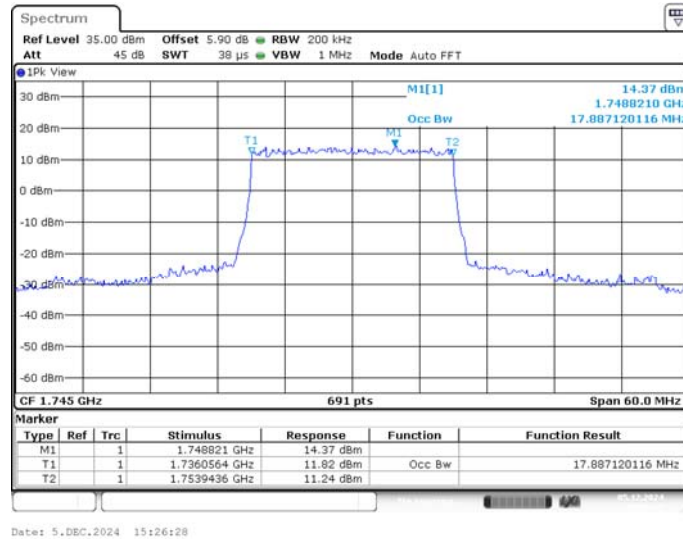


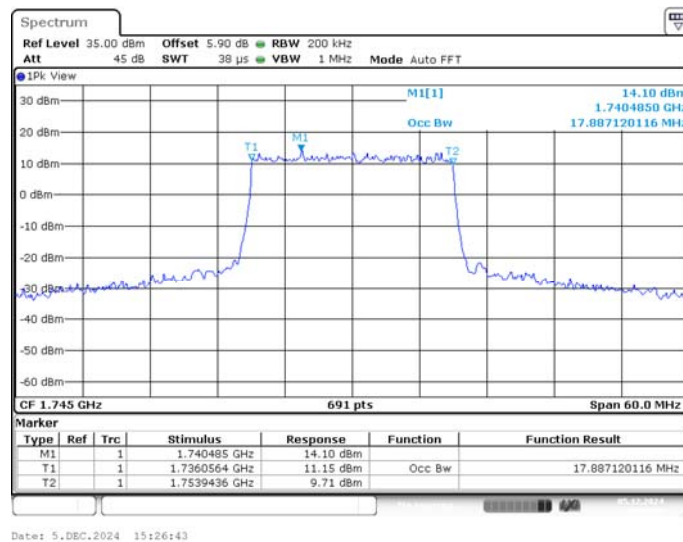
LTE band 66,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	17.887	17.887

LTE band 66 , 20MHz Bandwidth,MID,QPSK (99% BW)



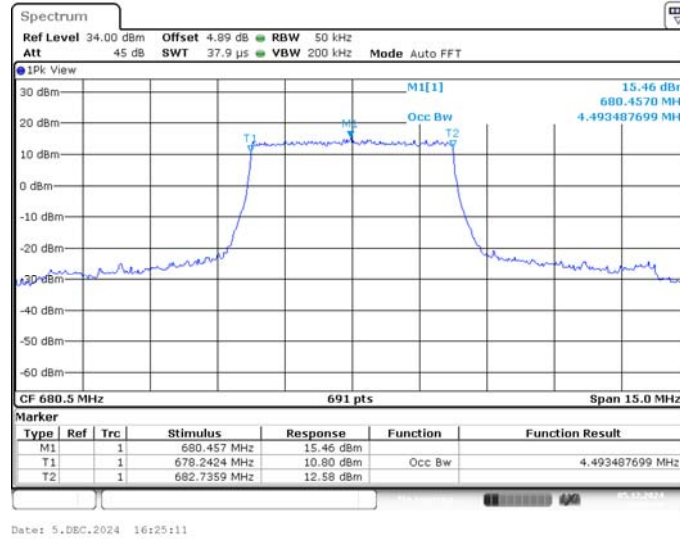
LTE band 66 , 20MHz Bandwidth,MID,16QAM (99% BW)



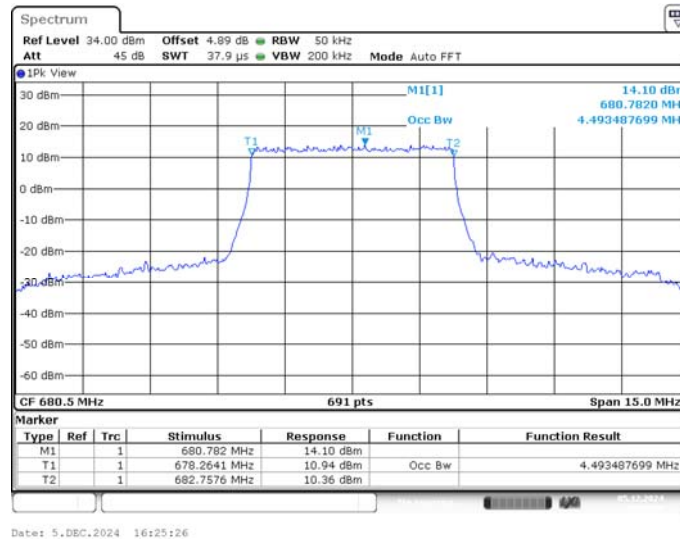
LTE band 71,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
680.5	4.493	4.493

LTE band 71 , 5MHz Bandwidth,MID,QPSK (99% BW)



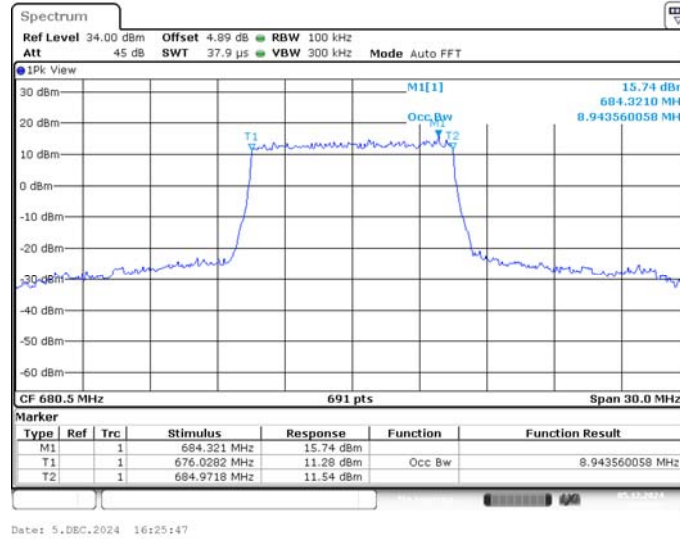
LTE band 71 , 5MHz Bandwidth,MID,16QAM (99% BW)



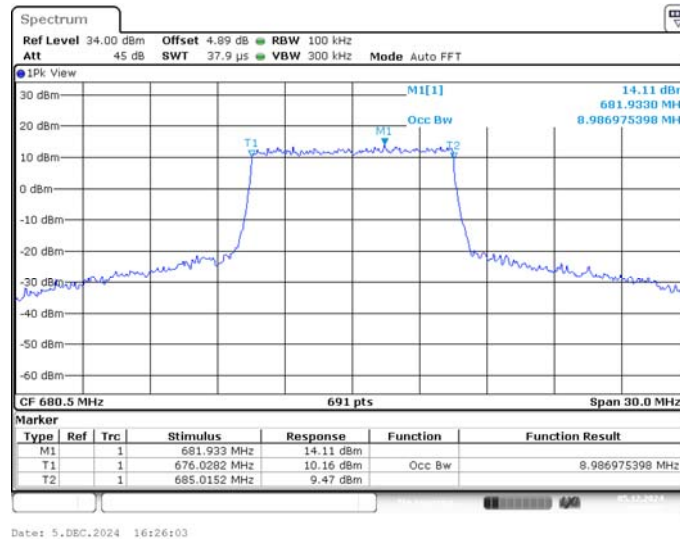
LTE band 71,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
680.5	8.944	8.987

LTE band 71 , 10MHz Bandwidth,MID,QPSK (99% BW)



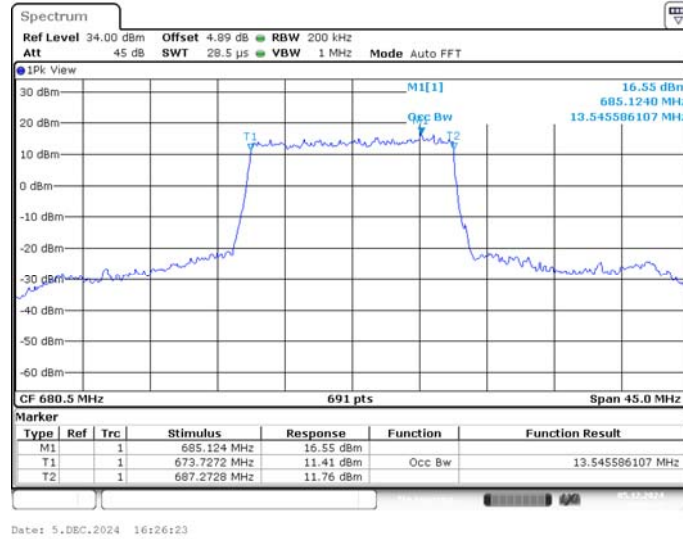
LTE band 71 , 10MHz Bandwidth,MID,16QAM (99% BW)



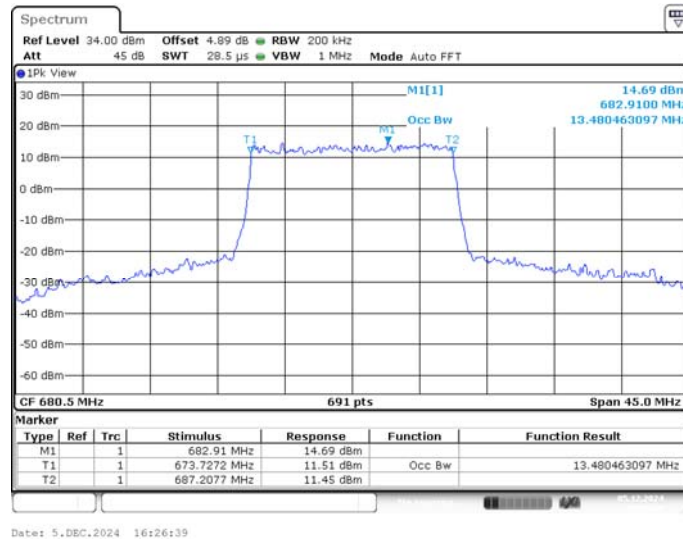
LTE band 71,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
680.5	13.546	13.480

LTE band 71 , 15MHz Bandwidth,MID,QPSK (99% BW)



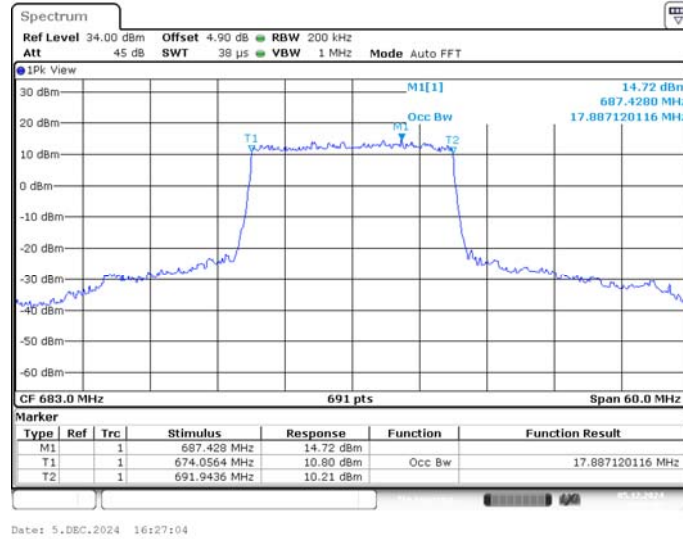
LTE band 71 , 15MHz Bandwidth,MID,16QAM (99% BW)



