

AAEON

**ISO-9001/ISO-14001 Certified
Industrial Automation PCs**

SBC-656

QE Compatibility Test Report

Release Date: May. 12, 2000

Issue Stamp

QA Manager

QE Manager

Test Engineer

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There are 3 test results in this document; they are described as follows:

Pass: It worked perfectly

Fail: Test failed, and to be modified in the next version

N/A: Outside of specifications or no test equipment

The test report would be tested and updated after version changed.

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1. Software Compatibility

A. O.S. Compatibility

O.S. / Test Item	Install		Boot		Shutdown		Function		KB Function	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
MS-DOS 6.22	✓		✓		✓		✓		✓	
NOVELL 4.11	✓		✓		✓		✓		✓	
MS-DOS 6.2V	✓		✓		✓		✓		✓	

B Microsoft Windows & IBM OS/2 Compatibility

Wins / Test Item	Install		Boot		Shutdown		Function		KB Function		Display Driver	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Windows 95	✓		✓		✓		✓		✓		✓	
Windows 98	✓		✓		✓		✓		✓		✓	
Windows NT 4.0/W	✓		✓		✓		✓		✓		✓	
Windows NT 4.0/S	✓		✓		✓		✓		✓		✓	
OS/2 Warp 4.0	✓		✓		✓		✓		✓		✓	
Windows 95(J)	✓		✓		✓		✓		✓		✓	
Windows NT 4.0 W(J)	✓		✓		✓		✓		✓		✓	
Windows NT 4.0 S(J)	✓		✓		✓		✓		✓		✓	

(J): Japanese

C. Windows Application

Application / Test Item	Installation		Function Test	
	Result	Note	Result	Note
Ami Pro 3.1	Pass		Pass	
MS Word 6.0c	Pass		Pass	
WordPerfect 6.1	Pass		Pass	
MS Works 3.0b	Pass		Pass	
Lotus 1-2-3 R5	Pass		Pass	
MS Excel 5.0c	Pass		Pass	
Quattro Pro 6.01	Pass		Pass	
PageMaker 5.0a	Pass		Pass	
CoreIDRAW 5.0E2	Pass		Pass	
PowerPoint 4.0c	Pass		Pass	
Dbase 5.0	Pass		Pass	
Paradox 5.0	Pass		Pass	
Access 2.0	Pass		Pass	

D. DOS Utility Compatibility Testing

Application / Test Result	Result	Note
Norton Utility 8.0	Pass	
Norton Commander 5.0	Pass	

E. Diagnostics Software Testing

\ Software Test Item\	QAFE5.4		AMIDIAG5.2					
	Result	Note	Result	Note				
Main Component	Pass		Pass					
Memory	Pass		Pass					
Video Adapter	Pass		Pass					
Floppy Drive	Pass		Pass					
Hard Drive	Pass		Pass					
Keyboard	Pass		Pass					
Com Port	Pass		Pass					
LPT Port	Pass		Pass					
Plug & play	Pass		Pass					
Note :								

**F. N.O.S. & Application Software Compatibility (On_Board Network)
System Information:**

DRAM Capacity & Brand(SIMM Qty)	Brand:NEC PC100 <input type="checkbox"/> 4 <input type="checkbox"/> 8 <input type="checkbox"/> 16 <input type="checkbox"/> 32 <input checked="" type="checkbox"/> 64 <input type="checkbox"/> 128M Qty: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
System BIOS Ver.	<input checked="" type="checkbox"/> AWARD <input type="checkbox"/> AMI Ver:2.0
O.S. Environment	<input type="checkbox"/> DOS5.0 <input type="checkbox"/> DOS6.0 <input checked="" type="checkbox"/> DOS6.22
VGA Card & BIOS	<input checked="" type="checkbox"/> OnBoard: C&T69000 <input type="checkbox"/> BIOS:
IDE HDD TYPE	<input type="checkbox"/> Max <input checked="" type="checkbox"/> Sea <input type="checkbox"/> Con <input type="checkbox"/> Qua <input type="checkbox"/> Fuj <input type="checkbox"/> IBM : ST34520A
LAN Card	<input checked="" type="checkbox"/> OnBoard: RTL-8139 BIOS:
CPU Type	Intel Celeron 433MHz
CD-ROM Type	<input type="checkbox"/> NEC <input checked="" type="checkbox"/> PANASONIC <input type="checkbox"/> PIONEER <input type="checkbox"/> CREATIVE :
Driver or Utility	<input checked="" type="checkbox"/> VGA <input type="checkbox"/> HDD <input checked="" type="checkbox"/> Others : RTL-8139

