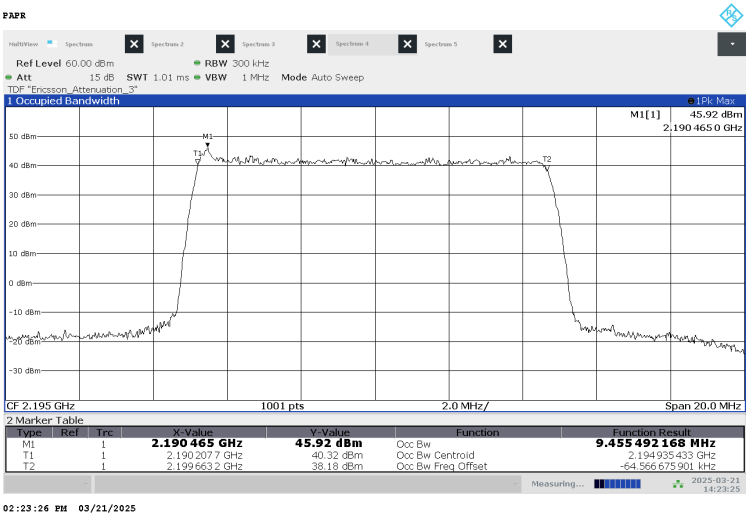
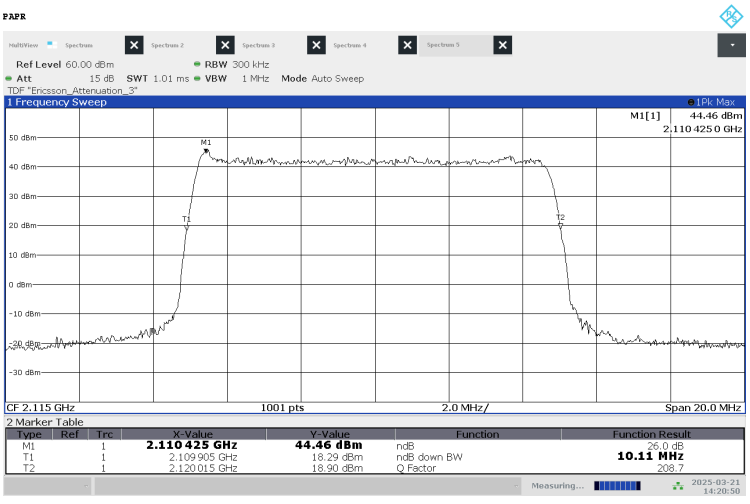
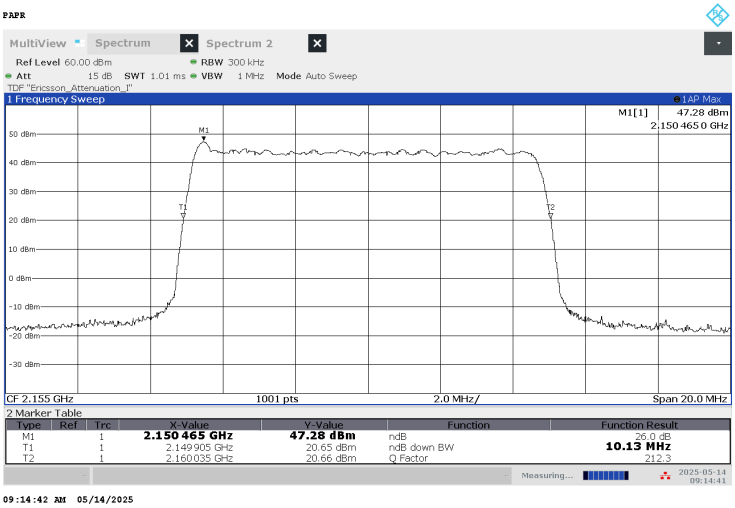


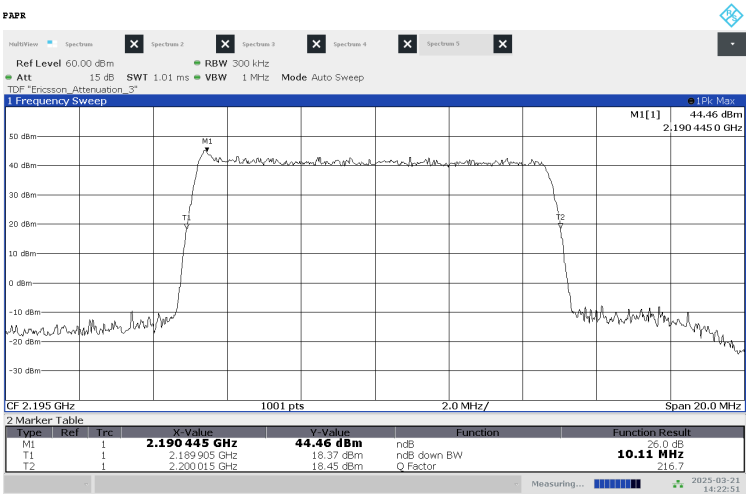
NR IB IoT, 10 MHz, 99% occupied bandwidth, top channel



NR IB IoT, 10 MHz, -26 dBc emission bandwidth, low channel

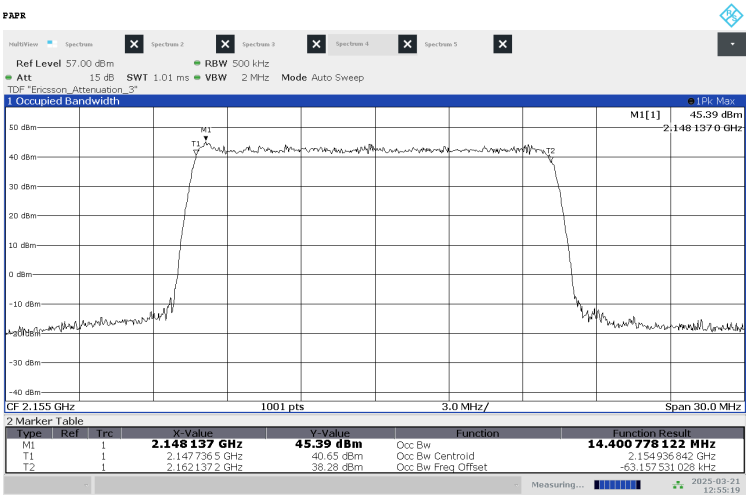


NR IB IoT, 10 MHz, -26 dBc emission bandwidth, middle channel

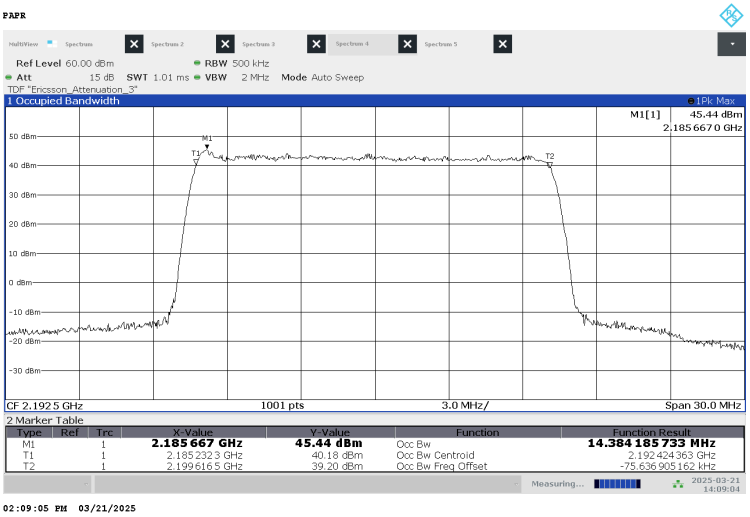


NR IB IoT, 10 MHz, -26 dBc emission bandwidth, high channel

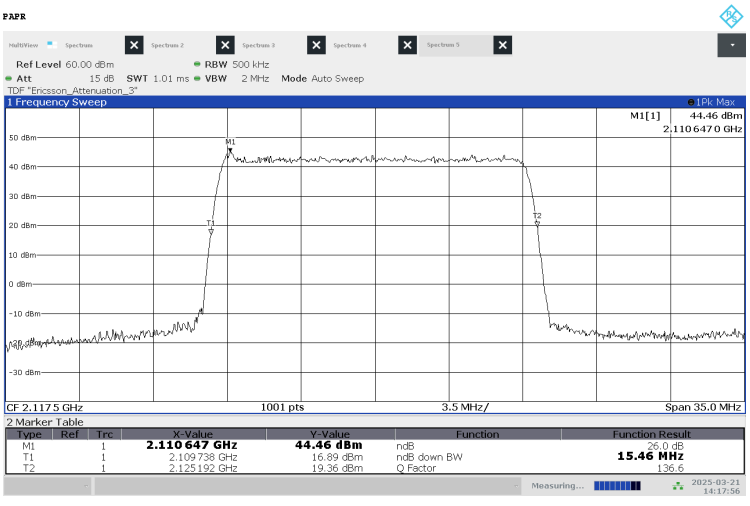
NR IB IoT, 15 MHz, 99% occupied bandwidth, low channel



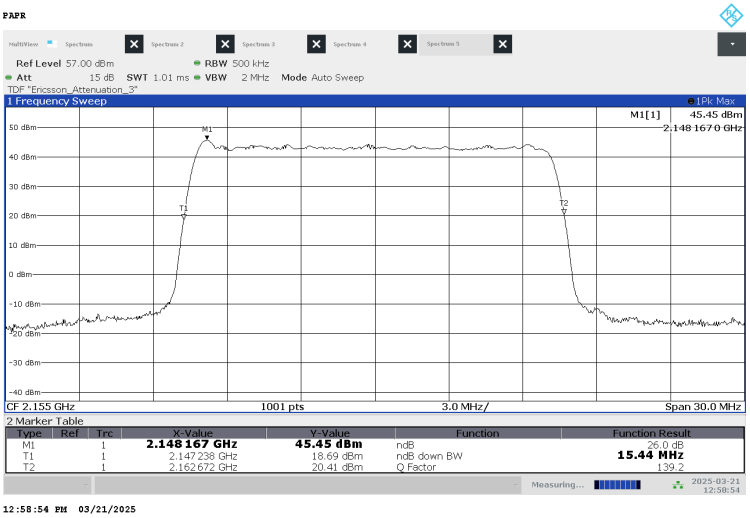
NR IB IoT, 15 MHz, 99% occupied bandwidth, middle channel



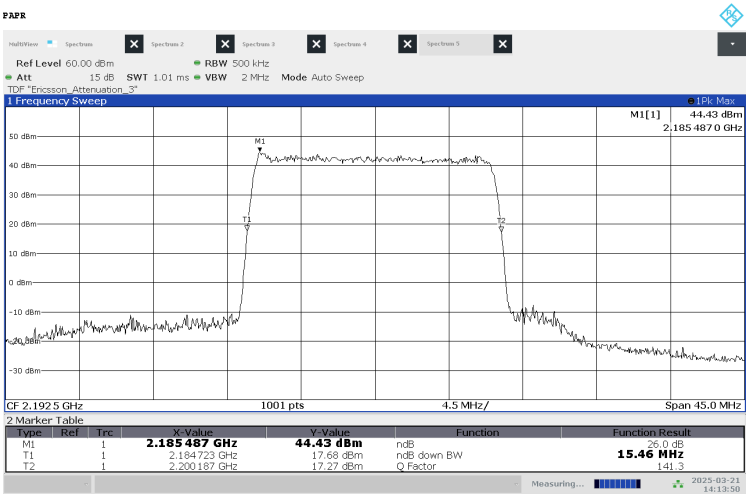
NR IB IoT, 15 MHz, 99% occupied bandwidth, high channel



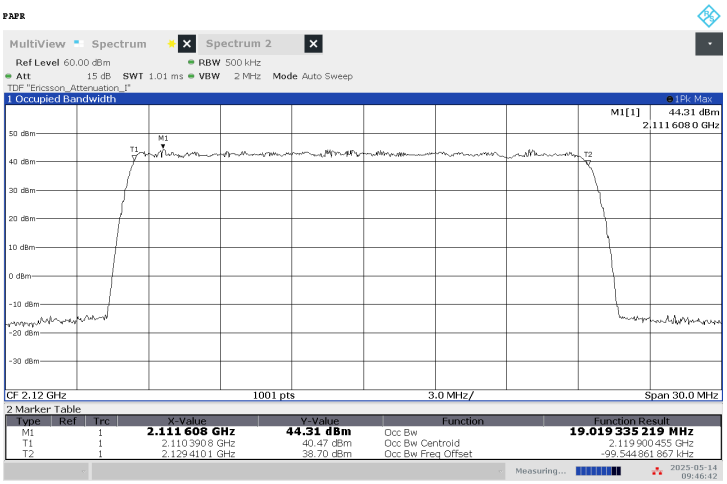
NR IB IoT, 15 MHz, -26 dBc emission bandwidth, low channel



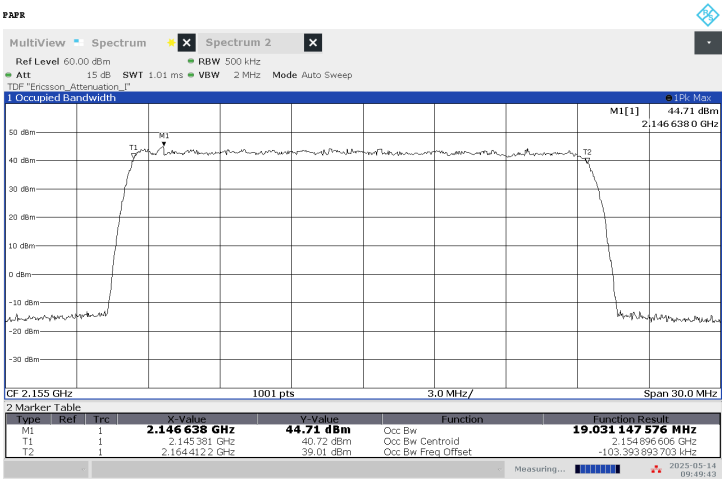
NR IB IoT, 15 MHz, -26 dBc emission bandwidth, middle channel



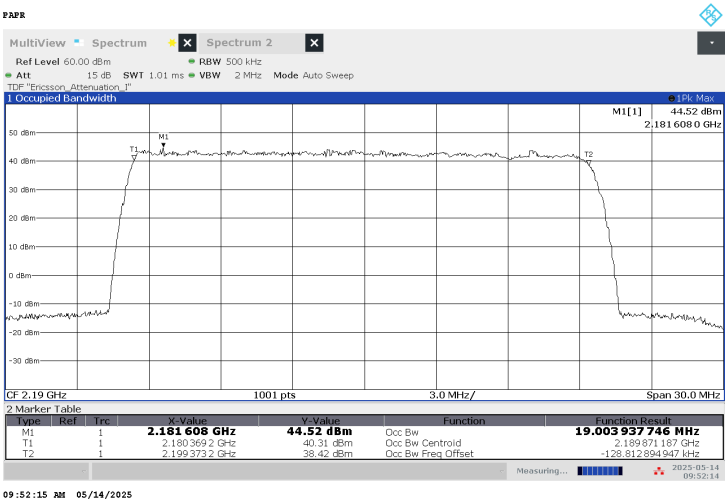
NR IB IoT, 15 MHz, -26 dBc emission bandwidth, high channel



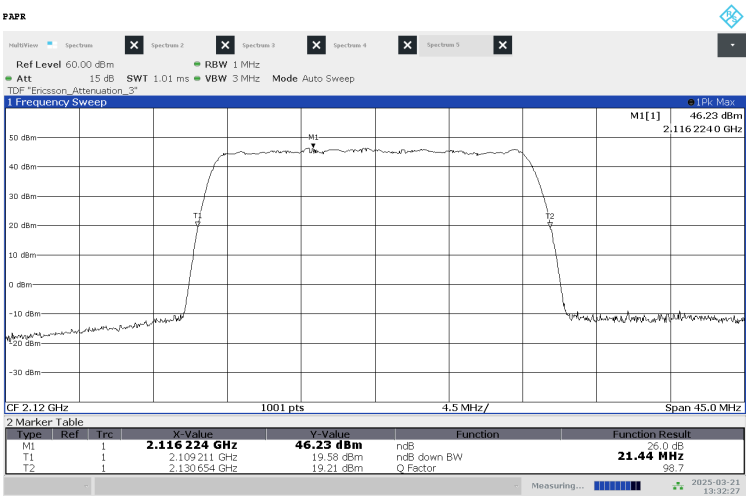
NR IB IoT, 20 MHz, 99% occupied bandwidth, low channel



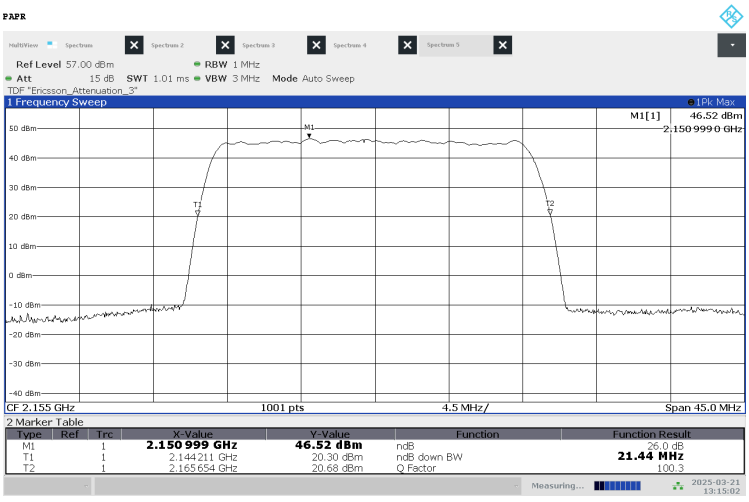
NR IB IoT, 20 MHz, 99% occupied bandwidth, middle channel



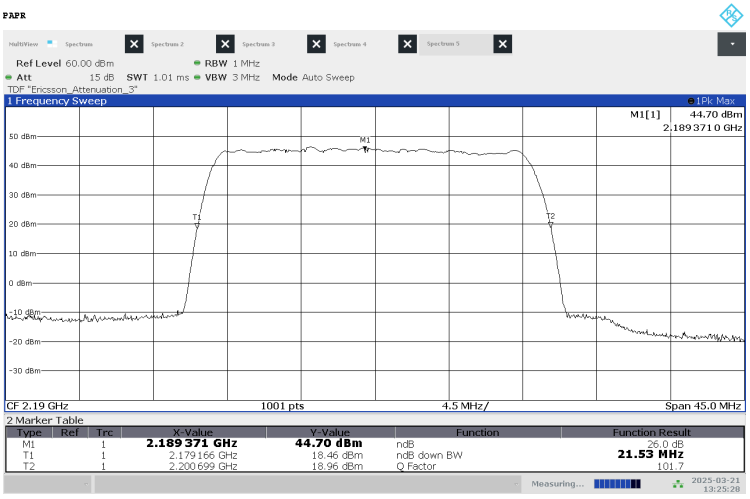
NR IB IoT, 20 MHz, 99% occupied bandwidth, high channel



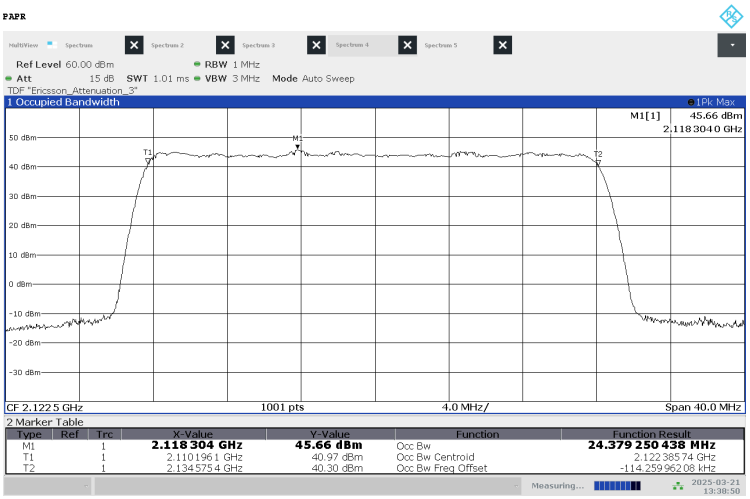
NR IB IoT, 20 MHz, -26 dBc emission bandwidth, low channel



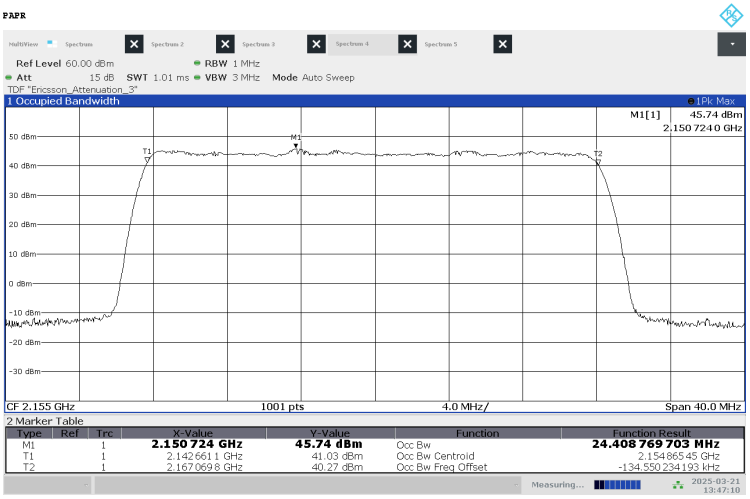
NR IB IoT, -26dB occupied bandwidth 20MHz, middle channel



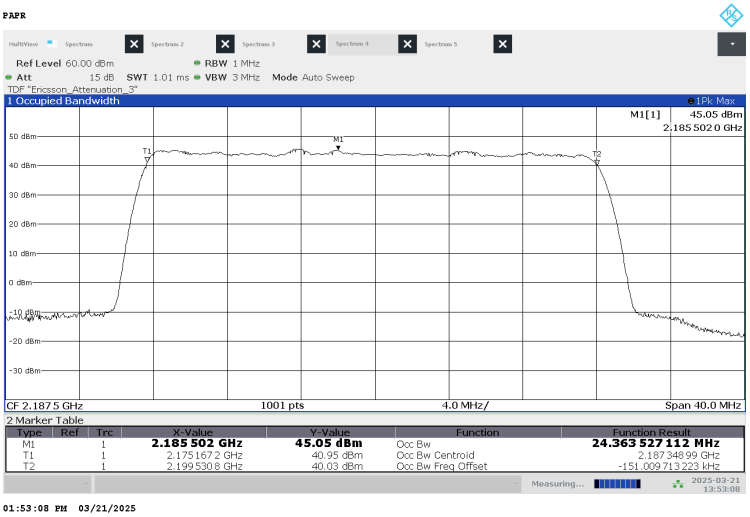
NR IB IoT, -26dB occupied bandwidth 20MHz, high channel



NR IB NB-IoT, 25 MHz, 99% occupied bandwidth, low channel

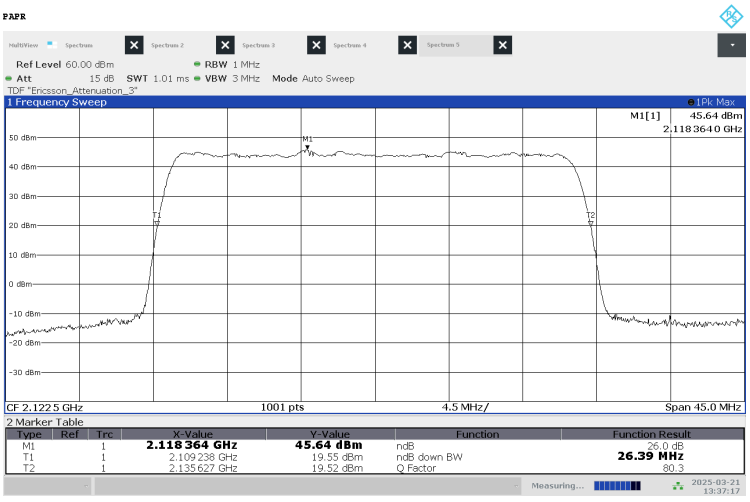


NR IB NB-IoT, 25 MHz, 99% occupied bandwidth, middle channel



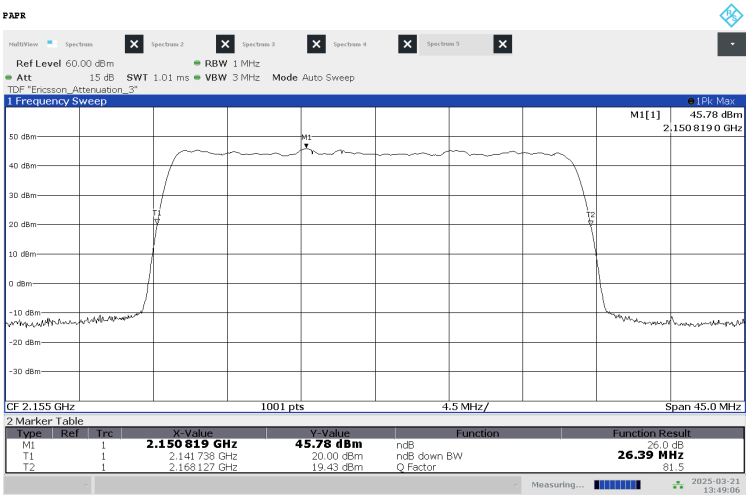
01:53:08 PM 03/21/2025

NR IB NB-IoT, 25 MHz, 99% occupied bandwidth, high channel



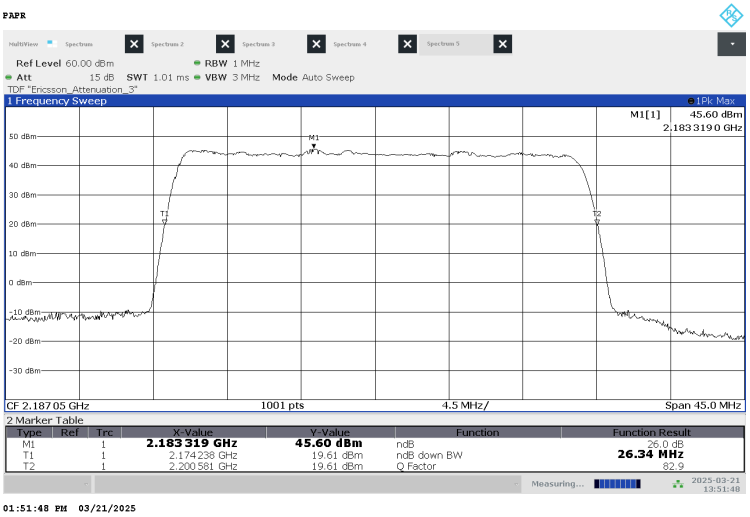
01:37:17 PM 03/21/2025

NR IB NB-IoT, 25 MHz, -26 dBc emission bandwidth, low channel



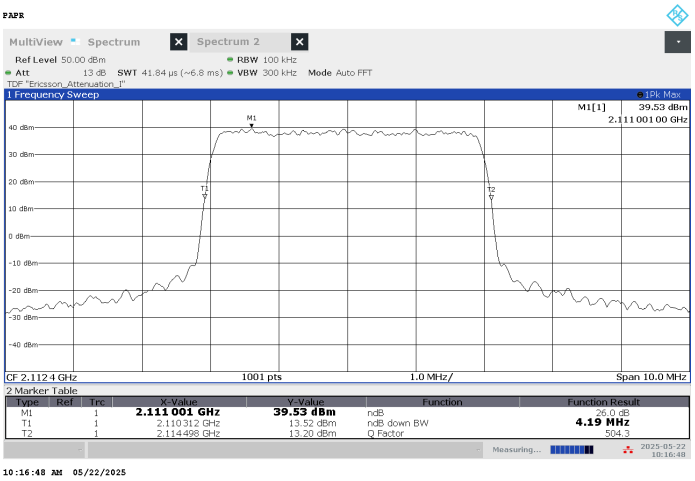
01:49:06 PM 03/21/2025

NR IB NB-IoT, 25 MHz, -26 dBc emission bandwidth, middle channel

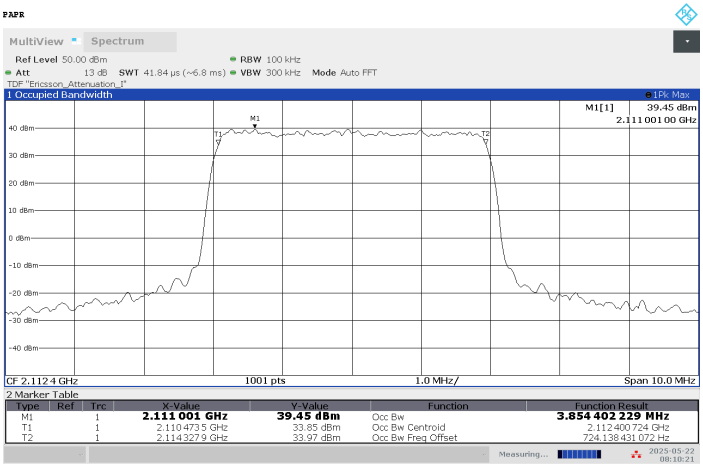


NR IB NB-IoT, 25 MHz, -26 dBc emission bandwidth, high channel

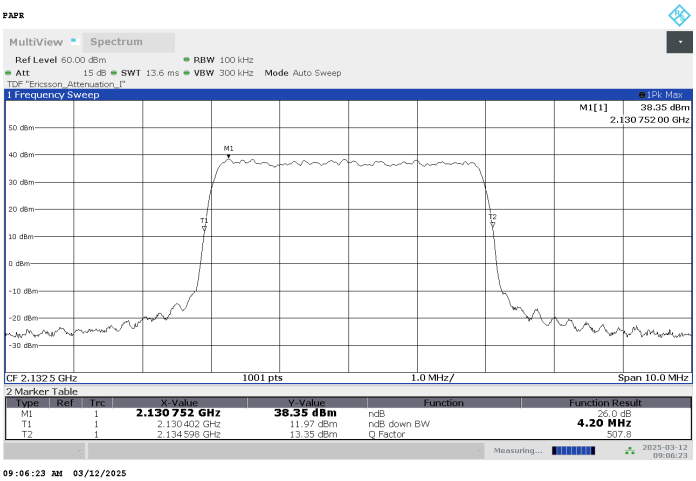
Configuration 6					
RAT:	WCDMA				
Test no.	Bandwidth (MHz)	channel	Frequency (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
70	4,2	Low	2112.4	3.85	4.19
71	4,2	Mid	2132.5	3.86	4.20
72	4,2	High	2152.6	3.85	4.19
73	5	Low	2112.5	4.17	4.70
74	5	Mid	2132.5	4.17	4.70
75	5	High	2152.5	4.17	4.70



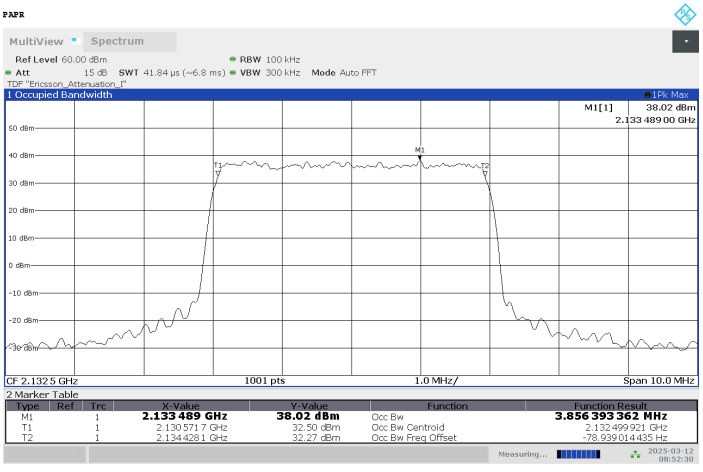
WCDMA, 4.2 MHz BW, -26 dBc emission bandwidth, Low channel



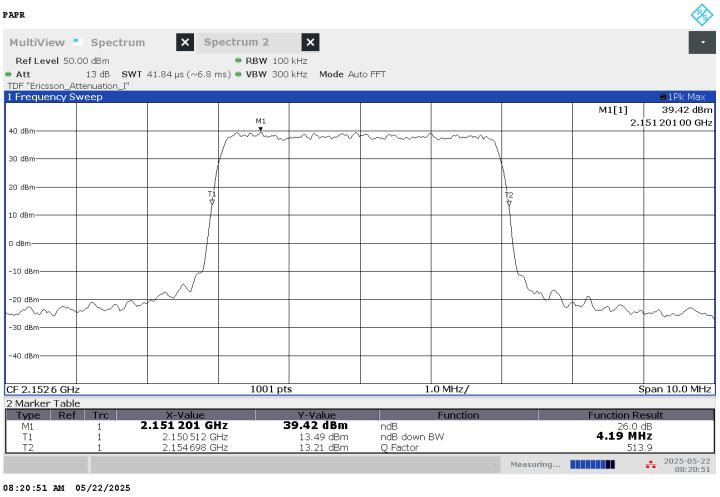
WCDMA, 4.2 MHz BW, 99% occupied bandwidth, Low channel



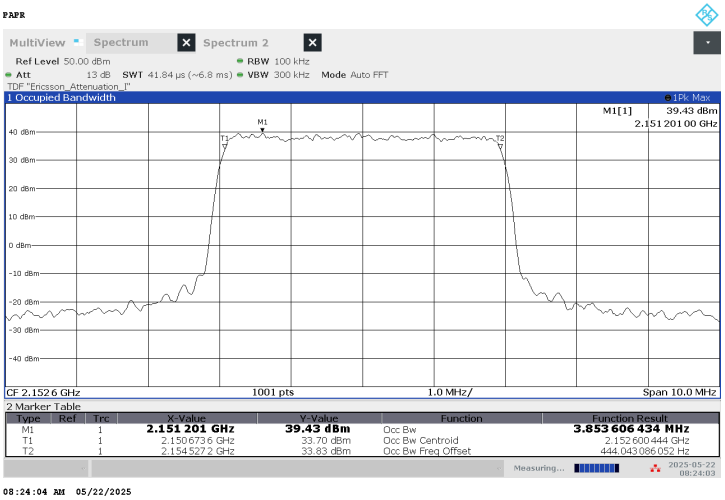
WCDMA, 4.2 MHz BW, -26 dBc emission bandwidth, Middle channel



