

UHF RFID READER MODULE



RM-100 USA User's Manual

Key Features

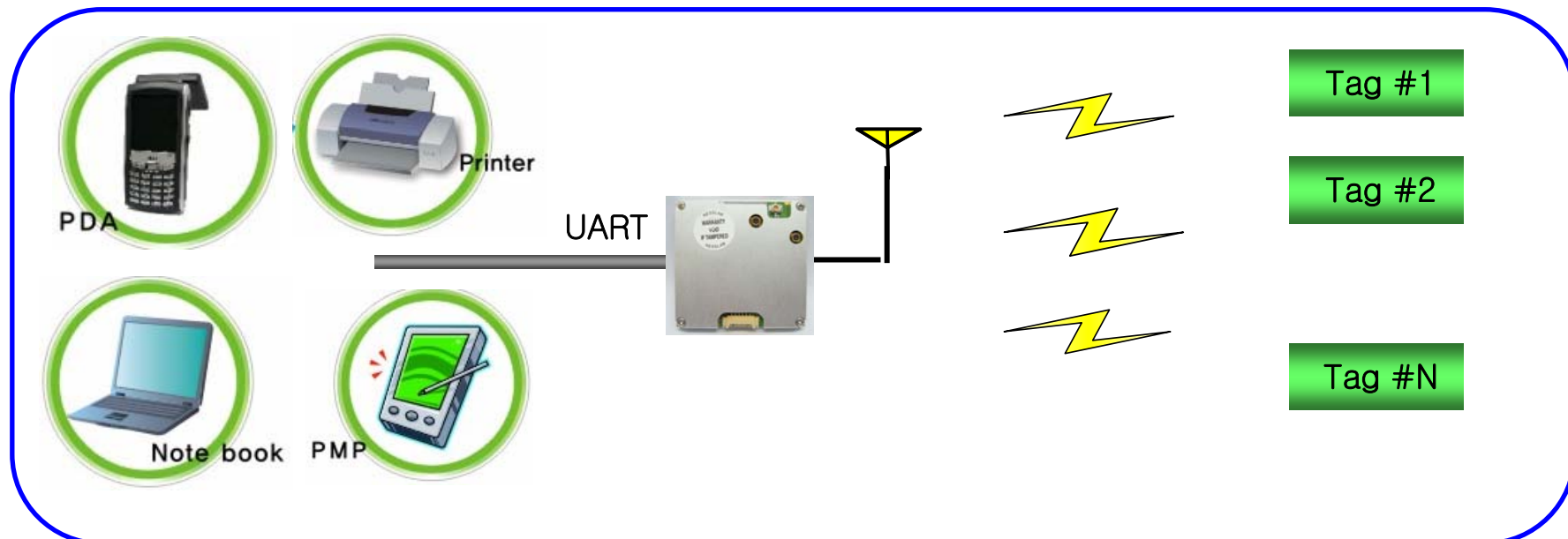
- ISO 18000-6C(Gen2) protocol support
- Dynamic RF output power : -4dBm to +27dBm
- Low current to extend battery life
- Compact size
- Low cost



◆ Introduction ◆

- The RM-100EUROPE is an compact size RFID reader module developed for the embedded reader market, which comprises printers, industrial PDA , and similar devices.
- Target Application
 - PDA type RFID Reader
 - RFID PRINTER
 - OEM Module
 - Other application

◆ System composition diagram ◆



Composition parts



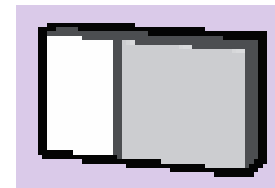
Reader module



Antenna



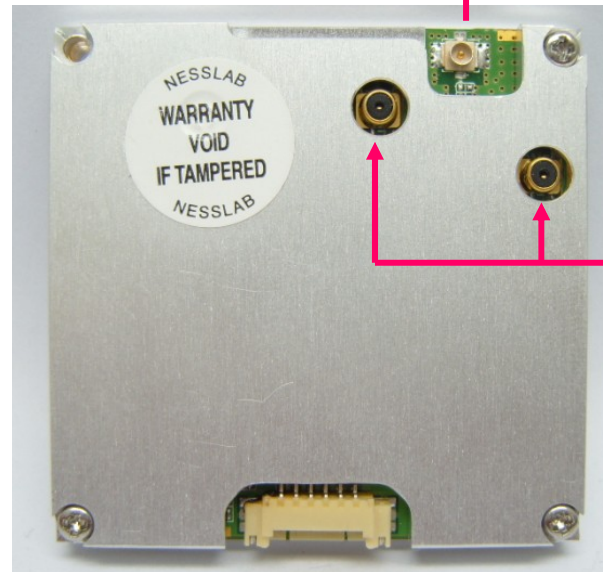
Interface connector cable



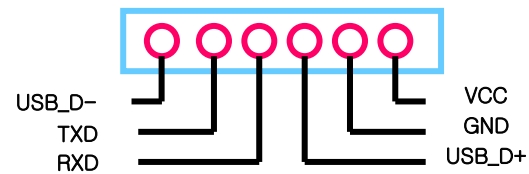
User manual

Module Description

ANT port : connect rf cable to reader module and ANT.



