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DVW Series Industrial IEEE 802.11 a/b/g/n Wireless AP/WDS/Client/Gateway User Manual



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AP/WDS/Client/

Gateway

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www.deltaww.com



DVW Series Industrial IEEE 802.11 a/b/g/n

Wireless AP/WDS/Client/Gateway

User Manual

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Chapter 1 Introduction

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About This Manual

The user manual is suitable for **DVW-W02W2-E2** and **DVW-W02W2-E2-CN**. Owing to the limitation of the radio frequency policy, if you need to use the Delta DVW series products in China areas, please refer to the model name **DVW-W02W2-E2-CN** on the Delta website, or contact our branch offices or distributors.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Country Code selection feature to be disabled for products marketed to the US/CANADA.

The equipment intended be used in telecommunication center.

CE Declaration of Conformity

The DVW series switches are CE certificated products, they could use in any kind of the environments under CE environment specification. For keeping more safe application, we strongly suggest to use the CE-compliant industrial enclosure products.

NCC 警語

電磁波曝露量 MPE 標準值(MPE) 1mW/cm2,送測產品實值為 0.065mW/cm2

經型式認證合格之低功率射頻電機,非經許可,公司,商號或使用者均不得擅自變更頻率、加大功率或變更原 設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時·應立即停用·並改善至無干 擾時方得繼續使用。

前項合法通信·指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電 波輻射性電機設備之干擾。

無線傳輸設備 (UNII)

在 5.25-5.35 秭赫頻帶內操作之無線資訊傳輸設備,限於室內使用。

無線資訊傳輸設備忍受合法通信之干擾且不得干擾合法通信;如造成干擾·應立即停用·俟無干擾之虞·始得 繼續使用。

無線資訊傳設備的製造廠商應確保頻率穩定性,如依製造廠商使用手冊上所述正常操作,發射的信號應維持於 操作頻帶中。

1.1 Feature

Thank you for purchasing the DVW Industrial Wireless AP/WDS/Client/Gateway. The DVW series wireless devices are equipped with the intelligent alarm function, and allow the wide range of operating temperature (-40 to 75°C). The DVW series devices are designed to support the application in any rugged environment and comply with UL, CE and FCC standards.

1.1.1 High Performance Network Technology

- 10/100/1000Base-TX
- Auto negotiation speed
- Auto MDI/MDI-X
- 802.11a/b/g/n, up to 450 Mbps

1.1.2 Industrial Grade Reliability

- Redundant dual DC power inputs
- 1 set of Digital Input
- 1 set of Relay Alarm

1.1.3 Robust Design

- Operating temperature: -40~75°C
- Storage temperature: -40~85°C
- Humidity: 5%~95% (non-condensing)
- Protection: IP40

1.1.4 Front Panel Ports and LEDs



Reset Button

1.1.5 Buttom Panel



1.2 Antenna Installation

Please connect 3 antennas to the DVW device. You can adjust the direction or angle of the antennas if the wireless signal is unstable.



1.2.1 Package Checklist

- One Delta DVW Wireless AP/WDS/Client Gateway
- Omni-directional Antenna x3
- Wall mounting Plate x1
- USB Type A to Type B console cable x1
- User manual and software CD
- Instruction Sheet



Chapter 2 User Interface Introduction

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2.1 USB Console Configuration

Delta DVW devices supports configuration using CLI interface, it mainly includes six parts:

- 1. Exit (Exit this CLI session)
- 2. Maintenance (some utility commands for maintenance related details)

load_default

3. network_setting (some utility commands for network details)

| get_dns | get_gateway | get_ip_address |
|----------------------|-----------------|----------------------|
| get_ip_configuration | get_subnet_mask | set_dns |
| set_gateway | set_ip_address | set_ip_configuration |
| set_subnet_mask | view_setting | |

- 4. **restart** (restart the device)
- 5. system_info_setting (some utility commands for system information related details)

| get_device_contact_info | get_device_description | get_device_location |
|-------------------------|-------------------------|-----------------------|
| get_device_name | set_device_contact_info | set_device_decription |
| set_device_location | set_device_name | view_setting |

6. time_setting (some utility commands for time related details)

| get_local_time | get_timeserver1 | get_timeserver2 |
|-----------------|-----------------|-----------------|
| get_timezone | set_local_time | set_timeserver1 |
| set_timeserver2 | set_timezone | view_setting |

You can use terminal software to connect to Delta DVW devices. Before you use CLI interface, please plug USB cable on USB port with baud rate 115200. The inactivity timeout value on a serial port connection can be configured between 0 and 160 minutes. (Value 0: disable the timeout.)

Below is an example to show you how to set the device name.

 Open terminal software, and select an appropriate COM port for Console Connection, 115200 for Baud Rate, 8 for Data Bits, None for Parity, and 1 for Stop Bits, None for Flow Control.



2. Type **clash** and then press **Enter**.

| 🇞 DVW - HyperTerminal | |
|--|-----|
| File Edit View Call Transfer Help | |
| | |
| Enter 'help' for a list of built-in commands. | |
| | |
| | |
| | |
| KAMIKAZE (Dieding edge, r18571) | |
| * 10 oz Triple sec mixture into 10 shot glasses. | |
| * 10 oz lime juice Salute! | |
| root@DVW-W02W2-E2:/# clish | |
| ************************************** | |
| * WADNING: Authorized Access Only * | |
| ************************************** | |
| sh: whoami: not_found | |
| Welcome it is Thu Jan 1 00:09:33 UTC 1970 | |
| | |
| | > |
| Connected 00:01:23 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo | .:: |

3. Type system_info_setting and then press Enter.



PS. You can make full by use TAB to complete the command that you want to type.

4. Type set_device_name and the new device name, such as "test", and then press Enter.

| 🗞 DVW - HyperTerminal | |
|--|---|
| File Edit View Call Transfer Help | |
| | |
| * 10 oz Vodka Shake well with ice and strain * 10 oz Triple sec mixture into 10 shot glasses. * 10 oz lime juice Salute! | ^ |
| root@DVW-W02W2-E2:/# clish ************************************ | |
| * CLISH (see-lish) * * * * WARNING: Authorised Access Only * *********************************** | |
| <pre>sh: whoami: not found Welcome it is Thu Jan 1 00:09:33 UTC 1970 > system_info_setting get_device_contact_info get_device_description get_device_location get_device_name set_device_contact_info set_device_description set_device_location set_device_name view_setting > system_info_setting set_device_name test > system_info_setting set_device_name test > Set the device name to test process 'snmpset' is using obsolete setsockopt S0_BSDCOMPAT iso.3.6.1.4.1.6785.501.8.1.1.1.2.0 = STRING: "test" clicmd set done.</pre> | |
| <hr/> | |
| Connected 00:04:12 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo | |

5. The device name had changed to "test", you can use "get_device_name" to see it.



6. Type exit to exit this CLI session.



7. Sometimes if you don't know how to use the command (such as what does this command mean, or how to set the parameter in right format, etc), you can type "?" to see the help information. For example, if you want to set the local time to 2014/02/27 10:11:30, you may know type time_setting and then type set_local_time, but the next? How should I input the time? You can type ? to see the help information.

Complete command: "time_setting set_local_time ?" (After you click "?", the help information will display.)

| 🗞 DVW - HyperTerminal | |
|--|-----------------------|
| File Edit View Call Transfer Help | |
| D 🚔 📨 🍒 🗈 🎦 🖆 | |
| * 10 oz lime juice Salute! | ^ |
| root@test:/# clish | |
| ************************************** | |
| <pre>sh: whoami: not found Welcome it is Thu Jan 1 00:00:42 UTC 1970 > exit Exit this CLI session maintenance some utility commands for maintenance relate network_setting some utility commands for network details restart the device system_info_setting some utility commands for time related detail time_setting some utility commands for time related details</pre> | ed deta ils ils |
| > time_setting set_local_time HH:MM:SS using 24 hour clock The current time > time setting set local time | |
| | |
| | > |
| Connected 00:05:04 Auto detect 115200 8-N-1 SCROLL CAPS NUM Capture Print echo | |

8. Finally, you had got to know type 10:11:30 27 02 2014

```
<mark>冬 DVW - HyperTerminal</mark>
File Edit View Call Transfer Help
                                                                                                                                                             🗅 🖆 🖉 🖉 🗳 🖸
      get_timeserver2
get_timezone
set_local_time
set_timeserver1
set_timeserver2
set_timezone
view_setting
                                            Get the time server2
Get the time zone
Set the local time
Set the time server1
Set the time server2
Set the timezone
time setting view
       time_setting set_local_time
HH:MM:SS using 24 hour clock
   >
                                                                         The current time
  > time_setting set_local_time 10:11:30
Calendar day of month Day of the month (01/02/03/04/05/06/07/08/09/10/
3/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31)
       time_setting_set_local_time 10:11:30 27
Month of the year Month of year (01/02/03/04/05/06/07/08/09/10/11/12)
   >
       time_setting set_local_time 10:11:30 27 02
Year Year (1993..2035)
   >
   > time_setting_set_local_time_10:11:30_27_02_2014
Thu_Feb_27_10:11:30_UTC_2014
                                                                                                                                                                    >
Connected 00:15:29
                         Auto detect 115200 8-N-1
                                                                            NUM
```

2.2 Telnet Console Configuration

Delta DVW device supports telnet server function; it can be globally enabled or disabled. The user can use all CLI command over a telnet session.

1. Open a Command Prompt and input "telnet 192.168.1.5" to login to Delta DVW device.



2. After input user name and password, you can use CLI command to control the device.



2.3 Web Browser Configuration

Delta DVW devices support a friendly web interface for normal user to configure the switch. You can monitor the port status of Delta DVW device, and configure the settings of each function via web.

1. Open a web browser and connect to 192.168.1.5 or http://www.deltawifi.net. Input user name and password.

Username: admin Password: password

| | Login |
|----------------------|-------|
| Username Password | |
| | Login |

 You can use the menu tree in left side frame to find the function you want to configure. And configure the detail settings in right side frame. The port status and LED status on the DVW device can be monitored on the top frame.



3

Chapter 3 Featured Functions

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| | 3.9.9 | Logout 3-75 |
| | | |

3.1 System

This group includes System Information and System CPU Status.

3.1.1 System Information

This page summarizes the current status of system. The information is categorized into several groups: System Info, Device Info and 802.11 Info.

System Information

| System Info | |
|--------------------|---|
| Model name | dvw-w02w2-e2 |
| Device name | DVW-W02W2-E2 |
| Serial No. | 000000000000000000000000000000000000000 |
| System up time | 06:18:20 |
| Firmware version | V2.3 |
| Device Info | |
| Device MAC address | 00:03:7F:EF:77:11 |
| IP address | 192.168.1.250 |
| Subnet mask | 255.255.255.0 |
| Gateway | 0.0.00 |
| 802.11 Info | |
| Country code | VWV |
| Operation mode | AP |
| Channel | 1 |
| RF type | B/G/N Mixed |
| SSID1 | DELTA_11NG |

3.1.2 System CPU Status

This page summarizes the current status of CPU. It includes Running Time, Total Powered Time, CPU Usage, RAM Total and RAM Available. These values should be grayed out and could not be edited.

System CPU Status

| Running Time: | O6hours, 21mins, 14secs |
|---------------------|-------------------------|
| Total Powered Time: | 03days, 00hours, 00mins |
| CPU Usage: | 2.16 |
| RAM Total: | 515076 |
| RAM Available: | 471336 |

3.2 Basic Configuration

The basic configuration group includes most common settings, and administrator can maintain control the DVW wireless devices in this group.

3.2.1 System Information Configuration

The System Information Configuration includes Device name, Device location, Device description and Device contact information. By default, the Device name is **DVW-W02W2-E2** and the Device description is **Series Industrial IEEE 802.11a/b/g/n wireless AP/bridge/client**.

System Information Configuration

| Cancel Apply | |
|----------------------------|--|
| Device name | DVW-W02W2-E2 |
| Device location | |
| Device description | Series Industrial IEEE 802.11a/b/g/n wii |
| Device contact information | |

| ltem | Description | Factory Default |
|-------------------------------|---|---|
| Device name | This field displays the name of the device. The default value is the model name. | DVW-W02W2-E2 |
| Device location | This field displays the location of the device. | None |
| Device description | This field displays the description of the device. | Industrial IEEE 802.11a/b/g/n wireless AP/WDS/Client/Gateway |
| Device contact information | This field displays the contact information of the device. | None |

3.2.2 Network Configuration

The Network Configuration allows you to modify IP Configuration, IP Address, IP Subnet Mask, Gateway IP Address and Primary DNS. From the IP configuration, there are various options under the Multi-Mode, including DHCP-Client, Static, BOOTP-Client and DHCP-Server for users to choose from.

DHCP-Client:

If there is a DHCP server on the network, and the DVW series is in DHCP-client mode, the DVW series can receive requests from the DHCP server. If there is no DHCP server presented on the network, the IP address will be configured to **192.168.1.5** and the IP subnet mask to **255.255.255.0**.

| IP configuration | DHCP-Client • |
|--------------------|----------------|
| IP Address | 172.16.155.122 |
| IP Subnet Mask | 255.255.255.0 |
| Gateway IP Address | 172.16.155.254 |
| Primary DNS | 172.16.144.200 |

Static:

Users can define the IP Address, IP Subnet Mask, Gateway IP Address and Primary DNS.

| IP configuration | Static v | |
|--------------------|-----------------|--|
| IP Address | 192.168.1.201 | |
| IP Subnet Mask | 255.255.255.0 | |
| Gateway IP Address | 192.168.1.5 | |
| Primary DNS | 192.168.1.5 | |

BOOTP-Client:

If there is a BOOTP server on the network, and the DVW series is in BOOTP mode, the DVW series can receive requests from the BOOTP server. If there is no BOOTP server presented on the network, the IP address will be configured to **192.168.1.5** and the IP subnet mask to **255.255.255.0**.

| IP configuration | BOOTP-Client T | |
|--------------------|-----------------------|--|
| IP Address | 192.168.1.201 | |
| IP Subnet Mask | 255.255.255.0 | |
| Gateway IP Address | 192.168.1.5 | |
| Primary DNS | 192.168.1.5 | |

DHCP-Server:

When the DHCP server receives requests from the end clients, the DVW series will assign a Dynamic IP
 Address to other clients. When the DHCP-Server and BOOTP-Server coexist and are activated at the same time, the IP address will be configured to 192.168.1.5 and IP subnet mask to 255.255.255.0.

• The DHCP pool will start from 192.168.1.1 to 192.168.1.254.

Network Configuration

| Cancel Apply | | |
|---------------------|---------------|---------------------|
| IP configuration | DHCP-Server V | |
| IP Address | 192.168.1.201 | |
| IP Subnet Mask | 255.255.255.0 | |
| Gateway IP Address | 192.168.1.5 | |
| Primary DNS | 192.168.1.5 | |
| Starting IP Address | | 192 . 168 . 1 . 1 |
| Ending IP Address | | 192 . 168 . 1 . 254 |

| Description | Factory Default | | |
|--|-----------------|--|--|
| IP Configuration | | | |
| Specify the IP status of the network interface. | | | |
| DHCP-Client: The DVW series receives its IP configuration settings from | | | |
| the DHCP server. | | | |
| • Static: Specify the static IP address manually. | DHCP-Client | | |
| BOOTP-Client: The DVW series receives its IP configuration-settings | | | |
| from the BOOTP server. | | | |
| • DHCP-Server: When the DHCP server receives requests from the end | | | |
| clients, the DVW series will assign a Dynamic IP Address to other clients. | | | |
| IP Address | | | |
| Input the IP address of the network interface. | 192.168.1.5 | | |
| IP Subnet Mask | | | |
| Input the IP subnet mask of the network interface. | 255.255.255.0 | | |
| Gateway IP Address | | | |
| Input the default gateway of the network interface. | 0.0.0.0 | | |
| Primary DNS | | | |
| Input the primary DNS address of the network interface. | 0.0.0.0 | | |
| | | | |

Notice:

1

If the Operation Mode has changed to Salve Mode, you cannot configure the network settings. (Grayed out). For details, please refer to <u>section 3.4.1.4 WDS Master Mode / Slave</u> <u>Mode</u> for more information. -

| | Description | Facto | ory Default |
|--------------------|-------------|---------------|-------------|
| Network Configu | ration | | |
| Cancel | Apply | | |
| IP configuration | | DHCP-Server • | |
| IP Address | | 192.168.1.5 | |
| IP Subnet Mask | | 255.255.255.0 | |
| Gateway IP Address | | 0.0.0.0 | <u> </u> |
| Primary DNS | | 0.0.0.0 | |

3.2.3 Time Configuration

3.2.3.1 Local Time Configuration

The local time can be set manually or get from NTP server dynamically. In order to get local time dynamically, user should configure the time zone and time servers correctly. If it belongs to DST area, please also enable "Automatically adjust for daylight savings time".

The Current local time shows the DVW's system time when you open this web page. You can click on the Set Time button to activate the updated date and time parameters.

Cancel Apply Date(YYYY/MM/DD) Time (HH:MM:SS) 03 56 1970 7 01 21 7 01 Current local time Set Time Time zone (GMT-08:00) Pacific Time (US & Canada); Tijuana ¥ Automatically adjust for daylight savings time Time server 1 time.nist.gov Time server 2

| Description | Factory Default |
|--|-----------------|
| Current local time | |
| The date and time can be configured as local time. The 24-hour format: | None |

Local Time Configuration

| Description | Factory Default |
|---|-----------------|
| YYYY/MM/DD HH:MM:SS | |
| Time zone | |
| The time zone setting can be configured as conversion from GMT (Greenwich Mean Time) to local time. | GTM+08:00 |
| Automatically adjust for daylight savings time | |
| Daylight saving time (DST) also summer time is the practice of advancing clocks during the lighter months so that evenings have more daylight and mornings have less. | Disabled |
| Time server 1/2 | |
| Specify the IP address or domain name of NTP time server. The time of the second server will be used if the first server can't be connected. | Enabled |
| Notice: | |

It is highly suggested that users manually set up the device time in the following situations, when there is no NTP time server or no internet connection or when the device has not been operated for a long time, or for the initial setup.

3.2.3.2 NTP Server Configuration

When Delta DVW series get valid local time, DVW series can enable NTP Server to supply the time service for LAN clients.

| NTP Server Configuration | | |
|--------------------------|--------------------|--|
| Cancel Apply | · | |
| NTP server: | ◯ Enable ⊙ Disable | |
| NTP server 1 | www.deltawifi.com | |
| NTP server 2 | www.deltawifi.net | |

| Description | Factory Default | |
|---|-----------------|--|
| NTP server | | |
| Specify whether the NTP server is enabled. | Dischlad | |
| • Enable: The NTP server function is enabled. | Disabled | |

| Description | Factory Default |
|--|-------------------|
| • Disable: The NTP server function is disabled. | |
| NTP server 1/2 | |
| Specify the IP address or domain name of NTP server of DVW series. The | www.deltawifi.com |
| second NTP server will be used if the first NTP server can't be connected. | www.deltawifi.net |

3.3 Serial Configuration

DVW provides 2 kinds of serial function, MODBUS Gateway function and Serial Server function. MODBUS Gateway function can convert data from MODBUS to Ethernet or from Ethernet to MODBUS. Serial Server includes different modes for different interaction in the network.

3.3.1 Operation Configuration

If users have requirement about MODBUS Gateway function, DVW series provides MODBUS ASCII/RTU Slave mode and MODBUS ASCII/RTU Master mode. If you have requirement about Serial Server function, DVW series provides TCP Server mode, TCP Client mode, Virtual COM mode, UDP mode, Pair Connection mode – Master and Pair Connection mode – Slave.

Operation Configuration

| Port | | Operation Mode |
|---------------------------|----------------------------|--------------------|
| 1 | | MODBUS RTU Slave |
| 2 | | MODBUS ASCII Slave |
| Serial Port 1 | | |
| ● MODBUS Gateway Function | | |
| O Serial Server Function | | |
| O MODBUS ASCII Slave | O TCP Server Mode | |
| MODBUS RTU Slave | ○ TCP Client Mode | |
| ○ MODBUS ASCII Master | O Virtual COM Mode | |
| O MODBUS RTU Master | O UDP Mode | |
| | O Pair Connection - Master | |
| | O Pair Connection - Slave | |
| Next | | |

3.3.1.1 MODBUS ASCIT/RTU Slave

When a MODBUS master device send a request message to MODBUS slave device, the MODBUS slave device will forward the message according to the slave ID. If the same slave ID is being used in serial network, then the communication will have problem.

