

# LC4A Device Specification



## Overview

This document provides technical details of the LC4A device. The LC4A device is a versatile hardware solution designed to function as either an Anchor Node (AN) or a Tag Node (TN) within a Real-Time Location System (RTLS). Its flexibility and adaptability make it ideal for various tracking and monitoring applications.



Figure 1: The Front view of the device

## Key Features

- Based on Qorvo's [DWM1001C](#) module that integrates [DW1000](#) Ultra-Wideband (UWB) transceiver IC and Nordic Semiconductor MCU with Bluetooth nRF52832:
  - Ranging accuracy to within +/-20cm.
  - UWB Channel 5 printed PCB antenna (6.5 GHz)
  - 6.8 Mbps data rate IEEE 802.15.4-2011 UWB compliant
  - Integrates UWB and Bluetooth® antenna and all RF circuitry.
  - Integrated Motion sensor: 3-axis accelerometer.
  - Current consumption optimized for low-power sleep mode: <15µA
- Contains a status LED and the UWB status LED.
- Supplies the power from USB cable (5 VDC), or external source (7~32 VDC).
- A complete software package free of charge that includes software infrastructure, configuration and

visualization tools (with support for various platforms from Android, Windows, macOS, and Linux platforms).

- An open [online documentation](#) and [community forum](#).

## Software Compatibility

It is compatible with [PANS PRO](#) and [LEAPS RTLS](#). The default firmware is [PANS PRO](#), supplied by the production.

## Electrical Parameters

Parameter	Value
VDC power supply	7 ~ 32 @3W max
USB (power and data)	5V @ 500mA max
Operating temperature	-40°C - +85°C
UWB supported channels	UWB-CH5 - 6240-6739.2 MHz
UWB transmit powers	ETSI, FCC: -41.3 dBm/MHz max

## Mechanical Parameters

Parameter	Value
Size	100 x 70 x 25 mm
Weight	110g
Color	White
Mounting	Connect any clamp mount with 1/4" screwball head

## Device Overview

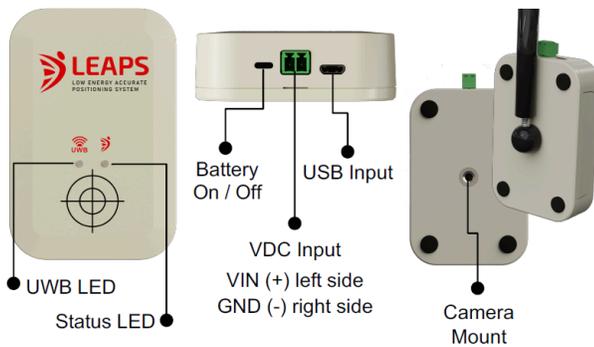


Figure 2: The Hardware Interfaces of the device

## Safety Instructions

- Do not expose devices to water or moisture while in operation.
- Do not expose devices to heat from any source. The product is designed for reliable operation at industrial temperature.

## Warnings

- This product shall only be connected to the external power supply rated at 7~32DC, USB power, and a minimum current supply of 0.5 A.
- Any external power supply used with this product shall comply with relevant regulations and standards applicable in the country of intended use.
- There are no user-serviceable parts inside the product, and opening the unit will likely damage the product and invalidate the warranty.
- The cables and connectors of all peripherals used with this product must have adequate insulation to meet the relevant safety requirements.

## Order Information

- Part numbers: PP-LC4A/LR-LC4A
- HS Code: 8517.69.9000
- Packaging: paper box, 7 cm x 11 cm x 2.5 cm 0.09kg

## About Us

LEAPS is the creator of the popular DWM1001C and PANS RTLS. LEAPS has been focusing on providing RTLS

hardware and software, design services, and technology licensing.

## Contact Us

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