

Introduction

The IOLAN SDS W is offered as a 1-port and 2-port unit with DB9M connector/s and as a 4-port RJ45 model. All models provide Serial to Wi-Fi, Serial to Ethernet and Ethernet to Wi-Fi connectivity. Each model has industry standard wireless networking using 802.11 a/b/g/n with robust configurable wireless security methods of WEP, WPA-Personal, WPA2-Personal, Enterprise (EAP, PEAP, LEAP) and 802.11i. This guide covers the basic installation and configuration of your IOLAN SDS W. It is intended for systems administrators.

Setup Steps for the IOLAN

1. Verify that you have all the required components.
2. Connecting the Hardware.
3. Connecting the IOLAN to the Wi-Fi network.
4. Configuring the IOLAN.

For detailed information, please refer to the IOLAN User's Guide for your model.

Components

What's In the Box

IOLAN SDS W

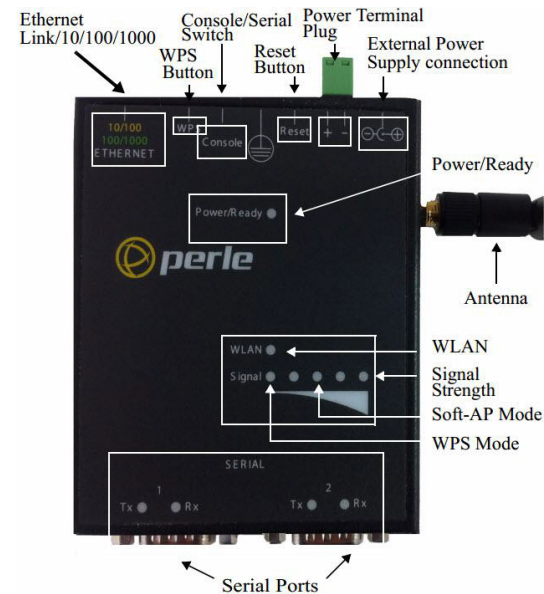
- 1 or 2 RP-SMA Antennas
- A Quick Start Guide (this document)
- Power cord strain relief strap and rubber feet
- Wall mount brackets
- A CD-ROM containing documentation and firmware required to configure and operate the IOLAN SDS

What You Need to Supply

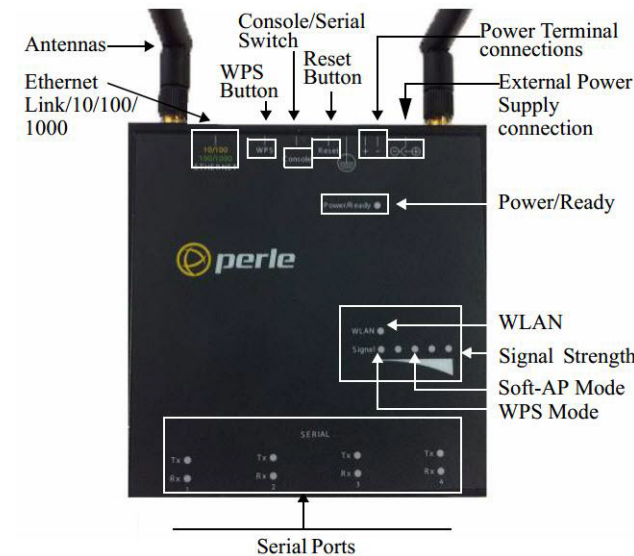
- Serial cable(s) to connect your serial devices to the IOLAN SDS (depending on your model).
- An Ethernet 10/100/1000BASE-T cable to connect the IOLAN to the network (if applicable).

Connecting the Hardware

IOLAN SDS 1 or 2 W Top View



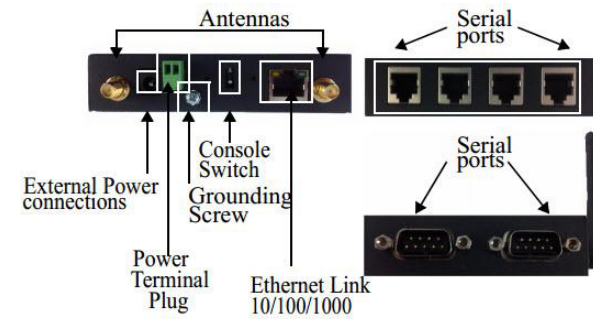
IOLAN SDS4 W Top View



Note- The first yellow light (from the left) within the signal strength LED display will pulse when the unit is in WPS mode.

Note- The third green light within the signal strength LED display will pulse when the unit is in Soft-AP Mode.