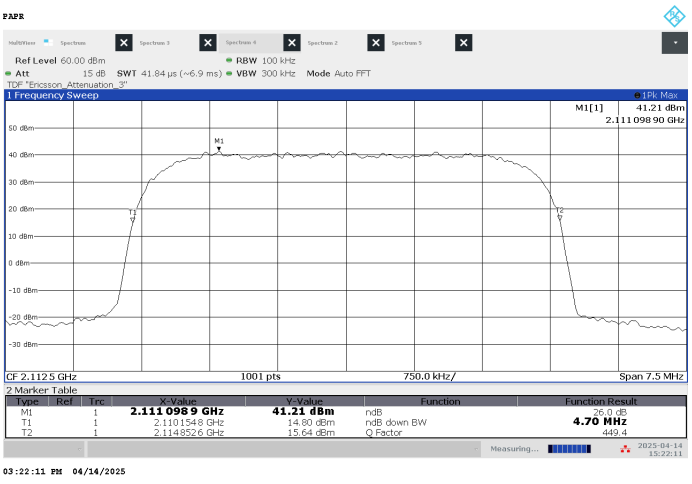
WCDMA, 4.2 MHz BW, 99% occupied bandwidth, Middle channel



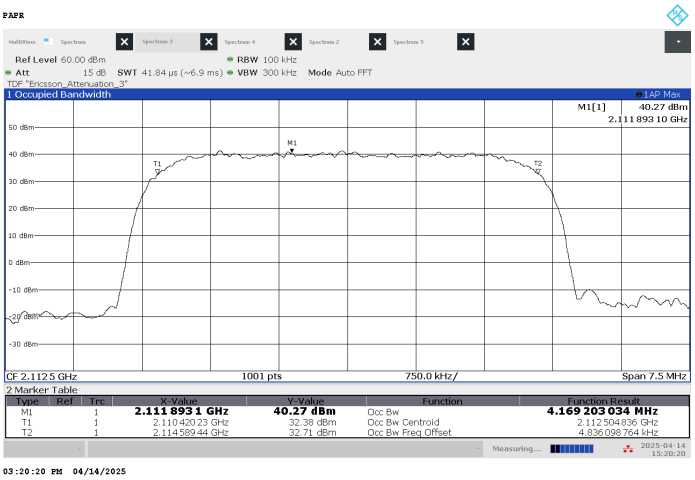
WCDMA, 4.2 MHz BW, -26 dBc emission bandwidth, High channel



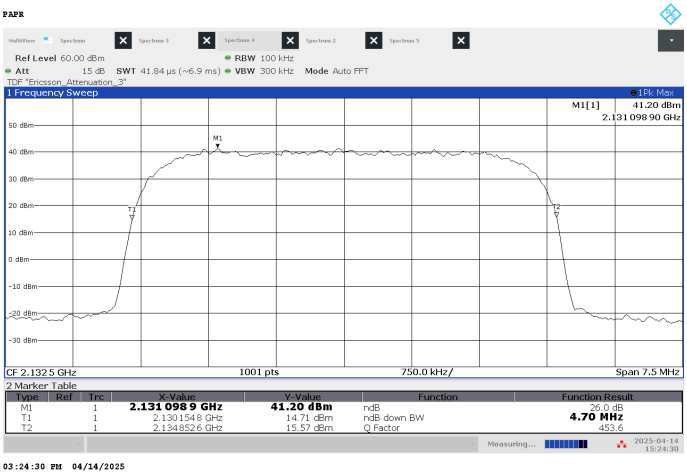
WCDMA, 4.2 MHz BW, 99% occupied bandwidth, High channel



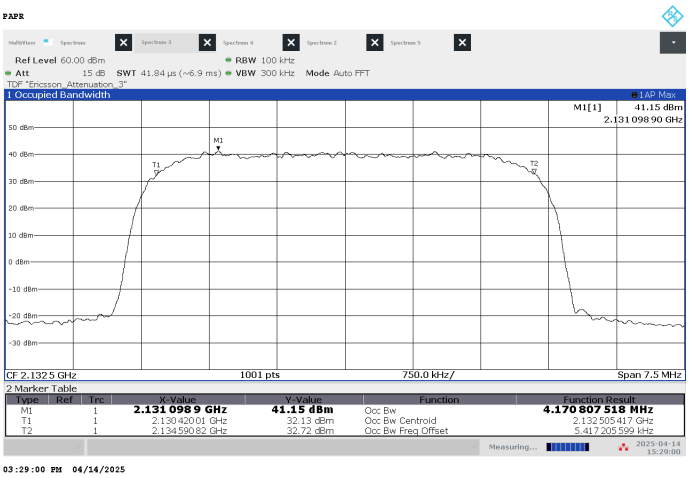
WCDMA, 5 MHz BW, -26 dBc emission bandwidth, Low channel



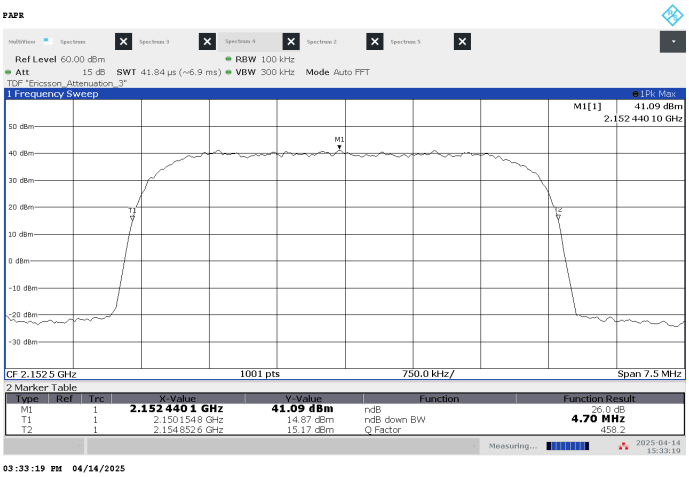
WCDMA, 5 MHz BW, 99% occupied bandwidth, Low channel



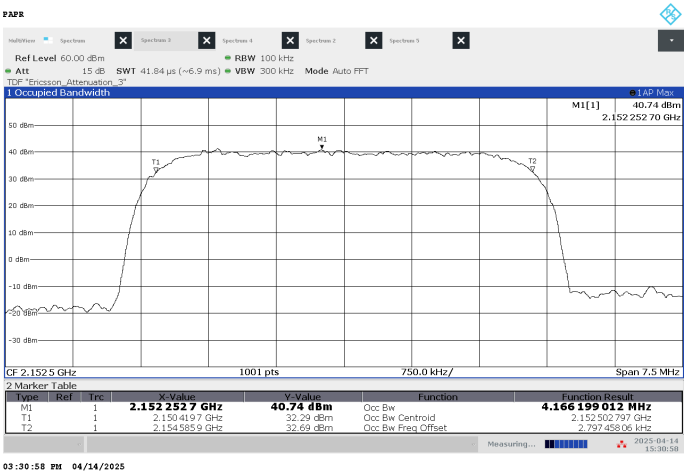
WCDMA, 5 MHz BW, -26 dBc emission bandwidth, Middle channel



WCDMA, 5 MHz BW, 99% occupied bandwidth, Middle channel



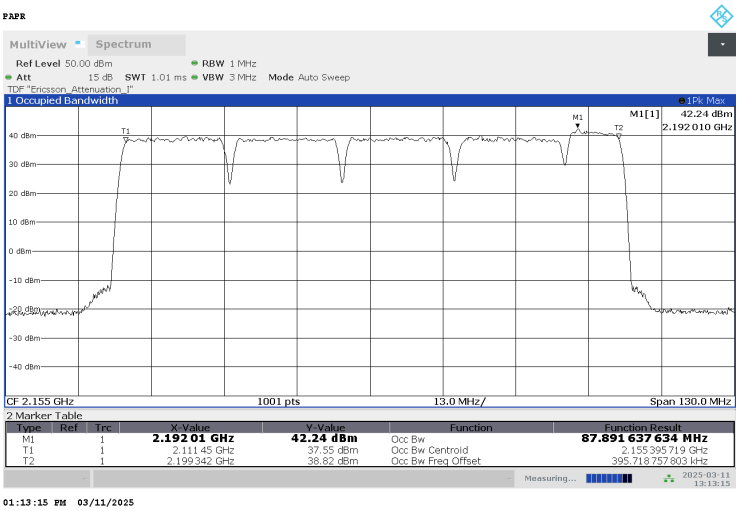
WCDMA, 5 MHz BW, -26 dBc emission bandwidth, High channel



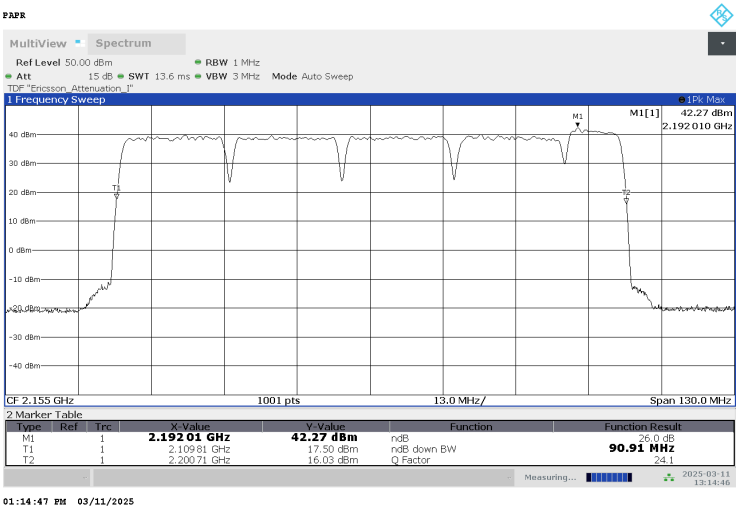
WCDMA, 5 MHz BW, 99% occupied bandwidth, High channel

6.3.2 Multicarrier

Configuration 36				
RAT:	LTE	No. carriers	5	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
76	4 x 20	10	87.89	90.91

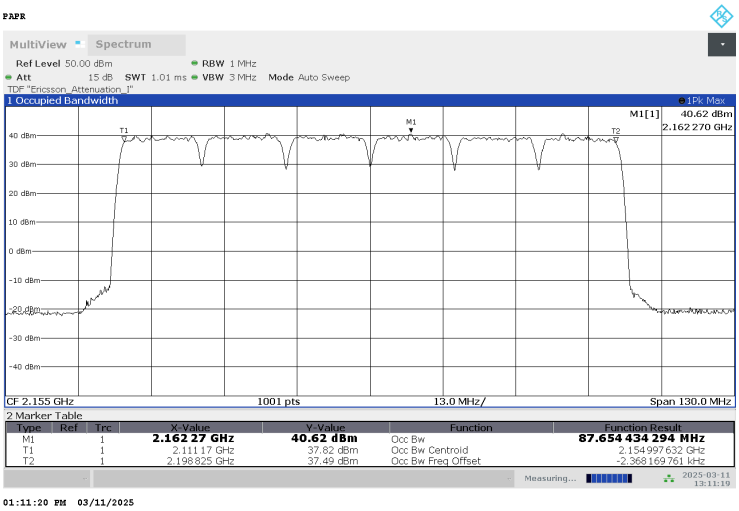


LTE, 5 carriers, 4x20MHz, 1x10MHz, 99% Occupied bandwidth

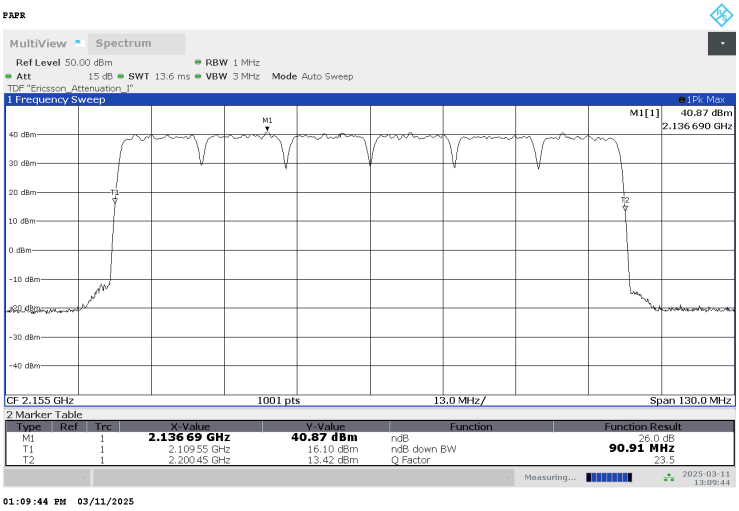


LTE, 5 carriers, 4x20MHz, 1x10MHz, -26dB Occupied bandwidth

Configuration 37				
RAT:	LTE	No. carriers	6	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
77	6 x 15	-	87.65	90.91

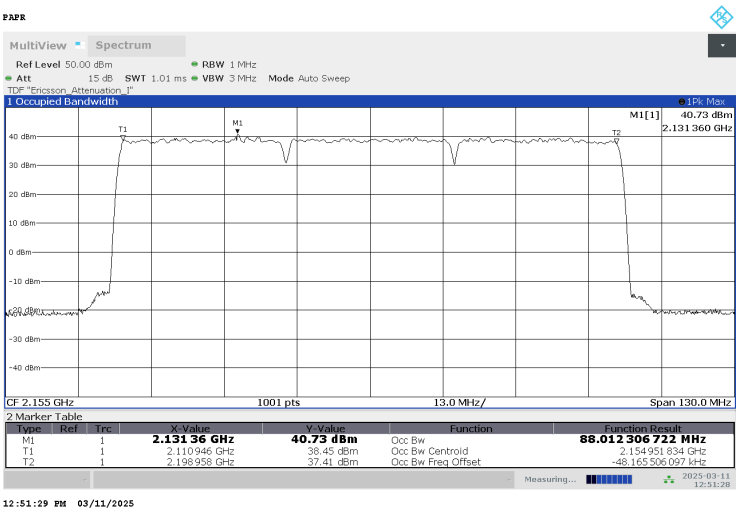


LTE, 6 carriers, 6x15MHz, 99% Occupied bandwidth

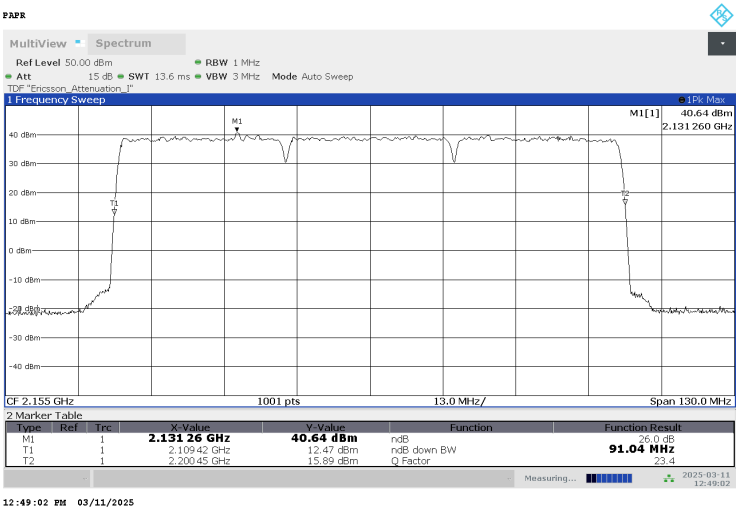


LTE, 6 carriers, 6x15MHz, -26dB Occupied bandwidth

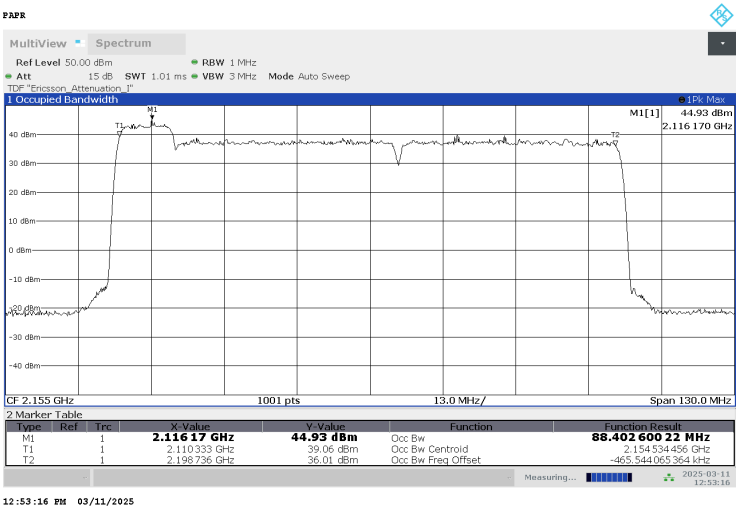
Configuration 38-39				
RAT:	NR	No. carriers	3	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
78	30	-	88.01	91.04
79	2 x 40	10	88.40	91.17



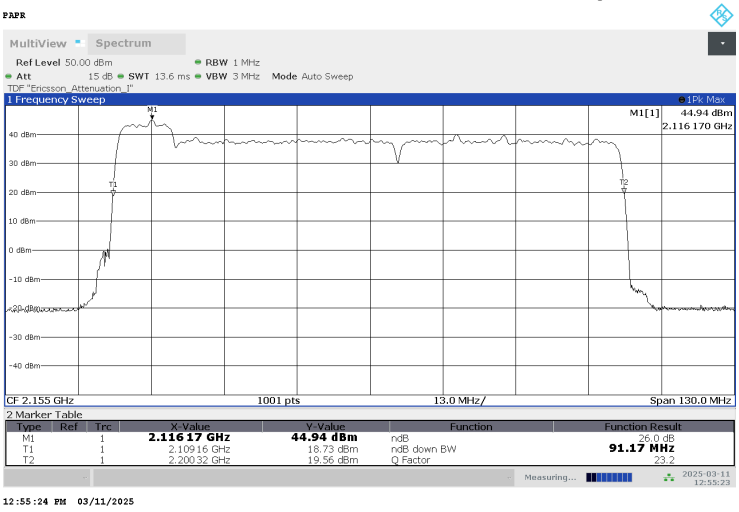
NR, 3 carriers, 3x30MHz, 99% Occupied bandwidth



NR, 3 carriers, 3x30MHz, -26dB Occupied bandwidth

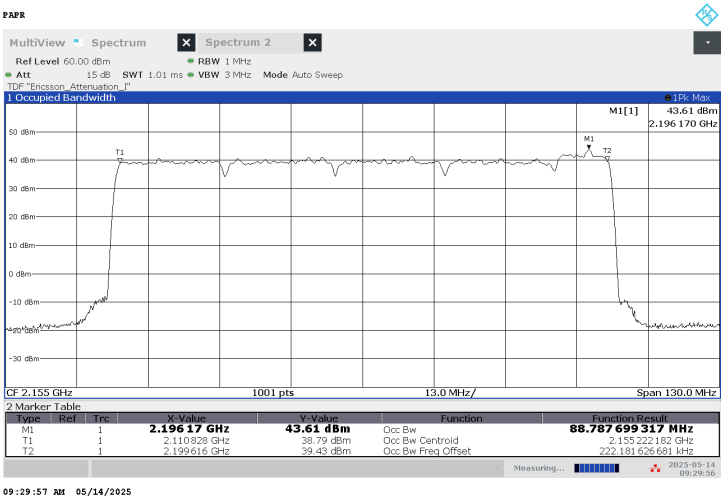


NR, 3 carriers, 1x10MHz & 2x40MHz, 99% Occupied bandwidth



NR, 3 carriers, 1x10MHz & 2x40MHz, -26dB Occupied bandwidth

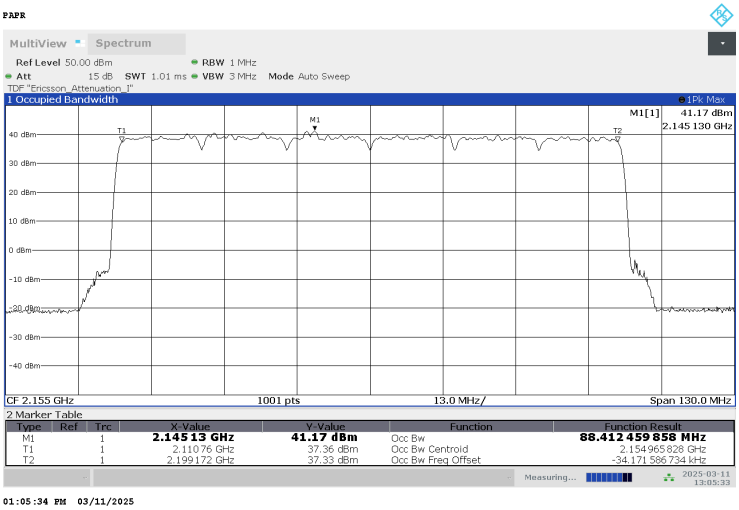
Configuration 40				
RAT:	NR	No. carriers	5	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
80	4 x 20	10	88.79	91.43



NR, 5 carriers, 4x20MHz & 1x10MHz, 99% Occupied bandwidth

NR, 5 carriers, 4x20MHz & 1x10MHz, -26dB Occupied bandwidth

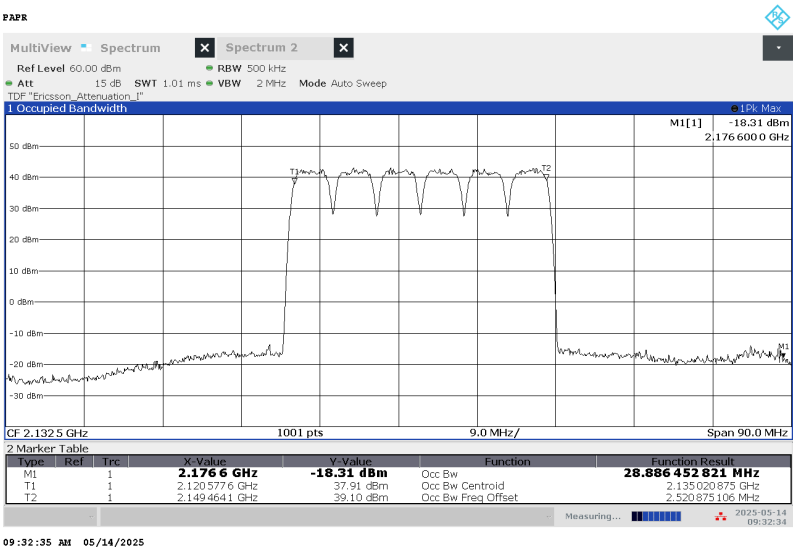
Configuration 41				
RAT:	NR	No. carriers	6	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
81	6 x 15	-	88.41	91.43



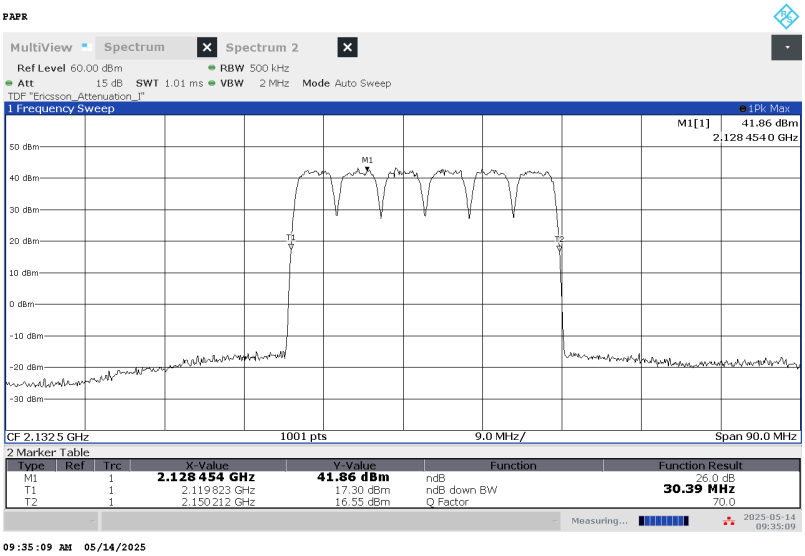
NR, 6 carriers, 6x15MHz, 99% Occupied bandwidth

NR, 6 carriers, 6x15MHz, -26dB Occupied bandwidth

Configuration 42				
RAT:	WCDMA	No. carriers	6	
Test no.	Bandwidth 1 (MHz)	Bandwidth 2 (MHz)	99% Bandwidth (MHz)	-26 dB Bandwidth (MHz)
82	5	-	28.89	30.39



WCDMA, 6 carriers, 6x5MHz, 99% Occupied bandwidth



WCDMA, 6 carriers, 6x5MHz, -26 dBc emission bandwidth

7 CONDUCTED BAND EDGE MEASUREMENT

Date of test:	10 March – 15 April 2025, 15-16 May 2025	**Test location:**	E-torget
EUT Serial:	E23G305405	**Ambient temp:**	19°C - 21°C
Tested by:	Algot Rickman Nahome Michael Sandipan Basu	**Relative humidity:**	16% - 36%
Test result:	Pass	**Margin:**	3 dB

7.1 Test set-up and test procedure.

The test method is in accordance with KDB 971168 D01 section 6.1 and ANSI C63.26-2015 section 5.7.2 and 5.7.3.

The EUT was connected to spectrum analyser via rf-cable and a 40 dB attenuator.

The EUT was set up in order to emit maximum emissions.

Some limit lines corrected to match measured EBW.

7.2 Requirement

CFR 47 §27.53:

General protection levels. Except as otherwise specified below, for operations in the 1695–1710 MHz, 1710–1755 MHz, 1755–1780 MHz, 1915–1920 MHz, 1995–2000 MHz, 2000–2020 MHz, 2110–2155 MHz, 2155–2180 MHz, and 2180–2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

For each supported bandwidth configuration the resolution bandwidth of at least 1% of the emission bandwidth were used within 1 MHz from the band edge frequency. For each supported bandwidth configuration, the resolution bandwidth of 1 MHz was used from 1 MHz away from the band edge frequency.

Limit: -43 dBW = -13 dBm
Limit compensated for number of ports: -13 dBm - 10 * Log(4) = -19 dBm

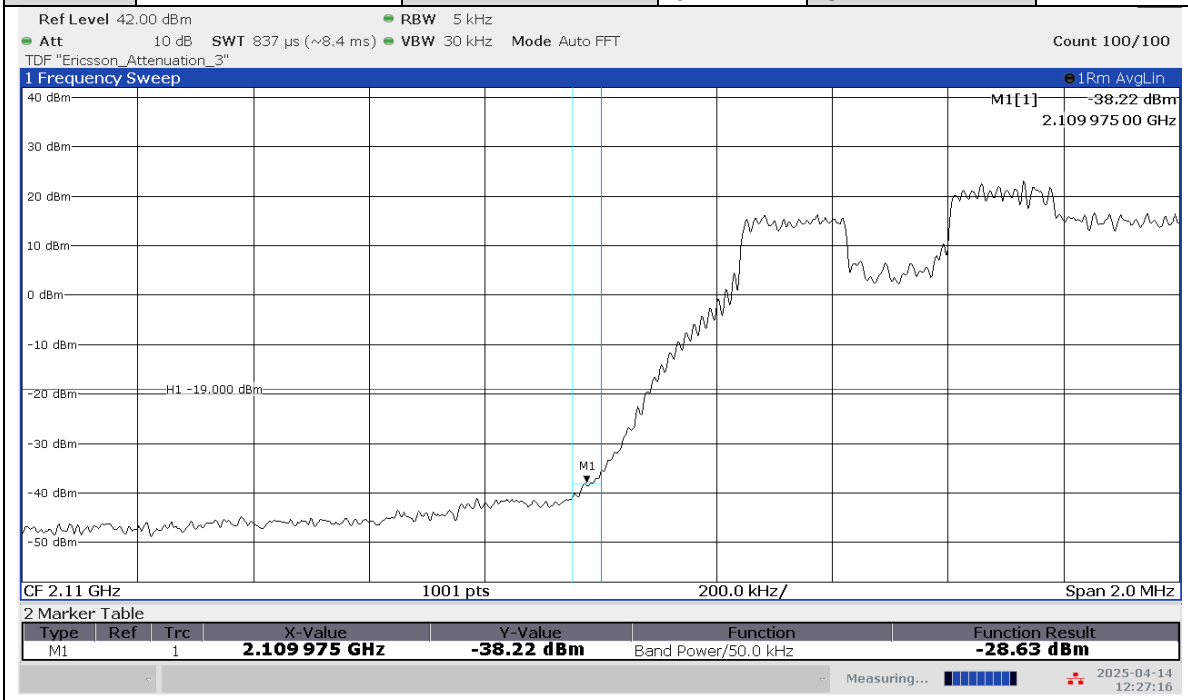
RSS-139, Section 5.6:

Limit within 1 MHz of frequency block edge (compensated for number of ports): -19 dBm/(1% of OBW)
Limit outside 1 MHz of frequency block edge (compensated for number of ports): -19 dBm/MHz

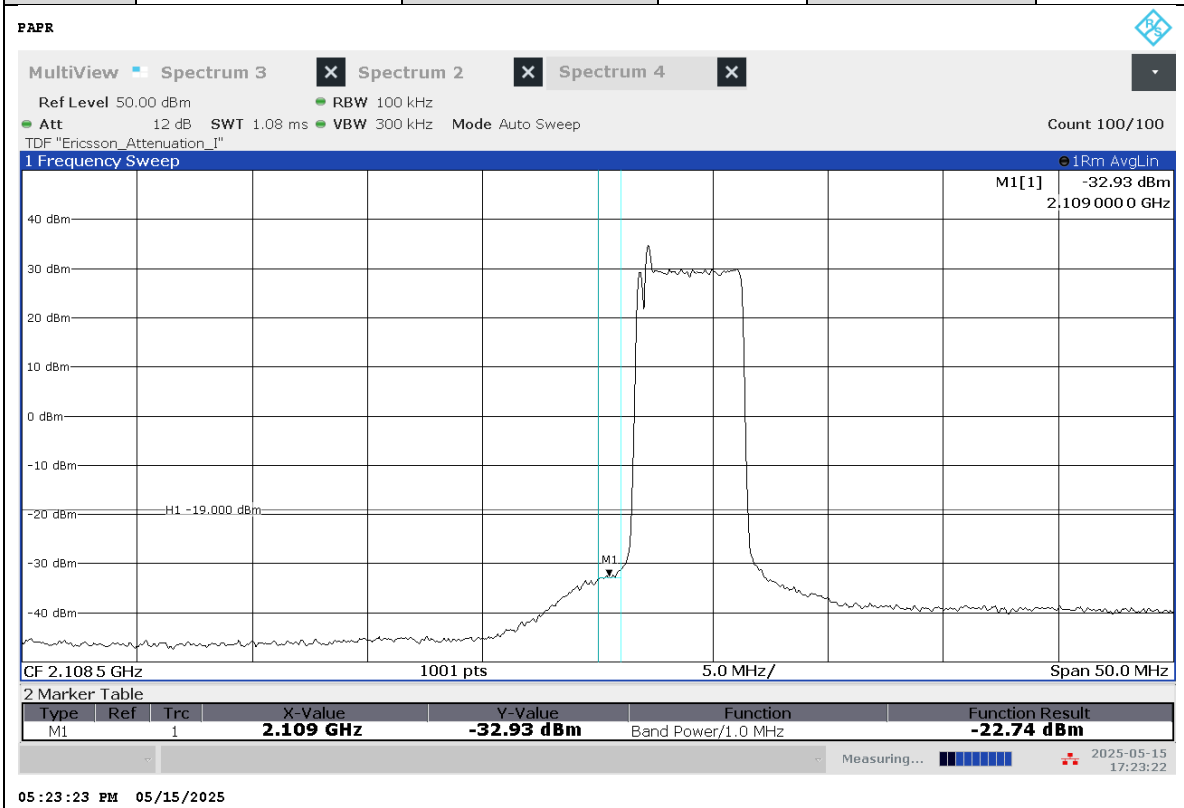
7.3 Test results

7.3.1 Single carrier

configuration 2, Lower edge<1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	5 MHz	Channel:	low

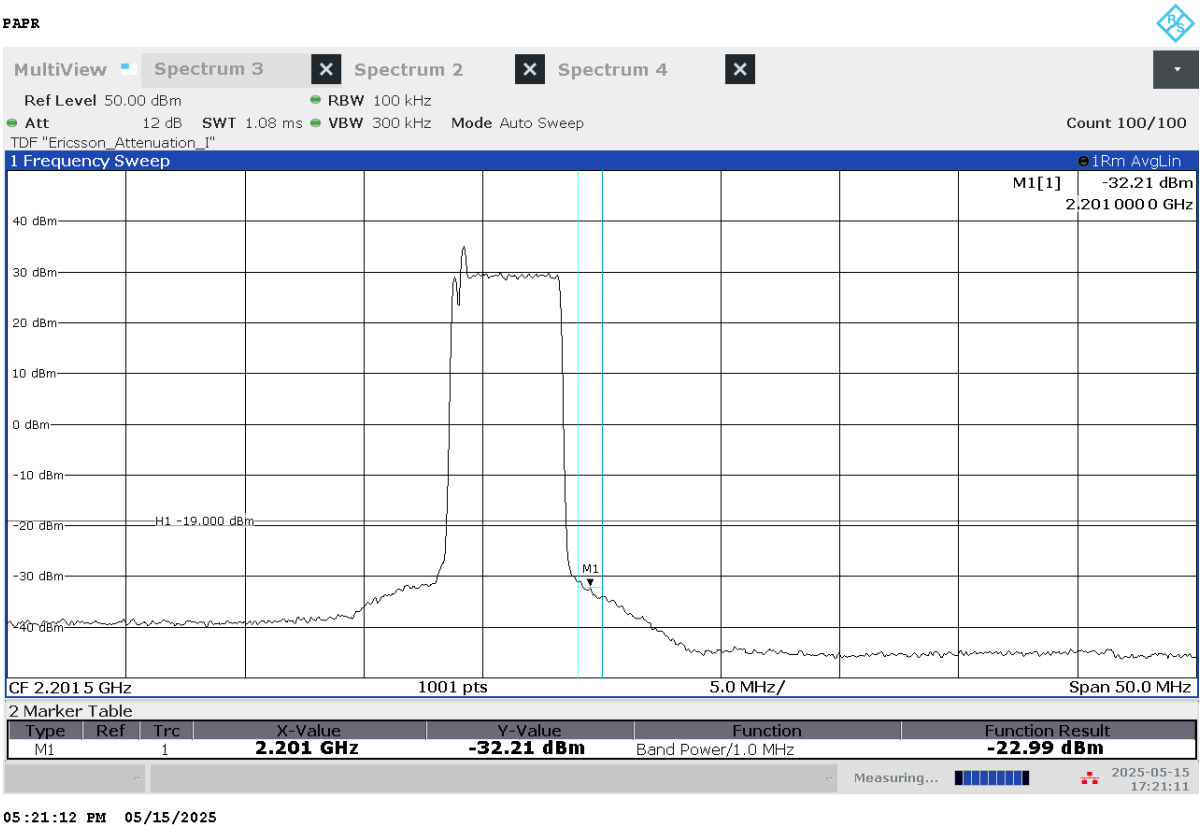


configuration 2, Lower edge>1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	5 MHz	Channel:	low



