

시험 성적서

TEST REPORT

페이지(page) : (1) / 총(Total) (49)

성적서 번호 Report No.		ICRT-TR-E251931-0A	
신청자 Client	기관명 Name	BNCOM CO.LTD	
	주 소 Address	1106, M-Techno Center, 46, Gongdan-ro 140beon-gil, Gunpo-si, Gyeonggi-do, South Korea	
시험대상품목 Sample description		Bluetooth module	
모델명 Type description		BCM-SR100-AS	
정 격 Ratings		DC 3.3 V	
시험장소 Place of test		<input checked="" type="checkbox"/> 고정시험실(Permanent Testing Lab) <input type="checkbox"/> 현장시험(On Site Testing) 주소지(Address): 112, 113 Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea	
시험기간 Date of test		01. Apr. 2025 ~ 23. Jun. 2025	
시험방법/항목 Test Method/Item		FCC Part 15 Subpart C & IC RSS-Gen & RSS-247	
시험결과 Test Results		Refer to 3. Test Summary	
확 인 Affirmation	작성자 Tested by	기술책임자 Technical Manager	
	성명 Name Si-Yeon, Hwang	성명 Name Yong-Min, Won	
<input type="checkbox"/> 위 성적서는 고객이 제공한 시료에 대한 시험결과 입니다. <input type="checkbox"/> The above test report is certified that the above mentioned products have been tested for the sample. <input type="checkbox"/> 위 성적서는 KS Q ISO/IEC 17025 및 한국인정기구(KOLAS)인정과 관련이 없습니다. <input type="checkbox"/> The above test report is not related to accreditation by KS Q ISO/IEC 17025 and Korea Laboratory Accreditation scheme. <input type="checkbox"/> 위 성적서는 주식회사 아이씨알의 승인 없이는 일부 복제에 대해 금지됩니다. <input type="checkbox"/> The test report is prohibited for some reproduction without the approval of the ICR.			
<div style="text-align: center;"> 2025. 06. 23 주식회사 아이씨알 대표이사 The head of INTERNATIONAL CERTIFICATION REGISTRAR </div>			

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The authenticity of the test report can be checked on the G4B or ICR website.

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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E251931-0A	2025. 06. 23	Initial Issue	All



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1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant information

Applicant	BNCOM CO.LTD
Address	1106, M-Techno Center, 46, Gongdan-ro 140beon-gil, Gunpo-si, Gyeonggi-do, South Korea

1.2 Manufacturer Information

Applicant	BNCOM CO.LTD
Address	1106, M-Techno Center, 46, Gongdan-ro 140beon-gil, Gunpo-si, Gyeonggi-do, South Korea

1.3 Test Laboratory Information

Laboratory	ICR Co., Ltd.
Address	112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Telephone No.	+82-2-6351-9002
Fax No.	+82-2-6351-9007
KOLAS No.	KT652
KC & FCC	KR0165

1.4 Measurement Uncertainty

Parameter	Uncertainty	Limit
Occupied Channel Bandwidth	2.75%	±5 %
RF output power, conducted	1.39 dB	±1.5 dB
Power Spectral Density, conducted	1.65 dB	±3 dB
Unwanted Emissions, conducted	1.82 dB	±3 dB
Supply voltages	0.06%	±3 %
Time	1.17%	±5 %
All emissions, radiated (Under the 1 GHz)	3.22 dB	±6 dB
All emissions, radiated (Above the 1 GHz)	3.67 dB	±6 dB



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2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	Bluetooth module
Model Name	BCM-SR100-AS
Additional Model Name	-
FCC ID	2APDI-BCM-SR100-AS
ISED certification number	8738A-BCMSR100AS
Power Supply	DC 3.3 V
Serial number	#1

2.2 Additional Information

Equipment Class	DSS - Direct Sequence Spread spectrum	
Device Type	Stand-alone	
Operating Frequency	Bluetooth BDR/EDR	2 402 MHz ~ 2 480 MHz
RF Output Power	Bluetooth BDR	7.37 dBm
	Bluetooth EDR	6.61 dBm
Number of Channel	Bluetooth BDR/EDR	79
Modulation Type	GFSK / 8DPSK	
Hopping mode	pseudorandom	
Antenna Type	PCB Antenna	
Antenna Gain	2.13 dBi	



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3. Test Summary

3.1 Test standards and results

FCC Part 15 Subpart C & IC RSS-Gen & RSS-247				
FCC Part Section	RSS Section	Test items	Applied	Results
§15.247 (a)(1)	RSS-Gen 6.7 & RSS-247 5.1(a)	20 dB Bandwidth	■	PASS
N/A	RSS-Gen 6.7	99 % Bandwidth	■	PASS
§15.247 (a)(1)	RSS-247 5.1(b)	Carrier Frequency Separation	■	PASS
§15.247 (a)(1) (iii)	RSS-247 5.1(d)	Number of Hopping Frequencies	■	PASS
§15.247 (a)(1) (iii)	RSS-247 5.1(d)	Time of Occupancy (dwell Time)	■	PASS
§15.247 (b)(1)	RSS-247 5.4(b)	Maximum Conducted Output Power	■	PASS
§15.247 (d)	RSS-247 5.5	Conducted Spurious Emission & Band edge	■	PASS
§15.247 (d) & §15.209 & § 15.205	RSS-Gen 8.9 & RSS-Gen 8.10 & RSS-247 5.5	Radiated Spurious Emission	■	PASS
§15.207	RSS-Gen 8.8	AC Line Conducted Emission	■	PASS

3.1.1 Purpose of the test

- To determine whether the equipment under test fulfills the requirements of the standards stated in FCC Part 15 Subpart C Section 15.247.
- To determine whether the equipment under test fulfills the requirements of the standards stated in RSS-Gen & RSS-247.

3.1.2 Test Methodology

- Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2013. Radiated testing was performed at a distance of 3 m from EUT to the antenna.
- Both conducted and radiated testing was performed according to the procedures in RSS-Gen & RSS-247. Radiated testing was performed at a distance of 3 m from EUT to the antenna.



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3.1.3 Configuration of Test System

Radiated emission test

- Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

- Preliminary radiated emissions test were conducted using the procedure in RSS-Gen & RSS-247 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

3.2 Antenna requirement

- According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.

Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Result: Pass

The transmitter has a **PCB Antenna**. The directional gain of the antenna is **2.13 dBi**.



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4. Test Result

4.1. 20 dB Bandwidth & 99 % Bandwidth

4.1.1 Test procedure

ANSI C63.10-2013 Clause 6.9.2

RSS Gen 6.7

4.1.2 Limit

§15.247 (a)(1)

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. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

4.1.3 Test data

Result : Pass

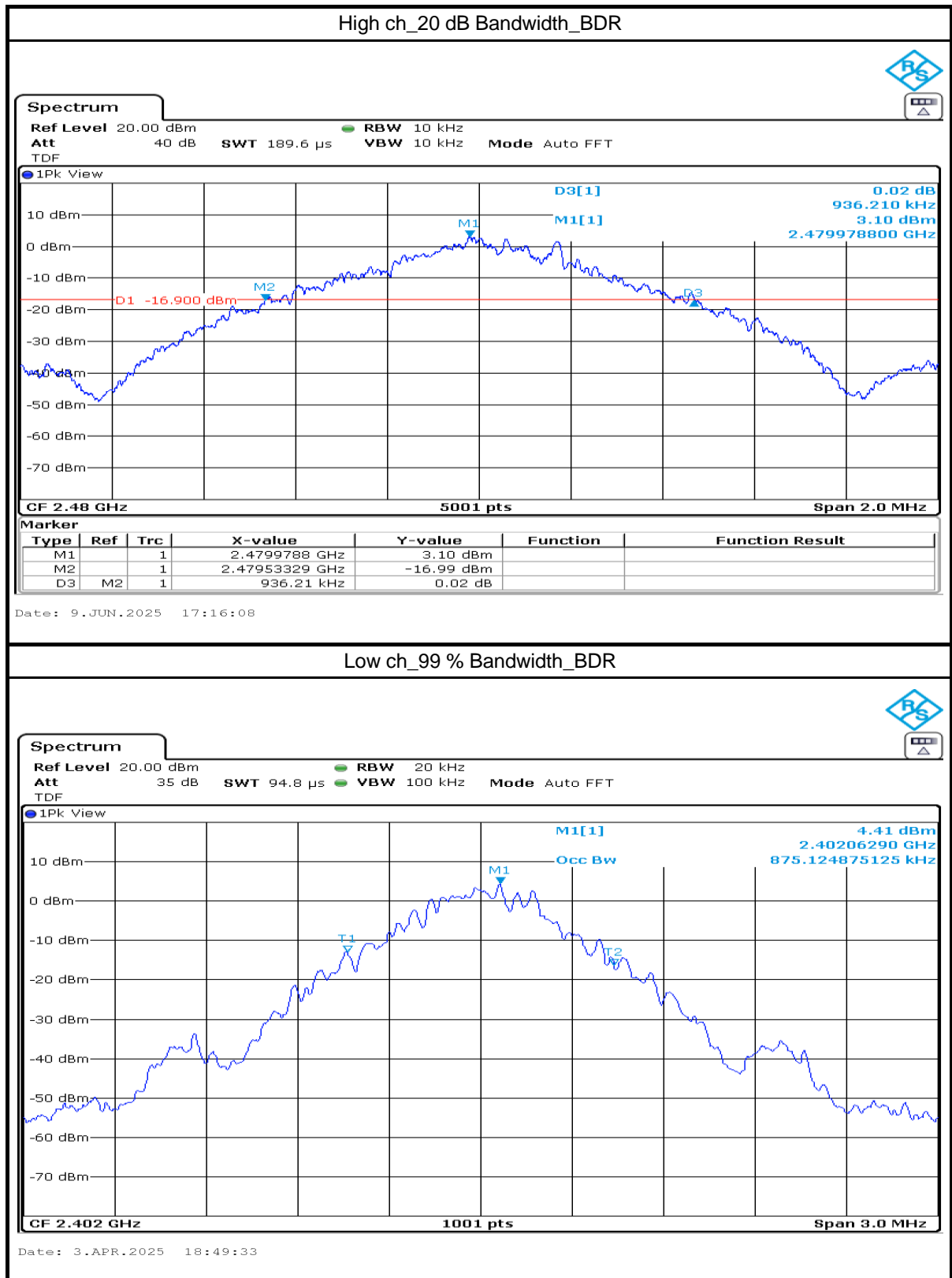
Mode	Frequency (MHz)	20 dB Bandwidth Measured Value (kHz)	99 % Bandwidth Measured Value (kHz)
Bluetooth BDR	2 402	937.01	875.12
	2 441	937.41	875.12
	2 480	936.21	875.12
Bluetooth EDR	2 402	1 307.34	1 171.83
	2 441	1 299.74	1 171.83
	2 480	1 306.94	1 168.83



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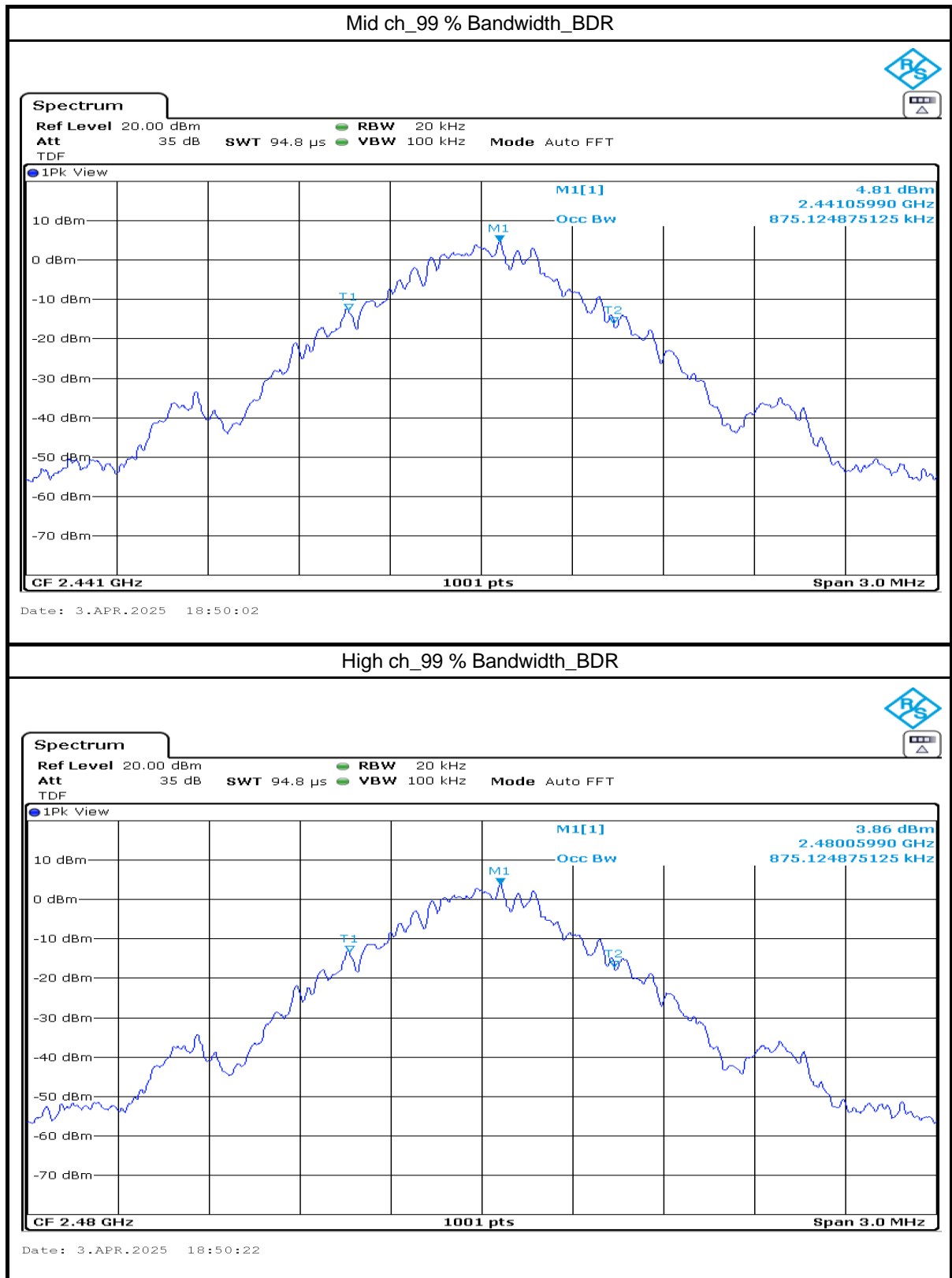




