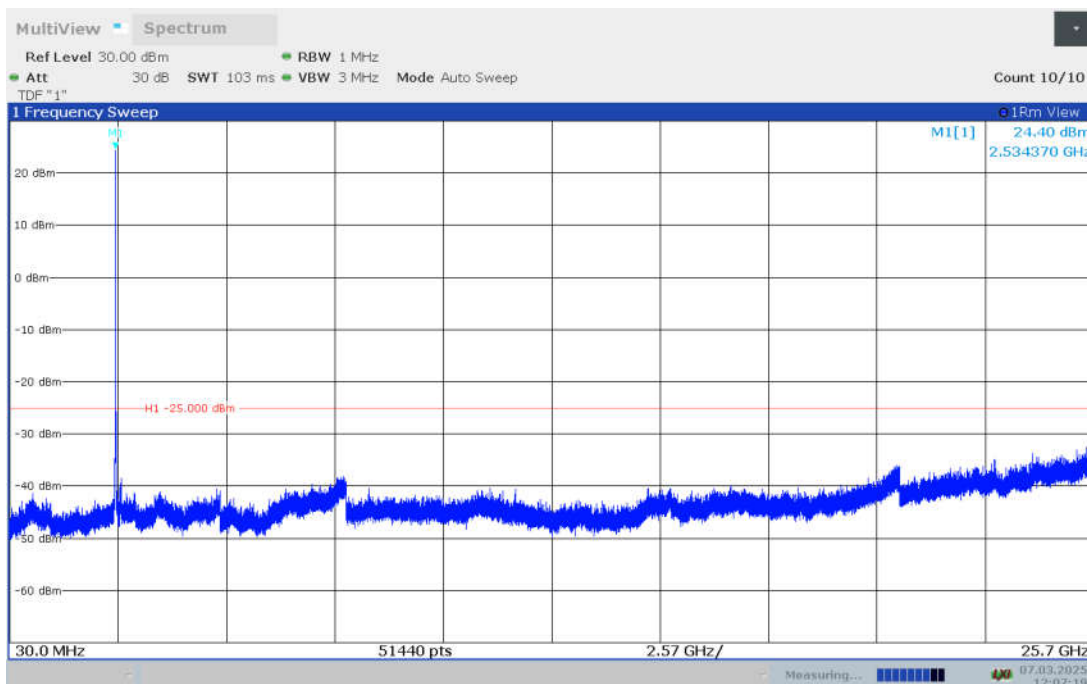
LTE Band 66

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



LTE Band CA_7C

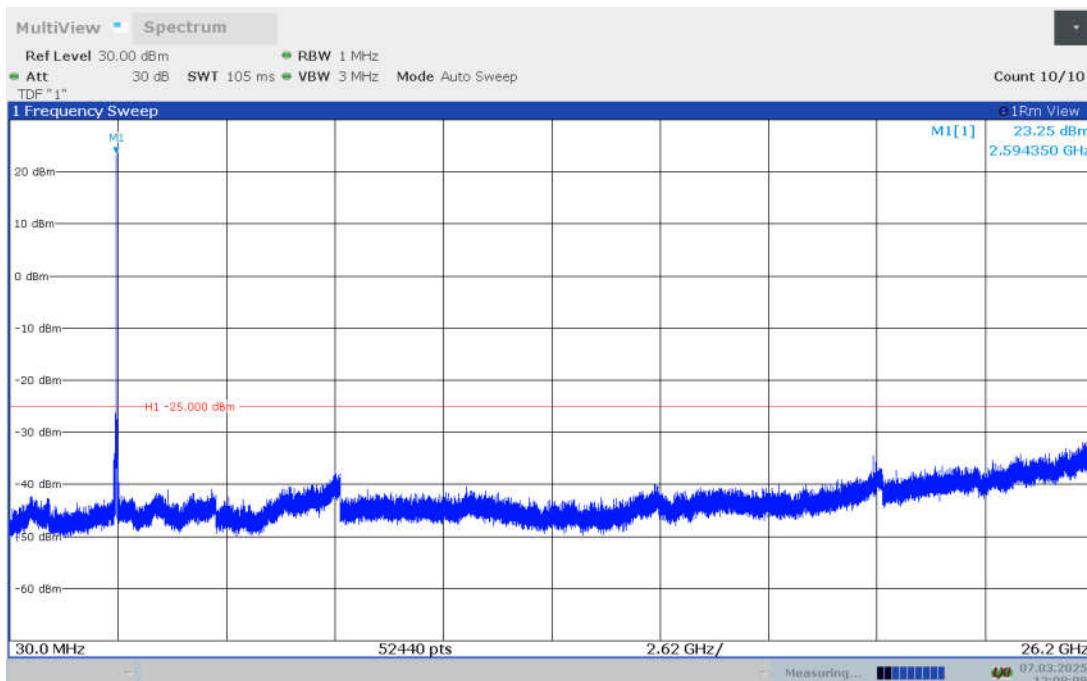
NOTE: peak above the limit line is the carrier frequency.





