TEST REPORT

EUT Description	**Convertible PC**
Brand Name	**DELL**
Model Name	**P179G**
FCC ID	**PD9AX211D2**
IC ID	**1000M-AX211D2**
Date of Test Start/End	**2022-12-22 / 2022-12-22**
Features	**IEEE 802.11a/b/g/n/ac/ax**

Applicant	**Intel Mobile Communications**
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Test Report identification	**221206-01.TR01**
Revision Control	**Rev. 00** **This test report replaces any previous versions of this test report** (see Section 2)

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2. Document Revision History

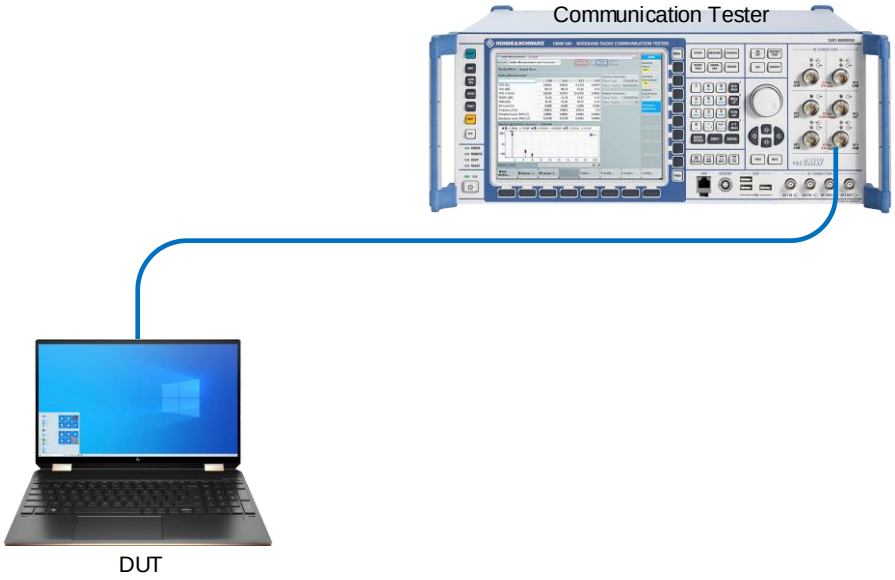
Revision #	Date	Modified by	Revision Details
Rev.00	2022-12-22	Axel. A. G / Cheiel.I	First Issue

3. Test Setup

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

- The DUT which AX211D2W cellular module is installed inside convertible PC from Dell model P179G.
- A control PC is used to configure the Call Box as an access point to manage the uplink and downlink data traffic.
- Uplink signal power is measured with the Call Box.
- Path loss in the power measurement setup from the AX211D2W antenna port to the Call Box.

Figure.1 – Validation using conducted power measurement test setup.



4. Test Sample

Sample	ID #	Description	Model	Serial #	Note
#1	221206-01.S04	Convertible PC	P179G	2022103110880	-

5. 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 section 3.

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
125-000	Communication Tester	CMW500	129337	Rohde & Schwartz	2021-04-12	2023-04-12
022-003 022-004	RF path (RF cable + Adapters)	-	-	-	RF path loss was verified before usage	

6. Test Results

6.1. Tx Power Table Summary

Device Mode	Lid Angle	LCD Direction	2.4Ghz-Ch6				5Ghz-Ch120			
			Target Power (dBm)		Measured Power (dBm)		Target Power (dBm)		Measured Power (dBm)	
			Antenna AUX	Antenna MAIN	Antenna AUX	Antenna MAIN	Antenna AUX	Antenna MAIN	Antenna AUX	Antenna MAIN
Lid Close	**0°**	**0°**	15.0	15.0	14.35	14.38	12.0	12.0	11.80	11.68
Notebook	**0° - 190°**	**0°**	15.0	15.0	14.35	14.38	12.0	12.0	11.80	11.68
Tablet	**190° - 360°**	**0°**	15.0	15.0	14.42	14.28	12.0	12.0	11.73	11.94

6.2. Trigger lid angle detection and power verification 2.4GHz

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

Mode	Angle (degrees)	Power measured 2.4GHz-Ch6 (dBm)	
		AUX	MAIN
Lid close	0	14.35	14.38
Notebook	10	14.35	14.38
Notebook	5	14.35	14.38
Lid close	0	14.35	14.38
Notebook	1	14.35	14.38
	2	14.35	14.38
	3	14.35	14.38
	4	14.35	14.38
	5	14.35	14.38
	10	14.35	14.38
	20	14.35	14.38
	30	14.35	14.38
	40	14.35	14.38
	50	14.35	14.38
	60	14.35	14.38
	70	14.35	14.38
	80	14.35	14.38
	90	14.35	14.38
	100	14.35	14.38
	110	14.35	14.38
	120	14.35	14.38
	130	14.35	14.38
	140	14.35	14.38
	150	14.35	14.38
	160	14.35	14.38
	170	14.35	14.38
	180	14.35	14.38
Tablet	190	14.42	14.28

Mode	Angle (degrees)	Power measured 2.4GHz-Ch6 (dBm)	
		AUX	MAIN
Tablet	190	14.42	14.28
Notebook	185	14.35	14.38
	186	14.35	14.38
	187	14.35	14.38
	188	14.35	14.38
	189	14.35	14.38
Tablet	190	14.42	14.28
	191	14.42	14.28
	192	14.42	14.28
	193	14.42	14.28
	194	14.42	14.28
	195	14.42	14.28
	200	14.42	14.28
	210	14.42	14.28
	220	14.42	14.28
	230	14.42	14.28
	240	14.42	14.28
	260	14.42	14.28
	270	14.42	14.28
	280	14.42	14.28
	290	14.42	14.28
	300	14.42	14.28
	310	14.42	14.28
	320	14.42	14.28
	330	14.42	14.28
	340	14.42	14.28
	350	14.42	14.28
	360	14.42	14.28

