



RADIO TEST REPORT

Applicant	:	Kingstate Electronics(Dongguan)Co.,Ltd
Address of Applicant	:	No 11 Chong Tian Avenue, Shi Pai Town, Dong Guan City, Guang Dong Province, China.
Manufacturer	:	Kingstate Electronics(Dongguan)Co.,Ltd
Address of Manufacturer	:	No 11 Chong Tian Avenue, Shi Pai Town, Dong Guan City, Guang Dong Province, China.
Equipment under Test	:	WIRELESS HEADPHONES
Model No.	:	KH-CRZ90T
FCC ID	:	2AKMBKH-CRZ90T
IC	:	12522A-CRZ90T
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, ANSI C63.10-2020, RSS-247 Issue 4 July 24, 2025, RSS-Gen Issue 5, Apr. 2018, Amendment 2 (February 2021), ANSI C63 10-2020+Cor.1-2023+C63.10a- 2024+Errata to C63.10a-2024
Report No.	:	DDT-RE25101501-2E01
Issue Date	:	2026/03/04
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

Table of Contents

1.	Summary of Test Results	7
2.	General Test Information.....	8
2.1.	Description of EUT	8
2.2.	Accessories of EUT	9
2.3.	Block diagram of EUT configuration for test.....	9
2.4.	Decision of final test mode	9
2.5.	Deviations of test standard	10
2.6.	Test environment conditions	10
2.7.	Test laboratory	10
2.8.	Measurement uncertainty	11
3.	Equipment Used During Conductive Test	12
4.	20 dB Bandwidth	13
4.1.	Block diagram of test setup	13
4.2.	Limits	13
4.3.	Test procedure	13
4.4.	Test result.....	14
4.5.	Test graphs	15
5.	99% Bandwidth	18
5.1.	Block diagram of test setup	18
5.2.	Limits	18
5.3.	Test procedure	18
5.4.	Test result.....	19
5.5.	Test graphs	20
6.	Maximum Peak Output Power.....	23
6.1.	Block diagram of test setup	23
6.2.	Limits	23
6.3.	Test procedure	23
6.4.	Test result.....	24
6.5.	Test graphs	25
7.	Carrier Frequency Separation	31
7.1.	Block diagram of test setup	31
7.2.	Limits	31
7.3.	Test procedure	31
7.4.	Test result.....	32
7.5.	Test graphs	33
8.	Dwell Time.....	34

8.1.	Block diagram of test setup	34
8.2.	Limits	34
8.3.	Test procedure	34
8.4.	Test result.....	35
8.5.	Test graphs	36
9.	Number of Hopping Channel.....	42
9.1.	Block diagram of test setup	42
9.2.	Limits	42
9.3.	Test procedure	42
9.4.	Test result.....	43
9.5.	Test graphs	44
10.	Band Edge Compliance (Conducted Method).....	45
10.1.	Block diagram of test setup	45
10.2.	Limit.....	45
10.3.	Test procedure	45
10.4.	Test result.....	46
10.5.	Test graphs	47
11.	RF Conducted Spurious Emissions.....	51
11.1.	Block diagram of test setup	51
11.2.	Limits	51
11.3.	Test procedure	51
11.4.	Test result.....	51
11.5.	Test graphs	53
12.	Duty cycle.....	62
12.1.	Block diagram of test setup	62
12.2.	Limit.....	62
12.3.	Test procedure	62
12.4.	Test result.....	63
12.5.	Test graphs	64
13.	Antenna Requirements.....	67
13.1.	Limit.....	67
13.2.	Result	67
14.	Radiated Emission	68
14.1.	Test equipment.....	68
14.2.	Block diagram of test setup	69
14.3.	Limits	70
14.4.	Assistant equipment used for test	72
14.5.	Test procedure	72

14.6.	Test result.....	73
14.7.	Test data	74
15.	Band Edge Compliance.....	90
15.1.	Test equipment.....	90
15.2.	Block diagram of test setup	91
15.3.	Limits	91
15.4.	Assistant equipment used for test	91
15.5.	Test procedure	91
15.6.	Test result.....	91
15.7.	Test data	92
16.	Power Line Conducted Emissions.....	116
16.1.	Test equipment.....	116
16.2.	Block diagram of test setup	116
16.3.	Limits	116
16.4.	Assistant equipment used for test	116
16.5.	Test procedure	116
16.6.	Test result.....	117
16.7.	Test data	118
17.	Test Setup Photograph	120
18.	Photos of the EUT	122

Test Report Declare

Applicant	:	Kingstate Electronics(Dongguan)Co.,Ltd
Address of Applicant	:	No 11 Chong Tian Avenue, Shi Pai Town, Dong Guan City, Guang Dong Province, China.
Equipment under Test	:	WIRELESS HEADPHONES
Model No.	:	KH-CRZ90T
Manufacturer	:	Kingstate Electronics(Dongguan)Co.,Ltd
Address of Manufacturer	:	No 11 Chong Tian Avenue, Shi Pai Town, Dong Guan City, Guang Dong Province, China.

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C,
ANSI C63.10-2020,
RSS-247 Issue 4 July 24, 2025,
RSS-Gen Issue 5, Apr. 2018, Amendment 2 (February 2021),
ANSI C63 10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024

We Declare:

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE25101501-2E01		
Date of Receipt:	2025/11/12	Date of Test:	2025/11/12 - 2025/12/25

Created: Zoe Peng	Reviewed: Chen Ziqin	Approved: Damon Hu
		
2025/12/25	2026/03/04	2026/03/04

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2026/03/04	Damon Hu

1. Summary of Test Results

No.	Test Parameter	Clause No.	Condition	Result
1	Maximum Peak Output Power	47 CFR Part 15 15.247(b)(1), RSS-247 clause 6.2.3.2(a)	/	Pass
2	20 dB Bandwidth	47 CFR Part 15 15.247(a)(1), RSS-247 clause 6.2.3.1(a)	/	Pass
3	99% Bandwidth	RSS-Gen clause 6.7	/	Pass
4	Carrier Frequency Separation	47 CFR Part 15 15.247(a)(1), RSS-247 clause 6.2.3.1(a)	/	Pass
5	Number of Hopping Channel	47 CFR Part 15 15.247(a)(1)(iii), RSS-247 clause 6.2.3.1(b)	/	Pass
6	Dwell Time	47 CFR Part 15 15.247(a)(1)(iii), RSS-247 clause 6.2.3.1(b)	/	Pass
7	RF Conducted Spurious Emissions	47 CFR Part 15 15.247(d), RSS-247 clause 6.6	/	Pass
8	Radiated Emission	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d), RSS-247 clause 6.6, RSS-Gen clause 8.9, RSS-Gen clause 8.10	/	Pass
9	Band Edge Compliance	47 CFR Part 15 15.205, 47 CFR Part 15 15.209, 47 CFR Part 15 15.247(d), RSS-247 clause 6.6, RSS-Gen clause 8.9, RSS-Gen clause 8.10	/	Pass
10	Power Line Conducted Emissions	47 CFR Part 15 15.207(a), RSS-Gen clause 8.8	/	Pass
11	Antenna Requirement	47 CFR Part 15 15.203, RSS-Gen clause 6.8	/	Pass

Note1: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device or no need to test according to standard.

Note2: The left side and the right side of the headset using the same RF chip, antenna type and antenna location, only the PCB and some of the components (C10, C13 and R35) on the schematic diagram are different. It has been tested and verified that the RF characteristics are not affected. Both left and right side were tested, except for Maximum Peak Output Power, Radiated Emission and Band Edge Compliance (Radiated Method), only the worst case (Right side) is record and reported.

2. General Test Information

2.1. Description of EUT

EUT Name	: WIRELESS HEADPHONES
Model Number	: KH-CRZ90T
Difference of model number	: /
EUT Function Description	: Please reference user manual of this device
Power Supply	: CHARGING CASE: DC 5V from USB cable or Wireless charger EARBUDS: DC 5V from external charging case CHARGING CASE: DC 3.7V Lithium-ion built-in battery EARBUDS: DC 3.85V Lithium-ion built-in battery
Hardware Version	: V02C
Software Version	: V0.10.0
Antenna Type	: FPC Antenna
Max Antenna Gain(dBi)	: Left: 1.73dBi; Right: 1.93dBi

Radio Specification	: Bluetooth BR/EDR
Operation Frequency	: 2402 MHz to 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK

Bluetooth BR/EDR Channel information					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	27	2429	54	2456
1	2403	28	2430	55	2457
2	2404	29	2431	56	2458
3	2405	30	2432	57	2459
4	2406	31	2433	58	2460
5	2407	32	2434	59	2461
6	2408	33	2435	60	2462
7	2409	34	2436	61	2463
8	2410	35	2437	62	2464
9	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473

18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454	/	
26	2428	53	2455	/	

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

“☑” means to be chosen or applicable; “☐” means don't to be chosen or not applicable; This note applies to entire report.

2.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

2.3. Block diagram of EUT configuration for test



2.4. Decision of final test mode

According pre-test, the worst test modes were reported as below:

Test software: AB157xLab Test Tool-5.5.0.2.exe

The test software was used to control EUT work in Continuous Tx mode, and select test channel, wireless mode as below table.

The pathloss of external cable: 0.5 dB (According to the manufacturer's claims)

Tested mode, Tx Power Setting, Channel, and Frequency			
Tested mode	Tx Power Setting	Channel	Frequency (MHz)
GFSK hopping on Tx mode	default (60)	CH0 to CH78	2402 to 2480
$\pi/4$ -DQPSK hopping on Tx mode	default (60)	CH0 to CH78	2402 to 2480

8DPSK hopping on Tx mode	default (60)	CH0 to CH78	2402 to 2480
GFSK hopping off Tx mode	default (60)	CH0	2402
	default (60)	CH39	2441
	default (60)	CH78	2480
$\pi/4$ -DQPSK hopping off Tx mode	default (60)	CH0	2402
	default (60)	CH39	2441
	default (60)	CH78	2480
8DPSK hopping off Tx mode	default (60)	CH0	2402
	default (60)	CH39	2441
	default (60)	CH78	2480

Note: According exploratory test, EUT will have maximum output power in those data rate, worst-case data rates were: GFSK mode: DH5, $\pi/4$ -DQPSK mode: 2DH5, 8DPSK mode: 3DH5

2.5. Deviations of test standard

No deviation.

