



Quick User Guide

SPECTRE ATX & ATX4





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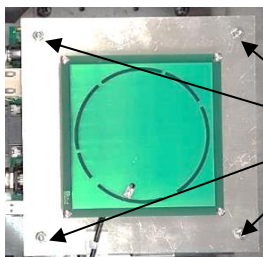
Factory settings

Communication mode		Ethernet								
Baud rate		115200								
RS485 address		0								
Hardware configuration of the outputs (OutputConf)		<div style="border: 1px solid #ccc; padding: 5px; width: fit-content; margin: auto;"> Output type <input checked="" type="radio"/> V+ <input type="radio"/> OC </div>								
Status of the outputs (OutputConf)		<div style="border: 1px solid #ccc; padding: 5px; width: fit-content; margin: auto;"> State <input checked="" type="radio"/> Closed <input type="radio"/> Opened </div>								
Autonomous_Output		<div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin: auto;"> <div style="display: flex; justify-content: space-between;"> Autonomous_Output <input type="checkbox"/> NoLeadingZeros </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 45%;"> EPC output <input checked="" type="radio"/> MSB <input type="radio"/> LSB </div> <div style="width: 45%;"> EPC format <input checked="" type="radio"/> Hexadecimal <input type="radio"/> Decimal </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 45%;"> Output Len <input type="text" value="12"/> </div> <div style="width: 45%;"> <input type="checkbox"/> ASCII <input type="checkbox"/> CR/LF <input type="checkbox"/> STX+ETX <input type="checkbox"/> LRC <input type="checkbox"/> AntID </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input checked="" type="checkbox"/> EPC <input type="checkbox"/> TID len <input type="text" value="1"/> word </div> </div>								
RF settings ATX4	Upper-band	<table border="1" style="width: 100%; border-collapse: collapse; margin: auto;"> <thead> <tr> <th style="width: 5%;">A</th> <th style="width: 30%;">ScanDuration x10ms</th> <th style="width: 20%;">Power</th> <th style="width: 45%;">Antenna</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">20</td> <td style="text-align: center;">269</td> <td style="text-align: center;">1</td> </tr> </tbody> </table>	A	ScanDuration x10ms	Power	Antenna	0	20	269	1
	A	ScanDuration x10ms	Power	Antenna						
0	20	269	1							
Lower-band	<table border="1" style="width: 100%; border-collapse: collapse; margin: auto;"> <thead> <tr> <th style="width: 5%;">A</th> <th style="width: 30%;">ScanDuration x10ms</th> <th style="width: 20%;">Power</th> <th style="width: 45%;">Antenna</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">20</td> <td style="text-align: center;">274</td> <td style="text-align: center;">1</td> </tr> </tbody> </table>	A	ScanDuration x10ms	Power	Antenna	0	20	274	1	
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0	20	325	1							



Changing the communication mode

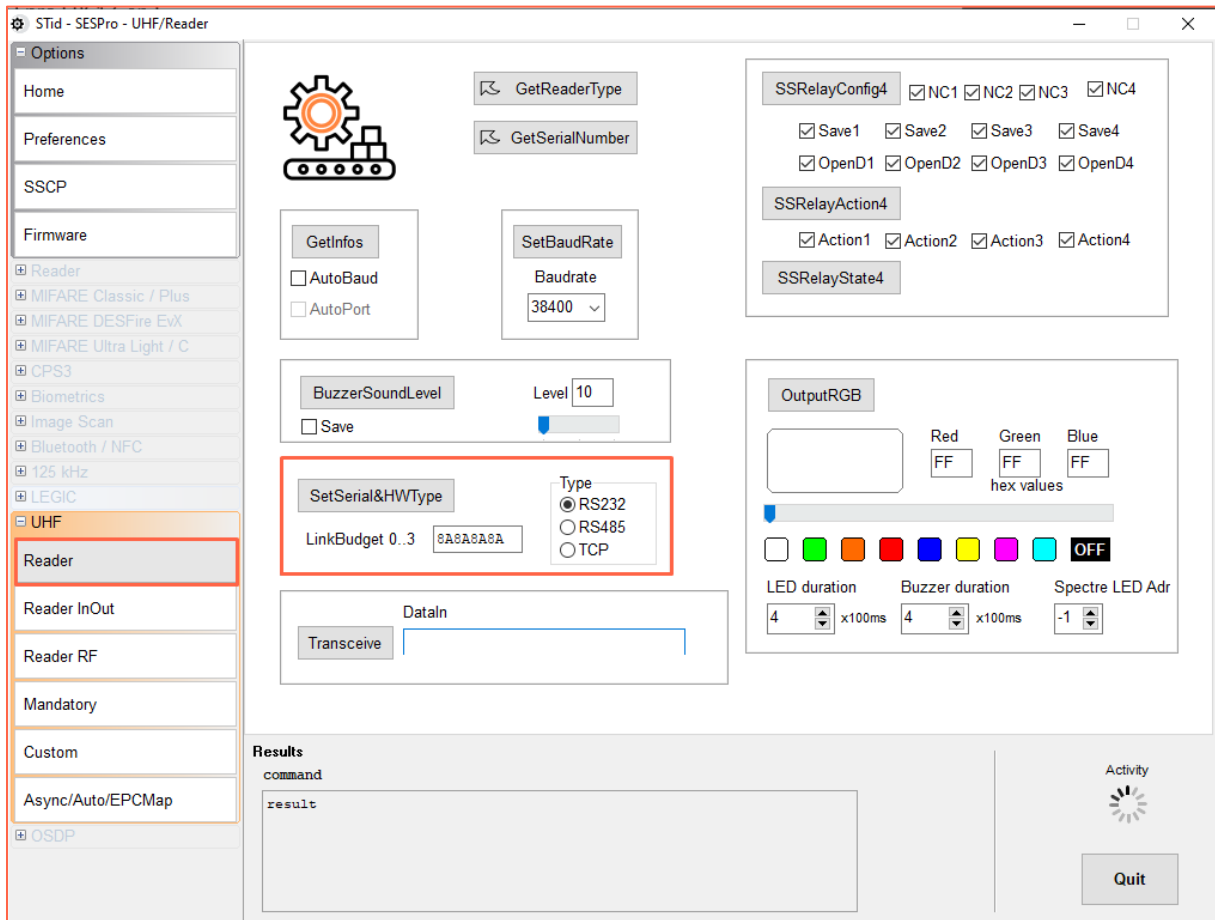
- 1- Connect the reader with the internal USB-C connector.



To access the interface card of the ATX reader, unscrew the 4 nuts of the antenna plate, gently lift the plate so as not to damage the cable.

