



# MPE REPORT

According to  
**CFR47 §1.1307(b)(1)& §2.1091& RSS-102 issue 5**

**Applicant** : Mitac Digital Technology Corporation  
**Address** : No. 200, Wen Hwa 2nd Rd., Kuei Shan Dist. 33383 Taoyuan City, TAIWAN  
**Manufacturer** : Mitac Computer (Kunshan) Co., Ltd.  
**Address** : No. 269, 2nd Avenue, District A, Comprehensive Free Trade Zone, 215300  
Kunshan, Jiangsu, PEOPLES REPUBLIC OF CHINA  
**Equipment** : Tablet  
**Model No.** : N642  
**FCC ID** : P4Q-N642-M1005  
**IC** : 2420C-N642-M1005

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of *Cerpass Technology (Suzhou) Co., Ltd.*, the test report shall not be reproduced except in full.
- The test report must not be used by the clients to claim product certification approval by any agency of the Government.

**I HEREBY CERTIFY THAT :**

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.10 – 2013&FCC Part 1.1307(b)(1)&FCC Part 2.1091&RSS-Gen issue 5&RSS-102 issue 5** and the energy emitted by this equipment was **passed**.

Approved by:

Miro Chueh  
EMC/RF Manager

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory



**TAF LAB Code: 1439**

Cerpass Technology (SuZhou) Co., Ltd.



**A2LA LAB Code: 4981.01**



## MAXIMUM PERMISSIBLE EXPOSURE (MPE)

### LIMIT

According to subpart 15.247 (i) , subpart 1.1307 (b)(1) and subpart 2.1091, systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/		f/1500	30
1500-100,000	/		1.0	30

Note: f = frequency in MHz; \* = Plane - wave equivalent power density



## **CALCULATED FORMULARY**

### **Calculation**

*Predication of MPE limit at a given distance*

$$S = PG/4\pi R^2$$

*S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);*

*P = power input to the antenna (in appropriate units, e.g., mW);*

*G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;*

*R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);*

*For simultaneously transmit system, the calculated power density should comply with:*

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

**TEST RESULTS**

Modulation Mode	Frequency band (MHz)	Max. Conducted output power(dBm)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
DH5	2400-2483.5	0.60	4.35	20	0.0010	1	Pass
2DH5	2400-2483.5	0.69	4.35	20	0.0010	1	Pass
3DH5	2400-2483.5	1.43	4.35	20	0.0012	1	Pass
BLE	2400-2483.5	0.15	4.35	20	0.0009	1	Pass

Modulation Mode	Frequency band (MHz)	Max. Conducted output power(dBm)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
802.11b	2400-2483.5	19.24	4.35	20	0.07	1	Pass
802.11g	2400-2483.5	24.53	4.35	20	0.25	1	Pass
802.11n HT20	2400-2483.5	24.58	4.35	20	0.25	1	Pass
802.11n HT40	2400-2483.5	24.80	4.35	20	0.26	1	Pass

Modulation Mode	Frequency band (MHz)	Max. Conducted output power(dBm)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
802.11a	5150-5350	18.42	2.91	20	0.04	1	Pass
	5470-5725	16.80	4.33	20	0.04	1	Pass
	5725-5850	14.15	5.41	20	0.03	1	Pass
802.11n HT20	5150-5350	18.48	2.91	20	0.04	1	Pass
	5470-5725	16.82	4.33	20	0.04	1	Pass
	5725-5850	14.18	5.41	20	0.03	1	Pass
802.11n HT40	5150-5350	18.41	2.91	20	0.04	1	Pass
	5470-5725	17.04	4.33	20	0.04	1	Pass
	5725-5850	13.29	5.41	20	0.02	1	Pass

\*\*\*\*\* END OF REPORT \*\*\*\*\*