



Appendix F for BT LE Test Data

Product Name: Smartphone

Test Model: NOTE 60

Environmental Conditions

Temperature:	24.5° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng



Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street,
Bao'an District, Shenzhen, Guangdong, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



F.1 RF Output Power

Condition	Mode	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Verdict
NTNV	BLE_1M	2402	-0.31	20	Pass
NTNV	BLE_1M	2440	0.16	20	Pass
NTNV	BLE_1M	2480	0.09	20	Pass
HTNV	BLE_1M	2402	-0.31	20	Pass
HTNV	BLE_1M	2440	0.16	20	Pass
HTNV	BLE_1M	2480	0.09	20	Pass
LTNV	BLE_1M	2402	-0.32	20	Pass
LTNV	BLE_1M	2440	0.16	20	Pass
LTNV	BLE_1M	2480	0.09	20	Pass
NTNV	BLE_2M	2402	-0.22	20	Pass
NTNV	BLE_2M	2440	0.25	20	Pass
NTNV	BLE_2M	2480	0.19	20	Pass
HTNV	BLE_2M	2402	-0.28	20	Pass
HTNV	BLE_2M	2440	0.14	20	Pass
HTNV	BLE_2M	2480	0.09	20	Pass
LTNV	BLE_2M	2402	-0.45	20	Pass
LTNV	BLE_2M	2440	0.06	20	Pass
LTNV	BLE_2M	2480	-0.03	20	Pass

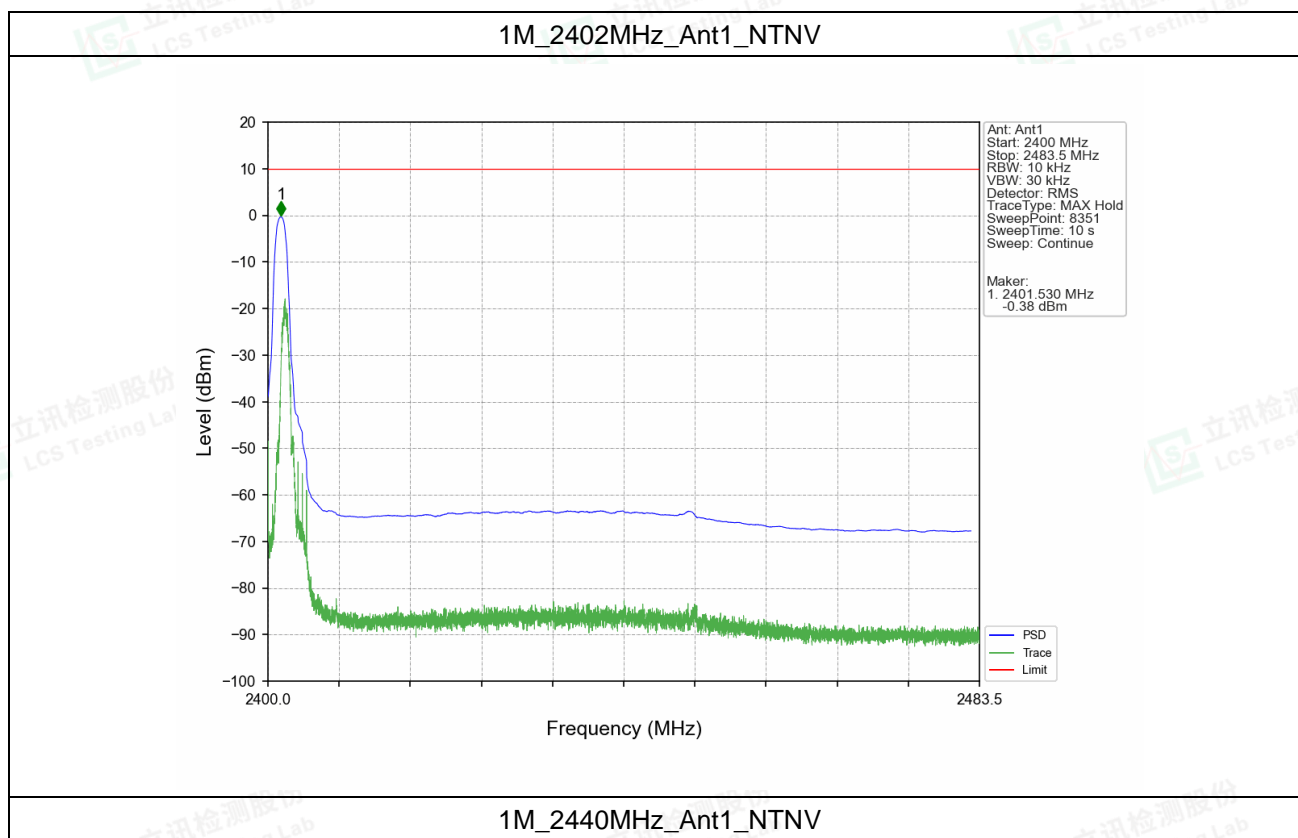
Note: 20 bursts had been captured for power measurement.





F.2 Power Spectral Density

ENV	Mode	TX Type	Frequency (MHz)	ANT	E.I.R.PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NTNV	1M	SISO	2402	1	-0.38	≤ 10	Pass
			2440	1	0.09	≤ 10	Pass
			2480	1	0.02	≤ 10	Pass
NTNV	2M	SISO	2402	1	-1.34	≤ 10	Pass
			2440	1	-0.86	≤ 10	Pass
			2480	1	-0.91	≤ 10	Pass

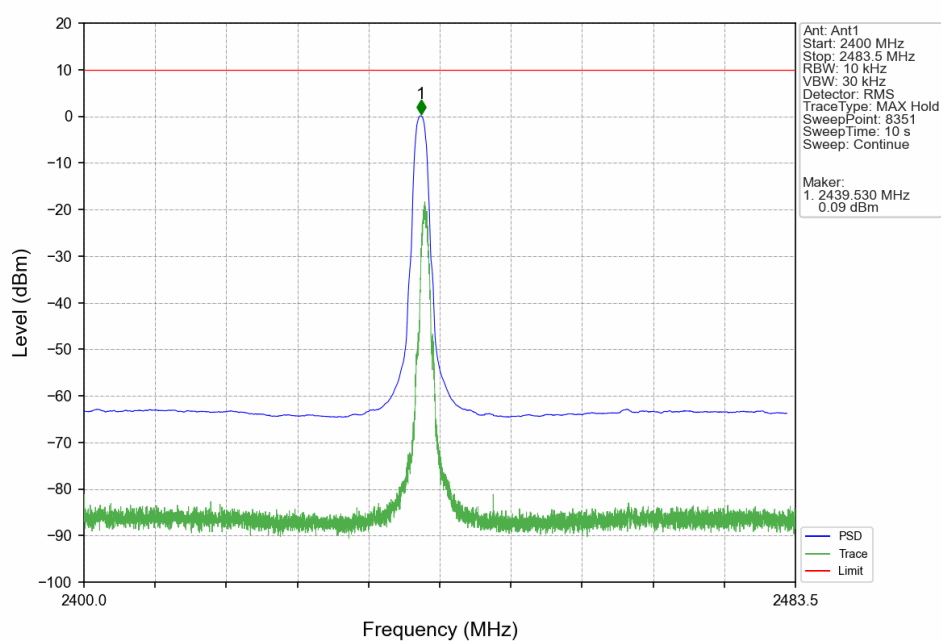


Shenzhen LCS Compliance Testing Laboratory Ltd.