- 2- Open STid - SESProUHF. (v 1.0.0.847 or higher).
- 3- On the "SSCP" tab, enter the following settings and the number of the communication port to which the reader is connected:

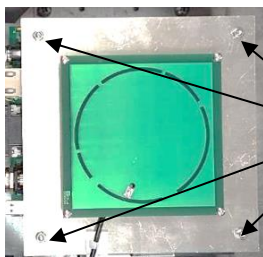
- 4- On the “Reader” tab:
 - enter “LinkBudget 0...3”: - 00000000 pour ATX
- 90909090 pour ATX4
 - Select the required type of communication: RS232 or RS485 or TCP.
 - Click “SetSerial&HWType”.
 - Check that the command has been executed in the “Results” window, which displays **OK**.





Changing the regulation

- 1- Connect the reader with the internal USB-C connector.



To access the interface card of the ATX reader, unscrew the 4 nuts of the antenna plate, gently lift the plate so as not to damage the cable.

- 2- Open STid - SESProUHF.

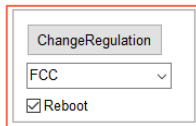
- 3- On the "SSCP" tab, enter the following settings and the number of the communication port to which the reader is connected:



- 4- On the “Reader RF” tab, select the required regulation according to the table below:

Reader reference	Authorized / accepted regulation
ATX/ATX4-W5x (Upper-band)	FCC Australia New Zealand
ATX/ATX4-W4x (Lower-band)	ETSI- Lower-band Morocco

A Lower-band reader will refuse the FCC/Australia/New Zealand regulations.
An Upper-band reader will refuse the ETSI-Lower-band / Morocco regulations.



- 5- Tick the “Reboot” box
- 6- Click “ChangeRegulation”.

Note: The reader must be restarted to apply changes to the regulation.
This command must only be used to adjust the regulation of the reader to the regulation in force in the country of use.

The “Custom” setting must only be used with the prior agreement/support of STid. Otherwise, deterioration or malfunctions may occur, or the emissions may not comply with the regulation in force.
The agreement/support of STid for the definition of the “Custom” regulation settings does not relieve the user of its obligation to check the technical and administrative compliance with the regulation of the territory where the product is used.



Operating modes



TCP / RS232 / RS485

Operation according to the SSCP protocol

(SSCP_UHF_INDUS_US_Vxx)

USB-C

Keyboard emulation operation




TCP operation with Switch POE+

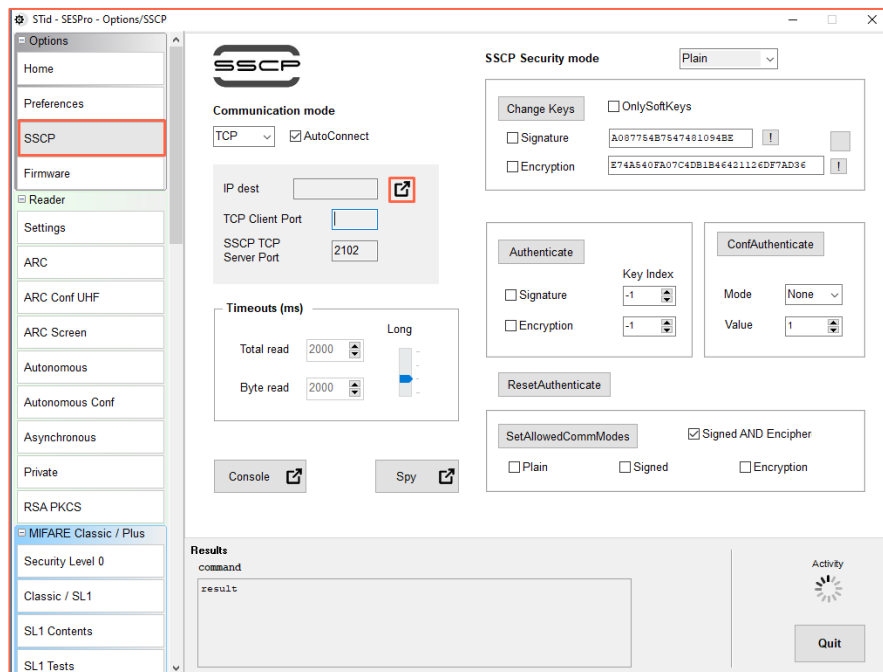
Refer to the specifications of the *SSCP_UHF_INDUS_US_Vxx* protocol for the commands.

Reader connection

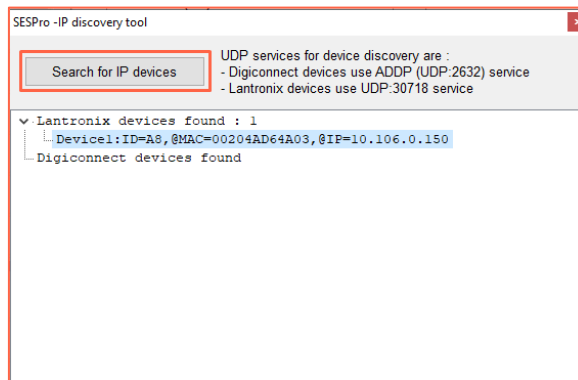
Connect the reader to the Switch POE + (Use a PSE (Power Sourcing Equipment) compatible with the IEEE 802.3at. 2009 standard.)

Searching for the IP address of the reader

- 1- Open STid - SESProUHF.
- 2- On the “SSCP” tab, click .



- 3- The window below opens. Click “Search for IP devices” to detect the reader.





- 4- The list of detected readers appears.

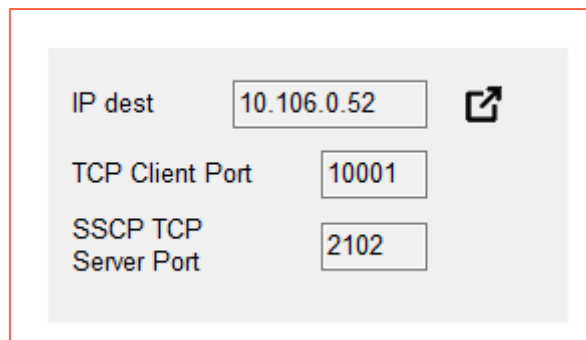


Note: if no devices appear, refer to “Reset and reconfiguration of the Ethernet module” section.

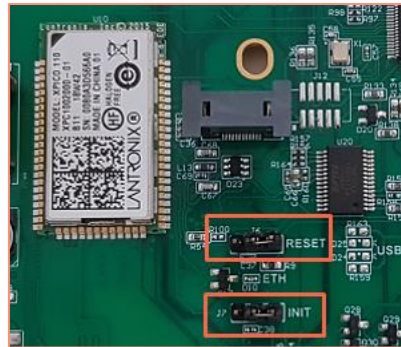
- 5- Check that the MAC address matches the address of the connected module.



- 6- Enter the IP address retrieved above in SESProuHF. Enter “10001” in the “TCP Client Port” field.



