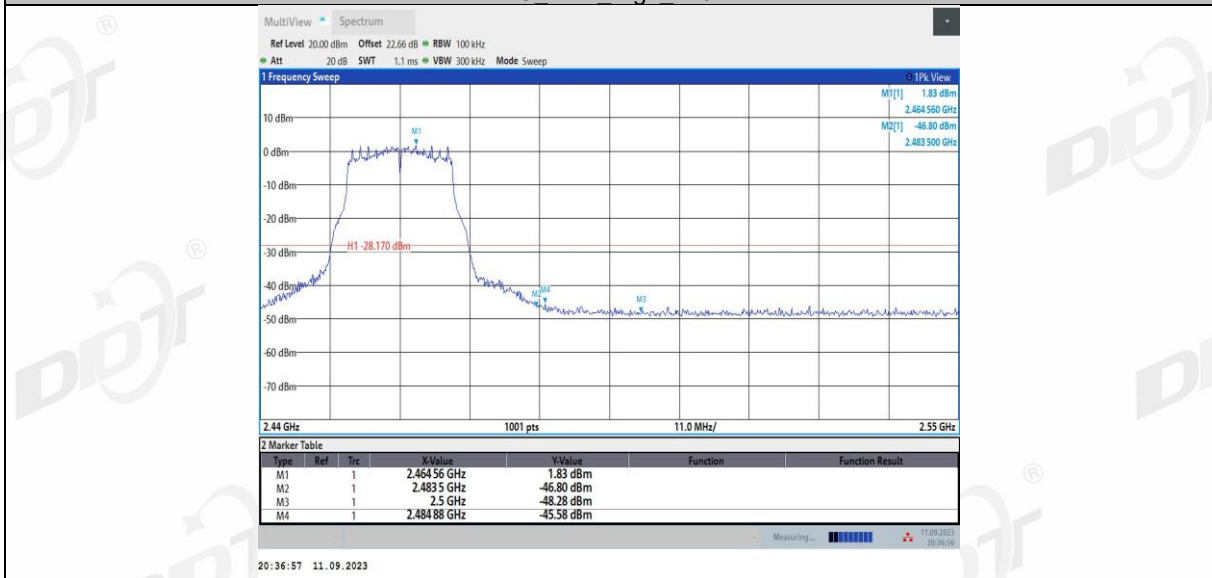
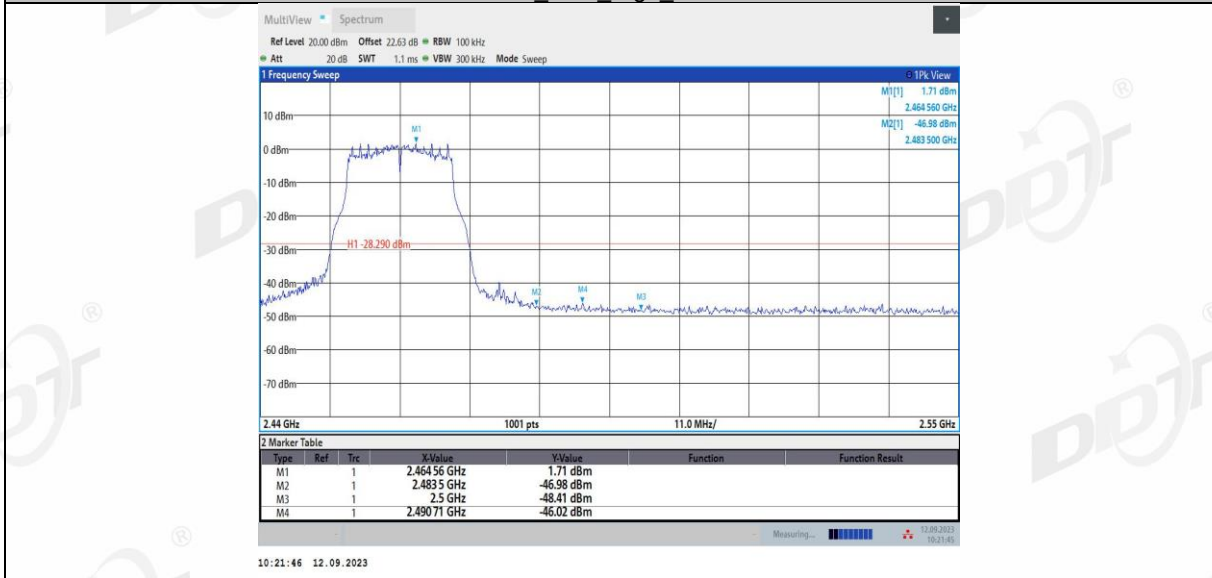


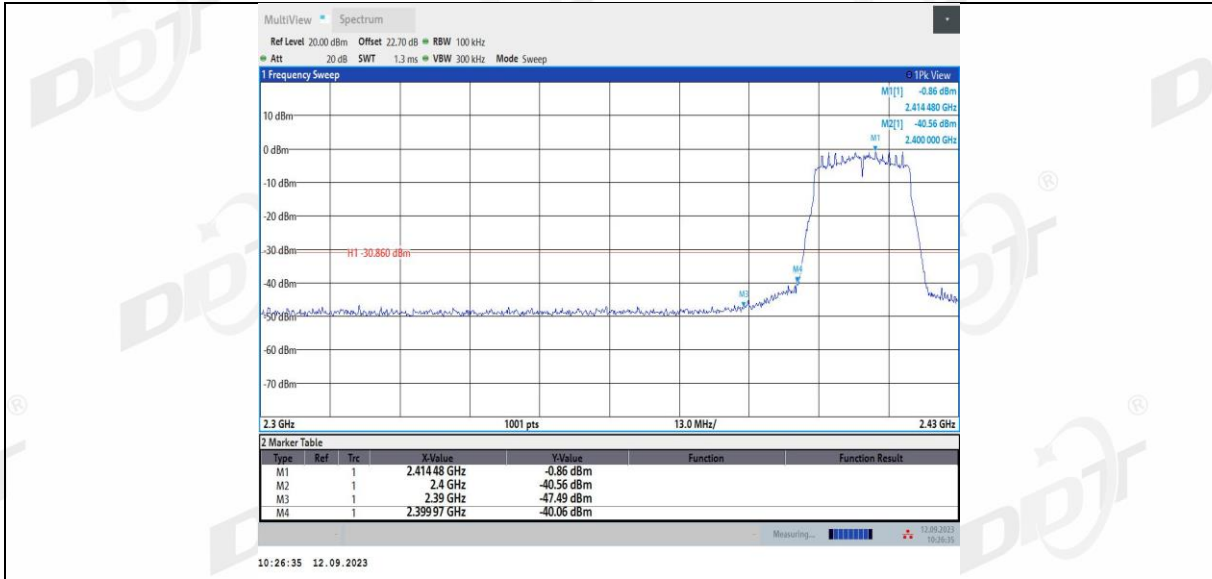
11G Ant1 High 2462



11G Ant2 High 2462



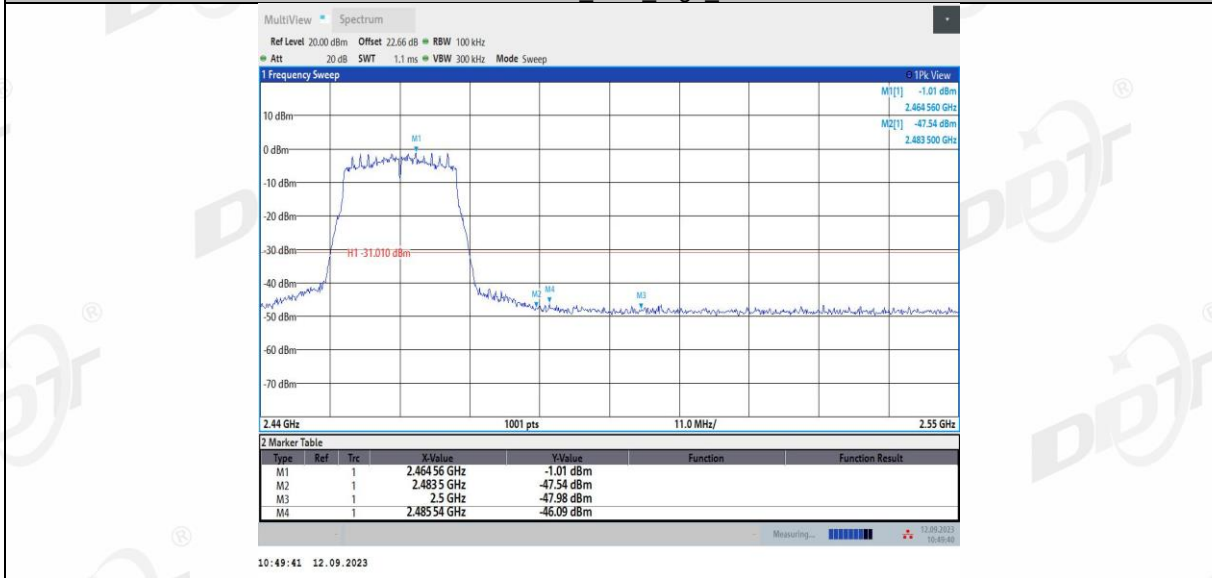
11N20MIMO Ant1 Low 2412



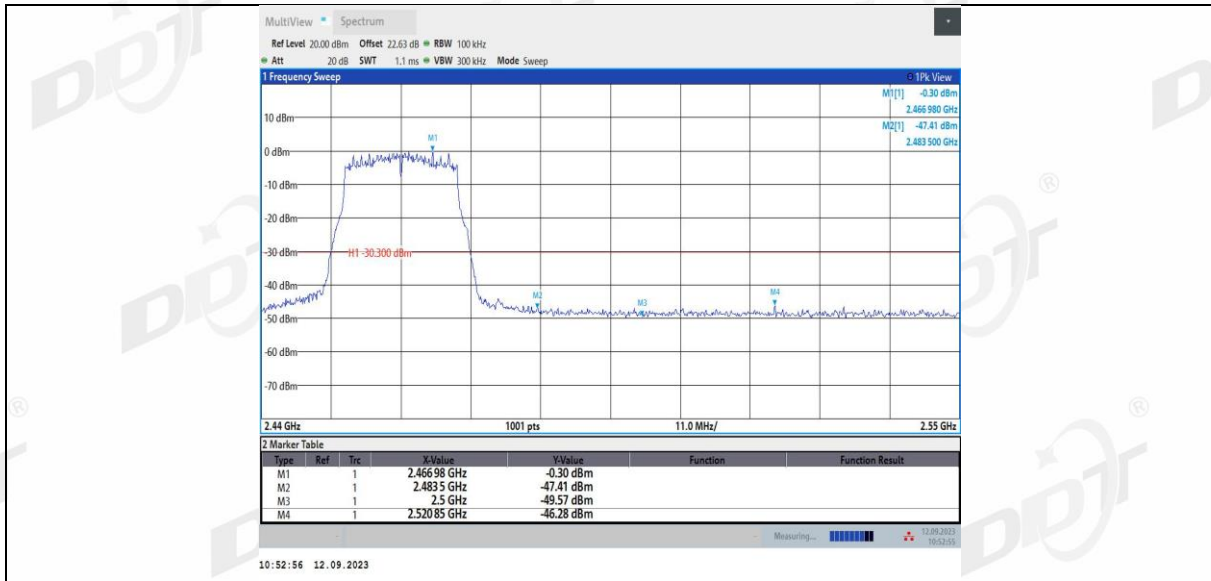
11N20MIMO Ant2 Low 2412



11N20MIMO Ant1 High 2462



11N20MIMO Ant2 High 2462



9. RF Conducted Spurious Emissions

9.1. Block diagram of test setup



9.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

9.3. Test procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Establish a reference level by using the following procedure:

Center frequency	Test frequency
RBW:	100 kHz
VBW:	300 kHz
Span	Wide enough to capture the peak level of the in-band emission
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Set the spectrum analyzer as follows:

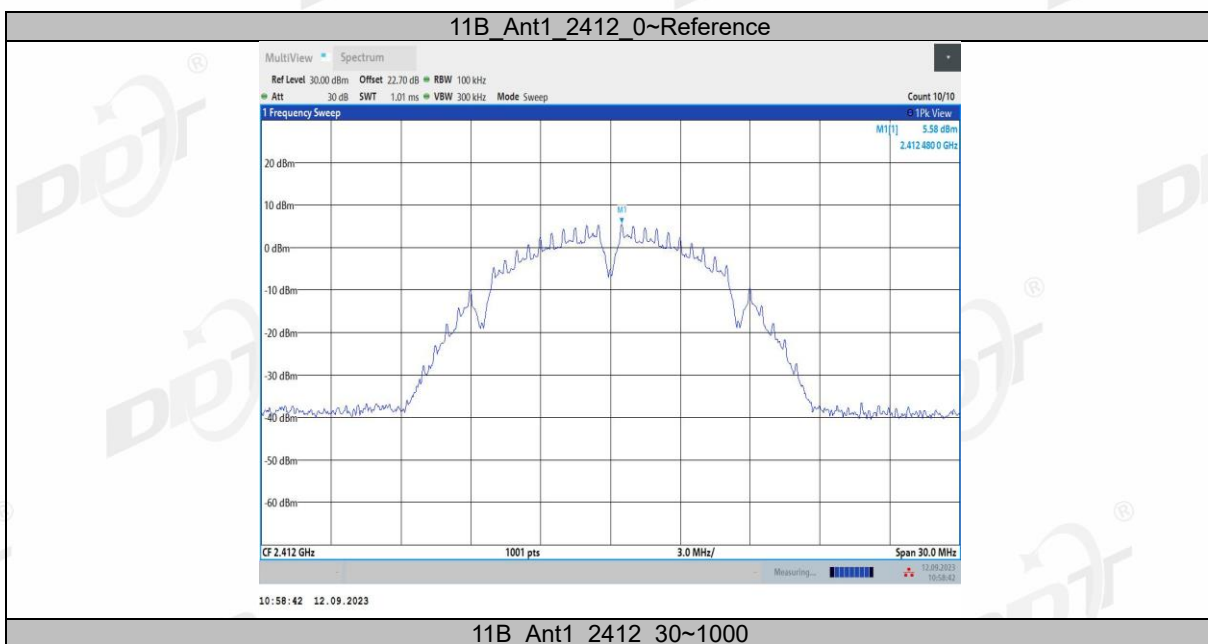
RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Number of measurement points	$\geq \text{Span}/\text{RBW}$
Detector Mode:	Peak
Sweep time:	auto
Trace mode	Max hold

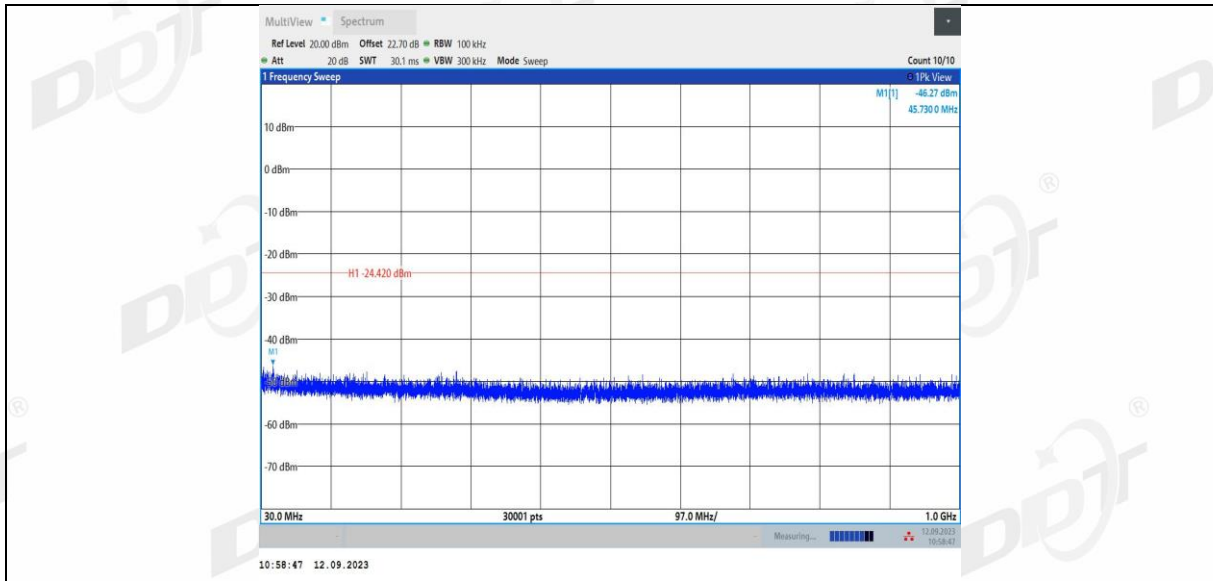
- (5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

9.4. Test result

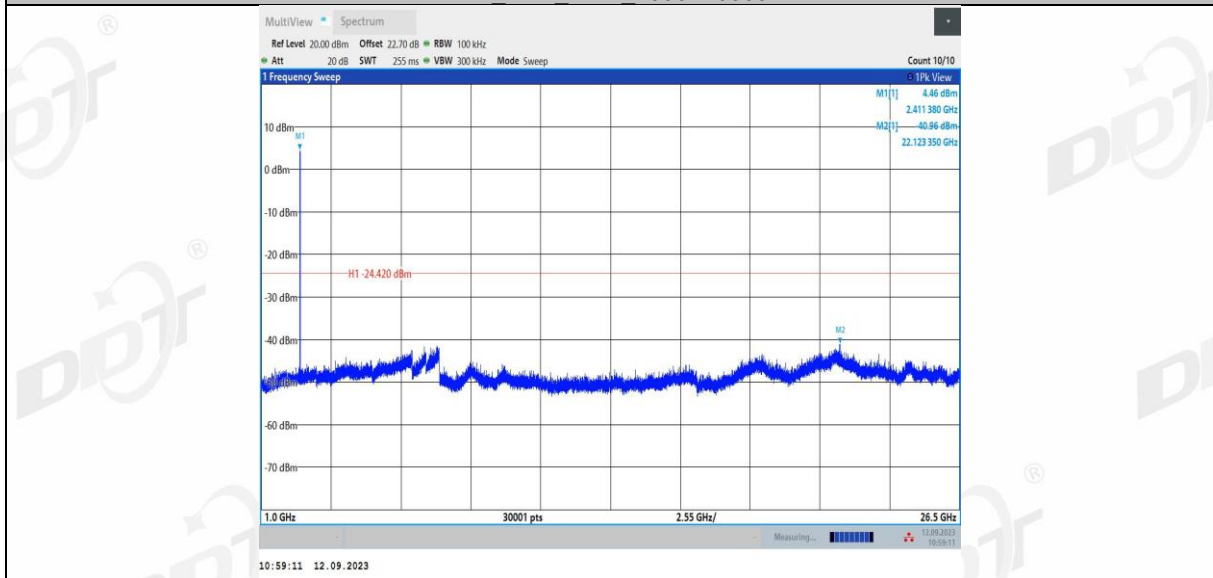
EUT Set Mode	CH or Frequency	Result (dBm)
11b	CH1	Pass
	CH6	Pass
	CH11	Pass
11g	CH1	Pass
	CH6	Pass
	CH11	Pass
11n HT 20	CH1	Pass
	CH6	Pass
	CH11	Pass

