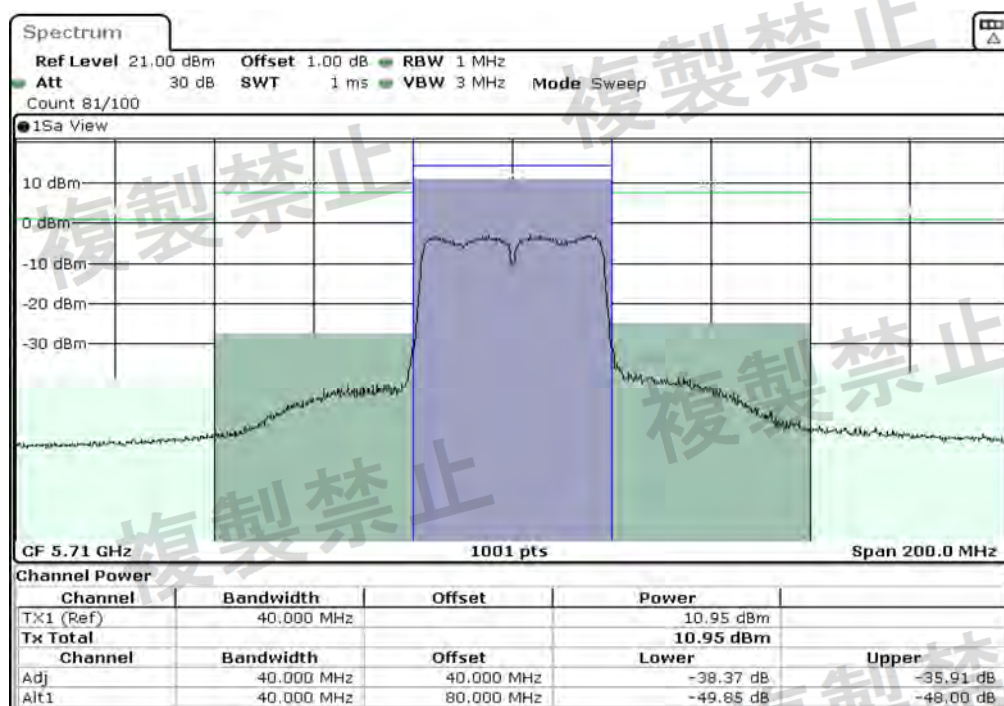


Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5710MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-49.85	≥ 40
		-40	-38.37	≥ 25
		+40	-35.91	≥ 25
		+80	-48.00	≥ 40

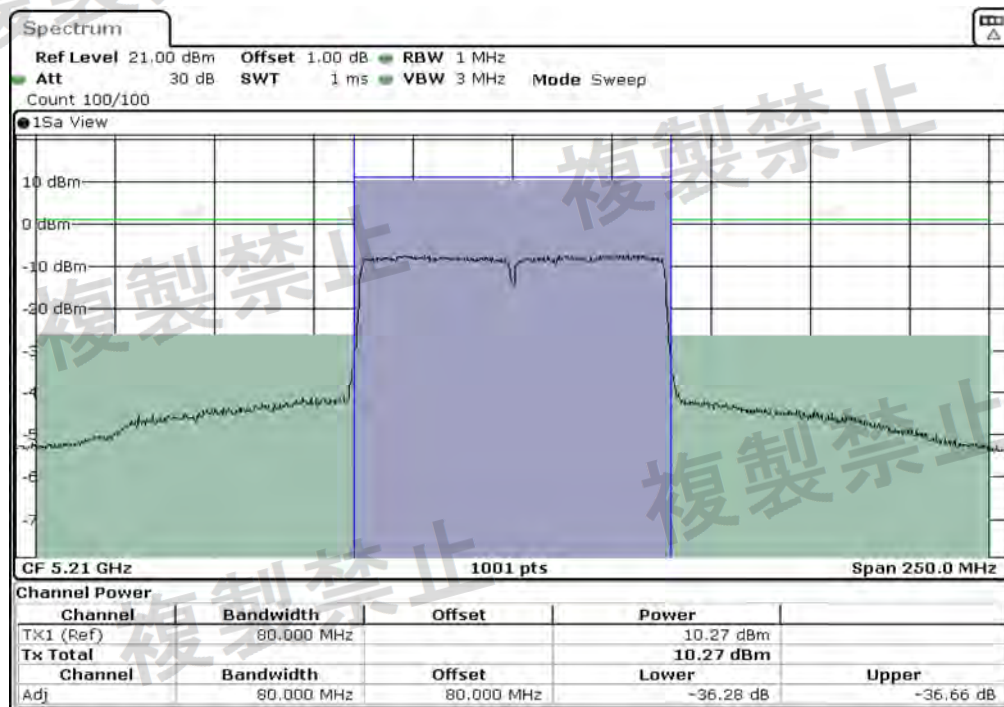


Date: 12.APR.2021 09:06:49

Test Result	PASS
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Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W52 (5210MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-36.28	≥ 25
		+80	-36.66	≥ 25



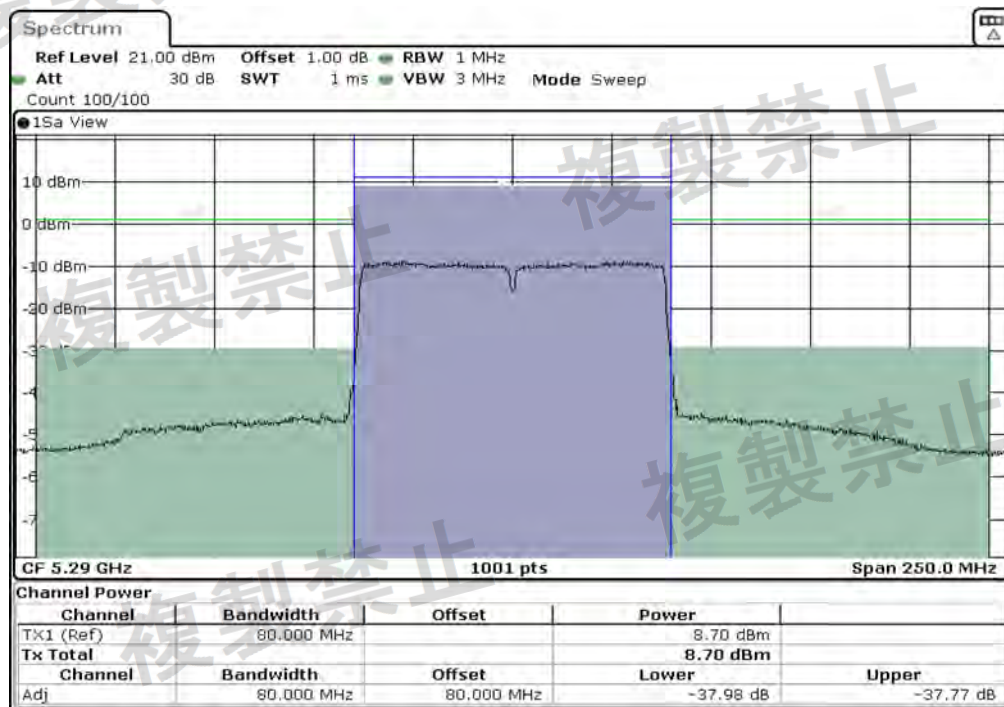
Date: 12.APR.2021 03:31:41

Test Result

PASS

Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W53 (5290MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-37.98	≥ 25
		+80	-37.77	≥ 25



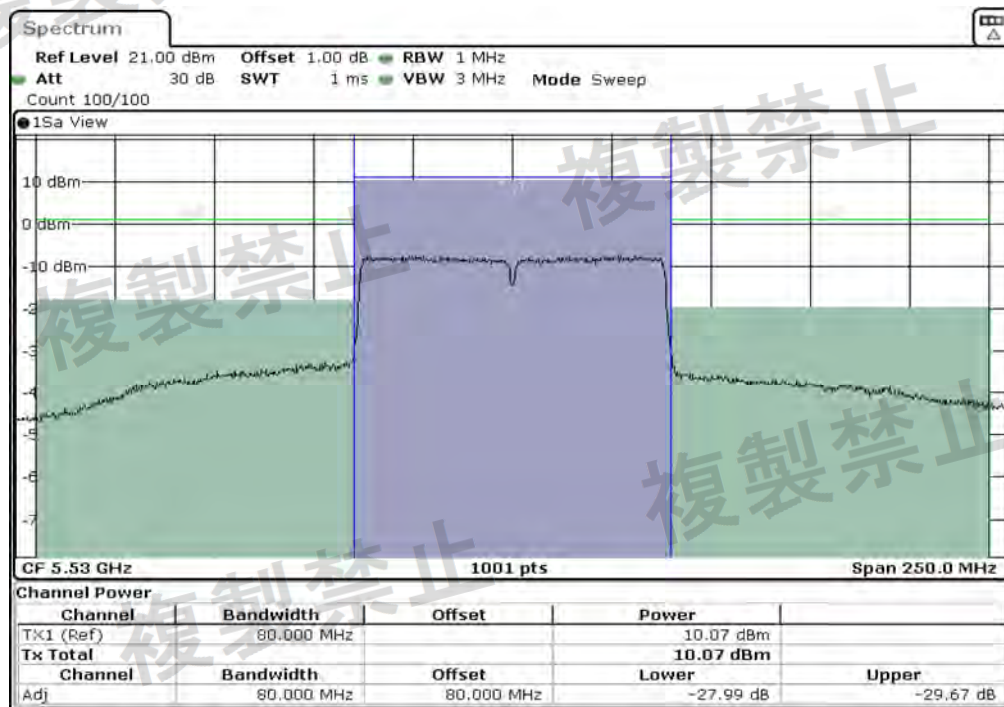
Date: 12.APR.2021 03:43.48

Test Result

PASS

Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5530MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-27.99	≥ 25
		+80	-29.67	≥ 25

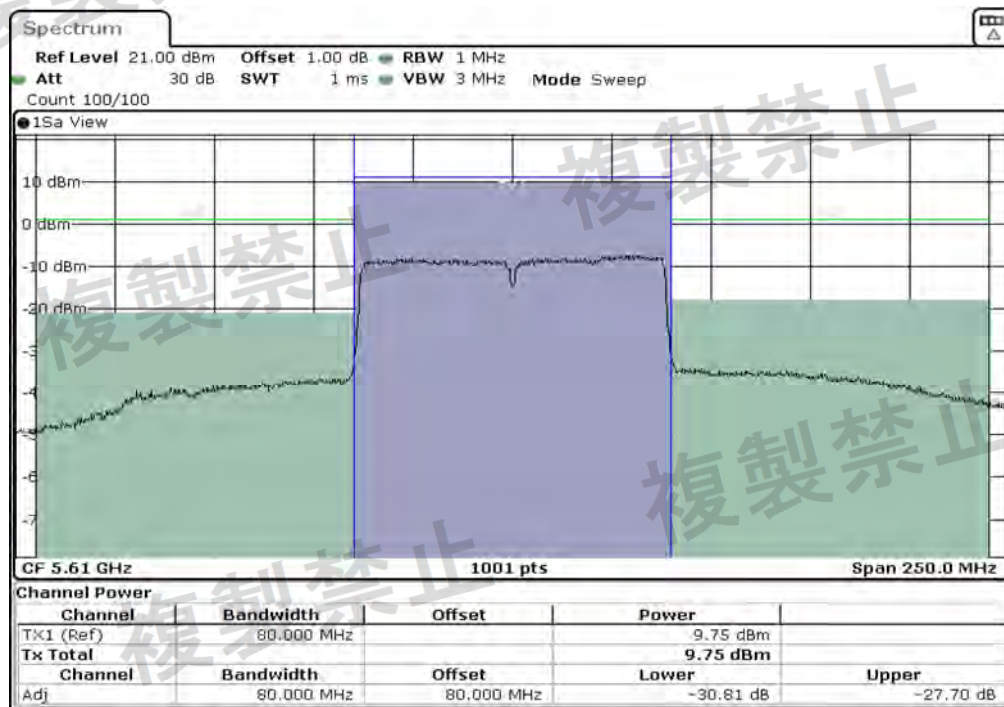


Date: 12 APR 2021 03:55:51

Test Result	PASS
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Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5610MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-30.81	≥ 25
		+80	-27.70	≥ 25

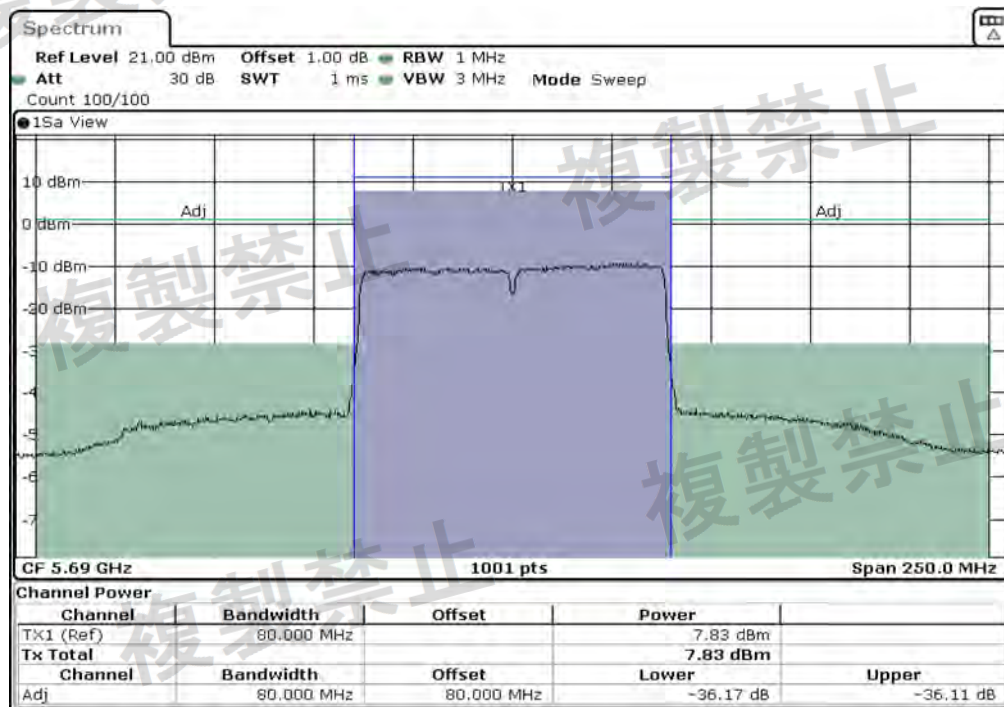


Date: 12 APR 2021 04:04:27

Test Result	PASS
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Product : Wireless speaker
 Test Item : Adjacent Channel Emitted Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5690MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBc)	Limit (dBc)
Tnom (25 °C)	Vnom (100 V)	-80	-36.17	≥ 25
		+80	-36.11	≥ 25



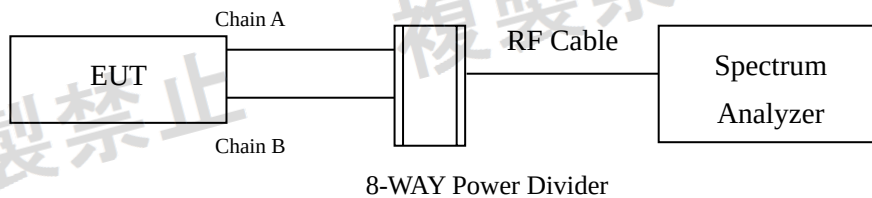
Date: 12.APR.2021 04:14:00

Test Result

PASS

8. Out-Band Leakage Power

8.1. Test Setup



8.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

8.3. Limits

20MHz

W52

20MHz system	
OBW : 18MHz or less	OBW : 18 - 20 MHz
5,142 MHz or less : 2.5 μ W/MHz	5,142 MHz or less : 2.5 μ W/MHz
5,142 - 5,150 MHz : 15 μ W/MHz	5,142 - 5,150 MHz : 15 μ W/MHz
	5,250 - 5,250.2 MHz : $10^{1-(8/3)(f-9.75)}$ mW/MHz
5,250 - 5,251 MHz : $10^{1-(f-9)}$ mW/MHz	5,250.2 - 5,251 MHz : $10^{1-(f-9)}$ mW/MHz
5,251 - 5,260 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz	5,251 - 5,260 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz
5,260 - 5,266.7 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz	5,260 - 5,266.7 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz
5,266.7 MHz or more : 2.5 μ W/MHz	5,266.7 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5240 (MHz)	f = MHz, Difference from 5240 (MHz)

W53

20MHz system	
OBW : 18MHz or less	OBW : 18 - 20 MHz
5,233.3 MHz or less : 2.5 μ W/MHz	5,233.3 MHz or less : 2.5 μ W/MHz
5,233.3 - 5,240 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz	5,233.3 - 5,240 MHz : $10^{-1.8-(6/50)(f-20)}$ mW/MHz
5,240 - 5,249 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz	5,240 - 5,249 MHz : $10^{-1-(8/90)(f-11)}$ mW/MHz
5,249 - 5,250 MHz : $10^{1-(f-9)}$ mW/MHz	5,249 - 5,249.8 MHz : $10^{1-(f-9)}$ mW/MHz
	5,249.8 - 5,250 MHz : $10^{1-(8/3)(f-9.75)}$ mW/MHz
5,350 MHz or more : 2.5 μ W/MHz	5,350 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5260 (MHz)	f = MHz, Difference from 5260 (MHz)

W56

20MHz system	
DSSS, etc.	OFDM
5,470 MHz or less : 12.5 μ W/MHz	5,460 MHz or less : 2.5 μ W/MHz
	5,460 - 5,470 MHz : 12.5 μ W/MHz
5,730 MHz or more : 12.5 μ W/MHz	5,745 - 5,765 MHz : 12.5 μ W/MHz
	Over 5,765 MHz : 2.5 μ W/MHz

40MHz

W52

40MHz system
5,141.6 MHz or less : 2.5 μ W/MHz
5,141.6 - 5,150 MHz : 15 μ W/MHz
5,250 - 5,251 MHz : $10^{-(f-20)+\log(1/2)}$ mW/MHz
5,251 - 5,270 MHz : $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz
5,270 - 5,278.4 MHz : $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz
5,278.4 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5230 (MHz)

W53

40MHz system
5,221.6 MHz or less : 2.5 μ W/MHz
5,221.6 - 5,230 MHz : $10^{-(3/50)(f-40)-1.8+\log(1/2)}$ mW/MHz
5,230 - 5,249 MHz : $10^{-(8/190)(f-21)-1+\log(1/2)}$ mW/MHz
5,249 - 5,250 MHz : $10^{-(f-20)+\log(1/2)}$ mW/MHz
5,350 - 5,358.4 MHz : 15 μ W/MHz
5,358.4 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5270 (MHz)

W56

40MHz system
5,460 MHz or less : 12.5 uW/MHz
5,460 - 5,470 MHz : 50 uW/MHz
5,770 MHz or more : 12.5 uW/MHz

80MHz

W52

80MHz system
5,123.2 MHz or less : 2.5 μ W/MHz
5,123.2 - 5,150 MHz : 15 μ W/MHz
5,250 - 5,251 MHz : $10^{-(f-40)+\log(1/4)}$ mW/MHz
5,251 - 5,290 MHz : $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz
5,290 - 5,296.7 MHz : $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz
5,296.7 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5210 (MHz)

W53

80MHz system
5,203.3 MHz or less : 2.5 μ W/MHz
5,203.3 - 5,210 MHz : $10^{-(3/100)(f-80)-1.8+\log(1/4)}$ mW/MHz
5,210 - 5,249 MHz : $10^{-(8/390)(f-41)-1+\log(1/4)}$ mW/MHz
5,249 - 5,250 MHz : $10^{-(f-40)+\log(1/4)}$ mW/MHz
5,350 - 5,376.8 MHz : 15 μ W/MHz
5,376.8 MHz or more : 2.5 μ W/MHz
f = MHz, Difference from 5290 (MHz)

W56

80MHz system
5,460 MHz or less : 12.5 uW/MHz
5,460 - 5,469.5 MHz : 50 uW/MHz
5,469.5 - 5,470 MHz : 51.2 uW/MHz
5,770 MHz or more : 12.5 uW/MHz

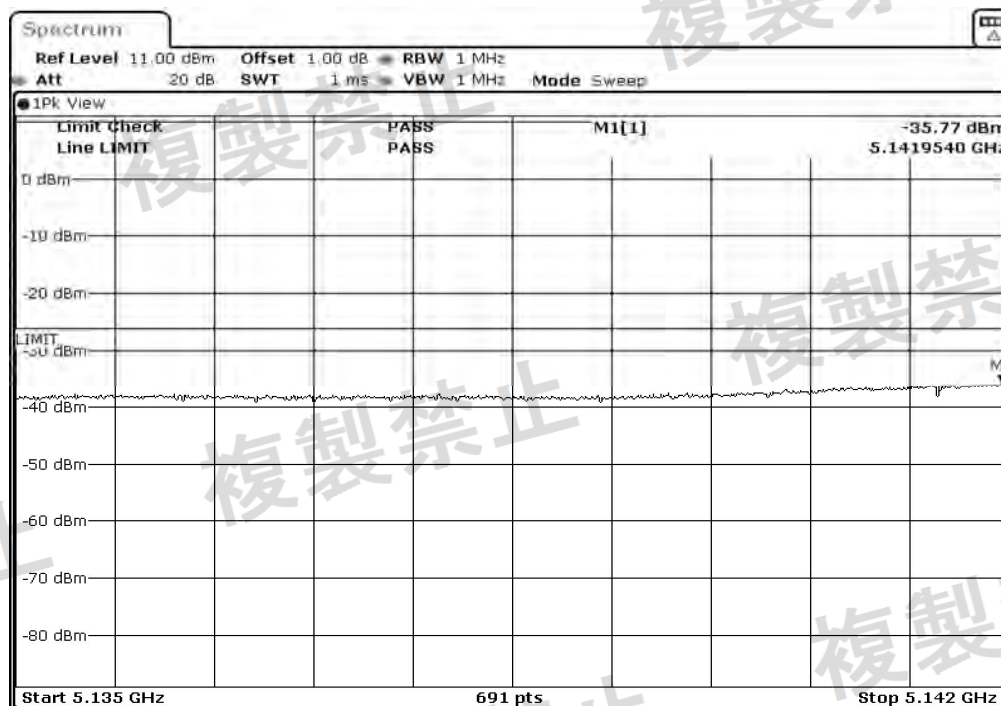
8.4. Test Result of Out-Band Leakage Power

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W52 (5180MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5142MHz	-35.77	0.5793	≤2.5uW/MHz
		5142 to 5150MHz	-30.58	1.9147	≤15.0uW/MHz
		5250 to 5250.2MHz	-44.46	0.0783	934.6880
		5250.2 to 5251MHz	-44.06	0.0860	123.5947
		5251 to 5260MHz	-44.14	0.0843	98.7997
		5260 to 5266.7MHz	-45.20	0.0660	7.1043
		5266.7 to 5365MHz	-46.14	0.0532	≤2.5uW/MHz

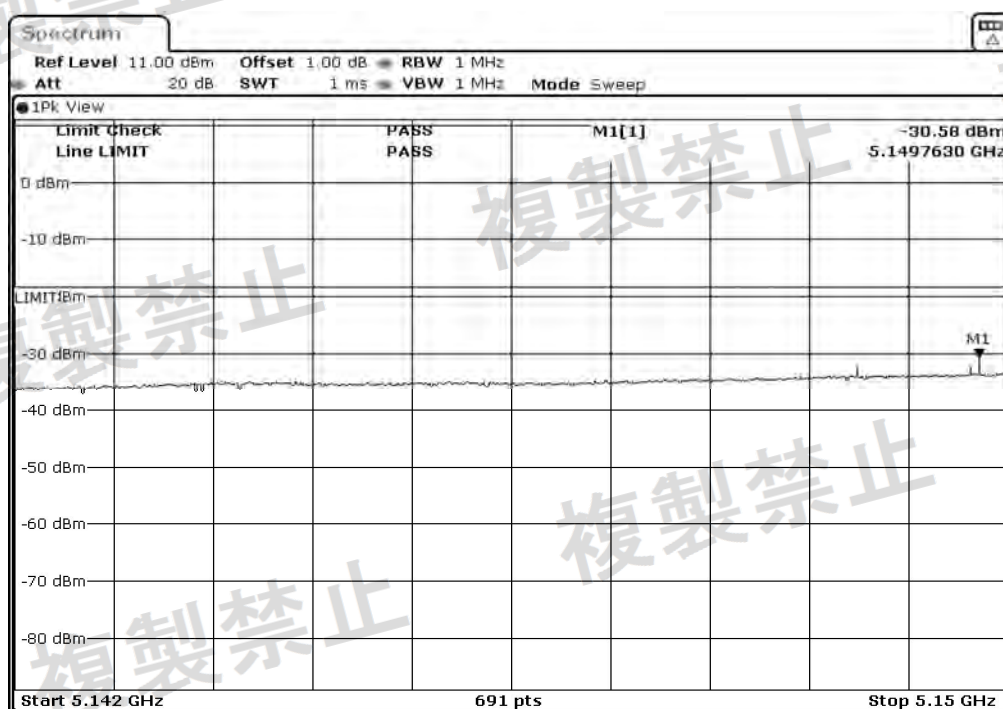
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)}{1000}}$

5135 - 5142MHz



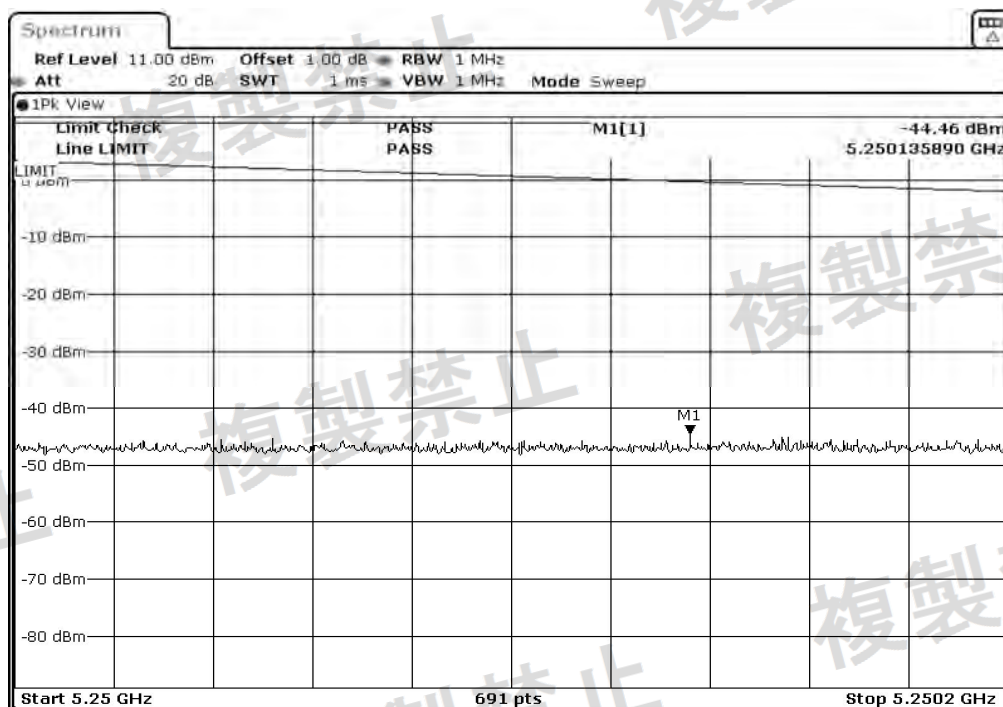
Date: 9.APR.2021 09:29:47

5142 - 5150MHz



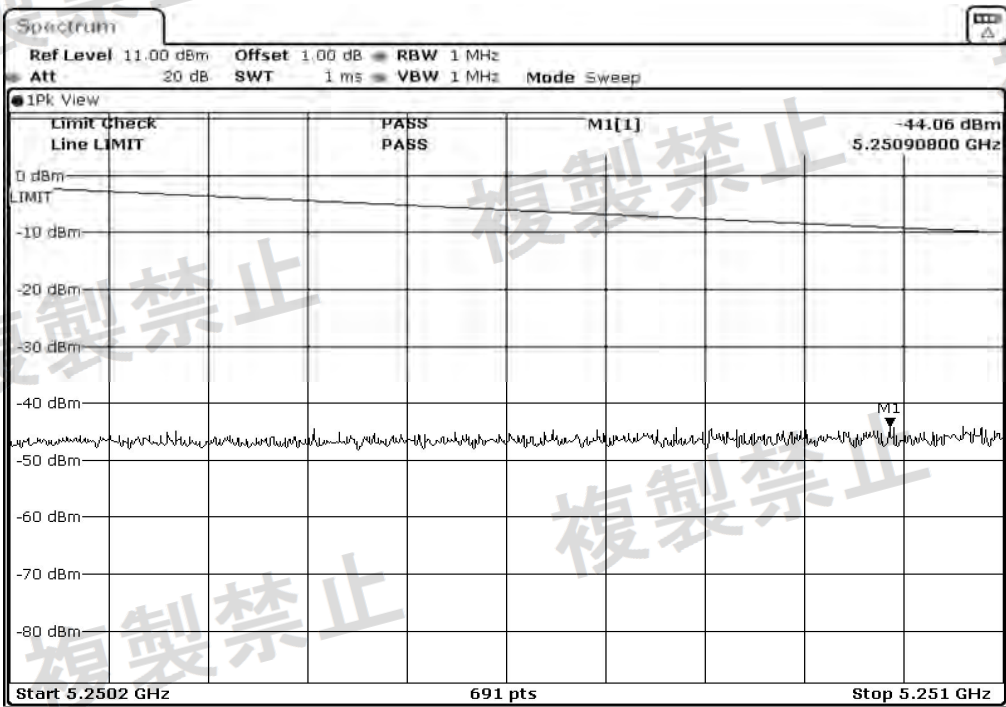
Date: 9.APR.2021 09:30:14

5250 - 5250.2MHz



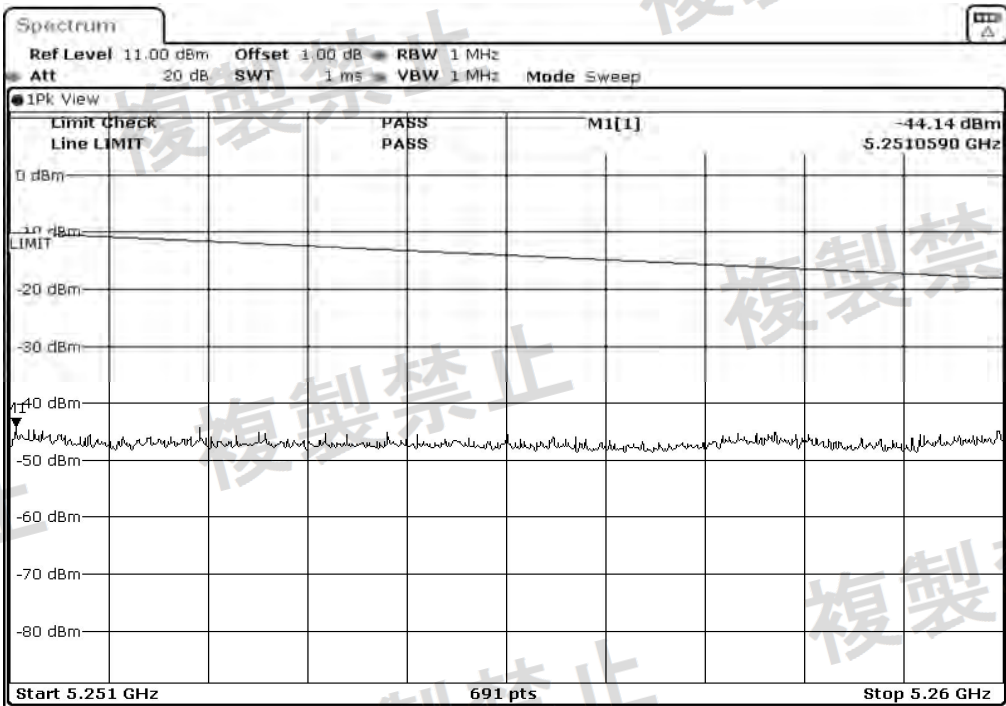
Date: 9.APR.2021 09:30:40

5250.2 - 5251MHz



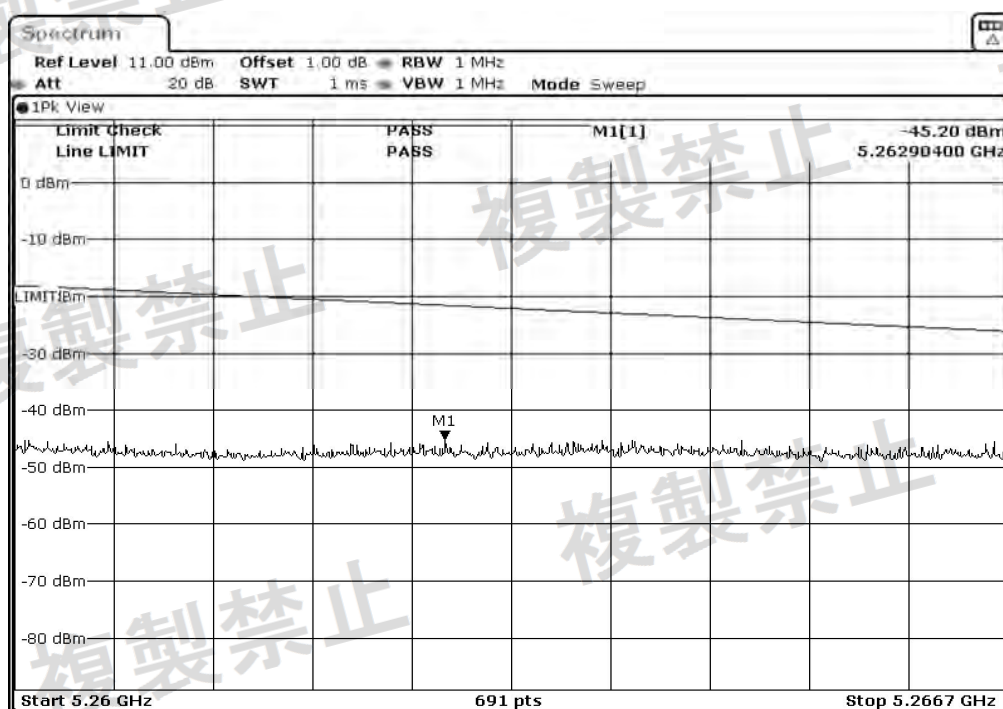
Date: 9.APR.2021 09:31:07

5251 - 5260MHz



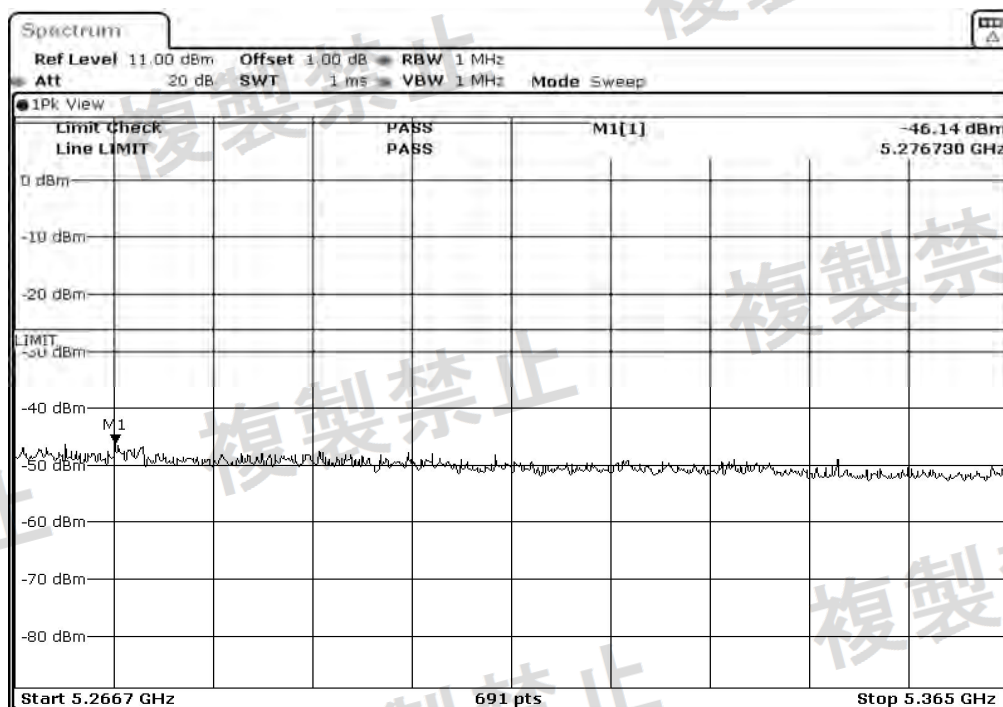
Date: 9.APR.2021 09:31:33

5260 - 5266.7MHz



Date: 9.APR.2021 09:31:59

5266.7 - 5365MHz



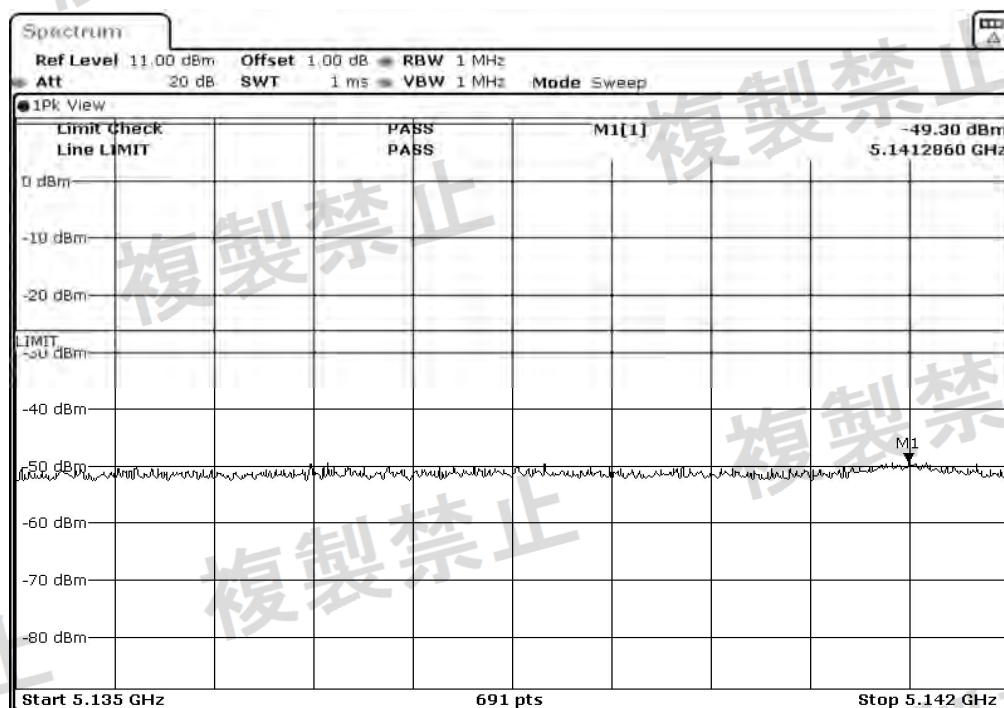
Date: 9.APR.2021 09:32:26

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W52 (5240MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5142MHz	-49.30	0.0257	≤2.5uW/MHz
		5142 to 5150MHz	-49.52	0.0244	≤15.0uW/MHz
		5250 to 5250.2MHz	-9.94	222.0240	1781.0113
		5250.2 to 5251MHz	-12.14	133.5058	562.3413
		5251 to 5260MHz	-15.86	56.7283	92.6877
		5260 to 5266.7MHz	-25.38	6.3372	13.0870
		5266.7 to 5365MHz	-35.56	0.6086	≤2.5uW/MHz

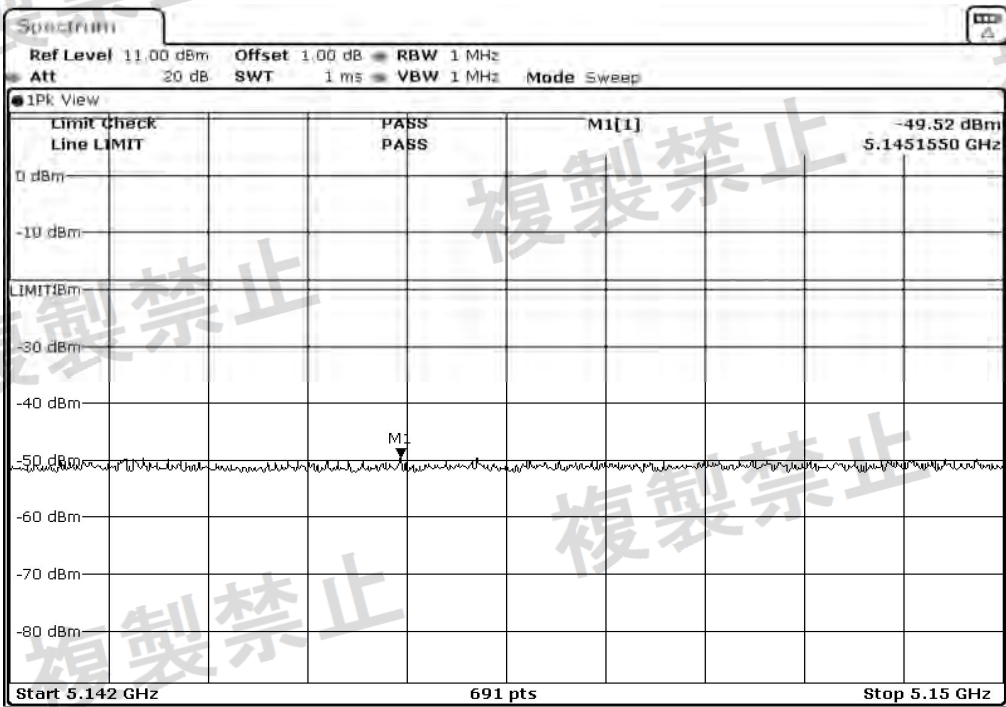
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135 - 5142MHz



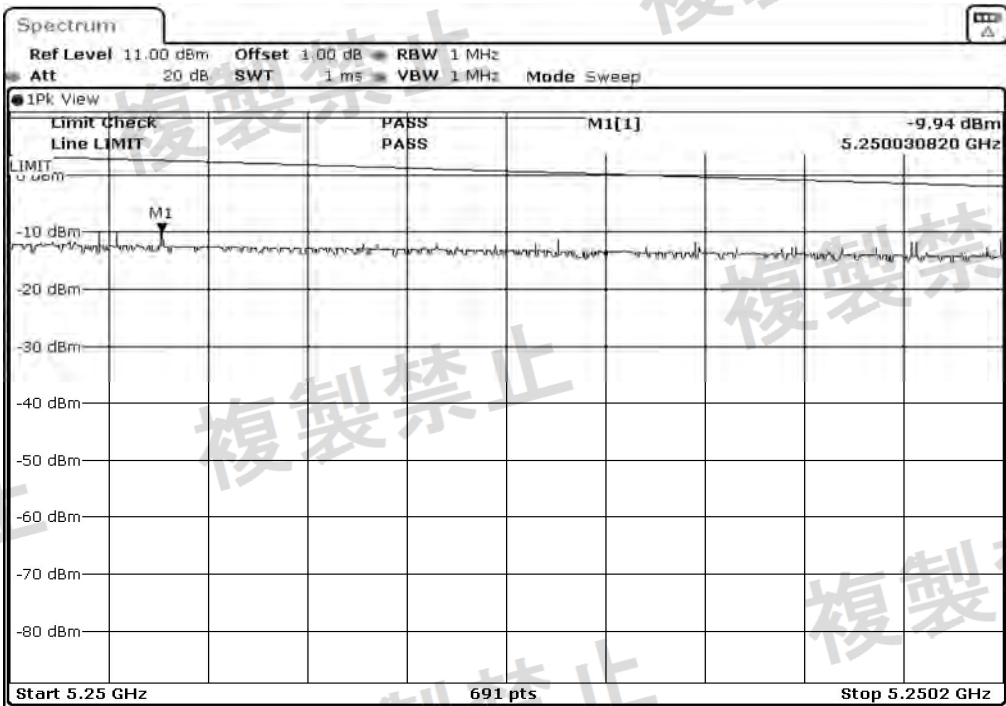
Date: 9.APR.2021 09:36:34

5142 - 5150MHz



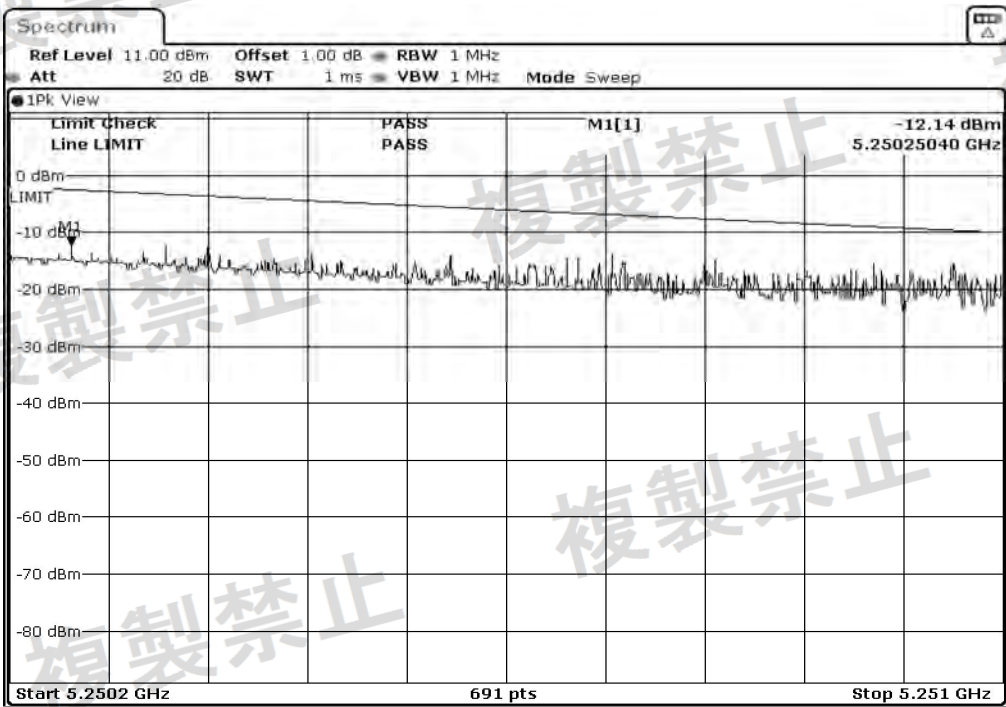
Date: 9.APR.2021 09:37:00

5250 - 5250.2MHz



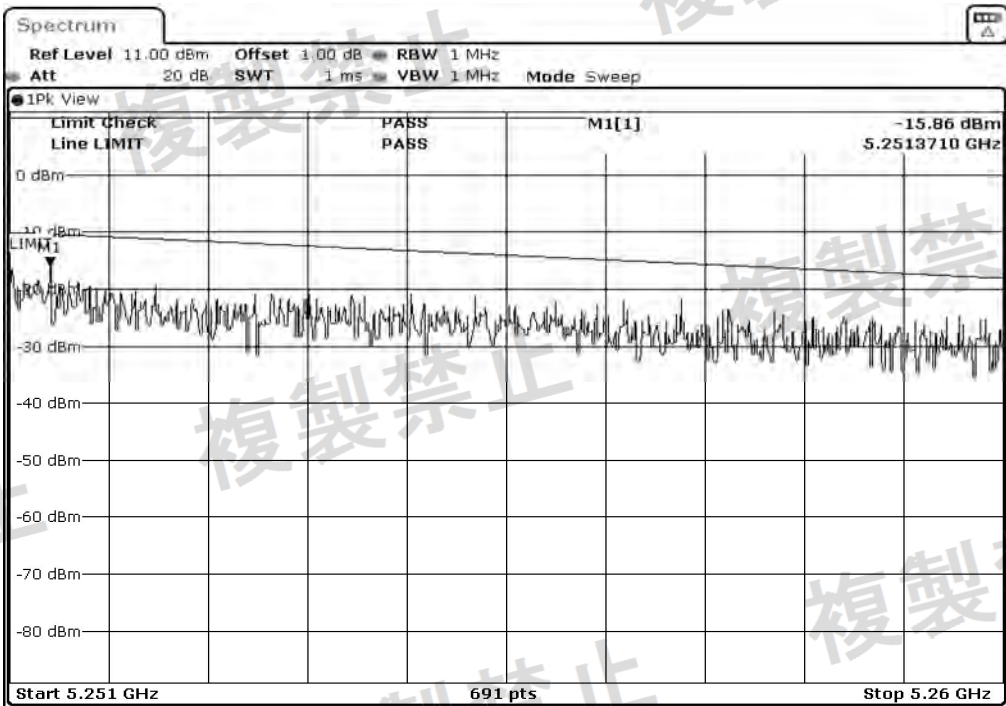
Date: 9.APR.2021 09:37:27

5250.2 - 5251MHz



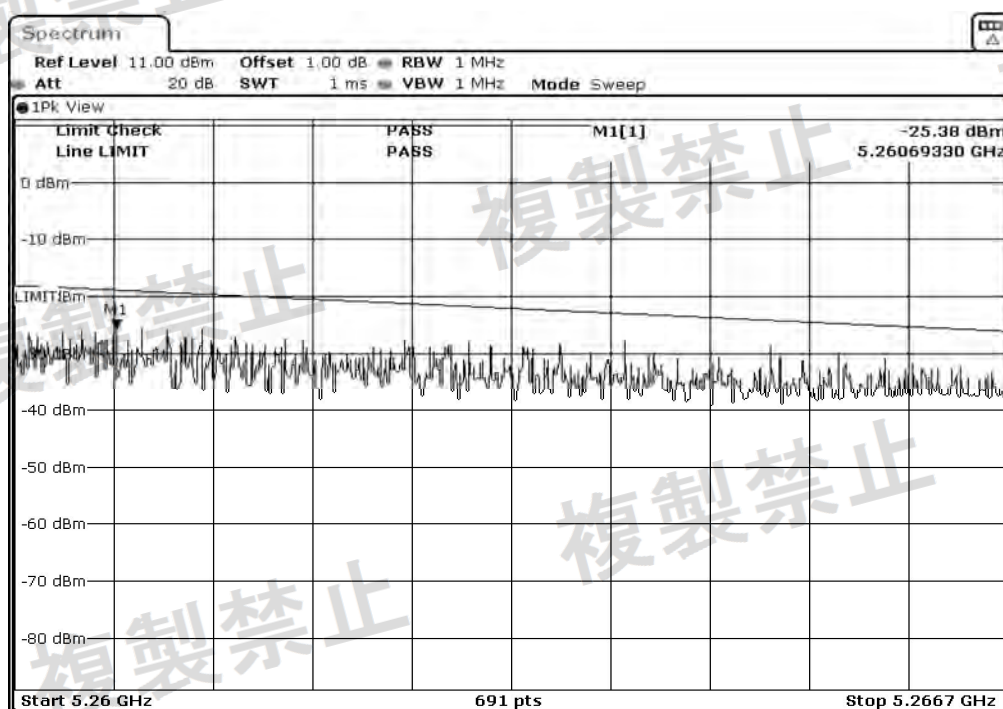
Date: 9.APR.2021 09:37:54

5251 - 5260MHz



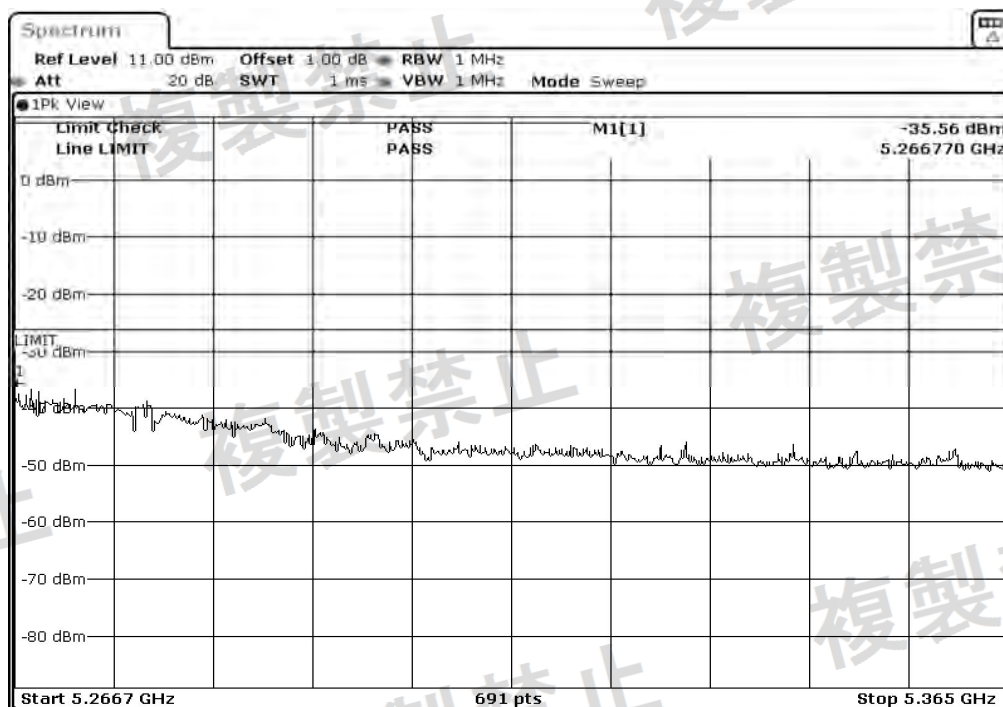
Date: 9.APR.2021 09:38:20

5260 - 5266.7MHz



Date: 9.APR.2021 09:38:46

5266.7 - 5365MHz



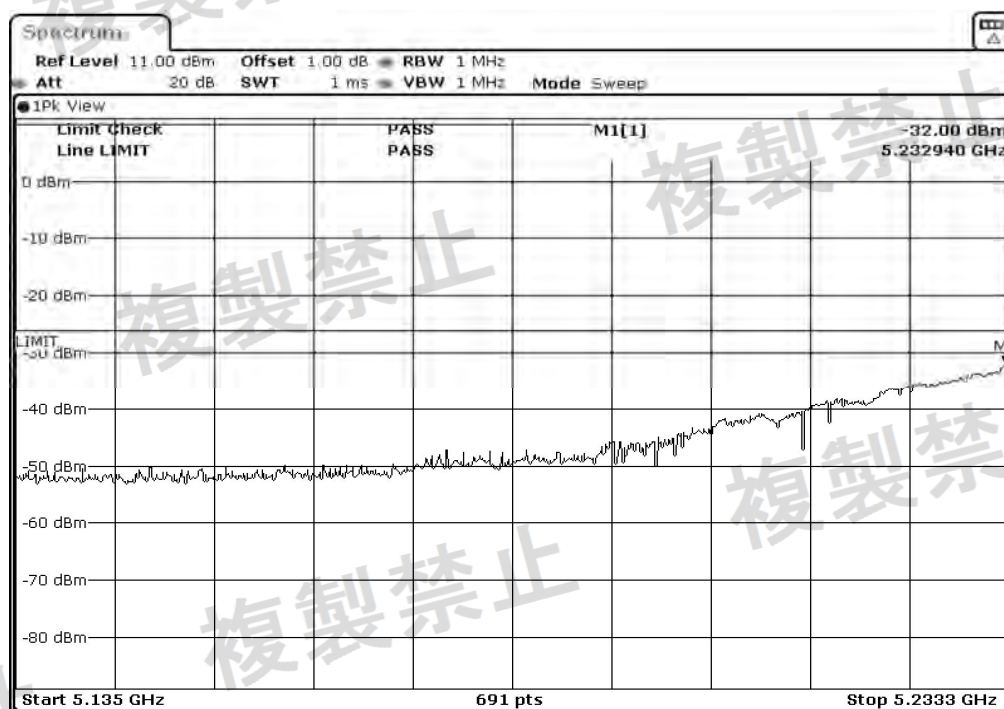
Date: 9.APR.2021 09:39:13

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W53 (5260MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5233.3MHz	-32.00	1.4781	≤2.5uW/MHz
		5233.3 to 5240MHz	-27.91	3.7888	12.4692
		5240 to 5249MHz	-17.32	43.4310	97.2349
		5249 to 5249.8MHz	-11.57	163.1549	409.2607
		5249.8 to 5250MHz	-9.91	239.1112	1759.2734
		5350 to 5365MHz	-46.19	0.0564	≤2.5uW/MHz

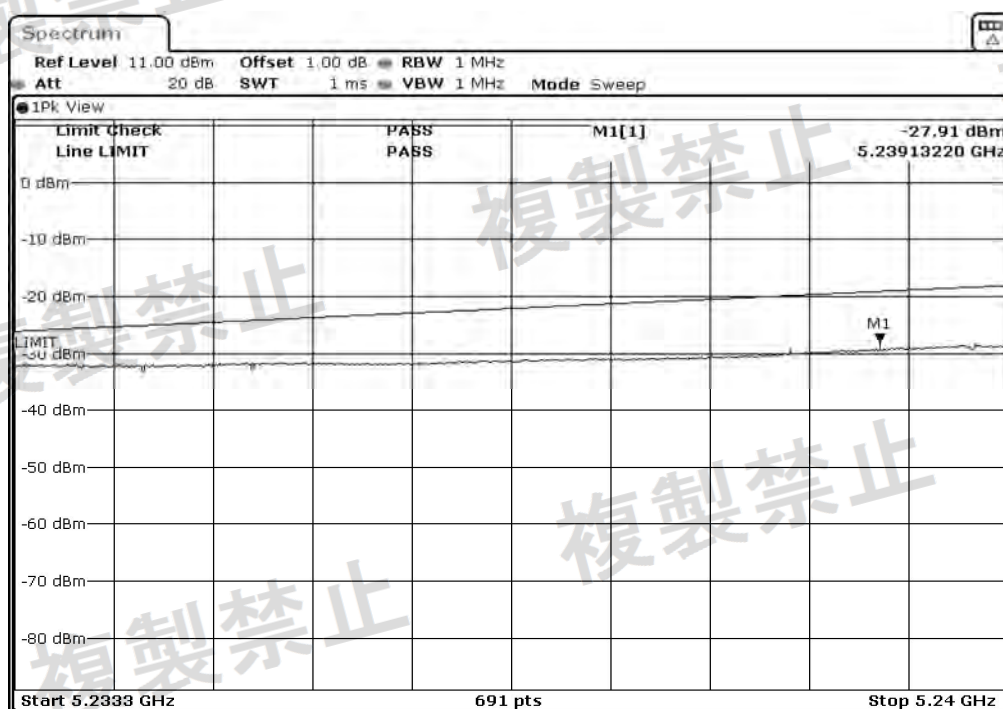
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135 - 5233.3MHz



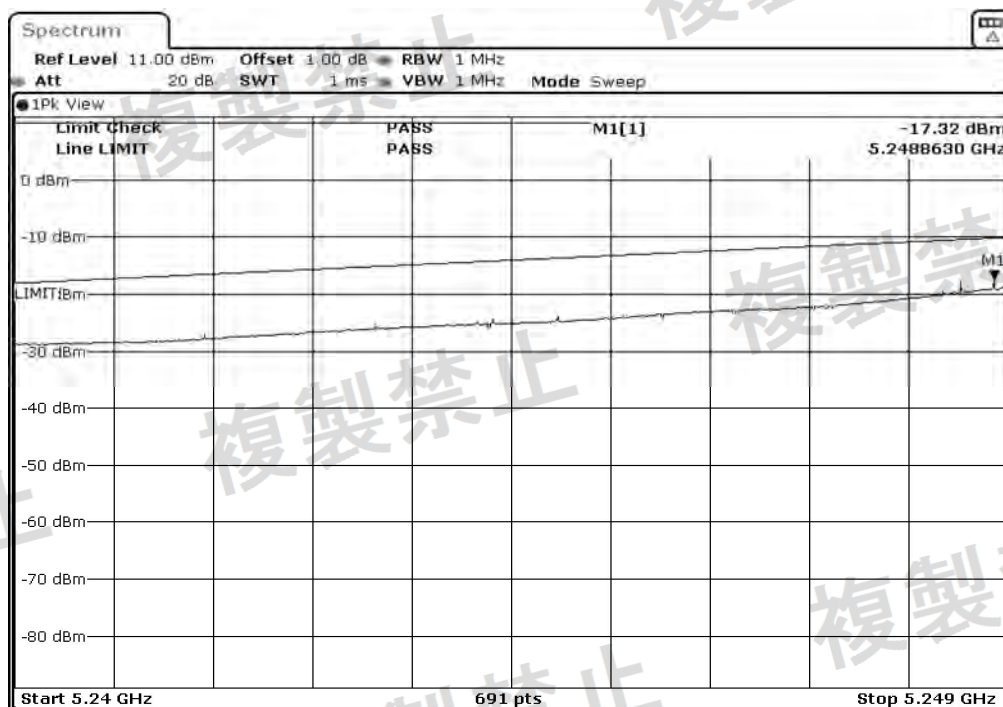
Date: 9.APR.2021 09:44:03

5233.3 - 5240MHz



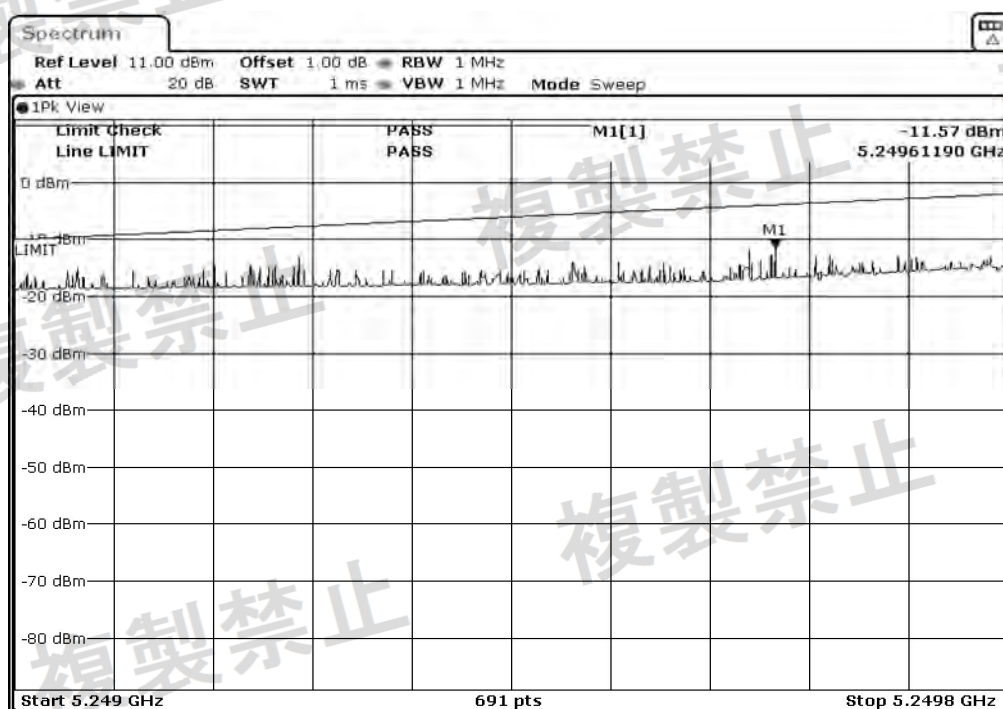
Date: 9.APR.2021 09:44:29

5240 - 5249MHz



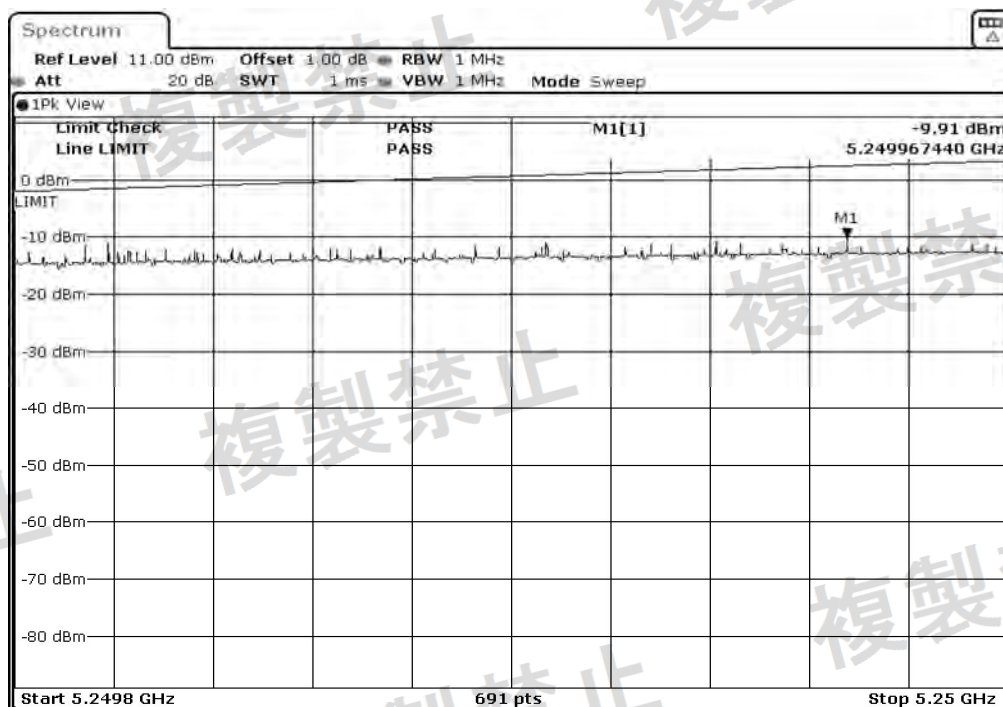
Date: 9.APR.2021 09:44:55

5249 - 5249.8MHz



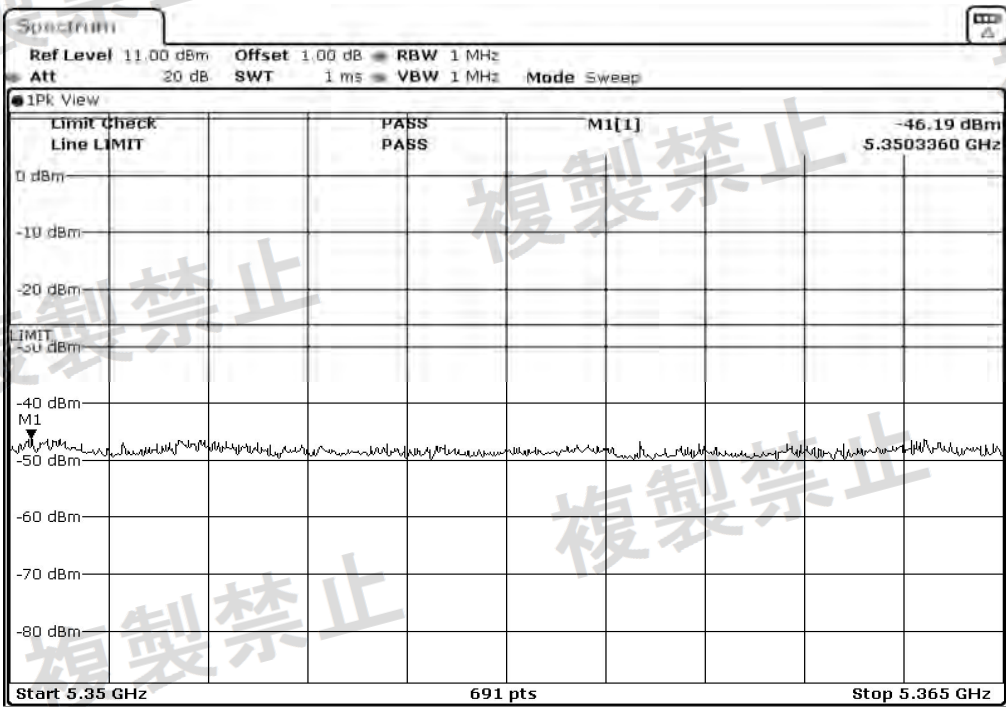
Date: 9.APR.2021 09:45:21

5249.8 - 5250MHz



Date: 9.APR.2021 09:45:48

5350 - 5365MHz



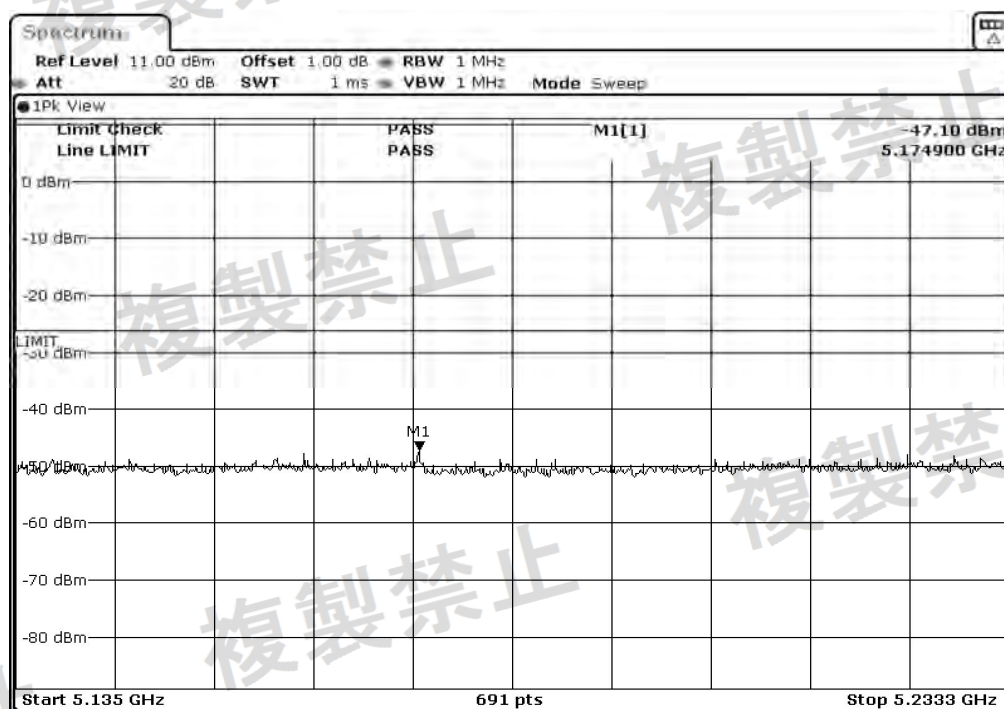
Date: 9.APR.2021 09:46:15

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W53 (5320MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5233.3MHz	-47.10	0.0457	≤2.5uW/MHz
		5233.3 to 5240MHz	-46.31	0.0548	15.3278
		5240 to 5249MHz	-45.58	0.0648	16.0842
		5249 to 5249.8MHz	-44.89	0.0760	309.0295
		5249.8 to 5250MHz	-44.57	0.0819	1137.6273
		5350 to 5365MHz	-30.76	1.9683	≤2.5uW/MHz

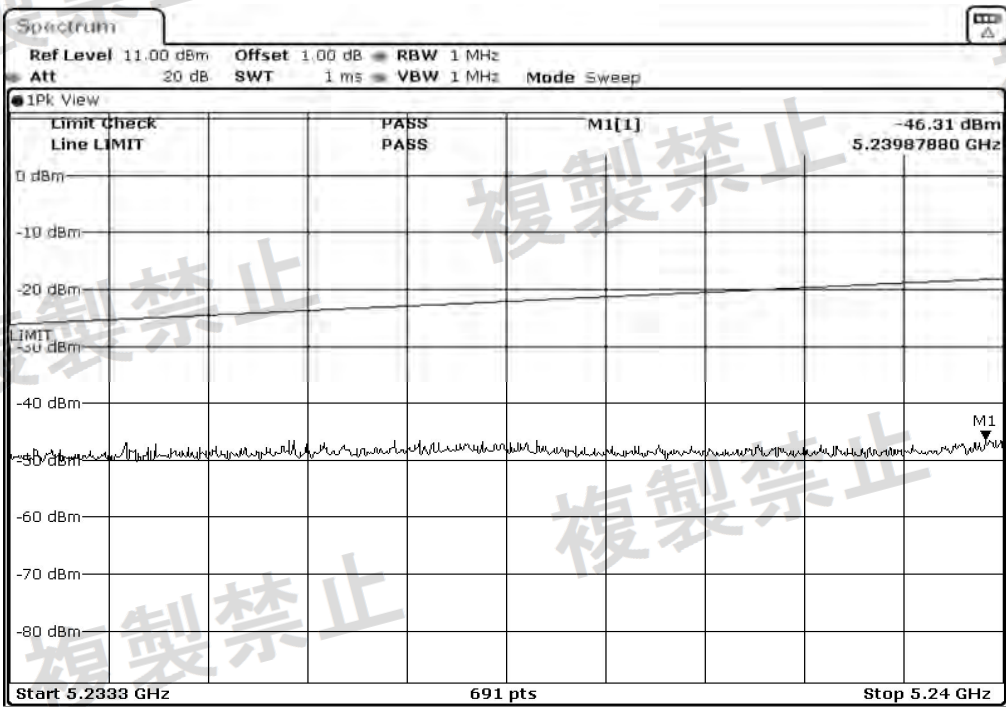
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135 - 5233.3MHz



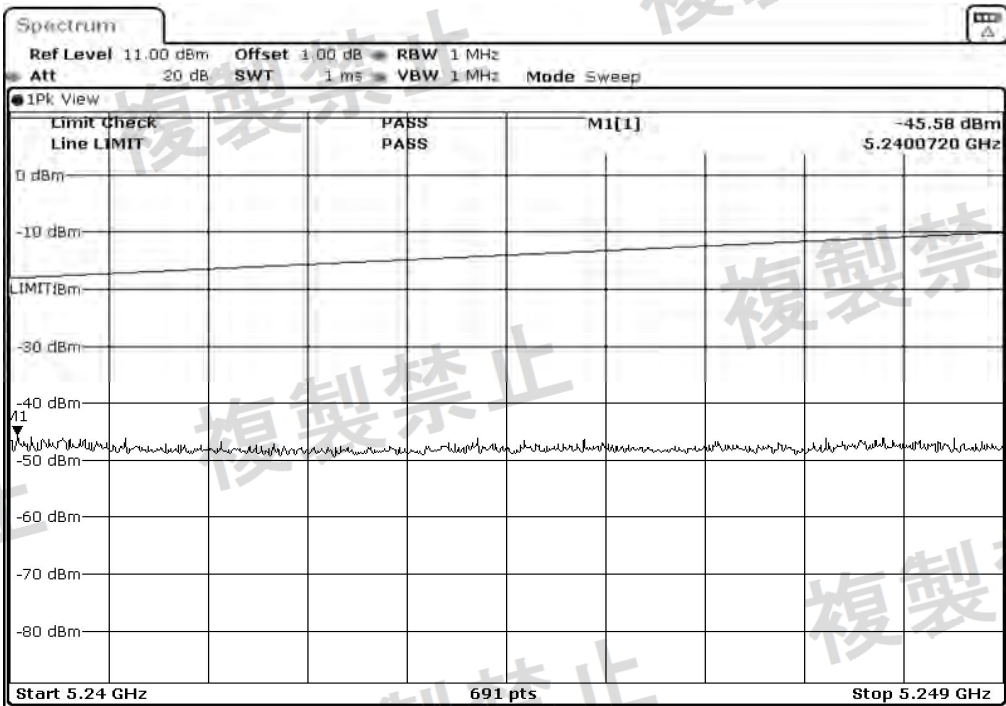
Date: 9.APR.2021 09:52:30

5233.3 - 5240MHz



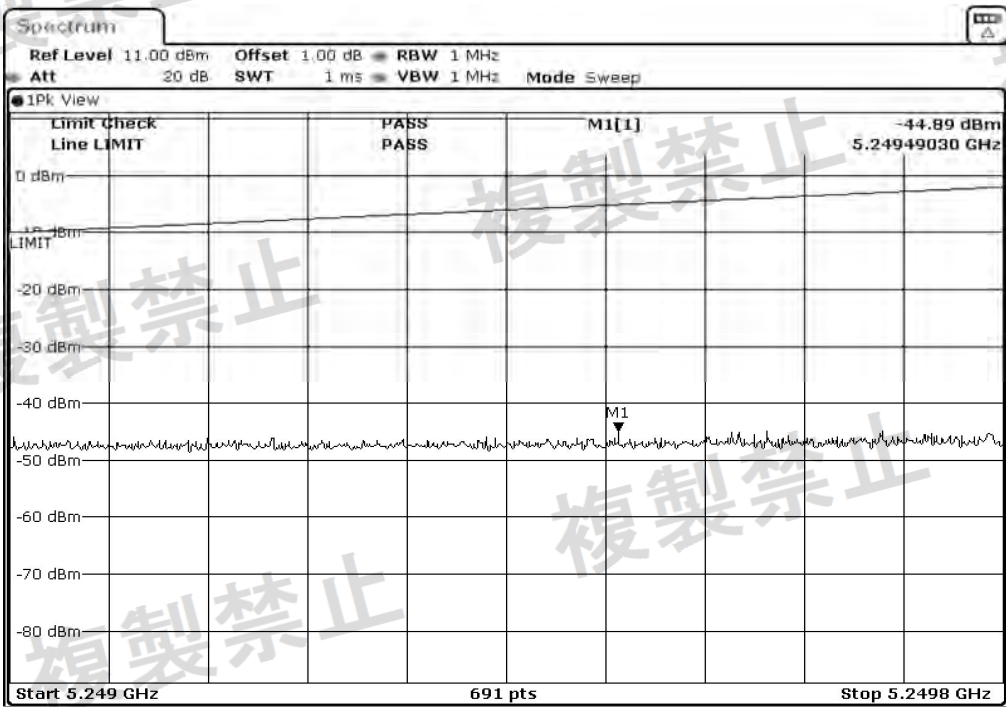
Date: 9.APR.2021 09:52:57

5240 - 5249MHz



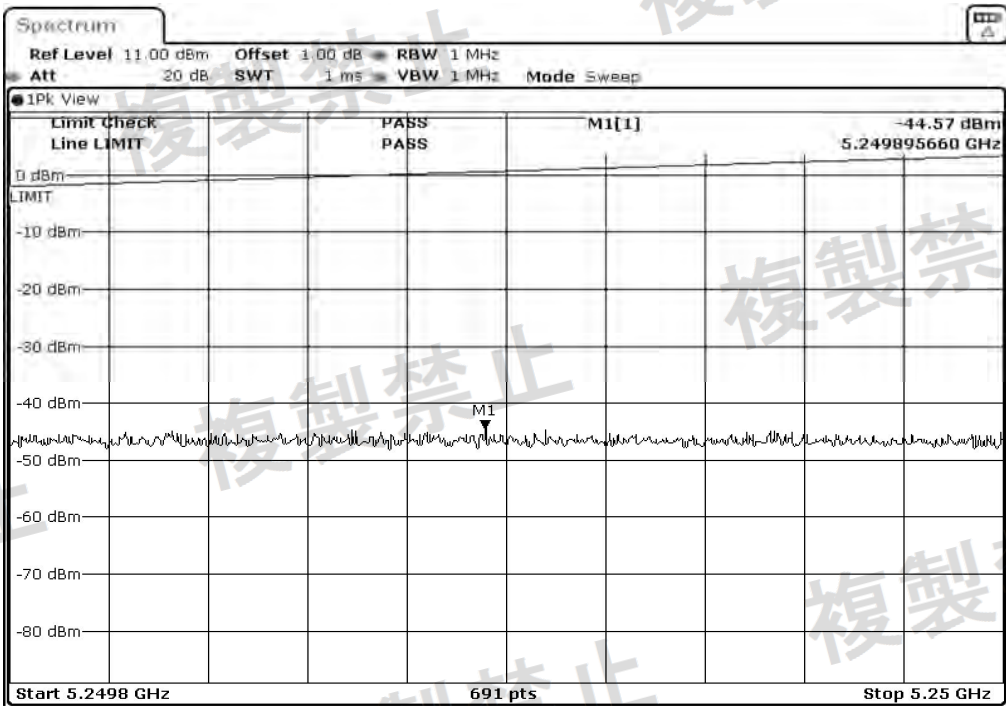
Date: 9.APR.2021 09:53:22

5249 - 5249.8MHz



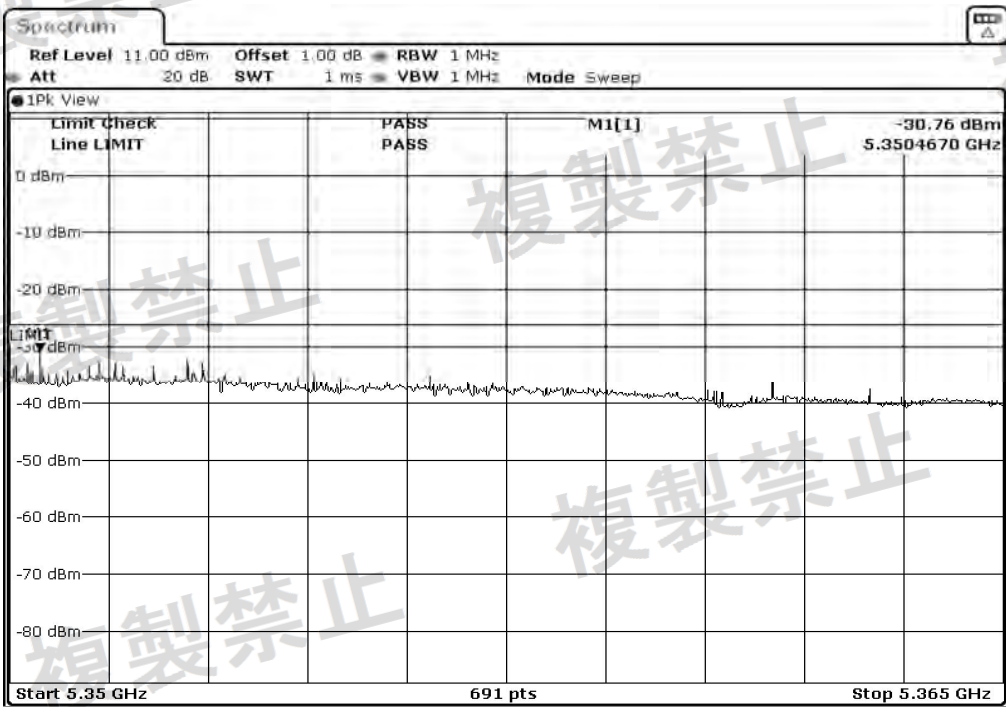
Date: 9.APR.2021 09:53:49

5249.8 - 5250MHz



Date: 9.APR.2021 09:54:16

5350 - 5365MHz



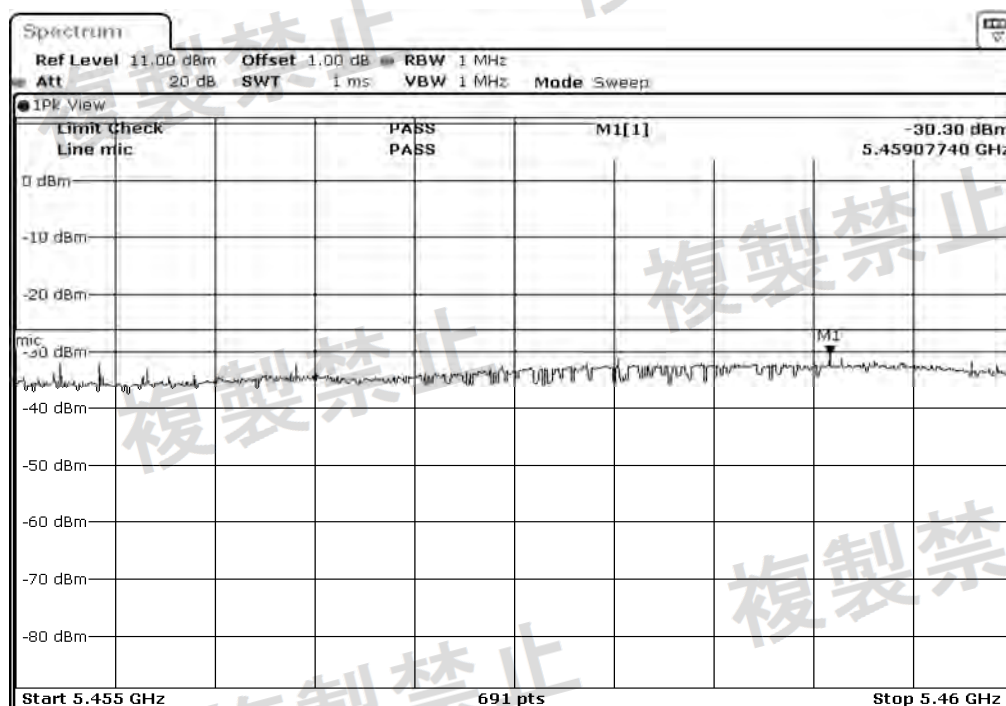
Date: 9.APR.2021 09:54:42

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5500MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-30.30	2.1878	$\leq 2.5 \text{ uW/MHz}$
		5460 to 5470MHz	-25.00	7.4148	$\leq 12.5 \text{ uW/MHz}$
		5745 to 5765MHz	-47.94	0.0377	$\leq 12.5 \text{ uW/MHz}$
		5765 to 5770MHz	-48.78	0.0310	$\leq 2.5 \text{ uW/MHz}$

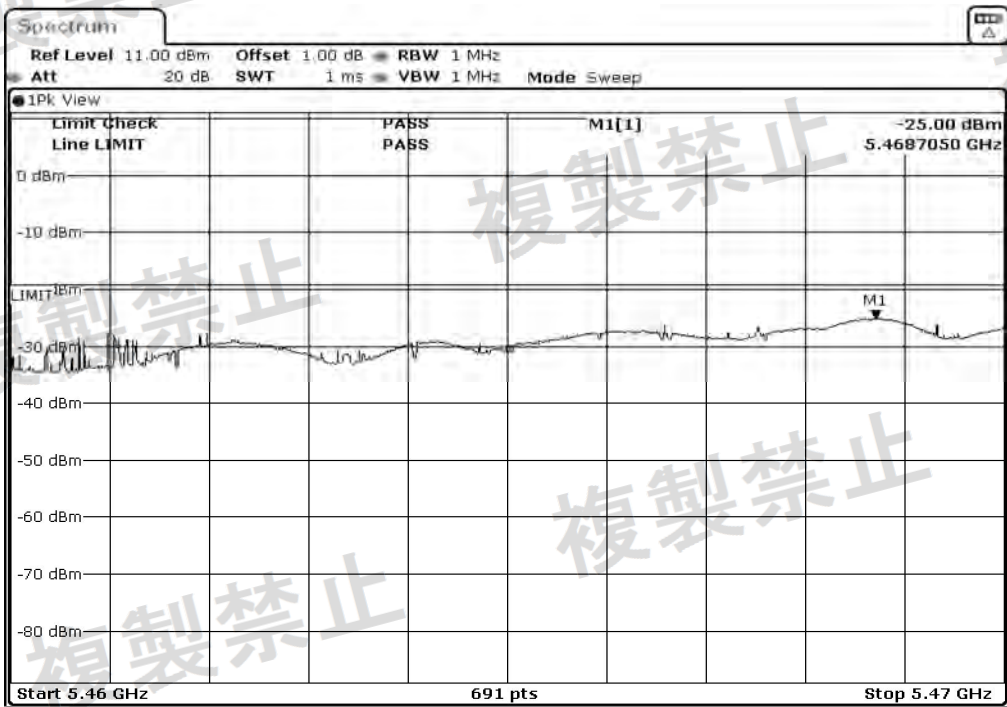
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5455 - 5460MHz



