

# LAN Bypass Introduction

## What is LAN Bypass function

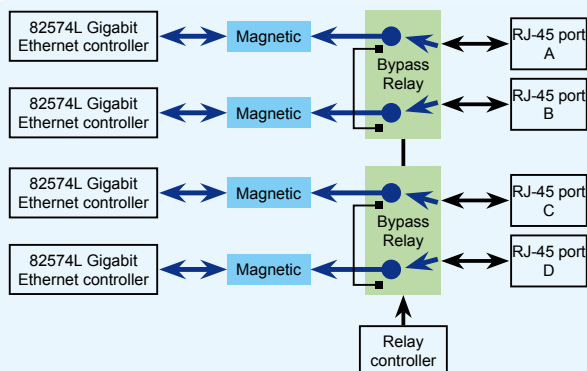
The LAN Bypass feature removes a single point of failure so that essential business communication can continue while a network failure is diagnosed and resolved. In the event of a power, hardware or software failure, Hardware Bypass will automatically activate, allowing network traffic to continue. Traffic between the LAN and WAN is allowed without interruption.

## Bypass function relay modes

The bypass function uses relays to route each of the two LAN port pairs in either **“bypass”** mode or **“normal”** mode.

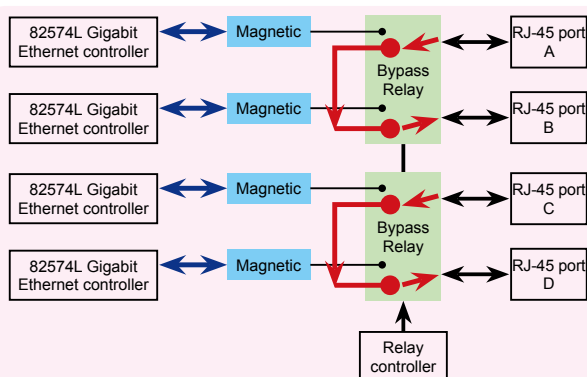
**A** In **“normal”** operation the magnetics are connected to the RJ-45s.

Relay settings for **“normal”** operation:



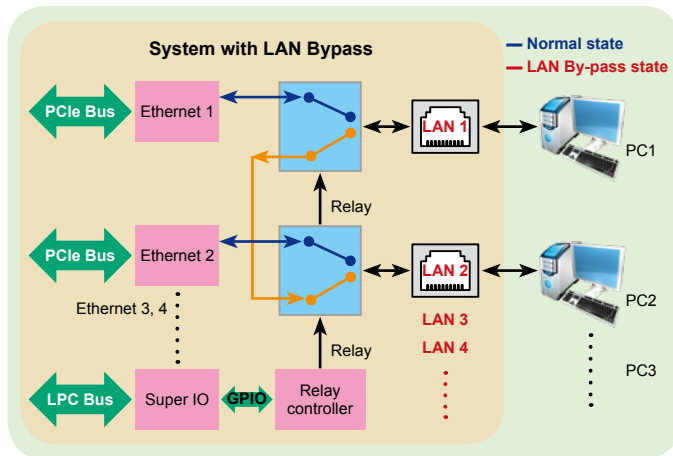
**B** In **“bypass”** operation the RJ-45s are connected together so that they form a piece of wire.

Relay settings for **“bypass”** operation:



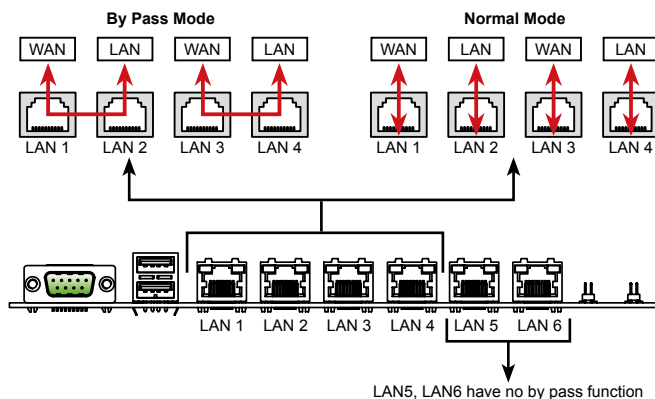
## Bypass function block diagram

The bypass function block shown below depicts the block diagram for one pair of Local and Remote ports on the 4-port 10Base-T/100Base-TX/1000Base-T Ethernet board with bypass.



