

Powerful PBX Management

2014 Asentria Telemangement Product Guide



 **Asentria**[®]



Asentria® | Table of Contents

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OVERVIEW

Asentria develops telemangement solutions that enable providers of critical communications infrastructure to more efficiently and reliably run their networks. Asentria's products help ensure quality of service and lower operational costs, while making it easier to provision, maintain and support remote equipment. Our strategic solutions fit both large and small communication networks and provide high-value, cost-effective and competitive differentiators to our customers.

Asentria Telemangement Products are used for two basic purposes:

1.) REMOTE CPE MONITORING - Asentria solutions allow PBX vendors to provide service plans to manage PBX's or other equipment at customer locations from a centralized Network Operation Center (NOC). A PBX vendor using Asentria's ASM software can create a VPN connection across the public IP network to reach through the customer's firewall to an Asentria TeleBoss unit. This secure bi-directional connection allows for monitoring and access to the customer's PBX and other voice equipment. Asentria products reduce operating costs versus modem connections or setting up custom VPN's per customer. Certain Asentria products in particular configurations have been given JITC certification for use on the US Department of Defense networks.

2.) PBX CALL DETAIL RECORD (CDR) BUFFERING - Asentria hardware has been a leader in CDR collection from PBX's for 30 years. Asentria solutions allow for CDR to be collected from all major PBX types, and ensure that the data is reliably delivered, as well as ensure that the network security methods used prevent unauthorized parties from being able to access the data. Asentria solutions are used by top call accounting software vendors who provide solutions to the world's most prestigious enterprise, governmental, financial, and military institutions. Certain Asentria products in particular configurations have been given JITC certification for use on the US Department of Defense networks.

TELEMANAGEMENT BENEFITS

TO PBX VENDORS:

- Asentria products support the creation of revenue generating service opportunities. **▲REVENUE**
- Asentria products reduce the costs of creating network connections through customer's firewalls. **▼COSTS**
- Asentria products reduce costs by standardizing the initial set-up of a new customer site. **▼COSTS**
- Asentria products reduce costs by giving the service provider a consistent network and method of access into customer's networks. **▼COSTS**
- Asentria products reduce the costs of securely managing multiple technicians access to the service network. **▼COSTS**
- Asentria products are backed by the best service and technical development team in the industry. We want to help you get new business. **▲REVENUE**

TO CALL ACCOUNTING VENDORS:

- Asentria products allow the vendor to secure business where the most stringent security methods are required. **▲REVENUE**
- Asentria products allow the vendor to secure business where unusual challenges exist, either in data delivery method, regulatory issues, or security concerns. **▲REVENUE**
- Asentria products reduce costs by giving the service provider a consistent polling network, particularly with "managed services" customers. **▼COSTS**
- Asentria products are backed by the best service and technical development team in the industry. We want to help you get new business. **▲REVENUE**



Asentria® | TeleBoss™ Overview

COLLECT CDR OR OTHER RECORDS BY SERIAL OR TCP/IP

The TeleBoss products collect and store text-based event records from telecom devices such as PBXs, Voicemail systems, ACDs and other similar devices. Typically, these records are collected via the device's serial port, but Asentria provides the industry's first support for IP Record Collection™ (IPRC) - the ability to query your IP PBX for data via a network connection. Depending on the TeleBoss you choose, you have support to collect records via the multiple varied protocols of most IP-based PBX models, including Cisco CallManager, Nortel BCM, Avaya, Mitel, Alcatel, Intecom and Siemens. TeleBoss products interface with all popular Call Accounting and Telemanagement billing applications, so integration and operation with these systems is seamless, or you can retrieve the stored information using industry-standard protocols such as FTP Push and Telnet. If the network goes down, the TeleBoss offers an optional internal 33.6Kbps modem that enables backup out-of-band polling methods. Service Providers can implement a single device to manage both RS-232 and IP port PBXs — without software development. You can also use PPP dial-out to save money by retrieving data from distant PBXs via the Internet at local phone rates, and call accounting software vendors can continue to offer their software for new IP-based switches, as the software will obtain CDR from the TeleBoss Controllers.

MONITOR THE HEALTH OF YOUR VOICE-BASED SYSTEMS

TeleBoss products also support the monitoring of alarm and event records from these same devices, alerting your alarm center when they happen. You can also capture and alert on switch management and toll fraud conditions, as well as other types of fault conditions or loss of expected data. Alarms can be reported via email, SNMP traps, and to the Asentria AlarmManager™ management software. Advanced TeleBoss products can also capture and forward SNMP traps from your remote networks into your alarm management application.

MONITOR POWER AND ENVIRONMENTAL FACTORS

Besides collecting and monitoring text event records from telecom devices, Service Providers are also able to offer new and improved managed services to customers such as monitoring environmental conditions, i.e. intrusion, temperature, water, battery conditions and much more. The TeleBoss product line includes the ability to support a host of external sensor devices to monitor environmental factors, contact closures, analog voltages, and more. Use a TeleBoss Controller to simplify the task of monitoring diverse equipment and forwarding alarms to your email and network management system.

PBX OR OTHER CPE MONITORING PROTOCOLS

TeleBoss units can monitor PBXs or other CPE by gathering and evaluating the following types of data listed below:

COMMON PROTOCOLS

- ASCII DATA - Receive and parse ASCII data from other equipment.
- IPRC-IP RECORD COLLECTION - CDR from IP-based switches
- CONTACT CLOSURES - Simple alarms from equipment
- SNMP GETS VIA SCRIPT - TeleBoss polls target equipment MIB
- SNMP TRAP CAPTURE - TeleBoss receives traps from equipment
- PING - TeleBoss alarms if unable to ping a device

OTHER PROTOCOLS

- SYSLOG - Gather SYSLOG reports
- TL1 - Receive TL1 and parse
- TBOS - Receive TBOS and parse
- MODBUS - Query MODBUS devices
- CUSTOM QUERIES VIA SCRIPT - Complex queries

FLEXIBLE NOTIFICATION PROTOCOLS & CONNECTIVITY METHODS

TeleBoss units allow for a wide variety of notification methods in the event that an alarm state is recognized on the PBX or CPE equipment, or on power, security, or environmental conditions. In the majority of cases, SNMP is the primary notification method. Potential notification and connectivity methods of the TeleBoss are as follows:

NOTIFICATION PROTOCOLS

- SNMP TRAPS V1, V3
- CONTACT CLOSURES - Reliable, acknowledged SNMP traps
- SNMP MIB SUPPORT For polling
- SMTP/EMAIL
- PAGER
- SMS
- CONTACT MIRRORING

CONNECTIVITY METHODS

- ETHERNET
- POTS/PSTN MODEM
- EDGE/GPRS
- CDMA
- SERIAL

REMOTE EQUIPMENT ACCESS - IN-BAND/ALTERNATIVE

TeleBoss units enable in-band communication on a primary network, but also provide many alternatives for communication to a TeleBoss unit at a customer site should the primary communication network fail. This allows for both the alarms generated from Asentria's monitoring functions to get to your Network Operation Center (NOC), and also allows for your NOC to access the remote site remotely.

ACCESS FROM NOC TO TELEBOSS UNIT

- ETHERNET
- EDGE/GPRS
- CDMA
- POTS/PSTN MODEM
- TETRA
- SERIAL

TELEBOSS WHOLE ROOM MONITORING SOLUTION

- TEMPERATURE
- WATER
- HUMIDITY
- SMOKE
- AIRFLOW
- HVAC
- DC BATTERIES
- AC POWER
- DOOR OPEN/CLOSED
- MOTION



Asentria® | TeleBoss™ 850



HIGH PERFORMANCE CPE MANAGEMENT AND CDR COLLECTION

IDEAL USE

The TeleBoss 850 is well suited for the following applications:

1) CALL ACCOUNTING - PBX CDR/SMDR data collection via either a serial port or via an Ethernet connection to the PBX. Via Ethernet, the T850 can collect data from Avaya, Alcatel, Mitel, Nortel, and Cisco switches. Once stored in the T850's non-volatile memory, data can be delivered via FTP or modem to a call accounting application. The T850 is unique in the TeleBoss line for support of SFTP, SSH, and advanced scripting, enabling customized data collection methods, and highly secure data transfers. The T850 is used in the most highly security and privacy conscious customers, such as government, military, financial, and medical entities.

2) PBX ALARM MONITORING - The T850 can gather ASCII-based PBX alarms via a serial connection, collect SNMP traps, or do SNMP "gets" of data from PBX's or other devices. The T850 is unique in the TeleBoss line for support of SFTP, SSH, and advanced scripting, enabling customized alarm connection methods, and highly secure remote access. The T850 is used by carriers, PBX switch providers, and PBX manufacturers to provide the most flexible platform for PBX alarm collection and remote access.

HIGHLIGHTED FEATURES

- Collect records from IP-based switches (IPRC)
- Collect SMDR / CDR / Traffic / ACD
- SFTP / FTP, HTTPS / HTTP
- Remote maintenance port access
- Terminal server functions
- PBX alarm notification
- Toll fraud detection and alarms
- Equipment / environmental alarms
- Intelligent ASCII evaluation alarms
- No-data / Percentage-full alarms
- Powerful scripting language*
- SNMP traps / dialout alarms
- Memory storage between 32 MB & 64MB
- Supports up to 16 serial ports
- Wireless cellular, ADSL, and/or dialup modem options*
- Environmental sensor options
- Optional run-time battery / DC power options
- JITC-compliant version available

Asentria® | TeleBoss™ 850-JITC

HARDENED FOR HIGH-SECURITY APPLICATIONS

IDEAL USE

Versions of the T850-2 and T850-6 have been approved for use on the US Department of Defense network by passing the JITC (Joint Interoperability Test Command) Certification process. These JITC certified units are well suited for the following applications:

1) CALL ACCOUNTING - PBX CDR/SMDR data collection via either a serial port or via an Ethernet connection to the PBX. Via Ethernet, the T850 can collect data from Nortel, Avaya, Siemens, Cisco, NEC & Mitel switches. Once stored in the T850's non-volatile memory, data can be delivered to a call accounting application. The T850 is unique in the TeleBoss line for support of SFTP and SSH, each highly secure data transfer protocols. The T850 is used in the most highly security and privacy conscious customers, such as government, military, financial, and medical entities.

2) PBX ALARM MONITORING - The T850 can gather ASCII-based PBX alarms via a serial connection and collect SNMP traps. The T850 is unique in the TeleBoss line for support of SFTP, SSH, and highly secure remote access. The T850 is used by carriers, PBX switch providers, and PBX manufacturers to provide the most flexible platform for PBX alarm collection and remote access.

* Modem option and scripting support of the T850 base unit are not available on the T850-JITC base unit.





Asentria® | TeleBoss™ 850 Specifications & Pricing

BASE UNIT CONFIGURATION

- 2 RJ45 Serial I/O Ports
- 2 10/100 Ethernet Ports
- 0, 2 or 6 Expansion Card Slots
- 1 MMC Memory I/O Slot
- AC Power Input

DEVICE SPECIFICATIONS

- Unit Width: 7.5-17.5in / 19.05-44.45cm
- Unit Height: 1.75in / 4.445cm
- Unit Depth: 7.25-7.8in / 18.415-19.812cm
- Unit Weight - dependent on config.: 3-5lbs / 1.36-2.27kg
- Mounting: Shelf or 19in rack
- Power: 15 VDC, 24 and 48VDC optional
- ROHS / CE / CSA Certification: Yes
- Power Consumption (Typical): 5.25W
- Power Consumption (Max): 24W
- BTUs (Nominal): 18 BTU/Hour
- BTUs (Max): 82 BTU/Hour
- Operating Temperature: 0-40° C
- Storage Temp: -40° to +85° C
- Operating Humidity: 10-80%
- Storage Humidity: 0-95%
- Mean Time Between Failure: 70,000 hr

PRICING

TeleBoss 850 with 0 Expansion Card Slots (T850-0).....	\$2,145
TeleBoss 850 with 2 Expansion Card Slots (T850-2).....	\$2,345
TeleBoss 850 with 6 Expansion Card Slots (T850-6).....	\$2,645

Options:

Extended Temperature Range (/XT**)	\$150
32MB Record Storage (/32M)	Included
64MB Record Storage (/64M)	\$450
Dial-up Modem (/MD)	\$200
On-board Temp Sensor (/T)	\$50
AC Supply for US (/ACUS***)	Included
24VDC Power (/24DC****)	\$150
48VDC Power (/DC****)	\$150
Run-time Battery (/BB****)	\$200



OVERVIEW

The TeleBoss 850 is a versatile and powerful system for monitoring and control of remote telecom-centric equipment sites. The T850 facilitates data collection and TELEMAGEMENT of CPE and CO located telecom and other types of equipment located at remote sites. The T850 provides advanced features for monitoring and control of serial devices, equipment I/O, and environmental conditions at these remote sites, with notification when conditions fall outside limits. On-board I/O provides serial, Ethernet, and dialup connectivity. The T850-2 and -6 models provide two or six expansion slots respectively to allow addition of various communications and monitoring I/O interfaces that might be desired for your specific site application.

BACK PANEL CONFIGURATION

The T850 catalog number specifies the configuration and options you want to order with your T850 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 + *EXTENDED TEMP + 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, and so on. Thus all of the following are valid catalog numbers:

- T850-0/32M/MD/ACUS
- T850-2/64M/MD/ACUS/BB
- T850-6/64M/ACUS-8V-8R-8C-8C
- T850-0/64M/MD/T/ACUS
- T850-2/32M/MD/DC
- T850-6/32M/MD/ACEU-8C-4C4V
- T850-6/32M/MD/T/ACUS-8R-8C

ADDITIONAL PRODUCT DETAILS

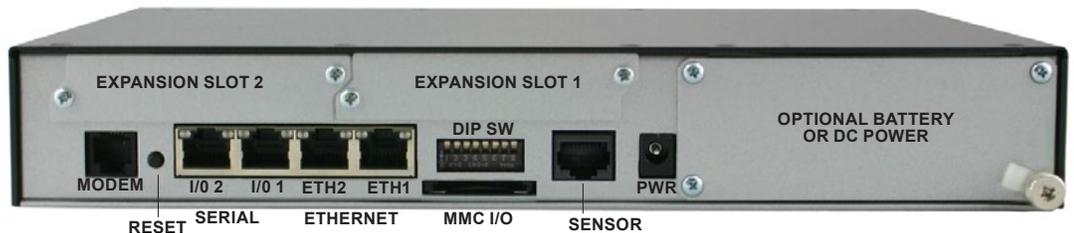
Unit comes with AC Desktop Power Supply with US-type IEC power cord, (2) 6ft RJ45 serial cables, (1) RJ45-DB9F DCE Adapter, (1) RJ45-DB9M DTE Adapter, (1) DB9 M/F Null Modem Adapter, (2) 19" rack mount ears, and a documentation and utilities CD. Expansion cards come with appropriate accessories. For example the 4X serial cards come with (4) 6ft RJ45 serial cables and (4) RJ45-DB9M DTE Adapters. The wireless modem cards come with an antenna. Contact Sales for more details.

