

TEST REPORT

EUT Description	Convertible PC
Brand Name	Lenovo
Model Name	Yoga 7 2-in-1 14ILL10
FCC ID	PD9BE201NG
ISED ID	1000M-BE201NG
Date of Test Start/End	2024-11-06 / 2024-11-06
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)
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Test Report identification	240821-04.TR03
Revision Control	Rev. 00 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	24.19°C ± 1°C
Humidity	41.56% ± 0.2%

4. Test Sample

Sample	ID #	Description	Model	Serial #	Note
#1	240821-04.S05	Convertible PC	Yoga 7 2-in-1 14ILL10	YX0BZ0WH	-

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 14ILL10		
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	$0^{\circ} \leq \varphi < 35^{\circ}$	-	16.0	15.5	15.3	15.0	11.0	11.5	10.0	10.8
Notebook	$0^{\circ} \leq \varphi < 350^{\circ}$	0°	16.0	15.5	15.3	15.0	11.0	11.5	10.0	10.8
Tablet	$350^{\circ} < \varphi \leq 360^{\circ}$	0°	15.5	14.5	14.7	14.0	10.0	8.0	9.2	7.7

8. Document Revision History

Revision #	Modified by	Revision Details
Rev.00	Axel AZIZE G.	-

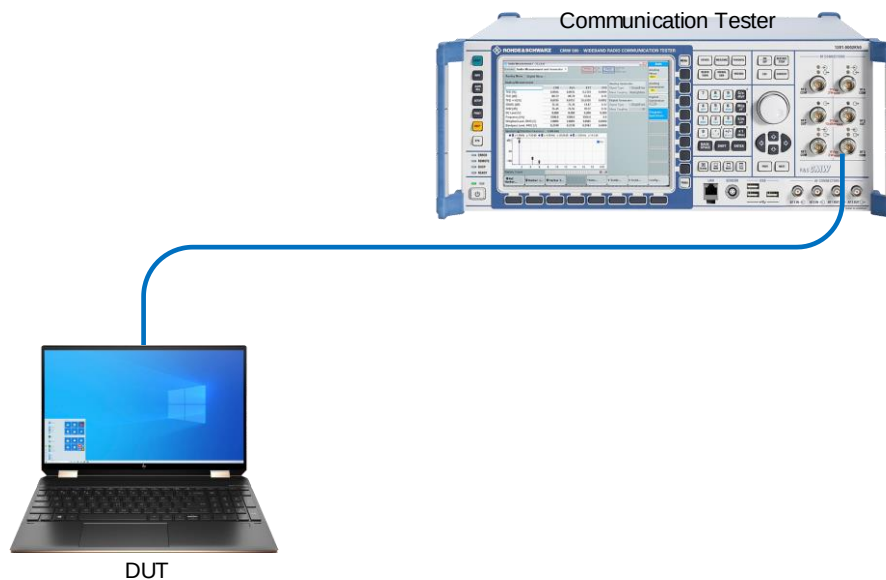
Annex A. Test & System description

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 14ILL10. 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 WLAN	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.	Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Lid close	0	15.3	15.0	Notebook	240	15.3	15.0
Notebook	10	15.3	15.0	Notebook	250	15.3	15.0
Notebook	20	15.3	15.0	Notebook	260	15.3	15.0
Notebook	30	15.3	15.0	Notebook	270	15.3	15.0
Notebook	40	15.3	15.0	Notebook	280	15.3	15.0
Notebook	50	15.3	15.0	Notebook	290	15.3	15.0
Notebook	60	15.3	15.0	Notebook	300	15.3	15.0
Notebook	70	15.3	15.0	Notebook	310	15.3	15.0
Notebook	80	15.3	15.0	Notebook	320	15.3	15.0
Notebook	90	15.3	15.0	Notebook	330	15.3	15.0
Notebook	100	15.3	15.0	Notebook	340	15.3	15.0
Notebook	110	15.3	15.0	Tablet	350	14.7	14.0
Notebook	120	15.3	15.0	Notebook	345	15.3	15.0
Notebook	130	15.3	15.0	Notebook	346	15.3	15.0
Notebook	140	15.3	15.0	Notebook	347	15.3	15.0
Notebook	150	15.3	15.0	Notebook	348	15.3	15.0
Notebook	160	15.3	15.0	Notebook	349	15.3	15.0
Notebook	170	15.3	15.0	Tablet	350	14.7	14.0
Notebook	180	15.3	15.0	Tablet	351	14.7	14.0
Notebook	190	15.3	15.0	Tablet	352	14.7	14.0
Notebook	200	15.3	15.0	Tablet	353	14.7	14.0
Notebook	210	15.3	15.0	Tablet	354	14.7	14.0
Notebook	220	15.3	15.0	Tablet	355	14.7	14.0
Notebook	230	15.3	15.0	Tablet	360	14.7	14.0