## Best Choice from IEI

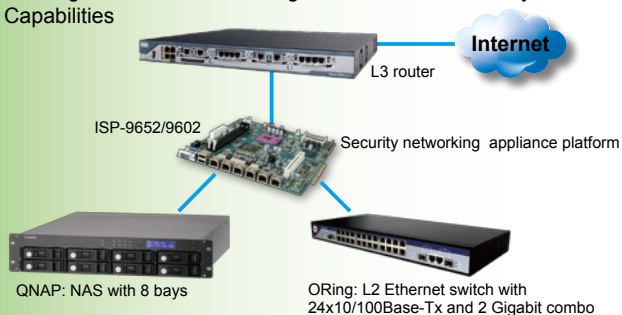
IEI ISP series product features a PCIe LAN bypass adapter card. It has a LAN bypass function that, in the event of a system hang, power down, hardware or software failure, allows Hardware Bypass to automatically activate and let network traffic to continue. The bypass function can be controlled by software, or by a watchdog timer configurable for 1-16 second operation. The adapter card can be migrated with concurrent network appliance platforms for network security applications and embedded box solutions.



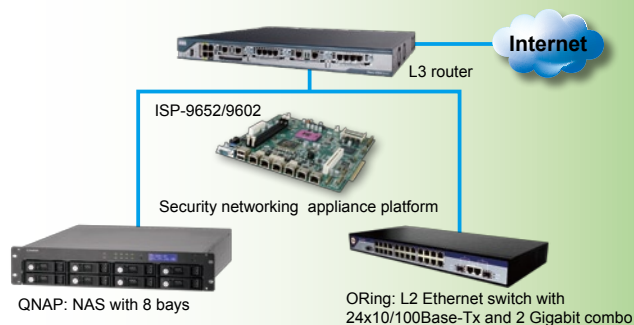
## Application

### Security Networking Appliance platform:

Firewall, Virtual Private Network (VPN), IDS/IPS, Content Filtering, UTM, Network Management, Network Security Capabilities



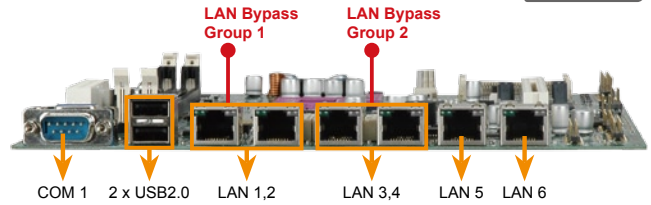
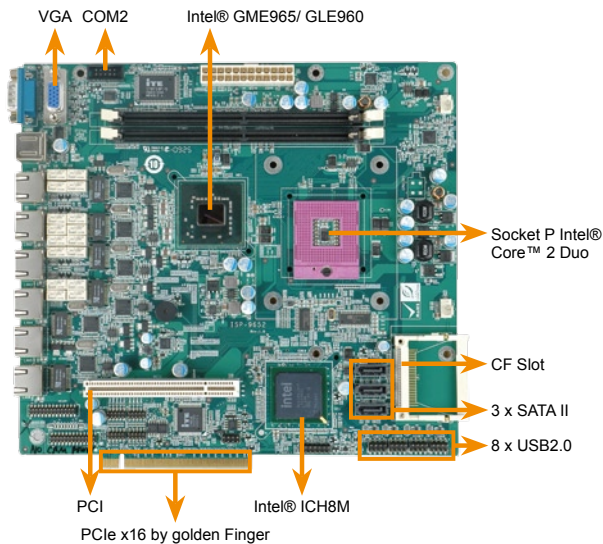
- The LAN Bypass feature guarantees uninterrupted connection to the Internet, even if the networking appliance platform fails.



