

RF Test Data for 5G Wi-Fi (Conducted Measurements)

General Description of EUT	
EUT Name:	Wireless extender
Model:	DT263W-A
Sample ID:	HC-C-202410-0122-01-02#
Test Standard:	FCC Part 15.407
Environmental Conditions	
Ambient Temperature:	24.8℃
Ambient Humidity:	47%RH
Test Power Supply:	DC 5V
Test Engineer:	ZKN Zhou
Note: For a more detailed features description, please refer to the report TBR-C-202410-0122-8	

Contents

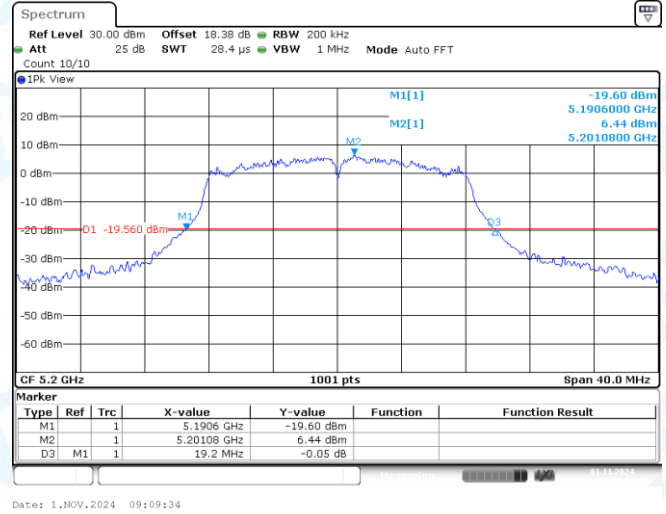
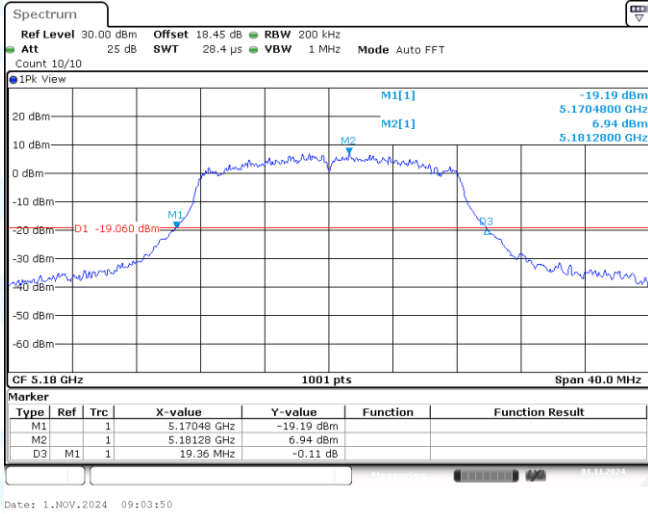
1: Emission Bandwidth	3
1.1 Test Result	3
1.2 Test Graphs	4
2: Occupied channel bandwidth	5
2.1 Test Result	5
2.2 Test Graphs	6
3: Duty Cycle	7
3.1 Test Result	7
3.2 Test Graphs	8
4: Maximum conducted output power	9
4.1 Test Result	9
5: Maximum power spectral density	10
5.1 Test Result	10
5.2 Test Graphs	11
6: Band edge measurements	12
6.1 Test Result B1/2/3	12
6.2 Test Graphs B1/2/3	12
7: Conducted Spurious Emission	13
7.1 Test Result	13
7.2 Test Graphs	14
8: Frequency Stability	16
8.1 Test Result	16
9: Emissions in Restricted Bands	18
9.1 Test Result	18
9.2 Test Graphs	19

1: Emission Bandwidth

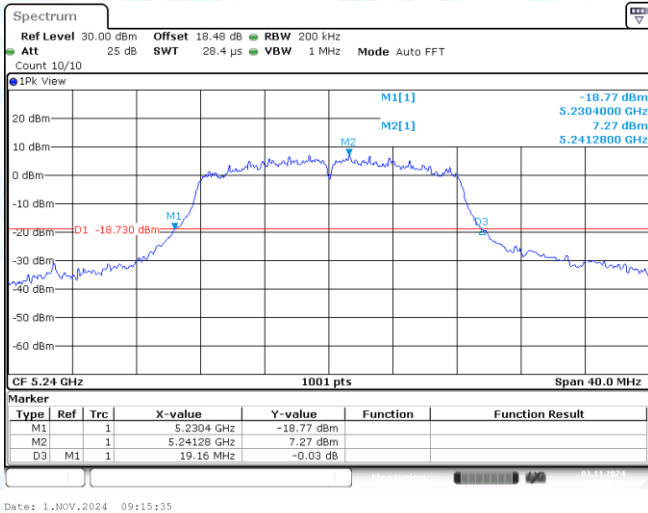
1.1 Test Result

TestMode	Antenna	Frequency[MHz]	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.36	5170.48	5189.84	---	---
11A	Ant1	5200	19.20	5190.60	5209.80	---	---
11A	Ant1	5240	19.16	5230.40	5249.56	---	---
11N20SISO	Ant1	5180	20.28	5169.88	5190.16	---	---
11N20SISO	Ant1	5200	19.56	5190.32	5209.88	---	---
11N20SISO	Ant1	5240	19.92	5230.20	5250.12	---	---

