



JetCard 2105 / 2105-w

5 Ports 10/100Mbps Fast Ethernet Switch PCI-104 Card



- Support 32 bit PCI-104 bus
- 5 ports RJ45 Ethernet Switch
- IEEE 802.3 10 Base-T and 100 Base-Tx compatible
- Full or half duplex at 10/100 Mbps
- IEEE 802.3u Auto-Negotiation supported
- IEEE 802.1Q tag VLAN supported
- QoS supported
- 1.5KV Hi-pot isolation protection
- Support Windows Me/XP/NT/2000/2003/Vista, Linux 2.4/2.6
- Wide Temperature -40-80°C (JetCard 2105-w)



Embedded Switch Card

The JetCard 2105 is a flexible and high performance five-port Ethernet switch card in PCI-104 format. The PCI-104 bus of JetCard 2105 supports both +3.3V and +5V slot. The easy-to-install drivers that come with JetCard make it easier for you to set up your complex system. And with its 1.5KV Hi-pot isolation protection, and overload current/voltage protection, JetCard 2105 is ideal for industrial applications in severe environments and is your best choice for embedded networking solution.

The JetCard 2105 uses Marvell 88E6065 chip to provide 5 Ethernet ports. Each Ethernet port in the JetCard offers IEEE 802.3 10 Base-T and 100 Base-Tx compliant Ethernet data transmission with auto MDI/MDI-X and auto-negotiation.

Auto MDI/MDI-X: The JetCard automatically determine whether or not it needs to interchange cable sense between pairs so that an external crossover cable is not required. If the JetCard interoperate with a device that cannot automatically correct for crossover, the JetCard makes the necessary adjustment prior to commencing Auto-Negotiation.

Flow control: The JetCard supports back-pressure and pause frame-based flow control schemes to ensure zero packet loss under temporary traffic congestion.

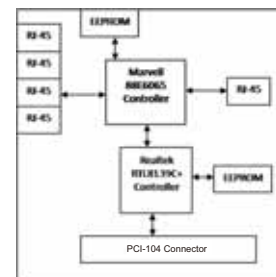
QoS (Quality of Service): QoS for networks is an industry-wide set of standards and mechanisms for ensuring high-quality performance for critical applications. JetCard provides the shared memory-based QoS switch architecture. Packets are directed into one of four traffic class queues based upon Port, IEEE 802.1p, IPv4's TOS or Diff-Serv, or IPv6's Traffic Class.

VLAN: The JetCard supports IEEE802.1Q tag VLAN and also can be enabled on a per-port basis VLAN.

Ethernet Statistics monitoring: The JetCard has a set of thirty, 32-bit counters to provide a set of Ethernet statistics for frames received on ingress and transmitted on egress. A register interface allows the JetCard to capture, read, or clear the counter values.

Customerized Configurations: The JetCard supports an add-on EEPROM for programming its internal registers.

The EEPROM data will be read in once after JetCard is reset.



PCI-104

The PCI-104 form factor supports the PCI bus. The maximum configuration for the PCI bus of PCI-104

modules is four plus the Host Board.

