

# FIRST INTERNATIONAL COMPUTER VC35 PCI/AGP SYSTEM NETWORK TEST REPORT

**Document Number:**  
**Product Version:** PCB 1.2  
**BIOS Version:** IEE42

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## 1. Overview

### 1.1. System Feature

Project Name	VC35
CPU	Intel Pentium 4 Socket478
Chipset	82845+82801BA
Memory	DDR266 x 2
LAN Controller	Realtek RTL8100L
IDE Controller	82801BA (Support UDMA100)
Slots	PCI x3, CNR

### 1.2. Test Configuration

CPU	Intel Pentium 4 1.5GHz
Memory	DDR266 128MB x 2
Video	G-Force2 MX200
HDD	WD 28400 8.4GB UDMA66
CDROM	HP 32X CDROM

## 2. LOM Basic Function Test

### 2.1. Diagnostic Test

- Test Tools: rset8139.exe

Test Item	Comment	Result
I/O Registers Test	Tests registers by sending commands to the LAN controller.	PASS
EEPROM Test	Reads the EEPROM contents and confirms that the checksum is correct.	PASS
Loopback Test	Tests the LAN controller's ability to send and receive packets by sending packets to itself. This test uses both the MAC loopback and the Transceiver loopback modes.	PASS

### 2.2. Transmit & Receive Capability Test

- Test Tools: rset8139.exe

Test Item	Comment	Result
Transmit	Checks the cable connection and the LAN controller's transmit functionality via 100M UTP cable.	PASS
Receive	Checks the cable connection and the LAN controller's receive functionality via 100M UTP cable.	PASS

### 2.3. LAN LED Verify

Test Item	Comment	Result
Activity LED	When the light is BLINKING, it indicates that there is traffic flow on the network that the adapter is connected to.	PASS
Speed LED	When the light is ON, it indicates that the 100Mbps UTP port LINK ok.	PASS

## 3. Wake on LAN Test

- Test Tools: winacpi.exe

Sleep Mode	Wakeup Method	Result			
		Win 98 SE	Win ME	Win 2K Pro	Win XP Pro
S1 (POS)	Magic Packet	PASS	PASS	PASS	PASS



	ARP Packet	PASS	PASS	PASS	PASS
S3 (STR)	Magic Packet	PASS	PASS	PASS	PASS
	ARP Packet	PASS	PASS	PASS	PASS
S4 (STD)	Magic Packet		PASS	PASS	PASS
	ARP Packet		PASS	PASS	PASS
S5	Magic Packet	PASS	PASS	PASS	PASS

## 4. Remote Boot Test

### 4.1. Boot Protocol

Test Item	Comment	Result
PXE	Remote boot via PXE.	PASS
RPL	Remote boot via RPL.	PASS

### 4.2. Boot Order

Test Item	Comment	Result
INT 18h	Boot the devices ordered in BIOS setup.	PASS
INT 19h	Always boot network first, then local devices.	PASS
BBS	Boot ordered by BBS BIOS, if BBS BIOS present.	PASS
Disable Boot ROM	Network boot disabled, boot local devices.	PASS

## 5. Stress Test

- Test OS: Novell Netware 5.0
- Test Configuration:
  - PCI1: Intel 82559 NIC
  - PCI2: Intel 82559 NIC
  - PCI3: 3Com 3C905C NIC
- Test Clients: 7
- Test Utility: nwtest.exe

Test Item	Comment	Result
NWTEST	Run NWTEST over 12 hours.	PASS

## 6. Network Adaptor Compatibility Test

Vende	Model	Interfa	Speed	Result				
				Win98SE	WinME	WinNT WS	Win2K Pro	WinXP Pro
Intel	82559	PCI	10/100Mbps	PASS	PASS	PASS	PASS	PASS
3Com	3C905C	PCI	10/100Mbps	PASS	PASS	PASS	PASS	PASS
Realtek	8139C	PCI	10/100Mbps	PASS	PASS	PASS	PASS	PASS
Intel	82562EM	CNR	10/100Mbps	Fail*	Fail*	Fail*	Fail*	Fail*
3Com	3C19250	USB1.1	10Mbps	PASS	PASS	N/A	N/A	PASS
CATC	U-ETH-NM01	USB1.1	10Mbps	PASS	PASS	N/A	PASS	PASS
D-Link	DU-E10	USB1.1	10Mbps	PASS	PASS	N/A	PASS	PASS