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	+15°C to +35 °C
Humidity range:	20% to 75%
Pressure range:	86 kPa to 106 kPa

Note: The specific temperature and humidity information of each test item refers to the temperature and humidity record in the corresponding test data.

2.7. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20240, G-20118

2.8. Measurement uncertainty

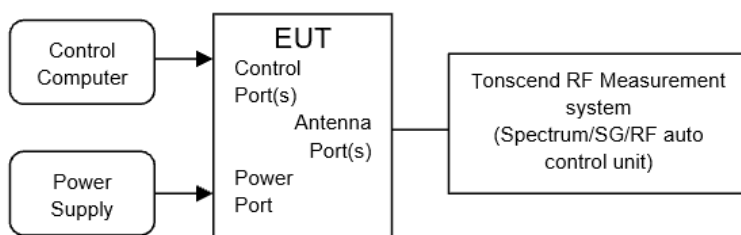
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$); 1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$); 1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Frequencies Stability	6.7×10^{-8} (Antenna couple method) 5.5×10^{-8} (Conducted method)
Conducted spurious emissions	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$); 1.40 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$) 1.66 dB ($8 \text{ GHz} \leq f < 26.5 \text{ GHz}$)
Uncertainty for radio frequency (RBW < 20 kHz)	3×10^{-8}
Temperature	0.4 °C
Humidity	2 %
Uncertainty for Radiation Emission test (9 kHz – 30 MHz)	3.44 dB
Uncertainty for Radiation Emission test (30 MHz - 1 GHz)	4.70 dB (Antenna Polarize: V) 4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1 GHz - 40 GHz)	4.10 dB (1 - 6 GHz) 4.40 dB (6 GHz - 18 GHz) 3.54 dB (18 GHz - 26 GHz) 4.30 dB (26 GHz - 40 GHz)
Uncertainty for Power line conduction emission test	3.34dB (150KHz-30MHz) 3.72dB (9KHz-150KHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment Used During Conductive Test

Equipment	Manufacturer	Model No.	Serial Number	Due Date
☒ RF Connected Test (RF Measurement System 3#)				
SIGNAL ANALYZER	R&S	FSV40	101407	2026/07/06
Wideband Radio Communication Tester	R&S	CMW500	117491	2026/03/28
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY62153058	2026/07/06
MXG Vector Signal Generator	Agilent	N5182A	MY48180912	2026/03/28
RF Control Unit	Tonscend	JS0806-2	20C8060230	2026/03/28
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28
Test Software	Tonscend	JS1120-3	V3.6.21	N/A

4. 20 dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

4.3. Test procedure

- (1) The test according to ANSI C63.10 clause 6.9.2.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously
- (4) Use the following spectrum analyzer settings for the 20 dB bandwidth measurement:

RBW:	1% to 5% of the OBW
VBW:	approximately three times RBW
Span:	between 2 times and 5 times the OBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold

- (5) Measure and record the results in the report.

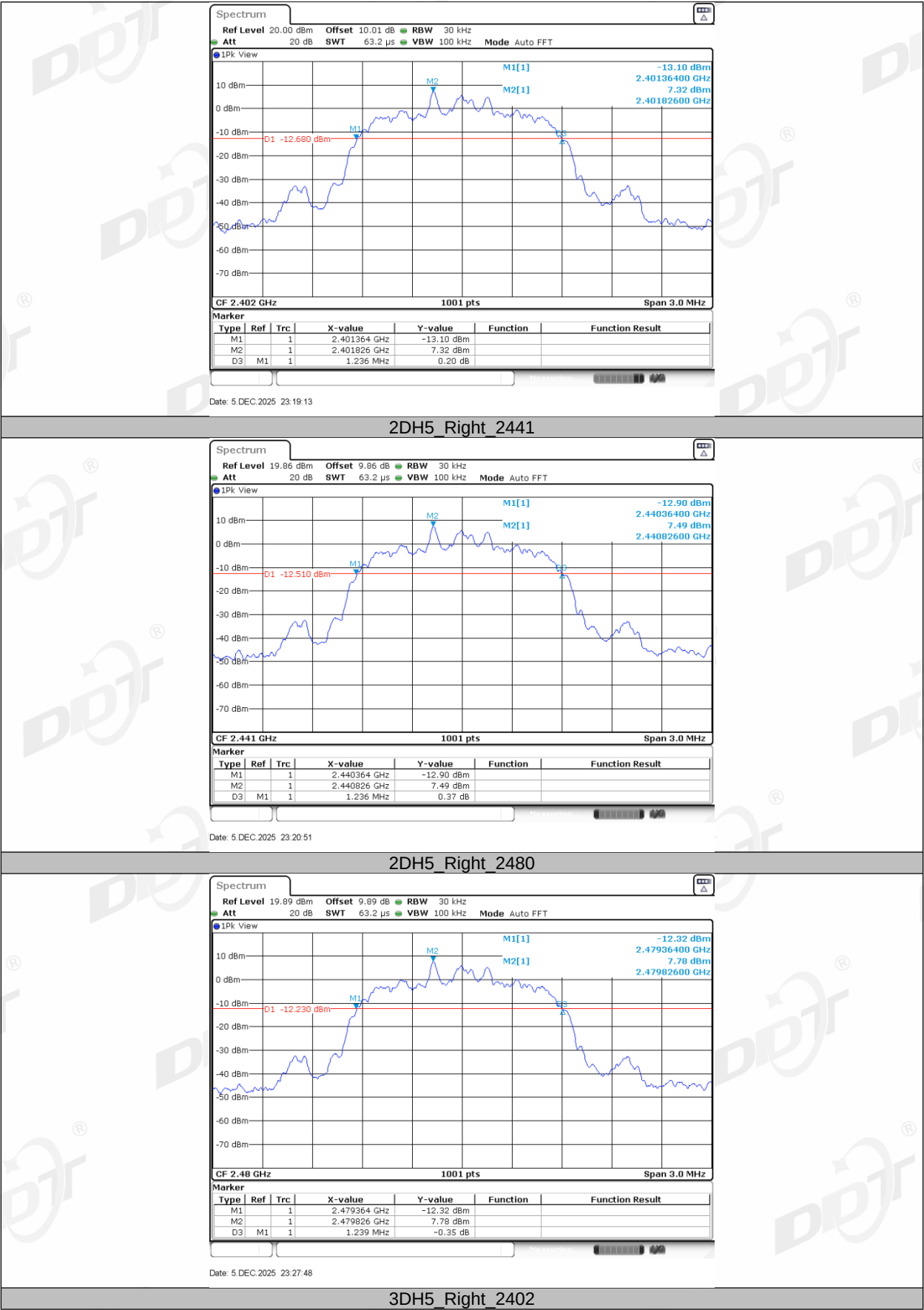
4.4. Test result

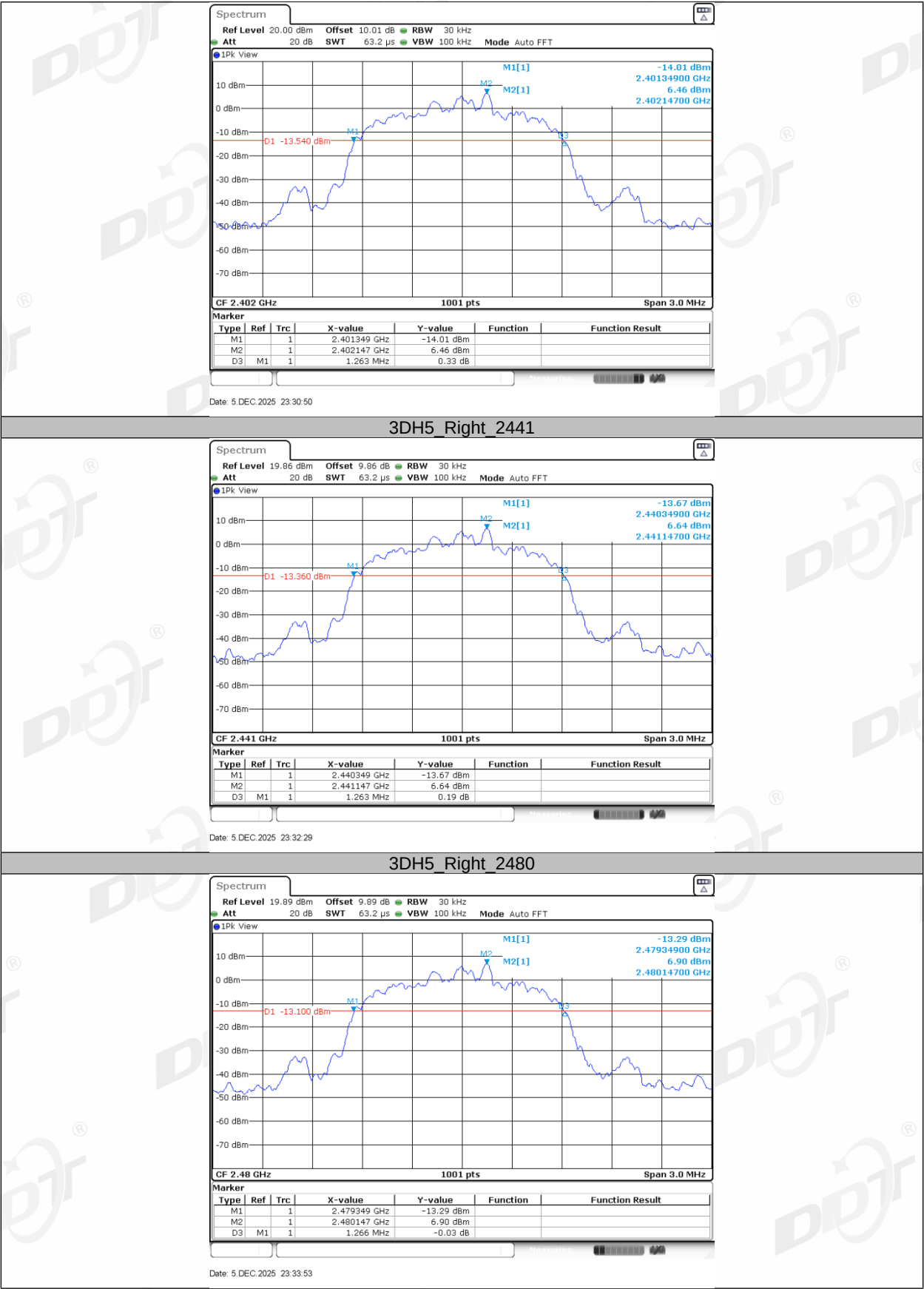
Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

Test Mode	Antenna	Frequency [MHz]	20dB EBW[MHz]
DH5	Right	2402	0.96
		2441	0.96
		2480	0.96
2DH5	Right	2402	1.24
		2441	1.24
		2480	1.24
3DH5	Right	2402	1.26
		2441	1.26
		2480	1.27

4.5. Test graphs

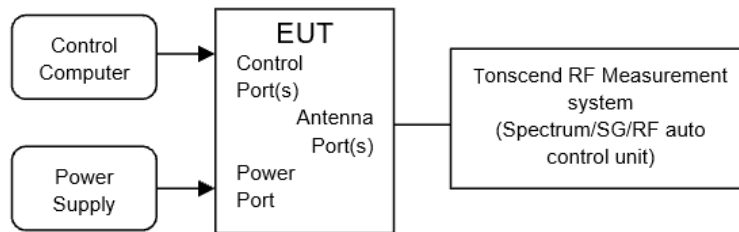






5. 99% Bandwidth

5.1. Block diagram of test setup



5.2. Limits

Just for Report.

