

RF Exposure Exhibit for Stryker Q9R-5400 AKA CORE Console

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 states that the limits are given in 1.1310. The limit given in 1.1310 for general population/uncontrolled exposure at 13.56 MHz is a Maximum Permissible Exposure (MPE) limit of $(900/f^2)$ mW/cm².

For 13.56 MHz this limit is 4.895 mW/cm².

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 58 dBuV.

For this prediction we will use a worst-case power of -49 dBm or 12.5 nW.

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 0.0597 mW/cm². This is well within the limit given in 1.1310.