

Configuration Manual

After unpacking, the gateway is ready to use, but requires configuration to adapt to the required functions.

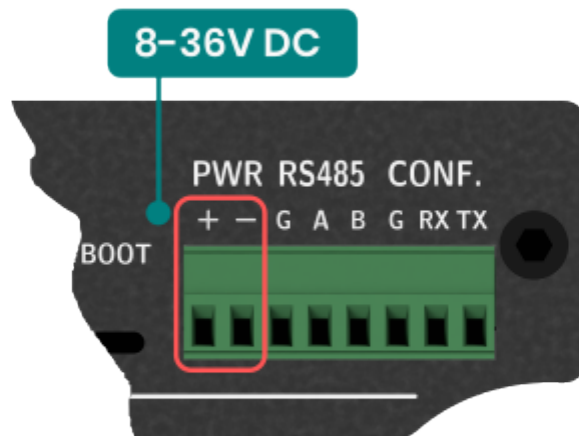
Power supply

The device can be powered by connecting a power source to the terminal block:

1. Loosen or remove the screws on the terminal block.
2. Connect a 8–36 VDC power line to the terminal block.
3. Tighten the connections, using the screws on the terminal block.
4. Turn on the power source.

Note that the device does not have an on/off switch. It automatically turns on when it receives power. It takes a couple of seconds for the system to boot up. Once the system is ready, the RED LED will light up.

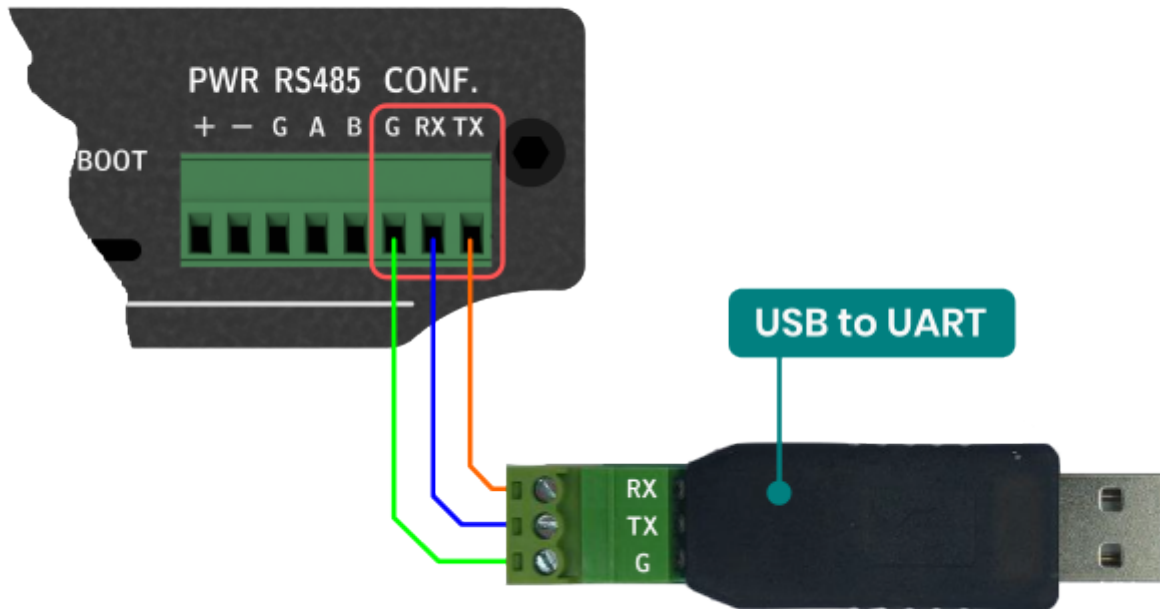
Power terminal block pin assignments are shown below:



Connecting the configuration port

To configure the device, firstly connect RX, TX and GND of device to TX,RX and GND of Atreyo TTL converter or any other TTL converter with 9600, 8, N, 1 parameter.

