

To: IT Data Center, Computer Room & Facilities Managers

From: The Team At AVTECH

Room Alert[®]

Introduction, Overview & Justification



AVTECH's Room Alert products for 'IT & Facilities Physical Environment Monitoring' are the most widely used products of this type worldwide, used in over 104 countries around the globe and on Antarctica.

Available through your favorite reseller, direct from AVTECH, or online at EnvironmentMonitor.com, there is a model available today to meet the unique needs of any organization, large or small.

Please review this introduction for more information about Room Alert and to see how this advanced monitoring technology can benefit your organization.

Introduction

Room Alert™ is a hardware and software solution that allows easy remote monitoring of the environmental conditions in an IT computer room, data center or other facility from anywhere on the network or around the world.

The computer room or data center **‘Environment’** means the physical conditions that may cause problems if they exceed certain thresholds. The primary environment conditions monitored typically include:

- **Temperature** (e.g. air conditioning fan or ventilation problems)
- **Humidity** (e.g. air conditioning, water or ventilation problems)
- **Heat Index** (e.g. feels like temperature for people & animal environments)
- **Power** (e.g. main or UPS power loss or start)
- **Flood** (e.g. air conditioning, plumbing or roof leak)
- **Smoke / Fire** (e.g. electronics burning, short circuit or room fire)
- **Motion** (e.g. movement or unauthorized entry within specific area)
- **Air Flow** (e.g. air conditioner or cabinet fans stop moving air)
- **Room Entry** (e.g. unauthorized door, window or cabinet open/closed)
- **Panic Button** (e.g. user or staff press panic button, robbery alert)
- **Dry Contacts** (e.g. connect to non-voltage contacts on air conditioner, generator, security panel, etc.)

Environment monitoring is very important because computer and network equipment is only designed to operate effectively within a specified range of environmental conditions. If conditions get out of bounds, then:

- Unpredictable and potentially catastrophic results start to occur, like disk failures and CPU errors, which can cause extreme software and backup failures that can be difficult to recover from.
- System, application, website or network access can become reduced, delayed or simply unavailable should servers or network components fail or stop working.
- Manufacturers of equipment and maintenance/software support organizations will often not accept responsibility for problems caused by equipment that has been exposed to extreme levels of temperature, humidity, power outage, flooding and other various environmental conditions.

The most common environment problem encountered in the computer room is air conditioning failure. This can lead to high temperatures, high or low humidity, and water flooding (e.g. if the water inlet pipe leaks). According to various market studies and the experience of most AVTECH customers, the most common causes of environment problems in the computer room or data center are:

1) Air Conditioning Failure

2) Power Supply Failure

A simple in-house experiment that you can implement yourself is to switch off the air conditioning in the computer room and observe what happens to the temperature in just a short time. When the temperature unexpectedly rises outside of a reasonable range, you or your staff will need to be alerted in a hurry. If the room temperature rises to just 85 degrees Fahrenheit, the temperature inside a server or rack cabinet can quickly rise to over 120 degrees or more in just minutes! This can be deadly to sensitive IT equipment.

The first consideration of any server or network monitoring program should be the computer room environment. This is because virtually the entire organization can immediately be affected when computer systems fail to act properly or become unreliable. Costs can mount up quickly and easily become staggering for organizations that fail to respond immediately and properly. Think about the people and functions within your organization that would be affected if your primary computer server, systems or website go down for just 15-30 minutes.

One recent study shows almost 75% of all sites being down at least half a day because of computer room environment problems 1-3 times a year... costing from \$10,000 to \$50,000 per incident for 43% of these organizations.

When environment problems occur, Room Alert senses the problem and delivers alert notifications to the appropriate staff's mobile phone, pager, computer, web page, etc. This is accomplished via the built-in notification capabilities of Room Alert and optionally via the alerting and automatic action capabilities within the bundled **Device ManageR™** software.

Room Alert monitors have a built-in web server that alerts directly from the hardware by email, email-to-SMS (i.e. text to any mobile device) and via SNMP trap to your favorite SNMP enabled monitoring software. It's the advanced capabilities within AVTECH's software that have helped AVTECH to become the world's leader in IT & facility environment monitoring.

