

Date Submitted: 12.18.2019

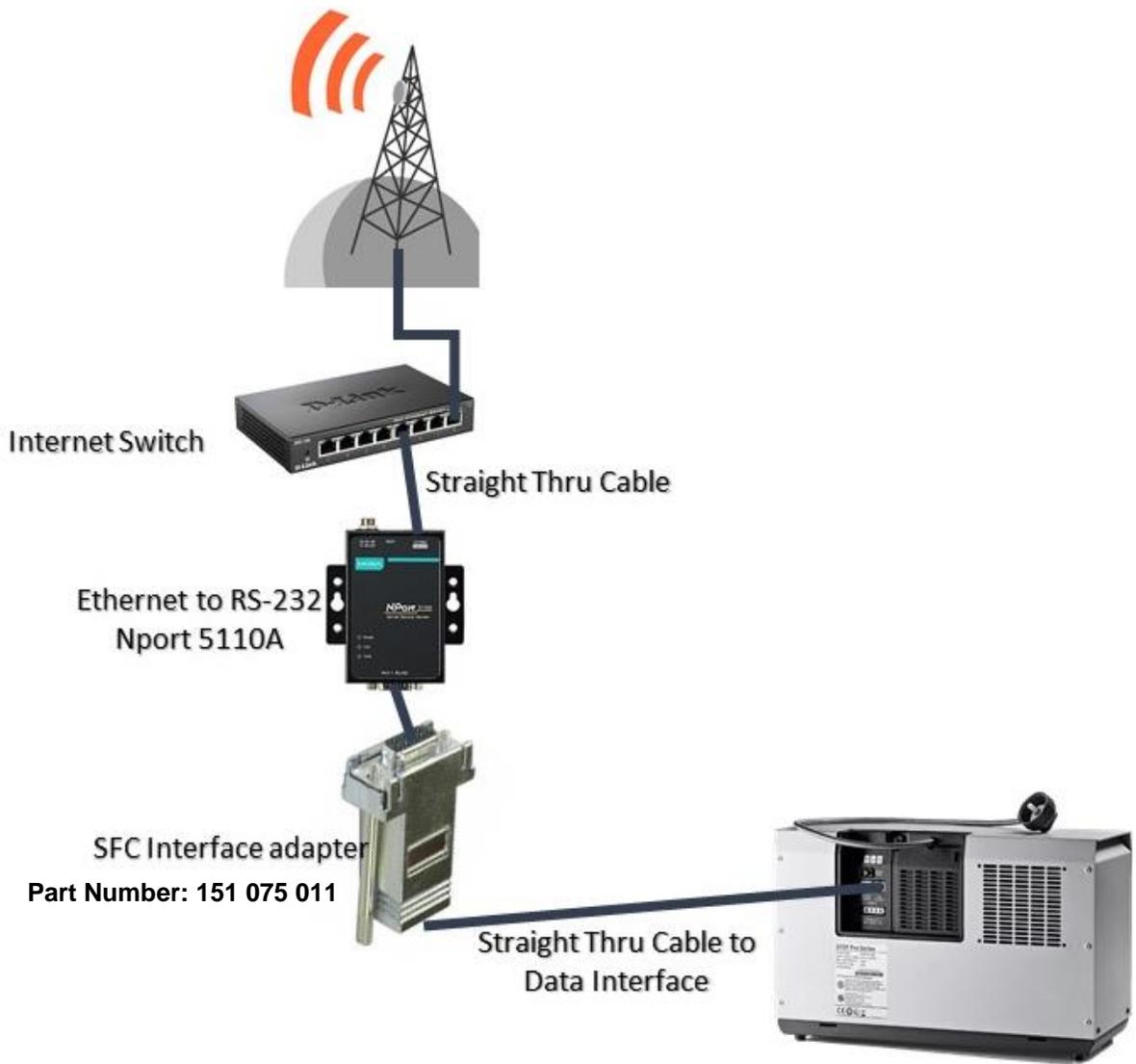
Description: Moxa NPort 5100A Basic Configuration

Category: Hints & Tips

Brief Description:

Overview for integrating the Moxa NPort 5100A Ethernet connection to an EFOY fuel cell. These are minimal settings to establish a connection. For more in depth programming, refer to the Moxa user manual.