\*Bug List No.44

## 7. Operation System Compatibility Test

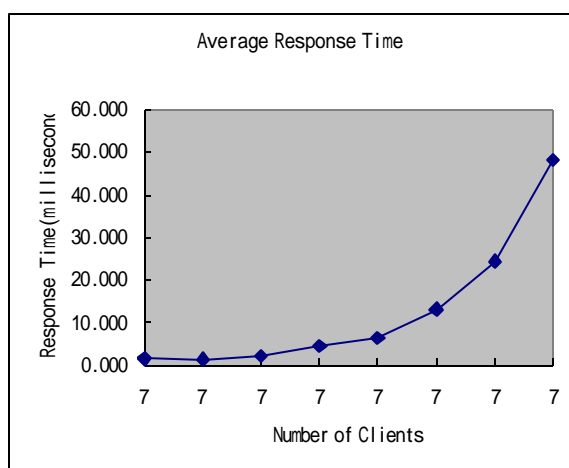
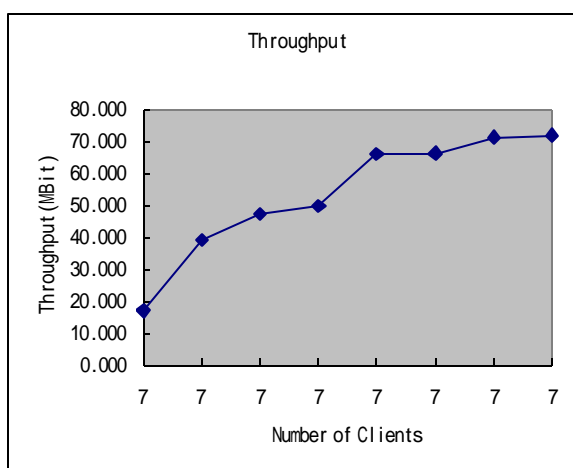
Test Item	Result				
	Win98SE	WinME	WinNT WS	Win2K Pro	WinXP Pro
Connect to Network Neighborhood	PASS	PASS	PASS	PASS	PASS
Logon File Server	PASS	PASS	PASS	PASS	PASS
Download files form File Server	PASS	PASS	PASS	PASS	PASS
Upload files to File Server	PASS	PASS	PASS	PASS	PASS
Browse Web Site	PASS	PASS	PASS	PASS	PASS
Send/Receive E-Mail	PASS	PASS	PASS	PASS	PASS
Print to Network Printer	PASS	PASS	PASS	PASS	PASS

## 8. Performance Test

- Test Utility: ZD NetBench 7.02
- Test Clients: 7

### 8.1. Microsoft Windows 98SE

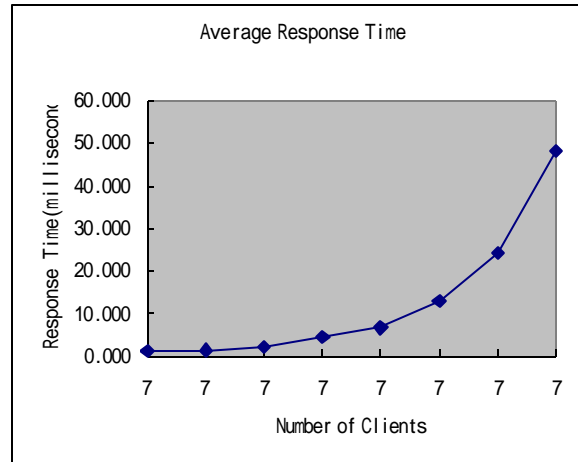
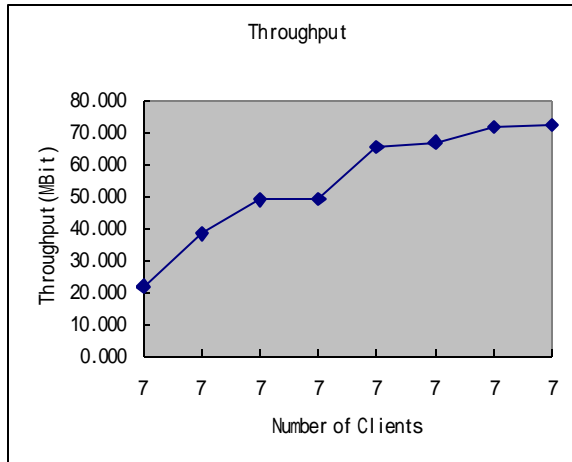
Data Size	Result	
	Throughput	Average Response Time
512	17.008Mb	1.558ms
1K	39.280Mb	1.341ms
2K	47.346Mb	2.258ms
4K	50.109Mb	4.314ms
8K	66.407Mb	6.525ms
16K	66.627Mb	13.075ms
32K	71.634Mb	24.401ms
64K	72.123Mb	48.449ms



