



FCC CERTIFICATION TEST REPORT

Applicant	:	Beyerdynamic
Address of Applicant	:	56 Central Avenue, Farmingdale, New York 11735, United States
Manufacturer	:	Beyerdynamic
Address of Manufacturer	:	56 Central Avenue, Farmingdale, New York 11735, United States
Equipment under Test	:	True Wireless Earphones
Model No.	:	AMIRON 100
FCC ID	:	OSDAMIRON100
Test Standard(s)	:	FCC Rules and Regulations Part 15 Subpart C, ANSI C63.10:2013
Report No.	:	DDT-RE24032904-2E02
Issue Date	:	2024/04/16
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd.
Address of Laboratory	:	Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

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Test Report Declare

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Equipment under Test	:	True Wireless Earphones
Model No.	:	AMIRON 100
Manufacturer	:	Beyerdynamic
Address of Manufacturer	:	56 Central Avenue, Farmingdale, New York 11735, United States

Test Standard Used:

FCC Rules and Regulations Part 15 Subpart C

Test Procedure Used:

ANSI C63.10:2013

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.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above standards.

Report No.:	DDT-RE24032904-2E02		
Date of Receipt:	2024/02/27	Date of Test:	2024/02/27 ~2024/03/14

Prepared By:

Approved By:

Bobo Chen

Bobo Chen/Engineer



Damon Hu/EMC Manager

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

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2024/04/16	

1. Summary of Test Results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Result
6dB Bandwidth	FCC Part 15: 15.247(a)(2)	Pass
Peak Output Power	FCC Part 15: 15.247(b)(3)	Pass
Power Spectral Density	FCC Part 15:15.247(e)	Pass
Band Edge Compliance (conducted method)	FCC Part 15: 15.247(d)	Pass
RF Conducted Spurious Emissions	FCC Part 15: 15.247(d)	Pass
Radiation Emission	FCC Part 15: 15.205 FCC Part 15: 15.209 FCC Part 15: 15.247(d)	Pass
Emission in Restricted Frequency Bands	FCC Part 15: 15.205 FCC Part 15: 15.209 FCC Part 15: 15.247(d)	Pass
Power Line Conducted Emission	FCC Part 15: 15.207(a)	Pass
Antenna Requirement	FCC Part 15: 15.203	Pass

2. General Test Information

2.1. Description of EUT

EUT Name	: True Wireless Earphones
Model Number	: AMIRON 100
EUT Function Description	: Please reference user manual of this device
Power Supply	: CHARGING CASE: DC 5V from USB cable EARBUDS: DC 5V from external charging case CHARGING CASE: DC 3.8V Polymer Li-ion built-in battery EARBUDS: DC 3.87V Polymer Li-ion built-in battery
Radio Specification	: Bluetooth V5.3 (BR/EDR/LE)
Operation Frequency	: Bluetooth (BR/EDR/LE): 2402 MHz-2480 MHz
Modulation	: Bluetooth BR/EDR: GFSK, $\pi/4$ -DQPSK, 8DPSK Bluetooth LE: GFSK
Sample Number	: S24022619-001 for conductive, S24022619-002 for radiation

Note 1: “☑” means to be chosen or applicable; “☐” means don't to be chosen or not applicable; This note applies to entire report.

Note 2: This report only for Bluetooth LE 1Mbps, 2 Mbps.

Note 3: Antenna information:

Bluetooth Antenna information	
Antenna Type	: Monopole antenna
Left side: Antenna Gain(dBi)	: -6.5 dBi
Right side: Antenna Gain(dBi)	: -6.8 dBi

Note 5: Bluetooth LE Channel information:

Bluetooth LE 1Mbps Channel information					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
9	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454		

13	2428	27	2456		
Bluetooth LE 2Mbps Channel information					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
9	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454		
13	2428	27	2456		
The channels denoted with the grey background are excluded, because they are primary advertising channel only for the Bluetooth LE 1Mbps according to the Bluetooth Core Specification.					

Note 6: 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.

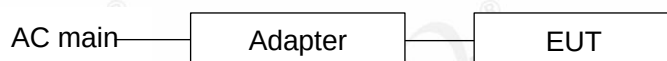
2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Remark
USB Cable	N/A	N/A	N/A	N/A

2.3. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
Adapter	SAMSUNG	EP-TA200	N/A	Input: 100-240~, 50/60Hz, 0.5A; Output: 9V/1.67A or 5V/2A

2.4. Block diagram of EUT configuration for test



Test software: wvt_gui.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: 0.5dB (According to the manufacturer's claims)

Tested mode, channel, information			
Mode	Setting Tx Power	Channel	Frequency (MHz)
GFSK 1M	Default	CH0	2402
	Default	CH19	2440
	Default	CH39	2480
GFSK 2M	Default	CH0	2402
	Default	CH19	2440
	Default	CH39	2480

2.5. 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.

2.6. Deviations of test standard

No deviation.

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-20155, G-20118

2.8. Measurement uncertainty

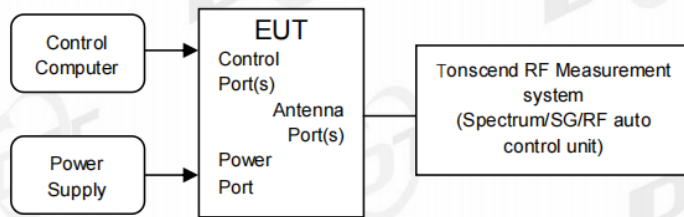
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power (Conducted) (Spectrum analyzer)	0.86 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	1.38 dB ($3.6 \text{ GHz} \leq f < 8 \text{ GHz}$)
Peak Output Power (Conducted) (Power Sensor)	0.74 dB
Power Spectral Density	0.74 dB ($10 \text{ MHz} \leq f < 3.6 \text{ GHz}$);
	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	2024/07/11
Wideband Radio Communication Tester	R&S	CMW500	117491	2024/04/26
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY62153058	2024/07/11
MXG Vector Signal Generator	Agilent	N5182A	MY48180912	2024/04/22
RF Control Unit	Tonscend	JS0806-2	20C8060230	2024/04/26
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2024/05/14
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A

4. 6 dB Bandwidth

4.1. Block diagram of test setup



4.2. Limits

For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz

4.3. Test procedure

- (1) The test according to ANSI C63.10-2013 clause 11.8.
- (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 6 dB Bandwidth:

RBW:	100 kHz
VBW:	$\geq [3 \times \text{RBW}]$
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold
- (5) Allow the trace to stabilize, measure the 6 dB bandwidth of signal, and record the results in the report.

4.4. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7℃,46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

Left side:

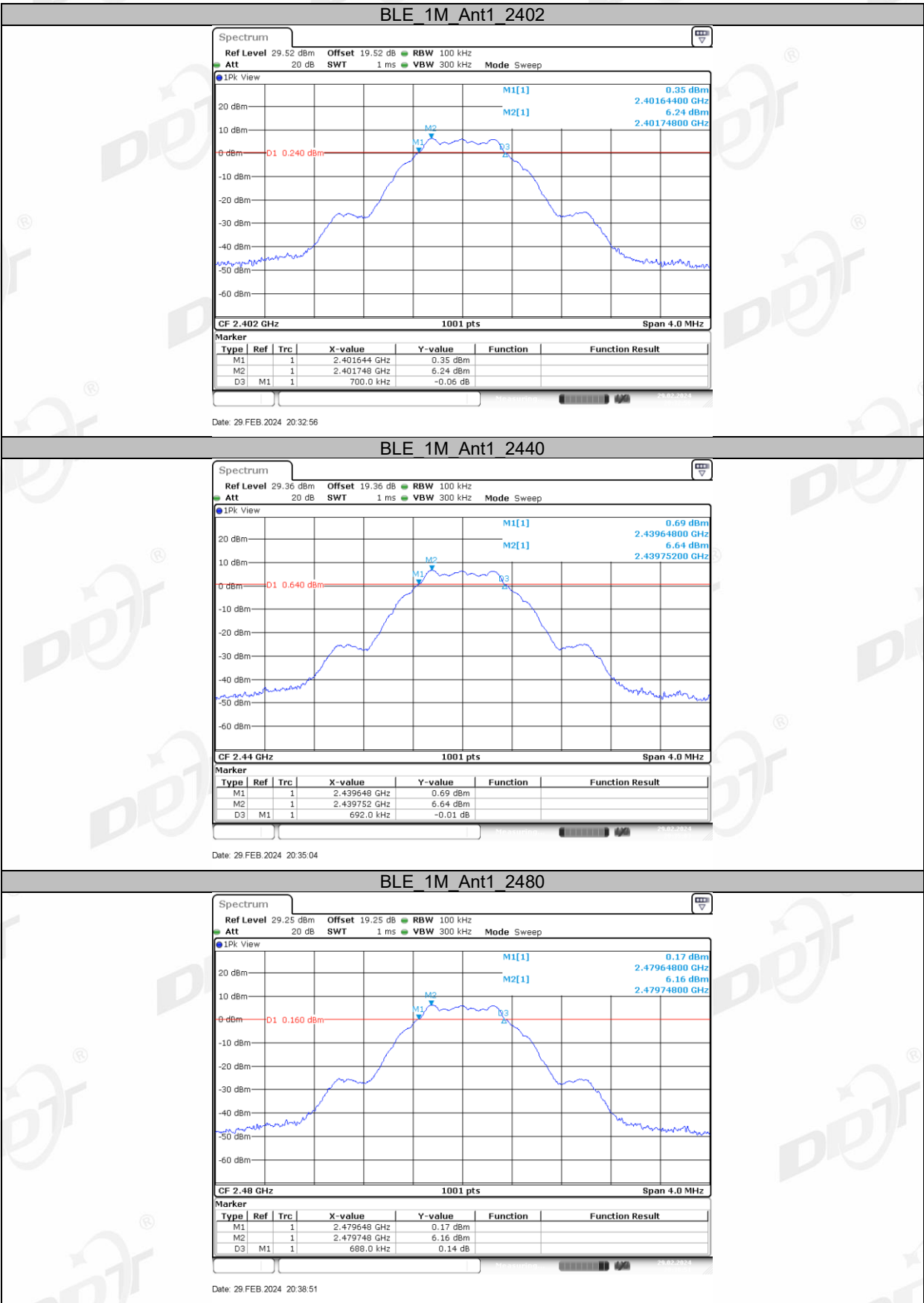
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.70	2401.64	2402.34	≥0.5	PASS
		2440	0.69	2439.65	2440.34	≥0.5	PASS
		2480	0.69	2479.65	2480.34	≥0.5	PASS
BLE_2M	Ant1	2402	1.18	2403.41	2404.59	≥0.5	PASS
		2440	1.19	2439.40	2440.59	≥0.5	PASS
		2480	1.18	2477.41	2478.59	≥0.5	PASS

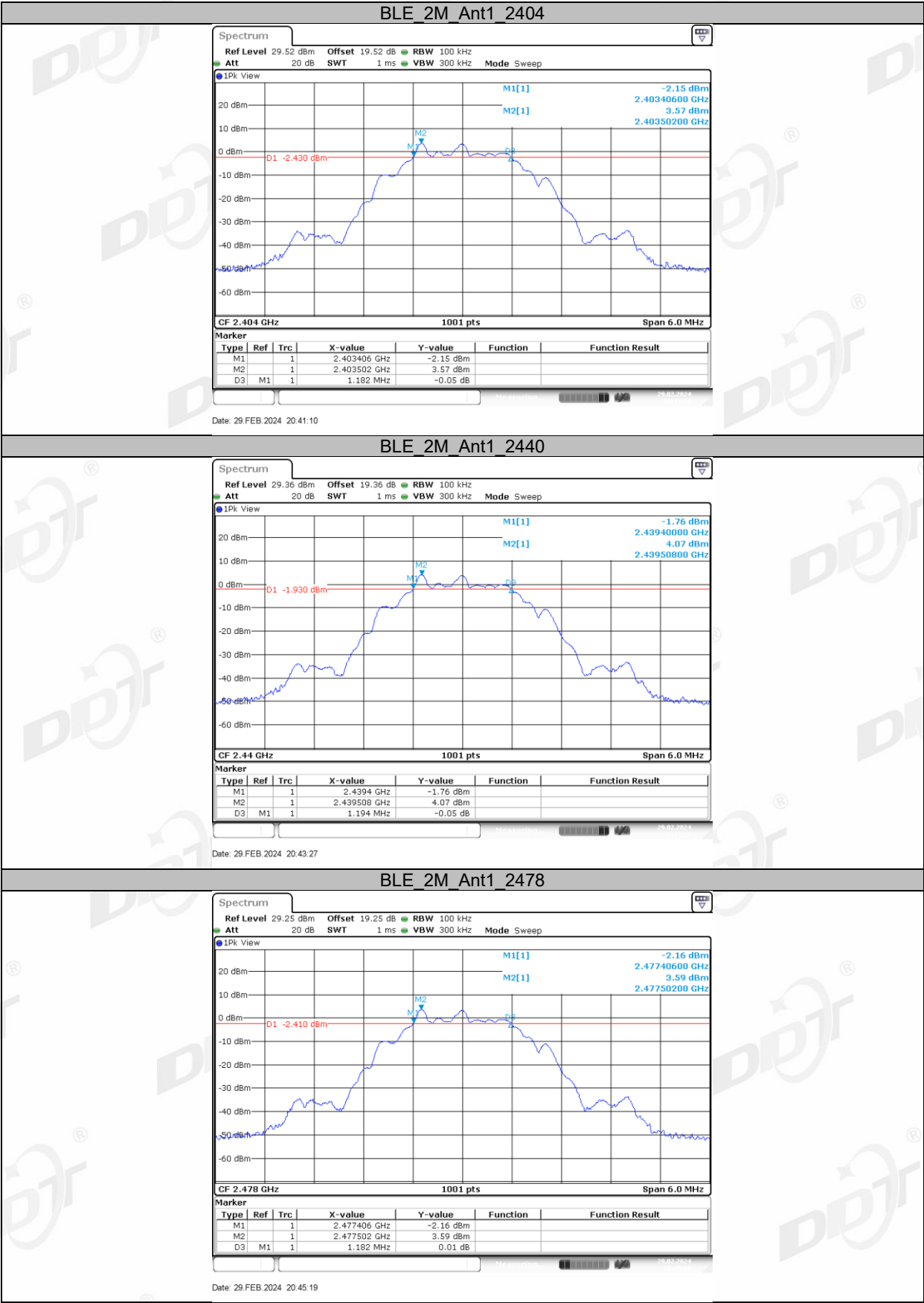
Right side:

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
BLE_1M	Ant1	2402	0.70	2401.65	2402.34	≥0.5	PASS
		2440	0.69	2439.65	2440.34	≥0.5	PASS
		2480	0.69	2479.64	2480.34	≥0.5	PASS
BLE_2M	Ant1	2402	1.19	2403.41	2404.59	≥0.5	PASS
		2440	1.19	2439.41	2440.59	≥0.5	PASS
		2480	1.18	2477.41	2478.59	≥0.5	PASS

