

## **Request for Permissive Change**

To Whom It May Concern:

Ingersoll Rand Security Technologies is requesting a permissive change to its AD Multi-Tech card reader. The existing AD Multi-Tech (FCC ID: XPB-ADMULTI, IC: 8053B-ADMULTI) reader design has been updated to accommodate a SIO (Secure Identity Object) Co-Processor. The processor allows the Multi-Tech to read new card technologies including (but not limited to) iClass SETM, iClass Elite and standard iClass. This co-processor is clocked by the existing processor (no additional crystal, resonator, etc.) and there has been no changes made to the existing 125 kHz or 13.56 MHz radio circuitry.

To accommodate the update the following changes have been made:

- 1. At the component level, three padding resistors, one decoupling capacitor and one IC (SE3100A00) have been added.
- 2. At the signal level, two previously unused signals between the microprocessor (PIC24) and the programming header are now connected between the microprocessor and the SIO co-processor. Additionally, a third signal was added between the microprocessor and the SIO co-processor.

The SIO co-processor power (3.3VDC) comes from the same bus as the existing card reader circuitry.

No changes were made to existing circuitry (including all RF circuitry), component placement or testpoints.

Date: \_ 8 | 30 | 12

Ryan Kincaid

Lead Hardware Engineer

Office: 317.810.3362 Fax: 317.810.3051 rkincaid@irco.com