

# **ADS216 Power Pack**

Theory of Operation  
Preliminary

## **Overview**

The ADS Power Pack 216 self-contained electronics is capable of driving two ADS pedestals to generate the magnetic field to excite tags as well as receive and alarm on any tag signal detected. There are three major PC boards referred to as the Receiver / DSP board, the Power Supply / Transmitter board and the Backplane. The Receiver/DSP and the Power Supply/Transmitter boards are mated together via the Backplane. All the connections to the outside are made via the Backplane.

The Power Pack drives up to two pedestals, one external alarm, two noise canceling antenna used to cancel the environmental noise seen by the system. The two pedestals each contain integrated audio and visual alarm circuits. The Power Pack will accept two cancellation coils used to receive localized noise / interference sources such as ballast or motor noise. Two ferrite antennas can be included to enhance system performance. The I/O Options Port of the Power Pack will be used for future expansion if necessary. The 485 Port allows the provision for a wired network.

When a tag is place in the pedestal field, an alarm indication will be initiated. This may be the integral alarm, external alarm or both.