N° 1-6736
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CERTIFICATE #3478.01

TEST REPORT

EUT Description	**Convertible PC**
Brand Name	**Lenovo**
Model Name	**Yoga 7 2-in-1 16ILL10**
FCC ID	**PD9BE201NG**
ISED ID	**1000M-BE201NG**
Date of Test Start/End	**2024-11-07 / 2024-11-07**
Features	**2x2 Wi-Fi- Bluetooth®**

Applicant	**Intel Corporation SAS**
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Reference Standards	**FCC 47 CFR Part §2.1093** **RSS 102, issue 6** (see section 1)

Test Report identification	**240821-05.TR03**
Revision Control	**Rev. 02** **This test report revision replaces any previous test report revision** (see section 8)

The test results relate only to the samples tested.
Reference to accreditation shall be used only by full reproduction of test report

Reviewed by

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1. Standards, reference documents and applicable test methods

FCC	1. FCC Title 47 CFR Part §2.1093 – Radiofrequency radiation exposure evaluation: portable devices. 2022-10-01 Edition 2. KDB 388624 D02 Pre-Approval Guidance List v18, PRE-APPROVAL GUIDANCE LIST 3. FCC Presentations TCB Workshop November 2019, RF exposure procedures.
ISED	1. RSS 102 Issue 6 - Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)

2. General conditions, competences and guarantees

- ✓ Tests performed under FCC standards identified in section 1 are covered by A2LA accreditation.
- ✓ Tests performed under ISED standards identified in section 1 are covered by Cofrac accreditation.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an ISO/IEC 17025:2017 laboratory accredited by the American Association for Laboratory Accreditation (A2LA) with the certificate number 3478.01.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an Accredited Test Firm recognized by the FCC, with Designation Number FR0011.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an ISO/IEC 17025:2017 testing laboratory accredited by the French Committee for Accreditation (Cofrac) with the certificate number 1-6736.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is a Registered Test Site listed by ISED, with ISED company number 1000Y and CAB identifier FR0005.
- ✓ Intel WRF Lab only provides testing services and is committed to providing reliable, unbiased test results and interpretations.
- ✓ Intel WRF Lab is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.
- ✓ Intel WRF Lab has developed calibration and proficiency programs for its measurement equipment to ensure correlated and reliable results to its customers.
- ✓ This report is only referred to the item that has undergone the test.
- ✓ This report does not imply an approval of the product by the Certification Bodies or competent Authorities.

3. Environmental Conditions

- ✓ At the site where the measurements were performed the following limits were not exceeded during the tests:

Temperature	24.53ºC ± 0.1ºC
Humidity	41.56% ± 0.2%

4. Test Sample

Sample	ID #	Description	Model	Serial #	Note
#1	240821-05.S05	Convertible PC	Yoga 7 2-in-1 16ILL10	YX0BZ0XK	-

5. EUT Features

The herein information is provided by the customer.

Intel WRF Lab declines any responsibility for the accuracy of the stated customer provided information, especially if it has any impact on the correctness of test results presented in this report.

Brand Name	Lenovo	
Model Name	Yoga 7 2-in-1 16ILL10	
Prototype / Production	Production	
Host Identification	Convertible PC	
Supported Radios	802.11b/g/n/ax	2.4GHz (2400.0 – 2483.5 MHz)
	802.11a/n/ac/ax	5.2GHz (5150.0 – 5250.0 MHz) 5.3GHz (5250.0 – 5350.0 MHz) 5.6GHz (5470.0 – 5725.0 MHz) 5.8GHz (5725.0 – 5895.0 MHz)
	802.11ax	6.0GHz (5925.0 – 7125.0 MHz)
	Bluetooth	2.4GHz (2400.0 – 2483.5 MHz)

6. Remarks and comments

1. The test report is a validation of the G sensor functionality

7. Test Results summary

The statement of conformity to applicable standards in the table below are based on the measured values, without considering the measurement uncertainties.