** Standard operating temperature is 0 to +40°C. /XT option extends operating temperature to -40 to +60°C. Extended-temperature AC power supply included when ordering /AC with /XT option.

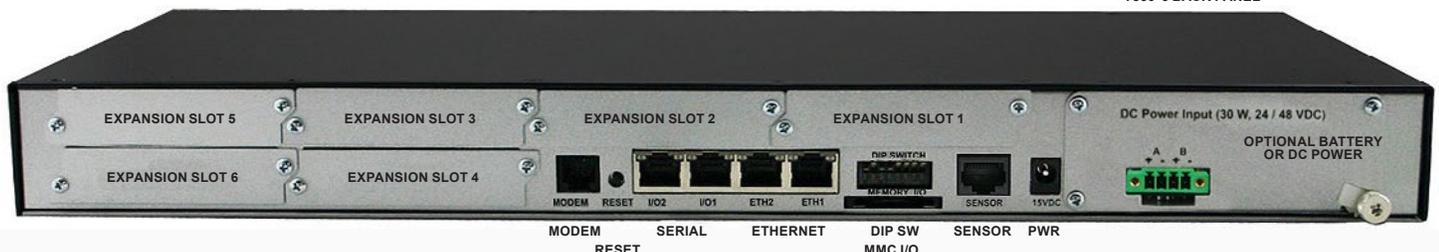
*** For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.

**** When determining your T850 configuration, you may choose either DC Power or Run-time Battery, but not both.

T850-2 BACK PANEL



T850-6 BACK PANEL





Asentria® | TeleBoss™ 850-JITC Specifications & Pricing

BASE UNIT CONFIGURATION

- 2 RJ45 Serial I/O Ports
- 2 10/100 Ethernet Ports
- 2 or 6 Expansion Card Slots
- AC Power Input

DEVICE SPECIFICATIONS

- Unit Width: 11-17.5in / 27.94-44.45cm
- Unit Height: 1.75in / 4.445cm
- Unit Depth: 7.8in / 19.812cm
- Unit Weight - dependent on config.: 3-5lbs / 1.36-2.27kg
- Mounting: Shelf or 19in rack
- Power: 15 VDC, 24 and 48VDC optional
- ROHS / CE / CSA Certification: Yes
- Power Consumption (Typical): 5.25W
- Power Consumption (Max): 24W
- BTUs (Nominal): 18 BTU/Hour
- BTUs (Max): 82 BTU/Hour
- Operating Temperature: 0-40° C
- Storage Temp: -40° to +85° C
- Operating Humidity: 10-80%
- Storage Humidity: 0-95%
- Mean Time Between Failure: 70,000 hr

PRICING

TeleBoss 850-JITC with 2 Expansion Card Slots (T850-2-JITC).....See Website
 TeleBoss 850-JITC with 6 Expansion Card Slots (T850-6-JITC).....See Website

Options:

Extended Temperature Range (/XT**)...\$150
 32MB Record Storage (/32M).....Included
 64MB Record Storage (/64M).....\$450
 AC Supply for US (/ACUS***).....Included
 24VDC Power (/24DC****).....\$150
 48VDC Power (/DC****).....\$150
 Run-time Battery (/BB****).....\$200
 JITC Maintenance Plan (WAR-06)...Contact Sales



OVERVIEW

The JITC versions of the T850-2 and T850-6 have been approved for use on the US Department of Defense network by passing the JITC (Joint Interoperability Test Command) Certification process, and are a versatile and powerful system for monitoring and control of remote telecom-centric equipment sites. The T850 facilitates data collection and telemanagement of CPE and co-located telecom and other types of equipment located at remote sites. The T850 provides advanced features for monitoring and control of serial devices, equipment I/O, and environmental conditions at these remote sites, with notification when conditions fall outside limits. On-board I/O provides serial, and Ethernet connectivity. The T850-2 and -6 models provide two or six expansion slots respectively to allow addition of various communications and monitoring I/O interfaces that might be desired for your specific site application.

BACK PANEL CONFIGURATION

The T850 catalog number specifies the configuration and options you want to order with your T850 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 + *EXTENDED TEMP + MEMORY SIZE + 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, and so on. Thus all of the following are valid catalog numbers:

- T850-2-JITC/32M/ACUS
- T850-2-JITC/64M/ACUS/BB
- T850-6-JITC/64M/ACUS-8V-8R-32C
- T850-2-JITC/64M/ACUS
- T850-2-JITC/32M/DC
- T850-6-JITC/32M/ACEU-32C-4C4V
- T850-2-JITC/64M/ACUS-4S
- T850-6-JITC/32M/ACUS-8V-8R-32C

ADDITIONAL PRODUCT DETAILS

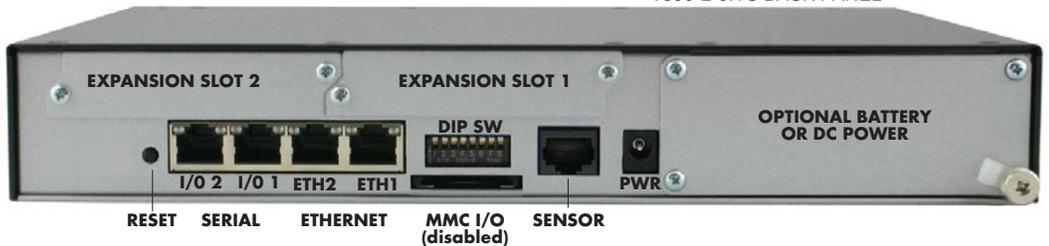
Unit comes with AC Desktop Power Supply with US-type IEC power cord, (2) 6ft RJ45 serial cables, (1) RJ45-DB9F DCE Adapter, (1) RJ45-DB9M DTE Adapter, (1) DB9 M/F Null Modem Adapter, (2) 19" rack mount ears, and a documentation and utilities CD. Expansion cards come with appropriate accessories. For example the 4X serial cards come with (4) 6ft RJ45 serial cables and (4) RJ45-DB9M DTE Adapters. Contact Sales for more details.

** Standard operating temperature is 0 to +40°C. /XT option extends operating temperature to -40 to +60°C. Extended-temperature AC power supply included when ordering /AC with /XT option.

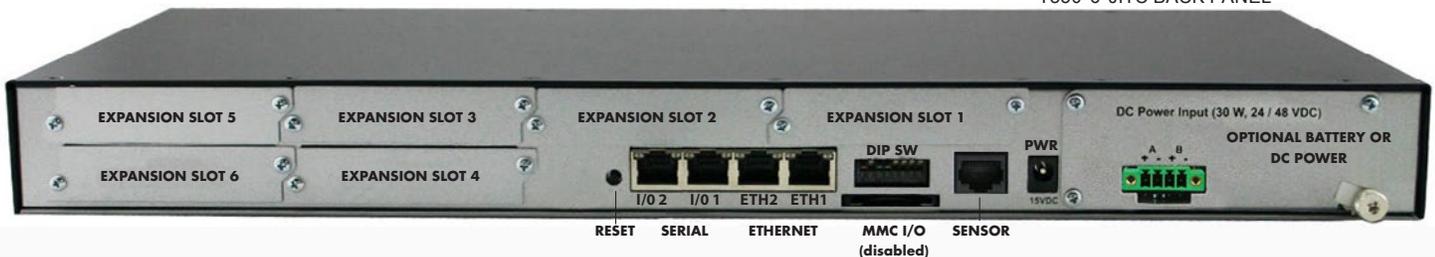
*** For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.

**** When determining your T850-JITC configuration, you may choose either DC Power or Run-time Battery, but not both.

T850-2-JITC BACK PANEL



T850-6-JITC BACK PANEL





Asentria® | TeleBoss™ 830



VERSATILE CPE MANAGEMENT AND CDR COLLECTION

FEATURED BENEFITS

- Collect SMDR / CDR / Traffic / ACD
- Data polling via Telnet, FTP Push, Dialup
- Remote maintenance port access
- Terminal server functions
- PBX alarm notification
- Toll fraud detection and alarms
- Equipment / environmental alarms
- Intelligent ASCII evaluation alarms
- No-data / Percentage-full alarms
- SNMP traps / dialout alarms
- SNMP Gets
- Supports up to 16 serial ports
- Wireless cellular, ADSL, and/or dialup modem options
- Equipment / Environmental sensor options
- Optional run-time battery / DC power options

DEVICE SPECIFICATIONS

- Unit Width: 7.5-17.5in / 19.05-44.45cm
- Unit Height: 1.75in / 4.445cm
- Unit Depth: 7.25-7.8in / 18.415-19.812cm
- Unit Weight - dependent on config.: 3-5lbs / 1.36-2.27kg
- Mounting: Shelf or 19in rack
- Power: 15 VDC, 24 and 48VDC optional
- ROHS / CE / CSA Certification: Yes
- Power Consumption: Typical:5.25W / Max:24W
- BTUs (Nominal): 18 BTU/Hr / Max: 82 BTU/Hr
- Operating Temperature: 0-40° C
- Storage Temperature: -40° to +85° C
- Humidity: Operating: 10-80% Storage: 0-95%
- Mean Time Between Failure: 70,000 hr

PRICING

TeleBoss 830 with 0 Expansion Card Slots (T830-0).....	\$1,695
TeleBoss 830 with 2 Expansion Card Slots (T830-2).....	\$1,895
TeleBoss 830 with 6 Expansion Card Slots (T830-6).....	\$2,195

Options:

Extended Temperature Range (/XT**)	\$150
32MB Record Storage (/32M)	Included
64MB Record Storage (/64M)	\$450
Dial-up Modem (/MD)	\$200
On-board Temp Sensor (/T)	\$50
AC Supply for US (/ACUS***)	Included
24VDC Power (/24DC****)	\$150
48VDC Power (/DC****)	\$150
Run-time Battery (/BB****)	\$200

OVERVIEW

The TeleBoss 830 is a versatile, mid-range system for monitoring and control of remote telecom-centric equipment sites. The T830 facilitates data collection and TELEMAGEMENT of CPE and co-located telecom equipment and other types of devices located at remote sites. The T830 facilitates monitoring of serial ports, equipment I/O, and environmental conditions at these remote sites, with notification when conditions fall outside limits. On-board I/O provides serial, Ethernet, and dialup connectivity. The T830-2 and -6 models provide two or six expansion slots respectively to allow addition of various communications and monitoring I/O interfaces that might be desired for your specific site application.

IDEAL USES

1) Call Accounting - PBX CDR/SMDR data collection via either a serial port or via an Ethernet connection to the PBX. Via Ethernet, the T830 can collect data from Avaya, Alcatel, Mitel, Nortel, and Cisco switches. Once stored in the T830's non-volatile memory, data can be delivered via FTP or modem to a call accounting application.

2) PBX Alarm Monitoring - The T830 can gather ASCII-based PBX alarms via a serial connection from PBX's or other devices.

BACK PANEL CONFIGURATION

The T830 catalog number specifies the configuration and options you want to order with your T830 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 + *EXTENDED TEMP + 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, and so on. Thus all of the following are valid catalog numbers:

- T830-0/32M/ACUS
- T830-2/64M/MD/ACUS/BB
- T830-6/32M/ACUS-8V-8R-8C-8C
- T830-0/32M/MD/ACUS
- T830-2/32M/MD/DC
- T830-6/32M/MD/ACEU-8C-4C4V
- T830-0/32M/MD/T/ACUS
- T830-2/64M/MD/T/ACUS-4S-ME
- T830-6/64M/MD/T/ACUS-8V-8R-8C

ADDITIONAL PRODUCT DETAILS

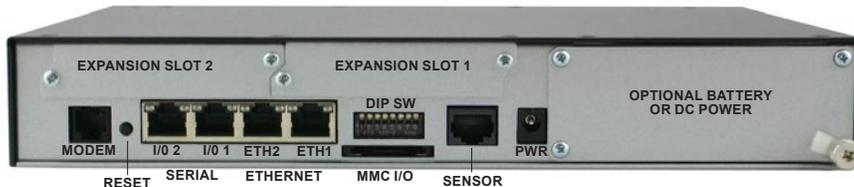
Unit comes with AC Desktop Power Supply with US-type IEC power cord, (2) 6ft RJ45 serial cables, (1) RJ45-DB9F DCE Adapter, (1) RJ45-DB9M DTE Adapter, (1) DB9 M/F Null Modem Adapter, (2) 19" rack mount ears, and a documentation and utilities CD. Expansion cards come with appropriate accessories. For example the 4X serial cards come with (4) 6ft RJ45 serial cables and (4) RJ45-DB9M DTE Adapters. The wireless modem cards come with an antenna. Contact Sales for more details.

** Standard operating temperature is 0 to +40°C. /XT option extends operating temperature to -40 to +60°C. Extended-temperature AC power supply included when ordering /AC with /XT option.

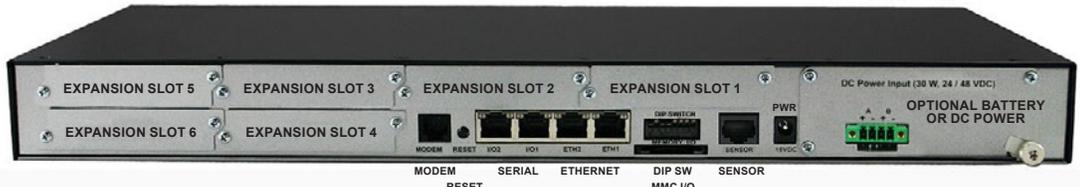
*** For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.

**** When determining your T830 configuration, you may choose either DC Power or Run-time Battery, but not both.

T830-2 BACK PANEL



T830-6 BACK PANEL





Asentria® | TeleBoss™ 820

BASE UNIT CONFIGURATION

- 4M Storage for CDR or other Text Records
- 2 RJ45 Serial I/O Ports
- 2 10/100 Ethernet Port
- AC Power Input

HIGHLIGHTED FEATURES

- 4MB of CDR Memory storage (about 150K CDR records)
- Up to 3:1 internal data compression
- FTP Push/Pull
- Real-time TCP/IP socket polling
- Supports legacy polling commands
- Real-time clock for record stamping
- Serial Input Port
- Serial Output/Command Port
- Internal dialup modem option
- Reliable low-maintenance design

PRICING

TeleBoss 820 with 4MB Storage - (T820/4M*).....\$1,095

Options:

Onboard Dialup Modem (/MD).....\$200
AC Supply for US (/ACUS**).....Included

* Using data compression methods compression of approximated 2:1 or better is typically achieved.

