



User's Manual IDRO900ME-Ux

January 19. 2026



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FCC Certification Requirements

FCC Information to User

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.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

IMPORTANT NOTE:

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 24cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

OEM INTEGRATION INSTRUCTIONS:

This device is intended only for OEM integrators under the following conditions:

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The module must be installed in the host equipment such that 24 cm is maintained between the antenna and users, and the transmitter module may not be co-located with any other transmitter or antenna. The module shall be only used with the internal on-board antenna that has been originally tested and certified with this module. External antennas are not supported. As long as these 3 conditions above are met, further transmitter test will not be required.

However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.). The end-product may need Verification testing, Declaration of Conformity testing, a Permissive Class II Change or new Certification. Please involve a FCC certification specialist in order to determine what will be exactly applicable for the end-product.

Validity of using the module certification:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host equipment is no longer considered valid and the FCC ID of the module cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization. In such cases, please involve a FCC certification specialist in order to determine if a Permissive Class II Change or new Certification is required.

Upgrade Firmware:

The software provided for firmware upgrade will not be capable to affect any RF parameters as certified for the FCC for this module, in order to prevent compliance issues.

End product labeling:

This transmitter module is authorized only for use in device where the antenna may be installed such that 24 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following:

► Contains FCC ID: XVY-IDRO900ME-U7

- This Module has been tested and should be used with below antennas:

Antenna Type	Peak Gain (dBi)	Part Name
Patch	3.3	IDRO260-915
Patch	0.72	KSA-921A6015B100B
Patch	-0.28	KSA-947A7015B80F

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Patch	-3.28	MPAC34SC922SS-TA
Patch	0.32	MQWA60F55SM919-A
Patch	1.75	MQWA70F55SP966-A
Patch	-35.75	XM7-40 Ant_Sub-v100

Information that must be placed in the end user manual:

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

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NCC warning statement

根據LP0002低功率射頻器材技術規範_章節3.8.2:

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使

用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

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1.Introduction & System composition diagram

● Introduction

- The IDRO900ME-Ux is a compact size RFID reader module developed for the embedded reader market, which comprises printers, industrial PDA, and similar devices. It provides customers with compact size, low-cost, high-performance functions. It supports protocols of ISO18000-63, and it interfaces with a host system via UART.

- Target Application

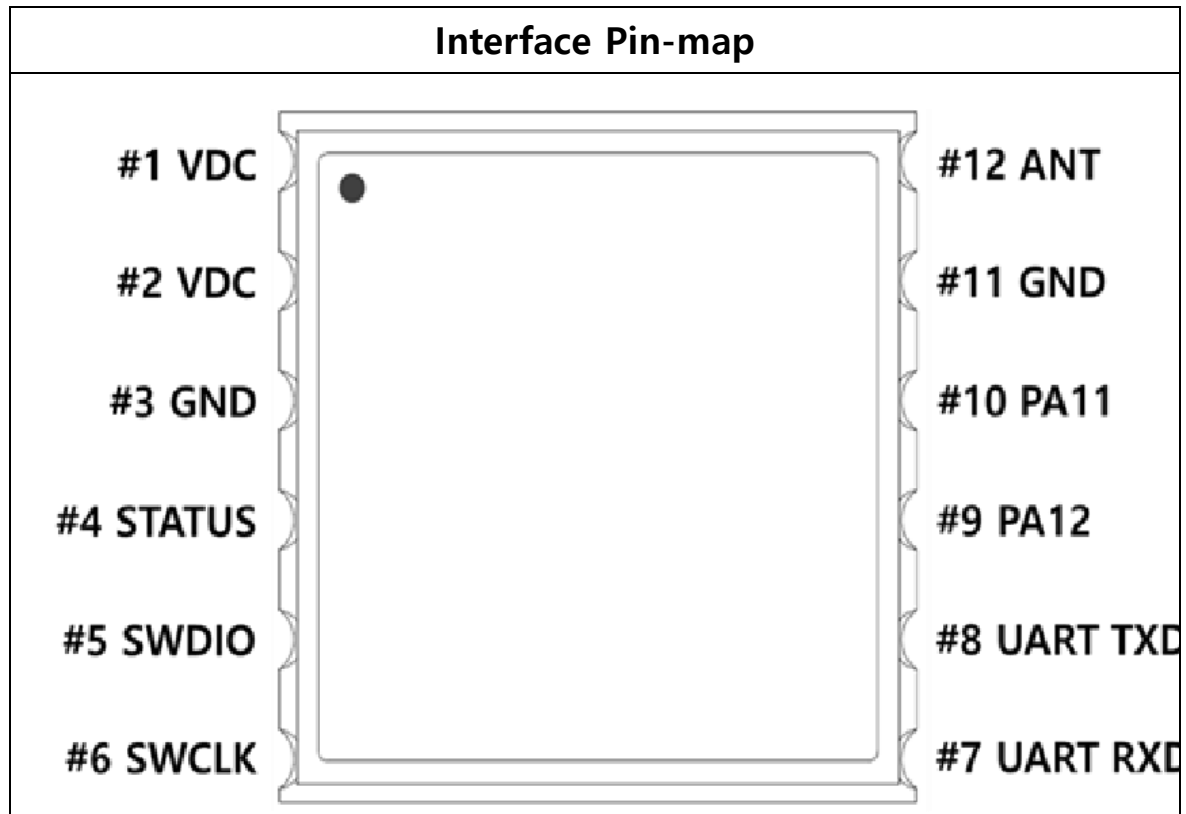
PDA type RFID Reader
 RFID Printers / Tag Encoders
 USB Readers
 Smart-Shelves