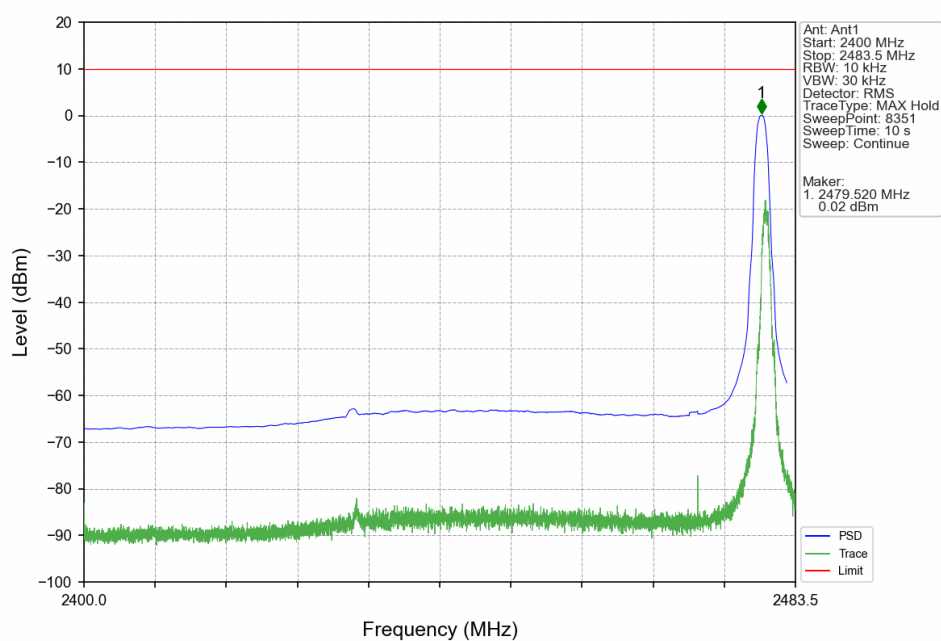
Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