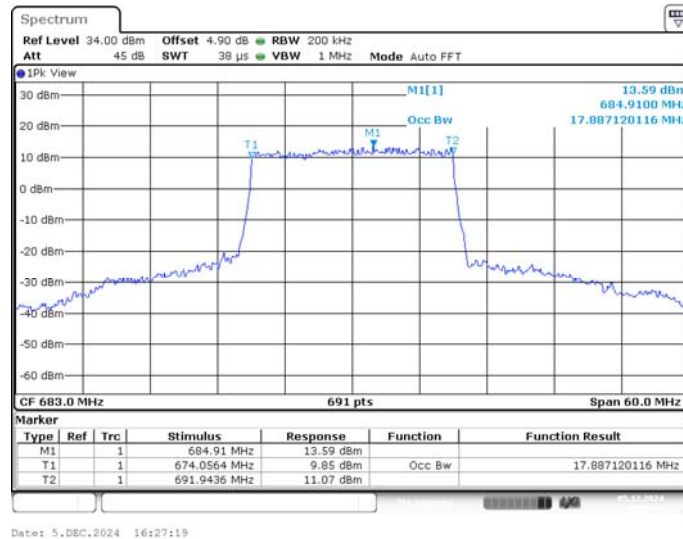
LTE band 71,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
683	17.887	17.887

LTE band 71 , 20MHz Bandwidth,MID,QPSK (99% BW)



LTE band 71 , 20MHz Bandwidth,MID,16QAM (99% BW)



A.5 Emission Bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

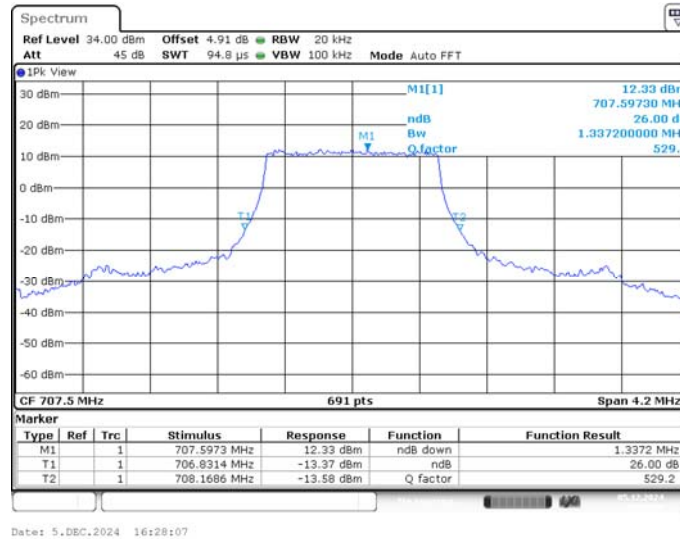
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

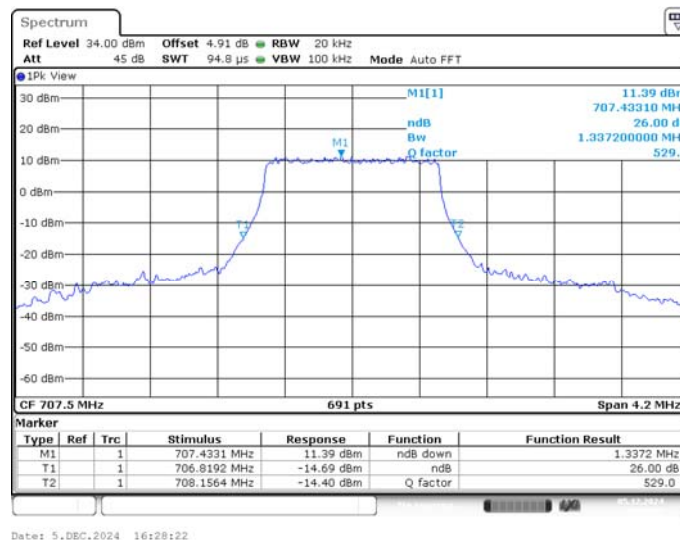
LTE band 12,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	1.337	1.337

LTE band 12 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)



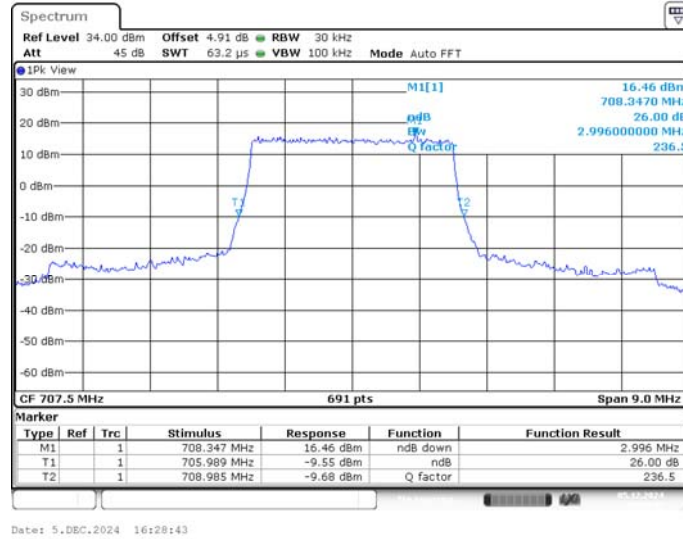
LTE band 12 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



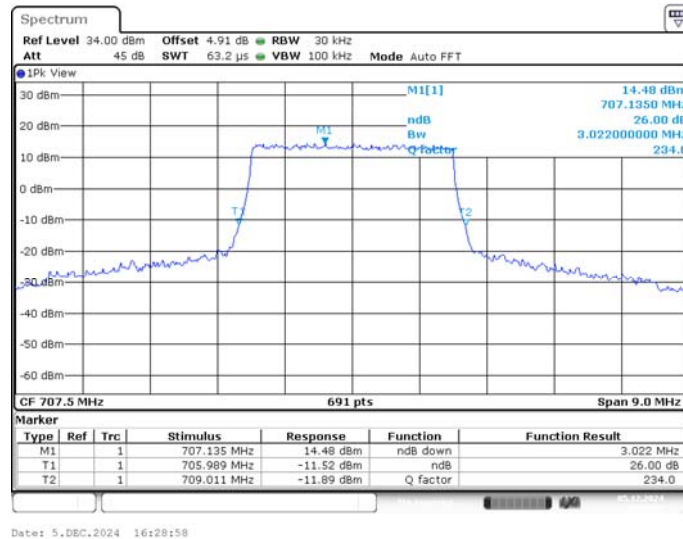
LTE band 12,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	2.996	3.022

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



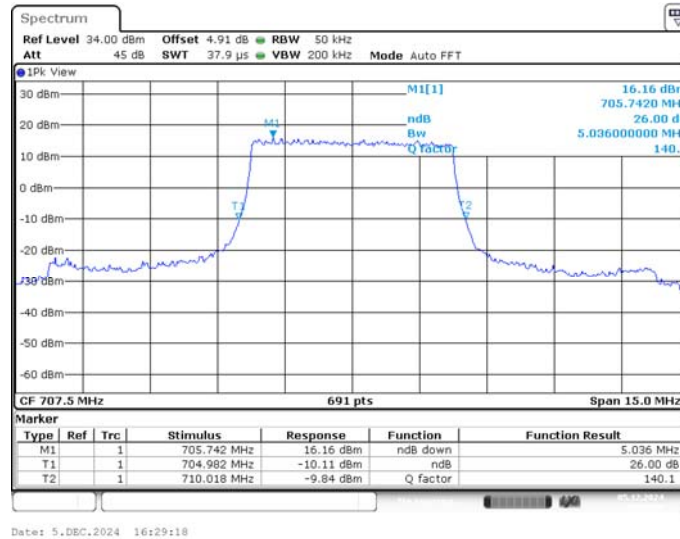
LTE band 12 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



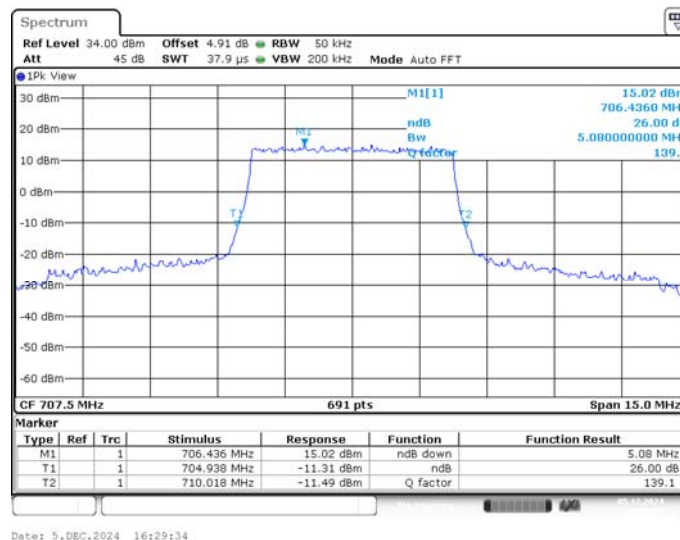
LTE band 12,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	5.036	5.080

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



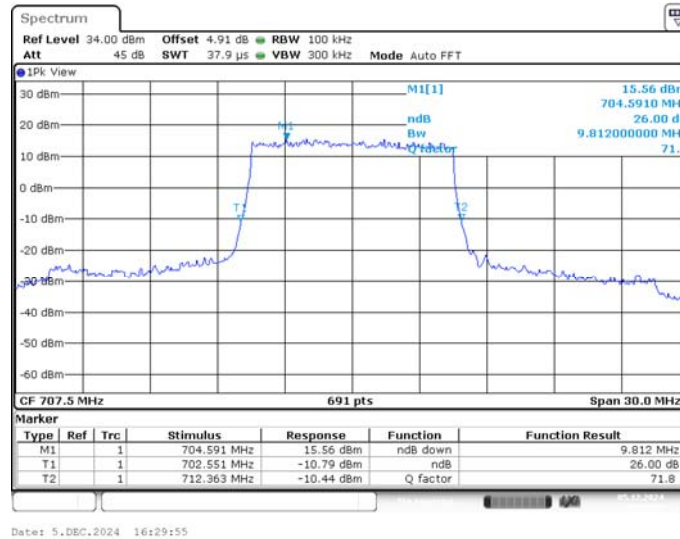
LTE band 12 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



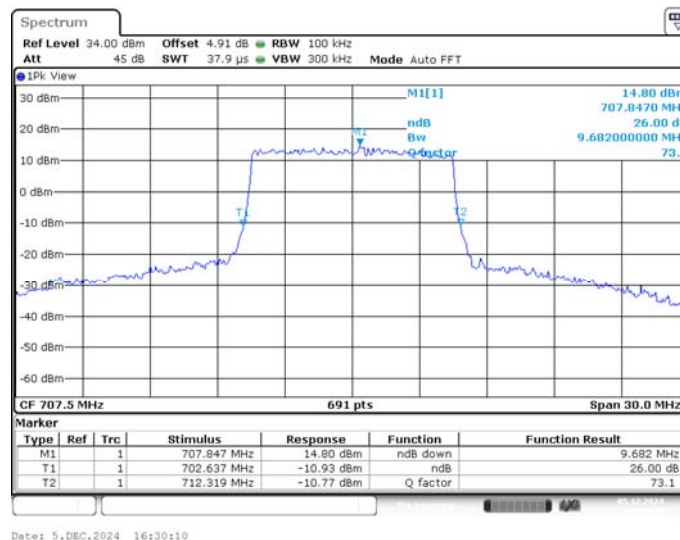
LTE band 12,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
707.5	9.812	9.682

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



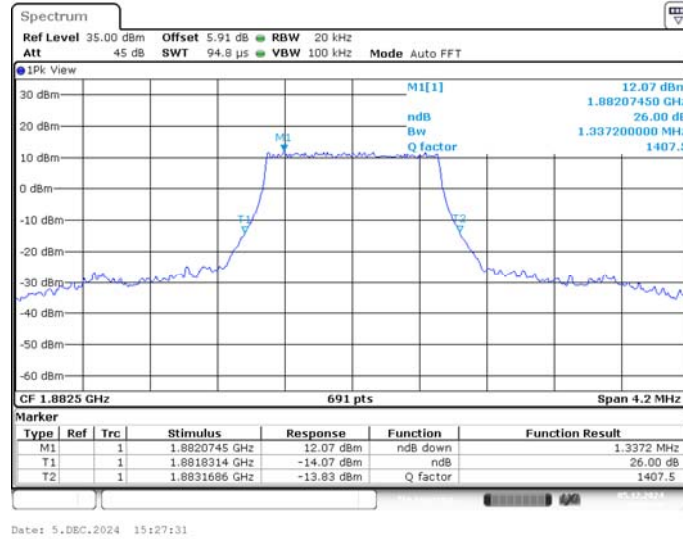
LTE band 12 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



