



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

## Header 2

List View

**General Information** | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#)

Procurement Folder: 350321

SO Doc Code: CRFQ

Procurement Type: Central Master Agreement

SO Dept: 0506

Vendor ID: VS0000013731

SO Doc ID: EHP1800000002

Legal Name: SMART TEMPS LLC

Published Date: 8/10/17

Alias/DBA:

Close Date: 8/18/17

Total Bid: \$125,000.00

Close Time: 13:30

Response Date: 08/14/2017

Status: Closed

Response Time: 12:22

Solicitation Description: Digital Data Logger - Addendum No. 3

Total of Header Attachments: 2

Total of All Attachments: 2



Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

**State of West Virginia  
 Solicitation Response**

**Proc Folder :** 350321  
**Solicitation Description :** Digital Data Logger - Addendum No. 3  
**Proc Type :** Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2017-08-18 13:30:00	SR 0506 ESR08141700000000555	1

<b>VENDOR</b>
VS0000013731 SMART TEMPS LLC

**Solicitation Number:** CRFQ 0506 EHP1800000002

**Total Bid :** \$125,000.00      **Response Date:** 2017-08-14      **Response Time:** 12:22:21

**Comments:** Standard payment terms are Net 30.

**FOR INFORMATION CONTACT THE BUYER**  
 April Battle  
 (304) 558-0067  
 april.e.battle@wv.gov

<b>Signature on File</b>	<b>FEIN #</b>	<b>DATE</b>
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Digital Data Logger	1250.00000	EA	\$100.000000	\$125,000.00

Comm Code	Manufacturer	Specification	Model #
41111970			

<b>Extended Description :</b>	Digital Data Logger 1,250 ea. Continuous Temperature Monitoring Device for Vaccine Storage Units for all VFC Provider Sites EPS 17-379
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**Comments:** Monitoring service 24/7/365 with real time alerting. \$4/month per device.

## Specifications 2017



### Equipment Monitoring / Alerting

- Wireless 24 hour digital automatic temperature monitoring of hot and cold equipment such as: refrigerators, freezers, hot boxes, dish machines, storerooms and delivery trucks.
- Temperature data continuously sent to a secure server to document HACCP compliance information 24/7/365.
- System automatically sends a text message, email and/or phone call if a potential problem is detected with the monitored equipment.

### Flow-of-Food Monitoring

- Food temperatures submitted directly to secure server for accurate documentation.
- Exceeds most Standard Operation Procedures and HACCP reporting standards.
- Daily food menu items are automatically downloaded to the SMART Shield<sup>®</sup> Pro or SMART Shield<sup>®</sup> to record all stages throughout the food preparation process including: Receiving, Preparation, Cooking, Holding, Serving and Cooling.

### Tasks / Compliance / Inspections

- Allows the user to perform and document tasks on the SMART Shield<sup>®</sup> Pro. Custom inspection forms can also be added.
- Task function allows comments to be entered with or without photo documentation.
- Task reminder feature to help ensure that tasks are done on time.
- Option to require a signature before submitting inspection forms is available.
- Inspection Forms can include pictures, temperatures, Compliant/Non-Compliant fields and free-form text fields.
- Custom corrective actions can be assigned on each Inspection Form for non-compliant items.
- All data is stored on local device to be sent later if a signal is unavailable.
- All tasks and Inspection Forms can be viewed on the SMART Command Center<sup>®</sup> whether they are completed/incomplete.

## Specifications 2017

### Reporting

- All information will be available, real time, 24 hours a day, 365 days a year on a secure, password protected website.
- Data is continuously backed up to an off-site location and a secondary server location is always on standby in the event of an emergency or natural disaster.
- Customizable HACCP reporting can be generated for each piece of equipment and food item that is monitored. Information is archived for no less than 7 years, eliminating the need for paper logs to be kept on site.

