EMF REPORT

No. 2013EEB00520-EMF

For

BDE Technology Co., Ltd.

BDE Bluetooth 4.0 Single Mode HCI Module

Model Name: BDE-BLEM101A

Marketing Name: BDE-BLEM101A

FCC-ID: 2ABRUBDLEM101A

With

Hardware Version: 1.1

Software Version: 08

Issued Date: 2014-03-20

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

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Test Laboratory

1.1 Testing Location

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1.4 Signature

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According to KDB 447498 D01: Assessment of the compliance of low power electronic and electrical equipment with the basic restriction related to human exposure to electromagnetic fields (10MHz to 6GHz),

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[16] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[17]
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

The Approximate SAR Test Exclusion Power Thresholds of the table below can be calculated According to the above formulas.

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	SAR Test
1900	11	22	33	44	54	Exclusion
2450	10	19	29	38	48	Threshold (mW)
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

For this device,The maximum output power of BT antenna is 1.28 dBm,The minimum separation distance is 5mm.

The maximum output power in low channel of BT is 0.86 dBm=1.22 mW<10 mW

The calculation results=(1.22/5)* √2.402=0.38<3

The maximum output power in middle channel of BT is 0.92 dBm=1.24 mW<10 mW

The calculation results=(1.24/5)* √2.440=0.39<3

The maximum output power in high channel of BT is 1.28 dBm=1.34 mW<10 mW

The calculation results=(1.34/5)* √2.480=0.42<3

So it meets the basic restriction to human exposure to electromagnetic fields.