Test Result:

Test Item	Pass	Fail	Note
SUBJECT Network Operation System Function Testing			
NetWare 4.11	√		
Windows NT 4.0	√		
SUBJECT Workstation Application Function Testing			
Dos 6.22 for IPXODI	√		
Dos 6.22 for package driver	√		
Windows 3.1 for IPXODI	√		
Windows 3.1 for package driver	√		
WFW 3.11 for NDIS 2.0/ODI	√		
WFW 3.11 for NDIS 3.0/ODI	√		
Windows 95 for IPX/SPX	√		
Windows 95 for NetBEUI	√		
Windows 95 for TCP/IP	√		
Windows 98 for IPX/SPX	√		
Windows 98 for NetBEUI	√		
Windows 98 for TCP/IP	√		
Windows NT 4.0 for IPX/SPX	√		
Windows NT 4.0 for NetBEUI	√		
Windows NT 4.0 for TCP/IP	√		

2. Hardware Compatibility

A. Component Compatibility- CPU

CPU Device List:

Brand	Device Model	Result	Note
Intel	Celeron 300MHz	Pass	
Intel	Celeron 366MHz	Pass	
Intel	Celeron 400MHz	Pass	
Intel	Celeron 433MHz	Pass	

B. Component Compatibility- DRAM SIMM Module

DRAM SIMM Module List:

Brand	Device Model	Result	Note
MT	48LC2M8A1TG-10S 32MB	Pass	
NEC	D4564841G5-A10-9JF 64MB	Pass	
NEC	D4564841G5-A10-9JF 128MB	Pass	
LGS	GM72V661641CT7J 64MB	Pass	
HYUNDAI	HY57V658020TC-10 128MB	Pass	

C. Adapter Compatibility- VGA

VGA Adapter List:

Brand	Device Model	Result	Note
PCI Bus			
On_board	CHIPS B69000	Pass	

D. Adapter Compatibility- LAN

LAN Adapter List:

Brand	Device Model	Result	Note
PCI Bus			
On-board	RTL8139	Pass	
ISA Bus			
Intel	Ether Express TM PRO/100	Pass	

E. On_Board Network Hardware (physical) Compatibility

System Information:

DRAM Capacity & Brand(SIMM Qty)	Brand:NEC PC100	<input type="checkbox"/> 4 <input type="checkbox"/> 8 <input type="checkbox"/> 16 <input type="checkbox"/> 32 <input checked="" type="checkbox"/> 64 <input type="checkbox"/> 128M
		Qty: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
System BIOS Ver.	<input checked="" type="checkbox"/> AWARD <input type="checkbox"/> AMI	Ver:
O.S. Environment	<input type="checkbox"/> DOS5.0 <input type="checkbox"/> DOS6.0	<input checked="" type="checkbox"/> DOS6.22
VGA Card & BIOS	<input checked="" type="checkbox"/> OnBoard <input type="checkbox"/>	<input type="checkbox"/> BIOS:
IDE HDD Type	<input type="checkbox"/> Max <input type="checkbox"/> Sea <input type="checkbox"/> Con <input checked="" type="checkbox"/> Qua <input type="checkbox"/> Fuj <input type="checkbox"/> IBM : 3240AT	
LAN Card	<input checked="" type="checkbox"/> OnBoard: RTL8139	BIOS:
CD-ROM Type	<input checked="" type="checkbox"/> NEC <input type="checkbox"/> PANASONIC <input type="checkbox"/> PIONEER <input type="checkbox"/> CREATIVE :	
Driver or Utility	<input type="checkbox"/> VGA <input type="checkbox"/> HDD <input checked="" type="checkbox"/> Others : RTL-8139	

Test Result:

Test Item	Pass	Fail	Note
SUBJECT	Network Hardware Function Testing		
Transceiver	√		
Receiver	√		
CRC error	N/A		
Collision back-off generation	N/A		
Auto-negotiation	√		
100M Base-TX full duplex	√		
100M Base-TX half duplex	√		
10M Base-T full duplex	√		
10M Base-T half duplex	√		

F. Adapter Compatibility- SCSI CARD

SCSI Adapter List:

Brand	Device Model	Result	Note
ISA Bus			
AHA	1520B ISA	Pass	

G. Adapter Compatibility- Other Card

Adapter Card List:

Brand	Device Model	Result	Note
Sound Card(ISA Bus)			
Creative	AWE64	Pass	

H. Adapter Compatibility- Industry Control Card

Industry Control Adapter List:

Brand	Device Model	Result	Note
ISA Card			
AAEON	PCD – 896 - 32	Pass	DOS Mode
AAEON	PCD – 896 - 8	Pass	DOS Mode
104 Module			
AAEON	PCM-3820C - 4 (SSD)	Pass	
AAEON	PCM-3115B (PCMCIA MASTER)	Pass	
AAEON	PCM-3660 (ETHERNET)	Pass	
AAEON	PCM-3420 (SCSI)	Pass	
AAEON	PCM-3200(SOUND)	Pass	
AAEON	PCM-3600(FAX/MODEM)	Pass	

I. Peripheral Compatibility-HDD Device

HDD List:

Brand	Device Model	Result	Note
Seagate	ST32122A	Pass	
Seagate	ST34520A	Pass	
Quantum	3240AT	Pass	
Quantum	Bigfoot 4320AT	Pass	
Quantum	Bigfoot 4.0AT	Pass	
Mxtor	90648D3	Pass	

J. Peripheral Compatibility- Storage Device

Device List:

Brand	Device Model	Result	Note
CD/ROM			
Creative	CD 820E	Pass	
Philips	PCA123CD	Pass	
VUGEO	624A-004	Pass	
Panasonic	CR-585-B	Pass	
Pioneer	DR-A24X	Pass	
FAX/Modem			
LEMEL	33.6 FAX/MODEM	Pass	

K. Peripheral Compatibility- Input Device**Input Device List:**

Brand	Device Model	Result	Note
Keyboard			
BTC	5140	Pass	
ACER	6511	Pass	
USB Keyboard			
BTC	7932		
Mouse			
Microsoft	Serial Mouse	Pass	
IBM	PS/2 Mouse	Pass	
Logitech	First Mouse	Pass	
Logitech	MouseMan (PS/2,Serial)	Pass	
USB Mouse			
DEXIN	A2U800A	Pass	

3. Stability Testing

A. Burn-In Stability Testing

Test Condition : Burn-In Under Temp. $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$ (IEC-68-2-30)

Test Software	Result	Note
QAPlus 5.29	Pass	Celeron 433MHz

B. Booting Stability Testing

Test Condition: Burn-In Under Temp. $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$ (IEC-68-2-30)

Test Method	Actual	Successful	Fail Rate	Note
Power On/Off 1000 Times	1000	1000	0	Celeron 433MHz
KB Reset 20 Times	20	20	0	Celeron 433MHz
H/W Reset 1000 Times	1000	1000	0	Celeron 433MHz

C. Continuous Burn-In Booting Stability Testing

Test Condition: Temp.: $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$ Humidity: $0\% \sim 95\%$

Test Method	Actual	Successful	Fail Rate	Note
Power On/Off 24 Hours	1283	1283	0%	

D. Burn-In Stability Testing

Test Condition: Burn-In Between $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$ Humidity: $0\% \sim 95\%$

Burn-In 32 Hours

Test Software	Result	Note
QAPlus 5.29 48 Hours	Pass	

4. Performance Testing

System Information:

DRAM Type & Capacity	NEC D4564841G5-A10-9JF 64M*1
VGA Card	OnBoard C&T B69000
HDD Type	Quantum 3240AT
VGA Testing Mode	1024X768X256 colors (For WinStone & WinBench)
O.S.	DOS V 6.22 , Windows 98 and Windows NT4.0

Operating System Environment (DOS Only)

Config.sys	Autoexec.bat
Device=c:\dos\himem.sys dos=high files=35 Buffers=40	Prompt \$p\$g c:\dos\smartdrv.exe /x

Testing Software

Testing Utility	CPU Configuration					
	Intel Celeron 300MHz	Intel Celeron 366MHz	Intel Celeron 400MHz	Intel Celeron 433MHz	Intel Celeron 466MHz	
LandMark Speed 2.0						
CPU	1897.75	2319.50	2530.39	2741.28	2952.18	Mhz
FPU	5377.48	6572.63	7009.24	7170.11	8365.25	Mhz
VIDEO	16384	16384	16384	16384	16384	Chs/sec
Norton 8.0 SI	752.1	919.3	1002.8	1086.4	1170.0	ID
Power Meter 2.02	142.2	177.7	189.6	218.8	237	Mips
WinStone 99						
Business Winstone	18.3	19.9	20.3	20.8	21.3	
High-End Winstone	16.6	18.1	18.7	19.5	20	
WinBench 99						
High-End Graphic WinMark	246	289	307	322	327	MP/s
Business Graphic WinMark	85.4	96.4	101	105	109.2	
CPUMark 32	598	664	695	719	741	
Coretest 3.02						
DTR (Buffered Read)	7040	7328	7376	7392	7600	KB/sec
Performance ID	48.95	50.32	50.69	50.7	52.19	
PS.CPU type of Intel Celeron 300MHz / 366MHz / 400MHz / 433MHz / 466MHz HDD is Quantum 3240AT						

