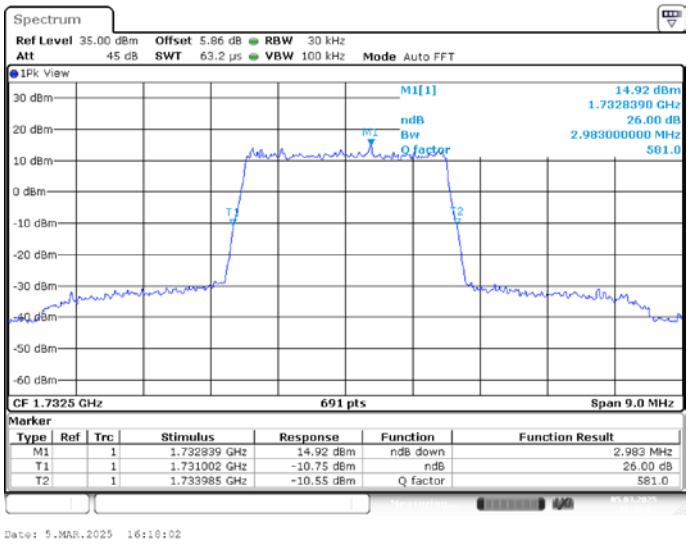
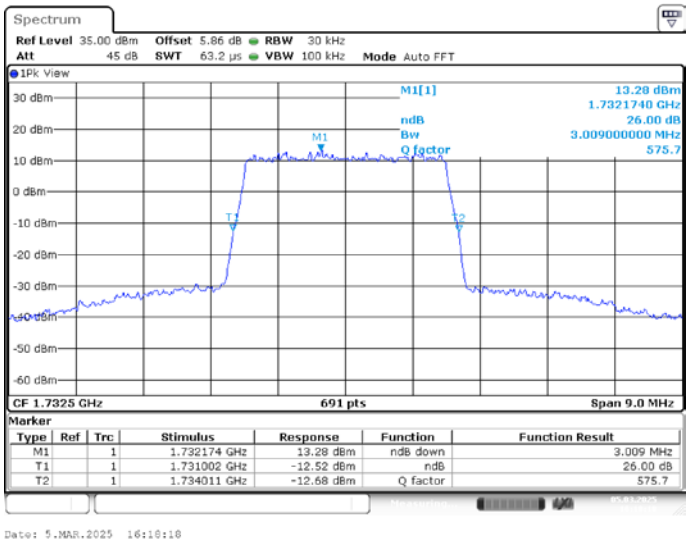
LTE band 4,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1732.5	2.983	3.009

LTE band 4 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)



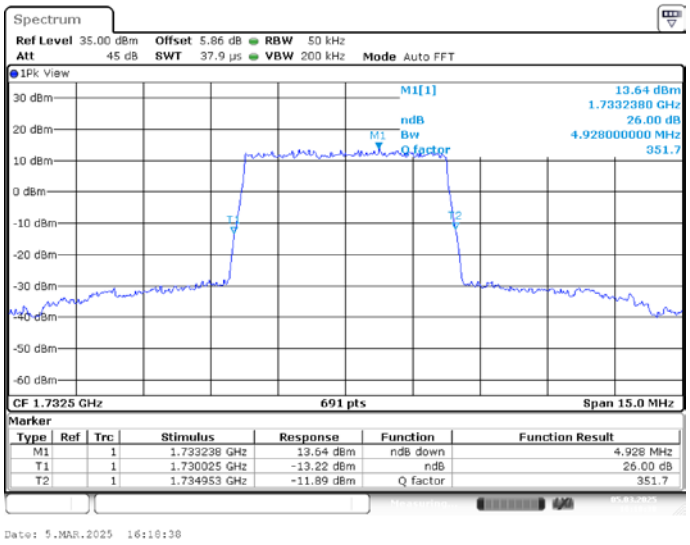
LTE band 4 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



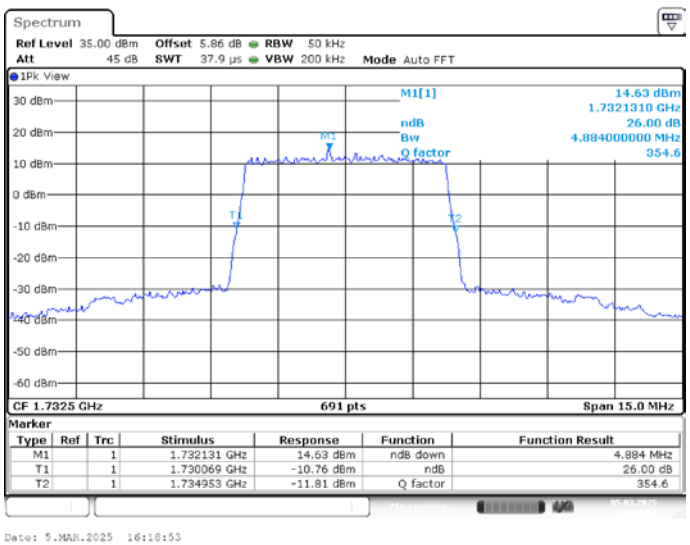
LTE band 4,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1732.5	4.928	4.884

LTE band 4 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



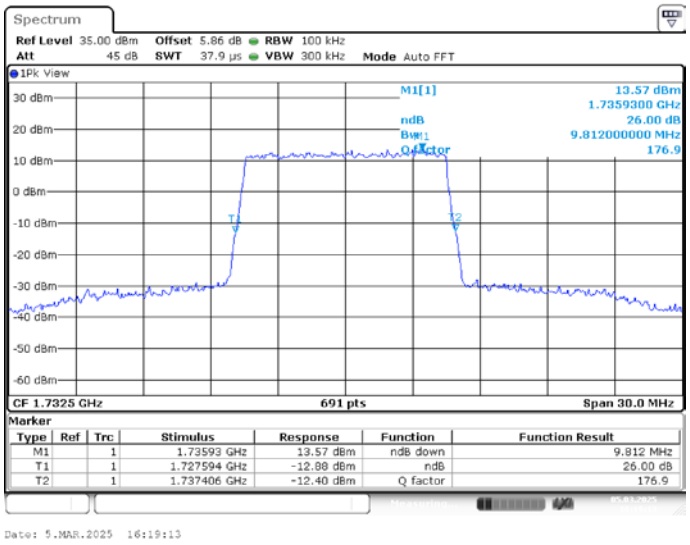
LTE band 4 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



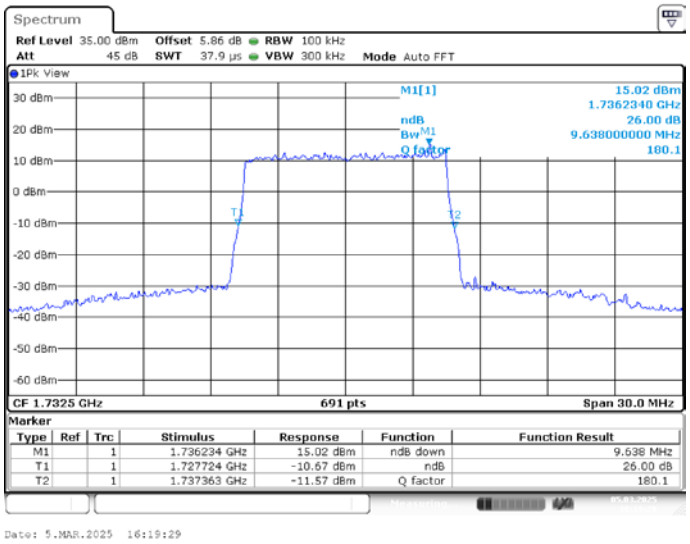
LTE band 4,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1732.5	9.812	9.638

LTE band 4 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



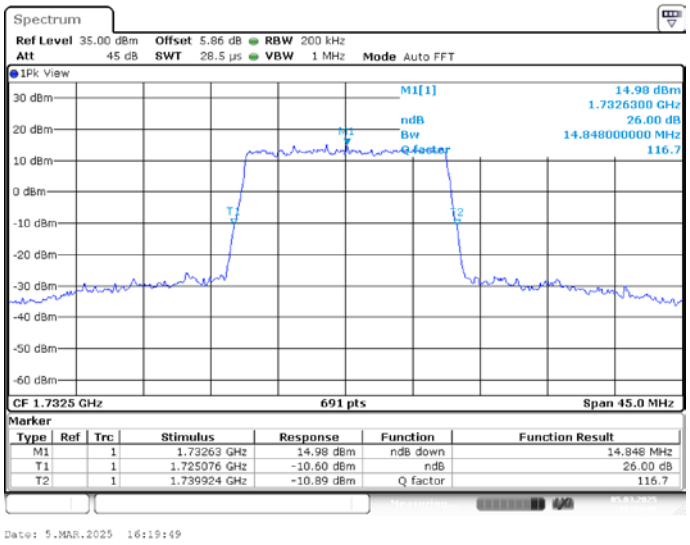
LTE band 4 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



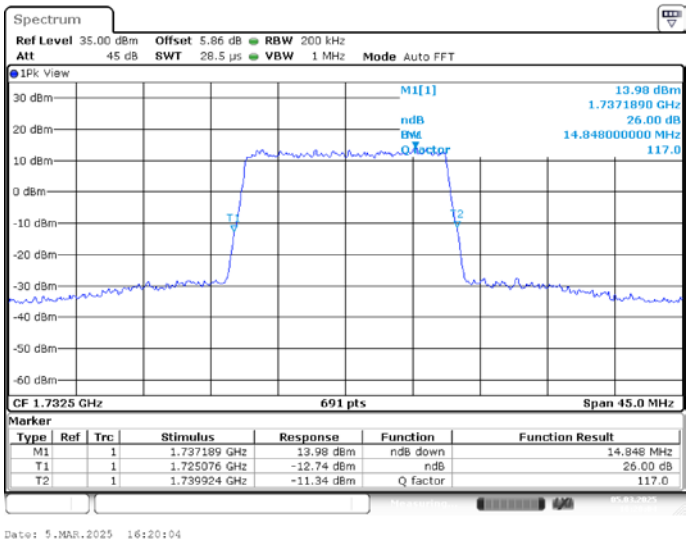
LTE band 4,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1732.5	14.848	14.848

LTE band 4 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)



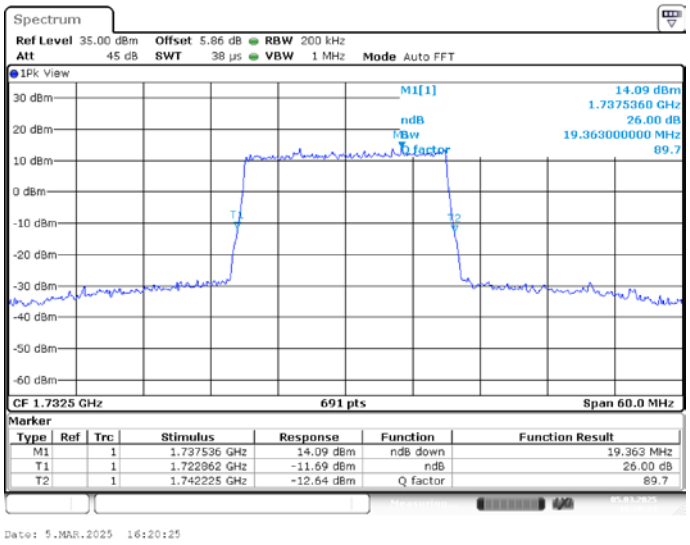
LTE band 4 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



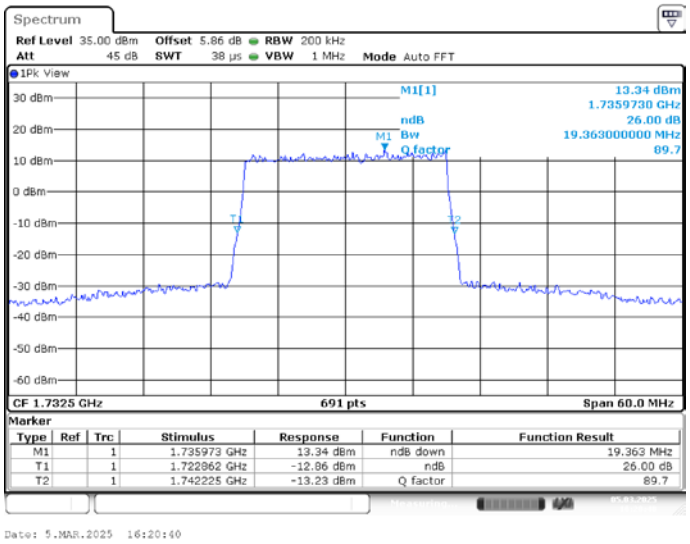
LTE band 4,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1732.5	19.363	19.363

LTE band 4 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)



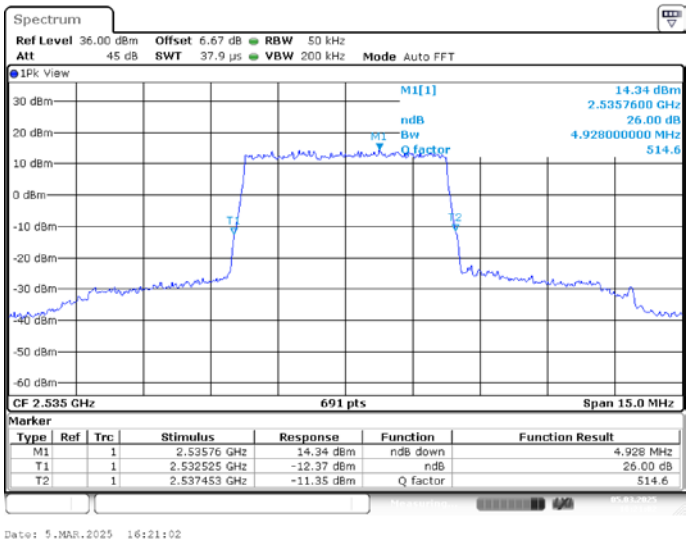
LTE band 4 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



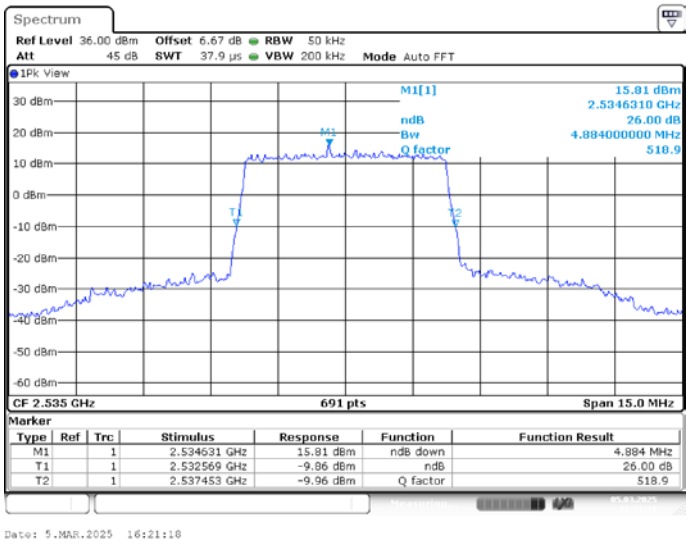
LTE band 7,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	4.928	4.884

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



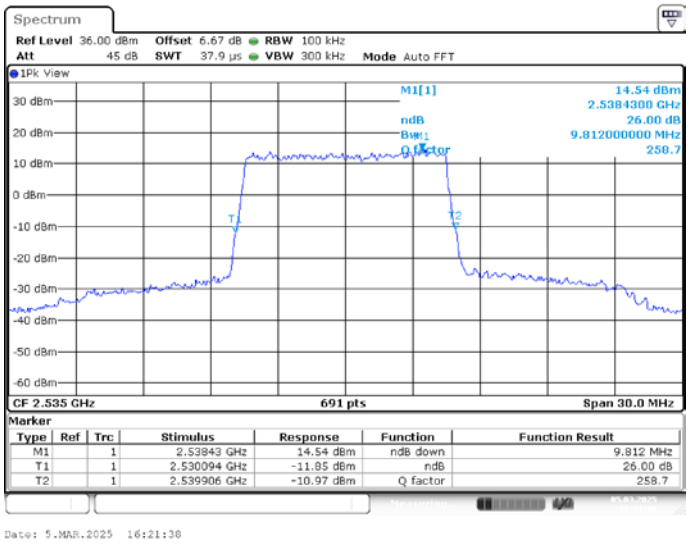
LTE band 7 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



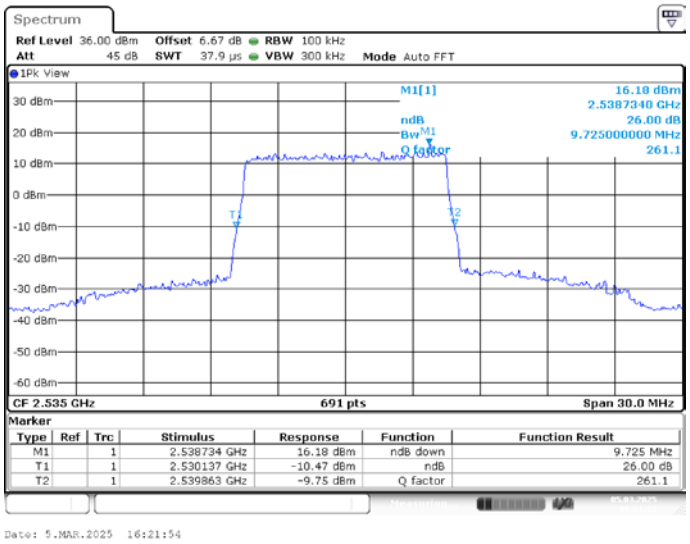
LTE band 7,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	9.812	9.725

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



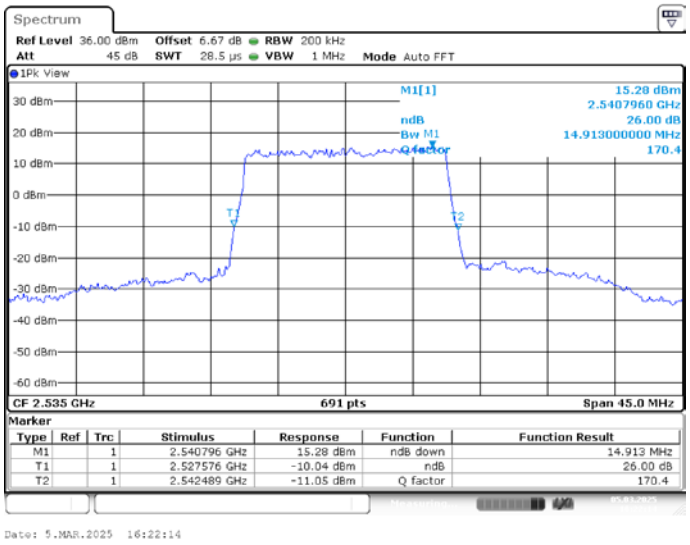
LTE band 7 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



