



# RMV-514

## Quick Start

Oct. 2013 Version 1.0

### Package checklist

The package includes the following items:

- One RMV-514 hardware module
- One Quick Start
- One software utility CD
- One 2G Antenna(ANT-421-02)
- One screw driver
- One RS-232 cable (CA-0910)

#### Note:

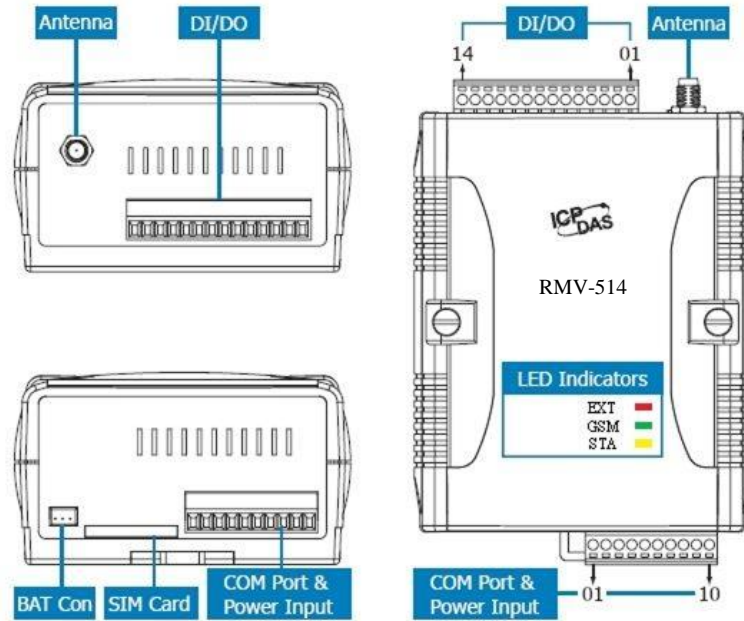
If any of these items are missed or damaged, contact the local distributors for more information. Save the shipping materials and cartons in case you want to ship in the future.



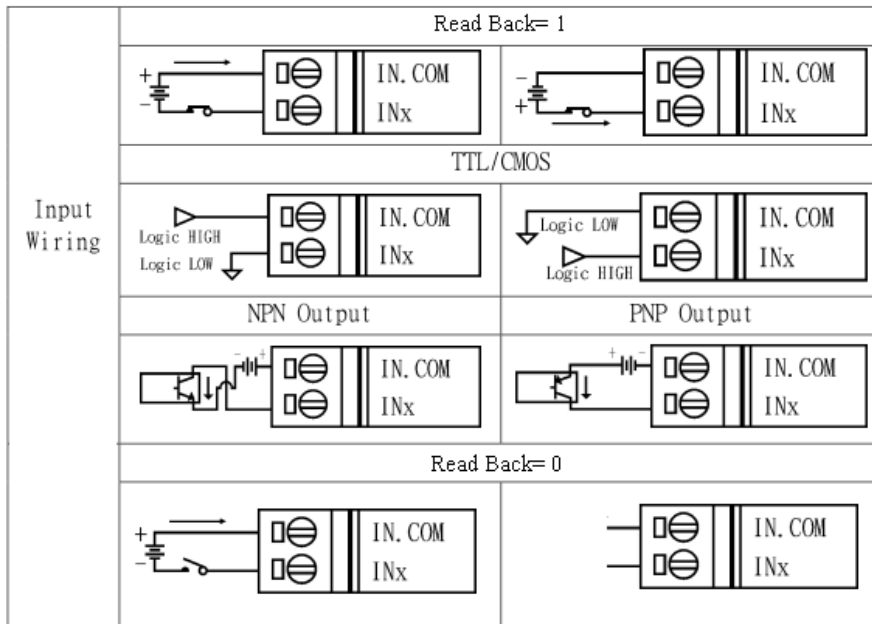
## ● Appearance and pin assignments

DI/DO		
Terminal No.		Pin Assignment
DI	01	DI0
	02	DI1
	03	DI2
	04	DI3
	05	DI4
	06	DI5
DI COM	07	DI COM
DO PWR	08	DO PWR
DO	09	DO0
	10	DO1
DO GND	11	DO GND
-	12	-
Ain+	13	Ain+
Ain-	14	Ain-

