

Prüfbericht-Nr.: Test report no.:	CN258KP0 001	Auftrags-Nr.: Order no.:	170398432	Seite 1 von 20 Page 1 of 20
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2025-01-08	
Auftraggeber: Client:	ONWARD BRANDS LLC 767 5TH AVE FL 37TH NEW YORK, NY 10153, USA			
Prüfgegenstand: Test item:	Incase Sculpt Comfort Desktop (Keyboard)			
Bezeichnung / Typ-Nr.: Identification / Type no.:	OB1531 (Trademark: Incase)			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	FCC CFR Title 47, Part 15, Subpart C, Section 15.247 RSS-247 Issue 3 August 2023 RSS-Gen Issue 5 March 2019			
Wareneingangsdatum: Date of sample receipt:	2025-01-08	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no:	S24123023-001			
Prüfzeitraum: Testing period:	2025-03-31 - 2025-04-03			
Ort der Prüfung: Place of testing:	Refer to section 2.1			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Guangdong) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2025-04-24	Ausstellungsdatum: Issue date:		2025-04-24
Stellung / Position:	Sachverständige(r)/Expert		Sachverständige(r)/Expert	
Sonstiges / Other:	FCC ID: 2BCOY-OB1531 IC: 32736-OB1531 HVIN: OB1531			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

V05

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Anmerkungen
Remarks

1	The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request. <i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i> <i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i>
2	As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. <i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i>
3	Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report. <i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i>
4	The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019. <i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i>

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results of General 2.4GHz Wireless

2 Test Sites

2.1 Test Facilities

Guangdong Dongdian Testing Service Co., Ltd.

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

FCC Accreditation Designation No.: CN1182

ISED wireless device testing laboratory: 10288A

TÜV Rheinland (Guangdong) Co., Ltd. subcontract all test to Guangdong Dongdian Testing Service Co., Ltd. And all tests at this site have been conducted under the supervision of a TÜV Rheinland engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Signal & Spectrum Analyzer	R&S	FSV3044	101173	2026/03/28
Wideband Radio Communication Tester	R&S	CMW500	168801	2026/03/28
MXG Vector Signal Generator	Agilent	N5182A	MY48180737	2026/03/28
PSG Vector Signal Generator	Agilent	E8267D	US49060192	2025/08/25
RF Control Unit	Tonsend	JS0806-2	21I8060485	2026/03/28
TEMP&HUMI Programmable Chamber	ZHIXIANG	ZXGDJS-150L	ZX170110-A	2026/03/28
Test Software	Tonscend	JS1120-3	Ver.3.2.22	N/A
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2025/07/11
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2026/03/28
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/
Hochgewinn-Hornantenne	SCHWARZBECK	BBHA 9120 D	DDT-ZC02129	2025/09/18
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2026/03/28
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2026/03/28
High Pass filter	Xi'an Xingbo	XBLBQ-GTA67	DDT-ZC02179	2025/04/22
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2025/04/22
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2026/03/28
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2025/09/11
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2026/03/28
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2026/03/28
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2025/08/25
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2025/04/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2025/04/26

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RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2026/03/28
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2026/03/28
Laptop	Lenovo	Ryzen 5 PRO 3500U	DDT-ZC02767	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally, all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	± 0.74dB
Occupied Channel Bandwidth	1.1%
RF power density, conducted	± 0.74dB
Unwanted Emissions, conducted	0.86 dB (10 MHz ≤ f < 3.6 GHz)
	1.40 dB (3.6 GHz ≤ f < 8 GHz)
	1.66 dB (8 GHz ≤ f < 26.5 GHz)
All emissions, radiated	4.84 dB (30 M - 1 GHz)
	4.10 dB (1 - 6 GHz)
	4.40 dB (6 GHz - 18 GHz)
	3.54 dB (18 GHz - 26 GHz)
Conducted Emission 150kHz to 30MHz	± 3.34dB

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2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Guangdong) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

Guangdong Dongdian Testing Service Co., Ltd. Test facility located at Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a wireless Keyboard, which supports General 2.4GHz wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	Incase Sculpt Comfort Desktop (Keyboard)
Type Designation:	OB1531
FCC ID:	2BCOY-OB1531
IC:	32736-OB1531
HVIN:	OB1531
Operating Voltage:	DC 3.0V (supplied by "AAA" battery x 2)
Testing Voltage:	DC 3.0V
Technical Specification of SRD	
Frequency Range:	2403 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	78 channels
Channel Separation:	1 MHz
Antenna Type:	PCB Layout antenna
Antenna Gain:	4.81 dBi Max (As detailed in Antenna spec)

Table 4: RF Channel and Frequency of General 2.4GHz wireless

CHANNEL	FREQ (MHZ)	CHANNEL	FREQ (MHZ)	CHANNEL	FREQ (MHZ)	CHANNEL	FREQ. (MHZ)
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478

17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		
20	2422	40	2442	60	2462		

Test frequencies are lowest channel: 2403 MHz, middle channel: 2444 MHz and highest channel: 2480 MHz.

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, General 2.4GHz wireless
 - 1 Transmitting (Low / Middle / High channel)
 - 2 Receiving (Low / Middle / High channel)
- B. On, Operating on normal mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- User Manual
- FCC/IC Label and Location Info

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

Table 5: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	i7-4810MQ	00331-1000-00001-AA816	N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

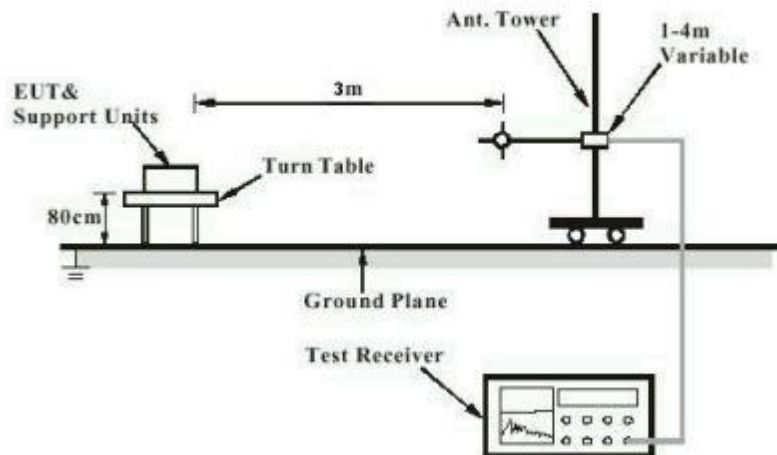
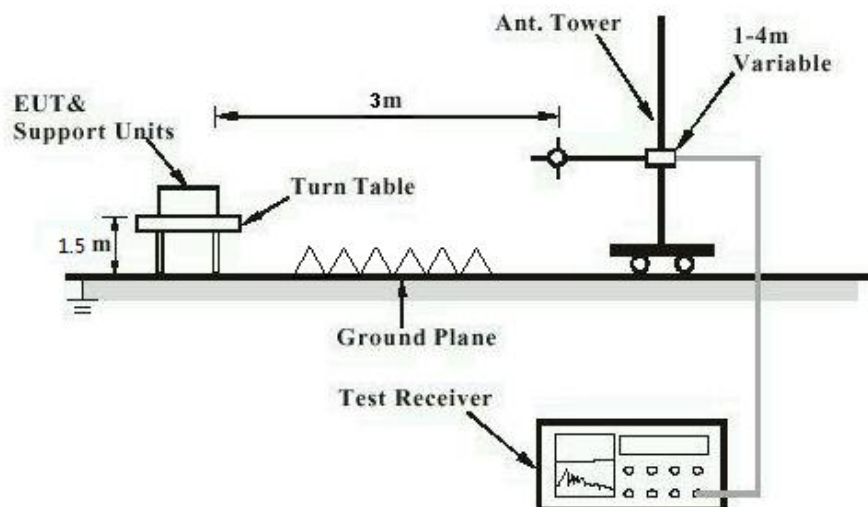


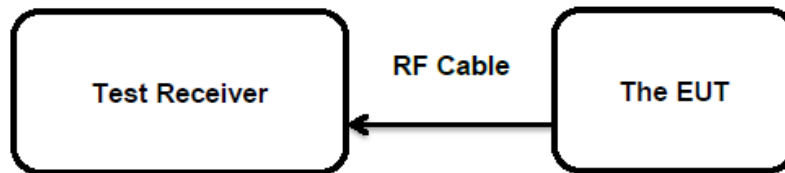
Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



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Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen Clause 6.8

The EUT has an PCB antenna, the directional gain of antenna is 4.81 dBi, permanent attachment and no consideration of replacement.