RF switch connector : TX, RX test port.



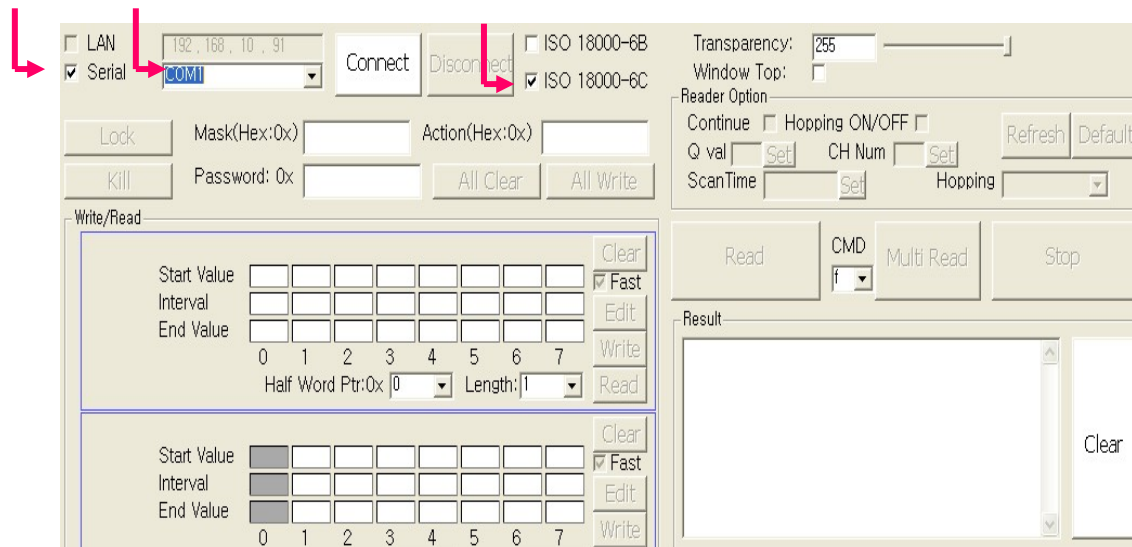
VCC : 4.0 V 1A

Operation method -----(1)

◆ Nessler RFID Mobile Reader Application v1.0 setting

– Program Setting

1. Connect serial data cable (RS-232 to UART) to PC and Reader.
2. Run “ Nessler RFID Mobile Reader Application v1.0 ” with window XP
3. First, check “ Serial , ISO 1800-6C and COM1 “.



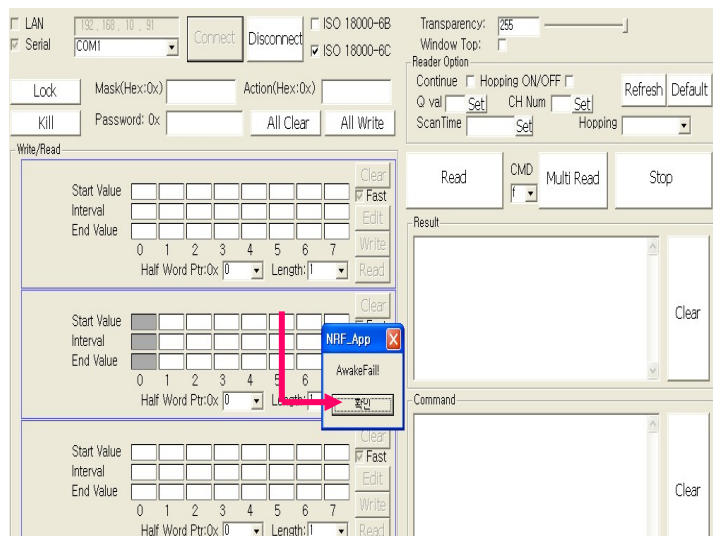
4. Supply 4.0v to module. The buzzer is sounded “ BEEP “

Operation method -----(2)