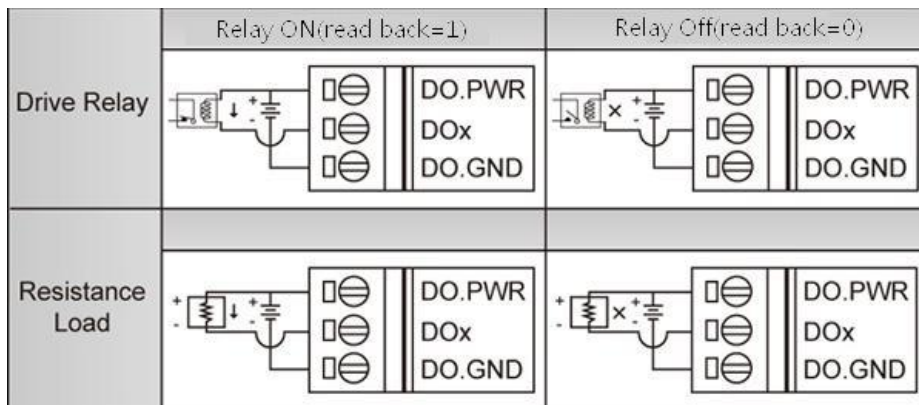
COM Port & Power Input		
Terminal No.		Pin Assignment
Ground for COM	01	GND
Utility Port RS-232	02	RxD1
	03	TxD1
COM1 RS-485	04	D+
	05	D-
Reset	06	RST+
	07	RST-
Power Input: +10 ~ 30V <sub>DC</sub>	08	DC.+VS
	09	DC.GND
Frame Ground	10	F.G



**DI hardware connection**



**DO hardware connection**



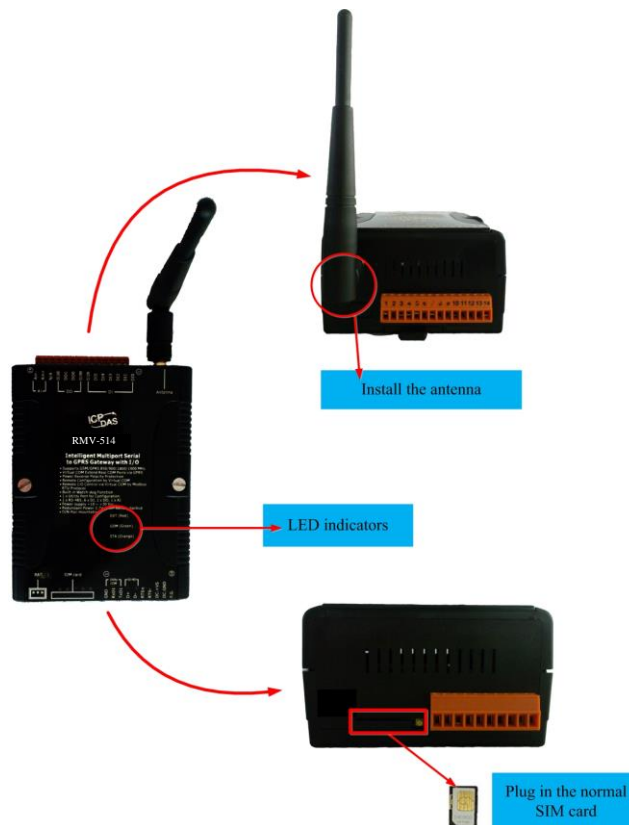
## LED indicators

LED	Description		
EXT(red)	ON	The external Power is active	
	OFF	The external Power is not active	
STA (orange)	Normal	GSM Fail	PIN code is wrong
	Blinking (1 sec)	Blinking(500 ms)	Blinking(50 ms)
GSM(green)	Blinking(3 sec)	GSM module normal	
	ON or OFF	GSM module failed	

## ● Installation

Follow these steps to install the RMV-514 below:

- A. Install the GSM antenna
- B. Plug in the normal SIM card (Before apply the SIM card, confirm it is OK by mobile phone.)
- C. Pin08 and Pin09 connect to the DC.+VS and DC.GND of the power supply.
- D. Follow the Page 2 to wire the I/O connection.
- E. If you want to use the backup power, please connect the Li-battery to RMV-514.