** For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.



IDEAL USE

Low-Volume CDR Collection From a PBX - The TeleBoss 820 is a low-cost CDR data collection device targeted specifically toward low-volume locations for clients such as call accounting software vendors, call accounting service bureaus, and end users who need to collect PBX data from equipment at remote sites. The T820 supports serial collection of call accounting records on its I/O1 input port which can be released using FTP Push or via interactive polling commands supported by popular polling programs. The T820 is a simple, low-cost device with key features of Asentria's earlier Data-Link product line that delivers maximum value for minimum cost.

CATALOG NUMBER CONFIGURATION

Catalog numbers begin with the base unit number, followed by memory size, with options listed last (all separated by a slash).

For example, T820/4M/MD/ACUS specifies a base unit with 4M of record storage and an on-board dialup modem, plus an AC wall powered input compatible with US wall power.

ADDITIONAL PRODUCT DETAILS

Unit comes with AC Desktop Power Supply with US-type IEC power cord, (2) 6ft RJ45 serial cables, (1) RJ45-DB9F DCE Adapter, (1) RJ45-DB9M DTE Adapter, (1) DB9 M/F Null Modem Adapter, (2) 19" rack mount ears, and a documentation and utilities CD. Expansion cards come with appropriate accessories. For example the 4X serial cards come with (4) 6ft RJ45 serial cables and (4) RJ45-DB9M DTE Adapters. The wireless modem cards come with an antenna. Contact Sales for more details.



T820 BACK PANEL



Asentria® | TeleBoss™ Product Matrix

	T850-6 17.5in Wide Advanced	T850-2 11 Inch Wide Advanced	T850-0 7 Inch Wide Advanced	T850-6-JITC 17.5in Wide Advanced	T850-2-JITC 11 Inch Wide Advanced	T830-6 17.5in Wide Basic	T830-2 11 Inch Wide Basic	T830-0 7 Inch Wide Basic	T820 7 Inch Wide Basic
Hardware Features									
On-board 10/100 BaseT Ethernet Ports (RJ45)	2	2	2	2	2	2	2	2	2
On-board RS-232 Serial Ports (RJ45)	2	2	2	2	2	2	2	2	2
MMC Memory I/O Slot	1	1	1	–	–	1	1	1	1
ES/ESJ EventSensor Ports	1	1	1	1	1	1	1	1	0
EventSensors Supported	Up to 16	Up to 16	Up to 16	Up to 16	Up to 16	Up to 16	Up to 16	Up to 16	–
On-board Contact Closures	2	2	2	2	2	2	2	2	–
Temperature Sensor on MMC	1**	1**	1**	–	–	1**	1**	1**	–
On-board Dialup 33.6k Modem	1**	1**	1**	–	–	1**	1**	1**	1**
Run-Time Battery	1**	1**	–	1**	1**	1**	1**	–	–
Internal Battery to Control Real-Time Clock	✓	✓	✓	✓	✓	✓	✓	✓	✓
Expansion Card Bays	6	2	0	6	2	6	2	0	0
Communication Options									
Serial RS-232	✓	✓	✓	✓	✓	✓	✓	✓	✓
Modem via POTS Analog Line	✓	✓	✓	–	–	✓	✓	✓	✓
Wireless or ADSL Modem (Optional Expansion Cards)	✓	✓	–	–	–	✓	✓	–	–
SMS Support (requires optional EDGE modem)	✓	✓	–	–	–	✓	✓	–	–
FTP	Push, Pull	Push, Pull	Push, Pull	–	–	Push, Pull	Push, Pull	Push, Pull	Push, Pull
SFTP	Push	Push	Push	Push	Push	–	–	–	–
PPP (Dialout and Hosting)	✓	✓	✓	–	–	✓	✓	✓	–
SSH v2	✓	✓	✓	✓	✓	–	–	–	–
IPv6	✓	✓	✓	–	–	–	–	–	–
Telnet	✓	✓	✓	–	–	✓	✓	✓	✓
Web Browser (HTTP and HTTPS)	✓	✓	✓	–	–	✓	✓	✓	✓
Static Routes	✓	✓	✓	✓	✓	✓	✓	✓	–
VPNs	✓	✓	✓	–	–	✓	✓	✓	–
VLANs	✓	✓	✓	✓	✓	–	–	–	–
MODBUS RS485	✓	✓	✓	–	–	–	–	–	–
Call Record (CDR) Collection Options									
Serial Port Record Collection	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP Record Collection Protocols (IPRC)	–	–	–	✓	✓	–	–	–	–
Generic Client	✓	✓	✓	✓	✓	✓	✓	✓	–
Generic Server	✓	✓	✓	✓	✓	✓	✓	✓	–
Avaya Reliable Session Protocol (RSP)	✓	✓	✓	✓	✓	✓	✓	✓	–
Alcatel OmniPCX	✓	✓	✓	✓	✓	✓	✓	✓	–
Cisco CallManager 4.0 and 5.0	✓	✓	✓	4.0 Only	4.0 Only	✓	✓	✓	–
Intecom Telari	✓	✓	✓	✓	✓	✓	✓	✓	–
NEC NEAX2400	✓	✓	✓	✓	✓	✓	✓	✓	–
Mitel 3000 (using Generic Client)	✓	✓	✓	✓	✓	✓	✓	✓	–
Nortel BCM	✓	✓	✓	–	–	✓	✓	✓	–
Siemens HiPath (using Generic Client)	✓	✓	✓	✓	✓	✓	✓	✓	–
Syslog	✓	✓	✓	✓	✓	✓	✓	✓	–
Date/Time Stamp on Call Records	✓	✓	✓	✓	✓	✓	✓	✓	✓
Call Record (CDR) Polling Options									
FTP Push/Pull	✓	✓	✓	–	–	✓	✓	✓	✓
SFTP Push	✓	✓	✓	✓	✓	–	–	–	–
Real-time TCP/IP Socket Polling	✓	✓	✓	✓	✓	✓	✓	✓	✓
Line Mode via Serial, Modem, or Telnet	✓	✓	✓	✓	✓	✓	✓	✓	✓
Xmodem via Serial, Modem, or Telnet	✓	✓	✓	✓	✓	✓	✓	✓	✓
CBB (Compressed Binary Block) Mode	✓	✓	✓	✓	✓	✓	✓	✓	✓
In-Line Mode (in one serial port, out another)	✓	✓	✓	✓	✓	✓	✓	✓	✓

** This feature is an option and has additional costs



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Alarm/Event Features									
Serial and IP Data Alarms	1000	1000	1000	1000	1000	200	200	200	—
EventSensor Alarms	✓	✓	✓	✓	✓	✓	✓	✓	—
No-Data Alarms	✓	✓	✓	✓	✓	✓	✓	✓	—
Percentage Full Alarms	✓	✓	✓	✓	✓	✓	✓	✓	—
SNMP Trap Capture	✓	✓	✓	✓	✓	—	—	—	—
Scheduled Events	✓	✓	✓	✓	✓	✓	✓	✓	—
IPRC Alarms	✓	✓	✓	✓	✓	—	—	—	—
Serial Handshaking Alarms	✓	✓	✓	✓	✓	—	—	—	—
CPE Alarms	✓	✓	✓	✓	✓	✓	✓	✓	—
Multi-Line Alarm Support	✓	✓	✓	✓	✓	—	—	—	—
Octel/Avaya Alarm Support (via Scripting)	✓	✓	✓	—	—	—	—	—	—
Nortel Alarm Support	✓	✓	✓	✓	✓	✓	✓	✓	—
EventSensor Reporting (Contact Mirroring)	✓	✓	✓	✓	✓	✓	✓	✓	—
Virtual Event Sensors	✓	✓	✓	—	—	—	—	—	—
Alarm Notification Features									
SNMP v1 Traps, v2c Informs	✓	✓	✓	✓	✓	✓	✓	✓	—
SNMP Sets & Gets - v1, v3	✓	✓	✓	v3 Only	v3 Only	✓	✓	✓	—
SNMP V3 Traps	✓	✓	✓	✓	✓	—	—	—	—
Modem Callouts - TAP	✓	✓	✓	—	—	✓	✓	✓	—
Paging	✓	✓	✓	—	—	✓	✓	✓	—
Asentria Alarms	✓	✓	✓	—	—	✓	✓	✓	—
TCP Alerts	✓	✓	✓	✓	✓	✓	✓	✓	—
Email Alerts	✓	✓	✓	✓	✓	✓	✓	✓	—
Send Alerts over PPP Dialout	✓	✓	✓	—	—	✓	✓	✓	—
Remote Device Access Features									
Pass-through Serial Port Access	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connect Using Dialup PPP	✓	✓	✓	—	—	✓	✓	✓	—
Dialup Access to other Devices on the Remote LAN (IP Routing)	✓	✓	✓	—	—	—	—	—	—
Security Features									
Configurable Security Profiles	✓	✓	✓	✓	✓	✓	✓	✓	✓
RADIUS Server Support	✓	✓	✓	✓	✓	—	—	—	—
PAP and CHAP Authentication (via RADIUS)	✓	✓	✓	✓	✓	—	—	—	—
Button Unlock	✓	✓	✓	—	—	✓	✓	✓	✓
Shared Secret Challenge Response	✓	✓	✓	✓	✓	—	—	—	—
Restrict Dial-In Access using Caller ID	✓	✓	✓	—	—	—	—	—	—
Restrict Network Access by IP Address	✓	✓	✓	✓	✓	—	—	—	—
Expansion Cards (Optional)									
Expansion Card Bays	6	2	—	6	2	6	2	—	—
Serial Ports (4 per Card)	4, 8, 12	Up to 8*	—	4, 8, 12	Up to 8*	4, 8, 12	Up to 8*	—	—
Maximum Serial Ports (Including On-board)	14	10	—	14	10	14	10	—	—
Low Current Relays (4 or 8 per Card)	Up to 48*	Up to 16*	—	Up to 48*	Up to 16*	Up to 48*	Up to 16*	—	—
Analog Voltage Inputs (4 or 8 per Card)	Up to 48*	Up to 16*	—	Up to 48*	Up to 16*	Up to 48*	Up to 16*	—	—
Isolated Analog Voltage Inputs (4 per Card)	4,8,12,16,20,24	4,8	—	4,8,12,16,20,24	4,8	4,8,12,16,20,24	4,8	—	—
Contact Closure Inputs (4 or 8 per Card)	Up to 48*	Up to 16*	—	Up to 48*	Up to 16*	Up to 48*	Up to 16*	—	—
4-20mA Sensor Inputs (4 or 8 per Card)	Up to 48*	Up to 16*	—	Up to 48*	Up to 16*	Up to 48*	Up to 16*	—	—
Isolated 4-20mA Sensor Inputs (4 per Card)	4,8,12,16,20,24	4,8	—	4,8,12,16,20,24	4,8	4,8,12,16,20,24	4,8	—	—
Wireless Modem Expansion Card	1	1	—	—	—	1	1	—	—
ADSL Modem Expansion Card	1	1	—	—	—	1	1	—	—

* Numbers based on using all expansion card slots



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Other Notable Features									
Audit Log (32K to 1MB Storage)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Event Log (32K to 1MB Storage)	✓	✓	✓	✓	✓	✓	✓	✓	—
Record Logging Storage	32MB or 64MB	32MB or 64MB	32MB or 64MB	32MB or 64MB	32MB or 64MB	32MB or 64MB	32MB or 64MB	32MB or 64MB	4MB
Remote Firmware Upgrades via FTP	✓	✓	✓	—	—	✓	✓	✓	✓
Scripting	✓	✓	✓	—	—	—	—	—	—
PING of Remote CPE	✓	✓	✓	✓	✓	✓	✓	✓	—
Technical Specifications									
Dimensions - Width	17.5in / 44.45cm	11in / 27.94cm	7.5in / 19.05cm	17.5in / 44.45cm	11in / 27.94cm	17.5in / 44.45cm	11in / 27.94cm	7.5in / 19.05cm	7.5in / 19.05cm
Dimensions - Height	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm	1.75in / 4.445cm
Dimensions - Depth	7.8in / 19.812cm	7.8in / 19.812cm	7.25in / 18.415cm	7.8in / 19.812cm	7.8in / 19.812cm	7.8in / 19.812cm	7.8in / 19.812cm	7.25in / 18.415cm	7.25in / 18.415cm
Weight - Dependent on Configuration	3-5lbs / 1.36-2.27kg	3-5lbs / 1.36-2.27kg	2lbs / 0.907kg	3-5lbs / 1.36-2.27kg	3-5lbs / 1.36-2.27kg	3-5lbs / 1.36-2.27kg	3-5lbs / 1.36-2.27kg	2lbs / 0.907kg	2lbs / 0.907kg
Mounting Options	Shelf or 19in rack	Shelf or 19in rack	Shelf or tabletop	Shelf or 19in rack	Shelf or 19in rack	Shelf or 19in rack	Shelf or 19in rack	Shelf or tabletop	Shelf or tabletop
Power: 120/240VAC 50/60Hz	✓	✓	✓	✓	✓	✓	✓	✓	✓
Power: -48VDC (range 36-60V)	Optional	Optional	—	Optional	Optional	Optional	Optional	—	—
Power Consumption									
Typical	5.25 Watts	5.25 Watts	5.25 Watts	5.25 Watts	—	5.25 Watts	5.25 Watts	5.25 Watts	5.25 Watts
Maximum	24 Watts	24 Watts	24 Watts	24 Watts	—	24 Watts	24 Watts	24 Watts	24 Watts
Heat Dissipation (BTUs/Hour)Typical/Maximum	18/82	18/82	18/82	18/82	—	18/82	18/82	18/82	18/82
BTU's - Maximum	82 BTU/hour	82 BTU/hour	82 BTU/hour	82 BTU/hour	—	82 BTU/hour	82 BTU/hour	82 BTU/hour	82 BTU/hour
Certifications									
RoHS (lead free)	✓	✓	✓	—	—	✓	✓	✓	✓
CE	✓	✓	✓	—	—	✓	✓	✓	✓
FCC/UL/CSA	✓	✓	✓	—	—	✓	✓	✓	✓
A-tick	✓	✓	✓	—	—	✓	✓	✓	✓
Operating Temperature (Extended Range)	-40° to 60° C	-40° to 60° C	-40° to 60° C	-40° to 60° C	-40° to 60° C	-40° to 60° C	-40° to 60° C	-40° to 60° C	—
Operating Temperature (Standard Range)	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C	0° to 40° C
Non-operating (storage) Temperature	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C	-40° to 85° C
Operating Humidity (Non-condensing)	10 to 80%	10 to 80%	10 to 80%	10 to 80%	10 to 80%	10 to 80%	10 to 80%	10 to 80%	10 to 80%
Non-operating (storage) Humidity	0 to 95%	0 to 95%	0 to 95%	0 to 95%	0 to 95%	0 to 95%	0 to 95%	0 to 95%	0 to 95%
Mean Time Between Failure (MTBF)	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs	70,000 hrs



