



DATASHEET

CombiQ Base Station

Wireless Industrial IoT



Summary

The CombiQ CQ-BS Base Station is a wireless industrial IoT device that collects and transmits sensor data from Industrial Sensor Nodes (ISN & ISN Lite) to the CombiQcloud platform or third-party systems using a modern API. With an integrated SIM card, it allows remote and fast access, analysis, and monitoring of sensor data, facilitating proactive maintenance of industrial machinery to enhance operational efficiency.



Key Features & Benefits

Ultra-fast Transmission

Sends sensor data from ISNs to the cloud or other platforms with minimal time delay.

Alarm & Notification

Users can set alarms and receive notifications via SMS or email

Cloud Integration

Data can be transmitted via a cellular 4G network or Ethernet to cloud services

Industrial Grade

Built for harsh industrial environments

API Connectivity

Supports integration with CombiQcloud or third-party systems.

Easy Installation

Quick and simple setup process

Applications

The CombiQ CQ-BS Base Station works in conjunction with our Industrial Sensor Nodes ISN and ISN Lite to provide a complete IoT offering particularly suited for the following applications.

Manufacturing

Monitor manufacturing processes in real-time with data on shocks, vibrations, and temperature, ensuring optimal equipment performance and minimizing downtime.

Logistics

Improve warehouse safety with digital collision warnings for pallet racks. Collect critical data that aids in safety enhancements and operational efficiency.

Machinery Health

Assess machinery health by analyzing key metrics like vibrations and temperature, ensuring that equipment remains in optimal working condition.

Predictive Maintenance

Leverage trend analysis to forecast equipment issues before they arise, enabling proactive maintenance and reducing overall maintenance costs.

Technical Specifications

Hardware

Component		
CPU	Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz	
RAM	2 GB LPDDR4	
Storage	8GB Micro-SD card for OS and data storage	
Interface Specification		
Ethernet	Gigabit Ethernet 10/100/1000 Mbps	
SD Card	1 x SD card slot	
Antennas	2 x SMA for LTE	
SIM	Mini SIM 2FF, 1.8/3V internal SIM holder	
Wireless		
Mobile	4G (LTE) EMEA; CAT1 (10 Mbit/s DL, 5 Mbit/s UL), LTE Bands 3, 7, 20; GSM 900/1800	
Wi-Fi	2.4 and 5.0 GHz IEEE 802.11b/g/n/ac	
Bluetooth	Bluetooth 5.0, BLE	
Environmental		
Operating Temperature	0 - 50°C	
Ingress Protection Rating	IP20	
Physical		
Casing Material	ABS	
Dimensions	125 x 80 x 38 mm (without antennas)	
Weight	210g	
LED Indicators		
Green LED	Indicates the connection status between the base station and CombiQcloud or 3rd party systems	
	Flashing	Attempting to establish a connection
	Solid	Successfully connected.
Red LED	No Light	No connection detected, errors in the 4G connection, or no mobile reception
	Indicates the power status	
Red LED	Solid	The base station is powered on
	No Light	No power to the base station.

Safety Information and Regulations

Safety Instructions

- **Device Modification:** Any changes or modifications not expressly approved by CombiQ could void the user's authority to operate this equipment.
- **Intended Use:** Only use the product as described in this manual. Incorrect usage may lead to personal injury or equipment damage.
- **Qualified Personnel:** Installation, electrical connection, and maintenance must be performed by authorized and qualified personnel.
- **Environmental Conditions:** Avoid using the device in environments with explosive gases, as this could result in an explosion.
- **Water Protection:** Ensure the device is not exposed to water, as this can cause electric shock or fire.
- **Damage Prevention:** Protect the device, external sensors, and cables from any physical damage.
- **Disposal:** This device complies with the WEEE directive and should not be disposed of as household waste. Instead, it should be taken to an appropriate recycling facility.

Symbols



Instruction manual

Carefully read and understand the manual before using the device



EC Compliance

This device complies with applicable EC directives.



Recycling

The product is marked with a symbol indicating that it must be disposed of at a recycling facility.

Ordering Information

The CombiQ Base Station is a standard product to match a large variety of use cases. Please send your orders with the complete ordering code as detailed below. Please feel free to contact one of our sales representatives if you require assistance.

Ordering code: CQ-BS

Legal and Warranty Statement

Limitations of liability

CombiQ AB shall not be responsible for any direct or indirect damages, commercial losses, loss of profit in any way connected with CombiQ's devices.

Warranty

CombiQ AB warrants that the product is free from defects in materials and workmanship for a period of one year from the date of sale by CombiQ AB.

Additional Resources

More technical data, manuals, and regulations can be downloaded from www.combiq.com.



www.combiq.com