Avaya™ 1152A1 Mid Span Power Supply

Bringing data, voice, video and power easily over a standard Category 5 twisted pair cable.

The Avaya 1152A1 Mid Span Power Supply is a flexible and easy to install solution providing new cost saving, power-related efficiencies and benefits for enterprises who use data, voice, and video.

Benefits:

- Powers a wide range of Ethernet terminals, while protecting legacy endpoints.

- Powers IP phones and WLAN Access points continuously even during power failures.

- Efficiently provides power to only those IP endpoints that need power.

- Conforms to the IEEE 802.3af Standard without altering the network topology.*

- Eliminates the need for bulky local power supplies and power cords.

- Provides correct power and signaling over 100 meters.

Power Management

The Avaya 1152A1 Mid Span Power Supply connects to an existing Ethernet or Fast Ethernet infrastructure via standard Category 5 unshielded twisted-pair (UTP) and shielded twisted-pair (STP) cabling. By sending –48 V over 100 meters, Ethernet terminals (IP phones, wireless LAN access points and Web-cameras) can be powered by the 1152A1 (Figure 1). If a connected device is incompatible with the power supply, an external splitter is installed, which separates the DC voltage and the Ethernet data into two separate outputs terminating at a power port and a RJ-45 jack.

Centralized Power Distribution – Deploying Power over Ethernet in conjunction with a central UPS provides cost-effective back-up power distribution and continuous, uninterrupted operation of IP telephony during electrical power failures. IT managers can protect each IP phone with a small UPS, but the overall cost of installing and maintaining hundreds of such devices would be prohibitive.

Power Management – The 1152A1 includes enhanced power management capabilities by controlling the output power per port in the event of limited available power. Parameters of Maximum Available Power, Ports priority, and Maximum Allowable Power per Port, can be set in accordance to the specific application and customer's needs.

Advanced Auto-Sensing Algorithm – The 1152A1 features a draft-standard IEEE 802.3af auto-sensing algorithm, as well as backward compatibility to the pre-standard algorithm. This mechanism automatically detects power-ready terminals and supplies inline power. The per-port, sophisticated power control and monitoring circuit permits easy, low cost installation and continuous proper operation of devices, such as ordinary Network Interface Cards (NICs) that do not expect power on their Ethernet connection.

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* Designed according to draft/revisions 3.3 of the IEEE 802.3af standard, issued October 2002.

Scalable Solution – The 1152A1 supports up to twenty-four Ethernet terminals. Multiple units can be mounted in a wiring cabinet to support additional terminals, resulting in a simple, cost effective method for expanding the network, as requirements evolve.

Smart Ethernet Wiring – The 1152A1 directly transfers data transmissions originating from Ethernet terminals over pairs 1/2 and 3/6. The Mid Span Power Supply acts as a normal patch panel for Ethernet connections, ensuring continuous and reliable performance. Power is provided only over the unused Ethernet pairs 4/5 and 7/8.

Minimal Cross Talk and Insertion Loss – Normally, introducing DC into an Ethernet network increases noise susceptibility of the system, thereby degrading the Ethernet signal. Avaya's state-of-the-art design ensures that power distribution does not interfere with concurrent network operation. By combining high-performance, robust RJ-45 shielded connectors, intelligent wiring layout and optimized line termination the 1152A1 operates as a fully integrated device for data communication and power.

Standard Compliance/Resistive Signature Detection – The 1152A1 is fully compatible with the IEEE 802.3 standard when no inline power is supplied and with IEEE 802.3af, DTE Power via Media Dependent Interface (MDI).