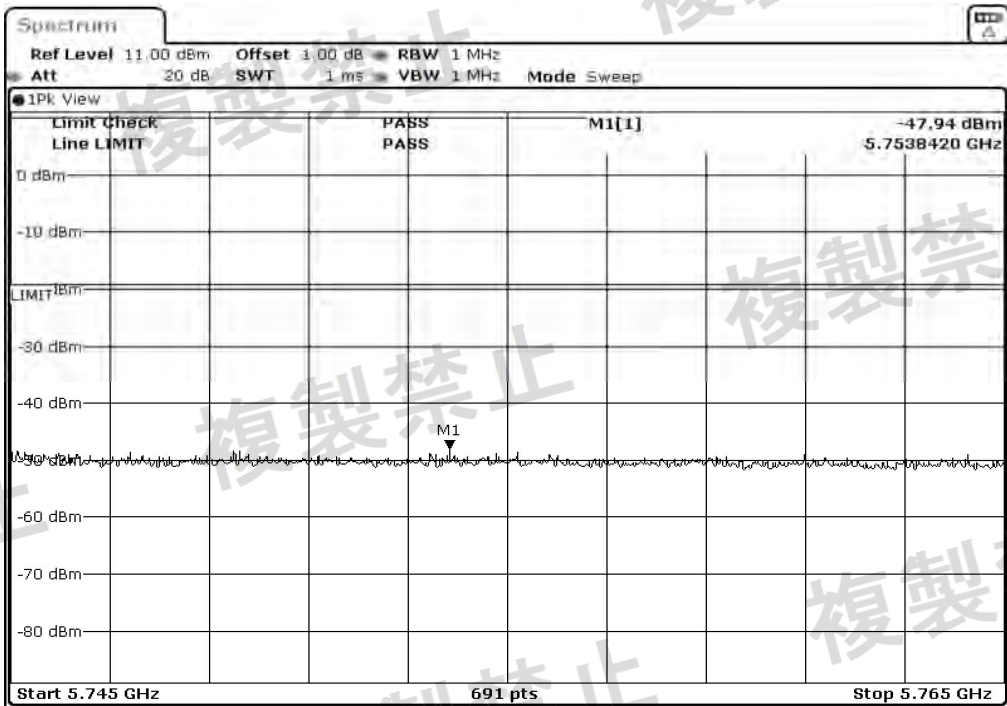
Date: 13.APR.2021 09:02:14

5460 - 5470MHz



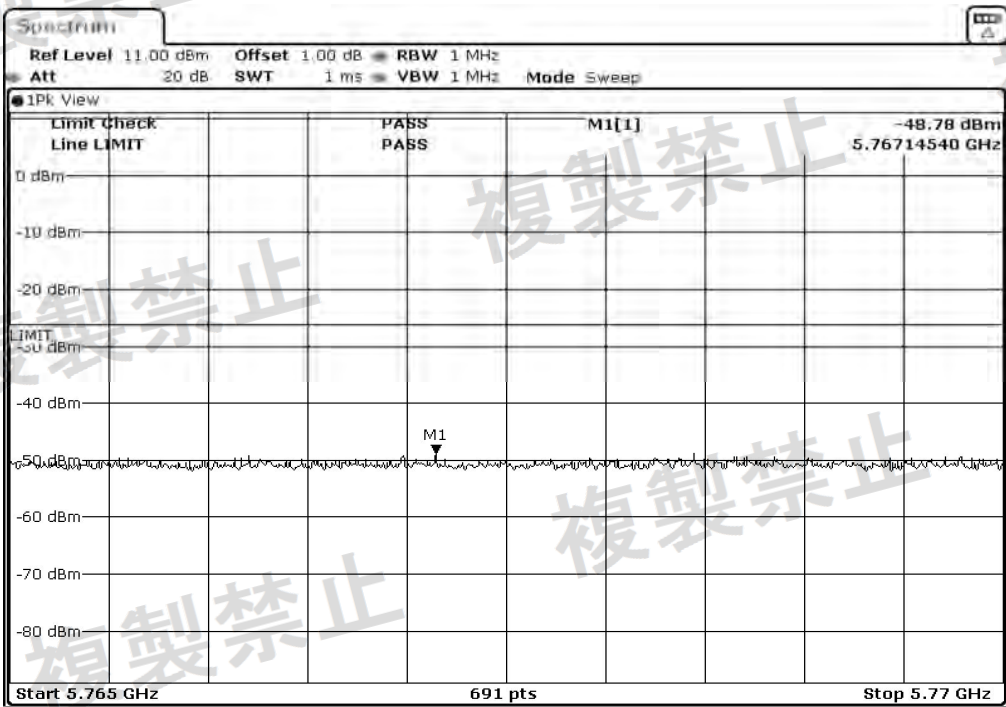
Date: 9.APR.2021 10:00:18

5745 - 5765MHz



Date: 9.APR.2021 10:00:44

5765 - 5770MHz



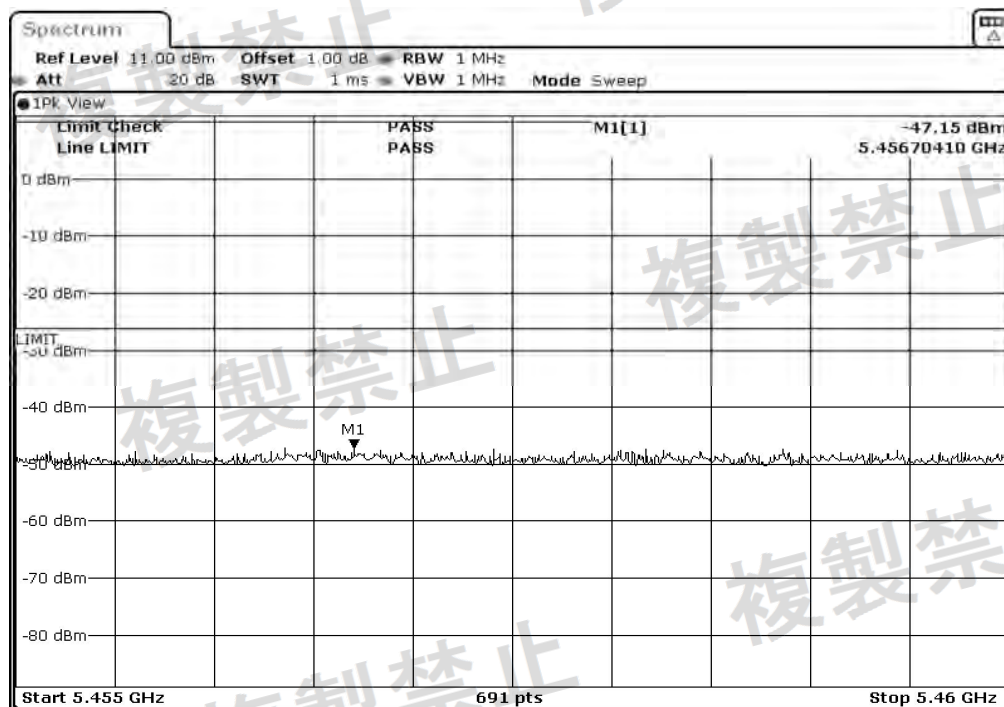
Date: 9.APR.2021 10:01:11

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5600MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-47.15	0.0452	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-45.83	0.0613	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-44.60	0.0812	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-45.11	0.0723	$\leq 2.5\text{uW/MHz}$

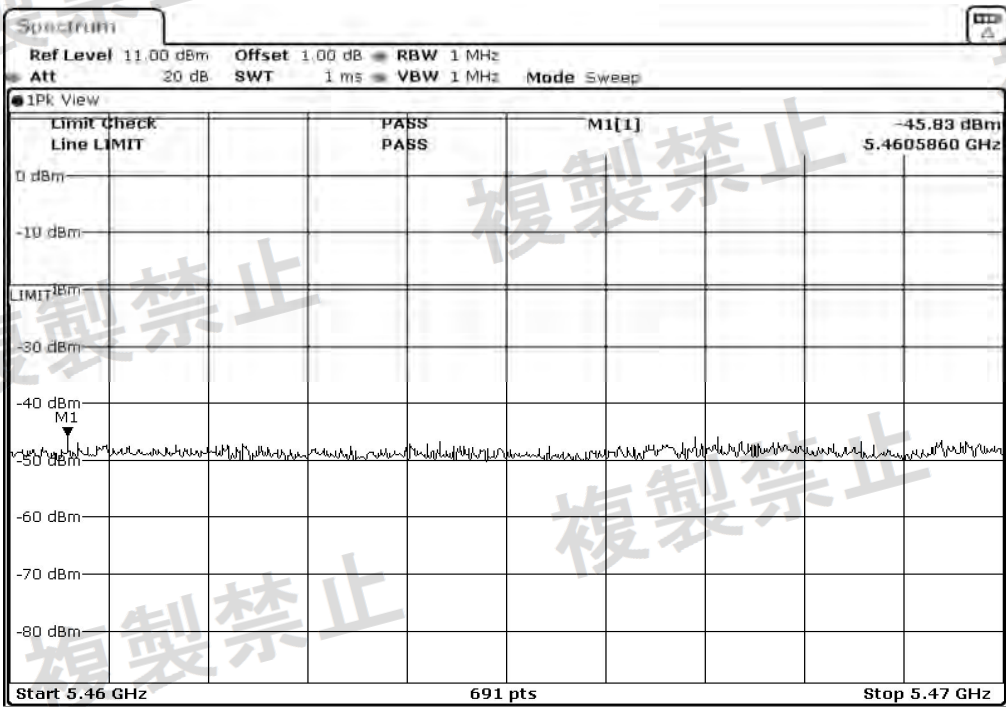
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10) * 1000}{10}}$

5455 - 5460MHz



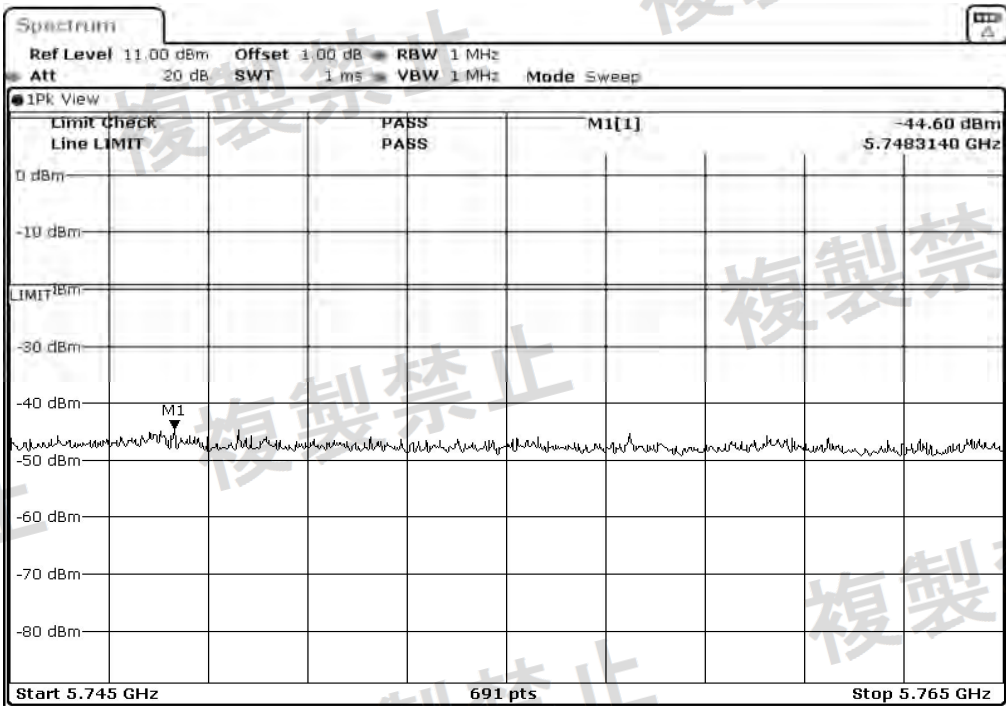
Date: 9.APR.2021 10:05:51

5460 - 5470MHz



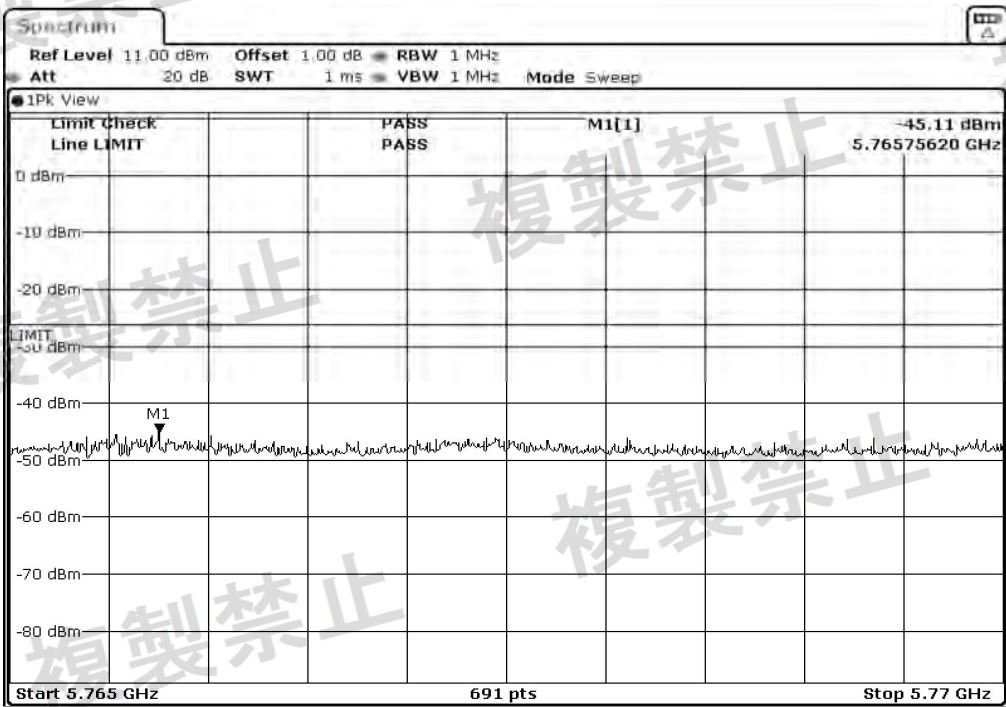
Date: 9.APR.2021 10:06:18

5745 - 5765MHz



Date: 9.APR.2021 10:06:43

5765 - 5770MHz



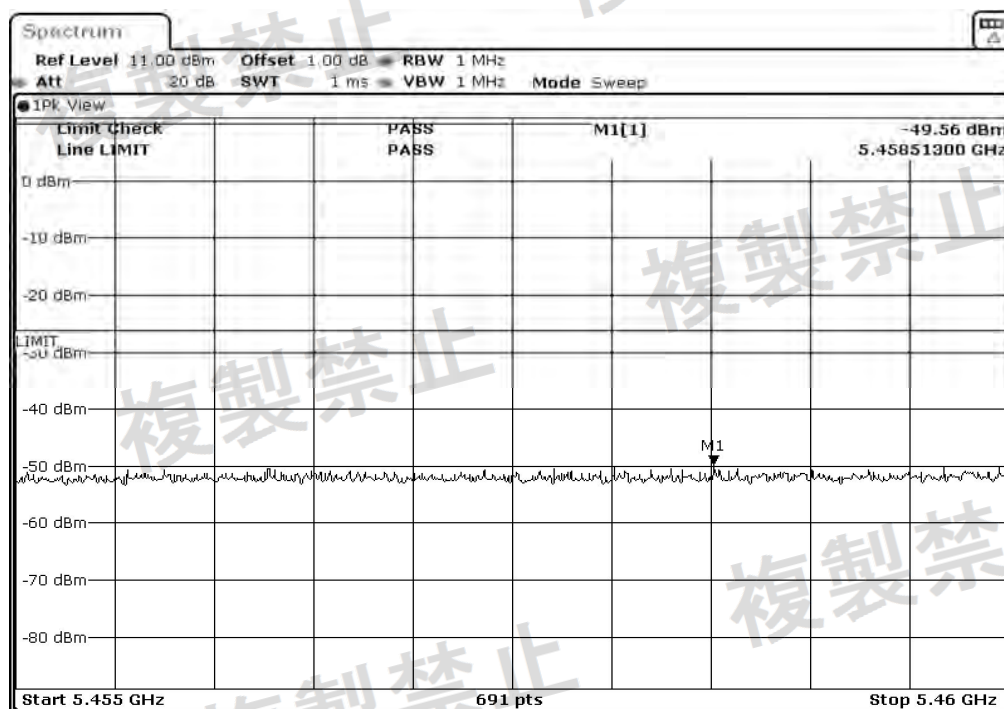
Date: 9.APR.2021 10:07:10

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5700MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-49.56	0.0260	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-49.27	0.0277	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-41.16	0.1793	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-46.56	0.0517	$\leq 2.5\text{uW/MHz}$

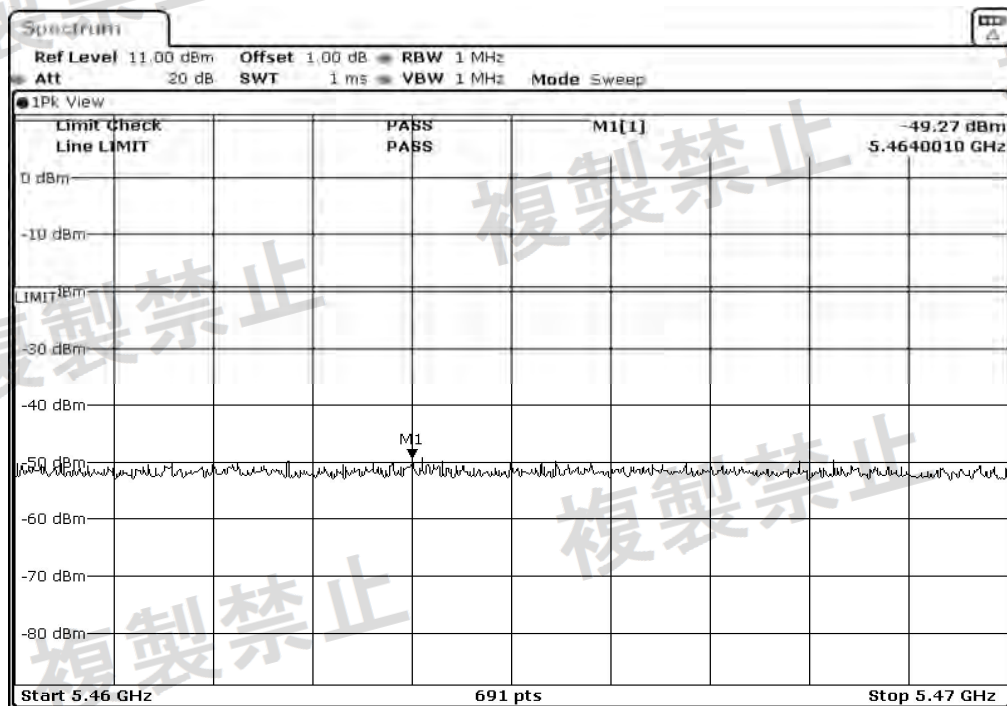
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5455 - 5460MHz

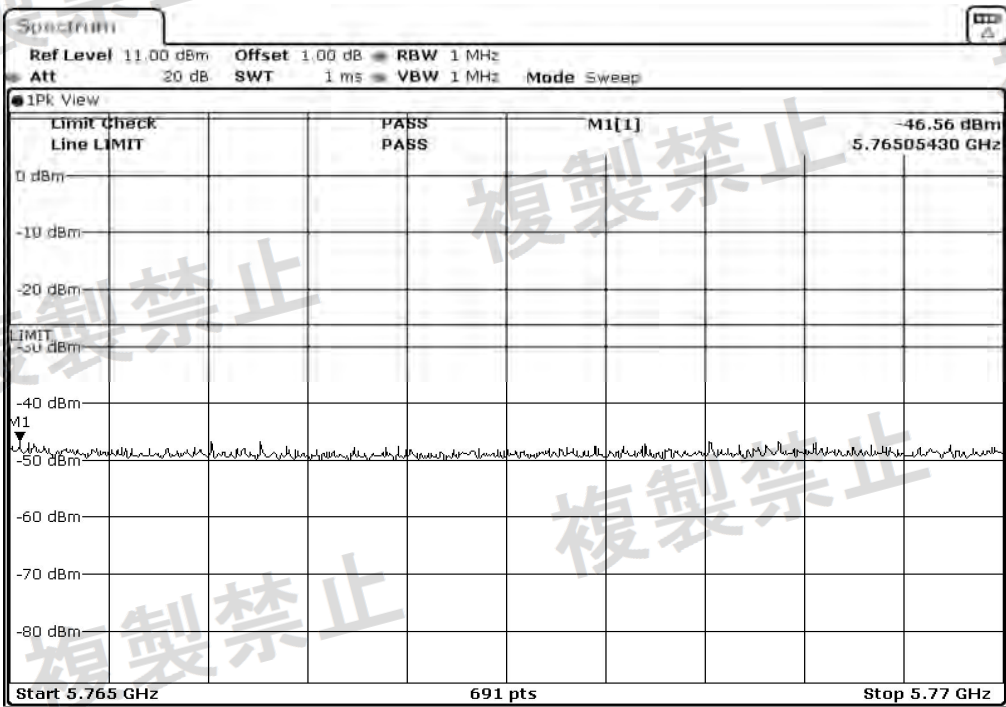


Date: 9.APR.2021 10:11:44

5460 - 5470MHz



5765 - 5770MHz



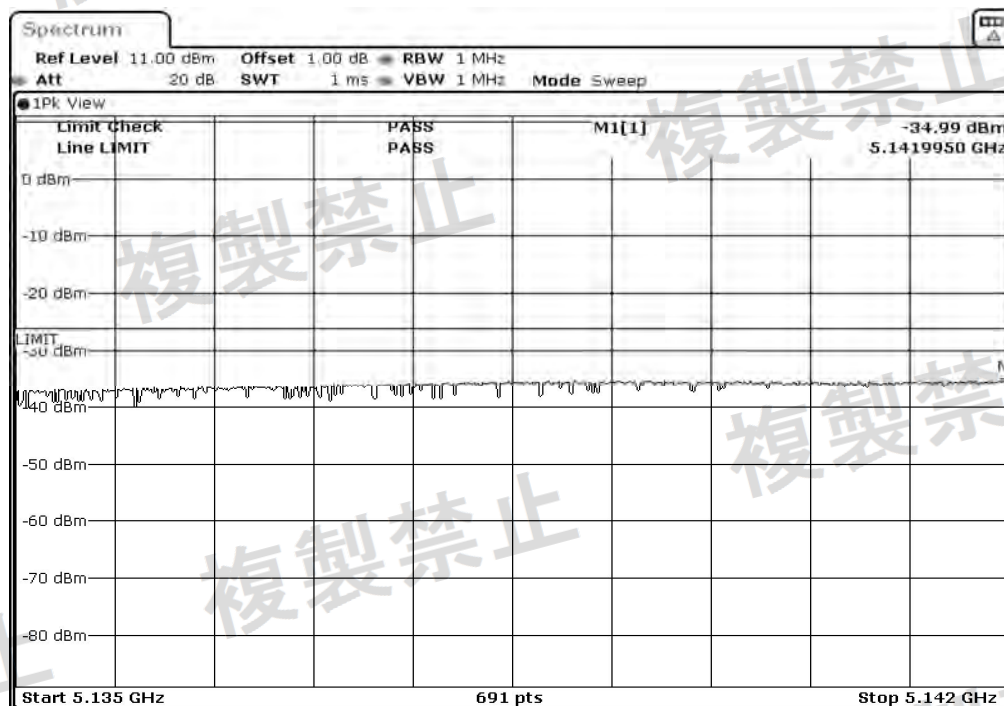
Date: 9.APR.2021 10:13:04

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W52 (5180MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5142MHz	-34.99	0.6929	≤2.5uW/MHz
		5142 to 5150MHz	-30.42	1.9847	≤15.0uW/MHz
		5250 to 5250.2MHz	-42.59	0.1204	2051.1622
		5250.2 to 5251MHz	-42.23	0.1310	609.5369
		5251 to 5260MHz	-42.54	0.1219	68.3947
		5260 to 5266.7MHz	-45.44	0.0626	5.5081
		5266.7 to 5365MHz	-45.31	0.0645	≤2.5uW/MHz

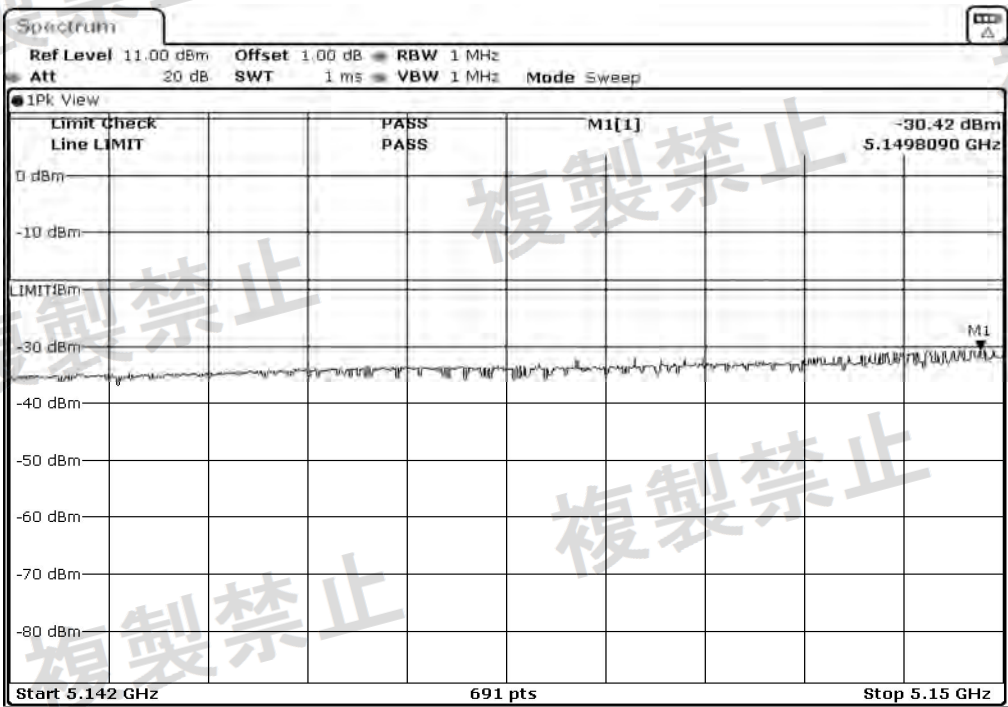
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135-5142MHz



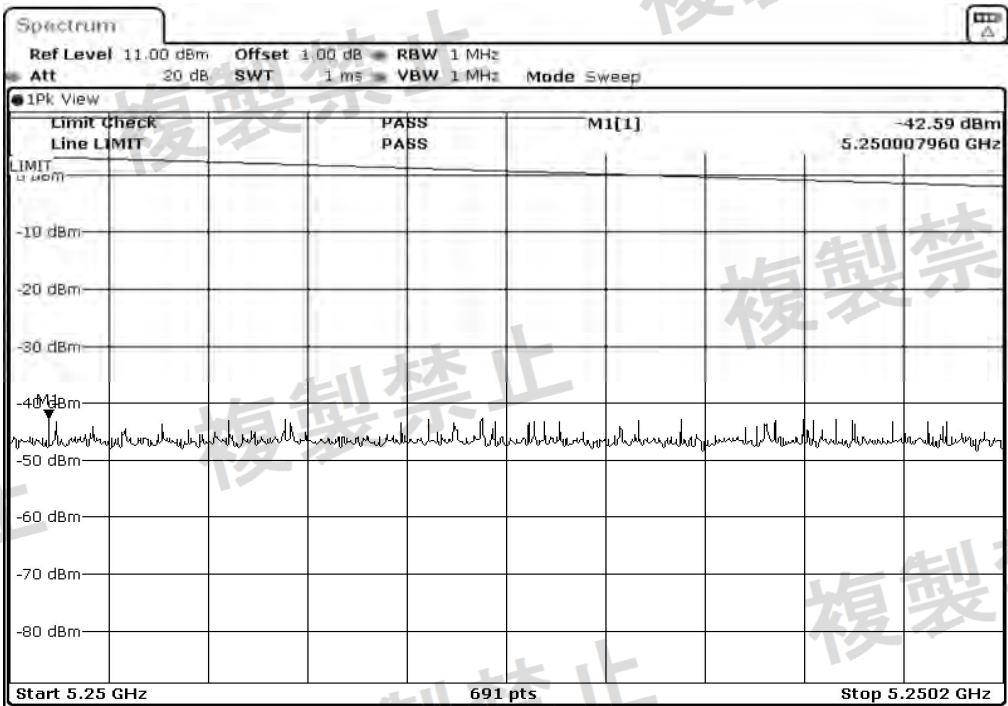
Date: 12.APR.2021 04:26:33

5142-5150MHz



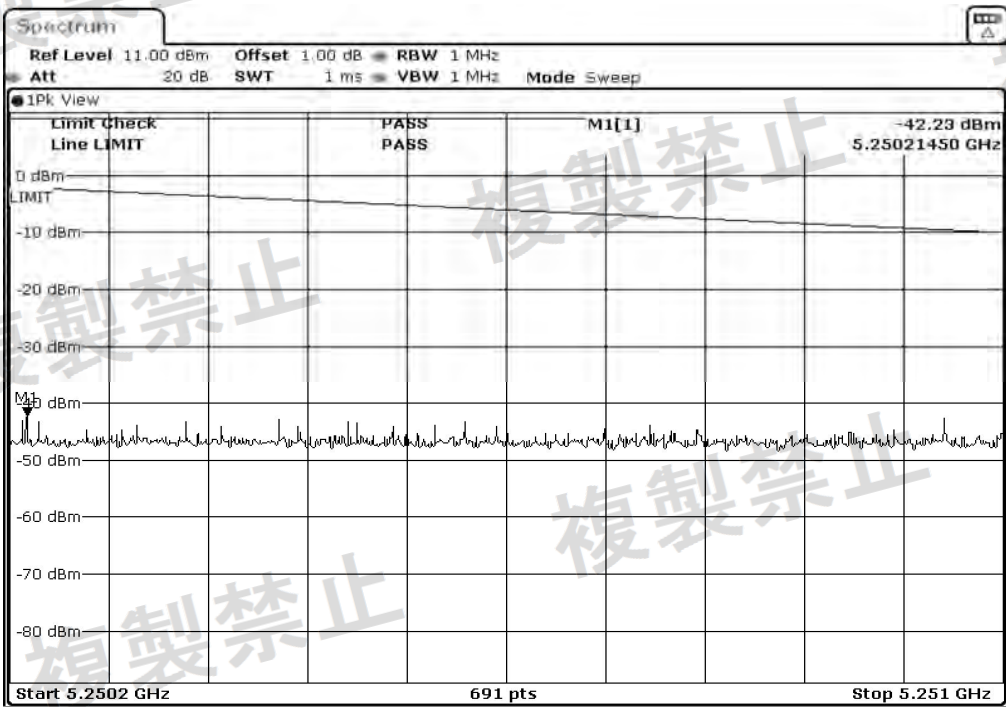
Date: 12.APR.2021 04:27:00

5250 - 5250.2MHz



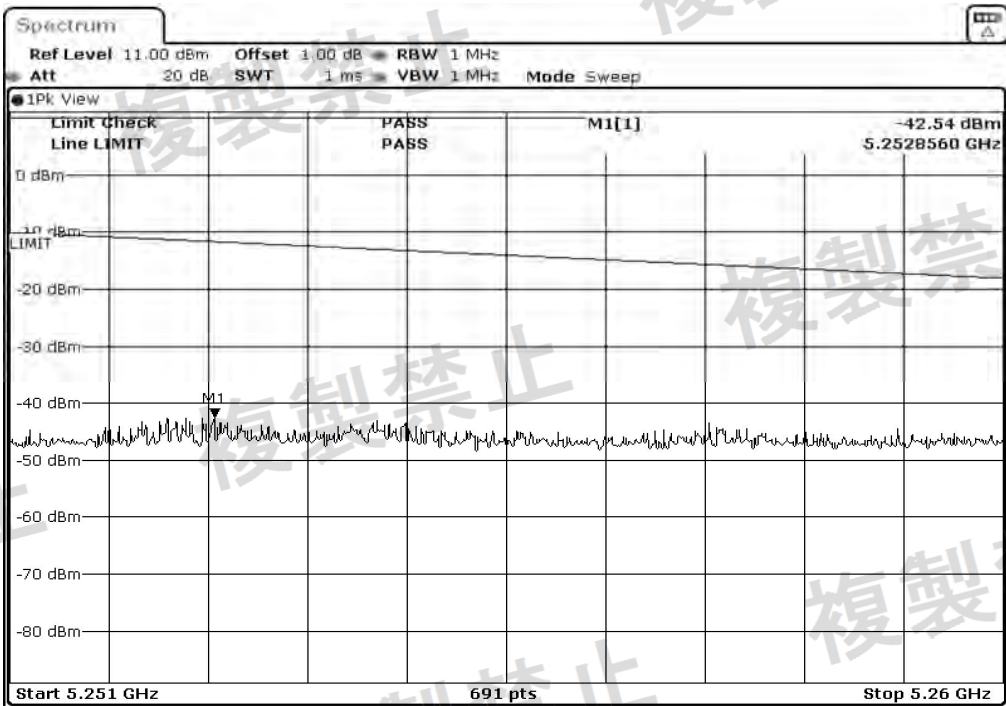
Date: 12.APR.2021 04:27:26

5250.2 - 5251MHz



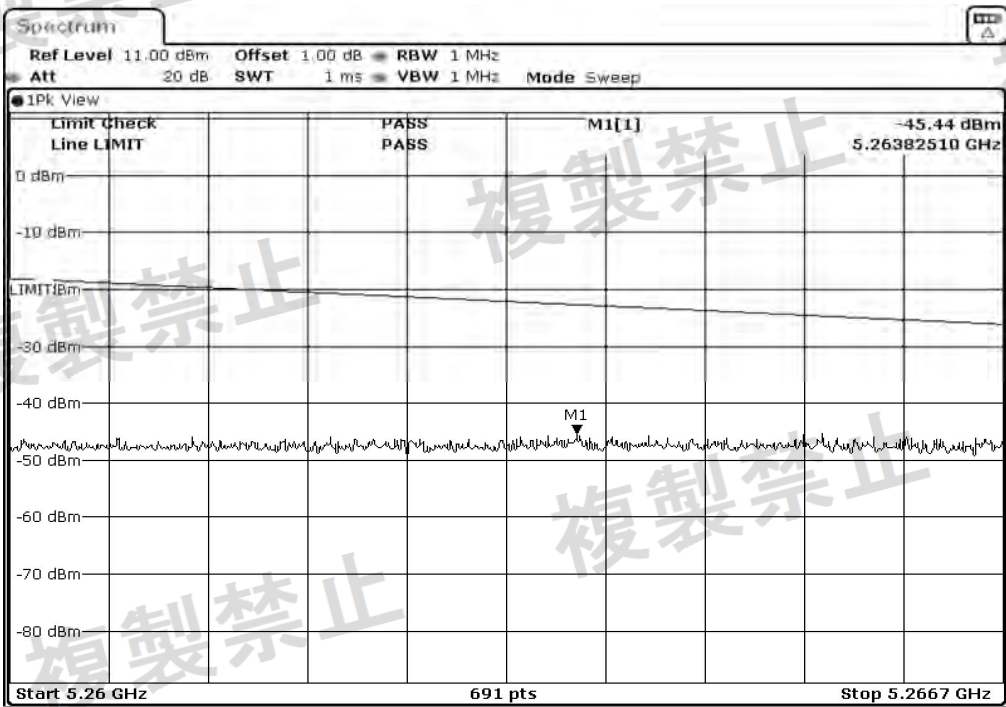
Date: 12.APR.2021 04:27:53

5251 to 5260MHz



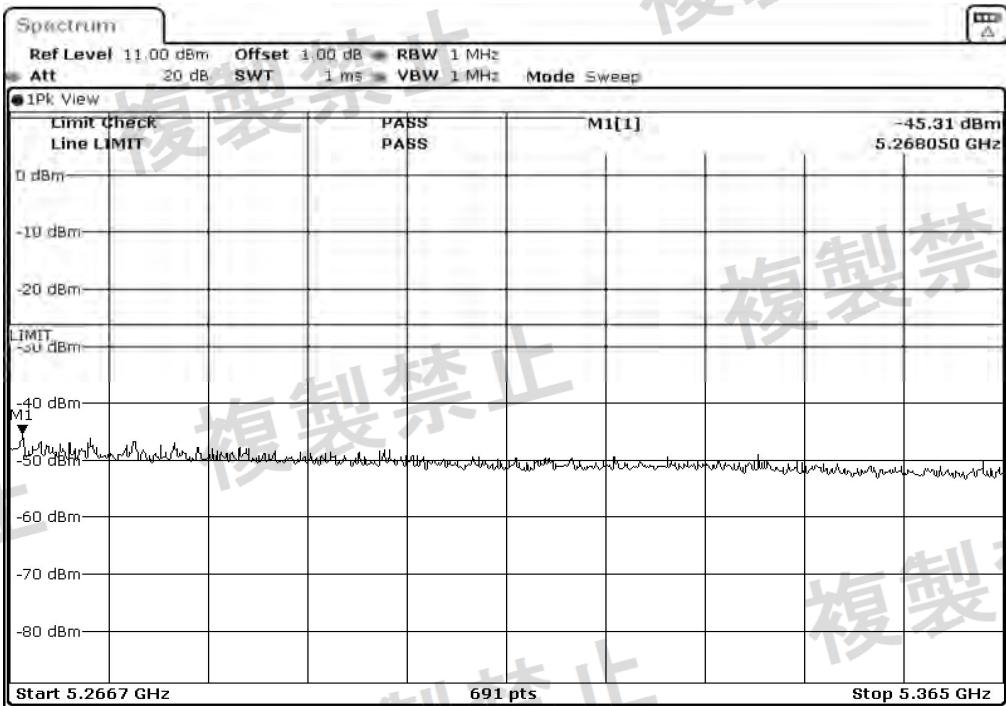
Date: 12.APR.2021 04:28:19

5260 to 5266.7MHz



Date: 12.APR.2021 04:28:46

5266.7 to 5365MHz



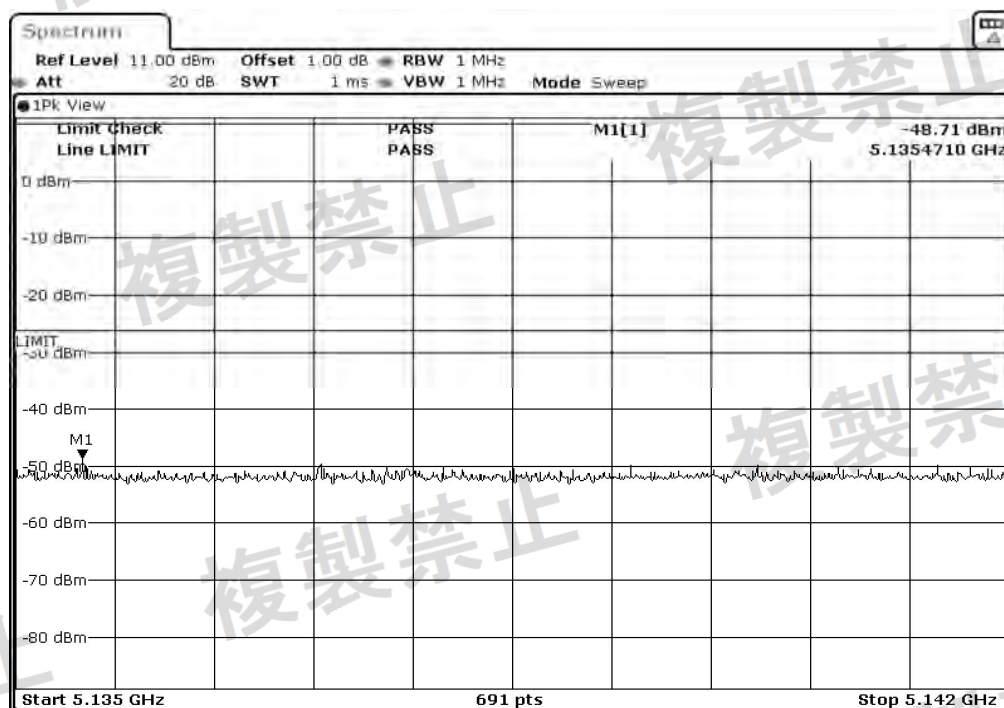
Date: 12.APR.2021 04:29:13

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W52 (5240MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5142MHz	-48.71	0.0295	≤2.5uW/MHz
		5142 to 5150MHz	-49.60	0.0240	≤15.0uW/MHz
		5250 to 5250.2MHz	-8.04	343.8745	1674.9429
		5250.2 to 5251MHz	-9.15	266.0725	495.4502
		5251 to 5260MHz	-16.64	47.3915	81.3413
		5260 to 5266.7MHz	-24.13	8.4470	14.0307
		5266.7 to 5365MHz	-34.39	0.7967	≤2.5uW/MHz

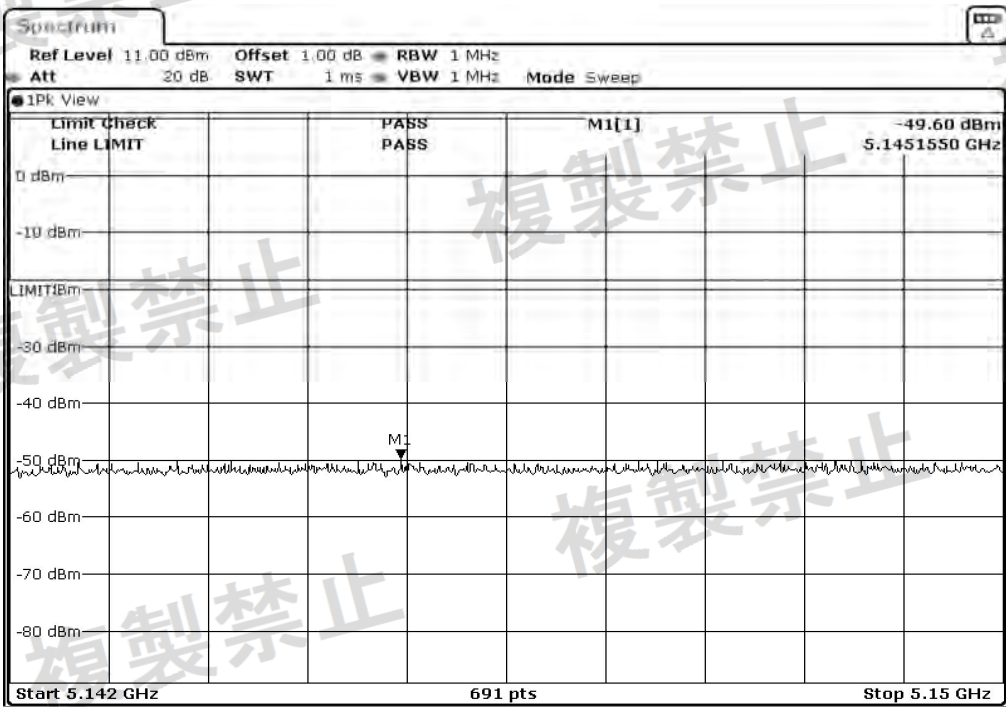
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135-5142MHz



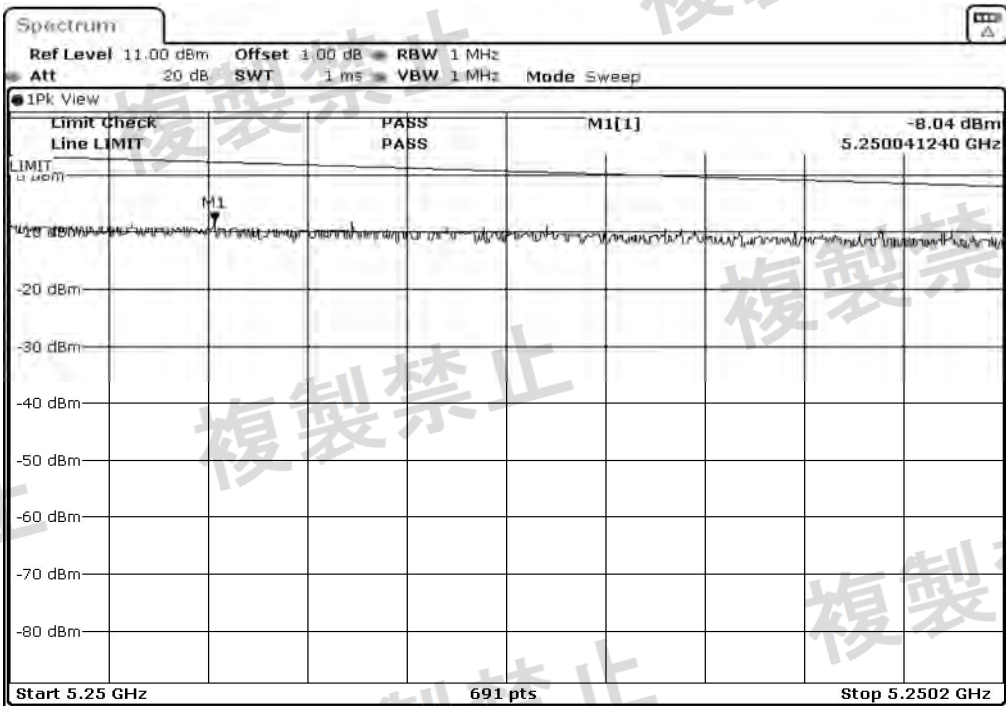
Date: 12.APR.2021 04:39:58

5142-5150MHz



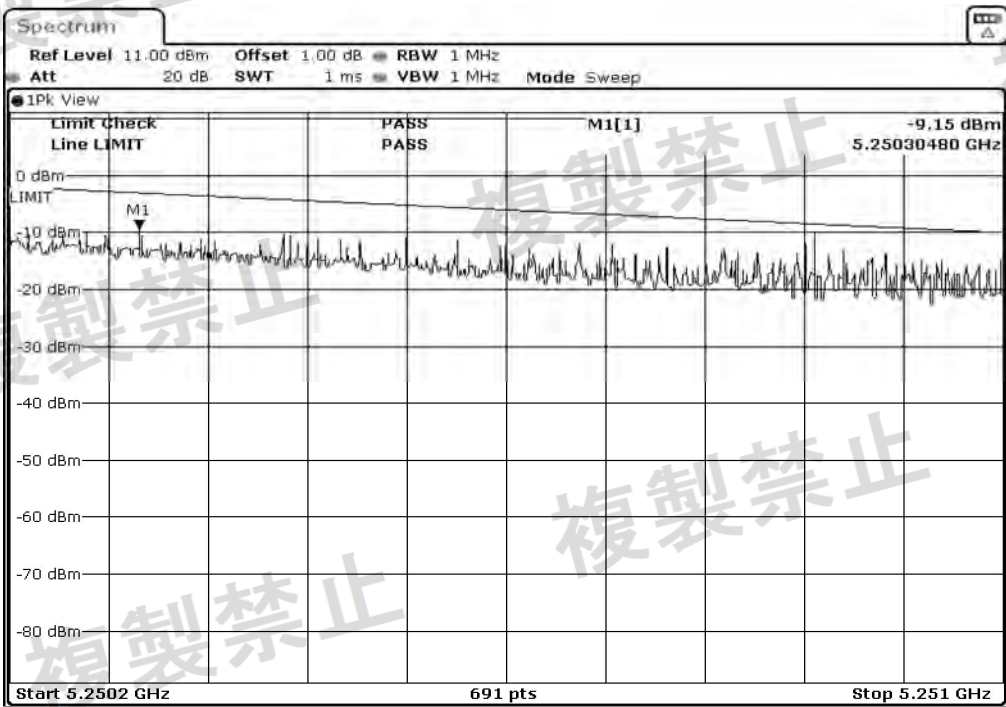
Date: 12.APR.2021 04:40:24

5250 - 5250.2MHz



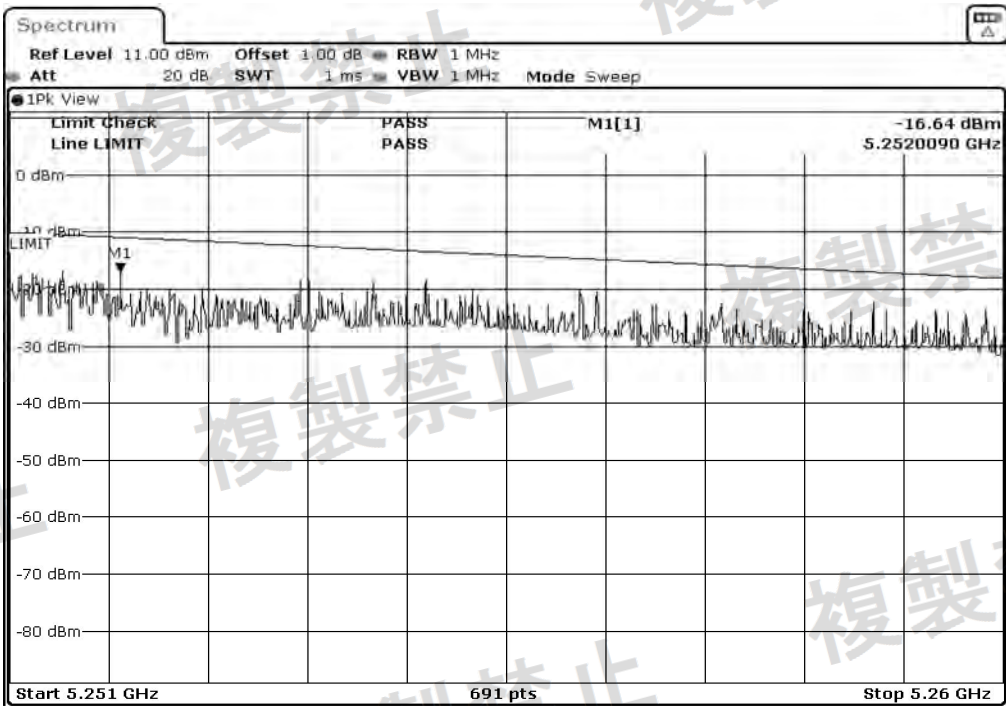
Date: 12.APR.2021 04:40:51

5250.2 - 5251MHz



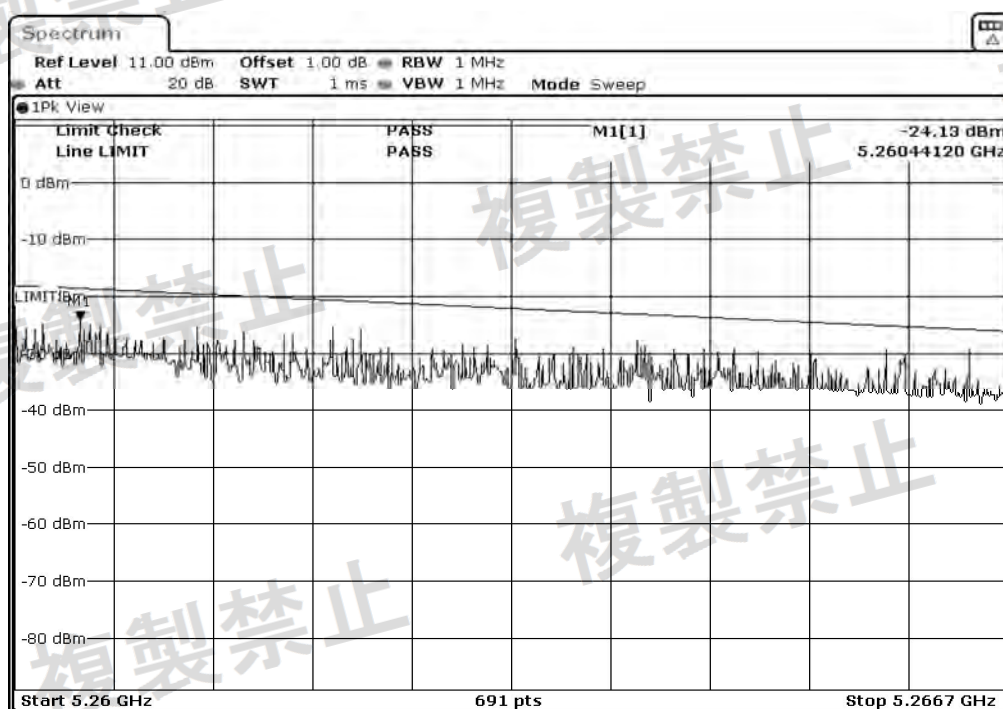
Date: 12.APR.2021 04:41:17

5251 to 5260MHz



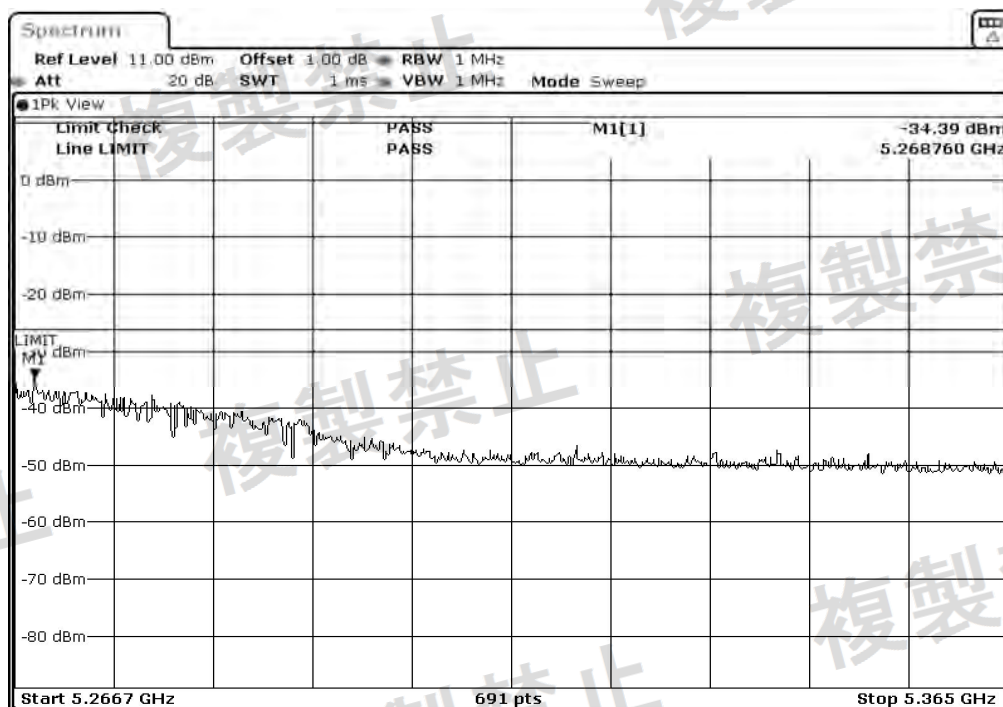
Date: 12.APR.2021 04:41:46

5260 to 5266.7MHz



Date: 12.APR.2021 04:42:12

5266.7 to 5365MHz



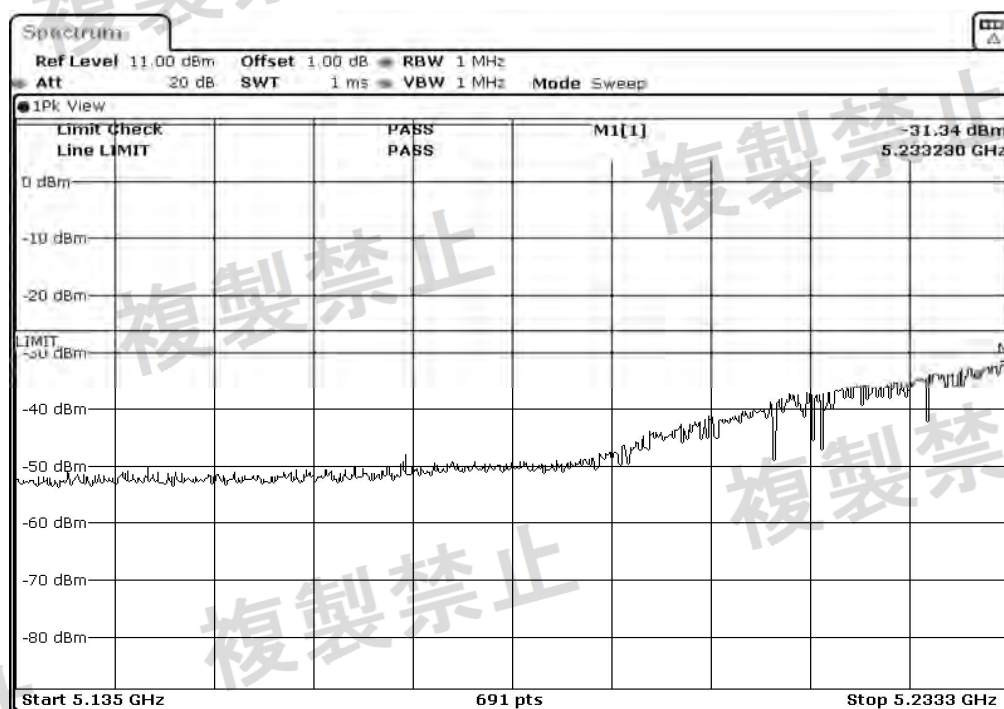
Date: 12.APR.2021 04:42:39

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W53 (5260MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5233.3MHz	-31.34	1.7227	≤2.5uW/MHz
		5233.3 to 5240MHz	-27.38	4.2855	15.4939
		5240 to 5249MHz	-16.91	47.7639	99.0629
		5249 to 5249.8MHz	-11.02	185.3105	540.7543
		5249.8 to 5250MHz	-8.80	309.2431	2154.4347
		5350 to 5365MHz	-44.36	0.0860	≤2.5uW/MHz

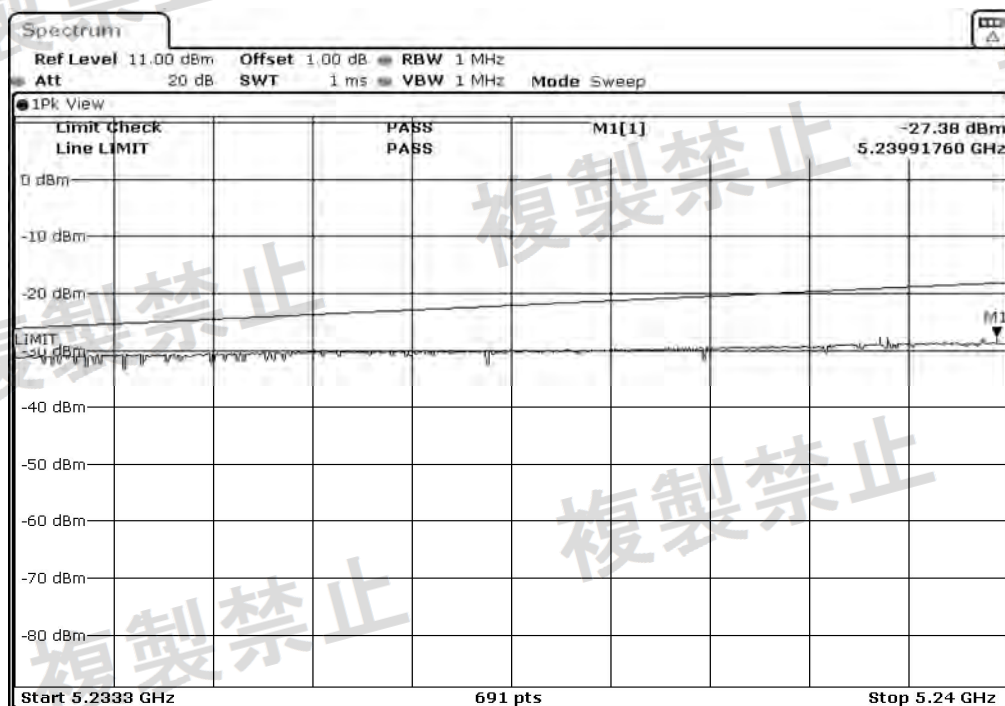
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135 - 5233.3MHz



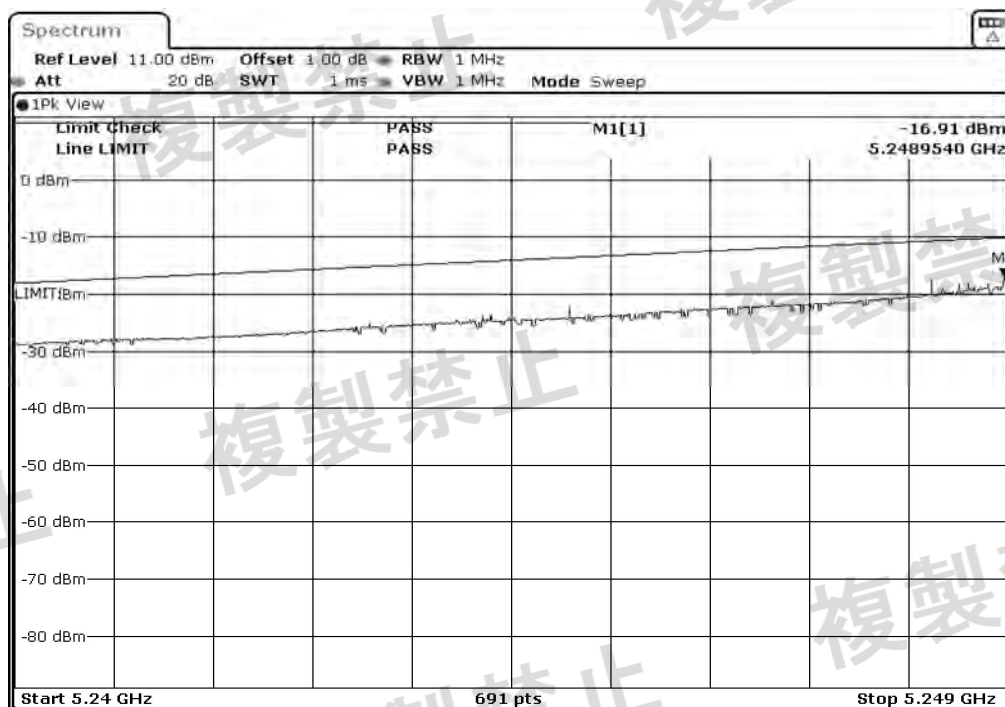
Date: 12.APR.2021 06:11:33

5233.3 - 5240MHz



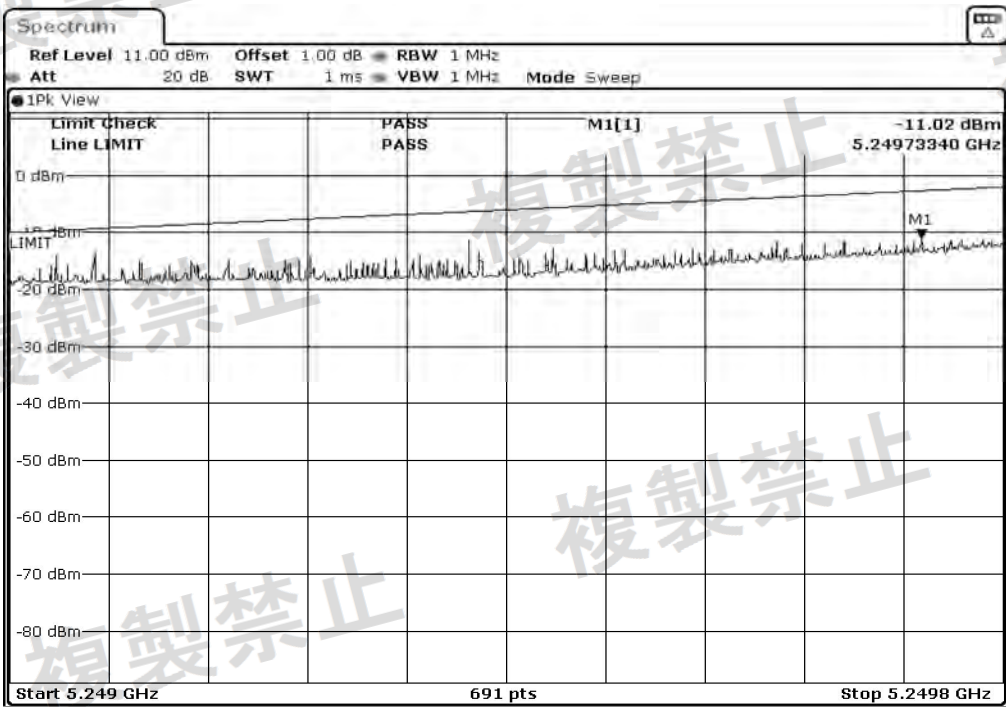
Date: 12.APR.2021 06:11:59

5240 - 5249MHz



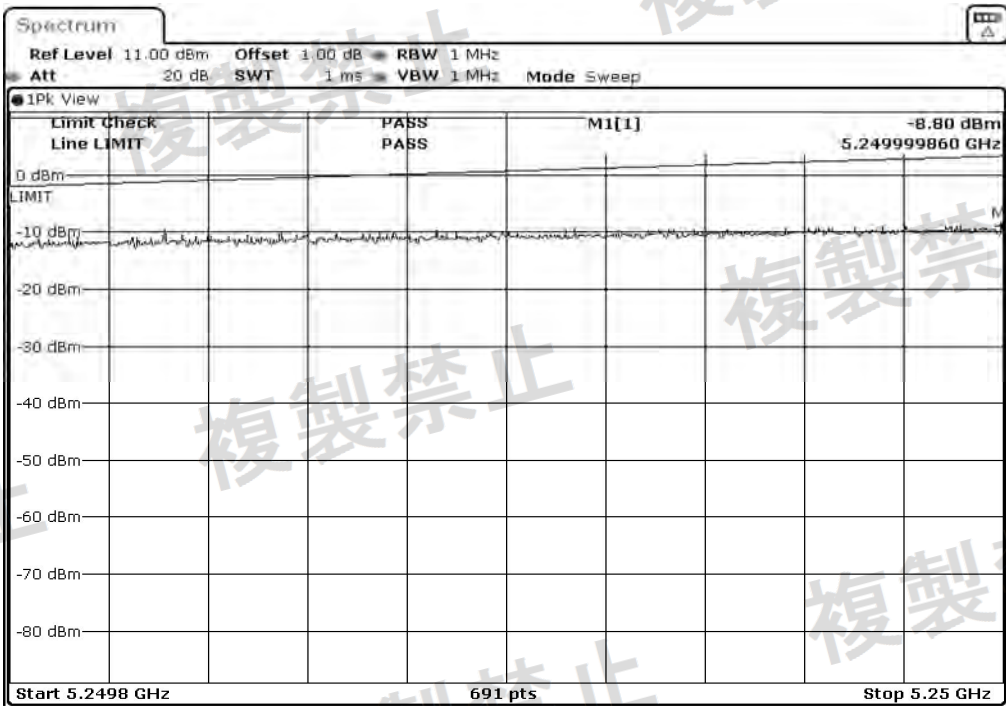
Date: 12.APR.2021 06:12:26

5249 - 5249.8MHz



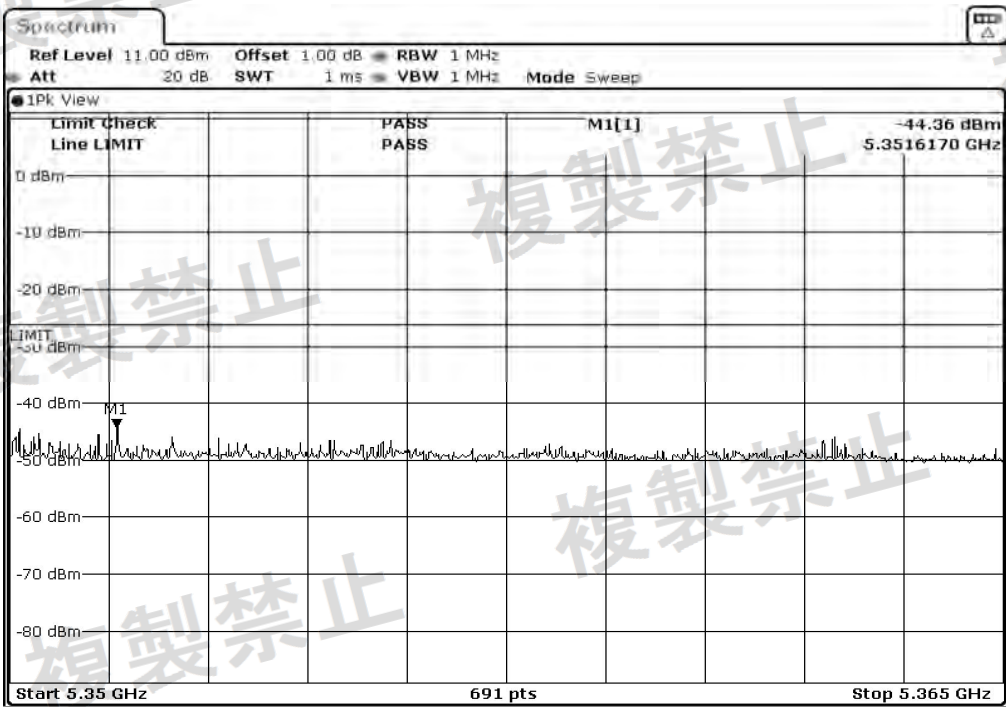
Date: 12.APR.2021 06:12:53

5249.8- 5250MHz



Date: 12.APR.2021 06:13:18

5350 - 5365MHz



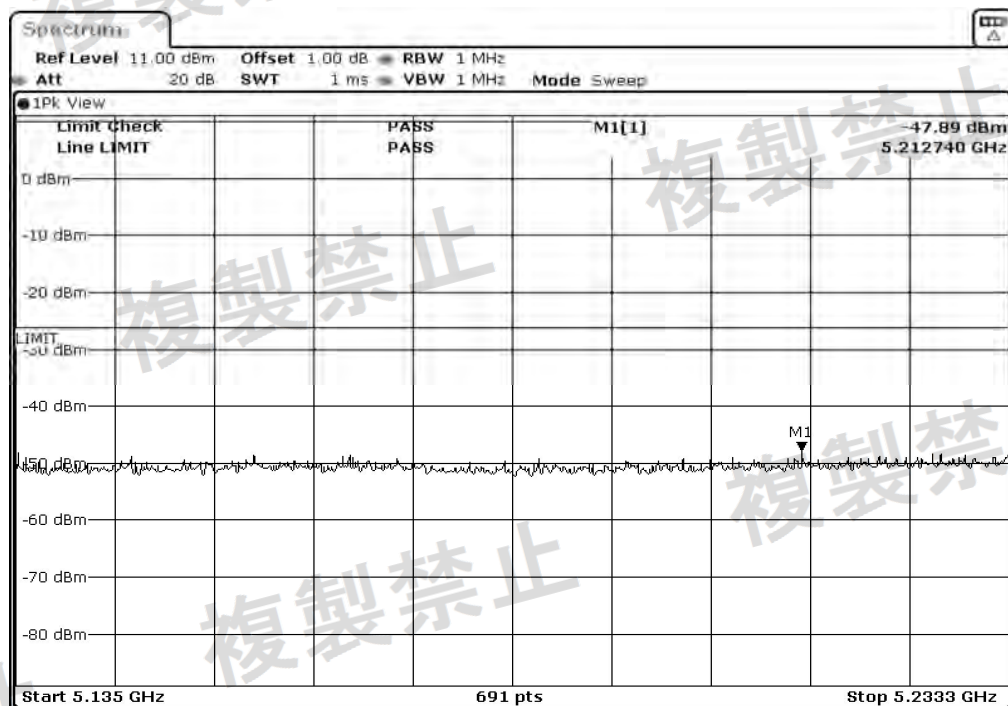
Date: 12.APR.2021 06:13:45

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W53 (5320MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5135 to 5233.3MHz	-47.89	0.0381	≤2.5uW/MHz
		5233.3 to 5240MHz	-46.55	0.0519	4.5294
		5240 to 5249MHz	-44.88	0.0761	61.8048
		5249 to 5249.8MHz	-45.87	0.0607	601.1737
		5249.8 to 5250MHz	-45.46	0.0666	1614.3586
		5350 to 5365MHz	-42.17	0.1422	≤2.5uW/MHz

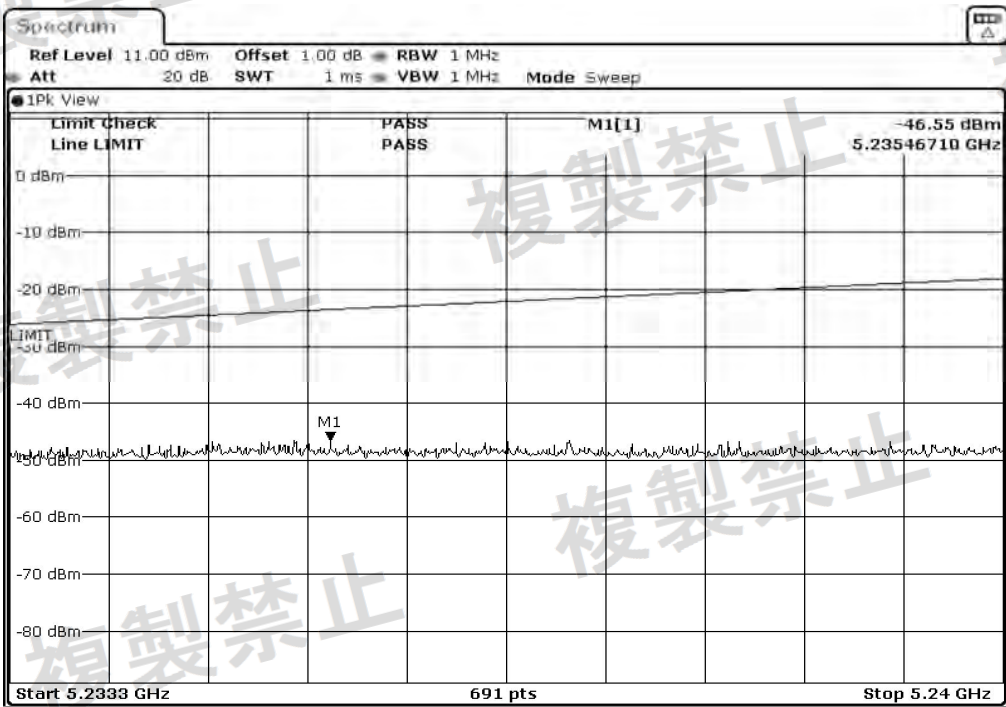
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5135 - 5233.3MHz



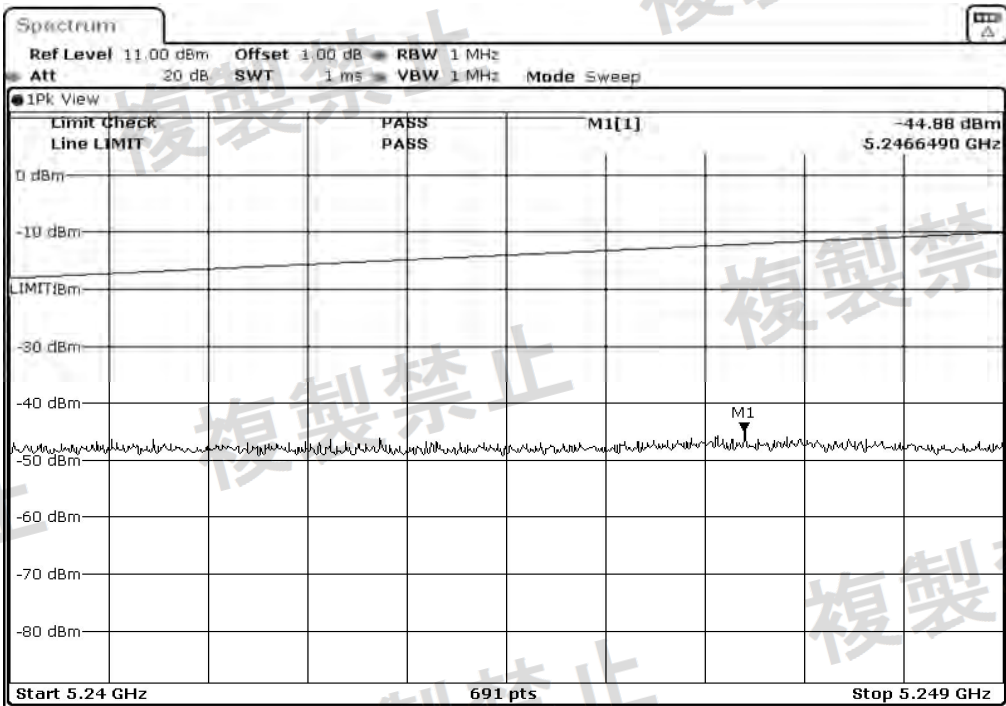
Date: 12.APR.2021 06:24:05

5233.3 - 5240MHz



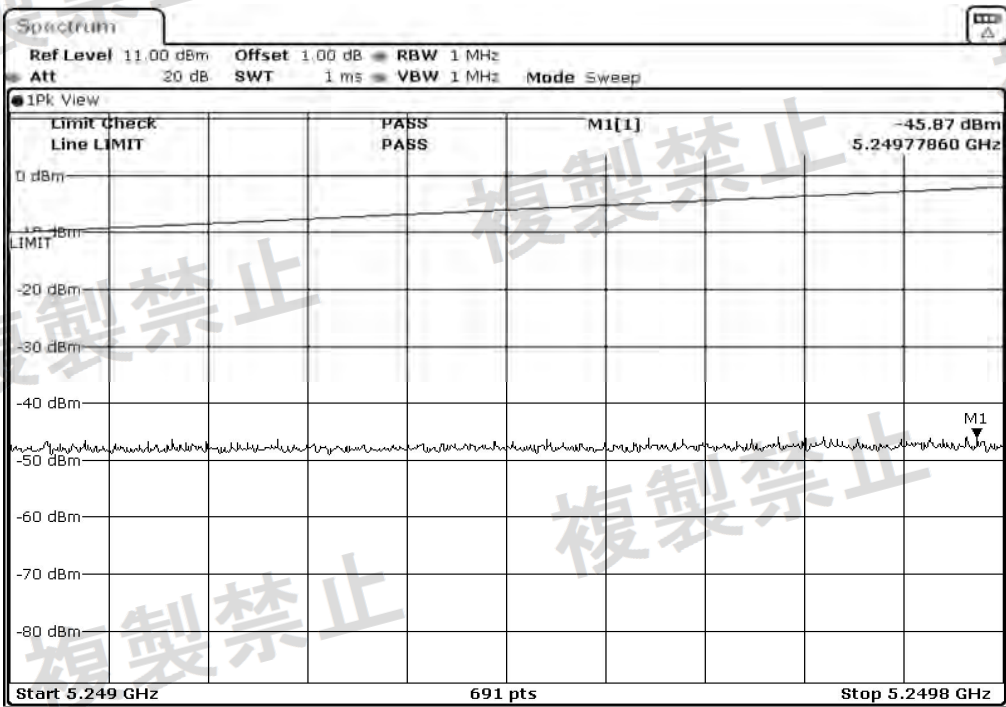
Date: 12.APR.2021 06:24:31

5240 - 5249MHz



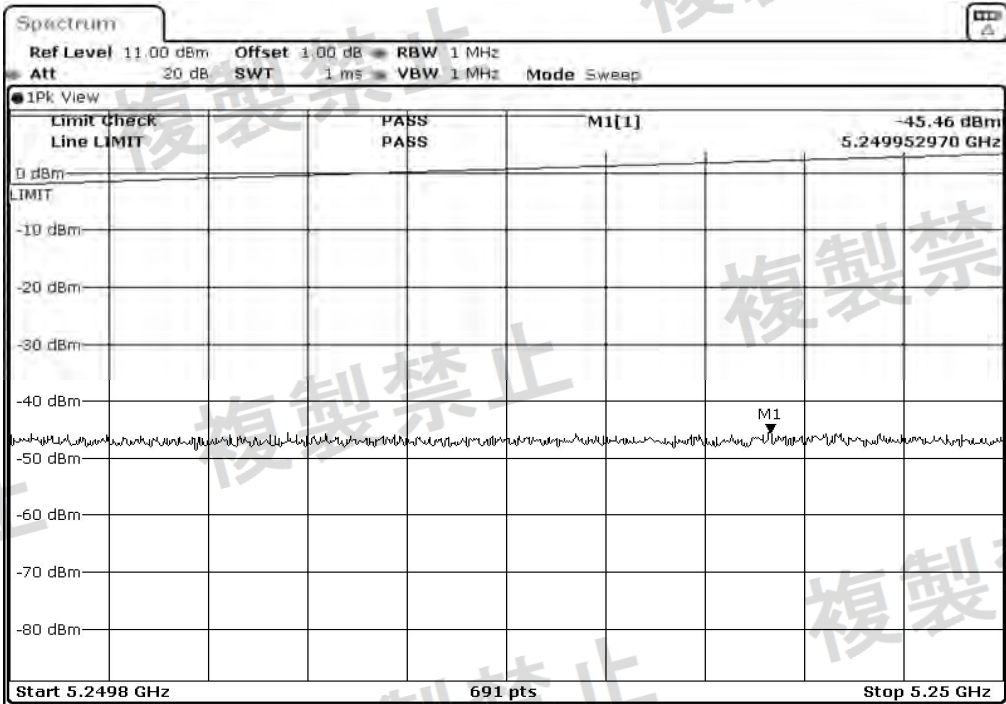
Date: 12.APR.2021 06:24:57

5249 - 5249.8MHz



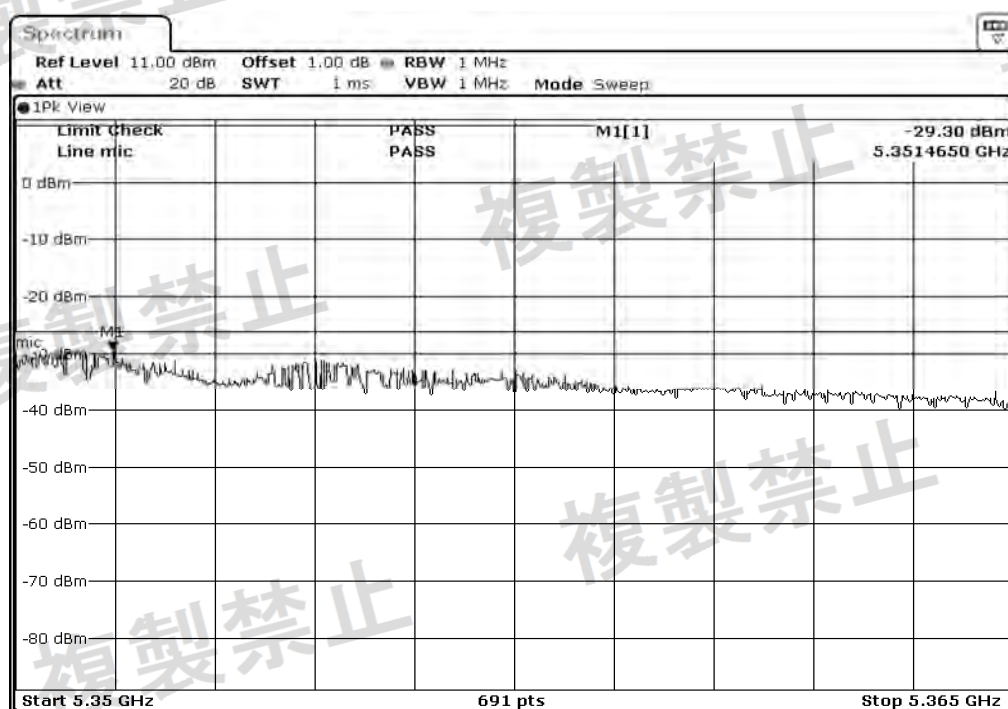
Date: 12.APR.2021 06:25:24

5249.8- 5250MHz



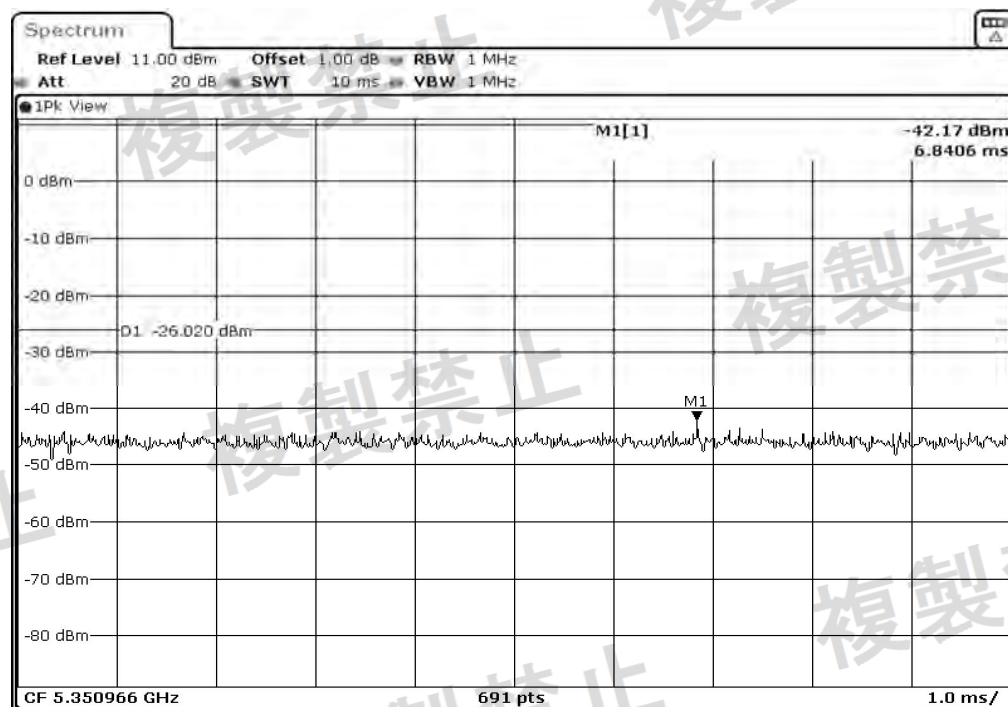
Date: 12.APR.2021 06:25:50

5350 - 5365MHz



Date: 12.APR.2021 13:51:13

5350 - 5365MHz - 1



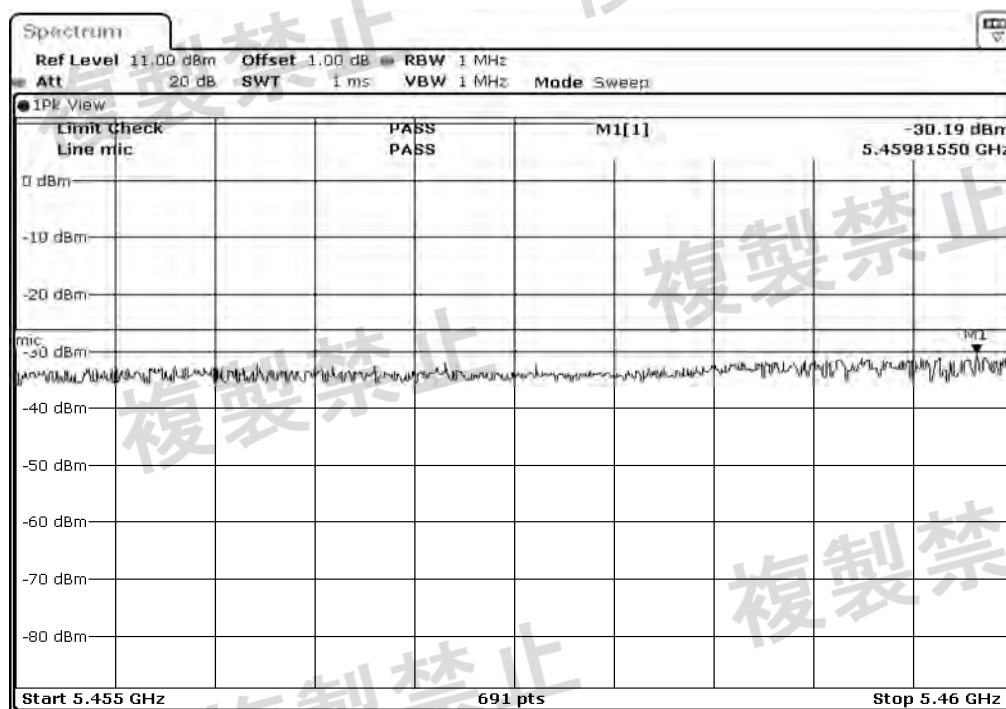
Date: 12.APR.2021 06:26:33

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5500MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-30.19	2.2439	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-23.51	10.4424	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-48.21	0.0354	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-48.85	0.0305	$\leq 2.5\text{uW/MHz}$

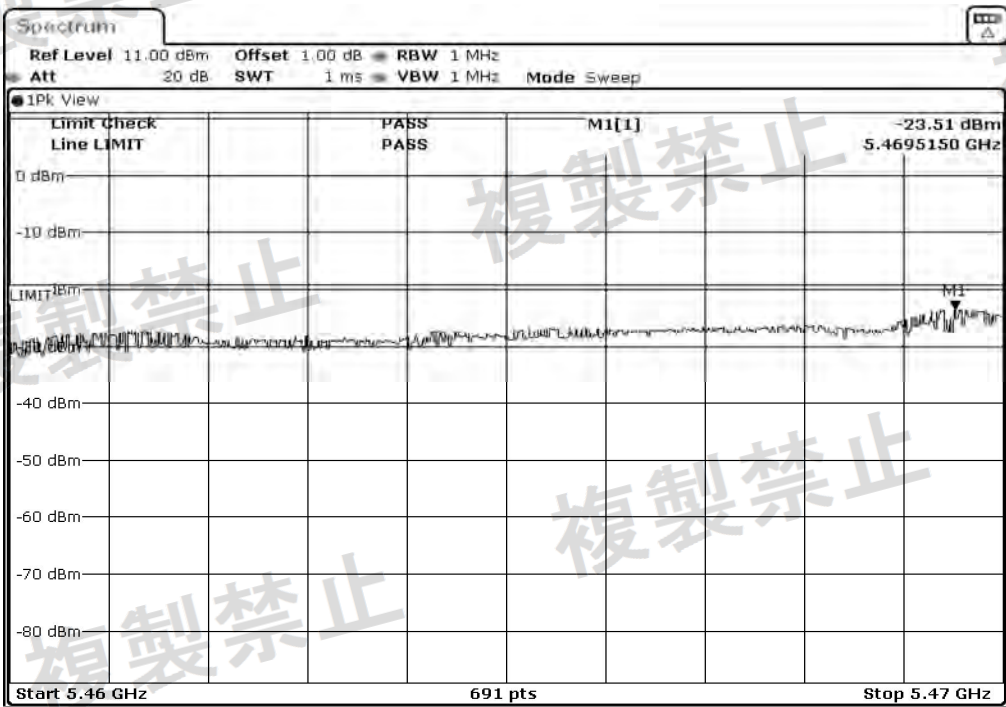
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10})} \times 1000$