Therefore, the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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5.1.2 Maximum Peak Conducted Output Power

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(3)
RSS-247 Clause 5.4(d)
Basic standard : ANSI C63.10: 2013
Limits : 1.0 Watts
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-03-31
Input voltage : DC 3.0 V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 48.1 %
Atmospheric pressure : 101 kPa

Table 6: Test Result of Maximum Peak Conducted Output Power

Test Mode	Antenna	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
SRD	Ant1	2403	-0.99	0.0008	< 1.0
		2444	-1.22	0.0008	
		2480	-0.63	0.0009	
Maximum Measured Value			-0.63	0.0009	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): 4.81 dBi,
e.i.r.p.=P_(Peak power)+ G, which is far below the 4 W

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5.1.3 Conducted Power Spectral Density

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(e)
RSS-247 Clause 5.2(b)
Basic standard : ANSI C63.10: 2013
Limits : < 8 dBm / 3kHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-03-31
Input voltage : DC 3.0 V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 48.1 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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5.1.4 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(2)
RSS-247 Clause 5.2(a)
Basic standard : ANSI C63.10: 2013
Limits : > 500 KHz
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-03-31
Input voltage : DC 3.0 V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 48.1 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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5.1.5 99% Bandwidth

RESULT:

Pass

Test Specification

Test standard : RSS-Gen Clause 6.7
Basic standard : ANSI C63.10: 2013
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-03-31
Input voltage : DC 3.0 V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23.6 °C
Relative humidity : 48.1 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10: 2013
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-03-31
Input voltage	: DC 3.0 V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23.6 °C
Relative humidity	: 48.1 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

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5.1.7 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(d) & FCC Part 15.205
RSS-247 Clause 3.3
Basic standard : ANSI C63.10: 2013
Limits : Refer to 15.209(a) of FCC part 15.247(d)
RSS-Gen Section 8.9 & 8.10
Kind of test site : 3m Semi-anechoic Chamber

Test Setup

Date of testing : 2025-04-02 to 2025-04-03
Input voltage : DC 3.0 V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : Refer to test result
Relative humidity : Refer to test result
Atmospheric pressure : 101 kPa

Remark:

Testing carried out within frequency range 9kHz to the tenth harmonics, only the worst-case spurious emissions configuration of each mode was reported.

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

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Produkte
Products

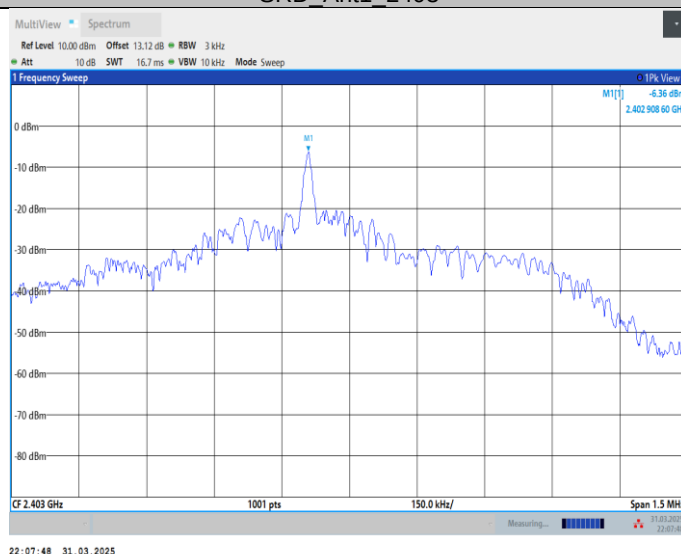
APPENDIX B.1: CONDUCTED POWER SPECTRAL DENSITY

Test Result

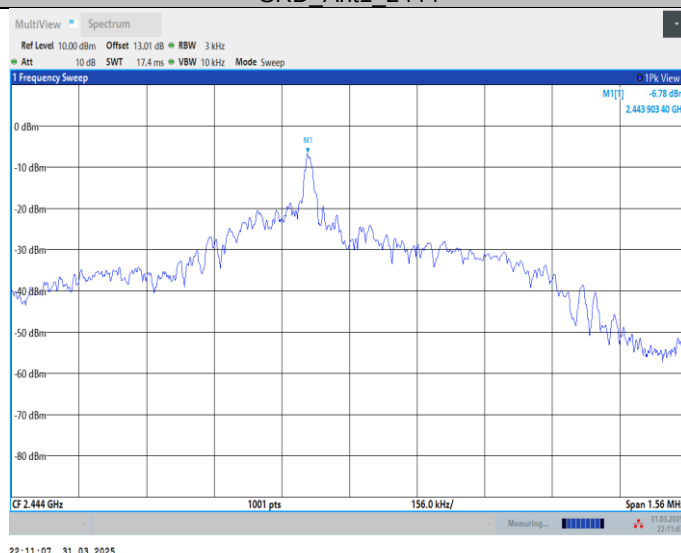
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
SRD	Ant1	2403	-6.36	≤8.00	PASS
		2444	-6.78	≤8.00	PASS
		2480	-7.77	≤8.00	PASS

