

Packing List

In addition to this guide, the package includes the following items:



DNP-211-S



Screw Driver



CA-0910



A microSD card and a
micro SD/SD adapter

Resources

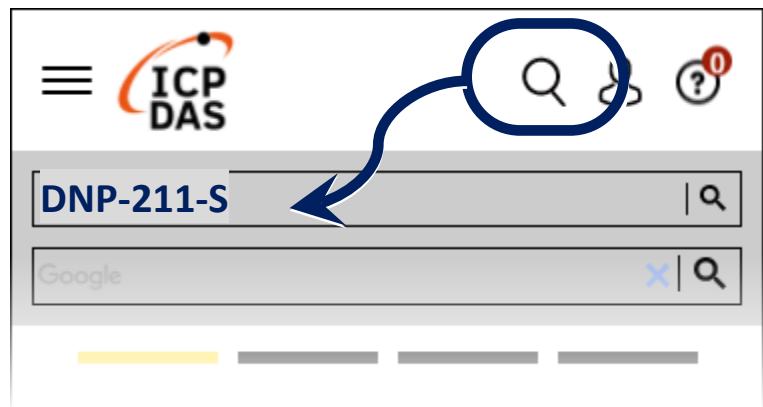
How to search for drivers, manuals and spec information on ICP DAS website.

Technical Support

service@icpdas.com

www.icpdas.com

- For Mobile Web



- For Desktop Web



DNP-211-S



Google

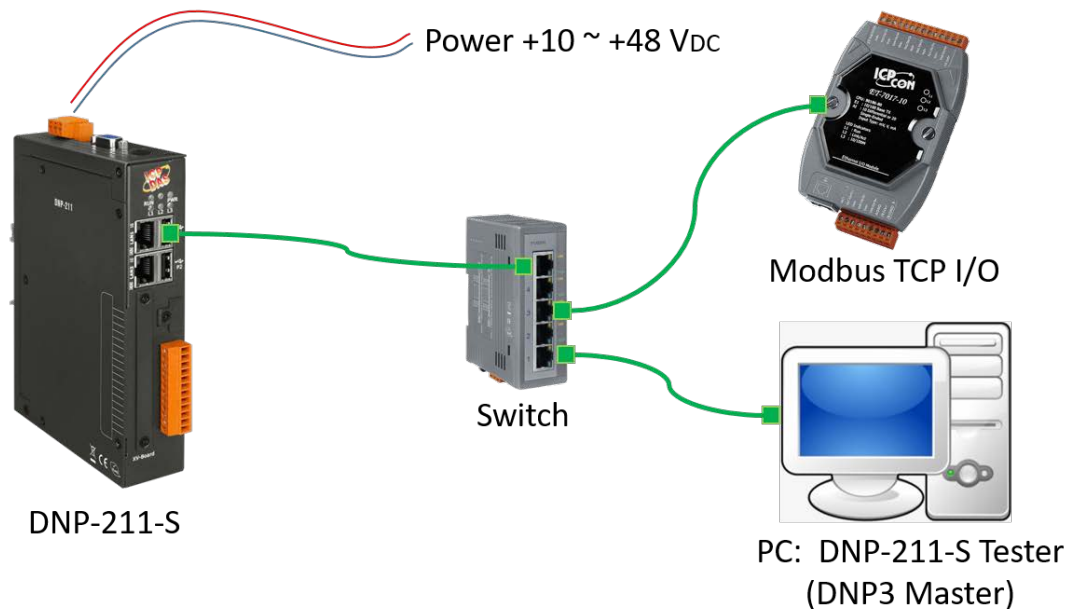


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1 Connect to PC, Internet, I/O and Power

Step1. Connect PC and Modbus TCP I/O to LAN1 of DNP-211-S with Ethernet switch.

Step2. Provide +10 ~ +48 V_{DC} power to DNP-211-S.



