

A.3.2 Measurement results

LTE band 2, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	1850.870	1909.130		
50				2.90	0.0015
40				3.95	0.0021
30				2.02	0.0011
10				3.72	0.0020
0				-0.22	0.0001
-10				-1.00	0.0005
-20				0.62	0.0003
-30				1.43	0.0008

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	1850.870	1909.130	2.49	0.0013
4.4				3.33	0.0018

LTE band 5, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	824.430	848.570		
50				0.84	0.0010
40				0.69	0.0008
30				1.50	0.0018
10				0.43	0.0005
0				0.70	0.0008
-10				1.92	0.0023
-20				2.46	0.0029
-30				1.65	0.0020

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	824.430	848.570	1.37	0.0016
4.4				1.24	0.0015

LTE band 7, 20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	2500.660	2569.340		
50				-2.76	0.0011
40				0.04	0.0000
30				-1.49	0.0006
10				-1.66	0.0007
0				-4.01	0.0016
-10				-2.63	0.0010
-20				-4.71	0.0019
-30				-0.72	0.0003

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2500.660	2569.340	0.50	0.0002
4.4				0.79	0.0003

LTE band 12, 10MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	699.490	715.510		
50				-1.06	0.0015
40				-0.64	0.0009
30				-2.63	0.0037
10				-1.86	0.0026
0				-0.66	0.0009
-10				-0.92	0.0013
-20				-0.93	0.0013
-30				-1.62	0.0023

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	699.490	715.510	-1.26	0.0018
4.4				-0.59	0.0008

LTE band 26_Part22, 15MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	824.600	848.400		
50				-0.32	0.0004
40				-0.01	0.0000
30				0.03	0.0000
10				-0.53	0.0006
0				0.27	0.0003
-10				-0.32	0.0004
-20				0.20	0.0002
-30				-0.84	0.0010

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	824.600	848.400	0.09	0.0001
4.4				0.97	0.0012

LTE band 26_Part90, 10MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	814.430	823.570		
50				-1.15	0.0014
40				-0.50	0.0006
30				-0.66	0.0008
10				-1.02	0.0012
0				-0.84	0.0010
-10				-0.97	0.0012
-20				-0.56	0.0007
-30				0.97	0.0012

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	814.430	823.570	-0.39	0.0005
4.4				0.30	0.0004

LTE band 41, 20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	2496.600	2689.320		
50				0.39	0.0001
40				1.87	0.0007
30				1.93	0.0007
10				1.33	0.0005
0				1.35	0.0005
-10				2.42	0.0009
-20				2.50	0.0010
-30				1.70	0.0007

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2496.600	2689.320	1.13	0.0004
4.4				3.15	0.0012

LTE band 66, 20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	1710.890	1779.130		
50				-1.29	0.0007
40				-1.30	0.0007
30				-1.76	0.0010
10				-1.83	0.0010
0				-1.07	0.0006
-10				-1.52	0.0009
-20				-0.56	0.0003
-30				-2.93	0.0017

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	1710.890	1779.130	-2.27	0.0013
4.4				-3.48	0.0020

LTE CA band 7C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	2500.660	2569.340		
50				0.89	0.0003
40				0.73	0.0003
30				0.29	0.0001
10				-0.17	0.0001
0				-0.80	0.0003
-10				-1.22	0.0005
-20				0.84	0.0003
-30				0.60	0.0002

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2500.660	2569.340	-0.82	0.0003
4.4				-0.36	0.0001

LTE CA band 38C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.82	2570.680	2619.320		
50				-0.27	0.0001
40				-0.56	0.0002
30				-0.60	0.0002
10				-1.97	0.0008
0				0.60	0.0002
-10				0.62	0.0002
-20				-0.37	0.0001
-30				-0.80	0.0003

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.45	20	2570.680	2619.320	-1.07	0.0004
4.4				-0.63	0.0002

A.4 Occupied Bandwidth

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

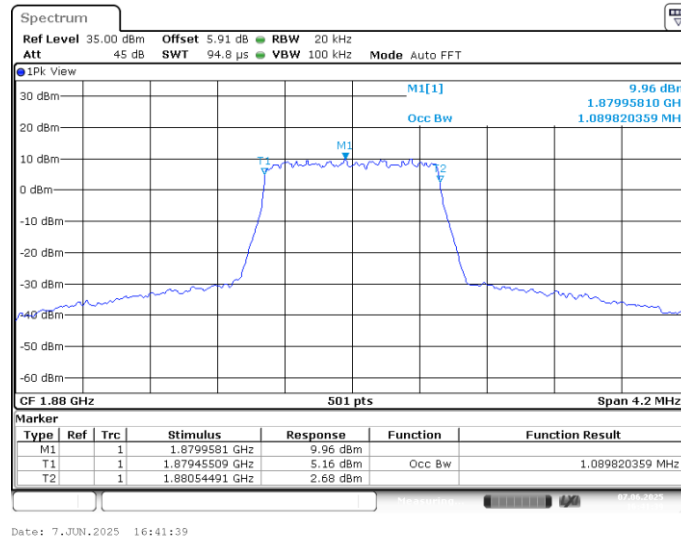
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (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) Set the detection mode to peak, and the trace mode to max-hold.

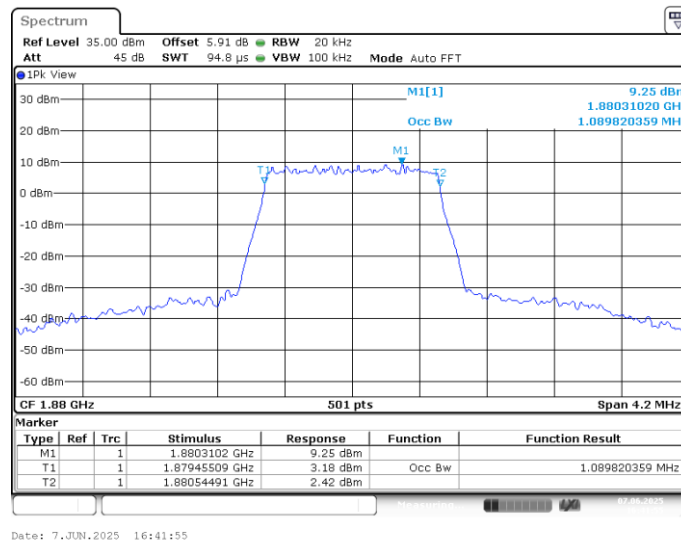
LTE band 2,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	1.090	1.090

LTE band 2 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



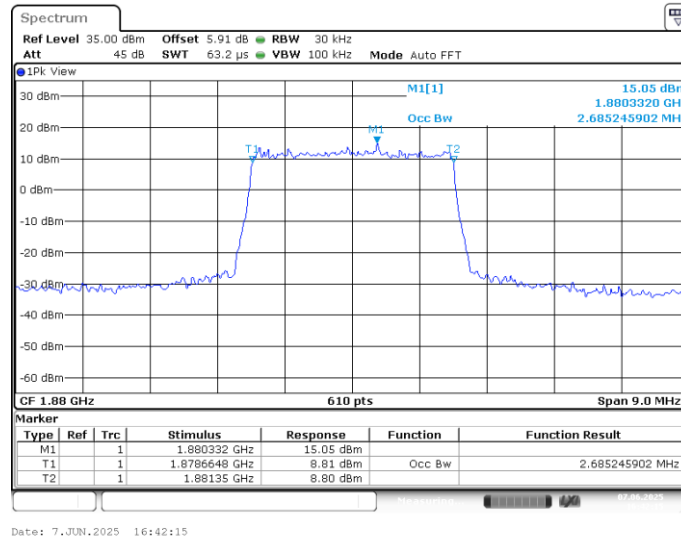
LTE band 2 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



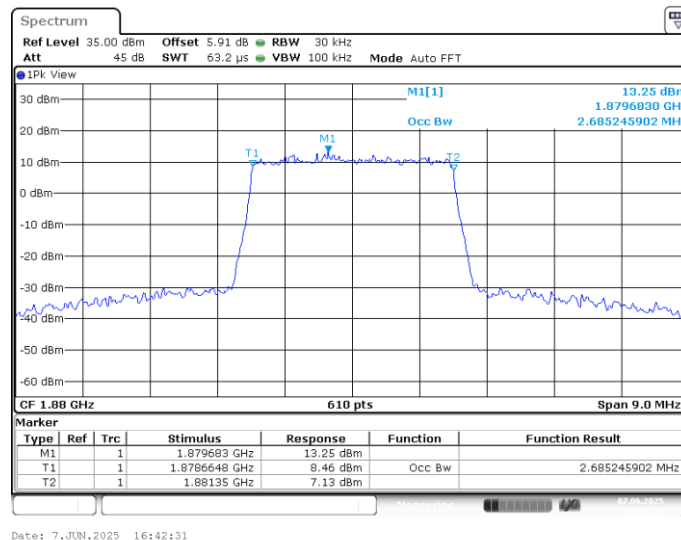
LTE band 2,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	2.685	2.685

LTE band 2 , 3MHz Bandwidth,MID,QPSK (99% BW)



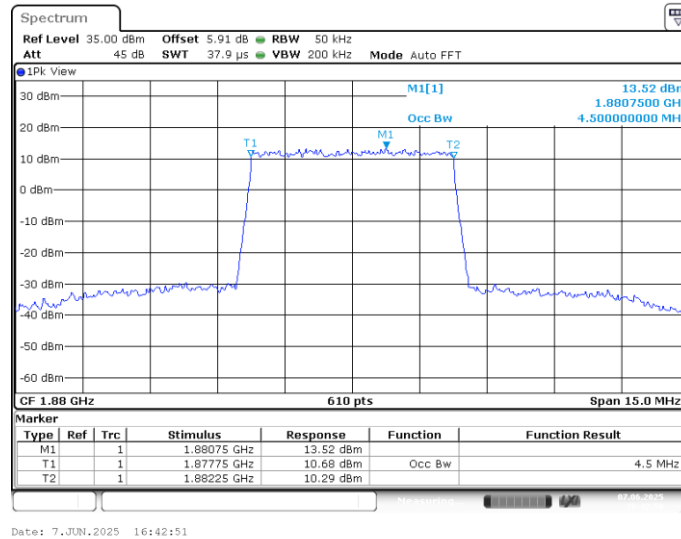
LTE band 2 , 3MHz Bandwidth,MID,16QAM (99% BW)



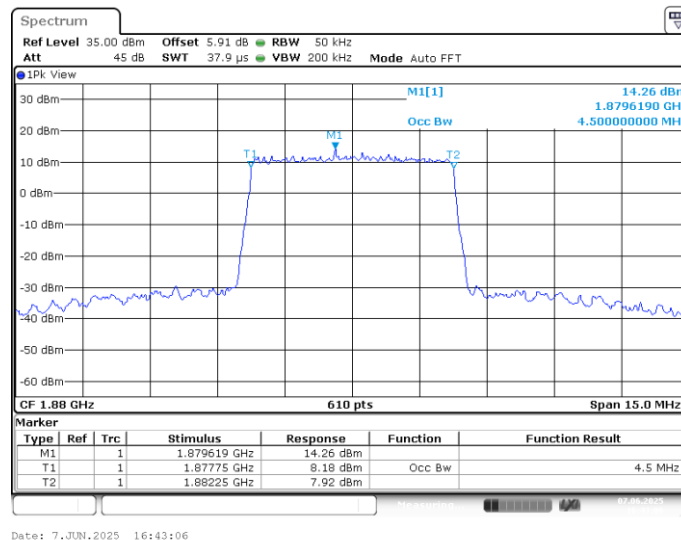
LTE band 2,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	4.500	4.500

LTE band 2 , 5MHz Bandwidth,MID,QPSK (99% BW)



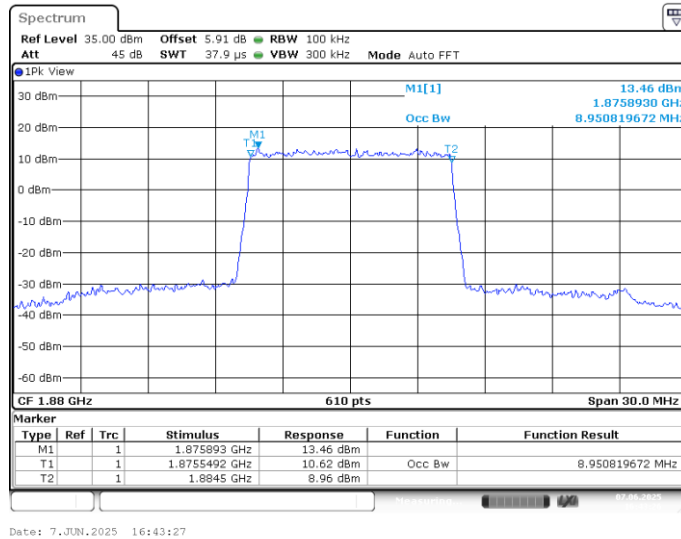
LTE band 2 , 5MHz Bandwidth,MID,16QAM (99% BW)



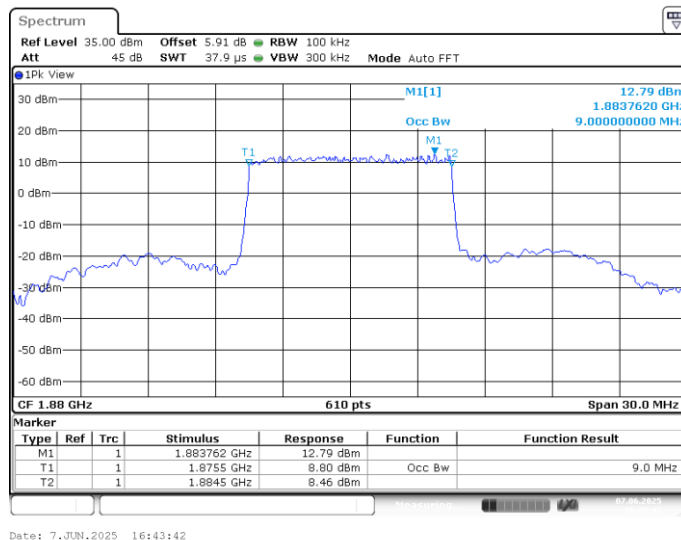
LTE band 2,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	8.951	9.000

LTE band 2 , 10MHz Bandwidth,MID,QPSK (99% BW)



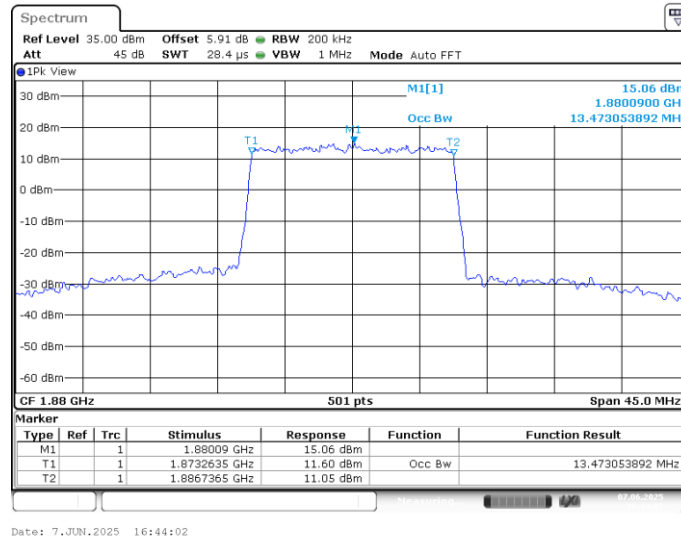
LTE band 2 , 10MHz Bandwidth,MID,16QAM (99% BW)



