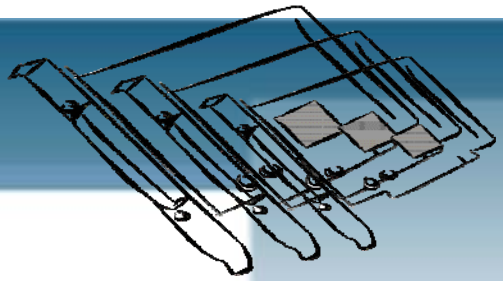
VXC CARD QUICK START GUIDE



for VXC-112(i)AU/142(i)AU/182iAU
VEX-112(i)/142(i)

English/ Mar 2011/ Version 1.2

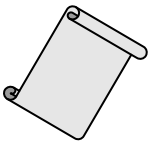
VXC/VEX Series Multi-port Cards

1 What's in the shipping package?

The package includes the following items:

VXC/VEX Series Card

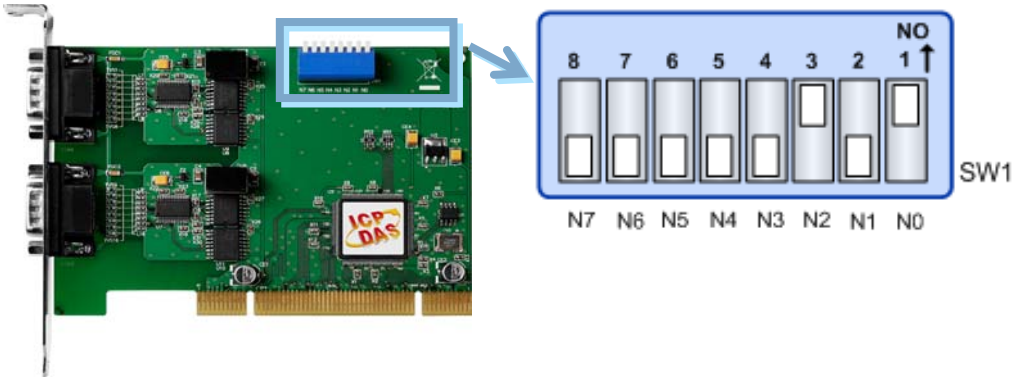
Software CD
(V4.8 or later)



Quick Start Guide
(This Document)

2 COM Port Mapping

Setting SW1 dip-switch (COM Selector) to 0x05 (1 and 3 "NO", others "OFF"). The setting forces the VXC/VEX card to use COM5 and COM6.



SW1 Setting Table:

SW1 DIP Switch	8	7	6	5	4	3	2	1
Board ID=**0x00** (**Default**) COM = Auto-defined	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Board ID=**0x03** COM = 3/4	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**
Board ID=**0x05** COM = 5/6	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	**ON**
Board ID=**0x07** COM = 7/8	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**
Board ID=**0x09** COM = 9/10	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	**ON**
Board ID=**0x14** COM = 20/21	OFF	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF
Board ID=**0x1E** COM = 30/31	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF
Board ID=**0x28** COM = 40/41	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
Board ID=**0x32** COM = 50/51	OFF	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF
Board ID=**0x3C** COM = 60/61	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF
Board ID=**0x64** COM = 100/101	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF
Board ID=**0x96** COM = 150/151	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF
Board ID=**0xC8** COM = 200/201	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Board ID=**0xFF** COM = 255/256	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**

3 Installing Windows Driver

1. **Launch the Windows 2000/XP/2003/2008/Vista/7 (32/64 bit) driver setup program. It is located at :**
   CD: \Napdos\multiport\windows\VxCard_W7_Vx.xx.xx.exe
   http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/multiport/windows/
2. **Click the "Next>" button to start the installation.**
3. **Click the "Next>" button to install the driver into the default folder.**
4. **Check the "Create a desktop icon" and click the "Next>" button.**
5. **Select the "NO, I will restart the computer later" and click the "Finish" button.**

