



User Manual

**TLV RFID module (TLVRFID02)
for
Pocket TrapMan PT3**

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Introduction

This user manual provides detailed specifications, diagrams and additional information required to install the PT3RFIDmodule into a product.

Safety Considerations

- Read this section carefully before use and be sure to follow the instructions.
- Do not disassemble and adjust.
- The precautions listed in this manual are designed to ensure safety and prevent equipment damage and personal injury. For situations that may occur as a result of erroneous handling, three different types of cautionary items are used to indicate the degree of urgency and the scale of potential damage and danger: DANGER, WARNING and CAUTION.
- The three types of cautionary items above be sure to observe for strictly. Furthermore, TLV accepts no responsibility for any accidents or damage occurring as a result of failure to observe these precautions.

Symbols

	Indicates a DANGER, WARNING or CAUTION item.
 DANGER	Indicates an urgent situation which poses a threat of death or serious injury
 WARNING	Indicates that there is a potential threat of death or serious injury
 CAUTION	Indicates that there is a possibility of injury or equipment / product damage
	This precautionary symbol indicates an item or action that must not be used or performed
	This precautionary symbol indicates an action or precaution that MUST be performed or observed
 DANGER	
	<p>Do not disassemble or modify.</p> <p>Do not use rating other than those specified. Failure to observe this precaution could result in failure or ignition.</p> <p>Do not use this product in hospitals or airplanes. Failure to observe this precaution could result in malfunction of medical equipment, instrumentation, etc.</p>
	<p>Check to make sure that no wireless instrumentation other than the product is being used. Failure to observe this precaution could lead to interference of important transmissions or accidents.</p>
 WARNING	
	<p>As this is an industrial product, it is not to be used on consumer applications nor in residential areas.</p> <p>Do not install this product on objects exceeding maximum allowable operating temperature. Overheating could result in damage to internal parts, excessive heat generation.</p> <p>Do not subject the unit to strong shocks or throw it against anything. Failure to observe this precaution could result in damage to internal parts, excessive heat generation or personal injury.</p> <p>Do not place device in microwave ovens or in the vicinity of electromagnetic devices. Such handling could result in excessive heat generation, damage to circuitry.</p>

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⚠ CAUTION	
 PROHIBITED	<p>Do not allow any foreign matter to enter the unit. In areas with small foreign matter such as metal dust, use the product after taking measures to prevent foreign matter entering the unit.</p> <p>Failure to observe this precaution could result in fire or malfunction.</p>
	<p>Do not let the unit become immersed in water.</p> <p>If liquid gets inside the unit, it may result in excessive heat generation, electrical shock or unit malfunction. Be mindful of the location of use and handling.</p>

General

TLV RFID module(TLVRFID02) should be installed into TLV Pocket TrapMan PT3 which is the built-in module that loads control MCU and makes radio communication possible.

This module has FCC limited single modular approval.

This module has a chip antenna and the host device is a plastic enclosure.

This module does not have the independent RF function, therefore, EMC/product safety should be tested separately after installing into a host product.

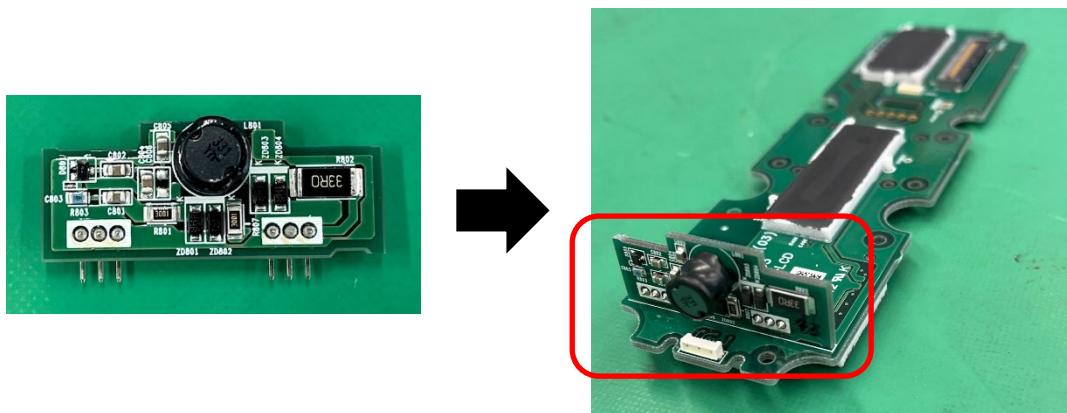
This module is solely integrated by the grantee himself in the described host.
Pocket TrapMan: PT3 series

Features

- RFID TAG LF(125kHz) reader
- Input : Power(3.3V), Clock(125kHz)
- Output : TAG read results(3.0V High or Low signals)