7.1. WLAN Tx Power Table Summary

Device Mode	Lid Angle range	LCD Direction	2.4GHz-CH6 802.11b - 1Mbps				5GHz-CH120 802.11a - 6Mbps			
			Target Power (dBm)		Measured Power (dBm)		Target Power (dBm)		Measured Power (dBm)	
			Ant AUX (1)	Ant MAIN (2)	Ant AUX (1)	Ant MAIN (2)	Ant AUX (1)	Ant MAIN (2)	Ant AUX (1)	Ant MAIN (2)
Lid Close	0° ≤ φ < 35°	-	15.0	16.0	14.2	15.7	9.5	10.5	8.7	9.6
Notebook	0° ≤ φ < 350°	0°	15.0	16.0	14.2	15.7	9.5	10.5	8.7	9.6
Tablet	350°< φ ≤ 360°	0°	14.5	15.5	13.6	15.2	8.0	8.5	7.1	7.6

8. Document Revision History

Revision #	Modified by	Revision Details
Rev.00	Axel AZIZE G.	First Issue
Rev.01	Axel AZIZE G.	Typo corrected in Section B.1.1 & B.2.1 upon customer request
Rev.02	Estelle GILLES	Typo corrected in Section B.1.1 & B.2.1 upon customer request

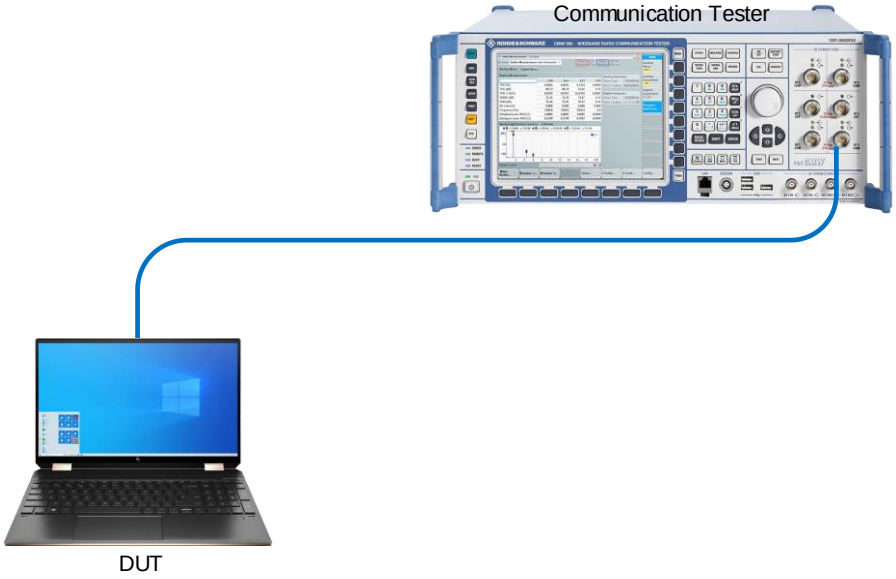
Annex A. Test & System description

A.1 Test setup

The conducted power measurement test setup is described in the following and illustrated in Figure 1.

- The DUT is convertible PC from Lenovo model Yoga 7 2-in-1 16ILL10, An BE201NGW connectivity module is installed inside.
- Uplink signal power is measured with the access point.
- Path loss in the power measurement setup from the wireless module antenna port to the access point is compensated
- ANT tool version is used on the DUT to query the power table index and sensor status

Figure.1 – Power measurement test setup.



A.2 Procedure

The following additional guidance applies only to convertible laptops whose screen rotates around one axis, from 0 degrees to 360 degrees, in a clamshell style, i.e., from closed mode to open mode, to “tent” mode, and finally, to tablet mode. This process must be followed to determine the lid angle where a power reduction occurs, by taking power measurements at each step, as indicated in the step listed here below:

1. From the lid in closed mode (0 degrees), open the screen in 10-degree steps until laptop mode is obtained
2. Lower the screen by 5 degrees increments to verify that the “closed mode” is triggered
3. From the position of the previous step, open the screen in 1-degree increments until laptop mode is triggered again
4. Continue opening the screen in 1-degree increments until at least 5 degrees past where “laptop mode” was obtained, then continue opening the screen in 10-degree steps until the device switches to tablet mode
5. Reverse the previous procedure to go from tablet mode back down to closed mode

A.3 Test Equipment List

Equipment and accessories used for the conducted power measurement test setup are listed below. The Test Platform (DUT), test setup and associated equipment are shown in A.1.3.

