Introduction

The IOLAN SDS LA/LE is offered as a 1-port, 2-port and 4-port model with RJ45 connections. All models provide Serial to LTE/3G and Serial to Ethernet connectivity. The IOLAN SDS LA/LE offers support for a broad range of 4G LTE cellular data networks, extensive security, flexibility and IPV6 technology.

This guide covers the basic installation and configuration of your IOLAN SDS L. It is intended for systems administrators.

Setup Steps for the IOLAN

1. Verify that you have all the required components.
2. Setting up the Hardware.
3. Connecting the IOLAN to the LTE network.
4. Configuring the IOLAN.

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

Components
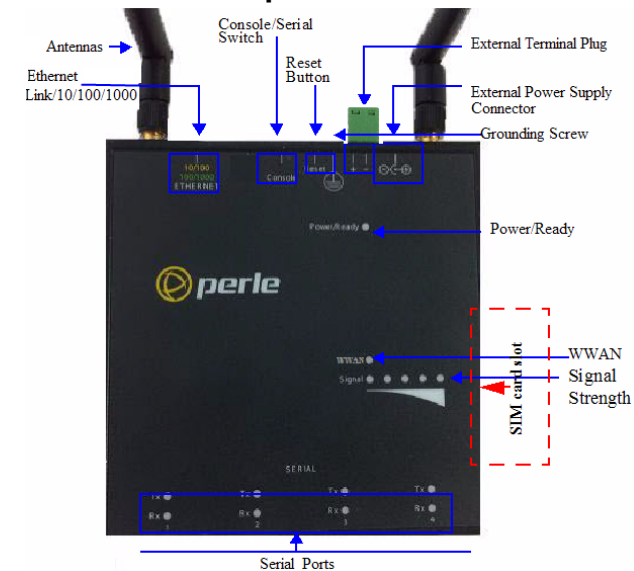
What's In the Box

IOLAN SDS L

- 2 multi-band swivel-mount dipole 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
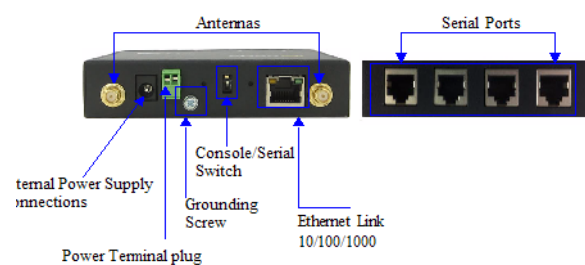- External power supply

What You Need to Supply

- Serial cable(s) to connect your serial devices to the IOLAN SDS L(depending on your model).
- An Ethernet 10/100/1000BASE-T cable to connect the IOLAN to the network (if applicable).
- Data plan subscription with a supported carrier and activated 3FF SIM card.

Setting up the Hardware

IOLAN SDS L Top View

IOLAN SDS L End View

Installing the MicroSIM Card

MicroSIM Card

1. Remove the screws from the side of the SDS L unit, then remove the cover plate.
2. Insert your MicroSIM card into the slot. The MicroSIM card will fit in only one way (do not force the SIM card in or you could damage your SDS L). Gently press the

MicroSIM card forward until you hear it click into place within the slot.

3. Replace the cover plate and secure it to the SDS L with the screws.

Setting up the Hardware
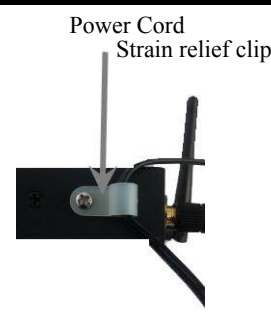

Figure 1   **Figure 2**

1. Connect the WWAN antennas by simply screwing the antennas onto the connectors on the IOLAN. (hand tighten only - do not use a tool)
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)

Button/Switch Functions

Reset Button

To reset the IOLAN SDS L insert a paper clip into the inset hole labelled as Reset and gently press inwards. The Power/Ready LEDs on the IOLAN SDS L 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

Console Switch

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

Nominal Input Voltage: 12/24v DC

Typical Power Consumption @ 24v DC

RJ-45 Connectors

RJ-45 Socket

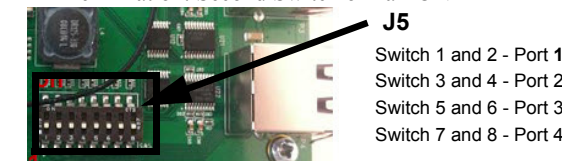| Pinout	EIA-232	RS485 Full Duplex	RS485 Half Duplex	RS422
1 (out)	DCD	-	-	-
2 (in)	RTS	TxD+	DATA+	TxD+
3 (out)	DSR	-	-	-
4 (in)	TxD	TxD-	DATA-	TxD-
5 (out)	RxD	RxD+	-	RxD+
6	GND	GND	GND	GND
7 (out)	CTS	RxD-	-	RxD-
8 (in)	DTR	-	-	-

Line Termination

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.

Remove the screws from the side of the SDS L unit, then remove the cover plate. Set the pair of switches as per the diagram below.

RX Termination: First Switch of Pair ON

TX Termination: Second Switch of Pair ON

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

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

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

WWAN

- **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

Configuring your IOLAN SDS L

For additional methods of configuring your IOLAN (ie: HTTP, Telnet, SNMP), please refer to the IOLAN User's Guide or the Perle website at *www.perle.com.*

Alternatively a copy of the utilities can be found on the CD_ROM provided with your IOLAN. Included is software for configuring the unit. This software is designed for use on a Windows Operating System. For other Operating System, please refer to the IOLAN User's Guide for methods of configuring the IOLAN.

1. Insert the CD-ROM into the PC.

   It should launch automatically. If it does not launch, open Windows Explorer and point to the CD-ROM drive. Double click on the index file to launch the main page.

2. From the main page, select the Easy Config Wizard to launch the configuration wizard. or alternatively, install the DeviceManager software and use it to configure the IOLAN.

Default admin Password

You will be prompted by the software for the **admin** user password before being allowed to configure the IOLAN.

The factory default password for the **admin** user is:

superuser (case sensitive)

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

Registering the IOLAN

You should register your IOLAN online at:

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

IOLAN SDS L Technical Specifications

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

IOLAN SDS L
1/2/4-Port Quick Start Guide
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IOLAN
SDS LE/LA
1/2/4-Port
Quick Start Guide

- Serial to LTE/3G
- Serial to Ethernet
- Universal, software selectable EIA-232/422/485 interface
- 15 KV ESD protection