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Software Applications Available by Product									
Firmware Version	2.10.540	2.10.540	2.10.540	2.06.560.003	2.06.560.003	2.10.540	2.10.540	2.10.540	2.10.520
Web UI v2	✓	✓	✓	—	—	✓	✓	✓	—
Web UI v1	—	—	—	—	—	—	—	—	—
AC Power Monitor Integrated App Yada & Watts On	—	—	—	—	—	—	—	—	—
Fuel Sensor App 2.0	—	—	—	—	—	—	—	—	—
ES-Battery Monitor	—	—	—	—	—	—	—	—	—
PBT Battery Monitor Support	—	—	—	—	—	—	—	—	—
AISG Support	—	—	—	—	—	—	—	—	—
Load Shedding	—	—	—	—	—	—	—	—	—
Port forwarding	✓	✓	✓	✓	✓	—	—	—	—
IP Routing from Ethernet to Wireless Modem	✓	✓	✓	✓	✓	—	—	—	—
IP Routing from PPP to Ethernet	✓	✓	✓	✓	✓	—	—	—	—
Job Scheduling (need below to be useful)	—	—	—	—	—	—	—	—	—
Generator Exercising (need above to be useful)	—	—	—	—	—	—	—	—	—
CPE Status Information via User Interface (aka "CPE alarms", "CPE Ping Status")	✓	✓	✓	✓	✓	✓	✓	✓	—
Settings Management via the Web	✓	✓	✓	✓	✓	✓	✓	✓	—
ETH2 to WAN routing feature	—	—	—	—	—	—	—	—	—
DHCP Duplicate Address Detection	✓	✓	✓	✓	✓	✓	✓	✓	—
IP Camera Support Version 1	—	—	—	—	—	—	—	—	—
Intermapper Probe Generation	—	—	—	—	—	—	—	—	—
32C8V8R	✓	✓	✓	✓	✓	✓	✓	✓	—
USB	—	—	—	—	—	—	—	—	—
SNMP Polling	—	—	—	—	—	—	—	—	—
DSCP	✓	✓	✓	✓	✓	—	—	—	—
FTP Server	✓	✓	✓	—	—	✓	✓	✓	—
Telnet Server	✓	✓	✓	—	—	✓	✓	✓	—
OmniDiscover	✓	✓	✓	—	—	✓	✓	✓	—
RFL Door Monitor (RFID)	—	—	—	—	—	—	—	—	—
GPS	—	—	—	—	—	—	—	—	—
Network Performance Metrics	—	—	—	—	—	—	—	—	—
Serial Break Condition via Pass-Through	✓	✓	✓	✓	✓	—	—	—	—
Power Distribution	—	—	—	—	—	—	—	—	—
Syslog Event Action	—	—	—	✓	✓	—	—	—	—
Audit Event	—	—	—	✓	✓	—	—	—	—
Ok-Stop / Ok-Continue Actions	✓	✓	✓	✓	✓	—	—	—	—
Serial PPP	✓	✓	✓	✓	✓	—	—	—	—
Multiline Records	✓	✓	✓	✓	✓	—	—	—	—
Caller ID	✓	✓	✓	✓	✓	—	—	—	—
IP Restrictions	✓	✓	✓	✓	✓	—	—	—	—



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Software Applications Available by Product CONTINUED									
Additional Authentication Options	✓	✓	✓	✓	✓	—	—	—	—
ESBus on IO1	✓	✓	✓	✓	✓	—	—	—	—
Scripting	✓	✓	✓	—	—	—	—	—	—
FTP Push	✓	✓	✓	—	—	✓	✓	✓	—
IPRC	✓	✓	✓	✓	✓	✓	✓	✓	—
TRU Polling	✓	✓	✓	✓	✓	✓	✓	✓	—
RADIUS	✓	✓	✓	✓	✓	—	—	—	—
VLAN	✓	✓	✓	✓	✓	—	—	—	—
Data Alarms	✓	✓	✓	✓	✓	✓	✓	✓	—
Real Time Sockets	✓	✓	✓	✓	✓	✓	✓	✓	—
SNMP Notification Capture	✓	✓	✓	✓	✓	—	—	—	—
Serial Handshaking Event	✓	✓	✓	✓	✓	—	—	—	—
TCP Keep-Alive	—	—	—	✓	✓	✓	✓	✓	—
SSH Telnet Bridging	✓	✓	✓	✓	✓	—	—	—	—
SNMPv3 Gets / Sets	✓	✓	✓	✓	✓	—	—	—	—
SNMPv3 Traps	✓	✓	✓	✓	✓	—	—	—	—
SSH	✓	✓	✓	✓	✓	—	—	—	—
SFTP Push	✓	✓	✓	✓	✓	—	—	—	—
SSH Lockout	—	—	—	✓	✓	—	—	—	—
Global Login Banner	—	—	—	✓	✓	—	—	—	—
Authentication Blackout	—	—	—	✓	✓	—	—	—	—
Audit Event	—	—	—	✓	✓	—	—	—	—
Strong Password Enforcement	—	—	—	✓	✓	—	—	—	—
Historical Password Change Enforcement	—	—	—	✓	✓	—	—	—	—
User Login Schedules	—	—	—	✓	✓	—	—	—	—
Failed Login Delay	—	—	—	✓	✓	—	—	—	—
Baseline Verification	—	—	—	✓	✓	—	—	—	—
Syslog Event Action	—	—	—	✓	✓	—	—	—	—
Secure Configuration Logging	—	—	—	✓	✓	—	—	—	—
Suspicious Activity Event	—	—	—	✓	✓	—	—	—	—
Packet Storm Attack Detection and Logging	—	—	—	✓	✓	—	—	—	—
Multiport Inline Mode Operation	—	—	—	✓	✓	—	—	—	—



Asentria® | Expansion Cards

CONNECTIVITY CARDS

DESCRIPTION	CODE	PRICE
Wireless EDGE (GSM) Modem	ME	\$500
Wireless EVDO (CDMA) Modem - SPRINT	MCS	\$800
Wireless EVDO (CDMA) Modem - VERIZON	MCV	\$800
ADSL Modem	MA*	\$200
Dial-Up Modem	MD	\$250
4X RS232 Serial Port	4S	\$200
2X RS485 2X RS232 Serial Port	2DS2S	\$230
4X 10/100 Ethernet Port	4E*	\$400
GPS Receiver	GPS	\$250

* 4E and MA cards cannot be used at the same time in the same unit.
4E and MA cards are not yet supported in the S571 or S572.

8 POINT I/O CARDS

DESCRIPTION	CODE	PRICE
(8) Contact Closure Inputs	8C	\$100
(8) Isolated Contact Closure Inputs	8CI	\$225
(4) Voltage Inputs plus (4) +/-15 VDC Pwr Outputs	4VP	\$200
(4) Voltage Inputs plus (4) + 5 VDC Pwr Outputs	4VP5	\$200
(8) Voltage Inputs	8V	\$275
(8) Low-Current Relays	8R	\$200
(8) 4-20mA Current Inputs	8M	\$290
(8) Solid State Relays	8SR	\$250
(4) Contact Inputs and (4) Solid State Relays	4C4SR	\$215
(4) Contact and (4) Voltage Inputs	4C4V	\$190
(4) Contact and (4) Isolated Voltage Inputs	4VI4C	\$325
(4) Contact and (4) Low-Current Relay	4C4R	\$175
(2) Contact and (4) Low-Current Form C Relays (NO, NC)	2C4RC	\$250
(4) Contact, (1) Wiegand intfc with power, (1) Low-Current Relay	4C1W1R	\$175
(2) Wiegand intfc with power, (2) Low-Current Relay	coming soon	
(4) Voltage and (4) 4-20mA Sensor	4V4M	\$290
(4) Contact and (4) 4-20mA Sensor	4C4M	\$200
(4) Contact and (4) Isolated 4-20mA Sensor	4MI4C	\$375
(4) Contact, (1) 5 VDC Power Output, (1) Voltage Input, (1) Resistive Sensor, and (1) 4-20mA	4C5P1V1F1M	\$310
(2) Channel HVAC Voltage Control Card (1 low voltage in and 7 switched outputs per ch)	coming soon	

HIGH-DENSITY I/O CARDS

DESCRIPTION	CODE	PRICE
(64) Contact Inputs on SCSI Connector, cable not included	64C**	\$550
(32) Contacts (8) Relay (8) Voltage, cable not included	32C8V8R**	\$700
Cable, SCSI to Dual Amphenol (for 64C, 32C8V8R) 10 ft	2060-440	\$150
Cable, SCSI to Dual Amphenol (for 64C, 32C8V8R) 25 ft	2060-405	\$225
66 Block, Dual Male Amphenol, wiring and silk screen for 64C	0661-200	\$330
66 Block, Dual Male Amphenol, wiring and silk screen for 32C8V8R	0661-201	\$330
512 Block, Dual Male Amphenol, wiring and silk screen for 64C	0661-202	\$330
512 Block, Dual Male Amphenol, wiring and silk screen for 32C8V8R	0661-203	\$330

** Requires one of the cables 2060-440 or 2060-405.



IDEAL USE

Expansion cards add abilities to an Asentria base unit such as additional in-band or out-of-band connectivity methods, additional connectivity methods to local equipment, various I/O points, and other specialized abilities. Asentria designed its product line with a scalable, flexible, modular approach that allows you to mix and match almost any combination of Expansion Cards. For ordering, Expansion card options are appended to the end of the base catalog number, with the first expansion option being slot 1, the next being slot 2 and so on. While most configurations and combinations of Expansion cards in a given unit are allowed, there are some limitations. Please consult with Asentria Sales to answer any questions.

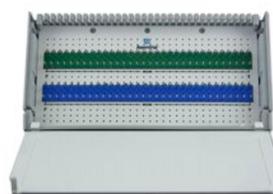
HIGH-DENSITY EXPANSION CARD

This ultra-compact expansion card manages up to 64 inputs/outputs in a single card slot. Ideal for use in locations with large numbers of contact sensors: IT centers, server rooms, equipment racks. A six-slot base unit can host up to 6 of these cards for extremely dense monitoring needs.

Two high-density expansion cards are available: 64C with 64 dry contact-closure inputs; 32C8V8R with 32 contact-closure, 8 voltage inputs, and 8 relay outputs.

Each card is to be used with a mating Y-interconnect cable terminated with two standard 50-pin Amphenol connectors, for easy drop-in replacement of legacy equipment in a prewired system. These connectors mate directly with many punchdown and wire-wrap blocks commonly found in telecom and building-management systems.

Asentria offers optional connectorized wiring blocks that make it easy to wire complex sensor layouts in new systems, too. The high density IO cards use a 68 Pin SCSI-type connector on the card. The listed cable connects that connector to a pair of female 50 pin Amphenol connectors. When connected to a generic 66 block these cables provide a somewhat disorganized arrangement of the input IO with only a few ground pins. Asentria offers Custom 66 Blocks which are wire wrapped on their backside so that all 200 terminal posts can be used for alarm input wiring. Columns A and D providing input connections and columns B and C provide ground terminals. Fan pads are silk screened with all IO labels for easy identification. Asentria custom 512 Blocks provide two rows of 32 wire wrap pairs for inputs and grounds, with individual labeling identifying each input post.



Wire Wrap Block



10' Y-Interconnect Cable



Punchdown Block



Asentria® | Expansion Cards

SPECIALTY

Asentria offers a variety of specialized Expansion cards for your application. From communication to remote accessory connection, the growing list of Specialty Expansion cards are designed to suit your particular need. Asentria base units must have an Expansion slot to accept Asentria Expansion Cards. Refer to the Product Matrix for more information on applicable units.

ADSL MODEM CARD - MA

Allows the Asentria unit to interface directly with an ADSL modem line. Card has (1) RJ-11 connector.

- Includes (1) 7 ft. RJ11 Telephone Cable

4X RS232 SERIAL PORT CARD - 4S

Add 4 RS232 serial ports to a compatible Asentria base unit. Card has (4) RJ-45 type connectors.

- Baud rate: 300(Min) / 115200(Max)
- Includes (4) 6ft RJ-45 serial cables and (4) RJ45/DB9M DTE Adapters

2X RS485 2X RS232 SERIAL PORT CARD - 2DS2S

Add 2 RS485 and 2 RS232 serial ports to a compatible Asentria base unit. Card has (2) RJ-45 type connectors and (2) Phoenix type connectors. Supports connections to MODBUS devices.

- Baud rate: 300(Min) / 115200(Max)
- Includes (2) 6ft RJ-45 serial cables, (2) RJ45/DB9M DTE Adapters and 2 Screw terminal block plugs

4X 10/100 ETHERNET PORT CARD - 4E

Add (4) 10/100 Ethernet ports to a compatible Asentria base unit. Card has (4) RJ-45 type connectors. Up to (2) 4E cards can be installed per unit.

- Allows independent IP address from unit's other network interfaces
- Serves IP addresses via DHCP
- Simplifies site administration
- Integrates remote access
- Provides static routing and port forwarding
- Layer 2 switch

GPS RECEIVER CARD - GPS

Allows the user to pinpoint the exact location of any unit that supports it. This is useful in applications where you wish to map the locations of many units.

4 CONTACT, (1) 5 VDC POWER OUTPUT, 1 VOLTAGE INPUT, 1 RESISTIVE SENSOR, & (1) 4-20MA - 4C5P1V1F1M

Add 4 non-isolated dry contact closure inputs, (1) 5VDC power output (for use in powering sensors which require a 5V power source and which output a variable voltage in return), 1 non-isolated voltage input, 1 Resistive Sensor, and 1 non-isolated 4-20mA current input to any Asentria base unit with an expansion slot.

2 CHANNEL HVAC VOLTAGE CONTROL CARD - VC1

Add (2) HVAC voltage control channels to a compatible Asentria base unit.

- 1A per channel

INPUT/OUTPUT

Asentria's Input/Output Sensor cards are the most common type of cards offered and provide the greatest amount of flexibility for your application. Featuring the ability to operate in a passive or active environment depending on the card, the I/O cards are the most popular. Asentria base units must have an Expansion slot to accept Expansion cards. Refer to the Product Matrix for more information on applicable units.

8 CONTACT CLOSURE SENSOR - 8C

Add 8 non-isolated contact closure inputs to any Asentria base unit.