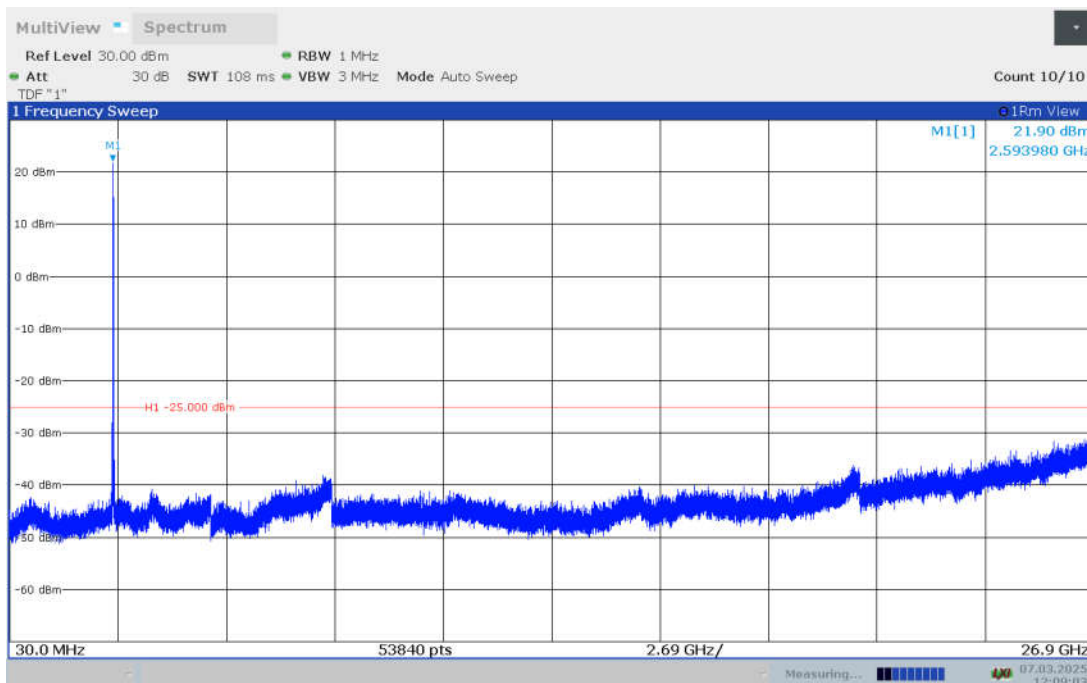
LTE Band CA_38C

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



LTE Band CA_41C

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



A.8 PEAK-TO-AVERAGE POWER RATIO

The peak-to-average power ratio (PAPR) of the transmission may not exceed 13 dB

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

Measurement results

Only worst case result is given below

LTE Band 2, 1.4MHz