5455 - 5460MHz



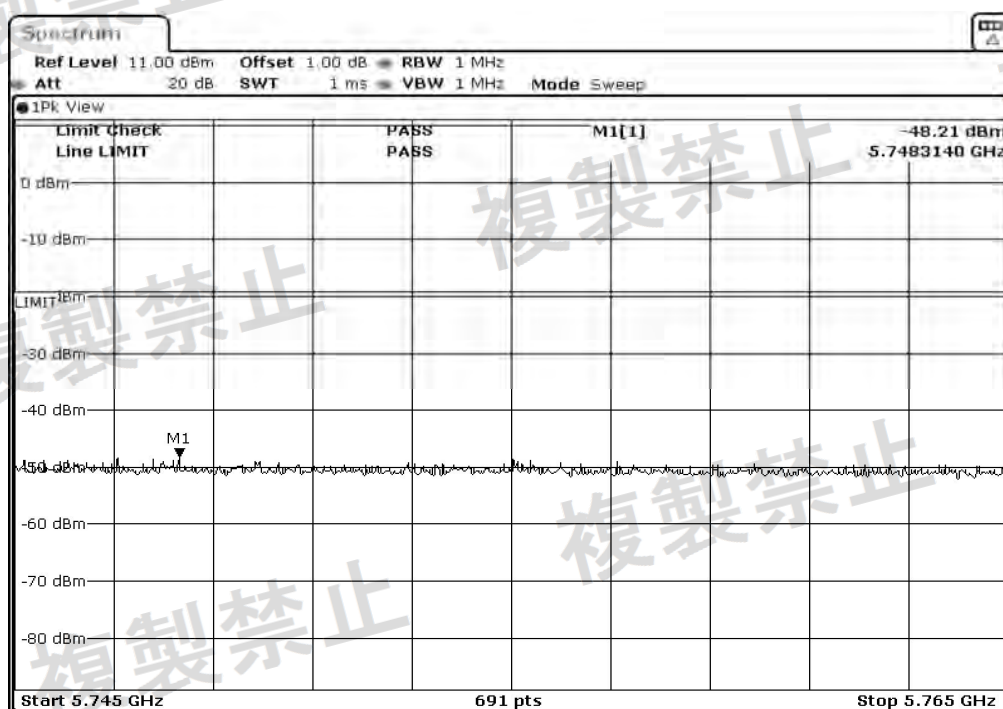
Date: 13.APR.2021 11:03:03

5460 - 5470MHz



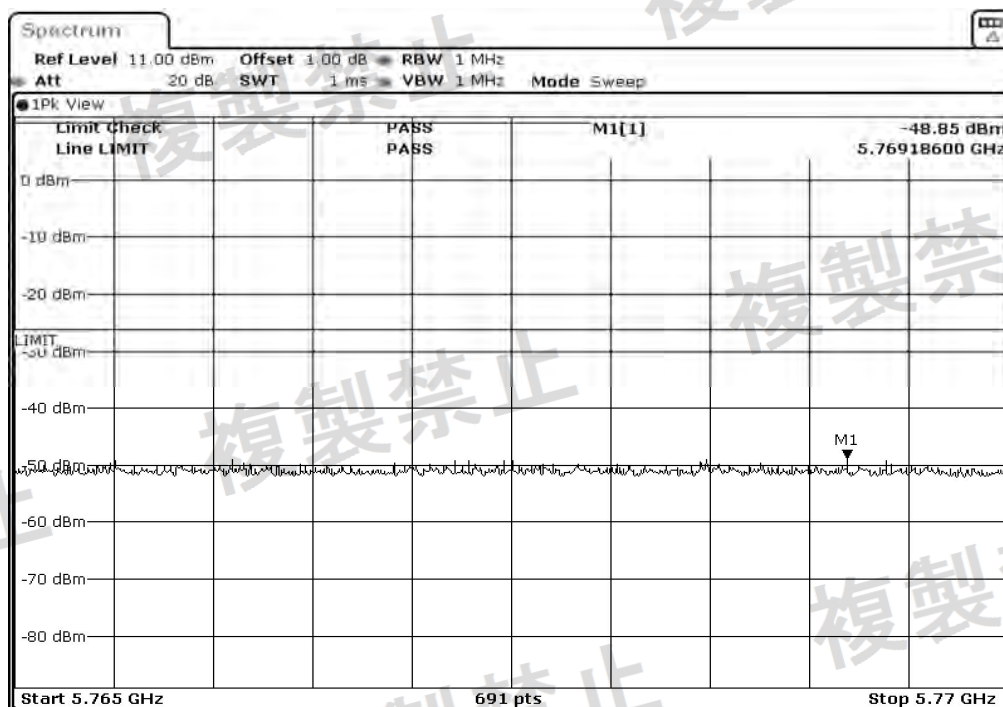
Date: 12.APR.2021 06:46:59

5745 - 5765MHz



Date: 12.APR.2021 06:47:25

5765 - 5770MHz



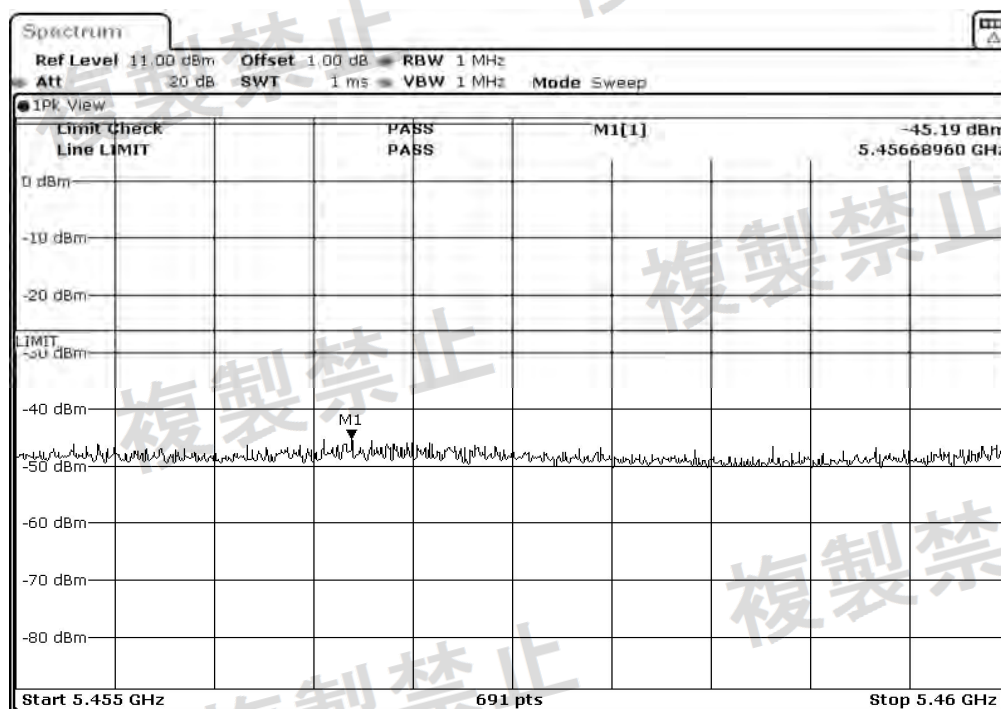
Date: 12.APR.2021 06:47:52

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5600MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-45.19	0.0709	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-45.60	0.0646	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-44.14	0.0903	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-46.45	0.0531	$\leq 2.5\text{uW/MHz}$

Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)}{1000}}$

5455 - 5460MHz



Date: 12.APR.2021 06:57:38

Spectrum

Ref Level 11.00 dBm Offset 1.00 dB RBW 1 MHz
 Att 20 dB SWT 1 ms VBW 1 MHz Mode Sweep

● 1Pk View

Limit Check Line LIMIT	PASS PASS	M1[1]	-45.60 dBm 5.4651450 GHz
0 dBm			
-10 dBm			
LIMIT 15m			
-30 dBm			
-40 dBm			
-50 dBm		M1	
-60 dBm			
-70 dBm			
-80 dBm			

Start 5.46 GHz 691 pts Stop 5.47 GHz

Spectrum

Ref Level 11.00 dBm Offset 1.00 dB RBW 1 MHz
Att 20 dB SWT 1 ms VBW 1 MHz Mode Sweep

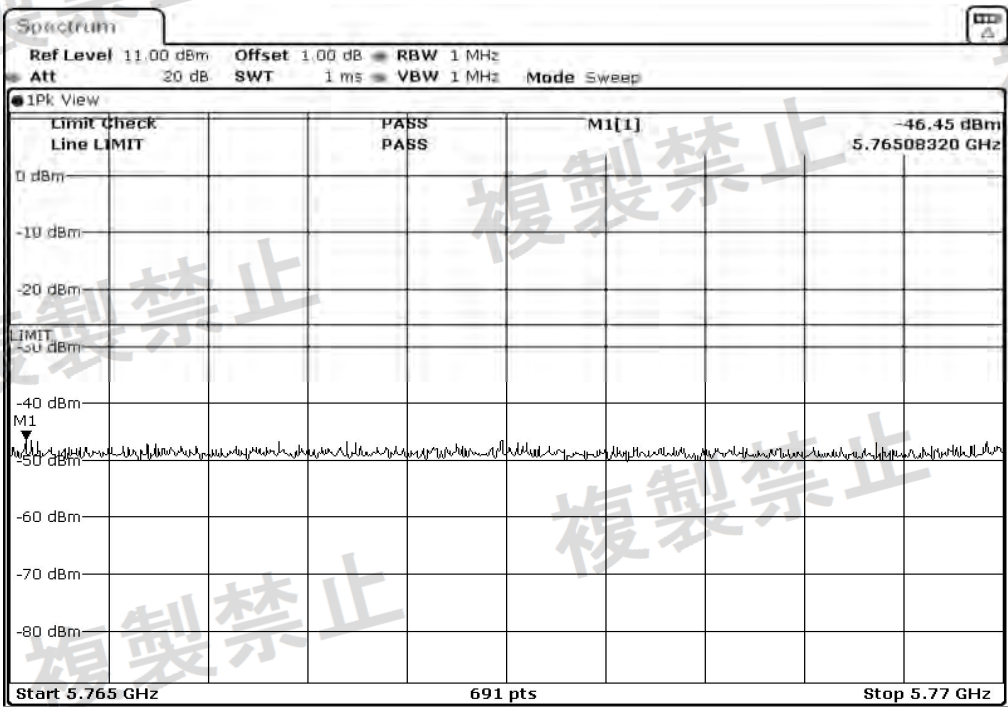
● 1Pk View

Limit Check	PASS	M1[1]	-44.14 dBm
Line LIMIT	PASS		5.7501370 GHz
0 dBm			
-10 dBm			
-20 dBm			
-30 dBm			
-40 dBm			
-50 dBm			
-60 dBm			
-70 dBm			
-80 dBm			

Start 5.745 GHz 691 pts Stop 5.765 GHz

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5765 - 5770MHz



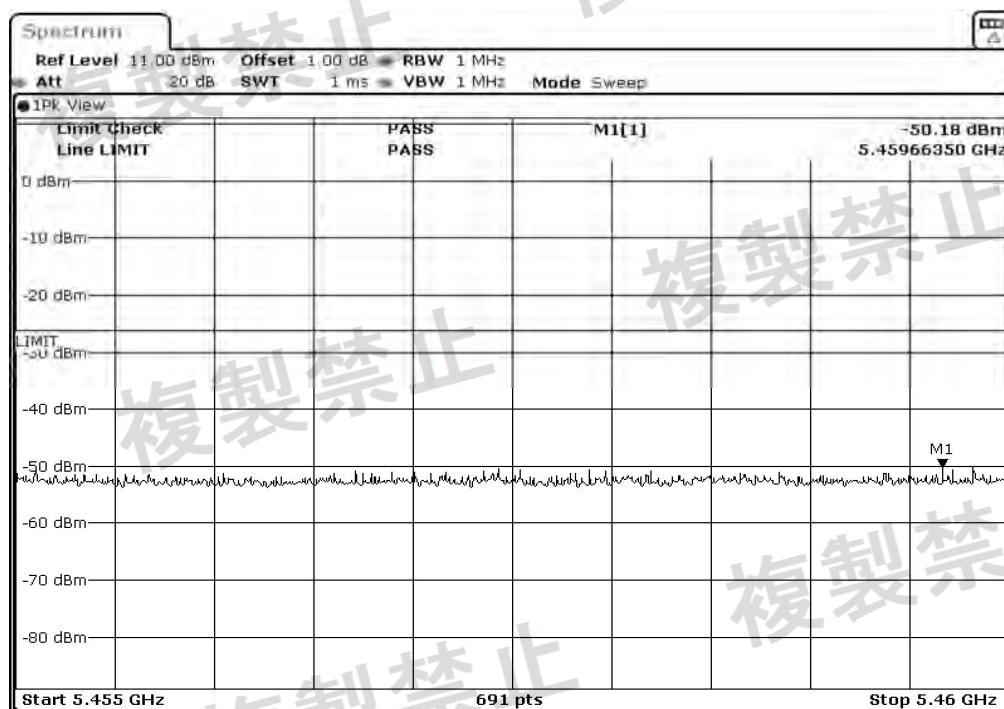
Date: 12.APR.2021 06:58:58

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5700MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-50.18	0.0225	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-49.59	0.0258	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-40.30	0.2189	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-46.25	0.0556	$\leq 2.5\text{uW/MHz}$

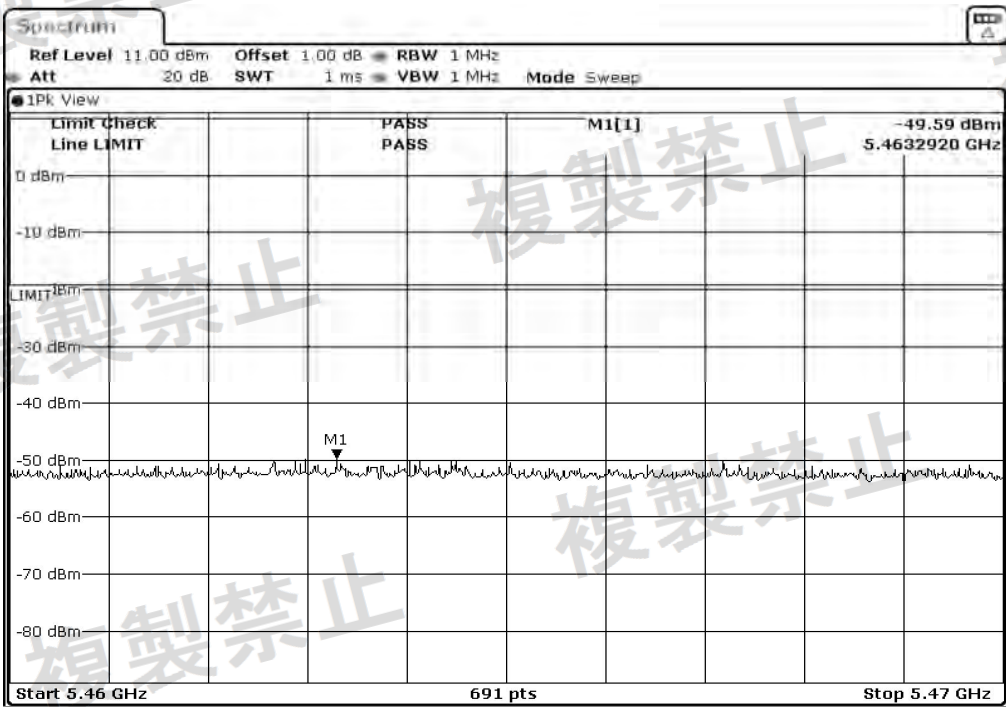
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5455 - 5460MHz



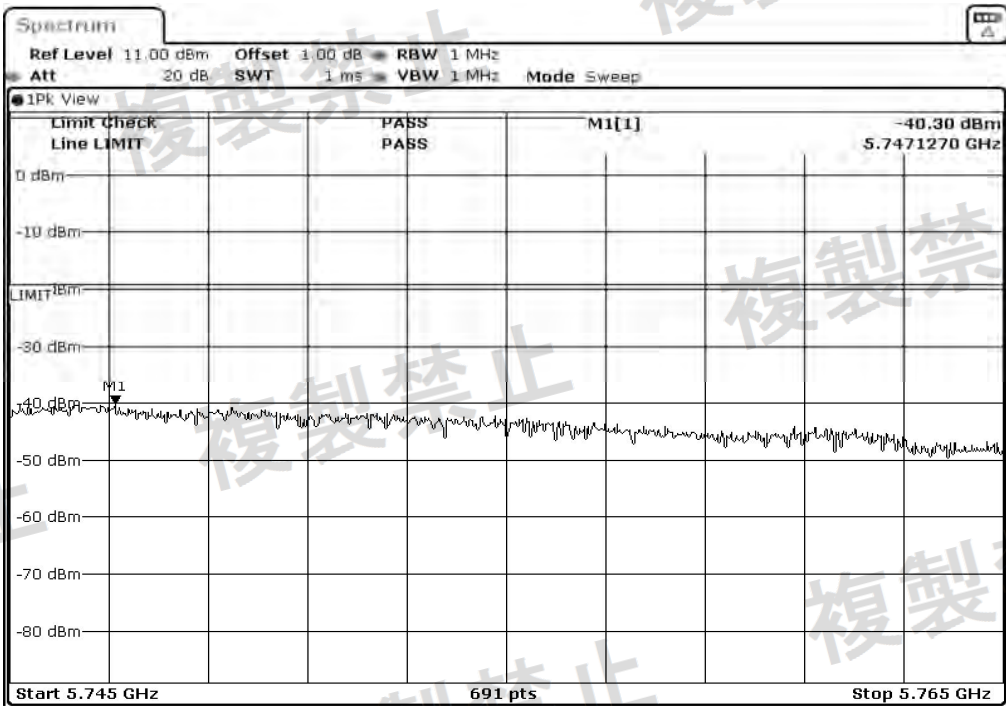
Date: 12.APR.2021 07:08:19

5460 - 5470MHz



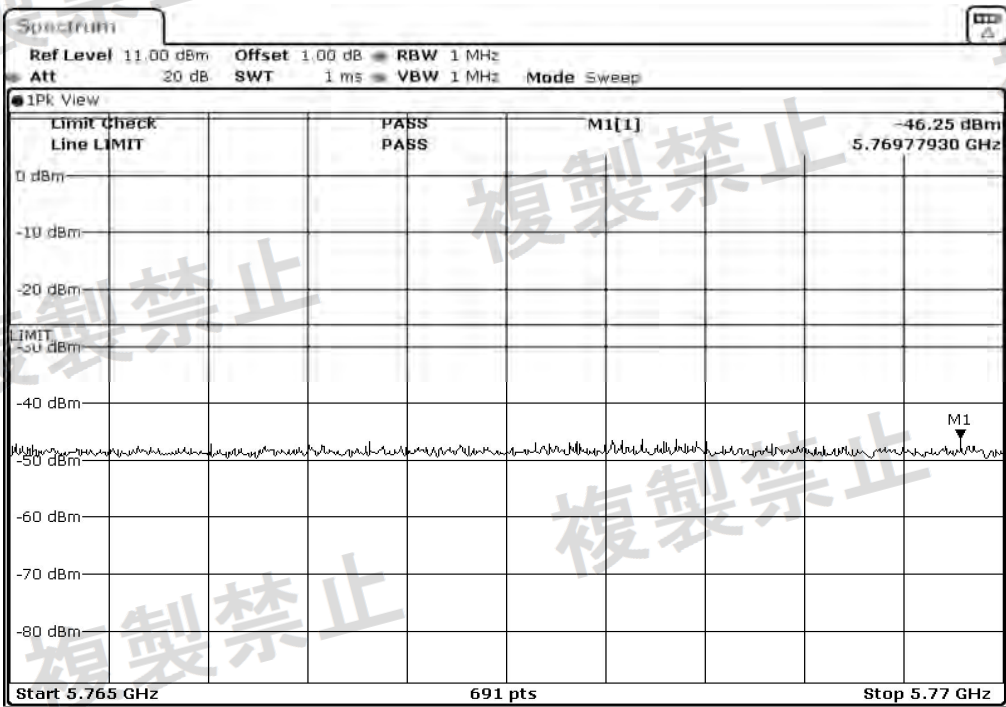
Date: 12.APR.2021 07:08:46

5745 - 5765MHz



Date: 12.APR.2021 07:09:12

5765 - 5770MHz



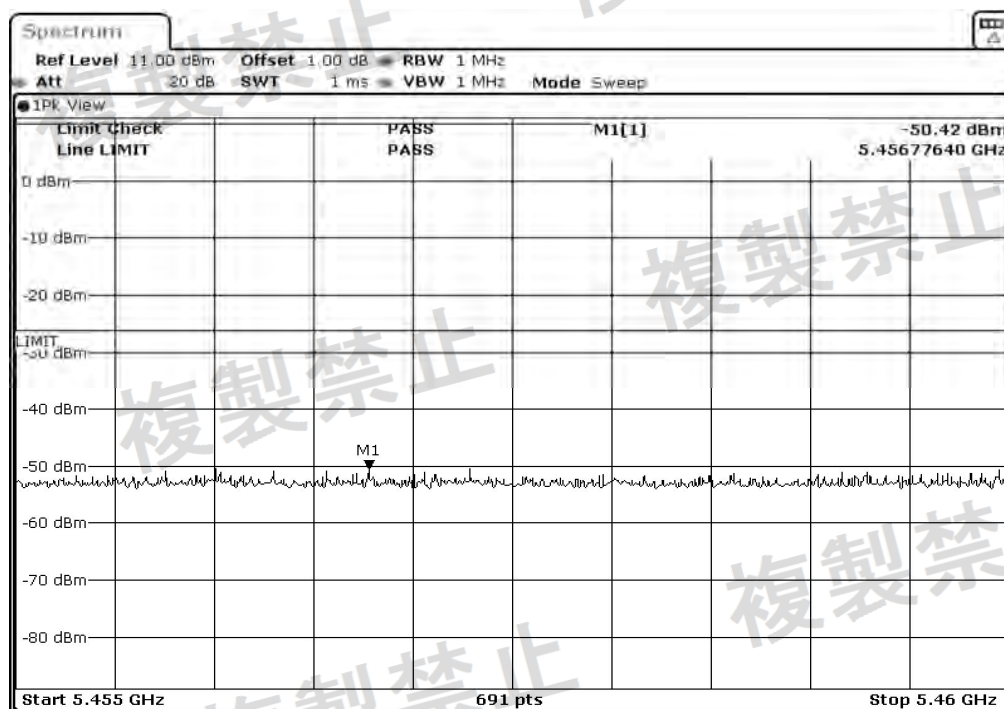
Date: 12.APR.2021 07:09:39

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5720MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5455 to 5460MHz	-50.42	0.0213	$\leq 2.5\text{uW/MHz}$
		5460 to 5470MHz	-50.25	0.0221	$\leq 12.5\text{uW/MHz}$
		5745 to 5765MHz	-33.01	1.1727	$\leq 12.5\text{uW/MHz}$
		5765 to 5770MHz	-40.40	0.2138	$\leq 2.5\text{uW/MHz}$

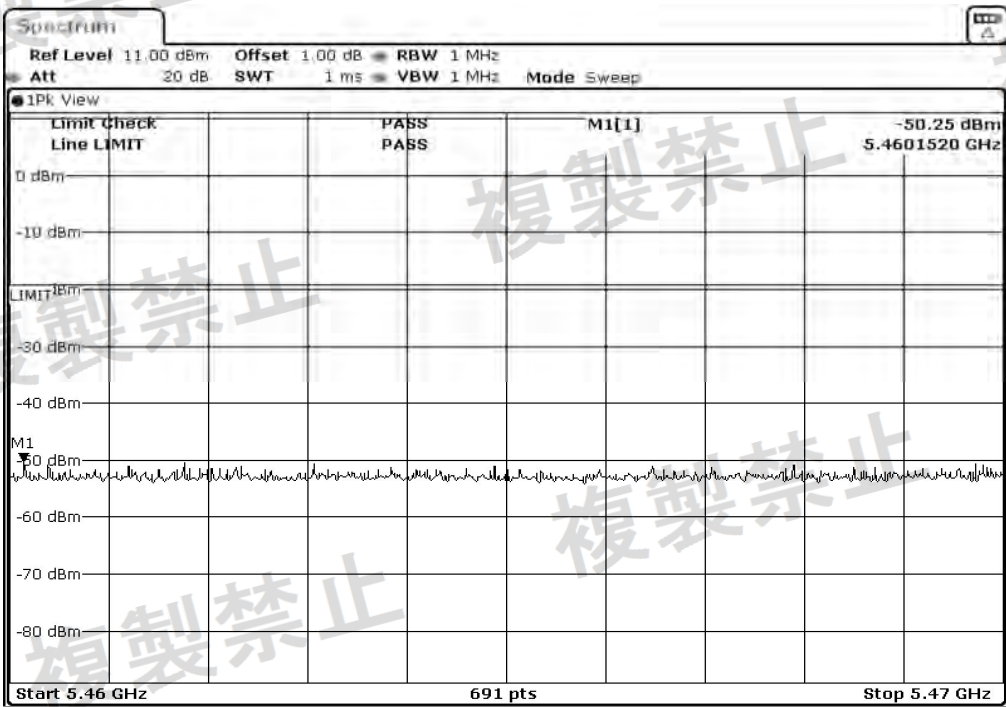
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5455 - 5460MHz



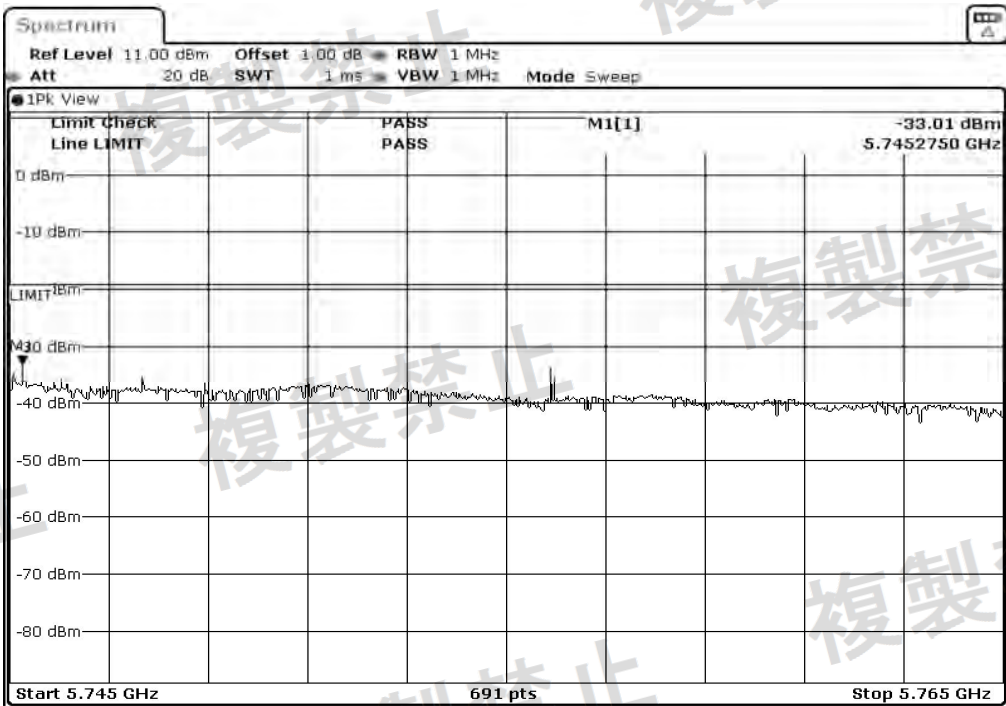
Date: 12.APR.2021 07:16:58

5460 - 5470MHz



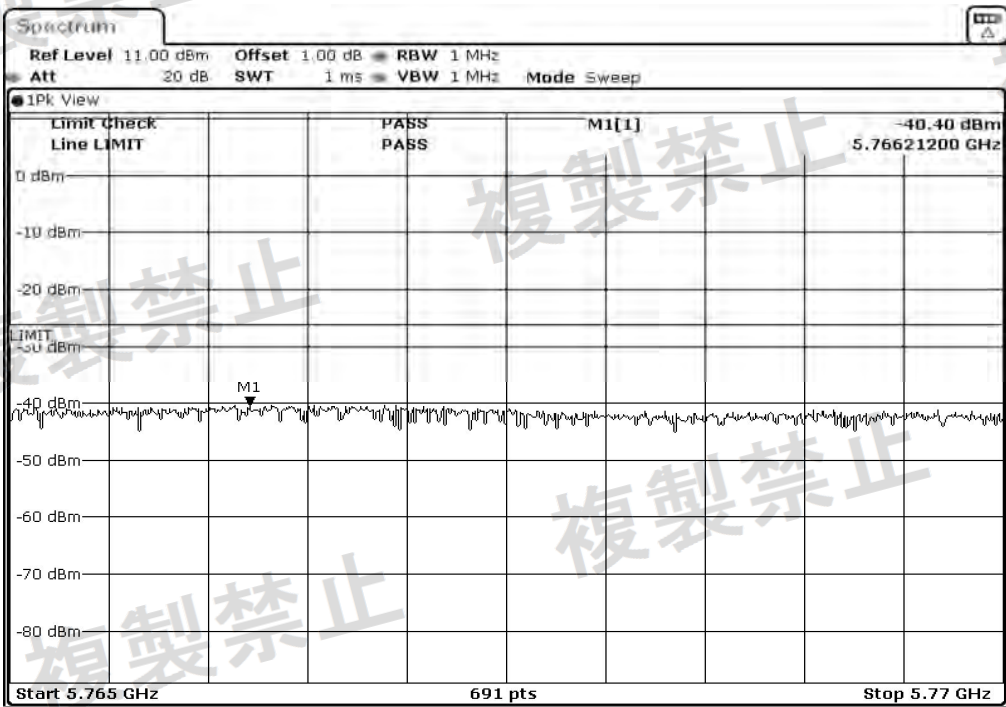
Date: 12.APR.2021 07:17:25

5745 - 5765MHz



Date: 12.APR.2021 07:17:52

5765 - 5770MHz



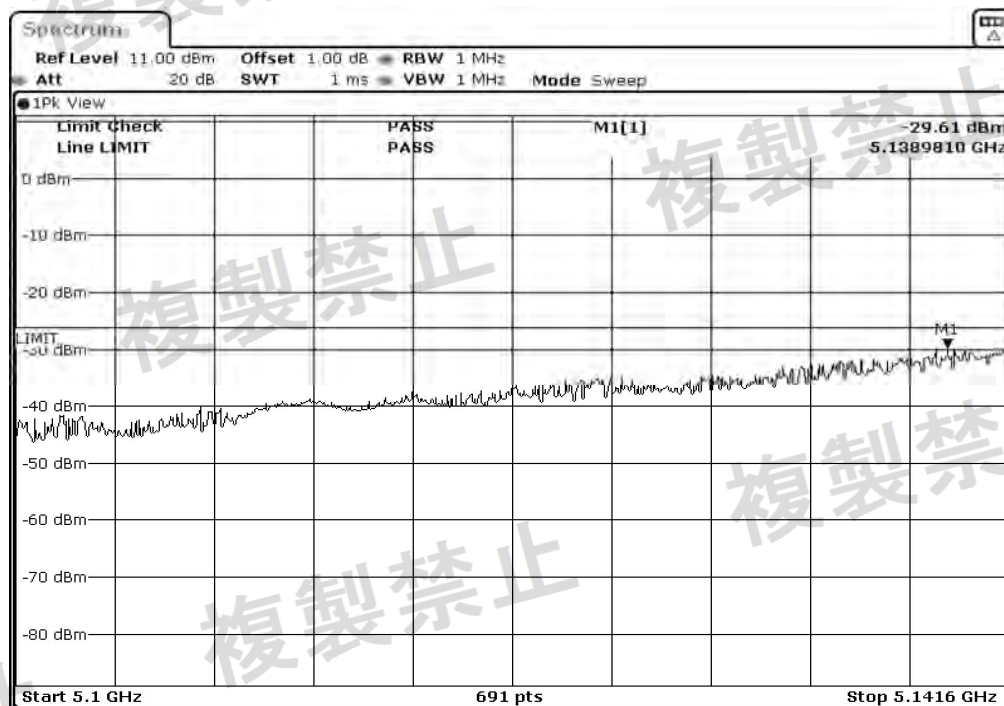
Date: 12.APR.2021 07:18:17

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W52 (5190MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5100 to 5141.6MHz	-29.61	2.3955	$\leq 2.5 \text{ uW/MHz}$
		5141.6 to 5150MHz	-23.67	9.4037	$\leq 15.0 \text{ uW/MHz}$
		5250 to 5251MHz	-29.24	2.6044	55.203931
		5251 to 5270MHz	-28.91	2.8138	42.66637969
		5270 to 5278.4MHz	-33.53	0.9710	7.864479855
		5278.4 to 5400MHz	-36.87	0.4493	$\leq 2.5 \text{ uW/MHz}$

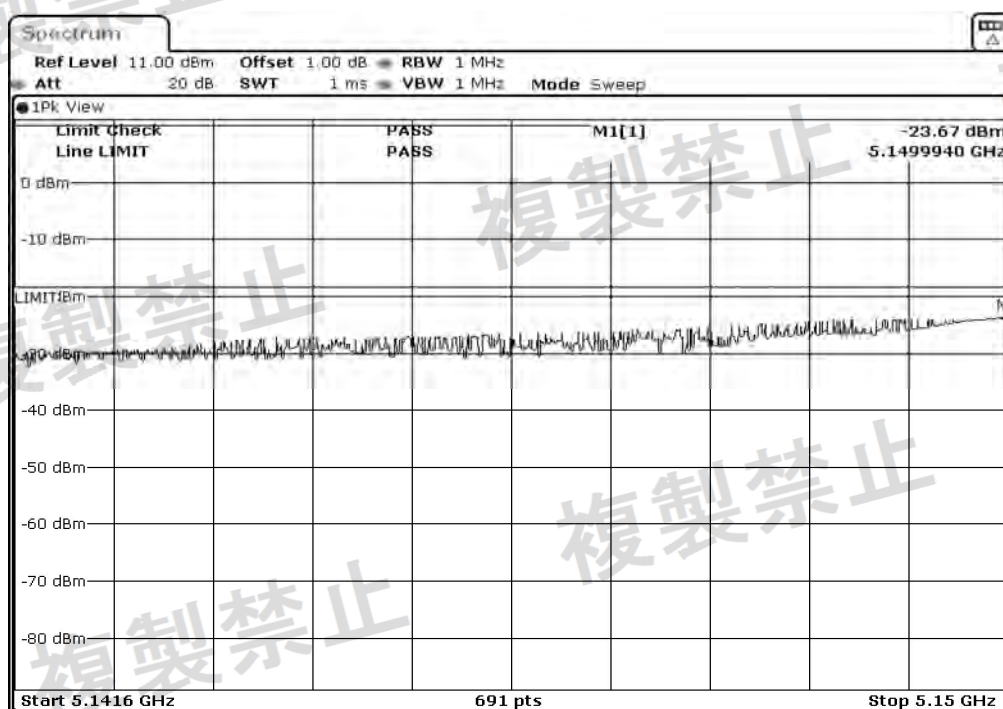
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5100 - 5141.6MHz



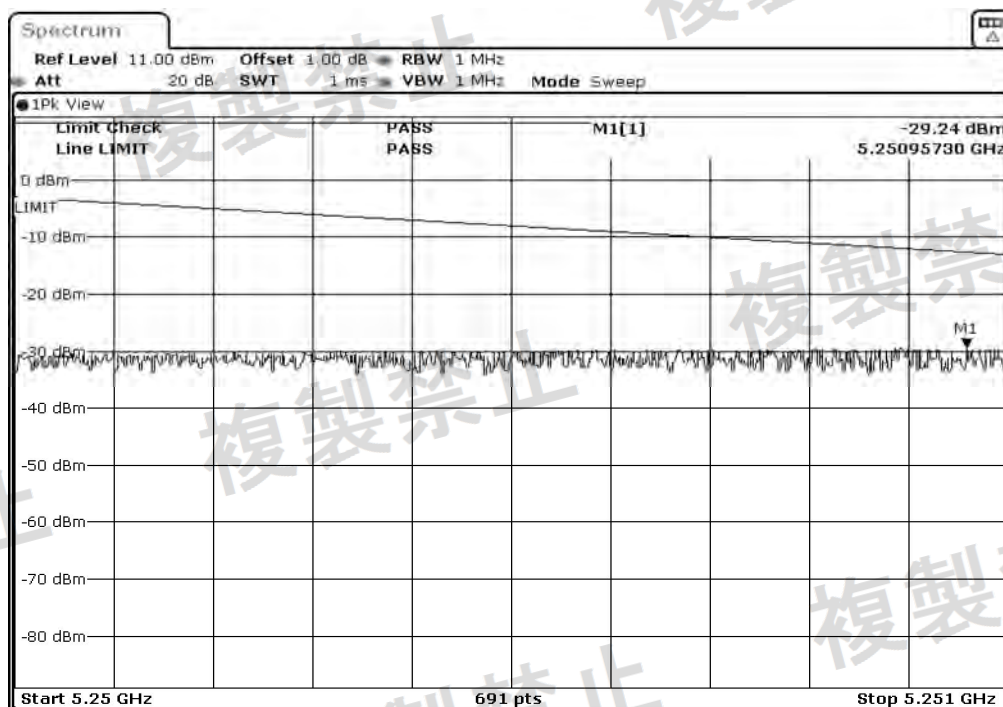
Date: 12.APR.2021 07:26:16

5141.6 - 5150MHz



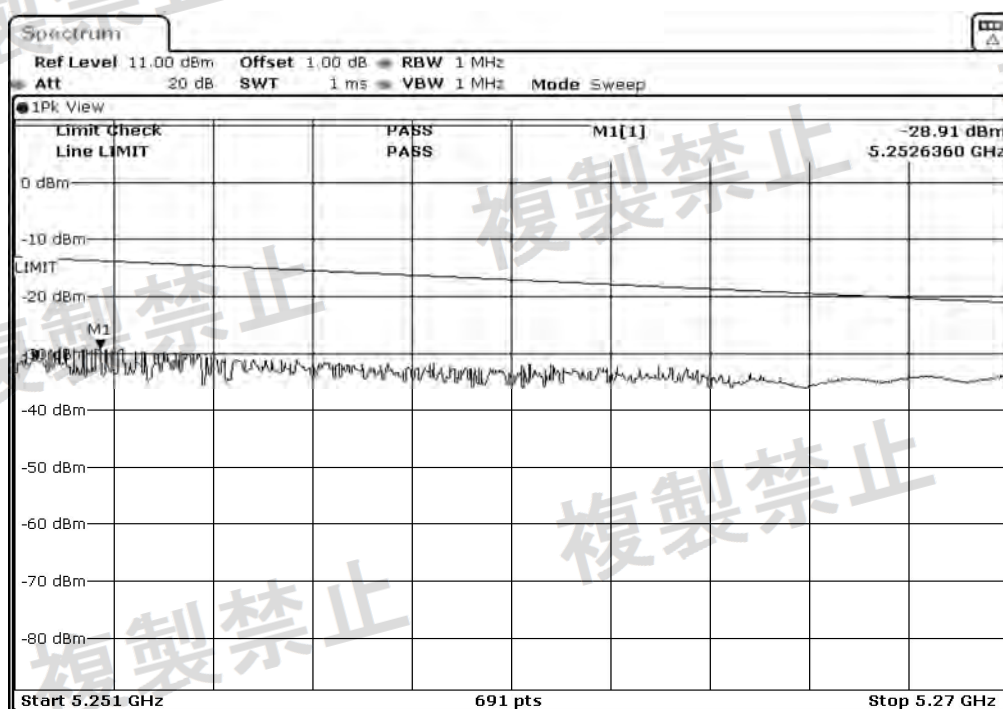
Date: 12.APR.2021 07:26:41

5250 - 5251MHz



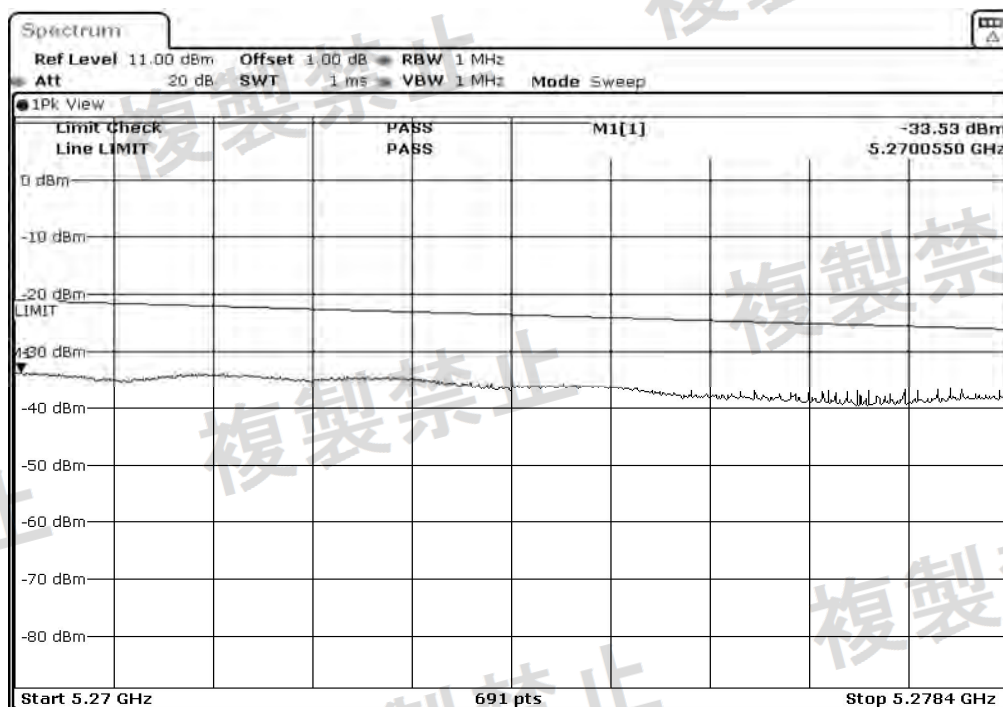
Date: 12.APR.2021 07:27:08

5251 - 5270MHz



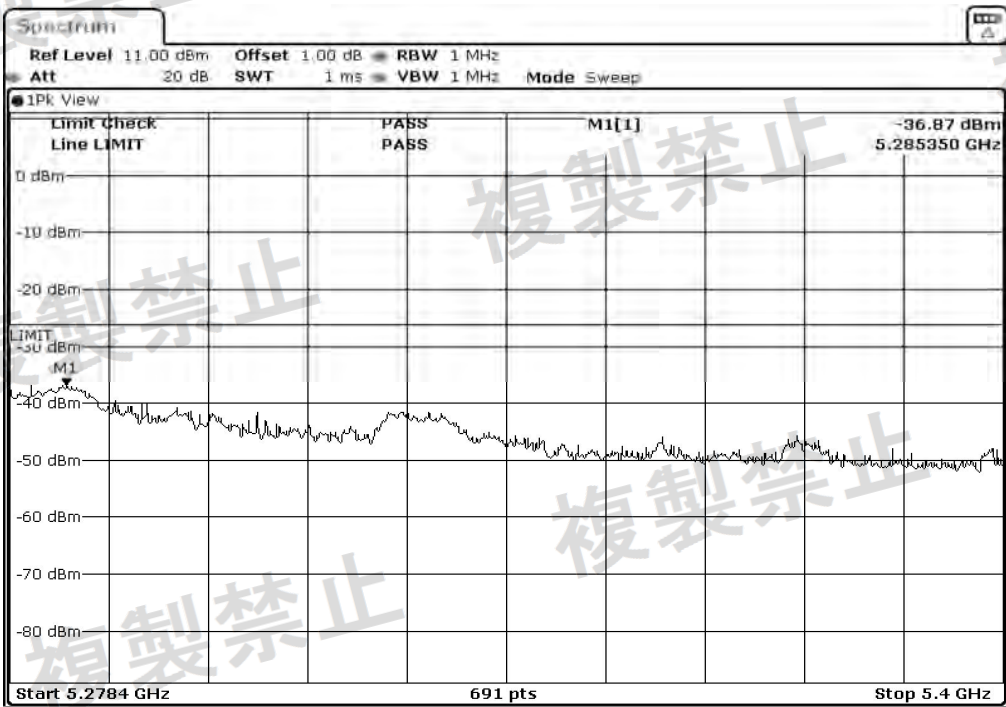
Date: 12.APR.2021 07:27:34

5270 - 5278.4MHz



Date: 12.APR.2021 07:28:01

5278.4 - 5400MHz



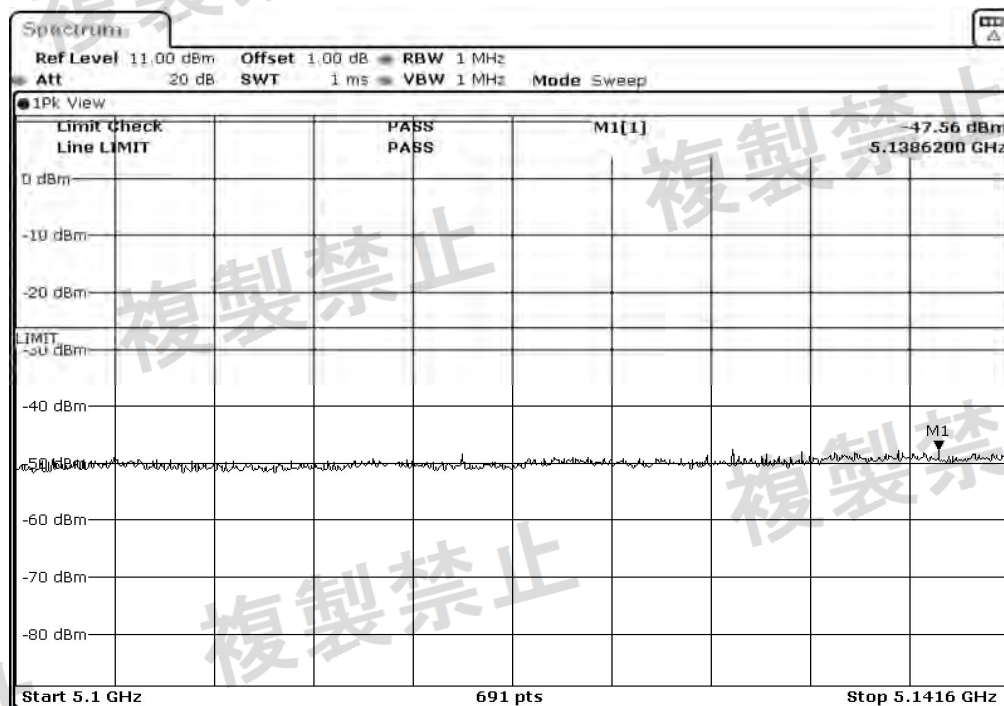
Date: 12.APR.2021 07:28:28

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W52 (5230MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5100 to 5141.6MHz	-47.56	0.0384	$\leq 2.5 \text{ uW/MHz}$
		5141.6 to 5150MHz	-44.55	0.0768	$\leq 15.0 \text{ uW/MHz}$
		5250 to 5251MHz	-14.30	81.2269	446.6527419
		5251 to 5270MHz	-18.23	32.8776	48.87844407
		5270 to 5278.4MHz	-27.73	3.6898	7.891689769
		5278.4 to 5400MHz	-31.43	1.5736	$\leq 2.5 \text{ uW/MHz}$

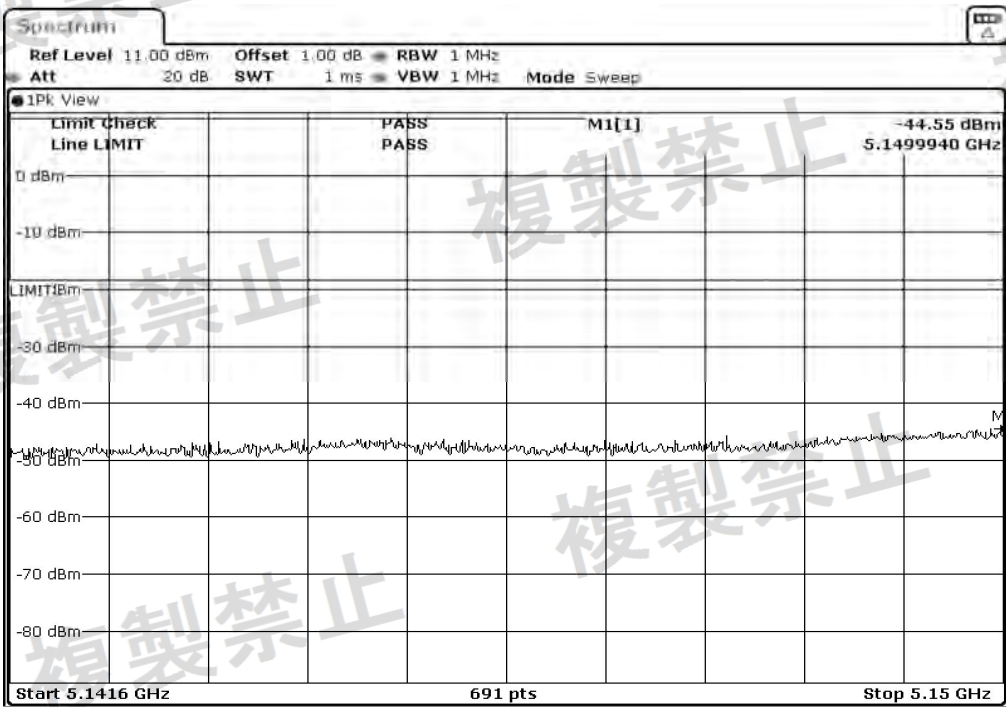
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5100 - 5141.6MHz



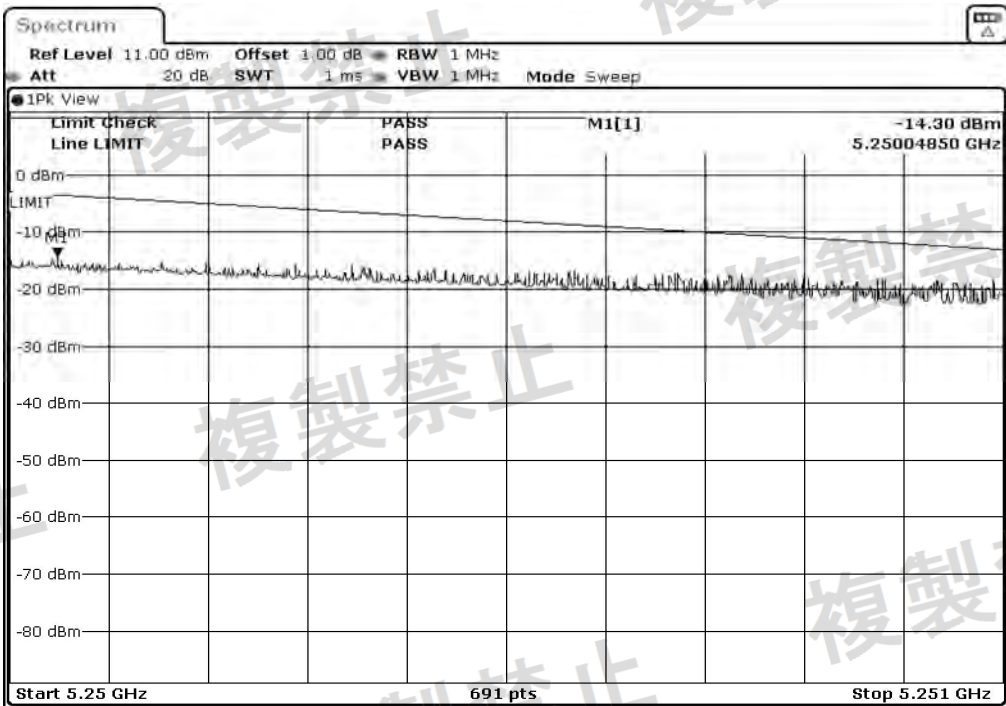
Date: 12.APR.2021 07:38:12

5141.6 - 5150MHz



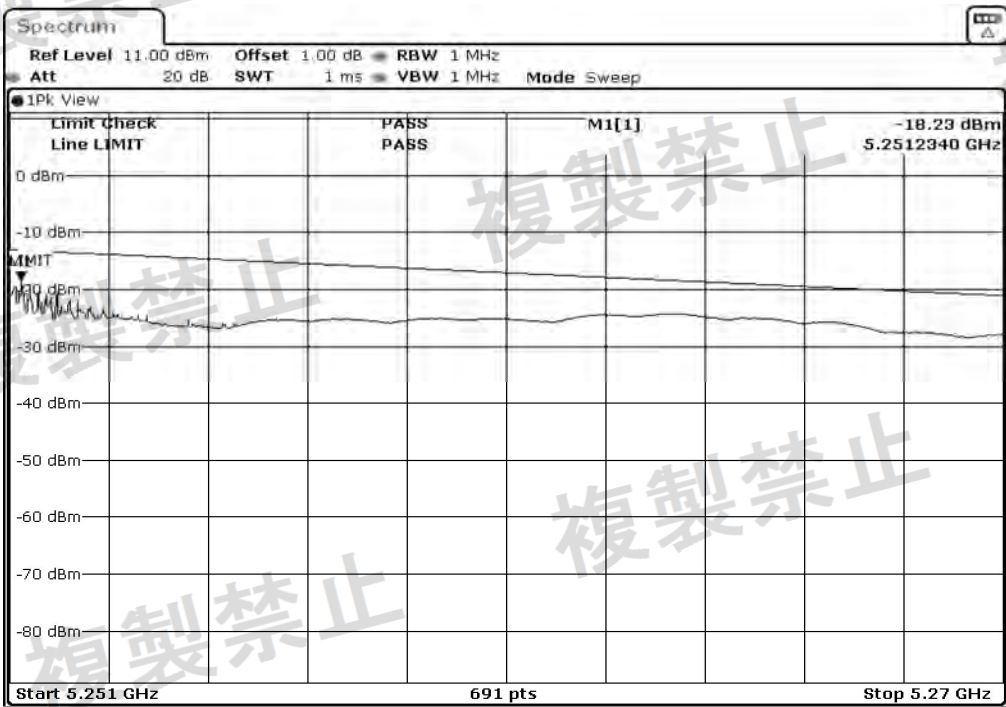
Date: 12.APR.2021 07:38:39

5250 - 5251MHz



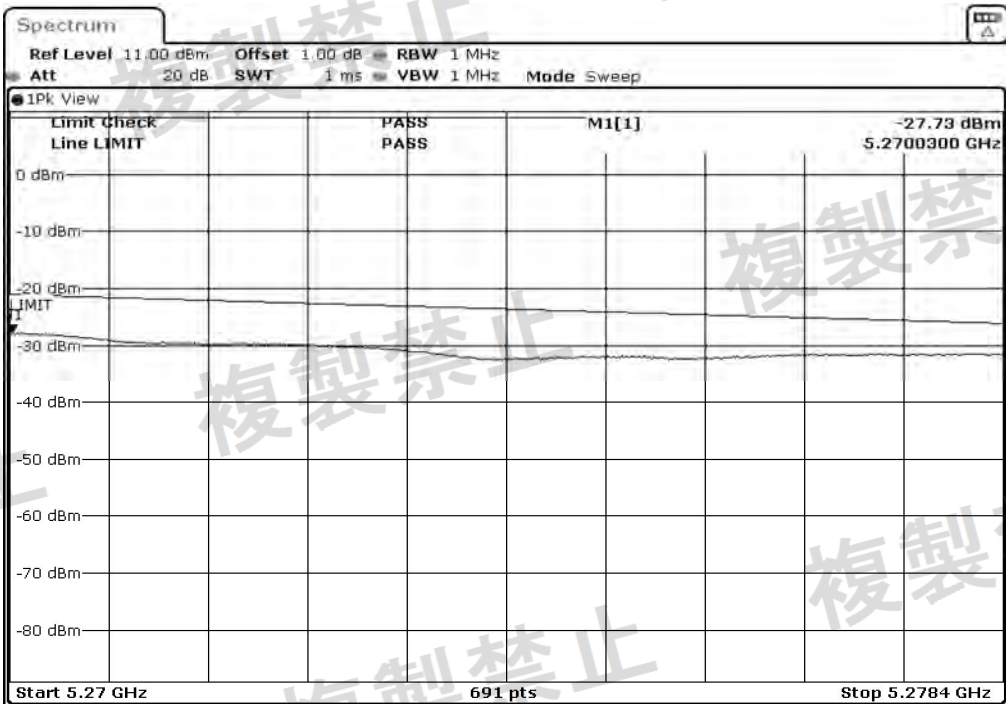
Date: 12.APR.2021 07:39:05

5251 - 5270MHz



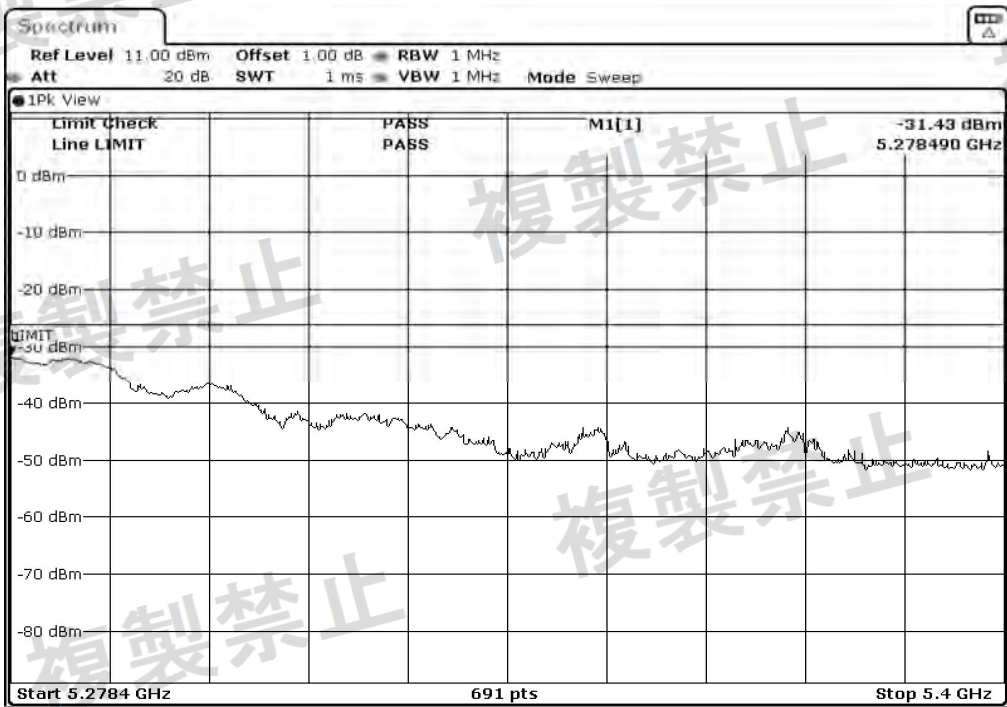
Date: 12.APR.2021 07:39:32

5270 - 5278.4MHz



Date: 12.APR.2021 07:39:58

5278.4 - 5400MHz



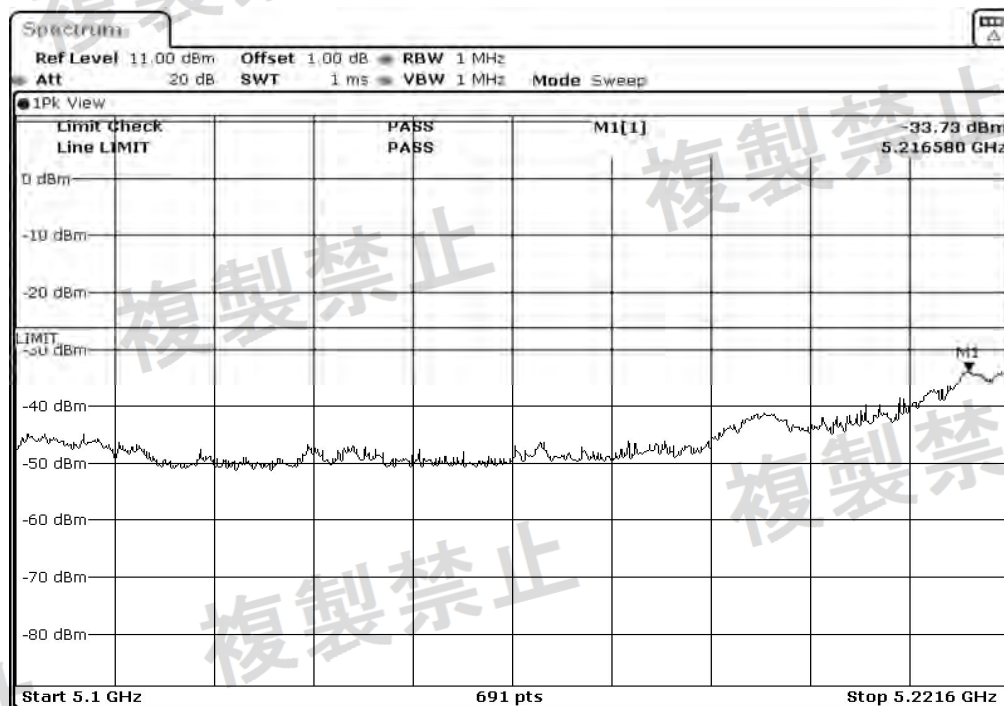
Date: 12.APR.2021 07:40:24

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W53 (5270MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5100 to 5221.6MHz	-33.73	0.9936	≤2.5uW/MHz
		5221.6 to 5230MHz	-25.21	7.0583	7.864479855
		5230 to 5249MHz	-16.84	48.5289	49.80164504
		5249 to 5250MHz	-11.87	152.2299	415.8818856
		5350 to 5358.4MHz	-35.41	0.2875	≤15uW/MHz
		5358.4 to 5400MHz	-40.02	0.2336	≤2.5uW/MHz

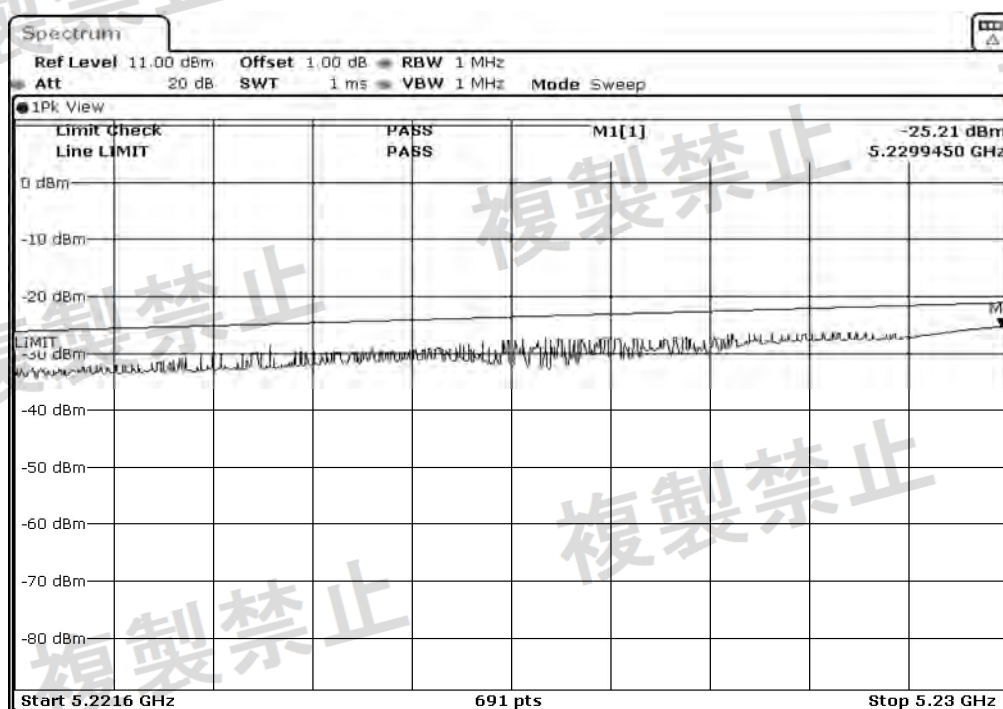
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5100 - 5221.6MHz



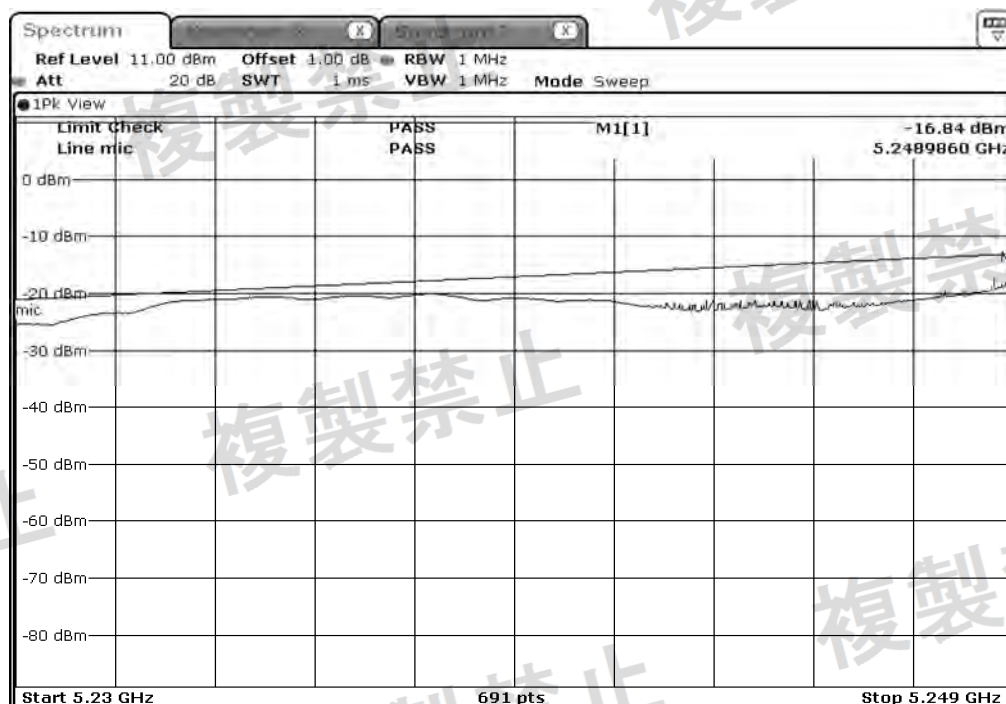
Date: 12.APR.2021 07:55:01

5221.6 - 5230MHz



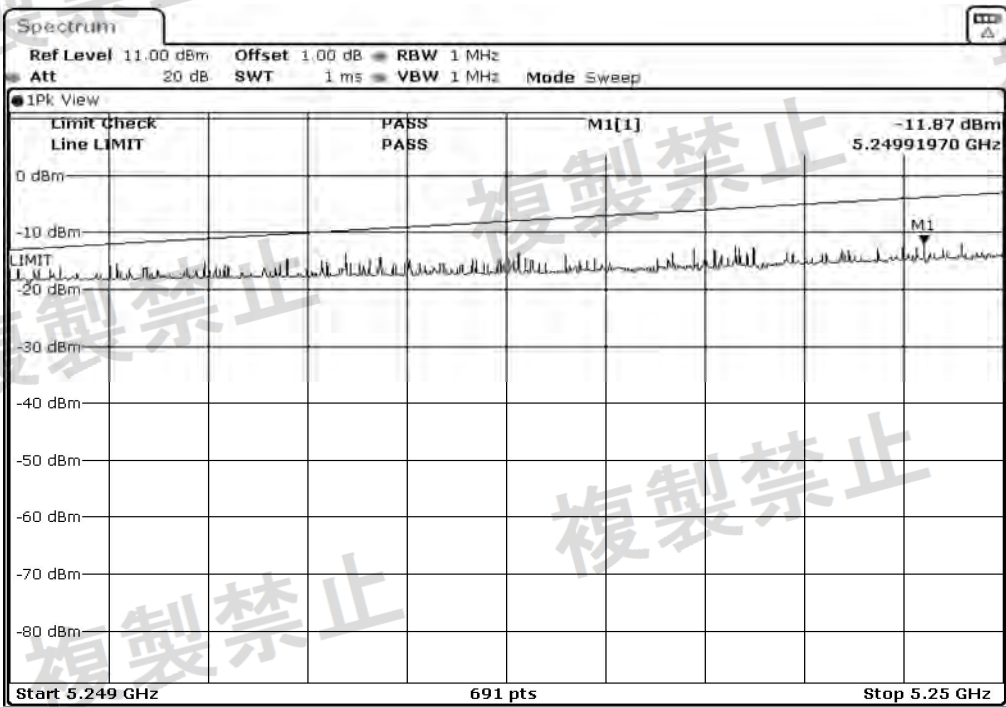
Date: 12.APR.2021 07:55:28

5230 - 5249MHz



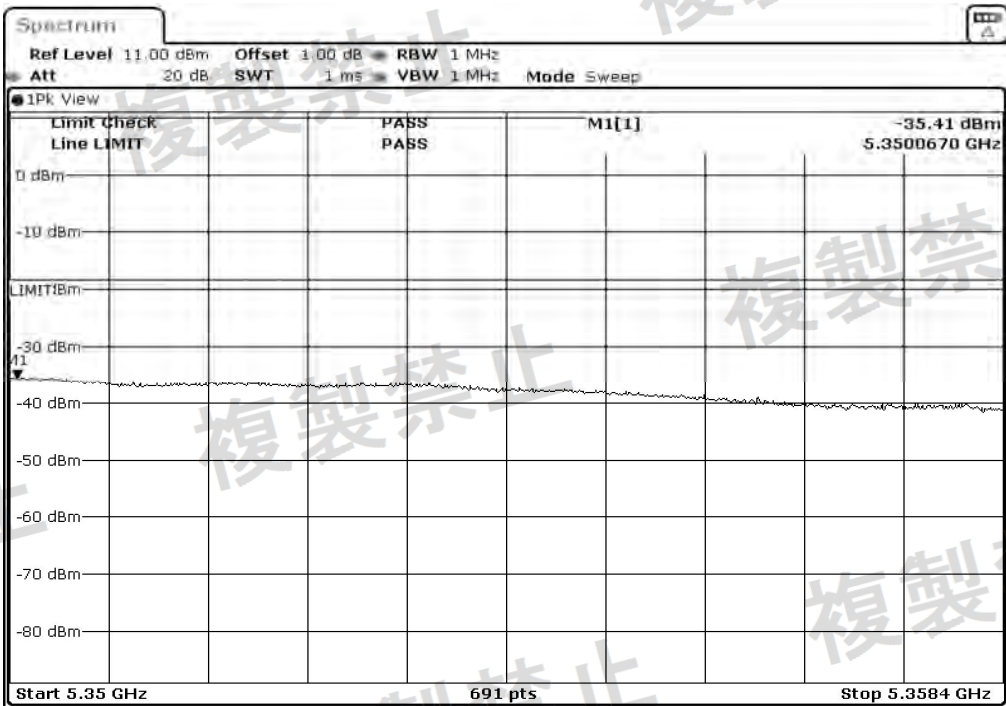
Date: 14.APR.2021 07:56:01

5249 - 5250MHz



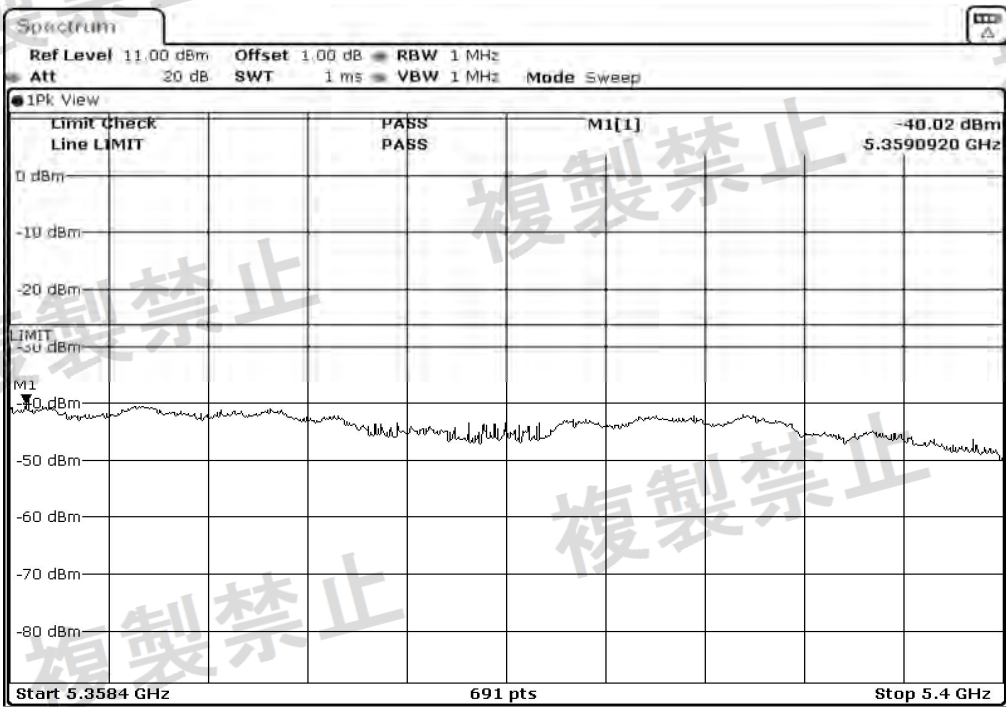
Date: 12.APR.2021 07:56:21

5350 - 5358.4MHz



Date: 12.APR.2021 07:56:46

5358.4 - 5400MHz



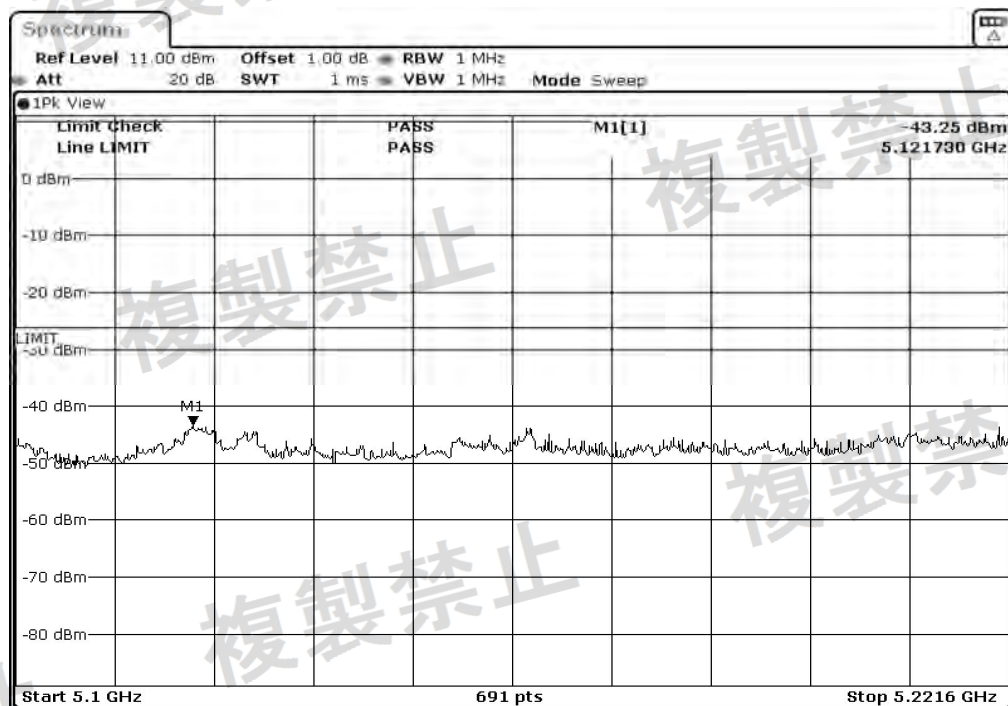
Date: 12.APR.2021 07:57:13

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W53 (5310MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5100 to 5221.6MHz	-43.25	0.1109	≤2.5uW/MHz
		5221.6 to 5230MHz	-39.53	0.2612	7.891689769
		5230 to 5249MHz	-36.76	0.4947	23.41965703
		5249 to 5250MHz	-35.37	0.6809	343.53422
		5350 to 5358.4MHz	-23.32	10.9194	≤15uW/MHz
		5358.4 to 5400MHz	-51.45	0.0168	≤2.5uW/MHz

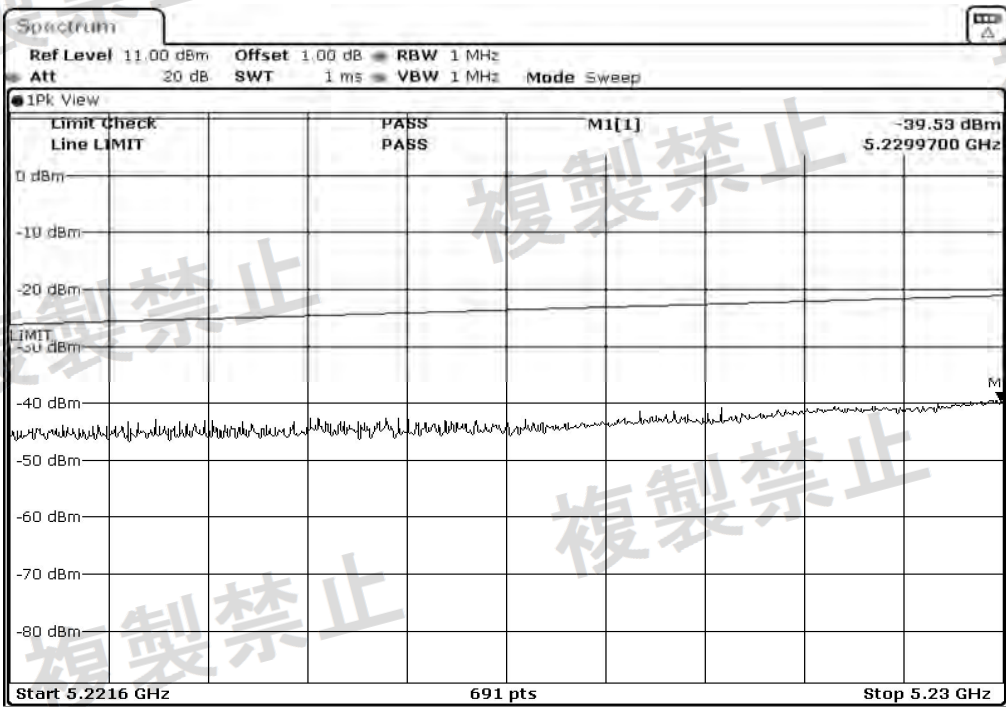
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5100 - 5221.6MHz



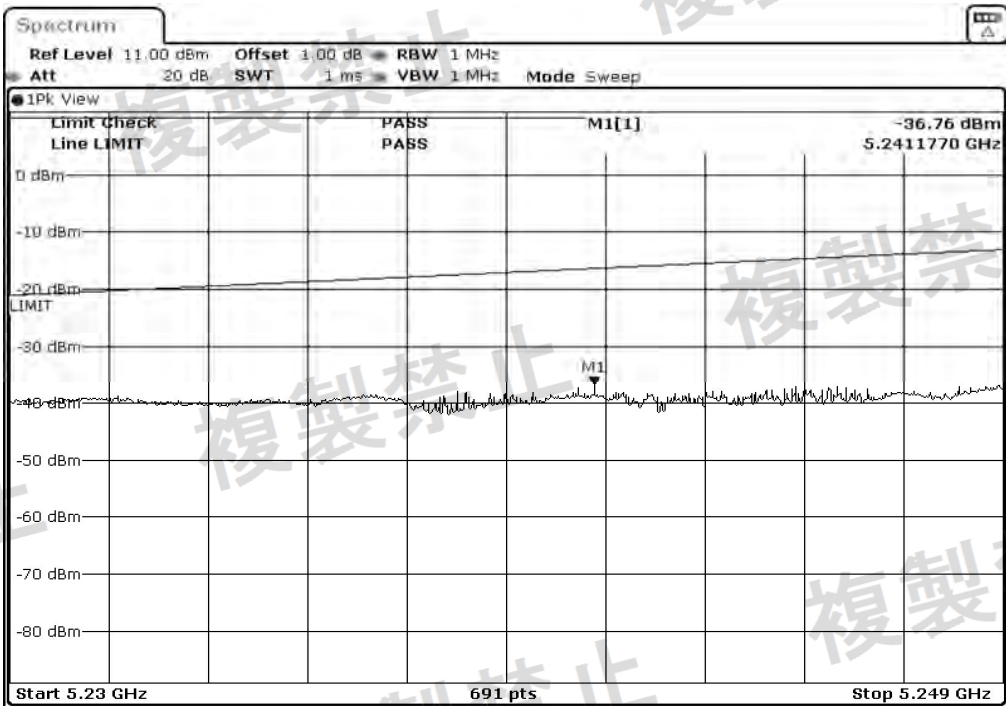
Date: 12.APR.2021 08:10:44

5221.6 - 5230MHz



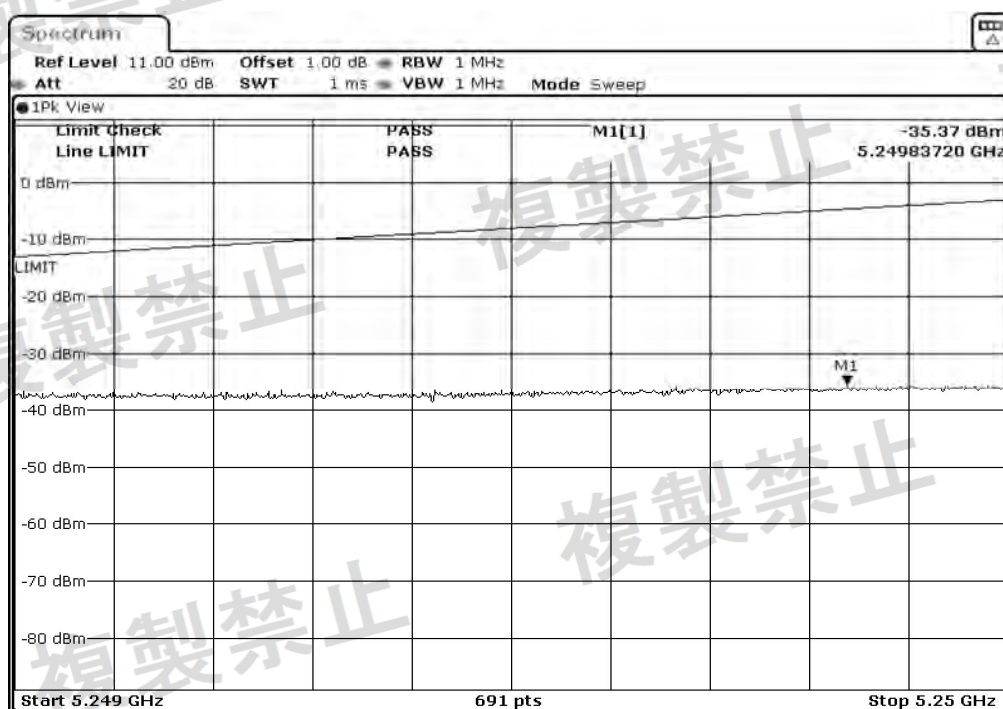
Date: 12.APR.2021 08:11:11

5230 - 5249MHz



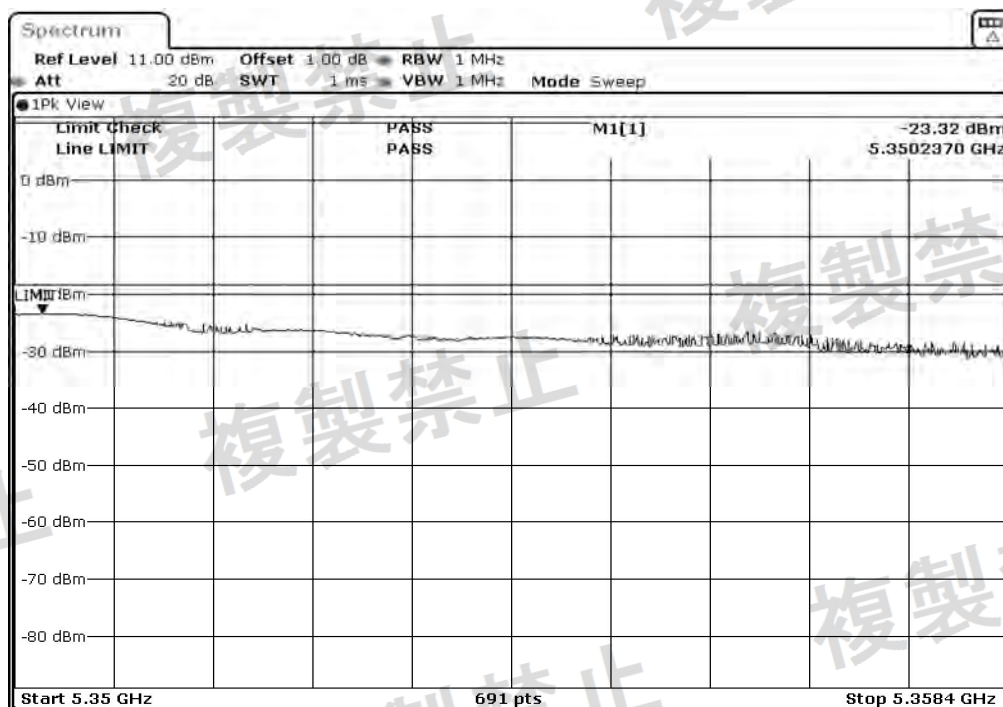
Date: 12.APR.2021 08:11:36

5249 - 5250MHz



Date: 12.APR.2021 08:12:03

5350 - 5358.4MHz



Date: 12.APR.2021 08:12:29

Spectrum

Ref Level 11.00 dBm Offset 1.00 dB RBW 1 MHz
Att 20 dB SWT 1 ms VBW 1 MHz Mode Sweep

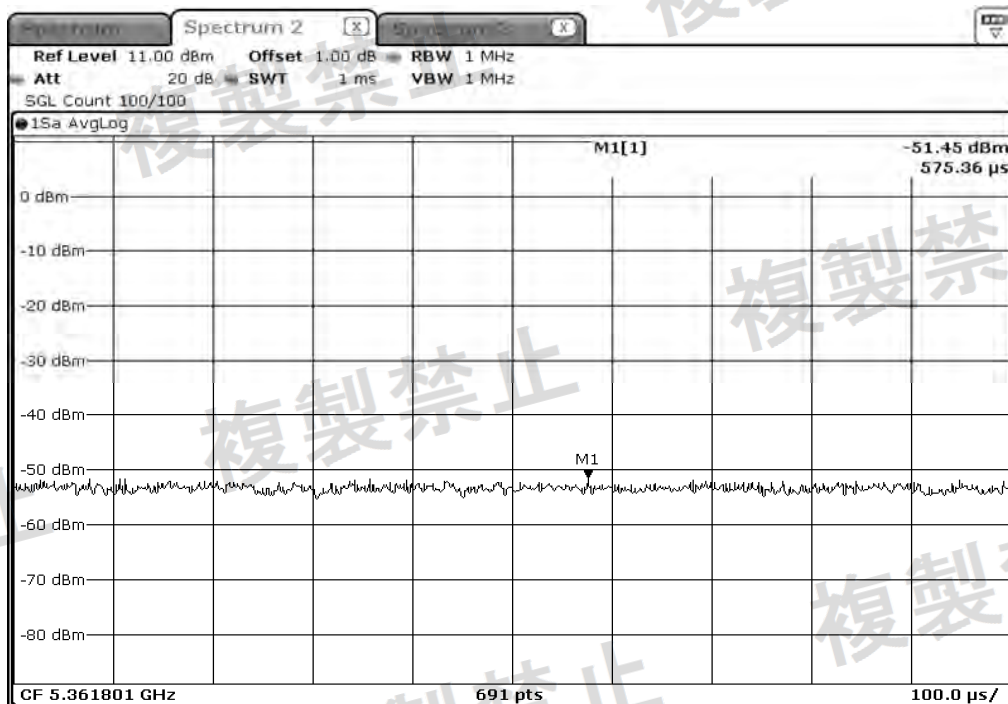
● Ipk View

Limit Check	PASS	M1[1]	-28.23 dBm
Line LIMIT	PASS		5.3618010 GHz

0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm

Start 5.3584 GHz 691 pts Stop 5.4 GHz

5358.4 - 5400MHz - 1



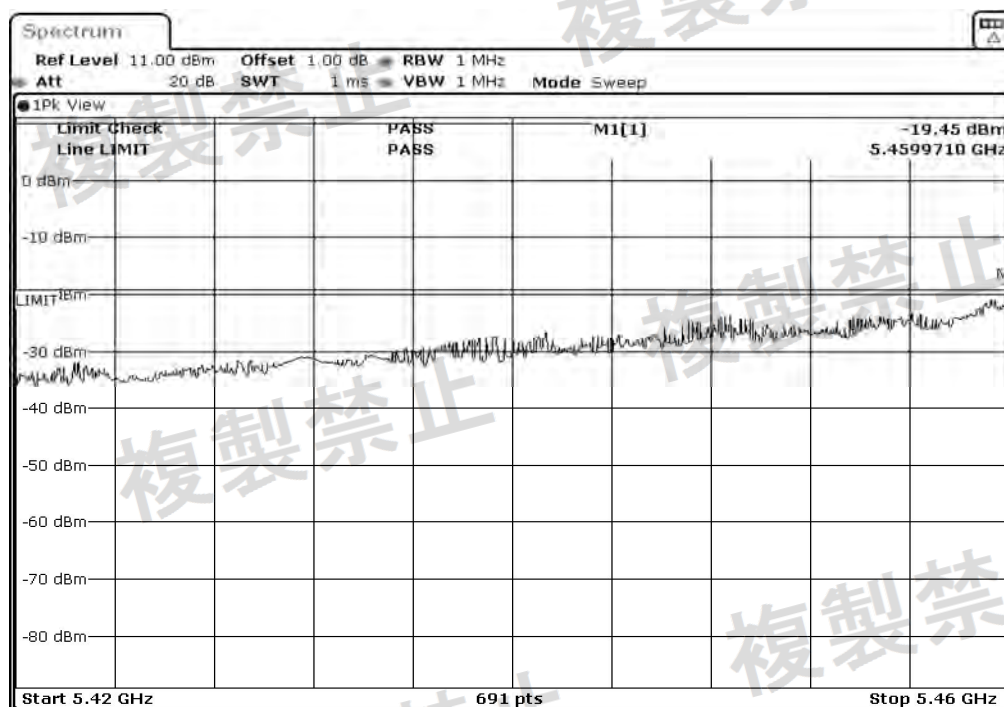
Page: 278 of 416

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5510MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5420 to 5460MHz	-38.82	0.3076	≤ 12.5uW/MHz
		5460 to 5470MHz	-20.12	22.8034	≤ 50uW/MHz
		5770 to 5800MHz	-44.42	0.0848	≤ 12.5uW/MHz

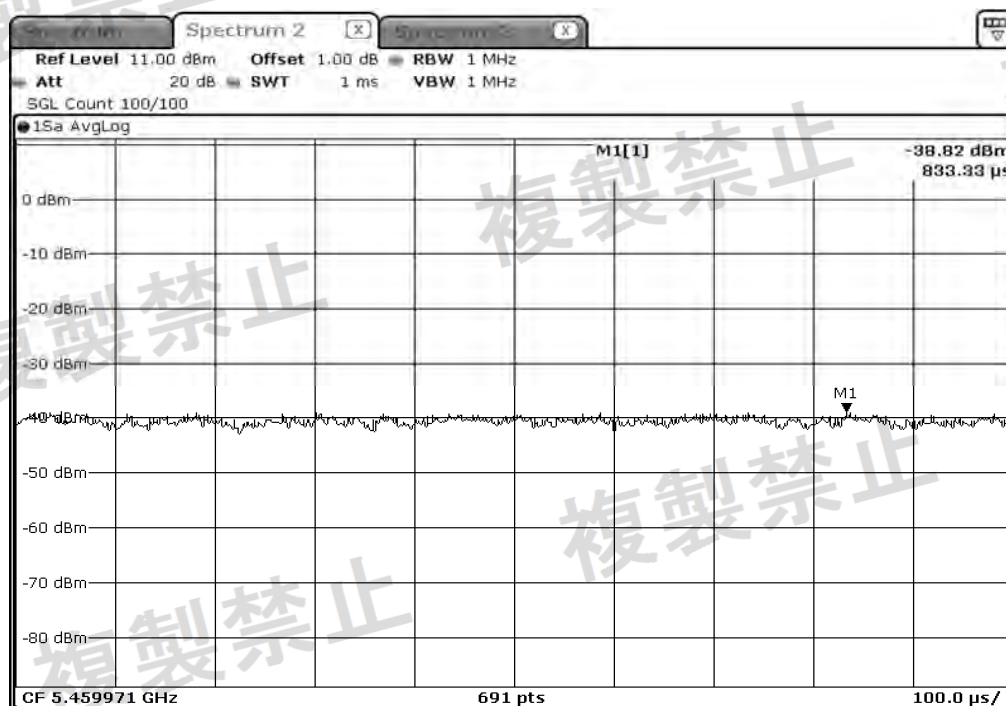
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10) * 1000}$