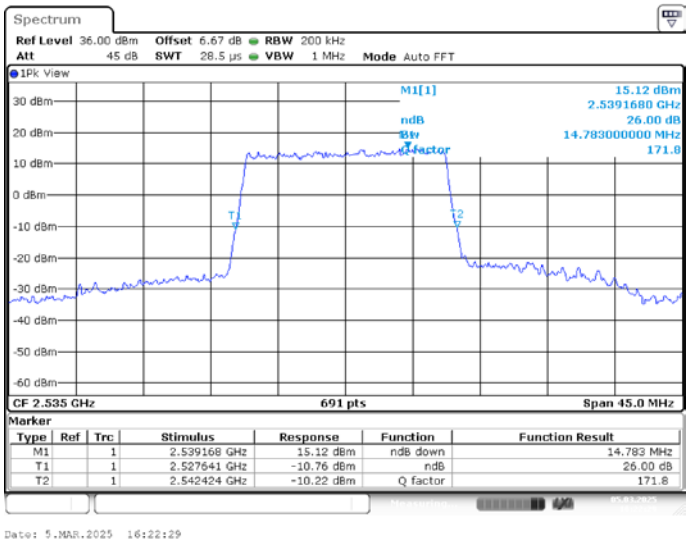
LTE band 7,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	14.913	14.783

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



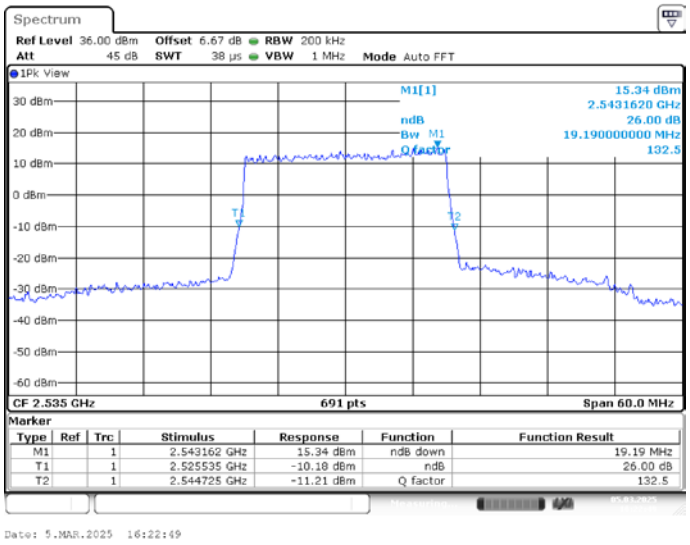
LTE band 7 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



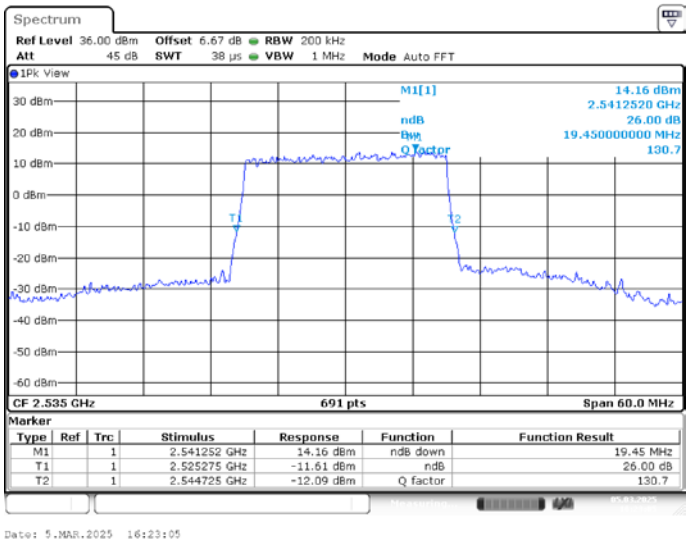
LTE band 7,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2535	19.190	19.450

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



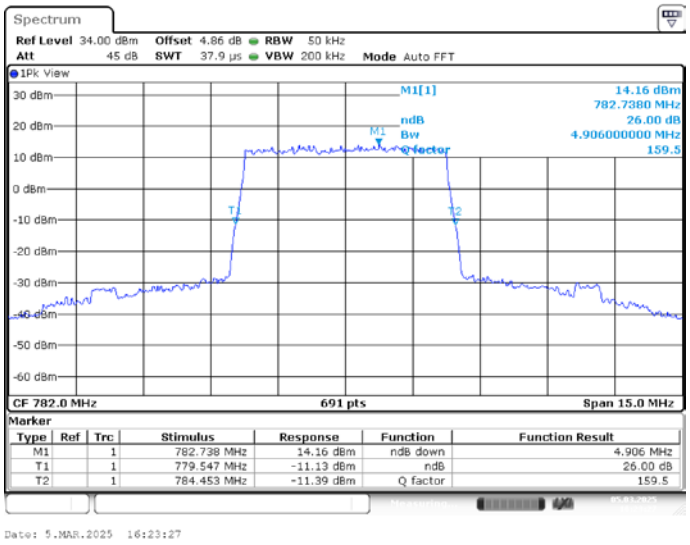
LTE band 7 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



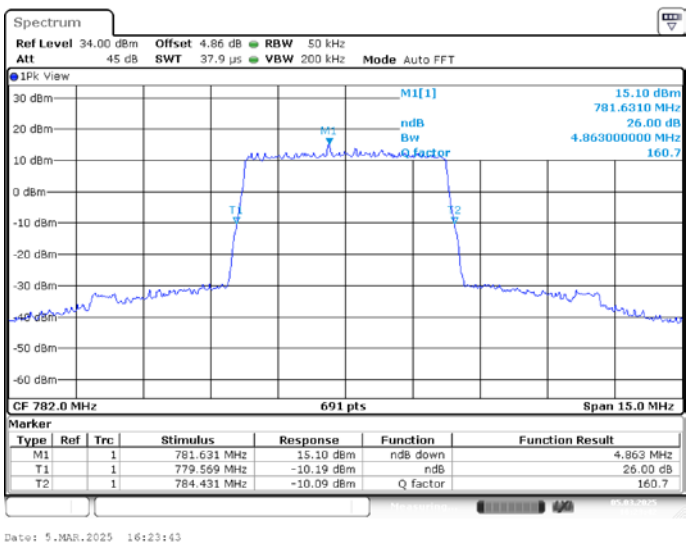
LTE band 13,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
782	4.906	4.863

LTE band 13 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



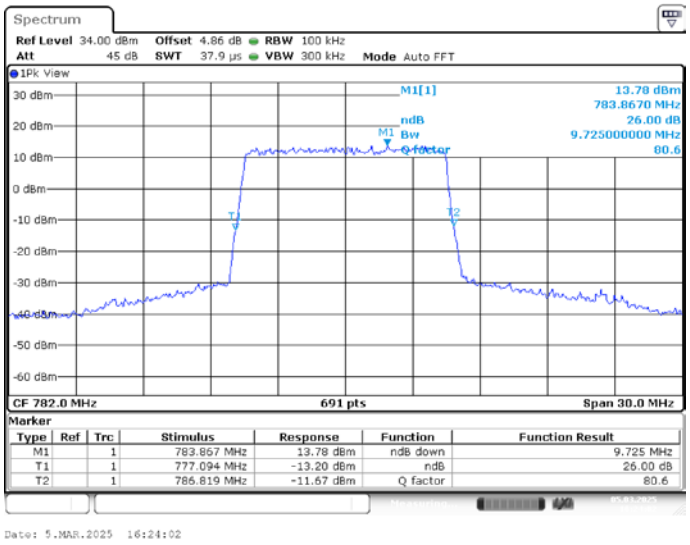
LTE band 13 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



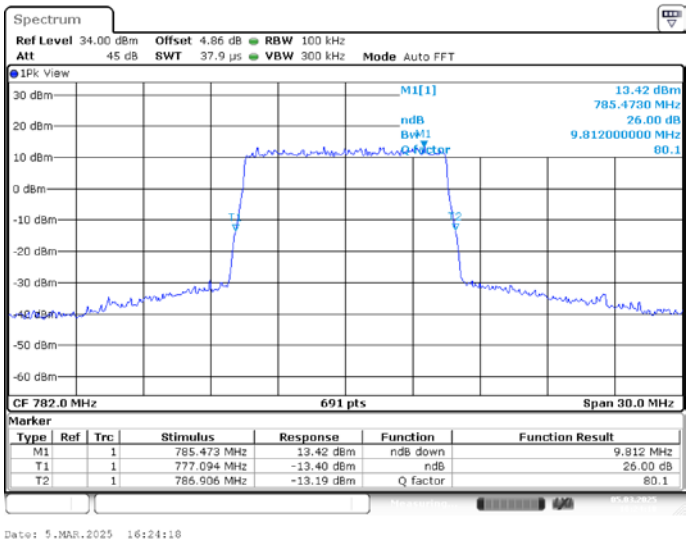
LTE band 13,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
782	9.725	9.812

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



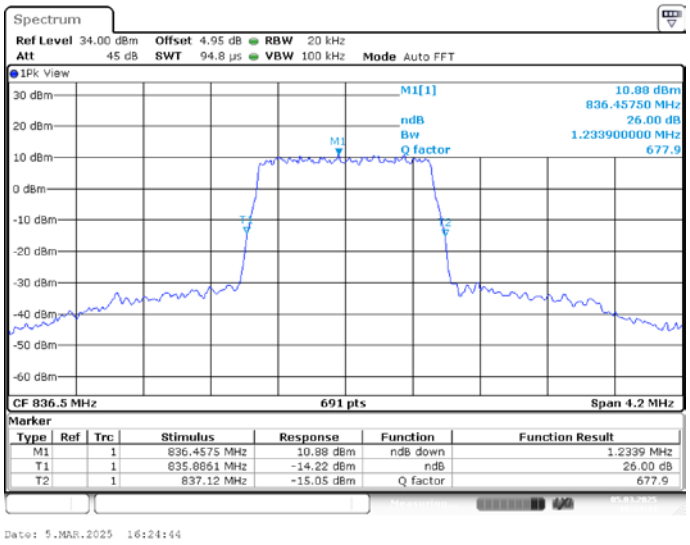
LTE band 13 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



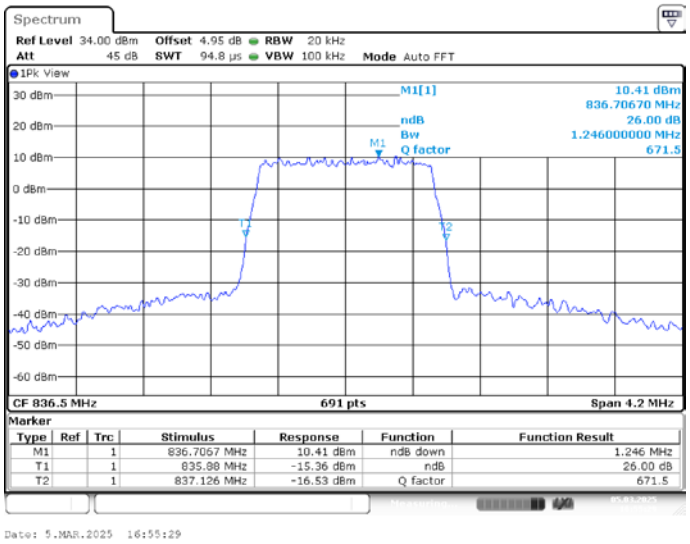
LTE band 26_Part22,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	1.234	1.246

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



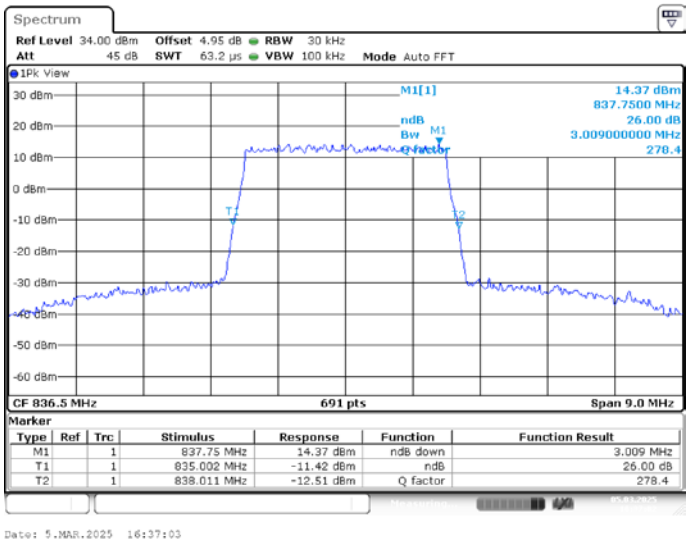
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



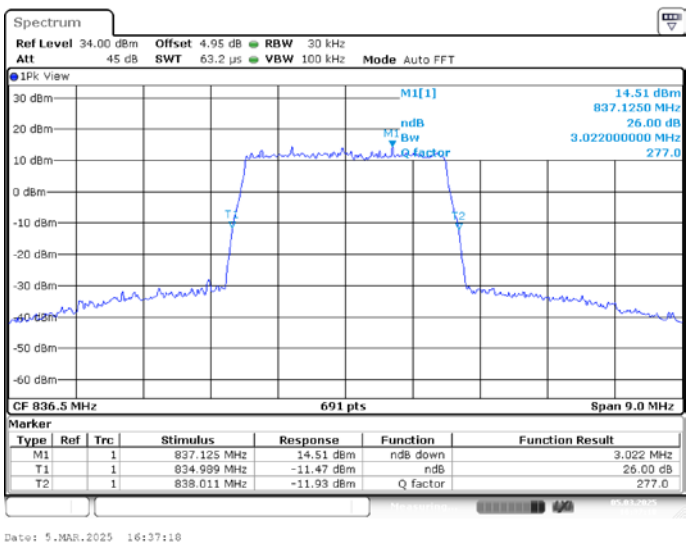
LTE band 26_Part22,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	3.009	3.022

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



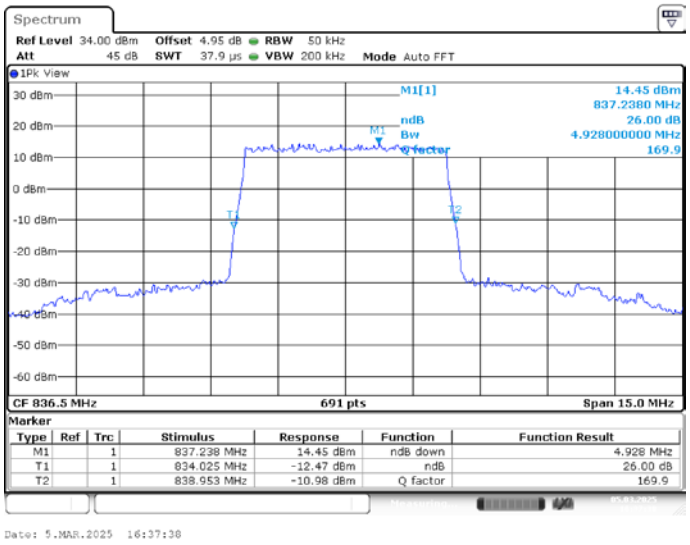
LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



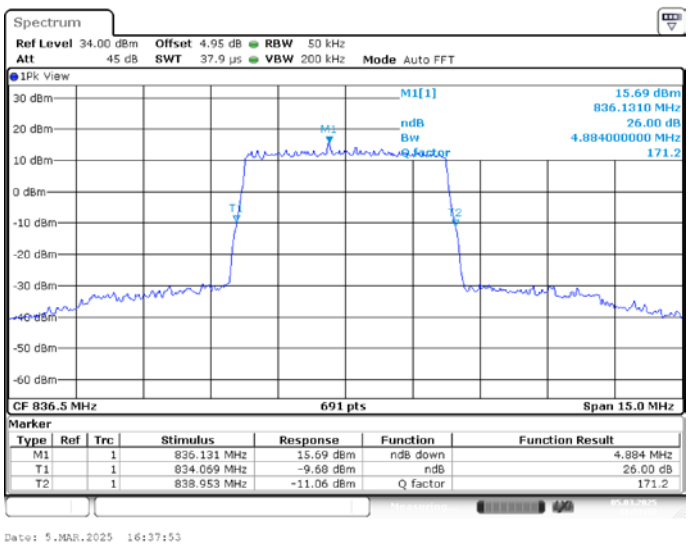
LTE band 26_Part22,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	4.928	4.884

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



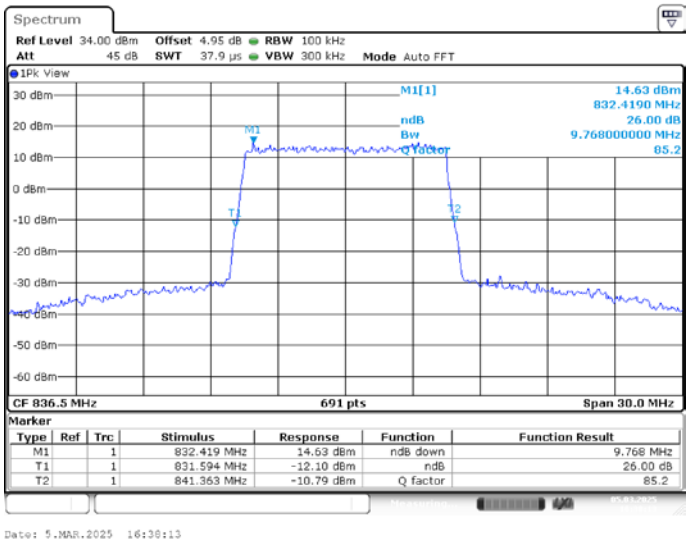
LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



