# LAN Bypass Introduction

What is LAN Bypass Function

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 ports pairs in either **"bypass"** mode or **"normal"** mode.
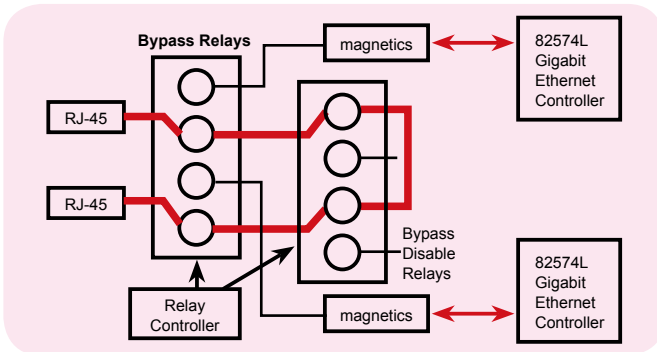
(A) In **"normal"** operation the magnetics are connected to the RJ-45s.

Relay settings for "normal" operation:
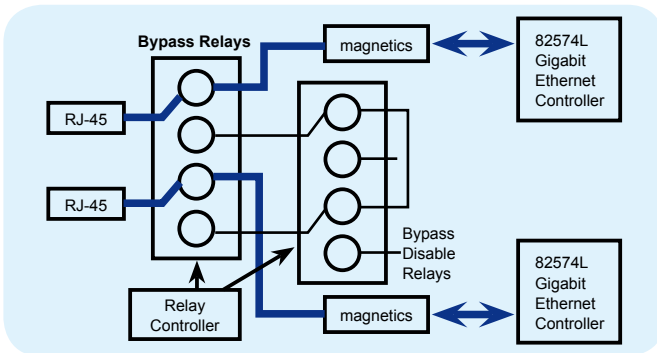
(B) In **"bypass"** operation the RJ-45s are connected together such that they form a piece of wire.

Relay settings for "bypass" operation:

Bypass Function Block Diagram

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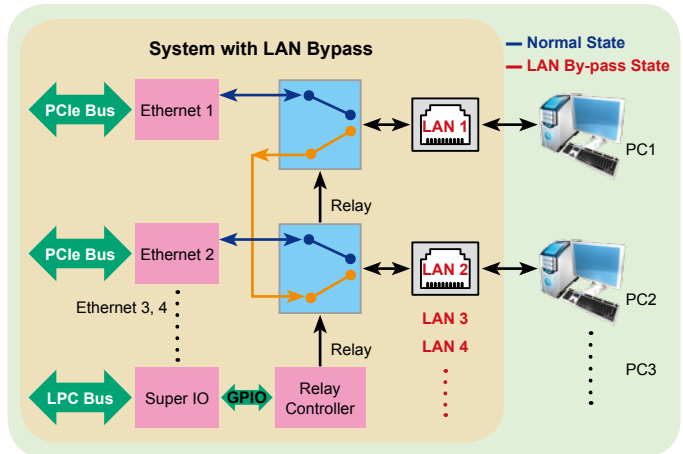

Best choice from iEi

iEi ISP series product is a PCIe LAN bypass adapter card. It have a LAN bypass feature that, in the event of a system hang, power down, hardware or software failure, Hardware Bypass will automatically activate allowing network traffic to continue. The bypass feature 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.

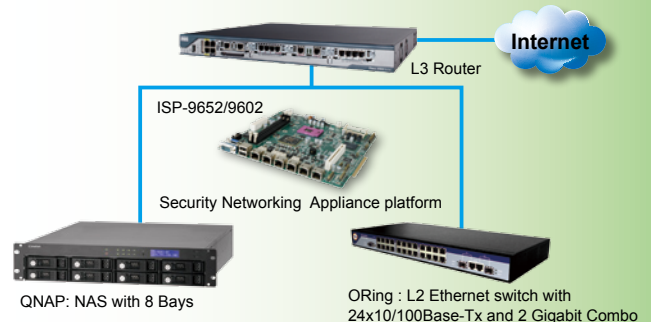LAN5, LAN6 have no by pass function
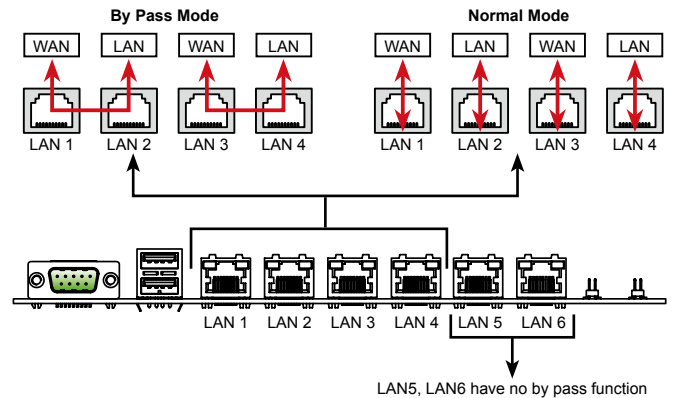
Application

