

IOLAN SDG P Secure Device Servers

PoE Device Servers



- 4 or 8 software selectable RS232/422/485 serial port interfaces
- 802.3af Power over Ether (PoE) compliant
- 10/100/1000 Ethernet
- Advanced security features for data encryption, user authentication and event management

For **secure serial to Ethernet** connectivity applications that utilize **Power over Ethernet (PoE)** sources, the **IOLAN SDG PoE Device Server** is the most advanced compact product available on the market today. Delivering high performance in a compact size, an IOLAN SDG P offers extensive security, flexibility and next generation IPv6 technology making it ideal for applications that require remote device/console management, data capture or monitoring.

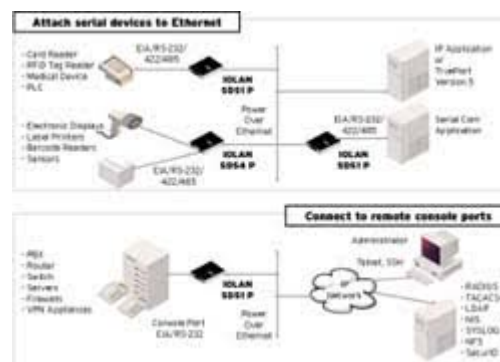
The **IOLAN SDG P Device Server** has full PoE support and operates as a Powered Device under IEEE 802.3af supporting end-span and mid-span power sources (PSE). Some other serial device servers that claim compliance with 802.3af are in fact restricted to using mid-span power sources - buyer beware.

The IOLAN SDG P also has Inrush Current Protection to protect the device from input current rushes that may occur during power up. With this protection the **IOLAN SDG PoE Device Server** begins with a low current draw stage to protect the power sourcing device (PSD), and then switches to a high current stage allowing the IOLAN SDG P to draw its required power up to a maximum 12.95 watts.

The **IOLAN SDG PoE Device Server** is ideal for organizations that need to deploy equipment in locations that are difficult or too costly to have separate AC power installed such as ceilings, walls and kiosks.

Why IOLAN SDG PoE Device Servers are the preferred choice:

- Powerful processors for the best throughput and performance on the market
- **Power over Ethernet (PoE)** support - Operates as a Powered Device under IEEE 802.3af supporting end-span and mid-span power sources (PSE). Inrush Current Protection for continuous operation.
- **TrueSerial®** packet technology delivers the most authentic serial connections across Ethernet for serial protocol integrity
- Indicators for network and serial interfaces for easy troubleshooting
- Plug & Play installation utility eliminates configuration hassles for all IOLAN's on your IP network
- **TruePort** – Perle's com/tty redirector for serial based applications operates on Windows, Vista, Linux, Solaris, SCO and Unix
- Power over serial cable eliminates costs of a separate power installation
- Next Generation IP support (IPv6) for investment protection and network compatibility
- Compact and protective solid steel enclosure for tabletop, wall mount or DIN rail mounting
- Java-free browser access to remote serial console ports via Telnet and SSH



Secure Serial to Ethernet Connectivity

The **IOLAN SDG PoE Device Server** enables administrators to securely access remote serial console ports on equipment such as PBX, servers, routers, network storage equipment and security appliances through an IP network. Sensitive data such as credit card holder information is protected through standard encryption tools such as Secure Shell (SSH) and Secure Sockets Layer (SSL). Access by authorized users is assured via authentication schemes such as RADIUS, TACACS+, LDAP, Kerberos, NIS and RSA Security's SecurID tokens.

By using encryption technologies, an IOLAN can protect sensitive and confidential data from a serial device such as a credit card reader before being sent across a corporate Intranet or public Internet. For compatibility with peer encryption devices, all of the major encryption ciphers such as AES, 3DES, RC4, RC2 and CAST128 are fully supported.

Recognized as the most secure method for communicating to remote private networks over the Internet, the IPSec standard provides robust authentication and encryption of IP packets at the network layer of the OSI model. As a standard it is ideal for multi-vendor interoperability within a network providing flexibility and the ability to match the right solution for a particular application.

IOLAN Device Server Plug-ins

By choosing a Perle IOLAN Device Server you can rest assured that virtually any device with a serial COM port will operate in conjunction with your desired application exactly as it did when you had it directly connected. In the unlikely event that the Perle IOLAN Device Server does not enable this out of the box, *Perle will make it work*.