IOLAN SDS End View



Connecting the Hardware

1. Connect the Wi-Fi antenna/s by simply screwing the antenna/s onto the connectors on the IOLAN.
2. Connect the Ethernet cable from the RJ-45 plug (10/100/1000) to the HUB or switch that will provide network connectivity (if applicable to your application).
3. The console dip switch on the IOLAN should be set to the down position for serial mode.
4. Connect the power cord strain relief, if desired. (Figure 1)
5. Connect the grounding lug (not provided) to the grounding screw, if desired. (Figure 2)

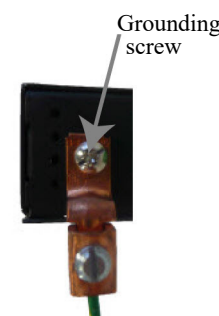


Figure 1

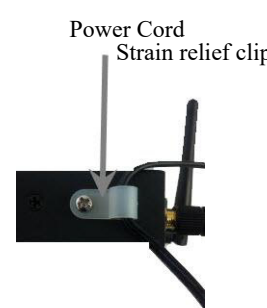


Figure 2

Button/Switch Functions

Reset Button

To reset the IOLAN insert a paper clip into the inset hole labelled as Reset and gently press inwards. The Power/Ready LEDs on the IOLAN will go On and then momentarily Off

when released to show that the unit has been reset. All links will be dropped and the MAC tables will be cleared

WPS Button

Insert a paper clip into the inset hole labelled as WPS and gently press inwards. Pressing this button for less than 3 seconds will put the IOLAN in WPS mode, greater than 4 seconds the unit is in Soft-AP mode.

Console Switch

The dip switch on the IOLAN is set in the factory to serial (down position). Unless you plan to attach a console to the IOLAN, leave the dip switch in the serial position.

Connecting the Power

Either the barrel or TB (Terminal Block) can be used to power the IOLAN.

Barrel connector

- Plug the power adapter into a power socket and connect the barrel connector end into the IOLAN. The power/Ready LED should show a solid green.

Terminal block connector

1. Ensure power is NOT applied to the wires prior to connection.
2. On each end wire (12-20 AWG), remove the insulation from the copper wire 5 mm (3/16 of an inch).
3. Loosen the left screw on the top of the terminal connector block, then insert your positive (+) wire into the left terminal and screw it down tight (.51Nm torque). Loosen the right screw on the top of the terminal connector block, then insert your negative (-) wire into the right terminal and screw it down tight (.51Nm torque).
4. Re-insert the terminal block connector if removed.
5. Turn on power at source.



Left - Right +

Input Voltage Range: (9-30v DC).

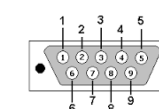
Typical Power Consumption @ 12v DC;

IOLAN SDS1 W Nominal 0.3A@12V, Max 0.45A, Max 4.5W
 IOLAN SDS2 W Nominal 0.33A@12V, Max 0.5A, Max 5.1W
 IOLAN SDS4 W Nominal 0.39A@12V, Max 0.66A, Max 6.4W

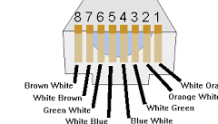
DB9M / RJ-45 Connectors

Please refer to the pin-out table for your device and ensure you have the appropriate cable for connecting your serial device to serial ports on the IOLAN.

DB9M



RJ-45



DB9M Socket

Pinout	RS232	EIA 422/485 Full Duplex	RS485 Half Duplex
1 (out)	DCD	-	-
2 (out)	RxD	RxD+	-
3 (in)	TxD	TxD-	TxD-/RxD-
4 (in)	DTR	-	-
5	GND	GND	GND
6 (out)	DSR	-	-
7	RTS	TxD+	TxD=/RxD+
8 (out)	CTS	RxD-	-
9	-	-	-

RJ-45 Socket

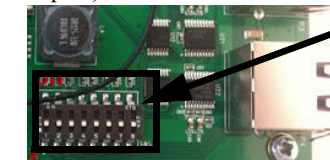
Pinout	EIA-232	RS485 Full Duplex	RS485 Half Duplex	RS422
1 (out)	DCD	-	-	-
2 (in)	RTS	TxD+	DATA+	TxD+
3 (out)	DSR	-	-	-
4 (in)	TxD	TxD-	DATA-	TxD-
5 (out)	RxD	RxD+	-	RxD+
6	GND	GND	GND	GND
7 (out)	CTS	RxD-	-	RxD-
8 (in)	DTR	-	-	-

Each serial port can operate in either EIA 232, 422 or 485 mode. This is a software configuration. If EIA 422 or 485 is selected, the line termination may need to be set. SW5 has two switches associated with each serial port.

Note: For EIA-232 these switches must be in the OFF position (default).

RX Termination: First Switch of Pair ON (used for 422/485 half duplex)

TX Termination: Second Switch of Pair ON (used for 485 full duplex)



J5

- Switch 1 and 2 - Port 1
- Switch 3 and 4 - Port 2
- Switch 5 and 6 - Port 3
- Switch 7 and 8 - Port 4

Powering On Cycle

When the power is connected to the IOLAN, the Power/Ready LED will cycle through several sequences and will end in a solid green once the unit is fully booted and ready to be configured.

