

# HXC LoRaWAN Client Shield

## INTEROPERABILITY

The HXC series modules are designed for ease of deployment and work with any LoRaWAN™ compliant network. LoRaWAN™ configuration has been implemented as Embedded API for developers.

## RAPID DEVELOPMENT

Embedded AT-command set or Haxiot Mbed Embedded API provides control and simplicity. Haxiot unique embedded API simplifies your embedded software development by 80%.



Haxiot developed the LoRaWAN Client Shield (expansion board) for the STM32 Nucleo and Arduino. This board is a shield designed for rapid prototype and development of LoRaWAN clients on ST Nucleo and Arduino platforms.

The HXC-Client-Shield features the Haxiot LoRaWAN client module – HXC Series, addressing long range low power wide area network (LPWAN). The HXC provides an embedded AT-command language as well as a simplified Mbed C++ Embedded API for rapid integration.

The HXC-Client-Shield is compatible with select ST Nucleo and Arduino boards providing LoRaWAN™ client-side connectivity. This software provides the means to set up a complete LoRaWAN™ node. The HXC series LoRaWAN™ module is certified and supports Class A, Class C and Secure Multicast.

The HXC Client Shield includes the Haxiot® LoRaWAN™ module, stackable Arduino™ connectors, digital input switch, RGB LED, a u.FL connector, an antenna and one thermistor sensor.

## Product Overview

- Low-power thermistor temp sensor
- Digital input slide switch
- Digitally controlled RGB LED
- On-board 3.3V regulator
- On-board logic converter to support both 5V and 3.3V I/O
- Jumpers to use any MCU pins to communicate HXC Client
- Arduino stackable connectors
- U.FL connector (antenna included in the kit)
- Arm® Mbed™ Haxiot Embedded API (see <http://mbed.org>)
- ST Nucleo compatible



## Specifications

- Ultra Low Power Consumption with Auto-Hibernate
- Semtech LoRa® and LoRaWAN™
- 433 MHz to 510 MHz (HXC400) and 902 MHz to 930 MHz (HXC900) frequency range
- LoRaWAN Class A, Class C & Secure Multicast
- 14 dBm to 20 dBm output power
- 2.0 V to 3.6 V voltage range
- -40°C to +85°C temperature range
- USART communication interface

### System Requirements

- Windows® OS (7, 8 and 10), Linux® 64-bit or macOS®

- USB Type-A to Mini-B cable

### Development toolchains

- Arm® Mbed™ online
- Atollic TrueSTUDIO