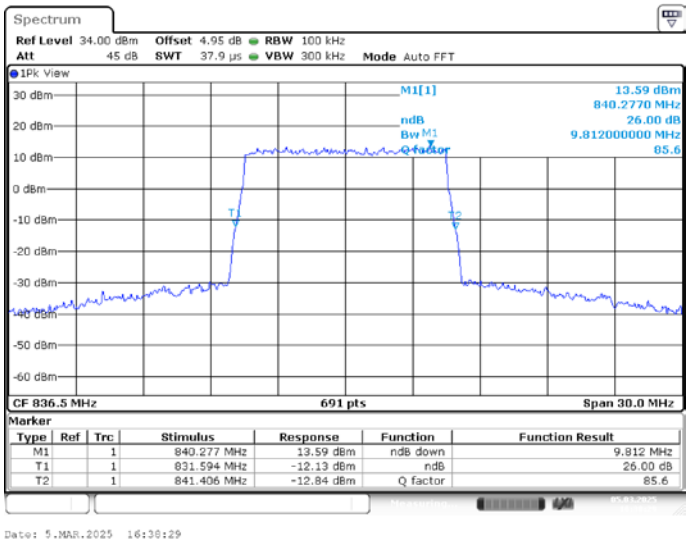
LTE band 26_Part22,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	9.768	9.812

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



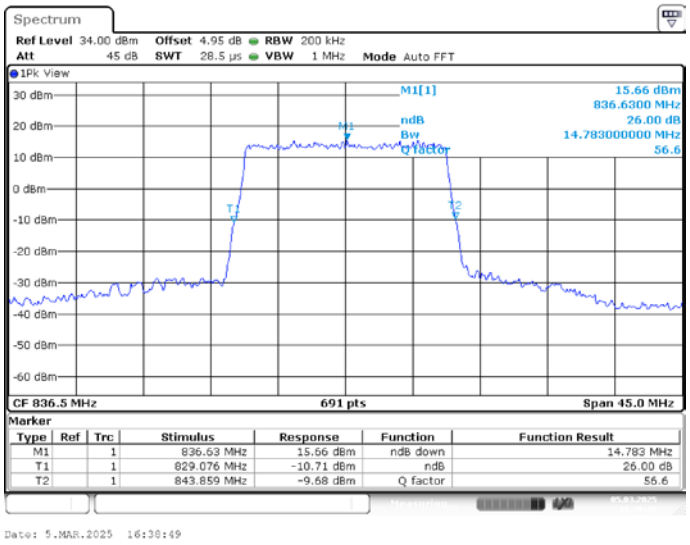
LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



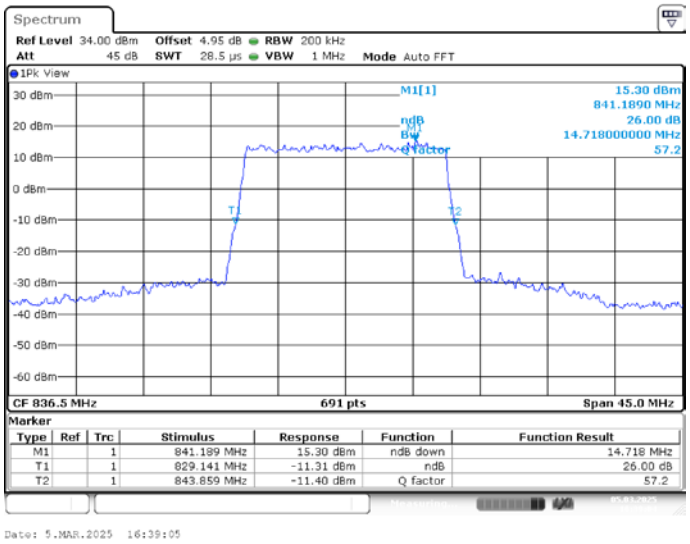
LTE band 26_Part22,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	14.783	14.718

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



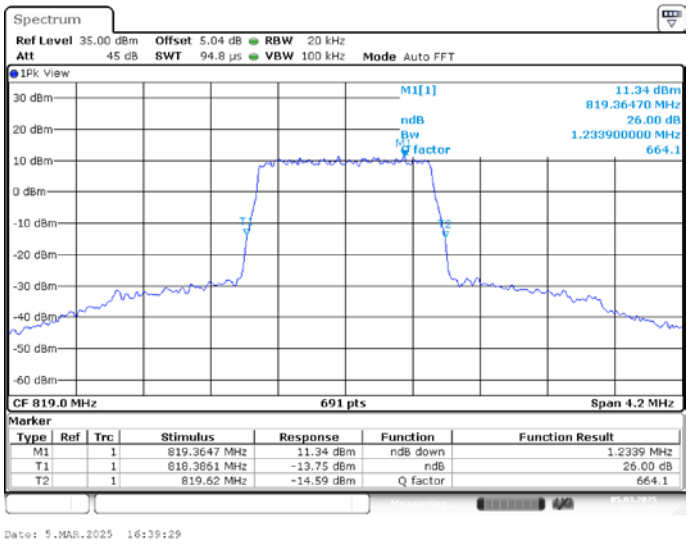
LTE band 26 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



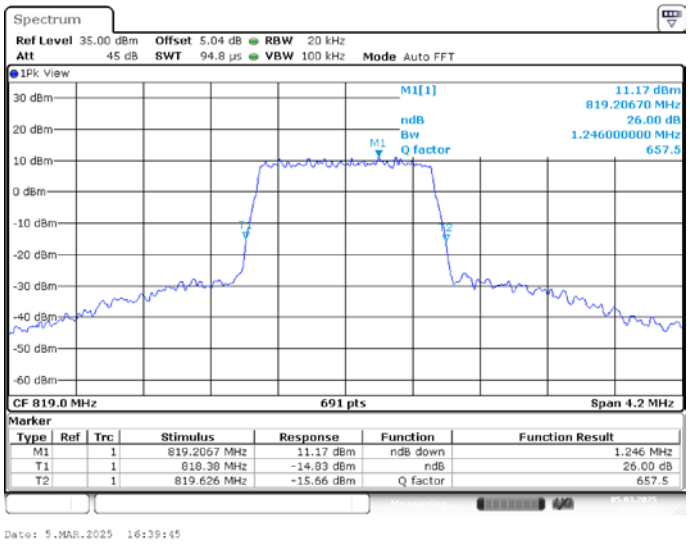
LTE band 26_Part90,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	1.234	1.246

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



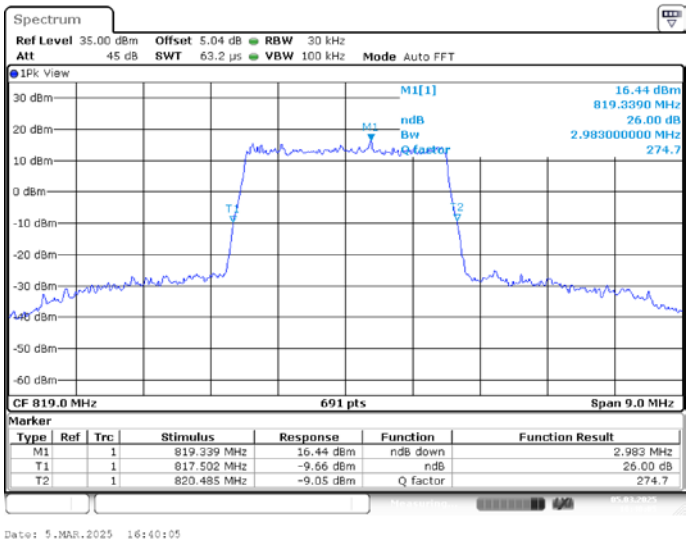
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



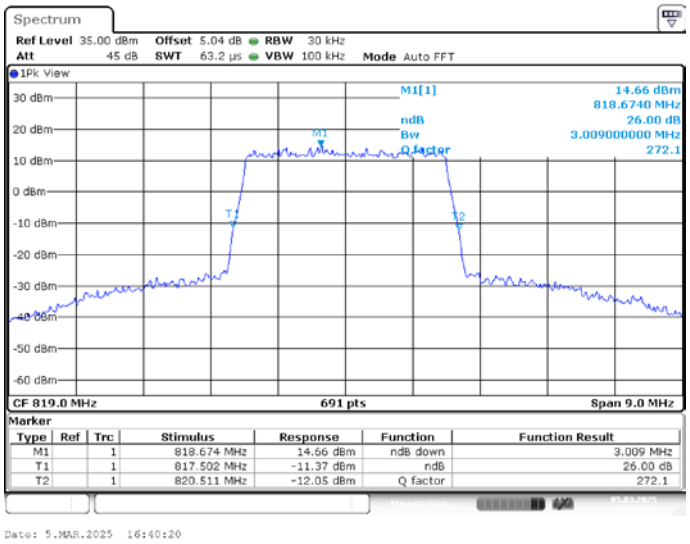
LTE band 26_Part90,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	2.983	3.009

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



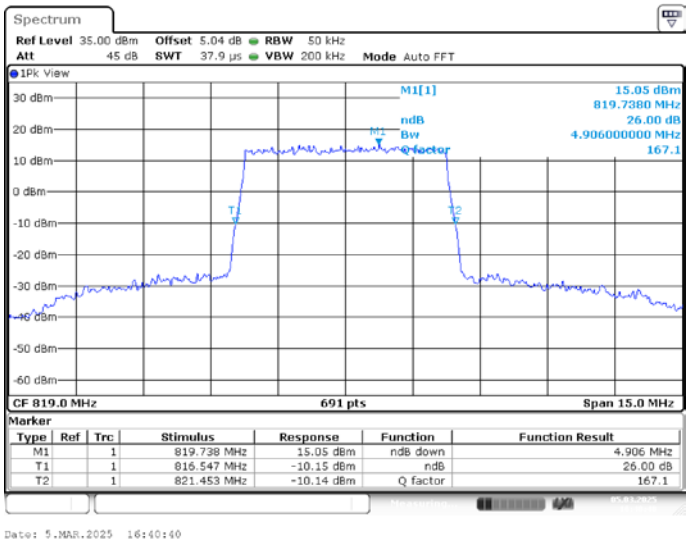
LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



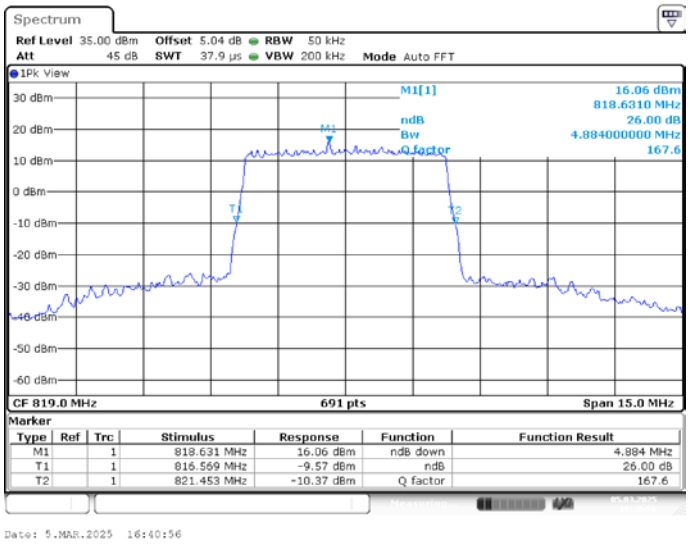
LTE band 26_Part90,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	4.906	4.884

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



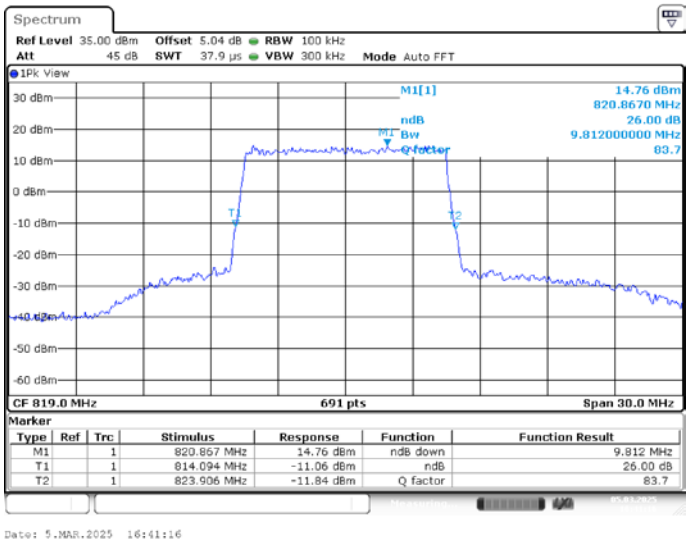
LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



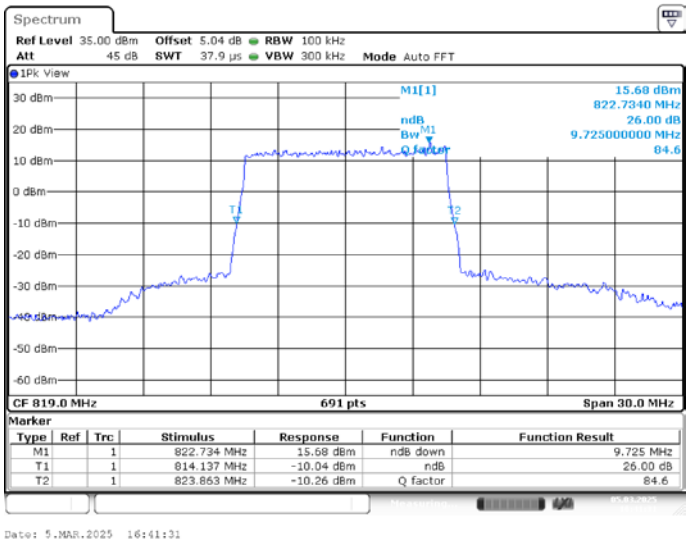
LTE band 26_Part90,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	9.812	9.725

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



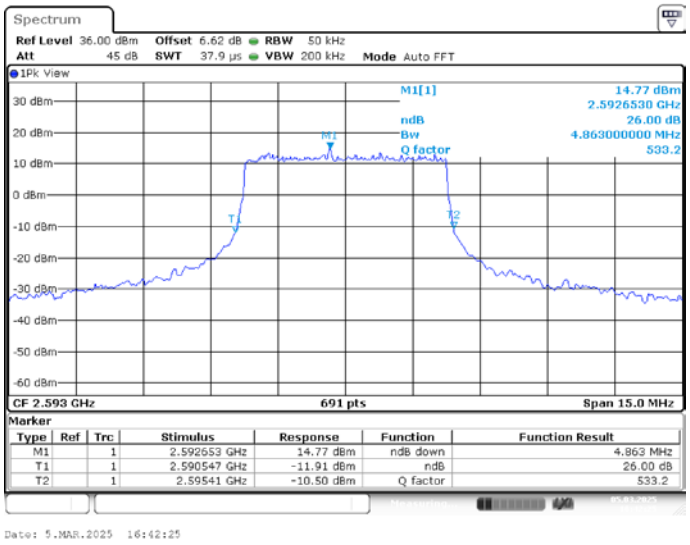
LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



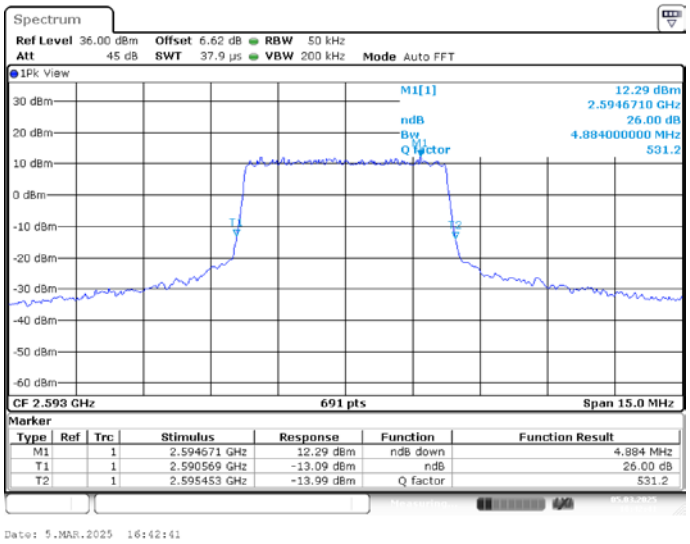
LTE band 41,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	4.863	4.884

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



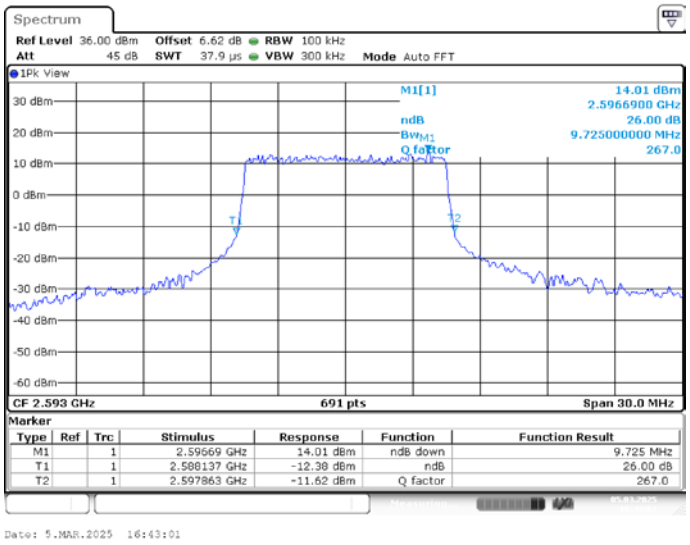
LTE band 41 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



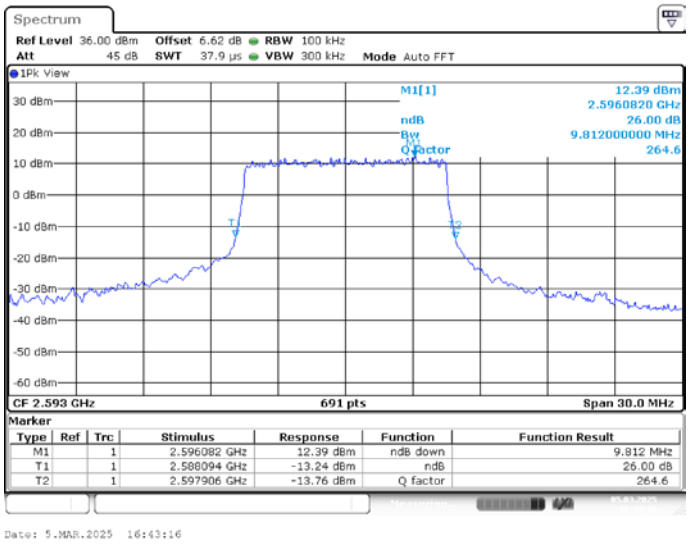
LTE band 41,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	9.725	9.812