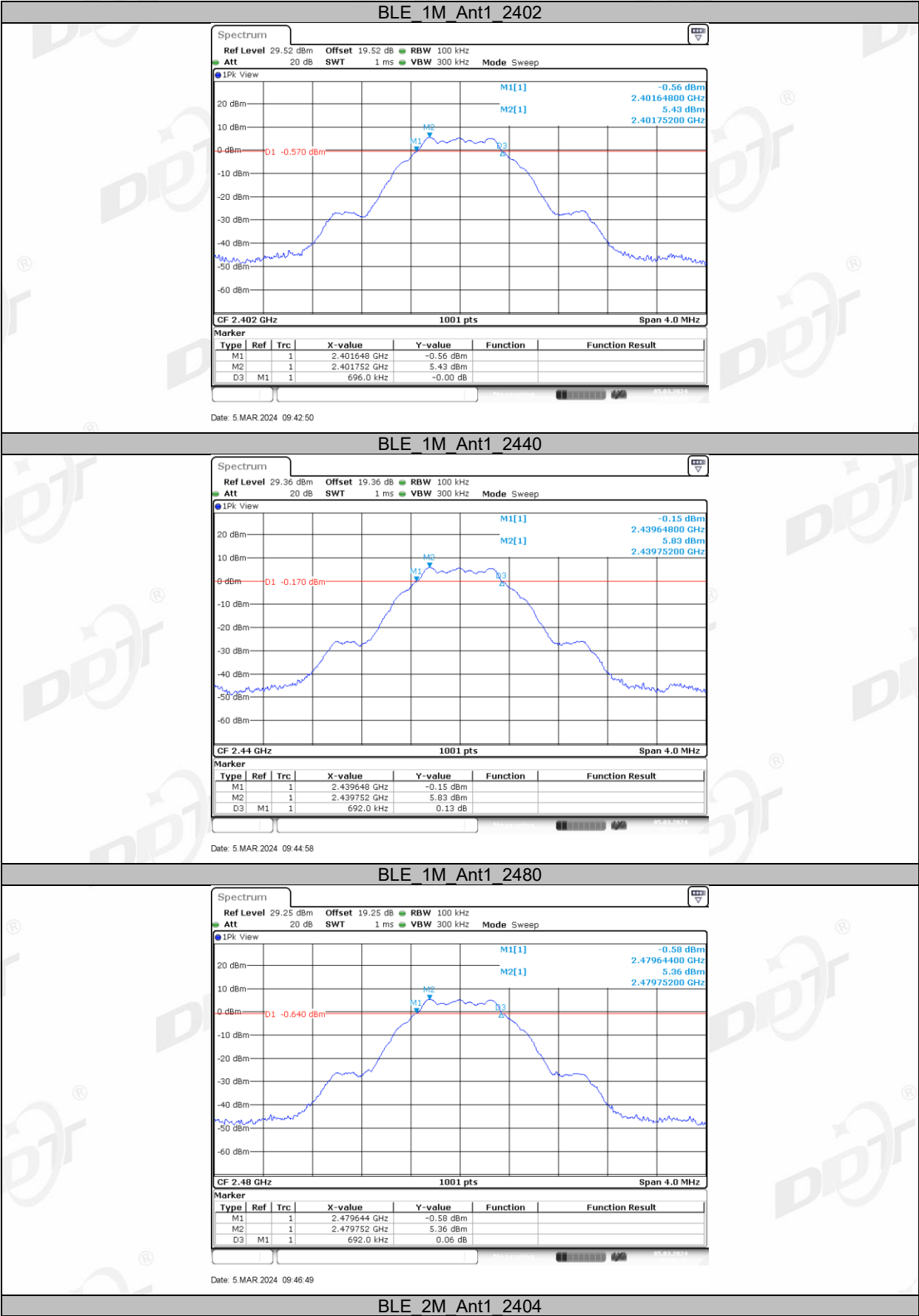
4.5. Test graphs

Left side:





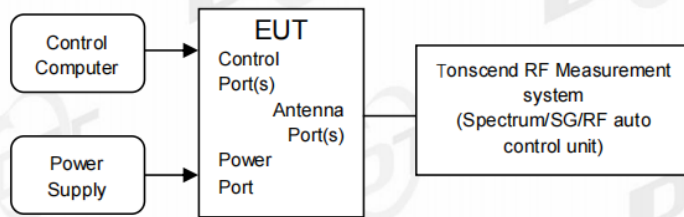
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6. Maximum Peak Output Power

6.1. Block diagram of test setup



6.2. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi, the e.i.r.p shall not exceed 4W.

6.3. Test procedure

- (1) The test according to ANSI C63.10-2013 clause 11.9.1.1.
- (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:	≥DTS bandwidth
VBW:	≥3 x RBW
Span	≥3 x RBW
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

- (5) Allow the trace to stabilize, use peak marker function to determine the peak amplitude level.

6.4. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7℃,46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

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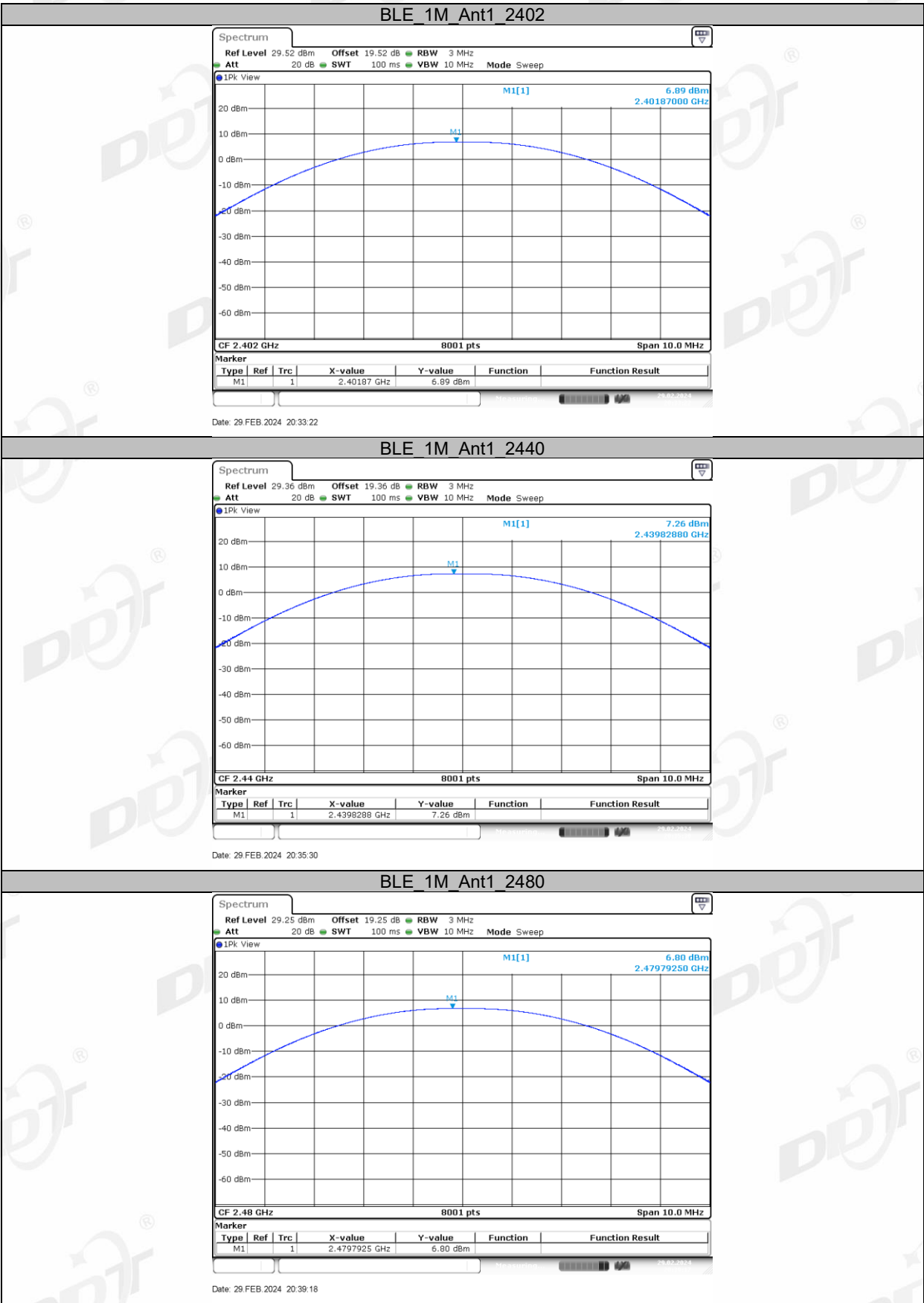
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.89	≤30	0.39	≤36	PASS
		2440	7.26	≤30	0.76	≤36	PASS
		2480	6.80	≤30	0.30	≤36	PASS
BLE_2M	Ant1	2402	4.57	≤30	-1.93	≤36	PASS
		2440	5.05	≤30	-1.45	≤36	PASS
		2480	4.59	≤30	-1.91	≤36	PASS

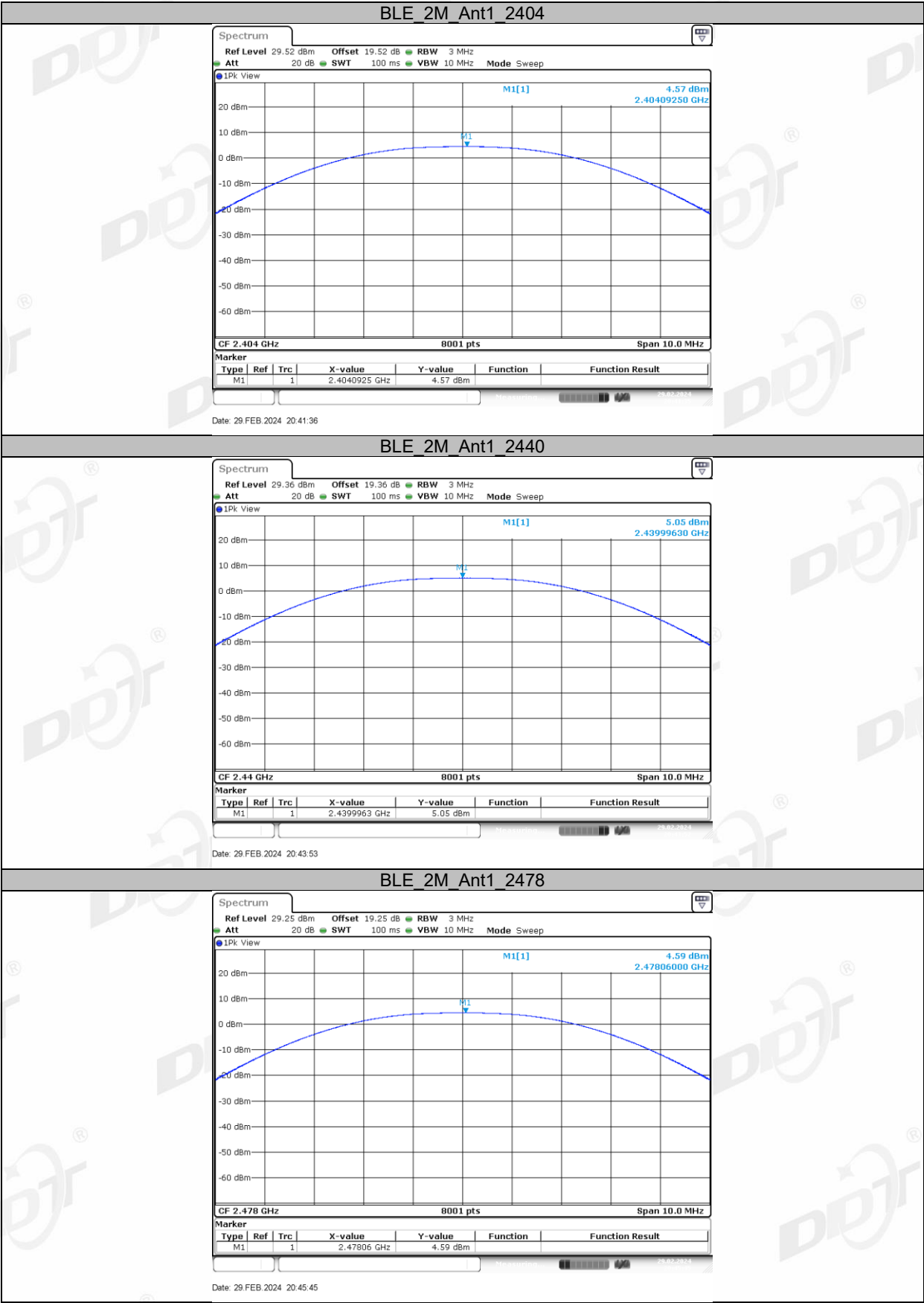
Right side:

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	6.11	≤30	-0.69	≤36	PASS
		2440	6.49	≤30	-0.31	≤36	PASS
		2480	6.04	≤30	-0.76	≤36	PASS
BLE_2M	Ant1	2402	3.65	≤30	-3.15	≤36	PASS
		2440	4.11	≤30	-2.69	≤36	PASS
		2480	3.66	≤30	-3.14	≤36	PASS

