19-2000W/N

UHF RFID Reader

User Manual

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The pictures and screens shots on this document may be different to actual. .

Please thoroughly read the caution section before installing the reader.

Reasonable measures have been taken to ensure that the information included in this manual is complete and accurate. However, UBISTS reserves the right to change any specification at any time without prior notice.

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FCC information

FCC notice "Declaration of Conformity Information"

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:

1. Reorient or relocate the receiving antenna.

2. Increase the separation between the equipment and receiver.

3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

4. Consult the dealer or an experienced radio/TV technician for help.

FCC Conditions

This equipment has been tested and found to comply 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.

FCC Notice "Equipment Authorization" Information

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. This device is authorized under Title 47 CFR 15.519 (the FCC Rules and Regulations).

The operation of this device is subject to the following restriction:

The changes or substitutions of the antennas which are furnished with the device is prohibited.

FCC 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 20cm between the radiator & your body.

Chapter 1. Introduction

1.1 Operation specification

- I9-2000W supports multi-protocols (ISO18000-6C&6B, EPC Class 1 GEN 2) to read and write tags.
- I9-2000W supports RS-232 and TCP/IP.
- I9-2000W supports external I/O and controls other devices through the digital I/O.
- Easy to monitor the status of reader through LED.
- Easy to control the reader through the reader's API.
- I9-2000W provides online upgrade.
- Preferable mode can be saved by the user.
- Possible to operate the programmable multi port antennas.
- Minimize the interference of the frequency Channel. (Dense Reader Mode)
- I9-2000W supports sensitivity setting for LBT.
- I9-2000W supports the reader monitoring mode and measurement of RF receiving level.
- The I9-2000W model supports WIFI mode
- I9-2000W is used for only transmit RFID tag data by WIFI module and WIFI module is not used any other function.

1.2 Communication Specification

Extornal Interface	Serial	230,400bps / 115,200bps / 57,600bps / 38,400bps
External internace	Ethernet	10 BaseT(TCP/IP,)
Air Drotocol	Tag Air Drotocol	ISO18000-6B,6C
All Protocol	Tag All Protocol	EPC Class1 GEN II

Item	Specification	Remark
Model name	I9-2000W/N	
Air interface protocols	ISO-18000-6B/6C, EPC Class1 Gen 2	
	910.4~913.6 MHz@Korea/ MIC	ETSI(EU)
	917.3~920.3MHz@Korea/ KCC	
_	902.75~929.25 MHz@USA/ FCC	
Frequency range	865.7~867.5 MHz@EU/ CE	
	952.4~953.6 MHz@Japan/ TELEC	
	920.625~924.375 MHz@China/ CC	
RF output power	Max 1W, step:1dBm	
Modulation	PR-ASK	
Antennas	Circular Patch	
Operation Type	FHSS(KOR/USA/CHINA), LBT(JPN/EU)	
Air Protocol speed	Tx 40Kbps/Rx 75Kbps	
Antenna connector	4 monostatic	RP-TNC
Antenna operation	Operate programmable multi-antenna ports	
	Minimize the interference of frequency Channel	
DSP filter	(Dense Reader Mode)	
Read range	\leq 5m (depends on antenna placement and tag type)	
	17 Channels @Korea/ MIC	
	6 Channels @Korea/ KCC	
Channols	50 Channels @USA/ FCC	
Chaimeis	4 Channels @EU/CE	
	8 Channels @Japan/ TELEC	
	16 Channels@China/ CC	
	200KHz@Korea/ MIC	
	600KHz @Korea/ KCC	
Channel band width	500KHz @USA/ FCC	
	600Khz @EU/CE	
	200KHz @Japan/ TELEC	
	250KHz @China/ CE	
Operating program	Window 2K / XP / Vista/7	
User API	API for Window	
Program upgrade	Through the use of Network or RS232	
Mode Setup	Preferable mode can be saved by user	

1.3 Reader specification

LBT control	Supports sensitivity setting	
Power supply voltage	DC 12V (±10%)	
DC Current	MAX 3000mA	
Weight	3.5kg	
Dimensions	169 x 88 x 47 (mm)	
	Connector:RJ45,	
LAN	Standard : IEEE802.3, 10Base T	
	Protocol: TCP/IP	
Serial	RS-232C, Baud Rate : Max 230,400bps	
Extended I/O	4 Inputs and 4 outputs	

1.4 Product images

• I9-2000W/N reader (Top view, front view)