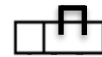
Reset and reconfiguration of the Ethernet module



- 1- Put the J7-INIT jumper in the 1-2 position, then put the J6-RESET jumper in the 1-2 position.



- 2- Return the J6-RESET jumper to the initial 2-3 position.



The orange Ethernet LED flashes once a second (500ms ON / 500MS OFF). Wait for 5 seconds.

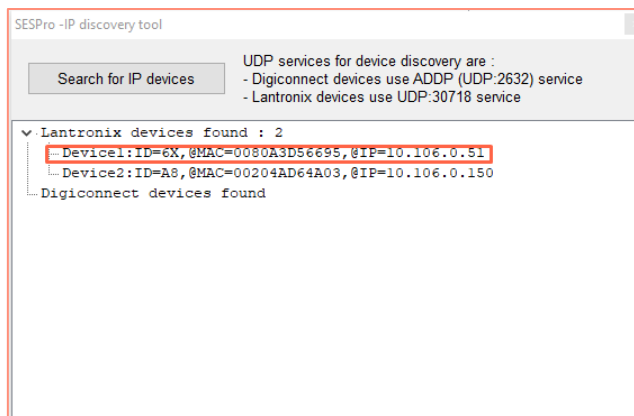
- 3- Return the J7-INIT jumper to the initial 2-3 position.



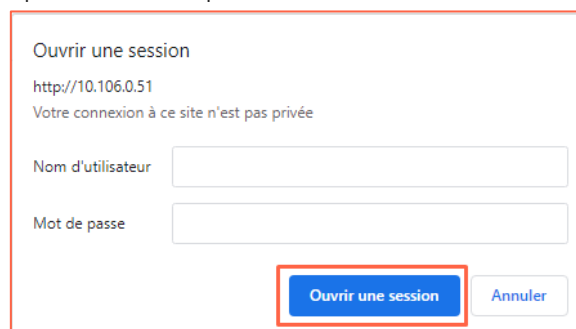
The orange Ethernet LED flashes. As soon as it remains permanently on, the module has been reset.

- 4- Repeat steps 1, 2 and 3.

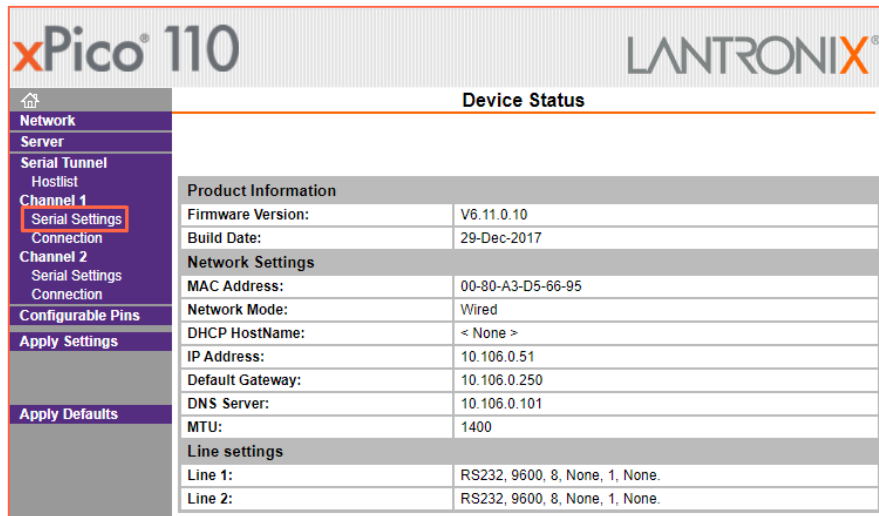
- 5- Double-click on the device.



- 6- The window below opens. Click "Open a session".

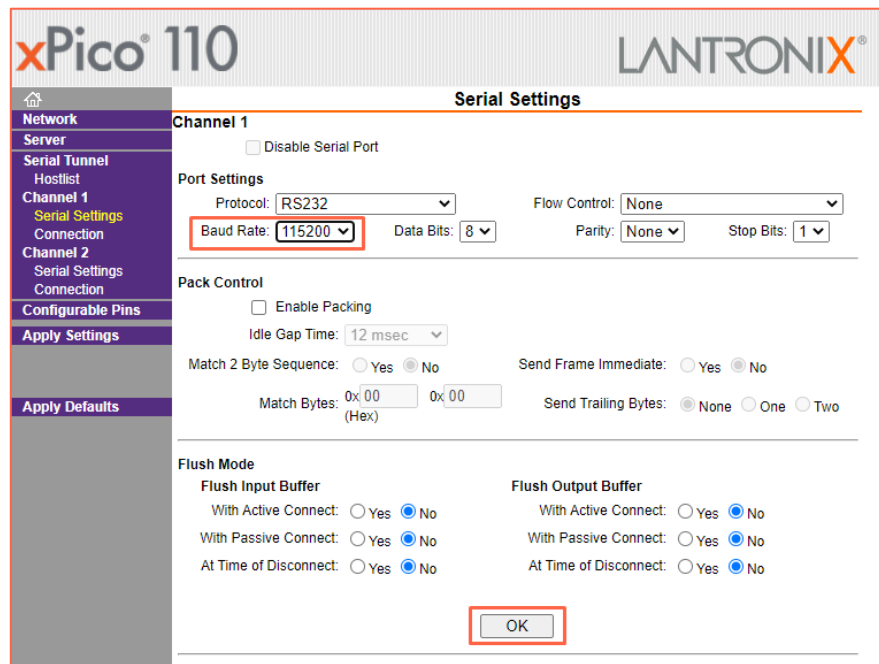


7- Go to “Channel 1 / Serial settings”.



Product Information	
Firmware Version:	V6.11.0.10
Build Date:	29-Dec-2017
Network Settings	
MAC Address:	00-80-A3-D5-66-95
Network Mode:	Wired
DHCP HostName:	< None >
IP Address:	10.106.0.51
Default Gateway:	10.106.0.250
DNS Server:	10.106.0.101
MTU:	1400
Line settings	
Line 1:	RS232, 9600, 8, None, 1, None.
Line 2:	RS232, 9600, 8, None, 1, None.

8- Change the baud rate to 115200 and click “OK”.