Perle IOLAN Device Servers utilize customer installable "**Device Plug-ins**" to successfully network devices where other solutions have failed. **Request a free engineering consultation now.**

Advanced IP Technology

With support for Next Generation IP (IPv6) the **IOLAN Serial to Ethernet Device Server** range provides organizations with investment protection to meet this rapidly growing standard.

Demand for IPv6, which is compatible with IPv4 addressing schemes, is driven by the need for more IP address. With the implementation and rollout of advanced cellular networks, a robust method is needed to handle the huge influx of new IP addressable devices on the Internet. In fact, the US Department of Defense has mandated that all equipment purchased be IPv6 compatible. In addition, all major Operating Systems such as Windows, Linux, Unix and Solaris, as well as routers, have built-in support for IPv6.

It is therefore important for end users and integrators to select networking equipment that incorporates the IPv6 standard. The IOLAN line with support for IPv6 already built in, is the best choice in serial to Ethernet technology.

Flexible and Reliable Serial to Ethernet Connections

An **IOLAN SDG PoE Device Server** is ideal for connecting serial based COM port, UDP or TCP socket based applications to remote devices. Perle's **TruePort re-director** provides fixed TTY or COM ports to serial based applications enabling communication with remote devices connected to Perle IOLAN's either in encrypted or clear text modes. You can also tunnel serial data between devices across an IP network.

Perle's Device Management software provides better centralized control of multiple units resulting in maximum uptime for your remote equipment.

All IOLAN SDGP models have added protection against electrostatic discharges and power surges with robust 15Kv ESD protection circuitry enabling organizations to utilize this solution in the field with confidence.

Lifetime Warranty

All **Perle IOLAN SDG PoE Serial to Ethernet Device Servers** are backed by the best service and support in the industry including Perle's unique lifetime warranty. Since 1976 Perle has been providing its customers with networking products that have the highest levels of performance, flexibility and quality.

Software Features - IOLAN SDG PoE Device Servers

Serial Port Access
<ul style="list-style-type: none"> • Connect directly using Telnet / SSH by port and IP address • Connect with EasyPort menu by Telnet / SSH • Use an internet browser to access with HTTP or secure HTTPS via EasyPort Web menu • Java-free browser access to remote serial console ports via Telnet and SSH • Ports can be assigned a specific IP address (aliasing) • Multisession capability enables multiple users to access ports simultaneously • Multihost access enables multiple hosts/servers to share serial ports
Accessibility
<ul style="list-style-type: none"> • In-band (Ethernet) and out-of-band (dial-up modem) support • Dynamic DNS enables users to find a console server from anywhere on the Internet • Domain name control through DHCP option 81 • IPV6 and IPV4 addressing support
Availability
Primary/Backup host functionality enables automatic connections to alternate host(s)

Security

- SSH v1 and v2
- PCI DSS Compliance: TLS v1.2, TLS v1.1, TLS v1.0, SSL v3.0, SSL v2.0
- SSL Server and SSL client mode capability
- SSL Peer authentication
- **IPSec VPN : NAT Traversal, ESP authentication protocol**
- SSH ciphers: AES-CTR, AES-GCM and ChaCha20-poly1305
- SSL encryption: AES-GCM, key exchange ECDH-ECDSA, HMAC SHA256, SHA384
- Encryption: AES (256/192/128), 3DES, DES, Blowfish, CAST128, ARCFOUR(RC4), ARCTWO(RC2)
- Hashing Algorithms: MD5, SHA-1, RIPEMD160, SHA1-96, and MD5-96
- Key exchange: RSA, EDH-RSA, EDH-DSS, ADH
- X.509 Certificate verification: RSA, DSA
- Certificate authority (CA) list
- Local database
- RADIUS Authentication, Authorization and Accounting
- TACACS+ Authentication, Authorization and Accounting
- LDAP, NIS, Kerberos Authentication
- RSA SecureID-agent or via RADIUS Authentication
- SNMP v3 Authentication and Encryption support
- IP Address filtering
- Disable unused daemons
- Active Directory via LDAP

Terminal Server

- Telnet
- SSH v1 and v2
- Rlogin
- Auto session login
- LPD, RCP printer
- MOTD - Message of the day