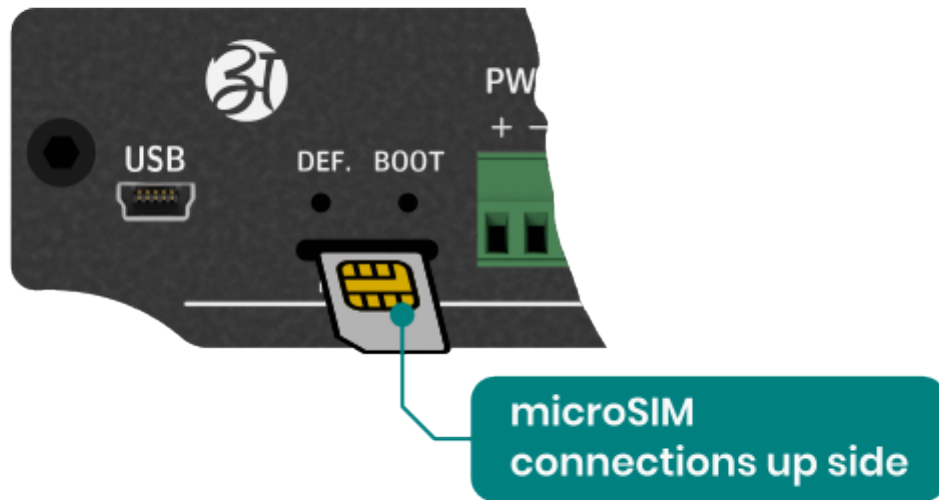
The pin assignment of the port is shown as above.



Note that RX of gateway should be connected to TX of USB-UART converter. And TX of gateway to RX of USB-UART converter

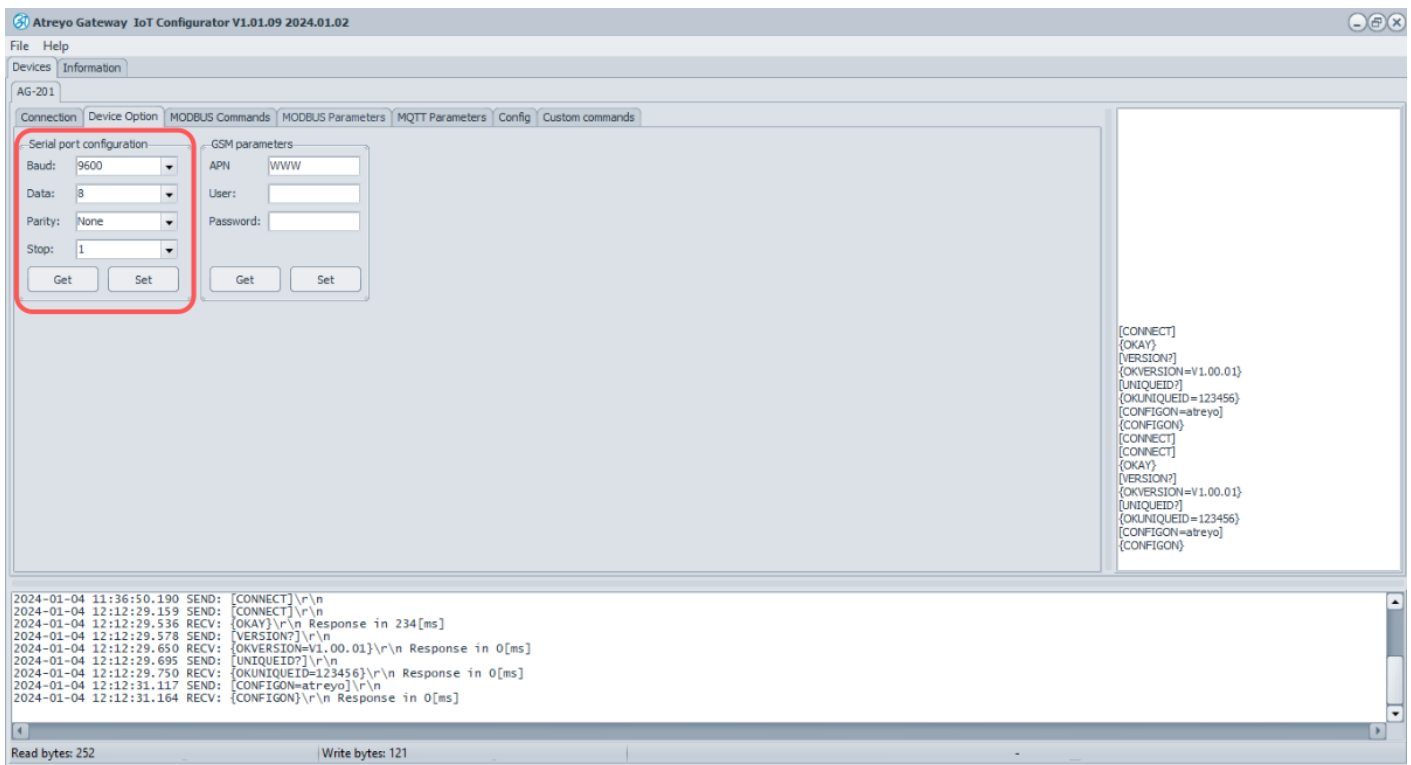
Inserting SIM card

Please refer drawing for proper SIM placement.



