FATEK FA-10H-1 Ethernet Module User Manual

**Ethernet Module
Troubleshooting**

Contents

FAQ

A) Can not found the Ethernet module by using EtherConfig
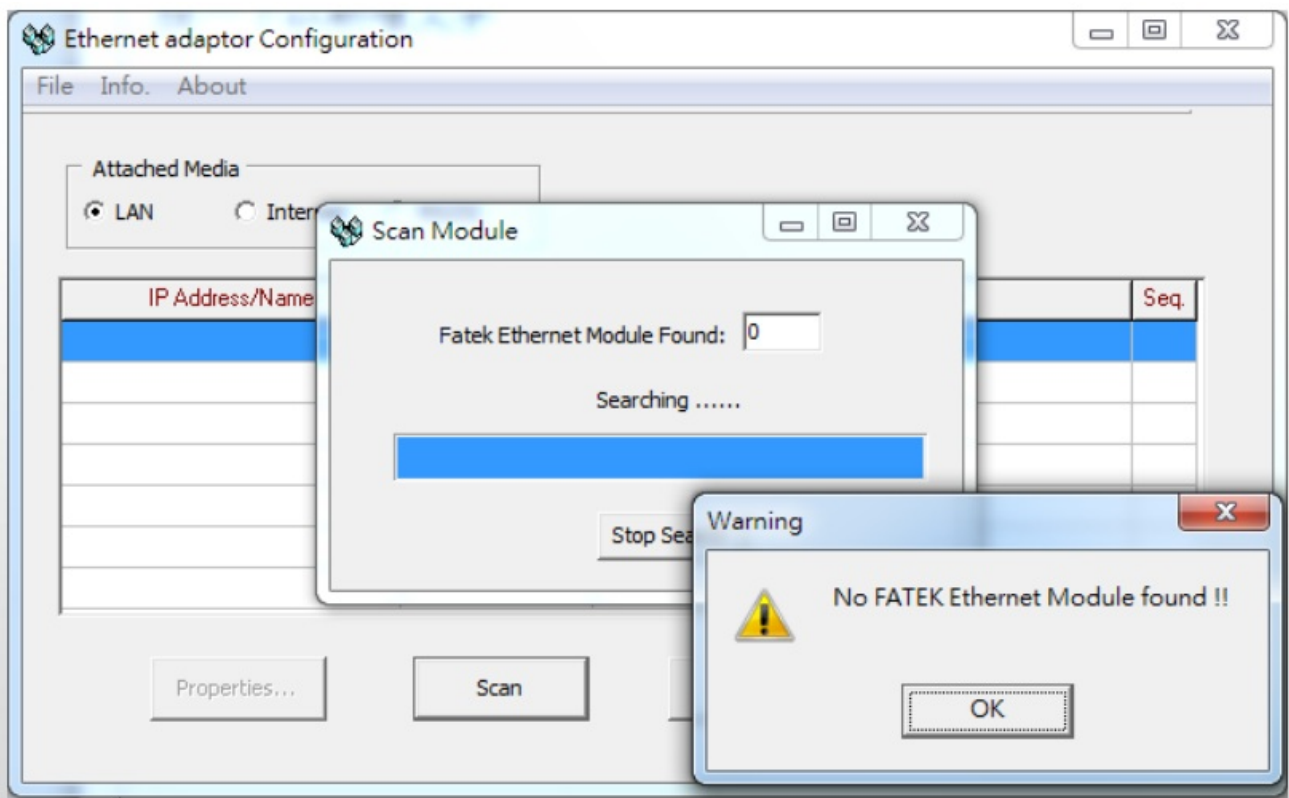
FAQ(A) Unable to Search the Ethernet Module- Possible Cause

