03089702 915MHZ RF MODULE USER GUIDE

This document contains the 03089702 RF module description, mechanical dimensions, electrical connections and installation procedure for RF module, model number 03089702. The RF module operates in the 902-928MHz frequency band. Transmission and reception occur at 925.7MHz. The RF module will only be installed and used in Kidde products and will not be sold separately.

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Description

The RF module PCB Assembly is a printed circuit board assembly that is configured to connect directly to the printed circuit board of the host device. The assembly is consists of the Microchip PIC18F26K20 microcontroller that controls the Microchip MRF89XA transceiver and an onboard wire antenna. The MRF89XA transceiver operates in the 902-928MHz. The RF module sleep mode is active 99.7% of the time to conserve power. The RF module is designed to operate from a 3V supply and includes a post 2.5V regulator, which regulates the power to all onboard circuitry. The RF module complies with the U.S (**FCC ID: SAK03089702**) and IC (**IC: 7145A-03089702**) requirements.

Model Number

The RF module is identifiable using the unique model number, 03089702.

Mechanical Dimensions

The RF modules' mechanical dimensions are depicted in figure 1 through figure 4 below. All dimensions are in millimeters.

Top View

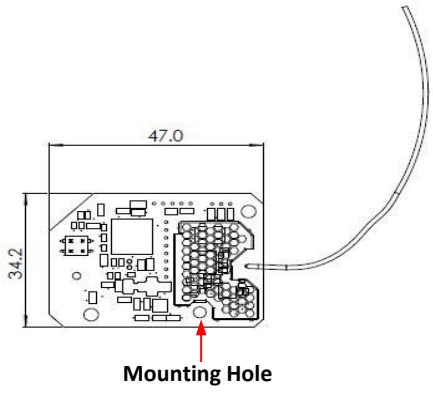

Figure 1

Side View, Antenna

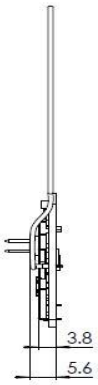

Figure 2

Bottom View

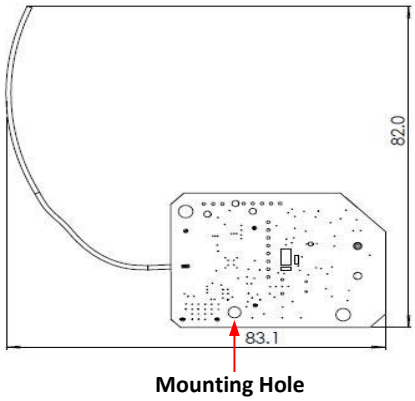

Figure 3

Side View, J1

Figure 4

Electrical Connections

The electrical connections for the 4-pin connector are depicted in figure 6. See below for the function of each pin.

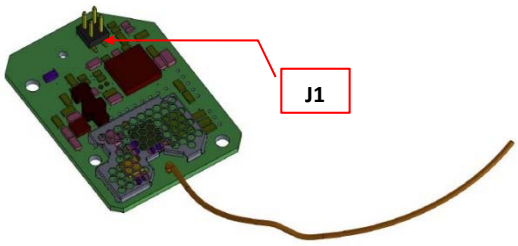

Figure 5

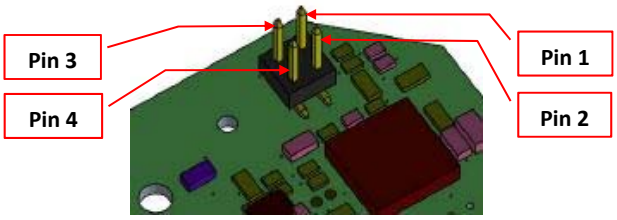

Figure 6

Connection Pins Description

Pin 1: Communication data
Pin 2: Communication clock
Pin 3: Input power return
Pin 4: Positive input power

Installation Instructions

1. Align the 4-pin connector, J1, with the female receptacles on the host device and secure. Ensure pins 1-4 connections are connected to the designated receptacle pins on the host device PCBA.
2. Mechanical support can be achieved by securing the RF PCBA to the host device using the mounting hole provided on the PCB and a #4 screw. The antenna should be secured to the host device enclosure for mechanical support.
   NOTE: THE RF MODULE MUST BE IDENTIFIED ON THE HOST DEVICE LABEL, i.e., "CONTAINS FCC ID: SAK03089702" OR "CONTAINS IC: 7145A-03089702" FOR THE U.S. OR THE CANADIAN MARKET.

FCC Part 15.19 Warning Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Part 15.21 Warning Statement

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Part 15.105 Warning Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

ISED RSS-Gen, Sec 8.4 Warning Statement

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage;

(2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.