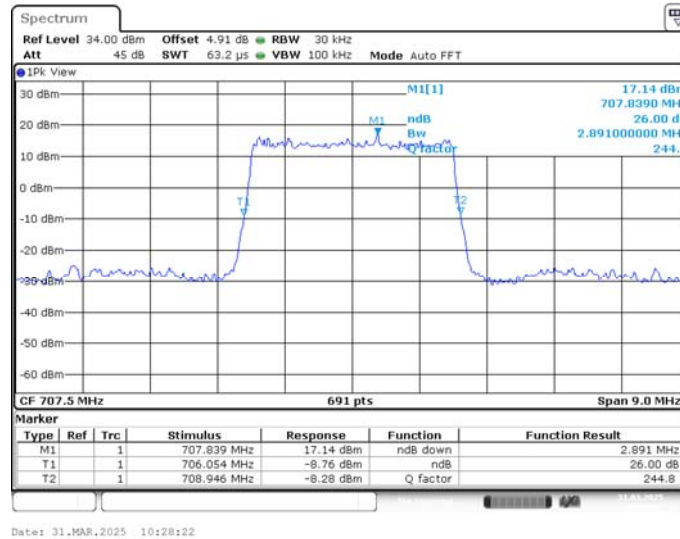


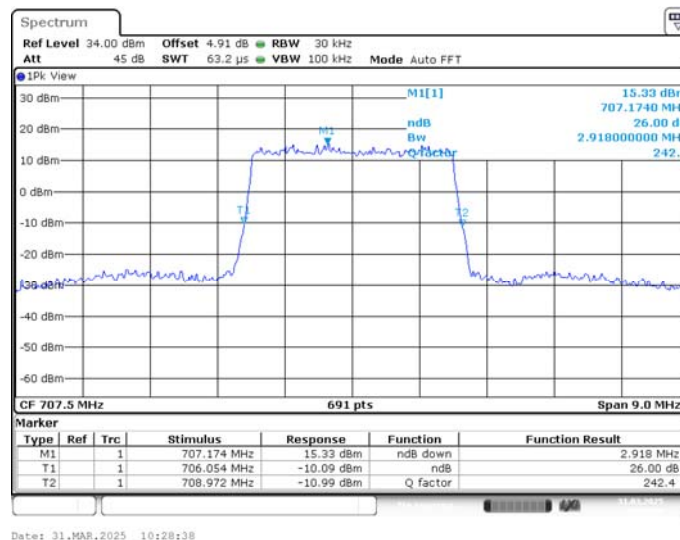
LTE band 12,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	2.891	2.918

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



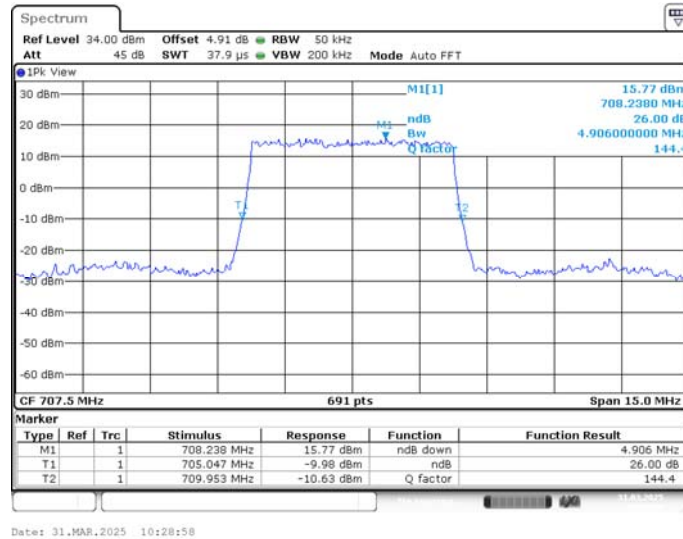
LTE band 12 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



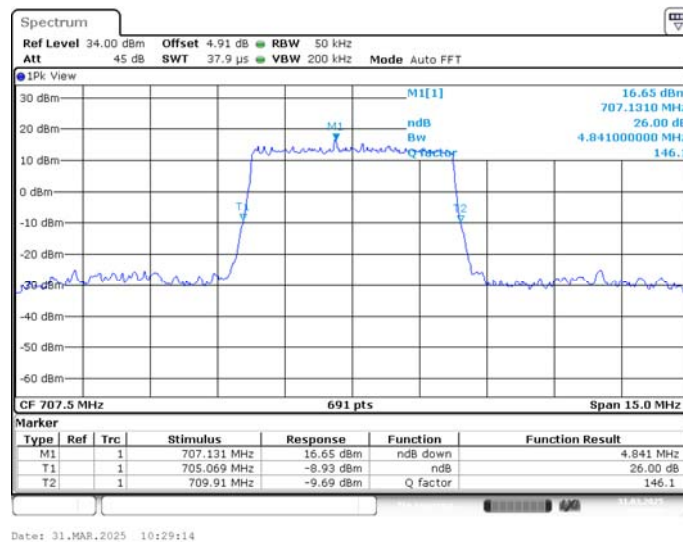
LTE band 12,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	4.906	4.841

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



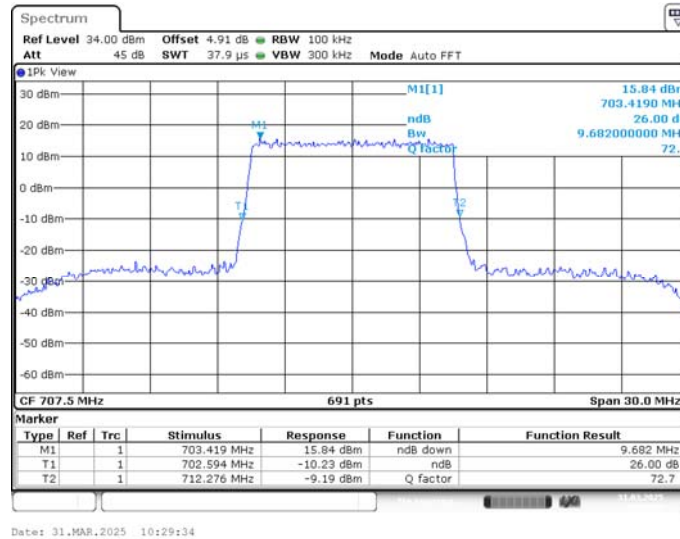
LTE band 12 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



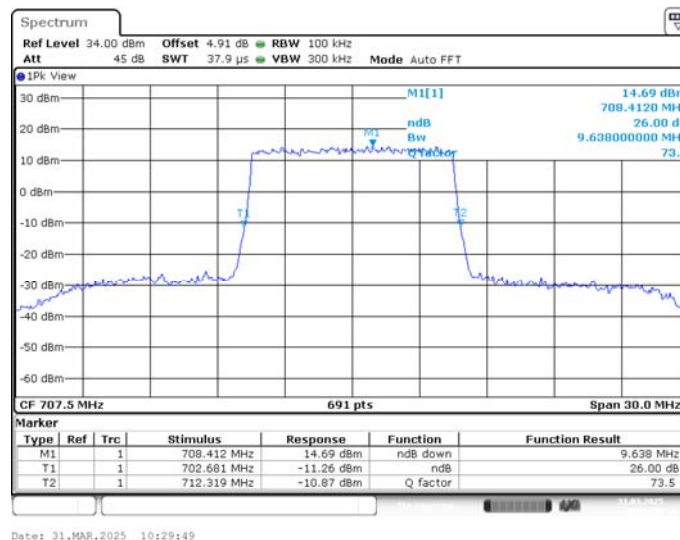
LTE band 12,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	9.682	9.638

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



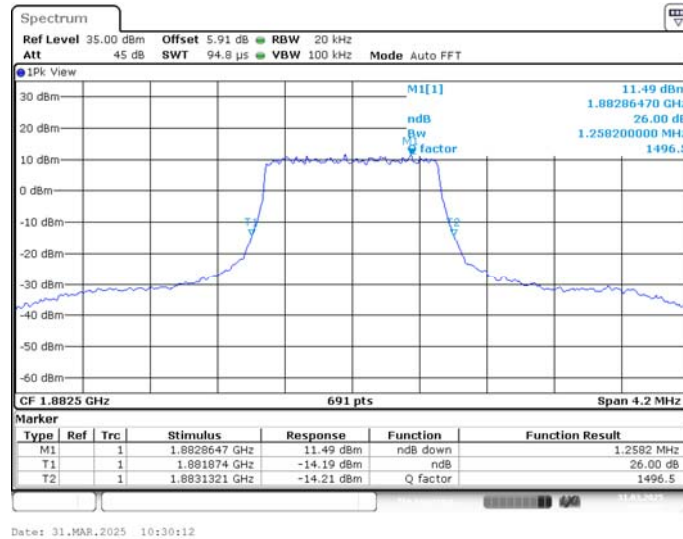
LTE band 12 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



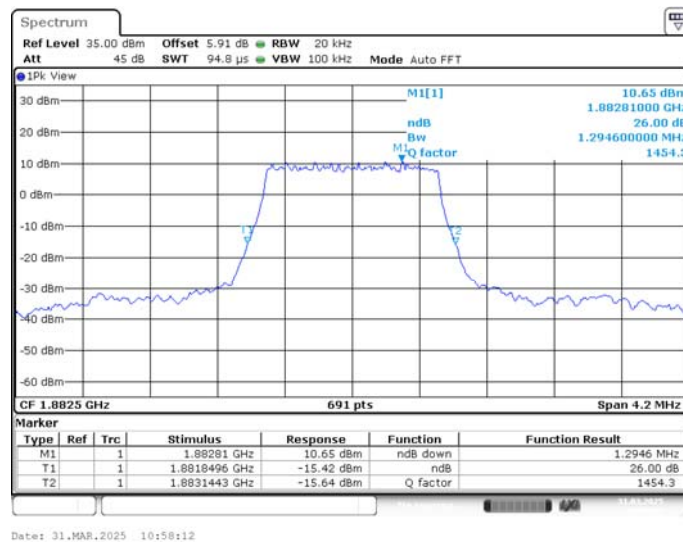
LTE band 25,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	1.258	1.295

LTE band 25 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)



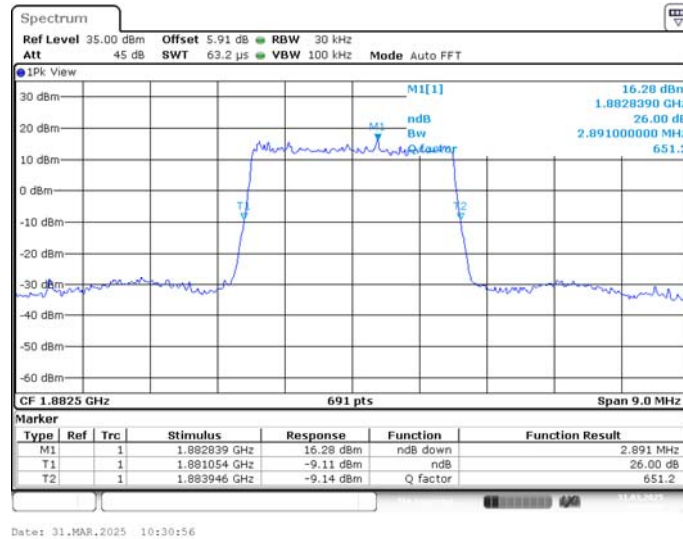
LTE band 25 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



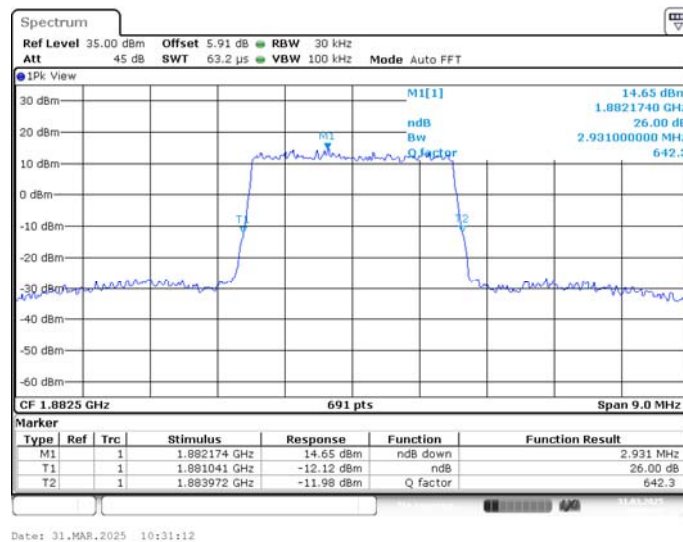
LTE band 25,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	2.891	2.931

