# **RF Module**

## **1.1 Introduction**

EchoStream RF modules allow the assimilation of any user-specific application into an EchoStream system. The RF modules can be integrated with your existing product to provide you with complete EchoStream functionality.

#### 1.1.1 E\*1941 One-Way RF Module

The E\*1941 is a universal one way RF module with a two alarm input pins, allowing for the use of dual inputs. Input one is the primary alarm, bit 0; input two is the secondary alarm bit 1.

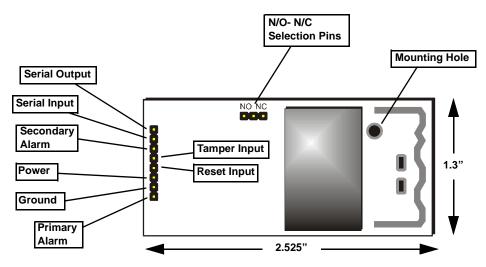


Figure 1-1 E\*1941 Dual-Input Universal Transmitter Components

**N/O - N/C selection pins** Place a jumper to select whether the inputs are normally open or normally closed.

Serial output Connects a serial device to output RF messages from the ES1941.

Serial input Connects a serial device to input RF messages to the ES1941.



**Secondary alarm** Connects a secondary end-device to provide RF alarm data for any user-specific application.

**Tamper input** Connects a tamper input to send a message when user-specific end-device is tampered with.

**Reset input** Connects a reset input, to reset the RF module after a frequency band selection change or N/O - N/C selection change.

**Power** The E\*1941 has an on-board voltage regulator. Connect power cabling to an external power supply of 2.5 to 5.5 volts. Voltage must be sustained at 2.5 volts or above and supply 50 milliamps during the transmit cycle.

**Ground** Connects a ground.

**Primary alarm** Connects a primary end-device to provide RF alarm data for any user-specific application.

**Mounting Hole** Used to mount the RF module to the user-specific product. The mounting hole should only be used with a nylon standoff, never metal.

	Connection	Output Jumper N/O	Output Jumper N/C
Primary Alarm	Open	Alarm Clear	Alarm
	Ground	Alarm	Alarm Clear
Secondary Alarm	Open	Alarm Clear	Alarm
	Ground	Alarm	Alarm Clear
Tamper	Open	Alarm	Alarm
	Ground	Alarm Clear	Alarm Clear
Reset	Open for normal operation; connect to the ground and release for a board reset.		



### 1.1.2 FCC Label Requirements

Inovonics Wireless has received Federal Communications Commission (FCC) and Industry Canada (IC) approval to market RF modules. The application integrator is responsible for properly labeling the product containing the RF module. Labels must be placed on the outside of the product, and must include the FCC registration number, the IC registration number and the FCC statement as shown in the sample label below:

#### FCC ID: HCQ3B6ETOEMM IC: 2309A-ETOEMM

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.