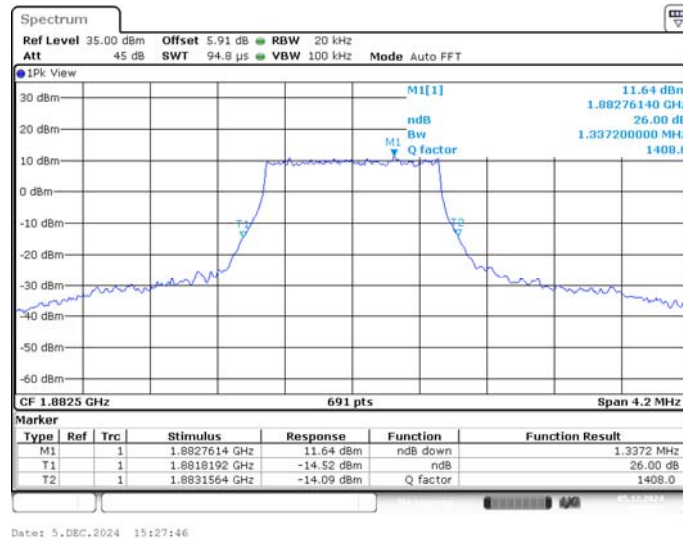
LTE band 25,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	1.337	1.337

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



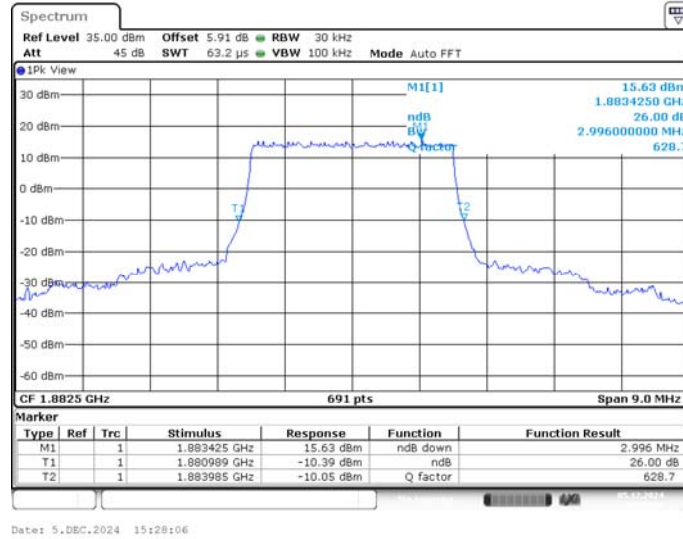
LTE band 25 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



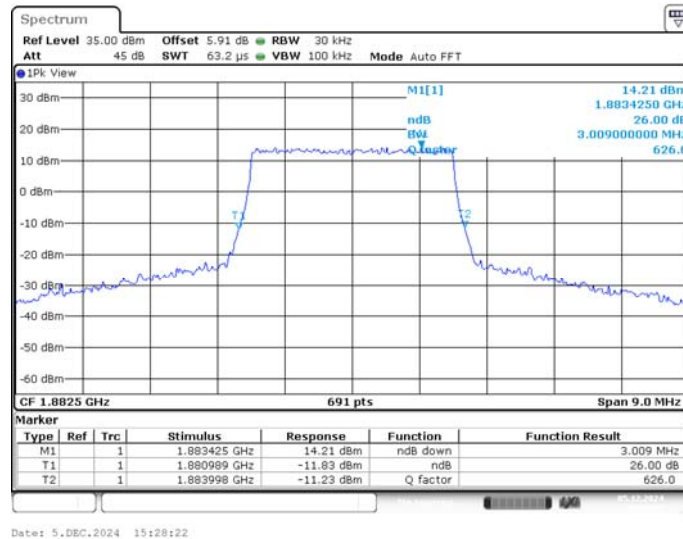
LTE band 25,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	2.996	3.009

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



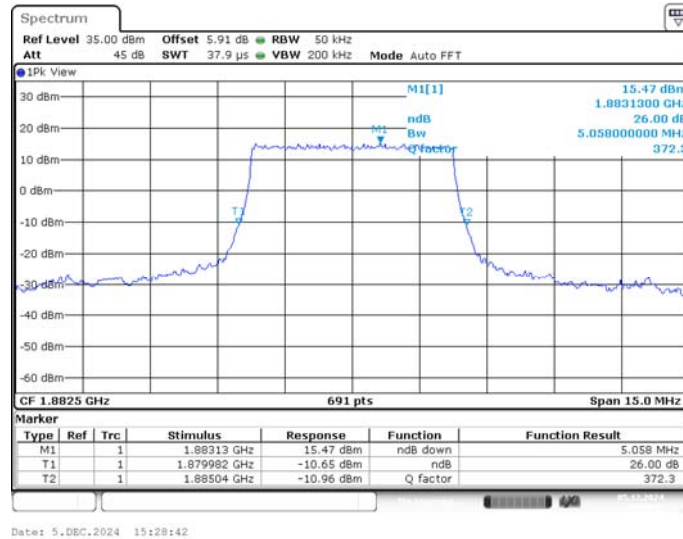
LTE band 25 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



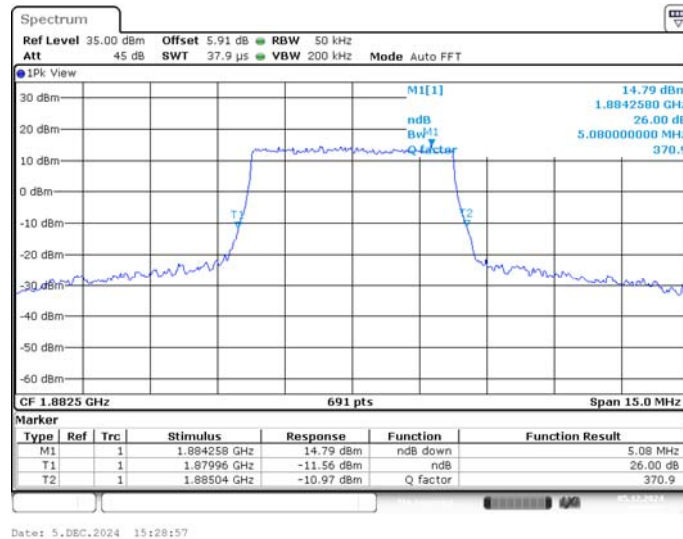
LTE band 25,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	5.058	5.080

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



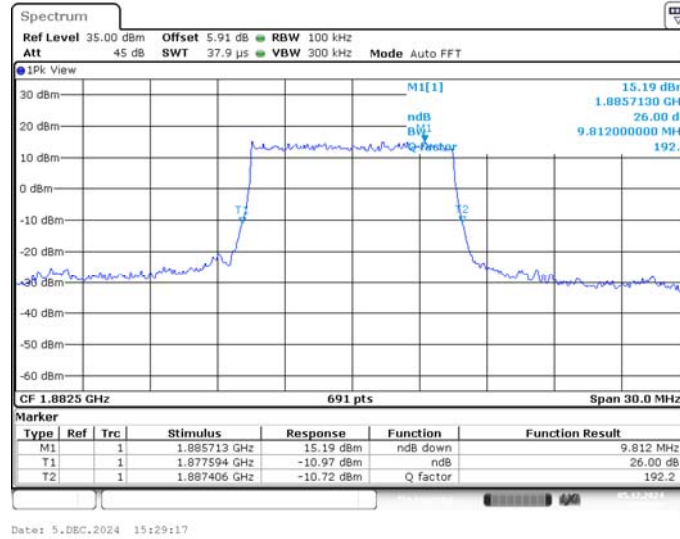
LTE band 25 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



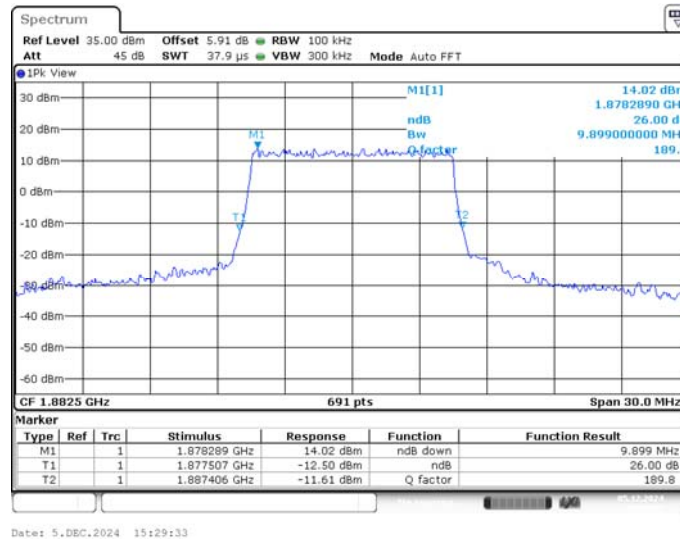
LTE band 25,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	9.812	9.899

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



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



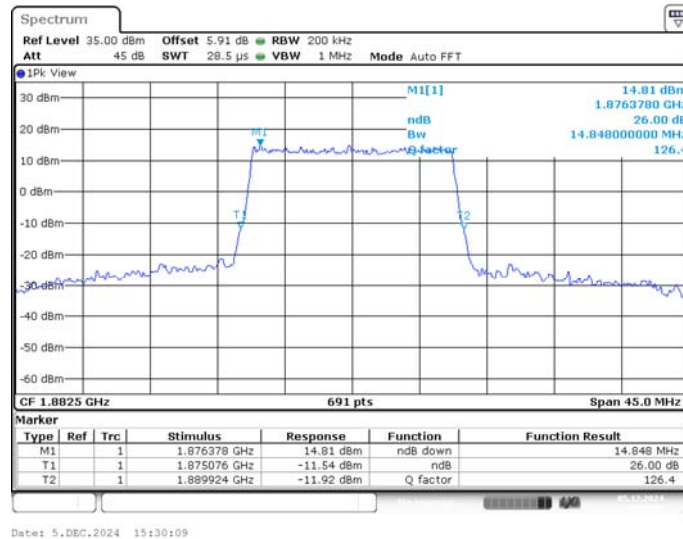
LTE band 25,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	14.913	14.848

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



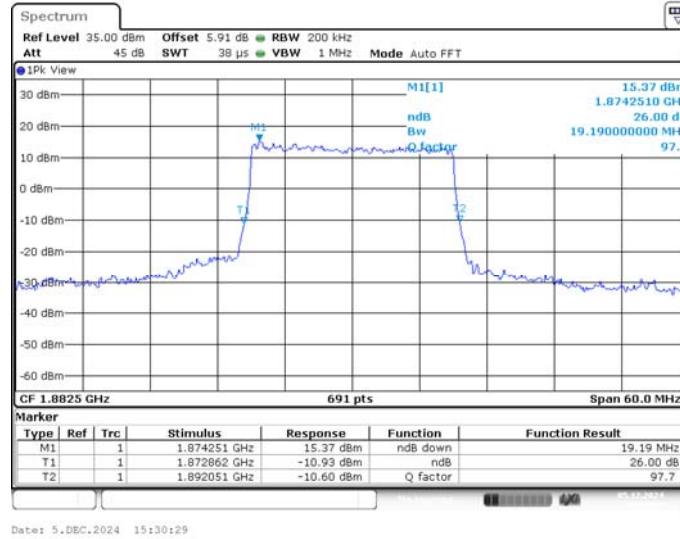
LTE band 25 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



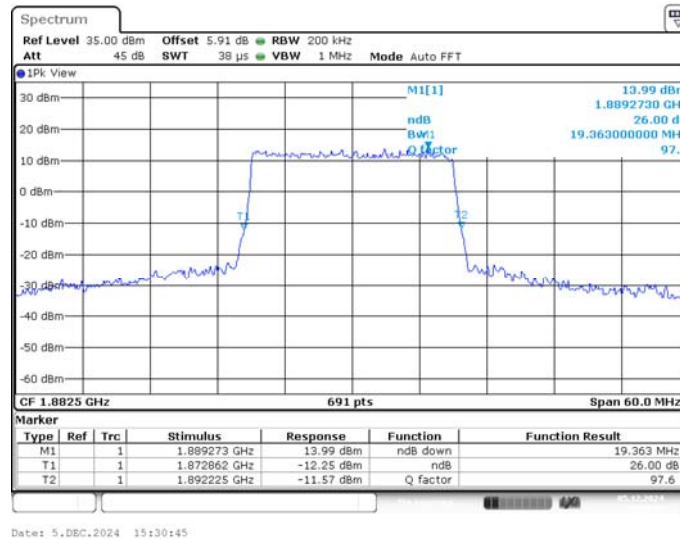
LTE band 25,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	19.190	19.363