Easy To Use, Low Cost Solution

All Room Alert models are very easy to install and use because the monitors plug right into the network via Ethernet and use **'built-in'** or **'attached'** sensors, making them a very cost effective solution, expandable at any time. This is especially true when compared with traditional monitoring systems requiring construction or modification to a building structure. And, if your organization relocates at some time in the future, Room Alert monitors can move with you because they are NOT permanently attached to the physical property. Most leases require physical changes (i.e. property enhancements) to be considered a part of the building and owned by the property owner when a lease ends.

Because of the user interface, Room Alert is very easy to set up and use. Customers typically have Room Alert installed and operational in minutes. And, the bundled Device ManageR software allows expanded methods of sending alert messages to all the latest mobile phones, pagers, computers and more, as well as to individuals, groups, hierarchies, different people for different issues, at different times of the day and different days of the week. These are in addition to the built-in notification capabilities of each Room Alert model.

Device ManageR Handles Monitoring, Alerting & Automatic Corrective Actions

Room Alert was designed to optionally run in conjunction with AVTECH's Device ManageR application software to monitor the sensors built-in or attached to Room Alert units and then provide advanced alerting functions and/or automatic corrective actions. This is not required although it provides an extremely powerful enhancement to Room Alert because the capabilities of Device ManageR are significant and go well beyond the scope of basic environment monitoring. The monitoring of environment conditions is easily accomplished by using specially designed capabilities within Device ManageR for setup, firmware upgrades, monitoring, alerting, logging, graphing, reporting, automatic actions and more. A license for Device ManageR is included FREE with all models of Room Alert, so there is no additional cost.

Device ManageR allows an unlimited number of 'Contacts' to be set up. Contacts are people (recipients) or devices that are set up to receive alert notifications. In addition to all the standard alert methods, Device ManageR can also send alert notifications by dial-out through a standard or GSM modem.

The full capabilities of Device ManageR allow network-wide monitoring of all Room Alert, TemPageR and/or Axis cameras to be made easy, reliable and immediate from anywhere through a single IP address (see separate Device ManageR materials for more indepth information). With the recent addition of Plugins, Device ManageR is able to extend its powerful monitoring features to include the monitoring of other third party products. This is a unique feature of Device ManageR and something NOT available from competitive product offerings. This software makes Room Alert a world leading product.

An added benefit is that Room Alert does NOT have to be connected to the host system running the Device ManageR software. Room Alert models connect to your network via Ethernet, allowing you to connect Room Alert monitors anywhere across your local or worldwide network. This allows you to have unlimited Room Alert units installed at various locations that can all be monitored by a single installation of Device ManageR. This means you do NOT need a host PC, modem and phone line for each Room Alert ID Box. This saves money and makes Room Alert and Device ManageR easier to install and more cost effective to manage by the staff than other products. Users connect to Device ManageR using their favorite web browser.

Integrating Room Alert With Your Existing SNMP Monitoring Software

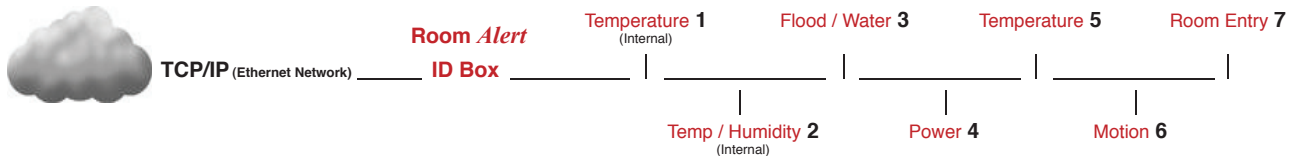
Room Alert is designed to run in conjunction with AVTECH's Device ManageR application software and thereby has access to all the advanced monitoring, alerting and automatic corrective action capability that your organization may ever need. However, Room Alert can also be configured to work with other third party monitoring and alerting software products that you may already have licensed. Room Alert can easily be set up to work with platform products like *OpenView*, *Tivoli* and *Unicenter*, as well as popular monitoring applications like *PageR Enterprise*, *Nagios*, *Big Brother*, *WhatsUp Gold* and many others. This is accomplished by monitoring Room Alert models directly via SNMP from anywhere across your network.

