



Asentria® | SiteBoss™ 571



CUTTING EDGE BTS MONITORING AND SITE CONTROL DEVICE

The SiteBoss 571 is a multi-function 1U system that facilitates advanced control and management capabilities into DC powered remote equipment sites. The 9 high-current DC power outputs can each switch a 10A DC (at 60 VDC Max) power load. The S571 is only available in a DC powered version. On-board I/O provides serial, Ethernet, and a variety of I/O expansion options using the 2 Expansion slots.

HIGHLIGHTED FEATURES

- (9) 500 watt -48VDC load (10Amp at 60 VDC max) power outputs
- Optional - Add (3) 500 watt -48VDC load (10Amp, 60 VDC max) power outputs to the base unit for a total of 12
- Optional - Add (1) 1800 watt output to base unit (Coming Soon)
- Gain remote out-of-band access to your cabinets through the S571's optional wireless modem (EDGE, GPRS, or CDMA)
- Manage and monitor up to 12 non-networked serial devices from base S571 (16 total serial ports optional)
- IP Routing allows you to access other network devices via the optional S571 wireless modem
- USB hardware is present on the unit to support future software development, and does not currently support USB devices
- Optional AISG controller (Coming Soon), GPS Support
- (4) On-board contact closures
- Supports Asentria Setting Key functionality
- Web interface for easy configuration
- Supports up to (12) additional 500W power outputs (PB2)
- Powerful on-board scripting capability for customization of unique applications
- 802.1Q VLAN support on both Ethernet ports helps you maximize traffic efficiency & administration flexibility
- Connect up to 16 remote EventSensor™ modules to add I/O ports. See the EventSensor section for more details.
- Wide operating temp range (-40 to +65 C)
- Send alarms via pager, E-mail, TCP Alert and/or SNMPv1 and SNMPv3 traps, and SNMPv2c Informs
- Compatible with ProVision®, HP Openview®, Spectrum®, Intermapper®, Nagios®, SNMPc®, Netcool®, and all other SNMP-based network management systems
- Easy-to-understand MIB
- Supports additional 1U add-on power distribution units (PB2)

SOLUTIONS SPOTLIGHT - WIMAX PROVIDER

OVERVIEW

A leading provider of WiMAX high-speed Internet service to residential and small business customers in North America, with service in 46 markets covering more than 400 cities and towns, quickly discovered the benefits of proactively monitoring, accessing and controlling remote equipment, DC power and environmental conditions.

THE CHALLENGE

As with any network service, unplanned remote site downtime due to equipment and power failure, and adverse environmental conditions can severely impair network service. When designing their remote site infrastructure, one of the biggest challenges this WiMAX service provider had was the maintenance of continuous and economical service regardless of the myriad of potential problems in such a complex network.

For this WiMAX service provider with thousands of remote sites, any outage would mean that a legion of technicians in service trucks must roll to the remote locations. They viewed this as an enormously expensive and time-consuming "reactive" strategy that could impact the price, reliability, and consumer perception of their new WiMAX service. As WiMAX is considered a new technology by consumers relative to DSL or cable, it is imperative that quality of service be as high as possible.

THE SOLUTION

They chose Asentria, and initially used Asentria's SL81 units, plus a subsidiary Asentria DC switching device called the PB-1. This pair of devices enabled the provider to conduct DC switching for up to eight devices within the remote BTS locations, monitor environmental variables, and to gain remote Out-of-Band access to the BTS locations via a POTS dialup modem.

After successfully deploying Asentria's SL81/PB-1 solution to hundreds of BTSs, Asentria set to work creating a next generation product that would encompass the functions of both the SL81 and the PB-1, plus address additional needs identified from the experience gained in the initial roll-out. Asentria's development and manufacturing teams set out on a mission to create a more capable single hardware device, ideally suited for BTS and other small location monitoring. The mandate was to create a smaller, less expensive, multi-functional and more powerful device.

Based on the Linux operating system, the new SiteBoss 571 (S571) device uses only 1U of rack space, provides 10 DC relays capable of switching 10amps at -48vDC. It provides both In-Band and Out-of-Band access to as many as 16 serial devices.

The experience in the WiMAX deployment process led Asentria to add an SD slot to enable field technicians to more easily service units by using the SD cards to upload or download data from the S571. The S571 is also designed to scale for larger, more centralized Point-of-Presence (POP) locations. The WiMAX service provider is also using the S571 in their POPs throughout the country.

Support of Asentria's "EventSensor" products enables the S571 to support PB-1 external DC switching devices in order to switch up to 138 DC relays at a single site. The S571 is also capable of controlling external relay devices that can switch up to 100amps at -48VDC.

