

Descartes IoT Pallet Tag PLT005

Hardware Specification

The Descartes IoT BLE Beacon tag, specifically the PLT005 model, is an active, non-connectable Bluetooth Low Energy (BLE) beacon designed for industrial environments. Advertising at an optimal interval of every 6 seconds enables efficient asset tracking and inventory management. With a range of 100 meters (about 328.08 ft) in an open field, 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 PLT005 features an NFC passive antenna, enabling tag ID. Additionally, the PLT005 incorporates advanced features such as direction finding, enabling the localized positioning of assets.

The PLT005's real-time data empowers businesses with refined asset tracking and inventory management. With these enhancements, it is a cost-effective solution for industries requiring dependable asset-tracking technology.



Images are indicative only; actual product may vary.

Tag Features

Name of the Product:	Descartes IoT Beacon Pallet Tag
Model:	PLT005

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 nRF52833-QDAA 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
Operational Temperature Range:	-20°C to +85°C
Power Consumption - Max:	~8.08uA
Power Consumption - Sleep:	~2.30uA
Operational Life Running:	Theoretical lifetime of >3 years.

Bluetooth

Bluetooth Module:	Nordic nRF52833-QDAA
Bluetooth Type:	Bluetooth Low Energy 5.0
Bluetooth Sensitivity:	-95dBm
Bluetooth Max Power Output:	+8dBm
Bluetooth Antenna:	+3.5dBi SMD Johanson Antenna, Broadly Linear polarized
Frequency Supported:	2.4GHz ISM, 40 BLE Channels & Adv. Ch. No. 37, 38, 39
Range:	100 m (Environment between Reader and Tag dependent)
NFC:	NFC Passive antenna- Used to read Tag ID for identification.
NFC antenna frequency:	13.56MHz
NFC range:	up to 4cm

Transportation:	Meets IATA Dangerous Goods Regulations 2015-2016 57 th Edition (UN3091) Less than 4 lithium metal cells encased in equipment. No declaration required
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Battery passed UN38.3 tests.

Transport:

Descartes IoT BLE Tags transmit periodic Bluetooth advertisements. This is permissible whilst in transport in most situations including air freight.

Certifications:

Core Pallet Tag (PLT005)	Bluetooth	D037239
	FCC	2A4F8-PLT005 Specification: FCC 15.247:2022
	CE	<i>Passed</i>
	CE safety testing	<i>Passed</i>
	FAA	<i>In Progress</i>
	DO-160	In Process
	UN38	Passed See" MSDS CR coin"
	IP Rating	IPX0
	RoHS	