GIGABIT SWITCH CARD INDUSTRIAL

ORing

Quick Installation Guide

IGCS-E131GP

Industrial Unmanaged Gigabit Switch Card

Introduction

The **IGCS-E131GP** is a PCI-Express unmanaged Gigabit Ethernet switch card with three 10/100/1000Base-T(X) Ethernet ports and one 100/1000Base-X SFP port. The card could be installed on any IPC motherboards with PCIe sockets to allow the IPC/embedded system to communicate with other Ethernet devices.

Package Contents

The card is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

| Contents	Pictures	Number
IGCS-E131GP		X 1
CD		X 1
QIG		X 1

Preparation

Before you begin installing the device, make sure you have all of the package contents available and a PC with Microsoft Internet Explorer 6.0 or later, for using web-based system management tools.

Safety & Warnings

⚠️ PCI Express cards, like all computer equipment, can be severely damaged by static electricity. Be sure that you are properly grounded before opening your computer case or touching your PCI Express card. It is recommended that you wear an anti-static strap when installing any computer component. If an anti-static strap is unavailable, discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds.

⚠️ Be careful to handle the PCI Express card by its edges and not the connectors or other components on the cards. Avoid rocking the card from side to side and or forcing the card into the slot. When the card is installed, pull on it gently to check it is properly connected.

⚠️ Always shut down the computer before opening it to avoid damaging its internal components or the components you are installing. Do not open the computer or attempt to install items inside it while it is on.

⚠️ Do not turn on the computer unless all of its internal and external parts are in place and it is closed. Operating the computer when it is open or missing parts can damage it or cause injury

Dimension

178.0
165.0
21.3
118.0
121.0
105.0
10.0
18.5

PCB
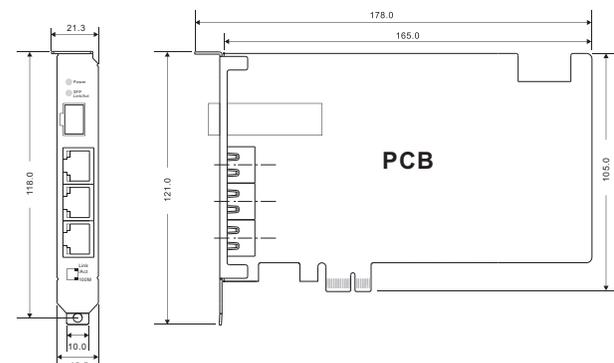
Panel Layouts

Front View
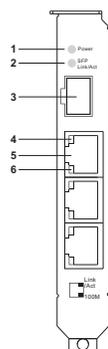
1. System power LED
2. LINK/ACT LED for SFP port
3. SFP port
4. LNK/ACT LED for LAN port
5. Ethernet ports
6. Speed LED for LAN port

Network Connection

The switch card uses the standard RJ45 connector for network connection. Please refer to the tablet below for cable types and pin assignments.

Cable	Type	Max. Length	Connector
10Base-T	Cat. 3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ45
100Base-TX	Cat. 5 100-ohm UTP	UTP 100 m (328 ft)	RJ45
1000Base-T	Cat 5e, 6	UTP 100 m (328 ft)	RJ45

10/100Base-T(X) RJ-45 ports

Pin No.	Assignment
#1	TD+
#2	TD-
#3	RD+
#6	RD-

1000Base-T RJ-45 port

Pin No.	Assignment
#1	BI_DA+
#2	BI_DA-
#3	BI_DB+
#4	BI_DC+
#5	BI_DC-
#6	BI_DB-
#7	BI_DD+
#8	BI_DD-

Installation

Follow the steps below to install the card to your PC.

1. Turn off your computer, disconnect the power and remove its cover.
2. Locate an open PCI slot and remove the metal cover plate on the back of the PC cover.
3. Insert the card into the slot and fasten the bracket to secure it firmly in place.
4. Place the cover back onto the computer case.
5. Re-connect the power.
6. Connect the card to the desired network devices.
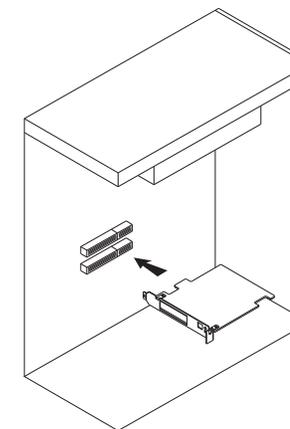
Configurations

After installing the switch card, the green power LED should turn on. Please refer to the following tablet for LED indication.

LED	Color	Status	Description
Power	Green	On	DC power on
RJ-45			
Link/Act	Green	On	Port is connected
		Blinking	Transmitting data
Speed	Green	On	Link at 100Mbps
		Off	Link at 1Gbps or 10Mbps
SFP			
Link/Act	Green	On	Port is connected
		Blinking	Transmitting data

Specifications

ORing Switch Model	IGCS-E131GP
Physical Ports	
10/100/1000Base-T(X) Ports Auto MDI/MDIX	3
100/1000Base-X SFP port	1 S1 DIP-switch for SFP speed setting (ON :100Base-FX SFP, OFF : 1000Base-X SFP)
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T IEEE 802.z for 1000Base-X IEEE 802.3x for Flow control
MAC Table	8K MAC addresses
Priority Queues	Store-and-Forward
LED indicators	
Power indicator	Green: Power LED x 1
100/1000Base-X SFP port indicator	Green for port Link/Act.
10/100/1000Base-T(X) RJ45 port indicator	Green for port Link/Act. Amber for 100Mbps indication.
Power	
Power Input	PCIe bus-powered
Power Consumption (Typ.)	4.2Watt
Overload current protection	Present
Physical Characteristic	
Dimension (W x D x H)	21.3 (W) x 136 (D) x 121 (H)mm (0.83 x 5.35 x 4.76 inch)
Weight (g)	1080g
Environmental	
Storage Temperature	-40 to 85℃ (-40 to 185℉)
Operating Temperature	-10 to 60℃ (14 to 140℉)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A, EN50155 (EN50121-3-2, EN55011, EN50121-4)
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Operating System Supports	
Microsoft System	DOS / Win98 / WinMe / WinXP / Win2000 / WinServer2003 / Vista / WinServer 2008 / Win7 / Win8
Unix (Linux)	Linux for Kernel 3.x / 2.6.x / 2.4.x, FreeBSD for 7.x / 8.0, SCO OpenServer for 6 / UnixWare 7.1.x
Novell	Novell client for DOS (ODI driver) / Novell server driver (Support OS 5.x and 6.x)
Others	MacOS 10.4 / 10.5 / 10.6 / 10.7
Warranty	5 years

ORing

RoHS ✓ FC CE

ORing Industrial Networking Corp.
TEL: +886-2-2218-1066   Website: www.oring-networking.com
FAX: +886-2-2218-1014   E-mail: support@oring-networking.com