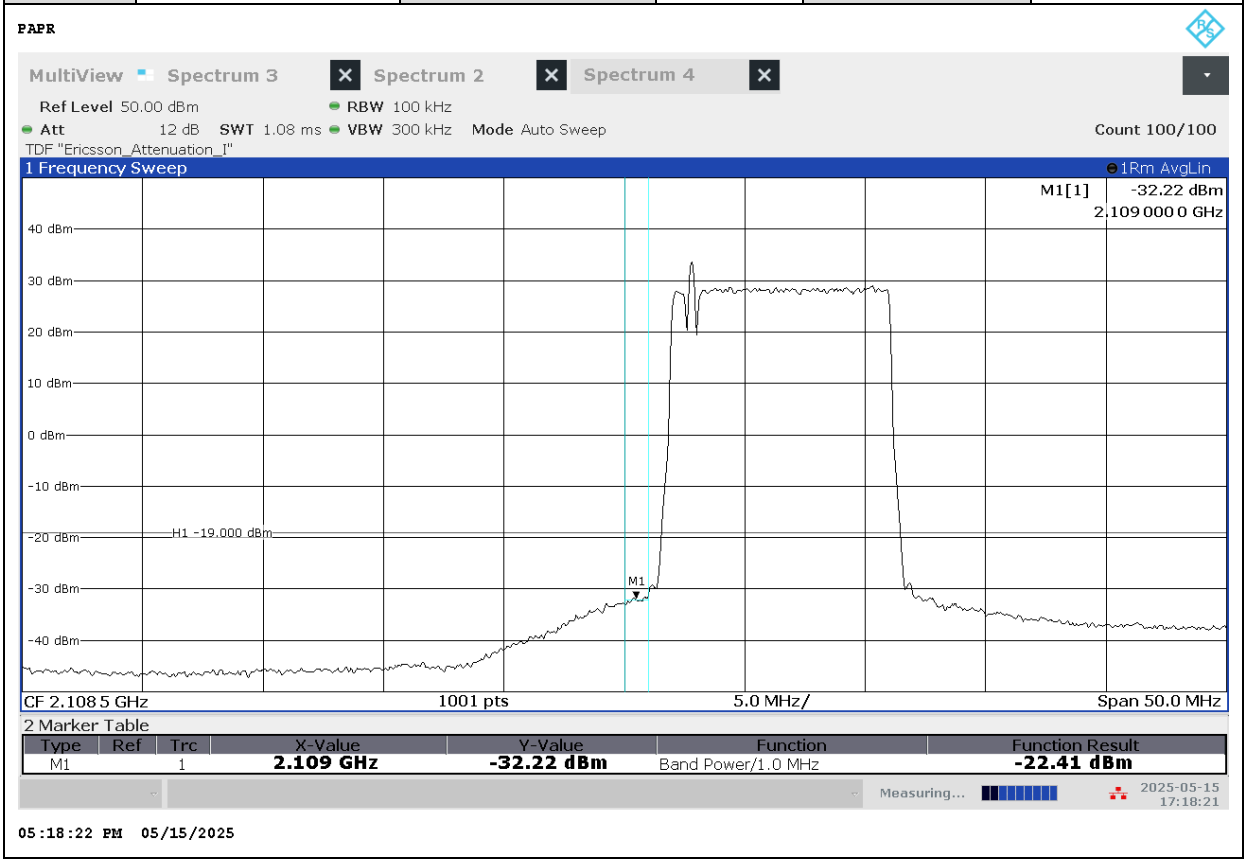
configuration 2, Upper edge<1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	5 MHz	Channel:	High

configuration 2, Upper edge>1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	5 MHz	Channel:	High



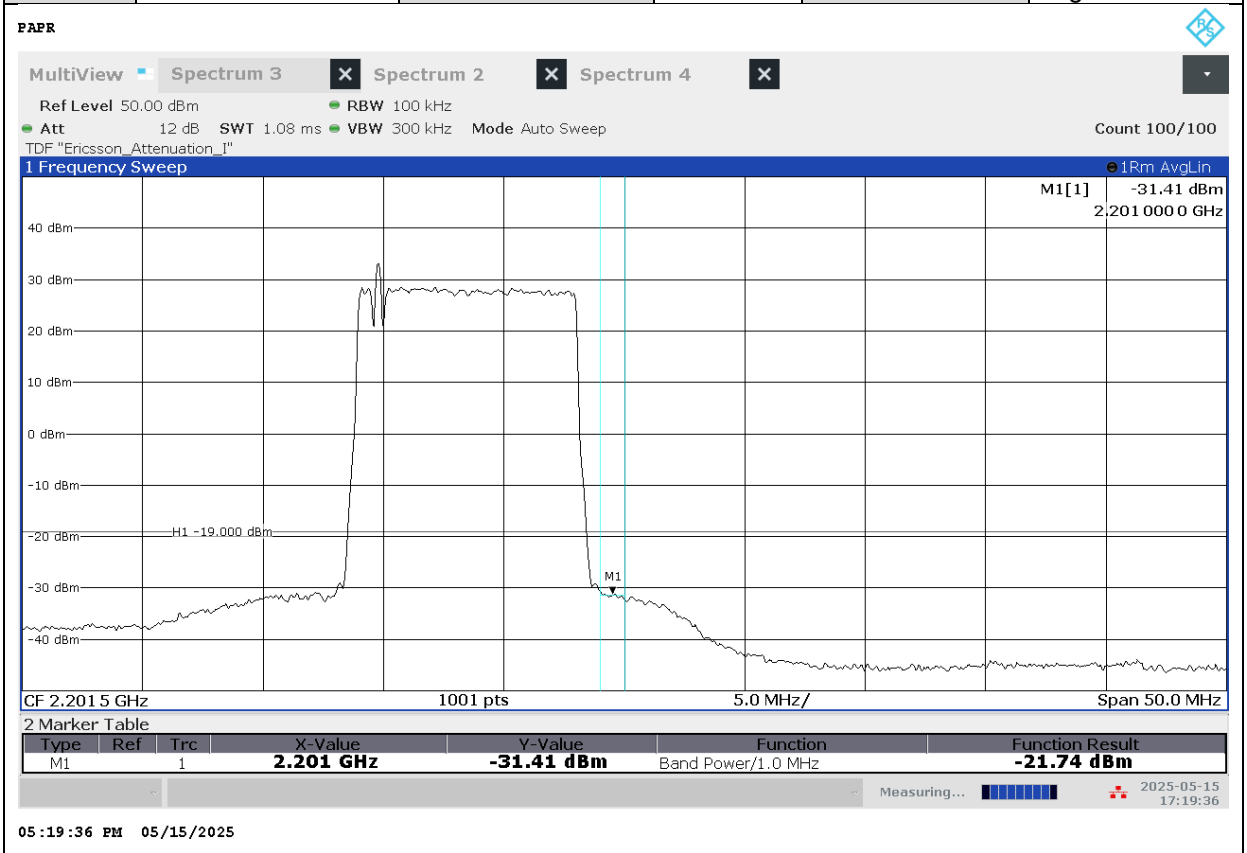
configuration 2, Lower edge<1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	10 MHz	Channel:	Low

configuration 2, Lower edge>1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	10 MHz	Channel:	Low

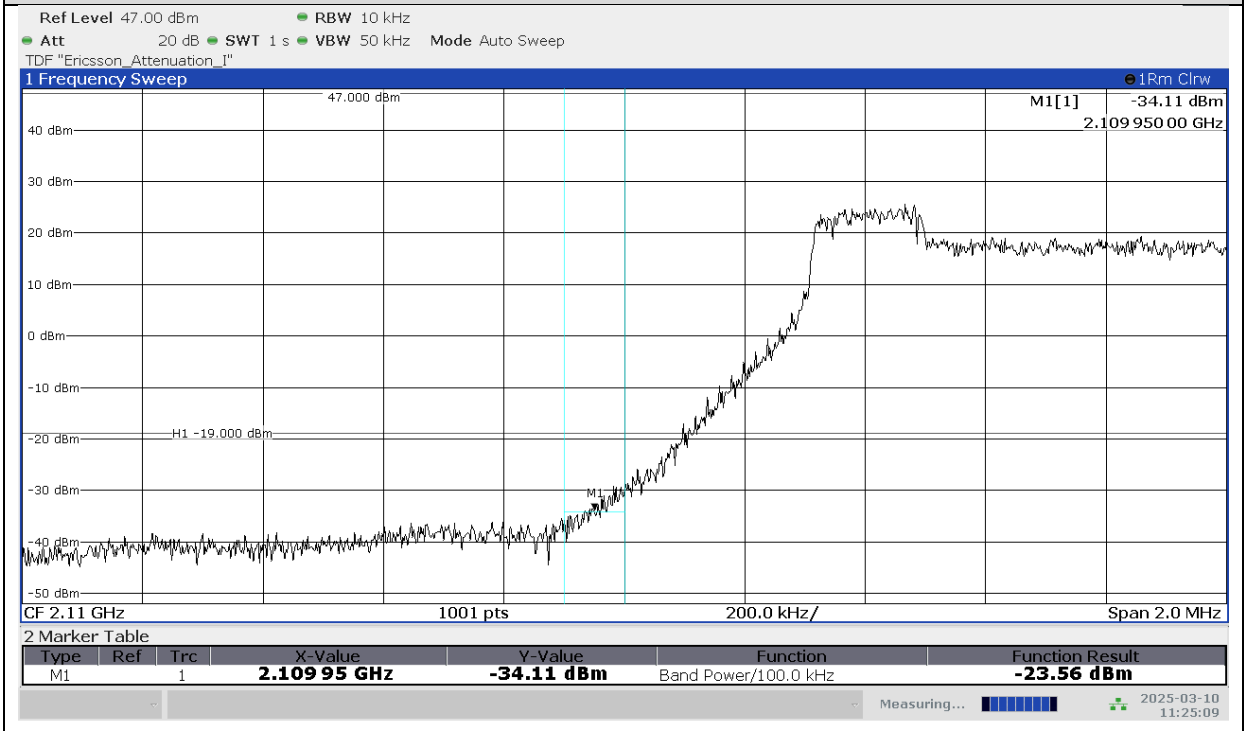


configuration 2, Upper edge < 1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	10 MHz	Channel:	High

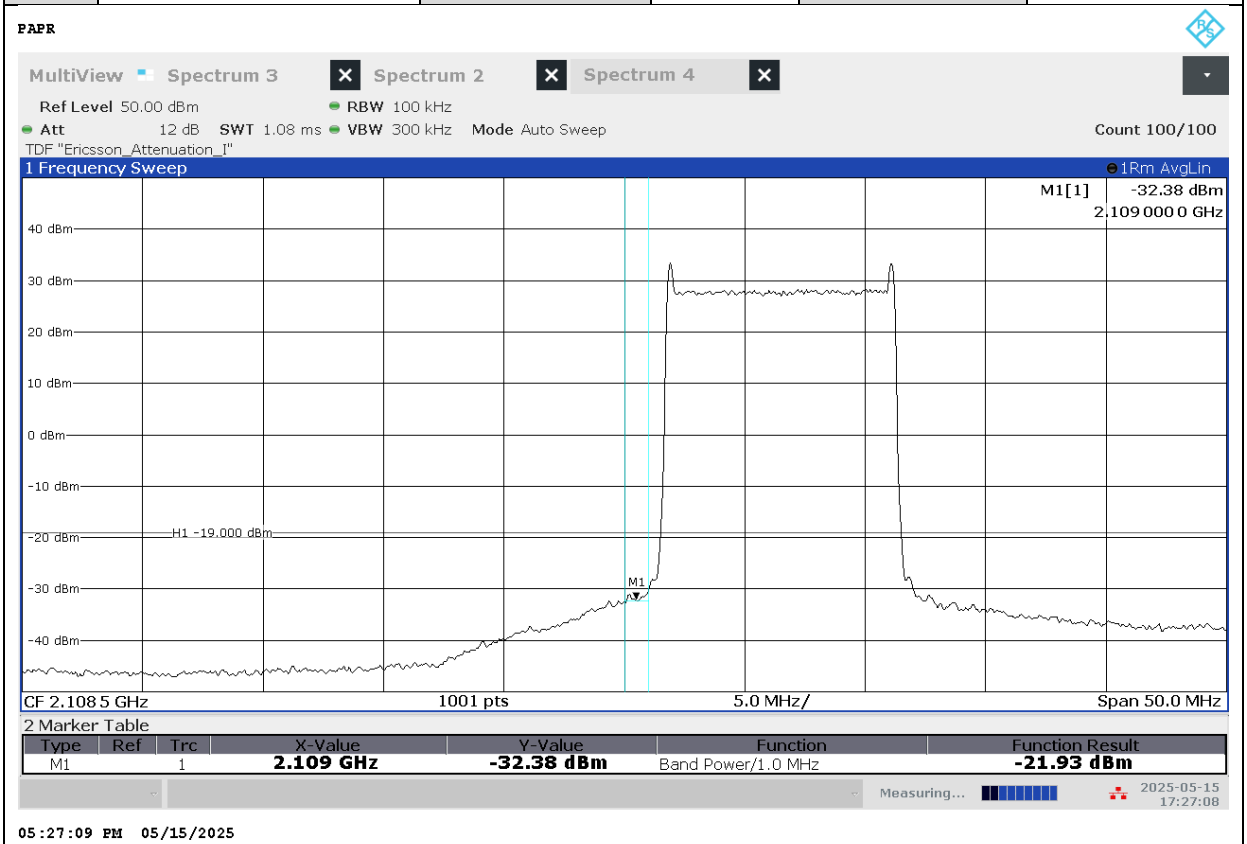
configuration 2, Upper edge>1MHz					
RAT:	LTE Inband NB-IoT	Bandwidth:	10 MHz	Channel:	High



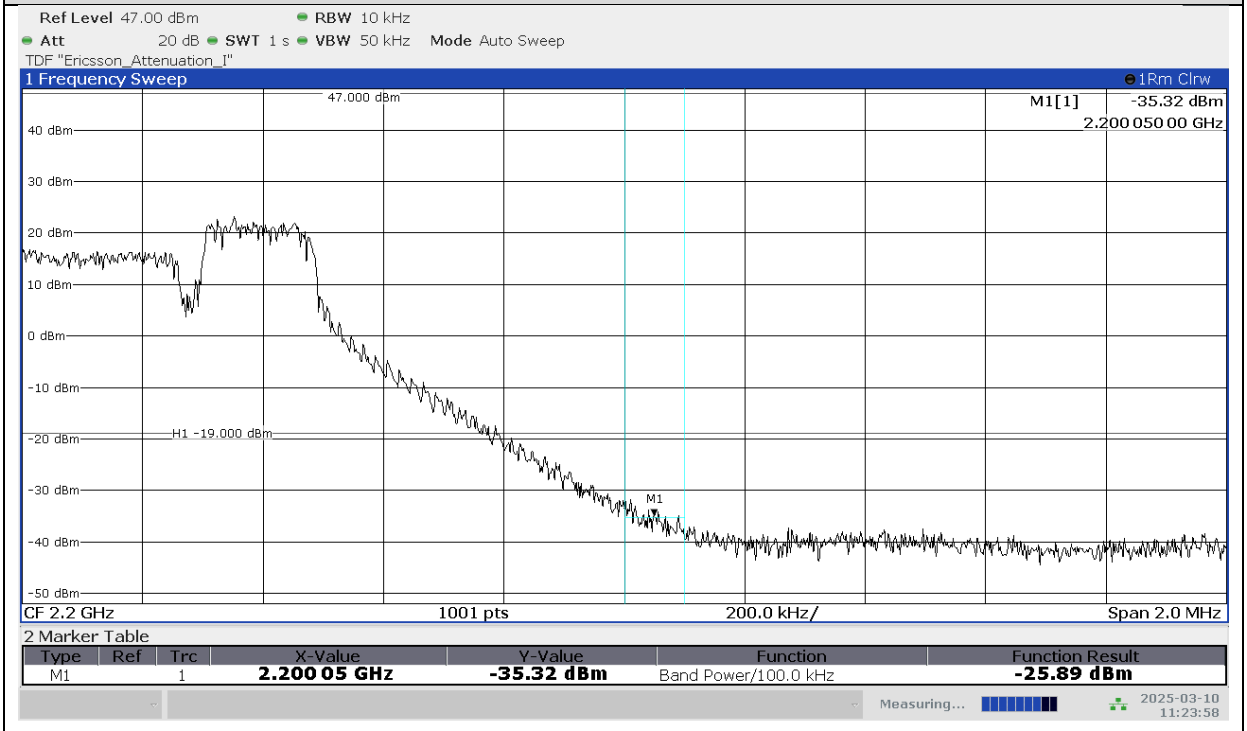
Configuration 3, Lower edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	10 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



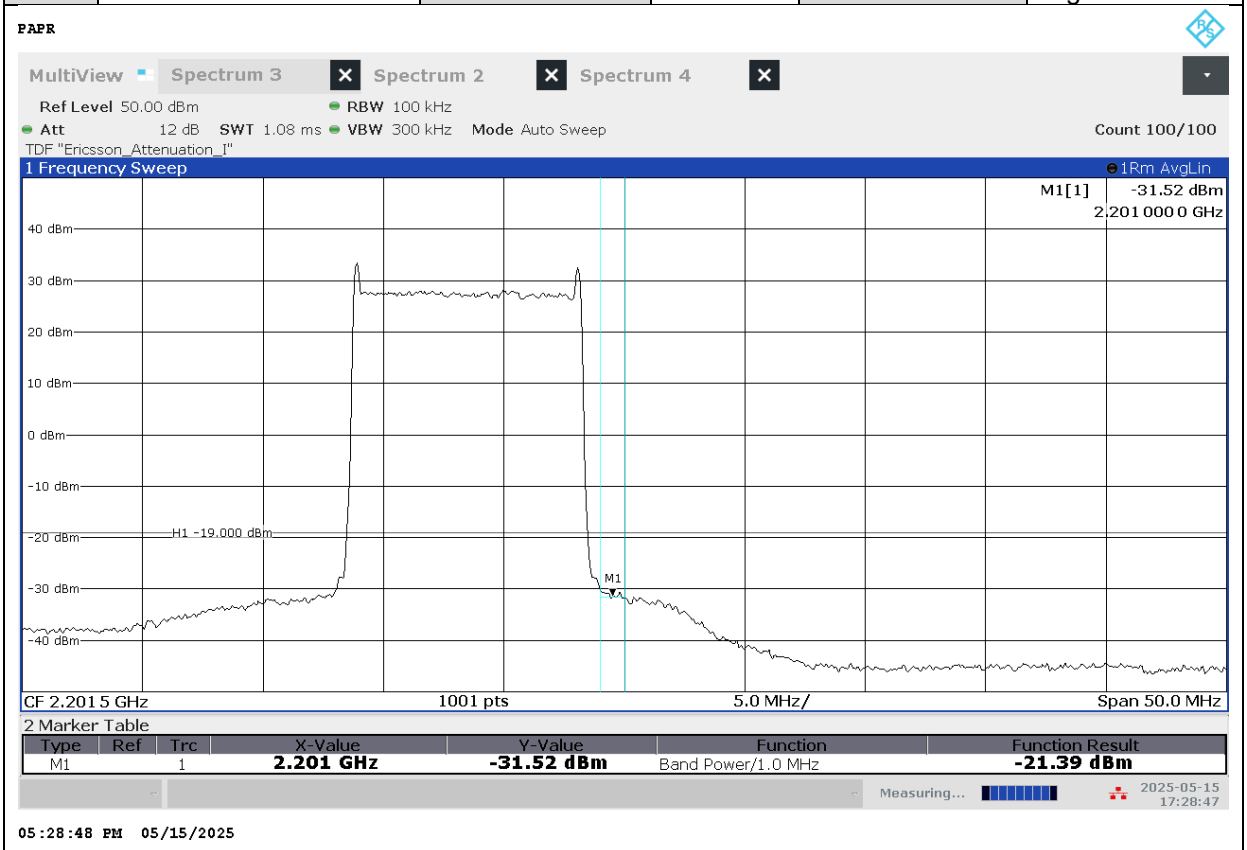
Configuration 3, Lower edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	10 MHz	Channel:	Low



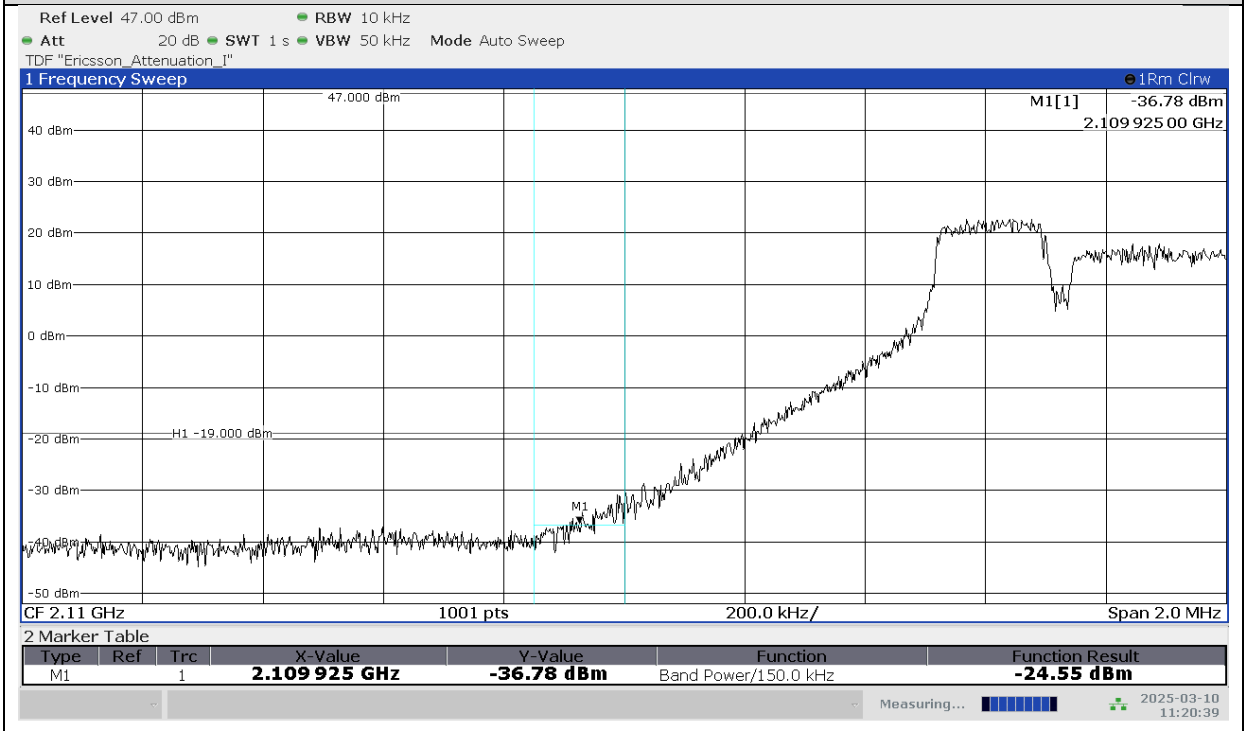
Configuration 3, Upper edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	10 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



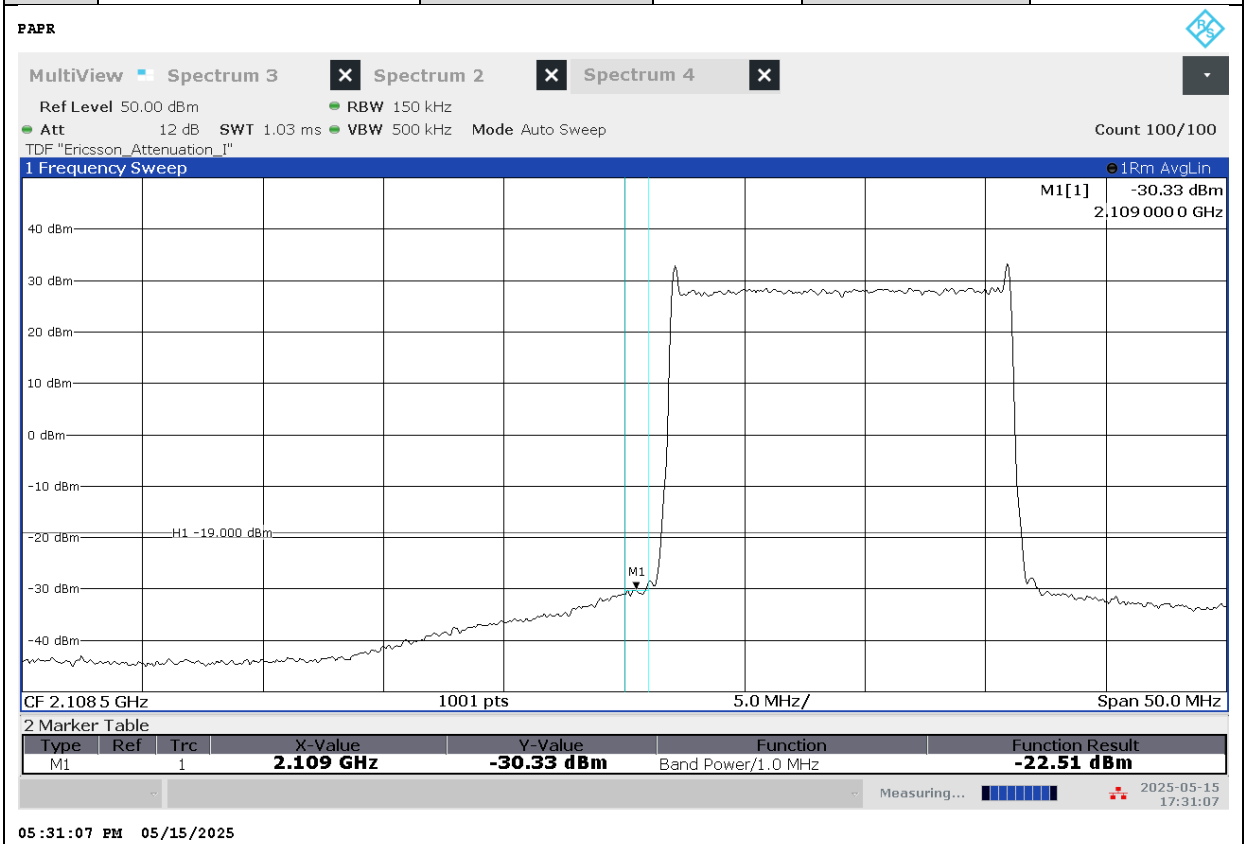
Configuration 3, Upper edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	10 MHz	Channel:	High



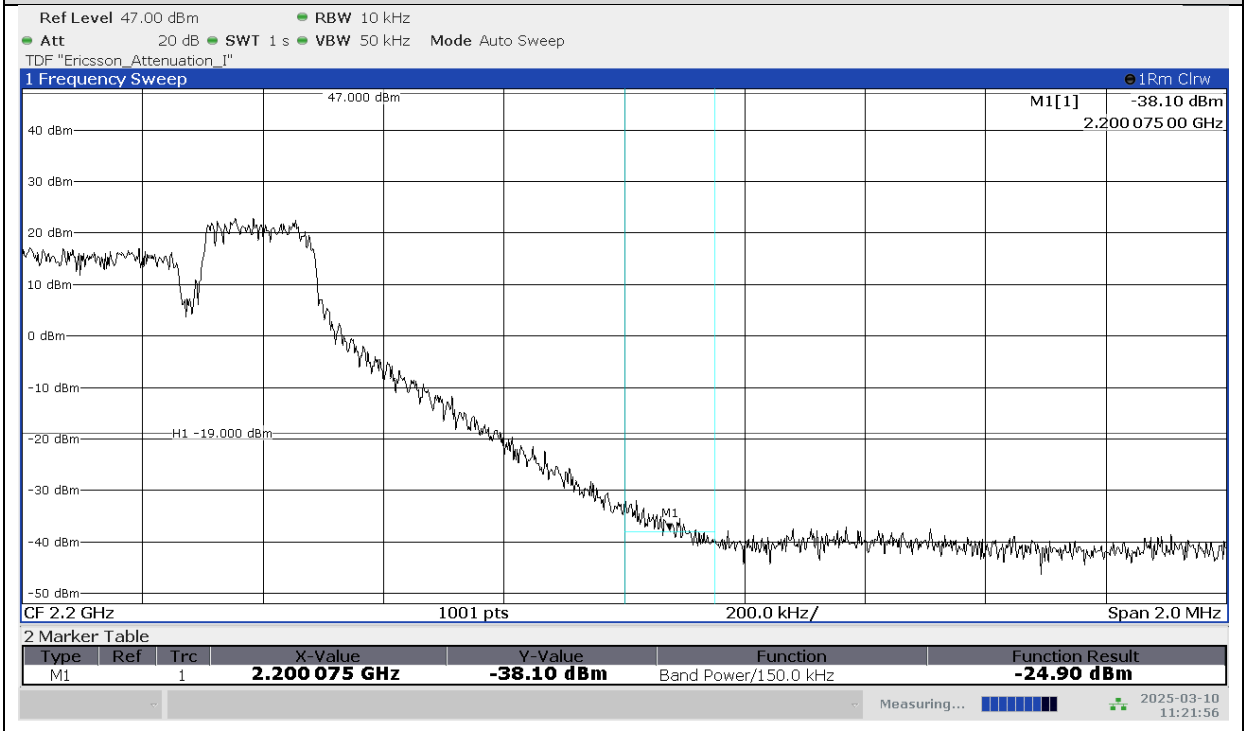
Configuration 3, Lower edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	15 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



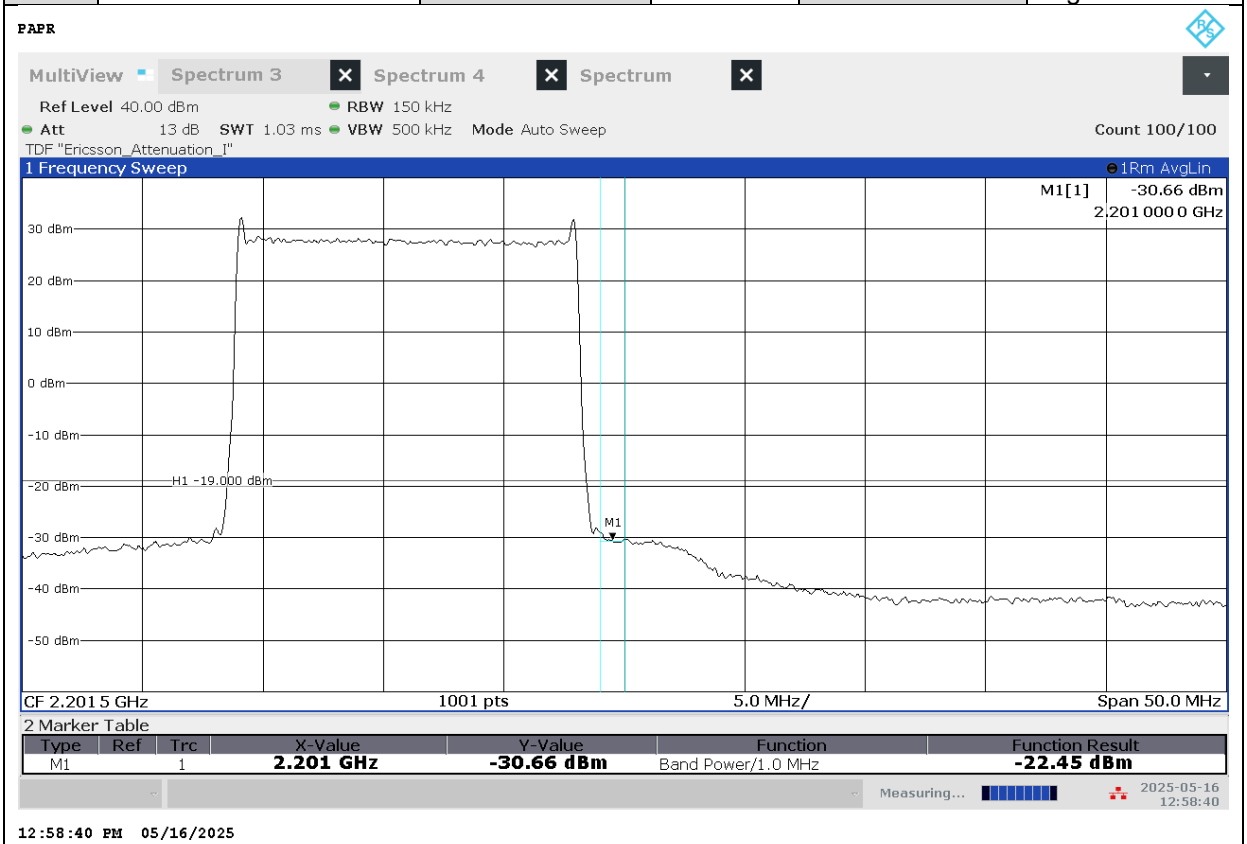
Configuration 3, Lower edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	15 MHz	Channel:	Low



