# **RF Exposure Evaluation**

## of

E.U.T. : MyTouch Slide Bluetooth charging dock

FCC ID. : YJW03612

MODEL : 03612

### for

APPLICANT: Superior communications.

ADDRESS : 5027 Irwindale Ave., Suite 900 Irwindale, CA

91706

#### Prepared by

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#### **Product Information:**

Type of EUT: MyTouch Slide Bluetooth charging dock

FCC ID: YJW03612

Manufacturer: Superior communications.

Model: 03612

Description: The major chip is BC57E6 of CSR corporation and 8MB flash,16Mhz

crystal and filter consist of blutooth module. The bluetooth systme's

2.402 - 2.480Ghz.

Maximum conducted output power (measured): <u>-0.35</u> dBm or <u>0.923</u>mW

The following table lists the provided authorized antennas:

Model	Antenna Type	Antenna Gain	
		(dBi)	Numeric
N/A	Copper trace Antenna	0	1.0

Below is an example of the RF Exposure Statement:

**IMPORTANT NOTE:** To comply with the FCC RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

#### **Relative Requirement for Compliance**

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following:

TABLE 1 – LIMITS FOR MAXIMUN PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Averaging Time	
(MHz)	Strength	Strength			
	(V/m)	(A/m)	(mW/cm <sup>2</sup> )	(minutes)	
(A) Limits for Occupational/Controlled Exposures					
0.3-3.0	614	1.63	*(100)	6	
3-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	
(B) Limits for General Population/Uncontrolled Exposure					
0.3-1.34	614	1.63	*(100)	30	
1.34-30	824/f	2.19/f	*(180/f2)	30	
30-300	27.5	0.073	0.2	30	
300-1500			f/1500	30	
1500-100,000			1.0	30	

f = frequency in MHz

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

<sup>\* =</sup> Plane-wave equivalent power density

#### **RF Exposure Calculations:**

The following information provides the minimum separation distance for the highest gain antenna provided. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1.0 mW/cm² uncontrolled exposure limit. The formula shown in OET Bulletin 65 is used in the calculation.

Equation from page 19 of OET Bulletin 65, Edition 97-01 is:

$$S = PG/4 R^2$$

where: S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

hence

$$R = (PG / 4 S)^{1/2}$$

For our device

P = 0.923 mW

G = 1.0

R = 20 cm

 $S = (0.923 * 1.0) / (4* *20^2) = 0.0002 \text{ mW/cm}^2 < 1.0 \text{ mW/cm}^2$ 

For complying the FCC limits for general population/uncontrolled exposure, the power density limit is 1.0 mW/cm<sup>2</sup>. The calculation result of the power density at a distance of 20 cm of our device is less than the limit.

This means that according to OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), the equipment fulfills the requirements on power density for general population/uncontrolled exposure and therefore fulfills the requirements of 47 CFR Part 15.247 (b)(5).