In this way, you are able to maintain a centralized reporting function that may already be in place and keep alert message formats consistent with what recipients are already familiar with. So, if your organization has already invested in or is loyal to another monitoring and alerting product, your investment can be preserved while you use Room Alert to expand its benefits for greater protection of your IT data center operations or other facilities. This allows immediate integration of Room Alert.

Sample Room Alert Sensor Configuration

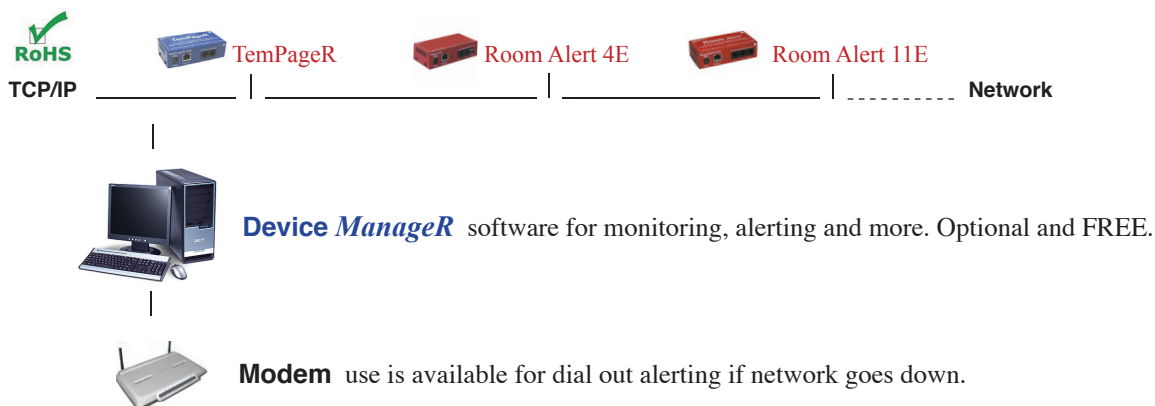
Monitoring environmental conditions is achieved with the use of sensors built into the Room Alert monitor and connected externally. Each sensor type monitors a different condition (e.g. temperature, power, humidity, flood, etc.) and is based on the different physical properties associated with the environmental condition being monitored. Sensors for temperature and humidity, for example, are **'digital'** which means they provide the **'real-time'** values being measured and allow monitoring of multiple thresholds. Most other sensors are based on a change in their **'output state'** (i.e. when the condition being monitored crosses a set threshold or changes back when the condition returns to normal) that is communicated to the Room Alert ID Box. These sensors, known as **'switch'** sensors, are installed by connecting two **'volt-free'** wires (which do not require a professional electrician) between the Room Alert ID Box and the individual sensor device (e.g. flood, smoke, motion, air flow, room entry, panic button, etc). Room Alert ID Boxes allow connection of a wide variety of different sensors, with the type and quantity being dependent on the specific Room Alert model in use. Additional sensors can be easily and immediately attached by connecting them to an open sensor channel.

A typical setup configuration for a single Room Alert ID Box installation might look like this:



Use Room Alert To Monitor Multiple Locations Network-Wide

If you want to monitor multiple rooms or locations in the same facility or around the world, the best way to do this is to install AVTECH's **Device ManageR™** application software and then use it to monitor multiple Room Alert units installed network-wide via Ethernet. One or more Room Alert monitors are typically installed at each desired monitoring location (i.e. data center, computer room, telecom closet, remote facility, storage room, rack cabinet, etc.) throughout a facility. The maximum number of Room Alert monitors installed network-wide to be monitored from a single installation of Device ManageR is unlimited.



Device ManageR's web browser interface allows monitoring from any location, giving users access from anywhere on the network or around the world via the internet. It allows a single interface to display one, some or all Room Alert units connected network-wide and managers can set multiple access levels, groups and more. Device ManageR allows real-time logging and graphing of sensor data with one-click export to an Excel or CSV file.