Connecting configuration application

1. Connect one end of the TTL converter to the window computer.
2. Open AG IoT Configuration application on window PC.
3. Select AG-201, Select COM port and configure port with 9600,N,1,8 and click open port
After port connection, click connect.
4. Once the connection is established successfully, enter the password "atreyo" to access the configuration mode. This is the default password.
5. Click CONFIGON and configure device parameter, as shown below:



Benereal configuration

1. Reset the device parameters by selecting **Make default**.
2. Initiate a device restart by clicking on **Restart**.
3. Modify the password in the Device Password section; after entering the new password, click **Set Password**.
4. To apply and save these changes in the device, click **Config OFF**.
5. After configuring all parameters, remember to click **Config OFF**.
6. The device will automatically restart and operate based on the new configured parameters.

Serial interface

Go to Device option to view and configure serial parameter.

To configure serial parameter:

1. Configure the **baudrate**, **parity**, **data bits** and **stop bits**.
2. Click "**Set**" to apply the chosen settings.
3. Click "**Get**", to access the stored serial parameters from the device.

Fiels	Value	Comment
Baudrate	2400 4800 9600 14400 19200 28800 33600 38400 57600 115200 230400 460800 921600	default: 9600
Data	8 9	default: 8

Fiels	Value	Comment
Parity	None Odd Even	default: None
Stop	1 2	default: 1

Atreyo Gateway IoT Configurator V1.01.09 2024.01.02

File Help

Devices Information

AG-201

Connection Device Option MODBUS Commands MODBUS Parameters MQTT Parameters Config Custom commands

Serial port configuration

Baud: 9600

Data: 8

Parity: None

Stop: 1

Get Set

GSM parameters

APN: WWW

User:

Password:

Get Set

```
[CONNECT]
{OKAY}
[VERSION?]
{OKVERSION=V1.00.01}
[UNIQUEID?]
{OKUNIQUEID=123456}
[CONFIGON=atreyo]
{CONFIGON}
[CONNECT]
[CONNECT]
{OKAY}
[VERSION?]
{OKVERSION=V1.00.01}
[UNIQUEID?]
{OKUNIQUEID=123456}
[CONFIGON=atreyo]
{CONFIGON}
```

2024-01-04 11:36:50.190 SEND: [CONNECT]\r\n

2024-01-04 12:12:29.159 SEND: [CONNECT]\r\n

2024-01-04 12:12:29.536 RECV: {OKAY}\r\n Response in 234[ms]

2024-01-04 12:12:29.578 SEND: [VERSION?]\r\n

2024-01-04 12:12:29.650 RECV: {OKVERSION=V1.00.01}\r\n Response in 0[ms]

2024-01-04 12:12:29.695 SEND: [UNIQUEID?]\r\n

2024-01-04 12:12:29.750 RECV: {OKUNIQUEID=123456}\r\n Response in 0[ms]