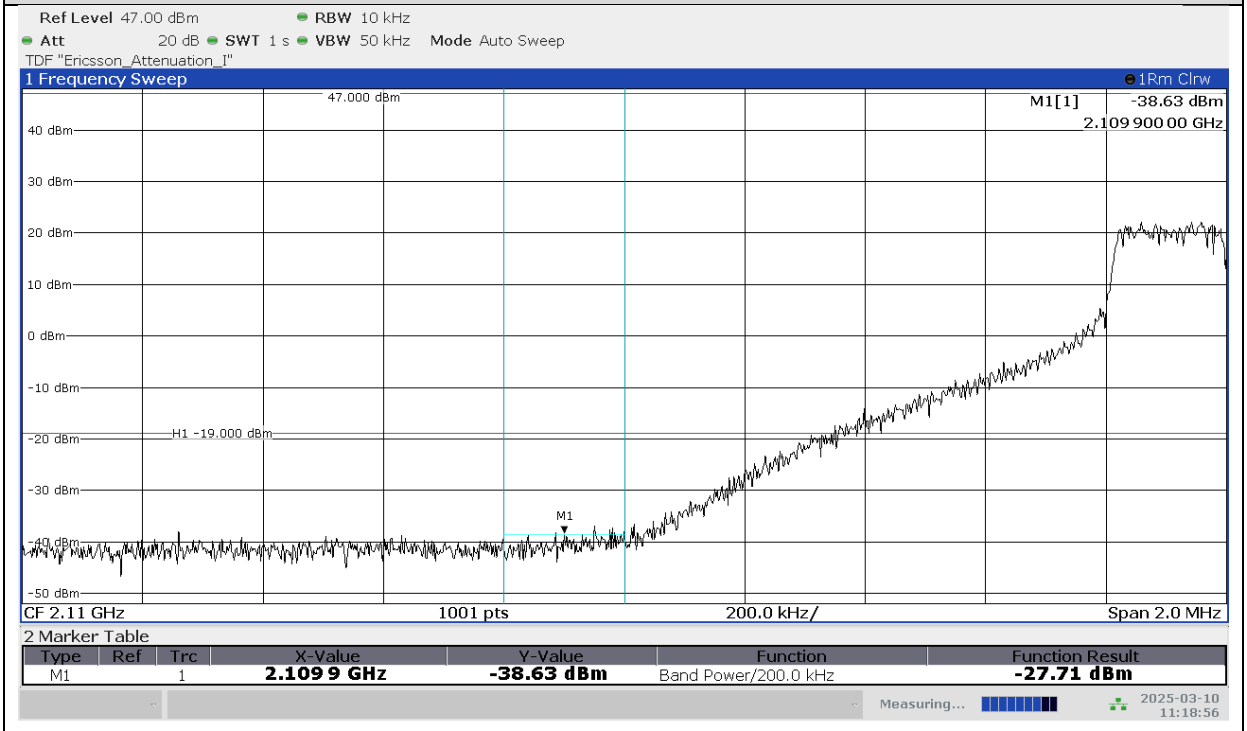
Configuration 3, Upper edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	15 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



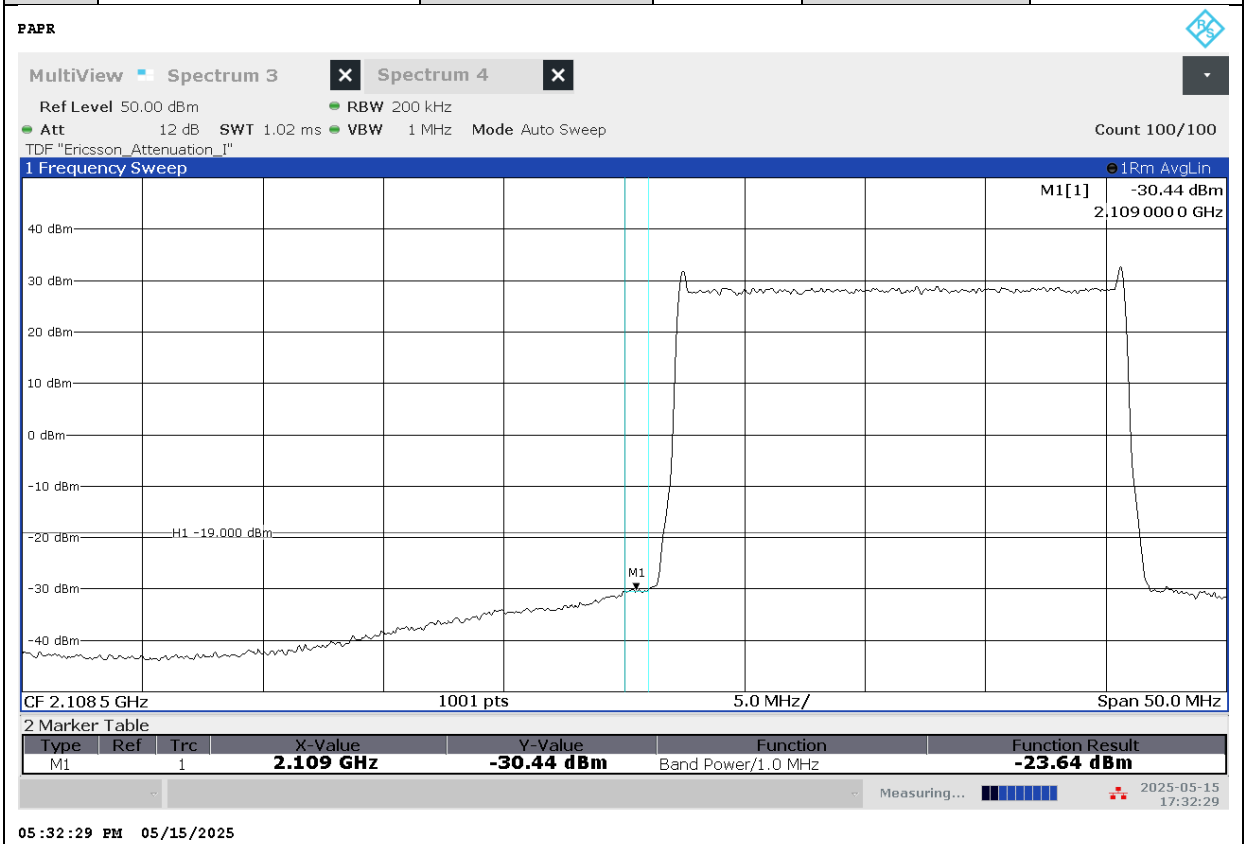
Configuration 3, Upper edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	15 MHz	Channel:	High



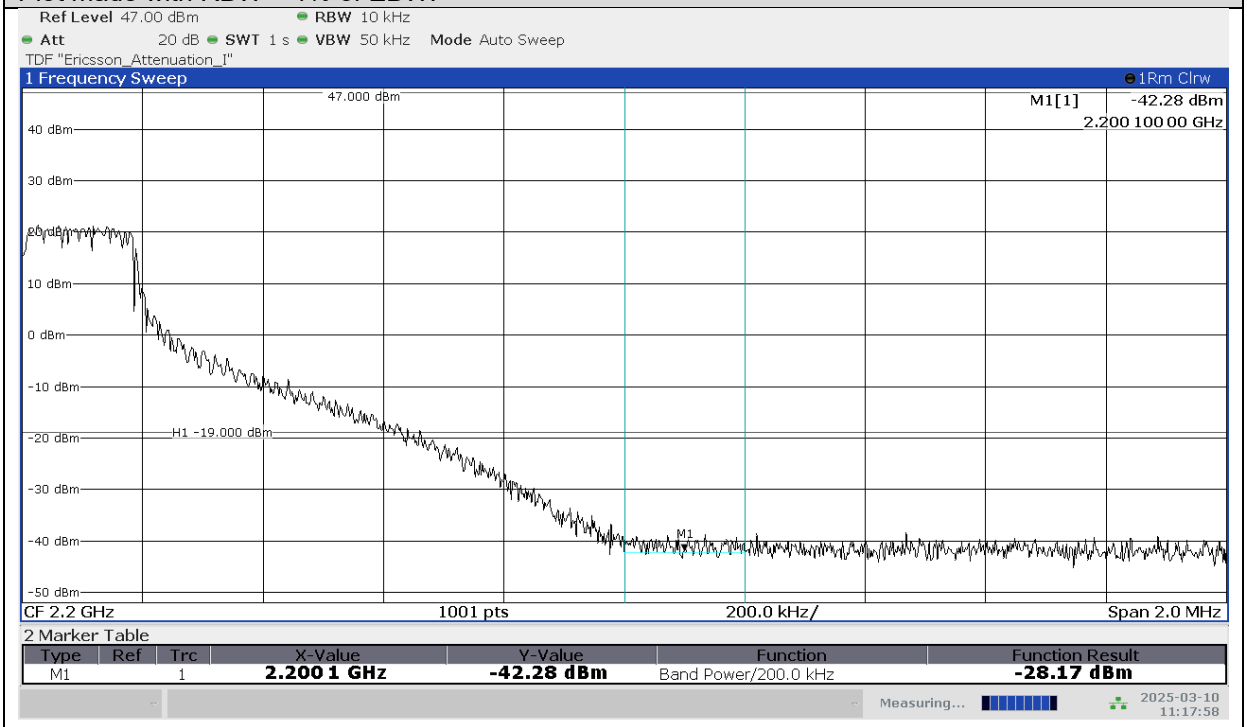
Configuration 3, Lower edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	20 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



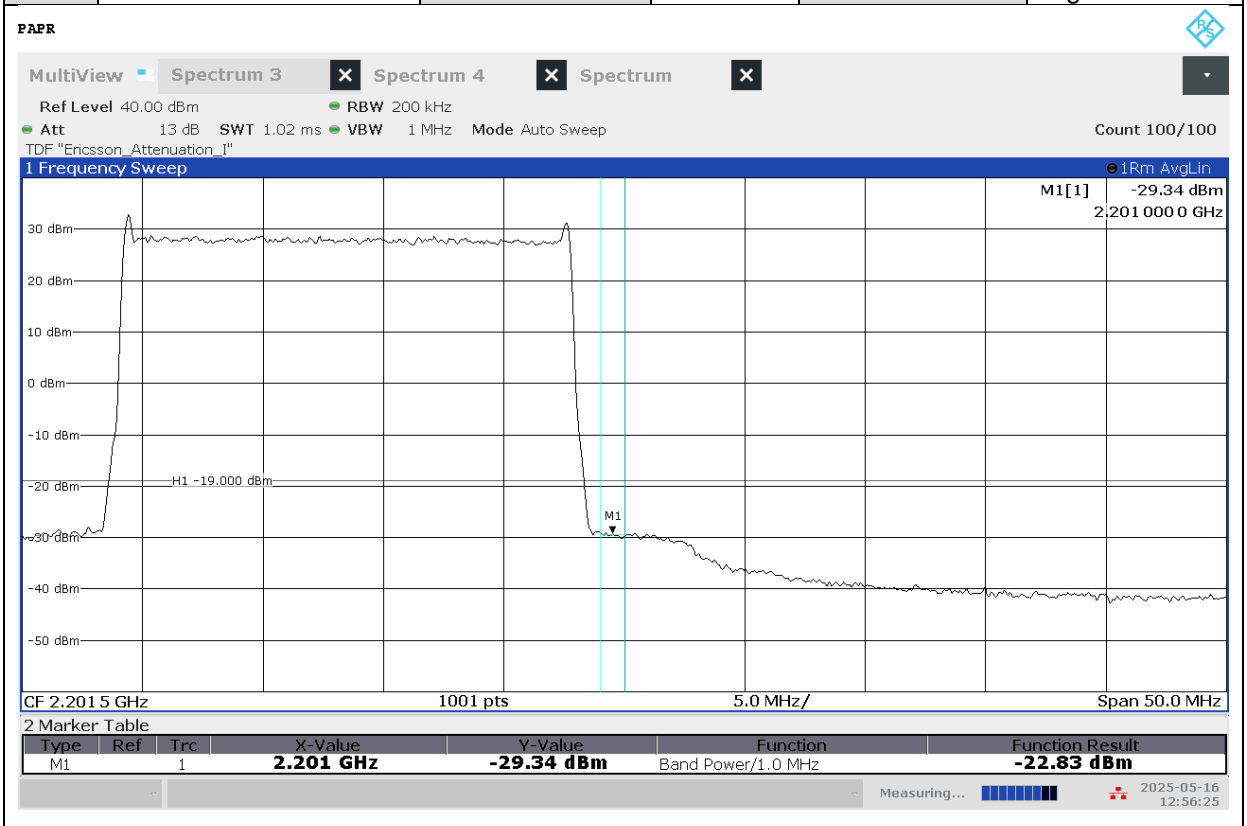
Configuration 3, Lower edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	20 MHz	Channel:	Low



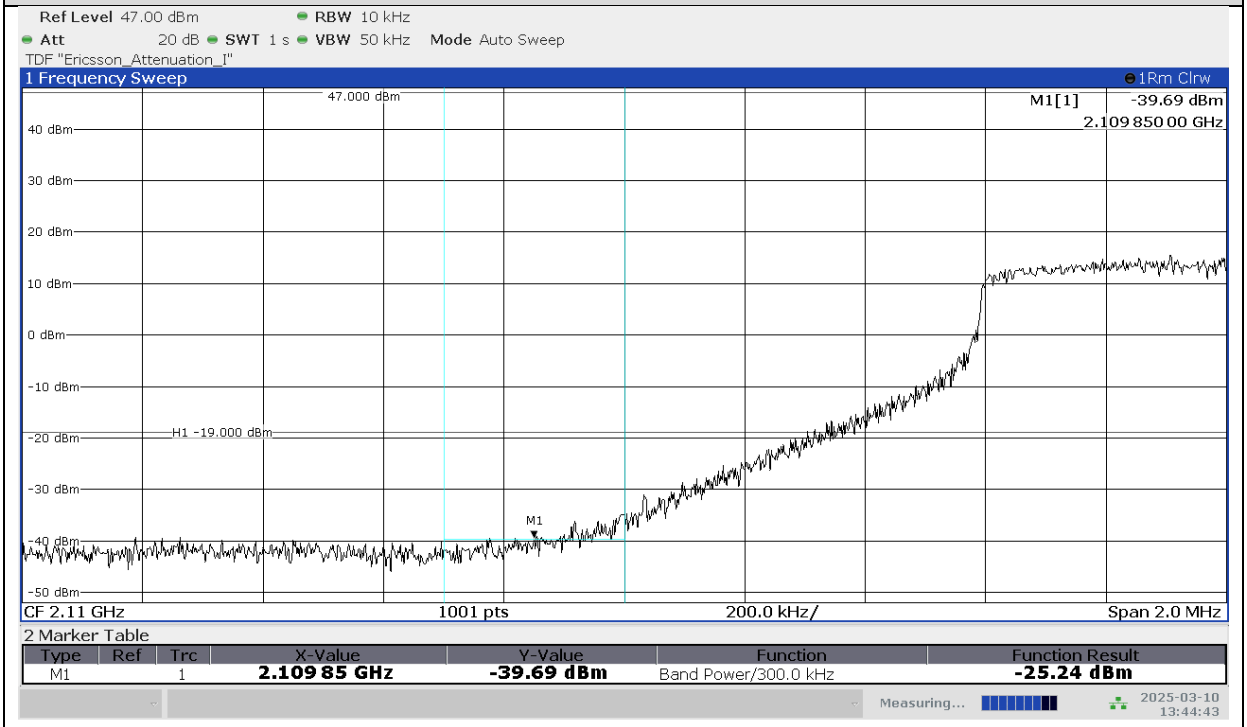
Configuration 3, Upper edge<1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	20 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



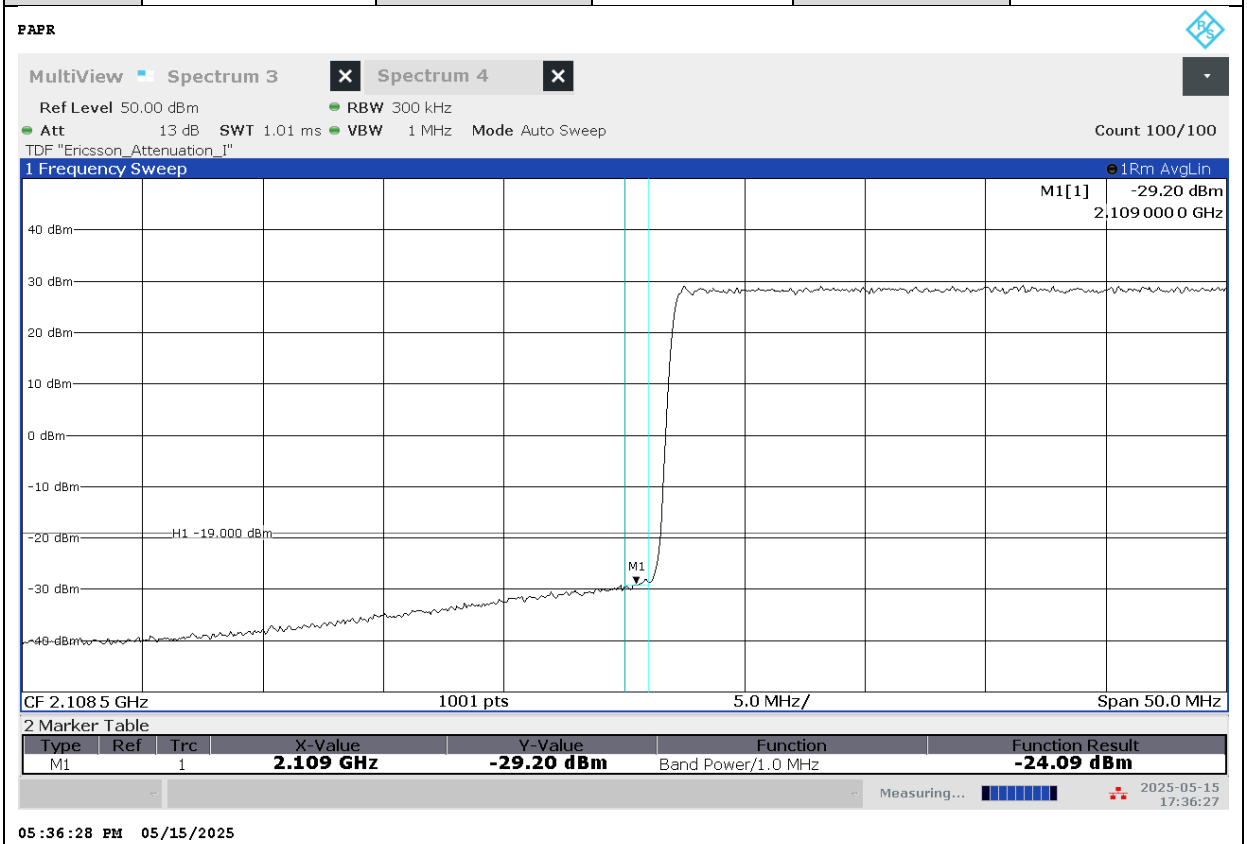
Configuration 3, Upper edge>1MHz					
RAT:	LTE Guard band NB-IoT	Bandwidth:	20 MHz	Channel:	High



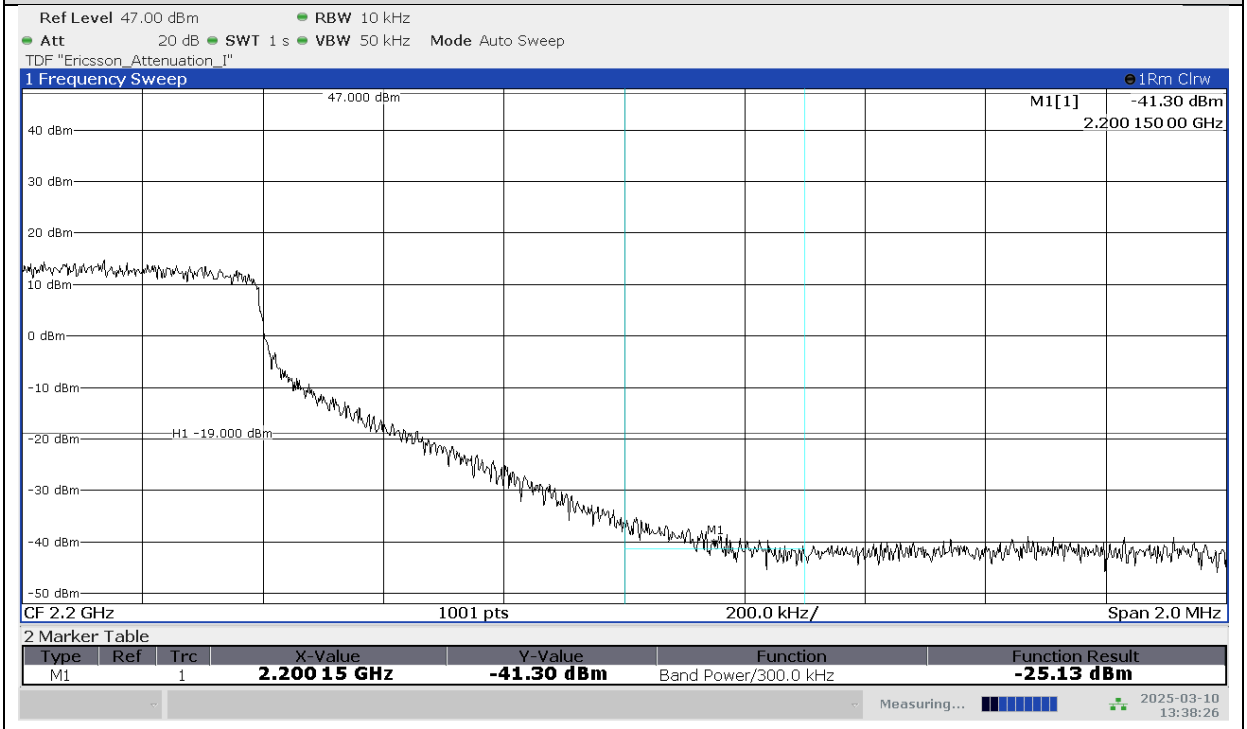
Configuration 4, Lower edge<1MHz					
RAT:	NR	Bandwidth:	30 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



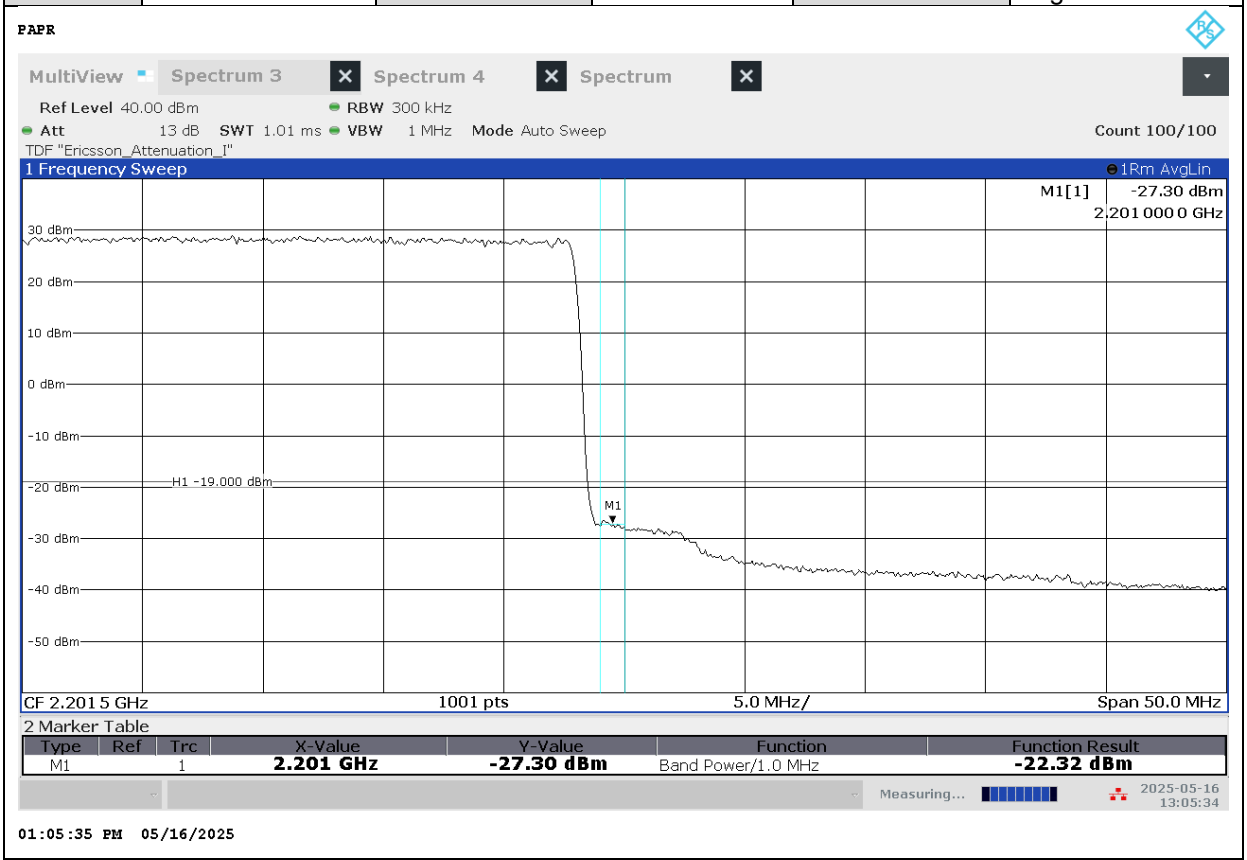
Configuration 4, Lower edge<1MHz					
RAT:	NR	Bandwidth:	30 MHz	Channel:	Low



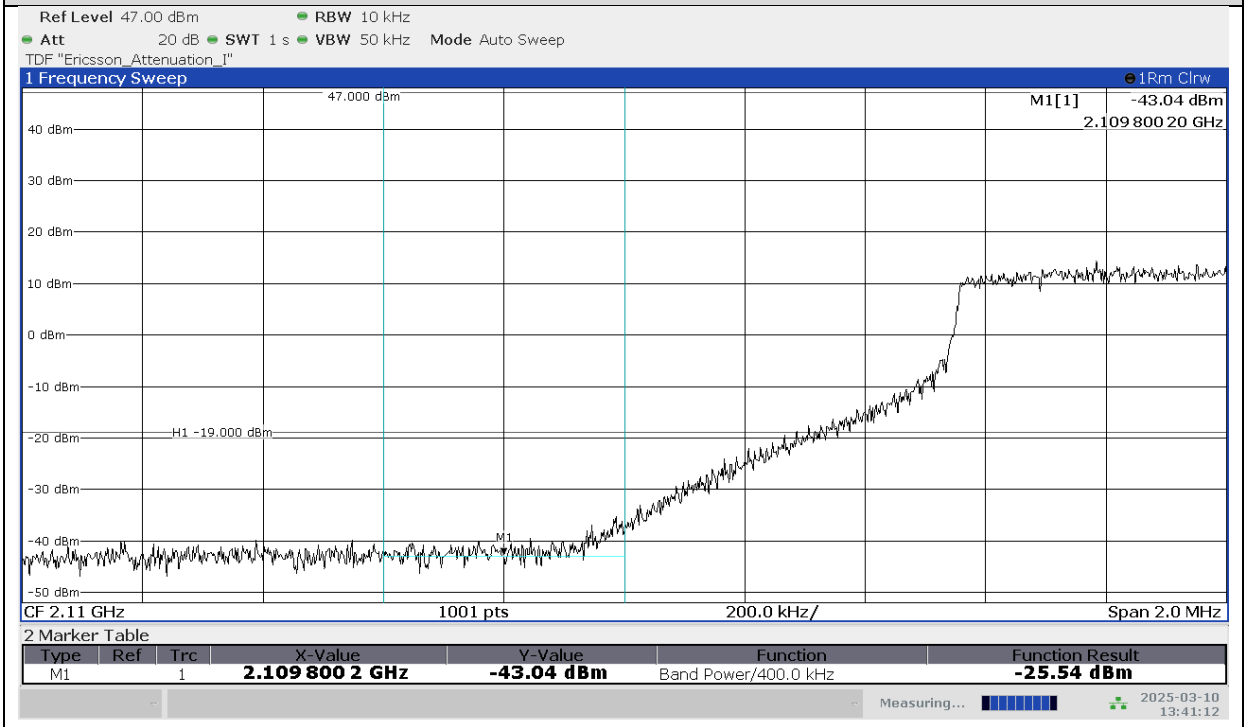
Configuration 4, Upper edge<1MHz					
RAT:	NR	Bandwidth:	30 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



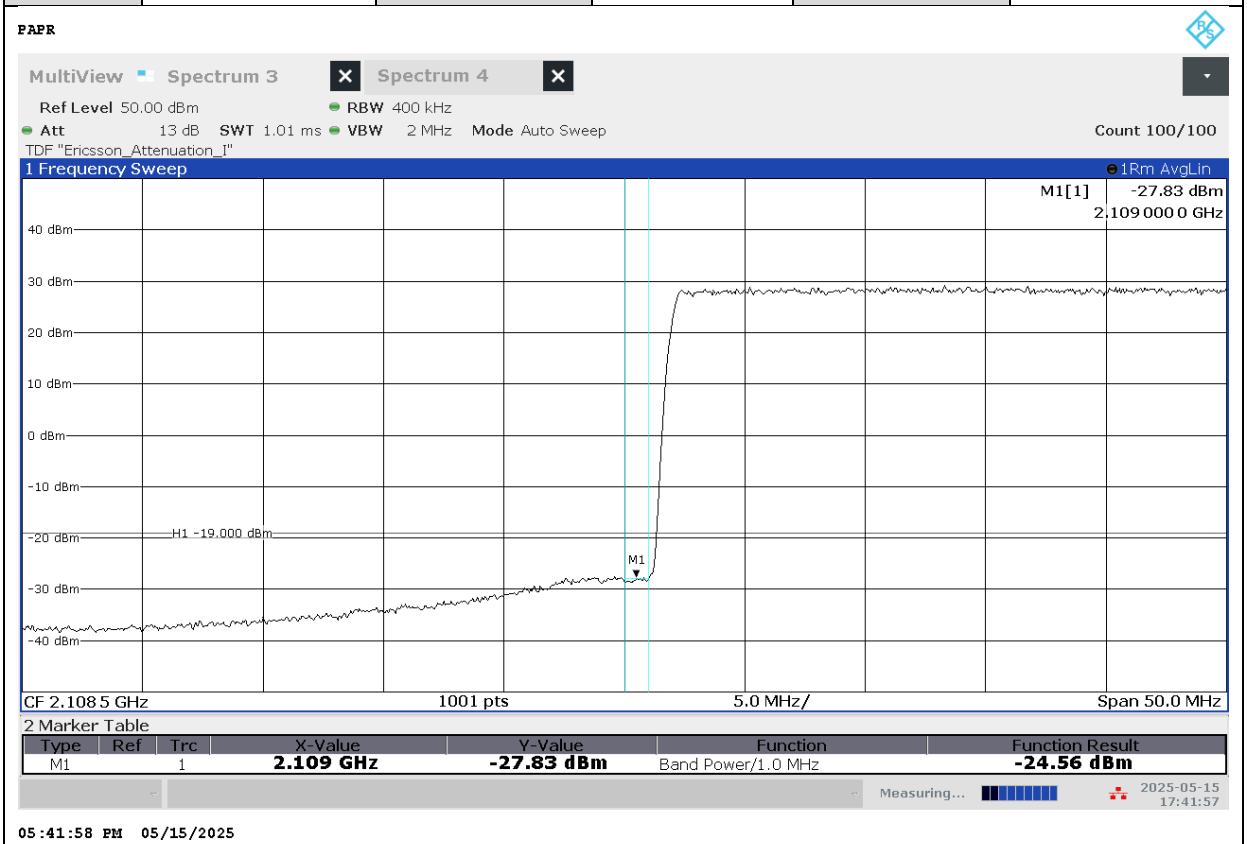
Configuration 4, Upper edge>1MHz					
RAT:	NR	Bandwidth:	30 MHz	Channel:	High



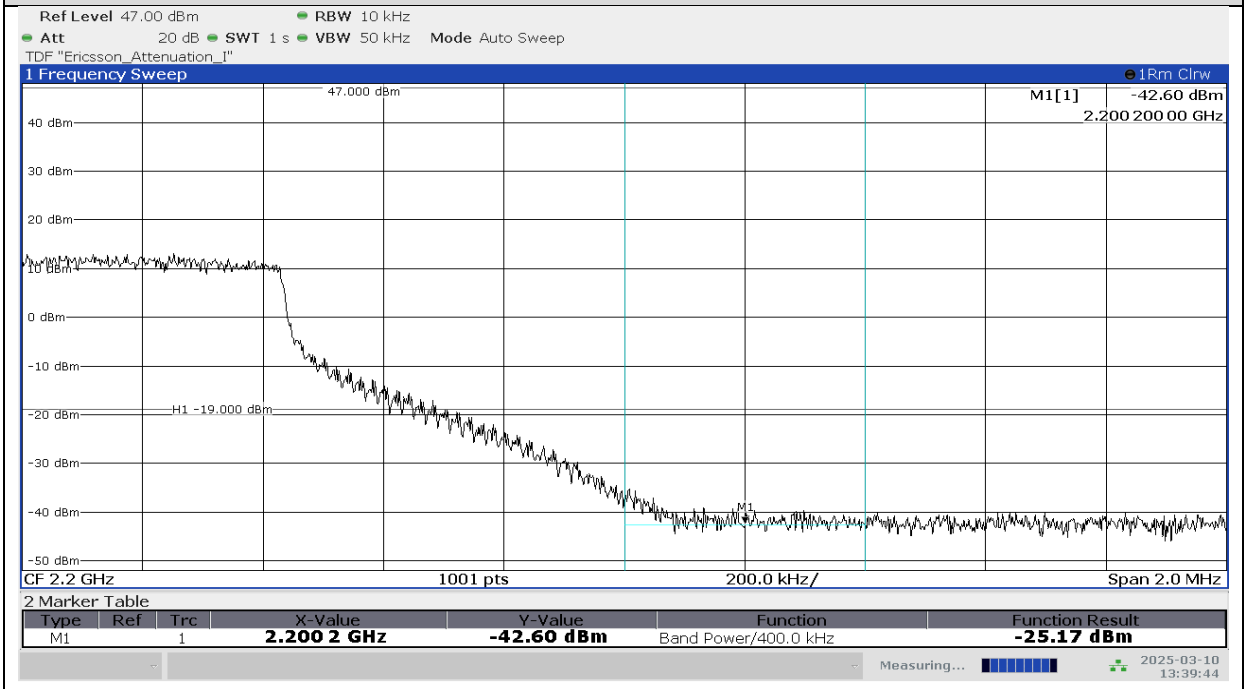
Configuration 4, Lower edge<1MHz					
RAT:	NR	Bandwidth:	40 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



