

FCC RF EXPOSURE REPORT

FCC ID: I4L-DN01

Project No. : 2011C074
Equipment : 2.4GHz Transceiver
Brand Name : MSI
Test Model : DN01
Series Model : N/A
Applicant : Micro-Star Int'l Co.,Ltd.
Address : No.69, Lide St., Zhonghe Dist.,New Taipei City 235, Taiwan
Manufacturer : Micro-Star Int'l Co.,Ltd.
Address : No.69, Lide St., Zhonghe Dist.,New Taipei City 235, Taiwan
Factory : Dong Guan You Hong Plastic & Electric Co.,Ltd
Address : Zhen Hua Road, Tie Lu Keng Village,Qi Shi Town,DongGuan city
Date of Receipt : Nov. 10, 2020
Date of Test : Nov. 13, 2020 ~ Nov. 27, 2020
Issued Date : Dec. 25, 2020
Report Version : R01
Test Sample : Engineering Sample No.: DG2020111156
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & KDB447498 D01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Vincent Tan

Prepared by : Vincent Tan

Ethan Ma

Approved by : Ethan Ma



Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town,Dongguan, Guangdong, China.

Tel: +86-769-8318-3000

Web: www.newbtl.com

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Dec. 15, 2020
R01	Changed the information of applicant and manufacturer.	Dec. 25, 2020

1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2. GENERAL CONCLUSION

According to FCC KDB447498 D01, Appendix A, SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

**Appendix A - SAR Test Exclusion Thresholds for 100 MHz - 6 GHz
and ≤ 50 mm**

MHz	5	10	15	20	25	30	35	40	45	50	mm
150	39	77	116	155	194	232	271	310	349	387	SAR Test Exclusion Thresholds (mW)
300	27	55	82	110	137	164	192	219	246	274	
450	22	45	67	89	112	134	157	179	201	224	
835	16	33	49	66	82	98	115	131	148	164	
900	16	32	47	63	79	95	111	126	142	158	
1500	12	24	37	49	61	73	86	98	110	122	
1900	11	22	33	44	54	65	76	87	98	109	
2450	10	19	29	38	48	57	67	77	86	96	
3600	8	16	24	32	40	47	55	63	71	79	
5200	7	13	20	26	33	39	46	53	59	66	
5400	6	13	19	26	32	39	45	52	58	65	
5800	6	12	19	25	31	37	44	50	56	62	

3. TABLE FOR FILED ANTENNA

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	N/A	IBM 2.4 GHz	Internal	N/A	-2.36

Note:

The antenna gain is provided by the manufacturer.

4. TEST RESULTS

Tune up tolerance (dBm)
≤0.0

Max. Output Power (dBm)	Max. Output Power (mW)	Limit (mW)
0.0	1.0	10

Note:

(1) Output power including tune up tolerance.

(2) The maximum measured output peak power of this EUT is 1.0mW, less than 10mW at 5mm distance.

Conclusion: No SAR evaluation required since transmitter power is below FCC threshold.

End of Test Report