

B01-007A

USER MANUAL AND OEM INTEGRATION INSTRUCTIONS

Limited Modular Approval (LMA)

FCC ID	2ASYW-B01007A
ISED Certification Number	24934-B01007A
HVIN	B01-007A
PMN	B01-007A
Approved HMNs	Express iQ; Pulse Mouse iQ; Pulse Rat iQ; 24/7 iQ; Landscape iQ; Streamline iQ
Revision	3.0
Date	18 August 2026

IMPORTANT

The B01-007A is not a consumer-installable radio module. Installation is restricted to the approved host models and must be performed by the manufacturer or authorised professional personnel.

1. Document Purpose

This manual provides product information, operating instructions, regulatory notices, and OEM integration requirements for the B01-007A Bluetooth Low Energy transmitter module. The module is certified under a Limited Modular Approval and is authorised only when installed in the approved host products identified in this manual.

The regulatory and integration portions of this manual are intended for the grantee, host product manufacturer, authorised integrator, compliance laboratory, and certification body. The module is not intended for installation, replacement, or servicing by the end user.

2. Product Identification

Product	Bluetooth Low Energy transmitter module
HVIN	B01-007A
PMN	B01-007A
FCC ID	2ASYW-B01007A
ISED Certification Number	24934-B01007A
Operating band	2400 to 2483.5 MHz
Technology / modulation	Bluetooth Low Energy, GFSK
Nominal supply	3 V DC battery supply through the host
Approved antenna	Generic quarter-wave monopole, 0 dBi maximum gain, soldered

3. Product Description

The B01-007A is a Bluetooth Low Energy wireless transmitter module incorporated into bait station monitoring products. The host product detects rodent or insect activity and records the time at which a detection event occurs. A capacitive touch pad and capacitive touch sensor integrated circuit provide detection information to the controller. The controller uses proprietary filtering to identify and validate events.

Detection and status information is communicated to a mobile application by Bluetooth Low Energy and may then be uploaded to a cloud-based monitoring system. The module operates in the 2400 to 2483.5 MHz ISM band using GFSK modulation.

4. Approved Host Products

The B01-007A module is approved only for factory installation in the following host model numbers (HMNs):

- Express iQ
- Pulse Mouse iQ
- Pulse Rat iQ
- 24/7 iQ
- Landscape iQ
- Streamline iQ

Streamline iQ is an additional host model variant incorporating an alternate mechanical housing. The B01-007A module, RF circuitry, antenna configuration, RF operating firmware, operating frequencies, modulation, and radio parameters remain unchanged.

Installation in any other host model is prohibited unless the grantee completes the required engineering assessment, testing, and regulatory filing before the host is marketed or operated.

5. Product Installation

The B01-007A module is installed by the manufacturer or authorised professional personnel within an approved host enclosure. The module is not sold separately and is not intended for installation, removal, replacement, modification, or servicing by the end user.

1. Connect a compliant CR-123 battery to the B01-007A assembly in accordance with the controlled manufacturing instructions for the applicable approved host.
2. Install the assembly in the approved host housing using the production mechanical arrangement, antenna location, orientation, and clearances established for that host model.
3. Complete the approved enclosure assembly process. Where sonic welding is specified by the host design, verify that the enclosure is fully closed and that the module and antenna cannot be accessed by the end user.
4. Verify the host identification and the required FCC and ISED module labelling before release.

No alternative antenna, antenna location, module position, power source, RF firmware, or enclosure arrangement may be used without regulatory review.

6. Product Operation

After power is applied, an unregistered device operating in Factory Mode advertises for approximately 30 seconds and then enters a low-power sleep state. Tapping the sensing pad several times wakes the device and initiates another advertising period of approximately 30 seconds before the device returns to sleep.

For registered devices installed in the field, the device advertises approximately every 1.5 seconds to communicate status and event information.