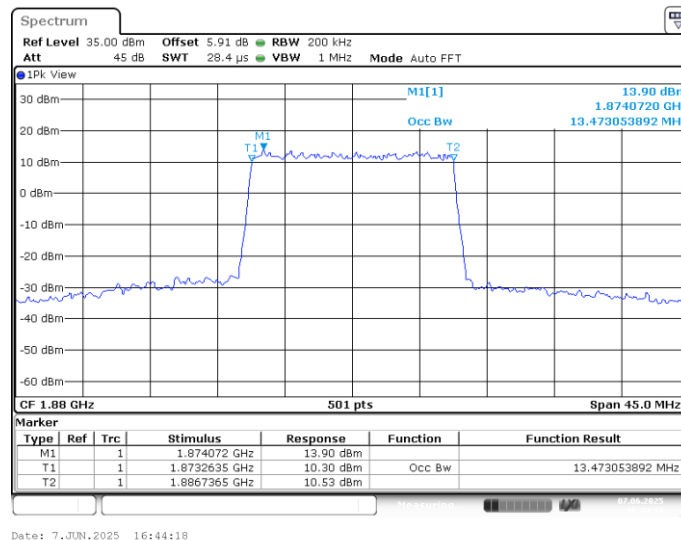
LTE band 2,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	13.473	13.473

LTE band 2 , 15MHz Bandwidth,MID,QPSK (99% BW)



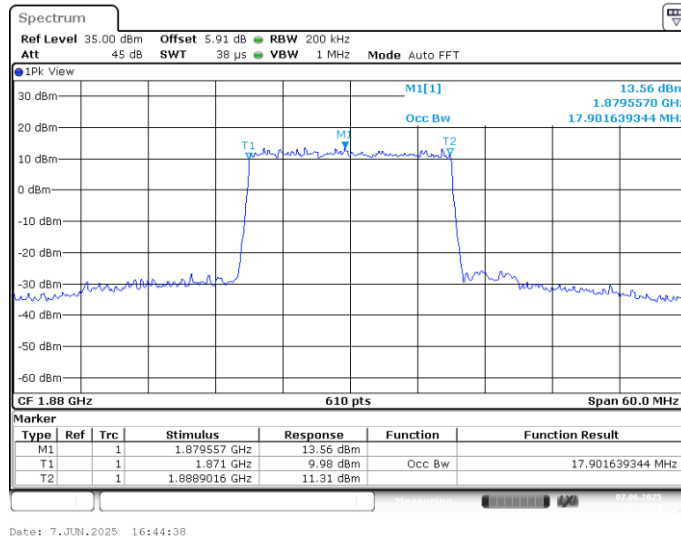
LTE band 2 , 15MHz Bandwidth,MID,16QAM (99% BW)



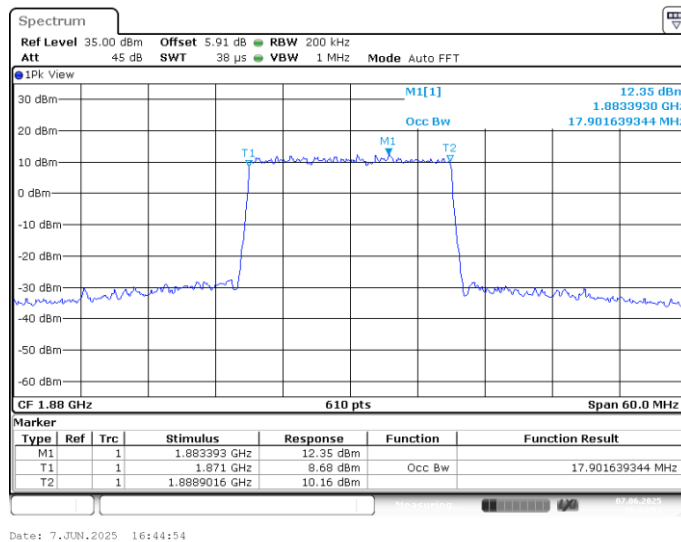
LTE band 2,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	17.902	17.902

LTE band 2 , 20MHz Bandwidth,MID,QPSK (99% BW)



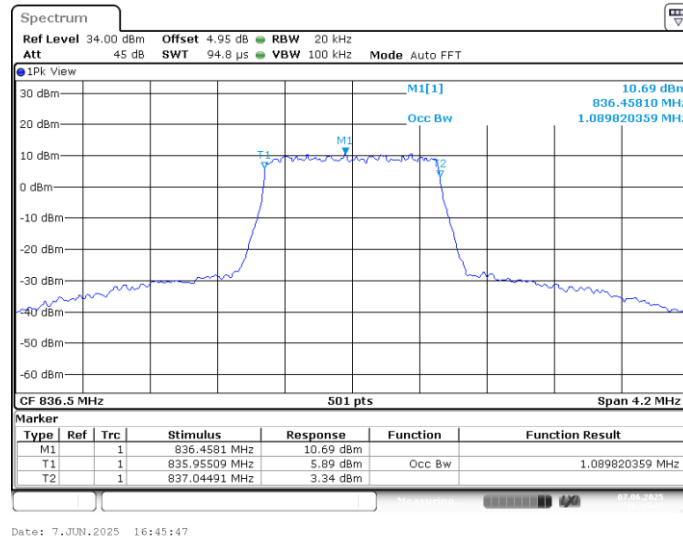
LTE band 2 , 20MHz Bandwidth,MID,16QAM (99% BW)



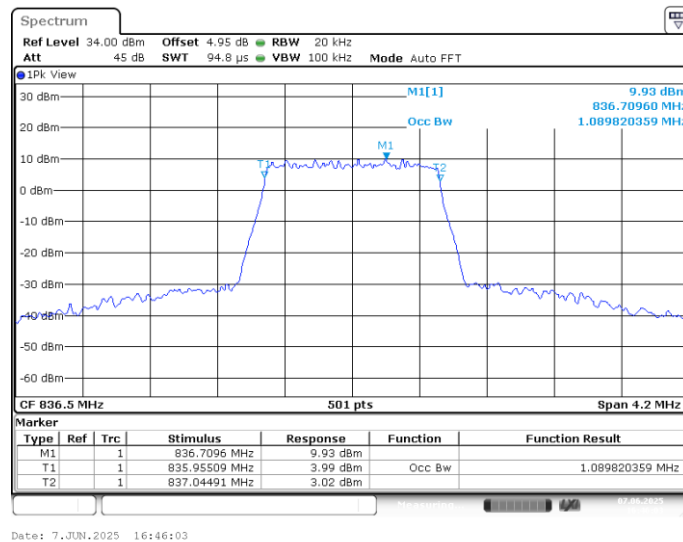
LTE band 5,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	1.090	1.090

LTE band 5 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



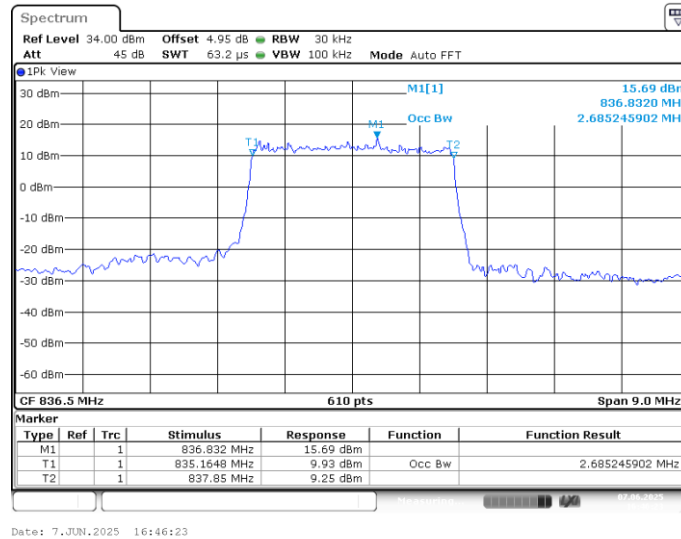
LTE band 5 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



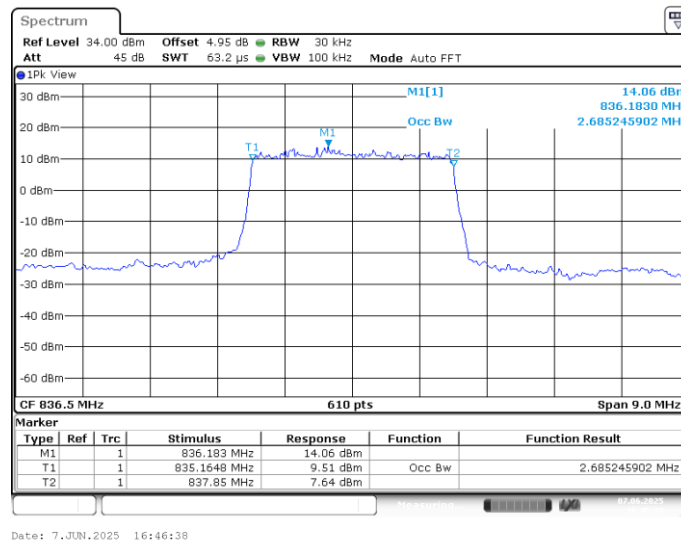
LTE band 5,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	2.685	2.685

LTE band 5 , 3MHz Bandwidth,MID,QPSK (99% BW)



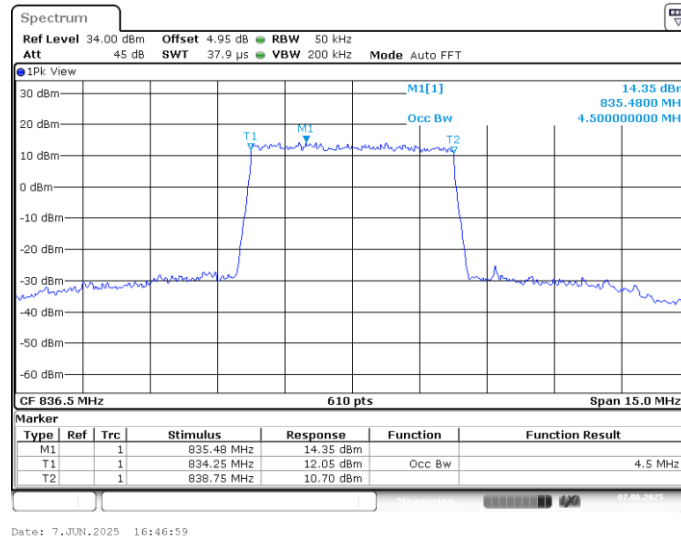
LTE band 5 , 3MHz Bandwidth,MID,16QAM (99% BW)



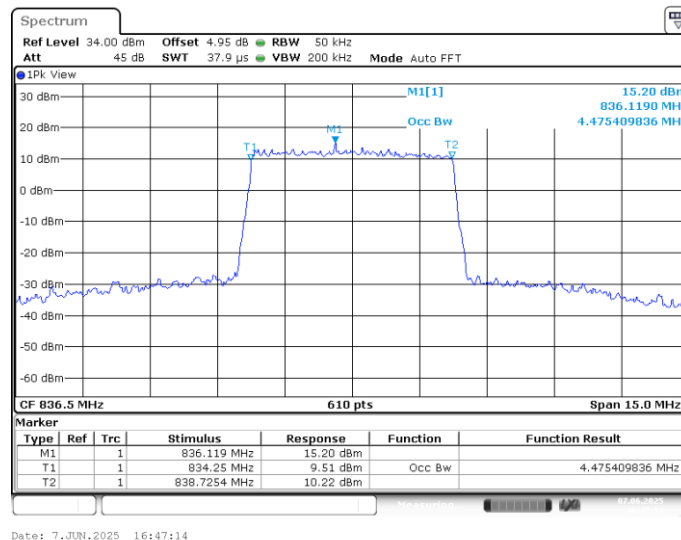
LTE band 5,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	4.500	4.475

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



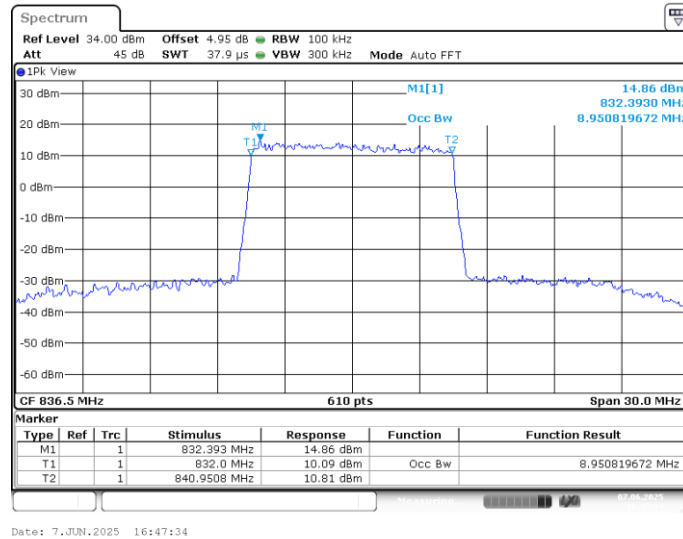
LTE band 5 , 5MHz Bandwidth,MID,16QAM (99% BW)



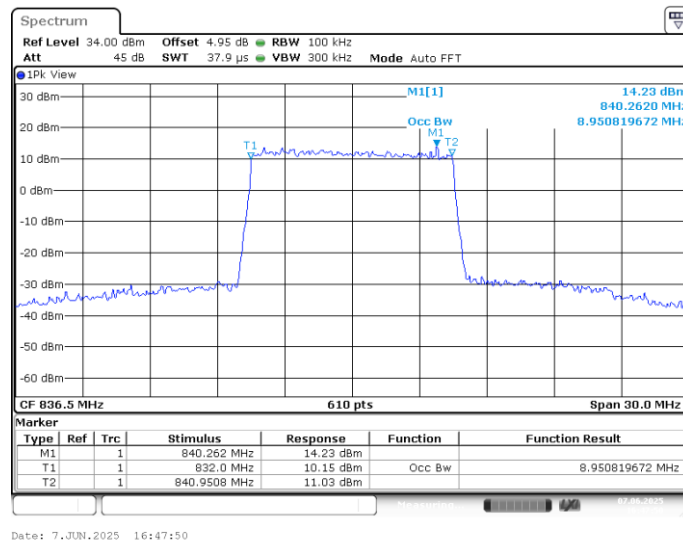
LTE band 5,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	8.951	8.951

LTE band 5 , 10MHz Bandwidth,MID,QPSK (99% BW)