Channel 1

Disable Serial Port

Port Settings

Protocol: RS232 Flow Control: None

Baud Rate: 115200 Data Bits: 8 Parity: None Stop Bits: 1

Pack Control

Enable Packing

Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No Send Frame Immediate: Yes No

Match Bytes: 0x 00 0x 00 Send Trailing Bytes: None One Two (Hex)

Flush Mode

Flush Input Buffer

With Active Connect: Yes No

With Passive Connect: Yes No

At Time of Disconnect: Yes No

Flush Output Buffer

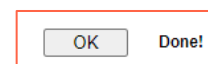
With Active Connect: Yes No

With Passive Connect: Yes No

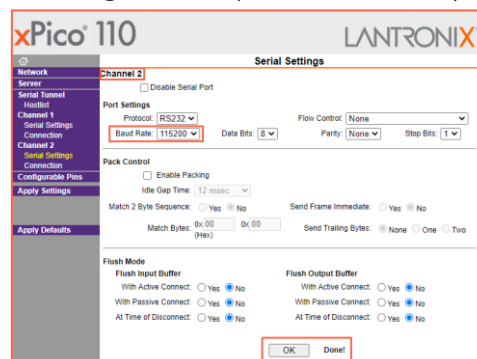
At Time of Disconnect: Yes No

OK

“Done!” appears to the right of “OK”.



9- Go to “Channel 2 / Serial settings” and repeat the same operation.



Channel 2

Disable Serial Port

Port Settings

Protocol: RS232 Flow Control: None

Baud Rate: 115200 Data Bits: 8 Parity: None Stop Bits: 1

Pack Control

Enable Packing

Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No Send Frame Immediate: Yes No

Match Bytes: 0x 00 0x 00 Send Trailing Bytes: None One Two (Hex)

Flush Mode

Flush Input Buffer

With Active Connect: Yes No

With Passive Connect: Yes No

At Time of Disconnect: Yes No

Flush Output Buffer

With Active Connect: Yes No

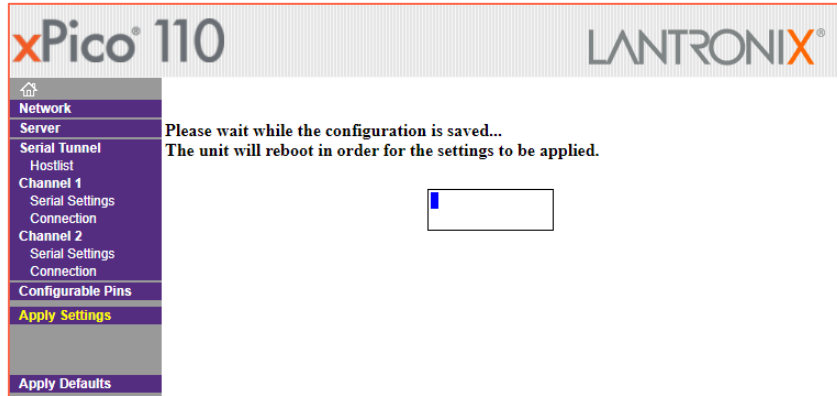
With Passive Connect: Yes No

At Time of Disconnect: Yes No

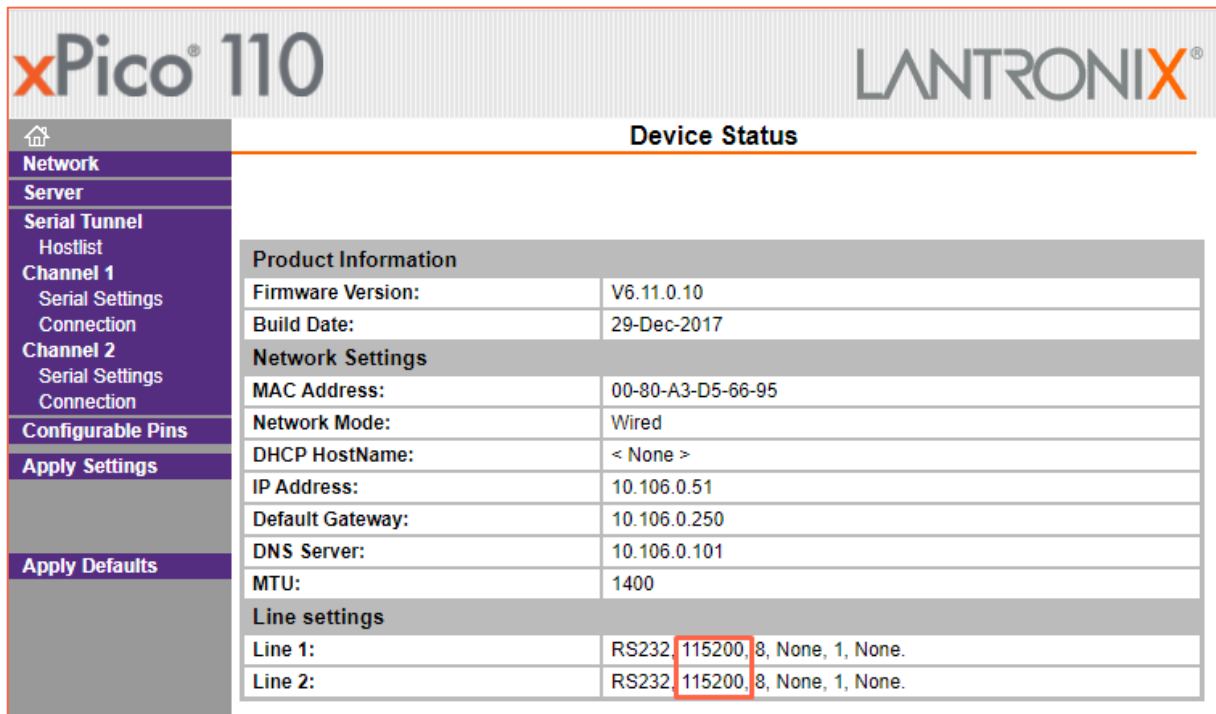
OK Done!



10- Click “Apply Settings”.

