

PHCbi
LabSVIFT

LabSVIFT®

CLOUD-BASED IOT LAB MANAGEMENT SYSTEM

LabSVIFT® is a lab management solution that allows you to keep an eye on critical laboratory equipment assets in one, streamlined platform.

Model :

MTR-IOTWE1-PE

Only available in the United Kingdom, Germany, France, Belgium and the Netherlands.

LabSVIFT[®], Cloud-Based IoT Lab Management System

Monitor one piece of equipment, your lab, your entire facility, or multiple facilities. It allows you to keep an eye on critical laboratory equipment assets in one, streamlined platform. Allowing you to focus on your core business.

Features:

- 24/7 Real-Time Monitoring*
- Accurate Data
- Easy Integration
- Timely Alerts
- FDA 21 CFR Part 11 Compliant**
- Centralized, secure data storage
- Health check function***

* 24/7 real time monitoring applies only under optimal network and server conditions

** Audit trail feature meets requirements for 21 CFR Part 11 compliance

*** Only available for a selection of models. See page 3.



IMPORTANCE OF LAB MONITORING

Managing a lab requires precision, consistency, and a constant eye on operational excellence. With increasing demands for compliance, efficiency, and reliability, effective lab monitoring has become crucial.

WHY CHOOSE LABSVIFT?

LabSVIFT is a cloud-based service that connects lab devices to enable centralized management, improving laboratory efficiency with a data-based workflow. Monitor laboratory equipment, anticipate potential problems, minimize the amount of time needed to resolve them, and maximize the efficiency of your entire facility.

LabSVIFT reports and a customizable user interface reduce document prep time and improve accuracy, allowing you to focus on your core business.

GOING BEYOND LAB MONITORING

LabSVIFT enhances data collection and sharing that can be utilized by LIMS and automation tools, contributing to improved productivity and energy efficiency in laboratories. It enables seamless sharing of critical data and documents, while real-time notifications keep you updated on device status and error alerts. Whether optimizing energy usage, maintaining precise specimen storage, or enabling remote monitoring during emergencies, this solution adapts to meet the diverse customer needs. It supports regulatory compliance and enhances the decision-making process across all stages of research and development.

LABSVIFT'S HEALTH CHECK FUNCTION*

LabSVIFT's health check function offers a comprehensive view of equipment performance conditions to indicate a health status (healthy or unhealthy). It continuously evaluates performance data to ensure optimal operation and identify any irregularities. If performance issues are detected, users are promptly notified with suggested corrective actions to address existing concerns and/or help prevent future issues.

Available for the following models: MDF-DU502VH-PE, MDF-DU702VH-PE, MDF-DU503VH-PE, MDF-DU703VH-PE, MDF-DU503VXH-PE, MDF-DU703VXH-PE

OVERVIEW

LabSVIFT enables centralized management, improving laboratory efficiency with a data-based workflow.

<p>INTEGRATED AND VERSATILE</p> <p>Complete lab monitoring system in one device</p>	<p>SECURE</p> <p>Cloud-based monitoring of valuable assets</p>	<p>EFFICIENT</p> <p>Smart and simple operation</p>
<p>Function</p> <ul style="list-style-type: none"> ● Connectivity to PHCbi products and other brands ● Centralized monitoring, alerts and remote control ● Manage asset information 	<p>Function</p> <ul style="list-style-type: none"> ● FDA regulation CFR Part 11 compliant with audit trail function** ● Continuous monitoring of device's condition ● Seamless integration from notification to maintenance 	<p>Function</p> <ul style="list-style-type: none"> ● Easy set-up ● Intuitive UI can be customized ● Document and task management ● Automated reporting

** Audit trail is only available with the expert plan



LabSVIFT, Keep an eye on critical laboratory equipment assets

KEY BENEFITS AT A GLANCE

Remote Monitoring

- Temperature, CO₂, O₂, and other parameters.

Document Management

- FDA 21 CFR Part 11, calibration certificates, etc.

Message Menu

- Display monitoring, alerts, logs, and messages from PHC.