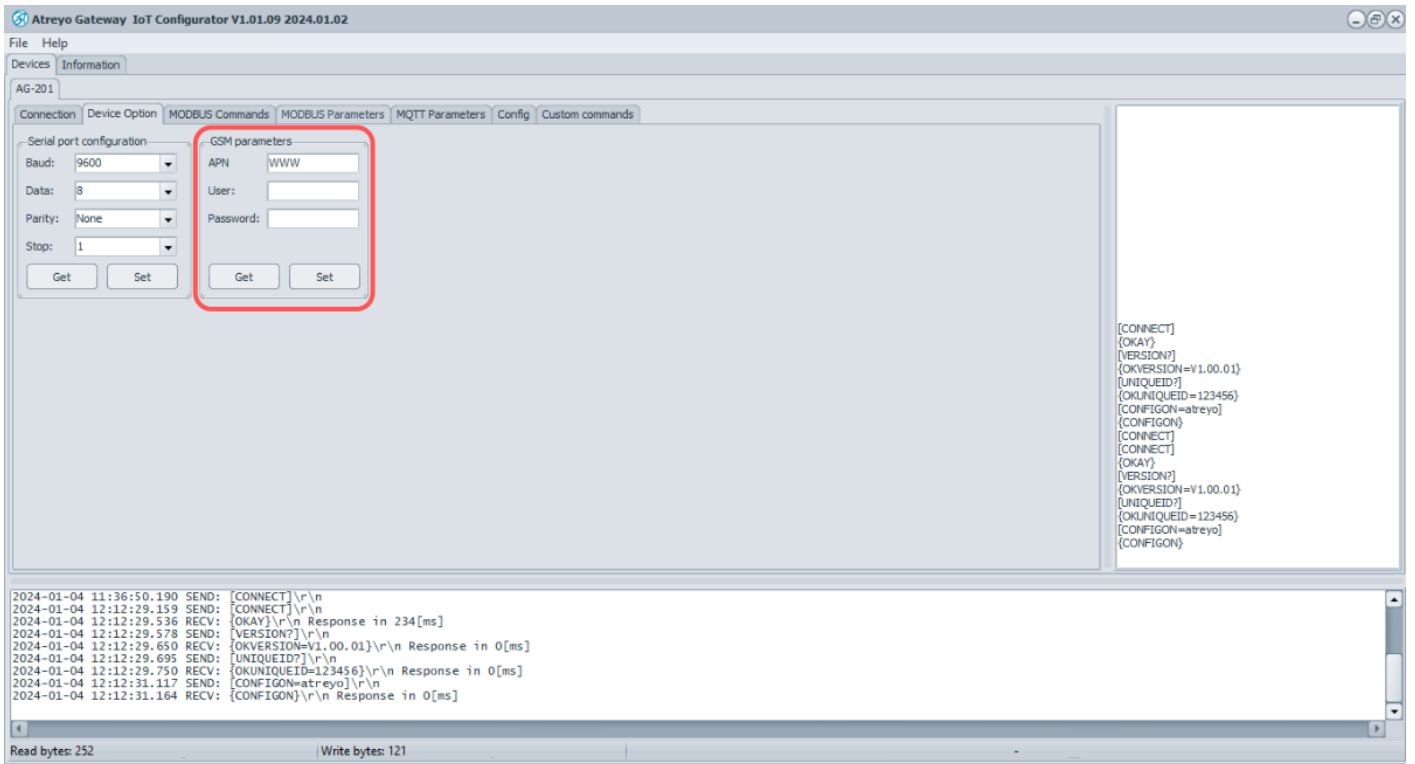
2024-01-04 12:12:31.117 SEND: [CONFIGON=atreyo]\r\n

2024-01-04 12:12:31.164 RECV: {CONFIGON}\r\n Response in 0[ms]

