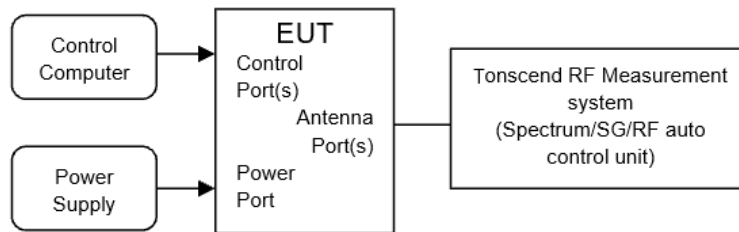


5. 99% Bandwidth

5.1. Block diagram of test setup



5.2. Limits

Just for Report.

5.3. Test procedure

- (1) The test according to ANSI C63.10 clause 6.9.3.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously
- (4) Use the following spectrum analyzer settings for the 99% Bandwidth:

RBW:	1% to 5% of the OBW
VBW:	approximately three times RBW
Span:	between 1.5 times and 5.0 times the OBW
Detector Mode:	peak
Sweep time:	auto
Trace mode	max hold

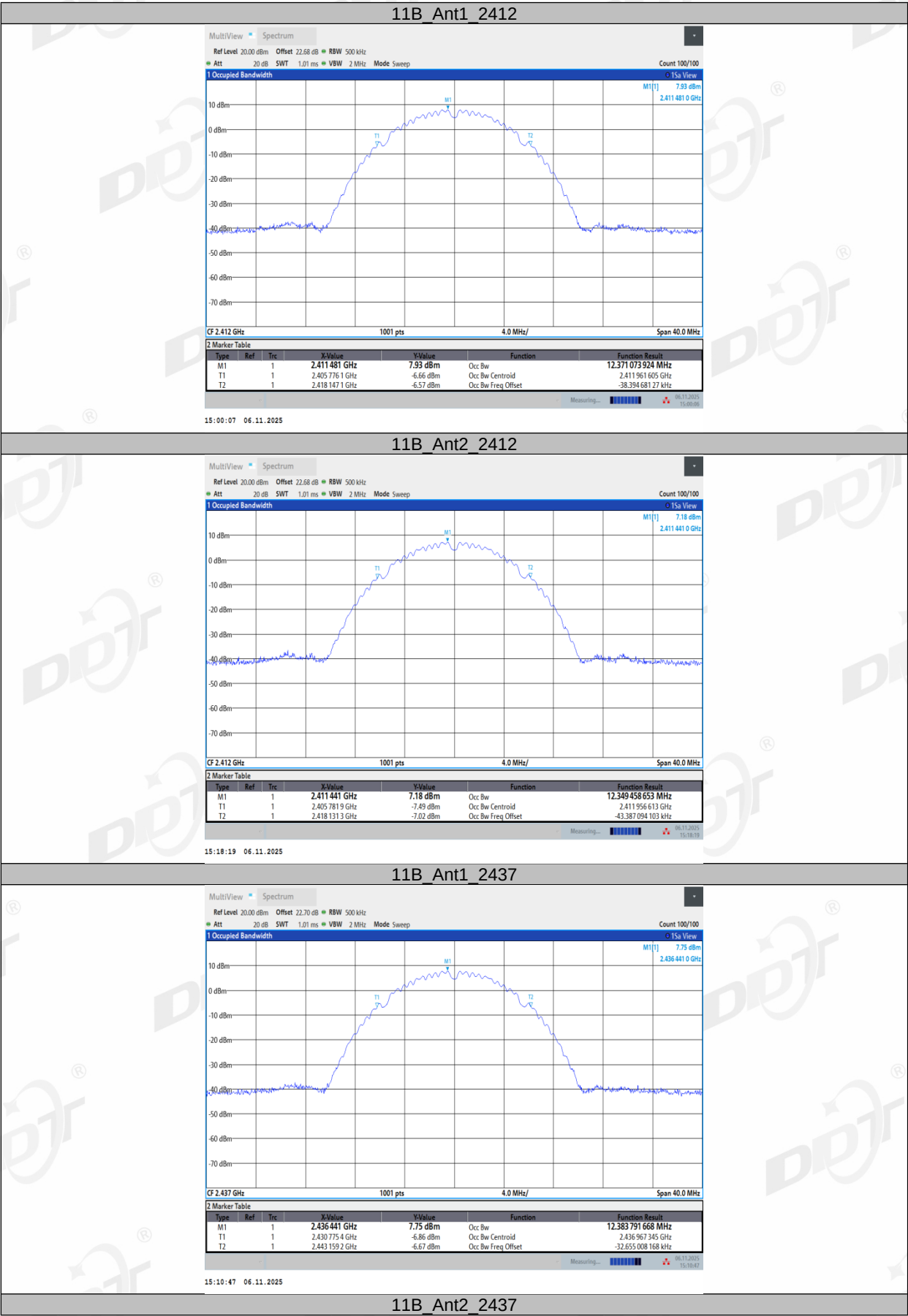
Allow the trace to stabilize, measure the 99% bandwidth of signal, and record the results in the report.

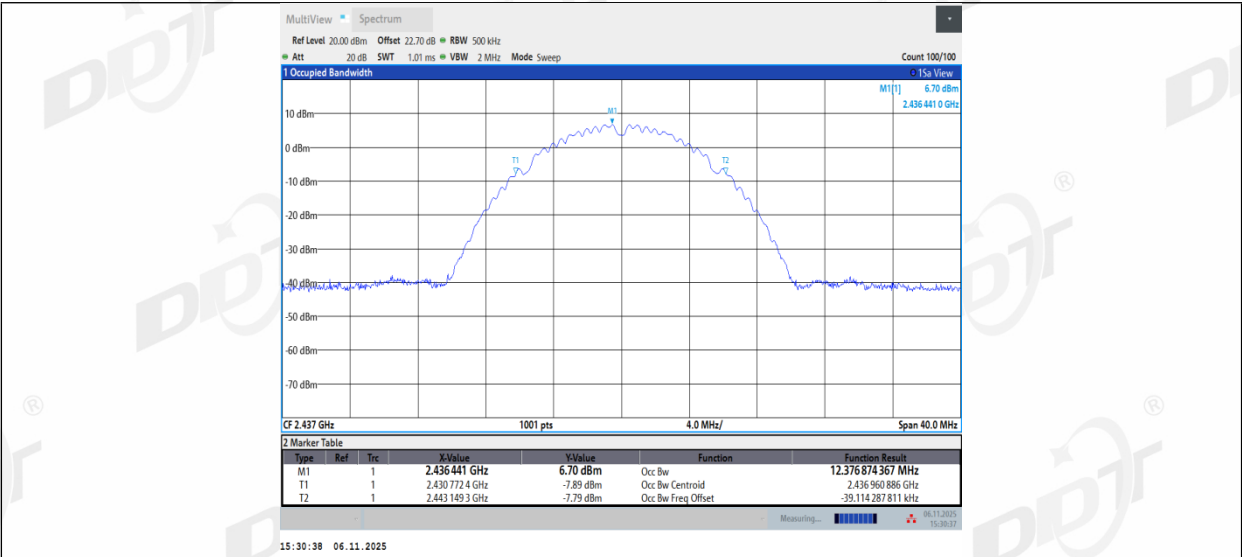
5.4. Test result

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.8-26.9℃,41.2-45.6%RH	Test Date:	2025.10.30-2025.11.06
Test Power Supply:	AC 120V/60Hz	Sample Number:	S25082524-001

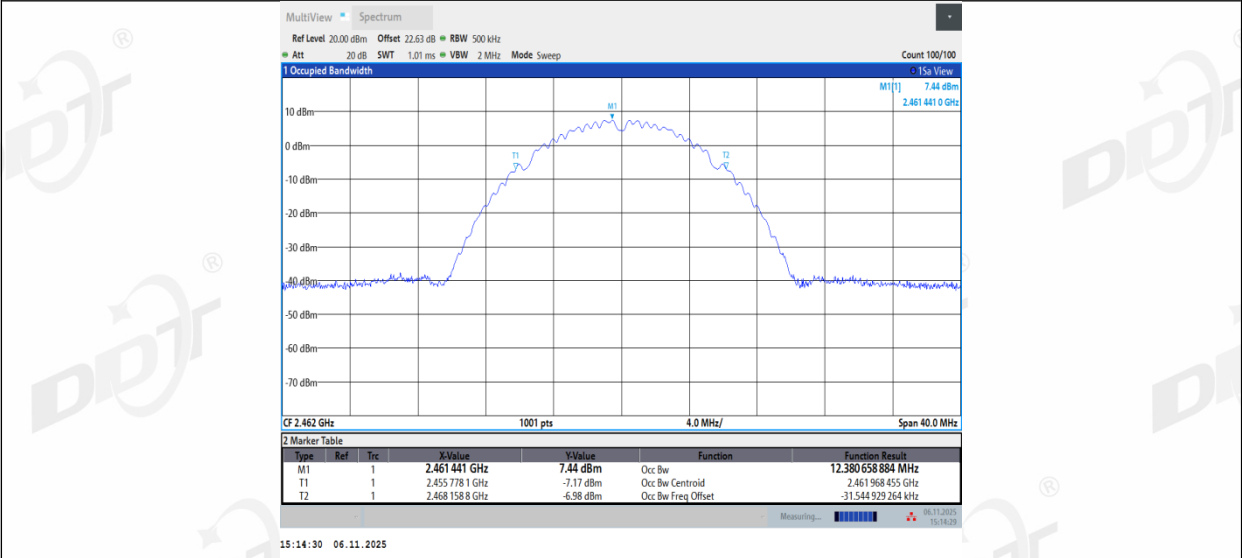
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.371	2405.7761	2418.1471	---	---
	Ant2	2412	12.349	2405.7819	2418.1313	---	---
	Ant1	2437	12.384	2430.7754	2443.1592	---	---
	Ant2	2437	12.377	2430.7724	2443.1493	---	---
	Ant1	2462	12.381	2455.7781	2468.1588	---	---
	Ant2	2462	12.374	2455.7773	2468.1517	---	---
11G	Ant1	2412	16.416	2403.7487	2420.1647	---	---
	Ant2	2412	16.418	2403.7432	2420.1609	---	---
	Ant1	2437	16.402	2428.7578	2445.1599	---	---
	Ant2	2437	16.418	2428.7523	2445.1701	---	---
	Ant1	2462	16.419	2453.7509	2470.1702	---	---
	Ant2	2462	16.420	2453.7445	2470.1643	---	---
11N20MI MO	Ant1	2412	17.417	2403.2476	2420.6649	---	---
	Ant2	2412	17.341	2403.2763	2420.6175	---	---
	Ant1	2437	17.418	2428.2466	2445.6644	---	---
	Ant2	2437	17.325	2428.2875	2445.6124	---	---
	Ant1	2462	17.417	2453.2325	2470.6498	---	---
	Ant2	2462	17.324	2453.2935	2470.6179	---	---
11N40MI MO	Ant1	2422	35.507	2404.1962	2439.7037	---	---
	Ant2	2422	35.444	2404.2106	2439.6541	---	---
	Ant1	2437	35.470	2419.2216	2454.6915	---	---
	Ant2	2437	35.485	2419.2083	2454.6935	---	---
	Ant1	2452	35.517	2434.1847	2469.7019	---	---
	Ant2	2452	35.486	2434.1984	2469.6848	---	---
11AX20M IMO	Ant1	2412	18.724	2402.5869	2421.3113	---	---
	Ant2	2412	18.718	2402.5791	2421.2969	---	---
	Ant1	2437	18.713	2427.6190	2446.3323	---	---
	Ant2	2437	18.703	2427.6117	2446.3151	---	---
	Ant1	2462	18.737	2452.5926	2471.3298	---	---
	Ant2	2462	18.702	2452.6280	2471.3297	---	---
11AX40M IMO	Ant1	2422	37.328	2403.2591	2440.5871	---	---
	Ant2	2422	37.302	2403.3277	2440.6297	---	---
	Ant1	2437	37.306	2418.3190	2455.6248	---	---
	Ant2	2437	37.285	2418.3546	2455.6396	---	---
	Ant1	2452	37.328	2433.2891	2470.6167	---	---
	Ant2	2452	37.306	2433.3153	2470.6214	---	---
11BE20M IMO	Ant1	2412	18.736	2402.5853	2421.3218	---	---
	Ant2	2412	18.722	2402.5915	2421.3135	---	---
	Ant1	2437	18.755	2427.5663	2446.3209	---	---
	Ant2	2437	18.679	2427.6072	2446.2862	---	---
	Ant1	2462	18.723	2452.5878	2471.3106	---	---
	Ant2	2462	18.721	2452.5819	2471.3025	---	---
11BE40M IMO	Ant1	2422	37.247	2403.3237	2440.5705	---	---
	Ant2	2422	37.343	2403.2737	2440.6166	---	---
	Ant1	2437	37.239	2418.3452	2455.5846	---	---
	Ant2	2437	37.185	2418.3809	2455.5663	---	---
	Ant1	2452	37.320	2433.2538	2470.5737	---	---
	Ant2	2452	37.240	2433.3191	2470.5587	---	---