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



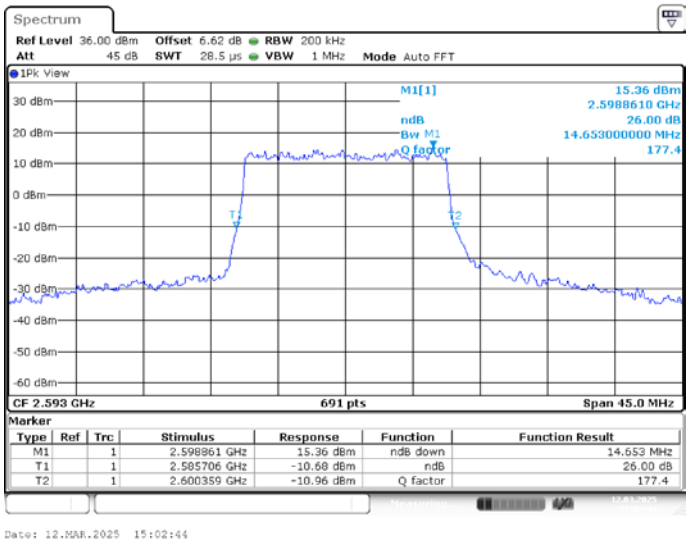
LTE band 41 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



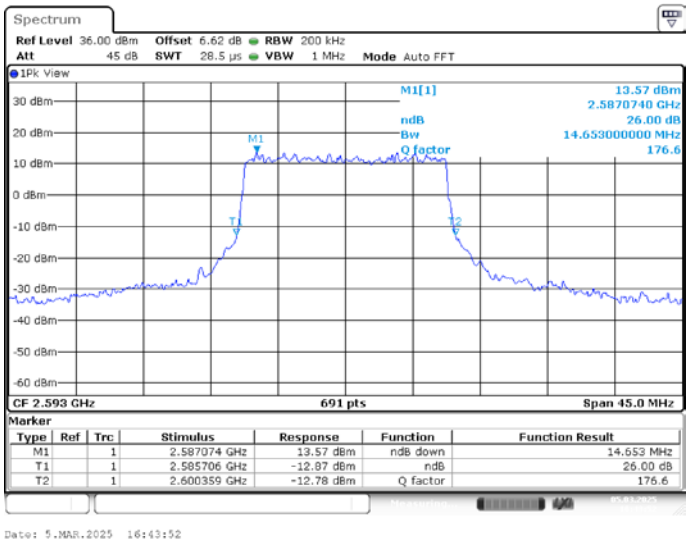
LTE band 41,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	14.653	14.653

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



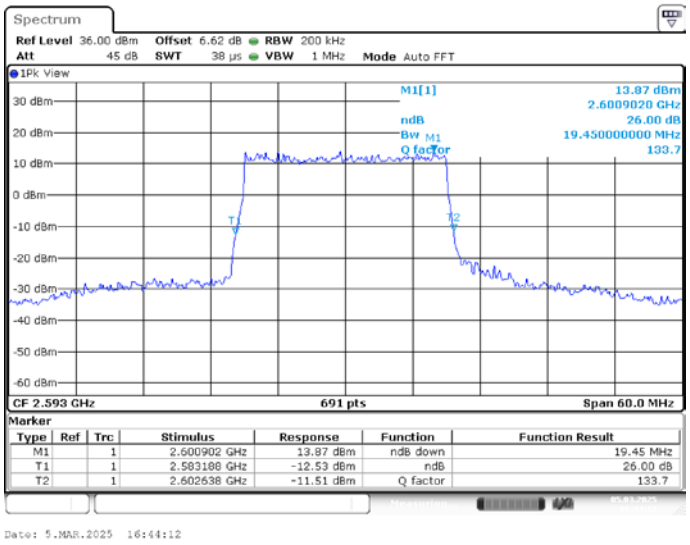
LTE band 41 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



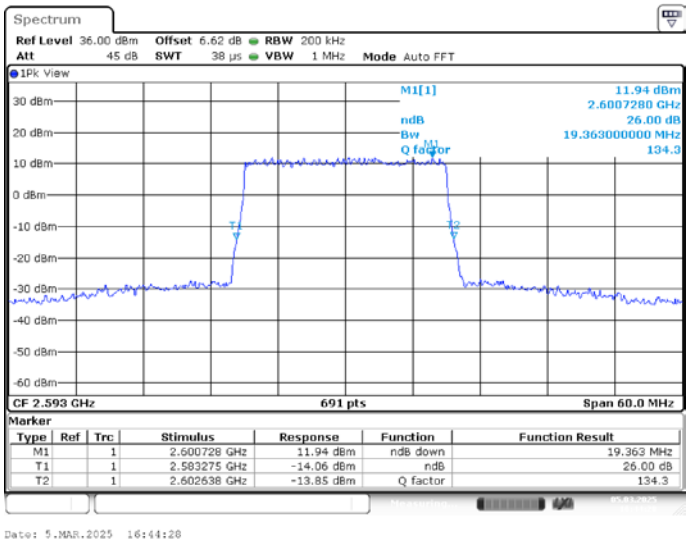
LTE band 41,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	19.450	19.363

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



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



A.6 Band Edge Compliance

A.6.1 Measurement limit

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

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

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

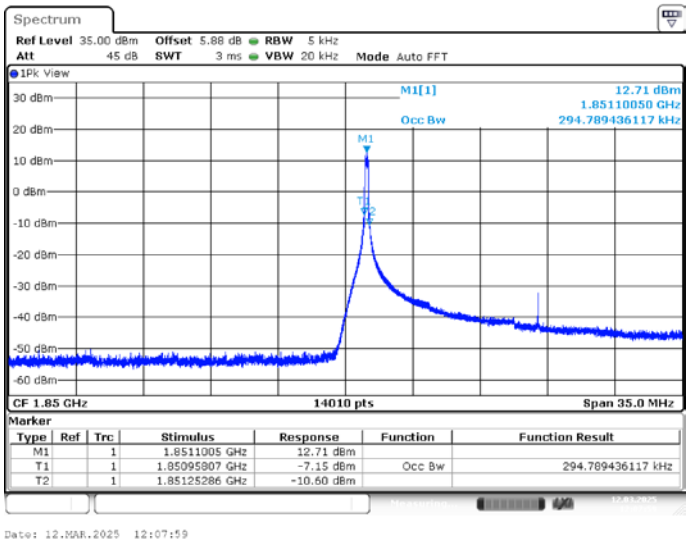
Part 90.691 states that out-of-band emission requirement shall apply only to the ‘‘outer’’ channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee’s frequency block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

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

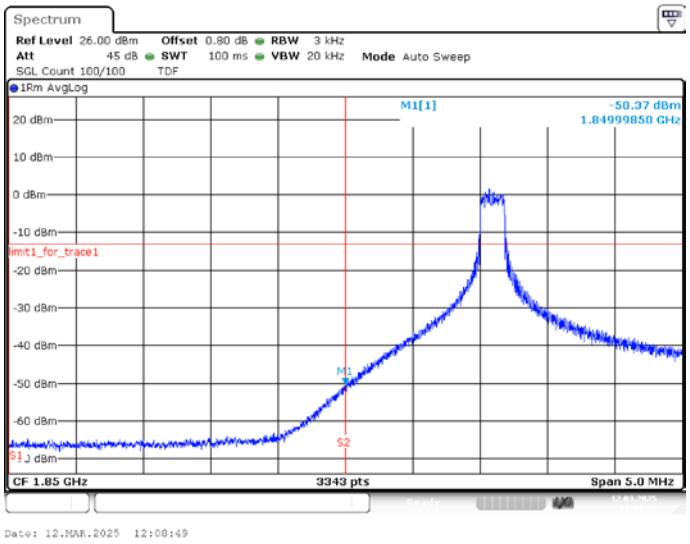
A.6.2 Measurement result

LTE band 2

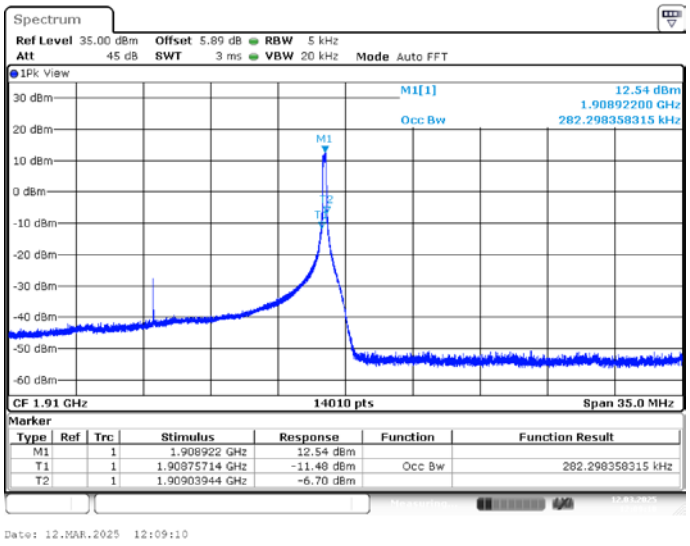
OBW: 1RB-LOW_offset



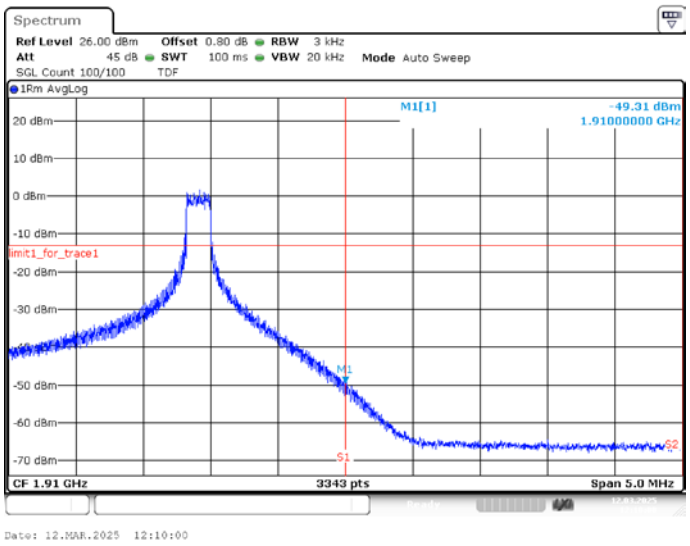
LOW BAND EDGE BLOCK-1RB-LOW_offset



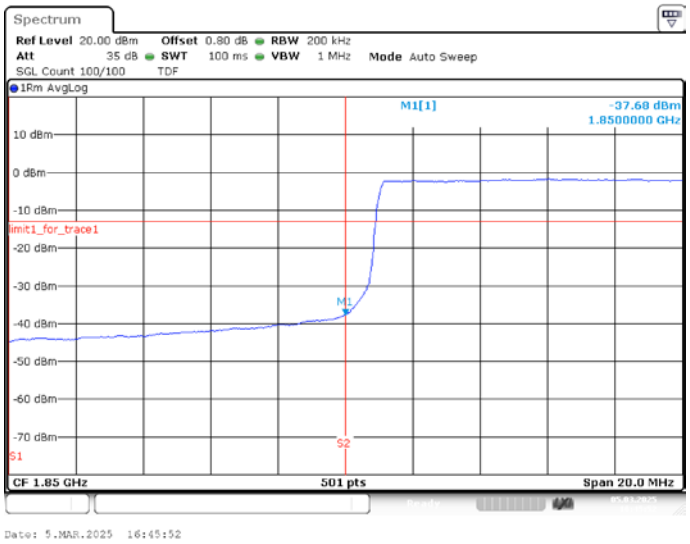
OBW: 1RB-HIGH_offset



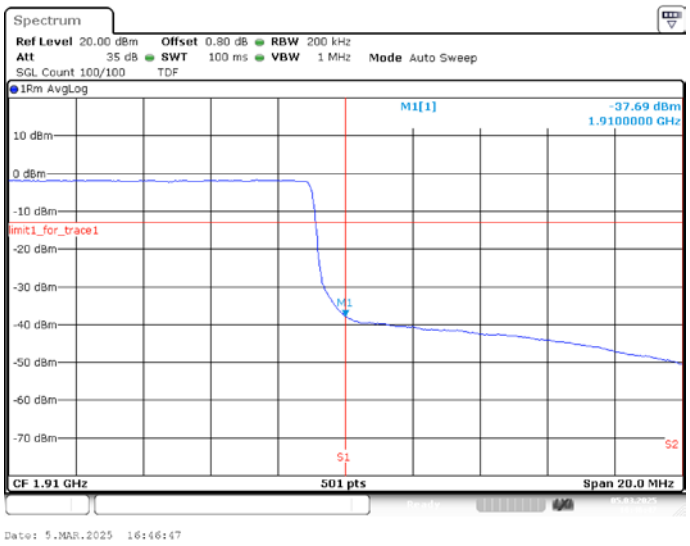
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

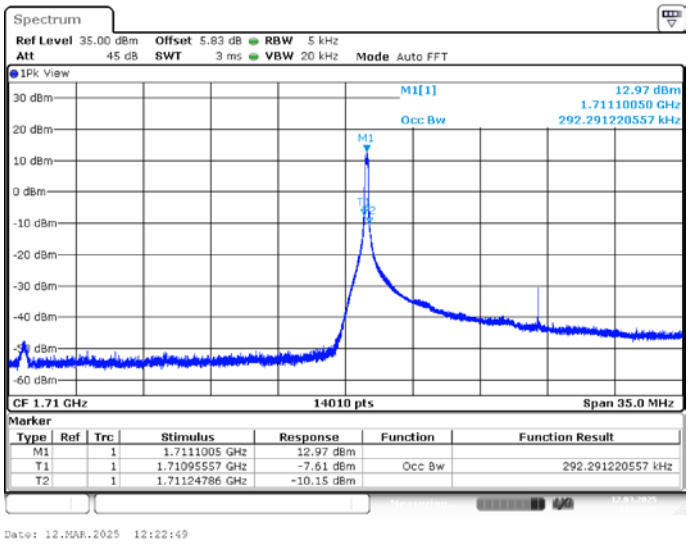


HIGH BAND EDGE BLOCK-20MHz-100%RB

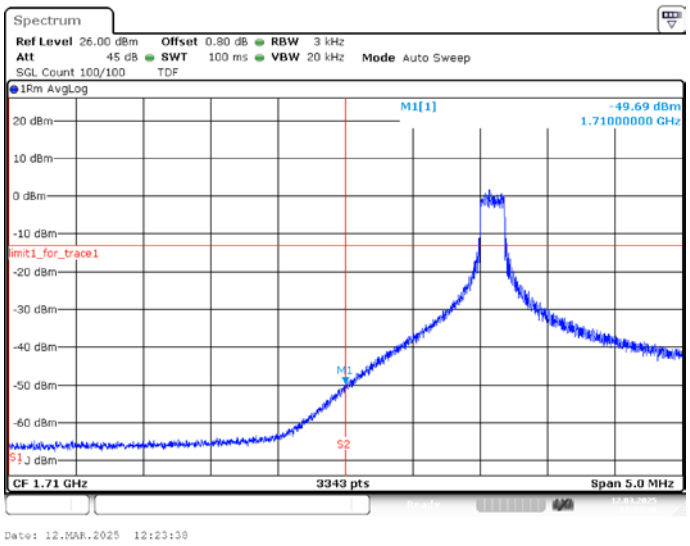


LTE band 4

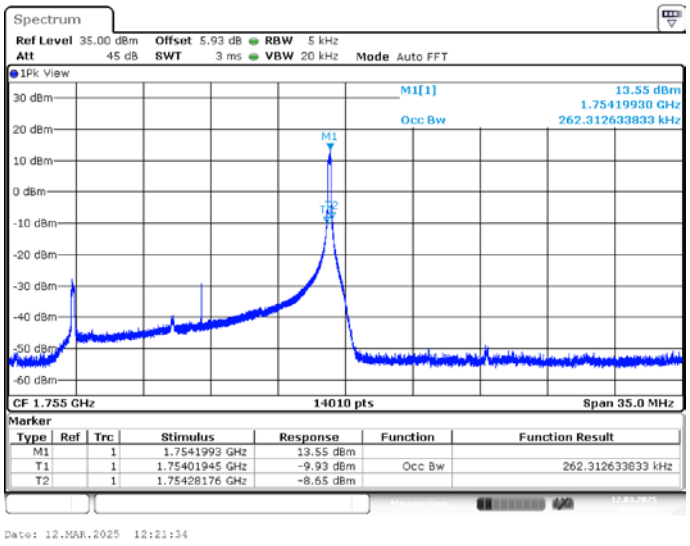
OBW: 1RB-LOW_offset



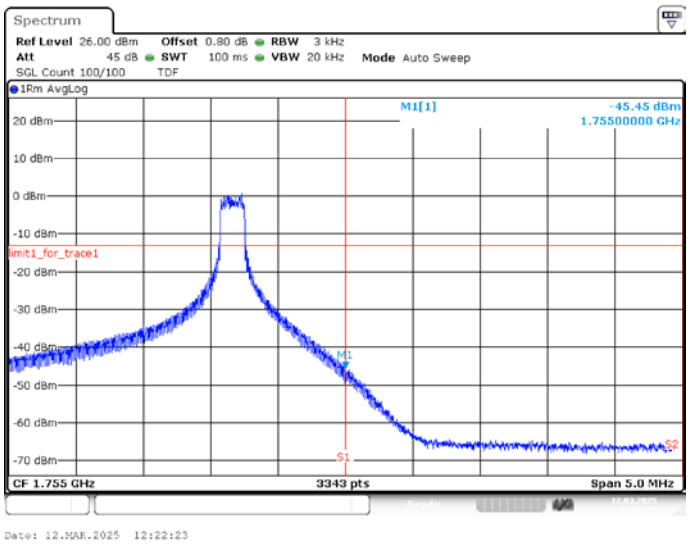
LOW BAND EDGE BLOCK-1RB-LOW_offset



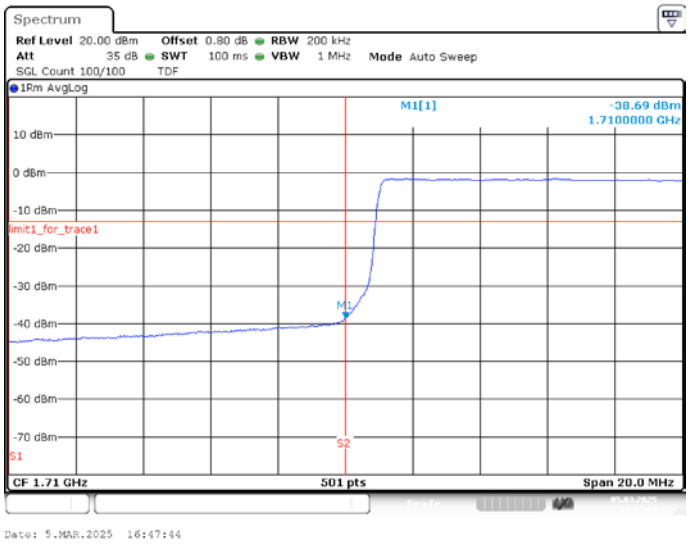
OBW: 1RB-HIGH_offset



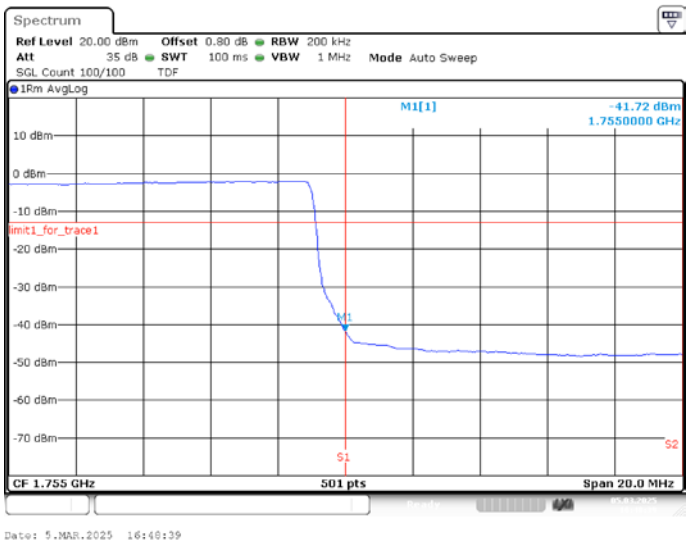
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