9.5. Test graphs

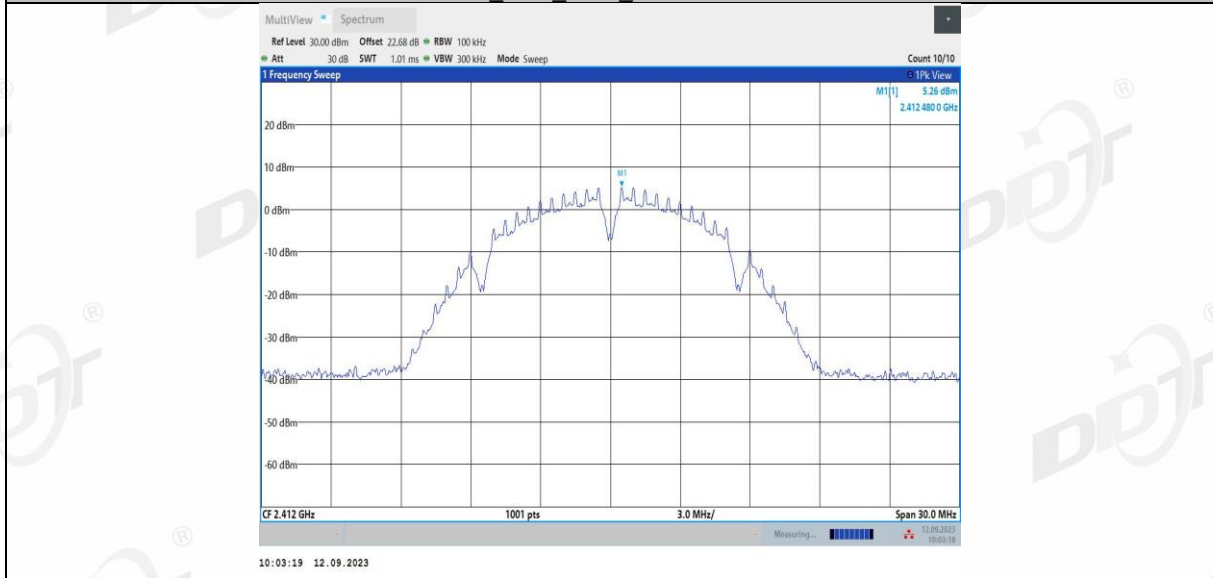




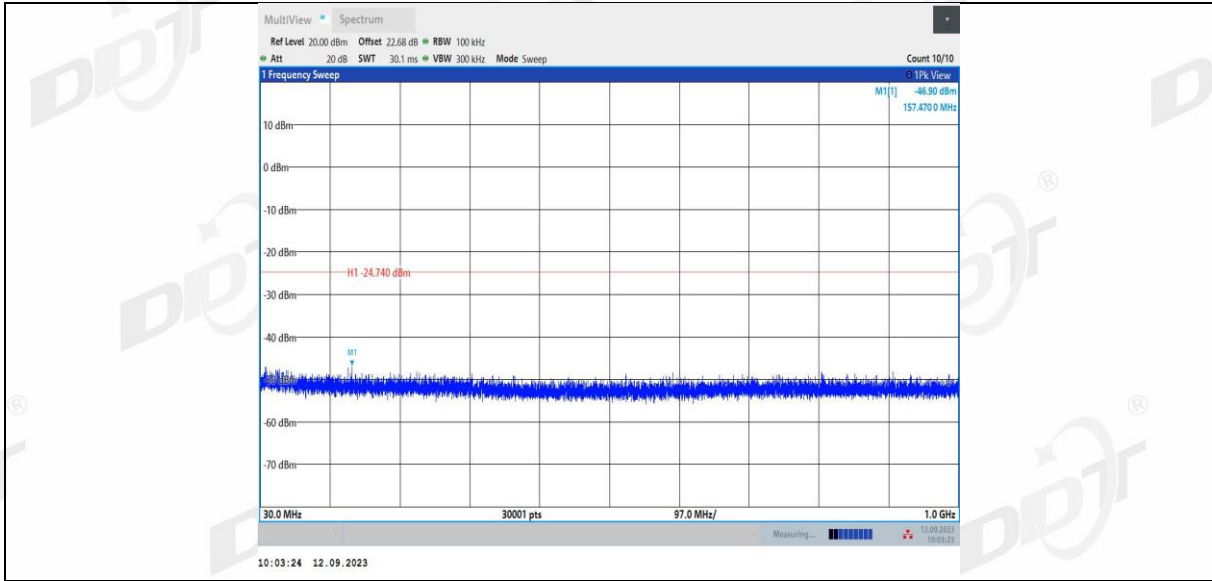
11B Ant1 2412 1000~26500



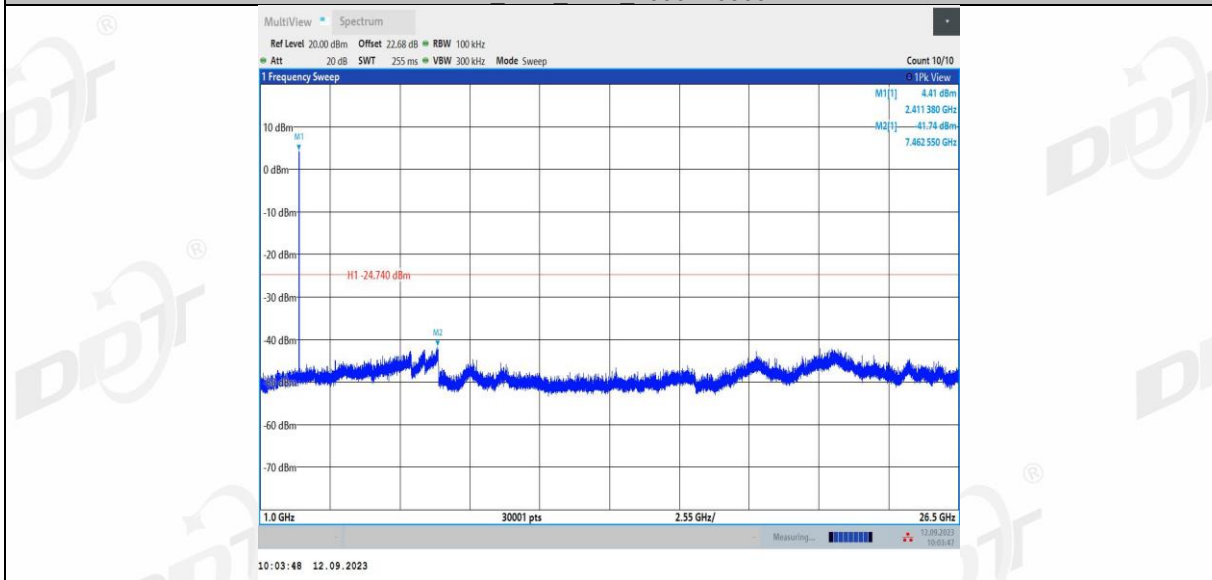
11B Ant2 2412_0~Reference



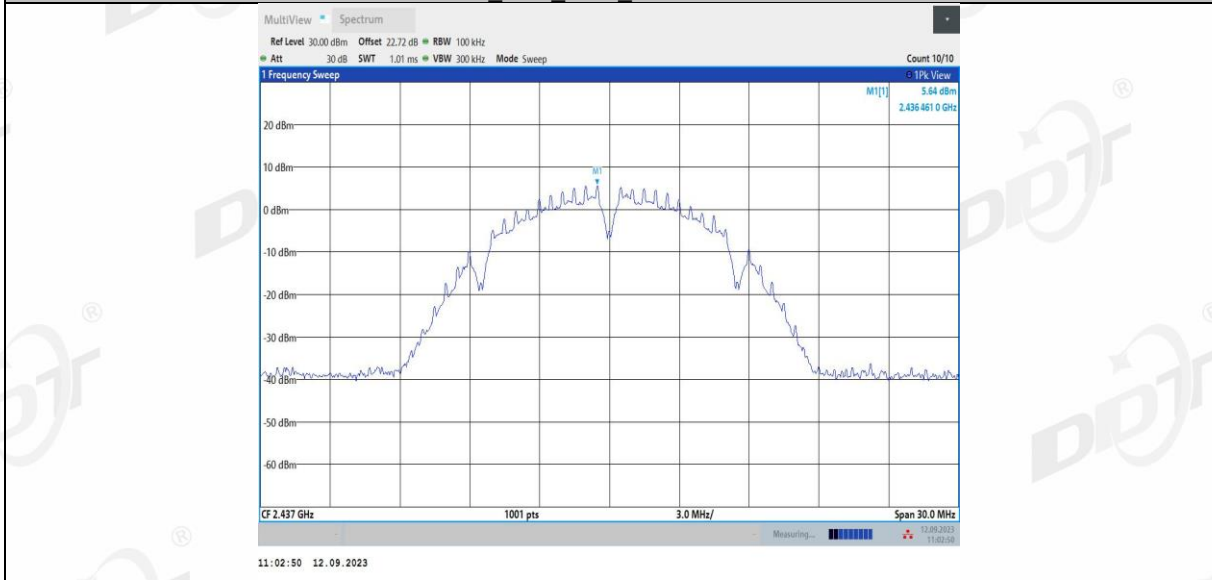
11B Ant2 2412_30~1000



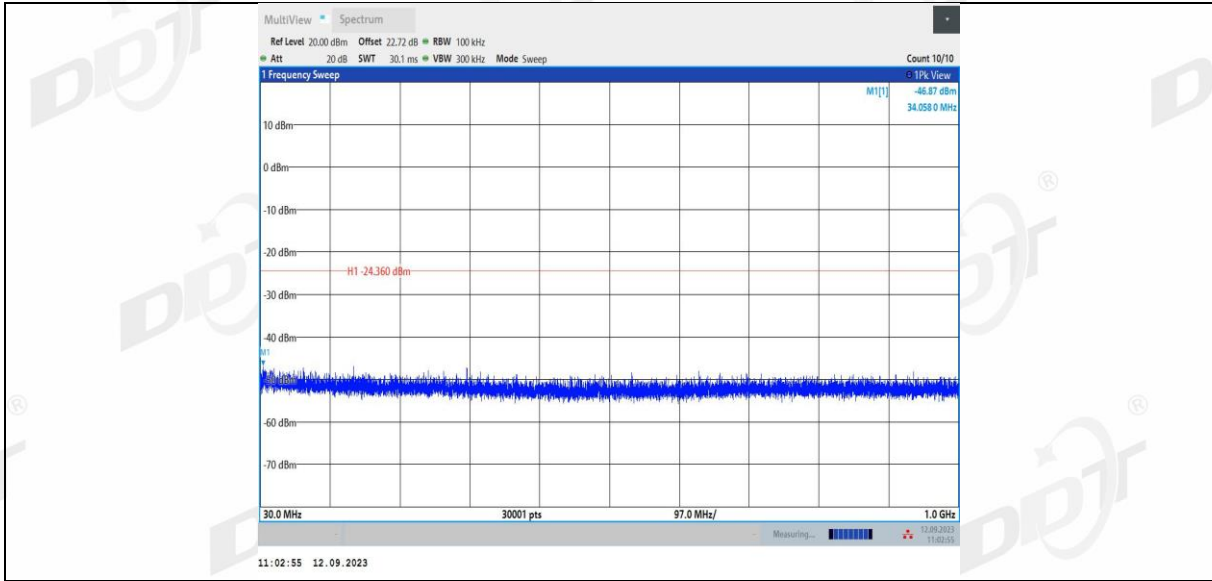
11B Ant2 2412 1000~26500



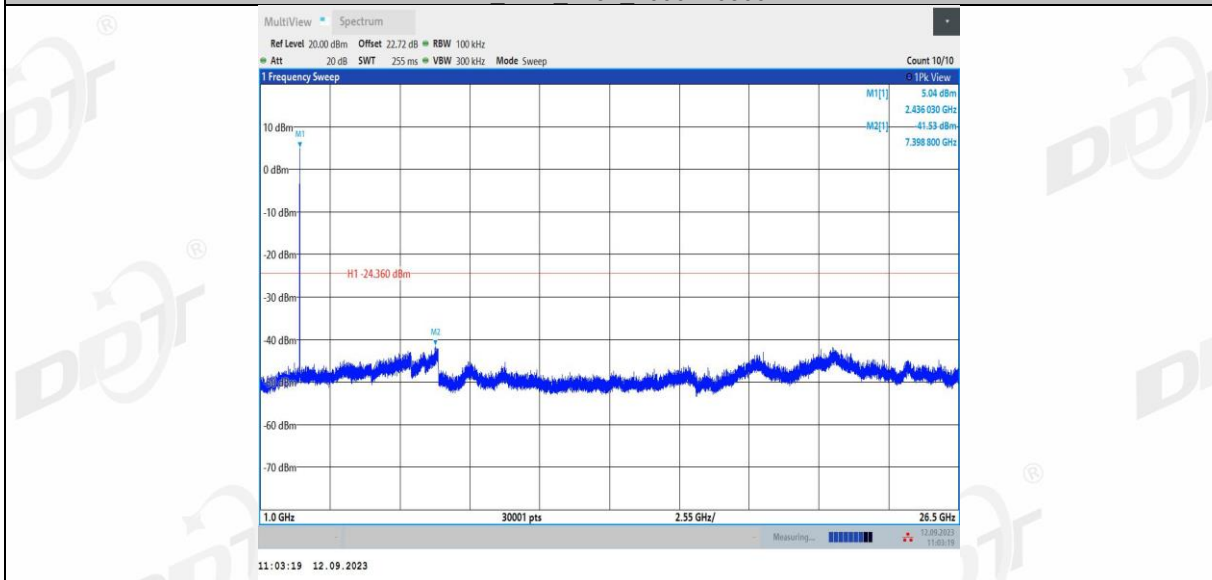
11B Ant1 2437 0~Reference



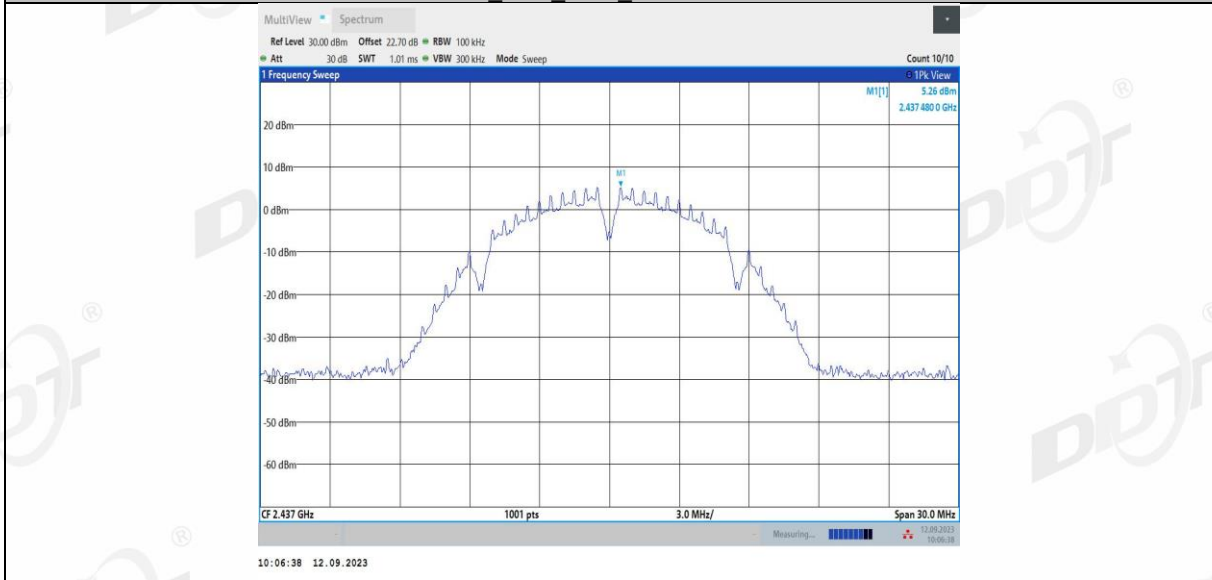
11B Ant1 2437 30~1000



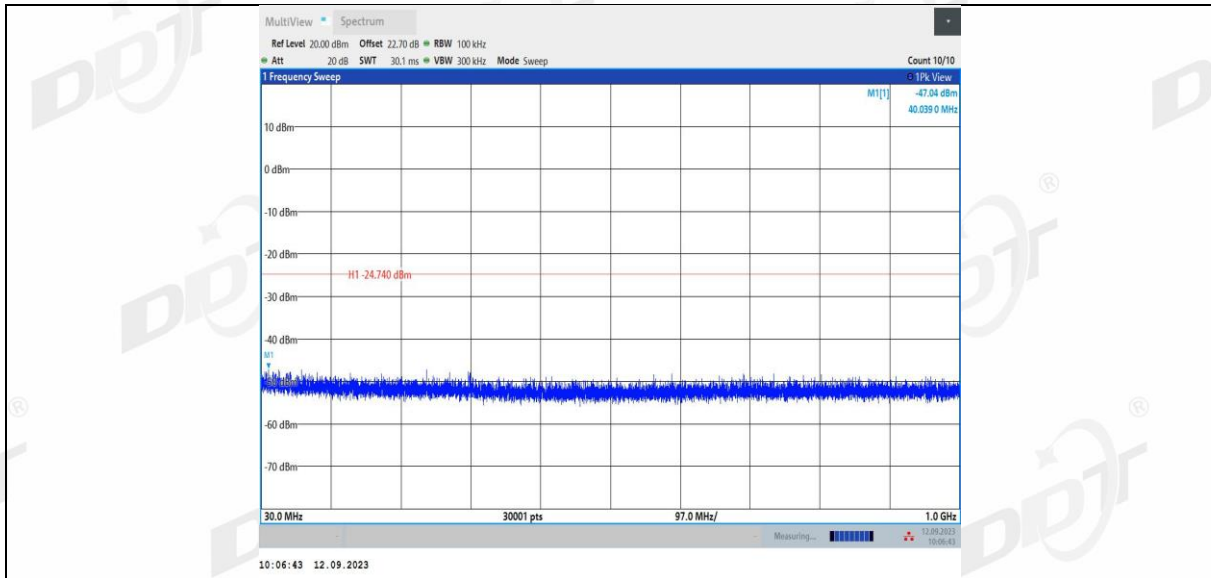
11B Ant1 2437 1000~26500



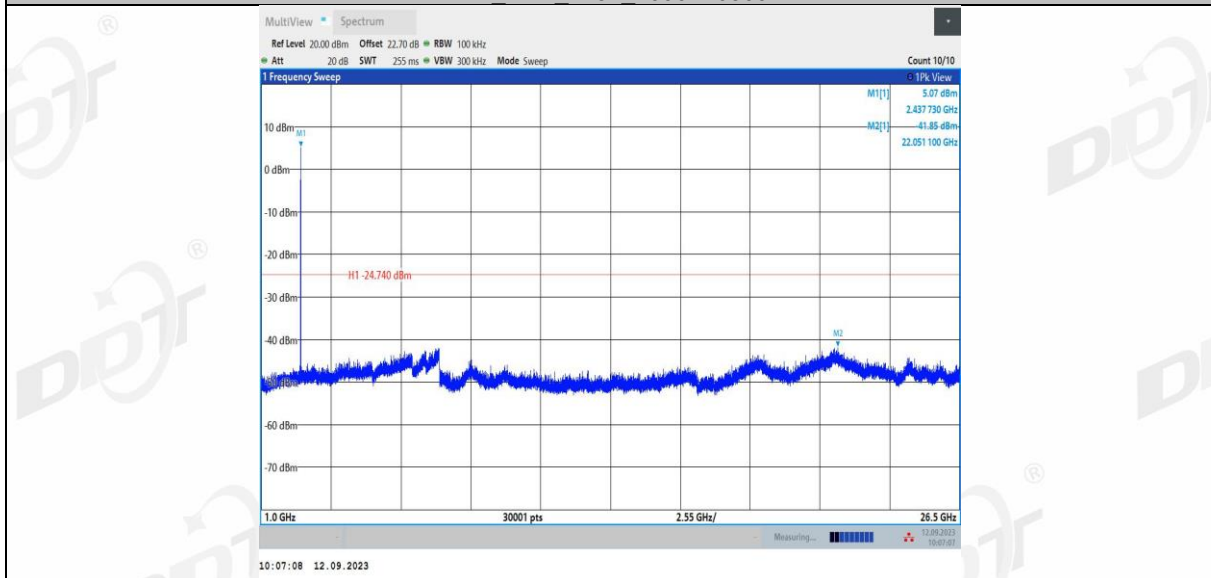
11B Ant2 2437 0~Reference



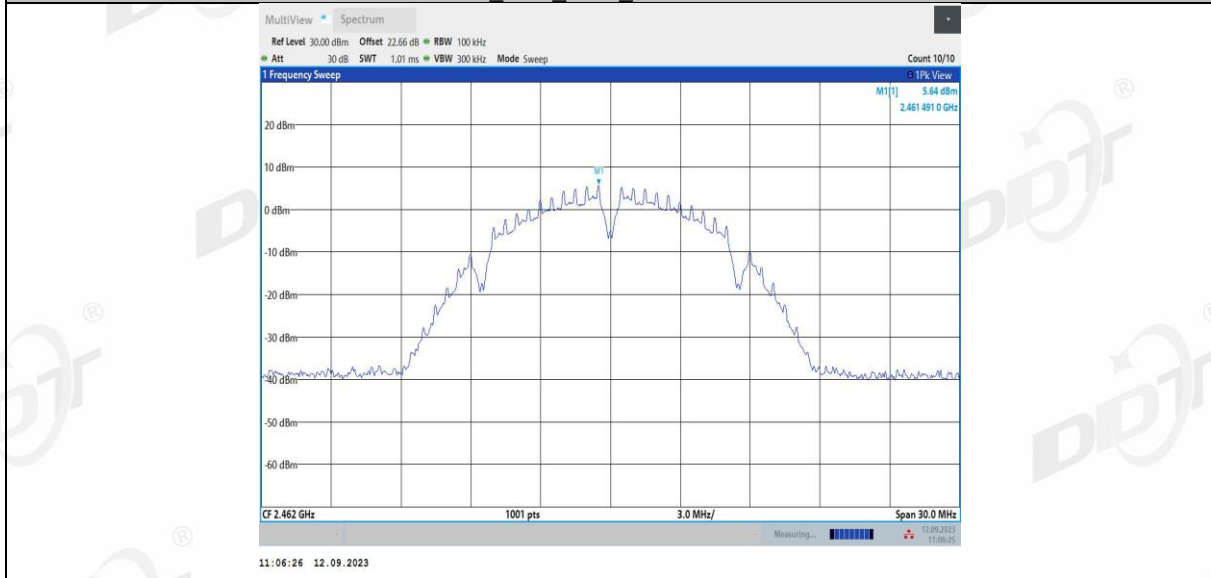
11B Ant2 2437 30~1000