Test Graphs

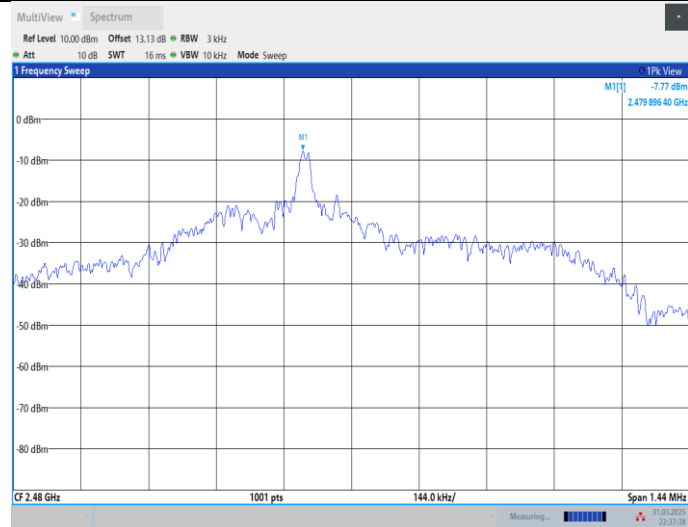
SRD_Ant1_2403



SRD_Ant1_2444

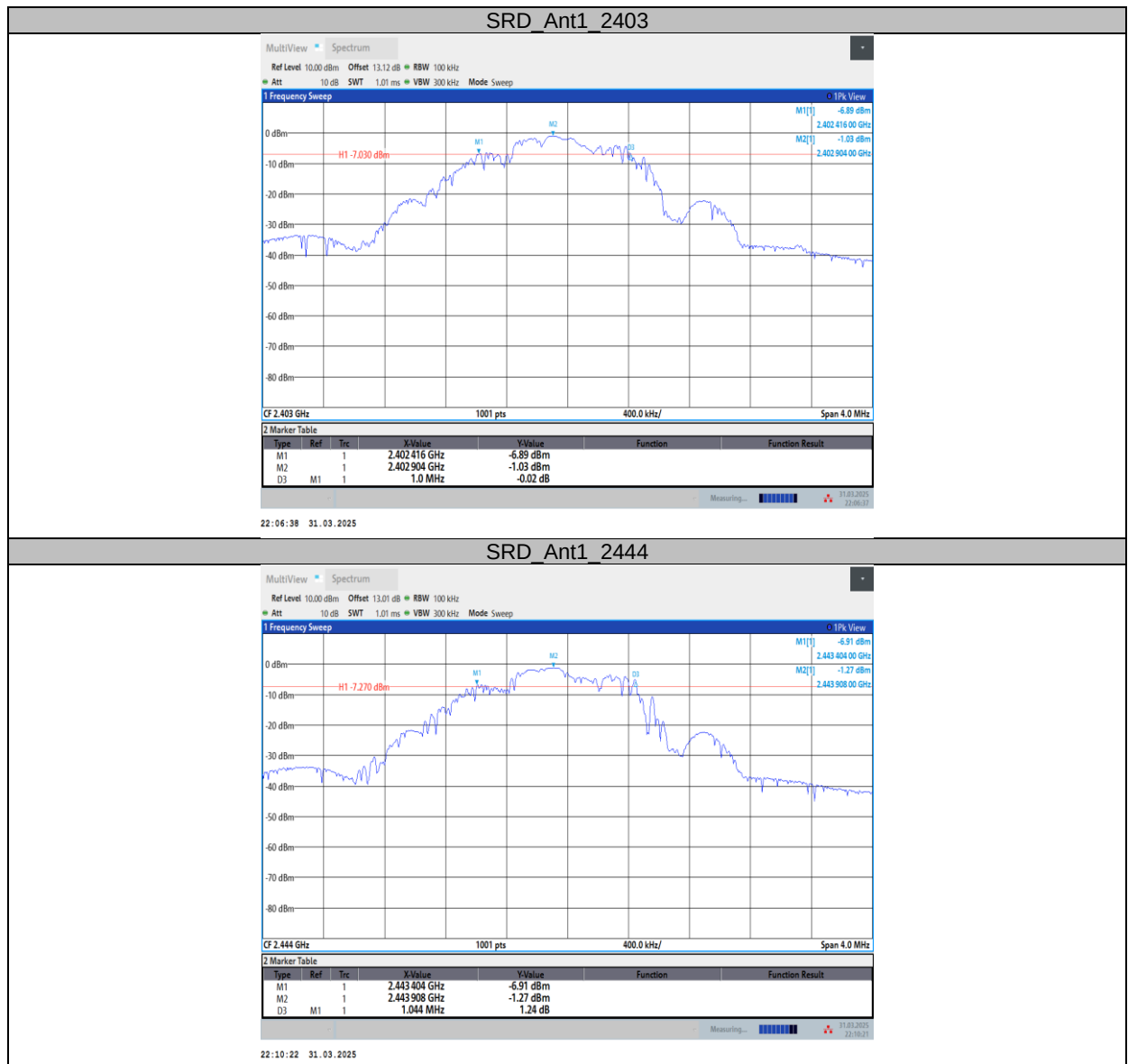


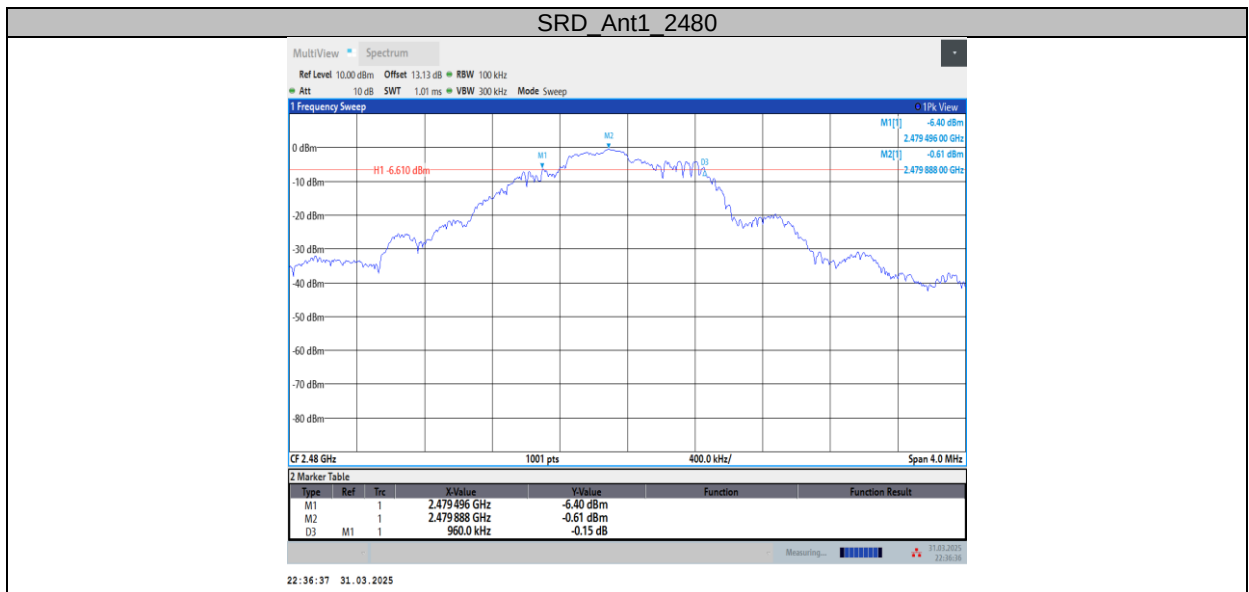
SRD_Ant1_2480



APPENDIX B.2: 6dB BANDWIDTH**Test Result**

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
SRD	Ant1	2403	1.00	2402.42	2403.42	0.5	PASS
		2444	1.04	2443.40	2444.45	0.5	PASS
		2480	0.96	2479.50	2480.46	0.5	PASS

Test Graphs



Appendix B

CN258KP0 001

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Produkte
Products

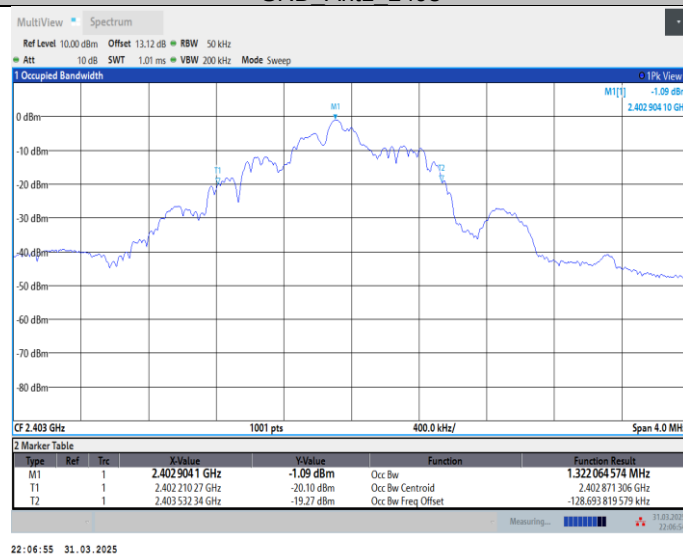
APPENDIX B.3: 99% BANDWIDTH

Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
SRD	Ant1	2403	1.322	2402.2103	2403.5323	---	---
		2444	1.315	2443.1985	2444.5132	---	---
		2480	1.434	2479.1552	2480.5891	---	---

