Temperature Alert

LAN-based Temperature and Humidity Data Logger

- ✓ LAN-based Temperature and Humidity Monitoring - Supports Simultaneous WiFi and Hardwired Interfaces
- ✓ -20°C to +60°C (-4°F to +140°F) Standard Temperature Measurement Range
- ✓ 10% to 90% Measurement Range with RH Sensor
- ✓ Combined Temperature/Humidity or Temperature Only measurements on each of Four Ports
- ✓ -200°C to +200°C (-328°F to +392°F) Measurement Range with Optional Probe
- ✓ Built-in Web Server Accessible and Configurable via Any Standard Web Browser
- ✓ Programmable Alarm Limits Per Channel
- ✓ Real Time email Alerts
- ✓ NTP Server Support for Accurate Time and Date Stamps
- ✓ Built-in Memory for Stand-alone Operation
- ✓ Server-based Real Time Graphical Display
- ✓ Easy Access to XML Feed and Text File for Historical Data
- ✓ Excel-compatible Format for Easy Analysis and Report Generation
- ✓ Administrative Access Protected by User Name Name and Password
- ✓ Optional NIST Calibration Available
- ✓ Pre-drilled Flange Allows Mounting Temperature Alert to Any Surface

DATAQ INSTRUMENTS

Temperature Alert Description

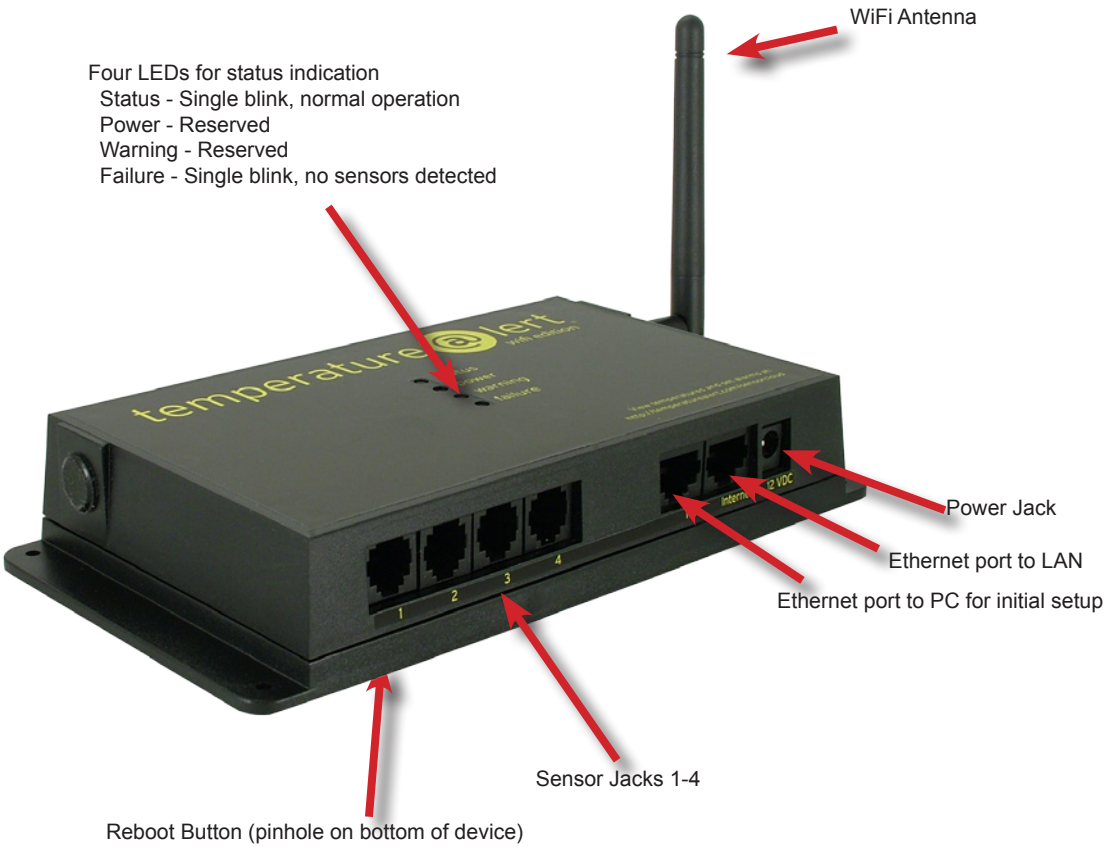
Temperature Alert is an affordable, local area network (LAN)-based device for real time monitoring of temperature, or temperature and humidity.

Temperature Alert provides all the features you'd expect from much more costly solutions. It includes both a WiFi radio and a hard wired Ethernet interface to connect to your LAN. Once connected its built-in web server gives you access to all of the product's features.

You can set alarm levels on a channel-by-channel basis; program SMTP parameters to report real time alarms, data and status to any email address; retrieve a text file and XML feed for manual or programmatic access to historical data. Preference settings allow you to configure temperature reporting in °F or °C. Set your time zone to report time and date stamps in local time, and specify an NTP time server to keep Temperature Alert precisely synced to Internet-based time servers. Multiple Temperature Alerts may be deployed and individually named for your application ("Freezer Room", "Archive Warehouse", etc.), and access to them can be strictly controlled with user names and passwords. Full-featured LAN interface flexibility is built in, so Temperature Alert easily adapts to the most basic and most complex network configurations.

Temperature Alert is provided with an AC adaptor power supply and one temperature probe, or a temperature and humidity probe (6 ft, 1.8 m) depending upon the model selected. A selection of optional temperature and humidity probe configurations is also available.

Temperature Alert Close-up



Temperature Alert Features

Full Email Support

Send alerts, status, complete data files, and daily high, low, and average readings to any email address. Features a quick configuration mode for any Google gmail account.

Fast and Easy Setup With Gmail

Do the peculiarities of the SMTP elude you? Then use a free Google gmail account and Temperature Alert's one button gmail configuration setup to send email to any email address. Just select "Gmail SMTP", your gmail user name and password, and the email address where you'd like reports to be sent. It's that easy.

Support for Four Sensors

Measures temperature and/or humidity from each of four sensor ports to minimize deployment cost.

Built-in Security Enhancements

Access to Temperature Alert may be strictly controlled with a user name and password, and its built-in web server means that you access it using a standard web browser with no software installed on your computer. Supports SSL/TLS cryptographic protocols to provide communication security over the Internet.

