# RF Exposure Evaluation declaration

## **Primary Communications, Inc.**

**EUT:** 

**Mobile Phone Bluetooth Docking Device** 

**Model Number:** 

**U118** 

FCC ID:

**V5C-PMC88U118** 

**Prepared for:** 

**Primary Communications, Inc.** 2430 W. Mulberry Dr., Chandler, AZ 85248, USA

Report By: Global EMC Standard Tech. Corp.

> No.3 Pau-Tou-Tsuo Valley, Chia-Pau Tsuen, Lin Kou Hsiang, Taipei County,

Taiwan, R.O.C.

Tel: 886-2-2603-5321 Fax: 886-2-2603-5325

- 1. Test results given in this report only relate to the specimen(s) tested, measured.
- 2. This report is the property of GesTek, and shall not be reproduced, other than in full, without the written consent of GesTek.
- 3. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.
- 4.All data in this report are traceable to national standard or international standard.

#### 1. **RF Exposure Evaluation**

#### 1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time	
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm <sup>2</sup> )	(Minutes)	
(A) Limits for Occupational/ Control Exposures					
300-1500			F/300	6	
1500-100,000			5	6	
(B) Limits for General Population/ Uncontrolled Exposures					
300-1500			F/1500 6		
1500-100,000			1	30	

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $Pd = (Pout*G)/(4*pi*r^2)$ 

Where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

#### 1.2. **Test Procedure**

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

GESTEK Lab	Report No.: 0	802014R-01
NO.3. Pau-Tou-Tsuo Valley, Chia-Pau Tsuen, Lin Kou Hsiang, Taipei County, Taiwan, R.O.C.	Tel:886-2-2603-5321 Fax:8	886-2-2603-5325

## 1.3. Test Result of RF Exposure Evaluation

	March 07, 2008		22.5 deg/C
EUT	Mobile Phone Bluetooth Docking Device	Humidity	47 %RH
Working Cond.	TX Mode		

### **Antenna Gain**

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1dBi or 1.26 in linear scale.

### **Output Power Into Antenna & RF Exposure Evaluation Distance:**

Channel No.	Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm²)
1	2402.00	0.7482	0.0002
40	2441.00	0.6934	0.0002
79	2480.00	0.7211	0.0002

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm<sup>2</sup>.