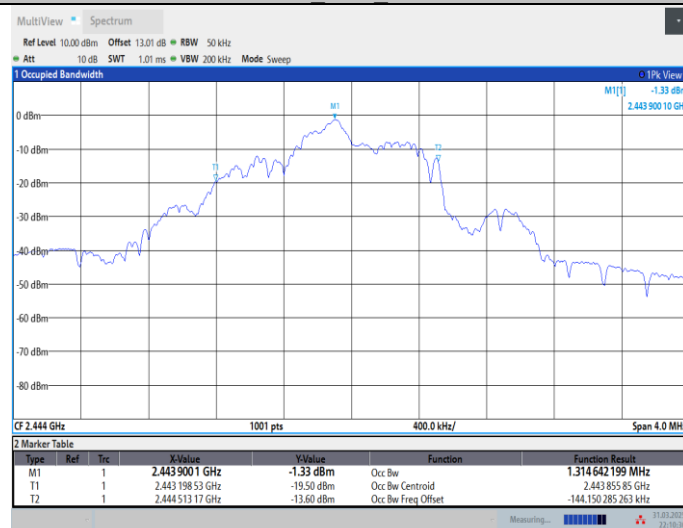
Test Graphs

SRD_Ant1_2403



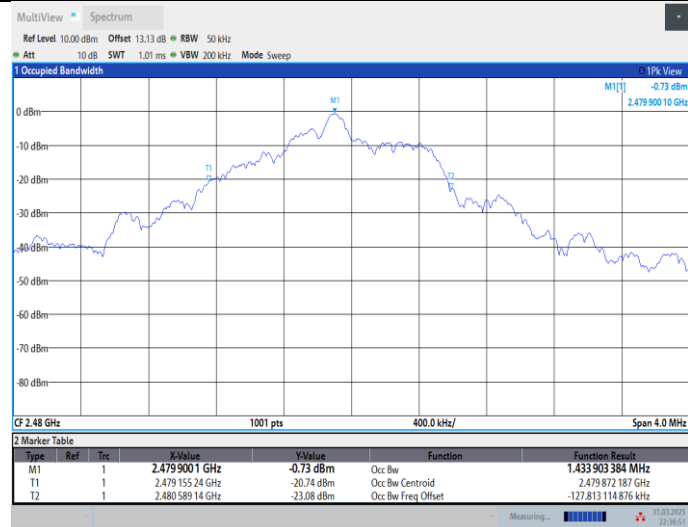
22:06:55 31.03.2025

SRD_Ant1_2444



22:10:37 31.03.2025

SRD_Ant1_2480



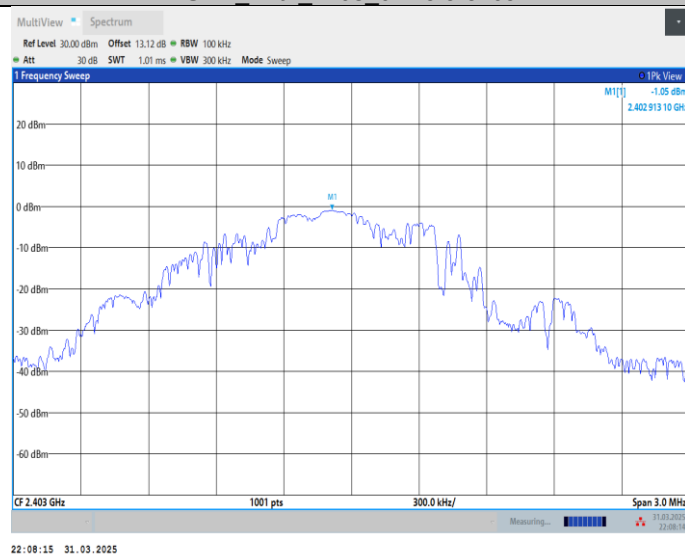
22:36:51 31.03.2025

APPENDIX B.4: CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH**Test Result**

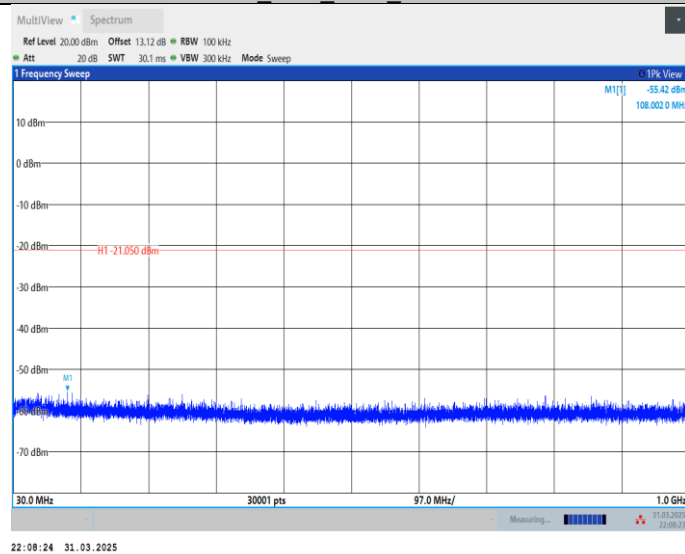
Mode	Freq. (MHz)	Verdict
SRD	2403	Pass
	2444	Pass
	2480	Pass