Room Alert Sensors

The following list indicates the most common types of sensors currently available for use with various Room Alert models:

<u>Environment Variable</u>	<u>Sensor Type</u>
Digital Temperature	Digital Thermometer (dynamic real-time values, Fahrenheit or Celsius)
Digital Humidity	Digital Hygrometer (dynamic real-time values, relative humidity)
Main Power	Power Sensor (switch, on / off)
Flood	Flood / Water Sensor (switch, yes / no, spot or cable models)
Smoke / Fire	Smoke / Fire Sensor (switch, yes / no)
Motion	Motion Sensor (switch, on / off, proximity based, adjustable sensitivity)
Sound / Light	Sound / Light Sensor (switch, on / off, yes / no, adjustable sensitivity)
Air Flow	Air Flow Sensor (switch, on / off)
Room Entry	Room Entry Sensor (switch, open / closed, for door / window / cabinet)
Panic Button	Panic Button (switch, on / off, pushed by attendant)

For simplicity, reliability and economy, a common specification for many external sensing devices to be used with Room Alert is that they are 'switch' based sensors. This means that the sensor is attached via two '**volt-free**' wires running from the contacts on the sensor to an open switch sensor channel (i.e. set of contacts) on the Room Alert monitor. This means that even though AVTECH manufactures a wide range of sensors meeting all of the primary monitoring scenarios, you can connect other non-AVTECH specialty sensors as long as they are switch sensors that are volt-free. You can even connect Room Alert directly to your UPS, air conditioner, power generator, security system, control panel or other device for direct monitoring if dry contacts are available on these products.

When a condition changes from 'normal' to 'abnormal', the switch sensor contacts within the sensor device will either 'close' or 'open'. Room Alert is able to trigger an alert signal on both the switch 'make' (close) and switch 'break' (open). The point at which the switch on the sensor closes or opens is called the 'threshold'.

Some sensors have 'variable' thresholds and the rest have 'fixed' thresholds. For example, a motion sensor has a variable threshold for sensitivity that is set manually with a dial by the user. Smoke / fire, flood / water, and main power sensors have fixed thresholds that are set by the manufacturer of the sensor. In each case, the switch inside the sensor device will either close or open as the threshold point is met or passed.

One important characteristic of a sensor is known as '**hysteresis**'. This term refers to the difference between the value setting at which the threshold is crossed going 'into an alarm state' and then coming 'out of an alarm state'. For example, with a traditional thermostat to monitor temperature installed in most homes today, the sensor may trip at 72 degrees as the temperature rises. When the temperature then falls and drops below 72 degrees, the sensor may not actually trip closed until the temperature reaches about 68 degrees, the difference of the 4 degrees is due to the inherent 'hysteresis' of the sensor.

Hysteresis is necessary to have on sensor devices in order for you to avoid experiencing a condition known as '**chatter**', where a sensor goes back and forth in and out of an alarm state multiple times over a very short period of time. This can easily occur when the temperature slowly crosses the threshold or if the temperature happens to '**hover**' around the threshold. Chatter indicates the rapid opening and closing of a sensor's switch on a repeated basis.

Without a proper understanding of the concept of hysteresis in the application of computer room environment monitoring, the end result would be many undesirable nuisance alert notifications. Therefore, the understanding of hysteresis has been incorporated into AVTECH's Room Alert monitors and Device Manager software, in an effort to reduce repetitive or nuisance alert notifications. This is accomplished by allowing threshold or timing adjustments to be set in the firmware or software settings.

Room Alert Monitors And Sensor Isolation



Room Alert 4E, Room Alert 11ER and Room Alert 32W models offer value options for any organization.

AVTECH offers multiple Room Alert models for environment monitoring, with current models including the 4E, 11E, 24E, 32E and 32W, as well as a temperature only model called TemPageR. Each model offers different sensors, capabilities, options and bundled software licenses. However, all are extremely easy to use and connect directly to your Ethernet network for immediate use. Rack, wall and ceiling mount options are available for every model.