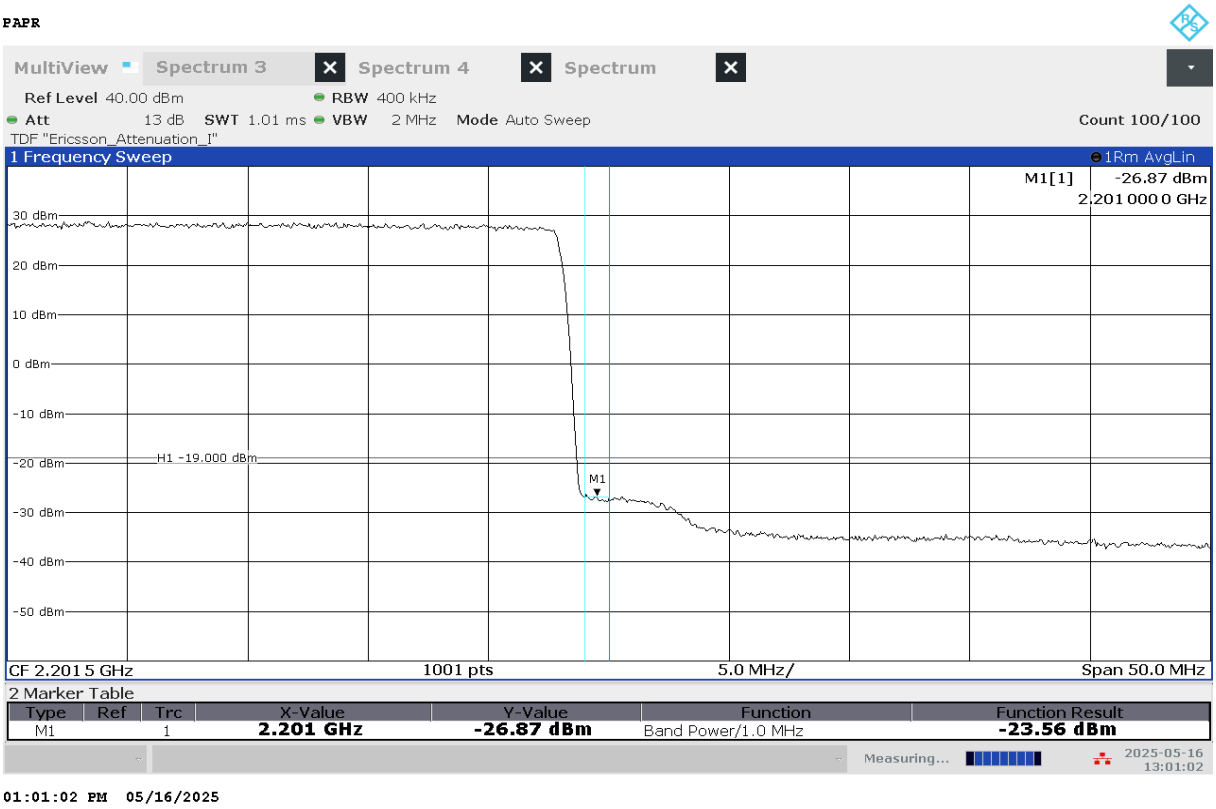
Configuration 4, Lower edge>1MHz					
RAT:	NR	Bandwidth:	40 MHz	Channel:	Low



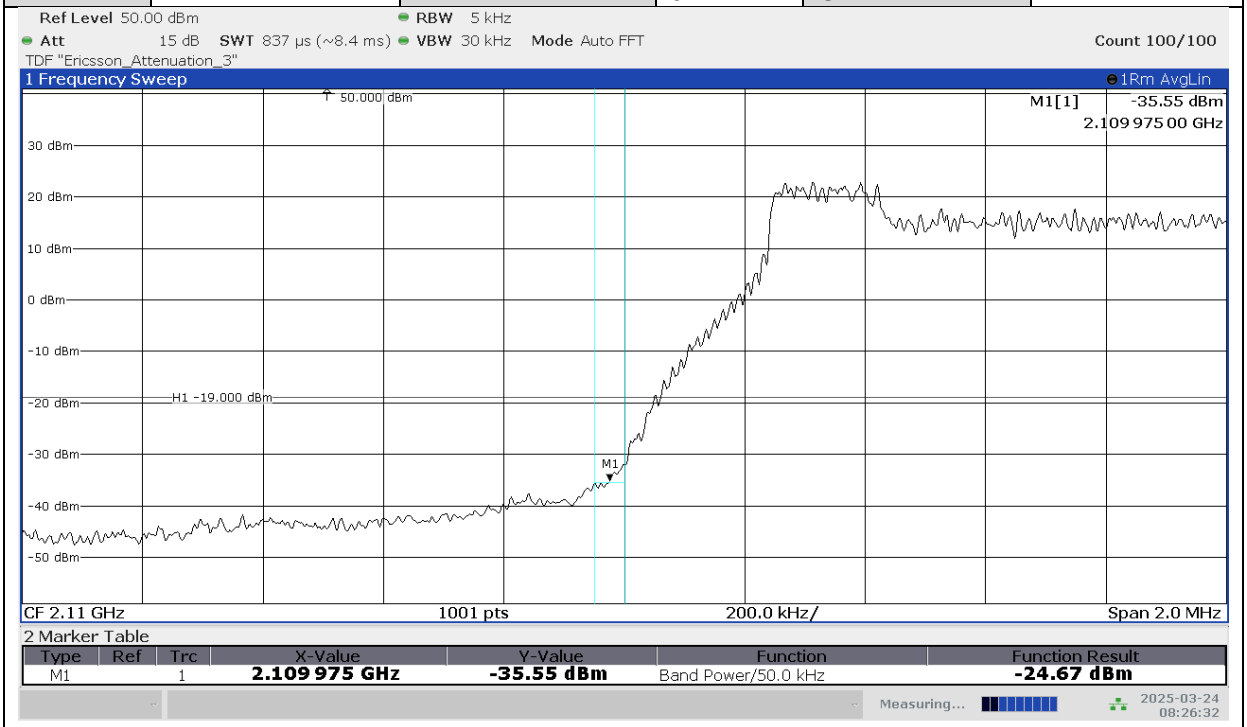
Configuration 4, Upper edge<1MHz					
RAT:	NR	Bandwidth:	40 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					



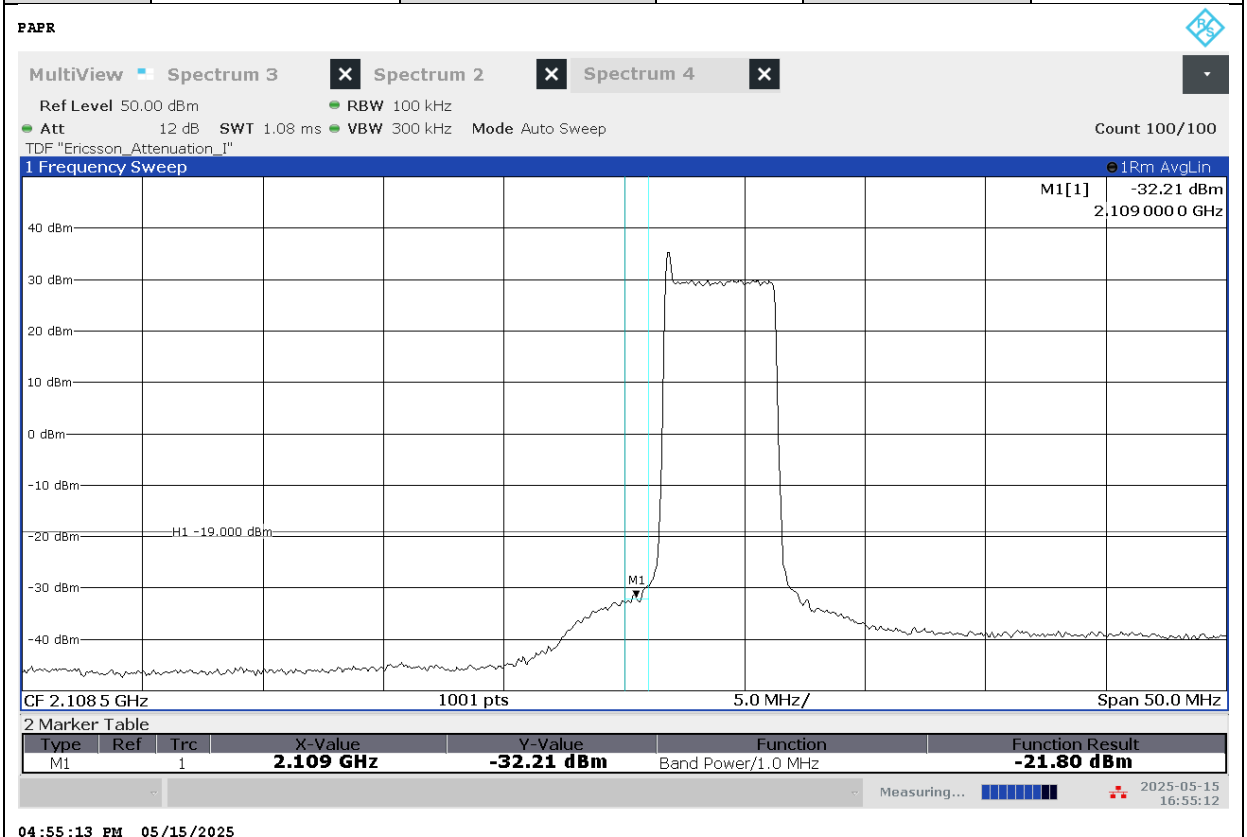
Configuration 4, Upper edge>1MHz					
RAT:	NR	Bandwidth:	40 MHz	Channel:	High



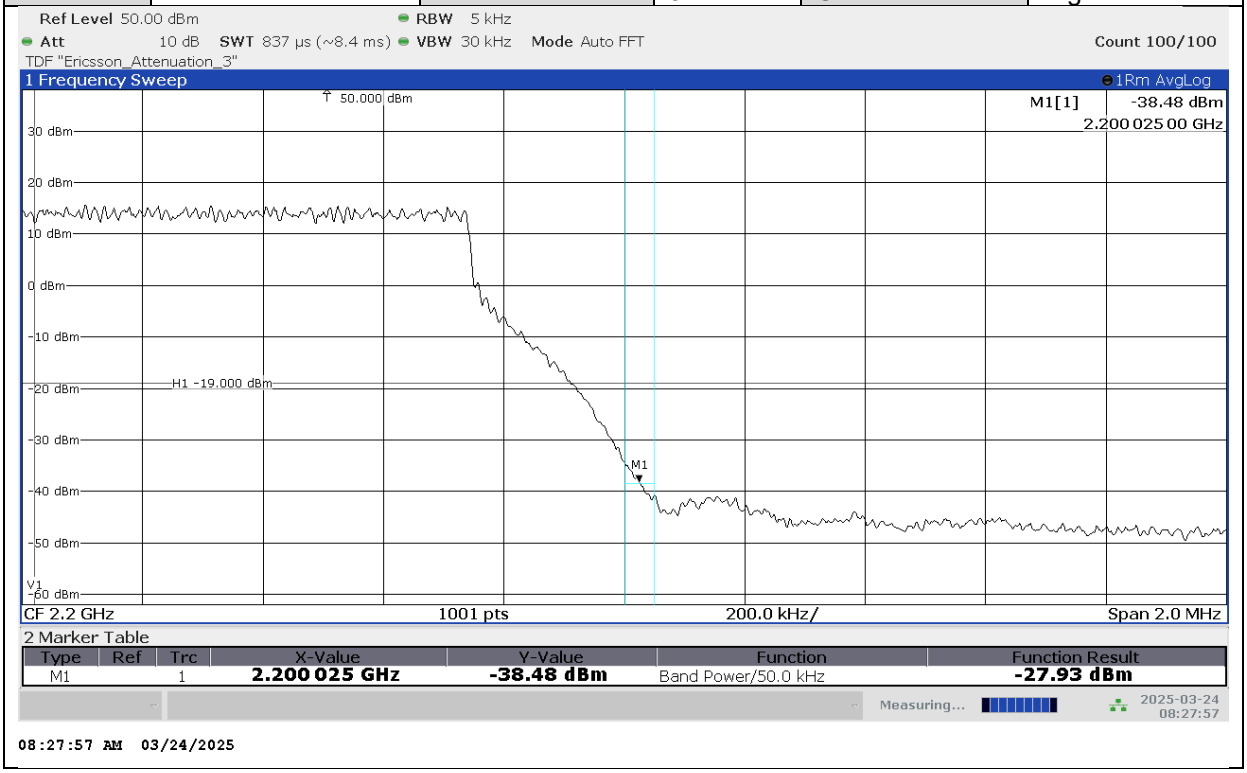
Configuration 5, Lower edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	5 MHz	Channel:	Low



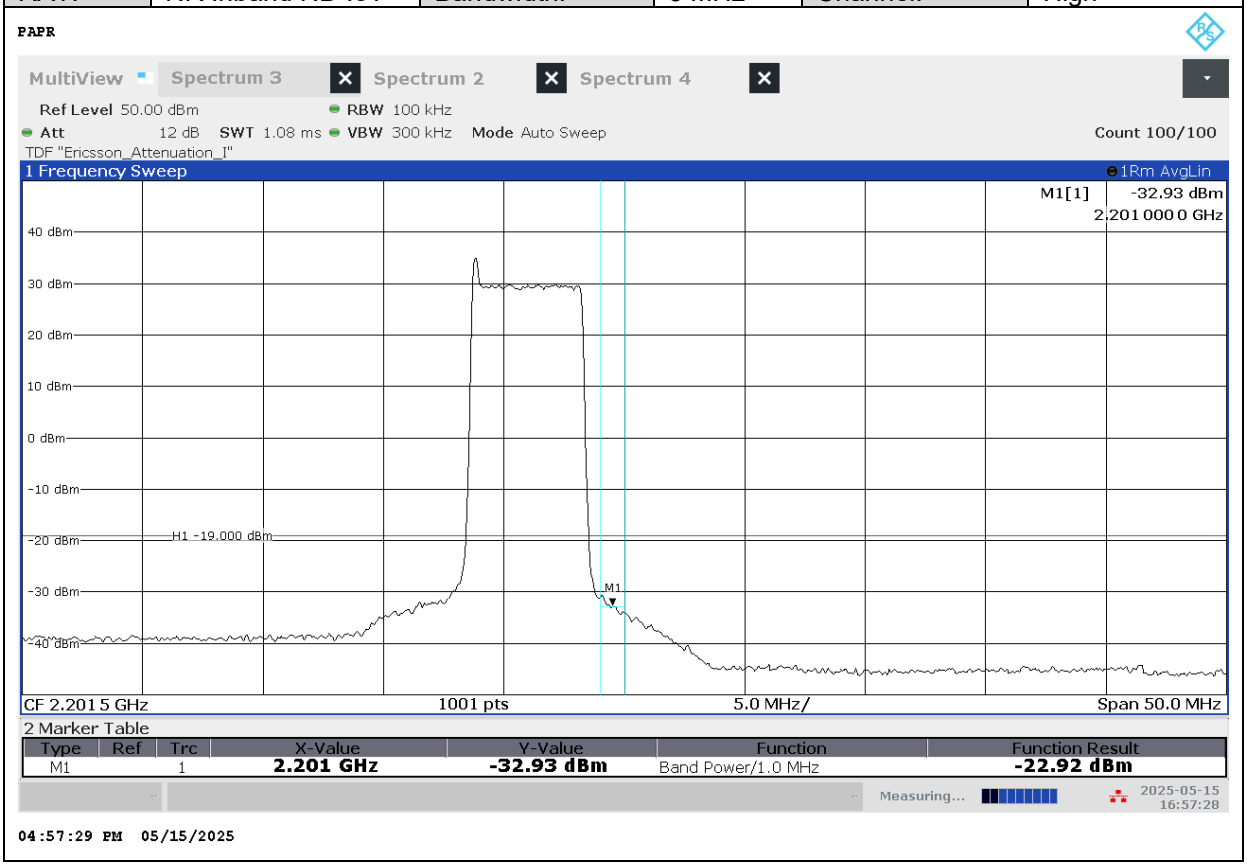
Configuration 5, Lower edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	5 MHz	Channel:	Low



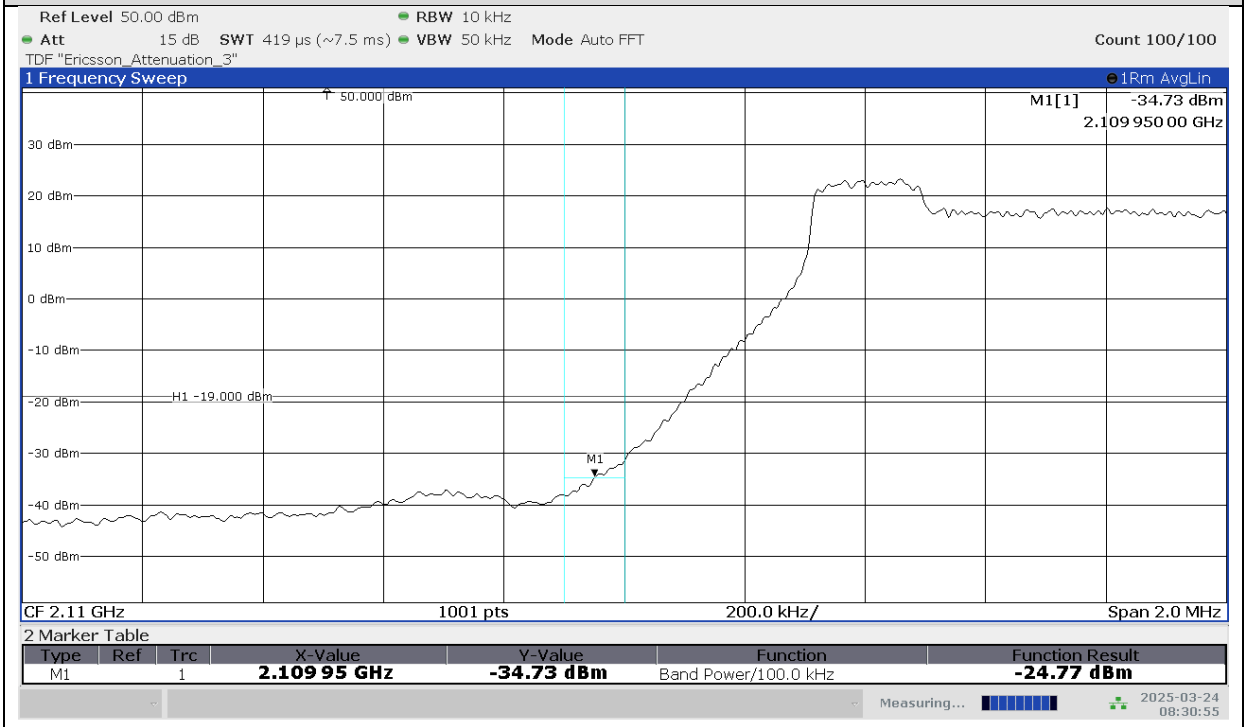
Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	5 MHz	Channel:	High



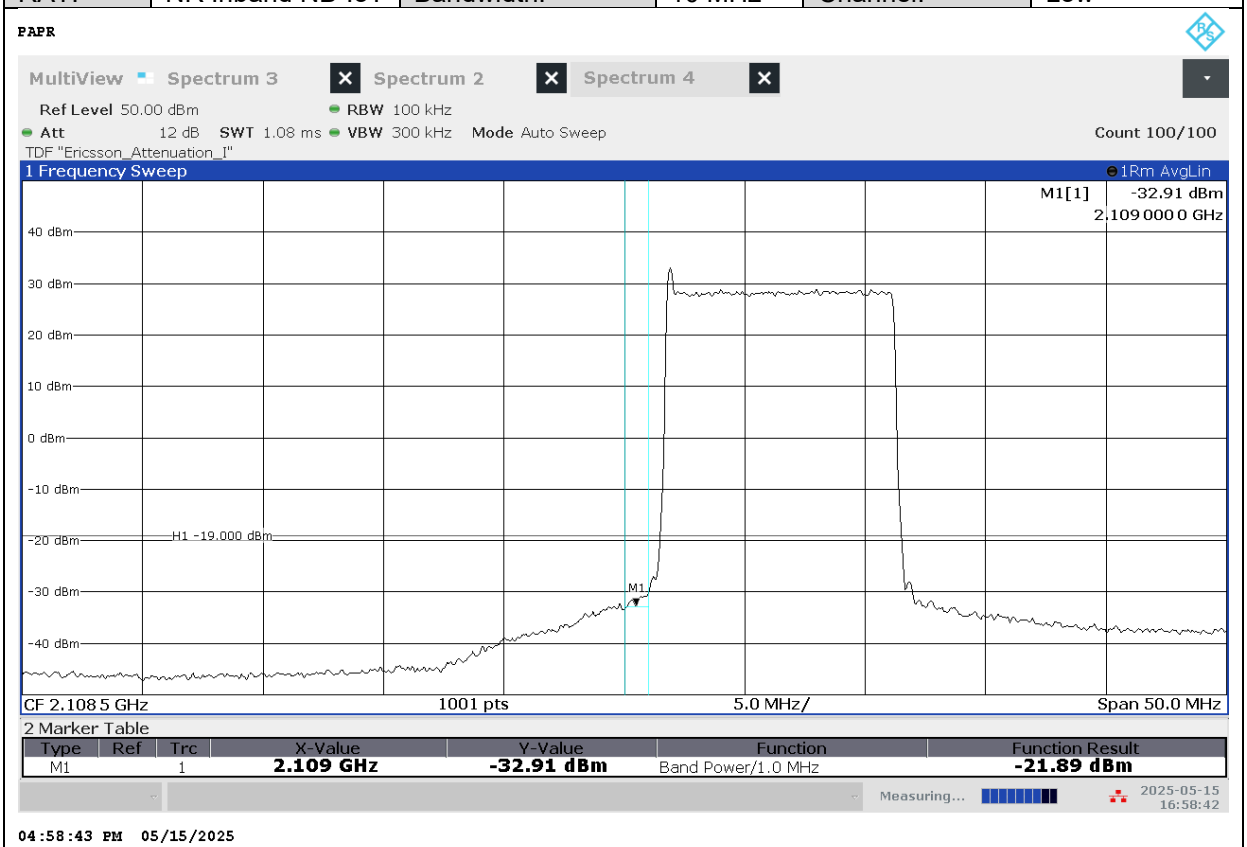
Configuration 5, Upper edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	5 MHz	Channel:	High



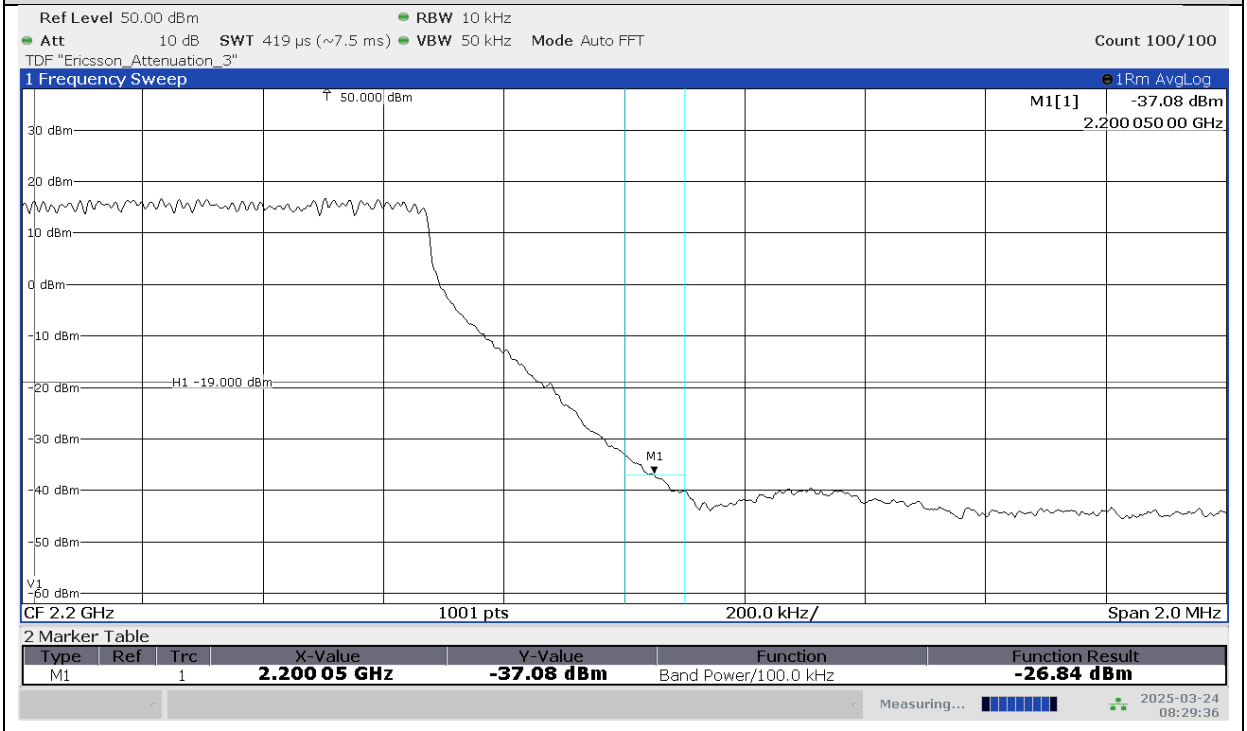
Configuration 5, Lower edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	10 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



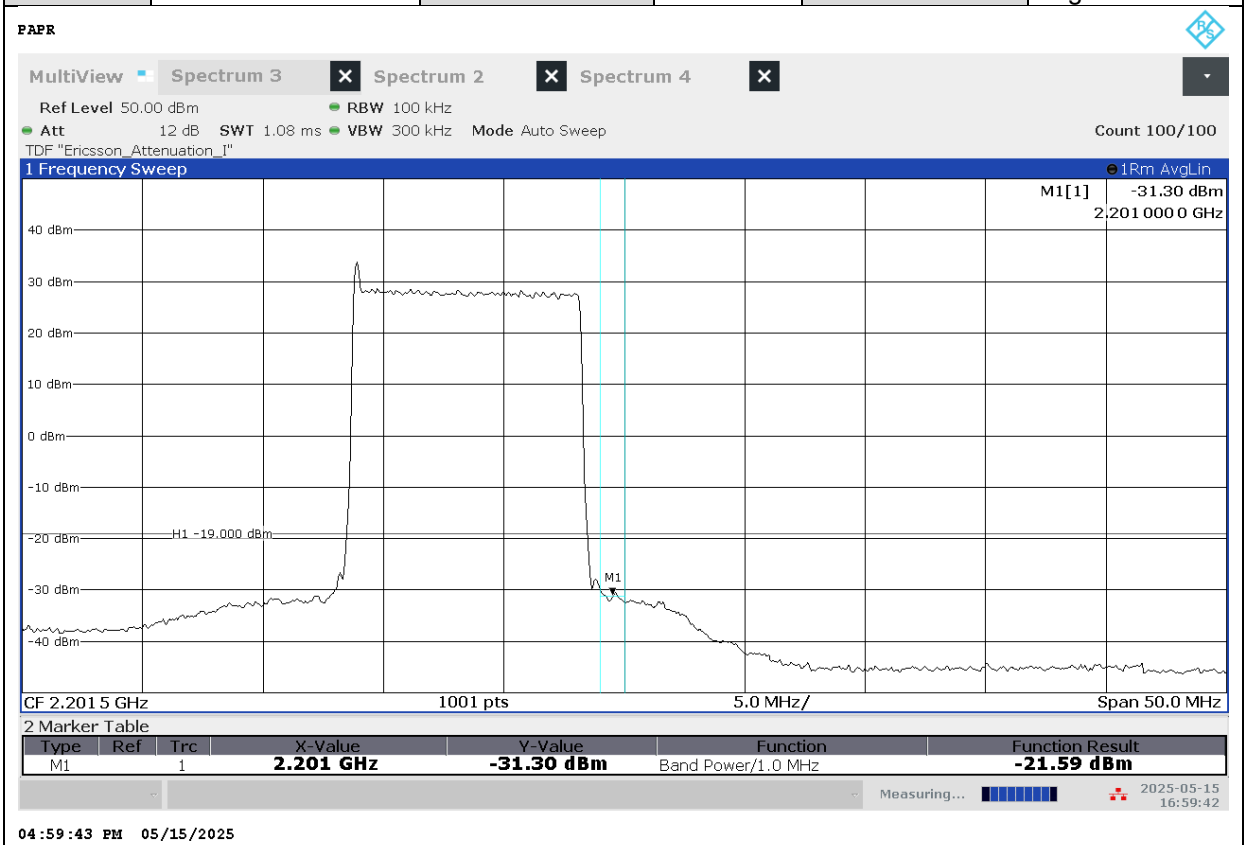
Configuration 5, Lower edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	10 MHz	Channel:	Low



Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	10 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					

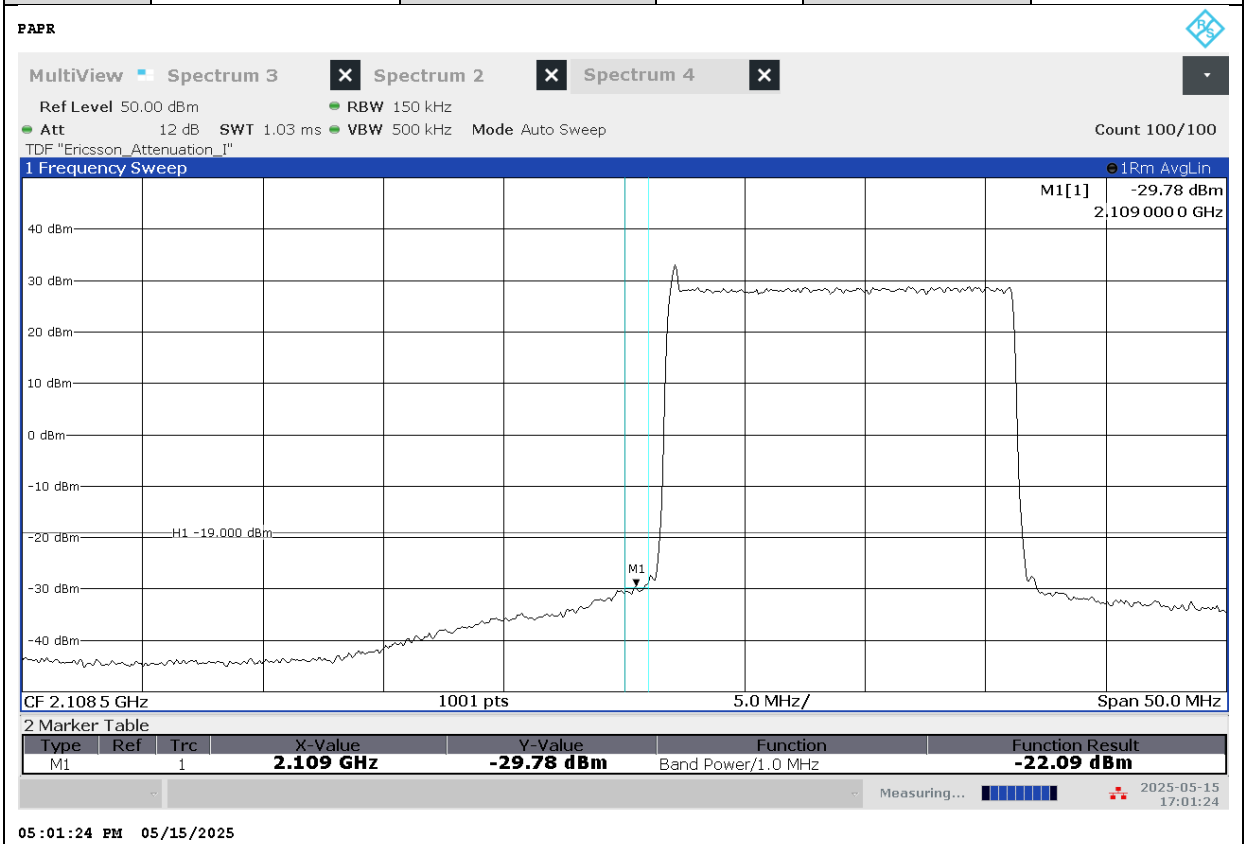


Configuration 5, Upper edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	10 MHz	Channel:	High