5.3. Test procedure

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

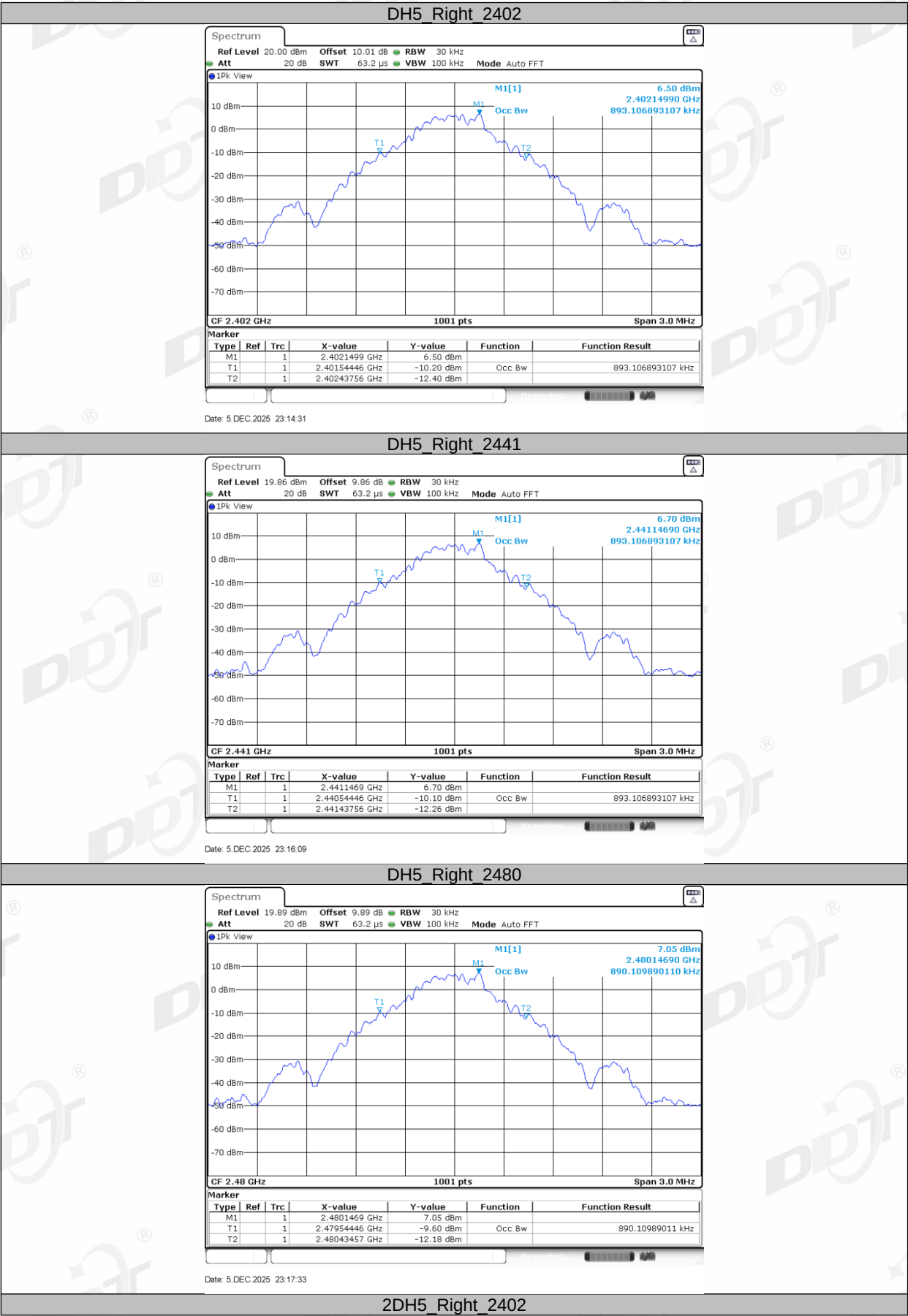
RBW:	1% to 5% of the OBW
VBW:	approximately three times RBW
Span:	between 1.5 times and 5.0 times the OBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold
- (5) Measure and record the results in the report.

