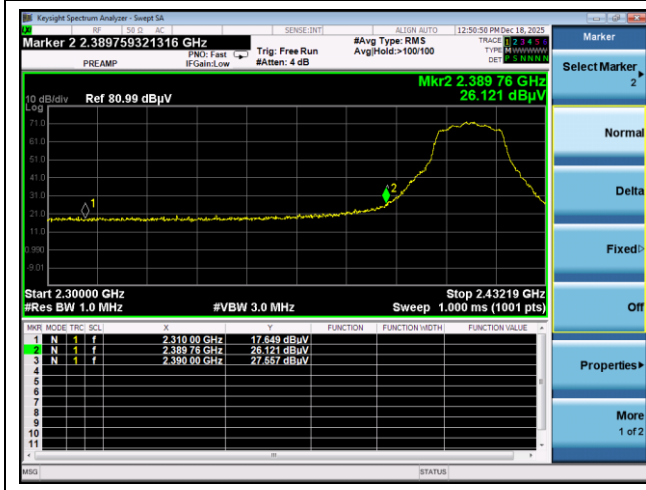


11n_HT20

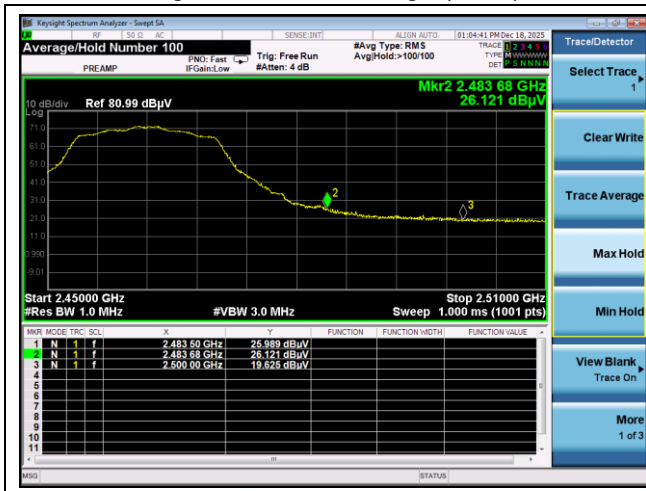
Low channel band edge (Peak)



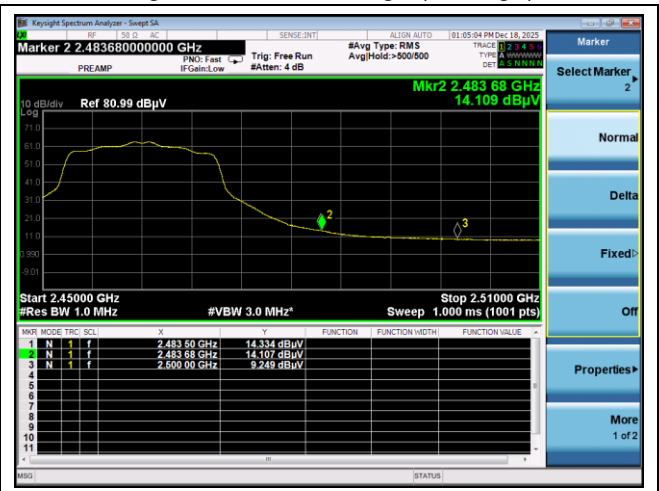
Low channel band edge (Average)



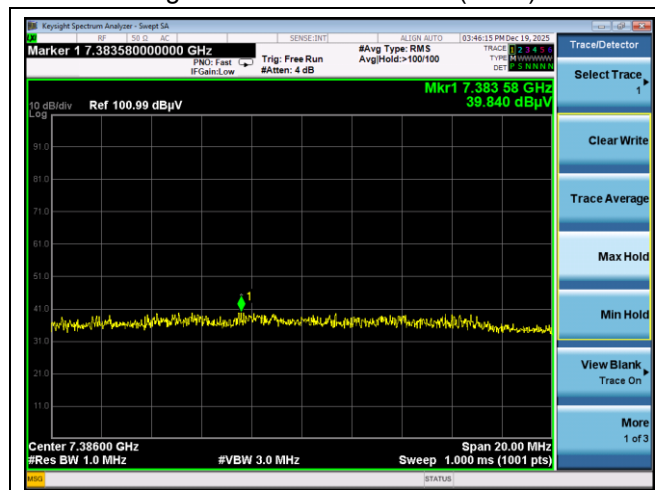
High channel band edge (Peak)



High channel band edge (Average)



High channel 3rd harmonic (Peak)

