



**Tripp Lite**  
1111 West 35th Street  
Chicago, IL 60609 USA  
Telephone: +(773) 869 1234  
E-mail: [saleshelp@tripplite.com](mailto:saleshelp@tripplite.com)

## Model #: B096-016

### 16-Port Serial Console Server Management Switch

#### Highlights

- Dual Ethernet, Dual Power Supply, and Built-in Modem
- Secure In-band and Out-of-band access for a Host of Equipment
- Manage all equipment in the rack: Servers, UPS, Routers, Switches, Firewalls, etc
- LINUX with access to the Source Code for custom scripts
- USB Flash Drive included for Off-line Logs and Config Files
- Wired for direct connection to Cisco equipment
- Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases



#### Description

Tripp Lite's B096-016 is the most advanced console server platform available today. In one secure appliance, it offers an in-band and out-of-band management solution for serial console ports, servers, virtual servers, service processors, UPS & PDU's, environmental monitoring and more. This 16 port console server management switch enables system administrators to securely access and control their data centers and networks from anywhere in the world. And this enterprise level unit is equipped with a built in modem, dual Ethernet, dual AC power, 2 gigs USB flash and runs on Linux for scalability and reduced downtime.

The B096-016 offers advanced software features that surpass the requirements of even the most demanding applications. These features include Network UPS Tools for UPS monitoring, PowerMan for integrated PDU and RPS functions with in session hotkey support, Pattern match alerting, Open access to the Linux shell for scripting, heartbeat monitoring with automatic failover, Cisco pinouts and much more. Available in 16 and 48 port models, the B096 family of Console Servers are the perfect fit for in or out of band access to vital IT assets. For Government Purchasers, B096-016 is Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases

#### Simple Cabling & Easy Installation:

- The B096-016 console server management switch features Cisco compatible "Rolled" RJ45 ports for easy, quick installation. Install in minutes with our simple web GUI.

#### 2 Gig USB Flash Drive for TFTP Server:

- Store local copies of router and switch configurations on the 2gig USB flash for disaster recovery. You can make backups of existing configurations before undertaking any changes so that if there is a problem, you can simply roll back the config.

#### Offline Logs:

- Store offline logs on a USB flash drive to provide an audit trail. Log both the serial ports and the available networks to provide syslog,

keylogging and a .pcap file for Wireshark.

#### Pattern Match Alerting:

- Tripp Lite console servers can help you ensure uptime by proactively scanning the serial stream on the console ports for specific errors or phrases. Monitor the traffic on the serial port and watch for user defined patterns or phrases and send alerts via SMS text or email based on pattern match.

#### Hotkey Power on RPS/PDU:

- The console server effectively provides out of band access to a dead communications device that is locked up in a frozen condition. Using simple hotkeys via SSH or telnet lets you launch a power menu to check power status, power cycle and, turn the unit off or on. We have support for thousands of PDU/RPS units for both serial and SNMP connected units.

#### Scripting:

- Unlike other console servers, we provide access to the Linux core including bash. This allows you to do customization, such as creating a proactive self-healing solution that cycles power on a router or switch on ping failure.

#### Out of Band:

- The built in modem offers dial-in, dial-back and failover.

#### Package Includes

- B096-016, 16-Port IP Console Server Management Switch
- Rackmount hardware
- 2 x 6ft, Cat5e Patch cables
- 1 x DB9F - RJ45 Crossover Adapter
- 1 x DB9F - RJ45 Straight-Through Adapter
- 2 x 6ft, 5-15P to C13 Power cable
- 2Gb USB Flash Drive
- CD with Manual
- Quick Start Guides

## Features

#### High Availability:

- Dual universal input AC power supply), 100-240V AC
- Dual Ethernet with bonding for auto failover or additional out-of-band broadband connection
- Built in modem for out-of-band dial-in access
- Heartbeat monitor with auto dial-out option
- Multiple local boot images stored locally for roll back
- 2 Gigabyte local FTP/TFTP storage for device configuration files

#### Security and Authentication

- IP SEC VPN , Secure Shell (SSH V2 and V3)
- TACACS+ , RADIUS and LDAP authentication
- PAP/CHAP authentication (dial up)
- Dial back support
- Local authentication
- System event syslog
- SSH port and IP forwarding support
- IP packet filtering
- Unlimited user accounts