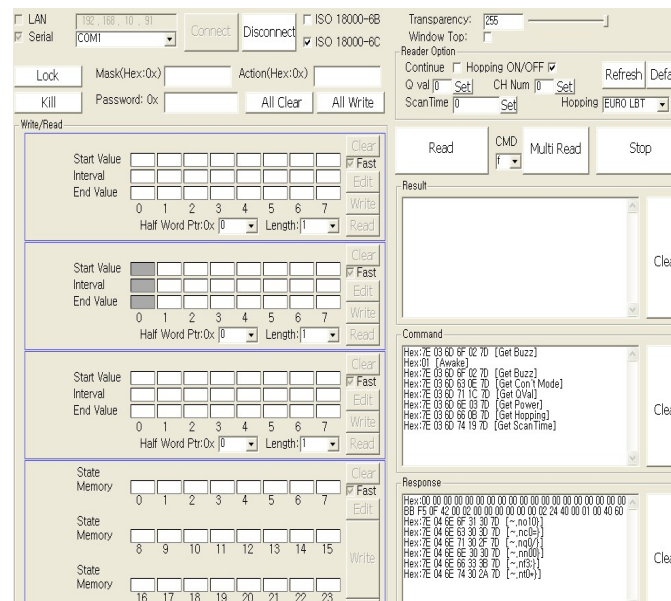
4. Click " connect ".

The screenshot displays the Atid software interface. At the top left, there are checkboxes for 'LAN' (unchecked) and 'Serial' (checked). The 'Serial' section shows a dropdown menu with 'COM1' selected. A red arrow points to the 'Connect' button. To the right of 'Connect' is a 'Disconnect' button. Further right are checkboxes for 'ISO 18000-6B' (unchecked) and 'ISO 18000-6C' (checked). Below these are fields for 'Transparency:' (set to 255) and 'Window Top:' (unchecked). The 'Reader Option' section includes 'Continue' (unchecked), 'Hopping ON/OFF' (unchecked), 'Q val' (with a 'Set' button), 'CH Num' (with a 'Set' button), 'ScanTime' (with a 'Set' button), and a 'Hopping' dropdown menu. There are 'Refresh' and 'Default' buttons. Below the Reader Option are 'Read', 'CMD' (with a dropdown menu showing 'f'), 'Multi Read', and 'Stop' buttons. The 'Write/Read' section contains two identical blocks. Each block has 'Start Value', 'Interval', and 'End Value' fields, each with a grid of 8 digits (0-7). Below these are 'Half Word Ptr:0x' (dropdown) and 'Length:1' (dropdown). To the right of each block are 'Clear', 'Fast' (checked), 'Edit', 'Write', and 'Read' buttons. At the bottom right, there is a 'Result' section with a large empty text area and a 'Clear' button.

5. Click “ 확인 “



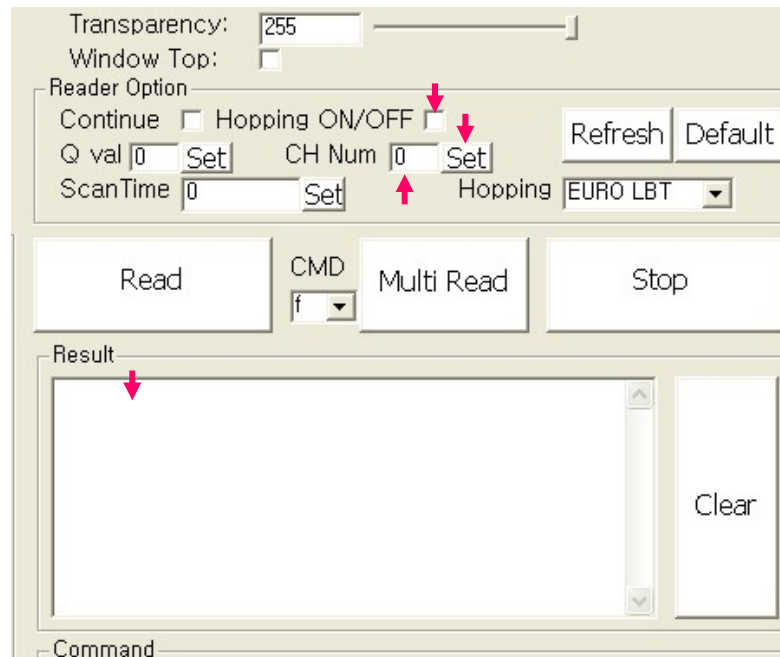
6. If this screen is displayed, the program setting is completed



