

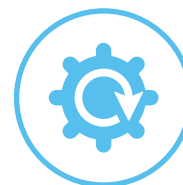
# Haier Biomedical

Intelligent Protection of Life Science

Complete End-to-End  
Industrial IoT, Monitoring  
& Control Solutions  
for the Life Science Sector

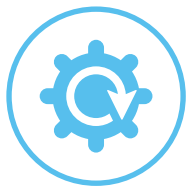
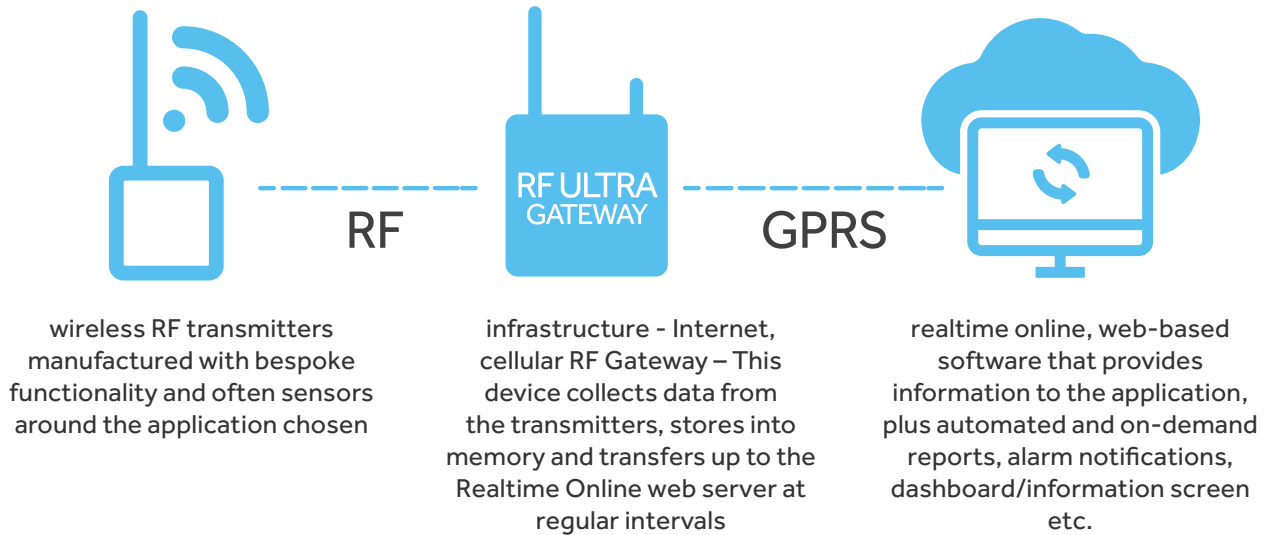


simple, smart  
& easy to install  
without the need for IT



## How It Works

3 main components selected for your application



## 3-Step Guide on How to Configure and Build your System

1

Choose the Internet, cellular RF gateway, there are various types dependent upon the site and individual choice plus accessories, battery back-up, solar-power, antennas and repeaters.

2

Select the sensors relevant to your application.

3

Multiple 'applications' can be consolidated within a single system, for example you may start with Temperature Monitoring then wish to add Energy Monitoring, this is common and the way the system has been designed, the same 'Infrastructure Gateway' can communicate to any type of RF transmitting device and software application modules can be added retrospectively.