There was a strong focus to utilize the new Linux operating system in the S571 to increase the power of the unit as a utility for NOC personnel to troubleshoot problems at a remote site. A second Ethernet port was added to improve the troubleshooting capability of the device through port mirroring and packet capture. Frequently a BTS might experience problems that are more related to a degradation of service, rather than a complete failure. The S571 is designed to assist NOC personnel in eliminating these problems. Advanced passive logging capabilities allow the S571 to track and store records of service personnel's remote access and activity to determine if human error is responsible for problems.

Read more at <http://www.asentria.com/solutions/resources/casestudies/wimax.aspx>



Asentria® | SiteBoss™ 571 Specifications & Pricing

BASE UNIT CONFIGURATION

- 9 High-Current DC Power Outputs
- 2 Expansion Card Slots
- On-board Temp. Sensor
- On-board ES/SJ Port
- 1 MMC Memory I/O Slot
- -48VDC Power Input
- 4 USB Ports
- 1 RJ45 Serial Console Port
- 12 RJ45 Serial I/O Ports
- 2 10/100 Ethernet Ports
- 32MB Record Logging Database
- 4 On-board Contact Closures

DEVICE SPECIFICATIONS

- Unit Width: 17.5in/44.45cm
- Power Supply Width: 1.75in/4.445cm
- Unit Depth: 14.6in/37cm
- Unit Height: 1.75in/4.445cm
- Unit Weight: 11.0lbs/5.0kg (Dependent on configuration)
- Mounting: Shelf or 19in rack
- Power: -48VDC
- Voltage In: 36VDC(Min) / 60VDC(Max)
- Current: 750mA (Max)
- Power Usage: 9.72W (Typical)
- Operating Temperature: -40° to 65° C
- Storage Temperature: -40° to 65° C
- Operating Humidity: 0 to 95% (Non-condensing)
- ROHS Certification: Yes
- Mean Time Between Failure: TBD

PRICING

SiteBoss 571* with 2 Expansion Slots (S571-2).....\$3,275

Options:

32MB Record Storage (/32M).....Included
 48VDC Power (/DC).....Included
 (3) 10 Amp Relays (/10A).....\$500
 AISG Controller.....\$500

* The S571 is only available as a DC-powered unit



(9) 10Amp 60VDC power outputs standard

S571 BACK PANEL

IDEAL USE

Remote Cabinet Monitoring & Control - The S571 is particularly designed to be used in the latest cellular or broadband wireless Base Transceiver Stations (BTS) for two primary purposes. One is the ability of the S571 to not only act as a DC power distribution unit, but to also act as an intelligent means of power-cycling devices attached to its (9) power outputs to provide reboot ability for equipment experiencing problems in remote locations. The other primary purpose of the S571 is to provide connectivity to remote sites via its optional on-board wireless modem. This allows for connectivity to the remote BTS location should a primary connectivity method (like microwave backhaul) fail. Use of the wireless modem and DC reboot function together gives your Network Operation Center the ability to access a site that is otherwise inaccessible, diagnose the problem by enabling terminal or network access to all remote equipment, and correct the problem remotely via a reboot without the need for a costly "truck roll". The S571 is designed around a powerful Linux processor which enables the use of security protocols such as SSH, SFTP, HTTPS, and RADIUS. The S571 supports an on-board scripting language for use in customized applications such as autonomously sequencing the powering up or down of devices at a BTS location based on certain events.

BACK PANEL CONFIGURATION

The S571 catalog number specifies the configuration and options you want to order with your S571 unit. The catalog number lists the options in the order shown below. Items with a * are truly optional and are omitted if not desired.

BASE UNIT + MEMORY SIZE + *MODEM + *TEMP SENSOR + POWER SUPPLY + *EXPANSION CARDS

Base unit and base options are separated with a slash (/), then Expansion slot options are listed, separated with a dash (-). The first Expansion card listed in the catalog number goes in slot 1, the next in slot 2. To make the catalog numbers shorter, contiguous Expansion cards of all the same type are summed together (e.g. -16C instead of -8C-8C). Cards of the type 4x4x are not summed in this fashion. Thus all of the following are valid catalog numbers:

- S571-2/32M/DC - Minimum Config.
- S571-2/32M/10A/DC-ME
- S571-2/32M/DC-GPS
- S571-2/32M/10A/DC-ME-GPS
- S571-2/32M/DC-ME
- S571-2/32M/10A/DC

OPTIONAL CONFIGURATIONS

- Add (3) 500 watt -48VDC load (10Amp, 60 VDC max power outputs to the base unit (12 total)
- Add (1) 1800 watt output to base unit (Coming Soon)
- Gain remote out-of-band access to other network devices via IP routing through the S571's optional wireless modem (EDGE, GPRS, or CDMA)
- Manage and monitor up to (4) additional non-networked serial devices from base S571 (16 total)
- AISG controller
- GPS Support
- Supports optional 1U add-on power distribution units (PB-2)

ADDITIONAL PRODUCT DETAILS

Base unit comes with (9) mating power output Phoenix connectors, (2) DC input lugs and (1) pair of 19" rack mount ears.



S571 FRONT PANEL