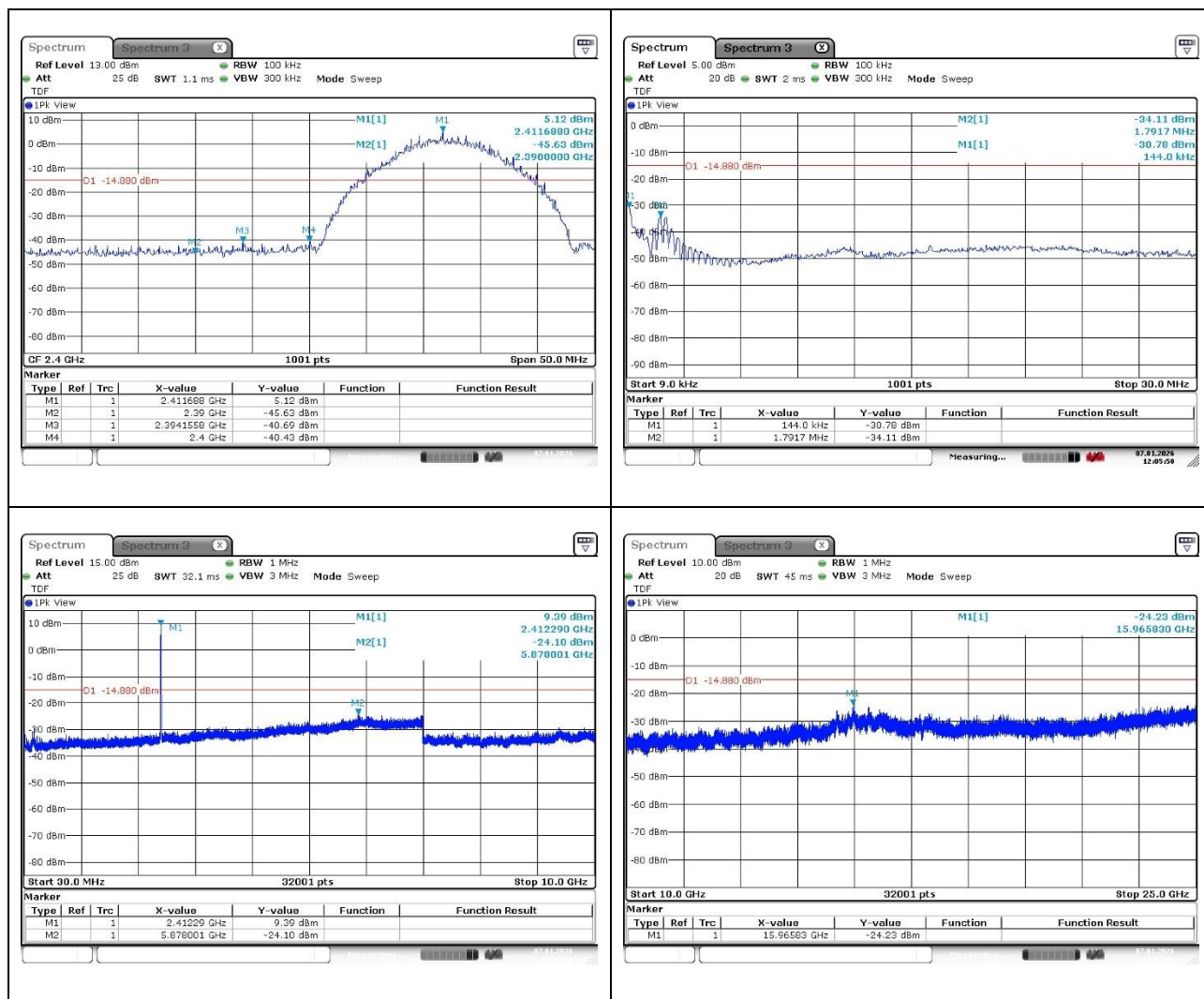


2.4.3. Plot of Conducted Spurious Emissions

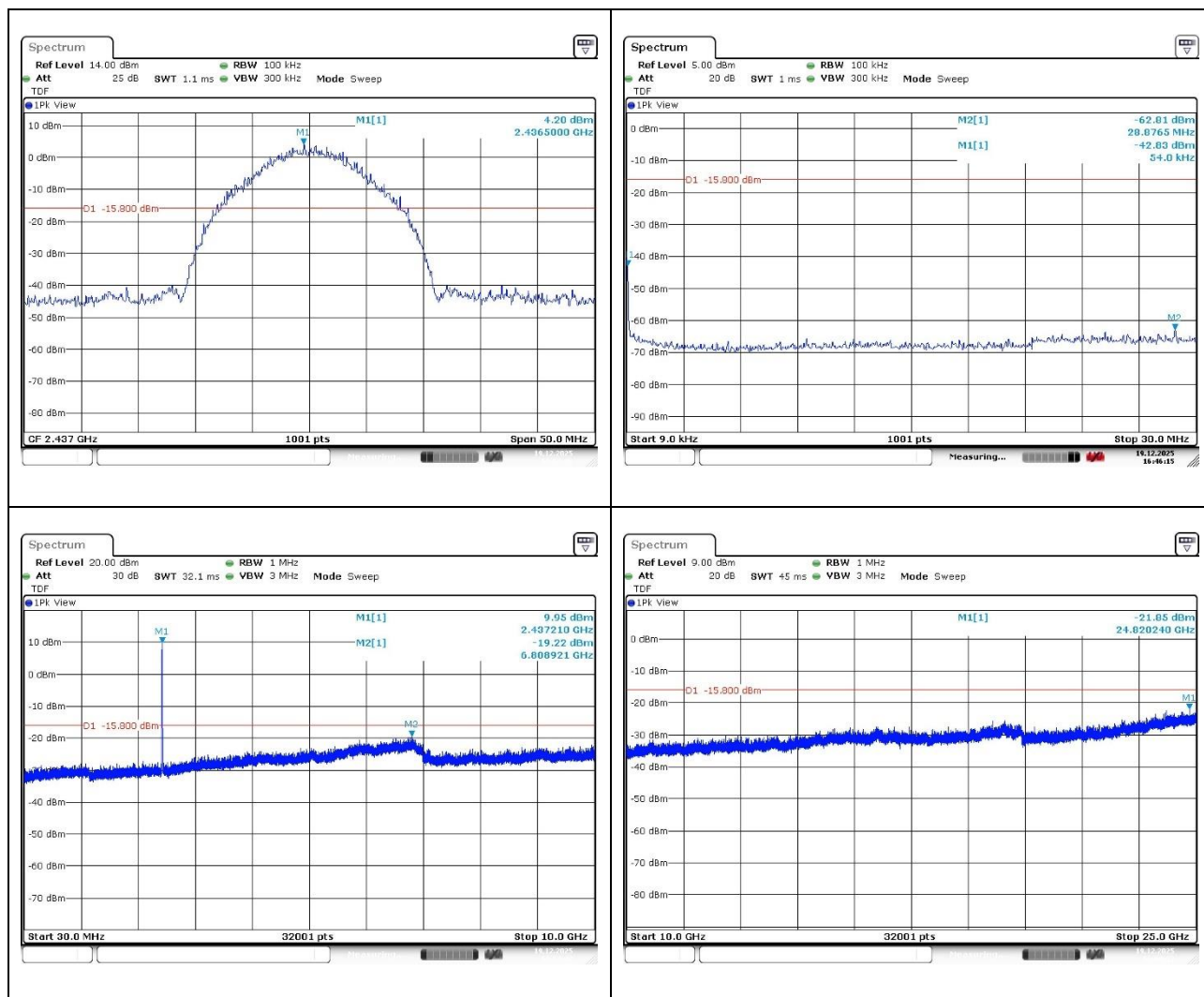
- Ant. 2

11b

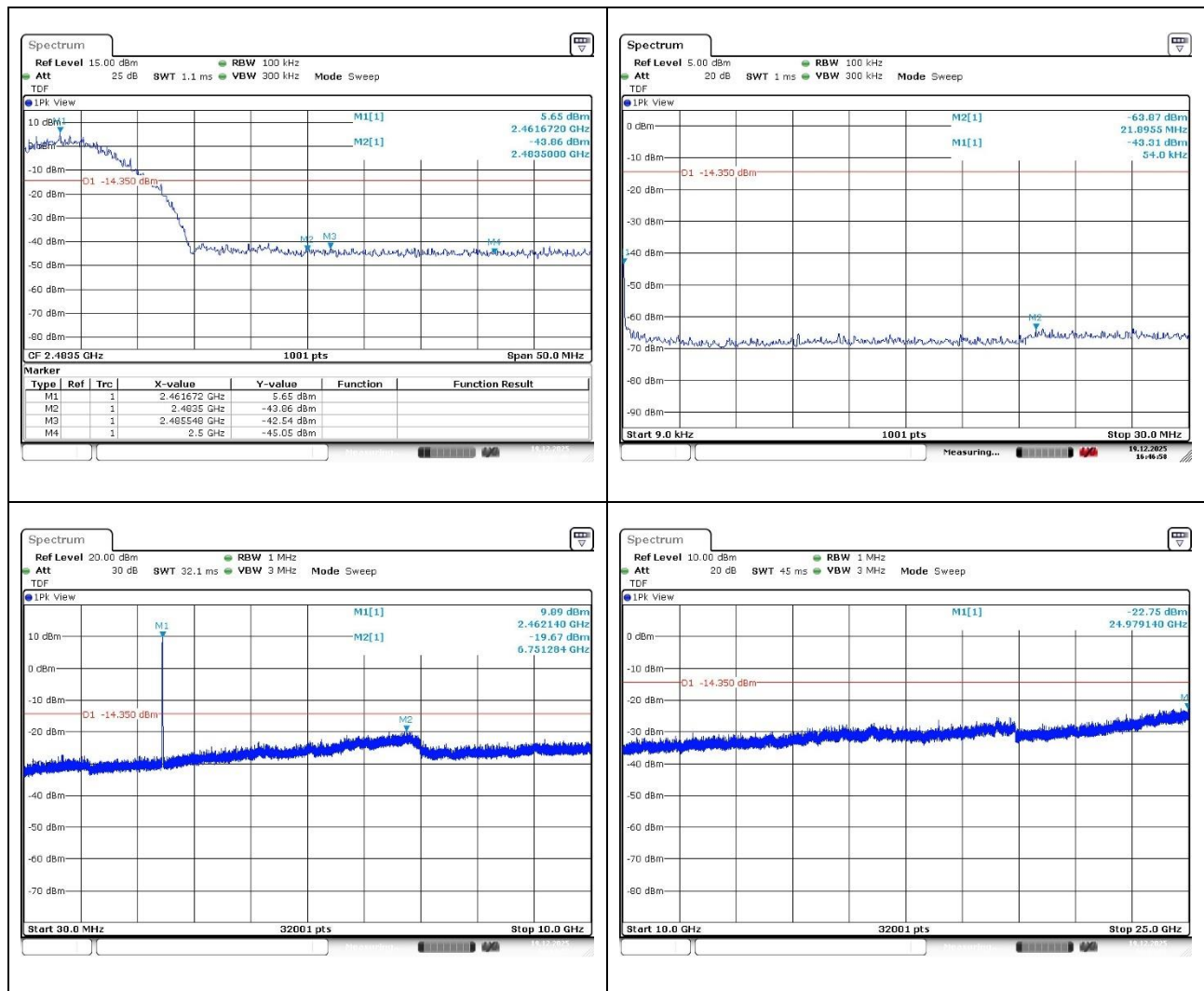
Low Channel



Middle Channel

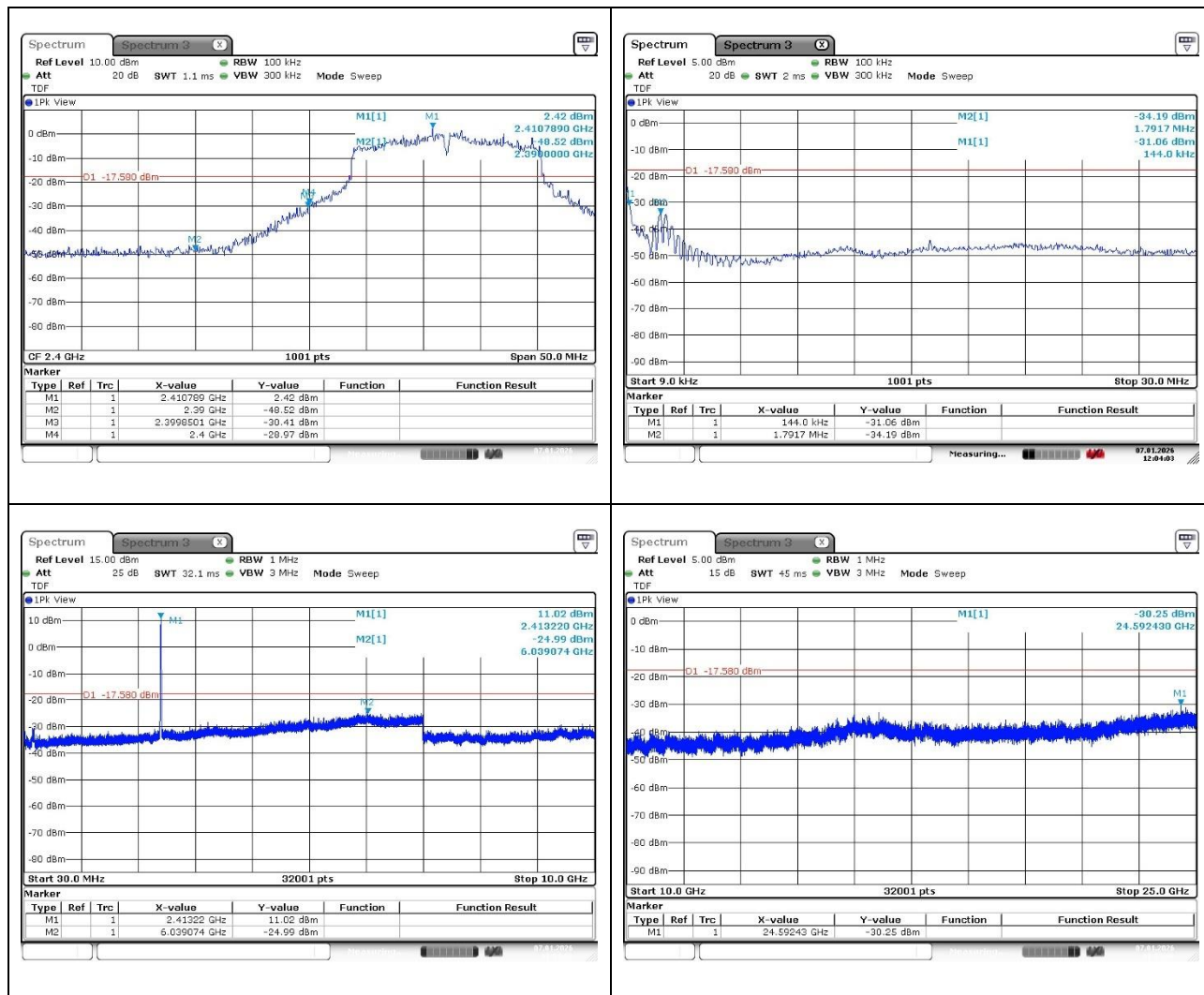


High Channel

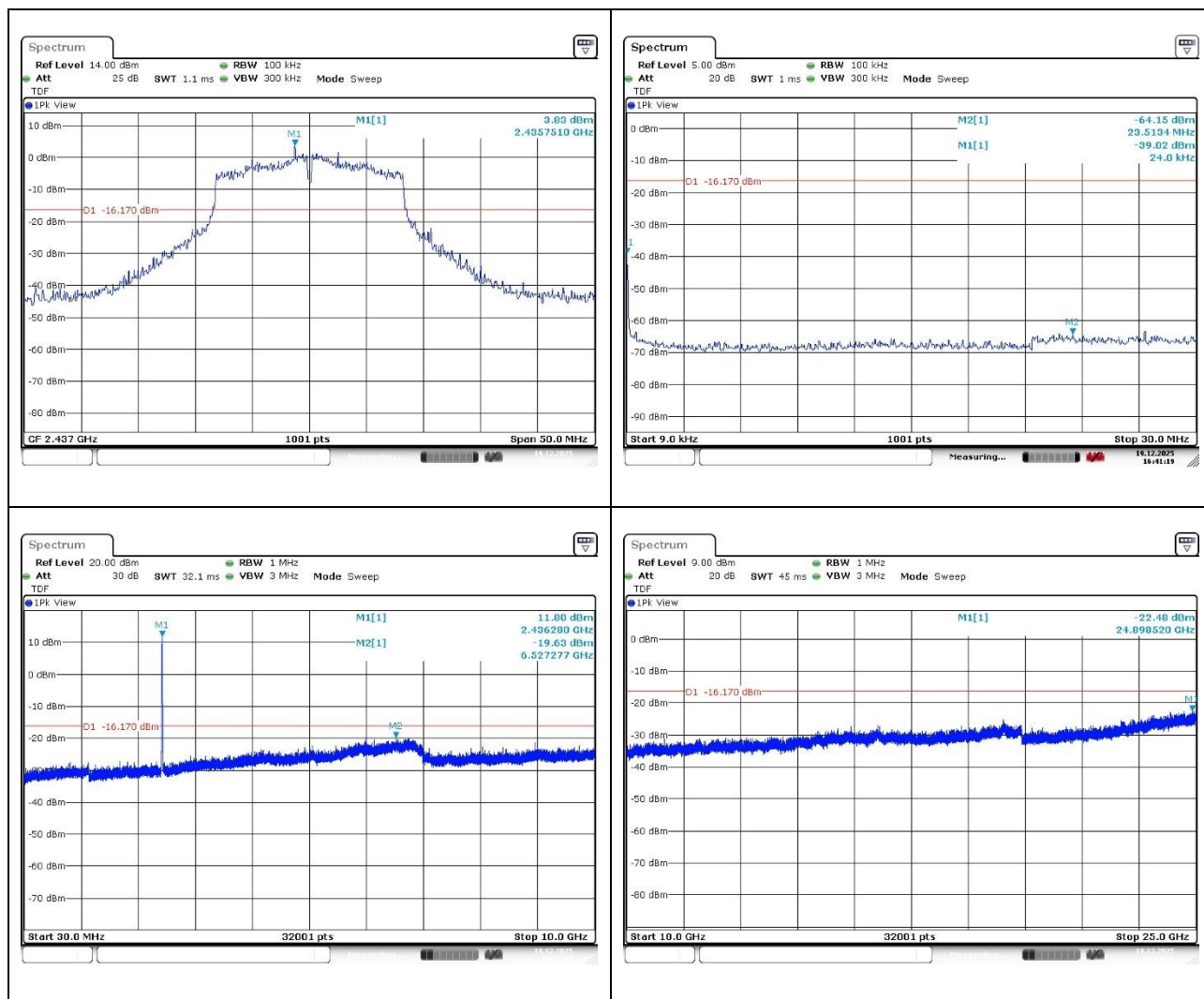


11g

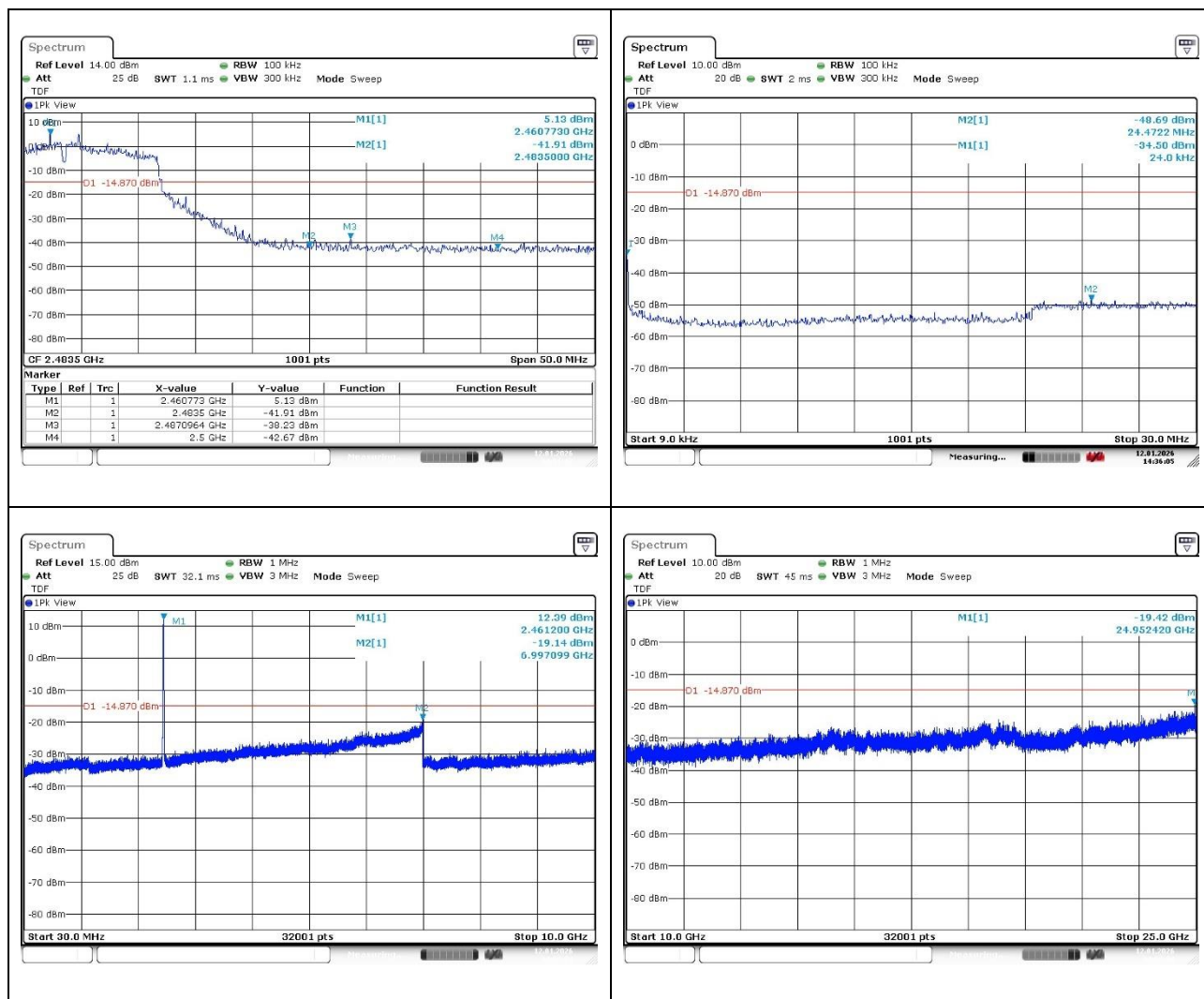
Low Channel



Middle Channel

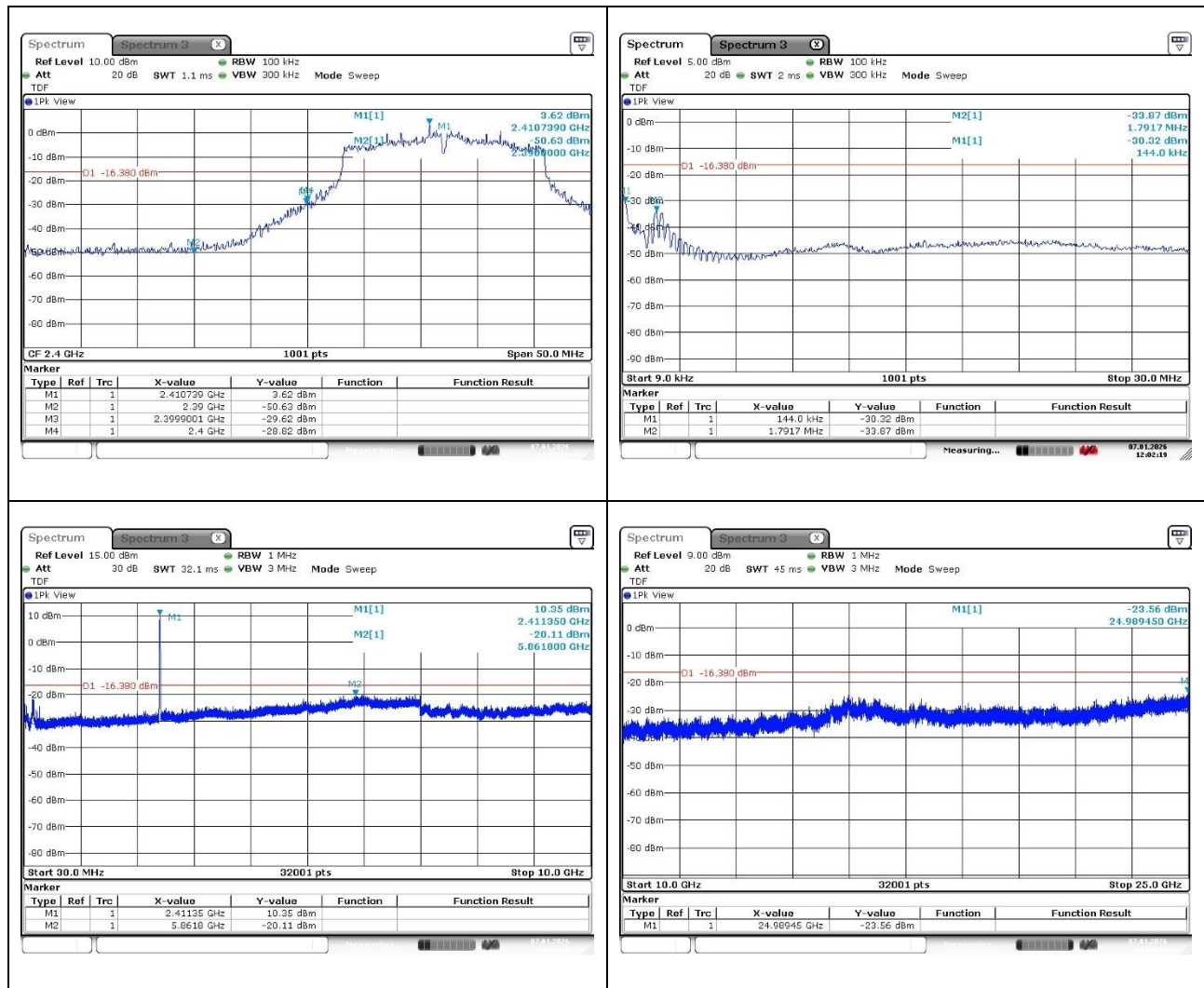


High Channel

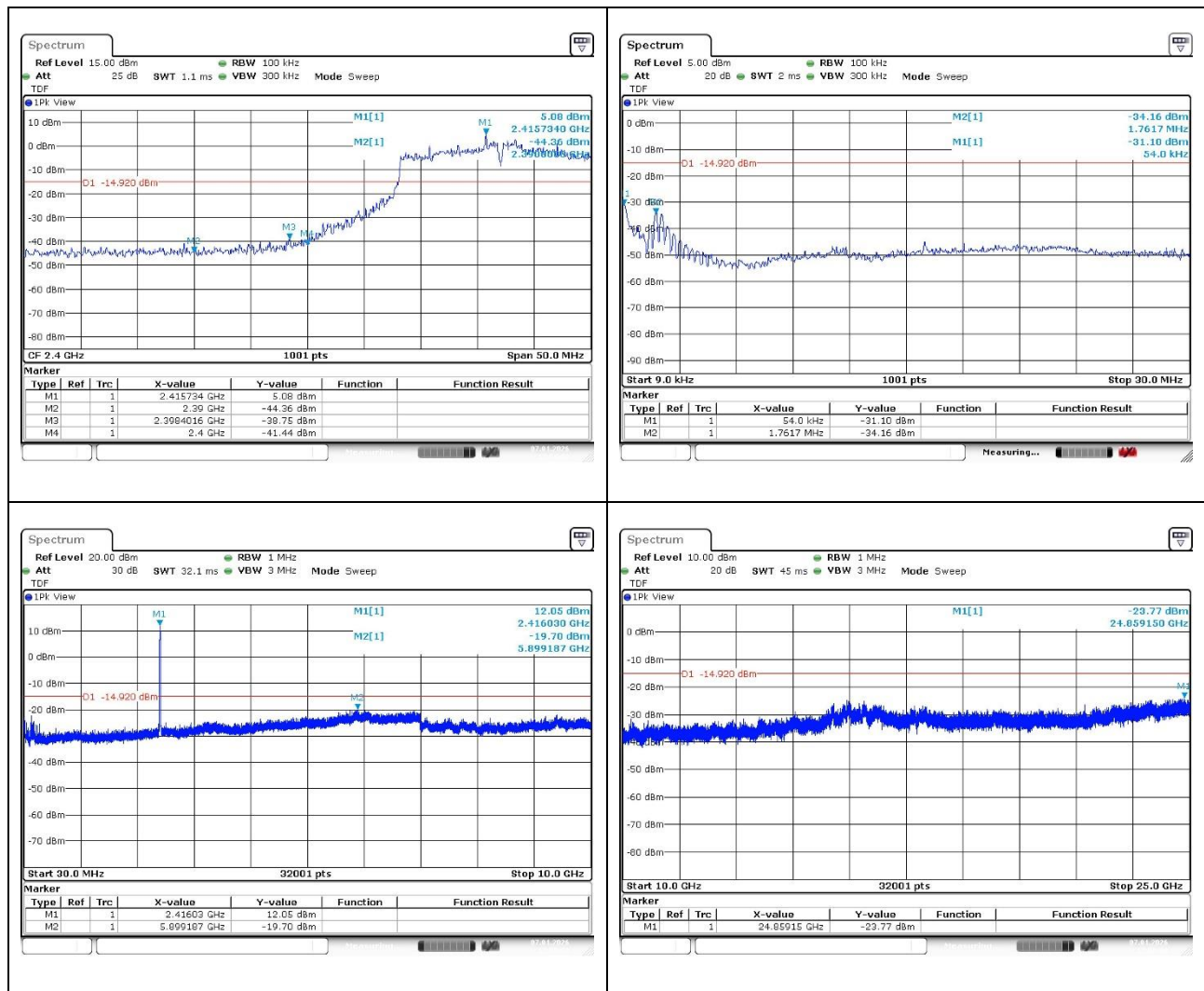


11n_HT20

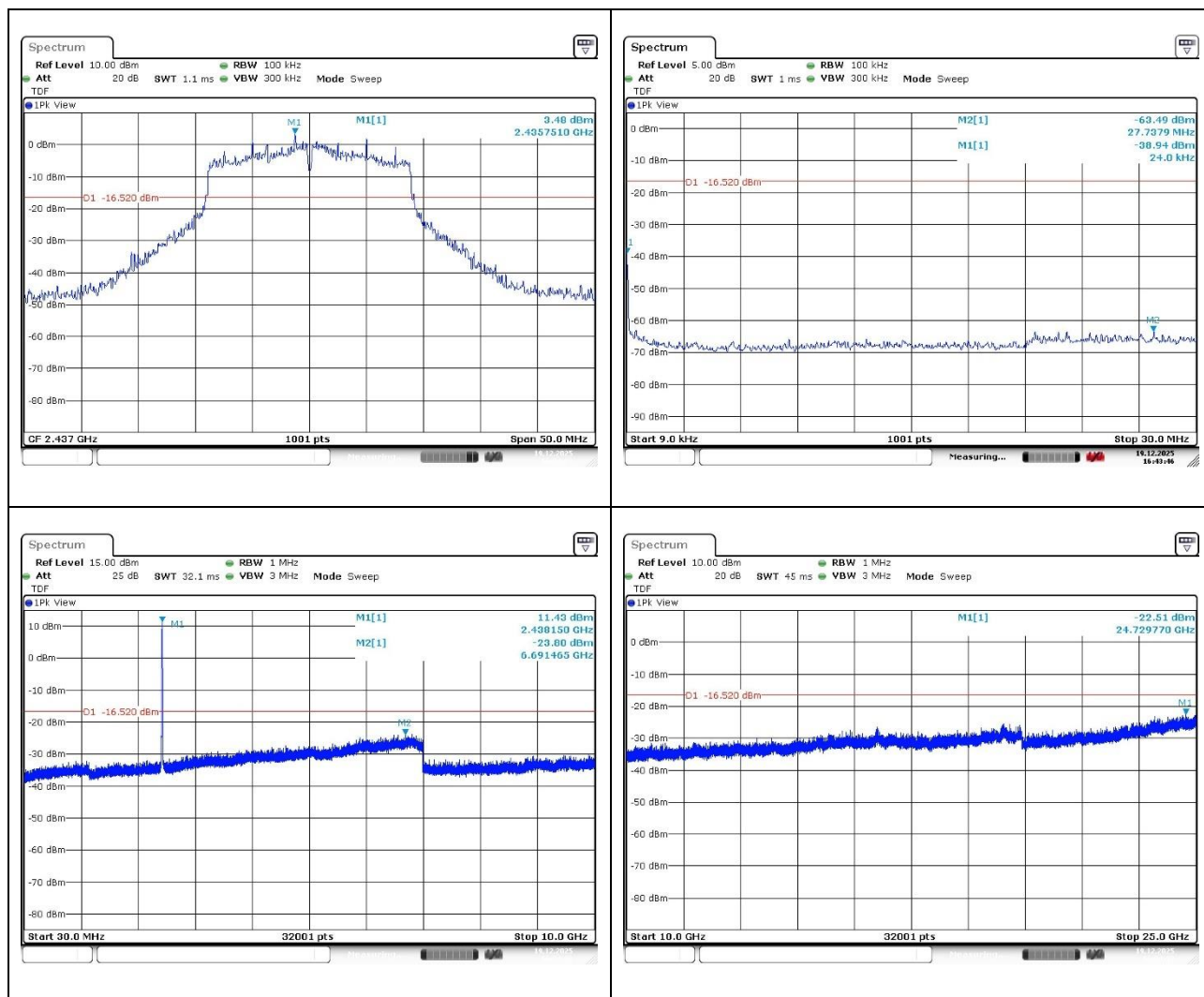