FrontView



Chapter 2. Hardware Installation

2.1 Hardware

2.1.1 Reader I/O Panel

DC12V EXT I/O 1 EXT I/O 2 RS-232 LAN ANT1 ANT2 ANT3 ANT4

• Power

Table 1] 입력전원 요구 사항

Input voltage	DC 12V (±10%)	
Input Cur	3000mA more than	
Ripple and ripple noise	50mVp-p or less	Spike at the moment: 100mVp-p or less



Power Connector (DC Power Socket & Jack)

Antenna Port



Antenna Connector

• RF specification

Item	Remark	
	910.4~913.6 MHz@Korea/ MIC	
	917.3~920.3MHz@Korea/ KCC	
Frequency	902.75~929.25 MHz@USA/ FCC	
Range	865.7~867.5 MHz@EU/ CE	
	952.4~953.6 MHz@Japan/ TELEC	
	920.625~924.375 MHz@China/ CC	
RF output power	Max 1W (30dBm less)	
Modulation	PR-ASK	
Aerial type	Circular Patch	
Air interface	ISO-18000-6B/ISO18000-6C(EPC Class1	
protocol	GEN II)	
Antenna ports	4 monostatic	
Deed Depas	\leq 5m (depend on reader placement and	
Reau Range	tag type)	

Antenna Gain	6dBi Below	
	17 Channels @Korea/ MIC	
	6 Channels @Korea/ KCC	
Observato	50 Channels @USA/ FCC	
Channels	4 Channels @EU/CE	
	8 Channels @Japan/ TELEC	
	16 Channels@China/ CC	
	200KHz@Korea/ MIC	
	600KHz @Korea/ KCC	
Channel Band	500KHz @USA/ FCC	
Width	600Khz @EU/CE	
	200KHz @Japan/ TELEC	
	250KHz @China/ CE	

2.1.2 LED Panel

- POWER (Red): It indicates the power; ON/OFF
- READ (dual color): It flashes when the reader reads the tags.

2.2 Hardware installation

- ① Locate the host PC.
- ② Connect the reader with the RS-232C cable.
- ③ Connect the RS-232C cable with the host PC.
- ④ Connect the power adaptor to the reader..

RS-232C Cable & Power Adaptor Connection

- (5) Connect the antenna port (1) with the antenna cable.
- 6 Connect the antenna with the antenna cable.

Reader & Antenna with Connection by Antenna Cable

- O Plug the power code.
- (8) Operate the host PC and execute the PC program.

Chapter 3. Software Installation

3.1 Check before installation

- ① Confirm the appropriate software.
- ② Confirm the host PC that connects to the network.

3.2 Software installation

① Copy the software into the host PC (E.g.. Copy the U9-2000 folder onto D:)

대상	;▼ 새 폴더				≡ ▼	?
•	이름	수정한 날짜	유형	크기		
	J Firmware	2011-05-04 오전	파일 폴더			
	Register Files	2011-05-04 오전	파일 폴더			
	RFIDDEMO.exe	2010-10-13 오후	응용 프로그램	808KB		
Ŀ						
Ŀ						
Ŀ						
Ŀ						
		Software Fold	er			

Firmware folder: It includes .bin file in order to upgrade a firmware.
 Register file folder: It includes .rgs file in order to set a registry
 RfBag.exe: It is the executable PC program.

(2) When you execute the RfBag.exe, you can see the Main Menu window as follows.

RFIDDEMO [Serial:(COM1, 115200 bps)] - [Binanry:X][String:X] Eile Comm Command Eurotion Help							
connect discon, tagornd etcomd security register reader channel ext i/o scan	ي test	∰ info	>ge ∎	preset ra	D E	Fig. on-lir	e about
Current All Accumulate Clear All Clear Count			Current / All /	Accumulate	Count [0 / 20	8/1
No Tag UID(PC + EPC + CRC) or Memory Data (RSSI:dB)	Count	Ant	Read Time	e Size	Tag	Index	Мар
Ready			>	xx status : O	x00	NUM	1

Main Window after excuting RFIDDEMO

Chapter 4. Software Operation

There are two ways to operate the U9-2000N UHF Reader. One is to operate the reader with directly received input and the other is the Machine-to-Machine(MtoM) mode, in other words, to operate automatically by the connected host or software which has been programmed in the middleware. In order to operate in MtoM mode, you need the program that is developed with the appropriate protocol which is discussed in chapter 6 and 7.