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	5.52	6.18	6.62

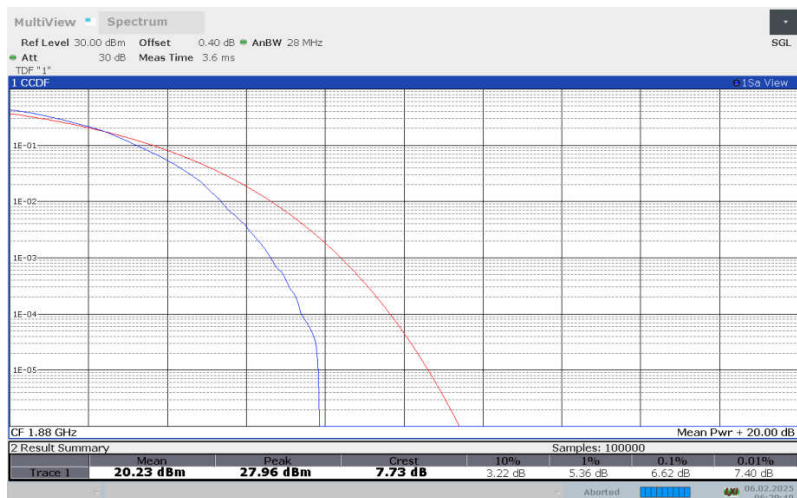
LTE Band 2 , 1.4MHz Bandwidth,QPSK



LTE Band 2 , 1.4MHz Bandwidth,16QAM

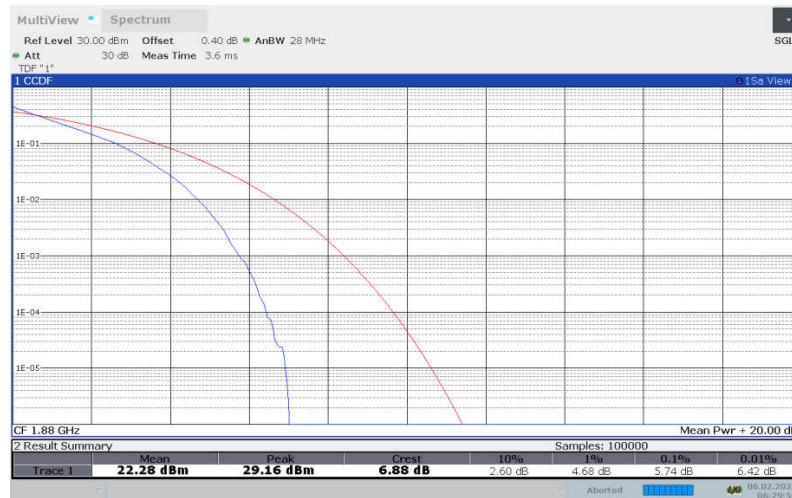


LTE Band 2 , 1.4MHz Bandwidth,64QAM



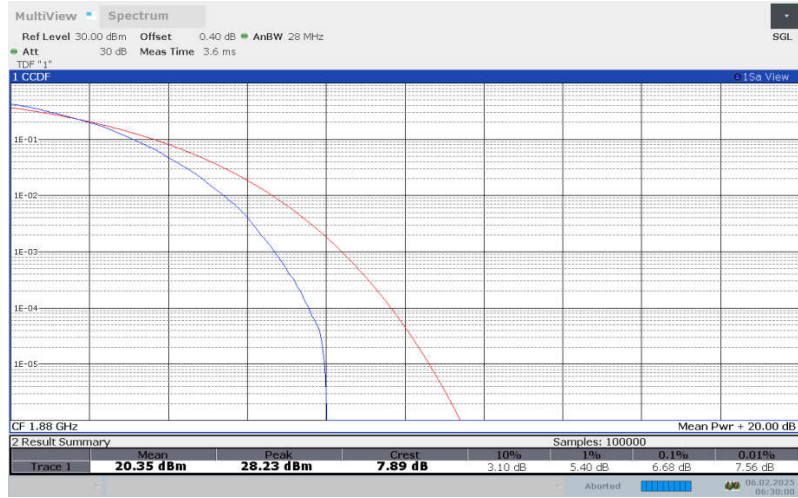
**LTE Band 2, 3MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	5.74	6.36	6.68

LTE Band 2 , 3MHz Bandwidth,QPSK**LTE Band 2 , 3MHz Bandwidth,16QAM****LTE Band 2 , 3MHz Bandwidth,64QAM**

