“Products to enable smarter networks.”

CONTENTS:
- ILJPN – JACK PACK ACCESS POINTS
- IPA – PoE ADAPTER SERIES
- VDSL2 - 100MB POINT TO POINT MODEM
- VDSL2 - 24 PORT 100MB CONCENTRATOR
- PSS 8-24 - POWER SERIES VLAN SWITCHES
- PSS – POWER SERIES SWITCHES
- V2C – VDSL2 CONCENTRATOR
- SMART ROOM NETWORK PRODUCT LINE
Overview

The IntraLAN Jack Pack is a remarkably compact wall jack packed with a variety of connectivity options.

The Jack Pack is designed for business offices, MDU/MTU, and the hospitality market. It allows the use of a single network cable to provide a wireless access point and the connection of a VoIP phone, TVIP or an employee computer while providing comprehensive security features to ensure privacy and data segregation.

The Jack Pack installs in a standard single gang, in-wall opening and is powered by a 802.3af PoE source.

The Jack Pack features a high-powered micro-access point with advanced network functionality such as VLAN tagging, CoS, QoS and multiple SSID broadcast. The Jack Pack also extends the network with a user side RJ45 connection with available PoE option to power VoIP phones or other PoE devices.

*The Jack Pack has all of the core benefits of a full-featured access point with a low profile.*

Data, power and control in a small package.

Powered by standard 802.3af PoE, the Jack Pack includes an external RJ45 port, a robust VLAN model and QoS implementation. It is available with a PoE enabled RJ45 jack for sending data and power to connected devices.

The PoE Jack Pack is fully programmable via the web interface to enable management of data, power and control across the network.

In-wall PoE 10/100/1000Mbps for wireless and CAT5 connectivity

- Complies with IEEE 802.11b/g/n standards
- Multiple SSID broadcast with VLAN
- Provides VLAN tagging model for wireless and wired networks
- Advanced security features, including WEP, WPA, WPA2, IEEES02.1x, MAC filtering
- Compact AP installs in minutes in a standard wall jack
- Low profile, blends with all interior decoration
- Supports Gigabit Ethernet (OPTIONAL)
- Provides Power over Ethernet to the room (OPTIONAL)
- Optional non-US faceplate (85mm x 85mm)

**JACK PACK MODELS:**

- ILJPNI01-01 Internal Jack Pack BGN
- ILJPNI02-01 Internal Jack Pack BGN Giga Port
- ILJPNI03-01 Internal Jack Pack BGN User Side PoE
- ILJPNI04-01 Internal Jack Pack BGN Giga Port & User Side PoE

**JACK PACK MODELS With External Antenna:**

- ILJPNE01-01 External Jack Pack BGN
- ILJPNE02-01 External Jack Pack BGN Giga Port
- ILJPNE03-01 External Jack Pack BGN User Side PoE
- ILJPNE04-01 External Jack Pack BGN Giga Port & User Side PoE

*Available on specific models.*
Technology

Standard:
Static WEP
Static TKIP (WPA-PSK)
IEEE 802.1x EAP without Encryption (EAP-MD5)
IEEE 802.1x EAP with Static WEP (EAP-MD5)
IEEE 802.1x EAP with Dynamic WEP (EAP-TLS, EAP-TTLS, PEAP)
IEEE 802.1x EAP with Dynamic TKIP (WPA)

Interface

Ports: One 10/100/1000* WAN and one 10/100 LAN ports with optional 802.3af output
Power over Ethernet: 802.3af
LED: Power, Ethernet Port, Wireless Activity
Antenna: Internal/external* antenna
Transmit power: Up to 400mW, typical 200mW
Security: 64/128-bits WEP, IEEE 802.1x, WPA-PSK (TKIP/AES), WPA-EAP (TKIP/AES), WPA2-PSK (TKIP/AES), WPA2-EAP (TKIP/AES)
Management: Secured Web-based, Windows-based and UPnP Discovery, SNMP v1 & v2
Syslog: Local Web-based syslog, BSD remote syslog (Syslog Server)

Advanced Features

Hardware: Hardware watchdog timer
Networking: DHCP client & server, Packet filtering
WDS: Up to 6 links, WDS link with WEP encryption
Firmware upgrade: HTTP or TFTP
Public hotspots support: Link integrity, Wireless client isolation, AP load balancing Association control

Environmental

Power: Power over Ethernet (4SV, 125mA)
3.3V, IA (Optional)
Operating Temp.: 0 - 40°C (32 - 104°F)
Storage Temp.: -20 - 70°C (-4 - 158°F)
Operating Humidity: 5% - 95%, Non-Condensing
Storage Humidity: 10% - 85%, Non-Condensing

Mechanical

Dimensions: 125mm(L) x 125mm(W) x 64mm(D)
Unit Weight: 150g

Regulatory Approvals

Certification: FCC Part 15 Class B, CE Mark
Safety: EN 60950

Warranty

1 year

Specifications are subject to change without notice. * Optional Features
Deliver 15, 30, and 60 Watts of Power to Any Device on Your Network.

IntraLAN PoE Adapter Series (PAS) can provide a power and data connection anywhere on your network infrastructure. With up to 60 Watts of power, the PAS Adapter can supply high demand switches, computers and remote monitors and displays.

Adapters that standardize non-standard devices.

The IntraLAN PAS Adapter is much more than a “splitter” and is fully compliant with 802.3 standards. The adapter allows the powering and controlling of any DC-powered device on the network. Integrated with the appropriate PoE source, the adapters provide advanced network management with complete remote power control. The PoE Adapters also enable all the advanced management features of most of today’s networks with low-end or legacy network equipment.