Slave ID Map function can help you to create a map ID for the devices which has the same real Station ID. You

can specify the range of map ID on each serial port, and then DVW series will forward the message to the serial device according to the map ID table.



| Description | Factory Default |
|--|-----------------|
| Operation Mode | |
| Display the operation mode of serial port. | MODBUS ASCII |
| | Slave |
| Station ID | |

| Description | Factory Default | |
|---|-----------------|--|
| Specify the station ID of the device | Port 1: 246 | |
| Specify the station iD of the device. | Port 2: 247 | |
| TCP Alive Time | | |
| Specify how long the DVW series keeps the TCP session when there is no | | |
| TCP activity in specified time. If the time is "0", then the connection will remain | 30 | |
| open. | | |
| Response Timeout | | |
| Specify how long the DVW series waits the response from the serial device. | 3000 | |
| Retry | | |
| Specify the retry time when the time of Response Timeout reached. | 3 | |
| MODBUS Exception | | |
| Specify whether the device send an exception code back to the client when the | Frehlad | |
| response timeout is reached. | Enabled | |
| Slave ID Map | | |
| Specify the mapping table of slave ID. | | |
| Slave ID Range: Enter the range of real slave ID. | None | |
| Map ID Range: Enter the range of virtual slave ID which DVW series can | | |
| create. | | |
| Priority | | |
| Specify the priority of the serial device. | None | |

3.3.1.2 MODBUS ASCII/RTU Master

If the serial device that connect to DVW series has Ethernet interface, you can specify the station address and destination IP address in forward table. DVW series follows the forward table to forward data to correct serial devices.



| Operation Mode | MODBUS ASCII Master | |
|------------------|---------------------|--------------|
| Station Address | 10 | (1~247) |
| TCP Alive Time | 30 | (0~65535 s) |
| Response Timeout | 3000 | (0~65535 ms) |
| Retry | 3 | (0~10) |
| Modbus Exception | 📀 Enable (| 🔿 Drop |

Forward Table

| | Enable | Local Port | Station Address | Destination IP Address |
|---|--------|------------|-----------------|------------------------|
| 1 | | 8000 | | |
| 2 | | 8001 | | |
| 3 | | 8002 | | |
| 4 | | 8003 | | |
| 5 | | 8004 | | |
| 6 | | 8005 | | |
| 7 | | 8006 | | |

| Description | Factory Default |
|---|-----------------|
| Operation Mode | |
| Display the operation mode of serial port. | MODBUS ASCII |
| | Master |
| Station ID | |
| Specify the station ID of the device | Port 1: 246 |
| Specify the station in or the device. | Port 2: 247 |
| TCP Alive Time | |
| Specify how long the DVW series keeps the TCP session when there is no | |
| TCP activity in specified time. If the time is "0", then the connection will remain | 30 |
| open. | |
| Response Timeout | |
| Specify how long the DVW series waits the response from the serial device. | 3000 |

| Description | Factory Default |
|--|-----------------|
| Retry | |
| Specify the retry time when the time of Response Timeout reached. | 3 |
| MODBUS Exception | |
| Specify whether the device send an exception code back to the client when the response timeout is reached. | Enabled |

Forward Table

| Description | Factory Default |
|---|-----------------|
| Enable | |
| Specify whether the forward information is enabled. | Unticked |
| Local Port | |
| The local port of DVW series will create automatically. | 8000~8031 |
| Port 1: 8000~8031 | 0000-0031 |
| Port 2: 9000~9031 | 9000~9031 |
| Station Address | |
| Specify the station ID of serial devices. | None |
| Destination IP Address | |
| Specify the IP address of serial devices. | None |

3.3.1.3 TCP Server Mode

In TCP Server Mode, DVW series works as a passive role. DVW series waits the connected requirement from the host computer or device. The host must send a request message to DVW series for establish the connection first. After the connection is established, the data can be transmitted between the host and DVW series.



| Description | Factory Default |
|--|-----------------|
| Operation Mode | |
| Display the operation mode of serial port. | TCP Server Mode |
| Alive Check Time | |
| Specify how long the DVW series sends a packet for checking the connection still alive. | 30 |
| Disconnect Time | |
| Specify how long the DVW series keeps the TCP session when there is no TCP activity in specified time. If the time is "0", then the connection will remain open. | 3000 |
| TCP Port | |
| Specify the port number of DVW series. | 3000 |

| Data Packing | |
|----------------|--------------------------------------|
| Fixed Length | Enable |
| | (1~1024 Bytes) |
| Prefix | Enable |
| Prefix Length | 1 💌 Bytes Prefix Char (Hex.) 12 12 |
| Prefix Process | Include Prefix Char 💌 |
| Suffix | Enable |
| Suffix Length | 2 💌 Bytes Sufix Char (Hex.) 12 12 |
| Suffix Process | Include Prefix Char 💌 |
| Again time | Enable |
| | 10 (0 ~ 65535 ms) |

| | Description | Factory Default |
|--|--|-----------------|
| Fixed Length | | |
| Specify | | |
| length matches with the configured value, the data will be sent. | | |
| | Notice: | Disabled/1024 |
| <u> </u> | Before you enter the value of fixed length, please remember to tick | |
| | the Enable option, otherwise the Fixed Length function doesn't work. | |
| | | |
| Prefix | | |
| Specify | the Prefix Length and Prefix Process of data. | |
| Notice: | | |
| <u> </u> | Before you configure the settings of Prefix Length, Prefix Char and | Disabled |
| | Prefix Process, please remember to tick the Enable option, | |
| | otherwise the Prefix function doesn't work. | |
| Prefix Length | | |
| Specify the Prefix Length for comparison process. After specify the Prefix | | 2 |
| Length, please enter the Prefix Char for process. | | 2 |
| | | |
| Description | Factory Default | | |
|--|-----------------|--|--|
| Prefix Char (Hex.) | | | |
| Enter the Prefix Char for comparison process. | FF, FF | | |
| Prefix Process | | | |
| Specify the comparison process for the Prefix Length and Prefix Char. | | | |
| • Include Prefix Char: The data will transmit all the Prefix Char which user | | | |
| entered in Prefix Char (Hex.). If the Prefix Length is 1, then only first Char | | | |
| will be included. | Include prefix | | |
| • Only Prefix Char 2: The data will transmit only Prefix Char 2 which user | character | | |
| entered in Prefix Char (Hex.). | onaractor | | |
| • Not Include: After the comparison process is complete, the data will be | | | |
| transmitted without Prefix Char which the user entered in Prefix Char | | | |
| (Hex.). | | | |
| Suffix | | | |
| Specify the Suffix Length and Suffix Process of data. | | | |
| Notice: | | | |
| Before you configure the settings of Suffix Length, Suffix Char and | Disabled | | |
| Suffix Process, please remember to tick the Enable option, | | | |
| otherwise the Suffix function doesn't work. | | | |
| Suffix Length | | | |
| Specify the Suffix Length for comparison process. After specify the Suffix | 2 | | |
| Length, please enter the Suffix Char for process. | 2 | | |
| Suffix Char (Hex.) | | | |
| Enter the Suffix Char for comparison process. | FF, FF | | |
| Suffix Process | | | |
| Specify the comparison process for the Suffix Length and Suffix Char. | | | |
| • Include Suffix Char: The data will transmit all the Suffix Char which user | | | |
| entered in Suffix Char (Hex.). If the Suffix Length is 1, then only first Suffix | | | |
| Char will be included. | Include suffix | | |
| • Only Suffix Char 1: The data will transmit only Suffix Char 1 which user | character | | |
| entered in Suffix Char (Hex.). | onaraotor | | |
| • Not Include: After the comparison process is complete, the data will be | | | |
| transmitted without Suffix Char which the user entered in Suffix Char | | | |
| (Hex.). | | | |

| | Description | Factory Default |
|----------|---|-----------------|
| Aging T | ïme | |
| Specify | the time for DVW series to force pack the received serial data into the | |
| same da | ata frame. | |
| | Notice: | Disabled/ |
| ~ | Before you configure the settings of Aging Time, please remember to | 1000 (ms) |
| | tick the Enable option, otherwise the Aging Time doesn't be applied. | |
| | | |

3.3.1.4 TCP Client Mode

In TCP Client Mode, DVW series works as an active role. User can enter the destination IP information of the host computer or device in Destination IP Table first. Then DVW series sends a request message to the host for establish the connection first. After the connection is established, the data can be transmitted between the host and DVW series.



| Operation Mode | TCP Client Mode | |
|--------------------|-----------------|--|
| Alive Check Time | 30 (0~65535s) | |
| Disconnect Time | 3000 (0~65535s) | |
| Blocked IP Process | 🔿 Enable 💿 Drop | |

Destination IP Table

| | Enable | local Port | Destination IP Address | Remote Port |
|---|--------|------------|------------------------|-------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

| Description | Factory Default |
|---|-----------------|
| Operation Mode | |
| Display the operation mode of serial port. | TCP Client Mode |
| Alive Check Time | |
| Specify how long the DVW series sends a packet for checking the connection | 30 |
| still alive. | 30 |
| Disconnect Time | |
| Specify how long the DVW series keeps the TCP session when there is no | |
| TCP activity in specified time. If the time is "0", then the connection will remain | 3000 |
| open. | |

3

Destination IP Table

| Description | Factory Default |
|--|-----------------|
| Enable | |
| Specify whether the destination IP information is enabled. | Unticked |
| Local Port | |
| Specify the local listen port of DVW series for the specified destination device | 8000-8007 |
| which uses to establish the connection, ranging from 1024 to 65535. | |
| Destination IP Address | |
| Specify the IP address of the Ethernet device. | None |
| Remote Port | |
| Specify the port number of the Ethernet device, ranging from 1024 to 65535. | 8000 |

| Data Packing | |
|----------------|--------------------------------------|
| Fixed Length | Enable |
| | (1 ~ 1024 Bytes) |
| Prefix | Enable |
| Prefix Length | 1 🕑 Bytes Prefix Char (Hex.) 12 12 |
| Prefix Process | Include Prefix Char 💌 |
| Suffix | Enable |
| Suffix Length | 2 💌 Bytes Sufix Char (Hex.) 12 12 |
| Suffix Process | Include Prefix Char 💌 |
| Again time | Enable |
| | 10 (0 ~ 65535 ms) |

Data Packing

| Description | Factory Default | | | |
|--|-----------------|--|--|--|
| Fixed Length | | | | |
| Specify whether sends the packet with fixed length. When the receiving data | | | | |
| length matches with the configured value, the data will be sent. | | | | |
| Notice: | Disabled/ | | | |
| Before you enter the value of fixed length, please remember to tick | 1024 | | | |
| the Enable option, otherwise the Fixed Length function doesn't work. | | | | |
| Prefix | | | | |
| Specify the Prefix Length and Prefix Process of data. | | | | |
| Notice: | | | | |
| Before you configure the settings of Prefix Length, Prefix Char and | Disabled | | | |
| Prefix Process, please remember to tick the Enable option, | | | | |
| otherwise the Prefix function doesn't work. | | | | |
| Prefix Length | | | | |
| Specify the Prefix Length for comparison process. After specify the Prefix | 2 | | | |
| Length, please enter the Prefix Char for process. | 2 | | | |
| Prefix Char (Hex.) | | | | |
| Enter the Prefix Char for comparison process. | FF, FF | | | |
| Prefix Process | | | | |
| Specify the comparison process for the Prefix Length and Prefix Char. | | | | |
| • Include Prefix Char: The data will transmit all the Prefix Char which user | | | | |
| entered in Prefix Char (Hex.). If the Prefix Length is 1, then only first Char | | | | |
| will be included. | | | | |
| • Only Prefix Char 2: The data will transmit only Prefix Char 2 which user | | | | |
| entered in Prefix Char (Hex.). | Include profix | | | |
| • Not Include: After the comparison process is complete, the data will be | character | | | |
| transmitted without Prefix Char which the user entered in Prefix Char | Character | | | |
| (Hex.). | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | Description | Factory Default |
|----------|--|-----------------|
| Suffix | | |
| Specify | the Suffix Length and Suffix Process of data. | |
| | Notice: | |
| | Before you configure the settings of Suffix Length, Suffix Char and | Disabled |
| | Suffix Process, please remember to tick the Enable option, | |
| | otherwise the Suffix function doesn't work. | |
| Suffix L | _ength | - |
| Specify | the Suffix Length for comparison process. After specify the Suffix | 0 |
| Length, | please enter the Suffix Char for process. | 2 |
| Suffix C | Char (Hex.) | 1 |
| Enter th | e Suffix Char for comparison process. | FF, FF |
| Suffix F | Process | |
| Specify | the comparison process for the Suffix Length and Suffix Char. | |
| • In | clude Suffix Char: The data will transmit all the Suffix Char which user | |
| en | tered in Suffix Char (Hex.). If the Suffix Length is 1, then only first Suffix | |
| Cł | nar will be included. | Include ouffix |
| • 01 | nly Suffix Char 1: The data will transmit only Suffix Char 1 which user | character |
| en | tered in Suffix Char (Hex.). | Character |
| • No | ot Include: After the comparison process is complete, the data will be | |
| tra | insmitted without Suffix Char which the user entered in Suffix Char | |
| (H | ex.). | |
| Aging T | lime | |
| Specify | the time for DVW series to force pack the received serial data into the | |
| same d | ata frame. | |
| | Notice: | Disabled/ |
| | Before you configure the settings of Aging Time, please remember to | 1000 (ms) |
| | tick the Enable option, otherwise the Aging Time doesn't be applied. | |
| | | |

3.3.1.5 Virtual COM Mode

In Virtual COM mode, DVW series can establish a network connection between the host computer and serial device. So the DVW series maps the IP address with port number to the serial port on itself. When the application on host computer doesn't provide serial interface to connect with serial device, then Virtual COM mode can solve this problem and establish a Virtual COM connection on Ethernet interface.





| Description | Factory Default |
|--|------------------|
| Operation Mode | |
| Display the operation mode of serial port. | Virtual COM Mode |
| Alive Check Time | |
| Specify how long the DVW series sends a packet for checking the connection still alive. | 30 |
| Disconnect Time | |
| Specify how long the DVW series keeps the TCP session when there is no TCP activity in specified time. If the time is "0", then the connection will remain open. | 3000 |
| TCP Port | |
| Specify the port number of DVW series. | 3000 |

| Data Packing | |
|----------------|--------------------------------------|
| Fixed Length | Enable |
| | (1 ~ 1024 Bytes) |
| Prefix | Enable |
| Prefix Length | 1 💌 Bytes Prefix Char (Hex.) 12 12 |
| Prefix Process | Include Prefix Char 💌 |
| Suffix | 🗌 Enable |
| Suffix Length | 2 💌 Bytes Sufix Char (Hex.) 12 12 |
| Suffix Process | Include Prefix Char 💌 |
| Again time | Enable |
| | 10 (0 ~ 65535 ms) |

Data Packing

| | Description | Factory Default |
|----------|--|-----------------|
| Fixed L | ength | |
| Specify | whether sends the packet with fixed length. When the receiving data | |
| length n | natches with the configured value, the data will be sent. | |
| | Notice: | Disabled/ |
| | Before you enter the value of fixed length, please remember to tick | 1024 |
| | the Enable option, otherwise the Fixed Length function doesn't work. | |
| | | |
| Prefix | | |
| Specify | the Prefix Length and Prefix Process of data. | |
| | Notice: | |
| <u> </u> | Before you configure the settings of Prefix Length, Prefix Char and | |
| | Prefix Process, please remember to tick the Enable option, | Disabled |
| | otherwise the Prefix function doesn't work. | |
| | | |
| | | |

| Description | Factory Default |
|--|-----------------|
| Prefix Length | |
| Specify the Prefix Length for comparison process. After specify the Prefix Length, please enter the Prefix Char for process. | 2 |
| Prefix Char (Hex.) | |
| Enter the Prefix Char for comparison process. | FF, FF |
| Prefix Process | 1 |
| Specify the comparison process for the Prefix Length and Prefix Char. | |
| • Include Prefix Char: The data will transmit all the Prefix Char which user | |
| entered in Prefix Char (Hex.). If the Prefix Length is 1, then only first Char | |
| will be included. | Include profix |
| • Only Prefix Char 2: The data will transmit only Prefix Char 2 which user | character |
| entered in Prefix Char (Hex.). | Character |
| • Not Include: After the comparison process is complete, the data will be | |
| transmitted without Prefix Char which the user entered in Prefix Char | |
| (Hex.). | |
| Suffix | |
| Specify the Suffix Length and Suffix Process of data. | |
| Notice: | |
| Before you configure the settings of Suffix Length, Suffix Char and | Disabled |
| Suffix Process, please remember to tick the Enable option, | |
| otherwise the Suffix function doesn't work. | |
| Suffix Length | |
| Specify the Suffix Length for comparison process. After specify the Suffix | 0 |
| Length, please enter the Suffix Char for process. | 2 |
| Suffix Char (Hex.) | |
| Enter the Suffix Char for comparison process. | FF, FF |
| Suffix Process | |
| Specify the comparison process for the Suffix Length and Suffix Char. | |
| • Include Suffix Char: The data will transmit all the Suffix Char which user | |
| entered in Suffix Char (Hex.). If the Suffix Length is 1, then only first Suffix | character |
| Char will be included. | |
| | |

| | Description | Factory Default |
|-----|--|-----------------|
| • | Only Suffix Char 1: The data will transmit only Suffix Char 1 which user | |
| | entered in Suffix Char (Hex.). | |
| • | Not Include: After the comparison process is complete, the data will be | |
| | transmitted without Suffix Char which the user entered in Suffix Char | |
| | (Hex.). | |
| Agi | ng Time | |
| Spe | cify the time for DVW series to force pack the received serial data into the | |
| san | ne data frame. | |
| | Notice: | Disabled/ |
| 4 | Before you configure the settings of Aging Time, please remember to | 1000 (ms) |
| | tick the Enable option, otherwise the Aging Time doesn't be applied. | |
| | | |

3.3.1.6 UDP Mode

Compare with TCP communication, UDP communication doesn't need request message before the session has been established. So after user configure the remote IP address and port information, the device will start to transmit the data. You can use unicast or multicast way to transmit data between the host computer and serial device.



| Oper | ation Mo | de L | IDP Mode | | |
|------|---------------|------------|------------------|----------------|-------------|
| Forw | Forward Table | | | | |
| | Enable | local Port | Begin IP Address | End IP Address | Remote Port |
| 1 | | 8000 | | | |
| 2 | | 8001 | | | |
| 3 | | 8002 | | | |
| 4 | | 8003 | | | |

Forward Table

| Description | Factory Default |
|--|-----------------|
| Enable | |
| Specify whether the forward information is enabled. | Unticked |
| Local Port | |
| Specify the local listen port of DVW series for the device which uses to establish the connection. | 8000-8003 |
| Begin IP Address | |
| Specify the beginning of destination IP address. | None |
| End IP Address | |
| Specify the end of destination IP address. | None |
| Remote Port | |
| Specify the port number of the Ethernet device. | None |

| Data Packing | |
|----------------|--------------------------------------|
| Fixed Length | Enable |
| | (1 ~ 1024 Bytes) |
| Prefix | Enable |
| Prefix Length | 1 💙 Bytes Prefix Char (Hex.) 12 12 |
| Prefix Process | Include Prefix Char 💌 |
| Suffix | Enable |
| Suffix Length | 2 💌 Bytes Sufix Char (Hex.) 12 12 |
| Suffix Process | Include Prefix Char 💌 |
| Again time | Enable |
| | 10 (0 ~ 65535 ms) |

Data Packing

| Description | Factory Default |
|--|-----------------|
| Fixed Length | |
| Specify whether sends the packet with fixed length. When the receiving data length matches with the configured value, the data will be sent. | |
| Notice: | Disabled/ |
| Before you enter the value of fixed length, please remember to tick | 1024 |
| the Enable option, otherwise the Fixed Length function doesn't work. | |
| Prefix | |
| Specify the Prefix Length and Prefix Process of data. | |
| Notice: | |
| Before you configure the settings of Prefix Length, Prefix Char and | Disabled |
| Prefix Process, please remember to tick the Enable option, | |
| otherwise the Prefix function doesn't work. | |
| Prefix Length | |
| Specify the Prefix Length for comparison process. After specify the Prefix | 2 |
| Length, please enter the Prefix Char for process. | |
| Prefix Char (Hex.) | |
| Enter the Prefix Char for comparison process. | FF, FF |
| Prefix Process | |
| Specify the comparison process for the Prefix Length and Prefix Char. | |
| • Include Prefix Char: The data will transmit all the Prefix Char which user | |
| entered in Prefix Char (Hex.). If the Prefix Length is 1, then only first Char | |
| will be included. | |
| • Only Prefix Char 2: The data will transmit only Prefix Char 2 which user | |
| entered in Prefix Char (Hex.). | Include prefix |
| • Not Include: After the comparison process is complete, the data will be | character |
| transmitted without Prefix Char which the user entered in Prefix Char | |
| (nex.). | |
| | |
| | |
| | |
| | |

| | Description | Factory Default | | |
|---|--|-----------------|--|--|
| Suffix | | | | |
| Specify | Specify the Suffix Length and Suffix Process of data. | | | |
| Notice: | | | | |
| <u> </u> | Before you configure the settings of Suffix Length, Suffix Char and | Disabled | | |
| | Suffix Process, please remember to tick the Enable option, | | | |
| | otherwise the Suffix function doesn't work. | | | |
| Suffix L | ength | | | |
| Specify | the Suffix Length for comparison process. After specify the Suffix | 2 | | |
| Length, | please enter the Suffix Char for process. | 2 | | |
| Suffix C | Char (Hex.) | | | |
| Enter th | e Suffix Char for comparison process. | FF, FF | | |
| Suffix P | Process | | | |
| Specify | the comparison process for the Suffix Length and Suffix Char. | | | |
| • Inc | clude Suffix Char: The data will transmit all the Suffix Char which user | | | |
| en | tered in Suffix Char (Hex.). If the Suffix Length is 1, then only first Suffix | | | |
| Ch | ar will be included. | Include suffix | | |
| • Or | Ily Suffix Char 1: The data will transmit only Suffix Char 1 which user | character | | |
| en | tered in Suffix Char (Hex.). | | | |
| • No | t Include: After the comparison process is complete, the data will be | | | |
| transmitted without Suffix Char which the user entered in Suffix Char | | | | |
| (H | ex.). | | | |
| Aging T | ïme | | | |
| Specify | the time for DVW series to force pack the received serial data into the | | | |
| same da | ata frame. | | | |
| | Notice: | Disabled/ | | |
| <u> </u> | Before you configure the settings of Aging Time, please remember to | 1000 (ms) | | |
| | tick the Enable option, otherwise the Aging Time doesn't be applied. | | | |
| | | | | |

3.3.1.7 Pair Connection Mode

Pair Connection Master and Slave modes connect two DVW series over a network. The serial device can connect to a DVW series, and two DVW can use wired Ethernet cable or wireless way to connect each other. Then two serial devices can overcome the distance limitation of serial interface.