Different Room Alert models can support various quantities and types of sensors that may be distributed in widely dispersed areas. The Room Alert monitor provides a simple means of bringing the necessary wiring together. This 'distribution' component of the Room Alert monitor is provided through simple connectors that accept the wiring from each sensor device. It converts sensor changes into signals suitable for delivery to monitoring software located anywhere on the network.

The sensor '**isolation**' properties that are provided by the Room Alert monitor are very important. When you have sensors distributed around the computer room, it is a serious risk to connect long lengths of unshielded wire directly to a computer. There are two reasons for this. First, there is a risk of induced electrical potential in the long lengths of wire that may run alongside existing 'current carrying' cables. And second, there is a risk of accidental connection of the sensor wiring to a live line circuit. All current models of Room Alert and TemPageR can also send alerts directly from the unit and without the need for additional software.

Normally, with other environment monitoring systems, sensor devices and their wiring are required to be installed by a qualified electrician. Even then, it's not unusual for wires to be mistakenly connected to the wrong contact point. This could have disastrous consequences if sensors were to be connected directly to a computer. This being understood, the proprietary voltage isolation circuitry designed for and engineered into every Room Alert monitor provides the needed protection for you, your IT equipment and your organization.

By allowing connection via Ethernet, users can locate Room Alert monitors anywhere on the network and monitor unlimited Room Alert units from a single installation of Device ManageR located anywhere on the network. This valuable and beneficial design consideration is in all Room Alert models and another reason why AVTECH remains an undisputed leader in IT & facilities environment monitoring worldwide.



Sensor Distribution

Room Alert is able to create two (2) different alerts for **'switch'** sensors like our external flood sensors by effectively monitoring the 'ON' and 'OFF' status of each individual sensor.

Sensor Circuit	ON / HIGH / MAKE / OPEN / NO FLOODING
Sensor Circuit	OFF / LOW / BREAK / CLOSED / FLOODING



The recommended sensor polarity is when a switch 'closes' or 'opens' its contacts as the condition being monitored changes from **'normal'** to **'abnormal'** (e.g. when flooding occurs). If monitoring for flooding, the contacts would close when the presence of water trips the sensor. The ability to monitor for flooding or water leakage can easily be accomplished by placing the sensor, or flood sensor cable, where flooding is most likely to occur.

It is important to note that external switch sensor circuits can only trigger two (2) unique alert message signals, one for ON and one for OFF. In other words, one signal for a change from 'normal' to 'abnormal' and a second signal for a change from 'abnormal' back to 'normal'. The exception to this is for special built-in or external sensors that are **'digital'**. The digital sensors provide **'real-time'** values in the alerts and can be monitored at multiple threshold levels (e.g. early warning, normal warning, critical warning, shutdown action, restart action, etc.) Values and status changes can be logged by Device ManagerR for use in graphing and reporting.

Using Multiple Sensors Connected To A Single Sensor Channel

Each of the Room Alert switch sensor channels (i.e. contact sets) is able to connect an unlimited number of sensors provided they are of the same **'polarity'**. All sensors connected to a single channel **MUST** be **'closed'** and then open when the condition goes from 'normal' to 'abnormal' (e.g. they must react the same way when conditions change). It is **NOT** possible to mix normally 'open' and 'closed' sensors on the same channel or to chain multiple sensors that are normally 'open'.

The result of this is that if you want to use multiple flood sensors (e.g. in different sections of a room) on a sensor circuit and one sensor device trips over its threshold, then until it trips back again, the other sensor devices will not be detectable. This is not a problem since the main objective has already been achieved because an alert signal was already sent when the first sensor was triggered by the change in flood conditions. Basically, multiple sensors can be connected in **'parallel'** like a ladder (i.e. piggyback or chained) or **'spoked'** from the channel connectors. If unique sensor monitoring or alerting is desired so you can know exactly which sensor has tripped, simply use another open channel.