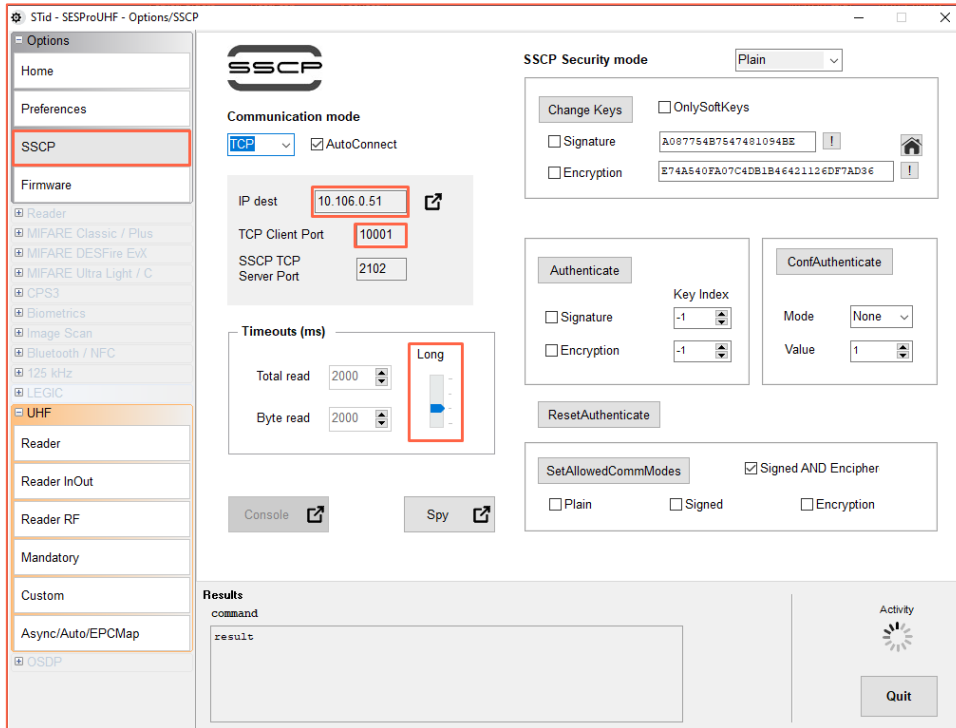


11- Check that the baud rates are 115200.

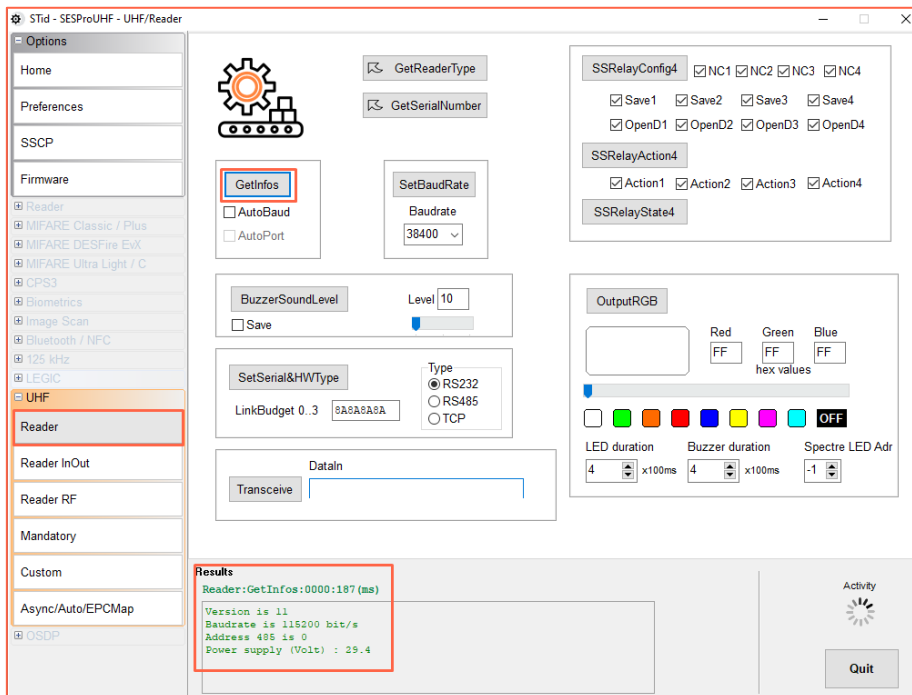


Communication test

In STid - SESProUHF, enter the IP address, enter “10001” in “TCP Client Port” and set the Timeout to “Long”.



Run a “GetInfos” in the “Reader” tab. The response from the reader appears in the “Results” window.



TCP operation: direct connection to the PC (without Switch / test mode)

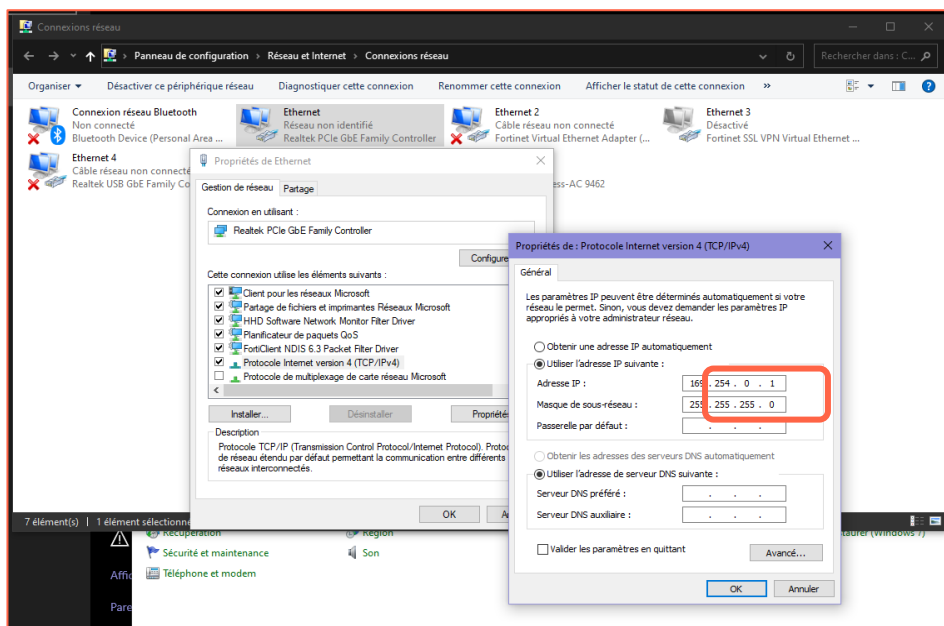
Refer to the specifications of the *SSCP_UHF_INDUS_US_Vxx* protocol for the commands.

Reader connection

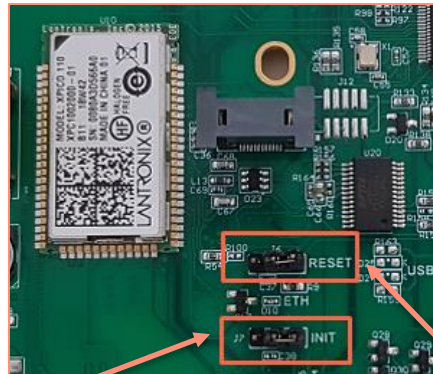
- Power the reader via Power jack
- Connect the reader via TCP-IP to the computer


Computer network settings

Change the network settings of the computer so that it can communicate on the Lantronix module's default IP address which is 169.254.X.X



RESET of the Ethernet module



- 1- Put the J7-INIT jumper in the 1-2 position, then put the J6-RESET jumper in the 1-2 position. 

- 2- Return the J6-RESET jumper to the initial 2-3 position. 


The orange Ethernet LED flashes once a second (500ms ON / 500MS OFF). Wait for 5 seconds.