The reader can be controlled using binary protocols (See chapter 7) for the provided program. It can also be controlled as the terminal form which is delivered in text format, while the reader connects through serial or TCP/ IP. User inputs commands directly to the keyboard (See chapter 6, Reader String Protocol).

In this chapter, it describes how to control the reader by the program that uses binary protocols and also discusses how the user reads and writes the tags.

4.1 Execute the RFDEMO (PC Application Program)

1 Turn the reader on while connects to the antenna(s).

> It takes approximately 20~30 seconds for booting the reader. (The status LED blinks when * the booting finishes)



Execute (2)

RFIDDEMO (PC Application Program)

4.2 Connect the host PC with the reader through RS232C

*** NOTICE:** Check a serial connection of the Reader

You need to choose the protocol type in the serial communication method that operates only one channel. The factory default setting will be the binary protocol which can be used. But if you have changed the serial protocol mode to string, it can only work with the terminal method. Therefore, check the next chapter for the serial connection.

String Protocol Mode methods in the transition to Binary Protocol String Protocol "SerialMode" command is listed in detail.

- ① Connect the RS232C cable to the reader.
- ② In the Main Menu, choose the Option from Help or configuration button, Configuration window opens.



Configuration	×
Communication Type	
Serial Port : COM4 ▼ Baudrat	e : 115200 🔻
C Ethernet IP Address : 192 . 168 .	1 . 50 list
Use Ping Test Binary Port : 2500 S	string Port : 1500
R/W UDP Heart Beat	
Send UDP Packet Check R/	W UDP Packet
Send Time Interval : 10 s Receive Time	e Out: 10 s
Send Port : 3100 Receive Port	rt: 3000
Options	
Sound Beep when at least one tag is read	
Remeber previous HS check	
Vise Transparent Window (Need to Restart)
Show Tag Count On Main Window	
Show UTF8 Enconding Data from Tag UID	
Send Some Commands On Connecting Rea	der
RfBag Mini Mode(need to restart)	Sound
Mask Size : 0 Pos : 0	Freq: 426
Max Number of Tag Reads : 100000	Delay: 15
OK	cel

- ③ Choose the Serial from Communication Type.
- ④ Select the host PC's communication port. (ex. COM1, COM2....)



Information of Internal Message	×
Clear	
Disconnecting to Reader is success. Connecting to Reader is success.	^
	~

Information of Internal Message

4.3 Search the reader using the program and Ethernet

- ① Connect the Ethernet cable to the reader.
- ② Either select the Search Reader from the Function or Scan button

to search the reader.

🎭 scan



Reader Search Screen

- ③ Click a Scan Reader button.
- ④ The information about thea reader on the local network area will appear.



Search the Reader's info

4.4 Connect the host PC and reader through the Ethernet

① Connect the reader and host PC using the Ethernet Cable (Cross Cable). If you have multiple readers, use the Ethernet Network Hub to connect with the PC.



- ③ From the Configuration window, select the Ethernet from the Communication Type.
- ④ Type the IP Address of the reader and set port number as 2500 and then click OK.



Setting the Ethernet Configuration Window

From the main window, click the Connect button 5



to connect the reader and the host PC.

To check the connectivity between the reader and the host PC, click the Info button. 6

* How to check the IP Address of the reader						
1.	Connect the reader and the host PC through the RS232.					
2.	From the main window, click the reader button. The Reader Config Command window appears.					
3.	Click the RN(Read Net) button RN(Read Net) from the Reader Network to see the IP Address, Subnet Mask, Default Gateway and DNS Address.					

- Reader Network	Static	O DH	СР —
IP Address :	192 . 168	. 1 .	70
Subnet Mask :	255 . 255	. 255 .	0
Default Gateway :	192 . 168	. 1 .	1
DNS Address :	168 . 126	. 63 .	1
RN(Read Net)	WN	I(Write Ne	et)
Serial Baudrate	Select	Protocol	Туре
115200 👻 bps	Str	ing 🔘	Binary
BR(BaudRate)	PM(F	Protocol N	lode)
UDP Heart Beat			
Send F	Port : 3000	Send	Receive
Receive F	Port : 3100	۵	۵
Internal Send T	ime : 10	RU(Ro	I UDP)
Receive Max Time	Out : 10	WU(W	rt UDP)
Reader Time/Date			
Cur. Tm 1970-01-	01 🍦 오	전 1 <mark>2:0</mark> 8:	05 🌲
	RT(Rd Tm)	WT(W	rt Tm)
			_

4.5 Check or change the register settings

.