A typical application for sensor chaining is to have multiple sensors located in different parts of the computer room in order to detect changes at several critical spots. The primary benefit of this is the expanded monitoring capacity or range for an environmental condition while consuming only a single sensor circuit on the Room Alert monitor. Note that the alert message sent is the same for each of the chained sensors sharing a channel and that the individual sensor triggered cannot be identified from the group. This is because when one chained sensor trips, all the sensors chained to it are considered tripped. To get full differentiation between the sensors, use one sensor channel for each individual sensor device.

Putting It All Together

Each Room Alert package consists of a Room Alert monitor, Ethernet cable, installation and mounting hardware, Device ManageR software license (FREE), various built-in or external sensors, open sensor ports or channels for connection of additional external sensors, power adapter(s), printed manuals and installation notes, application notes (if appropriate), complete Maintenance Support & Update Service (MSUS) and software download access for the first year.

Our Room Alert 24E package, for example, is enough to monitor the computer room temperature, humidity, power, room entry and more. Everything a user needs is included. There are five (5) additional open digital sensor ports and fourteen (14) additional open switch sensor channels for connection of additional sensor devices. A variety of sensors and Device ManageR Plugins are optionally available. Extra Device ManageR Plugins can be used to *Shutdown, Reboot, Log Off and/or Run Scripts/Commands on Windows systems, Shutdown and/or Reboot Unix/Linux systems*, send alerts via *Dial Out Text, GSM Text or Dial Out Voice* (available as a free upgrade later in 2011), and to *Generate Reports* with status updates and advanced statistics on Room Alert and TemPageR devices.

The Room Alert 24E comes assembled and ready for immediate use. It should be mounted in a rack or attached to a convenient surface where the ambient room temperature and humidity is to be monitored. All other sensors can be extended to locations at approximately 100-900 feet away from the monitor, depending upon the sensor type. The Ethernet cable connects the Room Alert 24E monitor directly to your network and 5V international power adapter (110-240V) connects to a power source (i.e. typically a UPS like AVTECH's new Mini UPS). Note that it is important, like other network equipment, to connect it to the network before connecting it to power, so that it can obtain an IP address properly. This is all that is required for the basic hardware installation of Room Alert 24E.

It is assumed that some users have a modem connected to the Windows host. However, if dial-out notification is not available or desired, then a modem is NOT required. Note that all of the major mobile service providers like AT&T, Verizon, T-Mobile and others have already discontinued dial-out service. With this in mind, service providers recommend using Email-To-SMS or Simple Network Paging Protocol (SNPP). Search the AVTECH.com online databases for your service provider. Although not required, installation of the Device ManageR software significantly enhances your organizations ability to monitor all models of Room Alert, increases the number and types of available alert notification methods and enables you to set up automatic corrective actions. Installation of Device ManageR is easily accomplished via download of the software from the AVTECH.com website. Instructions on how to get started are available online.

After you have completed the basic set up of Device ManageR, you can check your installation of Room Alert by monitoring it directly with Device ManageR. All Room Alert, TemPageR and Axis cameras across your network will be automatically discovered for immediate use.

Real World Usage, Proven Reliability

AVTECH has designed, tested and proven Device ManageR to be extremely powerful and reliable, according to standard testing methods for Windows applications and in actual, real world data centers at some of the biggest and most critical facilities in the world. **AVTECH products are employed by the Fortune 1000, United Nations, U.S. Government, U.S. Military, White House, Pentagon, NORAD, NASA and many thousands of organizations of all types & sizes.** AVTECH has minimal support requests and resolves 94% within the initial phone call. We support over 100,000 end users worldwide across 104 countries.

AVTECH will continue to monitor the issues and concerns our customers face in today's complex, multi-OS computing environments and work to keep our products on the leading edge. AVTECH will work hard to earn your business and continue working even harder to keep it once we've earned it.

A Complete Line Of Room Alert Options

There are several current models of AVTECH's computer room environment monitoring products known as Room Alert. These include the Room Alert 4E, 11E, 24E, 32E and 32W. These Room Alert models offer more features and functions than our previous models at the lowest prices ever. In other words, the current Room Alert models offer greater value than ever before.

Components of each model (package) are provided below to describe what is included when you order these products.