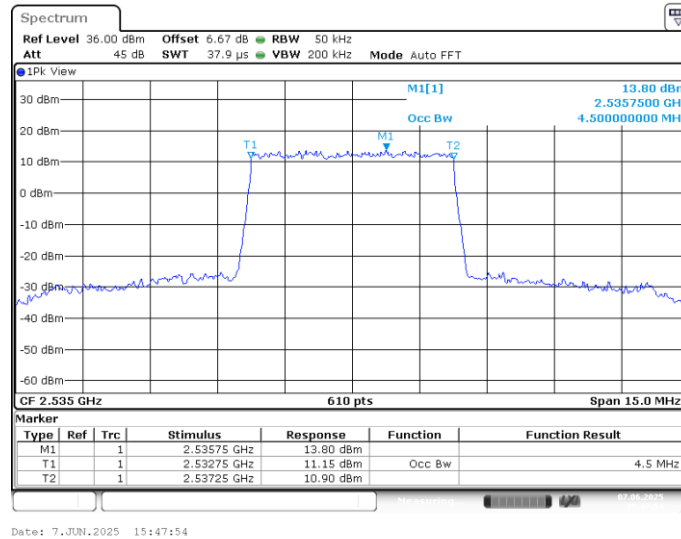
LTE band 5 , 10MHz Bandwidth,MID,16QAM (99% BW)



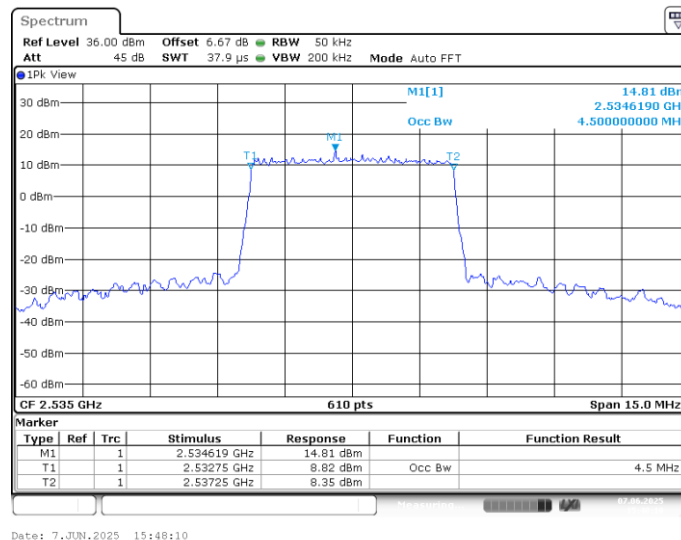
LTE band 7,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	4.500	4.500

LTE band 7 , 5MHz Bandwidth,MID,QPSK (99% BW)



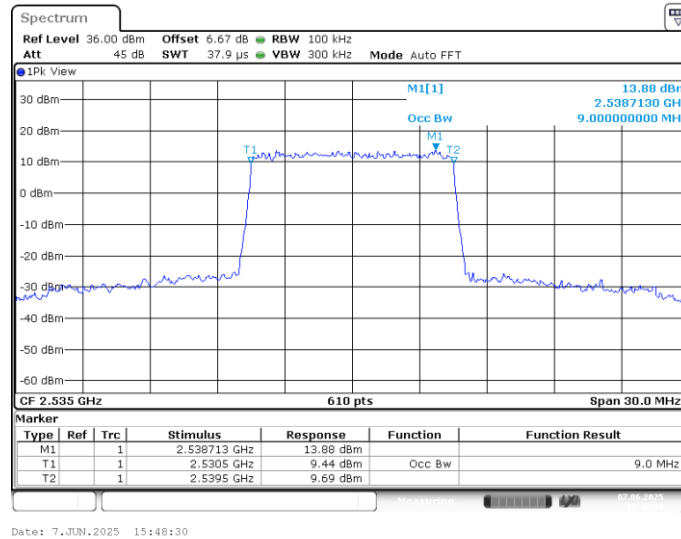
LTE band 7 , 5MHz Bandwidth,MID,16QAM (99% BW)



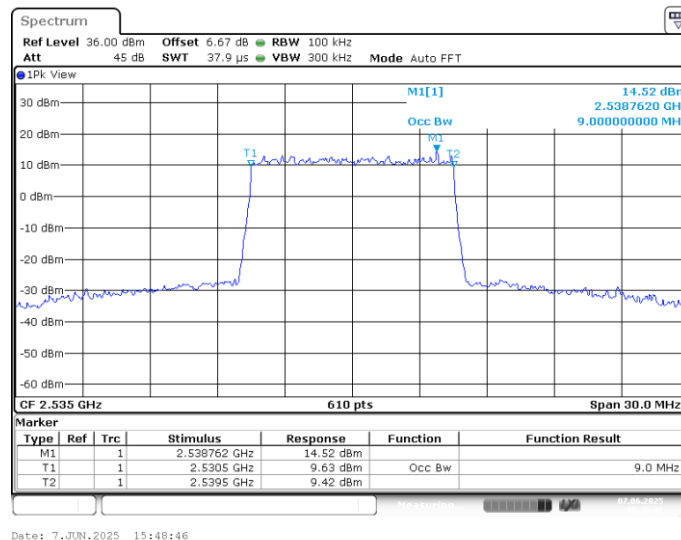
LTE band 7,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	9.000	9.000

LTE band 7 , 10MHz Bandwidth,MID,QPSK (99% BW)



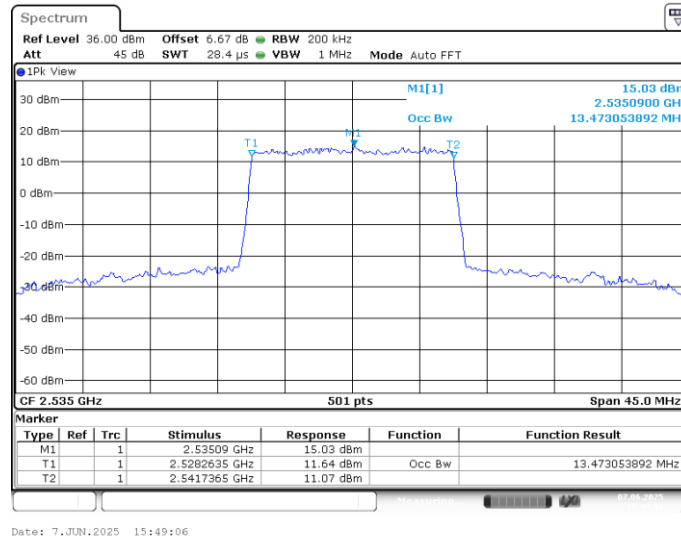
LTE band 7 , 10MHz Bandwidth,MID,16QAM (99% BW)



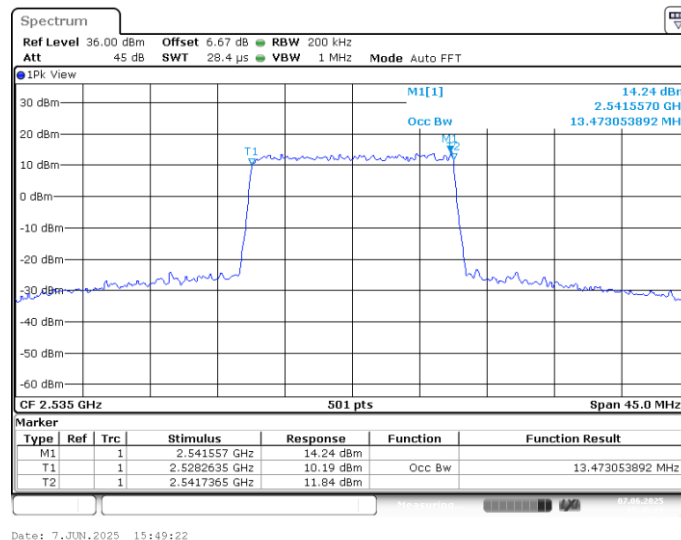
LTE band 7,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	13.473	13.473

LTE band 7 , 15MHz Bandwidth,MID,QPSK (99% BW)



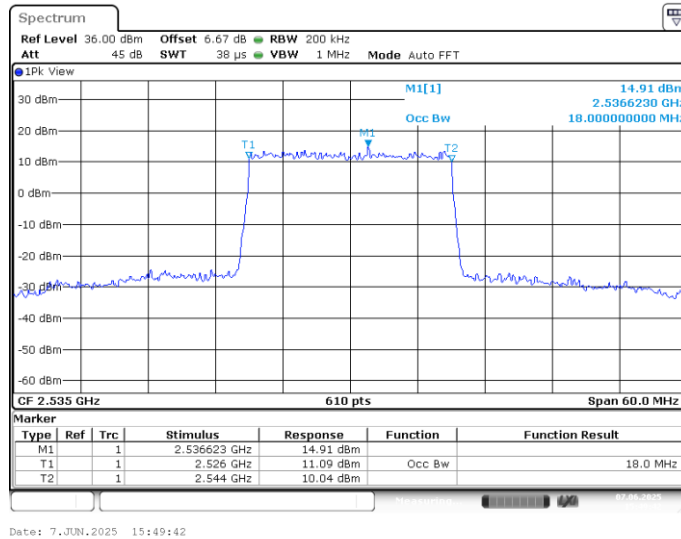
LTE band 7 , 15MHz Bandwidth,MID,16QAM (99% BW)



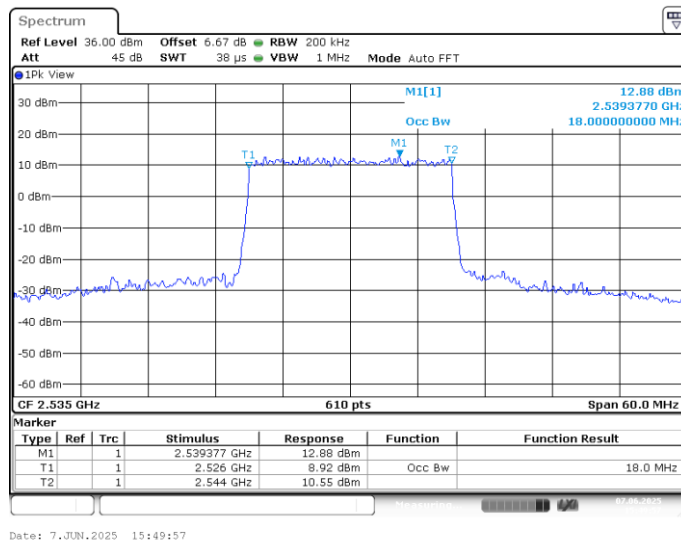
LTE band 7,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	18.000	18.000

LTE band 7 , 20MHz Bandwidth,MID,QPSK (99% BW)



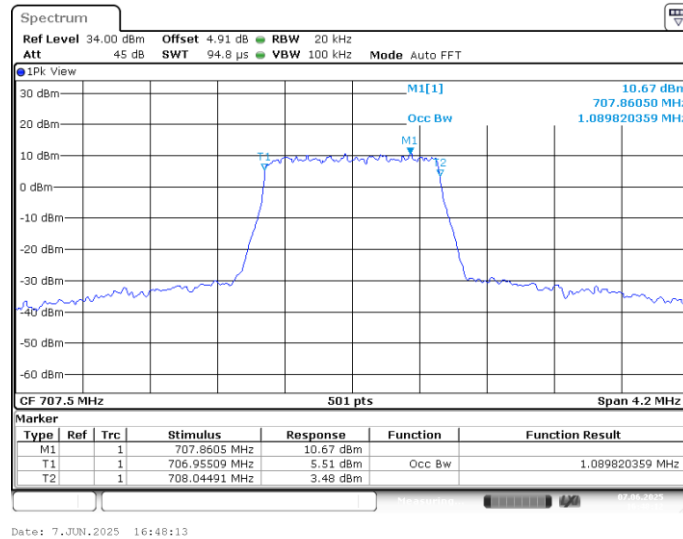
LTE band 7 , 20MHz Bandwidth,MID,16QAM (99% BW)



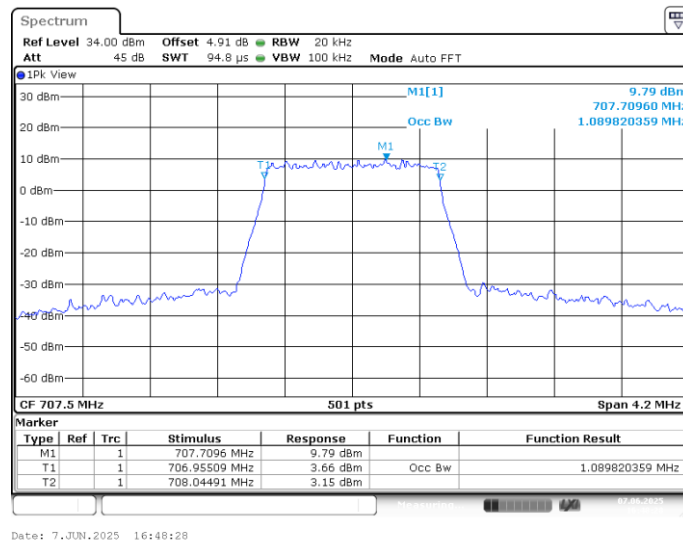
LTE band 12,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
707.5	1.090	1.090

LTE band 12 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



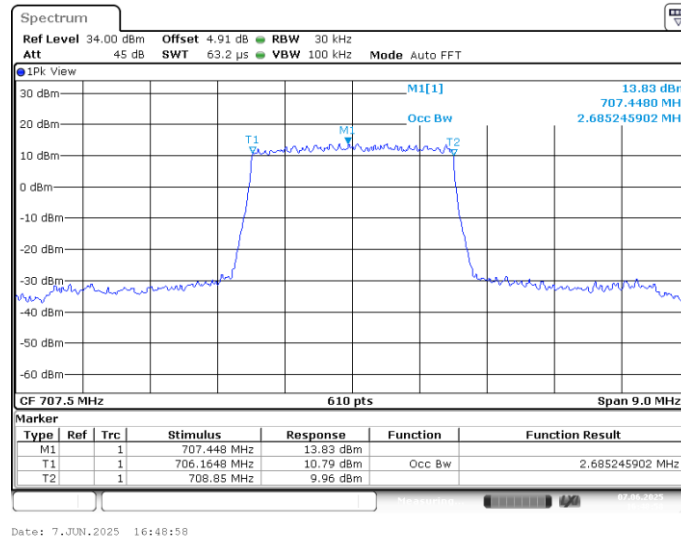
LTE band 12 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



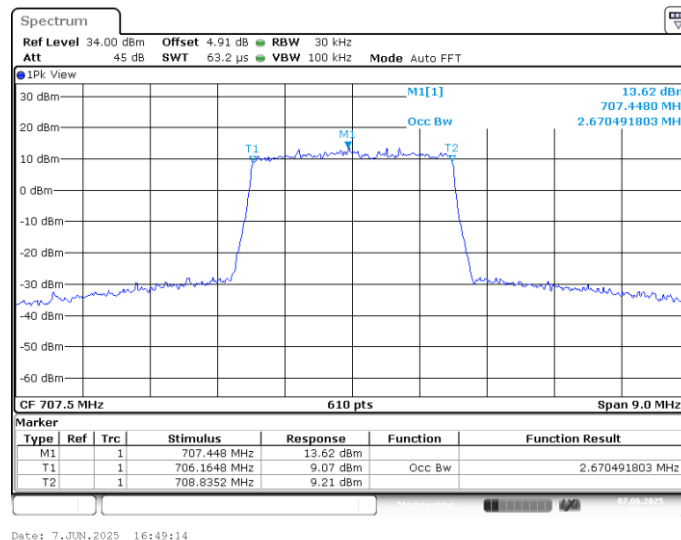
LTE band 12,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
707.5	2.685	2.670