5420 - 5460MHz



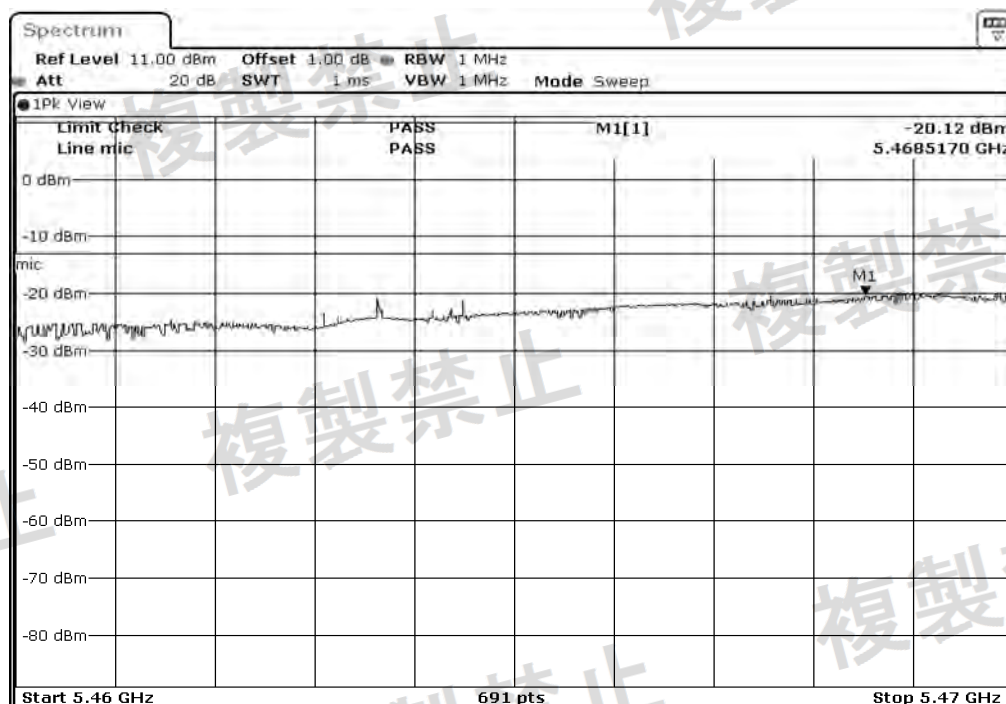
Date: 12.APR.2021 08:21:08

5420 - 5460MHz-1



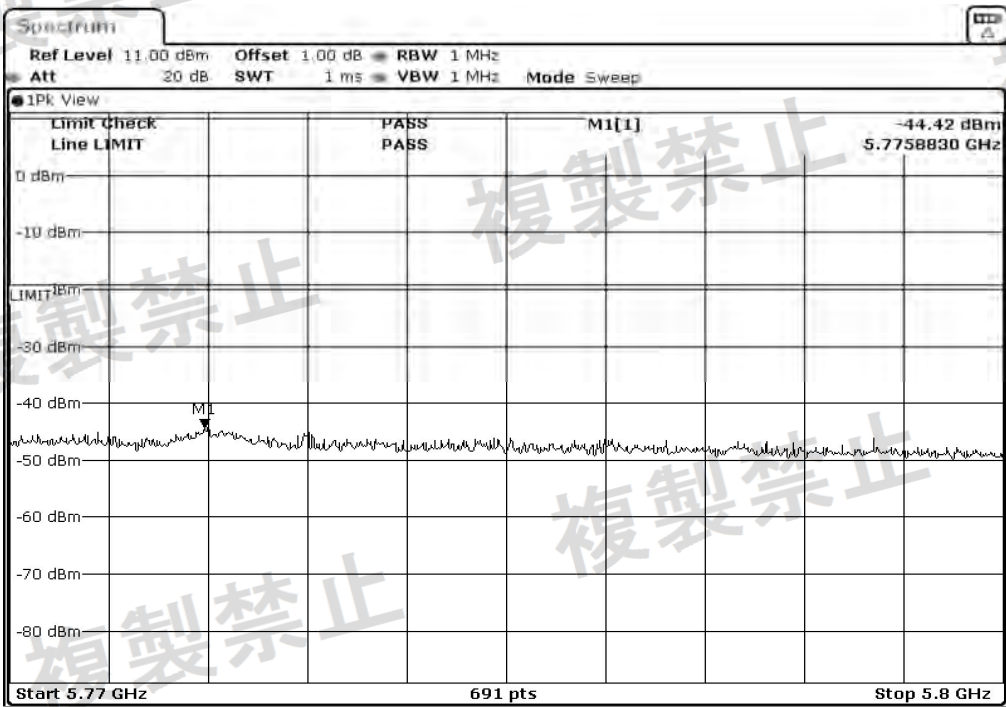
Date: 14.APR.2021 09:05:59

5460 - 5470MHz



Date: 12.APR.2021 14:00:14

5770 - 5800MHz



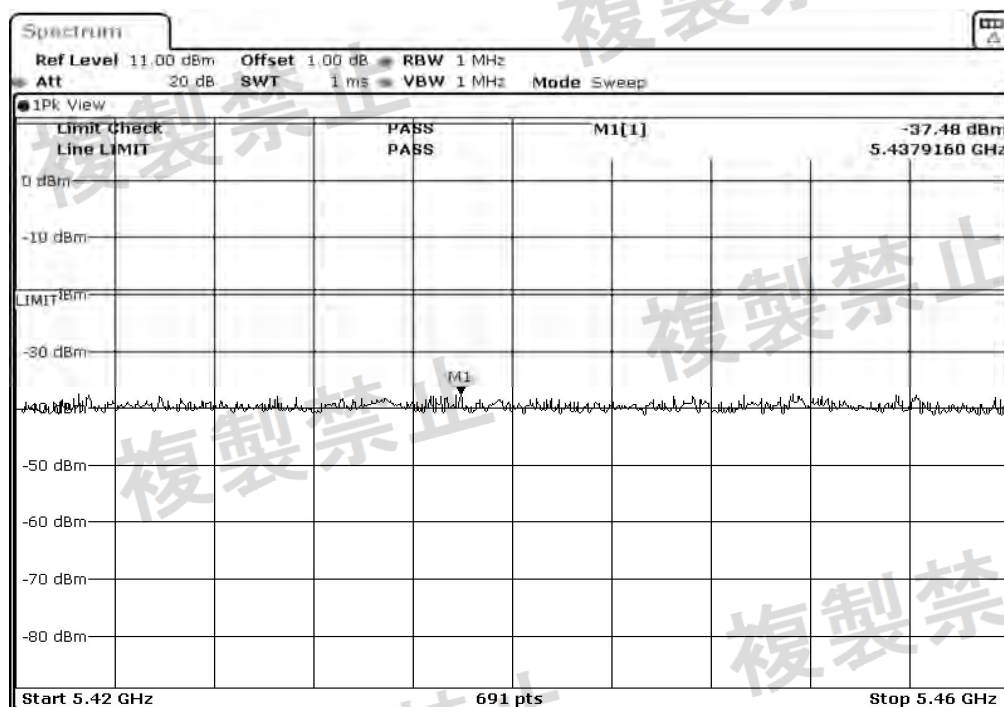
Date: 12.APR.2021 08:21:59

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5590MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5420 to 5460MHz	-37.48	0.4189	$\leq 12.5\text{uW/MHz}$
		5460 to 5470MHz	-38.25	0.3504	$\leq 50\text{uW/MHz}$
		5770 to 5800MHz	-37.81	0.3877	$\leq 12.5\text{uW/MHz}$

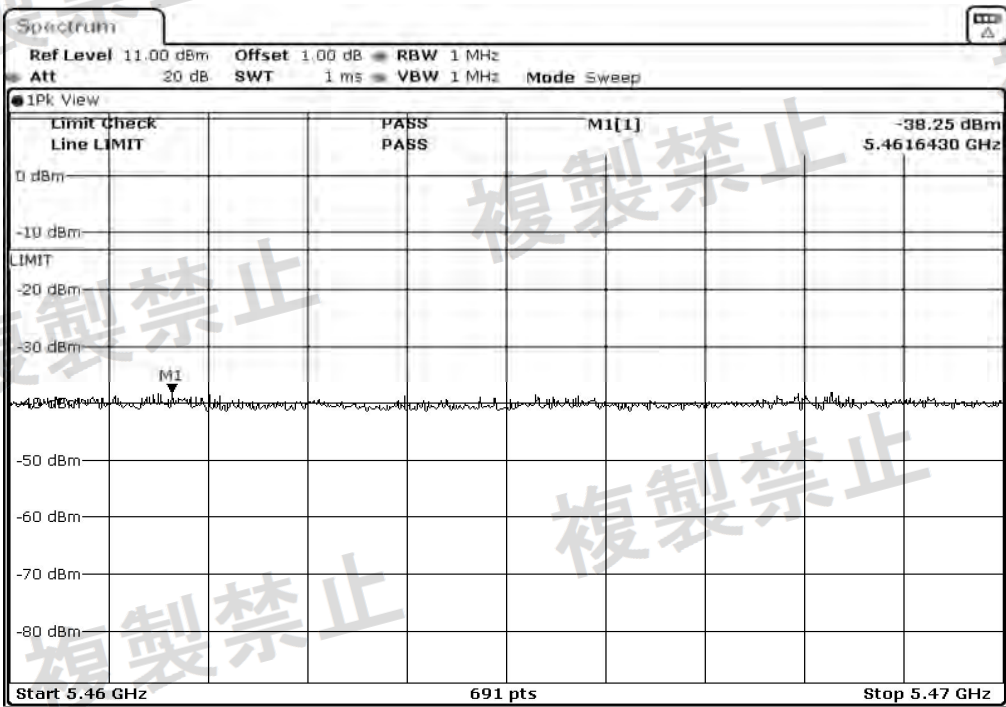
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5420 - 5460MHz



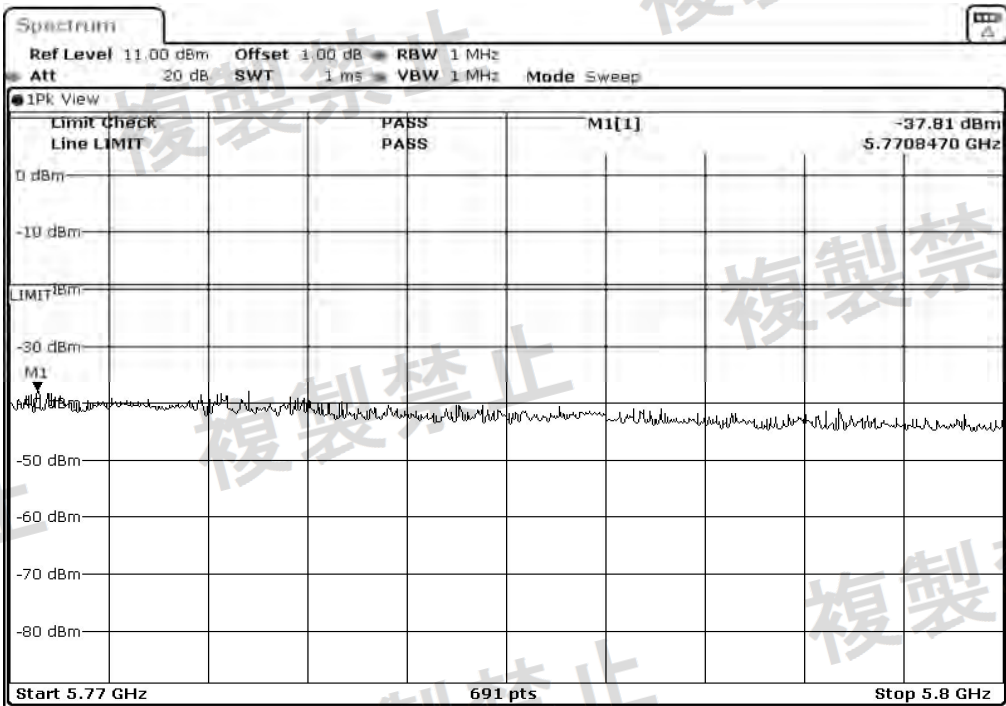
Date: 12.APR.2021 08:29:12

5460 - 5470MHz



Date: 12.APR.2021 08:29:39

5770 - 5800MHz



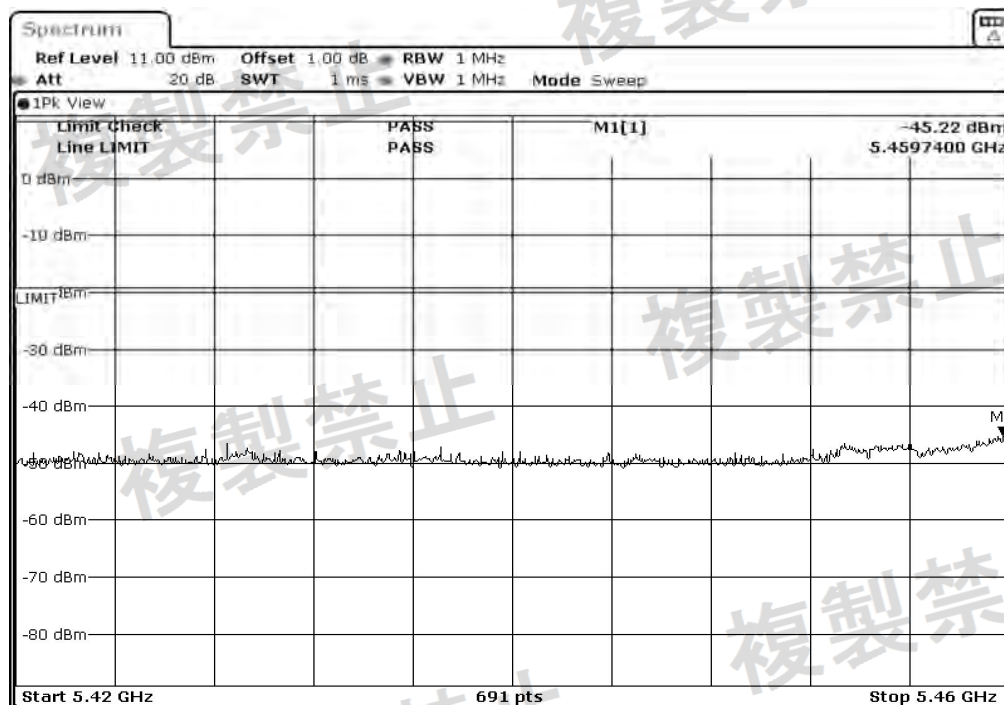
Date: 12.APR.2021 08:30:05

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5670MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5420 to 5460MHz	-45.22	0.0704	$\leq 12.5\text{uW/MHz}$
		5460 to 5470MHz	-43.95	0.0943	$\leq 50\text{uW/MHz}$
		5770 to 5800MHz	-39.28	0.2764	$\leq 12.5\text{uW/MHz}$

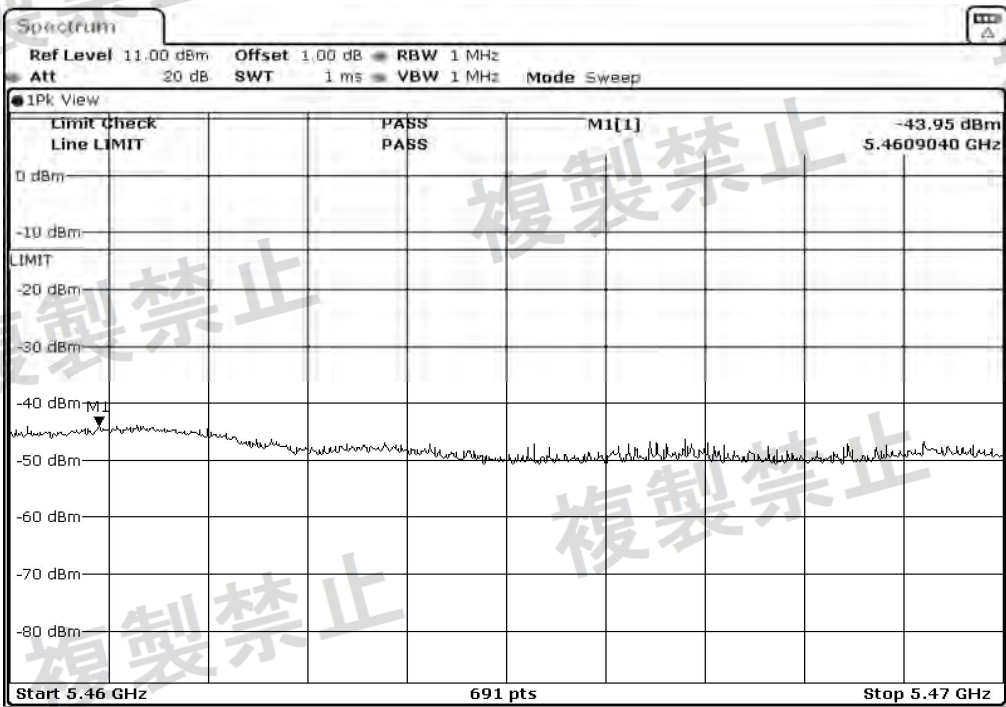
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5420 - 5460MHz



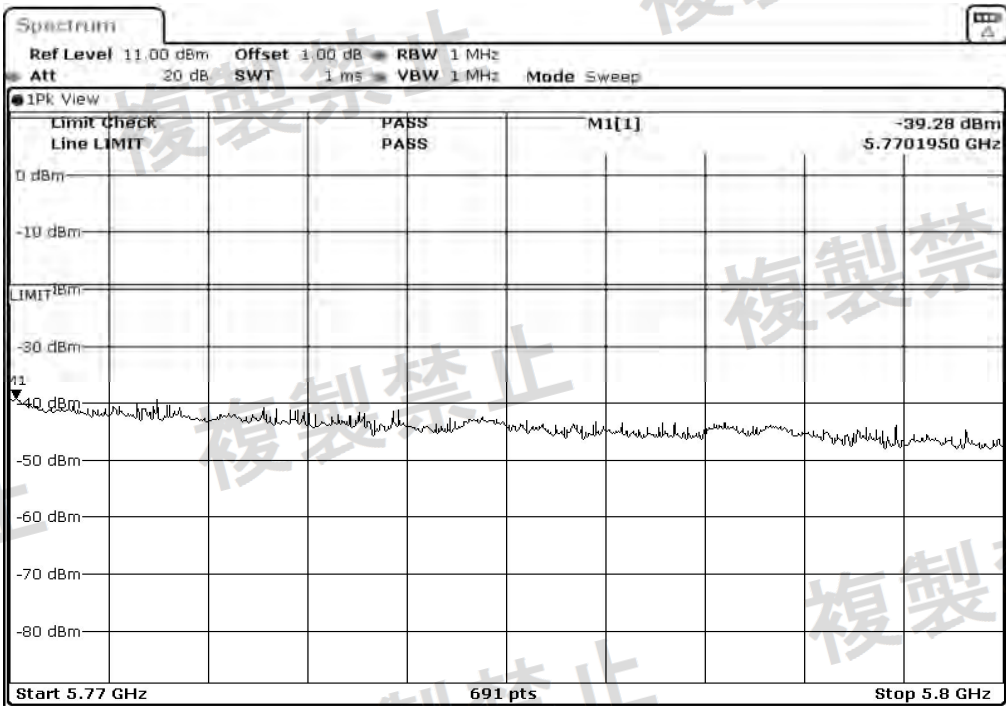
Date: 12.APR.2021 08:57:21

5460 - 5470MHz



Date: 12.APR.2021 08:57:48

5770 - 5800MHz



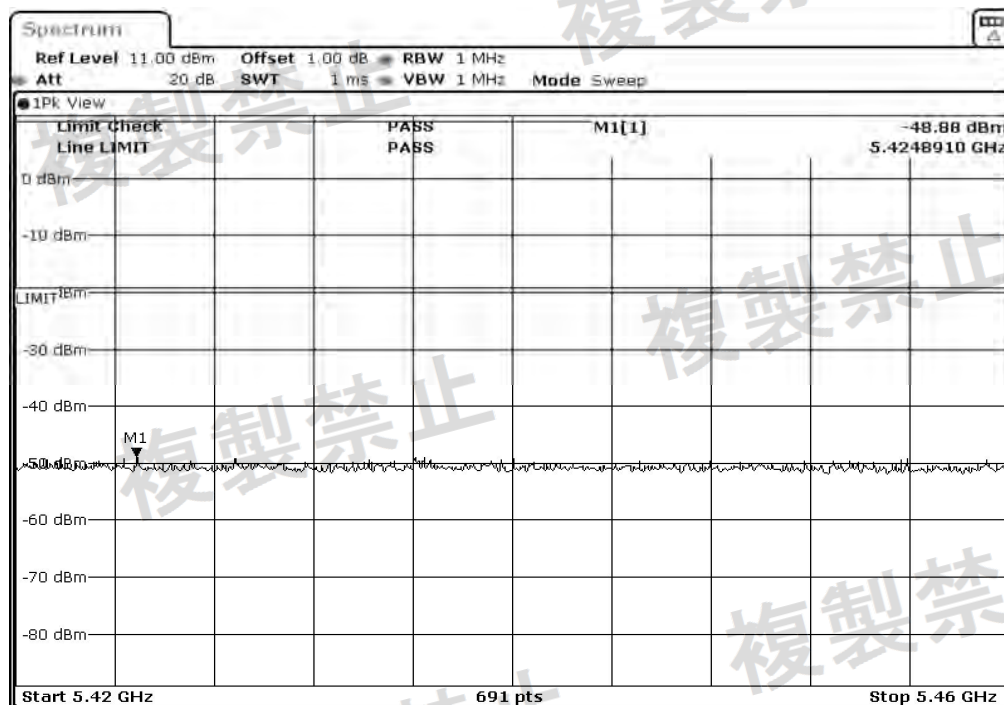
Date: 12.APR.2021 08:58:14

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5710MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5420 to 5460MHz	-48.88	0.0303	≤ 12.5uW/MHz
		5460 to 5470MHz	-48.82	0.0307	≤ 50uW/MHz
		5770 to 5800MHz	-32.68	1.2650	≤ 12.5uW/MHz

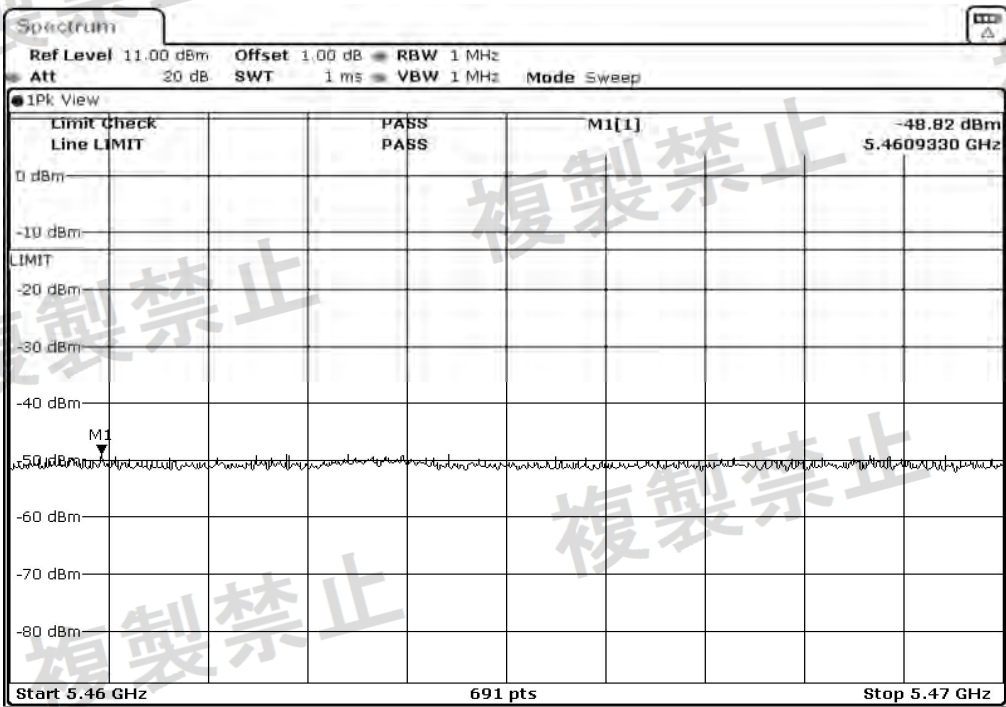
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5420 - 5460MHz



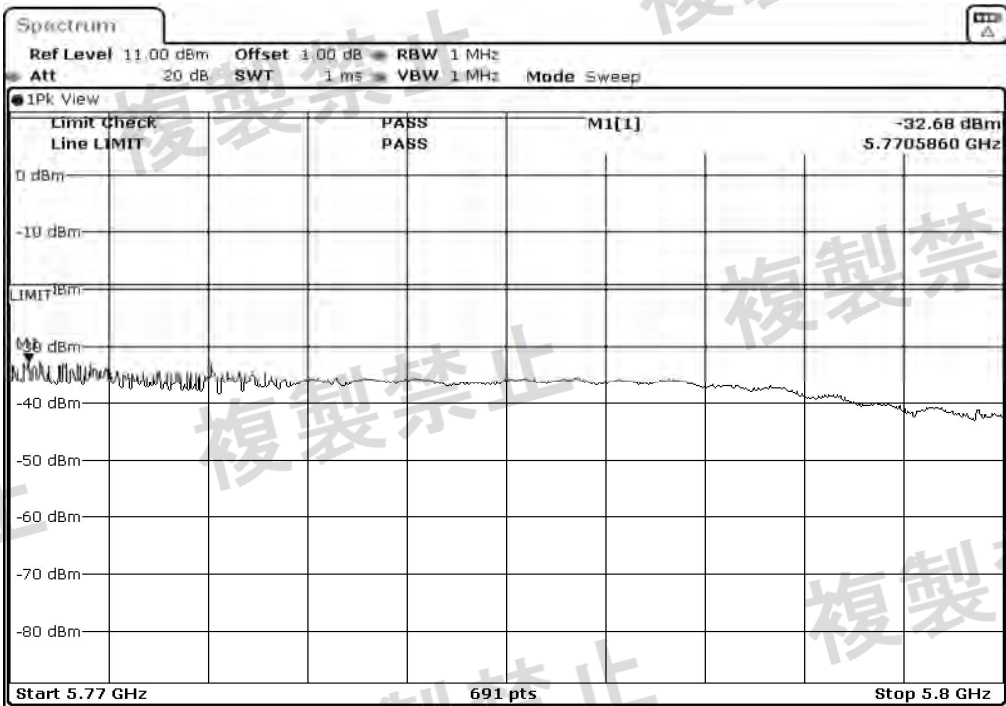
Date: 12.APR.2021 09:09:43

5460 - 5470MHz



Date: 12.APR.2021 09:10:09

5770 - 5800MHz



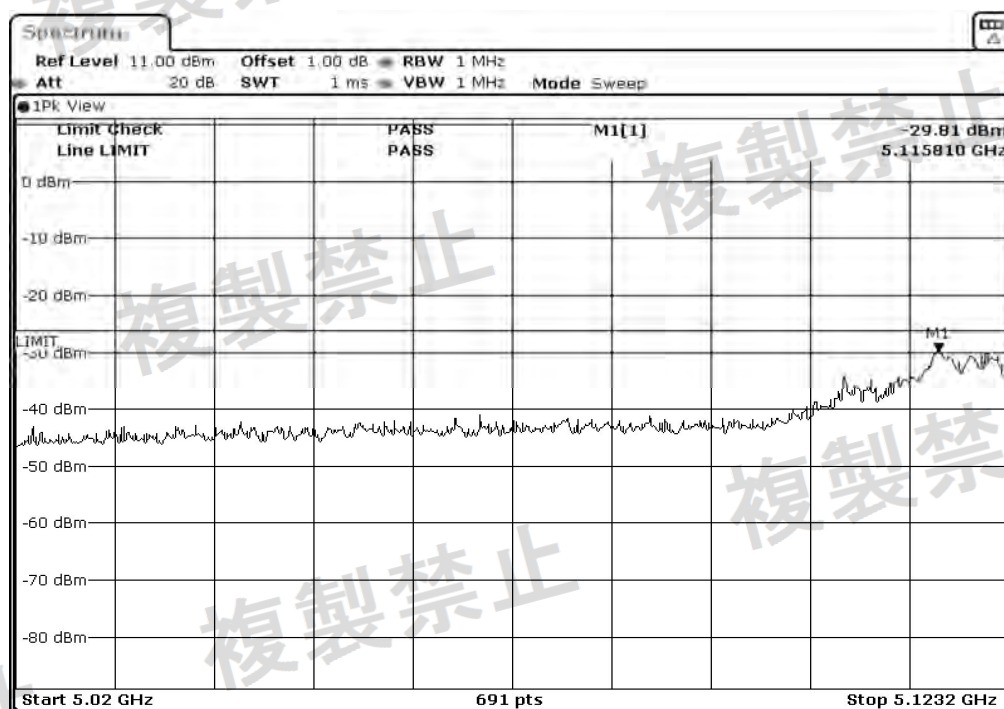
Date: 12.APR.2021 09:10:35

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W52 (5210MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5020 to 5123.2MHz	-29.81	2.2851	2.5
		5123.2 to 5150MHz	-28.97	2.7720	15
		5250 to 5251MHz	-14.22	82.8324	247.7079862
		5251 to 5290MHz	-43.84	0.0904	24.96695909
		5290 to 5296.7MHz	-30.06	2.1572	3.652582287
		5296.7 to 5480MHz	-31.23	1.6482	2.5

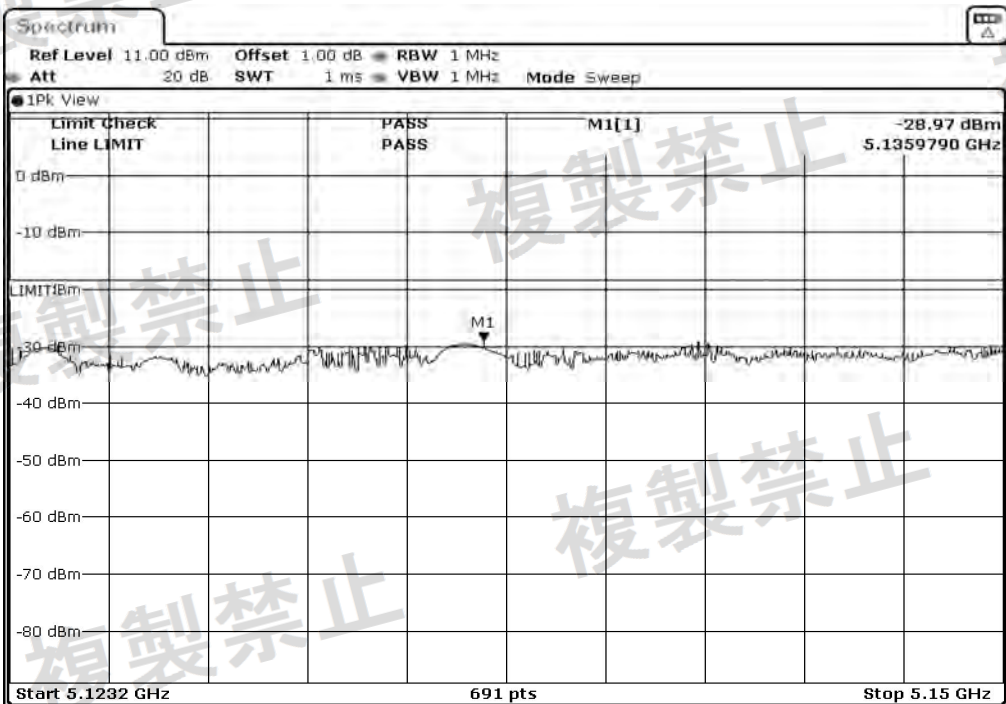
Measurement Level (uW) = $10^{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)*1000}$

5020 - 5123.2MHz



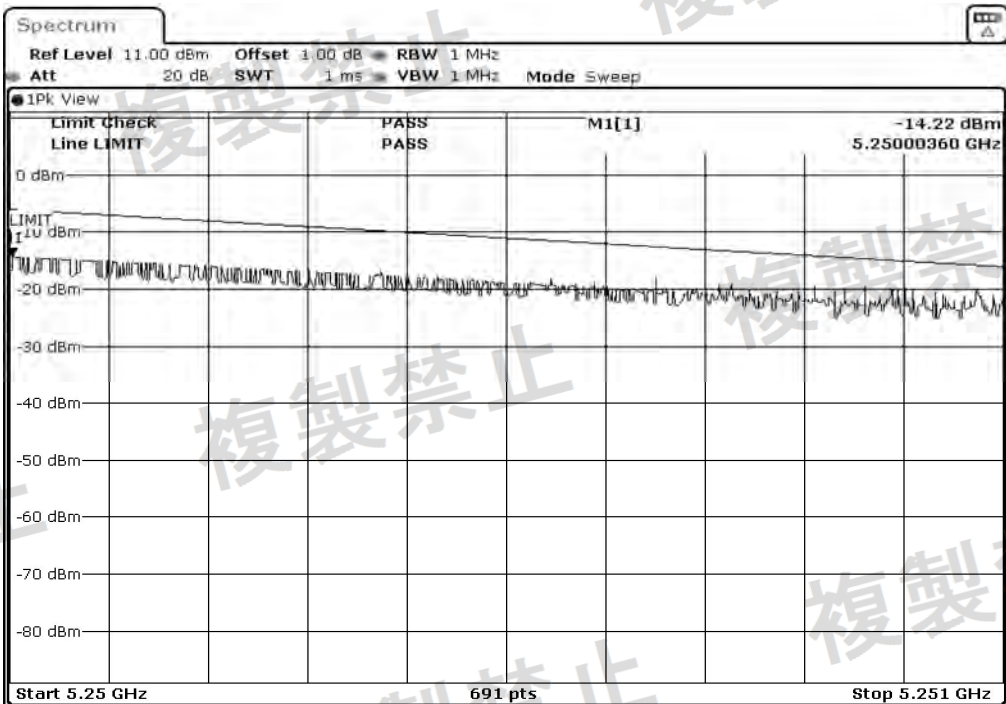
Date: 12.APR.2021 03:38:26

5123.2 - 5150MHz



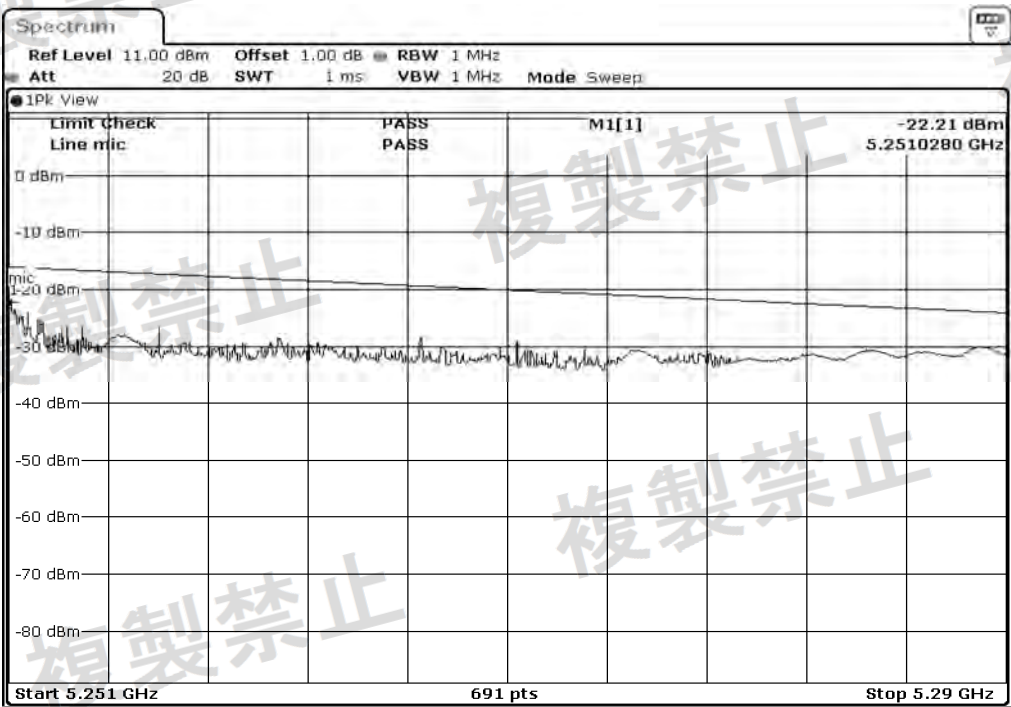
Date: 12.APR.2021 03:38:53

5250 - 5251MHz



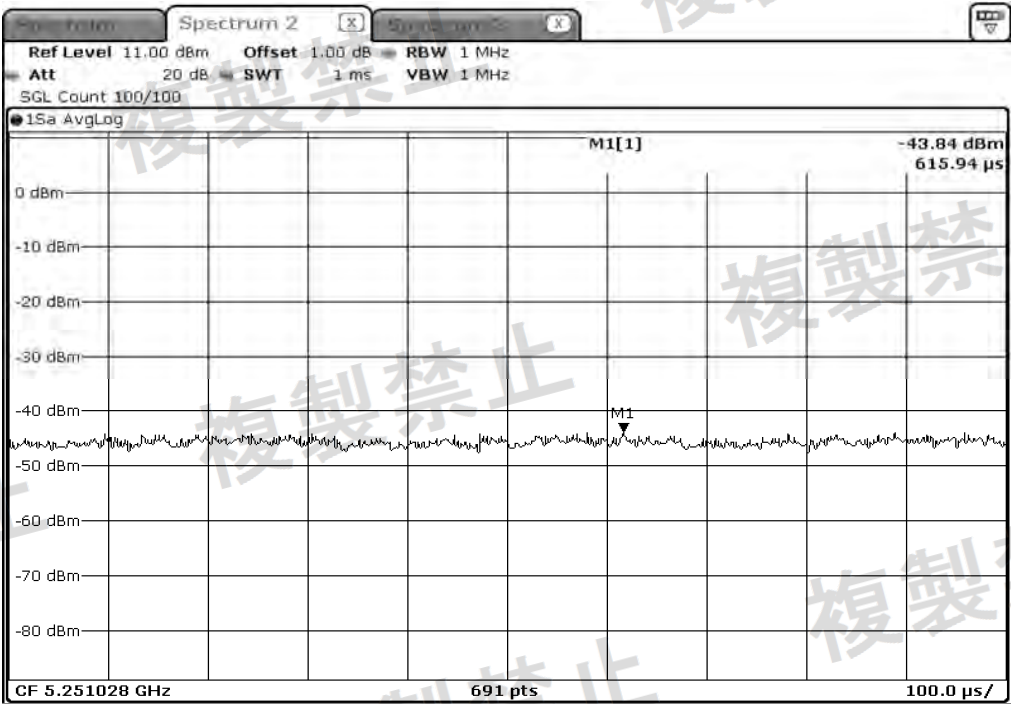
Date: 12.APR.2021 03:39:19

5251 - 5290MHz



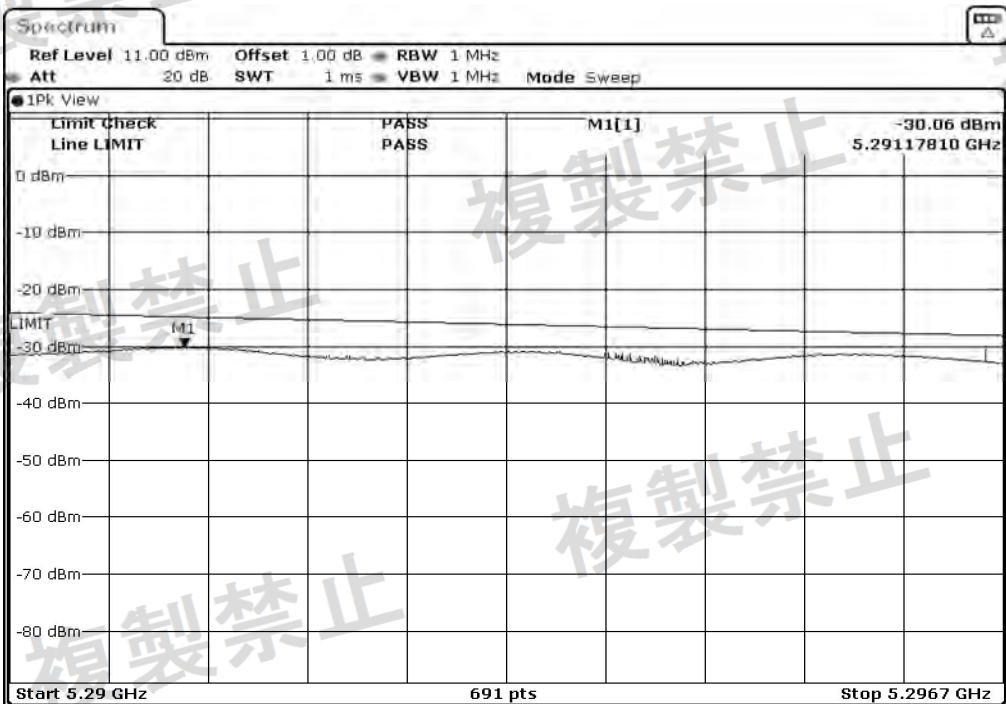
Date: 12.APR.2021 13:37:30

5251 - 5290MHz - 1



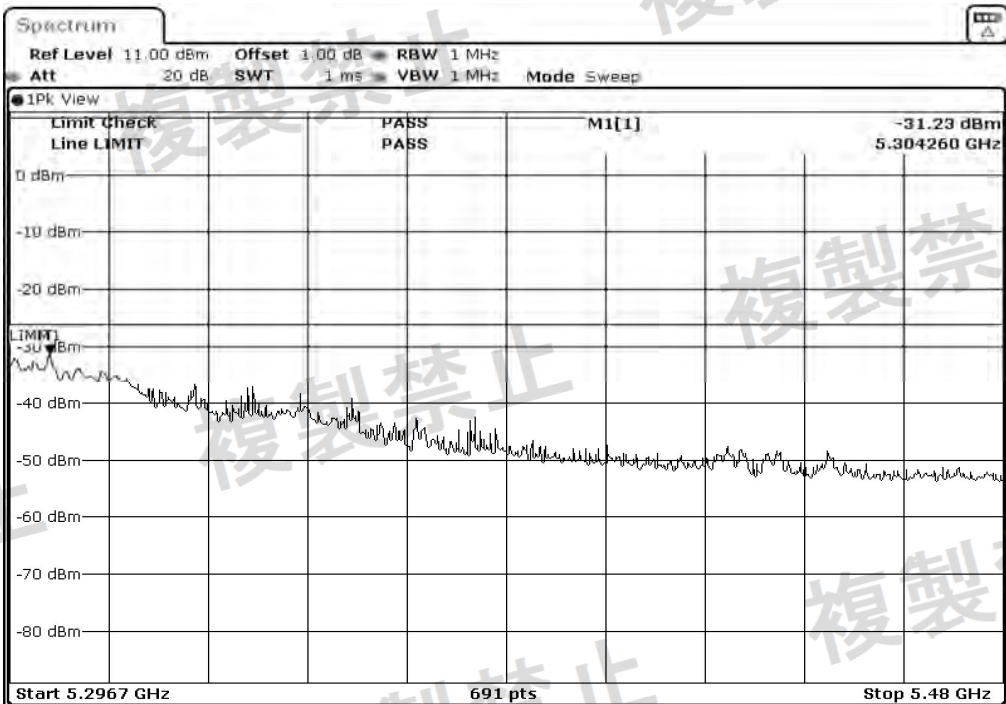
Date: 14.APR.2021 10:50:24

5290 - 5296.7MHz



Date: 12.APR.2021 03:40:11

5296.7 - 5480MHz



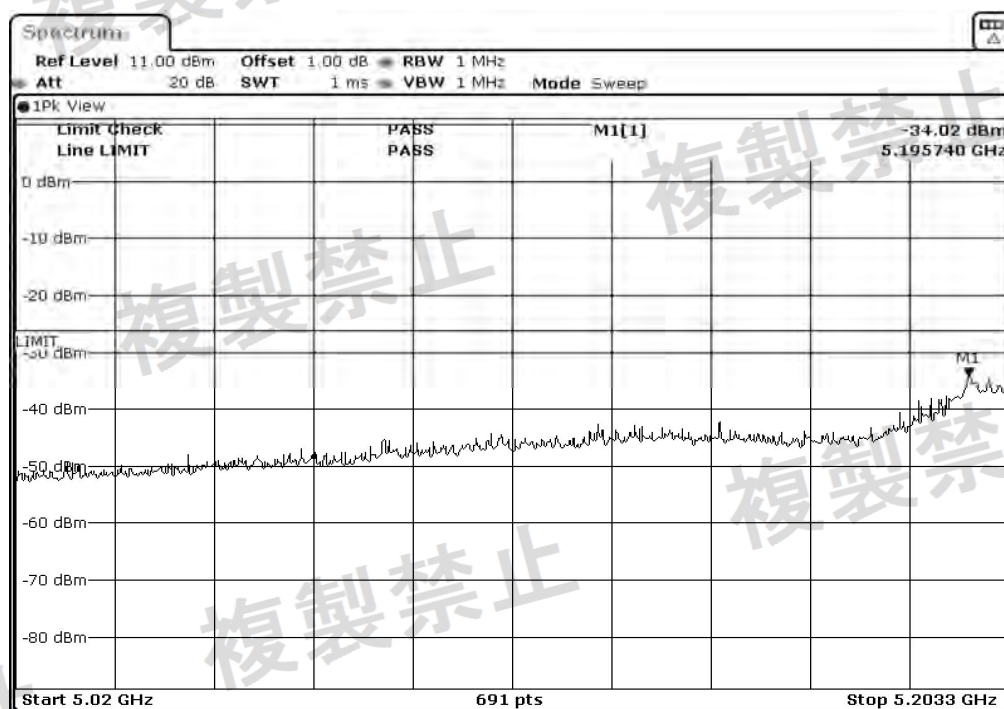
Date: 12.APR.2021 03:40:37

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W53 (5290MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5020 to 5203.3MHz	-34.02	0.9300	2.5
		5203.3 to 5210MHz	-34.44	0.8433	3.122698169
		5210 to 5249MHz	-23.48	10.5196	24.96695909
		5249 to 5250MHz	-16.33	54.5758	249.425016
		5350to 5376.8MHz	-32.24	0.5970	15
		5376.8 to 5480MHz	-35.90	0.6026	2.5

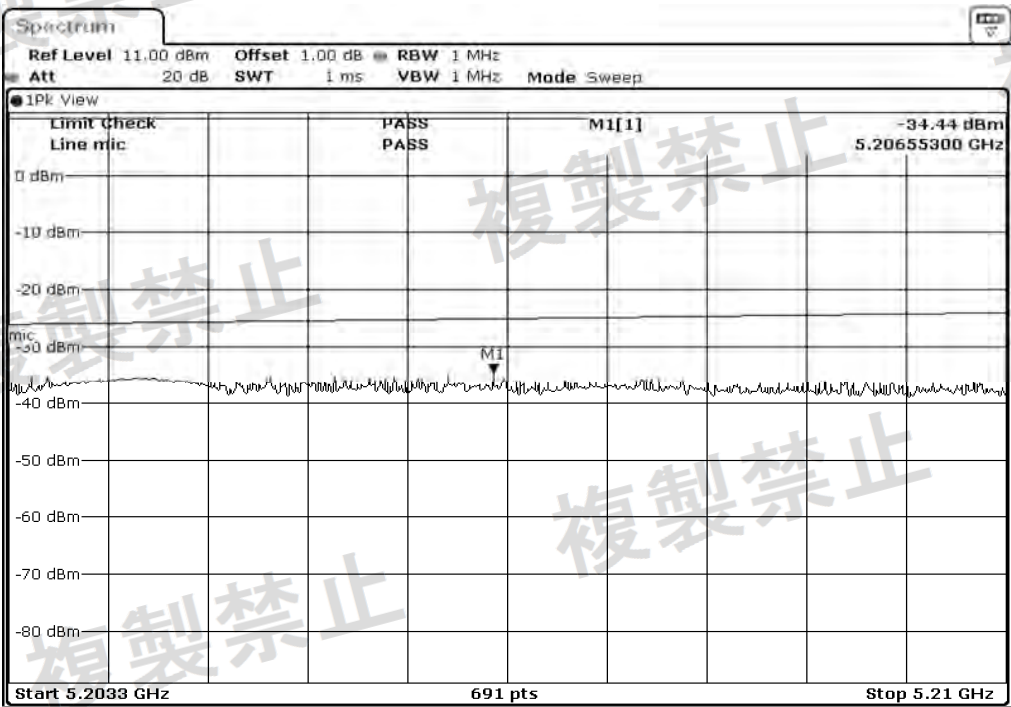
Measurement Level (uW) = $10^{\frac{(\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})}{10}} \times 1000$

5020 - 5203.3MHz



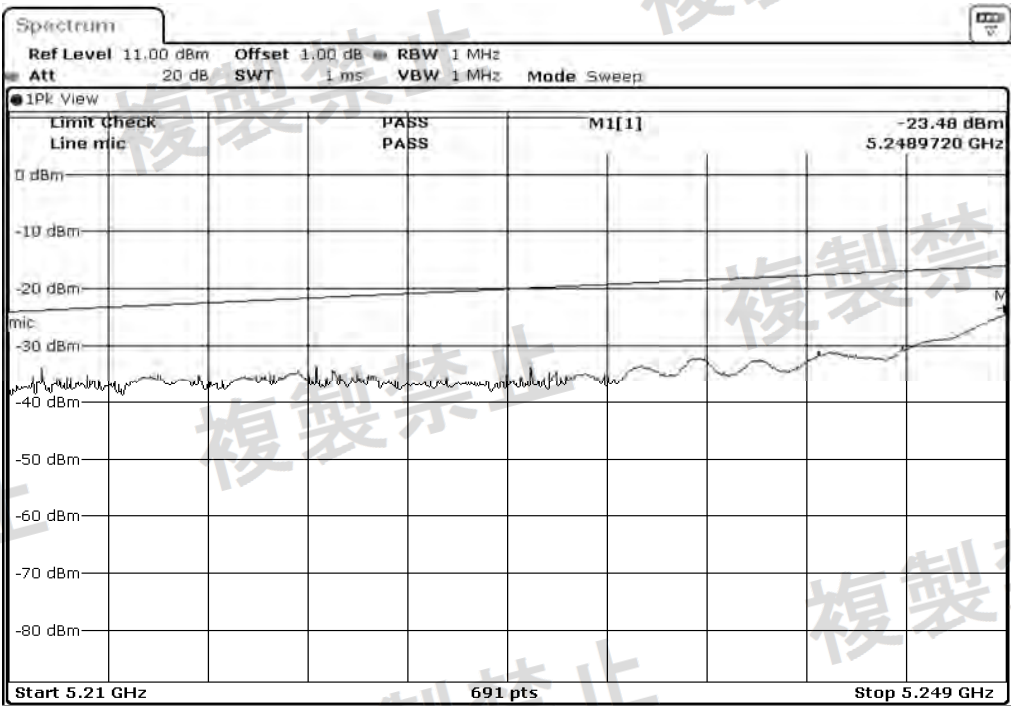
Date: 12.APR.2021 03:47:56

5203.3 - 5210MHz



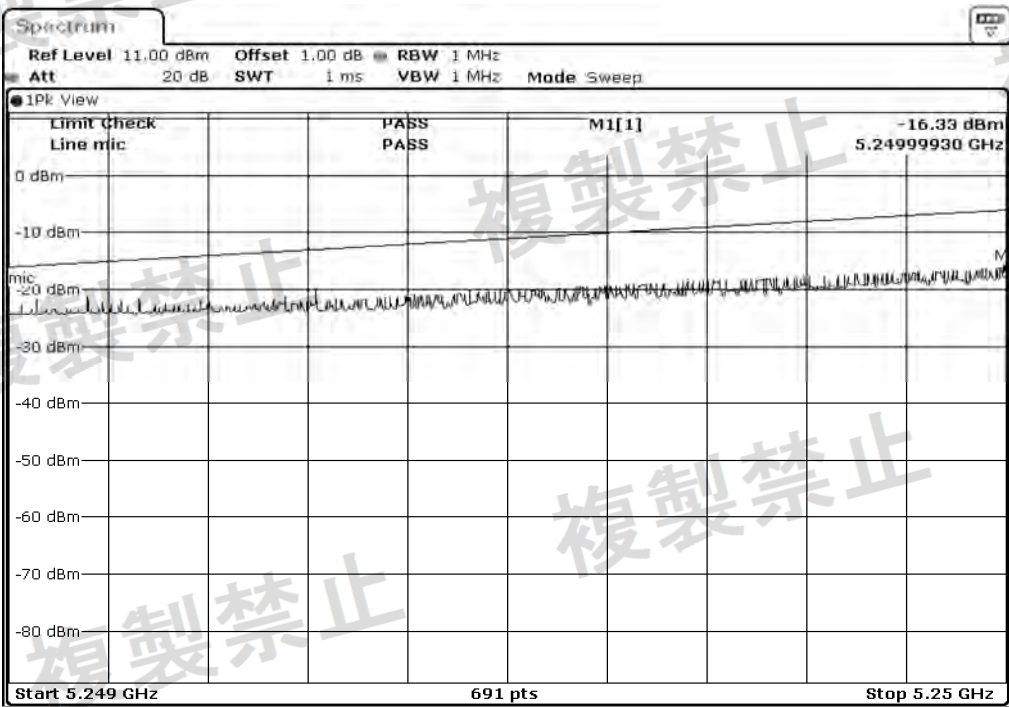
Date: 12.APR.2021 13:41:10

5210 - 5249MHz



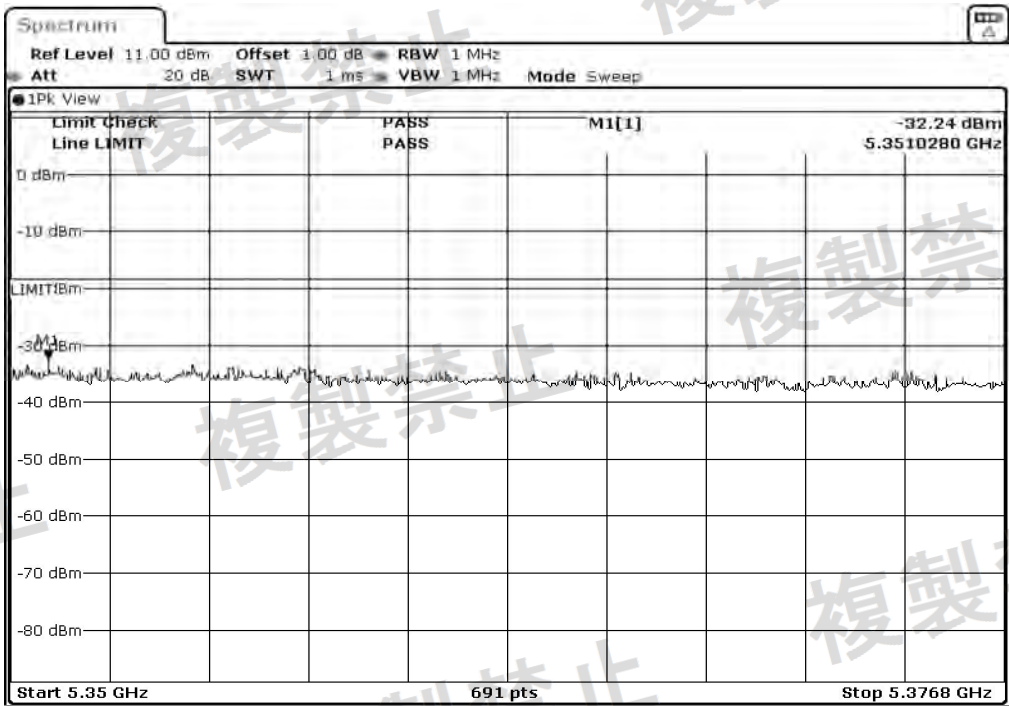
Date: 12.APR.2021 13:45:22

5249 - 5250MHz



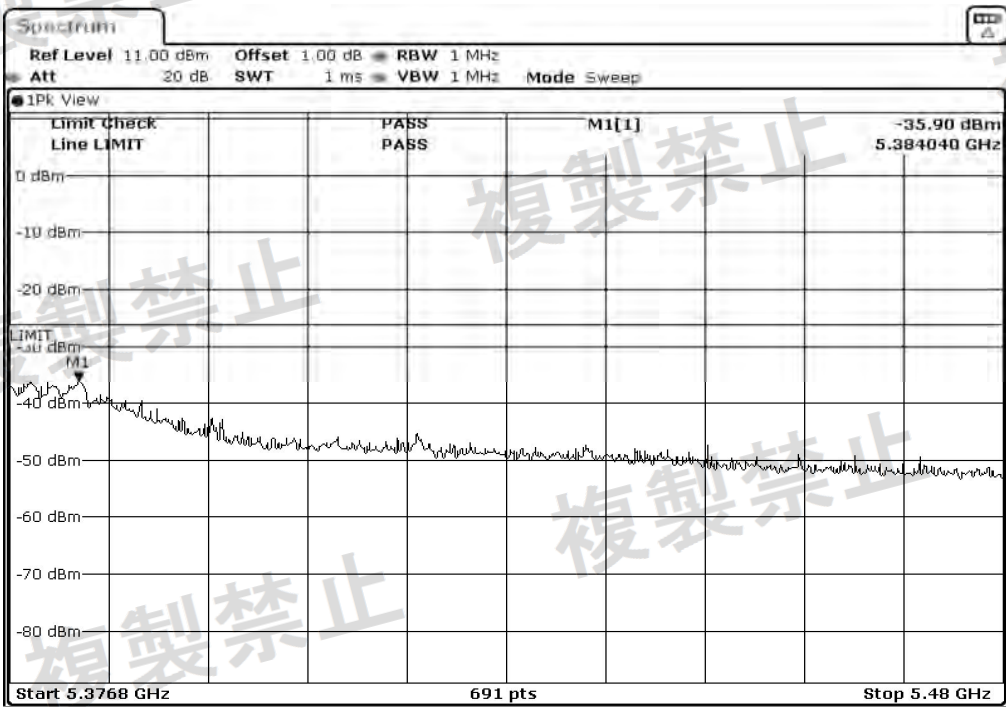
Date: 12.APR.2021 13:46:33

5350- 5376.8MHz



Date: 12.APR.2021 03:49:38

5376.8 - 5480MHz



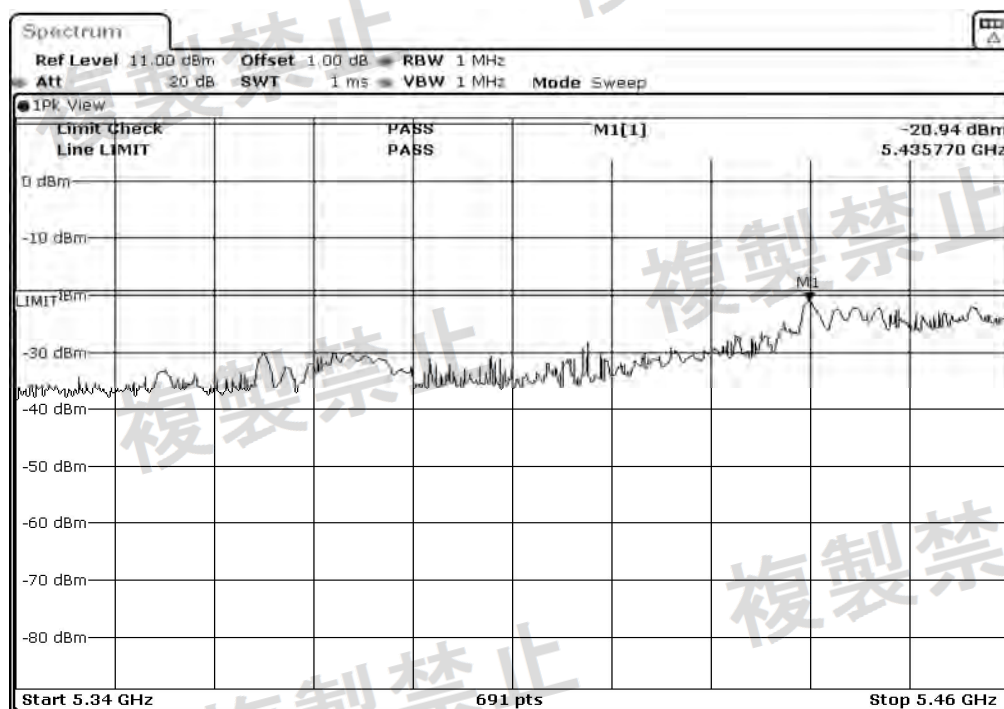
Date: 12.APR.2021 03:50:05

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5530MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5340 to 5460MHz	-41.75	0.1567	$\leq 12.5\text{uW/MHz}$
		5460 to 5469.5MHz	-19.58	25.8107	$\leq 50\text{uW/MHz}$
		5469.5 to 5470MHz	-18.79	30.9885	$\leq 51.2\text{uW/MHz}$
		5770 to 5800MHz	-38.96	0.2981	$\leq 12.5\text{uW/MHz}$

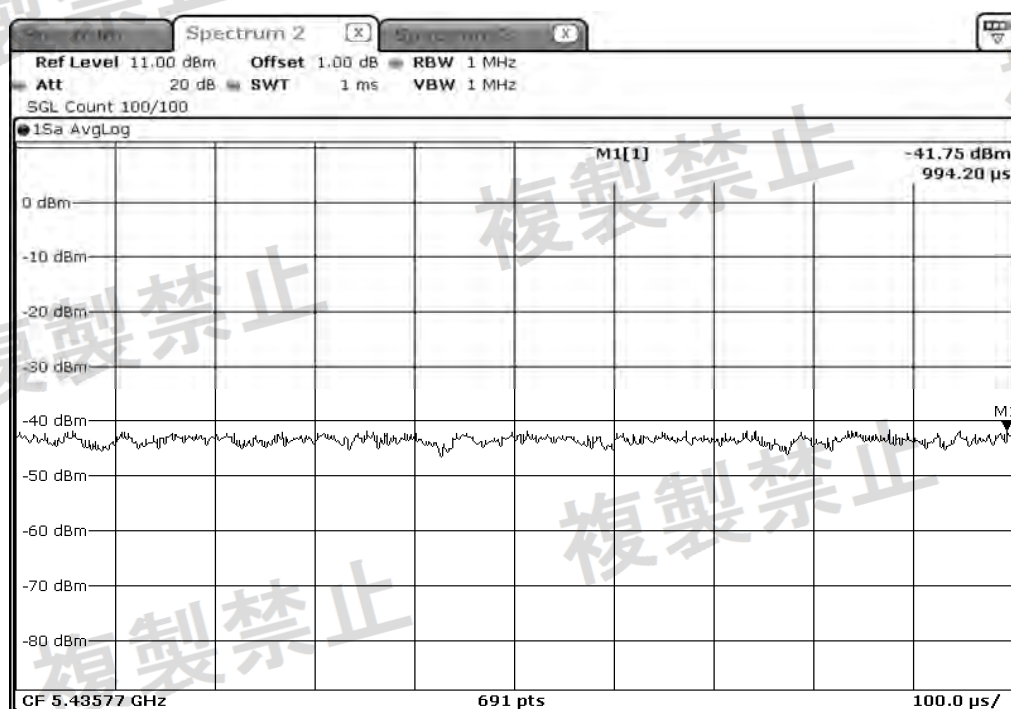
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)}{1000}}$

5340 - 5460MHz



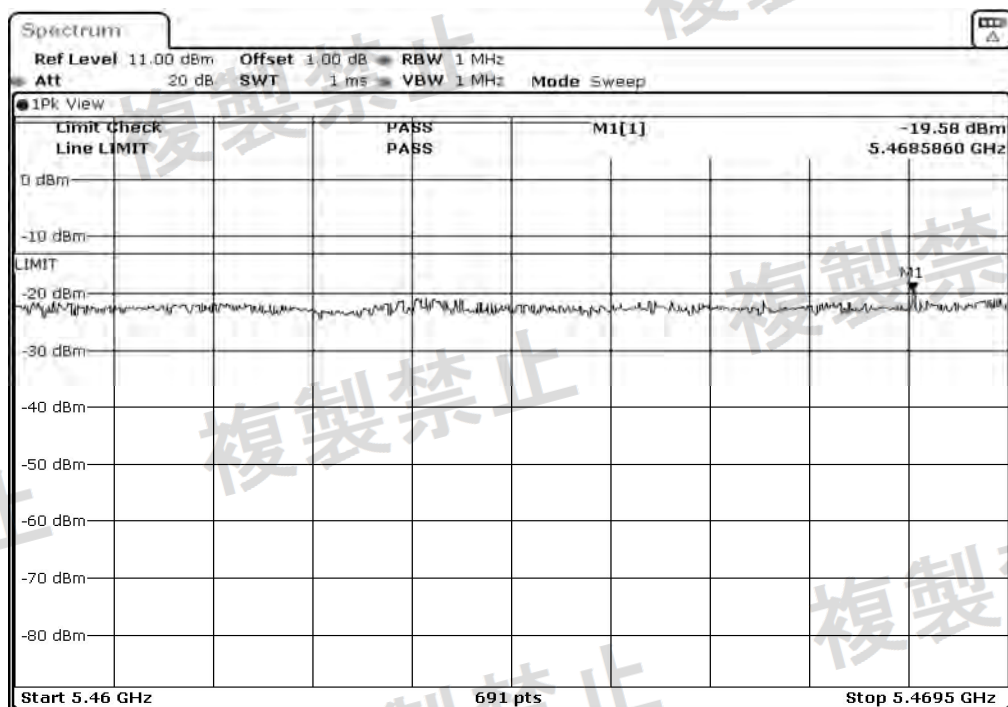
Date: 12.APR.2021 04:00:01

5340 - 5460MHz - 1



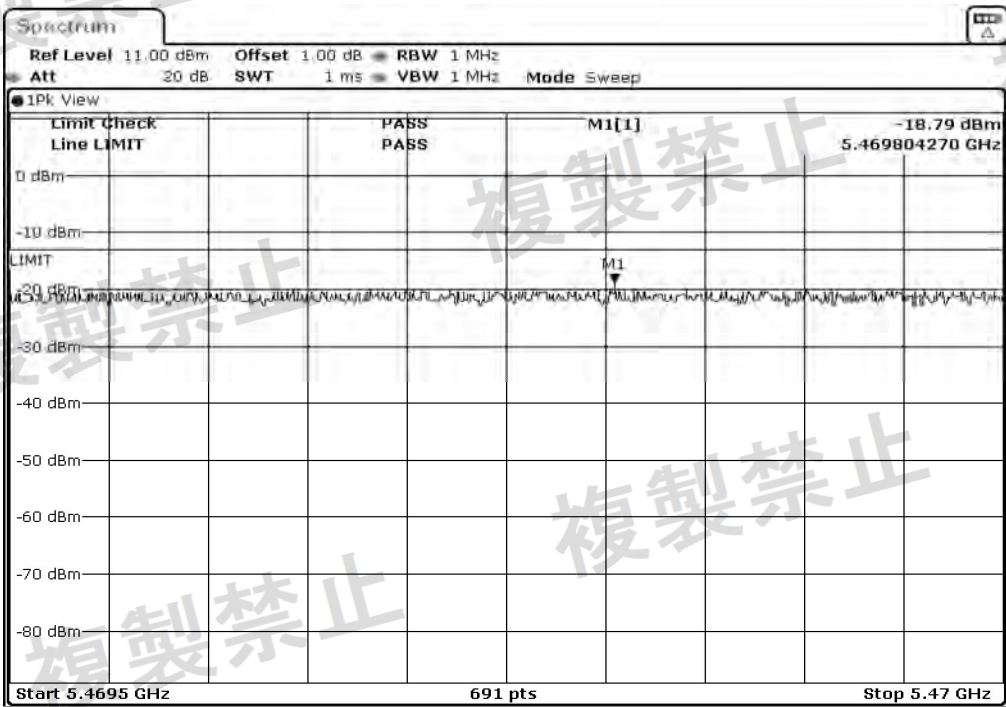
Date: 14.APR.2021 09:00:31

5460 - 5469.5MHz



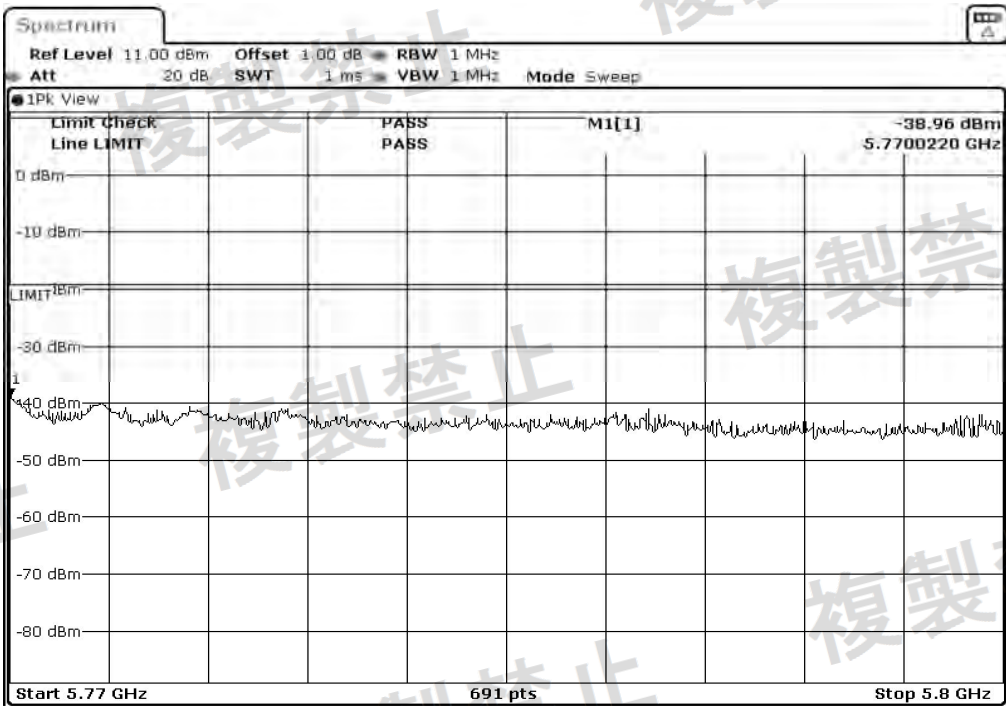
Date: 12.APR.2021 04:00:28

5469.5 - 5470MHz



Date: 12.APR.2021 04:00:54

5770 - 5800MHz



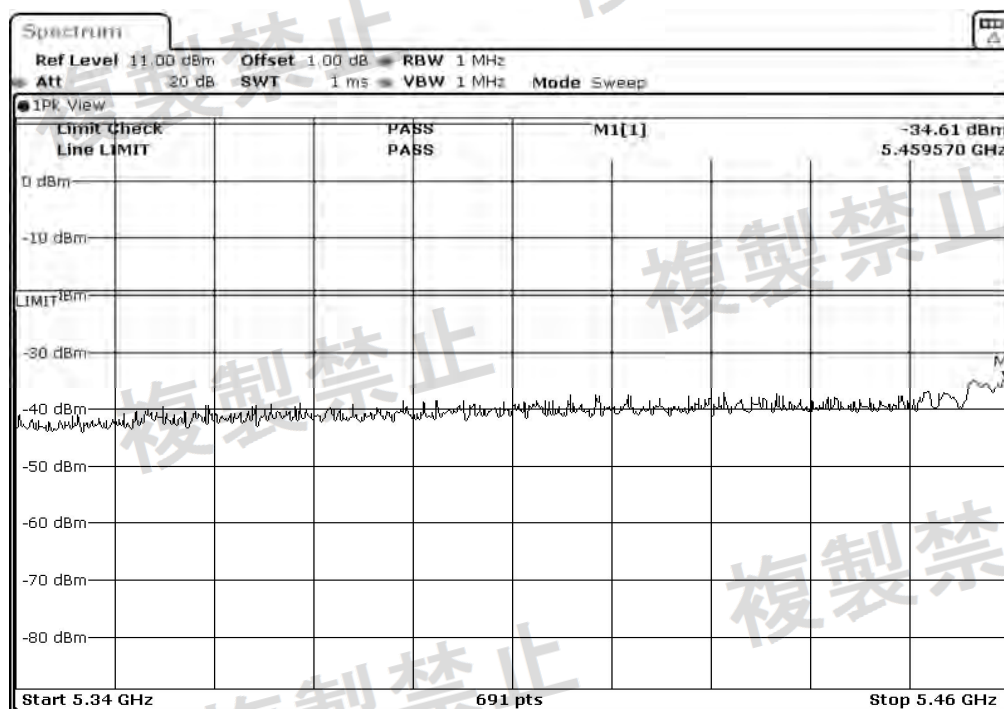
Date: 12.APR.2021 04:01:20

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5610MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5340 to 5460MHz	-34.61	0.8113	$\leq 12.5\text{uW/MHz}$
		5460 to 5469.5MHz	-34.18	0.8958	$\leq 50\text{uW/MHz}$
		5469.5 to 5470MHz	-34.49	0.8327	$\leq 51.2\text{uW/MHz}$
		5770 to 5800MHz	-32.62	1.2812	$\leq 12.5\text{uW/MHz}$

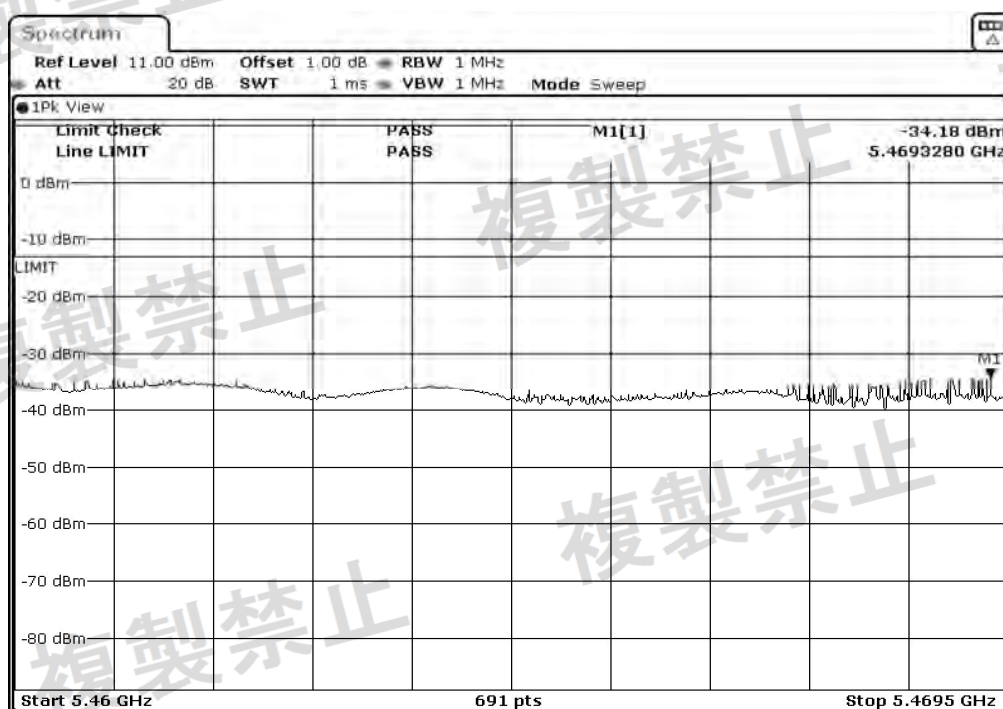
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)}{1000}}$

5340 - 5460MHz



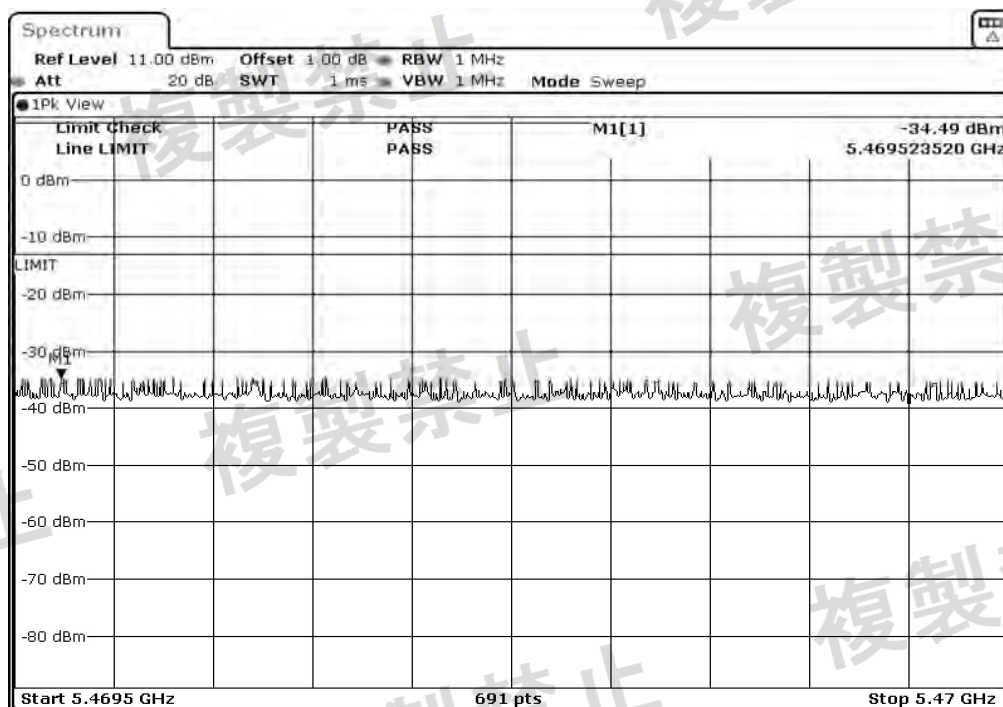
Date: 12.APR.2021 04:07:44

5460 - 5469.5MHz



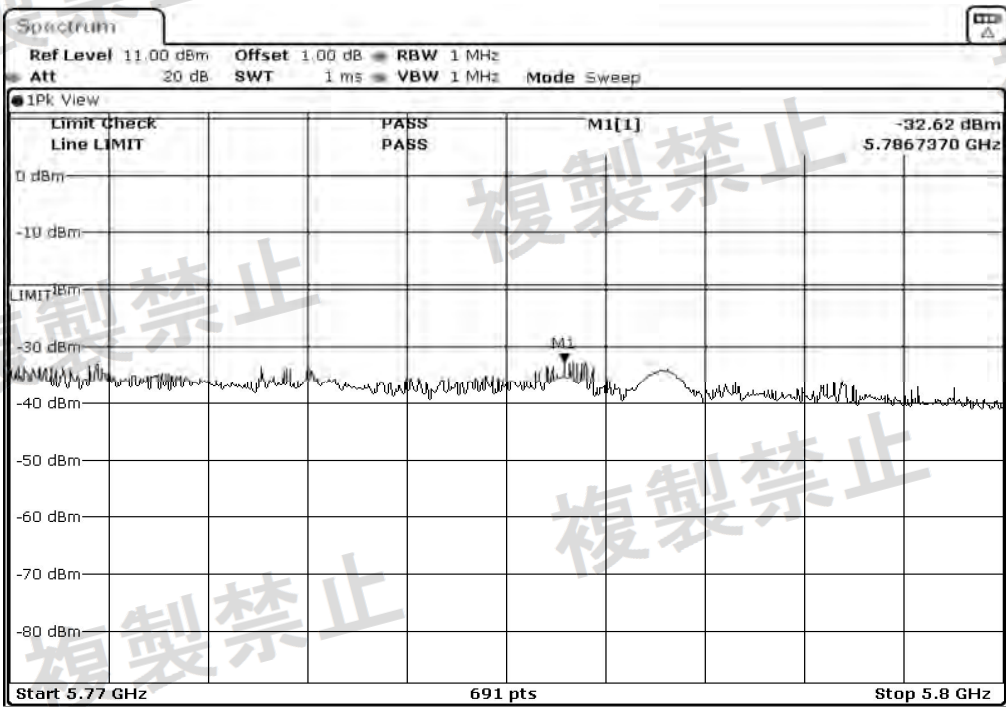
Date: 12.APR.2021 04:08:10

5469.5 - 5470MHz



Date: 12.APR.2021 04:08:36

5770 - 5800MHz



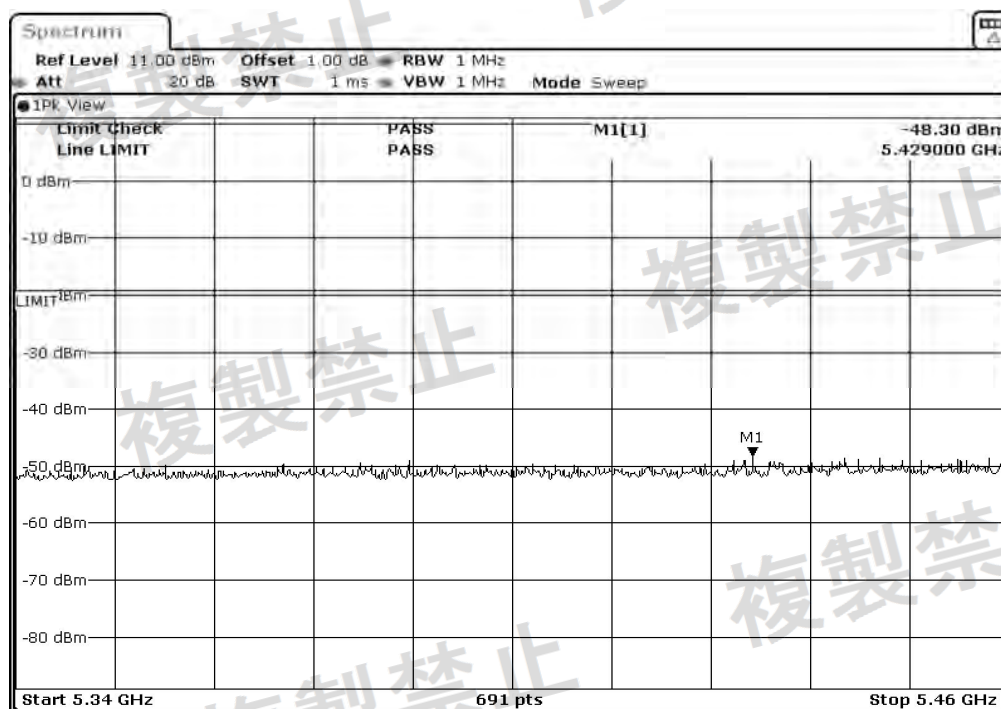
Date: 12.APR.2021 04:09:03

Product : Wireless speaker
 Test Item : Out-Band Leakage Power
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5690MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Measurement Level (uW)	Limit (uW/MHz)
Tnom (25 °C)	Vnom (100 V)	5340 to 5460MHz	-48.30	0.0347	≤ 12.5uW/MHz
		5460 to 5469.5MHz	-47.77	0.0392	≤ 50uW/MHz
		5469.5 to 5470MHz	-47.56	0.0412	≤ 51.2uW/MHz
		5770 to 5800MHz	-31.44	1.6815	≤ 12.5uW/MHz

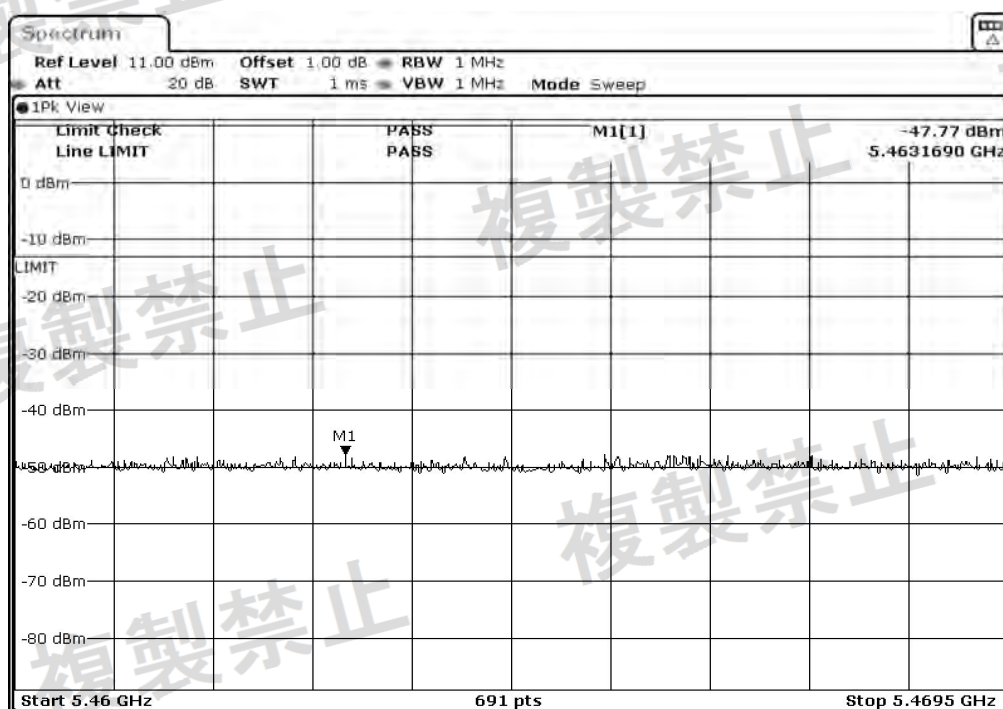
Measurement Level (uW) = $10^{\frac{((\text{Reading Value (dBm)} + \text{Antenna Gain} + \text{Cable loss})/10)}{1000}}$

5340 - 5460MHz



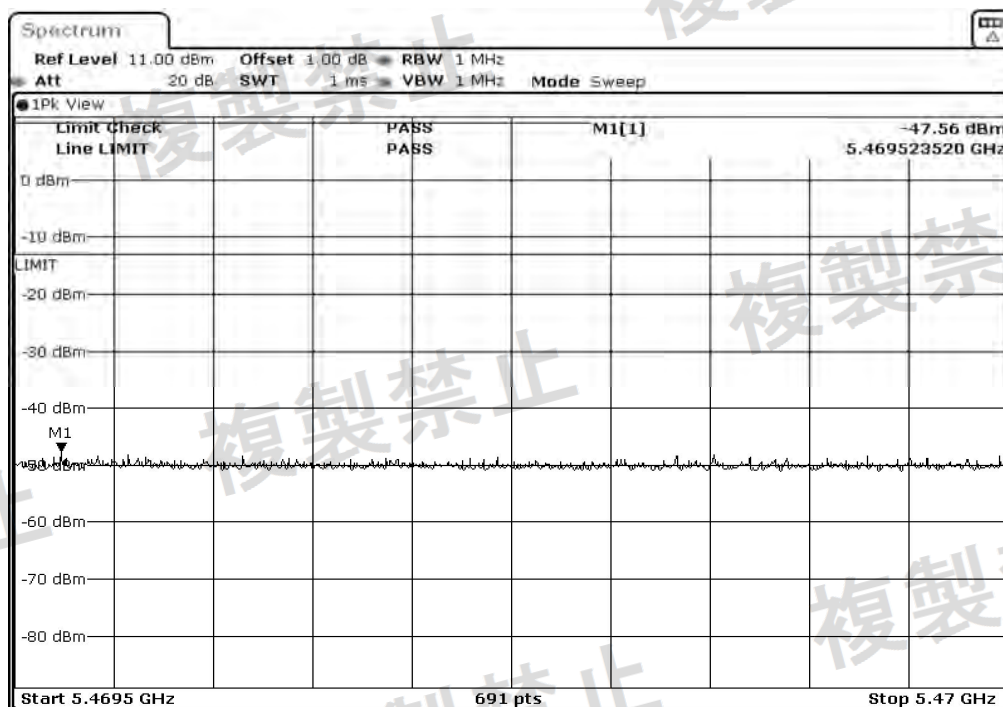
Date: 12.APR.2021 04:17:33

5460 - 5469.5MHz



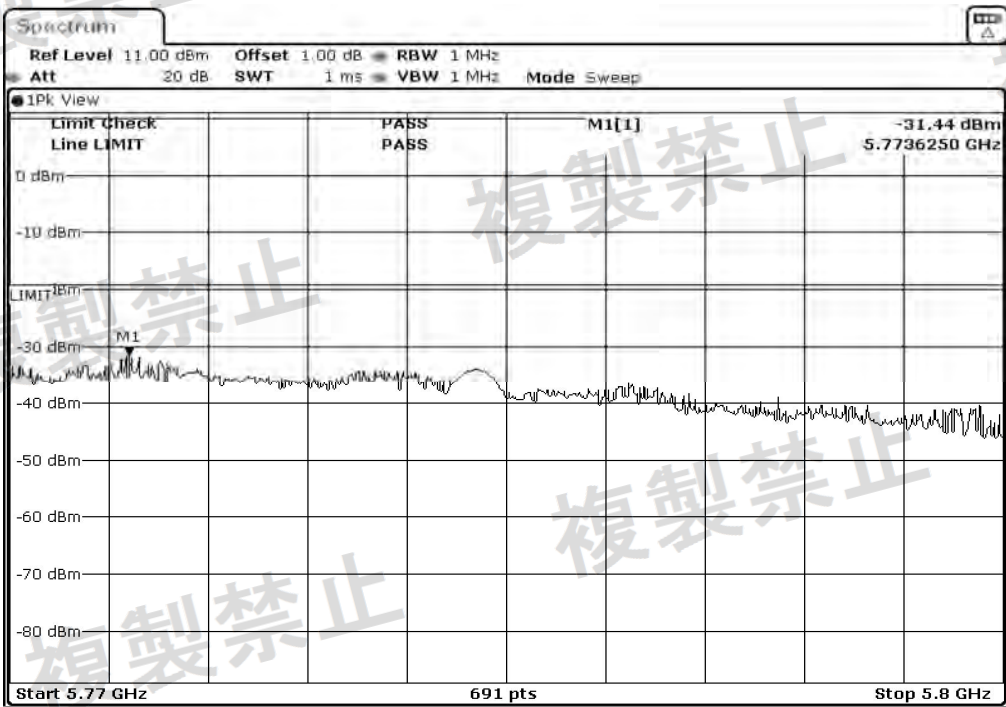
Date: 12.APR.2021 04:17:59

5469.5 - 5470MHz



Date: 12.APR.2021 04:18:25

5770 - 5800MHz



Date: 12.APR.2021 04:18:52

9. Receiver Spurious Emissions

9.1. Test Setup



9.2. Test Procedure

- A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.
- A positive peak detector function must be used.
- The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

9.3. Limits

$\leq 4\text{nW}$ for 30 – 1000 MHz

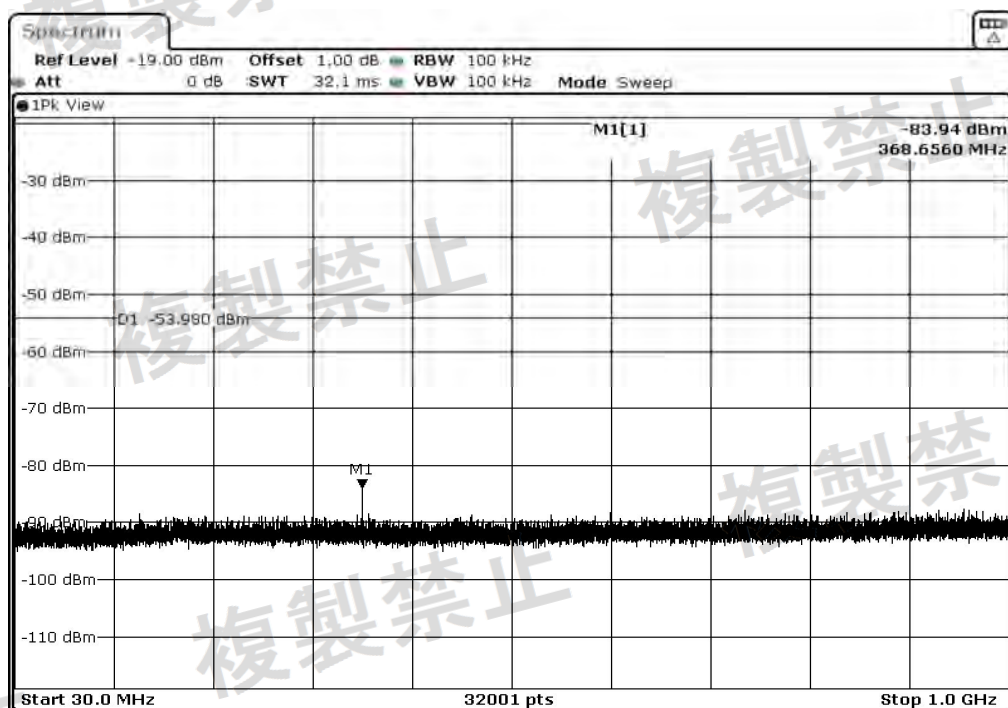
$\leq 20\text{nW}$ for 1000 – 26000MHz

9.4. Test Result of Receiver Spurious Emissions

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W52 (5180MHz)