Low Channel -1



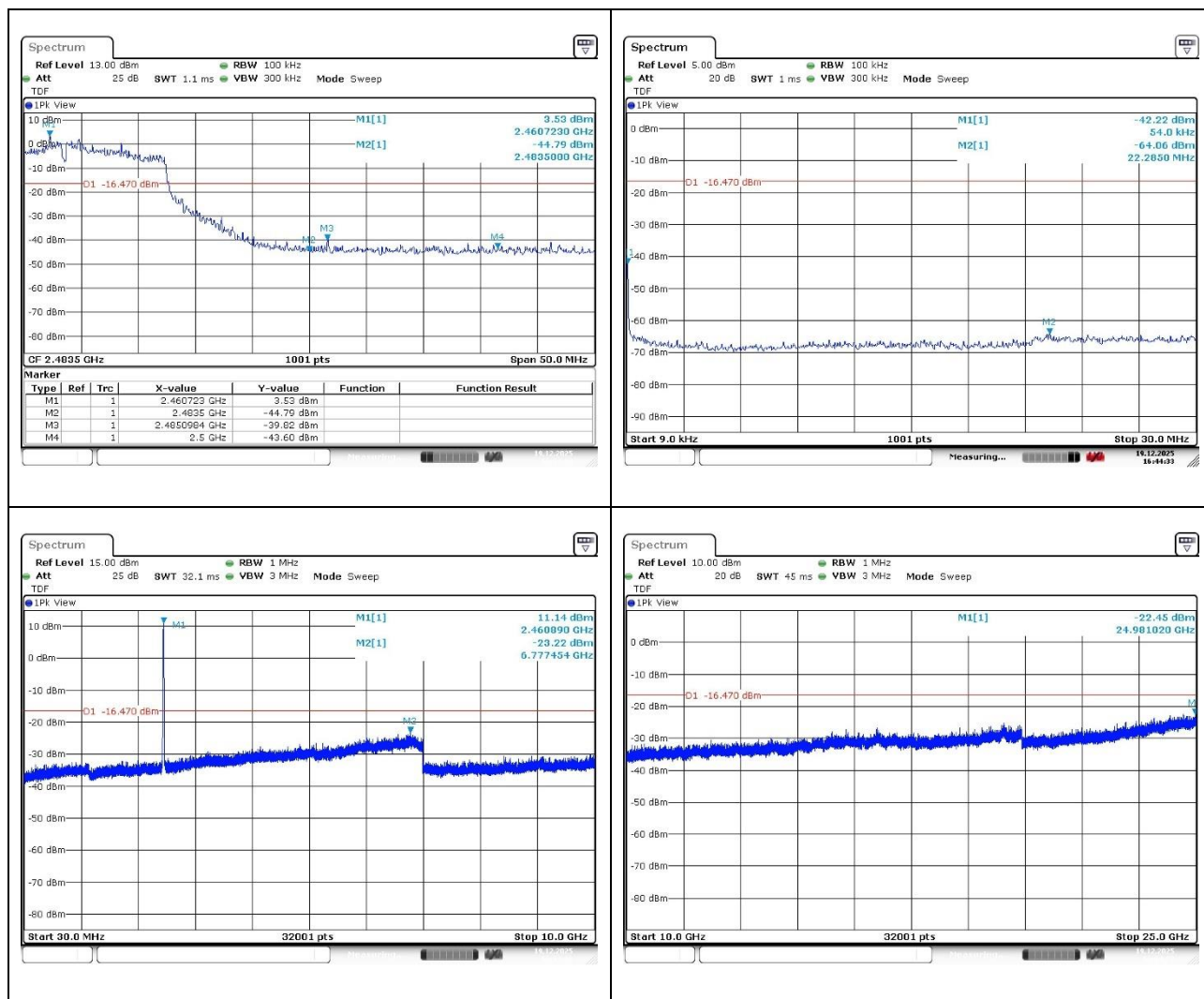
Low Channel -2



Middle Channel



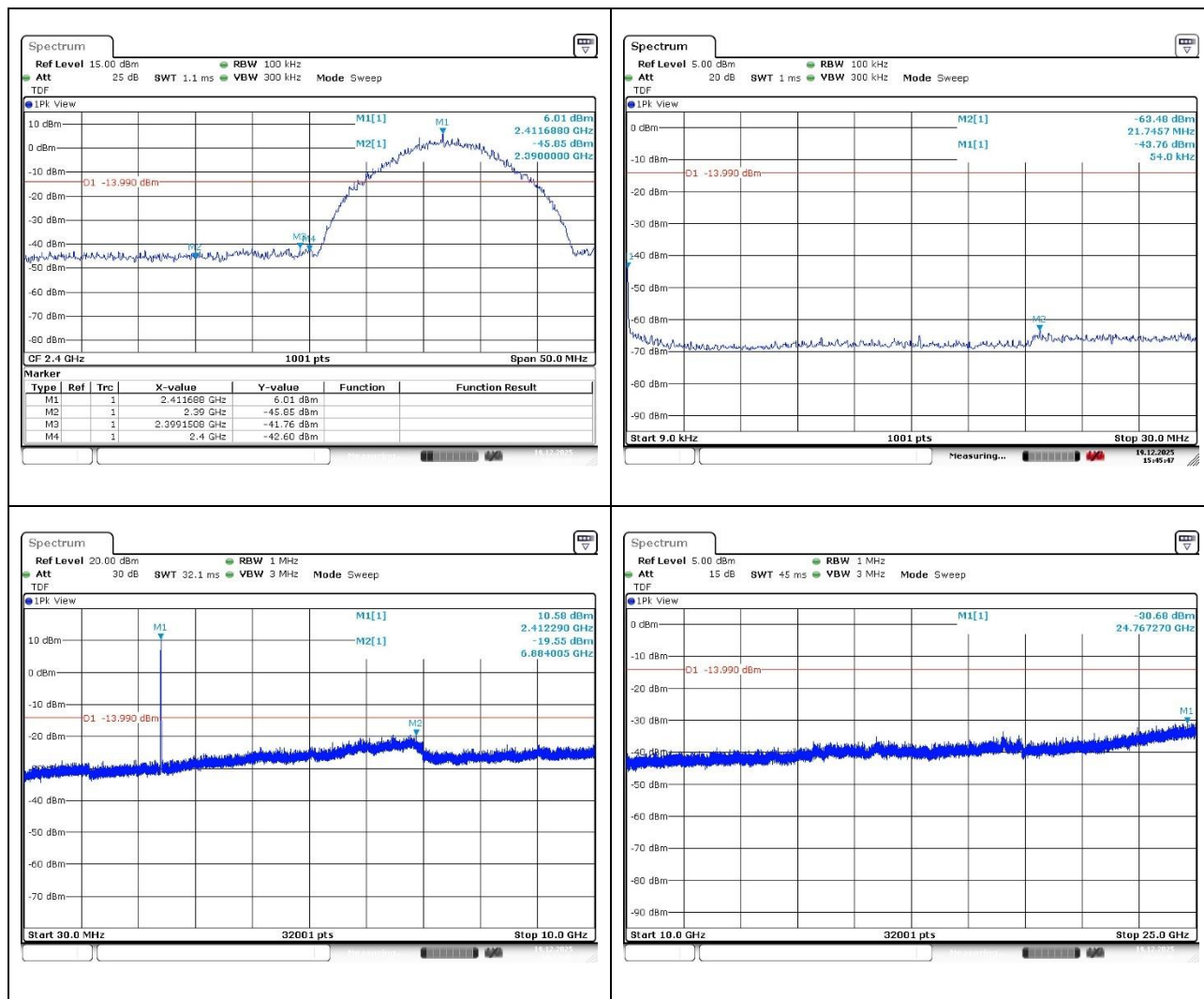
High Channel



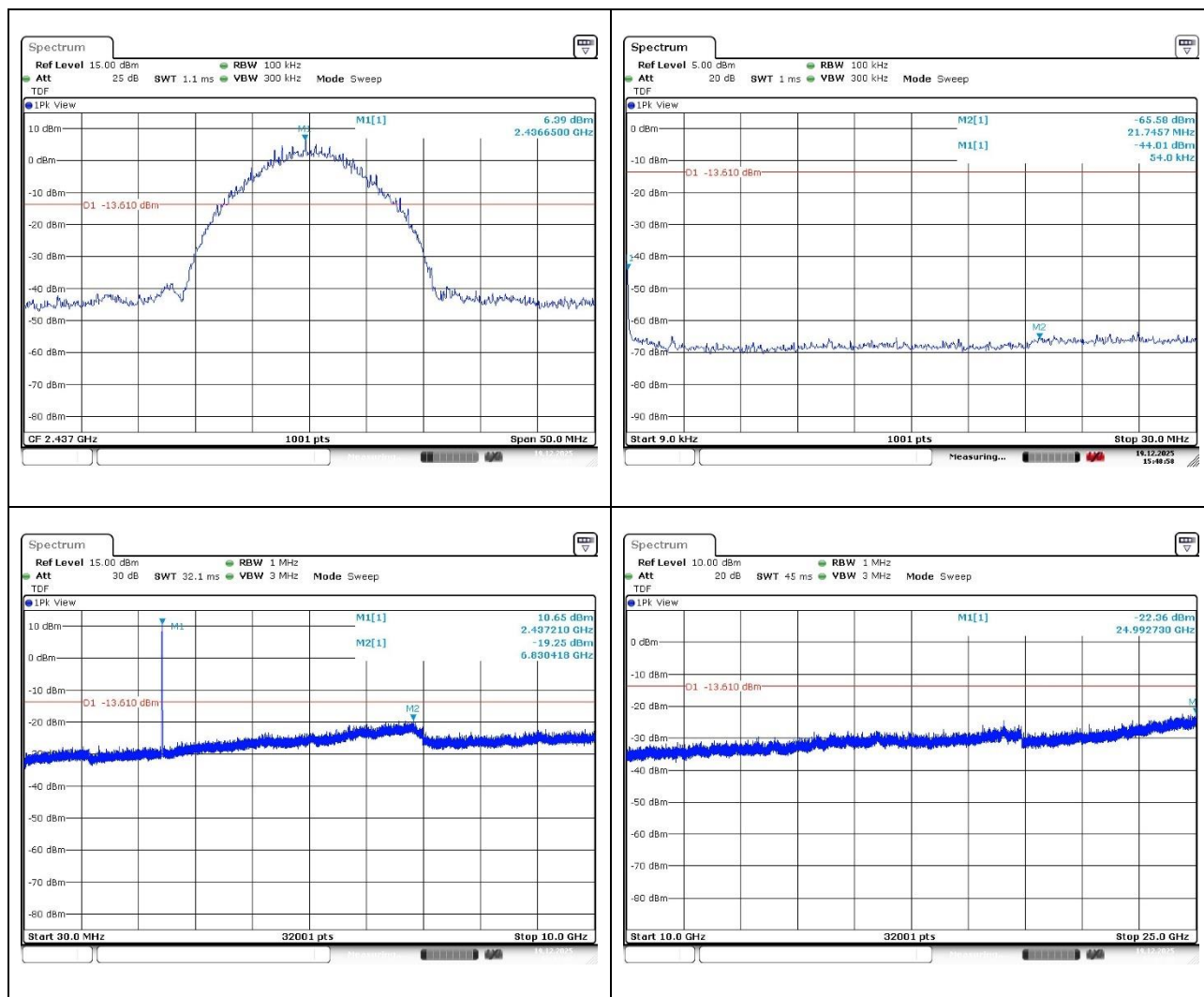
- Ant. 3

11b

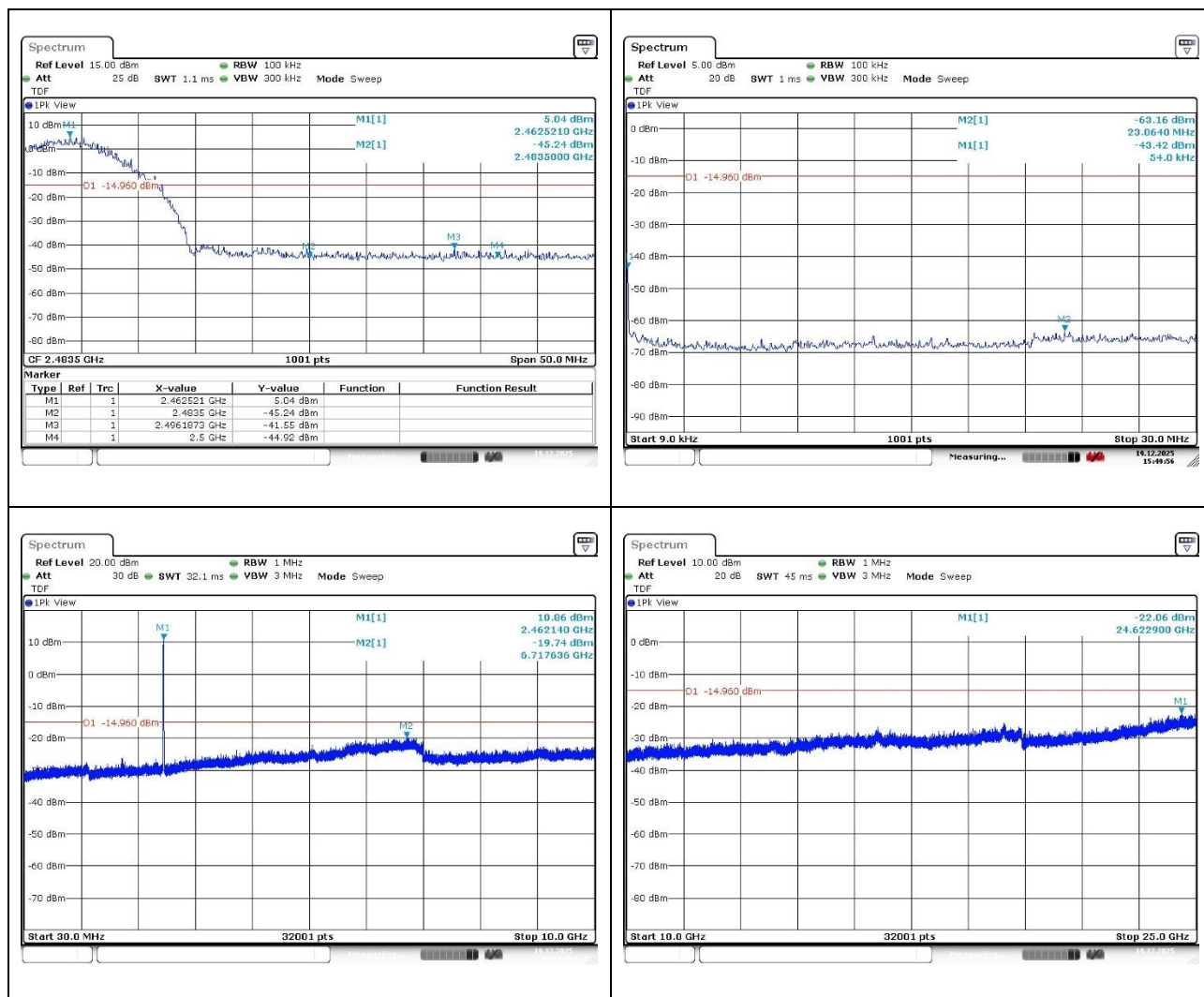
Low Channel



Middle Channel

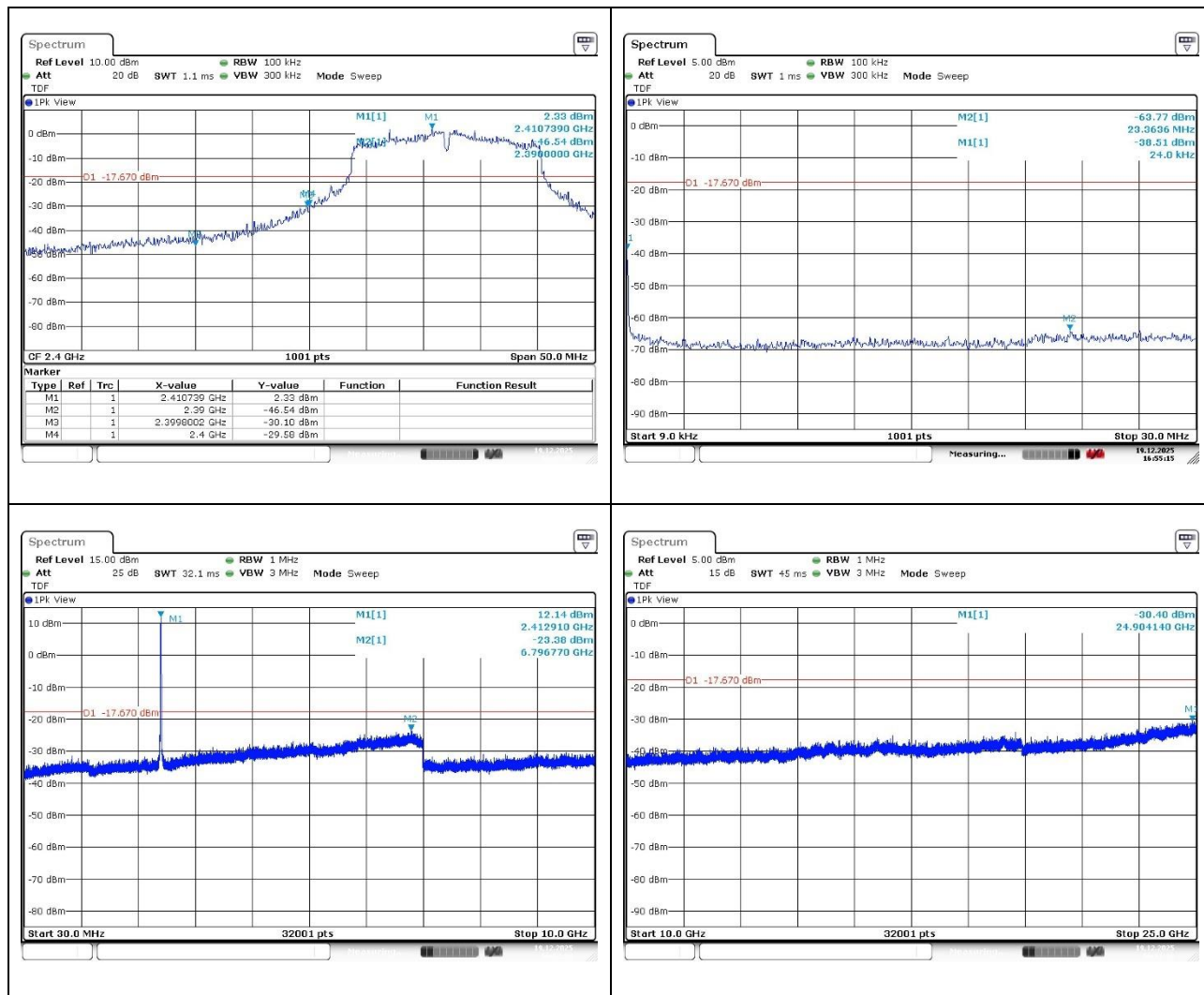


High Channel

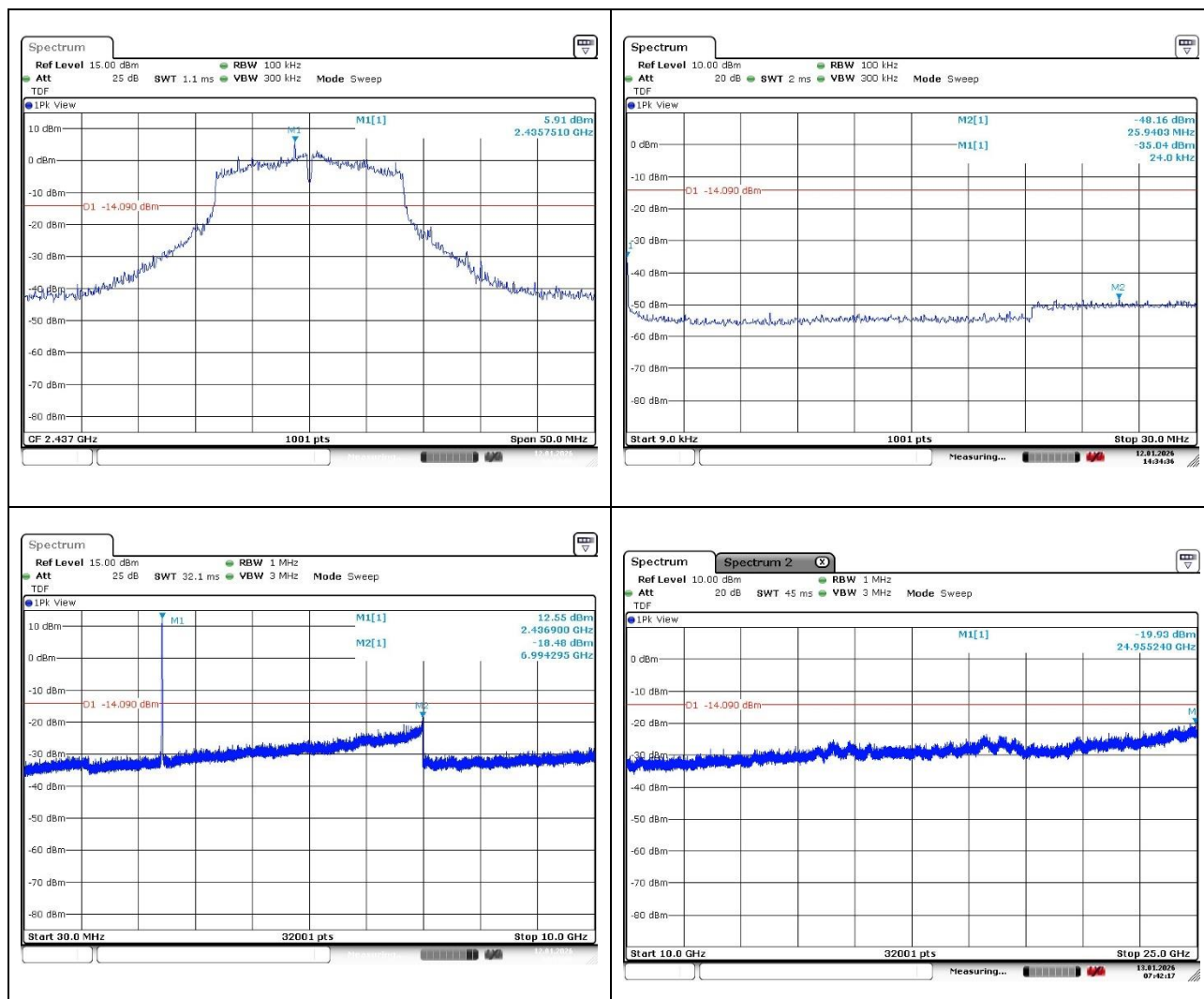


11g

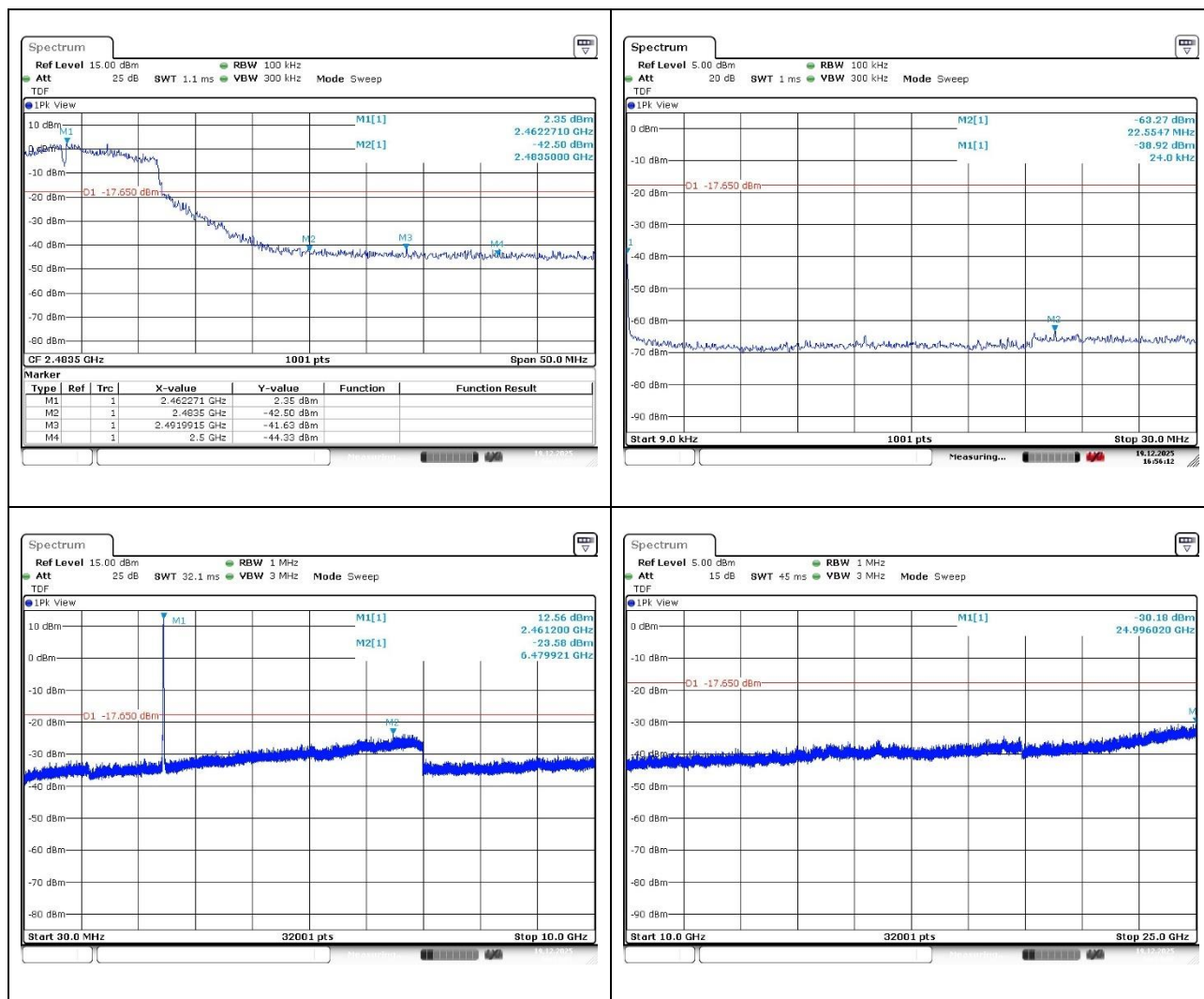
Low Channel



Middle Channel

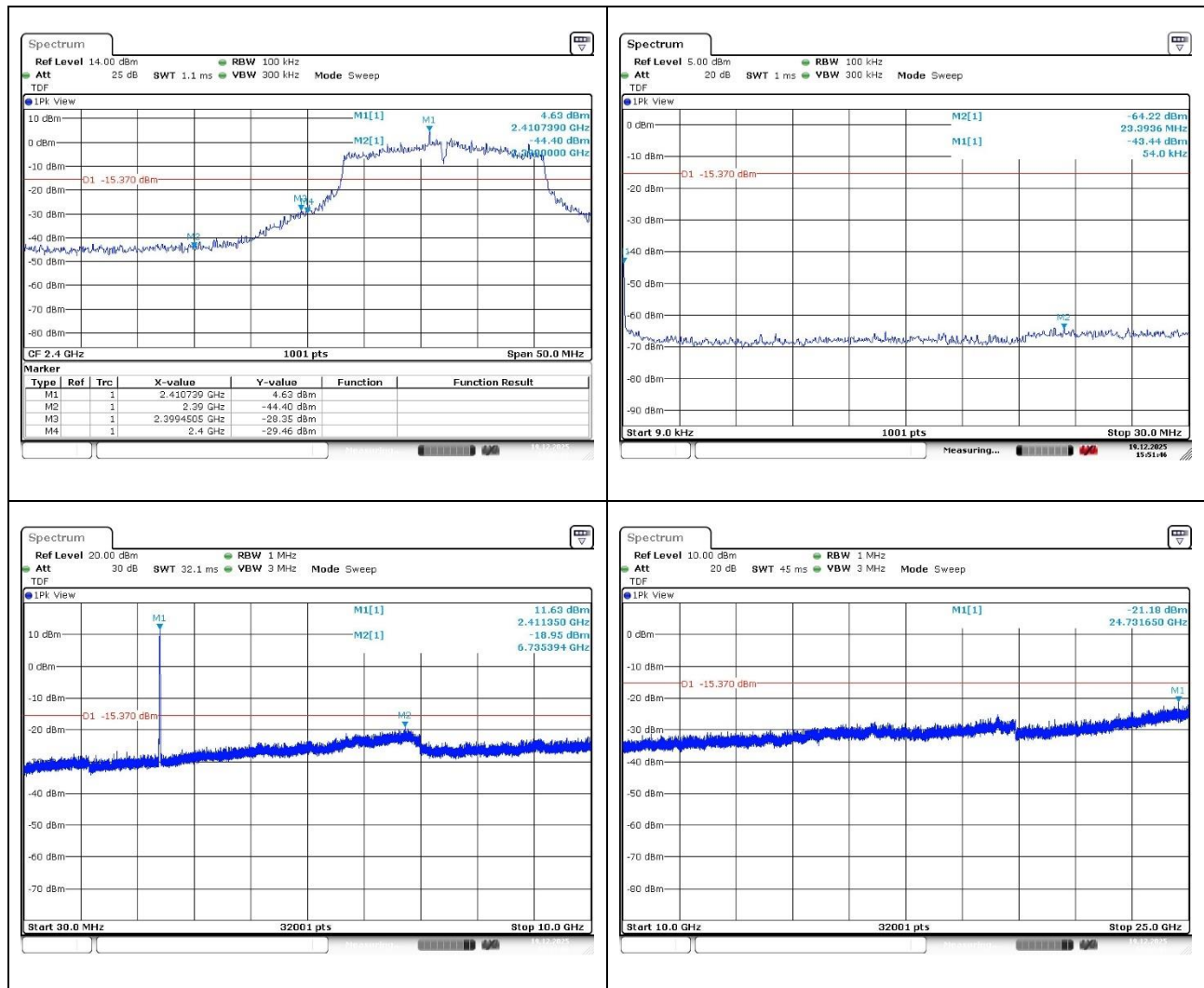


High Channel