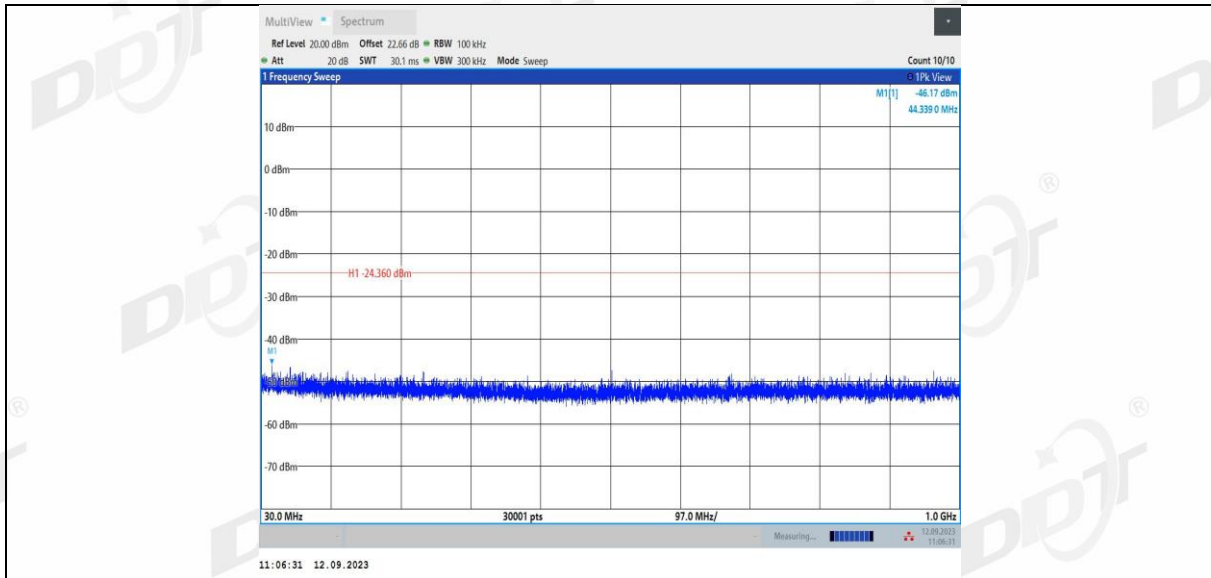
11B Ant2 2437 1000~26500



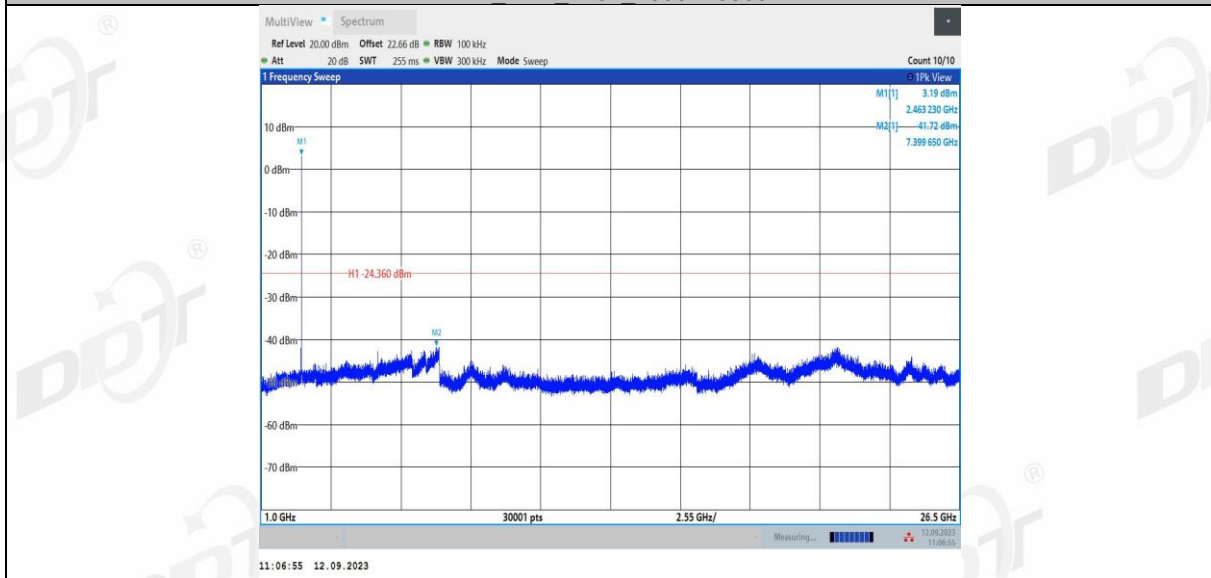
11B Ant1 2462 0~Reference



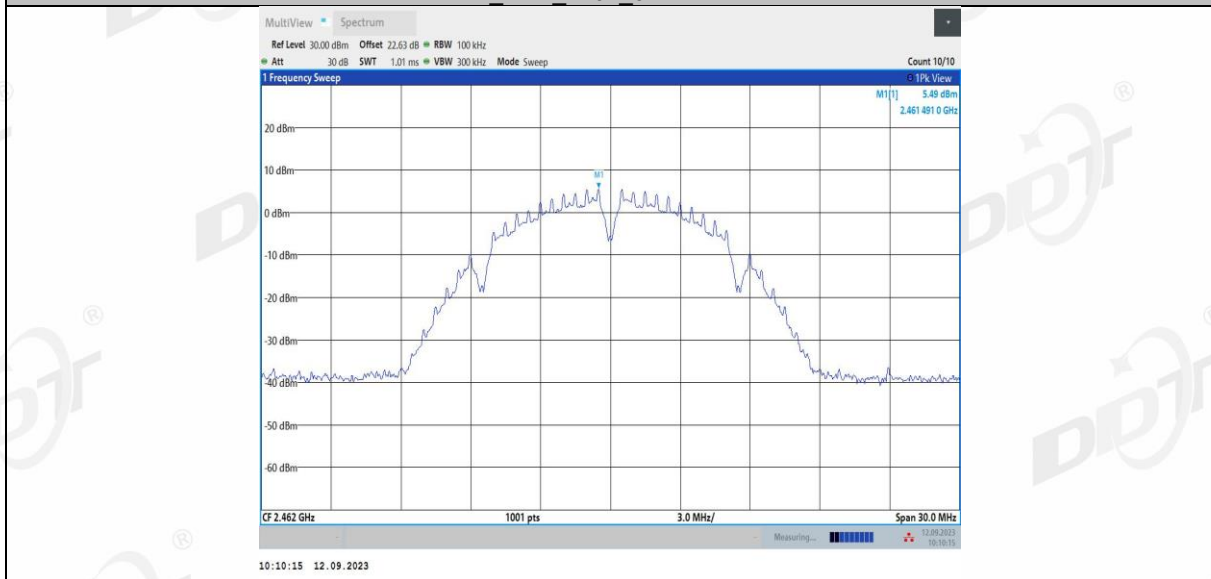
11B Ant1 2462 30~1000



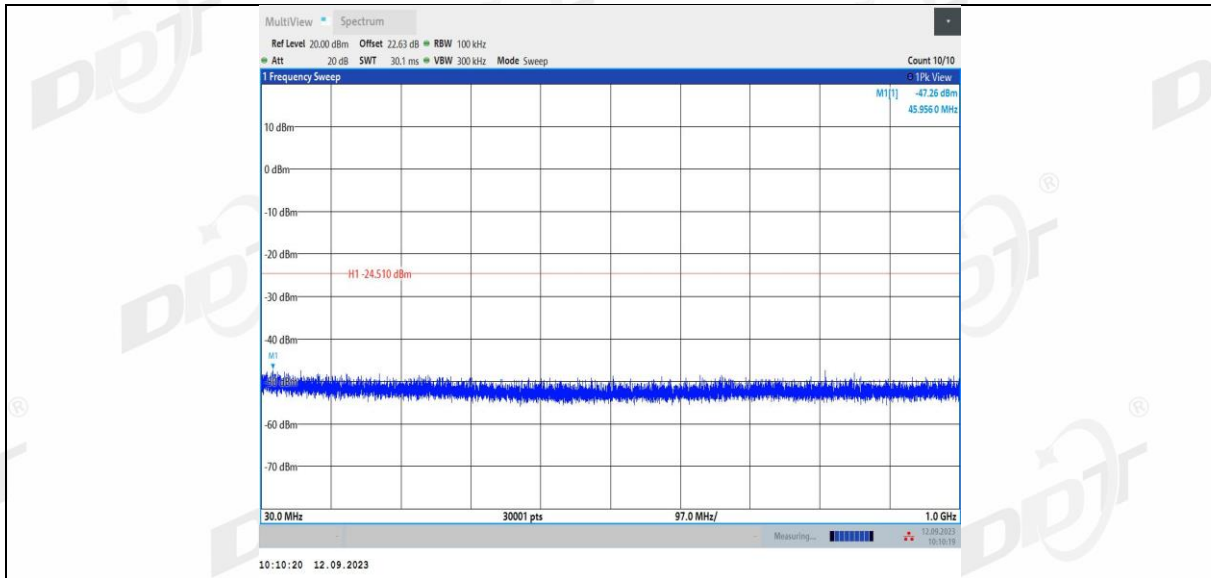
11B Ant1 2462 1000~26500



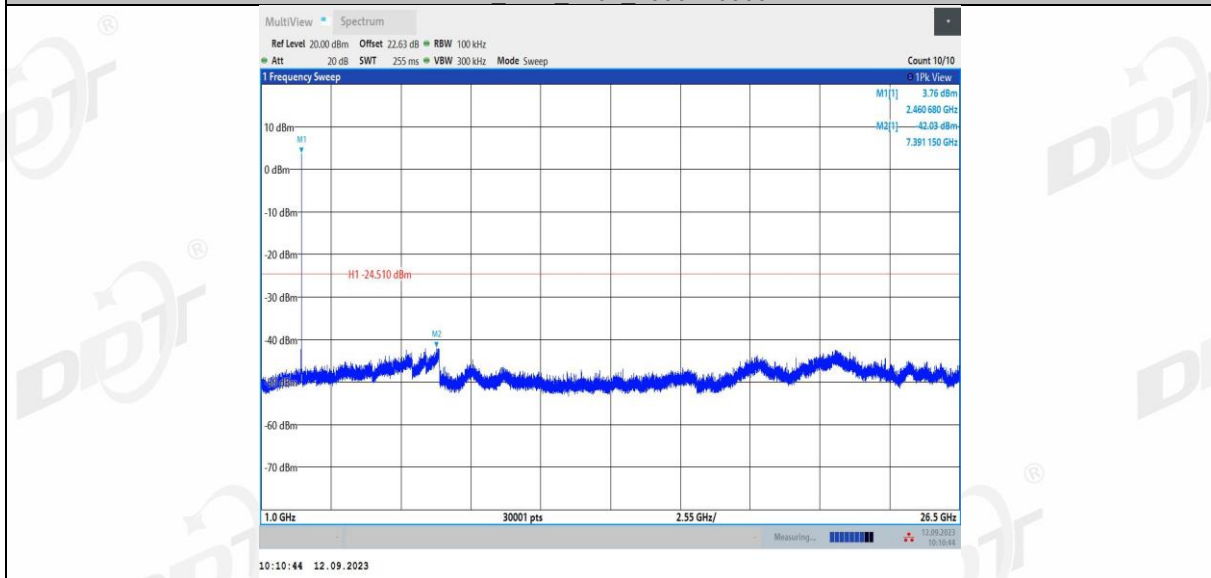
11B Ant2 2462 0~Reference



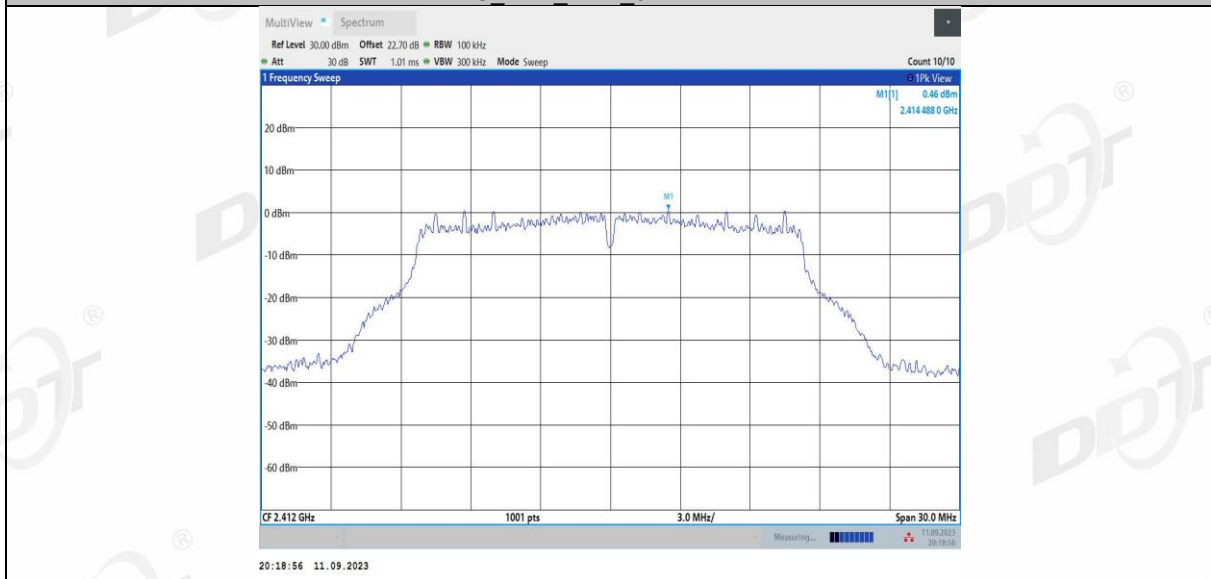
11B Ant2 2462 30~1000



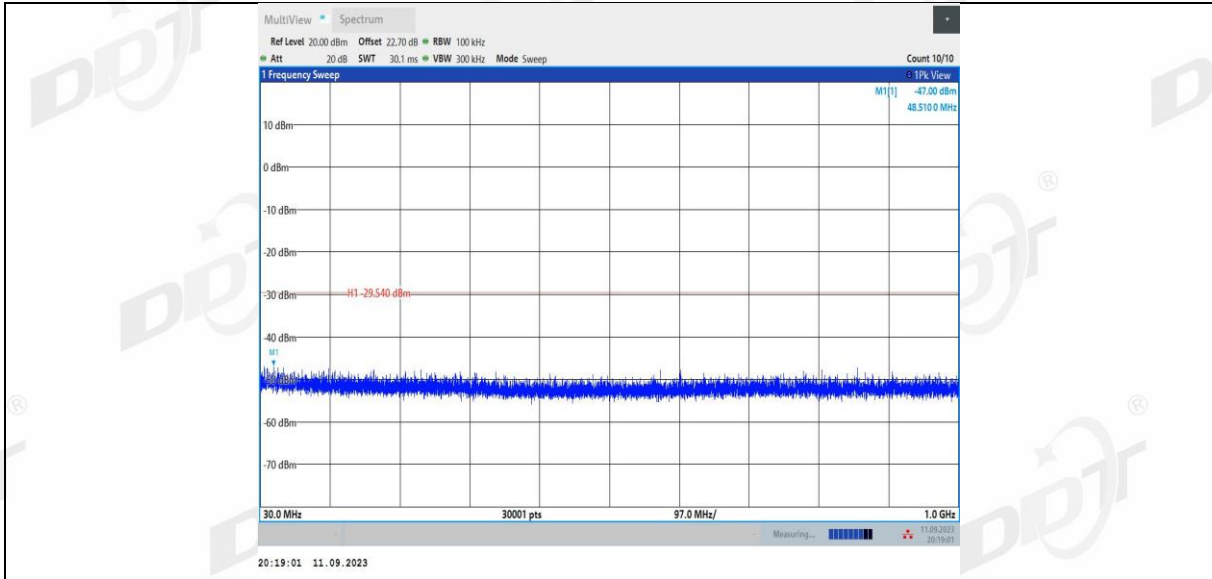
11B Ant2 2462 1000~26500



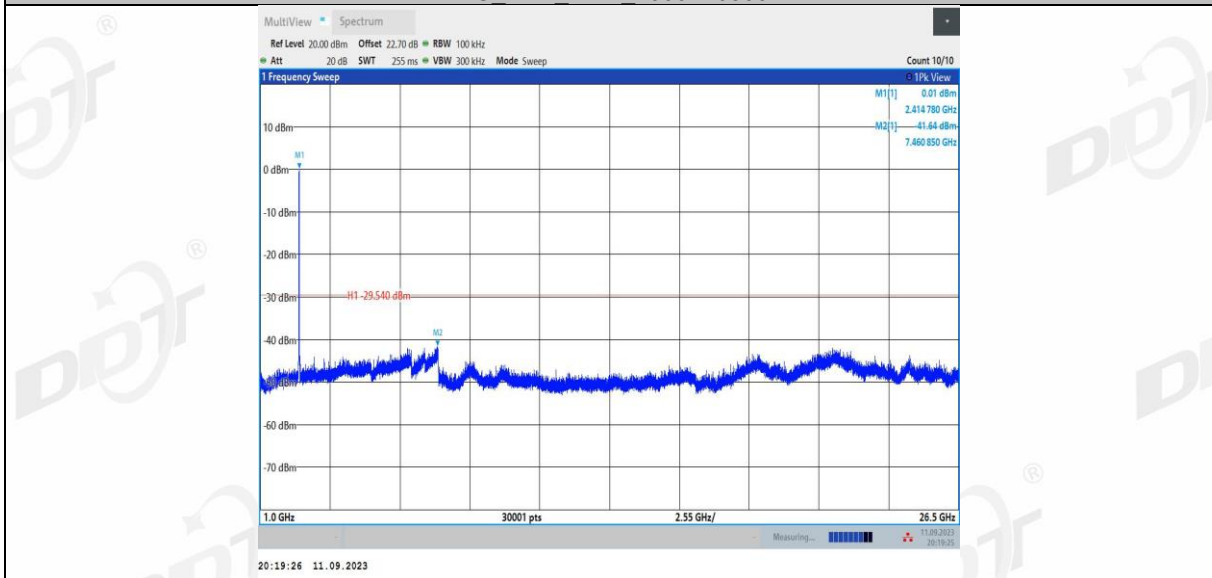
11G Ant1_2412_0~Reference



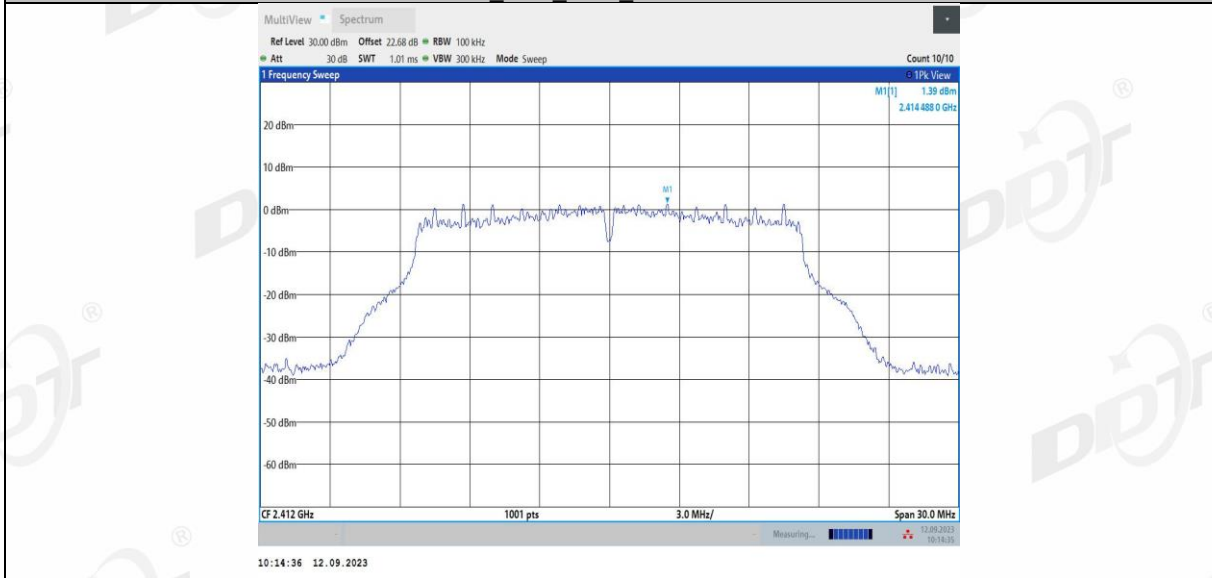
11G Ant1_2412_30~1000



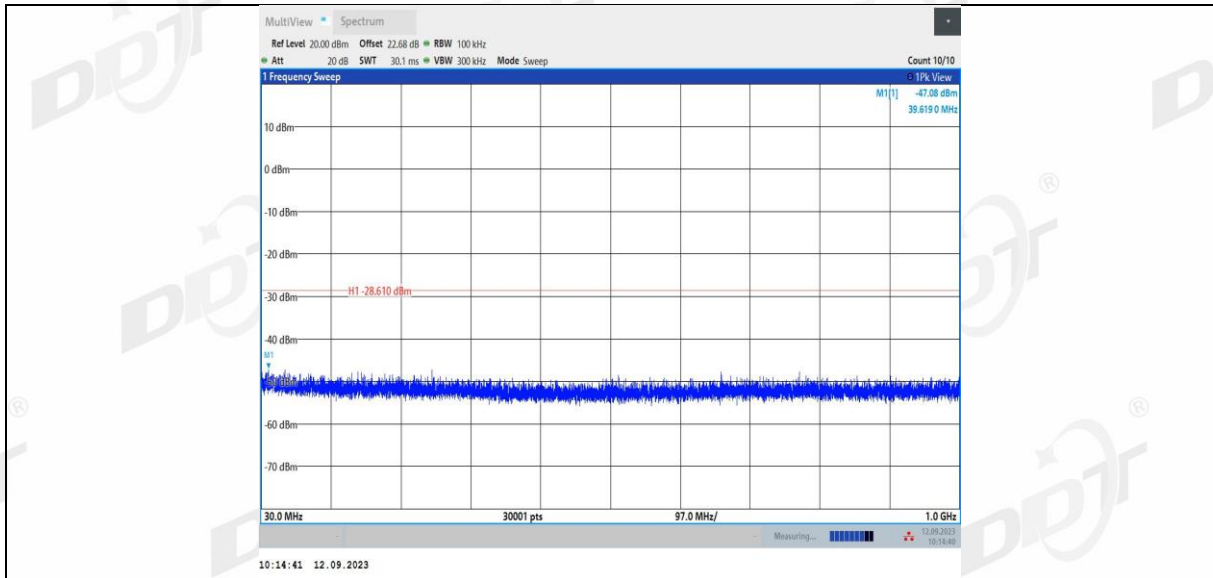