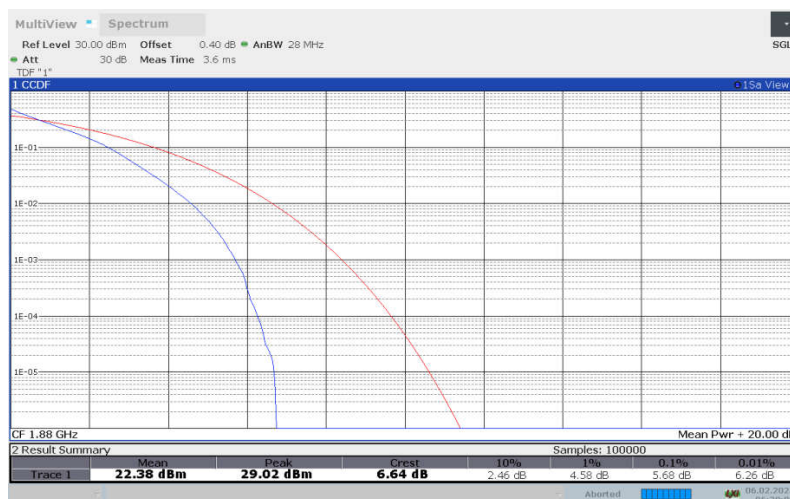


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**LTE Band 2, 5MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	5.68	6.42	6.60

LTE Band 2 , 5MHz Bandwidth,QPSK**LTE Band 2 , 5MHz Bandwidth,16QAM****LTE Band 2 , 5MHz Bandwidth,64QAM**

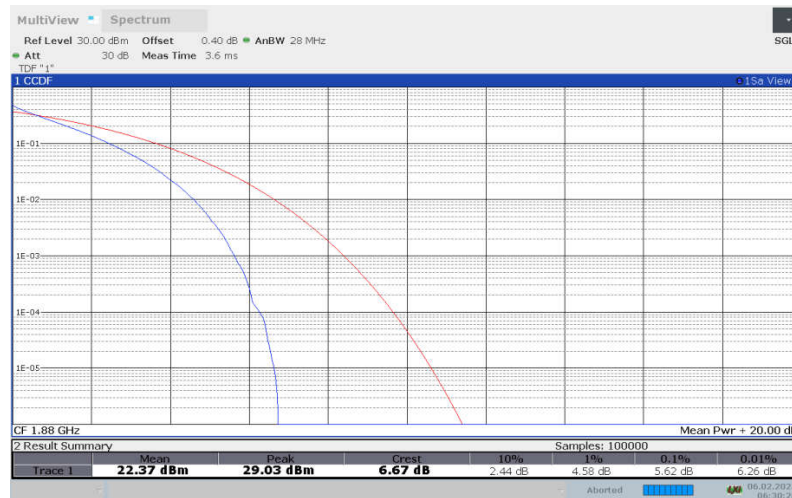


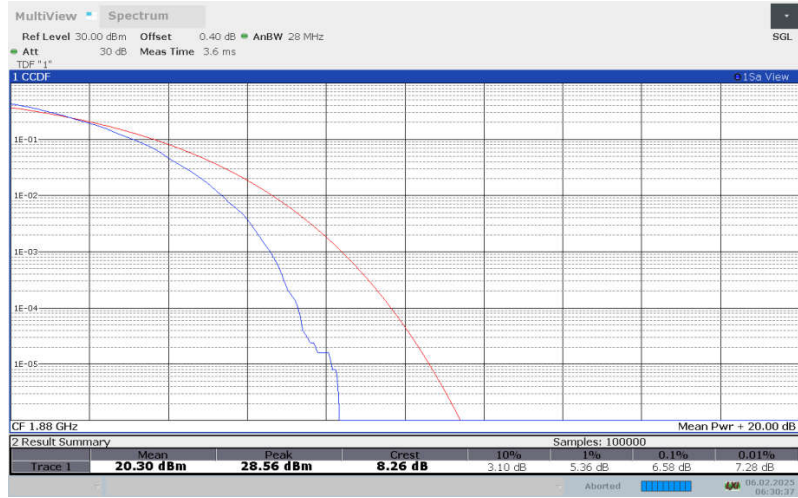
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**LTE Band 2, 10MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	5.62	6.20	6.58