- Works with relay-based units and TTL-based outputs
- Common ground across all contacts

8 CONTACT CLOSURE (ISOLATED) SENSOR - 8CI

Add 8 Isolated contact closure inputs to any Asentria base unit.

- Works with relay-based units and TTL-based outputs
- Each ground is electrically isolated for maximum electrical protection

4 VOLTAGE INPUTS & (4) ±15 VDC POWER OUTPUTS - 4VP*

Used in conjunction with up to four DC current transducers, this Expansion Card can be used to measure DC current levels flowing from battery banks or power rectifiers. Asentria can also provide the solid core or split core DC current transducers from 50A to 500A configurations. Power Monitoring EventSensors" section for available ESV-TCDC current monitors.

- Voltage Range: -60/+60V
- Resolution: 0.1 VDC

**The 4VP expansion card cannot be used in conjunction with the internal "battery backup" option (/BB) on any SiteBoss unit that support the "BB" Internal Runtime Battery*

4 VOLTAGE INPUTS & (4) 5 VDC POWER OUTPUTS - 4VP5

Add 4 Voltage Inputs and 4 5VDC power outputs, for use in powering sensors which require a 5V power source and which output a variable voltage in return.

8 ANALOG VOLTAGE - 8V

Add 8 non-isolated analog voltage inputs to any Asentria base unit.

- Voltage Range: -60/+60V
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC
- Common ground for all sensors

8 LOW-CURRENT RELAY - 8R

Add 8 relay outputs to any Asentria base unit

- Max switched voltage: 60V Peak (AC or DC)
- Max switched power: 30W (DC)
- Max switched current: 0.6A

8 4-20MA SENSOR - 8M

Add 8 non-isolated 4-20mA current inputs to any Asentria base unit.

- Resolution: 0.1mA
- Accuracy: 0.1mA

8 SOLID STATE RELAY SENSOR - 8SR

Add 8 solid state relay outputs to any Asentria base unit with an expansion slot or as a variant to any ES-I/O product. Solid state relays provide a higher current option than those on the 8R or ES-8R cards.

- Max switched voltage: 60V peak (AC or DC)
- Max switched power: 90W
- Max switched current: 1.5A

4 CONTACT & 4 SOLID STATE RELAY SENSOR - 4C4SR

Add 4 non-isolated dry contact closure inputs and 4 solid state relay outputs to any Asentria base unit with an expansion slot or as a variant to any ES-I/O product. Solid state relays provide a higher current option than those on the 4C4R card.

- Max switched VDC: 60 peak (AC or DC)
- Max switched power: 90W
- Max switched current: 1.5A

COMING SOON



Asentria® | Expansion Cards

4 CONTACT & 4 VOLTAGE SENSOR - 4C4V

Add 4 non-isolated dry contact closure inputs and 4 non-isolated voltage inputs to any Asentria base unit with an expansion slot.

- Voltage points: -60/+60 VDC
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC

4 CONTACT & 4 ISOLATED VOLTAGE SENSOR - 4VI4C

Add 4 non-isolated dry contact closure inputs and 4 individually isolated voltage inputs to any Asentria base unit with an expansion slot.

- Isolated voltage points: -60/+60 VDC
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC

4 CONTACT & 4 LOW-CURRENT RELAY - 4C4R

Add 4 non-isolated dry contact inputs and 4 relay outputs to any Asentria base unit with an expansion slot.

- Max switched VDC: 60
- Max switched power: 30W
- Max switched current: 0.6A

2 CONTACT & 4 LOW-CURRENT FORM C RELAYS (NO, NC) - 2C4RC

Add 2 non-isolated dry contact closure inputs and 4 Form C Relays to any Asentria base unit.

- Mechanical relays retain state upon power cycle
- Mechanical relay current capacity: 0.6A

4 CONTACT, 1 WIEGAND INTERFACE W/POWER & 1 LOW-CURRENT RELAY - 4C1W1R

Add 4 non-isolated dry contact inputs, 1 Wiegand interface with power and 1 relay output to any Asentria base unit with an expansion slot.

- Max switched VDC: 60
- Max switched power: 30W
- Max switched current: 0.6A
- For use with RFID Reader ESW-RFID1 and ESW-RFID2



2 WIEGAND INTERFACE W/POWER & 2 LOW-CURRENT RELAY - 2W2R

Add 2 Wiegand interface with power and 2 relay outputs to any Asentria base unit with an expansion slot.

- Max switched VDC: 60
- Max switched power: 30W
- Max switched current: 0.6A
- For use with RFID Reader ESW-RFID1 and ESW-RFID2

4 VOLTAGE & (4) 4-20MA SENSOR - 4V4M

Add 4 non-isolated voltage inputs and 4 non-isolated 4-20mA current inputs to any Asentria base unit with an expansion slot.

- Resolution: 0.1mA
- Accuracy: 0.1mA

4 CONTACT & (4) 4-20MA SENSOR - 4C4M

Add 4 non-isolated dry contact closure inputs and 4 non-isolated 4-20mA current inputs to any Asentria base unit with an expansion slot.

- Resolution: 0.1mA
- Accuracy: 0.1mA

4 CONTACT & 4 ISOLATED 4-20MA SENSOR - 4MI4C

Add 4 non-isolated dry contact closure inputs and 4 individually isolated 4-20mA current inputs to any Asentria base unit with an expansion slot.

- Resolution: 0.1mA
- Accuracy: 0.1mA

PART NUMBERS

Using the S550 catalog number as an example, the configuration order is listed below. Note that the order in which Expansion cards are listed reflects the Expansion Slot in which the card will be installed. Items with a * are truly optional and are omitted if not desired.

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

Thus, the following are all valid part numbers:

- S550-6/32M/MD/T/ACUS-8V-8R-8C
- S550-6/32M/ACEU-8C-4C4V
- S550-6/32M/ACUS-8V-8R-4S



Slot number arrangement (using the SiteBoss 550-6 as an example)



Asentria® | Wireless Plans



IN/OUT-OF-BAND

Asentria's Wireless modem Expansion cards allow the Asentria unit to interface directly with a cellular network system (such as AT&T Wireless). All Asentria wireless Expansion cards come with a detachable antenna. Depending on your application, an additional external antenna may be necessary to improve signal strength. Wireless modems do not include service plans. Asentria base units must have an Expansion slot to accept Expansion cards. Refer to the Product Matrix for more information on applicable units.

WIRELESS EDGE (GSM) MODEM CARD - ME

- Frequencies: 850/900/1800/1900MHZ

WIRELESS EVDO (CDMA) MODEM CARD - SPRINT - MCS

- Frequencies: 850/900/1800/1900MHZ

WIRELESS EVDO (CDMA) MODEM CARD - VERIZON - MCV

- Frequencies: 850/900/1800/1900MHZ

* Data rates are contingent upon quality of service

WIRELESS DATA PLANS

Asentria is proud to offer wireless data plans for use with Asentria devices that have an internal wireless modem expansion card. Asentria can offer plans from both AT&T and Verizon.

AT&T WIRELESS PLANS

Please contact Sales for more information about AT&T plans.

DESCRIPTION	CODE	PRICE
Wireless EDGE (GSM) Modem	ME	\$500

SPRINT WIRELESS PLANS

Please contact Sales for more information about Sprint plans.

DESCRIPTION	CODE	PRICE
Wireless EVDO (CDMA) Modem - SPRINT	MCS	\$800

VERIZON WIRELESS PLANS

Asentria offers wireless plans through Verizon Wireless on any Asentria device that has a functioning Verizon-compatible wireless modem installed. These devices include SiteBoss 350 base units with an installed EVDO or LTE modem, or any Asentria base unit that supports the wireless EVDO modem (-MCV).

DESCRIPTION	CODE	PRICE
Wireless EVDO (CDMA) Modem - VERIZON	MCV	\$800

ACTIVATION

For an Asentria device with a supported wireless modem the customer will have a choice of either activating service on their own account, or activating and purchasing service from Asentria. The plans below pertain only in the case of purchasing and activating plans through Asentria.

Any of the following three types of service can be set-up as part of the activation.

TYPE OF SERVICE	ACTIVATION FEE	SETUP FEE
Public static IP address, no VPN	\$35 per line	None
Private static IP address, private VPN via Asentria gateway router	\$35 per line	\$300
Private static IP address, private VPN via dedicated on-site router	\$35 per line	\$3000

A very basic description of the three types and when they are used:

- **Public static IP address, no VPN** – The Asentria devices will be visible on the public network (Internet). This option would most often be chosen if just basic telemetry was being sent by the unit, and the Asentria unit was not being used as an access point onto some network.
- **Private static IP address, private VPN via dedicated on-site router to the Asentria Device Gateway** – The Asentria devices are not visible on the public network (Internet). Device connectivity is provided through the Asentria Device Gateway allowing encrypted access to a customer specific private device subnet
- **Private static IP address, private VPN via dedicated on-site router direct to Verizon device networks** – The Asentria devices are not visible on the public network (Internet). Device connectivity is provided through an onsite Device Gateway as a service, device traffic is routed directly to the on premises router for access by customer networks.

DATA PLANS

Asentria offers "pooled" data plans, meaning the total cumulative MB's of all plan M2M lines activated in a given tier by the customer establish the monthly cumulative limit for usage across all M2M lines in that tier for a given billing period. If usage exceeds this pooled amount then overage charges will occur.

PLAN*	ACTIVATIONS			POOLING ALLOWED	OVERAGE RATE/MB
	1-49	50-249	250+		
50MB	\$38	\$36	\$32	Tier 1	\$0.015
250MB	\$47	\$46	\$45		
1GB	\$57	\$55	\$54		
5GB	\$95	\$92	\$90		

*Requires a signed Asentria Wireless Service Agreement

Asentria EventSensors™ Expand the Power & Reach of Your SiteBoss Unit



OVERVIEW

Asentria offers a full line of EventSensors to help you monitor the passive and active equipment at your remote site. EventSensors provide users with additional I/O to Asentria base units, as well as power, operating environment, and security accessory devices ranging from basic environmental sensors all the way to complex products for complete management of critical equipment components. These accessories are compatible with the inputs and outputs found on Asentria's base units.

EventSensors interface to Asentria base units in several ways. You can tell which method is required for any given sensor by looking at its catalog number. The catalog number prefix indicates whether the sensor requires an EventSensor port, a contact closure input, a serial port, etc.

INTERFACE METHOD* CATALOG PREFIX

- Asentria EventSensor port - ES
- Asentria SensorJack port - ESJ
- Contact closure input - ESC
- Analog voltage input - ESV
- 4-20mA current input - ESM
- Serial port - ESS
- Ethernet port - ESE

*References the type of connection point, i.e. port, etc. on the Asentria Base Unit

EVENTSENSOR OPTION KITS

- /K5 = sensor wiring kit, 5 feet
- /K25 = sensor wiring kit, 25 feet
- /K50 = sensor wiring kit, 50 feet
- /485 = RS485 serial adapter kit
- /P12 = power supply, AC to 12VDC
- /P24 = power supply, AC to 24VDC
- /P48 = power supply, AC to 48VDC
- /P15 = power supply, AC to 15VDC

I/O EXPANSION

I/O expansion devices enable an Asentria base unit to have an expanded number of I/O points to be added outside of the base unit chassis. This can be useful when a project calls for just slightly more I/O than a base unit can support on-board, or as a means of engineering an Asentria solution to compensate for some unforeseen future requirement.

ENVIRONMENT

When combined with their respective external accessories, Asentria base units have the capabilities to monitor many different environmental factors within a cabinet or equipment room. Commonly monitored environmental factors include temperature, fire, air-flow, and presence of water. Left unattended, any of these conditions can potentially cause catastrophic failure of equipment at a remote site.

AC & DC POWER

When combined with the right set of external power accessories, Asentria base units have the capability to monitor the full range of power functions within a cabinet or equipment room. Monitor and control functions include power availability, power quality, power switching, and power usage. Variables might either need to be monitored to indicate a problem, or more and more frequently with the rising cost of energy, may just need to be monitored to determine usage.

SECURITY

When combined with their respective external accessories, Asentria base units have the capabilities to monitor many different security issues within a cabinet or equipment room. Commonly handled security issues include door and motion sensors for detecting unauthorized entry, sirens/strobes to discourage unauthorized entry, RFID readers for allowing entry of authorized personnel, and even video surveillance. Unauthorized access can be prevented by use of door locks and card readers. Finally, fuel tanks can be monitored for fuel level, usage, and tank lid access.



Asentria® | EventSensor I/O Expansion

ES-I/O - Variable Monitoring & I/O Expansion



ES-CCU - Environmental Monitoring



DESCRIPTION	CODE	PRICE
8 Dry Contact Closure Sensor	ES-8C	\$145
8 Contact Closure Sensor - Isolated	ES-8CI	\$270
8 Analog Voltage Sensor	ES-8V	\$305
8 Low-Current Relay	ES-8R	\$270
8 4-20mA Sensor	ES-8M	\$335
8 Solid State Relay	ES-8SR	\$310
4 Contact & 4 Solid State Relay	ES-4C4SR	\$240
4 Contacts & 4 Voltage Sensor - Non-Isolated	ES-4C4V	\$245
4 Contact & 4 Isolated Voltage Sensor	ES-4VI4C	\$370
4 Contacts & 4 Low-Current Relay	ES-4C4R	\$220
4 Contacts & (4) 4-20mA Sensor - Non-Isolated	ES-4C4M	\$245
4 Contact & 4 Isolated 4-20mA Sensor	ES-4MI4C	\$420
4 Voltage Inputs & (4) +/-15 VDC Pwr Outputs	ES-4VP	\$265
Add a temperature sensor to any I/O Sensors	Add -T	\$75

DESCRIPTION	CODE	PRICE
32 C.C. inputs with 6 foot cable, AC power	ES-CCU32/ACUS*	\$1025
64 C.C. inputs with 6 foot cable, AC power	ES-CCU64/ACUS*	\$1395
32 C.C. inputs with 6 foot cable, DC power	ES-CCU32/DC	\$1025
64 C.C. inputs with 6 foot cable, DC power	ES-CCU64/DC	\$1395

* For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.

IDEAL USE

EventSensor ES-CCU32 and ES-CCU64 are modular, add-on environmental monitoring equipment that employ 32/64 discrete contact closure inputs to monitor a variety of sensors and legacy devices. The CCU reaches deep into your remote or unmanned equipment rooms to monitor devices such as UPS units, air conditioning units, MUXs and PBXs, and other equipment considered critical to your business. When combined with the communications capabilities of a Remote Site Manager, the CCU incorporates non-networked devices into your network management system.