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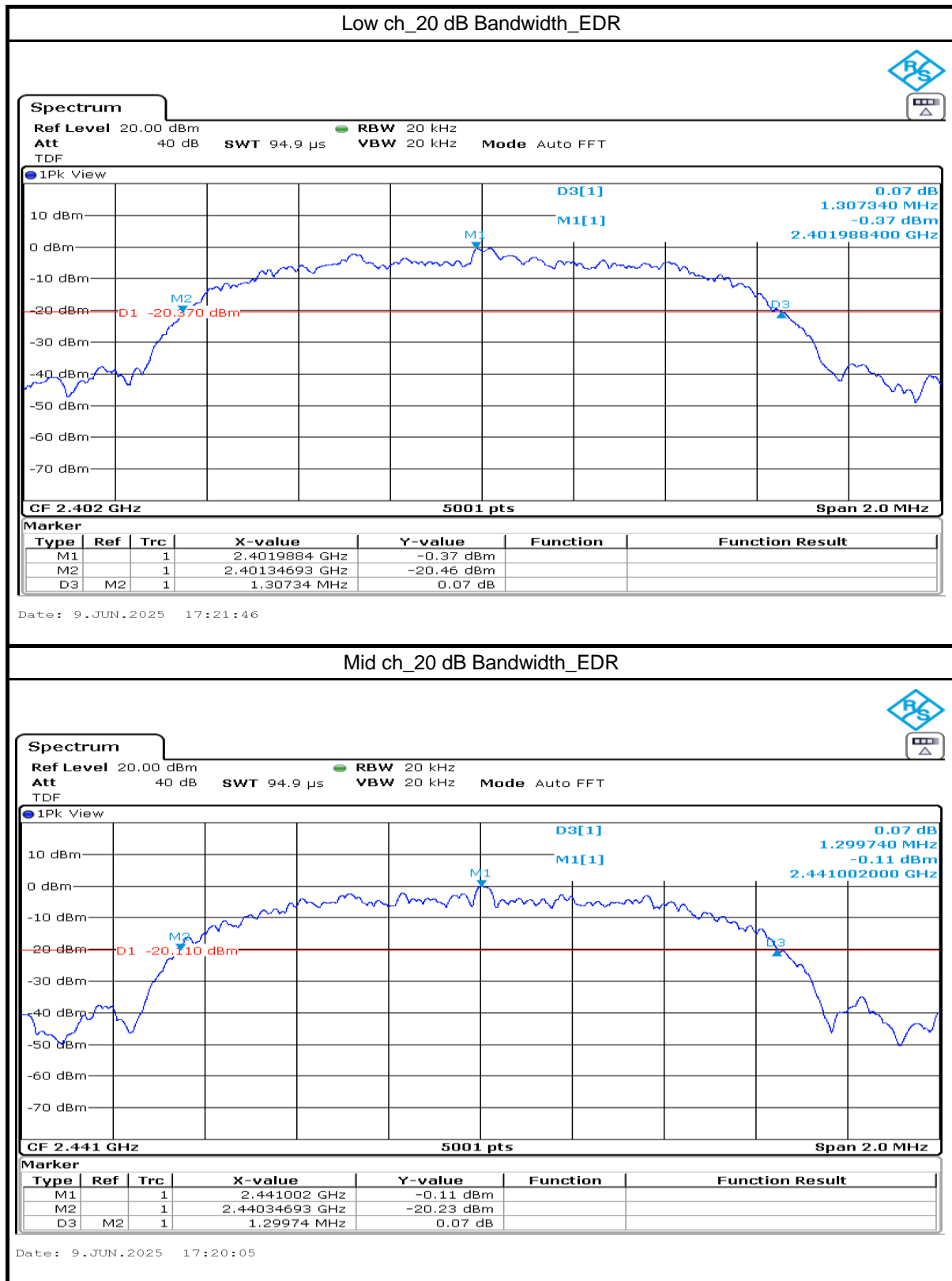




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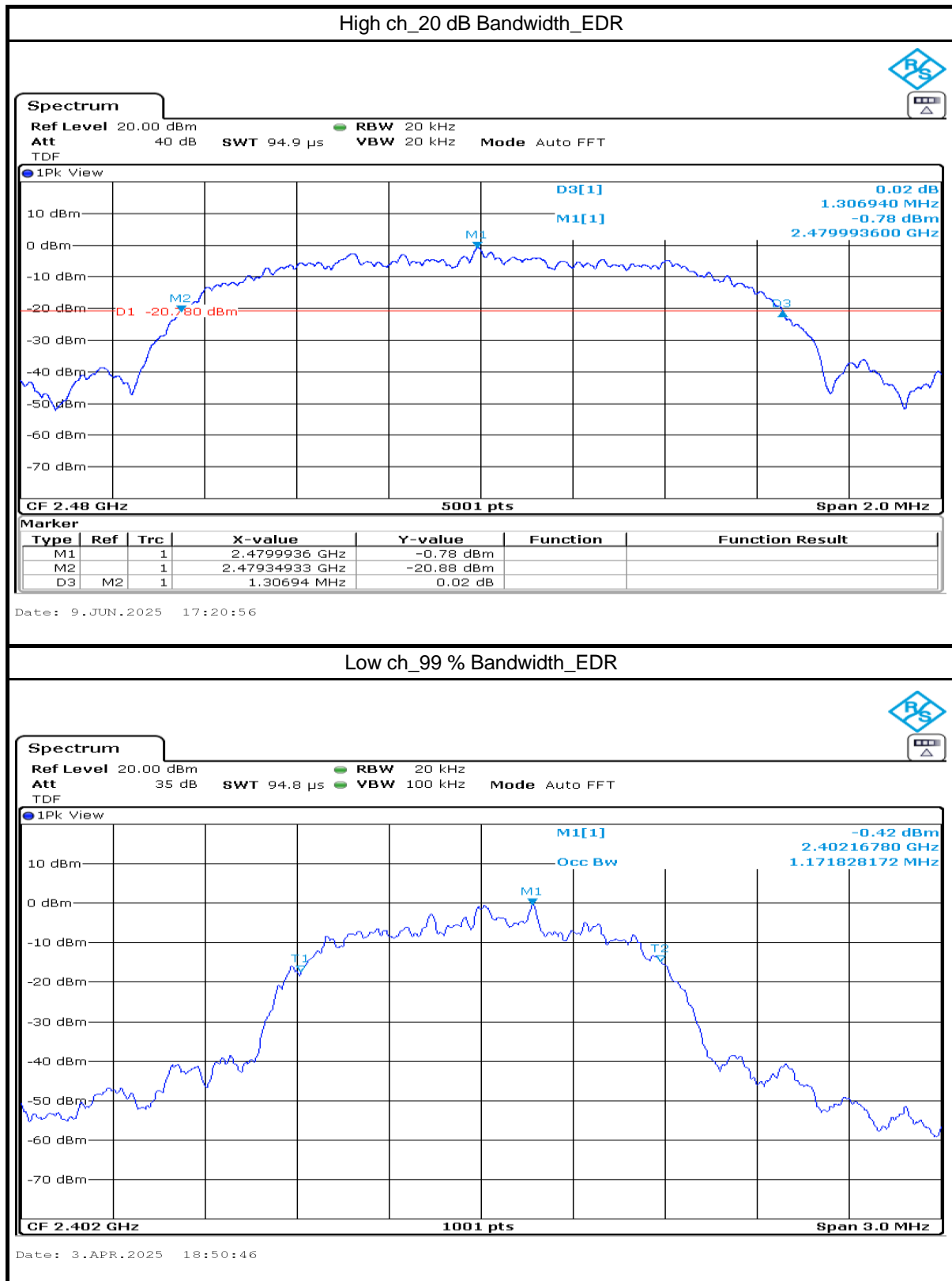




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페이지(page) : (13) / 총(Total) (49)

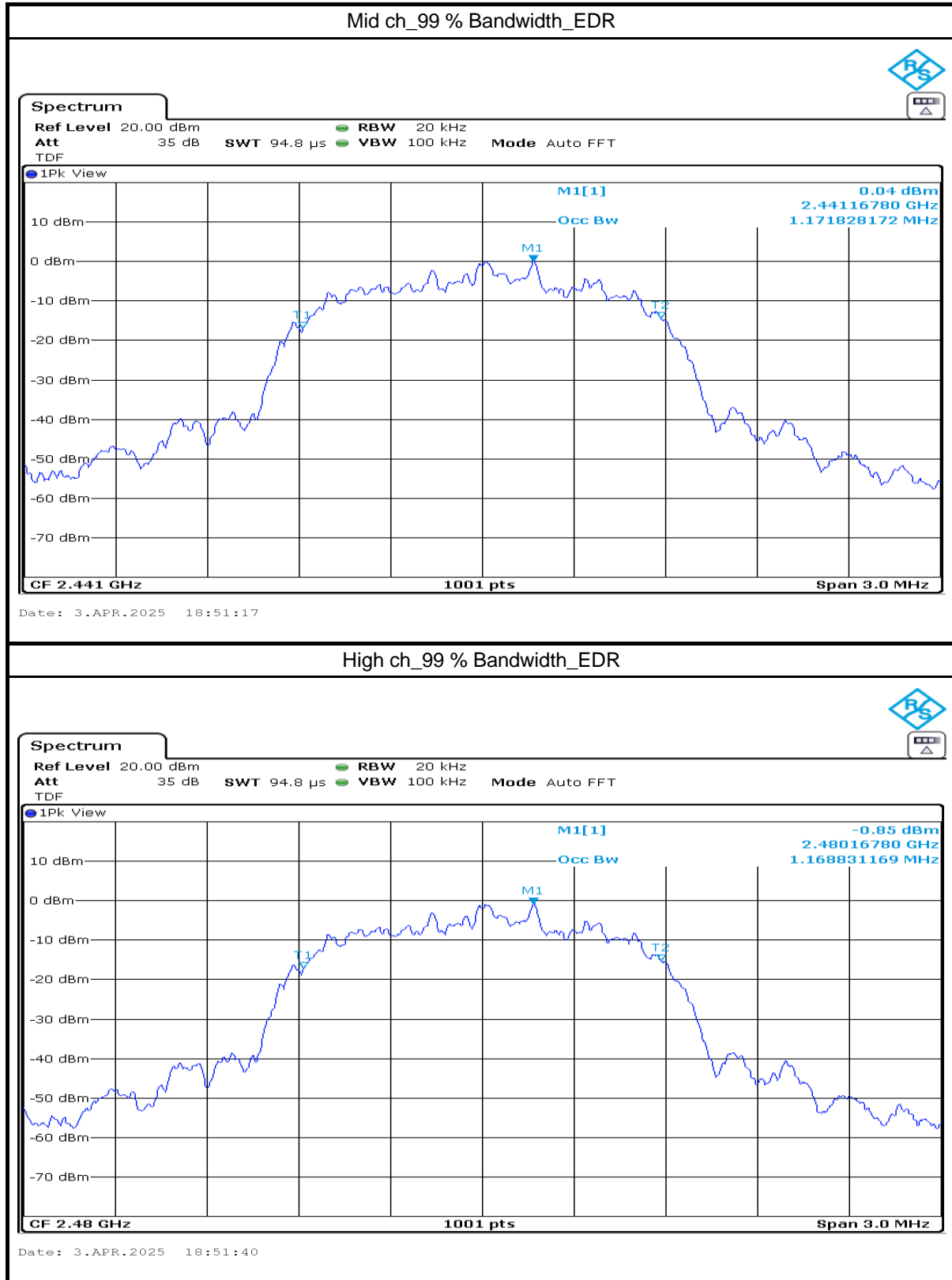




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4.2 Carrier Frequency Separation

4.2.1 Test procedure

ANSI C63.10-2013 Clause 7.8.2

4.2.2 Limit

§15.247 (a)(1)

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. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

RSS-247 5.1(b)

FHSs 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, FHSs operating in the band 2400-2483.5 MHz 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 that the systems operate with an output power no greater than 0.125 W.

4.2.3 Test data

Result : Pass

Mode	Frequency (MHz)	Measured Value (kHz)	Two-third 20 dB bandwidth of the hopping channel (kHz)	Limit
Bluetooth BDR	2 402	986.00	624.67	25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater
	2 441	968.00	624.94	
	2 480	1 081.90	624.14	
Bluetooth EDR	2 402	1 001.00	871.56	
	2 441	1 004.00	866.49	
	2 480	995.00	871.29	

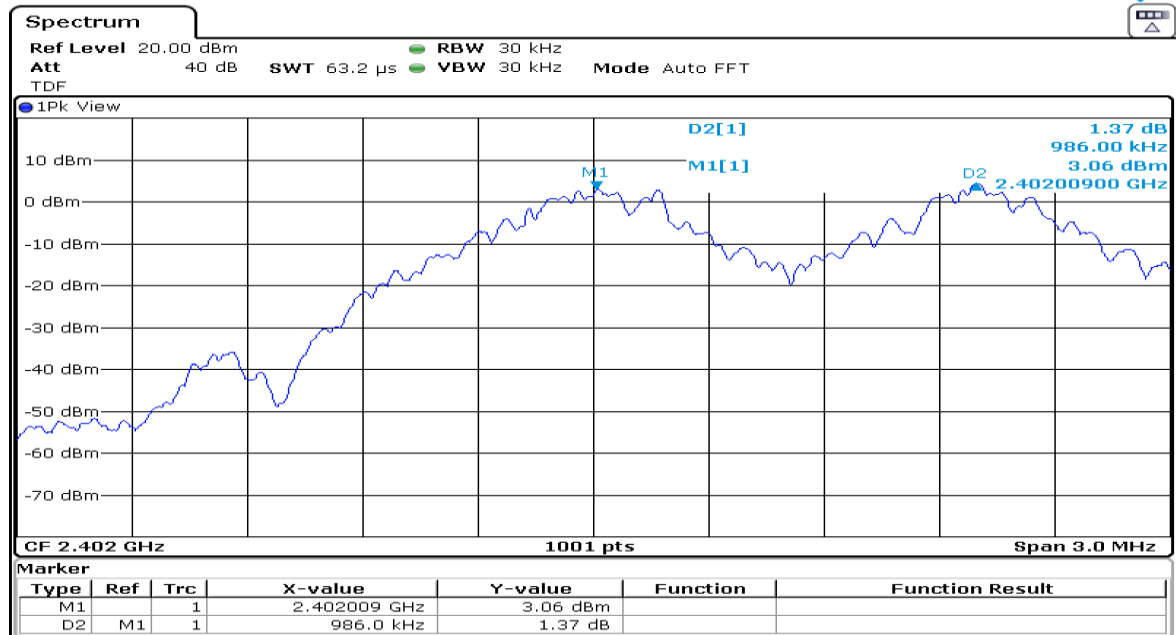


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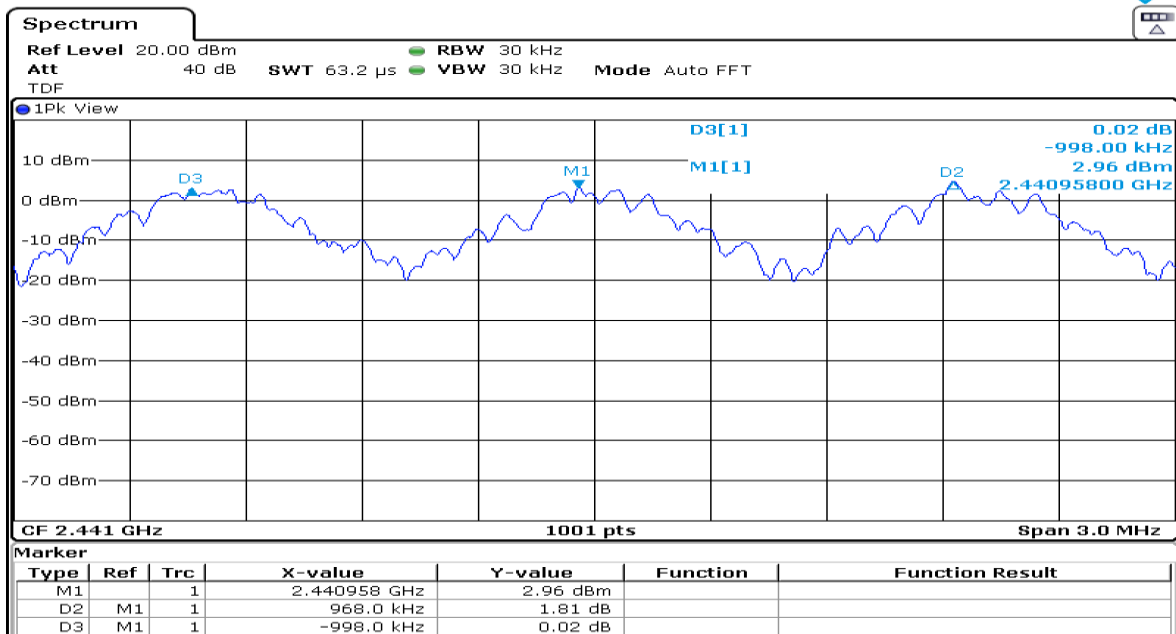
페이지(page) : (16) / 총(Total) (49)