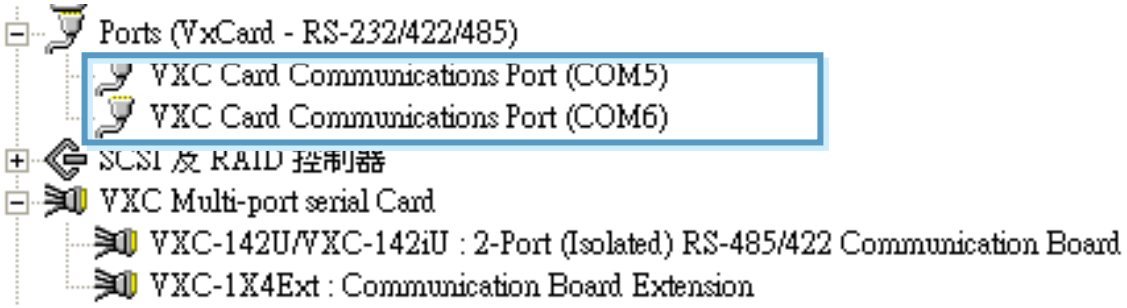
For installing driver on other systems, please refer to:
http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/multiport/manual/

4 Installing the Hardware

Follow these steps:

1. **Shut down and power off your computer.**
2. **Remove the cover from the computer.**
3. **Select an unused PCI/PCI Express slot.**
4. **Carefully insert your VXC/VEX card into the PCI/PCI Express slot.**
5. **Replace the PC cover.**
6. **Power on the computer.**
7. **Follow the prompt message to finish the Plug&Play steps.**
8. **Make sure the com ports installed are correct as follows:**

i. **Select "Start → Control Panel" and then double click the "system" icon.**
ii. **Click the "Hardware" tab and then click the "Device Manager" button.**
iii. **Check the COM ports of VXC/VEX card which listed correctly or not.**



5 Pin Assignments and Cable Wiring

RS-422 Cable Wiring (VXC-142(i)AU, VXC-182iAU and VEX-142(i) CN1)

Pin Assignment	Terminal No.	Pin Assignment
GND/VEE	05	
RxD-(A)	04	09 CTS-(A)
RxD+(B)	03	08 CTS+(B)
TxD+(B)/Data+(B)	02	07 RTS+(B)
TxD-(A)/Data-(A)	01	06 RTS-(A)

RS-422/485 Male DB-9 Connector

VXC Card CN1			Device	
PIN	Signal		PIN	Signal
1	TxD-	→	4	RXD-
2	TxD+	→	3	RxD+
3	RxD+	←	2	TxD+
4	RxD-	←	1	TxD-
5	GND	↔	5	GND
6	RTS-	→	9	CTS-
7	RTS+	→	8	CTS+
8	CTS+	←	7	RTS+
9	CTS-	←	6	RTS-

RS-485 Cable Wiring (VXC-142(i)AU, VXC-182iAU and VEX-142(i) CN1)

Pin Assignment	Terminal No.	Pin Assignment
GND/VEE	05	
RxD-(A)	04	09 CTS-(A)
RxD+(B)	03	08 CTS+(B)
TxD+(B)/Data+(B)	02	07 RTS+(B)
TxD-(A)/Data-(A)	01	06 RTS-(A)

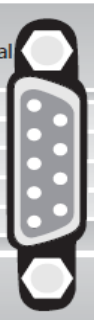
RS-422/485 Male DB-9 Connector

VXC Card CN1			Device	
PIN	Signal		PIN	Signal
1	DATA-	↔	1	DATA-
2	DATA+	↔	2	DATA+

The RS-485 bus is a differential (balanced) signal, thus you cannot wire the Data+ with Data- directly for a single port loop-back test. It will not work at all!

RS-232 Cable Wiring (VXC-112(i)AU, VXC-182iAU and VEX-112(i) CN2)

Pin Assignment	Terminal No.	Pin Assignment
GND	05	
DTR	04	09 RI
TxD	03	08 CTS
RxD	02	07 RTS
DCD	01	06 DSR