11G Ant1 2412 1000~26500



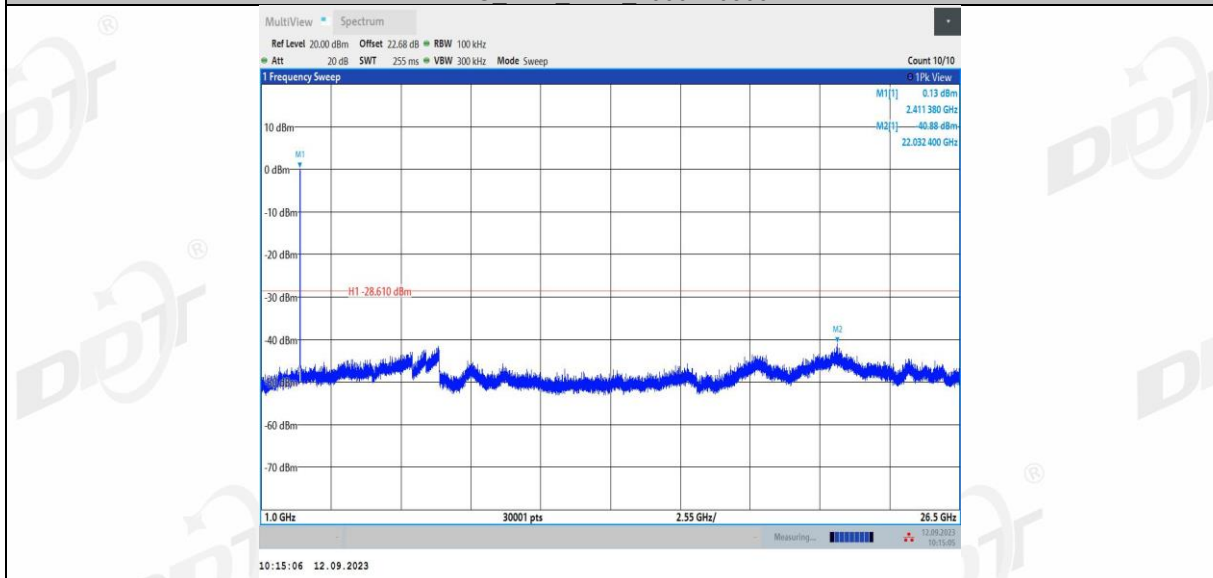
11G Ant2 2412 0~Reference



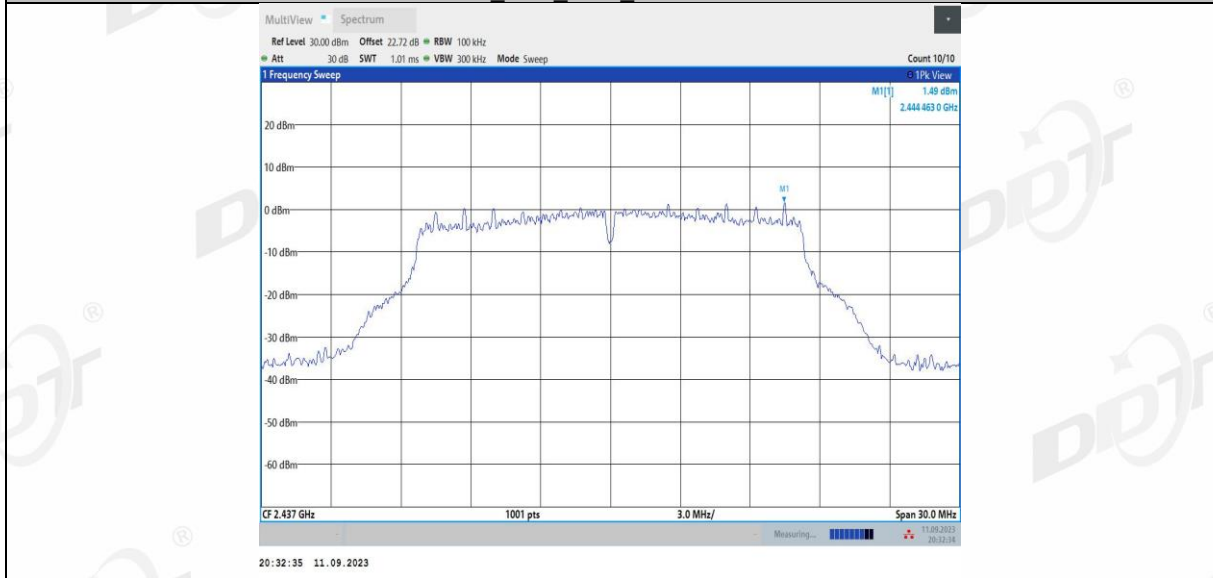
11G Ant2 2412 30~1000



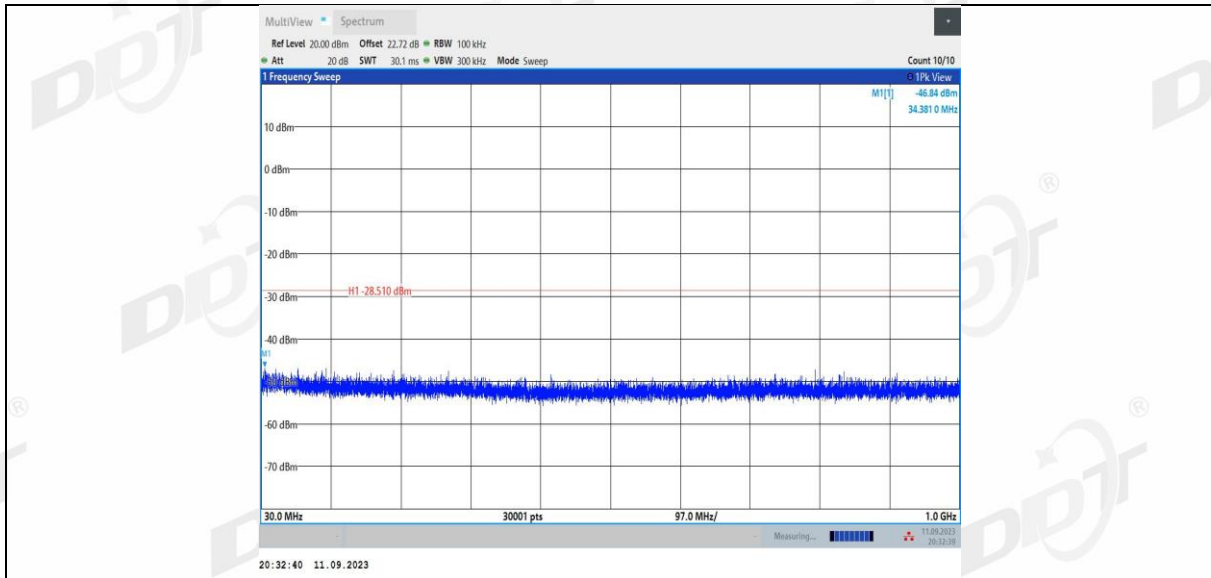
11G Ant2 2412 1000~26500



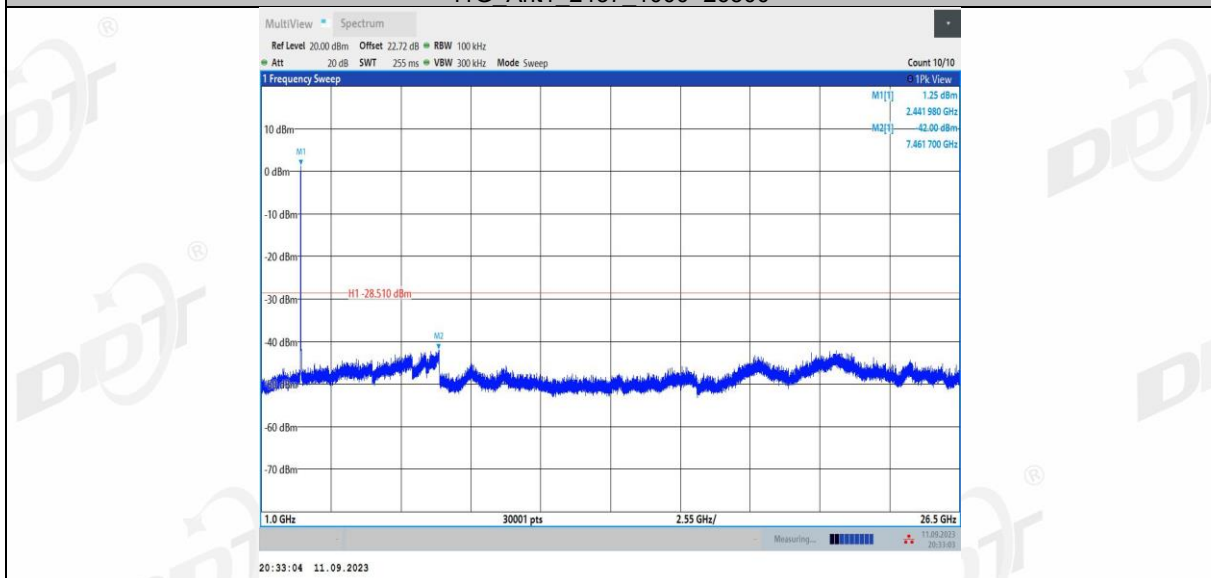
11G Ant1_2437_0~Reference



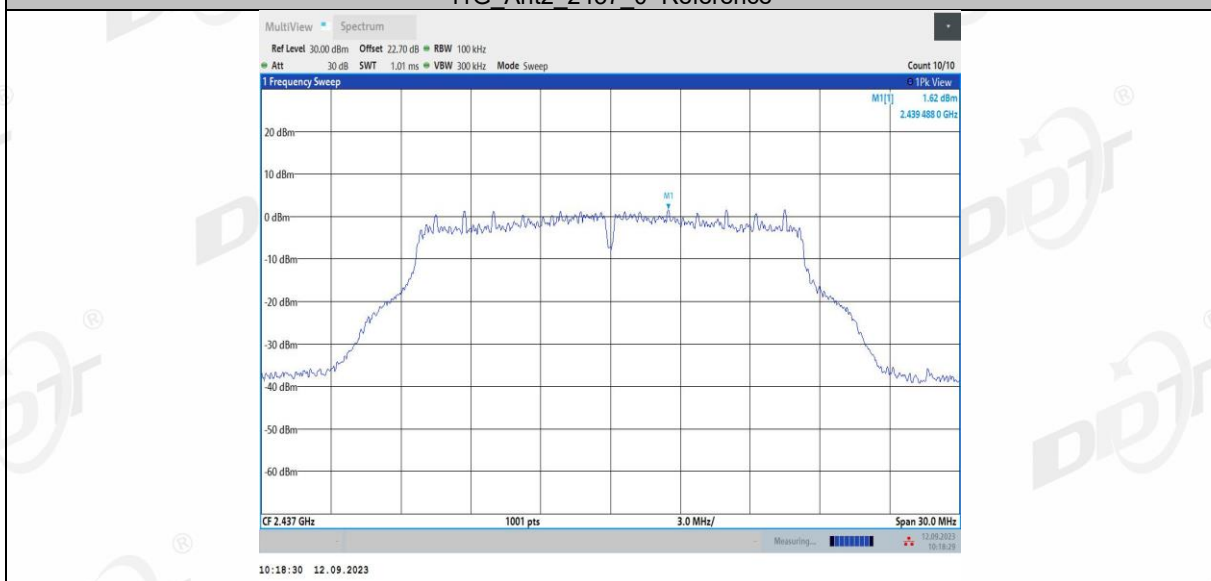
11G Ant1_2437_30~1000



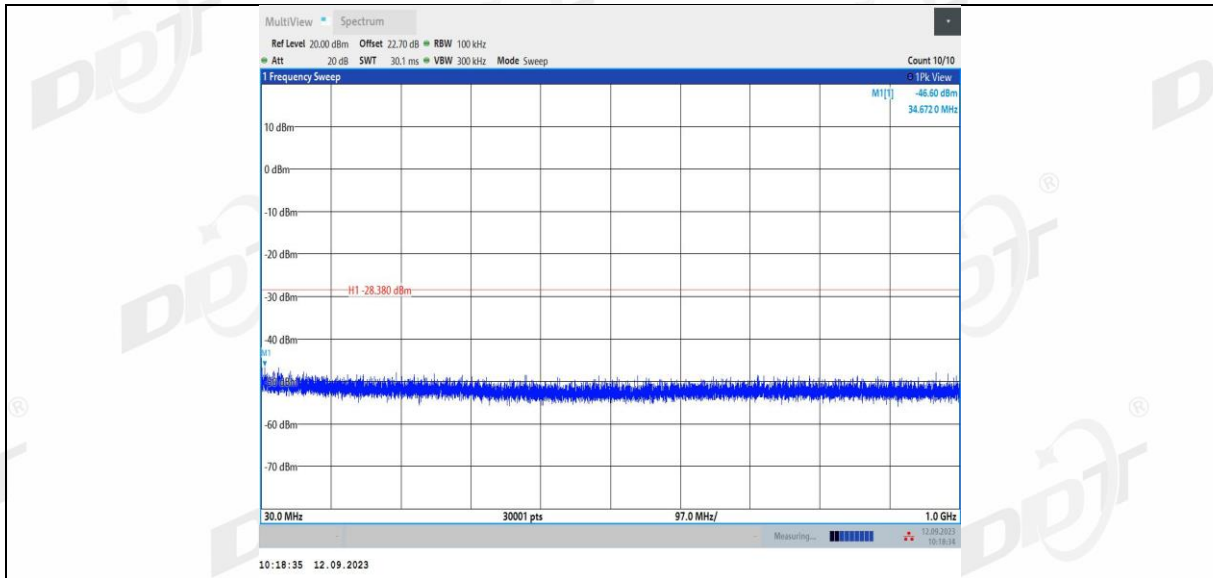
11G Ant1 2437 1000~26500



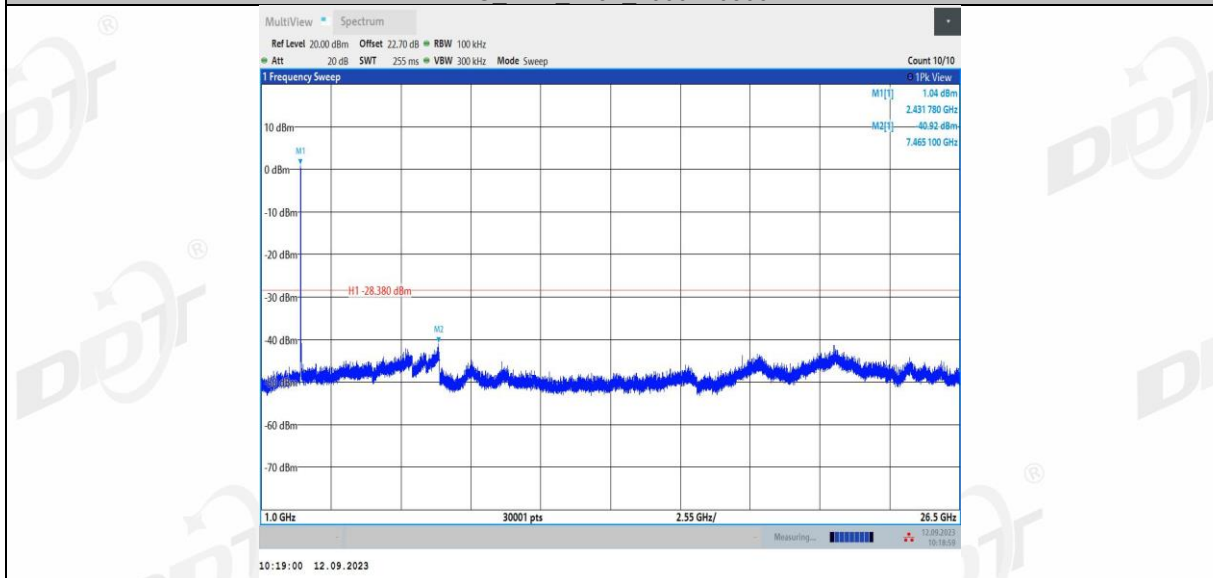
11G Ant2 2437 0~Reference



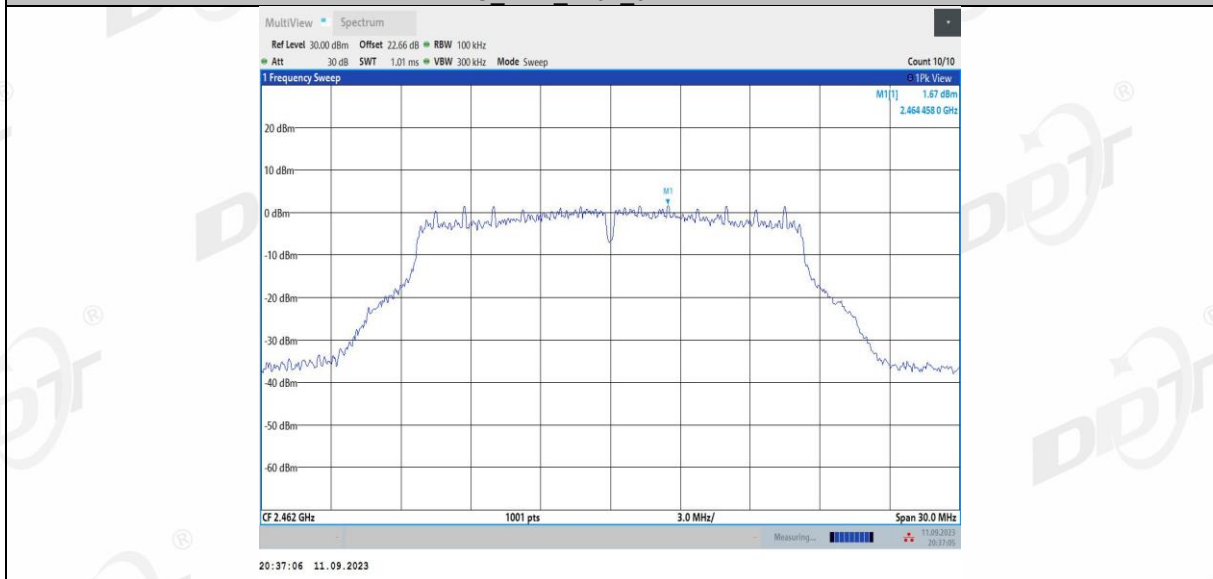
11G Ant2 2437 30~1000



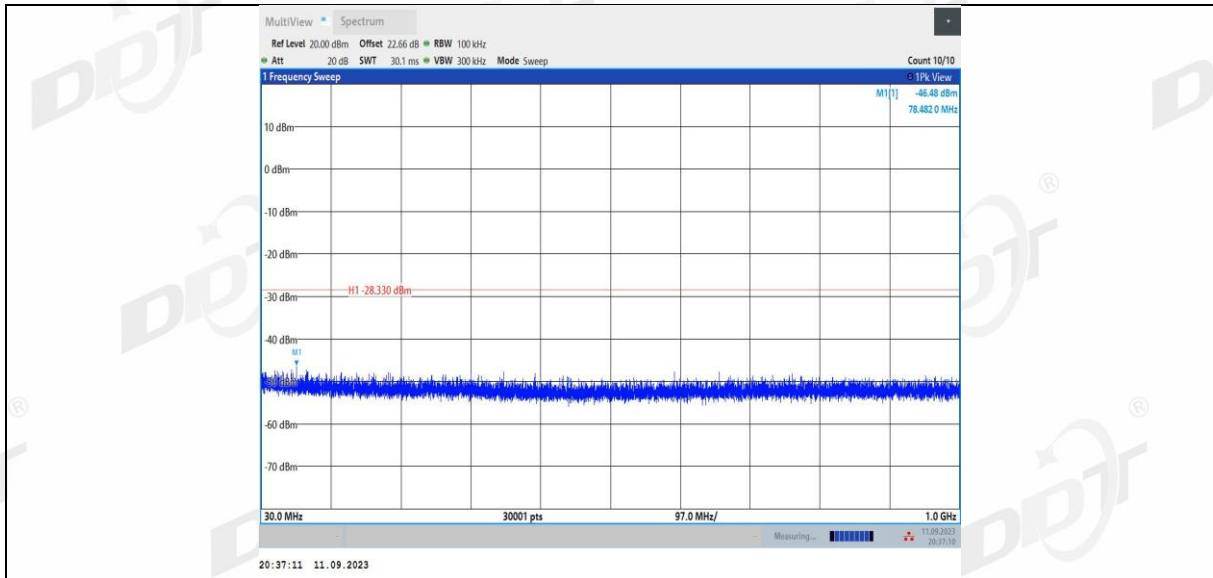
11G Ant2 2437 1000~26500



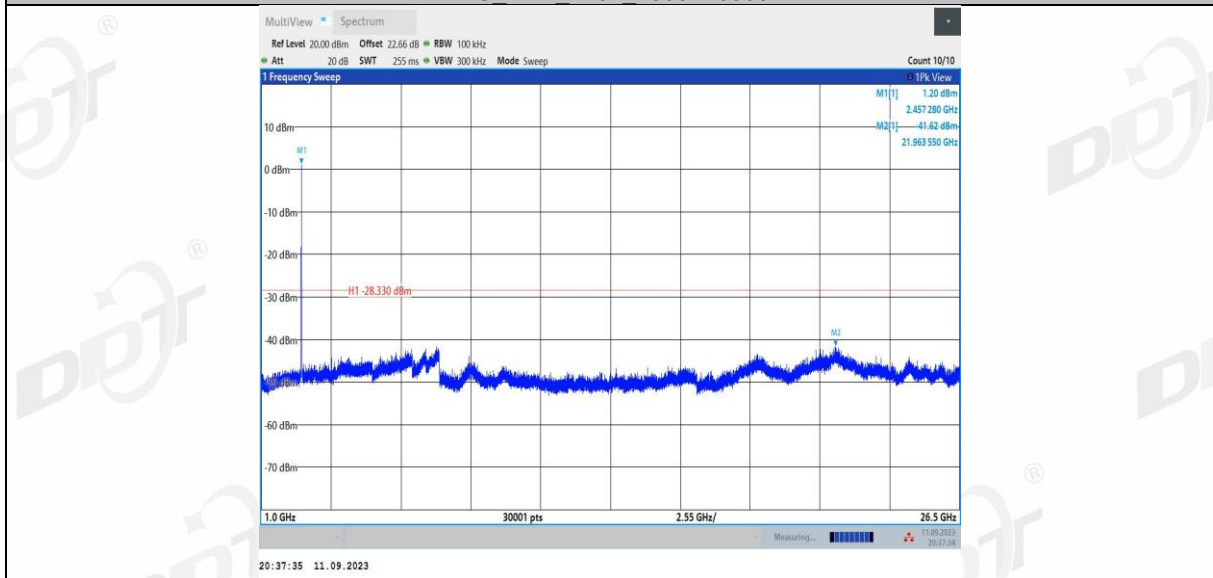