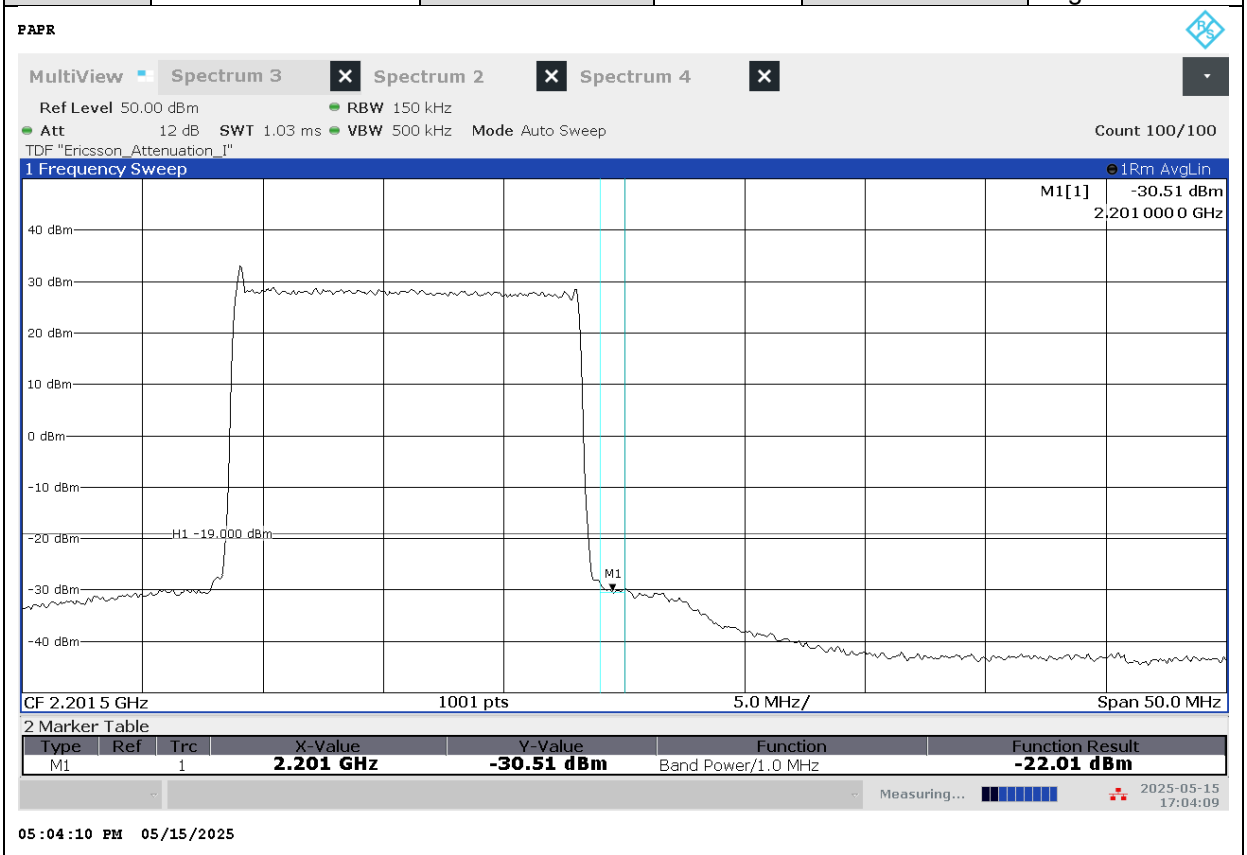
Configuration 5, Lower edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	15 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 5, Lower edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	15 MHz	Channel:	Low



Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	15 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					

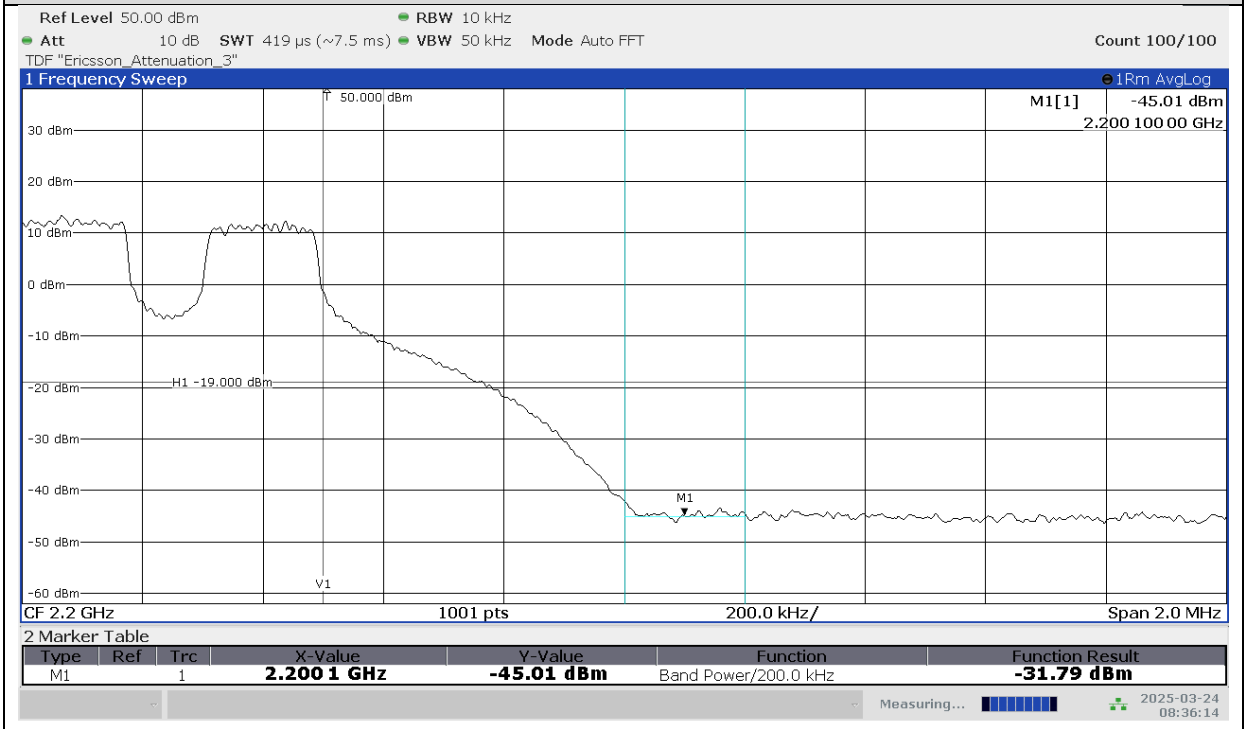
Configuration 5, Upper edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	15 MHz	Channel:	High



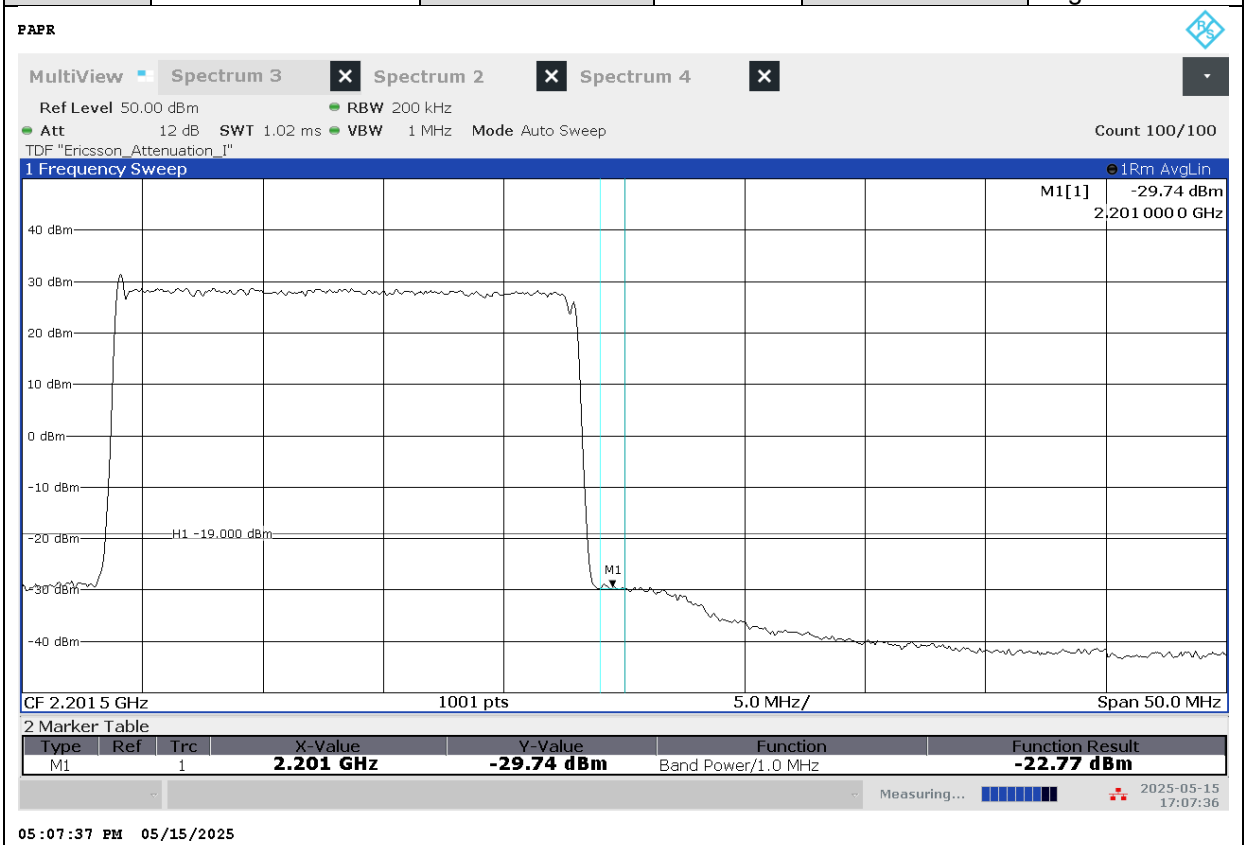
Configuration 5, Lower edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	20 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.4 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 5, Lower edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	20 MHz	Channel:	Low

Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	20 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.4 dBm				
Plot made with RBW < 1% of EBW.					

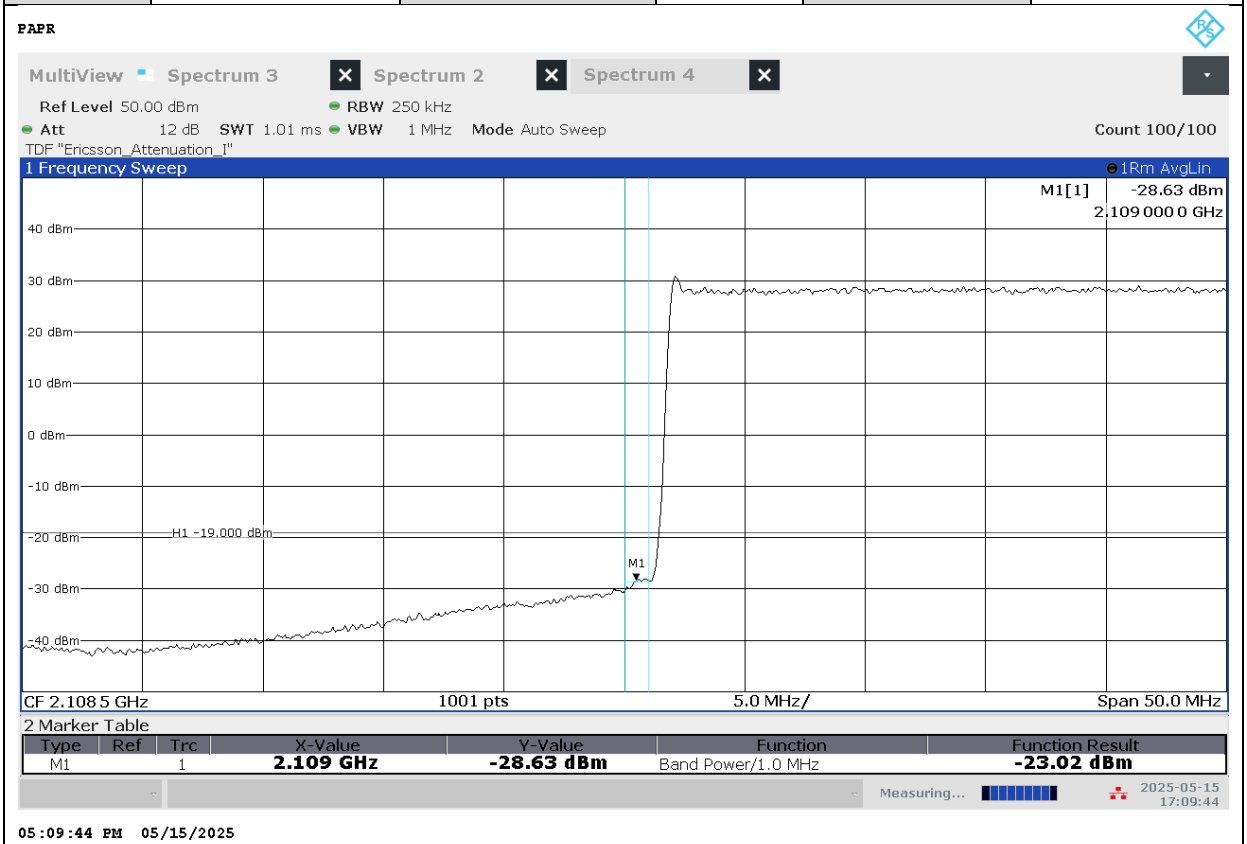


Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	20 MHz	Channel:	High



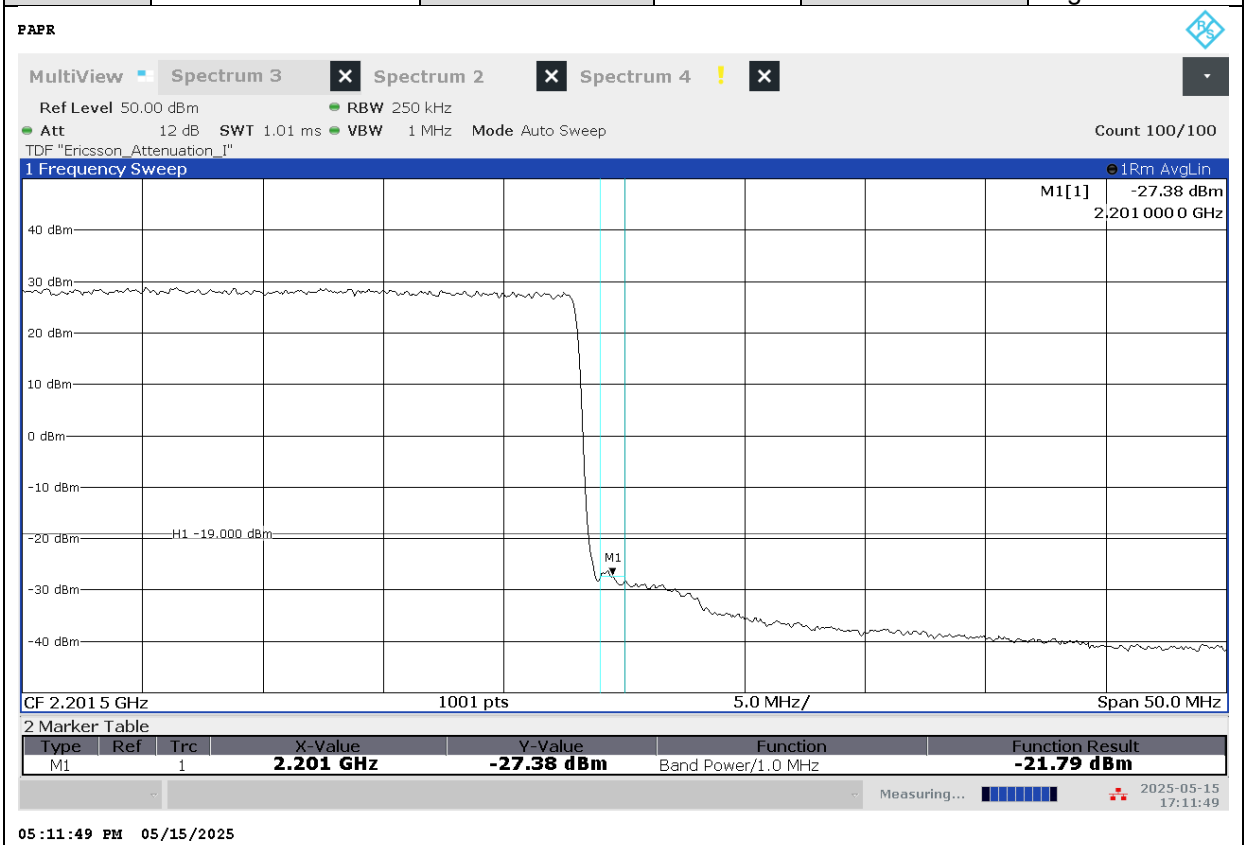
Configuration 5, Lower edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	25 MHz	Channel:	Low
Correct limit line 1% of EBW:	-19.3 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 5, Lower edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	25 MHz	Channel:	Low

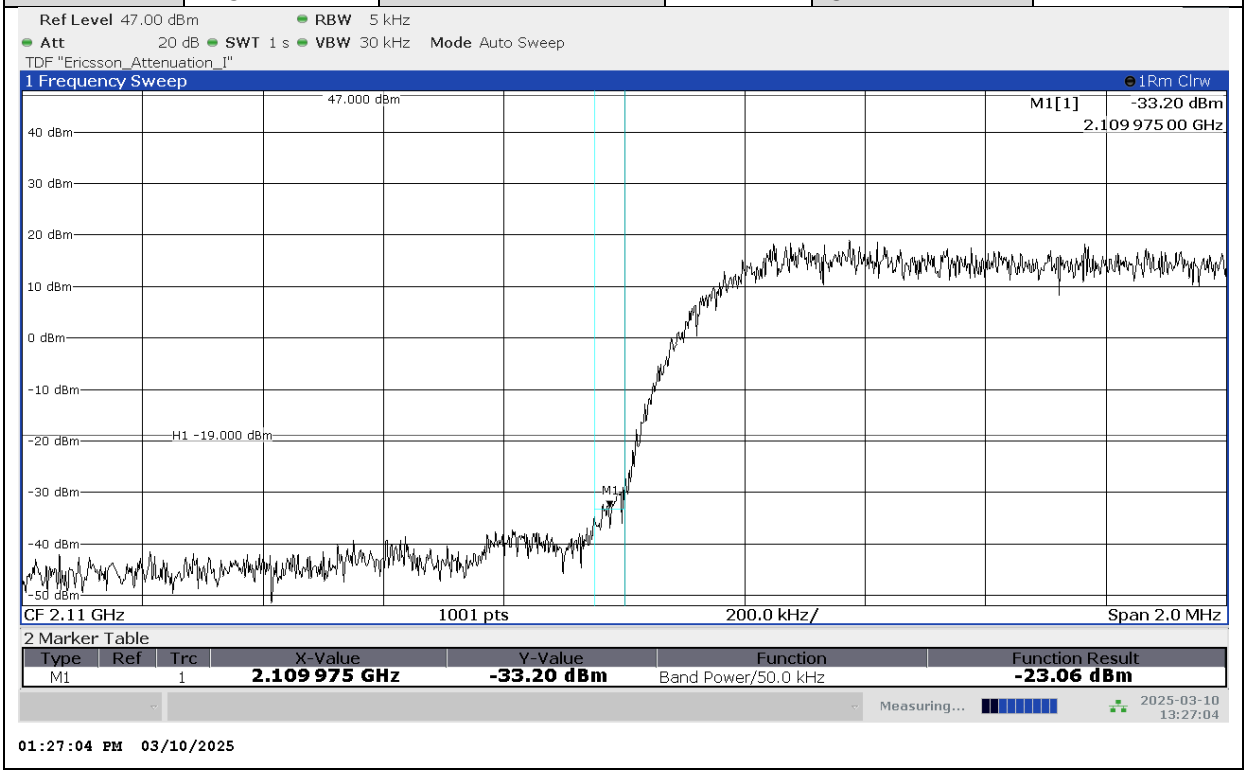


Configuration 5, Upper edge<1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	25 MHz	Channel:	High
Correct limit line 1% of EBW:	-19.3 dBm				
Plot made with RBW < 1% of EBW.					

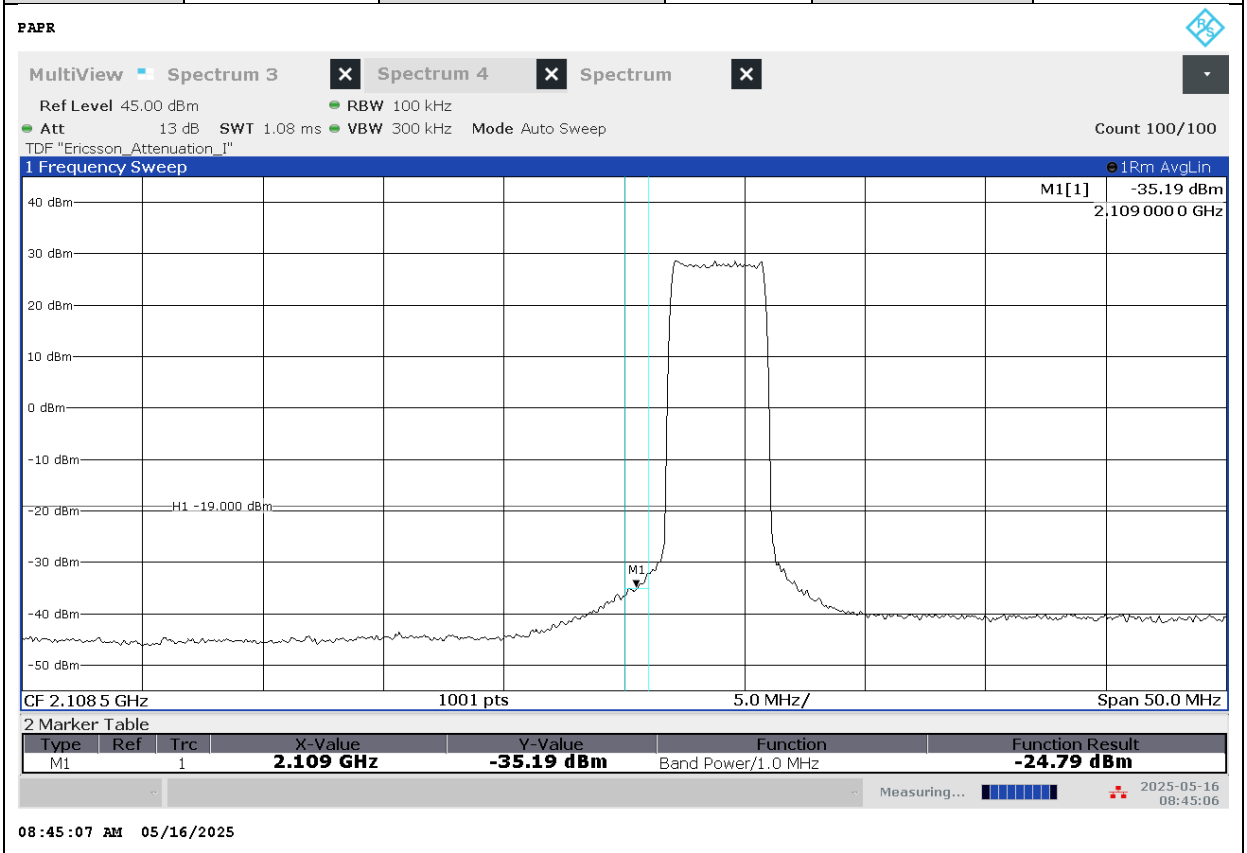
Configuration 5, Upper edge>1MHz					
RAT:	NR Inband NB-IoT	Bandwidth:	25 MHz	Channel:	High



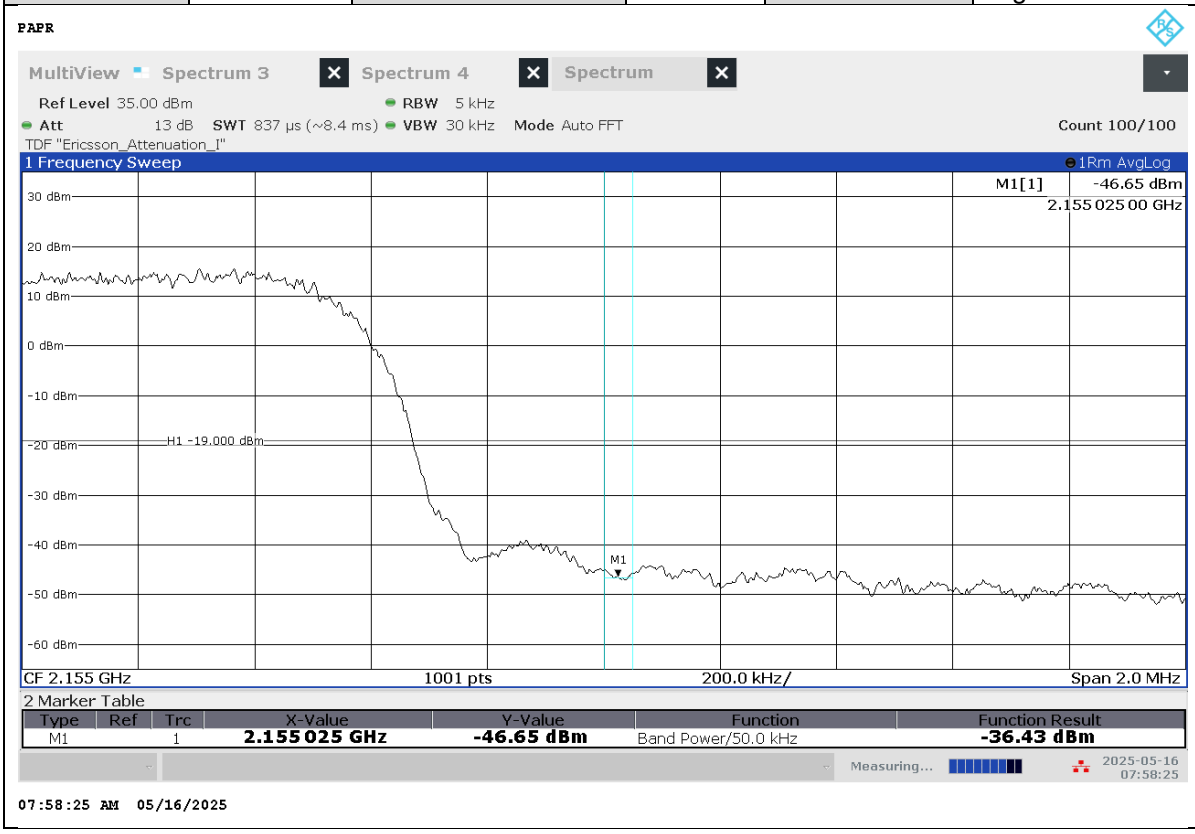
Configuration 6, Lower edge<1MHz					
RAT:	WCDMA	Bandwidth:	4.2 MHz	Channel	Low



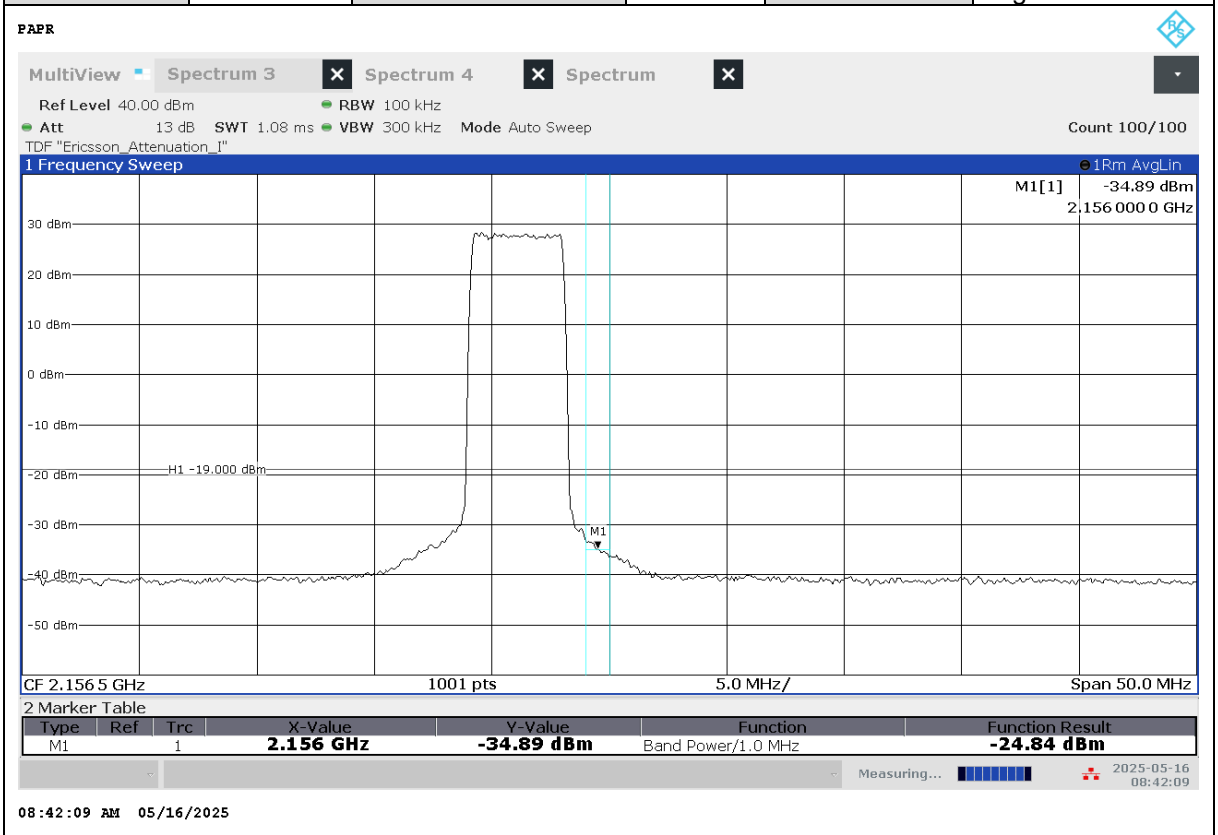
Configuration 6, Lower edge>1MHz					
RAT:	WCDMA	Bandwidth:	4.2 MHz	Channel	Low



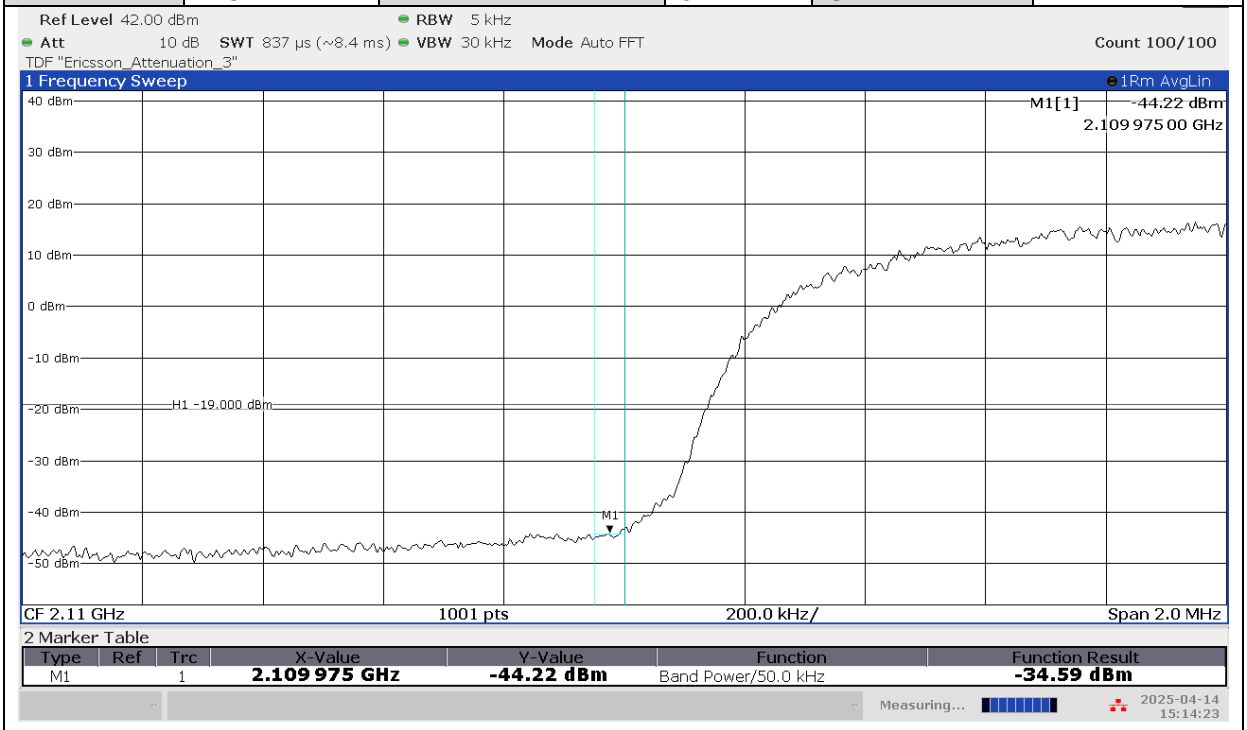
Configuration 6, Upper edge<1MHz					
RAT:	WCDMA	Bandwidth:	4.2 MHz	Channel	High



