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<http://www.digitalemcc.com>

CERTIFICATE OF COMPLIANCE
FCC Part 15C Certification

Dates of Tests: December 4 ~ 8, 2006
Test Report S/N: DR50110612F
Test Site : DIGITAL EMC CO., LTD.

FCC ID.

TL7GP-R2000

APPLICANT

GREAT PLEASURE ELECTRONICS CO., LTD.

FCC Classification	:	Low Power Communication Device Transmitter
Device name	:	27MHz Wireless Keyboard
Manufacturer	:	GREAT PLEASURE ELECTRONICS CO., LTD
Model name	:	GP-R2000
Test Device Serial number	:	Identical prototype
FCC Rule Part(s)	:	FCC Part 15.227 Subpart C; ANSI C-63.4-2003
Frequency Band	:	27.045 MHz
Data of issue	:	December 27, 2006

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



NVLAP LAB CODE 200559-0

TABLE OF CONTENTS

1. GENERAL INFORMATION’S ----- 3

2. INFORMATION’S ABOUT TEST ITEM ----- 4

3. TEST REPORT ----- 5

 3.1 SUMMARY OF TESTS ----- 5

 3.2 TRANSMITTER REQUIREMENTS ----- 6

 3.2.1 RADIATED EMISSION ----- 6

 3.2.2.1 THE FIELD STRENGTH OF ANY EMISSION WITHIN THE BAND 26.96–27.28 MHz. ---- 7

 3.2.2.2 OUT OF BAND EMISSION ----- 8

 3.2.2 ADDITIONAL PROVISIONS THO THE GENERAL RADIATED EMISSION LIMITATIONS - 9

ANNEX TEST EQUIPMENT USED FOR TESTS ----- 10

1. General information's

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

Address : 683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080

<http://www.digitalemc.com> E-mail : demc@unitel.co.kr

Tel: +82-31-321-2664 Fax: +82-31-321-1664

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competents of calibration and testing laboratory."

This laboratory is accredited by NVLAP and NVLAP Lab. Code is 200559-0.

Test operator: engineer

December 26, 2006

Won -Jong LEE

Data

Name

Signature

Report Reviewed By: manager

December 26, 2006

Harvey Sung

Data

Name

Signature

Ordering party:

Company name : GREAT PLEASURE ELECTRONICS CO., LTD
Address : 604, Taeon Top Plaza, B2-11BL, Jinan-Li, Taeon-Eup, Huasung-Si
Zip code : 445-972
City/town : Kyunggi-Do
Country : Korea
Date of order : October 30, 2006

2. Information's about test item

TL7GP-M6000

2.1 Equipment information

Equipment model name	GP-R2000
Type of equipment	27MHz Wireless Keyboard
Frequency band	27.045 MHz
Type of Modulation	FSK
Physical channel	1 CH
Power	DC 3 V (By AA size Battery * 2EA)

2.2 Tested environment

Temperature	: 15 ~ 35 (°C)
Relative humidity content	: 20 ~ 75 %
Air pressure	: 86 ~ 103 kPa
Details of power supply	: DC 3 V (By AA size Battery * 2EA)

2.3 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
-	-	-	-
-	-	-	-
-	-	-	-

2.4 EMI Suppression Device(s)/Modifications

None

3. Test Report

3.1 Summary of tests

FCC Part Section(s)	Parameter	Status (note 1)
Transmitter requirements		
15.227(a)	Radiated Emission - The field strength of any emission within the band 26.96–27.28 MHz.	C
15.227(b) / 15.209	Radiated Emission - Out of Band Emissions	C
15.215	Additional provisions to the general radiated emission limitations.	C
15.207	Conducted Emissions Limits	NA
Note 1: C= Complies NC=Not Complies NT=Not Tested NA=Not Applicable		

The sample was tested according to the following specification:

FCC Parts 15.227, 15.215; ANSI C-63.4-2003

3.2 Transmitter requirements

3.2.1 Radiated Emission

Procedure:

The EUT was placed on a 0.8m high wooden table inside a shielded enclosure. An antenna was placed near the EUT and measurements of frequencies and amplitudes of field strengths were recorded for reference during final measurements. For final radiated testing, measurements were performed in a OATS. Measurements were performed with the EUT oriented in 3 orthogonal axis and rotated 360 degrees to determine worst-case orientation for maximum emissions.

The spectrum analyzer is set to:

Frequency Range = 27 MHz ~ 10th harmonic.