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
125-000	Communication Tester	CMW500	129337	Rohde & Schwartz	2023-04-20	2025-04-20
022-003 022-004	RF path (RF cable + Adapters)	-	-	-	RF path loss was verified before usage	

A.4 Measurement Uncertainty Evaluation

The system uncertainty evaluation is shown in the table below with a coverage factor of k = 2 to indicate a 95% level of confidence:

Measurement type	Uncertainty	Unit
Power level	±1	dB

Annex B. Test Results

The herein test results were performed by:

Test case measurement	Test Personnel
Power	Axel AZIZE G.

B.1 Trigger lid angle detection and power verification 2.4GHz

B.1.1 LCD direction 0°

The lid is rotating from 0° to 360°. The screen is vertical, LCD direction is 0°

Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Lid close	0	14.2	15.7
Notebook	10	14.2	15.7
Notebook	20	14.2	15.7
Notebook	30	14.2	15.7
Notebook	40	14.2	15.7
Notebook	50	14.2	15.7
Notebook	60	14.2	15.7
Notebook	70	14.2	15.7
Notebook	80	14.2	15.7
Notebook	90	14.2	15.7
Notebook	100	14.2	15.7
Notebook	110	14.2	15.7
Notebook	120	14.2	15.7
Notebook	130	14.2	15.7
Notebook	140	14.2	15.7
Notebook	150	14.2	15.7
Notebook	160	14.2	15.7
Notebook	170	14.2	15.7
Notebook	180	14.2	15.7
Notebook	190	14.2	15.7
Notebook	200	14.2	15.7
Notebook	210	14.2	15.7
Notebook	220	14.2	15.7
Notebook	230	14.2	15.7

Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Notebook	240	14.2	15.7
Notebook	250	14.2	15.7
Notebook	260	14.2	15.7
Notebook	270	14.2	15.7
Notebook	280	14.2	15.7
Notebook	290	14.2	15.7
Notebook	300	14.2	15.7
Notebook	310	14.2	15.7
Notebook	320	14.2	15.7
Notebook	330	14.2	15.7
Notebook	340	14.2	15.7
Tablet	350	13.6	15.2
Notebook	345	14.2	15.7
Notebook	346	14.2	15.7
Notebook	347	14.2	15.7
Notebook	348	14.2	15.7
Notebook	349	14.2	15.7
Tablet	350	13.6	15.2
Tablet	351	13.6	15.2
Tablet	352	13.6	15.2
Tablet	353	13.6	15.2
Tablet	354	13.6	15.2
Tablet	355	13.6	15.2
Tablet	360	13.6	15.2

The lid is rotating from 360° to 0°. The screen is vertical, LCD direction to 0°.

Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Tablet	360	13.6	15.2
Tablet	350	13.6	15.2
Notebook	340	14.2	15.7
Notebook	345	14.2	15.7
Tablet	350	13.6	15.2
Notebook	349	14.2	15.7
Notebook	348	14.2	15.7
Notebook	347	14.2	15.7
Notebook	346	14.2	15.7
Notebook	345	14.2	15.7
Notebook	340	14.2	15.7
Notebook	330	14.2	15.7
Notebook	320	14.2	15.7
Notebook	310	14.2	15.7
Notebook	300	14.2	15.7
Notebook	290	14.2	15.7
Notebook	280	14.2	15.7
Notebook	270	14.2	15.7
Notebook	260	14.2	15.7
Notebook	250	14.2	15.7
Notebook	240	14.2	15.7
Notebook	230	14.2	15.7

Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Notebook	220	14.15	15.7
Notebook	210	14.15	15.7
Notebook	200	14.15	15.7
Notebook	190	14.15	15.7
Notebook	180	14.15	15.7
Notebook	170	14.15	15.7
Notebook	160	14.15	15.7
Notebook	150	14.15	15.7
Notebook	140	14.15	15.7
Notebook	130	14.15	15.7
Notebook	120	14.15	15.7
Notebook	110	14.15	15.7
Notebook	100	14.15	15.7
Notebook	90	14.15	15.7
Notebook	80	14.15	15.7
Notebook	70	14.15	15.7
Notebook	60	14.15	15.7
Notebook	50	14.15	15.7
Notebook	40	14.15	15.7
Notebook	30	14.15	15.7
Notebook	20	14.15	15.7
Notebook	10	14.15	15.7
Lid close	0	14.15	15.7

