

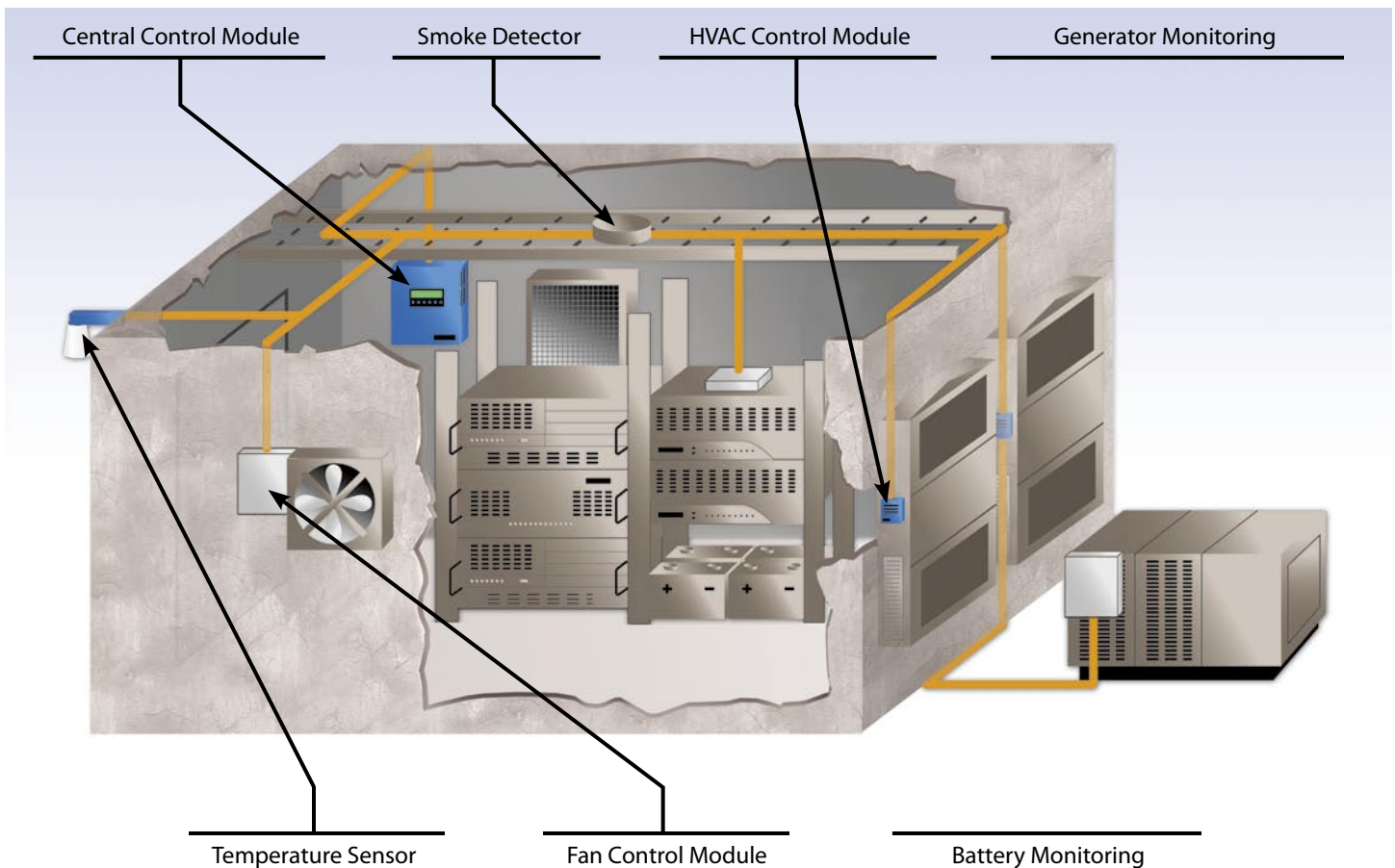


intelesite™
Cell Site Facility Control

Innovation in architecture,
distributed intelligence in
monitoring and management
of telecom site critical support
elements.

SMC *sierra monitor corporation*

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**Intelesite™ –
Innovative Architecture**
Dramatic Reductions in Wiring/Conduit Materials and Installation Costs

Intelesite™ utilizes a Central Control Module (CCM) and intelligent modules to monitor and manage the critical elements of a remote telecom site. Communications between the CCM and the modules are conducted over the Intelesite™ serial I/O Bus. Controls are connected at the remote modules and the bus cable is distributed via overhead cable trays.

**Intelesite™ –
Distributed Intelligence**
Serial Communications and Redundant HVAC Control

Precise environmental control is a prerequisite to the long-term health and reliability of telecommunications equipment. HVAC controls are implemented through the HVAC Control Module (HCM) and temperature control set points made at the CCM are automatically updated to the HCM. Each HCM is also equipped with a temperature sensor and, in the event of CCM failure, control is automatically switched to the HCMs for double redundant HVAC control.

**Intelesite™ –
Centralized Status and Alarm Reporting**
Facilitates Data Management

Status and alarm data gathered from monitored devices is transmitted to the CCM. This centralizes data display and management for all site support elements, including HVAC, commercial power, generator, DC plant and batteries.