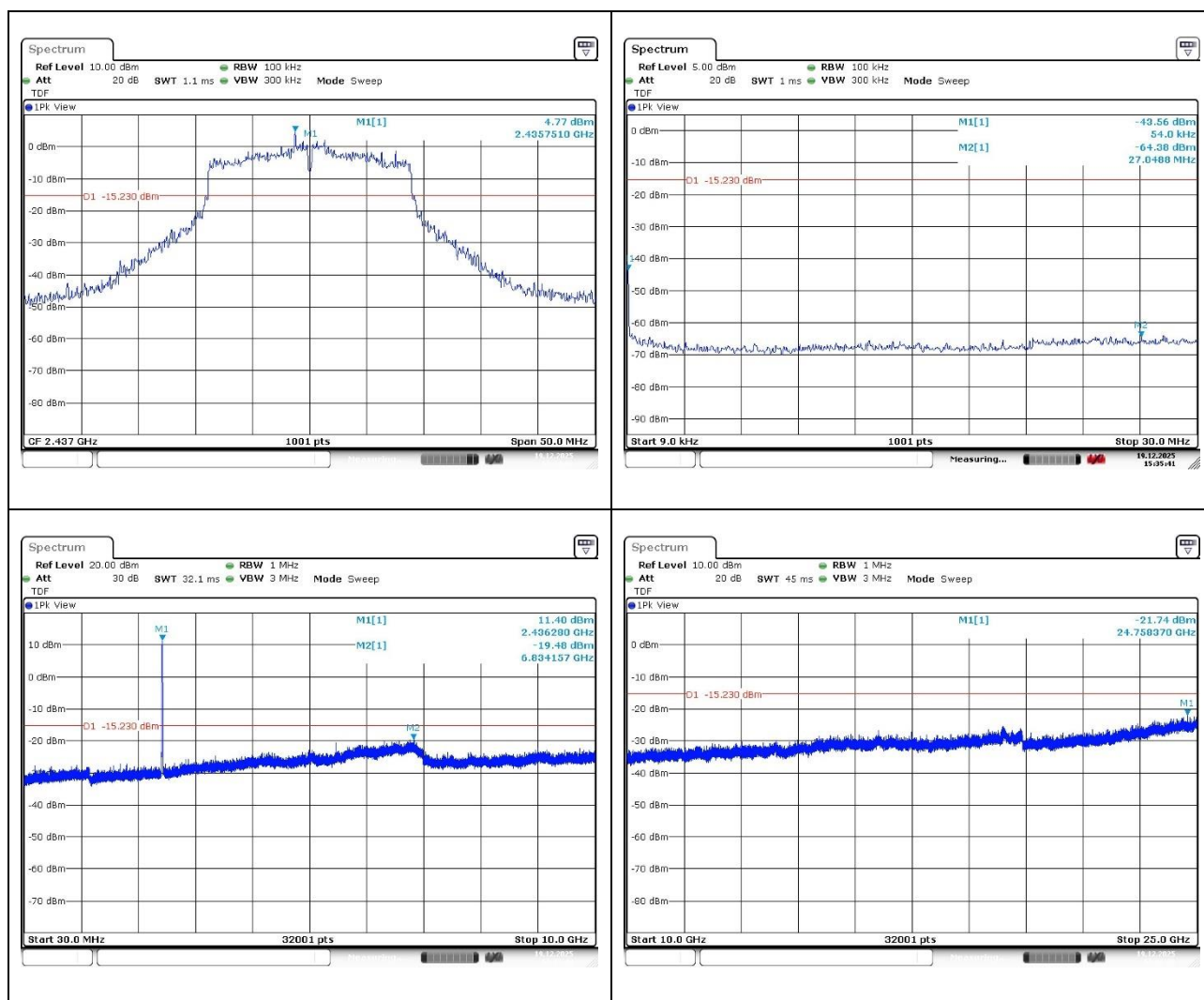


11n_HT20

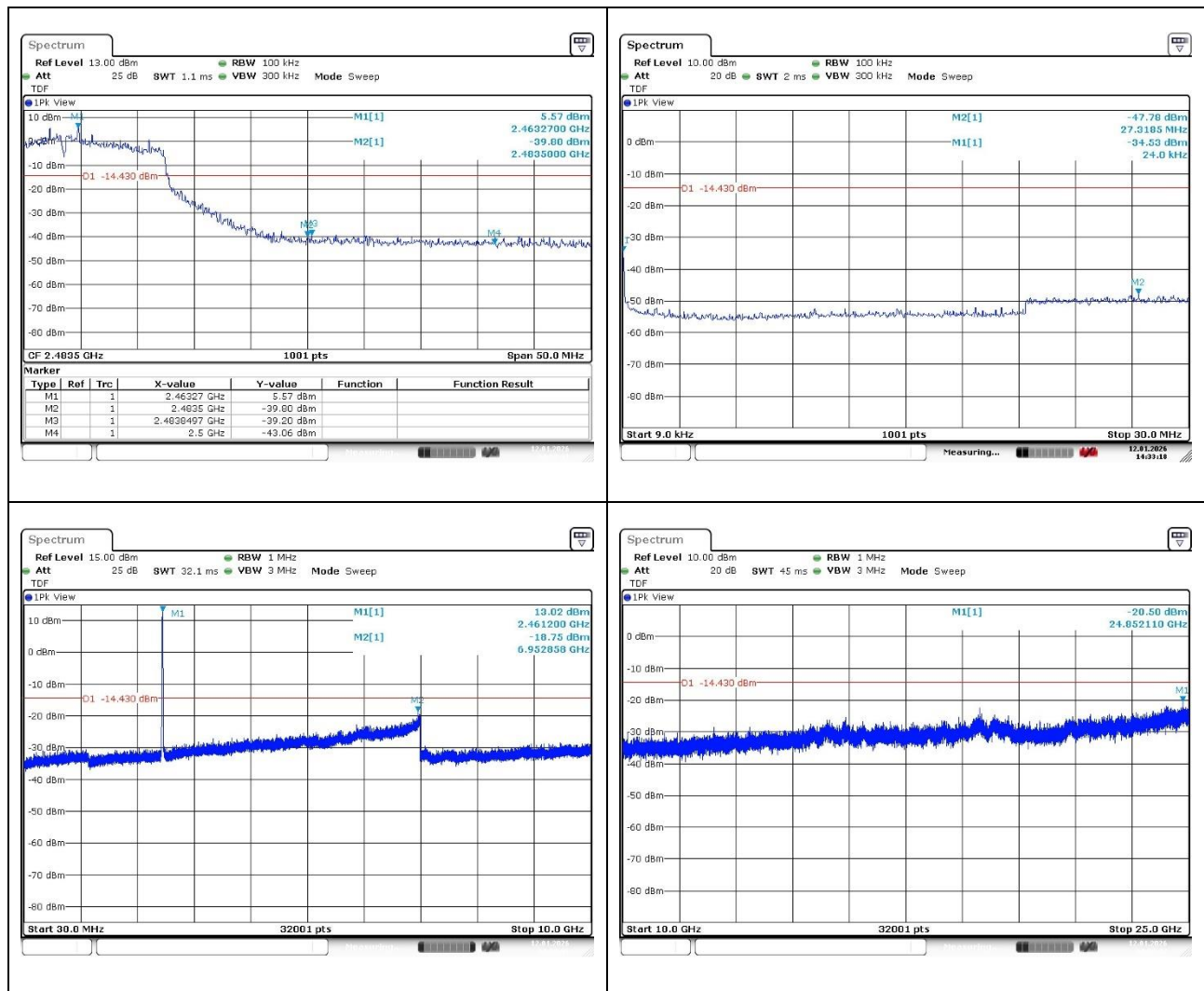
Low Channel



Middle Channel



High Channel



3. 6 dB Bandwidth and 99 % Bandwidth

3.1. Test Setup



3.2. Limit

3.2.1. FCC

According to §15.247(a)(2), systems using digital modulation techniques may operate in the 902-928 MHz, 2 400-2 483.5 MHz, and 5 725-5 850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

3.2.2. IC

According to RSS-247 Issue 4, 6.3.1(a), the minimum 6 dB bandwidth shall be 500 kHz