RBW = 120 kHz (30MHz ~ 1 GHz)

= 1 MHz (1 GHz ~ 10th harmonic)

Trace = max hold

Sweep = auto

VBW $\geq$ RBW

Detector function = peak / Quasi-peak / average

Measurement Data:

- Refer to the Next page

Minimum Standard: FCC Part 15.227 / 15.209

Frequency (MHz)	Limit (uV/m) @ 3m
26.96–27.28	< 10000
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

3.2.1.1 The field strength of any emission within the band 26.96–27.28 MHz.

Measurement Data: **Complies**

1. Test mode : Tx mode

Frequency (MHz)	Read Level (dBuV)		Factor (dB)	Result Level (dBuV)		Limit (dBuV)		Margin (dB)	
	PK	AV		PK	AV	PK	AV	PK	AV
27.045	77.94	77.88	-19.39	58.55	58.49	100	80	41.45	21.51

Remark :

1. Factor = Antenna Factor + Cable Loss - Preamp Factor
2. Result Level = Read Level + Factor
3. Margin = Limit – Result Level

Minimum Standard: FCC Part 15.227

Frequency (MHz)	Limit (uV/m) @ 3m / average detector
26.96–27.28	< 10000

3.2.1.2 Out of Band Emissions

Measurement Data: **Complies**

Frequency (MHz)	Pol	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
42.13	H	50.67	-13.17	37.50	40.00	2.50
42.13	V	45.57	-13.17	32.40	40.00	7.60
56.68	H	49.62	-18.22	31.40	40.00	8.60
71.23	H	51.25	-20.25	31.00	40.00	9.00
83.35	H	52.68	-19.18	33.50	40.00	6.50
97.90	H	42.97	-16.47	26.50	43.50	17.00
112.45	H	45.15	-14.15	31.00	43.50	12.50
139.13	H	35.86	-11.36	24.50	43.50	19.00
151.25	H	35.57	-10.47	25.10	43.50	18.40
165.80	H	34.77	-9.27	25.50	43.50	18.00
192.48	H	37.39	-8.29	29.10	43.50	14.40
207.03	H	37.92	-8.02	29.90	43.50	13.60
219.15	H	38.53	-7.53	31.00	46.00	15.00

- Remark :

1. Factor = Antenna Factor + Cable Loss - Preamp Factor
2. Result Level = Read Level + Factor
3. Margin = Limit – Result Level

Minimum Standard: FCC Part 15.209

Frequency (MHz)	Limit (uV/m) @ 3m
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

3.2.2 Additional provisions to the general radiated emission limitations.

Procedure: Part 15.215

The transmitter is connected to the spectrum analyzer.

The spectrum analyzer is set to:

Frequency Range = 27.045MHz

RBW = 10 kHz

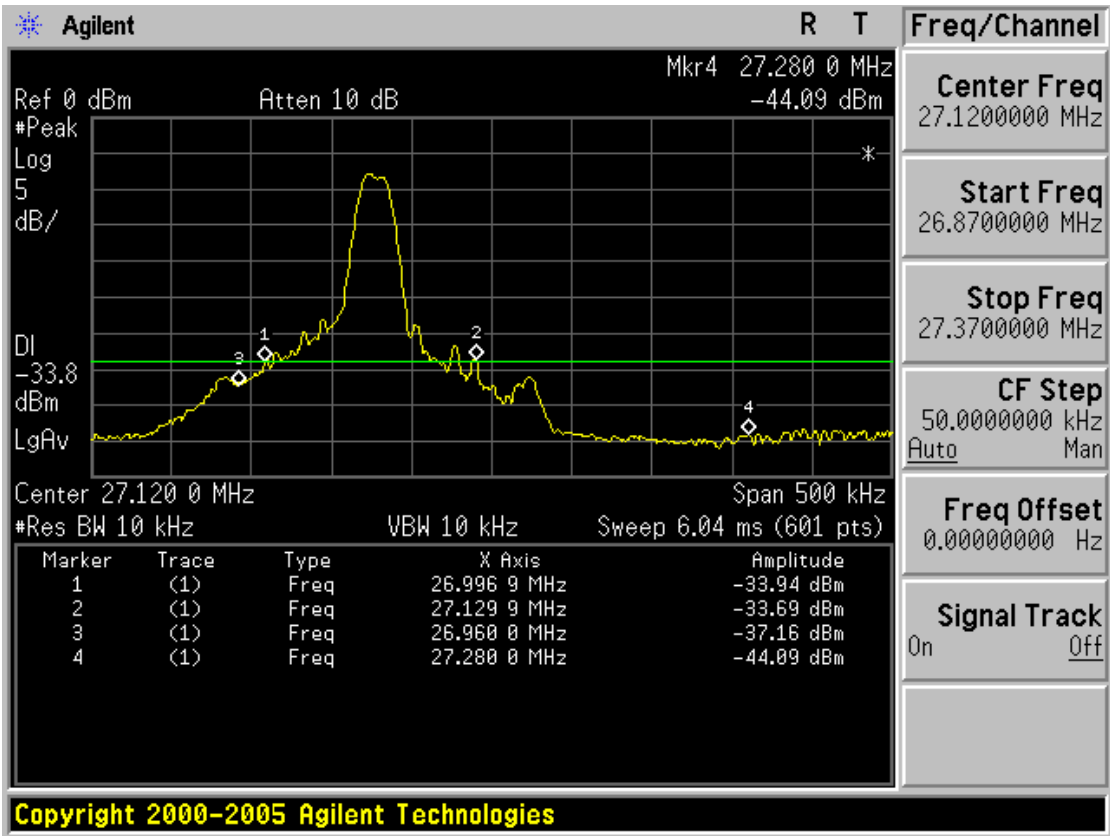
VBW ≥ RBW

Trace = max hold

Detector function = peak

Sweep = auto

Measurement Result: **Complies**



APPENDIX

TEST EQUIPMENT USED FOR TESTS

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment.