## ● Installing software on your PC

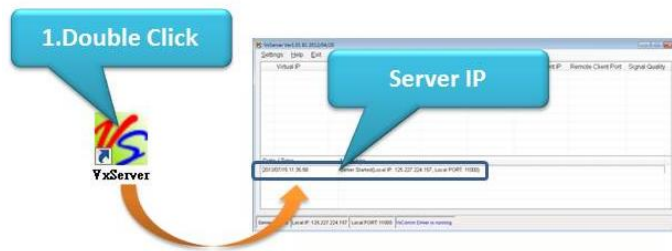
- Install RMV-514 Utility

## ● Installing software on server PC

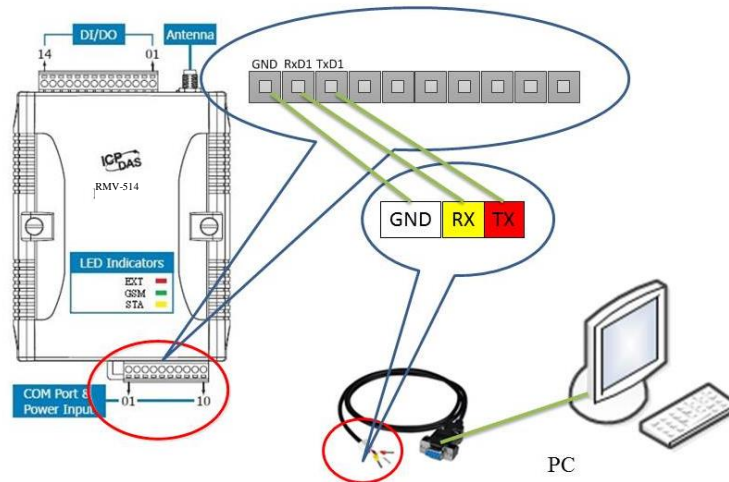
- Install VxServer : <http://m2m.icpdas.com/VxServer.html>
- Install VxComm : <http://www.icpdas.com/products/Software/VxComm/vxcomm.htm>

# ● How do I use this device?

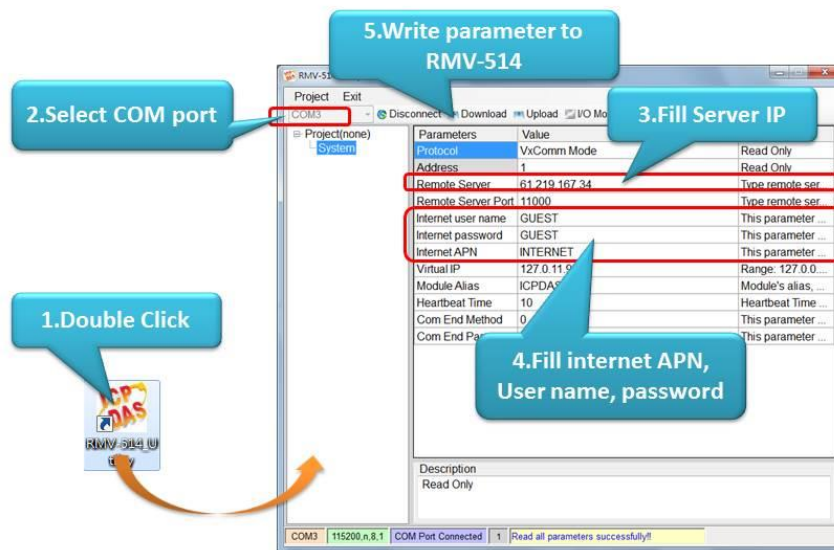
1. Execute VxServer on server PC.