Low ch_Carrier Frequency Separation_BDR



Date: 2.APR.2025 11:10:26

Mid ch_Carrier Frequency Separation_BDR



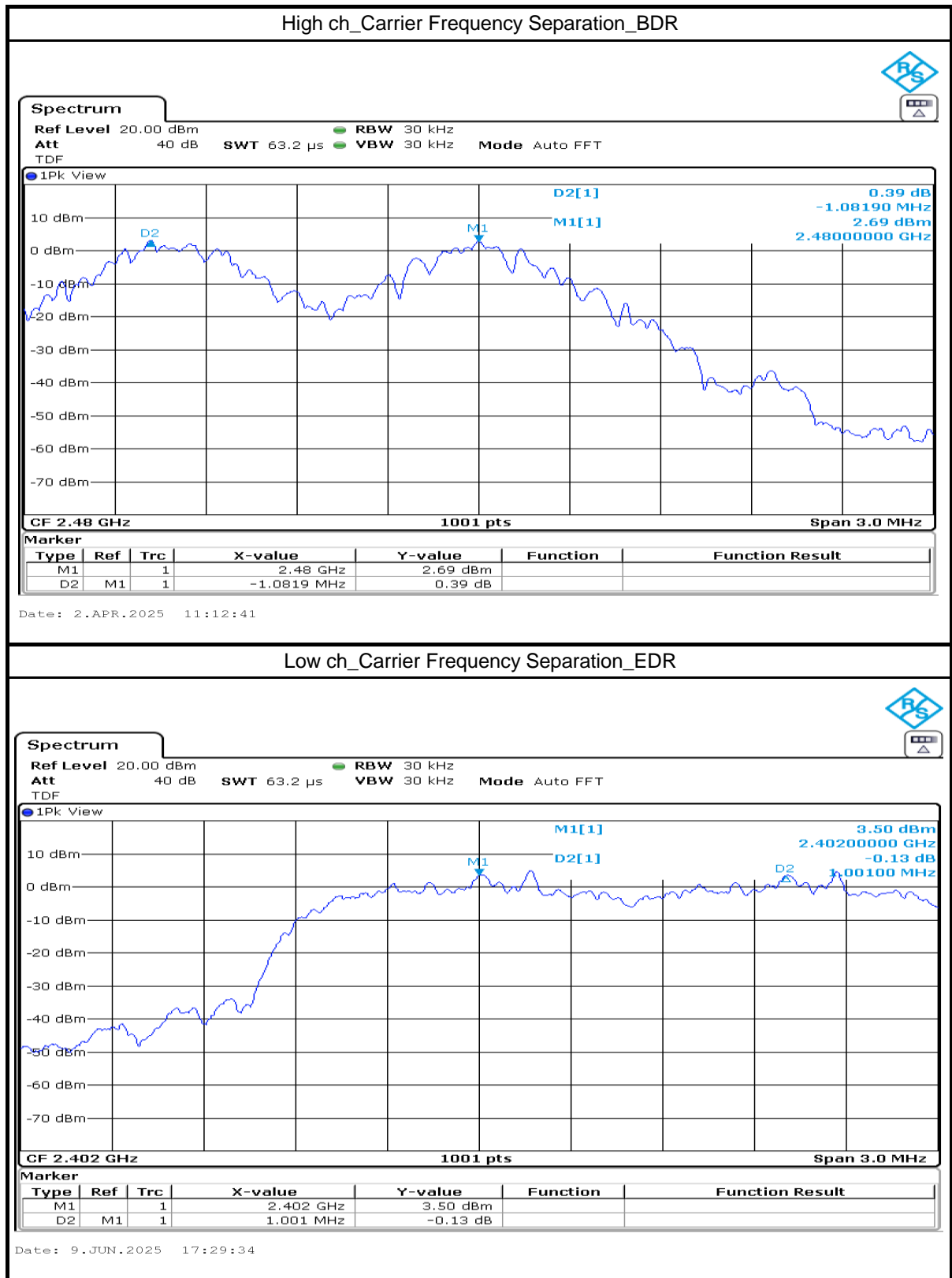
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페이지(page) : (17) / 총(Total) (49)

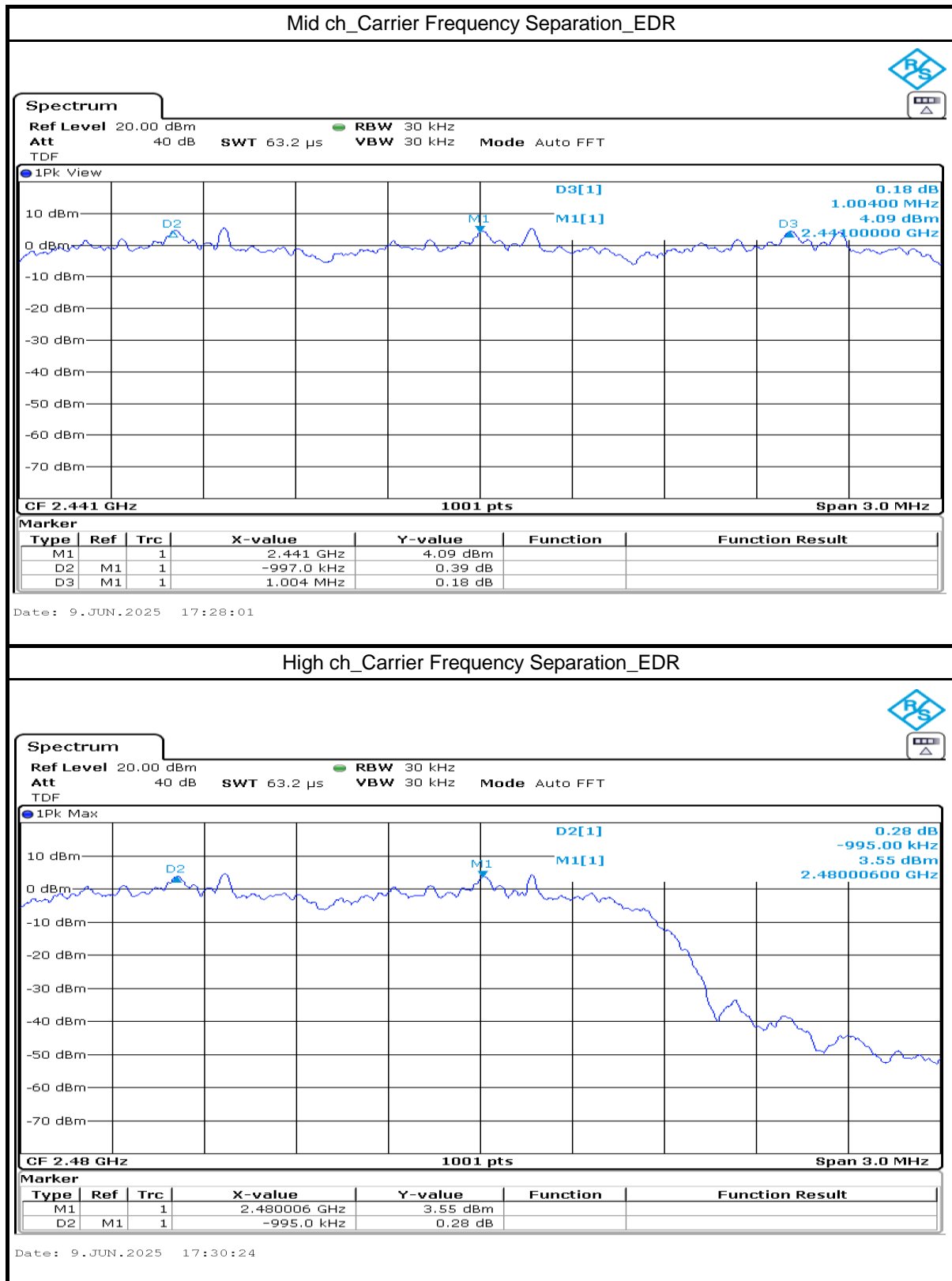




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4.3 Number of Hopping Frequency

4.3.1 Test procedure

ANSI C63.10-2013 Clause 7.8.3

4.3.2 Limit

15.247 (a)(1)(iii)

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

RSS-247 5.1(d)

FHSs operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. 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. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

4.3.3 Test data

Result : Pass

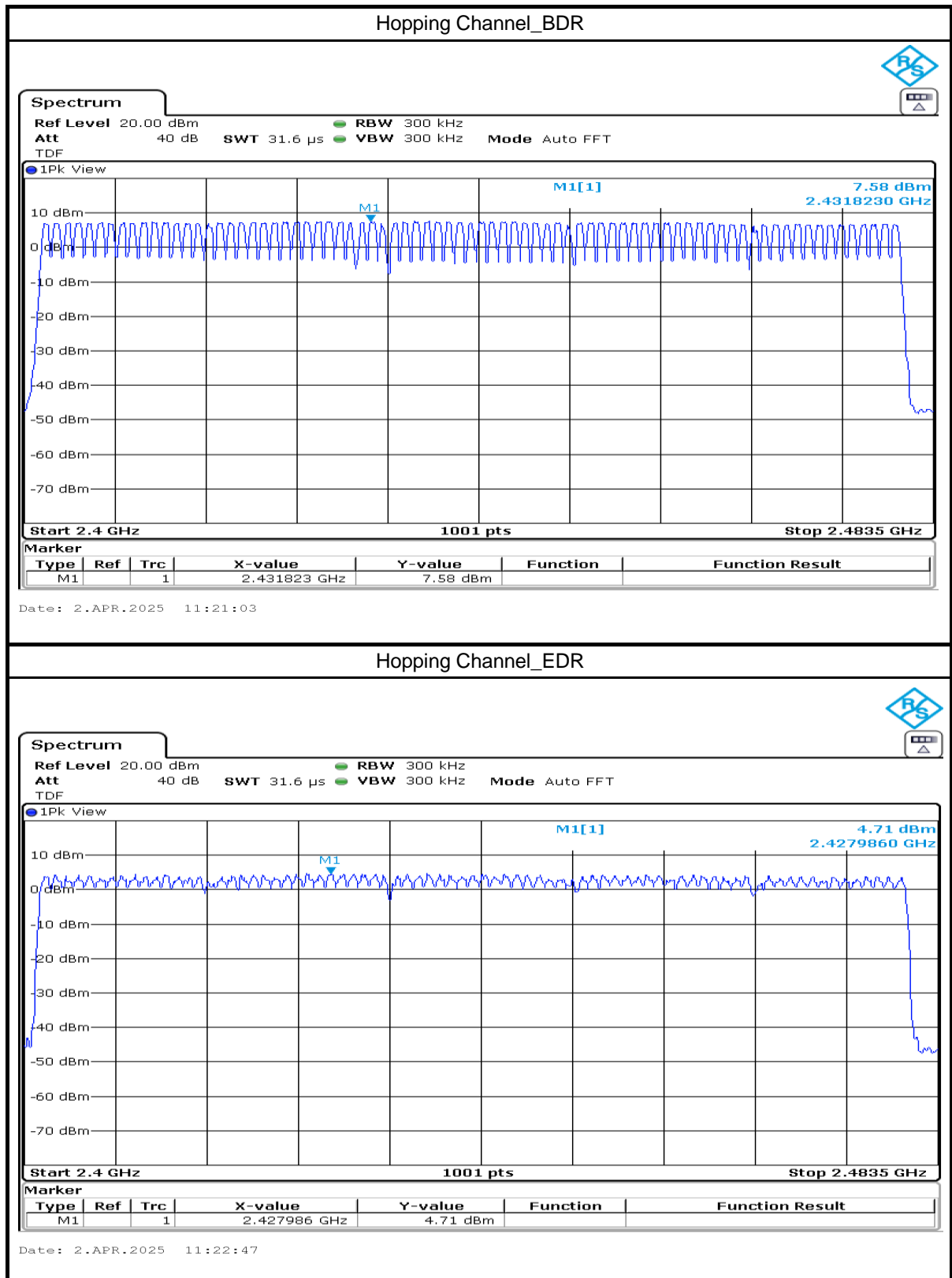
Mode	Hopping Channel	Limit
Bluetooth BDR	79	> 15
Bluetooth EDR	79	



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4.4 Time of Occupancy (dwell Time)

4.4.1 Test procedure

ANSI C63.10-2013 Clause 7.8.4

4.4.2 Limit

§15.247 (a)(1)(iii)

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

RSS-247 5.1(d)

FHSs operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. 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. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

4.4.3 Test data

Result : Pass

Mode	Hopping Channel Number	Hops Over Occupancy Time (ms/hops)	Package Transfer Time (ms)	Occupancy Time (s)	Limit (s)
BDR	79	106.67	2.885	0.31	0.4
EDR	79	106.67	2.893	0.31	

※ Occupancy Time (s) = Hops Over Occupancy Time (hops) x Package Transfer Time (ms)

※ Hopping rate is 1 600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s).

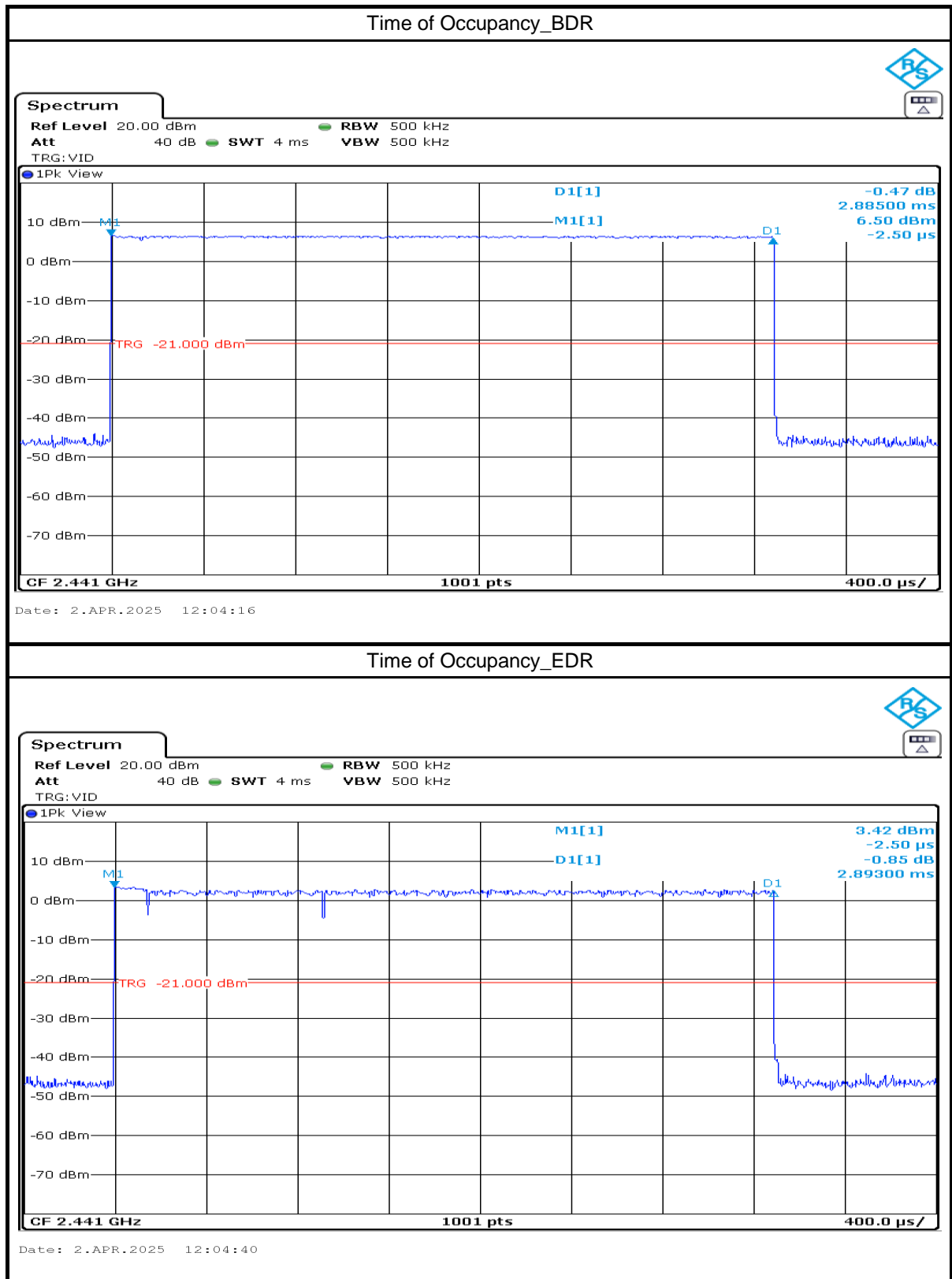
Hops Over Occupancy Time comes to (1 600 / 6 / 79) x (0.4 x 79) = 106.67 hops.