3.3. Test Procedure

3.3.1. 6 dB Bandwidth

The test follows section 11.8 DTS bandwidth of ANSI C63.10-2020 (for FCC) and ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024 (for ISSED).

Tests performed using section 11.8.1 Option 1.

- Option 1:

1. Set RBW to = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
2. Set the VBW $\geq [3 \times \text{RBW}]$.
3. Detector = peak.
4. Trace mode = max hold.
5. Sweep = No faster than coupled (auto) time.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "-6 dB down amplitude". If a marker is below this "-6 dB down amplitude" value, then it shall be as close as possible to this value.

3.3.2. 99 % Bandwidth

The test follows section 6.9.3 of ANSI C63.10-2020 (for FCC) and ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024 (for ISSED).

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.
 - 1) When measuring OBW for UWB, the VBW shall be set to three times the RBW or the maximum available VBW of the measuring instrument.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $10 \log(\text{OBW/RBW})$ below the reference level. Specific guidance is given in 4.1.6.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

3.4. Test Results

Ambient temperature : (23 ± 1) °C
Relative humidity : 47 %

- Ant. 2

Operation Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Limit	99 % Bandwidth (MHz)	99% Bandwidth Minimum Limit (kHz)
11b	Low	2 412	7.699	-	14.182	500
	Middle	2 437	7.757		14.182	
	High	2 462	6.947		14.182	
11g	Low	2 412	15.745		16.498	
	Middle	2 437	15.630		16.498	
	High	2 462	15.687		16.498	
11n_HT20	Low-1	2 412	16.440		17.713	
	Low-2	2 417	16.093		17.713	
	Middle	2 437	16.035		17.713	
	High	2 462	16.093		17.713	

- Ant. 3

Operation Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Limit	99 % Bandwidth (MHz)	99% Bandwidth Minimum Limit (kHz)
11b	Low	2 412	7.757	-	14.240	500
	Middle	2 437	7.988		14.182	
	High	2 462	7.757		14.182	
11g	Low	2 412	15.630		16.498	
	Middle	2 437	15.687		16.556	
	High	2 462	15.630		16.498	
11n_HT20	Low	2 412	16.093		17.713	
	Middle	2 437	16.035		17.713	
	High	2 462	16.093		17.713	