Sense IoT Asset+

Highly ruggedized, industrial IOT asset tracking device offers effortless indoor and outdoor tracking of assets with a multiyear replaceable battery for superior ROI and performance.

The HID IoT active tag Sense Asset+ includes LoRaWAN connectivity protocol as well as Bluetooth® Low Energy and GPS capability. The device is a highly efficient battery-powered IOT tracker. With the aid of the onboard accelerometer, the device is able to detect when it starts to move and will transmit a LoRa message to the backend to indicate that it is no longer in its original position. Once the device comes to rest it will initiate the configurable positioning engine which can activate Bluetooth® Low Energy based positioning when indoors, or activate its GNSS receiver when outdoors to acquire the new position of the device and will transmit this to the backend over LoRaWAN. The device also has a configurable heartbeat LoRa payload which can be sent periodically to inform end users of the battery life and state of the device.

To aid with locating a specific asset within a rack or storage location, the device's bright LED and buzzer can be activated either via Bluetooth® Low Energy or via a LoRA downlink command to activate the alert service.

The device uses NFC enabling configurable parameters to be encoded into the device. NFC configurable settings include GNSS and accelerometer thresholds, Bluetooth® Low Energy power, Alert (LED and buzzer) duration and setting, besides LoRa network and regional parameters.

Alternatively, the device can also be configured via LoRA downlink commands.

The ultra-rugged construction of the device makes it suitable for a wide range of IoT applications. HID Sense Asset+ is ideal for applications requiring medium to long-range tracking such as mining, laydown yard management or asset management, and can be used for tracking of industrial assets such as construction equipment, pipes, cable spools and ground support equipment.

- Typically used for tracking across large areas such as laydown yards, airports and outdoor warehouses
- Highly rugged, IP68 designed to withstand harsh industrial environments
- Replaceable specialist high-capacity AA cells providing 5.2Ah of battery capacity

Alternatively to this Sense Asset+ LoRa device, HID offers the Sense Ultra — a device sharing the same rugged housing and long battery life, that is Bluetooth® LE and Quuppa compatible to act as a highly accurate location anchor e.g. in underground mines.

KEY BENEFITS:

- **Multi-Constellation GNSS** for accurate outdoor positioning
- **Bluetooth® Low Energy** for indoor positioning as well as activating alert
- **LoRaWAN** communication provides power-efficient, long-range coverage for bidirectional communication
- **Bright LED & Buzzer** help quickly identify individual assets

TECHNOLOGY HIGHLIGHTS:

- Multi-constellation GNSS for outdoor positioning
- Power-efficient LoRaWAN providing long-range connectivity for wide area coverage
- Onboard Bluetooth® Low Energy for indoor positioning via several different techniques

RFIDCanada
Automating Identification

HID

Sense IoT Asset+

APPLICATION AREAS:

- Yard management
- Manufacturing facilities
- Warehouse management
- Container management
- Facilities management
- Ports construction and mining
- Asset management
- Field operation
- Fleet monitoring

	Sense Asset+
Part Number	CP18079 Standard version - (Rivet & Cable Tie) CP18078 (Cable Tie)
	RF SPECIFICATIONS
Radio Protocol	LoRaWAN 1.0.4, LoRa,Bluetooth, NFC, GNSS
LoRa Frequency Range	866-868 MHz (EU) 902-928 MHz (US)
LoRa Class Supported	Class A operation (default) Class B can be used for Low latenency activation of alerts over LoRa and position update request Class C can be used for FUOTA
Beacon rate	Configurable LoRa Heartbeat (1-255hrs) Movement start LoRa Beacon (Based on acelorometer activity) New position LoRa Beacon 2.5/ 5/ 10 sec (Bluetooth LE)
Indicators	Bright Green LED & Buzzer
	FEATURES
Sensors	Accelerometer, GNSS
	PHYSICAL
Length x Width	5.32 in × 2.72 x 1.29 in (135.3 × 69 x 33 mm)
Mounting Method	Rivet Attachment, Mechanical (std)
Housing Material	Overmoulded shock resistant TPE
Color	Grey
Weight	7.8 oz (222 g) (without Rivet & Cable Tie)
	BATTERY
Type	2x replaceable AA LS14500 (5.2Ah total)
Lifetime (depending on utilization)	Up to 3 years
	CHEMICAL AND MECHANICAL RESISTANCE
Water	IP68
Withstands Exposure to	Salt Mist
Impact Resistant	4kg drop from 1m
Compression Top down	>2000kg
Vibration & Shock	MIL-STD 810H
	THERMAL
Storage	-4° to +140° F (-20° to +60° C)
Operating Temperature	-4° to +140° F (-20° to +60° C)
	OTHER
Standards	Regional Radio Certifications: United States (FCC), European Union (CE) / IEC 62368-1 / EMC / SAR
Options	Alternative housing colors (CP16640 - Red - Cable Tie slots)
Box Size	6 pcs.
Warranty	1 year

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NFC Bluetooth GNSS LoRaWAN® UKCA CE