B.2 Trigger lid angle detection and power verification 5GHz

B.2.1 LCD direction 0°

The lid is rotating from 0° to 360°. The screen is vertical, LCD direction is 0°

Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Lid close	0	8.7	9.6
Notebook	10	8.7	9.6
Notebook	20	8.7	9.6
Notebook	30	8.7	9.6
Notebook	40	8.7	9.6
Notebook	50	8.7	9.6
Notebook	60	8.7	9.6
Notebook	70	8.7	9.6
Notebook	80	8.7	9.6
Notebook	90	8.7	9.6
Notebook	100	8.7	9.6
Notebook	110	8.7	9.6
Notebook	120	8.7	9.6
Notebook	130	8.7	9.6
Notebook	140	8.7	9.6
Notebook	150	8.7	9.6
Notebook	160	8.7	9.6
Notebook	170	8.7	9.6
Notebook	180	8.7	9.6
Notebook	190	8.7	9.6
Notebook	200	8.7	9.6
Notebook	210	8.7	9.6
Notebook	220	8.7	9.6
Notebook	230	8.7	9.6

Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Notebook	240	8.7	9.6
Notebook	250	8.7	9.6
Notebook	260	8.7	9.6
Notebook	270	8.7	9.6
Notebook	280	8.7	9.6
Notebook	290	8.7	9.6
Notebook	300	8.7	9.6
Notebook	310	8.7	9.6
Notebook	320	8.7	9.6
Notebook	330	8.7	9.6
Notebook	340	8.7	9.6
Tablet	350	7.1	7.6
Notebook	345	8.7	9.6
Notebook	346	8.7	9.6
Notebook	347	8.7	9.6
Notebook	348	8.7	9.6
Notebook	349	8.7	9.6
Tablet	350	7.1	7.6
Tablet	351	7.1	7.6
Tablet	352	7.1	7.6
Tablet	353	7.1	7.6
Tablet	354	7.1	7.6
Tablet	355	7.1	7.6
Tablet	360	7.1	7.6

The lid is rotating from 360° to 0°. The screen is vertical, LCD direction to 0°.

Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Tablet	360	7.1	7.6
Tablet	350	7.1	7.6
Notebook	340	8.7	9.6
Notebook	345	8.7	9.6
Tablet	350	7.1	7.6
Notebook	349	8.7	9.6
Notebook	348	8.7	9.6
Notebook	347	8.7	9.6
Notebook	346	8.7	9.6
Notebook	345	8.7	9.6
Notebook	340	8.7	9.6
Notebook	330	8.7	9.6
Notebook	320	8.7	9.6
Notebook	310	8.7	9.6
Notebook	300	8.7	9.6
Notebook	290	8.7	9.6
Notebook	280	8.7	9.6
Notebook	270	8.7	9.6
Notebook	260	8.7	9.6
Notebook	250	8.7	9.6
Notebook	240	8.7	9.6
Notebook	230	8.7	9.6

Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Notebook	220	8.7	9.6
Notebook	210	8.7	9.6
Notebook	200	8.7	9.6
Notebook	190	8.7	9.6
Notebook	180	8.7	9.6
Notebook	170	8.7	9.6
Notebook	160	8.7	9.6
Notebook	150	8.7	9.6
Notebook	140	8.7	9.6
Notebook	130	8.7	9.6
Notebook	120	8.7	9.6
Notebook	110	8.7	9.6
Notebook	100	8.7	9.6
Notebook	90	8.7	9.6
Notebook	80	8.7	9.6
Notebook	70	8.7	9.6
Notebook	60	8.7	9.6
Notebook	50	8.7	9.6
Notebook	40	8.7	9.6
Notebook	30	8.7	9.6
Notebook	20	8.7	9.6
Notebook	10	8.7	9.6
Lid close	0	8.7	9.6

End of the report

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