7. Technical Specifications

Frequency range	2402 to 2480 MHz within the 2400 to 2483.5 MHz band
Number of channels	40
Modulation	Bluetooth Low Energy, GFSK
Maximum certified conducted output power	1.8 dBm for B01-007A
99% occupied bandwidth	Approximately 1.03 MHz
Antenna	Quarter-wave monopole
Maximum antenna gain	0 dBi
Antenna connection	Permanently soldered
Power source	Battery, nominal 3 V DC

8. Limited Modular Approval Integration Instructions

8.1 Applicable FCC and ISSED Requirements

The B01-007A limited modular transmitter was evaluated under the following transmitter requirements:

- FCC Part 15, Subpart C, including Sections 15.203, 15.209, and 15.247
- ISSED RSS-247
- ISSED RSS-Gen
- ISSED RSS-102, as applicable to the approved installation and use conditions

The modular transmitter certification does not cover regulatory requirements that apply independently to the final host product. The host manufacturer remains responsible for evaluating the final host for all other applicable FCC and ISSED requirements.

8.2 Specific Operational Use Conditions

This transmitter is approved under Limited Modular Approval because it is not evaluated as a stand-alone module and the transmitter circuitry does not have an RF shield. The antenna and installation arrangement form part of the approved host configuration.

The module is restricted to devices designed and controlled by the grantee and may be used only in the approved host models listed in Section 4. The module shall be installed using the approved antenna, host enclosure, module position, supply arrangement, and RF operating configuration.

8.3 Limited Module Procedures

The grantee retains control over the module, host design, manufacturing process, installation, and regulatory assessment. The module is not supplied for unrestricted third-party integration.

If the module is proposed for installation in a new or non-identical host, or if a change could affect compliance, the grantee shall complete the test plan in Section 9 and obtain the required Class II Permissive Change or other regulatory authorisation before marketing or operation.

8.4 Trace Antenna Designs

Not applicable. The module does not use a host PCB trace antenna design.

8.5 Approved Antenna

Manufacturer	Generic
Model / part number	Generic
Type	Quarter-wave monopole
Maximum gain	0 dBi
Connector / attachment	Soldered, non-detachable
Installation control	Factory installed in the approved host configuration

Antenna substitution, modification, relocation, reorientation, or use of an antenna with a different type or gain is not permitted without additional regulatory assessment and approval.

8.6 RF Exposure Considerations

The B01-007A module complies with the applicable FCC and ISED radio frequency exposure requirements for the approved host configurations and operating conditions.

The host manufacturer shall maintain the approved antenna, module location, enclosure, operating characteristics, and intended use conditions. Any change to antenna placement, separation from persons, host form factor, simultaneous transmission conditions, RF duty cycle, output power, or intended use shall be re-evaluated for compliance with the applicable FCC RF exposure requirements and ISED RSS-102 before the modified host is marketed or operated.

The module shall not be co-located or operated simultaneously with another antenna or transmitter unless the specific host configuration has been evaluated and authorised for simultaneous transmission.

8.7 Module and Host Labelling

The B01-007A module shall retain its own FCC ID and ISED certification number marking. If the module identification is not visible after installation, the exterior of the final host product shall display the following statements:

Contains FCC ID: 2ASYW-B01007A

Contains IC: 24934-B01007A

The host model number shall appear on the host product label, product packaging, or product literature supplied with the host product or readily available online, as permitted by the applicable ISED labelling requirements.

8.8 Host User Manual Information

The user manual supplied with each approved host shall include the applicable FCC and ISED regulatory statements, module identification, host labelling information, RF exposure instructions, and any operating restrictions required for that host configuration.

9. Information on Test Modes and Additional Testing Requirements

The B01-007A is intended for internal use only within the approved hosts listed in Section 4. The integrator is responsible for compliance with all rules applicable to the final product.

A Class II Permissive Change filed by the grantee (Smart Wave Technologies) is required before the module is integrated into a different host platform. The following test plan shall be used to assess a proposed new host configuration.

9.1 Test Mode Configuration

For compliance testing, the module shall be installed in the final production-intent host configuration with the approved antenna and powered as in normal use. Test firmware shall configure the transmitter for continuous transmission of the representative 37-byte packet at maximum power on the low, middle, and high channels of operation, nominally 2402 MHz, 2440 MHz, and 2480 MHz. The test configuration shall represent the highest typical duty cycle and worst-case host operating condition.

9.2 Radiated Fundamental Emissions and EIRP

The fundamental emissions and effective isotropic radiated power shall be evaluated in accordance with the applicable edition of ANSI C63.10 and shall comply with FCC Section 15.247(b) and the applicable RSS-247 transmitter output power and e.i.r.p. requirements.

