

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

› [Moxa](#) /

› [Moxa NPORT DE-211 Serial Device Server User Manual](#)

Moxa DE-211

Moxa NPORT DE-211 Serial Device Server User Manual

1. INTRODUCTION

The Moxa NPORT DE-211 is a 1-port serial device server designed to connect RS-232, RS-422, or RS-485 serial devices to an Ethernet network. This device enables network access to serial devices, facilitating remote management and data acquisition over a standard 10 Mbps Ethernet connection. It is engineered for industrial applications requiring reliable serial-to-Ethernet communication.

2. PRODUCT FEATURES

- **Versatile Serial Port:** Supports 3-in-1 serial port functionality, configurable for RS-232, RS-422, or RS-485 communication.
- **Multiple Operation Modes:** Offers a variety of operation modes including TCP Server, TCP Client, UDP, Ethernet Modem, and Pair Connection for flexible network integration.
- **Real COM/TTY Drivers:** Provides Real COM/TTY drivers for seamless integration with Windows and Linux operating systems.
- **Automatic Data Direction Control (ADDC):** Features 2-wire RS-485 with Automatic Data Direction Control for simplified wiring and reliable data transmission.

3. PACKAGE CONTENTS

Please ensure all items are present upon unpacking. The standard package for the Moxa NPORT DE-211 includes the device server unit. **Note: A power adapter is not included with this unit and must be sourced separately.**

4. DEVICE OVERVIEW



Figure 4.1: Front view of the Moxa NPORT DE-211, highlighting the DB-type serial port connector. This port is configurable for RS-232, RS-422, or RS-485 communication, allowing connection to various serial devices.



Figure 4.2: Rear view of the Moxa NPORT DE-211, displaying the Ethernet port (RJ45), power input jack, reset button, and a bank of DIP switches. The DIP switches are used for configuring various operational parameters, including serial interface type.

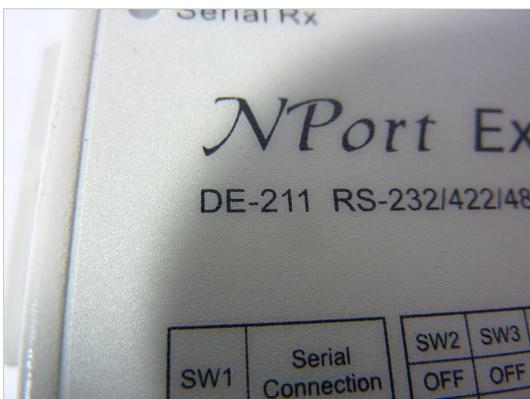


Figure 4.3: Close-up view of the device label, clearly showing the model number 'DE-211' and indicating its support for RS-232, RS-422, and RS-485 serial interfaces.

5. SETUP

5.1 Physical Connections

1. **Connect Serial Device:** Connect your RS-232, RS-422, or RS-485 serial device to the serial port on the NPORT DE-211. Ensure the correct cable type is used for your specific serial interface.
2. **Connect to Ethernet Network:** Use a standard Ethernet cable to connect the NPORT DE-211's Ethernet port to your network switch or router.
3. **Connect Power:** Connect a compatible DC power adapter (not included) to the power input jack. Ensure the power supply meets the device's voltage and current requirements.

5.2 DIP Switch Configuration

The NPORT DE-211 features DIP switches on its rear panel. These switches are used to configure the serial interface type (RS-232, RS-422, or RS-485) and other operational parameters. Refer to the detailed configuration guide available on the Moxa support website for specific DIP switch settings corresponding to your desired serial mode and application.

6. OPERATING MODES

The NPORT DE-211 supports various operating modes to suit different network communication requirements:

- **TCP Server Mode:** The NPORT DE-211 listens for incoming TCP connections from host computers.
- **TCP Client Mode:** The NPORT DE-211 actively initiates a TCP connection to a specified host IP address and port.
- **UDP Mode:** Data is transmitted using the User Datagram Protocol, suitable for applications where speed is prioritized over guaranteed delivery.
- **Ethernet Modem Mode:** Allows serial devices to communicate over Ethernet as if they were connected via a modem.
- **Pair Connection Mode:** Establishes a direct connection between two NPORT devices over an Ethernet network, creating a virtual serial cable.

Detailed configuration for each mode is performed via the device's web console or utility software.

7. MAINTENANCE

To ensure optimal performance and longevity of your NPORT DE-211, follow these general maintenance guidelines:

- **Environment:** Operate the device within its specified temperature and humidity ranges. Avoid exposure to direct sunlight, excessive dust, or moisture.
- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid or aerosol cleaners.
- **Firmware Updates:** Periodically check the Moxa website for firmware updates to ensure your device has the latest features and security enhancements.

8. TROUBLESHOOTING

If you encounter issues with your NPORT DE-211, consider the following troubleshooting steps:

- **Power Check:** Verify that the power adapter is correctly connected and supplying power to the device. Check the power indicator LED.
- **Network Connectivity:** Ensure the Ethernet cable is securely connected and that the network link/activity LEDs are functioning. Confirm network settings (IP address, subnet mask, gateway).

- **Serial Connection:** Double-check the serial cable connection to your device and verify that the serial port settings (baud rate, data bits, parity, stop bits) match those of the connected serial device.
- **DIP Switch Settings:** Confirm that the DIP switches are correctly configured for the desired serial interface type (RS-232/422/485).
- **Software Drivers:** If using Real COM/TTY drivers, ensure they are correctly installed and configured on your operating system.
- **Reset Device:** If issues persist, try performing a soft reset via the device's web interface or a hard reset using the physical reset button (refer to the full manual for reset procedures).

9. SPECIFICATIONS

Feature	Description
Model	NPORT DE-211
Serial Ports	1-port, RS-232/422/485 (3-in-1)
Ethernet Ports	1 x 10 Mbps Ethernet
Operation Modes	TCP Server, TCP Client, UDP, Ethernet Modem, Pair Connection
Drivers Supported	Real COM/TTY drivers for Windows and Linux
RS-485 Features	2-wire RS-485 with Automatic Data Direction Control (ADDC)
Item Weight	6.99 Pounds (approximately 3.17 kg)
Manufacturer	Moxa
Date First Available	November 11, 2017
ASIN	B00RW7HUAM

10. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, and additional resources, please visit the official Moxa website or contact your authorized Moxa distributor. Ensure you have your product model number (NPORT DE-211) and serial number ready when seeking support.