5.5. Test graphs

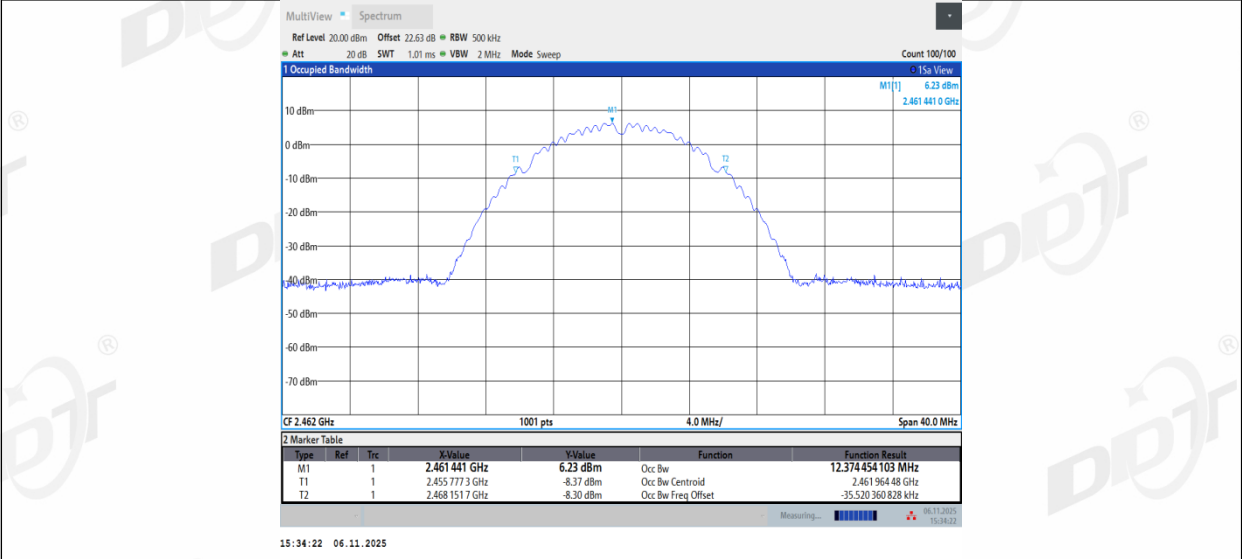




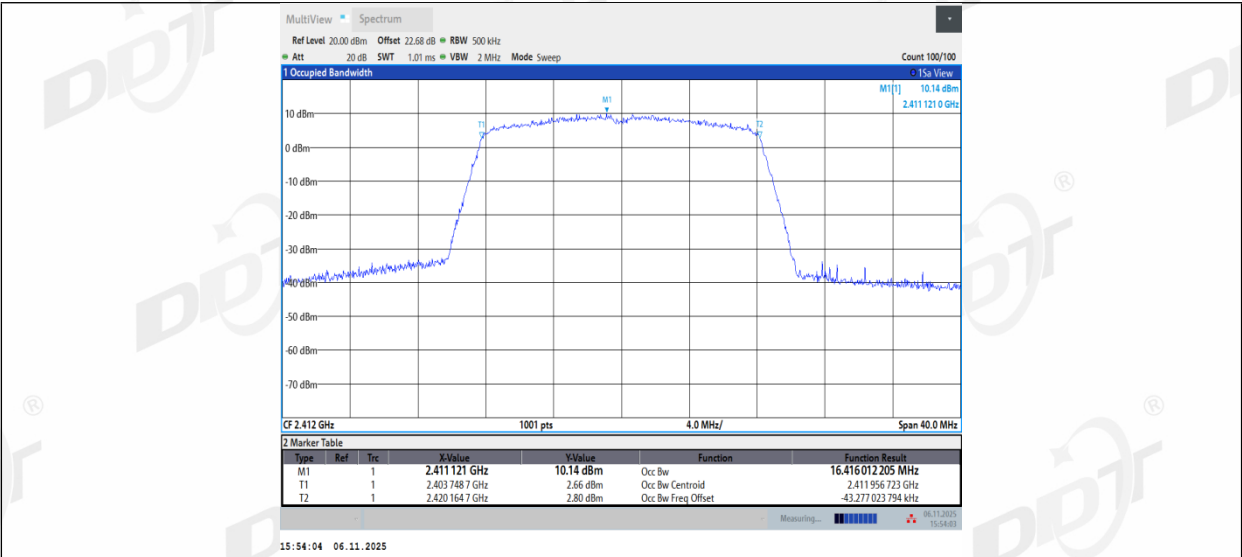
11B_Ant1_2462



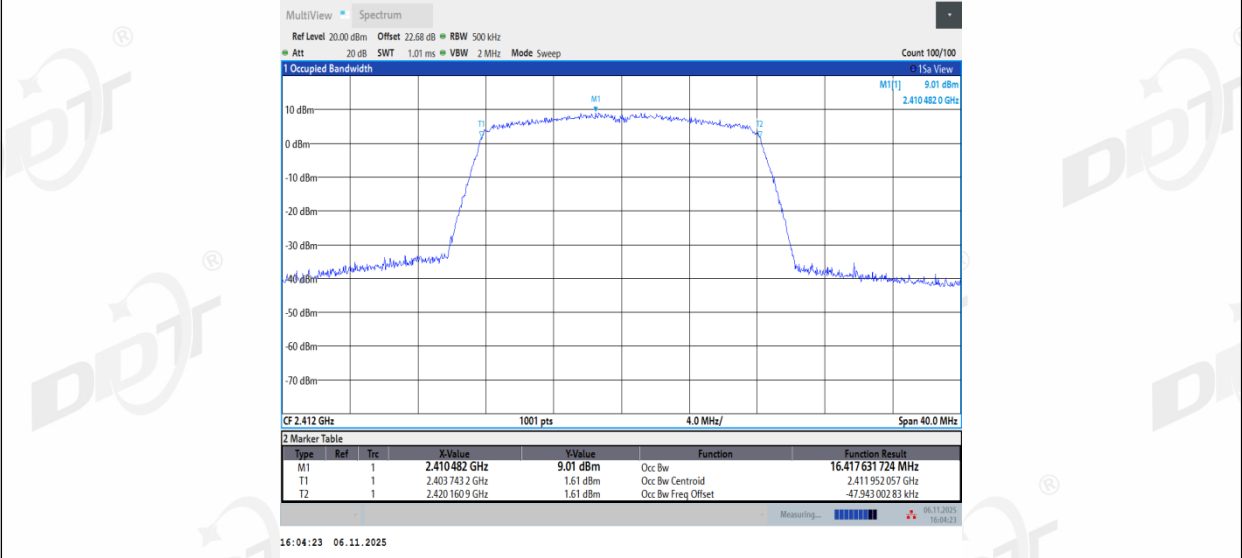
11B_Ant2_2462



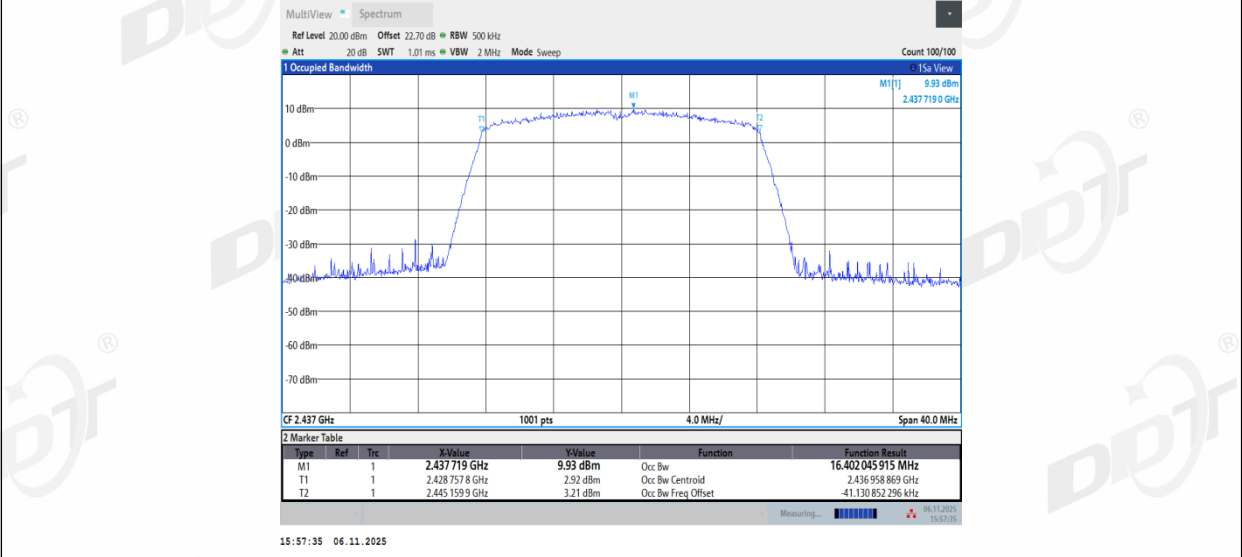
11G_Ant1_2412



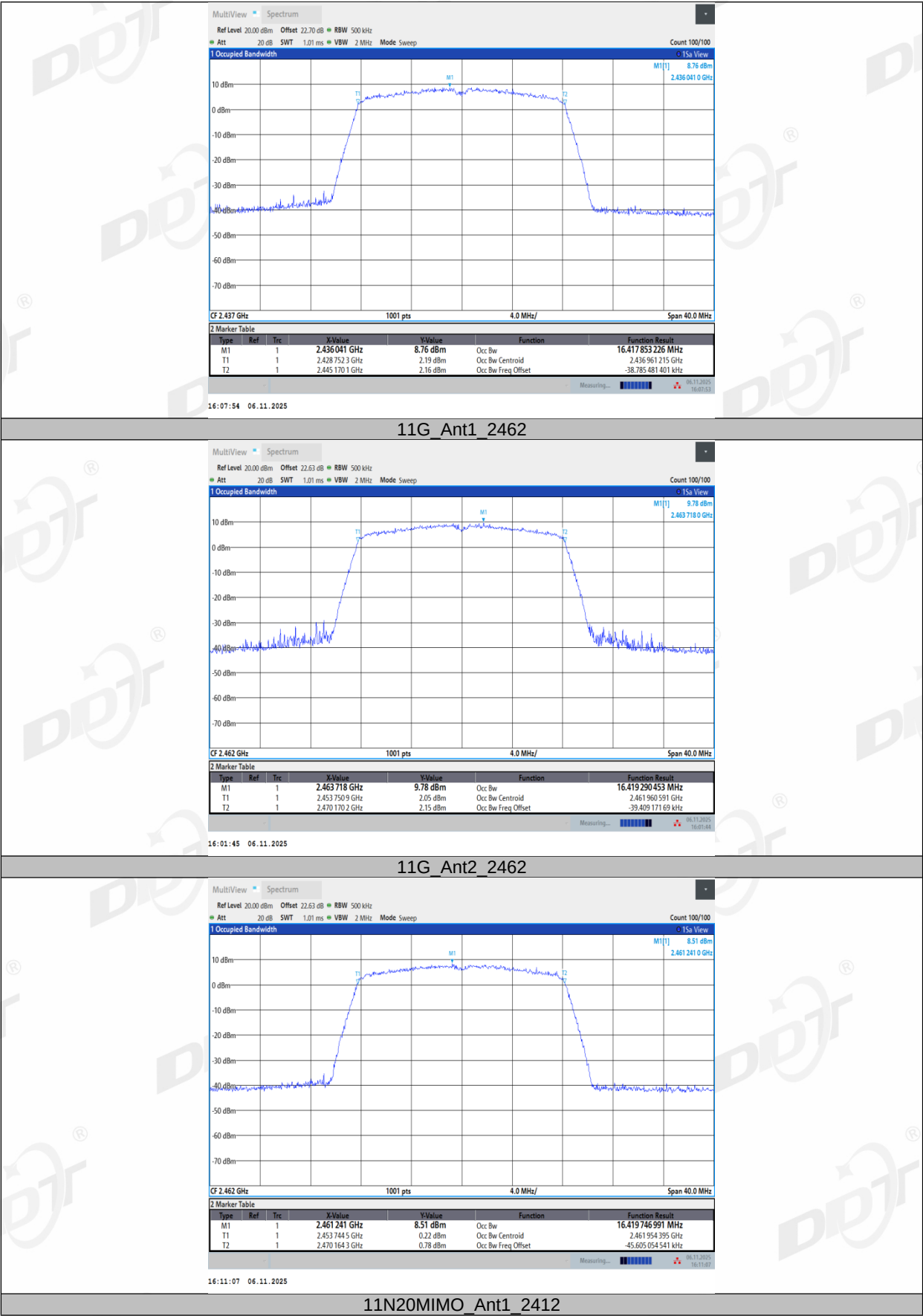
11G_Ant2_2412

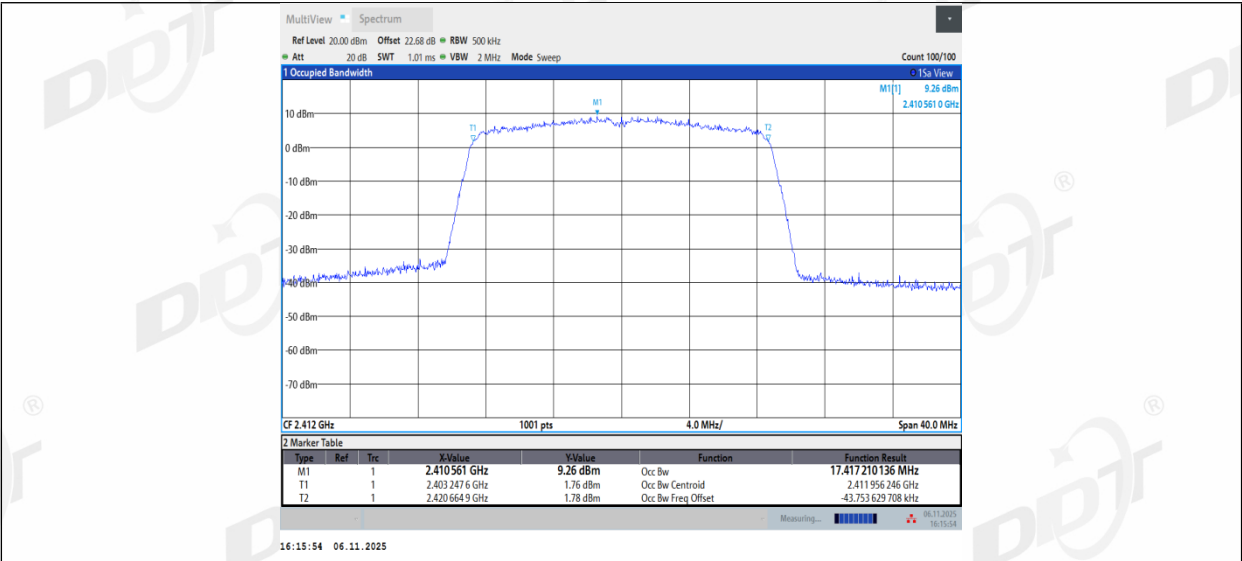


11G_Ant1_2437

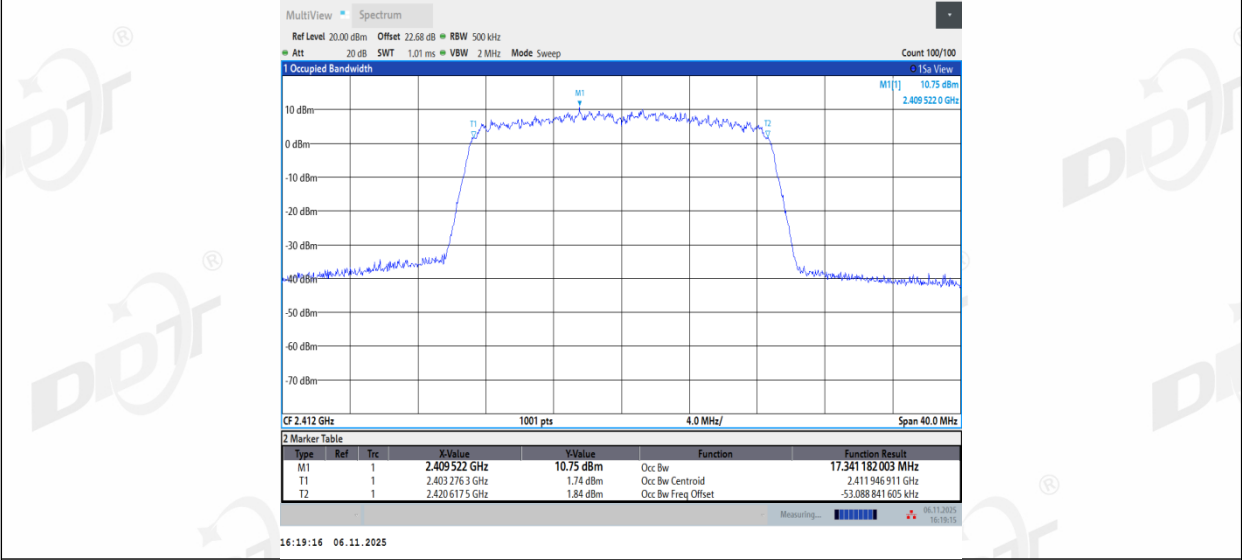


11G_Ant2_2437

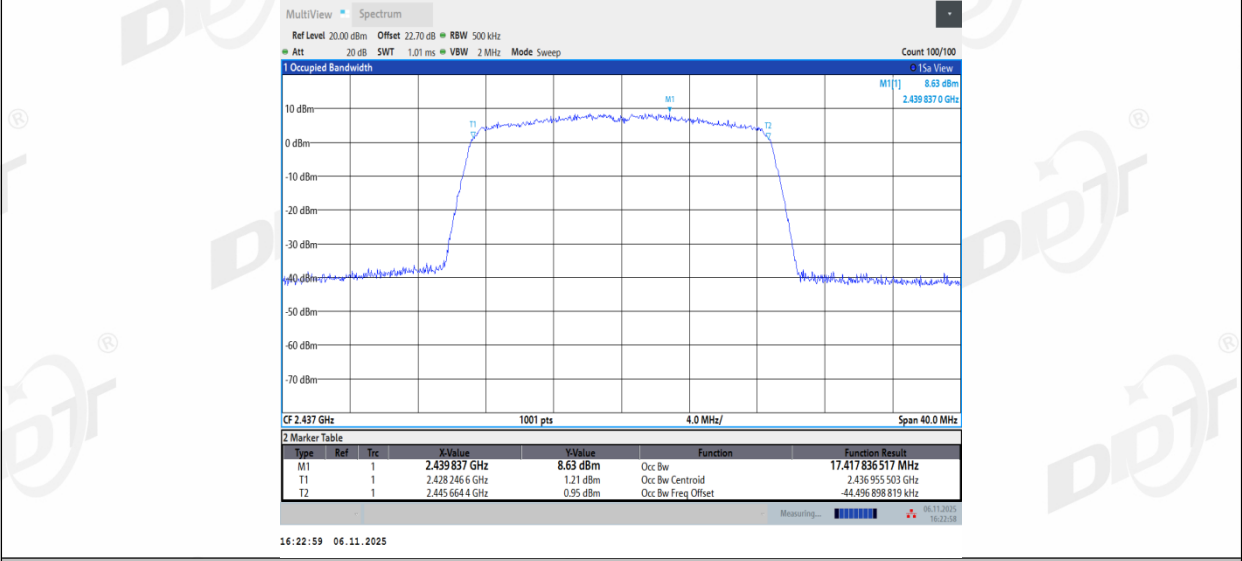