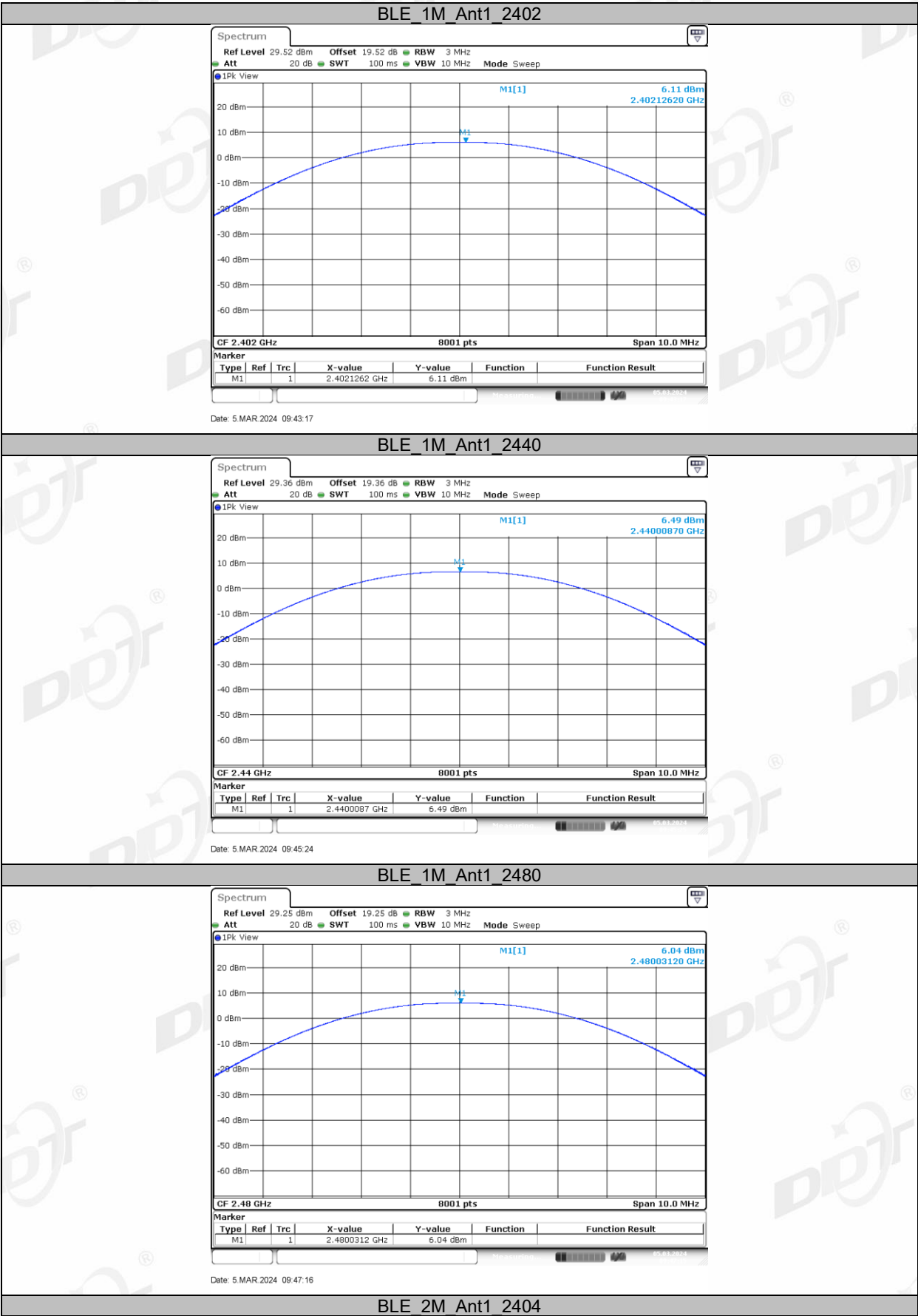
6.5. Test graphs

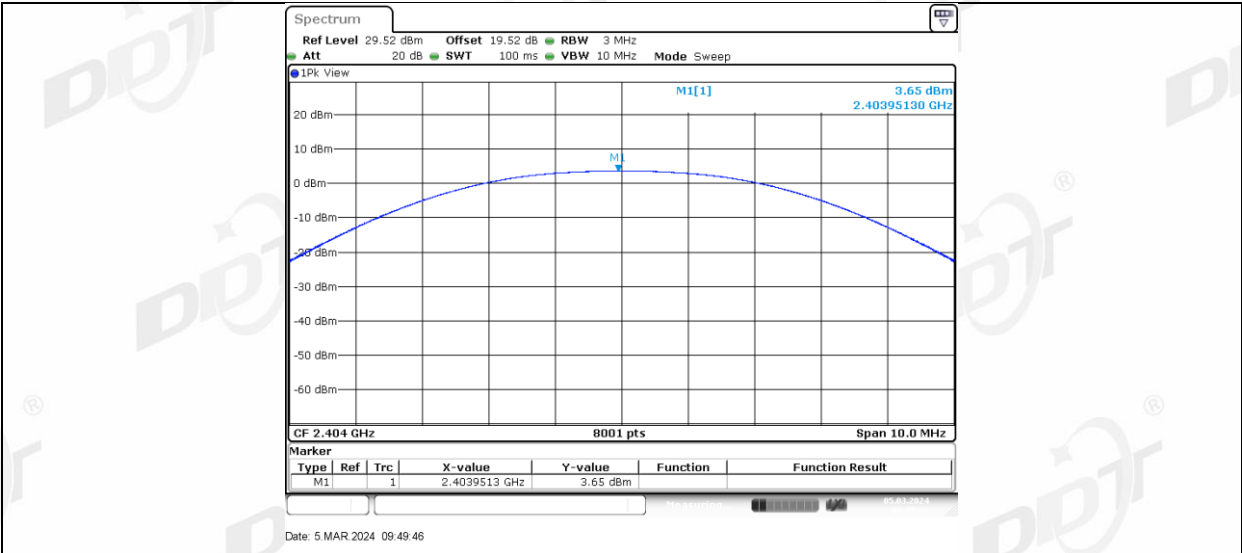
Left side:



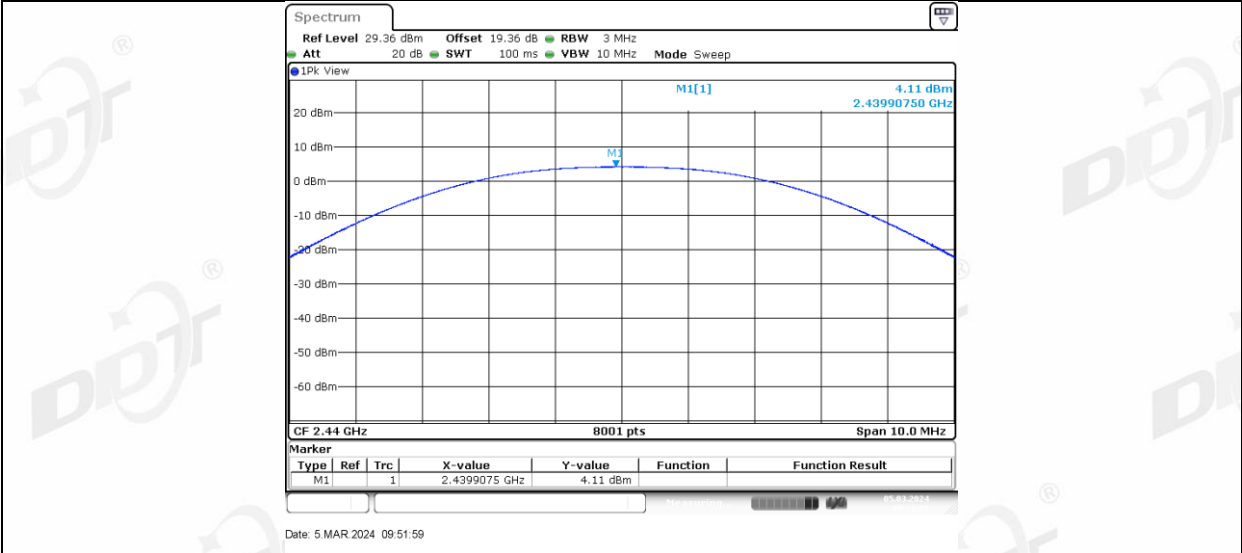


Right side:

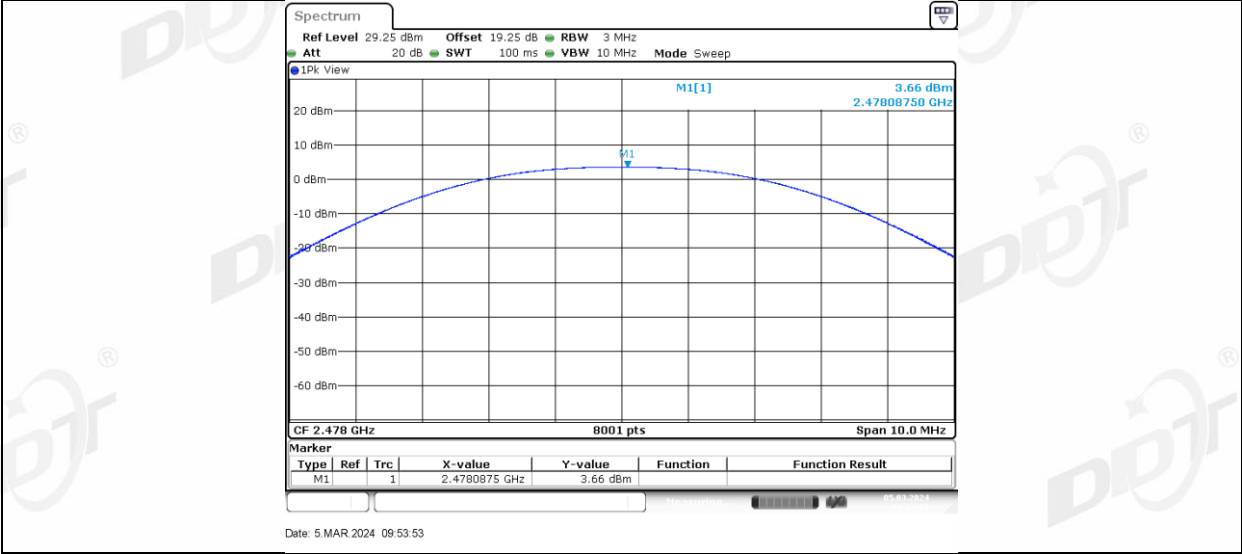




BLE 2M Ant1 2440

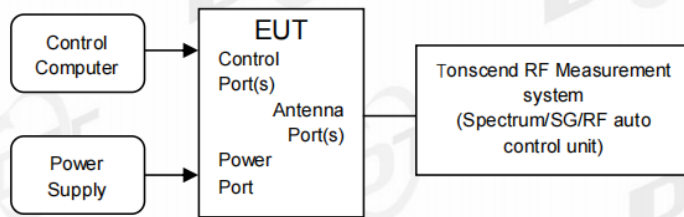


BLE 2M Ant1 2478



7. Power Spectral Density

7.1. Block diagram of test setup



7.2. Limits

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

7.3. Test procedure

- (1) The test according to ANSI C63.10-2013 clause 11.10.2.
- (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 Power Spectral Density measurement:

Center frequency	DTS Channel center frequency
RBW:	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW:	$\geq 3\text{RBW}$
Span	1.5 times the DTS bandwidth
Detector Mode:	Peak
Sweep time:	Auto
Trace mode	Max hold

- (5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.4. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7℃,46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

Left side:

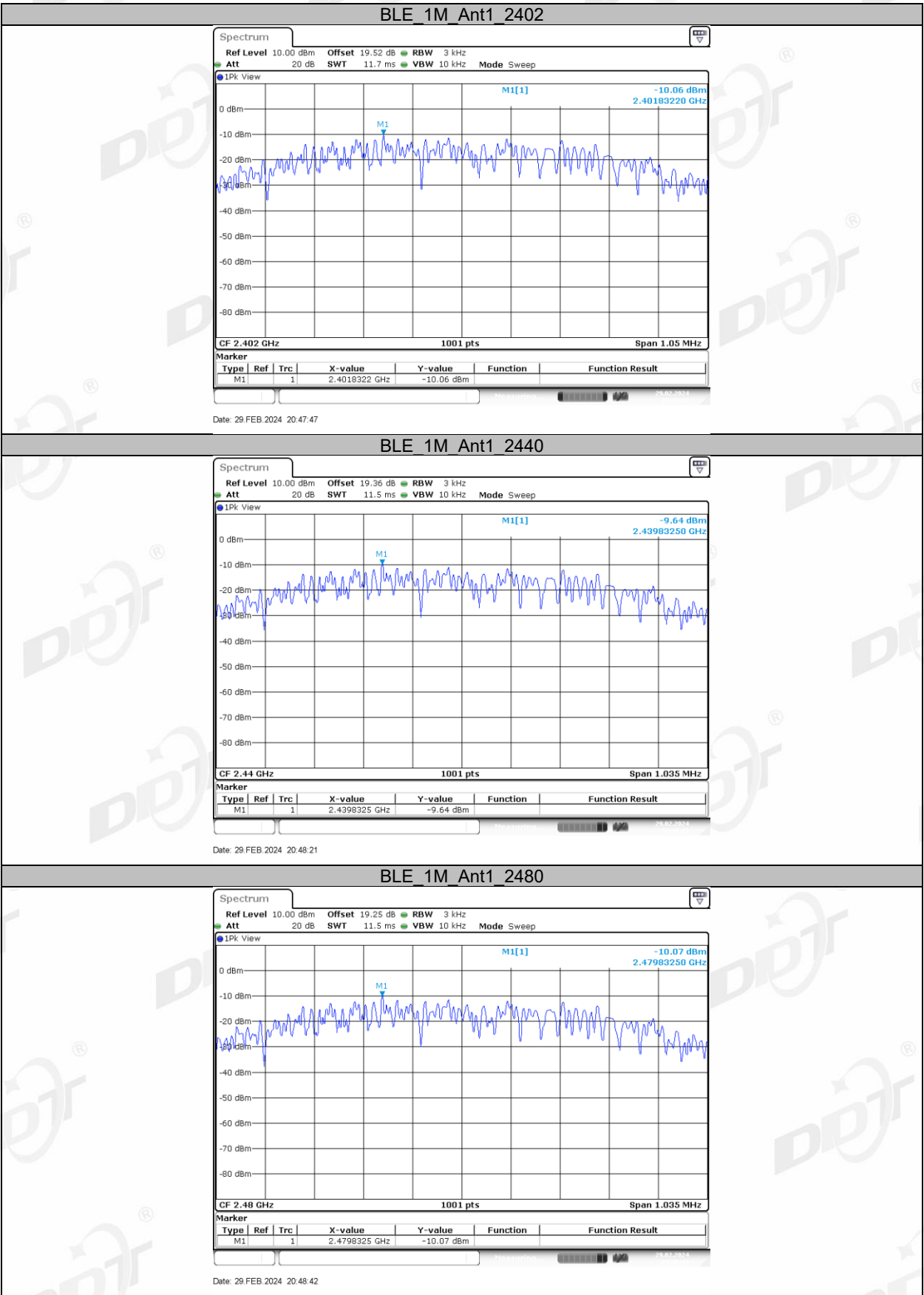
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.06	≤8.00	PASS
		2440	-9.64	≤8.00	PASS
		2480	-10.07	≤8.00	PASS
BLE_2M	Ant1	2402	-17.52	≤8.00	PASS
		2440	-16.96	≤8.00	PASS
		2480	-17.46	≤8.00	PASS

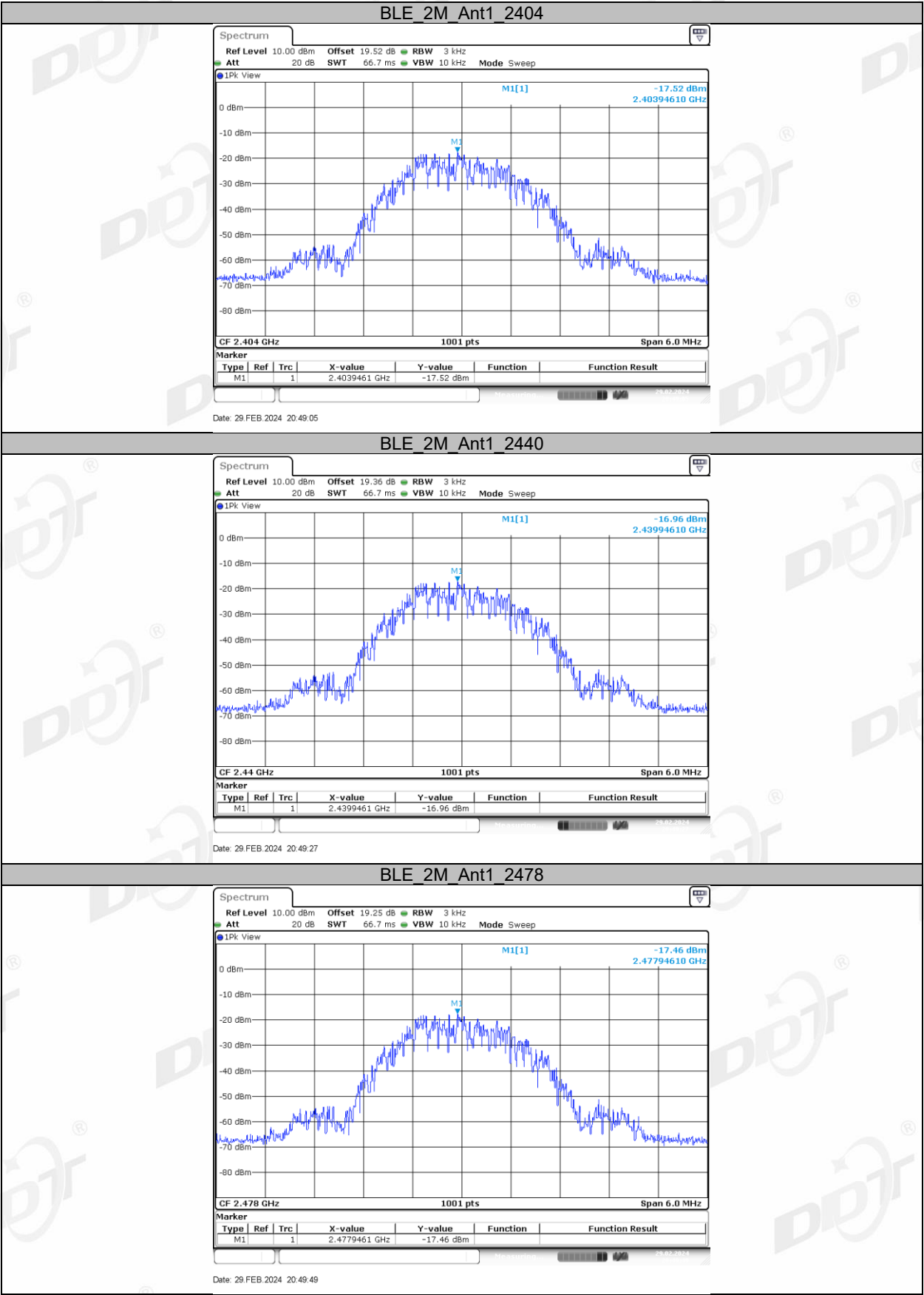
Right side:

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-10.86	≤8.00	PASS
		2440	-10.32	≤8.00	PASS
		2480	-10.72	≤8.00	PASS
BLE_2M	Ant1	2402	-18.46	≤8.00	PASS
		2440	-17.88	≤8.00	PASS
		2480	-18.33	≤8.00	PASS

7.5. Test graphs

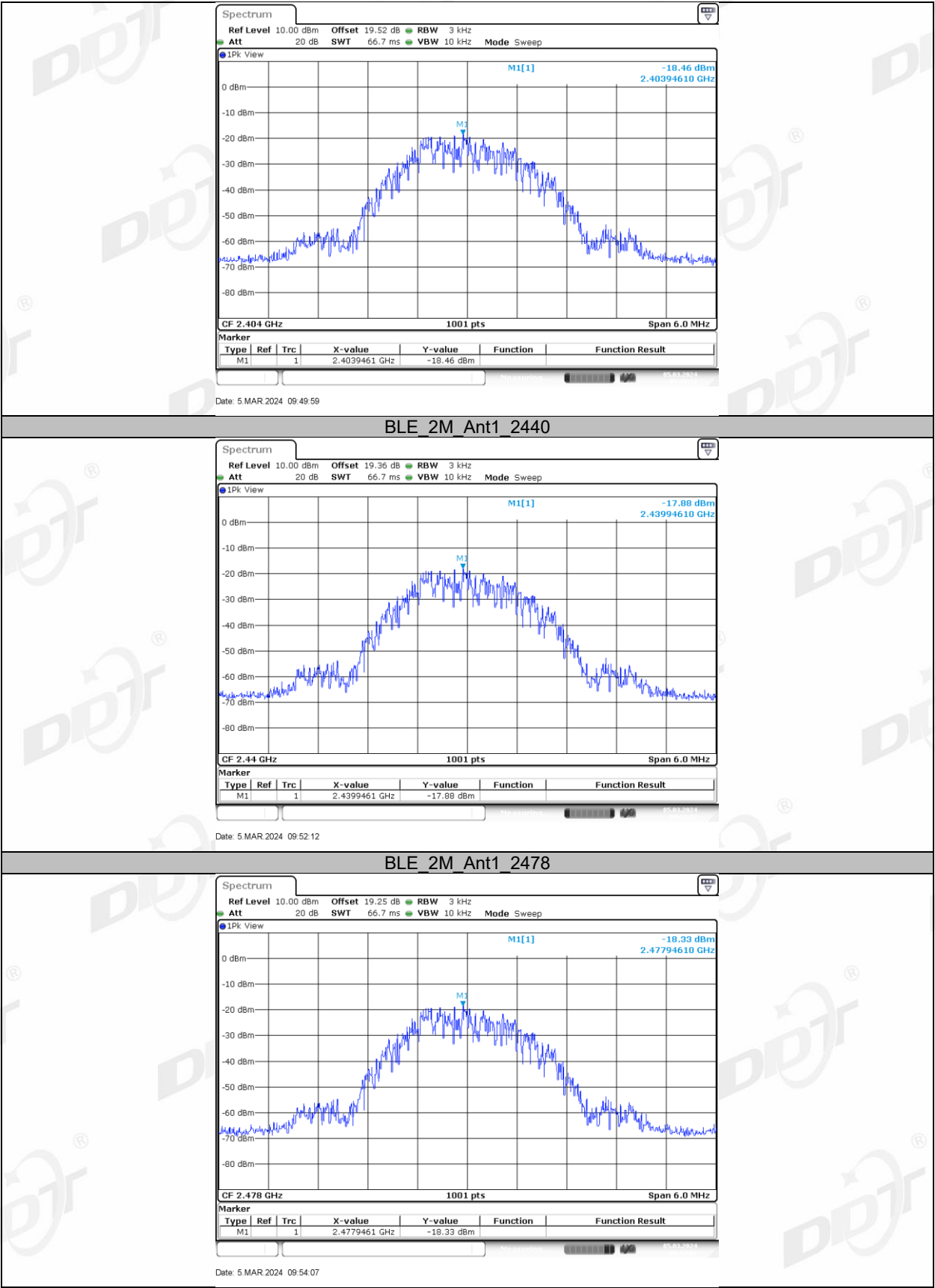
Left side:





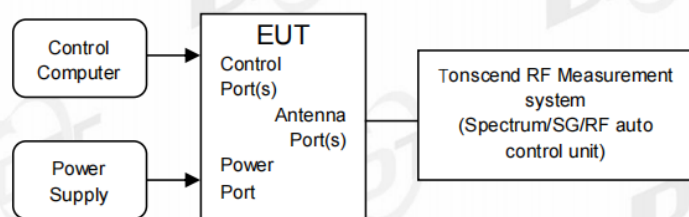
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8. Band Edge Compliance (Conducted Method)

8.1. Block diagram of test setup



8.2. 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.

8.3. 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.

8.4. Test result

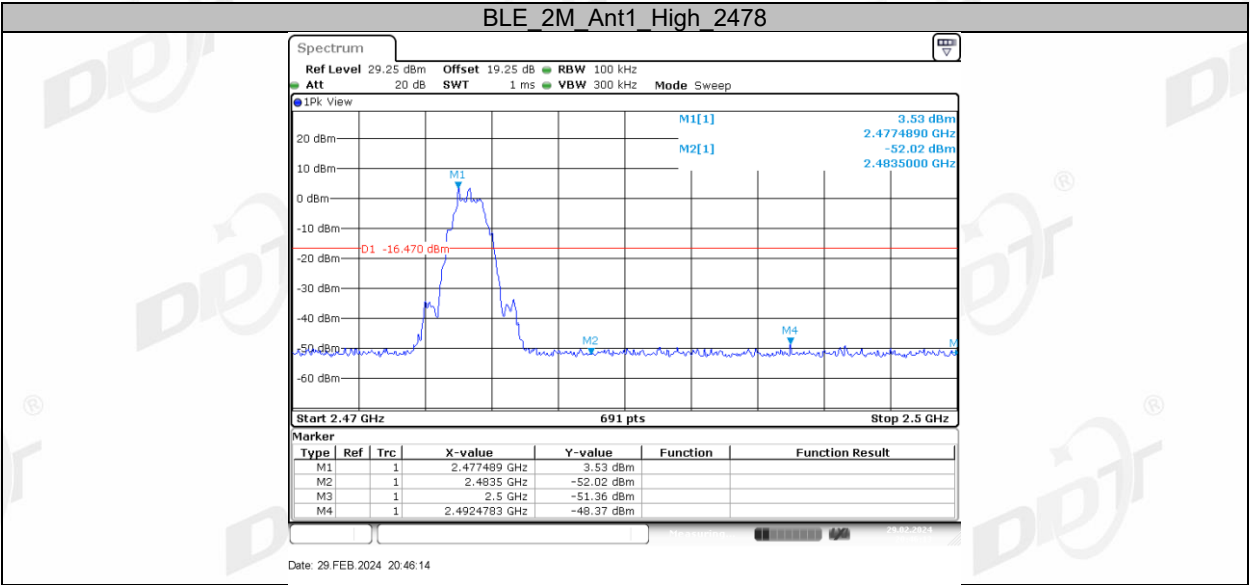
Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7°C, 46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

EUT Set Mode	CH or Frequency	Measured Range	Verdict
GFSK 1M	CH0	2.310 GHz - 2.410 GHz	Pass
	CH39	2.470 GHz - 2.500 GHz	Pass
GFSK 2M	CH0	2.310 GHz - 2.410 GHz	Pass
	CH39	2.470 GHz - 2.500 GHz	Pass

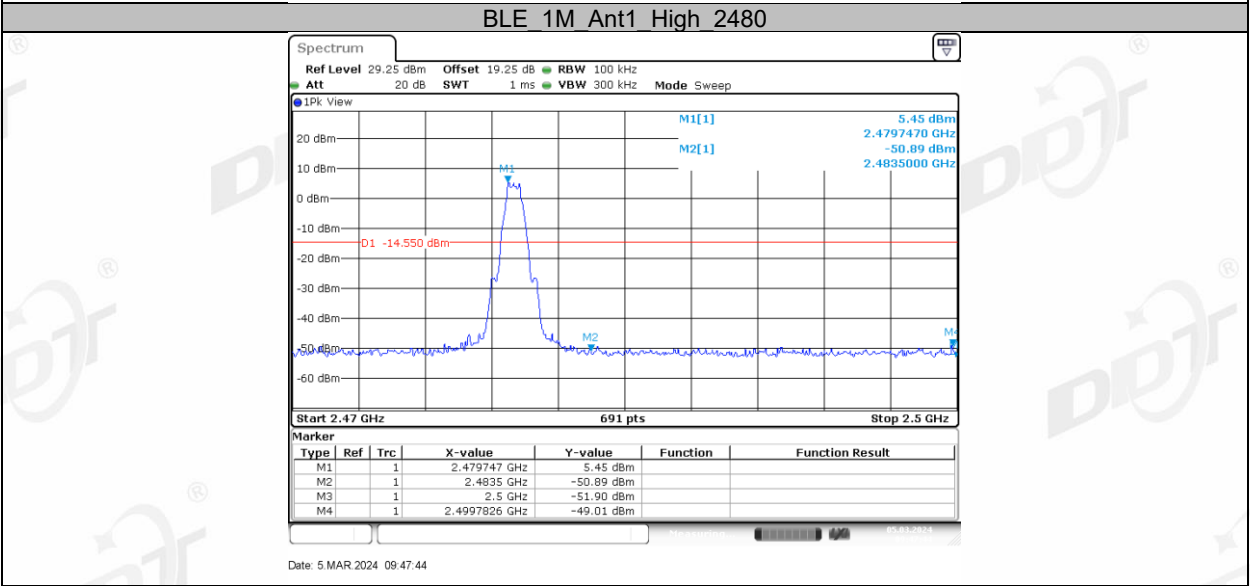
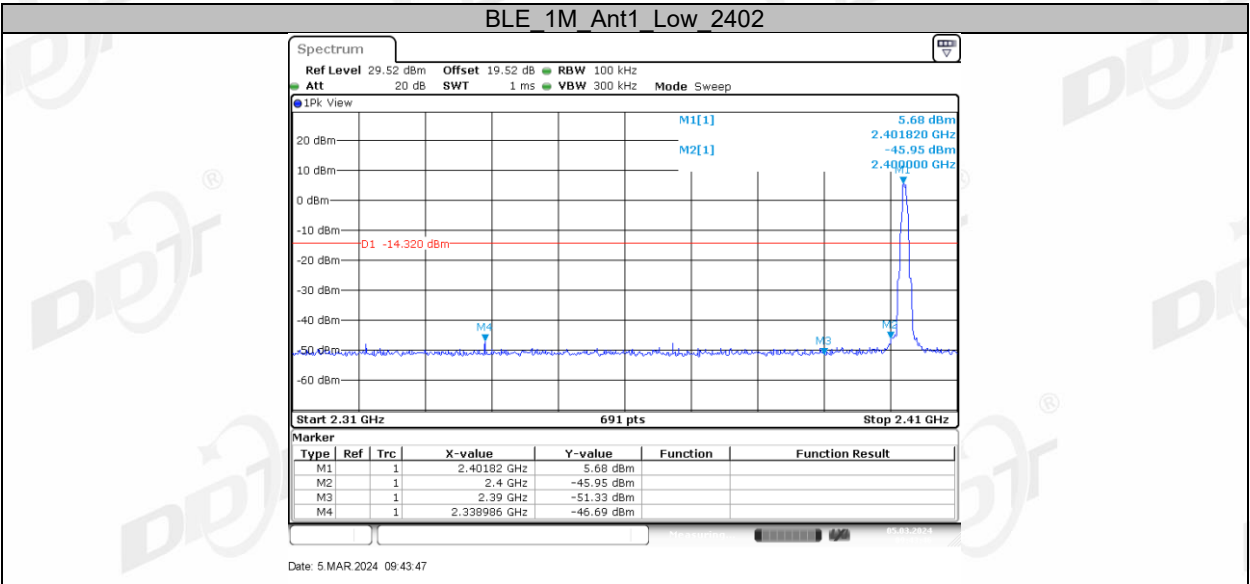
8.5. Test graphs

Left side:





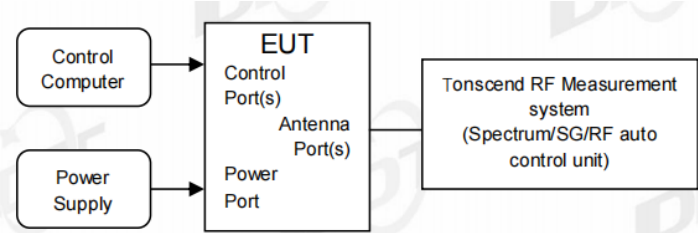
Right side:





9. RF Conducted Spurious Emissions

9.1. Block diagram of test setup



9.2. 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.