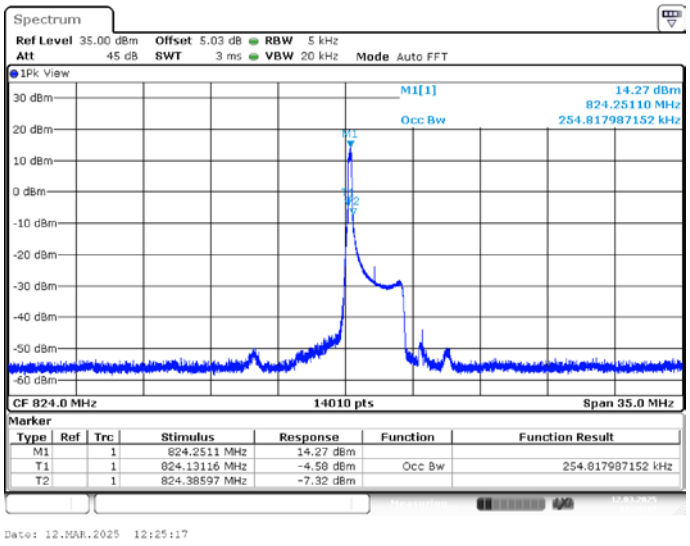


HIGH BAND EDGE BLOCK-20MHz-100%RB

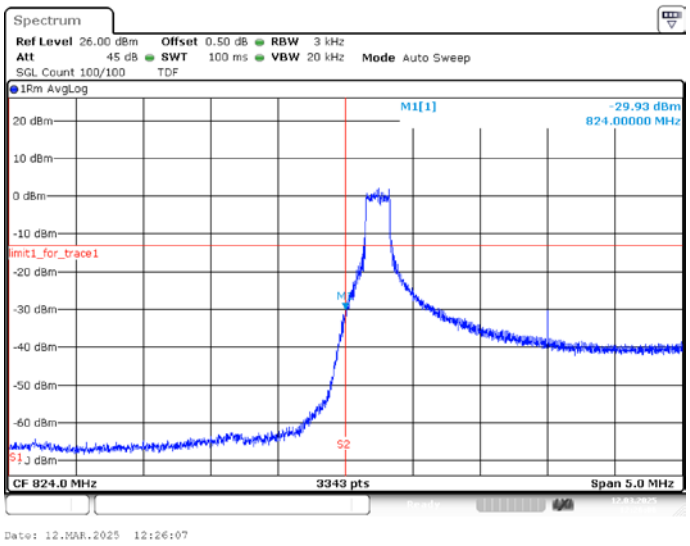


LTE band 5

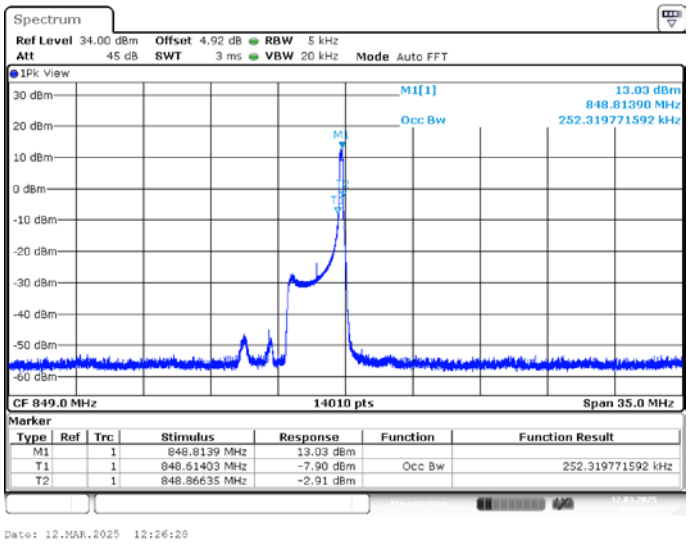
OBW: 1RB-LOW_offset



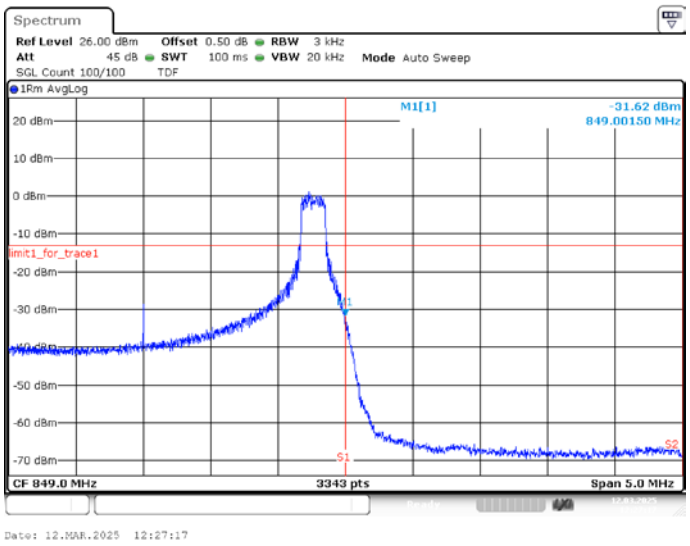
LOW BAND EDGE BLOCK-1RB-LOW_offset



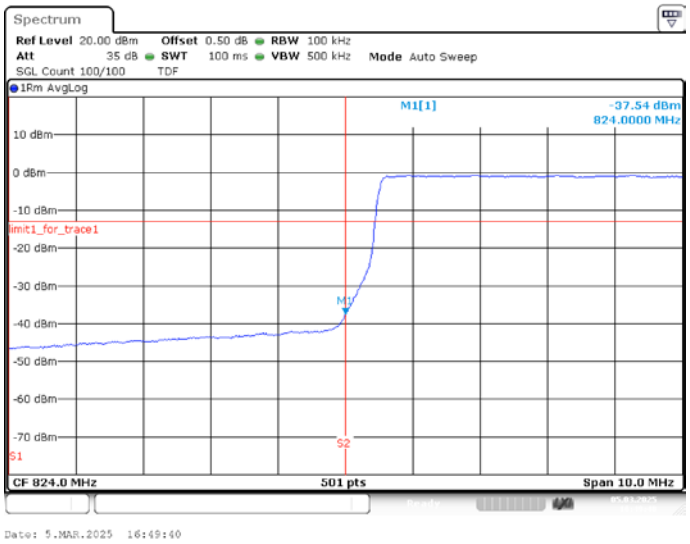
OBW: 1RB-HIGH_offset



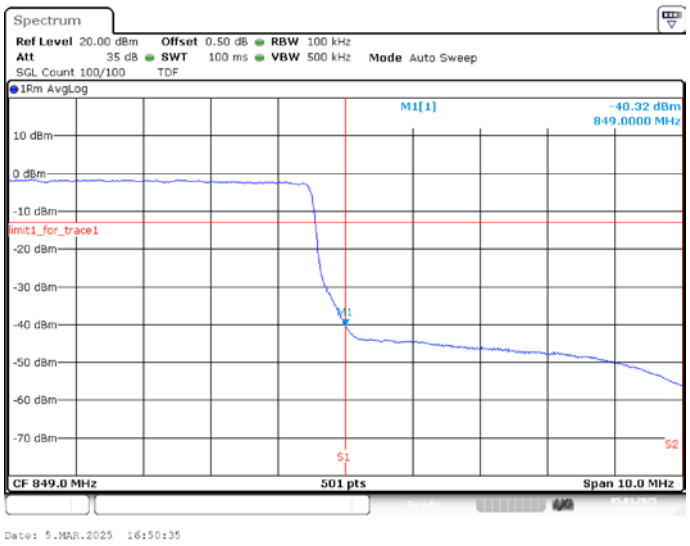
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10MHz-100%RB

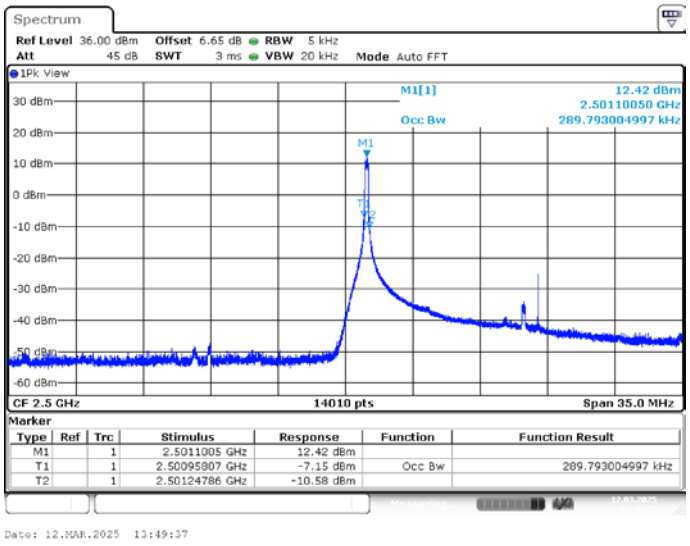


HIGH BAND EDGE BLOCK-10MHz-100%RB

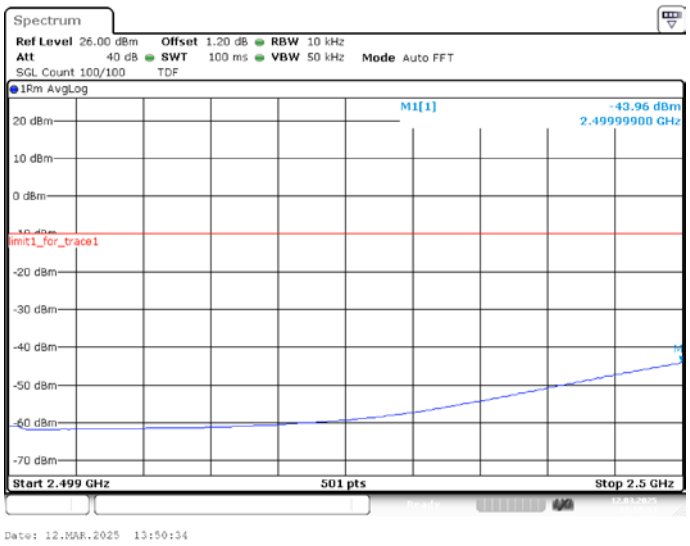


LTE band 7

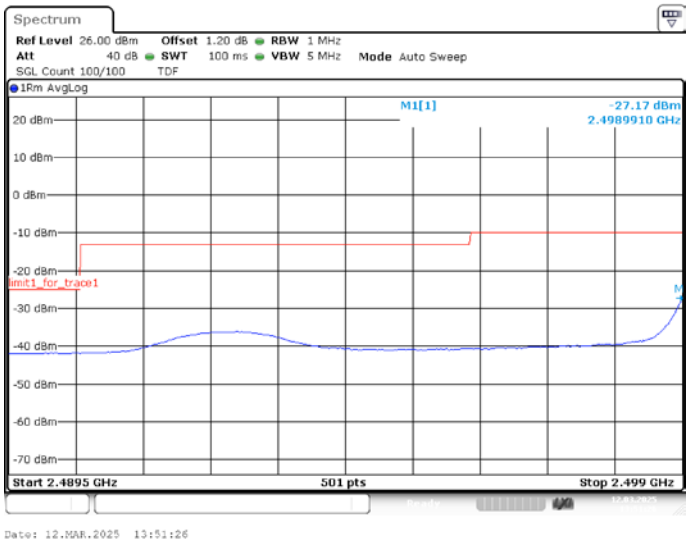
OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



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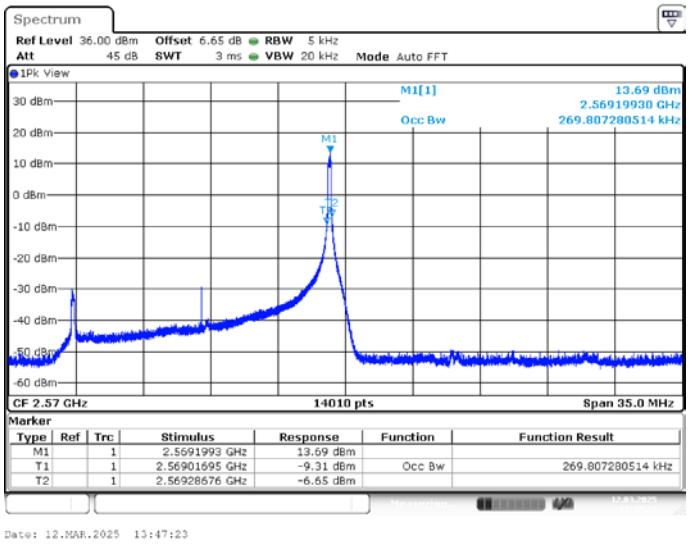
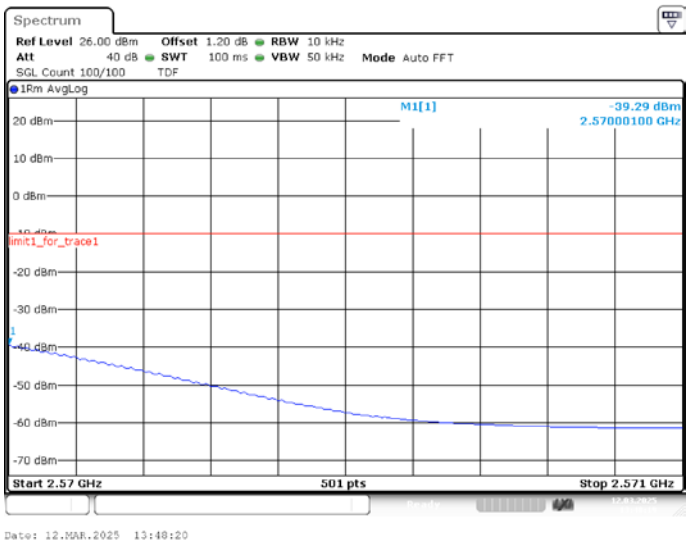
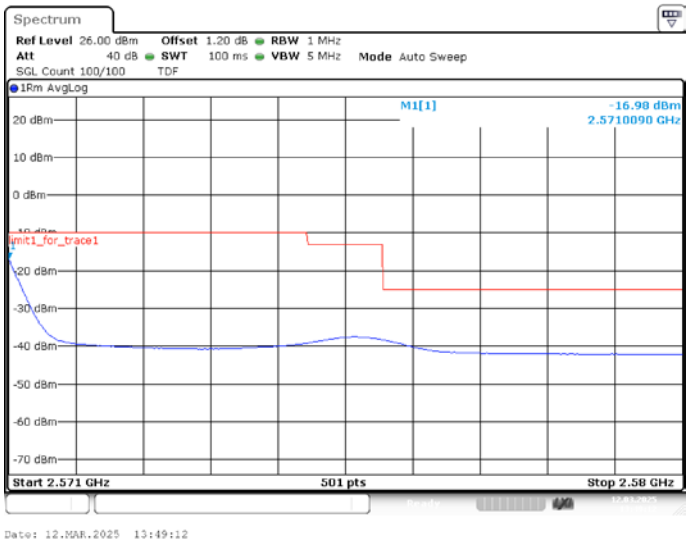


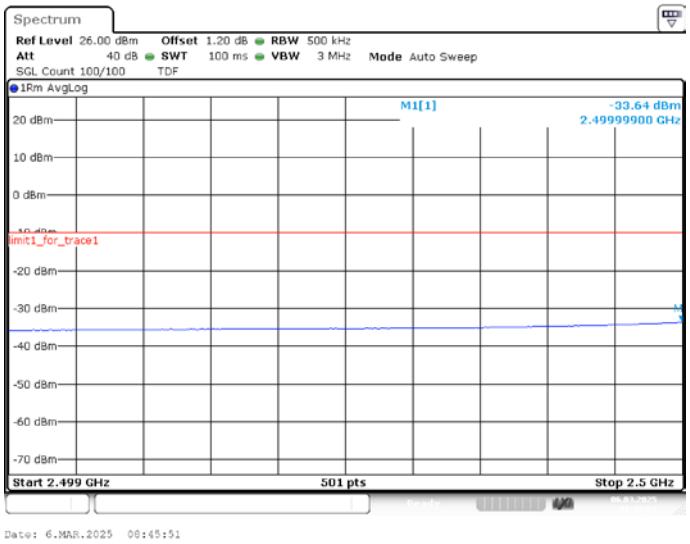
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



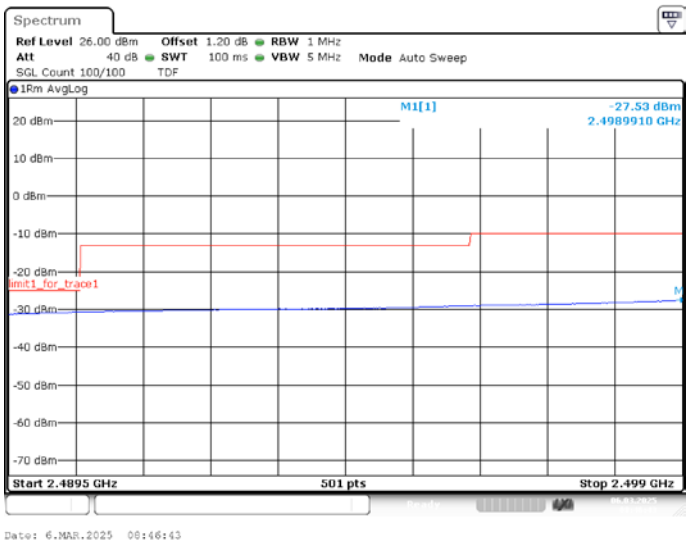
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