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4.5 Maximum Conducted Output Power

4.5.1 Test procedure

ANSI C63.10-2013 Clause 7.8.5

4.5.2 Limit

§15.247 (a)(1)

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. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

RSS-247 5.4(b)

For FHSs operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

4.5.3 Test data

Result : Pass

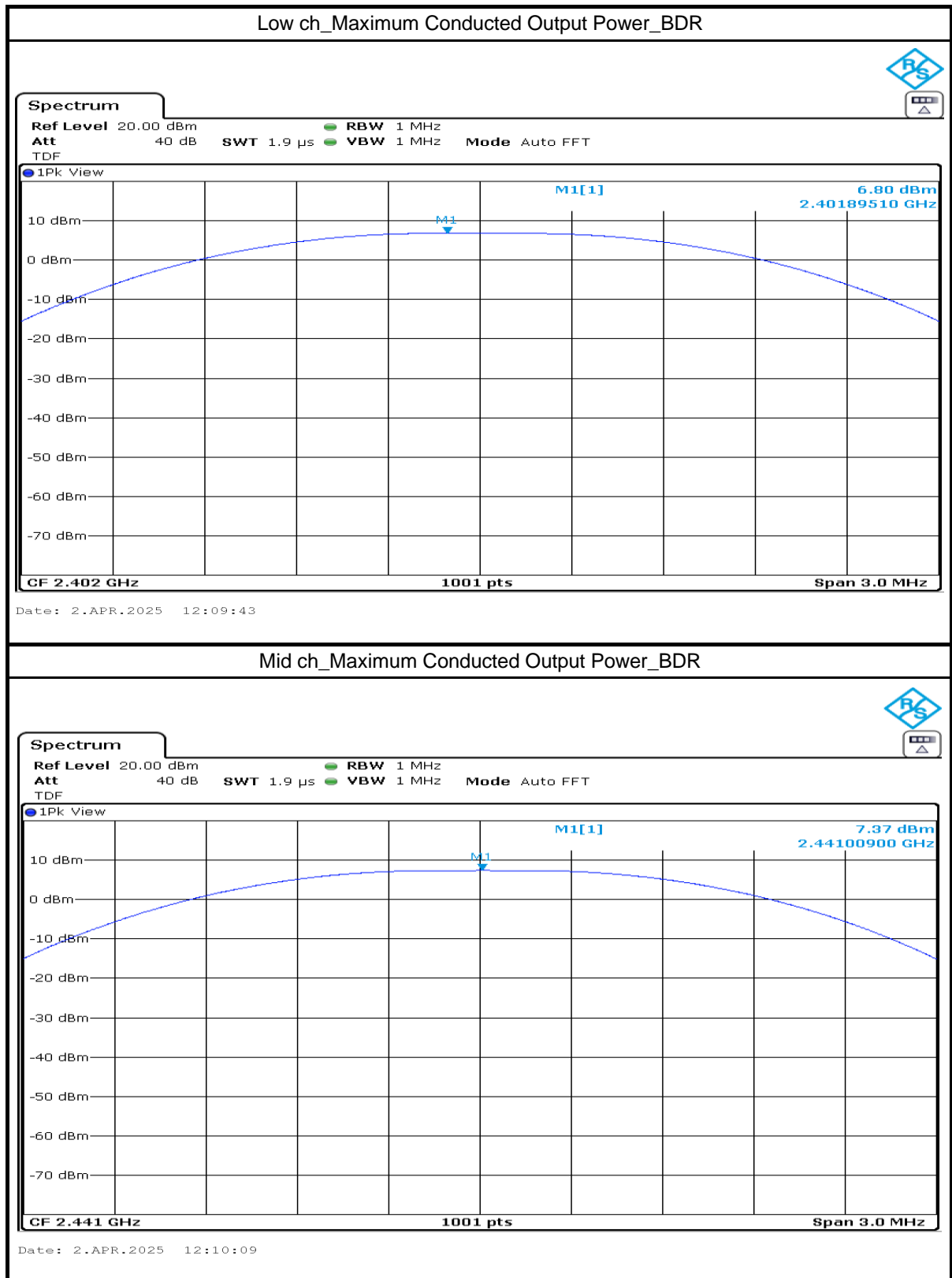
Mode	Frequency (MHz)	Measured Value (dBm)	Limit (dBm)
Bluetooth BDR	2 402	6.80	30
	2 441	7.37	
	2 480	6.49	
Bluetooth EDR	2 402	6.07	
	2 441	6.61	
	2 480	5.85	



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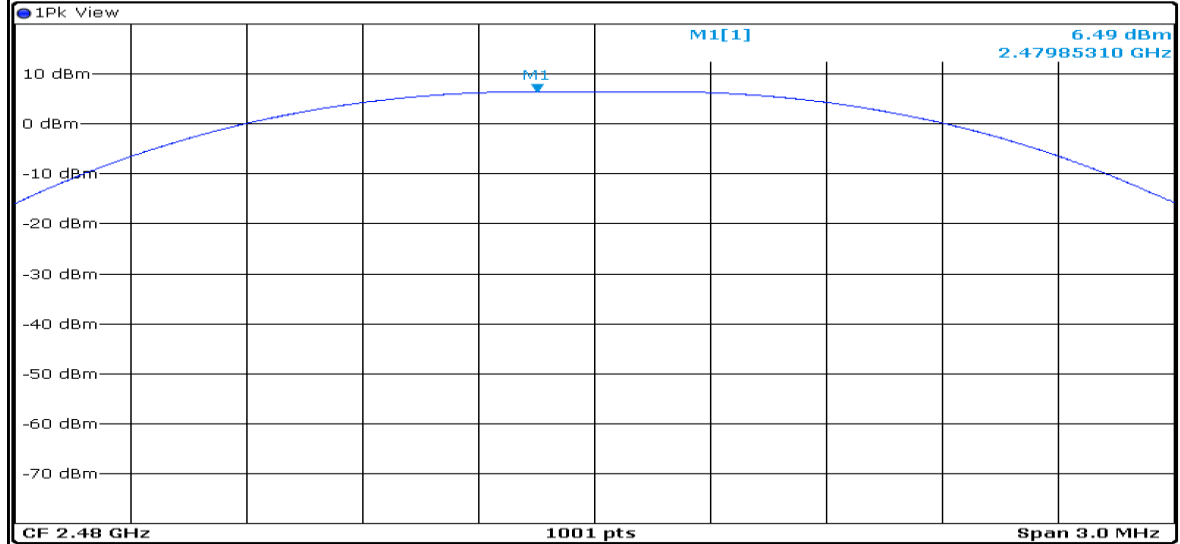
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High ch_Maximum Conducted Output Power_BDR

Spectrum

Ref Level 20.00 dBm
Att 40 dB
TDF
RBW 1 MHz
VBW 1 MHz
SWT 1.9 μ s
Mode Auto FFT

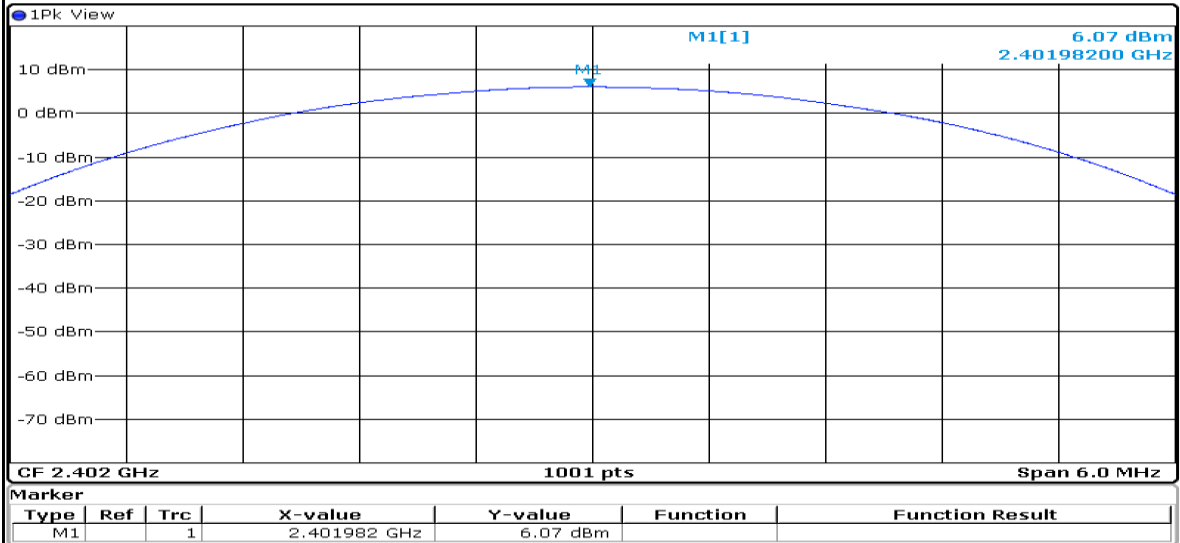


Date: 2.APR.2025 12:10:31

Low ch_Maximum Conducted Output Power_EDR

Spectrum

Ref Level 20.00 dBm
Att 40 dB
TDF
RBW 2 MHz
VBW 2 MHz
SWT 936.8 ns
Mode Auto FFT



Date: 9.JUN.2025 17:36:51

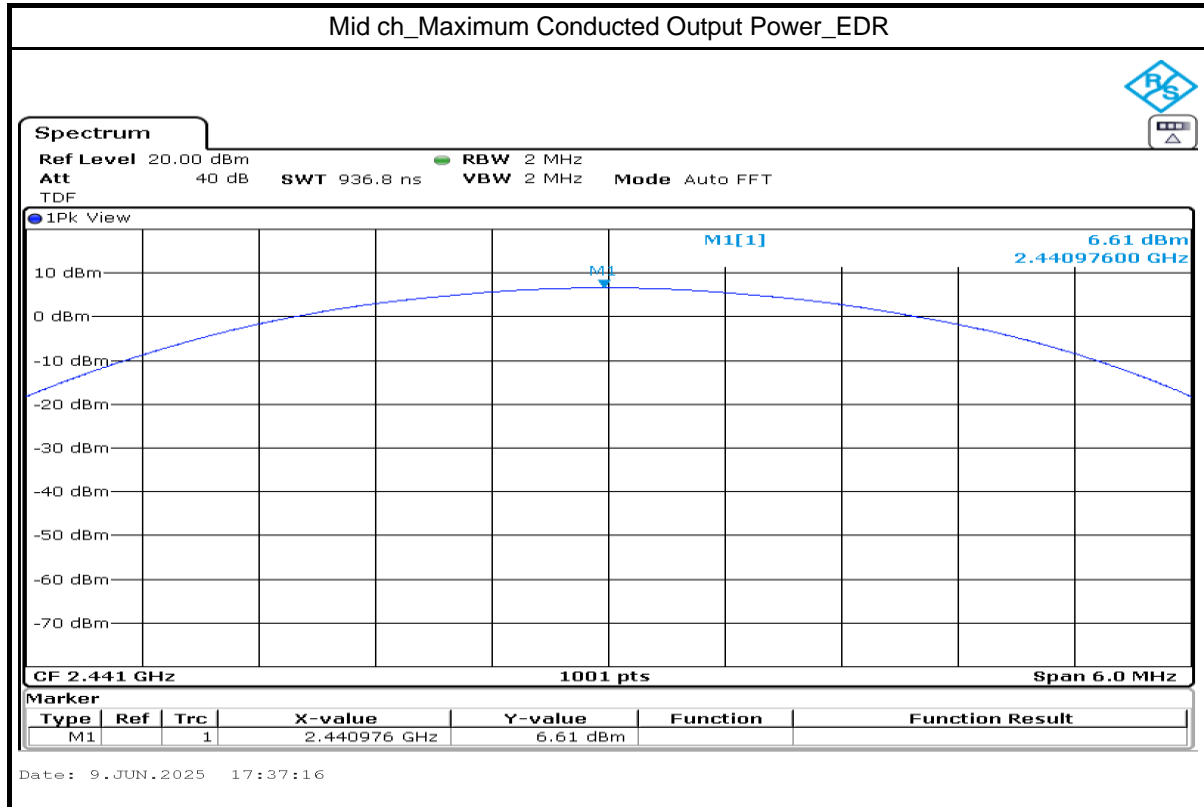


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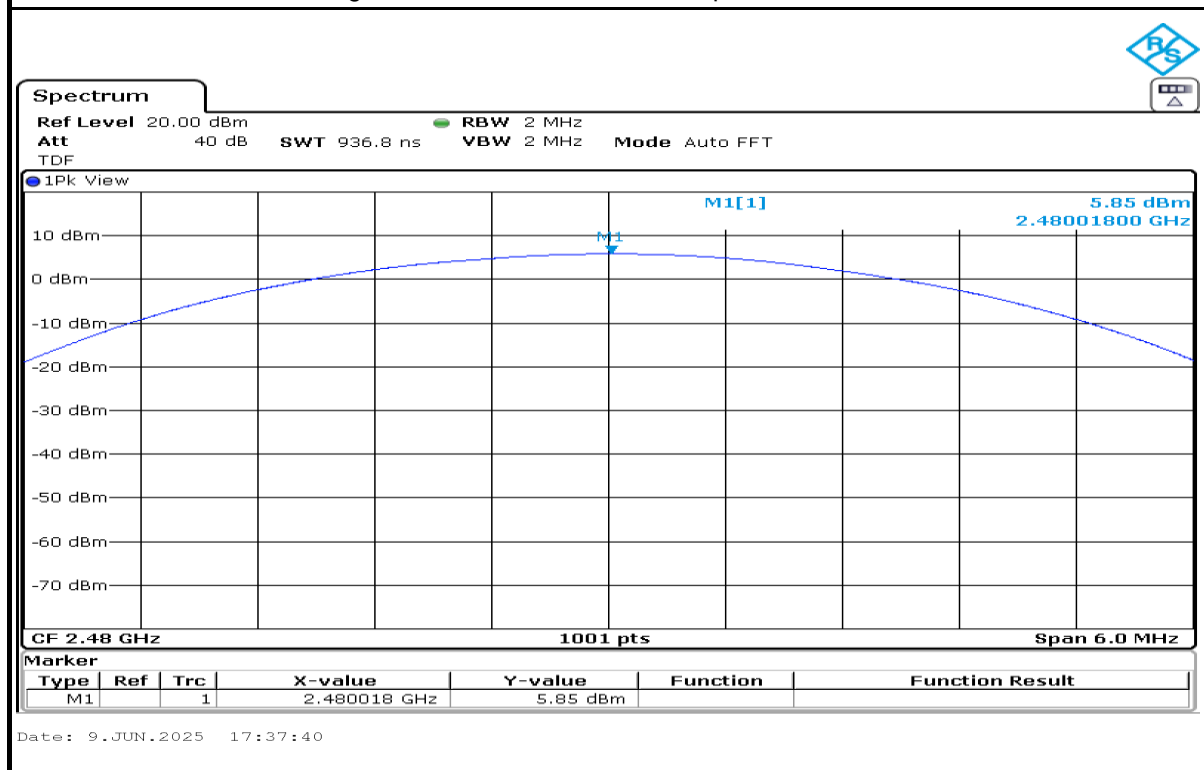
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Mid ch_Maximum Conducted Output Power_EDR