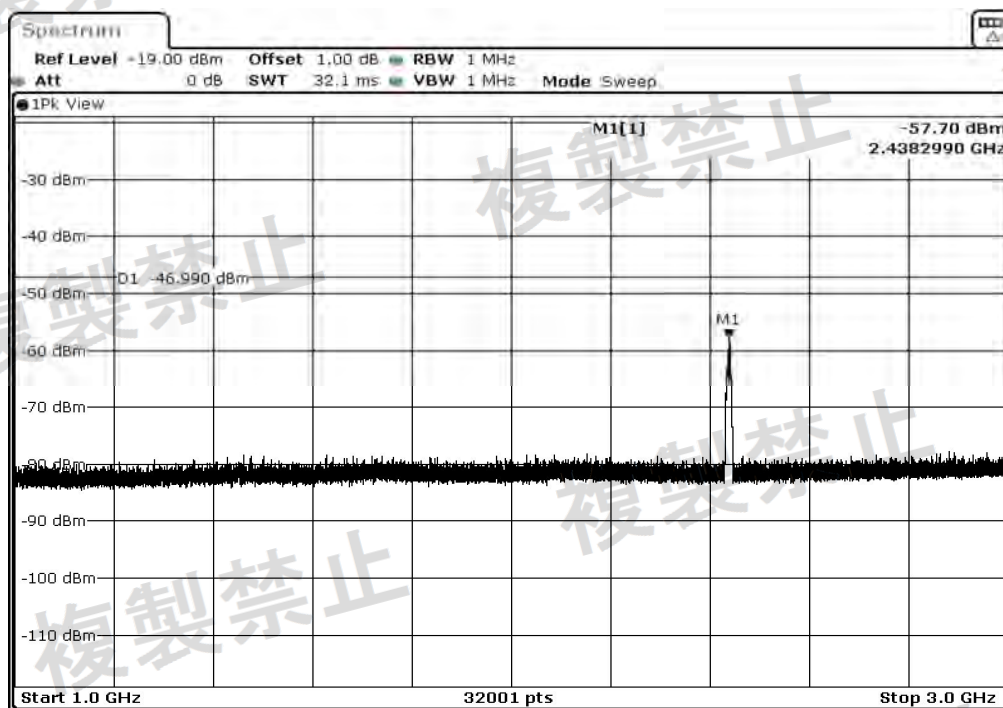
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-83.94	-54 (4nW)
		1000 – 3000	-57.70	-47 (20nW)
		3000 – 16000	-73.76	-47 (20nW)
		16000 – 26000	-73.94	-47 (20nW)

30 – 1000MHz



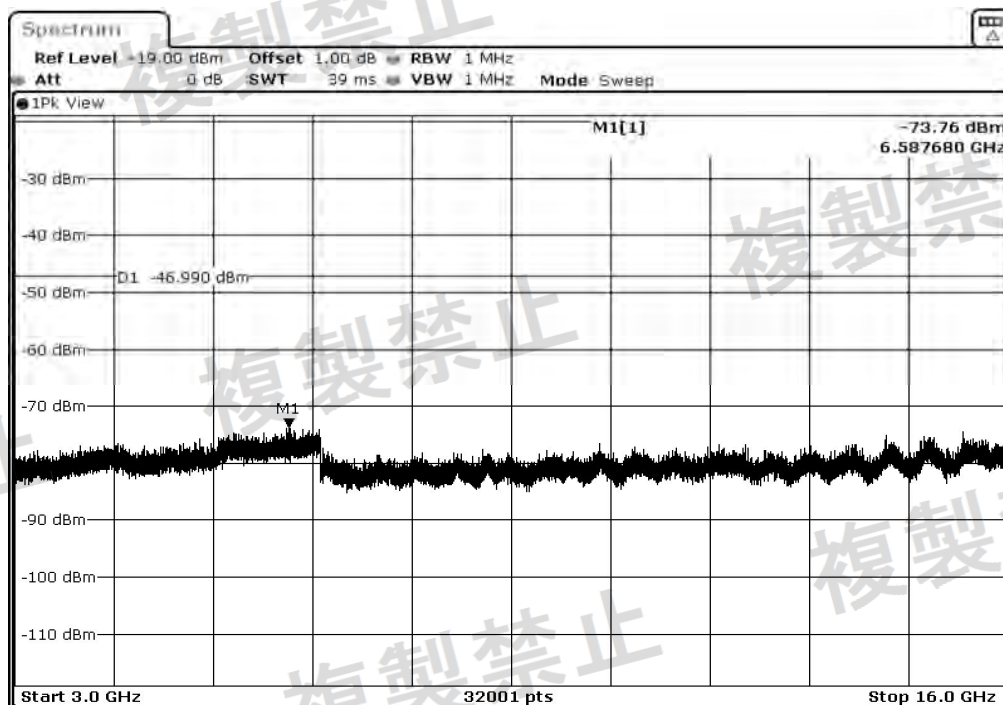
Date: 12.APR.2021 12:10:16

1000 – 3000MHz



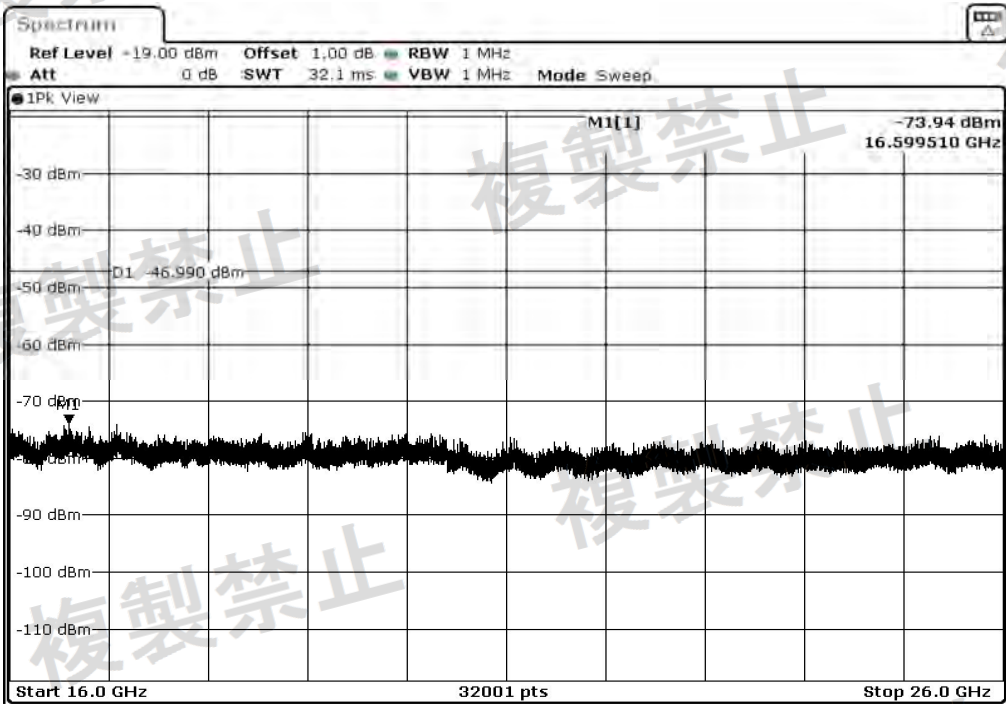
Date: 12.APR.2021 12:10:37

3000 – 16000MHz



Date: 12.APR.2021 12:11:00

16000 – 26000MHz



Date: 12.APR.2021 12:11:23

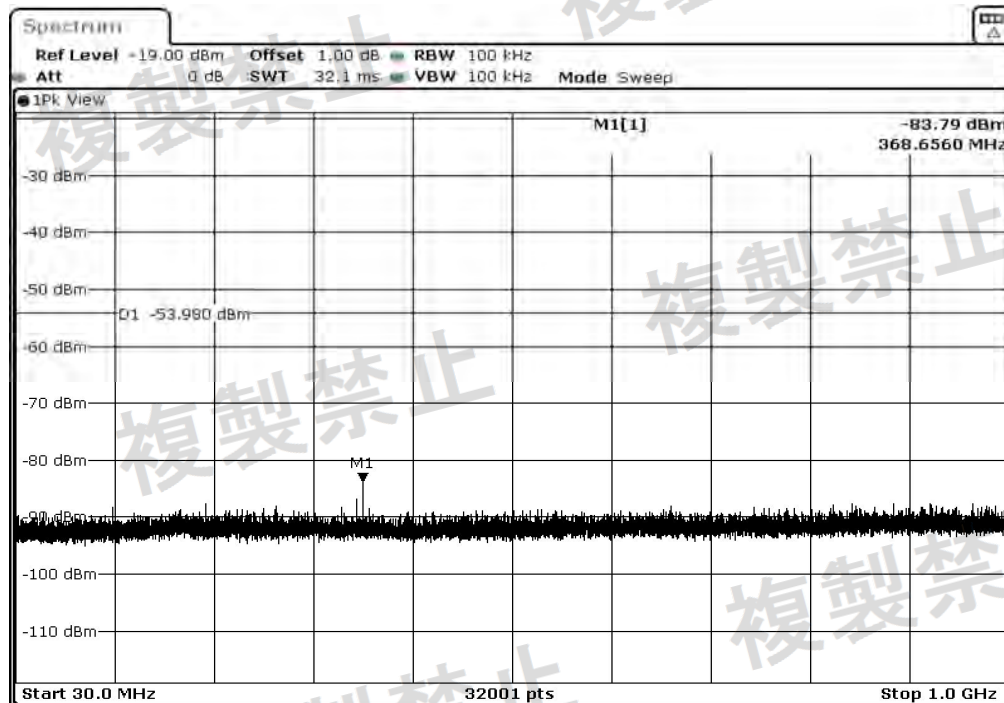
Test Result

PASS

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W52 (5240MHz)

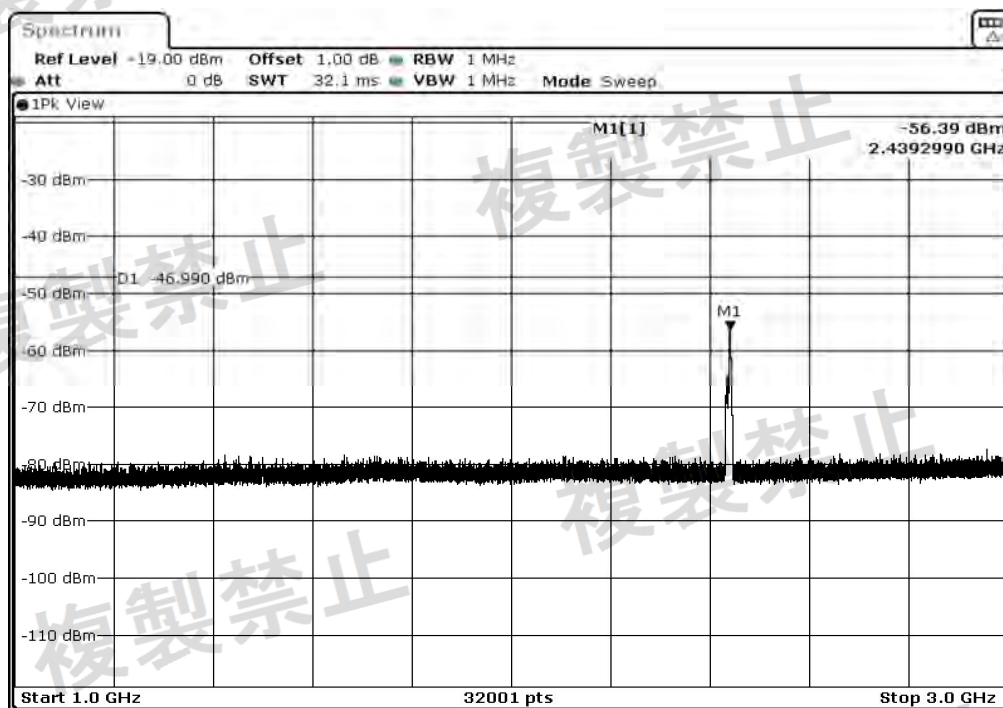
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-83.79	-54 (4nW)
		1000 – 3000	-56.39	-47 (20nW)
		3000 – 16000	-73.21	-47 (20nW)
		16000 – 26000	-74.31	-47 (20nW)

30 – 1000MHz



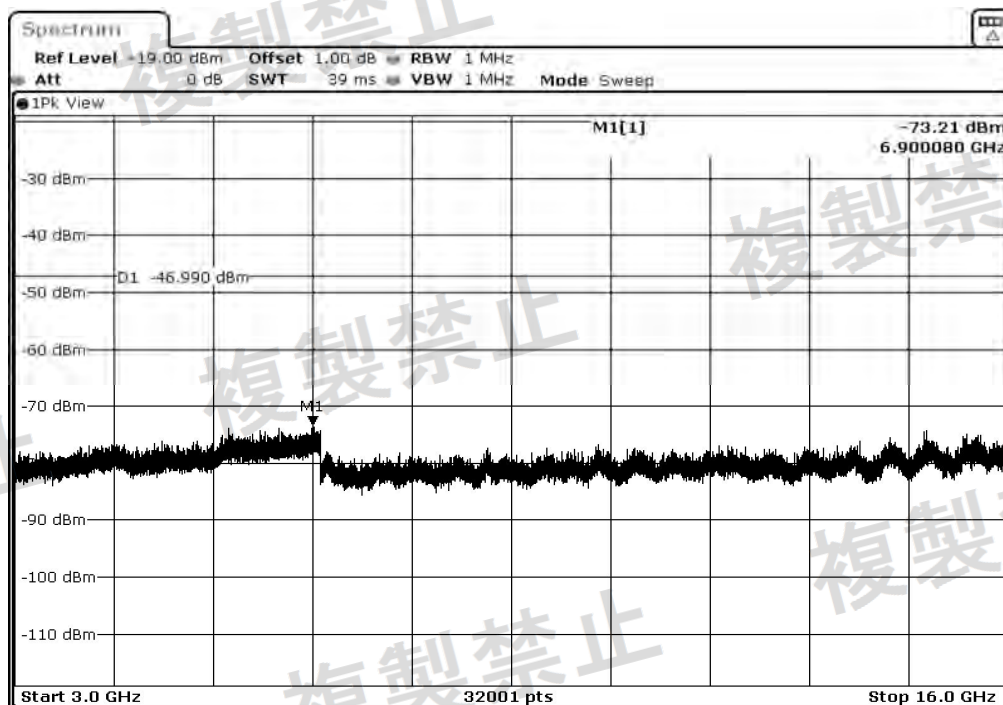
Date: 12.APR.2021 12:12:15

1000 – 3000MHz



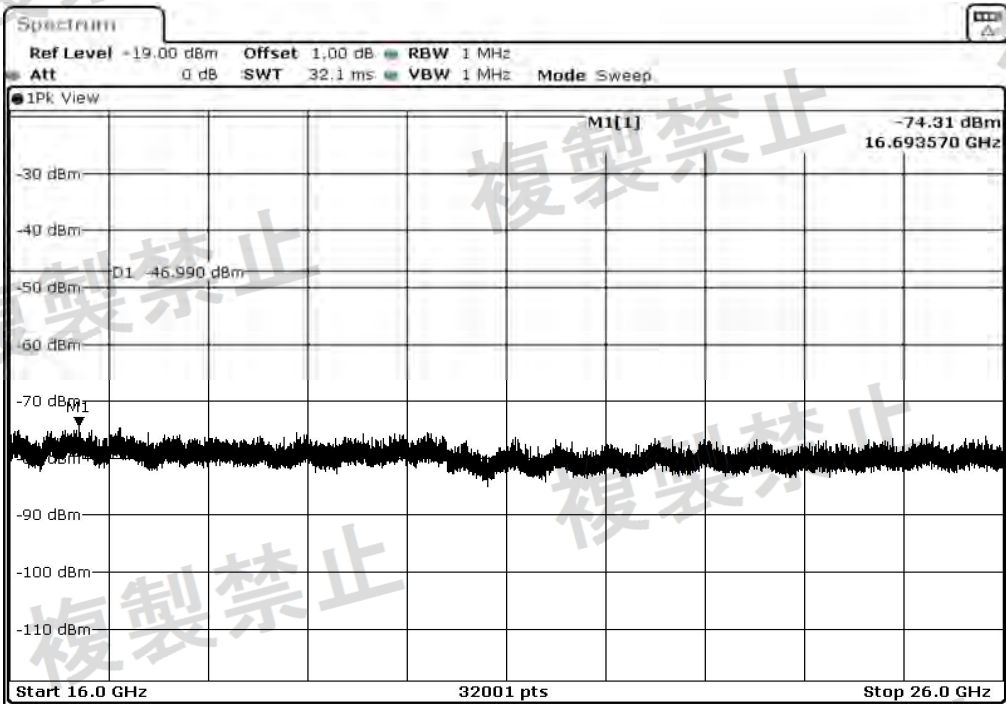
Date: 12.APR.2021 12:12:37

3000 – 16000MHz



Date: 12.APR.2021 12:12:59

16000 – 26000MHz



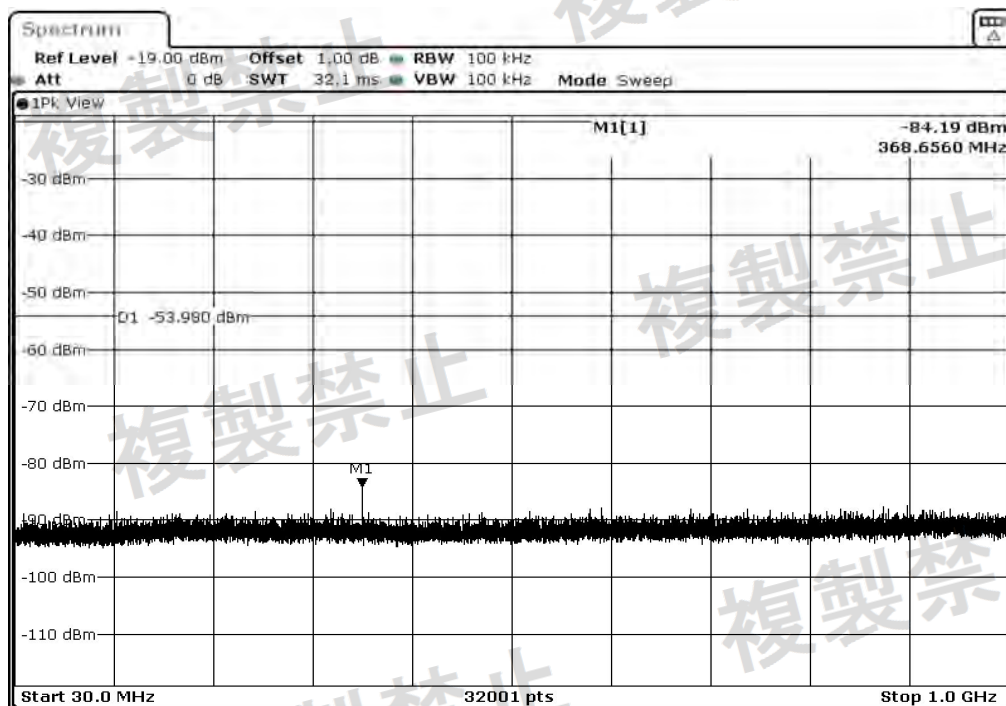
Date: 12.APR.2021 12:13:21

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W53 (5260MHz)

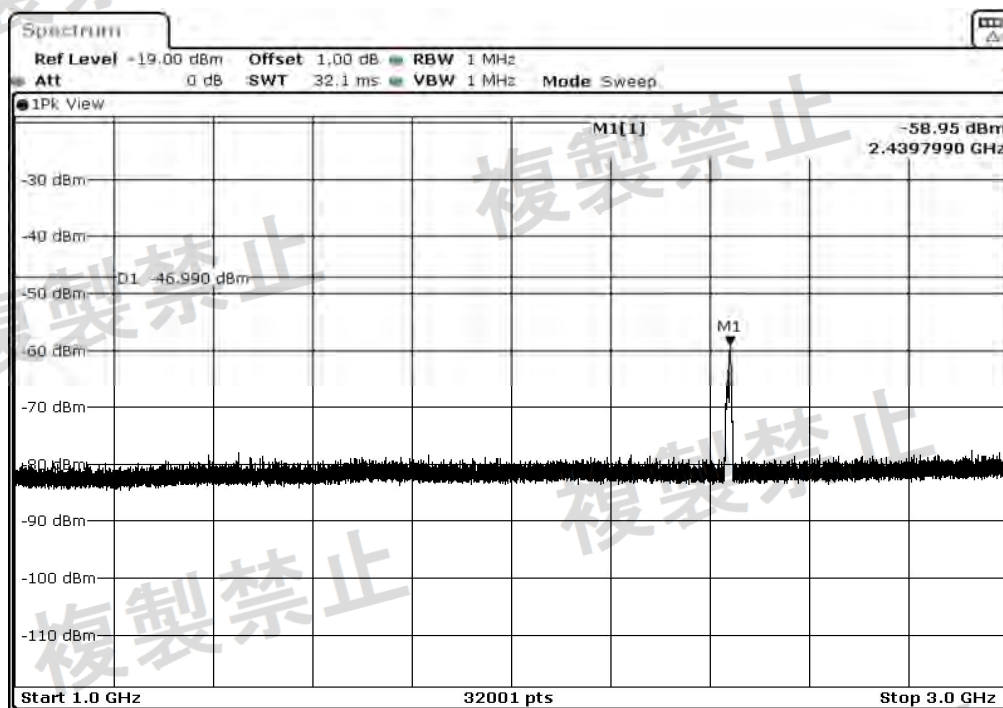
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.19	-54 (4nW)
		1000 – 3000	-58.95	-47 (20nW)
		3000 – 16000	-72.99	-47 (20nW)
		16000 – 26000	-74.08	-47 (20nW)

30 – 1000MHz



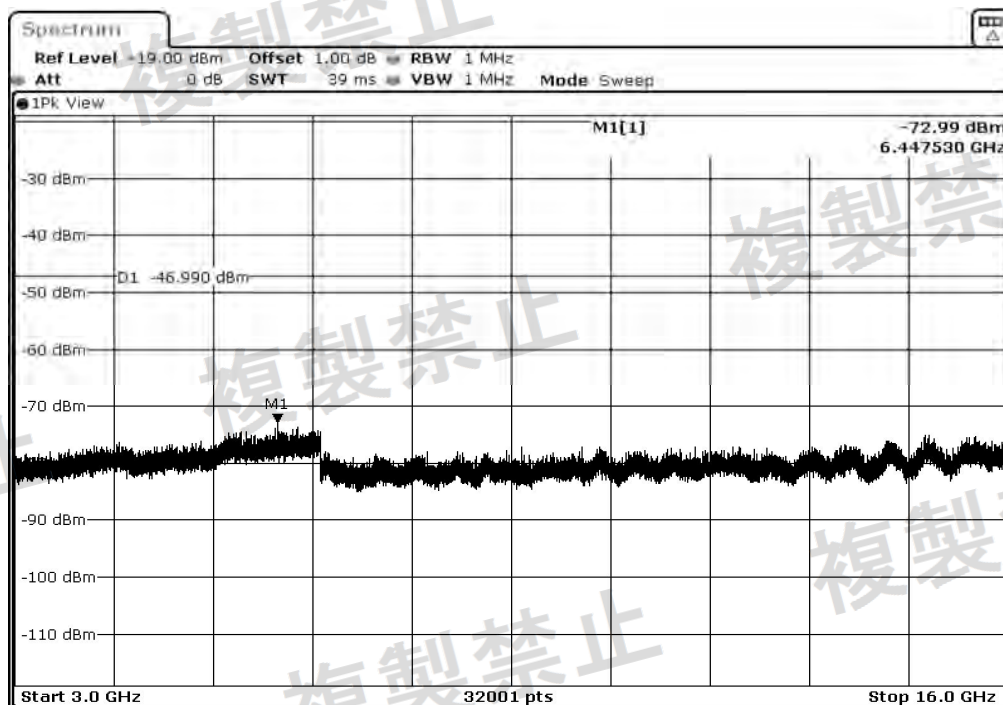
Date: 12.APR.2021 12:13:51

1000 – 3000MHz



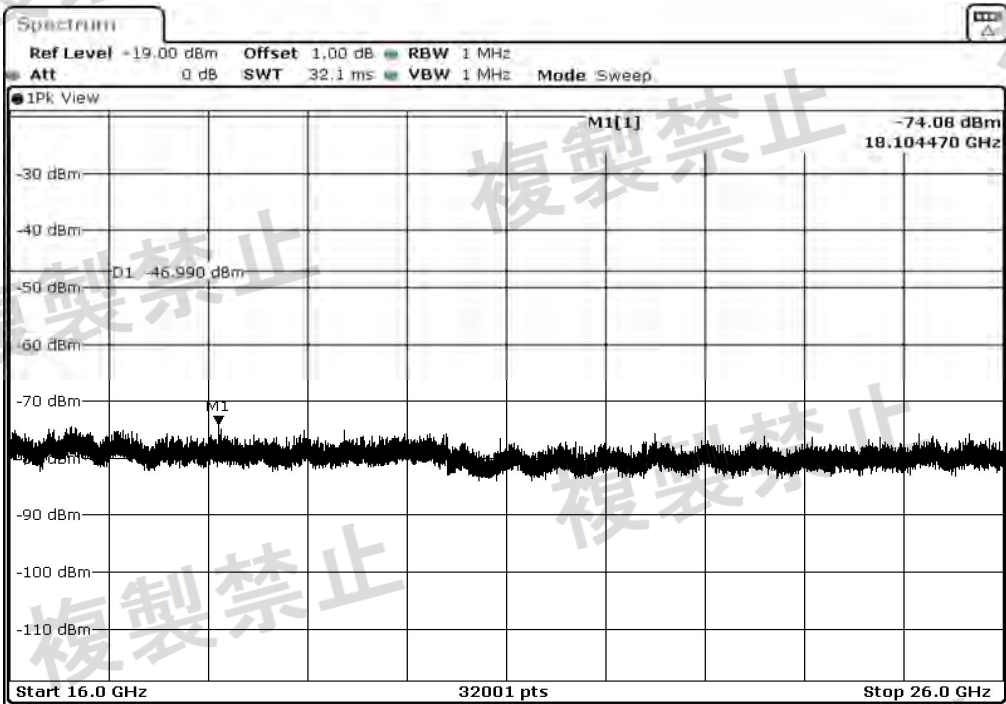
Date: 12.APR.2021 12:14:14

3000 – 16000MHz



Date: 12.APR.2021 12:14:37

16000 – 26000MHz



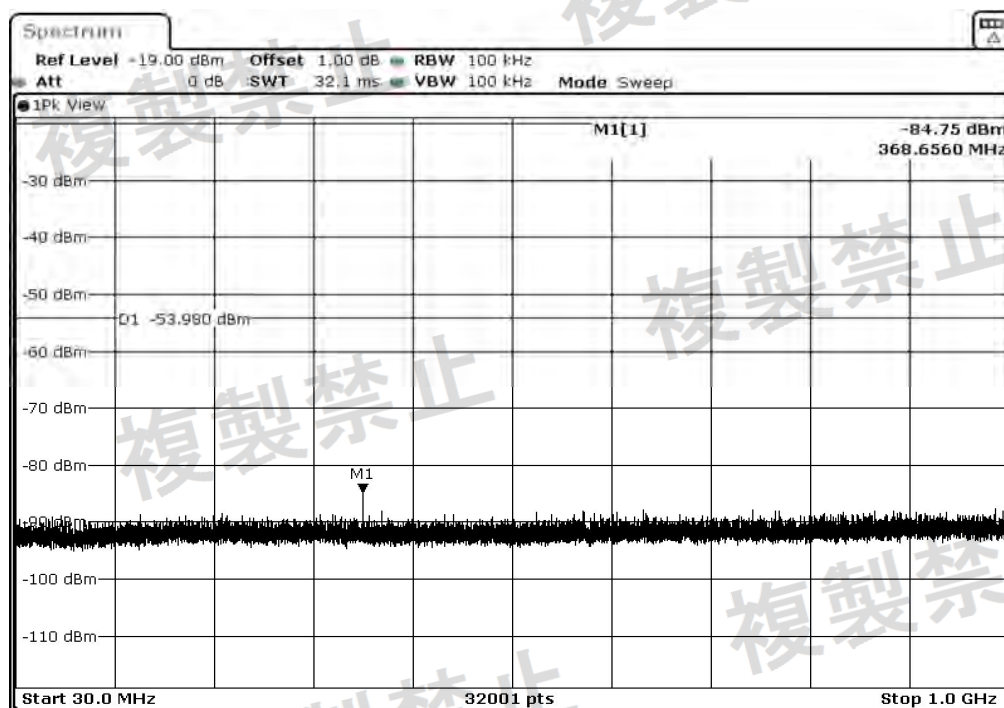
Date: 12.APR.2021 12:14:58

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W53 (5320MHz)

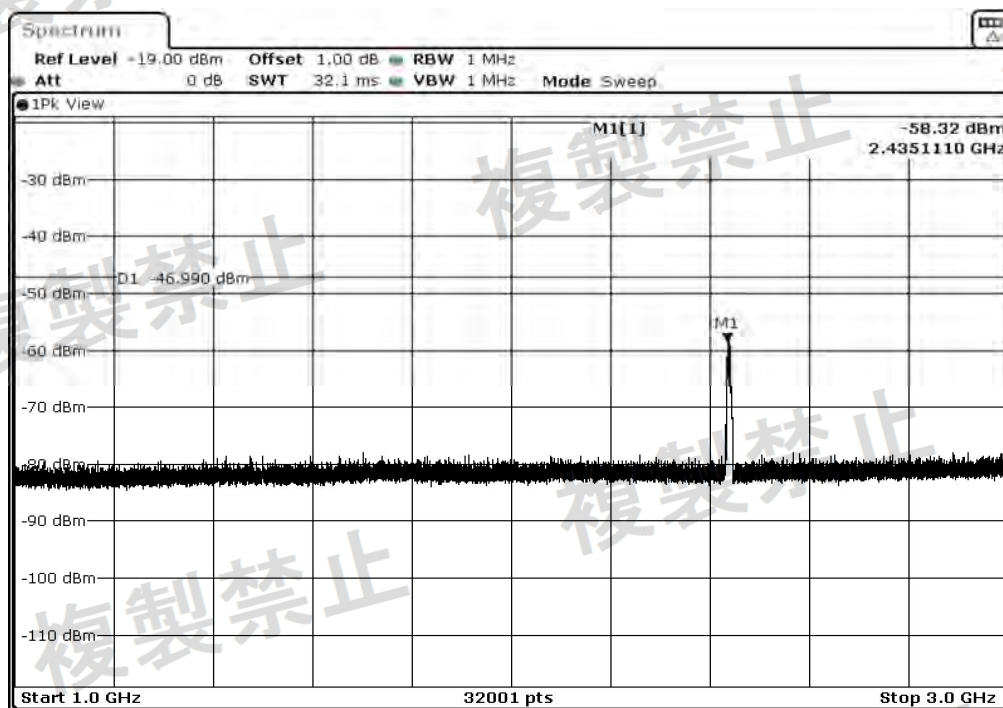
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.75	-54 (4nW)
		1000 – 3000	-58.32	-47 (20nW)
		3000 – 16000	-73.74	-47 (20nW)
		16000 – 26000	-74.62	-47 (20nW)

30 – 1000MHz



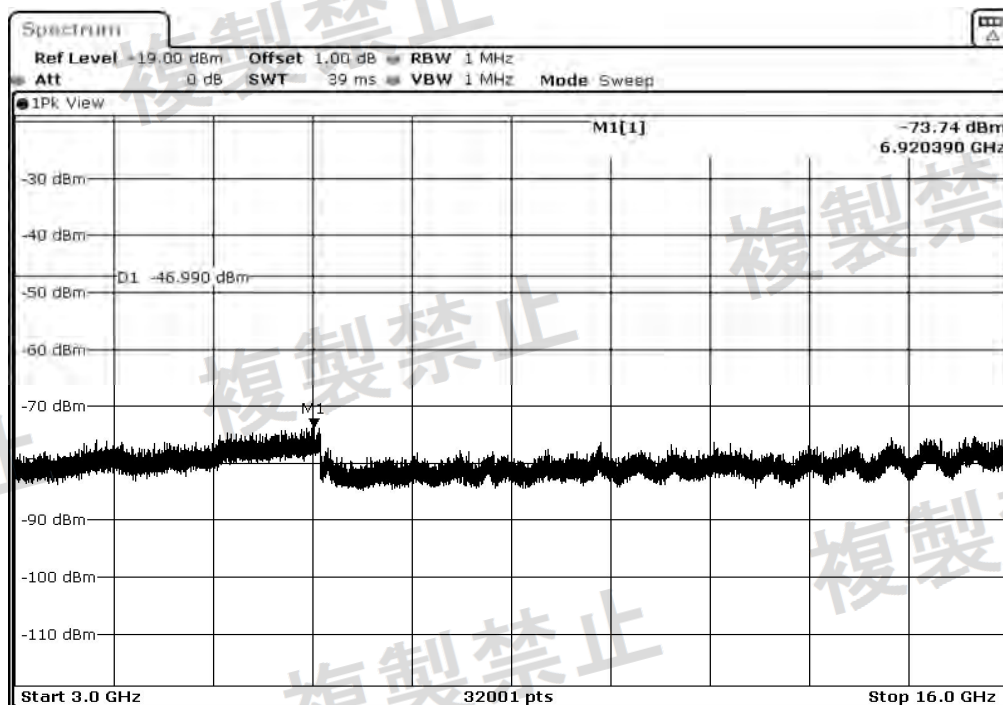
Date: 12.APR.2021 12:15:33

1000 – 3000MHz



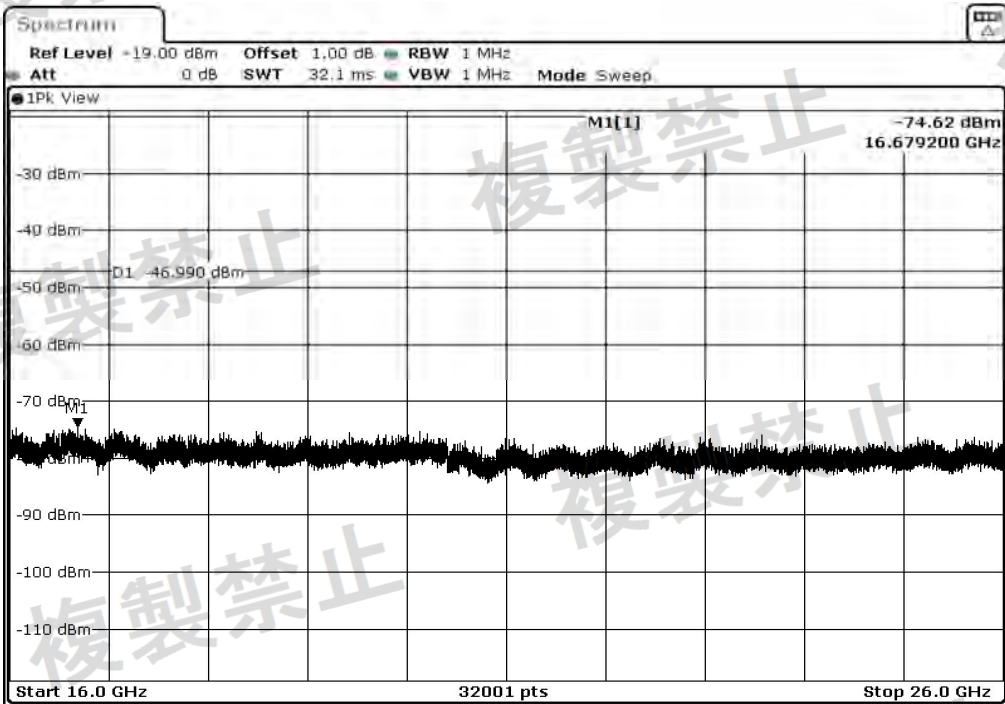
Date: 12.APR.2021 12:15:55

3000 – 16000MHz



Date: 12.APR.2021 12:16:18

16000 – 26000MHz



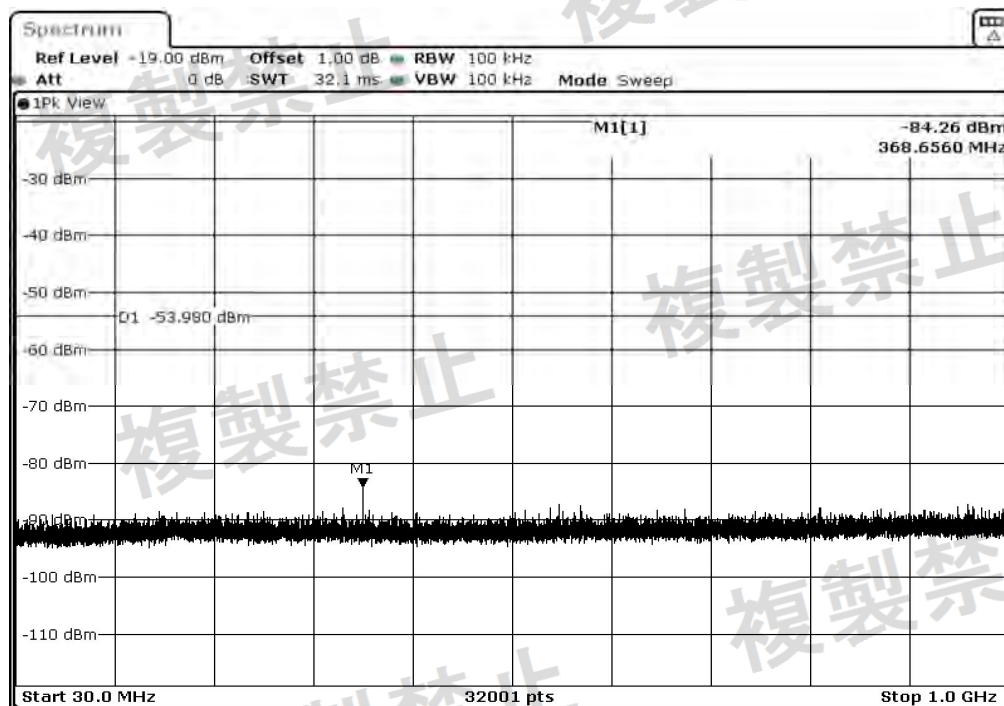
Date: 12.APR.2021 12:16:40

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5500MHz)

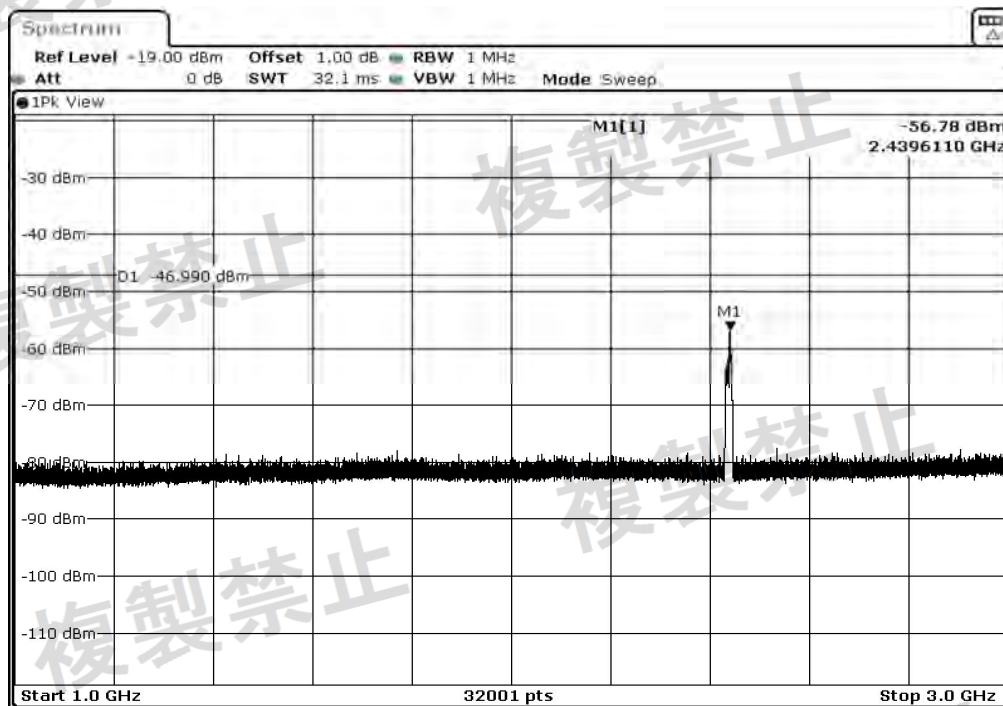
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.26	-54 (4nW)
		1000 – 3000	-56.78	-47 (20nW)
		3000 – 16000	-70.62	-47 (20nW)
		16000 – 26000	-74.78	-47 (20nW)

30 – 1000MHz



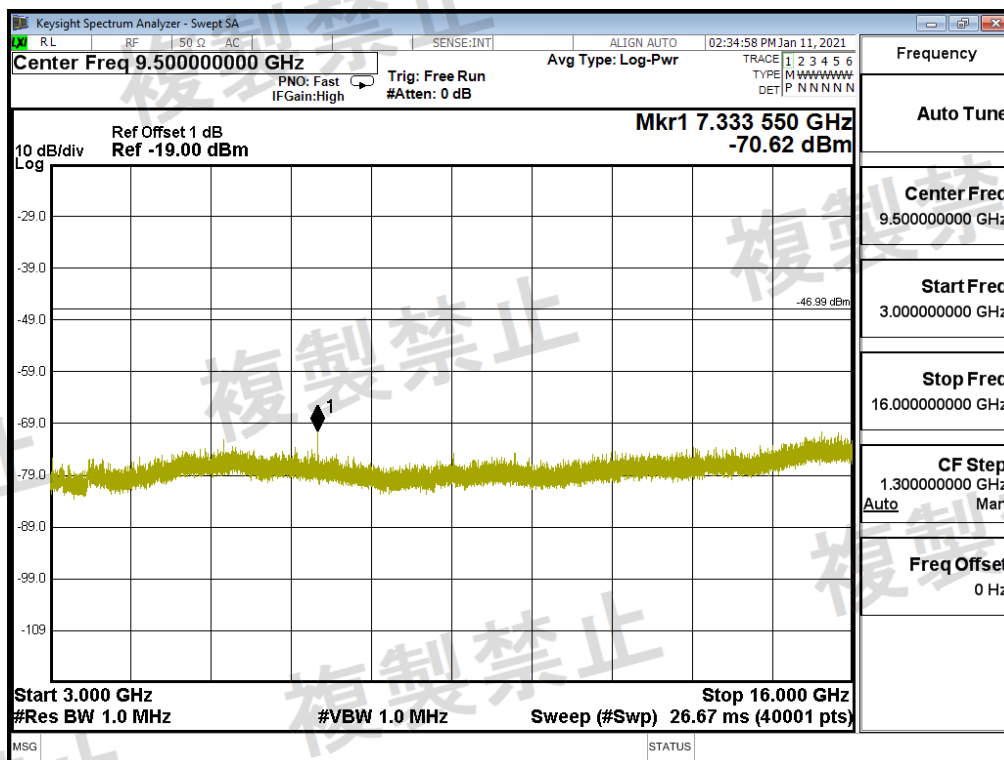
Date: 12.APR.2021 12:20:07

1000 – 3000MHz

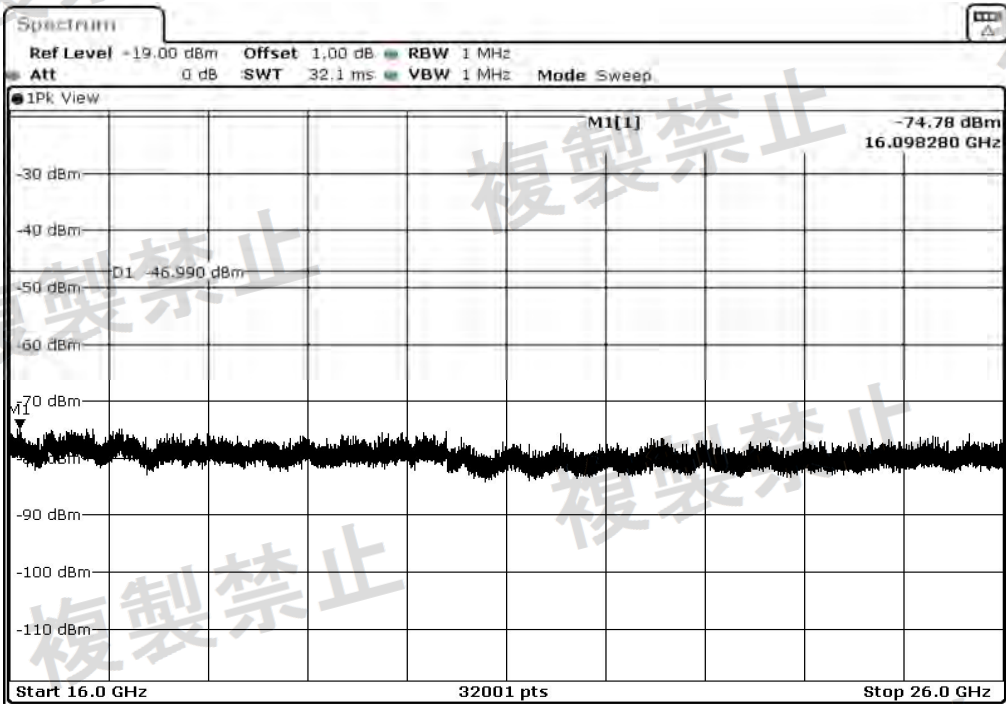


Date: 12.APR.2021 12:20:28

3000 – 16000MHz



16000 – 26000MHz



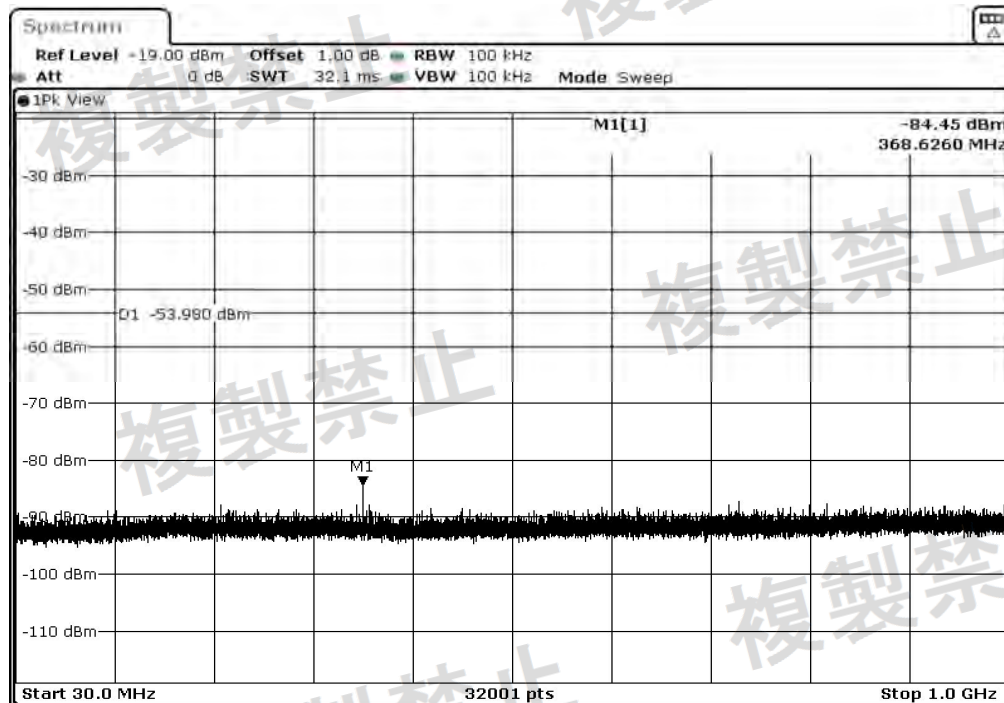
Date: 12.APR.2021 12:21:14

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5600MHz)

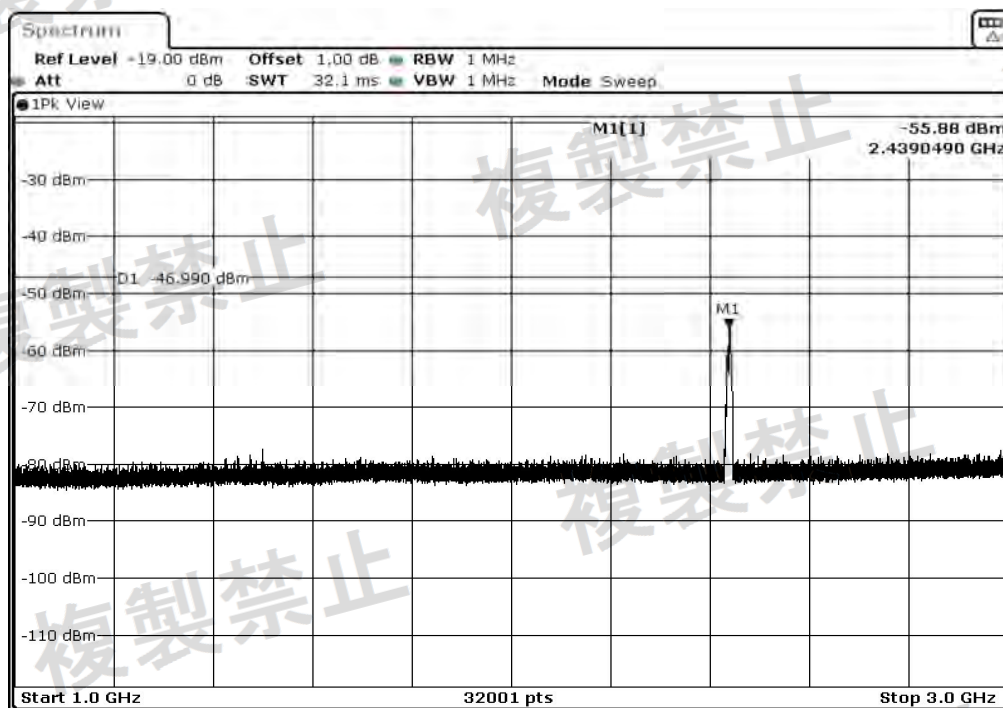
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.45	-54 (4nW)
		1000 – 3000	-55.88	-47 (20nW)
		3000 – 16000	-71.75	-47 (20nW)
		16000 – 26000	-73.96	-47 (20nW)

30 – 1000MHz



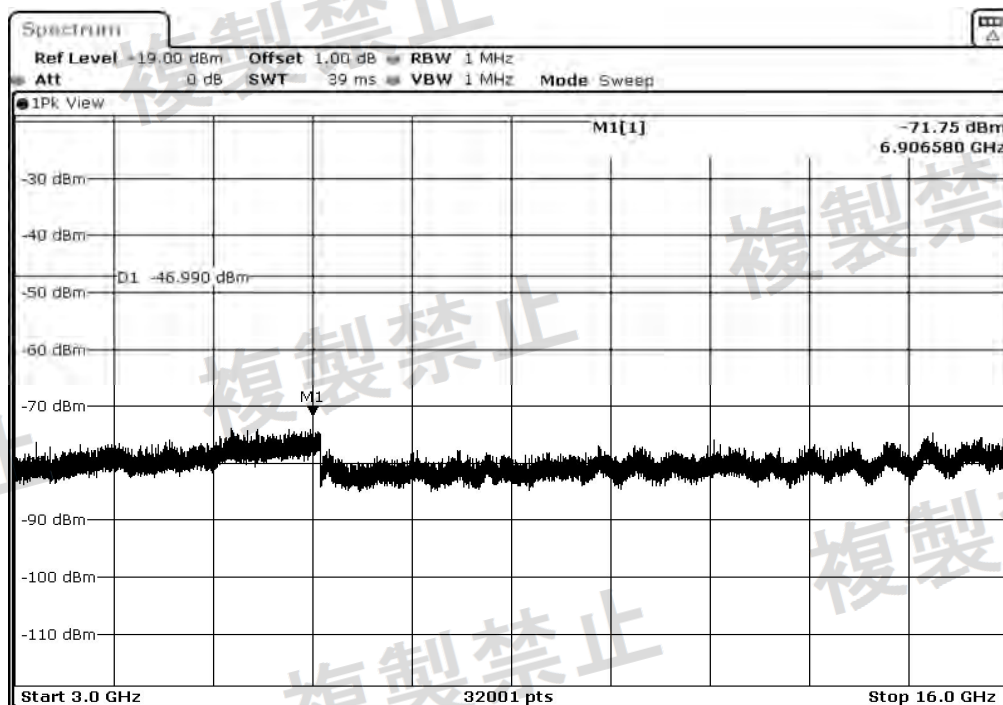
Date: 12.APR.2021 12:22:26

1000 – 3000MHz



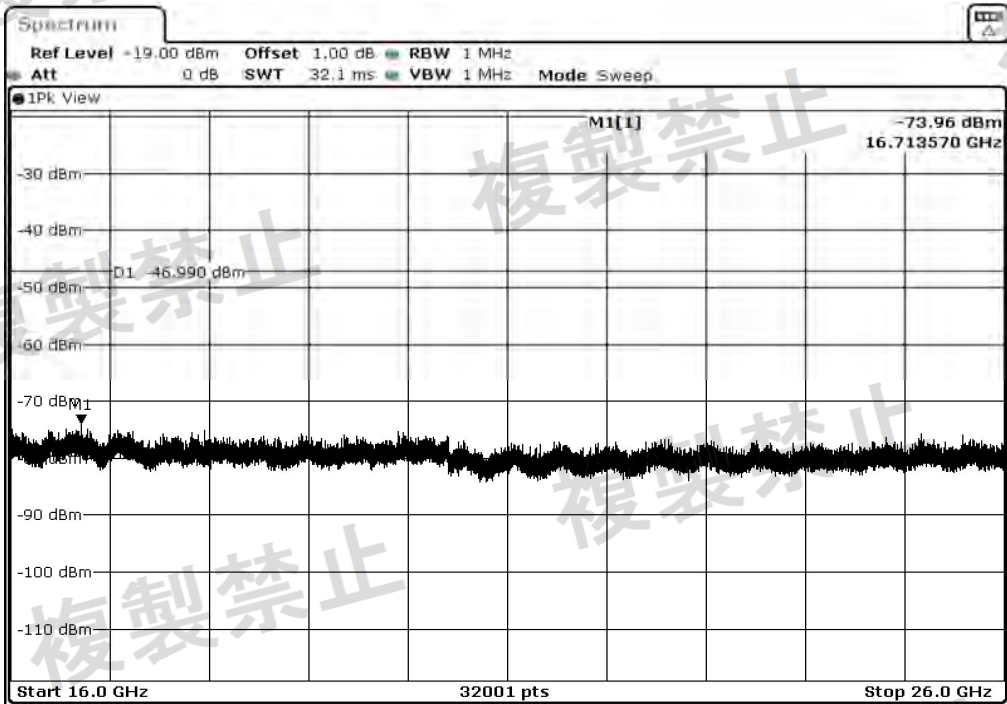
Date: 12.APR.2021 12:22:47

3000 – 16000MHz



Date: 12.APR.2021 12:23:10

16000 – 26000MHz



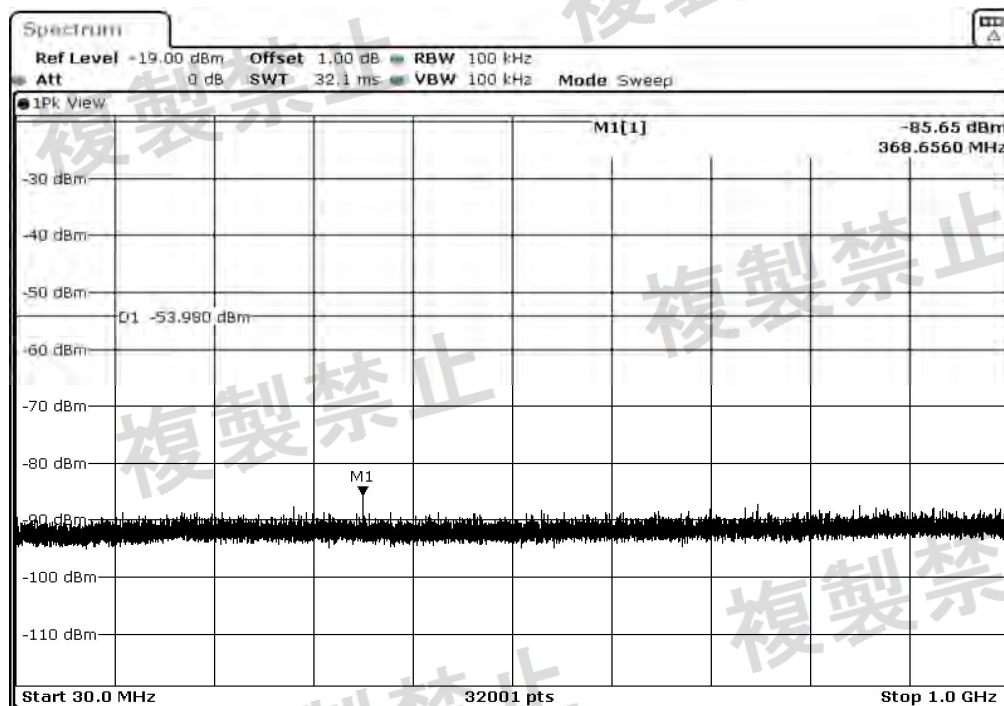
Date: 12.APR.2021 12:23:32

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)_W56 (5700MHz)

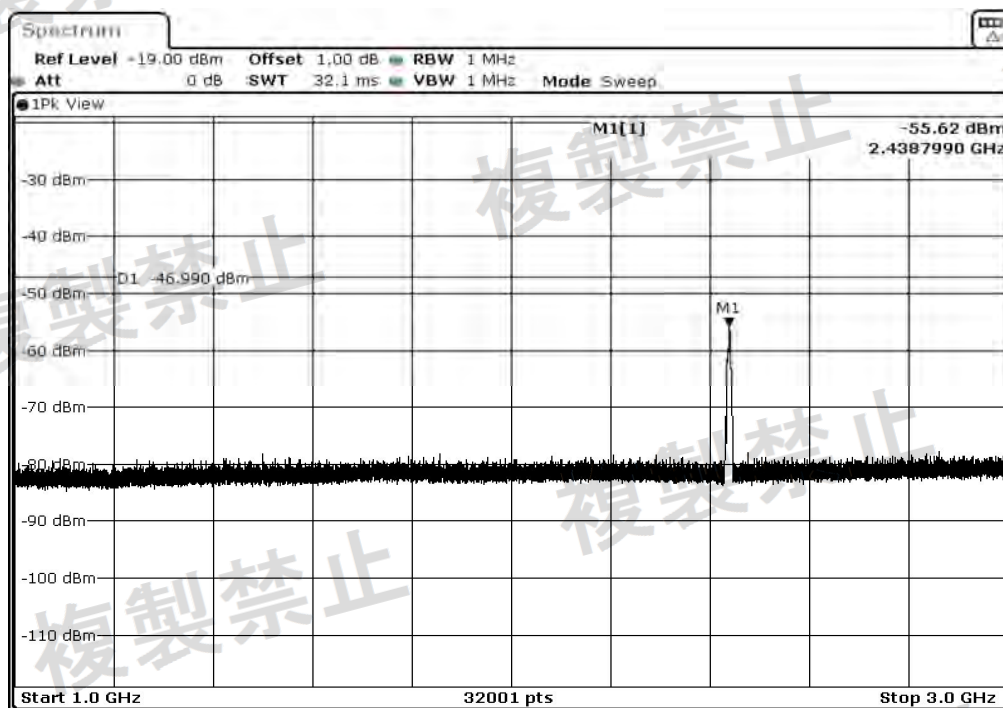
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.65	-54 (4nW)
		1000 – 3000	-55.62	-47 (20nW)
		3000 – 16000	-72.49	-47 (20nW)
		16000 – 26000	-74.42	-47 (20nW)

30 – 1000MHz



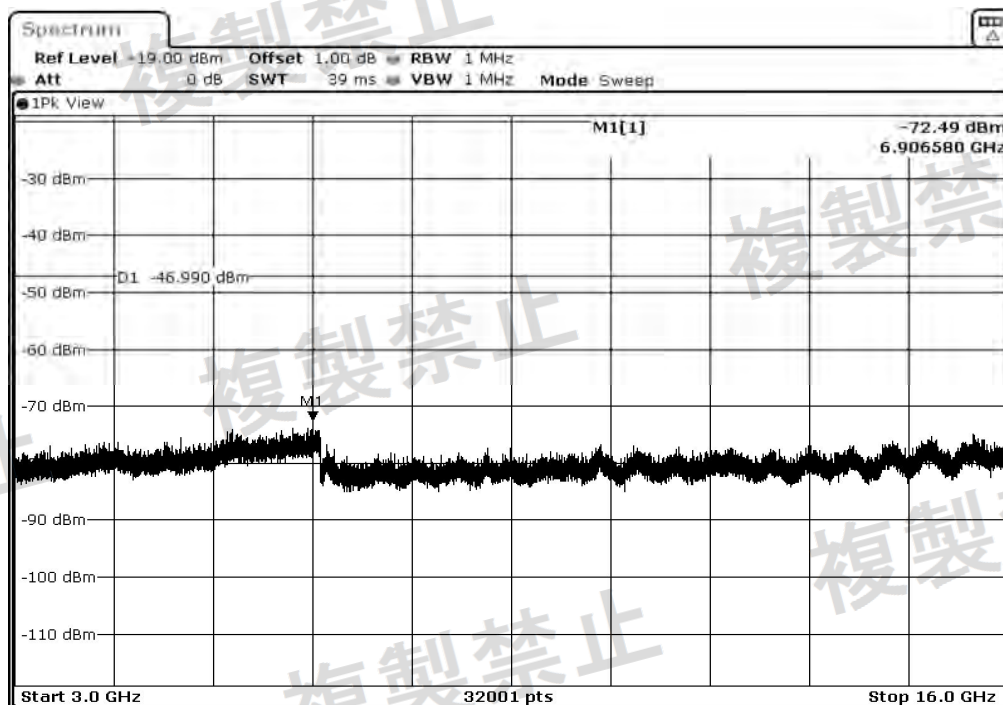
Date: 12.APR.2021 12:24:09

1000 – 3000MHz



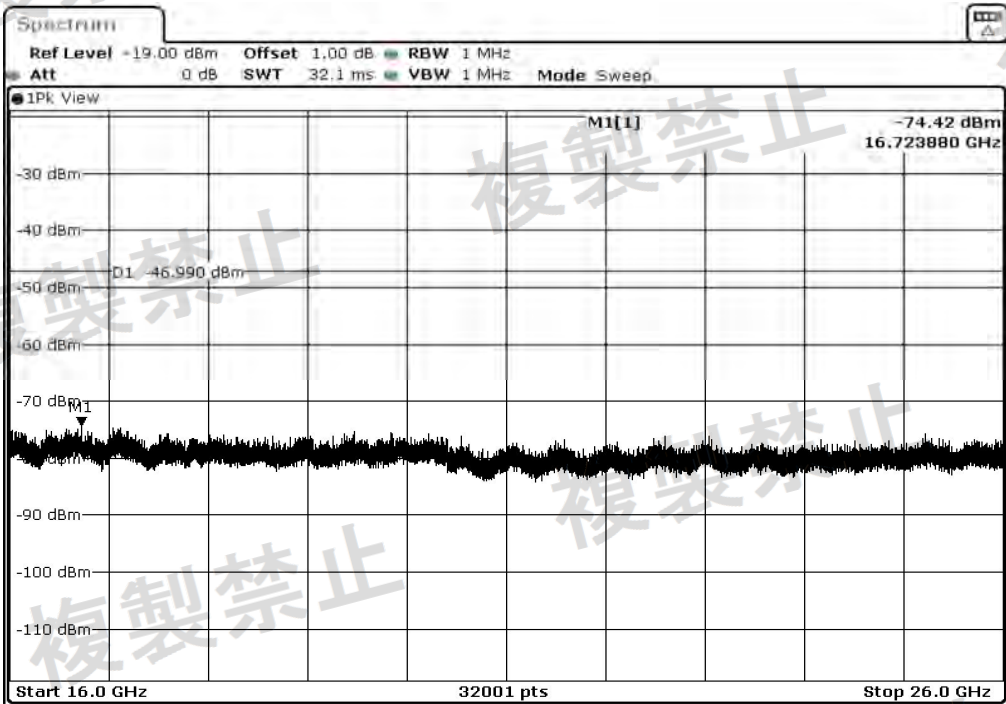
Date: 12.APR.2021 12:24:32

3000 – 16000MHz



Date: 12.APR.2021 12:24:55

16000 – 26000MHz



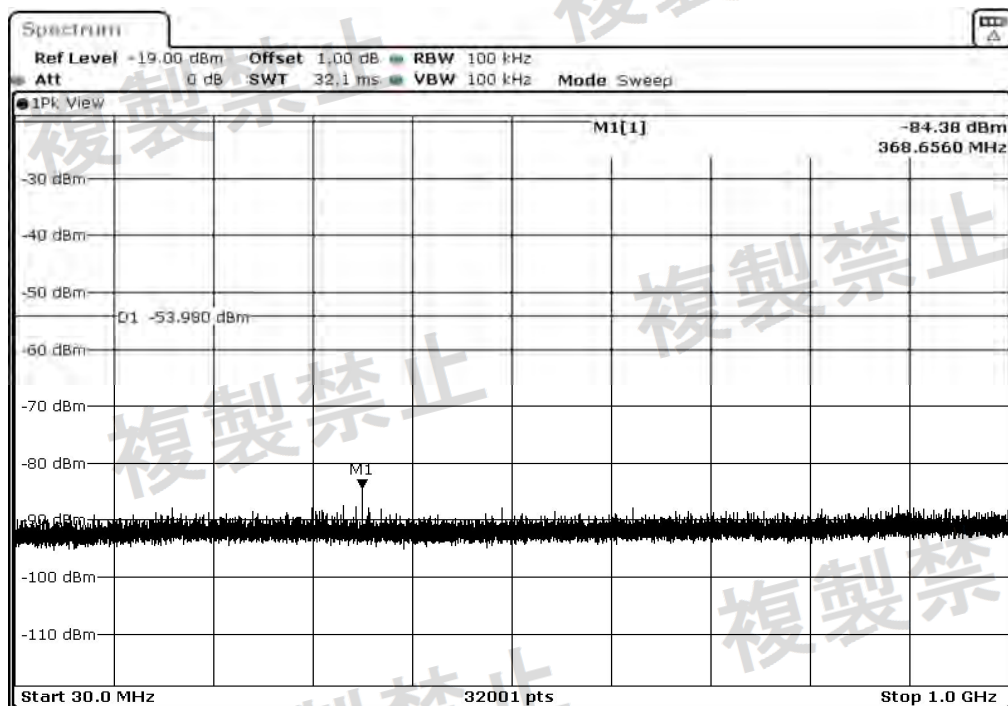
Date: 12.APR.2021 12:25:17

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W52 (5180MHz)

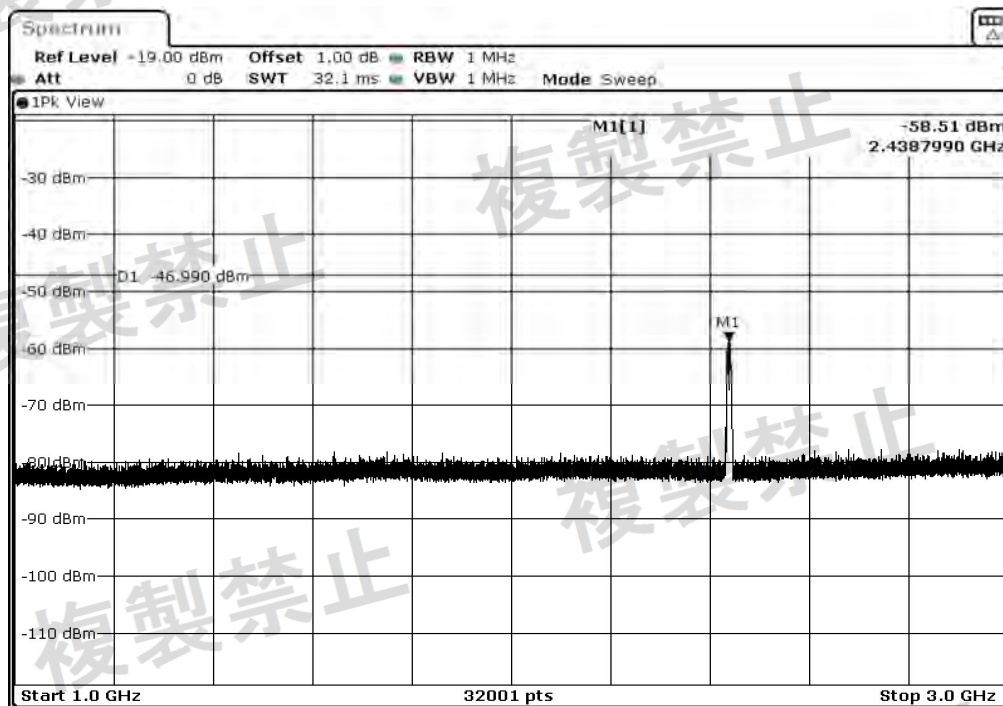
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.38	-54 (4nW)
		1000 – 3000	-58.51	-47 (20nW)
		3000 – 16000	-72.55	-47 (20nW)
		16000 – 26000	-74.34	-47 (20nW)

30 – 1000MHz



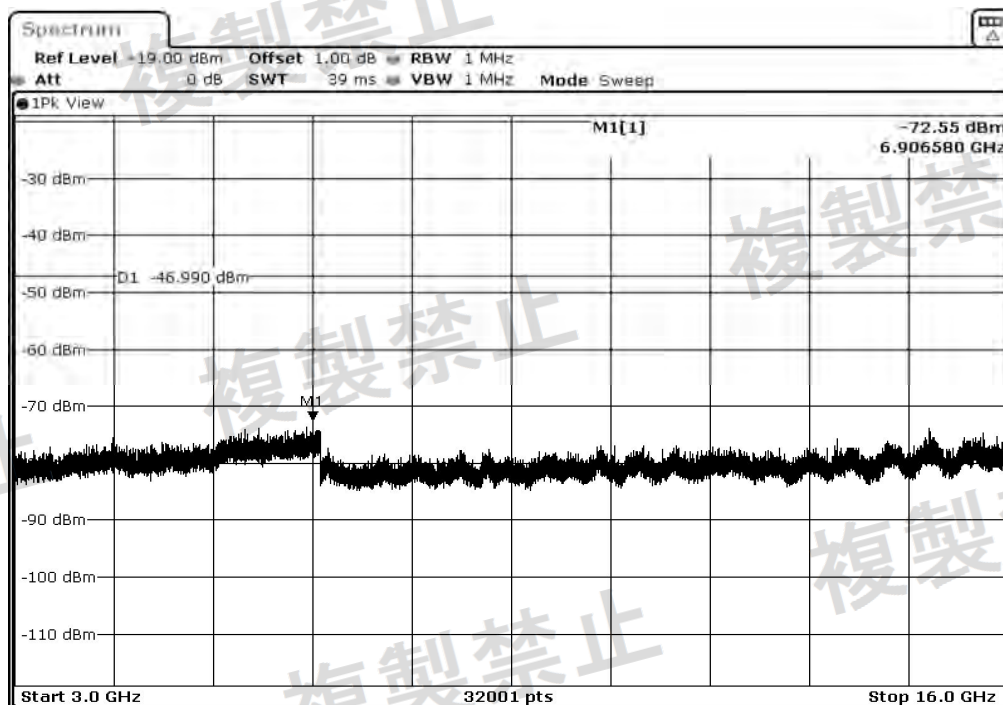
Date: 12.APR.2021 12:25:49

1000 – 3000MHz



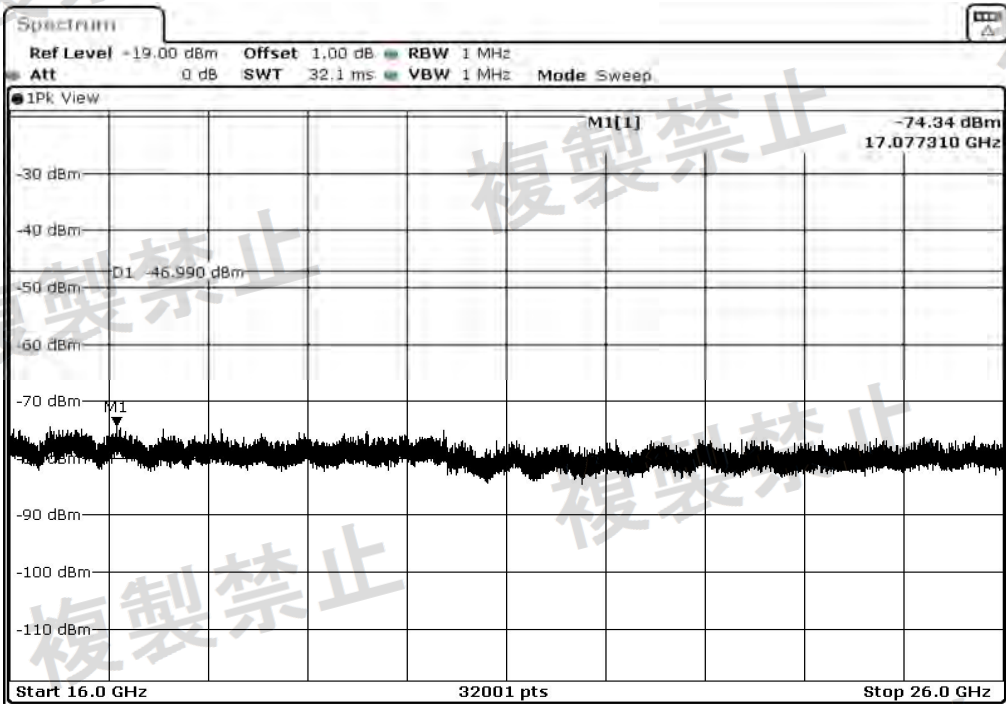
Date: 12.APR.2021 12:26:12

3000 – 16000MHz



Date: 12.APR.2021 12:26:34

16000 – 26000MHz



Date: 12.APR.2021 12:26:56

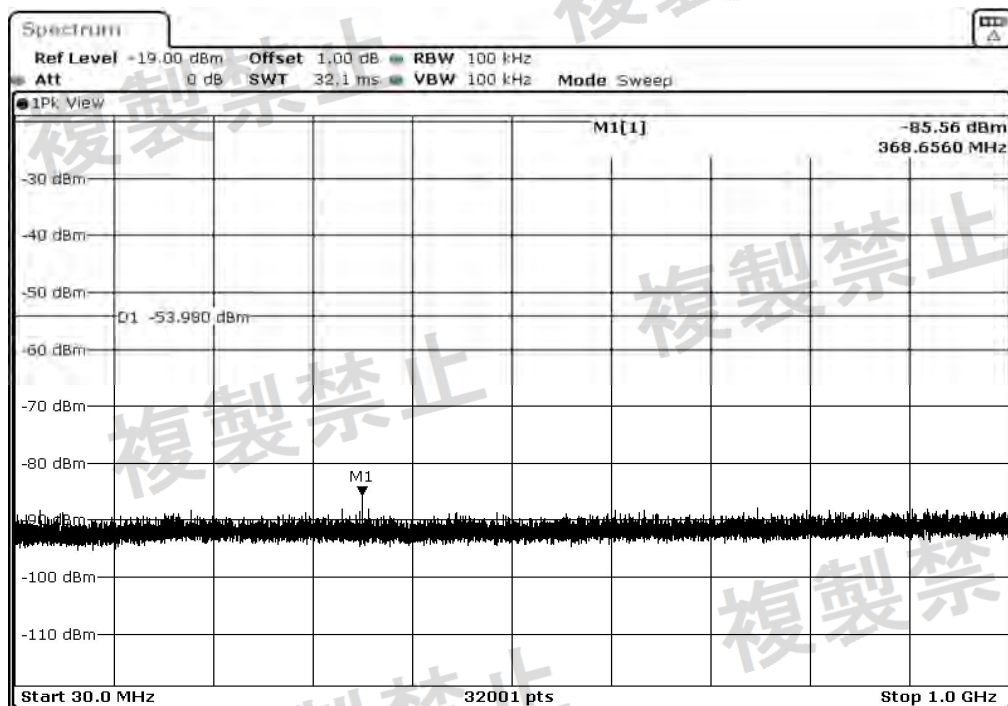
Test Result

PASS

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W52 (5240MHz)

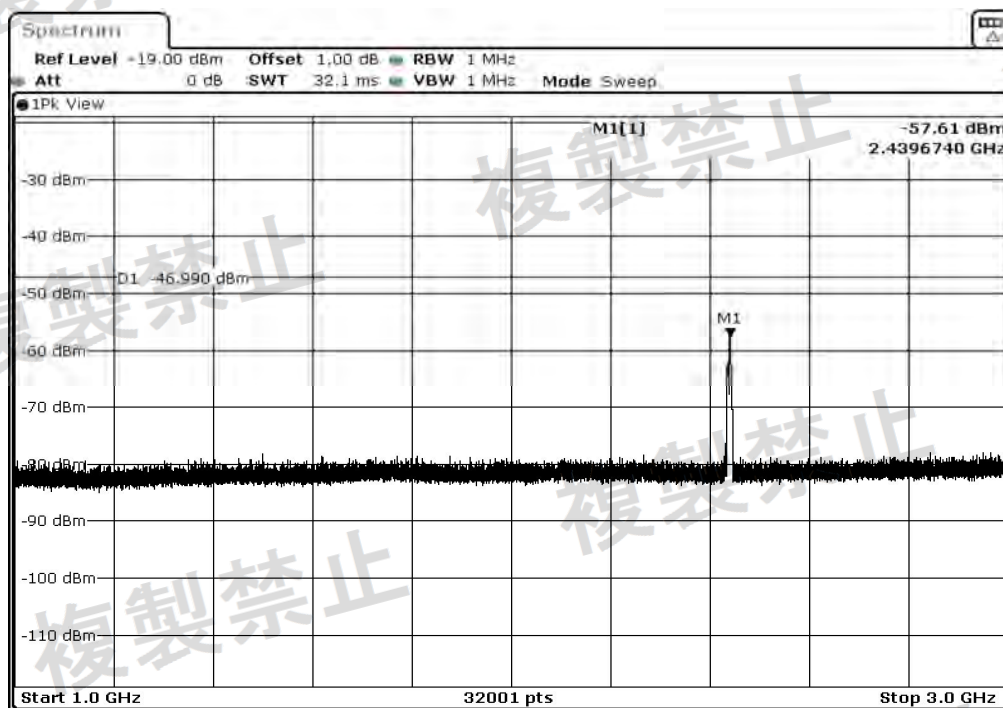
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.56	-54 (4nW)
		1000 – 3000	-57.61	-47 (20nW)
		3000 – 16000	-71.45	-47 (20nW)
		16000 – 26000	-74.41	-47 (20nW)

30 – 1000MHz



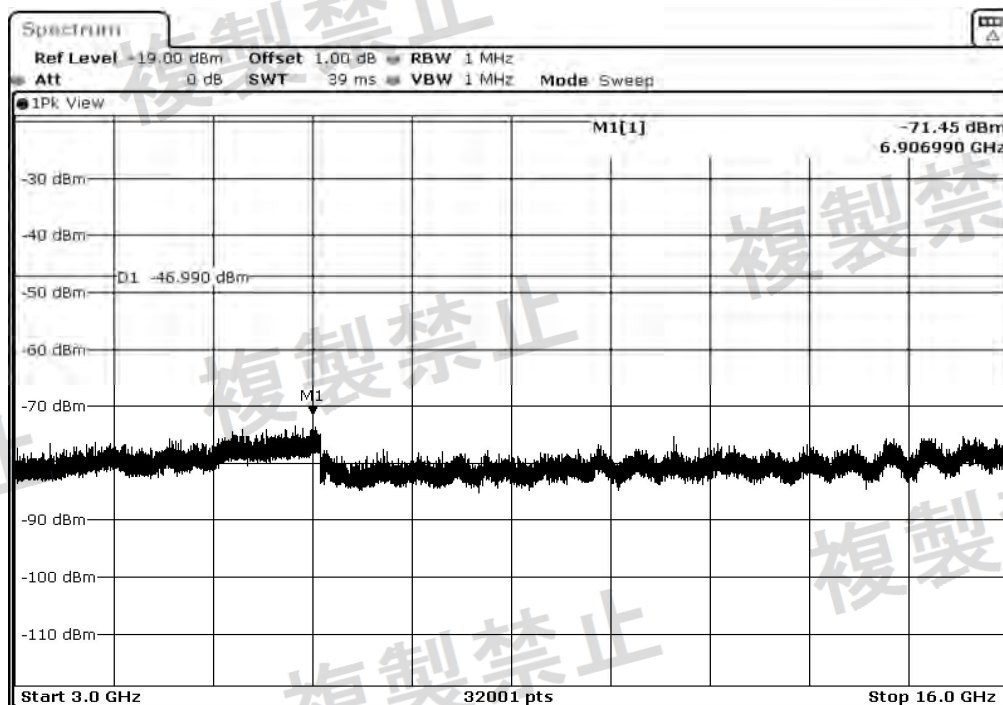
Date: 12.APR.2021 12:27:25

1000 – 3000MHz



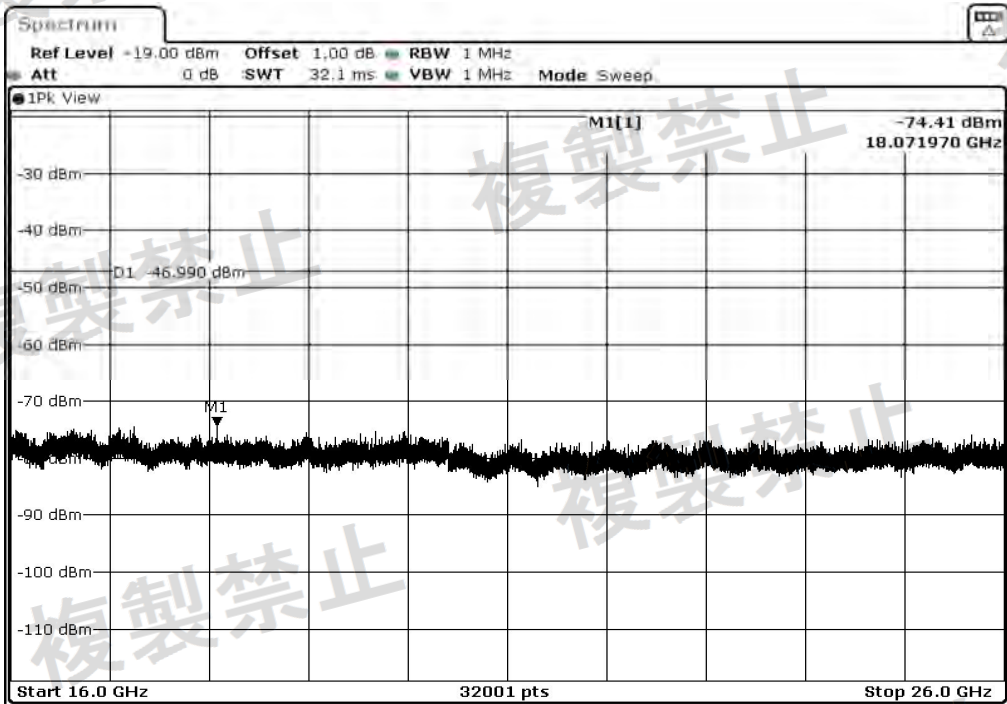
Date: 12.APR.2021 12:27:48

3000 – 16000MHz



Date: 12.APR.2021 12:28:11

16000 – 26000MHz



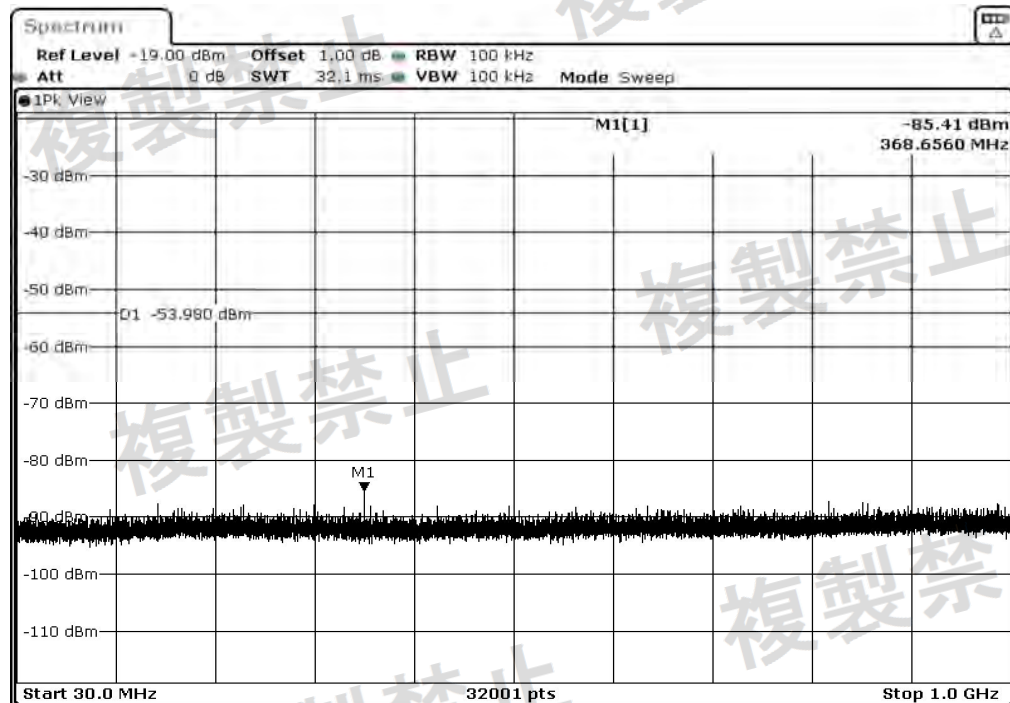
Date: 12.APR.2021 12:28:32

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W53 (5260MHz)

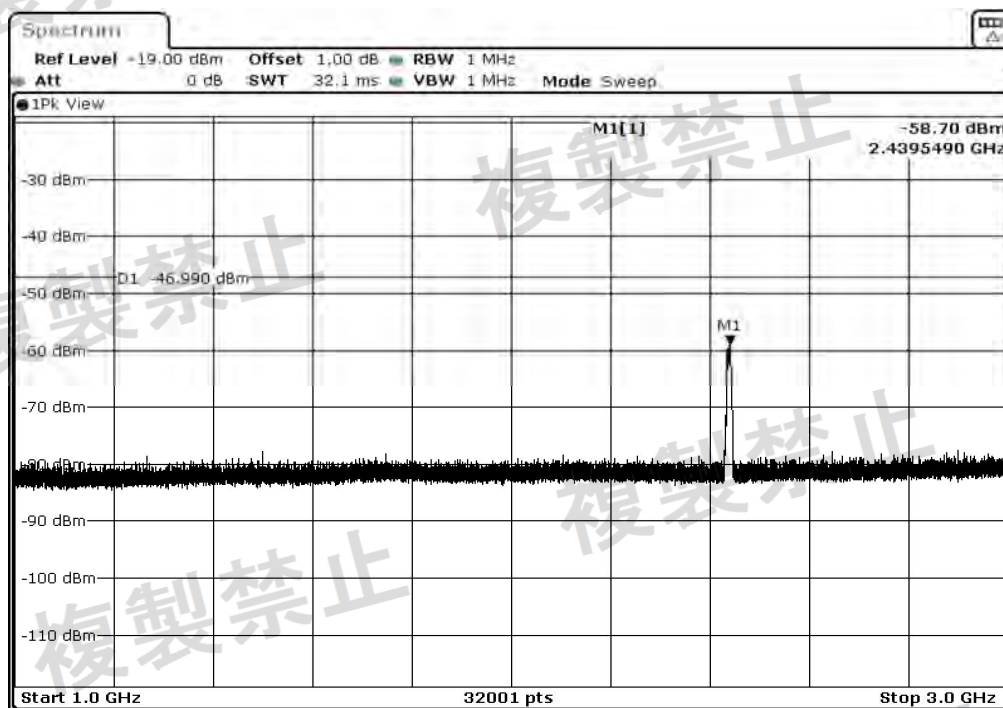
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.41	-54 (4nW)
		1000 – 3000	-58.70	-47 (20nW)
		3000 – 16000	-72.99	-47 (20nW)
		16000 – 26000	-74.68	-47 (20nW)