- Dimensions: 17.5 x 7.8 x 1.75 Inches / 44.45 x 19.812 x 4.445 Centimeters
- Monitor up to 32 or 64 on-board dry contact closure inputs
- Detect doors and windows opening at remote sites
- Monitor legacy equipment and non-networked devices via your network management system
- Utilize optional -48 VDC power supply to maintain operation in a power outage

ADDITIONAL PRODUCT DETAILS

For five or more linear EventSensor connections, be sure to check power usage requirements. Contact Sales for more details. ES-CCU contact closures are non-isolated and dry. These EventSensor items are catalog line items separate from the base units they will be connected to. Thus they should be listed on a separate line in your specification or purchase order.

IDEAL USE

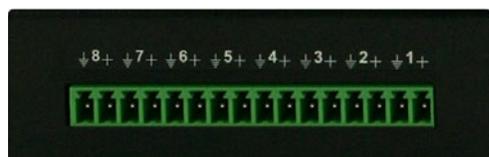
In remote equipment cabinets for adding additional I/O points to a base SiteBoss unit either to more perfectly match the number of I/O points needed, or to give future scalability to add more I/O points should they become needed. EventSensors can also be used to monitor environmental variables at some distance from an Asentria base unit in a remote equipment enclosure.

To connect a second EventSensor to the first EventSensor in a daisy chain fashion, you can use our EventSensor cables (See miscellaneous accessories section), or a standard CAT5E Ethernet cable. For five or more linear EventSensor connections, be sure to check power usage requirements.

- Dimensions: 3.25 x 5.375 x 1.125 Inches / 8.26 x 13.65 x 2.86 Centimeters
- Operating Temperature: -25 to +85° C
- I/O terminal block: 16 pin pluggable type
- Communication port type: RJ45 "SensorJack", proprietary RS485, full duplex
- Power Usage: 30mA at 15 VDC

ADDITIONAL PRODUCT DETAILS

EventSensor items are catalog line items separate from the base units they will be connected to. Thus they should be listed on a separate line in your specification or purchase order.



ES-I/O Contact Panel



ES-I/O Front Panel



ES-CCU back panel close-up



ES-CCU64 Back Panel



ES-CCU32 Back Panel



Aentria® | EventSensor I/O Expansion

ESJ-HUB - SensorJack Expansion Hub

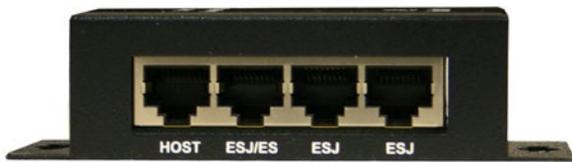


DESCRIPTION	CODE	PRICE
8 Port SensorJack Hub	ESJ-HUB	\$180
Add DIN Rail Mount	/DIN	\$10

IDEAL USE

This wired 8-port hub device has 7 ESJ (SensorJack) output ports, one of which is a combination ES/ESJ Type 2 port. Each port can support a chain of ESJ devices (or a chain of ES Type 2 devices on the ES/ESJ port). You can use this hub to extend the number and reach of ESJ and/or ES Type 2 sensor peripherals connected to a single Aentria base unit port.

Note that each Site Controller unit is limited to a combined total of 16 ESJ and/or ES devices. EventSensor cables sold separately. Device comes with screw mounts.

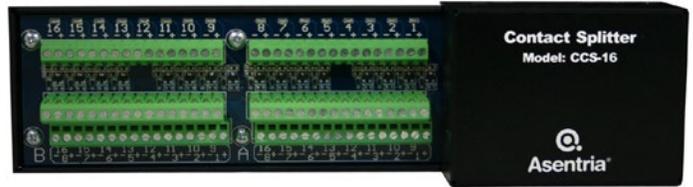


ESJ-HUB Left Side



ESJ-HUB Right Side

CCS-32, CCS-16 - Input Contact Splitters



CCS-16

DESCRIPTION	CODE	PRICE
16 Contact-Closure Splitter	CCS-16	\$280
32 Contact-Closure Splitter with Amphenol	CCS-32	\$560
AC Desktop Power Supply for US	/ACUS**	Included
48VDC Power	/DC	Included
Add DIN rail mount	/DIN	\$10

Example part number: CCS-32/DC, CCS-16/ACUS/DIN

** For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power cords respectively.

IDEAL USE

Input contact splitters allow a second monitoring unit to be incorporated into an existing contact monitoring system without disturbance. Each contact input is split into 2 contact outputs thus retaining the capability and function of the existing legacy system.



CCS-32

The CCS-16 is compatible with standard contact-closure inputs on any Aentria base unit, Expansion card, or EventSensor peripheral. It requires external power; either -48VDC direct, or 15VDC via AC desktop power supply.

The CCS-32 is compatible with Aentria 64C and 32C8V8R high-density I/O expansion cards. It requires external power; either -48VDC direct, or 10-28VDC via AC desktop power supply with Phoenix connector.



CCS-16 Power



CCS-32 Power



Asentria® | Environmental Monitoring EventSensors

OVERVIEW

When combined with their respective external accessories, Asentria base units have the capabilities to monitor many different environmental factors within a cabinet or equipment room. Commonly monitored environmental factors include temperature, fire, air-flow, and presence of water. Left unattended, any of these conditions can potentially cause catastrophic failure of equipment at a remote site.

ASENTRIA SENSORJACK™ SENSORS

The Asentria SensorJack sensors are economical, single-purpose environment sensors that connect to the SensorJack RJ45 ports found on the latest Asentria base unit models. Note that older base units do not have a SensorJack port. Multiple sensors (up to 16) can be daisy-chained to a single SensorJack port. Each SensorJack sensor includes an accessory kit to mount the probe-end of the sensor onto various types of surfaces, via adhesive-backing or screw-mount.

SENSORJACK™ TEMPERATURE/HUMIDITY SENSOR

The temperature sensor measures temperature ranges inside a cabinet or equipment room, or the temperature of a specific component if applied directly to that component.

The temperature/humidity sensor measures both temperature and relative humidity level in one compact device. For indoor use only; outdoor model coming soon.

- Operating temperature: -25 to 85°C (-13 to 185°F)
- Temperature accuracy: ±1°C typical, ±2.5°C maximum
- Response time: 2 minutes
- Humidity range: 0-90%, non-condensing
- Humidity accuracy: ±3% typical, ±8% maximum



DESCRIPTION	CODE	PRICE
Temperature Sensor, 8ft cable	ESJ-TA8	\$40
Temperature Sensor, 50ft cable	ESJ-TA50	\$60
Temperature/Humidity Sensor, 8ft cable	ESJ-TH8	\$115
Temperature/Humidity Sensor, 50ft cable	ESJ-TH50	\$130

Each SensorJack chain (ESJ-T and ESJ-TH) is limited to a maximum cable length of 100ft. Example: 2 ESJ-TA50's are the maximum number of ESJ devices for a given SiteBoss or TeleBoss ESJ port. See EVENTSENSOR COUPLER/ADAPTERS and CABLES section for more data on the accessories needed to extend more than one ESJ-TA8, ESJ-TA50, ESJ-TH8, or ESJ-TH50 from a single ES/ESJ port on an Asentria base unit.

EVENTSENSOR TEMPERATURE/HUMIDITY SENSOR

The Asentria EventSensor environment-sensing modules connect to an EventSensor RJ45 port on the Asentria base unit. Multiple sensors (up to 16) can be daisy-chained to a single EventSensor port. The EventSensor port can provide power for up to (16) EventSensor modules. Depending on distance, additional AC power supplies (see Miscellaneous Accessories) may need to be plugged into Event Sensors along the chain.

The temperature sensor measures temperature ranges inside a cabinet or equipment room. The temperature/humidity sensor measures both temperature and relative humidity level in one compact device. For indoor use only.

- Dimensions: 2.6 x 3.6 x 1.1 inches (6.6 x 9.2 x 2.8 cm)
- Power usage: 30mA at 15 VDC
- Operating temperature: -25 to +85°C
- Temperature accuracy*: ±0.50°C typical, ±1.0°C maximum
- Humidity range: 0-90% non-condensing, 25°C
- Humidity accuracy = ±3% typical, ±6% maximum

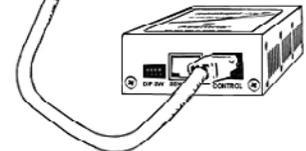
* Compensation is required for temperature rise due to internal unit heating and airflow.



DESCRIPTION	CODE	PRICE
Temperature sensor	ES-T	\$145
Temperature/humidity sensor	ES-TH	\$220



EventSensor Connection Example





Asentria® | Environmental Monitoring EventSensors

EVENTSENSOR™ COUPLER/ADAPTERS AND CABLES

SensorJack and EventSensor sensors can be chained, split, and extended with EventSensor RJ45 connectors and RJ45 cables. Up to 16 sensors can be chained to a single SensorJack or EventSensor port on the Asentria base unit. Use EventSensor RJ45 cables to extend the reach of your SensorJack and EventSensor environment sensors. Maximum total length of each sensor cable chain is 100 feet. If your Asentria base unit has a mini-DIN style EventSensor port, you must use the ES-CAB8 cable to adapt to the RJ45-style EventSensor port. Note: EventSensor cable is standard CAT5e Ethernet cable.

DESCRIPTION	CODE	PRICE
RJ45 Coupler	4162-007	\$3
RJ45 Splitter	4162-011	\$4
Extra SensorJack Probe-End Install Kit	5006-007	\$3
EventSensor RJ45 cable, 1 FT	2065-101	\$3
EventSensor RJ45 cable, 6 FT	2065-020	\$5
EventSensor RJ45 cable, 14 FT	2065-014	\$10
EventSensor RJ45 cable, 25 FT	2065-025	\$15
EventSensor RJ45 cable, 50 FT	2065-050	\$25
EventSensor RJ45 cable, 100 FT	2065-100	\$40
ES Adapter (9-pin Mini-DIN to RJ45)	ES-CAB8	\$25

If your Environmental EventSensor requires external power, see “Miscellaneous Accessories” section for Power Supplies and Cords. Power outputs available in 12, 15, 24, and -48VDC.

SMOKE/FIRE ALARM

This smoke sensor/alarm monitors for the presence of smoke and/or fire. When detected, it sounds an alarm and closes a form C contact for remote sensing by an Asentria base unit. The sensor requires external power, not supplied. Uses 9VDC alkaline battery for backup power. Indoor use only.



- Coverage area: 150m² (1600 sq. ft)
- Operating temperature: 0 to 40°C
- Alarm: 3100Hz, 90dBA at 3m

DESCRIPTION	CODE	PRICE
Smoke Alarm 120VAC	ESC-SM1	\$90
Smoke Alarm 240VAC	ESC-SM2	\$115
Smoke Detector 12-24VDC	ESC-SM3	\$40
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Add 15VDC power supply	/P15	\$80
Example part number: ESC/SM1/K25/P15		

AIR-FLOW SENSOR

The air-flow sensor will indicate via a contact closure if the airflow of a fan goes above or below a rate of 8.2 ft/s. This is useful for determining the loss of AC to server and equipment rooms, potentially triggering an overheating situation.



DESCRIPTION	CODE	PRICE
Air Flow Sensor	ESC-AF1	\$95
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example part number: ESC-AF1/K50		

WATER SENSOR

Use this device to detect water accumulation or leakage. When water or water-based fluids come into contact with this device, it signals by closing its contact outputs. The Water Sensor works with any Asentria contact-closure input.



Water Sensor

Note: Older Asentria base units require the use of a Water Sensor Adaptor to provide power for the water sensors. This adaptor provides power and contact connections for up to 4 water sensors. Water Sensor Adaptors require external 15VDC power; or they can be powered directly from an EventSensor port. You can daisy-chain water sensor adaptors together with EventSensor RJ45 cables to create a comprehensive water monitoring solution.



Sensor Adaptor

Newer base units can power the water sensor directly from the contact-closure inputs, without a water sensor adaptor.

DESCRIPTION	CODE	PRICE
Water Sensor*	ESC-WS1	\$30
Absence of Water Detector	ESC-WS2	\$122
Water Sensor Adaptor Kit - inc. power & cables	4162-008	\$55
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example part number: ESC-WS1/K25		

*The ESC-WS1 Water Sensor does not include the adaptor.



Asentria® | Power Monitoring EventSensors

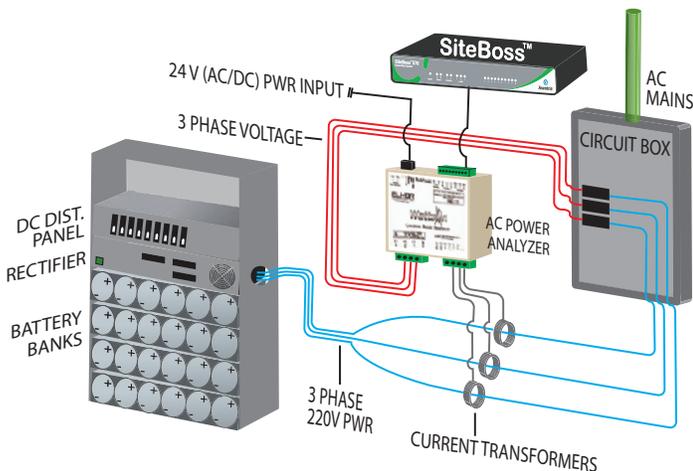
AC/DC POWER MONITORING

Asentria's power monitoring devices put the power in your hands. Measure voltage, current, and total power in DC power systems; and in single-, split-, and three-phase AC power systems. Select from a wide variety of power-measurement sensors to fit your needs. Attach them to your Asentria base unit to detect and correct site power problems early, BEFORE they become major problems.

AC/DC POWER MONITORING APPLICATIONS*

- AC Power Monitor (ESS-APAC) - Monitor up to 3-phases of main power and backup power, measure overall power usage, power quality.
- AC Current Monitor (ESS-TCAC, ESV-TCAC) - Monitor and measure AC current flow on single- or three-phase systems.
- DC Current Monitor (ESV-TCDC) - Monitor and measure DC current flow for entire site or components; calculate power usage
- AC Voltage Monitor (ESM-TVAC) - Monitor and measure AC voltage levels
- AC Voltage Detector (ESV-SVAC) - Check presence of AC power
- AC Current Detector (ESC-SCAC) - Monitor component on/off status via AC current flow

* Some accessory devices output signals are compatible only with certain Asentria base-unit models. Also, some accessory devices require an external power supply. Contact Sales for more details.



AC Monitoring example where the AC power Monitor is connected to the rectifier and the circuit box and is passing data to the SiteBoss unit. This data can take the form of usage, on/off, etc.