&

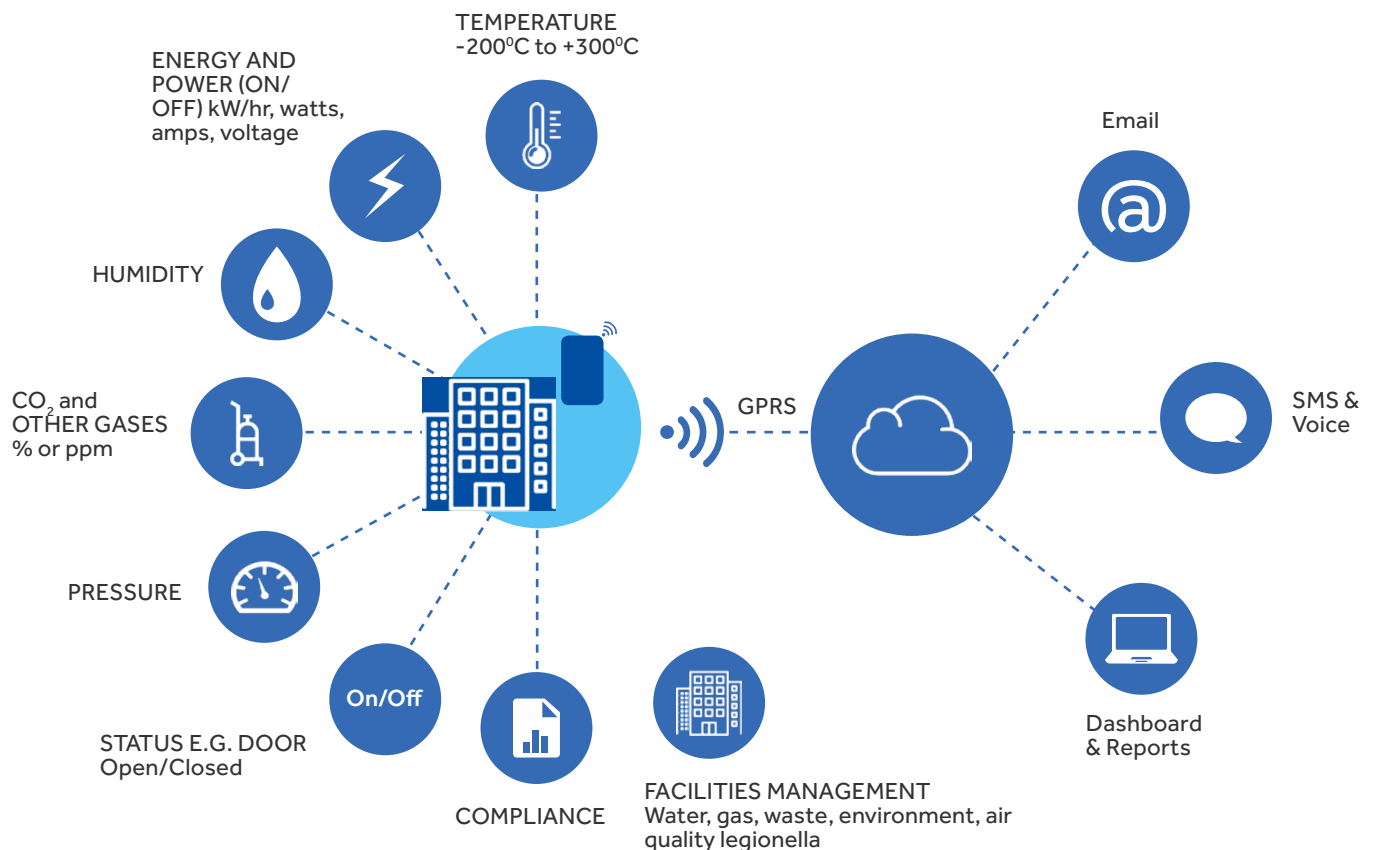
# Complete End-to-End Industrial IoT, Monitoring & Control Solutions for the Life Science Sector



**one system**  
multiple applications

We can supply a wide range of radio transmitters and tailored software enable monitoring and control for various applications, such as:

- Critical asset and conditions monitoring - temperature, gas (O<sub>2</sub>, Co<sub>2</sub>), pressure, status
- Energy monitoring – electric, gas, water
- Compliance – food, pharma, healthcare, Legionella
- Environmental – leak or flood detection
- Building Energy Management (BEMS)





## Conditions & Critical Asset Monitoring

Life science and healthcare facilities rely heavily on temperature of critical assets and room environments. For example, ensuring vaccines, reagents and biological samples such as tissue, blood and stem cells are stored at the correct temperature and compliant with relevant protocols within both research and clinical environments.

In addition to temperature, there are other types of equipment and conditions that may be useful or important to monitor, examples of applications include:

- Status alerts such as door opening
- O2 levels in LN2 storage rooms
- Temperature, CO2 and humidity for incubators
- Pressure differentials for clean rooms
- Leak or flood detection
- Room temperature and humidity for stability testing of pharmaceuticals

The fully featured Realtime-Online software and documentation system ensures compliance with IQ/OQ/PQ available for GCLP, GMP and other areas, MKT reports for pharmaceutical storage requirements. Automated alerts (SMS, email or call) with escalation ensure problems are dealt with effectively and promptly. Reports can be created and emailed to users on a weekly, monthly or yearly basis.