Room Alert 4E / ER (List Price - \$355 Box / \$385 Rack Model)

INCLUDES: Room Alert 4E ID box, Ethernet port, built-in Digital Temperature sensor, external Digital Temperature sensor, 2 Digital Sensor Ports, 1 Switch Sensor Channel, 1 Light Tower Expansion Port or Relay, 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, Device ManageR software license, installation & resource media, printed *Room Alert 4E User's Guide & Reference Manual*, 12 months of Maintenance Support & Update Service, 30-Day Satisfaction Guarantee.

OPTIONAL: [1U 19" Rack Mount](#), [External Sensors](#), [Software Plugins](#).

Room Alert 11E / ER (List Price - \$485 Box / \$515 Rack Model)

INCLUDES: Room Alert 11E ID box, Ethernet port, built-in Digital Temperature sensor, external Digital Temperature/Humidity sensor, 2 Digital Sensor Ports, external Main Power sensor, 8 Switch Sensor Channels, 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, Device ManageR software license, installation & resource media, printed *Room Alert 11E User's Guide & Reference Manual*, 12 months of Maintenance Support & Update Service, 30-Day Satisfaction Guarantee.

OPTIONAL: [1U 19" Rack Mount](#), [External Sensors](#), [Software Plugins](#).

Room Alert 24E (List Price - \$695)

INCLUDES: Room Alert 24E Rack Unit (1U 19"), Ethernet port, built-in Digital Temperature sensor, built-in Digital Humidity sensor, external Main Power sensor, external Digital Temperature sensor, external Room Entry sensor, 6 Digital Sensor Ports (RJ-11), 16 Switch Sensor Channels, LED Sensor Status indicators, Ethernet Connection (RJ-45), Expansion Port (RJ-45), 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, Device ManageR software license, installation & resource media, printed *Room Alert 24E User's Guide & Reference Manual*, 12 months of Maintenance Support & Update Service, 30-Day Satisfaction Guarantee.

OPTIONAL: [External Sensors](#), [Software Plugins](#).

Room Alert 32E (List Price - \$995)

INCLUDES: Room Alert 32E Rack Unit (1U 19"), Ethernet port, built-in PoE, built-in Digital Temperature sensor, built-in Digital Humidity sensor, built-in Main Power sensor, external Digital Temperature sensor, external Room Entry sensor, 8 Digital Sensor Ports (RJ-11), 16 Switch Sensor Channels, built-in Uninterruptible Power Supply (UPS), Ethernet Connection (RJ-45), 2 external Relay Output Ports (0.3A@125VAC / 1A@24VDC), 2 0-5V Analog Sensor Input Ports, 2 external Light Tower Connection Ports, 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, Device ManageR software license, Device ManageR Windows Plugin Bundle, installation & resource media, printed *Room Alert 32E User's Guide & Reference Manual*, 12 months of Maintenance Support & Update Service, 30-Day Satisfaction Guarantee.

OPTIONAL: [External Sensors](#), [Software Plugins](#).

Room Alert 32W (List Price - \$1,195)

INCLUDES: Room Alert 32W Rack Unit (1U 19"), Ethernet port, built-in PoE, built-in Digital Temperature sensor, built-in Digital Humidity sensor, built-in Main Power sensor, external Digital Temperature sensor, external Room Entry sensor, 8 Digital Sensor Ports (RJ-11), 16 Switch Sensor Channels, 15 Wireless Sensor Hub capacity, built-in Uninterruptible Power Supply (UPS), Wireless Sensor Hub (powered), Ethernet Connection (RJ-45), 2 external Relay Output Ports (0.3A@125VAC / 1A@24VDC), 2 0-5V Analog Sensor Input Ports, 2 external Light Tower Connection Ports, 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, Device ManageR software license, Device ManageR Windows Plugin Bundle, installation & resource media, printed *Room Alert 32W User's Guide & Reference Manual*, 12 months of Maintenance Support & Update Service, 30-Day Satisfaction Guarantee. [OPTIONAL: External Sensors, Software Plugins.](#)

Maintenance, Support & Update Service (MSUS)

During the Maintenance Support & Update Service (MSUS) period, AVTECH will make available to the licensed customer without charge, copies of any appropriate firmware and software upgrades or enhancements that may be released. Such upgrades shall include release notes or revised documentation when and if it is appropriate. Typically, new firmware and software updates are released online 3-4 times a year.