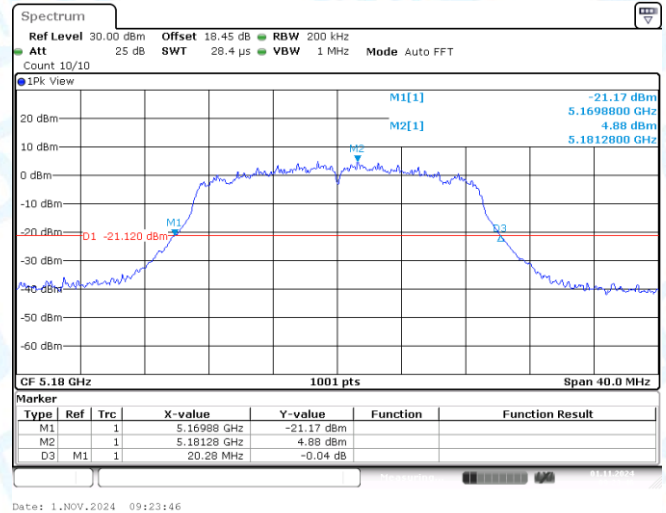
1.2 Test Graphs



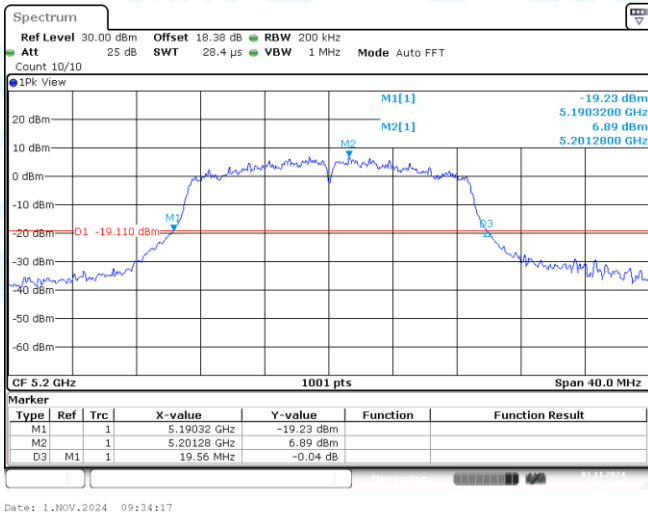
11A-Ant1-5180



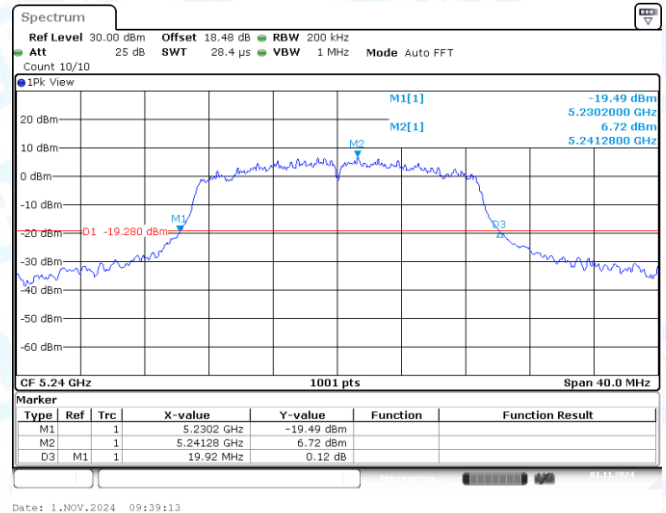
11A-Ant1-5200



11A-Ant1-5240



11N20SISO-Ant1-5180



11N20SISO-Ant1-5200

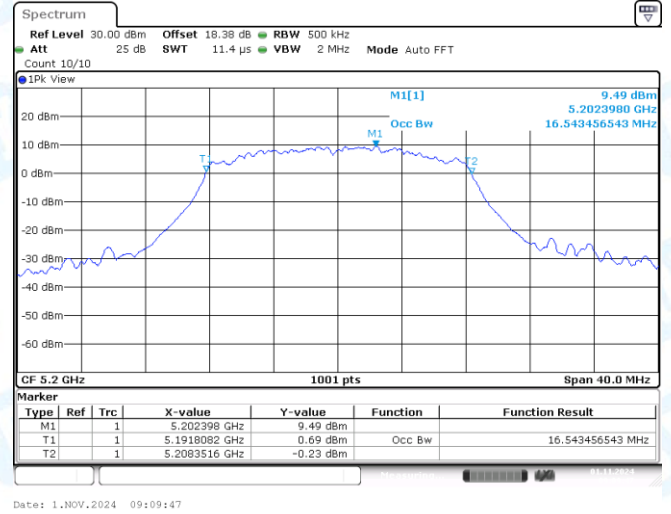
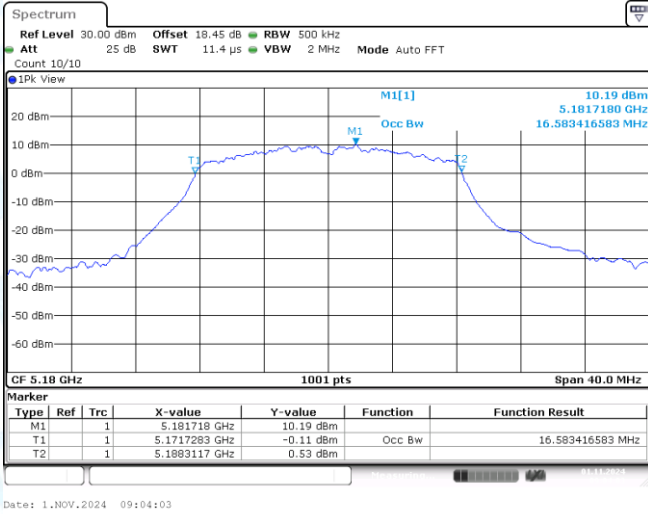
11N20SISO-Ant1-5240

2: Occupied channel bandwidth

2.1 Test Result

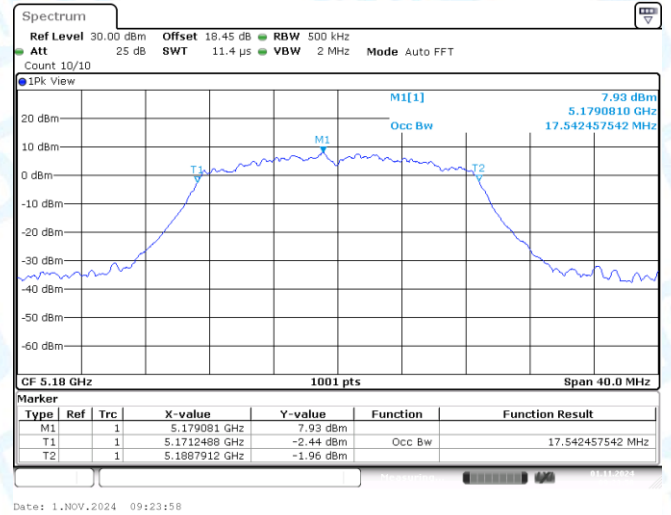
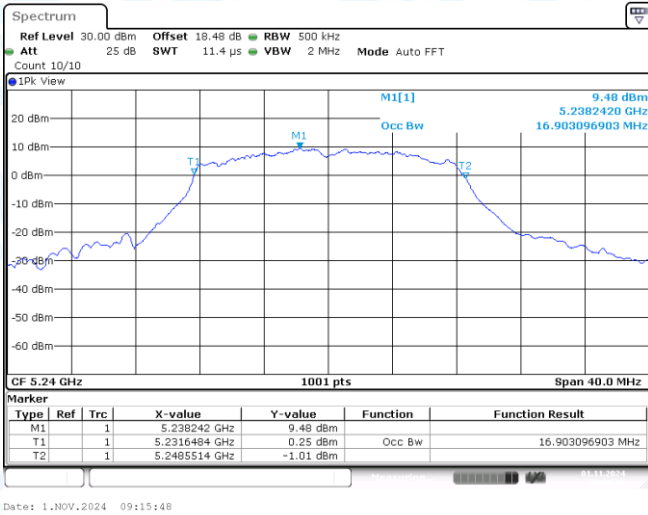
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.583	5171.7283	5188.3117	---	---
11A	Ant1	5200	16.543	5191.8082	5208.3516	---	---
11A	Ant1	5240	16.903	5231.6484	5248.5514	---	---
11N20SISO	Ant1	5180	17.542	5171.2488	5188.7912	---	---
11N20SISO	Ant1	5200	17.702	5191.2488	5208.9510	---	---
11N20SISO	Ant1	5240	17.742	5231.2088	5248.9510	---	---

2.2 Test Graphs



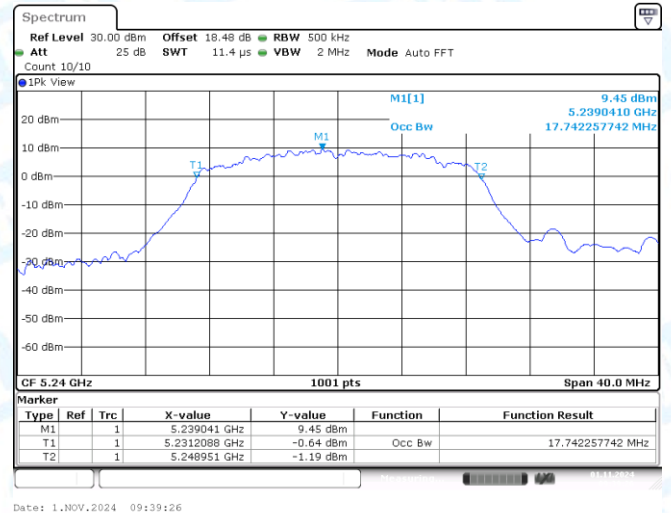
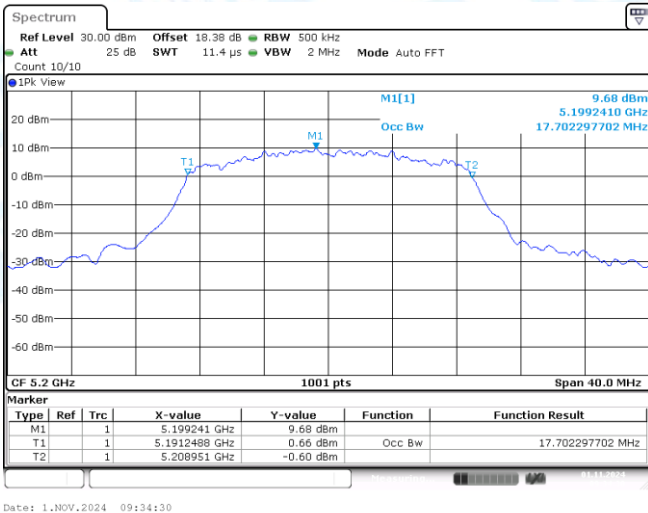
11A-Ant1-5180