**Intelesite™ –
Flexibility and Expansion Capability**
Variations in Site Requirements are Accommodated Easily and Inexpensively

Firmware in the CCM supports all remote module functions. This allows carriers to implement the CCM throughout the network and to apply the remote modules on a site specific basis.

**Intelesite™ –
Network Management System Connectivity**
Integral Protocol Gateway for Network Connectivity

Status and alarm data may be reported to the site alarm system or directly to the Network Operations Center. The gateway for network connectivity, the ProtoCessor Communications Module, supports a complete library of Ethernet protocol drivers, including SNMP, TL1 and Telnet to accommodate the requirements of telecommunications network management systems.

Intelesite™ Central Control Module Meets Today's Needs, Tomorrow's Expansion Plans

- Direct replacement for all makes and models of thermostat/electromechanical HVAC controllers – Reduced procurement, parts inventory and maintenance costs
- Supports all remote module functions – Site variations easily accommodated by adding remote modules, no CCM hardware upgrades necessary
- Central display and management of data from HVAC, generator, power sensors, DC plant and batteries – Facilitates maintenance and troubleshooting
- ProtoCessor supports serial communications from intelligent site support elements – Data gathering is maximized and hard wiring costs are vastly reduced
- ProtoCessor gateway supports all telecom Ethernet protocols – Direct, inexpensive connectivity to network management systems



HVAC Control Module Reduces Installation Costs AND Redundant Control

- Modules with control relays are located adjacent to HVAC units, Intelesite™ serial I/O Bus is the only connection to CCM – Reduces installation/wiring costs
- Equipped with temperature sensor, with set points automatically updated by CCM – Double redundant HVAC control in the event of loss of power to or failure of CCM
- Powered by HVAC 24 VAC – Manages HVAC during CCM installation

Fan Control Module Manages Loads during Emergency Conditions

- Located adjacent to exhaust fan system, Intelesite™ serial I/O Bus only to CCM – No control wiring to CCM, reduces installation costs
- CCM control of HVAC and economizer cooling algorithms – Assures most energy efficient cooling to maximize energy savings
- Optional pre-packaged DC exhaust fan system – Modular design minimizes installation costs and enables cooling under all conditions of power: commercial, generator and batteries

DC Load Shed Control Module Manages Alarm Data, Reduces Installation Costs

- Includes three normally open relays that manage external DC contactors
 - Permits pre-defined load shedding based upon either loss of commercial power and or high temperature
 - Also contains two normally open relays that can be used to trip main DC power in the event of a high temperature or emergency shutdown
-
- A decorative graphic at the bottom of the page consisting of a yellow-to-blue gradient bar that curves upwards from left to right.

Specifications

2435-CCM Central Control Module

Power: 36 – 60 VDC

Environmental:

Temperature

Operating Range

4° to 120° F

(-20° to 50° C)

Storage Range

-22° F to 122° F

(-30° to 50° C)

Humidity

0 to 95%

Non-Condensing

Front Panel:

Display

LCD Alphanumeric

(2 Rows x 20 Characters)

Front Panel Keypad

6 keys for Set Points, alarms, controls

Serial, Ethernet Interface (Optional)

Up to 3 Ethernet, RS232 or

RS485 ProtoCessors

Integral Inputs

Temperature

Relative Humidity

Digital Inputs: 11

Smoke Alarm

Intrusion

Generator Power

ATS Position

Utility Power

Spare (6)

Analog Input

Outside Temperature

Alarms: 5 Firmware Configurable

Enclosure

Sheet Metal Surface Mount

14.6 x 14.1 x 3 (HWD)

2435-HCM HVAC Control Module

(One required for each HVAC unit up to 3)

Power: 24 VAC

Integral Input: Temperature

Digital Inputs: 2

HVAC 1 Fail

Spare (1)

Analog Input (Optional)

Supply Air Temperature

Control Outputs: 4

Compressor

Blower

Heater

Spare

Enclosure

Face plate mounted for installation on double

gang box

2435-FCM Fan Control Module

Power: 36 – 60 VDC

Digital Inputs: 2

Fan Motor Status

Spare

Control Outputs: 3

Fan Motor

Spare (2)

Enclosure

Steel, Surface Mount

12 x 10 x 4 (HWD)

2435-DCM DC Control Module

Power: 36 – 60 VDC

Analog Inputs: DC Plant Voltage (1)

Control Outputs: 5

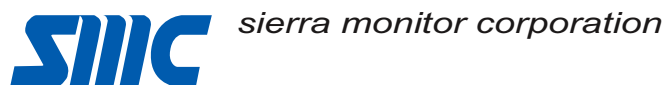
Load Shed, N.O; 8A, 30 VDC (3)

Main DC Shunt Trip, N.O; 8A, 30 VDC (2)

Enclosure

Installed in 2435-CCM Enclosure

Sierra Monitor has been providing the telecommunications industry with gas monitors and environment controllers for over 25 years. Major telecommunications companies know that they can trust Sierra Monitor to provide the reliable monitoring and control required to maintain effective and efficient service to their customers.



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