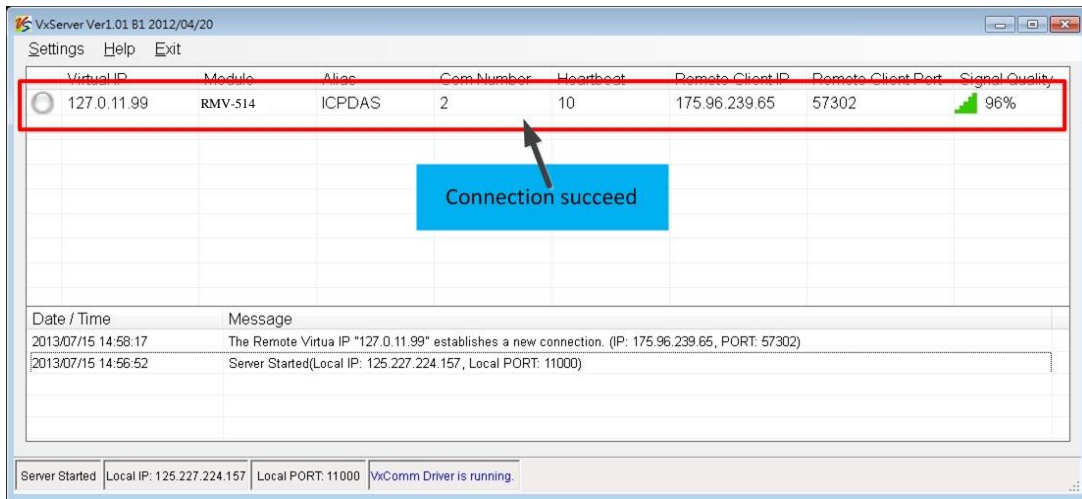
2. The RMV-514 connected to your PC. Please refer the following figure.



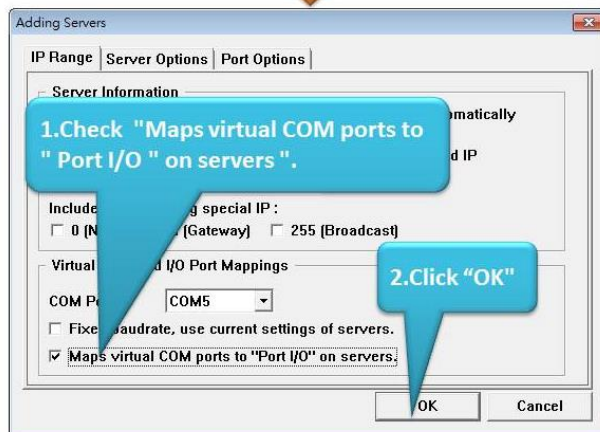
3. Execute "RMV\_Utility.exe", then setting the system configure.