LTE band 25 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)



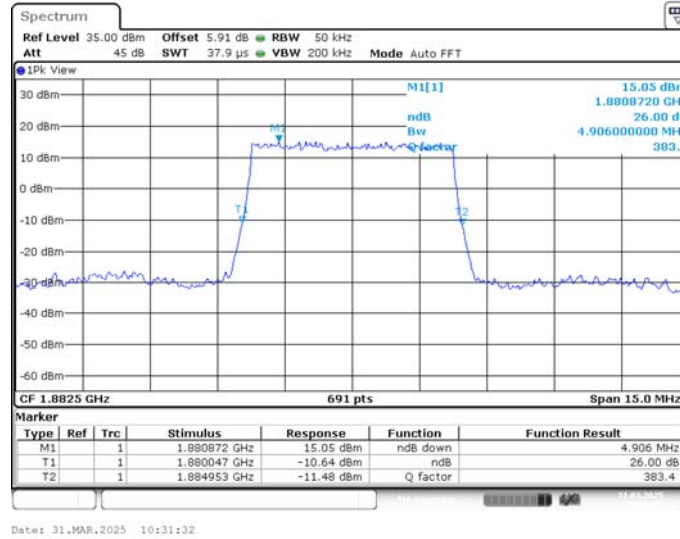
LTE band 25 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



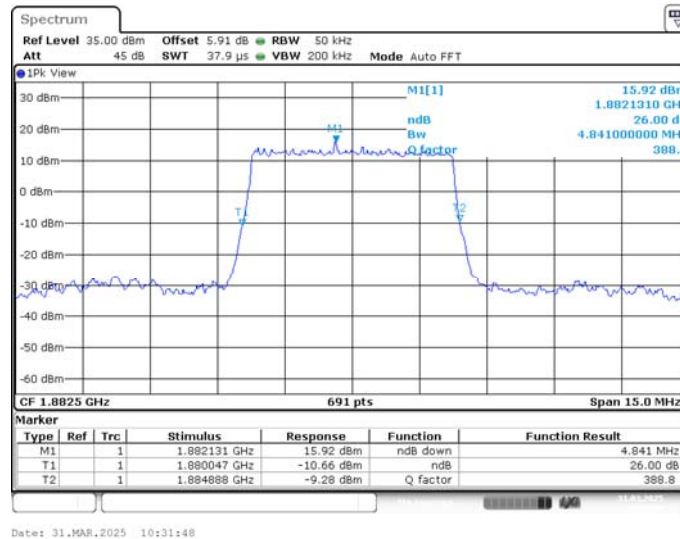
LTE band 25,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	4.906	4.841

LTE band 25 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



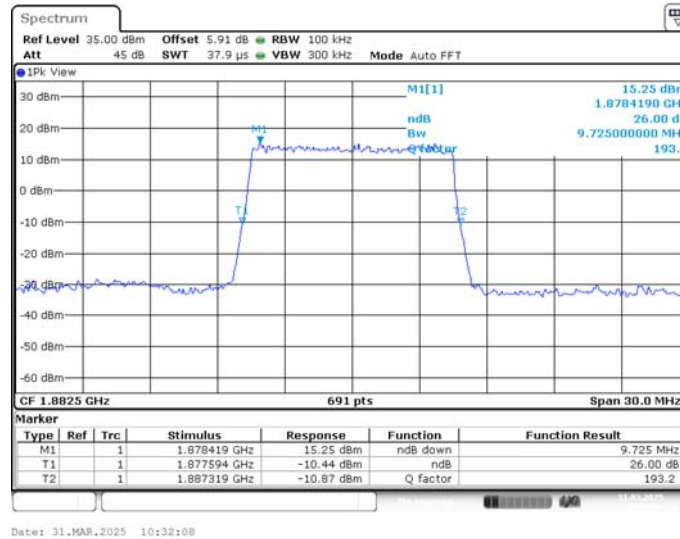
LTE band 25 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



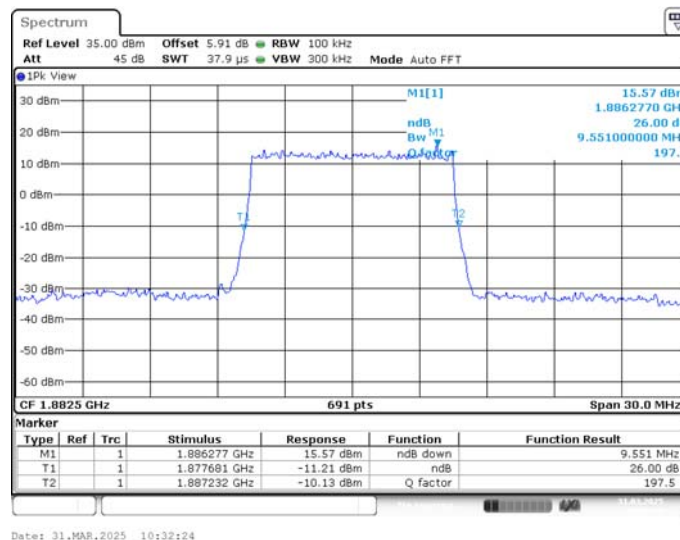
LTE band 25,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	9.725	9.551

LTE band 25 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



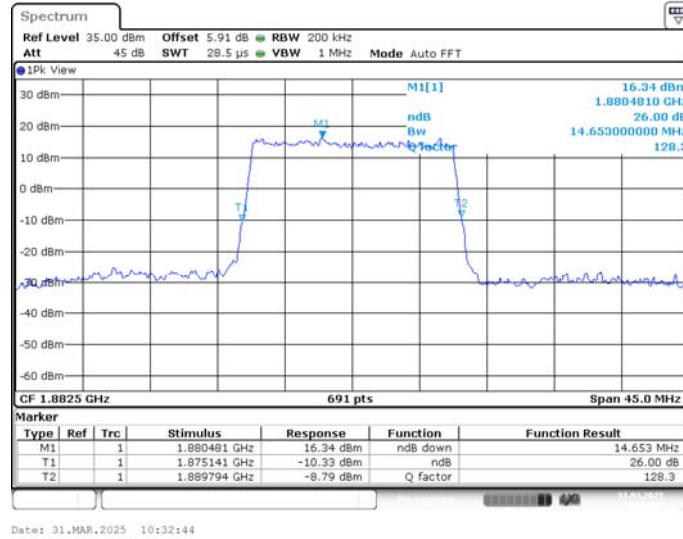
LTE band 25 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



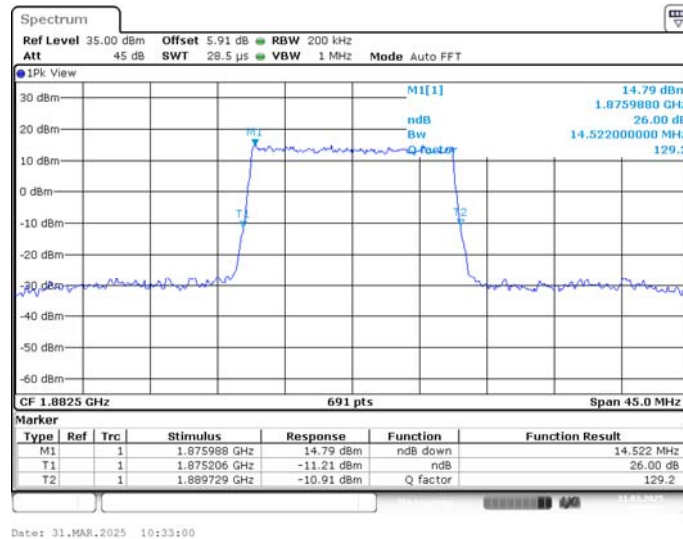
LTE band 25,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	14.653	14.522

LTE band 25 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)



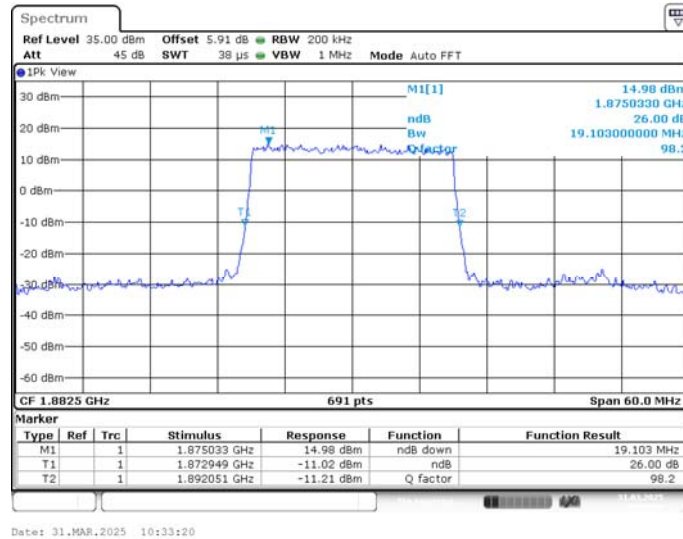
LTE band 25 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



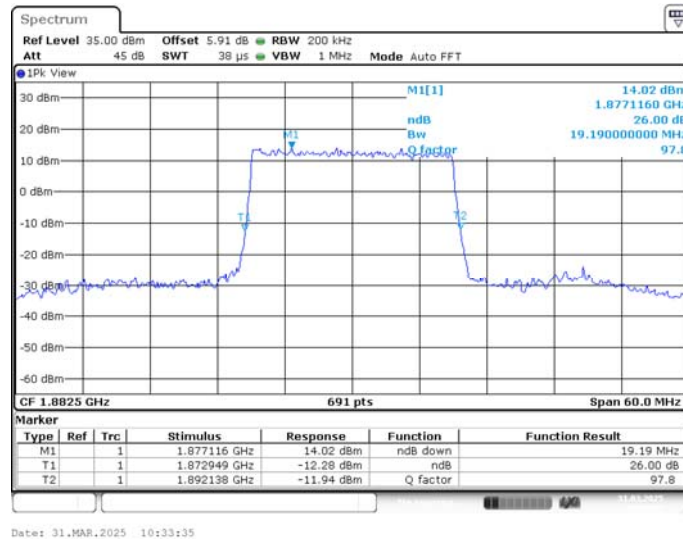
LTE band 25,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	19.103	19.190

LTE band 25 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)



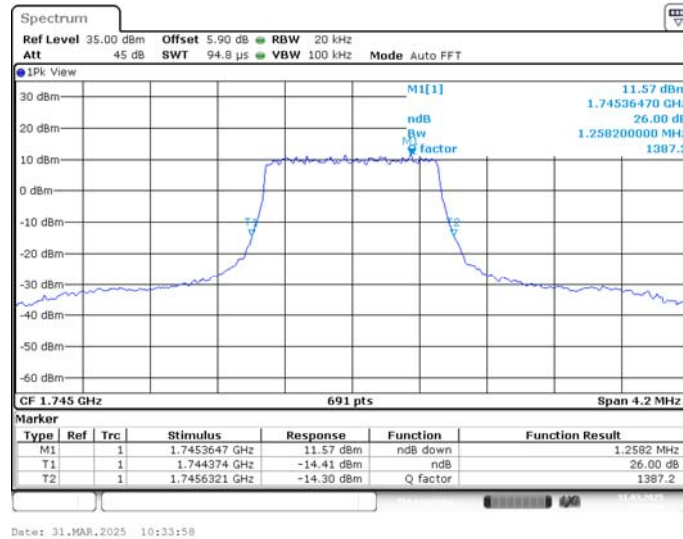
LTE band 25 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



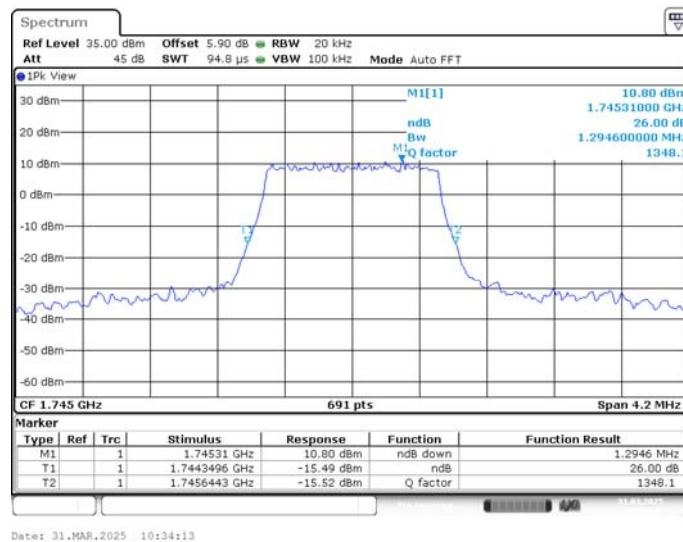
LTE band 66,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	1.258	1.295