30 – 1000MHz



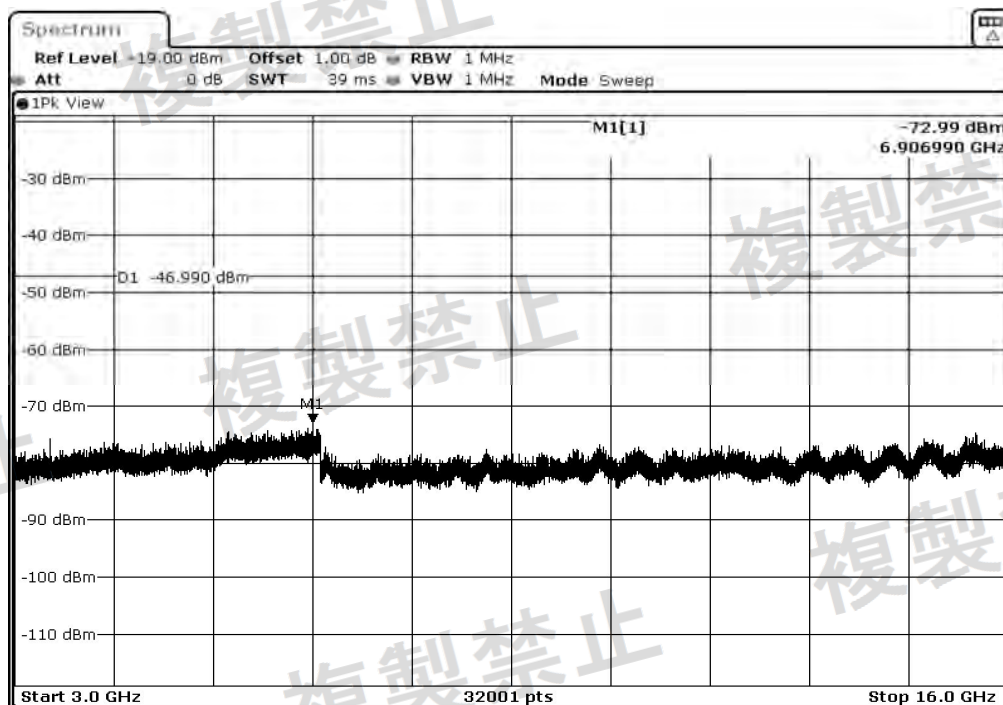
Date: 12.APR.2021 12:29:00

1000 – 3000MHz



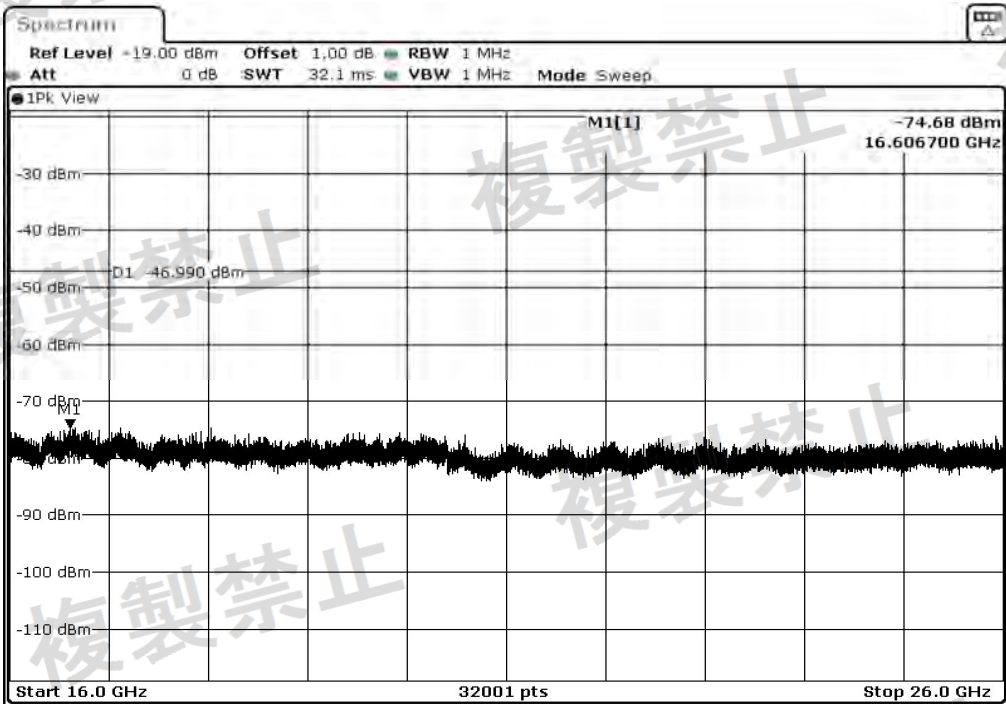
Date: 12.APR.2021 12:29:23

3000 – 16000MHz



Date: 12.APR.2021 12:29:45

16000 – 26000MHz



Date: 12.APR.2021 12:30:07

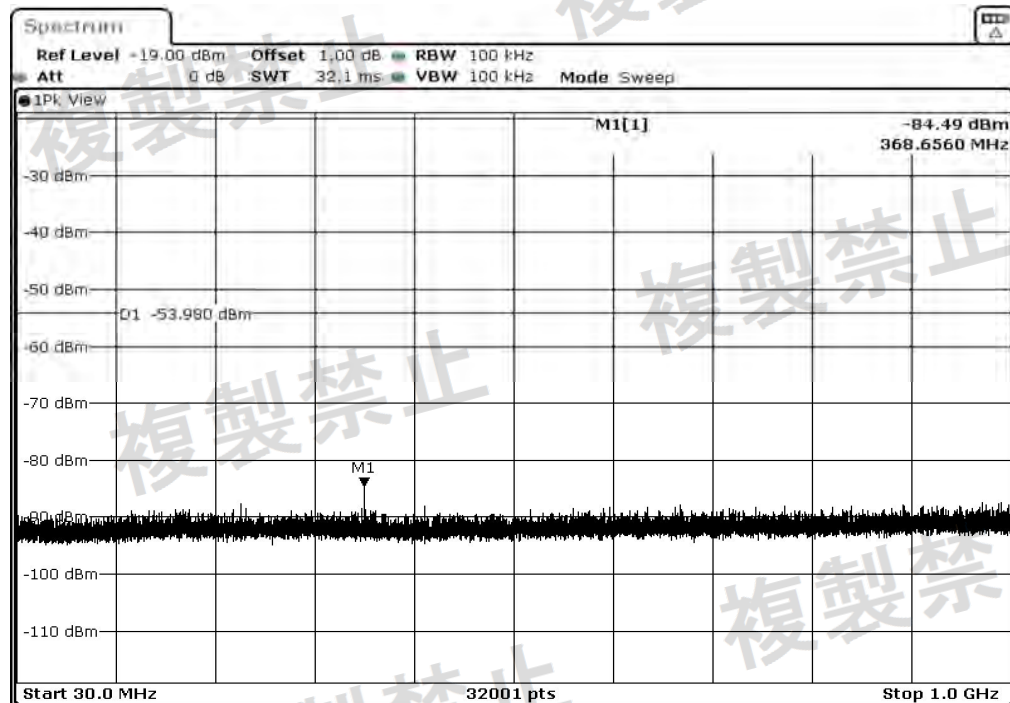
Test Result

PASS

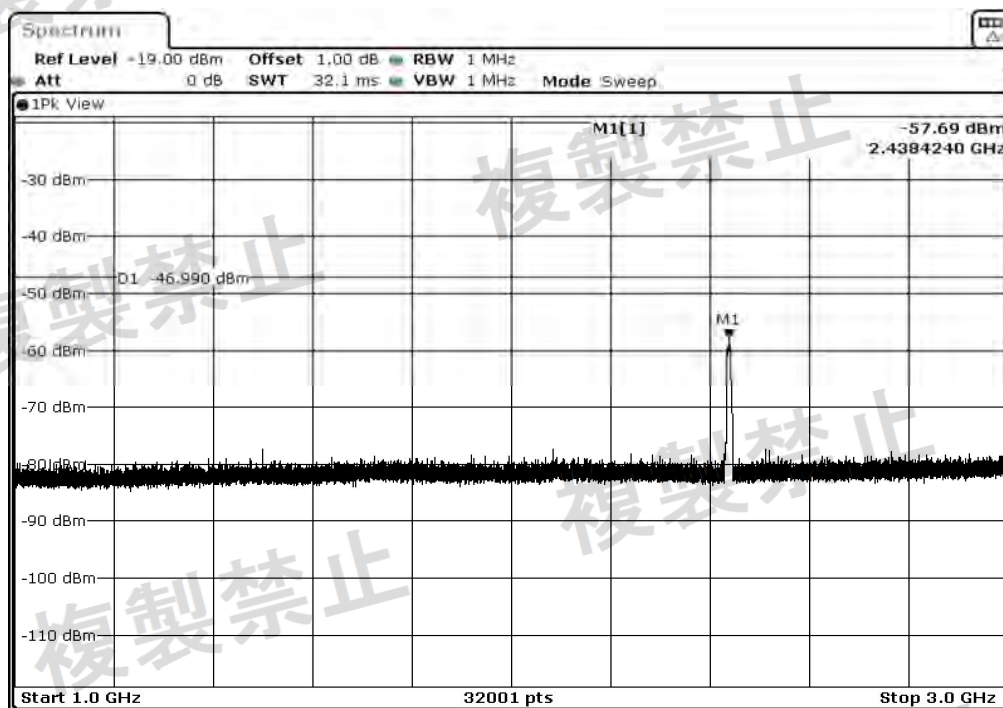
Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W53 (5320MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.49	-54 (4nW)
		1000 – 3000	-57.69	-47 (20nW)
		3000 – 16000	-72.92	-47 (20nW)
		16000 – 26000	-74.31	-47 (20nW)

30 – 1000MHz

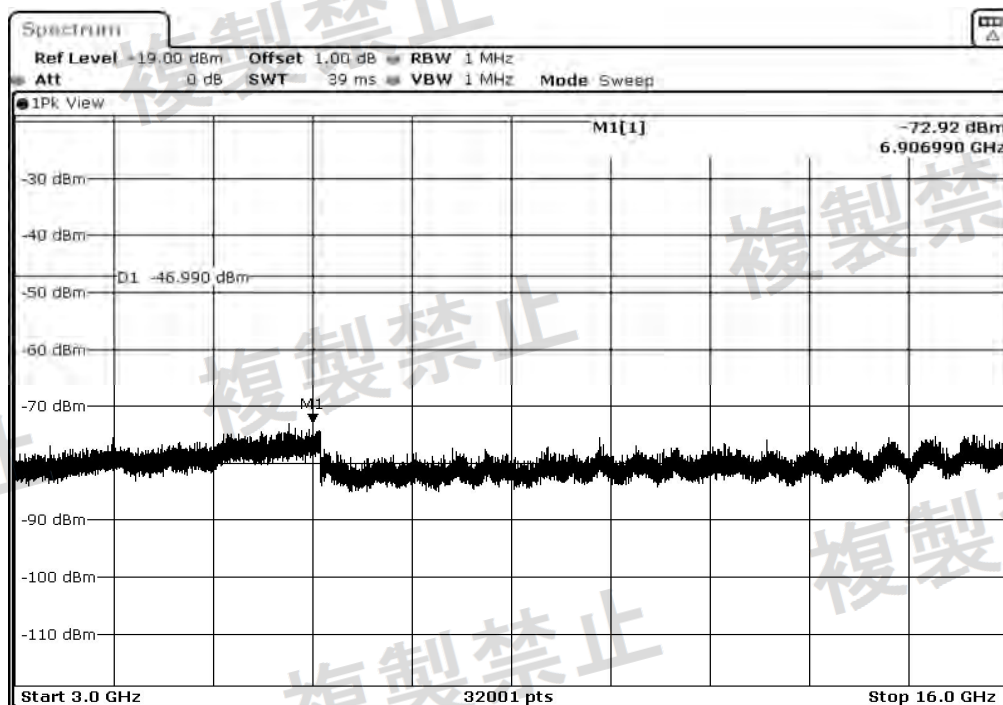


1000 – 3000MHz



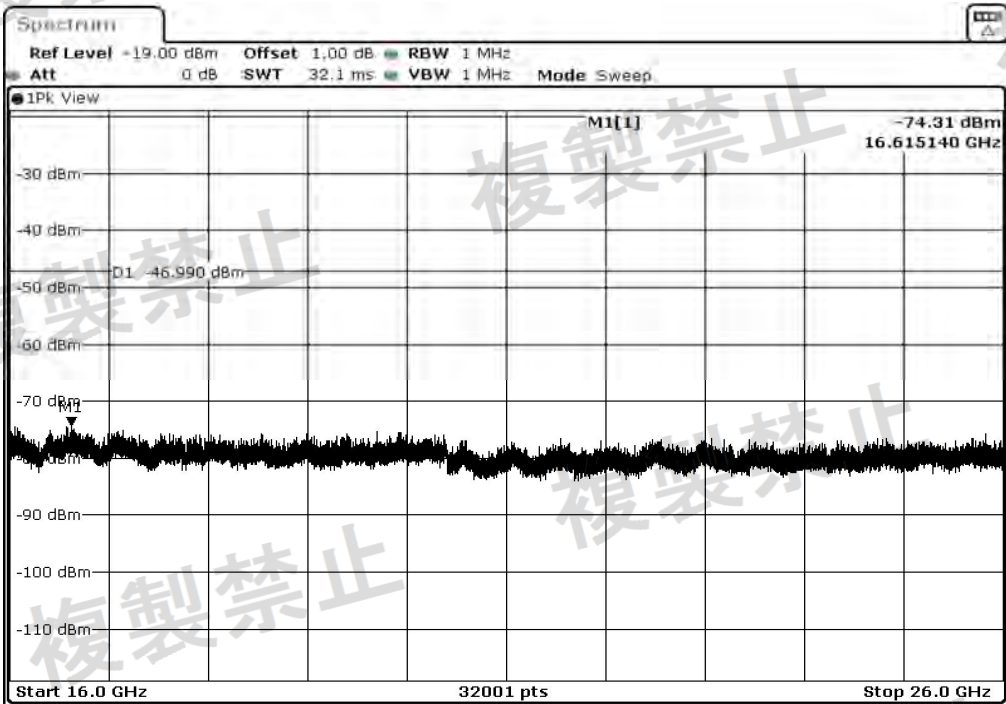
Date: 12.APR.2021 12:30:57

3000 – 16000MHz



Date: 12.APR.2021 12:31:20

16000 – 26000MHz



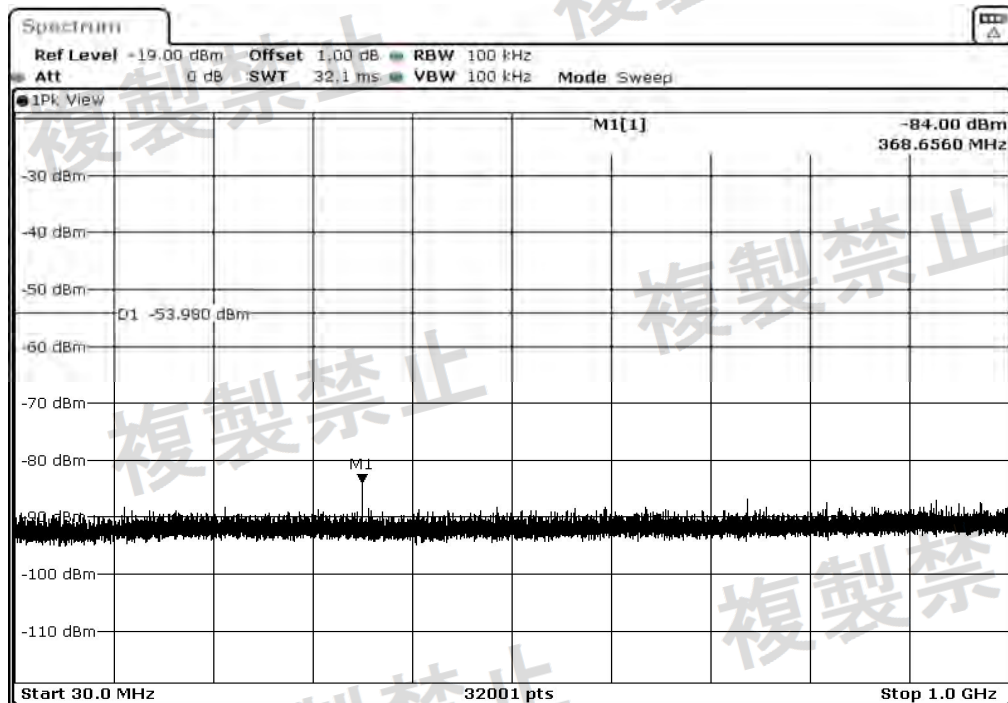
Date: 12.APR.2021 12:31:41

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5500MHz)

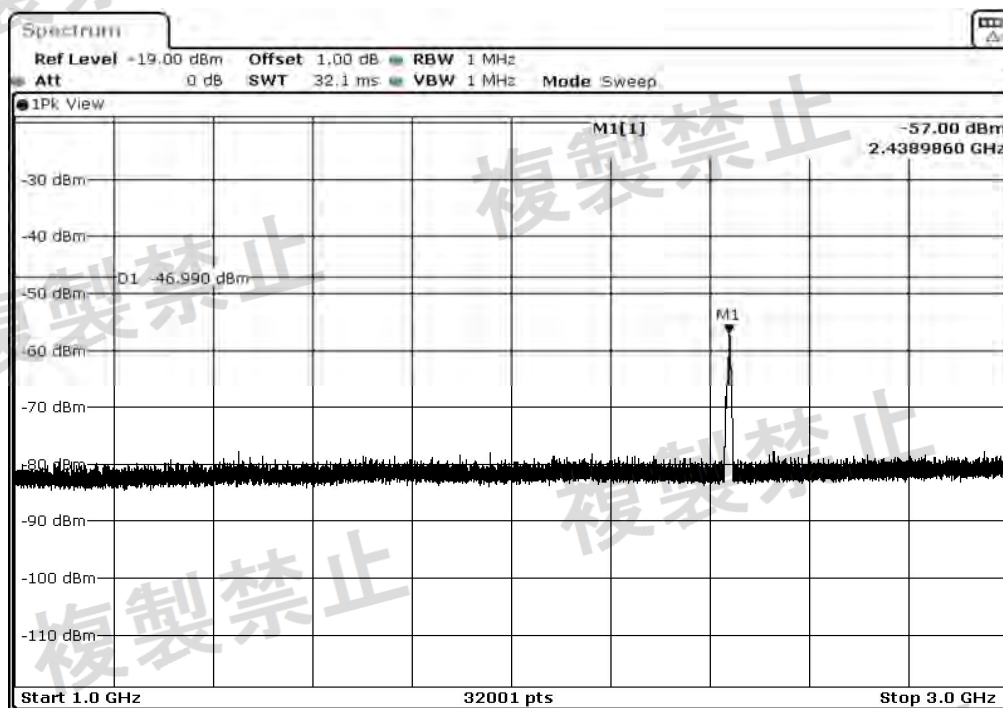
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.00	-54 (4nW)
		1000 – 3000	-57.00	-47 (20nW)
		3000 – 16000	-72.32	-47 (20nW)
		16000 – 26000	-73.27	-47 (20nW)

30 – 1000MHz



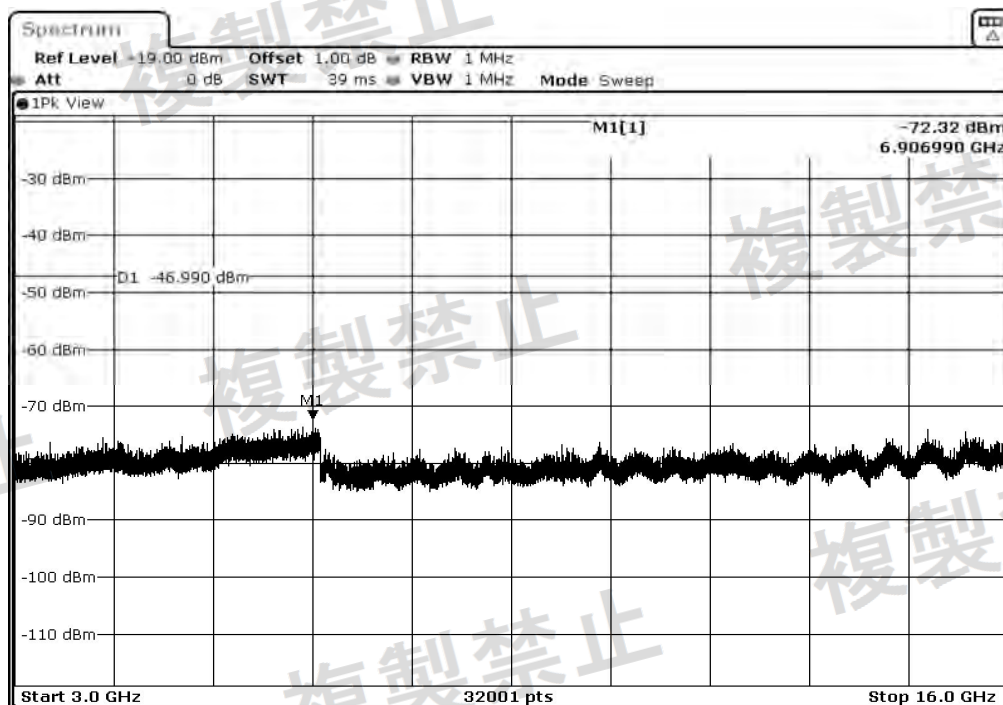
Date: 12.APR.2021 12:32:12

1000 – 3000MHz



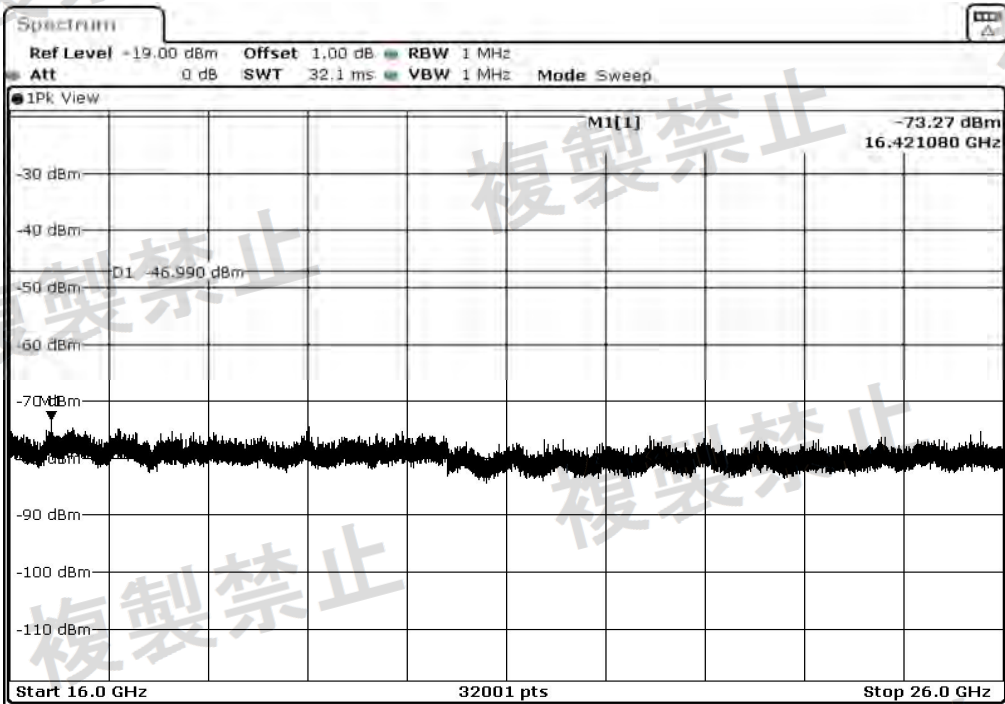
Date: 12.APR.2021 12:32:35

3000 – 16000MHz



Date: 12.APR.2021 12:32:57

16000 – 26000MHz



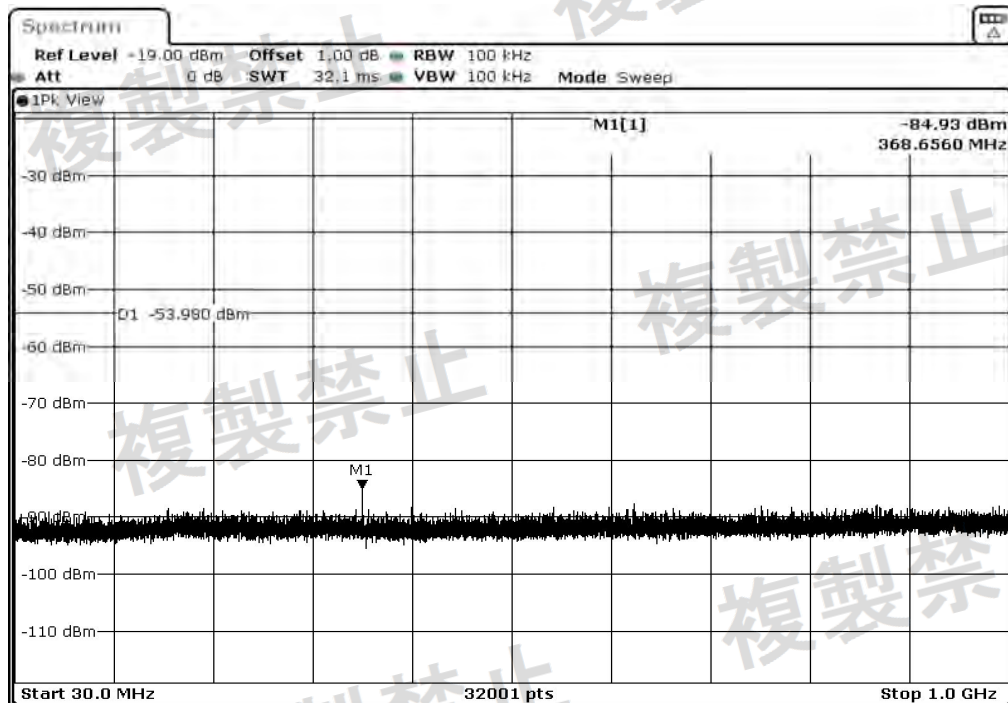
Date: 12.APR.2021 12:33:19

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5600MHz)

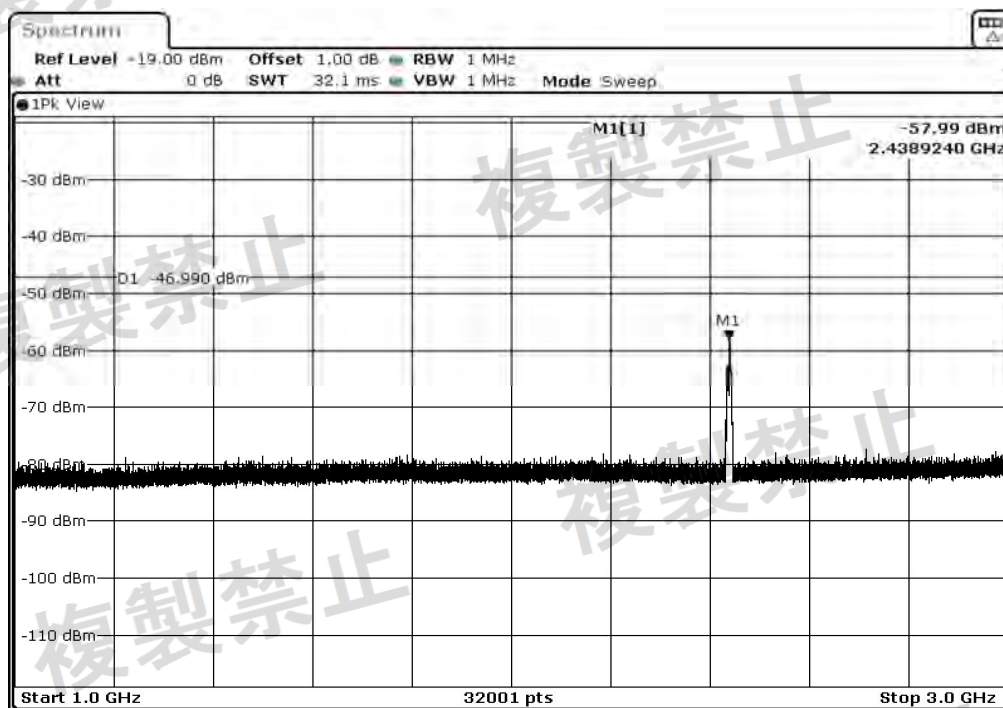
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.93	-54 (4nW)
		1000 – 3000	-57.99	-47 (20nW)
		3000 – 16000	-72.14	-47 (20nW)
		16000 – 26000	-74.61	-47 (20nW)

30 – 1000MHz



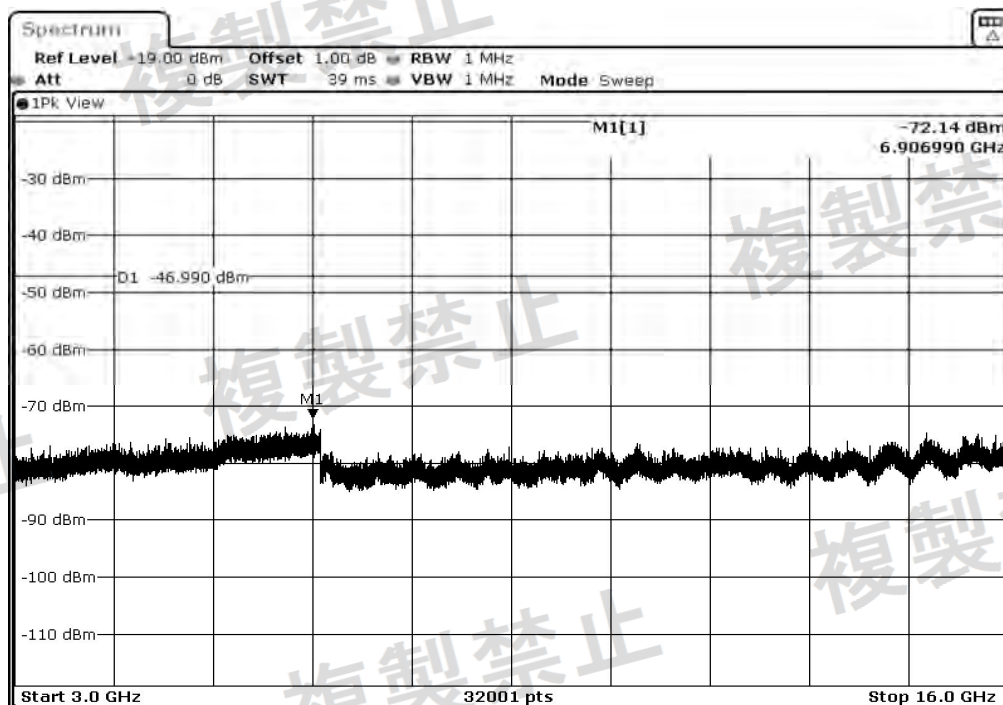
Date: 12.APR.2021 12:34:05

1000 – 3000MHz



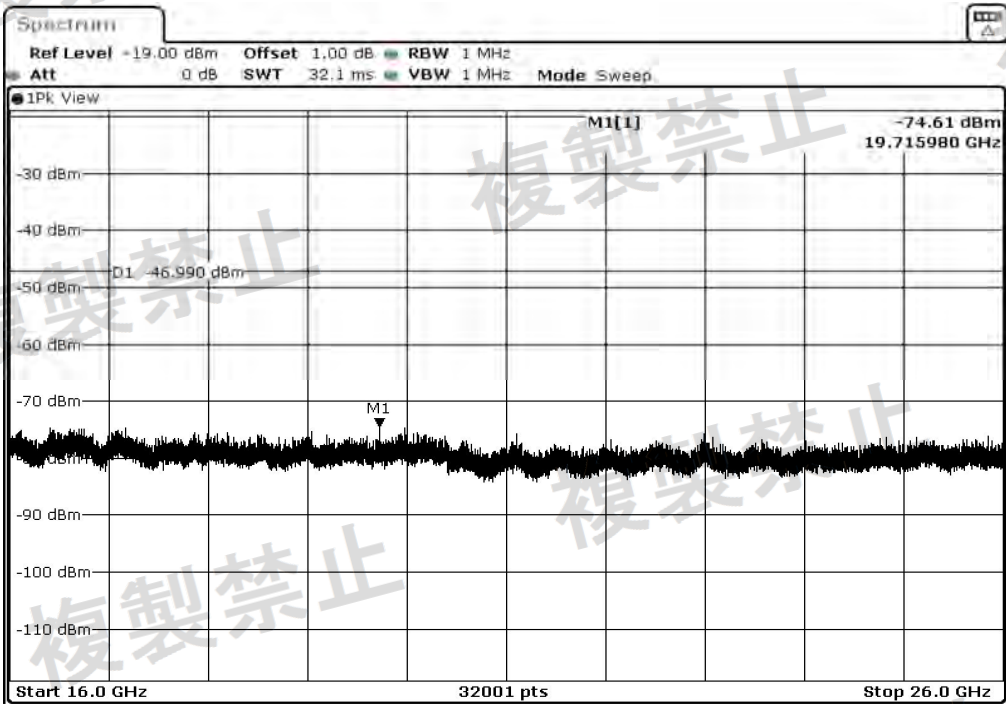
Date: 12.APR.2021 12:34:26

3000 – 16000MHz



Date: 12.APR.2021 12:34:49

16000 – 26000MHz



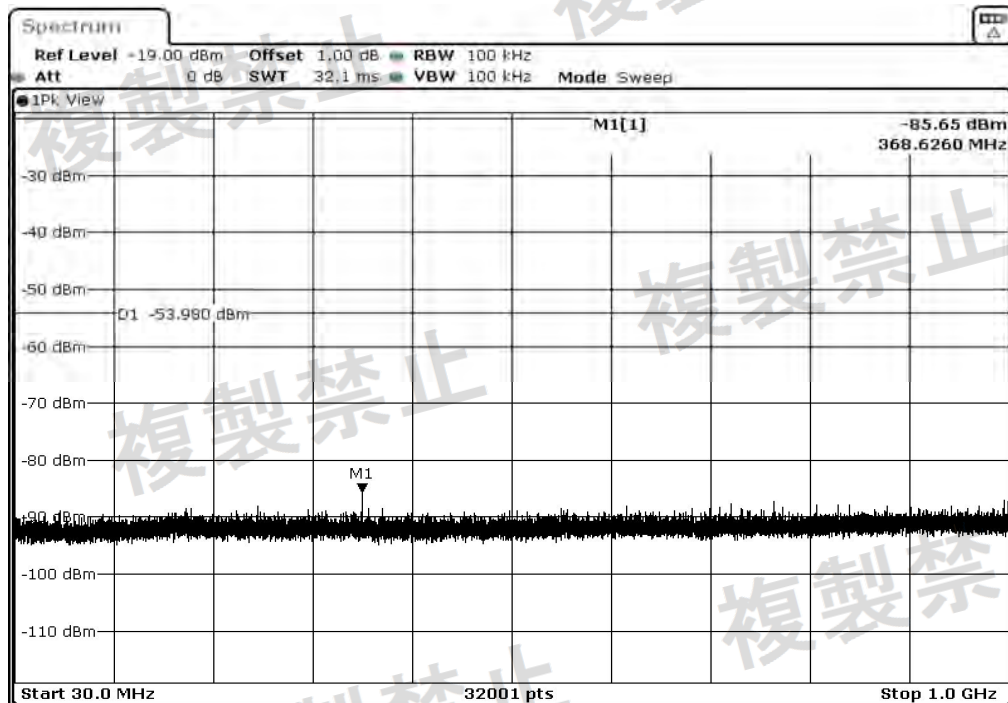
Date: 12.APR.2021 12:35:10

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5700MHz)

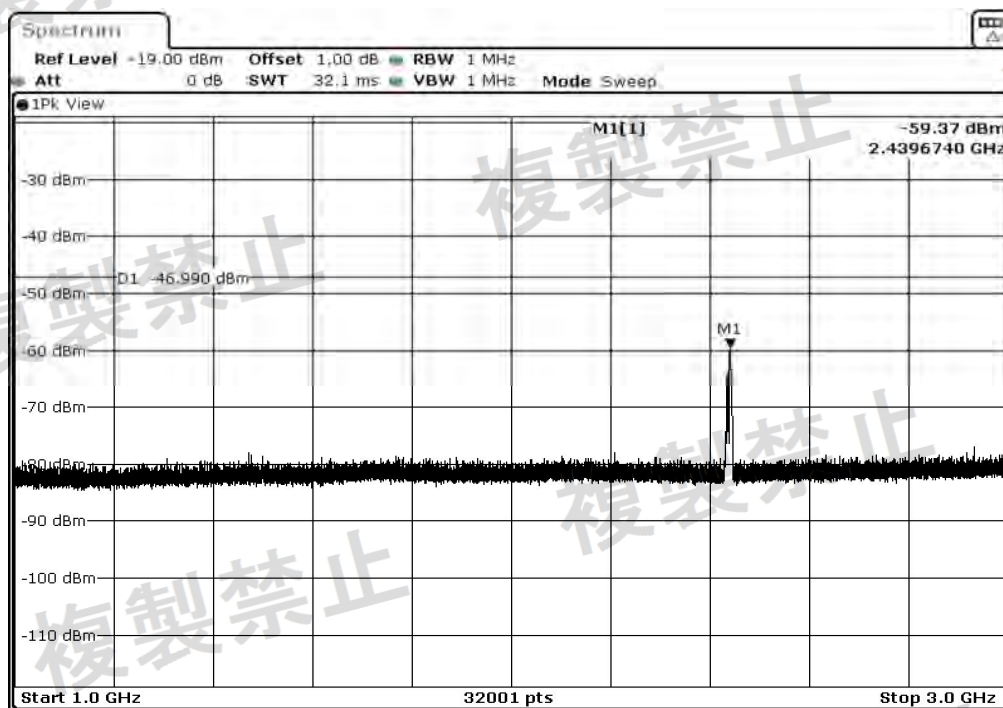
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.65	-54 (4nW)
		1000 – 3000	-59.37	-47 (20nW)
		3000 – 16000	-73.09	-47 (20nW)
		16000 – 26000	-74.04	-47 (20nW)

30 – 1000MHz



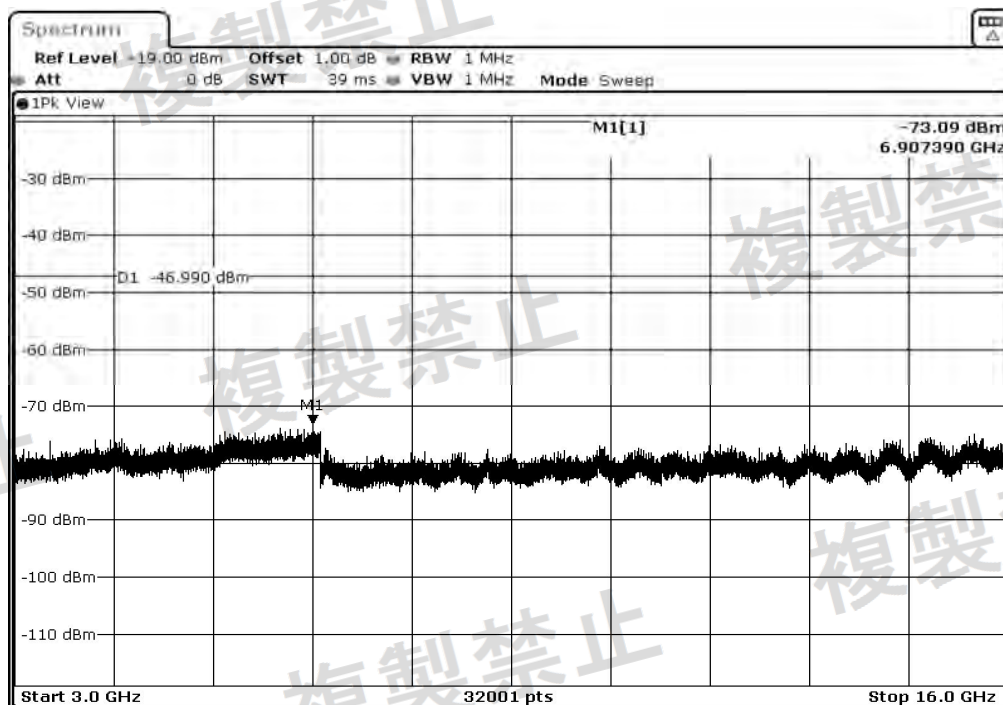
Date: 12.APR.2021 12:35:38

1000 – 3000MHz



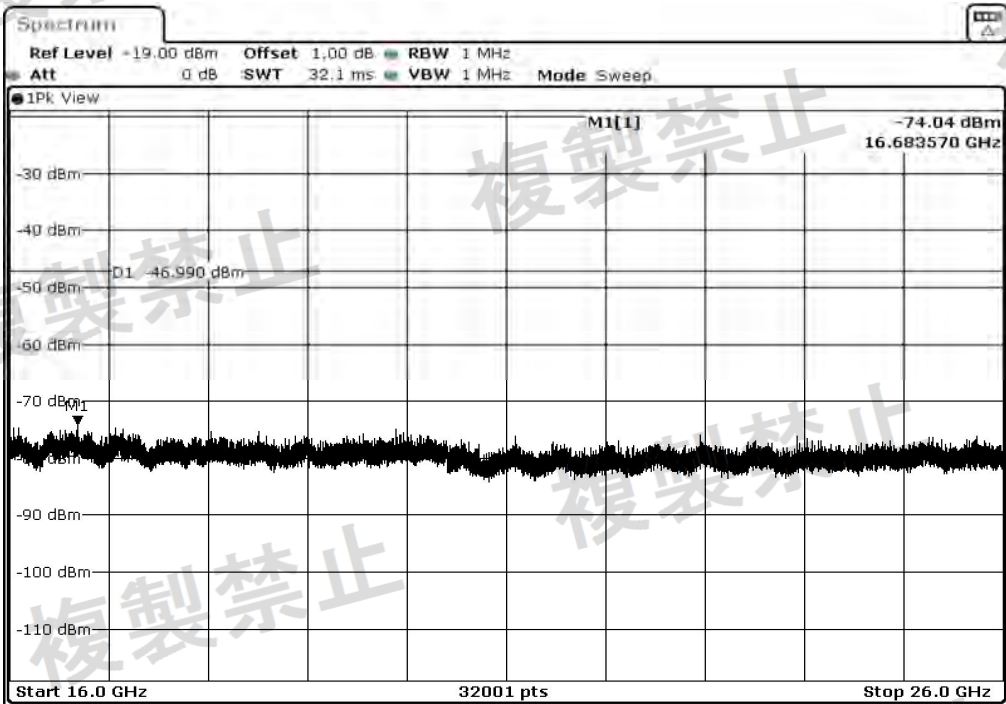
Date: 12.APR.2021 12:36:00

3000 – 16000MHz



Date: 12.APR.2021 12:36:22

16000 – 26000MHz



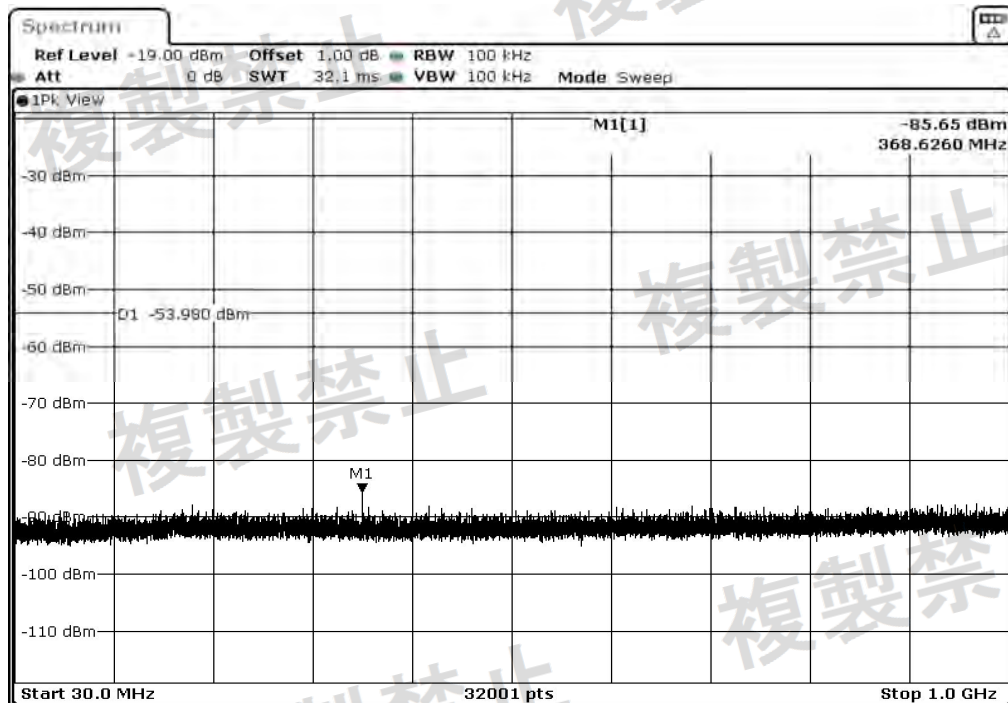
Date: 12.APR.2021 12:36:43

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)_W56 (5720MHz)

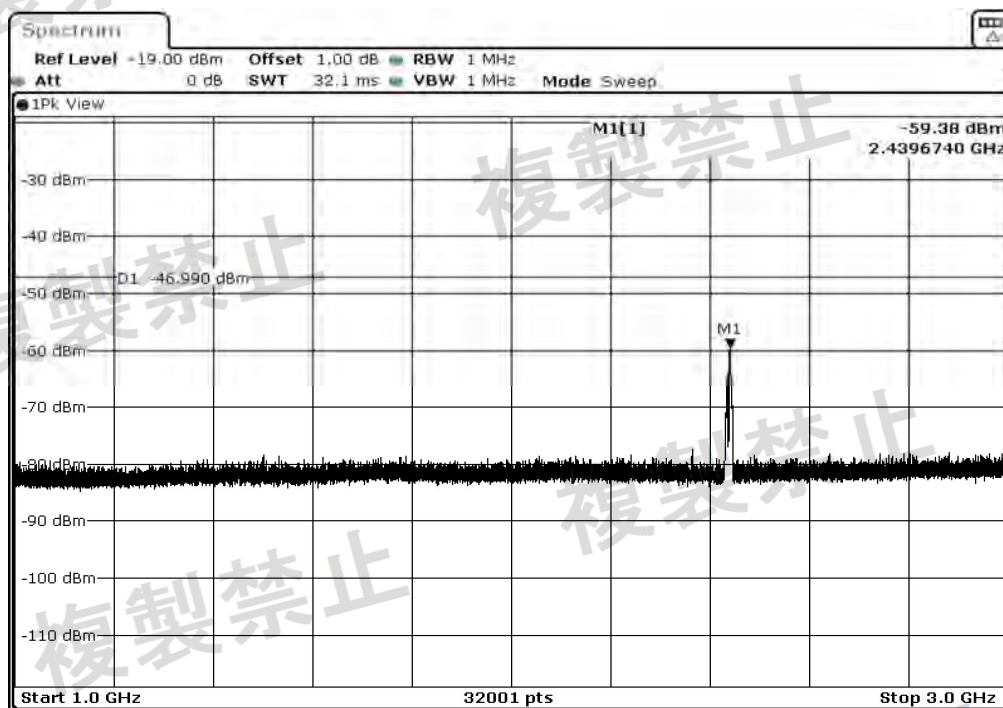
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.65	-54 (4nW)
		1000 – 3000	-59.38	-47 (20nW)
		3000 – 16000	-73.09	-47 (20nW)
		16000 – 26000	-74.18	-47 (20nW)

30 – 1000MHz



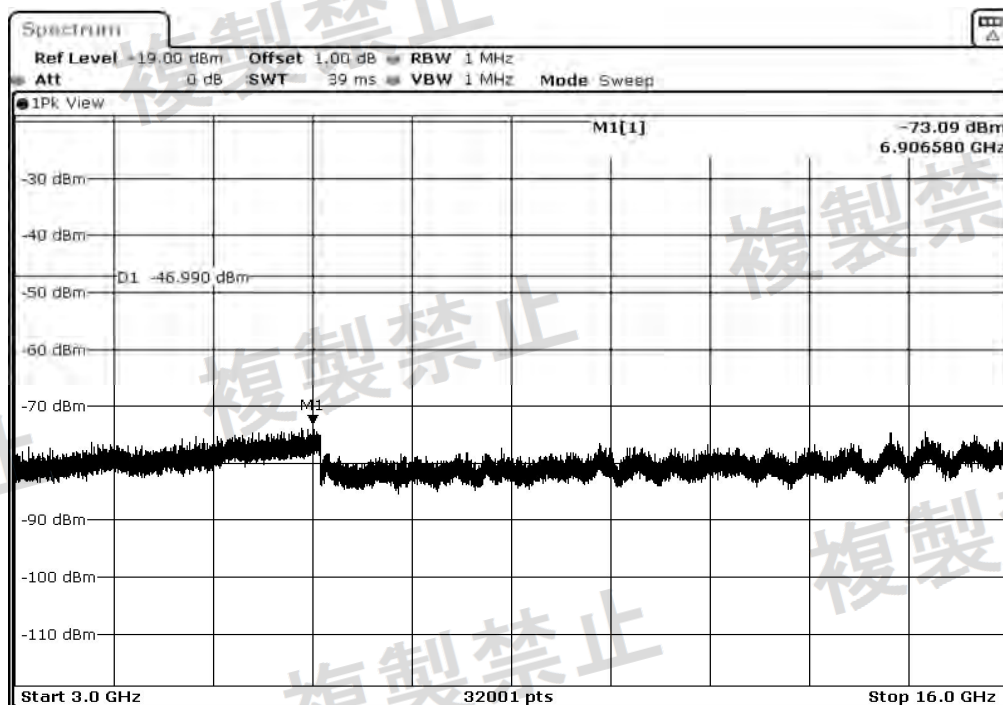
Date: 12.APR.2021 12:37:13

1000 – 3000MHz



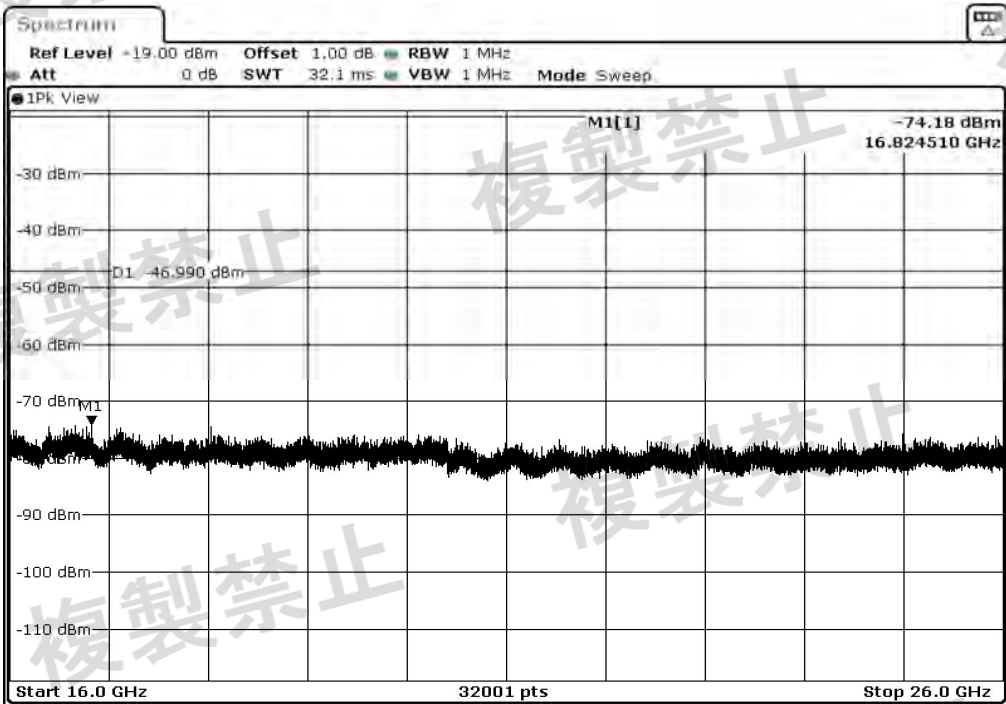
Date: 12.APR.2021 12:37:35

3000 – 16000MHz



Date: 12.APR.2021 12:37:58

16000 – 26000MHz



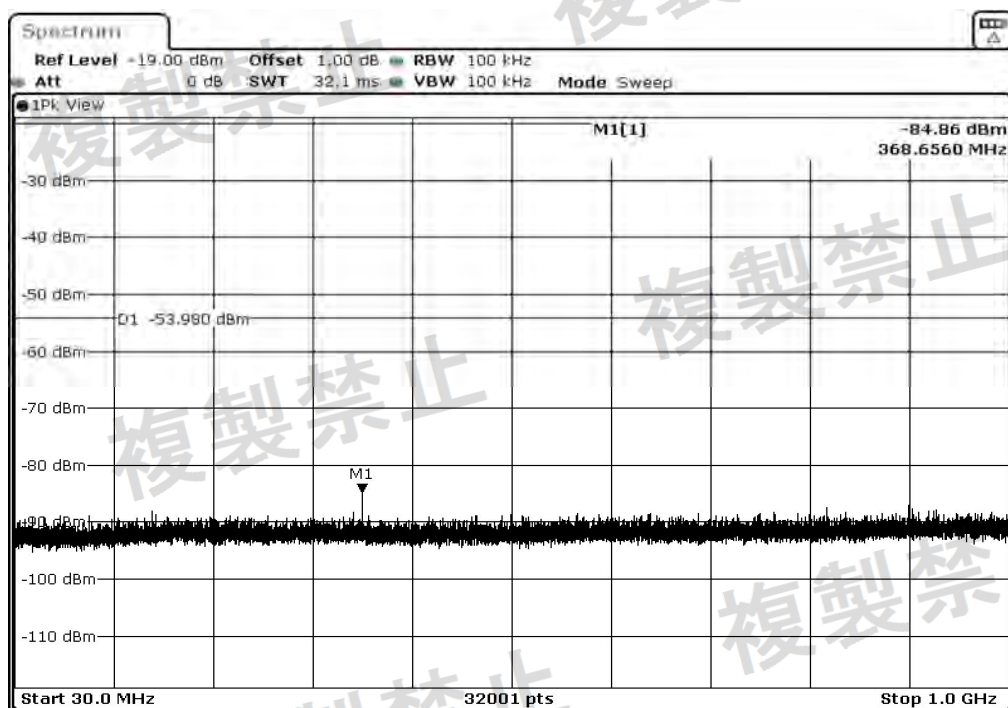
Date: 12.APR.2021 12:38:20

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W52 (5190MHz)

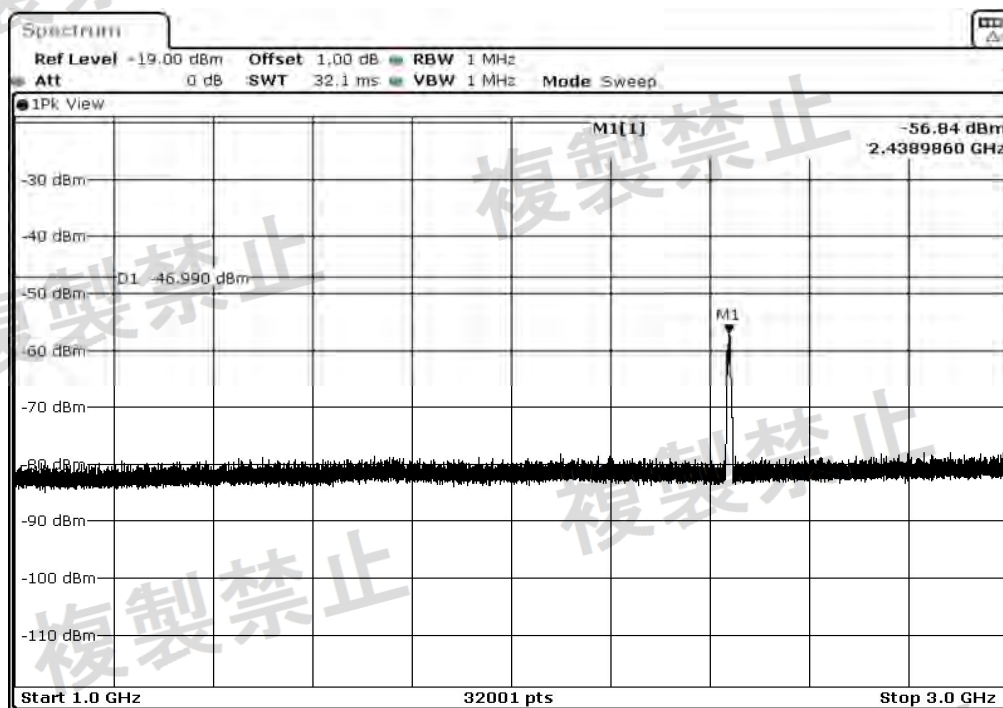
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.86	-54 (4nW)
		1000 – 3000	-56.84	-47 (20nW)
		3000 – 16000	-73.32	-47 (20nW)
		16000 – 26000	-73.94	-47 (20nW)

30 – 1000MHz



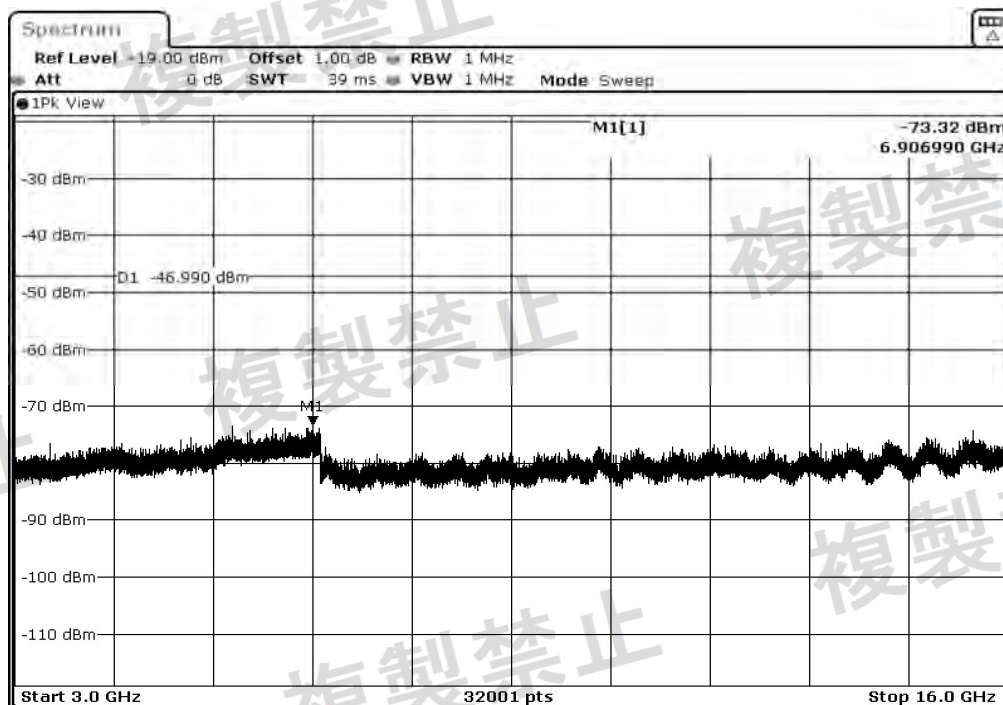
Date: 12.APR.2021 12:38:54

1000 – 3000MHz



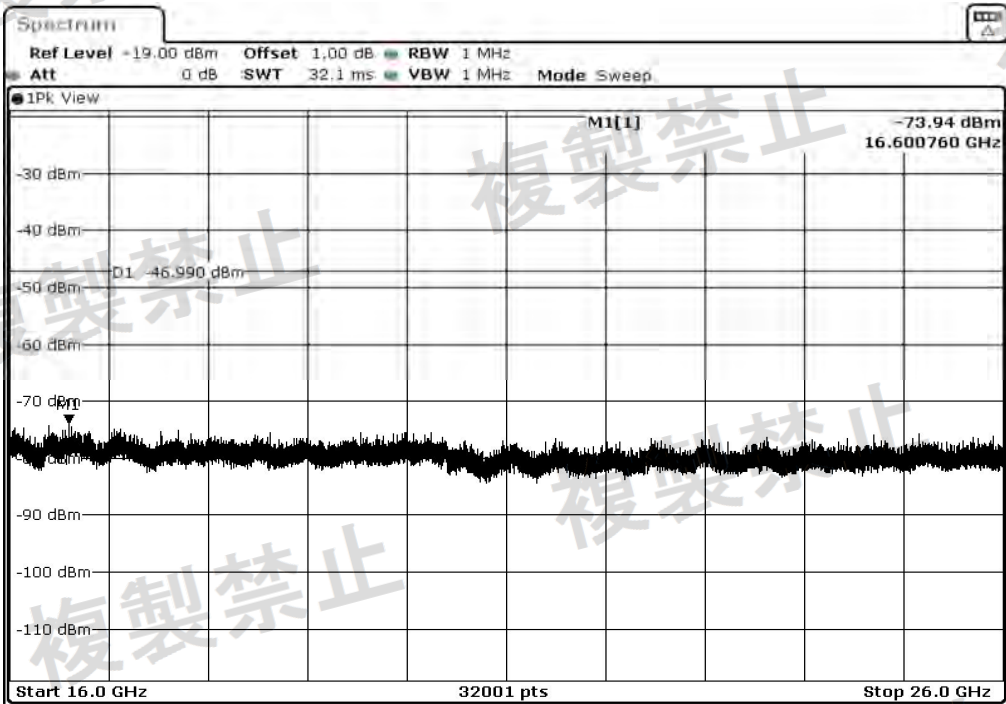
Date: 12.APR.2021 12:39:16

3000 – 16000MHz



Date: 12.APR.2021 12:39:39

16000 – 26000MHz



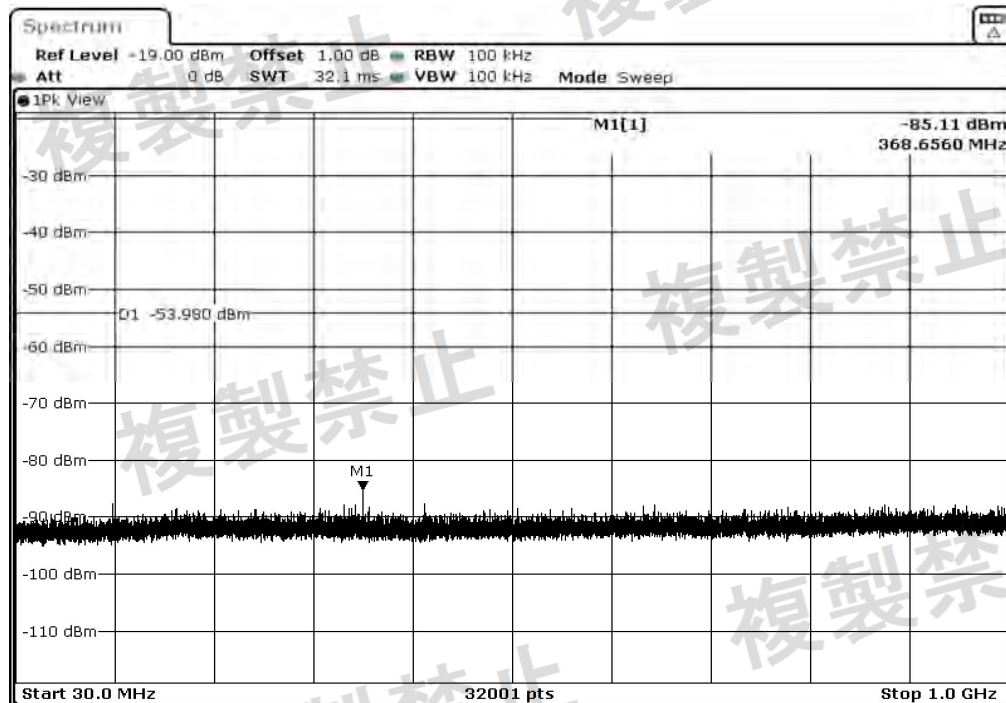
Date: 12.APR.2021 12:40:00

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W52 (5230MHz)

Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.11	-54 (4nW)
		1000 – 3000	-57.98	-47 (20nW)
		3000 – 16000	-72.08	-47 (20nW)
		16000 – 26000	-74.40	-47 (20nW)

30 – 1000MHz



Date: 12.APR.2021 12:40:32

Spectrum

Ref Level -19.00 dBm Offset 1.00 dB RBW 1 MHz
Att 0 dB SWT 32.1 ms VBW 1 MHz Mode Sweep

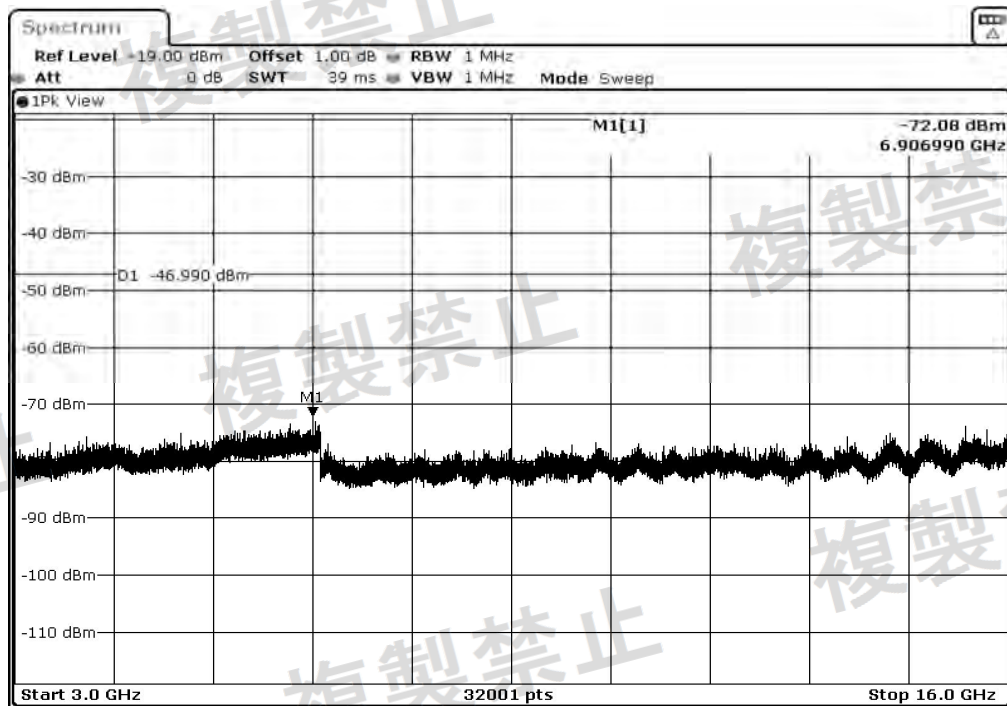
● 1Pk View

M1[1] -57.98 dBm
2.4387990 GHz

D1 -46.990 dBm

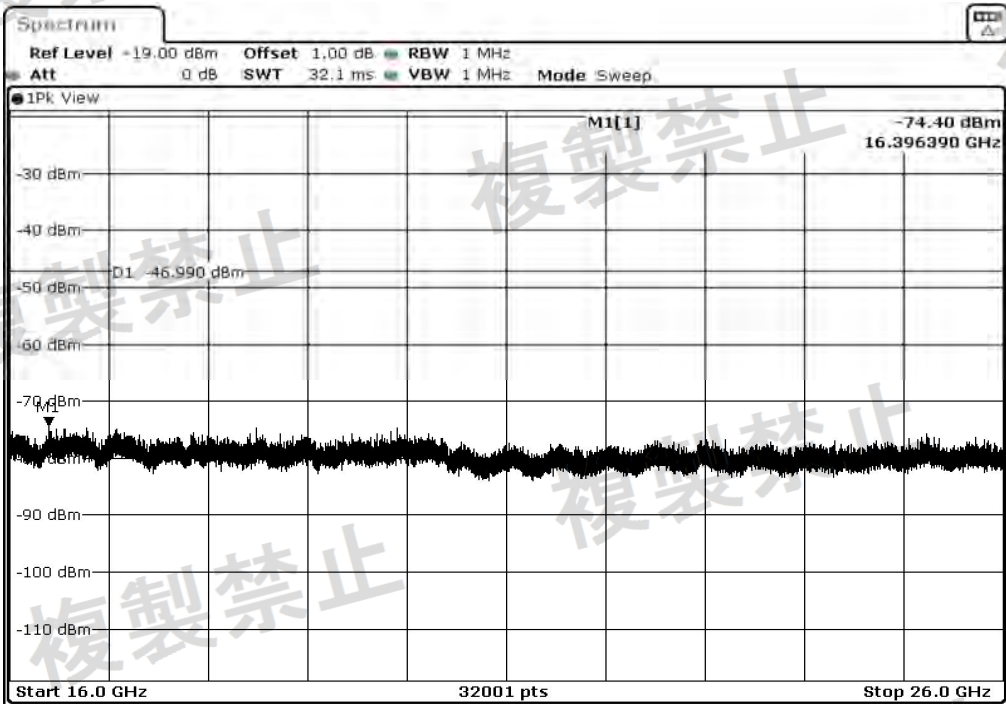
Start 1.0 GHz 32001 pts Stop 3.0 GHz

3000 – 16000MHz



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16000 – 26000MHz



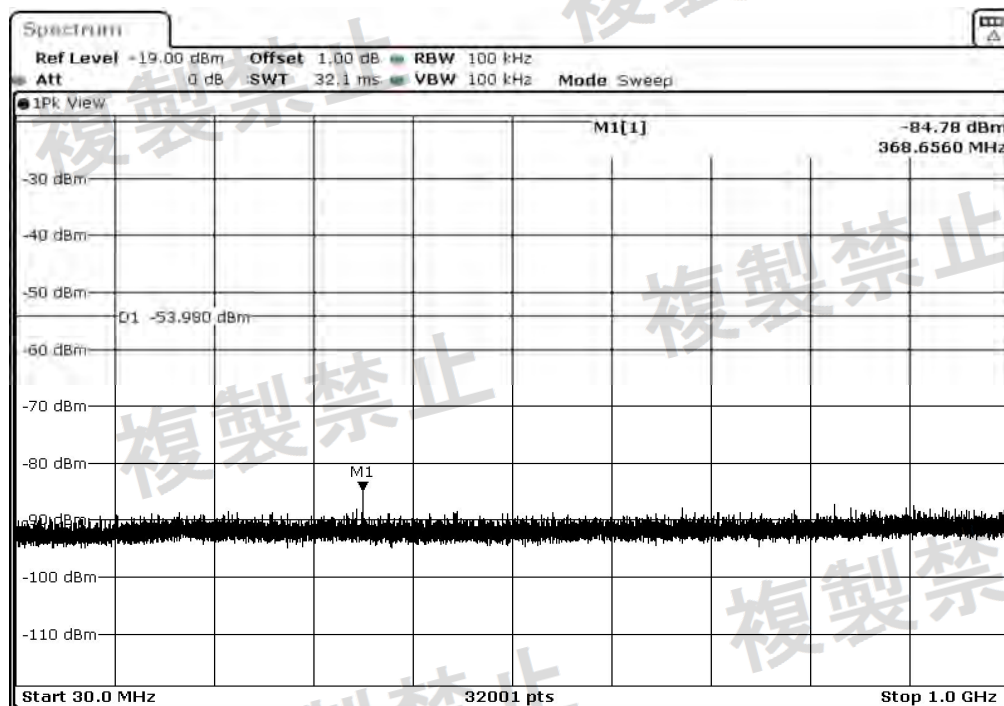
Date: 12.APR.2021 12:41:39

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W53 (5270MHz)

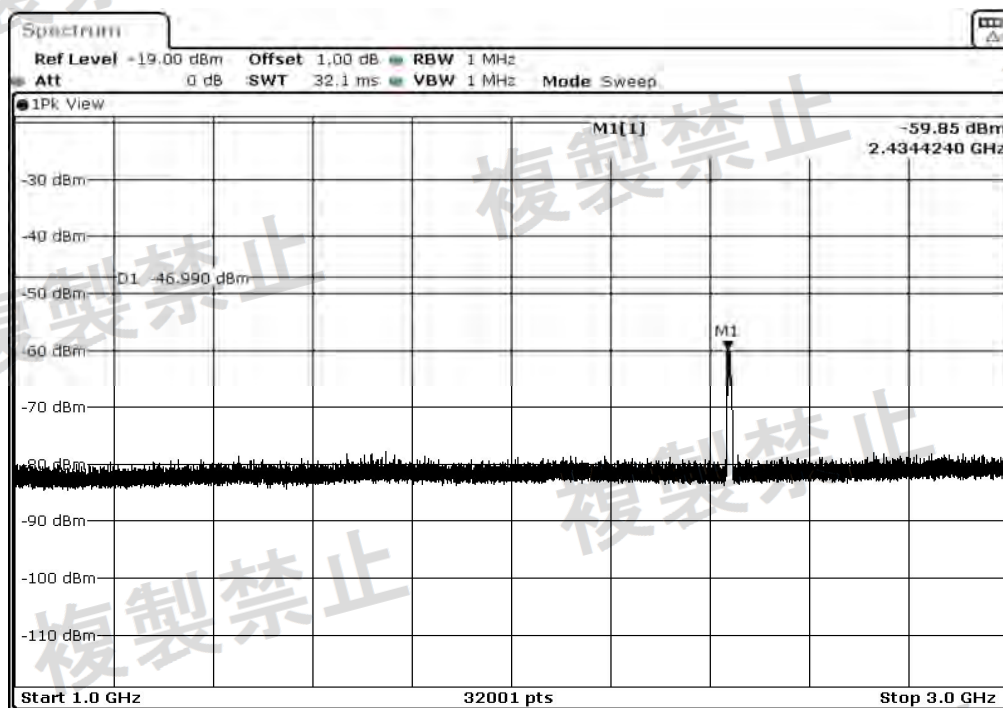
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.78	-54 (4nW)
		1000 – 3000	-59.85	-47 (20nW)
		3000 – 16000	-72.71	-47 (20nW)
		16000 – 26000	-74.52	-47 (20nW)

30 – 1000MHz



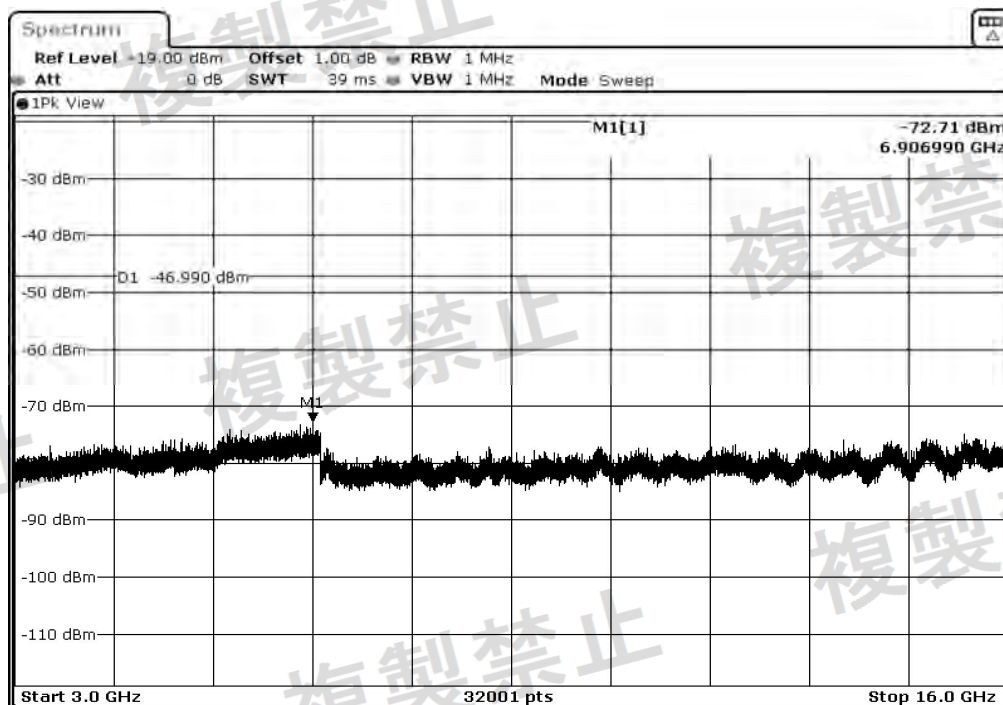
Date: 12.APR.2021 12:42:07

1000 – 3000MHz



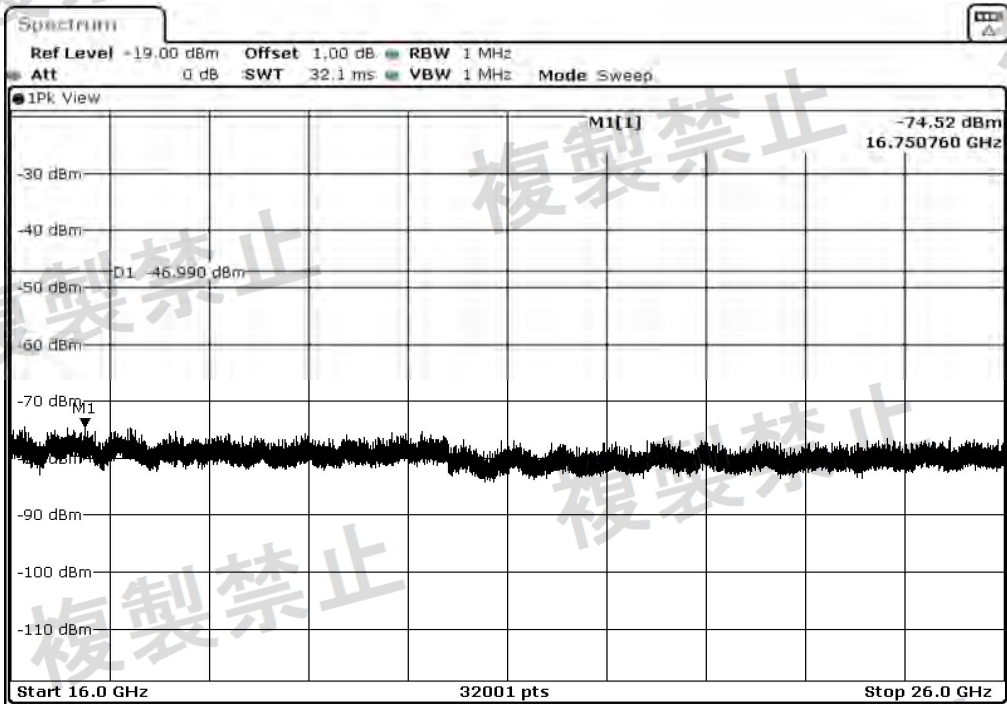
Date: 12.APR.2021 12:42:30

3000 – 16000MHz



Date: 12.APR.2021 12:42:52

16000 – 26000MHz



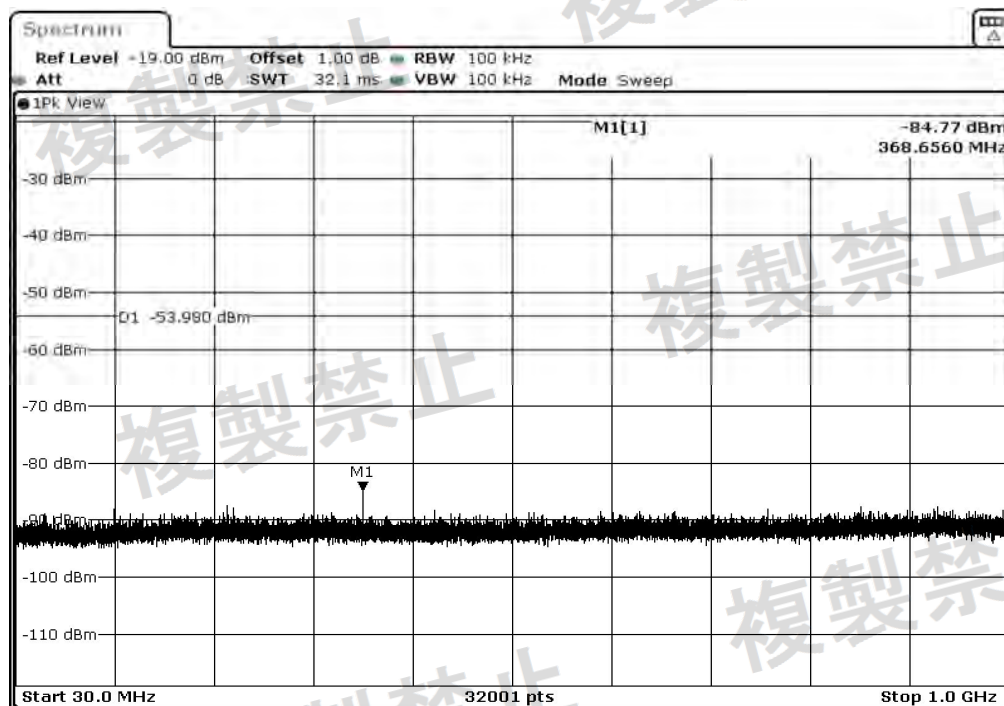
Date: 12.APR.2021 12:43:15

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W53 (5310MHz)

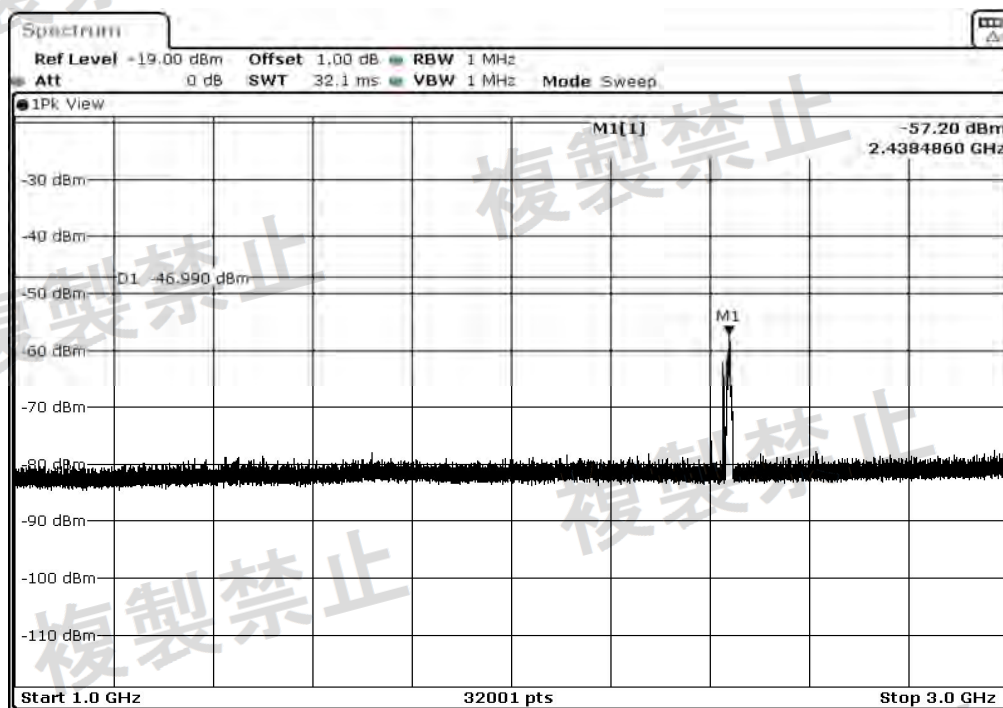
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.77	-54 (4nW)
		1000 – 3000	-57.20	-47 (20nW)
		3000 – 16000	-72.09	-47 (20nW)
		16000 – 26000	-74.61	-47 (20nW)

30 – 1000MHz



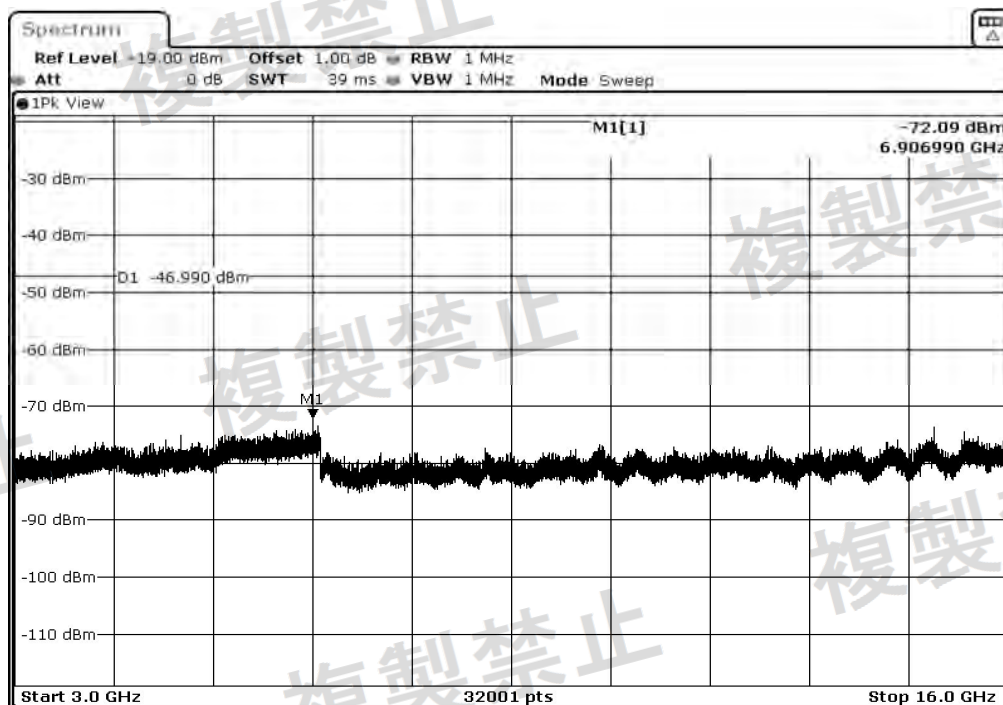
Date: 12.APR.2021 12:43:49

1000 – 3000MHz



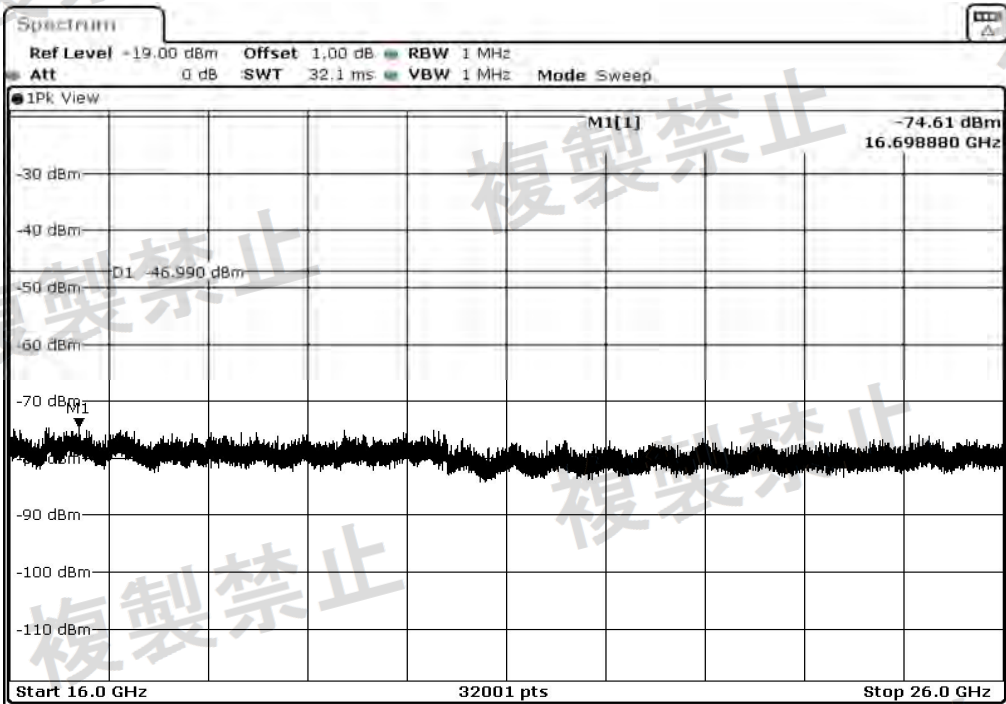
Date: 12.APR.2021 12:44:12

3000 – 16000MHz



Date: 12.APR.2021 12:44:34

16000 – 26000MHz



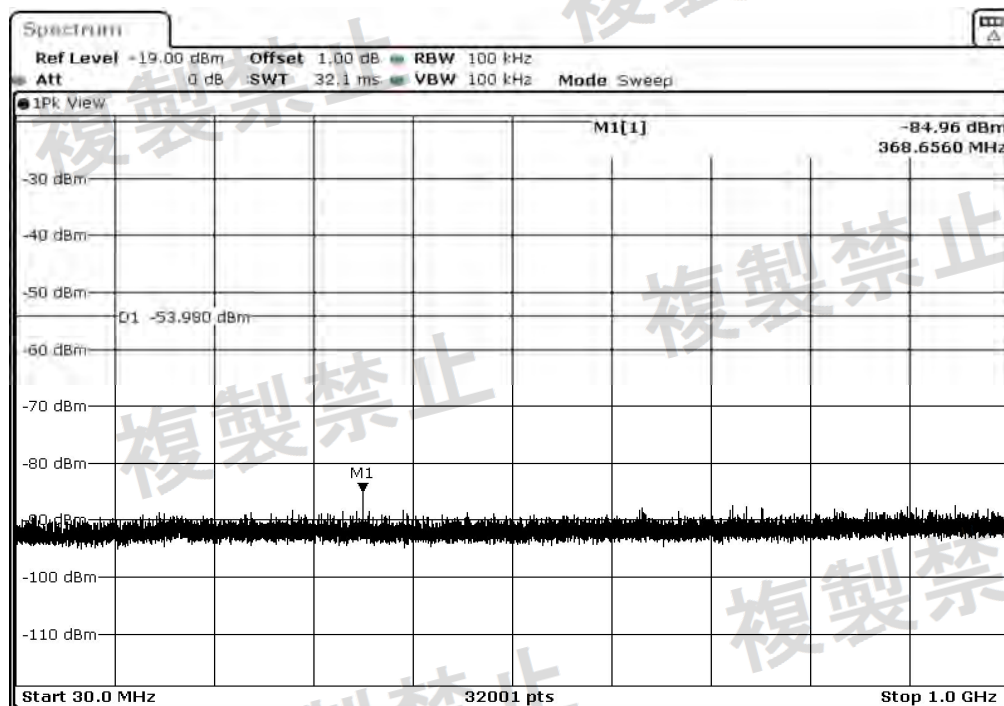
Date: 12.APR.2021 12:44:56

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5510MHz)

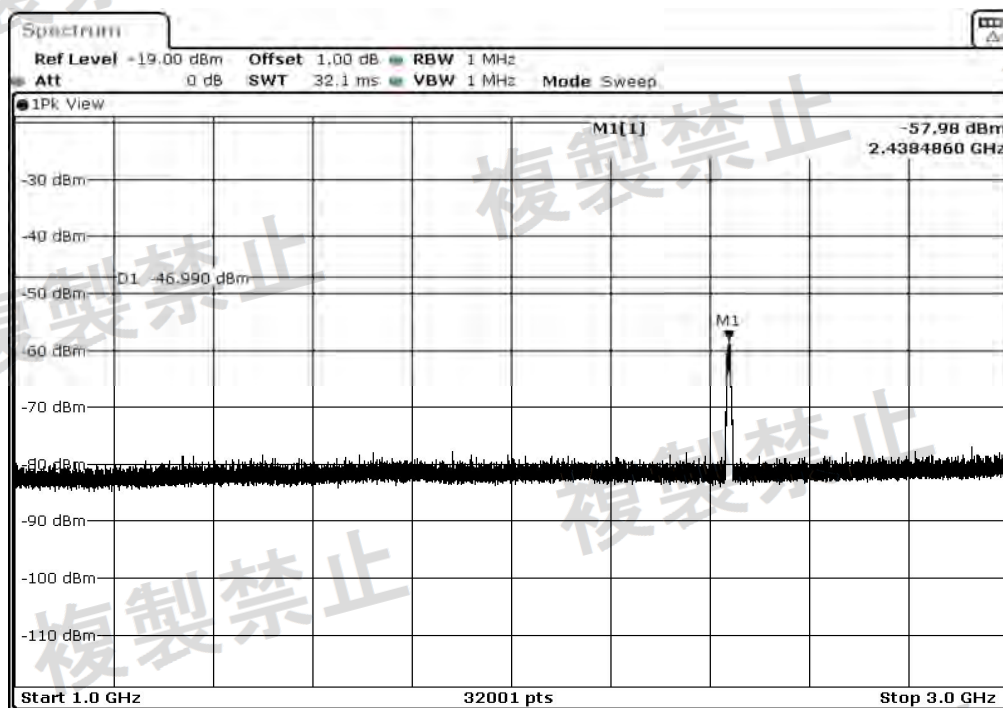
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.96	-54 (4nW)
		1000 – 3000	-57.98	-47 (20nW)
		3000 – 16000	-71.94	-47 (20nW)
		16000 – 26000	-73.92	-47 (20nW)