You can view the value of the Register using the HR(HardwareRead) button. And also you can modify the value using the HS(HardwareSetup) button.

Connect the reader and the host PC, click Register button.
 window appears.

Register Read/Write	-	x		
HS (Hardware Setup)	(Hardware Re	ad)		
Basic KCC				
03h:Rf Attenuation All Port 10				
🔲 05h:Cur. Antenna	1 -			
06h:Start Frequency	910.400			
07h:End Frequency	913.400			
09h:Local Frequncy Regulation	Custom 👻			
OCh:Search Time	1			
10h:MAX Antenna	8			
11h:Antenna Step(1-4Port)	1234			
12h:AC Mode(One/All/Mem)	One Tag 🛛 👻] ≡		
1Dh:Time Slot(Q Value)	0 🗸			
2Ah:Memory Bank	Reserved -			
42h:AC No Tag Response	ENABLE -			
71h:AC Tag Momory Start(Gen2)	4			
72h:AC Tag Momory Size(Gen2)	12			
73h:AC Tag Memory Send Mode	Only Memc 👻			
🗐 82h:External Ouput Func. #2-#1	0000			
🔲 83h:External Ouput Func. #4-#3	0000	- -		
Resiger Description				
RF Output Power Attenuator ALL PORT(0~31)	*		
		~		
Uperation Level : Level #1	Save Reg	ister		

Register Read/Write Window

② To check the default value of the Register, click HR(Hardware Read).

HR (HarewareRead)

The Register Read/Write

※ If the HS or HR are deactivated,	HS (HarewareSetup)	HR (HarewareRead)
check the connectivity between the re	ader and the host PC.	

③ Check the check box to modify the value of the Register.



Register Time Slot Change the value of the RF Attenuator

4 Click the HS(HardwareSetup) buttor HS (HarewareSetup) to apply the changed value.
 (5) To check the modified value, click HR(HardwareRead) button HR (HarewareRead)

*	How to keep the current setting as the default register value					
1	The default register value is saved on the flash memory.					
(2)	You can change the default register setting using the SR Command					
Ŭ						
3	From the Main Menu, click the Register button.					
C	window appears					
	window appears.					
(4)	Click the HR(HardwareRead) to view the current register value. Ant the click the Save					
	Register button.					
	Register Read/Write					
	Resis uses					
	Dasic KCC					
	05h:Cur Antenna					
	06h:Start Frequency 917.300					
	07h:End Frequency 920.300					
	09h:Local Frequncy Regulation Custom					
	OCh:Search Time 10					
	10h:MAX Antenna 4					
	Ilh:Antenna Step(1-4Port)					
	□ 12h:AC Mode(One/Al/Mem) All Tag 👻 🗄					
	1Dh:Time Slot(Q Value)					
	2Ah:Memory Bank EPC					
	A 2h:AC No Tag Response ENABLE					
	71h:AC Tag Momory Start(Gen2) 4					
	72h:AC Tag Momory Size(Gen2)					
	73n:AC lag memory Send Mode Only Memc ▼ 92b:External Quart Europ #2 #1 0000					
	83h:External Ouput Func. #2-#1 0000					
	Resider Description					
	RF Output Power Attenuator ALL PORT(0~31)					
	Operation Level Level #1					
	Register Read / Write Window of SR					
(5)	After repooting the reader the Connect Host PC and the Reader					
6)	Click HR (HarewareRead) the Apply button Save Register when you Register is set					
	to a value that can be found					

4.6 How to read tags while using the single port

*Tag caveat before reading

1. [Chapter 2] Hardware Installation Connect the Reader to read and make sure that appropriate.

2. Reader supported on this machine is ready to make sure that the Tag.

3. Tag Reader to read well and where you can make sure that you have placed in fr ont of the Ant.

- ① You need to set the Register value in the reader to read the tag.
- ② Click the Register button from the Main Menu, the Register Read/Write window appears.
 ★ If the button is deactivated, HS (HarewareSetup)
 HR (HarewareRead)
 Check the connection between the reader and the host PC.

③ Click the HR(HardwareRead) button to set the current register value. HR (HarewareRead)

④ Check the antenna port number that is connected to the reader.