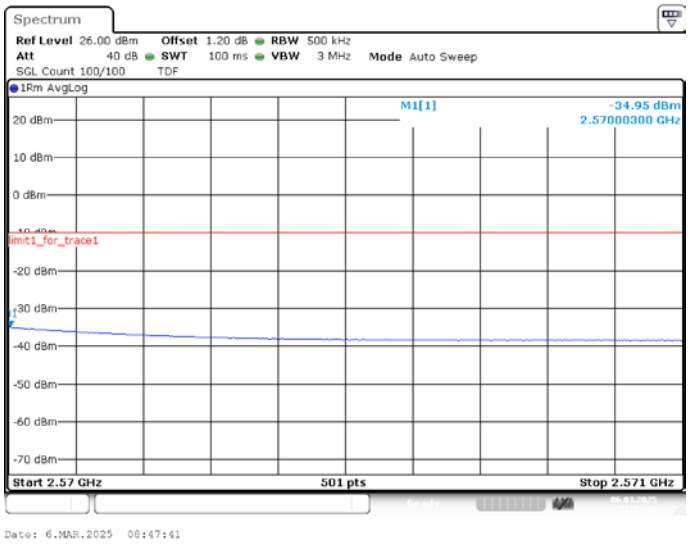
LOW BAND EDGE BLOCK-20MHz-100%RB



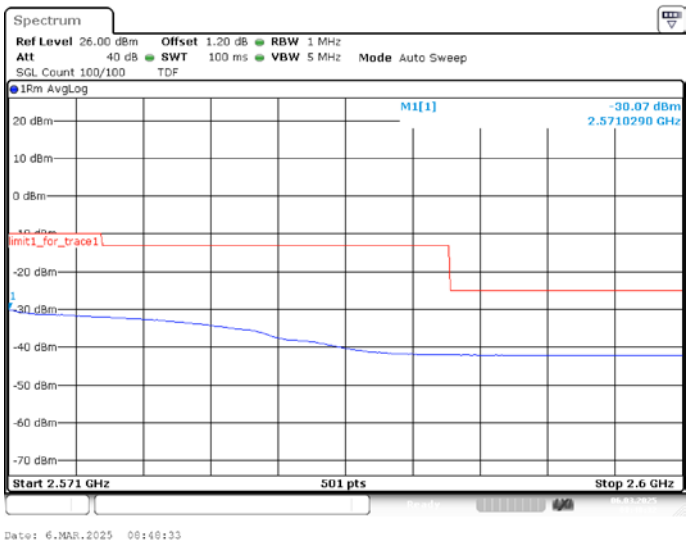
LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

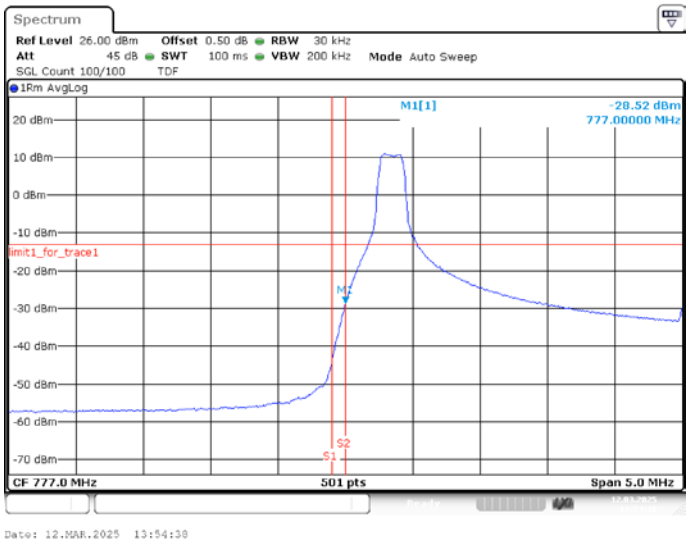


HIGH BAND EDGE BLOCK-20MHz-100%RB

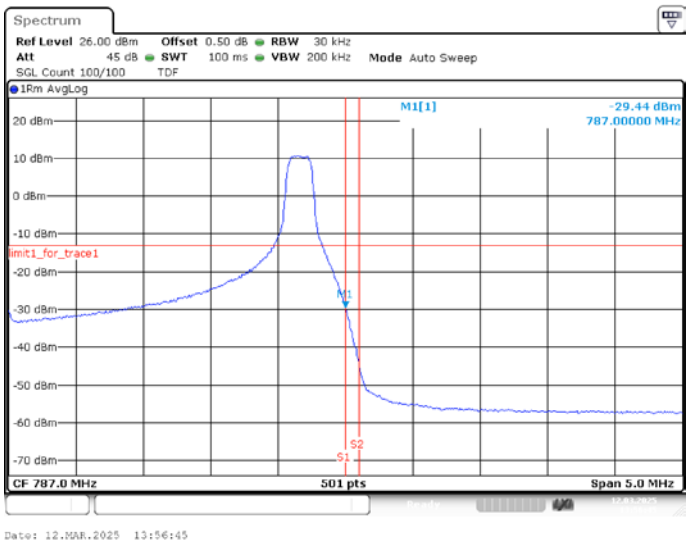


LTE band 13

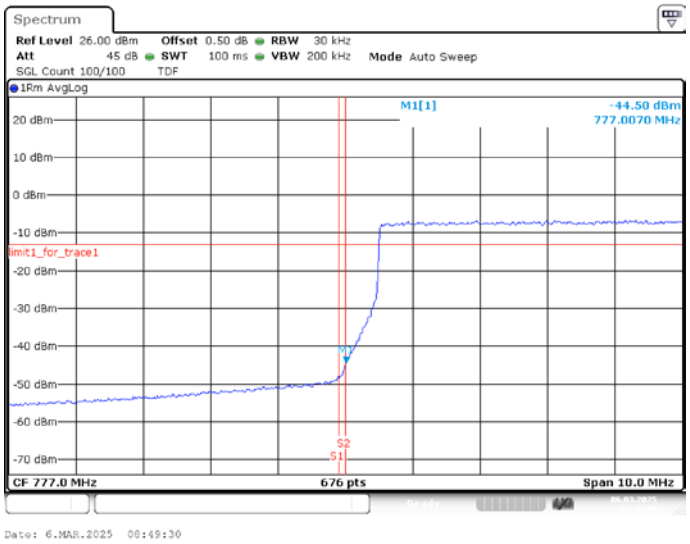
LOW BAND EDGE BLOCK-1RB-LOW_offset



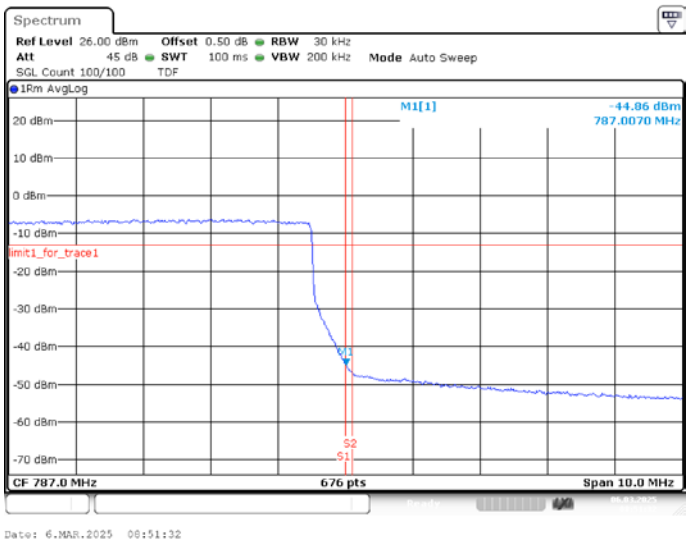
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10MHz-100%RB

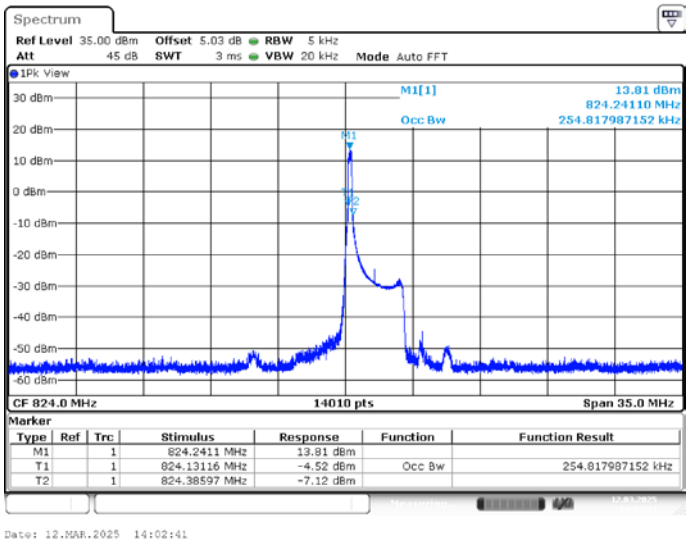


HIGH BAND EDGE BLOCK-10MHz-100%RB

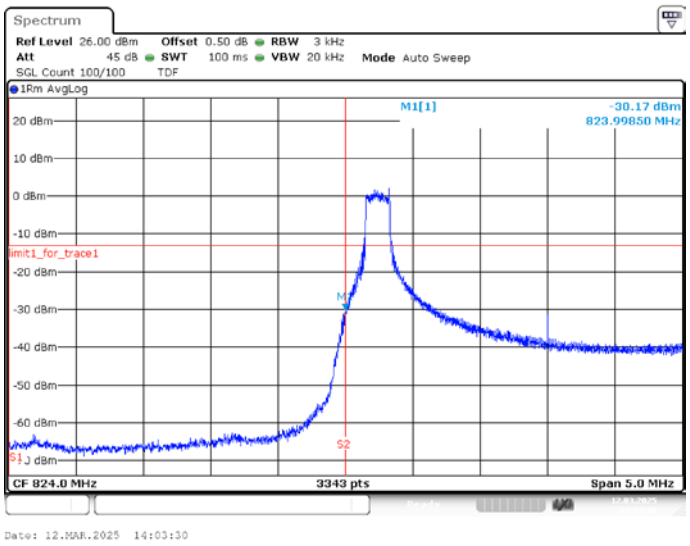


LTE band 26_Part22

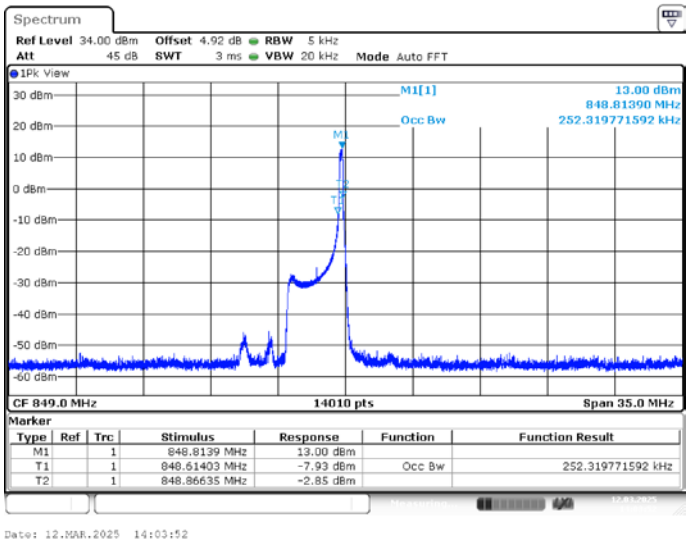
OBW: 1RB-LOW_offset



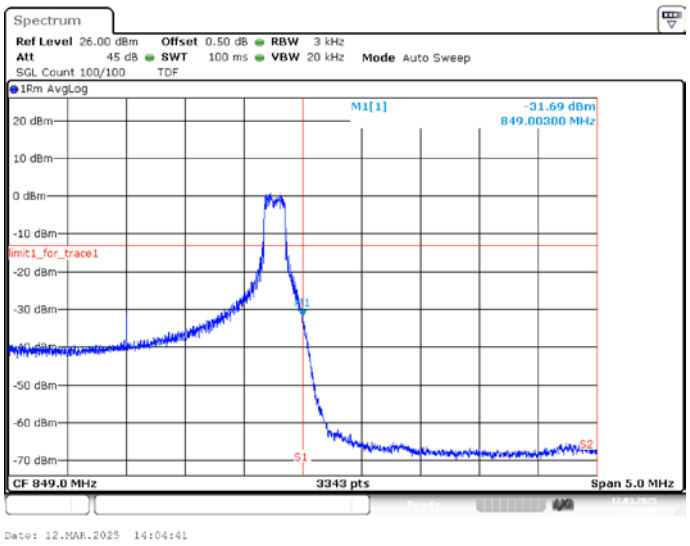
LOW BAND EDGE BLOCK-1RB-LOW_offset



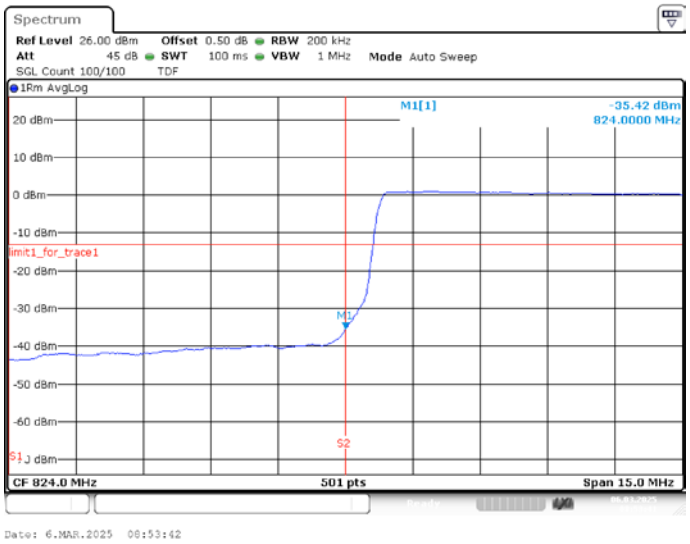
OBW: 1RB-HIGH_offset



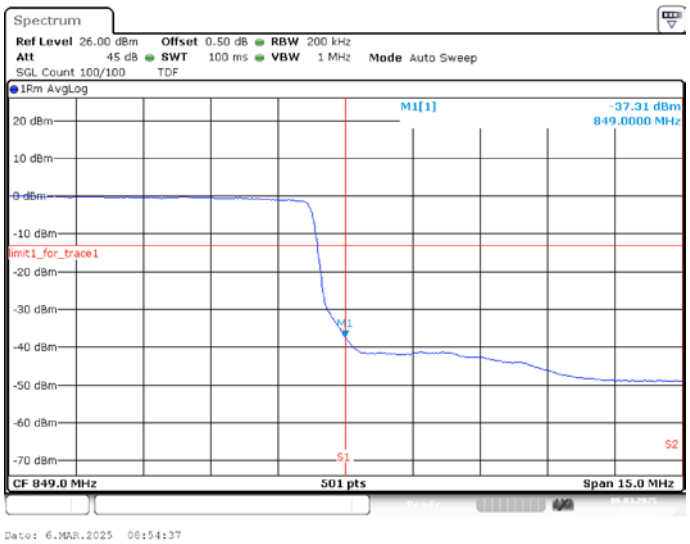
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-15MHz-100%RB

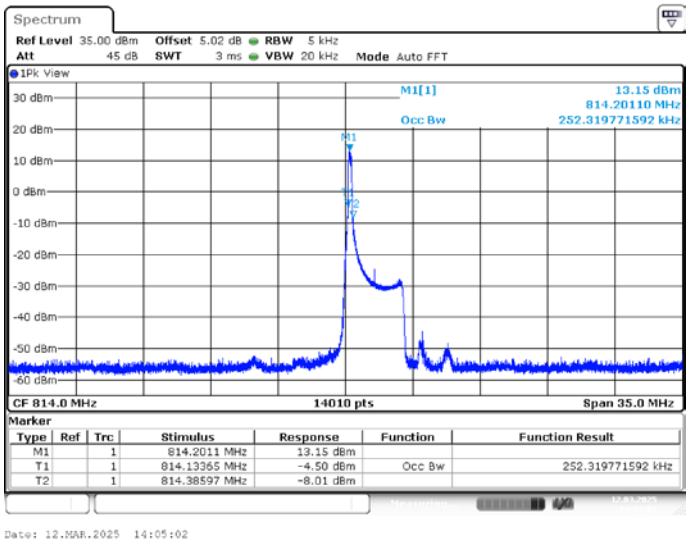


HIGH BAND EDGE BLOCK-15MHz-100%RB

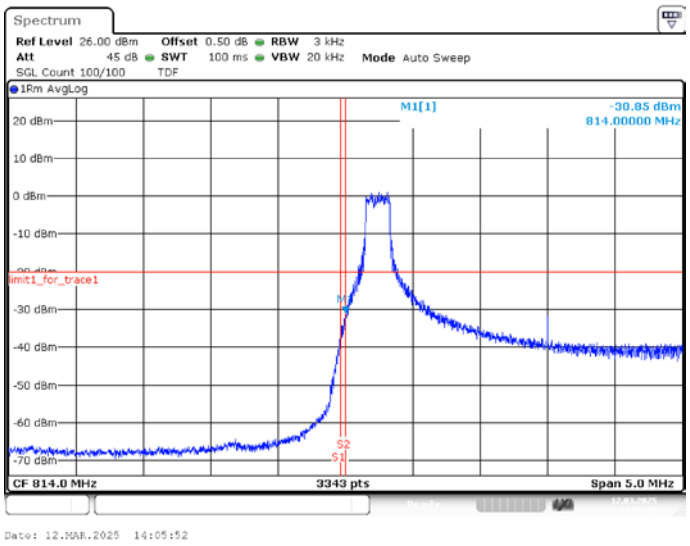


LTE band 26_Part90

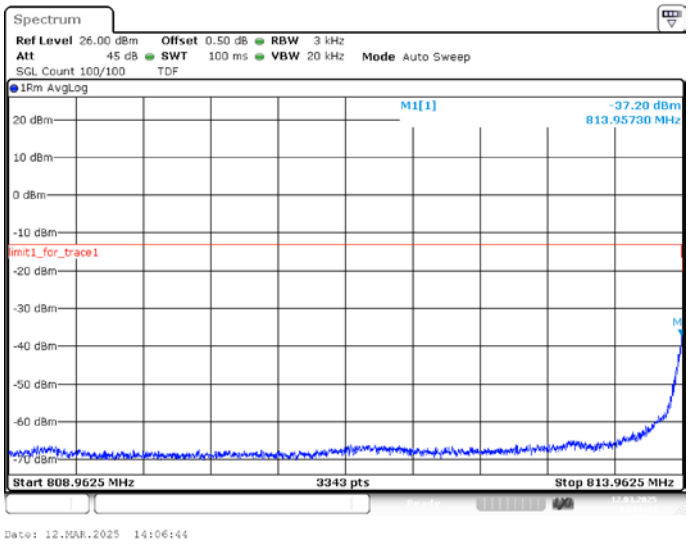
OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