- Enhance the networking capabilities
- Extend the standard ethernet network beyond the 300-foot limits
- Adopt the standard 803.2 power format to “non-standard” PoE devices and even non-PoE devices

These PoE Power Adapters transform standard 803.2af, at, and at/ultra PoE network appliances, such as an 8-port PoE switch, into a more powerful tool by enabling a network connection and power management to a range of non-standard devices. This is accomplished by “bridging” from the PoE standard format to the power format of the “end device.”

Configurable for all kinds of demanding devices.

IntraLAN Power adapters are available for:

- Any power level
- Any RJ45 “pin out”
- Completely separate power via “pig tail” with any size barrel connector and any voltage.

The Series offer the most flexible and well designed solution for delivering power to any non-standard PoE or non-PoE device on the network. With over 100 configurations ranging from the common 802.3af (15.4 W) format to the most advanced 802.3at/ultra (60 W), the PoE adapter series delivers power to every device.

Non-Standard PoE or even no-PoE components can now be powered and controlled through a managed switch such a the IntraLAN PoE Managed Switches. The unique “pigtail” design provides power in any physical format – the most common DC connectors are available and special connectors can be ordered.
802.3af, at, at/ultra Network PAS Adapters

- Fully Compliant with 802.3af and 802.3at standards with Full Power to each device
- Supports non-PoE devices for PoE network
- Smallest Enclosure in the Market
- Output can be In-line RJ45 Adapter or DC Barrel Connector
- Full Range of Output Voltage
- Works seamlessly with all 802.3af and 802.3at power sources. To reach the extreme power of 60 W, the ultra adapters must be powered by the IntraLAN Managed 802.3at/ultra PoE Switch.

Specifications:

- Input: 48VDC with 802.3af, at, at/ultra chipset
- Input Connector: 48V, 24V, 12V, 9V, 7.5V, 5V
- Output: Standard RJ45
- Output Connector: DC plug and Standard RJ45
- Output Power: 15.4 W, 25.5 W or 55 W (dual power)
- LED: Power
- Casing: ABS Resin
- Dimensions: af: 43mm(L) x 32mm(W) x 24mm(H)
  at: 89mm(L) x 34mm(W) x 24mm(H)
- Operating Temp.: 0 -40°C (32 -105°F)
- Operating Humidity: 5% -95%, Non-Condensing
- Storage Temp.: -20 -70°C (-4 -158°F)
- Certification: FCC, CE

*Specifications are subject to change without notice.
Overview
The IntraLAN VDSL2 Concentrator is modular in design to eliminate disruptions in service, improve overall network reliability, and increase lasting value and performance in equipment investment.

Dedicated 100mbps to EVERY Connection with an Advanced Ethernet Switch.
The IntraLAN VDSL2 Concentrator (V2C) represents a novel approach to providing data and voice throughout the infrastructure. Unlike other VDSL concentrators that use a single circuit board to operate up to 24 ports, the VDSL2 Concentrator features a dedicated CO modem card for EACH of the 24 ports. Coupled with an integrated, full-featured VLAN switch, this modular design provides the following benefits:

• Independent line negotiation
• Dedicated 100Mb throughput
• Single VDSL module replacement
• Eliminate rewiring due to port failure
• Field serviceable system by local staff
• Connections operate independently with no shared VDSL resources
• Web management interface
• Advanced Gigabit Switch with VLAN (port and tag based), QoS, CoS

Built-in Fully Functional 24-Port Managed Switch.
This modular solution is a novel approach, where each of dedicated cards operates independently. This provides a more stable solution for each connection. In the integrated single circuit board solution, often an issue with a single line will result in the remaining 23 connections slowing down or losing connectivity - the board simply can’t handle the instability. However, with each board operating independently, this “system-wide” disruption can’t occur.

Modular design for uninterrupted performance.
The V2C modules are hot swappable allowing for the replacement of any individual card WHILE THE SYSTEM IS RUNNING. Replacement cards can be swapped by field staff providing the following benefits:

• If a connection goes offline, the module can be replaced by field staff (maintenance) within minutes of detection, which is immediate based on active monitoring
• Because Line Replaceable Boards are much less expensive than an entire 24-port integrated device, integrators can maintain an inventory of these boards to ensure that service interruptions are quickly resolved.
VDSL2 Concentrator Benefits:
- The highly advanced design of the VDSL2 Concentrator (V2C) saves money and downtime while increasing performance.
- Individual boards control data to each end point
- Each board is "hot swappable" which avoids system-wide outages while servicing one connection.
- Data load and connection quality of individual links don’t effect system performance.
- 100 mbps to each end point
- Distance of 2,000 meters over average infrastructure
- Fully compatible with all phone systems
- Feature-rich Gigabit VLAN Switch managing data throughput to all end points.

Chassis / Switch Specifications:
- Fast Ethernet: 200Mbps (Full-duplex)
- Gigabit Ethernet: 2000Mbps(Full-duplex)
- MAC Address: 4K MAC address table
- Memory Buffer: ~3Mbits per device
- Management: Web based
- Power Supply: 100 - 240VAC 50/60Hz
- Environmental:
  - Operating Temp.: 0 - 40°C (32 - 104°F)
  - Operating Humidity: 5% - 95%, Non-Condensing
  - Storage Temp.: -20 - 70°C (-4 - 158°F)
- Certification: FCC Class A, EN55022 Class A
- Safety: EN 60950
- Casing: Metal case
- Dimensions: 445mm(W) x 356mm(H) x 156mm(D)

VDSL2 Specifications:
- Transparent to higher layer protocols
- VDSL2 Transmission Speed and Distance:
  - Within a distance of 300 meters maximum speed of 100/95Mbps
  - 50Mbps@915 meters (3,000 feet), reach down to 20Mbps @ about 1.7Km (5,600 feet)
  - Up to 5,600 feet (-176dBm/Hz Noise Floor)
- Indicators:
  - Power, LAN and Link/Activity LEDs
- Emissions Compliance:
  - FCC part 15 Class B, CE Mark

Warranty:
1 year

Specifications are subject to change without notice.
Overview

With up to 100Mbps for downstream and 95Mbps for upstream, the VDSL2 Point-to-Point Modem connection offers higher data transfer rates and more bandwidth than conventional ADSL connections.