High ch_Maximum Conducted Output Power_EDR





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4.6 Conducted Spurious Emission & Band Edge

4.6.1 Test procedure

ANSI C63.10-2013 Clause 11.11, 11.13

4.6.2 Limit

§15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

RSS-247 5.5

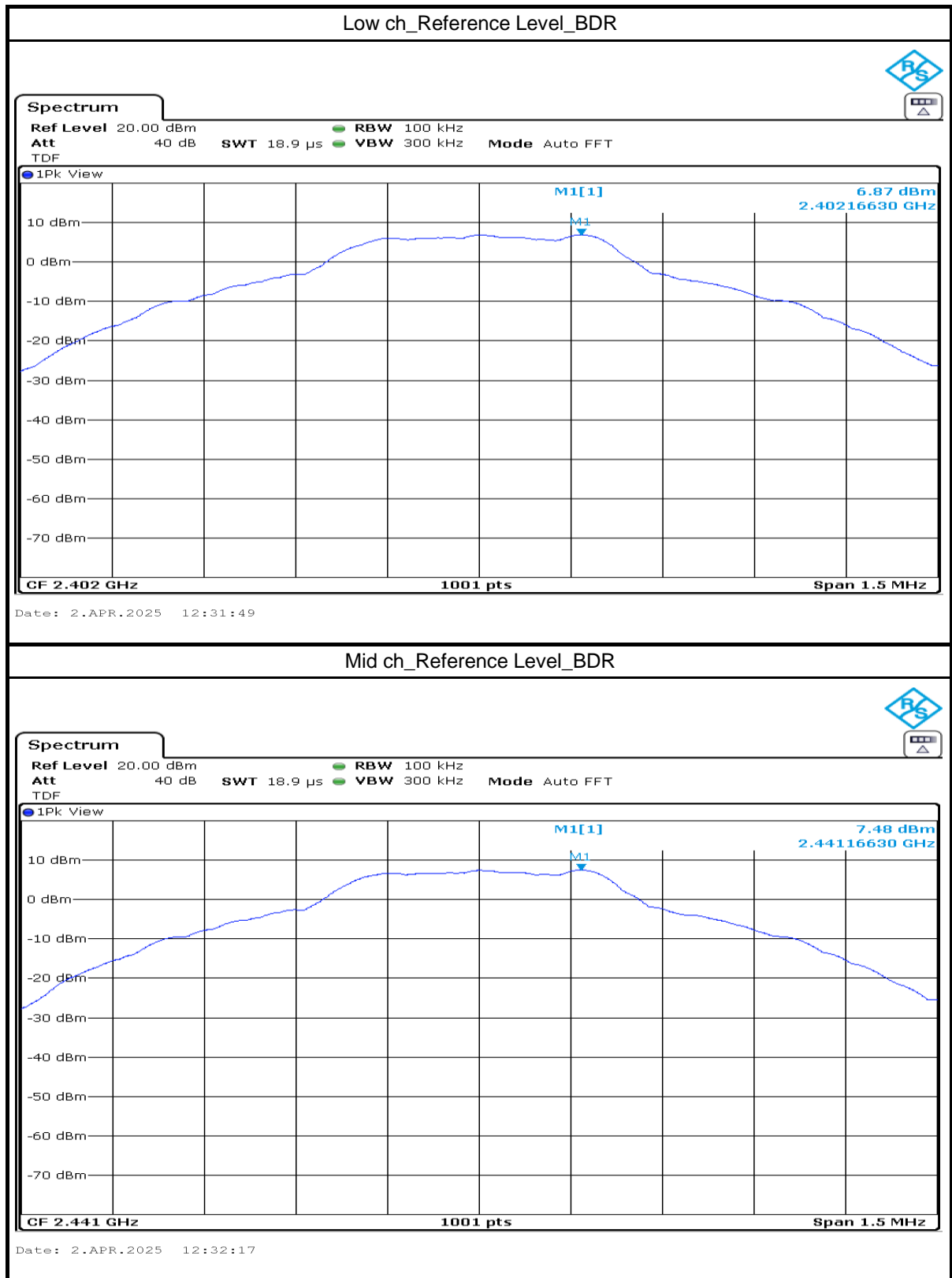
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



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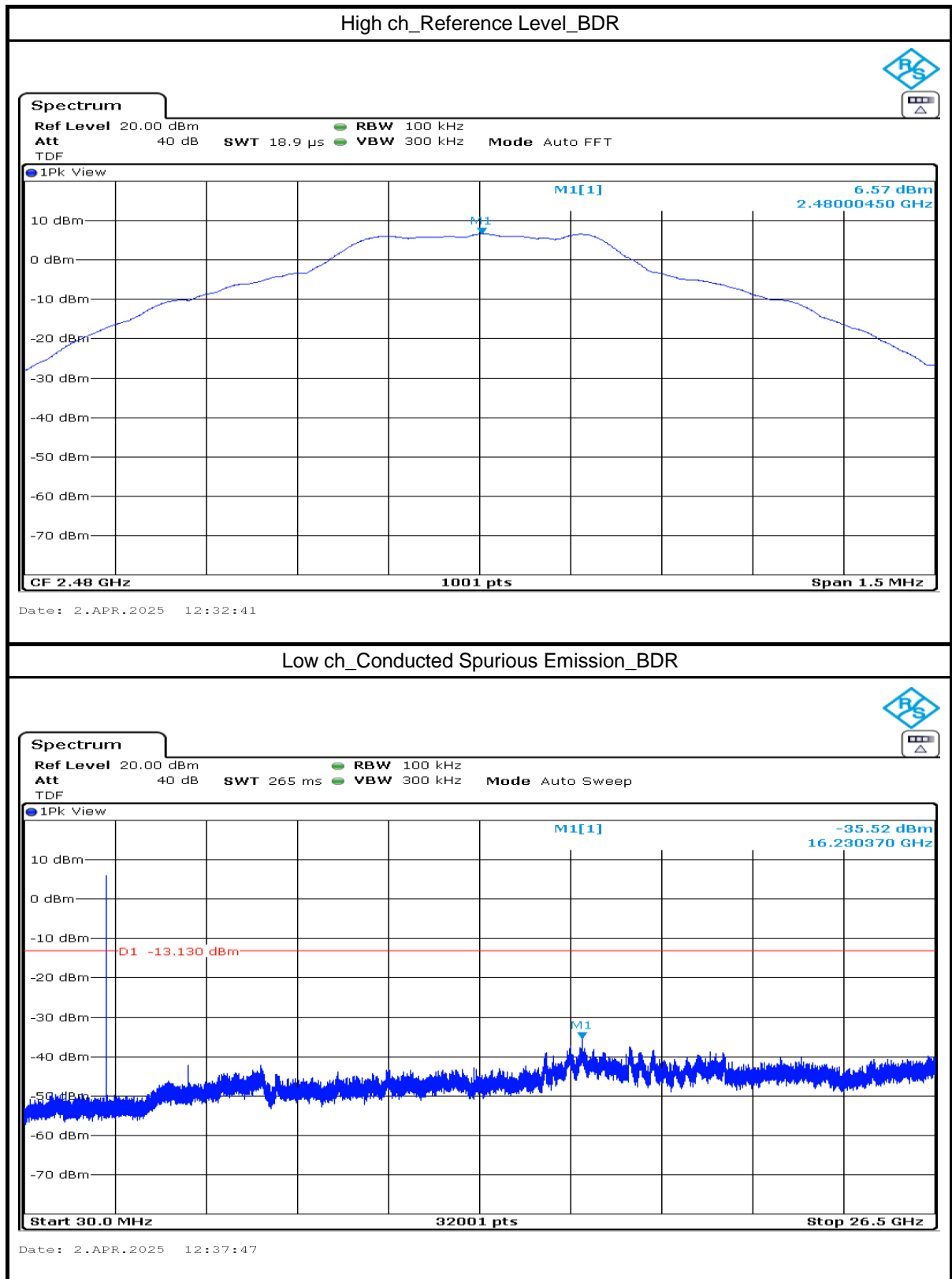




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페이지(page) : (29) / 총(Total) (49)

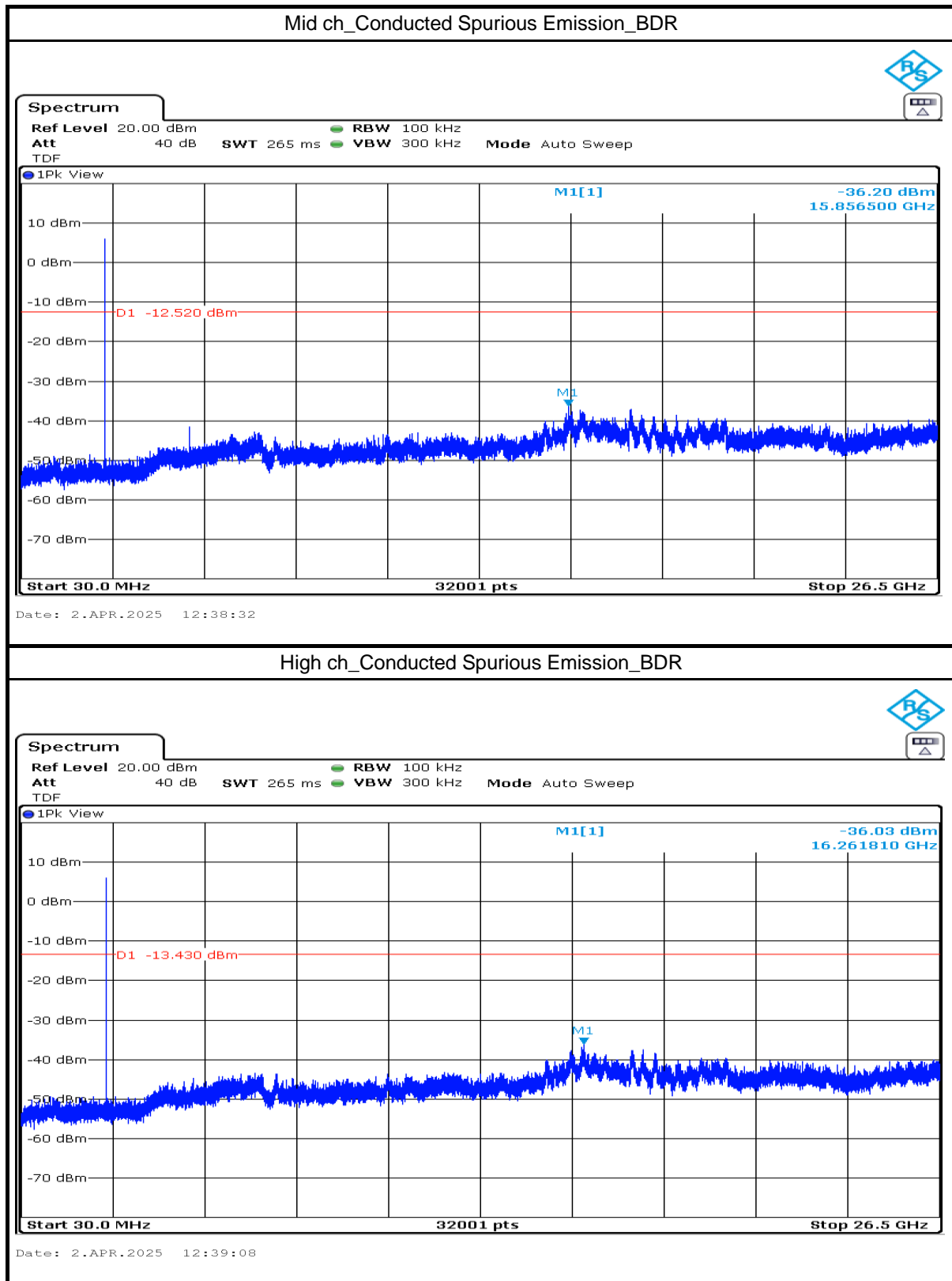




시험 성적서

TEST REPORT

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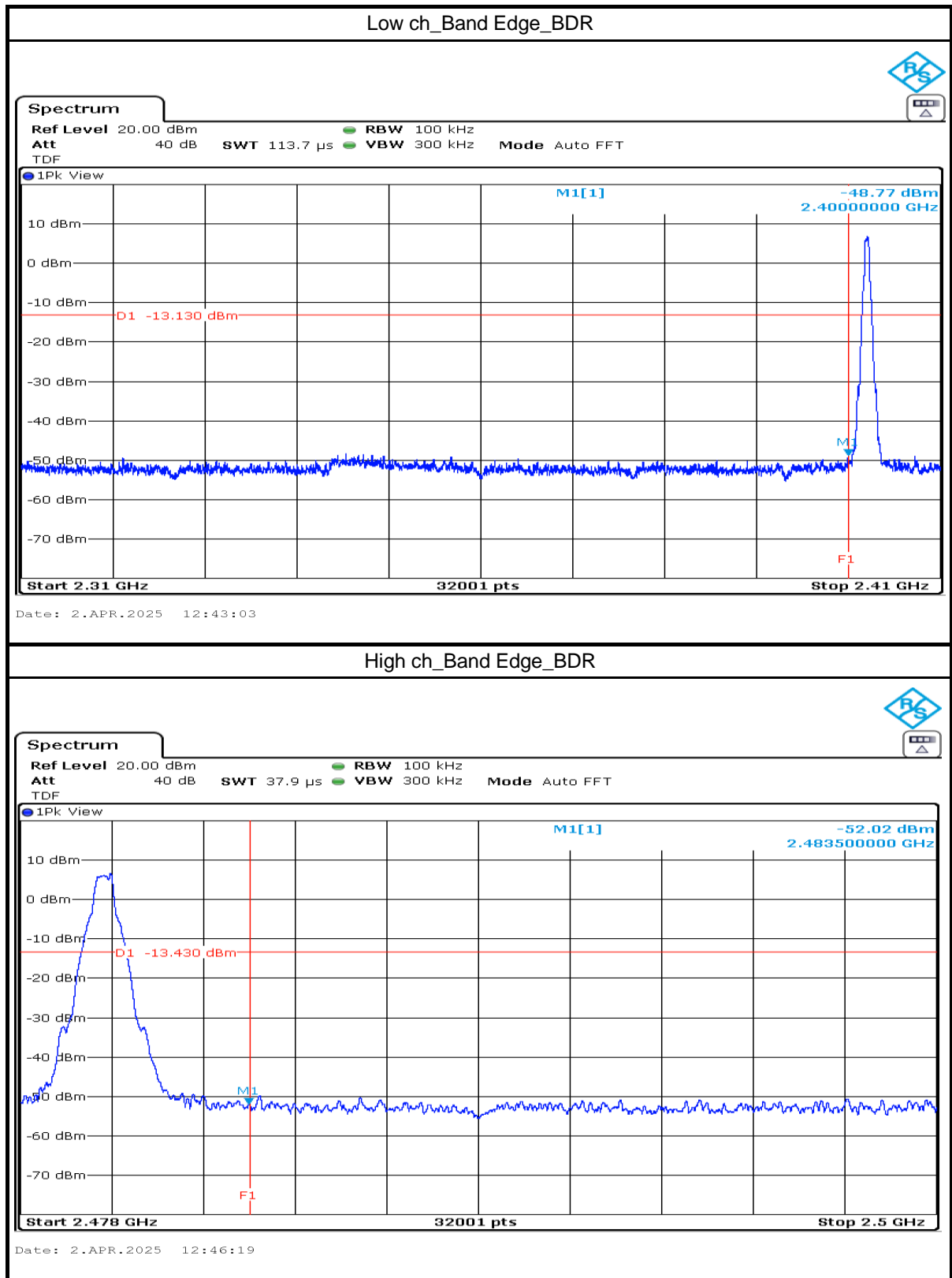