2 Execute DNP-211-S Utility to set DNP-211-S

The screenshot shows the "DNP-211-S Utility v1.00" window. The "DNP3 Server" tab is selected. The "DNP3 Mode" is set to "TCP". The "IP" field is "192.168.0.1" and the "Port" field is "20000". The "Local Outstation ID" is "2" and the "Remote Master ID" is "1". The "Binary Input Amount (G01V2: BI with flags)" is "10". The "Binary Output Amount (G10V2: BO with flags)" is "0". The "Analog Input Amount (G30V2: 16-bit with flag)" is "0". The "Int32 Input Amount (G30V1: 32-bit with flag)" is "0". The "Float Input Amount (G30V5: float with flag)" is "0". The "Double Input Amount (G30V6: double with flag)" is "0". The "Analog Output Amount (G40V2: 16-bit with flag)" is "0". The "Int32 Output Amount (G40V1: 32-bit with flag)" is "10". The "Float Output Amount (G40V3: float with flag)" is "0". The "Double Output Amount (G40V4: double with flag)" is "0". The "Modbus Device Amount" is "1".

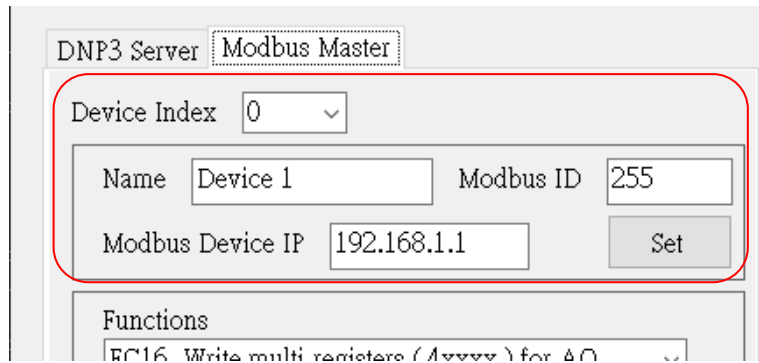
Step1. Choose the DNP3 connection mode of the DNP-211-S. For TCP mode, users need to input IP/Port of the DNP-211-S to connect. For UDP mode, configure both DNP-211-S and Remote Host IP/Port. For Serial mode, specify the Com Port and baud rate.

Step2. Configure Outstation ID of the DNP-211-S and DNP3 Master ID.

Step3. Calculate the total number of individual I/O types that will be used and fill in the corresponding I/O fields.

Step4. Select the number of Modbus I/O devices to be connected, up to a maximum of 32.