With the module installed in the new host, the calculated output power and EIRP results shall not exceed the levels authorised for the module. The assessment shall include the low, middle, and high operating channels and the worst-case host orientation.

9.3 Transmitter Spurious and Band-Edge Emissions

Radiated spurious emissions, restricted-band emissions, and band-edge emissions shall be evaluated with the module installed in the final host. The results shall comply with FCC Sections 15.247(d), 15.205, and 15.209, and with the applicable RSS-247 and RSS-Gen unwanted-emission requirements.

Testing shall confirm that the host does not introduce non-compliant harmonics, parasitic oscillations, RF ingress effects, cabinet resonances, or unintended re-radiation. Measurements shall cover the frequency range required by the applicable standards, including the upper frequency based on the tenth harmonic of the highest fundamental frequency.

9.4 AC Mains Conducted Emissions

If the final host is connected directly or indirectly to the public AC mains network, AC mains conducted emissions shall be assessed, as applicable, under FCC Section 15.207 and the applicable Canadian ICES-003 requirements.

9.5 RF Exposure Re-evaluation

RF exposure compliance shall be re-examined whenever the host use condition, antenna location, separation from persons, output power, duty cycle, enclosure, simultaneous transmission condition, or other RF exposure parameter changes. The assessment shall apply the current FCC RF exposure procedures and ISSED RSS-102 requirements and shall determine whether a Class II Permissive Change or other authorisation is required.

9.6 Host Configuration and EMI Review

The host assessment shall consider the antenna implementation, antenna placement, enclosure materials, module position, nearby conductors, digital circuitry, clocks, power conversion circuits, grounding, and cabling. The host shall be evaluated in its representative worst-case operating modes with the modular transmitter installed and operating.

10. Additional Testing and Part 15 Subpart B Disclaimer

The B01-007A transmitter is authorised only for the FCC rule parts listed on its grant. The final host product manufacturer is responsible for compliance with all other FCC requirements that apply to the host and are not covered by the modular transmitter certification.

The final host product requires an applicable FCC Part 15 Subpart B assessment with the B01-007A module installed. The final host shall also be assessed against the applicable Canadian interference-causing equipment requirements, including ICES-003 where the host is within its scope.

Compliance of the module does not, by itself, constitute authorisation of the complete host product.

11. EMI Considerations

For new or modified host designs, the host manufacturer should evaluate the composite system consisting of the host and modular transmitter. The assessment should verify that host digital circuitry, power supply circuits, clock sources, enclosure construction, grounding, and cabling do not adversely affect transmitter compliance or create additional non-compliant emissions.

12. FCC Regulatory Statements

12.1 FCC Part 15 Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

12.2 Modification Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

12.3 Class B Digital Device Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

12.4 FCC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

13. ISED Canada Regulatory Statements

13.1 Licence-Exempt RSS Notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage.
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

13.2 ICES-003 Class B Statement

This device complies with the Canadian ICES-003 Class B specifications. CAN ICES-003(B) / NMB-003(B).

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. CAN ICES-003(B) / NMB-003(B).

13.3 ISED RF Exposure Statement

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the radiator

and any part of your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations ISED CNR-102 établies pour un environnement non contrôlé. Une distance de séparation d'au moins 20 cm doivent être maintenue entre l'antenne de cet appareil et toutes les personnes. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

13.4 ISED Host Labelling

If the ISED certification number of the module is not visible when the module is installed, the host product shall display the following statement:

Contains IC: 24934-B01007A

The approved HMN shall be identified on the host product, product packaging, or product literature supplied with the product or readily available online, as permitted by the applicable ISED requirements.

14. Service and Modification Restrictions

There are no user-serviceable radio components. The end user shall not open the sealed host enclosure, remove the module, alter the antenna, modify the RF circuitry, replace components affecting RF operation, or install unauthorised firmware.

Service affecting the radio module or its installation shall be performed only by the manufacturer or authorised personnel using approved parts and controlled procedures.

15. Revision Record

Revision	Date	Description
2.2	8 February 2022	Original applicant manual.
3.0	18 August 2026	Revised for Limited Modular Approval integration requirements and addition of Streamline iQ host model.