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



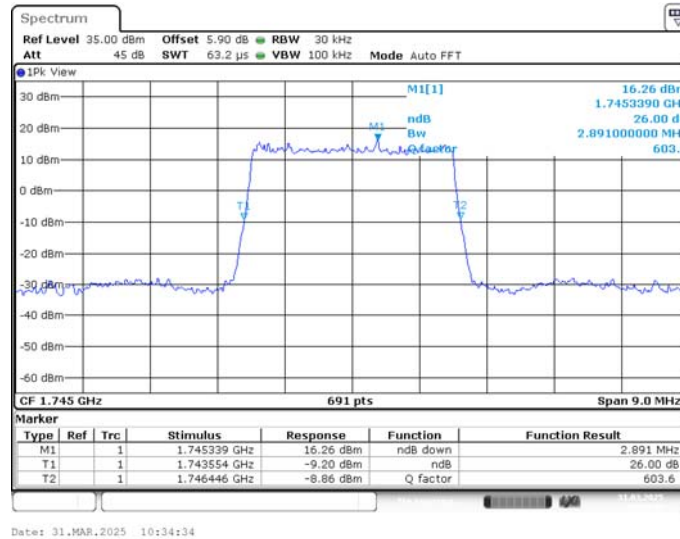
LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



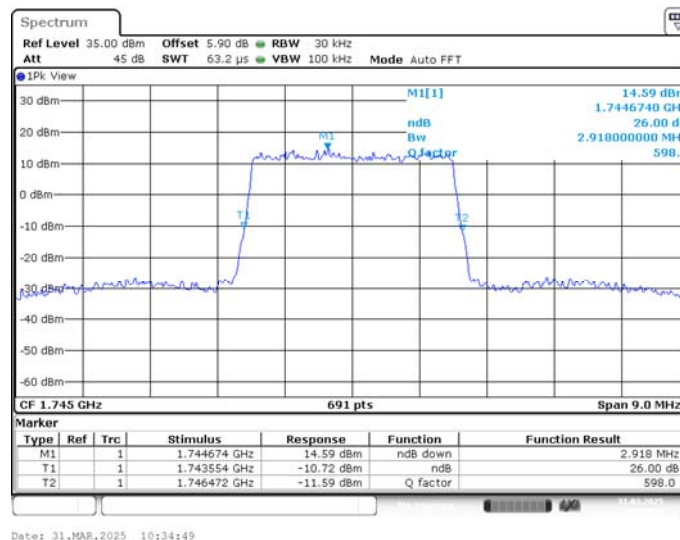
LTE band 66,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	2.891	2.918

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



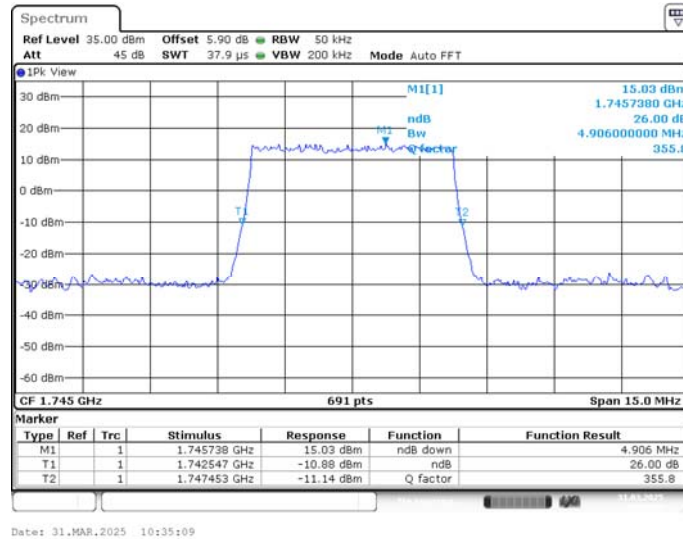
LTE band 66 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



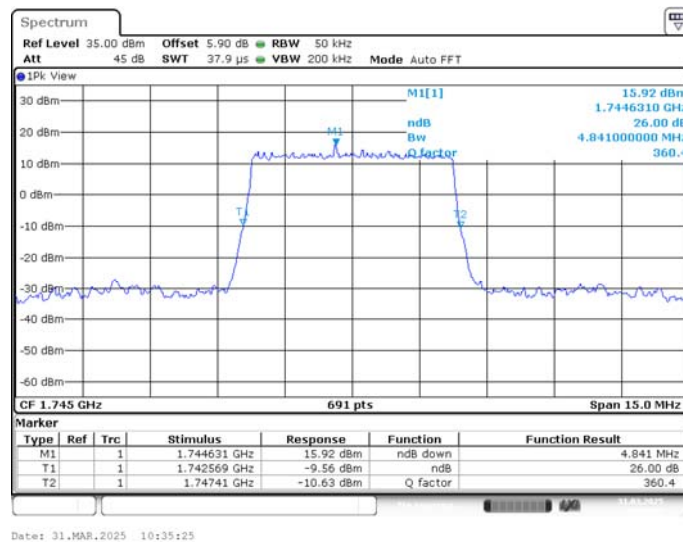
LTE band 66,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	4.906	4.841

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



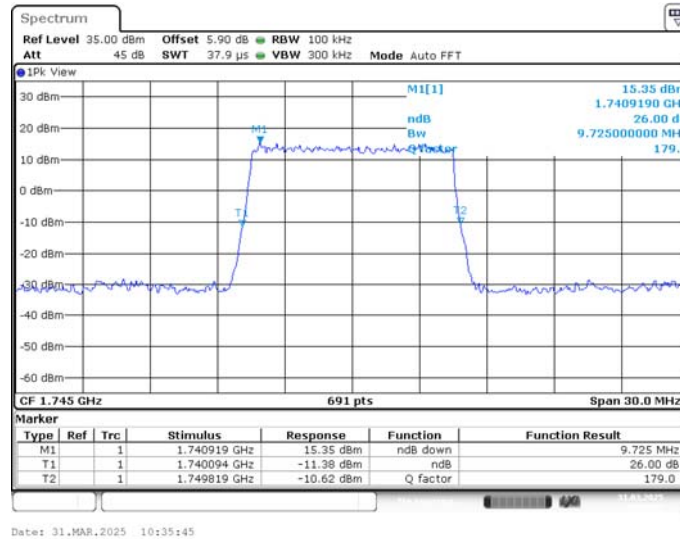
LTE band 66 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



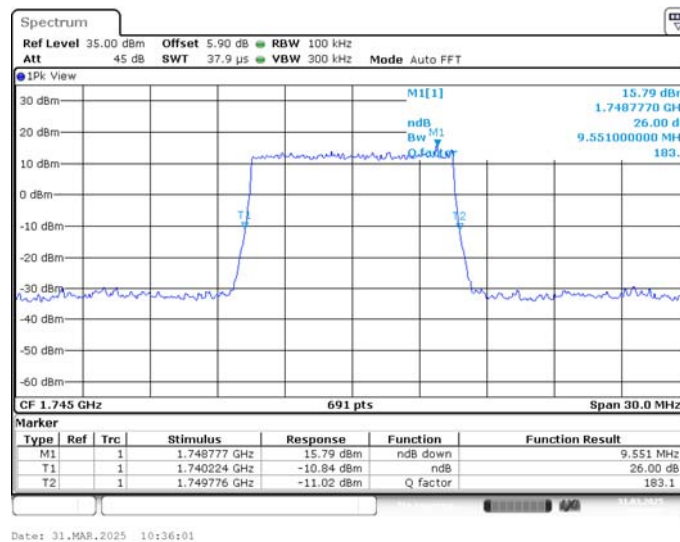
LTE band 66,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	9.725	9.551

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



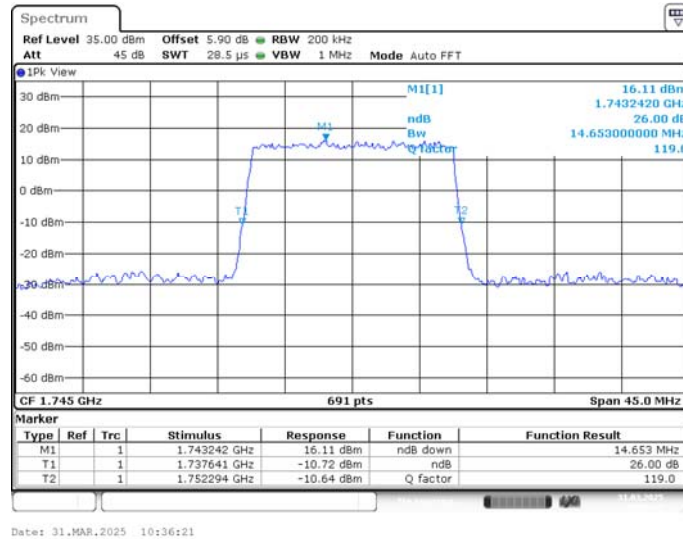
LTE band 66 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



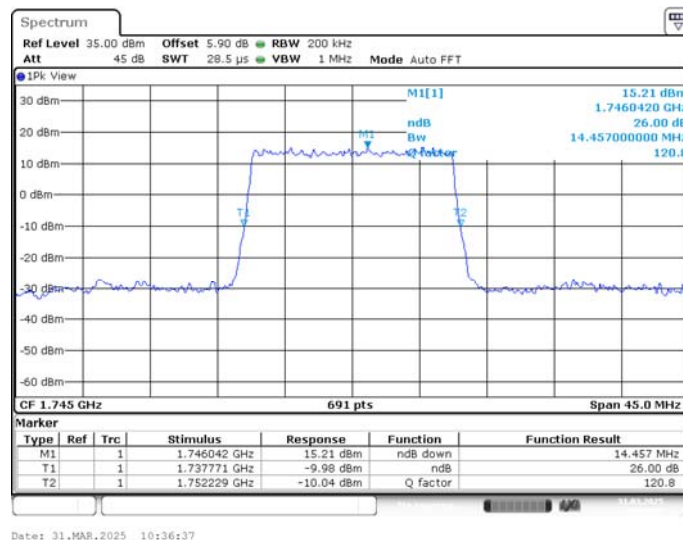
LTE band 66,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	14.653	14.457

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



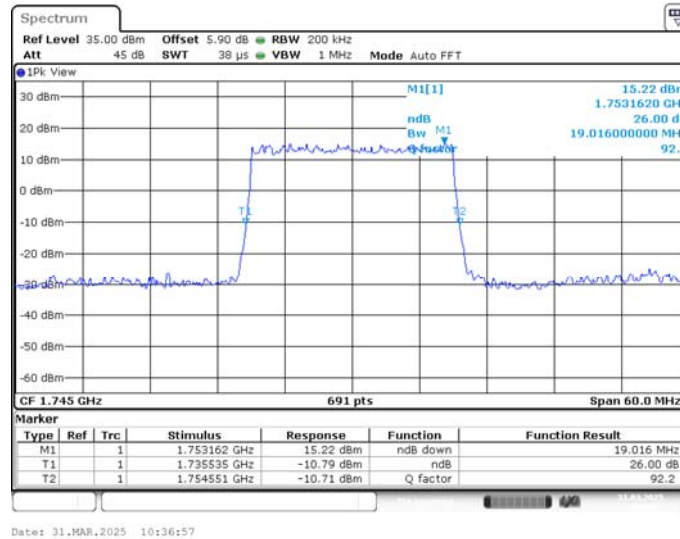
LTE band 66 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



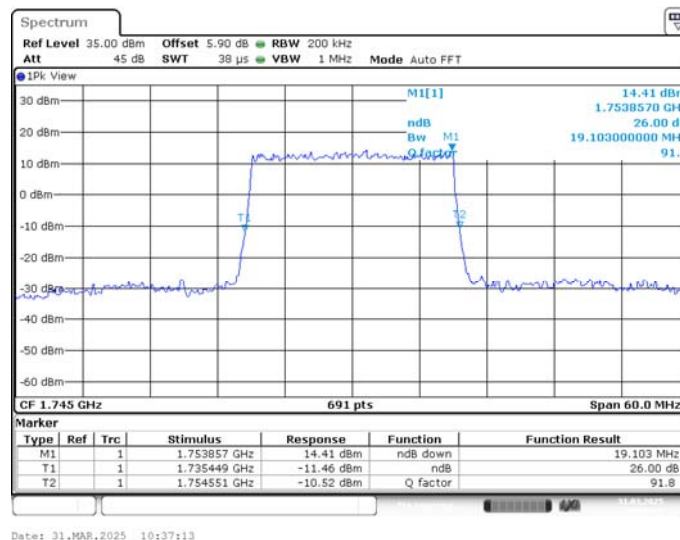
LTE band 66,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	19.016	19.103

