

Descartes IoT BLE Beacon Tag Hardware Specification

The Descartes IoT BLE Beacon tag, specifically the PLT004 model, is an active, non-connectable Bluetooth Low Energy (BLE) beacon designed for industrial environments. By advertising at an optimal interval of 10 times every 60 seconds, it enables efficient asset tracking and inventory management. With a range of approximately 80 meters, Descartes IoT Readers can detect and log the presence of Beacon Tags when in range.

As an always-active device, the Beacon Tag enters sleep mode between advertisements, conserving power while still providing reliable tracking. This makes it an ideal solution for transportation and logistics operations, where durability and efficiency are essential.

The real-time data and insights provided by the PLT004 allow businesses to optimize their operations and reduce costs by enabling more effective asset tracking and inventory management. Overall, the Descartes IoT BLE Beacon tag offers a cost-effective solution for industrial environments that require robust, reliable asset tracking technology.



Images are indicative only; actual product may vary.

| | |
|----------------------|---|
| Name of the Product: | Descartes IoT Beacon Pallet Tag |
| Model: | PLT004 |
| Description: | Bluetooth Low Energy (BLE) tag used to monitor movement of goods and equipment. Each tag is made up of an PCBA equipped with a nRF52810-QCAA and two lithium metal cell batteries encased in a housing. |
| Battery: | Two CR1632 Rated At 120 mAh each. Total 240 mAh |
| Size: | 4.1"L x .76"W x .30"H (105.05mmL x 19.2mmW x 7.7mmH) |

| | |
|-----------------------------|---|
| Weight: | 15 grams |
| Temperature Range: | -20°C to +40°C |
| IP Protection Class: | IPX0 |
| Bluetooth Module: | Nordic nRF52810-QCAA |
| Bluetooth Type: | Bluetooth Low Energy 5.1 |
| Bluetooth Sensitivity: | -95dBm |
| Bluetooth Max Power Output: | +4dBm |
| Bluetooth Antenna: | -0.4dBi SMD Unictron Antenna, Omni Directional |
| Frequency Supported: | 2.4GHz ISM, 40 BLE Channels & Adv. Ch. No. 37, 38, 39 |
| Range: | 80 m (Environment between Reader and Tag dependent) |
| Power Consumption - Max: | <7.6mA |
| Power Consumption - Sleep: | <2 uA |
| Operational Life Running: | Theoretical lifetime of 5 years |
| Transportation: | Meets IATA Dangerous Goods Regulations 2015-2016 Edition (UN3091) Exemption Requirements PI 970 Section 2. Less than 4 lithium metal cells encased in equipment. No declaration required. |
| Transport: | Descartes IoT Beacon tag is an always active device. Therefore, during air or sea shipments, the tag is in an active advertising state. |

Certifications:

| | | |
|--------------------------|-------------------|--|
| Core Pallet Tag (PLT004) | Bluetooth | D037239 (PLT003) |
| | FCC | Passed FCC ID: 2A4F8-PLT004 |
| | CE | <i>In Progress</i> |
| | CE safety testing | <i>In Progress</i> |
| | FAA | <i>In Progress</i> |
| | DO-160 | Completed please see "CTT-0033 'PLT004' RF emissions measurements RTCADO-160G" |
| | UN38 | Passed See" MSDS CR coin" |
| | IP Rating | IPX0 |
| | RoHS | <i>Completed Please see "PLT004 RoHS Certification.pdf"</i> |