The VDSL2 P2P provides a robust and extremely reliable connection at up to one mile. The solution allows the extension of the internal network (without compromising speed or content) to places not previously available.

100/95 Mbps VDSL2 – Delivering 100Mbps even to the farthest points of your infrastructure.

The VDSL2 P2P Modem is a network extender providing network connectivity never before possible without the use of fiber. High bandwidth throughput of 100Mbps, the VDSL2 P2P Modem can bridge buildings, disjointed office spaces, even golf course facilities through existing PSTN infrastructure.

A VDSL2 P2P connection can be established in minutes and the most remote areas of your environment can have high speed internet access. The provided bandwidth easily supports workgroups, web/security camera and multiple VoIP handsets at extreme distances.

The single design of the VDSL2 P2P Modem allows for flexible/interchangeable device placement through the use of user-accessible dip switches. VDSL2 P2P Modems are connected through any twisted pair wiring infrastructure – from standard PSTN architectures to dedicated CAT5 runs extending beyond the ethernet 300-ft. limit. A pair of VDSL2 P2P Modems will connect across a legacy PSTN architecture within seconds and deliver a robust high-speed connection.

Key Features

- High-Speed 100/95Mbps communication link over existing phone lines
- Operates transparent to high layer protocols such as TCP/IP
- Auto-MDIX and Auto-sensing 10Base-T or 100Base-TX and Full or Half-Duplex on the Ethernet port
- Plug and Play design for simple installation and single DIP switch configuration
- Status LEDs for simple monitoring of the device and connection status
Specifications

Network Standards
- IEEE802.3 10BASE-T, 10Mbit/s
- IEEE802.3u 100BASE-TX, Fast Ethernet at 100Mbit/s, Auto-negotiation
- IEEE802.3x Full Duplex and Flow Control

Protocol:
- Transparent to higher layer protocols

Connectors
- Fast Ethernet: Two RJ45 Connectors
- RJ11: Two RJ11 Female Connectors, one for line, the other for phone

Transmission Speed and Distance
- Within a distance of 300 meters maximum speed of 100/95Mbps
- 50Mbps@915 meters (3,000 feet), reach down to 20Mbps @ about 1.7Km (5,600 feet) with 176dBm/Hz Noise Floor
- Selectable “Band Plan” allows for allocation of throughput

Fast Ethernet Interface:
- 10/100Mbps
- MDI/MDI-X Auto Crossover

Network Management
- Diagnosis of DSL link function
- Line SNR select
- Line Interleave protect
- CO/CPE side selectable
- Band Plan profile selectable

Indicators
- Power LED
- LAN 1 Link/Act LED
- LAN 2 Link/Act LED
- Line CPE/CO LED
- Line Link/Act LED

Environment Conditions
- Operating Temperature: 0 ~ 40°C (32 ~ 104°F)
- Storage Temperature: -20 ~ 70°C (-4 ~ 158°F)
- Operating Humidity: 10% ~ 90%, Non-condensing

Power Requirement
- External Power Supply: 12V/1A
- Power consumption: < 4 Watts

Physical Dimension
- 155mm(W) x 83mm(D) x 30mm(H)

Unit Weight
- 300g

Emissions Compliance
- FCC part 15 Class B, CE Mark

Warranty
1 year

Specifications are subject to change without notice.
IEEE 802.3af Compliant Power Source Switch

The PSE-8 has (8) 10/100BASE-TX ports that support 802.3af PoE standard. The PSE-8 is uniquely designed to concurrently inject the full 15.4 Watts of power on all 8 ports. Each port automatically detects any 802.3af compliant device and supplies the appropriate power. The PSE-8 also supports active circuit protection, which automatically disables a port if there is a short, while the other ports remain active.

The PSE-8 is compatible with the IntraLAN PoE Adaptors™ enabling the remote power and management of non-standard PoE and non-PoE hardware.

Overview

IntraLAN PSE-8 Smart PoE Power Source Switch is equipped with (8) 10/100BASE-TX Fast Ethernet ports, all of which support 802.3af Power Over Ethernet (PoE), and a 10/100BASE-T uplink port.

The PSE-8 is a valuable solution for small and medium size businesses deploying wireless networks, VoIP phone systems or requiring enhanced data security and network traffic management.

This all-in-one solution provides smart management features and Power Over Ethernet to supply power injection into 802.3af compliant devices such as IP phones, wireless access points, and IP cameras. The PSE-8 is compatible with the IntraLAN PoE Adaptors to support all non-standard PoE devices and no-PoE hardware. This allows integrators to deliver power to remotely manage any devices in a location where a power outlet may not be available or simply to reduce installation costs.

8-Port PoE 10/100Mbps plus Uplink Web Smart Ethernet Switch

- 8 x 10/100Mbps Auto-negotiation Ethernet Port
- 10/100 Mbps Auto-negotiation Uplink Ethernet Port
- 8 port 802.3af Power Over Ethernet (PoE)
- Full 15.4W PoE power on all PoE ports
- Store-and-Forward switching provides rapid rate adaptation and ensures data integrity
- Extensive Web Management Interface provides easy access to all management functions:
  - Port based – Speed, Disable, Flow control, QoS
  - Port and Tag based VLAN
  - Tag management functions to include add/remove/modify Tags
  - PoE enable, manage and port status

Remarkably Smart and Excellent Performance

The PSE-8 provides QoS features that are suitable for today multimedia devices. Through a Web-based interface, an administrator can set up 802.1Q VLANs to isolate traffic, 802.1p QoS to prioritize mission-critical data such as voice or video packets, and port-based trunk groups to create wide traffic pipelines.