AC POWER MONITOR

This AC power monitor provides accurate three-phase AC measurements, as well as comprehensive per phase information, including Volts, Amps, Real Power, Reactive Power, Apparent Power, Watt-hours, VAR-hours, VA-hours, Power Factor, and Frequency. Works with Asentria base units that have scripting capability. Script to read RS485 protocol needed on base unit. UL/CE listed.



- Input: 120-600V, 50/60Hz, single/split/three-phase, up to 3 mA-output transformers
- External power required: 24V AC/DC, 2W
- Output: RS485 Serial (requires adapter and free serial port on a scripting-capable unit)
- Accuracy: 0.2%

DESCRIPTION	CODE	PRICE
AC Power Monitor, EU 50Hz 200A	ESS-APAC1	\$690
AC Power Monitor, US 60Hz 200A	ESS-APAC3	\$690
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Add RS485 serial adapter	/485	\$30
Add 24VDC power supply	/P24	\$80
Example Part Number: ESS-APAC1/K25/485/P24		

3-PHASE AC CURRENT MONITOR

This 3-phase monitor offers inexpensive yet accurate true RMS monitoring of AC current in three independent circuits or one 3 phase circuit. Requires current transformers - sold separately.



- External Power Supply Required: 24V AC/DC, 2W
- Input: up to 3 mA-output transformers
- Output: RS485 serial
- Accuracy: 0.5%
- UL/CE listed

DESCRIPTION	CODE	PRICE
3 Phase AC Current Monitor	ESS-TCAC1	\$325
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Add RS485 serial adapter	/485	\$30
Add 24VDC power supply	/P24	\$80
Example Part Number: ESS-TCAC1/K50/485/P24		

CURRENT TRANSFORMERS

Current transformers scale high input AC currents into a usable output range for AC monitors. Current transformers differ in their output current, and must be matched to the correct transducer. These mA-output current transformers are optimized for use with the ESS-APAC1, ESS-APAC3 and ESS-TCAC1. There are two styles: solid-core and split-core. The split-core style opens to clamp over a power wire without disconnecting it from its source. Sensor wiring kit (/K25) sold separately.



DESCRIPTION	CODE	PRICE
Solid-Core, 0-50A, 13MM Wire Window	5004-004	\$48
Split-Core, 0-100A, 16MM Wire Window	5004-036	\$69
Split-Core, 0-200A, 19MM Wire Window	5004-005	\$125



Acentria® | Power Monitoring EventSensors

SINGLE PHASE AC CURRENT MONITOR

This self-powered, solid-core AC current monitor works with any Acentria device that supports analog sensing. It provides a signal output of 0-5 VDC analog output proportional to the AC current flowing through the core. UL/CE listed.



DESCRIPTION	CODE	PRICE
Solid-Core, 0-50A, 13.7MM Wire Window	ESV-TCAC50	\$81
Solid-Core, 0-100A, 13.7MM Wire Window	ESV-TCAC100	\$81
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESV-TCAC50/K25		

DC CURRENT MONITOR

These devices output a voltage proportional to the amount of DC current flow. An integral split-core current transformer is included. Requires + and - 15VDC power; or use with a 4VP Expansion Card or an S450 with power outputs which provide transducer power. Select the one that most closely corresponds to your DC current load for the best precision. 12' transducer cable included (P/N 2061-002).



- Requires + and - 15VDC power. Use with a 4VP Expansion Card or an S450 with power outputs for combined power and sensing.
- Output: 0-4VDC (V)
- Accuracy: 1%
- Wire window: 21mm
- UL/CE Listed

DESCRIPTION	CODE	PRICE
50 Amp Monitor	ESV-TCDC50	\$45
100 Amp Monitor	ESV-TCDC100	\$45
200 Amp Monitor	ESV-TCDC200	\$45
300 Amp Monitor	ESV-TCDC300	\$45
500 Amp Monitor	ESV-TCDC500	\$45

AC CURRENT DETECTOR

This AC current sensor monitors the on/off status of electric loads such as fans, motors, heaters, AC units, and tower lights. Output is a normally-open dry contact closure (C). Self-powered; solid core detects as little as 150mA.



DESCRIPTION	CODE	PRICE
Solid-core, 0-100A, 13MM wire window	ESC-SCAC1	\$60
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example part #: ESC-SCAC1/K50		

AC VOLTAGE DETECTOR

This 120VAC sensing transformer provides a simple means of verifying AC voltage levels from a standard electrical outlet.

- Input: 0-120VAC, 10W
- Output: 0-12VDC



DESCRIPTION	CODE	PRICE
AC Voltage Detector	ESV-SVAC1	\$20
AC Power Outage Detector	ESC-SVAC2	\$95
AC Current Go/No Go Switch, Split Core	ESC-SVAC3	\$113
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example part #: ESV-SVAC1/K25		

AC VOLTAGE MONITOR

This device accurately measures AC voltage levels, and provides a 4-20mA current-loop signal output proportional to the amount of AC voltage present. Voltage transformer is included. Self-powered.



- Measure AC levels up to 600V at 50/60Hz

DESCRIPTION	CODE	PRICE
AC Voltage Monitor	ESM-TVAC1	\$170
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESM-TVAC1/K50		

DEVELOPING MARKETS

AC POWER MONITOR

This AC power monitor measures three phase AC, voltage, current, active power, reactive power, apparent power, power factor, & frequency, with no special protection or shortening blocks necessary for install. Requires current transformers - sold separately.



- Power supply: 120/240VAC, 3W
- External power supply required: 20-60V AC or 18-90V DC
- Input: 30-600V, 50/60Hz, single/split/three-phase, up to 3 5A-output transformers
- Output: RS485 serial
- Accuracy: 0.5%
- Not UL/CE listed

DESCRIPTION	CODE	PRICE
AC Power Monitor	ESS-APAC2	\$235
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Add RS485 Serial Adapter	/485	\$30
Add 24VDC Power Supply	/P24	\$80
Add 48VDC Power Supply	/P48	\$80
Example Part Number: ESS-APAC2/K50/P24		

SOLID CORE CURRENT TRANSFORMER

Specialized for the power sector, this current transformer works specifically with the ESS-APAC2 AC Power Analyzer. This transformer is "solid core", which means that it will require you to disconnect a wire in order to install it.



DESCRIPTION	CODE	PRICE
0-50A, 660V, 23mm Wire Window	5004-080	\$45

SPLIT CORE CURRENT TRANSFORMER

Specialized for the power sector, this current transformer works specifically with the ESS-APAC2 AC Power Analyzer. This split-core transformer opens to clamp over a power wire without disconnecting it from its source. Cable is not included in the part number below. We recommend the sensor wiring kit (/K25) listed in our Miscellaneous Accessories list.



DESCRIPTION	CODE	PRICE
0-200A, 660V, 24mm Wire Window	5004-081	\$80



Asentria® | Security Monitoring EventSensors

DOOR ACCESS STRIKE

The door strike replaces a standard mechanical door strike plate with an electrical one that can be remotely locked/unlocked via relay output to control access to a room. Fail-safe operation maintains secure access even during power failure. Rugged stainless steel body; works with any standard metal door. Can be used with any Asentria relay output. A single door access strike may be powered directly by the S450 base unit with the output power option, or multiple devices from the /P12 option below. External power required - please specify country power cord.



- Power Supply: 12VDC 250mA

DESCRIPTION	CODE	PRICE
Door Strike	ESR-DST1	\$156
Add 12VDC Power Supply	/P12	\$80
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESR-DST1/K50		

SIREN/SIREN-STROBE ALARM

This device produces a loud sound, and depending on the model, a strobe light, when activated by a relay output. Requires external power - please specify country power cord.



FEATURE	SIREN/STROBE INDOOR	SIREN/STROBE OUTDOOR	SIREN ONLY
Mount	Wall	Wall/ceiling	Wall
Power Supply	12VDC 300mA	24VDC@15mA	12VDC 320mA
Sound	single tone, 110dB@1m	32 selectable tones, 114dB@1m	single tone, 105dB@1m
Strobe	Red flashing	Red flashing	None
Operating Temp.	0° to 40°C	-25° to 80°C	-20° to 50°C

DESCRIPTION	CODE	PRICE
Siren/Strobe, Indoor	ESR-SS11	\$40
Siren/Strobe, Outdoor	ESR-SS03	\$70
Siren, Outdoor	ESR-SS02	\$40
Add 12VDC Power Supply	/P12	\$80
Add 24VDC Power Supply	/P24	\$80
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESR-SS11/K25/P12 or ESR-SS02/K50		

MOTION SENSOR

Intelligent Quad-PIR technology gives this motion sensor superior true motion detection and interference rejection to prevent false alarms from sunlight, wind, birds, and operating machinery. Wall mount; waterproof for indoor/outdoor use. Form A contact closure output. External power required - please specify country power cord.



- Coverage area: 12 x 12 meters, 110° wide angle
- Operating temperature: -10 to 50°C

DESCRIPTION	CODE	PRICE
Motion Sensor, Indoor	ESC-MSI1	\$50
Motion Sensor, Outdoor	ESC-MSO1	\$185
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Add 12VDC Pwr Supply	/P12	\$80
Example part #: ESC-MSO1/K25/P12		

DOOR SENSOR KIT

The door sensor indicates the opening or closing of any door, window, access lid, or cover upon which it is installed. Features a two-part magnetically activated switch with contact-closure output. Affix one part to the door and the other part to the component base using adhesive or screw mounts. Can be used with any Asentria contact-closure input. Outdoor model is hardened and rust-proofed for outdoor use.



- Detection distance: <15mm closed, >25mm open (Indoor) / <35mm closed, >90mm open (Outdoor)

DESCRIPTION	CODE	PRICE
Overhead Indoor Sensor Kit (.75" / 1")	ESC-DSI1	\$25
Outdoor Sensor Kit (2" / 2.75")	ESC-DSO1	\$40
Metal Door (2" / 2.5")	ESC-DSO2	\$30
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESC-DSI1/K25		

IP CAMERA

These remote surveillance cameras are stand-alone devices that connect directly to your Ethernet switch for live IP-based video access. They can capture still images and/or a video stream upon detecting motion. Video compression and resolution can be adjusted to fit the available IP bandwidth. Secure, encrypted video uploads to server. AC power adapter included.



- Lens: varifocal, 2.8mm/F2.0 aperture, 67° view
- Video: 800 x 600 to 320 x 240, 30 fps, Motion JPEG or H.264
- Audio: None
- Security: HTTPS encryption, password protection, motion, and tampering detection
- Mount: Adjustable stand provides flexible installation
- Power supply: DC, PoE (Power over Ethernet) from switch

DESCRIPTION	CODE	PRICE
IP Camera - Fixed Lens	ESE-CAM2	\$370

RFID CARD READER

Use this card reader in combination with the electronic door strike to grant/deny access to your equipment room. Reads HID cards. Green/red LEDs and piezo buzzer indicate whether or not access is granted. Recognizes card formats up to 85 bits, with over 137 billion unique codes. Waterproof for indoor/outdoor use. Works with Asentria base units that have scripting capability.



- Power: Use Wiegand expansion card
- Operating temperature: -30° to 65°C
- Relative humidity range: 0 to 95%

DESCRIPTION	CODE	PRICE
RFID Reader (ProxPoint Plus 6005 or similar)	ESW-RFID1	\$192
RFID Reader (ProxPro 5355 with Keypad or similar)	coming soon	
Add 5' wiring kit	/K5	\$10
Add 25' wiring kit	/K25	\$15
Add 50' wiring kit	/K50	\$25
Example Part Number: ESW-RFID1/K50		
HID 1326 ProxCard II Clamshell Card (1 Card)	5006-052	\$10
HID 1326 ProxCard II Clamshell Card (25 pack)	5006-053	\$186
HID 1326 ProxCard II Clamshell Card (50 pack)	5006-054	\$343



Asentria® | Miscellaneous Accessories

EVENTSENSORS

To connect a second EventSensor to the first EventSensor in a daisy chain fashion, you can use our EventSensor cables (see below), or a standard CAT5E Ethernet cable. For five or more linear EventSensor connections, be sure to check power usage requirements.

Many EventSensors can be bundled with one or more kit options selected from the list below. See each EventSensor listing for available kit options. To add a kit, add one or more of the suffixes listed in the table below to any accessory device catalog item. Example catalog number: ESS-APAC1/K25/485/P24 stands for AC Power analyzer + 25' sensor wiring kit + RS485 serial adapter kit + 24VDC power supply.

EVENTSENSOR MISCELLANEOUS	CODE	PRICE
5' sensor wiring kit	/K5	\$10
25' sensor wiring kit	/K25	\$15
50' sensor wiring kit	/K50	\$25
RS485 serial adapter kit	/485	\$30

ADAPTERS	CODE	PRICE
Serial adapter RJ45-DB9F, DCE - null	4162-003	\$3
Serial adapter RJ45-DB9M, DCE - null	4162-004	\$3
Serial adapter RJ45-DB9F, DTE - straight	4162-005	\$3
Serial adapter RJ45-DB9M, DTE - straight	4162-006	\$3
Modem cable coupler RJ11	4162-001	\$3
EventSensor coupler RJ45	4162-007	\$3
EventSensor splitter RJ45	4162-011*	\$4
EventSensor splitter RJ45 1M/2F**	4162-022*	\$4
EventSensor adapter - 9-pin Mini-DIN to RJ45	ES-CAB8	\$25
Serial-to-ESJ adapter, DB9F-RJ45	4162-009	\$100
Adapter Null Modem - for connecting DB9M-DB9F	4161-017	\$3
Adapter USB-to-RS232	4161-021	\$45

* ES devices (ES-T/TH, etc.) must be HWREV A.2 or newer to be used in parallel with ESJ devices.