Operating System-independent

Since Temperature Alert provides a built-in web server, it can be accessed from any computer running any operating system with any web browser.

Graphical Waveform Display

When accessed using any standard web browser, Temperature Alert's home page features Flash-based graphics to convey historical recorded data. The time frame may be compressed or expanded to display more or less time history as required.

NTP Time Server Support

Provided that Temperature Alert has Internet access it can use NTP web-based network time protocol servers to automatically sync its clock to those web standards.

Built-in Wireless and Hardwired Ethernet Interfaces

Use either or both depending upon your networking requirements.

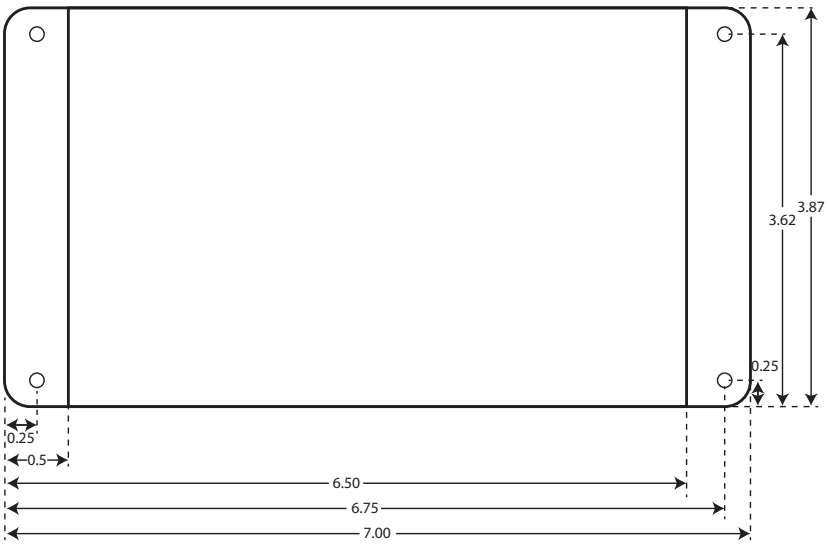
Flexible Naming Options

Each Temperature Alert sensor port may be assigned a unique name to identify it in generated reports, and Temperature Alert mainframes also can be uniquely named to distinguish them from others when multiple units are deployed.

Integral Mounting Flange

Secure Temperature Alert in any deployment orientation with the pre drilled mounting flange.