11A-Ant1-5200



11A-Ant1-5240

11N20SISO-Ant1-5180



11N20SISO-Ant1-5200

11N20SISO-Ant1-5240

3: Duty Cycle

3.1 Test Result

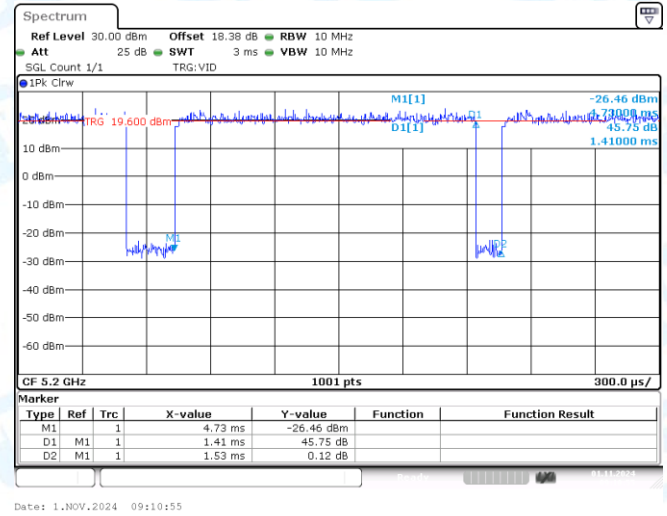
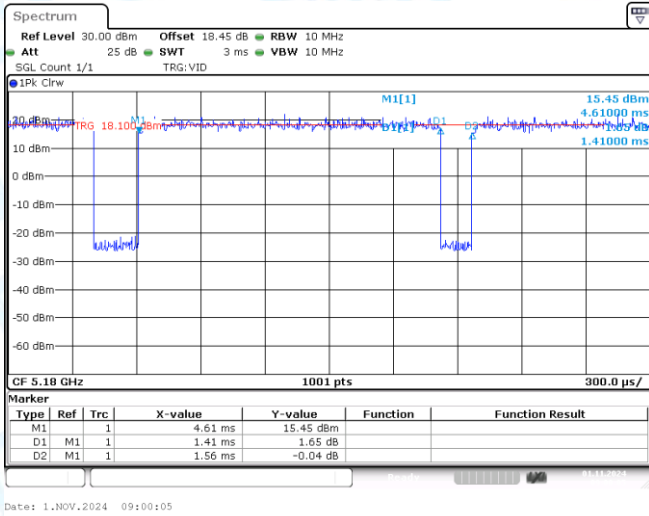
TestMode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factory	1/T [kHz]
11A	Ant1	5180	1.41	1.56	90.38	0.44	0.71
11A	Ant1	5200	1.41	1.53	92.16	0.35	0.71
11A	Ant1	5240	1.41	1.62	87.04	0.60	0.71
11N20SISO	Ant1	5180	1.32	1.45	91.03	0.41	0.76
11N20SISO	Ant1	5200	1.32	1.45	91.03	0.41	0.76
11N20SISO	Ant1	5240	1.32	1.55	85.16	0.70	0.76

Note: 1, Duty Cycle= Transmission Duration/ Transmission Period

2, DC Factory=10*Log₁₀(1/Duty Cycle)

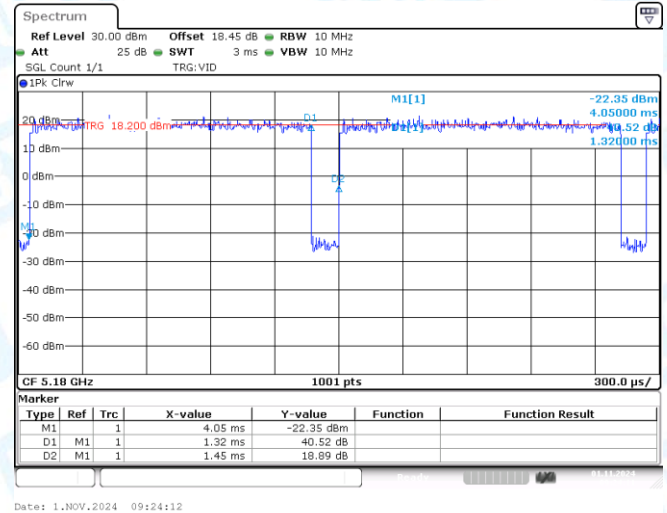
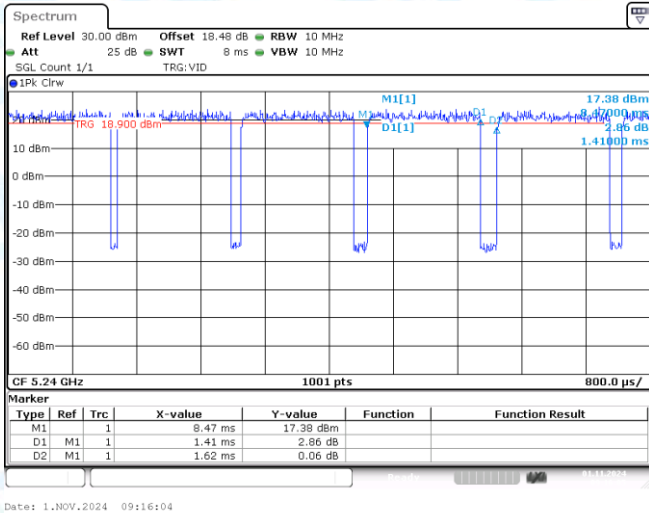
3, 1/T=1/ Transmission Duration

3.2 Test Graphs



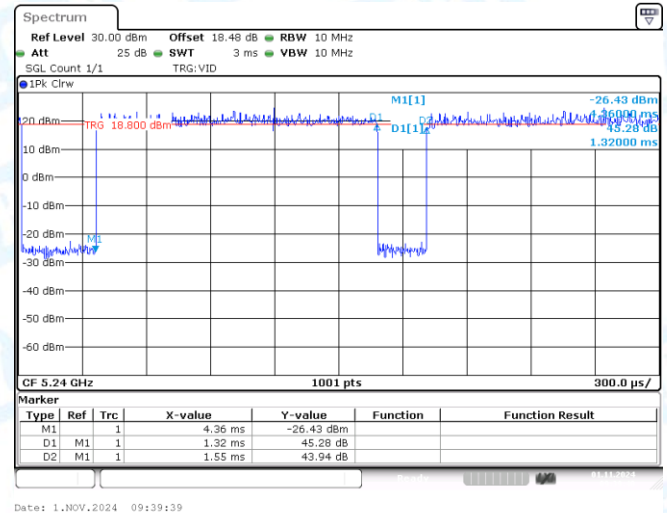
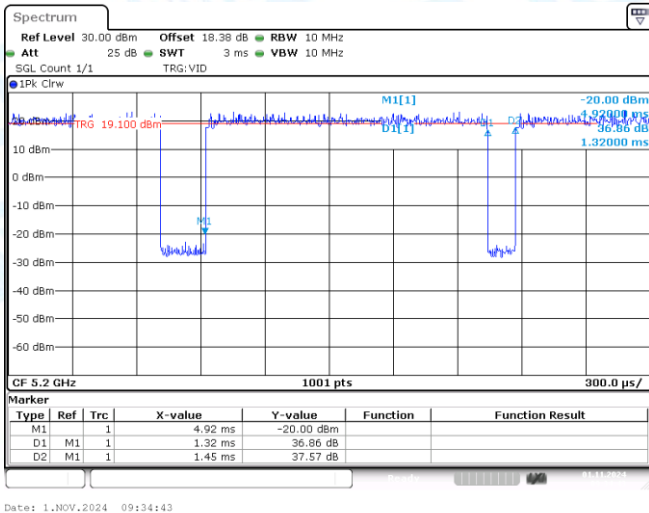
NTNV-11A-Ant1-5180

NTNV-11A-Ant1-5200



NTNV-11A-Ant1-5240

NTNV-11N20SISO-Ant1-5180



NTNV-11N20SISO-Ant1-5200

NTNV-11N20SISO-Ant1-5240

4: Maximum conducted output power

4.1 Test Result

TestMode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	14.67	≤30.00	PASS
11A	Ant1	5200	14.39	≤30.00	PASS
11A	Ant1	5240	14.98	≤30.00	PASS
11N20SISO	Ant1	5180	14.44	≤30.00	PASS
11N20SISO	Ant1	5200	14.20	≤30.00	PASS
11N20SISO	Ant1	5240	14.63	≤30.00	PASS

