FCC 1.1310(b), Maximum Permissible Exposure Calculations
RSS133 Sub clause 8 Exposure of Humans to RF Field

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Report No.: 90303-11A-R

Calculations prepared for:	Calculations prepared by:
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Model Number : SX-SDCAG

Fundamental Operating Frequency:	2412- 2462MHz
Maximum Rated Output Power:	0.0562 W
Measured Output Power:	0.0562 W
Maximum Antenna Gain:	3.2 dBi (2.1 linear gain)

Power Output and Operating Frequency Information used for these calculations were from:
CKC Laboratories, Test Report # **90303-11A**

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Addendum 1: To add additional antenna configurations.

Device and Antenna Operating Configuration:
Transmitting continuously. Power measured conducted at the antenna port Max antenna gain is 3.2 dBi

Test Procedure:
This equipment is evaluated in accordance with the guidelines set forth in OET Guide 65.

MPE Limit in accordance with 1.1310(b): Limits for general population/uncontrolled exposure

MPE Limit for 2.412- 2462MHz = 1 mW/cm^2 (10 W/m^2)

(B) Limits for General Population/Uncontrolled Exposure

Frequency	density (mW/cm2)	Averaging time (minute)
1500-100,000	1.0	30

Power Output (Watts)	Power Density Limit (mW/cm^2)	Minimum Distance (Meters)
0.0562	**1**	**0.0306**

$$\text{Power Density } (W/m^2) = \frac{30 \text{ x } P_t \text{ x } G}{d^2 \text{ x } Z_0}$$

P_t = Power Delivered to the Antenna
G = Antenna Gain
d = Distance in meters
Zo = Impedance of Free Space

Statement of Compliance:
This device demonstrates compliance under the operating conditions specified in this document. Under normal operating conditions, the antenna is designed to be installed in accordance with the manufacturer's instructions in such a manor to maintain the minimum separation distance. The MPE calculations shown above demonstrate compliance to the provisions of 1.1310 in accordance with the guidelines of OET 65.

Under normal operation, the antennas to be used with the EUT maintain a distance of 20 cm (0.2 meter) from the user. As can be seen from the MPE result, this device passes the limit specified in 1.1310 at a distance of 0.0306 meter.

Calculation:

$$d = \sqrt{\frac{30 \, x \, 0.0562 \, x \, 2.1}{10 \text{ x } 377}}$$

= 0.0306m