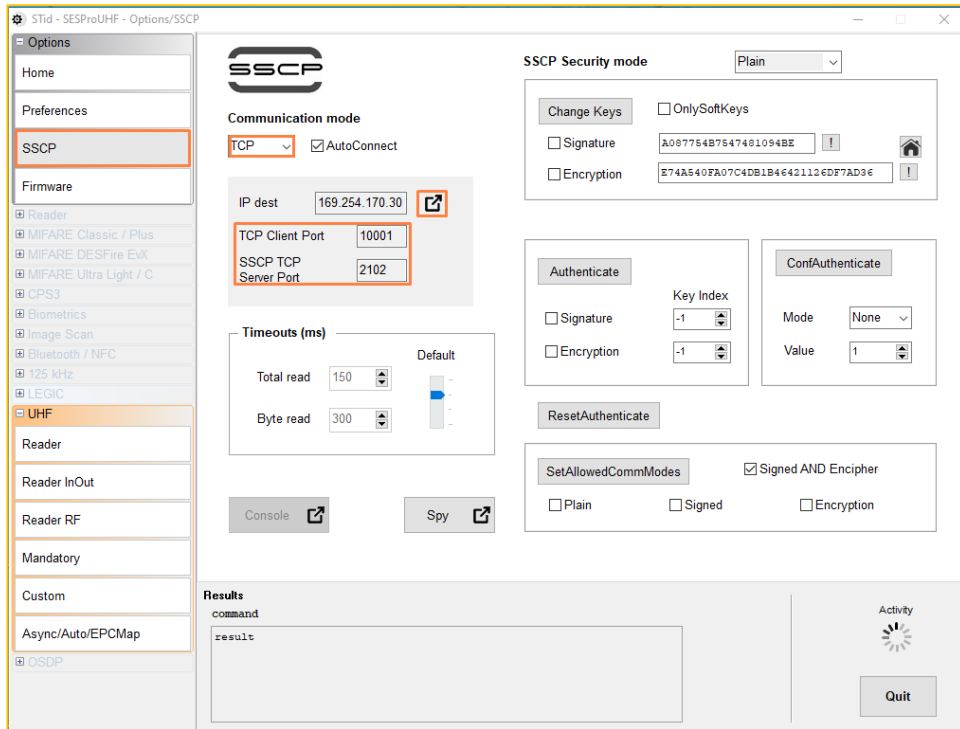
- 3- Return the J7-INIT jumper to the initial 2-3 position. 

The orange Ethernet LED flashes. As soon as it remains permanently on, the module has been reset.

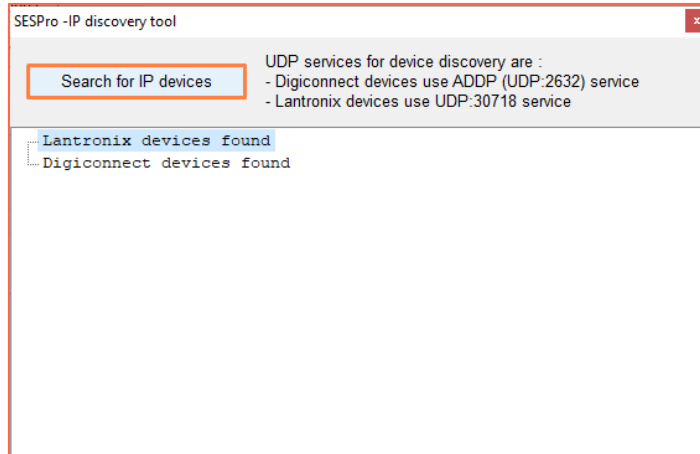
Searching for the reader on the network

1- Open STid - SESProUHF.

2- In « SSCP » enter TCP Client Port 10001 and SSCP TCP Server Port 2102 then click on 

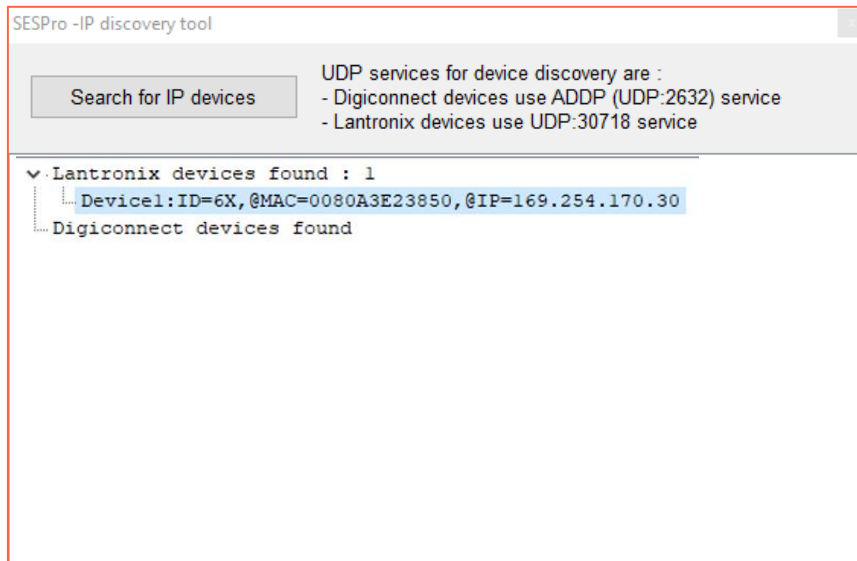


3- The window below opens, click on « Search for IP devices » to detect the reader.





4- The list of detected readers appears:



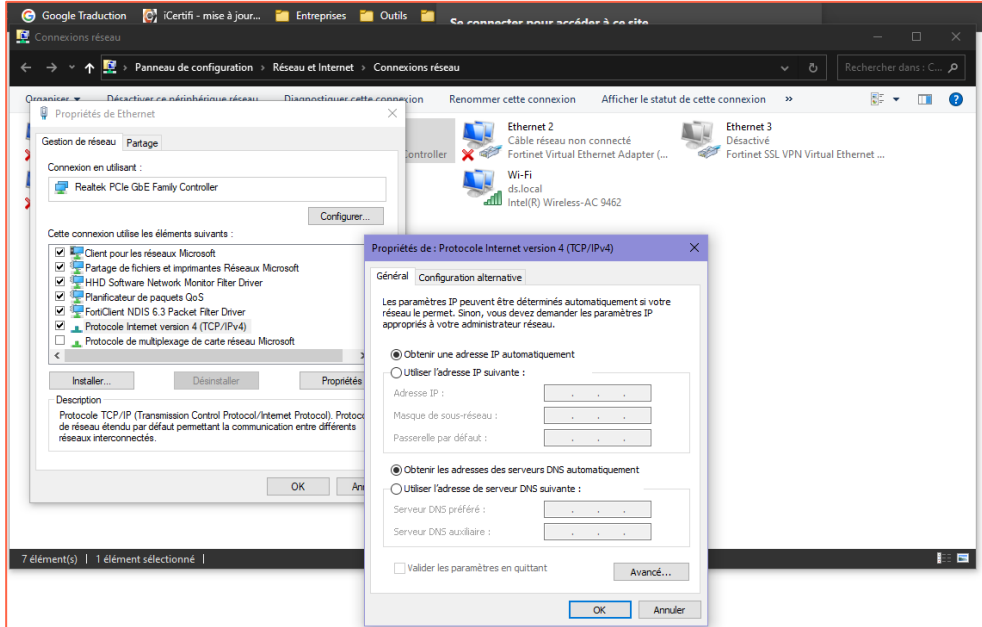
Note: if no devices appear, refer to “Reset and reconfiguration of the Ethernet module” section.