11G Ant1_2462_0~Reference



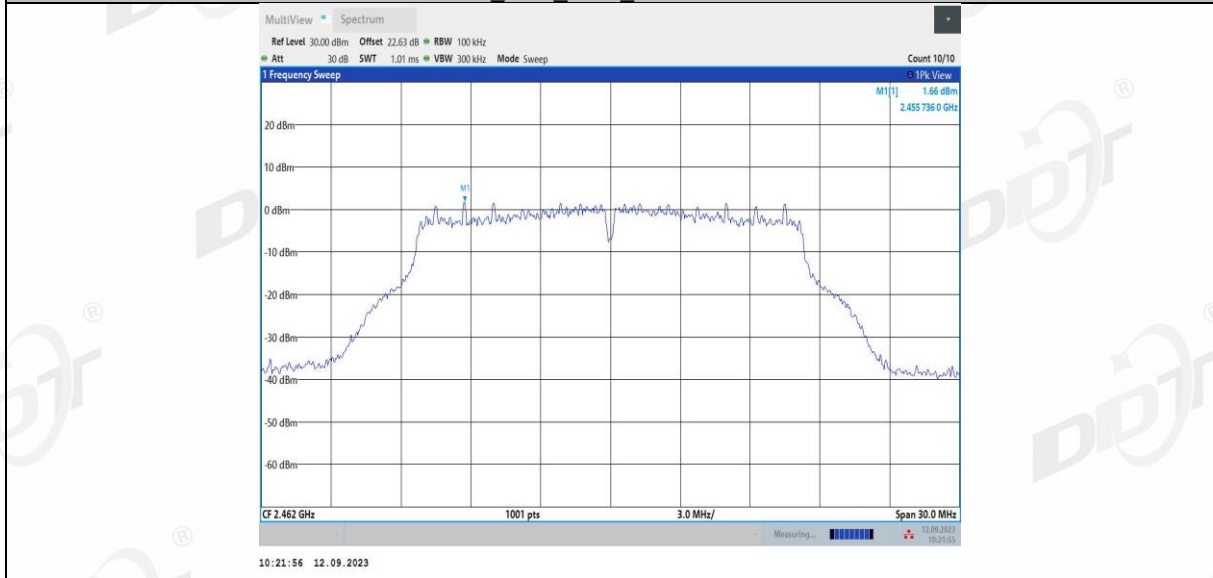
11G Ant1_2462_30~1000



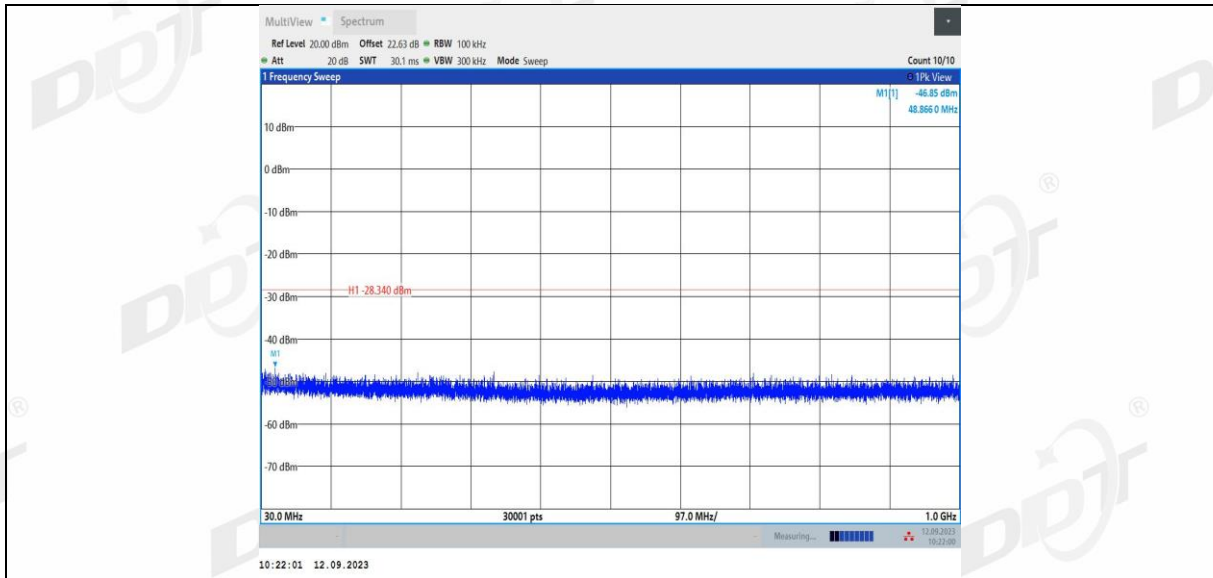
11G Ant1 2462 1000~26500



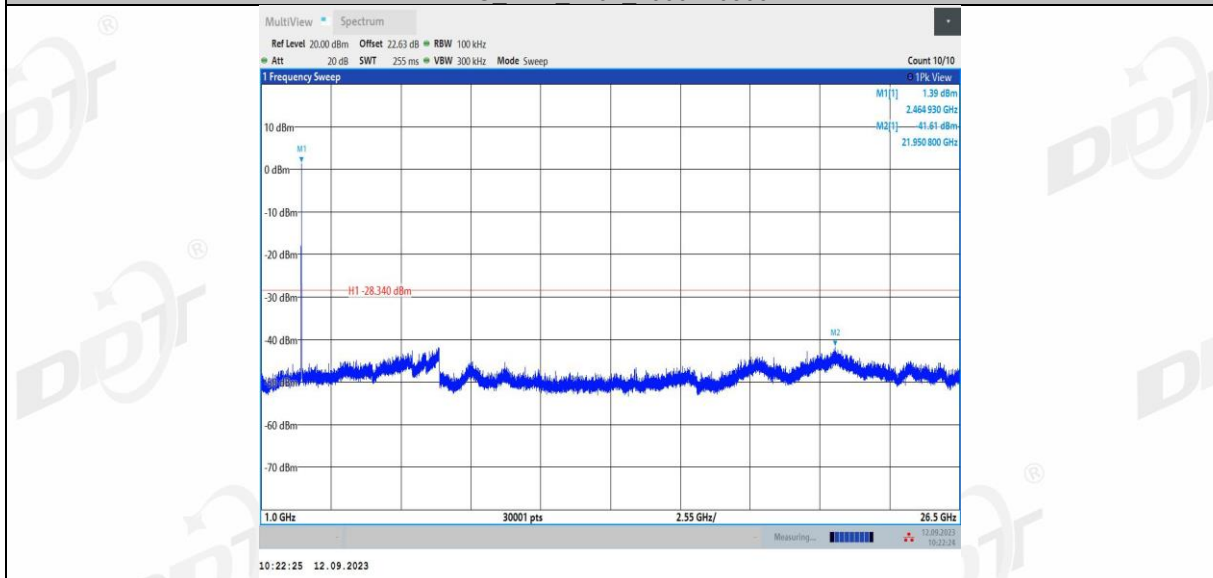
11G Ant2 2462 0~Reference



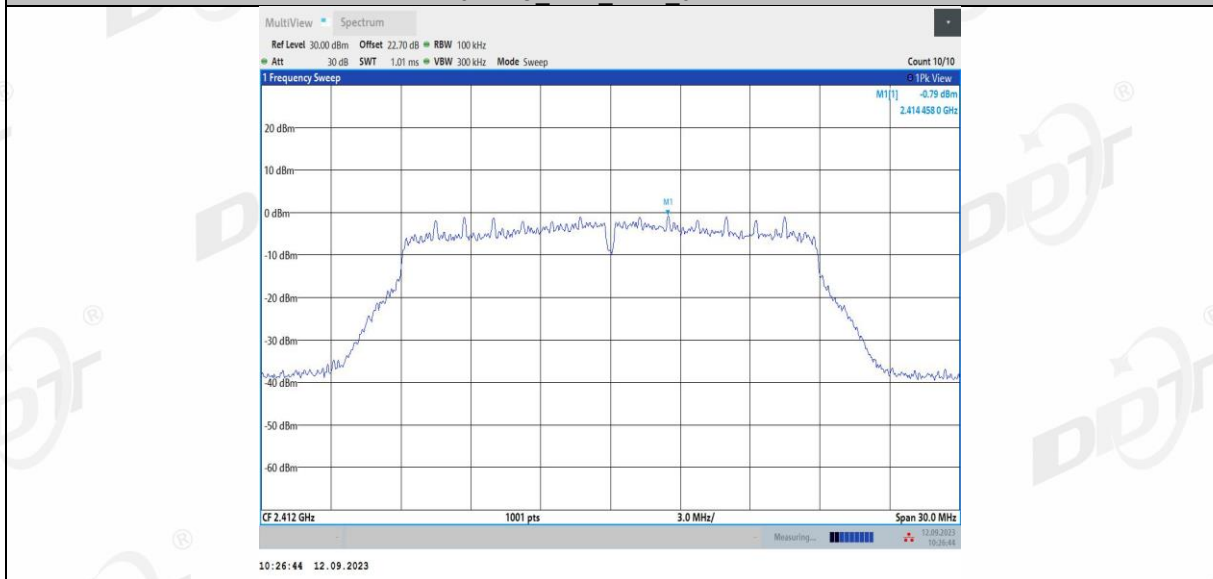
11G Ant2 2462 30~1000



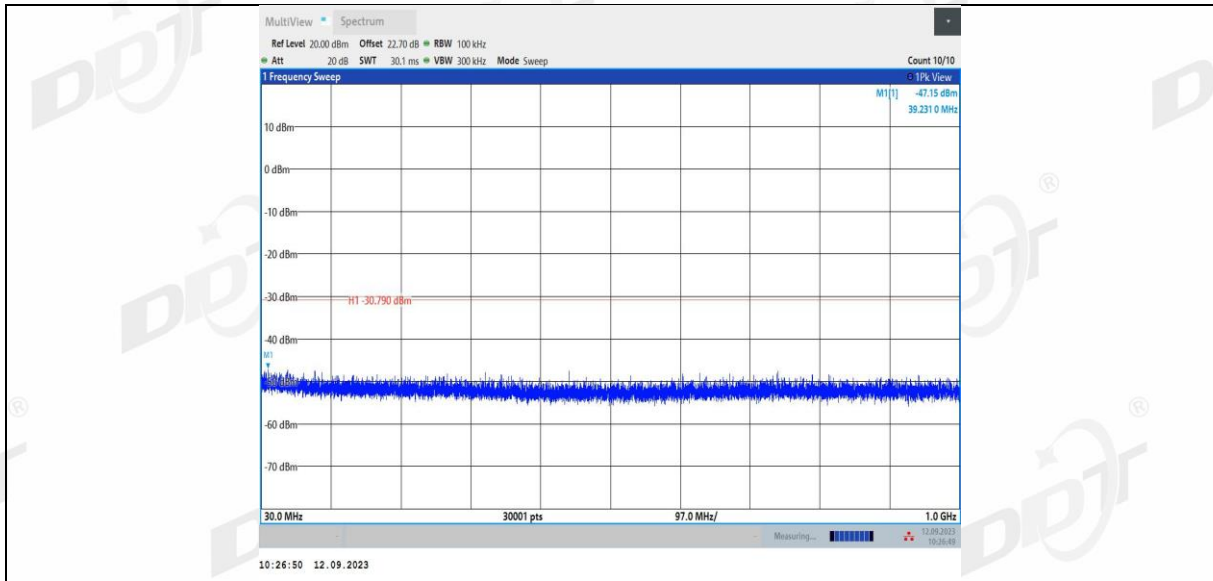
11G Ant2 2462 1000~26500



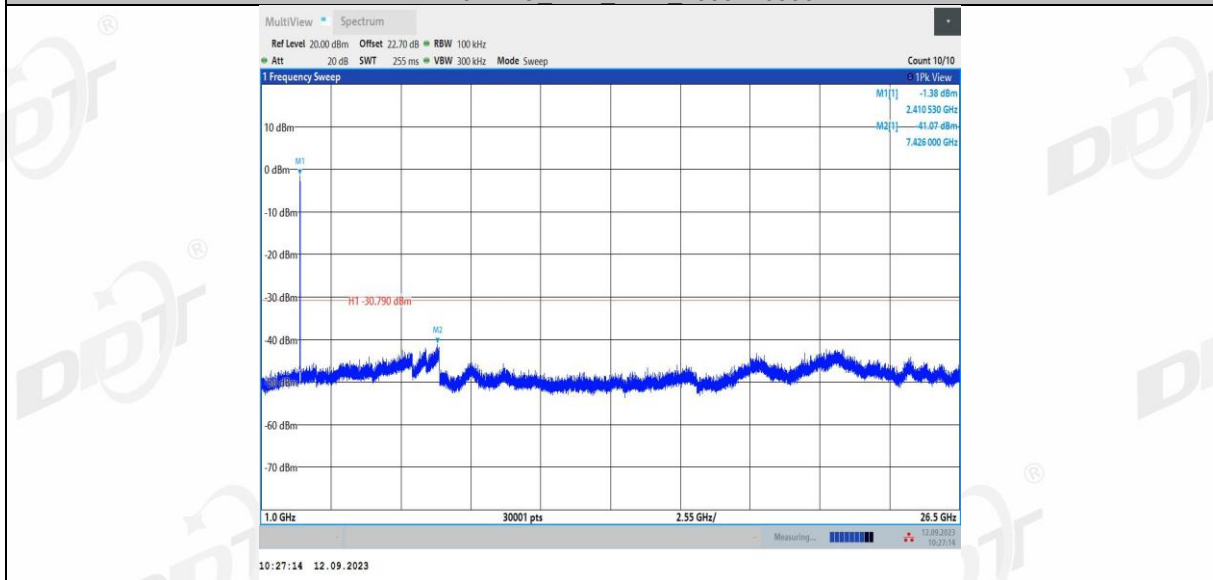
11N20MIMO_Ant1_2412_0~Reference



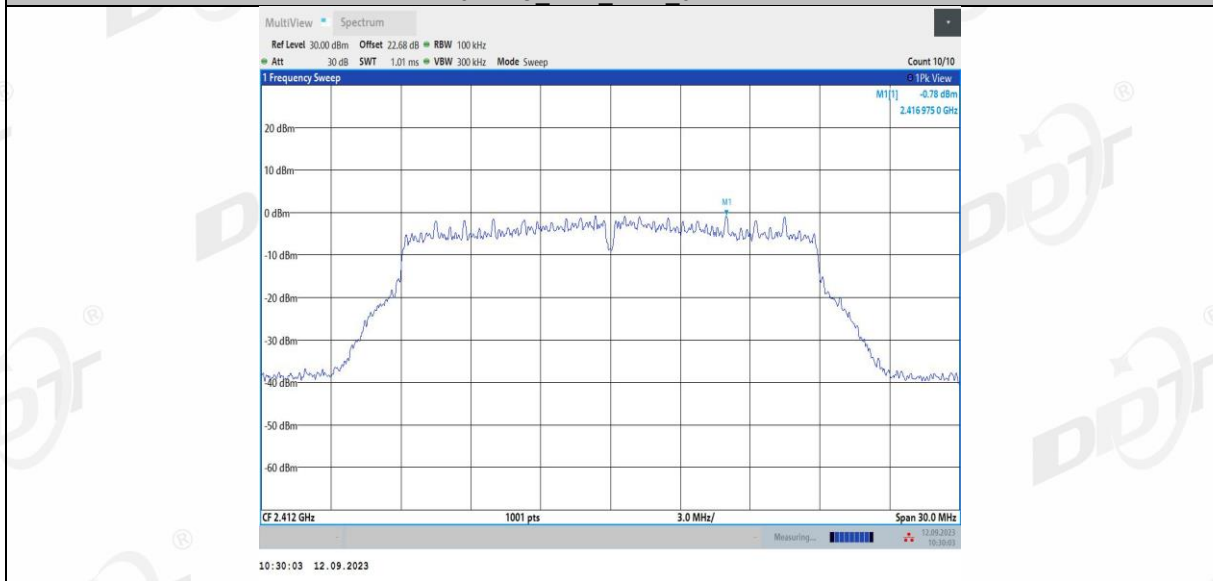
11N20MIMO_Ant1_2412_30~1000



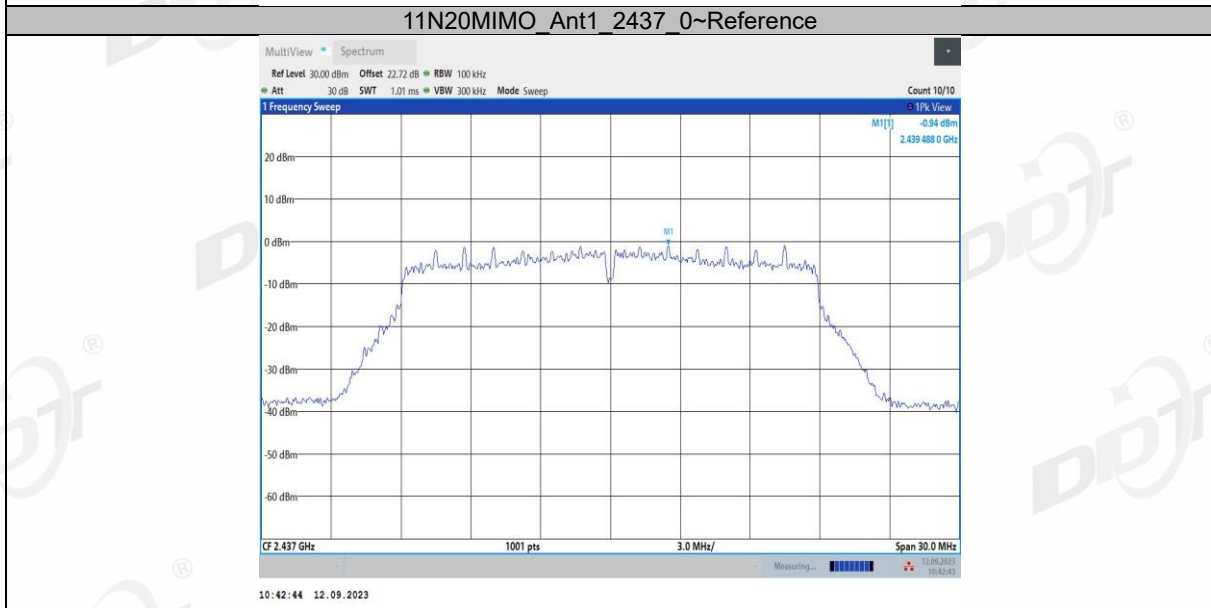
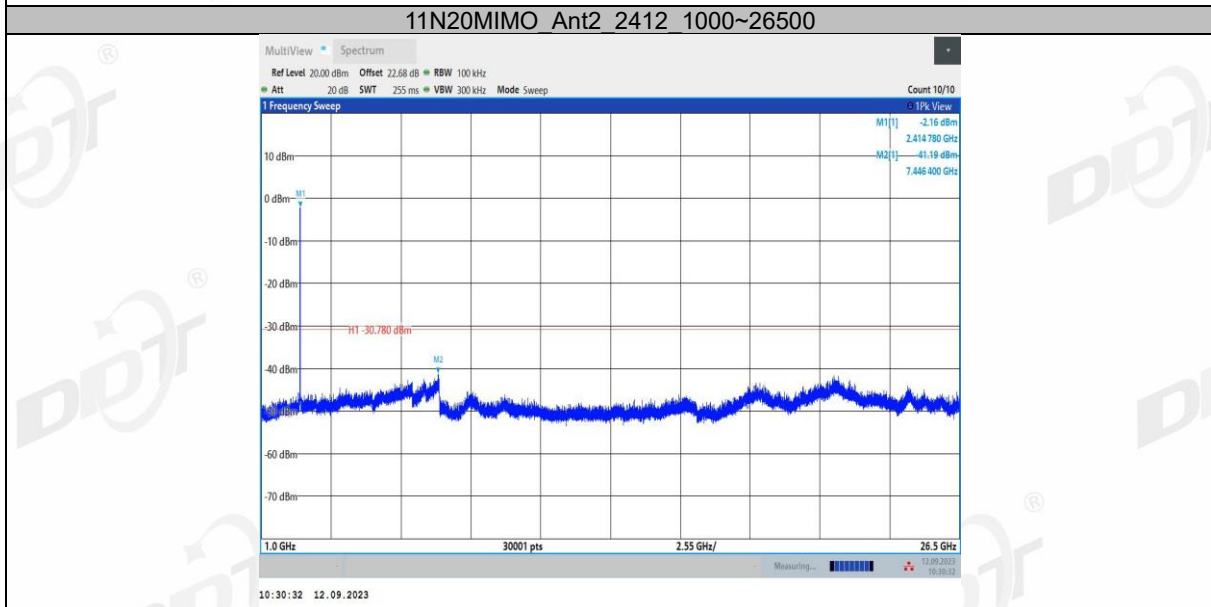
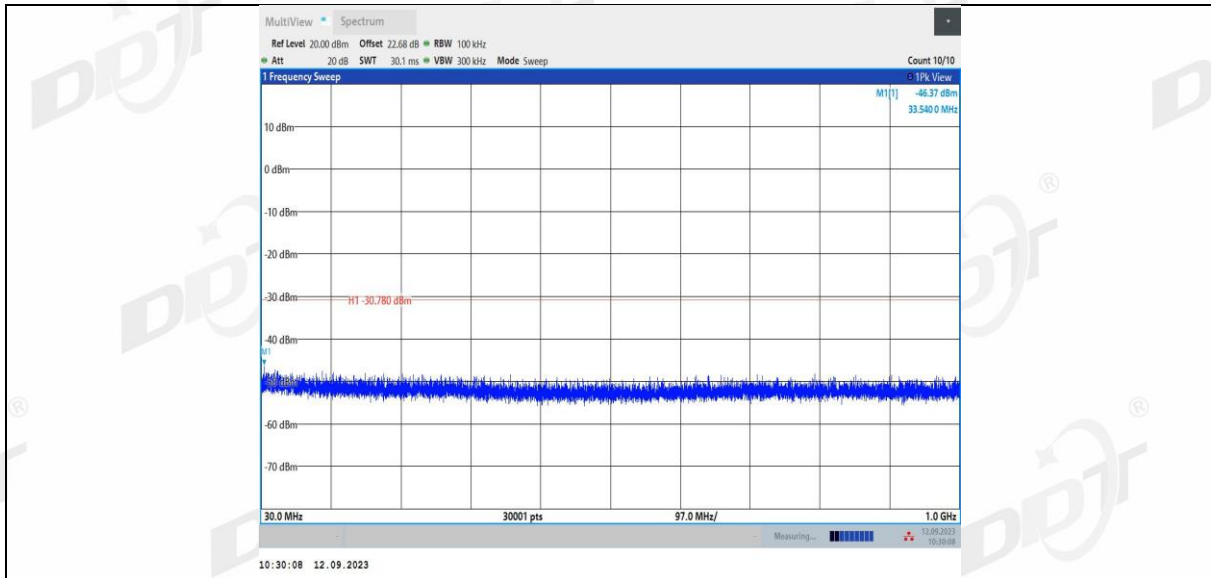
11N20MIMO Ant1 2412 1000~26500