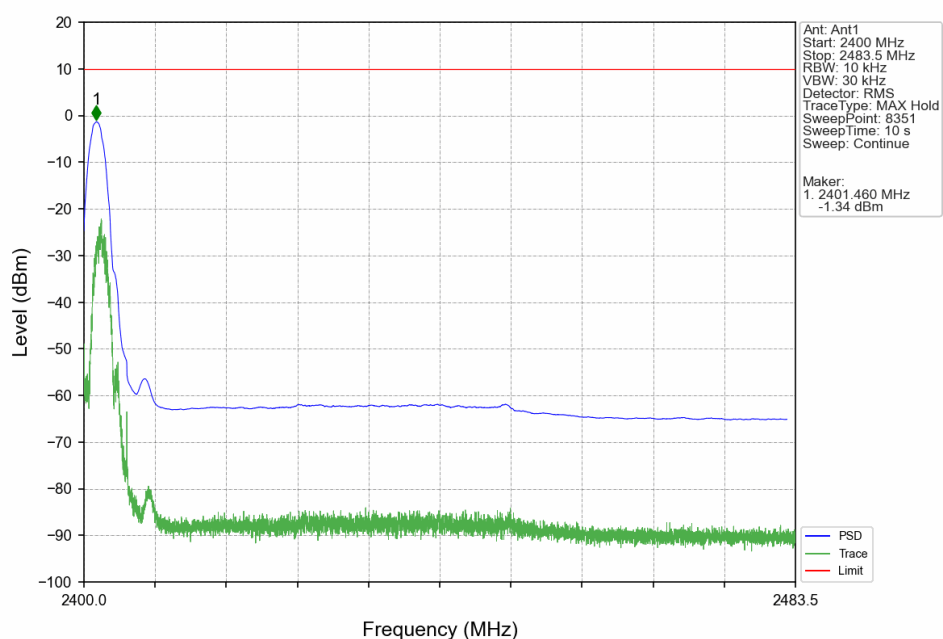


1M_2480MHz_Ant1_NTNV

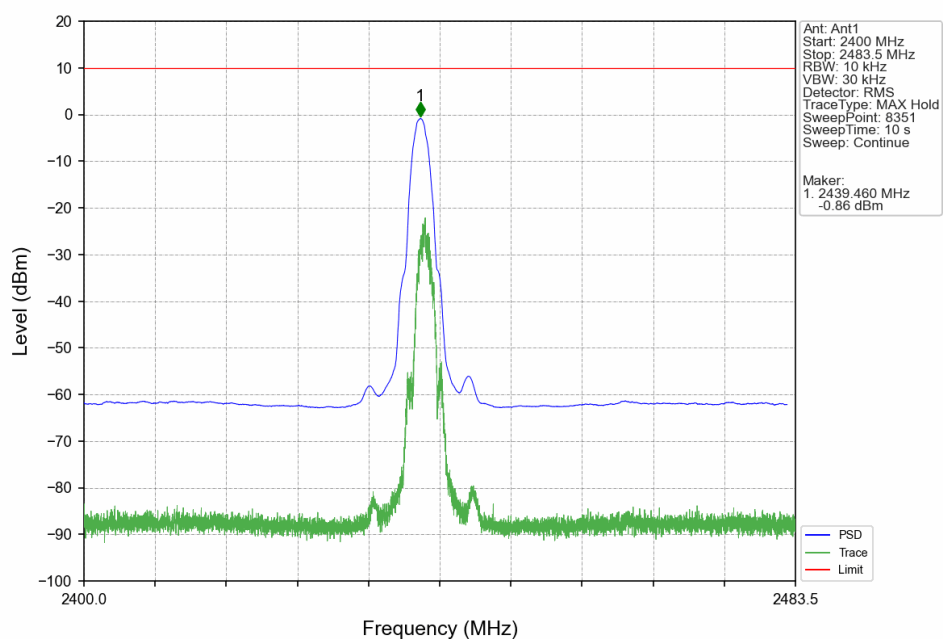


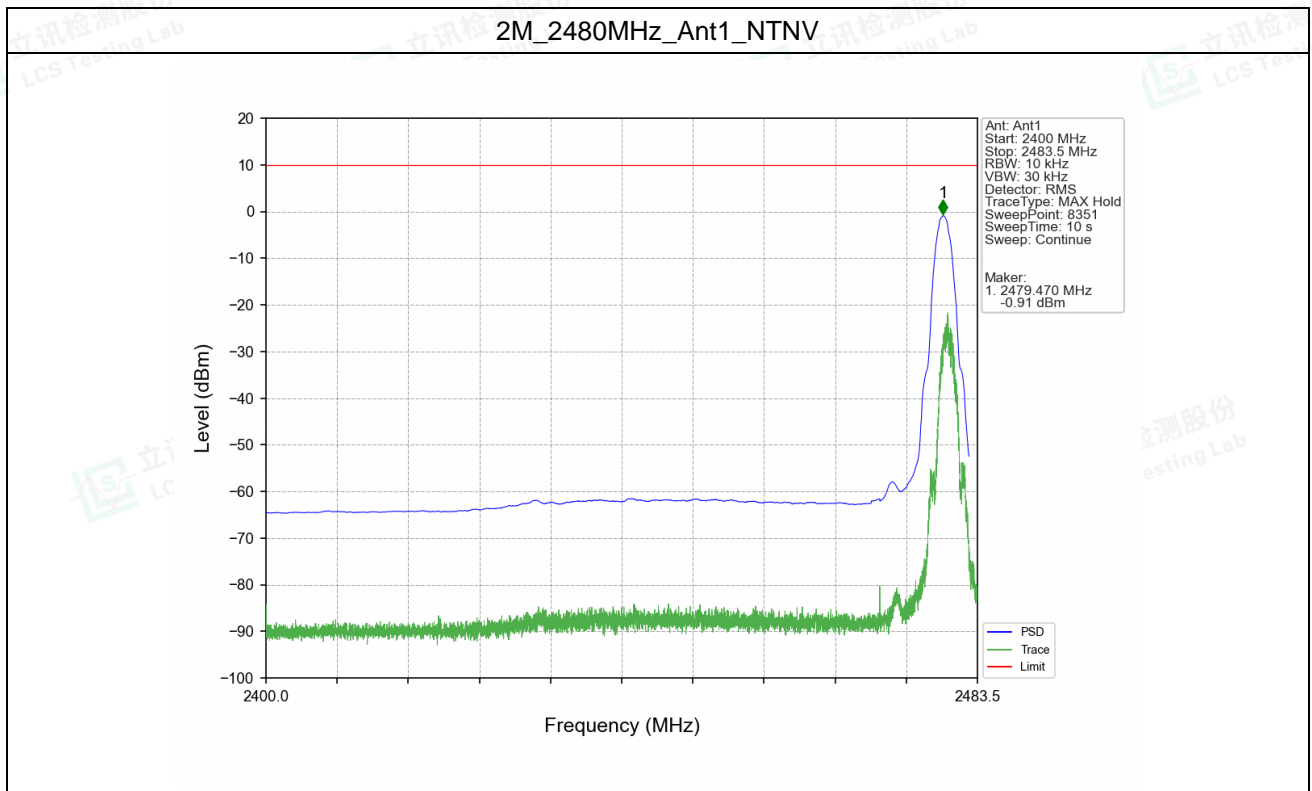


2M_2402MHz_Ant1_NTNV



2M_2440MHz_Ant1_NTNV

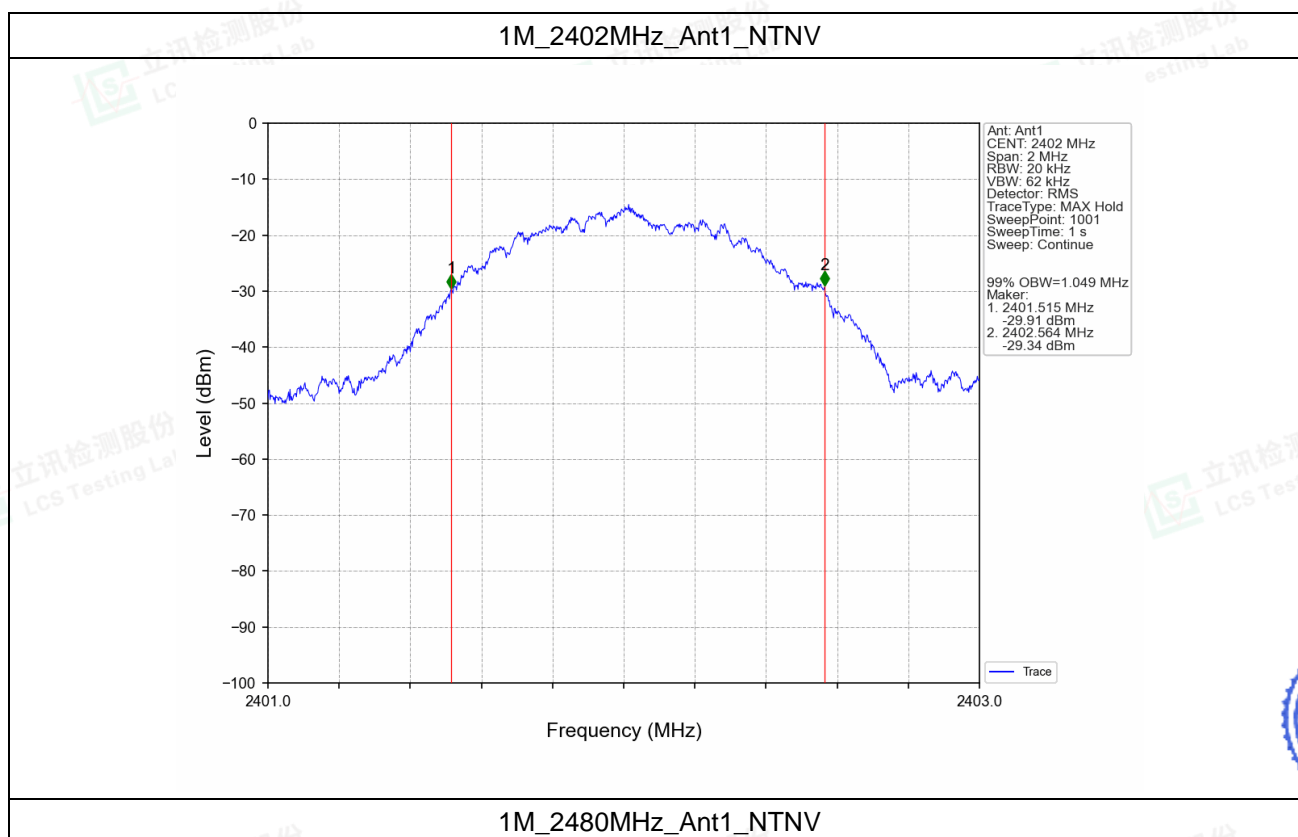


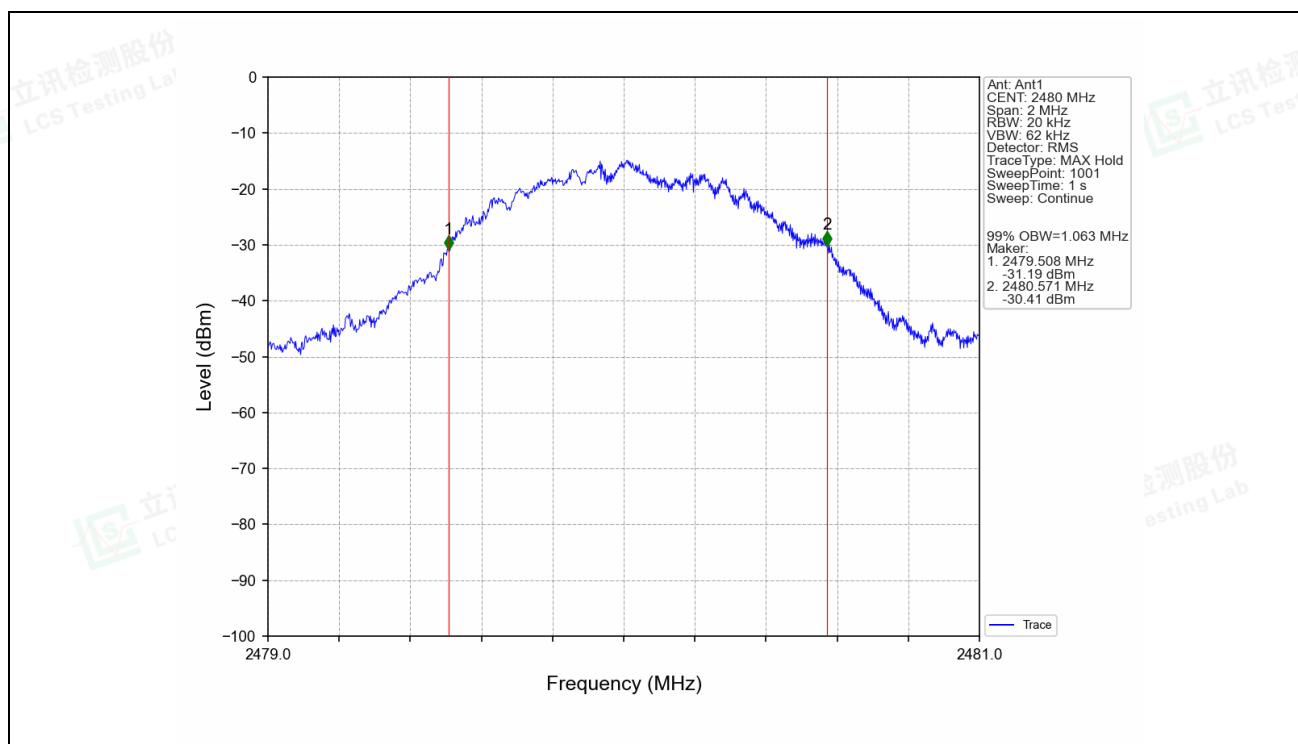




F.3 Occupied Channel Bandwidth

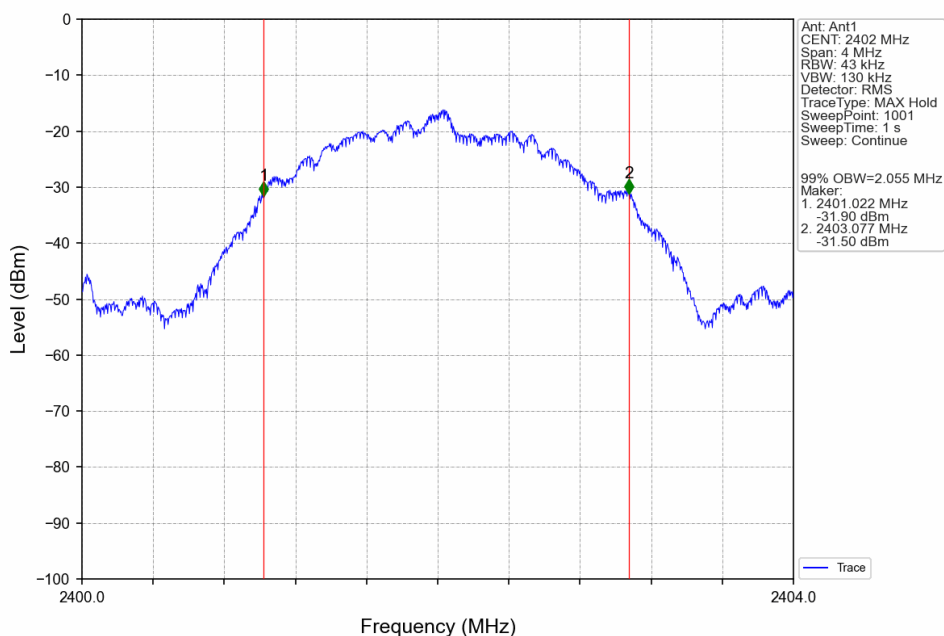
Ant1								
ENV	Mode	TX Type	Frequency (MHz)	OBW (MHz)	Frequency Range (MHz)			Verdict