Pair Connection Master Mode

| Operation Mode | Pair Connection - Master | |
|------------------|--------------------------|------------------|
| Alive Check Time | 30 (0 ~ 65535 s) | |
| Destination | Destination IP | Destination Port |
| | | |

| Description | Factory Default |
|---|-------------------|
| Operation Mode | |
| Display the operation mode of serial port. | Pair Connection - |
| | Master |
| Alive Check Time | |
| Specify how long the DVW series sends a packet for checking the connection | 30 |
| still alive. | 50 |
| Destination IP | |
| Specify the IP address for the destination DVW series with Pair Connection | Nana |
| Slave mode. | None |
| Destination Port | |
| Specify the port number for the destination DVW series with Pair Connection | None |
| Slave mode. | NONE |

Pair Connection Slave Mode

| Operation Mode | Pair Connection - Slave | |
|------------------|-------------------------|--|
| Alive Check Time | 30 (0~65535s) | |
| TCP Port | | |

| Description | Factory Default |
|--|-------------------|
| Operation Mode | |
| Display the operation mode of serial port. | Pair Connection - |
| | Slave |
| Alive Check Time | |
| Specify how long the DVW series keeps the connection. If the time is "0", then | 30 |
| the connection will remain open. | |
| TCP Port | |
| Specify the port number for the DVW series with Pair Connection Master mode | None |
| to connect. | None |

3.3.2 Port Configuration

You can view the current communication settings for each serial port in this page. If you need to configure the settings,

Port Configuration

| Port | Interface | Format | Baudrate | Flow Control | Buffer Size |
|------|-----------|--------|----------|--------------|-------------|
| 1 | RS232 | 8,E,1 | 9600 bps | None | 10 |
| 2 | R8232 | 8,E,1 | 9600 bps | None | 10 |
| 2 | R8232 | 8,E,1 | 9600 bps | None | 10 |

Port Setting - Port 1



| Parameter | Value |
|--------------|--|
| Interface | RS232, RS485, RS422 |
| Data bit | 7, 8 |
| Parity bit | None, Even, Odd, Space, Mark |
| Stop bit | 1, 2 |
| Baud rate | 110 to 921600 bps |
| Flow Control | None, RTS/CTS, XON/XOFF |
| Buffer Size | 10 (Default Value, not available in MODBUS Gateway Funciton) |

3.3.3 MODBUS Cache Table

The transmit speed of Ethernet interface is faster than serial interface, so the device on Ethernet side usually need to spend much time to wait the data from serial side after they send the request message to the device on serial side. MODBUS Cache Table provide user for configure the device information (ex. Station ID, MODBUS address...etc.), and DVW can send request message for get the data from the device on serial side according to the MODBUS Cache table in advance. When the device on Ethernet side sends the request to DVW series, then DVW can response the data immediately. Because DVW series don't need to forward the request message to the device on serial side again, it already get the data in advance. So this only can be enabled when the operation mode in **MODBUS Slave mode**.



| 📃 Enable | | | | | | | |
|----------------------|------------------|--------------------------|-------------|-----------------|---------------|---------------|---------|
| Cycle time | ms | Available size 10 | 48576 Bytes | Timeout Calibra | iion 3000 | ms | Detect |
| Coil Device | Word Device | | | | | | |
| # Station Address | MODBUS (Hex.) | MODBUS (Dec.) Account | Online 🔲 📥 | Station Address | MODBUS (Hex.) | MODBUS (Dec.) | State 🛆 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | \sim | | | | ~ |
| Add | Edit | Delete | | | | | Online |

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| Enable Cycle time | ms | Available s | ize 104 | 8556 | Byte | es | Timeout Calibr | ration 3000 | ms | De | etect |
|----------------------|------------------|------------------|--------------|--------|--------|----|--------------------|------------------|------------------|------------------|--------|
| Coil Device W | /ord Device | | | | | | | | | | |
| # Station Address | MODBUS (Hex.) | MODBUS (Dec.) | Account Forr | mat Or | line 🔮 | | Station Address | MODBUS (Hex.) | MODBUS (Dec.) | Present Value | Format |
| 0 1 1 | 1000 | 404097 | 10 He | ex | | 1 | 1 | 1000 | 404097 | 3754 | Hex |
| | | 101001 | 10 11 | | | 2 | 1 | 1001 | 404098 | 3754 | Hex |
| | | | | | | 3 | 1 | 1002 | 404099 | 3754 | Hex |
| | | | | | | 4 | 1 | 1003 | 404100 | 3754 | Hex |
| | | | | | | 5 | 1 | 1004 | 404101 | 3754 | Hex |
| | | | | | | 6 | 1 | 1005 | 404102 | 3754 | Hex |
| | | | | | | 7 | 1 | 1006 | 404103 | 3754 | Hex |
| | | | | | 2 | 9 | 1 | 1007 | 404104 | 3754 | Hex |
| Add | Edit | Delete | e | | | | | | | | Online |

| Description | Factory Default | | |
|--|-----------------|--|--|
| Enable | | | |
| Specify whether the MODBUS Cache function is enabled. | Unticked | | |
| Cycle time | | | |
| Specify the time of sending request message with serial devices. | 10 | | |
| Available size | | | |
| Display the remaining size for the data can be monitored. 1MB size can include 100,000 data. | 1048576 (fixed) | | |
| Timeout Calibration | | | |
| Display the adjusted time of Response Timeout. When user click the Detect | | | |
| button, DVW series will communicate with the device according to the 3000 (fixed) | | | |
| MODBUS Cache table | | | |

Coil Device

| Item | Description |
|-----------------|------------------------------------|
| Station Address | The station ID of the device. |
| MODBUS (Hex.) | The MODBUS address in hexadecimal. |
| MODBUS (Dec.) | The MODBUS address in decimal. |
| State | The value of the MODBUS address. |

Word Device

| ltem | Description |
|-----------------|---|
| Station Address | The station ID of the device. |
| MODBUS (Hex.) | The MODBUS address in hexadecimal. |
| MODBUS (Dec.) | The MODBUS address in decimal. |
| Present Value | The present value of the MODBUS address. |
| Format | The format of the value as Hex, Dec or Bin. |

MODBUS Cache Function - Add



| Description | Factory Default | | | |
|---|-----------------|--|--|--|
| Station Address | | | | |
| The station ID of the device. | None | | | |
| MODBUS (Hex.) | | | | |
| The MODBUS address in hexadecimal. | None | | | |
| MODBUS (Dec.) | | | | |
| The MODBUS address in decimal. | None | | | |
| Account | | | | |
| The amount of MODBUS data can be monitored. | None | | | |
| Format | | | | |
| Specify the format of the value as Hex, or Dec. | Hex | | | |
| Online | | | | |
| Specify whether the data display in MODBUS monitored table. | Unticked | | | |

3.4 WLAN Manager

The device should support AP mode, Client mode, Repeater mode and WDS (Master/Slave) mode.

3.4.1 Operation Mode

Delta DVW series provides 5 operation modes for you to configure in different network environment. Before you establish your wireless network, you must specify an operation mode on DVW series.

Operation Mode

| Cancel | Apply | |
|-----------------|--------------------|--|
| Wireless enable | 💿 Enable 🔘 Disable | |
| Operation mode | | |
| Region: | Client Repeater | |
| | Slave | |

| Description | Factory Default | | |
|--|----------------------|--|--|
| Wireless enable | | | |
| Specify whether the wireless is enabled or not. | | | |
| • Enable: Wireless function can work. | Disabled | | |
| • Disable: Wireless function can't work. | | | |
| Operation mode | | | |
| Specify the wireless operation mode: | | | |
| • AP: Specify DVW series work as AP mode. | | | |
| Client: Specify DVW series work as Client mode. | | | |
| • Repeater: Specify DVW series work as Repeater mode. | AF | | |
| • Master: Specify DVW series work as a WDS Master mode. | | | |
| • Slave: Specify DVW series work as a WDS Slave mode. | | | |
| Region | | | |
| Specify the country where the device locates. | English Mode: Europe | | |
| | Chinese Mode: Asia | | |

Notice:

If you click Cancel button, GUI will revoke all your input and revoke to previous settings, then return to "Basic Wireless Configuration" page.

T

3.4.1.1 AP Mode

When DVW series configures as AP (Access Point) mode, it can provide the connectivity for wireless client. Please refer to section 3.4.2.1 Basic Wireless Configuration – AP Mode for more information.



3.4.1.2 Client Mode

When DVW series configures as Client mode, it can provides LAN-to-WLAN connection type. If a client doesn't equipped wireless card, it can use Ethernet cable connect to DVW series which be configured as Client mode, and have a connection with another AP. Please refer to section 3.4.2.2 Basic Wireless Configuration – Client Mode for more information.



3.4.1.3 Repeater Mode

When DVW series configures as Repeater mode, it can extend the wireless distance between two wireless devices. It supports AP mode and Client mode concurrently. You can set more than one repeater between two wireless devices, but it will affect the throughput. Please refer to section 3.4.2.3 Basic Wireless Configuration – Repeater Mode for more information.



3.4.1.4 WDS Master and Slave Mode

When the DVW series configures as WDS Master mode, it will be enabled as a Base Station. User can add the MAC address of the repeaters. Up to 4 repeaters can be added. Please refer to section 3.4.2.4 Basic Wireless Configuration – WDS Master Mode for more information.

When the DVW series configures as WDS Slave mode, it will be enabled as a Repeater. User can add the MAC address of the base station. Please refer to section 3.4.2.5 Basic Wireless Configuration – WDS Slave Mode for more information.



3.4.1.5 Regions

There are different regulations for wireless channels in different regions. Countries apply their own regulations to the allowable channels, allowed user and maximum power levels within these frequency ranges. The DVW series supports the wireless channels for the following countries, Africa, Asia, Australia, Canada, China, Europe, India, Israel, Japan, Korea, Malaysia, Mexico, Middle East (Algeria, Syria, Yemen, Iran, Lebanon, Qatar, Turkey, Egypt, Tunisia, Kuwait, Saudi Arabia, United Arab Emirates), Russia, Singapore, South America, Taiwan, and the United States.

3.4.2 WLAN

There are different wireless configurations for various operation modes, including AP mode, Client mode,

Repeater mode, WDS Master mode, and WDS slave mode.

3.4.2.1 Basic Wireless Configuration – AP Mode

After you specify the Operation Mode, please add a SSID in Basic Wireless Configuration page. And click Edit button to configure the wireless settings.

Basic Wireless Configuration

| Status | S: | SID | Operation Mode | Action |
|--------|----------|-------|----------------|--------|
| Active | D | Ŵ | AP | Edit |
| | Add SSID | Apply | / | |



Notice:

Please remember to click the "Apply" button to have the new wireless settings applied. If there is any change on the wireless settings, a reminder will show up under the "Add-SSID" button.

Basic Wireless Configuration

| Status | SSID | Operation Mode | |
|---|--|----------------|--|
| Active | DELTA_11NG | AP | |
| Add SSID Apply | | | |
| Note: The wireless settin Click Apply to setup ner | ngs have been changed. w wireless Setting | | |

Basic Wireless Configuration

| Cancel | Save | |
|--------------------------------------|----------|------------------------------------|
| Operation Mode RF Type Channel | | AP B/G/N Mixed |
| SSID | | DVW |
| SSID broadcast | | ⊙ Enable ○ Disable |
| Security mode | | WPA2-PSK [AES] |
| | | |
| Security Options (WPA2-PSK) | | |
| Passphrase : | 12345678 | (8-63 characters or 64 hex digits) |

| Description | Factory Default |
|---|-----------------|
| Operation Mode | |
| Display the current operation mode. | AP mode |
| RF Туре | · |
| 2.4GHz | |
| B: only support IEEE 802.11b mode | |
| G: only support IEEE 802.11g mode | |
| B/G Mixed: support IEEE 802.11b/g mixed mode | |
| G/N Mixed: support IEEE 802.11g/n mixed mode, but not IEEE 802.11b | |
| mode | Nono |
| B/G/N Mixed: support IEEE 802.11b/g/n mixed mode | None |
| N Only (2.4GHz): only support IEEE 802.11n mode | |
| 5GHz | |
| A : only support IEEE 802.11a mode | |
| A/N Mixed: IEEE 802.11a/n mixed mode | |
| N Only (5GHz): only support IEEE 802.11n mode | |
| Channel | |
| 2.4GHz | |
| Canada, Mexico, Taiwan, the United States: 1-11 | |
| • The rest of the above-mentioned countries: 1~13 | |
| 5GHz | |
| Asia, Australia, Canada, India, Israel, Malaysia, Mexico, Singapore, | |
| South America, the United States: | |
| A/N mixed mode: 36, 40, 44, 48, 149, 153, 157, 161, 165 | |
| ➢ 5GHz mode: 36, 40, 44, 48, 149, 153, 157, 161 | None |
| • Korea: 36, 40, 44, 48, 149, 153, 157, 161 | None |
| China, Middle East (Iran, Lebanon, Qatar): | |
| ➢ A/N mixed mode: 149, 153, 157, 161, 165 | |
| ➢ 5GHZ mode: 149, 153, 157, 161 | |
| • Middle East (Saudi Arabia): A/N mixed mode: 149, 153, 157, 161, 165 | |
| • Taiwan: | |
| A/N mixed mode: 56, 60, 64, 149, 153, 157, 161, 165 | |
| ➢ 5GHz mode: 60, 64, 149, 153, 157, 161 | |

| Description | Factory Default | | | |
|--|-----------------|--|--|--|
| • For the rest of the above mentioned countries: 36, 40, 44, 48 | | | | |
| SSID | | | | |
| Specify the name of wireless device. It is not case sensitive. You can input 1 to 32 characters for SSID and space is also allowed. | | | | |
| SSID broadcast | | | | |
| Specify whether the SSID broadcast is enabled. | | | | |
| • Enable: SSID can be broadcast. | Enabled | | | |
| • Disable: SSID can't be broadcast. | | | | |
| Security mode | | | | |
| Please refer to section 3.4.2.6 Wireless Security Settings section. | None | | | |

Notice:

Before connecting the wireless device to the DVW series in the AP mode, please check if the network environment is with the DHCP-Server. If not, please set the IP configurations of the DVW series to DHCP-Server or manually set the IP address of the wireless device to the same network segment of the DVW series. Otherwise, DVW series may not be able to connect to the wireless device.

3.4.2.2 Basic Wireless Configuration – Client Mode

If you configure the Operation Mode to Client Mode, the Site Survey button will be shown on the Basic Wireless Configuration page. Click the "Site Survey" button and then a "Wireless Site Survey Table" will appear. It will list all available access points nearby. Select one access point in the table for the DVW series to connect. This allows two physically isolated networks to communicate with each other.

If you configure the Wireless to **Disable**, the **Site Survey** button will be grayed out.

| Cancel | Apply | | |
|----------------|-------|----------------|------------|
| Operation Mode | | Client | |
| RF Type | | A/N Mixed 🔻 | |
| Channel | | 40 🔻 | |
| SSID | | S | ite Survey |
| SSID broadcast | | Enable Disable | |
| Security mode | | None | ¥ |

| Site Si | urvey | | | | |
|---------|--------------|-------------------|---------|-------------|----------|
| F | Refresh | | | | |
| No. | SSID | MAC address | Channel | Mode | Signal 🛆 |
| 1 | walson | 1a:87:96:80:67:1b | 6 | WPA2-PSK | 62% |
| 2 | Network LAB | 94:0c:6d:ef:48:06 | 1 | WPA-PSK | 46% |
| 3 | DELTA_11NG | 00:03:7f:ef:77:11 | 1 | OFF | 32% |
| 4 | Delta-Guest | b4:e9:b0:a7:96:81 | 1 | OFF | 16% |
| 5 | Delta-Office | b4:e9:b0:a7:96:80 | 1 | WPAWPA2-PSK | 16% 🖂 |



- The client mode LED and the status LED will be ON when the device is in the client mode.
- The RF type and the channel will be grayed out in the client mode. After mapping, the RF type, channel, and security mode will be synchronized with the settings of the AP end.
- Before connecting the wireless device to the DVW series in the Client mode, please check if the network environment is with the DHCP-Server. If not, please set the IP configurations of the DVW series to DHCP-Server or manually set the IP address of the wireless device to the same network segment of the DVW series. Otherwise, DVW series may not be able to connect to the wireless device.
- While setting the device to the client mode, it is suggested to use Delta DVW series for both AP end and the client end to minimize compatibility issues and ensure best performance.

3.4.2.3 Basic Wireless Configuration – Repeater Mode

If you configure the Operation Mode to Repeater Mode, the Site Survey button will be shown on the Basic Wireless Configuration page. Click the "Site Survey" button and then a "Wireless Site Survey Table" will appear. It will list all available access points nearby. Select one access point in the table for the DVW series to connect. This allows two physically isolated networks to communicate with each other.

• If you configure the Wireless to Disable, the Site Survey button will be grayed out.

| Cancel | Apply | |
|----------------|-------|---------------------|
| Operation Mode | | Repeater |
| RF Type | | В т |
| Channel | | 1 . |
| SSID | | Site |
| SSID broadcast | | Enable Disable |
| Security mode | | None |

| Refresh | | | | | |
|--|---|----------------------------------|---------|--------------|--------|
| | u | | | | |
| No. | SSID | MAC address | Channel | Mode | Signal |
| 1 | Delta-Office | 6c:fa:89:08:48:80 | 11 | WPA/WPA2-PSK | 100% |
| 2 | Delta-Guest | 6c:fa:89:08:48:81 | 11 | OFF | 100% |
| 3 | Jerry1 | 6e:8d:79:82:b6:f3 | 6 | WPA2-PSK | 100% |
| 4 | Delta-Office | 6c:fa:89:08:48:8f | 60 | WPA/WPA2-PSK | 100% |
| 5 | Delta-Guest | 6c:fa:89:08:48:8e | 60 | OFF | 100% |
| 6 | ESSID_SAPIDO_RB-1602_cd499f | 00:d0:41:cd:49:9e | 9 | OFF | 100% |
| 7 | DELTA | 00:18:23:01:21:73 | 1 | WPA2-PSK | 100% |
| 8 | HUAWEI-55E3 | c4:07:27:50:55:e3 | 9 | WPA2-PSK | 82% |
| 9 Enter the settin | ngs for the Extender network. | 04,48,00,10,41,01 | | | |
| 9 Enter the settin | ngs for the Extender network. | 04.48.00.10.41.01 | | | Next |
| 9 Enter the settin Network Name (SSI | ngs for the Extender network. | TA_11NG_EXT | | | Next |
| 9 Enter the settin Network Name (SSI | D): DEL curity mode and password as those for the | TA_11NG_EXT | | | Next |
| 9 Enter the settin Network Name (SSI Use the same se Security Options | D): DEL ecurity mode and password as those for the | TA_11NG_EXT | | | Next |
| 9 Enter the settin Network Name (SSI Use the same se Security Options None | Dena-Onice ngs for the Extender network. D): DEL curity mode and password as those for the | TA_11NG_EXT | | | Next |
| 9 Enter the settin Network Name (SSI Use the same se Security Options None WEP | Deta-onice ngs for the Extender network. D): DEL accurity mode and password as those for the | TA_11NG_EXT | | | Next |
| 9 Enter the settin Use the same se Security Options None WEP WPA-PSK [TKIF | Detra-Onice ngs for the Extender network. D): DEL ecurity mode and password as those for the P] | TA_11NG_EXT existing network. | | | Next |
| 9 Enter the settin Use the same se Security Options None WEP WPA-PSK [TKIF • WPA2-PSK [AE | DELA-ONICE D): DEL country mode and password as those for the S] | TA_11NG_EXT | | | Next |

```
Security Options (WPA2-PSK
Passphrase
```

(8-63 characters or 64 hex digits)

Notice:

- The Repeater mode LED and the status LED will be ON when the device is in the client mode.
- The RF type and the channel will be grayed out in the client mode. After mapping, the RF type, channel, and security mode will be synchronized with the settings of the AP end.
- Before connecting the wireless device to the DVW series in the Repeater mode, please check if the
 network environment is with the DHCP-Server. If not, please set the IP configurations of the DVW series
 to DHCP-Server or manually set the IP address of the wireless device to the same network segment of
 the DVW series. Otherwise, DVW series may not be able to connect to the wireless device.
- The bandwidth will be decreased by 50% whenever a repeater end is created.
- While setting the device to the client mode, it is suggested to use Delta DVW series for AP end, repeater end and the client end to minimize compatibility issues and ensure best performance.

| | Description | Factory Default | | |
|-----|---|-----------------|--|--|
| Net | Network Name (SSID) | | | |
| SSI | D of the repeater end can be set differently as the AP end | None | | |
| Sec | urity Mode | | | |
| • | Select the Use the same security mode and password as those for | | | |
| | the existing network: the security mode of the repeater will be the | None | | |
| | same as the security mode of the AP end. | | | |

| | Description | Factory Default |
|---|--|-----------------|
| • | Select the specific security (not the same as the security mode of | |
| | the AP end); selections are: None, WEP, WPA-PSK[TKIP], | |
| | WPA2-PSK[AES], and WPA-PSK[TKIP]+WPA2-PSK[AES | |

3.4.2.4 Basic Wireless Configuration – Master Mode

If you configure the Operation Mode to Master Mode, select the "Enable Wireless Repeater Function" and input the MAC address 1~4 and then click apply.

| Cancel | Apply | | |
|----------------------|--------------------------|---------------------|--|
| Operation Mode | | Master | |
| RF Type | | В 🔻 | |
| Channel | | 1 🔻 | |
| SSID | | DELTA_11NG | |
| SSID broadcast | | Enable Disable | |
| Security mode | | None • | |
| 2 | | | |
| Enable Wireless Re | peating Function | | |
| Wireless MAC of this | device : 00:18:23:01:38: | 6 | |
| Repeater MAC Ad | ldress 1 | | |
| Repeater MAC Ad | ldress 2 | | |
| Repeater MAC Ad | ldress 3 | | |
| Repeater MAC Ad | ldress <mark>4</mark> | | |

| | Description | Factory Default | | | | |
|----------------|--|-----------------|--|--|--|--|
| Operation Mode | | | | | | |
| Disp | play the current operation mode. | Master mode | | | | |
| RF | RF Type | | | | | |
| 2.40 | GHz | | | | | |
| • | B: only support IEEE 802.11b mode | | | | | |
| • | G: only support IEEE 802.11g mode | | | | | |
| • | B/G Mixed: support IEEE 802.11b/g mixed mode | | | | | |
| • | G/N Mixed: support IEEE 802.11g/n mixed mode, but not IEEE 802.11b | | | | | |
| | mode | Nono | | | | |
| • | B/G/N Mixed: support IEEE 802.11b/g/n mixed mode | none | | | | |
| • | N Only (2.4GHz): only support IEEE 802.11n mode | | | | | |
| 5Gł | łz | | | | | |
| • | A : only support IEEE 802.11a mode | | | | | |
| • | A/N Mixed: IEEE 802.11a/n mixed mode | | | | | |
| • | N Only (5GHz): only support IEEE 802.11n mode | | | | | |

| Description | Factory Default | | | | |
|---|-----------------|--|--|--|--|
| Channel | 1 | | | | |
| 2.4GHz | | | | | |
| Canada, Mexico, Taiwan, the United States: 1-11 | | | | | |
| • The rest of the above-mentioned countries: 1~13 | | | | | |
| 5GHz | | | | | |
| Asia, Australia, Canada, India, Israel, Malaysia, Mexico, Singapore, | | | | | |
| South America, the United States: | | | | | |
| A/N mixed mode: 36, 40, 44, 48, 149, 153, 157, 161, 165 | | | | | |
| ➢ 5GHz mode: 36, 40, 44, 48, 149, 153, 157, 161 | | | | | |
| • Korea: 36, 40, 44, 48, 149, 153, 157, 161 | None | | | | |
| China, Middle East (Iran, Lebanon, Qatar): | | | | | |
| A/N mixed mode: 149, 153, 157, 161, 165 | | | | | |
| ➢ 5GHZ mode: 149, 153, 157, 161 | | | | | |
| • Middle East (Saudi Arabia): A/N mixed mode: 149, 153, 157, 161, 165 | | | | | |
| • Taiwan: | | | | | |
| ➢ A/N mixed mode: 56, 60, 64, 149, 153, 157, 161, 165 | | | | | |
| ➢ 5GHz mode: 60, 64, 149, 153, 157, 161 | | | | | |
| • For the rest of the above mentioned countries: 36, 40, 44, 48 | | | | | |
| SSID | | | | | |
| Specify the name of wireless device. It is not case sensitive. You can input 1 to | | | | | |
| 32 characters for SSID and space is also allowed. | DELIA_TING | | | | |
| SSID broadcast | | | | | |
| Specify whether the SSID broadcast is enabled. | | | | | |
| • Enable: SSID can be broadcast. | Enabled | | | | |
| Disable: SSID can't be broadcast. | | | | | |
| Security mode | | | | | |
| None | Nono | | | | |
| • WEP | none | | | | |
| Enable Wireless Repeater Function | | | | | |
| Ticked: enable wireless repeater function to have the slave end connected | | | | | |
| Unticked: disable wireless repeater function to have the security mode the | Unticked | | | | |
| same as the security mode of the AP mode. | | | | | |

3

| Description | Factory Default |
|---|-----------------|
| Wireless MAC of this device | |
| Display the MAC address of the DVW series | |
| Repeater MAC Address 1~4 | |
| Up to 4 repeater MAC addresses of the devices in the slave mode can be set. | Nana |
| 00:1B:2F:0D:AA:B0 或 001B2F0DAAB0 | none |

Notice:

Once the master end is disconnected, the connected slave end will also be disconnected.