5- Check that the MAC address matches the address of the connected module.



Computer network settings

Return the computer to the default IP address so that it can communicate with the Lantronix via the internet:

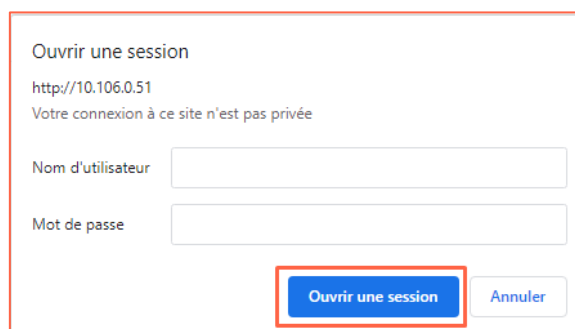


Configuration of the Ethernet module

1- In STid - SESProUHF double-click on the Device:



2- The window below opens. Click "Open a session".





3- Go to “Channel 1 / Serial settings”.

Product Information	
Firmware Version:	V6.11.0.10
Build Date:	29-Dec-2017
Network Settings	
MAC Address:	00-80-A3-D5-66-95
Network Mode:	Wired
DHCP HostName:	< None >
IP Address:	10.106.0.51
Default Gateway:	10.106.0.250
DNS Server:	10.106.0.101
MTU:	1400
Line settings	
Line 1:	RS232, 9600, 8, None, 1, None.
Line 2:	RS232, 9600, 8, None, 1, None.

4- Change the baud rate to 115200 and click “OK”.

Channel 1

Disable Serial Port

Port Settings

Protocol: RS232 Flow Control: None

Baud Rate: 115200 Data Bits: 8 Parity: None Stop Bits: 1

Pack Control

Enable Packing

Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No Send Frame Immediate: Yes No

Match Bytes: 0x 00 0x 00 Send Trailing Bytes: None One Two (Hex)

Flush Mode

Flush Input Buffer Flush Output Buffer

With Active Connect: Yes No With Active Connect: Yes No

With Passive Connect: Yes No With Passive Connect: Yes No

At Time of Disconnect: Yes No At Time of Disconnect: Yes No

OK

“Done!” appears to the right of “OK”



5- Go to “Channel 2 / Serial settings” and repeat the same operation.

Channel 2

Disable Serial Port

Port Settings

Protocol: RS232 Flow Control: None

Baud Rate: 115200 Data Bits: 8 Parity: None Stop Bits: 1

Pack Control

Enable Packing

Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No Send Frame Immediate: Yes No

Match Bytes: 0x 00 0x 00 Send Trailing Bytes: None One Two (Hex)

Flush Mode

Flush Input Buffer Flush Output Buffer

With Active Connect: Yes No With Active Connect: Yes No

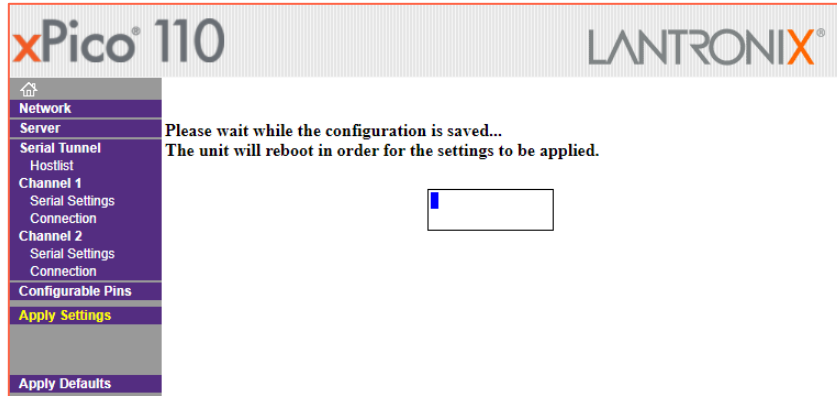
With Passive Connect: Yes No With Passive Connect: Yes No

At Time of Disconnect: Yes No At Time of Disconnect: Yes No

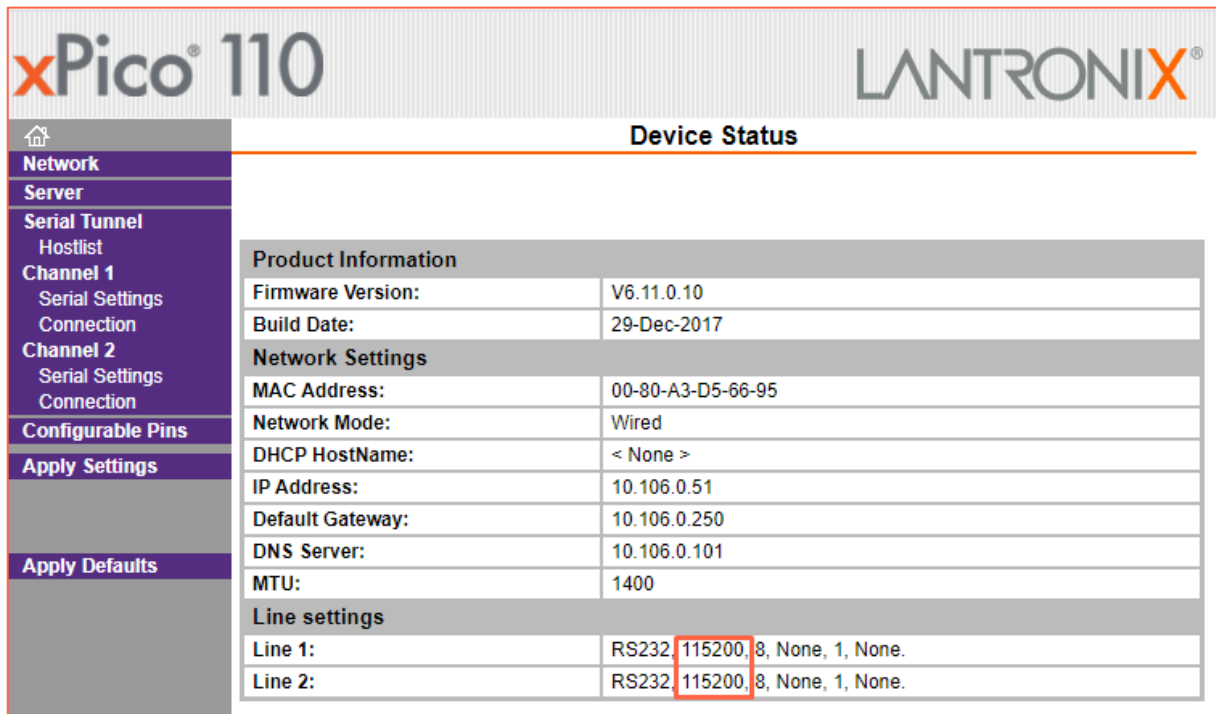
OK Done!



