

# **User Manual**

PCI Express 10 GigE
Vision Frame
Grabber Card

Industrial 10 GigE Vision Frame Grabber Card



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# **Product Warranty (2 years)**

Advantech warrants to you, the original purchaser, that this product will be free from defects in materials and workmanship for five years from the date of purchase.

This warranty does not apply to products that have been repaired or altered by persons other than repair personnel authorized by Advantech, nor does it apply to products that have been subject to misuse, abuse, accident, or improper installation. Under the terms of this warranty, Advantech assumes no liability for consequences arising from such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For outof-warranty repairs, you will be billed according to the cost of replacement materials, service time, and freight. Please consult your dealer for more details.

If you believe that you have a defective product, follow these steps:

- 1. Collect all the information about the problem encountered (e.g., CPU speed, Advantech products used, other hardware and software used, etc.). Note anything abnormal and list any on-screen messages you get when the problem occurs.
- 2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
- If your product is diagnosed as defective, obtain a return merchandise authorization (RMA) number from your dealer. This allows us to process your return more quickly.
- 4. Carefully pack the defective product, a fully completed Repair and Replacement Order Card, and photocopy proof of the purchase date (e.g., your sales receipt) in a shippable container. A product returned without proof of the purchase date will not be eligible for warranty service.
- 5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

### **Declaration of Conformity**

#### CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend using shielded cables. This type of cable is available from Advantech. Please contact your local supplier for ordering information.

#### FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

# **Safety Precaution - Static Electricity**

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Do not touch any components on the CPU card or other cards while the PC is on.
- Disconnect the power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

## **Technical Support and Assistance**

- 1. Visit the Advantech website at www.advantech.com/support for the latest information about the product.
- 2. Contact your distributor, sales representative, or Advantech's customer service center for technical support should you requires additional assistance. Please have the following information ready before you call:
  - Product name and serial number
  - Description of your peripheral attachments
  - Description of your software (OS, version, application software, etc.)
  - A complete description of the problem
  - The exact wording of any error messages

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Introduction

# **1.1 Description**

Advantech's PCIE-1181 and PCIE-1182 cards are PCI Express x4 cards with Power over Ethernet (PoE+) for independent 10 Gigabit Ethernet ports. Advantech 10 GbE PoE cards leverage the Plug and Play capability defined in the PCI Express bus specification. The board requires one PCI Express x4 slot in the personal computer it is to be installed in. The card provides independent 10 Gigabit Ethernet Ports via Intel X550 series 10 Gigabit Ethernet controllers. Multiple 10 Gigabit Ethernet Vision device connections are supported for standard 10 Gigabit Ethernet Vision data transfer rates of up to 10,000 Mb.

The PCIE-1181 and PCIE-1182 feature the 802.3at PoE+ standard combining a power supply and IEEE1588 (precise time protocol) to enable synchronization with multi-camera or powered device (PD) acquisition capabilities.

Each port of the PCIE-1181 and PCIE-1182 can deliver a maximum of 30W of power per port (external 12  $V_{DC}$  is required) and 10,000-Mbps bandwidth over a Cat-6 cable up to 50 m and Cat-7 cable up to 100 m in length. It features link aggregation, which perform exceptionally for continuously receiving large amounts of image data.

PoE + technology significantly reduces installation and maintenance costs by eliminating the need for power wiring. Combining PoE+ and the 10 Gigabit bandwidth, the PCIE-1181 and PCIE-1182 are the perfect fit for your vision applications.

### **1.2 Features**

- IEEE802.3at-compliant,
- Support for 2 independent 10Gigabit ports
- PD auto-detection and classification
- Built-in ESD 8 kV and EFT 6 kV
- IEEE 1588-compliant
- PCI Express x4-compliant
- Supports link aggregation
- Inrush current, current limit, and short-circuit protection

# 1.3 Specifications

#### Power Over Ethernet Port

- 1 or 2 10 Gigabit Ethernet MAC and physical layer ports
- 48 VDC PoE power output, total max. 60 W with AT/ATX system power input(1 port 30W)
- Standard IEEE 802.3 Ethernet interface provided for 10000BASE-T, 5000BASE-T(Linux only), 1000BASE-T, 100BASE-TX, and 10BASE-T applications (802.3, 802.3u, 802.3af, 802.3at and 802.3ab, 802.3x)
- VDC ouptput
  - 12VDC up to 48Watt(2 ports)/24Watt(1 port)