# Complete End-to-End Industrial IoT, Monitoring & Control Solutions for the Life Science Sector



## Energy Monitoring

Energy monitoring is essential for reducing energy usage and costs, key motivators for most facility managers. Laboratories use significantly more energy per square meter than many other areas and a monitoring solution can help organisations use their laboratories more efficiently and in a sustainable way.

Energy or utilities can be monitored in various ways and the consumption data is collected and transmitted by a LoRa RF Transmitter to the Gateway and onto Realtime Online.

- Flexible with various dashboard options
- Graphical analytical tools
- On-demand reports
- Automated emailed reports
- Notifications of exceptions by email and/or text message
- Instant Remote Control
- Scheduled and set point control for Heating and cooling
- Scheduled lighting, plant etc control

## Summary of Features and Benefits



### Peace of mind 24/7

Anytime, anywhere access to real time data and reports from any web enabled device.



### SMS, Email or Call Alerts

Automated alerts with escalation alarms can also be set to ensure the correct people are contacted in the correct order at the correct time.



### Strong, safe and robust

Utilises roaming GPRS which is easy to install and is not reliant on IT. Sensors have a signal range of 15km ensuring robust reporting and minimal infrastructure. Data is transmitted over encrypted lines to prevent hacking.



### Compliant

Fully featured and documented system with training and certification. IQ/OQ/PQ available for GCLP, GMP and other areas. MKT reports for pharmaceutical storage requirements.



### Flexible & Scalable

Suitable for multiple monitoring points over multiple sites – no minimum installation size. System can be expanded as client requirements change.



### Automated Reports

Reports can be created and emailed to users on a weekly, monthly or yearly basis.



### Complete Energy, Temperature and Condition Monitoring solution

A wireless real-time monitoring and control solution for energy monitoring and targeting, temperature monitoring and compliance reporting as well as condition monitoring and M2M.



### One System. Multiple Applications

Software modules can be tailored to a wide variety of applications with customisable dashboards and screen. For example a system purchased for one use can be extended for additional purposes without the cost of duplicating infrastructures or software packages.



### Value for Money

This is an affordable and flexible product which can be retro-fitted as a standalone system or integrated with an existing BMS. Monitor a room, a building, a site or a global operation.



### No Fuss and Easy to Install

There are only three main components: wireless RF transmitters, RF gateway and Realtime Online™. No wires and no need to connect into LAN or Wi-Fi.



# Complete End-to-End Industrial IoT, Monitoring & Control Solutions for the Life Science Sector



- Sensor calibration traceable to UKAS 17025 standard
- System optimisation ensuring consistent reporting
- Maintain confidence in the system
- Experienced specialist engineers
- European coverage with a quick response time
- Discount on system with a large number of sensors
- Training on system operation for new and existing developments to ensure efficient system usage
- 15% discount for labour and travel costs per call out
- 10% discount for parts per call out

Haier Biomedical can also service other monitoring systems with sensor checks/calibrations.

	Standard Contract	Premium Contract	Premium++ Contract
Battery strength test	✓	✓	✓
Signal strength test	✓	✓	✓
Recommissioning of system	✓	✓	✓
Calibration	✓	✓	✓
Email alarming	✓	✓	✓
SMS alarming	✗	✓	✓
Phone call alarming	✗	✓	✓

Note: If slight difference occurs between pictures and actual products, please refer to actual products. Our company reserves the right of final interpretation to this brochure and please contact with us for future information you might need.

# Haier Biomedical

Intelligent Protection of Life Science

## About Us



Haier Biomedical is one of the world's leading suppliers of Cold Chain solutions and Life Science equipment, and part of the multi-billion Haier Group. Established in 1998, it designs, manufactures and sells equipment for the global market. Haier Biomedical has been developing and pioneering smarter, greener and cleaner technologies to reduce the energy and impact of equipment.

- Haier Biomedical has been selling Invisible Systems monitoring solutions since 2014
- Extensive experience at providing an End-to-End solution alongside our long-standing partner Invisible Systems
- Robust data collection
- Project management and installation
- Actively worked together on product development – electronics to software for life sciences sector

Haier Biomedical UK Ltd.  
Middle Building, 110 Windmill Road  
Sunbury on Thames, Middlesex TW16 7HD  
Tel: +44 (0)1932 780070  
Email: [sales@haierbiomedical.co.uk](mailto:sales@haierbiomedical.co.uk)  
[www.haierbiomedical.co.uk](http://www.haierbiomedical.co.uk)

**invisible systems**  
DELIVERING INFORMATION