Test Graphs

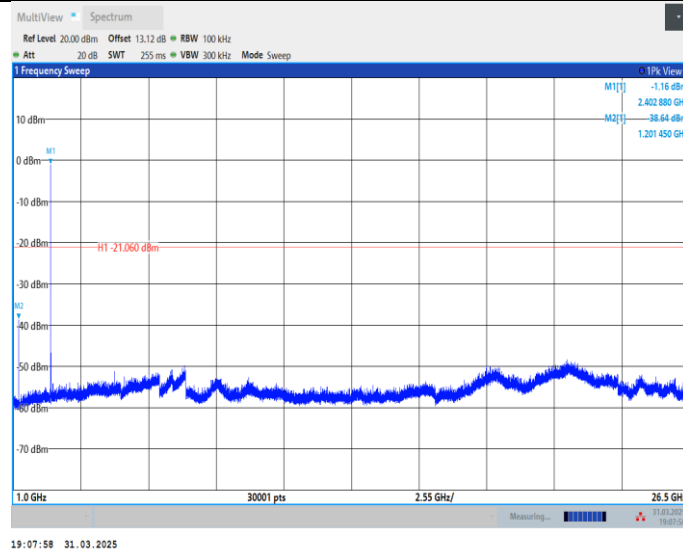
SRD_Ant1_2403_0~Reference



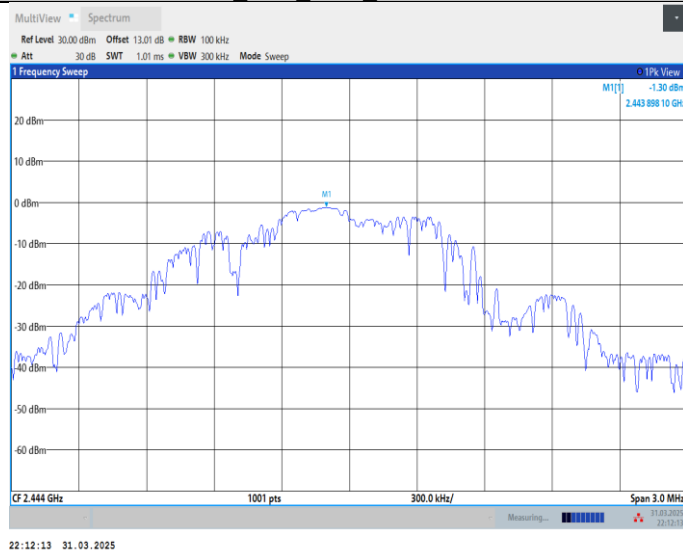
SRD_Ant1_2403_30~1000



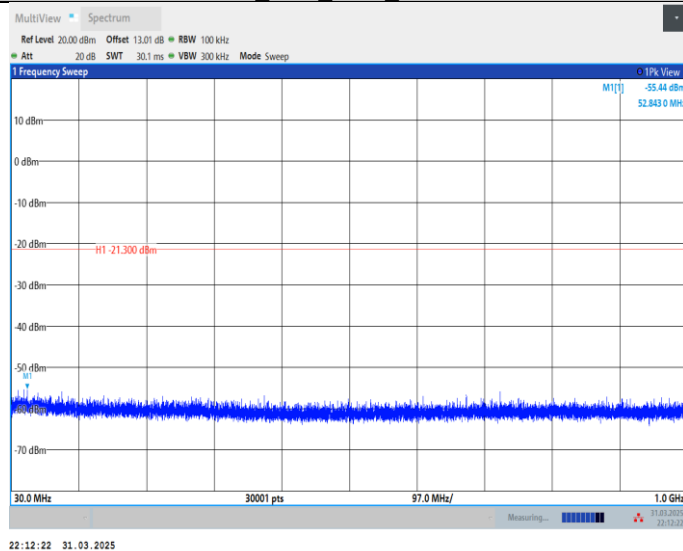
SRD Ant1 2403 1000~26500



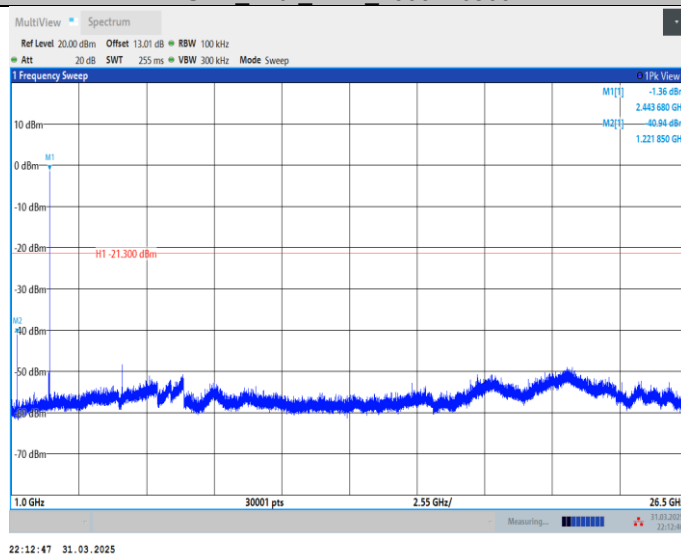
SRD_Ant1_2444_0~Reference



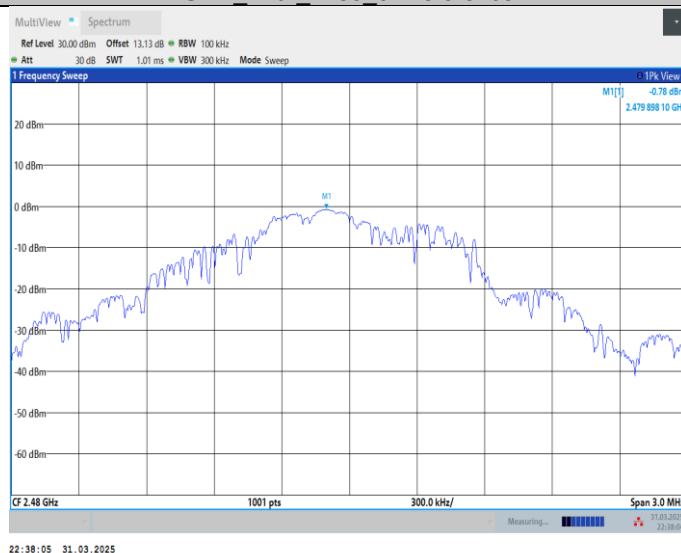
SRD_Ant1_2444_30~1000



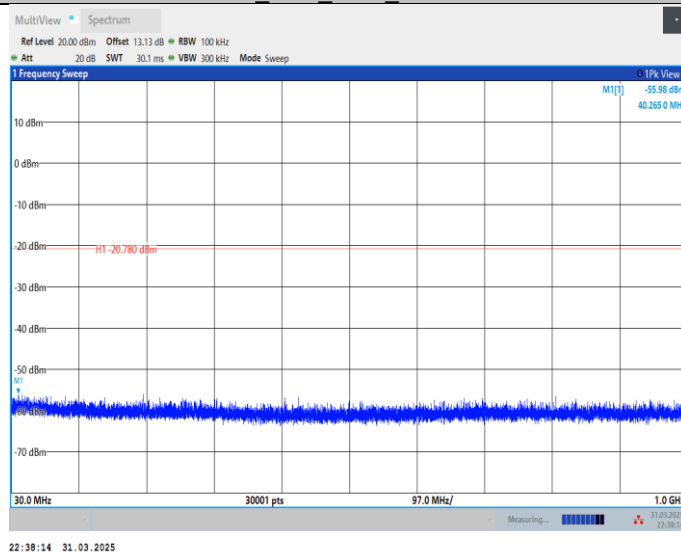
SRD_Ant1_2444_1000~26500



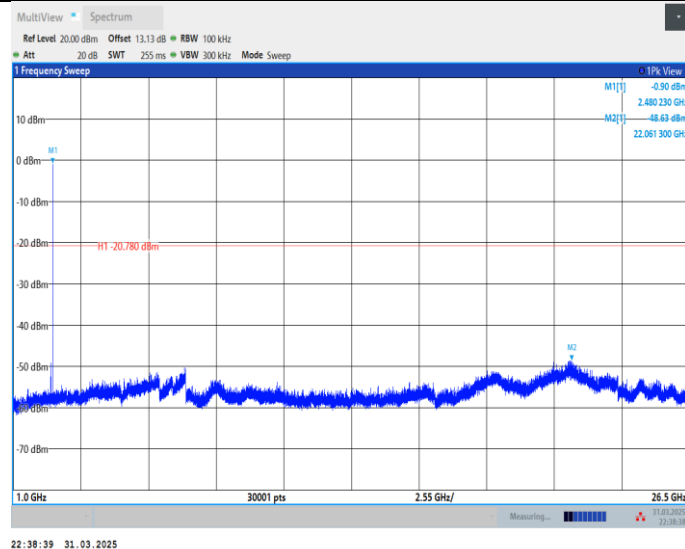
SRD_Ant1_2480_0~Reference



SRD_Ant1_2480_30~1000



SRD_Ant1_2480_1000~26500



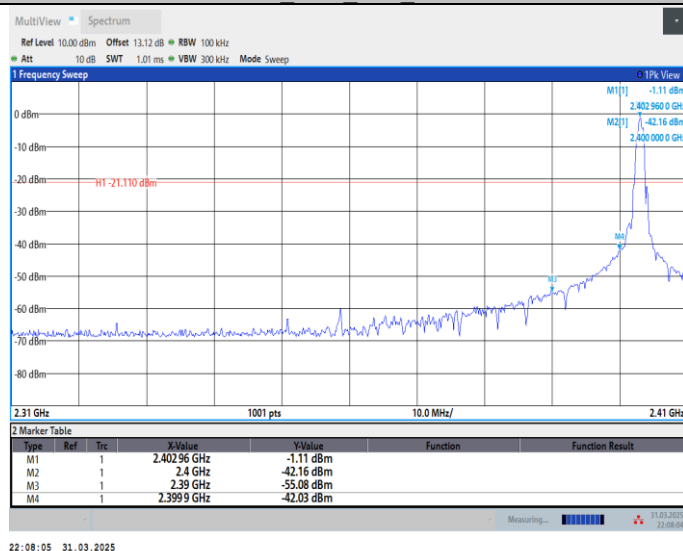
APPENDIX B.5: BAND EDGE COMPLIANCE (CONDUCTED METHOD)