30 – 1000MHz



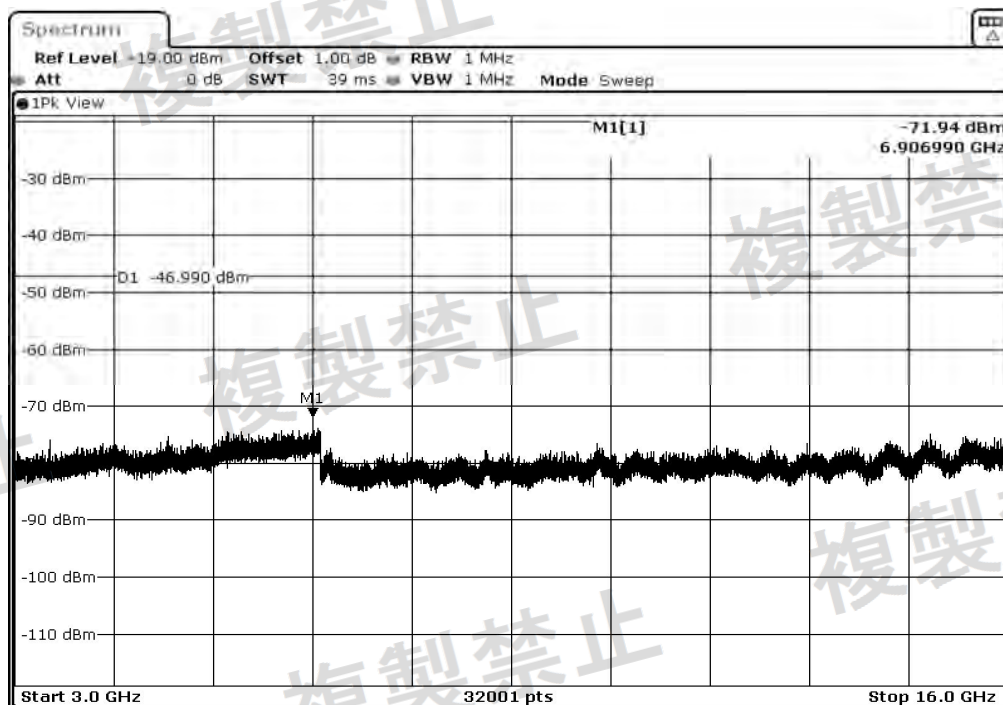
Date: 12.APR.2021 12:45:27

1000 – 3000MHz



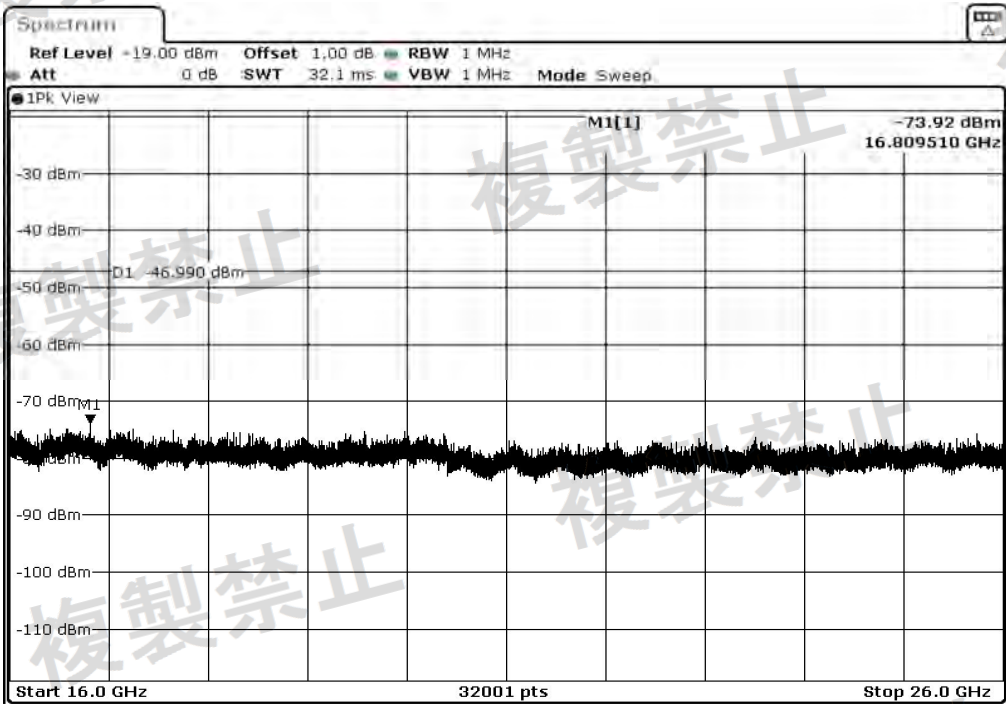
Date: 12.APR.2021 12:45:50

3000 – 16000MHz



Date: 12.APR.2021 12:46:12

16000 – 26000MHz



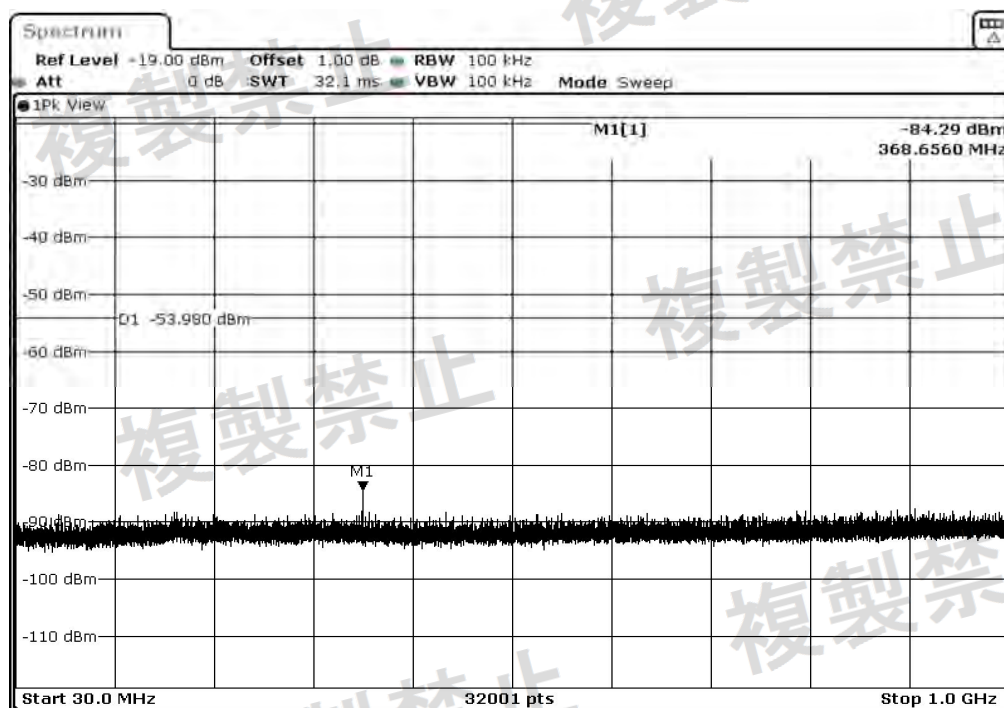
Date: 12.APR.2021 12:46:35

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5590MHz)

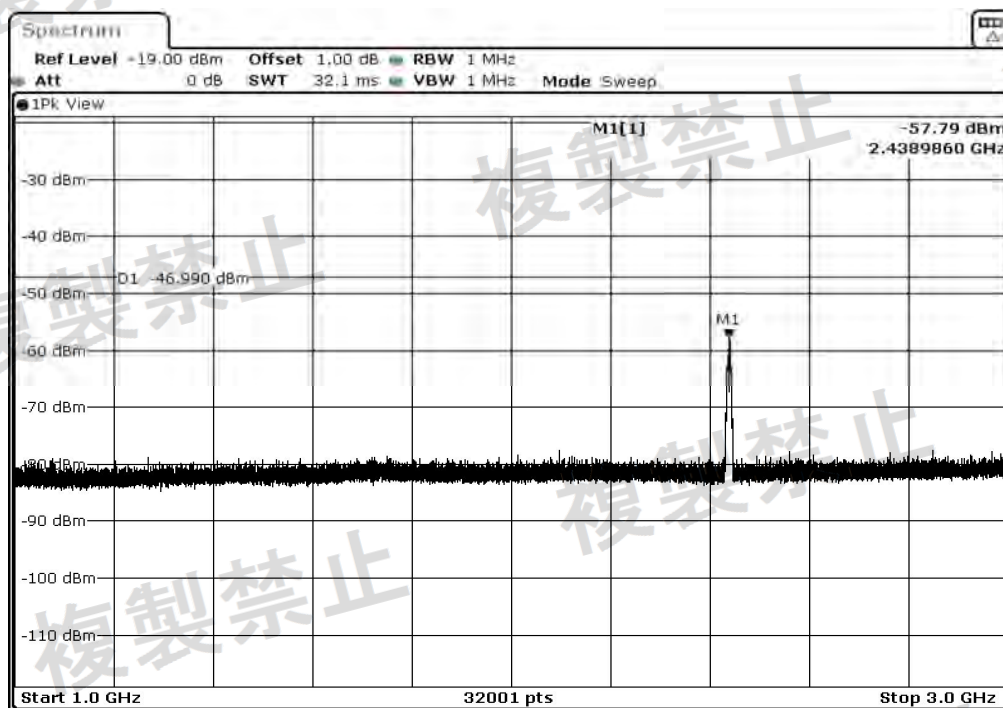
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.29	-54 (4nW)
		1000 – 3000	-57.79	-47 (20nW)
		3000 – 16000	-72.18	-47 (20nW)
		16000 – 26000	-74.72	-47 (20nW)

30 – 1000MHz



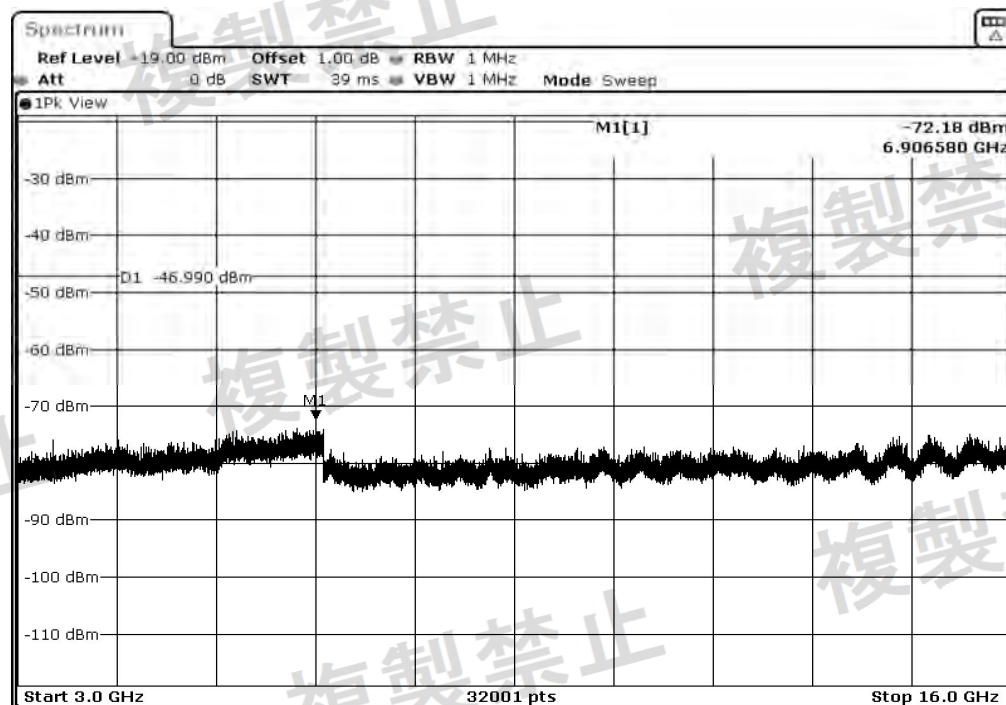
Date: 12.APR.2021 12:47:03

1000 – 3000MHz



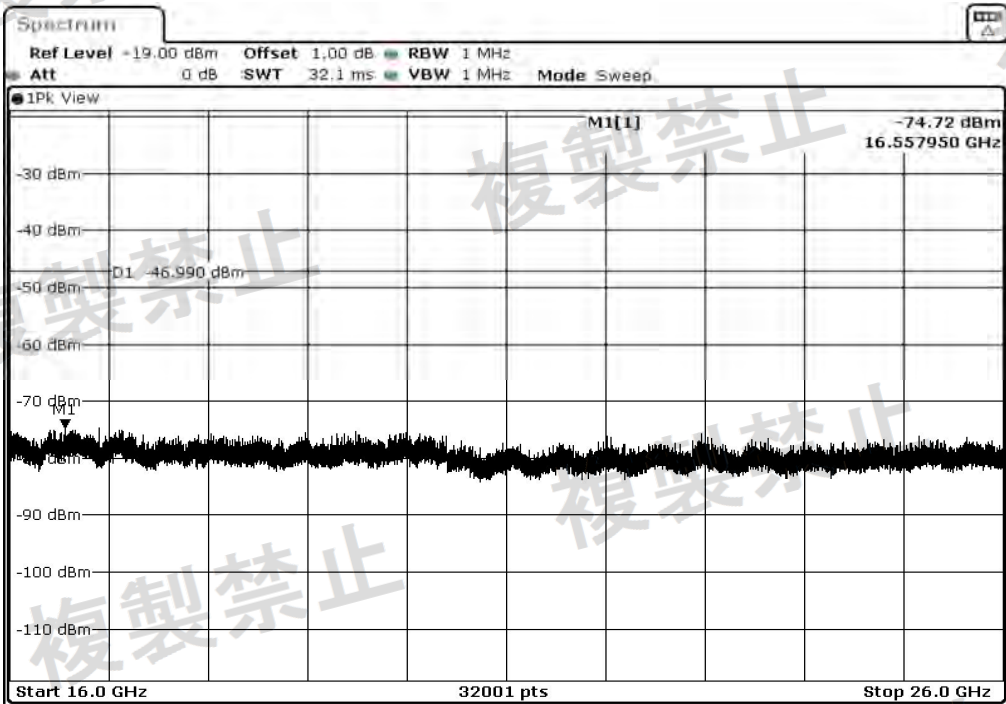
Date: 12.APR.2021 12:47:25

3000 – 16000MHz



Date: 12.APR.2021 12:47:48

16000 – 26000MHz



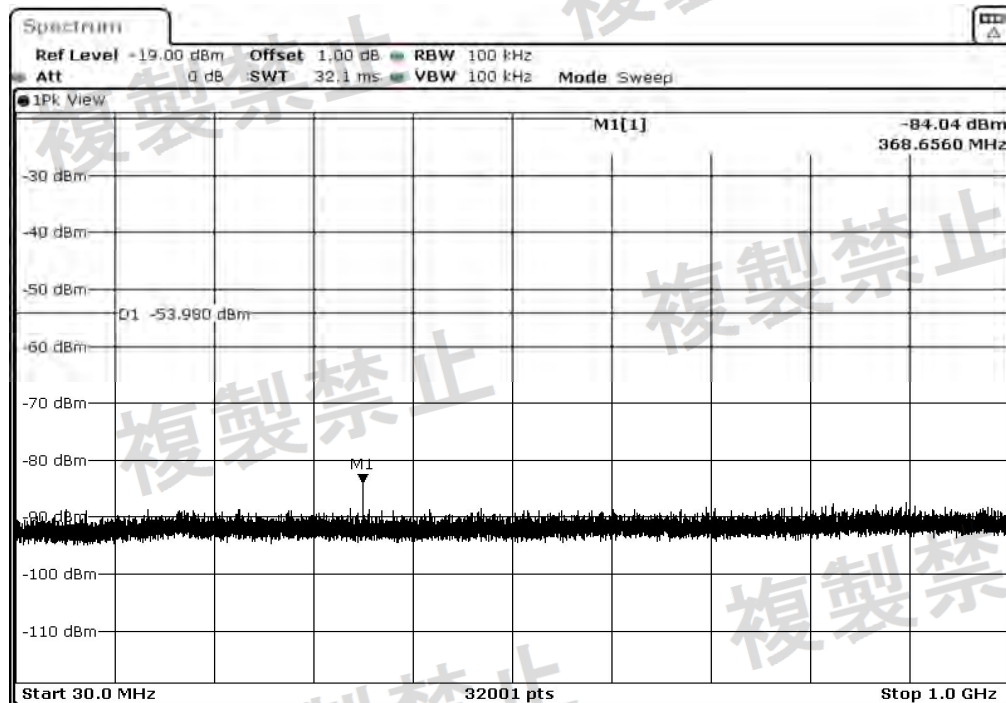
Date: 12.APR.2021 12:48:11

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5670MHz)

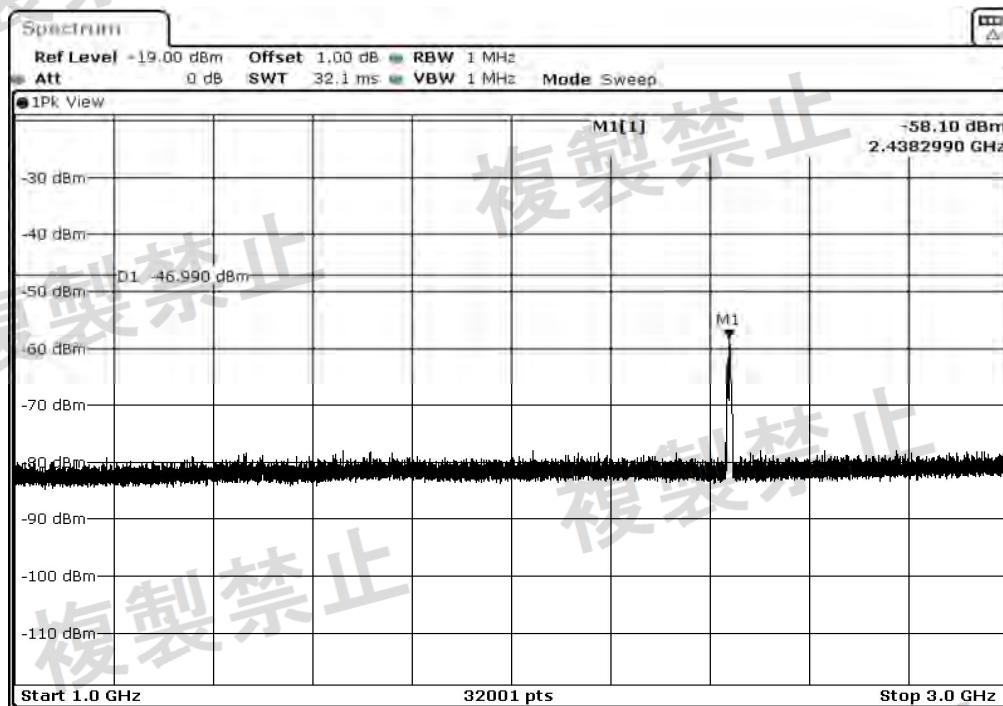
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.04	-54 (4nW)
		1000 – 3000	-58.10	-47 (20nW)
		3000 – 16000	-72.99	-47 (20nW)
		16000 – 26000	-74.60	-47 (20nW)

30 – 1000MHz



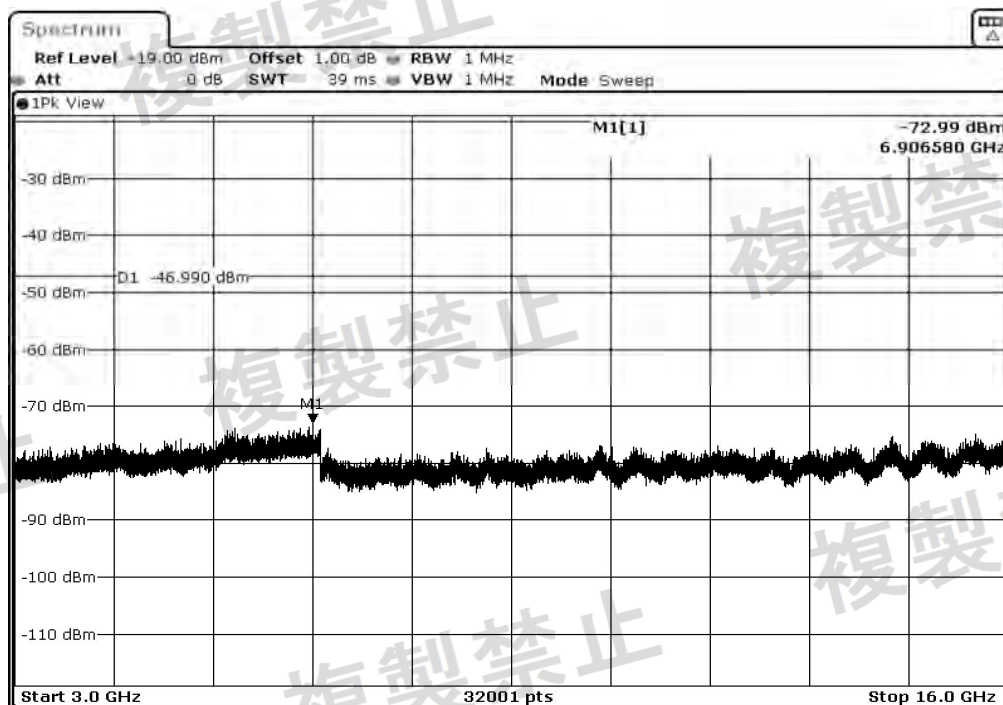
Date: 12.APR.2021 12:48:37

1000 – 3000MHz



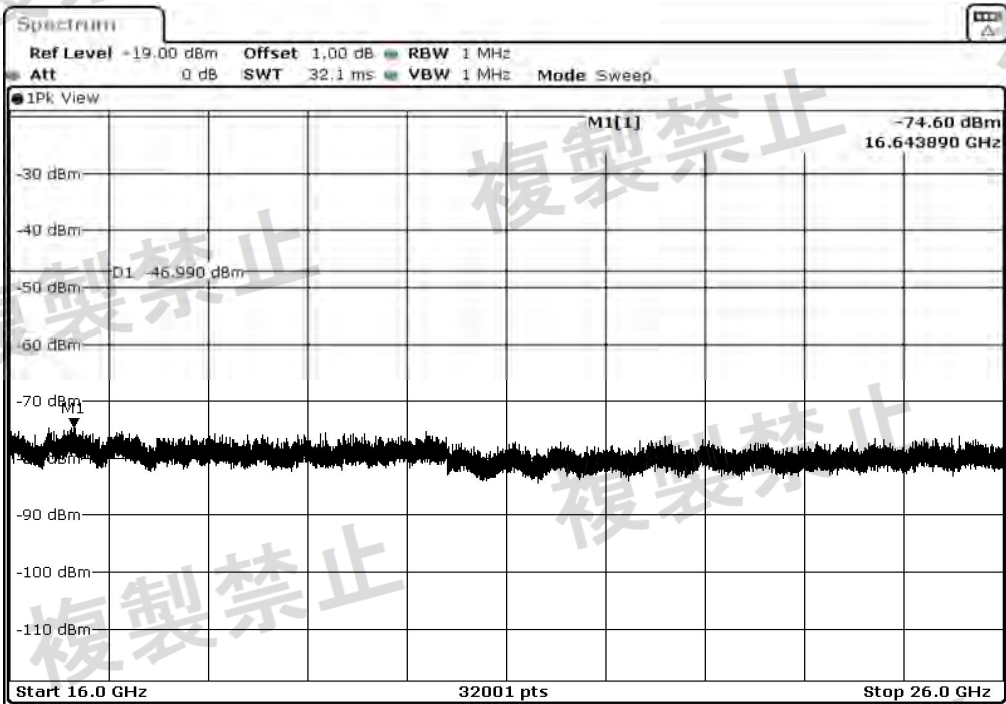
Date: 12.APR.2021 12:49:00

3000 – 16000MHz



Date: 12.APR.2021 12:49:23

16000 – 26000MHz



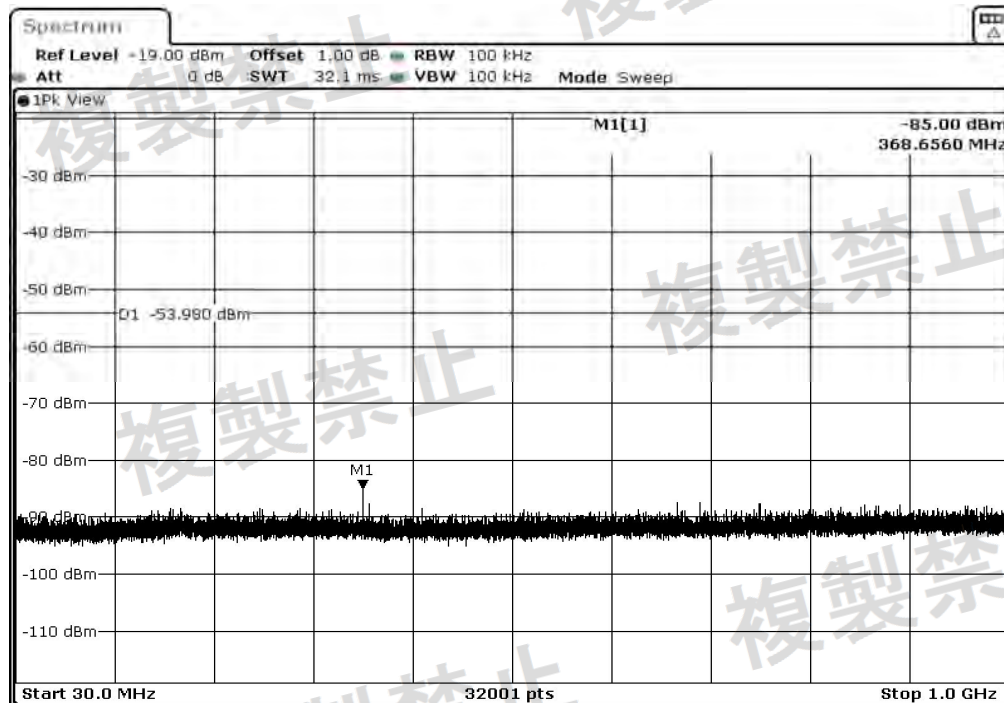
Date: 12.APR.2021 12:49:45

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)_W56 (5710MHz)

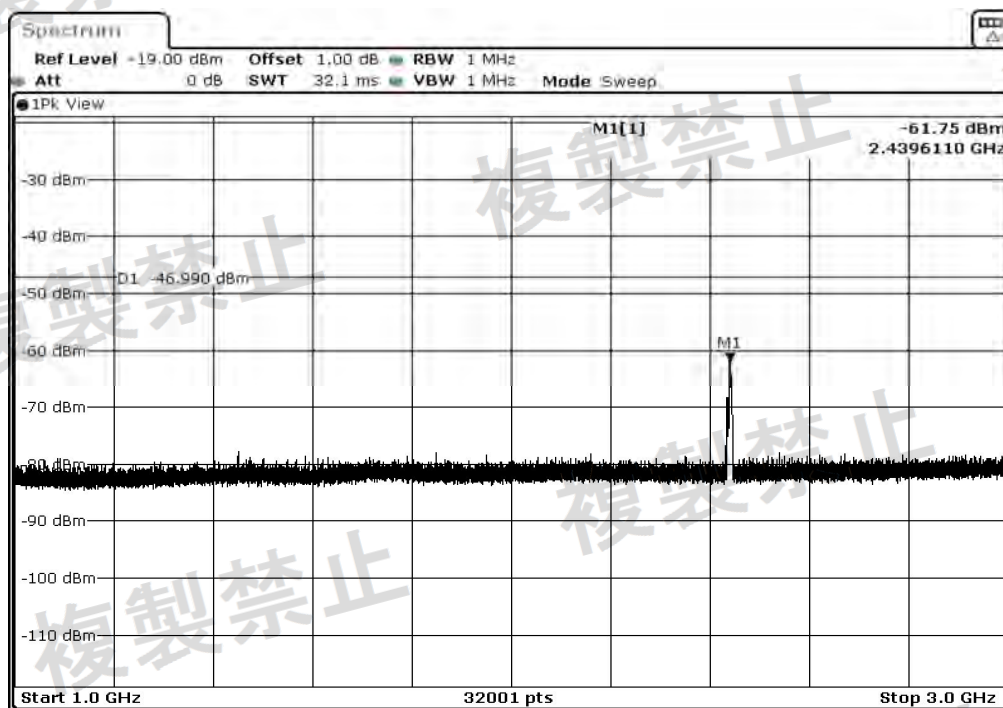
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.00	-54 (4nW)
		1000 – 3000	-61.75	-47 (20nW)
		3000 – 16000	-71.98	-47 (20nW)
		16000 – 26000	-74.48	-47 (20nW)

30 – 1000MHz



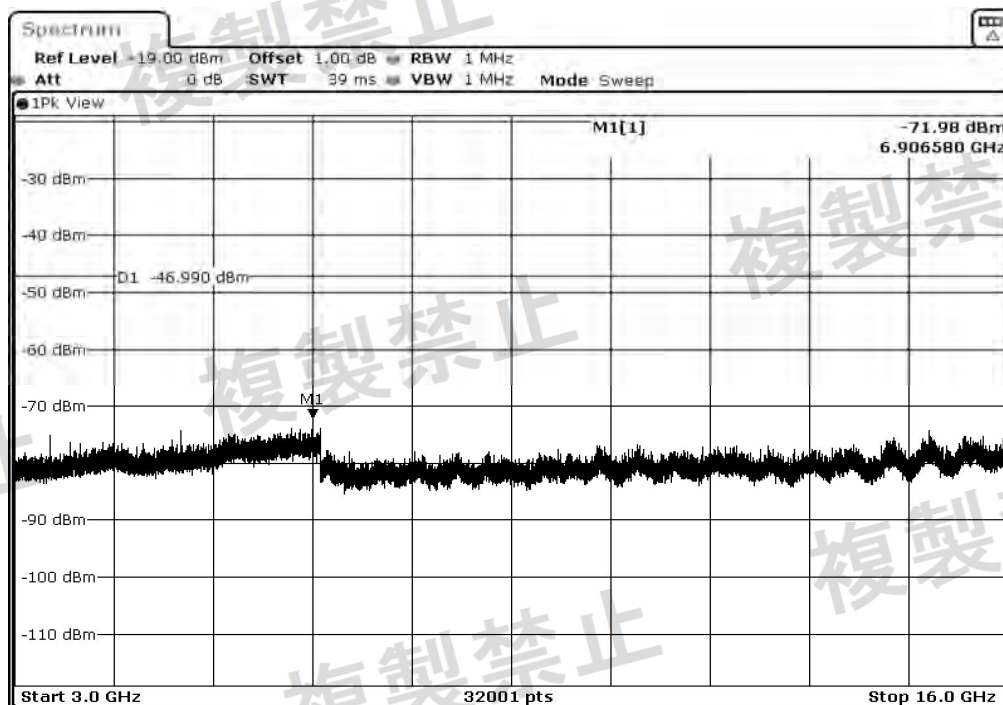
Date: 12.APR.2021 12:50:12

1000 – 3000MHz



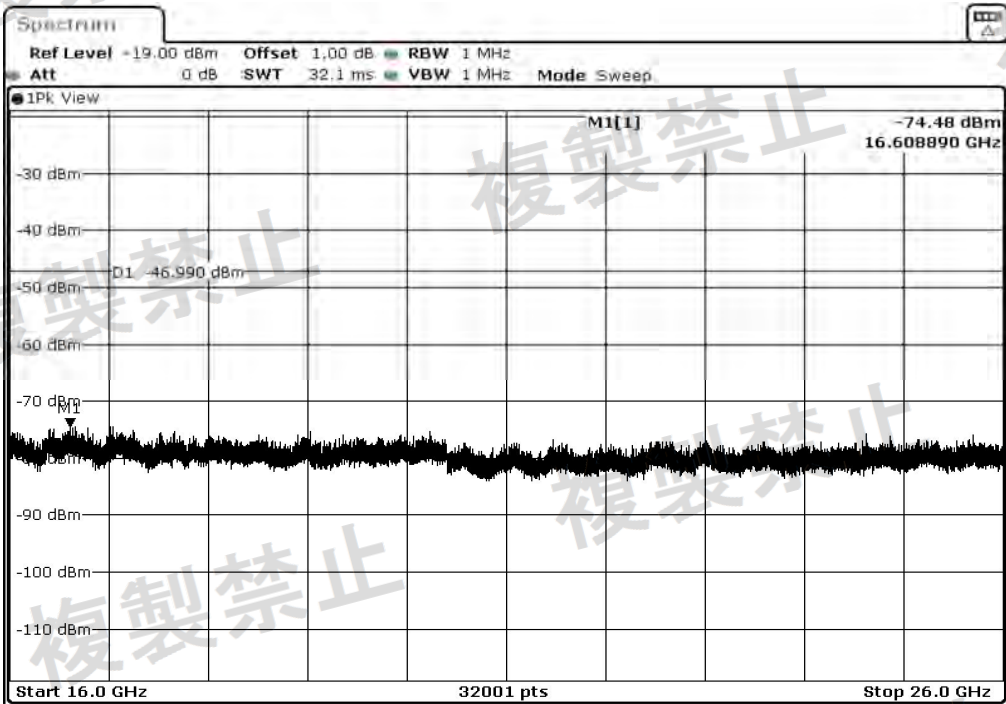
Date: 12.APR.2021 12:50:34

3000 – 16000MHz



Date: 12.APR.2021 12:50:59

16000 – 26000MHz



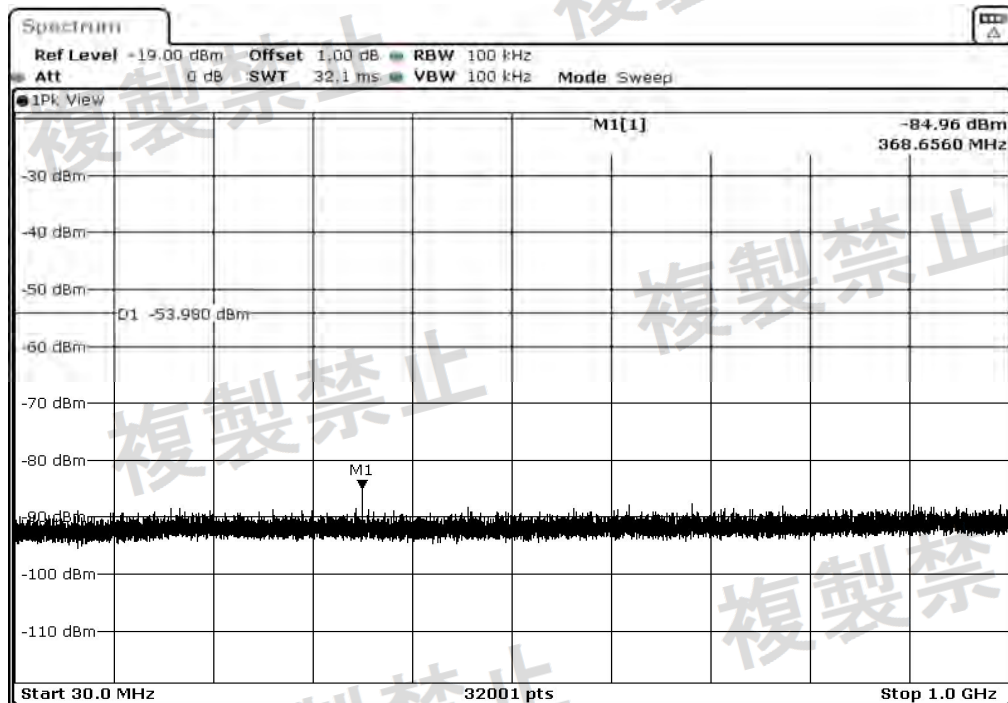
Date: 12.APR.2021 12:51:21

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W52 (5210MHz)

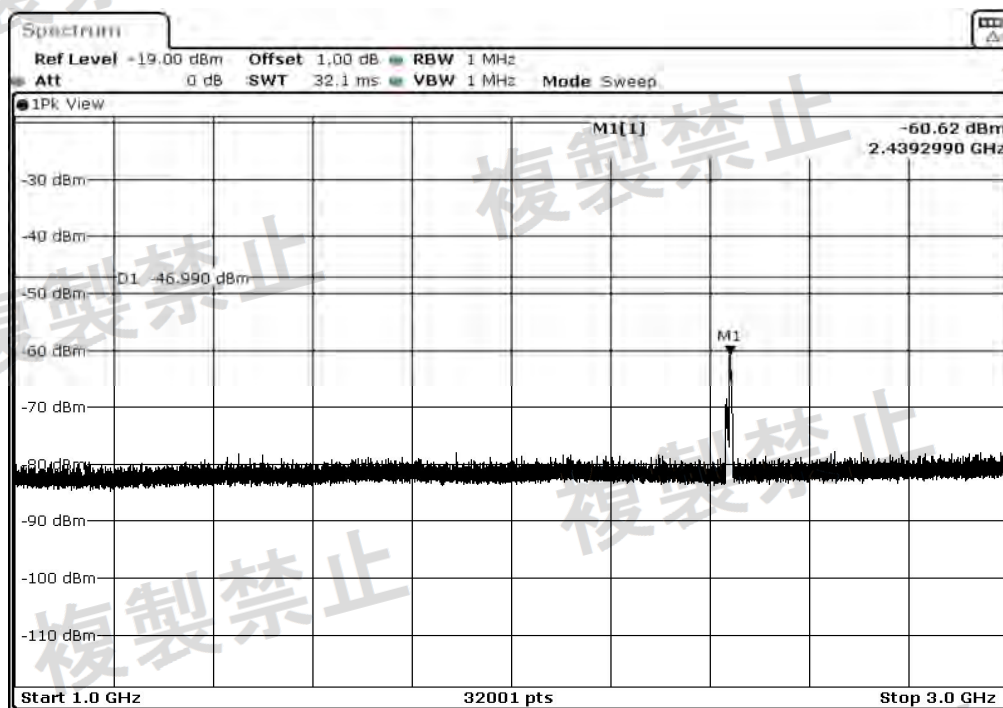
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.96	-54 (4nW)
		1000 – 3000	-60.62	-47 (20nW)
		3000 – 16000	-72.67	-47 (20nW)
		16000 – 26000	-74.45	-47 (20nW)

30 – 1000MHz



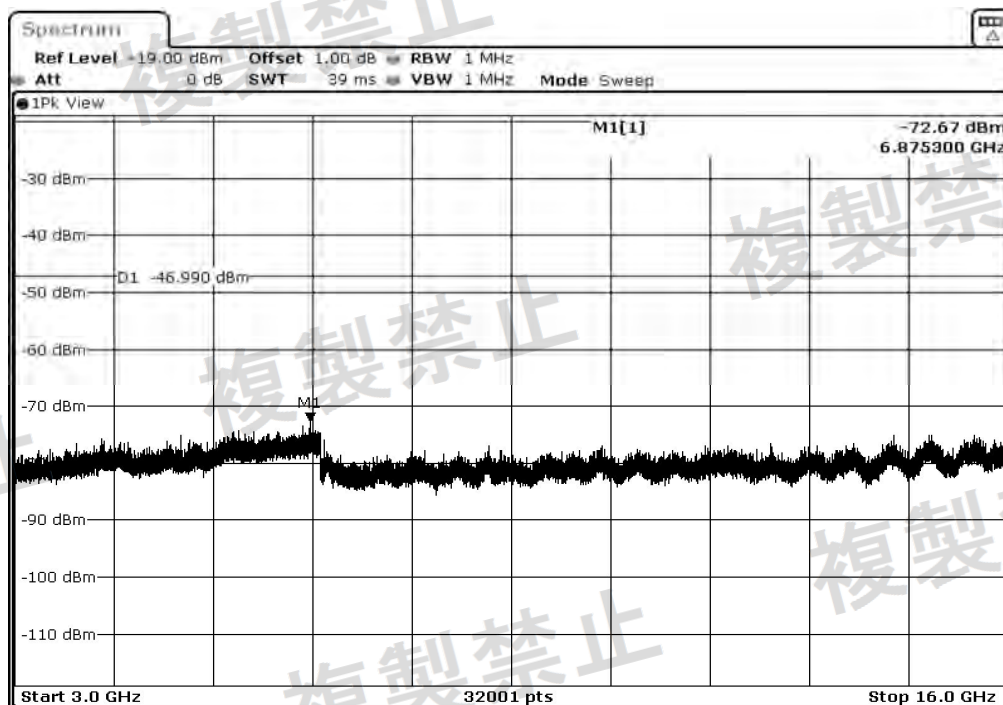
Date: 12.APR.2021 12:51:47

1000 – 3000MHz



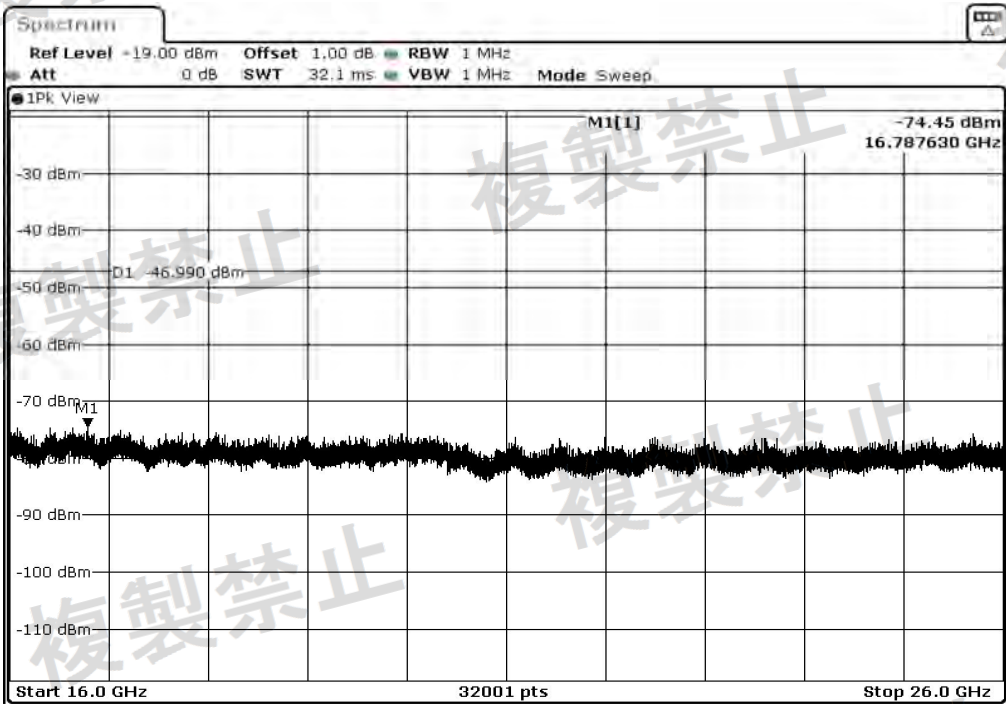
Date: 12.APR.2021 12:52:10

3000 – 16000MHz



Date: 12.APR.2021 12:52:32

16000 – 26000MHz



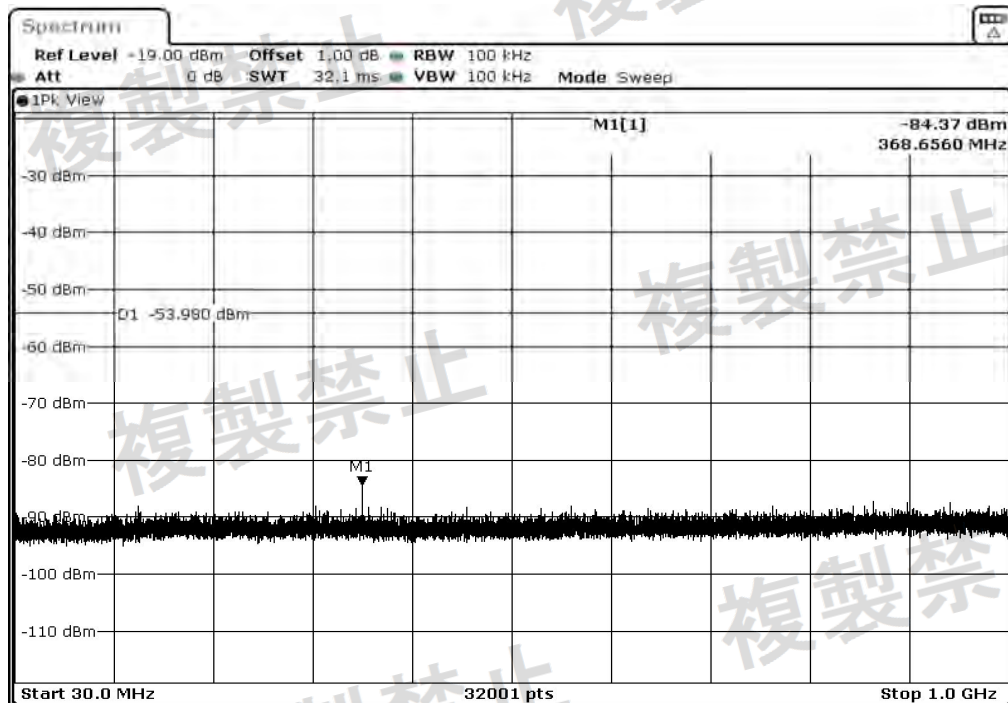
Date: 12.APR.2021 12:52:55

Test Result	PASS
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Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W53 (5290MHz)

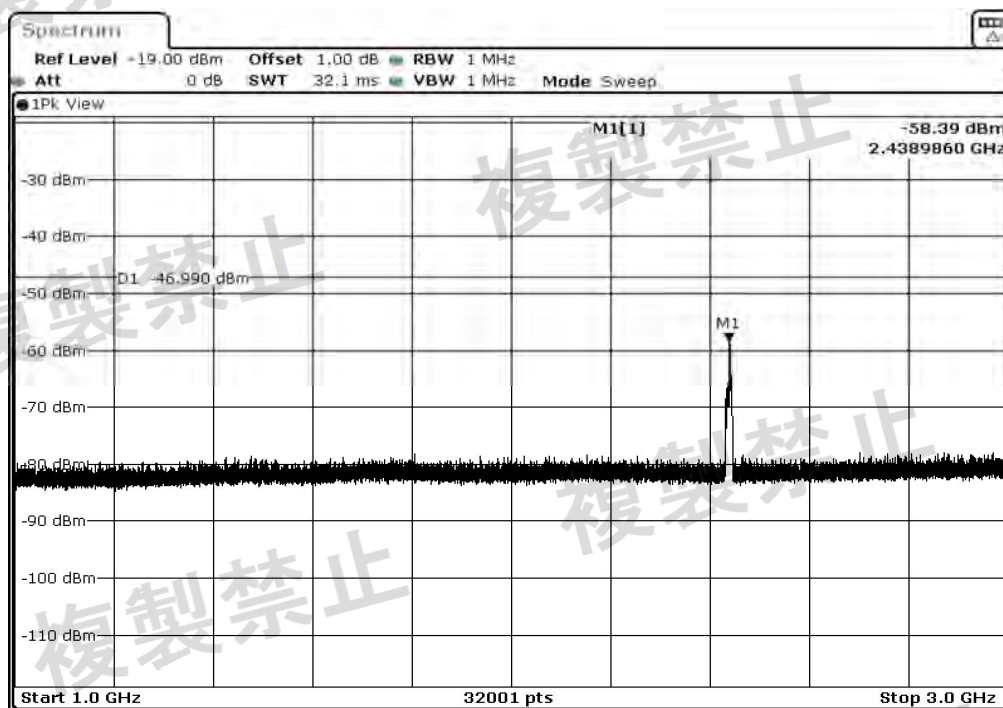
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.37	-54 (4nW)
		1000 – 3000	-58.39	-47 (20nW)
		3000 – 16000	-72.68	-47 (20nW)
		16000 – 26000	-74.28	-47 (20nW)

30 – 1000MHz



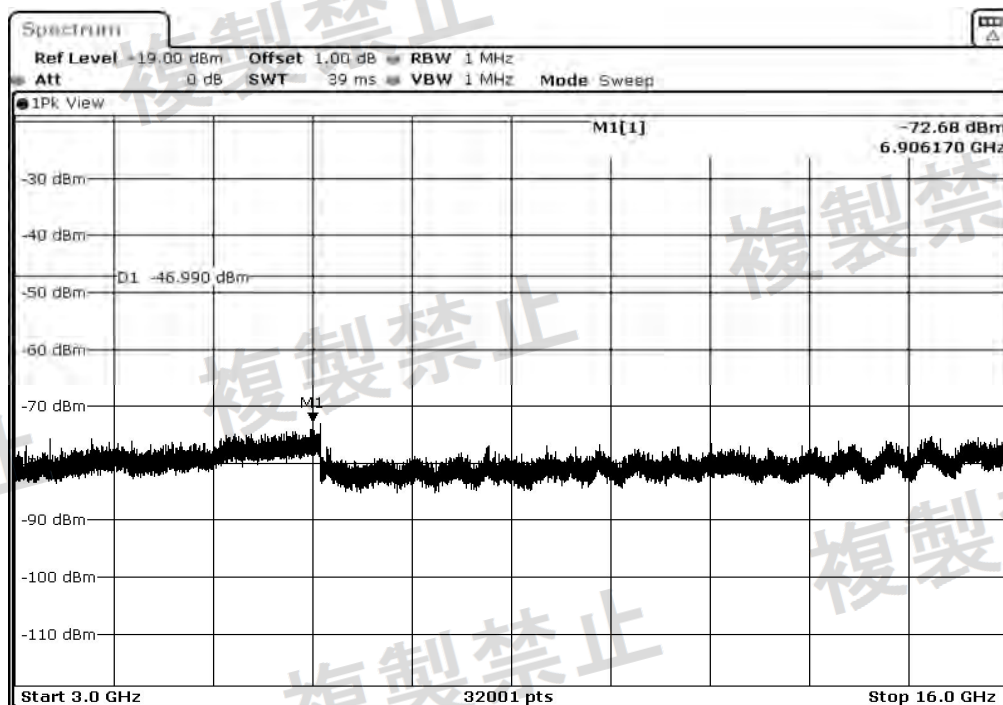
Date: 12.APR.2021 12:53:23

1000 – 3000MHz



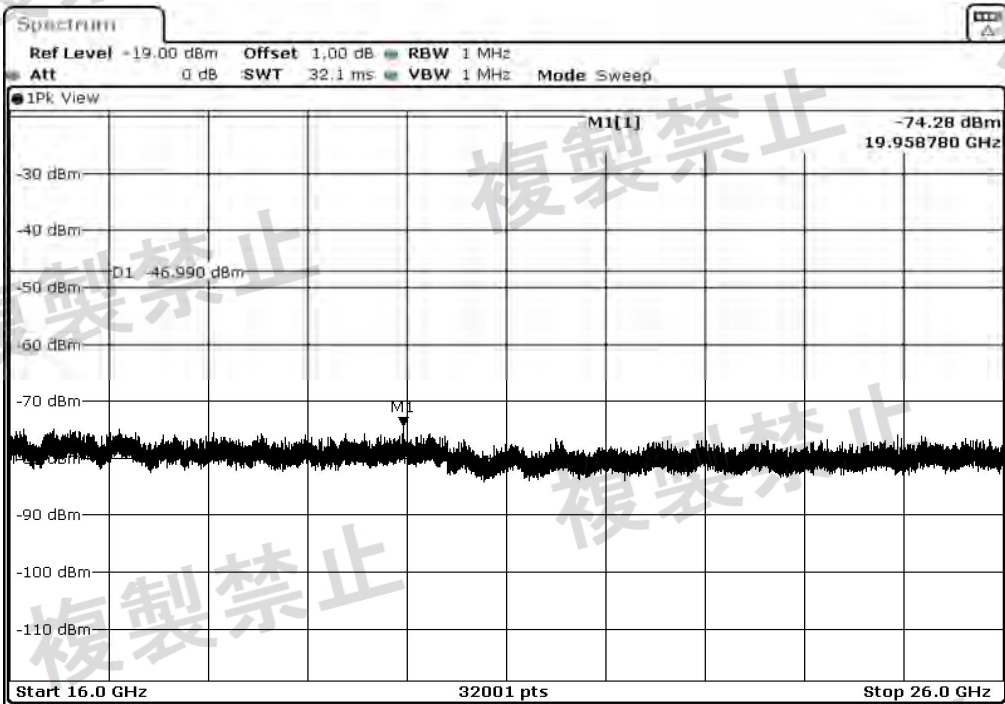
Date: 12.APR.2021 12:53:45

3000 – 16000MHz



Date: 12.APR.2021 12:54:08

16000 – 26000MHz



Date: 12.APR.2021 12:54:30

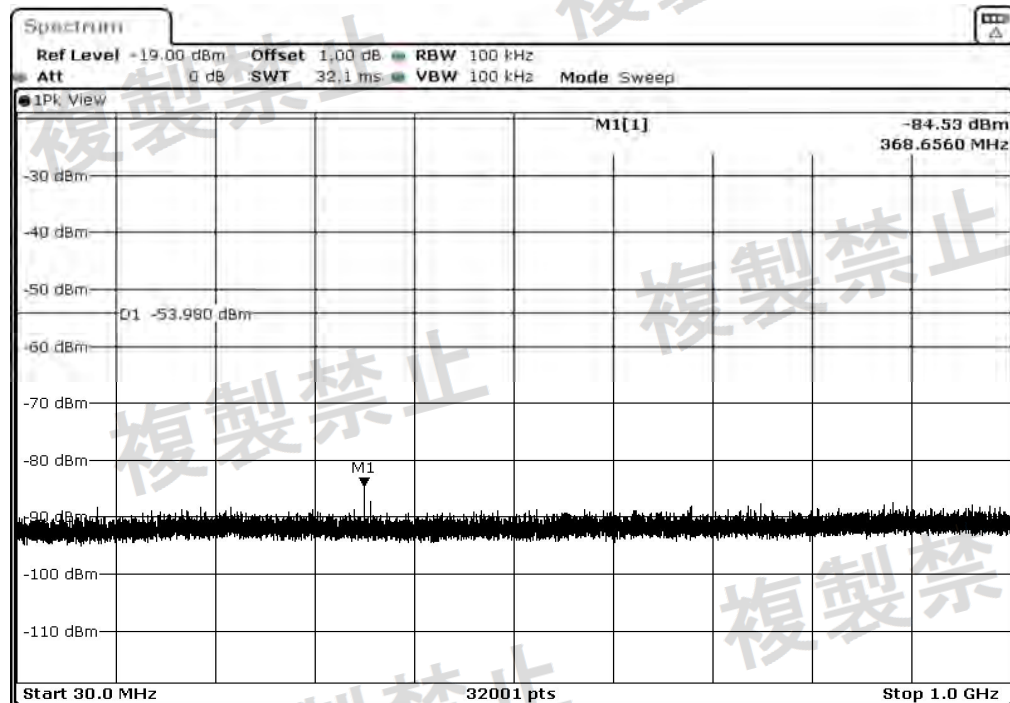
Test Result

PASS

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5530MHz)

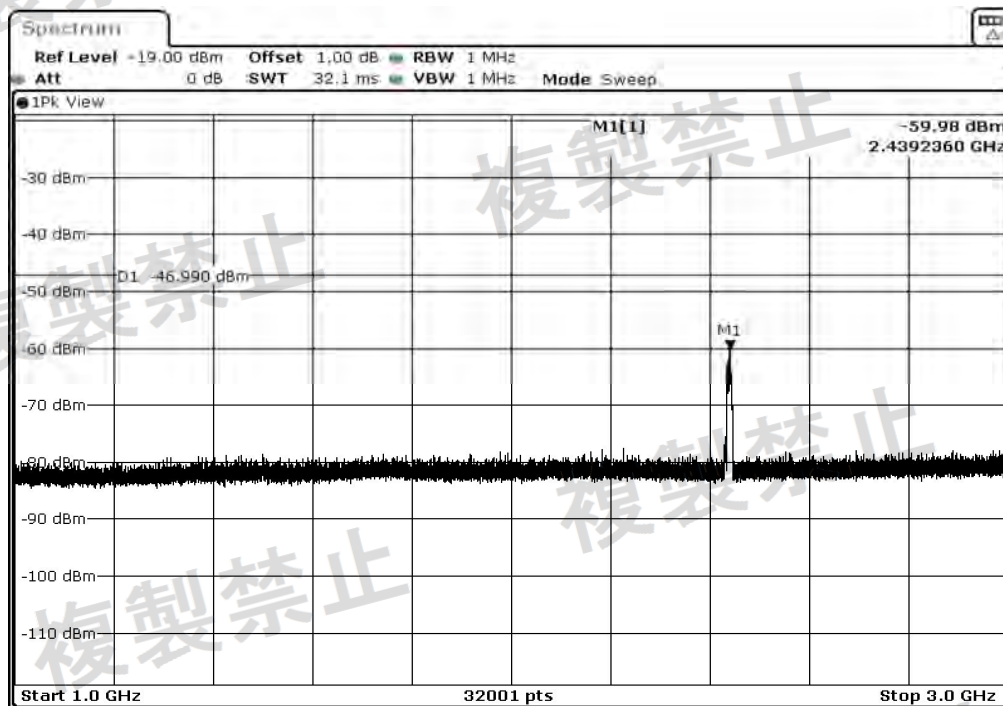
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.53	-54 (4nW)
		1000 – 3000	-59.98	-47 (20nW)
		3000 – 16000	-71.93	-47 (20nW)
		16000 – 26000	-74.15	-47 (20nW)

30 – 1000MHz



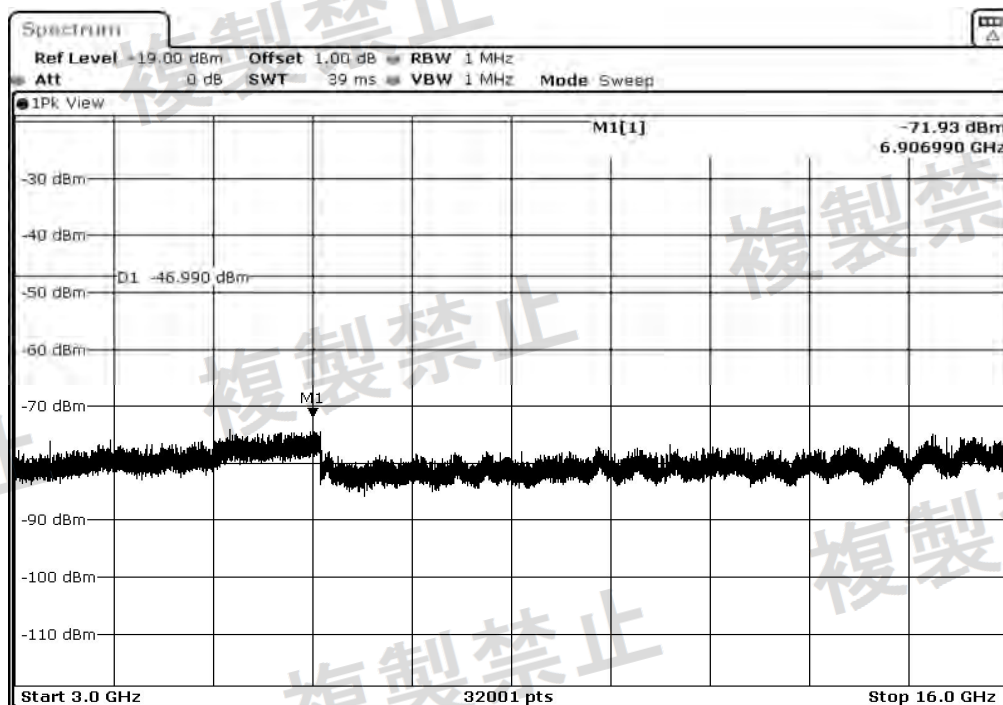
Date: 12.APR.2021 12:55:38

1000 – 3000MHz



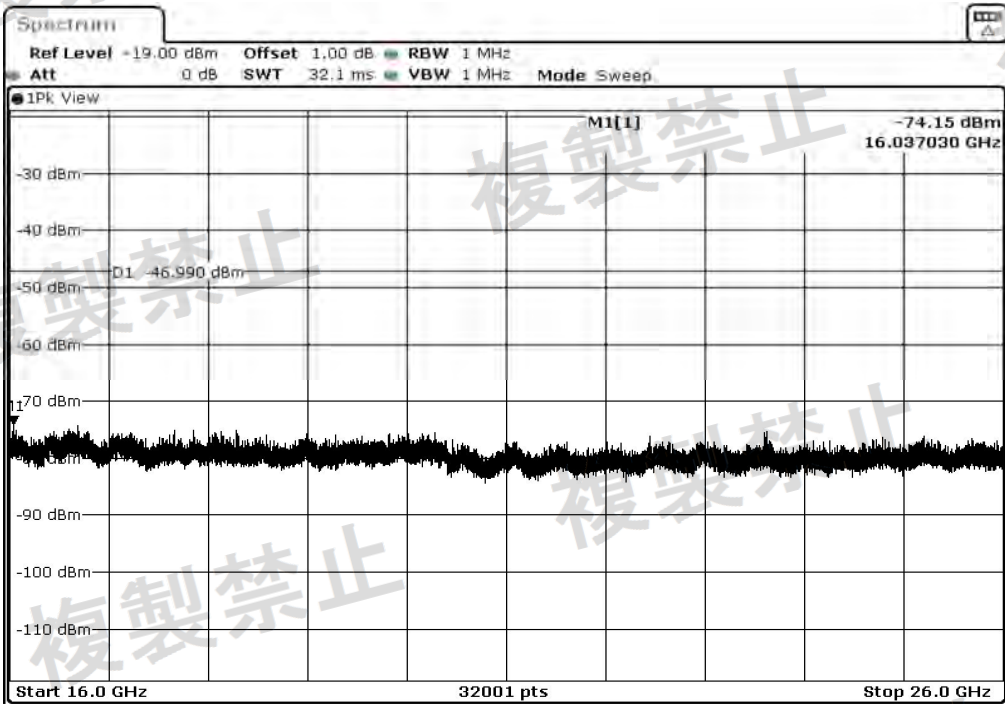
Date: 12.APR.2021 12:55:59

3000 – 16000MHz



Date: 12.APR.2021 12:56:22

16000 – 26000MHz



Date: 12.APR.2021 12:56:44

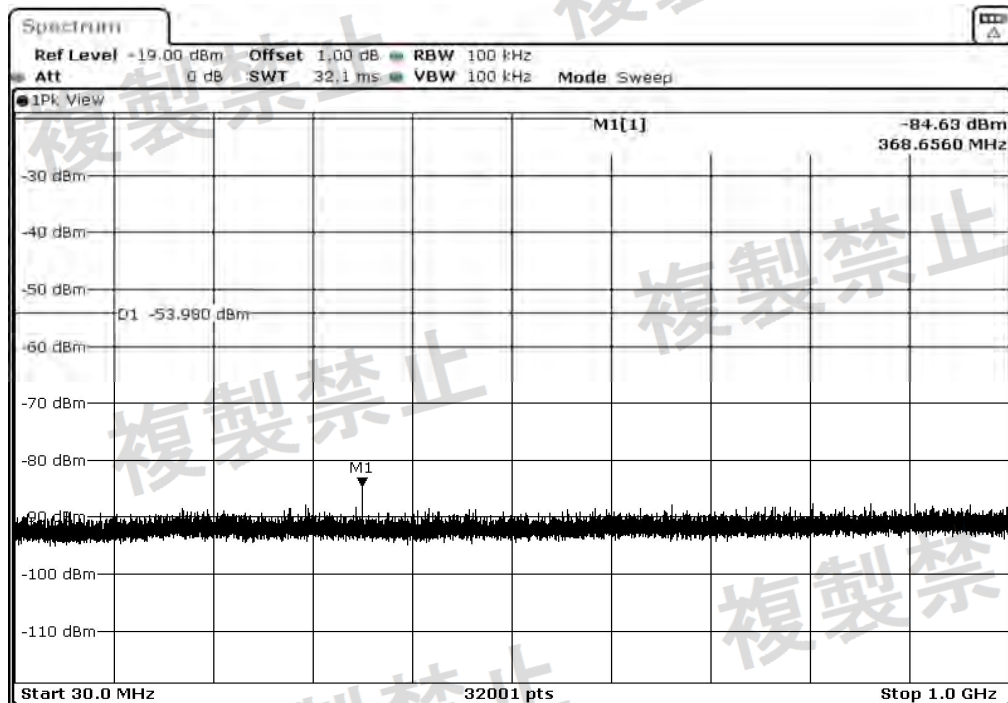
Test Result

PASS

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5610MHz)

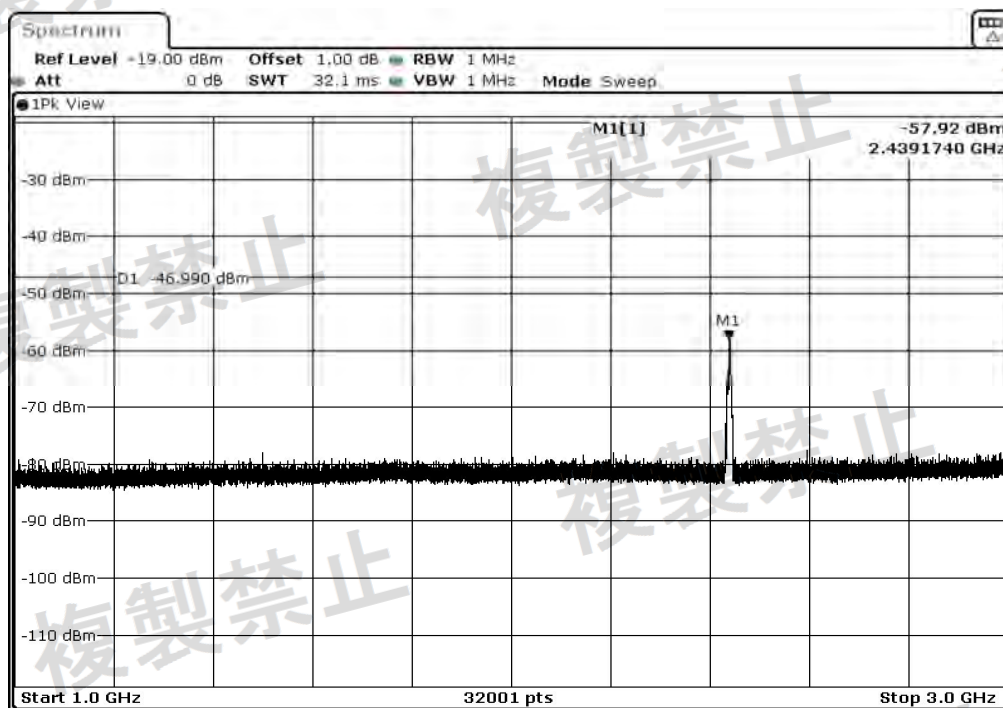
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-84.63	-54 (4nW)
		1000 – 3000	-57.92	-47 (20nW)
		3000 – 16000	-72.54	-47 (20nW)
		16000 – 26000	-74.60	-47 (20nW)

30 – 1000MHz



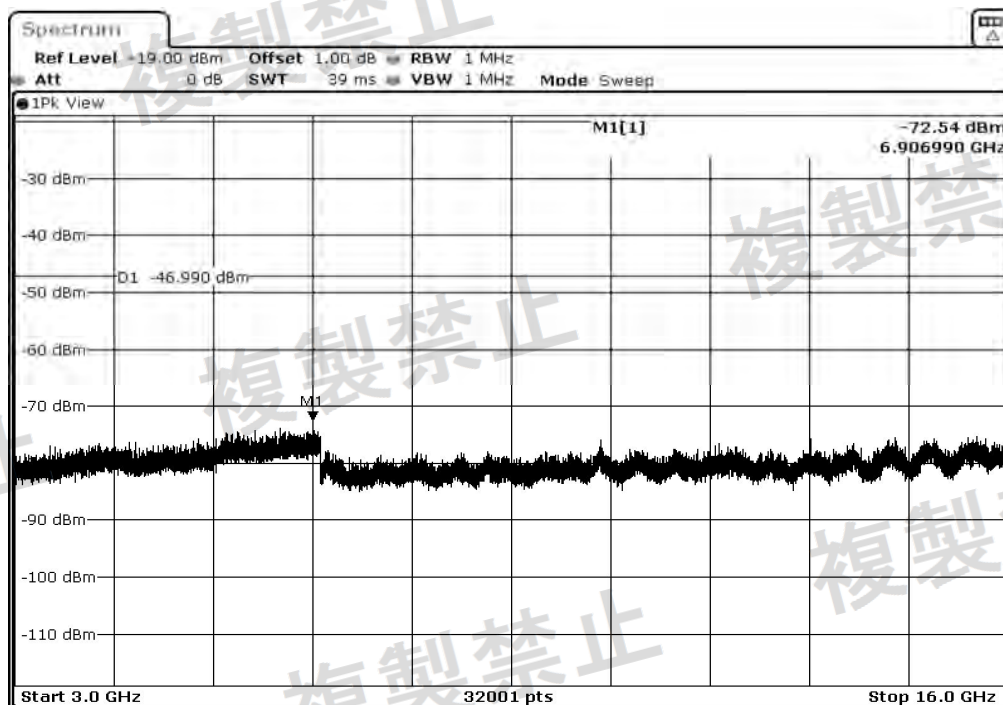
Date: 12.APR.2021 12:57:32

1000 – 3000MHz



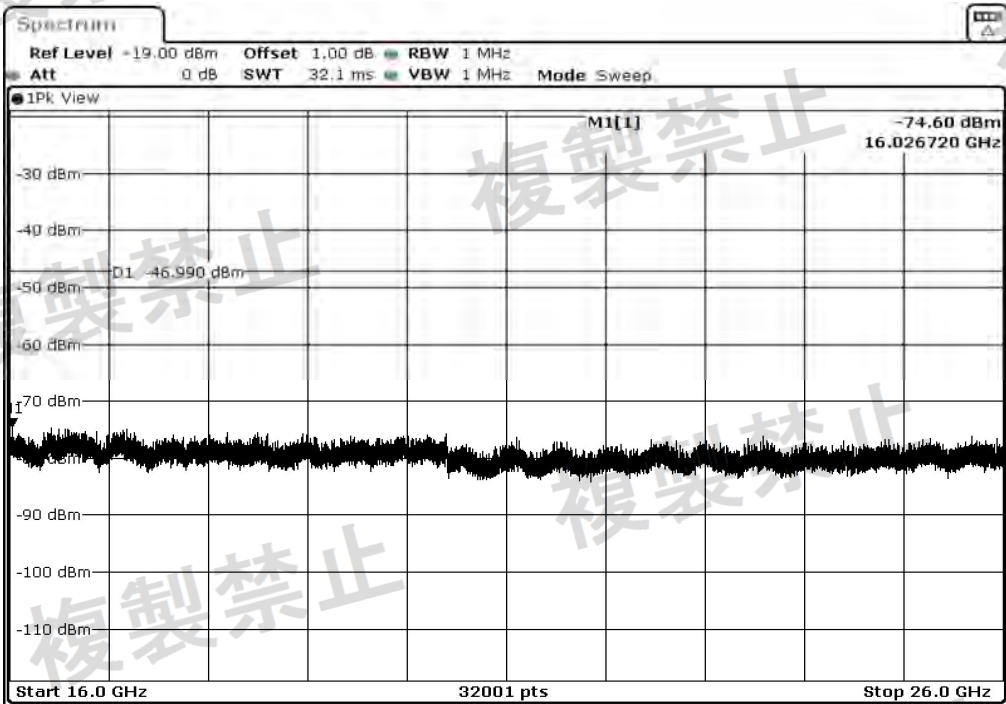
Date: 12.APR.2021 12:57:54

3000 – 16000MHz



Date: 12.APR.2021 12:58:16

16000 – 26000MHz



Date: 12.APR.2021 12:58:39

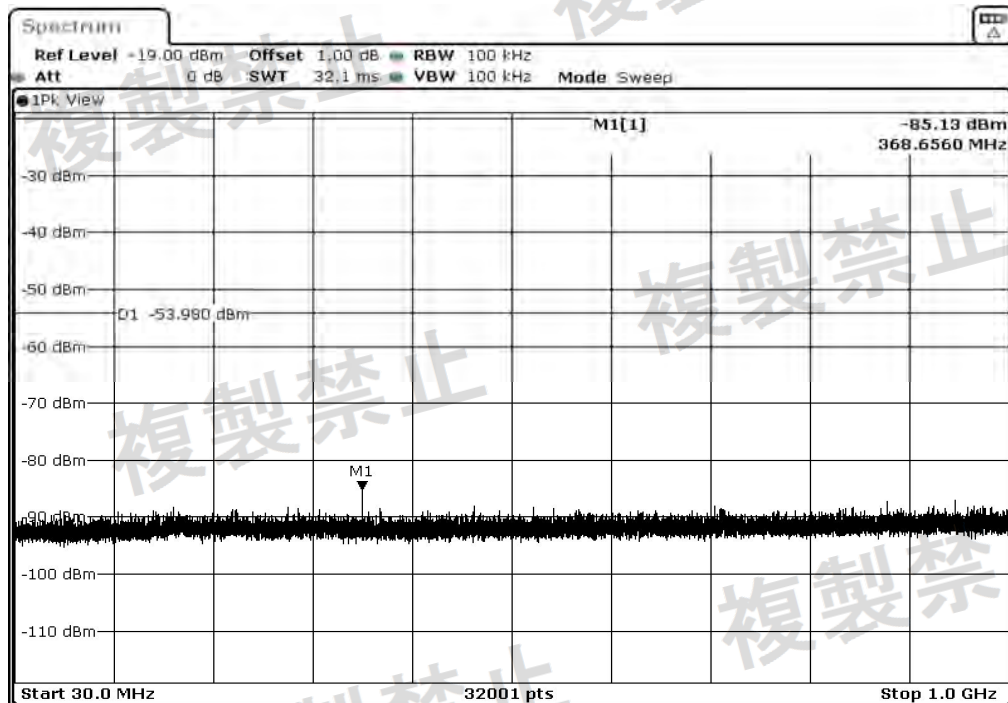
Test Result

PASS

Product : Wireless speaker
 Test Item : Receiver Spurious Emissions
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)_W56 (5690MHz)

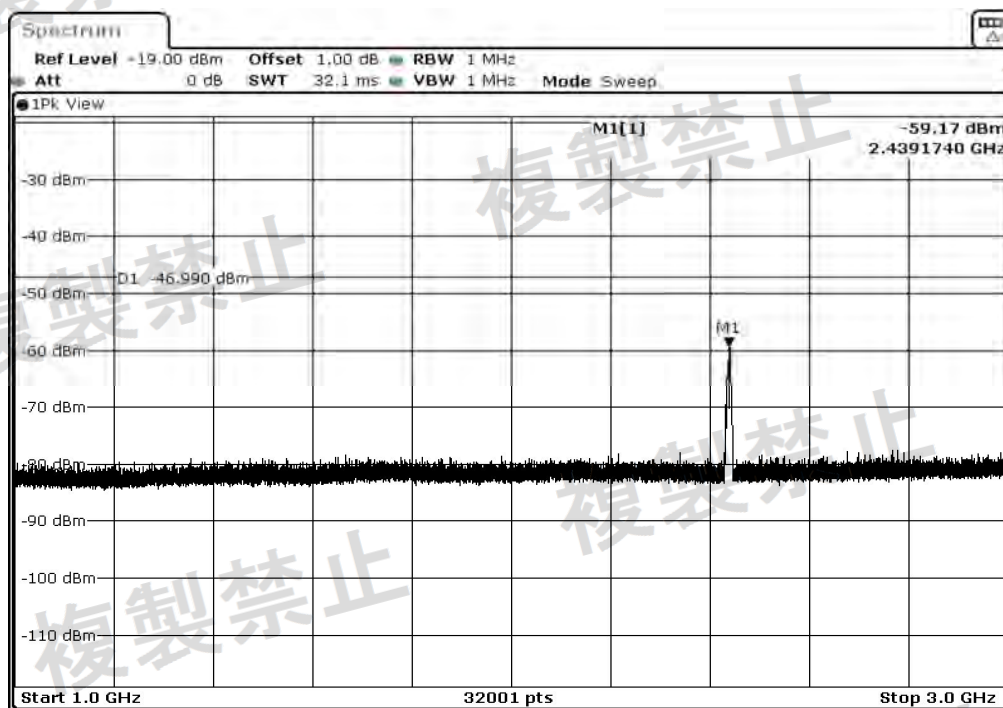
Test Conditions		Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
Tnom (25 °C)	Vnom (100 V)	30 – 1000	-85.13	-54 (4nW)
		1000 – 3000	-59.17	-47 (20nW)
		3000 – 16000	-73.47	-47 (20nW)
		16000 – 26000	-73.83	-47 (20nW)

30 – 1000MHz



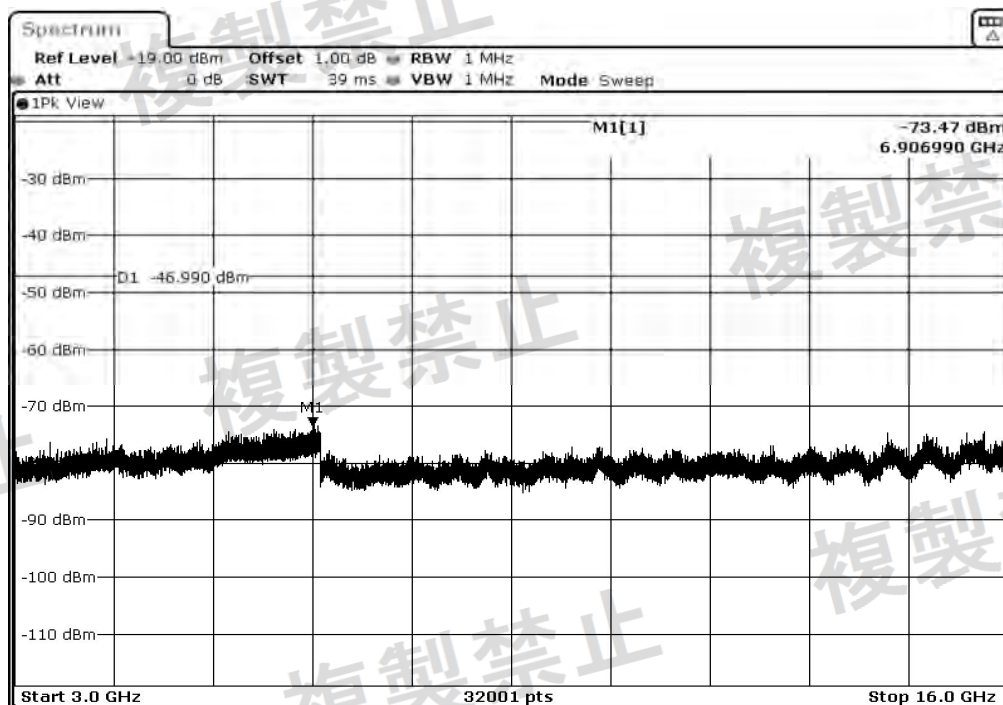
Date: 12.APR.2021 12:59:07

1000 – 3000MHz



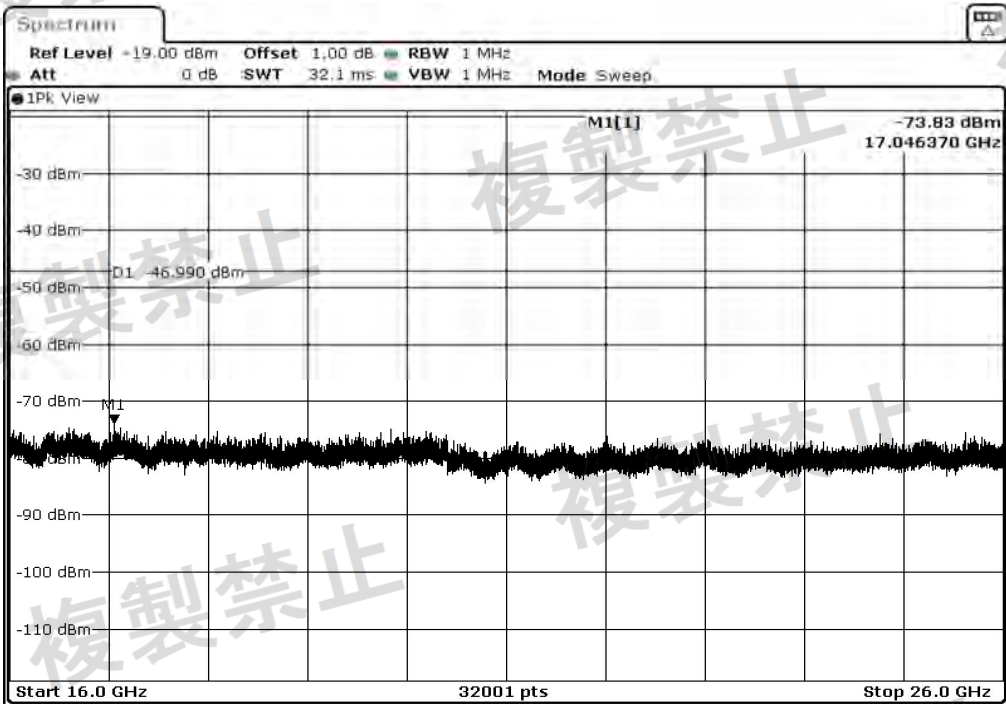
Date: 12.APR.2021 12:59:30

3000 – 16000MHz



Date: 12.APR.2021 12:59:53

16000 – 26000MHz



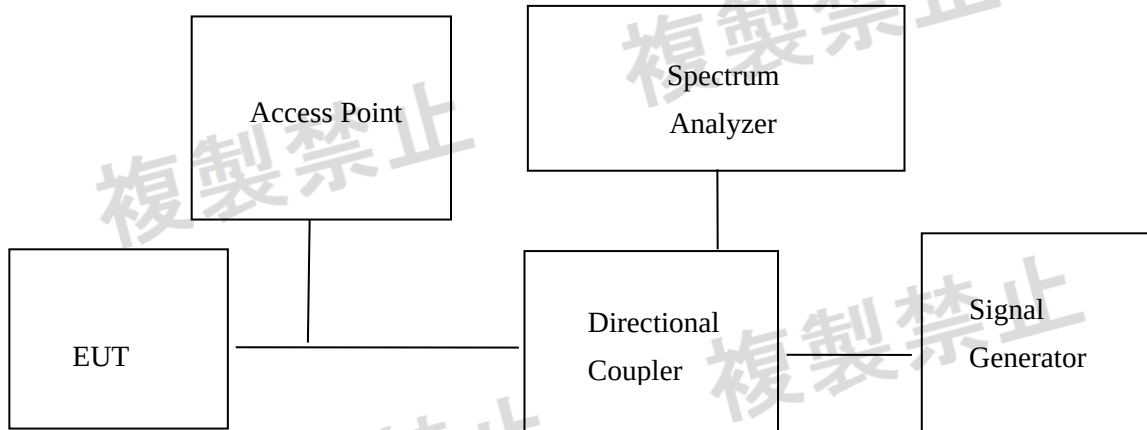
Date: 12.APR.2021 13:00:14

Test Result

PASS

10. Carrier Sensing

10.1. Test Setup



10.2. Test Procedure

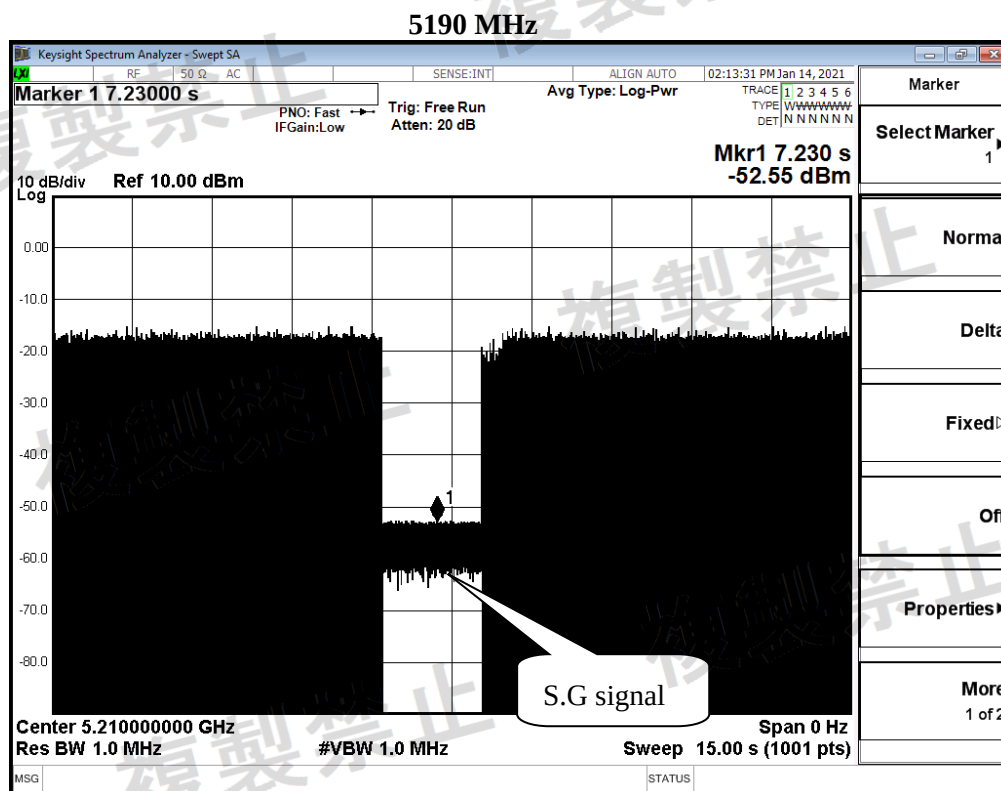
- Link EUT and Access Point to Directional Coupler input port.
- Link Signal Generator and Spectrum Analyzer to test port and output port in the Directional Coupler separately.
- A positive Peak Detector function in Spectrum Analyzer must be used.
- Set the Span to Zero.
- Press the Signal Generator on and it will output the Carrier Signal. When the Link breaks off, wait a minute and press the Signal Generator off. After a while, reset the Link and done the test.

10.3. Limits

Stop transmission while Carrier detecting.