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



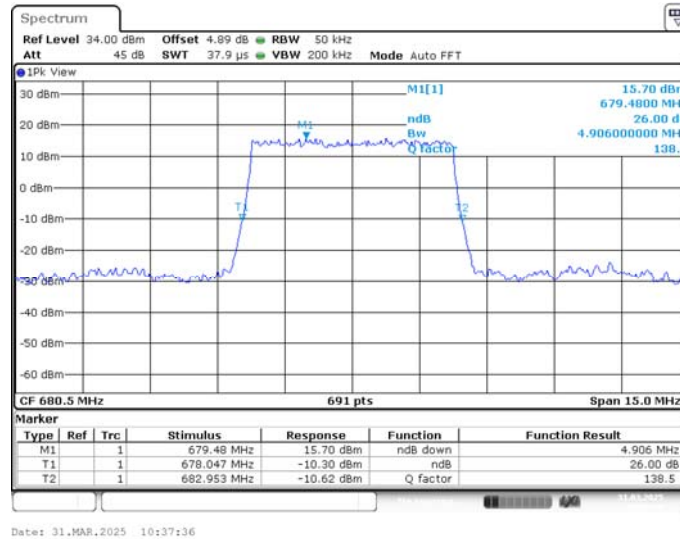
LTE band 66 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



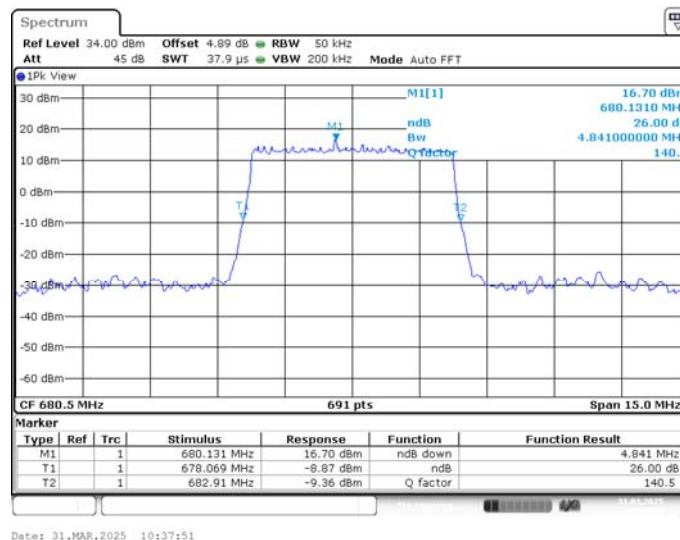
LTE band 71,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	4.906	4.841

LTE band 71 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



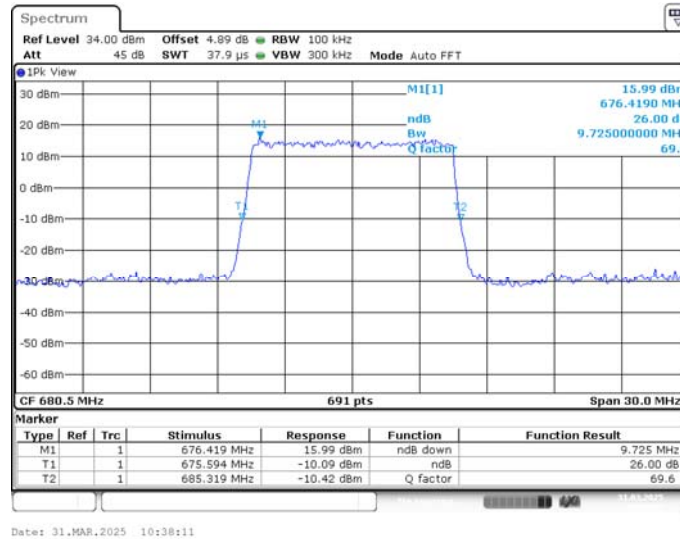
LTE band 71 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



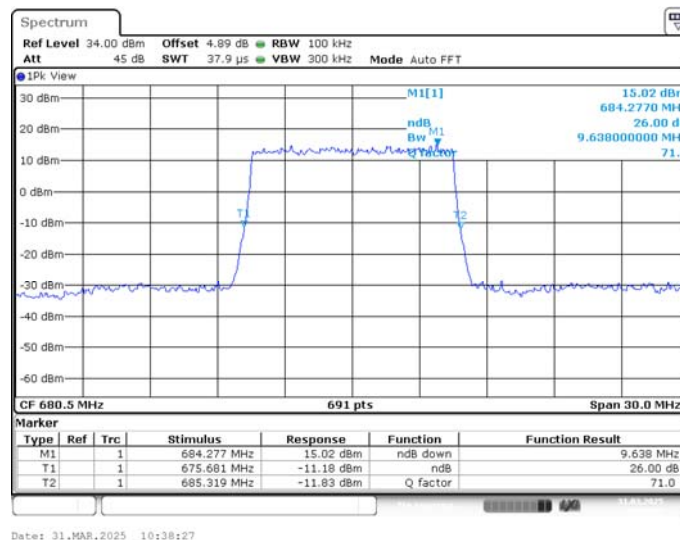
LTE band 71,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	9.725	9.638

LTE band 71 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



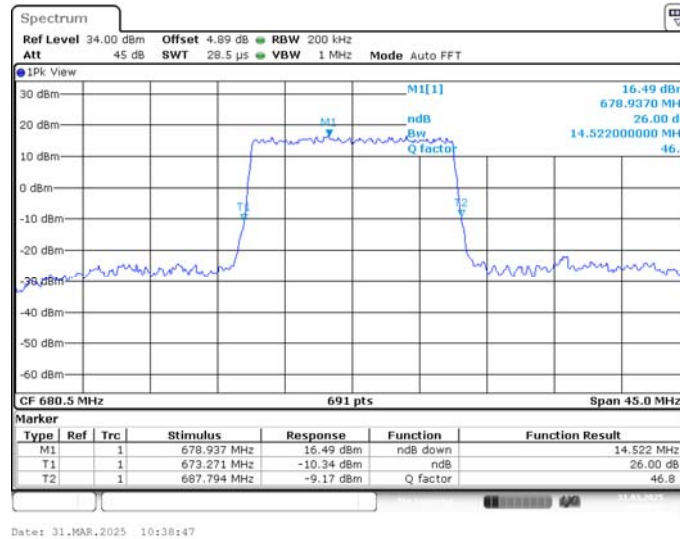
LTE band 71 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



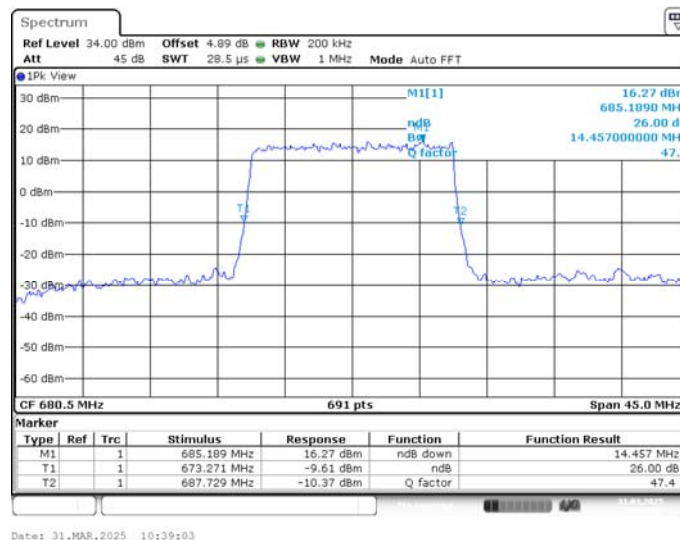
LTE band 71,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	14.522	14.457

LTE band 71 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)



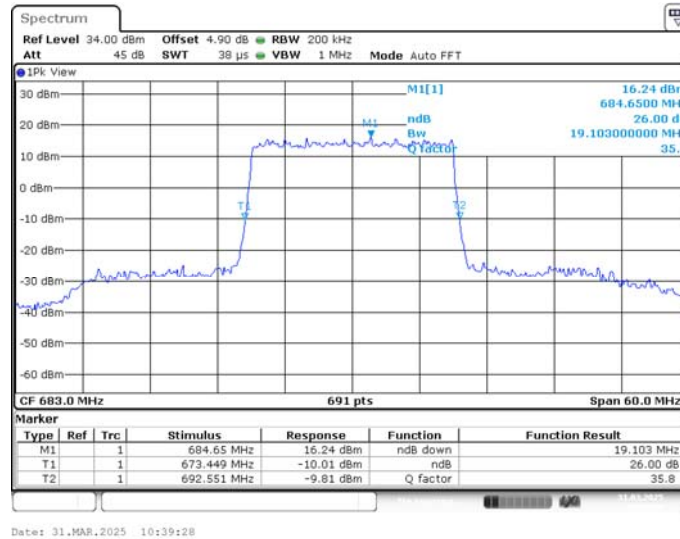
LTE band 71 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



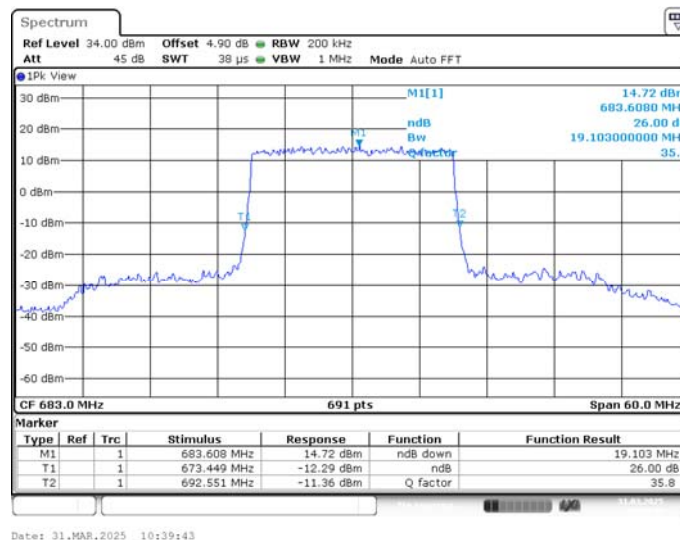
LTE band 71,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
683	19.103	19.103

LTE band 71 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)



LTE band 71 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



A.6 Band Edge Compliance

A.6.1 Measurement limit

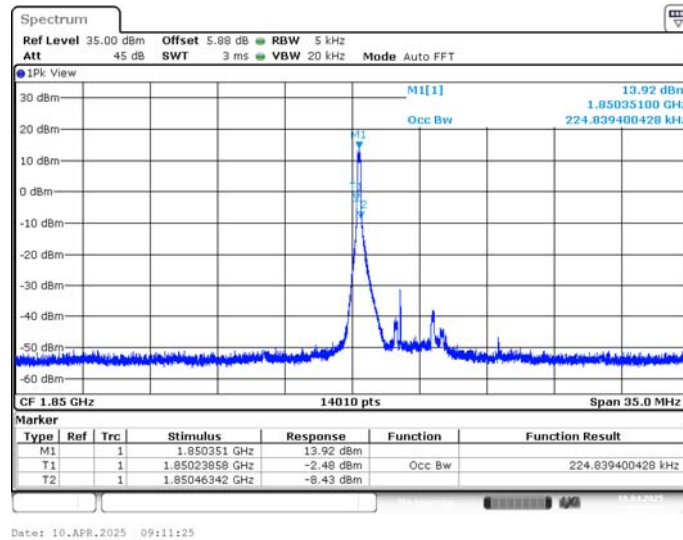
Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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.