Serial machine to Ethernet

- **Tunnel raw serial data across Ethernet - clear or encrypted**
- Raw serial data over TCP/IP
- Raw serial data over UDP
- **Serial data control of packetized data**
- **Share serial ports with multiple hosts/servers**
- Virtual modem simulates a modem connection - assign IP address by AT phone number
- Virtual modem data can be sent over the Ethernet link with or without SSL encryption
- **TruePort com/tty redirector** for serial based applications on Windows, Linux, Solaris, SCO, HP UX, NCR UNIX and AIX. For a complete list of all the latest drivers click **here**
- **TrueSerial** packet technology provides the most authentic serial connections across Ethernet ensuring serial protocol integrity
- RFC 2217 standard for transport of serial data and RS232 control signals
- Customizable or fixed serial baud rates
- **Plug-ins allow customer or Perle provided plug-ins for special applications**
- **Software Development Kit (SDK) available**
- **Serial encapsulation of industrial protocols such as ModBus, DNP3 and IEC-870-5-101**
- **ModBus TCP gateway enables serial Modbus ASCII/RTU device connection to ModBus TCP**
- **Data logging will store serial data received when no active TCP session and forward to network peer once session re-established - 32K bytes circular per port**



Console Management

- **Sun / Oracle Solaris Break Safe**
- Local port buffer viewing - 256K bytes per port
- External port buffering via NFS, encrypted NFS and Syslog
- Event notification
- **Clustering - central console server enables access ports across multiple console servers**
- **Windows Server 2003/2008 EMS - SAC support GUI access to text-based Special Administrative Console**

Remote Access

Dial, direct serial	PPP, PAP/CHAP, SLIP
	HTTP tunneling enables firewall-safe access to remote serial devices across the internet
Automatic DNS Update	Utilize DHCP Opt 81 to set IOLAN domain name for easy name management and with Dynamic DNS support , users on the Internet can access the device server by name without having to know its IP address. See Automatic DNS update support for details

IPSEC VPN client/servers	<ul style="list-style-type: none"> • Microsoft L2TP/IPSEC VPN client (native to Windows XP) • Microsoft IPSEC VPN Client (native to Windows Vista) • Cisco routers with IPSEC VPN feature set • Perle IOLAN SDS/STS and SCS models
OA&M (Operations, Administration and Management)	
<ul style="list-style-type: none"> • SNMP V3 - read and write, Perle MIB • Syslog • Perle Device Manager - Windows based utility for large scale deployments • Configurable default configuration • Installation Wizard • Set a Personalized Factory Default for your IOLANs 	
Protocols	
<p>IPv6, IPv4, TCP/IP, Reverse SSH, SSH, SSL, IPsec/IPv4, IPsec/IPv6, L2TP/IPsec, CIDR, RIPv2/MD5, ARP, RARP, UDP, UDP Multicast, ICMP, BOOTP, DHCP, TFTP, SFTP, SNTP, Telnet, raw, reverse Telnet, LPD, RCP, DNS, Dynamic DNS, WINS, HTTP, HTTPS, SMTP, SNMPV3, PPP, PAP/CHAP, SLIP, CSLIP, RFC2217, MSCHAP</p>	

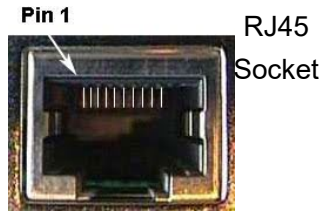
Specifications				
Lifetime limited warranty	Reach, RoHS and WEEE Compliant	HTSUS Number: 8517.62.0020	UNSPSC Code: 43222625	ECCN: 5A992
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CPU				
Processor		600 Mhz ARM processor		
Memory				
RAM		512 MB		
Flash		4000 MB		

Interface Ports	
Number of Serial Ports	4 or 8
Serial Port Interface	Software selectable EIA-232/422/485 on RJ45
Sun / Solaris	Sun / Oracle 'Solaris' Safe - no <i>"break signal"</i> sent during power cycle causing costly server re-boots or downtime
Serial Port Speeds	300bps to 230Kbps with customizable baud rate support
Data Bits	Configurable for 5,6,7 or 8-bit protocol support Use TruePort to transparently pass 9-bit serial data
Parity	Odd, Even, Mark, Space, None
Flow Control	Hardware, Software, Both, None
Serial Port Protection	15Kv Electrostatic Discharge Protection (ESD)
Local Console Ports	RS232 on Serial Port
Network	<ul style="list-style-type: none"> • Autosensing 1000Base-T / • 100Base-TX / 10Base-T • Auto-MDIX • Software selectable Ethernet speed 10/100/1000 Auto / • Software selectable Half/Full/Auto duplex
Ethernet Isolation	1.5Kv Magnetic Isolation
Power	
Power over Ethernet	802.3af PoE compliant data pins (1/2, 3/60 or unused pins 4/5, 7/8) (48v DC)
Power Supply Options	<ul style="list-style-type: none"> • Power via External power 9-30v DC, • 4.8 Watts uses standard 5.5mm x 9.5mm x 2.1mm barrel socket, • Power IN over serial cable
Nominal Input Voltage	12v DC / 24v DC on Barrel Connector