# ISP-9652/9602

Socket P for 6 Intel GbE Lan motherboard with Dual group Lan-Bypass function, 2 COM/VGA, USB 2.0, SATA II

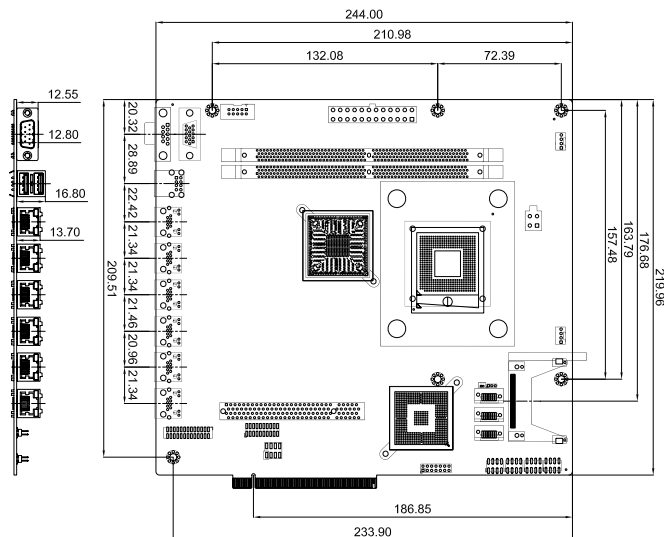
**New**



## Features

1. Support 6 Intel® 10/100/1000 LAN ports
2. Quad Gigabit port with LAN By-pass function
3. Supports WatchDog Timer function for LAN by-pass enabling
4. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Dimensions (Unit: mm)



## Packing List

- 1 x ISP-9602/9652-R10 single board computer
- 3 x SATA cable (P/N:32000-062800-RS)
- 1 x Mini Jumper Pack
- 1 x Utility CD
- 1 x QIG

## Ordering Information

Part No.	Description
ISP-9652-R10	Socket P Intel® Core™ 2 Duo MB, GME965 with 800MHz FSB, VGA, CF, 6 Intel® GbE Lan with Dual group Lan-Bypass function, USB2.0, SATAII, RoHS
ISP-9602-R10	Socket P Intel® Celeron® M MB, GLE960 with 533MHz FSB, VGA, CF, 6 Intel® GbE Lan with Dual group Lan-Bypass function, USB2.0, SATAII, RoHS
19800-000114-RS	RS-232 cable
19800-000100-200-RS	Quad port USB cable
CF-479B-RS	CPU Cooler
32100-088600-RS	SATA Power Cable

## Specifications

- ◆ CPU
  - Socket P Intel® Core™ 2 Duo Processor with 800MHz FSB
  - Socket P Intel® Celeron® M Processor with 533MHz FSB
- ◆ System Chipset
  - Intel® GLE960 + ICH8M for ISP-9602
  - Intel® GME965 + ICH8M for ISP-9652
- ◆ FSB
  - 800 / 533 MHz for ISP-9652
  - 533MHz for ISP-9602
- ◆ Memory
  - Two 240-pins 533 MHz Dual Channel DDR2 SDRAM DIMM Supported max. 2GB for ISP-9602
  - Two 240-pins 667/533 MHz Dual Channel DDR2 SDRAM DIMM Supported max. 4GB for ISP-9652
- ◆ BIOS
  - AMI BIOS
- ◆ Graphic Engineer
  - Intel® GMA X3100
  - Graphics core speed is 400 MHz for ISP-9602
  - Graphics core speed is 500 MHz for ISP-9652
- ◆ Display Output
  - Analog CRT by VGA
- ◆ Ethernet
  - LAN1~6: Intel® PCIe GbE Controller 82574L
  - 4 x LAN By-Pass Function (with Relay Control):
    - » By-Pass Group 1: LAN1/ LAN2
    - » By-Pass Group 2: LAN3/ LAN4
- ◆ Embedded Controller
  - ITE IT8512E
- ◆ I/O Interface
  - 2 x RS-232
  - 3 x SATA II
  - 1 x CF Type II
  - 10 x USB 2.0
- ◆ Super I/O
  - ITE IT8718F
- ◆ Expansion
  - PCIe x16 to PCB Golden Finger (For ISP-9652)
  - PCI Slot
- ◆ WatchDog Timer
  - Software Programmable supports 1~255 sec. System reset by Super I/O
- ◆ Power Supply
  - ATX Power
- ◆ Fan Connector
  - 1 x 4-pin CPU FAN
  - 1 x 4-pin SYS FAN
- ◆ Humidity
  - 5% ~ 95%, Non-condensing
- ◆ Temperature
  - Operating: 0°C ~ 60°C