2. Composition parts

RFID Module

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3. Reader Description



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4. Reader Specification

● Reader Performance (KOREA, USA, JAPAN etc)

Item	Specification
MODEL	IDRO900ME-Ux
Architecture	UHF RFID Reader Module
Protocol	EPC Gen2 (ISO 18000-63)
RF Chipset	IMPINJ Ex10
Frequency	917.3MHz to 920.3MHz(Korea) 900MHz to 930MHz (Customizable)
Max Tx Power	30dBm±0.5dBm (1W)
Power Control	5dBm to 30dBm (1dB step)
Hopping Channels	6 (Korea), 50(USA), 4(Japan)
Channel Spacing	600KHz (Korea), 500KHz (USA)
Channel Dwell time	< 0.4 seconds
Modulation Method	PR-ASK, DSB-ASK
Supply Voltage	3.8 ~ 4.2V (typ. : 4V)
Maximum Current (@ max. power)	< 1.0A
Tag Read Distance (max.)	< 10m
Operating Temperature	-10°C to +85°C
Signaling	UART, Baud rate(921.6bps)

● Interface

ANT Connector	SMD 1 Pad
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● Physical Dimension

SIZE	15.0 mm × 15.0 mm × 2.15 mm
Weight	1 g

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● Channel number & Frequency table

No.	Korea	China	Taiwan	Japan1	Japan2	USA	No.	USA
0	917.3	920.625	922.25	916.8	916.8	902.75	25	915.25
1	917.9	920.875	922.75	918.0	918.0	903.25	26	915.75
2	918.5	921.125	923.25	919.2	919.2	903.75	27	916.25
3	919.1	921.375	923.75	920.4	920.4	904.25	28	916.75
4	919.7	921.625	924.25	920.6		904.75	29	917.25
5	920.3	921.875	924.75	920.8		905.25	30	917.75
6		922.125	925.25			905.75	31	918.25
7		922.375	925.75			906.25	32	918.75
8		922.625	926.25			906.75	33	919.25
9		922.875	926.75			907.25	34	919.75
10		923.125	927.25			907.75	35	920.25
11		923.375				908.25	36	920.75
12		923.625				908.75	37	921.25
13		923.875				909.25	38	921.75
14		924.125				909.75	39	922.25
15		924.375				910.25	40	922.75
16						910.75	41	923.25
17						911.25	42	923.75
18						911.75	43	924.25
19						912.25	44	924.75
20						912.75	45	925.25
21						913.25	46	925.75
22						913.75	47	926.25
23						914.25	48	926.75
24						914.75	49	927.25

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- **Mechanical Dimension**