LTE Band 2 , 10MHz Bandwidth,QPSK**LTE Band 2 , 10MHz Bandwidth,16QAM****LTE Band 2 , 10MHz Bandwidth,64QAM**



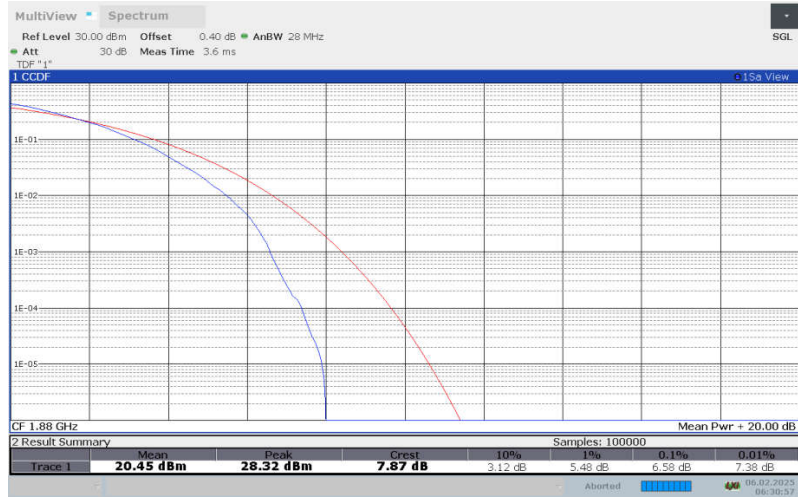
**LTE Band 2, 15MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	6.00	6.44	6.58

LTE Band 2 , 15MHz Bandwidth,QPSK**LTE Band 2 , 15MHz Bandwidth,16QAM****LTE Band 2 , 15MHz Bandwidth,64QAM**



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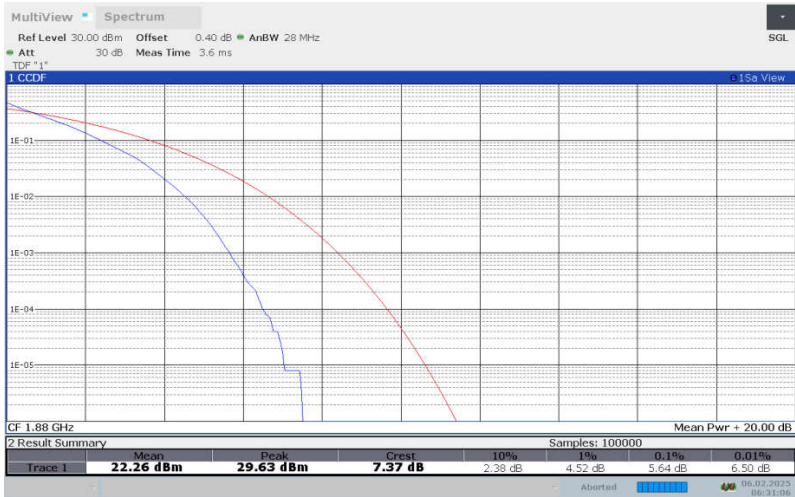