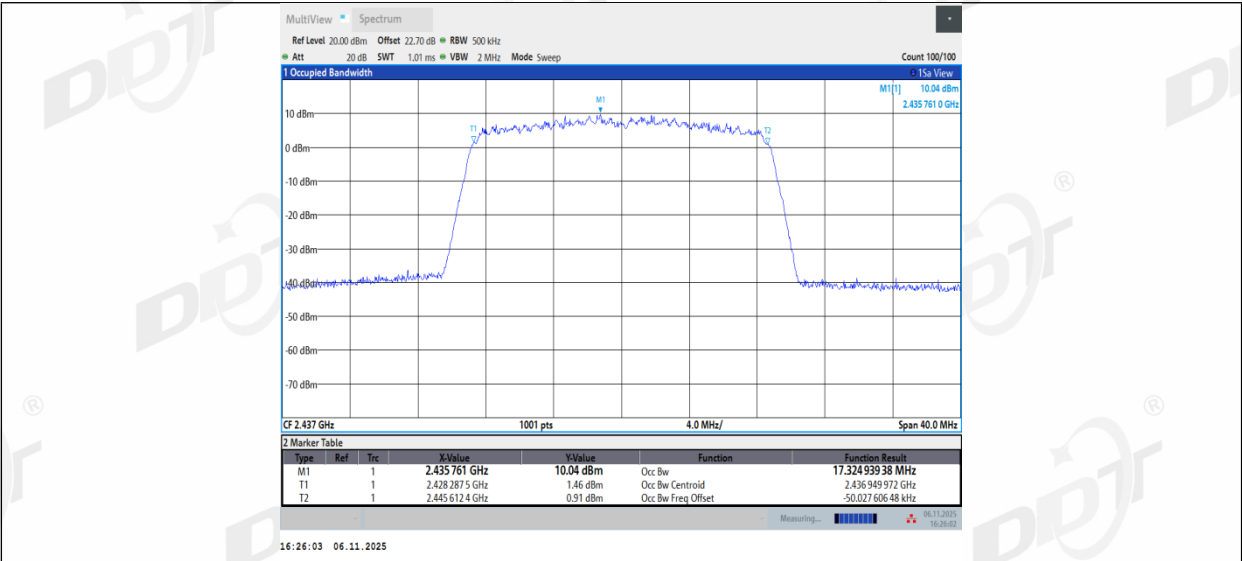
11N20MIMO_Ant2_2412



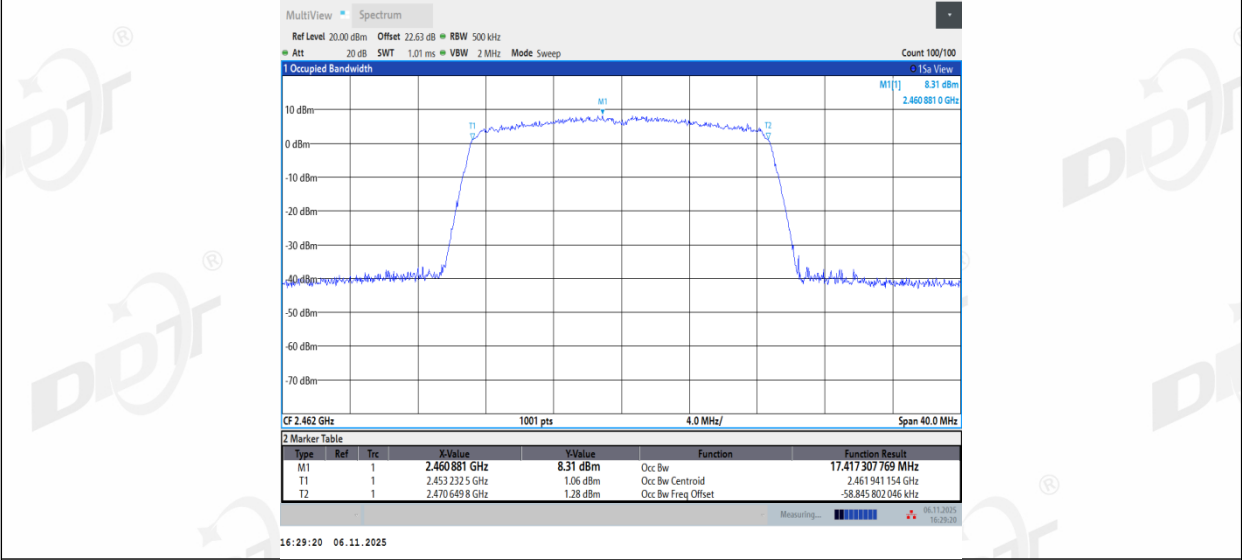
11N20MIMO_Ant1_2437



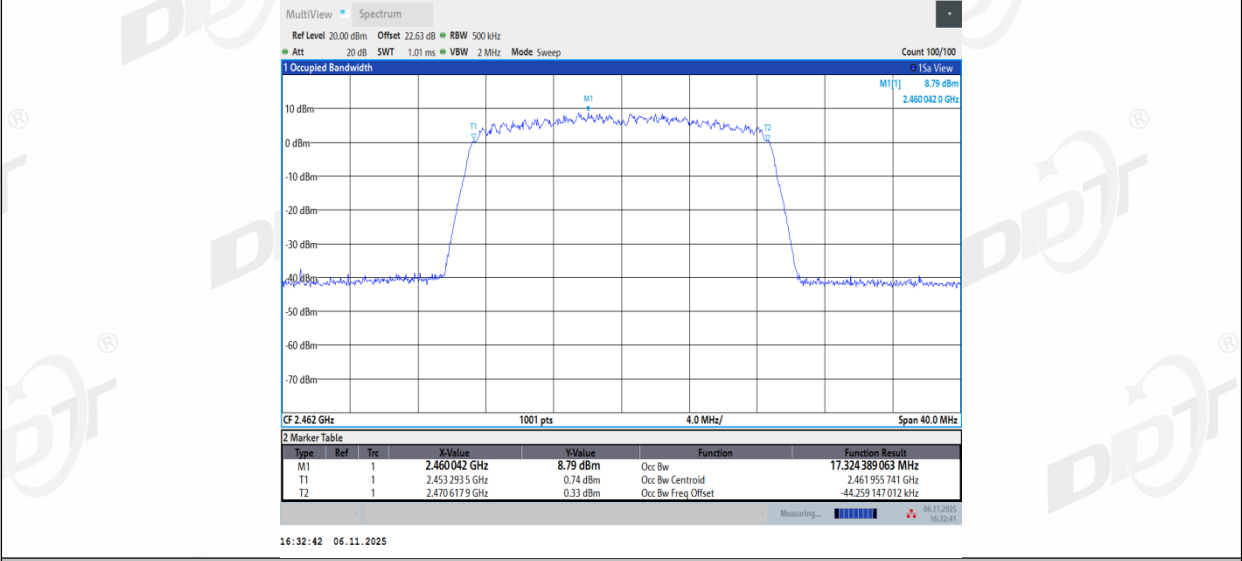
11N20MIMO_Ant2_2437



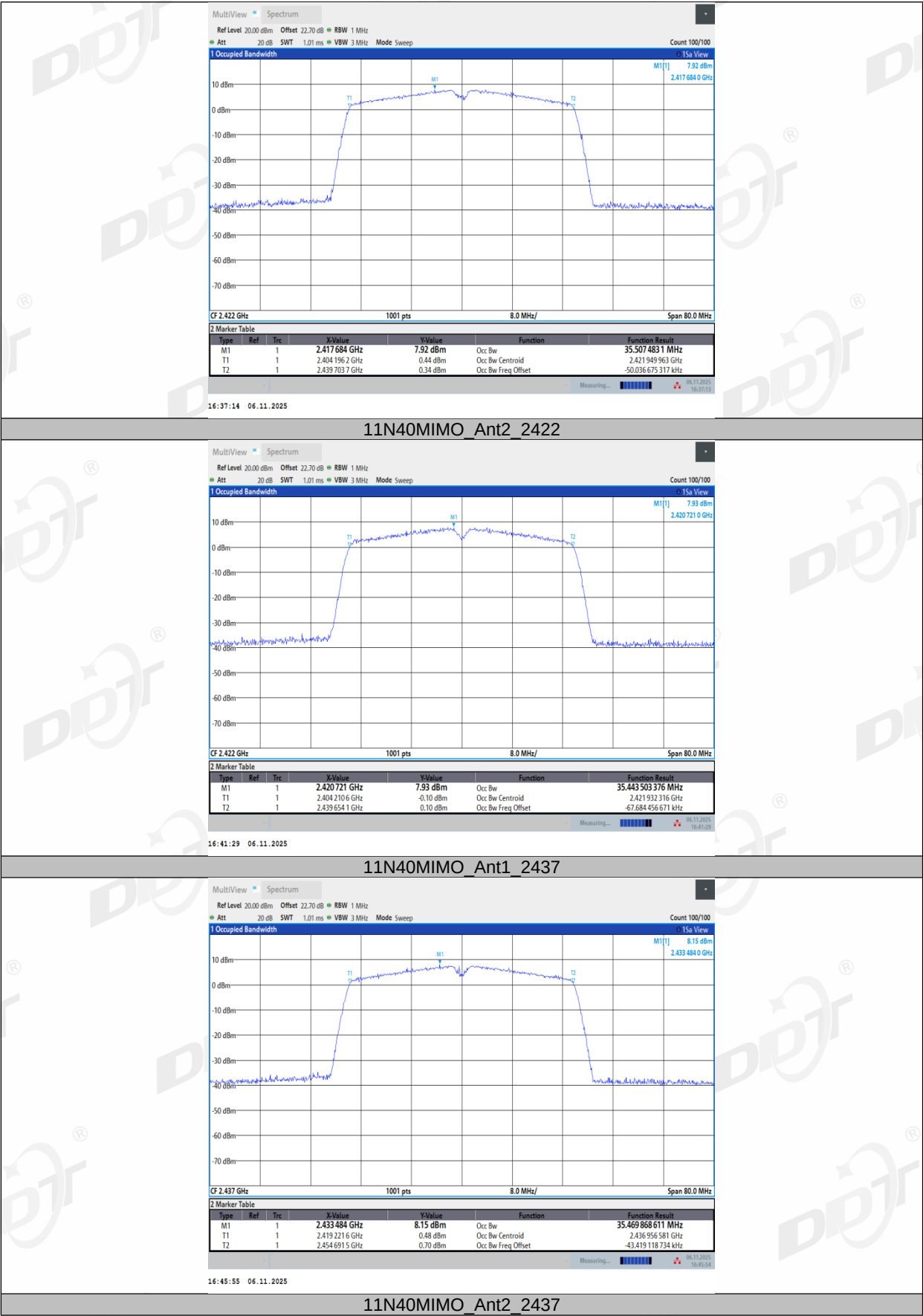
11N20MIMO_Ant1_2462

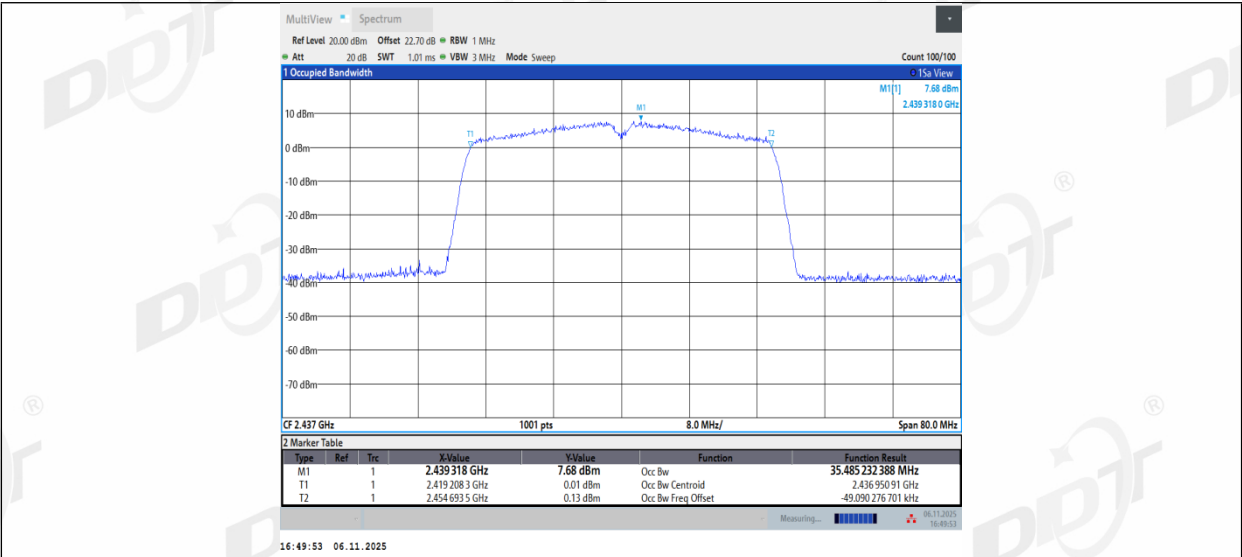


11N20MIMO_Ant2_2462

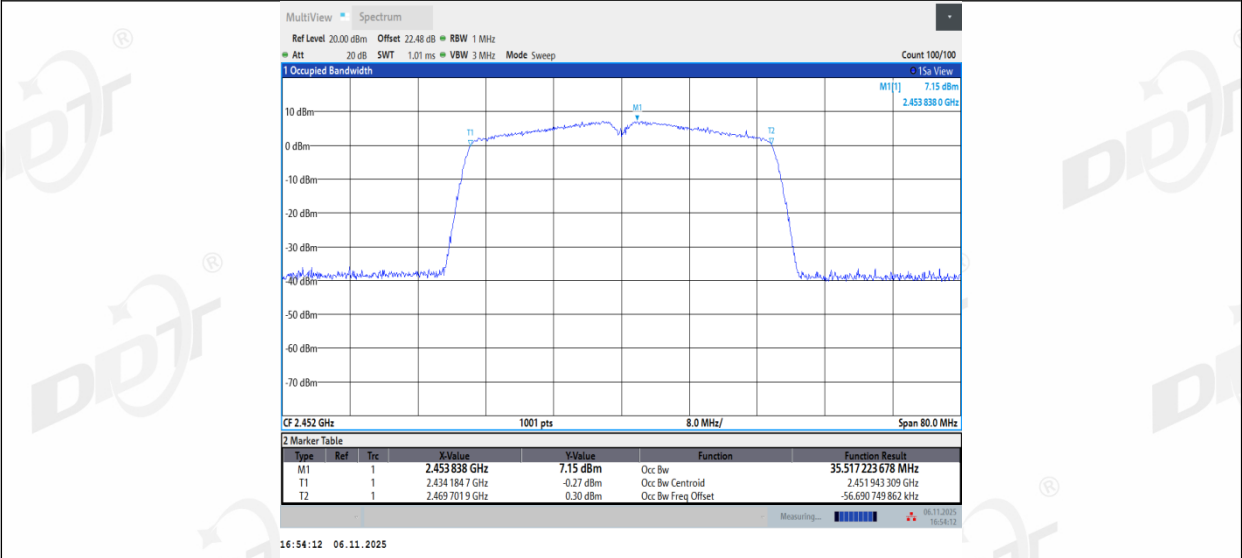


11N40MIMO_Ant1_2422

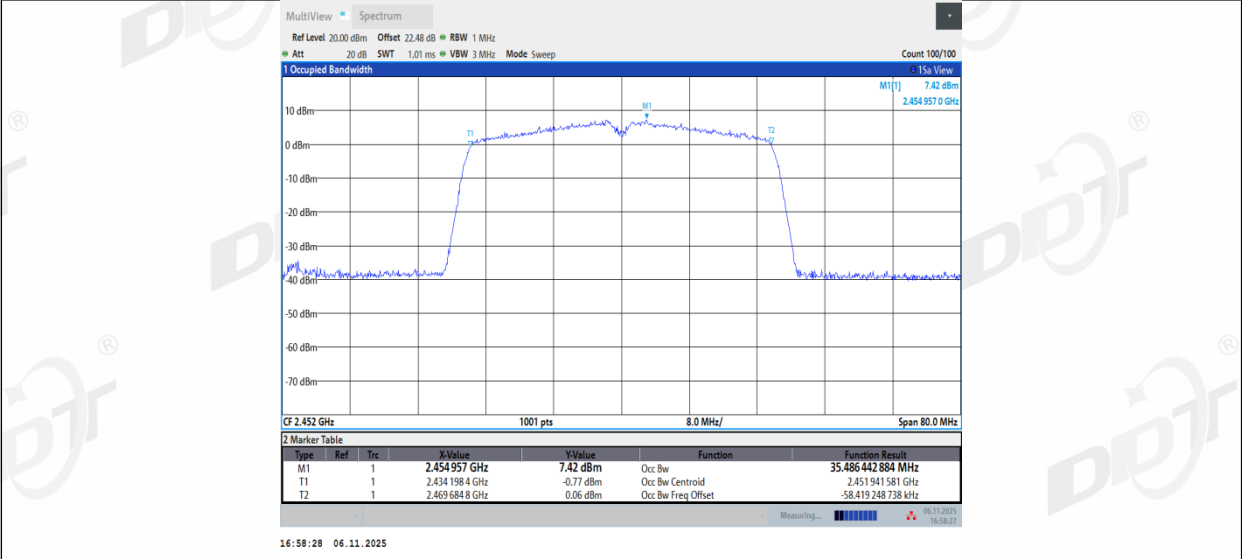




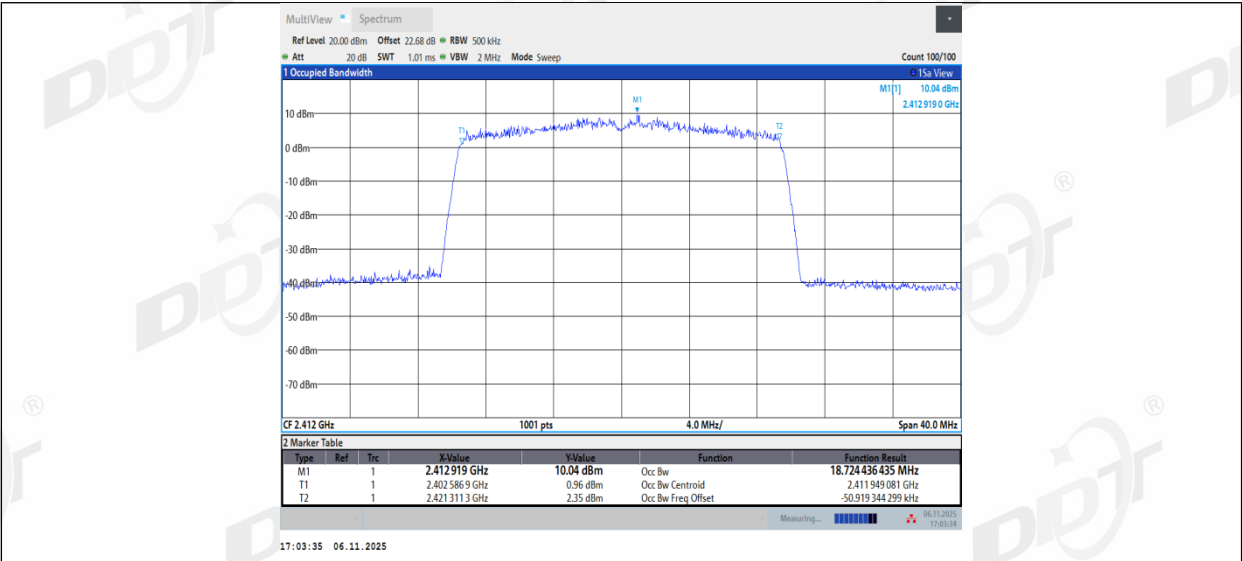
11N40MIMO_Ant1_2452