Overview

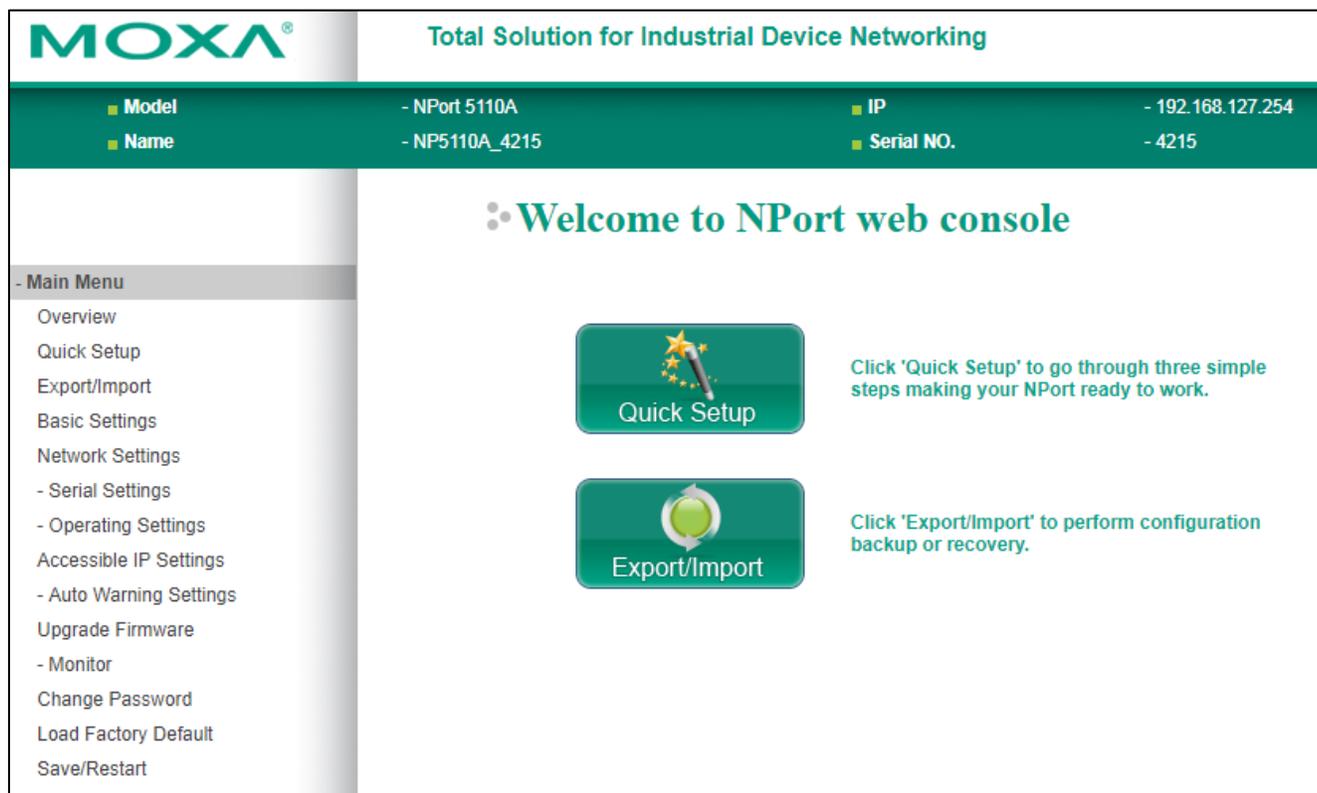


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Part 1/2: Ethernet to Serial Converter Setup

NPort 5100A series device server – [Click here for the full user manual](#)

1. Power the NPort 5100A. The ready LED will turn Red and then Green after approx. 3 seconds
2. Connect an Ethernet cable to the 5100's 10/100M port and the other end to the Network
3. The Link LED will turn Green (100Mbps) or Orange (10Mbps)
4. Open your web browser and enter 192.168.127.254. This is the default IP address for the Moxa.
5. Once connected, the Welcome screen for the web console will load (example below)