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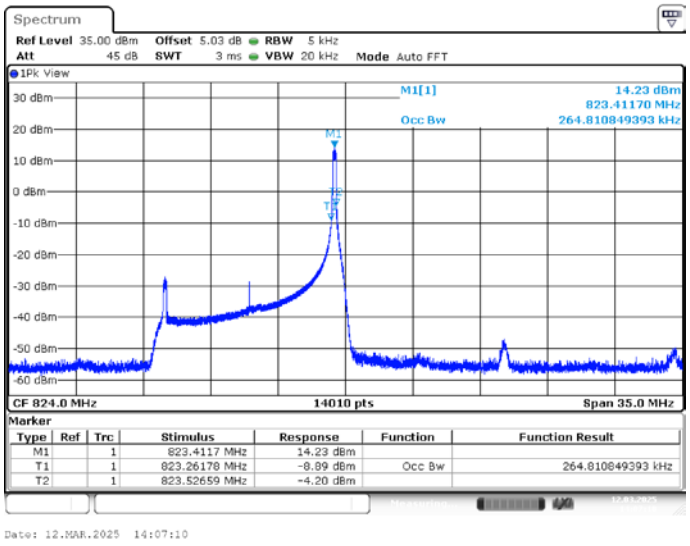
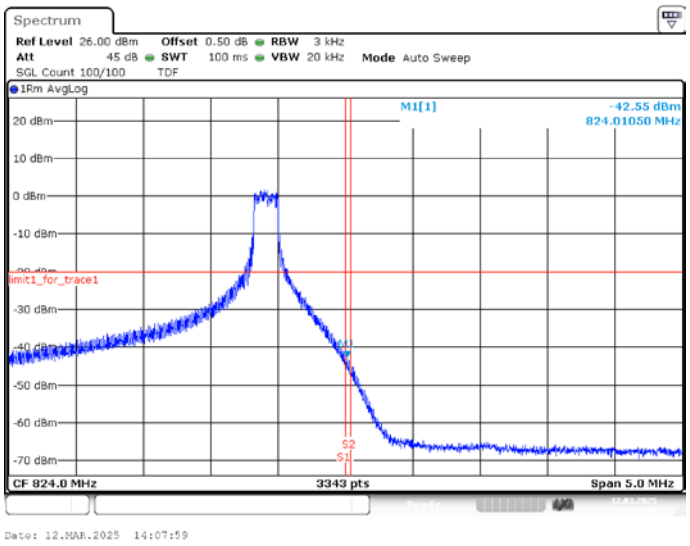
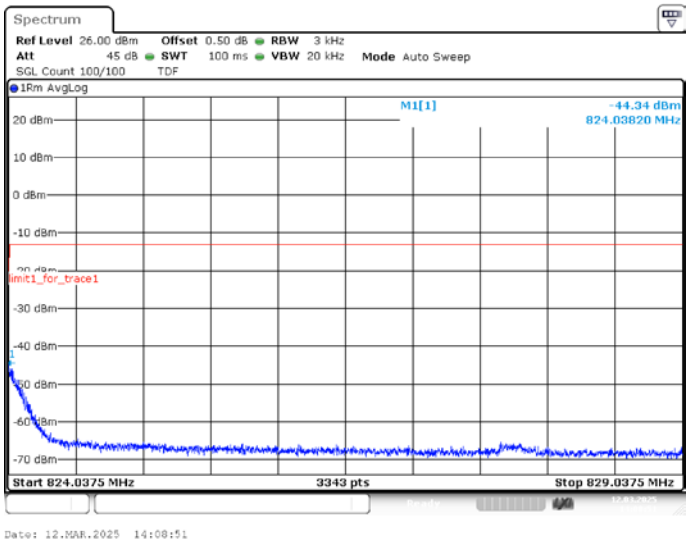


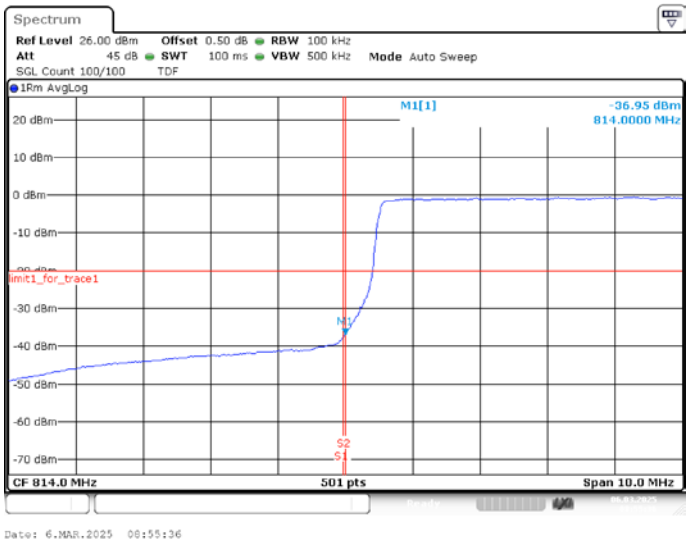
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



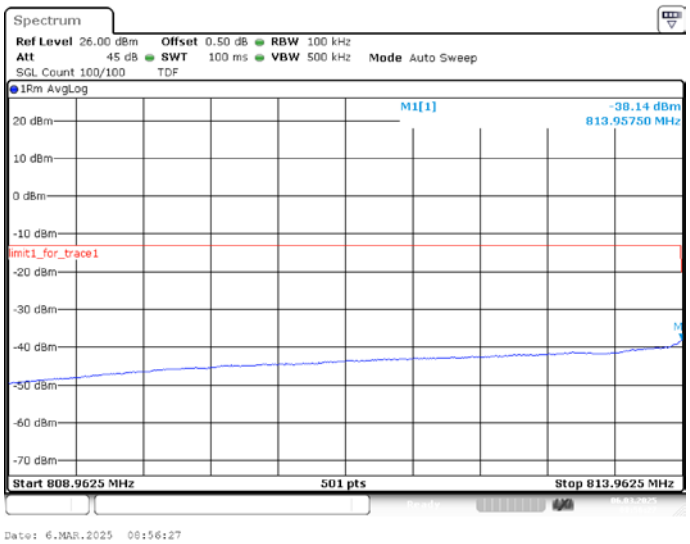
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



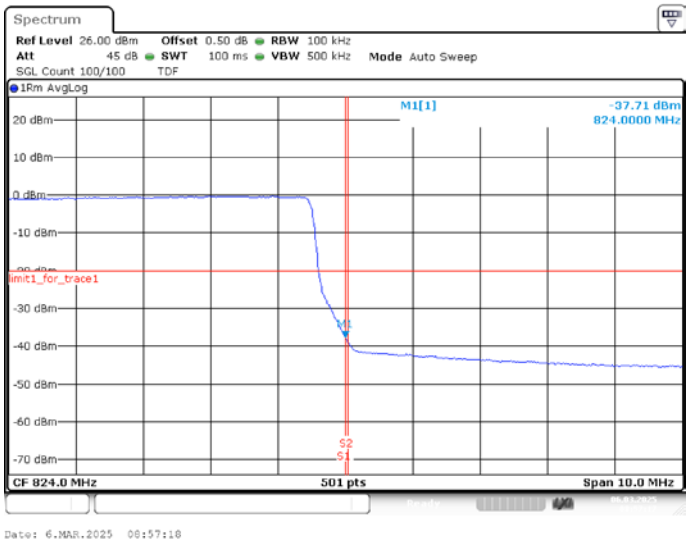
LOW BAND EDGE BLOCK-10MHz-100%RB



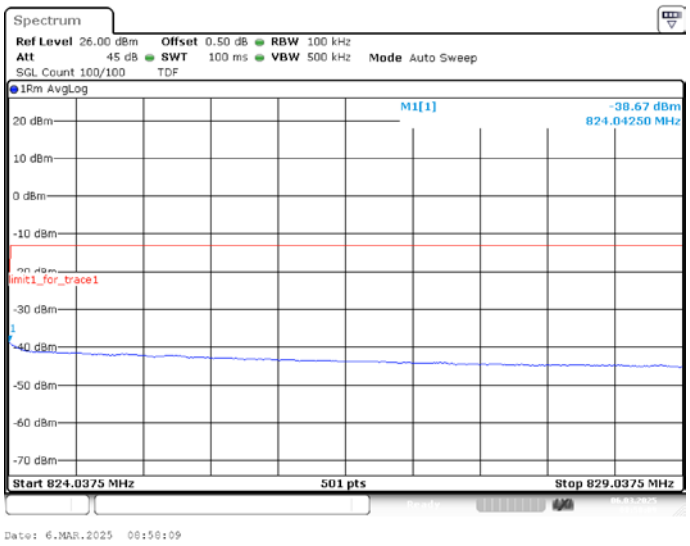
LOW BAND EDGE BLOCK-10MHz-100%RB



HIGH BAND EDGE BLOCK-10MHz-100%RB

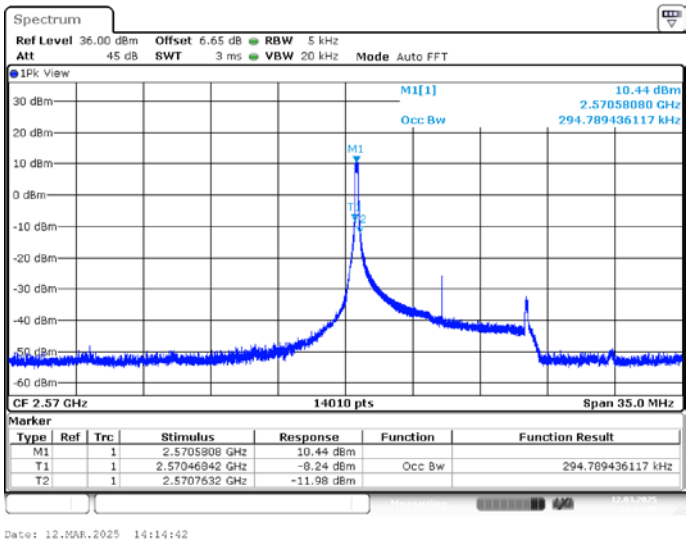


HIGH BAND EDGE BLOCK-10MHz-100%RB

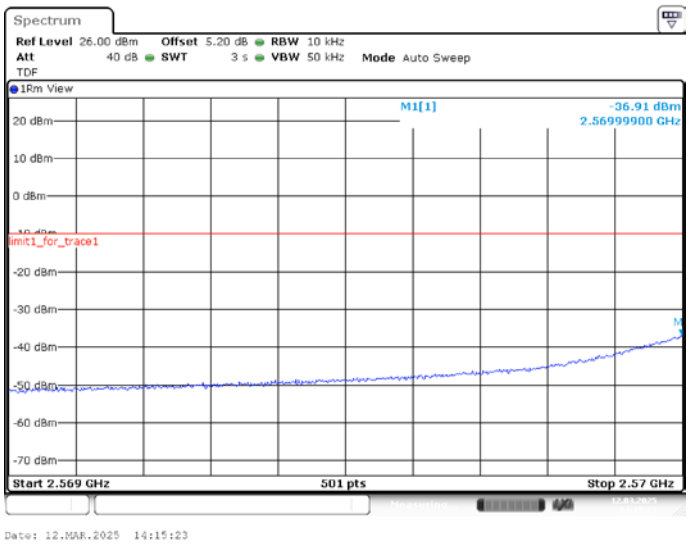


LTE band 38

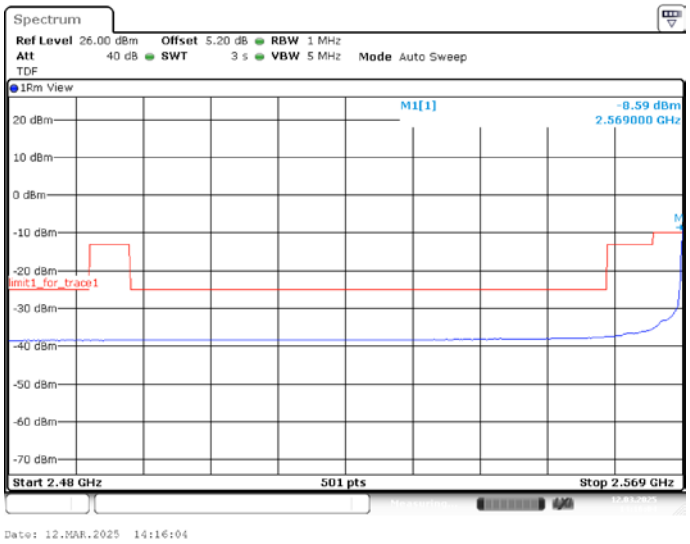
OBW: 1RB-LOW_offset



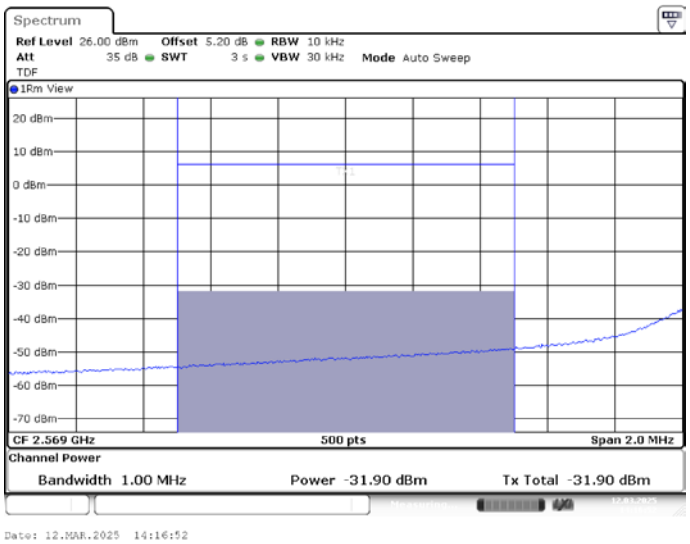
LOW BAND EDGE BLOCK-1RB-LOW_offset



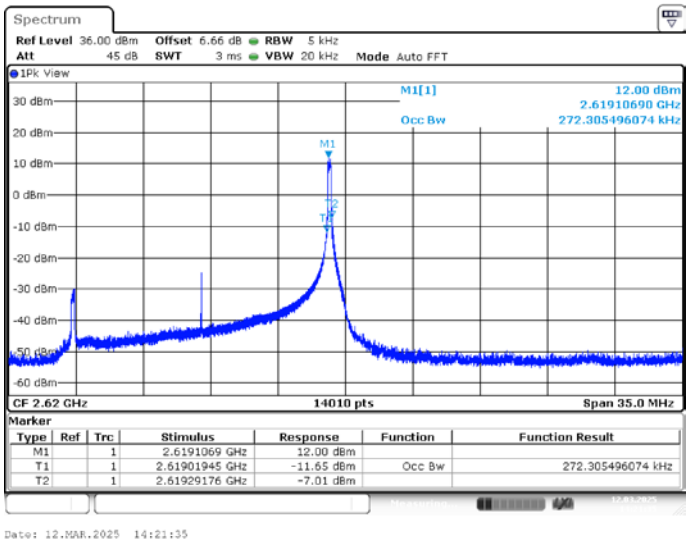
LOW BAND EDGE BLOCK-1RB-LOW_offset



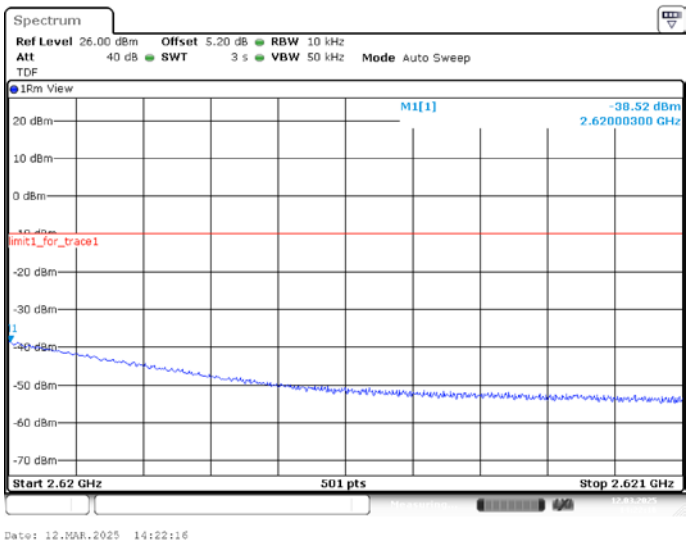
Channel power



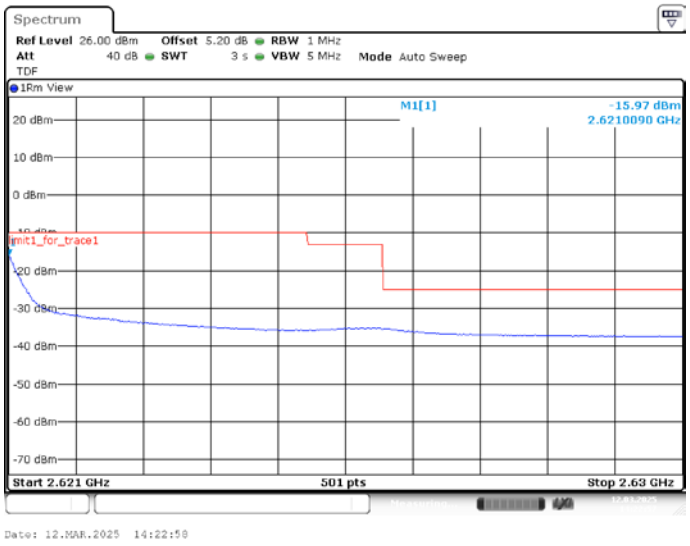
OBW: 1RB-HIGH_offset



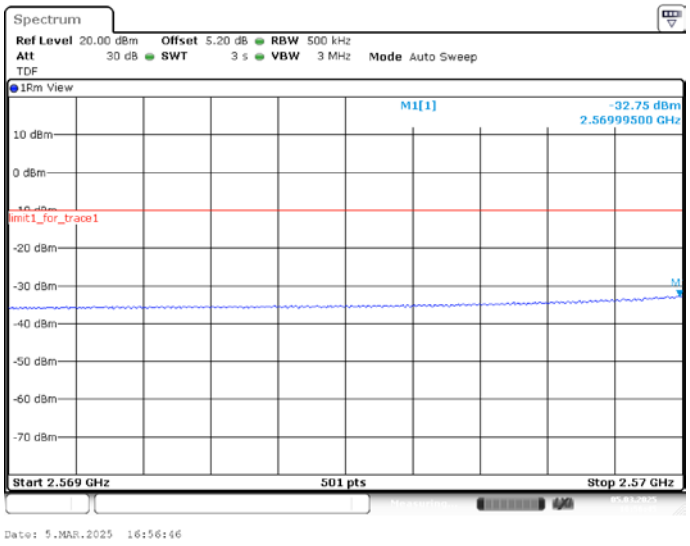
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