1. Microsoft Operating System Firewall

2. Antivirus Software

3. PLC Serial Port Parameter Setting

4. Multiple Network Interface Cards

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"
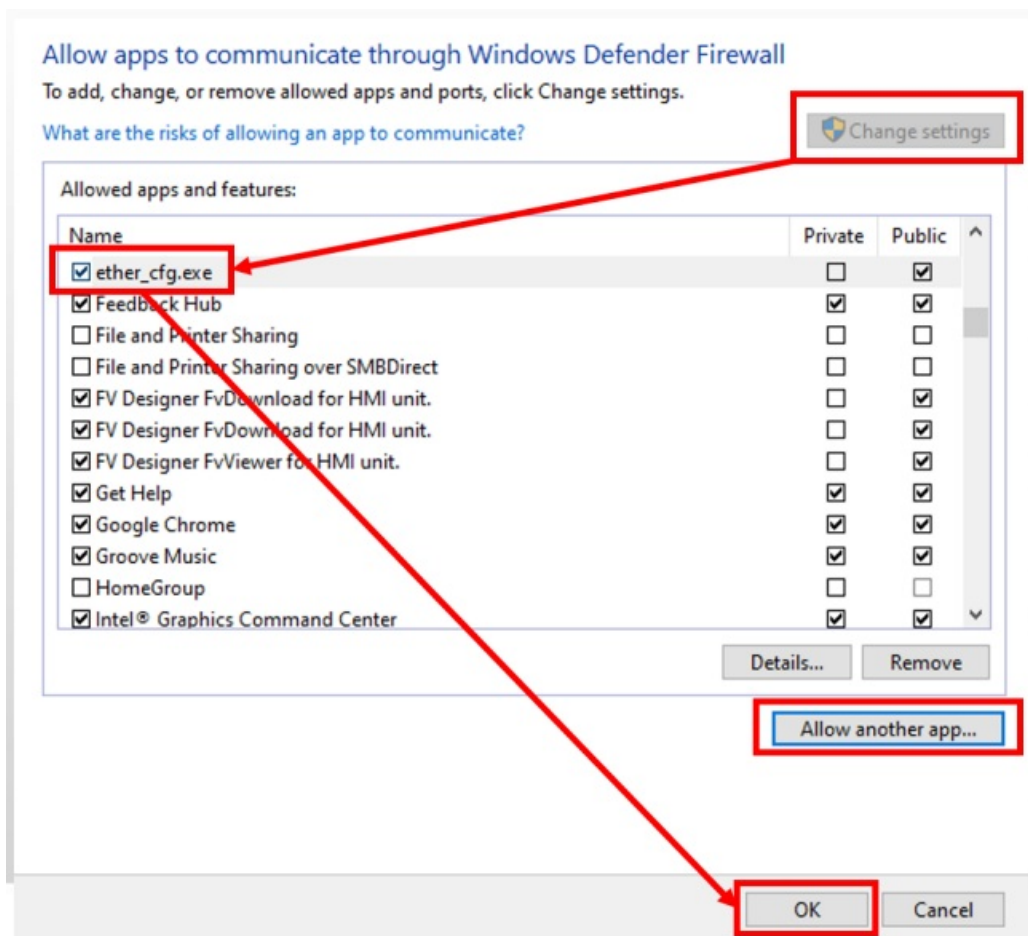
2. Temporarily turn off the firewall

– 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.

