**Technical Specification for Ultrasonic Rodent Repellent System**

1.0 INTRODUCTION:

The objective is to protect the entire premise all the voids against rodents. The purpose is to keep the rodents away from the floor by generating very high frequency sound waves (above 20 Khz) which are not legible to human ear but irritates rodents. The objective is to drive away the rodents and protect all the cables below floor, above ceiling & room void from damage caused by rodents.

2.0 SCOPE OF WORK:

Rodent Repellent system shall be provided on in all voids.

2.1 The system proposed is Rodent repellent system which shall have 2 x 16 LCD Screen which displays the parameters like site name, start frequency, end frequency, sweep time & delay etc

2.2 The system proposed is to protect all the equipment’s, areas with relevant type of high frequency sound producing device called satellites or transducers.

2.3 All these transducers shall be connected individually / in daisy chain connected to a main controller which provides power to these units. These satellites shall cover an area from 150 sq.ft to 300 Sq.ft for ceiling void, room void & floor void applications, depending upon the room dimension, reflection height, reflecting surface etc

2.4 Once powered up, these transducers shall produce very high frequency variable sound waves (above 20Khz) continuously, which irritate the rodents and are forced to evacuate the place.

2.5 The frequency at which the transducers produces shall be illegible to human ear & shall not cause any harm and ensure below 1/3rd octave.

2.6 The System is proposed with backup power from UPS.

1. SYSTEM COMPONENTS:
2. 1 SATELLITES (Transducer):

The satellites or Transducers shall be circular ceiling mounted low profile units that produce high decibel sound waves at very high frequency not less than 20 Khz. These satellites shall cover an area not less than 300 Sq. ft for Room void application, 150 sqft for ceiling Voids & floor void locations.

4.2 CONTROLLER:

The controller shall support 12 / 24 Transducers and shall be wall mounted. The transducers shall be installed in above, below false ceiling and below false flooring.

4.2.1 Features:

* 3000 / 6000 Sq Feet of Area Coverage per system/ Controller.
* Power MOSFET shall drive up to 12 / 24 Transducers / loop. With minimum @ 150sft coverage each.
* LCD display with on-board controls for changing the following parameters.
* The controller shall have at least one potential free contact to monitor the healthiness of the panel.
* Machine/Controller ID: Is an indicator of the machine/controller identification number. It can have any value within the range of 1 to 255.
* Transducer Testing: All the 12 /24 transducers can be tested in an audible range
* Provision for restoring all the parameters to the factory default setting
* Inbuilt RS/EIA-485 transmissions up to 1.2 kms to protected area (BMS Room).
* Daisy chain protocol for interfacing 32 controllers (nodes).

4.3 Certificates:

The system shall be certified by NABL aggregated LAB (IDEMI – certificate)

CE marking in Power Supply Unit