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



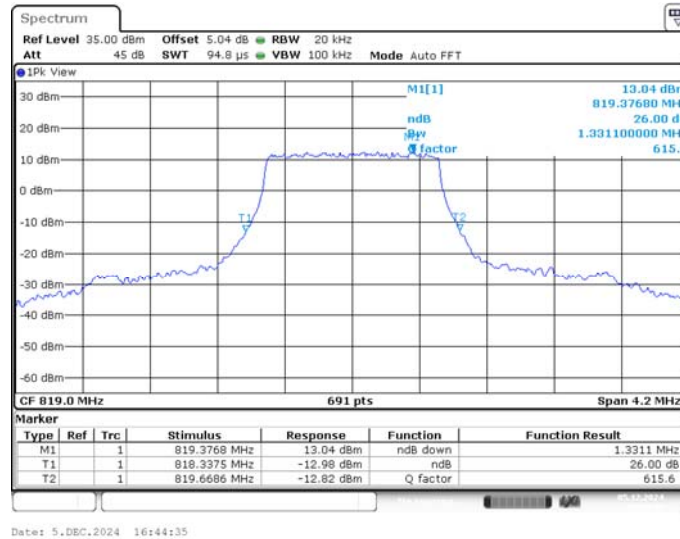
LTE band 25 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



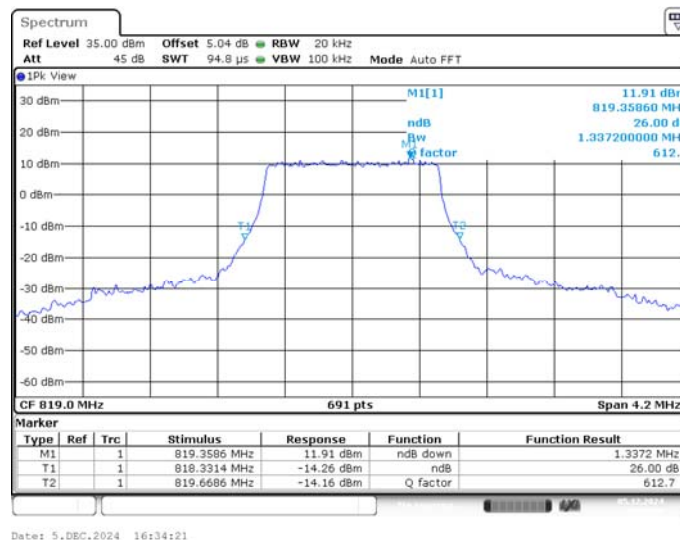
LTE band 26(814MHz~824MHz),1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	1.331	1.337

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



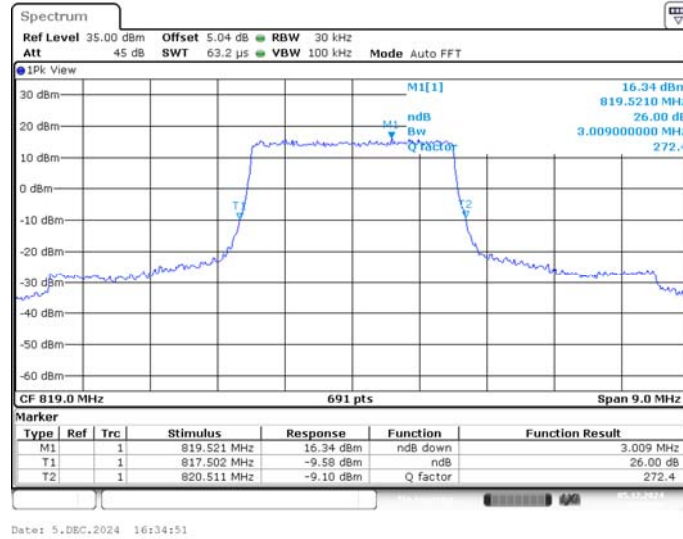
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



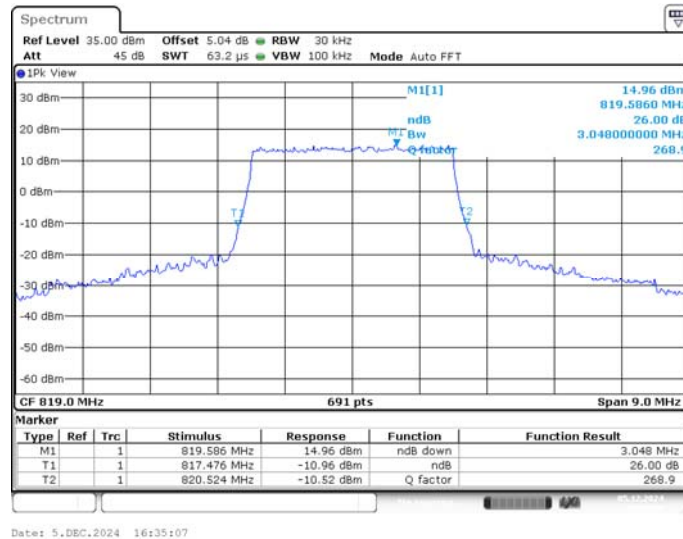
LTE band 26(814MHz~824MHz),3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	3.009	3.048

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



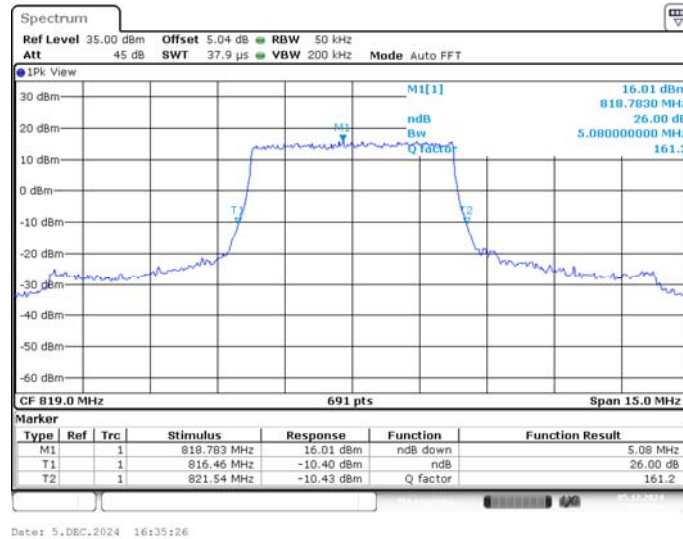
LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



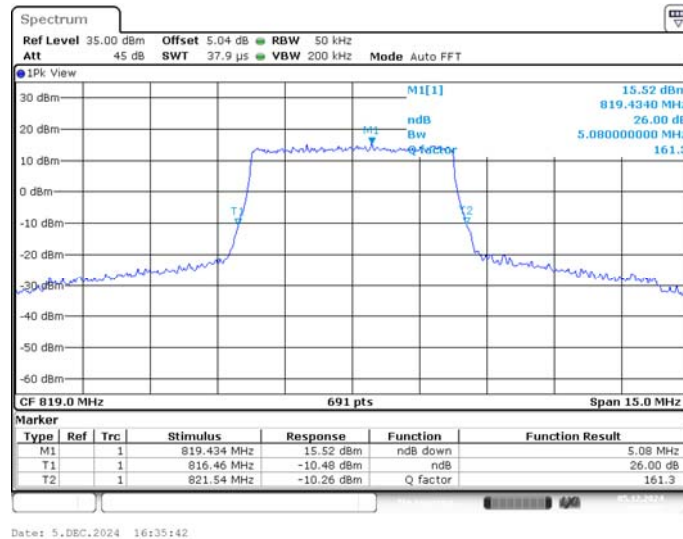
LTE band 26(814MHz~824MHz),5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	5.080	5.080

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



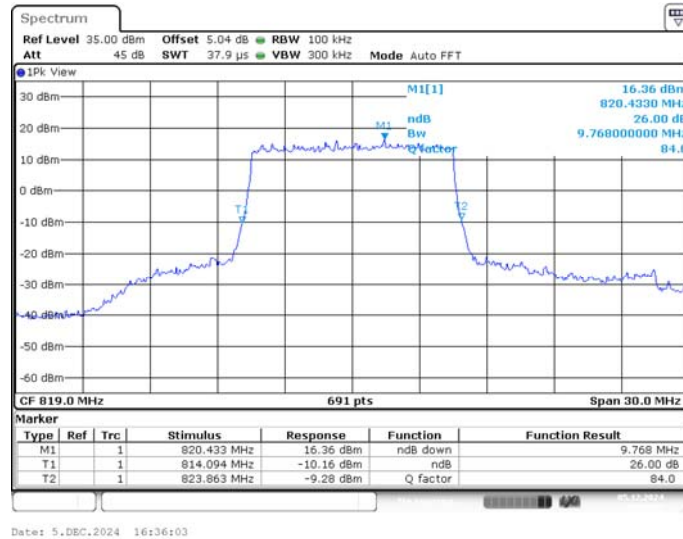
LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



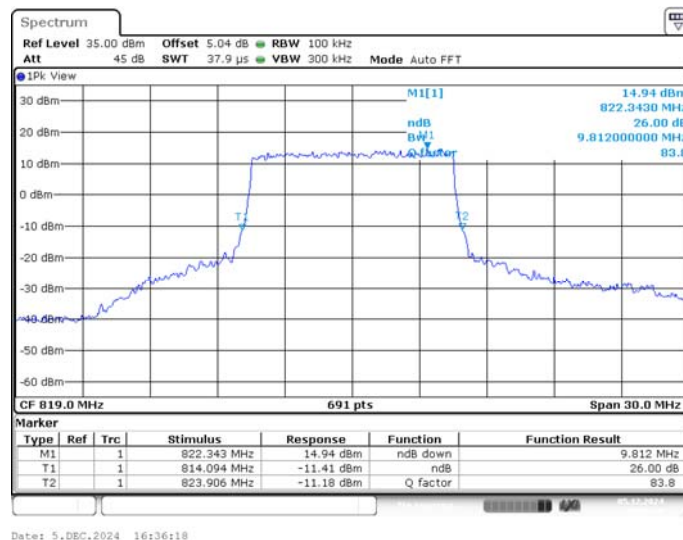
LTE band 26(814MHz~824MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	9.768	9.812

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



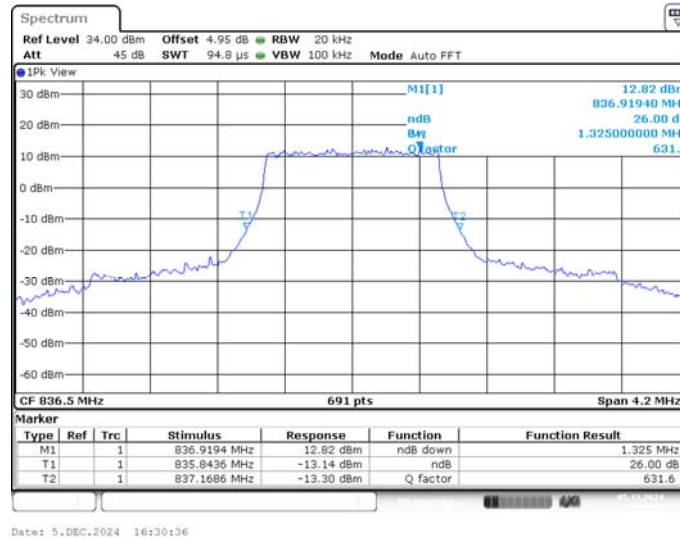
LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



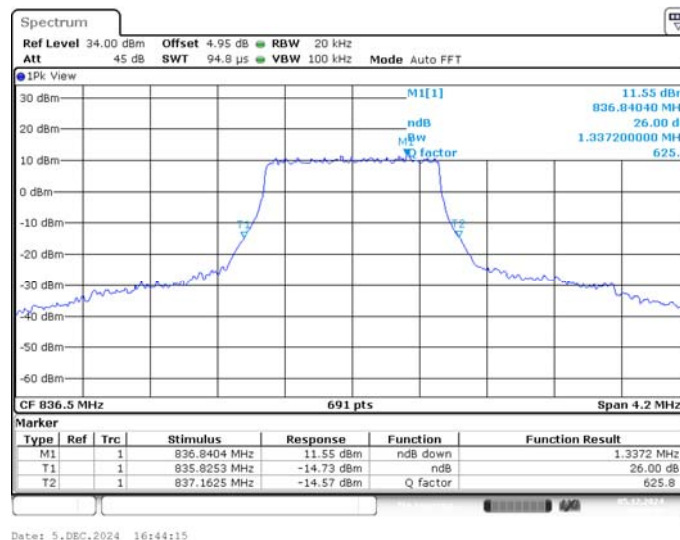
LTE band 26(824MHz~849MHz),1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	1.325	1.337