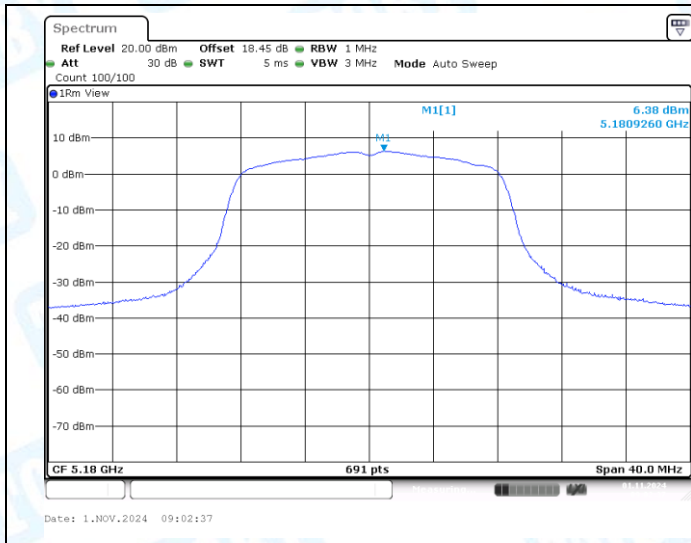
5: Maximum power spectral density

5.1 Test Result

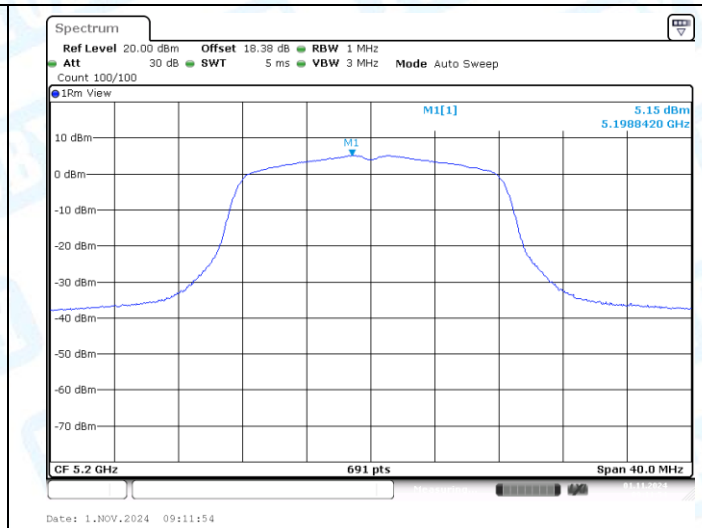
Test Mode	Ant.	Frequency [MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	6.82	≤17.00	PASS
11A	Ant1	5200	5.50	≤17.00	PASS
11A	Ant1	5240	5.69	≤17.00	PASS
11N20SISO	Ant1	5180	5.22	≤17.00	PASS
11N20SISO	Ant1	5200	5.14	≤17.00	PASS
11N20SISO	Ant1	5240	5.53	≤17.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