It also provides network monitoring tools such as port mirroring. The default configuration of this switch makes installation plug & play and negotiation hassle-free while the advanced features of the PSE-8 empower the successful management of today’s networks.

The PSE-8 also features diagnostic LEDs, which display link, speed, power, and activity, allowing you to quickly identify hardware issues.
Technology
Standard:
IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.3x Flow Control
IEEE 802.3af Power Over Ethernet
IEEE 802.1p Quality of Service
IEEE 802.1Q VLAN Tagging
Processing: Store and Forward architecture

Interface
**Number of ports:**
- 8 x 10/100Mbps, Auto-negotiation, Auto-MDI/MDIX, PoE ports (port 1 ~ port 8)
- 1 x 10/100Mbps, dual purpose Auto-negotiation, Auto-MDI/MDIX linked to port 1

**LED Indicators:**
- Per Unit: Power
- Per Port: Link/Activity, Speed and PoE status (port 1 - 8)

Performance
**Transfer Rate:**
- Ethernet: 10Mbps (Half-duplex)
  - 20Mbps (Full-duplex)
- Fast Ethernet: 100Mbps (Half-duplex)
  - 200Mbps (Full-duplex)

MAC Address: 1K MAC address table
Data RAM Buffer: ~3Mbits per device

Power Requirements
**Power Supply:**
100 - 240VAC 50/60Hz, External universal switching power supply

**Power Consumption:**
- 120 W Max. with 8 x 15.4W powered devices connected
- PoE Port: Up to 15.4W
- PoE Budget: Class Ø up to 15.4W per PoE port

Mechanical
- Dimensions: 7.8" (W) x 1.1" (H) x 4.72" (D)
  - 198mm (W) x 28mm (H) x 120mm (D)

Environmental
- Operating Temperature: 0 to 40°C (32 to 104°F)
- Operating Humidity: 10% to 90%, Non-Condensing
- Storage Temperature: -20 to 70°C (-4 to 158°F)

Regulatory Approvals
FCC, CE, VCCI
Safety – LVD EN60950

**INTRALAN FAMILY OF PoE SWITCHES**

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<tr>
<td>16 port (PSS-16) rack mount</td>
<td>IPNF16</td>
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<td>IPNU16</td>
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<tr>
<td>24 port (PSS-24) rack mount</td>
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Specifications are subject to change without notice.
8-Port VLAN/PoE Managed Switch

Extreme Power, Data and Network Management.

The IntraLAN 8-Port Power Series Switches (PSS-8) offer an innovative package of leading edge PoE based power configurations coupled with high end network and data management functionality. Every model of the Power Series delivers the maximum power on each port with the 802.3at/ultra delivering a impressive 60 watts of power to each port.

The PSS-8 supports the 802.3af and 802.3at standards and can be used in conjunction with the IntraLAN PoE Adapter Series to convert the power to any format for any device connected to the network.

With up to 60 W of power, the 802.3at/ultra can be used to remotely power high demand switches, computers or remote displays.

Available in 802.3af, 802.3at and 802.3at/ultra.

The IntraLAN 8-Port Managed Switches have (8) 10/100BASE-TX ports and are available in the following PoE standards:
- **802.3af PoE** – provides up to 15.4 W of power concurrently to each port
- **802.3at PoE** – provides up to 25.5 W of power concurrently to each port
- **802.3at/ultra PoE** – provides 55 W of power concurrently to each port

8-Port VLAN/PoE Managed Switch with GB Uplink

- (8) 10/100Mbps auto-negotiation ethernet ports
- (2) Gbps auto-negotiate uplink ethernet ports
- (8) 802.3af, at, at/ultra Power over Ethernet*
- Full 15.4, 25.5 or 55 Watts* on all 8 ports
- Store-and-Forward switching for rapid rate adaptation and data integrity
- Standard 19” Rack-mount
- Extensive Web Management Interface for easy access to all functions:
  - Per Port Speed/Disable, Flow Control, QoS.
  - Port and Tag Based VLAN
  - Tag Management Functions to Include Add/Remove/Modify Tags
  - PoE enable, manage and port status
- Support IntraLAN PoE Adapter Series

The PSS-8 provides VLAN, QoS, and CoS features that are required for today’s multimedia applications.

Through a Web-based interface, an administrator can set up 802.1Q VLANs to isolate traffic, 802.1P QoS to prioritize mission-critical data such as voice or video packets, and port-based trunk groups to create wide traffic pipelines. It also provides network monitoring and diagnostic tools such as port mirroring.

* Model specific features
8-Port PoE 10/100Mbps with 2 Gigabit Uplink Web Smart Ethernet Switch

- 10/100Mbps Auto-negotiation Ethernet Specification
- 8-port PoE function. Standard IEEE 802.3, 802.3u, 802.3ab, 802.3x
- Supports PoE power up to 55W per PoE port*. IEEE 802.3af, at, at/ultra
- Supports PoE full power to all PoE ports – 8 x RJ45 ports
- Store-and-Forward switching to support rate adaptation and ensure data integrity.
- Supports Port-setting for Speed/Disable, Flow control, QoS, VLAN and Spanning.
- Easy configuration via WEB Browser. LED Link/Active, Speed, POE
- Advanced Web Management Utility.
- Standard 19” Rack-mount size

