Quick Start

for PCIe-S112(i)
PCIe-S142(i)



Oct. 2021/ Version 1.1

1 What's in the Shipping Package?

The package includes the following items:

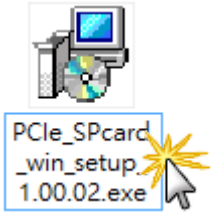
❶ PCIe-S112 or PCIe-S142



❷ Quick Start Guide (This Guide)



2 Installing Windows Driver



❶ Launch the **Windows XP/7/8/10/2012/ 2016 (32/64-bit) driver setup program (PCIe_SPCard_Win_Setup_1.00.02.exe)**, which can be obtained from ICP DAS via the link given below.

https://www.icpdas.com/en/download/index.php?nation=US&kw=PCIe+Series+Card+Windows+Driver

❷ Click the **"Next>"** button to start the installation.

❸ Click the **"Next>"** button to install the driver into the default folder.

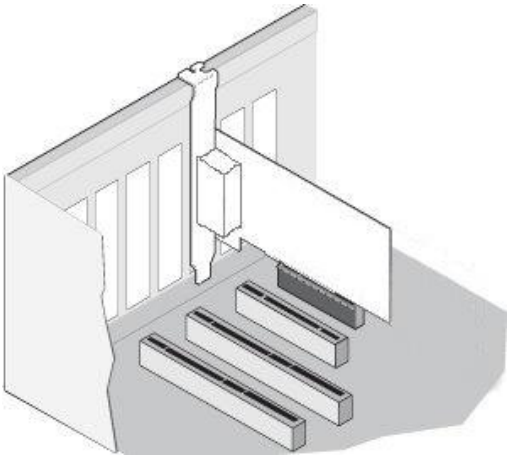
❹ In the installation process, the Command Prompt windows will be displayed, don't care. And please do not close this Command Prompt window in installation process.

❺ Select the **"NO, I will restart the computer later"** and click the **"Finish"** button.

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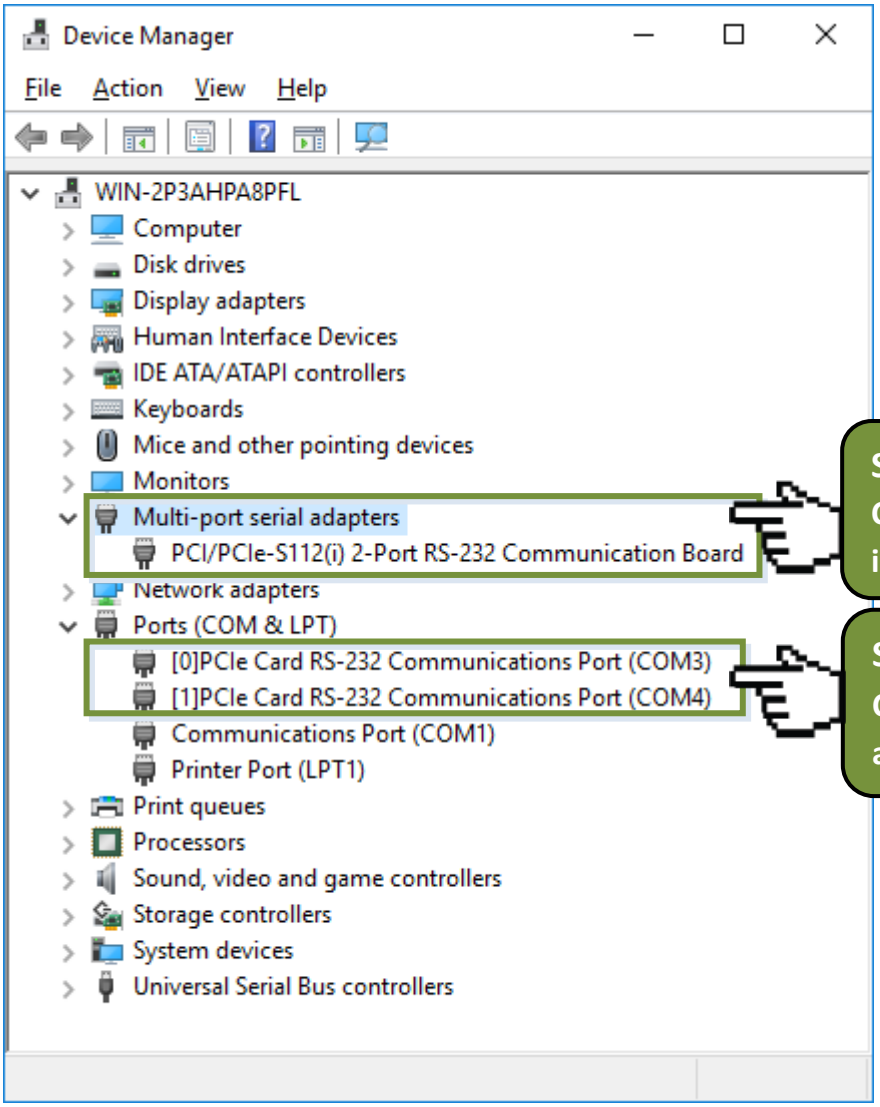
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3 Installing the Hardware