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	S/N
01	Spectrum Analyzer	Agilent	E4404B	21/03/07	US41061134
02	Spectrum Analyzer	Agilent	E4440A	14/11/07	MY45304199
03	Spectrum Analyzer	H.P	8563E	06/10/07	3551A04634
04	Power Meter	H.P	EPM-442A	06/07/07	GB37170413
05	Power Sensor	H.P	8481A	23/03/07	3318A96332
06	Frequency Counter	H.P	5342A	15/09/07	2119A04450
07	Multifunction Synthesizer	H.P	8904A	12/10/07	3633A08404
08	Signal Generator	Rohde Schwarz	SMR20	22/03/07	101251
09	Signal Generator	H.P	E4421A	06/07/07	US37230529
10	Audio Analyzer	H.P	8903B	06/07/07	3011A0944B
11	Modulation Analyzer	H.P	8901B	10/07/07	3028A03029
12	Oscilloscope	Tektronix	TDS3052	01/10/07	B016821
13	8960 Series 10 Wireless Comms Test Set	Agilent	Z5515C	13/06/08	GB43461134
14	Universal Radio Communication Test	Rohde Schwarz	CMU200	21/03/07	107631
15	CDMA Mobile Station Test Set	H.P	8924C	15/09/07	US35360688
16	PCS Interface	HP	83236B	15/09/07	3711J03014
17	Multi system UE Tester	Japan Radid Co., Ltd	NJZ-2000	20/11/07	ET00095
18	Power Splitter	WEINSCHEL	1593	14/10/07	332
19	BAND Reject Filter	Microwave Circuits	N0308372	19/10/07	3125-01DC0312
20	BAND Reject Filter	Wainwright	WRCG1750	19/10/07	SN2
21	AC Power supply	DAEKWANG	5KVA	21/03/07	N/A
22	DC Power Supply	H.P	6622A	20/03/07	465487
23	HORN ANT	EMCO	3115	04/04/07	6419
24	HORN ANT	EMCO	3115	04/25/07	21097
25	HORN ANT	A.H.Systems	SAS-574	16/08/07	154
26	HORN ANT	A.H.Systems	SAS-574	16/08/07	155
27	Dipole Antenna	Schwarzbeck	VHA9103	18/11/07	2116
28	Dipole Antenna	Schwarzbeck	VHA9103	18/11/07	2117
29	Dipole Antenna	Schwarzbeck	UHA9105	18/11/07	2261
30	Dipole Antenna	Schwarzbeck	UHA9105	18/11/07	2262
31	Loop Antenna	ETS	6502	23/11/07	3471

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	S/N
32	TEMP & HUMIDITY Chamber	JISCO	J-RHC2	13/09/07	021031
33	RFI/FIELD Intensity Meter	Kyorits	KNM-504D	21/07/07	4N-161-4
34	Frequency Converter	Kyorits	KCV-604C	21/07/07	4-230-3
35	Log Periodic Antenna	Schwarzbeck	UHALP9108A1	26/09/07	1098
36	Biconical Antenna	Schwarzbeck	VHA9103	12/09/07	2233
37	Digital Multimeter	H.P	34401A	18/04/07	3146A13475
38	Attenuator (10dB)	WEINSCHTEL	23-10-34	26/01/07	BP4386
39	High-Pass Filter	ANRITSU	MP526	13/10/07	M27756
40	Attenuator (3dB)	Agilent	8491B	10/07/07	58177
41	Attenuator (10dB)	WEINSCHTEL	23-10-34	26/01/07	BP4387
42	Attenuator (30dB)	H.P	8498A	17/10/07	50101
43	Amplifier (25dB)	Agilent	8447D	12/04/07	2944A10144
44	Amplifier (30dB)	Agilent	8449B	13/10/07	3008A01590
45	Position Controller	TOKIN	5901T	N/A	14173
46	Driver	TOKIN	5902T2	N/A	14174
47	Spectrum Analyzer	H.P	8591E	21/03/07	3649A05889
48	RFI/FIELD Intensity Meter	Kyorits	KNW-2402	11/07/07	4N-170-3
49	LISN	Kyorits	KNW-407	19/08/07	8-317-8
50	LISN	Kyorits	KNW-242	09/10/07	8-654-15
51	CVCF	NF Electronic	4400	N/A	344536 4420064
52	Software	ToYo EMI	EP5/RE	N/A	Ver 2.0.800
53	Software	ToYo EMI	EP5/CE	N/A	Ver 2.0.801
54	Software	AUDIX	e3	N/A	Ver 3.0
55	Software	Agilent	Benchlink	N/A	A.01.09 021211