TEST REPORT

EUT Description	**Convertible PC**
Brand Name	**Dell**
Model Name	**P175G**
FCC ID	**PD9BE200DW**
ISED ID	**1000M-BE200DW**
Date of Test Start/End	**2024-01-26 / 2024-01-26**
Features	**IEEE 802.11a/b/g/n/ac/ax/be**

Applicant	**Intel Corporation SAS**
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Test Report identification	**231024-01.TR01**
Revision Control	**Rev. 00** **This test report replaces any previous versions of this test report** (see Section 7)

The test results relate only to the samples tested.

Reviewed by

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1. Standards, reference documents and applicable test methods

a. KDB 388624 D02 Pre-Approval Guidance List v18, PRE-APPROVAL GUIDANCE LIST

b. FCC Presentations TCB Workshop November 2019, RF exposure procedures.

2. General conditions, competences and guarantees

- ✓ 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	22.3ºC ± 1ºC
Humidity	43.6% ± 5%

4. Test Sample

Sample	ID #	Description	Model	Serial #	Note
#1	231106-01.S07	Convertible PC	P175G	7737838000033	-

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	Dell
Model Name	P175G
Prototype / Production	Pre-Production
Host Identification	Convertible PC

6. Remarks and comments

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

7. Test Results summary

7.1. WLAN Tx Power Table Summary

Device Mode	Lid Angle range	2.4GHz-CH6 802.11b - 1Mbps				5GHz-CH120 802.11a - 6Mbps			
		Target Power (dBm)		Measured Power (dBm)		Target Power (dBm)		Measured Power (dBm)	
		Antenna AUX (1)	Antenna MAIN (2)	Antenna AUX (1)	Antenna MAIN (2)	Antenna AUX (1)	Antenna MAIN (2)	Antenna AUX (1)	Antenna MAIN (2)
Lid Close	**0°**	14.0	14.0	14.0	14.0	11.0	11.0	11.0	10.2
Notebook	**0° - 190°**	14.0	14.0	14.0	14.0	11.0	11.0	11.0	10.2
Tablet	**190° - 360°**	15.5	14.0	15.4	13.4	11.0	11.0	10.9	10.0

8. Document Revision History

Revision #	Date	Modified by	Revision Details
Rev.00	-	Cheiel In	First release

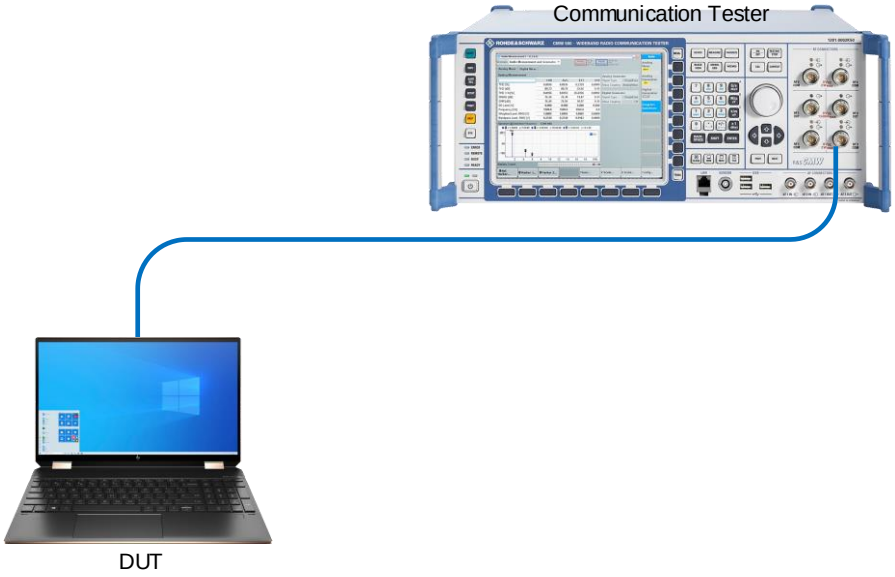
Annex A. Test & System description

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 *Dell* model *P175G.* An *BE200D2W* connectivity module is installed inside
- The call box is used as an access point to manage the uplink and downlink data traffic.
- 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 .01536.23.20.0 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.

