## Ethernet Module Troubleshooting



## **FATEK Automation**



A) Can not found the Ethernet module by using EtherConfig

😵 Ethernet adaptor Configuration 💷 🗵					
File Info. About					
Attached Media	Scan Module				
IP Address/Name	Fatek Ethernet Module Found: 0	Seq.			
	Searching				
	Stop Sea Warning	×			
	No FATEK Ethernet	Module found !!			
Properties,.,	Scan				





### FAQ(A) Unable to Search the Ethernet Module- Possible Cause

- 1) Microsoft Operating System Firewall
- 2) Antivirus Software
- 3) PLC Serial Port Parameter Setting
- 4) Multiple Network Interface Cards





## 1) Microsoft Operating System Firewall





#### - Microsoft Operating System Firewall

The default IP of the Ethernet module may not be in the same domain as the user's computer. The Microsoft operating system firewall will filter out packets whose destinations are in different domains, causing the scanned packets to fail to reach the Ethernet module on the target network. For example, CBEH is preset to 192.168.2.3, CBE is preset to 192.168.1.3, etc.

- Solutions

1) Add EtherConfig to the "Allow apps to communicate through Windows Defender Firewall"

2) Temporarily turn off the firewall





## FAQ(A) – Microsoft Operating System Firewall

#### - Solutions

1) Add EtherConfig to the "Allow apps to communicate through Windows Defender Firewall"

If can not find the ether\_cfg, go to [Allow another app] to add it.

Firewall path: Control Panel\System and Security\Windows Defender Firewall\Allowed apps

ether\_cfg path: <u>C:\Program Files (x86)\fatek\ether\_cfg</u>

hat are the risks of allowing an app to communicate?	Change settings
Name	Private Public ^
✓ ether_cfg.exe	
Feedback Hub	
File and Phinter Sharing	
File and Printy: Sharing over SMBDirect	
FV Designer FvDownload for HMI unit.	
FV Designer FvDownload for HMI unit.	
✓ FV Designer FvViewer for HMI unit.	
☑ Get Help ☑ Google Chrome	
☑ Intel® Graphics Command Center	
	Details Remove
	Allow another app
	$\mathbf{X}$
	$\mathbf{X}$





## FAQ(A) – Microsoft Operating System Firewall

#### - Solutions

#### 2) Temporarily turn off the firewall

Turn off firewall path: Control Panel\System and Security\Windows Defender Firewall\Customize Settings

Customize	e settings for each type of network		
You can mod	dify the firewall settings for each type of network that you use.		
Private netw			
<ul> <li>Image: Image: Ima</li></ul>	Turn on Windows Defender Firewall		
	Block all incoming connections, including those in the list of allowed apps		
_	Notify me when Windows Defender Firewall blocks a new app		
😵 🔾	) Turn off Windows Defender Firewall (not recommended)		
Public netwo	ork settings		
	) Turn on Windows Defende Firewall		
	Block all incoming conrections, including those in the list of allowed apps		
	☑ Notify me when Windows Defender Firewall blocks a new app		
	) Turn off Windows Defender Firewall (not recommended)		
	OK Cancel		





## 2) Antivirus Software





#### - Antivirus Software

Module scanning is achieved by sending UDP broadcast packets to the target network and obtaining reports on the status of each Ethernet module. However, UDP broadcast packets are often blocked by anti-virus software, so that scanning query packets cannot reach each module.

#### - Solutions

- 1) Add EtherConfig to antivirus software white list.
- 2) Temporarily turn off the antivirus software





# 3) PLC Serial Port Communication Parameter Setting





#### - PLC Serial Port Communication Parameter Setting

The communication packets exchange method of the Ethernet module and the PLC is through the PLC's serial port. When users first time using the Ethernet module, they often switch the serial application to the Ethernet application, but the original ladder program running on the PLC didn't remove the serial port communication parameter settings and this will cause the communication packets to exchange abnormal inside the module and even affects the power-on of the module.