### 8.2. Microsoft Windows ME

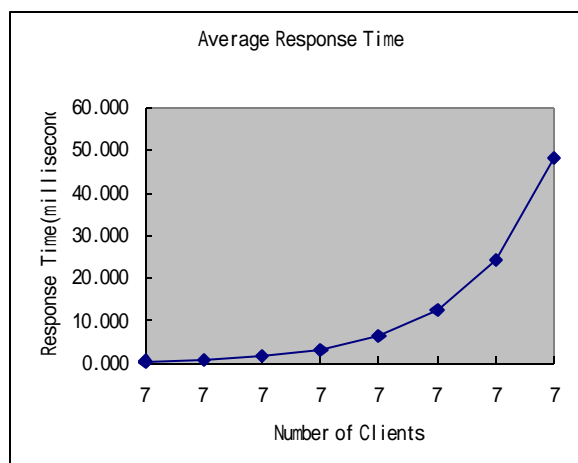
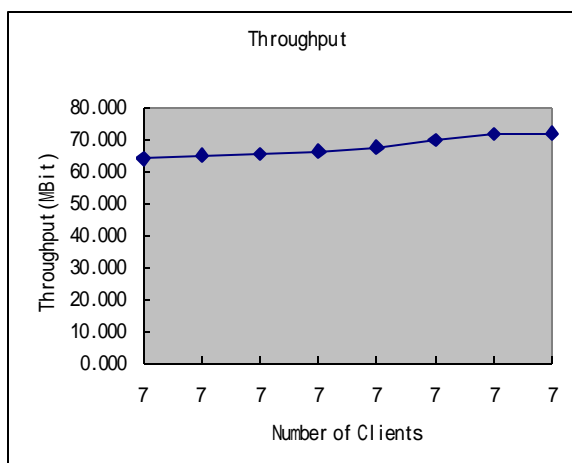
Data Size	Result	
	Throughput	Average Response Time
512	21.873Mb	1.201ms
1K	38.427Mb	1.372ms

<b>2K</b>	49.056Mb	2.177ms
<b>4K</b>	49.272Mb	4.385ms
<b>8K</b>	65.701Mb	6.604ms
<b>16K</b>	67.177Mb	12.986ms
<b>32K</b>	71.921Mb	24.273ms
<b>64K</b>	72.464Mb	48.236ms



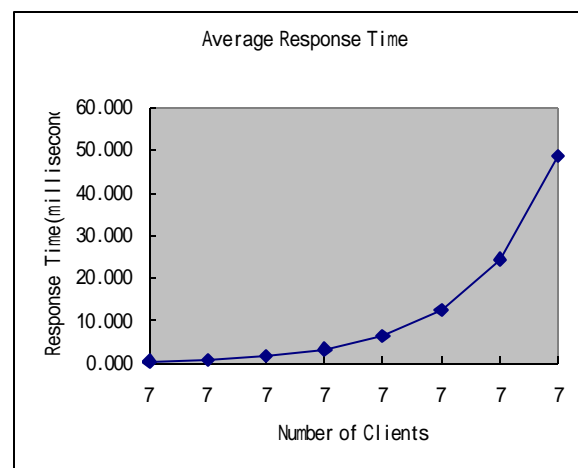
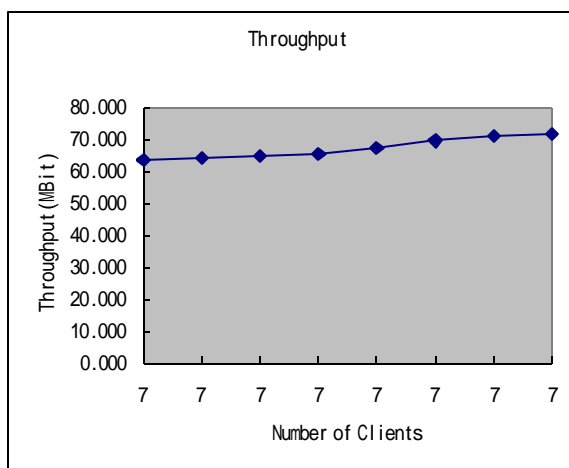
### 8.3. Microsoft Windows NT 4.0 Workstation with SP6a

Data Size	Result	
	Throughput	Average Response Time
<b>512</b>	64.083Mb	0.400ms
<b>1K</b>	65.229Mb	0.806ms
<b>2K</b>	65.579Mb	1.627ms
<b>4K</b>	66.506Mb	3.240ms
<b>8K</b>	67.762Mb	6.400ms
<b>16K</b>	70.083Mb	12.435ms
<b>32K</b>	71.801Mb	24.335ms
<b>64K</b>	72.147Mb	48.269ms



## 8.4. Microsoft Windows 2000 Professional with SP2

Data Size	Result	
	Throughput	Average Response Time
512	63.893Mb	0.401ms
1K	64.587Mb	0.813ms
2K	65.180Mb	1.635ms
4K	65.732Mb	3.274ms
8K	67.520Mb	6.415ms
16K	69.821Mb	12.474ms
32K	71.223Mb	24.480ms
64K	71.948Mb	48.631ms



## 8.5. Microsoft Windows XP Professional

Data Size	Result	
	Throughput	Average Response Time
512	63.491Mb	0.404ms
1K	64.437Mb	0.817ms
2K	64.938Mb	1.643ms
4K	65.611Mb	3.282ms
8K	68.408Mb	6.347ms
16K	69.268Mb	12.524ms
32K	70.340Mb	24.823ms
64K	71.443Mb	48.895ms