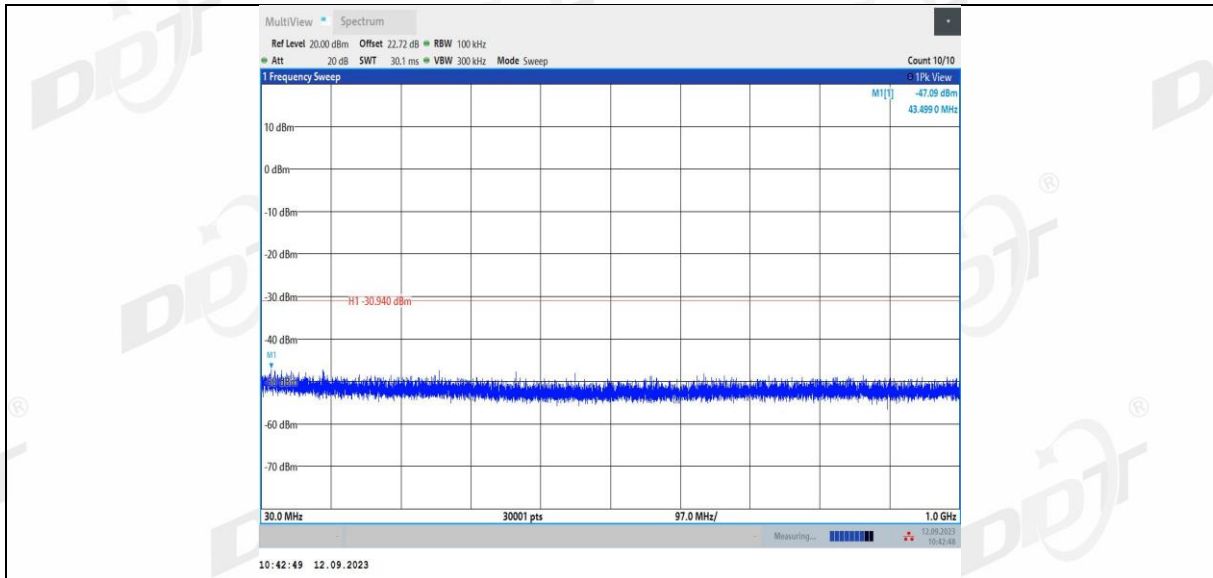


11N20MIMO Ant2 2412_0~Reference

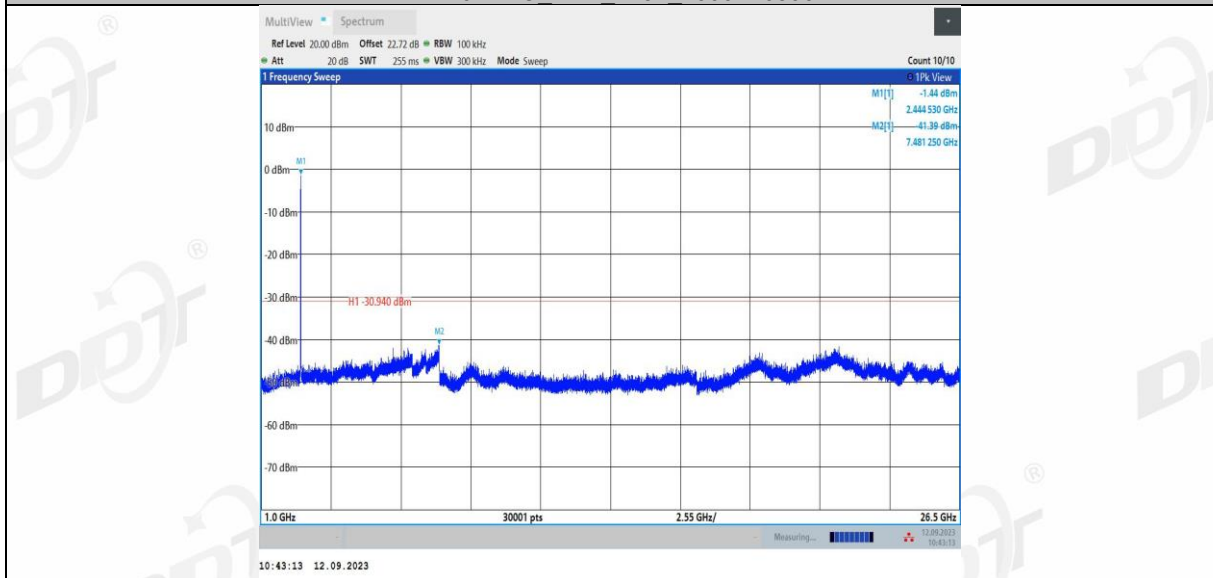


11N20MIMO Ant2 2412_30~1000

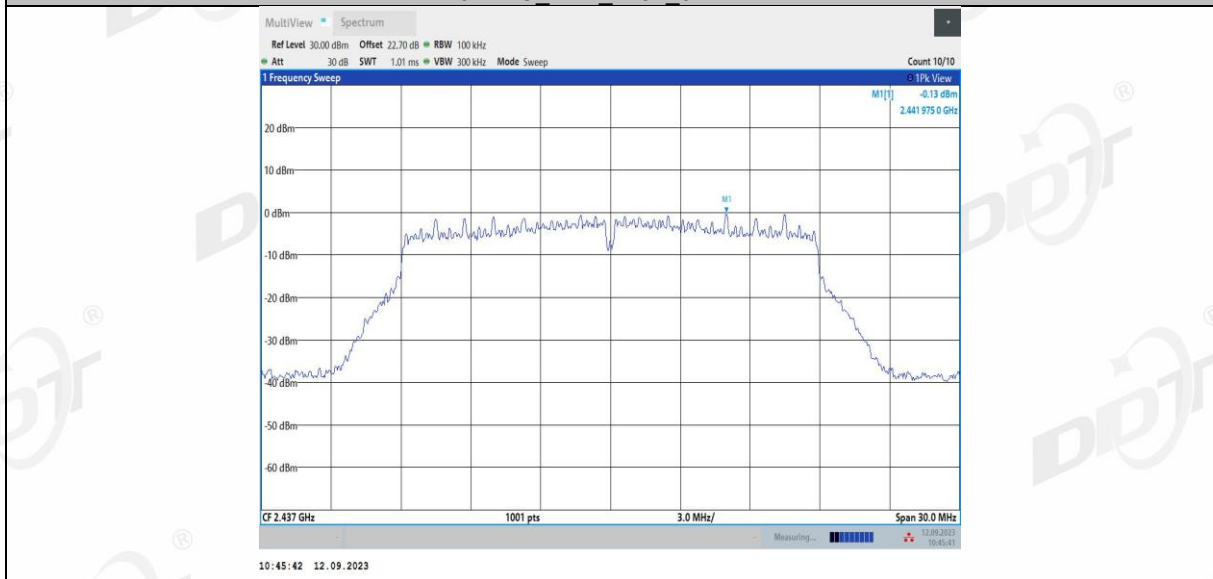




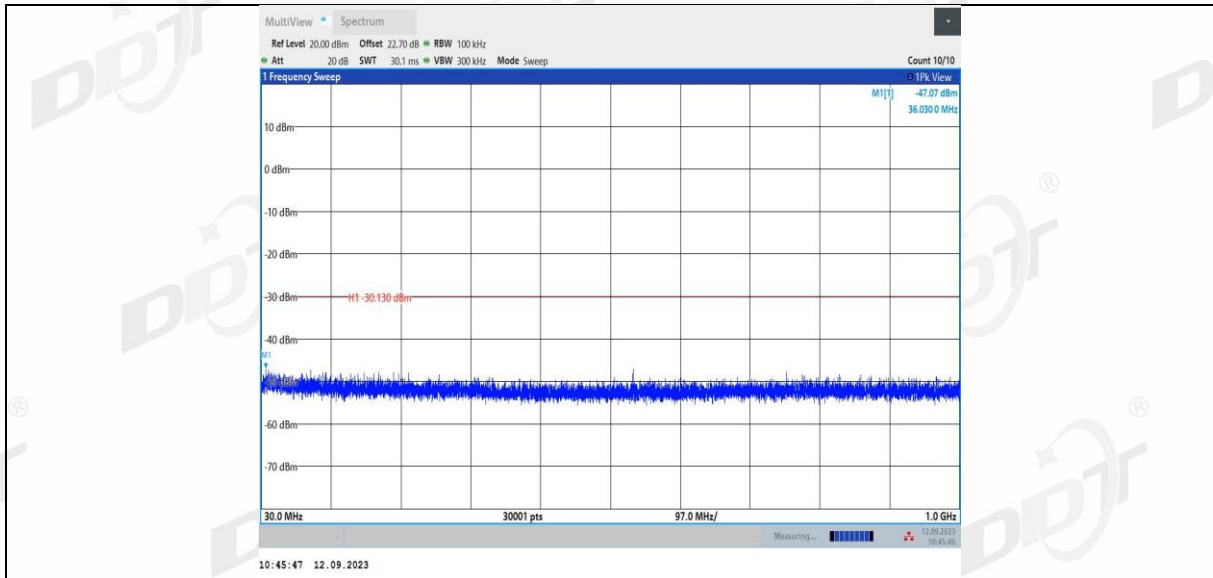
11N20MIMO Ant1 2437 1000~26500



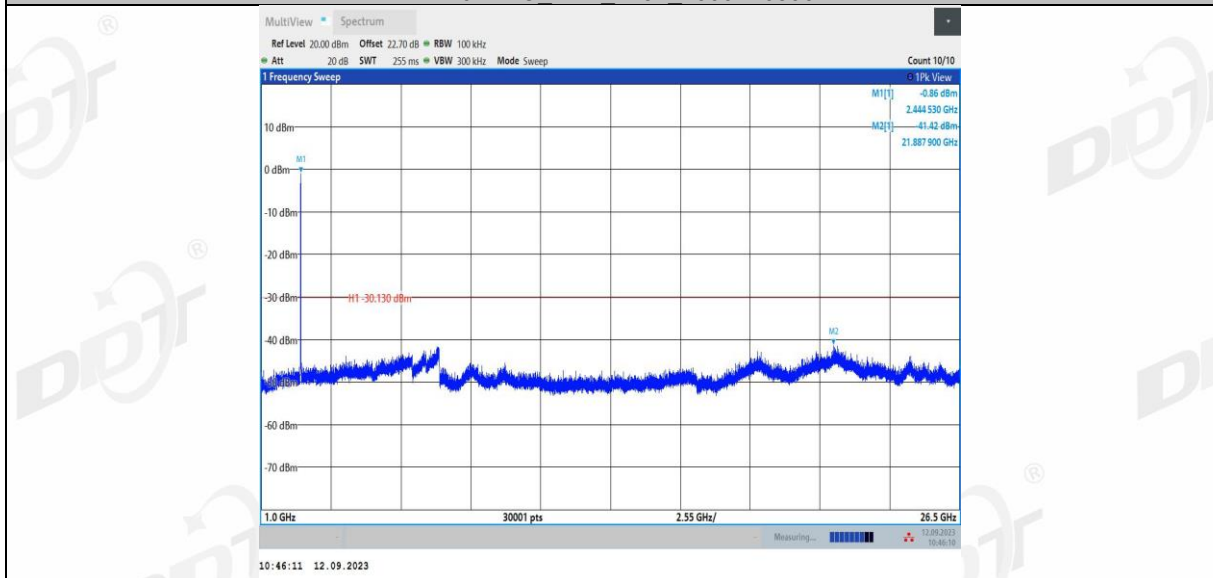
11N20MIMO Ant2 2437_0~Reference



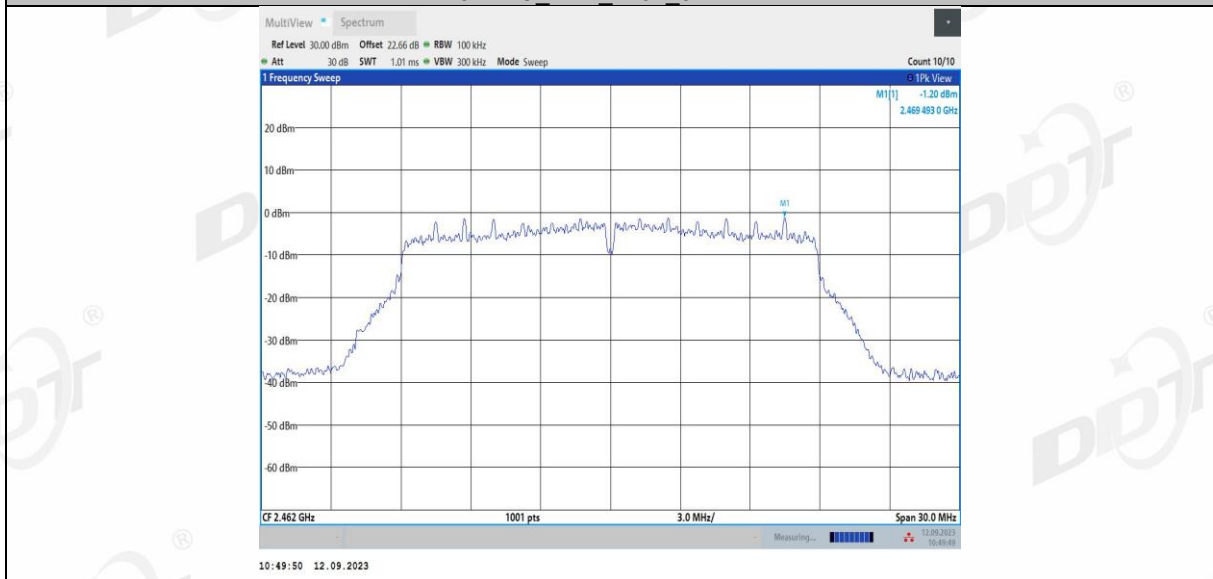
11N20MIMO Ant2 2437_30~1000



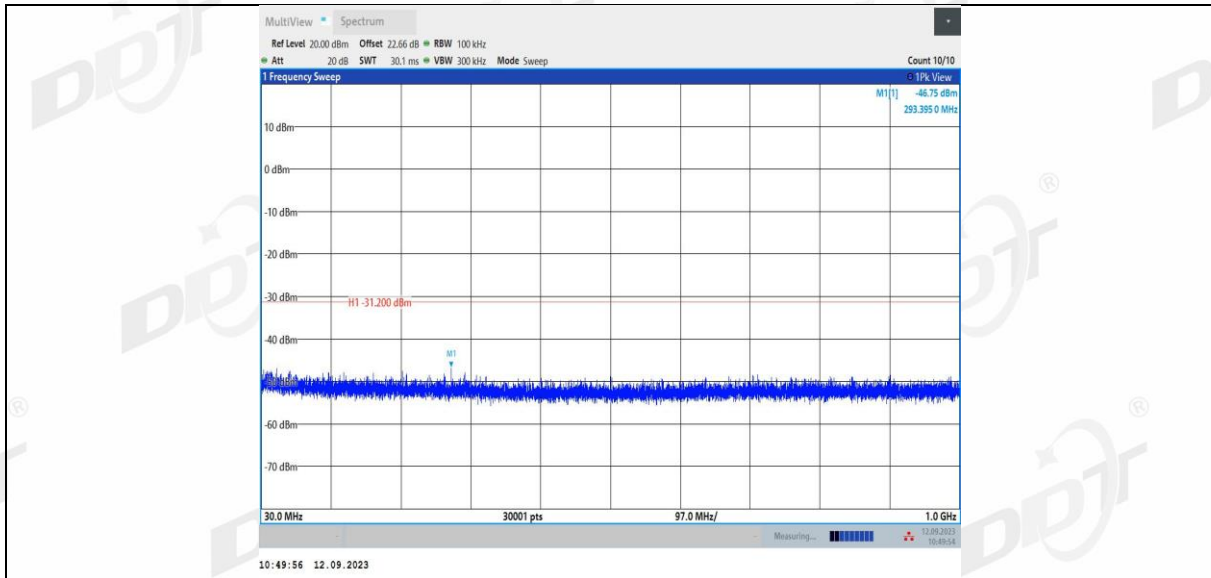
11N20MIMO Ant2 2437 1000~26500



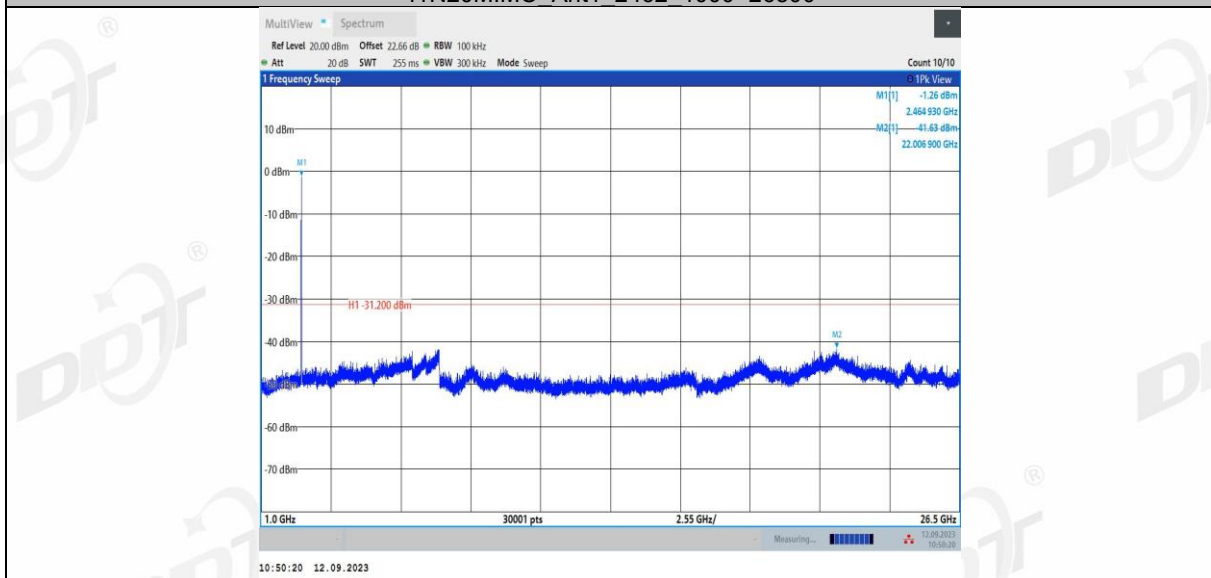
11N20MIMO Ant1 2462_0~Reference



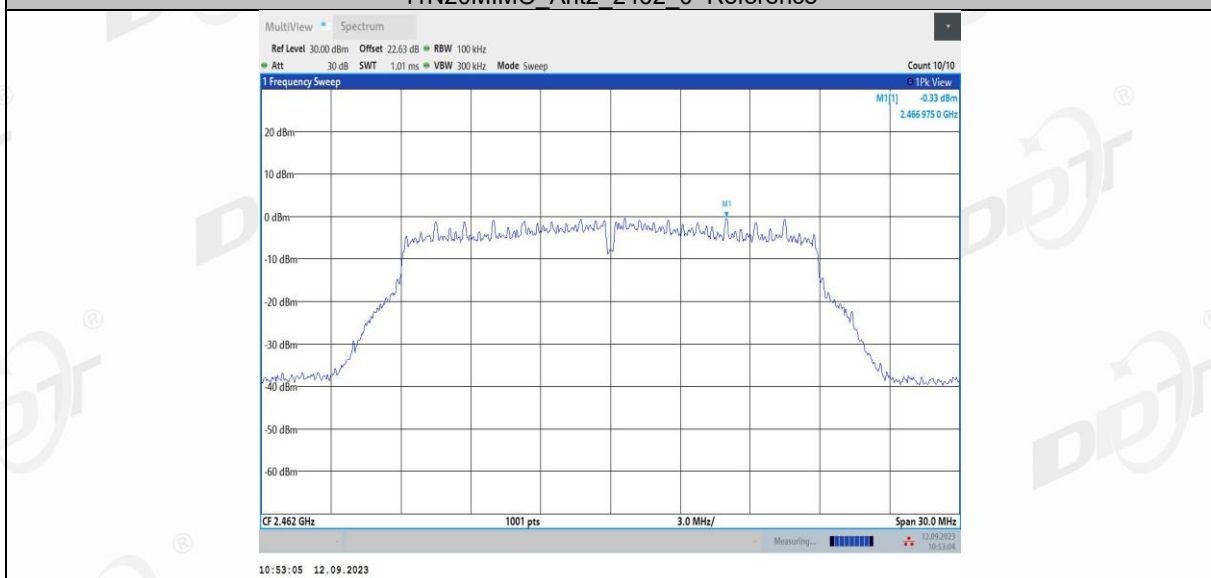
11N20MIMO Ant1 2462_30~1000



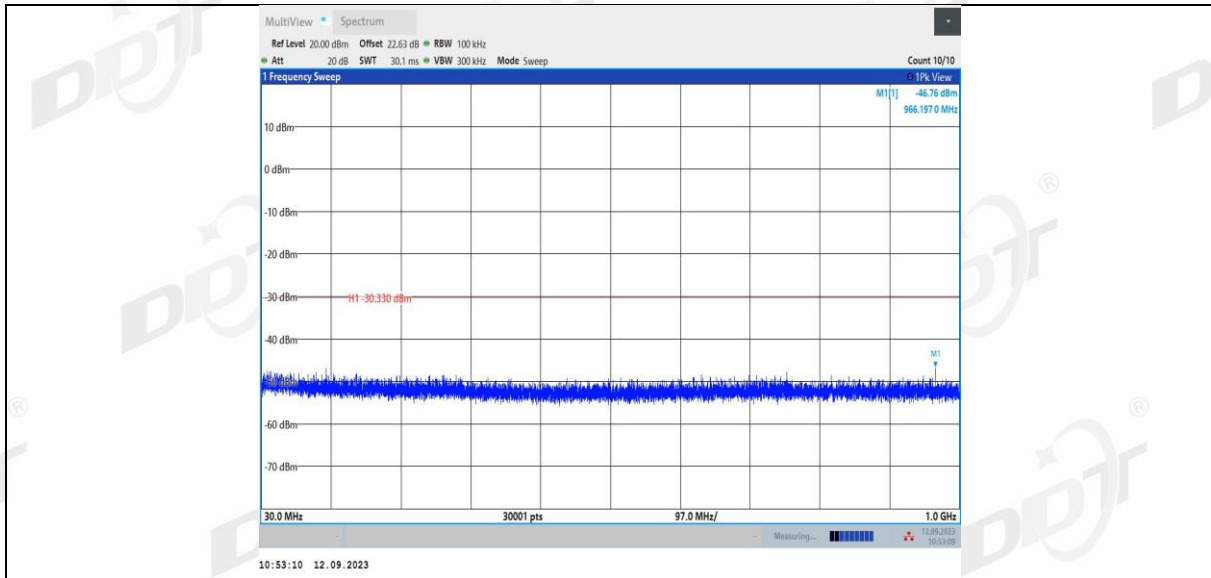
11N20MIMO Ant1 2462 1000~26500



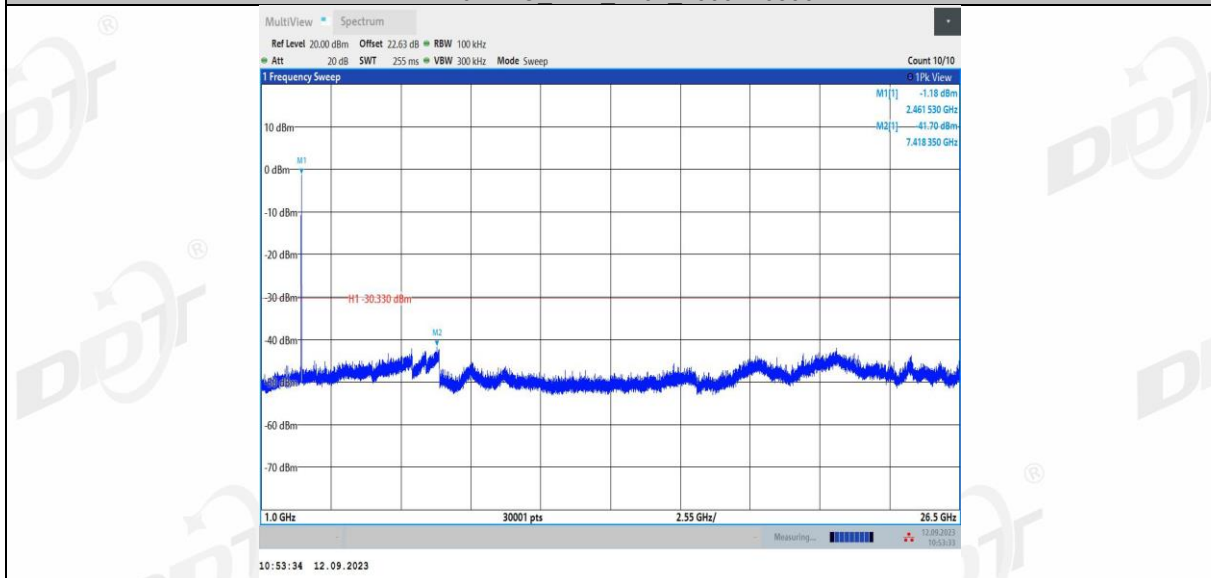
11N20MIMO Ant2 2462 0~Reference



11N20MIMO Ant2 2462 30~1000

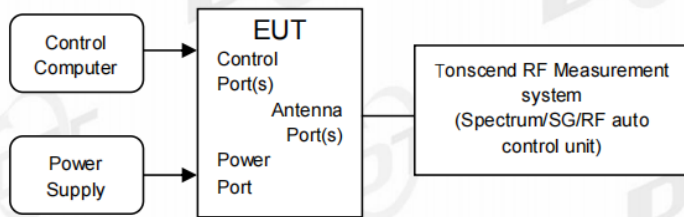


11N20MIMO Ant2 2462 1000~26500



10. Duty Cycle

10.1. Block diagram of test setup



10.2. Limit

Just for Report.

10.3. Test procedure

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.