❶ Shut down and power off your computer.
❷ Remove the cover from the computer.
❸ Select an unused PCI Express slot.
❹ Carefully insert your PCIe-S1x2 card into the PCI Express slot.
❺ Replace the PC cover.
❻ Power on the computer.
❼ Follow the prompt message to finish the Plug & Play steps.
❽ Please open the **"Device Manager"** to verify the COM port installation, as follows steps:

8-1: In Windows 7, Click **"Start"** button, and then click **"Control Panel"**.
8-2: Click **"System and Maintenance"**, and then click **"Device Manager"**.
8-3: Verify that the COM ports of PCIe-S112/S142 card are listed correctly.



Successful Installation
Check whether the PCIe-S1x2 card is listed correctly or not.

Successful Installation
COM port mapping is automatically applied depending on the PC.

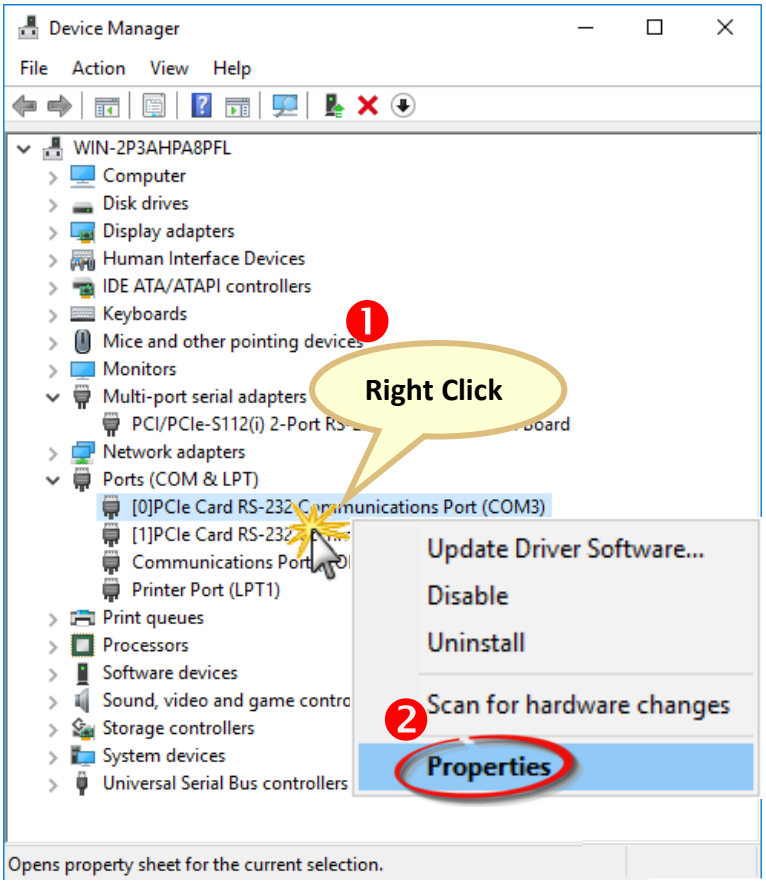
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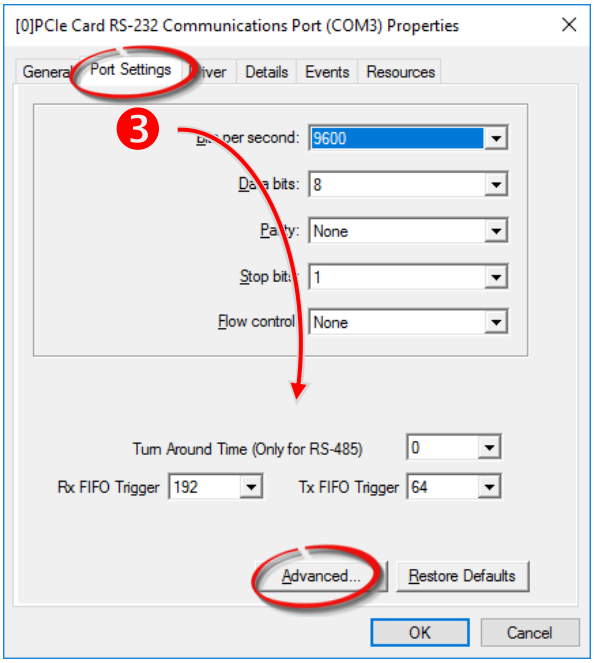
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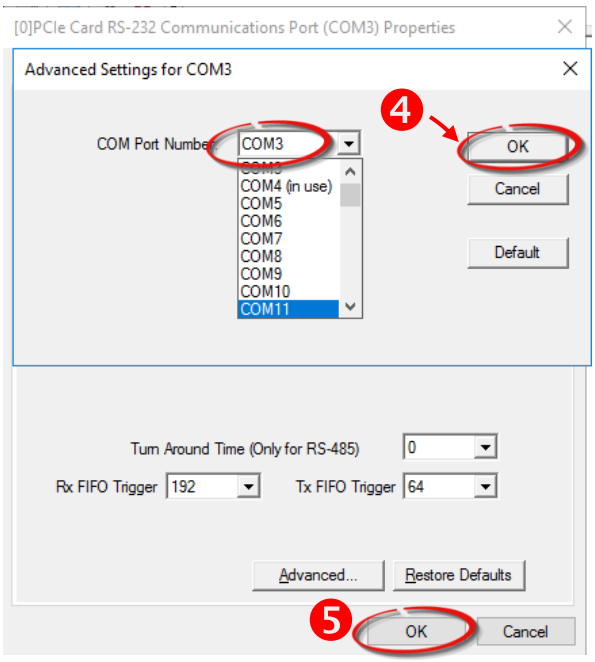
4 Manual COM Port Configuration

If the auto-configuration for COM Port is messy or that is not you need, you can change the COM port mappings. For detailed configuration steps, please refer to the following steps:

❶ Open Windows **Device Manager** and **right click** the serial port of the PCIe-S1x2 series card.
❷ Select the "**Properties**" item from the popup menu.
❸ Click the **"Port Settings"** tab and click the "**Advanced…**" button.
❹ Select the appropriate **COM Port number** from the **"COM Port Number:"** drop-down options and click the **"OK"** button. **Note that the COM port display "(in use)" means this COM port is being used. Therefore, please do not select it.**
❺ Click the **"OK"** button in the "Properties" dialog box.
❻ **Restart your computer** to complete the configuration.







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5 Pin Assignments and RS-232 Cable Wiring for PCIe-S112(i)

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

PCIe-S112 Card		RS-232 Wiring	Device	
Signal	PIN		PIN	Signal
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

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6 Pin Assignments and RS-422/485 Cable Wiring for PCIe-S142(i)

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

PCIe-S142 Card		RS-485 Wiring	Device	
Signal	**PIN**		**PIN**	**Signal**
DATA-	1	↔	1	DATA-
DATA+	2	↔	2	DATA+

Note: 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.