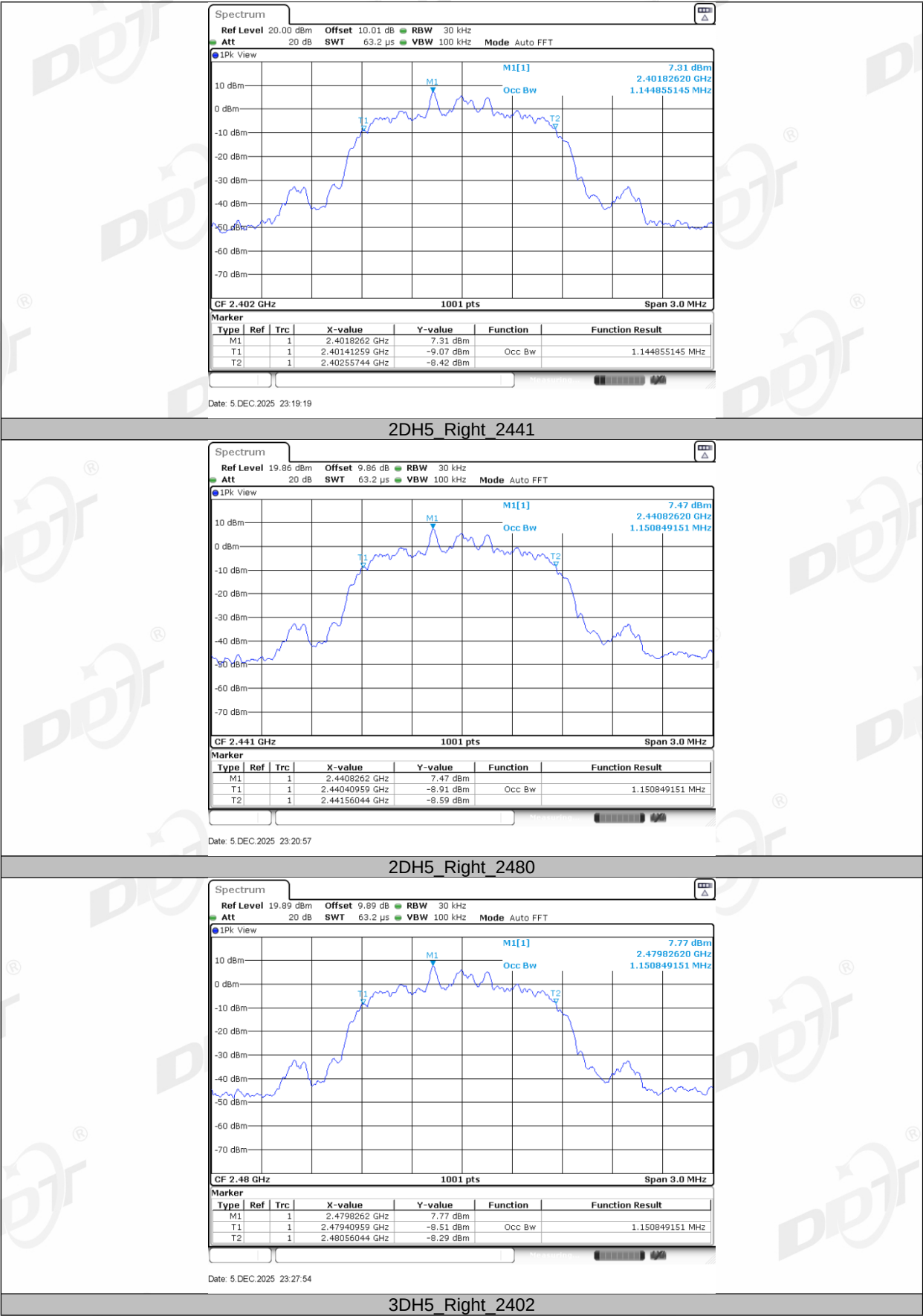
5.4. Test result

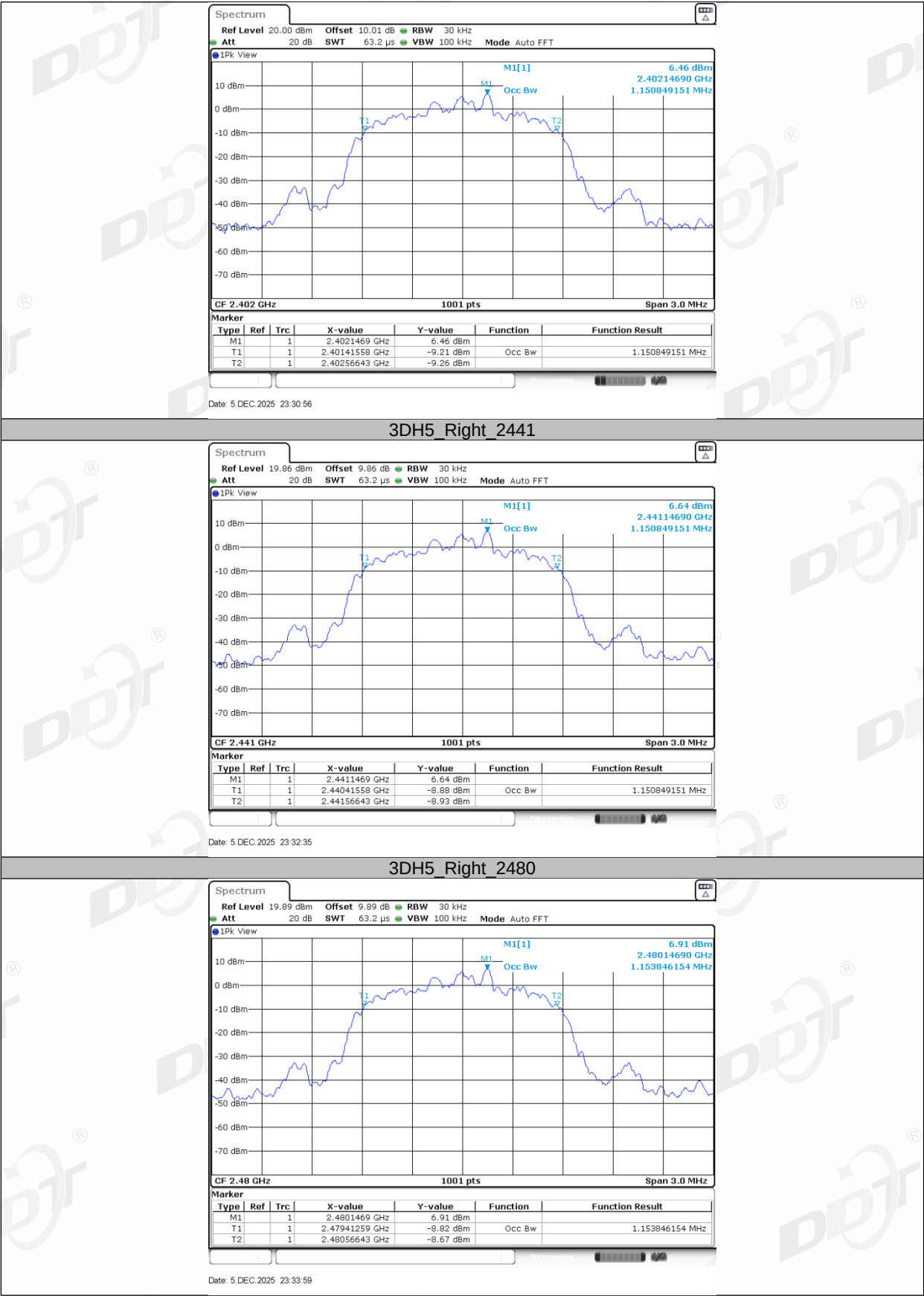
Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
DH5	Right	2402	0.89311	2401.5445	2402.4376
		2441	0.89311	2440.5445	2441.4376
		2480	0.89011	2479.5445	2480.4346
2DH5	Right	2402	1.1449	2401.4126	2402.5574
		2441	1.1508	2440.4096	2441.5604
		2480	1.1508	2479.4096	2480.5604
3DH5	Right	2402	1.1508	2401.4156	2402.5664
		2441	1.1508	2440.4156	2441.5664
		2480	1.1538	2479.4126	2480.5664

5.5. Test graphs

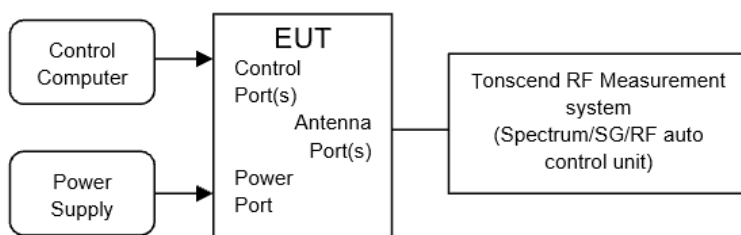






6. Maximum Peak Output Power

6.1. Block diagram of test setup



6.2. Limits

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W.

6.3. Test procedure

- (1) The test according to ANSI C63.10 clause 7.8.5.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
- (4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	> 20 dB bandwidth of the emission being measured.
VBW:	VBW $\geq$ RBW.
Span:	Approximately five times the 20 dB bandwidth, centered on a hopping channel.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold
- (5) Use the marker-to-peak function to set the marker to the peak of the emission and record the results in the report.

6.4. Test result

Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
DH5	Right	2402	9.26	≤20.97	11.21	≤30	PASS
		2441	9.38	≤20.97	11.33	≤30	PASS
		2480	9.75	≤20.97	11.70	≤30	PASS
2DH5	Right	2402	9.13	≤20.97	11.08	≤30	PASS
		2441	9.23	≤20.97	11.18	≤30	PASS
		2480	9.50	≤20.97	11.45	≤30	PASS
3DH5	Right	2402	9.14	≤20.97	11.09	≤30	PASS
		2441	9.28	≤20.97	11.23	≤30	PASS
		2480	9.51	≤20.97	11.46	≤30	PASS

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
DH5	Left	2402	8.92	≤20.97	10.65	≤30	PASS
		2441	9.16	≤20.97	10.89	≤30	PASS
		2480	9.55	≤20.97	11.28	≤30	PASS
2DH5	Left	2402	8.78	≤20.97	10.51	≤30	PASS
		2441	8.98	≤20.97	10.71	≤30	PASS
		2480	9.43	≤20.97	11.16	≤30	PASS
3DH5	Left	2402	8.80	≤20.97	10.53	≤30	PASS
		2441	9.00	≤20.97	10.73	≤30	PASS
		2480	9.41	≤20.97	11.14	≤30	PASS

6.5. Test graphs







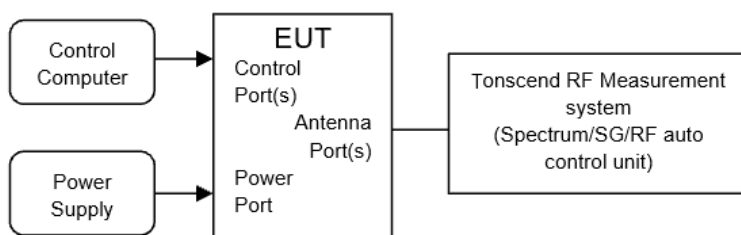






7. Carrier Frequency Separation

7.1. Block diagram of test setup



7.2. Limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

7.3. Test procedure

- (1) The test according to ANSI C63.10 clause 7.8.2.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
- (4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

RBW:	approximately 30% of the channel spacing
VBW:	$VBW \geq RBW$.
Span:	Wide enough to capture the peaks of two adjacent channels.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold
- (5) Use the marker-delta function to determine the separation between the peaks of the adjacent channels and record the results in the report.

7.4. Test result

Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

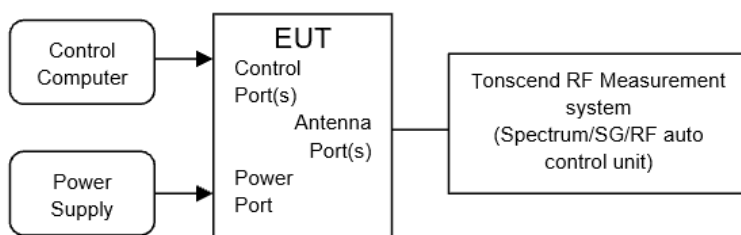
Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Right	Hop	1	≥0.960	PASS
2DH5	Right	Hop	1	≥0.827	PASS
3DH5	Right	Hop	1.003	≥0.847	PASS

7.5. Test graphs



8. Dwell Time

8.1. Block diagram of test setup



8.2. Limits

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

8.3. Test procedure

- (1) The test according to ANSI C63.10 clause 7.8.4.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
- (4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

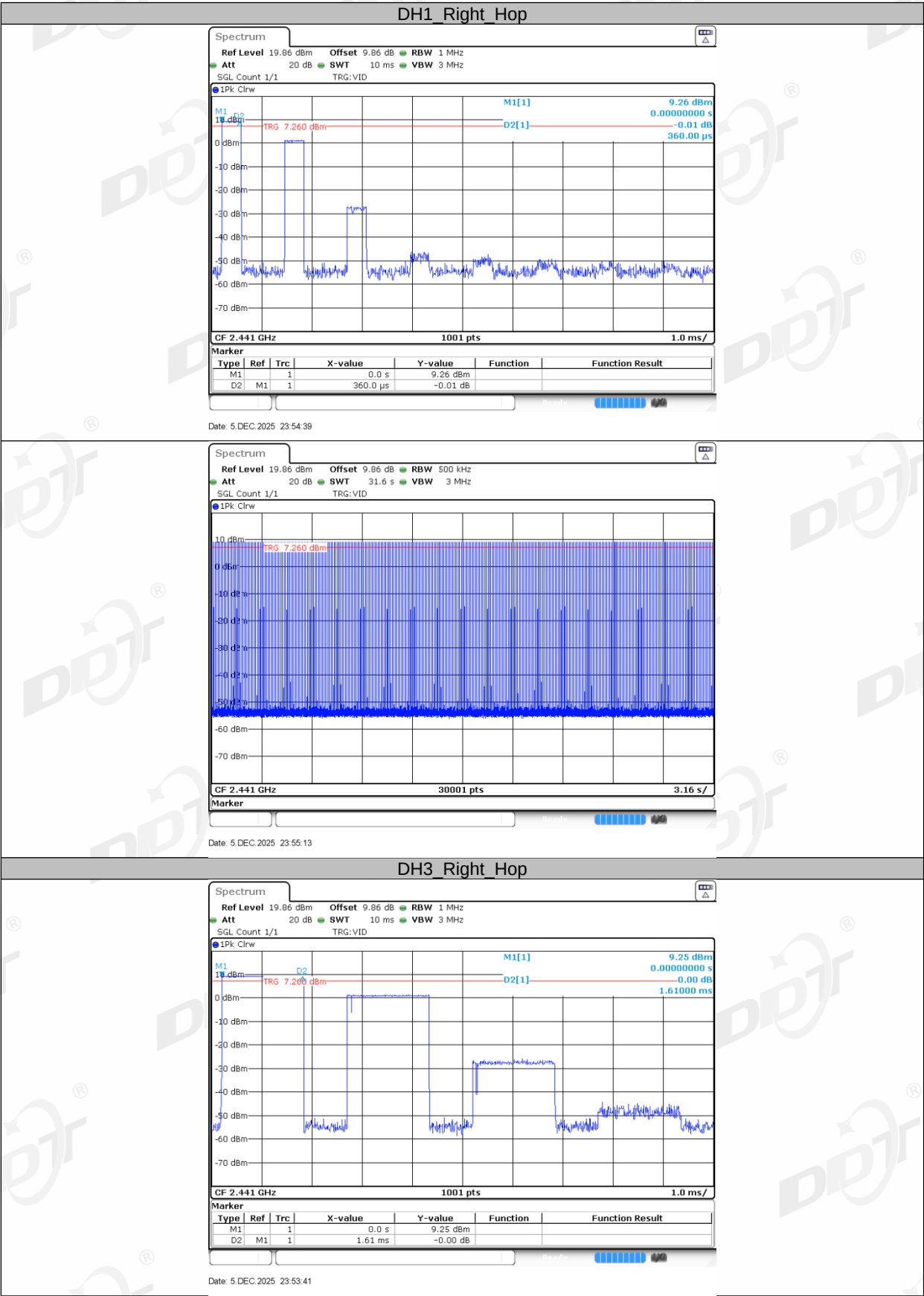
RBW:	≤ channel spacing and where possible RBW should be set $\gg 1 / T$
VBW:	$VBW \geq RBW$.
Span:	Zero span, centered on a hopping channel.
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Clear Write.
- (5) The test period: $T = 0.4 \text{ Second/Channel} \times 79 \text{ Channel} = 31.6 \text{ s}$
- (6) Measure the hopping number and on time of each pulse with spectrum analyzer in zero span set, and calculate dwell time with formula Dwell time = total hops * pulse's on time.
- (7) Measure and record the results in the report.