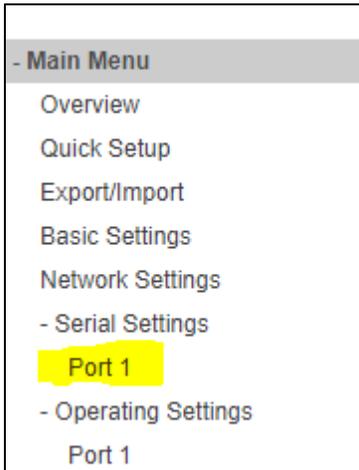


The screenshot shows the Moxa web console interface. At the top left is the MOXA logo. To its right is the text "Total Solution for Industrial Device Networking". Below this is a green header bar containing device information:

■ Model	- NPort 5110A	■ IP	- 192.168.127.254
■ Name	- NP5110A_4215	■ Serial NO.	- 4215

Below the header is a main content area with the heading "Welcome to NPort web console". On the left is a "Main Menu" sidebar with the following items: Overview, Quick Setup, Export/Import, Basic Settings, Network Settings, - Serial Settings, - Operating Settings, Accessible IP Settings, - Auto Warning Settings, Upgrade Firmware, - Monitor, Change Password, Load Factory Default, and Save/Restart. In the center of the main content area are two large green buttons: "Quick Setup" (with a star and wand icon) and "Export/Import" (with a circular arrow icon). To the right of the "Quick Setup" button is the text: "Click 'Quick Setup' to go through three simple steps making your NPort ready to work." To the right of the "Export/Import" button is the text: "Click 'Export/Import' to perform configuration backup or recovery."

- 6. Select **Serial Settings** from the Main Menu and then **Port 1**



- 7. Configure the Serial Settings as follows & then Submit

The screenshot shows the 'Serial Settings' configuration page for 'Port 1'. The page has a title 'Serial Settings' with a gear icon. Below the title is a section for 'Port 1' with a 'Port alias' input field. The 'Serial Settings' section includes: 'Baud rate' set to 9600, 'Data bits' set to 8, 'Stop bits' set to 1, 'Parity' set to None, 'Flow control' set to None, 'FIFO' with 'Enable' selected and 'Disable' unselected, and 'Interface' set to RS-232. A 'Submit' button is at the bottom.

8. Select **Operating Settings** from the Main Menu and then **Port 1**

- Main Menu

- Overview
- Quick Setup
- Export/Import
- Basic Settings
- Network Settings
- Serial Settings
 - Port 1
- Operating Settings
 - Port 1

