

GENERAL INFORMATION

FCCID: 2AFCS-PGW10

1.1. Product description



HIKOB GATEWAY
Version 1.3-2466

2 General description of the HIKOB GATEWAY

The HIKOB GATEWAY is one of the elements that constitutes the HIKOB wireless sensor radio network. This system is a set of wireless sensors doing multi-point distributed measures in various domains. These sensors radiotransmit their acquired data to the HIKOB GATEWAY, possibly via HIKOB AZURE LION routers, depending on environment constraints for radio transmission. This local radio network operates in the 2.4GHz ISM bandwidth and implements the standardized IEEE 802.15.4e protocol. The HIKOB GATEWAY provides the user with these acquisitions through its embedded software: HIKOB NET PULSE, which makes the interface to any TCP/IP network.

HIKOB systems cover data acquisitions such as vehicle detection for controlled traffic or parking management, various measurements in civil engineering structures from stress gauges to crack/inclino-meters, and vibrations from industrial machines for diagnostic purpose, providing tools for predictive maintenance for example.



2.1 HIKOB GATEWAY overview

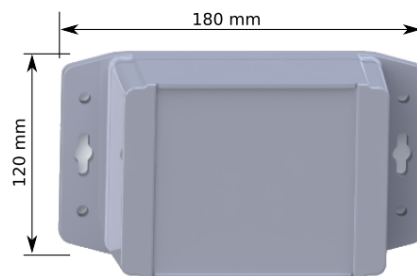


Figure 1: External view of HIKOB GATEWAY

HIKOB GATEWAY interfaces the 2.4Ghz ISM HIKOB radio network by providing connection with any TCP/IP network. It receives and treats sensors measurements that are broadcasted through the multi-hop wireless network formed by HIKOB sensors and HIKOB AZURE LION routers. These measurements are available, either displayed on a web page, or via APIs exposed by an embedded REST server. Information exposed by the HIKOB GATEWAY can therefore be integrated in a 3rd party information system. HIKOB GATEWAY provides as well services to configure HIKOB sensors, and to perform basic maintenance such as firmware update.

The HIKOB GATEWAY is not energy-autonomous: it is powered by the PoE technology (Power over Ethernet) through an Ethernet cable.

Models A and B of the HIKOB GATEWAY can be installed and used outdoor¹. The HIKOB GATEWAY casing is water resistant with an IP67 protection, as well as its PoE connector integrated in the casing which is IP68 certified. The first number 6 identifies protection against complete ingress of dust, the second number 7, identifies protection against the effects of immersion in water under stated conditions of pressure and time.

Radio and GPS antennas are integrated into the envelope of the HIKOB GATEWAY for A and B models, which are delivered all assembled and ready to be fastened on a pole or a wall, please refer to the Installation section for details. The C model is not suitable for outdoor use due to its SMA connector for remote antenna.

¹Except for countries like Finland Sweden and Norway due to limitations in operating temperatures down to -50°C, please refer to the Compliance and Conformity section



1.2. Tested System Details

See test report

1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.10 2013, FCC Part 15 Subpart C.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.4. Test facility

Tests have been performed from May 5th to June 24th , 2015.

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.10 2013 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.