시험 성적서

TEST REPORT

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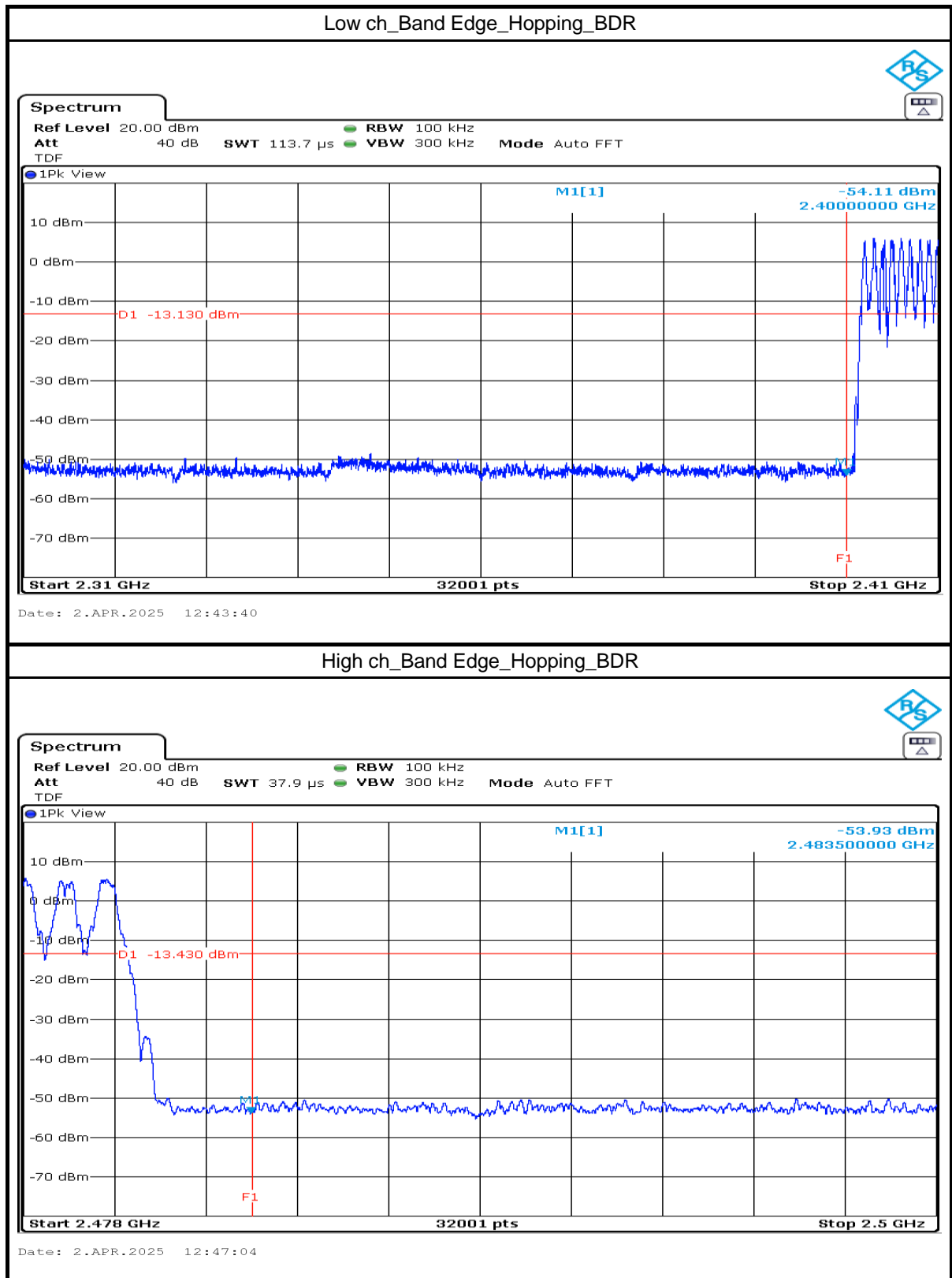




시험 성적서

TEST REPORT

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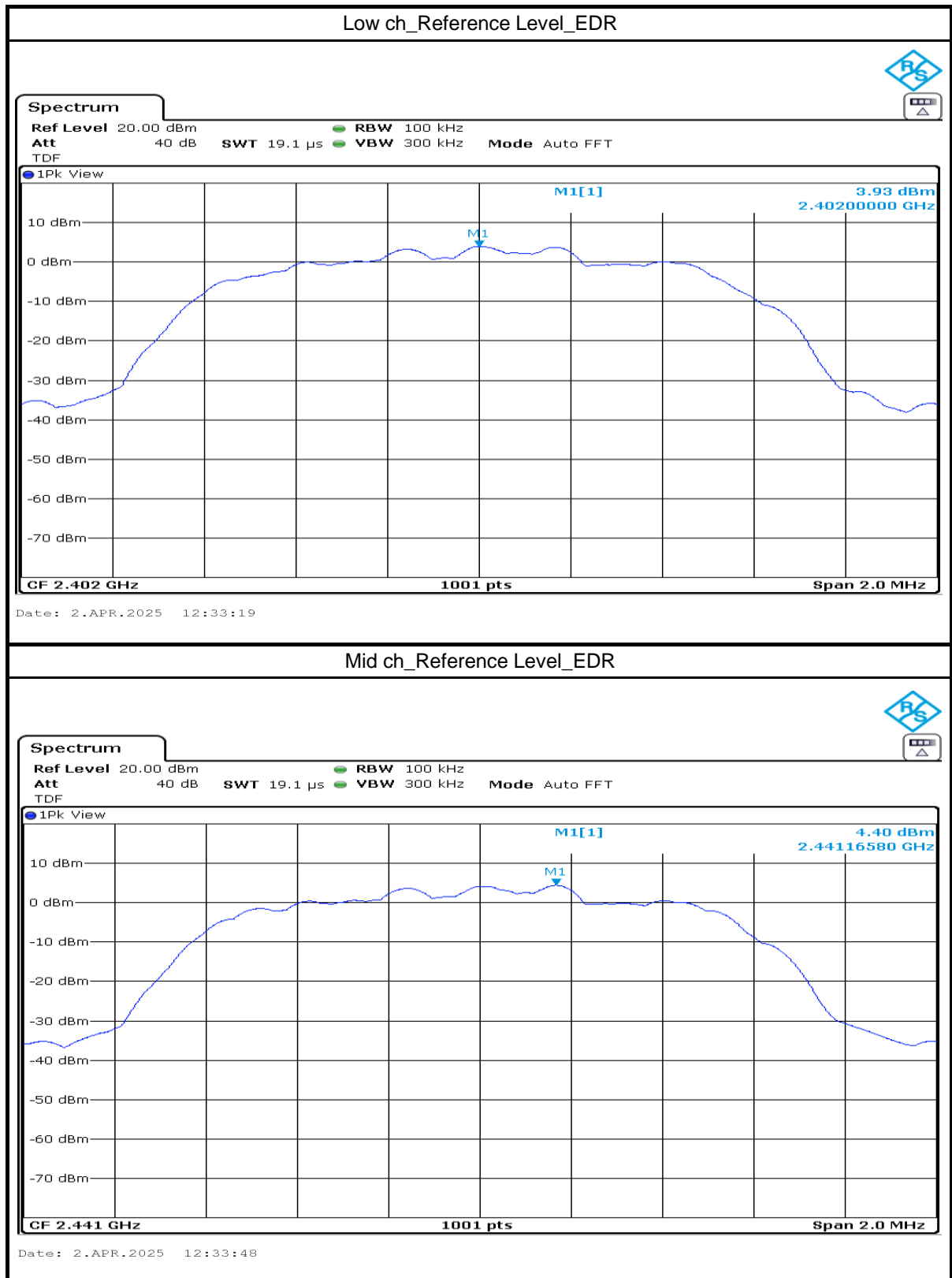




시험 성적서

TEST REPORT

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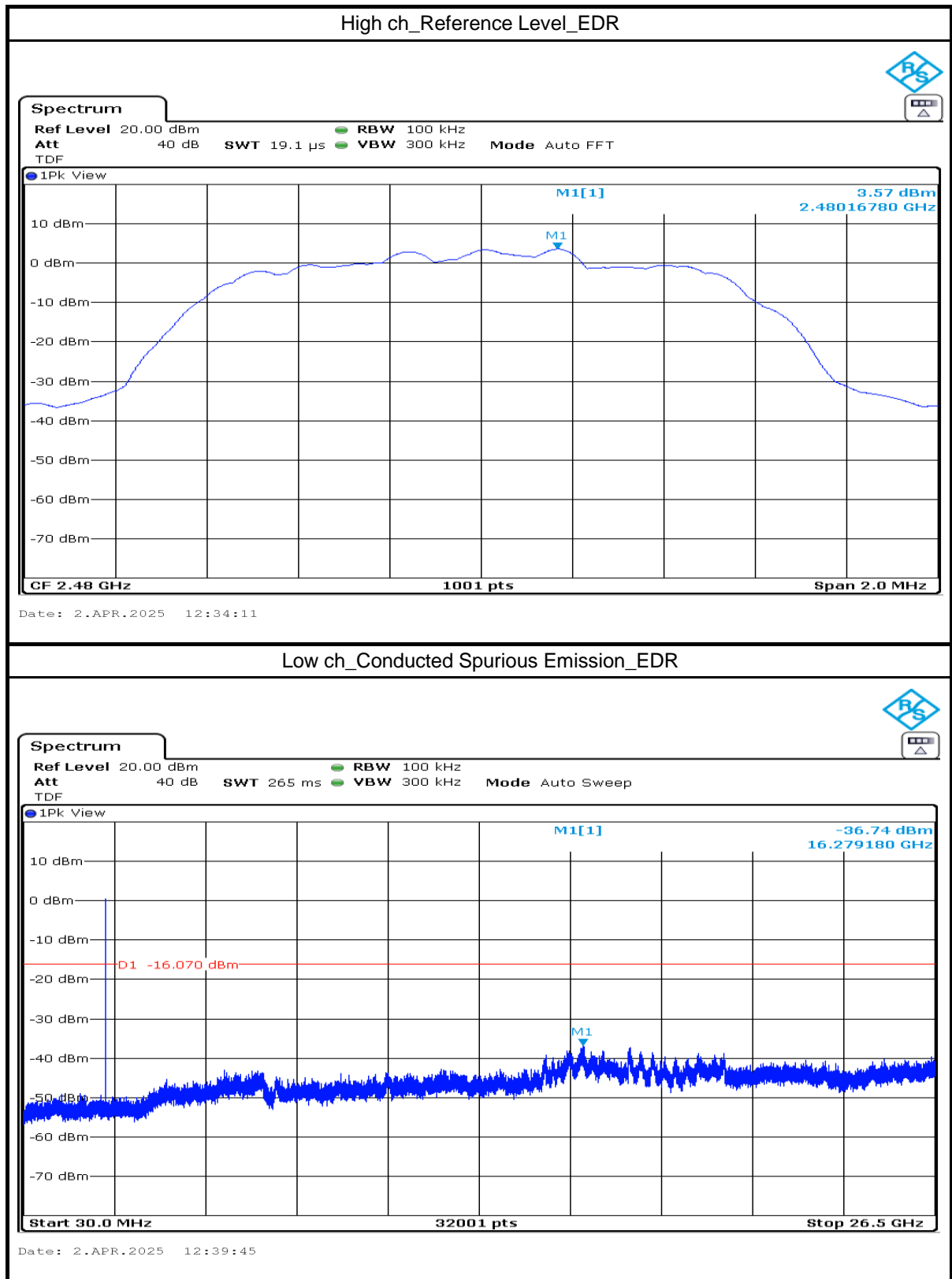




시험 성적서

TEST REPORT

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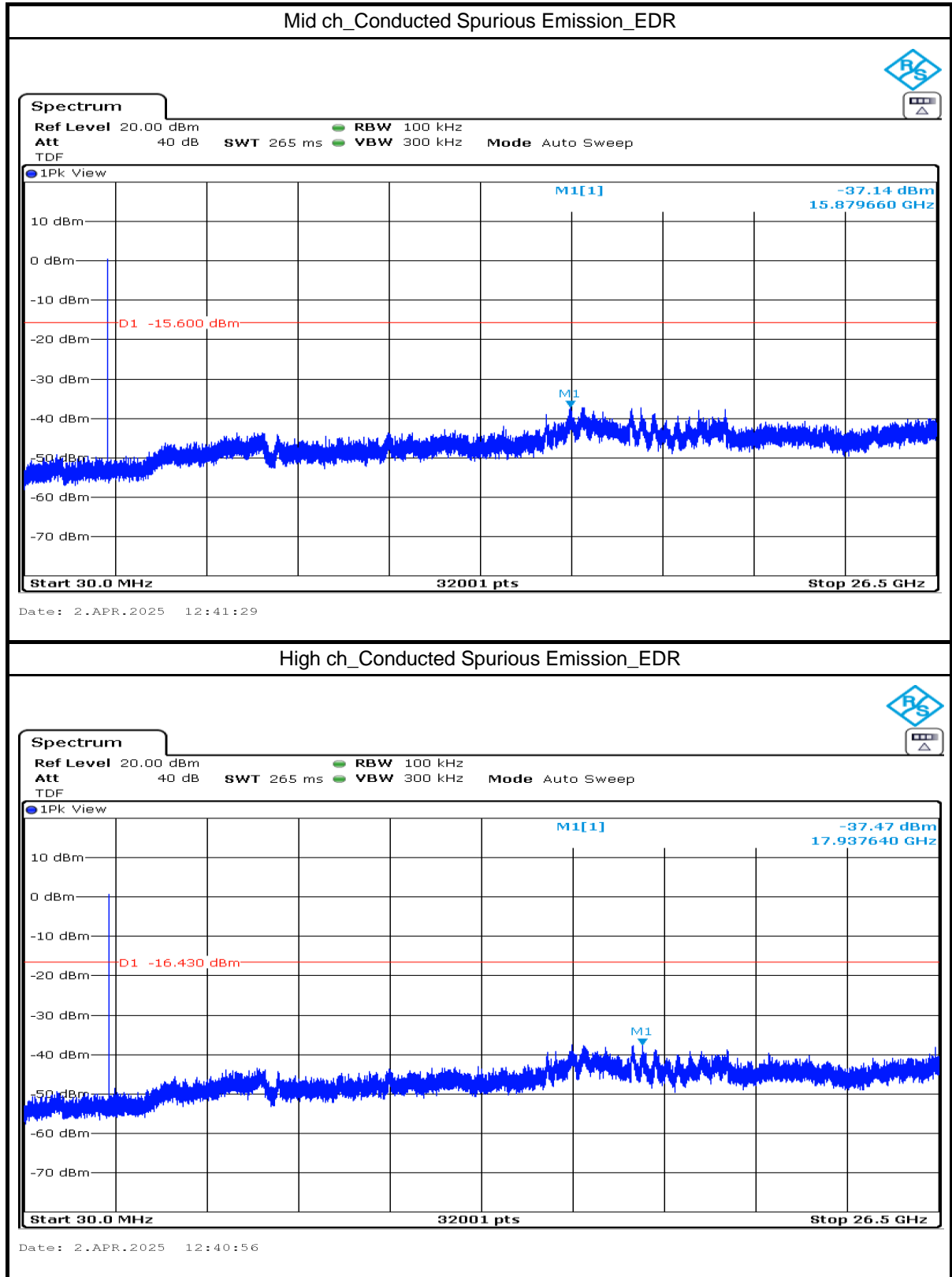