### Education, Training and Service

- SMART Temps Representatives will provide web training and support at the customer's convenience.
- Alerts and food temperatures will be reviewed during the training.
- Proper Cold Prep, Cooking, Serving, Cooling and Corrective Action practices will be reviewed during the training.
- Training will address proper use of the wireless thermometer in conjunction with your department's Food Safety and HACCP Plan. Thermometer calibration and care will be discussed.
- Training will address the use of the secure website.
- Each site will be provided with an online manual and support material to assist in operation of the wireless thermometer and secure website.

### Installation

- Installation can be done by a professional, insured and bonded installer.
- Equipment will be installed within three weeks of approval.

### Technical Support

- The company and/or company's sales representative offers technical support to customer at no cost. Technical and training support questions will be answered via online and/or through our customer care phone center.

### Warranty

- The company offers an extended warranty against defects including broken, lost or stolen equipment for the period of the contract awarded.

### Compliance Benefits

- Exceeds USDA, SDOH, FDA, CDC Record Keeping Requirements
- Code of Federal Regulations (FDA), 21 Electronic Data Compliance
- NAFEM Data Protocol Compliant

## Specifications 2017

### SMART Guard<sup>®</sup> Wireless Thermometer

Wireless thermometer for automatic temperature monitoring of hot and cold equipment such as refrigerators, freezers, hot boxes, dish machines, storerooms and delivery trucks. The SMART Guard<sup>®</sup> also features a door switch option to monitor access to the equipment. Unit has the option to use an internal thermistor or attach an external thermistor.



#### Features

- 24/7/365 monitoring of equipment.
- 24/7/365 notification of alerts sent via email, text and/or phone call.
- Identifies potential equipment maintenance issues in advance of failure.
- Helps to eliminate product loss.
- Reduces labor cost by eliminating manual temperature logging.
- Stores up to 30 days of data in case of network or electricity failure.
- Wireless transmission eliminates the need for hard wired installation.

#### Specifications

• Display	128x32 pixel graphical backlit LCD
• Door Switch	Yes (Requires optional switch kit)
• Temperature Range	-40°F to 260°F (-40°C to 125°C)
• Accuracy	+/- 0.9°F (+/-0.5°C) at -4°F to 158°F (-20°C to 70°C)
• Resolution	0.1°F or 0.1°C
• Response Time	NA
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Max / Min	NA
• Hold	NA
• Distance	5,000 Feet - (Line of Sight)*
• Batteries	3 AA
• Battery Life	12 Months
• Calibration	NA
• Dimensions	4" X 3" X 1"
• Weight	5.4 oz
• Water Protection	NA
• NIST Traceable	NIST Traceable Certificate (Optional)
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Wi-Fi Guard<sup>®</sup>

#### Wireless Thermometer

Wireless thermometer for automatic temperature monitoring of equipment storing temperature sensitive food, vaccines, medications and other critical inventory items. Unit has the option to use an internal thermistor or attach an external thermistor.



#### Features

- 24/7/365 monitoring of equipment.
- 24/7/365 notification of alerts sent via email, text and/or phone call.
- Identifies potential equipment maintenance issues in advance of failure.
- Helps to eliminate product loss.
- Reduces labor cost by eliminating manual temperature logging.
- Stores up to 30 days of data in case of network or electricity failure.
- Wireless transmission eliminates the need for hard wired installation.

#### Specifications

• Display	128x32 pixel graphical backlit LCD
• Door Switch	Yes (Requires optional switch kit)
• Temperature Range	-40°F to 260°F (-40°C to 125°C)
• Accuracy	+/- 0.9°F (+/-0.5°C) at -4°F to 158°F (-20°C to 70°C)
• Resolution	0.1°F or 0.1°C
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Power	Micro USB Cable or 3 AA Batteries
• Calibration	NIST Traceable Certificate (Available)
• Dimensions	4" X 3" X 1"
• Weight	5.4 oz
• NIST Traceable	NIST Traceable Certificate (Optional)
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Humidity Guard<sup>®</sup> Wireless Thermometer

The SMART Guard<sup>®</sup> - Humidity monitors temperature and humidity 24/7/365 for areas where temperature documentation, humidity documentation and alerts are needed.