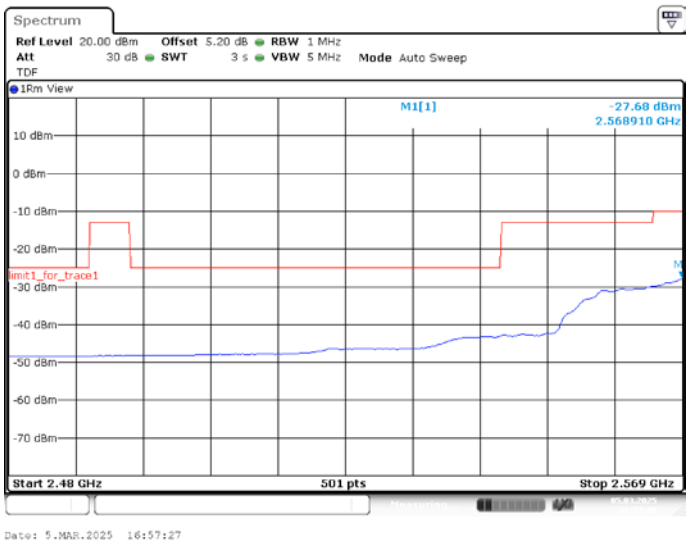
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



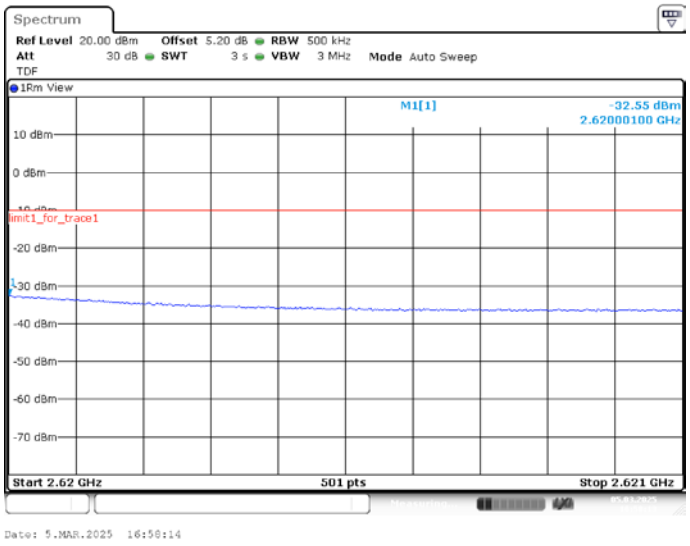
LOW BAND EDGE BLOCK-20MHz-100%RB



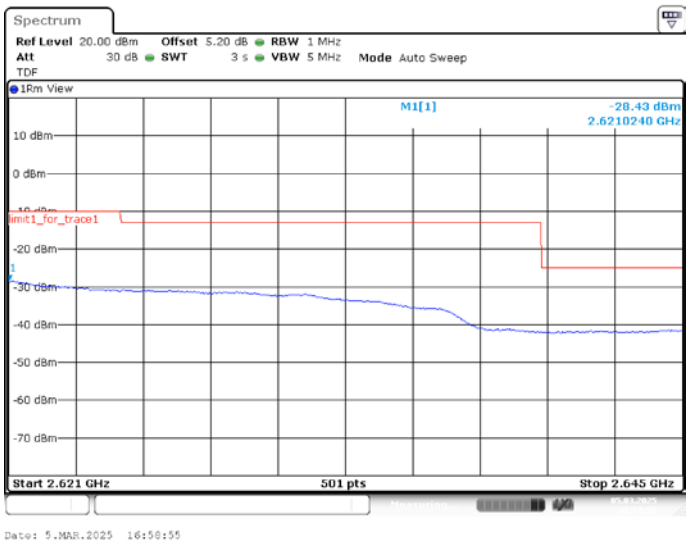
LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB

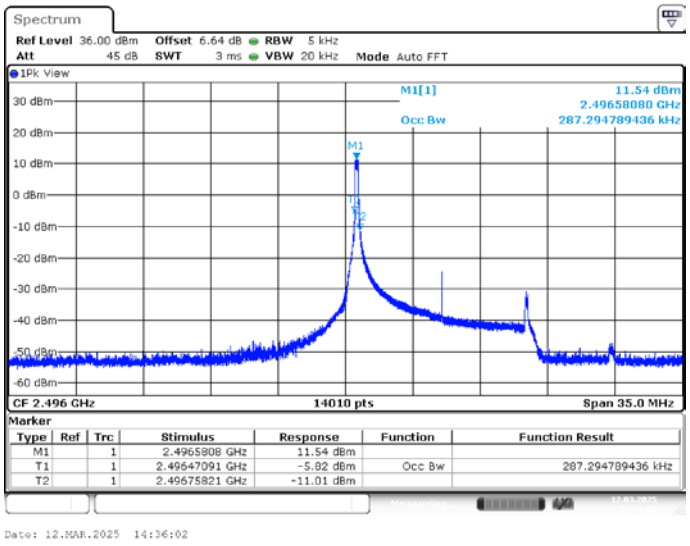


HIGH BAND EDGE BLOCK-20MHz-100%RB

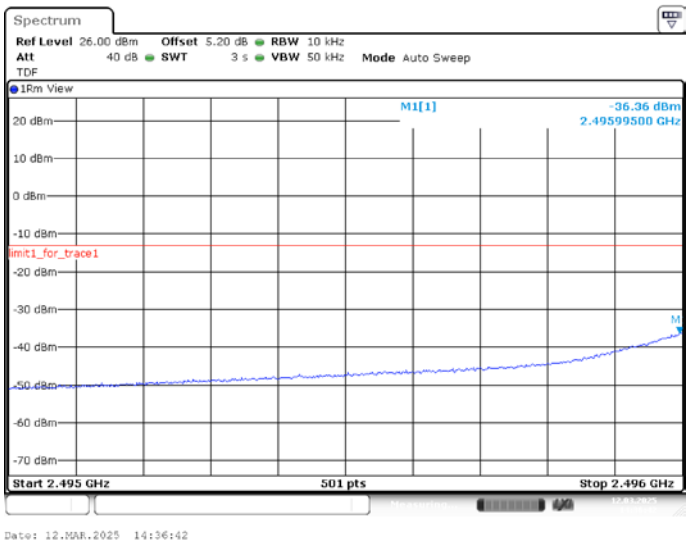


LTE band 41

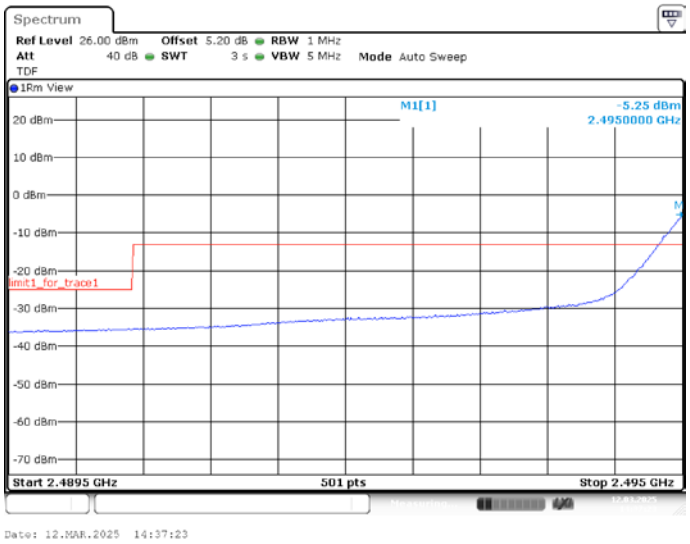
OBW: 1RB-LOW_offset



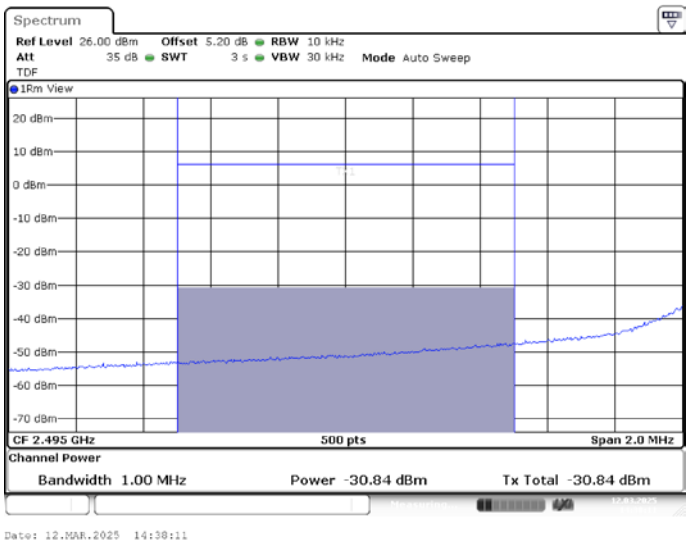
LOW BAND EDGE BLOCK-1RB-LOW_offset



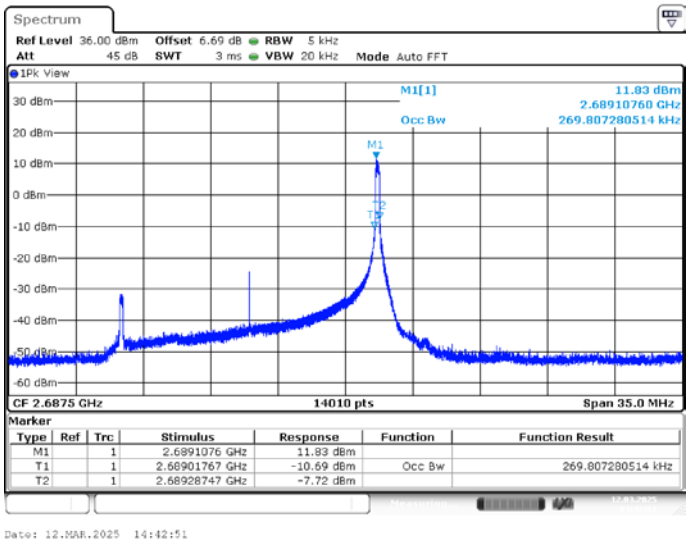
LOW BAND EDGE BLOCK-1RB-LOW_offset



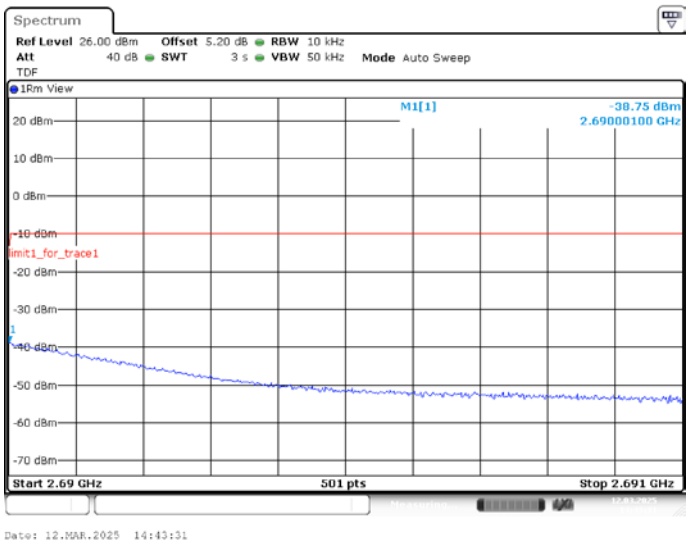
Channel power



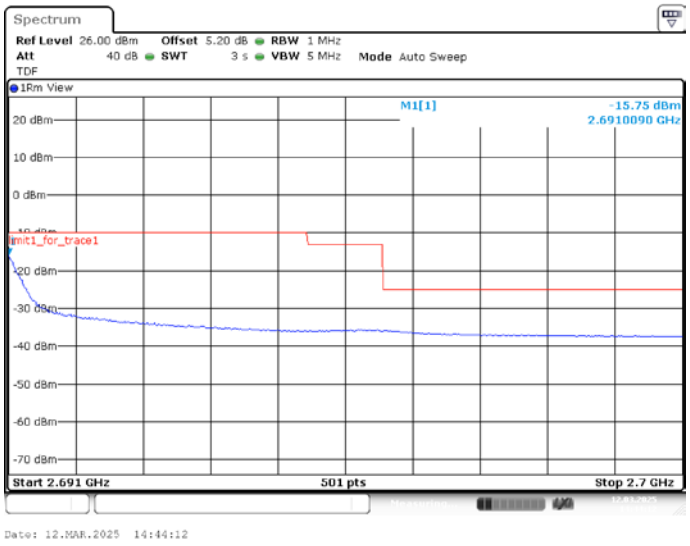
OBW: 1RB-HIGH_offset



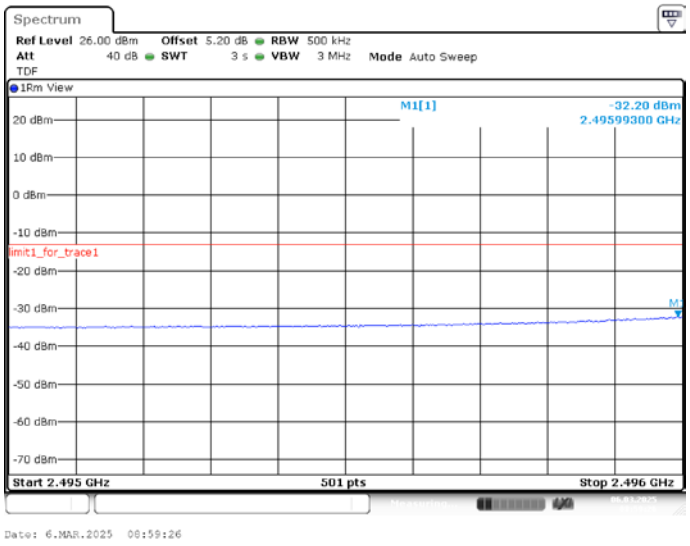
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



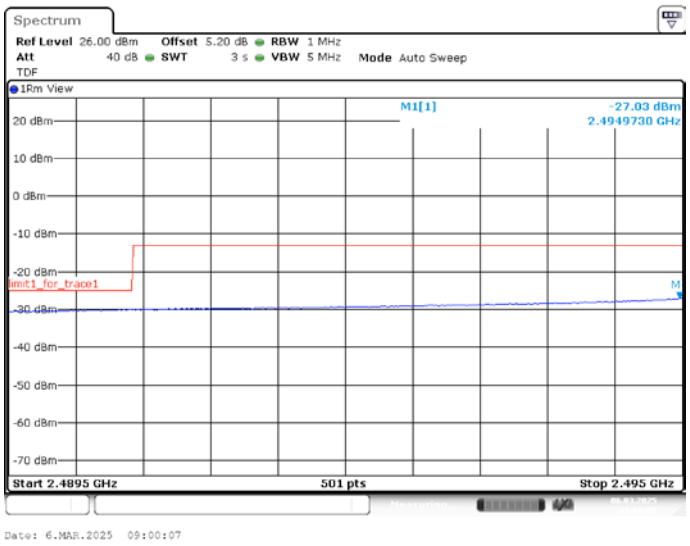
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



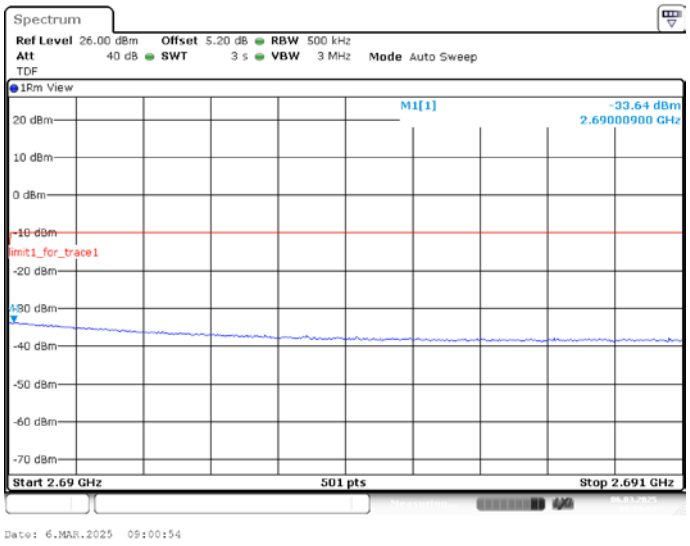
LOW BAND EDGE BLOCK-20MHz-100%RB



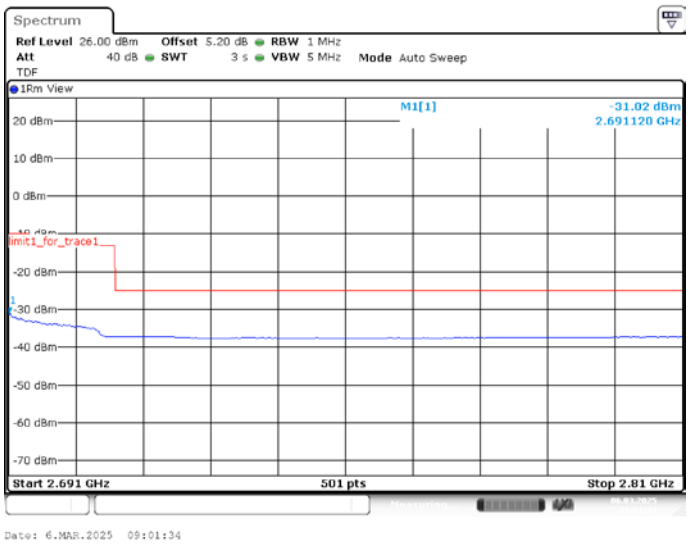
LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB



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

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

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

A.7.3 Measurement result

LTE band 2

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