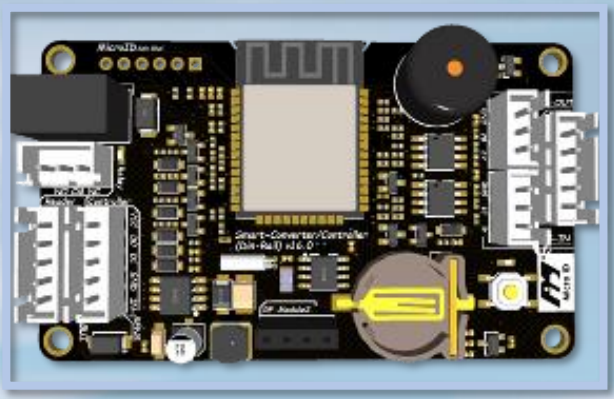
Wireless Peer2Peer

(Smart Converter)

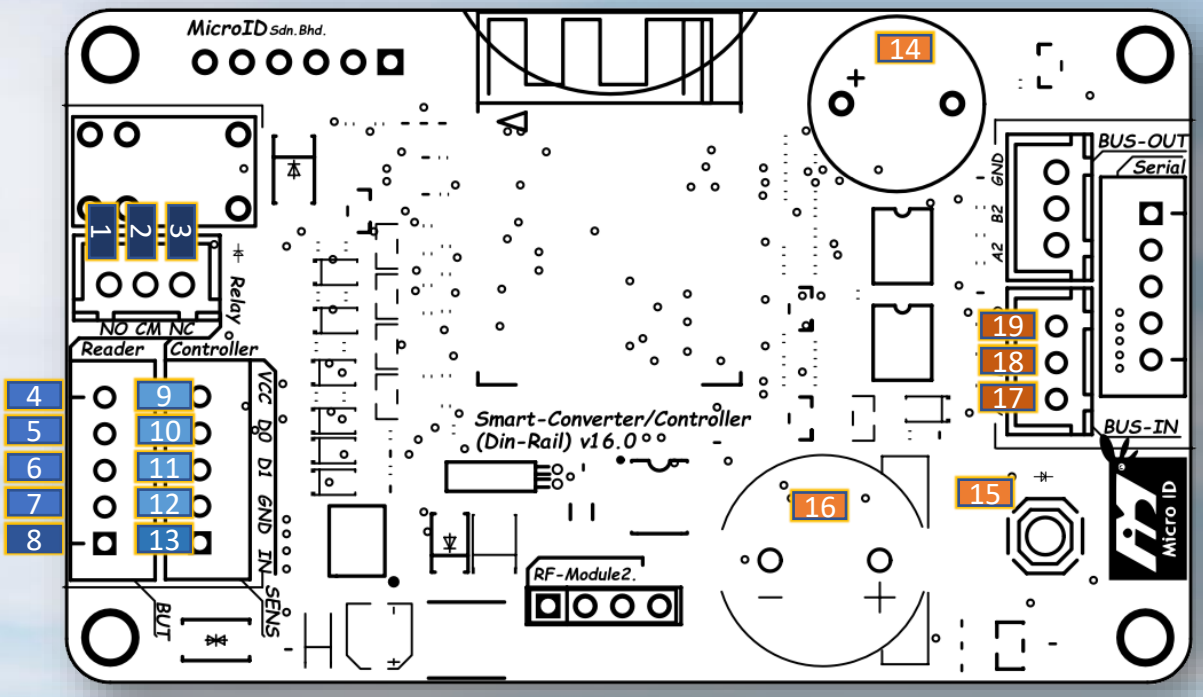


Your key to extended two-way communication. This powerful pair, featuring a Master and Slave device, excels at effortlessly extending the distance between your reader and controller by up to **100m**. It seamlessly converts Wiegand protocol, MicroID 485, pushbutton, and relay signals to wireless, simplifying your access control setup. With **encrypted** communication, the **Smart Converter** propels your system to new distances.