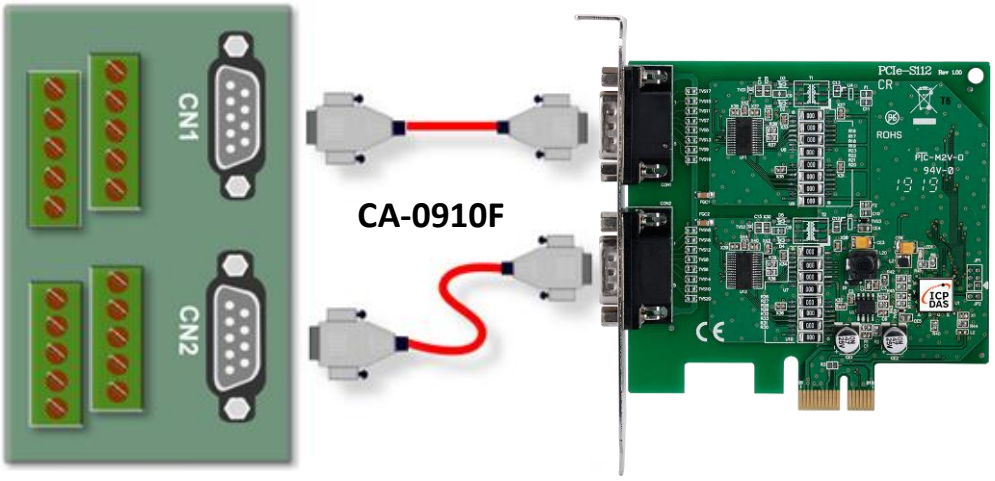
PCIe-S142 Card		RS-422 Wiring	Device	
Signal	**PIN**		**PIN**	**Signal**
TxD-	1	→	4	RXD-
TxD+	2	→	3	RxD+
RxD+	3	←	2	TxD+
RxD-	4	←	1	TxD-
GND	5	↔	5	GND
RTS-	6	→	9	CTS-
RTS+	7	→	8	CTS+
CTS+	8	←	7	RTS+
CTS-	9	←	6	RTS-

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7 Self-Test Wiring

Step 1: Connect the DN-09-2 terminal board (optional) to the PCIe-S1x2 series card using the CA-0910F cables (optional).

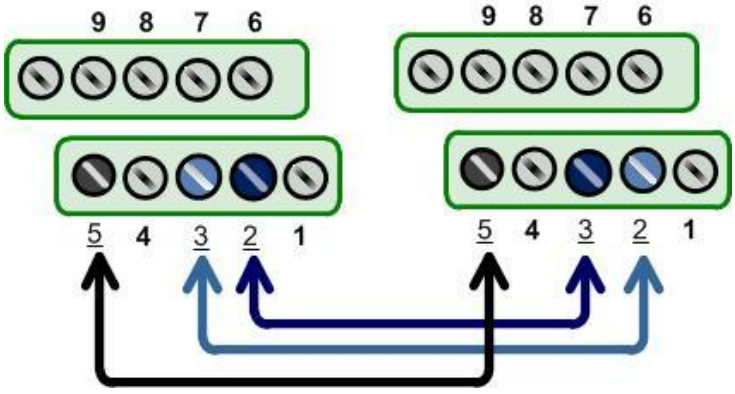


DN-09-2 **PCIe-S112(i)/PCIe-S142(i)**

Step 2: Wire the Port 0 and Port1.

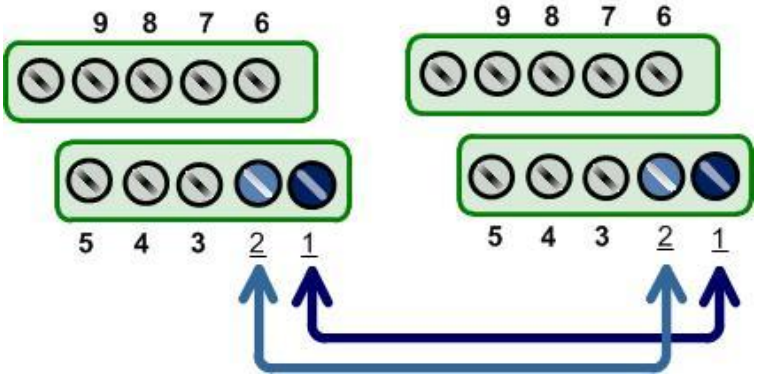
- **PCIe-S112(i) card (RS-232 Wiring):** Shorting the **RxD, TxD and GND pins** of both **Port0 and Port1**.