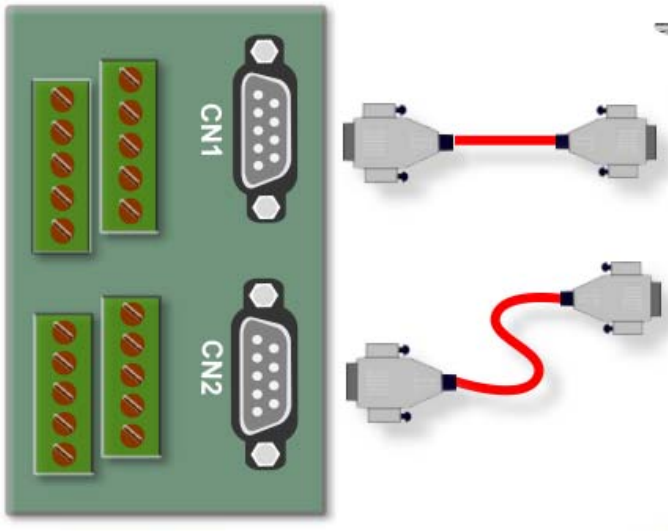


Male DB-9 Connector

System 1	PIN		PIN	System 2
RxD	2	←	3	TxD
TxD	3	→	2	RxD
GND	5	↔	5	GND
DTR	4	→	6	DSR
	--		1	DCD
DCD	1		--	
DSR	6	←	4	DTR
RTS	7	→	8	CTS
CTS	8	←	7	RTS
RI	9	←	9	RI

6 Self Test

1. Use the DN-09-2(optional) to connect the VXC-112(i)AU/142(i)AU/182iAU or VEX-112(i)/142(i).



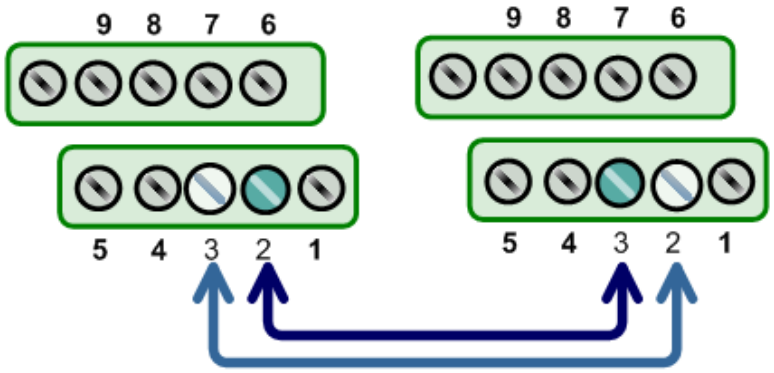
DN-09-2

VXC-112(i)AU/142(i)AU/182iAU
VEX-112(i)/142(i)

2. Wire Port-1 and Port-2 :

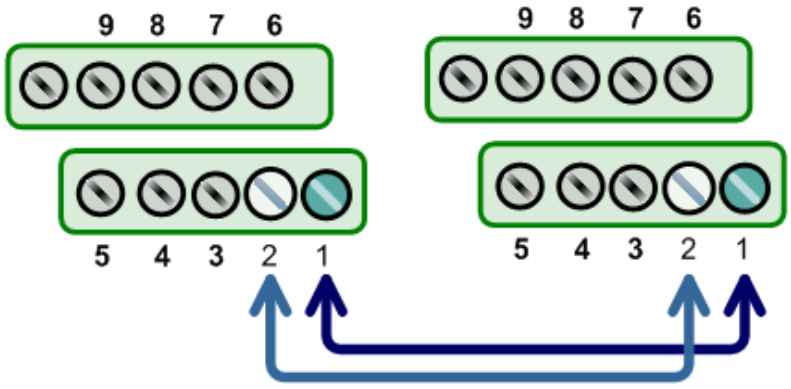
■ VXC-112(i)AU/VEX-112(i) (RS-232)

Pin Assignment	Pin No.		Pin No.	Pin Assignment
CN2 TxD	3	⟷	2	CN1 RxD
CN2 RxD	2	⟷	3	CN1 TxD