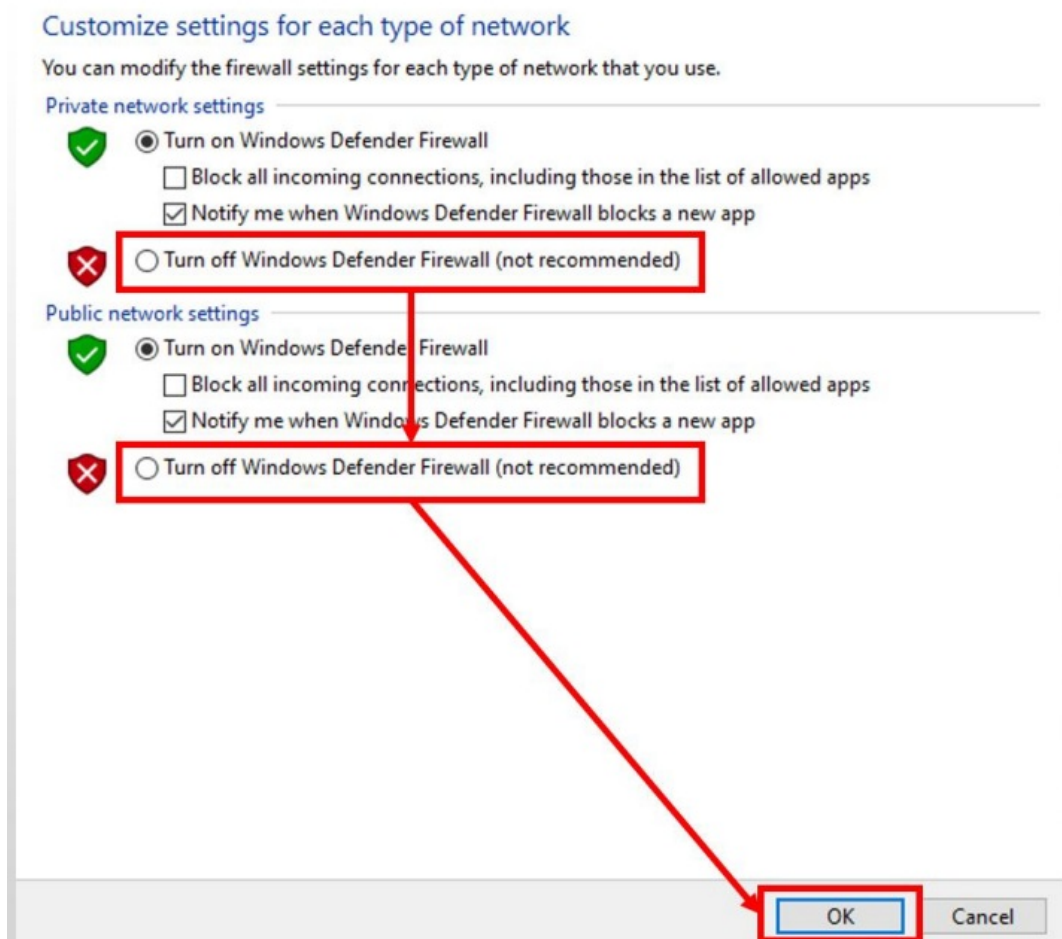   Firewall path: Control Panel\System and Security\Windows Defender Firewall\Allowed apps

   ether_cfg path: C:\Program Files (x86)\fatek\ether_cfg

– Solutions

2. Temporarily turn off the firewall

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

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

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.

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.
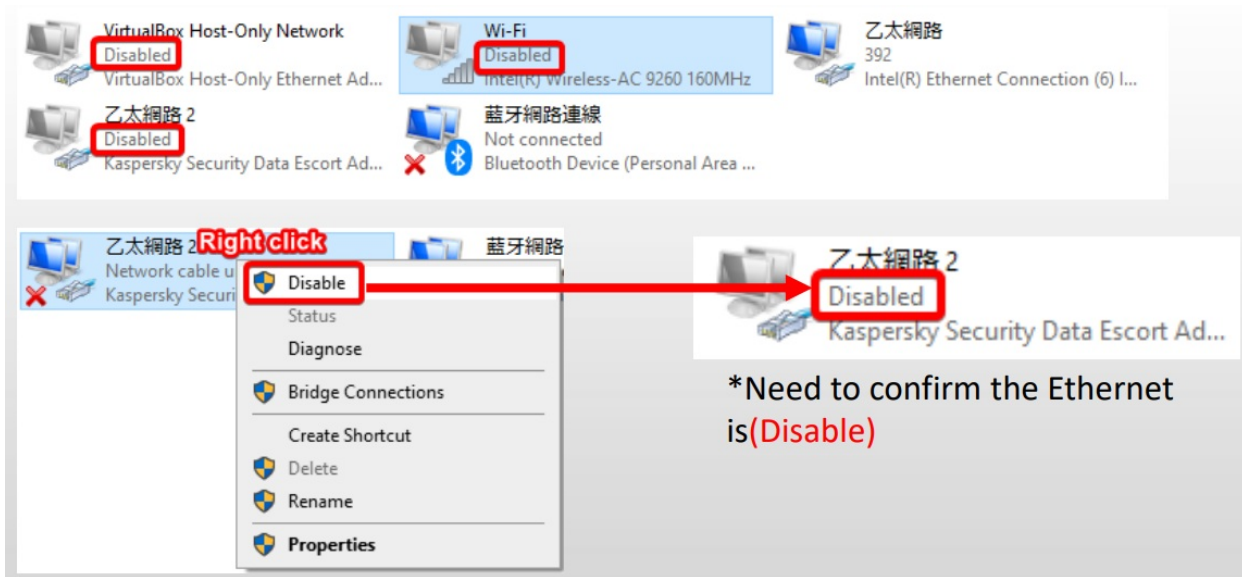
– Solutions