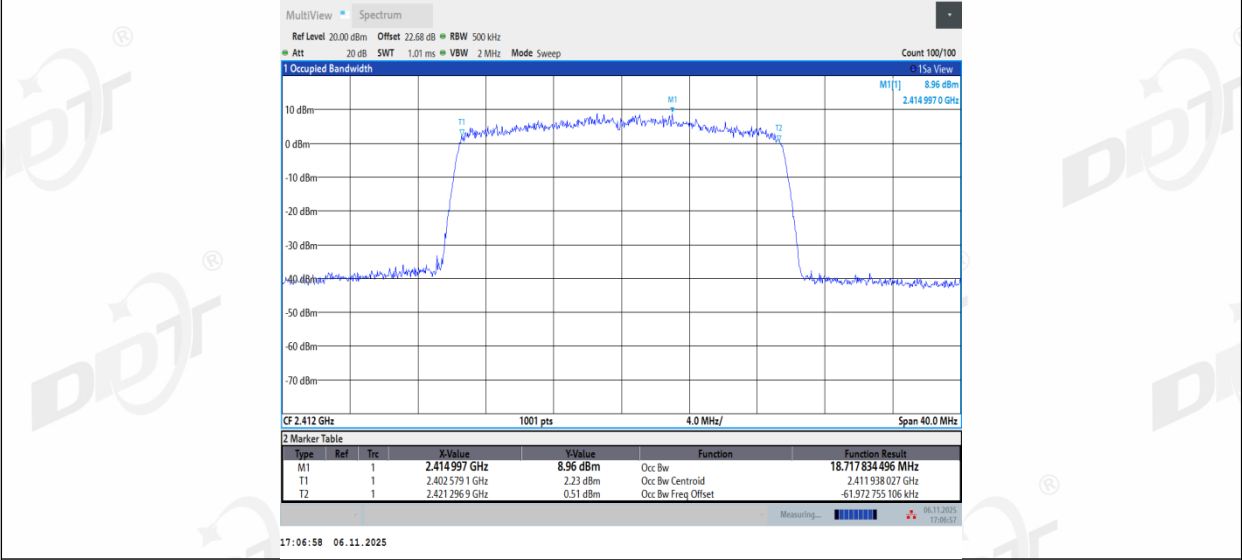
11N40MIMO_Ant2_2452



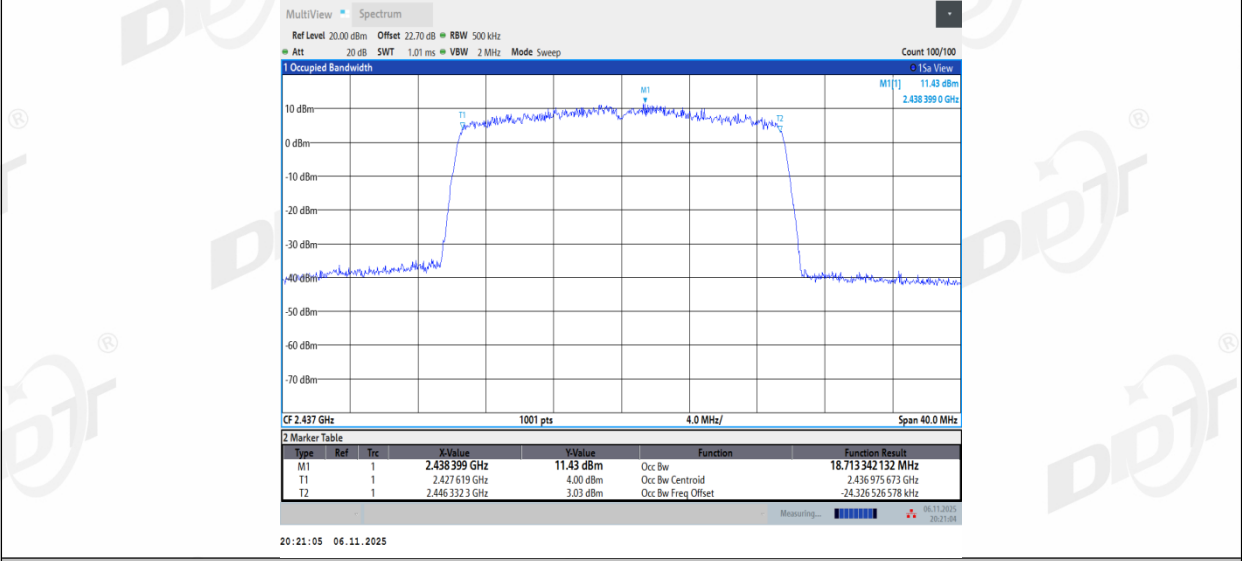
11AX20MIMO_Ant1_2412



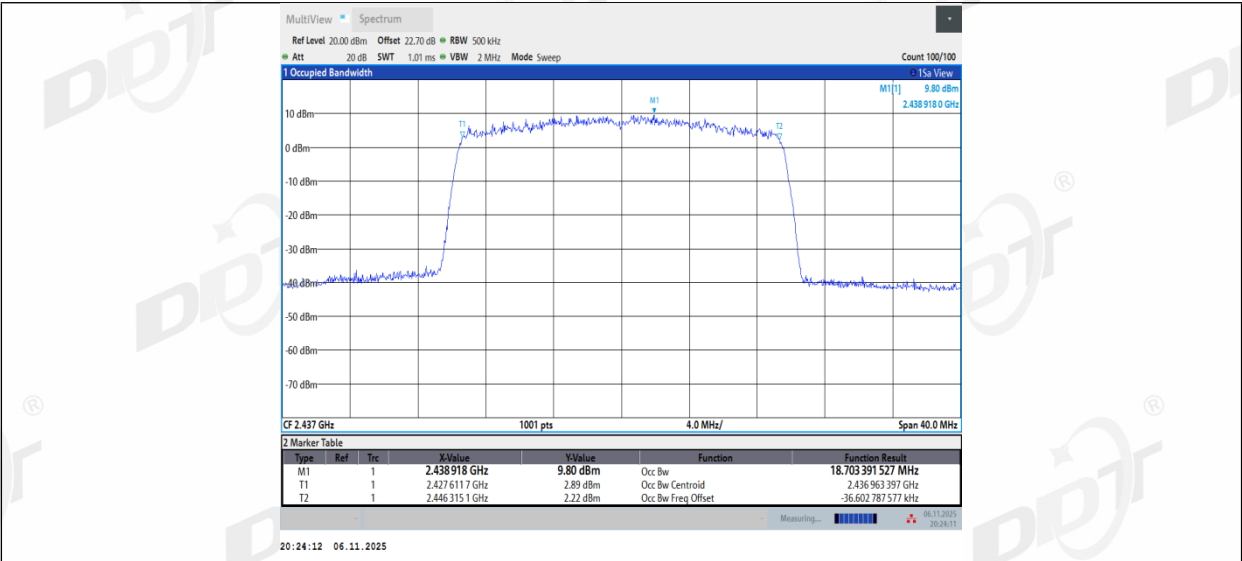
11AX20MIMO_Ant2_2412



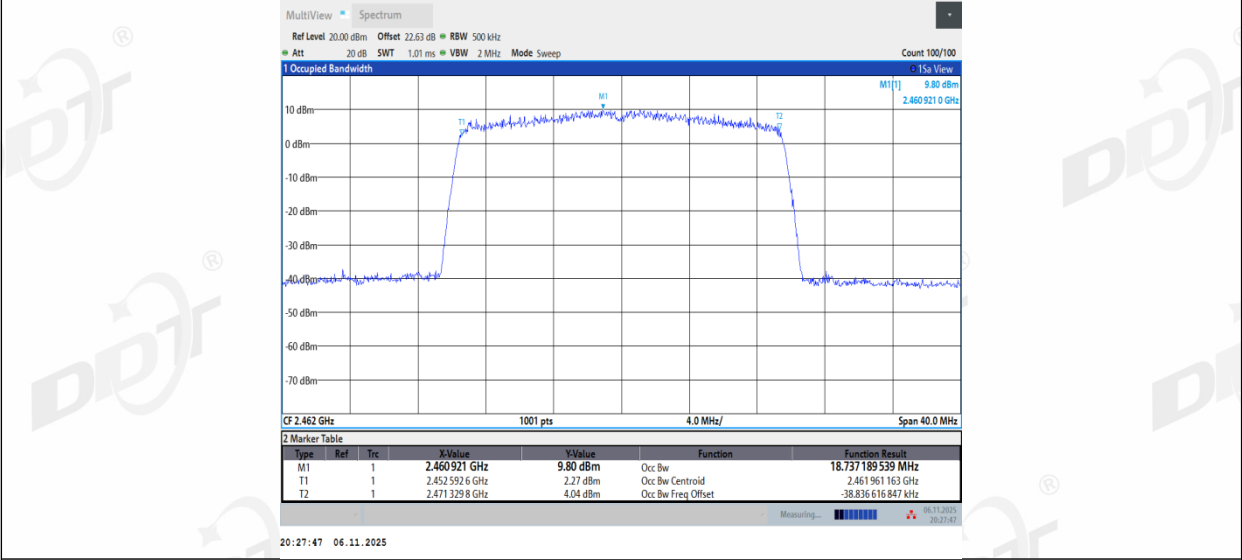
11AX20MIMO_Ant1_2437



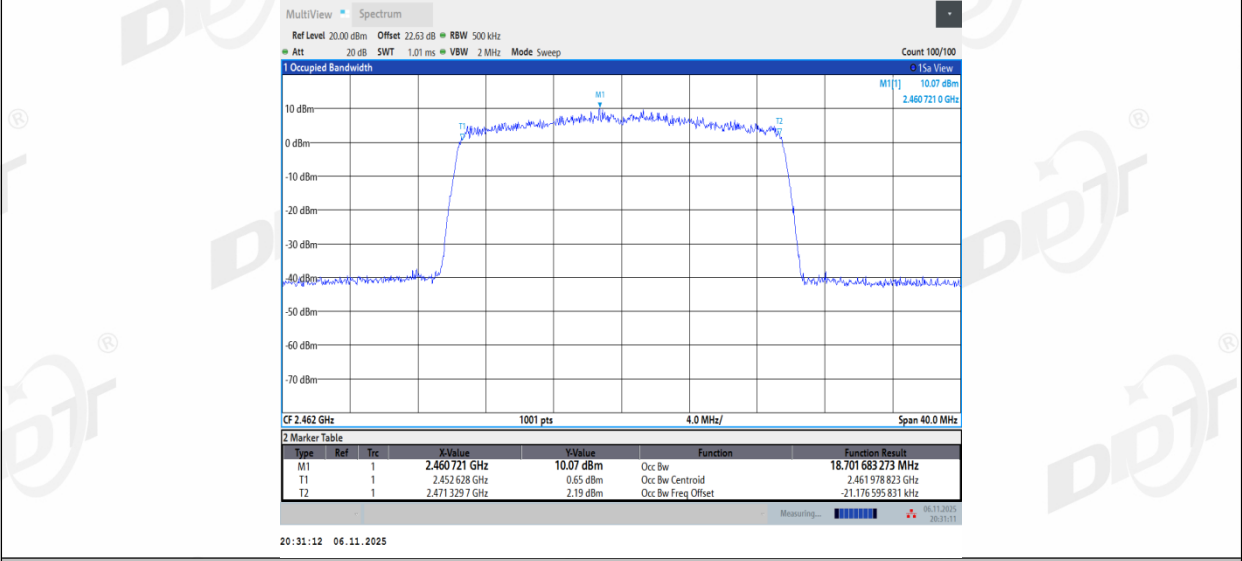
11AX20MIMO_Ant2_2437



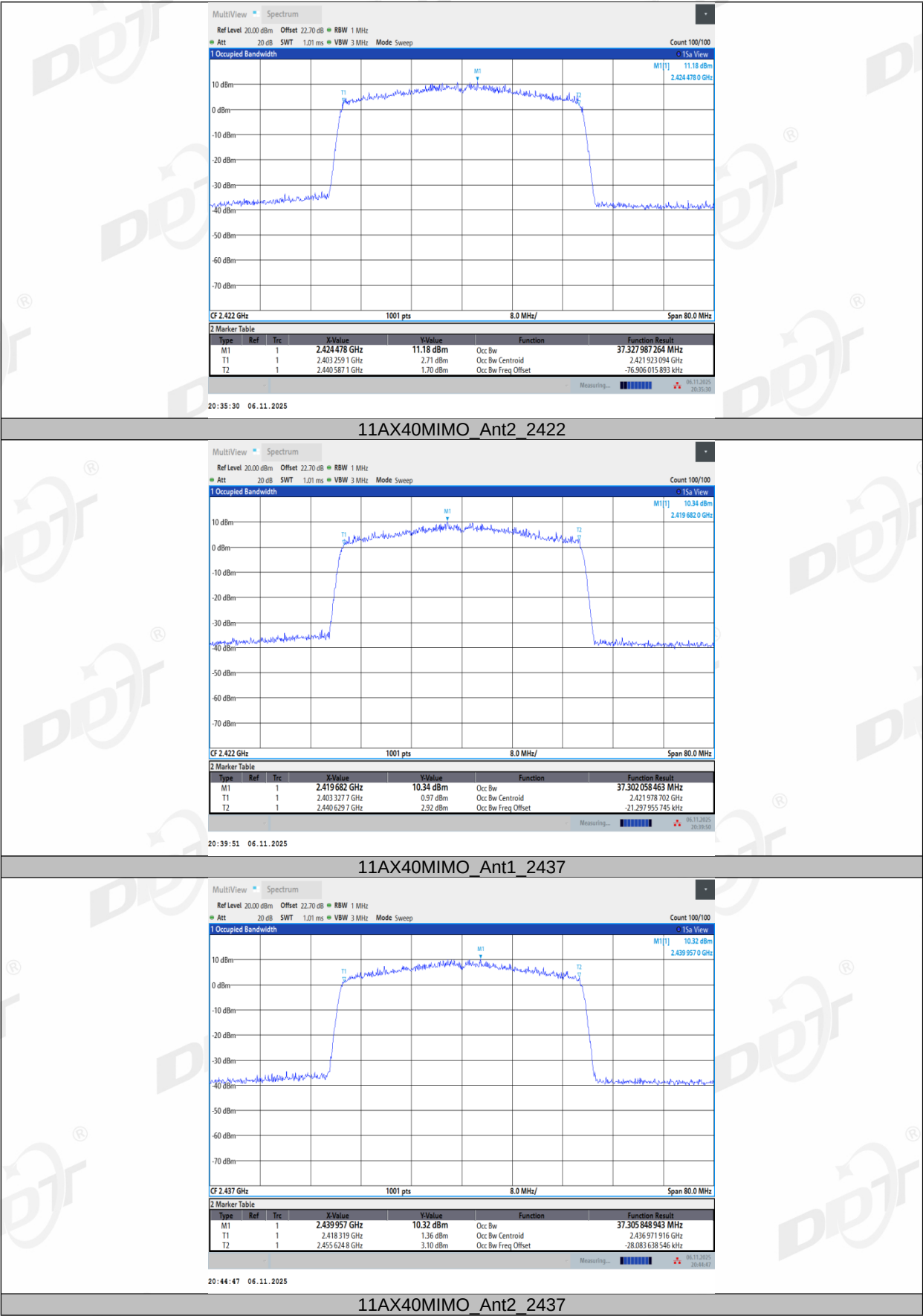
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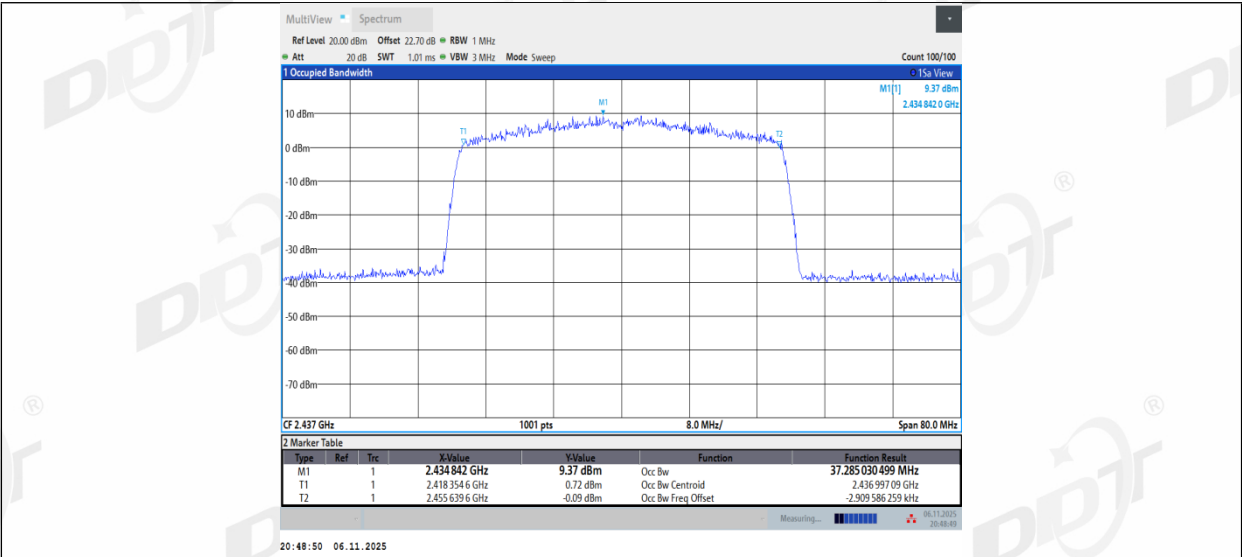