				Result	FL	FH	Limit	
NTNV	1M	SISO	2402	1.049	2401.515	/	≥ 2400	Pass
			2480	1.063	/	2480.571	≤ 2483.5	Pass
NTNV	2M	SISO	2402	2.055	2401.022	/	≥ 2400	Pass
			2480	2.061	/	2481.080	≤ 2483.5	Pass



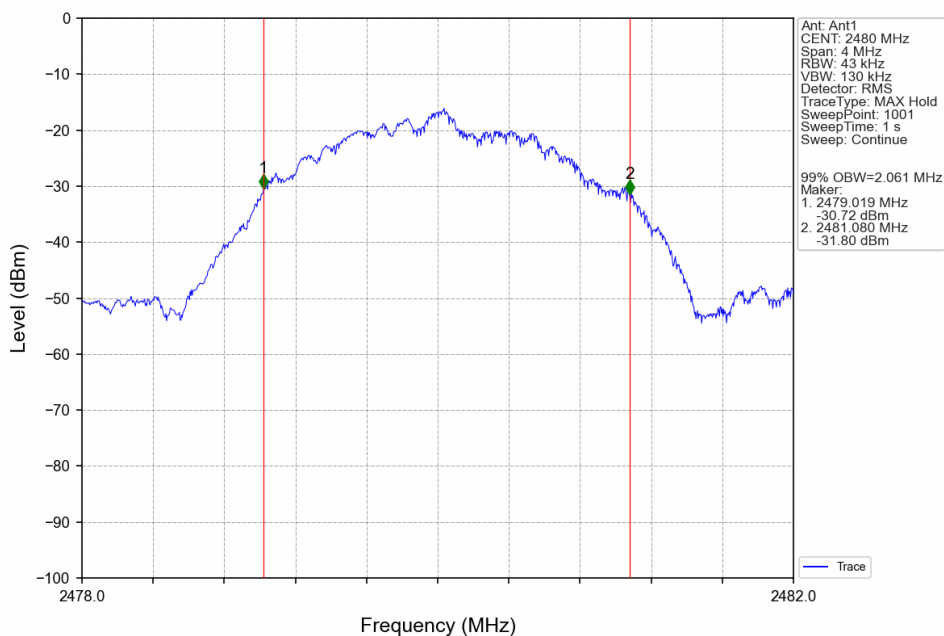




2M_2402MHz_Ant1_NTNV



2M_2480MHz_Ant1_NTNV





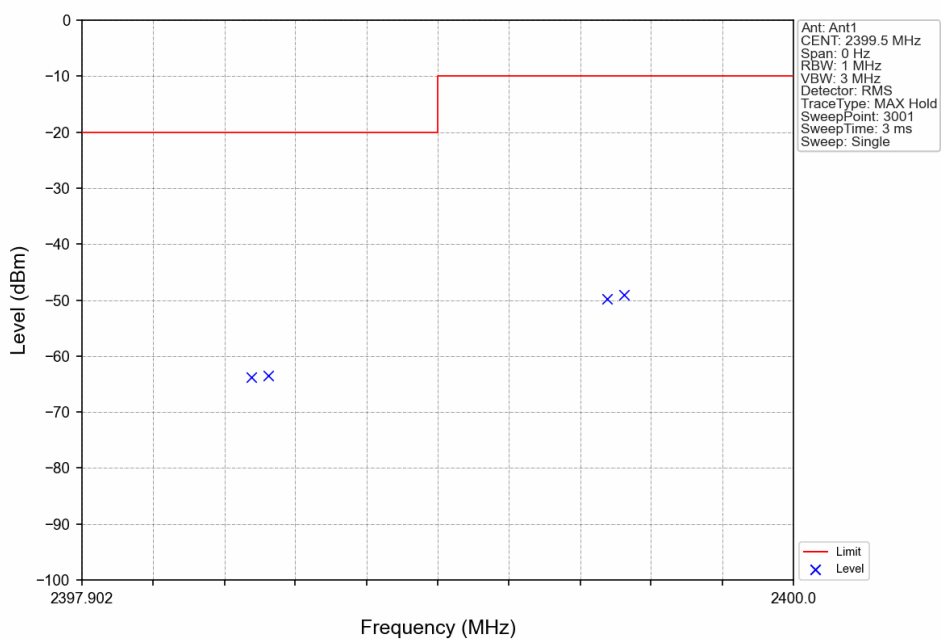
F.4 Transmitter unwanted emissions in the out-of-band domain