Read bytes: 252 Write bytes: 121

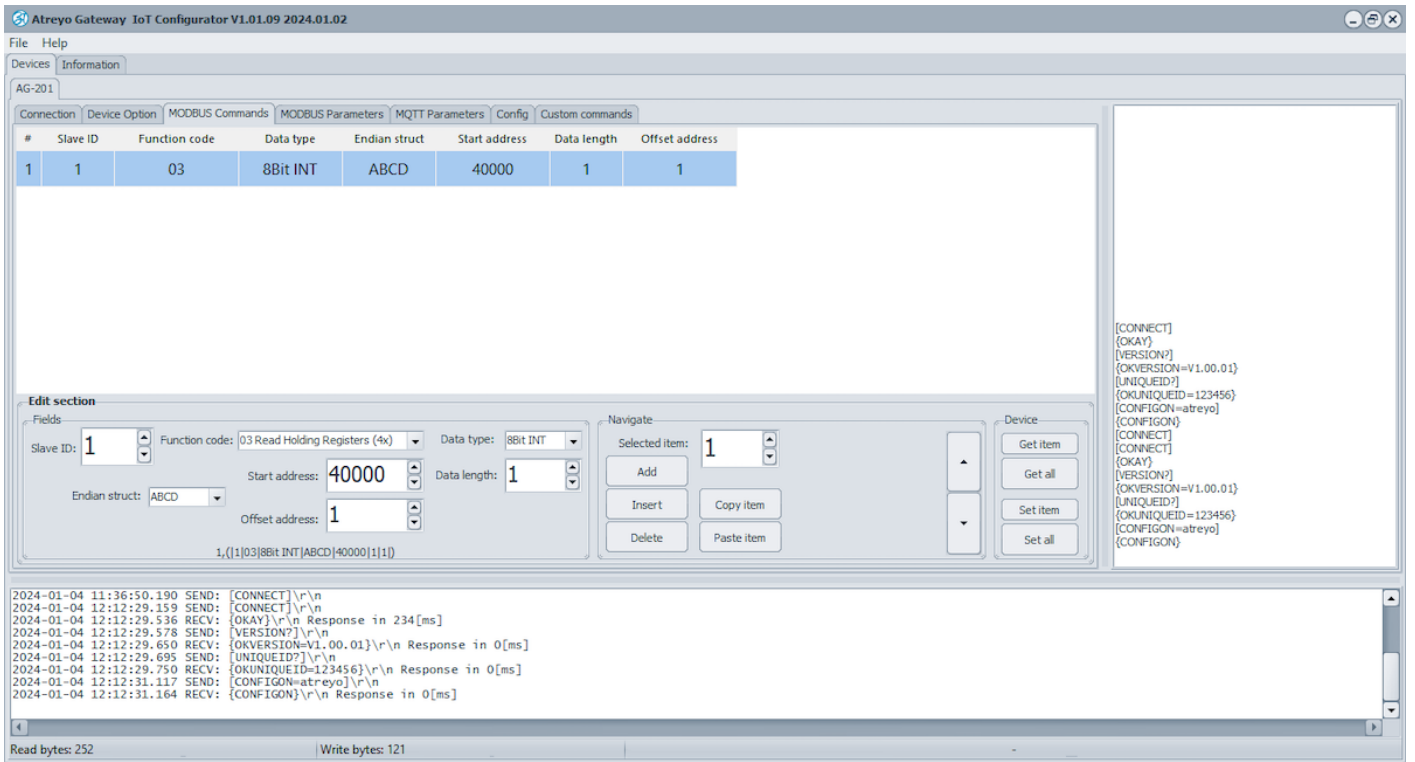
GSM parameter

1. Configure the **APN**, **user**, **password**.
2. Click "**Set**" to apply the chosen settings.
3. Click "**Get**", to access the stored GSM parameters from the device.



Modbus

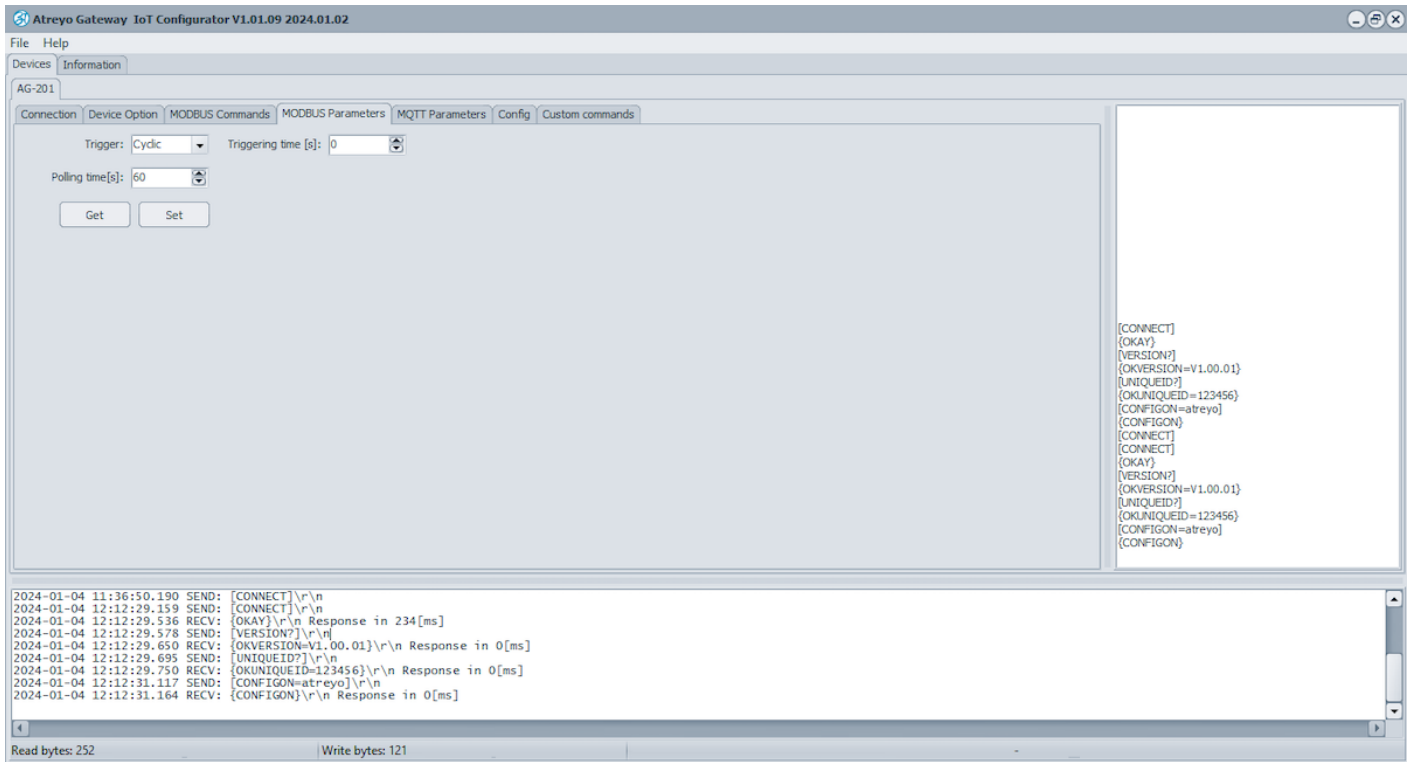
For Modbus command frame configuration, refer the table. You can add new modbus request string via the edit section.



