

FCC RF Exposure Report

FCC ID : MXF-BC4GMCPG
Equipment : Router Wireless 4G
Model No. : BC-4GMCPGa
Brand Name : Blu-Castle
Applicant : Gemtek Technology Co., Ltd.
Address : No. 15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan, 30352.
Standard : 47 CFR FCC Part 2.1091
Received Date : Nov. 05, 2016
Tested Date : Nov. 22 ~ Nov. 25, 2016

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:


Along Chen / Assistant Manager

Approved by:


Gary Chang / Manager



Table of Contents

1	MPE EVALUATION OF MOBILE DEVICES	4
1.1	LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE.....	4
1.2	MPE EVALUATION FORMULA	4
1.3	MPE EVALUATION RESULTS	5
2	TEST LABORATORY INFORMATION	8

Release Record

Report No.	Version	Description	Issued Date
FA6N0501	Rev. 01	Initial issue	Dec. 20, 2016

1 MPE EVALUATION OF MOBILE DEVICES

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm ²)	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1.0	30

1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4 * \pi * R^2}$$

Where

Pd= Power density in mW/cm²
Pt= EIRP in mW
Pi= 3.1416
R= Measurement distance

1.3 MPE EVALUATION RESULTS

GPRS / EGPRS: Frequency band: 850 MHz

Mode	Maximum Peak Conducted Power (dBm)	Time slot	Maximum Average Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
GPRS 8 (GMSK, 1 slot)	32.93	1	23.90	2.5	20	0.087	0.549
GPRS 10 (GMSK, 2 slots)	32.88	2	26.86	2.5	20	0.172	0.549
GPRS 11 (GMSK, 3 slots)	32.75	3	28.49	2.5	20	0.250	0.549
GPRS 12 (GMSK, 4 slots)	32.57	4	29.56	2.5	20	0.320	0.549
EDGE 8 (8PSK, 1 slot)	29.90	1	20.87	2.5	20	0.043	0.549
EDGE 10 (8PSK, 2 slots)	29.80	2	23.78	2.5	20	0.084	0.549
EDGE 11 (8PSK, 3 slots)	29.76	3	25.50	2.5	20	0.126	0.549
EDGE 12 (8PSK, 4 slots)	29.72	4	26.71	2.5	20	0.166	0.549
GPRS 30 (GMSK, 1 slot)	32.91	1	23.88	2.5	20	0.086	0.549
GPRS 31 (GMSK, 2 slots)	32.88	2	26.86	2.5	20	0.172	0.549
GPRS 32 (GMSK, 3 slots)	32.75	3	28.49	2.5	20	0.250	0.549
GPRS 33 (GMSK, 4 slots)	32.57	4	29.56	2.5	20	0.320	0.549
EDGE 30 (8PSK, 1 slot)	29.88	1	20.85	2.5	20	0.043	0.549
EDGE 31 (8PSK, 2 slots)	29.81	2	23.79	2.5	20	0.085	0.549
EDGE 32 (8PSK, 3 slots)	29.78	3	25.52	2.5	20	0.126	0.549
EDGE 33 (8PSK, 4 slots)	29.71	4	26.70	2.5	20	0.165	0.549

GPRS / EGPRS: Frequency band: 1900 MHz

Mode	Maximum Peak Conducted Power (dBm)	Time slot	Maximum Average Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
GPRS 8 (GMSK, 1 slot)	30.17	1	21.14	2.5	20	0.046	1.000
GPRS 10 (GMSK, 2 slots)	30.13	2	24.11	2.5	20	0.091	1.000
GPRS 11 (GMSK, 3 slots)	30.06	3	25.80	2.5	20	0.135	1.000
GPRS 12 (GMSK, 4 slots)	29.93	4	26.92	2.5	20	0.174	1.000
EDGE 8 (8PSK, 1 slot)	28.24	1	19.21	2.5	20	0.029	1.000
EDGE 10 (8PSK, 2 slots)	28.21	2	22.19	2.5	20	0.059	1.000
EDGE 11 (8PSK, 3 slots)	28.11	3	23.85	2.5	20	0.086	1.000
EDGE 12 (8PSK, 4 slots)	28.07	4	25.06	2.5	20	0.113	1.000
GPRS 30 (GMSK, 1 slot)	30.15	1	21.12	2.5	20	0.046	1.000
GPRS 31 (GMSK, 2 slots)	30.11	2	24.09	2.5	20	0.091	1.000
GPRS 32 (GMSK, 3 slots)	30.02	3	25.76	2.5	20	0.133	1.000
GPRS 33 (GMSK, 4 slots)	29.95	4	26.94	2.5	20	0.175	1.000
EDGE 30 (8PSK, 1 slot)	28.22	1	19.19	2.5	20	0.029	1.000
EDGE 31 (8PSK, 2 slots)	28.17	2	22.15	2.5	20	0.058	1.000
EDGE 32 (8PSK, 3 slots)	28.12	3	23.86	2.5	20	0.086	1.000
EDGE 33 (8PSK, 4 slots)	28.04	4	25.03	2.5	20	0.113	1.000

WCDMA

Mode	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WCDMA 850	25.85	2.5	20	0.136	1
WCDMA 1900	25.59	2.5	20	0.128	1

2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin
Kou District, New Taipei City,
Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St.,
Kwei Shan District, Tao Yuan City
333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==