3.4.2.5 Basic Wireless Configuration – Slave Mode

If you configure the Operation Mode to Slave Mode, you will need to set the options of RF type, channel, and SSID to be the same as the settings of the Master mode and select the "Enable Wireless Repeater Function". After that input the IP address (different from the Master mode's IP address) and input the MAC address of the Master end and then click apply.

| Cancel | Apply | | |
|--|--|---|-----------------|
| Operation Mode RF Type Channel SSID SSID broadcast Security mode | | Slave B ▼ 1 ▼ © Enable ○ Disable None ▼ | |
| Enable Wireless Rep Wireless MAC of this Repeater IP Addre Base Station M | eating Function device : 00:18:23:01:38: ss IAC Address | 46 | 192 . 168 . 1 . |
| | | Description | Factory Default |
| Operation Mc | de | | |
| Display the cu | rrent operatior | n mode. | Slave mode |
| RF Type | | | |
| 2.4GHz | | | |
| • B: only s | upport IEEE 8 | 02.11b mode | |
| • G: only s | G: only support IEEE 802.11g mode | | |
| B/G Mixe | ed: support IEE | EE 802.11b/g mixed mode | None |
| • G/N Mixe | ed: support IE | EE 802.11g/n mixed mode, but not IEEE 802.11b | |
| mode | | | |
| • B/G/N M | ixed: support I | EEE 802.11b/g/n mixed mode | |

| Description | Factory Default | |
|--|-----------------|--|
| N Only (2.4GHz): only support IEEE 802.11n mode | | |
| 5GHz | | |
| A : only support IEEE 802.11a mode | | |
| A/N Mixed: IEEE 802.11a/n mixed mode | | |
| N Only (5GHz): only support IEEE 802.11n mode | | |
| Channel | | |
| 2.4GHz | | |
| Canada, Mexico, Taiwan, the United States: 1-11 | | |
| • The rest of the above-mentioned countries: 1~13 | | |
| 5GHz | | |
| Asia, Australia, Canada, India, Israel, Malaysia, Mexico, Singapore, | | |
| South America, the United States: | | |
| A/N mixed mode: 36, 40, 44, 48, 149, 153, 157, 161, 165 | | |
| ➢ 5GHz mode: 36, 40, 44, 48, 149, 153, 157, 161 | | |
| • Korea: 36, 40, 44, 48, 149, 153, 157, 161 | None | |
| China, Middle East (Iran, Lebanon, Qatar): | | |
| A/N mixed mode: 149, 153, 157, 161, 165 | | |
| ➢ 5GHZ mode: 149, 153, 157, 161 | | |
| • Middle East (Saudi Arabia): A/N mixed mode: 149, 153, 157, 161, 165 | | |
| • Taiwan: | | |
| A/N mixed mode: 56, 60, 64, 149, 153, 157, 161, 165 | | |
| ➢ 5GHz mode: 60, 64, 149, 153, 157, 161 | | |
| • For the rest of the above mentioned countries: 36, 40, 44, 48 | | |
| SSID | | |
| Specify the name of wireless device. It is not case sensitive. You can input 1 to | | |
| 32 characters for SSID and space is also allowed. | None | |
| SSID broadcast | | |
| Specify whether the SSID broadcast is enabled. | | |
| • Enable: SSID can be broadcast. | Enabled | |
| Disable: SSID can't be broadcast. | | |
| Security mode | | |
| • None | None | |

| Description | Factory Default | | |
|---|--------------------|--|--|
| • WEP | | | |
| Wireless MAC of this device | | | |
| Display the MAC address of the DVW series | MAC address of the | | |
| | DVW series | | |
| Repeater IP address | | | |
| Input the repeater IP address (different from the Master mode's IP address) | 192.168.1 | | |
| Base Station MAC Address | | | |
| Enter the MAC address of base station. | None | | |

3.4.2.6 Basic Wireless Configuration – Security Mode

Wireless Security Settings

DVW series provides four standard security modes: **None**, **WEP**, **WPA**, and **WPA2**. You also can specify personal or enterprise version of WPA/WPA2 according to your requirement.

None

Any client can connect to DVW series without any security if you don't specify wireless security on DVW. So we suggest you do not set security mode to None.

WEP

There are 2 types of Encryption Strength, 64bits and 128 bits, are provided. When stronger encryption strength is selected, the performance of wireless transmission will be affected. And there are 2 formats, ASCII and HEX, for coding in the WEP. When ASCII is selected, this format allows you to use numbers and alphabets in coding. However, while HEX is selected, this format only allows you to use number 0~9 and alphabets A~E.

| Security Encryption (WEP) | | | | |
|-------------------------------|-------------|--|--|--|
| Authentication Type | Automatic 🔽 | | | |
| Encryption Strength | 64-bit 💌 | | | |
| Security Encryption (WEP) Key | | | | |
| Key 1 💿 | | | | |
| Кеу 2 🔘 | | | | |
| Кеу 3 🔿 | | | | |
| Key 4 🔘 | | | | |

| | Description | Factory Default |
|-------------------------------|--|-----------------|
| Aut | hentication Type | |
| • | Automatic: Specify the authentication type as Automatic, so the wireless | |
| | client can use no matter "open system" or "shared key" to pass the | Automatic |
| | authentication. | Automatic |
| • | Shared key: Specify the authentication type as Shared key. | |
| Encryption Strength | | |
| • | 64-bit: Allows enter 10 hexadecimals value. | 64 bit |
| • | 128-bit: Allows enter 26 hexadecimals value. | 04-Dit |
| Security Encryption (WEP) Key | | |
| Use | e RC4 (Rivest Cipoher) stream cipher to achieve the security purpose and | Nana |
| use | CRC-32 to achieve the data integrity. | none |
| | | |

Notice:

The security mode WEP does not support 802.11n. When the WEP is selected in the Web interface, the list of wireless modes only shows the traditional modes 802.11 a/b/g.

WPA/WPA2 Personal

Wi-Fi Protected Access (WPA) and Wi-Fi Protected Access 2 (WPA2) are two security protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer networks. Personal versions of WPA/WPA2, also known as WPA/WPA-PSK (Pre-Shared Key)

TKIP (Temporal Key Integrity Protocol) and AES (Advance Encryption System) are two encryption methods. TKIP can automatically producing a new network key every few minutes. This prevents attackers from ever gathering enough data to break into your network. AES stands for advanced encryption standard. This data encryption system, which is either a 128-bit, 192-bit or 256-bit cipher block, is considered by experts to be the most secure encryption protection option for your wireless network.

| | Security Options (WPA-PSK + WPA2-PSK) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------|
| | Passphrase : | (8-63 characters | s or 64 hex digits) |
| | | Description | Factory Default |
| Security Options | | | |
| • | WPA-PSK: TKIP encryptic | on method is enabled. | |
| • | WPA2-PSK: AES encrypti | on method is enabled. | None |
| • | WPA-PSK+WPA2-PSK: T | his setting supports both WPA-PSK and | |

| Description | Factory Default | |
|--|-----------------|--|
| WPA2-PSK. Broadcast packets use TKIP. For unicast (point-to-point) | | |
| transmissions, WPA-PSK clients use TKIP, and WPA2-PSK clients use | | |
| AES. | | |
| Passphrase | | |
| The passphrase requires 8 to 63 ASCII characters or 64 hex digits. | None | |

Notice:

The security mode WPA-PSK (TKIP) does not support 802.11n. When the WPA-PSK (TKIP) is selected in the Web interface, the list of wireless modes only shows the traditional modes 802.11 a/b/g.

WPA/WPA2 Enterprise (For AP/Master mode)

Enterprise security mode provides the security needed for wireless networks in business environments. If you select this security mode, there must have a RADIUS server in your network. It offers individualized and centralized control over access to your Wi-Fi network.

If the wireless client wants to access the network resource, it will send the request to DVW series. And DVW series will forward the request to RADIUS server and forward the response to wireless client. If the wireless client passes the authentication of RADIUS, then it can access the network resource; otherwise it can't access the network resource.



| | Security Options (WPA/WPA2 Enterprise) | | | |
|-----|--|---------------------|-----------------|--|
| | WPA Mode: | WPA [TKIP] + WF | PA2 [AES] 🔽 | |
| | RADIUS server IP Address: | | | |
| | RADIUS server Port: | 1812 | | |
| | RADIUS server Shared Secret: | | | |
| | | | 1 | |
| | Description | | Factory Default | |
| WP. | A Mode | | | |
| • | WPA [TKIP]: TKIP encryption method is enabled. | | | |
| • | WPA2 [AES]: AES encryption method is enabled. | | | |
| • | WPA [TKIP]+WPA2 [AES]: This setting supports both WPA (with TKIP) | | | |
| | and WPA2 (AES). You have to use TKIP+AES encryption of the termination of terminatio of termi | otion and configure | | |
| | the RADIUS server settings. | | | |
| RA | DIUS server IP Address | | | |
| Spe | cify the RADIUS server IP address. | | None | |
| RA | RADIUS server Port | | | |
| ~ | | | 4040 | |

| Specify the port number of the RADIUS server. | 1812 | |
|---|------|--|
| RADIUS server Shared Secret | | |
| Specify the shared secret between the wireless AP and the RADIUS server | Nono | |
| when the supplicant (wireless client) is authenticated. | none | |

3.4.3 Advanced Wireless Configuration

There are some advanced wireless parameters which can be configured in this page.

Advanced Wireless Configuration

| Cancel Apply | |
|--------------------------------|--------------------|
| CTS/RTS Threshold(1-2347) | 2347 |
| Fragmentation Length(256-2346) | 2346 |
| Beacon Interval(100-1000) | 100 |
| Aggregation Length(1024-65535) | 50000 |
| AMPDU | 💿 Enable 🔘 Disable |
| DTIM Interval(1-255) | 2 |
| Preamble Mode | Automatic 💌 |

| Description | Factory Default | | |
|--|-----------------|--|--|
| CTS/RTS Threshold | | | |
| Specify the threshold packet size of CTS (Clear to Send) and RTS (Request to Send). | 2347 | | |
| Fragmentation Length | | | |
| Specify the maximum packet size. Packets larger than the size programmed in this field will be fragmented. The Fragment Threshold value must be larger than the RTS Threshold value. | 2346 | | |
| Beacon Interval | | | |
| Specify the frequency interval of the beacon. | 100 (ms) | | |
| Aggregation Length | | | |
| Specify aggregation length of the frame. It can increases throughput by sending two or more data frames in a single transmission. | 1024 | | |
| AMPDU | | | |
| Specify whether AMPDU (Aggregated-MAC Packet Data Unit) allows to build a group of frame before transmit frame. | Disabled | | |
| DTIM Interval | | | |
| Specify how often the DVW series sends out a Delivery Traffic Indication Message. | 1 | | |
| Preamble Mode | | | |
| Specify the preamble mode: Automatic: Automatically handle both long and short preamble. Short Preamble: Provide better performance. | Automatic | | |
| Long Preamble: Provide more reliable connection or slightly longer range. | | | |



Notice:

These parameters are reserved for wireless testing and advanced configuration only. If you don't know how to configure, please do not change these settings.
3.5 Advanced

3.5.1 VLAN Configuration

Virtual LAN (VLAN) is a logically group network. DVW provide VLAN function base on SSID. Each SSID can be configured one VLAN ID. DVW can support up to 8 SSIDs.

When DVW transmit or receive packets, it matches the SSID and VLAN ID. So that only members of the VLAN could receive packets from the same VLAN ID members. And VLAN also allow user to access the network from a different place or network devices. So it provides security and flexibility. And it also avoids unnecessary traffic on wireless LAN and maximizing throughput.

For example: Configure department A, B, C to VLAN 1, 2, 3. User only can access the resource which belongs to their department, so the resource in their department can be protected. And they can access the resource in a different floor, even though in a different place. So they don't need to stay in a fixed place to access the resource which belongs to their department.



VLAN Configuration (for AP mode only)

| Cancel | Арріу |
|---------------------|---|
| Management VLAN ID: | 1 |
| Port PVID | WLAN Tagged(Please use comma to sepatate multiple VLAN tags.) |
| LAN 1 | |
| Delta_11N_1 | |
| Delta_11N_2 | |

| Description | Factory Default |
|--|-----------------|
| Management VLAN ID | |
| Specify the management VLAN ID. | 1 |
| Port | |
| LAN: Display the LAN port number. | |
| • WLAN: The wireless port for the specific SSID. The number of wireless | LAN: 1 |
| port depends on how many SSIDs you created. | |
| PVID | |
| Specify the port's VLAN ID. PVID is set for the device which connect with this | 4 |
| port | 1 |
| WLAN Tagged | |
| Specify which VLANs can communicate with this specific VLAN. The VLAN ID | Nono |
| range from 1 to 4094. | NOTE |



Notice:

- When the settings of PVID and VLAN ID are the same, VLAN members of the PVID can manage the AP of the VLAN ID.
- After the settings are done, connecting to the VLAN SSID would require a specific IP address or have a DHCP server to do the transmission.

3.5.2 Packet Control

DVW can filter IP-based packets through LAN and WLAN interface by 3 kinds of filters: MAC filters, IP Protocol filters and TCP/UDP port filters. These filters can enhance the network security and performance.

3.5.2.1 Filter Configuration

Settings of 3 filters, MAC filters, IP Protocol filters, and TCP/UDP port filters as well as the packet acceptance.

Filter Configuration

| Cancel | Apply | |
|--------|-------|-----------|
| Enable | | Disable 🛩 |
| Policy | | Drop 💌 |

| Description | Factory Default | | |
|--|-----------------|--|--|
| Enable | | | |
| Specify whether the filter configuration is enabled. | | | |
| • Enable: Packet filter function is enabled. | | | |
| • Disable: Packet filter function is disabled. | Disabled | | |
| The filter priority: | | | |
| MAC filters > IP Protocol filters > TCP/UDP port filters | | | |
| Policy | | | |
| • Drop: All packets correspond with the list will be dropped. | Dron | | |
| • Accept: Only the packets correspond with the list can be accepted. | Гор | | |
| | | | |

Notice:

Before you enable the filter function, please notice the **Policy**:

Drop: If there is no data in the filter list, all packets are accepted.

Accept: If there is no data in the filter list, all packets are dropped.

3.5.2.2 MAC Filters

The MAC filter can accept or drop packets with specified MAC addresses. The MAC address can be configured up to 8 entries.

MAC filters

| | Cancel | Apply | |
|----|--------|-------|-------------|
| No | Active | Name | MAC address |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |

Notice:

Please check the Active check box for the entries which you want to specify and please remember to configure the policy in **Filter Configuration** page.

3.5.2.3 IP Protocol Filters

The IP Protocol filter can accept or drop packets with specified IP protocol and source/destination addresses. The policy can be configured up to 8 entries.

DVW provides 3 IP protocols items: All, TCP, UDP and ICMP. The Source IP and Destination IP must be specified. You can specify an IP address or a range of IP addresses.

For example, if you enter the IP address 192.168.1.1 and netmask 255.255.255.255, its mean only on IP address 192.168.1.1 is specified. If you enter the IP address 192.168.1.1 and netmask 255.255.255.0, its mean the range of IP address 192.168.1.1 to 192.168.1.254 are specified.

IP Protocol Filters

| | Cance | | Apply | | | |
|----|--------|----------|-----------|----------------|----------------|---------------------|
| No | Active | Protocol | Source IP | Source netmask | Destination IP | Destination netmask |
| 1 | | All 🔽 | | | | |
| 2 | | All 🔽 | | | | |
| 3 | | All 🔽 | | | | |
| 4 | | All 🔽 | | | | |
| 5 | | All 🔽 | | | | |
| 6 | | All 🔽 | | | | |
| 7 | | All 🔽 | | | | |
| 8 | | All 🔽 | | | | |



Notice:

Please check the Active check box for the entries which you want to specify and please remember to configure the policy in **Filter Configuration** page.

3.5.2.4 TCP/UDP Port Filters

The TCP/UDP port filter can accept or drop packets with specified port and protocol. The policy can be configured up to 8 entries.

You can specify TCP or UDP protocol, and specify a single port or a range of port. If you want to specify a single port, you can leave blank in end port field; if you want to specify a range of port, the end port can't be larger than the start port.

TCP/UDP Port Filters

| | Cancel | Apply | | | |
|----|--------|-------------|------------------|----------|------------------|
| No | Active | Source port | Destination port | Protocol | Application name |
| 1 | | ~ | ~ | TCP 🔽 | |
| 2 | | ~ | ~ | TCP 🔽 | |
| 3 | | ~ | ~ | TCP 💌 | |
| 4 | | ~ | ~ | TCP 🔽 | |
| 5 | | ~ | ~ | TCP 💌 | |
| 6 | | ~ | ~ | TCP 🔽 | |
| 7 | | ~ | ~ | TCP 💌 | |
| 8 | | ~ | ~ | TCP 🔽 | |



Notice:

Please check the Active check box for the entries which you want to specify and please remember to configure the policy in **Filter Configuration** page.

3.5.3 RSTP Configuration

DVW supports STP and Rapid STP function. DVW series support Spanning Tree Protocol (STP) defined in the IEEE802.1d protocol standard and Rapid Spanning Tree Protocol (RSTP) was developed as the IEEE802.1w protocol standard to detect and avoid packets to follow a never ending loop. This function is very useful in link management and redundancy wired/wireless path redundancy. If you need to use this function, please enable the RSTP function of the interface on all DVW seriess in the network.

| RSTP Configura | ation | | | |
|------------------|-------------|---------------|------------|-----------|
| Cancel | Apply | | | |
| Bridge priority | | 32768 💌 | | |
| Hello time | | 2 (1~10 | l seconds) | |
| Forwarding delay | | 15 (4~30 | I seconds) | |
| Max age | | 20 (6~40 | I seconds) | |
| | | | | |
| | | | | |
| | | | | |
| No | Enable RSTP | Port Priority | Port Cost | Edge Port |
| 1 LAN1 | | 128 🗸 | 2000000 | |
| 2 LAN2 | | 128 🕶 | 2000000 | |

| Description | Factory Default |
|--|-----------------|
| Bridge Priority | |
| Each bridge is assigned a priority when they are running STP. After the devices | |
| exchange BPDUs, the lowest priority value becomes the root bridge. Select a | 32768 |
| number that is a multiple of 4096 and the range are between 0 and 61440. | |
| Hello Time | |
| Enter the time for the root of the Spanning Tree topology sends hello message. | |
| For example, if the hello time is 2, the root of the Spanning Tree topology | 2 |
| sends a "hello" message to other network devices every 2 seconds in the | 2 |
| network. The range is 1~10 seconds. | |
| Forwarding Delay | |
| Enter a waiting time for the device before checking the topology change or not. | 45 |
| The range is 4~30 seconds. | 15 |
| Max Age | |
| If the device's waiting time for receive a hello message is over the Max Age, | 22 |
| then it will look itself as a root. The range is 6~40 seconds. | 20 |
| Enable RSTP | I |
| Enable or disable the interface to be a node in the Spanning Tree topology. | Unticked |
| Port Priority | |
| Specify the port priority. Lower number means the interface has higher priority; | 400 |
| higher number means the interface has lower priority. | 128 |
| Port Cost | |
| Specify the port cost. Lower cost means the interface is more suitable to be a | 200000 |
| node in the Spanning Tree topology. | 2000000 |
| Edge Port | |
| Specify whether the BPDU go through the port. Check the port as an edge port | None |
| means no BPDU go through the port. | |

3.5.4 SNMP Configuration

Simple Network Management Protocol (SNMP) is an application protocol used for exchanging management information between network devices. SNMP is a member of the TCP/IP protocol suite. SNMP V1, V2 and V3 are supported on the Delta DVW series. When the SNMP protocol version is V1, V2c. the authentication type use a community string. When the SNMP protocol version is V3, then you need to specify the authentication type. If you have data encryption requirement, you can specify the privacy type.