Asset Management

- View and manage the region, location, and accounts of your assets.

Audit Trail

- Management platform for calibration and audit reports to ensure traceability*.

Ticket Management

- View and manage inspection checks, repair history, etc. when abnormalities occur in registered devices.

* Audit trail is only available with the expert plan

DATA FOR EVERY ROLE

Lab Managers

Stay on top of operations with ease. Reduce administrative tasks, track equipment usage, and ensure compliance with less effort.

Technicians

Reduce downtime with timely alerts and health check. Diagnose and resolve issues from anywhere with remote access.

Researchers

Share data, track experiments, and access lab resources on-demand.

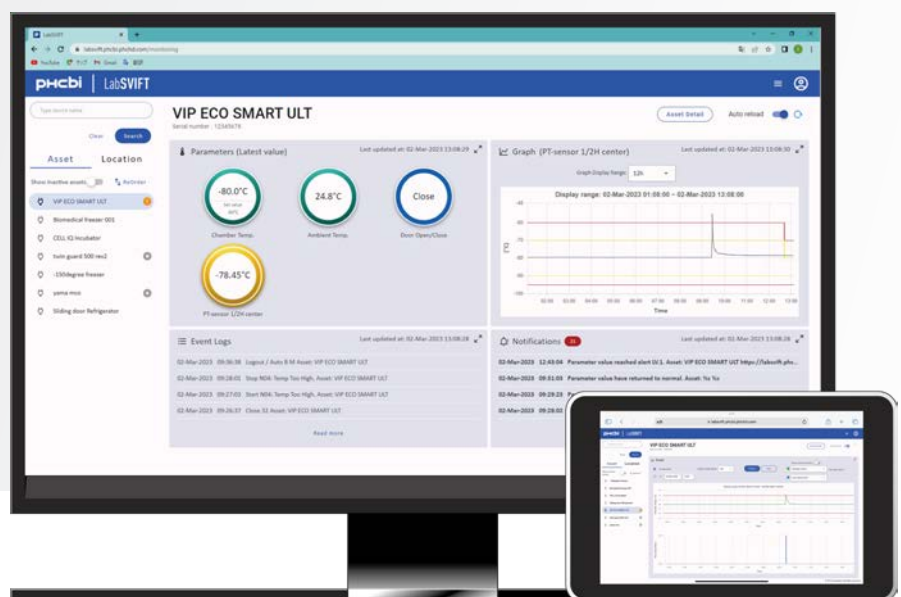
USER TYPE AND AUTHORIZATION

Each LabSVIFT Web Service user account has one of three roles: Root, Administrator, or User. Only one person can have a Root account. After set up, the Root account sets up an Administrator that can sets up other Administrator and User accounts.

ACCESS RIGHTS				
	Function	Root	Administrator	User
Login	<ul style="list-style-type: none"> User login 	✓	✓	✓
Portal	<ul style="list-style-type: none"> Display portal 	✓	✓	✓
Lab Management	<ul style="list-style-type: none"> Display accounts list 	✓	✓	✓
	<ul style="list-style-type: none"> Create, edit, and delete accounts 	✓	✓	
	<ul style="list-style-type: none"> Edit own account notification settings 	✓	✓	
	<ul style="list-style-type: none"> Edit authorities list 	✓	✓	
	<ul style="list-style-type: none"> Edit role 	✓	✓	
	<ul style="list-style-type: none"> Register, edit, and delete assets and transmitter 	✓	✓	
	<ul style="list-style-type: none"> Display asset and sensor information 	✓	✓	✓
Monitoring	<ul style="list-style-type: none"> Display monitoring screen 	✓	✓	✓
Ticket Management	<ul style="list-style-type: none"> Display ticket information 	✓	✓	✓
Document Management	<ul style="list-style-type: none"> Create, edit, and delete document folders 	✓	✓	✓
Audit Trail*	<ul style="list-style-type: none"> Display audit trail information 	✓	✓	
Health Check Function**	<ul style="list-style-type: none"> Display device health status 	✓	✓	✓