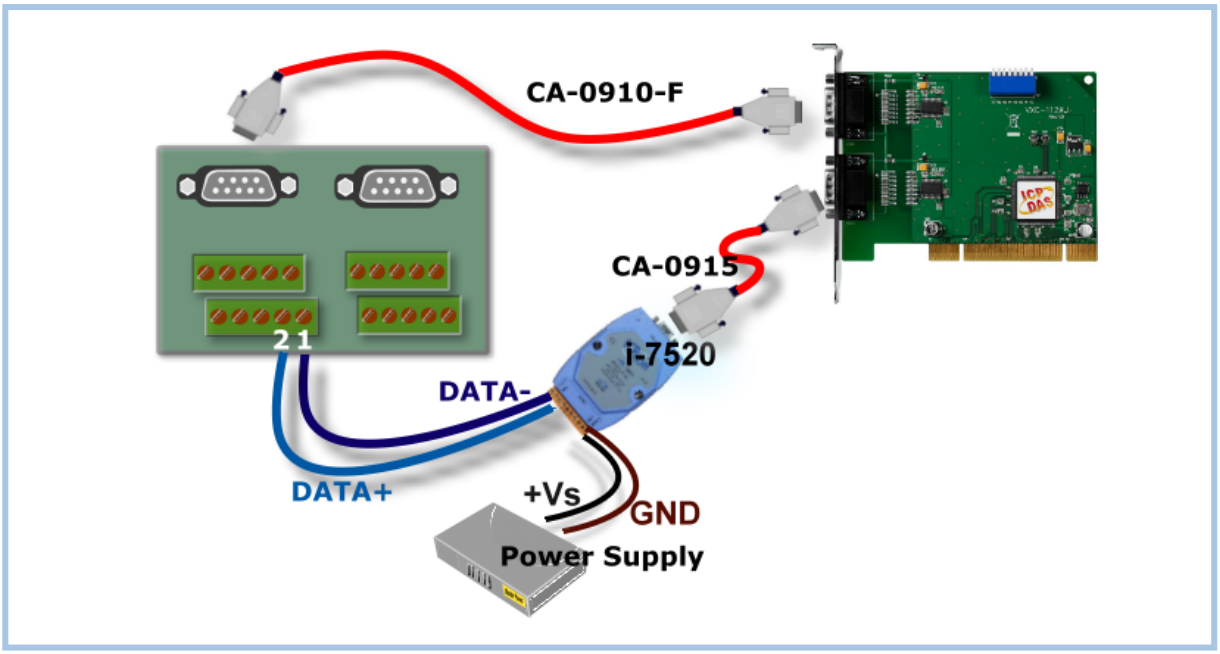


■ VXC-142(i)AU/VEX-142(i) (RS-422/485)

Pin Assignment	Pin No.		Pin No.	Pin Assignment
CN2 DATA-	1	⟷	1	CN1 DATA-
CN2 DATA+	2	⟷	2	CN1 DATA+