SNMP Configuration

| Cancel | Apply |
|---------------------------|---------|
| Enable | |
| Remote management | |
| Read community | public |
| Write community | private |
| SNMP agent version | V1, V2c |
| Admin authentication type | No Auth |
| Admin privacy type | Disable |
| Privacy key | |
| Device object ID | |

| Description | Factory Default |
|--|-----------------|
| Enable | |
| Specify whether the SNMP agent is enabled. | None |
| Remote Management | |
| Specify whether remote user can manage DVW series by SNMP. | None |
| Read Community | |
| Input a community name for the device to be accessed with read-only permission. | Public |
| Write Community | |
| Input a community name for the device to be accessed with read/write permission. | Private |
| SNMP Agent Version | |
| Specify the SNMP version of the device. | V1, V2c |
| Admin Authentication Type | |
| Specify the admin authentication type to verify that the message is from a valid source. It works when SNMP agent version is "V1, V2c, V3" or "V3". No Auth: No Authentication. Only use admin account to access objects. MD5: Use MD5 algorithms for authentication. SHA: Use SHA algorithms for authentication. | No Auth |
| Admin Privacy Type | |
| Specify the data encryption type. It works when SNMP agent version is "V1, | Disabled |

| | 1 |
|---|-----------------|
| Description | Factory Default |
| V2c, V3" or "V3". | |
| Disable: No data encryption. | |
| AES: Use AES-based data encryption. | |
| DES: Use DES-based data encryption. | |
| Privacy Key | - |
| Input a data key for data encryption. | None |
| Device Object ID | |
| This field displays the Delta DVW series's OID. | Fixed |

3.5.5 Storm Control

A traffic storm occurs when incoming packets flood the LAN, which causes the decreasing of the network performance. Storm control protects can avoid flooding packets affect the network performance. DVW provides you to configure both Storm Protection and Multicast & Flooding for LAN and WLAN for incoming and outgoing traffic.

Storm Control

| | Cancel Apply | |
|------|---|------------------|
| | Storm protection | Enable 💿 Disable |
| | | |
| | Description | Factory Default |
| Stor | Description m Protection | Factory Default |
| Stor | Description m Protection Enable: Storm protection is enabled. | Factory Default |

3.6 Auto Warning Settings

Industrial Ethernet devices in an industrial environment are very important. These devices usually need to work for a long time and are usually located at the end of the system. So if the Delta DVW seriess need to be maintained, it must provide some messages to the maintainer. Even when the maintainers or engineers do not stay in the control room, they still need to be informed the status of the devices. Delta DVW seriess provides different approaches to warn engineers automatically, such as log, E-mail, relay output and SNMP trap.

3.6.1 SysLog

Syslog function provides you to monitor the device. When faults, errors, configuration changes or specified events happen, this function can generate messages and forward the messages to a specified syslog server.

3.6.1.1 Syslog Event Types

Please check the box to enable the event items. The default settings are disabled (unticked).

系统日志事件类型

| 取消 应用 | | |
|----------------------|--------------|--|
| 事件组 | □ | |
| 冷启动 | Ø | |
| 热启动 | V | |
| 认证失败 | \checkmark | |
| IP变更 | ♥ | |
| 密码变更 | \checkmark | |
| Dot1d 桥接的新的根节点 | | |
| Dot1d 桥接拓扑结构已改变 | \checkmark | |
| 配置已改变 | ✓ | |
| WLAN连接或断开 | \checkmark | |
| WLAN的角色转变 | ♥ | |
| WLAN客户端加入和离开 | \checkmark | |
| 固件更新 | ✓ | |
| 开->关▼ DI | \checkmark | |
| 开 - >关 ▼ Power1 | ♥ | |
| 开 - >关 ▼ Power2 | \checkmark | |
| 开 - >关 ▼ Port Link 1 | V | |
| 开 - >关 ▼ Port Link 2 | Ø | |
| 开 - >关 ▼ Port 1 DCD | Ø | |
| 开 - >关 ▼ Port 2 DCD | Ø | |
| 开 - >关 ▼ Port 1 DSR | × | |
| 开 - >关 ▼ Port 2 DSR | \checkmark | |

| Description | Factory Default | |
|--|-----------------|--|
| Cold Start | | |
| Power off and then power on to start the system. | Enabled | |
| Warm Start | | |
| When the power is still on, restart the system. | Enabled | |
| Authentication Failure | | |
| Log in failure (wrong ID / Password) | Enabled | |
| IP Changed | | |
| Change the IP address of the DVW series. | Enabled | |
| Password Changed | | |
| Change the login password. | Enabled | |
| Dot1d Bridge New Root | | |
| Set up a new root. | Enabled | |
| Dot1dBridge Topology Changed | | |
| When error occurred in the bridge root or when it is powered off. The backup | Enabled | |
| bridge root can be the bridge root of the appointed topology. | Linabled | |
| Configuration Changed | | |
| Any configuration of the DVW series changed. | Enabled | |
| WLAN Connection or Disconnection | | |
| When in the Client mode, any wireless device joined or left. | Enabled | |
| WLAN Role Change | | |
| Operation mode or configuration changed | Enabled | |
| WLAN Client Joined / Left | | |
| When in the Client mode, any client end joined or left. | Enabled | |
| Firmware Update | | |
| When updating firmware | Enabled | |
| DI (ON→OFF) or (OFF→ON) | | |
| Trigger DI to (ON→OFF) or (OFF→ON) | Enabled | |
| Power 1/2 (ON→OFF) or (OFF→ON) | | |
| Input power 1 / 2 (ON→OFF) or (OFF→ON) | Enabled | |
| Port Link 1/2 (ON→OFF) or (OFF→ON) | | |

| Description | Factory Default | |
|--|-----------------|--|
| Pork link 1 / 2 (ON→OFF) or (OFF→ON) | Enabled | |
| Port 1/2 DCD (ON \rightarrow OFF) or (OFF \rightarrow ON) | | |
| DCD detected in the serial port, trigger I/O to (ON \rightarrow OFF) or (OFF \rightarrow ON) | Enabled | |
| Port 1/2 DSR (ON→OFF) or (OFF→ON) | | |
| DSR detected in the serial port, trigger I/O to (ON \rightarrow OFF) or (OFF \rightarrow ON) | Enabled | |

3.6.1.2 Syslog Server Configuration

This function allows users to have the system log sent to the syslog server once there is any event occurs. DVW series can configure 1 syslog server and its transport layer protocol is UDP.

Syslog Server Configuration

| Cancel Apply | | |
|---|------------|-----------------|
| Remote Syslog Enable | O Enable 🧿 | Disable |
| Syslog server | | |
| Syslog port | 514 | |
| | | |
| Description | | Factory Default |
| Remote Syslog Enable | | |
| Enable or disable the remote syslog function | | Disabled |
| Syslog Server | | |
| The IP address of the syslog server | | None |
| Syslog Port | | |
| Set up the local UDP port (the setups should be the same as the UDP port of | | 514 |
| the syslog server , ranging from 1-65535) | | |

3.6.2 E-mail Alarm

When malfunctions, errors, configuration changed, or other appointed events occurred, the system can create a warning and send the warning to the appointed email address.

3.6.2.1 E-mail Event Types

Please check the box to enable the event items you'd like to be notified. The default settings are disabled (unticked).

E-mail Event Types

| Cancel Apply | |
|-------------------------------|--------|
| Event | Active |
| Cold start | |
| Warm start | |
| Authentication failure | |
| IP changed | |
| Password changed | |
| Dot1 d Bridge New Root | |
| Dot1d Bridge Topology Changed | |
| Configuration Changed | |
| Firmware Update | |
| Disabled 🔽 DI | |
| Disabled 🕑 Power1 | |
| Disabled Power2 | |
| Disabled 🚩 Port Link 1 | |
| Disabled 🚩 Port Link 2 | |
| Disabled 🕑 Port 1 DCD | |
| Disabled V Port 2 DCD | |
| Disabled Port 1 DSR | |
| Disabled 💙 Port 2 DSR | |



Notice:

Please refer to section 3.6.1.1 Syslog Event Types for more information on the event types.

3.6.2.2 E-mail Server Configuration

The E-mail server parameters can be configured in this page. The maximum e-mail addresses which you can specify are 4. You can also send Test Mail to see if the email server configuration is complete.

E-mail Server Configuration

| Send Test Mail Ap | ply |
|---------------------|--------------------|
| Mail server(SMTP) | 192.168.1.100 |
| User name | mailadmin |
| Password | ••••• |
| From e-mail address | DVW@delta.com.tw |
| To e-mail address 1 | david@delta.com.tw |
| To e-mail address 2 | |
| To e-mail address 3 | |
| To e-mail address 4 | |

| Description | Factory Default |
|--|-----------------|
| Mail Server (SMTP) | - |
| Set up the IP address or domain address of the syslog server (SMTP) | None |
| User Name / Password | |
| Set up the user name and the password for the syslog server | None |
| From Email Address | - |
| Set up the administrator's email address; once the warning email is sent, this email address will be shown on the sender's section. Up to 63 characters can be inputted. | None |
| To Email Address 1 / 2 / 3 / 4 | |
| Set up the receipt's email address; up to 63 characters can be inputted. | None |

3.6.3 Relay Alarm

Relay alarm is used to monitor power, DI and port status and you can configure the alarm events. When the event has been triggered, the alarm LED will be ON.

3.6.3.1 Relay Event Types

Please check the box to enable the event items you'd like to be notified. The default settings are disabled (unticked).

Relay Event Types

| Cancel Apply | |
|------------------------|--------|
| Event | Active |
| Disabled 🕑 DI | |
| Disabled V Power1 | |
| Disabled Power2 | |
| Disabled V Port Link 1 | |
| Disabled Port Link 2 | |
| Disabled V Port 1 DCD | |
| Disabled Port 2 DCD | |
| Disabled V Port 1 DSR | |
| Disabled V Port 2 DSR | |

Notice:

P

Please refer to section 3.6.1.1 Syslog Event Types for more information on the event types.

3.6.4 SNMP Trap

NMS (Network Management Station) usually manage and monitor many SNMP agents. If manager pre-configure the event, then the SNMP agents will send a message as a trap when the event has been triggered.

3.6.4.1 Trap Event Types

Please check the box to enable the event items you'd like to be notified. The default settings are disabled (unticked).

SNMP Trap Event Types

| Cancel Apply | |
|--------------------------------|--------|
| Event | Active |
| Cold start | |
| Warm start | |
| Authentication Failure | |
| IP changed | |
| Password changed | |
| Dot1 d Bridge New Root | |
| Dot1 d Bridge Topology Changed | |
| Disabled 💟 DI | |
| Disabled Power1 | |
| Disabled Power2 | |
| Disabled 🕐 Port Link 1 | |
| Disabled Port Link 2 | |
| Disabled Port 1 DCD | |
| Disabled Port 2 DCD | |
| Disabled Port 1 DSR | |
| Disabled V Port 2 DSR | |



Notice:

Please refer to section 3.6.1.1 Syslog Event Types for more information on the event types.

3.6.4.2 SNMP Trap Receiver Settings

Users can set up the SNMP Trap receiver; SMIv1 MIBs (SNMPv1) and SMIv2 MIBs (SNMPv2c) are supported.

SNMP Trap Receiver Configuration

| Cancel Apply | |
|-------------------------|--------------|
| 1st Trap version | V1 💌 |
| 1st Trap server IP/name | 192.168.1.11 |
| 1st Trap community | public |
| 2nd Trap version | √2 ▼ |
| 2nd Trap server IP/name | 192.168.1.11 |
| 2nd Trap community | private |

| Description | Factory Default | |
|---|-----------------|--|
| 1st/ 2nd Trap version | | |
| Specify the SNMP trap version in SNMPv1 or SNMPv2. | V1 | |
| 1st/ 2nd Trap server IP/name | | |
| Enter the IP address or the name of SNMP Trap server in your network. | None | |
| 1st/ 2nd Trap community | | |
| Input the community string for authentication. | None | |

3.7 Monitoring Settings

DVW series provides many monitoring function in this group. Includes alarm tables, Ethernet wire & wireless status, DHCP client and serial port status.

3.7.1 Email Alarm Table

When Email event has been triggered, this page displays the event and status.

E-mail alarm table

| Index Event | | | | Status |
|-------------|---|--------|-------------------------------------|--------|
| | 1 | Port 2 | _ink down | Fail |
| | 2 | Powe | 2(On>Off) | Fail |
| | | | | |
| | | ltem | Description | |
| Index | | | The index of the event. | |
| Event | | | The event which has been triggered. | |
| | | | 1 | |

The status of the event.

3.7.2 Relay Alarm Table

When relay event has been triggered, this page displays the event and status.

Relay alarm table

Status

| Index | Event | Relay |
|-------|------------------|-------|
| 1 | Power2 Off | V |
| 2 | Port 2 Link down | V |

| Item | Description | |
|--------|-------------------------------------|--|
| Index | The index of the event. | |
| Event | The event which has been triggered. | |
| Status | The status of the event. | |

3.7.3 Trap Alarm Table

When SNMP trap event has been triggered, this page displays the event and status.

Trap alarm table

| Index | Event | Status |
|-------|------------------|---------|
| 1 | Port 2 Link down | Success |
| 2 | Power2(On>Off) | Success |

| Item | Description |
|--------|-------------------------------------|
| Index | The index of the event. |
| Event | The event which has been triggered. |
| Status | The status of the event. |

3.7.4 System Log

System log can record all events which happened on DVW series. You can use the Export Log button to backup the logs.

Logs

| Export Log Clear Log Refresh | |
|--|---|
| Current Time: Wednesday, Dec 31, 1969 17:16:01 | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | 1 |

| Item | Description |
|------------|------------------------------|
| Export Log | Export all logs to a file. |
| Clear Log | Clear all log on the device. |
| Refresh | Refresh the log page. |

3.7.5 Network Connection Status

Network connection status page provides user to monitor the physical LAN port connection status.

| Network connection status | | | | |
|---------------------------|-----|--|--|--|
| LAN1 | Off | | | |
| LAN2 | On | | | |

3.7.6 AP Client List

AP Client List displays all wireless which associates with DVW series currently. The information includes IP Address, MAC Address and Device Name.

| AP Client List | | | | | | |
|----------------|---------------|-------------------|--------------|--|--|--|
| # | IP Address | MAC Address | Device Name | | | |
| 1 | 192.168.1.128 | 00:03:7F:EF:11:22 | DVW-W02W2-E2 | | | |
| 2 | 192.168.1.50 | 60:67:20:DE:B4:80 | TWTY3NB0359 | | | |
| | | | | | | |

3.7.7 DHCP Client List

DHCP Client List page displays all the clients which get the IP address from DVW series.

DHCP Client List

| Select all | refresh | | |
|------------|----------------------------|---------------------|---|
| | MAC 1 00:03:7f:ef:11:22 | IP 192.168.1.128 | ~ |
| | | | |
| | | | |
| | | | |
| | | | ~ |

| Item | Description | |
|------------|---|--|
| Select All | Select all clients on the DHCP Client List. | |
| Refresh | Refresh the DHCP Client List | |

3.7.8 Serial Port State

Serial Port State page displays the serial port information. You can modify the serial port settings in Port Configuration page.

| Port Setting | | | | | | |
|--------------|-----------|--------------------|----------|--------|--------------|-------------|
| Port | interface | Operation Function | Baudrate | Format | Flow Control | Buffer Size |
| 1 | RS232 | MODBUS ASCII Slave | 9600 bps | 8,E,1 | None | 10Mbytes |
| 2 | RS232 | MODBUS ASCII Slave | 9600 bps | 8,E,1 | None | 10Mbytes |
| | | | | | | |

3.7.9 Serial Port Statistics

Serial Port Statistics page displays the number of serial Tx and Rx packet number and data transmission status for each serial port.

| Serial Fort S | tatistics | | | | | | |
|---------------|---------------|---------------|---------|---------|-----|---------|---------|
| Port | Tx Byte Count | Rx Byte Count | DSR | DTR | RTS | CTS | DCD |
| 1 | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| 2 | 0 | 0 | | | 8 | | |
| | | | | | | | |

3.7.10 Serial Port Error

Carial Dant Chatiatian

Serial Port Error page displays the current number of frame, parity, overrun and break errors for each port.

| Serial Port Er | ror | | | |
|----------------|-------------|--------------|---------------|-------------|
| Port | Frame Error | Parity Error | Overrun Error | Break Error |
| 1 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 |

3.7.11 Serial Port Log

Serial Port Log page displays the logs of serial port. Users can choose to see contents of one single port or contents of the sent and received data.

Serial Port Log

| Port1 | Port2 | |
|-------|---------|-----------|
| | | ALL Clear |
| | Send | Clear |
| | | |
| | | |
| | Receive | Clear |
| | | |
| | | |
| | | |
| | | |
| | | |

| Item | Description | |
|------------|--|--|
| Port 1 / 2 | Display the contents of the sent and received data in port 1 or 2 | |
| Send | Clear the contents of the sent data in port 1 or 2 | |
| Receive | Clear the contents of the received data in port 1 or 2 | |
| All Clear | Clear the every content of the sent and received data in port 1 or 2 | |
| Clear | Clear the contents of the sent or received data in port 1 or 2 | |

3.8 Management Access

Delta DVW series supports not only web interface to manage the device. You also can use CLI (Command Line Interface) to configure the DVW series by Secure Shell (SSH) and Telnet.

3.8.1 SSH Configuration

You can configure SSH configuration in this page.

| | SSH Configuration | on | |
|---|-------------------|--------------------|---------------------------------------|
| | Cancel | Apply | _ |
| | SSH | 🔿 Enable 💿 Disable | |
| | Description | | Factory Default |
| | | | · · · · · · · · · · · · · · · · · · · |
| SSH | | | , |
| SSH Specify the status of SSH. | | | , , |
| SSH Specify the status of SSH. • Disable: SSH is disa | bled. | | Disabled |

3.8.2 Telnet Configuration

You can configure Telnet configuration in this page.

| Telnet Configuration | | | | |
|----------------------|--------------------|--|--|--|
| Cancel | Apply | | | |
| Telnet | 🔿 Enable 💿 Disable | | | |

| Description | Factory Default |
|--|-----------------|
| Telnet | |
| Specify the status of Telnet. | |
| • Disable : Telnet is disabled. | Disable |
| • Enable: Telnet is enabled. | |

3.9 Maintenance

Maintenance functions provide some tools for administrator to upgrade, backup data and diagnose the network.

3.9.1 Session Timeout

Users can set up the login overtime, once the login time is over the time set, a warning will show up and ask users to log in again. It is suggested to use this function to enhance security.

Session Timeout

| Cancel | Apply |
|--------|-------|
| Jancer | Apply |

0

(0 to 60)

```
Session Timeout (minutes)
```

| Description | Factory Default |
|--|-----------------|
| Session Timeout (minutes) | |
| Set up the login overtime | |
| • Set up the login overtime in the range of 1-60 mins | 5 minutes |
| • Set up the overtime to 0 and this function will be disabled. | |

3.9.2 Password

You can change the password of the administrator account. We recommend you change the password regularly. For security reasons, please change the default password "password".

| Set Password | | |
|---------------------|-------|--|
| Cancel | Apply | |
| Old Password | | |
| Set Password | | |
| Repeat New Password | | |

| Description | Factory Default |
|------------------------------|-----------------|
| Old Password | |
| The current password | None |
| Set Password | |
| Set up a new password | None |
| Repeat New Password | |
| Input the new password again | None |



Notice:

For the system security, please do not use the default password and please set a new administrator password during the initial configuration.

3.9.3 Ping

Ping function can help administrator to diagnose the network status. Input the IP address which you want to check the connection.

| Descrin | tion | Factory | / Defaul |
|---|--|---------|----------|
| 192.168.1.10 ping stat 4 packets transmitted, 4 round-trip min/avg/max = | i u: icmp_seq=3 tti=1 28 time=0.2 ms istics packets received, 0% packet loss 0.2/0.5/1.5 ms | | |
| PING 192.168.1.10 (192. 64 bytes from 192.168.1. 64 bytes from 192.168.1. 64 bytes from 192.168.1. | 168.1.10): 56 data bytes 10: icmp_seq=0 ttl=128 time=1.5 ms 10: icmp_seq=1 ttl=128 time=0.2 ms 10: icmp_seq=2 ttl=128 time=0.2 ms | | |
| Ping | | | |
| Destination | 192.168.1.10 | | |

| Destination | |
|--|------|
| Input the IP address of the connection that you'd like to check. | None |

3.9.4 Firmware Upgrade

The DVW regularly releases new firmware versions to enhance product performance and add more functions. It's highly recommended to check and perform a firmware upgrade for your DVW series periodically. You can download the latest firmware file from Delta's download center.

Firmware Upgrade

| Locate and select the up | grade file on your hard d | isk. |
|--------------------------|---------------------------|------|
| Choose File No file c | hosen | |
| Cancel | Upload | |
| - | | |



Notice:

- Please backup your DVW configurations before performing a firmware upgrade.
- Do NOT turn off the DVW during a firmware upgrade; otherwise an unexpected error may occur to your DVW.
- It's recommended to RESTORE TO FACTORY DEFAULT SETTINGS after performing a firmware update.

3.9.5 Log Export

Log export function can help you to save the log file in your PC or storage devices.

| Log Export | |
|-----------------------------|---------|
| Save a copy of log messages | |
| | Back Up |

3.9.6 Config Import Export

The config file can be saved in your PC or storage devices. And you can import the config file to another DVW series.

| Config Import Export | |
|------------------------------------|---------|
| Save a copy of current settings | Real/Up |
| Restore saved settings from a file | Баск ор |
| 瀏覽 | |
| | Restore |

3.9.7 Reset to Default

After you click the Erase button, the settings on DVW will revert to factory default settings.

| Re | vert to factory default settings | |
|----|----------------------------------|-------|
| | | Erase |

The reboot function can reboot DVW via web interface.

Reboot

Clicking Reboot button will disconnect all connections and restart the device.

Reboot

3.9.9 Logout

Logout can disconnect the HTTP session. After you finish the configuration, we recommend you logout for security reasons.