* Audit trail is only available with the expert plan

** Available for a selection of models. See page 3.





Web service dashboard

MONITORING

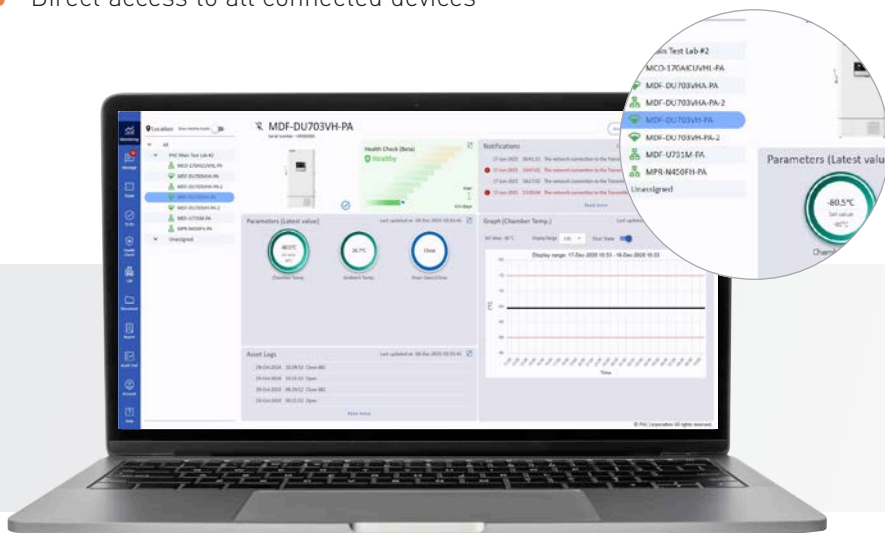
LabSVIFT's web service dashboard enables seamless sharing of critical data and documents, while real-time notifications keep you updated on device status and error alerts. Real-time monitoring of instruments, tracking of lab management, and more. Instantly view instrument parameters, logs, notifications, and graphs to improve operational efficiency.

Real-time monitoring for each device

- Easy interface, instant information: Temperature inside the cabinet, ambient temperature, door open/close, defrost etc.
- Clear graphs for temperature fluctuations, door openings
- Direct access to all connected devices

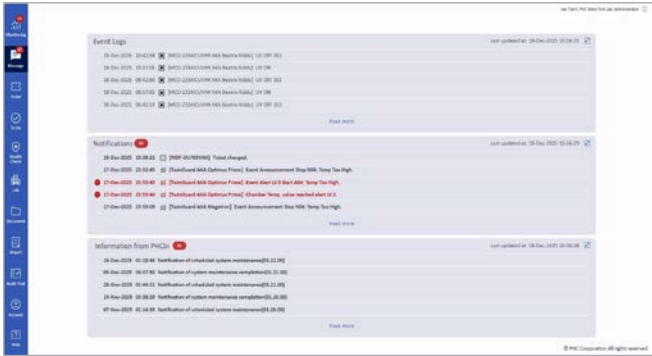
Cloud-based real-time monitoring

- Monitoring of all connected equipment parameters
- Centralized management of lab equipment at separate locations