#### - Solutions

Remove the ladder program serial communication parameter setting, and set as (9600, even,7, 1, Fatek communication protocol), reboot the PLC and the module will adjust to the needed communication parameter automatically.





## FAQ(A) – Multiple Network Interface Cards

# 4) Multiple Network Interface Cards





#### - Multi Network Interface Cards

The Microsoft operating system will select a broadcast network interface to send out the scan package. When a PC has multiple network interface cards or a virtual network interface is mounted due to the installation of virtual machine software. Depending on the routing settings of the operating system, EtherConfig may search for modules in unexpected networks due to routing choices, causing the problem of not being able to find devices.

#### - Solutions

- 1) Disable other network interface cards
- 2) Modify network interface metric



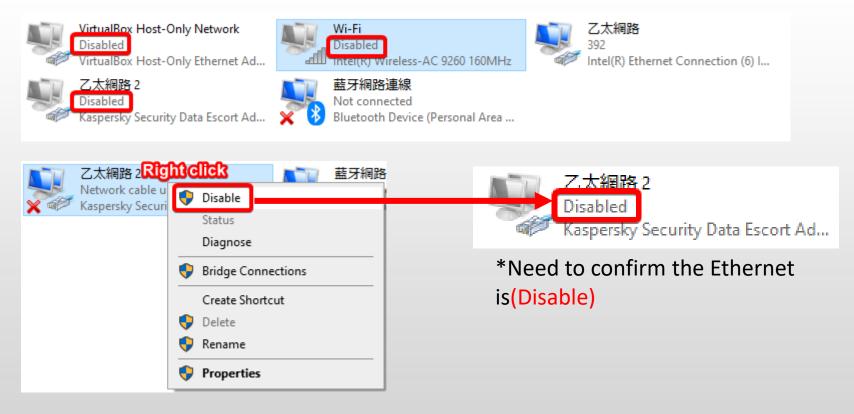


## FAQ(A) – Multiple Network Interface Cards

#### 1) Disable other network interface cards

Disable other network interface cards and virtual network interface, and only able the network interface card that is connected with the Fatek Ethernet module.

Network connection path: Control Panel\Network and Internet\Network Connections







#### 2) Modify network interface metric

Page 15

PLC1.ir

The automatic metric in the Microsoft operating system will automatically configure the metric for local routes that are based on link speed, the metric value smaller the speed faster. <u>We can set the metric of the network interface card that we want to</u> <u>connect to the Ethernet module to 1, and others set to 100 or higher</u> so that we can force EtherConfig to search for modules from the network interface card whose metric is set to 1.

♀ 乙太網路 Properties ×	網際網路通訊協定第4版 (TCP/IPv4) Properties ×	Advanced TCP/IP Settings X
Networking Sharing	General Alternate Configuration	IP Settings DNS WINS
Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	IP addresses IP address Subnet mask
Configure This connection uses the following items:	Obtain an IP address automatically Use the following IP address:	DHCP Enabled
Generation of the second	IP address:	Add Edit Remove
<ul> <li>✓ 「「VitualBox NDIS6 Bridged Networking Driver</li> <li>✓ 「「Npcap Packet Driver (NPCAP)</li> <li>✓ 「□□□05 まけつけは投発</li> </ul>	Default gateway:	Default gateways: Gateway Metric
<ul> <li>✓ ■ 網際網路通訊協定第4版 (TCP/IPv4)</li> <li>□ ■ Microsoft Network Adapter 多工器通机協定</li> <li></li> </ul>	○ Obtain DNS server address automatically ● Use the following DNS server addresses:	
Install Uninstall Properties	Preferred DNS server:         8         8         8           Alternate DNS server:         1         1         1         1	Add Edit Remove
傳輸控制通訊協定/網際網路通訊協定 (TCP/IP)。這是預設的廣域網路通訊協定,提供不同網路之間的通訊能力。	Validate settings upon exit	Automatic metric Interface metric:
OK Cancel	OK Cancel	OK Cancel