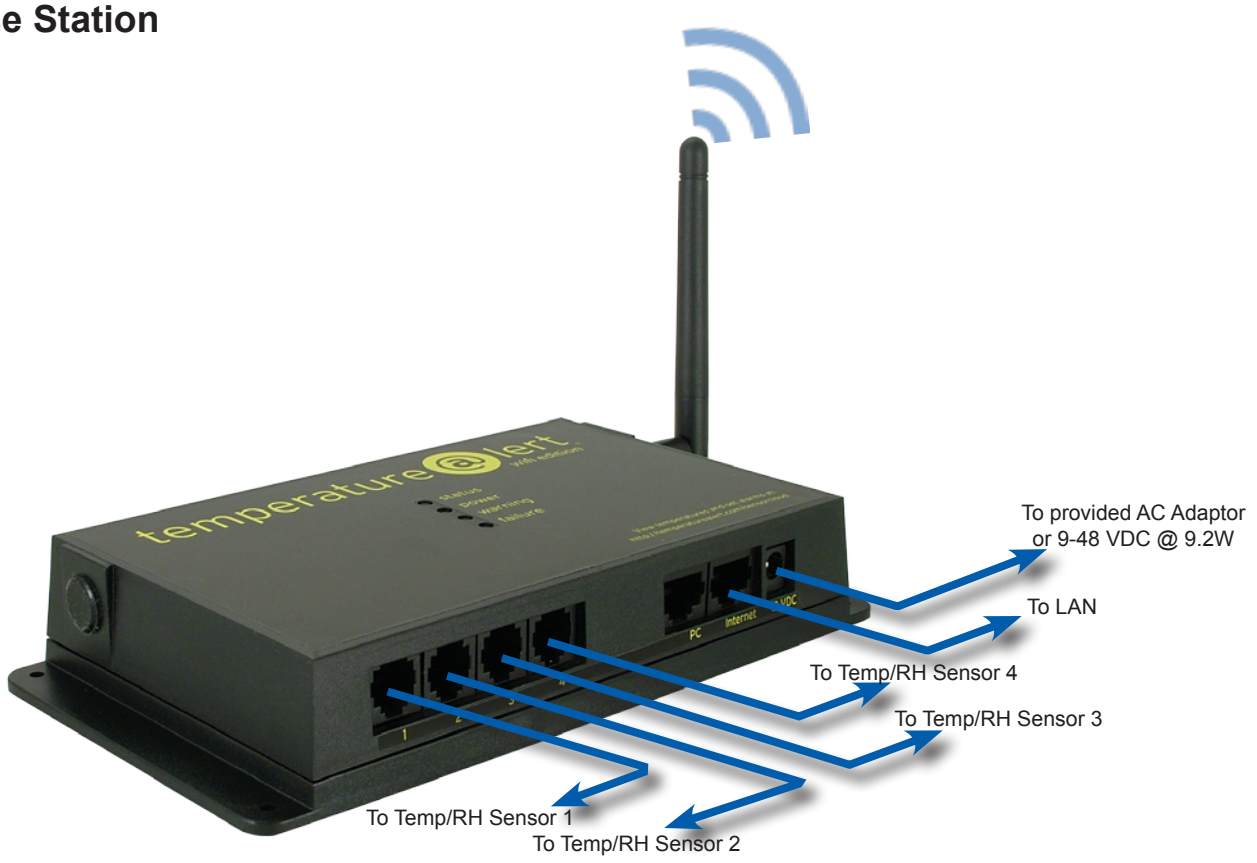
Temperature Alert Dimensional Drawing



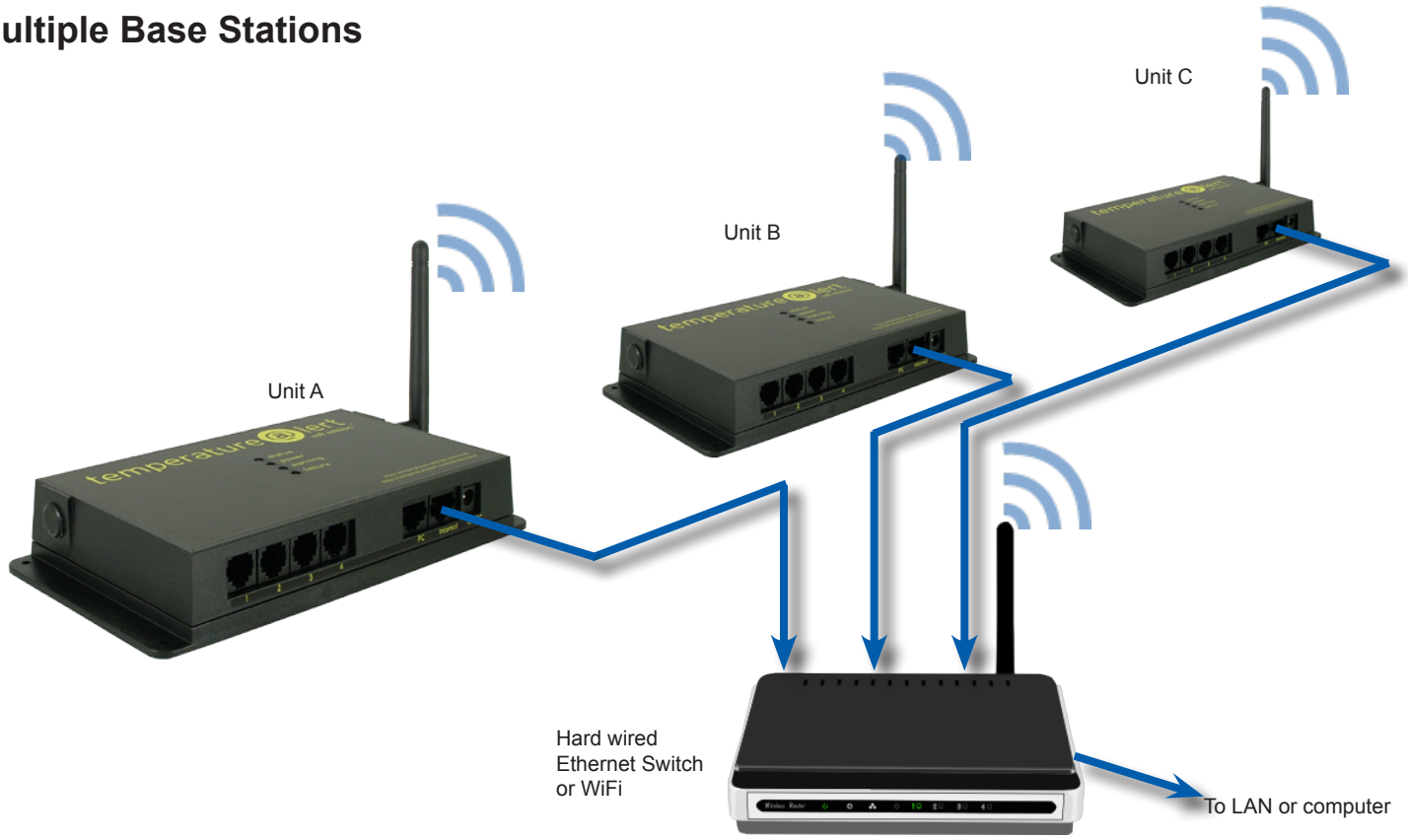
All Dimensions in Inches

Typical Deployment Modes

Single Base Station



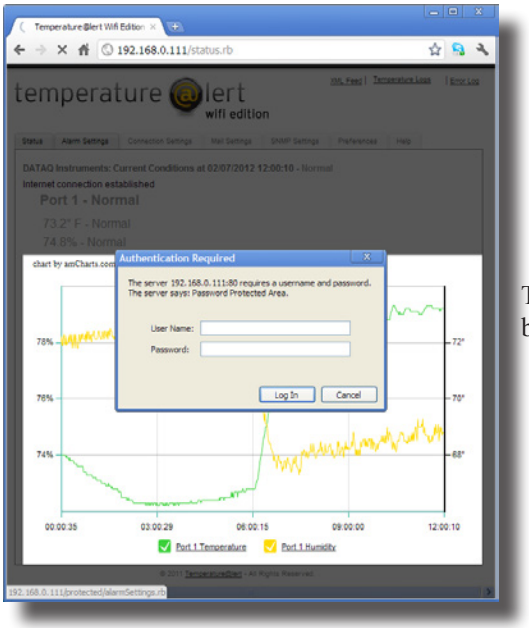
Multiple Base Stations



Web Server Overview

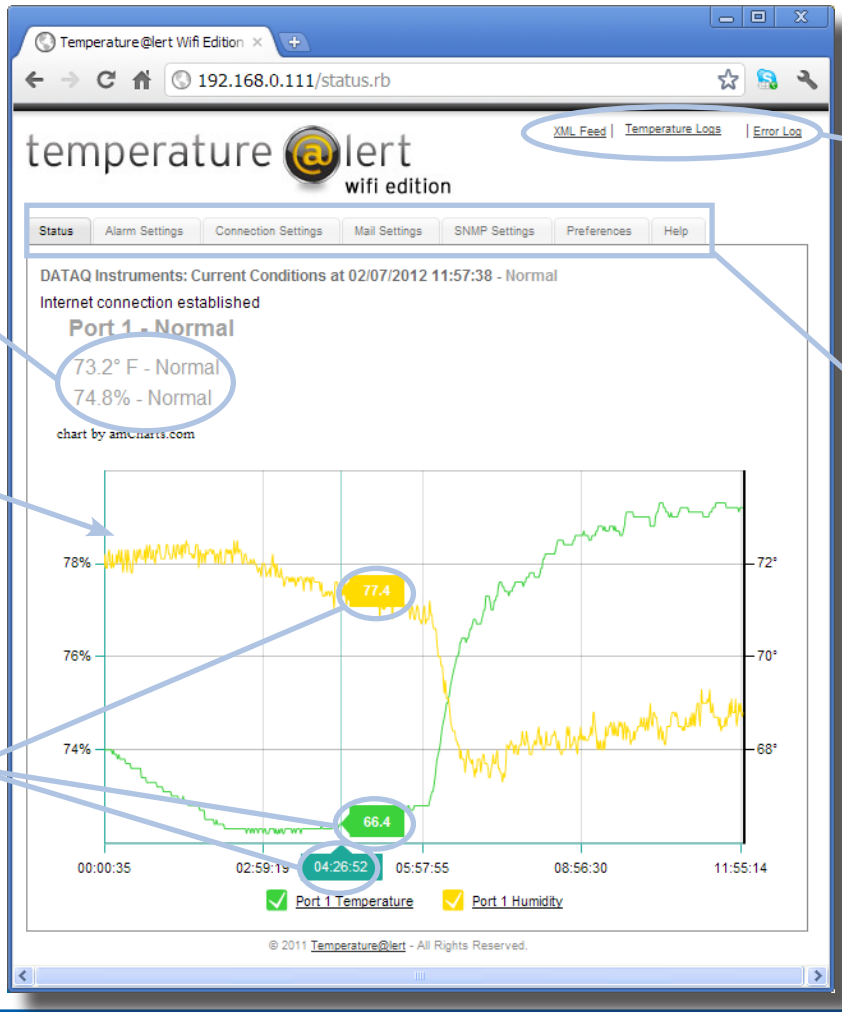
Temperature Alert's built-in web server gives you access to a multitude of powerful features, all from the convenience of your web browser, without any installed software, and regardless of computer operating system.