11AX20MIMO_Ant2_2462

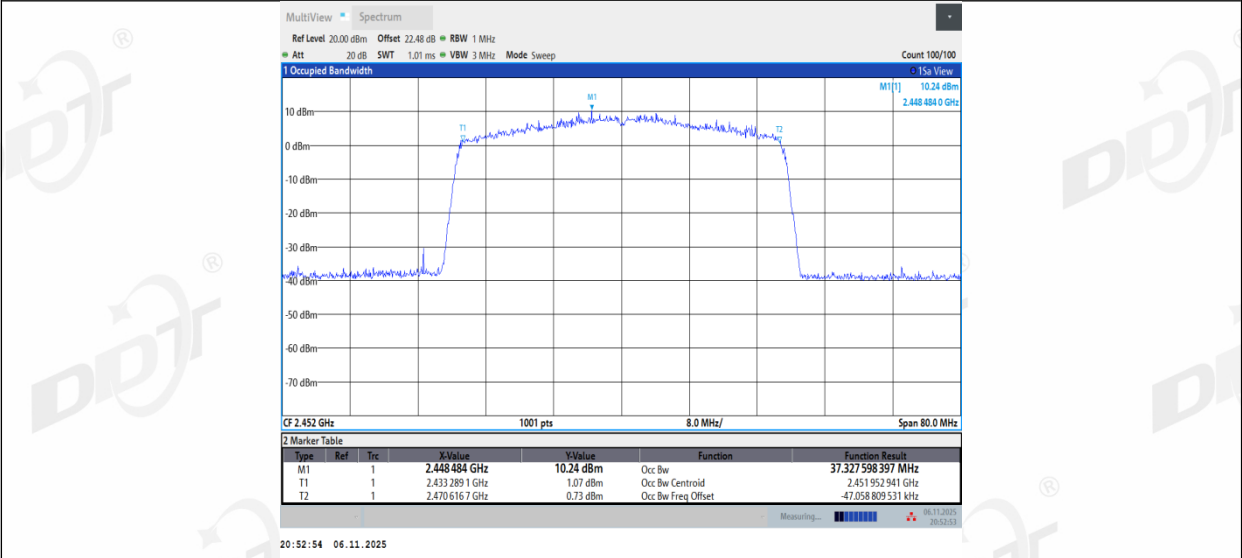


11AX40MIMO_Ant1_2422

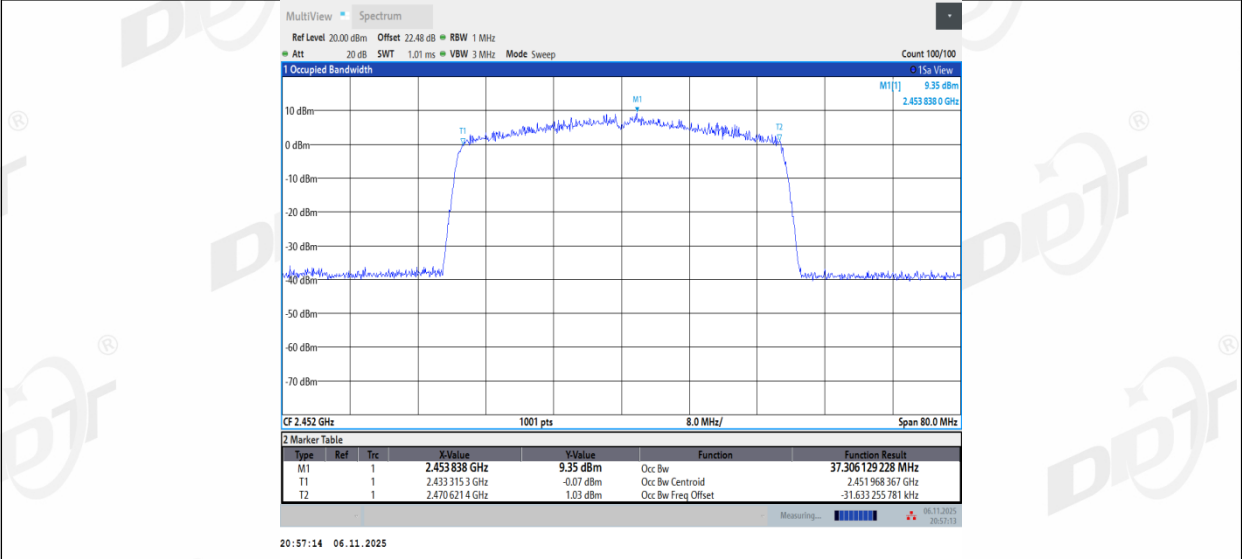




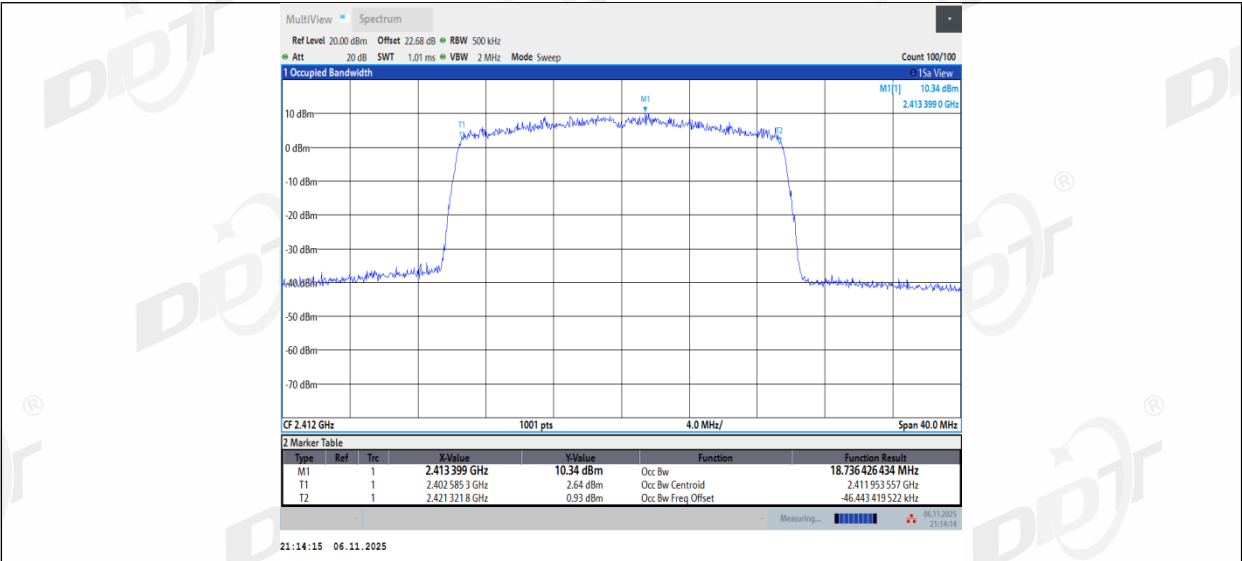
11AX40MIMO_Ant1_2452



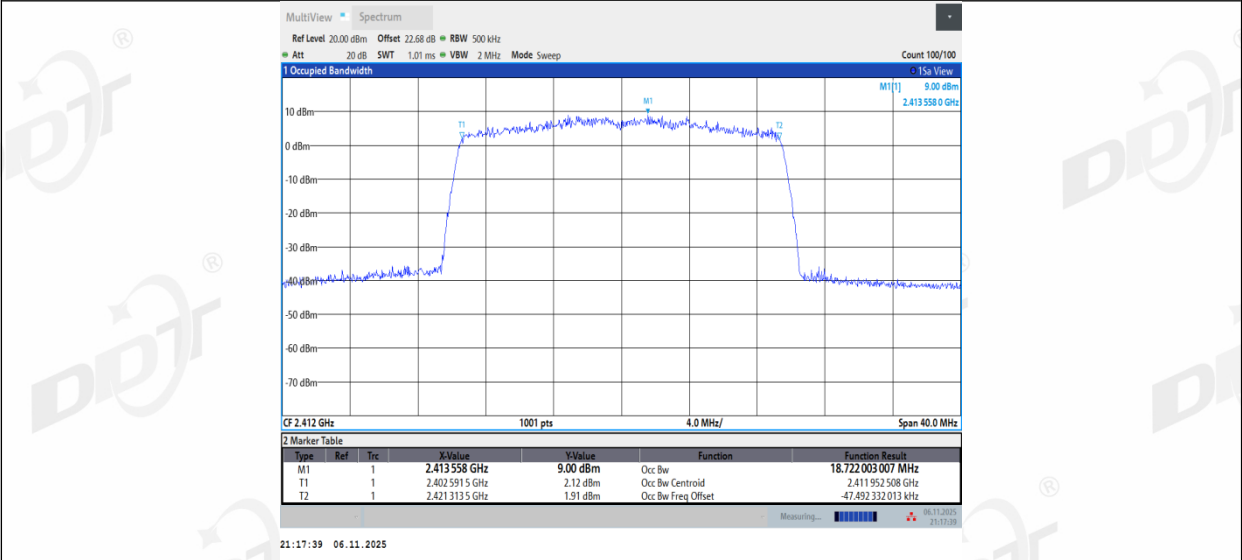
11AX40MIMO_Ant2_2452



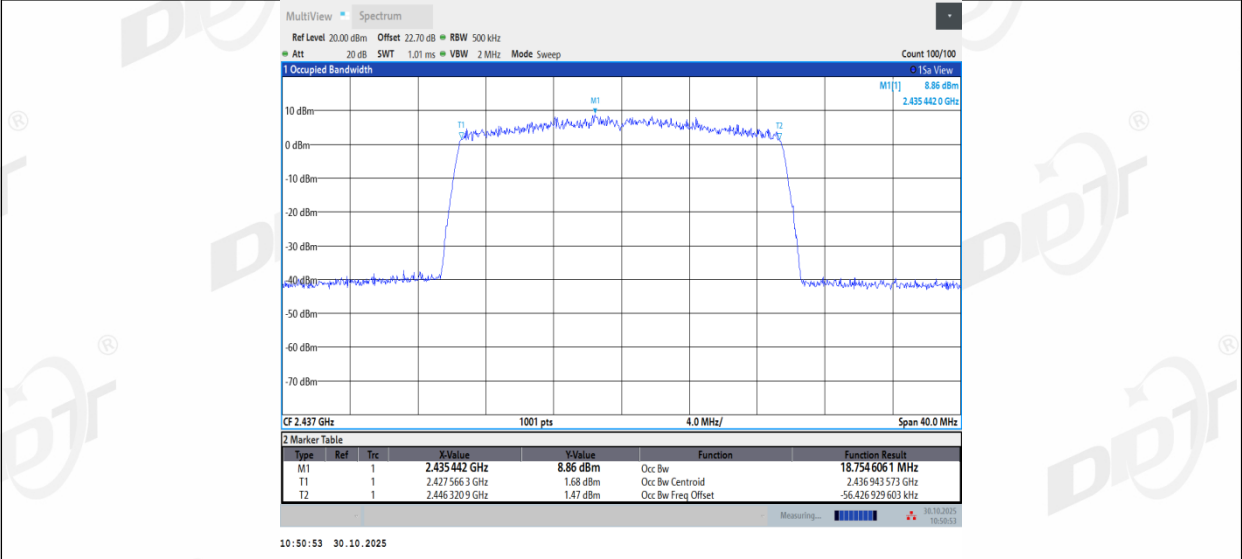
11BE20MIMO_Ant1_2412



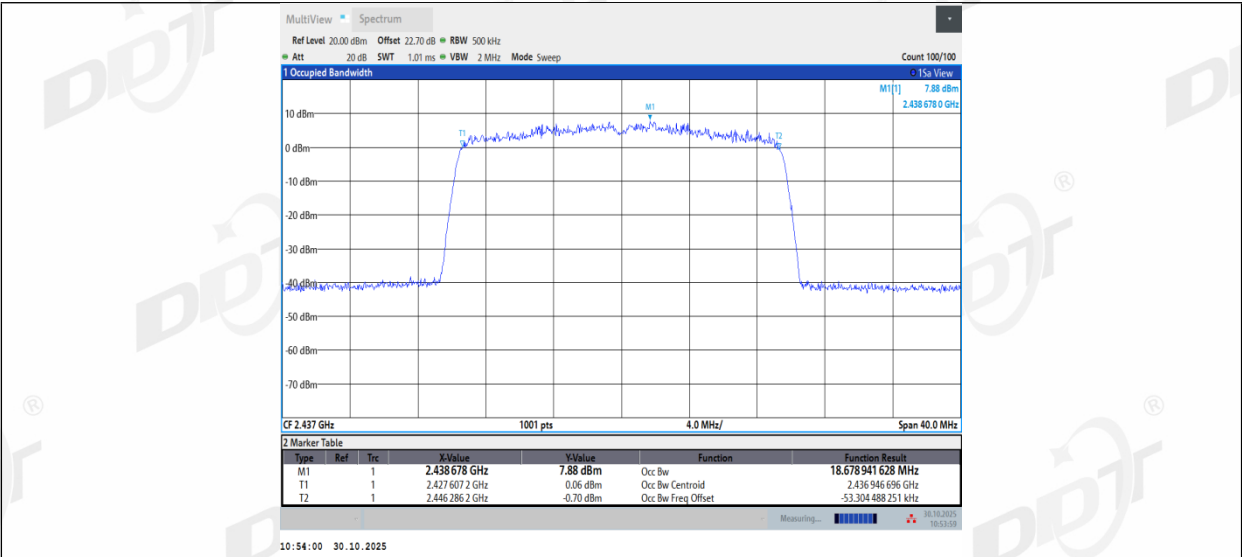
11BE20MIMO_Ant2_2412



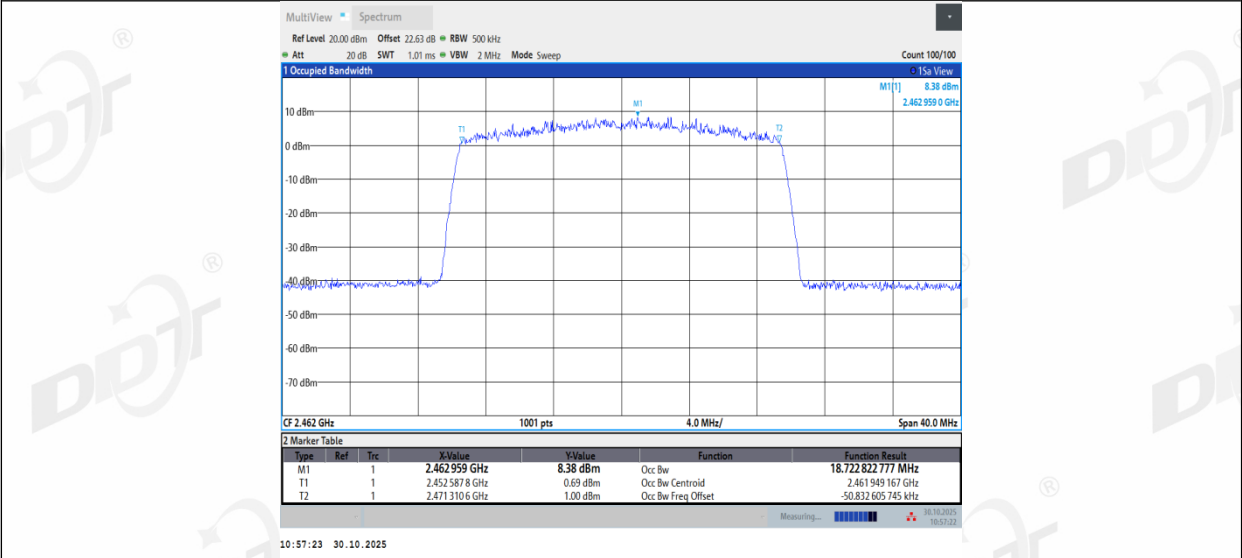
11BE20MIMO_Ant1_2437



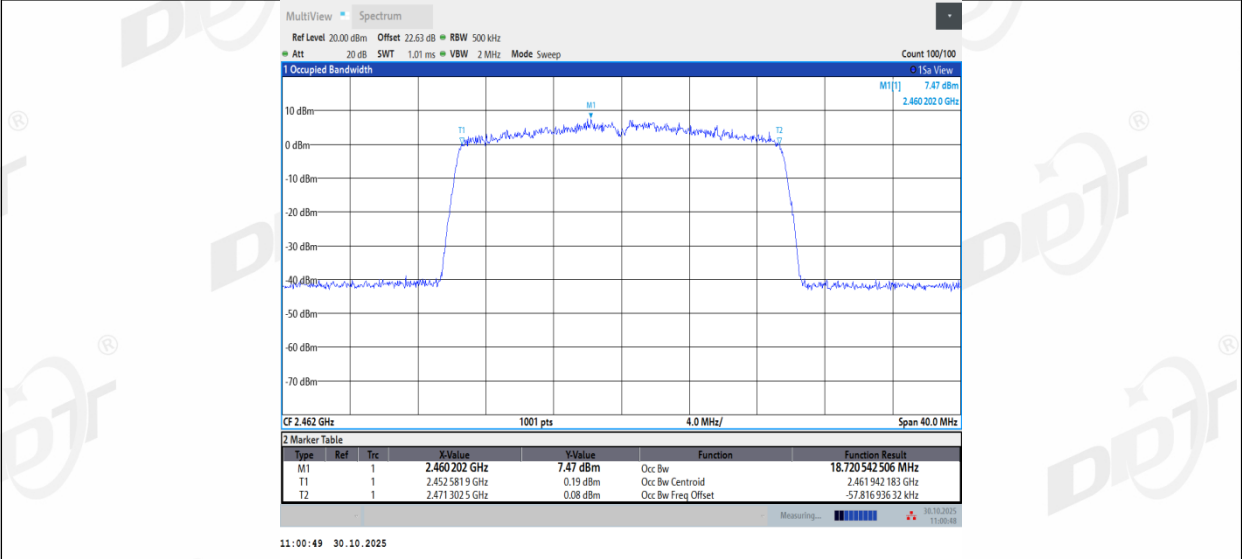
11BE20MIMO_Ant2_2437



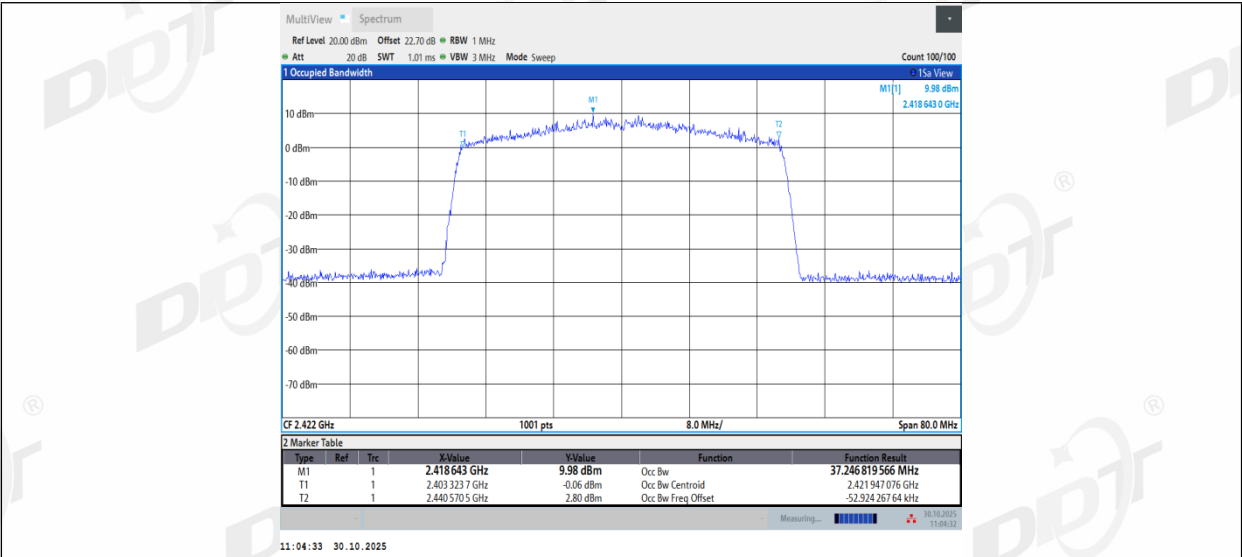
11BE20MIMO_Ant1_2462



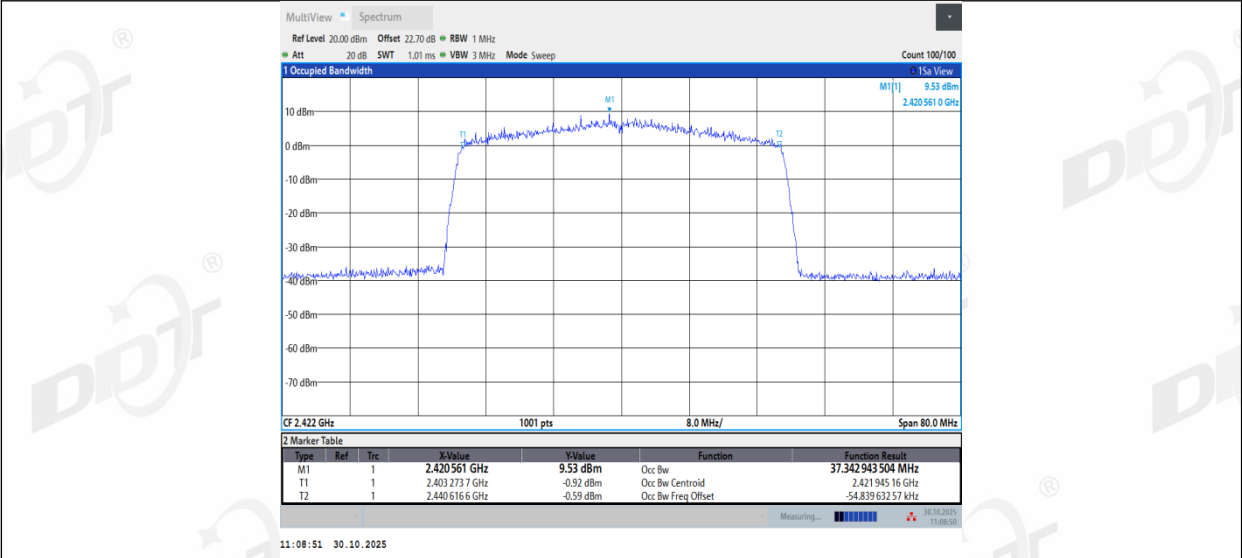
11BE20MIMO_Ant2_2462



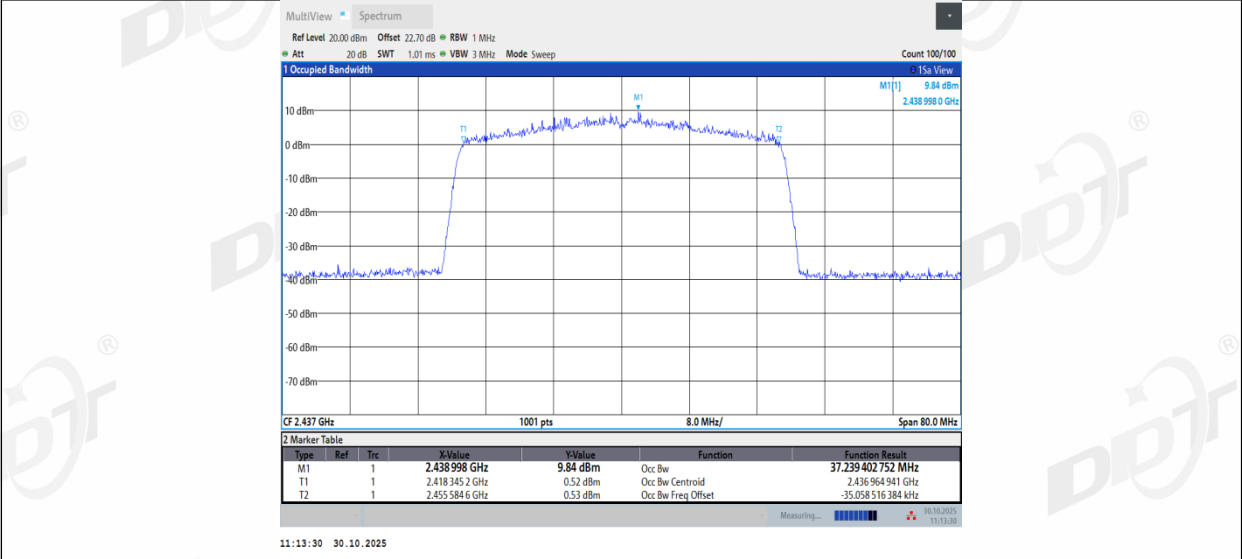
11BE40MIMO_Ant1_2422



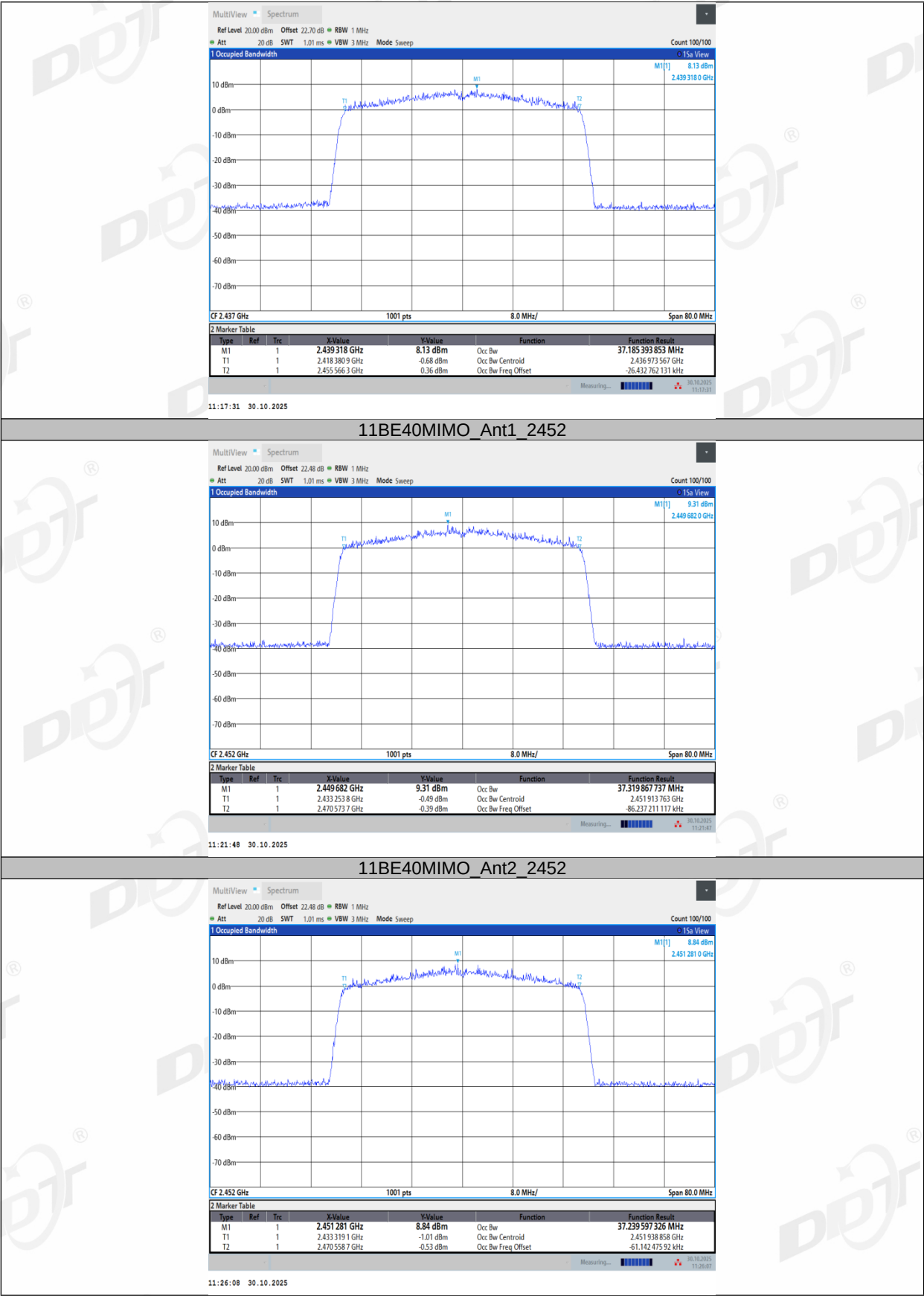
11BE40MIMO_Ant2_2422



11BE40MIMO_Ant1_2437

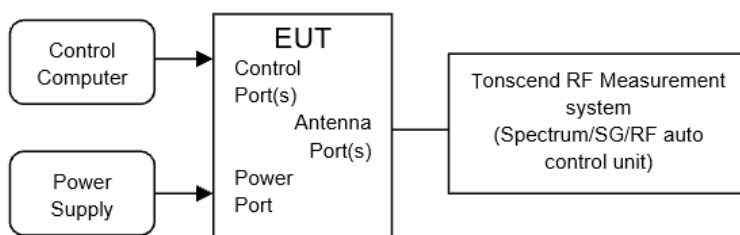


11BE40MIMO_Ant2_2437



6. Conducted Output Power

6.1. Block diagram of test setup



6.2. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3. Test procedure

- (1) The test according to ANSI C63.10 clause 11.9.2.3.
- (2) Connect EUT's antenna output to RF power meter by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously, If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal.
- (4) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- (5) Adjust the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.
- (6) Record the RF average power of each antenna port.

6.4. Test result average

Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.8-26.9℃,41.2-45.6%RH	Test Date:	2025.10.30-2025.11.06
Test Power Supply:	AC 120V/60Hz	Sample Number:	S25082524-001

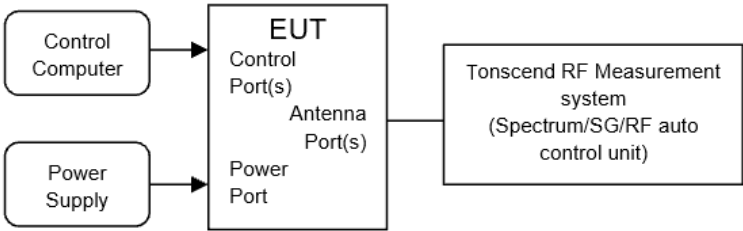
Test Mode	Antenna	Frequency [MHz]	Average power [dBm]	Duty Cycle [%]	DC Factor [dB]	Result [dBm]	Limit [dBm]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
11B	Ant1	2412	15.50	99.17	0.04	15.54	≤30.00	18.92	≤36.00	PASS
	Ant2	2412	15.19	98.94	0.05	15.24	≤30.00	18.86	≤36.00	PASS
	Ant1	2437	15.19	99.17	0.04	15.23	≤30.00	18.61	≤36.00	PASS
	Ant2	2437	14.59	99.29	0.03	14.62	≤30.00	18.24	≤36.00	PASS
	Ant1	2462	14.74	99.05	0.04	14.78	≤30.00	18.16	≤36.00	PASS
	Ant2	2462	13.95	98.94	0.05	14.00	≤30.00	17.62	≤36.00	PASS
11G	Ant1	2412	15.15	95.86	0.18	15.33	≤30.00	18.71	≤36.00	PASS
	Ant2	2412	14.88	95.86	0.18	15.06	≤30.00	18.68	≤36.00	PASS
	Ant1	2437	14.89	95.86	0.18	15.07	≤30.00	18.45	≤36.00	PASS
	Ant2	2437	14.47	95.86	0.18	14.65	≤30.00	18.27	≤36.00	PASS
	Ant1	2462	14.46	95.86	0.18	14.64	≤30.00	18.02	≤36.00	PASS
	Ant2	2462	13.88	95.21	0.21	14.09	≤30.00	17.71	≤36.00	PASS
11N20MI MO	Ant1	2412	14.29	91.78	0.37	14.66	≤30.00	18.04	≤36.00	PASS
	Ant2	2412	13.96	90.54	0.43	14.39	≤30.00	18.01	≤36.00	PASS
	total	2412	---	---	---	17.54	≤30.00	21.16	≤36.00	PASS
	Ant1	2437	13.93	91.78	0.37	14.30	≤30.00	17.68	≤36.00	PASS
	Ant2	2437	13.44	91.78	0.37	13.81	≤30.00	17.43	≤36.00	PASS
	total	2437	---	---	---	17.07	≤30.00	20.69	≤36.00	PASS
	Ant1	2462	13.34	90.54	0.43	13.77	≤30.00	17.15	≤36.00	PASS
	Ant2	2462	12.63	90.54	0.43	13.06	≤30.00	16.68	≤36.00	PASS
11N40MI MO	total	2462	---	---	---	16.44	≤30.00	20.06	≤36.00	PASS
	Ant1	2422	12.30	82.93	0.81	13.11	≤30.00	16.49	≤36.00	PASS
	Ant2	2422	11.97	82.93	0.81	12.78	≤30.00	16.4	≤36.00	PASS
	total	2422	---	---	---	15.96	≤30.00	19.58	≤36.00	PASS
