

Rhein Tech Laboratories, Inc.
360 Herndon Parkway
Suite 1400
Herndon, VA 20170
<http://www.rheintech.com>

Client: Spot Devices
Model: SC320027
Standards: FCC 15.247/IC RSS-210
ID's: YDQ-SC320027/9567A-SC320027
Report #: 2010201

Appendix A: FCC Part 1.1307, 1.1310, 2.1091, 2.1093; IC RSS-Gen: RF Exposure

Please refer to the following page.

MAXIMUM PERMISSABLE EXPOSURE (MPE) CALCULATION

The module is compliant with all applicable RF exposure requirements. Since the device is not considered a portable device the minimum separation distance is defined as 20cm and the Maximum Permissible Exposure(MPE) limit is defined by Table 1 of FCC CFR 47 Part 1.1310. In this case the Limits for General Population/Uncontrolled Exposure apply with a Power Density limit of 1.0 mW/cm².

The Power Density can be calculated as follows:

$$Pd = (P_{out} * G_{Ant}) / (4 * \pi * R^2)$$

Where,

Pd = Power Density (mW/cm²)

P_{out}= Output Power at antenna terminal (mW)

G_{Ant}= Antenna Gain (linear)

R = distance to the center of radiation of the antenna (cm)

The maximum output power at the antenna is +20dBm (100mW) and the antenna gain is 0dBi (1 linear). At 20cm the Power Density is calculated to be:

$$Pd = (100 * 1) / (4 * \pi * 20^2) = 0.0199 \text{ mW/cm}^2 \text{ which is well below the limit of } 1.0 \text{ mw/cm}^2.$$