MEMO



Chapter 4 IEXplorer Utility Introduction

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Delta has many kinds of industrial products and network devices. If user has many Delta products, IEXplorer utility can provide you to search them via one interface. IEXplorer utility can search for IES series products, DVP series products and some Delta products which have extend communication card. It can help you know the IP address of the device, modify the configuration and upgrade the firmware. IEXplorer utility supports these models:

- DVS-110W02-3SFP
- DVS-108W02-2SFP
- DVW-W02W2-E2
- DVW-W02W2-E2-CN
- IFD9506
- IFD9507
- RTU-EN01
- DVPEN01-SL
- DVP12SE
- DVP-FEN01
- DVPSCM12-SL
- DVPSCM52-SL
- ASDA-M
- CMC-MOD01
- CMC-EIP01

More models coming soon

Compatible OS: Window XP SP2, Window 7 (32/64 bits)

4.1 Starting the Configuration

After you finish the installation, you can find the IEXplorer icon on the desktop. Double-click the icon to run the program.



| 🍘 IEXplorer - [Search] | | | | | |
|--|-----------------|---------------|-------------------|------------------|---------------|
| : <u>D</u> evice <u>S</u> ettings <u>T</u> ook | s <u>H</u> elp | | | | |
| i 🔍 🔯 🐣 🧶 🖻 🤇 | 2 🔄 📥 😧 | | | | |
| Smarter. Greener. Tog | TA jether. | | | Rugged Ethern | et Switch |
| Device Name | Model | IP Address | MAC Address | Firmware Version | Serial Number |
| May_DVP12SE | DVP12SE | 172.16.155.98 | 00-18-23-10-80-3C | 1.50 | |
| May_SA2_EN01 | DVPEN01-SL | 172.16.155.86 | 00-18-23-10-01-96 | 2.0 | |
| | DVS-110W02-3SFP | 192.168.1.5 | 22-33-44-55-66-77 | 0.9 | Unknown |
| | | | | | |
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| 找到3裝置 | | | | | .;; |

After double-clicking the icon, you can see the IEXplorer interface as below:

4.1.1 Device

There are three items in Devices: Search, Virtual COM and Exit.



4.1.1.1 Search

When utility can't find any devices, the message box pops-up.



The auto search function performs every 1 minute. If the device doesn't exist anymore, then it will be moved from list view.

4.1.1.2 Virtual COM

When you select Virtual COM, the Virtual COM in DCISoft will be executed.

| 🛇 VirtualCOM - Configuration 🔤 🗔 🗖 🔀 | | | | | | | | |
|--------------------------------------|------------------------|------------|------|--------|-------------|--|--|--|
| <u>File E</u> dit | <u>File Edit H</u> elp | | | | | | | |
| + × | | | | | | | | |
| COM Port | <=> | IP Address | Port | Module | Module Name | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

| Note: |
|-------|
| |

| Create | | X |
|-------------|------|--------|
| Parameter | | |
| COM Port | COM2 | • |
| IP Address | | |
| Listen Port | | |
| Module Name | | _ |
| L | OK | Cancel |

Before you create a virtual COM port, we recommend you use tool's scan function replace input IP address manually.

4.1.2 Settings

IEXplorer utility provides two ways to configure the devices. You can configure the basic settings via **Device Configuration** or configure completely settings via **Open Configuration Web Page**. The **Settings** item only can be clicked when you select DVS or DVW series products in list view.



4.1.2.1 Device Configuration

The login ID and password are the same as the web interface.

| 🍘 IEXplorer - [Login Administrator] | |
|-------------------------------------|--|
| : Device Settings Tools Help | |
| i 🔍 🔯 🖀 👷 🗗 🔿 🧐 📥 😮 | |
| Smarter. Greener. Together. | |
| Administrator Name: admin | |
| Administrator Pessword: | |
| OK Cancel | |
| | |
| | |
| | |
| 找到3裝置 | |

| 🍘 IEXplorer - [DeviceConfig | urationfrm] | | | |
|---------------------------------------|-------------------|----|--------|---|
| <u>Device</u> Settings Tools <u>H</u> | elp | | | |
| : Q 🔉 A 🙁 D O E | à 📥 😮 | | | |
| Smarter. Greener. Togethe | | | | |
| Overview Basic Password | | | | |
| | | | | |
| -Device Review | | | | |
| Model | DVS-110W02-3SFP | | | |
| IP Address | 192.168.1.15 | | | |
| MAC Address | 00-18-23-01-00-BB | | | |
| Firmware Version | 0.09 | | | |
| | | | | |
| | | | | |
| | | OK | Cancel | |
| | | | | : |

After the authentication progresses, the basic setting interface displays as below:

You can configure the device name, IP information, modify the password, and reset it to factory default setting in this interface.

4.1.2.2 Configuration Web Page

If you select Open Configuration Web Page, the web interface will be display.

| Gress 🐉 http://192.168.1.5/ | | 👻 🔁 Go Unis * |
|-----------------------------|---------------|---------------|
| | | |
| | | |
| | | |
| | Please Login | |
| | Treuse Llogin | |
| | | |
| | Username | |
| | Password | |
| | | |
| | Login | |
| | | |
| | | |
| | | |
| | | |



Note:

You can double-click the device in list view to open the configuration web page. If the device which you select doesn't belong to a DVS or DVW series device, then utility will open **DCISoft** for you to configure the device.

4.1.3 Tools

Please select the device before using the functions in **Tools** item.



4.1.3.1 Parameter Import

After **Parameter Import** is selected, a window will pop up for you to select a file imported to the device. Importing a file to multi devices is supported.

| Open | | ? 🗙 |
|--|--|----------------|
| Look in: | 🔁 IEXplorer 💽 🔇 🎓 📰 🕶 | |
| My Recent Documents Desktop My Documents My Computer | en Images log Resources tftp zh-Hans zh-Hant IEXplorer IEXplorer.exe.config IEXplorer.exe.log4net IEXplorer.exe.manifest IPAddressControlLib.dll log4net.dll ModuleCode Tftp.Net.dll | |
| Mu Network | File name: | Open Cancel |

4

4.1.3.2 Parameter Export

After Parameter Export is selected, a window will pop up for you to select the path to export the file.

| Save As | | | | | ? 🗙 |
|---|---|-------------|-----|----------|--------|
| Save in: | EXplorer | | ✓ G | 🦻 📂 🎫 | |
| My Recent Documents Desktop My Documents | images i i i i i i i i i i i i i i i i i i i | | | | |
| | File name: | Export File | | ~ | Save |
| My Network | Save as type: | CSV (.csv) | | ✓ | Cancel |

4.1.3.3 Device Reboot

IEXplorer supports you to reboot the device via utility.

4.1.3.4 Update Firmware

| Open | | ? 🗙 |
|---|--|--------|
| Look in: | 🔁 IEXplorer 💽 🔇 🎓 📰 🗸 | |
| My Recent Documents Desktop My Documents | en Images log Resources tftp zh-Hans zh-Hant IEXplorer IEXplorer.exe.config IEXplorer.exe.log4net IEXplorer.exe.manifest IPAddressControlLib.dll log4net.dll ModuleCode Tftp.Net.dll | |
| | File name: | Open |
| My Network | Files of type: | Cancel |

After you select **Update Firmware**, a window will pop up for you to select the firmware file.

4.1.4 Help

After the **About** item in **Help** is selected, an information message window of IEXplorer will pop up.






Appendix A Private MIB Group

Table of Contents

| A.1 | Private MIB Group | A-2 |
|-----|-------------------|-----|
| | | |

A.1 Private MIB Group

Delta switch not only support standard MIBs, it also provide private MIBs. You can use SNMP tool to configure or monitor the switch's configuration. The private MIBs are the same as standard MIBs, displays like a web tree. It's easily to understand and use, you don't need to learn or find where the OIDs of the commands are. Private MIB can be found in product CD if you need to use it.





Appendix B MODBUS TCP Map

Table of Contents

| R 1 | MODBUS TCP Map B-2 |
|--------------|--------------------|
| D . 1 | |

B.1 MODBUS TCP Map

| Address Offset | Data Type | Description |
|----------------|-----------|---|
| | S | System Information |
| 0x0000 | 1 word | Reserved |
| 0x0001 | 1 word | Reserved |
| 0x0002 | 1 word | Reserved |
| | | Firmware Version |
| 0x0003 | 1 word | Hi byte = major |
| | | Lo byte = minor |
| | | Firmware Release Date |
| | | Word 0 Hi byte = day |
| | | Word 0 Lo byte = clock |
| 0x0004 | 2 word | Word 1 Hi byte = year |
| | | Word 1 Lo byte = month |
| | | Ex: 20120918, PM9:00 |
| | | Word $0 = 0x1215$, Word $1 = 0x0C09$ |
| | | Vendor Name = "Delta Electronics, Inc." |
| | | Word 0 Hi byte = 'D' |
| | | Word 0 Lo byte = 'e' |
| | | Word 1 Hi byte = 'l' |
| | | Word 1 Lo byte = 't' |
| | | Word 2 Hi byte = 'a' |
| | | Word 2 Lo byte = '' |
| | | Word 3 Hi byte = 'E' |
| | | Word 3 Lo byte = $ ' $ |
| | | Word 4 Hi byte = 'e' |
| | | Word 4 Lo byte $-$ 'c' |
| 0x0010 | 20 words | Word 5 Hi byte $-$ 't' |
| | | Word 5 Lo byte $-$ 'r' |
| | | Word 6 Hi byte $-$ 'o' |
| | | Word 6 Lo byte $-$ 'p' |
| | | Word 7 Hi byte $=$ 'i' |
| | | Word 7 L a byte = 1 |
| | | Word 9 Hi bute $ c $ |
| | | Word 9 Lo byte $= 5$ |
| | | Word 0 Hi byte = $\frac{1}{2}$ |
| | | Word Θ is byte = |
| | | Word 10 Hi byte $ n $ |
| | | |
| 0.0040 | 00 | Word 10 LO DYTE = C |
| 00010 | 20 words | |
| 1 | | Word 11 Lo byte = '\0' |