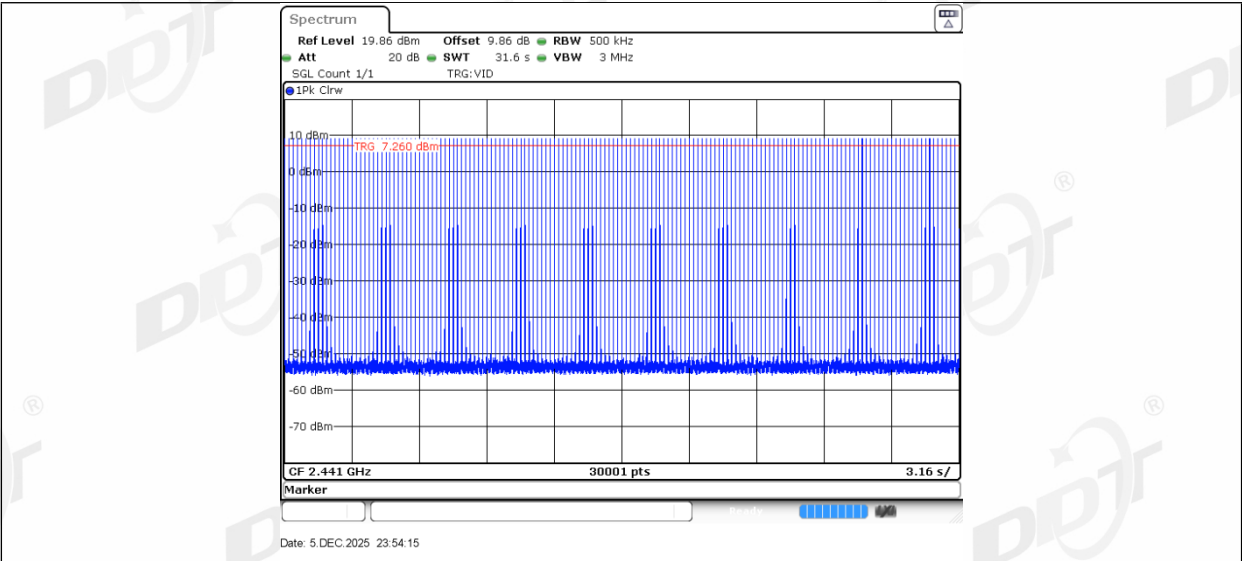
8.4. Test result

Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

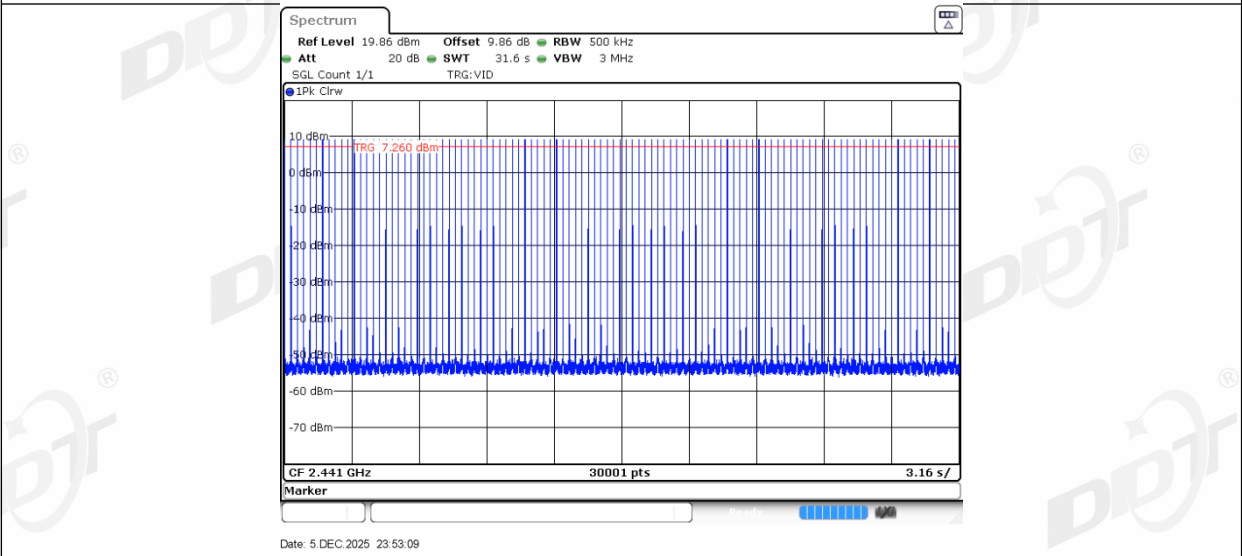
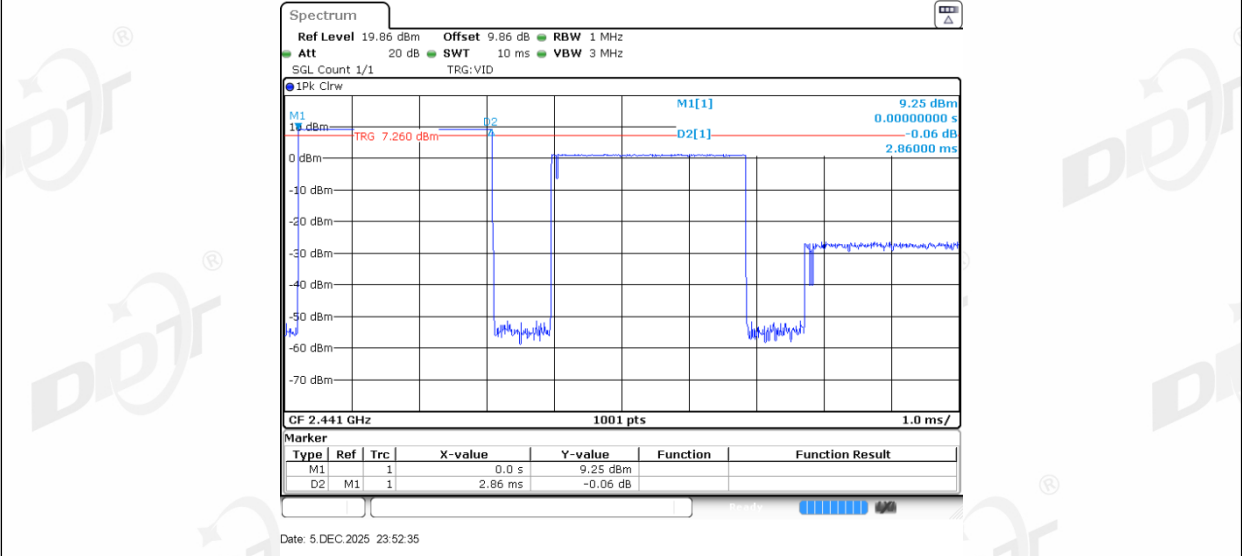
Test Mode	Antenna	Frequency [MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Right	Hop	0.360	320	0.115	≤0.4	PASS
DH3	Right	Hop	1.610	160	0.258	≤0.4	PASS
DH5	Right	Hop	2.860	107	0.306	≤0.4	PASS
2DH1	Right	Hop	0.360	320	0.115	≤0.4	PASS
2DH3	Right	Hop	1.610	160	0.258	≤0.4	PASS
2DH5	Right	Hop	2.860	107	0.306	≤0.4	PASS
3DH1	Right	Hop	0.360	320	0.115	≤0.4	PASS
3DH3	Right	Hop	1.610	160	0.258	≤0.4	PASS
3DH5	Right	Hop	2.870	107	0.307	≤0.4	PASS