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
125-000	Communication Tester	CMW500	129337	Rohde & Schwartz	2023-04-12	2025-04-12
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

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

B.1.1 The lid is rotating from 0° to 360°

Mode	Angle (degree)	measured power 2.4GHz-Ch6 (dBm)	
		AUX (1)	MAIN (2)
Lid close	0	14.0	14.0
Notebook	10	14.0	14.0
Notebook	5	14.0	14.0
Lid close	0	14.0	14.0
Notebook	1	14.0	14.0
	2	14.0	14.0
	3	14.0	14.0
	4	14.0	14.0
	5	14.0	14.0
	10	14.0	14.0
	20	14.0	14.0
	30	14.0	14.0
	40	14.0	14.0
	50	14.0	14.0
	60	14.0	14.0
	70	14.0	14.0
	80	14.0	14.0
	90	14.0	14.0
	100	14.0	14.0
	110	14.0	14.0
	120	14.0	14.0
	130	14.0	14.0
	140	14.0	14.0
	150	14.0	14.0
	160	14.0	14.0
	170	14.0	14.0
	180	14.0	14.0
Tablet	190	15.4	13.4

Mode	Angle (degree)	measured power 2.4GHz-Ch6 (dBm)	
		AUX(1)	MAIN(2)
Tablet	190	15.4	13.4
Notebook	185	14.0	14.0
	186	14.0	14.0
	187	14.0	14.0
	188	14.0	14.0
	189	14.0	14.0
Tablet	190	15.4	13.4
	191	15.4	13.4
	192	15.4	13.4
	193	15.4	13.4
	194	15.4	13.4
	195	15.4	13.4
	200	15.4	13.4
	210	15.4	13.4
	220	15.4	13.4
	230	15.4	13.4
	240	15.4	13.4
	260	15.4	13.4
	270	15.4	13.4
	280	15.4	13.4
	290	15.4	13.4
	300	15.4	13.4
	310	15.4	13.4
	320	15.4	13.4
	330	15.4	13.4
	340	15.4	13.4
	350	15.4	13.4
	360	15.4	13.4

B.1.2 The lid is rotating from 360° to 0°

Mode	Angle (degree)	Measured power 2.4GHz-Ch6 (dBm)	
		AUX (1)	MAIN (2)
Tablet	360	15.4	13.4
	350	15.4	13.4
	340	15.4	13.4
	330	15.4	13.4
	320	15.4	13.4
	310	15.4	13.4
	300	15.4	13.4
	290	15.4	13.4
	280	15.4	13.4
	270	15.4	13.4
	260	15.4	13.4
	240	15.4	13.4
	230	15.4	13.4
	220	15.4	13.4
	210	15.4	13.4
	200	15.4	13.4
	190	15.4	13.4
Notebook	180	14.0	14.0
	185	14.0	14.0
Tablet	190	15.4	13.4
Notebook	189	14.0	14.0
	188	14.0	14.0
	187	14.0	14.0
	186	14.0	14.0
	185	14.0	14.0
	184	14.0	14.0
	183	14.0	14.0
	182	14.0	14.0
	181	14.0	14.0
	180	14.0	14.0

Mode	Angle (degree)	Measured power 2.4GHz-Ch6 (dBm)	
		AUX (1)	MAIN (2)
Notebook	180	14.0	14.0
	170	14.0	14.0
	160	14.0	14.0
	150	14.0	14.0
	140	14.0	14.0
	130	14.0	14.0
	120	14.0	14.0
	110	14.0	14.0
	100	14.0	14.0
	90	14.0	14.0
	80	14.0	14.0
	70	14.0	14.0
	60	14.0	14.0
	50	14.0	14.0
	40	14.0	14.0
	30	14.0	14.0
	20	14.0	14.0
	10	14.0	14.0
Lid close	0	14.0	14.0
Notebook	5	14.0	14.0
	4	14.0	14.0
	3	14.0	14.0
	2	14.0	14.0
	1	14.0	14.0
Lid close	0	14.0	14.0