3 Configure Modbus TCP I/O Slave

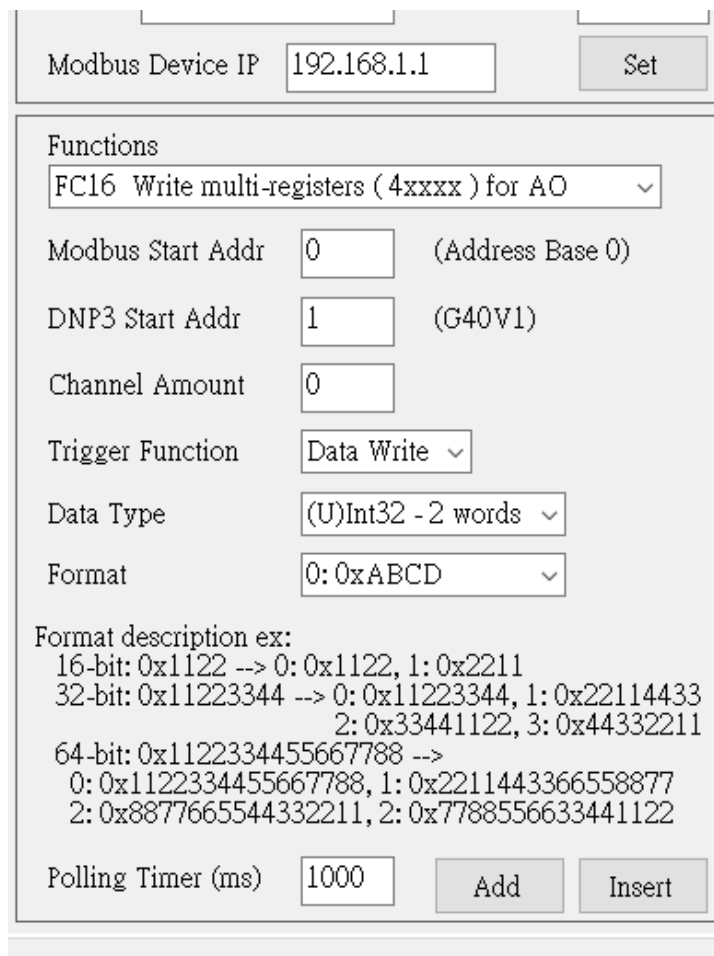


Step1. Select the slave index to set (0 ~ 31).

Step2. Enter the device name optionally, input the Modbus station number, and the connection IP.

Step3. Press the "Set" button to configure the I/O commands for the Modbus slave.

4 Modbus TCP Slave I/O Configure



Step1. Select function code.

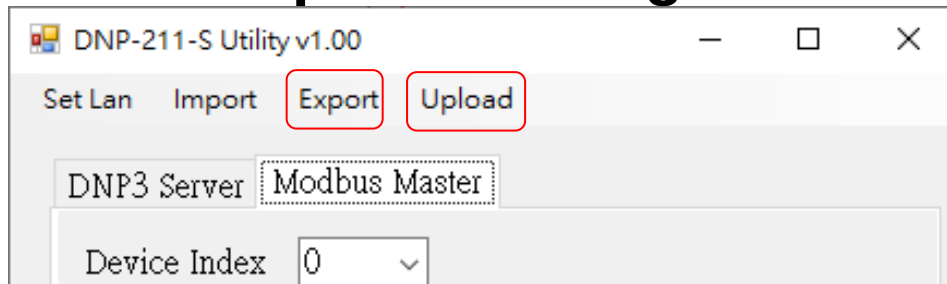
Step2. Enter the starting address of the Modbus read/write, map it to the starting address of a specific DNP3 I/O, and specify the number of mapped data points (not bytes).

Step3. Choose the command trigger mode (skip this step for Read function codes).

Step4. For AI/AO function codes, you must select the data type and format. °

Step5. After entering the polling time for this command, press the "Add" button to add a new command column.

5 Exports and Upload Configuration



- Step1. Repeat section 3 and 4 to complete all Modbus I/O settings, then press "Export" to export the configuration file.
- Step2. Press the "Upload" button, enter the current IP address of the DNP-211-S (default is 192.168.0.1) and then click "Upload".
- Step3. Select the exported configuration file for upload.
- Step4. After the upload is completed, the DNP-211-S will automatically reboot to activate the new configuration file.
Please do not turn off the power manually to avoid update failure.

6 Read and Test

```
D:\SourceCode\DNP3\Demo\Opendnp3\src\build\x64-Debug\cpp\examples...
channel state change: OPENING
---- DNP-211-S I/O Test ----
0: Read DI, 1: Read DO, 2: Read AI, 3: Read AO, 4: Write DO, 5: Write AO.
channel state change: OPEN
0
Input Start Address ( 0 ~ 3200 ).
0
Read data length.
10
5I[0]:000000000000
Output Address ( 0 ~ 3200 ).
0
Output data ( 0 ~ 65535 ).
10
Received command result w/ summary: SUCCESS
Header: 0 Index: 0 State: SUCCESS Status: SUCCESS_
```

- Step 1. Execute the DNP-211-S Tester and enter the connection IP and Port of the DNP-211-S as prompted.
- Step 2. Input 0 ~ 5 to execute Read/Write I/O functions, and follow the prompts to enter the Address and Data for Read/Write to test if the settings are correct.