Built-in Security



Temperature Alert's security features prevent unauthorized access by requiring a user name and password.

Home Page Features Quick-look Status



Current temperature and humidity.

Real time trending graph of temperature and humidity.

Click and drag to show temperature and humidity at any time.

Click feed and historical data links to download data in an ASCII format, or to access data programmatically.

Click tabs to access other features and configuration items as needed.

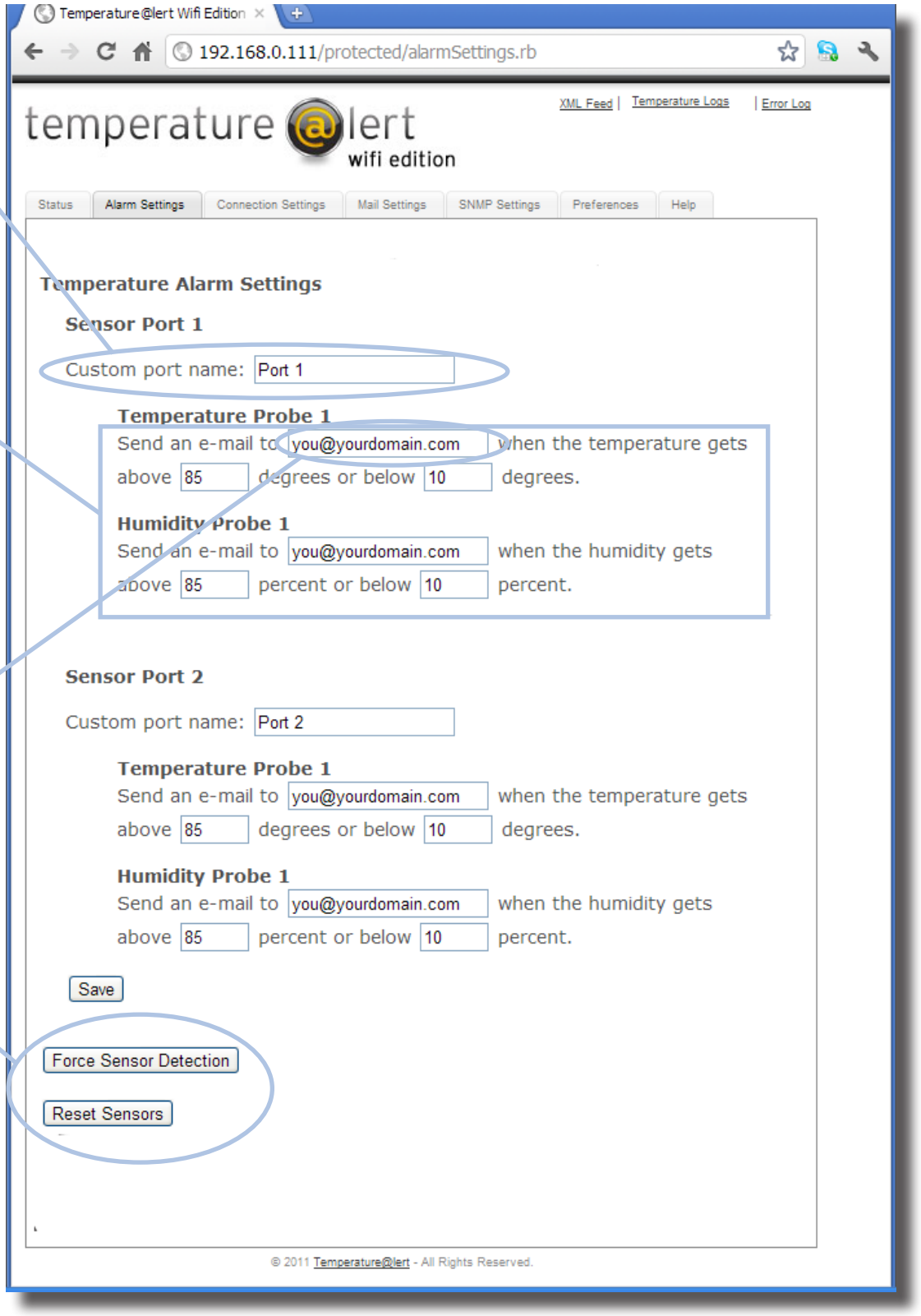
Email Alarms for any Condition

Customize the name of each of four base station ports.

Define high and low limits for temperature and humidity. Readings outside these ranges trigger an email alert.

Define an email address target per port for temperature and humidity alerts.