| 0x0030 20 words Ex: Product Name = "DVW-W02W2-E2" Word 0 Lio byte = 'D' Word 1 Lio byte = 'V' Word 1 Lio byte = 'V' Word 2 Lio byte = 'V' Word 2 Lio byte = '0' Word 3 Lio byte = '2' Word 4 Hi byte = '2' Word 5 Lio byte = '2' Word 6 Lio byte = '2' Word 6 Lio byte = '2' Word 6 Lio byte = '0' Word 6 Lio byte = '2' Word 6 Lio byte = '2' Word 6 Lio byte = '0' Word 6 Lio byte = '0' Word 6 Lio byte = '2' Word 6 Lio byte = '2' Word 6 Lio byte = '0' Word 1 Lio byte = 0x23 0x0070 2 words Ethernet IP Address Ethernet IP Address Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xC0A8 Word 1 = 0x0105 0x0075 2 words Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xC0A8 Word 1 = 0x0105 0x0077 2 words Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word Power 1 Status 0x0080 1 word Power 2 Status 0x0081 1 word D0 1 Status 0x0090 1 word D1 Nord 0x0000 1 word D1 Status 0x0000 1 word <tdd< th=""><th>0x0030 20 words Ex: Product Name = "DVW-W02W2-E2" Word 0 Hi byte = 'D' Word 0 Hi byte = 'V' Word 1 Lo byte = 'V' Word 1 Lo byte = 'V' Word 2 Lo byte = 0' Word 2 Lo byte = 0' Word 3 Hi byte = '2' Word 4 Lo byte = '' Word 4 Lo byte = '' Word 4 Lo byte = '' Word 5 Lo byte = '' Word 6 Hi byte = '' Word 6 Hi byte = '' Word 6 Hi byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 1 Lo byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 1 Lo byte = 'O' Word 1 Lo byte = '' Word 1 Lo byte = '' Word 1 Lo byte = '' Word 2 Li byte = 0x11 Word 2 Lo byte = '' Word 1 Lo byte = 0x33 Word 2 Lo byte = '' Word 2 Lo byte = '' Word 1 Lo byte = 0x33 Word 1 = 0x010 Word 1 = 0x0105 Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0101 Word 0 = 0xC0A8 Word 1 = 0x010</th><th>Address Offset</th><th>Data Type</th><th>Description</th></tdd<> | 0x0030 20 words Ex: Product Name = "DVW-W02W2-E2" Word 0 Hi byte = 'D' Word 0 Hi byte = 'V' Word 1 Lo byte = 'V' Word 1 Lo byte = 'V' Word 2 Lo byte = 0' Word 2 Lo byte = 0' Word 3 Hi byte = '2' Word 4 Lo byte = '' Word 4 Lo byte = '' Word 4 Lo byte = '' Word 5 Lo byte = '' Word 6 Hi byte = '' Word 6 Hi byte = '' Word 6 Hi byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 1 Lo byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 6 Li byte = '' Word 1 Lo byte = 'O' Word 1 Lo byte = '' Word 1 Lo byte = '' Word 1 Lo byte = '' Word 2 Li byte = 0x11 Word 2 Lo byte = '' Word 1 Lo byte = 0x33 Word 2 Lo byte = '' Word 2 Lo byte = '' Word 1 Lo byte = 0x33 Word 1 = 0x010 Word 1 = 0x0105 Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0101 Word 0 = 0xC0A8 Word 1 = 0x010 | Address Offset | Data Type | Description |
|--|---|----------------|-----------|-----------------------------------|
| $ 0x0030 20 \text{ words} Word 0 \text{ Hi byte = 'D'} \\ Word 0 \text{ Lo byte = 'V'} \\ Word 1 \text{ Lo byte = ''} \\ Word 2 \text{ Hi byte = W'} \\ Word 2 \text{ Lo byte = '0'} \\ Word 3 \text{ Lo byte = '0'} \\ Word 3 \text{ Lo byte = ''} \\ Word 4 \text{ Lo byte = ''} \\ Word 4 \text{ Lo byte = ''} \\ Word 5 \text{ Hi byte = '2'} \\ Word 5 \text{ Hi byte = ''} \\ Word 5 \text{ Hi byte = ''} \\ Word 6 \text{ Lo byte = ''} \\ Word 1 \text{ Lo byte = ''} \\ Word 2 \text{ Lo byte = ''} \\ Word 2 \text{ Lo byte = ''} \\ Word 2 \text{ Lo byte = ''} \\ Word 1 \text{ Lo byte = 0x33} \\ Word 2 \text{ Lo byte = '0x33} \\ Word 2 \text{ Lo byte = '0x33} \\ Word 2 \text{ Lo byte = '0x44} \\ Word 1 \text{ Lo byte = 0x44} \\ Word 1 \text{ Lo byte = 0x44} \\ Word 1 \text{ Lo byte = 0x44} \\ Word 1 \text{ Lo byte = 0x65} \\ Ex: \text{ IP = 192.168.1.5} \\ Word 0 \text{ Lo XCOA8} \\ Word 1 \text{ LoxFFO0} \\ \hline Word 1 \text{ LoxFFO0} \\ \hline Word 1 \text{ LoxFFO0} \\ \hline Word 1 \text{ LoxFFO1} \\ \hline 0x00077 2 \text{ words} \begin{array}{c} \text{Ethermet Netmask} \\ \text{Ex: Mask = 255.255.255.0} \\ Word 0 \text{ LoxCOA8} \\ Word 1 \text{ LoxFFO1} \\ Word 1 \text{ LoxFFO1} \\ \hline 0x0000: \text{ OFF} \\ 0x0001 \text{ ON} \\ \hline 0x0000: \text{ OFF} \\ 0x0000: $ | 0x0030 20 words Word 0 Lb byte = 'U' Word 1 Lb byte = W' Word 1 Lb byte = W' Word 2 Hi byte = 'U' Word 2 Hi byte = 'U' Word 3 Lb byte = 'U' Word 4 Lb byte = '' Word 5 Hi byte = 'E' Word 6 Lb byte = '' Word 6 Lb byte = '\' Word 1 Lb byte = 0x22 0x0070 3 words Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x11 Word 1 Hi byte = 0x22 0x0070 3 words Ethernet IP Address Ex: MAC = 0x33 Word 1 Lb byte = 0x34 Word 1 Lb byte = 0x44 Word 2 Lib byte = 0x44 Word 2 Lib byte = 0x44 Word 1 = 0x0105 0x0075 2 words Ethernet IP Address Ex: IP = 192:168.1.5 Word 0 = 0xFFFF Word 1 = 0xFF00 0x0077 2 words Ethernet Cateway IP Address Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word 0x0000: OFF Ox0000: OFF 0x0081 1 word 0x0000: OFF 0x0081 1 word 0x0007F | | | Ex: Product Name = "DVW-W02W2-E2" |
| 0x0030 20 words Word 1 Hi byte = 'V' Word 2 Hi byte = '' Word 2 Lo byte = '' Word 3 Lo byte = '' Word 3 Lo byte = '' Word 4 Hi byte = '2' Word 4 Lo byte = '' Word 5 Hi byte = '' Word 6 Lo byte = '' Word 6 Lo byte = '' 0x0050 20 words Serial Number Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 1 Lo byte = 0x00 Word 1 Lo byte = 0x11 Word 1 Lo byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Lo byte = 0x55 0x0070 3 words Ethernet IAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x00 0x0070 2 words Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 0x0071 2 words Ethernet IAC Address Ex: P = 192:168.1.5 0x0073 2 words Ethernet IP Address 0x0075 2 words Ethernet IAC Address Ex: IP = 192:168.1.5 0x0077 2 words Ethernet Netmask Word 0 = 0xC0A8 0x0077 2 words Ethernet Retmask Ex: IP = 192:168.1.5 0x0075 2 words Ethernet Gateway IP Address Ex: IP = 192:168.1.1 0x0080 1 word 0x0007 0x0080 1 word 0x0000 0x0081 1 word 0x0000 0x0000 1 word 0x0000 0x0000 1 word 0x000 | $0x0030 20 \text{ words} \qquad \qquad$ | | | Word 0 Hi byte = 'D' |
| $ 0x0030 \qquad 20 \text{ words} \qquad \qquad$ | $0x0030 = 20 \text{ words} \qquad \begin{array}{c} \text{Word 1 Hi byte = W'} \\ \text{Word 2 Hi byte = W'} \\ \text{Word 2 Lo byte = '0'} \\ \text{Word 3 Hi byte = 2'} \\ \text{Word 4 Lo byte = '2'} \\ \text{Word 4 Lo byte = '2'} \\ \text{Word 5 Lo byte = '2'} \\ \text{Word 5 Lo byte = '2'} \\ \text{Word 6 Lo byte = '2'} \\ \text{Word 6 Lo byte = '0'} \\ \text{Word 7 Lo byte = '0'} \\ \text{Word 6 Lo byte = '0'} \\ \text{Word 1 Lo byte = 0x31} \\ \text{Word 1 Lo byte = 0x33} \\ \text{Word 1 Hi byte = 0x44} \\ \text{Word 2 Lo byte = '0x55} \\ \hline \\ \text{Ex: IP 492.168.1.5} \\ \text{Word 0 = 0xC0A8} \\ \text{Word 1 = 0x105} \\ \hline \\ \text{Word 1 = 0x105} \\ \hline \\ \text{Word 1 = 0xFF00} \\ \hline \\ \text{Word 1 = 0xFF00} \\ \hline \\ \text{Word 1 = 0xF01} \\ \hline \\ \text{Word 0 = 0xC0A8} \\ \text{Word 1 = 0x0101} \\ \hline \\ \hline \\ \text{Word 1 = 0x0101} \\ \hline \\ \hline \\ \text{Word 1 = 0x0101} \\ \hline \\ \hline \\ \text{Word 1 = 0x0101} \\ \hline \\ \hline \\ \hline \\ \text{Word 1 = 0x0101} \\ \hline \\ $ | | | Word 0 Lo byte = 'V' |
| 0x0030 20 words Word 2 Hi byte = '' Word 3 Li byte = '' Word 3 Li byte = '' Word 3 Li byte = '' Word 4 Lo byte = '' Word 4 Lo byte = '' Word 5 Hi byte = '2' Word 6 Li byte = '' Word 6 Li byte = '' 0x0050 20 words Serial Number Ethernet MAC Address ExtMAC = 00:11:22:33:44:55 Word 1 Lo byte = '0' Word 6 Li byte = '\overline' 0x0070 3 words Ethernet MAC Address ExtMAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x00 Word 1 Lo byte = '0' Word 1 Lo byte = 0x11 Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x11 Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x55 Ethernet IP Address Ex: IP = 192.168.1.5 0x0075 2 words Ethernet Netmask 0x0077 2 words Ethernet Netmask 0x0077 2 words Ethernet Retmask 0x0077 2 words Ethernet Retmask 0x0077 Power 1 Status Ox0001 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0000: OFF 0x0000: OFF <tr< td=""><td>$0x0030 \qquad 20 \text{ words} \qquad \qquad$</td><td></td><td></td><td>Word 1 Hi byte = W'</td></tr<> | $0x0030 \qquad 20 \text{ words} \qquad \qquad$ | | | Word 1 Hi byte = W' |
| $0x0030 \qquad 20 \text{ words} \qquad \qquad$ | $0x0030 = 20 \text{ words} = W' \\ \text{Word } 2 \text{ Lo byte } = '0' \\ \text{Word } 3 \text{ Li byte } = '2' \\ \text{Word } 4 \text{ Li byte } = '2' \\ \text{Word } 4 \text{ Lo byte } = '2' \\ \text{Word } 4 \text{ Lo byte } = '2' \\ \text{Word } 5 \text{ Lo byte } = '2' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 1 \text{ Lo byte } = 0x0 \\ \text{Word } 1 \text{ Lo byte } = 0x0 \\ \text{Word } 1 \text{ Lo byte } = 0x1 \\ \text{Word } 1 \text{ Lo byte } = 0x21 \\ \text{Word } 1 \text{ Lo byte } = 0x33 \\ \text{Word } 0 \text{ Lo byte } = 0x33 \\ \text{Word } 1 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x44 \\ \text{Word } 2 \text{ Lo byte } = 0x55 \\ \text{Ex: IP } = 192.168.1.5 \\ \text{Word } 0 = 0xC0A8 \\ \text{Word } 1 = 0x0105 \\ \text{Word } 1 = 0x0105 \\ \text{Word } 0 = 0xFFFF \\ \text{Word } 1 = 0xFF00 \\ \text{Word } 1 = 0xFF00 \\ \text{Word } 1 = 0xFF00 \\ \text{Word } 1 = 0xFFFF \\ \text{Word } 0 = 0xC0A8 \\ \text{Word } 1 = 0xC0A8 \\ \text{Word } 0xC000: OFF \\ 0xC001: ON $ | | | Word 1 Lo byte = '-' |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | 0x0030 20 words Word 2 Lo byte = '0' Word 3 Hi byte = '2' Word 4 Lo byte = 'V' Word 4 Lo byte = '2' Word 5 Lo byte = '2' Word 5 Lo byte = '2' Word 6 Hi byte = '0' Word 6 Lo byte = '0' Word 1 Lo byte = '0' Word 1 Lo byte = '0x11 Word 1 Lo byte = '0x11 Word 1 Lo byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x55 Ethernet IP Address Ex: IP = 192.168.1.5 Word 1 = 0x0105 Ethernet Netmask Ex: IP = 192.168.1.5 Word 1 = 0x0105 Ethernet Netmask Ex: IP = 192.168.1.1 Word 1 = 0xFFF Word 1 = 0xFFF Word 1 = 0xFFF00 Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 1 = 0x0105 Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON Dot 1 Status 0x0000 Det Dot 1 Status Dot 1 | | | Word 2 Hi byte = 'W' |
| 0x0030 $20 words$ Word 3 Hi byte = 2' Word 4 Li byte = W' Word 4 Li byte = V' Word 5 Li byte = 12' Word 6 Hi byte = 12' Word 6 Hi byte = 10' Word 6 Li byte = 10' Word 1 Li byte = 0x0 $0x0050$ 20 wordsSerial Number $0x0050$ 20 wordsSerial Number $0x0070$ 3 wordsEthernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Li byte = 0x0 Word 1 Li byte = 0x11 Word 1 Li byte = 0x22 Word 1 Li byte = 0x14 Word 2 Li byte = 10x13 Word 2 Li byte = 10x15 $0x0073$ 2 wordsEthernet IP Address Ex: IP = 192:168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ 2 wordsEthernet Netmask Ex: Mas = 255.255.255.0 Word 1 = 0xFF00 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192:168.1.1 Word 1 = 0x0101 $0x0080$ 1 word0x0000: OFF 0x0001: ON Ox0001: ON $0x0081$ 1 word0x0000: OFF 0x0001: ON $0x0090$ 1 wordD 1 Status 0x0001: ON 0x0001: ON $0x0000$ 1 word0x0000: OFF | 0x0030 20 words Word 3 Hi byte = '2' Word 4 Lib byte = 'V' Word 4 Hi byte = '2' Word 5 Hi byte = '2' Word 6 Lib byte = '0' Word 6 Lib byte = '0' 0x0050 20 words Serial Number Ethernet MAC Address Exmonstration (Address) Exmonstration (Address) Exmonstration (Address) 0x0070 3 words Word 0 Lib byte = '0' Word 0 Lib byte = 0x00 0x0070 3 words Ethernet MAC Address Exmonstration (Address) Exmonstration (Address) Exmonstration (Address) Exmonstration (Address) 0x0070 3 words Word 1 Lib byte = 0x21 Word 1 Lib byte = 0x22 Word 1 Lib byte = 0x44 Word 2 Lib byte = 0x33 Word 2 Hib byte = 0x55 Externet IP Address Ex: IP = 192.168.1.5 0x0073 2 words Externet Netmask Ex: IP = 192.168.1.5 Word 1 = 0xCIA8 Word 0 = 0xFFFF Word 0 = 0xFFFF 0x0077 2 words Ethernet Retmask Ex: IP = 192.168.1.1 Word 1 = 0x010 0x0080 1 word 0x0000: OFF 0x0080 1 word 0x0000: OFF 0x0001: ON< | | | Word 2 Lo byte = '0' |
| $0 \times 0075 \qquad 2 \ \text{words} \qquad \qquad$ | $ 0 x0070 \begin{tabular}{l c c c c } & Word 3 Lo byte = 'V' \\ & Word 4 Hi byte = '2' \\ & Word 5 Lo byte = '2' \\ & Word 5 Lo byte = '2' \\ & Word 6 Hi byte = '0' \\ & Word 6 Lo byte = '0' \\ & Word 0 Lo byte = '0' \\ & Word 0 Hi byte = 0x00 \\ & Word 0 Hi byte = 0x20 \\ & Word 0 Hi byte = 0x22 \\ & Word 1 Hi byte = 0x22 \\ & Word 1 Lo byte = 0x33 \\ & Word 2 Hi byte = 0x33 \\ & Word 2 Hi byte = 0x44 \\ & Word 2 Lo byte = '0x55 \\ \hline & Ethernet IP Address \\ & Ex: IP = 192.168.1.5 \\ & Word 0 = 0xC0A8 \\ & Word 1 = 0x0105 \\ \hline & Word 0 = 0xFFF \\ & Word 1 = 0xFF0 \\ \hline & Word 0 = 0xFFF0 \\ \hline & Word 0 = 0xFFF0 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x105 \\ \hline & Ethernet IP address \\ & Ex: IP = 192.168.1.1 \\ & Word 0 = 0xFFF0 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & Word 1 = 0x0101 \\ \hline & Word 0 = 0xC0A8 \\ & W$ | 0x0030 | 20 words | Word 3 Hi byte = '2' |
| $ \begin{bmatrix} Word 4 Hi byte = '2' \\ Word 5 Lo byte = 'L' \\ Word 5 Hi byte = 'C' \\ Word 5 Lo byte = 'V' \\ Word 6 Hi byte = 'V' \\ Word 6 Lo byte = '0' \\ Word 6 Lo byte = '0' \\ Word 6 Lo byte = '0' \\ Word 0 Lo byte = '0X11 \\ Word 0 Lo byte = 0x22 \\ Word 1 Li byte = 0x22 \\ Word 1 Li byte = 0x33 \\ Word 2 Li byte = 0x33 \\ Word 2 Li byte = 0x44 \\ Word 2 Lo byte = '0x55 \\ Ethernet IP Address \\ Ex: IP = 192.168.1.5 \\ Word 1 = 0x105 \\ Ethernet IP Address \\ Ex: IP = 192.168.1.5 \\ Word 1 = 0xFE0 \\ Word 1 = 0xFE0 \\ Word 1 = 0xFE0 \\ Word 1 = 0x101 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xFE0 \\ Word 1 = 0x101 \\ Word 0 = 0xC0A8 \\ Word 1 = 0x101 \\ Word 0 = 0x000 \\ Word 1 = 0x101 \\ Word 0 = 0x000 \\ Word 1 = 0x101 \\ Word 0 = 0x000 \\ Word 1 = 0x101 \\ Word 0 = 0x000 \\ Word 1 = 0x101 \\ Word 0 \\ Word 0 = 0x000 \\ Word 1 = 0x101 \\ Word 0 \\ Word $ | $0 \times 0077 \\ 0 \times 0070 \\ 0 \times 0077 \\ 0 \times 0070 \\ 0 \times 00071 \\ 0 \times 00071 \\ 0 \times 0070 \\ 0 \times 0070 \\ 0 \times 0070 \\ 0 \times 0070 \\ 0 \times 00071 \\ 0 \times 0 \times 0071 \\ 0 \times 0 \times 0071 \\ 0 \times 0 \times 0071 \\ 0 \times 0 \times 0 \times 0 \\ 0 \times 0 \times 0 \times 0 \\ 0 \times 0 \times$ | | | Word 3 Lo byte = 'W' |
| $ \begin{bmatrix} Word 4 Lo byte = '-' \\ Word 5 Lo byte = '2' \\ Word 5 Lo byte = '2' \\ Word 6 Hi byte = '0' \\ Word 6 Lo byte = '0' \\ Word 0 Lo byte = 0'2' \\ Word 0 Lo byte = 0'2' \\ Word 0 Hi byte = 0x00 \\ Word 0 Lo byte = 0'x11 \\ Word 1 Lo byte = 0x22 \\ Word 1 Lo byte = 0x33 \\ Word 2 Lo byte = 0'x55 \\ Ethernet IP Address \\ Ex: IP = 192.168.1.5 \\ Word 0 = 0xC0A8 \\ Word 1 = 0x0105 \\ Ethernet Netmask \\ Ex: IP = 192.168.1.5 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xFF0 \\ Word 0 = 0xFFF0 \\ Word 0 = 0xFFF0 \\ Word 1 = 0xFF0 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xFF0 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xFF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xFF0 \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF0 \\ Word 0 = 0xC0A8 \\ Word 0 = 0xC$ | 0x0070 2 words Ethernet MAC Address 0x0070 20 words Serial Number 0x0070 3 words Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Lio byte = '0' 0x0070 3 words Word 1 Lio byte = 0x00 Word 1 Lio byte = 0x11 Word 1 Lio byte = 0x11 Word 2 Lio byte = '0x11 Word 1 Lio byte = 0x22 Word 1 Lio byte = 0x33 Word 2 Lio byte = '0x55 0x0073 2 words Ext: IP = 192.168.1.5 0x0075 2 words Ex: IP = 192.168.1.5 0x0077 2 words Ethernet Netmask 0x0077 2 words Ethernet Setses. 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0081 1 word Dx0000: OFF 0x0090 1 word 0x0000: OFF | | | Word 4 Hi byte = '2' |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | 0x0070 = 1 word 5 Lo byte = '2' Word 6 Li byte = '0' Word 6 Lo byte = '0' 0x0050 = 20 words = 5 thernet MAC Address Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Li byte = 0x00 Word 0 Lo byte = '0x11 Word 1 Hi byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Li byte = 0x44 Word 2 Li byte = '0x55 Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x105 Ethernet Netmask Ethernet Netmask Ethernet Rateway IP Address Ethernet Gateway IP Address Ethernet Status 0x0080 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0081 1 word 0x0000: OFF 0x0001: ON D 1 Status 0x0090 1 word 0x0000: OFF | | | Word 4 Lo byte = '-' |
| 0x0050 = 0 | $ 0x0050 = 20 \text{ word } 5 \text{ Lo byte } = '2' \\ \text{Word } 6 \text{ Hi byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 6 \text{ Lo byte } = '0' \\ \text{Word } 0 \text{ Lo byte } = 0x0 \\ \text{Word } 0 \text{ Hi byte } = 0x00 \\ \text{Word } 0 \text{ Lo byte } = 0x11 \\ \text{Word } 1 \text{ Hi byte } = 0x22 \\ \text{Word } 1 \text{ Lo byte } = 0x33 \\ \text{Word } 2 \text{ Lo byte } = 0x44 \\ \text{Word } 2 \text{ Lo byte } = 0x44 \\ \text{Word } 0 \text{ Ho byte } = 0x44 \\ \text{Word } 0 \text{ Ho byte } = 0x44 \\ \text{Word } 0 \text{ Ho byte } = 0x25 \\ \text{Ethernet IP Address} \\ \text{Ex: IP = 192.168.1.5} \\ \text{Word } 0 \text{ = 0xC0A8} \\ \text{Word } 0 \text{ = 0xC0A8} \\ \text{Word } 0 \text{ = 0xC0A8} \\ \text{Word } 0 \text{ = 0xFFF} \\ \text{Word } 0 \text{ = 0xFFFF} \\ \text{Word } 1 \text{ = 0xFFFO} \\ \text{Word } 1 \text{ = 0xFFFO} \\ \text{Ethernet Retmask} \\ \text{Ex: IP = 192.168.1.1} \\ \text{Word } 0 \text{ = 0xC0A8} \\ \text{Word } 1 \text{ = 0x0101} \\ \text{Word } 1 \text{ = 0x0101} \\ \text{Ox0080} 1 \text{ word} 0x0000: \text{OFF} \\ \text{Ox0001: ON} \\ \text{Ox0001: ON} \\ \text{Ox0001 I hord} \\ \text{Ox0000: OFF} \\ \text{Ox0001: ON} \\ \text{Ox0000 I hord} \\ \text{Ox0000 I hord} \\ \text{Ox0000 OFF} \\ \text{Ox0000 I hord} \\ \text{Ox0000 OFF} \\ \text{Ox0001 OFF} \\ \text{Ox0001: ON} \\ \text{Ox0000 OFF} \\ \text{Ox0001 OFF} \\ Ox0001$ | | | Word 5 Hi byte = 'E' |
| Word 6 Hi byte = '0' Word 6 Lo byte = '0' Word 6 Lo byte = '0' Word 6 Lo byte = '0' 0x0050 20 words Serial Number Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Lo byte = '0x11 Word 1 Lo byte = 0x00 Word 1 Lo byte = 0x33 Word 2 Li byte = 0x44 Word 2 Lo byte = '0x55 Ethernet IP Address Ex: IP = 192.168.1.5 Word 1 = 0x0105 Ethernet Netmask Ex: Mask = 255.255.0 Word 1 = 0x0105 Ethernet Reatmark Ex: Mask = 255.255.0 Word 1 = 0xFF0 Word 1 = 0xFF0 Word 1 = 0xFF0 Word 1 = 0xFF0 Word 1 = 0x0101 0x0077 2 words Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word 0x0000: OFF 0x0001: ON 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0000: OFF | Word 6 Hi byte = '\0' Word 6 Lo byte = '\0' Word 6 Lo byte = '\0' 0x0050 20 words Serial Number Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x00 Word 0 Lo byte = '0x11 Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x33 0x0070 3 words Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x55 0x0073 2 words Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 0x0075 2 words Ethernet Netmask Ex: Mask = 255.255.255.0 Word 1 = 0xFFFF 0x0077 2 words Ethernet Sateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word 0x0000: OFF 0x0001: ON 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF | | | Word 5 Lo byte = 2° |
| $\begin{array}{ c c c c } \hline Word 6 Lo byte = 10' \\ \hline Word 6 Lo byte = 10' \\ \hline Word 0 20 words & Serial Number \\ \hline Serial Number \\ \hline$ | Word 6 Lo byte = \0' 0x0050 20 words Serial Number 0x0070 20 words Serial Number 0x0070 3 words Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 0x0070 3 words Word 0 Lo byte = 0x00 Word 1 Hi byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Lo byte = '0x55 Word 2 Lo byte = '0x55 0x0073 2 words Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 Ethernet Netmask 0x0075 2 words Ethernet Netmask 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address 0x0080 1 word 0x0000: OFF 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF | | | Word 6 Hi byte = (0) |
| 0x0050 $20 words$ Serial Number $0x0070$ $3 words$ Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x00 Word 0 Lo byte = '0x11 Word 1 Lo byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Li byte = 0x44 Word 2 Lo byte = '0x55 $0x0073$ $2 words$ Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ $2 words$ Ethernet Netmask Ex: IP = 192.168.1.5 Word 0 = 0xFFFF Word 1 = 0xF100 $0x0077$ $2 words$ Ethernet Retmask Ex: IP = 192.168.1.1 Word 0 = 0xFFFF Word 1 = 0xF100 $0x0077$ $2 words$ Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 word $0x0000: OFF$ $0x0001: ON$ $0x0081$ 1 word $0x0000: OFF$ $0x0001: ON$ $0x0090$ 1 word $0x0000: OFF$ $0x0001: ON$ $0x0040$ 1 word $0x0000: OFF$ $0x0000: OFF0x00401 word0x0000: OFF0x00401 word0x0000: OFF0x00401 word0x0000: OFF0x0000: OFF$ | 0x0050 20 words Serial Number 0x0070 3 words Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 0x0070 3 words Word 0 Lip te = 0x00 Word 0 Lip te = 0x33 Word 1 Lip te = 0x22 Word 1 Lip te = 0x33 Word 2 Lip te = 0x34 Word 2 Lip te = 0x44 Word 2 Lop te = 0x55 0x0073 2 words Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 Word 1 = 0x55.255.255.0 0x0075 2 words Ethernet Netmask Ex: IP = 192.168.1.5 Word 0 = 0xFFFF Word 1 = 0x510105 Word 1 = 0xFF00 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word 0x0000: OFF 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0000: OFF 0x0000: OFF 0x0000: OFF 0x0000: OFF 0x0000: OFF 0x0000: OFF 0x0000: | | | Word 6 Lo byte = '\0' |
| $0x0070$ 3 words $Ethernet MAC Address Ex: MAC = 00:11:22:33:44:55 Word 0 Hi byte = 0x00 Word 0 Lo byte = 0x11 Word 1 Hi byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Li byte = 0x44 Word 2 Lo byte = '0x55 Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 Ethernet Netmask Ex: Mask = 255.255.0 Word 1 = 0xFFF Word 1 = 0xFF00 Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0077 2 \text{ words} Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0077 2 \text{ words} \frac{\text{Ethernet Gateway IP Address}{\text{Ex: IP = 192.168.1.1}} Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 \text{ word} 0x0000: OFF 0x0001: ON Power 1 Status 0x0081 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0090 1 word DI 1 Status 0x0000 DI 1 Status 0x000 $ | $0x0070 \qquad \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c}$ | 0x0050 | 20 words | Serial Number |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | 0x0070 $3 words$ $Word 0 Hi byte = 0x00$ $Word 0 Lo byte = '0x11$ $Word 1 Hi byte = 0x22$ $Word 1 Lo byte = 0x33$ $Word 2 Hi byte = 0x44$ $Word 2 Lo byte = '0x55$ $Ethernet IP Address$ $Ex: IP = 192.168.1.5$ $Word 0 = 0xC0A8$ $Word 1 = 0x0105$ $Ethernet Netmask$ $Ex: Mak = 255.255.255.0$ $Word 0 = 0xFFF$ $Word 1 = 0xFF00$ $Word 1 = 0xFF00$ $Ethernet Gateway IP Address$ $Ex: IP = 192.168.1.1$ $Word 0 = 0xCA8$ $Word 1 = 0xFF00$ $Word 1 = 0x0105$ $Ex: IP = 192.168.1.1$ $Word 0 = 0xCA8$ $Word 1 = 0xFF00$ $Word 1 = 0x0105$ $Ex: IP = 192.168.1.1$ $Word 0 = 0xC0A8$ $Word 1 = 0x0101$ $Power 1 Status$ $0x0080$ $1 word$ $Power 2 Status$ $0x0001: ON$ $Do 1 Status$ $0x0000 J word$ $DO 1 Status$ $0x0000 J word$ $DO 1 Status$ $0x0000 J word$ $Word 0 = 0xFFF$ | | | Ethernet MAC Address |
| $\begin{array}{c c} \hline \end{picture} \begin{tabular}{ c c c c } \hline \end{picture} & pic$ | $\begin{array}{c c} 0x0070 & 3 \mbox{ word } 0 \mbox{ Hi byte } = 0x00 \\ Word 0 \mbox{ Lo byte } = '0x11 \\ Word 1 \mbox{ Hi byte } = 0x22 \\ Word 1 \mbox{ Lo byte } = 0x33 \\ Word 2 \mbox{ Hi byte } = 0x44 \\ Word 2 \mbox{ Lo byte } = '0x55 \\ \hline \\ 0x0073 & 2 \mbox{ word } 8 \\ \hline \\ 0x0075 & 2 \mbox{ word } 8 \\ \hline \\ 2 \mbox{ word } 8 \\ \hline \\ 0x0075 & 2 \mbox{ word } 8 \\ \hline \\ 2 \mbox{ word } 8 \\ \hline \\ 0x0077 & 2 \mbox{ word } 8 \\ \hline \\ 2 \mbox{ word } 8 \\ \hline \\ 0x0077 & 2 \mbox{ word } 8 \\ \hline \\ 0x0077 & 2 \mbox{ word } 8 \\ \hline \\ 0x0077 & 2 \mbox{ word } 8 \\ \hline \\ 0x0080 & 1 \mbox{ word } 9 \\ \hline \\ 0x0080 & 1 \mbox{ word } 9 \\ \hline \\ 0x0081 & 1 \mbox{ word } 9 \\ \hline \\ 0x0001 \mbox{ cond } 9 \\ \hline \\ 0x0090 & 1 \mbox{ word } 9 \\ \hline \\ 0x0090 & 1 \mbox{ word } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ 0x0090 & 1 \mbox{ word } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ 0x0090 & 1 \mbox{ word } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ 0x0000 \mbox{ word } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ 0x0000 \mbox{ cond } 9 \\ \hline \\ \hline \\ \hline \\ 0x000 \mbox{ cond } 9 \\ \hline \\ \hline \\ \hline \\ 0x$ | | | EX: $MAC = 00:11:22:33:44:55$ |
| 0x00703 wordsWord 0 Lo byte = 0x11 Word 1 Hi byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Hi byte = 0x44 Word 2 Lo byte = '0x55 $0x0073$ 2 wordsEthernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ 2 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF00 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0xF000 $0x0077$ 2 wordsEthernet Sateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 word0x0000: OFF 0x0001: ON $0x0081$ 1 word0x0000: OFF 0x0001: ON $0x0090$ 1 wordD0 1 Status 0x0000: OFF $0x0040$ 1 word0x0000: OFF $0x0000$ 1 word0x0000: OFF $0x0040$ 1 word0x0000: OFF $0x0040$ 1 word0x0000: OFF | 0x00703 wordsWord 0 Lo byte = 0x11 Word 1 Li byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Hi byte = 0x44 Word 2 Lo byte = 0x55 $0x0073$ 2 wordsEthernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ 2 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFF Word 1 = 0xFF0 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0077$ 2 wordsEthernet Sateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 wordPower 1 Status 0x0000: OFF 0x0001: ON $0x0081$ 1 wordOx0000: OFF 0x0001: ON $0x0090$ 1 word0x0000: OFF 0x0001: ON $0x0090$ 1 word0x0000: OFF $0x0090$ 1 word0x0000: OFF | | | Word 0 Hi byte = $0x00$ |
| Word 1 Hi byte = 0x22 Word 1 Lo byte = 0x33 Word 2 Hi byte = 0x44 Word 2 Lo byte = '0x55 $0x0073$ 2 wordsEthernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ 2 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFF Word 1 = 0xFF00 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 word $0x0000:$ OFF 0x0001: ON $0x0081$ 1 word $0x0000:$ OFF 0x0001: ON $0x0090$ 1 wordDO 1 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 word $0x0000:$ OFF 0x0000: OFF $0x0040$ 1 word $0x0000:$ OFF $0x0040$ 1 word $0x0000:$ OFF $0x0000:$ 1 word $0x0000:$ OFF | $0x0073 \qquad \begin{array}{c} Word 1 \ \mbox{Hi byte} = 0x22 \\ Word 1 \ \mbox{Lo byte} = 0x33 \\ Word 2 \ \mbox{Hi byte} = 0x44 \\ Word 2 \ \mbox{Lo byte} = '0x55 \\ \hline \\ Ethernet IP \ \mbox{Address} \\ Ex: IP = 192.168.1.5 \\ Word 0 = 0xC0A8 \\ Word 1 = 0x0105 \\ \hline \\ Ethernet Netmask \\ Ex: Mask = 255.255.255.0 \\ Word 0 = 0xFFF \\ Word 1 = 0xFF00 \\ \hline \\ Word 1 = 0xFF00 \\ \hline \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF00 \\ \hline \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF00 \\ \hline \\ Word 0 = 0xC0A8 \\ Word 1 = 0xF00 \\ \hline \\ Word 0 = 0xC0A8 \\ Word 1 = 0x0101 \\ \hline \\ Word 0 = 0xC0A8 \\ Word 1 = 0x0101 \\ \hline \\ \hline \\ 0x0080 \qquad 1 \ word \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ 0x0001 \ ON \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ \hline \\ \hline \\ 0x0000 \ OFF \\ 0x0001 \ ON \\ \hline \\ $ | 0x0070 | 3 words | Word U Lo byte = $0x11$ |
| Word 1 Lb byte = 0x33 Word 2 Hi byte = 0x44 Word 2 Lo byte = '0x550x00732 wordsEthernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x01050x00752 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF000x00772 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x01010x00772 wordsEthernet Sateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x01010x00801 word0x0000: OFF 0x0001: ON0x00811 wordD0 1 Status 0x0000: OFF 0x0001: ON0x00901 wordD0 1 Status 0x0001: ON0x00401 word0x0000: OFF 0x0001: ON | $0x0073 \qquad \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c}$ | | | Word 1 Hi byte = $0x22$ |
| $\begin{array}{c c} \hline \\ \hline $ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | | | Word 2 Hi bute $0x44$ |
| 0x0073 $2 words$ Ethernet IP Address Ethernet IP Address Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ $2 words$ Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF00 $0x0077$ $2 words$ Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 wordPower 1 Status 0x0001: ON $0x0090$ 1 wordPower 2 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 wordD0 1 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 wordD1 1 Status 0x0000: OFF $0x0040$ 1 wordD1 1 Status 0x0000: OFF | 0x0073 2 words Ethernet IP Address Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 0x0075 2 words Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF00 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word 0x0000: OFF 0x0001: ON 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0001: ON | | | Word 2 Lo byte = $0x44$ |
| 0x0073 $2 words$ Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ $2 words$ Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xF00 $0x0077$ $2 words$ Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 wordPower 1 Status 0x0001: ON $0x0081$ 1 wordPower 2 Status 0x0001: ON $0x0090$ 1 wordD0 1 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 wordD1 Status 0x0000: OFF $0x0040$ 1 wordD1 1 Status 0x0000: OFF | 0x0073 $2 words$ Ex: IP = 192.168.1.5 Word 0 = 0xC0A8 Word 1 = 0x0105 $0x0075$ $2 words$ Ethernet Netmask Ex: Mask = 255.255.255.0 | | | Ethernet IP Address |
| 0x00732 words $Ux. H = 102.100.15$ $0x0075$ 2 words $Word 0 = 0xC0A8$ Word 1 = 0x0105 $0x0075$ 2 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF00 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 wordPower 1 Status 0x0000: OFF 0x0001: ON $0x0081$ 1 wordPower 2 Status 0x0000: OFF 0x0001: ON $0x0090$ 1 wordDO 1 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 wordDI 1 Status 0x0000: OFF $0x0040$ 1 wordDI 1 Status 0x0000: OFF $0x0040$ 1 wordDX0000: OFF | 0x0073 2 words Ex. if 2 102,100,110 Word 0 = 0xC0A8 Word 1 = 0x0105 0x0075 2 words Ethernet Netmask 2 words Ex: Mask = 255,255,255,0 Word 0 = 0xFFFF Word 1 = 0xFF00 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192,168,1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0081 1 word Power 2 Status 0x0001: ON DO 1 Status 0x0090 1 word DX0000: OFF | | | F_{Y} : IP - 192 168 1 5 |
| Word 0 = 0x00 rd Word 1 = 0x01050x00752 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF000x00772 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x01010x00801 wordPower 1 Status 0x0001: ON0x00811 wordPower 2 Status 0x0001: ON0x00901 wordDO 1 Status 0x0000: OFF 0x0001: ON0x00901 wordDU 1 Status 0x0000: OFF0x00401 word0x0000: OFF 0x0001: ON | $0x0075 \qquad \qquad$ | 0x0073 | 2 words | Word $0 = 0xC0A8$ |
| 0x00752 wordsEthernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF000x00772 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x01010x00801 word0x0000: OFF 0x0001: ON0x00811 word0x0000: OFF 0x0001: ON0x00901 word0x0000: OFF 0x0001: ON0x00901 wordDO 1 Status 0x0000: OFF 0x0001: ON0x00401 word0x0000: OFF 0x0001: ON | 0x0075 2 words Ethernet Netmask Ex: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF00 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 0x0080 1 word Power 1 Status 0x0000: OFF 0x0001: ON 0x0081 1 word Power 2 Status 0x0001: ON 0x0090 1 word DO 1 Status 0x0000: OFF | | | Word $1 = 0x0105$ |
| 0x00752 wordsEx: Mask = 255.255.255.0 Word 0 = 0xFFFF Word 1 = 0xFF000x00772 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x01010x00801 wordPower 1 Status 0x0000: OFF 0x0001: ON0x00811 wordPower 2 Status 0x0001: ON0x00901 wordDO 1 Status 0x0000: OFF 0x0001: ON0x00901 wordDI 1 Status 0x0000: OFF0x00401 wordDI 1 Status 0x0000: OFF | $0x0075 \qquad 2 \text{ words} \qquad \begin{array}{c} \text{Ex: Mask} = 255.255.255.0 \\ \text{Word } 0 = 0xFFFF \\ \text{Word } 1 = 0xFF00 \\ \end{array}$ $0x0077 \qquad 2 \text{ words} \qquad \begin{array}{c} \text{Ethernet Gateway IP Address} \\ \text{Ex: IP} = 192.168.1.1 \\ \text{Word } 0 = 0xC0A8 \\ \text{Word } 1 = 0x0101 \\ \end{array}$ $0x0080 \qquad 1 \text{ word} \qquad \begin{array}{c} \text{Power 1 Status} \\ 0x0000: \text{ OFF} \\ 0x0001: \text{ ON} \\ \end{array}$ $0x0081 \qquad 1 \text{ word} \qquad \begin{array}{c} \text{Power 2 Status} \\ 0x0000: \text{ OFF} \\ 0x0001: \text{ ON} \\ \end{array}$ $0x0090 \qquad 1 \text{ word} \qquad \begin{array}{c} \text{DO 1 Status} \\ \text{DO 1 Status} \\ 0x0000: \text{ OFF} \\ 0x0000: \text{ OFF} \\ 0x0000: \text{ OFF} \\ 0x0000: \text{ OFF} \\ 0x0001: \text{ ON} \\ \end{array}$ | | | Ethornot Notmask |
| 0x00752 wordsLX. Mask = 233.233.233.233.0 $Word 0 = 0xFFFF$ Word 1 = 0xFF00Word 0 = 0xFF00 $0x0077$ 2 wordsEthernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 $0x0080$ 1 wordPower 1 Status 0x0000: OFF 0x0001: ON $0x0081$ 1 wordPower 2 Status 0x0000: OFF 0x0001: ON $0x0090$ 1 wordDO 1 Status 0x0000: OFF 0x0001: ON $0x0090$ 1 wordDO 1 Status 0x0000: OFF 0x0001: ON $0x0040$ 1 wordDI 1 Status 0x0000: OFF $0x0040$ 1 wordDI 1 Status 0x0000: OFF | $\begin{array}{c cccc} 0x0075 & 2 \mbox{ words} & 2 \mbox{ words} & 2 \mbox{ word} & 0 = 0xFFF \\ \mbox{ Word} & 0 = 0xFF00 \\ \hline \mbox{ Word} & 1 = 0xFF00 \\ \hline \mbox{ Ethernet} \ Gateway \mbox{ IP} \ Address \\ Ex: \mbox{ IP} = 192.168.1.1 \\ \mbox{ Word} & 0 = 0xC0A8 \\ \mbox{ Word} & 1 = 0x0101 \\ \hline \mbox{ Word} & 1 = 0x0101 \\ \hline \mbox{ Power} \ 1 \ Status \\ 0x00080 & 1 \ word & 0x0000: \ OFF \\ 0x0001: \ ON \\ \hline \mbox{ Power} \ 2 \ Status \\ 0x0001: \ ON \\ \hline \mbox{ Do} \ 1 \ Status \\ 0x0000: \ OFF \\ 0x0001: \ ON \\ \hline \mbox{ Do} \ 1 \ Status \\ \hline \mbox{ Do} \ 1 \ Status \\ \hline \mbox{ Do} \ 1 \ Status \\ \hline \mbox{ Ox0000}: \ OFF \\ \hline \mbox{ Ox000}: \ OFF \\ \hline \mbox{ Ox00}: \ OFF \\ \hline \mbox{ Ox000}: \ OFF \\ \hline \mbox{ Ox00}: \ OFF \\ \hline O$ | | 2 words | Event $= 255, 255, 255, 0$ |
| Word 0 = 0x1111Word 1 = 0xFF000x00772 wordsEthernet Gateway IP Address2 wordsEx: IP = 192.168.1.1Word 0 = 0xC0A8Word 1 = 0x01010x00801 word0x00811 word0x00811 word0x00901 word0x00901 word0x0000: OFF0x0000: OFF0x0000: OFF0x0000: OFF0x00001 word0x00001 word | 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF | 0x0075 | | Word $0 = 0$ xEEEE |
| 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0081 1 word Power 2 Status 0x0081 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF 0x0090 1 word DO 1 Status 0x0001: ON DO 1 Status 0x0000 1 word 0x0000: OFF 0x0001: ON DI 1 Status 0x0000 1 word DI 1 Status | 0x0077 2 words Ethernet Gateway IP Address 0x0077 2 words Ethernet Gateway IP Address Ex: IP = 192.168.1.1 Word 0 = 0xC0A8 Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0081 1 word Power 2 Status 0x0001: ON Ox0001: ON 0x0090 1 word 0x0000: OFF 0x0090 1 word 0x0000: OFF | | | Word 1 = $0 \times FF00$ |
| $\begin{array}{c c} 0x0077 \\ 0x0077 \\ 2 \text{ words} \end{array} \begin{array}{c} \text{Ex: IP = 192.168.1.1} \\ \text{Word } 0 = 0xC0A8 \\ \text{Word } 1 = 0x0101 \\ \end{array} \\ \begin{array}{c} \text{Power 1 Status} \\ 0x0080 \\ 1 \text{ word} \end{array} \begin{array}{c} \text{Power 1 Status} \\ 0x0001: \text{ON} \\ \end{array} \\ \begin{array}{c} \text{Power 2 Status} \\ 0x0001: \text{ON} \\ \end{array} \\ \begin{array}{c} \text{Power 2 Status} \\ 0x0001: \text{ON} \\ \end{array} \\ \begin{array}{c} \text{Ox0001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox000001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox000001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \end{array} $ \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \begin{array}{c} \text{Ox00001: ON} \\ \end{array} \\ \end{array} | 0x0077 2 words Ex: IP = 192.168.1.1 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0001: ON 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0001: ON Ox0001: ON | | | Ethernet Gateway IP Address |
| 0×0077 2 words $2 \times n^{-1} = 102.100.111$ Word $0 = 0xC0A8$ Word $1 = 0x0101$ 0×0080 1 wordPower 1 Status $0 \times 0001: ON$ 0×0081 1 word $0 \times 0000: OFF$ $0 \times 0001: ON$ 0×0090 1 word $0 \times 0000: OFF$ $0 \times 0001: ON$ 0×0090 1 word $0 \times 0000: OFF$ $0 \times 0001: ON$ 0×0090 1 word $0 \times 0000: OFF$ $0 \times 0001: ON$ 0×0000 1 word $0 \times 0000: OFF$ $0 \times 0001: ON$ 0×0000 1 word $0 \times 0000: OFF$ $0 \times 0000: OFF0 \times 000001 word0 \times 0000: OFF0 \times 0000: OFF0 \times 000001 word0 \times 0000: OFF$ | 0x0077 2 words Dx in C robuits Word 0 = 0xC0A8 Word 1 = 0x0101 Power 1 Status 0x0000: OFF 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF | | | Fx IP = 192 168 1 1 |
| Word 0 = 0x00 is Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0001: ON Power 2 Status 0x0081 1 word 0x0001: ON Power 2 Status 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0000: OFF 0x0001: ON DI 1 Status 0x0000 1 word 0x0000: OFF 0x0000: OFF | Word 0 Status Word 1 = 0x0101 Power 1 Status 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0001: ON 0x0000: OFF 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF | 0x0077 | 2 words | Word $0 = 0xC0A8$ |
| 0x0080 1 word Power 1 Status 0x0080 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0081 1 word 0x0000: OFF 0x0001: ON Power 2 Status 0x0001: ON DX0001: ON 0x0090 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0001: ON DX0001: ON 0x0000 1 word 0x0000: OFF 0x0001: ON DI 1 Status 0x00000 1 word 0x0000: OFF | 0x0080 1 word Power 1 Status 0x0080 1 word 0x0000: OFF 0x0001: ON 0x0001: ON 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0000: OFF 0x0001: ON 0x0000: OFF 0x0001: ON 0x0000: OFF 0x00001: ON 0x00001: ON 0x0090 1 word 0x0000: OFF | | | Word $1 = 0x0101$ |
| 0x0080 1 word 0x0000: OFF 0x0001: ON 0x0081 1 word Power 2 Status 0x0000: OFF 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0000: OFF 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0001: ON 0x0000 1 word 0x0000: OFF 0x0000 1 word 0x0000: OFF 0x0000 1 word 0x0000: OFF | 0x0080 1 word 0x0000: OFF 0x0081 1 word 0x0001: ON 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0000: OFF 0x0001: ON 0x00090 1 word 0x0000: OFF | | | Power 1 Status |
| 0x0001: ON 0x0081 1 word Power 2 Status 0x0081 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0001: ON DO 1 Status 0x0000 OFF 0x0001: ON DI 1 Status 0x00000 OFF | 0x0001: ON 0x0081 1 word Power 2 Status 0x0001: ON 0x0000: OFF 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF | 0x0080 | 1 word | 0x0000: OFF |
| 0x0081 1 word Power 2 Status 0x0001 1 word 0x0000: OFF 0x00090 1 word DO 1 Status 0x0001: ON 0x0000: OFF 0x0001: ON DO 1 Status 0x0001: ON 0x0001: ON DI 1 Status 0x0001: ON 0x00A0 1 word 0x0000: OFF | 0x0081 1 word Power 2 Status 0x0001 1 word 0x0000: OFF 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF | | | 0x0001: ON |
| 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0090 1 word DO 1 Status 0x0000: OFF 0x0001: ON 0x00A0 1 word DI 1 Status 0x0000: OFF | 0x0081 1 word 0x0000: OFF 0x0001: ON 0x0001: ON 0x0090 1 word 0x0000: OFF | | | Power 2 Status |
| 0x0090 1 word 0x0001: ON 0x0090 1 word 0x0000: OFF 0x0001: ON DI 1 Status 0x00A0 1 word 0x0000: OFF | 0x0001: ON DO 1 Status 0x0090 1 word 0x0000: OFF | 0x0081 | 1 word | 0x0000: OFF |
| 0x0090 1 word 0x0000: OFF 0x0000 1 word 0x0000: OFF 0x0001: ON DI 1 Status 0x00000 1 word 0x0000: OFF | 0x0090 1 word 0x0000: OFF | | | 0x0001: ON |
| 0x0090 1 word 0x0000: OFF 0x0001: ON DI 1 Status 0x00A0 1 word 0x0000: OFF | 0x0090 1 word 0x0000: OFF | | | DO 1 Status |
| 0x0001: ON DI 1 Status 0x00A0 1 word 0x0000: OFF | | 0x0090 | 1 word | 0x0000: OFF |
| 0x00A0 1 word 0x0000: OFF | 0x0001: ON | | | 0x0001: ON |
| 0x00A0 1 word 0x0000: OFF | DI 1 Status | | | DI 1 Status |
| | 0x00A0 1 word 0x0000: OFF | 0x00A0 | 1 word | 0x0000: OFF |
| 0x0001: ON | 0x0001: ON | | | 0x0001: ON |