Fast Ethernet: 200Mbps (Full-duplex)
Gigabit Ethernet: 2000Mbps (Full-duplex)
MAC Address: 4K MAC address table
Memory Buffer: ~3Mbits per device
Management: Web based
Power Supply: 100 - 240VAC 50/60Hz

PoE Port: 15.4, 25.5 and 55 watts per PoE port (4-pairs)
Casing: Metal case
Dimensions: 440mm(W) x 305mm(H) x 44mm(D)

Environmental
Operating Temp.: 0 - 40°C (32 - 104°F)
Operating Humidity: 5% - 95%, Non-Condensing
Storage Temp.: -20 - 70°C (-4 - 158°F)
Certification: FCC Class A, EN55022 Class A
Safety: EN 60950

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About Panoptic Corporation
Panoptic Technology’s focus is to develop and enhance technologies to meet the ever increasing demands of business both today and in the future. Panoptic Technology optimizes technology migration by developing solutions that maximize performance while minimizing startup or investment costs.

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www.panoptictechnology.com
Extreme Power, Data and Network Management.

The IntraLAN 16-Port Power Series Switches (PSS-8) offer an innovative package of leading edge PoE based power configurations coupled with high end network and data management functionality. Every model of the Power Series delivers the maximum power on each port with the 802.3at/ultra delivering a impressive 60 watts of power to each port.

The PSS-16 supports the 802.3af and 802.3at standards and can be used in conjunction with the IntraLAN PoE Adapter Series to convert the power to any format for any device connected to the network.

With up to 60 W of power, the 802.3at/ultra can be used to remotely power high demand switches, computers or remote displays.

Available in 802.3af, 802.3at and 802.3at/ultra.

The IntraLAN 16-Port Managed Switches have (16) 10/100BASE-TX ports and are available in the following PoE standards:

- **802.3af PoE** – provides up to 15.4 W of power concurrently to each port
- **802.3at PoE** – provides up to 25.5 W of power concurrently to each port
- **802.3at/ultra PoE** – provides 55 W of power concurrently to each port

16-Port VLAN/PoE Managed Switch with GB Uplink

- (16) 10/100Mbps auto-negotiation ethernet ports
- (2) Gbps auto-negotiate uplink ethernet ports
- (16) 802.3af, at, at/ultra Power over Ethernet*
- Full 15.4, 25.5 or 55 Watts* on all 16 ports
- Store-and-Forward switching for rapid rate adaptation and data integrity
- Standard 19” Rack-mount
- Extensive Web Management Interface for easy access to all functions:
  - Port Speed/Disable, Flow Control, QoS.
  - Port and Tag Based VLAN
  - Tag Management Functions to Include Add/Remove/Modify Tags
  - PoE enable, manage and port status
- Support IntraLAN PoE Adapter Series

The PSS-16 provides VLAN, QoS, and CoS features that are required for today’s multimedia applications.

Through a Web-based interface, an administrator can set up 802.1Q VLANs to isolate traffic, 802.1P QoS to prioritize mission-critical data such as voice or video packets, and port-based trunk groups to create wide traffic pipelines. It also provides network monitoring and diagnostic tools such as port mirroring.

* Model specific features
**16-Port PoE 10/100Mbps with 2 Gigabit Uplink Web Smart Ethernet Switch**

- 10/100Mbps Auto-negotiation Ethernet Specification
- 16-port PoE function. Standard IEEE 802.3, 802.3u, 802.3ab, 802.3x
- Supports PoE power up to 55W per PoE port*. IEEE 802.3af, at, at/ultra
- Supports PoE full power to all PoE ports – 16 x RJ45 ports
- Store-and-Forward switching to support rate adaptation and ensure data integrity.
- Supports Port-setting for Speed/Disable, Flow control, QoS, VLAN and Spanning.
- Easy configuration via WEB Browser. LED Link/Active, Speed, POE
- Advanced Web Management Utility.
- Standard 19" Rack-mount size

Fast Ethernet: 200Mbps (Full-duplex)
Gigabit Ethernet: 2000Mbps (Full-duplex)
MAC Address: 4K MAC address table
Memory Buffer: ~3Mbits per device
Management: Web based
Power Supply: 100 - 240VAC 50/60Hz

PoE Port: 15.4, 25.5 and 55 watts per PoE port (4-pairs)
Casing: Metal case
Dimensions: 440mm(W) x 305mm(H) x 44mm(D)

**Environmental**
Operating Temp.: 0 - 40°C (32 - 104°F)
Operating Humidity: 5% - 95%, Non-Condensing
Storage Temp.: -20 - 70°C (-4 - 158°F)
 Certification: FCC Class A, EN55022 Class A
Safety: EN 60950

**INTRALAN FAMILY OF PoE SWITCHES**

<table>
<thead>
<tr>
<th>ports/power</th>
<th>AF</th>
<th>AT</th>
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<tr>
<td>8 port (PSE-8) desktop</td>
<td>IPNA08</td>
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<tr>
<td>8 port (PSS-8) rack mount</td>
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<tr>
<td>16 port (PSS-16) rack mount</td>
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<td>24 port (PSS-24) rack mount</td>
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24-Port VLAN/PoE Managed Switch

Overview

IntraLAN PSS-24 PoE Switches come equipped with (24) 10/100BASE-TX Fast Ethernet ports, all of which support 802.3 Power Over Ethernet (PoE), and two 10/100/1000BASE-T ports for Gigabit Uplink, advanced VLAN and CoS, QoS functionality.

The PSS-24 is a valuable solution for any size businesses deploying wireless networks, VoIP, enhanced security, and increasing multimedia applications.

This all-in-one solution provides smart management features and Power Over Ethernet to supply power injection into 802.3 compliant devices such as IP phones, wireless access points, and IP cameras. The PSS-24 supports the IntraLAN PoE Adapter product line to provide an evolution in network design that includes power to non-standard PoE devices – up to 15.4 watts. The PSS-24 coupled with the PoE Adapters can provide extreme power and advanced management functions to non-networked devices.