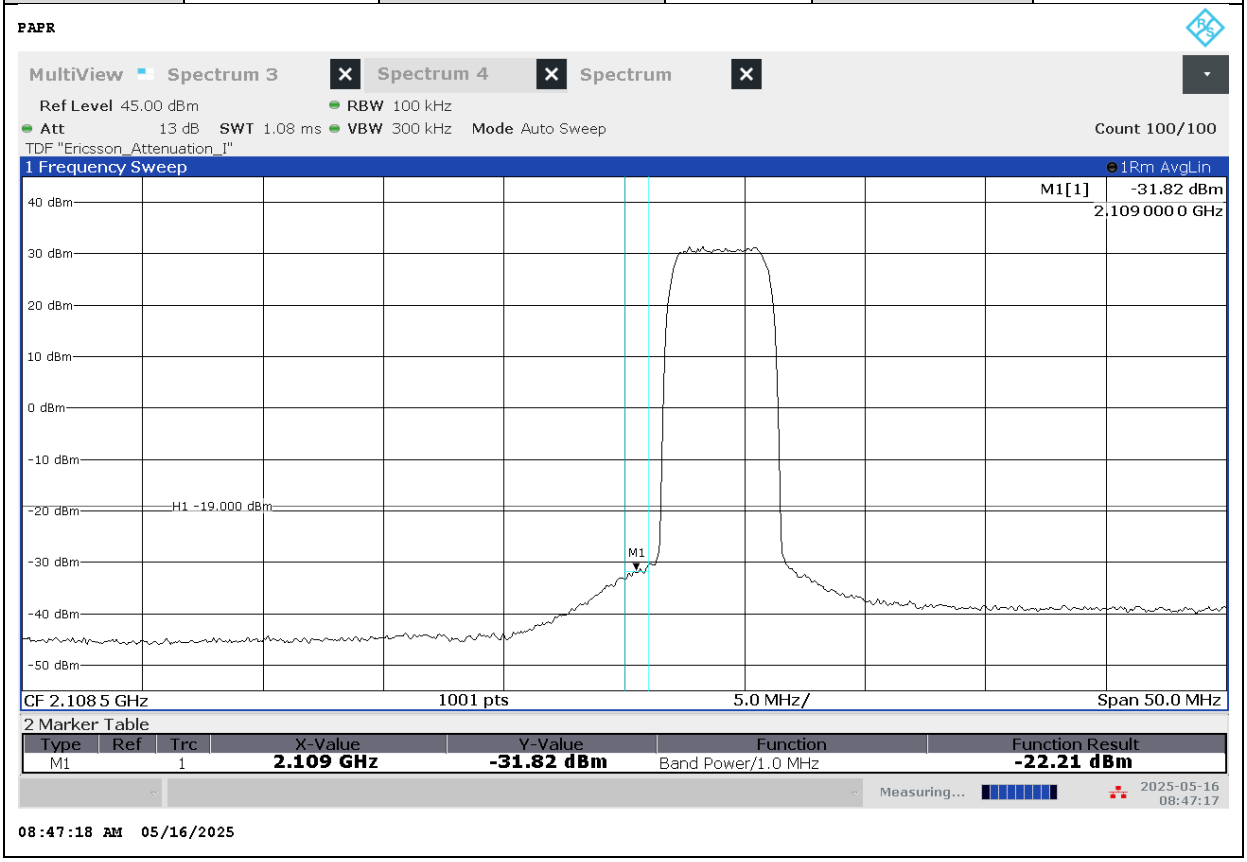
Configuration 6, Upper edge>1MHz					
RAT:	WCDMA	Bandwidth:	4.2 MHz	Channel	High



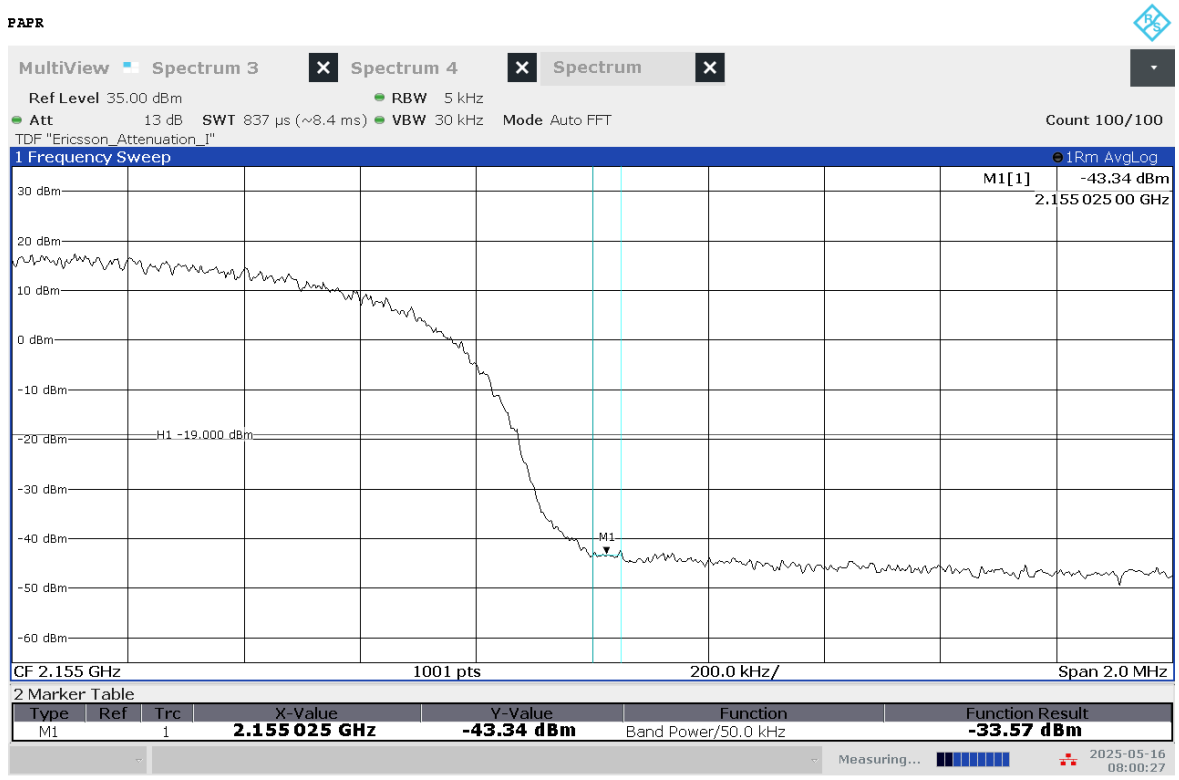
Configuration 6, Lower edge<1MHz					
RAT:	WCDMA	Bandwidth:	5 MHz	Channel	Low



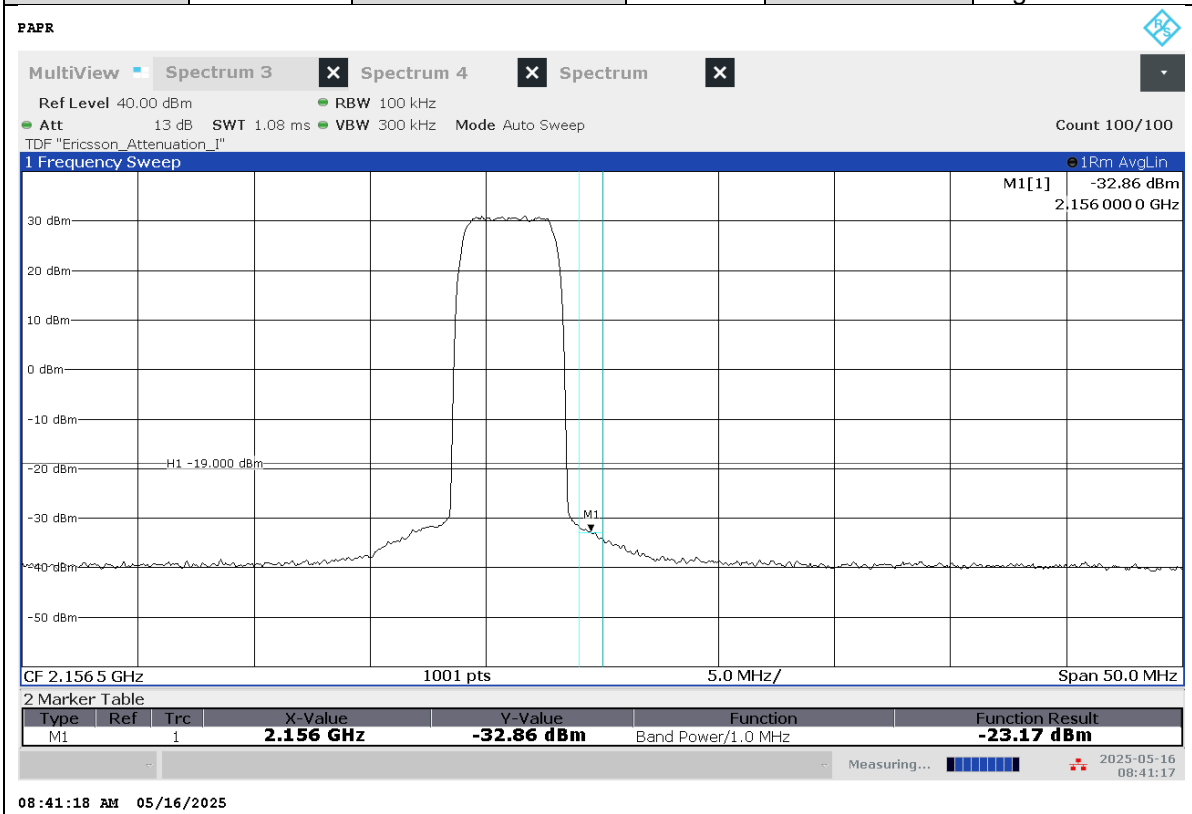
Configuration 6, Lower edge>1MHz					
RAT:	WCDMA	Bandwidth:	5 MHz	Channel	Low



Configuration 6, Upper edge<1MHz					
RAT:	WCDMA	Bandwidth:	5 MHz	Channel	High

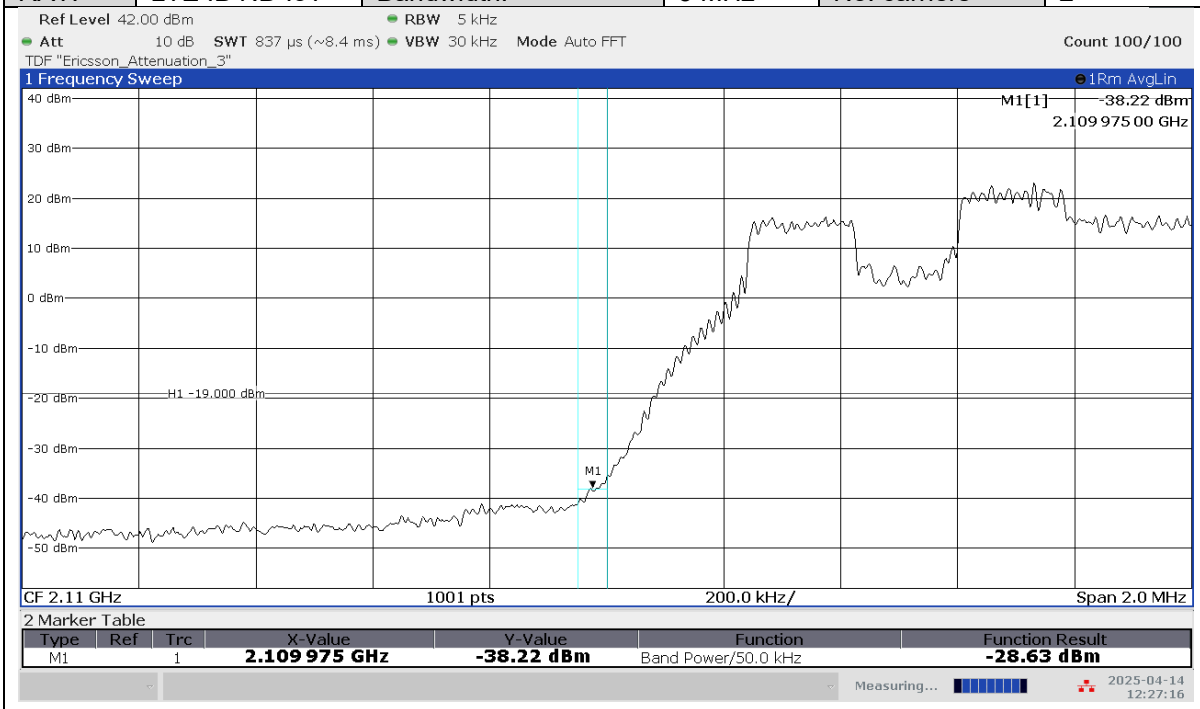


Configuration 6, Upper edge>1MHz					
RAT:	WCDMA	Bandwidth:	5 MHz	Channel	High

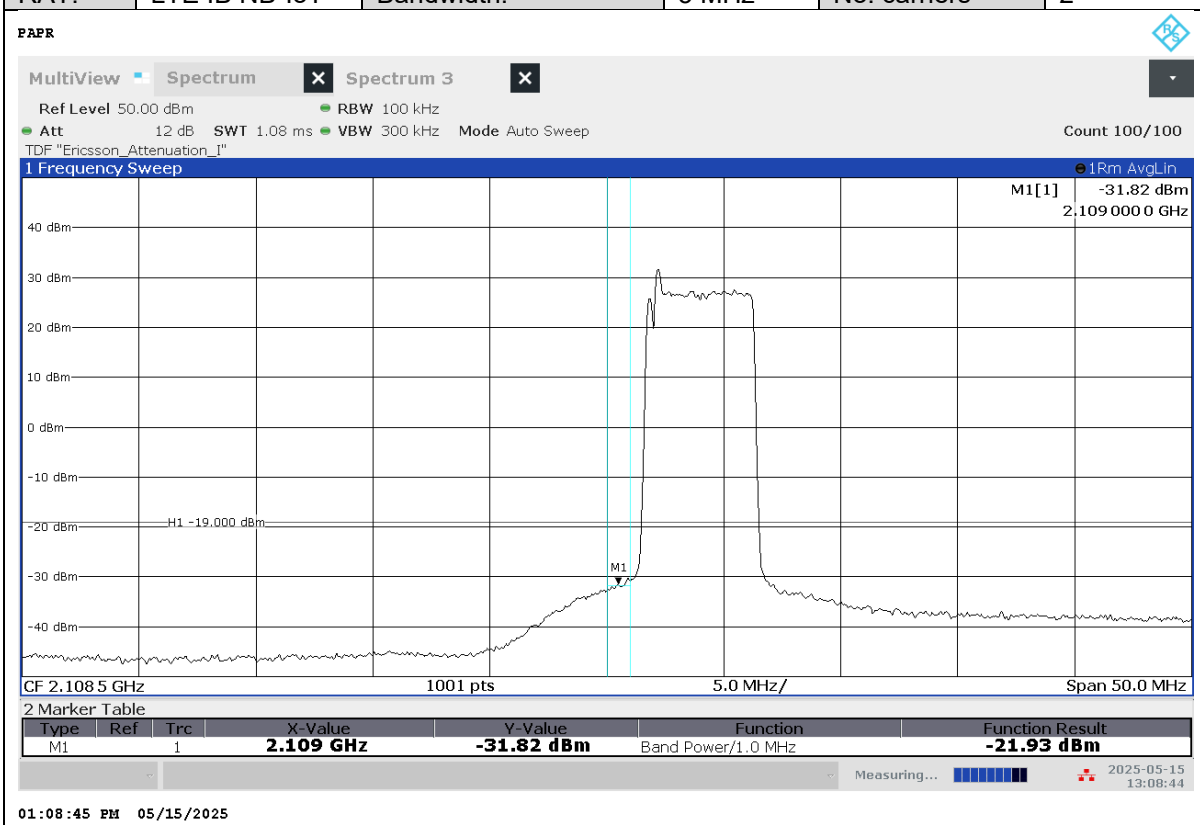


7.3.2 Multi carrier

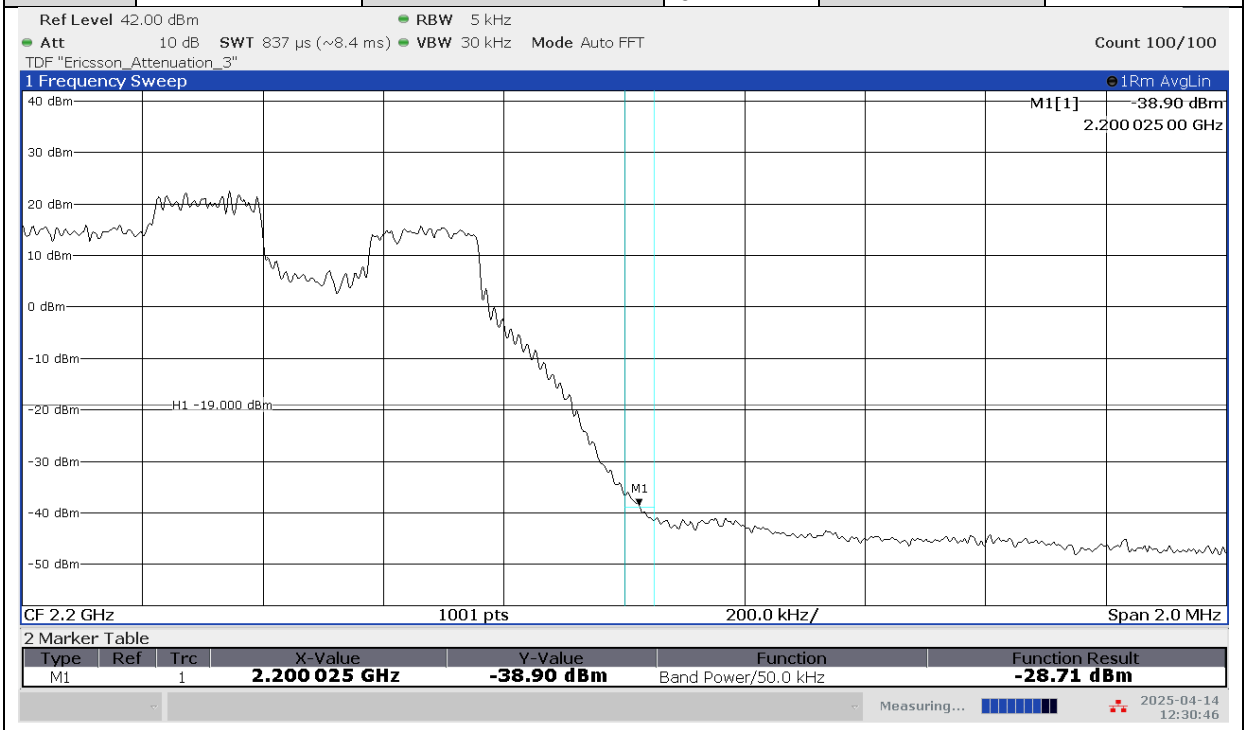
Configuration 10, Lower edge < 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	2



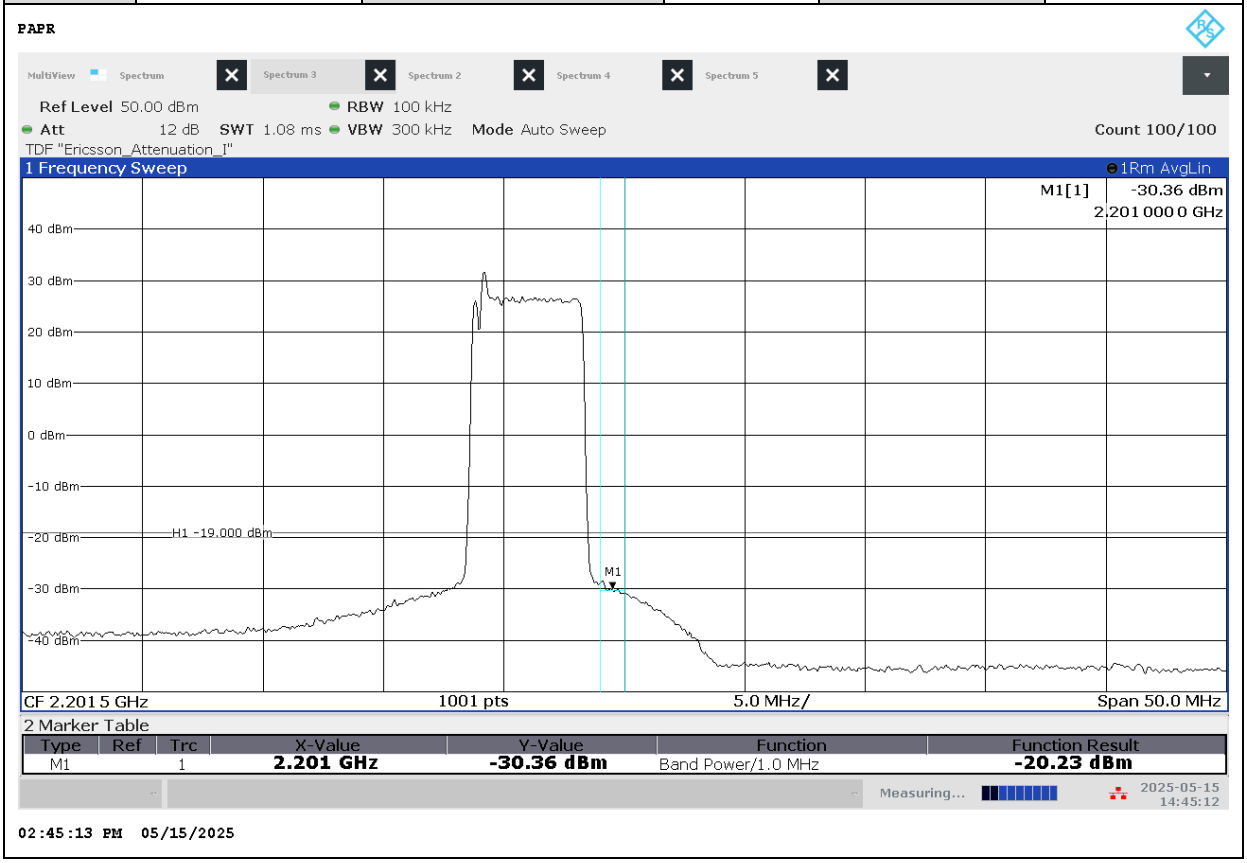
Configuration 10, Lower edge > 1 MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	2



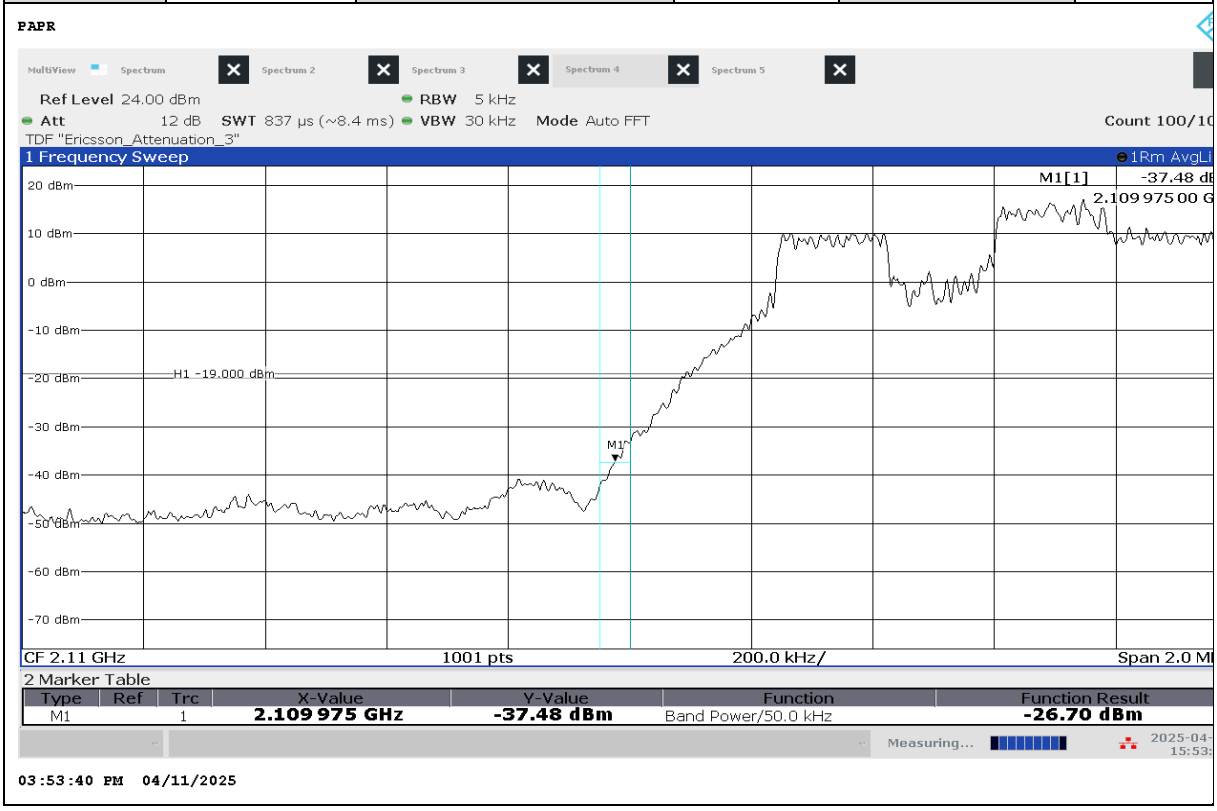
Configuration 10, Upper edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	2



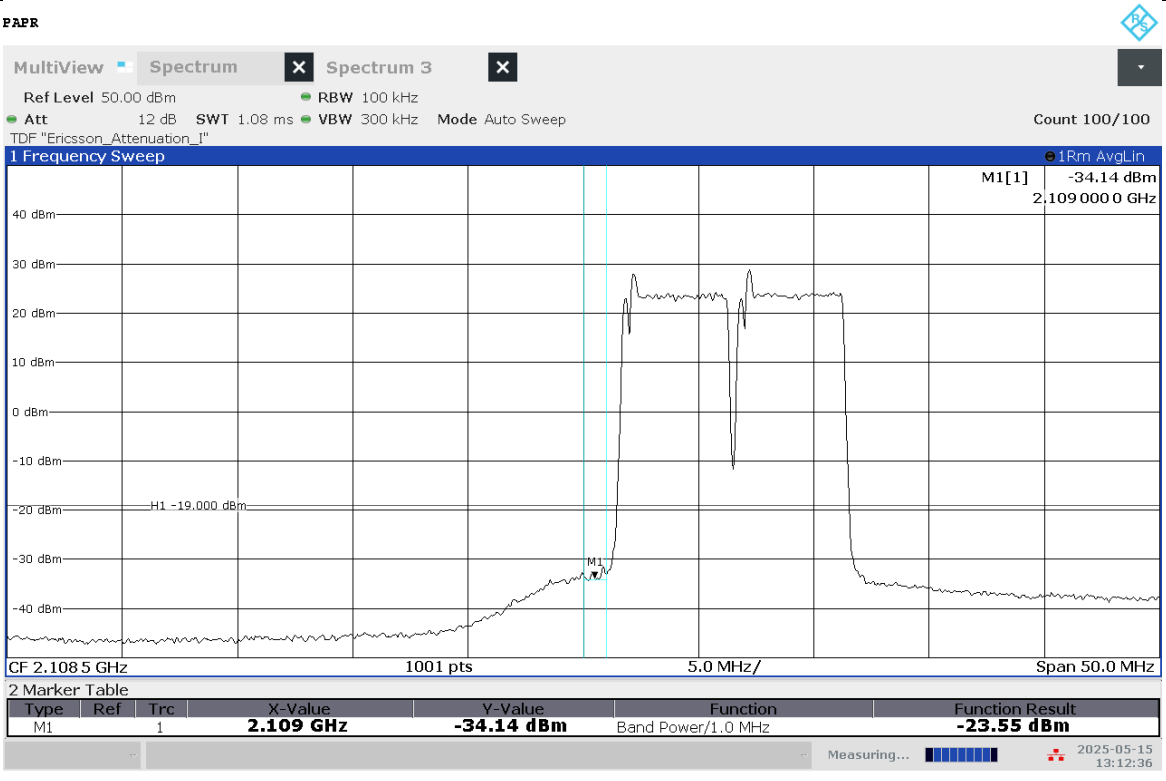
Configuration 10, Upper edge > 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	2



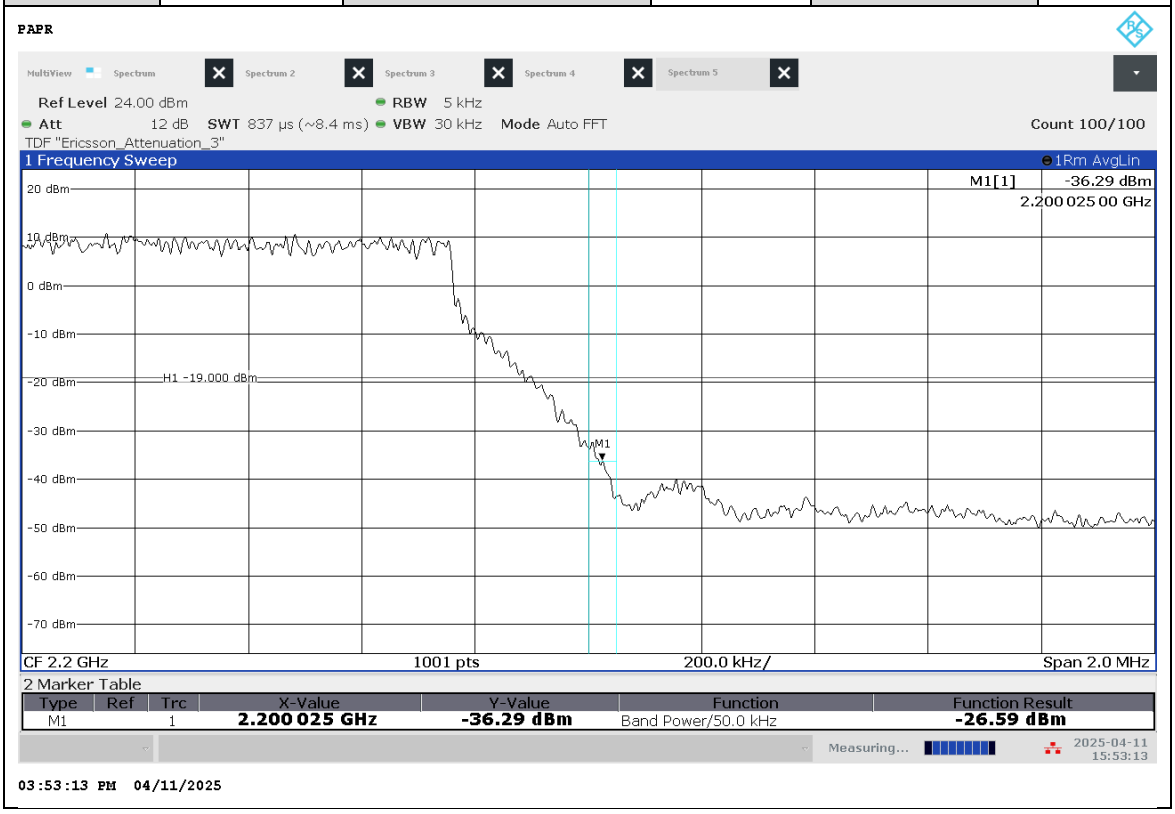
Configuration 11, Lower edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	4



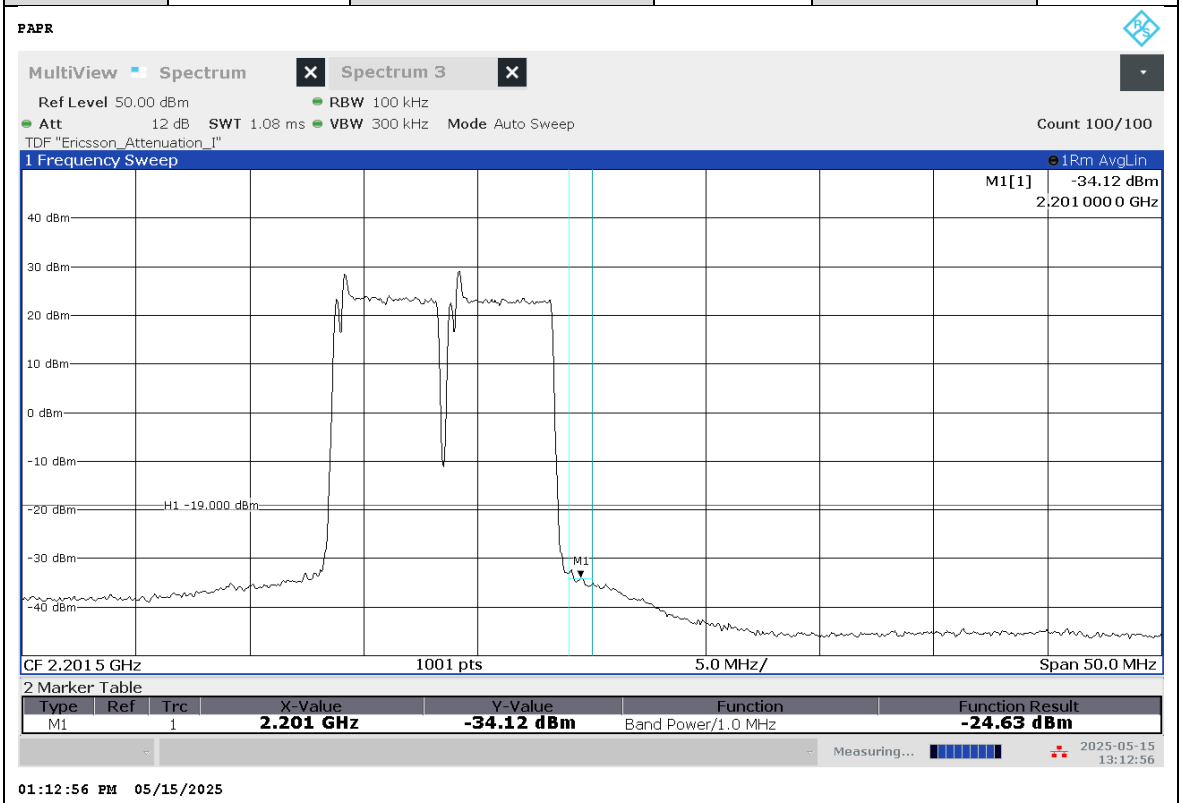
Configuration 11, Lower edge> 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	4