| Address Offset | Data Type | Description |
|-----------------|-----------|---|
| | Ethe | rnet Port Information |
| | | Port 1 to 2 Status |
| 0v1000 0v1001 | 1 word | 0x0000: Link down |
| 0x1000 ~ 0x1001 | i word | 0x0001: Link up |
| | | 0xFFFF: No port |
| | | Port 1 to 2 Communication Format |
| | | 0x0000: 10M-Half |
| | | 0x0001: 10M-Full |
| 0x1100 ~ 0x1101 | 1 word | 0x0002: 100M-Half |
| | | 0x0003: 100M-Full |
| | | 0x0004: 1000M |
| | | 0xFFFF: No port |
| | | Port 1 to 2 Flow Control |
| 0x1200 ~ 0x1201 | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | | 0xFFFF: No port |
| | Ether | net Packet Information |
| | | Port 1 to 2 Tx Packets |
| 0x2000 ~ 0x2003 | 2 words | Ex: Port 1 Tx Packet Amount = 0x33221100 |
| | | 0x2000 = 0x3322 |
| | | 0x2001 = 0x1100 |
| | | Port 1 to 2 Rx Packets |
| 0x2100 ~ 0x2103 | 2 words | Ex: Port 1 Rx Packet Amount = $0x33221100$ |
| | | 0x2100 = 0x3322 |
| | | 0x2101 = 0x1100 |
| | | Port 1 to 2 1X Error Packets |
| 0x2200 ~ 0x2203 | 2 words | EX. POIL 1 TX Packet Amount = $0x33221100$ |
| | | 0x2200 = 0x3322 0x2201 = 0x1100 |
| | | Dott 1 to 2 By Error Dockoto |
| | | For 1 to 2 th Error Packets P_{0} |
| 0x2300 ~ 0x2303 | 2 words | 0x2300 = 0x3322 |
| | | 0x2300 = 0x3322 0x2301 = 0x1100 |
| | Sol | rial Port Information |
| | 361 | Port 1 to 2 Ty Packets |
| | | Ex: Port 1 Ty Packet Amount – $0x33221100$ |
| 0x3000 ~ 0x3003 | 2 words | 0x3000 = 0x3322 |
| | | 0x3001 = 0x1100 |
| | | Port 1 to 2 Bx Packets |
| | | Ex. Port 1 Rx Packet Amount = $0x33221100$ |
| 0x3100 ~ 0x3103 | 2 words | 0x3100 = 0x3322 |
| | | 0x3101 = 0x1100 |
| | | Port 1 to 2 Tx Error Packets |
| | 2 words | Ex. Port 1 Tx Error Packets Amount = $0x33221100$ |
| 0x3200 ~ 0x3203 | | 0x3200 = 0x3322 |
| | | 0x3201 = 0x1100 |
| | | Port 1 to 2 Buffer Size in use |
| | 2 words | Ex: Port 1 Buffer Size = $0x33221100$ |
| 0x3300 ~ 0x3303 | | 0x3300 = 0x3322 |
| | | 0x3301 = 0x1100 |

| Address Offset | Data Type | Description |
|----------------|-----------|--|
| | W | /LAN Port Information |
| | | WLAN Operation mode 0x0000: AP mode |
| 0×4000 | 1 word | 0x0001: Client mode |
| 0x4000 | 1 word | 0x0002: WLAN bridge (point to point) 0x0003: Wireless distribution system (point to |
| | | multipoint) |
| | | 0x0004: Repeater mode |
| | | WLAN Transmission mode |
| | | 0x0000: Auto |
| 0x4100 | 1 words | 0x0001: 802.11a |
| | | 0x0002: 802.110 |
| | | 0x0003.802.11g 0x0004.802.11n |
| | 1 | Alarm |
| | | Cold start alarm |
| 0x5000 | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | | |
| 0x5001 | 1 word | |
| | | 0x0001: ON |
| | | LAN link up alarm |
| 0x5003 | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | | Power state on alarm |
| 0x5004 | 1 word | |
| | | Power state off alarm |
| 0x5005 | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | 1 word | DI on alarm |
| 0x5006 | | 0x0000: OFF |
| | | DL off alarm |
| 0x5007 | 1 word | |
| 0,0001 | i word | 0x0001: ON |
| | 1 word | authentication failure alarm |
| 0x5008 | | 0x0000: OFF |
| | | 0x0001: ON |
| 0x5000 | 1 word | dot1d Bridge New Root alarm |
| 0,5009 | | 0x0001: ON |
| | | dot1d Bridge Topology Changed alarm |
| 0x500A | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| 0×5000 | 1 word | Configuration Changed alarm |
| 0,5000 | | 0x0000. OFF 0x0001: ON |
| | | Firmware update alarm |
| 0x500D | 1 word | 0x0000: OFF |
| | | 0x0001: ON |

| Address Offset | Data Type | Description |
|----------------|-----------|---|
| | | IP changed alarm |
| 0x500E | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | | Password changed alarm |
| 0x500F | 1 word | 0x0000: OFF |
| | | 0x0001: ON |
| | 1 word | DCD change alarm |
| 0x5016 | | 0x0000: OFF |
| | | 0x0001: ON |
| | 1 word | DSR change |
| 0x5019 | | 0x0000: OFF |
| | | 0x0001: ON |
| | IABU | Internal Data (0x2B) |
| Device ID Code | Object ID | Description |
| | 0x00 | Vendor Name |
| | | "Delta Electronics, Inc." |
| | 0x01 | Product Code |
| | | "DVW-W02W2-E2" |
| | 0x02 | Firmware Version |
| 0x01 | | Major.Minor |
| | | Example: Major = 1, Minor = 2, Length = 4 |
| | | Data byte 0: "31" |
| | | Data byte 1: "." |
| | | Data byte 2: "30" |
| | | Data byte 3: "32" |