set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the middle hopping channel.

Resolution BW: 10 MHz.

Video BW: 10 MHz.

Span: Zero span.

Detector: Peak.

Trace Mode: Clear Write.

Sweep: Video Trigger

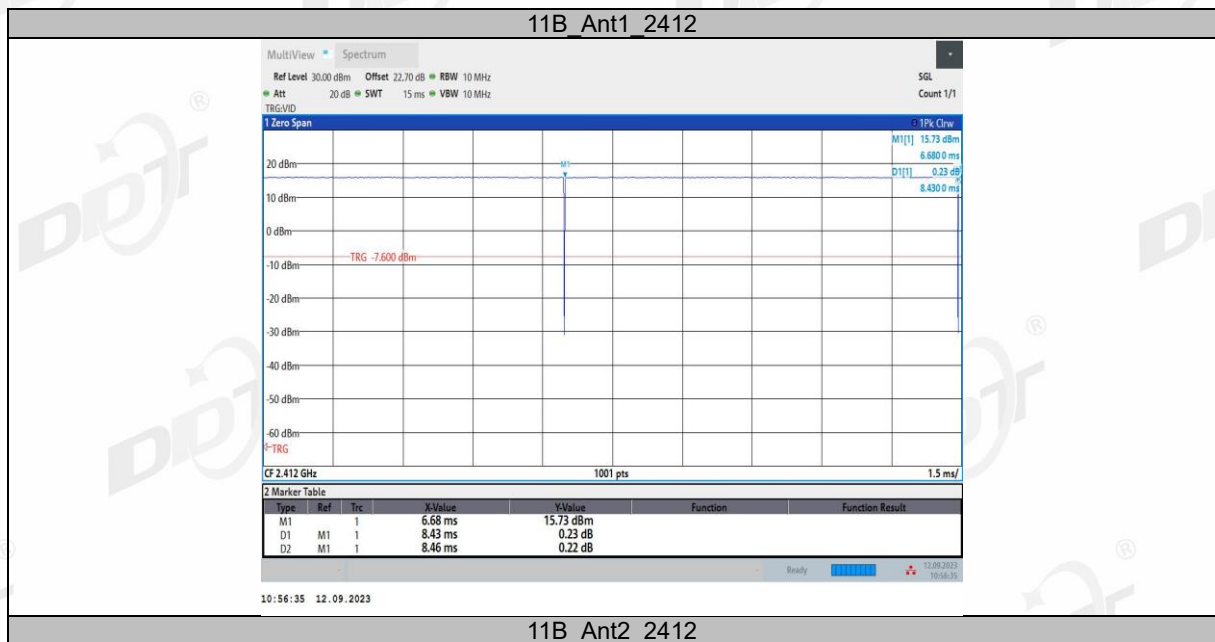
- (2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.
- (3) Calculate dwell time follow below formula:

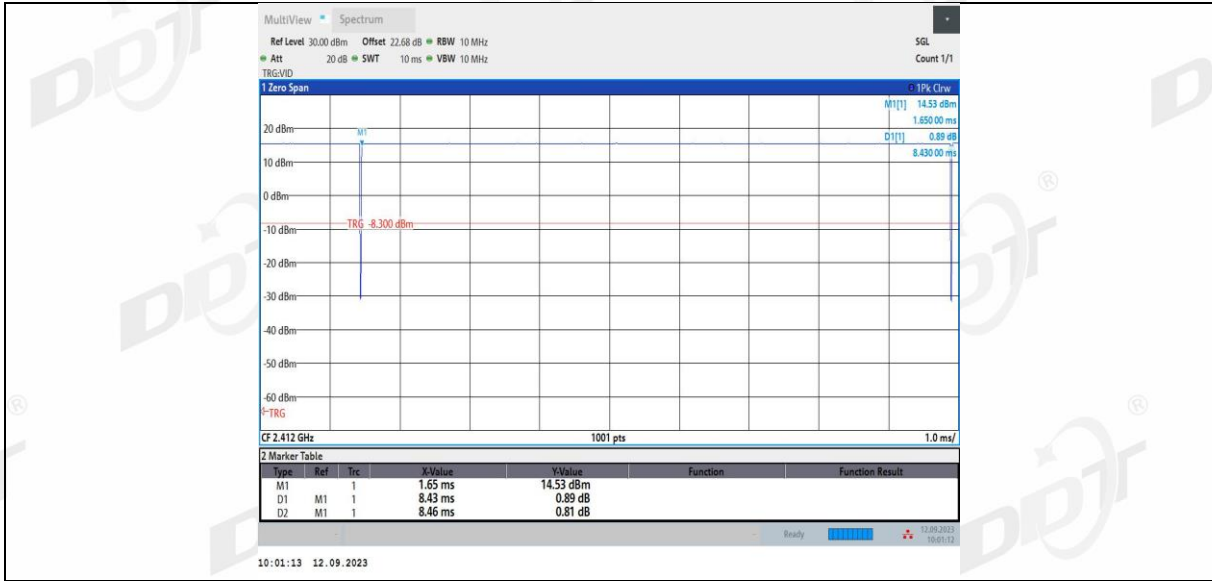
$$\text{Duty cycle} = \text{Pulse's on time} / \text{Burst cycle}$$

10.4. Test result

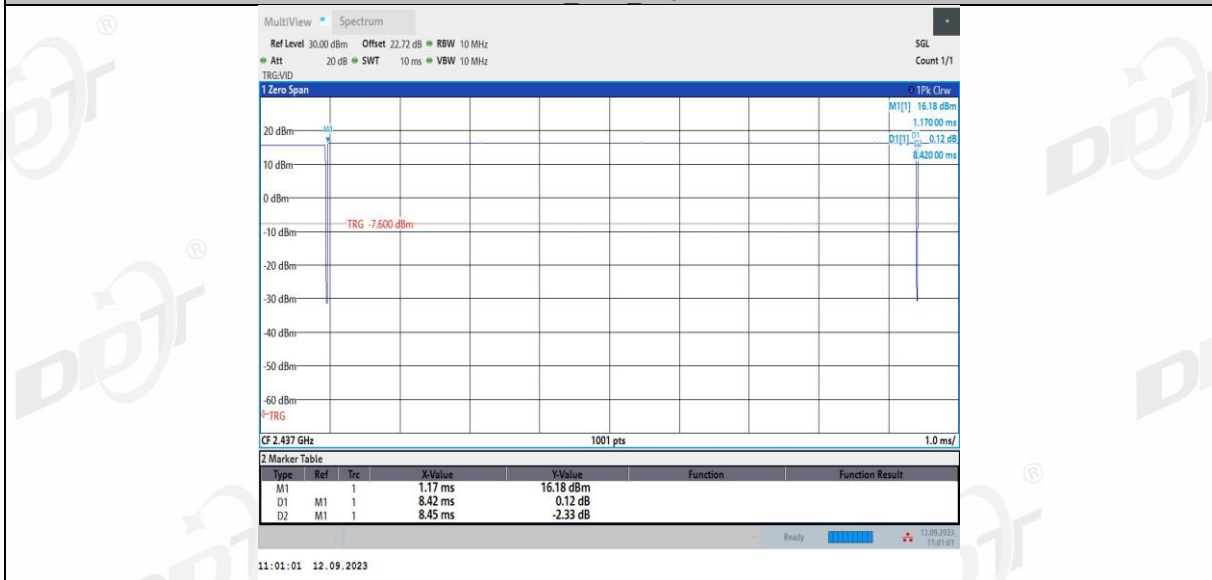
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	8.43	8.46	99.65
	Ant2	2412	8.43	8.46	99.65
	Ant1	2437	8.42	8.45	99.64
	Ant2	2437	8.41	8.46	99.41
	Ant1	2462	8.43	8.46	99.65
	Ant2	2462	8.43	8.46	99.65
11G	Ant1	2412	2.07	2.09	99.04
	Ant2	2412	1.39	1.43	97.20
	Ant1	2437	2.07	2.09	99.04
	Ant2	2437	1.39	1.43	97.20
	Ant1	2462	2.06	2.08	99.04
	Ant2	2462	1.39	1.43	97.20
11N20MIMO	Ant1	2412	0.67	0.71	94.37
	Ant2	2412	0.68	0.72	94.44
	Ant1	2437	0.67	0.71	94.37
	Ant2	2437	0.67	0.71	94.37
	Ant1	2462	0.68	0.72	94.44
	Ant2	2462	0.67	0.71	94.37