** This is a non-RoHS part, not for EU shipments.

CABLES	CODE	PRICE
Modem cable RJ11, 7'	2062-008	\$3
Serial cable DB9F-DB25M, 6'	2065-001	\$10
Serial cable RJ45 M-M, 3'	2065-018	\$3
Serial cable RJ45 M-M, 6'	2065-019	\$4
Serial cable RJ45 M-M, 10'	2065-017	\$5
EventSensor cable RJ45, 1'	2065-101	\$3
EventSensor cable RJ45, 6'	2065-020	\$5
EventSensor cable RJ45, 14'	2065-014	\$10
EventSensor cable RJ45, 25'	2065-025	\$15
EventSensor cable RJ45, 50'	2065-050	\$25
EventSensor cable RJ45, 100'	2065-100	\$40
Power cable kit with Molex, White/Black twisted, 10' 20 AWG	5006-001	\$15
Power cable kit, White/Black twisted, 10' 20 AWG	5006-026	\$15
Power cable kit, Red/Black twisted, 10' 18 AWG	5006-029	\$18
Power Input Cabling Kit for up to 130A (S571, S572, PB2, PB4, PB6)	5006-044	\$72
I/O cabling kit, 5 serial ports, for S571/S572	5000-046	\$20
Power Installation Kit, for S571/PB2 Evaluation	5006-013	\$200

ASENTRIA BASE UNIT PWR SUPPLIES	CODE	PRICE
AC power supply & US cord, 15VDC 2.0A	/ACUS	\$38
AC power supply & UK cord, 15VDC 2.0A	/ACUK	\$38
AC power supply & EU cord, 15VDC 2.0A	/ACEU	\$38
AC power supply & AU cord, 15VDC 2.0A	/ACAU	\$38
AC power supply & JP cord, 15VDC 2.0A	/ACJP	\$38
AC power supply, extended temperature range, 15VDC 2A	4144-016	\$150
DC Isolated power supply, -48VDC to 15VDC	4144-005	\$200
DC power Supply, 12/24VDC to 15VDC	5003-004	\$200
12VDC Isolated Power Supply Kit, 36VDC to 72VDC In, 15W, 2' power wire	5006-033	\$50
24VDC Isolated Power Supply Kit, 36VDC to 72VDC In, 15W, 2' power wire	5006-032	\$50
12VDC Isolated Power Supply Kit, 36VDC to 72VDC In, 15W, barrel jack power cable	5006-035	\$60
24VDC Isolated Power Supply Kit, 36VDC to 72VDC In, 15W, barrel jack power cable	5006-034	\$60
24VDC Isolated Power Supply Kit, 18VDC to 36VDC In, 15W barrel jack power cable	5006-040	\$60
24VDC Isolated Power Supply Kit, 18-36VDC In, 15W 2' power wire	5006-041	\$50

ACCESSORY DEVICE POWER	CODE	PRICE
AC power supply, 12VDC 2.5A (supply only, cord sold separately)	/P12	\$80
AC power supply, 24VDC 1.2A (supply only, cord sold separately)	/P24	\$80
AC power supply, 48VDC 0.6A (supply only, cord sold separately)	/P48	\$80
AC power supply, 15VDC 2A (supply only, cord sold separately)	/P15	\$80
Power cord, AC-US	4150-002	\$5
Power cord, AC-UK	4150-004	\$5
Power cord, AC-EU	4150-005	\$5
Power cord, AC-AU	4150-006	\$5
Power cord, AC-JP	4150-007	\$5

An AC-US cord is provided with each power supply. Specify UK, EU, AU, or JP for other national cord types. All AC power supplies are universally compatible with 120/240VAC 50/60Hz power input. A single supply can power several EventSensors.

OTHER	CODE	PRICE
Antenna, US dual-band 850/1900MHz	4165-012	\$25
Antenna, EU dual-band 925/1800MHz	4165-036	\$25
User Documentation Kit (Specify Product)	5006-002	\$5
Installation kit, 1U rack mounts - for 11" wide units	5006-004	\$20
Installation kit, 1U rack mounts - for 17" wide units	5006-005	\$10
Installation kit, 1U rack mounts - for 17.5" wide units S571/PB2	5006-006	\$10
2A Fuse - For S571 & PB2	0630-002	\$7
5A Fuse - For S571 & PB2	0630-005	\$7
10A Fuse - For S571 & PB2	0630-010	\$7
12A Fuse - For S571 & PB2	0630-012	\$7
Expansion card terminal plug, 16-pin	0661-005	\$5
DIN rail mounting adapter	/DIN	\$10
DIN Rail Kit, 6' with mounting bolts	5006-038	\$18
DIN Rail Kit, 10' with mounting bolts	5006-037	\$20



Asentria® | Support, Warranty & Training Information

SUPPORT WHEN YOU NEED IT

Asentria Technical Services provides a full-range of consulting services, including planning, design, deployments, upgrades, migrations, and custom development support. Asentria Support Services is dedicated to helping you achieve the most from your Asentria products while improving your ROI, reducing your administration obstacles, and ensuring the reliability of your remote equipment sites.

DEPLOYMENT SUPPORT

Asentria Technical Services provides a phone contact for you during a network rollout of Asentria products. Your Asentria contact is trained on the issues that commonly arise during a deployment, so they can quickly cut through any confusion and greatly speed deployment. They can also streamline support requests for product defects discovered during installation. You'll find this a valuable addition that can allow even non-technical staff to roll out Asentria products around the world.

PROVISIONING, PLANNING, ARCHITECTURE, AND PROJECT MANAGEMENT

Implementing a new technology is often a risky undertaking. You can reduce risk by involving an Asentria professional experienced in the deployment of Asentria products in a variety of complex networks. We can help with provisioning, project management, and other tasks related to deployment. Implementing it right the first time will save you time, money, and headache.

CUSTOM SOLUTIONS

Asentria products have a flexible, hardware/software architecture, which allows our engineering team to deliver new technologies for monitoring additional equipment and environmental elements as they become available. If you have a proprietary requirement that we currently do not support, our Professional Services team can engineer it for you. A variety of engagements are available, and we will work closely with you to assess your requirements and determine the scope and time of a custom solution.

EXTENDED WARRANTY

All Asentria-manufactured products come with a one year warranty on parts and labor. The warranty is explained in full in the back of the product manual of the individual products. This warranty also includes all integral accessories of the product such as cables, power supplies, and Expansion cards, but does not include optional external accessories, which require separate purchase (except for international power supplies intended for use with Asentria-manufactured products). These separately purchased items may or may not have Asentria warranty coverage and if they do then this will be included in the user documentation for those products.

Items not manufactured by Asentria such as 3rd Party Sensors are not covered by the Asentria warranty and thus are not eligible for this extended warranty coverage. The only warranty coverage for 3rd party accessories are the manufacturer's warranty for those accessories.

For products that Asentria does warrant, the basic one-year warranty can be extended by purchasing up to four additional years of additional warranty coverage for a maximum total of five years of warranty from the original date of purchase (including the original one year warranty). A unit under extended warranty shall be treated the same as it would have been during the original first year of warranty.

An extended warranty is purchased either when the unit is originally purchased, or some time during the initial warranty period. The list price (retail) cost per year to purchase extended warranty coverage varies depending upon the product, as follows:

DESCRIPTION	CODE	PRICE
SiteBoss Products - Extended Warranty	WAR-01	\$100/YEAR
ES-CCU Products - Extended Warranty	WAR-03	\$100/YEAR
EventSensor Products - Extended Warranty	WAR-04	\$25/YEAR
PowerBoss Products - Extended Warranty	WAR-05	\$100/YEAR
TeleBoss - JITC Maintenance Agreement	WAR-06	Contact Sales
TeleBoss Products - Extended Warranty	WAR-07	\$100/YEAR

TECHNICAL SUPPORT / TRAINING

When a customer purchases Asentria products, they can also expect to receive the highest and best levels of support available. Technical support is included in the purchase price of our products. This covers basic questions you might have as you do an install. If you wish to have more proactive training in the use of the units, a number of options are available.

REMOTE TRAINING

This is the most common method used. Remote training is more extensive than technical support. While technical support will answer questions to help you move through your install, this remote training is dedicated time from an Asentria technician to help you work on better understanding our products. Asentria technicians have extensive experience in working in real-world environments, and will make every attempt to apply their understanding of your usage of our products to your training. This training may not follow a formal training outline, but simply be assistance with your application. This training typically will employ the use of a remote terminal program such as GoToAssist.

DESCRIPTION	CODE	PRICE
Remote Training - 3 Hours min.	TR-GEN-01	\$125/hr

PROFESSIONAL SERVICES

Often a customer may benefit from direct support from a Asentria Technical Services in the set-up of their particular application. Professional Services will most often involve remote support from an Asentria Technical Services representative. Various of levels of support are possible, however, including direct on-site support, and projects are quoted on an individual basis.

Professional Services - Quoted per Project	PSRV-01	By Project
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ENGINEERING

In many cases, a customer's application may require some additional abilities not inherent in Asentria's base products. Asentria has a long history of being able to make adjustments to our products to more perfectly suit a customer's needs. If you wish to have more direct Asentria Engineering involvement in your project, a couple of options are available.

On-Site Engineering - N. America - 1 Day min.	ENG-SITE-01	\$1000/day
On-Site Engineering - Overseas - 3 Day min.	ENG-SITE-02	\$1500/day

CUSTOM SCRIPTING

Many Asentria units support the use of a scripting language to better customize the functionality of the box. It is sometimes desirable to have Asentria personnel assist in the writing of the scripts. It is our recommendation that, if quite a number of scripts are needed, that this service be used to simultaneously train the customer on how to write their own scripts.

Custom Scripting	ENG-SCR-01	\$200/hr
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CUSTOM ENGINEERING

Asentria has a long history of doing customized engineering projects. These can range from designing a small accessory or software feature, all the way to a complete custom product, bearing the customer's name (OEM). These projects are so varied that they are quoted on a per project basis, and they are referred to as NRE, or Non-Refundable Engineering charges.

Non-Recurring Engineering	ENG-NRE-01	By project
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CUSTOM HARDWARE LABELING

Extend your brand by white-labeling Asentria hardware. Our in-house team can create a custom label from provided artwork or develop a design to fit your needs.

Custom Labeling	CUSTLABFEE1	\$6000
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ON-SITE ENGINEERING

Depending on availability, Asentria Technical Staff can be involved on-site with your project. This service is subject to minimum and maximum time limits. Typically this service is quoted per day, with travel expenses billed at actual cost.



Asentria® | Terms of Sale and Delivery

1. All Sales are Final.
2. Purchase Orders: Product is provided pursuant to customer purchase order accepted by Asentria. Purchase orders accepted by Asentria shall be considered binding on both customer and Asentria for the quantity and type of product and within the date or time period specified on the purchase order excepting mutually agreed adjustments.
3. Credit Sales: All credit sales are subject to Credit Approval.
4. Invoicing and Payment Terms: Invoicing will occur upon shipment of the products. The standard payment term is Net 30. Sales (particularly but not limited to International sales) may be subject to Prepaid Terms or a Letter of Credit. Credit card payments are subject to restrictions. All payments are to be made in US Dollars. Asentria may accept payment in any amount without prejudice to its right to recover the balance of the amount due or to pursue any other right or remedy. No endorsement or statement on any check or payment or in any letter accompanying a check or payment or elsewhere will be construed as an accord of satisfaction. If Buyer fails to make any payment when due, further shipments may be withheld until the past-due payment is made, and may require that subsequent orders be paid prior to or upon delivery of shipment. In addition, overdue payments may be charged interest at the lesser of 1.5% per month or the maximum interest allowed by law. If it is necessary to retain a collection agency or attorney to collect overdue payment, all reasonable collection costs, including attorney fees, will be payable by Buyer.
5. Payment Fees: Buyer will bear all transaction fees, e.g. bank charges that have been deducted from buyer's payment, etc. and will reimburse Seller for charges paid by Seller.
6. Delivery Time: When placing orders for products, customers should generally provide lead-times of three to five (3-5) business days for Asentria manufactured products in quantities of 4 or less. Quantities of 5 or more will require lead times quoted on a case by case basis and may need longer lead times. Products Manufactured by other vendors listed in our Product Guide as "Accessories" to our Asentria manufactured products will require lead time quotes separately and on a case by case basis. Our goal is to provide the fastest possible shipment of orders for our products. We very often ship your order the same or next day but this performance cannot always be guaranteed. Please consult your Account Executive or Customer Service when considering orders of a quantity 5 or more Asentria units and/or which contain Accessories or to determine the necessary lead-time.
7. Shipping Methods: Our standard US Domestic shipping method is UPS Blue (2-day Air). Our standard International shipping method is UPS World Wide Expedited (usually 2-5 business days air). We will provide quotes for other methods of shipment upon request but if none are requested we shall use our standard described above.
8. Shipping Terms: Asentria will ship all Products FOB Asentria manufacturing facility and will not insure the shipment unless specifically requested by Buyer. Buyer is responsible for all shipping and handling charges including, but not limited to, premiums for freight insurance, inspection fees, assessments, import duties, V.A.T. and similar taxes and all other costs incurred in transporting the Products to the destination. Such costs will be prepaid by Asentria and added to Buyer's invoice except for import duties and taxes which will be paid directly by the Buyer. Title to and all risk of loss of or damage to all Products purchased from Asentria will pass to Buyer upon delivery to the carrier. Buyer will be responsible for any claims against the carrier arising from or relating to shipment. Asentria will retain a security interest in all Products until it has received payment in full.
9. Shipping/Handling Costs: In all cases, the shipping and handling costs are the responsibility of the Buyer who shall pay or reimburse Asentria for all amounts payable to government agencies on account of the sale or use of the product including but not limited to all delivery, port, excise and other taxes and duties related to shipments to themselves or their customers. In lieu of such payment, Buyer may, at the time the order is submitted, provide ASEENTRIA with an exemption certificate satisfactory to the authority imposing the tax, fee or charge.
10. Handling Costs: In addition to shipping costs, all domestic shipments are subject to a handling charge of \$3.00 per unit (up to \$100) to cover bulk packaging materials and labor. International Shipments are subject to a handling charge of \$5.00 per unit (up to \$150) as these shipments require additional paperwork and can be very complicated including being occasionally subject to problems in customs requiring significant additional labor to get the products delivered.
11. Warranty: Asentria products come with a One Year Parts and Labor Warranty as specified in the product manuals. Extended Warranty coverage is available; please request details from your Account Executive or Customer Service. To receive warranty service you must first contact Asentria Technical Support at 206-344-8800 and receive an RMA (Return Materials Authorization) number. The customer is responsible for all costs (freight, duties, taxes, etc.) associated with delivery of product to Asentria for warranty service. Only shipping costs will be prepaid for return of warranted products (and, in limited cases, for advance replacements of warranted products) to sites in the US and Canada; the customer will be responsible for all other associated costs (duties, taxes, etc.) Asentria does not warrant the products we purchase from other vendors or suppliers. (Usually listed as "Accessories" in our Product Guide) We will assist customers obtain warranty service or replacements on devices from other suppliers that we have resold to them. However, if it is just not possible to obtain warranty service (original manufacture went out of business, for example) Asentria will find and make a suitable replacement or repair for a period of one year from the original date of purchase from Asentria.
12. Repair: To obtain service for product no longer under warranty, please contact Asentria Technical Support at 206-344-8800. Estimates for the cost of repairs (or replacement if non-repairable) will be provided on request. Customers are responsible for all costs (freight, duty, taxes, etc.) associated with shipping of the product to and from Asentria in addition to standard repair rates.
13. Return Packaging: Product sent for service should be returned in original custom packaging to avoid additional charges for this service. Serviced product will be returned in Asentria, Inc. custom packaging to guarantee safety.
14. These terms may change without notice.



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