

RF Exposure

Project #:	G100744278	Test Area:	Intertek Louisville
Test Method:	FCC CFR47 Part 1.1310	Test Date:	06/11/2012 06/12/2012
EUT Model #:	RC-03-HLF-K		
EUT Serial #:	FCC1		
Manufacturer:	Isonas Security Systems		
EUT Description:	The product tested is a Low-Frequency, network-enabled, RFID Security Access Reader with keypad. The product transmits at 122.8kHz only.		
Notes:	Worst-case measurement: 90.37 VDC Configuration – Axis 1		

The following limit is from table 1 (B) Limits for General Population/Uncontrolled Exposure in FCC part 1.1310:

1 mW/cm²

The following calculation was used to determine compliance to the above limit. The calculation is from FCC OET bulletin 65.

$$S = PG / 4\pi R^2$$

Where:

S=power density (in appropriate units, e.g. mW/cm²)

P=power input to the antenna.

G=power gain of the antenna in the direction of interest relative to an isotropic radiator.

R=distance to the center of radiation of the antenna (appropriate unit, e.g., cm)

In this case 20cm will be used.

Maximum radiated field strength = 90.37dBuV/m at 3-meters = 0.327mW

(see test report 100744278DEN-001)

Maximum gain declared by the manufacture – unknown, < 6dBi

Power Density

Power (mW)	Gain (dbi)	Gain numeric	Distance (cm)	Power Density (mW/cm ²)
0.327	0	1.0	20	0.000065
0.327	6	4.0	20	0.000260

Delta Limit: 0.00260mW/cm² - 1.0mW/cm² = -0.99740mW/cm²

Results:

The unit complies with the requirements for Maximum Permissible Exposure (MPE) under FCC part 1.1310.