Input Voltage Range	9-30v DC on Barrel Connector
Power External Device via Serial Port	+5v DC regulated, 1W max
Typical Power Consumption @ 12v DC (Watts)	<ul style="list-style-type: none"> • 4 Port: 2.0 • 8 Port: 2.7 Does not include power for devices connected to serial port
Indicators	
LEDs	<ul style="list-style-type: none"> • Power/Ready • Network Link • Network Link Activity • Serial: Transmit and Receive data per port
Environmental Specifications	
Heat Output (BTU/HR)	<ul style="list-style-type: none"> • 4 Port: 16.38 • 8 Port: 9.20
MTBF (Hours)	<ul style="list-style-type: none"> • 4 Port: 177,932 Hours • 8 Port: 126,364 Hours <i>Calculation model based on MIL-HDBK-217-FN2 @ 30°C</i>
Operating Temperature	0°C to 55°C, 32°F to 131°F
Storage Temperature	-40°C to 66°C, -40°F to 150°F
Humidity	5 to 95% (non condensing) for both storage and operation.
Case	SECC Zinc plated sheet metal (1 mm)
Ingress Protection Rating	IP40
Mounting	Wall or Panel mounting, DIN Rail mounting kit optional
Weight and Dimensions	
Weight	<ul style="list-style-type: none"> • 4 Port: 0.35 kg (0.77 lbs) • 8 Port: 0.55 kg (1.20 lbs)

Dimensions not including mounting tabs	<ul style="list-style-type: none"> • 4 Port: 112 x 82 x 28 (mm), 4.4 x 3.2 x 1.1 (in) • 8 Port: 112 x 156 x 28 (mm), 4.4 x 6.1 x 1.1 (in)
Dimensions including mounting tabs	<ul style="list-style-type: none"> • 4 Port: 112 x 105 x 28 (mm), 4.4 x 4.2 x 1.1 (in) • 8 Port: 113 x 179 x 28 (mm), 4.4 x 7.1 x 1.1 (in)
Packaging	
Shipping Dimensions	260 x 170 x 70 (mm), 10.2 x 6.7 x 2.8 (in)
Shipping weight	<ul style="list-style-type: none"> • 4 Port: 0.54 Kg (1.2 lbs) • 8 Port: 1.3 kg (2.9 lbs)
Regulatory Approvals	
Emissions	<ul style="list-style-type: none"> • CFR47 FCC Part 15 Subpart B:2015 • ICES-003:2016 Issue 6:2016 • CISPR 32 / EN 55032 • EN55011 (CISPR11) • CISPR 16-2-3:2010/A2:2014 • EN61000-3-2:2014, Limited for Harmonic Current Emissions • EN61000-3-3:2013, Limits of Voltage Fluctuations and Flicker
Immunity	<ul style="list-style-type: none"> • CISPR 35 / EN 55035 • EN61000-4-2: 2009 Electrostatic Discharge • EN61000-4-3: 2006/A2:2010: RF Electromagnetic Field Modulated • EN61000-4-4: 2004 Fast Transients • EN61000-4-5: 2006 Surge • EN61000-4-6: 2009 RF Continuous Conducted • EN61000-4-8: Power-Frequency Magnetic Field • EN61000-4-11: Voltage Dips and Voltage Interruptions
Safety	<ul style="list-style-type: none"> • UL/EN/IEC 62368-1 (previously 60950-1) • CAN/CSA C22.2 No. 62368-1

IOLAN RJ45 Serial Connector Pinout



Pinout	Direction	EIA-232	EIA-422	EIA-485 Full Duplex	EIA-485 Half Duplex
		Power In (9-30V DC)	Power In (9-30V DC)	Power In (9-30V DC)	Power In (9-30V DC)
1	N/A				
2	in	DCD	N/A	N/A	N/A
3	out	RTS	TxD+	TxD+	TxD+/RxD+
4	in	DSR	N/A	N/A	N/A
5	out	TxD	TxD-	TxD-	TxD-/RxD-
6	in	RxD	RxD+	RxD+	N/A
7	N/A	GND	GND	GND	GND
8	in	CTS	RxD-	RxD-	N/A
9	out	DTR	N/A	N/A	N/A
10	N/A	Power out	Power out	Power out	Power out