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	14.7	14.0
Tablet	350	14.7	14.0
Notebook	340	15.3	15.0
Notebook	345	15.3	15.0
Tablet	350	14.7	14.0
Notebook	349	15.3	15.0
Notebook	348	15.3	15.0
Notebook	347	15.3	15.0
Notebook	346	15.3	15.0
Notebook	345	15.3	15.0
Notebook	340	15.3	15.0
Notebook	330	15.3	15.0
Notebook	320	15.3	15.0
Notebook	310	15.3	15.0
Notebook	300	15.3	15.0
Notebook	290	15.3	15.0
Notebook	280	15.3	15.0
Notebook	270	15.3	15.0
Notebook	260	15.3	15.0
Notebook	250	15.3	15.0
Notebook	240	15.3	15.0
Notebook	230	15.3	15.0

Device Mode	Angle (°)	Meas. Power (dBm) 2.4GHz Ch6 Aux (1) Ant.	Meas. Power (dBm) 2.4GHz Ch6 Main (2) Ant.
Notebook	220	15.3	15.0
Notebook	210	15.3	15.0
Notebook	200	15.3	15.0
Notebook	190	15.3	15.0
Notebook	180	15.3	15.0
Notebook	170	15.3	15.0
Notebook	160	15.3	15.0
Notebook	150	15.3	15.0
Notebook	140	15.3	15.0
Notebook	130	15.3	15.0
Notebook	120	15.3	15.0
Notebook	110	15.3	15.0
Notebook	100	15.3	15.0
Notebook	90	15.3	15.0
Notebook	80	15.3	15.0
Notebook	70	15.3	15.0
Notebook	60	15.3	15.0
Notebook	50	15.3	15.0
Notebook	40	15.3	15.0
Notebook	30	15.3	15.0
Notebook	20	15.3	15.0
Notebook	10	15.3	15.0
Lid close	0	15.3	15.0

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.	Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Lid close	0	10.0	10.8	Notebook	240	10.0	10.8
Notebook	10	10.0	10.8	Notebook	250	10.0	10.8
Notebook	20	10.0	10.8	Notebook	260	10.0	10.8
Notebook	30	10.0	10.8	Notebook	270	10.0	10.8
Notebook	40	10.0	10.8	Notebook	280	10.0	10.8
Notebook	50	10.0	10.8	Notebook	290	10.0	10.8
Notebook	60	10.0	10.8	Notebook	300	10.0	10.8
Notebook	70	10.0	10.8	Notebook	310	10.0	10.8
Notebook	80	10.0	10.8	Notebook	320	10.0	10.8
Notebook	90	10.0	10.8	Notebook	330	10.0	10.8
Notebook	100	10.0	10.8	Notebook	340	10.0	10.8
Notebook	110	10.0	10.8	Tablet	350	9.2	7.7
Notebook	120	10.0	10.8	Notebook	345	10.0	10.8
Notebook	130	10.0	10.8	Notebook	346	10.0	10.8
Notebook	140	10.0	10.8	Notebook	347	10.0	10.8
Notebook	150	10.0	10.8	Notebook	348	10.0	10.8
Notebook	160	10.0	10.8	Notebook	349	10.0	10.8
Notebook	170	10.0	10.8	Tablet	350	9.2	7.7
Notebook	180	10.0	10.8	Tablet	351	9.2	7.7
Notebook	190	10.0	10.8	Tablet	352	9.2	7.7
Notebook	200	10.0	10.8	Tablet	353	9.2	7.7
Notebook	210	10.0	10.8	Tablet	354	9.2	7.7
Notebook	220	10.0	10.8	Tablet	355	9.2	7.7
Notebook	230	10.0	10.8	Tablet	360	9.2	7.7

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	9.2	7.7
Tablet	350	9.2	7.7
Notebook	340	10.0	10.8
Notebook	345	10.0	10.8
Tablet	350	9.2	7.7
Notebook	349	10.0	10.8
Notebook	348	10.0	10.8
Notebook	347	10.0	10.8
Notebook	346	10.0	10.8
Notebook	345	10.0	10.8
Notebook	340	10.0	10.8
Notebook	330	10.0	10.8
Notebook	320	10.0	10.8
Notebook	310	10.0	10.8
Notebook	300	10.0	10.8
Notebook	290	10.0	10.8
Notebook	280	10.0	10.8
Notebook	270	10.0	10.8
Notebook	260	10.0	10.8
Notebook	250	10.0	10.8
Notebook	240	10.0	10.8
Notebook	230	10.0	10.8

Device Mode	Angle (°)	Meas. Power (dBm) 5GHz Ch120 Aux (1) Ant.	Meas. Power (dBm) 5GHz Ch120 Main (2) Ant.
Notebook	220	10.0	10.8
Notebook	210	10.0	10.8
Notebook	200	10.0	10.8
Notebook	190	10.0	10.8
Notebook	180	10.0	10.8
Notebook	170	10.0	10.8
Notebook	160	10.0	10.8
Notebook	150	10.0	10.8
Notebook	140	10.0	10.8
Notebook	130	10.0	10.8
Notebook	120	10.0	10.8
Notebook	110	10.0	10.8
Notebook	100	10.0	10.8
Notebook	90	10.0	10.8
Notebook	80	10.0	10.8
Notebook	70	10.0	10.8
Notebook	60	10.0	10.8
Notebook	50	10.0	10.8
Notebook	40	10.0	10.8
Notebook	30	10.0	10.8
Notebook	20	10.0	10.8
Notebook	10	10.0	10.8
Lid close	0	10.0	10.8

End of the report

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