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TEST REPORT

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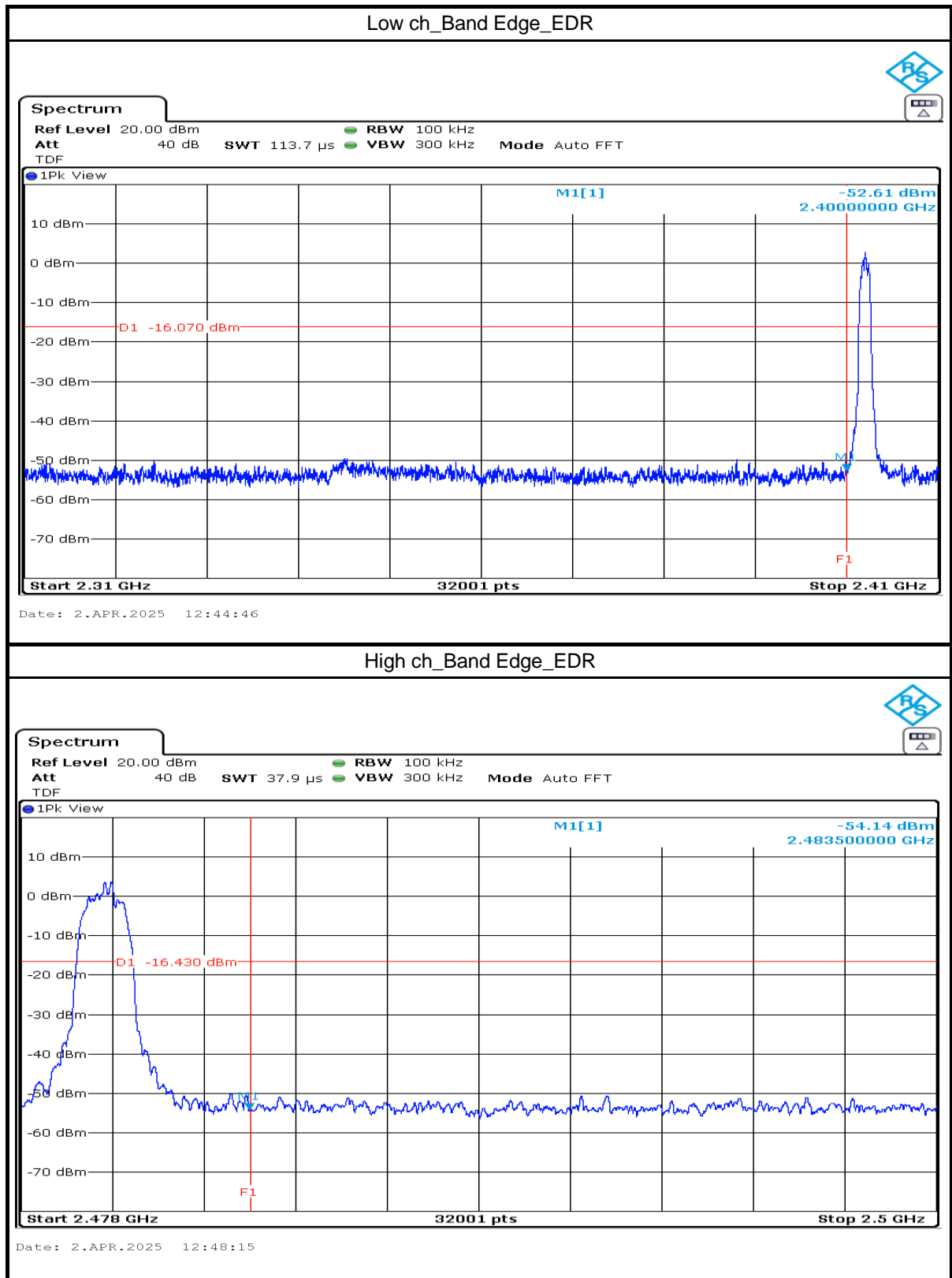




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TEST REPORT

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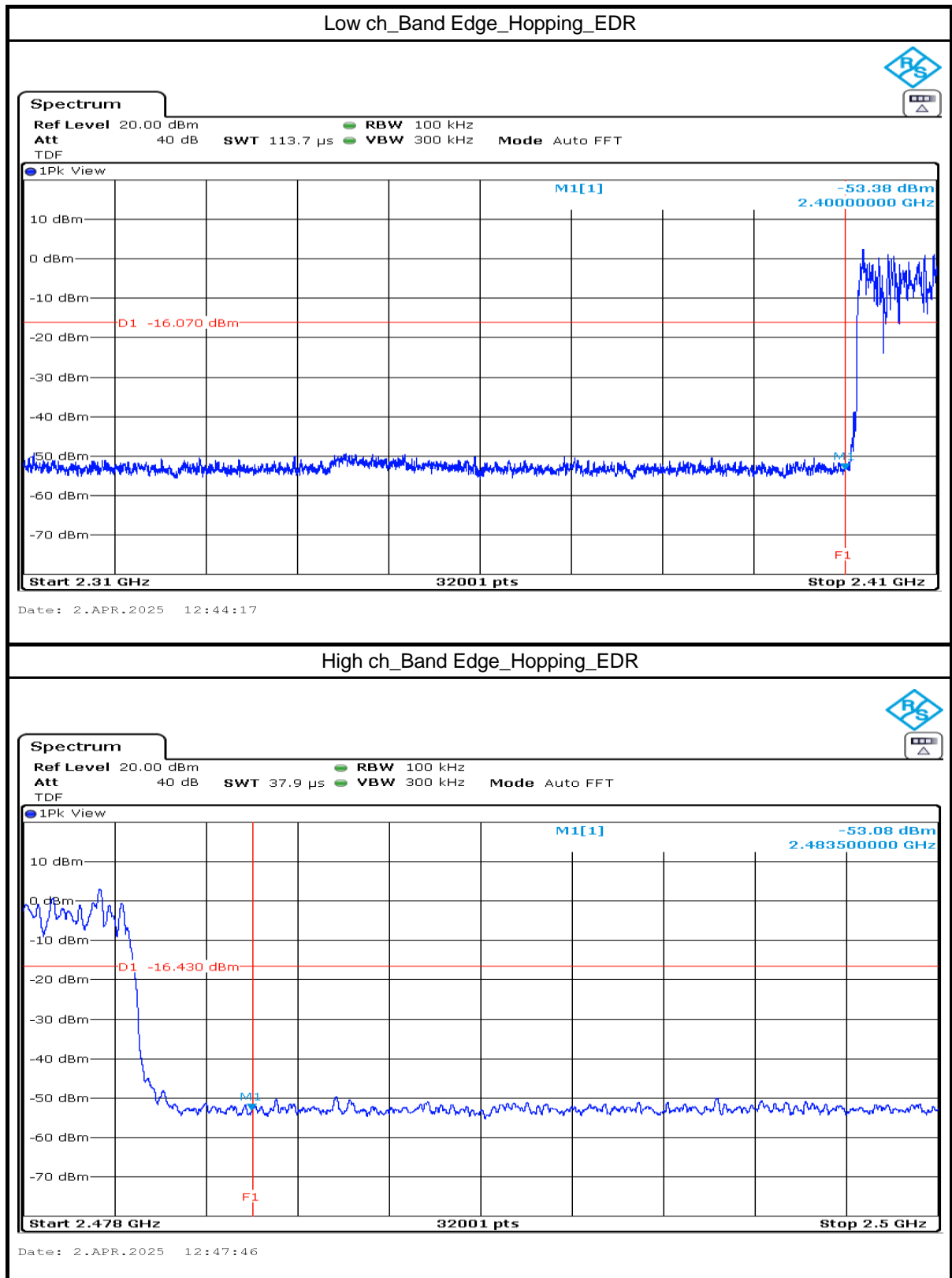




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페이지(page) : (37) / 총(Total) (49)





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페이지(page) : (38) / 총(Total) (49)

4.7 Radiated Spurious Emission

4.7.1 Test procedure

ANSI C63.10-2013 Clause 11.11, 11.12

4.7.2 Limit

§15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

§15.209 Radiated emission limits; general requirements.(a)

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.



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§15.205 Restricted bands of operation.(a),(b)

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
¹ 0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	(²)
13.36–13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz.

² Above 38.6

Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35 apply to these measurements.



시험 성적서

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페이지(page) : (40) / 총(Total) (49)

4.7.3 Test data

Result : Pass

- Below 30 MHz_BDR_Worst Case

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
It was not found any emissions peaks found from the EUT.								

- Below 30 MHz_EDR_Worst Case

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
It was not found any emissions peaks found from the EUT.								



시험 성적서

TEST REPORT

페이지(page) : (41) / 총(Total) (49)

- 30 MHz ~ 1 GHz_BDR_Worst Case

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
31.843	53.58	QP	V	-16.9	36.68	40.00	3.32	
33.104	53.06	QP	V	-16.6	36.46	40.00	3.54	
34.753	52.83	QP	V	-16.0	36.83	40.00	3.17	
227.977	56.83	QP	V	-14.6	42.23	46.02	3.79	

- 30 MHz ~ 1 GHz_EDR_Worst Case

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
31.649	54.01	QP	V	-16.9	37.11	40.00	2.89	
33.007	53.34	QP	V	-16.6	36.74	40.00	3.26	
33.783	53.48	QP	V	-16.5	36.98	40.00	3.02	
131.947	57.44	QP	V	-18.4	39.04	43.52	4.48	



시험 성적서

TEST REPORT

페이지(page) : (42) / 총(Total) (49)

- 1 GHz Above_Low ch_BDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
2 353.50	44.57	PK	H	-11.7	32.87	74.00	41.13	Restricted band
	36.24	AVG	H		24.54	54.00	29.46	
4 804.00	51.39	PK	H	-1.9	49.49	74.00	24.51	2nd Harmonic
	43.73	AVG	H		41.83	54.00	12.17	
7 206.00	41.43	PK	V	2.5	43.93	74.00	30.07	3rd Harmonic
	28.31	AVG	V		30.81	54.00	23.19	
9 608.40	40.78	PK	V	4.7	45.48	74.00	28.52	4nd Harmonic
	27.00	AVG	V		31.70	54.00	22.30	

- 1 GHz Above_Mid ch_BDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
4 882.50	47.65	PK	H	-1.9	45.75	74.00	28.25	2nd Harmonic
	35.43	AVG	H		33.53	54.00	20.47	
7 323.60	40.46	PK	H	2.5	42.96	74.00	31.04	3rd Harmonic
	27.04	AVG	H		29.54	54.00	24.46	
9 764.40	40.88	PK	H	5.4	46.28	74.00	27.72	4nd Harmonic
	27.36	AVG	H		32.76	54.00	21.24	

- 1 GHz Above_High ch_BDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
2 496.00	50.98	PK	H	-10.7	40.28	74.00	33.72	Restricted band
	37.20	AVG	H		26.50	54.00	27.50	
4 961.00	43.85	PK	H	-1.7	42.15	74.00	31.85	2nd Harmonic
	30.65	AVG	H		28.95	54.00	25.05	
7 441.20	41.66	PK	H	2.6	44.26	74.00	29.74	3rd Harmonic
	28.03	AVG	H		30.63	54.00	23.37	
9 920.40	39.43	PK	V	5.4	44.83	74.00	29.17	4nd Harmonic
	26.28	AVG	V		31.68	54.00	22.32	



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TEST REPORT

페이지(page) : (43) / 총(Total) (49)

- 1 GHz Above_Low ch_EDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
2 359.50	48.63	PK	H	-11.7	36.93	74.00	37.07	Restricted band
	34.82	AVG	H		23.12	54.00	30.88	
4 804.50	50.08	PK	H	-1.9	48.18	74.00	25.82	2nd Harmonic
	38.65	AVG	H		36.75	54.00	17.25	
7 206.00	41.49	PK	H	2.5	43.99	74.00	30.01	3rd Harmonic
	28.38	AVG	H		30.88	54.00	23.12	
9 608.40	40.49	PK	H	4.7	45.19	74.00	28.81	4nd Harmonic
	27.01	AVG	H		31.71	54.00	22.29	

- 1 GHz Above_Mid ch_EDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
4 882.00	47.34	PK	H	-1.9	45.44	74.00	28.56	2nd Harmonic
	34.67	AVG	H		32.77	54.00	21.23	
7 323.60	40.79	PK	H	2.5	43.29	74.00	30.71	3rd Harmonic
	27.13	AVG	H		29.63	54.00	24.37	
9 763.20	41.38	PK	H	5.4	46.78	74.00	27.22	4nd Harmonic
	27.46	AVG	H		32.86	54.00	21.14	

- 1 GHz Above_High ch_EDR

Frequency (MHz)	Reading (dBuV/m)	Detector	Pol.	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)	note
2 484.50	48.32	PK	V	-10.7	37.62	74.00	36.38	Restricted band
	34.85	AVG	V		24.15	54.00	29.85	
4 960.50	45.10	PK	H	-1.7	43.40	74.00	30.60	2nd Harmonic
	30.98	AVG	H		29.28	54.00	24.72	
7 440.00	41.94	PK	V	2.6	44.54	74.00	29.46	3rd Harmonic
	28.16	AVG	V		30.76	54.00	23.24	
9 920.40	39.68	PK	H	5.4	45.08	74.00	28.92	4nd Harmonic
	26.40	AVG	H		31.80	54.00	22.20	



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4.8 Power Line Conducted Emission

4.8.1 Test procedure

ANSI C63.10-2013 Clause 6.2

4.8.2 Limit

§15.207 (a)

Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.