#### Bus Interface

- PCle x4

#### Power Requirements

- Input voltage: 12 V<sub>DC</sub> direct from PCIe slot or AT/ATX system power input
- ESD/EFT
  - 8 kV ESD and 6 kV EFT
- Physical
  - Dimensions (W x D): 167 x 68.9 mm
  - Operating temperature: 0~60°C
  - Safety compliance: CE/FCC

# **1.4 Ordering Information**

- PCIE-1181: 1-port PCIe 10 GigE Vision Frame grabber card
- PCIE-1182: 2-port PCIe 10 GigE Vision Frame grabber card

# 1.5 Unpacking Checklist

Ensure that the following items are included in the package.

PCIE-1181 or PCIE-1182 card



Hardware Configuration

#### **Initial Inspection** 2.1

We carefully inspect our PCIe 10GbE PoE cards mechanically and electrically before shipping them. Your PCIe card should be free from marks and scratches and in per-fect working order upon receipt.

As you unpack your card, check for signs of shipping damage (e.g., damaged box, scratches, or dents). If it has been damaged or if it fails to meet the specifications, notify our service department or your local sales representative immediately. Also notify the carrier and retain the shipping carton and packing material for inspection by the carrier. After inspection, we will make arrangements to repair or replace the card.

When you handle the card, remove it from its protective packaging by grasping the rear metal panel. Retain the anti-vibration package for storage should you ever need to remove the card from your PC.



Warning! Discharge your body's static electric charge by touching the back of the grounded chassis of the system unit (metal) before handling the board. You should avoid contact with materials that hold a static charge, such as plastic, vinyl, and styrofoam. To avoid static damage to its integrated circuits, handle the board only by its edges. Avoid touching the exposed circuit connectors. We recommend that you use a grounded wrist strap and place the card on a static dissipative mat whenever handling it.

# 2.2 Hardware View







Figure 2.2 LED Status Indicators

LED indicators of RJ 45 (Lan) connector				
LEDs	Description			
Lan LED (In the left of RJ45 connector)	Green: Ethernet connected			
Link LED (In the right of RJ45 connector)	Yellow: 5G/2.5G/1G/100Mbps Green: 10G			

Bracket LED indicators	
LEDs	Description
DC 1~2(PCIE-1182)	12V DC output
DC 1 (PCIE-1181)	
POE 1~2(PCIE-1182)	Power over Ethernet
POE 1 (PCIE-1181)	



Figure 2.3 AT/ATX 12V DC input 4-pin Power Connector

AT/ATX 12V DC input 4-pin power connector				
Pin	Function			
Pin 1	GND			
Pin 2	GND			
Pin 3	+12V			
Pin 4	+12V			



12V DC Output Connector Pin-out Assignment				
Port	Pin	Function		
DC1	Pin 1	+12V		
	Pin 2	GND		
	Pin 3	N.C		
DC2	Pin 4	N.C		
	Pin 5	+12V		
	Pin 6	GND		



#### Figure 2.5 12V DC Output Switch

12V DC Output Switch				
Port	Function			
1	DC power On/Off			
2	DC power On/off			
Default is power of	on and API can't control after			
power off.				



#### Figure 2.6 Board ID Switch

12V DC Output Switch				
Port	Function			
1	Configure different on/off			
2	position to setup the board			
3	ID in multi-card scenario			
4				

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# 2.3 Card Installation

#### Note!

We strongly recommend that you install the software driver before you install the hardware in your system. This will guarantee a smooth and trouble-free installation process.

Turn off your PC's power supply whenever you install or remove the card or its cables. Static electricity can easily damage computer equipment. Ground yourself by touching the chassis of the computer (metal) before you touch any boards. See the static warning at the start of this chapter.

- 1. Turn off the computer and all peripheral devices (such as printers and monitors)
- 2. Disconnect the power cord and any other cables from the back of the computer
- 3. Remove the PC's cover (refer to your user guide if necessary)
- 4. Install the card in your PCIe bus
- 5. Replace the PC's cover and reconnect any cables you removed at Step 3 and then connect the power connector and power supply with the power cable in the package
- 6. Turn on the computer
- 7. Test your Ethernet port and verify that it works normally (see Chapter 4)



Driver Setup and Installation

### 3.1 Introduction

This chapter describes the driver installation of Advantech PoE power control, configuration and removal procedures for Windows 10 (64-bit).

# 3.2 Driver Installation

#### 3.2.1 Driver Installation

Please follow these steps for driver installation:

- 1. Visit the Advantech website, search for "PCIE-1182,"click the **Manual/Driver/ BIOS/ FAQ** icon, and download the PoE power control driver installation file.
- 2. Before installing, please check whether the PCIE-1182 device ports exist in the Network adapters of Windows Device Manager.

🛔 Device Manager	_	×
<u>File Action View H</u> elp		
◆ ◆   ☶   🖾   👔   💻		
V 🛃 DESKTOP-KTDNARB		^
Audio inputs and outputs		
> 🚅 CamNavi Device		
> 🛄 Computer		
> 👝 Disk drives		
> 🏣 Display adapters		
> Firmware		
> 🛺 Human Interface Devices		
> 📷 IDE ATA/ATAPI controllers		
> 🔤 Keyboards		
> III Mice and other pointing devices		
> 💻 Monitors		
🗸 🚍 Network adapters		
Intel(R) Ethernet Connection (7) I219-LM	м	
Intel(R) Ethernet Controller X550 #3		
🚽 Intel(R) Ethernet Controller X550 #4		
Intel(0) 1211 Circle's Maturals Connection	•	

- 3. Execute the PoE power control installation file that you just downloaded. Follow the installation wizard to complete the driver installation.
- 4. After installation, the network device will appear in Device Manager.

🗄 Device Manager	_	×
<u>File Action View H</u> elp		
V 🖁 DESKTOP-KTDNARB		~
Audio inputs and outputs		
✓		
PoEPowerControl Device		
> 💻 Computer		
> 👝 Disk drives		
> 🔙 Display adapters		
> 📔 Firmware		
> 🔚 Human Interface Devices		
> 💼 IDE ATA/ATAPI controllers		

# **3.3 PoE & DCOUT Power Control Function**

#### 3.3.1 Introduction

The Advantech GigE vision frame grabber cards support the unique feature of power on/off control for each PoE port & DCOUT port. With the provided function APIs, you can turn the power of each PoE or DCOUT port on or off manually for fault recovery or device power reset purposes.

### 3.3.2 File Location

After installing the program, you can see the PoEPowerControl directory under the path of "C:\Advantech\"

📙 🛛 🛃 🚽 🕴 PoEPowerCo	introl				
File Home Share	View				
Navigation Details pane pane - Panes	Extra large icons	Large icons List Content Layout	E Details	Sort	<ul> <li>Group by ▼</li> <li>Add columns ▼</li> <li>Size all columns to fit</li> <li>Current view</li> </ul>
← → × ↑ 🚺 → This	PC > Local Disk (C:) >	Advantech > P	oEPowerControl >		
Name	Date	modified	Туре	Size	
Driver	3/16/	2020 5:04 PM	File folder		
Example	3/16/	2020 5:04 PM	File folder		
Inc	3/16/	2020 5:04 PM	File folder		
Lib	3/16/	2020 5:04 PM	File folder		
Logs	3/16/	2020 5:07 PM	File folder		
Uninstaller	3/16/	2020 5:04 PM	File folder		

These directories are described as follows:

- Driver: The PoE power control driver installation file.
- Example: Examples of API usage for PoE power control (C++).
- Inc: The header file defines the PoE power control APIs and return codes.
- Lib: Provides method for the upper APP to use the power control driver.
- Logs: If the logging feature is enabled, the message will be stored here.

### 3.3.3 Software Architecture



### 3.3.4 DLL Export Function

**Device Support Function List:** 

	PCIE-1181-AE
	PCIE-1182-AE
PPCGetNumPorts	•
PPCSetPowerState	•
PPCGetPowerState	$\bullet$
PPCGetPowerConsumption	•
PPCSetDCPowerState	•
PPCGetDCPowerState	•
PPCGetBoardID	•
PPCResetPSE	$\bullet$
<b>PPCSaveDevicePowerState</b>	$\bullet$

### 3.3.5 Unit32\_tPPCGetNumPorts(void)

	· · · · · · · · · · · · · · · · · · ·
Description	Queries the Number of PoE Power Controllable Ports.
Param[IN]	No.
Return[OUT]	The number of PoE Power Controllable Ports.
	If no any PoE Power Controllable Ports, the return value is 0.
	If the return value is greater than (0xF000), please refer to the error code definition.

Since the bus order assigned by the operating system may be inconsistent with the order of the PCIE slots on the actual motherboard, the software will reorder the ports according to the board ID on the card from small to large.

If the boards ID are the same, the port order is sorted from small to large according to the bus number assigned by the operating system.

### 3.3.6 Unit32\_t PPCSetPowerState(uint32\_t PortIndex, PPC\_POWER\_STATE PowerState

Description	Set the Power State of PoE Power Controllable Port.
Param[IN]	PortIndex, start form 0.
Param[IN]	PowerState, defined in PPC_POWER_STATE_LIST.
Return[OUT]	Return value 1 means the operation completed successfully
	Others, please refer to the error code definition.

After call the API, the power state setting of the port will be stored in the EEPROM on GigE vision frame grabber card. At next time you restart your computer, the Advantech PoE Driver on system can automatically restore the power state to all ports from EEPROM of GigE vision frame grabber card.

\*[Note] On Windows10, Only PCIE-1181/82-AE supports this feature.

#### 3.3.7 uint32\_t PPCGetPowerState(uint32\_t PortIndex

Description	Get the Power State of PoE Power Controllable Port.
Param[IN]	PortIndex, start form 0.
Return[OUT]	Return value 0 means Power ON, 1 means Power OFF.
	Others, please refer to the error code definition.

### 3.3.8 uint32\_t PPCGetPowerConsumption(uint32\_t PortIndex)

Description	Get the Power Consumption of PoE Power Controllable Port.
Param[IN]	PortIndex, start form 0.
Return[OUT]	Return the Port real Power Consumption of PoE Power
	Controllable Port. (Max value is less than 30W)
	Others, please refer to the error code definition.

#### 3.3.9 uint32\_t PPCSetDCPowerState(uint32\_t PortIndex, PPC\_POWER\_STATE PowerState)

Description	Set the Power State of DCOUT Power Controllable Port.
Param[IN]	PortIndex, start form 0.
Param[IN]	PowerState, defined in PPC_POWER_STATE_LIST.
Return[OUT]	Return value 1 means the operation completed
	successfully
	Others, please refer to the error code definition.

\* If you want to restore the previous power state when the system reboot, please call API PPCSaveDevicePowerState to save the power state on the device. Please refer to section 3.3.13 for detailed usage.

#### 3.3.10 uint32\_t PPCGetDCPowerState(uint32\_t PortIndex)

Description	Get the Power State of DCOUT Power Controllable Port.
Param[IN]	PortIndex, start form 0.
Return[OUT]	Return value 0x0 means Power ON, 0x1 means Power
	OFF
	Others, please refer to the error code definition.

#### 3.3.11 uint32 t PPCGetBoardID(uint32 t PortIndex)

Description	Queries the Board ID by Port Index.
Param[IN]	PortIndex, start form 0.
Return[OUT]	Return value is 0x0 ~ 0xF
	Others, please refer to the error code definition.

#### 3.3.12 uint32\_t PPCResetPSE(uint32\_t BoardID)

Description	Reset the PSE Controller on the Device by Board ID.
Param[IN]	Board ID, Start from 0x0~0xF
Return[OUT]	Return value 0x1 means the operation completed
	successfully
	Others, please refer to the error code definition.

#### 3.3.13 uint32\_t PPCSaveDevicePowerState (void)

Description	Save all current power states to each Advantech PoE device.
Param[IN]	No
Return[OUT]	Return value 1 means the operation completed successfully
	Others, please refer to the error code definition.

After call the API, the current power states will be stored in the EEPROM. At next time you restart your computer, the Advantech PoE Driver on system can automatically restore the power state to all ports from EEPROM

# **3.4** How does the API uses the DLL Export Function

The following steps show how to call the DLL export function to control the power of the PoE and DCOUT Port on the PCIE-1182. Please refer to the sample program for more details. (path: "C:\Advantech\PoEPowerControl\Example\")

3.4.1 Load DLL library
HMODULE hDLL = LoadLibrary(TEXT("PoEPowerControl.dll"));

#### 3.4.2 Get DLL function

P PPCGetNumPorts fpPPCGetNumPorts = NULL; fpPPCGetNumPorts = (P PPCGetNumPorts)GetProcAddress(hDLL, "PPCGetNumPorts"); P PPCSetPowerState fpPPCSetPowerState = NULL; fpPPCSetPowerState = (P PPCSetPowerState)GetProcAddress(hDLL, "PPCSetPowerState"); P PPCGetPowerState fpPPCGetPowerState = NULL; fpPPCGetPowerState = (P PPCGetPowerState)GetProcAddress(hDLL, "PPCGetPowerState"); P PPCSetDCPowerState fpPPCSetDCPowerState = NULL; fpPPCDCSetPowerState = (P PPCSetDCPowerState)GetProcAddress(hDLL, "PPCSetDCPowerState"); P PPCGetDCPowerState fpPPCGetDCPowerState = NULL; fpPPCGetDCPowerState = (P PPCGetDCPowerState)GetProcAddress(hDLL, "PPCGetDCPowerState"); P PPCSaveDevicePowerState fpPPCSaveDevicePowerStates = NULL; fpPPCSaveDevicePowerStates = (P\_PPCSaveDevicePowerState)GetProcAddress(hDLL, "PPCSaveDevicePowerState");

### 3.4.3 Set PoE Port 0 Power OFF

fpPPCSetPowerState (0, PPC\_POWER\_OFF);

### 3.4.4 Set PoE Port 0 Power ON

fpPPCSetPowerState (0, PPC\_POWER\_AUTO);

#### 3.4.5 Get PoE Port 0 Power Status

State = fpPPCGetPowerState (0); if(State == PPC\_POWER\_AUTO) printf("PoE Port[0] State: Power ON\n"); else if(State == PPC\_POWER\_OFF) printf("PoE Port[0] State: Power OFF\n");

## 3.4.6 Set Port 0 DCOUT Power OFF

fpPPCDCSetPowerState (0, PPC\_POWER\_OFF);

### 3.4.7 Set Port 0 DCOUT Power ON

fpPPCDCSetPowerState (0, PPC\_POWER\_AUTO);

#### 3.4.8 Get Port 0 DCOUT Power Status

# **3.4.9** If you want to automatically restore the power state when the system restarts

ErrCode = fpPPCSaveDevicePowerStates(); if(ErrCode > ERR\_CODE\_BASE) printf("[ERR] Please check the ErrCode 0x%X\r\n", ErrCode);

Example program execution results:

Command Prompt	_		×
C:\Advantech\PoEPowerControl\Example\C_Console\bin\x64\Release>Powe Num of Ports: 2	rContr	rol.exe	2
Test PoE Port: Power Off Set Port 0 to Power Off: Success Set Port 1 to Power Off: Success			
Test Get PoE Port Port 0 : PoE Status is OFF Port 1 : PoE Status is OFF			
Test PoE Port: Power On Set Port 0 to Power On: Success Set Port 1 to Power On: Success			
Test Get PoE Port Port 0 : PoE Status is Auto Port 1 : PoE Status is Auto			
Test DCOUT Port: Power Off Set Port 0 DCOUT to Power Off: Success Set Port 1 DCOUT to Power Off: Success			
Test Get DCOUT Port Port 0 : DCOUT Status is OFF Port 1 : DCOUT Status is OFF			
Test DCOUT Port: Power On Set Port 0 DCOUT to Power On: Success Set Port 1 DCOUT to Power On: Success			
Test Get DCOUT Port Port 0 : DCOUT Status is Auto Port 1 : DCOUT Status is Auto			
Test Get PoE Port Power Consumption Port 0 : Power Consumption is 2 W Port 1 : Power Consumption is 1 W			
Test Reset PoE Controller Board ID: 0xD has reset the PoE Controller			

This section will give a detailed explanation about the error code definitions and troubleshooting.

### 3.5.1 0xF001: ERR\_NOT\_INITIALIZED

Cause	error occurs because all Advantech GigE vision frame grabber cards were not enumerated before.
Solution	<b>PPCGetNumPorts</b> to enumerate all Advantech GigE vision frame grabber cards before calling other APIs.

### 3.5.2 0xF002: ERR\_DEVICE\_PORT\_NOT\_FOUND

Cause	dvantech GigE vision frame grabber cards found.					
Solution	1) Please check the Advantech GigE vision frame grabber cards on your					
	<ol> <li>System.</li> <li>Open Windows Device Manager. Check whether the Network Adapters of</li> </ol>					
	Advantech GigE vision frame grabber cards are present.					

### 3.5.3 0xF003: ERR\_DEVICE\_NOT\_SUPPORT

Cause	This device does not support this feature.
Solution	Please check the "Device Support Function List" on section 2.4

### 3.5.4 0xF004: ERR\_INPUT\_DATA\_INVALID

Cause	<ol> <li>The parameter entered by the user is invalid.</li> <li>1) Input PortIndex exceeds the number of all power controllable ports.</li> <li>2) The set PowerState is not in the definition.</li> <li>3) When accessing the <b>PPCResetPSE</b>, enter the wrong board ID value.</li> </ol>
Solution	Please correct the input value.

#### 3.5.5 0xF005: ERR\_BOID\_RUNTIME\_CHANGE

Cause	Call PPCGetBoardID but get the error
oudoo	Due to user changed the Board ID after calling <b>PPCGetNumPorts</b> to
	enumerate all Advantech GigE vision frame grabber cards.
Solution	Call PPCGetNumPorts again to re-establish all Advantech GigE
	vision frame grabber cards information.

#### 3.5.6 0xF006: ERR\_DRIVER\_NOT\_FOUND

Cause	Advantech PoE power control driver is not installed.
Solution	<ol> <li>Visit Advantech's website to download the PoE power control</li> </ol>
	driver installation file.
	2) Open Windows Device Manager. Check whether the PoE Power
	Control Device exists.

### 3.5.7 0xF007: ERR\_IOCTL\_FAILED

Cause	Operate Advantech PoE power control driver failed.
Solution	<ol> <li>Open Windows Device Manager. Check whether the PoE Power Control Device exists.</li> <li>Please reinstall the PoE power control driver then restart your computer.</li> </ol>

#### 3.5.8 0xF008~0xF00A: Internal Factory Test Used

#### 3.5.9 0xF00B: ERR\_PSE\_FAILED

Cause	The PSE power controller on the Device is abnormal
Solution	Please Reset the PSE Controller on the Device by Board ID.

When you are operating the PSE controller related APIs, such as:

PPCSetPowerState, PPCGetPowerState...etc. An error code of F00B was received. It indicates the PSE power controller on the device is abnormal, please call the PPCResetPSE API to reset the PSE Controller on the Device by Board ID. You may refer to section 3.13 "enable the LOG" to view more device information.

#### 3.5.10 0xF00C: ERR DEVICE FAILED

Cause	Device operation is abnormal
Solution	Please Power-cycle the system to recovery the device.

If error code of F00C was received, it indicates the device operation is abnormal.

Please "Power-cycle (cold reboot)" the system to recovery the device.

You may refer to section 3.13 "enable the LOG" to view more device information.

### 3.5.11 Why the Power of PoE Port remain ON until driver is loaded?

During BIOS and OS loading stage, PoE power would still remain ON until driver is loaded. This is the limitation because we do not have controls in these stages in current hardware design architecture.

#### 3.5.12 Why the Power of DCOUT Port cannot control by SW? (PCIE-1181/82-AE)

Please check the DIP Switch on PCIE-1182 card, as shown below, the value of DIP switch must be turned ON to be controlled by software.



If the value is OFF, there will be no power output from DCOUT port and software cannot be controlled. **3.5.13 How to enable the LOG** 

Please open Windows System Properties and click Environment Variables.

Computer Name         Hardware         Advanced         System Protection         Remote           You must be logged on as an Administrator to make most of these changes.         Item (Computer Name)         Item (Comp)         Item (Comp)         Item				
You must be logged on as an Administrator to make most of these changes.				
Performance Visual effects, processor scheduling, memory usage, and virtual memory Settings				
User Profiles Desktop settings related to your sign-in S <u>et</u> tings				
Startup and Recovery System startup, system failure, and debugging information				
Environment Variables				

Find the POEPOWERCTL\_LOG\_ENABLE variable and set it to 1. The log will be stored under the path

### specified by the POEPOWERCTL\_LOG\_PATH variable.

nvironment Variables		>		
User variables for advantech				
Variable	Value			
Path C:\Users\advantech\AppData\Local\Microsoft\WindowsApps;				
TEMP	C:\Users\advantech\AppData\Local\Temp			
TMP C:\Users\advantech\AppData\Local\Temp				
System variabler	<u>N</u> ew <u>E</u> dit <u>D</u> elete			
Variable	Value	^		
OS	Windows NT			
Path C:\Program Files (x86)\Intel\Intel(R) Management Engine Compone				
PATHEXT	.COM; EXE; .BAT; .CMD; .VBS; .VBE; .JS; .JSE; .WSF; .WSH; .MSC			
DOEDOWERCTL LOG ENIARLE	1			
POEPOWERCTL_LOG_ENABLE				
POEPOWERCTL_LOG_PATH	C:\Advantech\PoEPowerControl\Logs			
POEPOWERCTL_LOG_PATH PROCESSOR_ARCHITECTURE	C:\Advantech\PoEPowerControl\Logs AMD64			
POEPOWERCTL_LOG_ENABLE POEPOWERCTL_LOG_PATH PROCESSOR_ARCHITECTURE PROCESSOR IDENTIFIER	C:\Advantech\PoEPowerControl\Logs AMD64 Intel64 Family 6 Model 158 Stepping 10. GenuineIntel	•		
POEPOWERCTL_LOG_ENTH POEPOWERCTL_LOG_PATH PROCESSOR_ARCHITECTURE PROCESSOR IDENTIFIER	C:\Advantech\PoEPowerControl\Logs AMD64 Intel64 Family 6 Model 158 Stepping 10. GenuineIntel New Edit Delete	~		

The log function can be turned off by setting the POEPOWERCTL\_LOG\_ENABLE variable to 0.

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# 3.5.14 Why the Power State cannot restore on PCIE-1182 in Win10 after Computer Restart? Please follow the steps to turn off the fast startup option on Win10.

Settings			.=		×
ம் Home	Power & sleep				
Find a setting	Screen	S	Save energy and battery li	fe	
	When plugged in turn off after	S	Set how quickly your scree sleep when you take a bre	n goes t ak from	to
System	Never V	у	vour PC.	DC	1
🖵 Display			set more into about savin	g PC ene	ergy
야) Sound	Sleep	F A	Related settings Additional power settings	1	
Notifications & actions	When plugged in, PC goes to sleep after	Ļ			
J Focus assist	Never V				
🖒 Power & sleep					
📼 Storage					
Tablet mode					
Power Options			-		×
← → ~ ↑ 🦃 > Control Panel > Hardw	are and Sound > Power Options	~ Ū	Search Control Panel		Q
Control Panel Home					?
Choose what the power A power to	or customize a power plan plan is a collection of hardware and system settings (like display brightness, sleep, etc.) that manages				
buttons do how your	computer uses power. <u>Tell me more about power plans</u>				
Create a power plan Preferred	plans				
display Aut	anced (recommended) Change plan settings omatically balances performance with energy consumption on capable hardware.				
Change when the computer sleeps  Image: Sleeps	h performance Change plan settings				
Fav	ors performance, but may use more energy.				
Hide add	itional plans 🗌 🚫				
OPov	ver saver Change plan settings				
Sav	es energy by reducing your computer's performance where possible.				
⊖ Ulti Pro	mate Performance Change plan settings vides ultimate performance on higher end PCs.				
嵾 System Settings			-		×
← → × ↑ 🦃 > Control Panel > Hardw	are and Sound > Power Options > System Settings	~ Ū	Search Control Panel		Q
Def	ine nower buttons and turn on password protection				
Chor	use the power settings that you want for your computer. The changes you make to the settings on this				
	apply to all of your power plans. Change settings that are currently unavailable				
Pow	er and sleep button settings				
(	When I press the power button: Shut down 🗸				
(	When I press the sleep button: Sleep 🗸				
Shut	down settings				
(2)	Turn on fast startup (recommended) This helps start your PC faster after shutdown. Restart isn't affected. Learn More				
)	Sleep				
	Show in Power menu. Hibernate				
	Show in Power menu. 1 Lock				
	Show in account picture menu.				
1					



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