4. The RMV-514 will be connecting to VxServer(Server) via GPRS when it reboot.

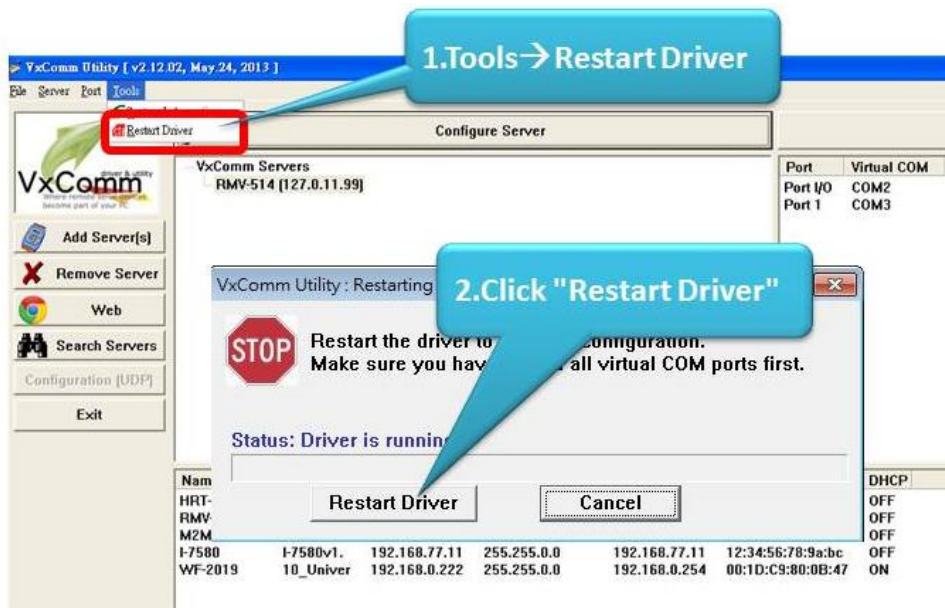


5. Configuring VxComm setting

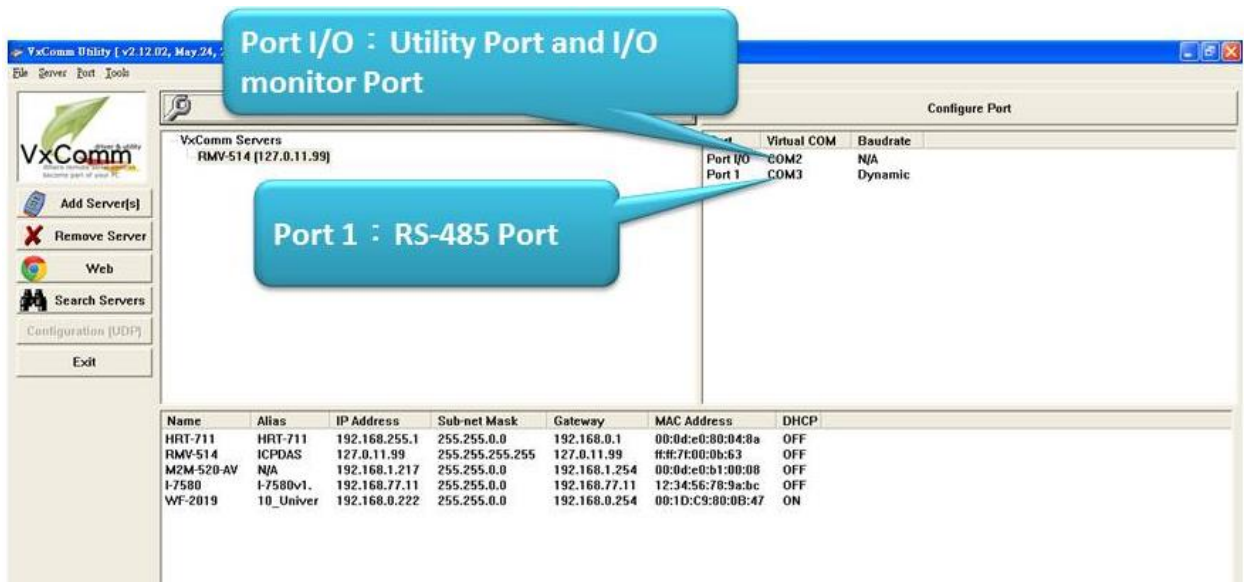




6. Restart driver



7. Finish



## ● Modbus address table

### (1) DO status (Function Code:1,5,15)

Address(Dec)	Address(Hex)	Description	Attribute
00129	0x81	If function code = 1 Read DO0	R/W
		If function code = 5,15 Set DO0, 1:High, 0:Low	
00130	0x82	If function code = 1 Read DO1	R/W
		If function code = 5,15 Set DO1, 1:High, 0:Low	

### (2) DI status (Function Code:2)

Address	Data Address	Description	Attribute
00000	0x00	Read DI0	R
00001	0x01	Read DI1	R
00002	0x02	Read DI2	R
00003	0x03	Read DI3	R
00004	0x04	Read DI4	R
00005	0x05	Read DI5	R

### (3) AI status(Function Code:4)

Address	Data Address	Description	Attribute
30027	0x1B	Read AI value (hex)	R
30028	0x1C	Read AI value (engineering)	R

Note:

1. AI value(Hex) conversion formulas:  $AI = (AI \text{ Hex} * 20) / FFF$
2. AI value(engineering) conversion formulas:  $AI = AI(\text{engineering})/1000$

### Example:

- (1) If read AI value(Hex) is "FF"