Field	Value	Description
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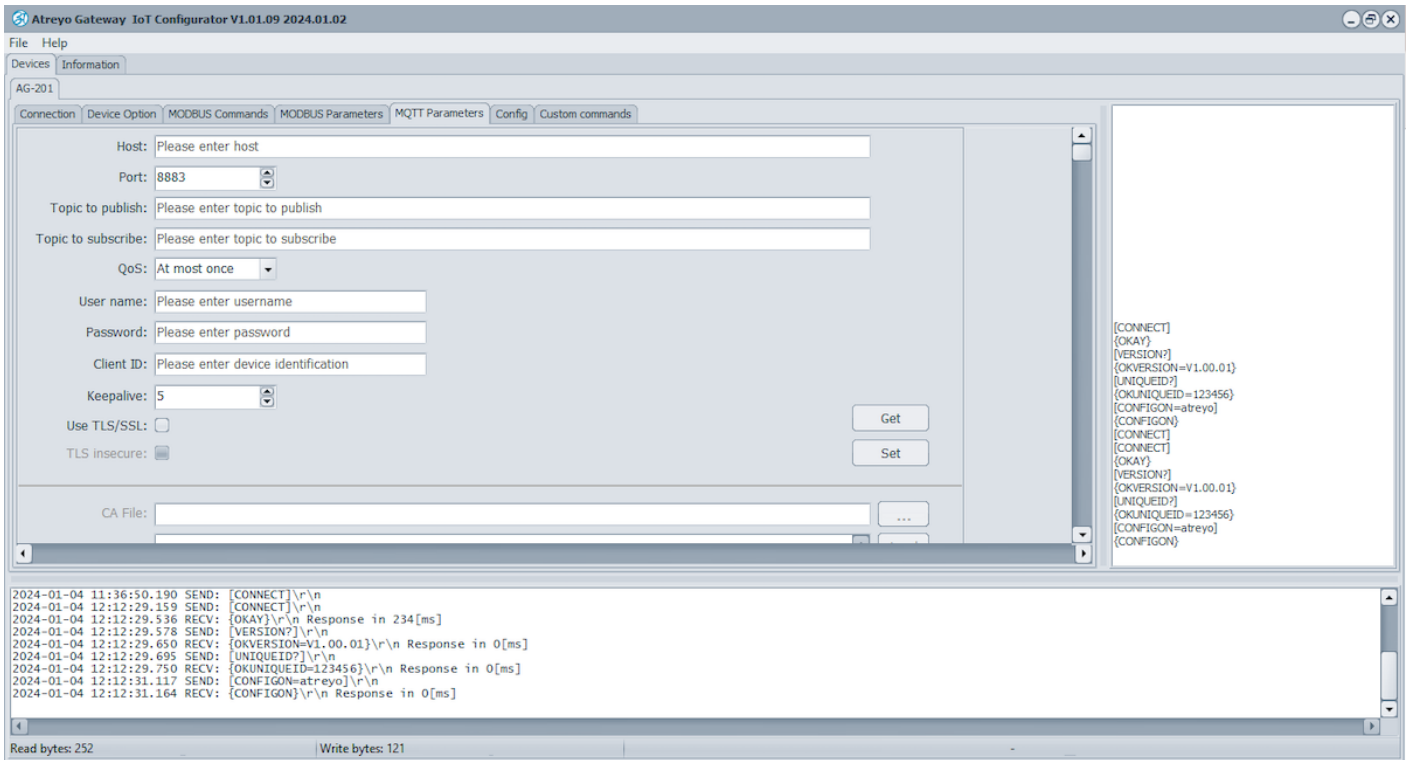
Slave ID	Integer[1...255]	Slave ID
Function code	Read Coils(1) Read Discrete Input(2) Read Holding Register(3) Read Input Register(4)	Specifies the type of register being addressed by a Modbus request
Data structure	8bit INT 8bit UINT 8bit HEX 16bit INT 16bit UINT 32bit float 16bit HEX 32bit HEX Bool	Defines how read data will be stored
Start address	Integer [0 – 65535]	First Modbus register from which data will be read
Offset address	Integer	The starting address or position of a data element within a register or data block
Data length	Integer [1 – 30]	Number of Modbus registers that will be read during the request
Data length	Integer [1 – 30]	Number of Modbus registers that will be read during the request
Endian structure	2bit data – ABCD BADC CDAB DCBA 16bit data – AB BA	Select endian structure of data type
Trigger	-	Not available now
triggering time	-	Not available now
Polling time	integer [1..]in sec; default: 60Sec	Interval at which requests are sent to the server device.