9.3. 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	$\geq \text{Span} / \text{RBW}$
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

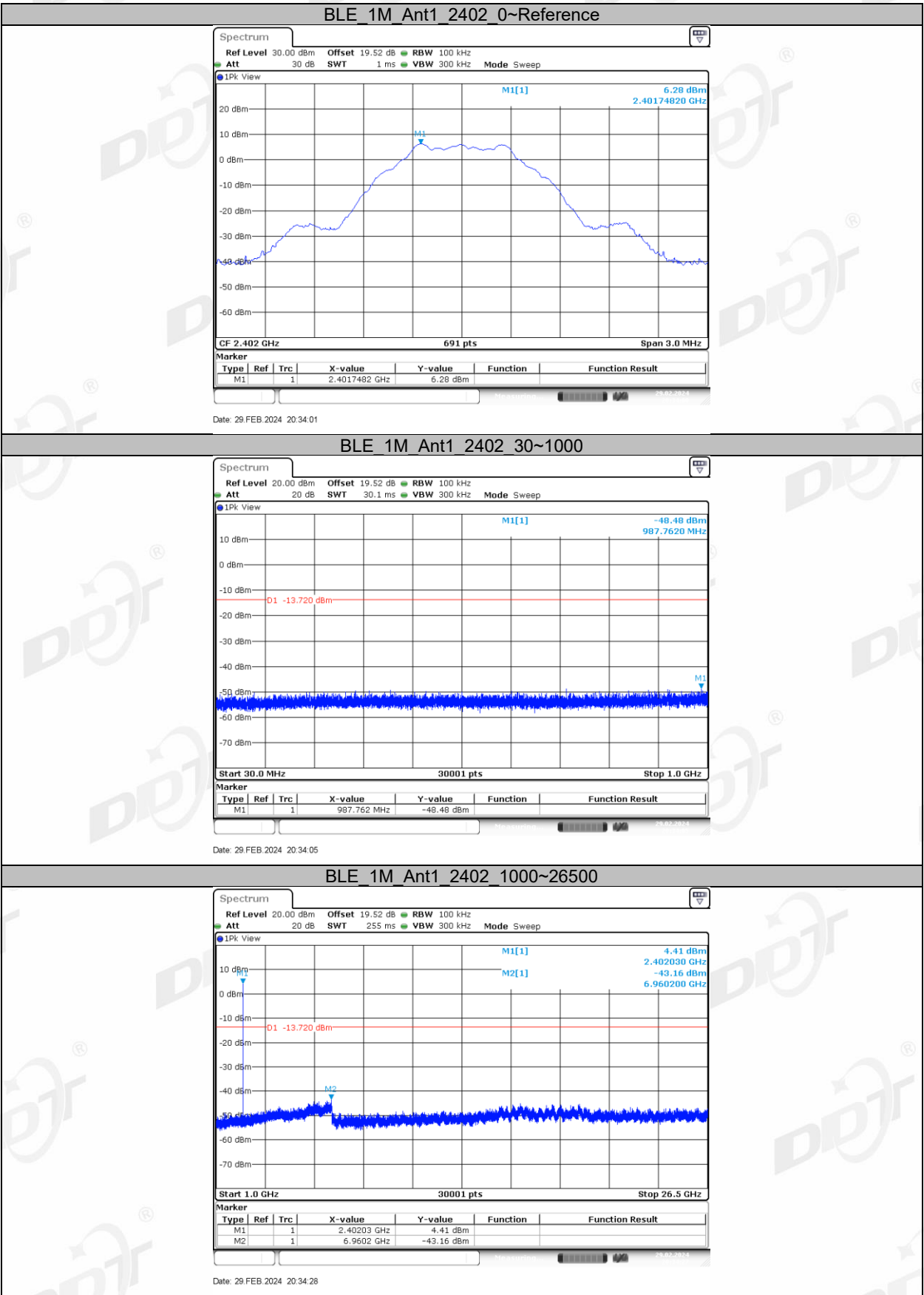
9.4. Test result

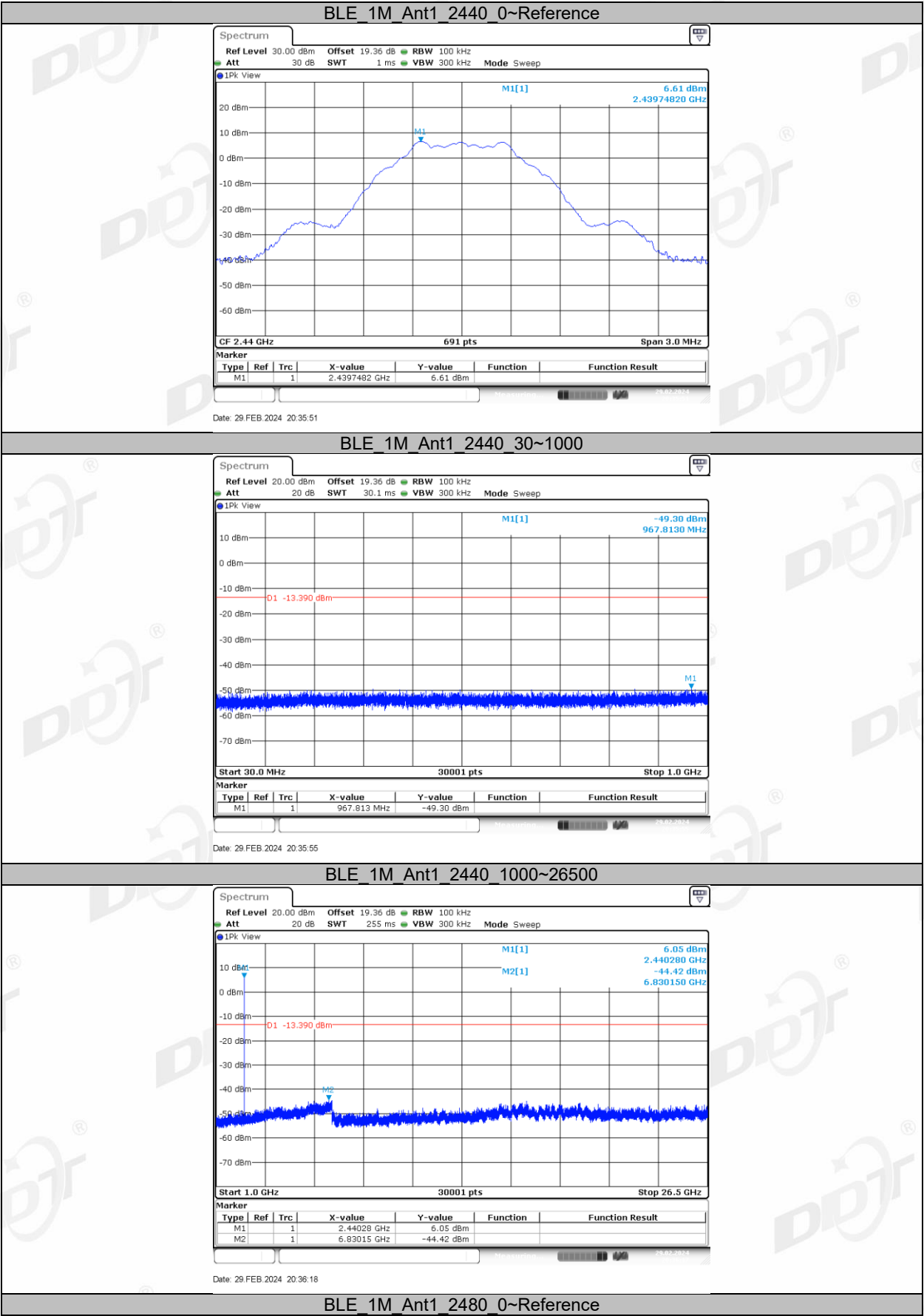
Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7℃,46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

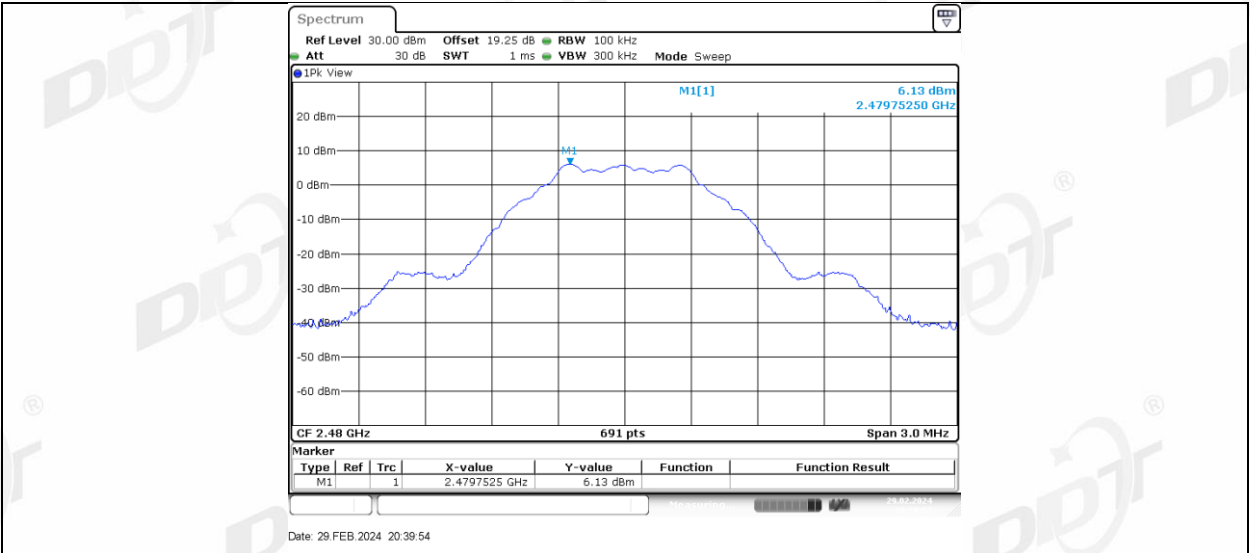
Mode	Freq. (MHz)	Verdict
GFSK 1M	2402	Pass
	2440	Pass
	2480	Pass
GFSK 2M	2402	Pass
	2440	Pass
	2480	Pass

9.5. Test graphs

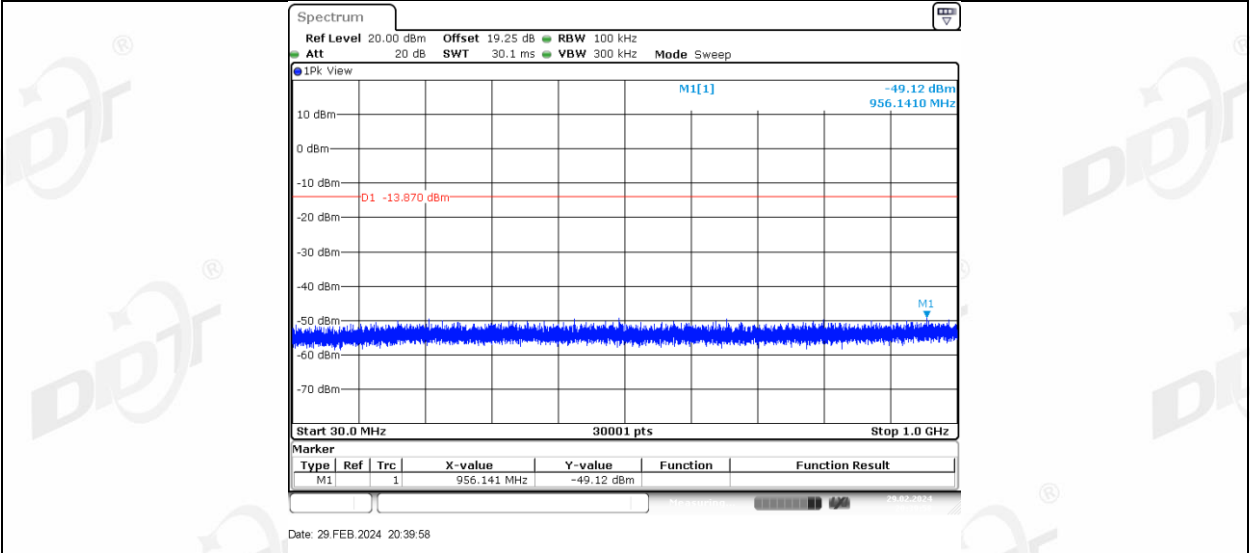
Left side:



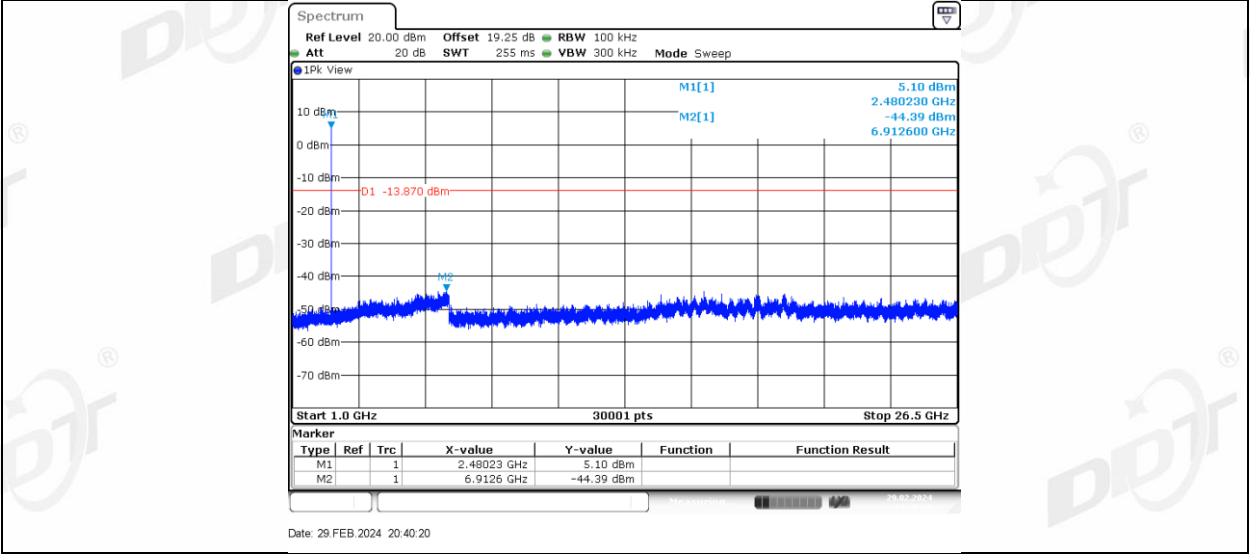




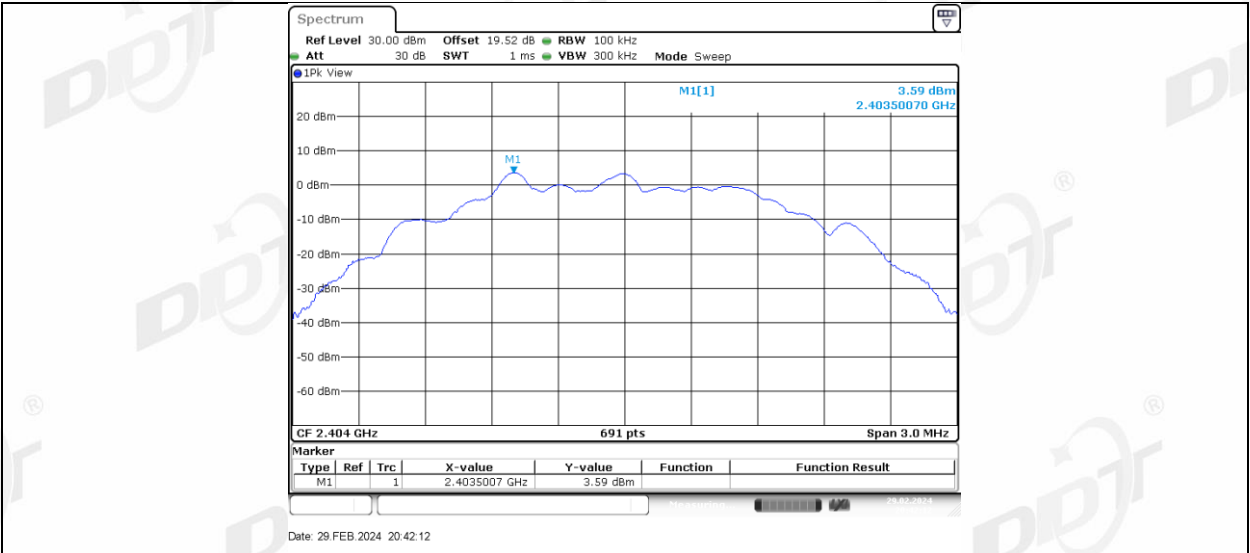
BLE 1M Ant1 2480 30~1000



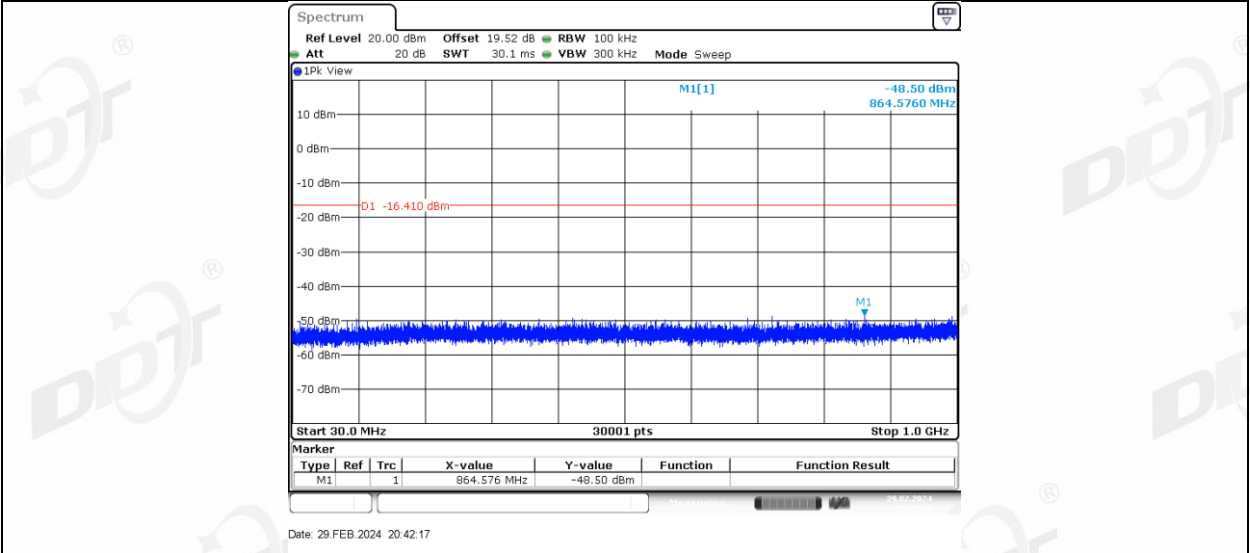
BLE 1M Ant1 2480 1000~26500



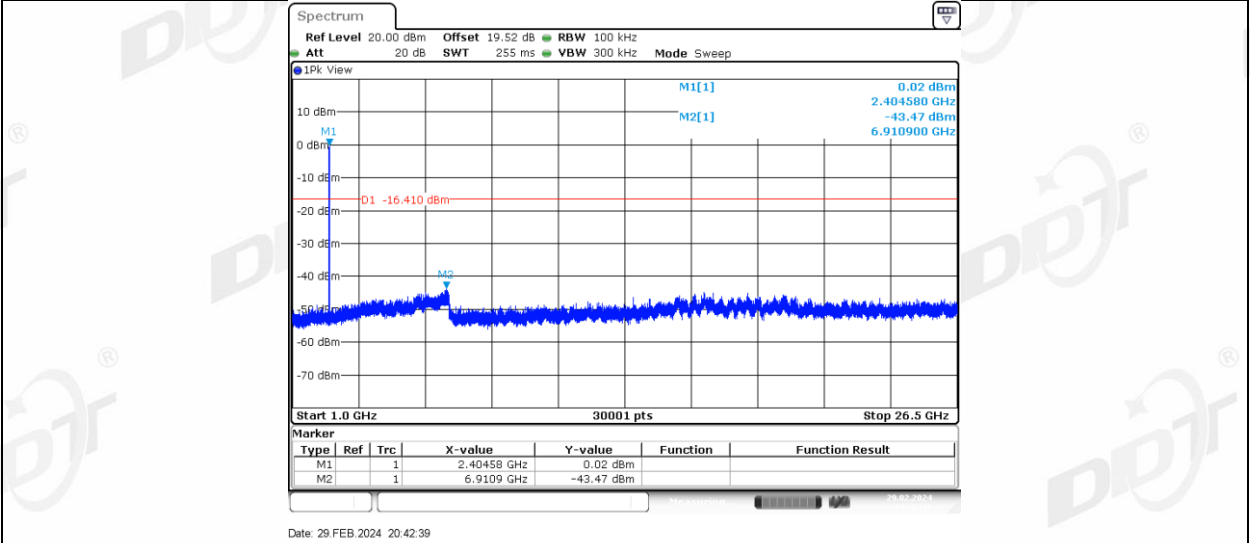
BLE 2M Ant1 2404 0~Reference



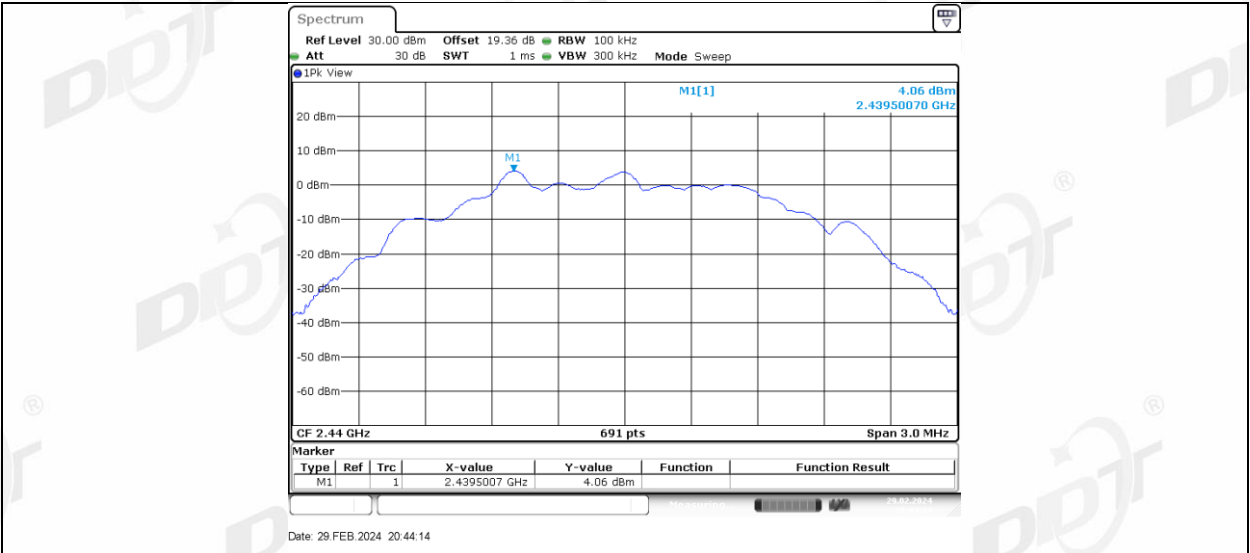
BLE 2M Ant1 2404 30~1000



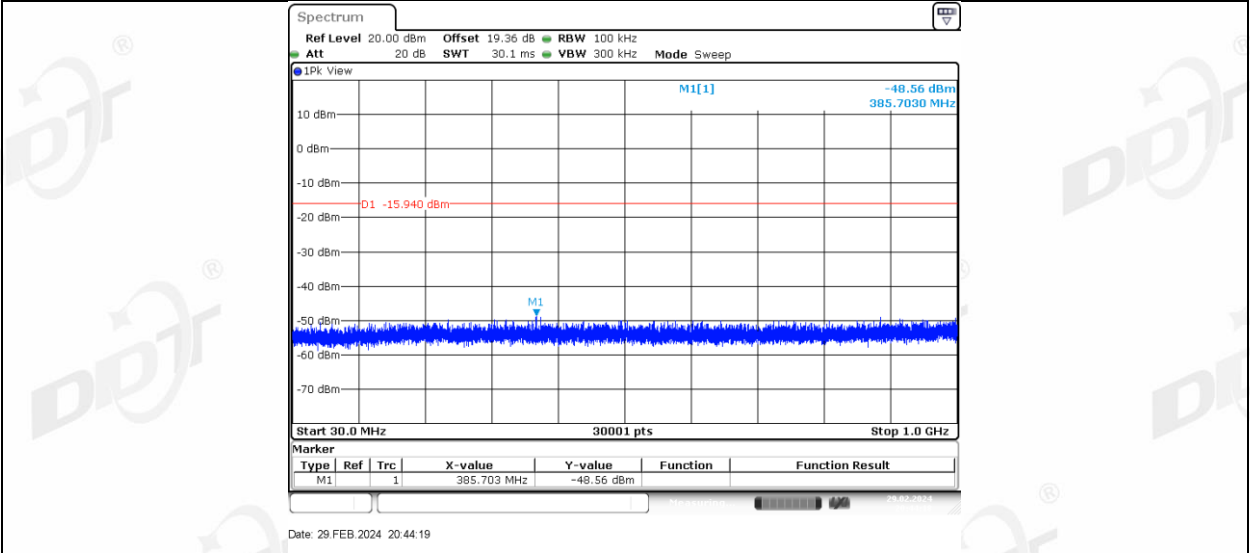
BLE 2M Ant1 2404 1000~26500



