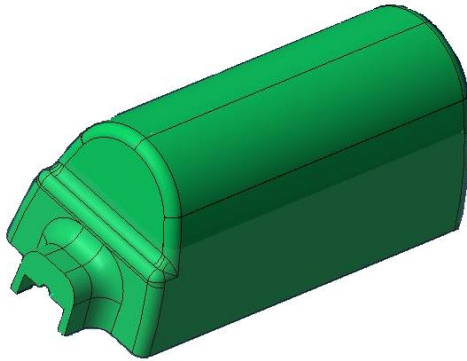




CONFIDENTIAL & PROPRIETARY

C001 v.0r1

Autonomous Transceiver



Operational description

- Reinforced
- Completely water tight
- Long service life
- Highly robust communication protocol
- Easy to install

Description of the system;

The TAG-X transceiver is an autonomous transceiver that is used primarily for the identification, control and management of assets using RF (radio frequencies). The TAG may be used in conjunction with active base station receivers and controllers. The TAGs may be affixed to assets with which base stations may communicate in order to collect data.

TAG-X capabilities;

The tags have been developed in order to provide the following services and functionalities.

- Data transfer, logging and Telemetry
- Temperature monitoring
- Humidity monitoring
- Automated inventory management
- Automated fleet management

Internal component and circuit description;

The following components are included in the TAG-X enclosure:

- 1) Single PCB board
- 2) Primary battery cell
- 3) Antenna
- 4) TX & RX cavity filter

The board performs all of the Radio transmit/receive control functions as well as the data logging & storage functions. The battery is connected to the main board and is used to supply 3.6 Vdc operating voltage.

Technical & RF Specifications

General information

Dimensions (enclosure)

Height : 31.75 mm (1.250 inches)
Width : 63.50 mm (2.500 inches)
Length : 31.75 mm (1.250 inches)
Material : ABS plastic
Color : Black
Antenna : External ¼ wave (74mm 2.91 inches)

Battery

Type : Primary (non-rechargeable)
Chemistry : Lithium Thionyl Chloride
Size: (C) 26505
Capacity & Voltage 8Ah ~ 3.6 Vdc

Antenna

Type: Fixed ¼ wave soldered antenna
(Not user replaceable)
Maximum antenna gain : 5dBi

Tolerances

Operating temperature : -40 +85°C
Environmental norm : IP66

Specifications (RADIO)

Receiver

Freq. : 902.000MHz ~ 928.000MHz
Modulation : FH / 2FSK

Transmitter

Freq. : 902.000MHz ~ 928.000MHz
Modulation : FH / 2FSK
Encoding : Variable encod.

Electrical

Primary : 3.6 Vdc
Internal: 3.6 Vdc
Total power: 940 mA (peak – 15ms)

Certifications

Industry Canada RSS-210
FCC (USA) Part 15