RADIOFREQUENCY RADIATION EXPOSURE REPORT

Mobiles /Fixed Base Station
Maximum Permissible Exposure (MPE)

OF

Product Name:	**GPS TRACKING AND ALARM SYSTEM**
Brand Name:	**N/A**
Model Name:	**GT-8500**
FCC ID:	**TBQGT-8500**
GSM Module ID:	**PY76220511**
Report No.:	**ER/2005/50030-01**
Issue Date:	**Jun. 08, 2005**
FCC Rule Part:	**47CFR 1.1310**
Prepared for	**Portman Electronics (Shenzhen)**
	9th Building, Tong Fuyu Industrial Park, Longhua, Baoan, Shenzhen 518109, China

Test By: Willis Chen ***Date*** Jun. 28, 2005

Willis Chen

Approved By Vincent Su ***Date*** Jun. 28, 2005

Vincent Su

Table of Contents

1. GENERAL INFORMATION

1.1 Product Description

Product	GPS TRACKING AND ALARM SYSTEM	
Model Name	GT-8500	
Model Difference:	N/A	
Brand Name	N/A	
Frequency Range and Power	TX: 824.2 MHz – 848.8 MHz	33 dBm
	TX: 1850.2MHz –1909.8MHz	30 dBm
Type of Emission	300KGXW	
Power Supply	12V DC by Car Battery	
Antenna Type	850MHz and 1900MHz: Dipole Antenna, 2 dBi	

1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **TBQGT-8500** filing to comply with Section Part 22, subpart H of the FCC CFR 47 Rules. For 47 CFR 1.1310 Radiofrequency Radiation Exposure requirement.

1.3 Test Methodology

The testing were performed according to the procedures document on IEEE C95.1,chapter 13 of ANSI C63.4 (2003) and TIA/EIA-603-1-1998.

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the address of SGS Taiwan Ltd. No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2001 and CISPR 22/EN 55022 requirements. Site No. 1(3 &10 meters) Registration Number: 94644, Anechoic chamber (3 meters) Registration Number: 573967

1.5 Special Accessories

Not available for this EUT intended for grant.

1.6 Equipment Modifications

Not available for this EUT intended for grant.

2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode link mode with GSM/GPRS Base station. the Tx frequency was fixed which was for the purpose of the measurements with max output power level..

2.3 Test Procedure

Maximum Permissible Exposure (MPE) measurement:

In accordance with ANSI 63.4:2003, the EUT is a placed on as turn table which is 1 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 20 cm away from the receiving probe In order to find out the max. emission, the ambient temperature of the actual EUT was maintained within the range of 10 to 40 C unless the particular equipment requirements specify testing over a different temperature range, unless otherwise indicated, the humidity levels where in the range of 10% to 90% relative humidity.

2.4 Limitation

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-15000	/	/	1.0	30

F = frequency in MHz

* = Plane-wave equipment power density

2.5 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

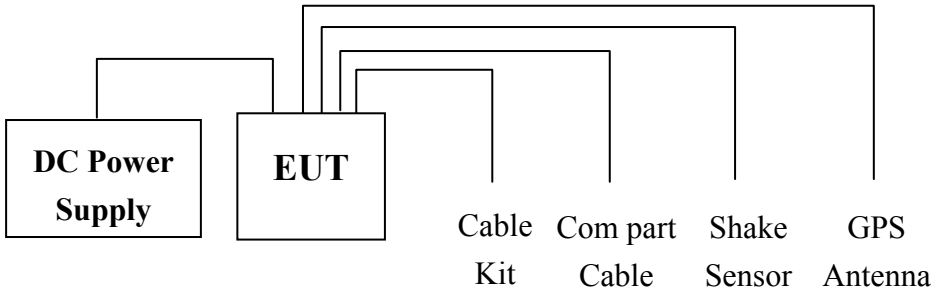


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	FCC ID	Series No.	Data Cable	Power Cord
1.	Power supply	N/A	3303A	N/A	N/A	Non-shielded	Non-shielded

3. Description of test modes

The EUT has been tested under normal operating link mode with GSM/GPRS Base Station. condition. the Tx frequency was fixed which was for the purpose of the measurements with max output power level.