1. By clicking ADD, you can add multiple Modbus request strings.
2. Click "Set" to save a single frame or "Set All" to save all the Modbus request strings in the device.
3. clicking "Get" or "Get All", to access the saved Modbus strings in the device.
4. Additionally, you can delete, copy, and paste strings from the Navigate section.
5. Go to Modbus parameter section and set polling time of modbus data to the server by click on "Set". Also check polling time from device by click on "Get"



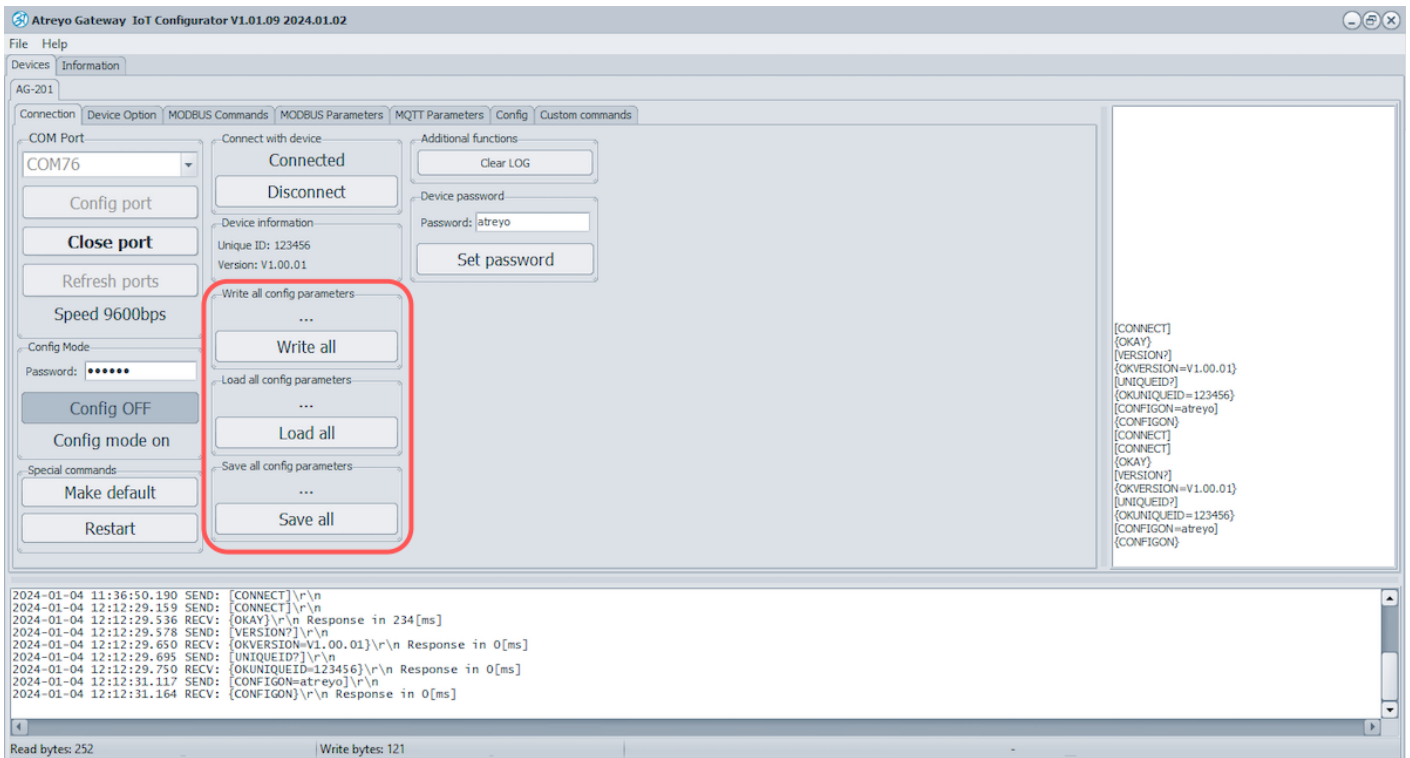
MQTT

1. Go to MQTT Parameter section, to add MQTT parameter.
2. Specify a server details, host and port.
3. If the broker requires, enter Client ID, Username, and Password. (optional). If not, enter NULL.
4. Specify the publish and subscribe topics.
5. Once you've specified all parameters, click "Set."
6. Click "Get", to access details of the MQTT parameters.