6- Click “Apply Settings”.



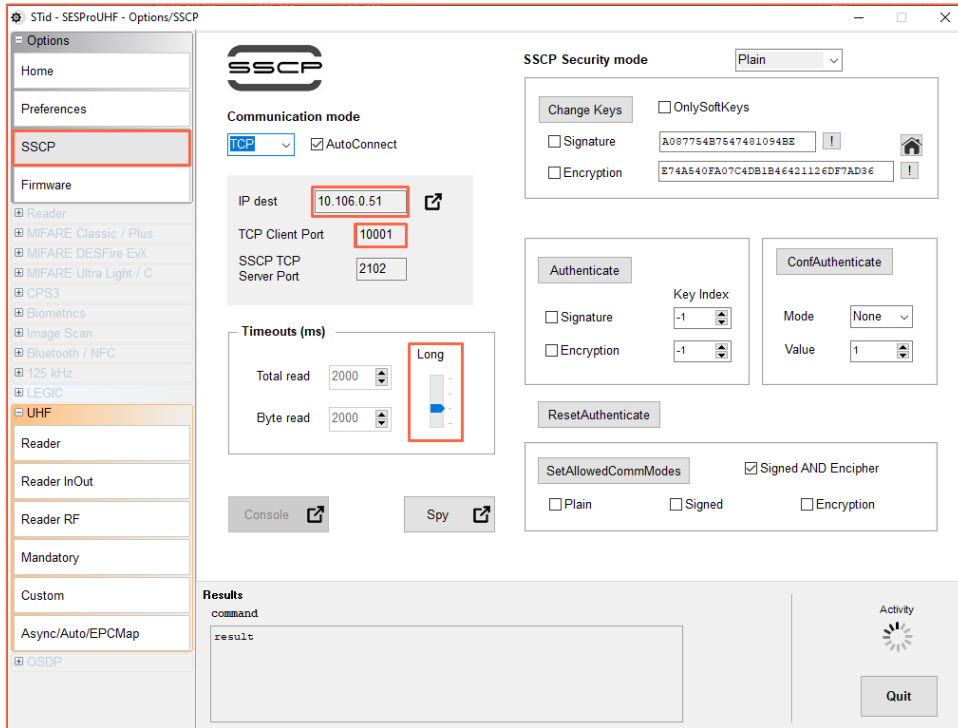
7- Check that the baud rates are 115200.



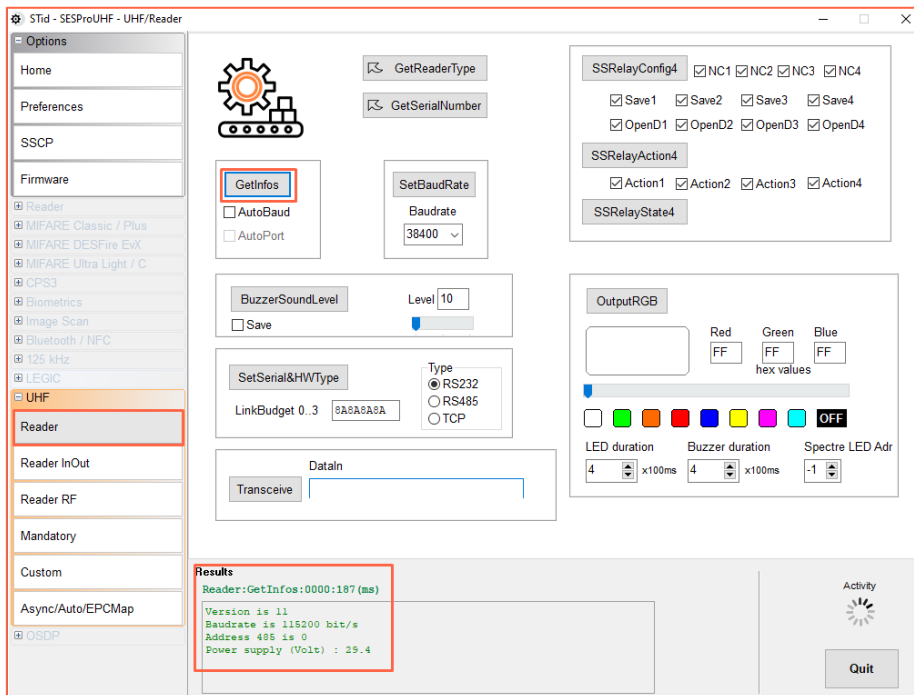
The reader is ready to communicate with the computer.

Communication test

In STid - SESProUHF enter the IP adresse, “10001” in “TCP Client Port” and set the Timeout to “Long”



Run a “GetInfos” in the “Reader” tab. The response from the reader appears in the “Results” window.





Keyboard emulation operation

As soon as a USB cord is connected between the USB-C output and a host, the reader switches to an autonomous mode, in which it performs inventories and sends all the EPCs of every detected tag in an active window.

The keyboard emulation settings can be configured using the internal USB-C connector:

- Using a terminal capable of sending ASCII characters on the serial connection of the internal USB-C. The commands must end with CR/LF (0x0D 0x0A). The reader responds “o” and “k” in ASCII when the frame is successfully retrieved.
- Using the STid – USB Wedge tool supplied on the USB key. Refer to Appendix 1.

List of the configurable settings:

ASCII command	Hexa data	Description of the command	Default settings
language	1 byte of data: AZERTY → 0x00 QWERTY → 0x01	Changes the keyboard layout.	AZERTY
casing	1 byte of data: Uppercase → 0x00 Lowercase → 0x01	Chooses whether the alphabetical characters are displayed on the screen in uppercase or lowercase.	Uppercase
numloc	1 byte of data: Num keypad → 0x00 Num key → 0x01	Chooses which numerical keys are used: those on the numerical keypad or those above the alphabetical keys.	Num keypad
info	No data	Shows the current configuration (version, baud rate, etc.).	
charreturn	1 byte of data: Deactivated → 0x00 Activated → 0x01	Switches the carriage return on or off.	Activated
reset	No data	Restores the default settings.	

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