- **Security Networking Appliance platform:**
  firewall, virtual private network (VPN), IDS/IPS, content filtering, UTM, network management, network security capabilities
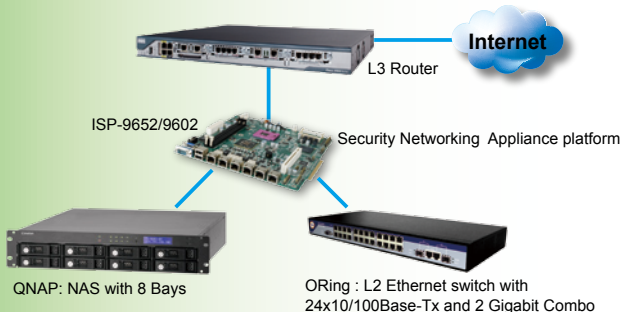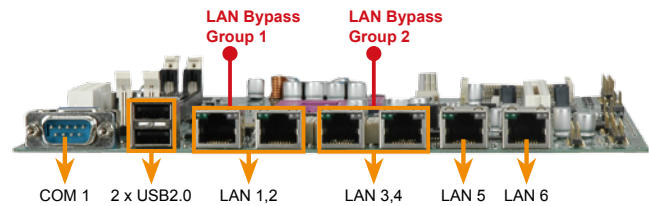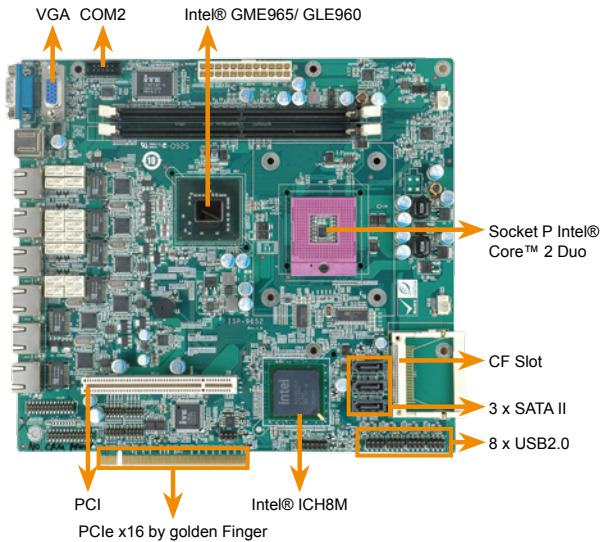

- The LAN Bypass feature could assure the connection to Internet , if the networking appliance platform fails.

ISP-9652/9602

Socket P for 6 Intel GbE Lan motherboard with Dual group Lan-Bypass function, 2 COM/VGA, USB2.0, SATAII

NEW

VGA COM2   Intel® GME965/ GLE960

Socket P Intel® Core™ 2 Duo

CF Slot

3 x SATA II

8 x USB2.0

PCI   Intel® ICH8M

PCIe x16 by golden Finger

LAN Bypass Group 1   LAN Bypass Group 2

COM 1   2 x USB2.0   LAN 1,2   LAN 3,4   LAN 5   LAN 6

FSB800   Dual DDR2 667   Gigabit Ethernet PCIe   HI-SPEED USB CERTIFIED   SERIAL ATA 3Gb/s

Features

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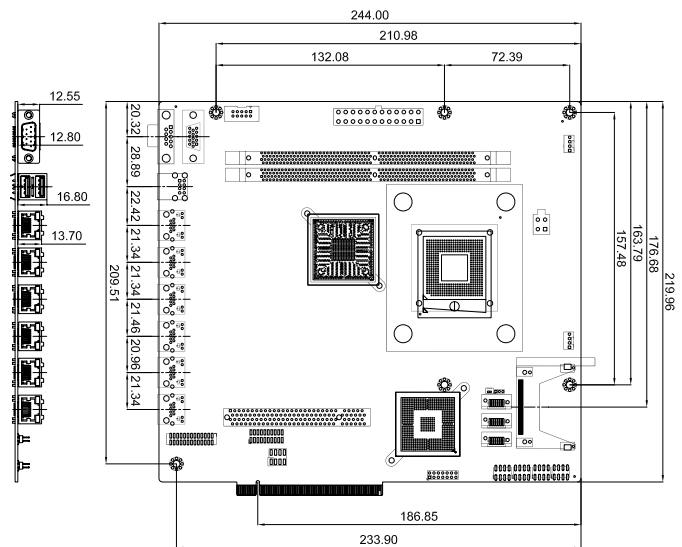
1. Support 6 Intel® 10/100/1000 LAN ports
2. Quad Gigabit port with LAN By-pass function
3. Supports WatchDog Timer function for LAN by-pass enabling
4. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

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
◆ Ethernets
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

Dimensions (mm)

244.00
210.98
132.08   72.39
12.55
12.80
20.32
28.89
16.80
22.42
13.70
21.34 21.34 21.46 20.96 21.34
209.51
219.96
176.68
163.79
157.48
186.85
233.90

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
CB-USB14-RS	Quad port USB cable
CF-479B-RS	CPU Cooler
32100-088600-RS	SATA Power Cable