8.5. Test graphs

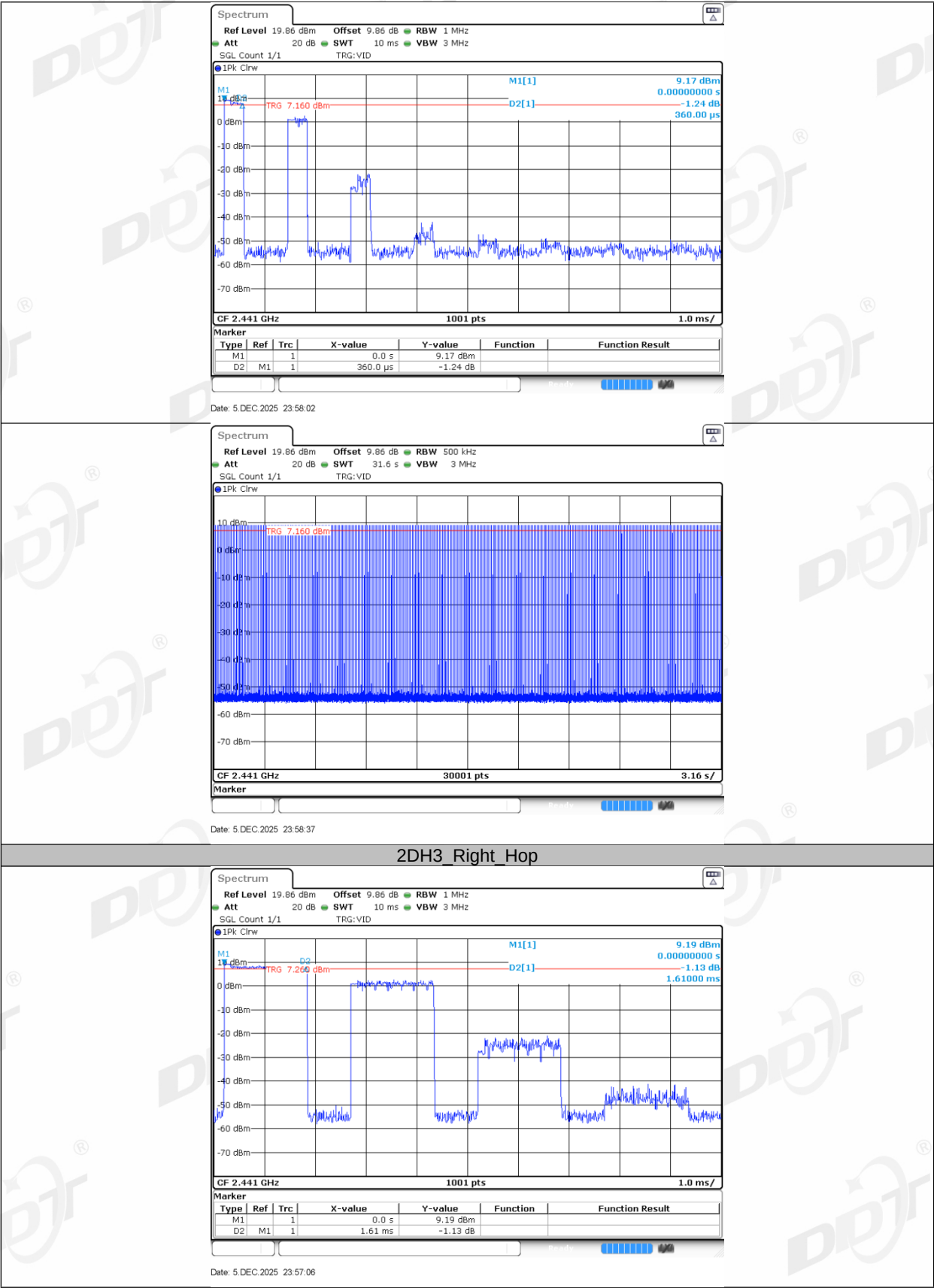


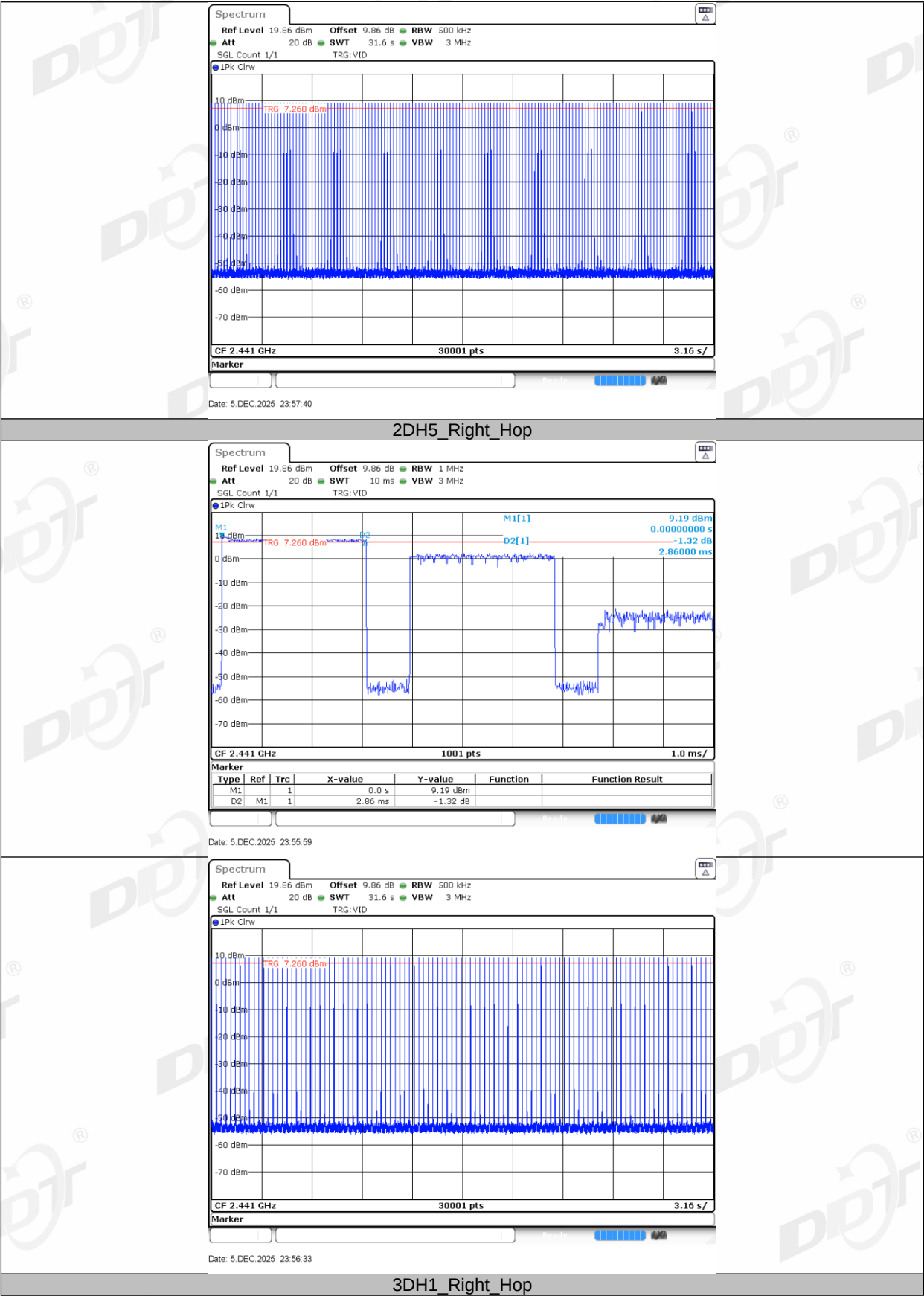


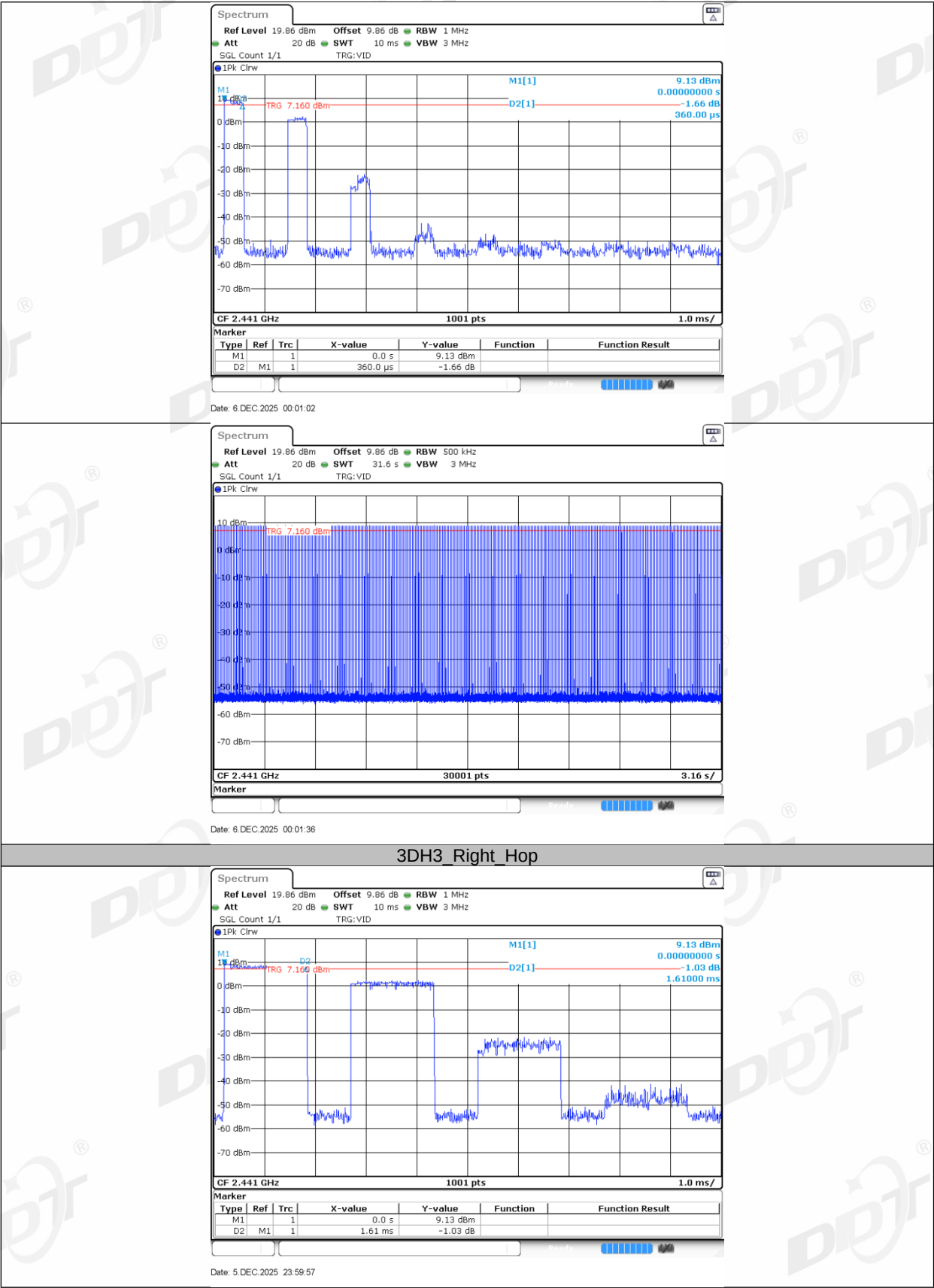
DH5_Right_Hop

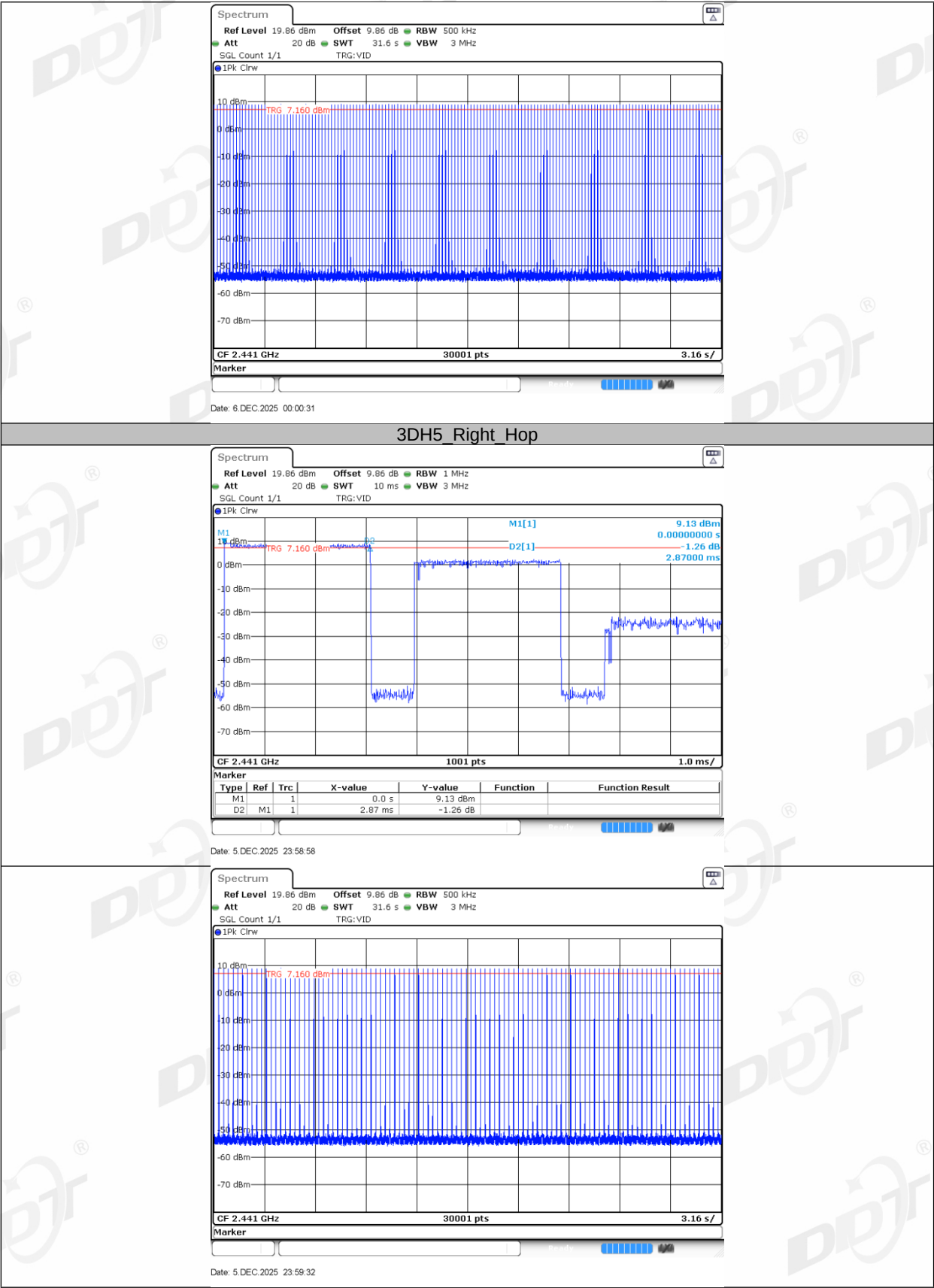


2DH1_Right_Hop



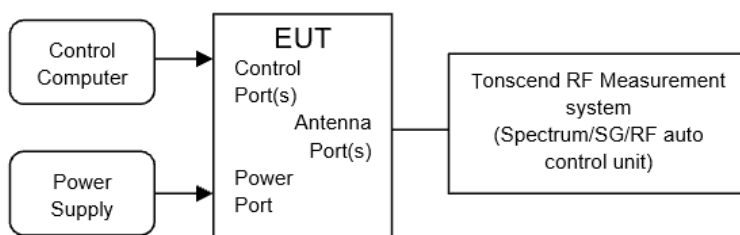






9. Number of Hopping Channel

9.1. Block diagram of test setup



9.2. Limits

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

9.3. Test procedure

- (1) The test according to ANSI C63.10 clause 7.8.3.
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable, the path loss was compensated to the results.
- (3) Set the EUT as maximum power setting and enable the EUT transmit continuously.
- (4) Use the following spectrum analyzer settings for the maximum peak output power measurement:

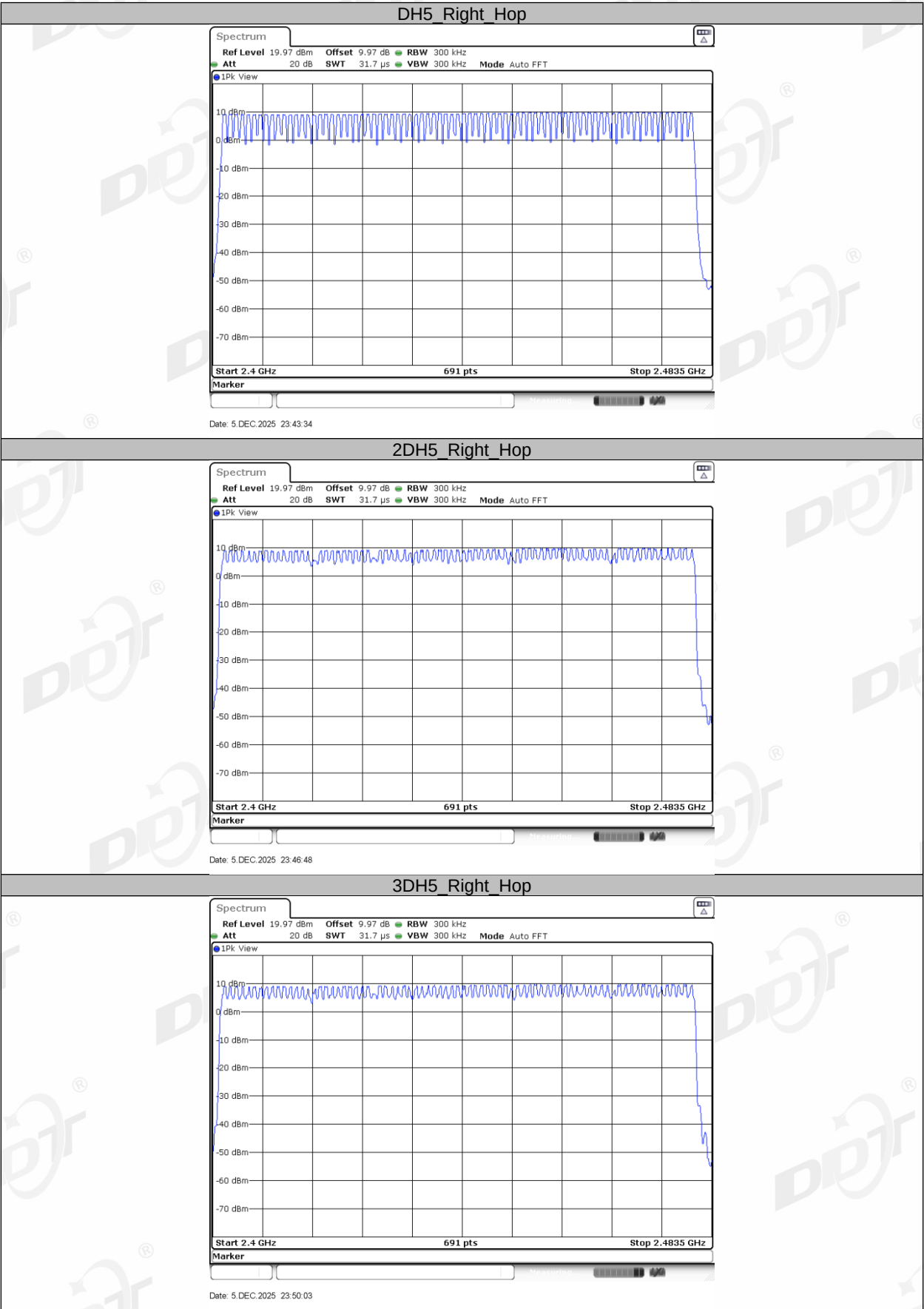