If during the maintenance and support period, the Room Alert or TemPageR ID Box should fail for any reason (other than misuse or physical damage), AVTECH will provide a replacement unit without charge, if technical support cannot help recover the non-working unit.

In addition, AVTECH will provide unlimited technical assistance and support to the primary site contact or designated representatives as may be required, advance notice of new products and services, application notes, and various special offers which may provide additional benefits.

Quotes, Ordering, Payment & Delivery

Quotes

The easiest way to obtain a quote for Room Alert or TemPageR, is to visit AVTECH on the web at AVTECH.com. You can click here and then select 'Quote Request' from almost any product page. Enter your basic contact information, product interest and then submit your request. A quote will be returned to you in PDF format via email for your consideration and easy ordering.

Ordering

Ordering is as easy as (1) Requesting a quote, (2) Signing the quote, and (3) Faxing it back to AVTECH at **401.628.1601**. Naturally, you can also order online, call in your order on our sales line at **888.220.6700** or **401.628.1600**, email your signed quote or purchase order to Orders@AVTECH.com, or order through your favorite reseller.

Payment Terms

AVTECH accepts American Express, MasterCard, VISA, Business Checks, Money Orders, Wire Transfers and Electronic Funds Transfer. Standard terms for invoice payment are '**Net 30 Days**'. Hardware orders are typically 'prepaid' so prompt payment is recommended. International orders require prepayment.

Delivery

Orders are processed the same or next business day. Shipments are normally sent by UPS Ground in the USA, UPS Standard Air in Canada and via UPS International Saver throughout the rest of the world. Overnight delivery or special courier use is available upon request. Standard orders normally ship the same or next business day. Large volume orders should be scheduled.

Thank You

Thank You for the opportunity to share with you the above information about Room Alert, TemPageR, Device Manager and AVTECH. If you would like further information, please contact us directly or online at AVTECH.com. We are happy to assist you further and look forward to working with you.

Respectfully,

The Entire Team At

AVTECH Software, Inc.

Contact Information

To receive further information or assistance regarding Room Alert, TemPageR, Device Manager, Plugins Sensors or AVTECH, please contact us at:

AVTECH Software, Inc.

16 Cutler Street, Cutler Mill
Warren, RI 02885-2761 USA

Phone **401.628.1600** Sales **888.220.6700** (Toll Free in North America)

Fax 401.628.1601

Email Sales@AVTECH.com Support@AVTECH.com Info@AVTECH.com

Web www.AVTECH.com www.EnvironmentMonitor.com

About AVTECH Software

AVTECH Software (AVTECH), a privately held corporation founded in 1988, is a computer hardware and software developer. Our Room Alert & TemPageR products monitor computer room or data center conditions like temperature, humidity, power, flood/water, smoke/fire, air flow, room entry, motion, IP cameras & more. When issues or events occur, AVTECH products use today's most advanced alerting technologies to quickly communicate important status information to IT & facilities professionals via computer, mobile phone, pager, iPhone, BlackBerry, PDA, email, web, IM, audio alert & more. Device Manager provides a collective web interface for unlimited Room Alert and TemPageR units, as well as Axis Cameras, through a single IP address. It will monitor, log all sensor data, graph sensor data, alert users and much more. Device Manager is bundled free with every Room Alert and TemPageR monitor. Automatic monitoring solutions like Room Alert and TemPageR can help resolve issues for a lights out response, allowing 'Disaster Prevention' instead of 'Disaster Recovery'.

AVTECH has over 100,000 end user customers located throughout the world, including organizations in every industry and on every continent. AVTECH products are heavily used by the Fortune 1000, Pentagon, United Nations, U.S. Government, U.S. Military, educational institutions and businesses of all types and sizes.

AVTECH products are available worldwide from professional IT resellers, AVTECH and online.

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