시험 성적서

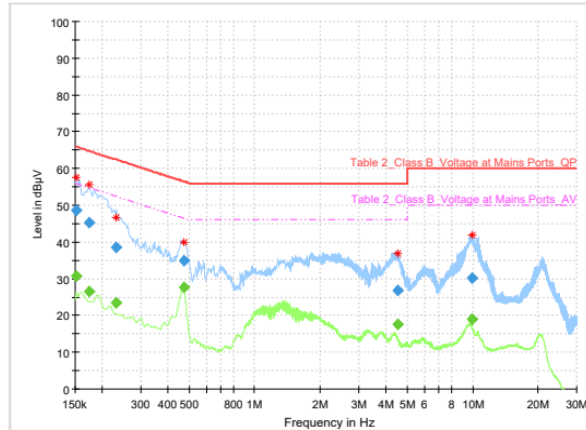
TEST REPORT

페이지(page) : (45) / 총(Total) (49)

4.8.3 Test data

Result : Pass

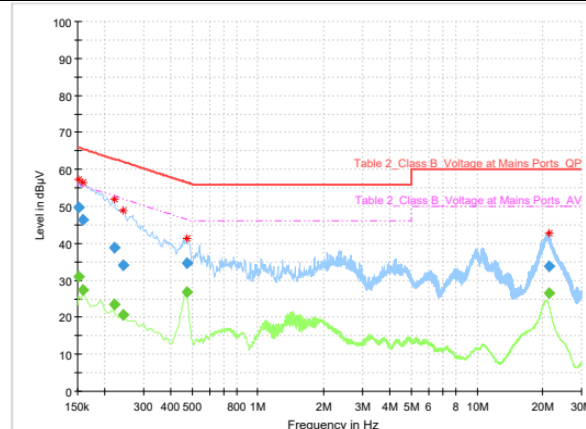
L-Line Conducted Emission



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.152250	---	30.75	55.88	25.13	5000.0	9.000	L1	9.8
0.152250	48.73	---	55.88	17.14	5000.0	9.000	L1	9.8
0.174750	---	26.51	54.73	28.22	5000.0	9.000	L1	10.0
0.174750	45.25	---	54.73	19.48	5000.0	9.000	L1	10.0
0.231000	---	23.59	52.41	28.82	5000.0	9.000	L1	9.7
0.231000	38.57	---	52.41	23.84	5000.0	9.000	L1	9.7
0.474000	---	27.64	46.44	18.81	5000.0	9.000	L1	10.0
0.474000	35.02	---	46.44	21.42	5000.0	9.000	L1	10.0
4.521750	---	17.71	46.00	28.29	5000.0	9.000	L1	9.8
4.521750	26.93	---	46.00	29.07	5000.0	9.000	L1	9.8
9.953250	---	18.94	50.00	31.06	5000.0	9.000	L1	9.8
9.953250	30.29	---	50.00	29.71	5000.0	9.000	L1	9.8

N-Line Conducted Emission



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.152250	---	31.07	55.88	24.80	5000.0	9.000	N	9.8
0.152250	49.58	---	55.88	15.29	5000.0	9.000	N	9.8
0.159000	---	27.42	55.52	28.10	5000.0	9.000	N	9.9
0.159000	46.25	---	55.52	19.26	5000.0	9.000	N	9.9
0.219750	---	23.56	52.83	29.27	5000.0	9.000	N	9.8
0.219750	38.96	---	52.83	23.87	5000.0	9.000	N	9.8
0.242250	---	20.65	52.02	31.36	5000.0	9.000	N	9.7
0.242250	34.05	---	52.02	27.97	5000.0	9.000	N	9.7
0.471750	---	26.73	46.48	19.75	5000.0	9.000	N	10.0
0.471750	34.75	---	46.48	21.73	5000.0	9.000	N	10.0
21.205500	---	26.60	50.00	23.40	5000.0	9.000	N	9.9
21.205500	33.89	---	50.00	26.11	5000.0	9.000	N	9.9



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페이지(page) : (46) / 총(Total) (49)

5. Used equipment

	Description	Model Name	Manufacturer	Serial Number	Next Cal
■	SIGNAL GENERATOR	SMB100A	ROHDE & SCHWARZ	180607	2026-02-24
■	SPECTRUM ANALYZER	FSV40-N	ROHDE & SCHWARZ	101936	2026-02-24
■	DC BLOCK	PDCB-00012650-SMSF-3	PSATEK INC.	-	2026-03-04
■	DC POWER SUPPLY	E3632A	AGILANT	MY51300069	2026-02-24
■	LOOP ANTENNA	HFH2-Z2	ROHDE & SCHWARZ	100271	2027-03-04
■	TRILOG BROADBAND ANTENNA	VULB 9162	SCHWARZBECK	142	2027-03-01
■	RF Pre Amplifier	SCU08	ROHDE&SCHWARZ	100744	2026-03-24
■	EMI TEST RECEIVER	ESR26	ROHDE&SCHWARZ	101461	2026-03-24
■	HORN ANTENNA	HF907	ROHDE & SCHWARZ	102556	2025-07-25
■	RF Pre Amplifier	SCU18	ROHDE & SCHWARZ	102342	2026-03-24
■	EMI Test Receiver	ESR26	ROHDE & SCHWARZ	101462	2026-03-24
■	HORN ANTENNA	DRH0844	RF SPIN	KV2E08A0844	2026-03-07
■	AMPLIFIER	ELNA40-50	EXYNOD	631300	2026-03-04
■	BAND REJECTION FILTER	WT-A1205-R12	WT MICROWAVE	WT171201-6-1	2026-02-24
■	EMI TEST RECEIVER	ESR7	R&S	102034	2026-03-24
■	LISN	ENV216	ROHDE & SCHWARZ	102196	2025-09-12

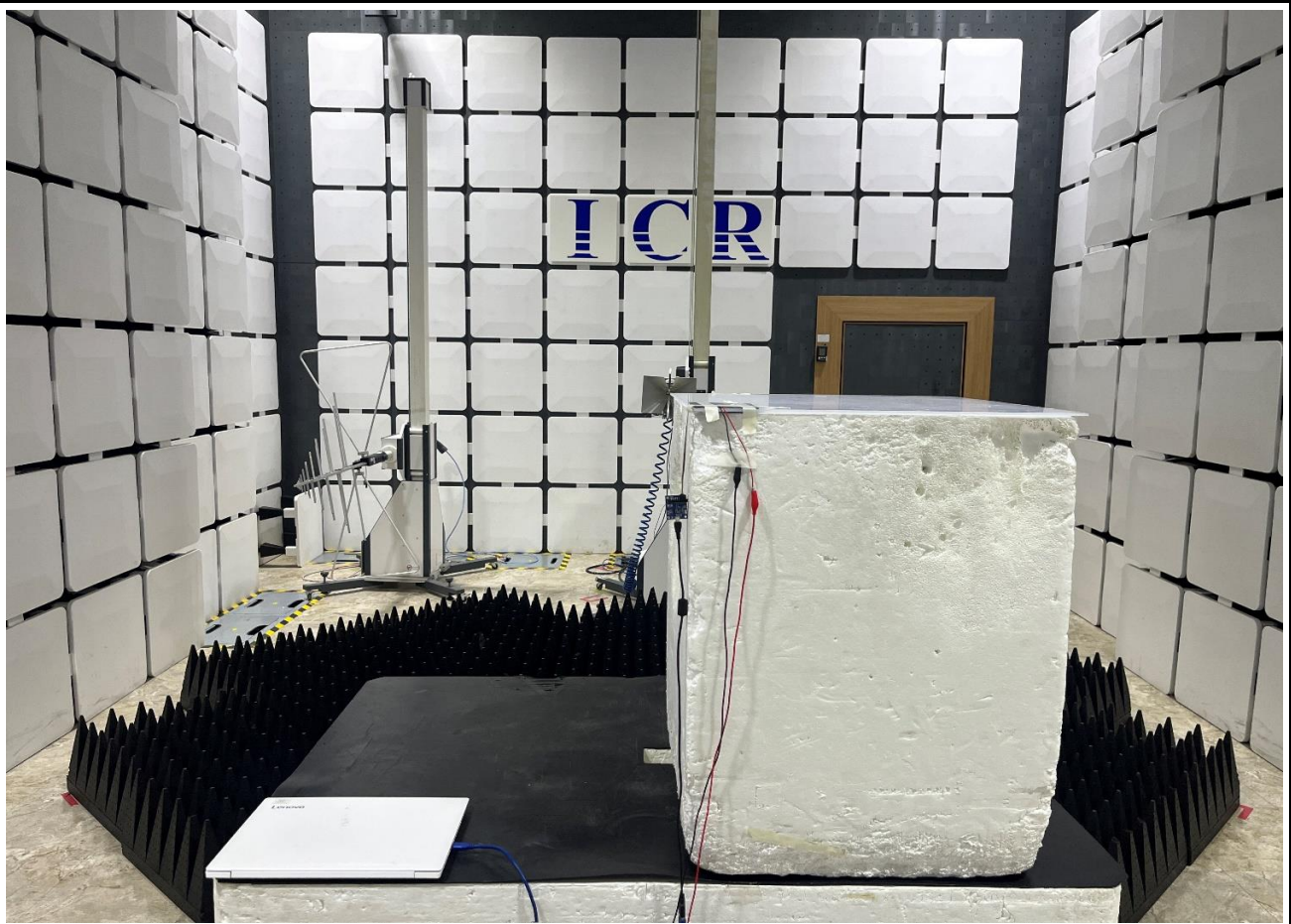


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6. Setup Photo



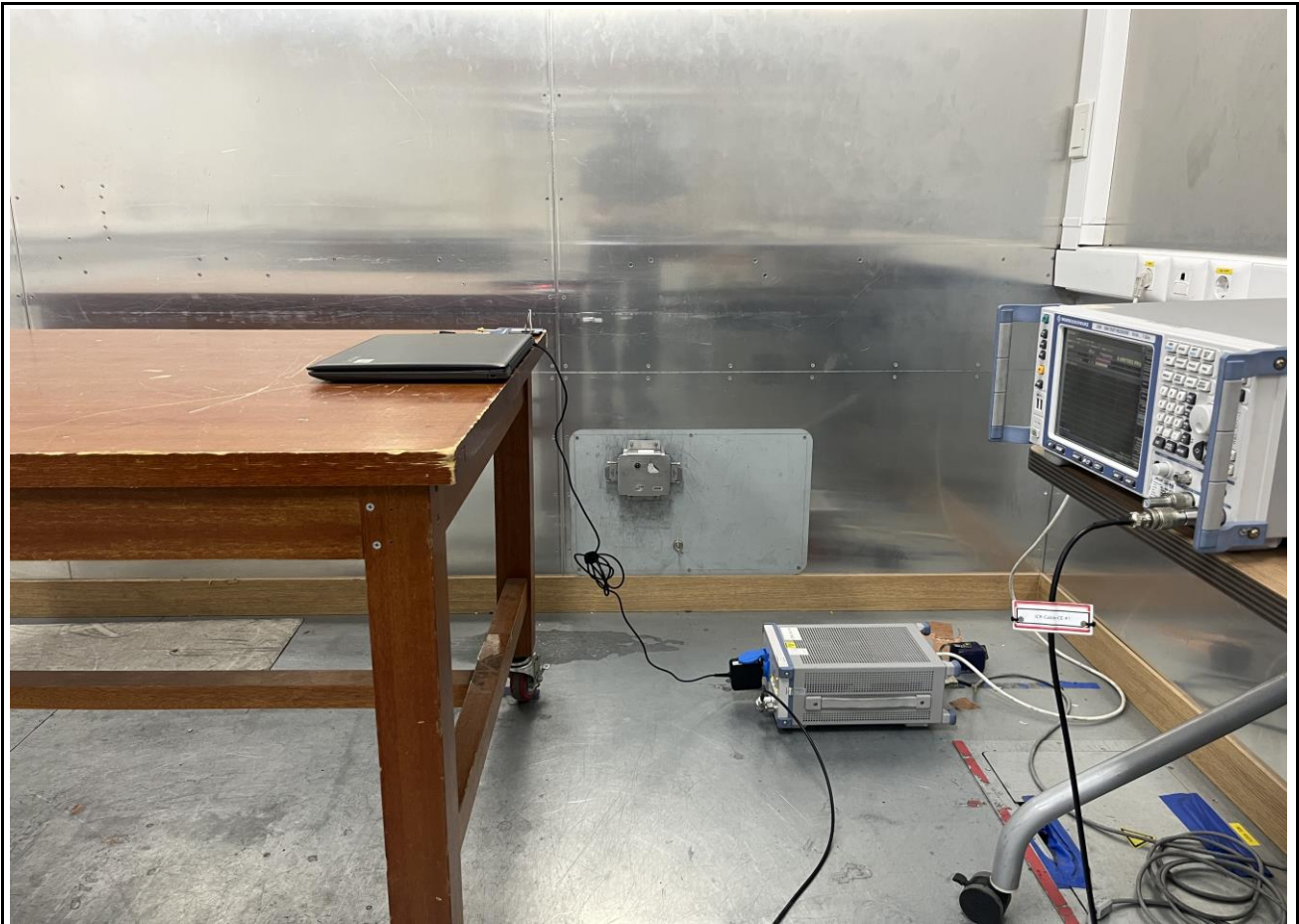
Radiated



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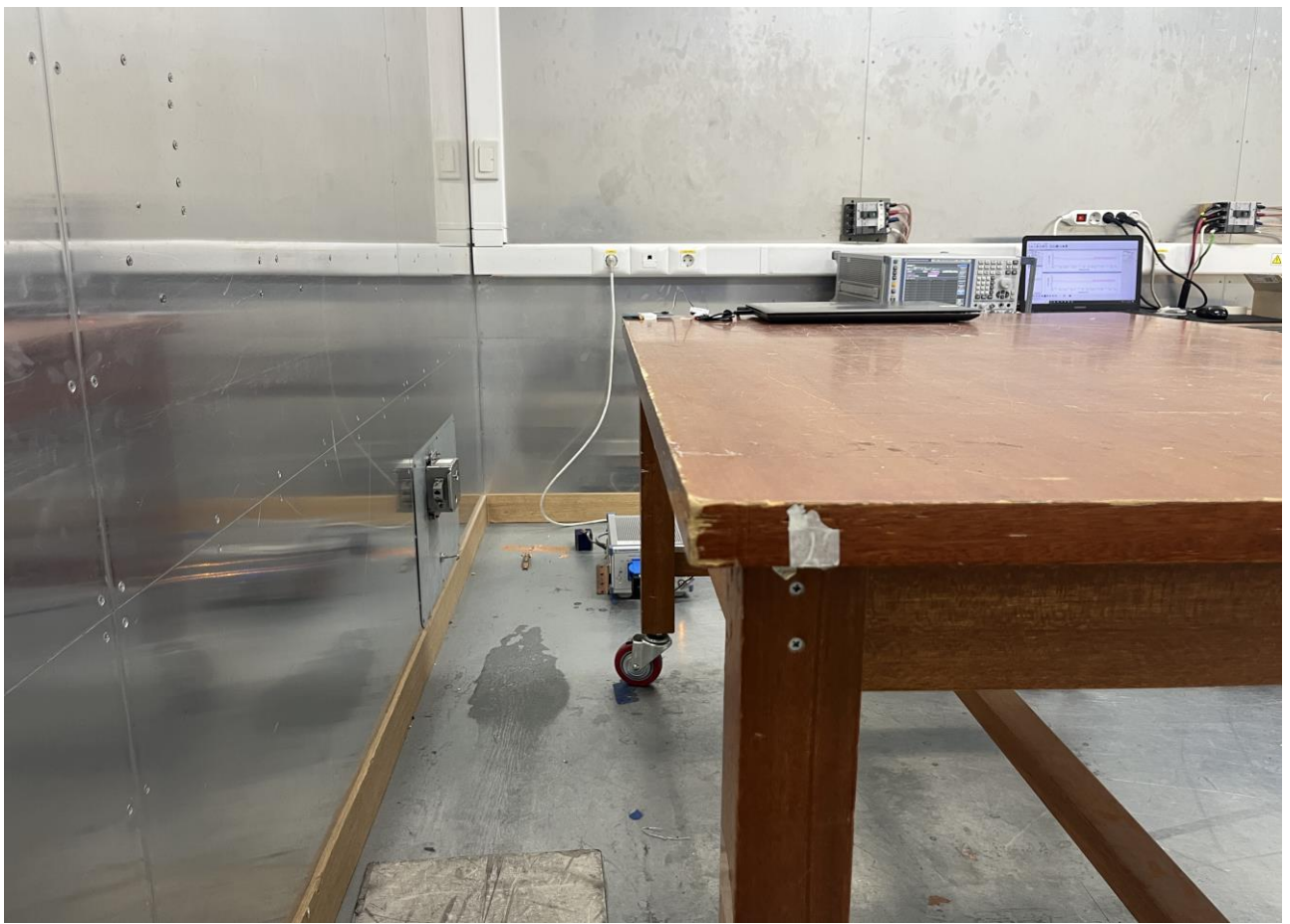
AC line conducted emission



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AC line conducted emission

- END OF REPORT -