Ant1_NTNV							
Mode	TX Type	Frequency (MHz)	ANT	Test Freq. (MHz)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
1M	SISO	2402	1	2398.402	-63.82	<=-20	Pass
				2398.451	-63.56	<=-20	Pass
				2399.451	-49.82	<=-10	Pass
				2399.500	-49.13	<=-10	Pass
		2480	1	2484.000	-64.24	<=-10	Pass
				2484.063	-64.45	<=-10	Pass
				2485.063	-66.19	<=-20	Pass
				2485.126	-66.26	<=-20	Pass
2M	SISO	2402	1	2396.390	-65.20	<=-20	Pass
				2396.445	-65.14	<=-20	Pass
				2397.445	-66.27	<=-20	Pass
				2398.445	-61.99	<=-10	Pass
				2398.500	-61.48	<=-10	Pass
				2399.500	-44.07	<=-10	Pass
		2480	1	2484.000	-64.40	<=-10	Pass
				2485.000	-63.93	<=-10	Pass
				2485.061	-64.03	<=-10	Pass
				2486.061	-63.62	<=-20	Pass
				2487.061	-67.42	<=-20	Pass
				2487.122	-67.76	<=-20	Pass

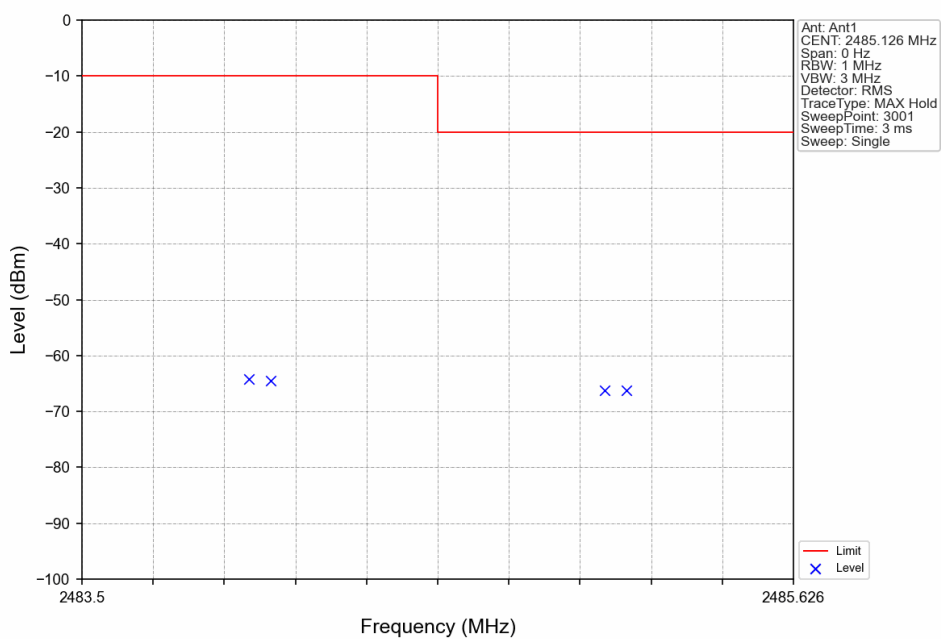