Through the Web Smart interface, an administrator can easily facilitate network troubleshooting remotely without going to where the actual attached device is located. The auto features of this switch make installation plug & play and negotiation hassle-free. It also features diagnostic link, speed, power, and activity LEDs for quick problem detection.

Extreme Power, Data and Network Management.

The IntraLAN 24-Port Power Series Switches (PSS-24) offer an innovative package of leading edge PoE based power configurations coupled with high end network and data management functionality. The PSS-24 delivers the maximum power on each port with the 802.3af providing 15.4 watts of power to each port.

The PSS-24 supports the 802.3af standards and can be used in conjunction with the IntraLAN PoE Adapter Series to convert the power to any format for many devices connected to the network.

Available in 802.3af PoE Standard.

The IntraLAN 24-Port Managed Switch has (24) 10/100BASE-TX ports and PoE standard 802.3af PoE – providing up to 15.4 W of power concurrently to each port.

24-Port VLAN/PoE Managed Switch with GB Uplink

- (24) 10/100Mbps auto-negotiation ethernet ports
- (2) Gbps auto-negotiate uplink ethernet ports
- (24) 802.3af Power over Ethernet
- Full 15.4 Watts on all 24 ports
- Store-and-Forward switching for rapid rate adaptation and data integrity
- Standard 19” Rack-mount
- Extensive Web Management Interface for easy access to all functions:
  - Per Port Speed/Disable, Flow Control, QoS.
  - Port and Tag Based VLAN
  - Tag Management Functions to Include Add/Remove/Modify Tags
  - PoE enable, manage and port status
- Support IntraLAN PoE Adapter Series

The PSS-24 provides VLAN, QoS, and CoS features that are required for today’s multimedia applications. Through a Web-based interface, an administrator can set up 802.1Q VLANs to isolate traffic, 802.1P QoS to prioritize mission-critical data such as voice or video packets, and port-based trunk groups to create wide traffic pipelines. It also provides network monitoring and diagnostic tools such as port mirroring.
24-Port PoE 10/100Mbps with 2 Gigabit Uplink Web Smart Ethernet Switch

- 10/100Mbps Auto-negotiation Ethernet Specification
- 24-port PoE function. Standard IEEE 802.3, 802.3u, 802.3ab, 802.3x
- Supports PoE power up to 15.4W per PoE port, IEEE 802.3af
- Supports PoE full power to all PoE ports – 24 x RJ45 ports
- Store-and-Forward switching to support rate adaptation and ensure data integrity.
- Supports Port-setting for Speed/Disable, Flow control, QoS, VLAN and Spanning.
- Easy configuration via WEB Browser. LED Link/Active, Speed, POE
- Advanced Web Management Utility.
- Standard 19" Rack-mount size

Fast Ethernet: 200Mbps (Full-duplex)
Gigabit Ethernet: 2000Mbps(Full-duplex)
MAC Address: 4K MAC address table
Memory Buffer: ~3Mbits per device
Management: Web based
Power Supply: 100 - 240VAC 50/60Hz

PoE Port: 15.4 watts per PoE port
Casing: Metal case
Dimensions: 440mm(W) x 305mm(H) x 44mm(D)

Environmental
Operating Temp.: 0 - 40°C (32 - 104°F)
Operating Humidity: 5% - 95%, Non-Condensing
Storage Temp.: -20 - 70°C (-4 - 158°F)
Certification: FCC Class A, EN55022 Class A
Safety: EN 60950

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Advanced Network Solutions for Business and Industry.

About Panoptic Corporation
Panoptic Technology’s focus is to develop and enhance technologies to meet the ever increasing demands of business both today and in the future. Panoptic Technology optimizes technology migration by developing solutions that maximize performance while minimizing startup or investment costs.

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www.panoptictechnology.com
“Your key to unlocking the Smart Room.”

CONTENTS:
SRN – SMART ROOM NETWORK
V2C – VDSL2 CONCENTRATOR
PSU – POWER SUPPLY UNIT
RND – REMOTE NETWORK DEVICE
Your legacy wiring.

Our interface solution.

Your key to unlocking the “Smart Room.”
Do you have the **backbone** for “Smart Rooms”?  

The “Smart Room” is a concept promising a competitive advantage to hotels that are able to provide it. Tailored “Smart Room” features matched with guests’ profile preferences will help drive occupancy rates to soaring levels. Individual solutions ready to be deployed for personalizing thermostat and light settings, music selections, frequently dialed numbers, TV programming and more.

Unfortunately, 99% of all hotel properties were not designed to function as an infrastructure for “Smart Rooms” and the cost to upgrade would be overwhelming:

- investing to **rewire a property** with fiber and multiple network connections
- setting up **remotely managed power** in all rooms to run device controllers
- taking the **entire hotel offline** to remodel rooms and recable
- managing the necessary **contractors and integrators**
- having confidence that the technology investment is the **right solution** for the future

Unlock the “Smart Room” with **IntraLAN**.

Deliver “Smart Room” technology in your guest rooms **WITHOUT** the time and expense of rewiring your property. Panoptic Technology introduces **IntraLAN SmartRoom Network FUSION**, the only affordable solution to providing state-of-the-art power management and data solution over your own voice grade/POTS infrastructure.