9. Configure the Operating Mode for **TCP Server & Force Transmit to 20ms** (Note the Local TCP Port is 4001)

Operation Modes

Port 1

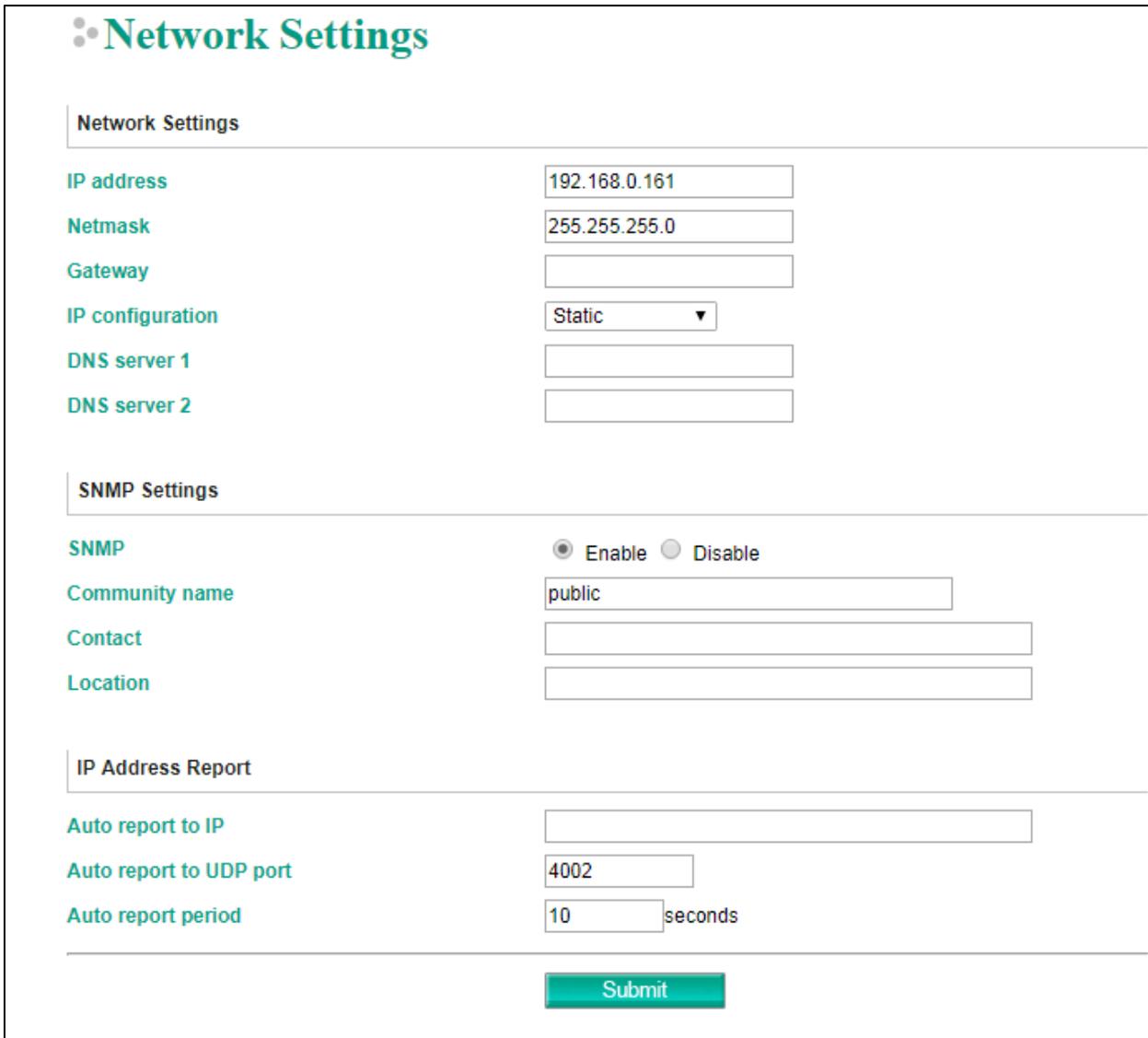
Operation mode	TCP Server
TCP alive check time	7 (0 - 99 min)
Inactivity time	0 (0 - 65535 ms)
Max connection	1
Ignore jammed IP	<input checked="" type="radio"/> No <input type="radio"/> Yes
Allow driver control	<input checked="" type="radio"/> No <input type="radio"/> Yes
Local TCP port	4001
Command port	966

Data Packing

Packing length	0 (0 - 1024)
Delimiter 1	00 (Hex) <input type="checkbox"/> Enable
Delimiter 2	00 (Hex) <input type="checkbox"/> Enable
Delimiter process	Do Nothing (Processed only when packing length is 0)
Force transmit	20 (0 - 65535 ms)

Submit

- 10. Lastly, Select **Network Settings** from the menu to change your IP address. Note that once the IP address has been submitted and the server saved/reset, connection to the Web Console will be lost until new IP address is entered in the browser.