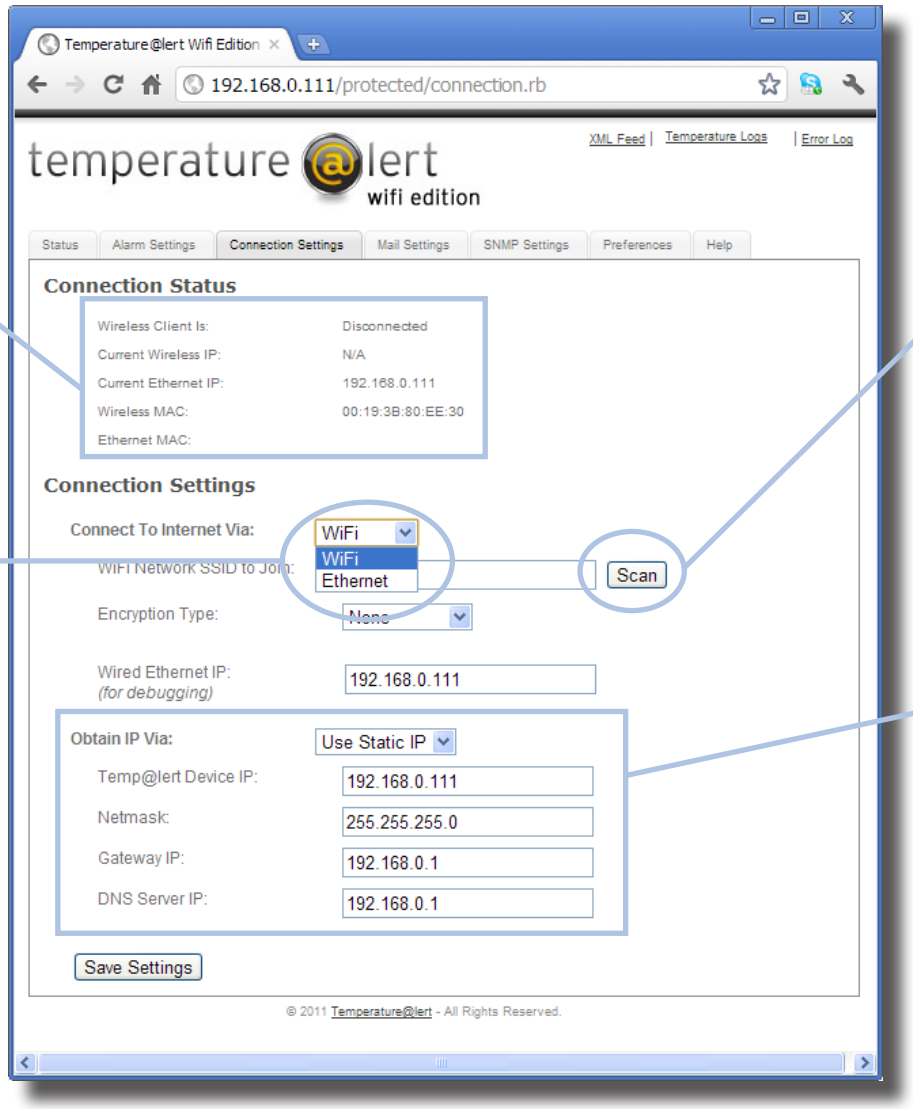
Click to manually detect and reset sensors after a reconfiguration.



Adapts to any LAN Configuration

Quick-look connection status for both hard wired and WiFi ports.

Temperature Alert can operate via WiFi, hard wired Ethernet, or both.



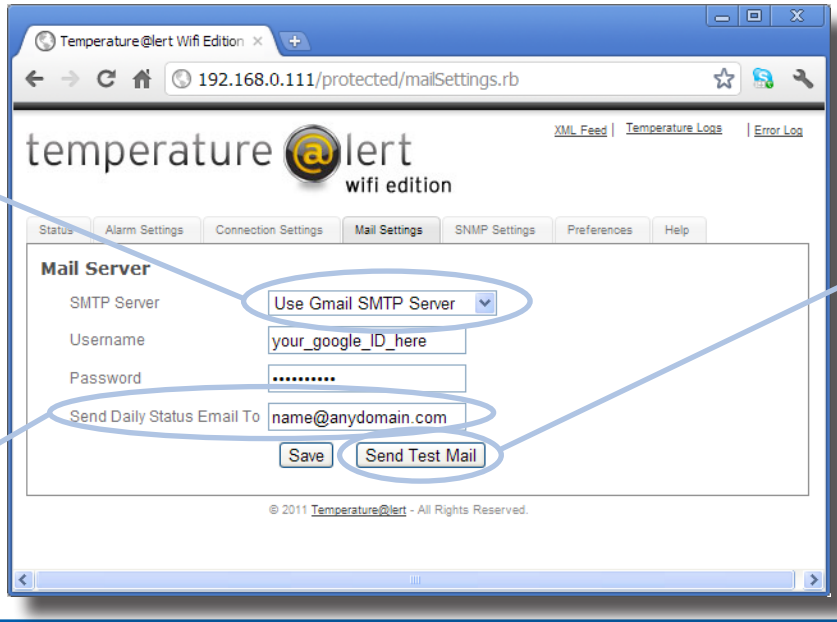
Click to have Temperature Alert automatically scan for available WiFi router, and then select the one you want.

Full support for all networking protocols: Static, IP, DHCP, subnet masks, and more.

Quick and Easy Email Configuration

One click selects your gmail account as the email server to any email domain, or select a custom SMTP configuration.

Specify an email address for daily status updates, which can be different from alarm emails.

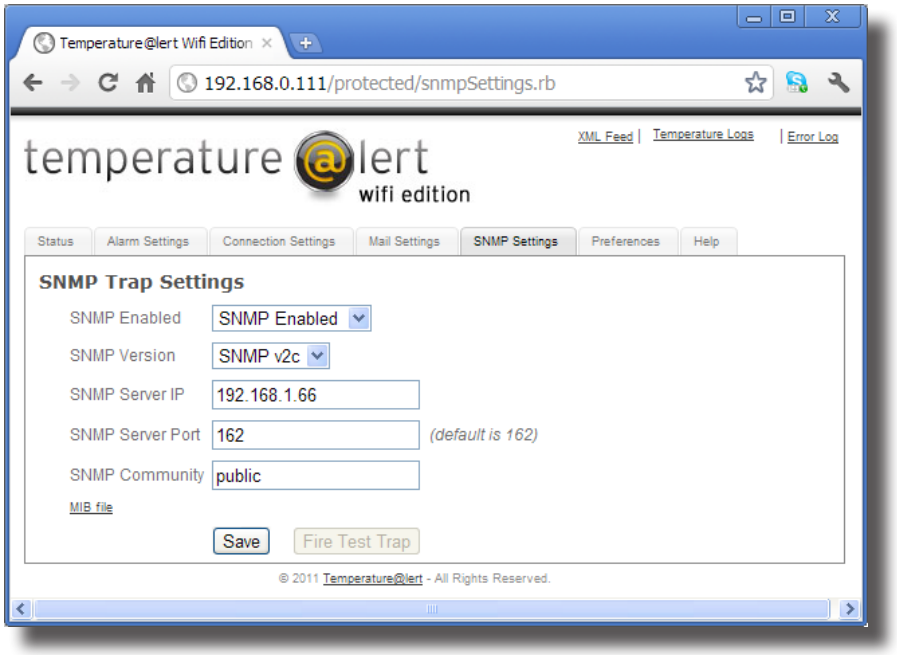


It's easy to test your configuration ... just click here.