LTE band 12 , 3MHz Bandwidth,MID,QPSK (99% BW)



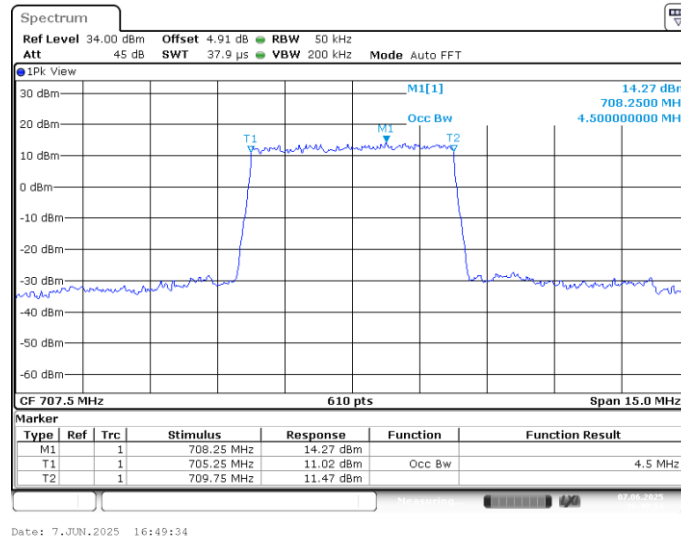
LTE band 12 , 3MHz Bandwidth,MID,16QAM (99% BW)



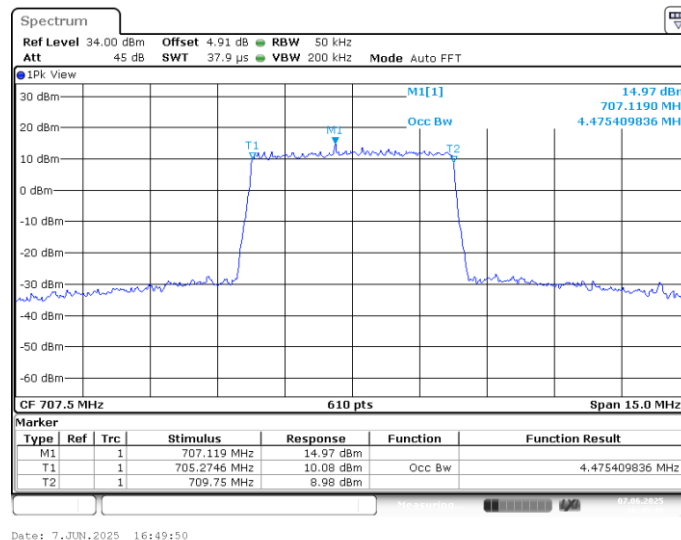
LTE band 12,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
707.5	4.500	4.475

LTE band 12 , 5MHz Bandwidth,MID,QPSK (99% BW)



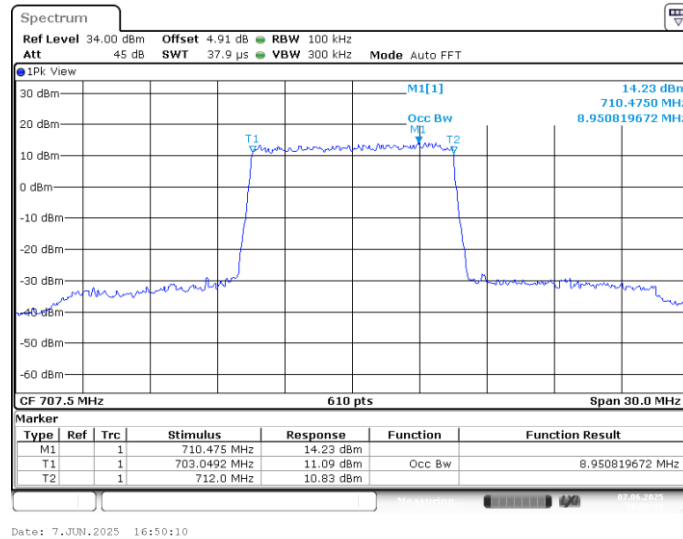
LTE band 12 , 5MHz Bandwidth,MID,16QAM (99% BW)



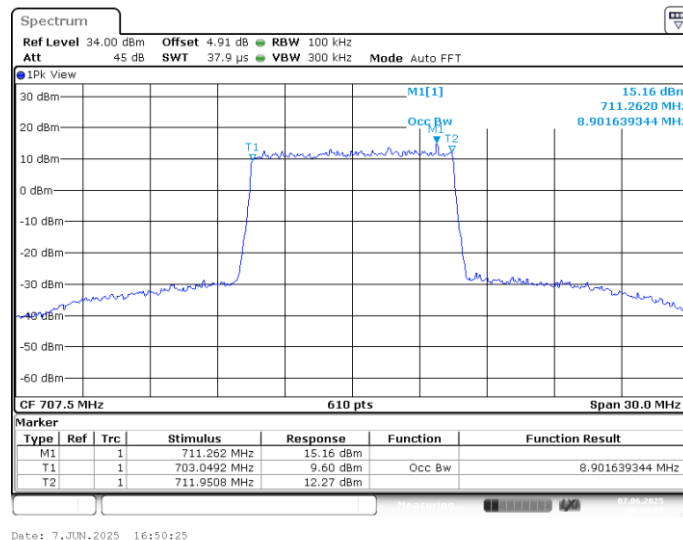
LTE band 12,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
707.5	8.951	8.902

LTE band 12 , 10MHz Bandwidth,MID,QPSK (99% BW)



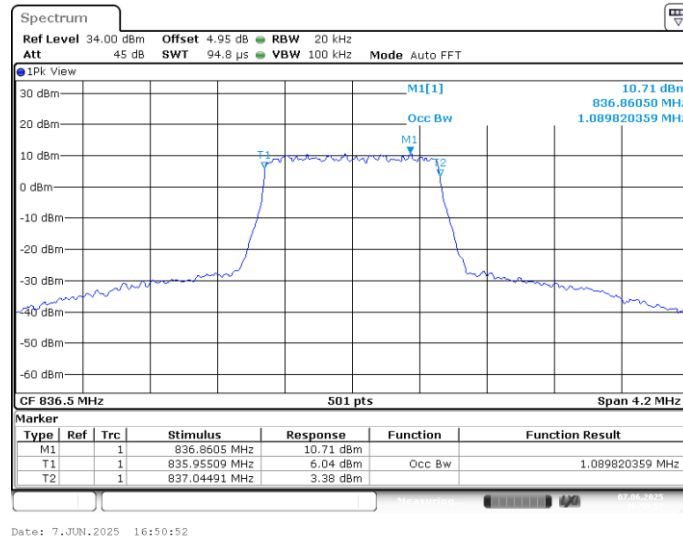
LTE band 12 , 10MHz Bandwidth,MID,16QAM (99% BW)



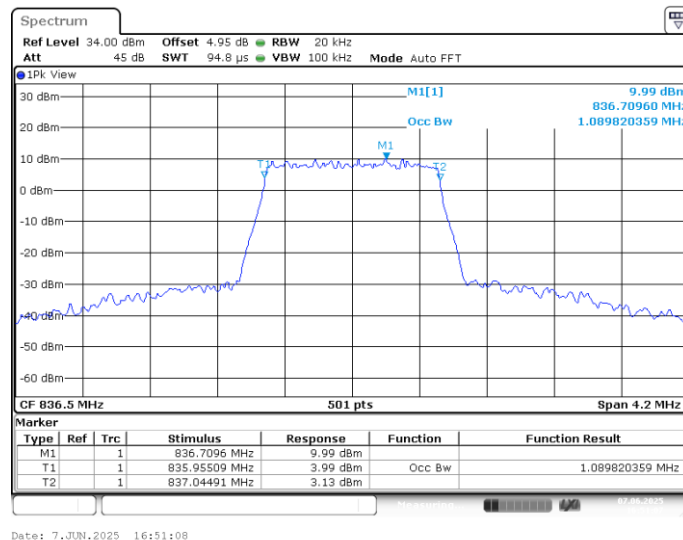
LTE band 26_Part22,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	1.090	1.090

LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



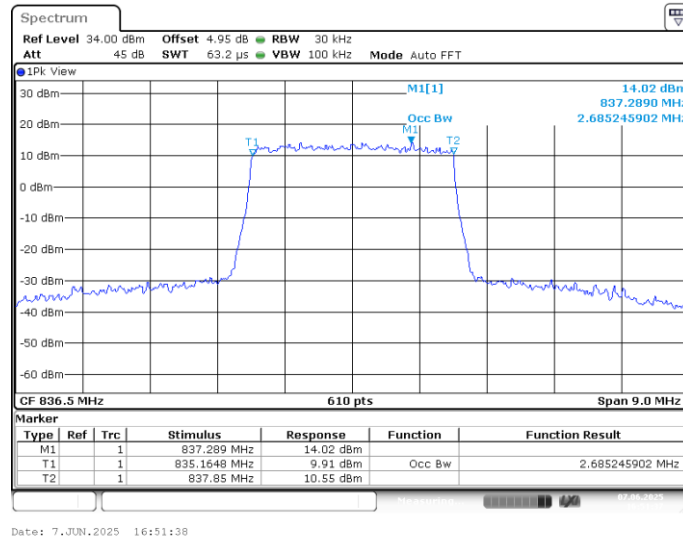
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



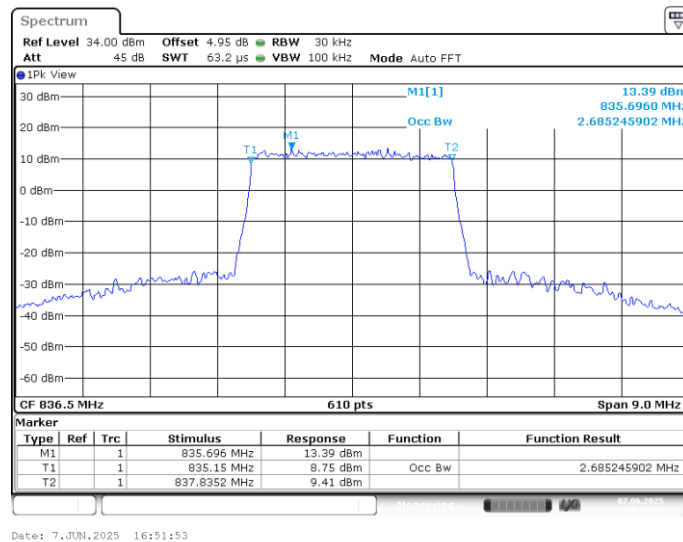
LTE band 26_Part22,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	2.685	2.685

LTE band 26 , 3MHz Bandwidth,MID,QPSK (99% BW)



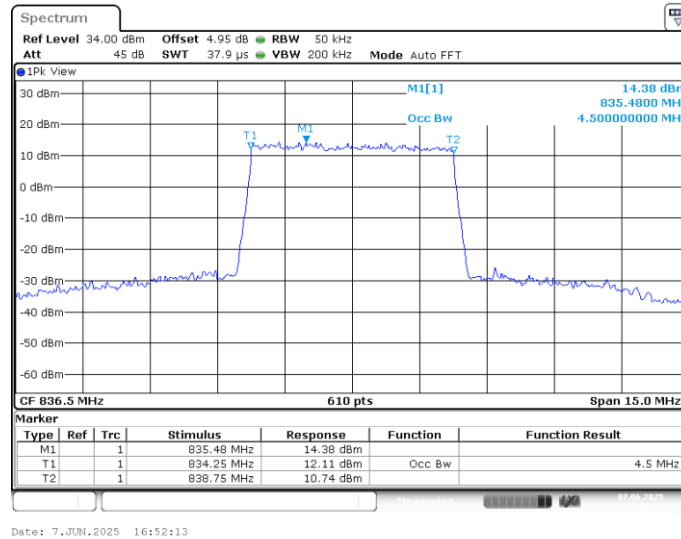
LTE band 26 , 3MHz Bandwidth,MID,16QAM (99% BW)



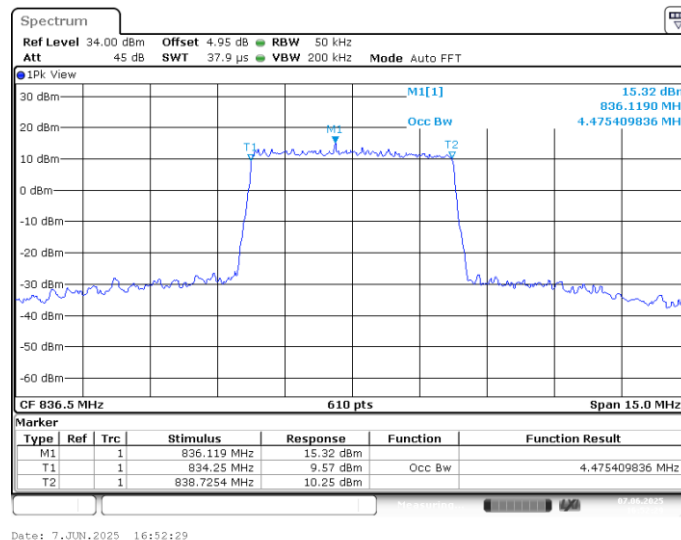
LTE band 26_Part22,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	4.500	4.475

LTE band 26 , 5MHz Bandwidth,MID,QPSK (99% BW)



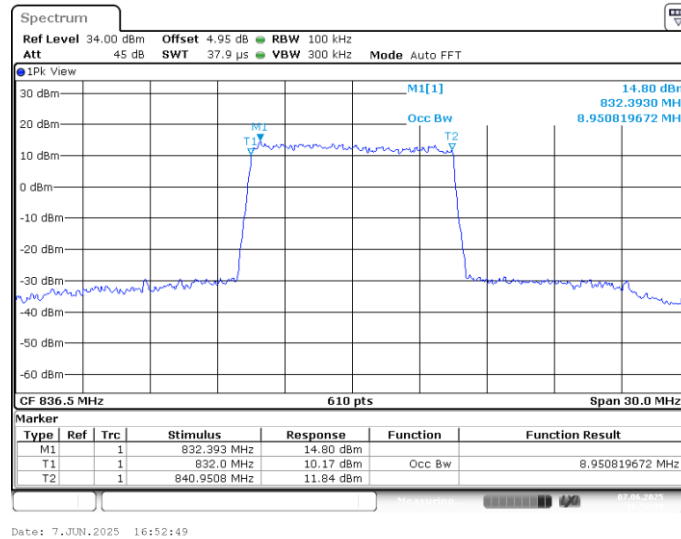
LTE band 26 , 5MHz Bandwidth,MID,16QAM (99% BW)