IntraLAN SRN FUSION uses patented technology to transform legacy phone networks into “smart architecture” supporting all network level technologies and non-networked devices:

- Video-On-Demand (VoD)
- “Pay for view” movies and events
- Teleconferencing
- Bluetooth devices
- HDTV programming
- VoIP
- High speed internet access
- Remote lighting/AC control

**Installing IntraLAN is fast, easy and affordable.**

1. **START WITH YOUR WIRING:**
   Your PBX system already connects to every room through telephone blocks and bundles of phone cabling. With IntraLAN SmartRoom Network FUSION, this wiring can now deliver the backbone for “Smart Room” technology and complete power management of the network throughout your hotel.

2. **INSTALL IntraLAN TECHNOLOGY:**
   IntraLAN maximizes performance and bandwidth over the phone system with incredible VDSL speeds. The system includes data and power supply devices and a receiving device for each room:
   - IntraLAN Voice/VDSL Concentrator for data throughput
   - IntraLAN Power Supply Unit for power management
   - IntraLAN Remote Network Device for connecting “Smart Room” features

3. **ADD “Smart Room” SERVICES WITH PLUG-N-PLAY EASE:**
   IntraLAN makes remote power management and advanced “Smart Room” amenities possible. Start with core components such as VoIP, HDTV, VoD and high speed internet. Other revenue-enhancing components like video conferencing or pay-for-view events can be integrated at anytime by any vendor.

Retrofit with **only 15 minutes** of room downtime.  
The surface mount enclosure is designed to be placed directly over a legacy phone connection. The phone wire is pulled through the in-room Remote Network Device (RND) secure back opening and connected using 6 wire Quick-Connects™ as follows:

**The 2 Voice/VDSL signal wires** are connected to the RND modem which routes the Voice to the phone and the Data to a multi-port Ethernet switch. An optional wireless module is also available.

**The 4 power wires** connect to the RND Power Bar that provides DC power to the modem, switch and additional service modules.
Typical IntraLAN SmartRoom Network FUSION Configuration

**Voice/VDSL Concentrator (V2C)**
The V2C provides the Ethernet network uplink, designed to be installed in the main phone room. Capable of pushing the Internet signal thousands of feet, it can be installed anywhere between the PBX and rooms. The V2C integrates the Internet data onto the existing voice service without affecting voice quality, relays the PBX voice signal and adds a VDSL data signal onto one of the three pairs of copper wires in a phone cable. This encoded signal is then sent to the designated “in room” RND.

**Power Supply Unit (PSU)**
The PSU can be located anywhere on the property and is designed to be installed in local phone closet. The PSU injects power over the remaining two pairs of wire in the phone cable. Each PSU supports the power ports of up to 24 rooms within 1,000 feet of the unit. It offers web-based control of the power with automated monitoring, power safety controls and the capability to reset the Remote Network Device(s) and its modules.

**IntraLAN Remote Network Device (RND)**
The RND is offered in two different enclosure styles for surface-mount or flush-mount installations. Each cabinet houses several components including a DSL modem, a Power Splitter/Distribution bar and a multi-port Ethernet switch. The RND has external phone and Ethernet jacks as well as optional interfaces as required by access to modules such as VoIP and Bluetooth devices, VoD, IPTV, HDTV, environmental monitoring devices, alert and emergency devices.
IntraLAN SRN FUSION Features and Benefits.

IntraLAN by Panoptic Technology is an integrated, high-tech solution that:

- Bridges the “Smart Room” gap using your existing legacy infrastructure
- Uses NEW digital subscribe line encoding to deliver up to 100mbs to each guest room!
- Controls multiple in-room network and non-network devices
- Retrjos quickly and easily for integration of new revenue generating services
- Installed by phone system integrator in only 10-20 minutes a room
- Advanced ‘watch-dog” monitoring and resetting for reduced service outages
- Provides an upgrade platform for higher speeds and additional future options
- Networked system allows centralized monitoring and control of in-room devices such as lights, thermostats, VoD, VoIP and other room services
- Voice/VDSL Concentrator has 24 hot swappable cards for “always on” reliability

The hospitality industry is a highly competitive market with hotels constantly adding value to increase their occupancy and guest loyalty. IntraLAN is your key to unlock the Smart Room that will add value to each of your guest’s stay and your bottom line.

Call 866-833-6785, email info@panoptictecnology.com or visit www.panoptictecnology.com to make the smart start for smart room enabling solutions.
Overview

The IntraLAN VDSL2 Concentrator is modular in design to eliminate disruptions in service, improve overall network reliability, and increase lasting value and performance in equipment investment.

Dedicated 100mbps to EVERY Connection with an Advanced Ethernet Switch.

The IntraLAN VDSL2 Concentrator (V2C) represents a novel approach to providing data and voice throughout the infrastructure. Unlike other VDSL concentrators that use a single circuit board to operate up to 24 ports, the VDSL2 Concentrator features a dedicated CO modem card for EACH of the 24 ports. Coupled with an integrated, full-featured VLAN switch, this modular design provides the following benefits:

• Independent line negotiation
• Dedicated 100Mb throughput
• Single VDSL module replacement
• Eliminate rewiring due to port failure
• Field serviceable system by local staff
• Connections operate independently with no shared VDSL resources
• Web management interface
• Advanced Gigabit Switch with VLAN (port and tag based), QoS, CoS

Built-in Fully Functional 24-Port Managed Switch.

This modular solution is a novel approach, where each of dedicated cards operates independently. This provides a more stable solution for each connection. In the integrated single circuit board solution, often an issue with a single line will result in the remaining 23 connections slowing down or losing connectivity - the board simply can’t handle the instability. However, with each board operating independently, this “system-wide” disruption can’t occur.

Modular design for uninterrupted performance.