Test Result

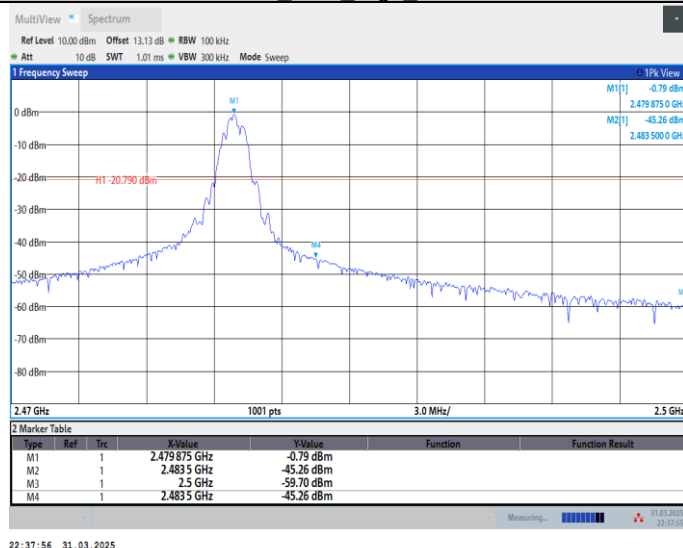
EUT Set Mode	CH or Frequency	Measured Range	Verdict
SRD	2403	2.310 GHz - 2.410 GHz	Pass
	2480	2.470 GHz - 2.500 GHz	Pass

Test Graphs

SRD Ant1 Low 2403



SRD Ant1 High 2480



APPENDIX B.6: RADIATED SPURIOUS EMISSIONS

Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

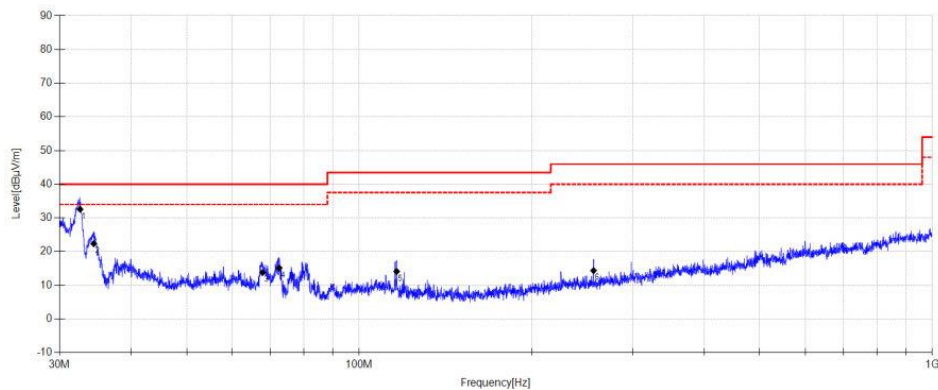
30 MHz to 1GHz



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TR-4-E-009 Radiated Emission Test Result

Test Date:	2025-04-03	Tested By:	Lin Guoyaun
EUT:	Incase Sculpt Comfort Desktop (Keyboard)	Model Number:	OB1531
Test Mode:	TX SRD 2480MHz Mode	Power Supply:	Battery
Condition:	Temp: 22.6°C; Humi: 48.0%	Test Site:	DDT 3# Chamber
File Path:	d:\ts\2025 report date\Q24123023-1E\FCC Below 1G 键\20250403-011821_H		
Memo:	Sample Numbler: S24123023-006		



Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	32.588	49.31	10.57	3.78	32.56	40.00	7.44	QP	Horizontal
2	34.420	38.1	11.57	3.79	22.36	40.00	17.64	QP	Horizontal
3	67.807	30.68	10.18	4.01	13.77	40.00	26.23	QP	Horizontal
4	72.528	32.81	9.39	4.04	15.14	40.00	24.86	QP	Horizontal
5	116.264	30.11	10.82	4.31	14.12	43.50	29.38	QP	Horizontal
6	256.411	28.94	11.72	5.02	14.37	46.00	31.63	QP	Horizontal

Note:

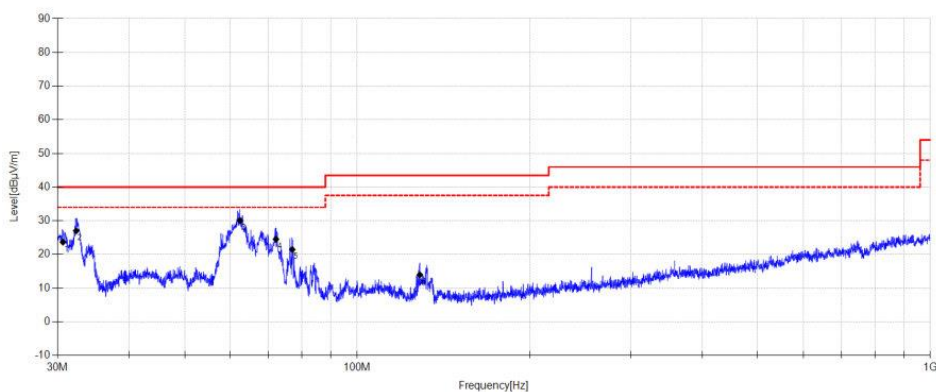
1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-03 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2480MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Below 1G 键\20250403-011843_V
Memo: Sample Numble:S24123023-006



Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	30.659	40.63	10.37	3.76	23.66	40.00	16.34	QP	Vertical
2	32.337	43.98	10.37	3.77	27.02	40.00	12.98	QP	Vertical
3	62.466	44.6	12.61	3.97	30.08	40.00	9.92	QP	Vertical
4	72.173	42.06	9.53	4.04	24.53	40.00	15.47	QP	Vertical
5	77.036	40.59	7.91	4.07	21.47	40.00	18.53	QP	Vertical
6	128.616	32.1	8.62	4.37	13.96	43.50	29.54	QP	Vertical

Note:

1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

1GHz-18GHz

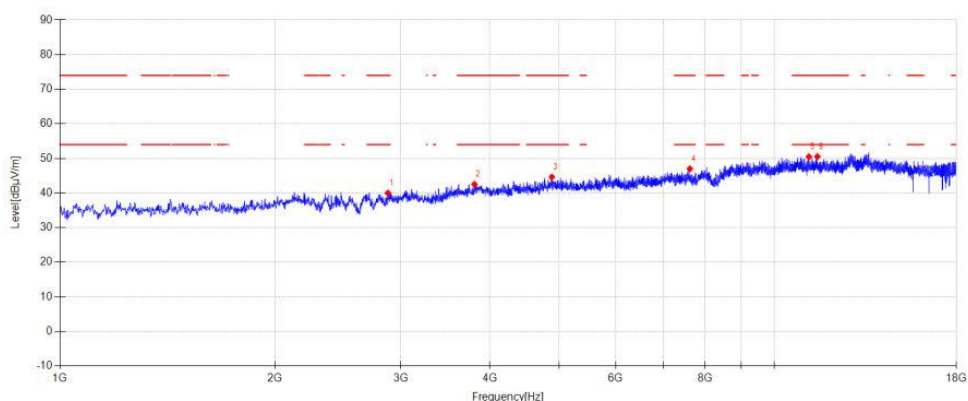


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2403MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键1
Memo: Sample Numbel:S24123023-006 Power Setting:0