	Ant1	2437	12.01	82.93	0.81	12.82	≤30.00	16.2	≤36.00	PASS
	Ant2	2437	11.69	82.93	0.81	12.50	≤30.00	16.12	≤36.00	PASS
	total	2437	---	---	---	15.67	≤30.00	19.29	≤36.00	PASS
	Ant1	2452	11.73	82.93	0.81	12.54	≤30.00	15.92	≤36.00	PASS
11AX20 MIMO	Ant2	2452	11.25	82.93	0.81	12.06	≤30.00	15.68	≤36.00	PASS
	total	2452	---	---	---	15.32	≤30.00	18.94	≤36.00	PASS
	Ant1	2412	11.50	74.07	1.30	12.80	≤30.00	16.18	≤36.00	PASS
	Ant2	2412	11.39	74.07	1.30	12.69	≤30.00	16.31	≤36.00	PASS
	total	2412	---	---	---	15.76	≤30.00	19.38	≤36.00	PASS
	Ant1	2437	13.44	74.07	1.30	14.74	≤30.00	18.12	≤36.00	PASS
	Ant2	2437	12.68	74.07	1.30	13.98	≤30.00	17.6	≤36.00	PASS
	total	2437	---	---	---	17.39	≤30.00	21.01	≤36.00	PASS
11AX40 MIMO	Ant1	2462	12.50	74.07	1.30	13.80	≤30.00	17.18	≤36.00	PASS
	Ant2	2462	11.65	74.07	1.30	12.95	≤30.00	16.57	≤36.00	PASS
	total	2462	---	---	---	16.41	≤30.00	20.03	≤36.00	PASS
	Ant1	2422	12.60	74.07	1.30	13.90	≤30.00	17.28	≤36.00	PASS
	Ant2	2422	11.87	74.07	1.30	13.17	≤30.00	16.79	≤36.00	PASS
	total	2422	---	---	---	16.56	≤30.00	20.18	≤36.00	PASS
	Ant1	2437	12.05	74.07	1.30	13.35	≤30.00	16.73	≤36.00	PASS
	Ant2	2437	11.40	74.07	1.30	12.70	≤30.00	16.32	≤36.00	PASS
11BE20 MIMO	total	2437	---	---	---	16.05	≤30.00	19.67	≤36.00	PASS
	Ant1	2452	11.60	74.07	1.30	12.90	≤30.00	16.28	≤36.00	PASS
	Ant2	2452	10.85	74.07	1.30	12.15	≤30.00	15.77	≤36.00	PASS
	total	2452	---	---	---	15.55	≤30.00	19.17	≤36.00	PASS
	Ant1	2412	12.28	75.00	1.25	13.53	≤30.00	16.91	≤36.00	PASS
	Ant2	2412	11.79	75.00	1.25	13.04	≤30.00	16.66	≤36.00	PASS
11BE20 MIMO	total	2412	---	---	---	16.30	≤30.00	19.92	≤36.00	PASS
	Ant1	2437	11.05	74.07	1.30	12.35	≤30.00	15.73	≤36.00	PASS
	Ant2	2437	10.50	77.78	1.09	11.59	≤30.00	15.21	≤36.00	PASS
	total	2437	---	---	---	15.00	≤30.00	18.62	≤36.00	PASS

11BE40 MIMO	Ant1	2462	10.49	77.78	1.09	11.58	≤30.00	14.96	≤36.00	PASS
	Ant2	2462	9.82	77.78	1.09	10.91	≤30.00	14.53	≤36.00	PASS
	total	2462	---	---	---	14.27	≤30.00	17.89	≤36.00	PASS
	Ant1	2422	10.77	75.00	1.25	12.02	≤30.00	15.4	≤36.00	PASS
	Ant2	2422	10.35	75.00	1.25	11.60	≤30.00	15.22	≤36.00	PASS
	total	2422	---	---	---	14.83	≤30.00	18.45	≤36.00	PASS
	Ant1	2437	10.49	77.78	1.09	11.58	≤30.00	14.96	≤36.00	PASS
	Ant2	2437	10.05	77.78	1.09	11.14	≤30.00	14.76	≤36.00	PASS
	total	2437	---	---	---	14.38	≤30.00	18	≤36.00	PASS
	Ant1	2452	10.20	75.00	1.25	11.45	≤30.00	14.83	≤36.00	PASS
	Ant2	2452	9.66	75.00	1.25	10.91	≤30.00	14.53	≤36.00	PASS
	total	2452	---	---	---	14.20	≤30.00	17.82	≤36.00	PASS

Note: EIRP (dBm)=Conducted Output Power (dBm)+ Antenna Gain (dBi)

7. Power Spectral Density

7.1. Block diagram of test setup



7.2. Limits

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.3. Test procedure

- (1) The test according to ANSI C63.10 clause 11.10.5.
- (2) Connect EUT’s antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
- (4) Use the following spectrum analyzer settings for Power Spectral Density measurement:

Center frequency	DTS Channel center frequency
RBW:	$3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$
VBW:	$\geq 3\text{RBW}$
Span	1.5 times the DTS bandwidth
Detector Mode:	RMS
Sweep time:	auto
Trace mode	max hold
	Employ trace averaging (rms)
Trace	mode over a minimum of 100 traces.