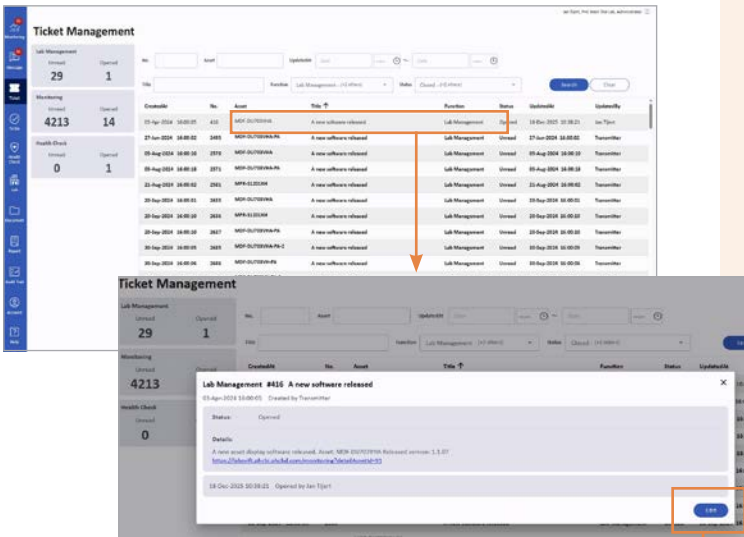
MESSAGE MENU

Consolidates event logs, notifications, and PHCbi announcements for all devices. Efficient management of logs and notifications when there are many devices to manage

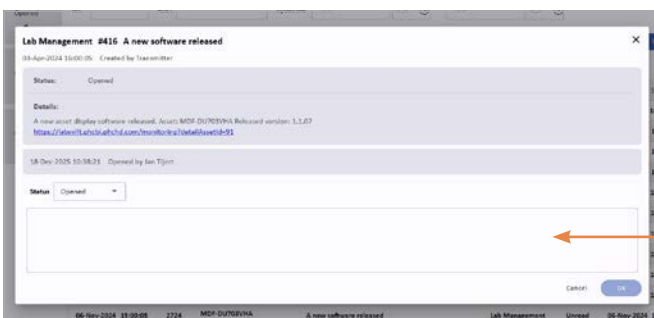


TICKET MANAGEMENT

Management of tickets for abnormalities in registered equipment. Enables speedy and accurate management of responses to abnormalities



Check the ticket issuance status
Status can be changed after taking care of it



TICKET MANAGEMENT



Temperature deviation is registered



LabSVIFT™

Ticket registration
Alert to user



On site inspection



If you can not handle the problem yourself, contact a service engineer

Handle the problem yourself.

Ticket dialog filled in by user



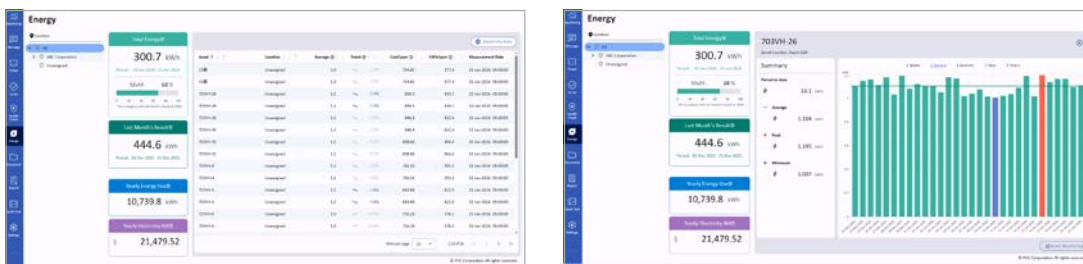
After the service is completed, user enters „TICKET COMPLETE“ confirming the repair.

Ticket closed is shared in the Web Service user accounts

ENERGY CONSUMPTION MONITOR

The Energy Consumption Monitor visualizes estimated energy consumption (kWh) and electricity costs for supported freezers at both location and freezer levels, enabling quick understanding of energy usage, trends, and cost impact. Using freezer operation data, it provides monthly and annualized estimates and 30-day trend indicators, making it easy to compare freezers, detect changes in operating conditions, and confirm energy-saving effects at a glance. Hierarchical location views, freezer search and filtering, and graphical trend displays allow users to efficiently focus on specific freezers and clearly understand usage patterns over time, supporting energy cost reduction, ESG reporting, environmental audits, and informed operational or replacement decisions.