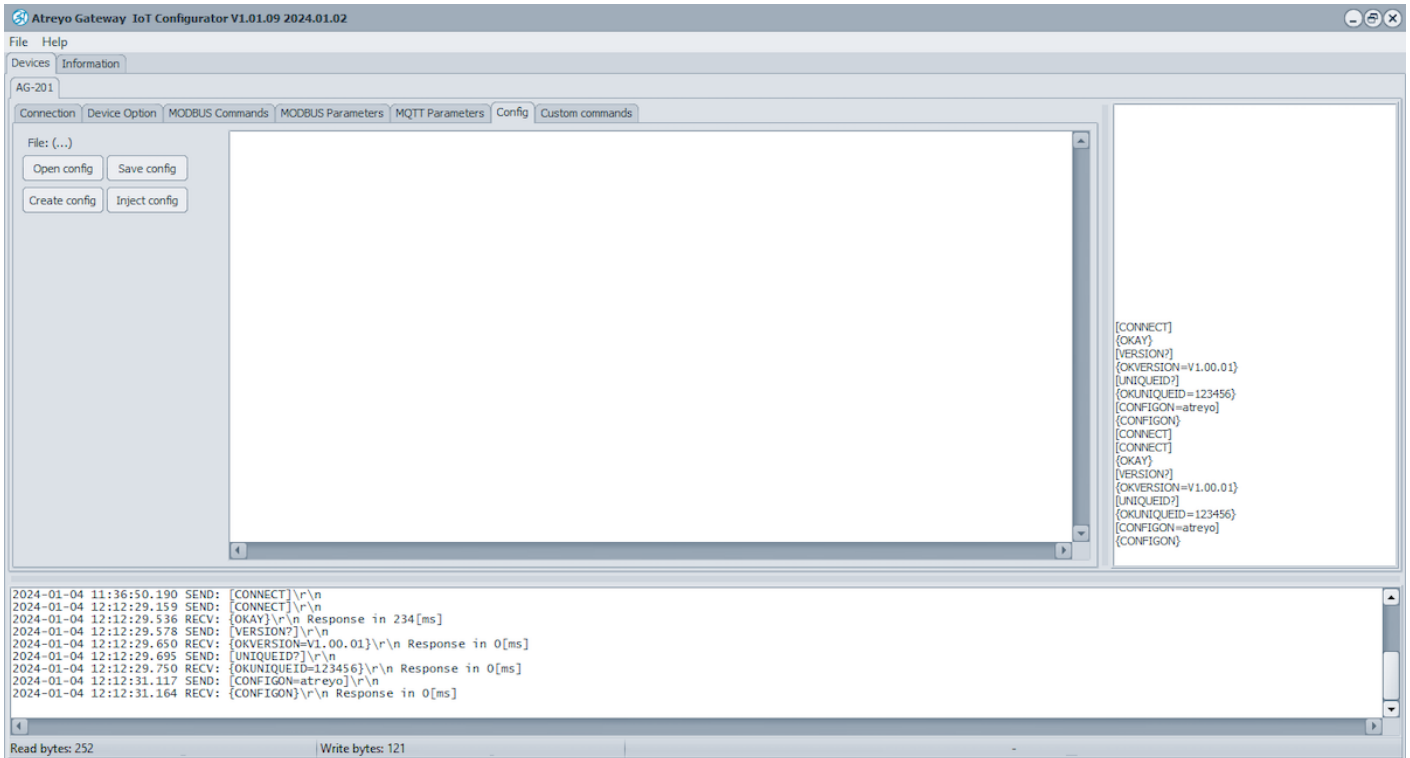
Save and restore

Easily configure the number of devices by loading a configuration file. Navigate to the Connection section, load the file by clicking **Load All**, and load all configuration parameters by clicking **Write All**.



The application allows saving the configuration for later uploading to other gateways.

1. Save all configured parameters in a file by navigating to the Connection section and clicking **Save all**.
2. After clicking "Save all", navigate to the Config section. From there, first you have to create config file by click on "Create config", once you create file, you can save it by clicking **Save config**.
3. And this file you can use for configuration of other AG-201 gateway anytime by click on **Open config**.



Revision #7

Created 17 February 2025 15:57:08 by Yogesh

Updated 9 March 2025 09:41:08 by Yogesh