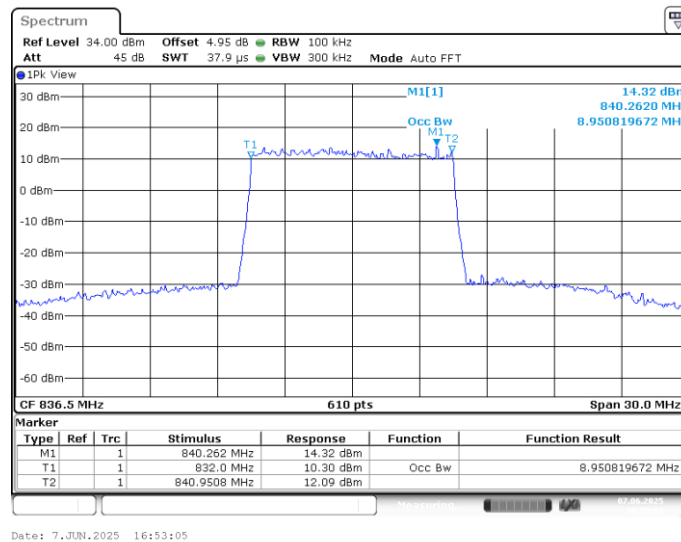
LTE band 26_Part22,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	8.951	8.951

LTE band 26 , 10MHz Bandwidth,MID,QPSK (99% BW)



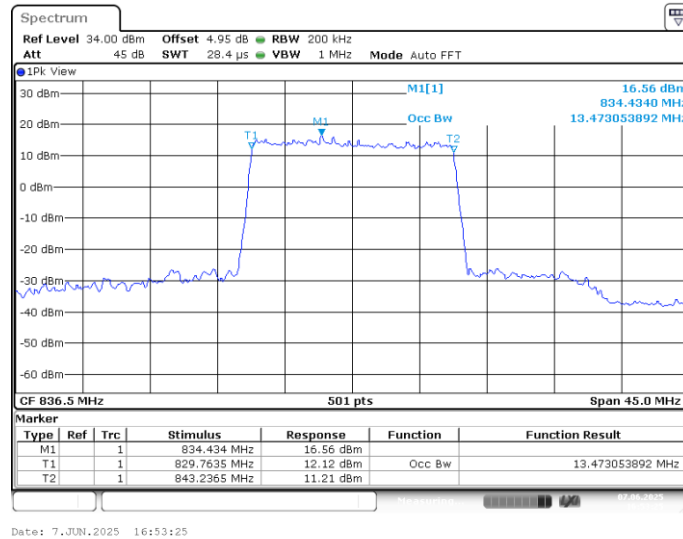
LTE band 26 , 10MHz Bandwidth,MID,16QAM (99% BW)



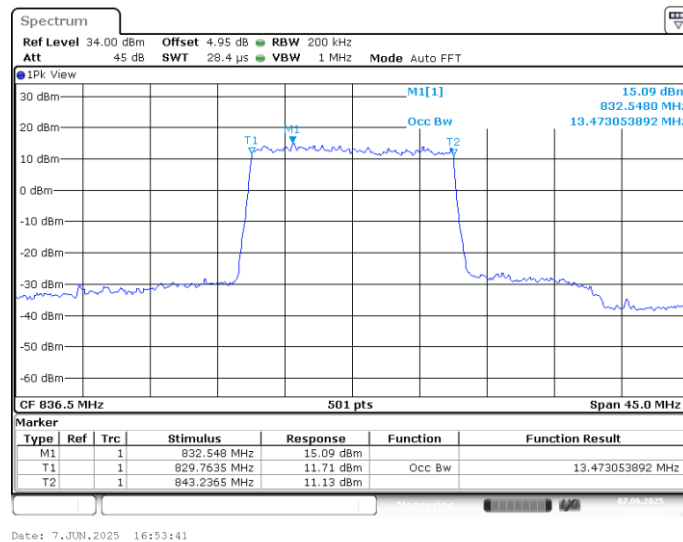
LTE band 26_Part22,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	13.473	13.473

LTE band 26 , 15MHz Bandwidth,MID,QPSK (99% BW)



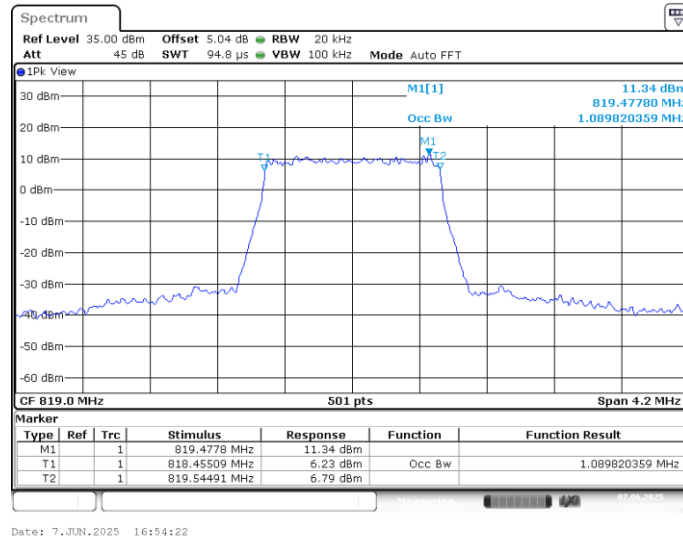
LTE band 26 , 15MHz Bandwidth,MID,16QAM (99% BW)



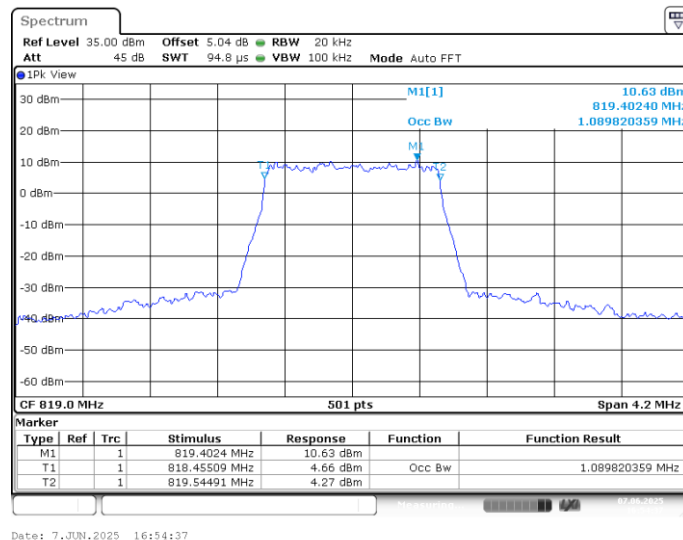
LTE band 26_Part90,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
819	1.090	1.090

LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



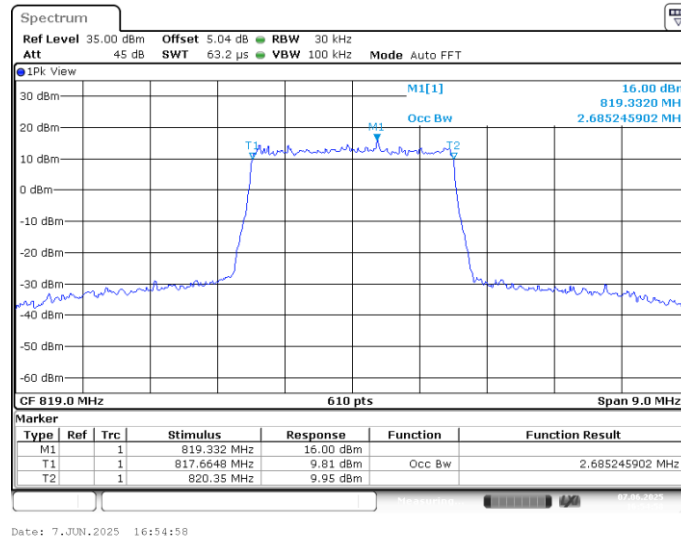
LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



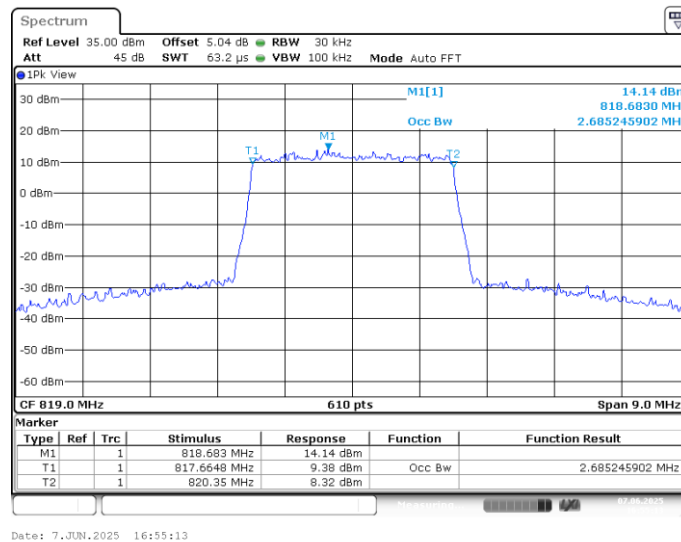
LTE band 26_Part90,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
819	2.685	2.685

LTE band 26 , 3MHz Bandwidth,MID,QPSK (99% BW)



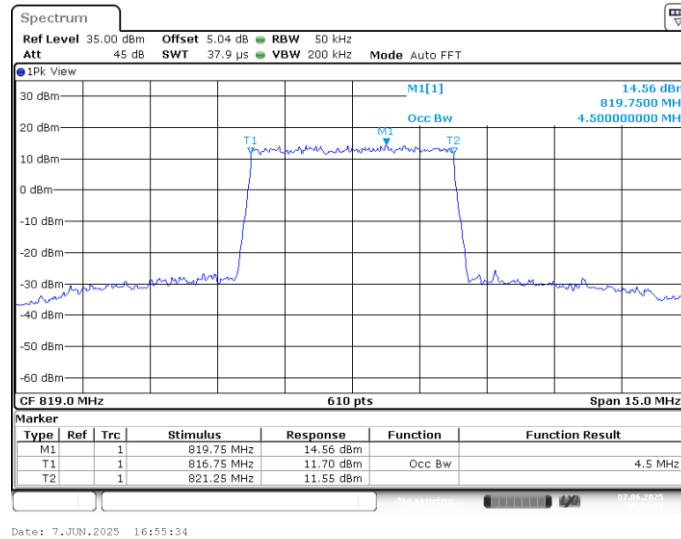
LTE band 26 , 3MHz Bandwidth,MID,16QAM (99% BW)



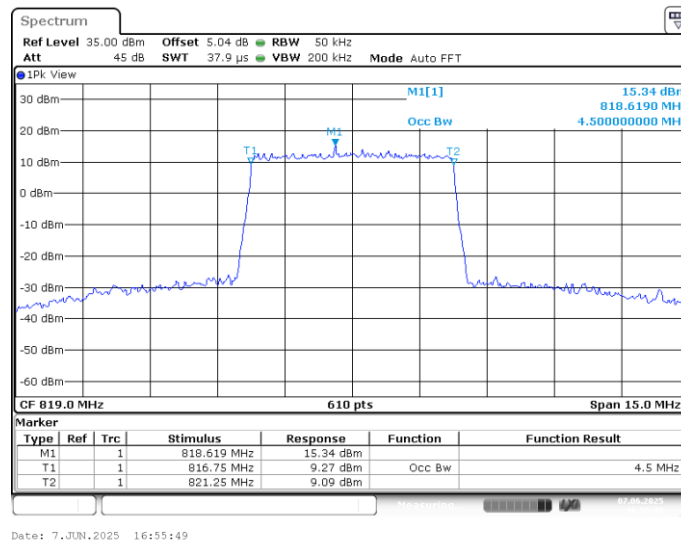
LTE band 26_Part90,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
819	4.500	4.500

LTE band 26 , 5MHz Bandwidth,MID,QPSK (99% BW)



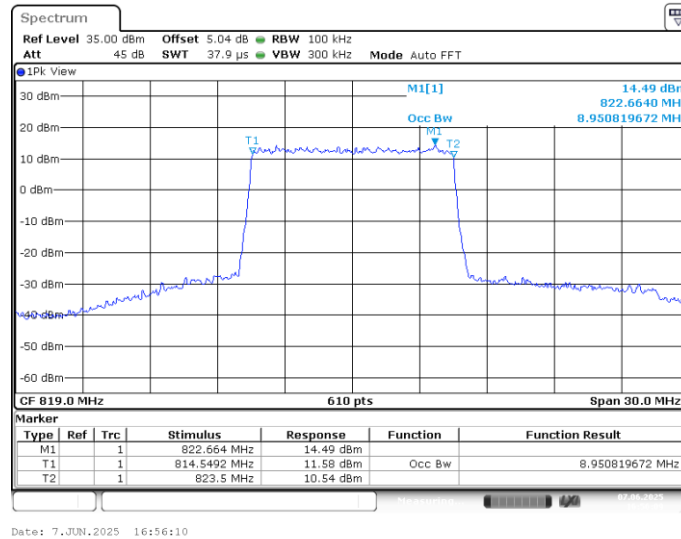
LTE band 26 , 5MHz Bandwidth,MID,16QAM (99% BW)



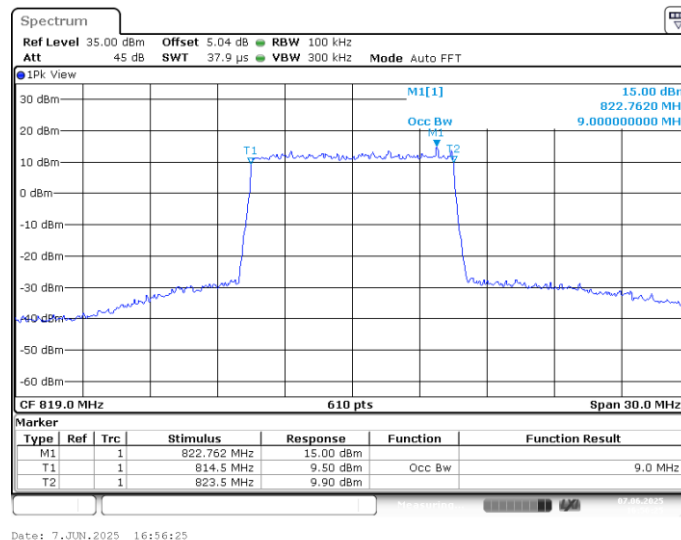
LTE band 26_Part90,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
819	8.951	9.000

LTE band 26 , 10MHz Bandwidth,MID,QPSK (99% BW)



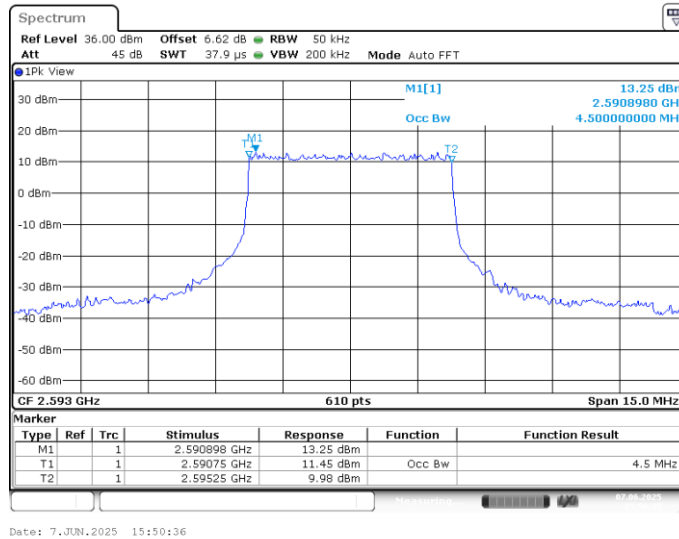
LTE band 26 , 10MHz Bandwidth,MID,16QAM (99% BW)