#### Features

- 24/7/365 monitoring of equipment.
- 24/7/365 notification of alerts sent via email, text and/or phone call.
- Identifies potential equipment maintenance issues in advance of failure.
- Helps to eliminate product loss.
- Reduces labor cost by eliminating manual temperature and humidity logging.
- Stores up to 30 days of data in case of network or electricity failure.
- Wireless transmission eliminates the need for hard wired installation.

#### Specifications

• Display	128x32 pixel graphical backlit LCD
• Temperature Range	32°F to 176°F (0°C to 80°C)
• Accuracy	+/- 2°F (-+/-1.11°C)
• Resolution	0.1°F or 0.1°C
• Humidity Range	0 to 100% RH
• Humidity Accuracy	+/- 3% RH
• Response Time	NA
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Max / Min	NA
• Hold	NA
• Distance	5,000 Feet - (Line of Sight)*
• Batteries	3 AA
• Battery Life	12 Months
• Calibration	NIST Traceable Certificate (Optional)
• Dimensions	4" X 3" X 1"
• Weight	5.4 oz
• Water Protection	NA
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Device Specifications 2017

### SMART Cryo Guard<sup>®</sup> Wireless Thermometer

A wireless thermometer for automatic temperature monitoring of equipment that requires a temperature range of -328°F to 392°F (-200°C to 200°C).

Used on equipment such as cryogenic freezers, incubators, centrifuges, ovens, etc. Unit comes with an external RTD probe.



#### Features

- 24/7/365 monitoring of equipment.
- 24/7/365 notification of alerts sent via email, text and/or phone call.
- Identifies potential equipment maintenance issues in advance of failure.
- Helps to eliminate product loss.
- Reduces labor cost by eliminating manual temperature and humidity logging.
- Stores up to 30 days of data in case of network or electricity failure.
- Wireless transmission eliminates the need for hard wired installation.

#### Specifications

• Display	128x32 pixel graphical backlit LCD
• Door Switch	NA
• Temperature Range	-328°F to 392°F (-200°C to 200°C)
• Accuracy	+/- 0.9°F (+/-0.5°C)
• Resolution	0.1°F or 0.1°C
• Response Time	NA
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Max / Min	NA
• Hold	NA
• Distance	5,000 Feet - (Line of Sight)*
• Batteries	3 AA
• Battery Life	12 Months
• Calibration	NIST Traceable Certificate (Optional)
• Dimensions	4" X 3" X 1"
• Weight	5.4 oz
• Water Protection	NA
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Shield<sup>®</sup>

#### Wireless Handheld Thermocouple

The SMART Shield<sup>®</sup> is a low cost wireless Type K Thermocouple designed for recording temperatures throughout the flow-of-food process: Receiving, Preparation, Cooking, Holding, Serving and Cooling. The SMART Shield<sup>®</sup> is perfectly suited for all food service type accounts.

#### Features

- Menu items are automatically sent from the SMART Command Center<sup>®</sup> (Website) through the SMART Link<sup>®</sup> to the SMART Shield<sup>®</sup>.
- The SMART Shield<sup>®</sup> requires corrective actions be selected at the time temperatures are taken outside of the acceptable temperature range.
- Food temperature information is automatically sent wirelessly to the SMART Command Center<sup>®</sup> (Website) for instant viewing.
- Eliminates paper logs, saves labor, data can be viewed in real time.



#### Specifications

• Display	2.8" full color 320x240
• Temperature Range	-100°F to 1000°F (-37°C to 537°C)
• Accuracy	+/- .7°F (+/- .4°C) Operating Range (32°F - 212°F)
• Resolution	.1°F / 1°F User Option
• Response Time	< 2.5 Seconds
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Batteries	Rechargeable Lithium Ion
• Battery Life	10 Hours of Continuous Usage / 90 Days Standby
• Calibration / Verification	Calibrated with ice water method
• Probe Storage	On Body
• Construction	ABS Plastic
• Wall Mount	Bracket Included
• Dimensions	6.63" X 3.29" X 1"
• Dimensions w/ Probe Attached	7.5" X 3.29" X 1"
• Weight	6.4 oz
• Weight w/ Probe Attached	8.2 oz
• Water Protection Waterproof	Yes: IP66 Waterproof
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Shield Pro<sup>®</sup>

#### Wireless HACCP Thermocouple

Using the latest touchscreen Android™ device, along with a custom SMART Shield<sup>®</sup> Pro Application, and Bluetooth wireless temperature probe, the SMART Shield<sup>®</sup> Pro makes HACCP easy by using the patented SMART Temps<sup>®</sup> Cloud Technology to download menu items, user information and task lists 24/7/365 via the SMART Command Center<sup>®</sup>. As the unit may be taken from site to site, supervisors can use the SMART Shield<sup>®</sup> Pro as a verification device and inspection tool.



### Features

- Menu items are automatically sent from the SMART Command Center<sup>®</sup> (Website) to the SMART Shield<sup>®</sup> Pro via Wi-Fi connection.
- The SMART Shield<sup>®</sup> Pro provides corrective actions at the time temperatures are taken outside the acceptable temperature range.
- Food temperature information is automatically sent wirelessly to the SMART Command Center<sup>®</sup> (Website) for instant viewing.
- Inspection forms can be customized to help customer exceed compliance requirements.
- Eliminates paper logs, saves labor hours and data can be viewed in real time.
- English or Spanish language options available.
- Can hold up to 1000 daily menu items.

### Specifications

• Display	7" HD Backlit Display
• Resolution	1280x800 (216 ppi)
• Temperature Range	-100°F to 1000°F (-37°C to 537°C)
• Accuracy	+/- .7°F (+/- .4°C) Operating Range (32°F - 212°F)
• Response Time	< 2.5 Seconds
• Probe Type	K Type
• F / C	YES
• Sleep Mode	YES
• Battery Life	8 Hours of Continuous Usage
• Calibration / Verification	Calibrated with Ice Water Method
• Operating System	Google Android 4.1 (Jelly Bean)
• CPU	1.2 Ghz Dual Core Application Processor
• Memory	8 GB Internal Storage
• Communications	Wi-Fi with a/b/g/n Bluetooth
• Camera	3 Megapixel Rear-Facing

## Specifications 2017

### SMART Dish Guard<sup>®</sup>

#### Wireless Thermometer

Wireless thermometer for temperature monitoring of commercial dish machines. The SMART Dish Guard<sup>®</sup> also features a built in thermistor plate that replicates the surface temperature of dishes, pans, silverware, glasses and other items that are run through any commercial dish machine.



#### Features

- Monitors dish surface temperatures from the dish machine and sends them to the SMART Command Center<sup>®</sup> for “Real Time” compliance.
- Eliminates the need for manual logging.
- Eliminates manual testing of surfaces with test strips.
- Corrective actions prompted and documented.
- Improves food safety.
- Stores up to 30 days of data in case network or electricity failure.
- Wireless transmission eliminates the need for hard wired installation.

#### Specifications

• Display	128x32 pixel graphical backlit LCD
• Temperature Range	-40°F to 221°F (-40°C to 105°C)
• Accuracy	+/- 1.0°F (+/-0.5°C) at -4°F to 158°F (-20°C to 70°C)
• Resolution	0.1°F / °C
• Backlight	YES
• F / C	YES
• Sleep Mode	YES
• Max / Min	YES
• Hold	YES
• Distance	5,000 Feet - (Line of Sight)*
• Batteries	3 AA
• Battery Life	12 Months
• Calibration	NA
• Dimensions	5" X .75"
• Weight with Batteries	6.0 oz
• Water Protection Waterproof	Yes: IP66 Waterproof
• Compliances	RoHS / FCC / IC

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Link<sup>®</sup> Wireless Gateway

The wireless gateway located at each site which allows the SMART Guard<sup>®</sup> to communicate to the SMART Command Center<sup>®</sup> (Website).



### Features

- AES 128 bit encryption and robust RX filtering.
- Built in secured web GUI for easily making network setting changes.

### Specifications

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Screen</li> <li>• Back Light</li> <li>• Wired Communication</li> </ul>   | <p>2x24 Character display with back light<br/>YES, Blue<br/>Ethernet 10/100 Mbps<br/>USB Host x 1, Full speed<br/>USB Device x 1, Full speed<br/>ZigBee (802.15.4)<br/>Cellular (CDMA) Optional Module required for this feature<br/>Wi-Fi (802.11) Optional Module required for this feature<br/>Uses a custom embedded Linux Operating system<br/>DHCP to obtain an IP Address (can be configured to use a static IP Address and a proxy server)<br/>Uses HTTP or HTTPS to communicate to SMART Command Center<sup>®</sup> (Website)<br/>2.4 GHz ZigBee external antenna<br/>5,000 Feet - (Line of Sight)*<br/>Power adapter is included<br/>5.25" X 6.33" X 1.5"<br/>12.4 oz<br/>RoHS / FCC / IC</p> |
| <ul style="list-style-type: none"> <li>• Wireless Communication</li> </ul>  |   |
| <ul style="list-style-type: none"> <li>• Operating System</li> <li>• Configuration</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>• Communication</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>• Antenna</li> <li>• Distance</li> <li>• Power</li> <li>• Dimensions</li> <li>• Weight</li> <li>• Compliances</li> </ul> |   |

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Passport<sup>®</sup> Range Extender

The wireless gateway located at each site which allows the SMART Guard<sup>®</sup> to communicate to the SMART Command Center<sup>®</sup> (Website).



### Features

- Range Extender
- Plug and Play Technology

### Specifications

- |                          |                                 |
|--------------------------|---------------------------------|
| • Wireless Communication | Zigbee (802.15.4)               |
| • Antenna                | 2.4 GHz Zigbee external antenna |
| • Distance               | 5,000 Feet - (Line of Sight)    |
| • Power                  | Power adapter is included       |
| • Dimensions             | 5.25" X 6.33" X 1.5"            |
| • Weight                 | 12.4 oz                         |
| • Compliance             | RoHS / FCC / IC                 |

\*Actual Communication Distance will depend on RF Environment.

## Specifications 2017

### SMART Command Center<sup>®</sup> Cloud-Based Dashboard

A secure website used to manage the temperatures collected from both equipment and flow-of-food, along with completed tasks and inspection results.



### Features

- The SMART Command Center<sup>®</sup> allows users to see real-time temperatures, completed tasks and completed inspections anywhere internet is available.
- Can view all locations at one time.
- Can generate reports 24/7/365.
- Printable, exportable HACCP / USDA / CDC / JACCO and other compliance data reporting.
- Data search with custom date ranges.
- Preventative Maintenance reports.
- Calibration Logs.
- Task and inspection reports including custom comments and photos.
- Custom menu management (daily, weekly and cycle menu compatibility).
- CFR 21 compliant.

### Specifications

- Compatibility
- Viewable
- Data Management
- Users
- Alerts
- Reports
- Serving Calendar
- Task Management
- Inspection / Compliance
- System Management
- Online Training

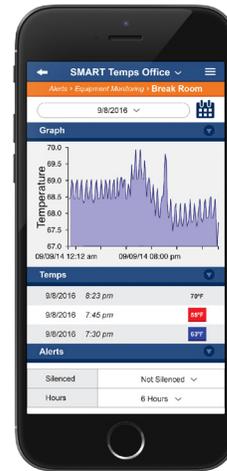
Internet Explorer, Chrome, Firefox and Safari  
PC, Apple, Linux, Android and Chrome Book  
Information is archived for no less than 7 years.  
Multiple levels of security for complete or limited access.  
All equipment alerts and responses are documented.  
Multiple reports are available for equipment and flow-of-food.  
The user can configure daily, weekly or cycle menus which automatically sync with the SMART Shield<sup>®</sup> and SMART Shield<sup>®</sup> Pro.  
Task management areas are used to manage and review task performed by employees.  
Inspection and Compliance areas are used to create and view customized reports.  
System management area is used to create and view customized reports.  
System has online training videos, wall charts and full user manual.

## Specifications 2017

### SMART Touch<sup>®</sup>

#### Cloud Based Mobile Dashboard

A secure website used to manage the temperatures collected from both equipment and flow-of-food, along with completed tasks and inspection results.



### Features

- Mobile Command Center allows users to see real time temperatures, completed tasks and completed inspections anywhere internet is available.
- Can view all locations at one time.
- Can generate reports 24/7/365.
- Data search with custom date ranges.
- Calibration logs
- Viewable Task and Inspection Reports including custom comments and photos.
- CFR 21 compliant

### Specifications

- Compatibility
- Data Management
- Users
- Alerts
- Reports

iOS / Android

Information is archived for no less than 7 years.

Multiple levels of security for complete or limited access.

All equipment alerts and responses are documented.

Multiple reports are available for equipment and flow-of-food

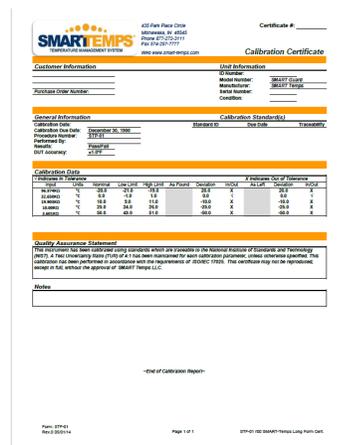
## Specifications 2017

### Calibration Services

SMART Temps offers a full range of NIST Traceable calibration services for its SMART equipment.

#### Features

- NIST traceable standards
- Compliant to ISO/IEC 17025 standard
- Five data points reported on the Calibration Certificate
- Certificates stored electronically on our SMART Command Center<sup>®</sup>
- Meets or exceeds all FDA and CDC requirements
- Flexible calibration solutions



#### Why Calibrate?

All sensors, including SMART Temps equipment, drift becoming less accurate as environment, usage, and time takes its toll on them. Some sensors experience little drift while others can drift dramatically during the course of a few months. Calibration reduces the risks associated with measurements, regulatory requirements, and international acceptability. Measurements made with uncalibrated instruments could possibly result in various legal or compliance liability issues. Maintaining a robust measurement management program can save your company thousands of dollars, while keeping your measuring devices in compliance.

#### SMART Temps Calibration Services

SMART Temps Temperature and Humidity calibration services are NIST traceable, performed in compliance with recognized national and international guidelines. Our calibration standards have been acquired specifically for calibrating our product lineup. SMART Temps standards meet or exceed a 4:1 test uncertainty ratio (TUR), ensuring highly accurate results.\* Our SMART Guard<sup>®</sup> products patented technology allows for calibration adjustments should a device drift out of tolerance.\*\* All of our calibration certificates meet CDC and FDA requirements, providing evidence the device has been properly calibrated. Calibration data is entered and stored on the SMART Command Center<sup>®</sup> offering a single source system for data retrieval. SMART Temps offers both in-house as well as on-site calibration services. Please contact us for more information.

\*Humidity standard TUR is 3:1

\*\*SMART Humidity Guard<sup>®</sup> cannot be adjusted

## Specifications 2017

### Information Technology Requirements

- Access to the internet
- No computer or server required
- No wiring
- No software to buy, install or maintain

### SMART Wireless Technical Operation of SMART Temps

The SMART Link<sup>®</sup> device is based on an ARM9 microprocessor running a modified version of GNU Linux for embedded devices. Viruses for common Windows desktop machines or even for common Linux desktop machines will not execute on the SMART Link<sup>®</sup> due to its ARM (as opposed to x86) based microarchitecture. Viruses targeted at the Linux operating system are rare and viruses targeted at an ARM based Linux environment are extremely rare if even existent.

### Communication and Network Interoperability

SMART Temps devices communicate using the ZigBee protocol which is based on the IEEE 802.15.4 wireless communication standard (<http://en.wikipedia.org/wiki/ZigBee>). ZigBee is a low data rate mesh network standard which is NOT compatible with the IEEE 802.11 standard. While SMART devices do communicate in the same frequency band (the license free ISM band) as many Wi-Fi devices (802.11b,g,n) they use vastly different signaling. ZigBee and Wi-Fi networks can safely coexist in the same environment without difficulty but cannot intercommunicate without a bridge device. The data traffic across the SMART wireless network is infinitesimal when compared to the typical data traffic across a typical Wi-Fi link. As such Wi-Fi network performance degradation resulting from the shared frequency band is imperceptible.

### Security

The wireless networking protocol of the SMART Temps system is proprietary and NOT based on typical IP type networking (i.e. no TCP, UDP, ICMP, etc.). The SMART Link<sup>®</sup> device is not a Wi-Fi router and does not export internet connectivity to the remote devices in the system. Instead the SMART Link<sup>®</sup> acts as a data collection point - receiving and forwarding information to and from the remote devices using the SMART proprietary protocol. The SMART protocol only defines a limited number of messages, most dealing with the transmission of temperature records and food menu data. Remote devices cannot request connections to arbitrary internet addresses as all communication with the SMART Temps servers is handled by software internal to the SMART Link<sup>®</sup> device and the server URLs are hardcoded. Even if an unauthorized device could gain access to the SMART network it would not pose a security risk to the SMART Link<sup>®</sup> attached network due to the limited protocol through which SMART devices communicate.

## Specifications 2017

### Ethernet Security

The SMART Link<sup>®</sup> device is based on an ARM9 microprocessor running a modified version of GNU Linux for embedded devices. Viruses and other malware for common Windows desktop machines or even for common Linux desktop machines will not execute on the SMART Link<sup>®</sup> due to its ARM (as opposed to x86) based microarchitecture. Viruses and other malware targeted at the Linux operating system are rare and viruses targeted at an ARM based Linux environment are extremely rare if even existent. Should malicious code targeting a SMART Link<sup>®</sup> device be created in the future it would still be nearly impossible to “infect” a SMART Link<sup>®</sup>. The SMART Link<sup>®</sup> does not accept any incoming TCP or UDP connections with the one exception being SSH (secure shell) session requests. The only Ethernet based server active on SMART Link<sup>®</sup> is an SSH server used for device administration. SSH communicates on TCP port 22 and all SSH sessions require username and password authentication. For added security it is recommended that port 22 of this device not be visible to the internet. All other data traffic to and from the SMART Link<sup>®</sup> device is client initiated requests to the SMART Servers.

### Wi-Fi Security

Wi-Fi enabled SMART Link<sup>®</sup> functions as a Client only. It communicates using 802.11 b/g standards and can be configured to connect to any open or secured access points supporting these standards. For a secured connection, WPA, WPA2, WEP encryptions are selectable. The SMART Link<sup>®</sup> does not accept any incoming TCP or UDP connections via Wi-Fi. All other data traffic to and from the SMART Link<sup>®</sup> device is client initiated requests to the SMART Servers.

### Cellular Security

Cellular enabled SMART Link<sup>®</sup> communicates via a 2G CDMA network. The spread-spectrum characteristics of Code Division Multiple Access network is secured by spreading the signal using a pseudo-random code. This code makes the spread spectrum signals appear random or have noise-like properties. A receiver cannot demodulate this transmission without knowledge of the pseudo-random sequence used to encode the data. This characteristic also increases CDMA's resilience to jamming. In addition, CDMA network security protocols also rely on a 64-bit Authentication Key and Electronic Serial Number of the mobile. The SMART Link<sup>®</sup> does not accept any incoming TCP or UDP connections via Cellular connection. All other data traffic to and from the SMART Link<sup>®</sup> device is client initiated requests to the SMART Servers.

### Backup and Support

- The database is backed up daily with weekly snapshots and there is also a mirrored database in the event that the primary database is inaccessible.
- There is customer support by phone or email.



## Specifications 2017

**SMART Temps**  
**[www.SMART-Temps.com](http://www.SMART-Temps.com)**  
**435 Park Place Circle**  
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**877.272.3111**  
**[support@smart-temps.com](mailto:support@smart-temps.com)**



## PHARMACY - Wireless Temperature Monitoring

In the pharmaceutical industry, temperature management is crucial in maintaining the appropriate temperature of valuable, expensive drugs, vaccines, and biologics. This is quite the challenge, as the Affordable Care Act is estimated to promote higher pharmaceutical volumes, while also placing more emphasis on the quality of care. SMART Temps® can help protect these investments and keep pharmacy focus on patient care and safety.

### Exceed Government Compliance Standards

#### CDC Vaccine Storage & Handling Guidelines temperature monitoring features (May 2014).

- Digital display on outside of storage unit.
- Detachable probe in a bottle filled with a thermal buffer, like glycol, which more closely reflects vaccine temperatures.
- Alarm to alert out-of-range temperatures.
- Accuracy within +/-1°F (+/-0.5°C).
- Low battery indicator.
- Continuous monitoring and recording capabilities to track and record temperatures over time.
- Minimum and maximum temperatures.
- Calibrated temperature monitoring devices with a Certificate of Traceability and Calibration.\*

\*NIST Traceability and ISO 17025 Calibration Certification

#### SMART Temps® exceeds all CDC features, while providing a myriad of additional features and benefits to ensure compliance, loss prevention, and the efficacy of vaccines and medications.

- Cloud based web tool stores temperatures for 7 years, exceeding the 3 year CDC requirement.
- Electronically document corrective actions, repairs and length of exposures.
- Unique temperature deviation algorithm, sends true alerts
- System is scalable, ability to monitor all departments (ex. Food Service, Lab, Physician Offices, etc.).
- No software or server access needed.
- SMART Temps® hosts all data, alleviating IT involvement and the chance of data breach.

### SMART Guard®

#### Wireless temperature monitor for automatic temperature monitoring of equipment.



- Monitors 24/7/365 with onboard memory (temperatures log during power outages).
- Identifies potential equipment maintenance issues.
- Sends alerts via email, text, and/or phone during all temperature excursions.
- Allows each piece of equipment to be set up with specific alert parameters and actions.
- Product Simulator available.

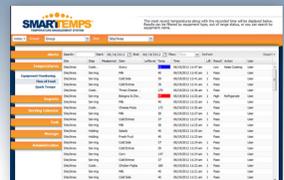


### SMART Link®

#### The wireless gateway, located at each site, allows the SMART Guard® to communicate to the SMART Command Center® Website via Ethernet, WIFI, or Cellular Communication.



SMART Temps® provides accurate, real-time temperature documentation that exceeds all SDOH, TJC, CDC, and FDA Reporting Compliance standards via a secure wireless network to the SMART Command Center® Website.



Contact SMART Temps today for your 30-day trial.

877-272-3111 | SMART-Temps.com