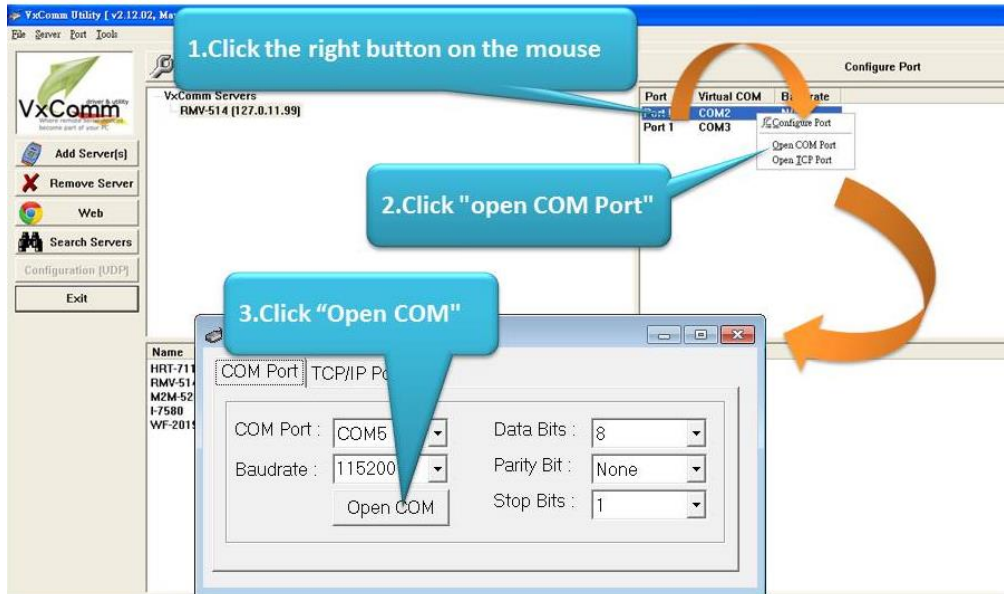
$$AI = (FF * 20) / FFF = (255 * 20) / 4095 = 1.25 \text{ mA}$$

- (2) If read AI value(engineering) is "1250"

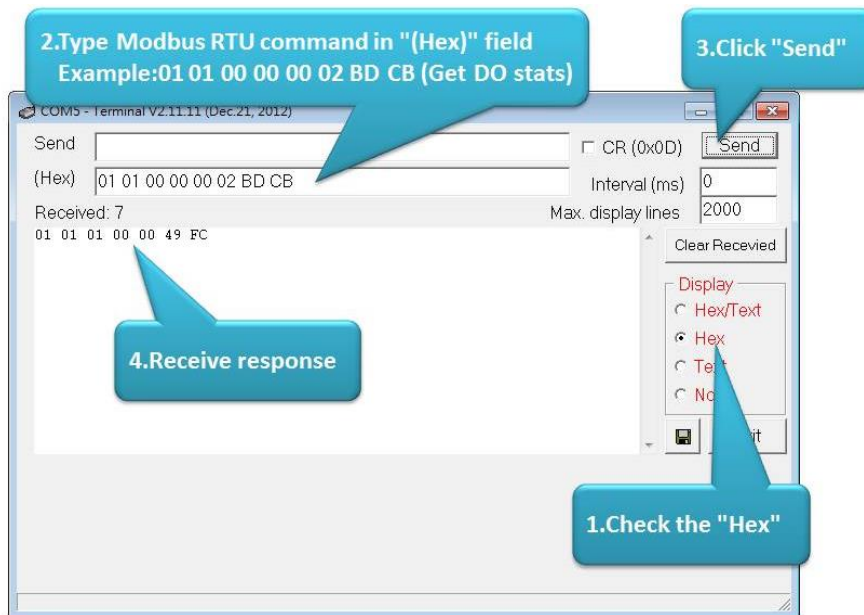
$$AI = 1250 / 1000 = 1.25 \text{ mA}$$

## ● Testing your RMV-514

1. Open utility port



2. Type Modbus RTU command in the "(Hex)" field then click "Send" button. If a response is received, it will be displayed in the received field.



3. If the test is successful, your COM port program is able to work with this Virtual COM Port now.

## ● Technical Support

If you have problems about using the RMV-514, please contact ICPDAS Product Support.

Email: [Service@icpdas.com](mailto:Service@icpdas.com)