- Embedded FIPS140-2 cryptographic module, Certificate #1051

#### **Serial Console Port Management:**

- SSH tunneled serial bridging
- Windows 2003 Server ACS and EMS support
- SUN / Solaris ready (no inadvertent breaks)
- Break over SSH support
- Port triggers with SMNP and email alerts
- Offline data logging (Syslog, NFS, CIFS)
- Online data buffering and logging
- Multiple users per port (with port sniffing)
- Access by TCP port
- Telnet / Unauthenticated Telnet SSH/Raw TCP connect
- RFC 2217 - Port Redirection
- Windows Remote Desktop or VNC over serial support
- Clustering - single IP for multiple B096 Console Servers
- Per serial port user access lists

#### **LAN Console Port Management:**

- Secure SSH tunneling (TCP/UDP applications)
- Secure Remote Desktop access to Windows XP/2003
- Secure VNC access to Sun/Windows /Linux computers
- Secure HTTP(S) access to browser controlled appliances
- Native IPMI 1.5 and 2.0 (RMCP/RMCP+) support for BMC and service processor access and control
- Secure SOL (Serial over LAN) access to BIOS, EMS and ACS
- Service processor access (IPMI, ILO, LOM and more)
- Access to KVM built in to service processors (DRAC, RSA)
- Secure Telnet access
- Limit user access by LAN device and SDT service for that device
- Port triggers with SMNP and email alerts for all tunnel traffic
- Each gateway can port forward to an unlimited number of locally networked hosts (computers, routers)
- No limit on number of hosts being concurrently accessed through the one tunnel
- Up to 50 concurrent SSH sessions (SDT tunnels) can be open at the one time
- No limit on number of clients who can access the one gateway
- Embedded DHCP server for management LAN devices

#### **Power Management:**

- Network UPS Tools for UPS Monitoring and Management
- PowerMan for PDU and RPS Management
- Hotkey for in session power menu

#### **System Management:**

- Secure web management (HTTPS)
- Local browser management (HTTP)
- Command Line interface (Linux Shell)
- NAGIOS distributed monitoring
- ARP-Ping (IP address assignment)
- SNMP

#### **Accessibility:**

- In-band (local Ethernet or secure tunnel over Internet)
- Out-of-band (dial-up modem access) included - V.92 Serial Data/Fax Embedded Modem 3.3V Model, 14.4K Fax
- Additional Ethernet for broadband out-of-band connection
- Local serial console access

**Other Protocols Supported:**

- DHCP client for dynamic IP assignment
- NTP for time synchronization
- PPP for dial up access
- NAT port redirection

**Upgrades:**

- Flash upgradeable
- Free upgrades from online FTP site
- HTTP, FTP, TFTP client for file transfer

**Operating System:**

- Linux with source code access
- Custom development kit

**Specifications**

<b>OVERVIEW</b>	
Warranty	4 Year Ltd
IP Remote Access	YES, BUILT IN
<b>INPUT</b>	
Input connection type	2 x IEC-320-C14, Auto-Switching 100-240VAC
<b>PHYSICAL</b>	
Unit weight (lbs)	8.50
Color	Black
<b>ENVIRONMENTAL</b>	
Relative Humidity	Humidity: 5% to 90%
Operating Temperature	Ambient operating temperature: 5C to 50C (41F to 122F)
Storage Temperature	Non operating storage temperature: -30C to +60C (-20F to +140F)
<b>CONNECTIONS</b>	
Ports	16 RJ-45 RS-232 serial ports (2400 to 230,400bps)
Other Ports - Port 1	1 x DB-9 RS-232 local console and modem serial port (2400 to 115,200 bps)
Other Ports - Port 2	1 RJ-11 modem port
Other Ports - Port 3	2 x RJ-45 10/100Base-T Ethernet port
Other Ports - Port 4	1 USB port
Other Ports - Port 5	2 x C14 Power Ports, 100-240V AC

**CERTIFICATIONS****Approvals**

FCC Part 15 A, UL 1950, CE (EN55022 A, EN55024, EN60950), TUV, C-Tick

**Related Items****Required Products**

<b>Product Type</b>	<b>Related Model</b>	<b>Description</b>	<b>Qty.</b>
Cables and Accessories	<a href="#">B090-A9F</a>	DB9F - RJ45 Modular Serial Adapter	1
Cables and Accessories	<a href="#">B090-A9F-X</a>	DB9F - RJ45 Modular Serial Adapter	1
Cables and Accessories	<a href="#">B090-A9M</a>	DB9M - RJ45 Modular Serial Adapter	1

More information, including related products, owner's manuals, and additional technical specifications, can be found online at [www.tripplite.com/en/products/model.cfm?txtModelID=4307](http://www.tripplite.com/en/products/model.cfm?txtModelID=4307).