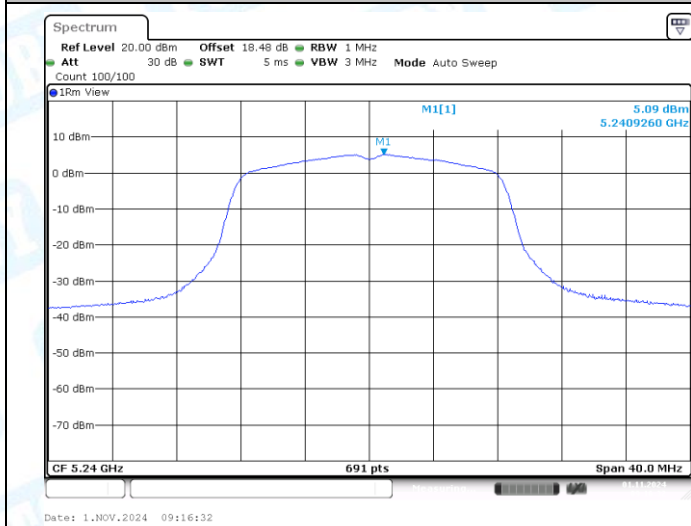
5.2 Test Graphs



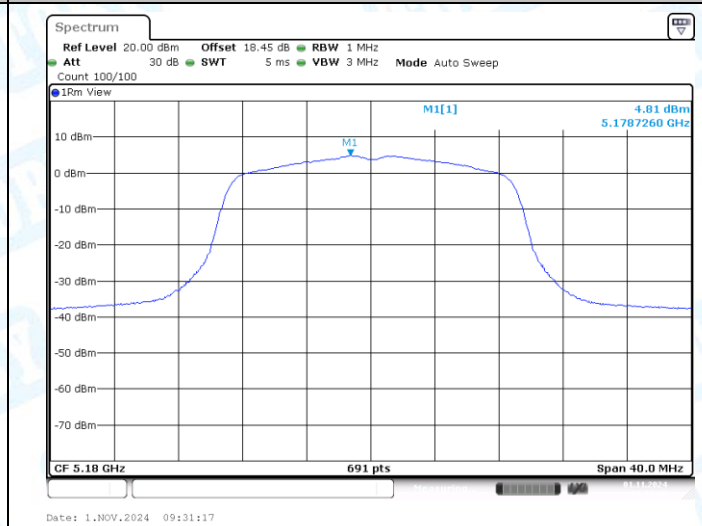
11A-Ant1-5180-PASS



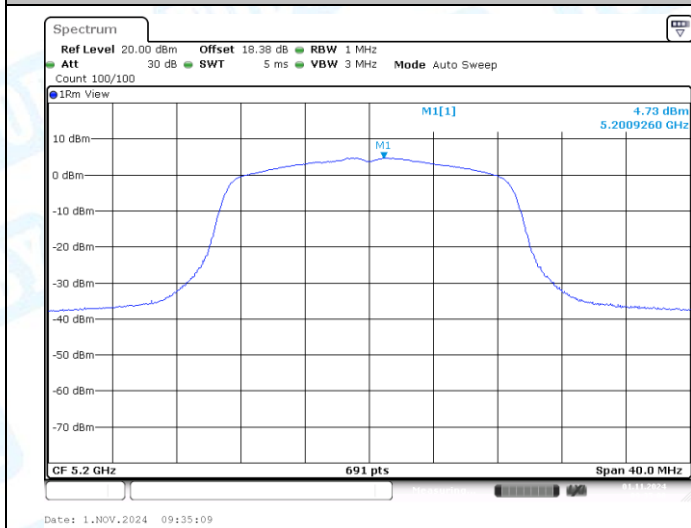
11A-Ant1-5200-PASS



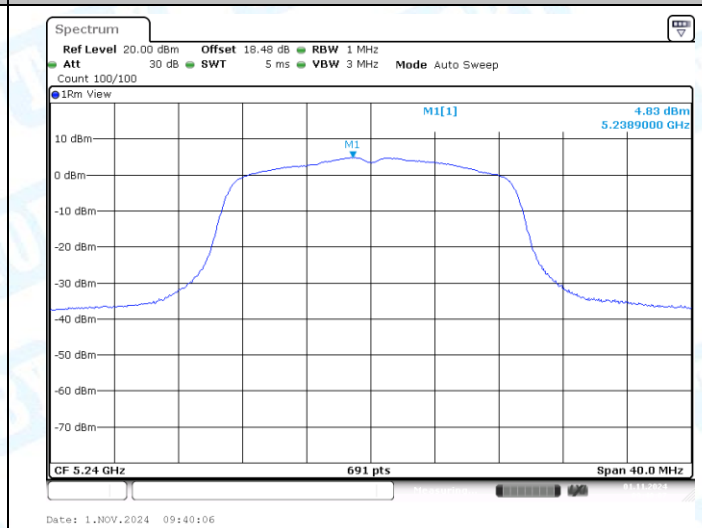
11A-Ant1-5240-PASS



11N20SISO-Ant1-5180-PASS



11N20SISO-Ant1-5200-PASS



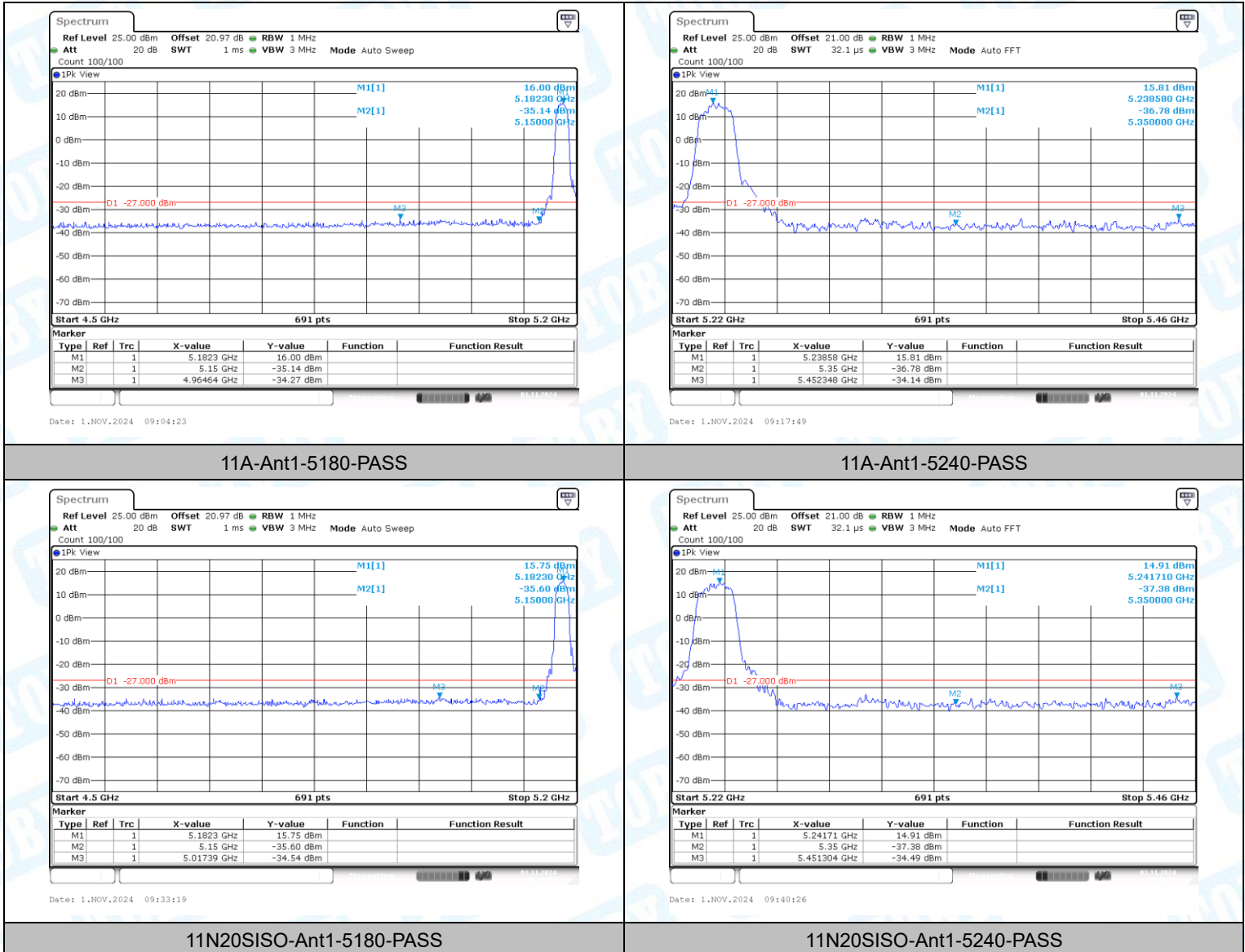
11N20SISO-Ant1-5240-PASS

6: Band edge measurements

6.1 Test Result B1/2/3

TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-34.27	≤-27	PASS
11A	Ant1	High	5240	-34.14	≤-27	PASS
11N20SISO	Ant1	Low	5180	-34.54	≤-27	PASS
11N20SISO	Ant1	High	5240	-34.49	≤-27	PASS

6.2 Test Graphs B1/2/3

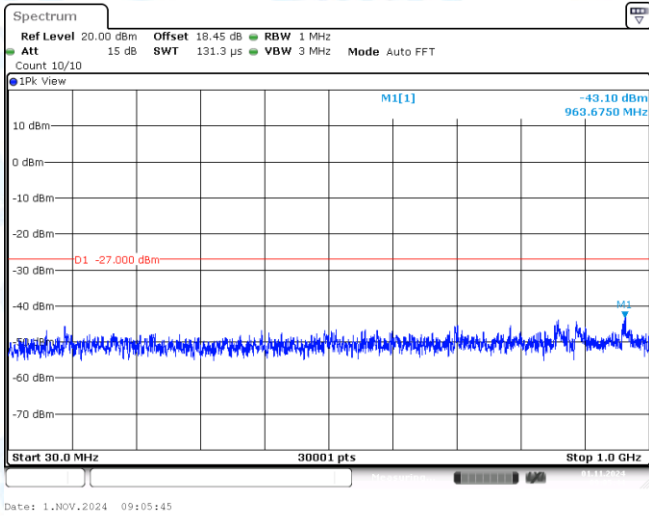


7: Conducted Spurious Emission

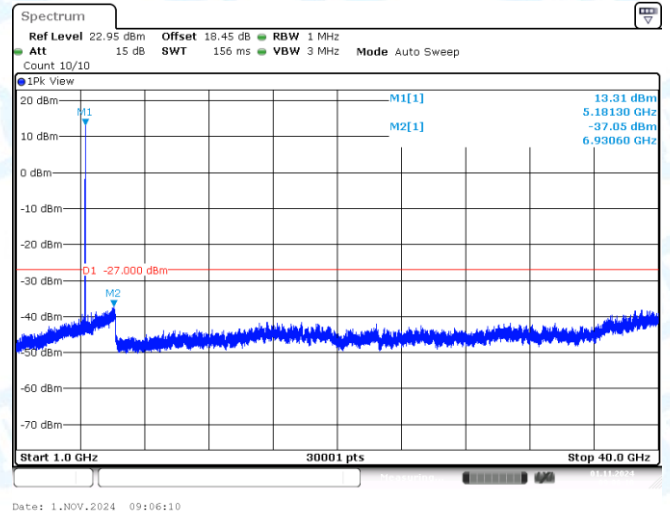
7.1 Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~1000	963.68	-43.1	≤-27	PASS
11A	Ant1	5180	1000~40000	6930.6	-37.05	≤-27	PASS
11A	Ant1	5200	30~1000	867.81	-43.8	≤-27	PASS
11A	Ant1	5200	1000~40000	6948.8	-37.43	≤-27	PASS
11A	Ant1	5240	30~1000	888.08	-43.57	≤-27	PASS
11A	Ant1	5240	1000~40000	6950.1	-37.27	≤-27	PASS
11N20SISO	Ant1	5180	30~1000	890.41	-44.23	≤-27	PASS
11N20SISO	Ant1	5180	1000~40000	6931.9	-37.17	≤-27	PASS
11N20SISO	Ant1	5200	30~1000	888.11	-44.4	≤-27	PASS
11N20SISO	Ant1	5200	1000~40000	6994.3	-37.58	≤-27	PASS
11N20SISO	Ant1	5240	30~1000	888.76	-43.63	≤-27	PASS
11N20SISO	Ant1	5240	1000~40000	6811	-36.72	≤-27	PASS