- (5) After any changes in the register value, click HS(HardwareSetup) to set the changes.
- 6 After setting the Register value, click the TagCmd button Command Window1 (Tag) appears.
 6 After setting the Register value, click the TagCmd button

Command Window1 (Tag)	
AC(Anti Conllision)	
I Port Notify Start	Multi Port Notify Start
Read/Write Data	
Start Ptr: 4 Length : 8	Read Memory (RB) Write Memory (WB)
Write Data : 11.22.33.44.55.6	6.77.88 Write 👻
Continuous Read / Write	
Success Fault	Count Max Tag Num R/W TEST
0 / 0	0 / 100000 1 Reset

Command Window1 (Tag) of the AC (Anti Collision)

Click 1 Port Notify Start button

1 Port Notify Start

from the AC(Anti Collision) to read tags.

*	To view the raw data view, click Raw button		from the Main Menu. The Serial
	Raw Data View window appears.	raw	
	From this window, you can see the [Send Dat	a] from	the reader to the host PC and the
	[Receive Data] for their responses.		
	orial Paw Data View	-	x
	[Send Data]	-	
	[001-16:36:30] 02 01 FF 04 41 43 00 01 F9 03		A
			~
	[Receive Data]		Clear
	[046-16:36:33] 02 FF 01 F4 61 63 00 51 26 0E 30	00 00 00	00 00 00 00 00 00 00 00 00 00
	[047-16:36:33] 02 FF 01 5B 61 63 01 51 26 05 30 [048-16:36:33] 02 FF 01 F4 61 63 00 51 26 0E 30	00 00 00	00 00 00 00 00 00 00 00 00 00 00 00
	[049-16:36:33] 02 FF 01 8E 61 63 01 51 26 08 30	00 00 00	00 00 00 00 00 00 00 00 00 00 00
			-
	Send Custom Data		
			Send BCC
ĮL			
* l	Jse this view to check other commands.		

(8) The tag data is displayed. Each raw show the tag ID, number of times tag has been read, antenna

number and the tag reading time.



메인 Window 에서 Tag UID 확인

(9) In order to stop the transmission Tag Command Window1 (Tag) of the AC (Anti Collision) from the

Stop Notify

Clicking Tag transfer is complete.

4.7 How to change antenna setting while using a Single Port

- ① Connect the reader and the host PC.
- 2 Check the current port.

Check the current Port(ANT1)

③ Change the antenna cable from ANT1 to ANT2.

Port 1 and Port 2 as a replacement

④ Click the Register button

n register

from the Main Menu.

Select the 05h:Cur. Antenna and choose 2 for the antenna port 2. Click HS(HardwareSetup) button to save the changes.

01h:Talk Mode	FHSS 👻	^
03h:Rf Attenuation All Port	10	
🔽 05h:Cur. Antenna	2 🗸	
06h:Start Frequency	910.40	
07h:End Frequency	913.40	

Change the settings for the antenna Register

6 From the Main Menu, click the Tagcmd button Click 1 Port Notify Start button. 1 Port Notify Start to open the Command window1 (Tag).

le v		n. Command Function Heip						
onnec	t disco	H Lagornd etcornd security register reader channel ext i/o	ि test	∏ info	>ge string map pres	a 💿 set raw o	onfig. on	-line ab
Curr	rent 4	All Accumulate Clear All Clear Count			Current / All / Acc	umulate Count	1 / 19	9252 / 8
	No	Tag UID(PC + EPC + CRC) or Memory Data (RSSI:dB)	Count	Ant	Read Time	Size Tag	Index	Map 1
■₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:34	96 bit GEN	2 21426	х
B	19	3000 1122 3344 5566 7788 2232 9058 6213	1	2	11/05/09-11:57:34	96 bit GEN	2 21426	х
B	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:34	96 bit GEN	2 21430	х
1 2	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:34	96 bit GEN	2 21434	х
.	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:34	96 bit GEN	2 21438	х
•	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:34	96 bit GEN	2 21442	х
∎₽)	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:35	96 bit GEN	2 21446	х
B	19	3000 1122 3344 5566 7788 2232 9058 6213	1	2	11/05/09-11:57:35	96 bit GEN	2 21446	х
	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:35	96 bit GEN	2 21450	х
∎₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:36	96 bit GEN	2 21454	х
∎₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:36	96 bit GEN	2 21458	х
∎₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:36	96 bit GEN	2 21462	х
∎₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:36	96 bit GEN	2 21466	х
∎ ₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:37	96 bit GEN	2 21470	х
∎₽	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:37	96 bit GEN	2 21474	х
.	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:38	96 bit GEN	2 21478	х
	19	3000 1122 3344 5566 7788 2232 9058 6213	1	2	11/05/09-11:57:38	96 bit GEN	2 21478	х
.	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:38	96 bit GEN	2 21482	х
.	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:38	96 bit GEN	2 21486	х
.	19	3000 1122 3344 5566 7788 2232 9058 6213	3	2	11/05/09-11:57:38	96 bit GEN	2 21486	х
.	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:39	96 bit GEN	2 21490	х
∎ ₽	19	3000 1122 3344 5566 7788 2232 9058 6213	3	2	11/05/09-11:57:39	96 bit GEN	2 21490	x
•	19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-11:57:39	96 bit GEN	2 21494	x