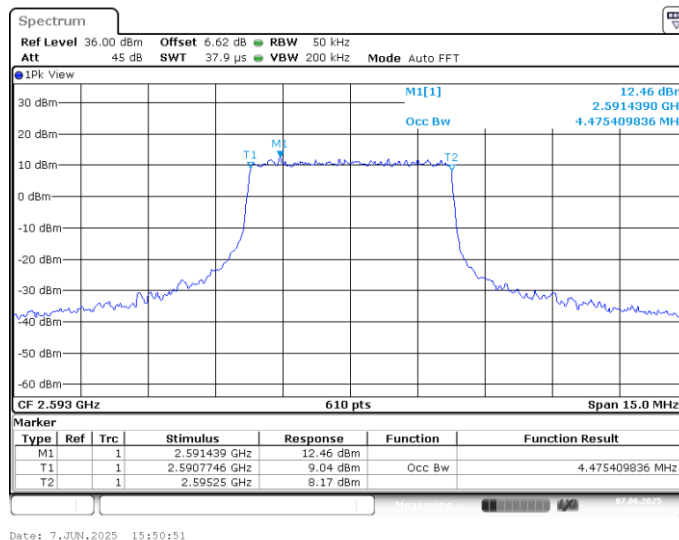
LTE band 41,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2593	4.500	4.475

LTE band 41 , 5MHz Bandwidth,MID,QPSK (99% BW)



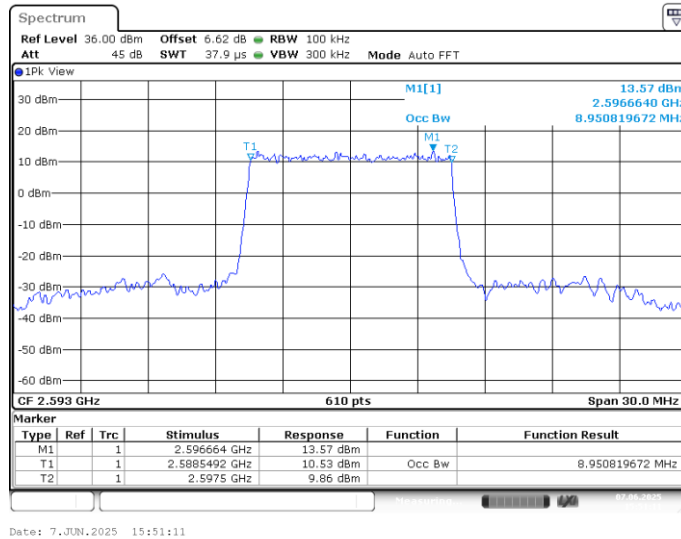
LTE band 41 , 5MHz Bandwidth,MID,16QAM (99% BW)



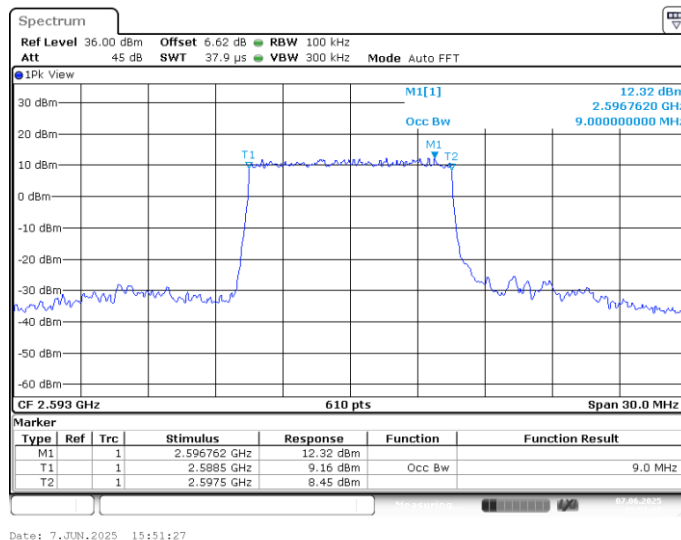
LTE band 41,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2593	8.951	9.000

LTE band 41 , 10MHz Bandwidth,MID,QPSK (99% BW)



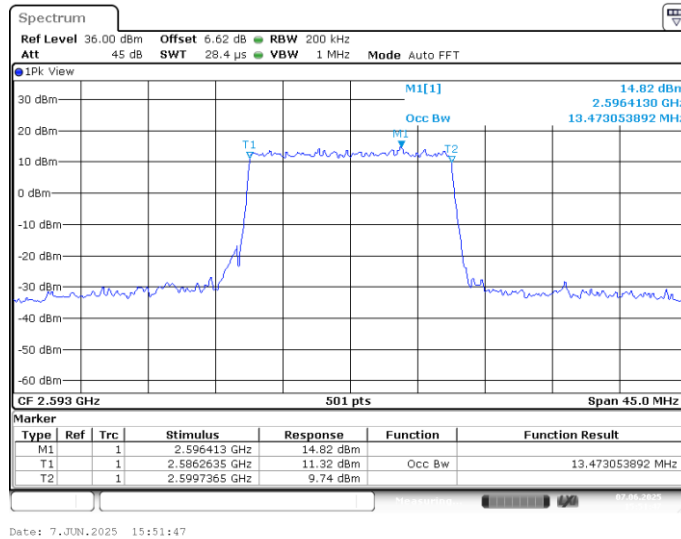
LTE band 41 , 10MHz Bandwidth,MID,16QAM (99% BW)



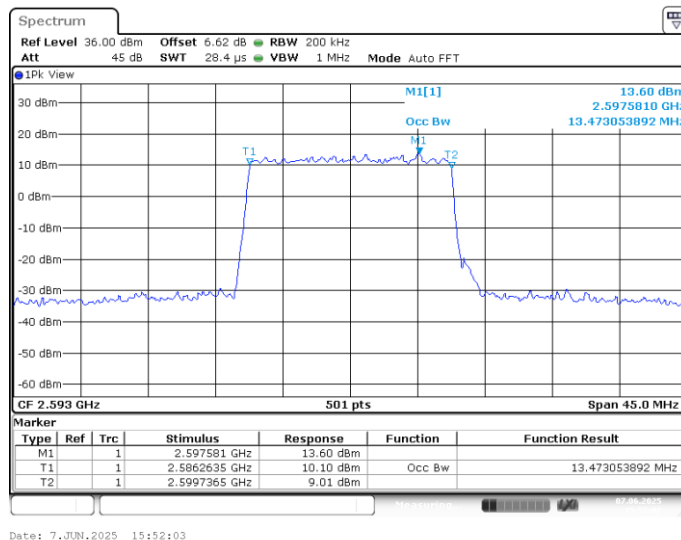
LTE band 41,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2593	13.473	13.473

LTE band 41 , 15MHz Bandwidth,MID,QPSK (99% BW)



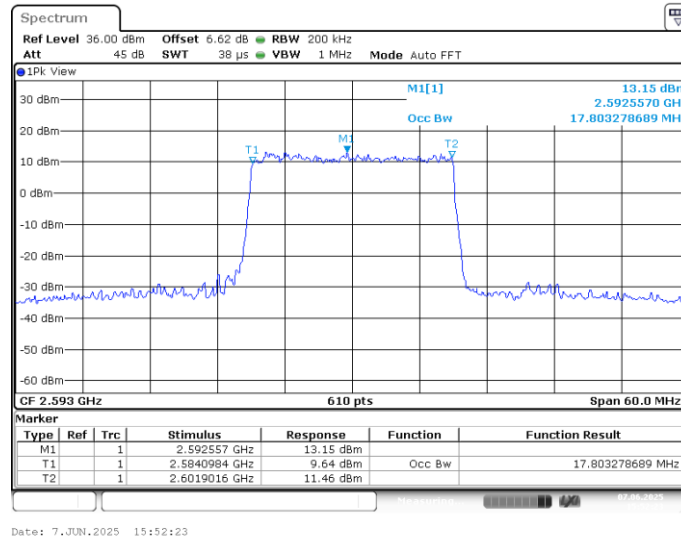
LTE band 41 , 15MHz Bandwidth,MID,16QAM (99% BW)



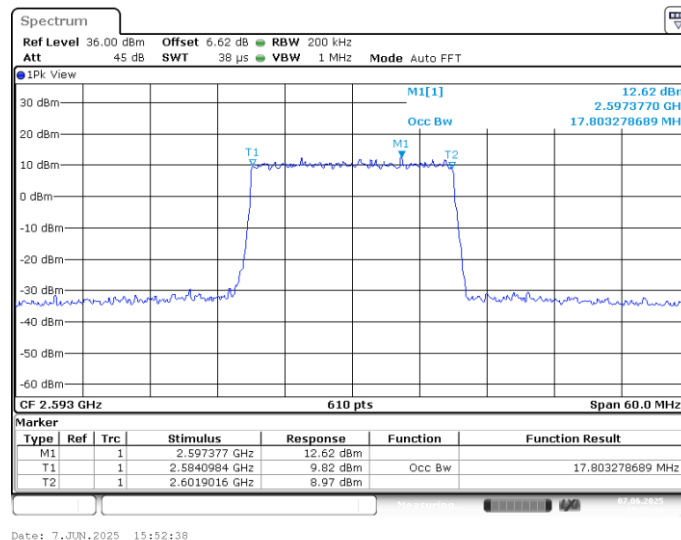
LTE band 41,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2593	17.803	17.803

LTE band 41 , 20MHz Bandwidth,MID,QPSK (99% BW)



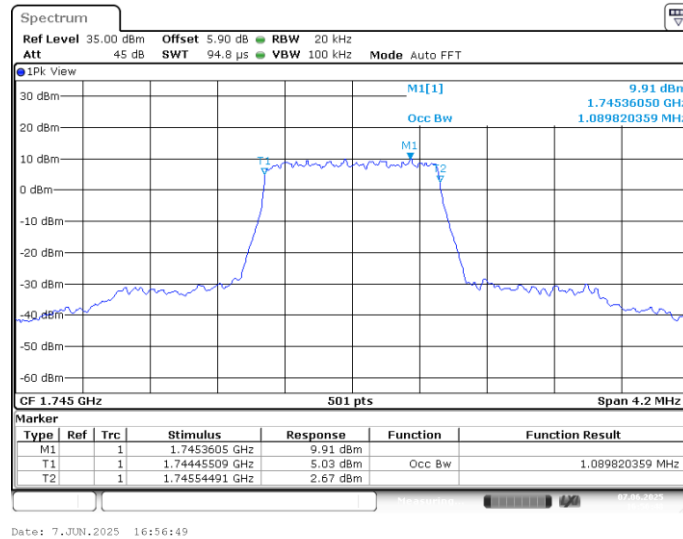
LTE band 41 , 20MHz Bandwidth,MID,16QAM (99% BW)



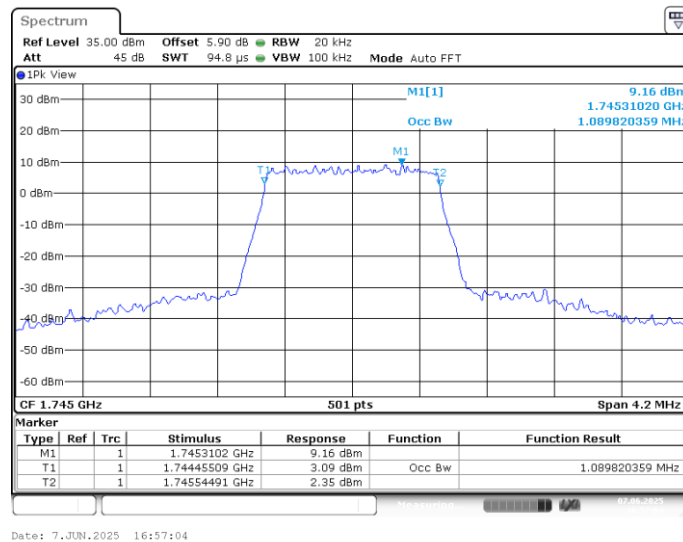
LTE band 66,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	1.090	1.090

LTE band 66 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



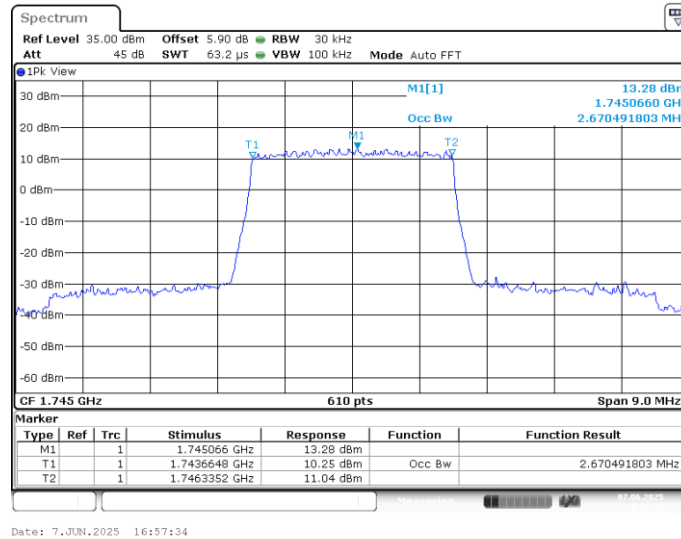
LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



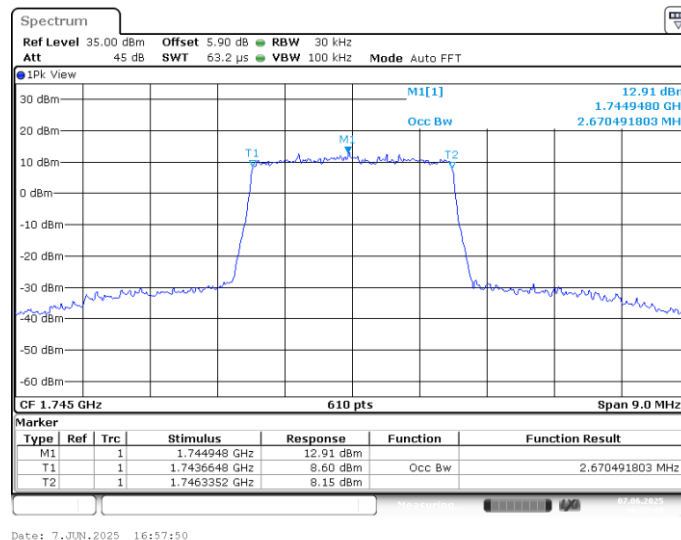
LTE band 66,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	2.670	2.670

LTE band 66 , 3MHz Bandwidth,MID,QPSK (99% BW)