1M_2402MHz_Ant1_NTNV

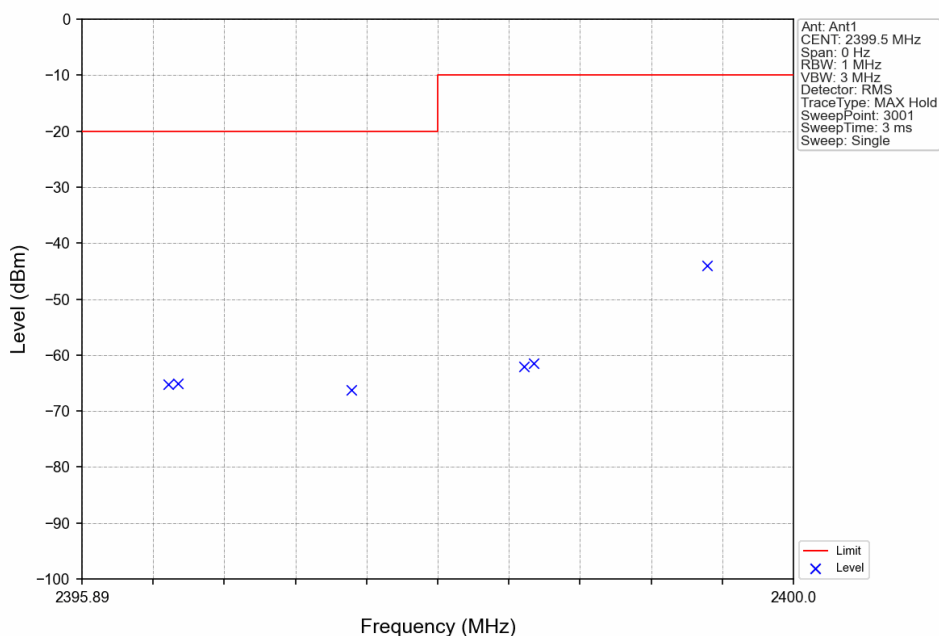


1M_2480MHz_Ant1_NTNV

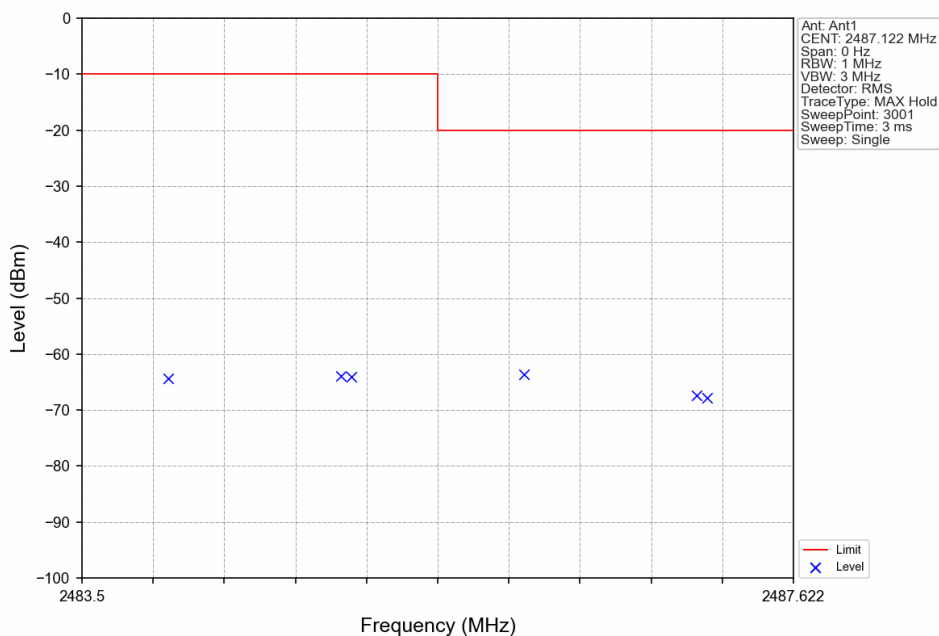




2M_2402MHz_Ant1_NTNV



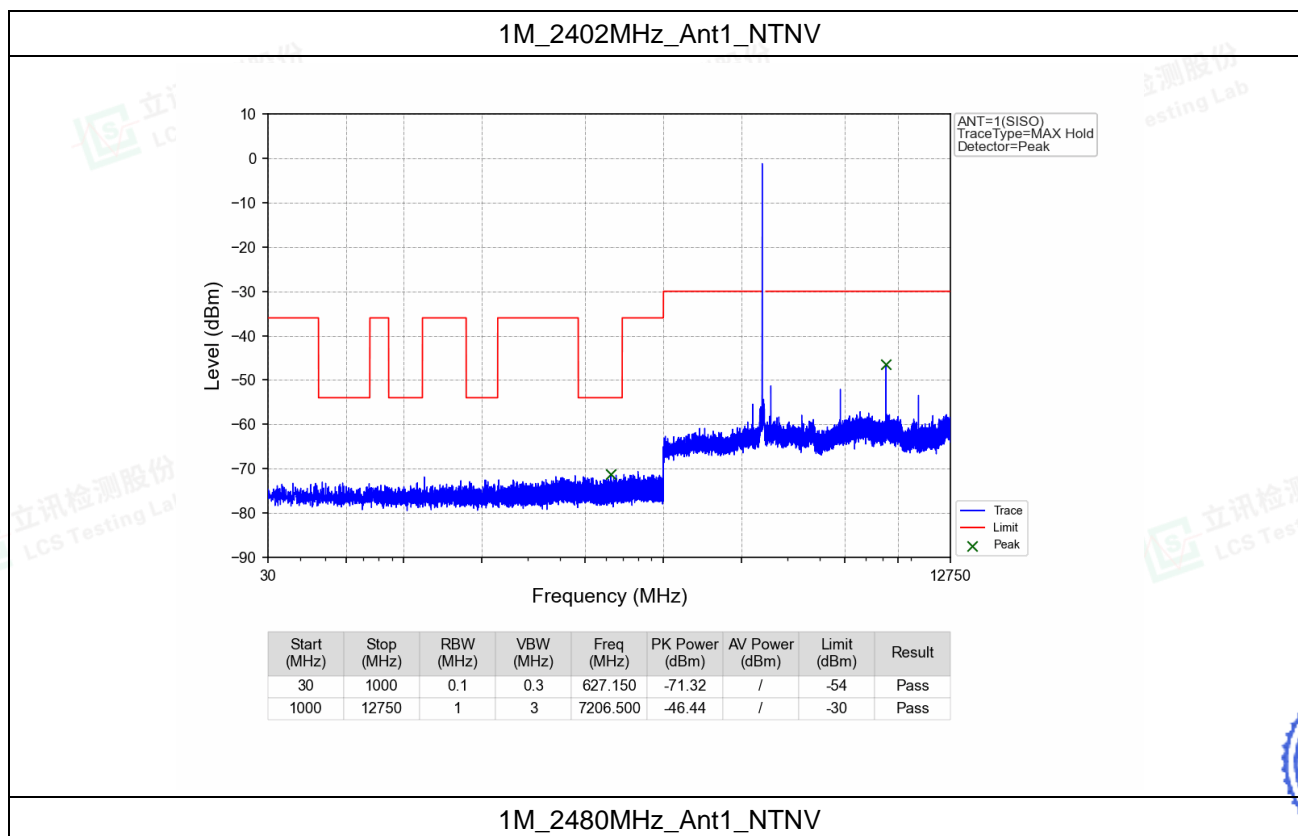
2M_2480MHz_Ant1_NTNV





F.5 Transmitter unwanted emissions in the spurious domain

ENV	Mode	TX Type	Frequency (MHz)	ANT	Test Result	Limit	Verdict
NTNV	1M	SISO	2402	1	Refer To Test Graph		Pass
			2480	1	Refer To Test Graph		Pass
NTNV	2M	SISO	2402	1	Refer To Test Graph		Pass
			2480	1	Refer To Test Graph		Pass

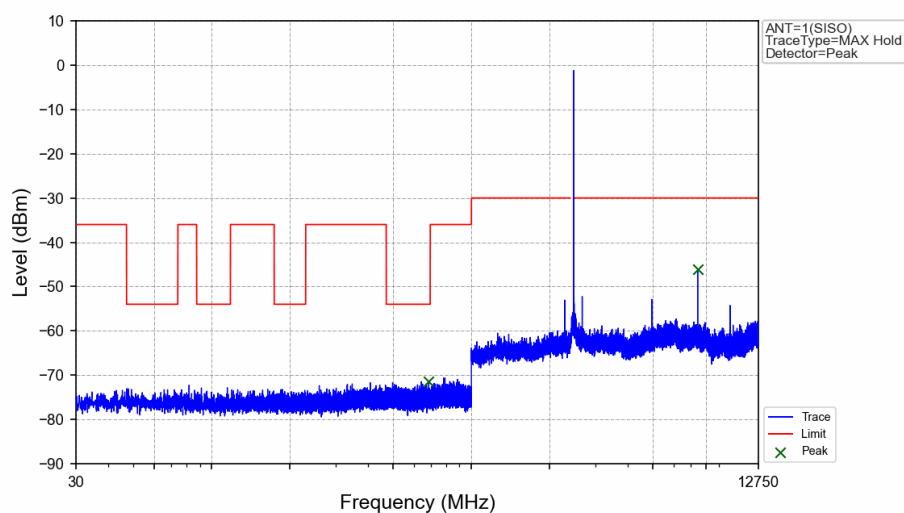


Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

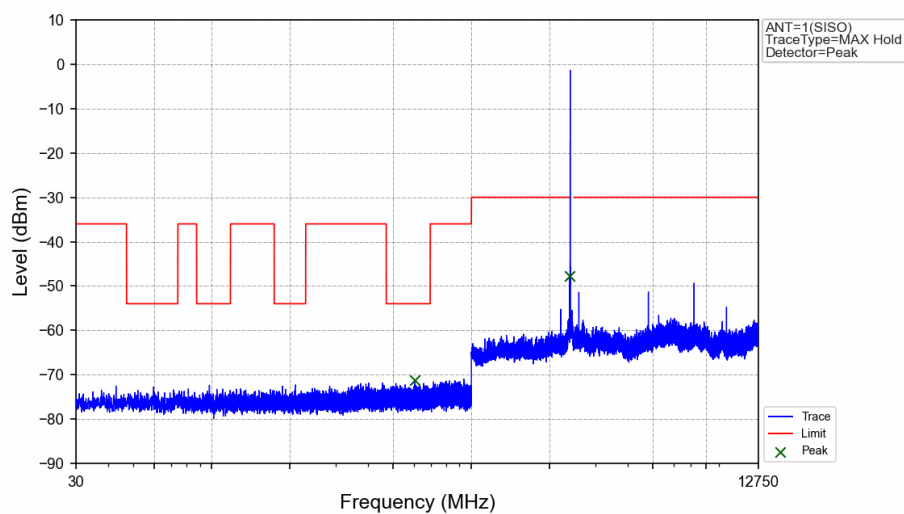
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.3	685.400	-71.45	/	-54	Pass
1000	12750	1	3	7440.000	-46.15	/	-30	Pass