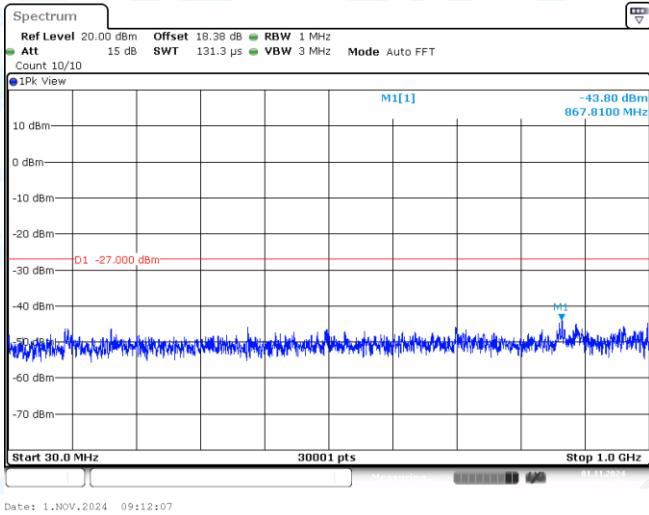
7.2 Test Graphs



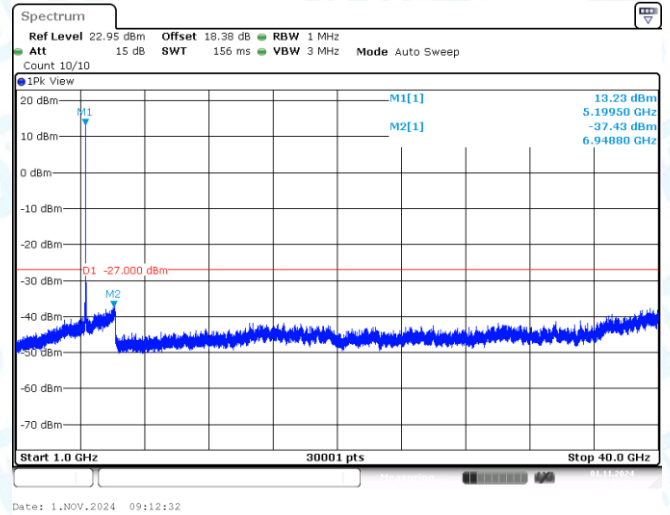
11A-Ant1-5180-30~1000-PASS



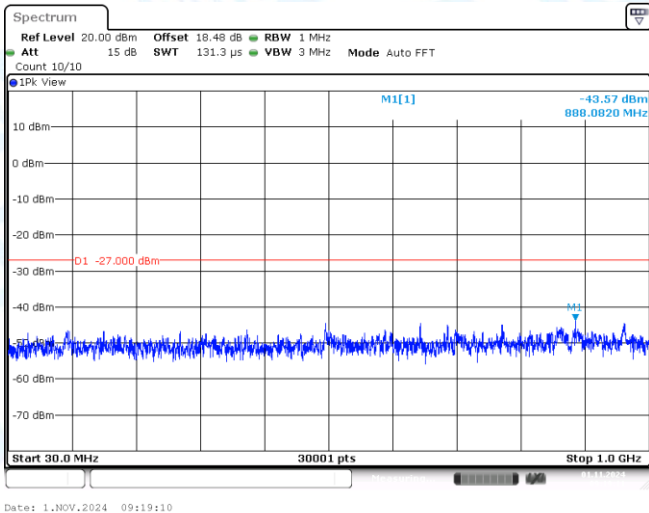
11A-Ant1-5180-1000~40000-PASS



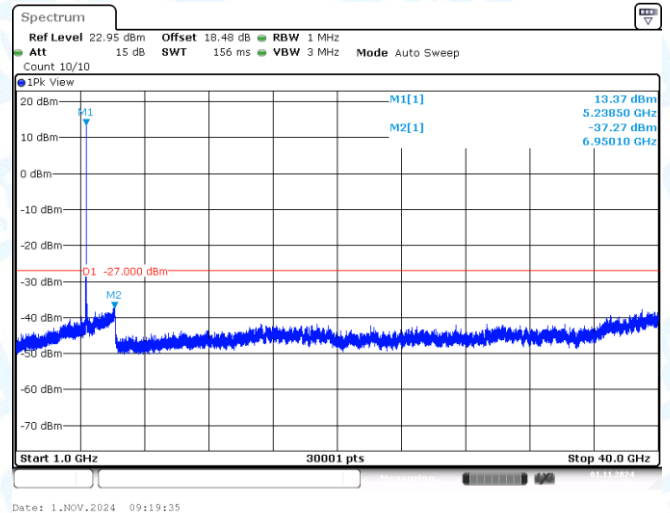
11A-Ant1-5200-30~1000-PASS



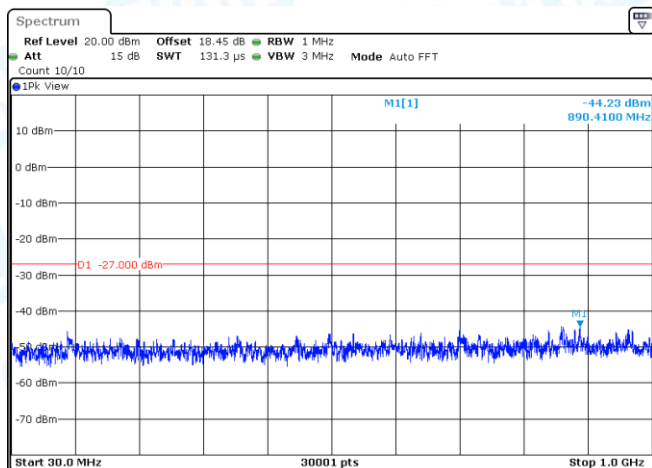
11A-Ant1-5200-1000~40000-PASS



11A-Ant1-5240-30~1000-PASS

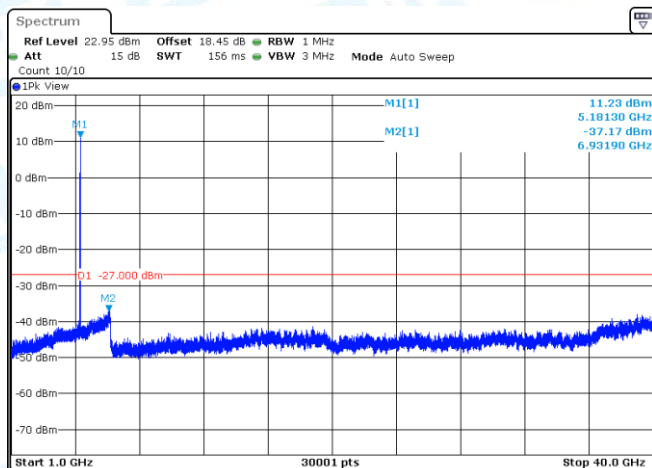


11A-Ant1-5240-1000~40000-PASS



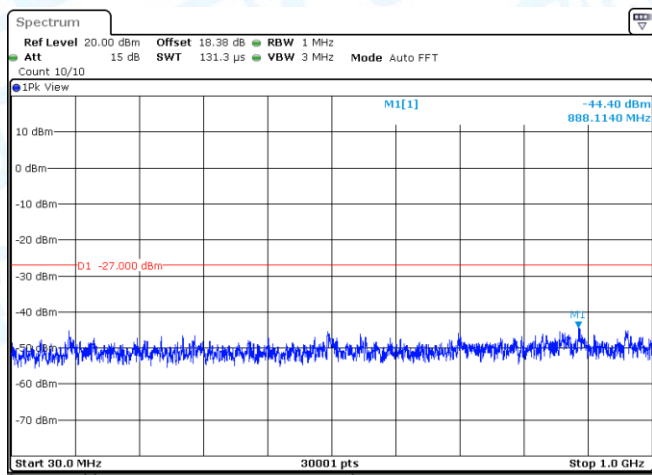
Date: 1.NOV.2024 09:26:19

11N20SISO-Ant1-5180-30~1000-PASS



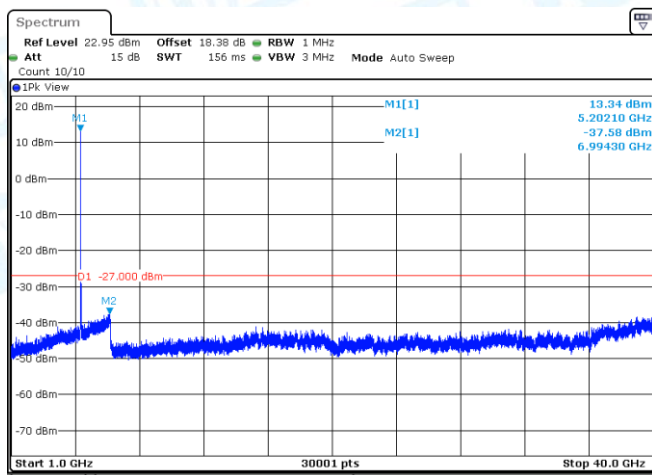
Date: 1.NOV.2024 09:26:44

11N20SISO-Ant1-5180-1000~40000-PASS



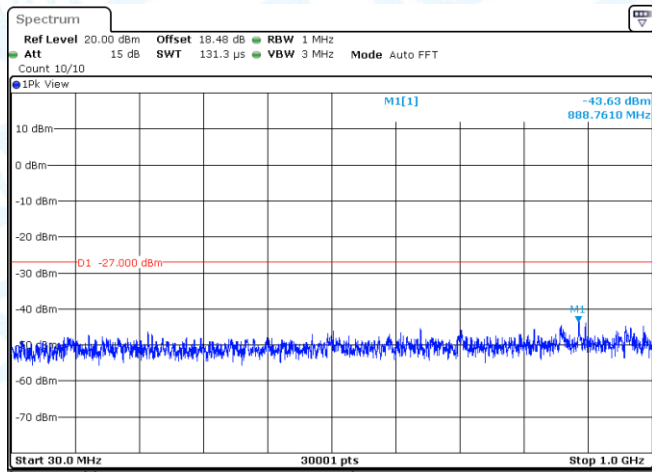
Date: 1.NOV.2024 09:35:21

11N20SISO-Ant1-5200-30~1000-PASS



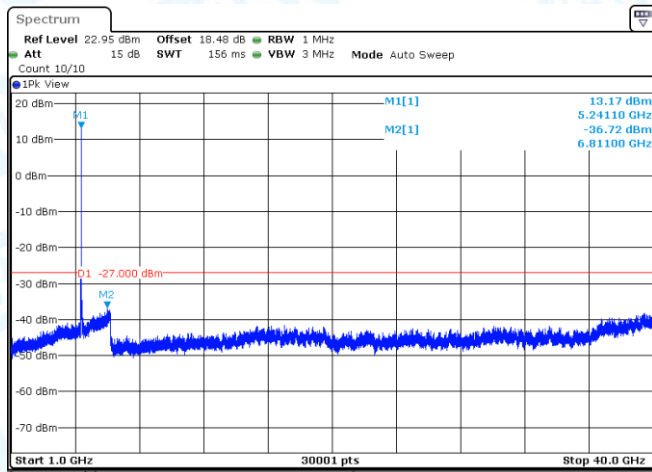
Date: 1.NOV.2024 09:35:46

11N20SISO-Ant1-5200-1000~40000-PASS



Date: 1.NOV.2024 09:41:47

11N20SISO-Ant1-5240-30~1000-PASS



Date: 1.NOV.2024 09:42:12

11N20SISO-Ant1-5240-1000~40000-PASS

8: Frequency Stability

8.1 Test Result

TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	20000.00	3.861004	20	PASS
11A	Ant1	5180	LV	NT	20000.00	3.861004	20	PASS
11A	Ant1	5180	HV	NT	40000.00	7.722008	20	PASS
11A	Ant1	5200	NV	NT	20000.00	3.846154	20	PASS
11A	Ant1	5200	LV	NT	20000.00	3.846154	20	PASS
11A	Ant1	5200	HV	NT	40000.00	7.692308	20	PASS
11A	Ant1	5240	NV	NT	20000.00	3.816794	20	PASS
11A	Ant1	5240	LV	NT	40000.00	7.633588	20	PASS
11A	Ant1	5240	HV	NT	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5180	NV	NT	0.00	0.000000	20	PASS
11N20SISO	Ant1	5180	LV	NT	60000.00	11.583012	20	PASS
11N20SISO	Ant1	5180	HV	NT	60000.00	11.583012	20	PASS
11N20SISO	Ant1	5200	NV	NT	40000.00	7.692308	20	PASS
11N20SISO	Ant1	5200	LV	NT	60000.00	11.538462	20	PASS
11N20SISO	Ant1	5200	HV	NT	40000.00	7.692308	20	PASS