The V2C modules are hot swappable allowing for the replacement of any individual card WHILE THE SYSTEM IS RUNNING. Replacement cards can be swapped by field staff providing the following benefits:

• If a connection goes offline, the module can be replaced by field staff (maintenance) within minutes of detection, which is immediate based on active monitoring
• Because Line Replaceable Boards are much less expensive than an entire 24-port integrated device, integrators can maintain an inventory of these boards to ensure that service interruptions are quickly resolved.
VDSL2 Concentrator Benefits:

- The highly advanced design of the VDSL2 Concentrator (V2C) saves money and downtime while increasing performance.
- Individual boards control data to each end point
- Each board is “hot swappable” which avoids system-wide outages while servicing one connection.
- Data load and connection quality of individual links don’t effect system performance.
- 100 mbps to each end point
- Distance of 2,000 meters over average infrastructure
- Fully compatible with all phone systems
- Feature-rich Gigabit VLAN Switch managing data throughput to all end points.

Chassis / Switch Specifications:

Fast Ethernet: 200Mbps (Full-duplex)
Gigabit Ethernet: 2000Mbps(Full-duplex)
MAC Address: 4K MAC address table
Memory Buffer: ~3Mbits per device
Management: Web based
Power Supply: 100 - 240VAC 50/60Hz
Environmental:
  Operating Temp.: 0 - 40°C (32 - 104°F)
  Operating Humidity: 5% - 95%, Non-Condensing
  Storage Temp.: -20 - 70°C (-4 - 158°F)
Certification: FCC Class A, EN55022 Class A
Safety: EN 60950
Casing: Metal case
Dimensions: 445mm(W) x 356mm(H) x 156mm(D)

VDSL2 Specifications:

- Transparent to higher layer protocols
VDSL2 Transmission Speed and Distance:
  - Within a distance of 300 meters maximum speed of 100/95Mbps
  - 50Mbps@915 meters (3,000 feet), reach down to 20Mbps @ about 1.7Km (5,600 feet)
  - Up to 5,600 feet (-176dBm/Hz Noise Floor)
Indicators:
  - Power, LAN and Link/Activity LEDs
Emissions Compliance:
  - FCC part 15 Class B, CE Mark

Warranty:
1 year

Specifications are subject to change without notice.

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Overview

The Remote Network Device (RND) is the key component to the actual Smart Room Network and provides the Integrated Network Distribution point within the guest room. The RND is the heart of the final point of distribution within the network.

Smart signal & power processing.

The SmartRoom Network Remote Network Devices (RND) is the intelligent guest room device in the FUSION solution. The RND splits the power and the VDSL signals to provide power to up to four 5V devices and the voice/data signal to the VDSL modem for processing and provides a service enclosure for other smart room components. Key components of the RND include:

- A Programmable Circuit Board (PCB) with the processing to manage power signaling, distribution and the splitting of power from data
- A modular 5 port Managed VLAN switch (remotely powered from the PSU through the infrastructure), preprogrammed to support complete segregation of all physical ports being served from the RND
- A point-to-multiple-point VDSL modem (remotely powered from the PSU through the infrastructure) distributes the signal at 100mbps to the appropriate devices.
- Wiring for a complement of external components
- In-room power distribution for up to 4 low voltage devices

Room to grow smart amenities.

A primary design consideration in the RND is the security of the smart room components. The RND offers several enclosures types and options to accommodate tomorrow’s amenities.

Optional components of the FUSION RND are similar to those of the RND for all the SmartRoom Network configurations and include, but are not limited to:

- Larger VLAN switches - with preprogrammed VLAN tags to simplify field maintenance
- Remote Power Management devices for supplying and controlling 120V/240V devices
- ZigBee transceivers for system wide control and monitoring of ZigBee compliant devices
- Proprietary communication devices, such as wireless VoIP basestations, or vendor based technology such as mini-bar terminals.
- Wireless access points such as the Jack Pack or other vendors Access Points
- Larger components, such as Set-top boxes; etc. in the larger RND

Flexible with trademarked device anchoring

One innovation in the RND is the Modular Device Retention System™. This anchoring system allows for placing and securing devices against the back wall of the RND in an even layout for more efficient distribution of heat, easier access for troubleshooting on site, and fewer maintenance accidents. This saves both maintenance and replacement costs.
Overview
As a component in the IntraLAN SmartRoom Network FUSION system, the Power Supply Unit provides power and comprehensive power management through regular Cat3 phone lines. This essential function enables the smart room in older hotels without rewiring.

The right device in the right place.
The IntraLAN SmartRoom Network Power Supply Unit (PSU) is strategically designed as a separate unit rather than a combination with the Voice/VDSL concentrator. This modular system design improves dependability and reduces maintenance cost.

The PSU is designed to meet the challenges of the environment. This functionality is installed in the last phone closet, often because of distance requirements, or availability of infrastructure wiring. These remote "closets" offer minimal environmental controls and can be limited on space. All unnecessary, non-power related functions have been purposely designed in other Smart Room Network components to minimize the impact of these "less than ideal" environmental conditions.

Smart design. Big features.
The system is setup to run on as little as one pair with minimal degradation of distance. The PSU offers a comprehensive web based user interface that allows a remote administrator to monitor system status and control each of the 24 ports. This allows an administrator to troubleshoot / diagnose issues with an individual unit without affecting other guest rooms / units.

Smart remote monitoring and powering.
The PSU also supports Remote Network Device (RND) detection. The unit only provides power to lines that have been detected to have valid remote devices attached avoiding damage to non-SRN equipment.

The PSU offers complete “smart monitoring” allowing the PSU to “watch dog” remote components of each RND. When a device in the guest room / unit goes offline, the PSU can be programmed to automatically cycle power on the RND to simplify site maintenance efforts.

The PSU also offers “network interface modem” power outlet at the actual device. This managed power outlet can be used to power and control a 5V device, such as a VDSL modem, to enable the PSU to be integrated into the Smart Room Network and provide remote access of the web interface, even when the device is located in remote phone closets.