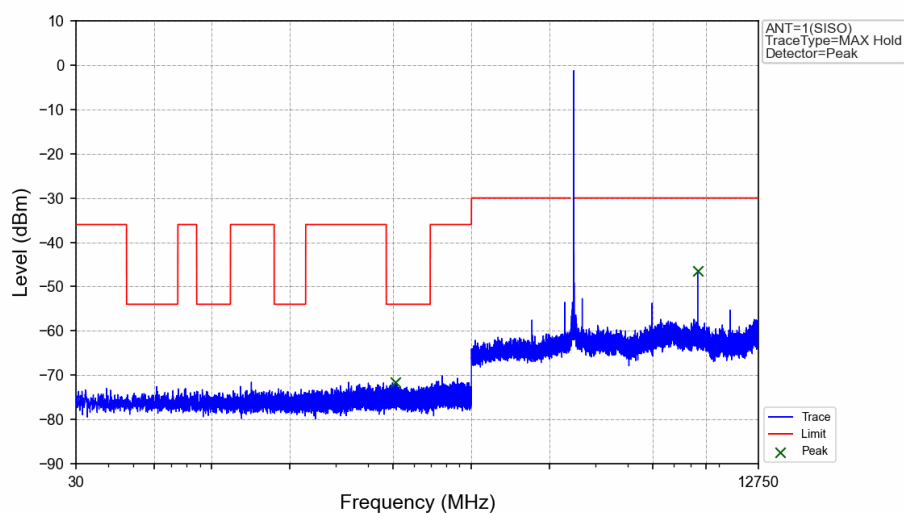
2M_2402MHz_Ant1_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.3	604.250	-71.30	/	-54	Pass
1000	12750	1	3	2395.000	-47.82	/	-30	Pass

2M_2480MHz_Ant1_NTNV





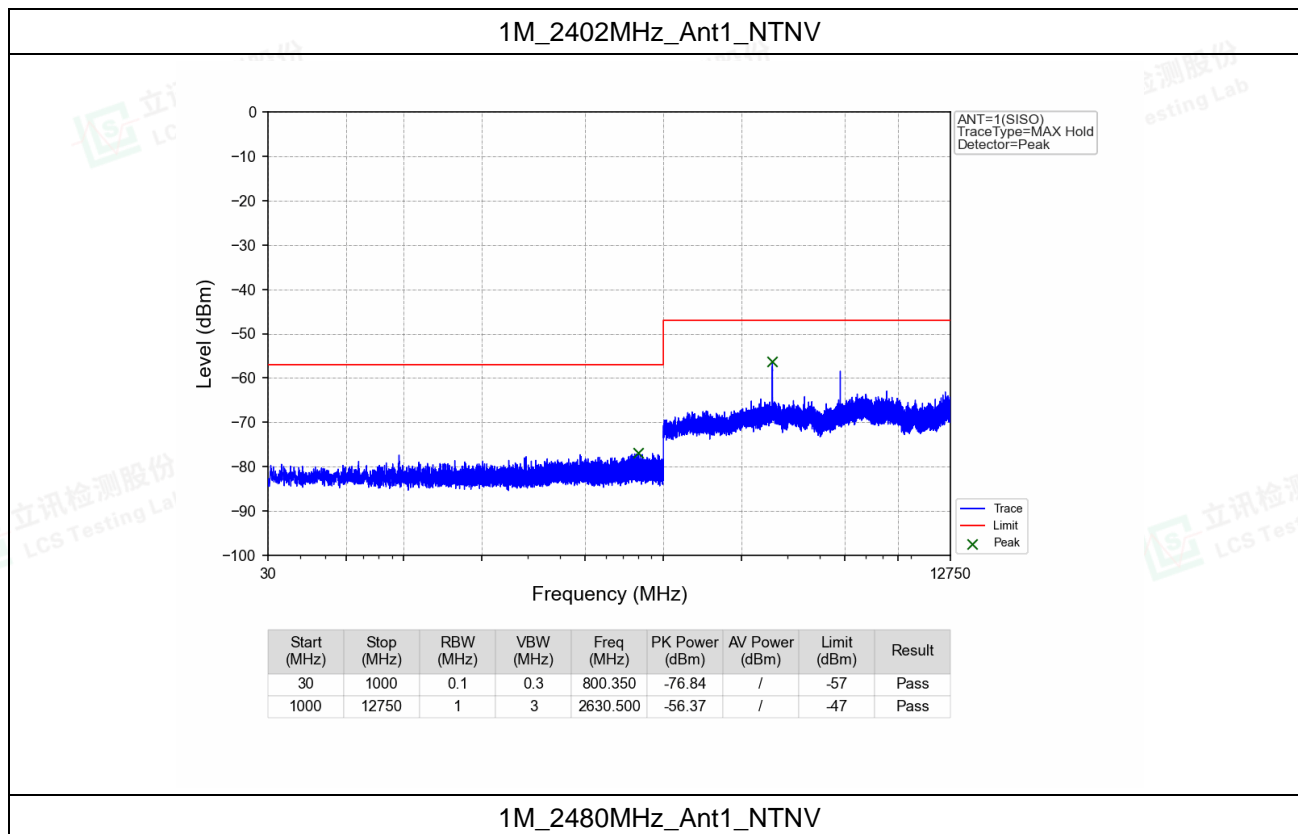
Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.3	509.050	-71.64	/	-54	Pass
1000	12750	1	3	7440.000	-46.39	/	-30	Pass