Configure SNMP Traps

SNMP traps allow a base station to proactively alert a LAN-based administrative computer to alarm conditions. This removes the need for the administrator to continuously poll the base station.

SNMP settings are optional.



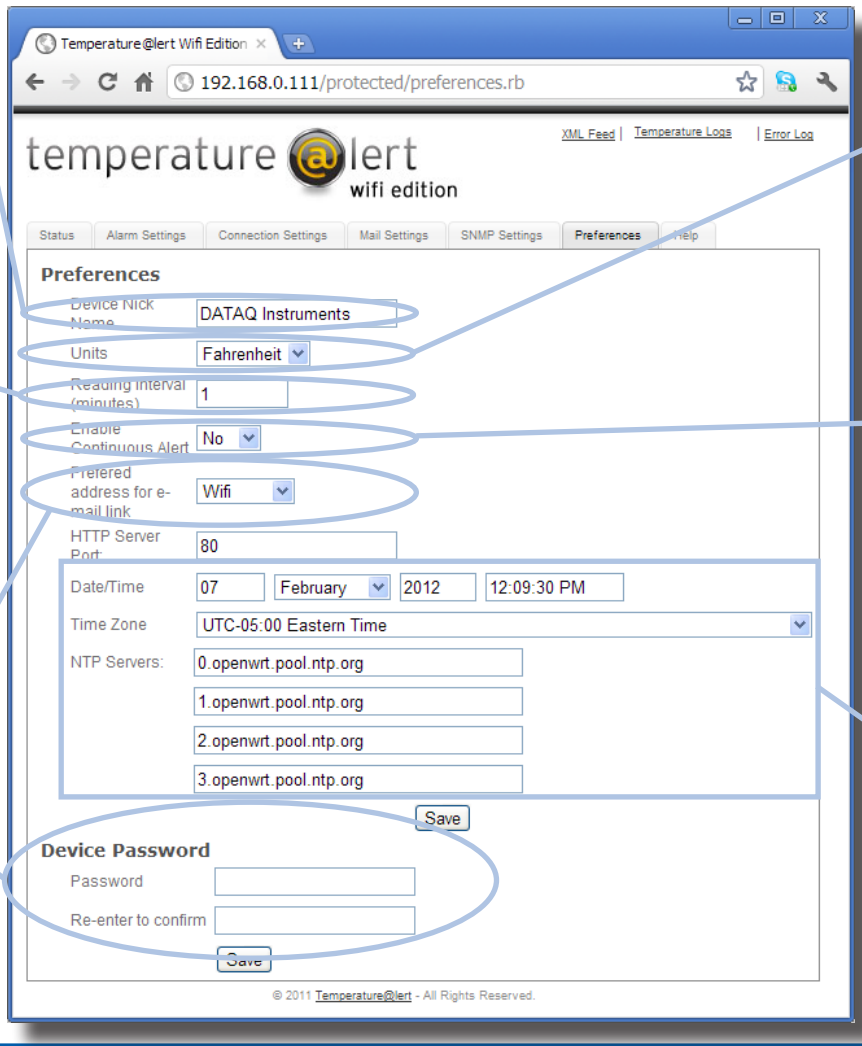
Preferences

Specify a unique name for the base station to easily identify it in emails and status reports.

Program the sample interval, from once per minute to one every 9,999 minutes.

Click to select if the base station sends email alerts via its WiFi or hard wired Ethernet link.

Specify a password to control access to the base station.



Program the base station to report temperatures in °C or °F.

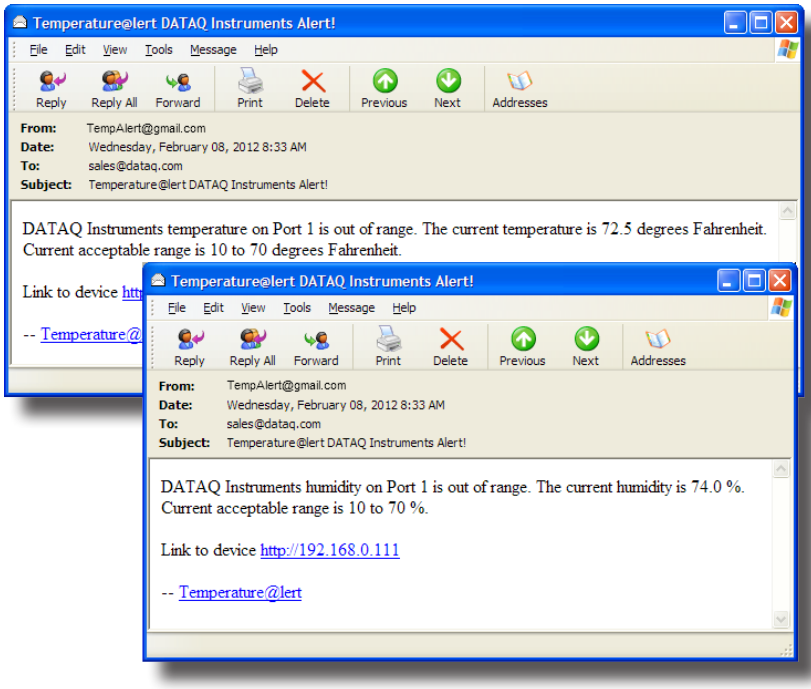
Select whether the base station sends an alert upon every sample interval while in an alarm state, or only once when it first occurs.

Configure the current time and time zone, as well as Internet-based time servers that the Temperature Alert's base station will use to keep its internal clock synchronized..

Typical Email Alerts and Status Updates

Email Alerts

Two typical email alerts, one for temperature and another for humidity.