If the LED is not solid green after two minutes, refer to the User's Guide for help identifying the reason.

LED Guide

Power/Ready—(Green/Yellow/Red)

- **Green**—
 - Solid — System Ready
 - Flashing — System is booting or dip switch is in console mode
- **Yellow**—
 - Flashing — Booting
- **Red**—Error condition (refer to the User's Guide for details)

Link/10/100/1000 (on Ethernet Link Connector)

- **Green**—1000 Mbits (flash with activity)
- **Green/Amber**—100 Mbits (flash with activity)
- **Amber**—10 Mbits (flash with activity)
- **Off**—no LAN connection

WPS (Wi-Fi Protected Setup)

- **Yellow pulsing** —The first yellow LED within the signal strength LED display will pulse on and off

Soft-AP Mode (Access Point Mode)

- **Green pulsing** —The third green light within the signal strength LED display will pulse on and off

WLAN

- **Solid Green**— A wireless connection has been established
- **Green pulsing** —Data is being transmitted over the wireless network
- **Off**—no wireless connection is established

Signal

- Wireless signal strength from amber leds to green leds with green being the strongest signal strength

Serial Activity

- Tx—Flashes with transmit serial activity
- Rx—Flashes with receive serial activity

Connecting the IOLAN to the Wi-Fi Network

The following steps allow for each connection to the IOLAN for initial configuration.

Initial Setup - Soft-AP Method

1. The IOLAN must be powered up.
2. Press the inset WPS button (using a paper clip) for 4 seconds to enable Soft-AP mode. The Signal strength LED display should show a pulsing green LED on the third light from the left to right to confirm you are in Soft-AP mode (See IOLAN Top Views).
3. The IOLAN is listed on your network connections on your PC or wireless client. It will appear as SSID: IOLAN-xxxxxx (the last 6 digits of the IOLAN wireless MAC address - found on the product label).
4. If using the password entry method:
 - select the wireless network on the PC
 - when a password is requested, enter the password printed on the product label
5. If using the WPS method:
 - press and release the WPS button on the IOLAN
 - select the wireless network on the PC
 - select the WPS option on the PC's password dialog box
6. Should a dialog box appear on your PC's screen to connect to the network, press the continue/Ok button to complete the connection to the IOLAN.
7. Use a Web browser to connect to the default address of the IOLAN at (192.168.0.1).
8. The default userid is admin and the default password is superuser (case sensitive).
9. You can now configure and manage your IOLAN using the IOLAN WebManager application.

Note: You should change the admin password to restrict unauthorized access to your IOLAN.

For additional methods of configuring your IOLAN (i.e., HTTP, Telnet, SNMP), please refer to the IOLAN User's Guide.

Registering the IOLAN

You should register your IOLAN online at:

http://www.perle.com/support_services/warranty_reg.asp

IOLAN SDS W Technical Specifications

	SDS 1W	SDS 2W	SDS 4W
Operating Temperature	-40°C to 75°C -40°F to 167°F	-40°C to 75°C -40°F to 167°F	-40°C to 75°C -40°F to 167°F
Storage Temperature	-40°C to 85°C -40°F to 185°F	-40°C to 85°C -40°F to 185°F	-40°C to 85°C -40°F to 185°F
Operating and Storage Humidity	5 to 95% (non condensing)	5 to 95% (non condensing)	5 to 95% (non condensing)
Weight	.24 Kg	.24 Kg	.40 Kg
Dimensions	90 cm by 76 cm by 24 cm 35.43 in. by 29.92 in. by 43.31 in.	90 cm by 76 cm by 24 cm 35.43 in. by 29.92 in. by 43.31 in.	110 cm by 111 cm by 24 cm 43.31 in. by 43.70 in. by 43.31 in.



IOLAN SDS W

1/2/4-Port Quick Start Guide



Contacting Perle Technical Support
<i>Perle offers free technical support to Perle Authorised Distributors and Registered Perle Resellers.</i>
<i>To access technical support, please visit the Perle website at www.perle.com/support.</i>
<i>Here you will find:</i>
<ul style="list-style-type: none">• latest drivers and firmware updates for download• technical tips• frequently asked questions• documentation• configuration support• cabling information• maintenance contract information• and much more...
<i>If you are unable to find the information you require, please feel free to contact our technical support teams by email at:</i>
USA
<i>Email: ptac@perle.com</i>
Europe
<i>Email: ptacemea@perle.com</i>
Asia
<i>Email: ptacasia@perle.com</i>
Internet
<i>www.perle.com/support_services</i>

IOLAN SDS W 1/2/4-Port Quick Start Guide Part No: 5500346-10 (Rev B) Copyright © Perle Systems Limited, 2017

- Serial to Wi-Fi
- Serial to Ethernet
- Ethernet to Wi-Fi
- Universal, software selectable EIA-232/422/485 interface
- 15 KV ESD protection