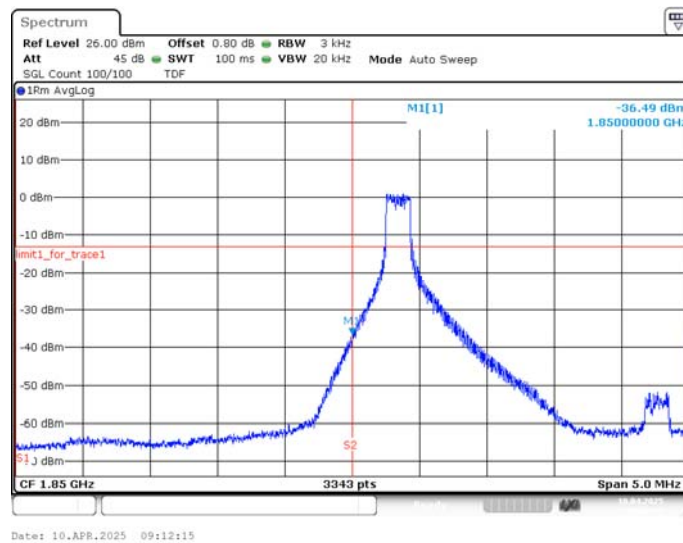
A.6.2 Measurement result

LTE band 2

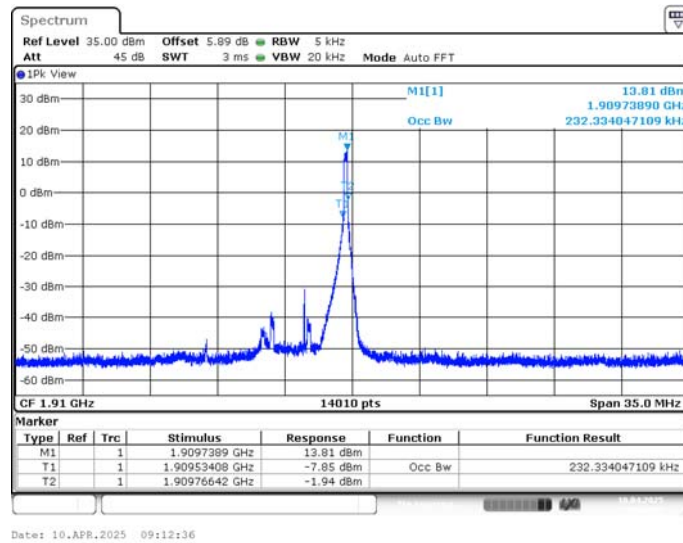
OBW: 1RB-LOW_offset



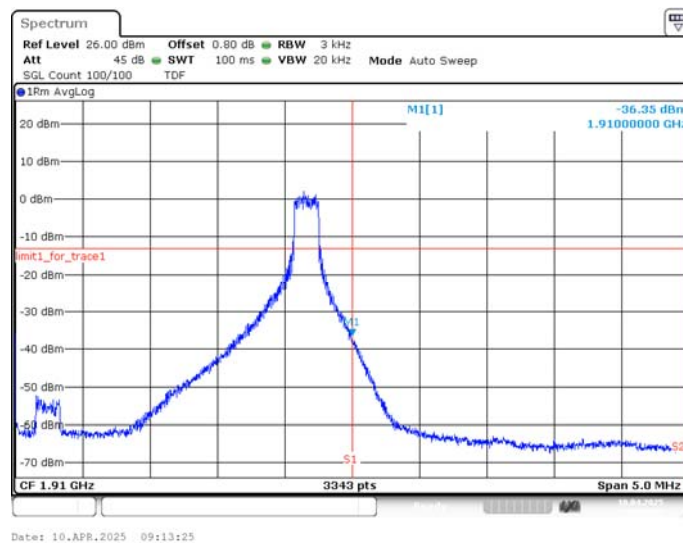
LOW BAND EDGE BLOCK-1RB-LOW_offset



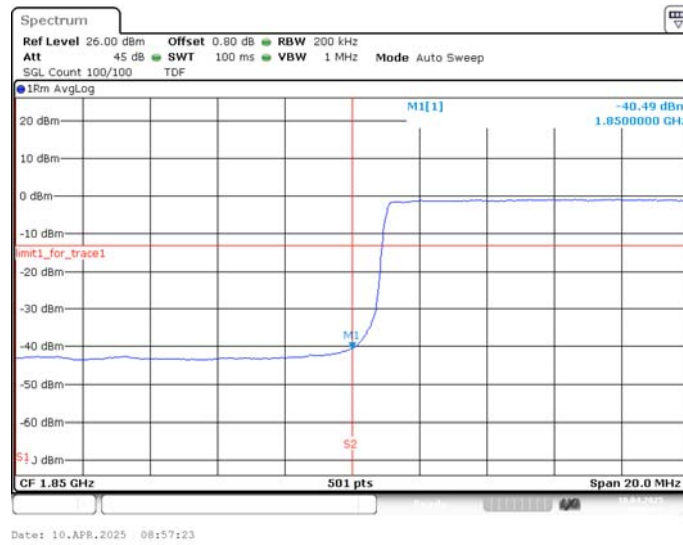
OBW: 1RB-HIGH_offset



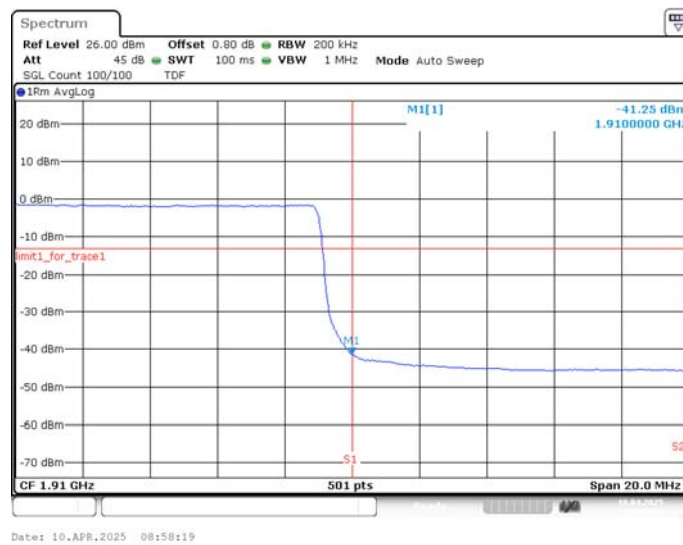
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

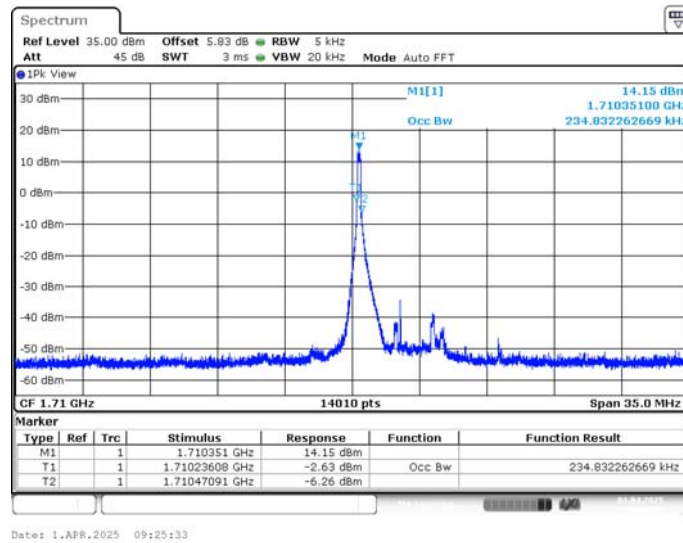


HIGH BAND EDGE BLOCK-20MHz-100%RB

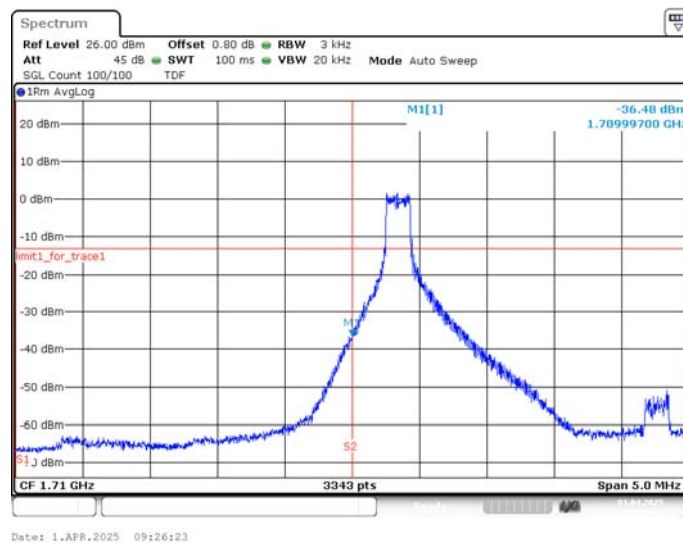


LTE band 4

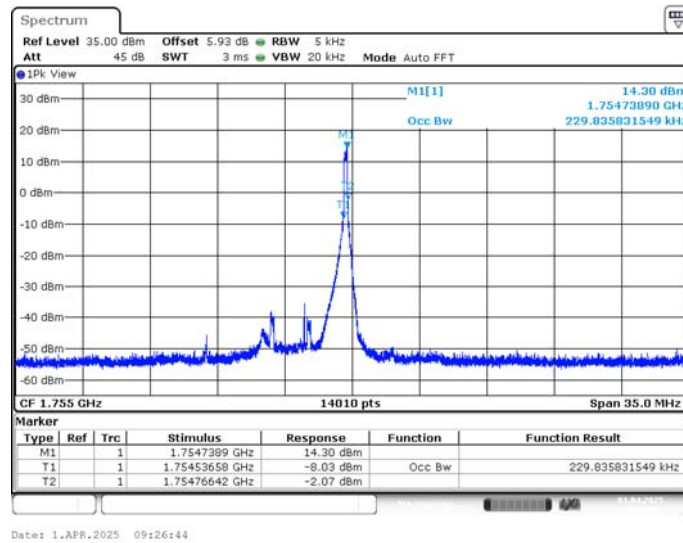
OBW: 1RB-LOW_offset



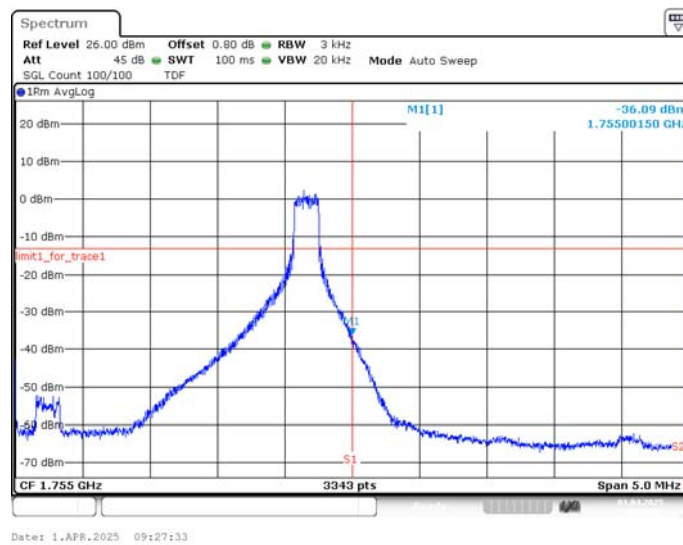
LOW BAND EDGE BLOCK-1RB-LOW_offset



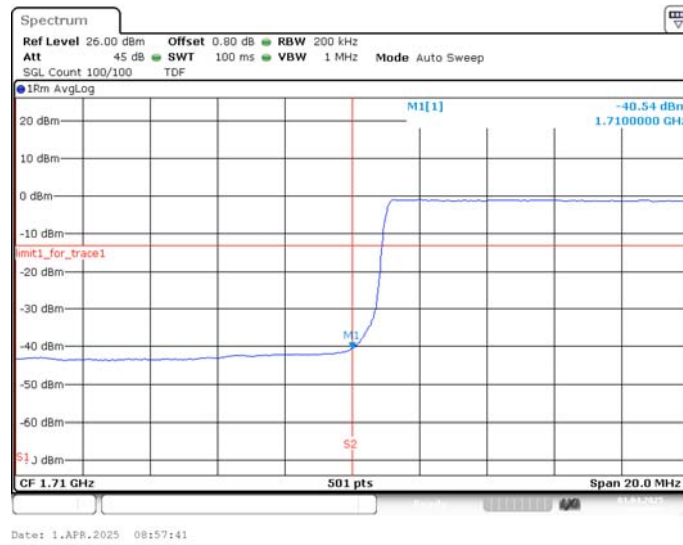
OBW: 1RB-HIGH_offset



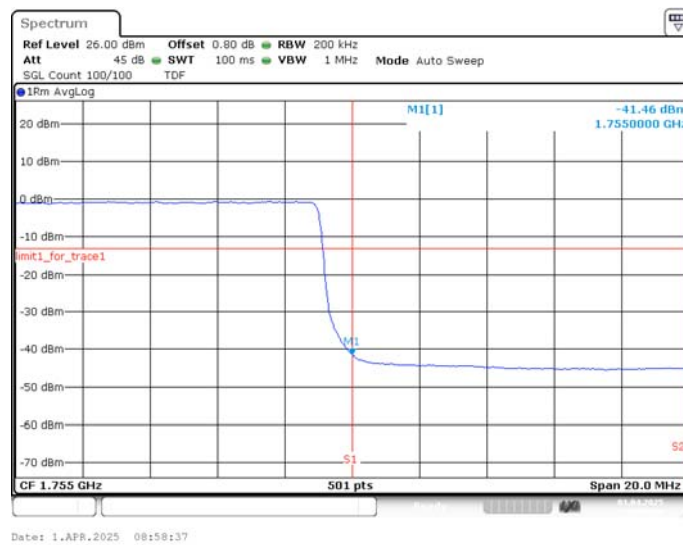
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