- (5) Add $[10 \log (1 / D)]$, where D is the duty cycle measured in step a), to the measured PSD to compute the average PSD during the actual transmission time.
- If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.4. Test result

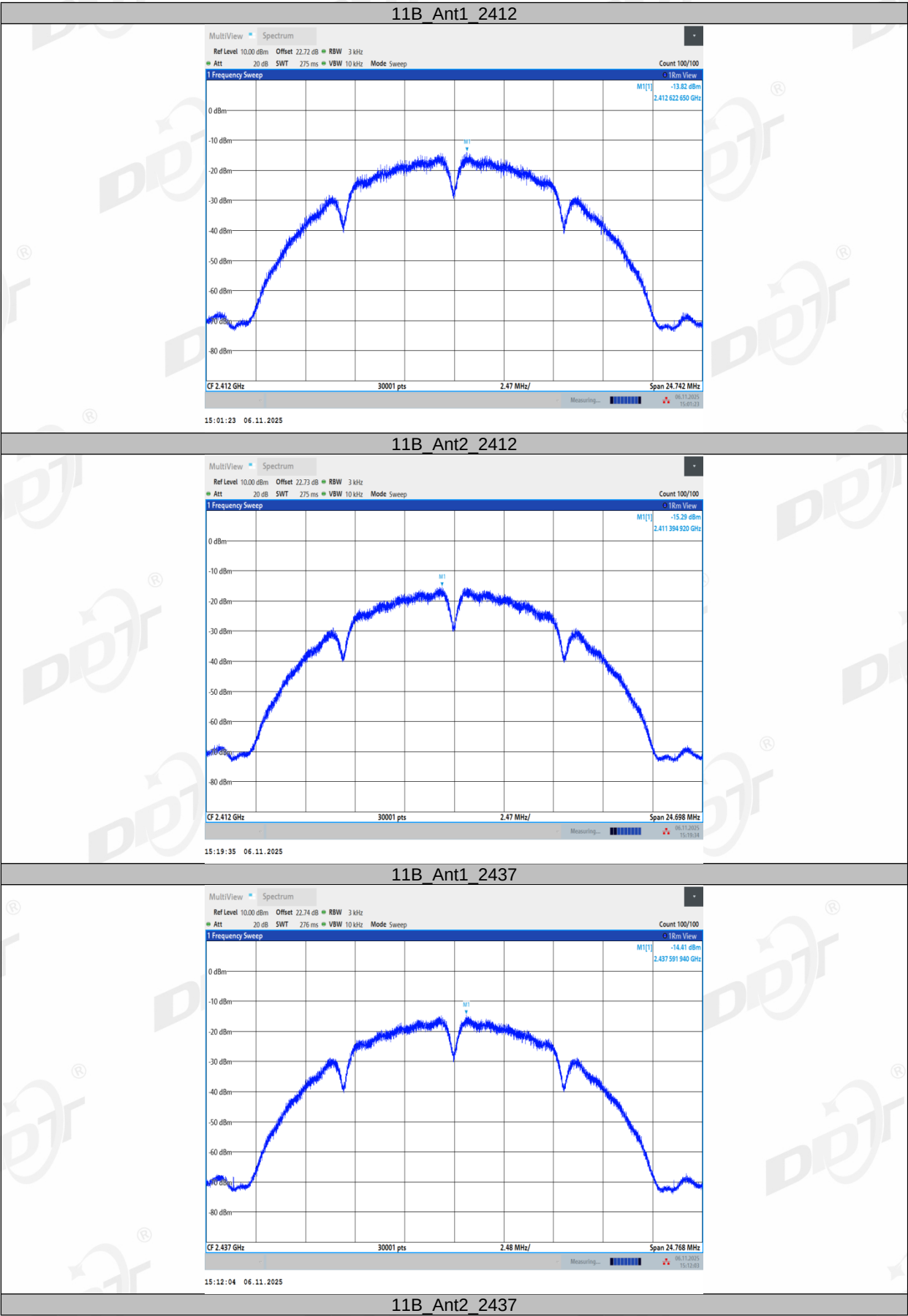
Test Engineer:	Huang Yanwen	Test Site:	RF Measurement system 4#
Ambient Condition:	23.8-26.9℃,41.2-45.6%RH	Test Date:	2025.10.30-2025.11.06
Test Power Supply:	AC 120V/60Hz	Sample Number:	S25082524-001

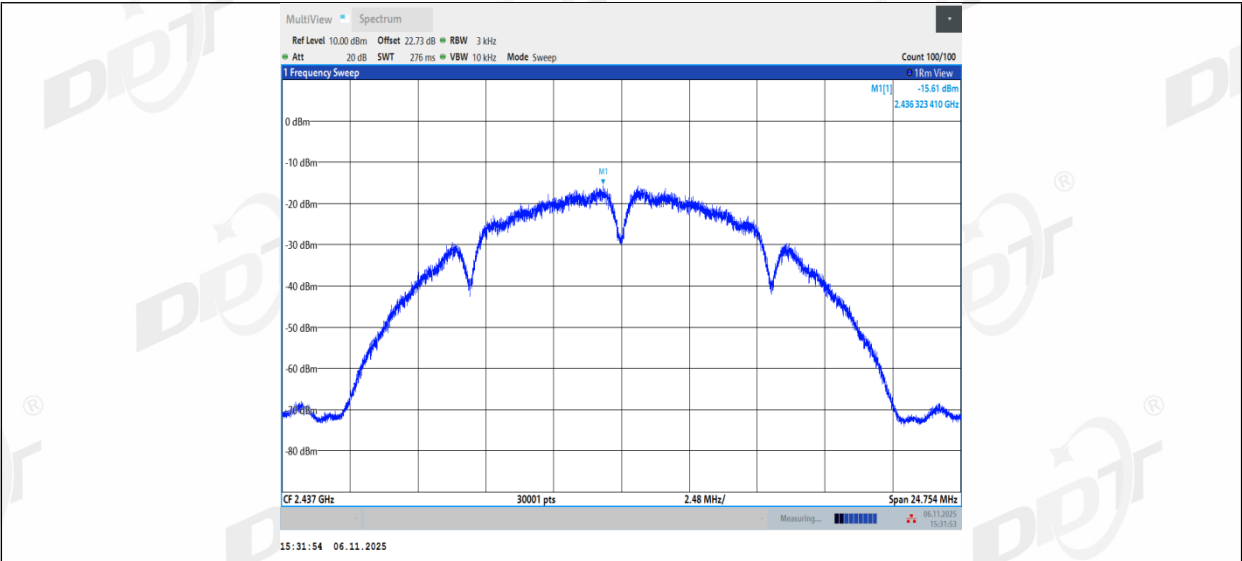
Test Mode	Antenna	Frequency [MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.82	≤8.00	PASS
	Ant2	2412	-15.29	≤8.00	PASS
	Ant1	2437	-14.41	≤8.00	PASS
	Ant2	2437	-15.61	≤8.00	PASS
	Ant1	2462	-15.23	≤8.00	PASS
	Ant2	2462	-15.82	≤8.00	PASS
11G	Ant1	2412	-17.56	≤8.00	PASS
	Ant2	2412	-18.45	≤8.00	PASS
	Ant1	2437	-18.05	≤8.00	PASS
	Ant2	2437	-18.89	≤8.00	PASS
	Ant1	2462	-17.82	≤8.00	PASS
	Ant2	2462	-19.15	≤8.00	PASS
11N20MIMO	Ant1	2412	-17.84	≤8.00	PASS
	Ant2	2412	-18.26	≤8.00	PASS
	total	2412	-15.03	≤8.00	PASS
	Ant1	2437	-17.79	≤8.00	PASS
	Ant2	2437	-18.96	≤8.00	PASS
	total	2437	-15.33	≤8.00	PASS
	Ant1	2462	-17.99	≤8.00	PASS
	Ant2	2462	-18.97	≤8.00	PASS
11N40MIMO	total	2462	-15.44	≤8.00	PASS
	Ant1	2422	-20.15	≤8.00	PASS
	Ant2	2422	-21.02	≤8.00	PASS
	total	2422	-17.55	≤8.00	PASS
	Ant1	2437	-20.46	≤8.00	PASS
	Ant2	2437	-21.39	≤8.00	PASS
	total	2437	-17.89	≤8.00	PASS
	Ant1	2452	-20.76	≤8.00	PASS
11AX20MIMO	Ant2	2452	-21.39	≤8.00	PASS
	total	2452	-18.05	≤8.00	PASS
	Ant1	2412	-17.71	≤8.00	PASS
	Ant2	2412	-17.92	≤8.00	PASS
	total	2412	-14.80	≤8.00	PASS
	Ant1	2437	-15.62	≤8.00	PASS
	Ant2	2437	-16.73	≤8.00	PASS
	total	2437	-13.13	≤8.00	PASS
11AX40MIMO	Ant1	2462	-16.25	≤8.00	PASS
	Ant2	2462	-17.04	≤8.00	PASS
	total	2462	-13.62	≤8.00	PASS
	Ant1	2422	-18.25	≤8.00	PASS
	Ant2	2422	-18.27	≤8.00	PASS
	total	2422	-15.25	≤8.00	PASS
	Ant1	2437	-18.86	≤8.00	PASS
	Ant2	2437	-19.65	≤8.00	PASS
11BE20MIMO	total	2437	-16.23	≤8.00	PASS
	Ant1	2452	-19.03	≤8.00	PASS
	Ant2	2452	-19.59	≤8.00	PASS
	total	2452	-16.29	≤8.00	PASS
	Ant1	2412	-14.95	≤8.00	PASS
	Ant2	2412	-15.58	≤8.00	PASS
11BE20MIMO	total	2412	-12.24	≤8.00	PASS
	Ant1	2437	-15.63	≤8.00	PASS
	Ant2	2437	-17.19	≤8.00	PASS
	total	2437	-13.33	≤8.00	PASS
	Ant1	2462	-16.53	≤8.00	PASS
	Ant2	2462	-16.53	≤8.00	PASS

11BE40MIMO	Ant2	2462	-17.30	≤8.00	PASS
	total	2462	-13.89	≤8.00	PASS
	Ant1	2422	-20.44	≤8.00	PASS
	Ant2	2422	-20.75	≤8.00	PASS
	total	2422	-17.58	≤8.00	PASS
	Ant1	2437	-20.23	≤8.00	PASS
	Ant2	2437	-20.87	≤8.00	PASS
	total	2437	-17.53	≤8.00	PASS
	Ant1	2452	-21.06	≤8.00	PASS
	Ant2	2452	-21.27	≤8.00	PASS
	total	2452	-18.15	≤8.00	PASS

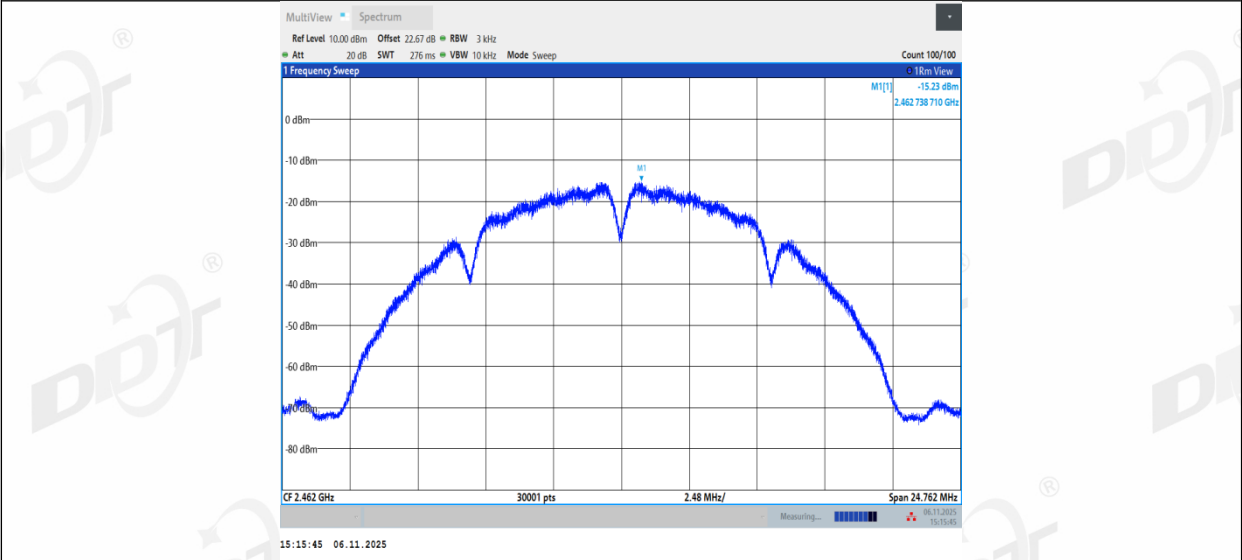
Note: The Duty Cycle Factor is compensated in the graph.