Test Graph



Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2878.500	46.10	28.03	5.14	-39.29	39.98	74.00	34.02	PK	Horizontal
2	3805.000	46.35	30.72	5.08	-39.63	42.52	74.00	31.48	PK	Horizontal
3	4882.800	45.37	33.28	5.58	-39.61	44.62	74.00	29.38	PK	Horizontal
4	7619.800	44.14	36.54	6.77	-40.44	47.01	74.00	26.99	PK	Horizontal
5	11184.700	42.19	39.22	8.25	-39.18	50.48	74.00	23.52	PK	Horizontal
6	11497.500	42.40	39.20	8.44	-39.50	50.54	74.00	23.46	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

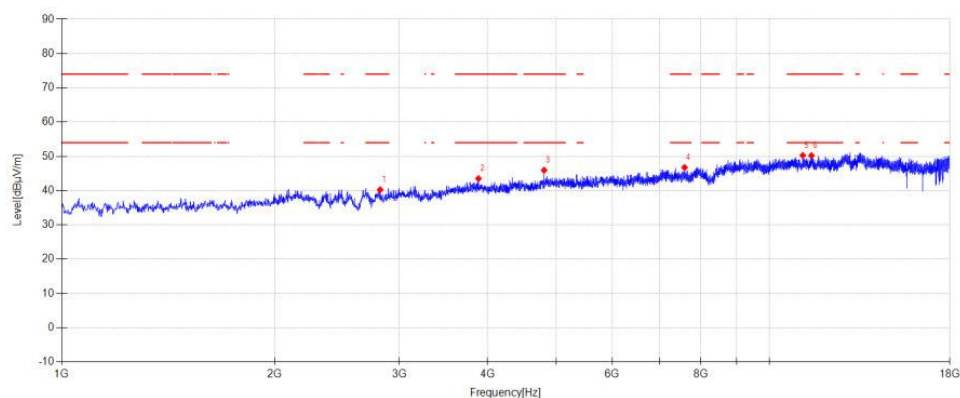


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2403MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\2
Memo: Sample Numbel:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2819.000	46.80	27.55	5.11	-39.21	40.25	74.00	33.75	PK	Vertical
2	3881.500	47.01	31.09	5.07	-39.65	43.52	74.00	30.48	PK	Vertical
3	4806.300	47.39	32.66	5.53	-39.62	45.96	74.00	28.04	PK	Vertical
4	7590.900	43.99	36.48	6.75	-40.47	46.75	74.00	27.25	PK	Vertical
5	11154.100	41.93	39.25	8.23	-39.15	50.26	74.00	23.74	PK	Vertical
6	11472.000	42.03	39.23	8.43	-39.47	50.22	74.00	23.78	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

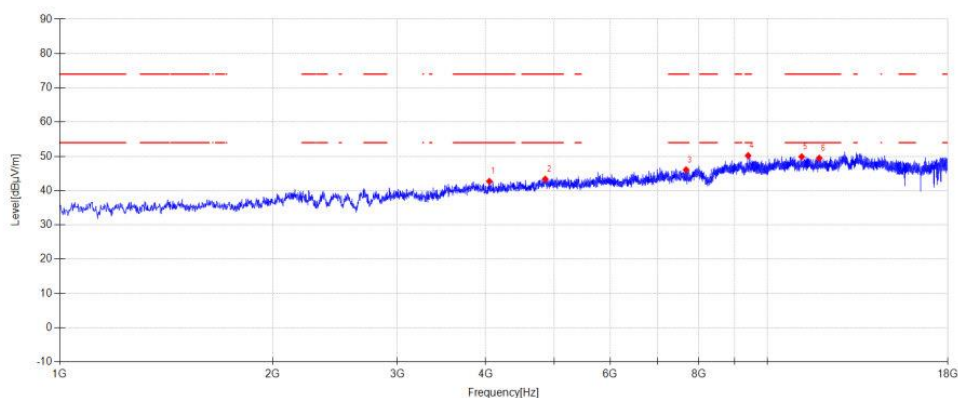


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2444MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\3
Memo: Sample Numbel:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4048.100	46.31	31.00	5.08	-39.68	42.71	74.00	31.29	PK	Horizontal
2	4855.600	43.71	33.71	5.56	-39.61	43.37	74.00	30.63	PK	Horizontal
3	7679.300	43.01	36.66	6.80	-40.39	46.08	74.00	27.92	PK	Horizontal
4	9394.600	43.20	38.70	7.43	-39.12	50.21	74.00	23.79	PK	Horizontal
5	11184.700	41.60	39.22	8.25	-39.18	49.89	74.00	24.11	PK	Horizontal
6	11842.600	41.76	38.90	8.66	-39.84	49.48	74.00	24.52	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

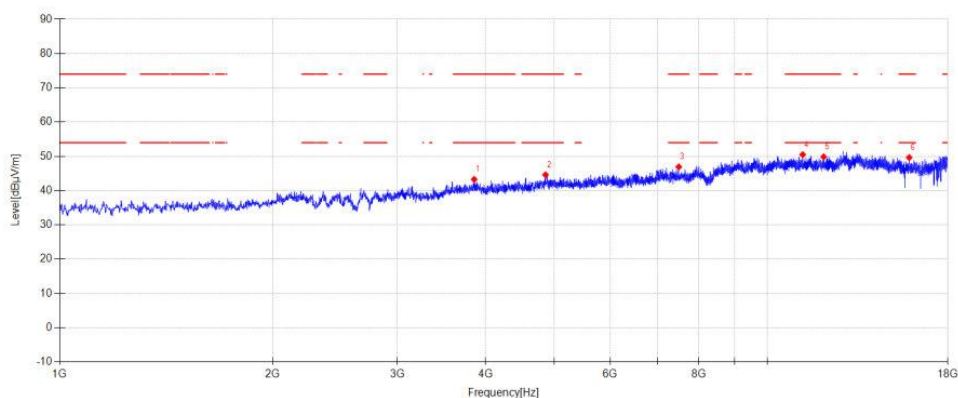


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2444MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\4
Memo: Sample Numbel:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3852.600	46.92	30.92	5.08	-39.64	43.28	74.00	30.72	PK	Vertical
2	4860.700	45.02	33.63	5.57	-39.61	44.61	74.00	29.39	PK	Vertical
3	7497.400	44.25	36.51	6.70	-40.55	46.91	74.00	27.09	PK	Vertical
4	11222.100	42.24	39.20	8.27	-39.22	50.49	74.00	23.51	PK	Vertical
5	12016.000	41.87	39.22	8.77	-40.00	49.86	74.00	24.14	PK	Vertical
6	15871.600	40.84	38.16	10.06	-39.40	49.66	74.00	24.34	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

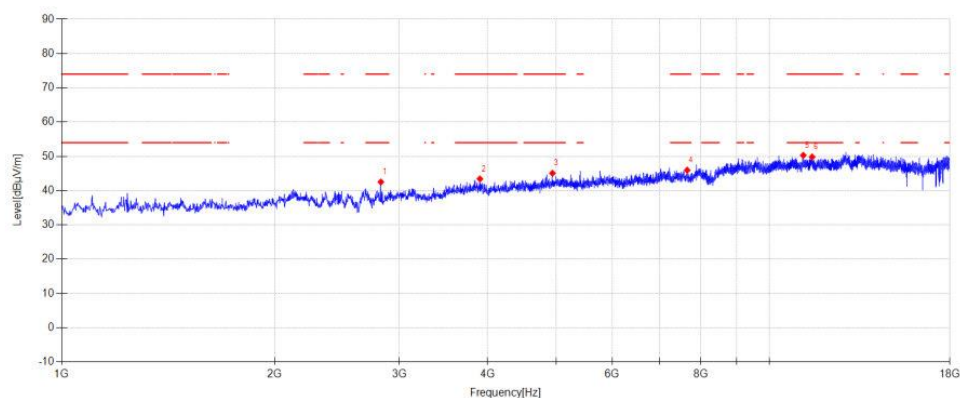


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2480MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\5
Memo: Sample Numbel:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2825.800	49.03	27.61	5.11	-39.22	42.53	74.00	31.47	PK	Horizontal
2	3900.200	46.81	31.20	5.07	-39.66	43.42	74.00	30.58	PK	Horizontal
3	4938.900	45.99	33.08	5.61	-39.60	45.08	74.00	28.92	PK	Horizontal
4	7655.500	42.98	36.61	6.79	-40.41	45.97	74.00	28.03	PK	Horizontal
5	11171.100	41.99	39.23	8.24	-39.17	50.29	74.00	23.71	PK	Horizontal
6	11497.500	41.69	39.20	8.44	-39.50	49.83	74.00	24.17	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

