

JetCard 2154G

4-Port Gigabit Ethernet Switch PCI-104 Card



- Support 32 bit PCI-104 bus
- 4 ports RJ45 Gigabit Ethernet Switch
- IEEE 802.3 10Base-T/100Base-Tx/ 1000Base-T compatible
- Full or half duplex at 10/100/1000 Mbps
- IEEE 802.3u Auto-Negotiation supported
- QoS supported
- 1.5KV Hi-pot isolation protection



Embedded Switch Card

The JetCard 2154G is a flexible and high performance four-port Ethernet switch card in PCI-104 format. The PCI-104 bus of JetCard 2154G 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 2154G is ideal for industrial applications in severe environments and is your best choice for embedded networking solution.

The JetCard 2154G uses Marvell 88E6161 chip to provide 4 Gigabit Ethernet ports. Each Ethernet port in the JetCard offers IEEE 802.3 compliant Ethernet data transmission with auto MDI/MDI-X and auto-negotiation, and 1000 Base-T with 10K Jumbo frames.

Jumbo frames

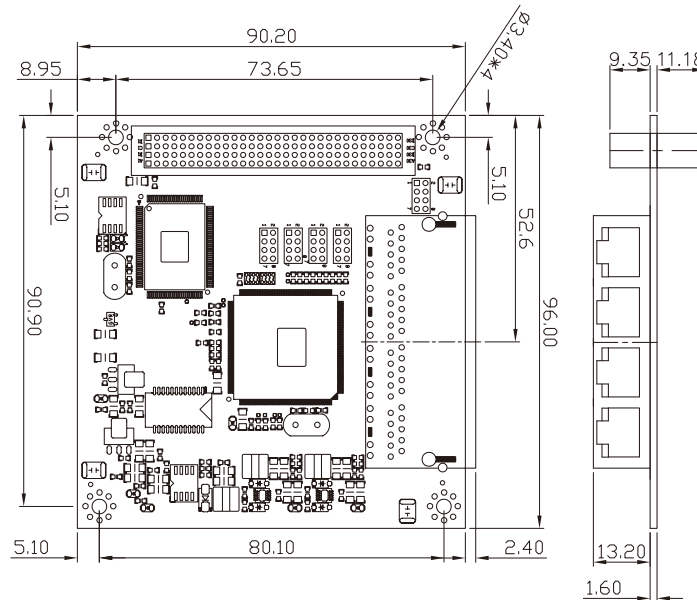
Jumbo frames are Ethernet frames with more than 1,500 bytes of payload (MTU) and the JetCard 2154G can support up to 10Kbyte of payload. Jumbo frames can help performance by reducing the load on the CPU (by requiring fewer headers to be processed for the same amount of payload data).

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. The 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.

Dimensions (Unit –mm)



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

Specification

Technology

Standard:

IEEE802.3 10 Base T
IEEE802.3u 100 Base-Tx
IEEE802.3ab 1000 Base-T

IEEE802.3x flow control and Back Pressure

Processing: Store and Forward architecture

Packet filter: Broadcast packet filtering

Interface

Bus interface: 32-bit PCI-104 bus

Number of ports: 4 Ethernet ports

10/100/1000 Base-Tx with auto MDI/MDI-X Auto-negotiation

IRQ: assigned by Universal PCI plug and play

OS supported:

Windows NT/2000/2003/XP

Linux 2.4.x/2.6.x

Hardware

Communication controller:

Marvell 88E8001

Marvell 88E6161

Board connector: RJ45

Cable connection:

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

100 Base-Tx: 2-pair UTP/STP Cat. 5 cable (100m)

1000 Base-T: 4-pair UTP/STP Cat. 5 cable (100m)

Dimension: 96 x 90 mm

Net weight: 200g

Performance

Transfer performance: 14,880pps for Ethernet and

148,800pps for Fast Ethernet, 1,488,100pps for Gigabit

Ethernet

Transfer packet size:

Up to 10K byte Jumbo frames for GbE port

64 to 1522bytes

MAC address: 1K MAC

Memory buffer: 1 Mbits

Power requirement

Power consumption: 0.95A (+3.3V)

Environment

Operating Temp:

-25 ~ 70°C (-13 ~ 158°F), 5 to 95% RH

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

Regulation: CE, FCC

Warranty: 5 years

Ordering Information

JetCard 2154G 4-Port Gigabit Ethernet Switch PCI-104 Card

Includes:

- JetCard 2154G
- Quick installation guide
- Documentation and software CD-ROM