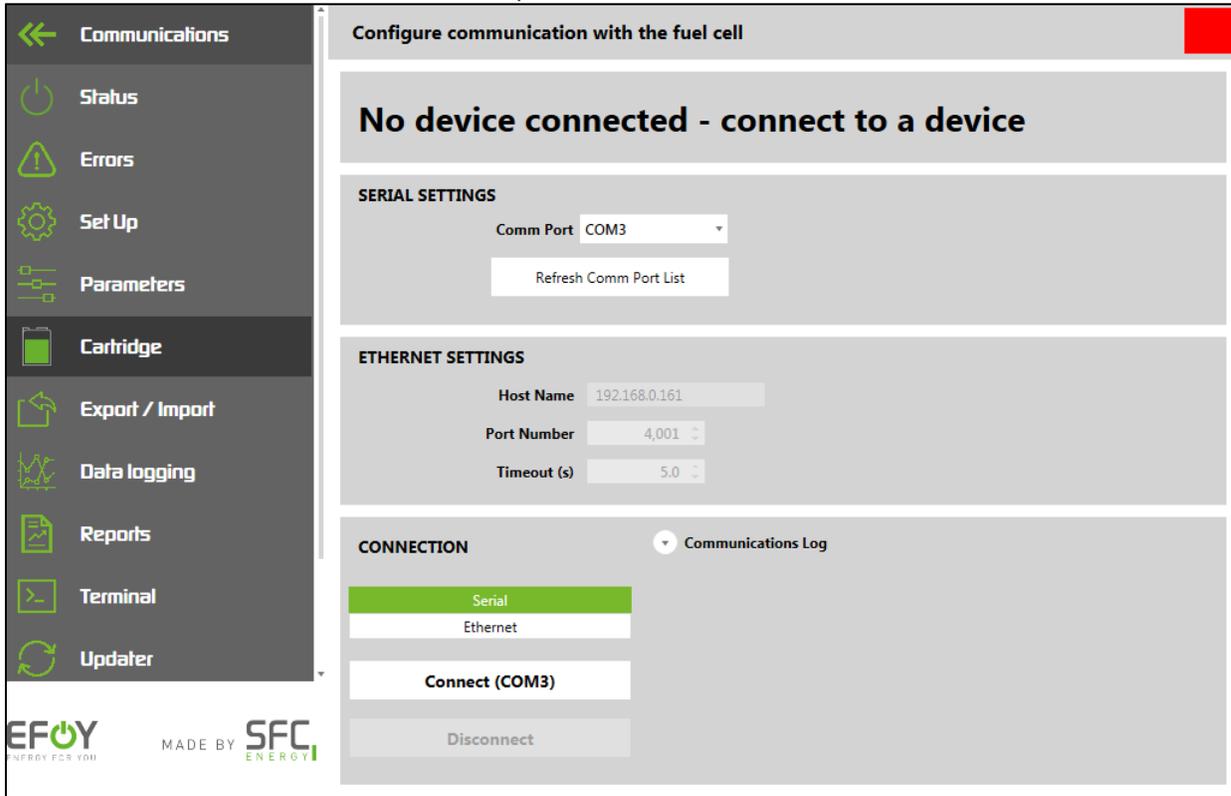
The screenshot shows a web interface titled "Network Settings" with three main sections: Network Settings, SNMP Settings, and IP Address Report. Each section contains various input fields and controls.

Section	Field/Control	Value
Network Settings	IP address	192.168.0.161
	Netmask	255.255.255.0
	Gateway	
	IP configuration	Static
	DNS server 1	
	DNS server 2	
SNMP Settings	SNMP	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
	Community name	public
	Contact	
	Location	
IP Address Report	Auto report to IP	
	Auto report to UDP port	4002
	Auto report period	10 seconds

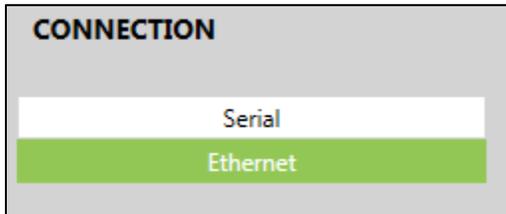
Submit

Part 2/2: Connection to SFC Connect Software

1. With the EFOY turned on and connected, Open SFC Connect Software



2. Click on Ethernet under the Connection section; it will highlight in Green



Enter the IP Address and the Port Number under Ethernet Settings

ETHERNET SETTINGS	
Host Name	<input type="text" value="192.168.0.161"/>
Port Number	<input type="text" value="4,001"/>
Timeout (s)	<input type="text" value="5.0"/>

3. Click on the Connect button



4. During communication, the indication box in the top right of the screen will turn from Red  to Yellow . Once full connection has been made, this indicator will then turn Green .