7.5. Test graphs

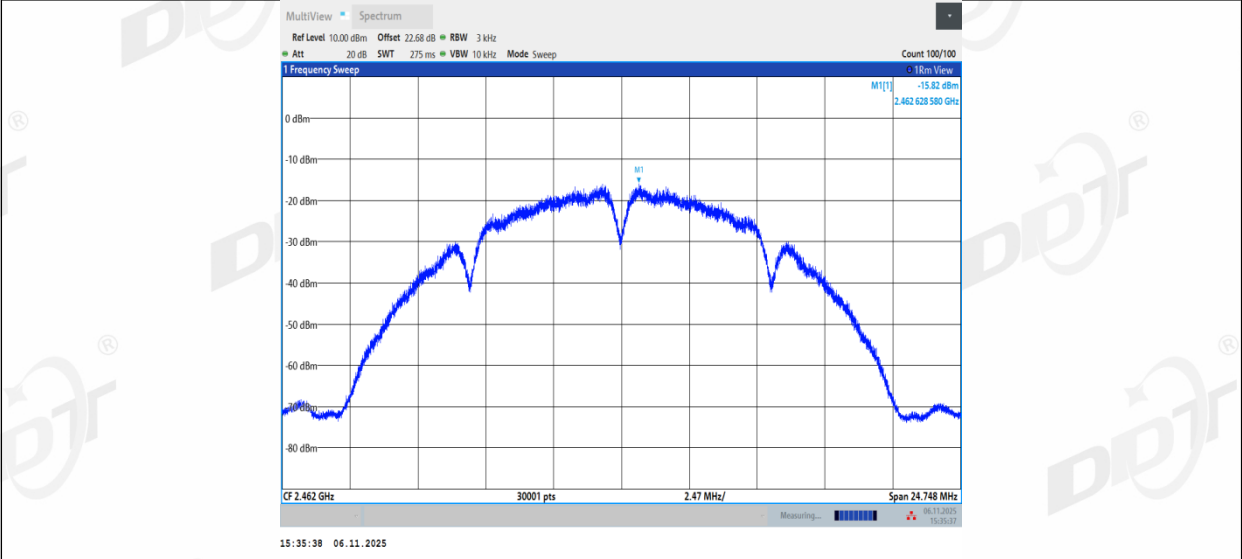




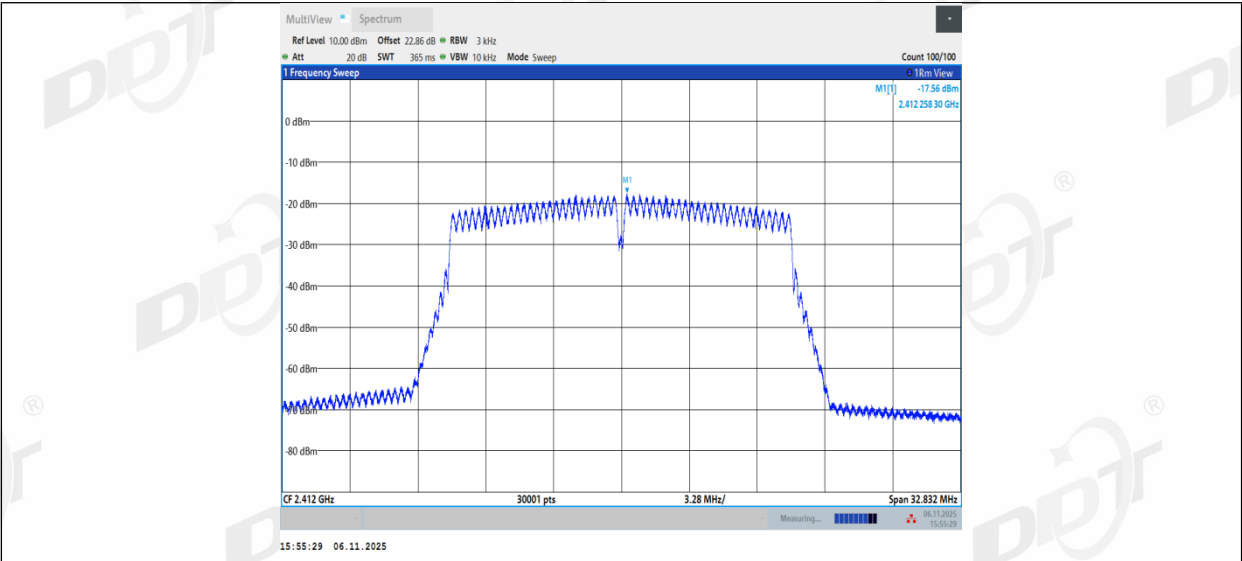
11B_Ant1_2462



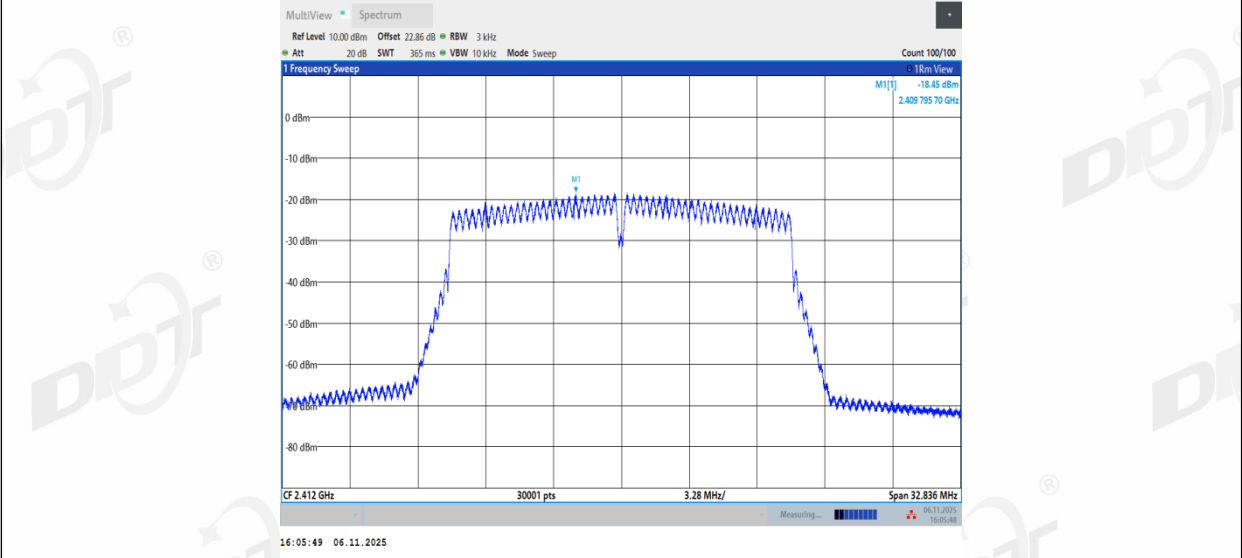
11B_Ant2_2462



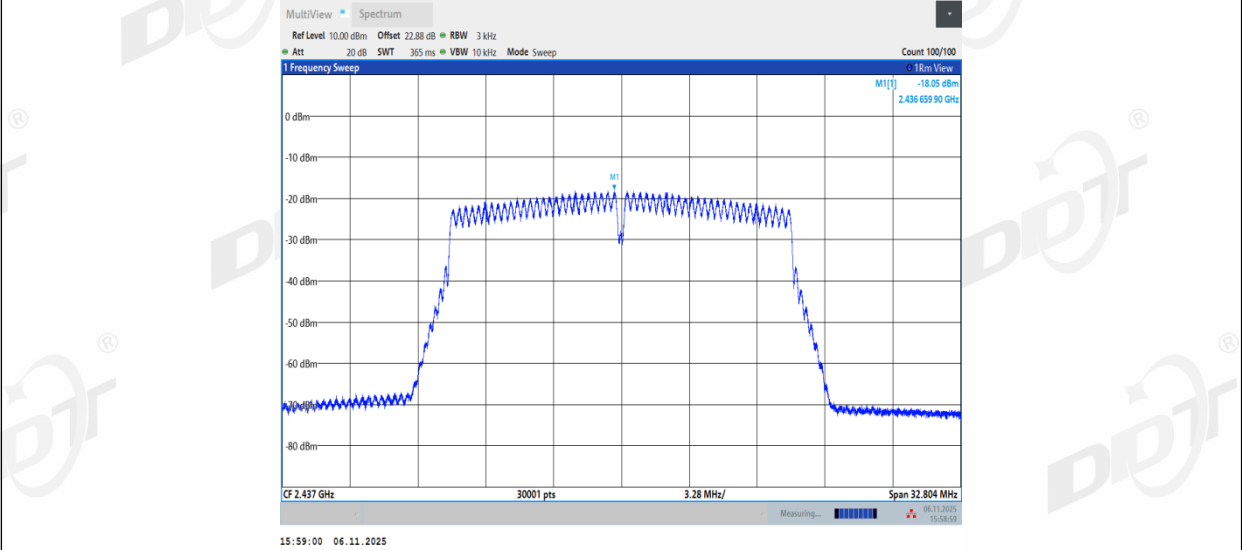
11G_Ant1_2412



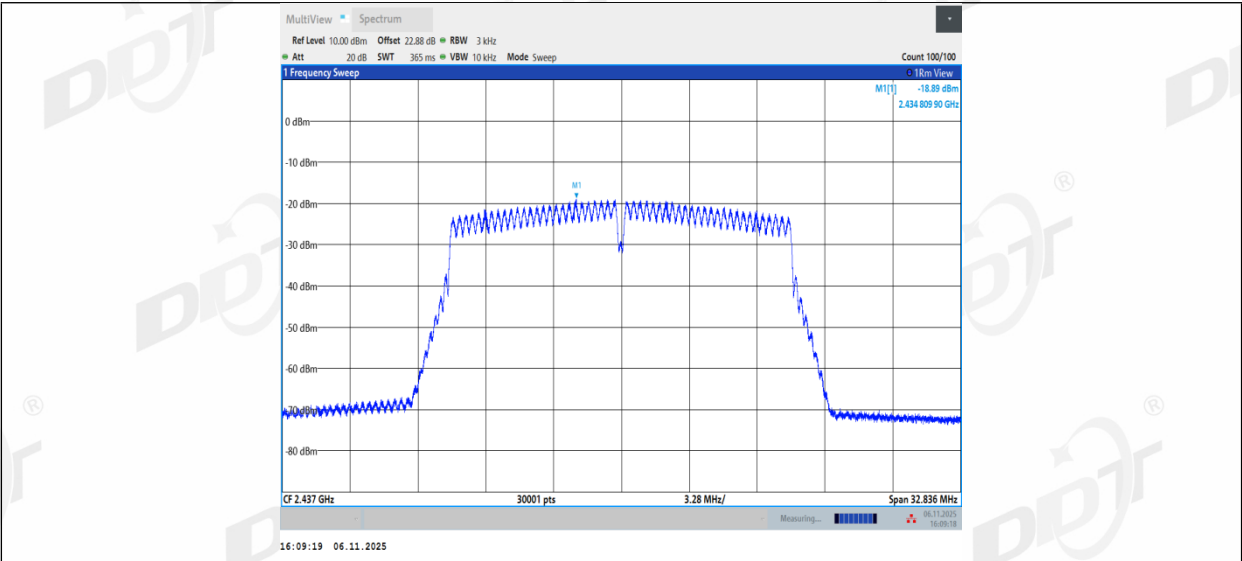
11G_Ant2_2412



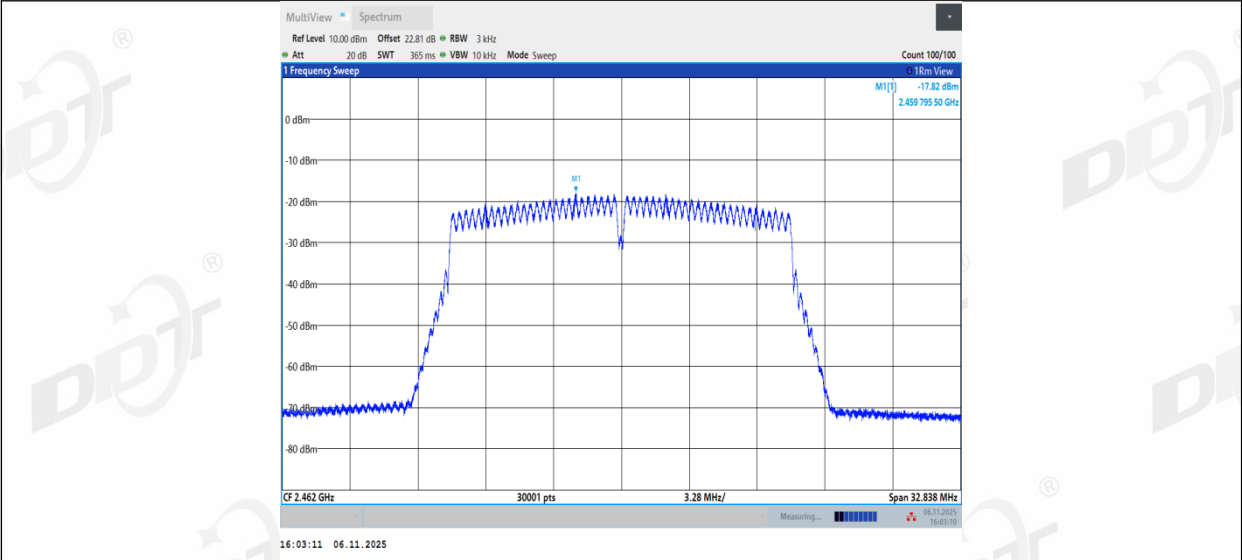
11G_Ant1_2437



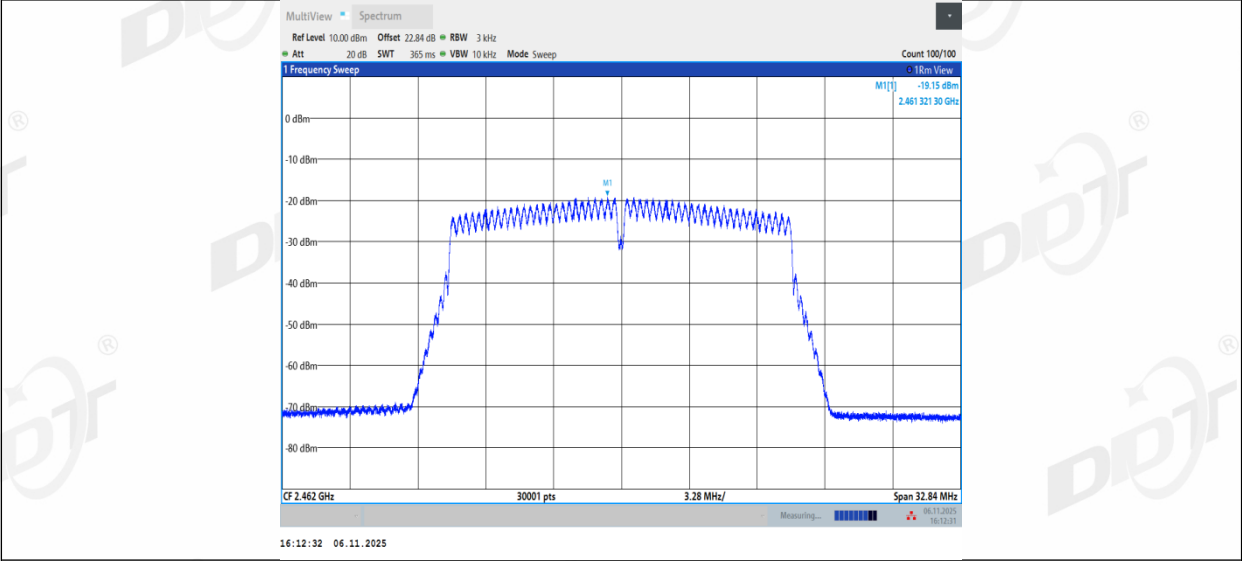
11G_Ant2_2437



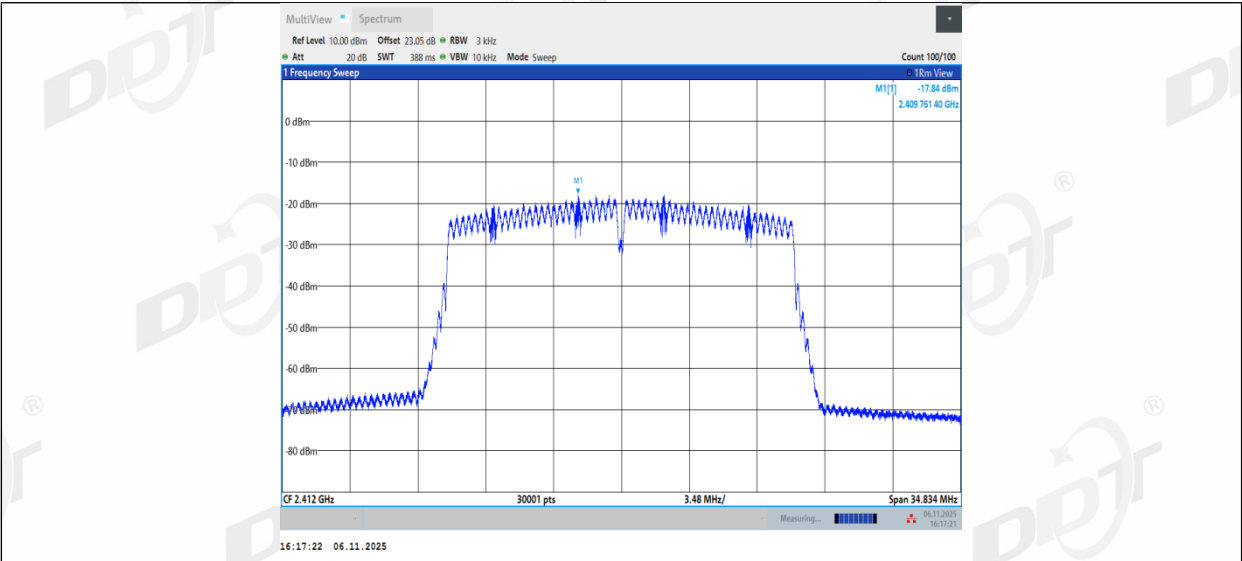
11G_Ant1_2462



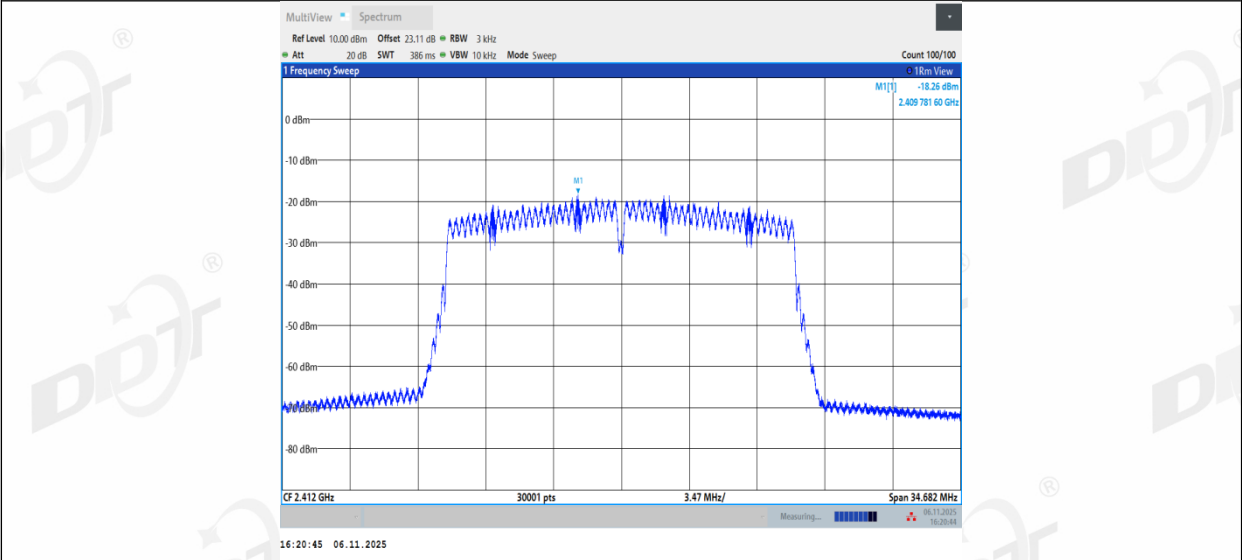
11G_Ant2_2462



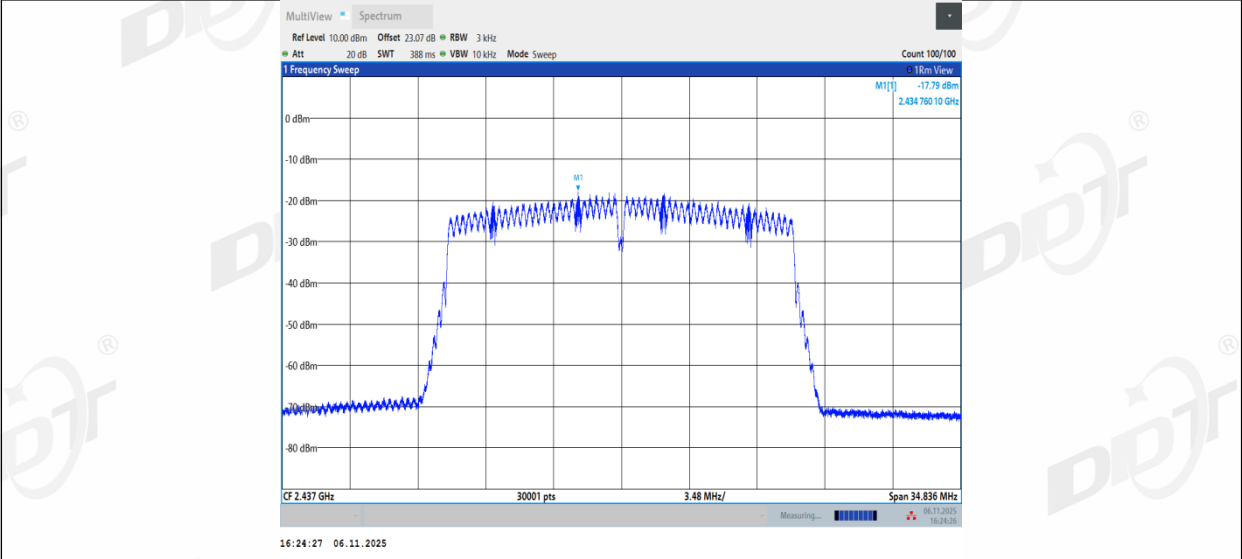
11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437