Window to verify the result f a change through the main antenna

4.8	Ho	w to read tags while using multiple ports
	1	Connects the reader with more than 2 antennas.
		Reader Connect the two antenna
	٢	Connect the reader and the host PC, click Resister button
	Ľ	Register Read/Write window appears
	3	Select 10b:MAX Antenna and choose 2. Click HS(HardwareSetup) to save the changes
	9	Select TOT. WAY AITERINA and GIOOSE 2. Click TO(HaldwareSelup) to save the changes.

Ch:Search Time	100	
10h:MAX Antenna	2	
13h:Tag Send Size(8/16/PC)	Variable 👻	

- ④ From the Main Menu, click the Tagcmd button to open the Command window1 (Tag). Click 1 Port Notify Start button.
- (5) From the Main Menu, you can see the number of antenna which is activating with the tags.

	H Lagord etcord security register reader channel ext i/o	هت test	nfo	>ge string map prese	t raw	cont	fig.	line abo
Current 4	All Accumulate Clear All Clear Count			Current / All / Accur	nulate Co	ount	0 / 19	417/9
No	Tag UID(PC + EPC + CRC) or Memory Data (RSSI:dB)	Count	Ant	Read Time	Size	Tag	Index	Map ^
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:37	96 bit	GEN2	21898	x
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:37	96 bit	GEN2	21901	x
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:37	96 bit	GEN2	21902	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:37	96 bit	GEN2	21905	х
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:37	96 bit	GEN2	21906	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:37	96 bit	GEN2	21909	х
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:37	96 bit	GEN2	21910	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:37	96 bit	GEN2	21913	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:37	96 bit	GEN2	21913	х
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:37	96 bit	GEN2	21914	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:39	96 bit	GEN2	21916	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21916	х
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:39	96 bit	GEN2	21917	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:39	96 bit	GEN2	21920	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21920	Х
19	3000 0000 0000 0000 0000 0263 370A	1	2	11/05/09-12:05:39	96 bit	GEN2	21921	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:39	96 bit	GEN2	21924	X
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21924	х
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21928	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:39	96 bit	GEN2	21932	X
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21932	х
19	3000 0000 0000 0000 0000 0263 370A	1	1	11/05/09-12:05:39	96 bit	GEN2	21936	x
19	3000 1100 0000 0000 0000 0000 3988	1	1	11/05/09-12:05:39	96 bit	GEN2	21936	x

Check the results through the Multi Port Main Window

* Tag Multi Port while reading only the specific antenna Register Read / Write Window at 05h: Cur.Antenna antenna set to receive the part after Tag Command Window1 (Ta g) Window of the AC (Anti Collision) If you click
 Port Notify Start on the button Tag can be read only on a specific antenna.

4.9. Tag Read Test

1 From the Main Menu, click the Test buttor

The Tag Read Test window appears.

Tag Read Test Window
Time Test IPort Notify Start Multi Port Notify Start
Clear Tag Data Clear Attenuate Data
Special Option Infinite Loop Test Auto Attenuation Change Auto Traveling Ant Port Cur / Max
Start Time Stop 30sec 5sec 10sec 0 30sec 60sec 1 0 0/1
Save Map File File Name : map_test.txt 0 B
Limit Count : 0 Save Duration : 10 sec Save Table By Attenuation Name's Num 16

Tag Read Test Window

2 Select the 1Port Notify Start and set the time for tag reading test. Click Start button. Start

③ The Stop button stops the test.

Stop

* Auto Clear Option: Before the test, delete the tag data from the Main Menu automatically.

- Clear Tag Data: Delete the all tag data from the Main Menu.
- Clear Attenuate Data: Delete the tag data of Accumulate tab window from the Main Menu
- Clear Only Attenuate Count: Initialize the Count of Accumulate tab window from the Main Menu.