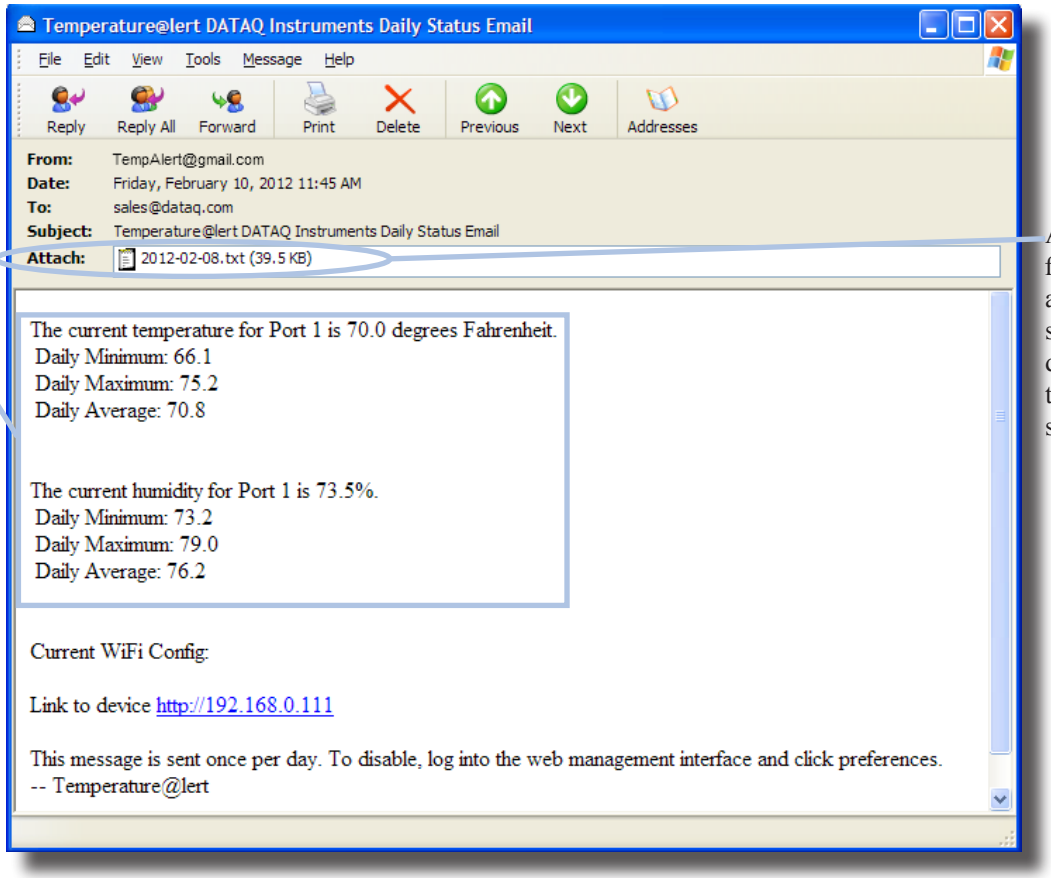
Email routing was all handled via a free, standard gmail account (TempAlert) using Gmail's SMTP server, which is a single click Temperature Alert configuration.

Note that destination emails are not limited to gmail, since these were sent to sales@dataq.com.

Alternatively, a custom SMTP server may be configured.

Daily Status Emails

An example of the daily status report sent from the free gmail account. The base station is configured to send these once per day to the target email sales@dataq.com.



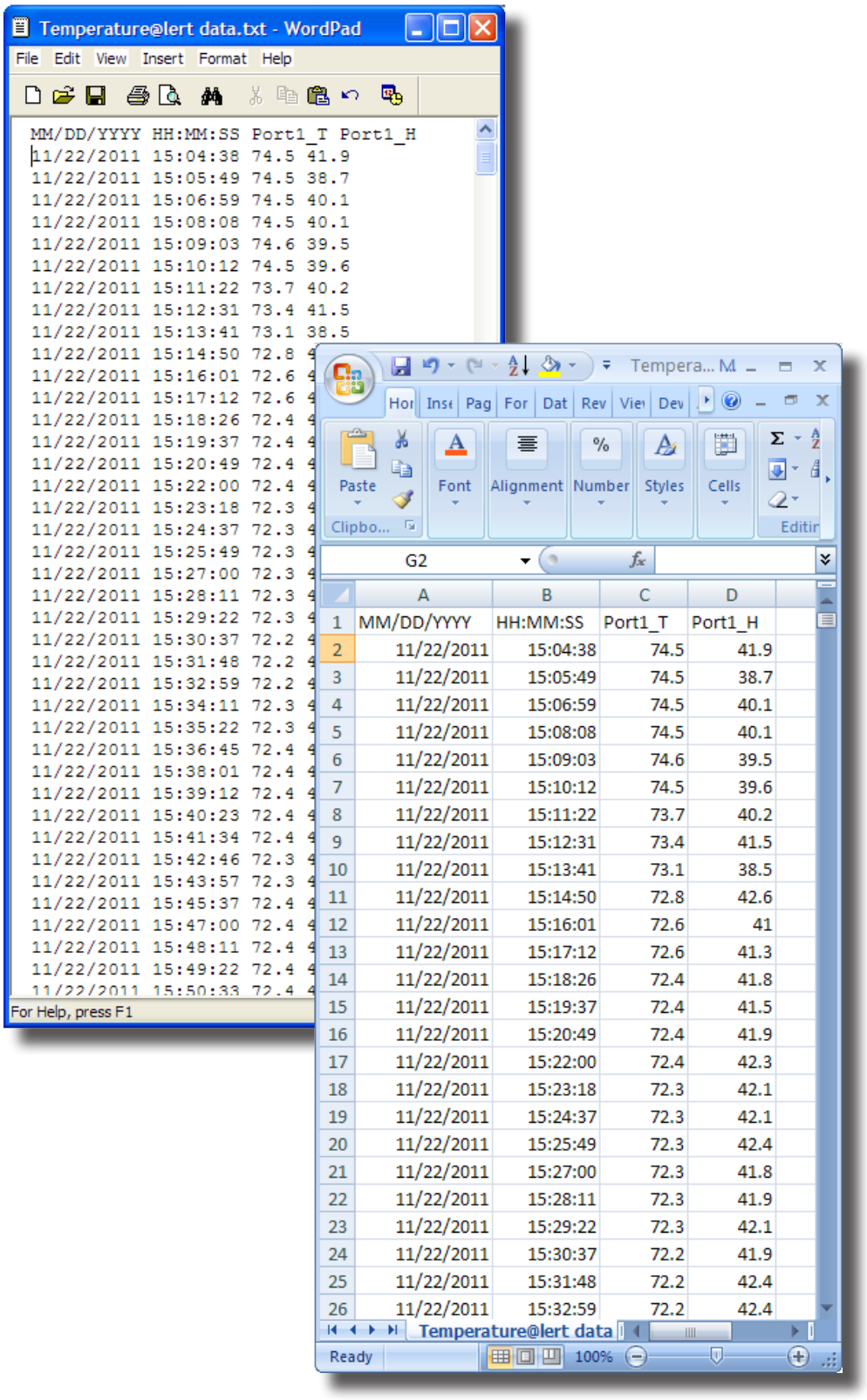
The report provides an overview of temperature and humidity activity, showing minimum, maximum, and average values.