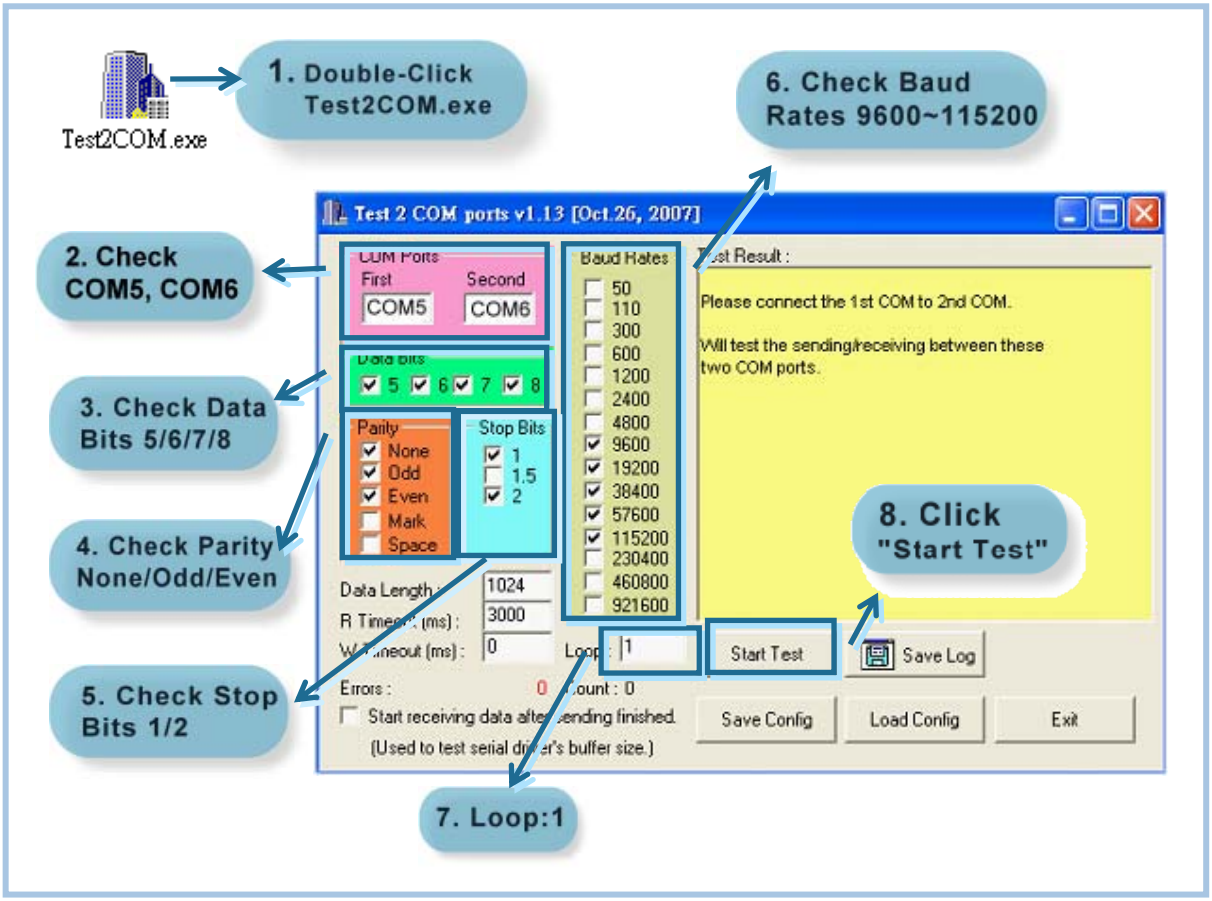


- **VXC-182iAU(RS-232 and RS-422/485)**

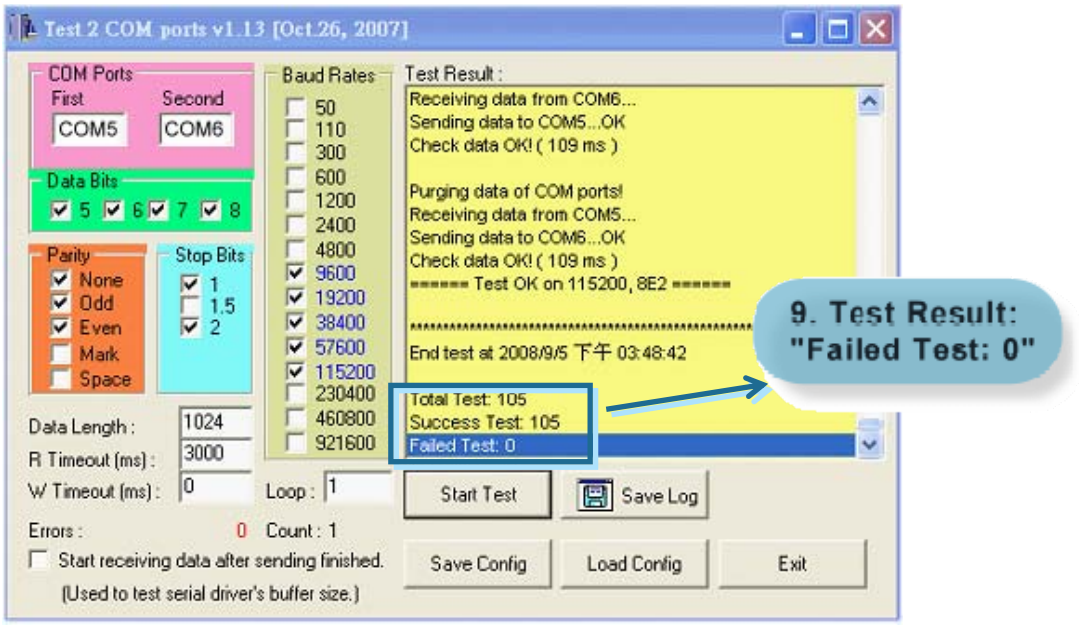


3. Execute the Test2COM.exe program. Get the file from:

- CD:\Napdos\multiport\utility
- http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/multiport/utility/



4. Test Success.



Related Information

- **VXC Card Product page:**
  http://www.icpdas.com/products/Industrial/multi_serial/multi_introductions.htm

- **DN-09-2,CA-0915 and CA-0910-F product page (optional):**
  http://www.icpdas.com/products/DAQ/screw_terminal/dn_09_2.htm
  http://www.icpdas.com/products/Accessories/cable/cable_selection.htm

- **i-7520 product page (optional):**
  http://www.icpdas.com/products/Remote_IO/i-7000/i-7520.htm

- **Documentation:**
  CD: \Napdos\multiport\manual\
  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/multiport/manual/

- **Software:**
  CD: \Napdos\multiport\
  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/multiport/