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



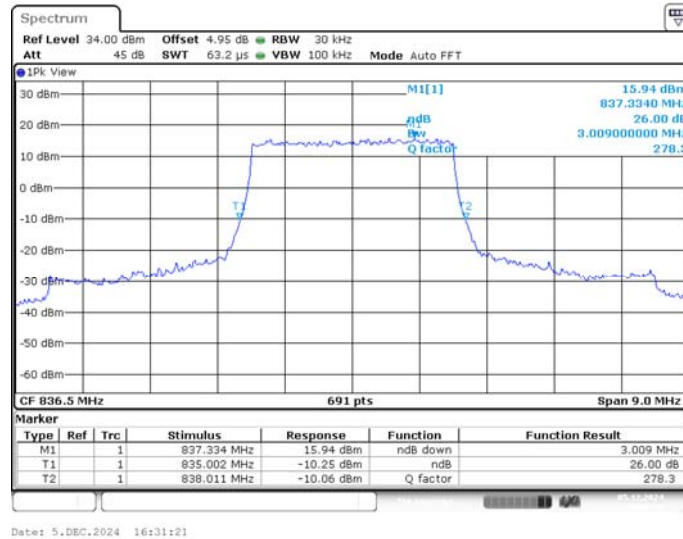
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



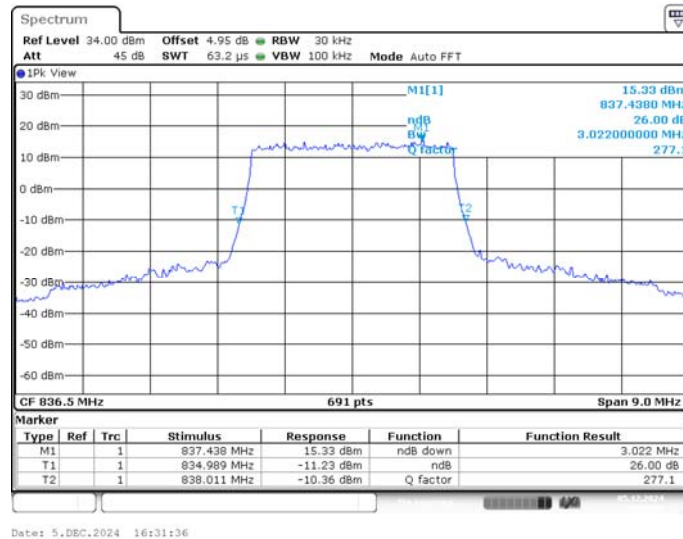
LTE band 26(824MHz~849MHz),3MHz(-26dBc)

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

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



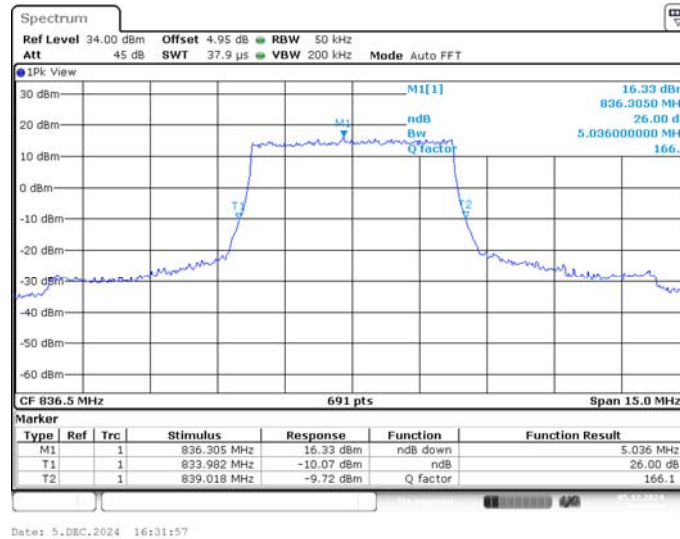
LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



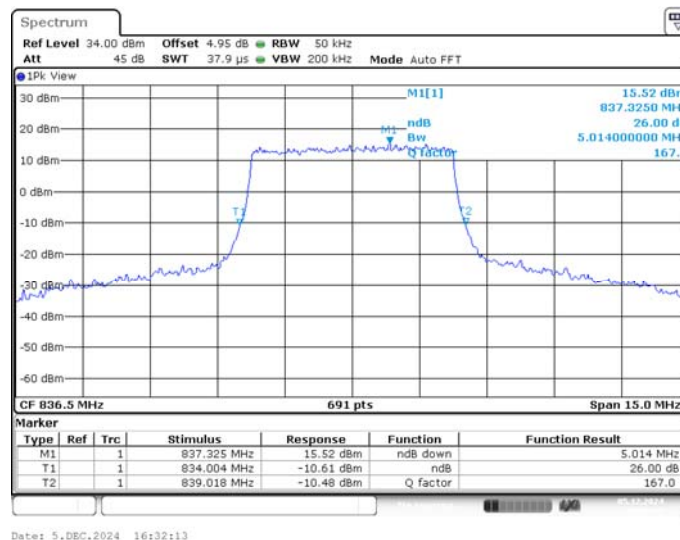
LTE band 26(824MHz~849MHz),5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	5.036	5.014

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



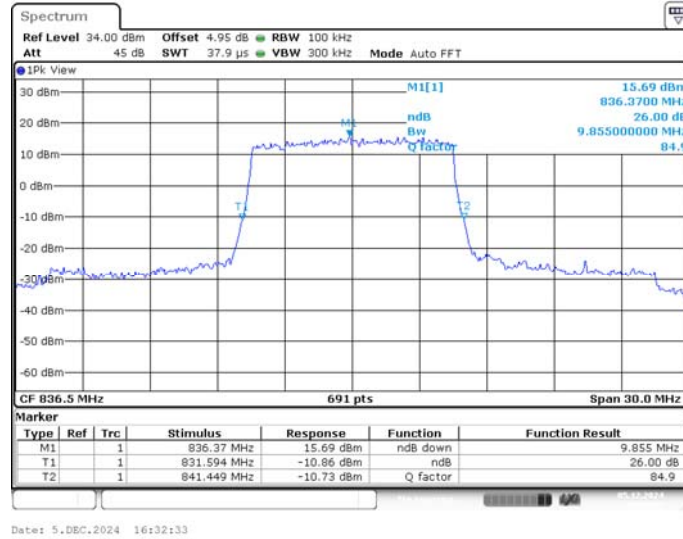
LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



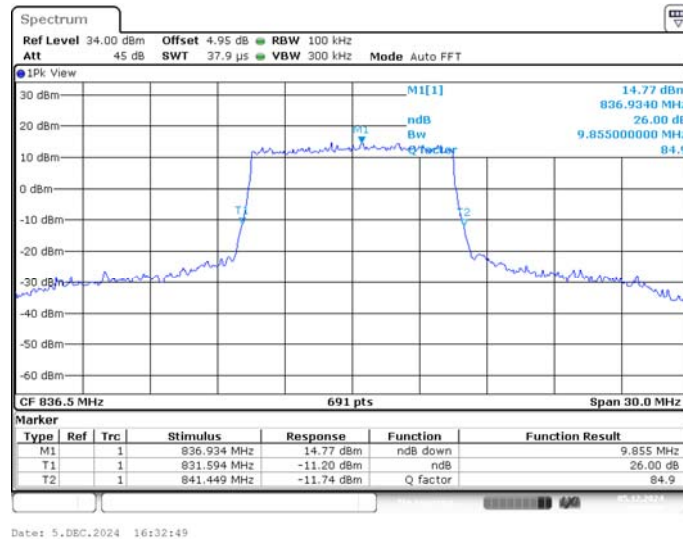
LTE band 26(824MHz~849MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	9.855	9.855

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



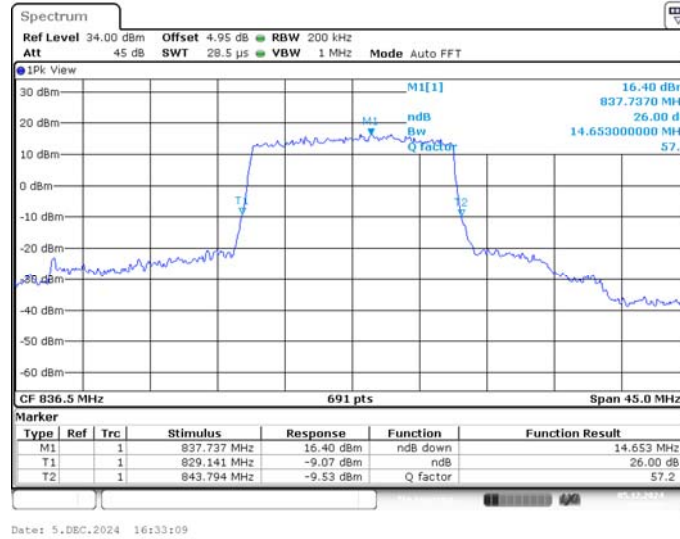
LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



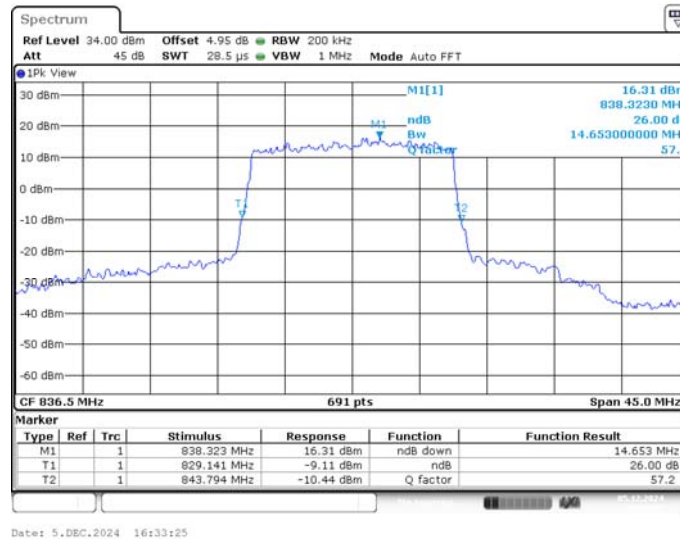
LTE band 26(824MHz~849MHz),15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	14.653	14.653

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



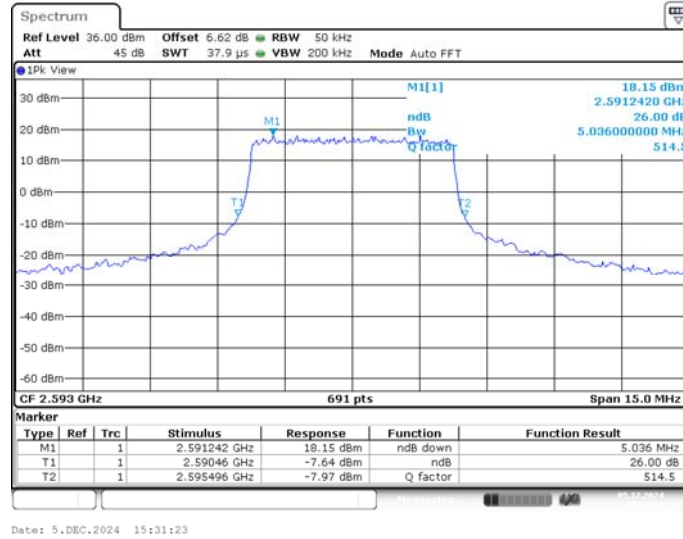
LTE band 26 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



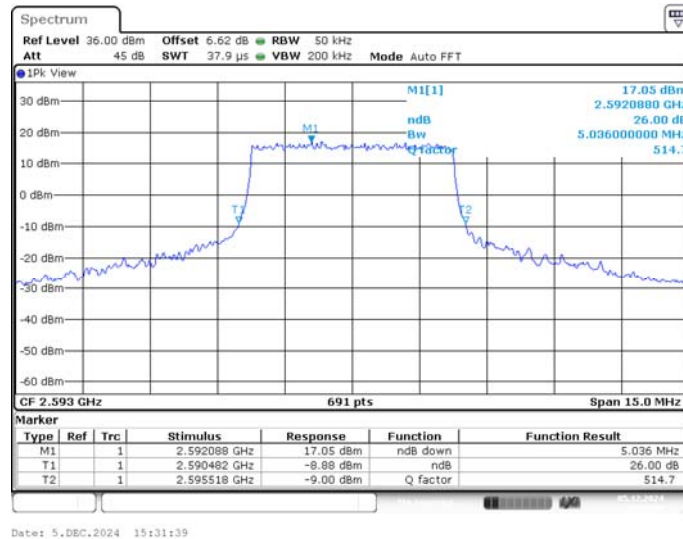
LTE band 41,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	5.036	5.036