Performance	
Operating Frequency	2.4Ghz, RF band Selectable
Power Output	0dBm – 20dBm, default 20dBm
Antenna	PCB
Communication Interfaces	Wiegand 26/34/66 , RS-485
Expanding Interfaces	WiFi
Application Software Platform	Web Interface Configuration (AP-mode, WIFi-mode), development kit

Mechanical/Electric Performance	
Power	DC 12V
Power Assumption	145mW ideal, 170mW flash card/send signal, 480mW only at AP-Configuration mode.
Dimension	W40 x L60 x H12mm, (Bare Board)
Channels	0 - 12Ch (13Ch)

Wiring Diagram



RELAY-1

- 1 – NO
- 2 – COM
- 3 – NC

CONTROLLER (R2)

- 9 – VCC
- 10 – D0
- 11 – D1
- 12 – GND
- 13 – PUSH BUTTON

READER (R1)

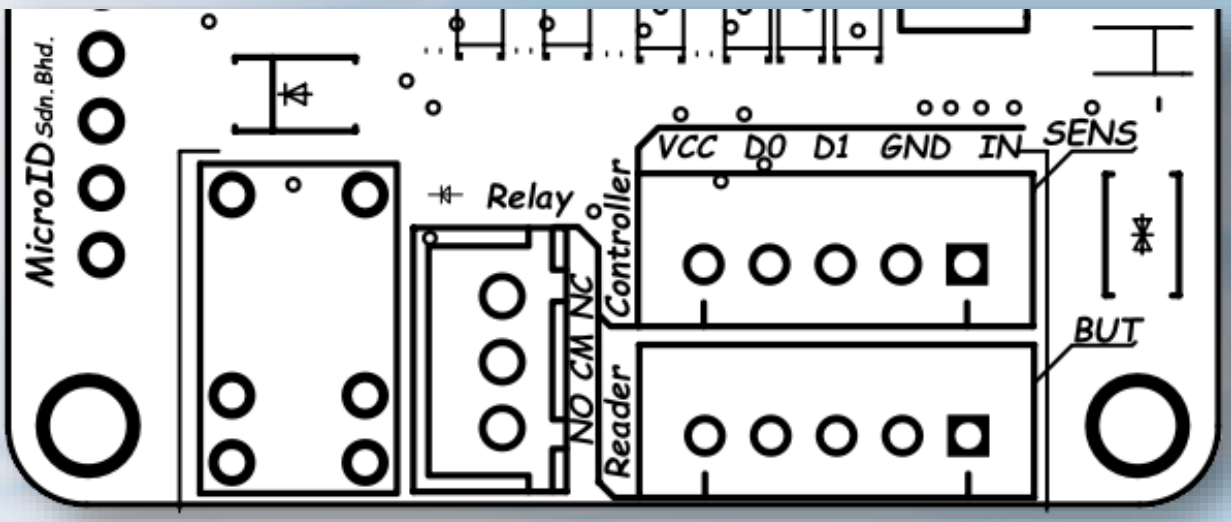
- 4 – VCC
- 5 – D0
- 6 – D1
- 7 – GND
- 8 – ~~SENS~~

- 14 – Buzzer
- 15 – Config/Flash
- 16 – RTC Battery

RS485-1

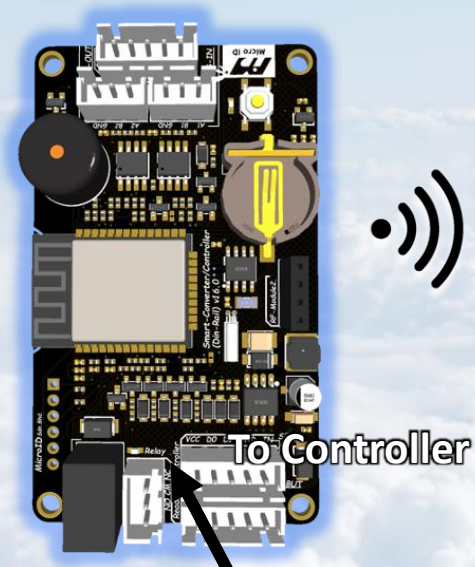
- 17 – A
- 18 – B
- 19 – GND

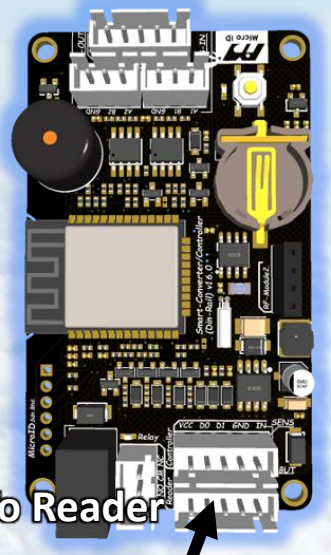
Wiring Diagram (cont.)