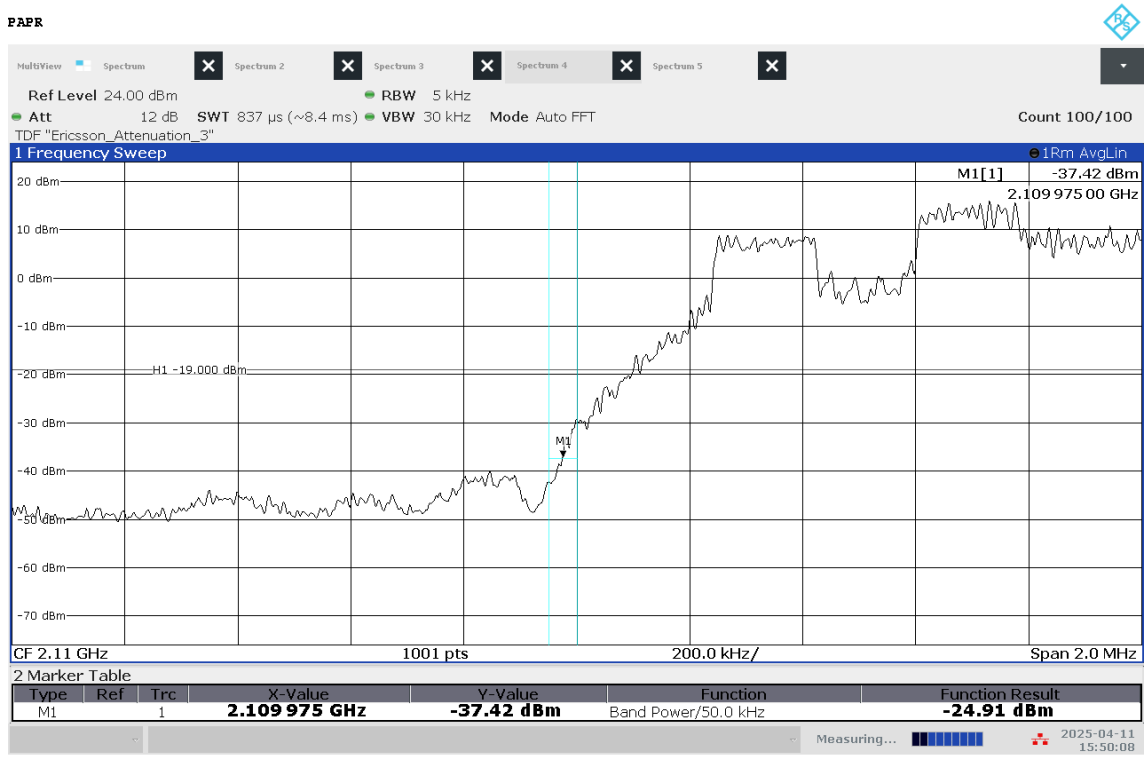
Configuration 11, Upper edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	4



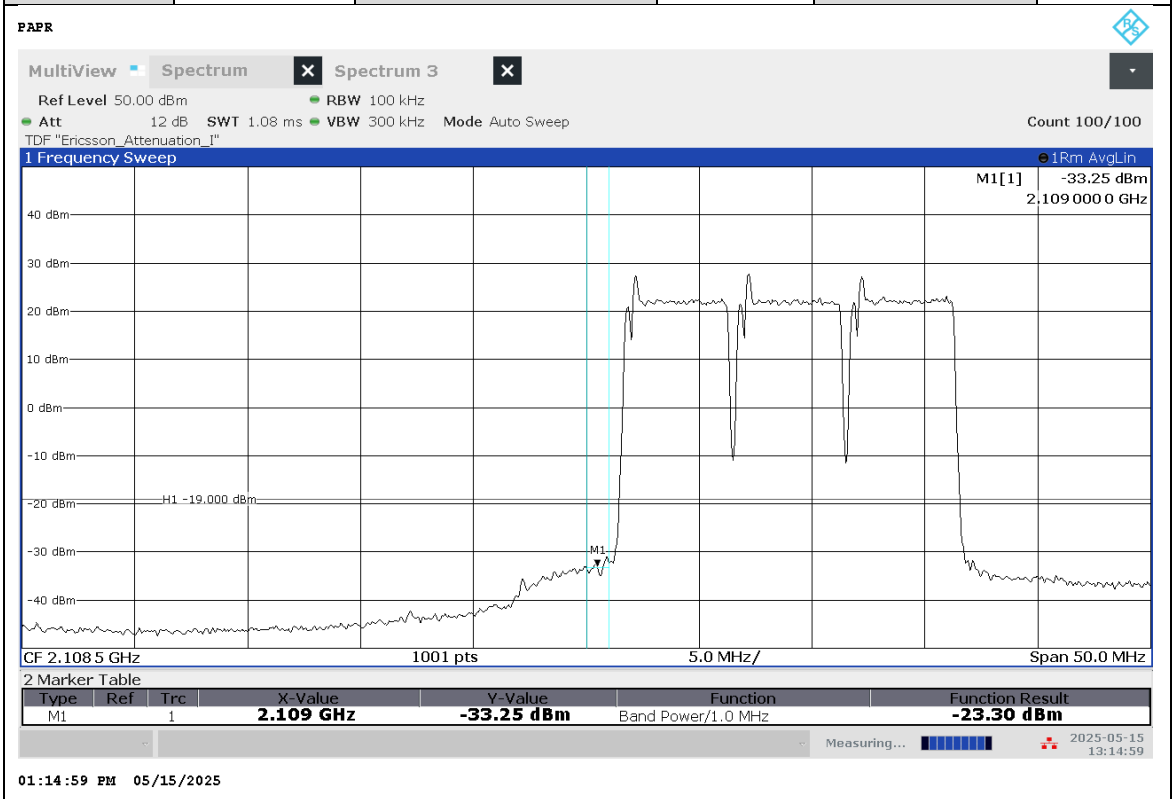
Configuration 11, Upper edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	4



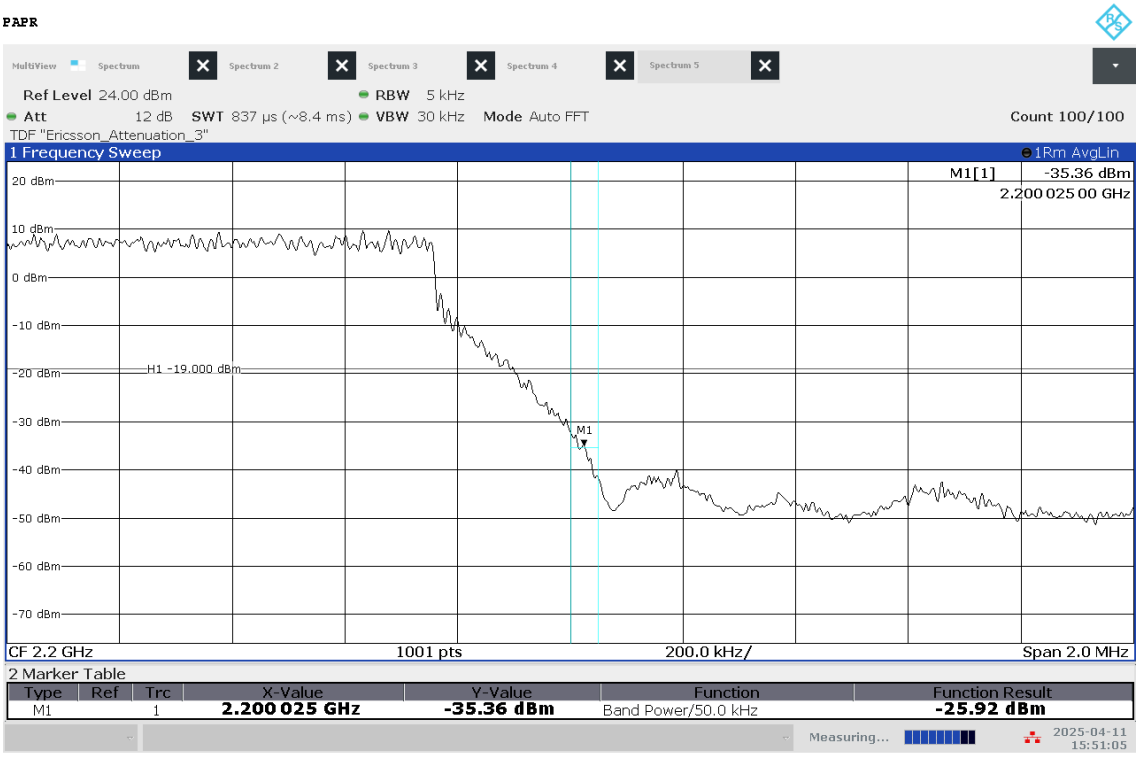
Configuration 12, Lower edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	6



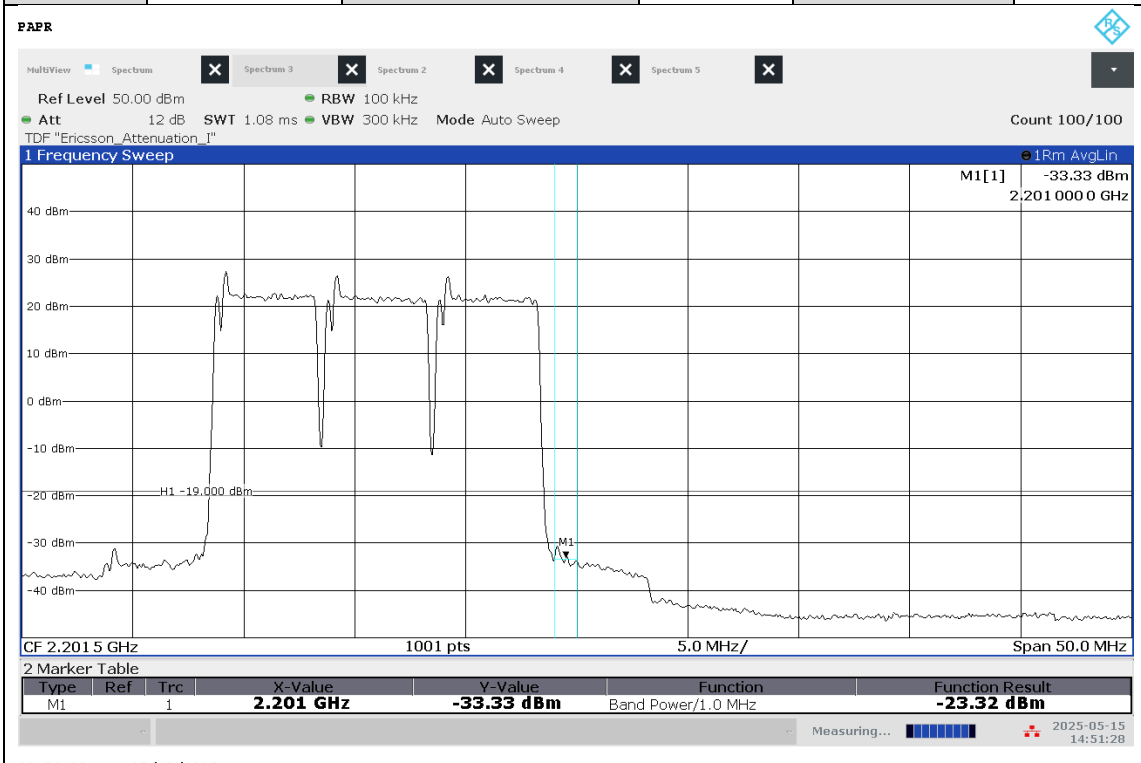
Configuration 12, Lower edge> 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	6



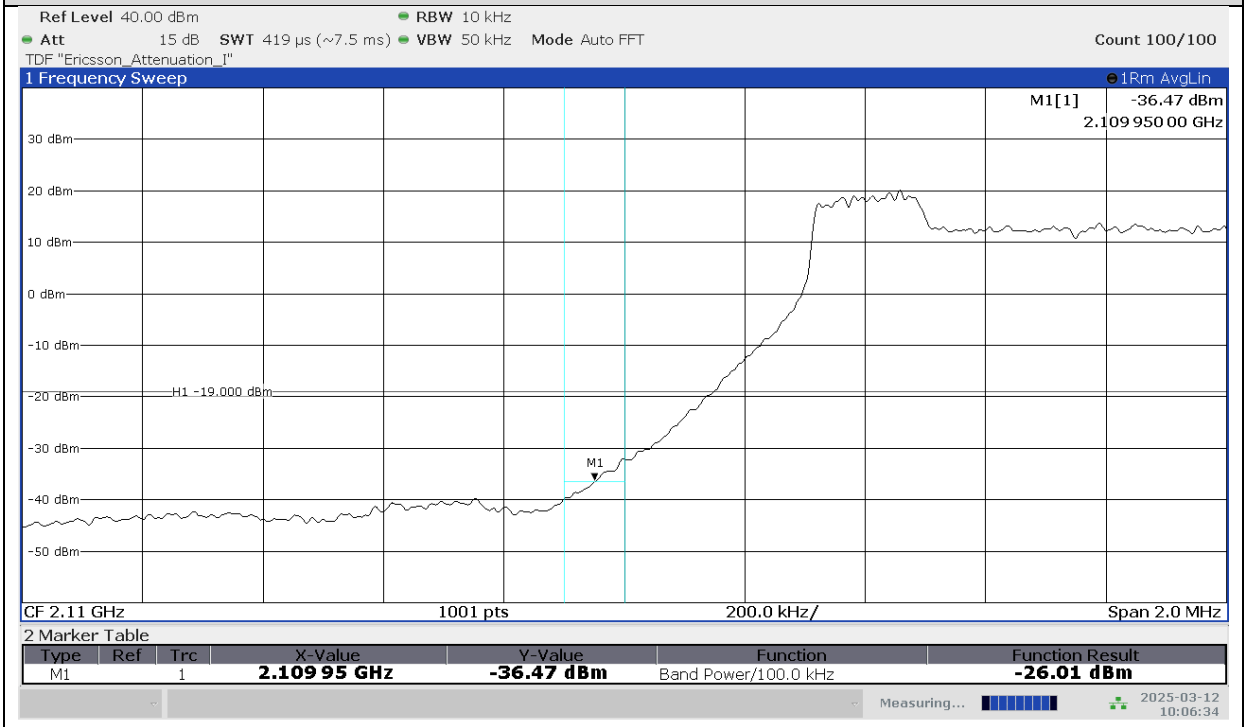
Configuration 12, Upper edge< 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	6



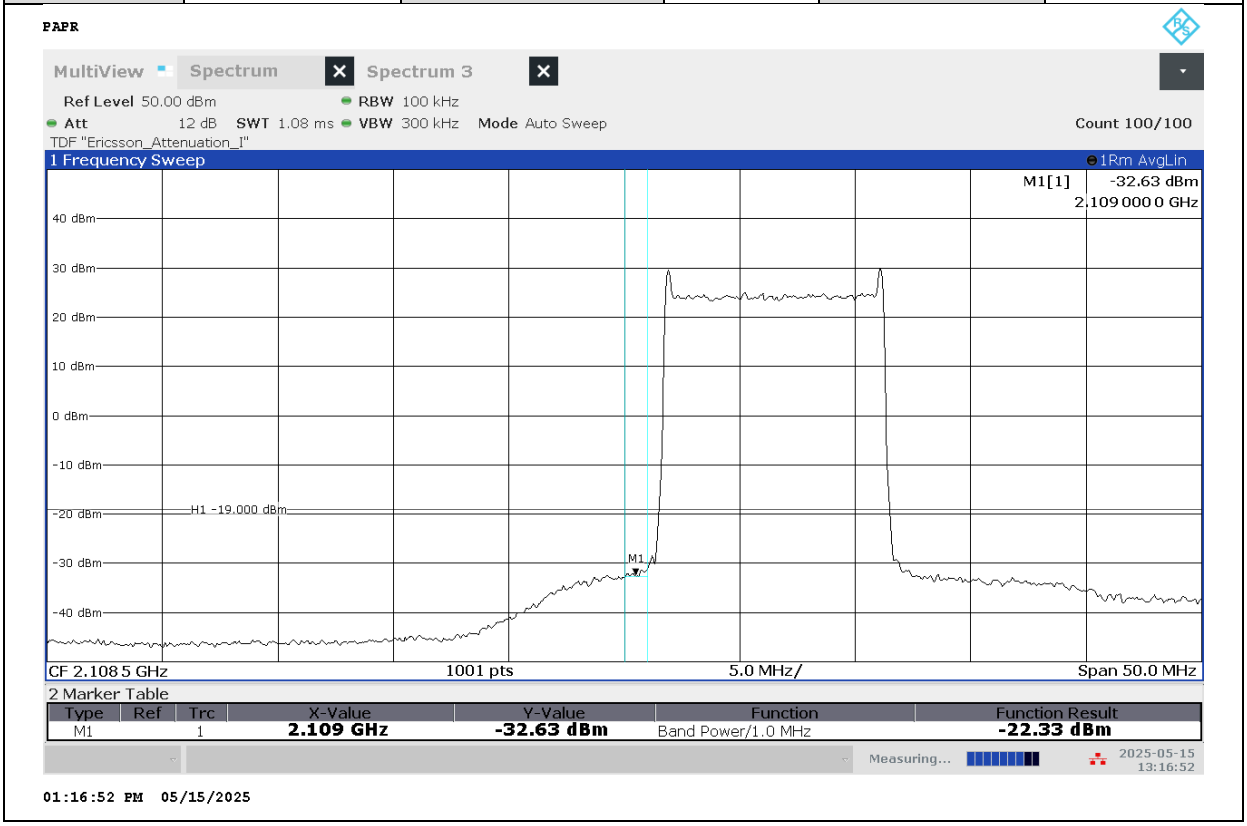
Configuration 12, Upper edge> 1MHz					
RAT:	LTE IB NB-IoT	Bandwidth:	5 MHz	No. carriers	6



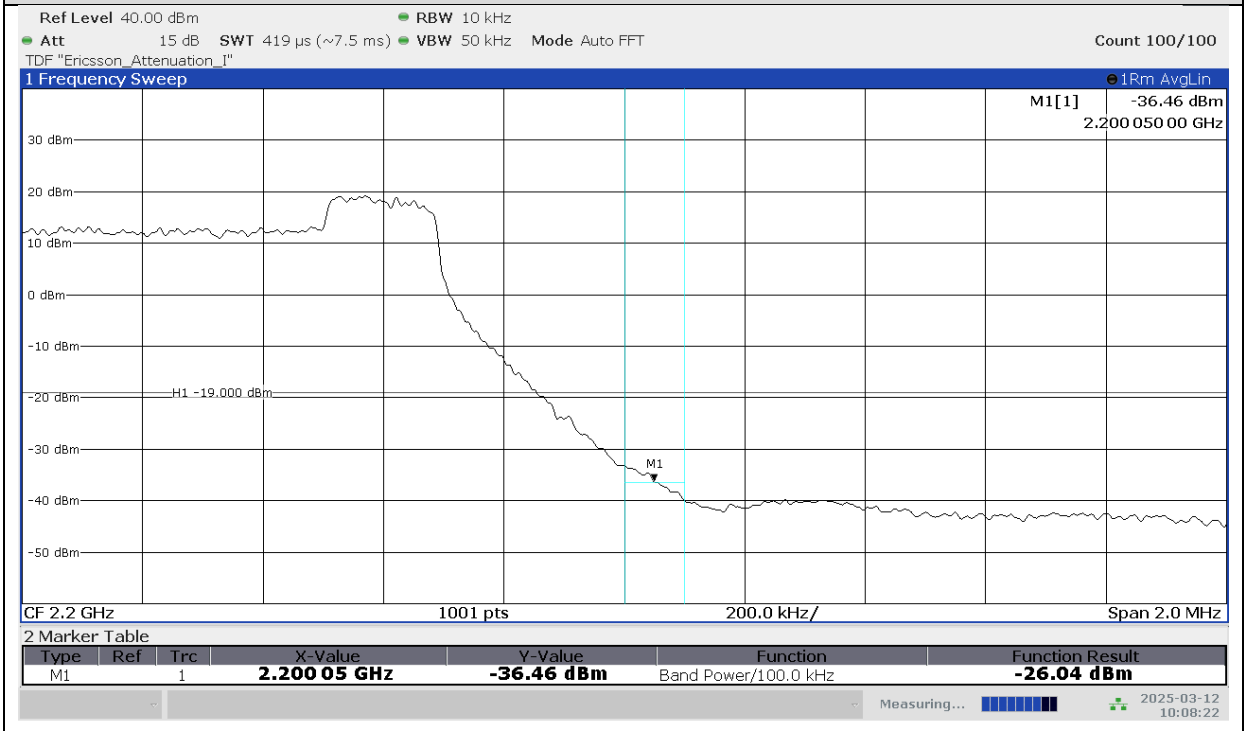
Configuration 13, Lower edge< 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	10 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					



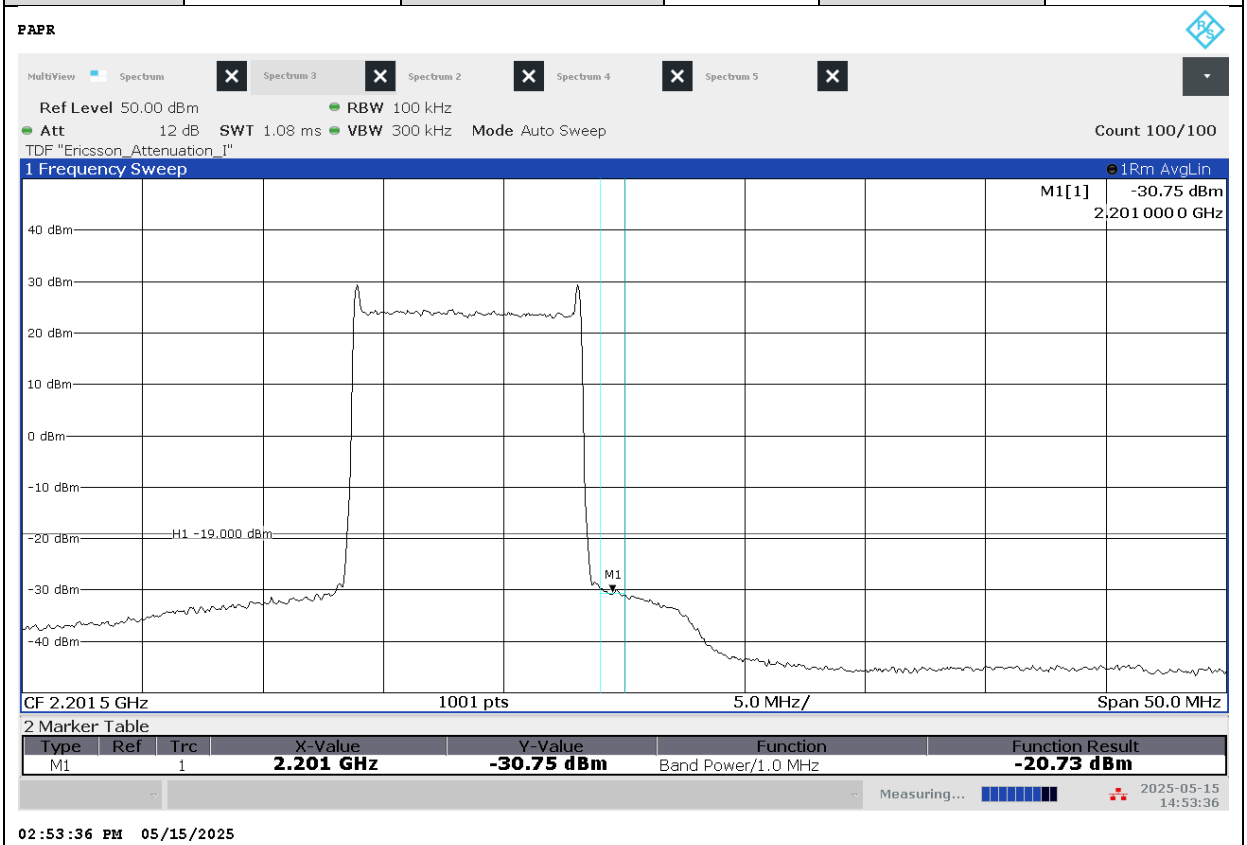
Configuration 13, Lower edge > 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	10 MHz	No. carriers	2



Configuration 13, Upper edge <1 MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	10 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					

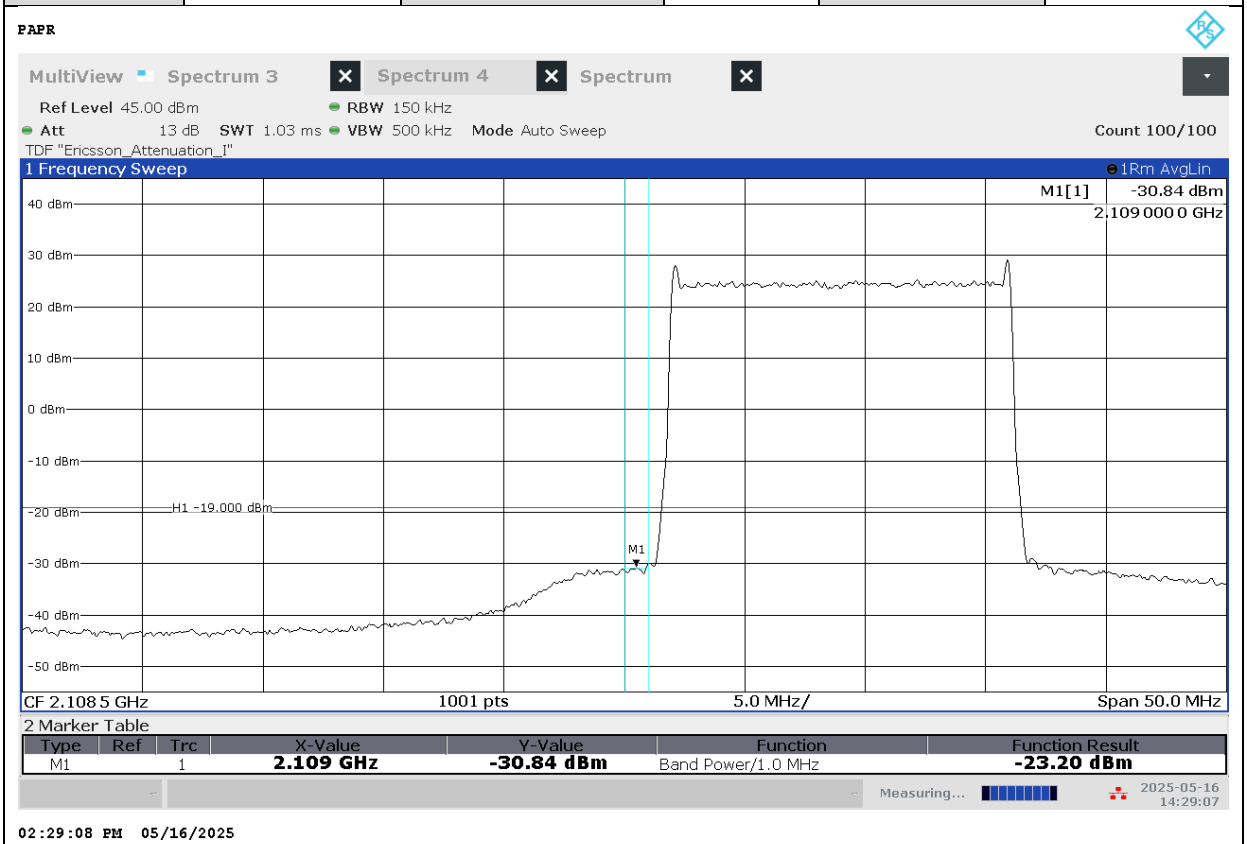


Configuration 13, Upper edge > 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	10 MHz	No. carriers	2



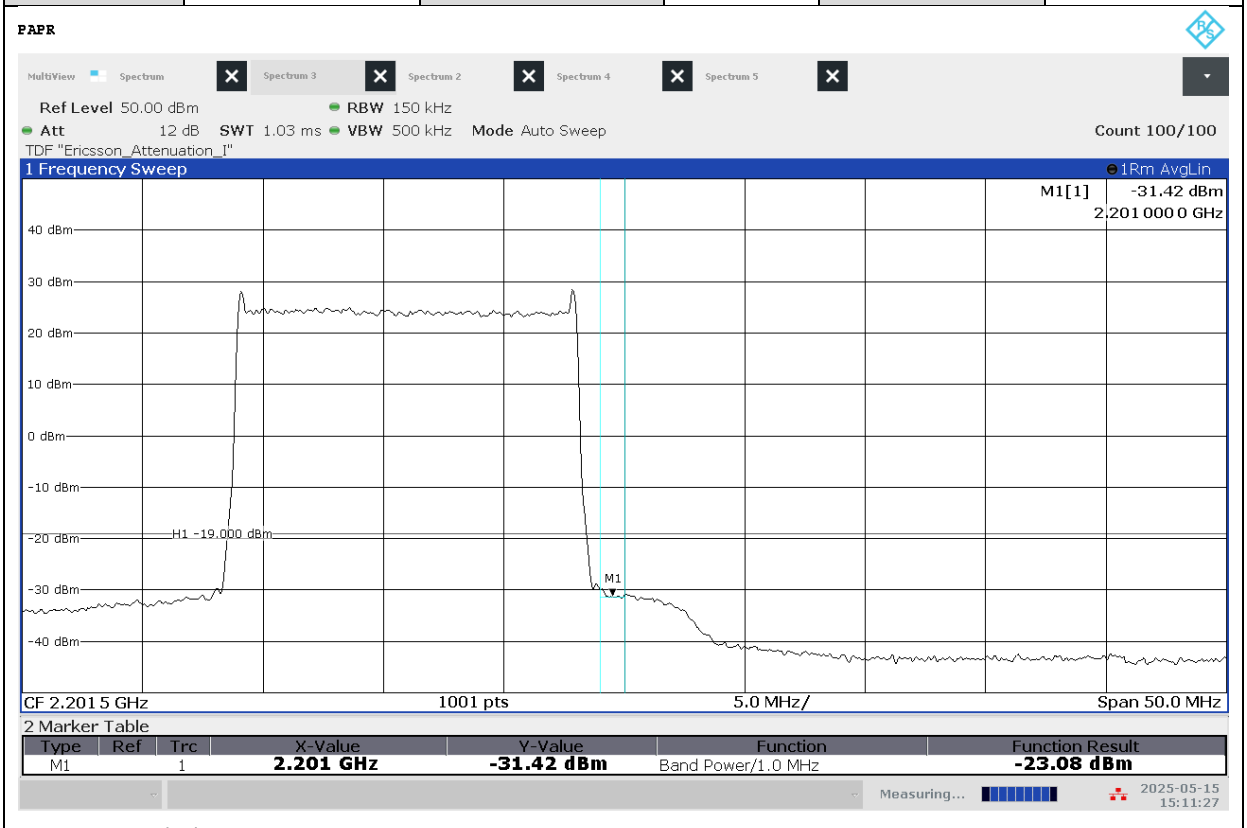
Configuration 13, Lower edge < 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	15 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 13, Lower edge > 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	15 MHz	No. carriers	2



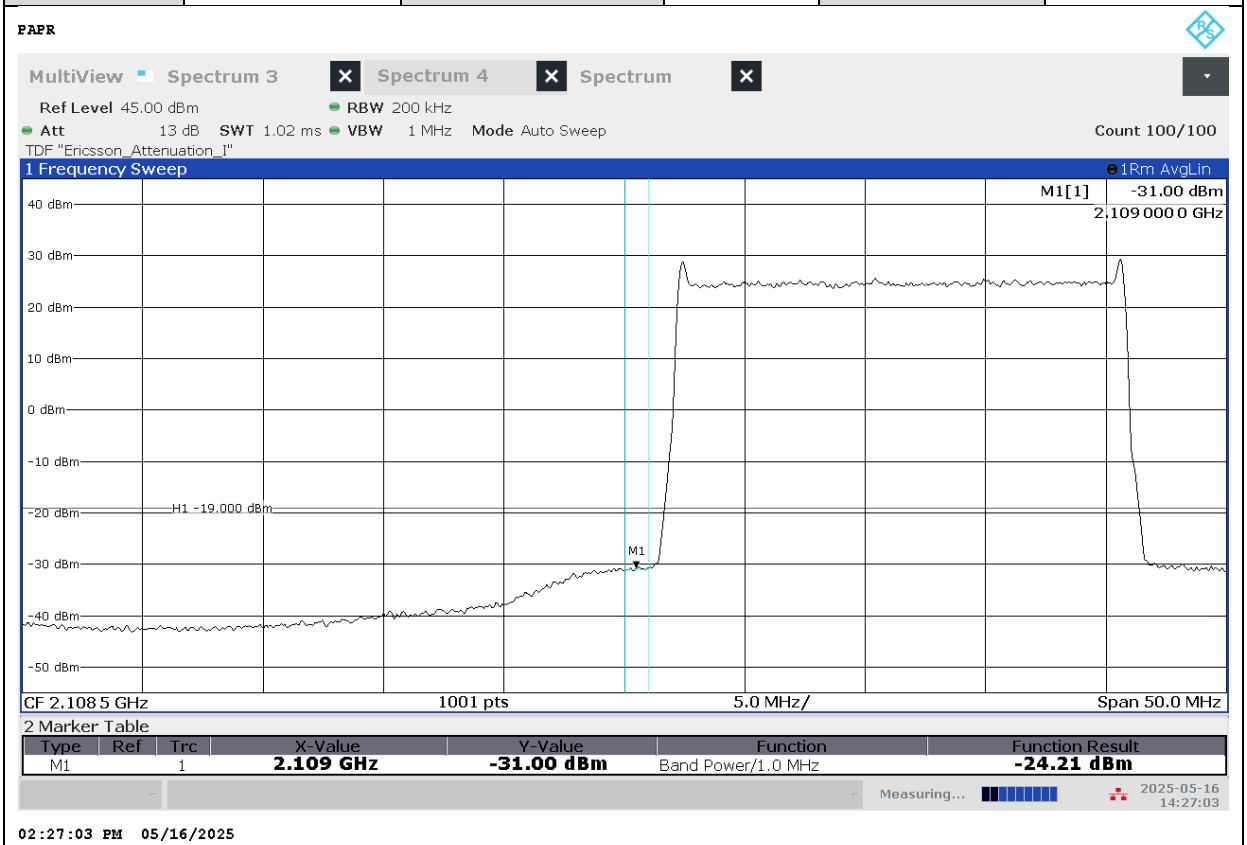
Configuration 13, Upper edge < 1MHz					
RAT:	LTE GB NB- IoT	Bandwidth:	15 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.1 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 13, Upper edge > 1MHz					
RAT:	LTE GB NB- IoT	Bandwidth:	15 MHz	No. carriers	2



Configuration 13, Lower edge < 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	20 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 13, Lower edge > 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	20 MHz	No. carriers	2



Configuration 13, Upper edge < 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	20 MHz	No. carriers	2
Correct limit line 1% of EBW:	-19.2 dBm				
Plot made with RBW < 1% of EBW.					

Configuration 13, Upper edge> 1MHz					
RAT:	LTE GB NB-IoT	Bandwidth:	20 MHz	No. carriers	2