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

Mode	Angle (degrees)	Power measured 2.4GHz-Ch6 (dBm)	
		AUX	MAIN
Tablet	360	14.42	14.28
	350	14.42	14.28
	340	14.42	14.28
	330	14.42	14.28
	320	14.42	14.28
	310	14.42	14.28
	300	14.42	14.28
	290	14.42	14.28
	280	14.42	14.28
	270	14.42	14.28
	260	14.42	14.28
	240	14.42	14.28
	230	14.42	14.28
	220	14.42	14.28
	210	14.42	14.28
	200	14.42	14.28
	190	14.42	14.28
Notebook	180	14.35	14.38
	185	14.35	14.38
Tablet	190	14.42	14.28
Notebook	189	14.35	14.38
	188	14.35	14.38
	187	14.35	14.38
	186	14.35	14.38
	185	14.35	14.38
	184	14.35	14.38
	183	14.35	14.38
	182	14.35	14.38
	181	14.35	14.38
	180	14.35	14.38

Mode	Angle (degrees)	Power measured 2.4GHz-Ch6 (dBm)	
		AUX	MAIN
Notebook	180	14.35	14.38
	170	14.35	14.38
	160	14.35	14.38
	150	14.35	14.38
	140	14.35	14.38
	130	14.35	14.38
	120	14.35	14.38
	110	14.35	14.38
	100	14.35	14.38
	90	14.35	14.38
	80	14.35	14.38
	70	14.35	14.38
	60	14.35	14.38
	50	14.35	14.38
	40	14.35	14.38
	30	14.35	14.38
	20	14.35	14.38
	10	14.35	14.38
Lid close	0	14.35	14.38
Notebook	5	14.35	14.38
	4	14.35	14.38
	3	14.35	14.38
	2	14.35	14.38
	1	14.35	14.38
Lid close	0	14.35	14.38

6.3. Trigger lid angle detection and power verification 5GHz

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

Mode	Angle (degrees)	Power measured 5GHz-Ch120 (dBm)	
		AUX	MAIN
Lid close	0	11.80	11.68
Notebook	10	11.80	11.68
Notebook	5	11.80	11.68
Lid close	0	11.80	11.68
Notebook	1	11.80	11.68
	2	11.80	11.68
	3	11.80	11.68
	4	11.80	11.68
	5	11.80	11.68
	10	11.80	11.68
	20	11.80	11.68
	30	11.80	11.68
	40	11.80	11.68
	50	11.80	11.68
	60	11.80	11.68
	70	11.80	11.68
	80	11.80	11.68
	90	11.80	11.68
	100	11.80	11.68
	110	11.80	11.68
	120	11.80	11.68
	130	11.80	11.68
	140	11.80	11.68
	150	11.80	11.68
	160	11.80	11.68
	170	11.80	11.68
	180	11.80	11.68
Tablet	190	11.73	11.94

Mode	Angle (degrees)	Power measured 5GHz-Ch120 (dBm)	
		AUX	MAIN
Tablet	190	11.73	11.94
Notebook	185	11.80	11.68
	186	11.80	11.68
	187	11.80	11.68
	188	11.80	11.68
	189	11.80	11.68
Tablet	190	11.73	11.94
	191	11.73	11.94
	192	11.73	11.94
	193	11.73	11.94
	194	11.73	11.94
	195	11.73	11.94
	200	11.73	11.94
	210	11.73	11.94
	220	11.73	11.94
	230	11.73	11.94
	240	11.73	11.94
	260	11.73	11.94
	270	11.73	11.94
	280	11.73	11.94
	290	11.73	11.94
	300	11.73	11.94
	310	11.73	11.94
	320	11.73	11.94
	330	11.73	11.94
	340	11.73	11.94
	350	11.73	11.94
	360	11.73	11.94

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

Mode	Angle (degrees)	Power measured 5GHz-Ch120 (dBm)	
		AUX	MAIN
Tablet	360	11.73	11.94
	350	11.73	11.94
	340	11.73	11.94
	330	11.73	11.94
	320	11.73	11.94
	310	11.73	11.94
	300	11.73	11.94
	290	11.73	11.94
	280	11.73	11.94
	270	11.73	11.94
	260	11.73	11.94
	240	11.73	11.94
	230	11.73	11.94
	220	11.73	11.94
	210	11.73	11.94
	200	11.73	11.94
	190	11.73	11.94
Notebook	180	11.80	11.68
	185	11.80	11.68
Tablet	190	11.73	11.94
Notebook	189	11.80	11.68
	188	11.80	11.68
	187	11.80	11.68
	186	11.80	11.68
	185	11.80	11.68
	184	11.80	11.68
	183	11.80	11.68
	182	11.80	11.68
	181	11.80	11.68
	180	11.80	11.68

Mode	Angle (degrees)	Power measured 5GHz-Ch120 (dBm)	
		AUX	MAIN
Notebook	180	11.80	11.68
	170	11.80	11.68
	160	11.80	11.68
	150	11.80	11.68
	140	11.80	11.68
	130	11.80	11.68
	120	11.80	11.68
	110	11.80	11.68
	100	11.80	11.68
	90	11.80	11.68
	80	11.80	11.68
	70	11.80	11.68
	60	11.80	11.68
	50	11.80	11.68
	40	11.80	11.68
	30	11.80	11.68
	20	11.80	11.68
	10	11.80	11.68
Lid close	0	11.80	11.68
Notebook	5	11.80	11.68
	4	11.80	11.68
	3	11.80	11.68
	2	11.80	11.68
	1	11.80	11.68
Lid close	0	11.80	11.68