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



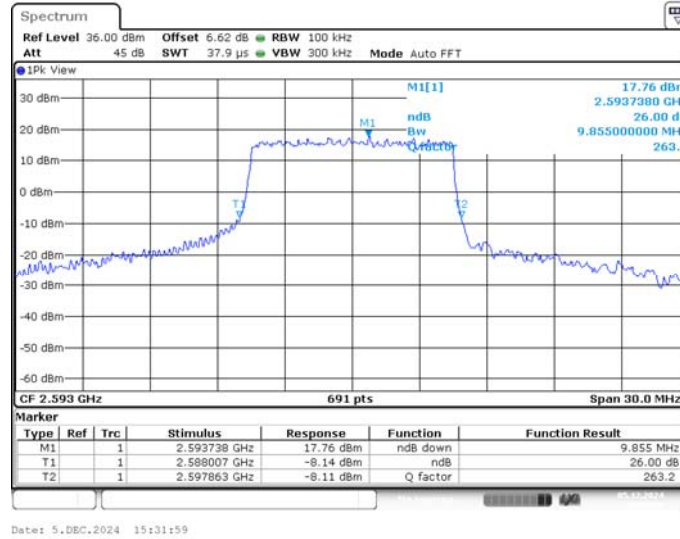
LTE band 41 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



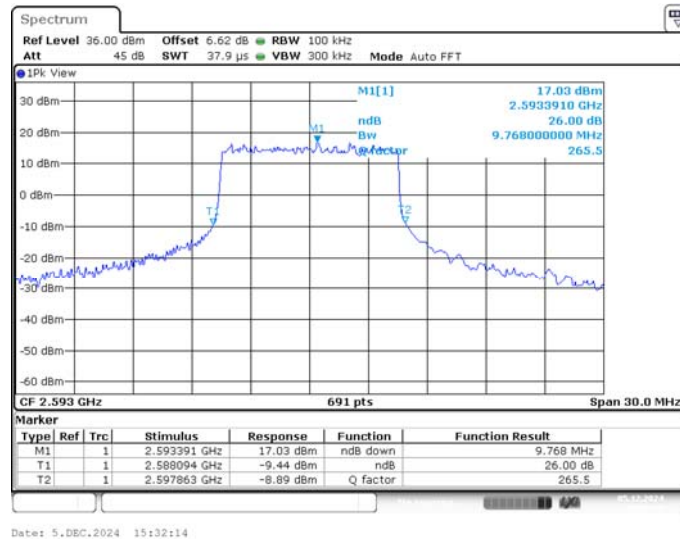
LTE band 41,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	9.855	9.768

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



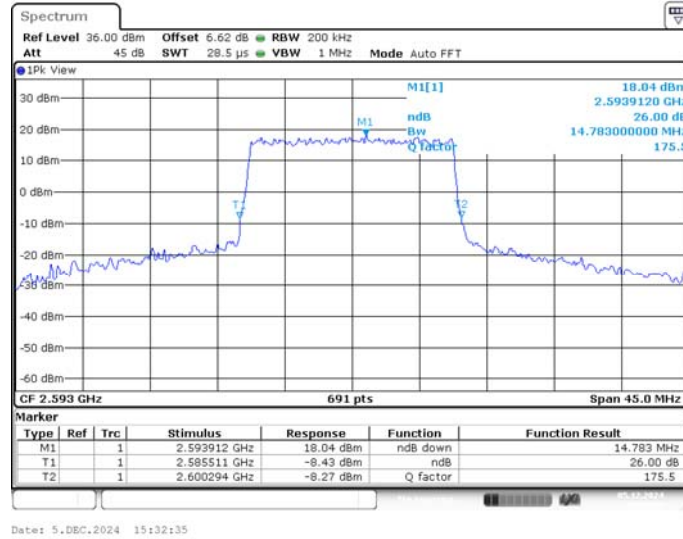
LTE band 41 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



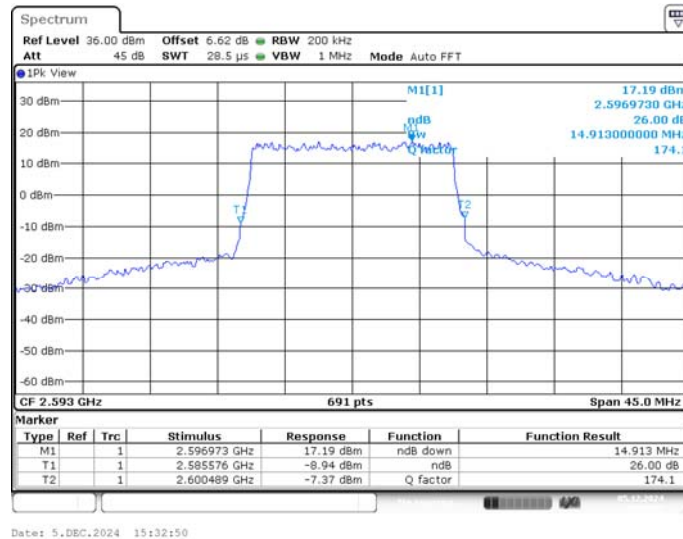
LTE band 41,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	14.783	14.913

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



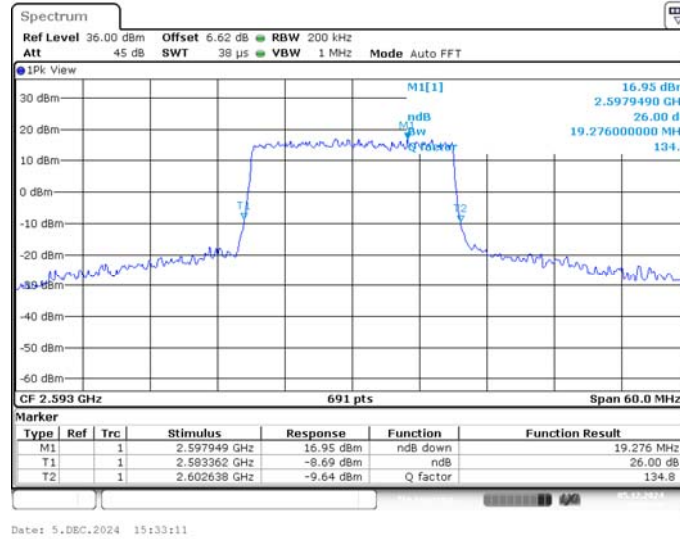
LTE band 41 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



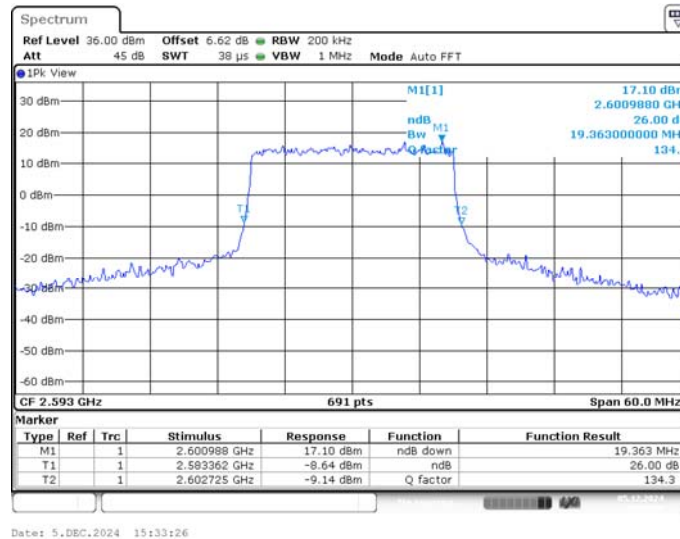
LTE band 41,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	19.276	19.363

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



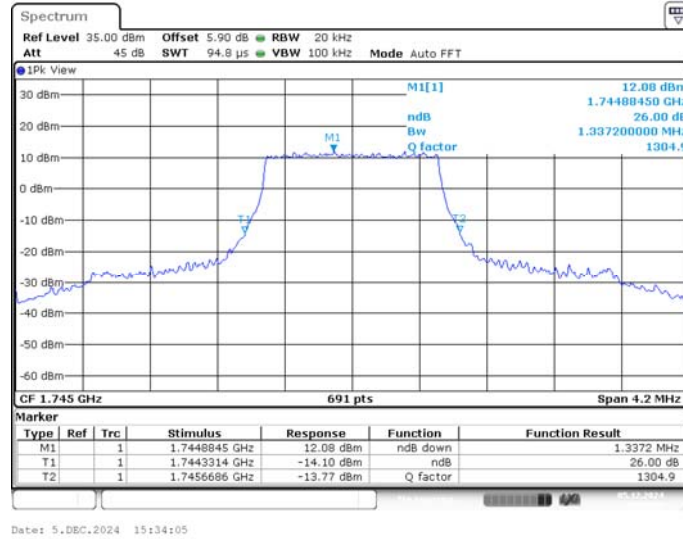
LTE band 41 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



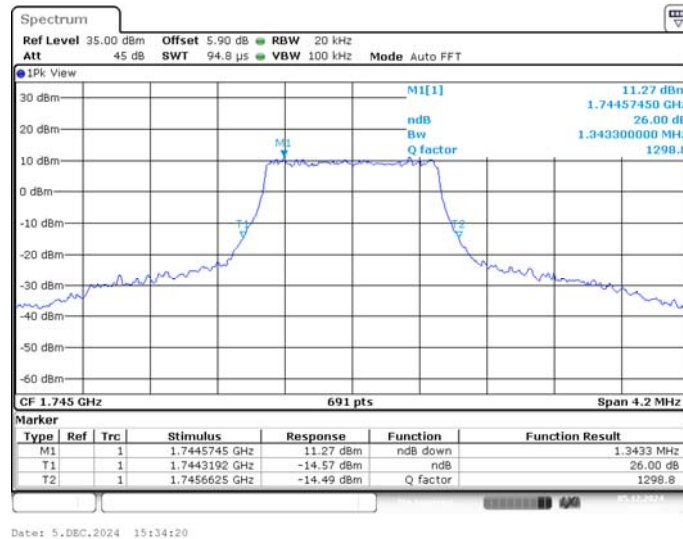
LTE band 66,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	1.337	1.343

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



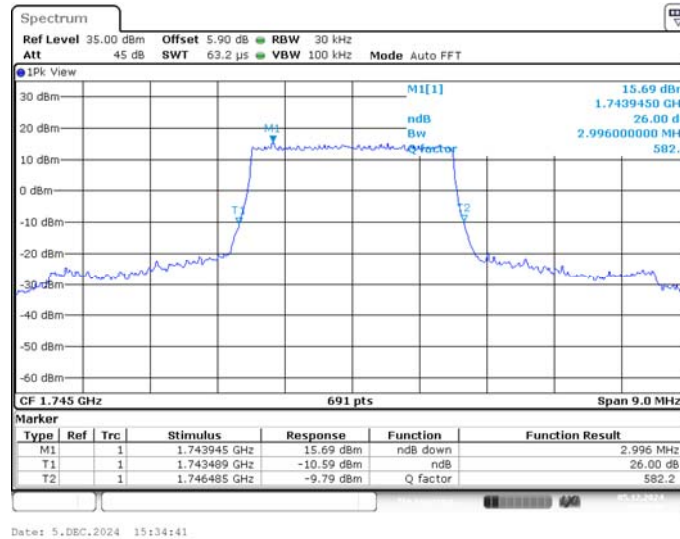
LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