11N20SISO	Ant1	5240	NV	NT	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5240	LV	NT	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5240	HV	NT	40000.00	7.633588	20	PASS

TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	0	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	10	20000.00	3.861004	20	PASS
11A	Ant1	5180	NV	20	0.00	0.000000	20	PASS
11A	Ant1	5180	NV	30	20000.00	3.861004	20	PASS
11A	Ant1	5180	NV	45	40000.00	7.722008	20	PASS
11A	Ant1	5200	NV	0	20000.00	3.846154	20	PASS
11A	Ant1	5200	NV	10	20000.00	3.846154	20	PASS
11A	Ant1	5200	NV	20	20000.00	3.846154	20	PASS
11A	Ant1	5200	NV	30	40000.00	7.692308	20	PASS
11A	Ant1	5200	NV	45	80000.00	15.384615	20	PASS
11A	Ant1	5240	NV	0	40000.00	7.633588	20	PASS
11A	Ant1	5240	NV	10	0.00	0.000000	20	PASS
11A	Ant1	5240	NV	20	20000.00	3.816794	20	PASS
11A	Ant1	5240	NV	30	40000.00	7.633588	20	PASS
11A	Ant1	5240	NV	45	40000.00	7.633588	20	PASS
11N20SISO	Ant1	5180	NV	0	40000.00	7.722008	20	PASS
11N20SISO	Ant1	5180	NV	10	40000.00	7.722008	20	PASS
11N20SISO	Ant1	5180	NV	20	20000.00	3.861004	20	PASS
11N20SISO	Ant1	5180	NV	30	40000.00	7.722008	20	PASS
11N20SISO	Ant1	5180	NV	45	40000.00	7.722008	20	PASS
11N20SISO	Ant1	5200	NV	0	20000.00	3.846154	20	PASS
11N20SISO	Ant1	5200	NV	10	40000.00	7.692308	20	PASS
11N20SISO	Ant1	5200	NV	20	20000.00	3.846154	20	PASS
11N20SISO	Ant1	5200	NV	30	20000.00	3.846154	20	PASS
11N20SISO	Ant1	5200	NV	45	20000.00	3.846154	20	PASS
11N20SISO	Ant1	5240	NV	0	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5240	NV	10	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5240	NV	20	40000.00	7.633588	20	PASS
11N20SISO	Ant1	5240	NV	30	20000.00	3.816794	20	PASS
11N20SISO	Ant1	5240	NV	45	60000.00	11.450382	20	PASS

9: Emissions in Restricted Bands

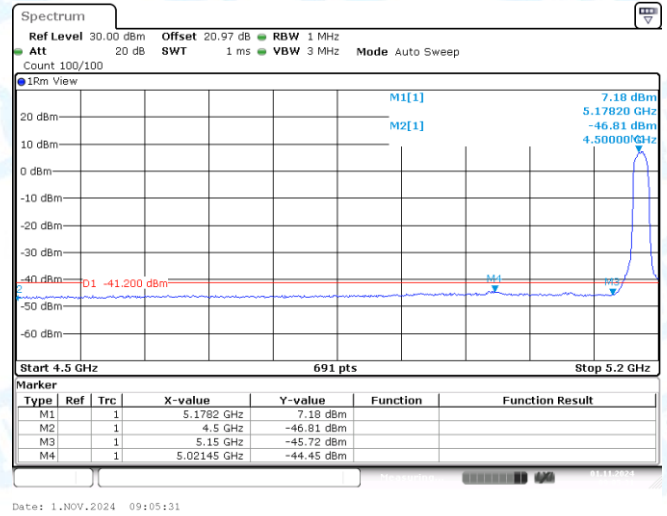
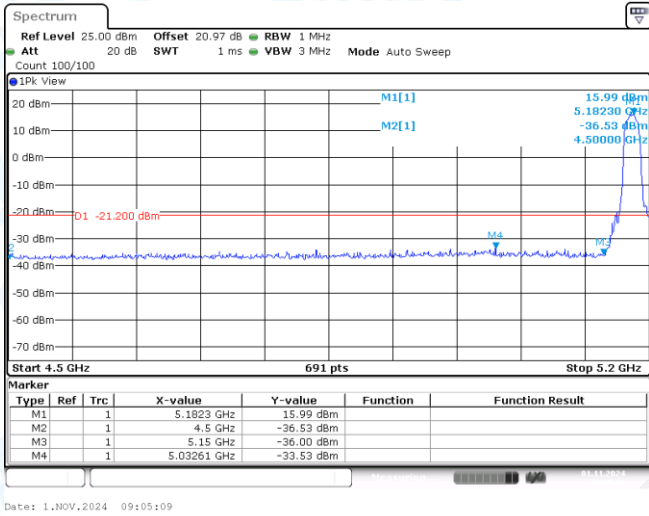
9.1 Test Result

