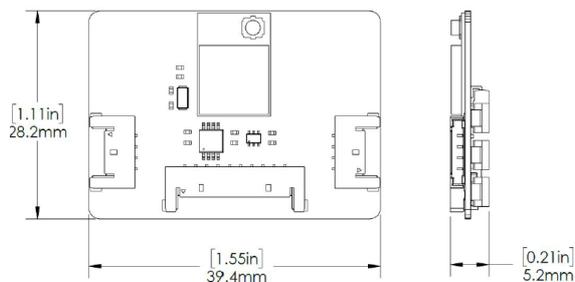# Simsim Mini Datasheet

Introduction

- Engineered with a small form factor that can be embedded invisibly inside elevators, turnstiles, copiers, and more.

- It takes just minutes to install Simsim Mini in spaces with a pre-existing power supply and cables to controller panels.

- Mini can be installed between existing readers and controllers so you can add mobile access while maintaining support for legacy cards

Functionality

Mini is a physical access control mobile credential reader, intended to be installed behind an existing wall mounted card reader. The reader is also capable of supporting pass through physical card credentials when used in conjunction with a compatible physical card reader. The reader can interface with an access control system equipped with a Wiegand interface. The reader consists of the following main parts.
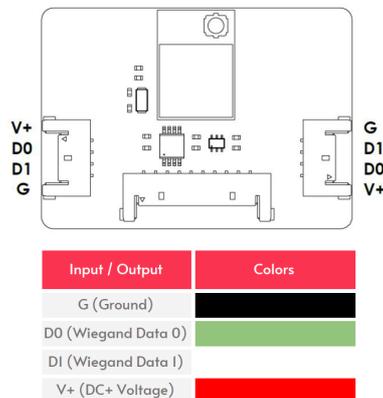

Tech Specs

Aa Name	≡ Column
Device Type	Mobile Credential : 2.4 GHz (Bluetooth Low Energy)
Antenna	External Antenna (2.4 - 2.5 GHz)
Type Of Equipment	Unsealed Controller Board, Suitable for Indoor use only
Interface Type	Molex Connector, 4-pin, plug (x2) or Terminal connectors

Aa Name	☰ Column
Operating Voltage Range	5V - 24V DC (12V Recommended)
Current Draw	12 mA @ 12V
Communication Protocol:	Wiegand, Bluetooth Low Energy (BLE)
Credential Type:	Bluetooth Low Energy (BLE): Any bit format (standard or custom) up to 120 bits
Transmission Technology:	Wiegand
Cable Length	Wiegand 152 m/500 ft (22 AWG shielded wire)
Wiegand Compatibility	5V, 50μs pulse width, 1,000μs pulse interval, 100ms minimum between packets
System Requirements	Compatible iOS or Android device with Lockn app
Dimensions	38x 27x 5.2mm(H x L x W)
Temperature	Operating: -35° to 66°C (-31° to 149°F) Storage: -35° to 85°C (-31° to 185°F)
Operating Humidity	5 to 95% relative humidity (non-condensing)
Firmware Upgrade Method	BLE
Warranty	Limited Lifetime

Do not operate at a voltage above 24V DC as it will damage the hardware

Wiring and Installation Information

Input / Output	Colors
G (Ground)	⬛
D0 (Wiegand Data 0)	🟩
DI (Wiegand Data I)	⬜
V+ (DC+ Voltage)	🟥

1. Disconnect the Power (V+/GND) and Wiegand (D0/D1) lines from the existing reader and the wiring to the controller.

2. Connect the Power (V+/GND) and Wiegand (D0/D1) lines from the provided Molex Wiring Harness' single ends to the existing reader and the wiring to the controller.

3. Connect the Molex Wiring Harness connector to the Mini on either the left or right side until it firmly clicks.

Note: Be careful when inserting the Molex Wiring Harness connector to the Mini . The connector is top-oriented.

Note: Simsim Mini only interferes with existing reader and controller. It doesn't interface/interact with any components or systems in its surrounding like turnstiles, elevators or any other enclosures.

Installation in a Turnstile, Elevator Panel, or Other Enclosure

The optimal placement of the external antenna is against the glass pane where the current access control reader exists. These glass panes are typically designed to allow for radio signals to pass through with minimal interference, which is preferred for the Bluetooth Low Energy (BLE) signal from the Simsim Mini for connection to the Lockn mobile app.

The recommended mode of operation of the Simsim Mini is such that the phone must be placed within a few inches of the antenna in order to activate the mobile credential. For this reason, it is recommended that the Simsim Mini external antenna is adhered to a location that is in close proximity to the place where users would also tap their RFID / access control cards.