- Program Setting

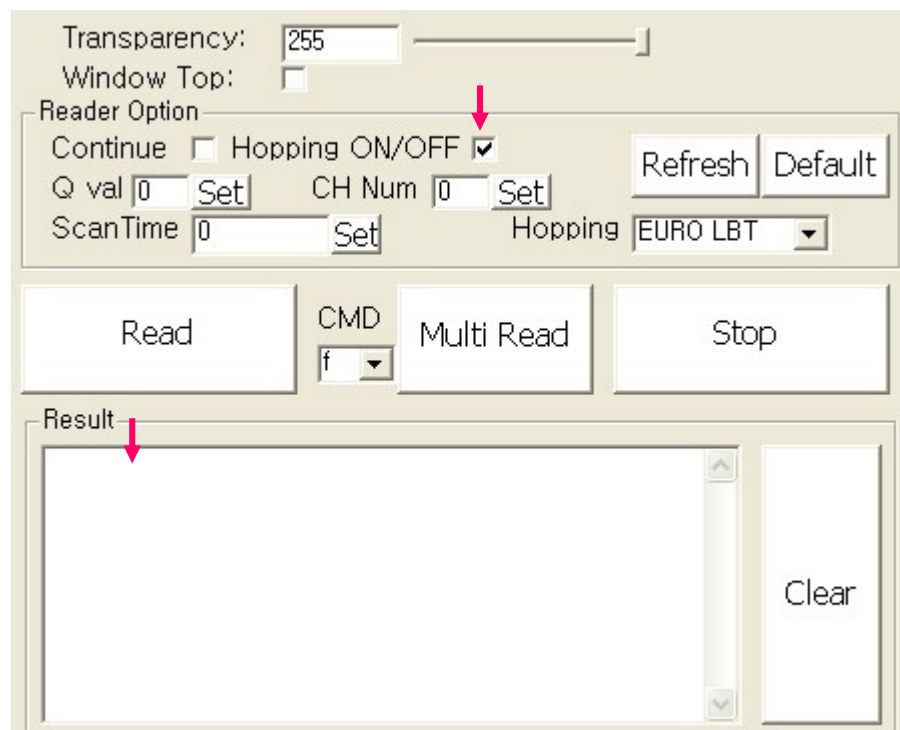
1. The channel setting operation

- 1) If the frequency hopping ON/OFF check box is checked, set the frequency hopping ON/OFF check box unchecked.
- 2) Write the channel number to the CH NUM box.
- 3) Click " SET " , then the channel setting is completed
- 4) If you click " Multi Read " the module read the tags at the channel which you check.
- 5) The tag data is displayed at the Result box.



2. The normal operation

- 1) If the frequency hopping ON/OFF check box is unchecked, set the frequency hopping ON/OFF check box checked.
- 2) If you click “ Multi Read “, the module read the tags.
- 3) The tag data is displayed at the Result box.



The screenshot shows the software interface for the Atid reader. The 'Reader Option' section is highlighted with a red arrow pointing to the 'Hopping ON/OFF' checkbox, which is checked. Below this, the 'Multi Read' button is highlighted with a red arrow. The 'Result' box is empty, and a red arrow points to it. The 'Clear' button is visible in the bottom right corner of the 'Result' box.

Transparency: 255
Window Top:
Reader Option
Continue Hopping ON/OFF
Q val 0 Set CH Num 0 Set Refresh Default
ScanTime 0 Set Hopping EURO LBT
Read CMD Multi Read Stop
f
Result
Clear

Channel Table



CHANNEL NO	FREQUENCY	CHANNEL NO	FREQUENCY	CHANNEL NO	FREQUENCY
1	910.2 MHz	21	914.2 MHz	41	918.2 MHz
2	910.4 MHz	22	914.4 MHz	42	918.4 MHz
3	910.6 MHz	23	914.6 MHz	43	918.6 MHz
4	910.8 MHz	24	914.8 MHz	44	918.8 MHz
5	911.0 MHz	25	915.0 MHz	45	919.0 MHz
6	911.2 MHz	26	915.2 MHz	46	919.2 MHz
7	911.4 MHz	27	915.4 MHz	47	919.4 MHz
8	911.6 MHz	28	915.6 MHz	48	919.6 MHz
9	911.8 MHz	29	915.8 MHz	49	919.8 MHz
10	912.0MHz	30	916.0 MHz	50	920.0 MHz
11	912.2 MHz	31	916.2 MHz		
12	912.4 MHz	32	916.4 MHz		
13	912.6 MHz	33	916.6 MHz		
14	912.8 MHz	34	916.8 MHz		
15	913.0 MHz	35	917.0 MHz		
16	913.2 MHz	36	917.2 MHz		
17	913.4 MHz	37	917.4 MHz		
18	913.6MHz	38	917.6MHz		
19	913.8MHz	39	917.8 MHz		
20	914.0 MHz	40	918.0 MHz		

– Additional Page –

Cautions

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

FCC compliance Information

This device complies with part 15 of 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.

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.

FCC WARNING:

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

FCC RF EXPOSURE:

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.