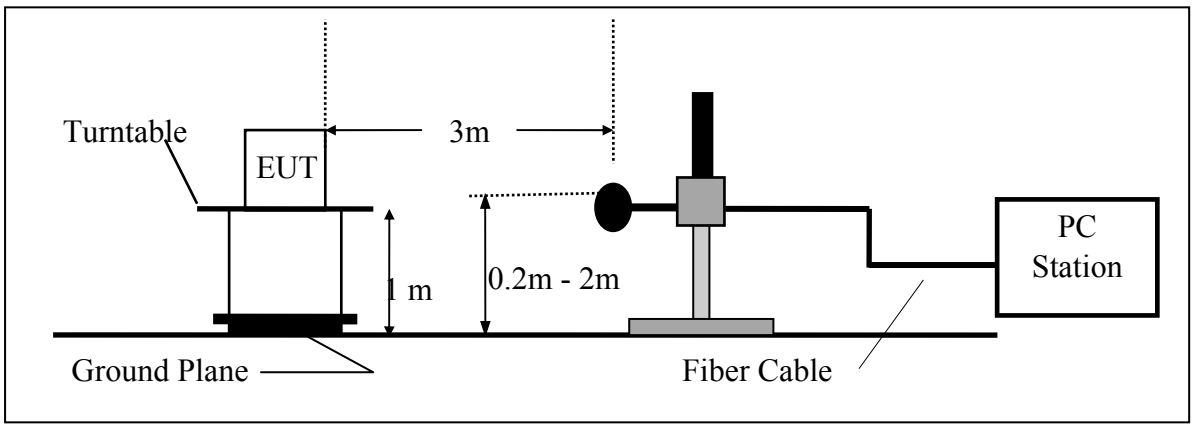
The GSM 850 channel 128 (channel Lowest) which has the max conducted power level was chosen for testing and reported.

4. Maximum Permissible Exposure (MPE) Measurement

4.1.Measurement Procedure:

1. The following measurements were performed with a field probe using
2. The EUT's radiating element (antenna) was placed on a 1 m tall table for ease of testing. For equipment normally operated on a metal surface, a ground plane was used.
3. The remaining equipment necessary to operate the EUT was maintained at a distance from the measurement arrangement suitable to minimize interference with the measurements.
4. With the EUT operating at maximum power, a search was initiated for worst case emissions with the probe raised and lowered over a range of 0.2 to 2 meters in height and over a horizontal plane of 0o to 360o.

4.2.Test SET-UP (Block Diagram of Configuration)



4.3.Measurement Equipment Used:

966 Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
STRENGTH FIELD Meter	WG	EMR-30	BN2244/80	10/30/2004	10/29/2005
Turn Table	HD	DT420	N/A	N/A	N/A
Antenna Tower	HD	MA240-N	240/657	N/A	N/A
Controller	HD	HD100	N/A	N/A	N/A

4.4.Measurement Result:

Operation Mode : TX CH Low Mode
Fundamental Frequency : 824.2 MHz
Temperature : 25℃

Test Date : Jun. 28, 2005
Test By : Willis
Humidity : 65%

Probe Height (m)	Power Density (mW/cm^2)	Limit at 20cm (mW/cm^2)
2.0	0.0012	1.0
1.8	0.0012	1.0
1.6	0.0038	1.0
1.4	0.0070	1.0
1.2	0.0120	1.0
1.0	0.0135	1.0
0.8	0.0093	1.0
0.6	0.0080	1.0
0.4	0.0049	1.0
0.2	0.0024	1.0

APPENDIX 1

PHOTOGRPHS OF SET UP

Setup Photos