Easy Installation/Easy to Use – may be installed with the data equipment in a 19-inch rack mount configuration or stacked closer to the endpoints up to four (4) units high using the optional rubber feet. The 1152A1 is a plug-and-play product. Once turned on, the unit automatically detects all PoE terminals and supplies inline power. All port interfaces are located on the front panel for easy access.
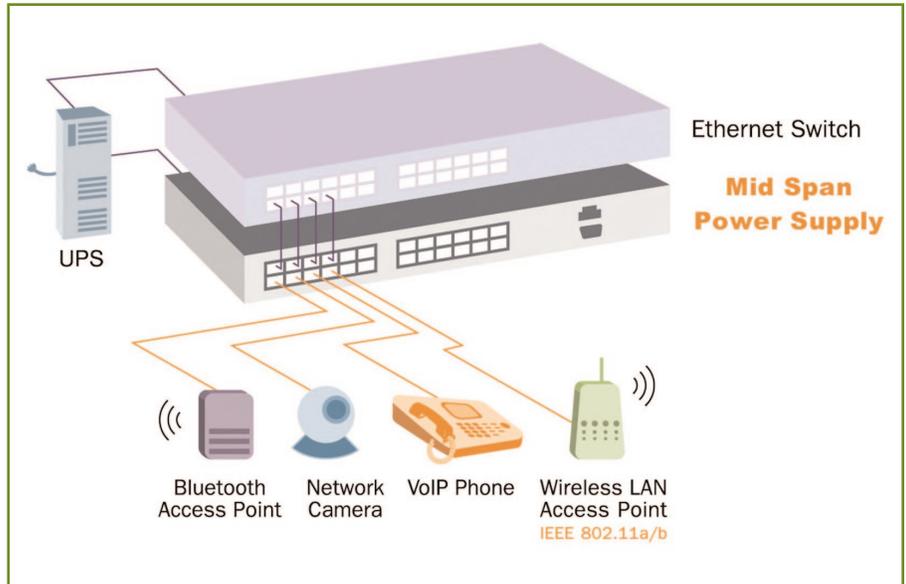

Figure 1

Specifications

Number of Users: 24

Data Rates: 10/100 Mbps

Power over Ethernet Output Specification
Pin Assignment and Polarity: 4/5 (RTN.), 7/8 (-V)
Output Power Voltage: -48 Vdc
User Port Power: 16.8 W
(using Power management)
Aggregate Power: 200 W

Input Power Requirements
AC Input Voltage: 90 to 264 Vac
AC Frequency: 47 to 63 Hz

AC Input Current
3.5 A at 110 Vac, 1.8 A at 240 Vac

Volt-Amperes Rating
0.48 KVA (-48 V)
0.30 KVA (110 Vac)

Dimensions
1.75 x 17.0 x 11.9 in. (h * w * d)
4.4 x 43.3 x 30.2 cm (h * w * d)

Weight: 8.8 lbs (4 kg)

Management
Local LED display

Indicators
System Indicator:
AC Power (Green/Orange)

User Indicator:
Channel Power (Green/Orange)

Connectors
Shielded RJ-45, EIA 568A and 568B
DB-9, Female (Management)

Environmental Conditions
Operating Ambient Temperature: 32 to 104 °F
(0 to 40 °C)
Operating Humidity: maximum 90%,
non-condensing
Storage Temperature –4 to 167 °F (-20 to 75 °C)
Storage Humidity: Maximum 95%, Non-condensing
Operating Altitude: -1000 to 10,000 ft.
(-304.8 to 3048 m)

Thermal Rating
285 BTU

Regulatory Compliance
CE Compliance

Electromagnetic Emission and Immunity
FCC Part 15, Class B
EN55022 Class B (Emissions)
EN50082-1 (Immunity)

Safety Approval
UL 1950
CSA C22.2 No. 950
EN 60950
TUV EN 60950

About Avaya

Leadership and Innovation in Communication

Avaya is a global leader and innovator in enterprise communications serving customers who require superior communications technology to power their business. Over 90% of the FORTUNE 500® and government organizations rely on Avaya for secure network infrastructures and reliable voice and data applications that power faster decisions, profitable transactions, and closer relationships between customers, employees, and suppliers.

Learn More

For more information about how Avaya Enterprise Class IP Solutions may be leveraged to help grow revenue and reduce costs, please contact your Avaya Client Executive, Authorized BusinessPartner or visit us at avaya.com/learnmore/ip. For more information about Avaya and our other award-winning solutions, visit avaya.com.

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