How to Install

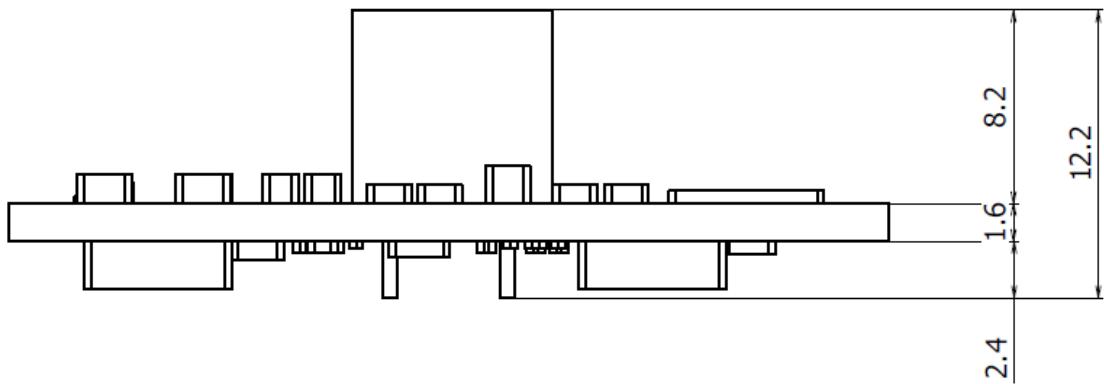
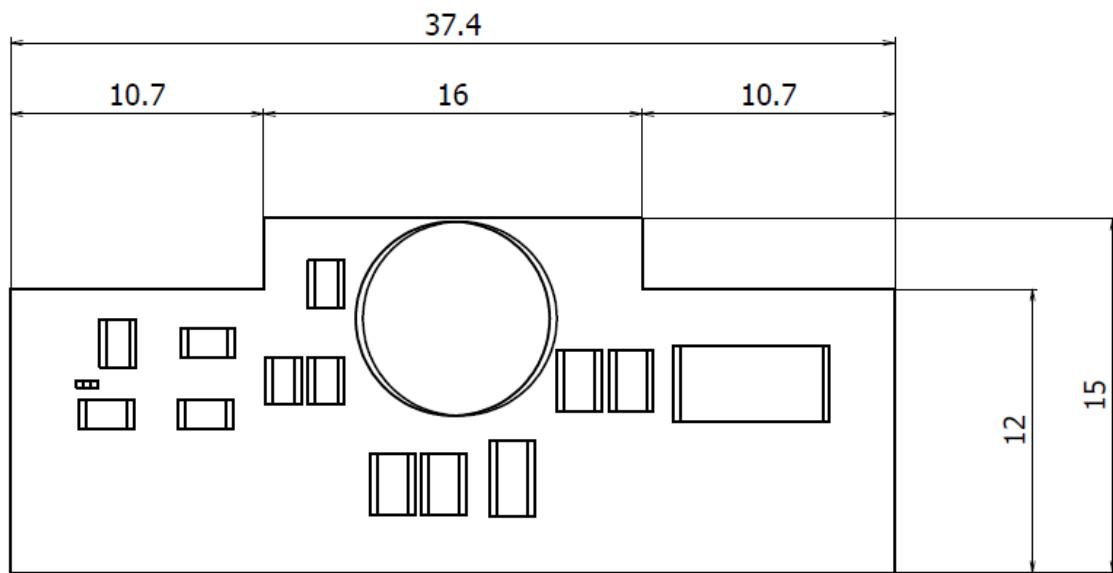
- Connect to the TLV RFID module interface with the host device printed circuit board.
- Operation starts with the clock signals from host devices.



Specifications

Parameters	Specifications
Frequency	125kHz
Power-supply voltage	3.3V
Power consumption (Typ.)	max 0.1mA
Operational temp.	-10°C~50°C
Operational humidity	10~90%RH non condensing
External dimension	37.4mm x 15mm x 12.2mm
Antenna Type	Coil

External diagram



Please contact us for more details

FCC Information

FCC ID: H3RTLVRFID02

In accordance with FCC Part 15, the Pocket TrapManPT3 is listed as a Modular Transmitter device. End products that include the Pocket TrapMan PT3 shall have the words "Contains Transmitter module FCC ID: H3RTLVRFID02" on an exterior label.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Change or Modifications that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Information for Canadian Users (IC Notice)

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Ce dispositif est conforme à la norme RSS 210 d'Industrie Canada.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conforme à la norme NMB-003 du Canada.

The following regulatory and safety notices must be published in documentation.

Supplied to the end user of the product or system incorporating module in Compliance with local regulations. Host system must be labeled with "Contains IC: 7221A-TLVRFID02".

For Service or Technical Assistance:

Contact your **TLV** representative or your regional **TLV** office.

Manufacturer

TLV CO., LTD.

881 Nagasuna, Noguchi
Kakogawa, Hyogo 675-8511 JAPAN
Tel: 81-(0)79 - 427 - 1800

Additional Testing and Evaluation for Host Product

The module is a limited module and complies with the requirement of FCC Part 15.207 and 15.209. According to FCC Part 15 Subpart C section 15.212, the radio elements must have the radio frequency circuitry shielded.

However, due to there is no shield for this module, this module is granted as a Limited Modular Approval. A C2PC is required for new host application. Only Grantees are permitted to make permissive changes. Please contact us for further process with TLV Co Ltd.

The OEM integrators should follow the following C2PC test plan, based on Module RF report "ACS-F23146" under FCC ID: H3RTLVRID02.

For the host product installed this module exactly according to this guide, and did not make any hardware or software modifications to the module or modified the software but does not affect the radio characteristics, the host product will need to evaluate according to FCC Part 15 Subpart C § 15.207 and 15.209 for RFID:

- a. Maximum field strength of fundamental.
- b. Radiated spurious emissions from 9 kHz to 1GHz with the other co-located transmitters.

The host product shall be evaluated for ensuring the continuous compliance for the FCC rules that apply to the host product. Additional guidance for testing host products is provided in KDB Publication 996369 D02 and D04. This module was tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The host will still need to be reassessed for compliance to this portion of rule requirements.

For the host product is not installed according to this guide, the module certification will be invalid and a new grant certification will be required for the host product.