RF Exposure Exhibit for Zebra I28RFID-402931

Since the EUT only transmits when it receives a signal from the computer, normal operation during transmission would have the user sitting at the computer, not touching the printer. There are no buttons on the device to make it transmit. This means a distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure and the body of the user or nearby persons. Therefore, this device is classified under section 2.1091 as a "mobile" device.

Although this device is categorically excluded from RF exposure evaluation under Part 2, it can be shown that the device meets the limits used for evaluating other devices (those which are not excluded) under this section. Section 2.1091 for mobile devices state that the limits are given in 1.1310. The limit given in 1.1310 for general population/uncontrolled at 928 MHz is a Maximum Permissible Exposure (MPE) limit of $(180/f^2)$ mW/cm^2.

For 13.56 MHz this **limit** is 0.97893 mW/cm^2.

The FCC OET Bulletin 65 Section 2 can be used to determine compliance with guidelines for human exposure to RF radiation. We will use equation 3 of that section for predicting RF fields.

The highest power measurement for this device is -50.9 dBm.
For this prediction we will use a worst-case power of –50.9 dBm or .000008128 mW.
Since the device is "mobile", we will use a worst-case distance of 20 cm.
For worst-case antenna gain, we will use a gain of one.

Using equation 3 of OET Bulletin 65 Section 2, the power density is calculated to be 0.000000001618 mW/cm^2. This is well within the limit given in 1.1310.

ZM4e and 402931 levels when transmitting at the same time:

ZM4e = 0.162911 mW/cm^2
402931 = 0.000000001618 mW/cm^2
= 0.162911001618 mW/cm^2