Find IOLAN SDS P

Product List



IOLAN SDG4 P Device Server: 4 x RJ45 connectors with software selectable RS232/422/485 interfaces, **10/100/1000 Ethernet**, advanced data encryption, user authentication and event management security features included, IPv6, COM port redirector, 15kv ESD, 802.3af Power over Ethernet (PoE) compliant PD

Power Cord & Part Number(s)

None

04031910



IOLAN SDG8 P Device Server: 8 x **RJ45** connector with software selectable RS232/422/485 interfaces, **10/100/1000 Ethernet**, advanced data encryption, user authentication and event management security features included, IPv6, COM port redirector, 15kv ESD, 802.3af Power over Ethernet (PoE) compliant PD

Power Cord & Part Number(s)

None
04031938

Related Accessories

Cable Accessories



3 meter RJ45 to RJ45 CAT5
Straight-thru cable
#1100360-10

04005120



Cvtr-PC DB25 Prl - RJ45-DB25
converter for IOLAN to PC DB25 Female.

04006930



Cvtr-PC DB9 Prl - RJ45-DB9
converter for IOLAN to PC DB9 Female.

04006931



Cvtr-Print DB25 Prl - RJ45-DB25
converter for IOLAN to Printer DB25 Male.

04006933



DBA0010 - RJ-45F to DB-25F
crossover (DTE) adapter #1100220-10 for console port.

04006950



DBA0011 - RJ-45F to DB-25M crossover (DTE) adapter #1100230-10 for console

04006960



DBA0020 - RJ-45F to DB-9F crossover (DTE) adapter #1100240-10 for console ports.

04006970



DBA0021 - RJ-45F to DB-9M crossover (DTE) adapter #1100250-10 for console ports.

04006980



DBA0013 - RJ-45F to DB-25M straight-thru (DCE) adapter #1100260-10 for modems.

04006990



IOLAN Starter Kit (8-wire): 1x RJ-45 to DB-25 DTE Male adapter, 1x RJ-45 to DB-25 DCE Male adapter

04007000



DBA0023 - RJ-45F to DB-9M straight-thru (DCE) adapter #1100340-10 for modems.

04007200



3m Cbl-Sun/Cisco Pri - RJ45-RJ45 IOLAN DS to Sun/Cisco 3m Cable

04030070



DBA0031 - IOLAN - RJ45M to RJ45F Sun/Cisco crossover adapter #1100219-10.

04030080



DBA0031 8pck - 8 pack of #04030080 IOLAN-RJ45M to RJ45F Sun/Cisco crossover adapter.

04031230



DBA0010 8pck - 8 pack of #04006950 IOLAN-RJ45F to DB25F (DTE) crossover adapter.

04031240



DBA0011 8pck - 8 pack of #04006960 IOLAN-RJ45F to DB25M (DTE) crossover adapter.

04031250



DBA0020 8pck - 8 pack of #04006970 IOLAN-RJ45F to DB9F (DTE) crossover adapter.

04031260



DBA0021 8pck - 8 pack of #04006980 IOLAN-RJ45F to DB9M (DTE) crossover adapter.

04031270



DBA0013 8pck - 8 pack of #04006990 IOLAN-RJ45F to DB25M Straight-thru adapter for modems.

04031280

Accessories



DIN Rail Mounting Kit for 4 & 8 port IOLAN desktop models, all Stand-Alone Media Converters and all Stand-alone Ethernet Extenders. Two of these brackets are required for the 8 port STS8-D model.

04030840

Power Supplies



UK 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet

04031581



EU 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet

04031582



USA 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet

04031584



Australia 12VDC / 12W power adapter with Barrel connector for Perle Device Servers, Media Converters, and Ethernet

04031586

Maintenance agreements - Console Server / Device Server / Terminal Server



4 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract

SERNSS04



4 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract,

SERNSS04F



8 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract

SERNSS08



8 Port
Terminal/Device/Console
Servers - Express
Replacement 1 Year
Maintenance Contract,

SERNSS08F