Set As Master

Set As Slave





To Controller

To Reader

Installation Instruction

The Smart Converter functions optimally as a paired set, requiring a minimum of two units – one designated as the master, strategically positioned at the controller site, and the other as the slave, strategically located at the reader or relay trigger.

Pairing Dynamics:

- **Master Unit:** Positioned at the controller site.
- **Slave Unit:** Placed at the reader or relay trigger location.

Versatile Connectivity:

- **Transmitter and Receiver Pairing:** A minimum of two units is essential for seamless communication.
- **Multiple Slaves:** Incorporate multiple slaves if data transmission from various readers to the master is necessary.

Communication Logic:

- **Master's Role:** Generates and manages the encryption sync code for secure data transmission.
- **Slave's Role:** Facilitates the conversion of Weigand protocol/MicroID 485, pushbutton, and relay signals to wireless, ensuring extended reach.

Customized Control:

- **Single Relay Trigger:** The master exclusively sends relay trigger logic to a specified slave.
- **Security Focus:** Designed with a master-slave configuration to enhance system security. Encryption sync code generation occurs exclusively at the master side, ensuring the secure transmission of data between master and slave.

AP Mode Setup: Quick Guide

Follow these steps to place the Lora Converter in AP mode for configuration:

Step 1: Config Button Press

- Press and hold the config button on the board for 10 seconds.

Step 2: LED and Buzzer Indication

- Wait for the blue LED to blink rapidly, accompanied by a beep from the buzzer.

Step 3: Connect to Wi-Fi AP

- Check for available Wi-Fi networks and connect to "**MICROID-xxxxxx**." The default password is microid1234.

Step 4: Access Configuration Page

- Open your web browser and enter either **http://192.168.4.1** or **http://microid.local** in the address bar.

Step 5: Login to Configuration Page

- Once the webpage opens, use the default username admin and password admin to log in.

Step 6: Configuration

- Now, you have access to the configuration settings. Customize the parameters as needed.

You're now ready to configure the settings of your Smart Converter in AP mode. Ensure a secure connection by updating the default login credentials and follow any additional security measures recommended in the user manual. For further assistance, refer to the user manual or contact our support team.

Steps by step instruction

Step 1: Unboxing and Inspection
- Carefully unpack the Smart Converter kit.
- Inspect the contents to ensure all components are present and undamaged.

Step 2: Unit Identification
- Designate one unit as the Master and another as the Slave.
- Ensure proper positioning of the Master at the controller site and the Slave at the reader or relay trigger location.

Step 3: Secure Placement
- Mount the Master securely at the designated controller site.
- Position the Slave at the reader or relay trigger location, ensuring optimal communication distance.

Step 4: Power Connection
- Connect power sources to both the Master and Slave units.
- Verify that power indicators are active.

Step 5: Config Page
- Set Board in AP-Mode and access the Webpage (*see more instruction at AP-Mode setup)

Step 6: Pairing Configuration
- Establish communication by pairing the Master and Slave units.
- Follow the specified instructions for pairing in Webpage of Board Settings.

