

FCC Part 15 Certification **Test Report**

433 MHz Alarm System

FCC ID: Q6K 1000-7253

FCC Rule Part: 15.231

ACS Report Number: 03-0111-15C231

Manufacturer: 3SI Security Systems
Model: 1000-7253

RF Exposure Information

General Information:

Applicant: 3Si
 ACS Project: 03-0111
 FCC ID: Q6K 1000-7253
 Device Category: Fixed Mount
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Resonant Tank Circuit
 Antenna Gain: 0dBi
 Transmitter Conducted Power: -15dBm
 Maximum System EIRP: -15dBm
 Operating Configuration: Mounted inside armored automated teller machine
 Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d = (mW/cm^2) = \frac{E^2}{3770}$$

MPE Distance

MPE Calculator for 433MHz Periodic Operated Transmitter					
Limits for General Population/Uncontrolled Exposure*					
Transmit Freq. (MHz)	Radio Power (dBm)	Antenna Gain (dBi)	System EIRP (mW)	MPE Limit (mW/cm ²)	MPE Distance (cm)
433	-15	0	0.03	0.29	0.03

Installation Guidelines

The installation manual contains the following text advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

“RF Exposure (Intentional Radiators Only)”

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of (20cm).”

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.