



MPE TEST REPORT

FCC Per 47 CFR 2.1091(b)

Report Reference No.....: TRE1204008402

FCC ID.....: NMTBPU321

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Date of issue.....: Sep 12, 2012

Testing Laboratory Name: Shenzhen Huatongwei International Inspection Co., Ltd

Address.....: Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China

Applicant's name.....: IDT Technology Limited

Address.....: Chentian Industrial Estate, Xixiang , Bao An, Shenzhen, PRC

Test specification:

Standard.....: **FCC Per 47 CFR 2.1091(b)**

TRF Originator.....: Shenzhen Huatongwei International Inspection CO., Ltd

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Test item description: Blood Pressure Meter

Trade Mark.....: /

Model/Type reference.....: BPU321

Listed Models.....: /

Operation Frequency.....: From 2400MHz to 2483.5MHz

Result.....: **Positive**

MPE TEST REPORT

Test Report No. :	TRE1204008402	Sep 12, 2012
		Date of issue

Equipment under Test : Blood Pressure Meter

Model /Type : BPU321

Listed Models : /

Applicant : **IDT Technology Limited**

Address : Chentian Industrial Estate, Xixiang , Bao An, Shenzhen,
PRC

Manufacturer : **IDT Technology Limited**

Address : Chentian Industrial Estate, Xixiang , Bao An, Shenzhen,
PRC

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Contents

1.	<u>SUMMARY</u>	<u>4</u>
1.1.	EUT configuration	4
1.2.	NOTE	4
2.	<u>TEST ENVIRONMENT.....</u>	<u>5</u>
2.1.	Address of the test laboratory	5
2.2.	Environmental conditions	5
2.3.	Statement of the measurement uncertainty	5
3.	<u>METHOD OF MEASUREMENT</u>	<u>5</u>
3.1.	Applicable Standard	5
3.2.	Limit	6
3.3.	MPE Calculation Method	6
4.	<u>CONCLUSION</u>	<u>6</u>

1. SUMMARY

1.1. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

<input type="radio"/>	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
<input type="radio"/>	Multimeter	Manufacturer :	/
		Model No. :	/

1.2. NOTE

1. The EUT is a Blood Pressure Meter, The functions of the EUT listed as below:

	Test Standards	Reference Report
Bluetooth 4.0	FCC Part 15 Subpart C (Section15.247)	TRE1204008401
MPE REPORT	FCC Per 47 CFR 2.1091(b)	TRE1203008402

2. The frequency bands used in this EUT are listed as follows:

Frequency Band(MHz)	2400-2483.5	5150-5350	5470-5725	5725-5850
Bluetooth	√	—	—	—

3. The EUT provides one completed transmitter and receiver.

Modulation Mode	TX Function
Bluetooth	1TX

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen Huatongwei International Inspection Co., Ltd
Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Phone: 86-755-26715686 Fax: 86-755-26748089

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2009) and CISPR Publication 22.

2.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

2.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.57 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

3. Method of measurement

3.1. Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

3.2. Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

3.3. MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the antenna is -1.0 dBi, the RF power density can be obtained.

TEST RESULTS

Test Frequency (MHz)	Minimum Separation Distance (cm)	Output Power (dBm)	Output Power (mW)	Antenna Gain (Numeric)	Power Density Limit (mW/cm ²)	Power Density At 20 cm (mW/cm ²)	Test Results
2402	20.00	1.24	1.330	0.794	1.000	0.000210	Pass
2440	20.00	1.30	1.349	0.794	1.000	0.000213	Pass
2480	20.00	0.91	1.233	0.794	1.000	0.000195	Pass

4. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure.

.....**End of Report**.....