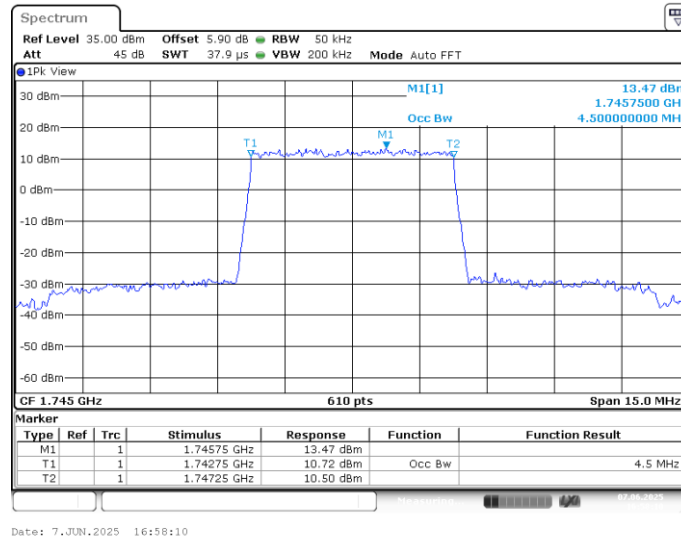
LTE band 66 , 3MHz Bandwidth,MID,16QAM (99% BW)



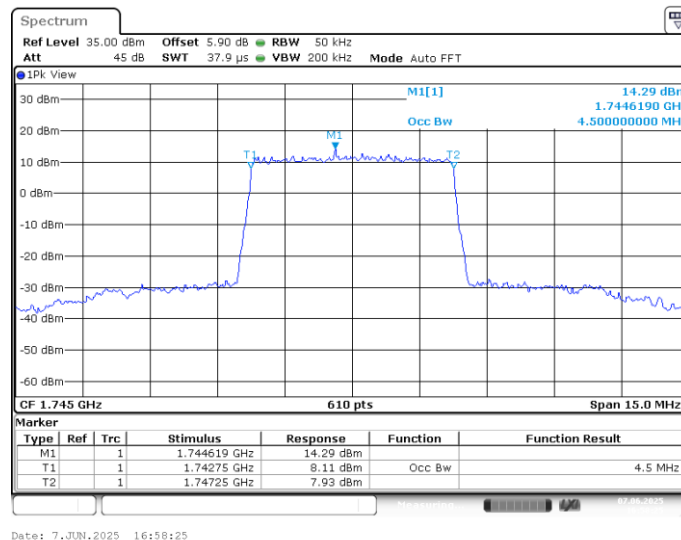
LTE band 66,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	4.500	4.500

LTE band 66 , 5MHz Bandwidth,MID,QPSK (99% BW)



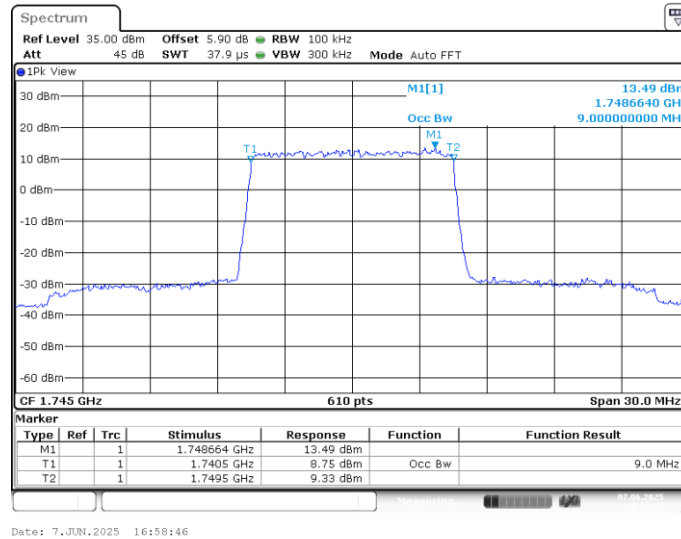
LTE band 66 , 5MHz Bandwidth,MID,16QAM (99% BW)



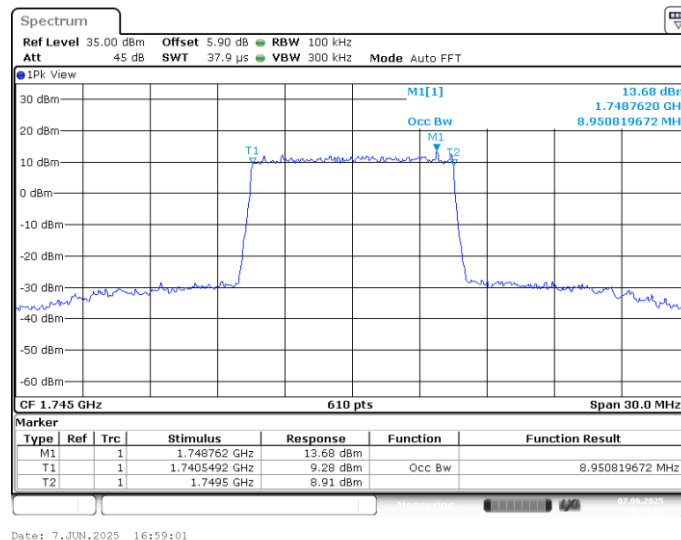
LTE band 66,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	9.000	8.951

LTE band 66 , 10MHz Bandwidth,MID,QPSK (99% BW)



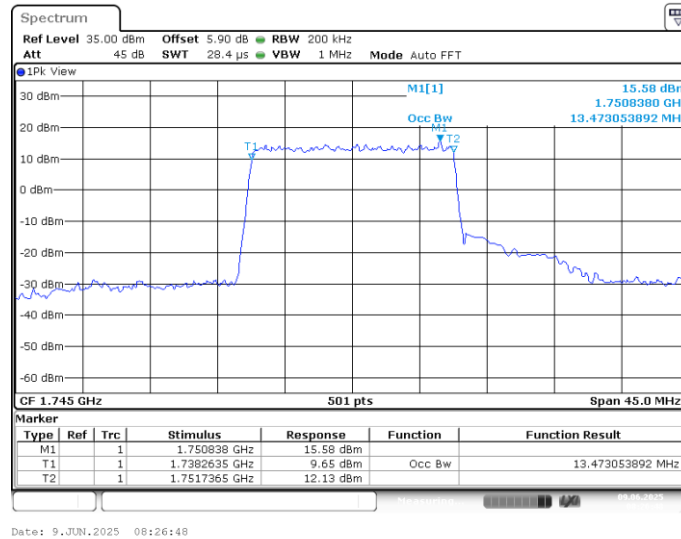
LTE band 66 , 10MHz Bandwidth,MID,16QAM (99% BW)



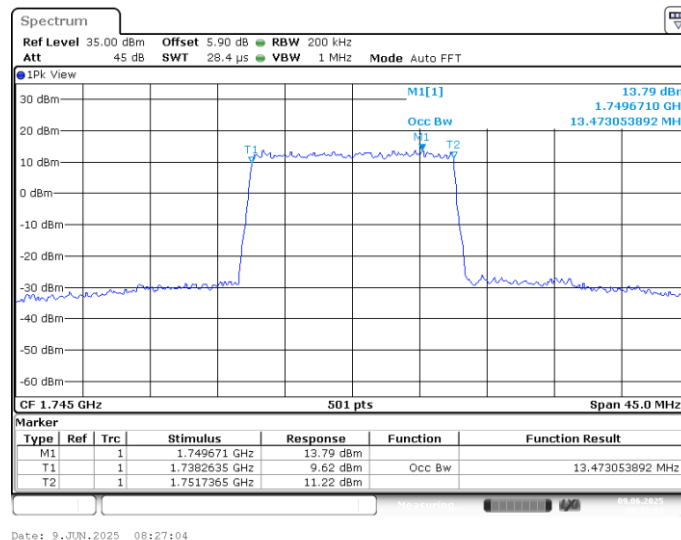
LTE band 66,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	13.473	13.473

LTE band 66 , 15MHz Bandwidth,MID,QPSK (99% BW)



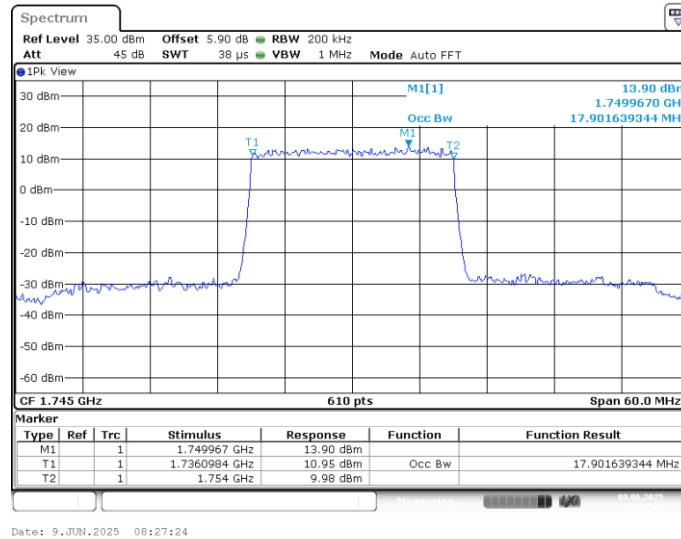
LTE band 66 , 15MHz Bandwidth,MID,16QAM (99% BW)



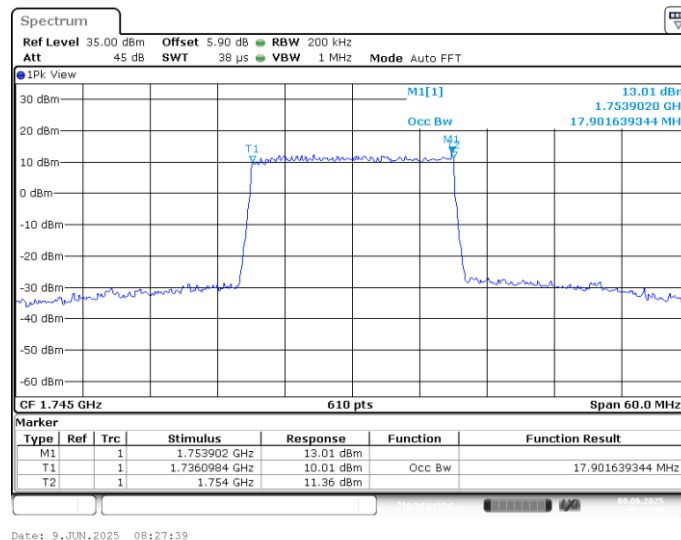
LTE band 66,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1745	17.902	17.902

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



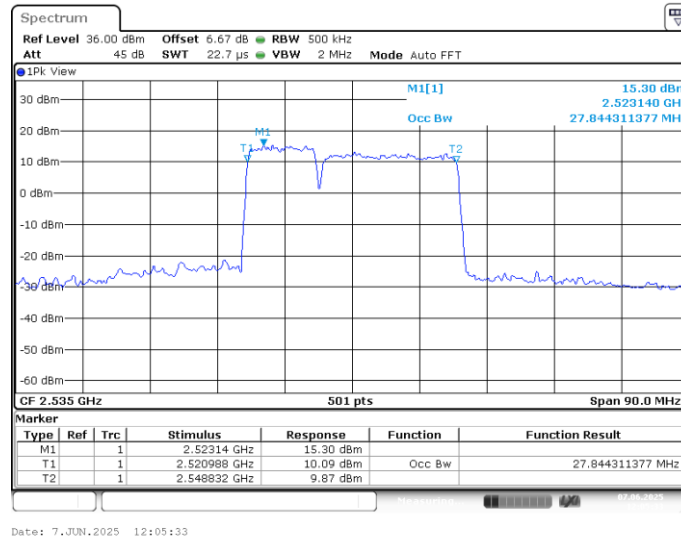
LTE band 66 , 20MHz Bandwidth,MID,16QAM (99% BW)



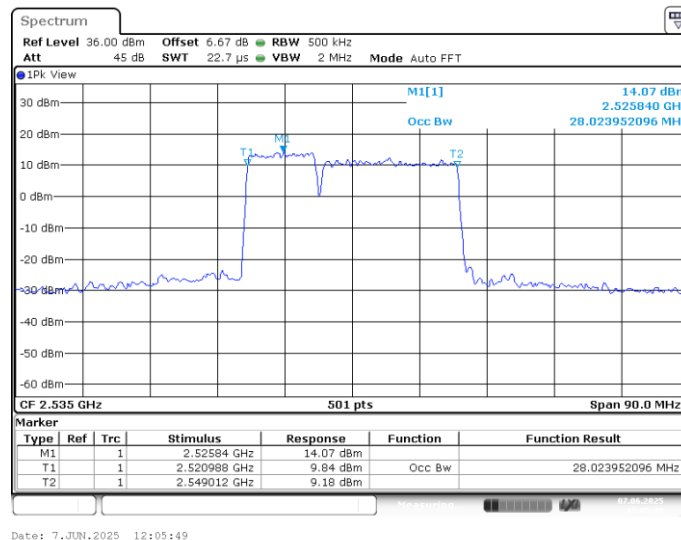
LTE CA band 7C, 10MHz+20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.844	28.024

LTE CA band 7C , 10MHz+20MHz Bandwidth,QPSK (99% BW)



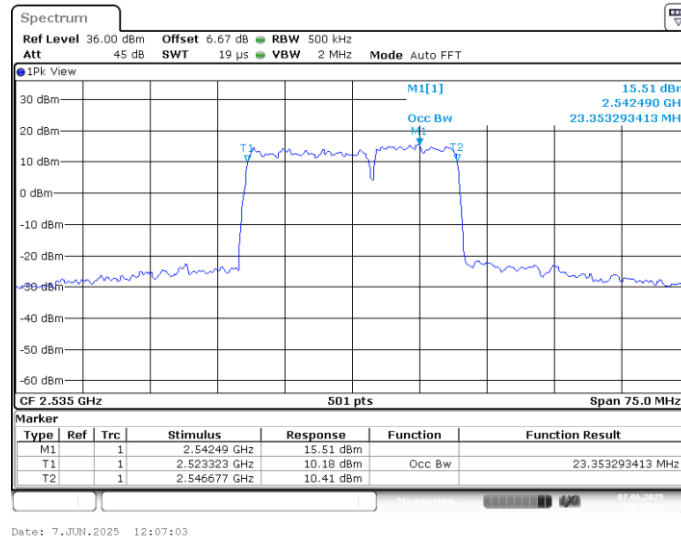
LTE CA band 7C , 10MHz+20MHz Bandwidth,16QAM (99% BW)



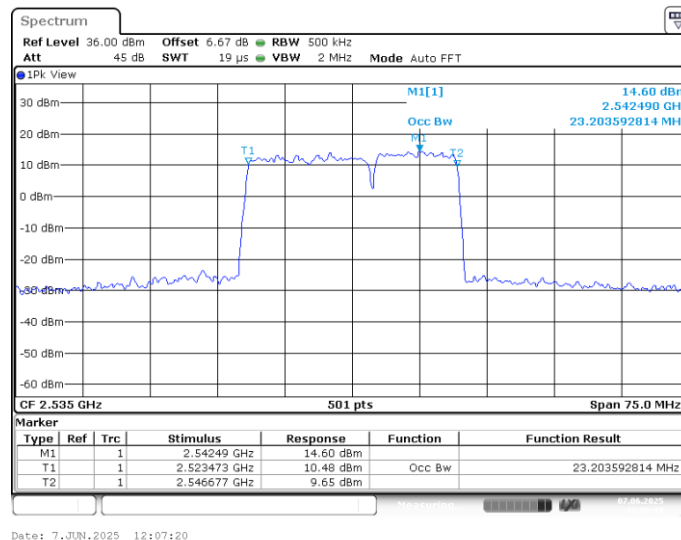
LTE CA band 7C, 15MHz+10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	23.353	23.204