Port0 Signal	PIN		PIN	Port1 Signal
TxD0	3	⟷	2	RxD1
RxD0	2	⟷	3	TxD1
GND	5	⟷	5	GND



- **PCIe-S114(i) card (RS-485 Wiring):** Shorting the **Port0 Data+ and Port1 Data+** and the **Port0 Data- and Port1 Data-** pins.

Port0 Signal	PIN		PIN	Port1 Signal
Data0-	1	⟷	1	Data1-
Data0+	2	⟷	2	Data1+



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8 Execute the Test Program

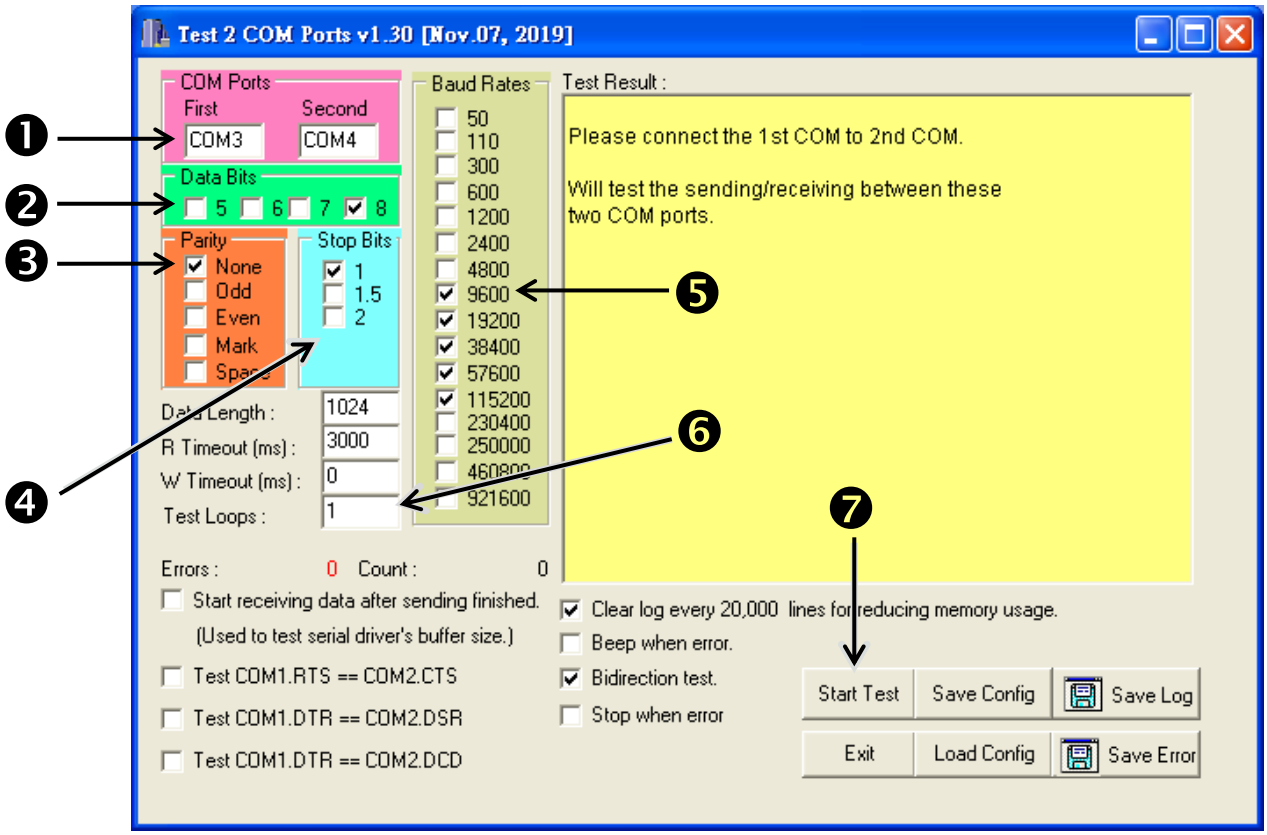
Step 1: Execute the **Test2COM.exe program**, which can be downloaded from:



https://www.icpdas.com/en/download/index.php?nation=US&kw=Test2COM

Step 2: Set the appropriate COM Ports, Baud Rate and Data Format information to the values shown in the image below.