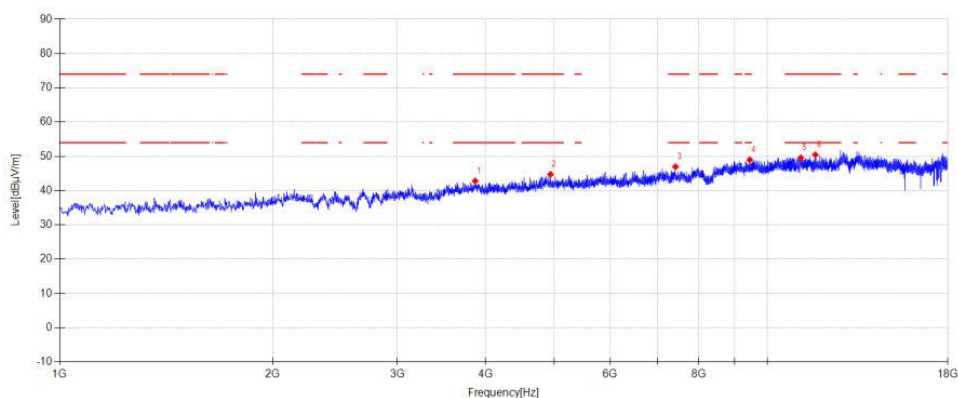


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2480MHz Mode **Power Supply:** Battery
Condition: Temp: 22.6°C; Humi: 48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\6
Memo: Sample Numbel: S24123023-006 Power Setting: 0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3866.200	46.38	31.00	5.07	-39.65	42.80	74.00	31.20	PK	Vertical
2	4938.900	45.65	33.08	5.61	-39.60	44.74	74.00	29.26	PK	Vertical
3	7419.200	44.27	36.66	6.66	-40.62	46.97	74.00	27.03	PK	Vertical
4	9445.600	41.99	38.70	7.45	-39.16	48.98	74.00	25.02	PK	Vertical
5	11155.800	41.26	39.24	8.23	-39.16	49.57	74.00	24.43	PK	Vertical
6	11693.000	42.57	39.00	8.57	-39.69	50.45	74.00	23.55	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

APPENDIX B.7: RADIATED EMISSIONS IN RESTRICTED BANDS

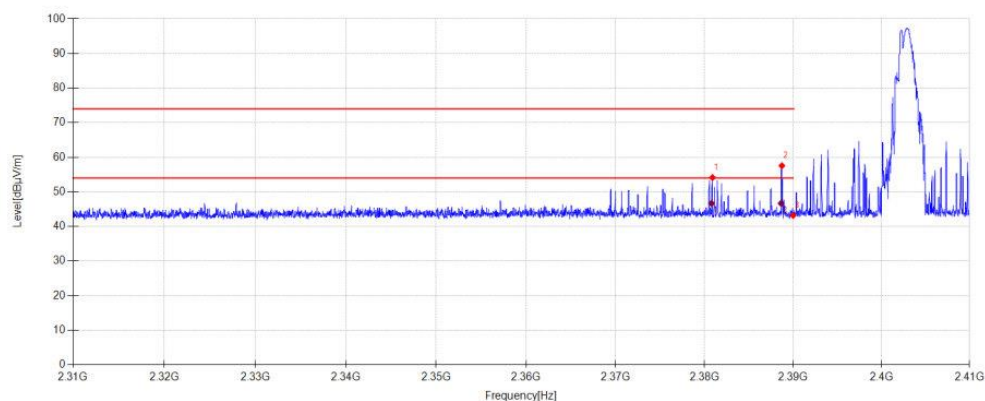


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2403MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\7
Memo: Sample Numble:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2380.900	23.35	27.22	3.56	0.00	54.13	74.00	19.87	PK	Horizontal
2	2388.720	26.73	27.25	3.57	0.00	57.55	74.00	16.45	PK	Horizontal
3	2390.000	12.35	27.26	3.57	0.00	43.18	74.00	30.82	PK	Horizontal

Data List									
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2380.796	15.91	27.22	3.56	46.69	54.00	7.31	AV	Horizontal
2	2388.630	15.86	27.25	3.57	46.68	54.00	7.32	AV	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

Template path: 3#RE\D:\DDT Word format



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Tel: 0769-38826678 <http://www.dgddt.com>

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

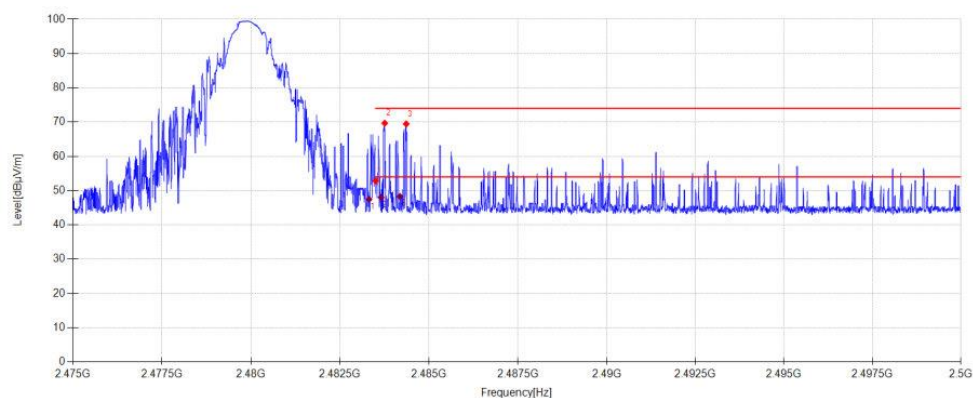


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TR-4-E-009 Radiated Emission Test Result

Test Date: 2025-04-02 **Tested By:** Lin Guoyaun
EUT: Incase Sculpt Comfort Desktop (Keyboard) **Model Number:** OB1531
Test Mode: TX SRD 2480MHz Mode **Power Supply:** Battery
Condition: Temp:22.6°C;Humi:48.0% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2025 report date\Q24123023-1E\FCC Above 1G SRD 键\8
Memo: Sample Numble:S24123023-006 Power Setting:0

Test Graph



Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.500	21.69	27.53	3.62	0.00	52.84	74.00	21.16	PK	Horizontal
2	2483.755	38.52	27.54	3.62	0.00	69.68	74.00	4.32	PK	Horizontal
3	2484.360	38.30	27.54	3.62	0.00	69.46	74.00	4.54	PK	Horizontal

Data List									
NO	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.315	16.30	27.53	3.62	47.45	54.00	6.55	AV	Horizontal
2	2483.653	16.87	27.54	3.62	48.03	54.00	5.97	AV	Horizontal
3	2484.182	17.14	27.54	3.62	48.30	54.00	5.70	AV	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

Template path: 3#RE\D:\DDT Word format



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2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.