LTE CA band 7C , 15MHz+10MHz Bandwidth,QPSK (99% BW)



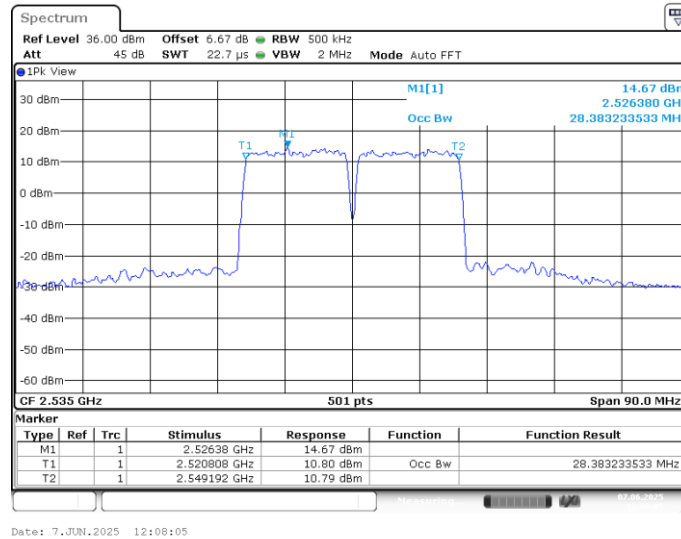
LTE CA band 7C , 15MHz+10MHz Bandwidth,16QAM (99% BW)



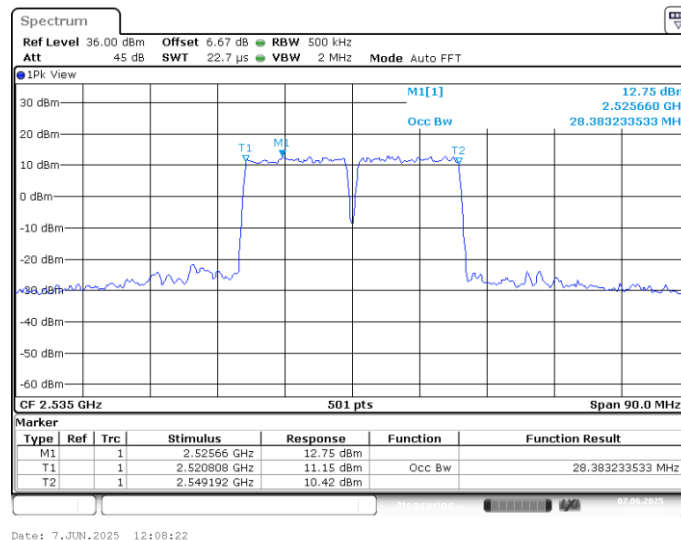
LTE CA band 7C, 15MHz+15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	28.383	28.383

LTE CA band 7C , 15MHz+15MHz Bandwidth,QPSK (99% BW)



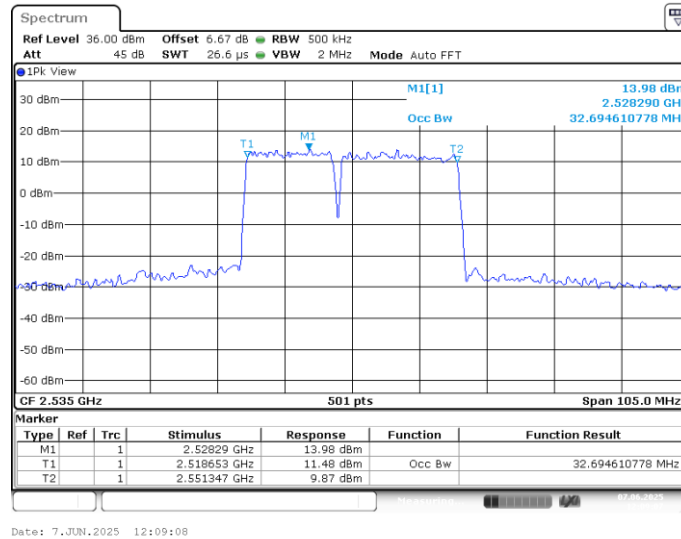
LTE CA band 7C , 15MHz+15MHz Bandwidth,16QAM (99% BW)



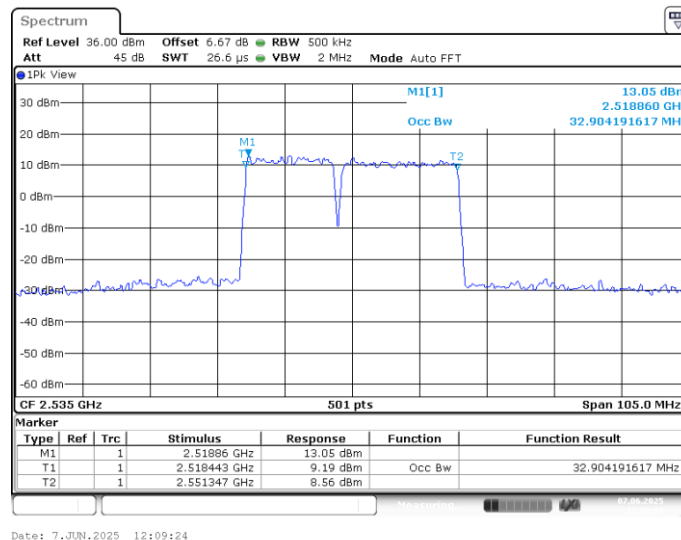
LTE CA band 7C, 15MHz+20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.695	32.904

LTE CA band 7C , 15MHz+20MHz Bandwidth,QPSK (99% BW)



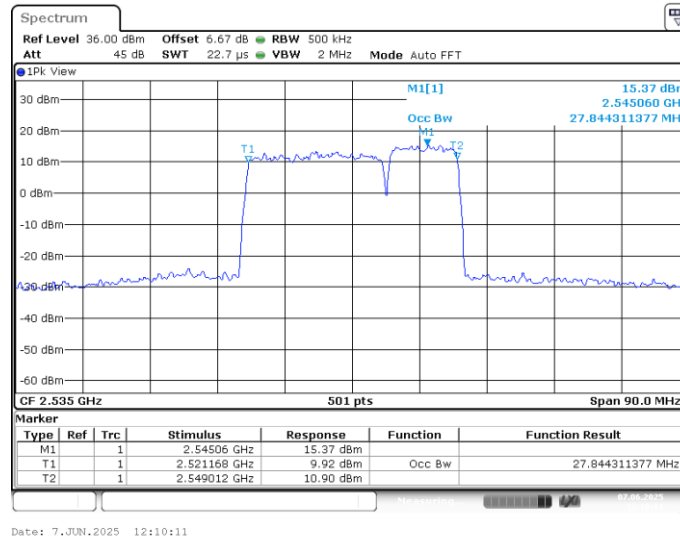
LTE CA band 7C , 15MHz+20MHz Bandwidth,16QAM (99% BW)



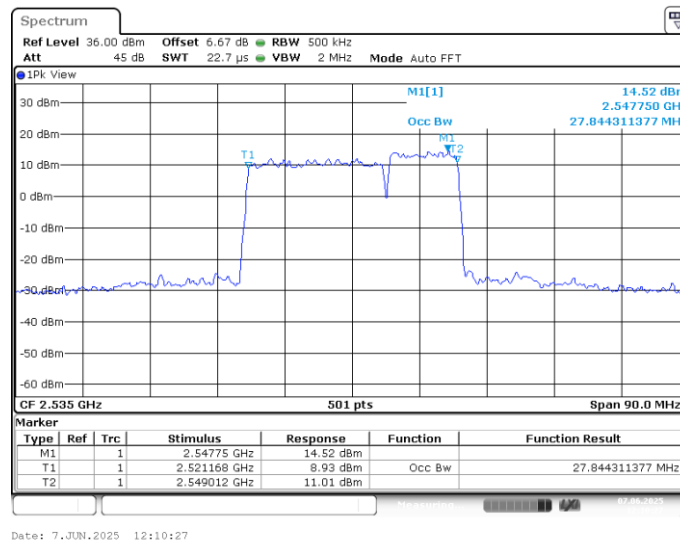
LTE CA band 7C, 20MHz+10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.844	27.844

LTE CA band 7C , 20MHz+10MHz Bandwidth,QPSK (99% BW)



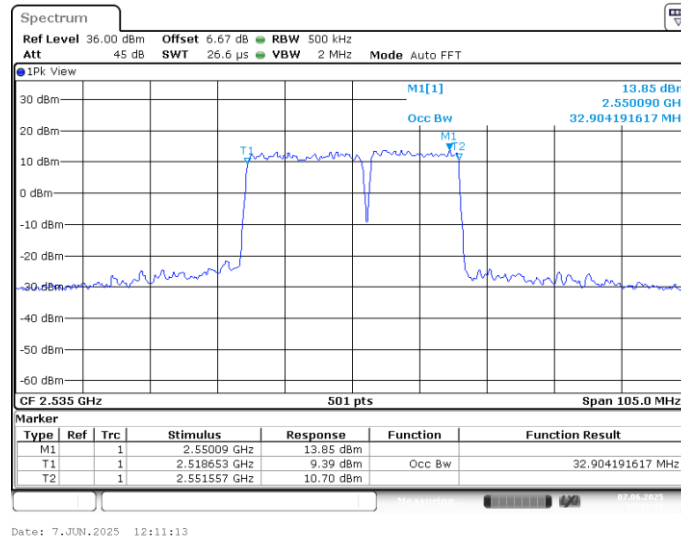
LTE CA band 7C , 20MHz+10MHz Bandwidth,16QAM (99% BW)



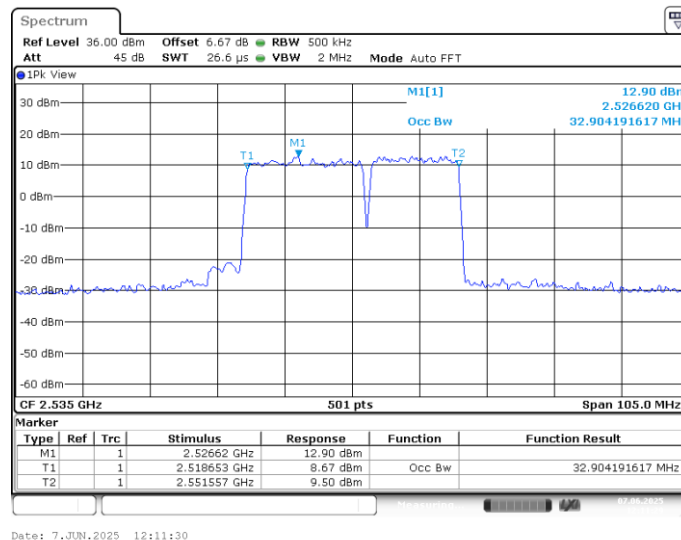
LTE CA band 7C, 20MHz+15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.904	32.904

LTE CA band 7C , 20MHz+15MHz Bandwidth,QPSK (99% BW)



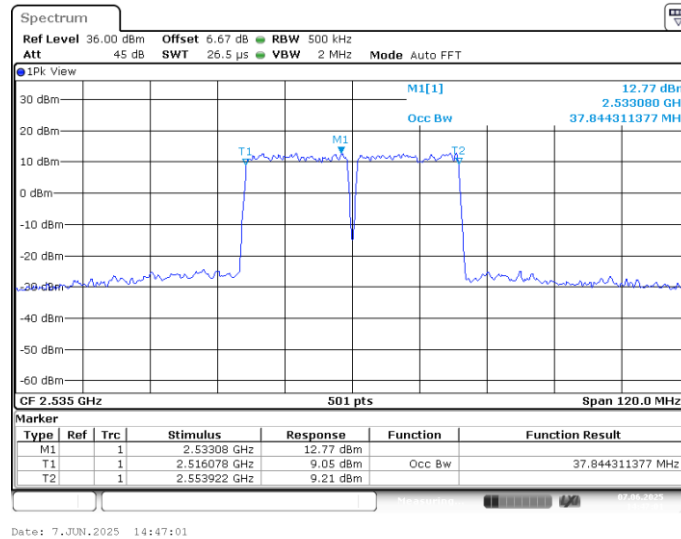
LTE CA band 7C , 20MHz+15MHz Bandwidth,16QAM (99% BW)



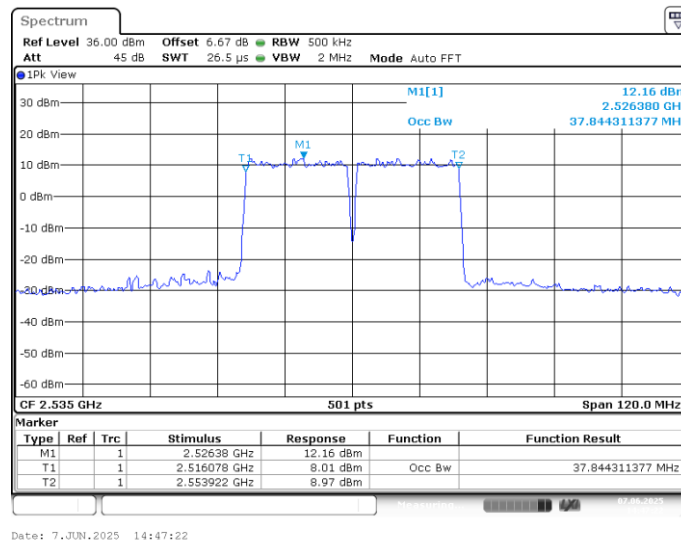
LTE CA band 7C, 20MHz+20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	37.844	37.844

LTE CA band 7C , 20MHz+20MHz Bandwidth,QPSK (99% BW)



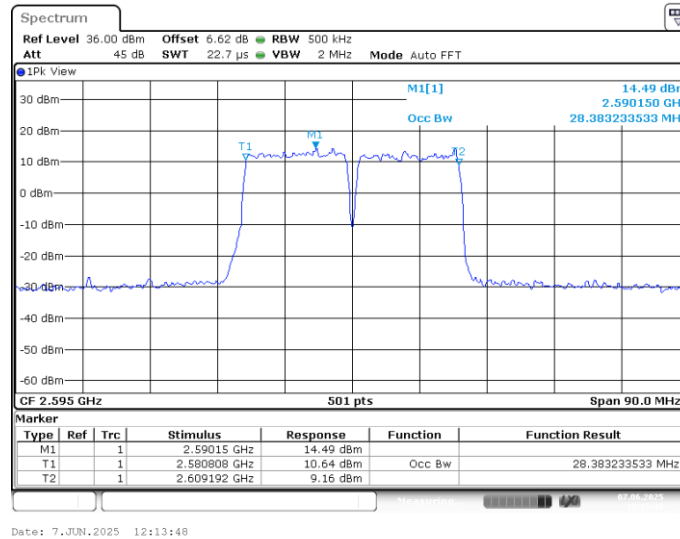
LTE CA band 7C , 20MHz+20MHz Bandwidth,16QAM (99% BW)



LTE CA band 38C, 15MHz+15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2595.0	28.383	28.383

LTE CA band 38C , 15MHz+15MHz Bandwidth,QPSK (99% BW)



LTE CA band 38C , 15MHz+15MHz Bandwidth,16QAM (99% BW)