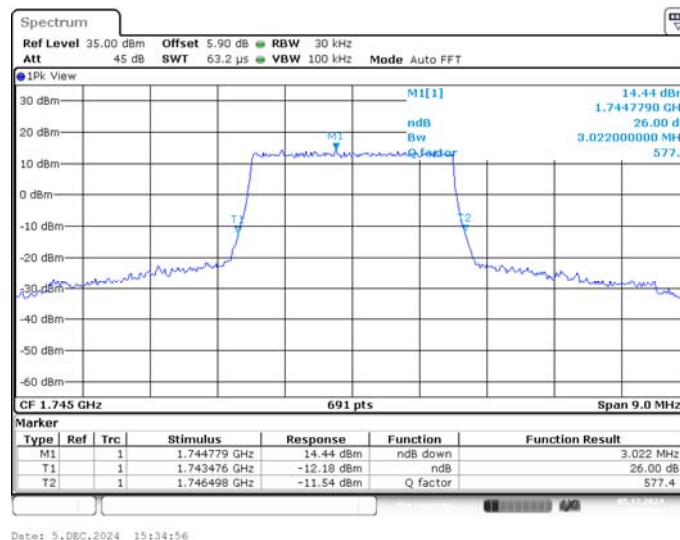
LTE band 66,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	2.996	3.022

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



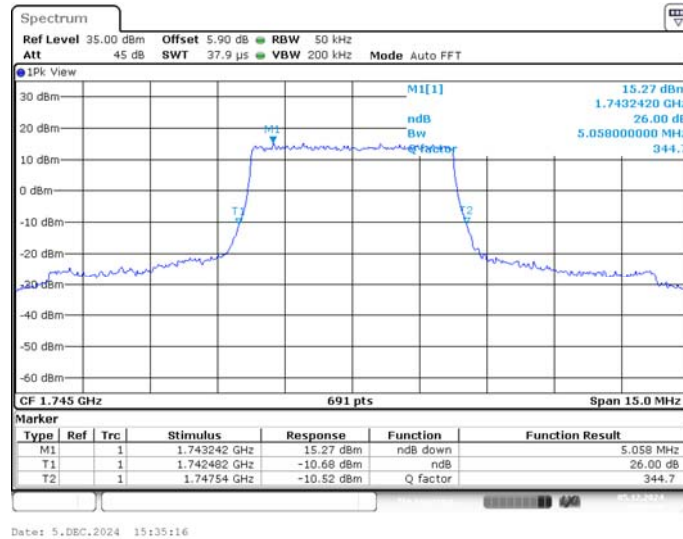
LTE band 66 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



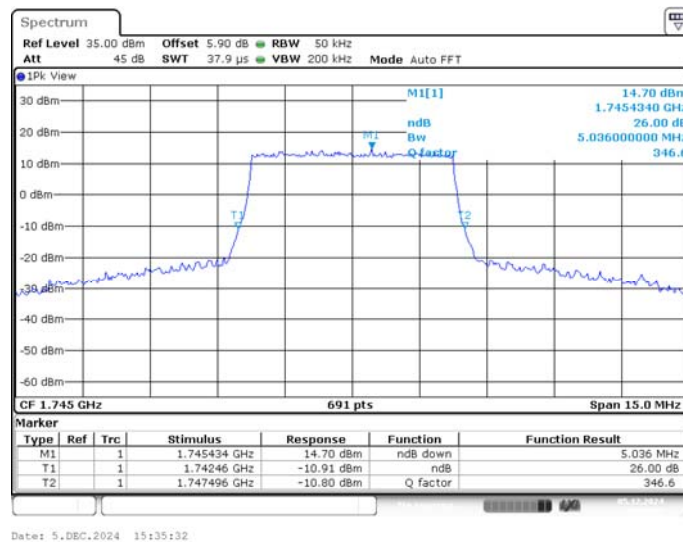
LTE band 66,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	5.058	5.036

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



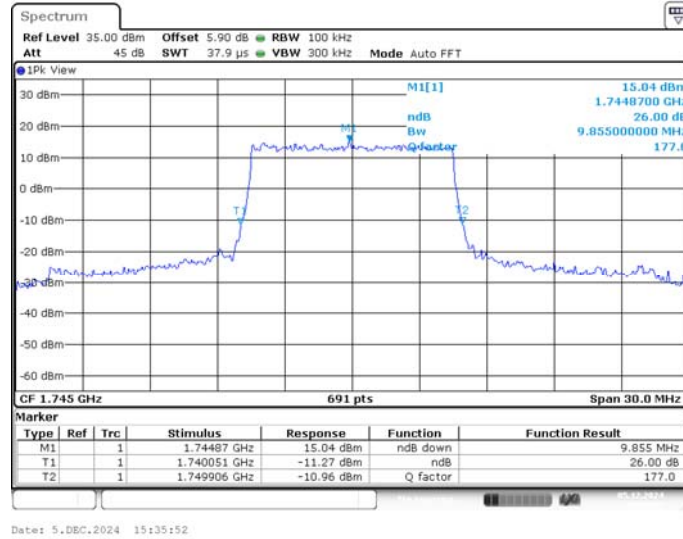
LTE band 66 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



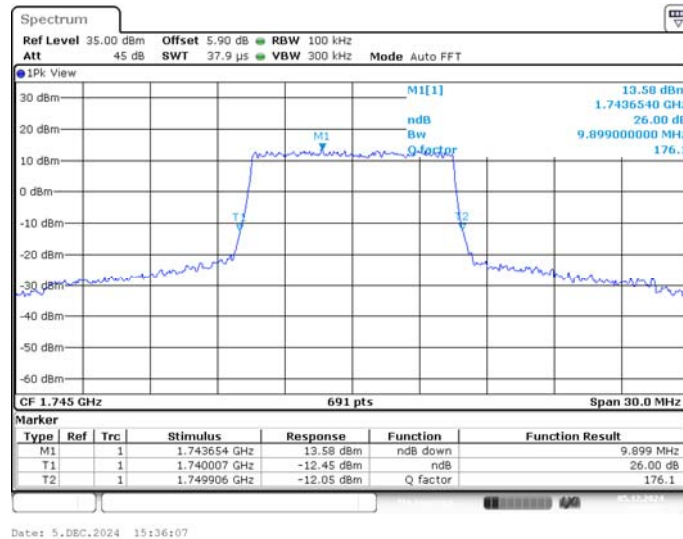
LTE band 66,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	9.855	9.899

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



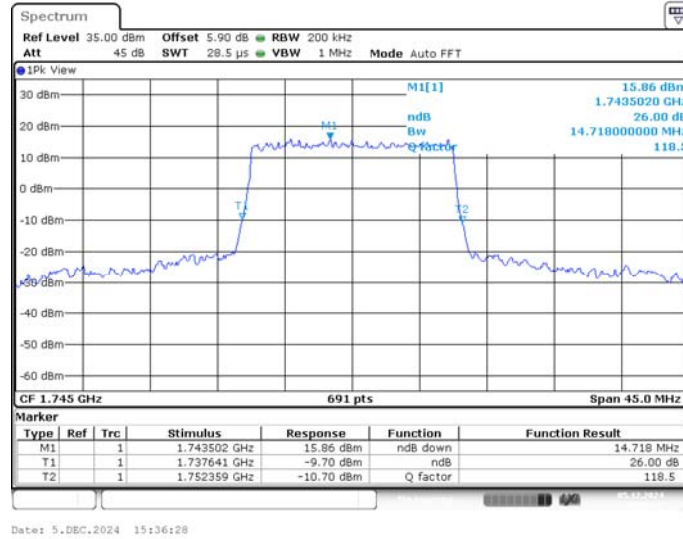
LTE band 66 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



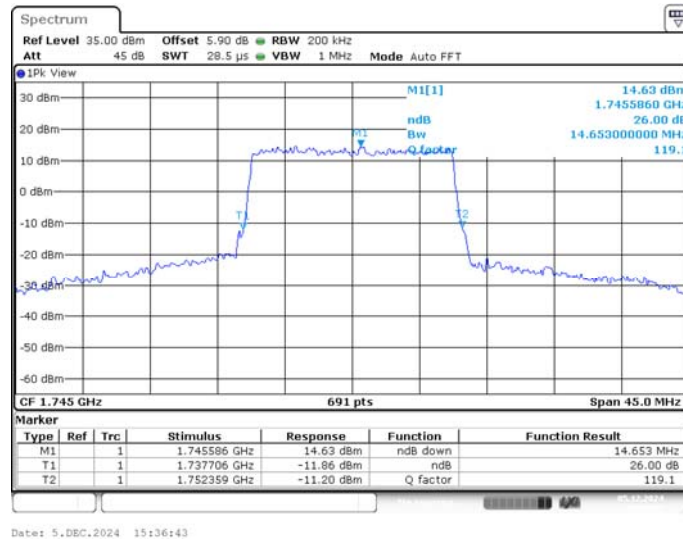
LTE band 66,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	14.718	14.653

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



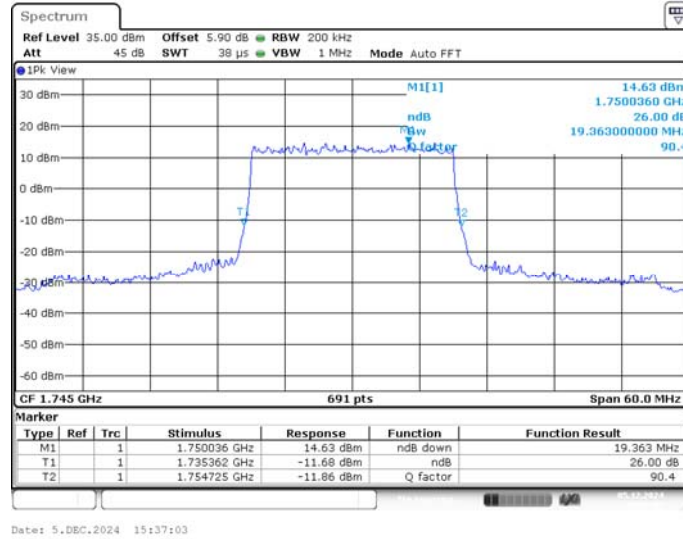
LTE band 66 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



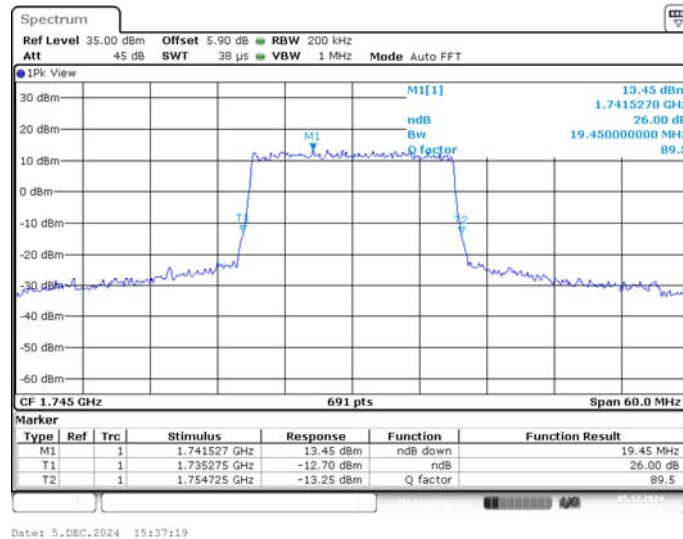
LTE band 66,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	19.363	19.450

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



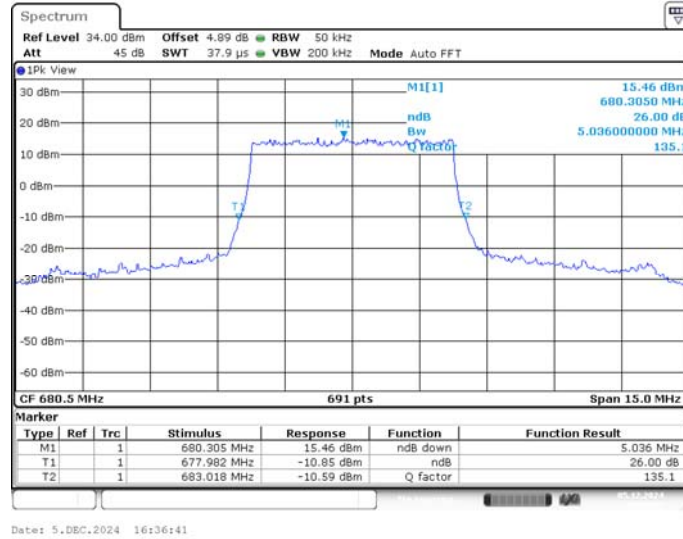
LTE band 66 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