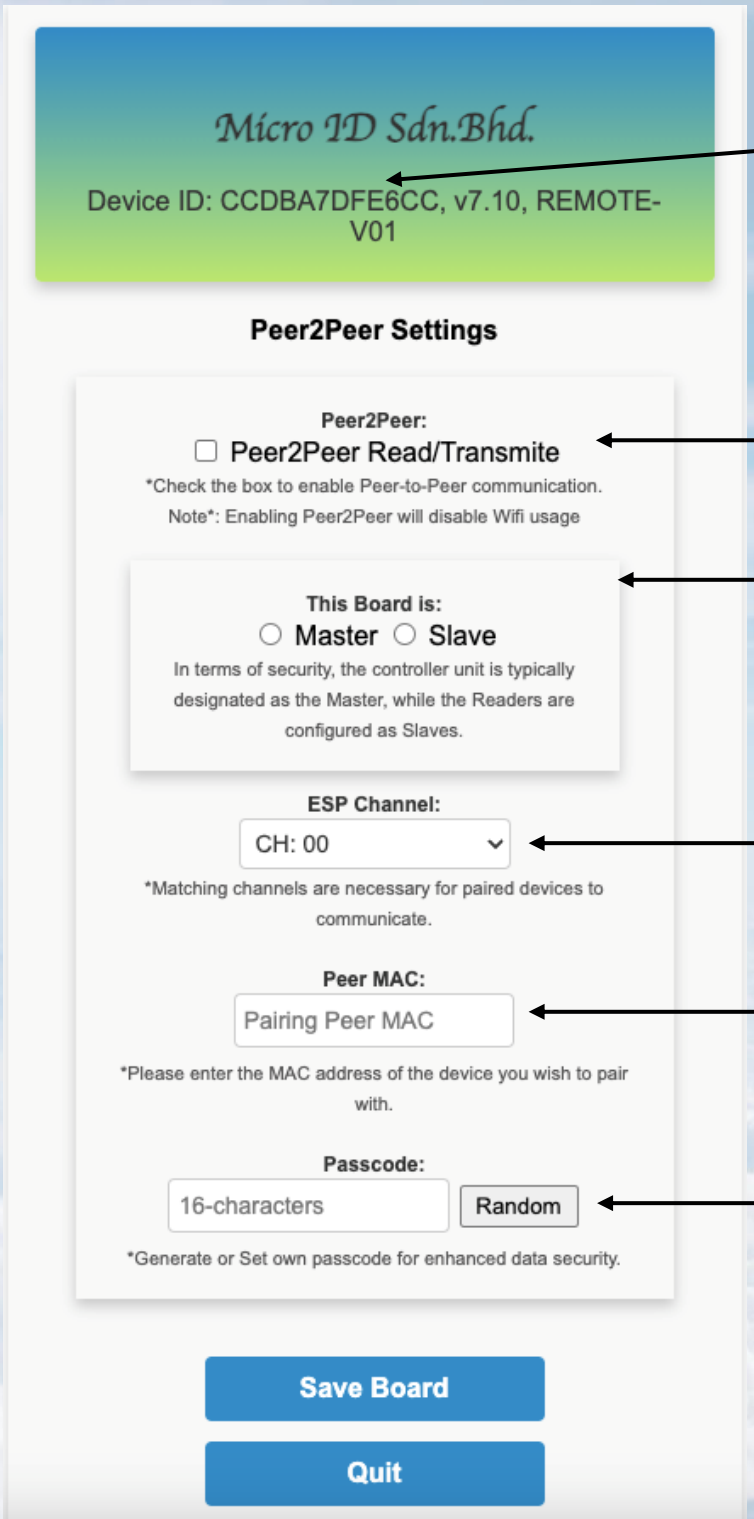
Step 7: Multiple Slaves (Optional)
- If required, add multiple Slave units to facilitate data transmission from various readers.
- Ensure each Slave is paired securely with the Master.

Step 8: Relay Trigger Logic Configuration
- From the Master unit, configure and specify the relay trigger logic.
- Ensure that only the specified Slave receives this information for enhanced control.

Step 9: Final Checks
- Conduct a system check to verify proper communication between the Master and Slave.
- Confirm that encryption sync codes match for secure data transmission.

Step 10: System Activation
- Activate the Smart Converter system and monitor for reliable and secure communication.

Board Settings



Device ID (MAC):
- This is the Device ID of the Board

Enable:
- Enable Peer2Peer

Master/Slave Selection:
- Select the current board either Master or Slave.
- If Slave Selected, The Other should be Master

Channel selection:
- 0 to 12 (13 channels)
- Master and Slave must be in the same channel

Peer Address:
- Add the other boards Device ID (MAC)

Passcode:
- This is the encryption code.
- Master and Slave must have same code.
- Do not share this to anyone.