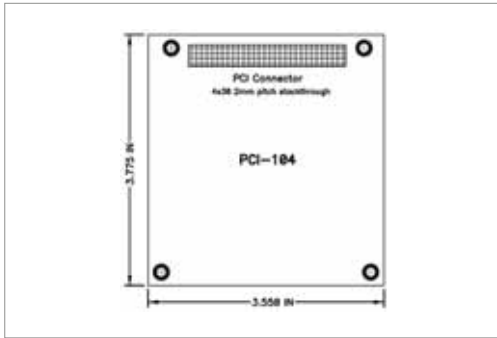
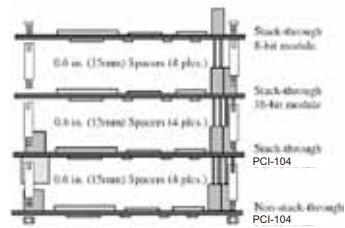
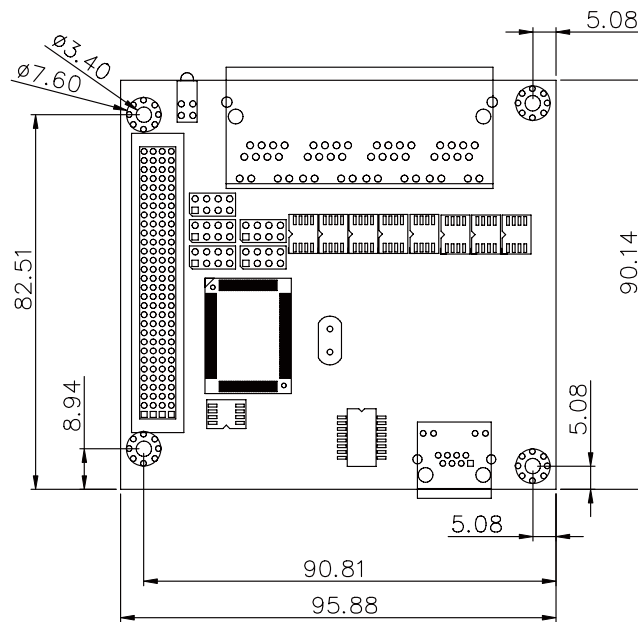


Figure 1: A Possible Module Stack Configuratin



- Industrial PoE Switch
- IP67/68 Ethernet Switch
- Rackmount Managed Switch
- Gigabit Switch
- Redundant Switch
- Entry-Level Switch
- Networking Computer
- Communication Computer
- Ethernet I/O Server
- Serial Device Server
- Media Converter
- Multiport Serial Card**
- SFP Module
- Din Rail Power Supply

Dimensions (Unit –mm)



Specification

Technology

Standard:

IEEE802.3 10 Base-T
IEEE802.3u 100 Base-Tx
IEEE802.3x flow control and Back Pressure
IEEE802.1p Class of Service
IEEE802.1Q VLAN

Processing: Store and Forward architecture

Interface

Bus interface: 32-bit PCI-104 bus

Number of ports: 4+1 Ethernet ports
10 Base-T/ 100 Base-Tx with auto MDI/MDI-X
Auto-negotiation

Surge protection: built-in 15KV ESD surge protection

Maximum stacked boards: 4 boards plus the host board

IRQ: assigned by PCI-104 plug and play

OS supported:

Windows Me/NT/2000/2003/XP/Vista
Linux 2.4.x/2.6.x

Hardware

Communication controller:

Realtek RTL 8139C+
Marvell 88E6065

Board connector: RJ45

Cable connection:

10 Base-T: 2-pair UTP/STP Cat. 3,4,5 cable (100m)
100 Base-Tx: 2/4-pair UTP/STP Cat. 5 cable (100m)

Dimension: 90 x 96 mm

Performance

Transfer performance: 14,880bps for Ethernet and
148,800bps for Fast Ethernet

Transfer packet size: 64 to 1522bytes

MAC address: 1K MAC

Power requirement

Power consumption: 0.95A (+3.3V and +5V)

Environment

Operating Temp:

-25 ~ 70°C (-13 ~ 158°F), 5 ~ 95% RH
-40 ~ 80°C (-40 ~ 176°F), 5 ~ 95% RH (Wide temp version)

Storage Temp: -40 ~ 80°C (-40 ~ 176°F), 5 ~ 95% RH

Regulation: CE, FCC

Warranty: 5 years

Ordering Information

JetCard 2105 5-port 10/100Mbps Fast Ethernet Switch PCI-104 Card

JetCard 2105-w 5-port 10/100Mbps Fast Ethernet Switch PCI-104 Card, -40~80°C

Includes:

- JetCard 2105 / 2105-w
- Quick installation guide
- Documentation and software CD-ROM
- Screw Pack