RBW:	RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
VBW:	VBW $\geq$ RBW.
Span:	The frequency band of operation
Detector Mode:	Peak
Sweep time:	Auto
Trace mode:	Max hold
- (5) Measure the hopping number and record the results in the report.
- (6) Measure and record the results in the report.

9.4. Test result

Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

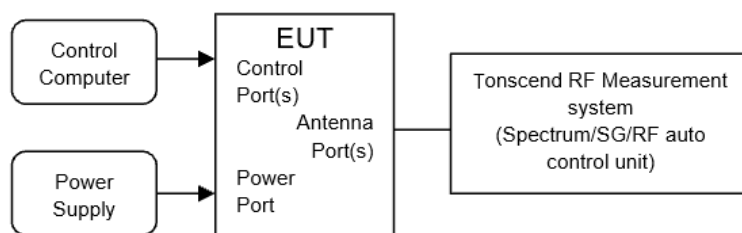
Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Right	Hop	79	≥15	PASS
2DH5	Right	Hop	79	≥15	PASS
3DH5	Right	Hop	79	≥15	PASS

9.5. Test graphs



10. Band Edge Compliance (Conducted Method)

10.1. Block diagram of test setup



10.2. Limit

All restriction band should comply with 15.209, other emission should be at least 20dB below the fundamental.