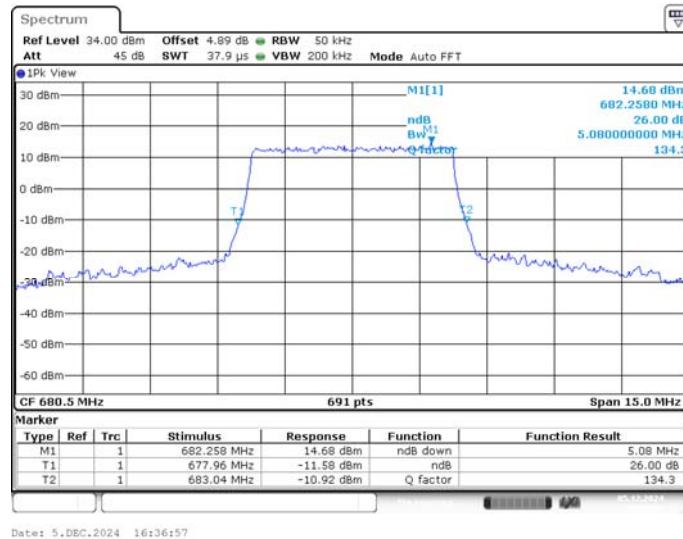
LTE band 71,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	5.036	5.080

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



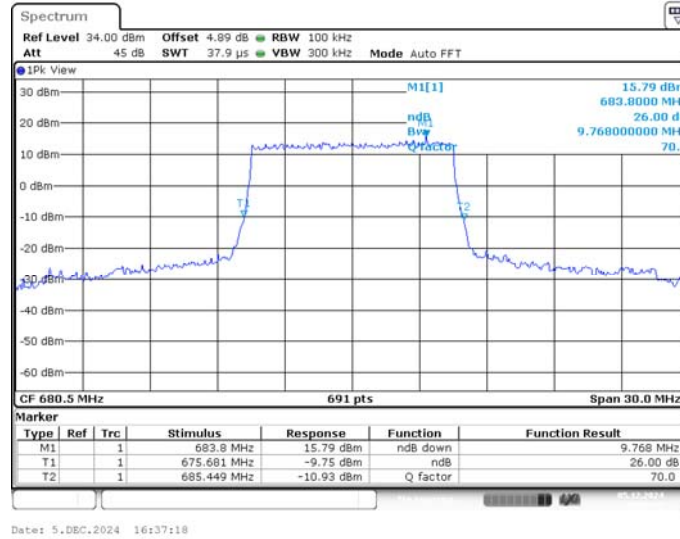
LTE band 71 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



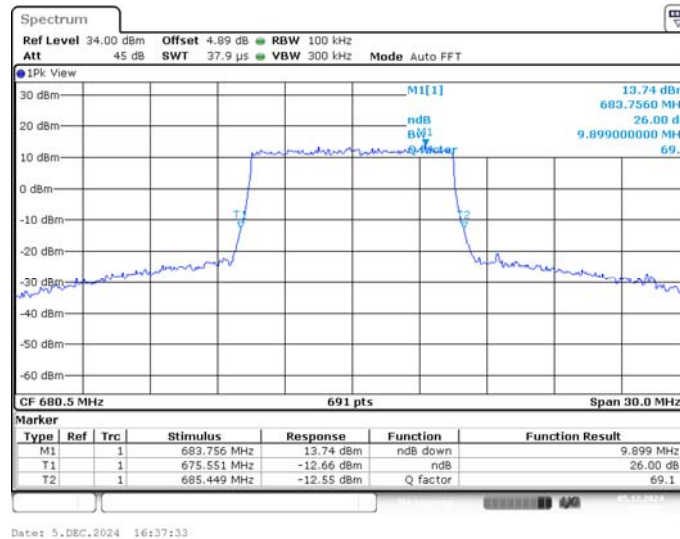
LTE band 71,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	9.768	9.899

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



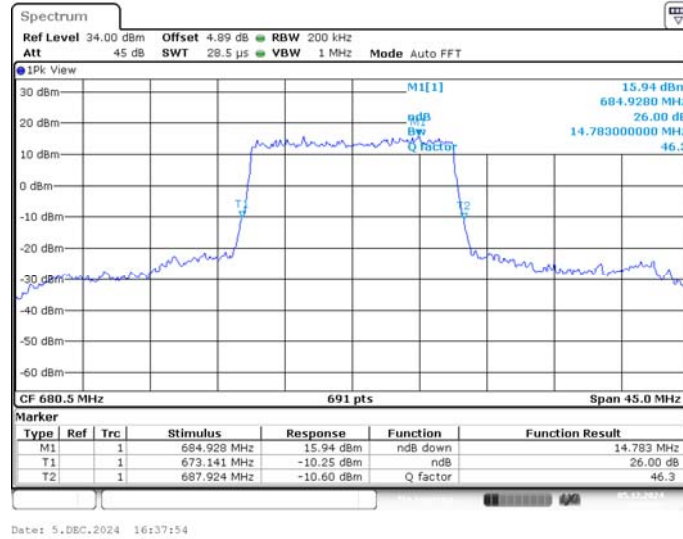
LTE band 71 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



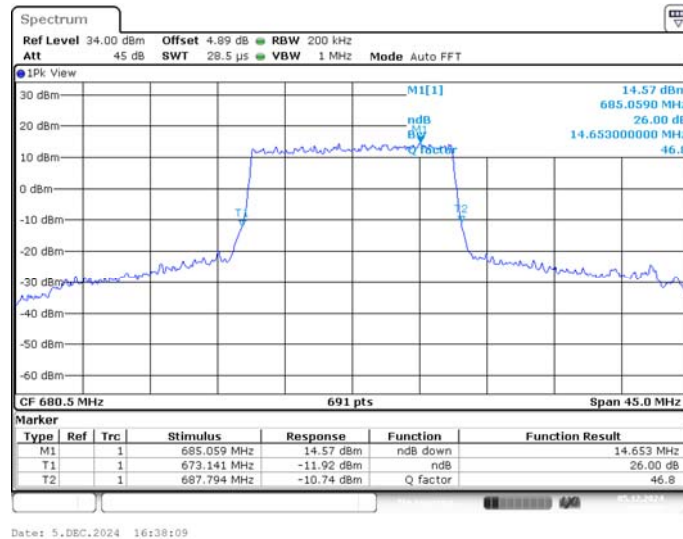
LTE band 71,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	14.783	14.653

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



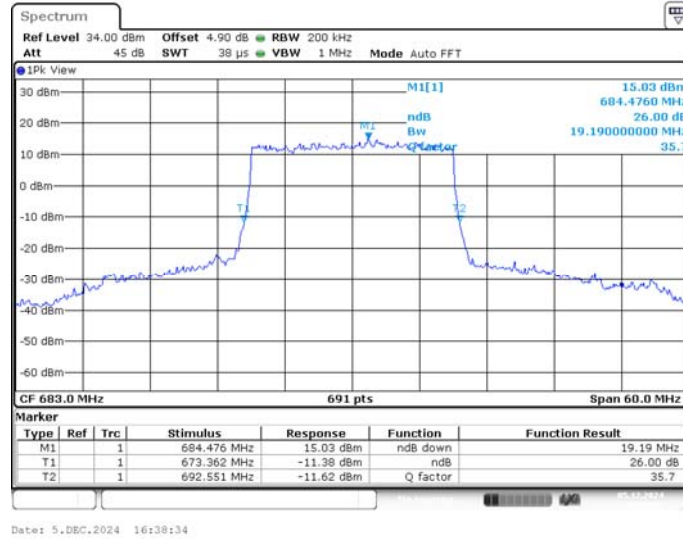
LTE band 71 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



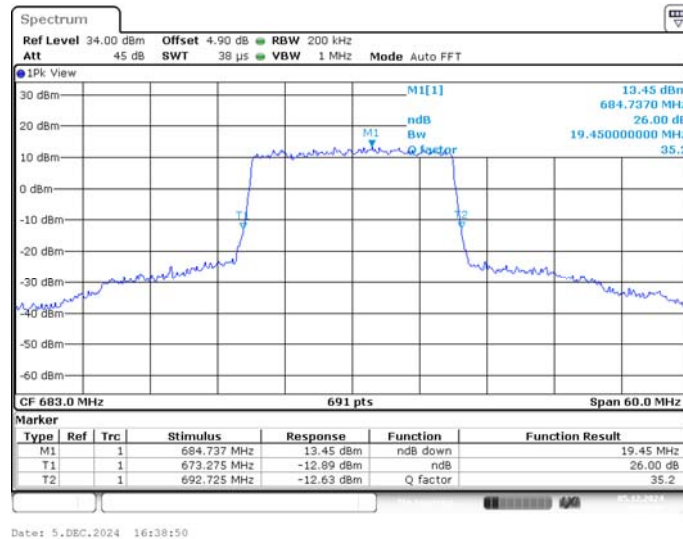
LTE band 71,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
683	19.190	19.450

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 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 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 2490.5 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(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.

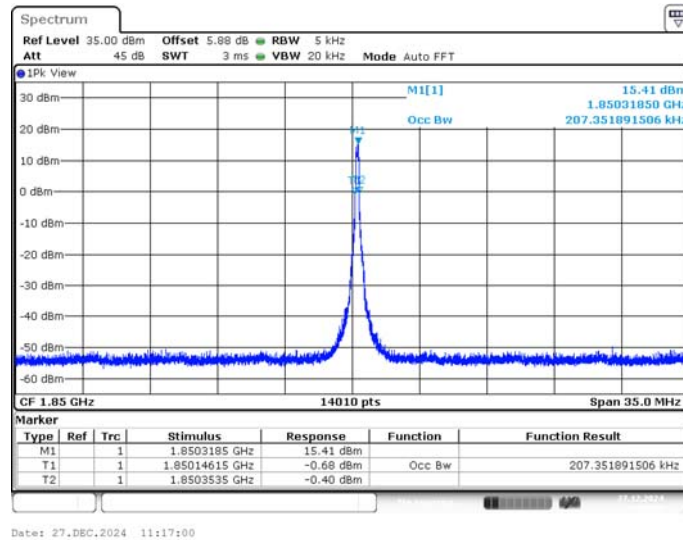
Part 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee's frequency block by 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.

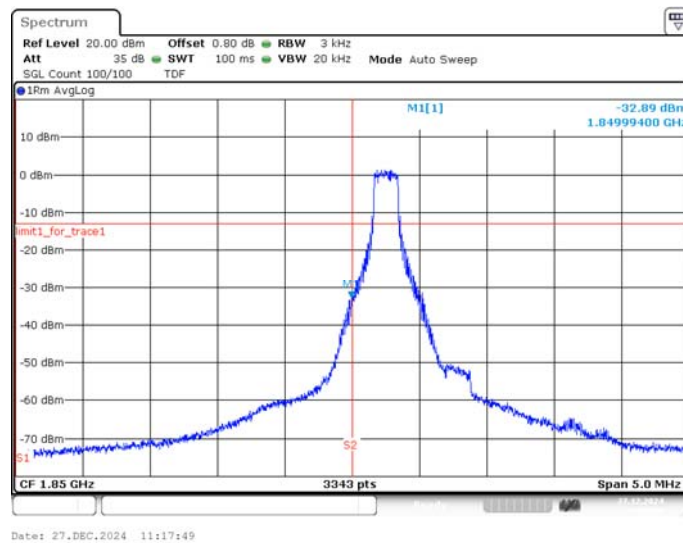
A.6.2 Measurement result

LTE band 2

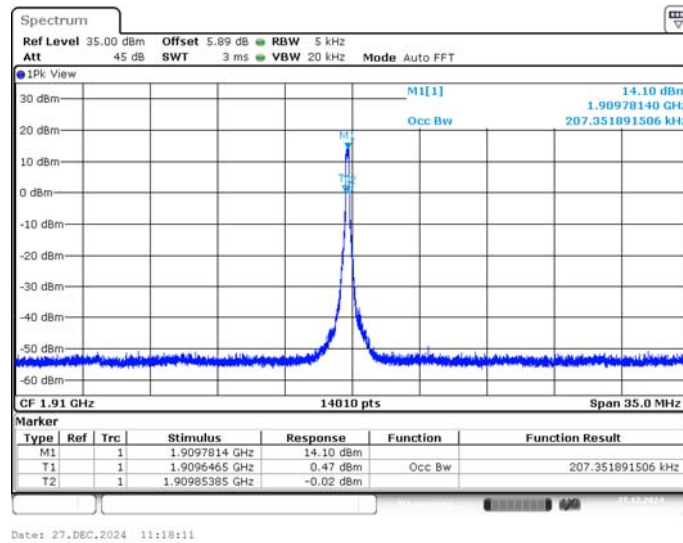
OBW: 1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset



OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset