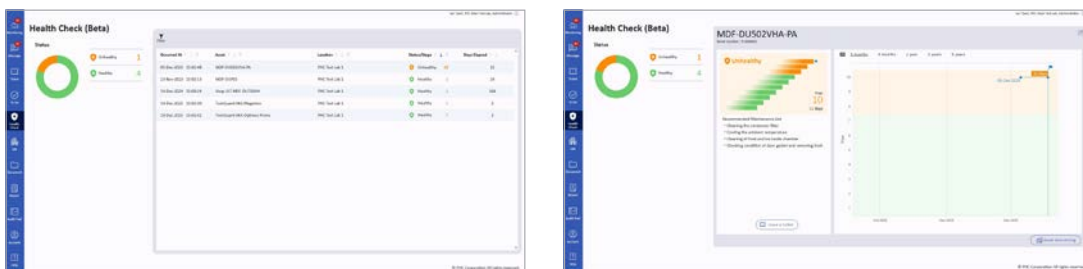
Estimated values are calculated from internal device parameters and may differ from actual energy consumption depending on operating conditions.



Supported models:
MDF-DU503VH-PE,
MDF-DU703VH-PE,
MDF-DU503VXH-PE,
MDF-DU703VXH-PE.

HEALTH CHECK

Unlike manufacturers of monitoring-only equipment, PHCbi as a laboratory equipment manufacturer, by utilizing equipment operating data, can accurately identify and predict the degree of deterioration of cooling performance. The recommendation function of the web application connects customers directly to our services, and by ensuring PHCbi products are used in the best possible condition, thus provide better customer experience value.



How Health Check operates: Internal parameters during normal operation are judged in two steps. If there is no problem with the value of parameters, "Healthy" will be displayed, but if it is higher than that, or if there is a large change in value, an alert will be issued according to that condition, combined with recommended actions for improving its health status.

Supported models: MDF-DU503VH-PE, MDF-DU703VH-PE, MDF-DU503VXH-PE, MDF-DU703VXH-PE, MDF-DU502VH-PE, MDF-DU702VH-PE.

LabSIVFT's Health Check function clearly visualizes the equipment status in 10 stages.
Stages 1-7: Displayed as "Healthy"
Stages 8-10: Displayed as "Unhealthy"

Healthy
Unhealthy



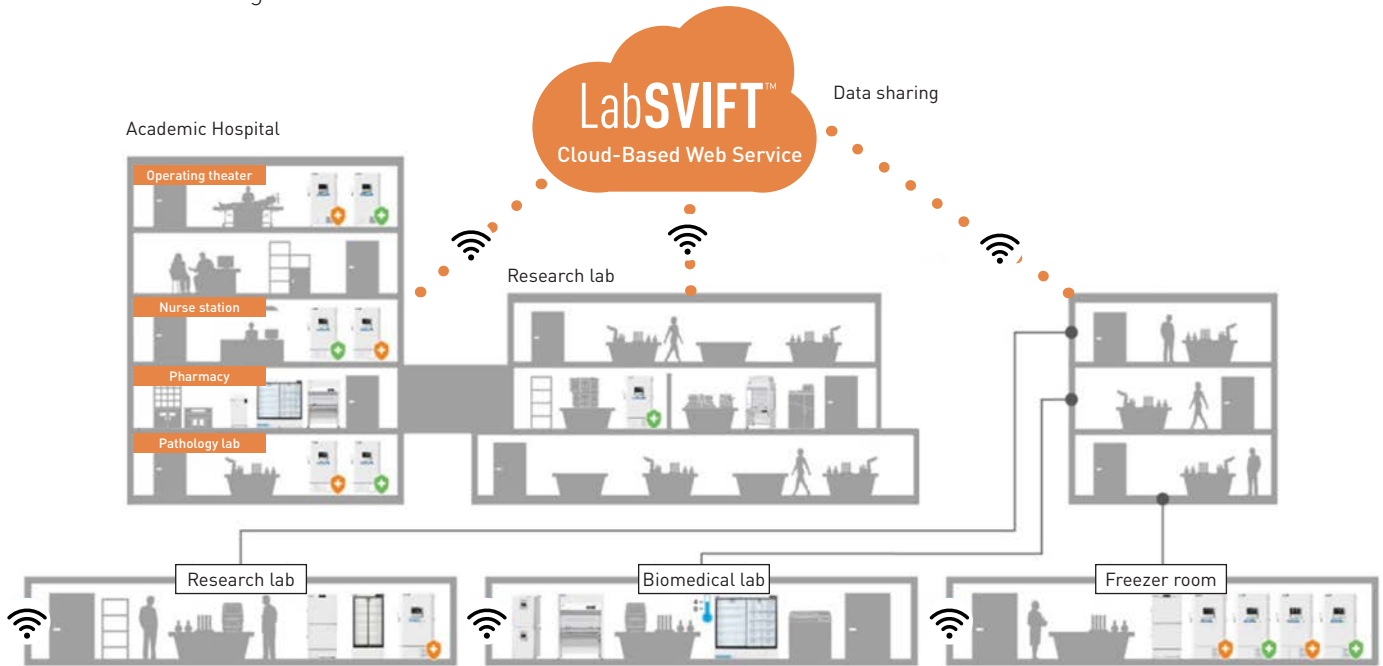
Recommended actions to improve the health status

The projected date when the status will become "Unhealthy"



LAB MANAGEMENT

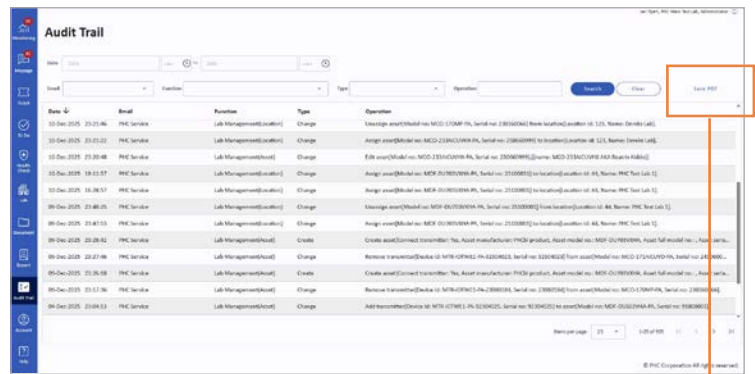
Consolidated management of all connected device per lab location. Also makes lab management efficient by easy user account or device registration for each lab location



AUDIT TRAIL* / DOCUMENTS

Paperless management of various reports, such as operation logs, to support operational efficiency and simplification.

* Audit Trail is only included in the Expert contract, not in the Basic contract



	BASIC Real-time monitoring as well as permanent lab equipment record keeping	EXPERT FDA 21 CFR Part 11 compliant for strict control of lab equipment and web operations
Data Viewing Period	Past 5 years	Past 5 years
CSV Data Folder	Local/cloud	Local/cloud
Notifications	SMS/email	SMS/email
Ticket Management	✓	✓
Audit Trail		✓



How LabSVIFT Works - Easy Setup

STEP 1

Transmitter Programming

- Transmitter is unpackaged, powered on, then connected to a PC with the included USB cable.
- Next, the network protocols are setup for the transmitter to connect with the network via Wi-Fi (or an ethernet cable can be connected directly into the transmitter for LAN connection).

STEP 2

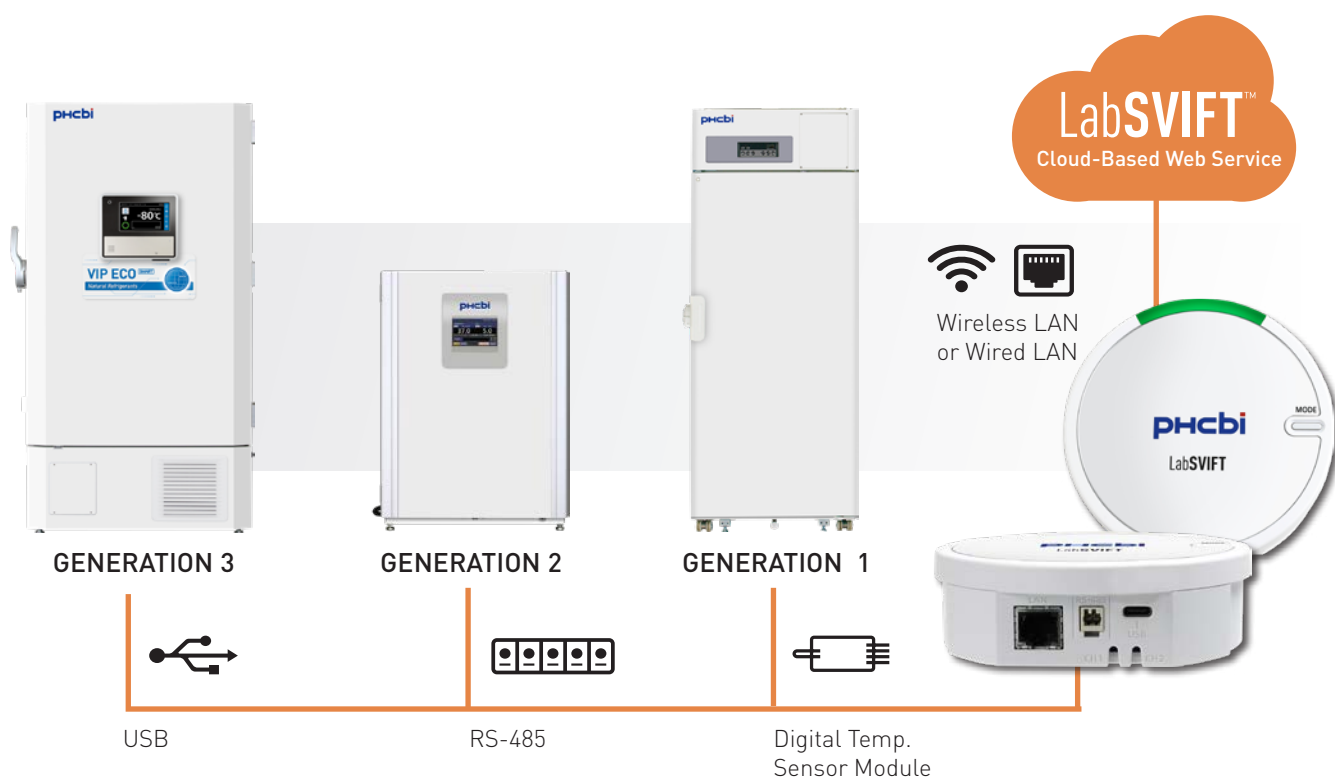
Hardware Installation

- Generation 3 PHCbi Product Installation: The LabSVIFT transmitter is connected directly into the control panel USB port (USB cable included within packaging).
- Generation 2 PHCbi Product Installation: An MTR-480 interface module is installed and the LabSVIFT transmitter is then connected to the MTR-480 interface module via RS-485 cable.
- Generation 1 and Third Party Product Installation: The sensor probe connector is installed onto the LabSVIFT transmitter. The sensor probe is then routed inside of the equipment through the access port, into a safe internal location away from stored contents.

STEP 3

Web Service Application

- An invite will be received via email to setup the Web Service Account information. (username and password)
- Once successfully logged in, the equipment is then setup by entering the LabSVIFT transmitter information and the information of the equipment that will be monitored.
- After the LabSVIFT transmitter and the equipment setup has been completed, customization of the web service interface will then be available and parameters can be monitored.



MEASURED PARAMETERS

		Temp	Door Openings ²⁾	Ambient	Alarm	Defrost	FW Update	Events	O ₂ /CO ₂ ⁴⁾	Health Check ⁵⁾
All Type	GEN 3	✓	✓	✓	✓	✓ ⁴⁾	✓	✓		✓
Ultra Low Temperature Freezer	GEN 2	✓	✓	✓	✓ ³⁾					
Biomedical Freezer	GEN 2	✓			✓ ³⁾	✓				
Pharmaceutical Refrigerator w/ Freezer (-30°C, -40°C)	GEN 2	✓	✓	✓	✓ ³⁾	✓				
Incubator	GEN 2	✓	✓	✓	✓ ³⁾				✓	
Undercounter Refrigerator / Freezer	GEN 1	✓ ¹⁾								
Other PHCbi brand Models, 3rd-Party	GEN 1	✓ ¹⁾								

1) Temperature measured via external sensor.

2) Detects door state periodically based on product category.

3) Limited to remote alarm I/O, power failure detection (requires battery).

4) Only available for applicable product categories.

5) Supported models: MDF-DU503VH-PE, MDF-DU703VH-PE, MDF-DU503VXH-PE, MDF-DU703VXH-PE, MDF-DU502VH-PE, MDF-DU702VH-PE.



VALIDATION & QUALIFICATION SOLUTIONS

PHC Group is a vertical component manufacturer that can provide turn-key solutions for validation and qualification in accordance with all current GMPs, GLPs, GCPs, 21 CFR Part 11, PAT, ISO and specific customer requirements and applications. Because many of our key component parts are designed and built by PHC Group, we offer the most precise and in-depth validation resources specific to PHCbi laboratory products. Whatever your validation needs are, PHC provides comprehensive expertise in laboratory equipment to meet your exact compliance needs. PHCbi validation systems employ advanced technology coupled with the latest trends to insure compliance with accurate and time efficient completion.

LabSVIFT® IoT Monitoring System		
Modelnumber	MTR-IOTWE1-PE	
Exterior Dimensions	(W × D × H) mm	120 × 35 × 120
Net Weight (Without Batteries)	g	205
Performance		
Input Voltage/Current DC	V/A	5/2
Maximum Power Consumption	W	2.5
Power Source		GEN 1, GEN 2: AC adapter, GEN 3: via USB port Battery power: only for a power failure (provides up to an estimated 14 days of backup power)
Environmental Conditions		Ambient temperature: 0°C to 35°C Humidity: 30 to 85% R.H. (non-condensing)
Data Storage Period		14 days (in case of memory full, overwrite)
Connectable Equipment Via LabSVIFT Transmitter		1 unit
Battery Specification to Use		Alkaline LR6 AA x 4
Warranty		1 year parts and labor
Network		
Network Specifications		Wireless LAN Wired LAN
Network Protocol		IEEE 802.11 A/B/G/N 2.4GHz/5GHz
Wireless Security	Network authentication	WPA2-Personal WPA2-Enterprise
	Encryption method	WEP ON/OFF (Open) AES (WPA2-Personal, WPA2-Enterprise)
	EAP authentication mode	PEAP, EAP-TLS (WPA2-Enterprise)
Interface		
Ports	Digital input port (RS-485)	1
	LAN (RJ45 type)	1
	Digital temp. sensor port/ Analog DC IN port	2
	USB-C port	1
Options		
Interface Board	Required for GEN 2 products	MTR-480 PW
Temperature Sensor		MTR-DPT-PW
Independent Temp. Monitoring PT Sensor Range: -200°C to +200°C Accuracy: (Unit Temp.; 20-30°C) ±0.4°C ±1 Digit (-100-100°C) ±0.6°C ±1 Digit (-200--100, 100-200°C) Accuracy: (Unit Temp.; 0-20°C, 30-35°C) ±0.5°C ±1 Digit (-100-100°C) ±0.6°C ±1 Digit (-200--100, 100-200°C)		
Digital Thermistor		MTR-DTM-PW
Digital Thermistor sensor Input Voltage 5 V DC : Connected to LabSVIFT Transmitter Measurement range -40°C~85 °C Accuracy Expressed with precision in square root of sum of squares. (Unit temp. body; 0~35 °C) ±0.3°C ± 1 digit (0~40 °C) ±0.7°C ± 1 digit (-40~0、40~85 °C) Resolution 0.1°C		
POM Sensor Bottle		MTR-TMP-PW
Vaccine Simulation POM sensor bottle with Thermistor Sensor. Range: -40°C to +85°C Thermistor Accuracy: ±0.3°C ± 1 Digit (0-40°C) ±0.7°C ± 1 Digit (-40-0, 40-85°C)		
Analog Converter	To connect analog output devices (0-5 V) to LabSVIFT	MTR-ANACON-PW