An attached text file provides all sample-by sample, detailed data along with time and date stamps.

Daily Report Detailed Text File

A typical text file attached to daily status emails, or accessible at any time via download directly from the base station provides all acquired temperature and humidity data. Time and date stamps are also provided for each sample.

The file's delimited format allows data to be easily imported to any presentation and analysis application, like Microsoft Excel.



The text files created by a Temperature Alert base station are easily imported to any presentation and analysis application. One of the most popular is Microsoft Excel.

Temperature Alert Specifications

Model:	Temperature Alert WiFi edition
Part Number:	TM-WIFI350
Dimensions:	1.25" × 4.00" × 6.00" (32 × 102 × 152 mm)
Processor:	32-bit MIPS R4Kc-class processor 183MHz
Flash:	64 Mbit (8MB) of 3V supply flash memory
RAM:	256 Mbit 32(MB) of 16-bit 166MHz SDRAM
Ethernet:	10/100 Base-TX Ethernet Port with PoE
Operating Temperature:	0°C to 40°C (32°F to 104°F)
Power Source:	9-48VDC
Operating Current:	0.38A Typical @ 12V
Included power supply requirements:	115 VAC
Pre-calibrated Sensor(s):	Yes
Temperature Sensor Range:	-20°C to 60°C (-4°F to 140°F)
Temperature Sensor Accuracy:	±0.5°C Accuracy from -10°C to +85°C
Temperature Sensor Datasheet:	http://datasheets.maxim-ic.com/en/ds/DS18B20.pdf
Optional Temperature/Humidity Sensor Range:	-20°C to 60°C (-4°F to 140°F) 10% to 90% RH @ operating temperature
Temperature/Humidity Sensor Accuracy:	±0.5°C Accuracy from -10°C to +85°C; ±3%RH
Standard Sensor Cable Length:	6 feet (1.8 meters)
Maximum sensor Cable Length:	100 feet (30 meters)
Network Requirements:	WiFi Network (802:11 b/g) or Wired Ethernet
Wireless:	802.11b/g, WPA/WEP security
Output Power:	500mw
Antenna:	2dbi (RPSMA)

Chipset:	Atheros AR2315 chipset
Memory:	32MB DRAM, 8MB Flash
Operating System:	Open WRT
Installation Location:	Indoors
Requires Computer Running:	No
Software Requirements:	Any current web browser
Hardware Requirements:	Accessible WiFi Signal
Battery Back-up Operation:	No
Internal Temperature Probe:	No
External Temperature Probe(s):	Yes (1 or 2)
Pre-calibrated Sensor(s):	Yes (1 or 2)
Expansion Options:	1 or 2 Sensors Standard (up to 20 special order)
Celcius and Fahrenheit:	User Selectable
Real-time Temperature Alerts:	Yes (email)
Alert Frequency Minimum:	1 minute
Alert Frequency Maximum:	9999 minutes
Continuous or One-time Alerts:	User Selectable
Email Alert:	Yes
Action on Return to Normal:	Email
PC Shutdown:	No
Real-time Temperature Graph:	Yes
Browser-based Web Access:	Yes, internal network
Action on Fault:	None
Data Logging:	Yes
Data Log Format:	Text, XML
Supports SMTP Authentication:	Yes
SNMP:	Yes
Software Upgrades:	1 year free
Included:	Embedded software, 6ft. (1.8m) external temperature sensor, power adapter
Warranty:	1 year
Money Back Guarantee:	30 days risk free

Ordering Guide

Base Stations

TM-WIFI350 4-port Temperature Alert base station. Includes model AC-TMPRJ126 temperature probe and AC adaptor.	TM-WIFI350
TM-WIFI350-TH 4-port Temperature Alert base station. Includes model AC-TMPHRJ126 temperature & humidity probe and AC adaptor.	TM-WIFI350-TH

Accessories and Probe Options

					Measurements	
Description	Model	Waterproof	UV, chemical, and corrosion-resistant	Length in Ft (m)	Temperature	RH
NIST Certification[1]	AC-NISTCERT					
Standard sensors[2]	AC-TMPRJ126			6 (1.8)	✔	
	AC-TMPRJ1215			15 (4.6)	✔	
	AC-TMPRJ1230			30 (9.1)	✔	
	AC-TMPRJ1250			50 (15.2)	✔	
Expanded range sensor[3]	AC-TMPEXRJ12	✔		6 (1.8)	✔	
Stainless steel sheathed sensor[2]	AC-TMPRJ1230-SS15	✔		30 (9.1)	✔	
Ruggedized stainless steel sensor[2]	AC-TMPRJ1230-SS15-R	✔	✔	30 (9.1)	✔	
Standard sensors[2]	AC-TMPHRJ126			6 (1.8)	✔	✔
	AC-TMPHRJ1215			15 (4.6)	✔	✔
	AC-TMPHRJ1230			30 (9.1)	✔	✔
	AC-TMPHRJ1250			50 (15.2)	✔	✔
Ruggedized sensor[2]	AC-TMPHRJ1230-R		✔	30 (9.1)	✔	✔

[1]Must be ordered at the same time as the sensor

[2]Standard temperature range: -20°C to +60°C (-4°F to +140°F)

[3]-200°C to +200°C (-328°F to +392°F)

DATAQ® INSTRUMENTS

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Data Acquisition Product Links

(click on text to jump to page)

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