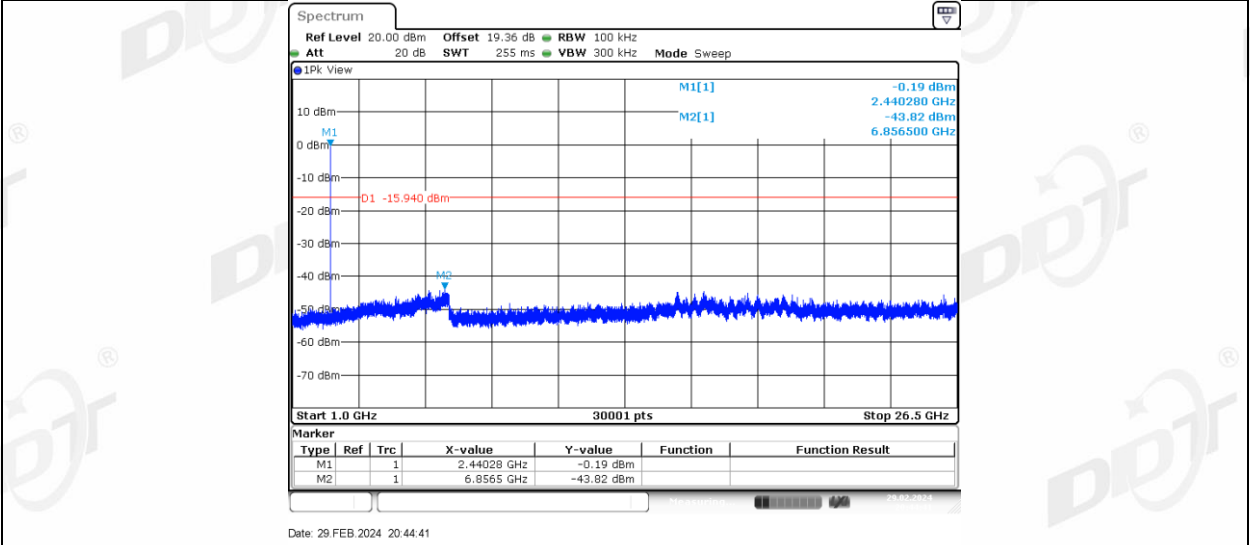
BLE 2M Ant1 2440 0~Reference



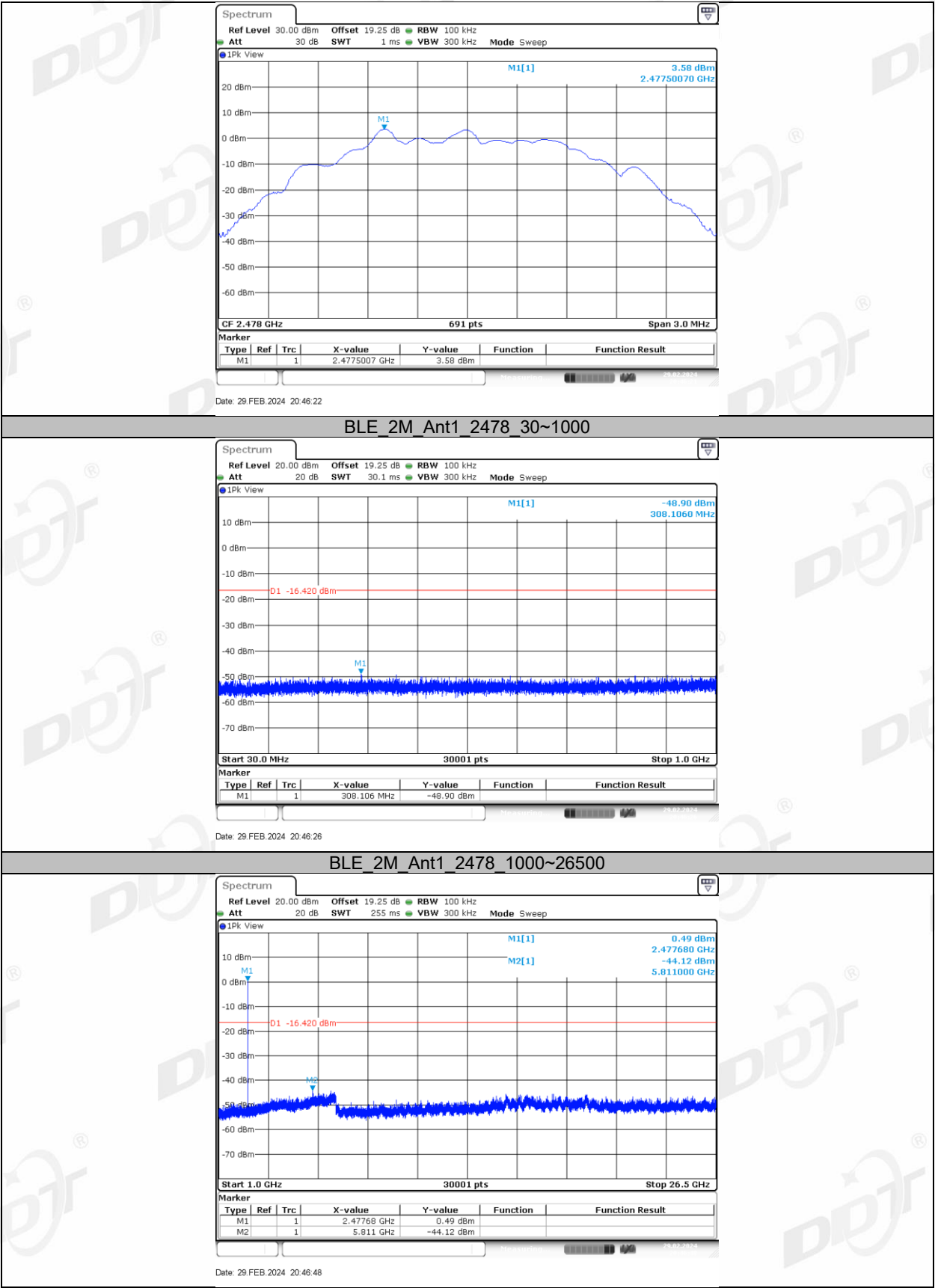
BLE 2M Ant1 2440 30~1000



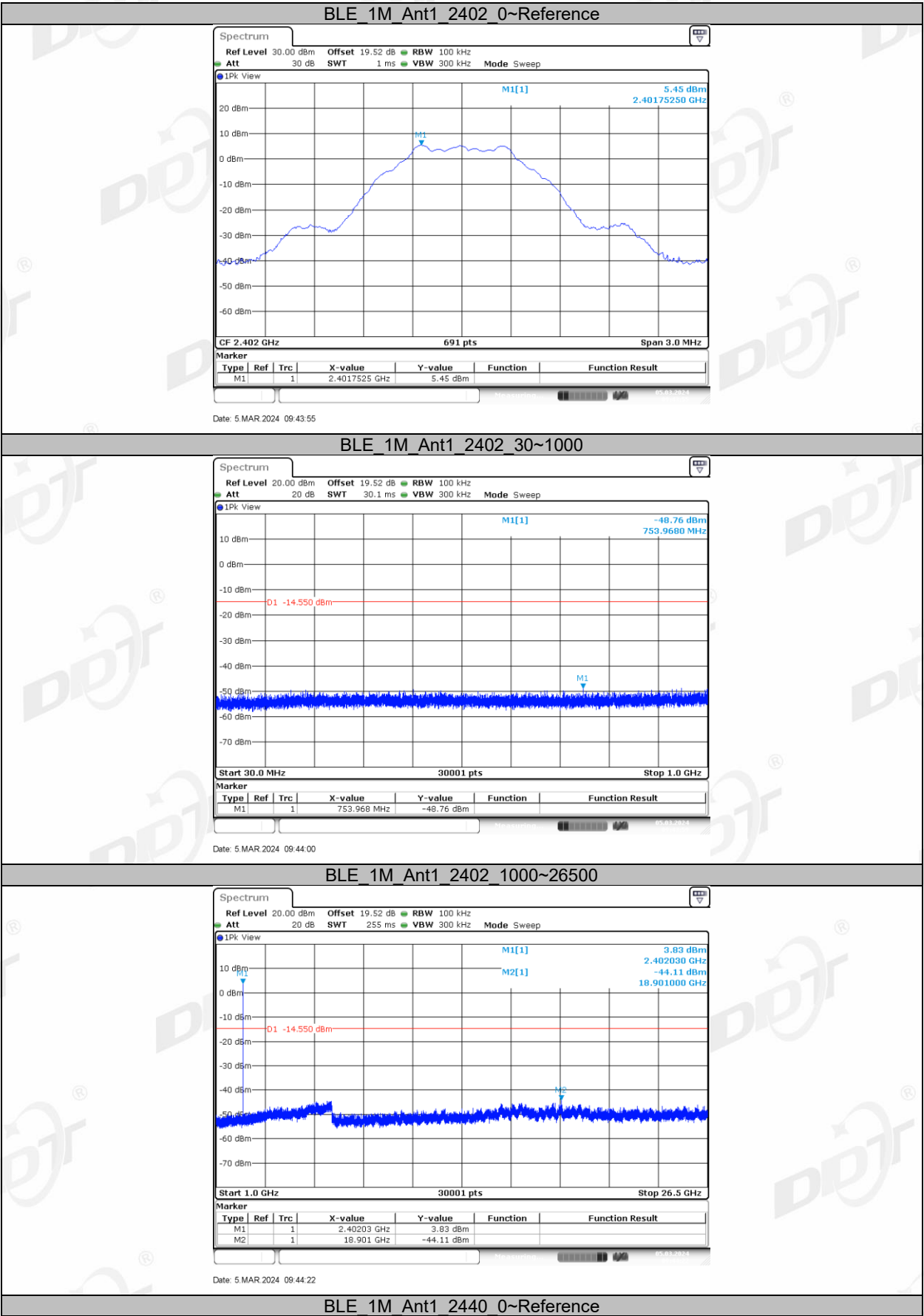
BLE 2M Ant1 2440 1000~26500

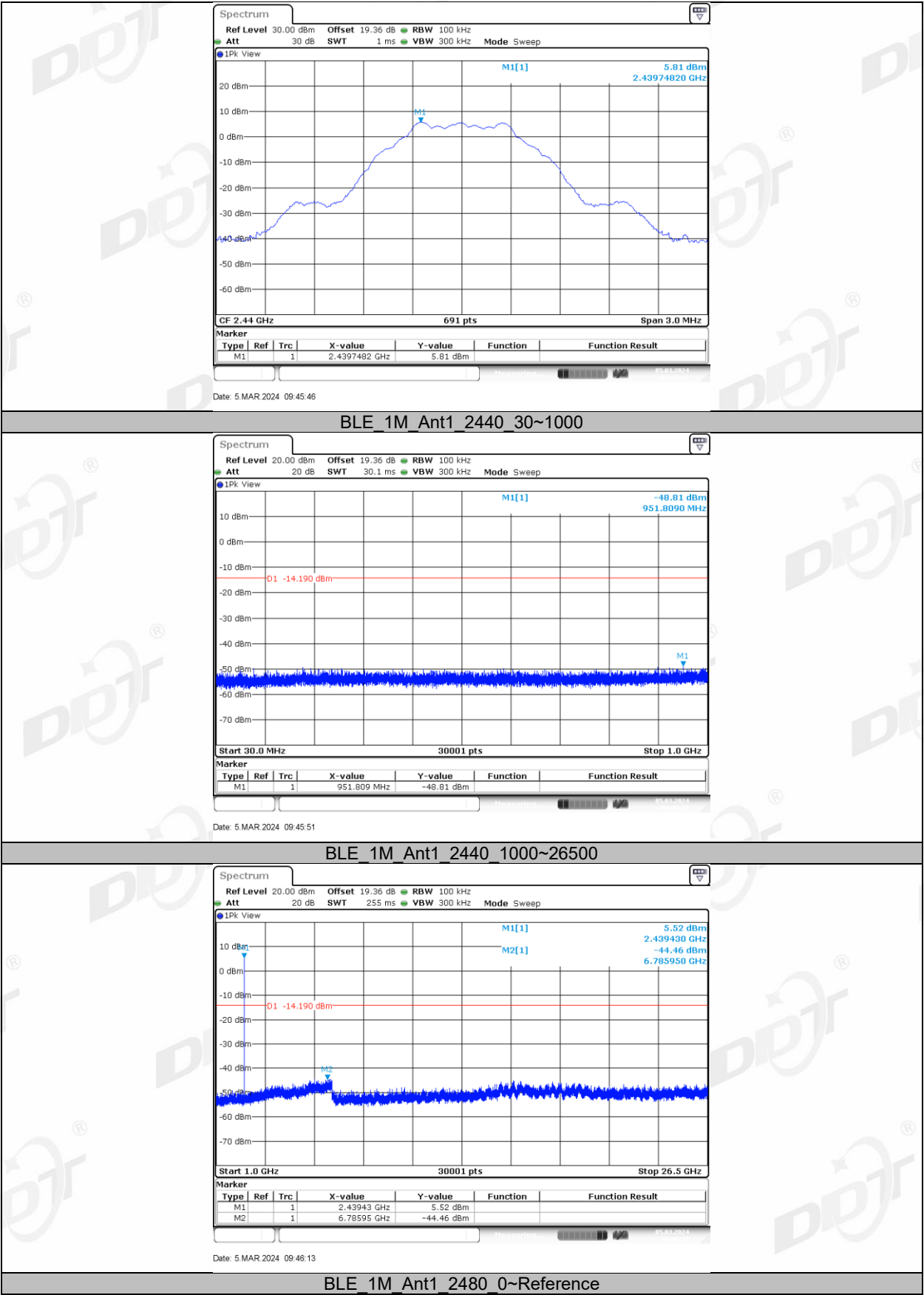


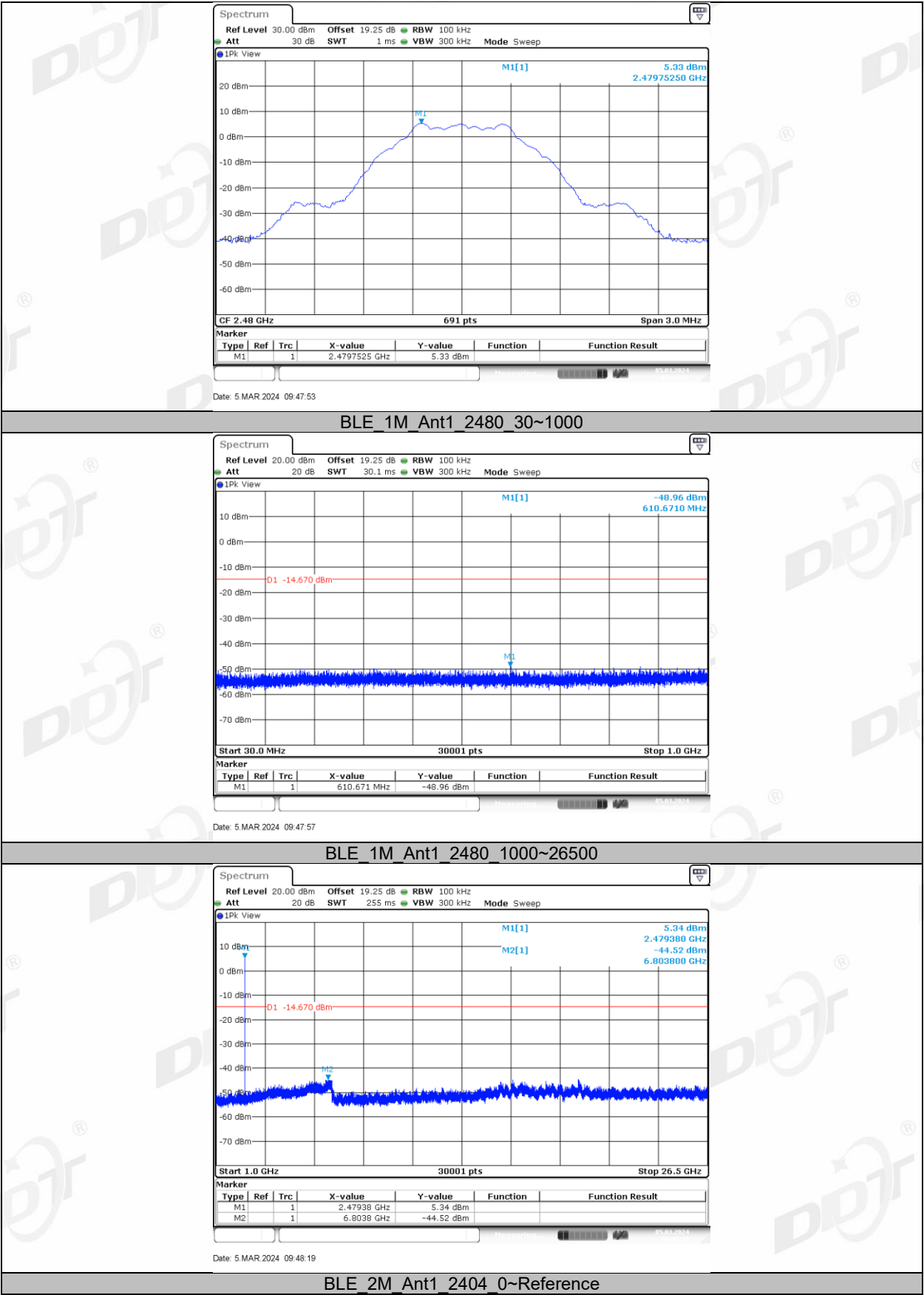
BLE 2M Ant1 2478 0~Reference

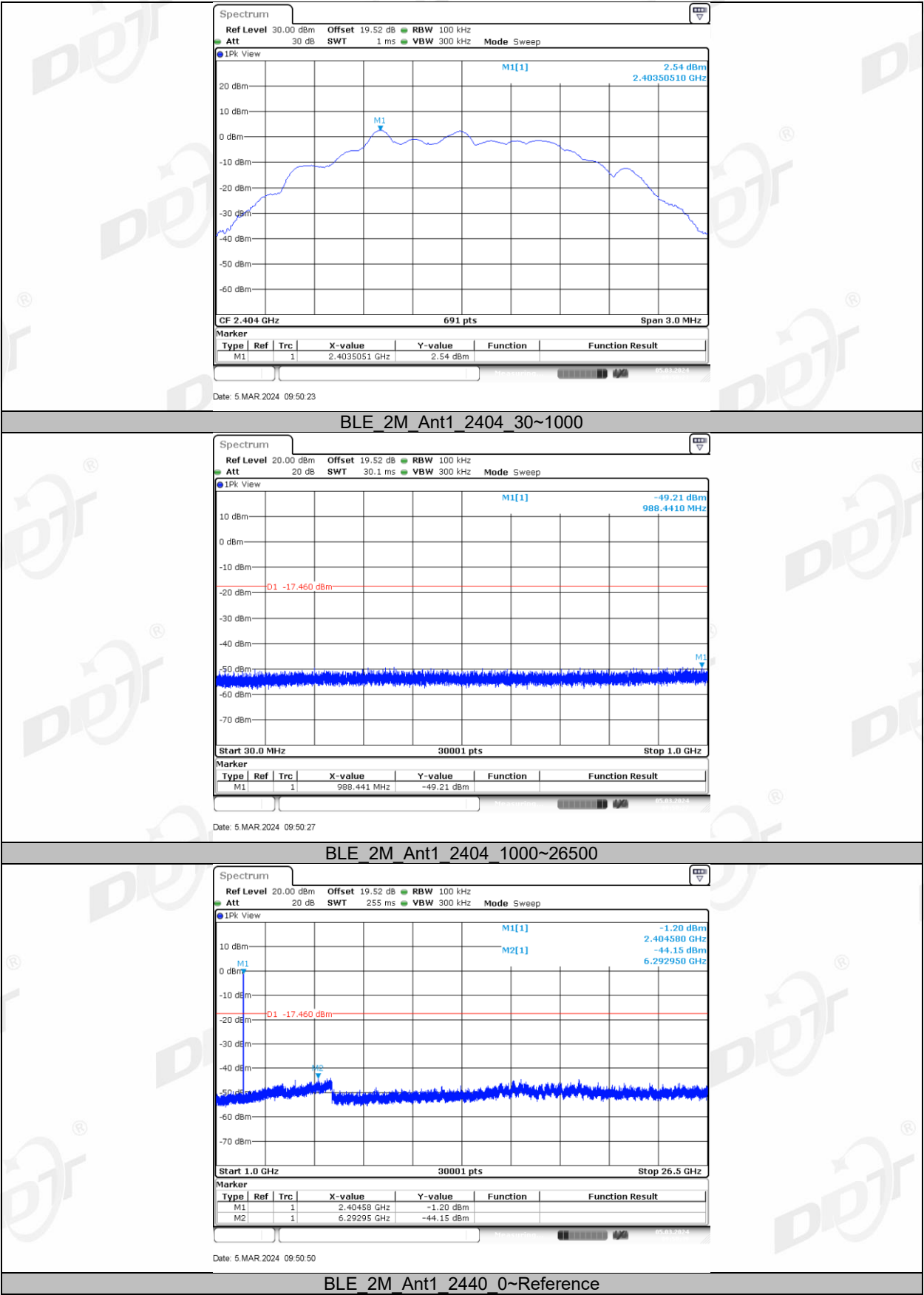


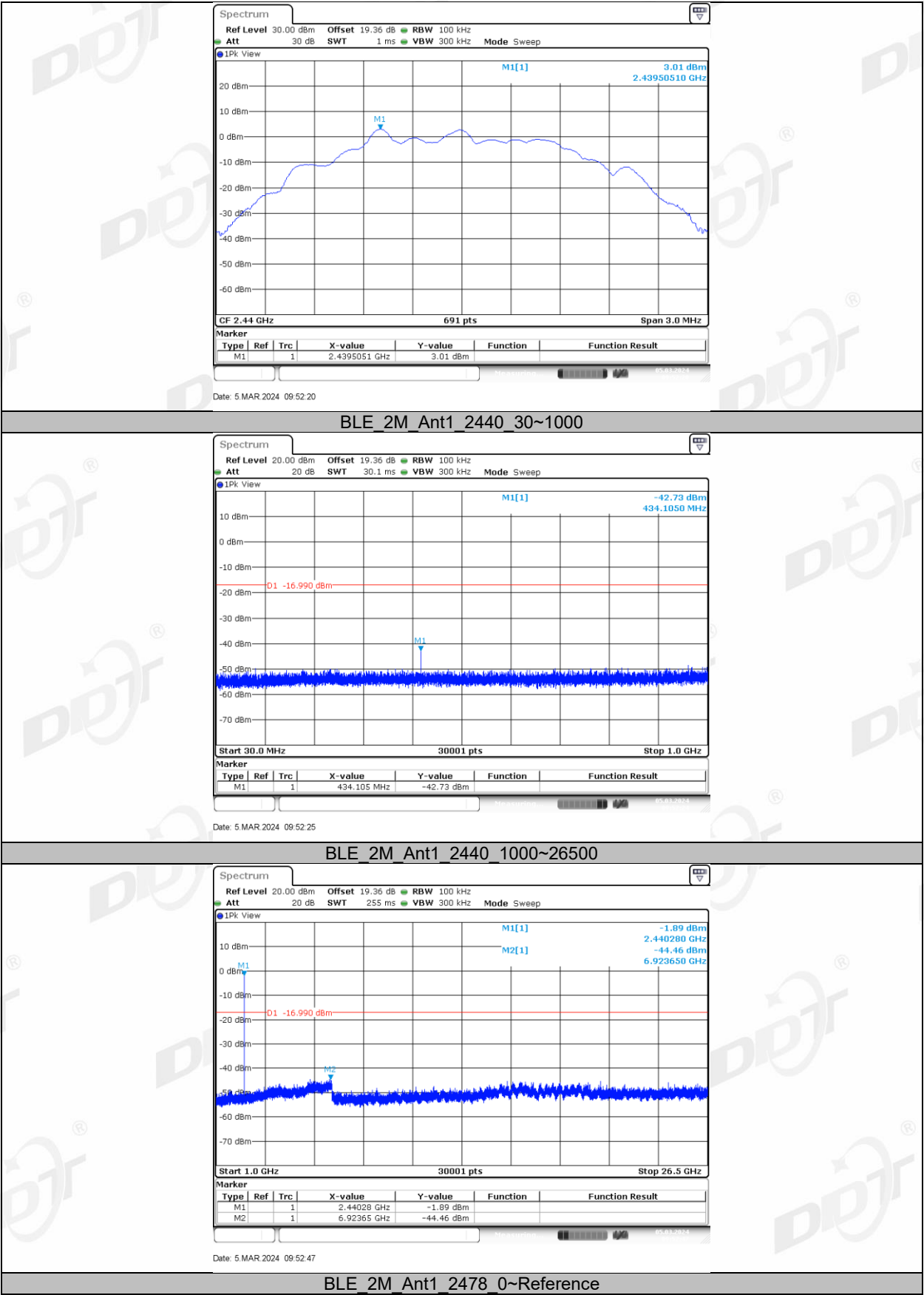
Right side:

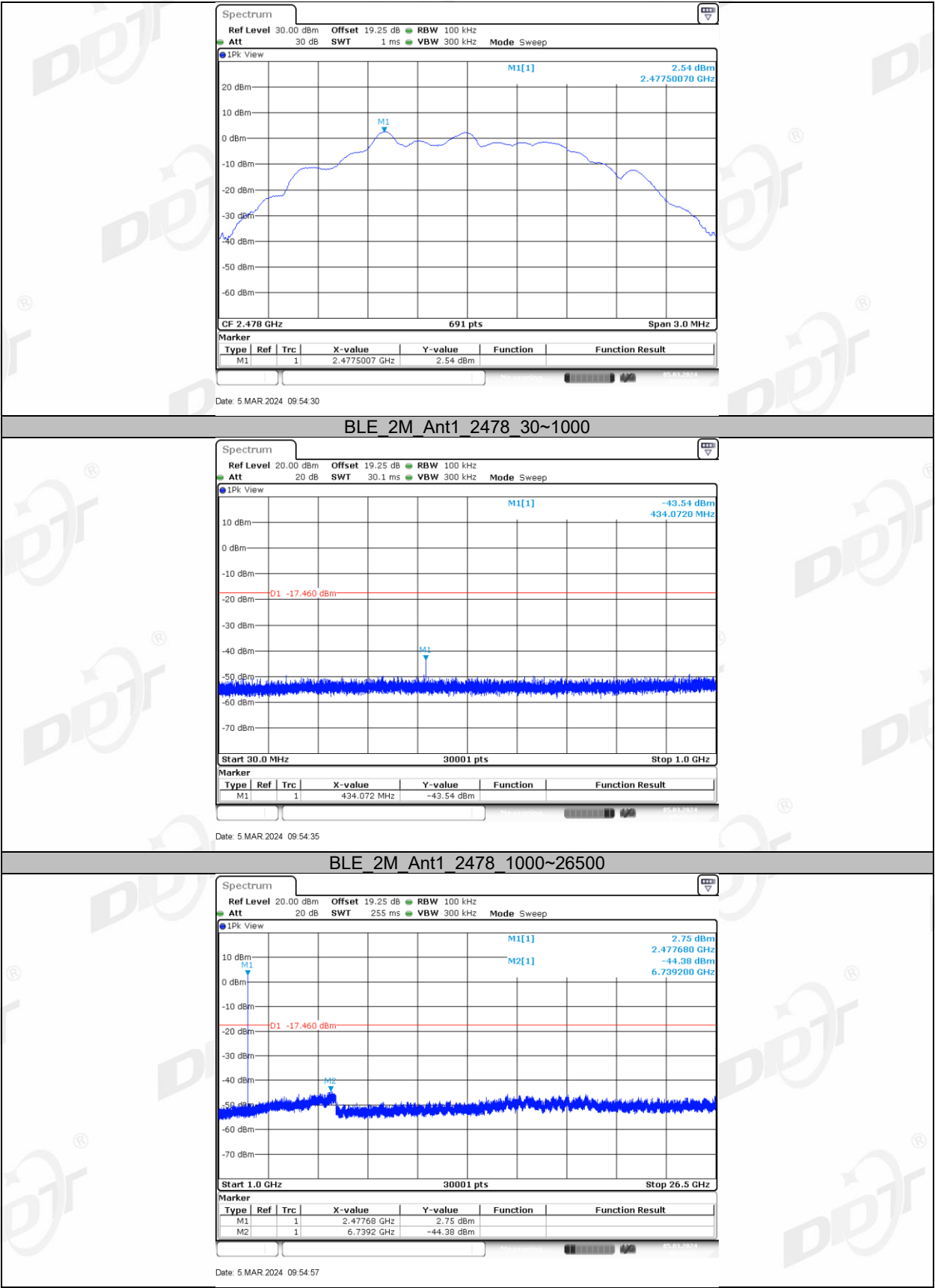






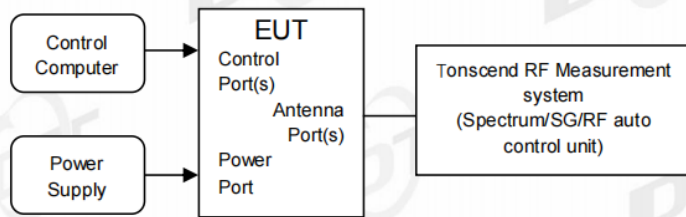






10. Duty Cycle

10.1. Block diagram of test setup



10.2. Limit

Just for Report.

10.3. Test procedure

- (1) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.

set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the middle hopping channel.

Resolution BW: 1 MHz.

Video BW: 1 MHz.

Span: Zero span.

Detector: Peak.

Trace Mode: Clear Write.

Sweep: Video Trigger

- (2) When the trace is complete, measure the sending time of 1 burst and the duty cycle of 1 burst cycle.

- (3) Calculate dwell time follow below formula:

Duty cycle= Pulse's on time / Burst cycle

10.4. Test result

Test Engineer:	Haofeng	Test Site:	RF Measurement System 3#
Ambient Condition:	21.7℃,46.9%RH	Test Date:	2024.02.29 ~ 2024.03.05
Test Power Supply:	Battery	EUT:	True Wireless Earphones
Sample Number:	S24022619-001	Model No.:	AMIRON 100

Left side:

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.17	0.62	27.42	5.62
		2440	0.17	0.62	27.42	5.62
		2480	0.17	0.62	27.42	5.62
BLE_2M	Ant1	2402	0.10	0.63	15.87	7.99
		2440	0.10	0.63	15.87	7.99
		2480	0.10	0.63	15.87	7.99

Right side:

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	0.17	0.62	27.42	5.62
		2440	0.17	0.62	27.42	5.62
		2480	0.17	0.62	27.42	5.62
BLE_2M	Ant1	2402	0.10	0.63	15.87	7.99
		2440	0.10	0.63	15.87	7.99
		2480	0.10	0.63	15.87	7.99

10.5. Test graphs

Left side:





Right side:





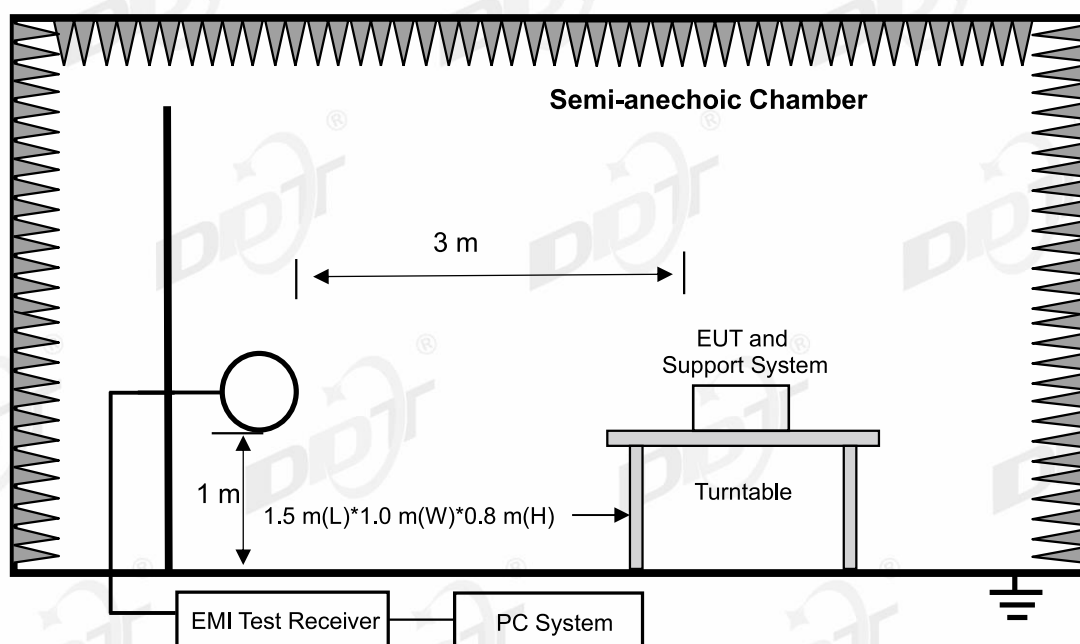
11. Radiated Emission

11.1. Test equipment

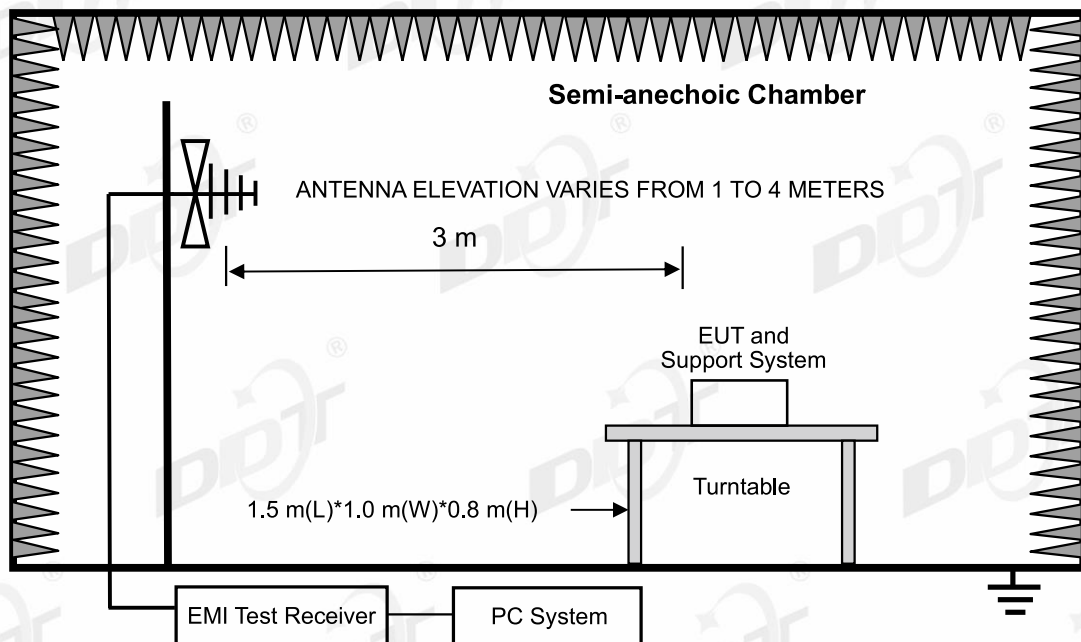
Equipment	Manufacturer	Model No.	Serial Number	Due Date
☑Radiation 3#Chamber				
EMI TEST RECEIVER	R&S	ESU26	100472	2024/04/22
PSA Series Spectrum Analyzer	Agilent	E4447A	MY50180031	2024/04/22
Active Loop Antenna	Schwarzbeck	FMZB-1519	1519-038	2024/09/10
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	01429	2024/07/11
Double Ridged Horn Antenna	Schwarzbeck	BBHA 9120 D	02468	2024/09/17
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	2024/04/25
Pre-amplifier	COM-POWER	PAM-118A	18040084	2024/07/14
Pre-amplifier	COM-POWER	PAM-840A	461369	2024/04/26
RE Cable	N/A	W23.02 CP1-X2 + W23.09 AP1-X8+ JCT26S-NJ-NJ- 1.5M	4.5M+8M+1.5 M	2024/04/20
RF Cable	Yuhu	JCTB810-NJ-NJ- 9M+ ZT26S- SMAJ-SMAJ-1M	21123964	2024/04/22
Band Reject Filter(2400-2500 MHz)	REBES	BRM50702	G555	N/A
Test Software	Tonscend	JS32-RE	V 5.0.0.1	N/A

11.2. Block diagram of test setup

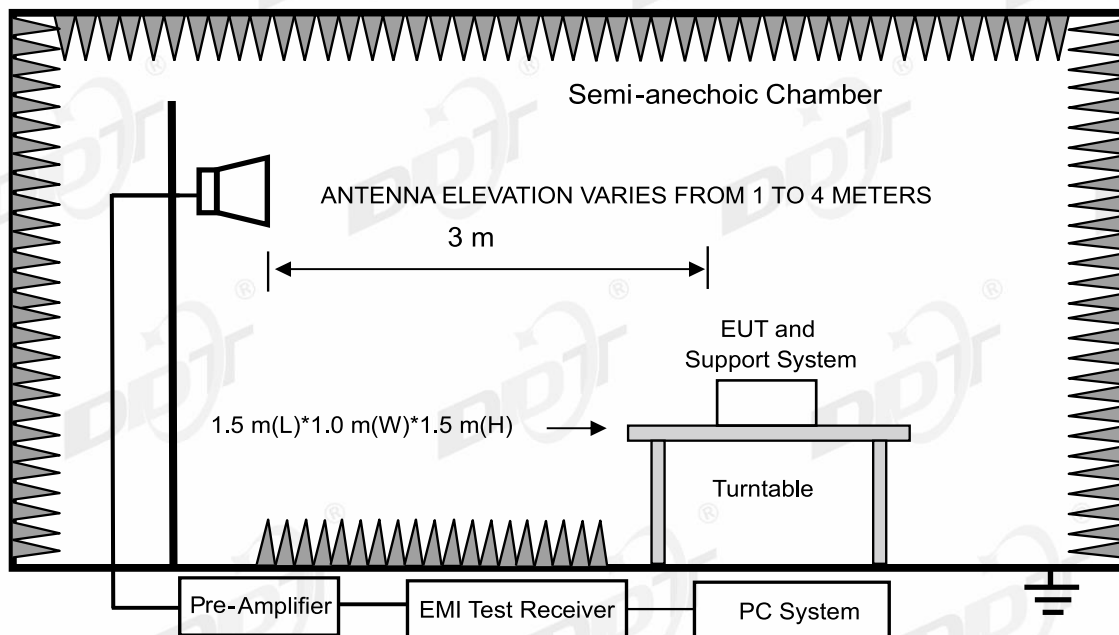
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



In 3 m Anechoic Chamber, test setup diagram for 30 MHz - 1 GHz:



In 3 m Anechoic Chamber, test setup diagram for frequency above 1 GHz:



Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.