10.3. Test procedure

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

RBW:	100 kHz
VBW:	300 kHz
Span	Encompass frequency range to be measured
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold
- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Then mark the maximum amplitude of all unwanted emissions outside of the authorized frequency band.

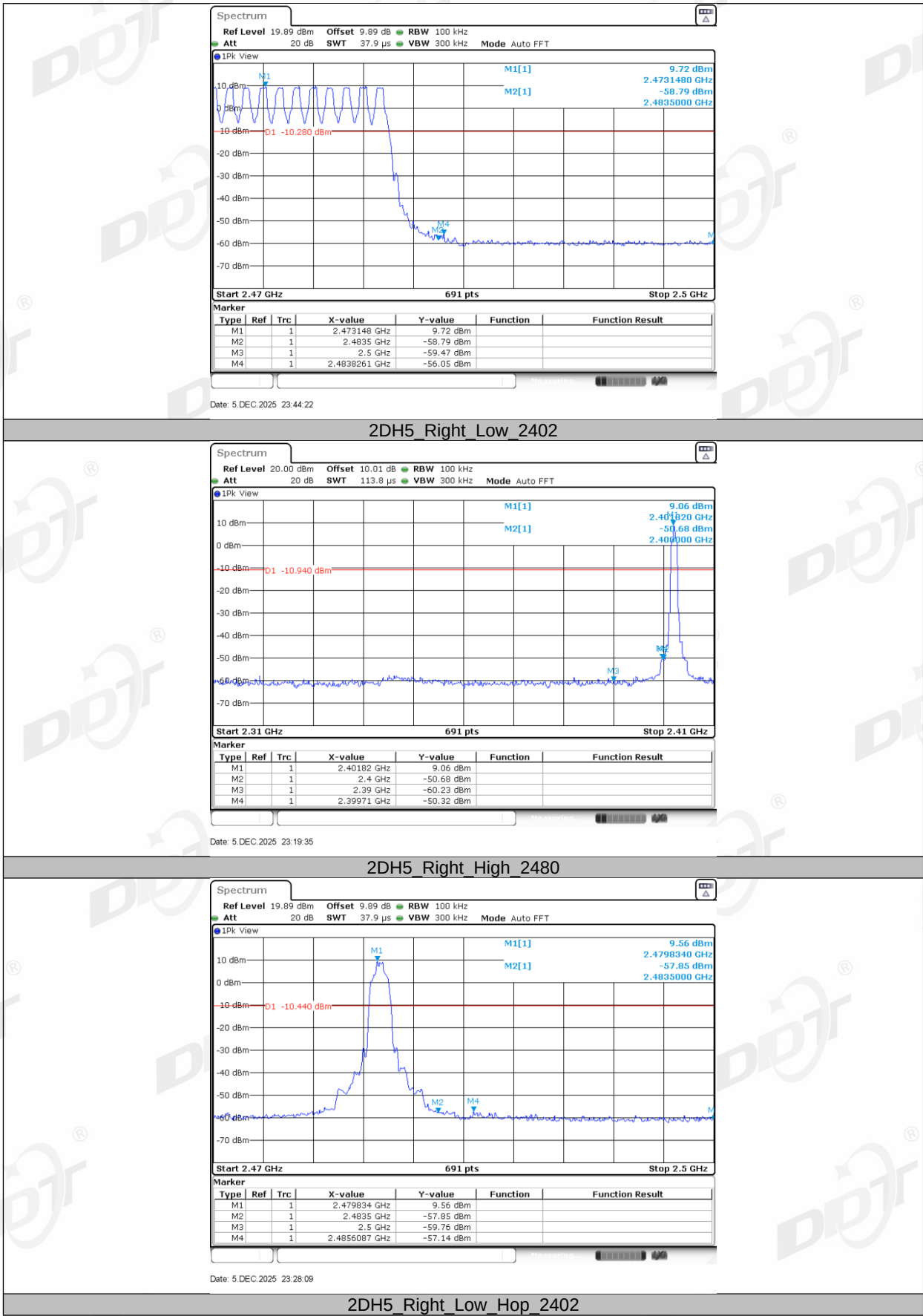
10.4. Test result

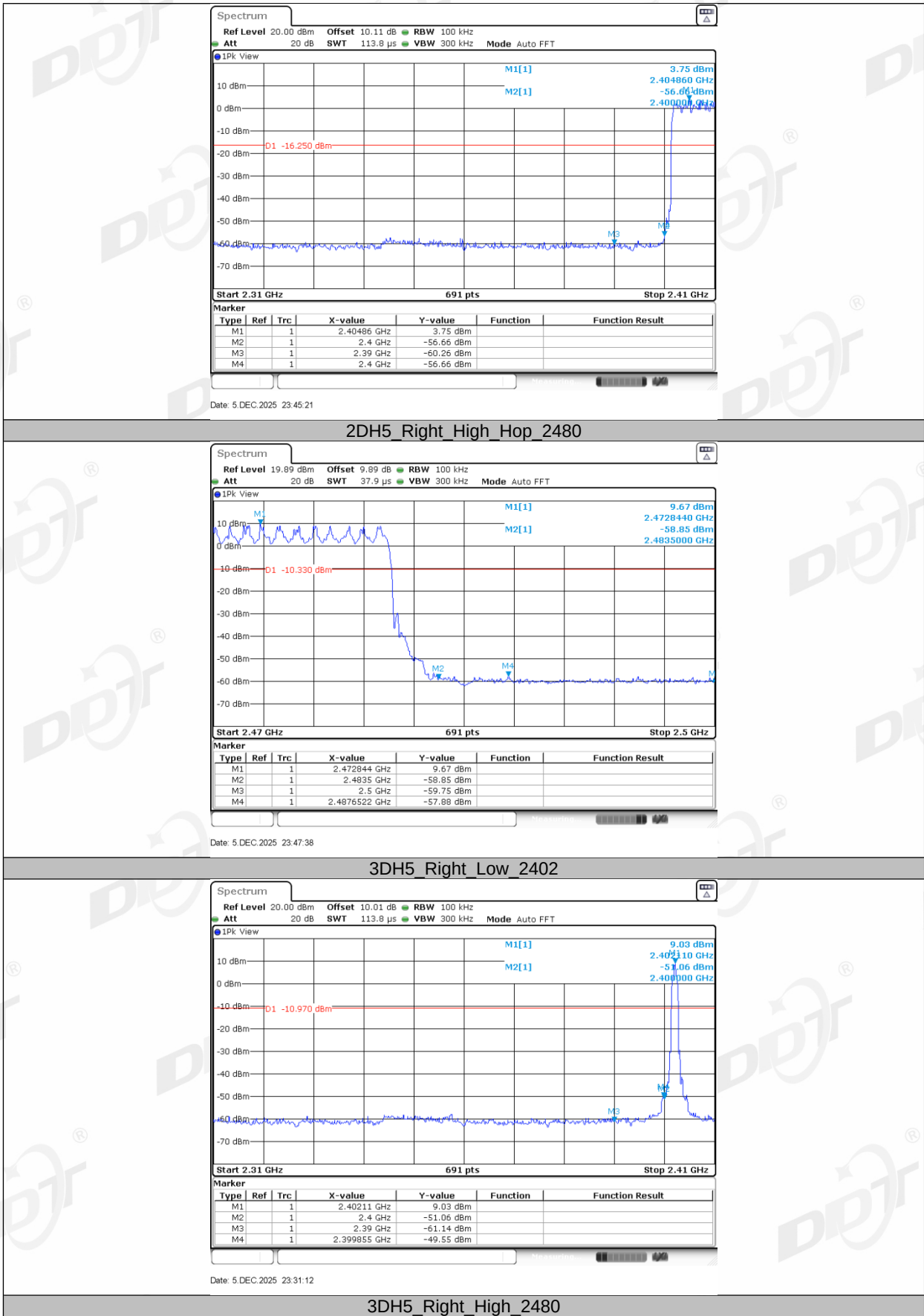
Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power Supply:	Battery	Sample Number:	S25101501-012

Mode	Freq. (MHz)	Verdict
GFSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass
$\pi/4$ -DQPSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass
8DPSK	Hopping off 2402	Pass
	Hopping off 2480	Pass
	Hopping on	Pass

10.5. Test graphs



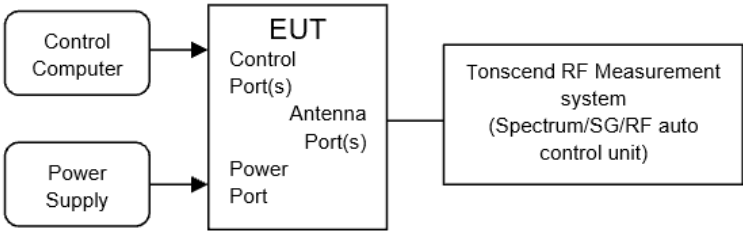






11. RF Conducted Spurious Emissions

11.1. Block diagram of test setup



11.2. Limits

In any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

11.3. Test procedure

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

Center frequency

Test frequency

RBW:

100 kHz

VBW:

300 kHz

Span

Wide enough to capture the peak level of the in-band emission

Detector Mode:

Peak

Sweep time:

Auto

Trace mode

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

RBW:

100 kHz

VBW:

300 kHz

Span

Encompass frequency range to be measured

Number of measurement points

≥Span/RBW

Detector Mode:

Peak

Sweep time:

Auto

Trace mode

Max hold

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

11.4. Test result

Test Engineer:	Tyang	Test Site:	RF Measurement System 3#
Ambient Condition:	24.7℃,39.7%RH	Test Date:	2025.12.06-2025.12.14
Test Power	Battery	Sample Number:	S25101501-012

Supply:			
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Mode	Freq. (MHz)	Verdict
GFSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass
$\pi/4$ -DQPSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass
8DPSK	Hopping off 2402	Pass
	Hopping off 2441	Pass
	Hopping off 2480	Pass

11.5. Test graphs

