



EVALUATION REPORT

EUT Description	WLAN and BT, 2x2 PCIe M.2 adapter card
Brand Name	Intel
Model Name	Intel® Dual-Band Wireless-AC 8260
FCC/IC ID	FCC ID: PD98260NGH / PD98260NGHU IC ID: 1000M-8260NGH
Antenna type	SkyCross WIMAX/WLAN Reference Antenna
Hardware/Software Version	HW: TF5 Test SW: DRTU version 1.8.1-01336 Op SW: 18.10.0.19
Features	802.11 a/n/ac Wireless LAN + BT 1.2 (see section 3)
Applicant	Intel Mobile Communications
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Reference Standards	FCC CFR Title 47 Part 1.1310 FCC CFR Title 47 Part 2.1091 (see section 1)
Test Report number	15051101.TR04
Revision Control	Rev. 00

The test results relate only to the samples tested.

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Table of Contents

1. Standards, reference documents and applicable test methods	3
2. General conditions, competences and guarantees.....	3
3. EUT features	3
4. Remarks and comments.....	3
5. Evaluation Verdicts summary.....	4
6. Document Revision History	4
Annex A. Evaluation Description	5
A.1 RF EXPOSURE LIMIT.....	5
Annex B. Results of RF Exposure Evaluation	6
B.1 802.11A/N/AC	6
B.1.1 5.2GHz – U-NII 1	6
B.1.2 5.8GHz – DTS	7
B.2 BLUETOOTH	7
B.2.1 BASIC RATE	7

1. Standards, reference documents and applicable test methods

1. FCC CFR Title 47 Part 1.1310 – Radiofrequency radiation exposure limits.
2. FCC CFR Title 47 Part 2.1091 – Radiofrequency radiation exposure evaluation: mobile devices.

2. General conditions, competences and guarantees

- ✓ Intel Mobile Communications Wireless RF Lab (Intel WRF Lab) is a laboratory competent to perform this evaluation.
- ✓ 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.
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- ✓ 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.
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3. EUT features

These are the detailed bands and modes supported by the Equipment Under Test:

802.11a/n/ac	5.2GHz (5150.0 – 5250.0 MHz)
	5.8GHz (5725.0 – 5850.0 MHz)
BDR v1.0	2.4GHz (2400.0 – 2483.5 MHz)

4. Remarks and comments

1. The conducted output power values presented in this report are the corresponding maximum per band and they are taken from reports 15051101.TR01, 15051101.TR02 and 15051101.TR03.

5. Evaluation Verdicts summary

Mode	Band	Highest Power Density @ 20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11a/n/ac	5.2GHz – U-NII 1	0.081	1.000	P
	5.8GHz – DTS	0.027	1.000	P
Bluetooth	Basic Rate	0.006	1.000	P

P: Pass
F: Fail
NM: Not Measured
NA: Not Applicable

6. Document Revision History

Revision #	Date	Modified by	Details
Rev. 00	2015-05-22	J.M. Fortes	First Issue

Annex A. Evaluation Description

A.1 RF Exposure Limit

The EUT has been evaluated against the requirement of human Maximum Permissible Exposure (MPE) according to the standards and documents detailed in 1. *Standards, reference documents and applicable test methods.*

As per FCC CFR Title 47 Part 2.1091, a mobile device (i.e. transmitting device designed to be used in such way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons) operating in the services covered by Parts 22, 24, 27 and 90 are subject to RF Exposure evaluation according to the limits defined in FCC CFR Title 47 Part 1.1310, Table 1:

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

For the purpose of this evaluation, a minimum distance of 20cm was used to calculate the equivalent plan wave power density, to be compared with the power density limit, according to Friis transmission formula:

$$S_{eq} = \frac{P_{avg} \cdot G}{4 \cdot \pi \cdot R^2}$$

Where:

S_{eq} = Equivalent Plane Wave Power Density

P_{avg} = Source-Based Average Power at antenna terminals

G = Gain of the Transmitting Antenna

R = Distance from the Transmitting Antenna

Annex B. Results of RF Exposure Evaluation

B.1 802.11a/n/ac

B.1.1 5.2GHz – U-NII 1

Antenna Peak Gain = 5dBi

Mode	CH #	Freq [MHz]	Antenna	Avg Power [dBm]	ERP/EIRP Avg [dBm]	ERP/EIRP Avg [mW]	Power density @ 20cm [mW/cm ²]	Limit [mW/cm ²]
802.11a	36	5180	A	18.52	23.52	224.794	0.045	1.00
			B	18.27	23.27	212.220	0.042	1.00
	40	5200	A	18.38	23.38	217.663	0.043	1.00
			B	18.41	23.41	219.172	0.044	1.00
	48	5240	A	21.00	26.00	397.911	0.079	1.00
			B	20.76	25.76	376.518	0.075	1.00
802.11n20	36	5180	A	17.96	22.96	197.835	0.039	1.00
			B	18.79	23.79	239.499	0.048	1.00
			MIMO	19.50	24.50	281.859	0.056	1.00
	40	5200	A	17.97	22.97	198.291	0.039	1.00
			B	17.96	22.96	197.835	0.039	1.00
			MIMO	20.18	25.18	329.414	0.066	1.00
	48	5240	A	21.09	26.09	406.727	0.081	1.00
			B	20.89	25.89	388.421	0.077	1.00
			MIMO	21.00	26.00	398.265	0.079	1.00
802.11n40	38F	5190	A	17.89	22.89	194.443	0.039	1.00
			B	17.41	22.41	174.098	0.035	1.00
			MIMO	19.76	24.76	299.483	0.060	1.00
	46F	5230	A	20.22	25.22	332.501	0.066	1.00
			B	20.37	25.37	344.186	0.068	1.00
			MIMO	20.13	25.13	325.707	0.065	1.00
802.11ac80	42ac80	5210	A	16.92	21.92	155.553	0.031	1.00
			B	16.65	21.65	146.177	0.029	1.00
			MIMO	16.71	21.71	148.115	0.029	1.00

B.1.2 5.8GHz – DTS

Antenna Peak Gain = 5dBi

Mode	CH #	Freq [MHz]	Antenna	Avg Power [dBm]	ERP/EIRP Avg [dBm]	ERP/EIRP Avg [mW]	Power density @ 20cm [mW/cm ²]	Limit [mW/cm ²]
802.11a	149	5745	A	21.06	21.06	127.581	0.025	1.00
			B	21.08	21.08	128.170	0.025	1.00
	157	5785	A	20.97	20.97	124.964	0.025	1.00
			B	20.97	20.97	124.964	0.025	1.00
	165	5825	A	20.88	20.88	122.401	0.024	1.00
			B	20.93	20.93	123.818	0.025	1.00
802.11n20	149	5745	A	20.75	20.75	118.714	0.024	1.00
			B	20.89	20.89	122.603	0.024	1.00
			MIMO	18.13	18.13	65.058	0.013	1.00
	157	5785	A	20.44	20.44	110.535	0.022	1.00
			B	20.93	20.93	123.737	0.025	1.00
			MIMO	18.02	18.02	63.431	0.013	1.00
	165	5825	A	20.85	20.85	121.479	0.024	1.00
			B	20.86	20.86	121.759	0.024	1.00
			MIMO	17.92	17.92	61.987	0.012	1.00
802.11n40	151F	5755	A	20.92	20.92	123.529	0.025	1.00
			B	21.22	21.22	132.363	0.026	1.00
			MIMO	17.98	17.98	62.776	0.012	1.00
	159F	5795	A	21.07	21.07	127.870	0.025	1.00
			B	21.14	21.14	129.947	0.026	1.00
			MIMO	18.16	18.16	65.432	0.013	1.00
802.11ac80	155ac80	5775	A	21.30	21.30	134.859	0.027	1.00
			B	21.00	21.00	125.858	0.025	1.00
			MIMO	18.03	18.03	63.572	0.013	1.00

B.2 Bluetooth

B.2.1 Basic Rate

Antenna Peak Gain = 3.24dBi

Mod.	CH #	Freq [MHz]	Avg Power [dBm]	ERP/EIRP Avg [dBm]	ERP/EIRP Avg [mW]	Power density @ 20cm [mW/cm ²]	Limit [mW/cm ²]
BR GFSK	1	2412	11.30	14.54	28.445	0.006	1.00
	7	2442	11.04	14.28	26.792	0.005	1.00
	13	2472	10.86	14.10	25.704	0.005	1.00