System Information:

DRAM Type & Capacity	NEC D4564841G5-A10-9JF 64M*1
VGA Card	OnBoard C&T B69000
HDD Type	Quantum 3240AT
VGA Testing Mode	1024X768X256 colors (For WinStone & WinBench)
O.S.	DOS V 6.22 , Windows 98 and Windows NT4.0

Operating System Environment (DOS Only)

Config.sys	Autoexec.bat
Device=c:\dos\himem.sys dos=high files=35 Buffers=40	Prompt \$p\$g c:\dos\smartdrv.exe /x

Testing Software

Testing Utility	CPU Configuration					
	Intel Celeron 500MHz	Intel Celeron 533MHz				
LandMark Speed 2.0						
CPU	3163.05	3373.92				Mhz
FPU	7998.06	8531.29				Mhz
VIDEO	16661.0	16661.0				Chs/sec
Norton 8.0 SI	1253.6	1337.1				ID
Power Meter 2.02	237	258.5				Mips
WinStone 99						
Business Winstone	23.2	23.7				
High-End Winstone	21.9	22.5				
WinBench 99						
High-End Graphic WinMark	358	375				MP/s
Business Graphic WinMark	117	121				
CPUMark 32	778	800				
Coretest 3.02						
DTR (Buffered Read)	7632	7632				KB/sec
Performance ID	53.53	53.63				
PS.CPU type of Intel Celeron 500MHz / 533MHz HDD is IBM DPTA-372050						

5. Power Consumption Data

System Information:

DRAM Type & Capacity	NEC D4564841G5-A10-9JF 64MB*1
VGA Card	OnBoard C&T B69000
HDD Type	Quantum 3240AT
O.S.	DOS V 6.22 , Windows 98 and Windows NT4.0

Operating System Environment (DOS Only)

Config.sys	Autoexec.bat
Device=c:\dos\himem.sys dos=high files=35 Buffers=40	Prompt \$p\$g c:\dos\smartdrv.exe /x

The Application of Software

Brand	Landmark System Speed Test Version 2.0
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Test Result

Processor Type	Mode Type				Unit
	Normal Mode	Doze Mode	Standby Mode	Suspend Mode	
Celeron 300MHz	4.1	3.4	3	1.8	Amp/Max
Celeron 366MHz	4.6	3.8	3.2	1.8	Amp/Max
Celeron 400MHz	4.6	4	3.5	1.8	Amp/Max
Celeron 433MHz	4.8	4.1	3.7	1.8	Amp/Max
Celeron 466MHz	5.2	4.5	3.8	1.8	Amp/Max
Celeron 500MHz	5.9	5.2	5.2	2.3	Amp/Max
Celeron 533MHz	6.3	5.5	5.5	2.3	Amp/Max

Note :

Power supply voltage : +5V

Normal Model is measured while open system

Doze Model VGA controller is still enabled

Standby Model VGA controller is still enabled

Suspend Model all function off

6. Margin Testing

A. Temperature Test (Software: Qaplus 5.29)

Testing Condition	Result	Note
High Temperature Margin (Burn-In 2 Hours)	70°C	Celeron 433MHz
Low Temperature Margin (Burn-In 2 Hours)	-10°C	Celeron 433MHz

B. Temperature Test (Power On/Off)

Testing Condition	Result	Note
High temperature Margin (Burn-In 2 Hours)	95 %	
Low temperature Margin (Burn-In 2 Hours)	0 %	

C. DC Voltage Test (Software : AMIDIAG 5.11)

Testing Condition	Result	Note
VDC High Voltage Margin (Burn-In 2 Hours)	5.25V	Celeron 433MHz
VDC Low Voltage Margin (Burn-In 2 Hours)	4.7V	Celeron 433MHz

D. IDE Drive Capability

Test Equipment

Primary IDE Port:

Master Device: HD Seagate ST33232A

Slave Device: CD-ROM CREATIVE CD2423E

Testing Condition	Result	Note
Primary IDE Port Flat-Cable Length Margin	75CM	
Secondary IDE Port Flat-Cable Length Margin	N/A	