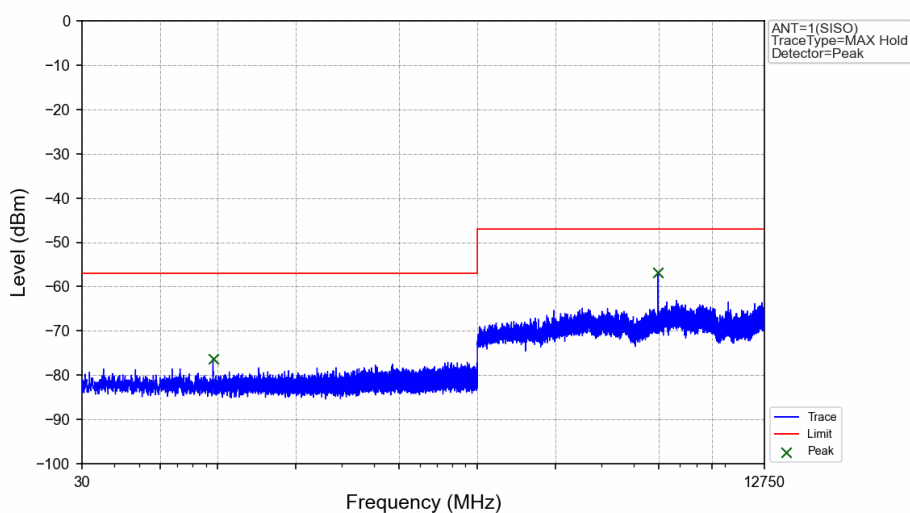




F.6 Receiver spurious emissions

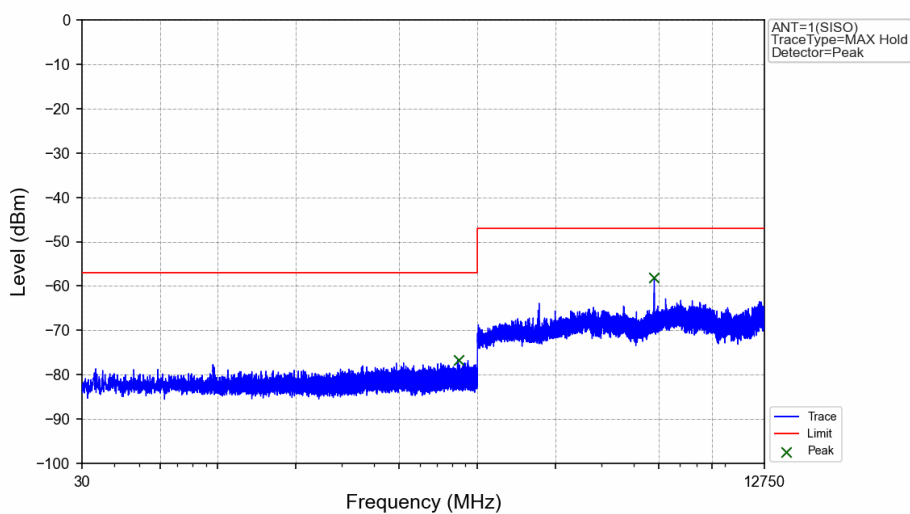
ENV	Mode	TX Type	Frequency (MHz)	ANT	Test Result	Limit	Verdict
NTNV	1M	SISO	2402	1	Refer To Test Graph		Pass
			2480	1	Refer To Test Graph		Pass
NTNV	2M	SISO	2402	1	Refer To Test Graph		Pass
			2480	1	Refer To Test Graph		Pass





Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.3	95.950	-76.36	/	-57	Pass
1000	12750	1	3	4957.500	-56.91	/	-47	Pass

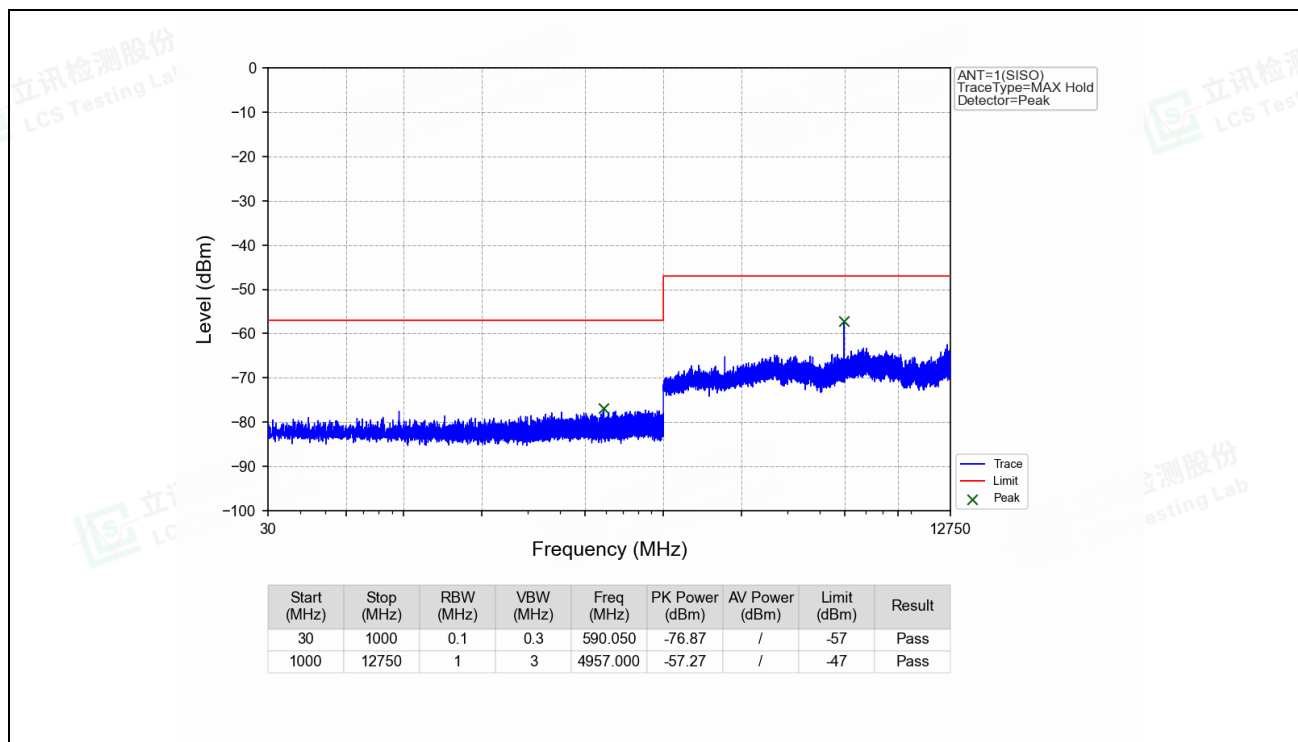
2M_2402MHz_Ant1_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.3	844.250	-76.63	/	-57	Pass
1000	12750	1	3	4801.500	-58.12	/	-47	Pass

2M_2480MHz_Ant1_NTNV







F.7 Receiver Blocking

Test Mode	Test Channel (MHz)	Wanted Signal Mean Power from Companion Device (dBm)	Blocking Signal Frequency (MHz)	Blocking Signal Power (dBm)		Type of Blocking Signal	PER(%)		Test Result
				Test Value	Limit		Test Value	Limit	
BLE_1M	2402	-69	2380	-28	≥-34	CW	2.74	10	Pass
			2504	-22	≥-34	CW	3.47	10	Pass
			2300	-26	≥-34	CW	2.44	10	Pass
			2584	-23	≥-34	CW	0.58	10	Pass
	2480	-69	2380	-30	≥-34	CW	3.11	10	Pass
			2504	-24	≥-34	CW	1.51	10	Pass
			2300	-29	≥-34	CW	3.06	10	Pass
			2584	-21	≥-34	CW	1.23	10	Pass
BLE_2M	2402	-69	2380	-21	≥-34	CW	4.95	10	Pass
			2504	-21	≥-34	CW	3.41	10	Pass
			2300	-30	≥-34	CW	1.66	10	Pass
			2584	-28	≥-34	CW	5.04	10	Pass
	2480	-69	2380	-22	≥-34	CW	5.58	10	Pass
			2504	-29	≥-34	CW	2.52	10	Pass
			2300	-24	≥-34	CW	3.28	10	Pass
			2584	-20	≥-34	CW	2.21	10	Pass