❶ COM Ports: Enter **COM3** (First), **COM4** (Second).
❷ Data Bits: Check **"8"**
❸ Parity: Check **"None"**
❹ Stop Bits: Check **"1"**
❺ Baud Rates: Check values **9600 to 115200**
❻ Test Loops: Type **"1"**
❼ Click **"Start Test"** to begin the test.

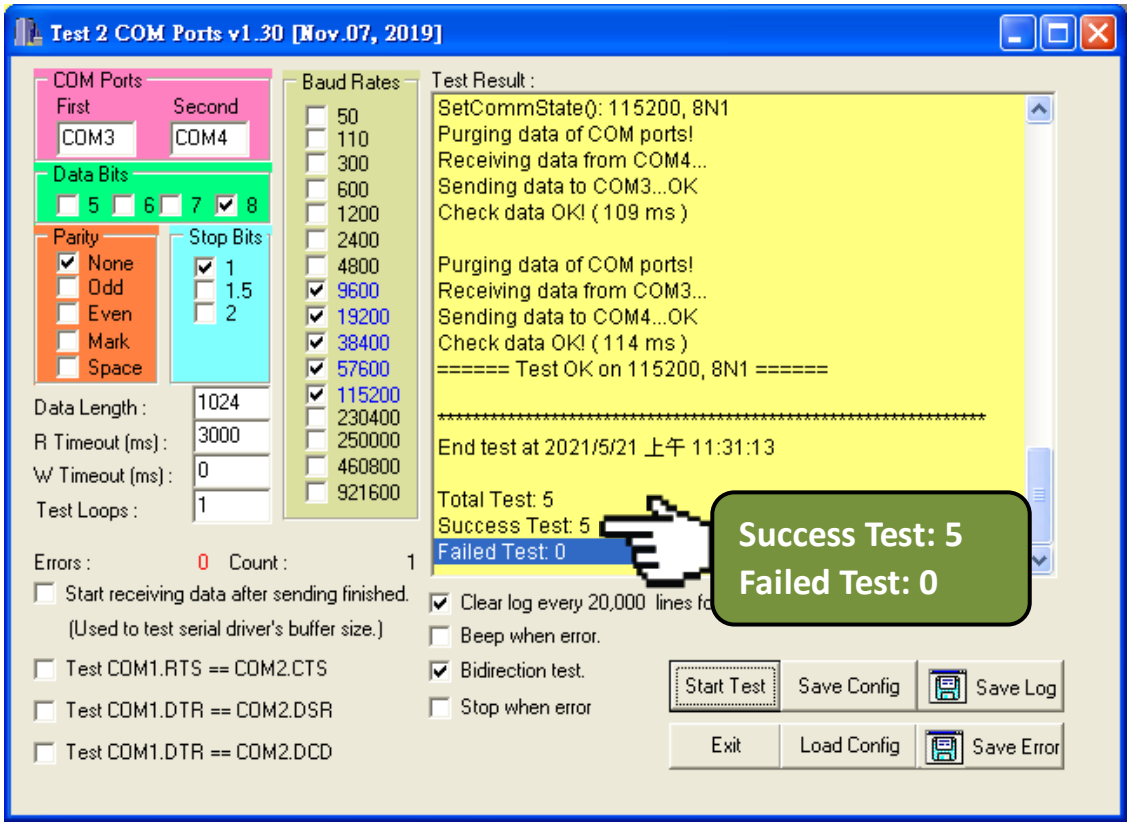


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9 Successful Testing

Once the test is complete, verify the test results.
If the result indicates that the test was successful, the expanded COM Port is ready-to-use.



Related Information

- PCIe-S112(i)/PCIe-S142(i) card product page:
https://www.icpdas.com/en/product/guide+Industrial_Communication+Serial_Communication+Multi-port_Serial_Board#793

- DN-09-2 and CA-0910F product page (optional):
https://www.icpdas.com/en/product/DN-09-2
https://www.icpdas.com/en/product/CA-0910F

- Software and documentation:
https://www.icpdas.com/en/download/index.php?model=PCIe-S112

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