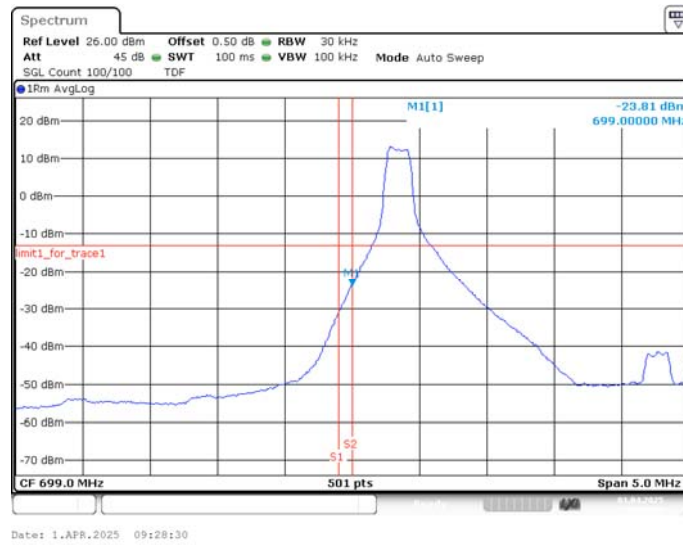


HIGH BAND EDGE BLOCK-20MHz-100%RB

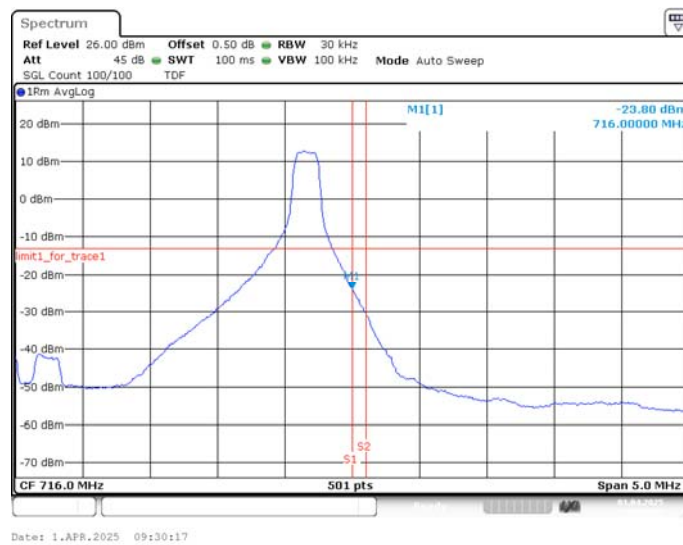


LTE band 12

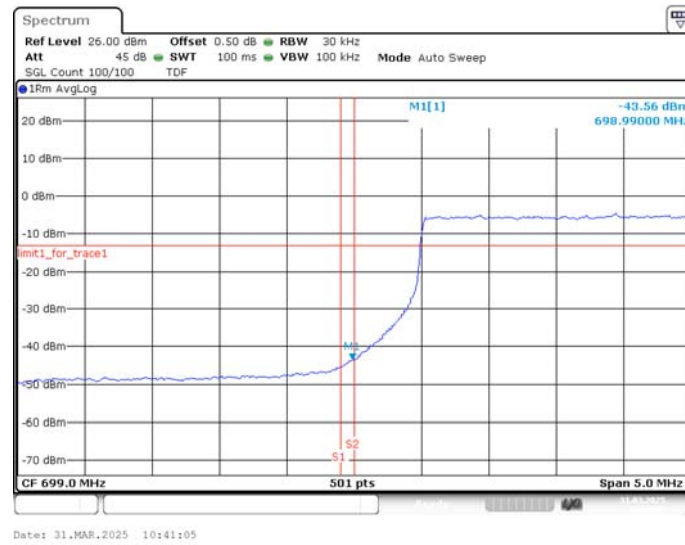
LOW BAND EDGE BLOCK-1RB-LOW_offset



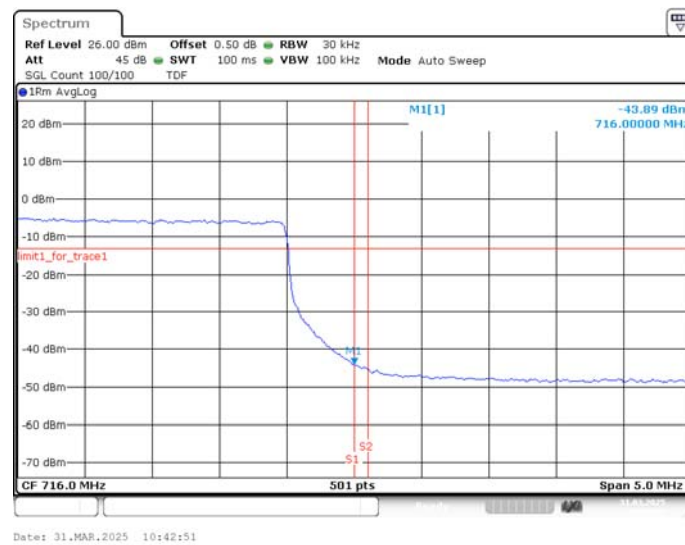
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10MHz-100%RB

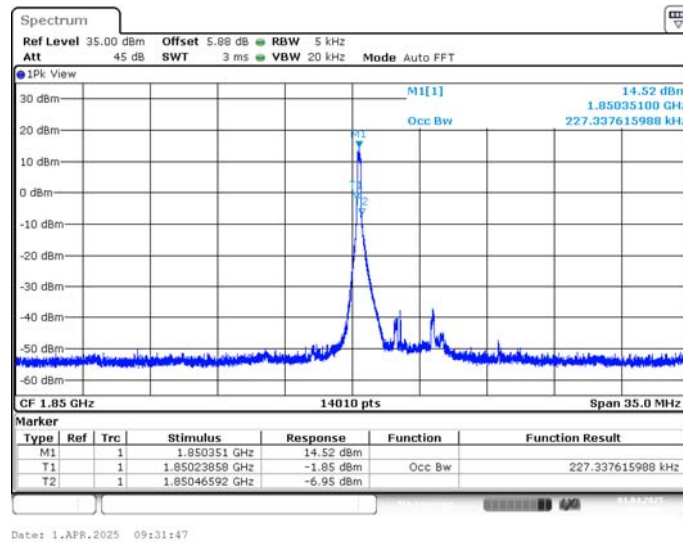


HIGH BAND EDGE BLOCK-10MHz-100%RB

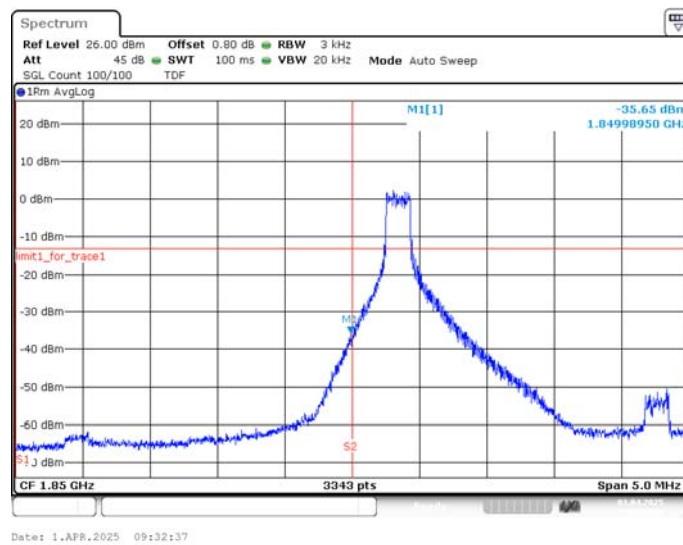


LTE band 25

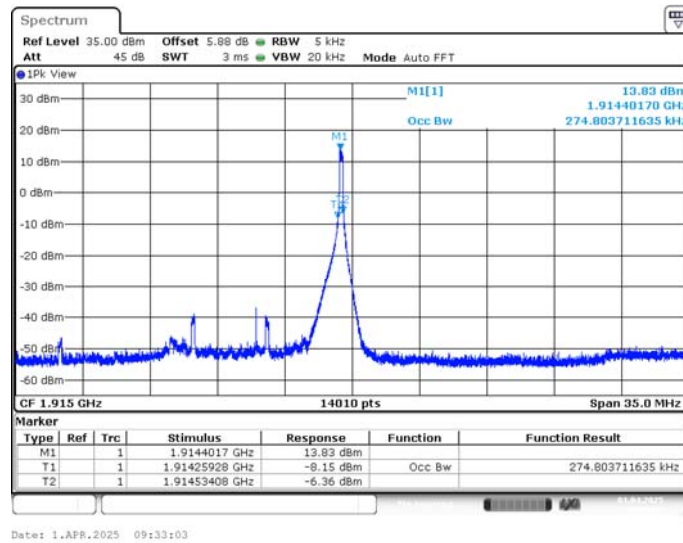
OBW: 1RB-LOW_offset



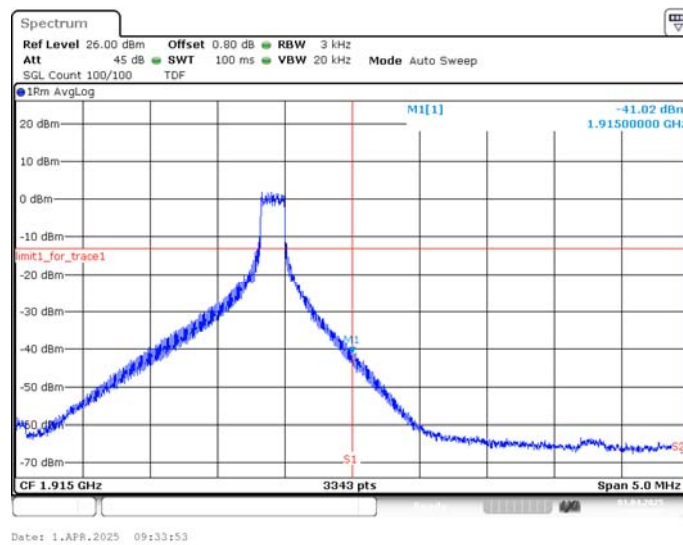
LOW BAND EDGE BLOCK-1RB-LOW_offset



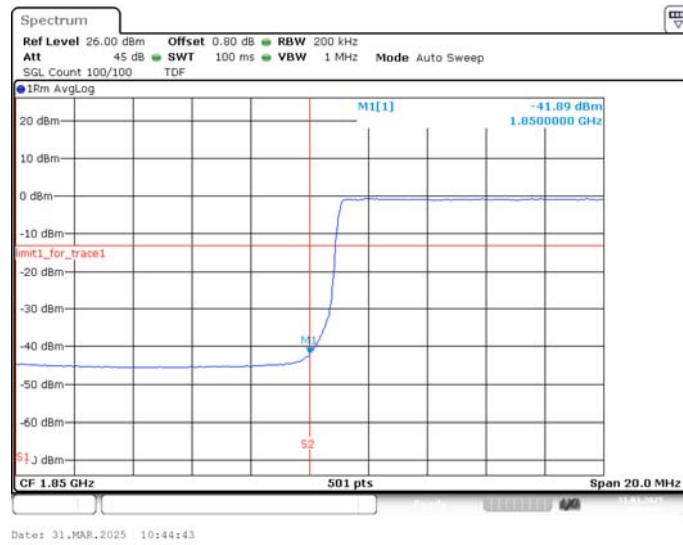
OBW: 1RB-HIGH_offset



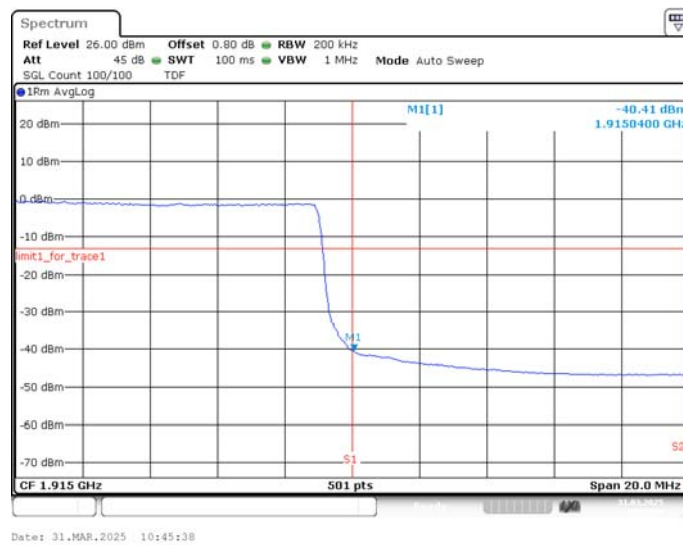
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