TestMode	Ant.	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant1	Low	5180	Peak	4500.000	-36.53	≤-21.20	58.67	≤74	PASS
11A	Ant1	Low	5180	Peak	5150.000	-36	≤-21.20	59.20	≤74	PASS
11A	Ant1	Low	5180	Peak	5032.609	-33.53	≤-21.20	61.67	≤74	PASS
11A	Ant1	Low	5180	AV	4500.000	-46.81	≤-41.20	48.39	≤54	PASS
11A	Ant1	Low	5180	AV	5150.000	-45.72	≤-41.20	49.48	≤54	PASS
11A	Ant1	Low	5180	AV	5021.449	-44.45	≤-41.20	50.75	≤54	PASS
11A	Ant1	High	5240	Peak	5350.000	-36.68	≤-21.20	58.52	≤74	PASS
11A	Ant1	High	5240	Peak	5460.000	-37.64	≤-21.20	57.56	≤74	PASS
11A	Ant1	High	5240	Peak	5434.609	-34.51	≤-21.20	60.69	≤74	PASS
11A	Ant1	High	5240	AV	5350.000	-45.02	≤-41.20	50.18	≤54	PASS
11A	Ant1	High	5240	AV	5460.000	-44.65	≤-41.20	50.55	≤54	PASS
11A	Ant1	High	5240	AV	5447.130	-43.31	≤-41.20	51.89	≤54	PASS
11N20SISO	Ant1	Low	5180	Peak	4500.000	-35.92	≤-21.20	59.28	≤74	PASS
11N20SISO	Ant1	Low	5180	Peak	5150.000	-35.27	≤-21.20	59.93	≤74	PASS
11N20SISO	Ant1	Low	5180	Peak	5021.449	-33.62	≤-21.20	61.58	≤74	PASS
11N20SISO	Ant1	Low	5180	AV	4500.000	-46.61	≤-41.20	48.59	≤54	PASS
11N20SISO	Ant1	Low	5180	AV	5150.000	-45.46	≤-41.20	49.74	≤54	PASS
11N20SISO	Ant1	Low	5180	AV	5023.478	-44.48	≤-41.20	50.72	≤54	PASS
11N20SISO	Ant1	High	5240	Peak	5350.000	-36.93	≤-21.20	58.27	≤74	PASS
11N20SISO	Ant1	High	5240	Peak	5460.000	-36.26	≤-21.20	58.94	≤74	PASS
11N20SISO	Ant1	High	5240	Peak	5446.783	-33.2	≤-21.20	62.00	≤74	PASS
11N20SISO	Ant1	High	5240	AV	5350.000	-45.23	≤-41.20	49.97	≤54	PASS
11N20SISO	Ant1	High	5240	AV	5460.000	-45.13	≤-41.20	50.07	≤54	PASS
11N20SISO	Ant1	High	5240	AV	5448.174	-42.75	≤-41.20	52.45	≤54	PASS

Note:

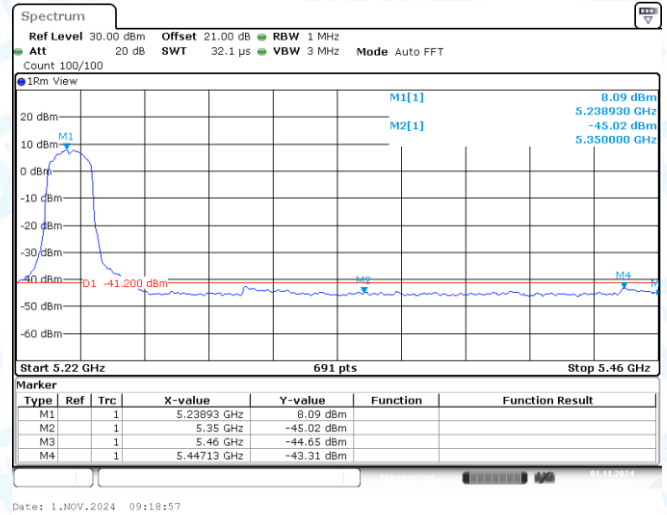
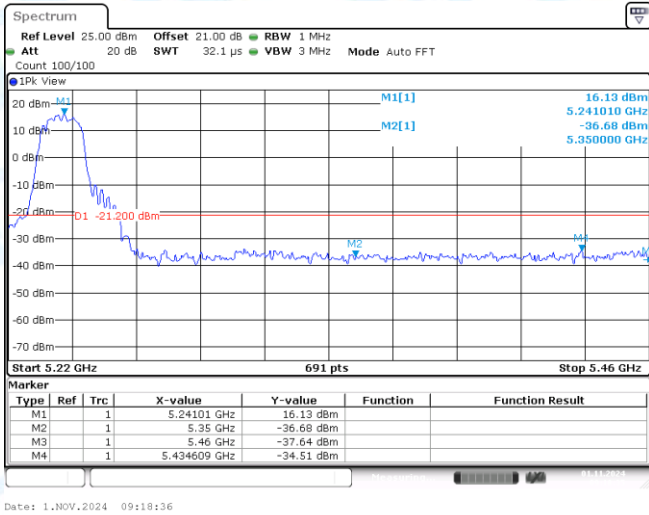
- The Antenna Gain is compensated in the graph.
- For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

9.2 Test Graphs



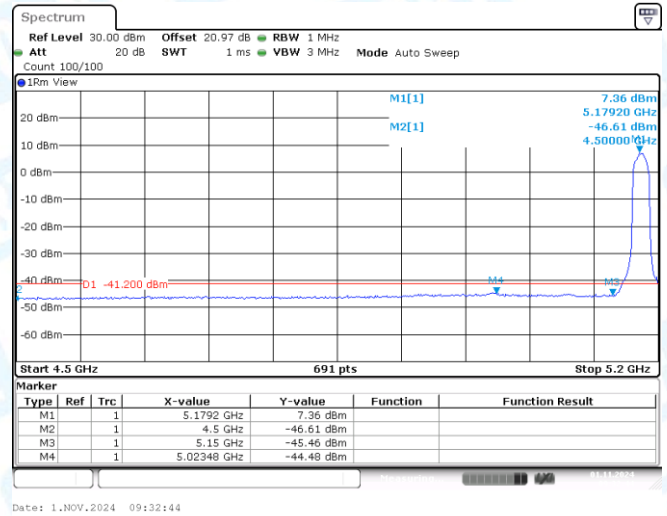
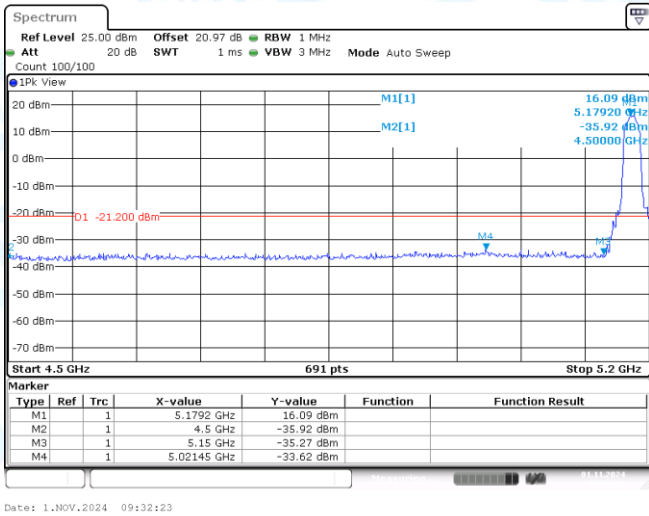
11A-Ant1-5180-PASS

11A-Ant1-5180-PASS



11A-Ant1-5240-PASS

11A-Ant1-5240-PASS

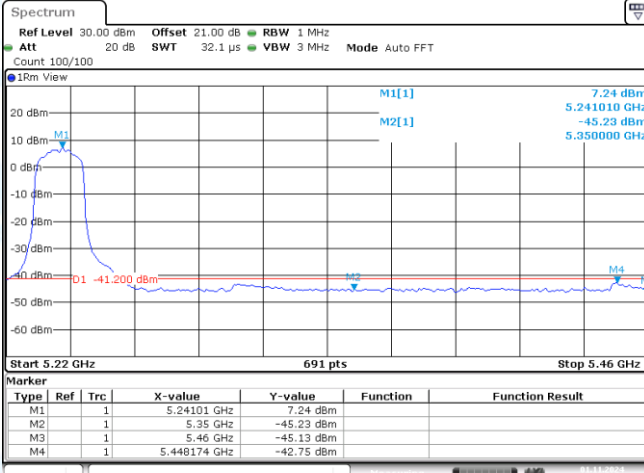


11N20SISO-Ant1-5180-PASS

11N20SISO-Ant1-5180-PASS



11N20SISO-Ant1-5240-PASS



11N20SISO-Ant1-5240-PASS

-----END OF THE REPORT-----