## RF Exposure / SAR Statement

No.: 13408107S

Applicant : Panasonic Corporation

Type of EUT : Car Navigation

Model Noumber of EUT : AT2104

FCC ID : ACJ932AT2104

Panasonic Corporation declares that Model: AT2104 complies with

FCC radiation exposure requirement specified in the FCC Rules 2.1091(for mobile).

AT2104 is intended to be used Bluetooth and Wireless LAN simultaneously within 20 cm.

### **RF Exposure Calculations:**

The following information provides the minimum separation distance for the highest gain antenna provided with the "AT2104" as calculated

from FCC Part 1, §1.1310, TABLE 1 (B) Limits for General Population / Uncontrolled Exposure.

This calculation is based on the highest EIRP possible from the system,

considering maximum power and antenna gain, and considering a 1.0mW/cm<sup>2</sup> uncontrolled exposure limit. The Friis formula used was:

$$S = ((P1 * G1) + (P2 * G2) + (P3 * G3)) / (4* \pi * r^2)$$

#### Where

| P1 = | 4.19  | mW (Maximum average output power) *1) |
|------|-------|---------------------------------------|
| P2 = | 3.03  | mW (Maximum average output power) *2) |
| P3 = | 21.23 | mW (Maximum average output power) *3) |
|      |       |                                       |
|      |       |                                       |

| G1 = | 1.84 | Numerical Antenna gain; equal to | 2.64  | <b>dB</b> 1 *1) |
|------|------|----------------------------------|-------|-----------------|
| G2 = | 0.98 | Numerical Antenna gain; equal to | -0.13 | dBi *2)         |
| G3 = | 1.68 | Numerical Antenna gain; equal to | 2.25  | dBi *3)         |

$$r = 20.0 \text{ cm}$$

#### For: AT2104 (Wireless LAN and Bluetooth)

 $S = 0.00922 \text{ mW/cm}^2$ 

Even taking into account the tolerance, this device can be satisfied with the limits.

- \*1) Wireless LAN (5 GHz band) value
- \*2) Bluetooth value
- \*3) Wireless LAN (2.4 GHz band) value

This calculation was made to show that the EUT complies with the limit in simultaneous transmitting of Wireless LAN (5 GHz band) and Bluetooth and Wireless LAN (2.4 GHz band)

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