1. Disable other network interface cards
2. Modify network interface metric

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**

   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. We can set the metric of the network interface card that we want to connect to the Ethernet module to 1, and others set to 100 or higher so that we can force EtherConfig to search for modules from the network interface card whose metric is set to 1.
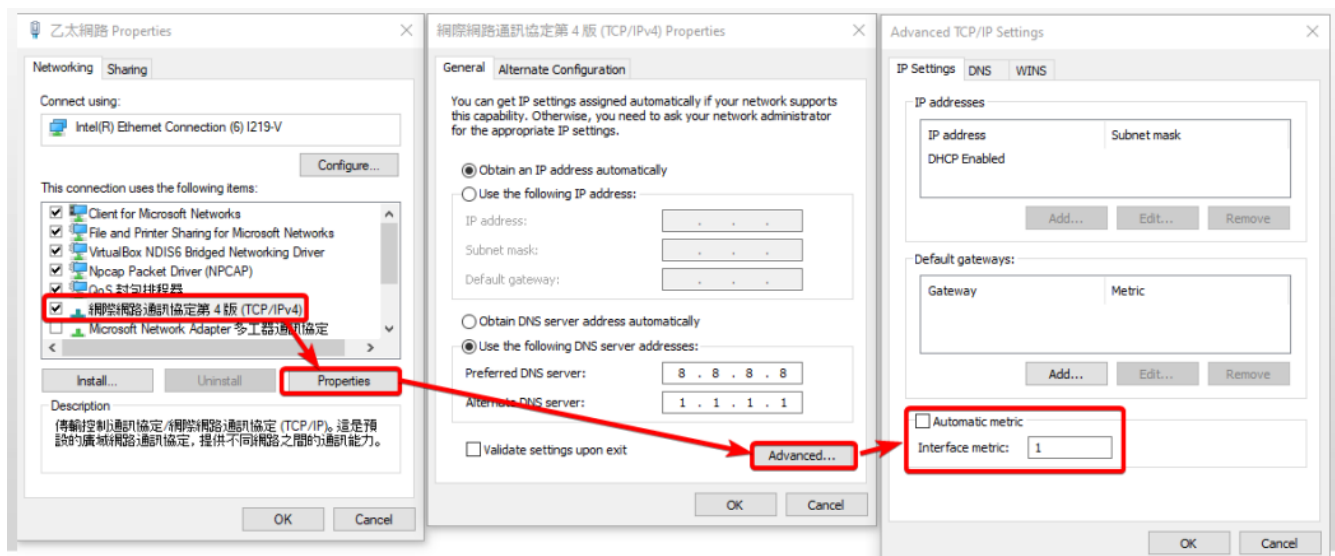
Documents / Resources

	FATEK FA-10H-1 Ethernet Module [pdf] User Manual CBEH, CBE, FA-10H-1 Ethernet Module, FA-10H-1, Ethernet Module, Module

References

- **User Manual**