LTE Band 2, 20MHz

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1880	100%,0	5.64	6.42	6.70

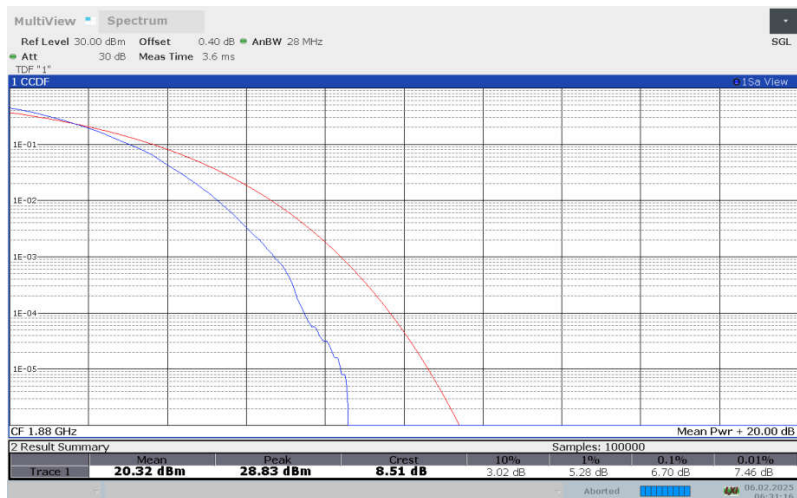
LTE Band 2 , 20MHz Bandwidth,QPSK



LTE Band 2 , 20MHz Bandwidth,16QAM

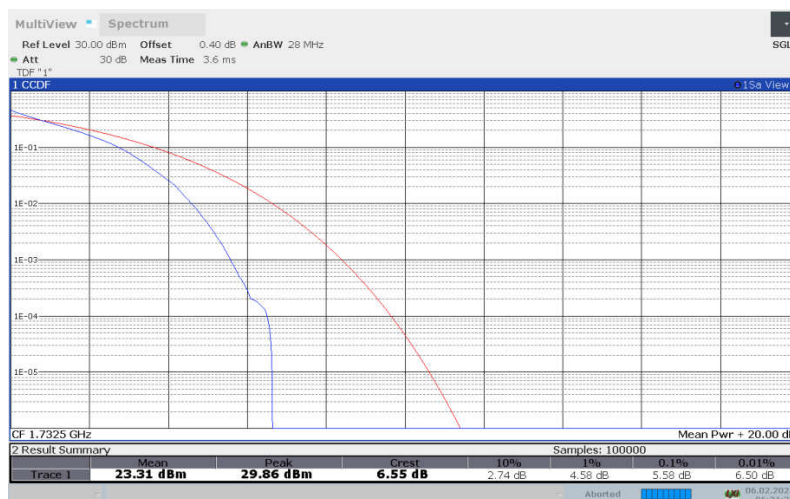


LTE Band 2 , 20MHz Bandwidth,64QAM



**LTE Band 4, 1.4MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1732.5	100%,0	5.58	6.28	6.60

LTE Band 4 , 1.4MHz Bandwidth,QPSK**LTE Band 4 , 1.4MHz Bandwidth,16QAM****LTE Band 4 , 1.4MHz Bandwidth,64QAM**



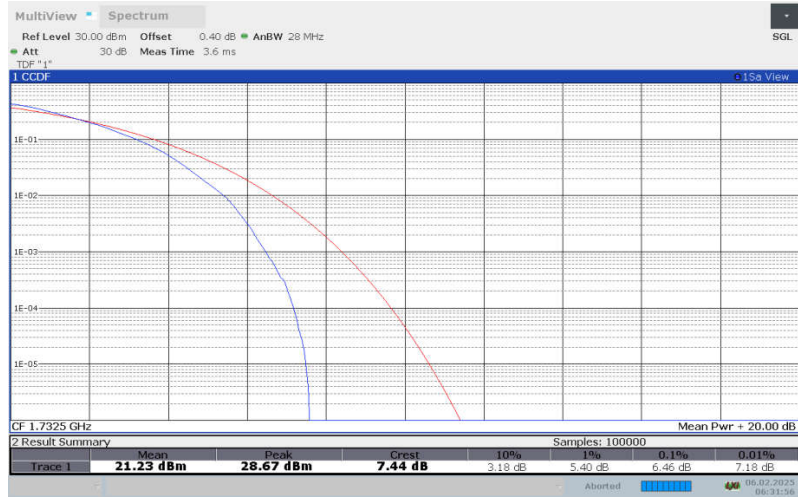
**LTE Band 4, 3MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1732.5	100%,0	5.58	6.20	6.46

LTE Band 4 , 3MHz Bandwidth,QPSK**LTE Band 4 , 3MHz Bandwidth,16QAM****LTE Band 4 , 3MHz Bandwidth,64QAM**



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**LTE Band 4, 5MHz**

Frequency (MHz)	RB	PAPR (dB)		
		QPSK	16QAM	64QAM
1732.5	100%,0	5.60	6.26	6.42

LTE Band 4 , 5MHz Bandwidth,QPSK**LTE Band 4 , 5MHz Bandwidth,16QAM****LTE Band 4 , 5MHz Bandwidth,64QAM**



No.25T04N000127-003-RF LTE

