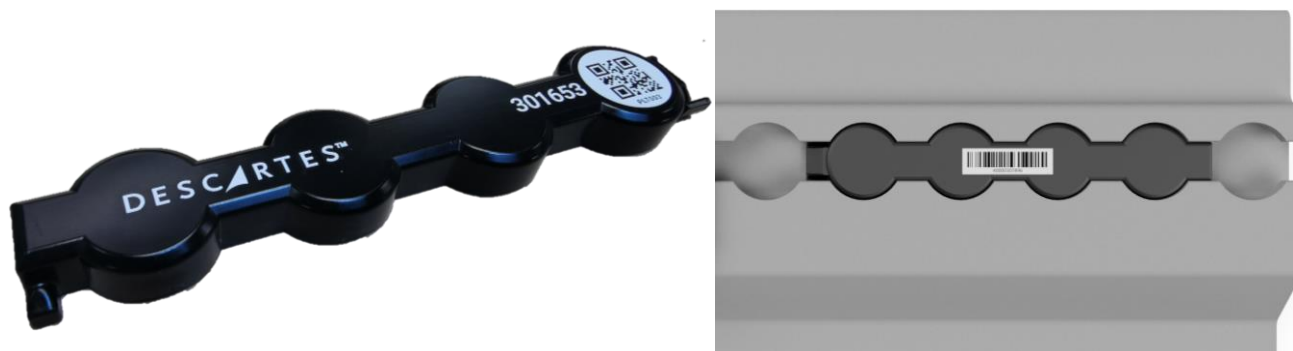# DESCARTES™

## Descartes IoT BLE Beacon Tag
## Hardware Specification

Descartes IoT BLE Beacon tag is an active BLE beacon. The Descartes IoT Beacon tag advertises at an optimal interval of 10 times every 60seconds. Descartes IoT Readers listen for adverts from the Beacon Tag and when in range (approx. 50 meters), the Reader logs these detections. The Descartes IoT Beacon tag is classed as an always active device but its adverts are "non-connectable", therefore, don't allow any "pairing" to be established with the tag. Between advertisements the Tag goes into sleep mode (neither listens nor transmits).



Images are indicative only, actual product may vary

| | |
|---|---|
| Name of the Product: | Descartes IoT Pallet Tag |
| Model: | PLT003 |
| 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 and three lithium metal cell batteries encased in a housing. |
| Battery: | Three CR1632 Rated At 120mAh each. Total 360mAh |
| 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 |

Level 2, 105 Trafalgar St, Nelson 7010, New Zealand | Phone +64 3 547 8205

| Bluetooth Type: | Bluetooth Low Energy 4.2 |
|---|---|
| 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: | 50m (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 (PLT003) | Bluetooth | D037239 (PLT003) |
|---|---|---|
| | FCC | Specification: FCC 15.247:2022 ID: 2A4F8-PLT003 |
| | CE | Passed-Please see "CE - Full EU DoC" document |
| | CE safety testing | Passed |
| | FAA | *In Progress* |
| | DO-160 | Passed- Please see "CTT-0032 Core-TT tag model 'PLT003' RF emissions measurements" |
| | UN38 | Passed See "MSDS CR coin" |
| | IP Rating | IPX0 |
| | RoHS | Passed-Please see "PLT003 RoHS certification" document |