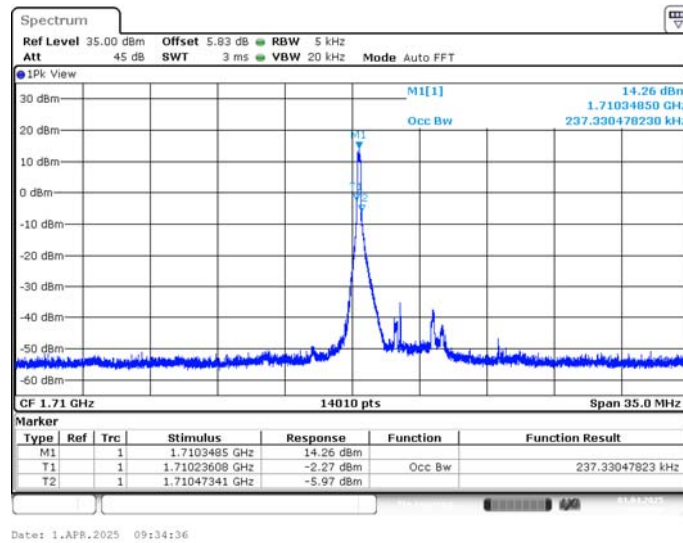


HIGH BAND EDGE BLOCK-20MHz-100%RB

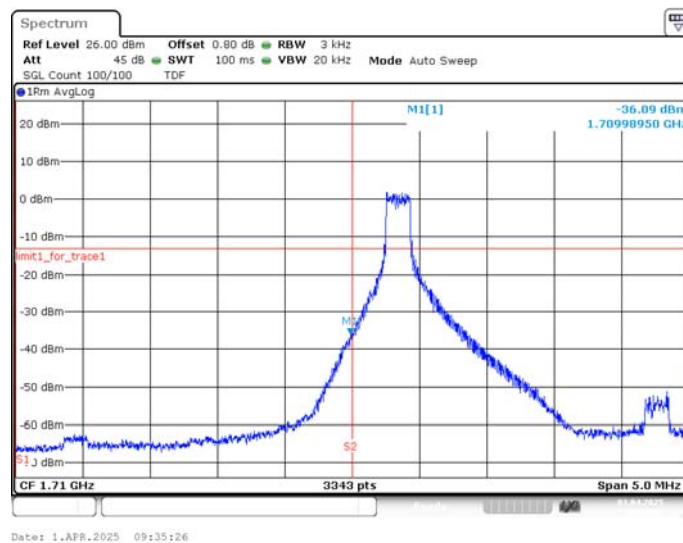


LTE band 66

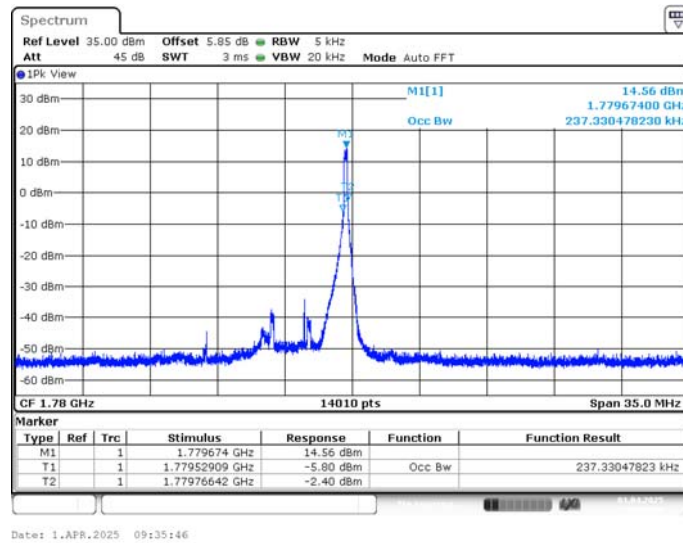
OBW: 1RB-LOW_offset



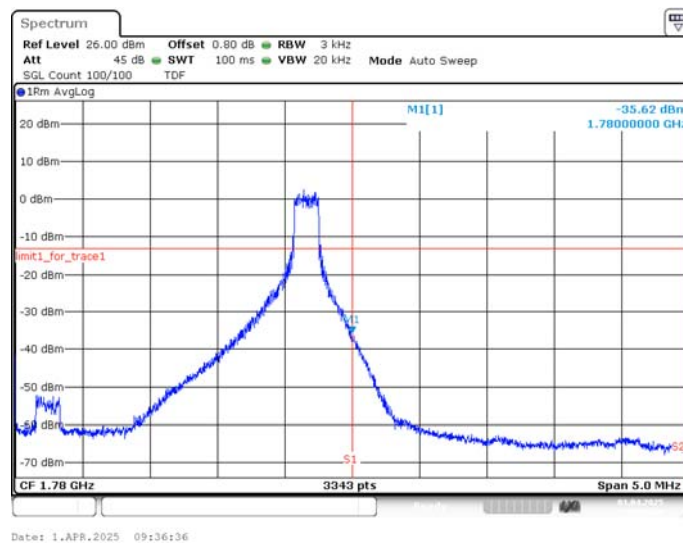
LOW BAND EDGE BLOCK-1RB-LOW_offset



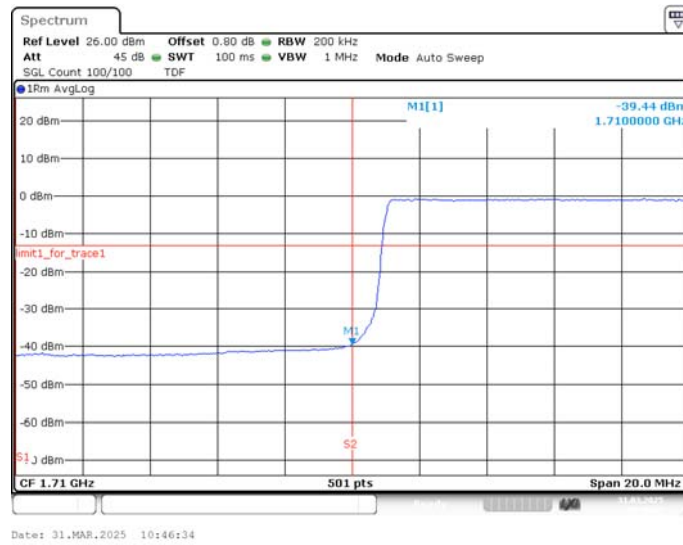
OBW: 1RB-HIGH_offset



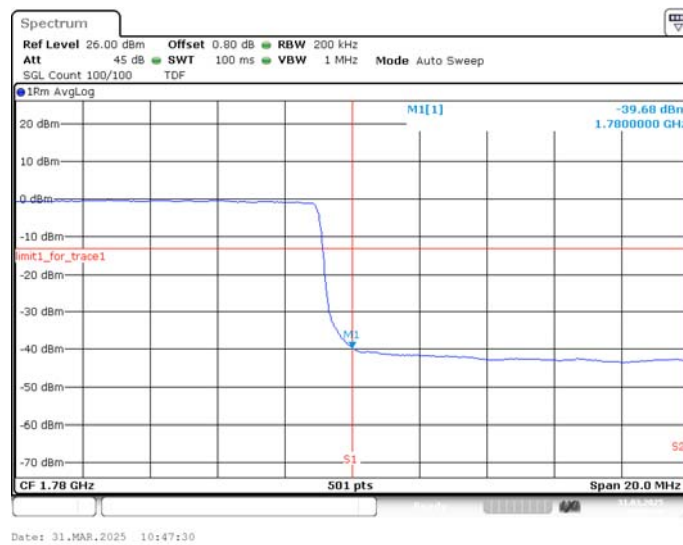
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB

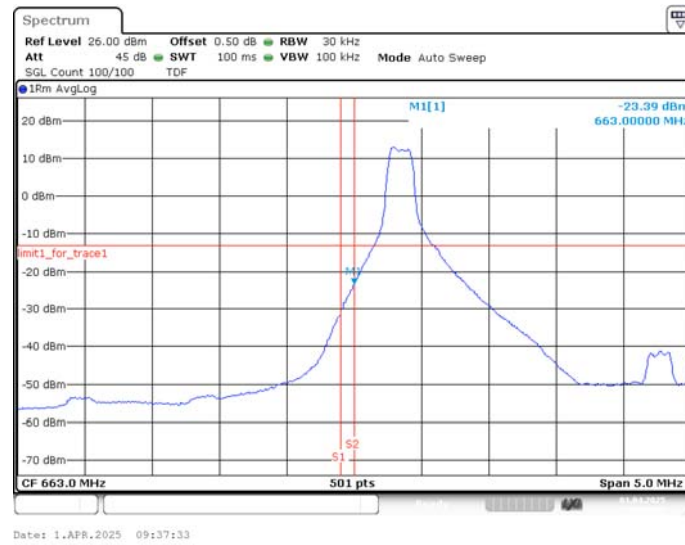


HIGH BAND EDGE BLOCK-20MHz-100%RB

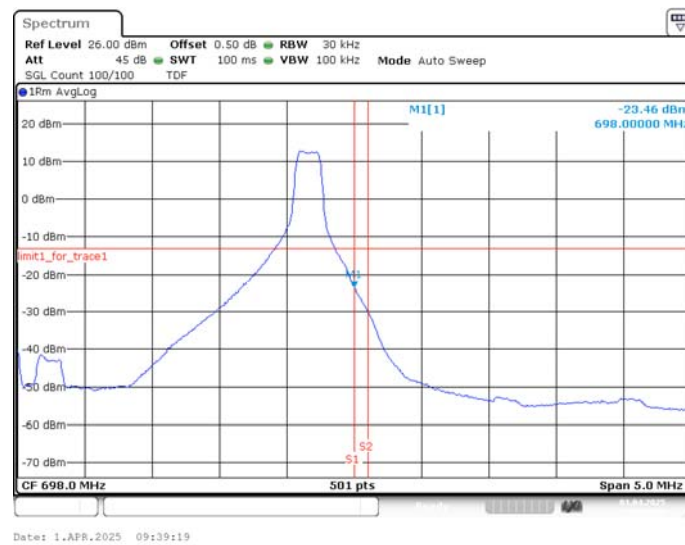


LTE band 71

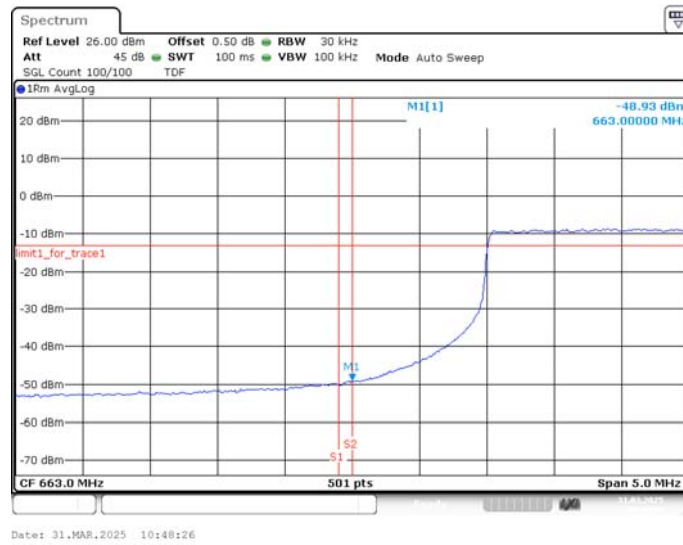
LOW BAND EDGE BLOCK-1RB-LOW_offset



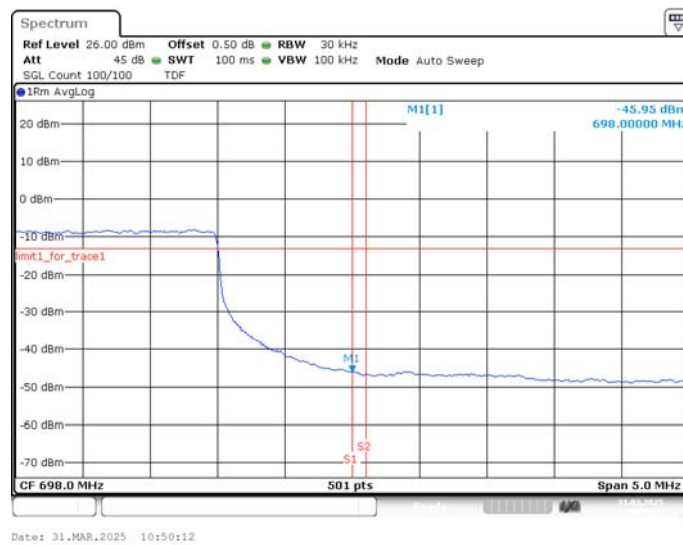
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB



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

A. 7.2 Measurement Limit

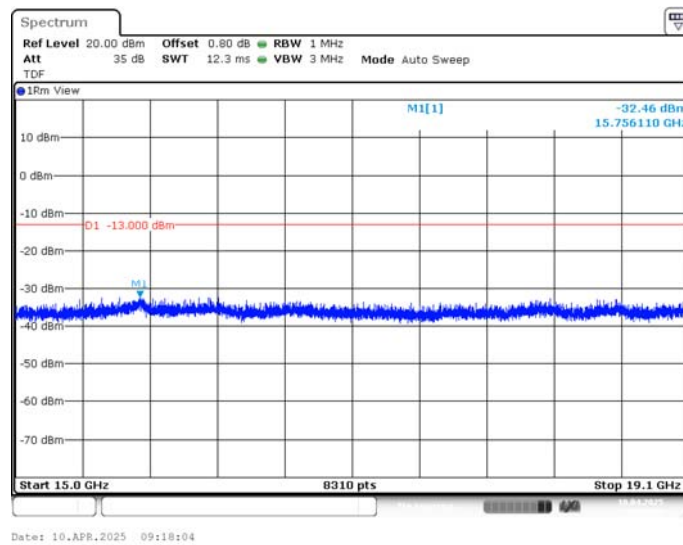
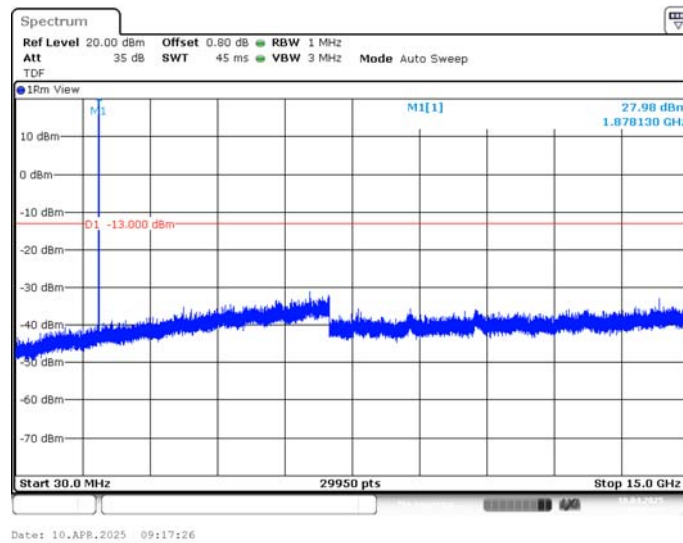
Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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.

A.7.3 Measurement result

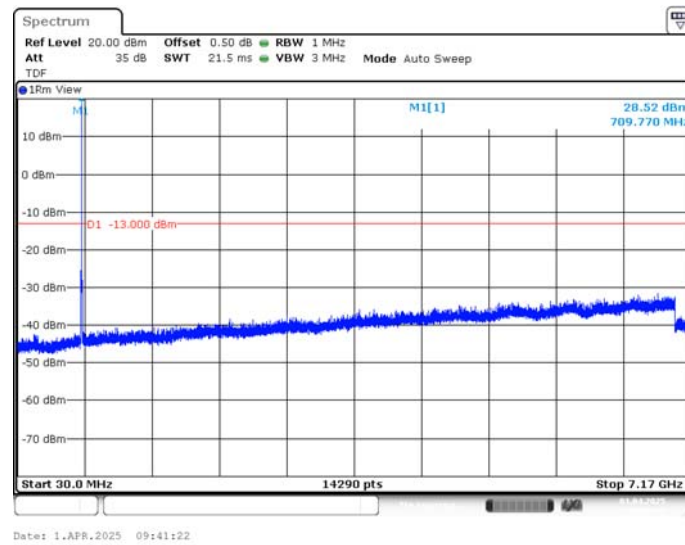
LTE band 2

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



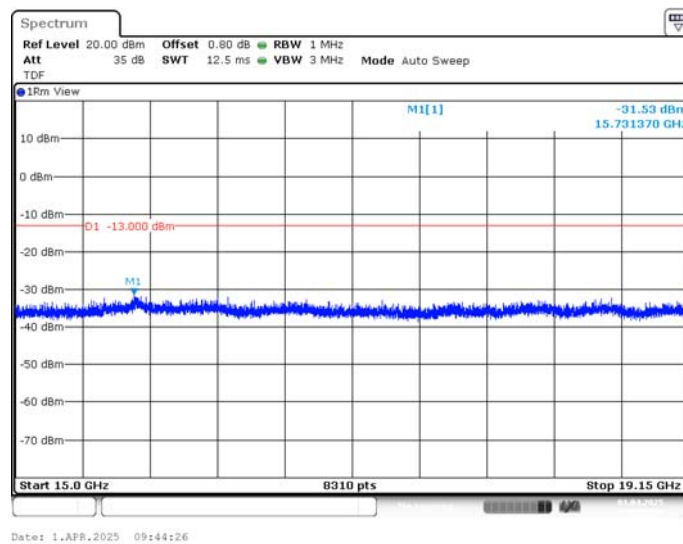
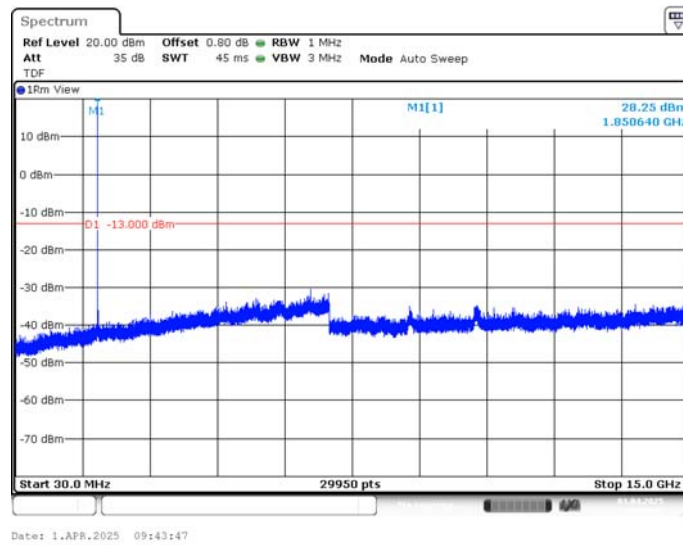
LTE band 12

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



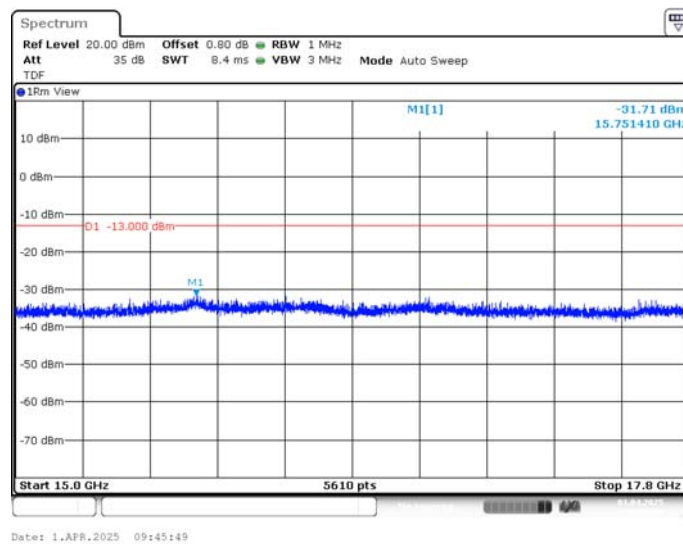
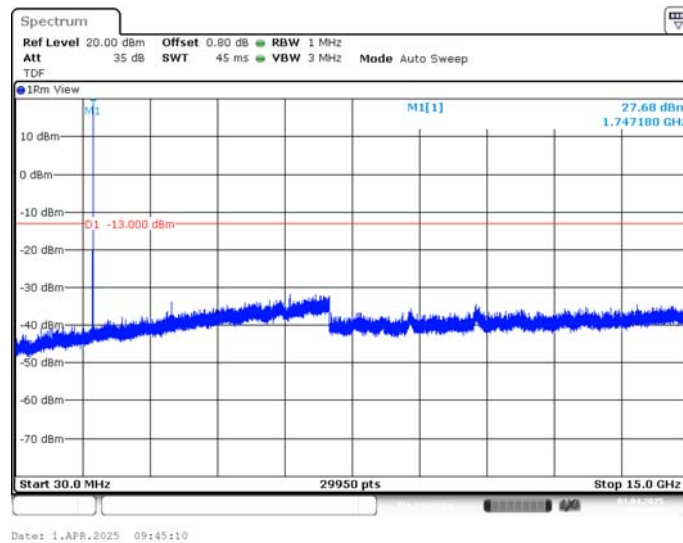
LTE band 25

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



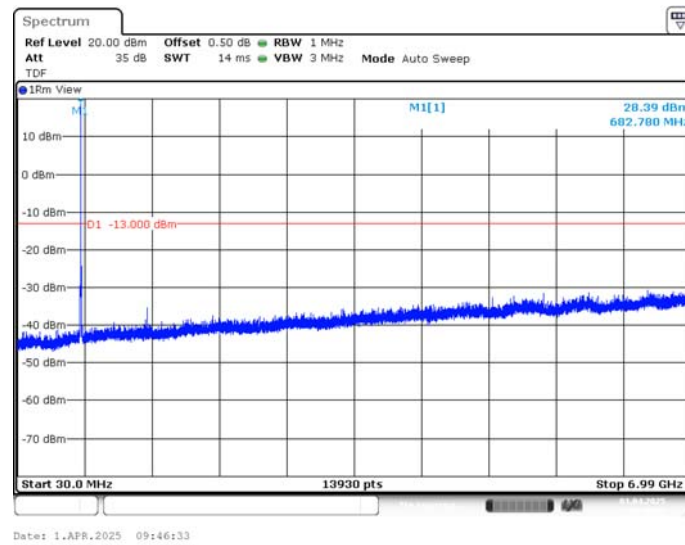
LTE band 66

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



LTE band 71

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



A.8 Peak-to-Average Power Ratio

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

- 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

LTE Band 2, 20MHz

Frequency (MHz)	RB	PAPR (dB)			
		QPSK	16QAM	64QAM	256QAM
1880	100%,0	5.01	5.68	6.55	6.52

LTE Band 12, 10MHz

Frequency (MHz)	RB	PAPR (dB)			
		QPSK	16QAM	64QAM	256QAM
707.5	100%,0	4.99	5.80	6.23	6.78

LTE Band 25, 20MHz

Frequency (MHz)	RB	PAPR (dB)			
		QPSK	16QAM	64QAM	256QAM
1882.5	100%,0	5.13	5.77	6.43	6.70

LTE Band 66, 20MHz

Frequency (MHz)	RB	PAPR (dB)			
		QPSK	16QAM	64QAM	256QAM
1745	100%,0	5.10	5.71	6.61	6.67

LTE Band 71, 20MHz

Frequency (MHz)	RB	PAPR (dB)			
		QPSK	16QAM	64QAM	256QAM
683	100%,0	4.96	5.68	6.38	6.58

Annex B: Accreditation Certificate



Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

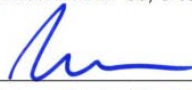
for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. 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 April 2017).



Presented this 23rd day of July 2024.



Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

END OF REPORT