10.5. Test graphs

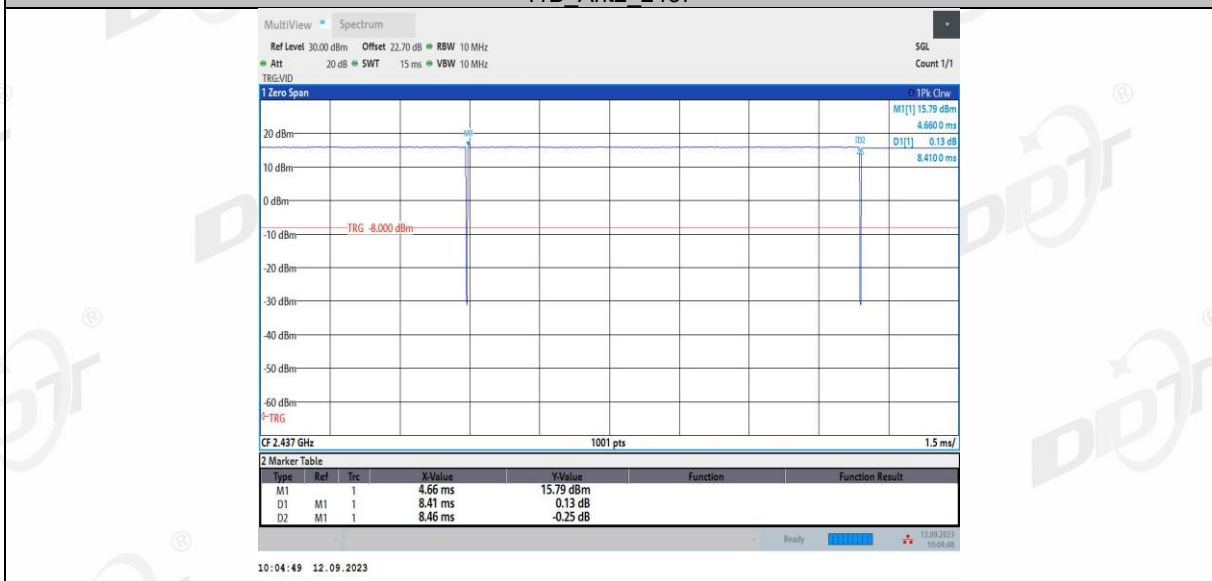




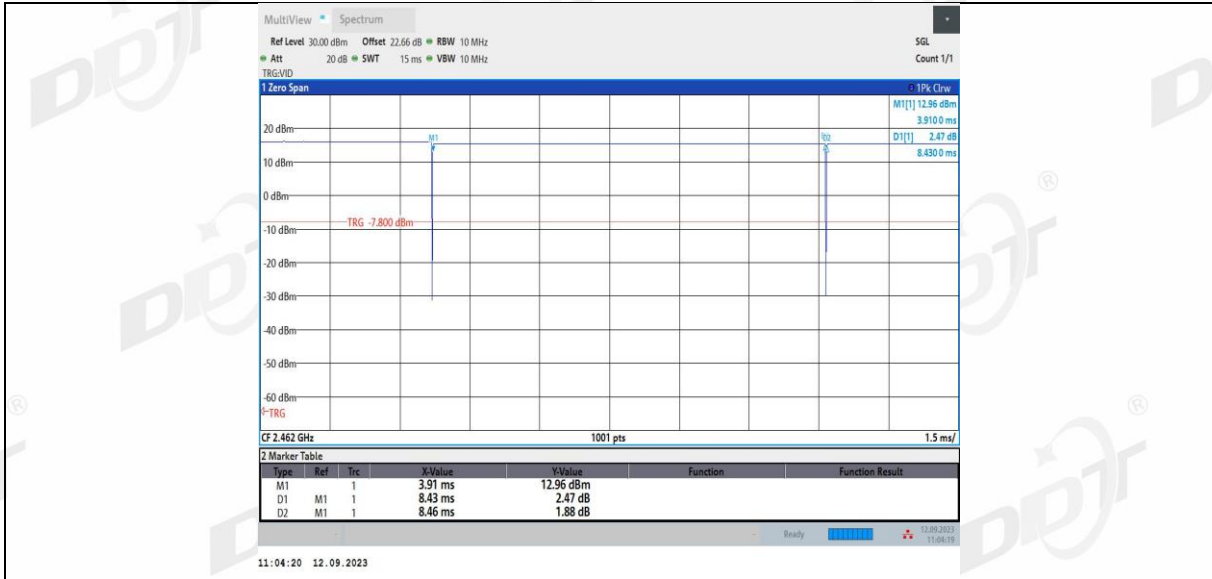
11B Ant1 2437



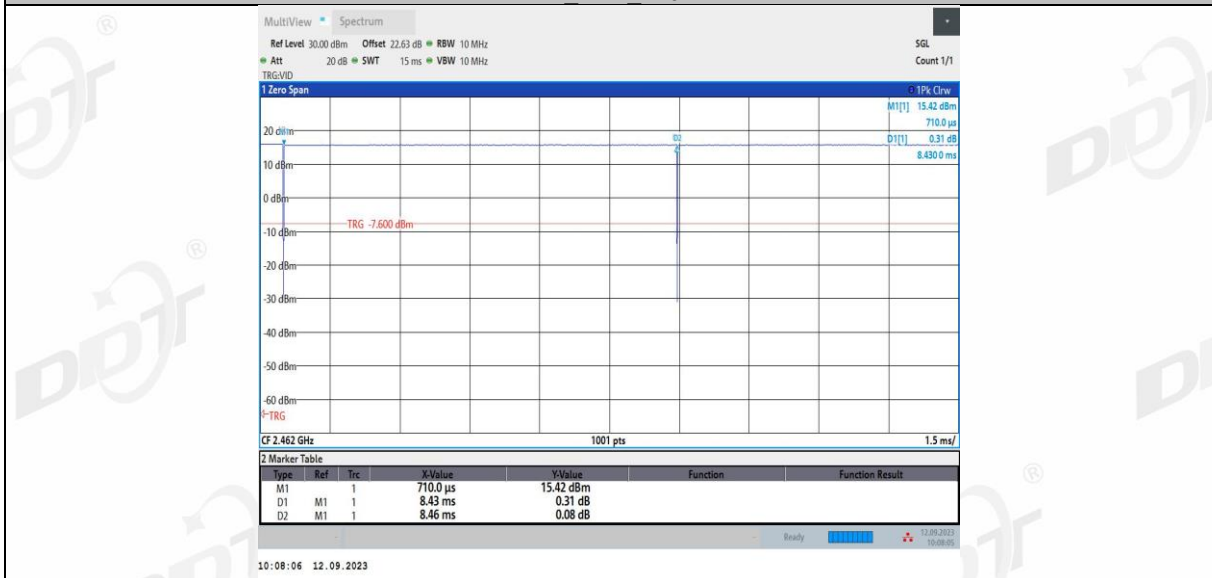
11B Ant2 2437



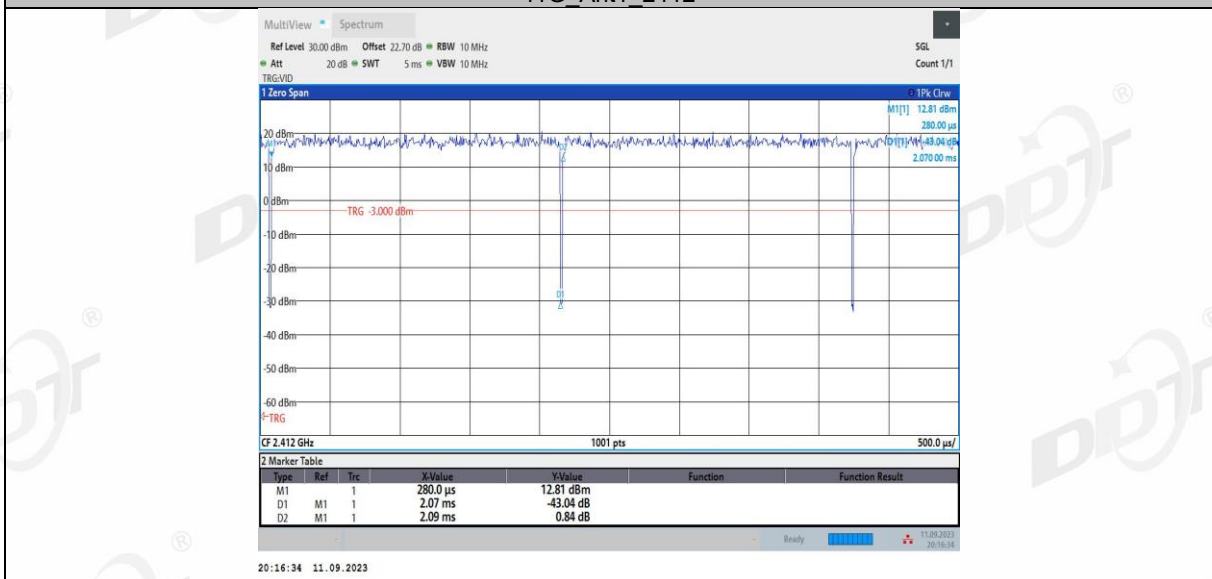
11B Ant1 2462



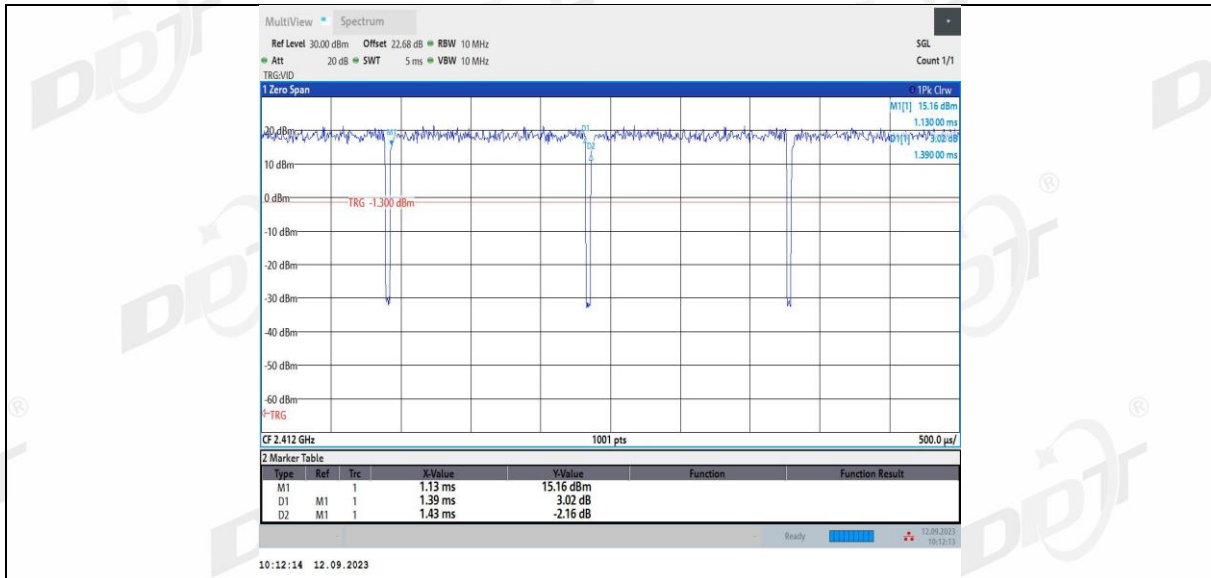
11B Ant2 2462



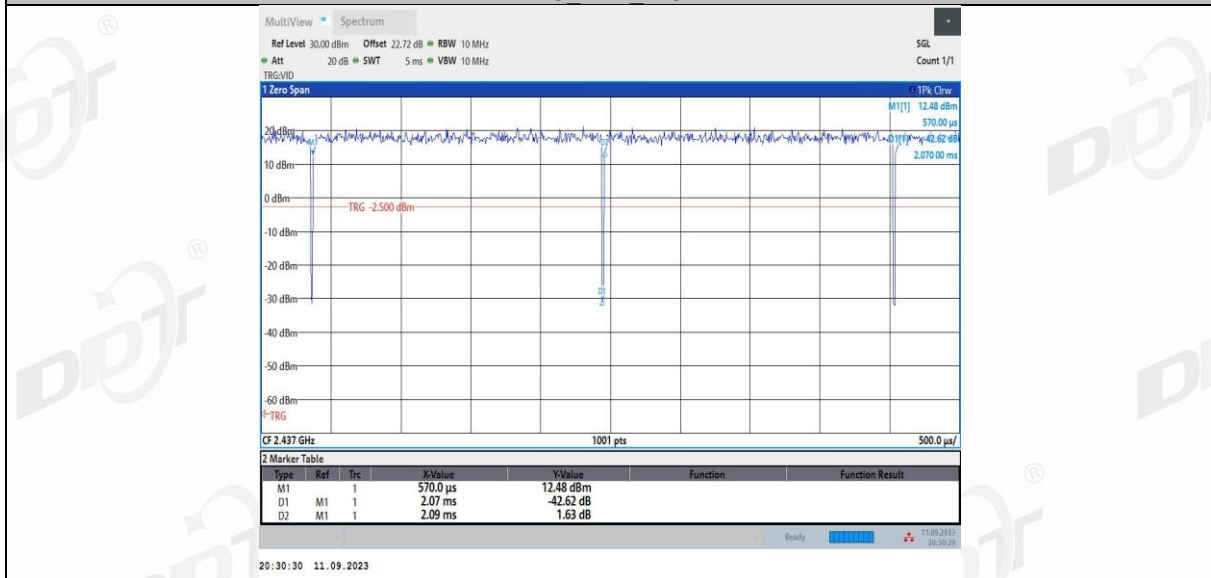
11G Ant1 2412



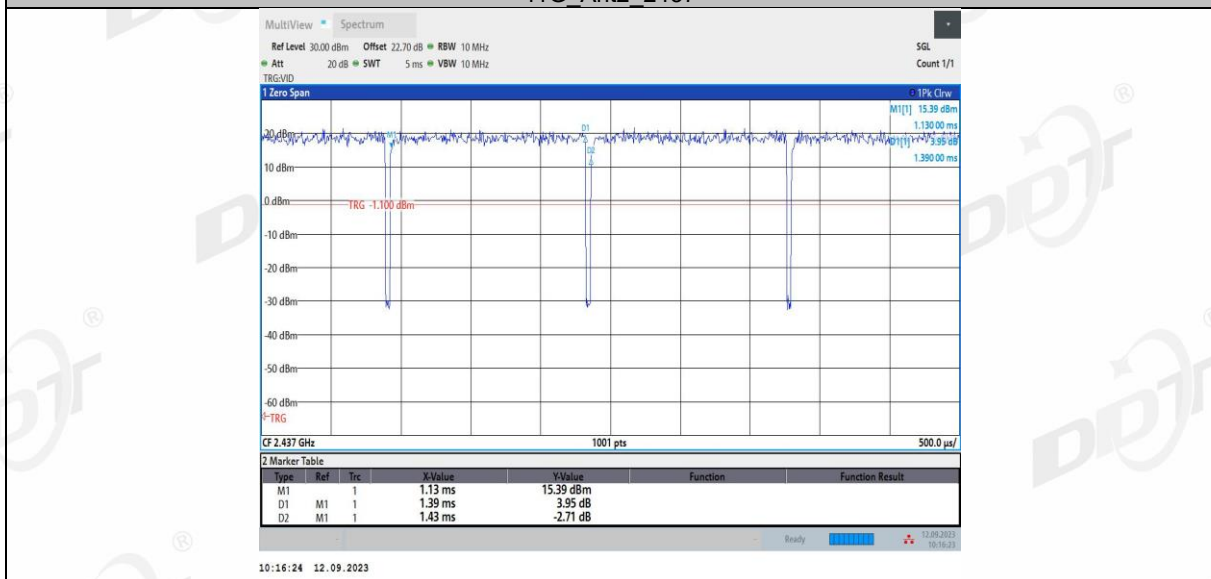
11G Ant2 2412



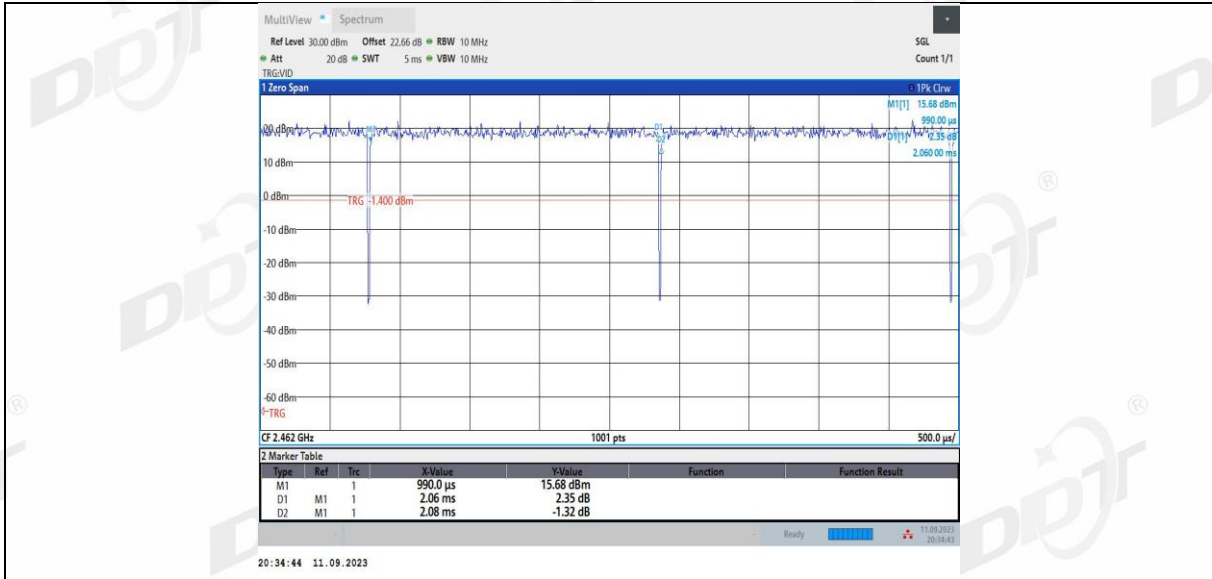
11G Ant1 2437



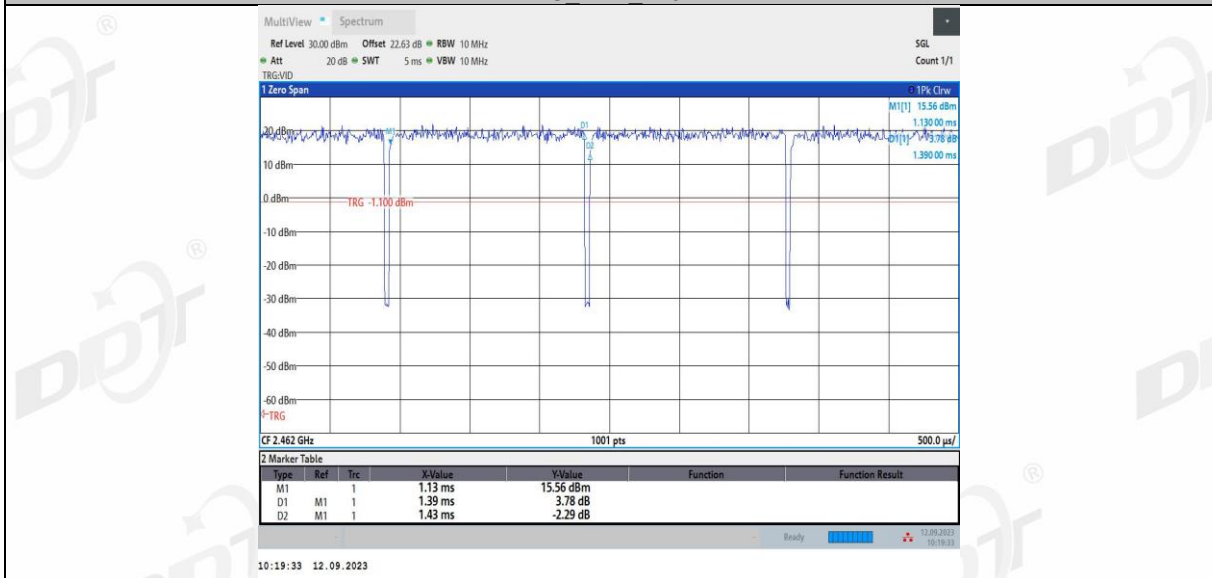
11G Ant2 2437



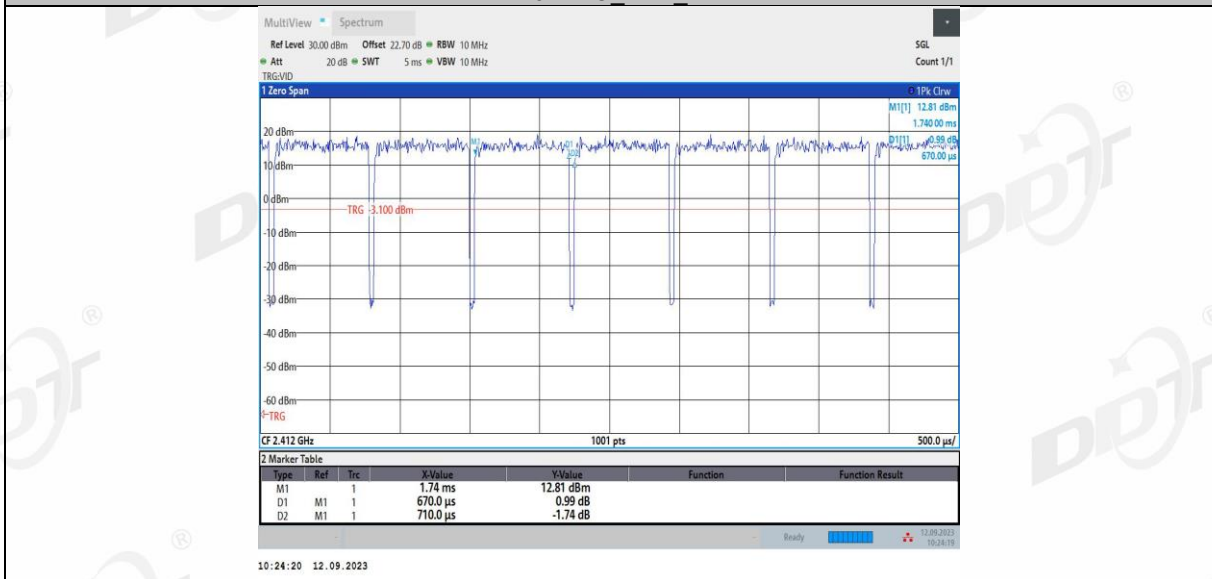
11G Ant1 2462



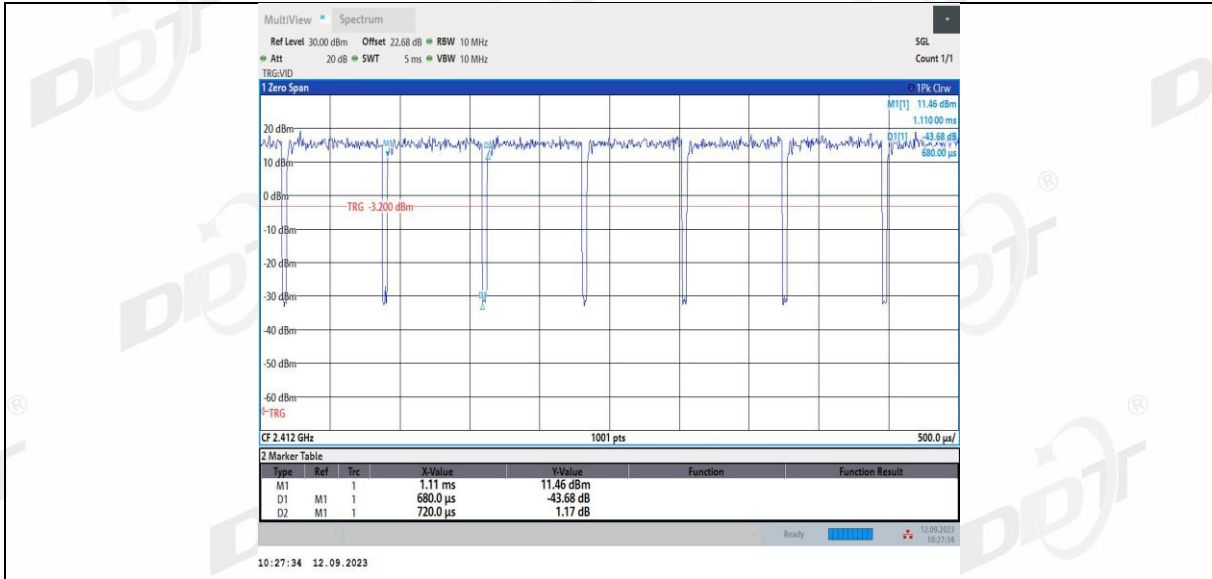
11G Ant2 2462



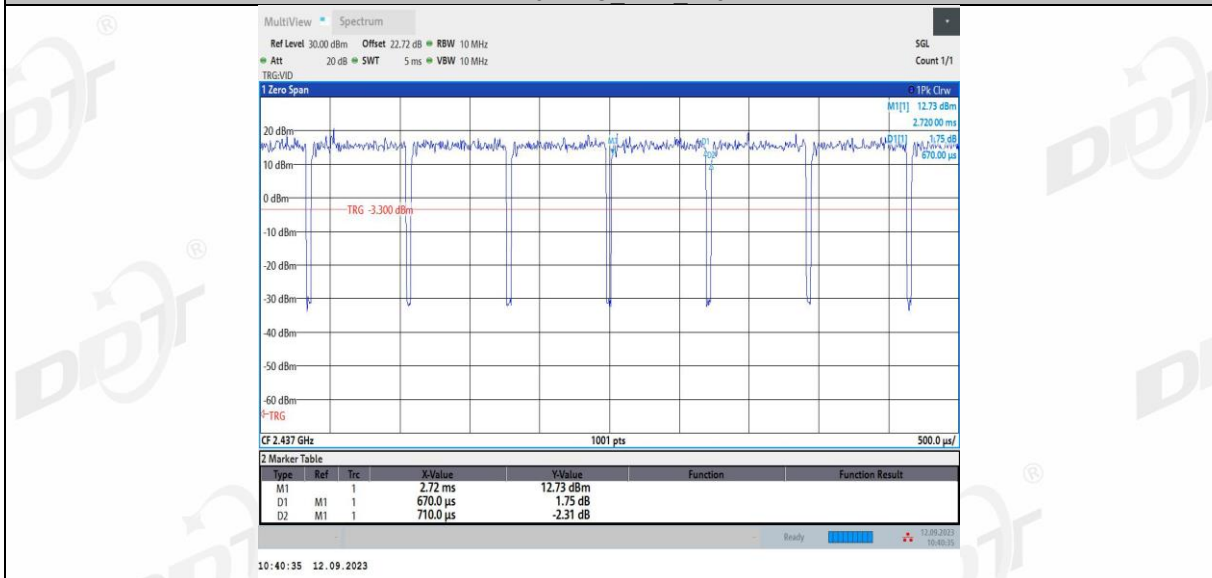
11N20MIMO Ant1 2412



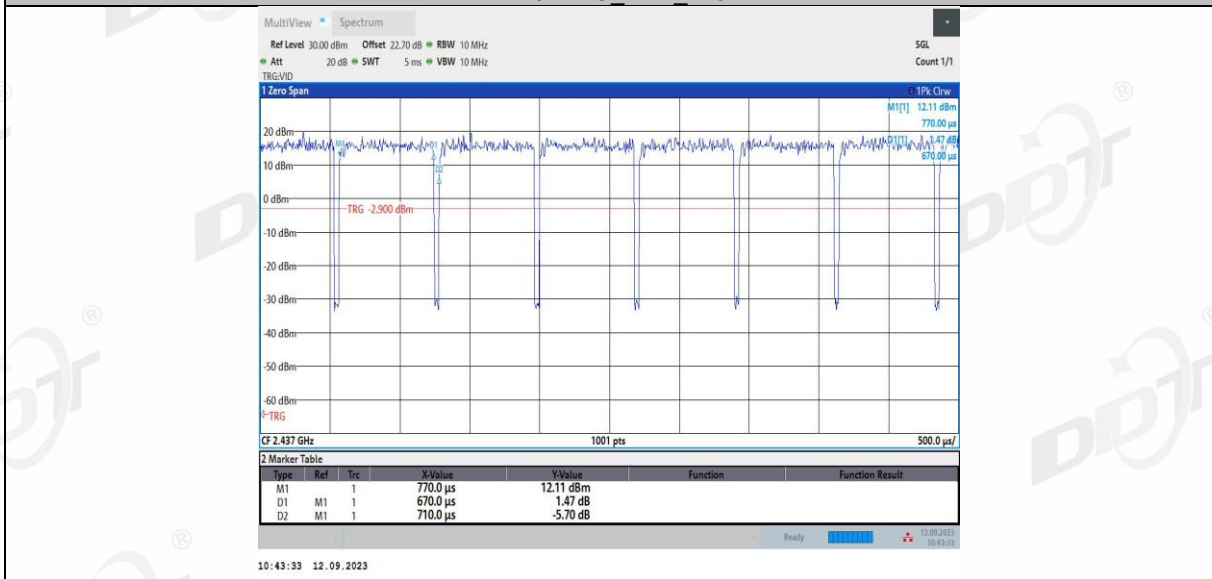
11N20MIMO Ant2 2412



11N20MIMO Ant1 2437



11N20MIMO Ant2 2437



11N20MIMO Ant1 2462