10.4. Test Result of Carrier Sensing

Product : Wireless speaker
 Test Item : Carrier Sensing
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)



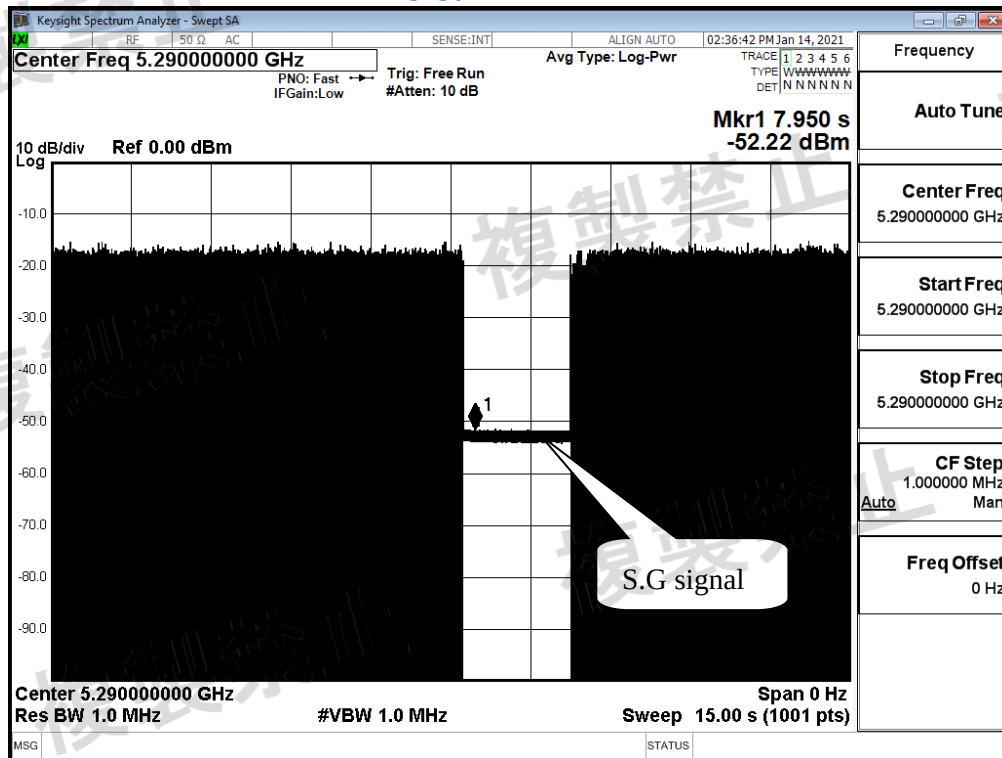
Signal Generator Power Level (dBm) = $22.79 + G - 20\log(F)$

G: Antenna Gain

F: operation frequency

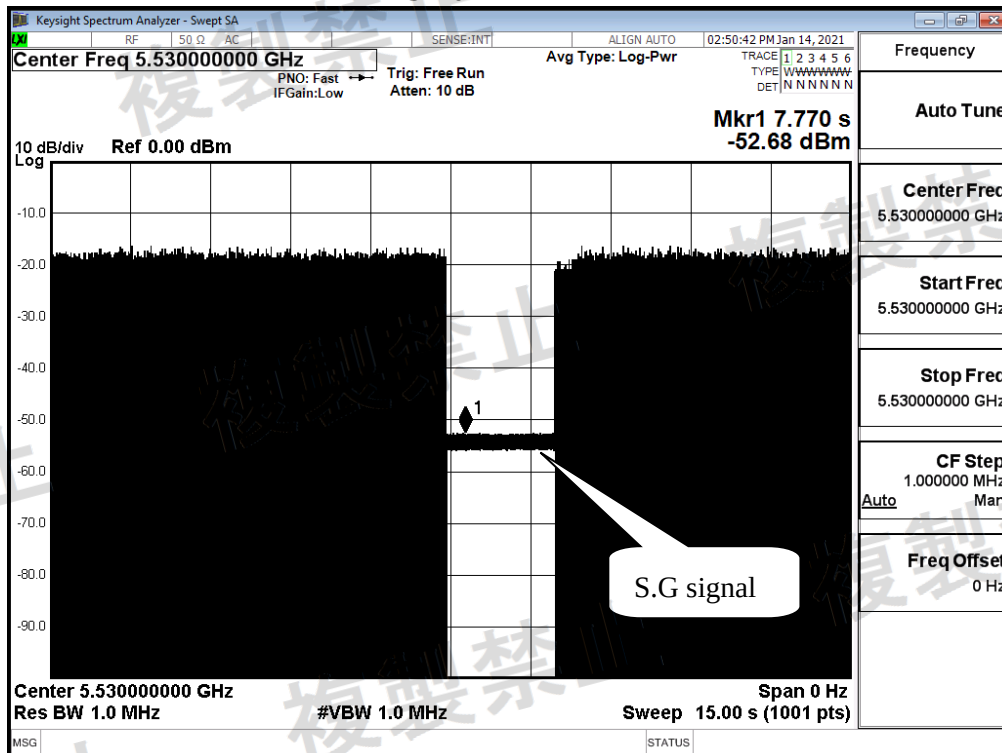
$$\text{Power level} = 22.79 + 3.4 - 20\log(5190\text{MHz}) = -48.11$$

5230 MHz



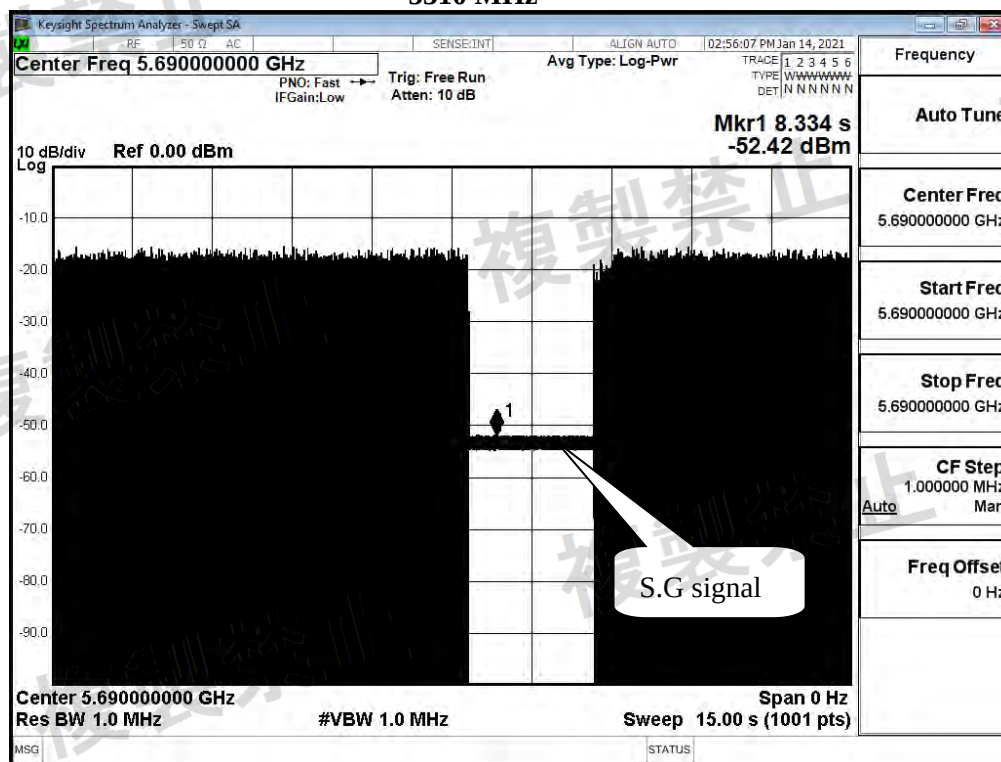
$$\text{Power level} = 22.79 + 3.4 - 20\log(5230\text{MHz}) = -48.18$$

5270 MHz



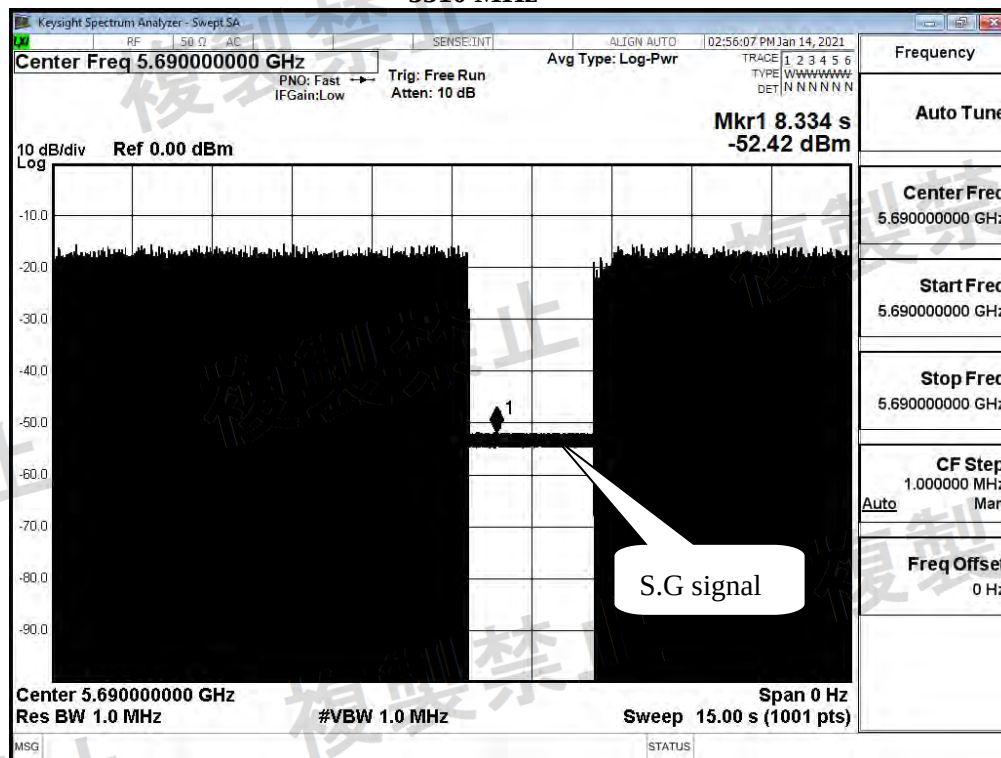
$$\text{Power level} = 22.79 + 3.7 - 20\log(5270\text{MHz}) = -47.95$$

5310 MHz

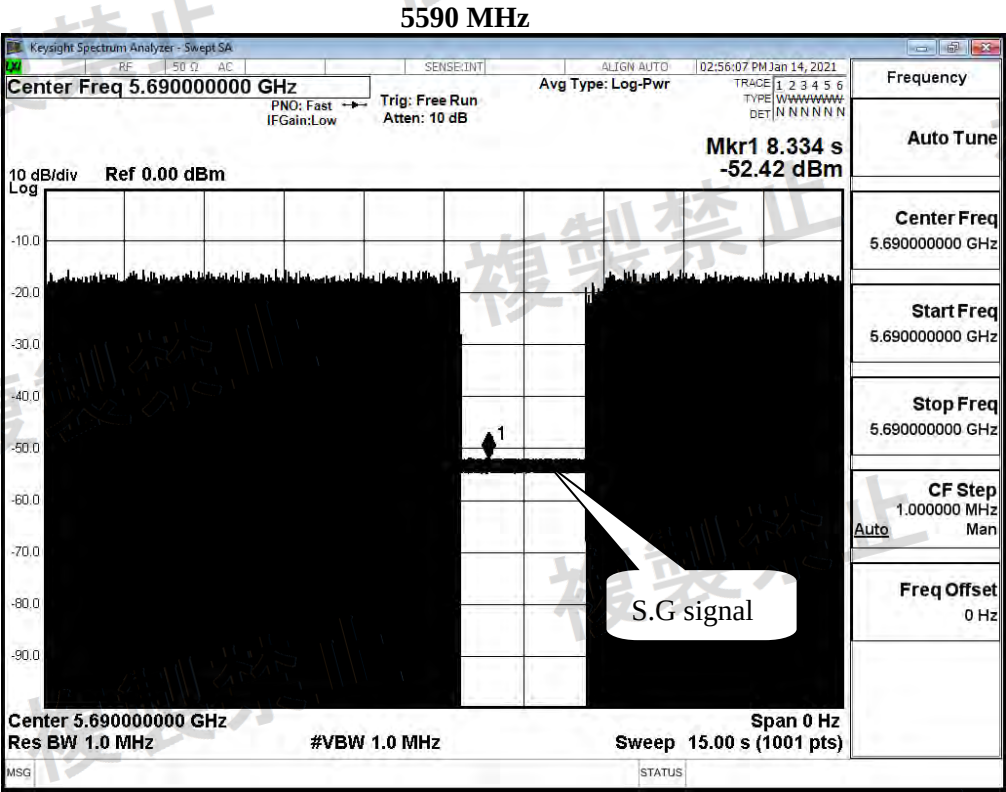


$$\text{Power level} = 22.79 + 3.7 - 20\log(5310\text{MHz}) = -48.01$$

5510 MHz

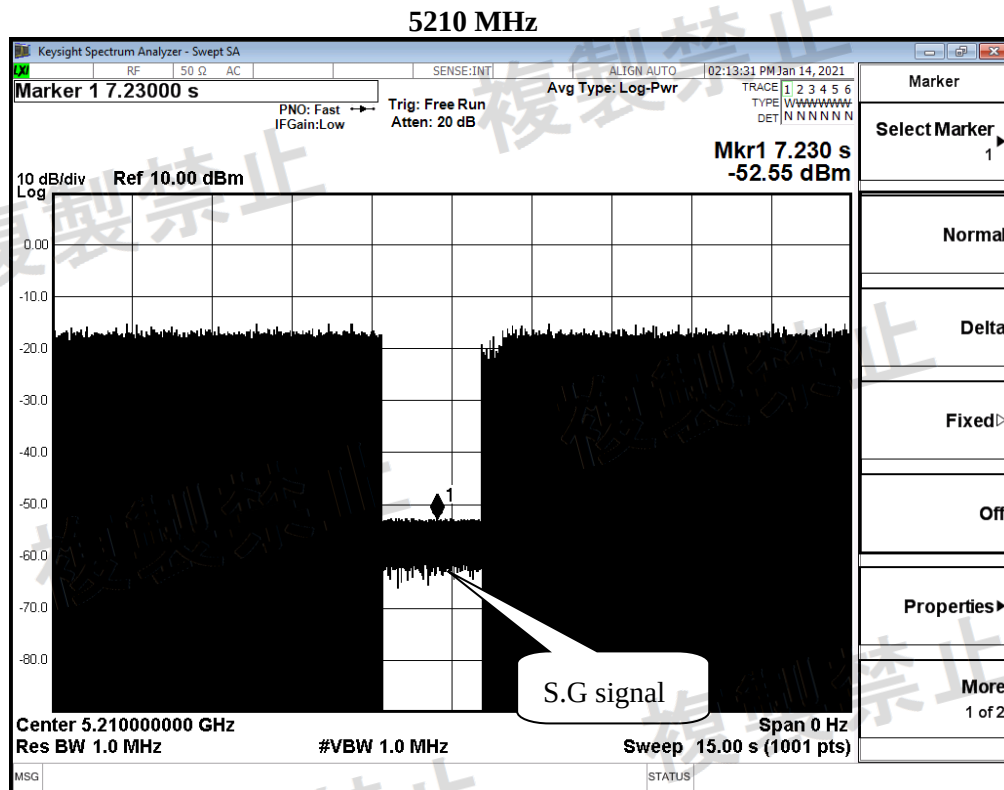


$$\text{Power level} = 22.79 + 3.7 - 20\log(5510\text{MHz}) = -48.33$$



Power level = $22.79 + 3.7 - 20\log(5590\text{MHz}) = -48.46$

Product : Wireless speaker
 Test Item : Carrier Sensing
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)



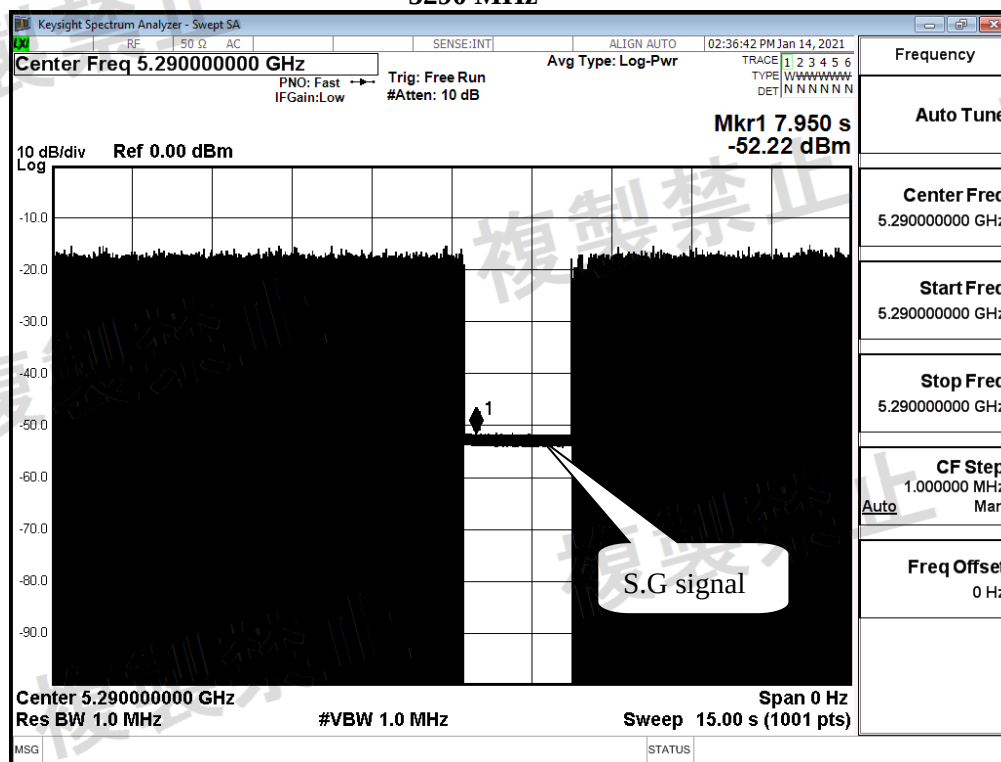
Signal Generator Power Level (dBm) = $22.79 + G - 20\log(F)$

G: Antenna Gain

F: operation frequency

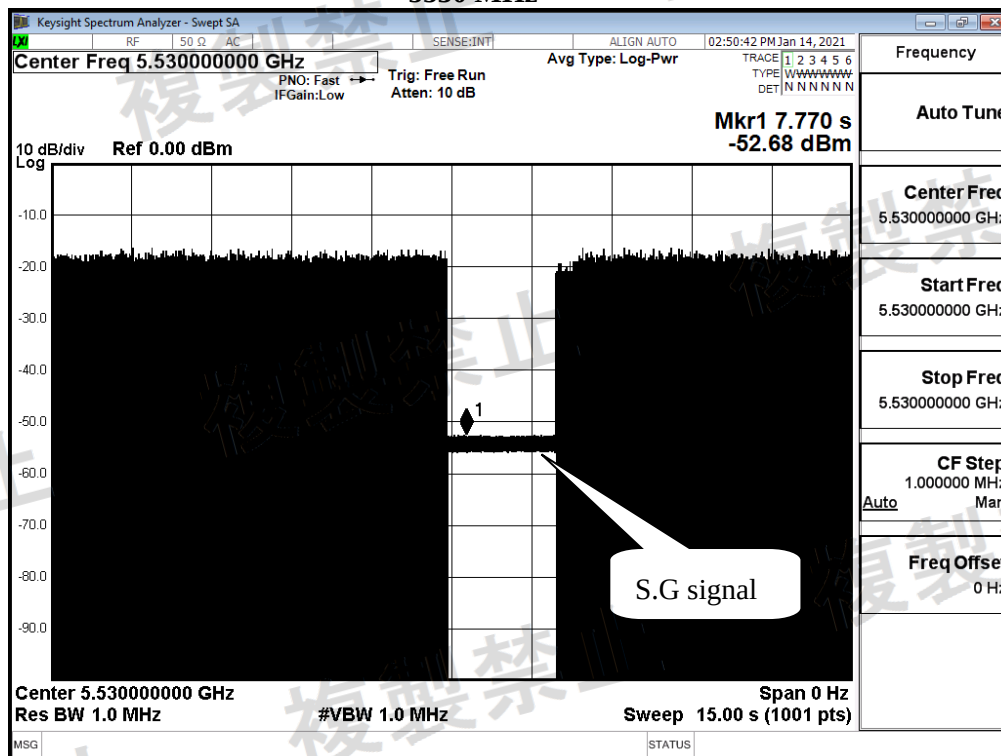
$$\text{Power level} = 22.79 + 3.4 - 20\log(5210\text{MHz}) = -48.15$$

5290 MHz



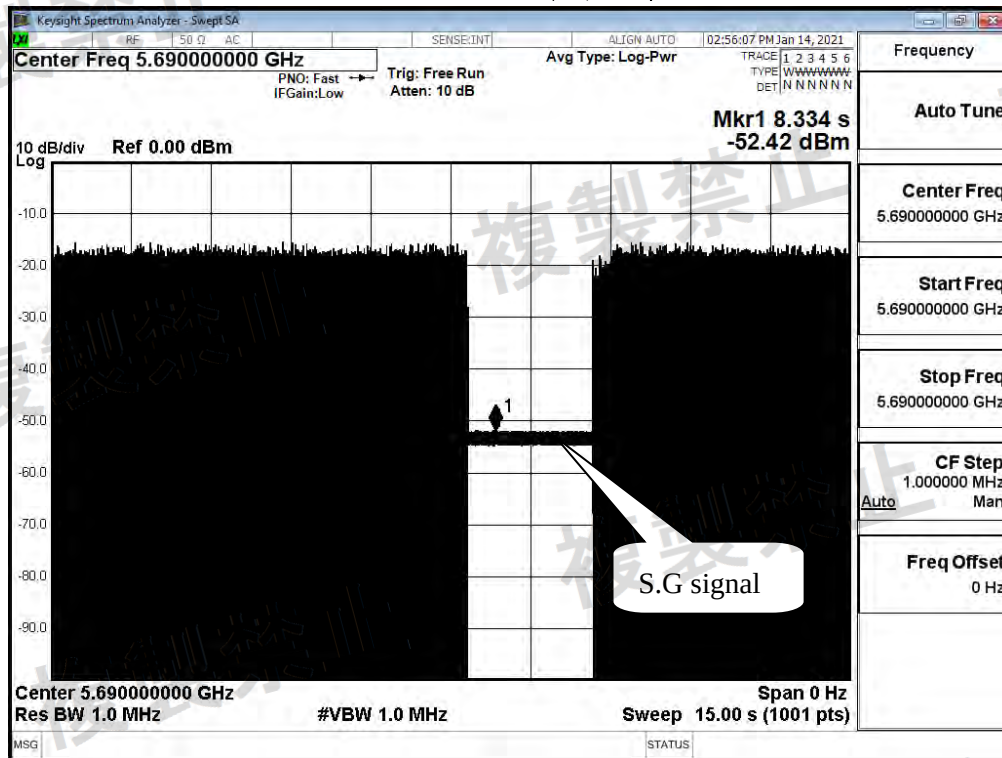
$$\text{Power level} = 22.79 + 3.7 - 20\log(5290\text{MHz}) = -47.98$$

5530 MHz



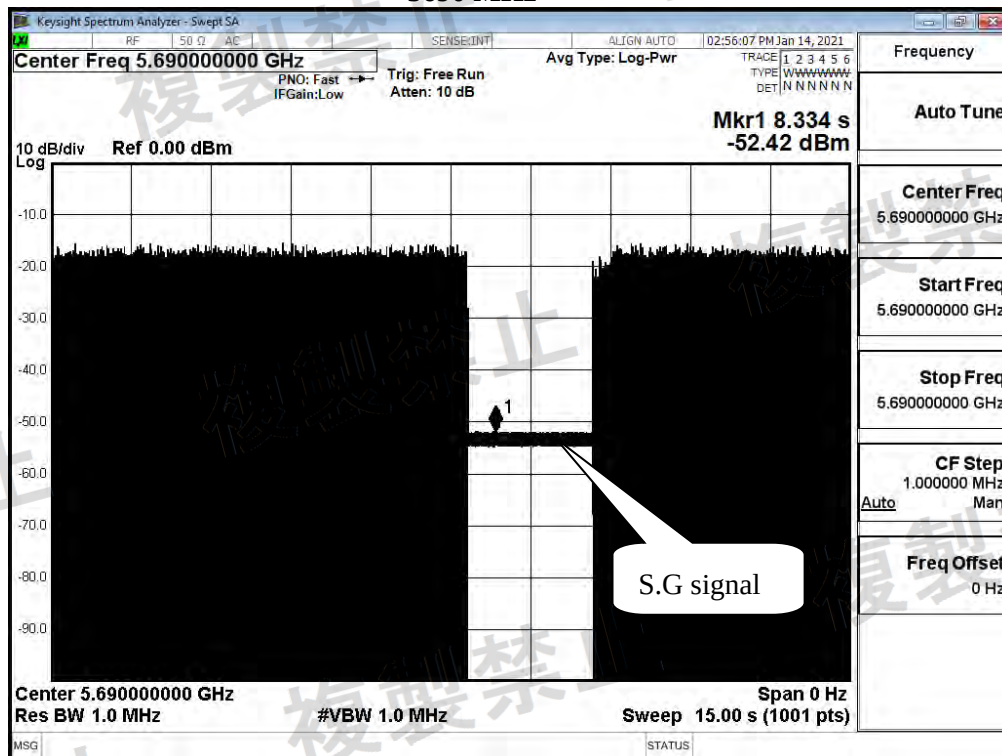
$$\text{Power level} = 22.79 + 3.7 - 20\log(5530\text{MHz}) = -48.36$$

5610 MHz 範本沒有 5610



$$\text{Power level} = 22.79 + 3.7 - 20\log(5610\text{MHz}) = -48.49$$

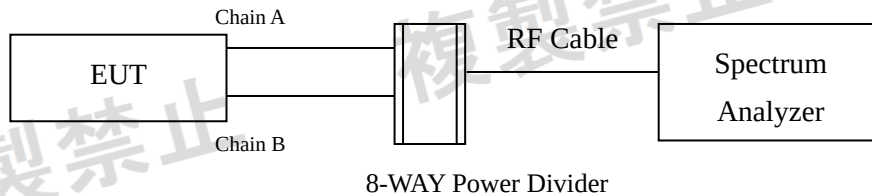
5690 MHz



$$\text{Power level} = 22.79 + 3.7 - 20\log(5690\text{MHz}) = -48.61$$

11. Transmission burst length

11.1. Test Setup



11.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The center frequency is set to the test frequency and the span is switched to zero.
- (c) The measurement instrument bandwidth must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (d) "Single sweep" mode may be used to capture a packet over a single scan.

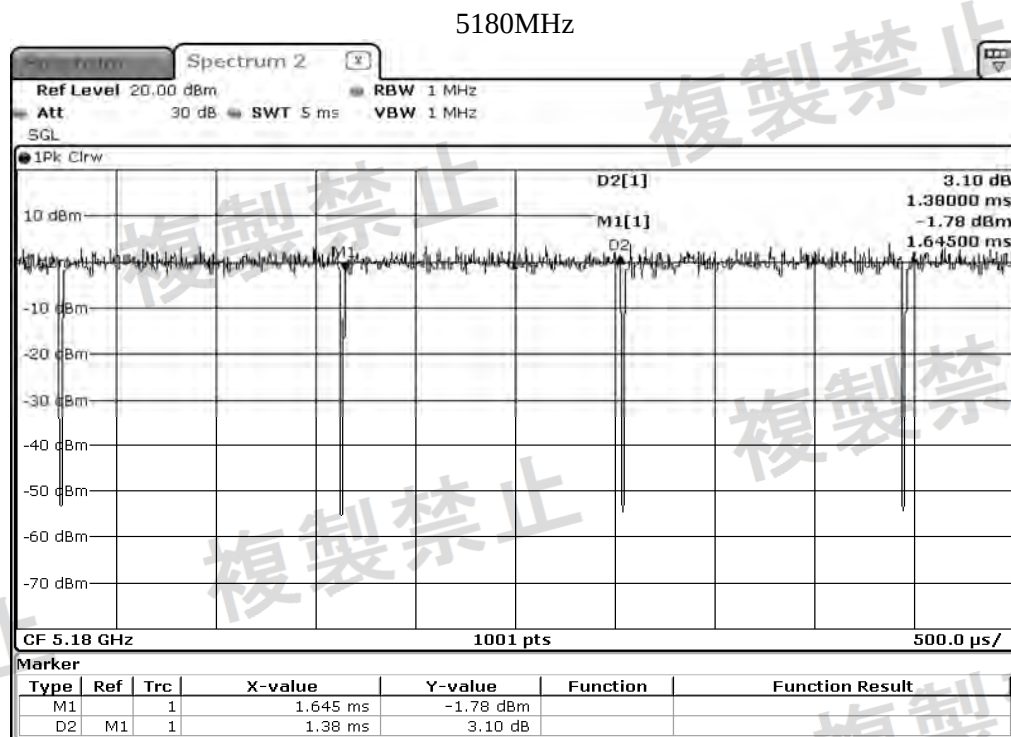
11.3. Limits

$\leq 8\text{ms}$

11.4. Test Result of Transmission burst length

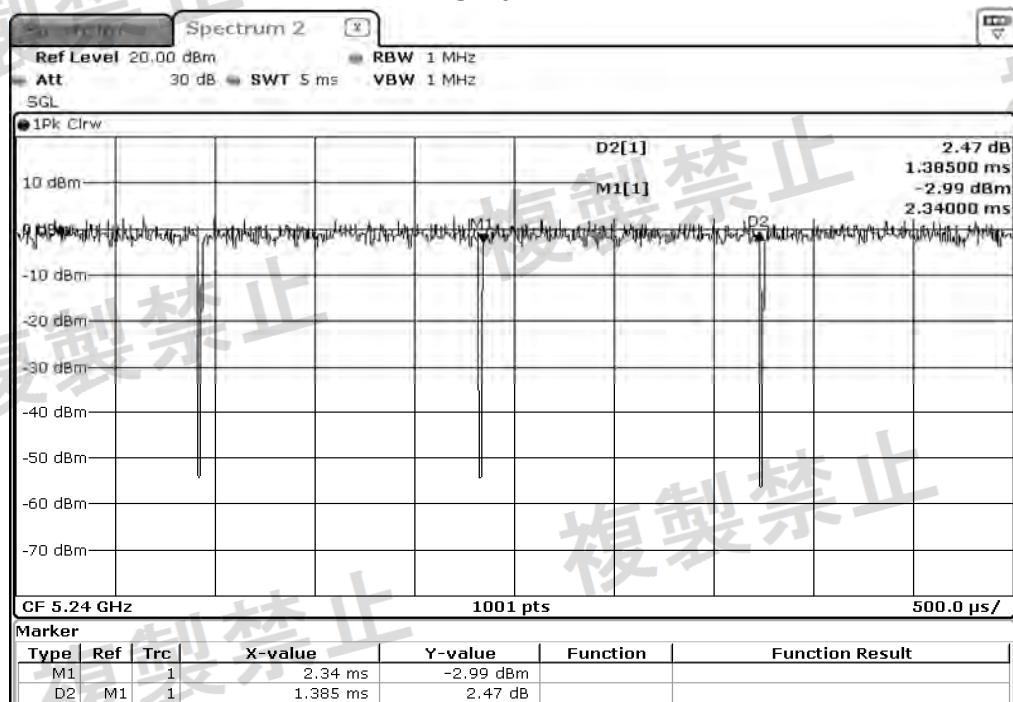
Product : Wireless speaker
 Test Item : Transmission burst length
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

Test Conditions		Frequency (MHz)	Reading Value (ms)	Limit (ms)
Tnom (25 °C)	Vnom (100 V)	5180	1.380	<=8ms
Tnom (25 °C)	Vnom (100 V)	5240	1.385	<=8ms
Tnom (25 °C)	Vnom (100 V)	5260	1.385	<=8ms
Tnom (25 °C)	Vnom (100 V)	5320	1.380	<=8ms
Tnom (25 °C)	Vnom (100 V)	5500	1.385	<=8ms
Tnom (25 °C)	Vnom (100 V)	5600	1.385	<=8ms
Tnom (25 °C)	Vnom (100 V)	5700	1.385	<=8ms



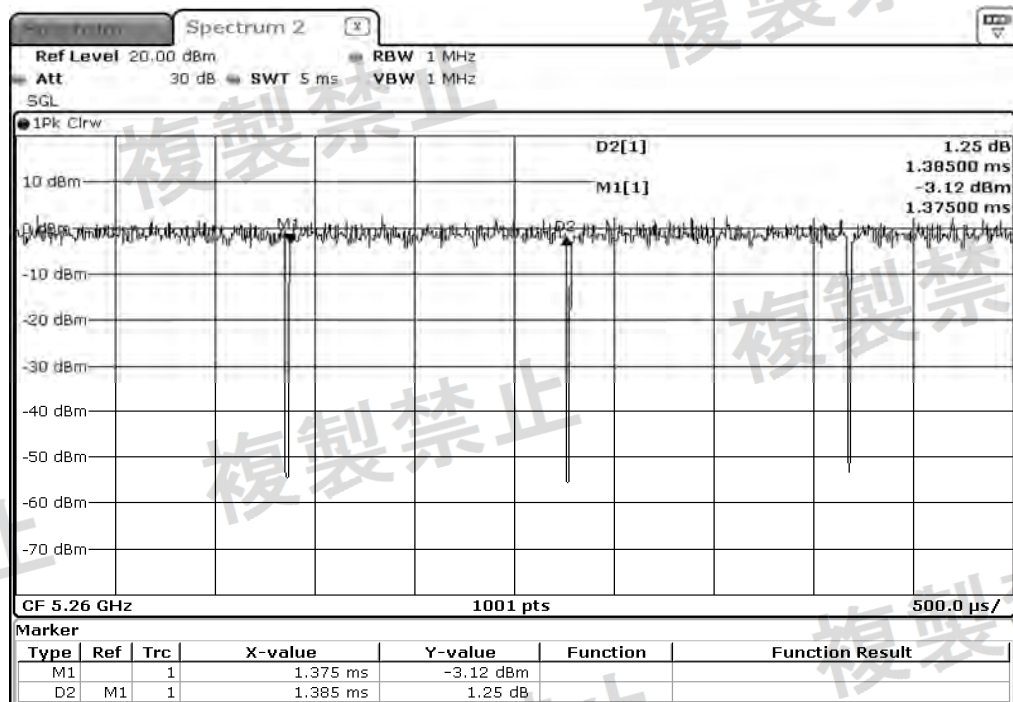
Date: 13.APR.2021 03:48:44

5240MHz



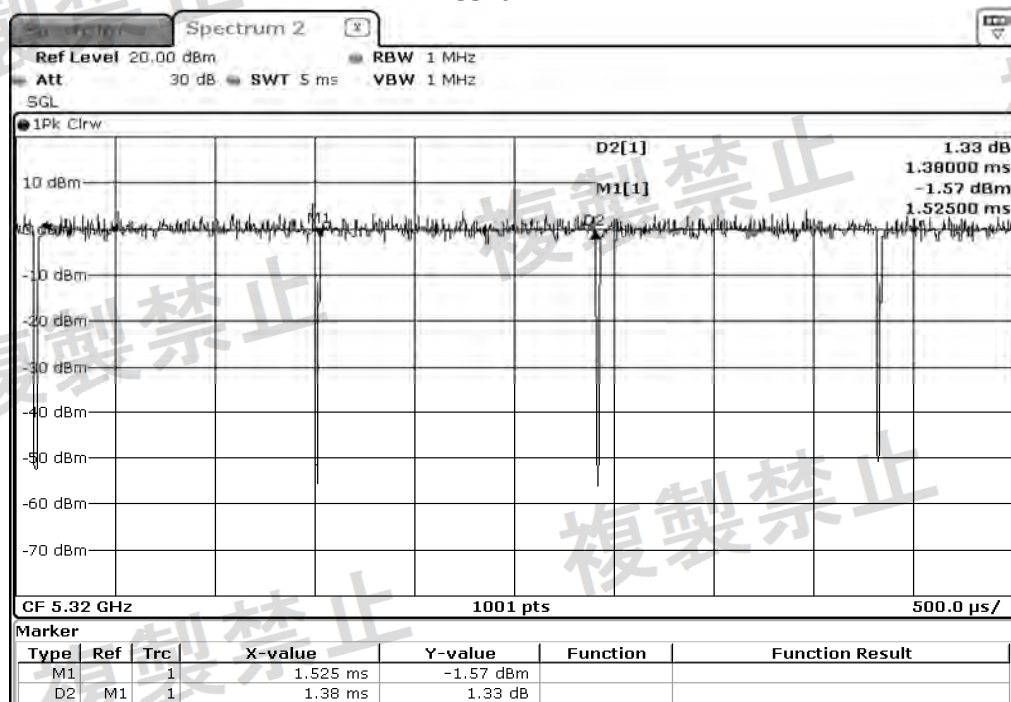
Date: 13.APR.2021 03:55:29

5260MHz



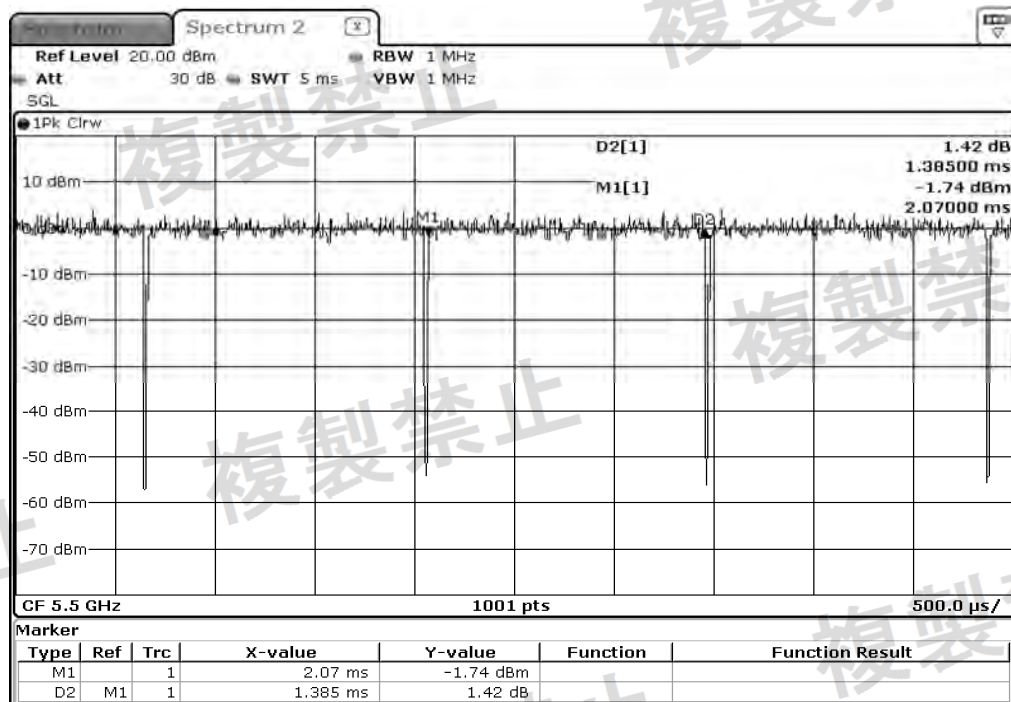
Date: 13.APR.2021 03:51:49

5320MHz



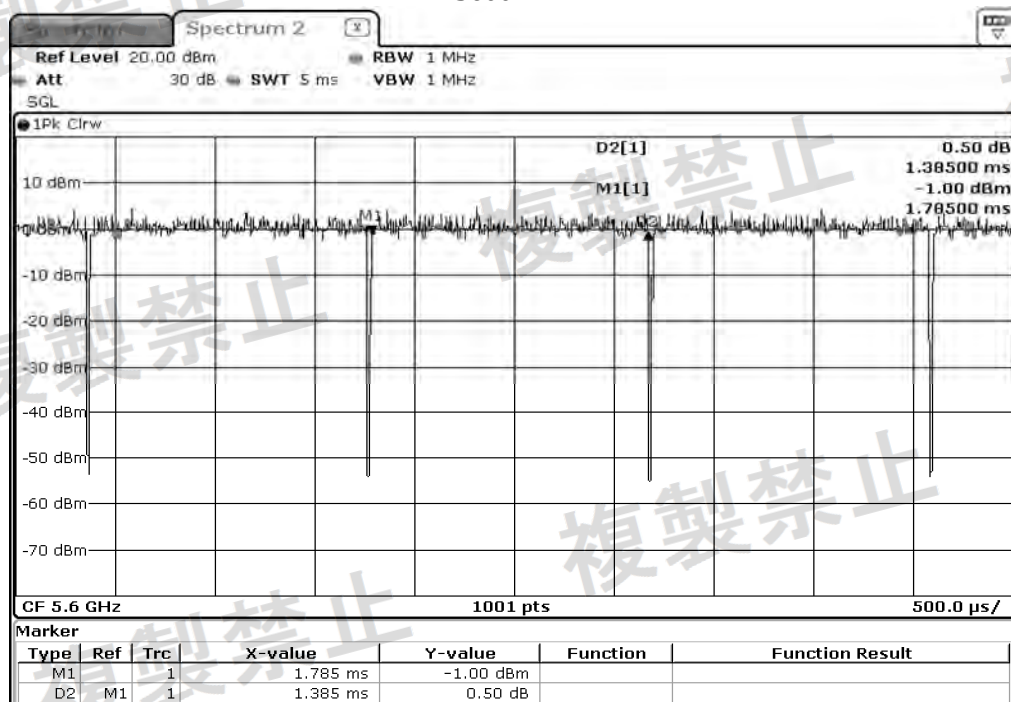
Date: 13.APR.2021 03:52:37

5500MHz



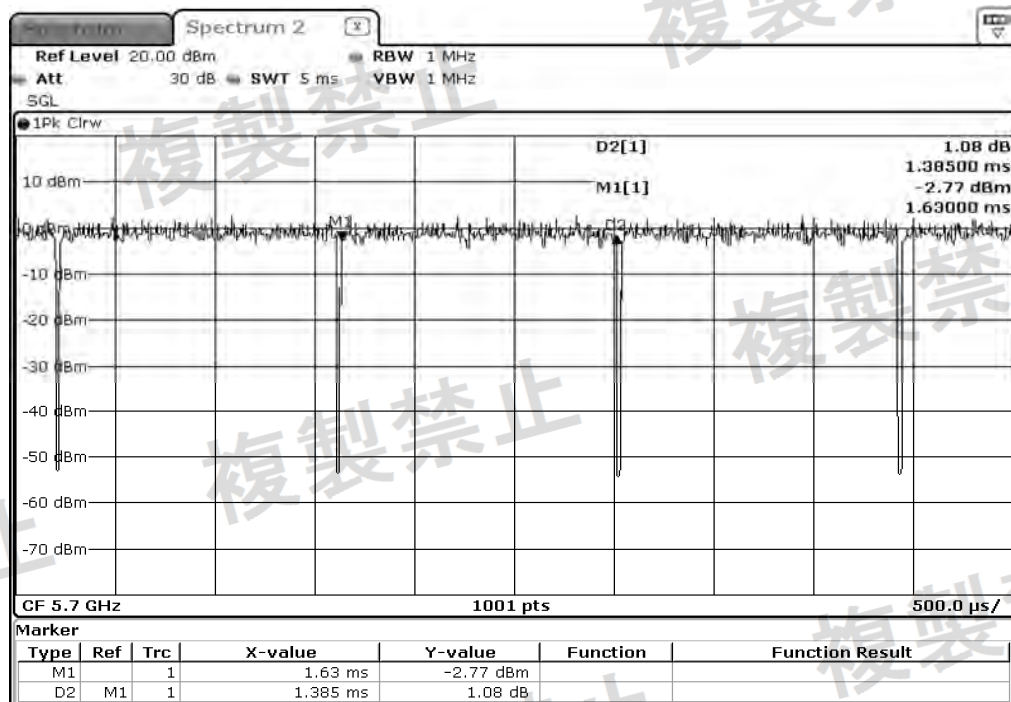
Date: 13.APR.2021 03:57:39

5600MHz



Date: 13.APR.2021 03:58:21

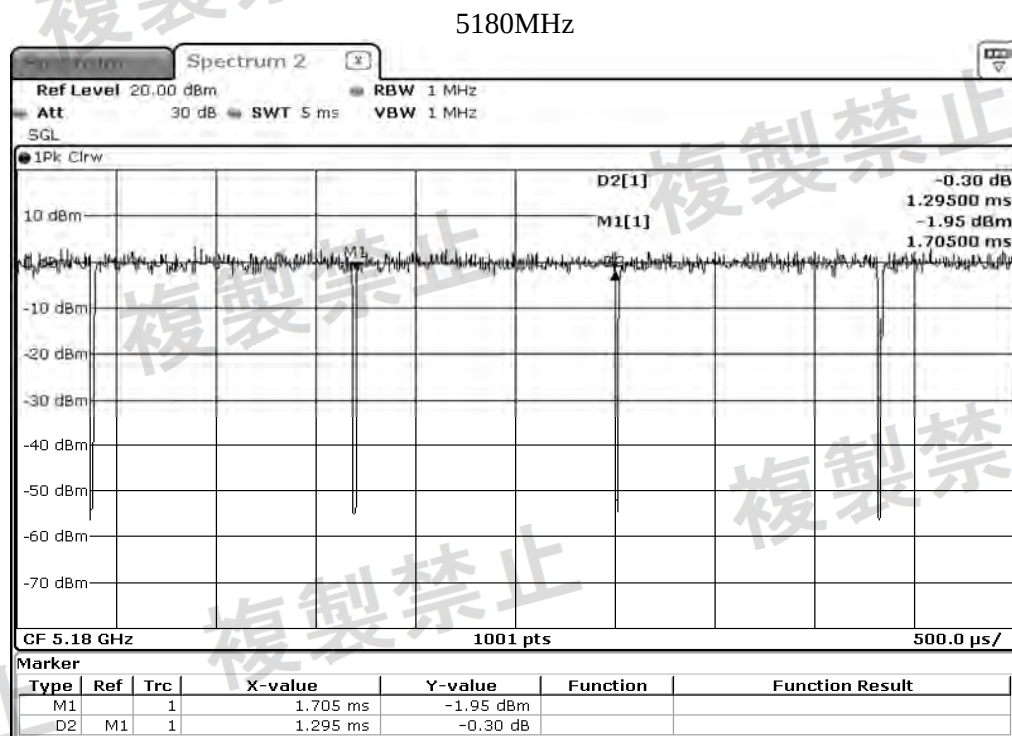
5700MHz



Date: 13.APR.2021 03:59:13

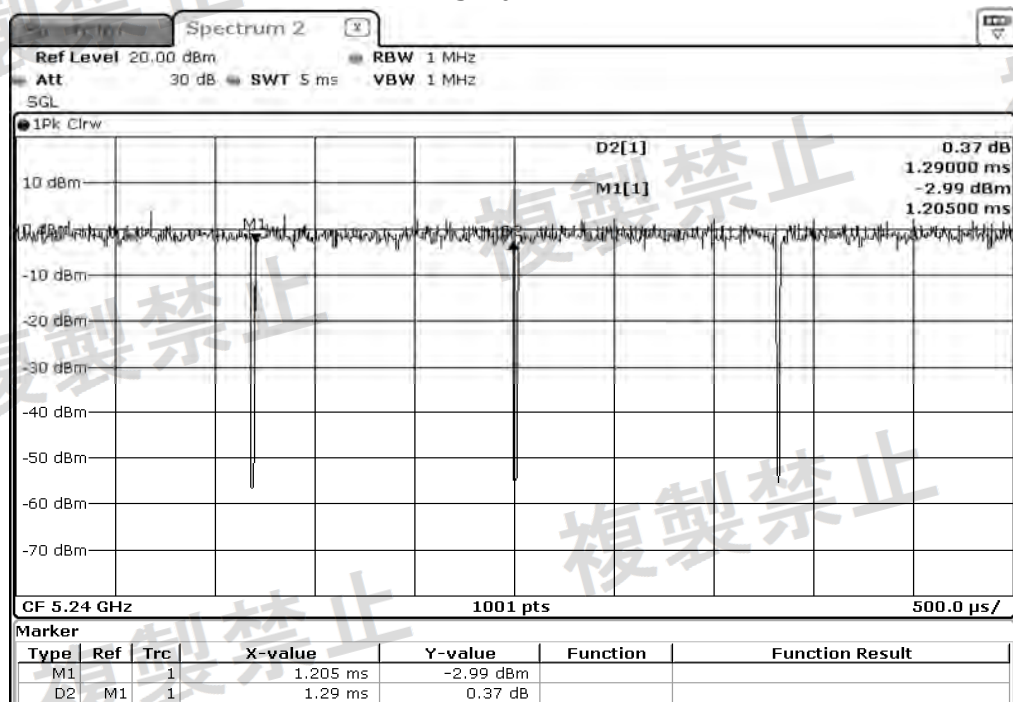
Product : Wireless speaker
 Test Item : Transmission burst length
 Test Mode : Mode 2: Transmit (802.11n-20BW-7.2MHz)

Test Conditions		Frequency (MHz)	Reading Value (ms)	Limit (ms)
Tnom (25 °C)	Vnom (100 V)	5180	1.295	<=8ms
Tnom (25 °C)	Vnom (100 V)	5240	1.290	<=8ms
Tnom (25 °C)	Vnom (100 V)	5260	1.295	<=8ms
Tnom (25 °C)	Vnom (100 V)	5320	1.290	<=8ms
Tnom (25 °C)	Vnom (100 V)	5500	1.290	<=8ms
Tnom (25 °C)	Vnom (100 V)	5600	1.290	<=8ms
Tnom (25 °C)	Vnom (100 V)	5700	1.290	<=8ms
Tnom (25 °C)	Vnom (100 V)	5720	1.290	<=8ms



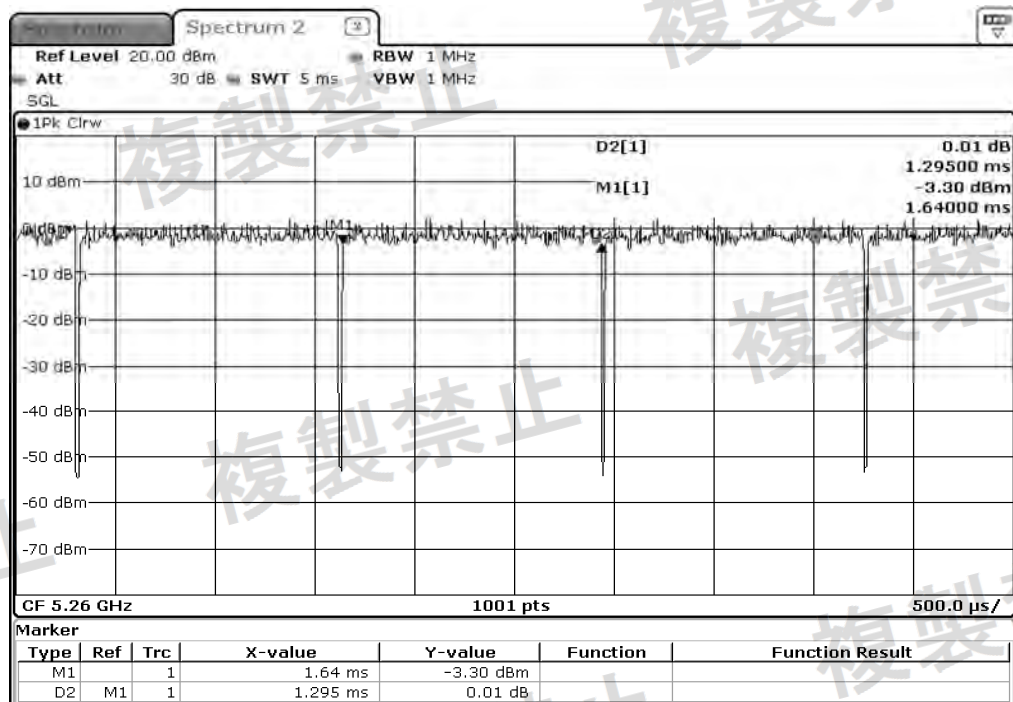
Date: 13.APR.2021 04:00:50

5240MHz



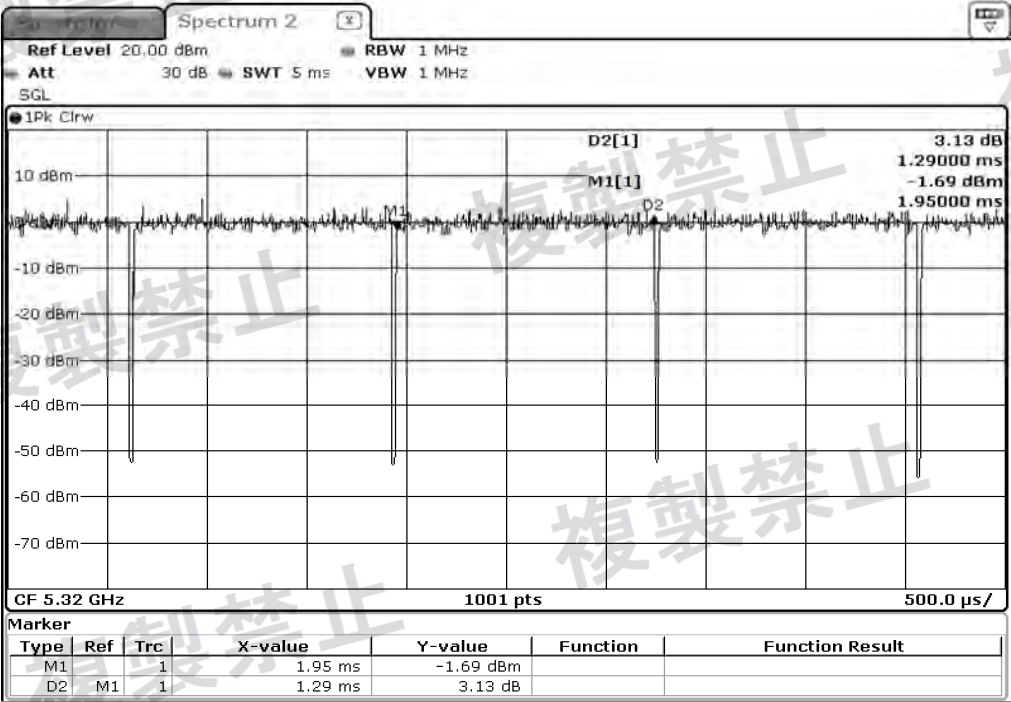
Date: 13.APR.2021 04:01:37

5260MHz



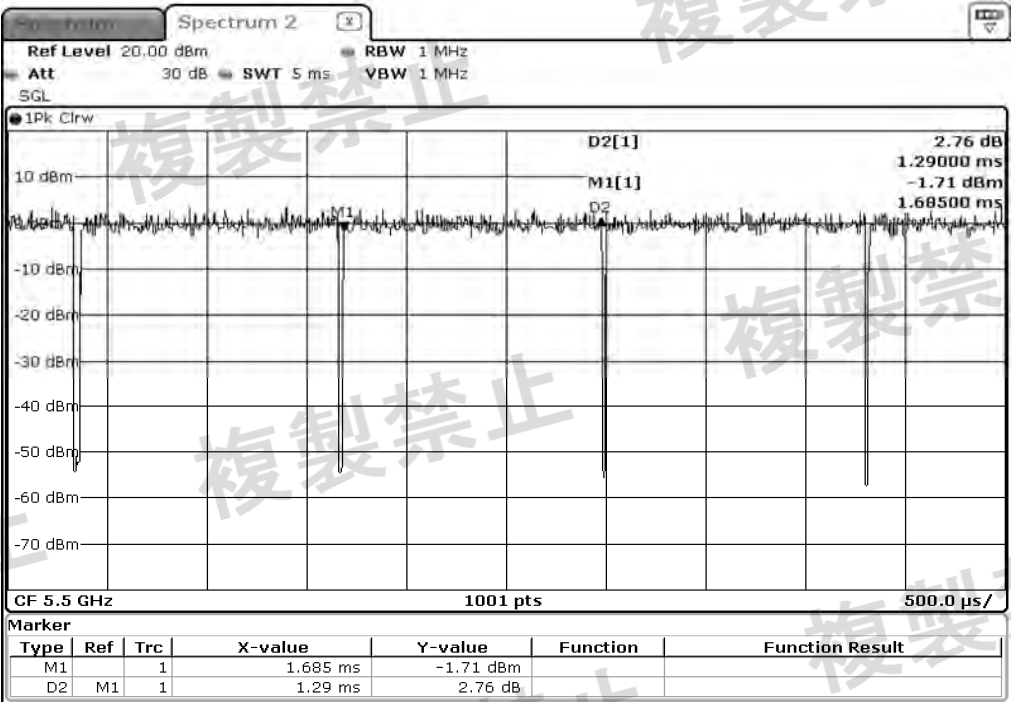
Date: 13.APR.2021 04:02:21

5320MHz



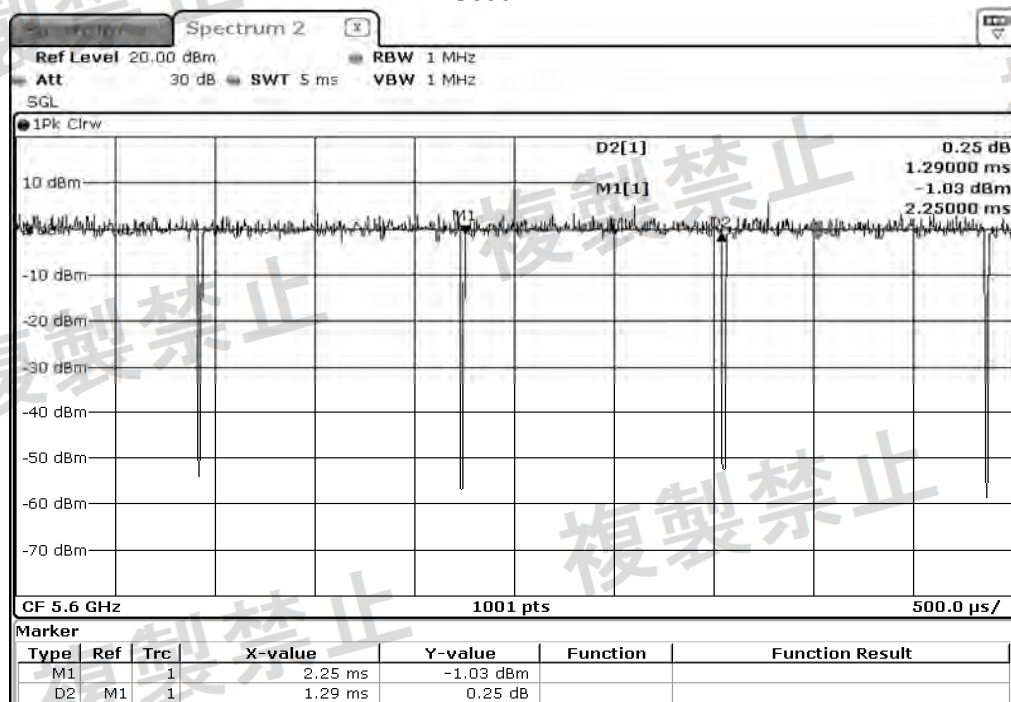
Date: 13.APR.2021 04:03:03

5500MHz



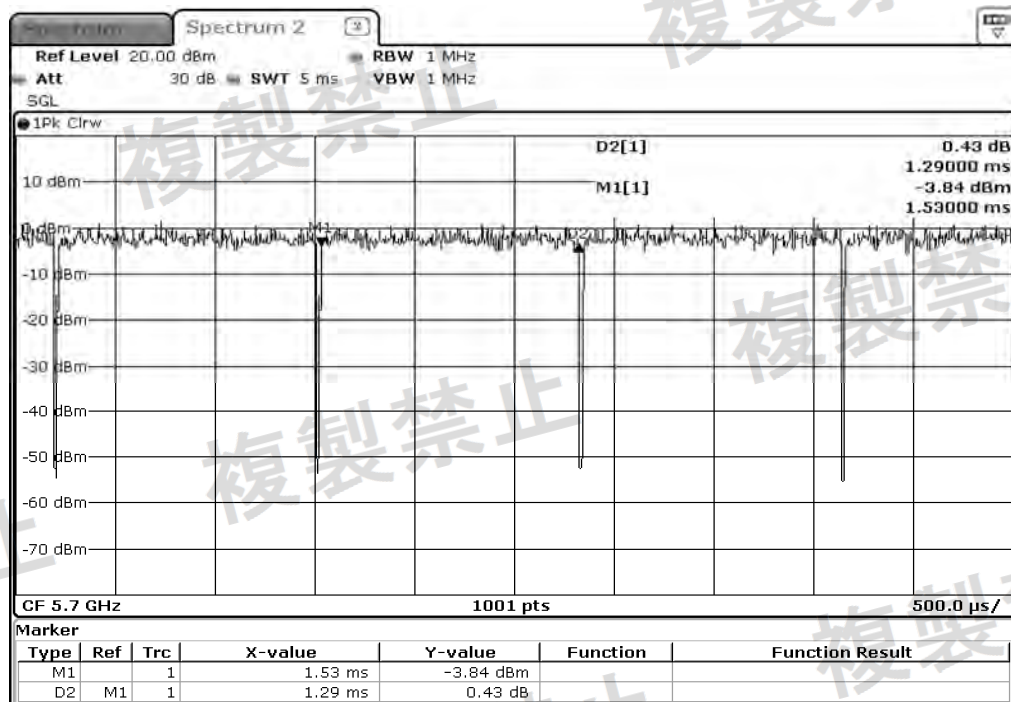
Date: 13.APR.2021 04:04:02

5600MHz

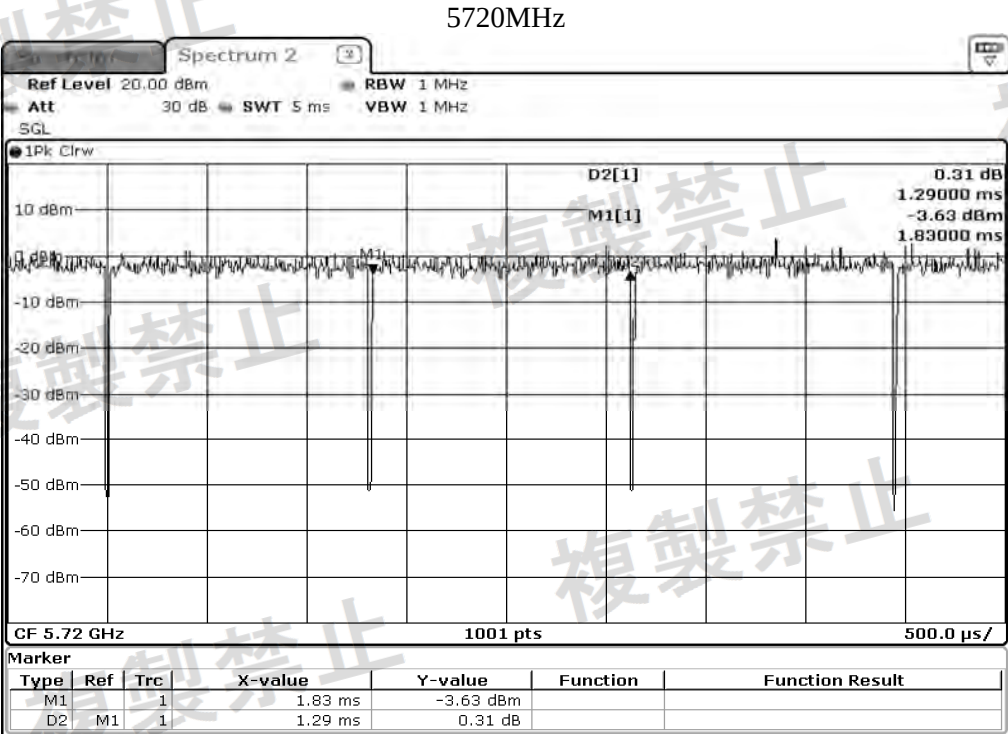


Date: 13.APR.2021 04:05:06

5700MHz



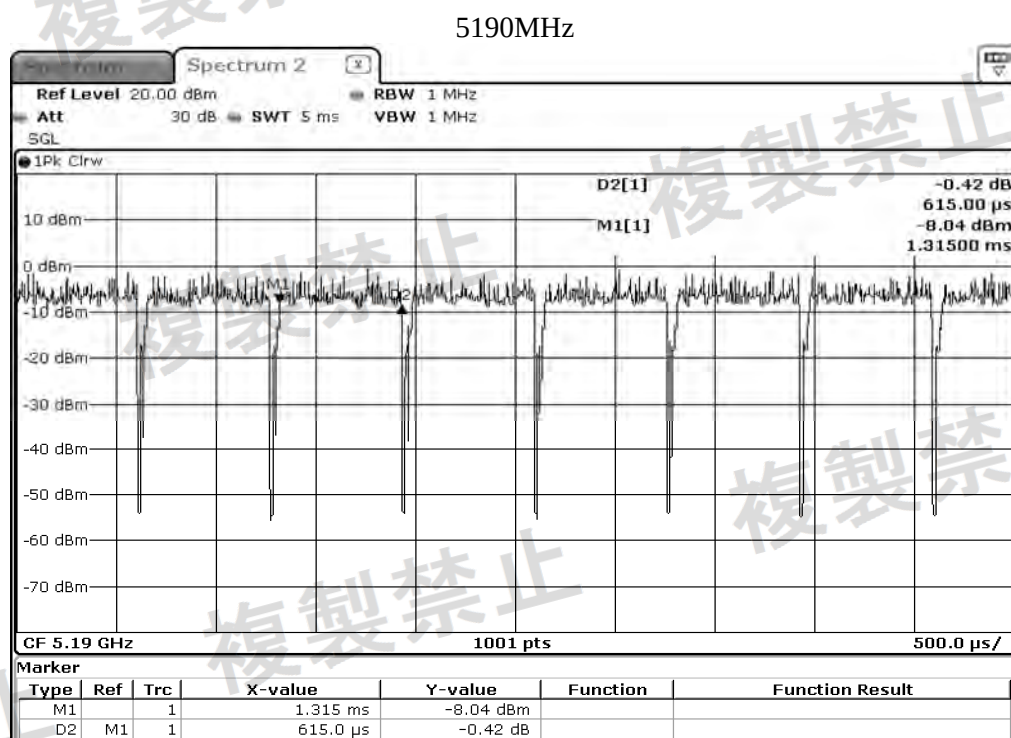
Date: 13.APR.2021 04:05:43



Date: 13.APR.2021 04:06:35

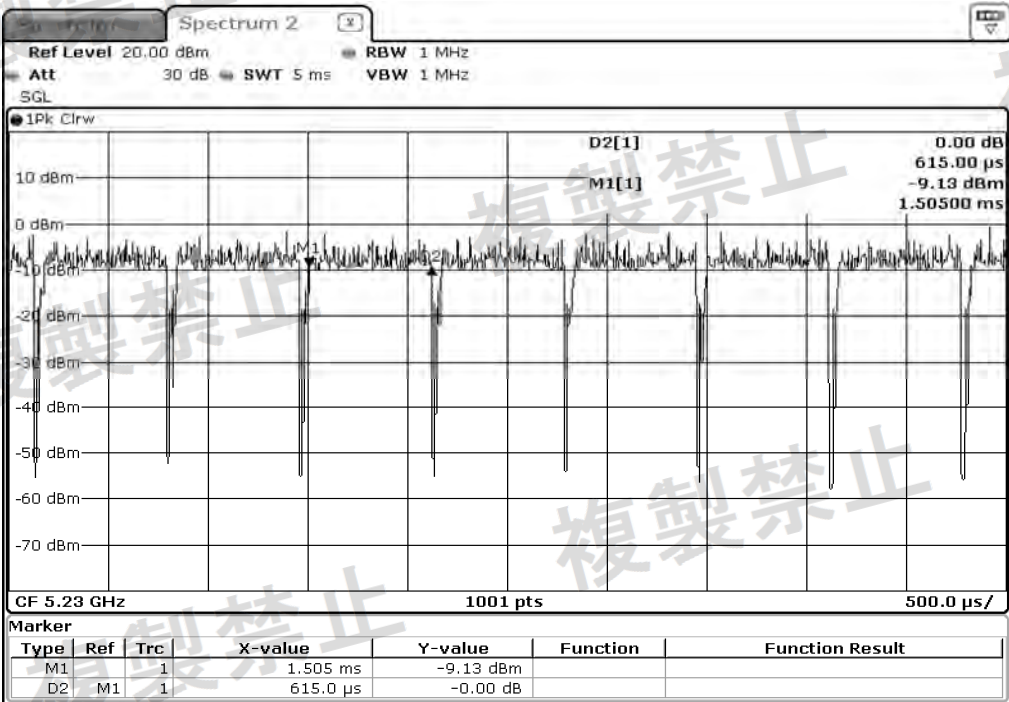
Product : Wireless speaker
 Test Item : Transmission burst length
 Test Mode : Mode 3: Transmit (802.11n-40BW-15Mbps)

Test Conditions		Frequency (MHz)	Reading Value (ms)	Limit (ms)
Tnom (25 °C)	Vnom (100 V)	5190	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5230	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5270	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5310	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5510	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5590	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5670	0.615	<=8ms
Tnom (25 °C)	Vnom (100 V)	5710	0.615	<=8ms



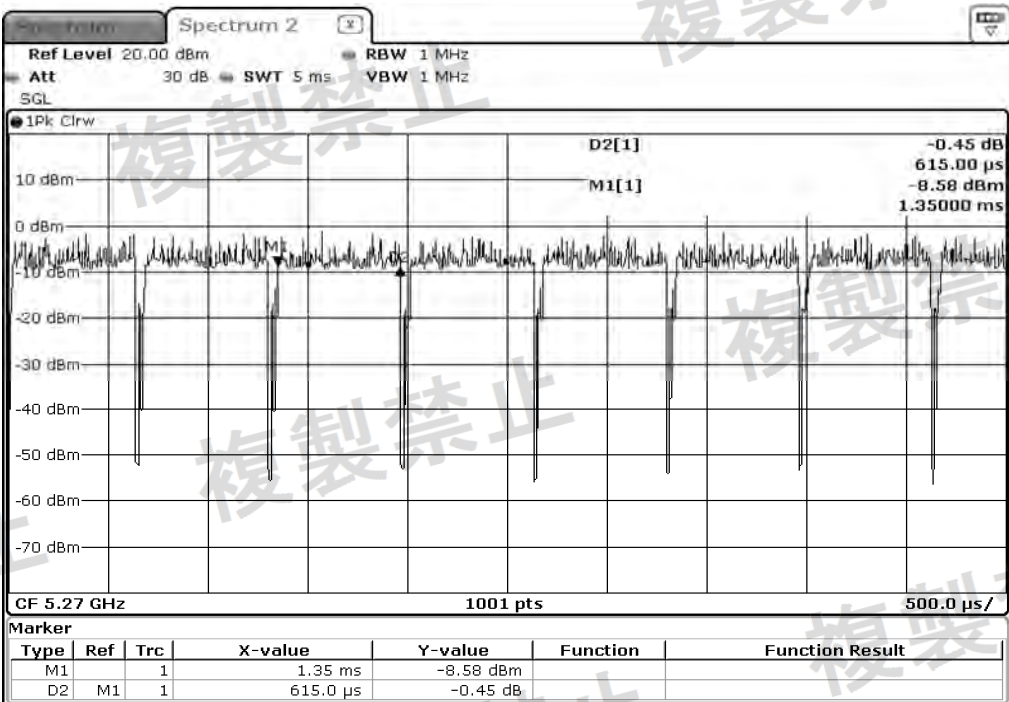
Date: 13. APR. 2021 04:26:09

5230MHz



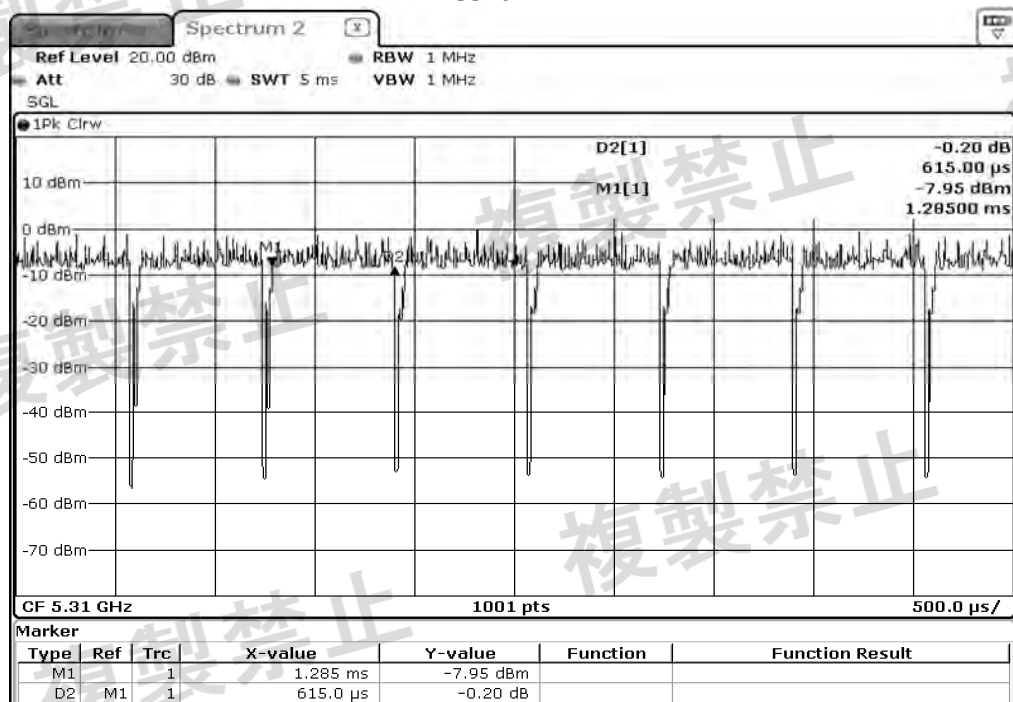
Date: 13.APR.2021 04:27:02

5270MHz



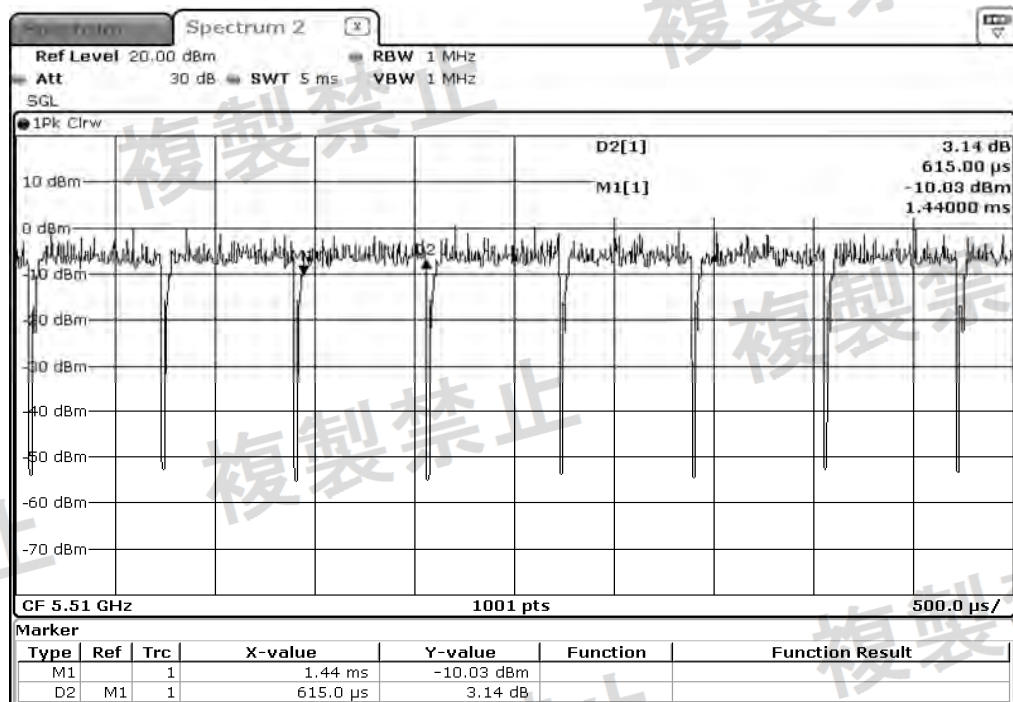
Date: 13.APR.2021 04:27:37

5310MHz



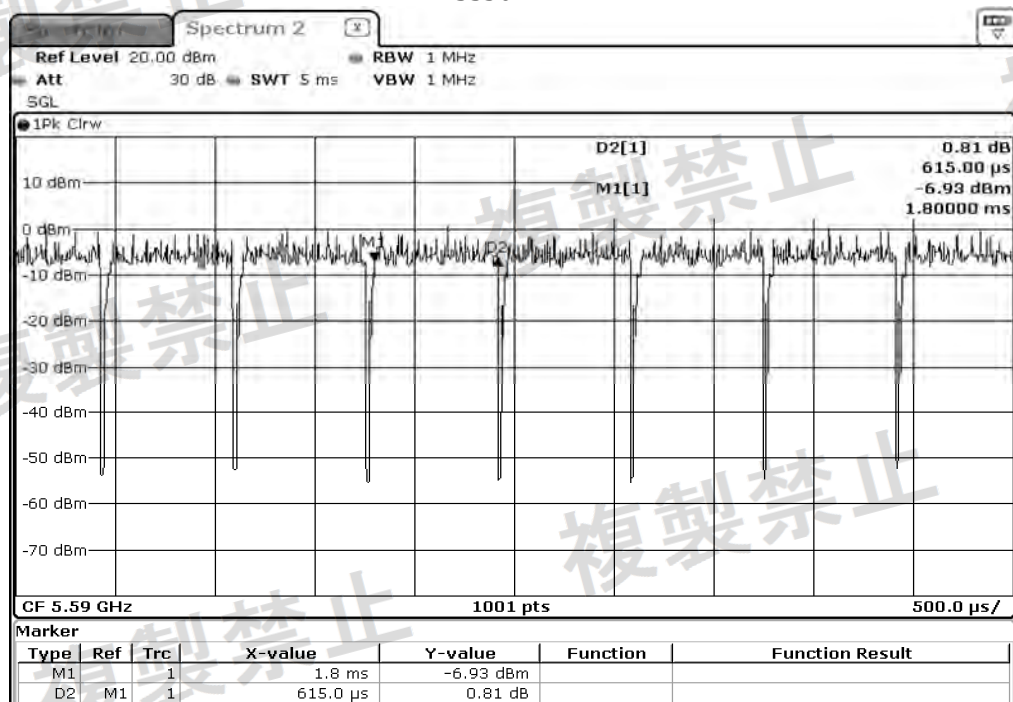
Date: 13.APR.2021 04:28:23

5510MHz



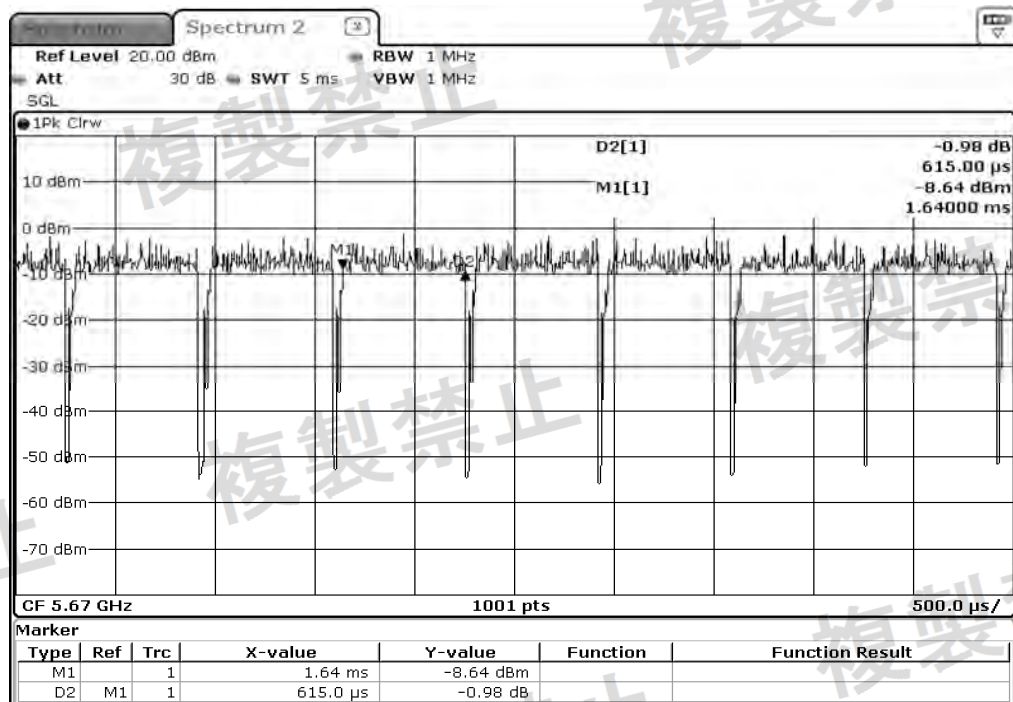
Date: 13.APR.2021 04:29:07

5590MHz



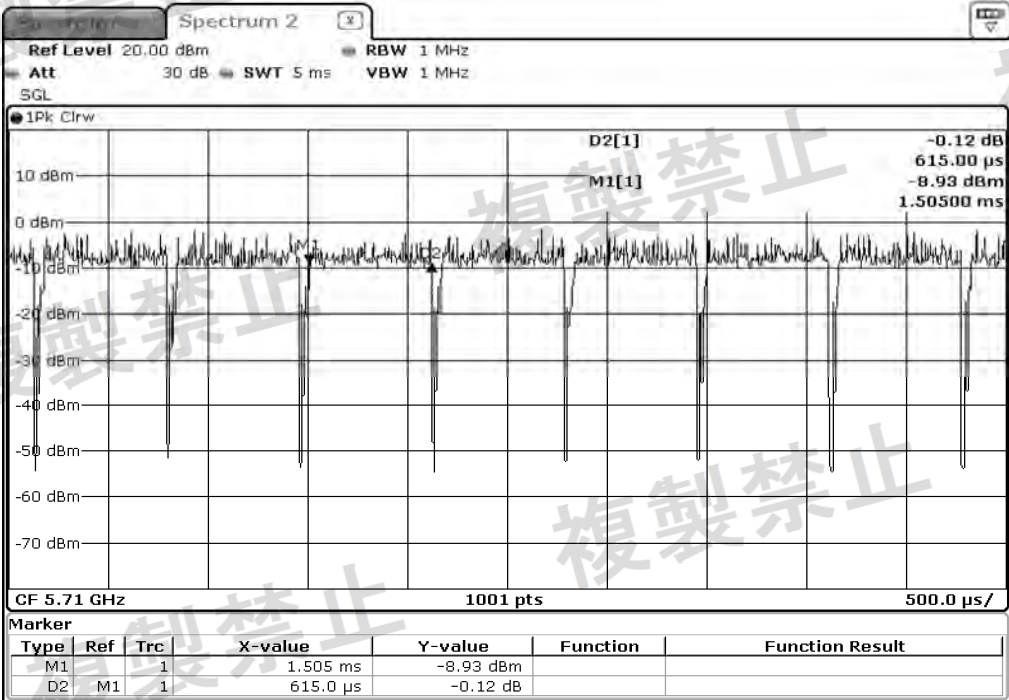
Date: 13.APR.2021 04:29:47

5670MHz



Date: 13.APR.2021 04:30:26

5710MHz

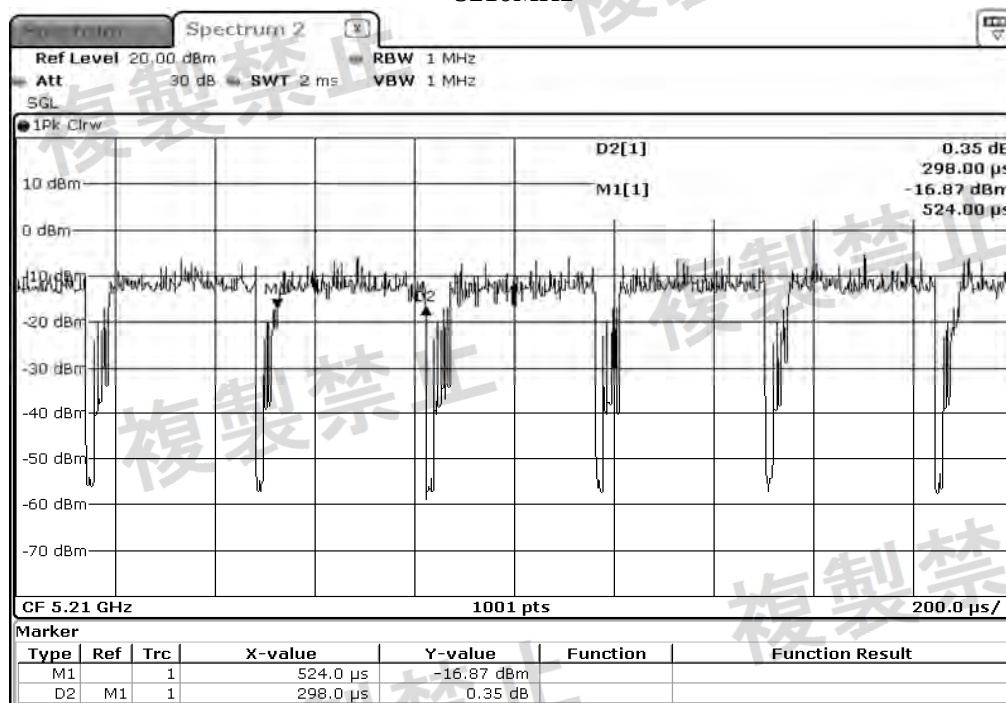


Date: 13.APR.2021 04:30:58

Product : Wireless speaker
 Test Item : Transmission burst length
 Test Mode : Mode 4: Transmit (802.11ac-80MHz-32.5Mbps)

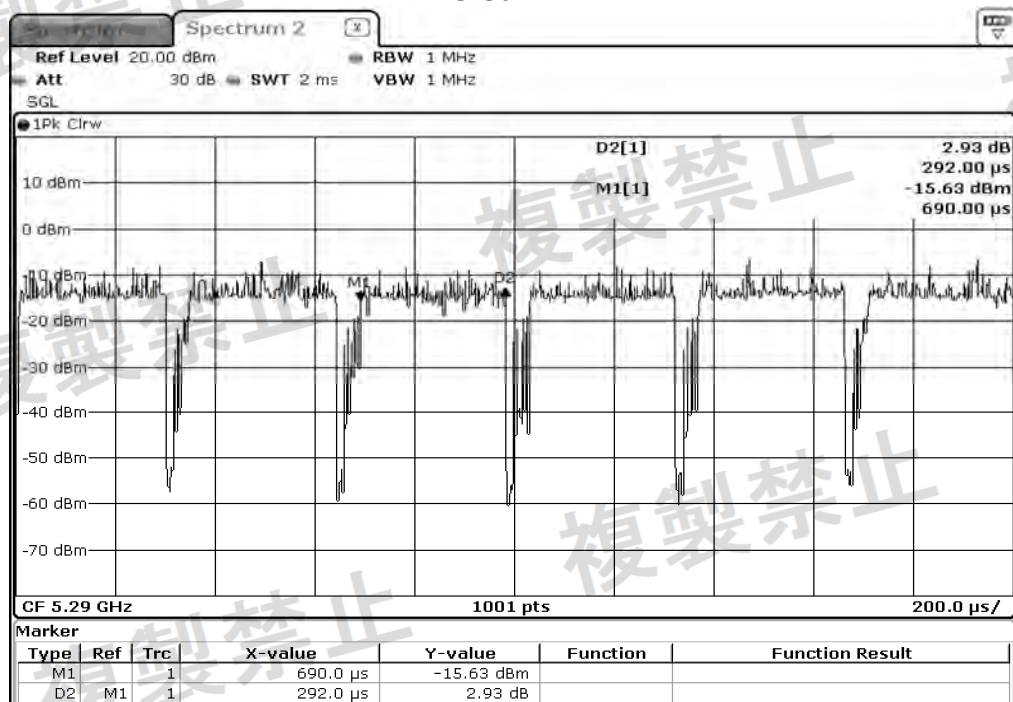
Test Conditions		Frequency (MHz)	Reading Value (ms)	Limit (ms)
Tnom (25 °C)	Vnom (100 V)	5210	0.298	<=8ms
Tnom (25 °C)	Vnom (100 V)	5290	0.292	<=8ms
Tnom (25 °C)	Vnom (100 V)	5530	0.292	<=8ms
Tnom (25 °C)	Vnom (100 V)	5610	0.292	<=8ms
Tnom (25 °C)	Vnom (100 V)	5690	0.292	<=8ms

5210MHz



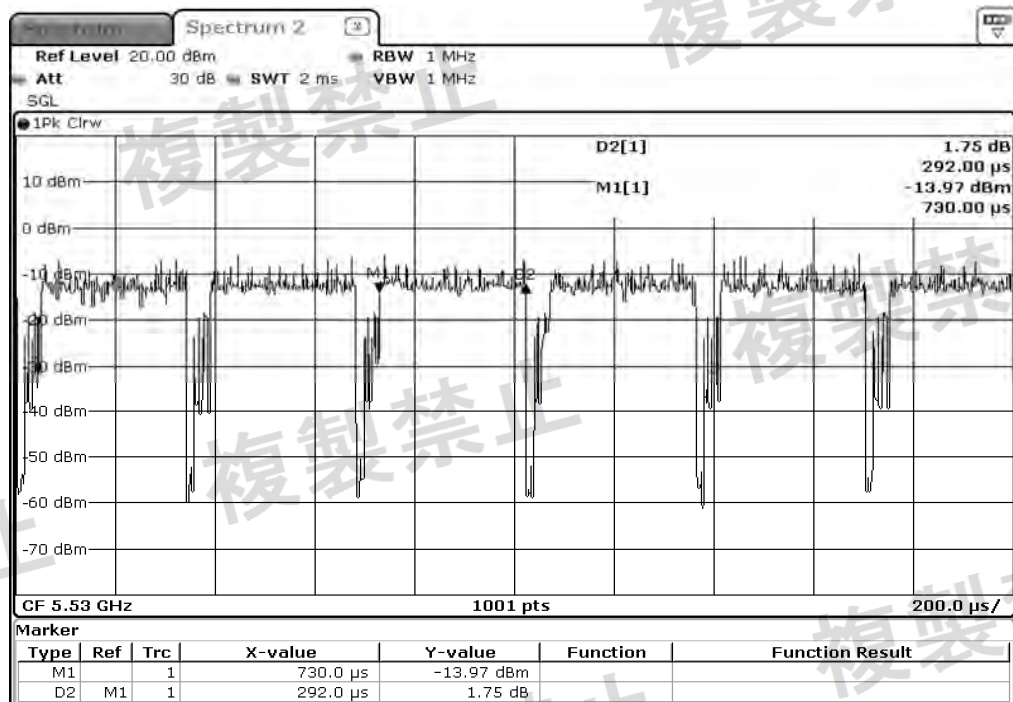
Date: 13.APR.2021 06:39:04

5290MHz



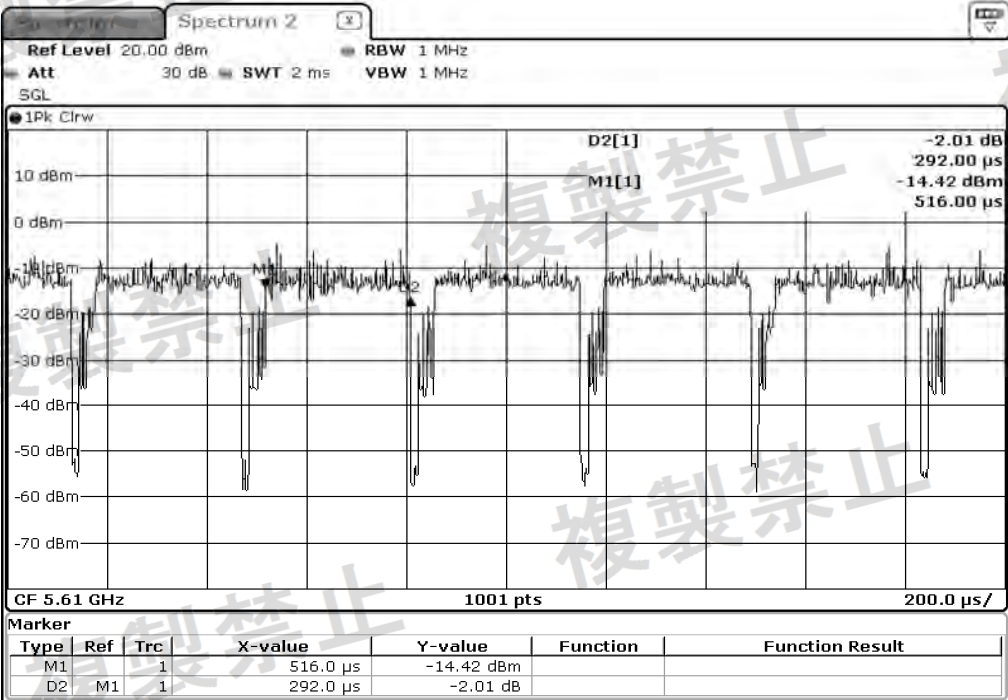
Date: 13.APR.2021 06:40:02

5530MHz



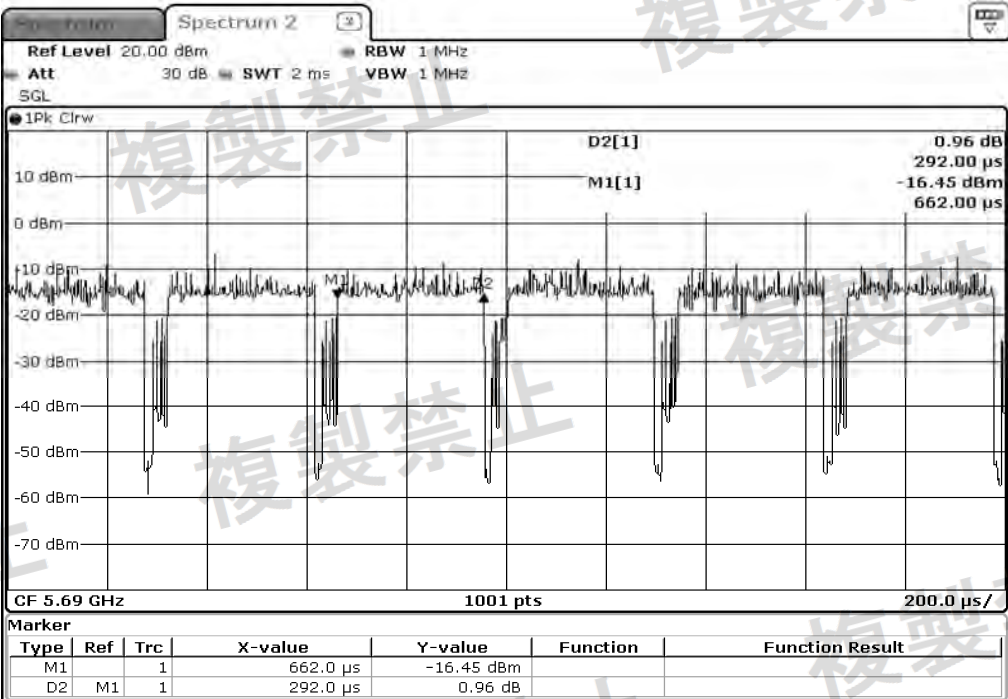
Date: 13.APR.2021 06:40:48

5610MHz



Date: 13.APR.2021 06:43:07

5690MHz



Date: 13.APR.2021 06:43:44

12. EMI Reduction Method During Compliance Testing

No modification was made during testing.