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

B.2.1 The lid is rotating from 0° to 360°

Mode	Angle (degree)	Measured power 5GHz-Ch120 (dBm)	
		AUX (1)	MAIN (2)
Lid close	0	11.0	10.2
Notebook	10	11.0	10.2
Notebook	5	11.0	10.2
Lid close	0	11.0	10.2
Notebook	1	11.0	10.2
	2	11.0	10.2
	3	11.0	10.2
	4	11.0	10.2
	5	11.0	10.2
	10	11.0	10.2
	20	11.0	10.2
	30	11.0	10.2
	40	11.0	10.2
	50	11.0	10.2
	60	11.0	10.2
	70	11.0	10.2
	80	11.0	10.2
	90	11.0	10.2
	100	11.0	10.2
	110	11.0	10.2
	120	11.0	10.2
	130	11.0	10.2
	140	11.0	10.2
	150	11.0	10.2
	160	11.0	10.2
	170	11.0	10.2
	180	11.0	10.2
Tablet	190	10.9	10.0

Mode	Angle (degree)	Measured power 5GHz-Ch120 (dBm)	
		AUX (1)	MAIN (2)
Tablet	190	10.9	10.0
Notebook	185	11.0	10.2
	186	11.0	10.2
	187	11.0	10.2
	188	11.0	10.2
	189	11.0	10.2
Tablet	190	10.9	10.0
	191	10.9	10.0
	192	10.9	10.0
	193	10.9	10.0
	194	10.9	10.0
	195	10.9	10.0
	200	10.9	10.0
	210	10.9	10.0
	220	10.9	10.0
	230	10.9	10.0
	240	10.9	10.0
	260	10.9	10.0
	270	10.9	10.0
	280	10.9	10.0
	290	10.9	10.0
	300	10.9	10.0
	310	10.9	10.0
	320	10.9	10.0
	330	10.9	10.0
	340	10.9	10.0
	350	10.9	10.0
	360	10.9	10.0

B.2.2 The lid is rotating from 360° to 0°

Mode	Angle (degree)	Measured power 5GHz-Ch120 (dBm)	
		AUX (1)	MAIN (2)
Tablet	360	10.9	10.0
	350	10.9	10.0
	340	10.9	10.0
	330	10.9	10.0
	320	10.9	10.0
	310	10.9	10.0
	300	10.9	10.0
	290	10.9	10.0
	280	10.9	10.0
	270	10.9	10.0
	260	10.9	10.0
	240	10.9	10.0
	230	10.9	10.0
	220	10.9	10.0
	210	10.9	10.0
	200	10.9	10.0
	190	10.9	10.0
Notebook	180	11.0	10.2
	185	11.0	10.2
Tablet	190	10.9	10.0
Notebook	189	11.0	10.2
	188	11.0	10.2
	187	11.0	10.2
	186	11.0	10.2
	185	11.0	10.2
	184	11.0	10.2
	183	11.0	10.2
	182	11.0	10.2
	181	11.0	10.2
	180	11.0	10.2

Mode	Angle (degree)	Measured power 5GHz-Ch120 (dBm)	
		AUX (1)	MAIN (2)
Notebook	180	11.0	10.2
	170	11.0	10.2
	160	11.0	10.2
	150	11.0	10.2
	140	11.0	10.2
	130	11.0	10.2
	120	11.0	10.2
	110	11.0	10.2
	100	11.0	10.2
	90	11.0	10.2
	80	11.0	10.2
	70	11.0	10.2
	60	11.0	10.2
	50	11.0	10.2
	40	11.0	10.2
	30	11.0	10.2
	20	11.0	10.2
	10	11.0	10.2
Lid close	0	11.0	10.2
Notebook	5	11.0	10.2
	4	11.0	10.2
	3	11.0	10.2
	2	11.0	10.2
	1	11.0	10.2
Lid close	0	11.0	10.2