AAEON

ISO-9001/ISO-14001 Certified
Industrial Automation PCs

SBC-556
QE Compatibility Test Report

Release Date: Aug. 26, 1999

_____   _____   _____   _____
    Issue Stamp   **QA Manager**   **QE Manager**   **Test Engineer**

Notice

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		K/B Function	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
MS-DOS 6.22	✔		✔		✔		✔		✔	
MS-DOS 6.2/V (J)	✔		✔		✔		✔		✔	
QNX 4.22 & Wins	✔		✔		✔		✔		✔	
NOVELL 4.11	✔		✔		✔		✔		✔	

B. Microsoft Windows & IBM O/S 2 Compatibility

Wins / Test Item	Install		Boot		Shutdown		Function		Keyboard Function		Display Driver	
	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail
Windows 3.1	✔		✔		✔		✔		✔		✔	
Windows 95 (E/J)	✔		✔		✔		✔		✔		✔	
Windows 98 (E)	✔		✔		✔		✔		✔		✔	
Windows NT4.0W/S(E)	✔		✔		✔		✔		✔		✔	
Windows NT4.0W/S(J)	✔		✔		✔		✔		✔		✔	
OS/2 Warp 4.0	✔		✔		✔		✔		✔		✔	

C. Windows Application

Application / Test Item	Installation		Function Test	
	Result	Note	Result	Note
Business/Access 97	Pass		Pass	
Business/Corel DRAW! 7	Pass		Pass	
Business/Excel 97	Pass		Pass	
Business/Lotus 1-2-3 97	Pass		Pass	
Business/Navigator	Pass		Pass	
Business/Power Point 97	Pass		Pass	
Business/Quattro Pro 7	Pass		Pass	
Business/Task Switching 1	Pass		Pass	
Business/Task Switching 2	Pass		Pass	
Business/Word 97	Pass		Pass	
Business/Word Perfect 7	Pass		Pass	
High-End/AVS/Express 3.1	Pass		Pass	
High-End/Front Page 97	Pass		Pass	
High-End/Microstation 97	Pass		Pass	
High-End/Photoshop 4.0	Pass		Pass	
High-End/Premiere 4.2	Pass		Pass	
High-End/PV-WAVE 6.1	Pass		Pass	
High-End/Visual C++ 5.0	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

Test Item / Software	Qafe5.29		Amidiag4.5									
	Result	Note	Result	Note	Result	Note	Result	Note	Result	Note
Main Component	Pass		Pass									
Memory	Pass		Pass									
Video Adapter	Pass		Pass									
Keyboard	Pass		Pass									
Com Port	Pass		Pass									
LPT Port	Pass		Pass									
Note :												

2. Hardware Compatibility

A. Component Compatibility- CPU
CPU Device List:

Brand	Device Model	Result	Note
Intel	Pentium MMX-200	Pass	
Intel	Pentium MMX-233	Pass	
AMD	K6-233	Pass	
AMD	K6-266	Pass	
AMD	K6-300	Pass	
Cyrix	6X86 MX-PR200	Pass	
Cyrix	6X86 MX-PR233	Pass	
Cyrix	M2 6X86 MX-300GP	Pass	

B. Component Compatibility- DRAM SIMM Module
DRAM SIMM Module List:

Brand	Device Model	Result	Note
PANASONIC	MN4117400BSJ-06 32M FPM RAM	Pass	
NPNX	NN514405J-60 8M EDO RAM	Pass	
VITELIC	V53C408HK45 8M EDO RAM	Pass	
PANASONIC	W/P PP716M66 16M FPM RAM	Pass	
NEC	4217405-60 16M EDO RAM	Pass	
PANASONIC	MN414400BSJ-07 8M FPM RAM	Pass	
LGS	GM71C17403CJ6 32M EDO RAM	Pass	
NEC	4218165-60 8M EDO RAM	Pass	
MICON	MT4C4M4E8DJ-6 16M EDO RAM	Pass	
TI	TMS417409ADJ-6 16M EDO RAM	Pass	
MITSUBISHI	M5M418165CJ-6 8M EDO RAM	Pass	
LGS	GM71C17403CJ6 16M EDO RAM	Pass	
LGS	GM71C18163CJ6 8M EDO RAM	Pass	
HYNDAI	HY5118164BJC-60 8M EDO RAM	Pass	
PANASONIC	MN4117405CSJ-6 32M EDO RAM	Pass	

C. Adapter Compatibility- VGA
VGA Adapter List:

Brand	Device Model	Result	Note
PCI Bus			
On Board	C&T 69000	Pass	

D. Adapter Compatibility- LAN
LAN Adapter List:

Brand	Device Model	Result	Note
PCI Bus			
On Board	Realtek RTL8139	Pass	
ISA Bus			
3COM	3C509	Pass	
INTEL	Ether Express PRO/100B	Pass	

E. Adapter Compatibility- Other Card
Adapter Card List:

Brand	Device Model	Result	Note
MPEG Card			
LEMEL Magic	MPEG Card	Pass	
Sound Card			
Creative	SB 16 Value PNP	Pass	
Creative	AWE 64 PNP	Pass	

F. Adapter Compatibility- Industry Control Card
Industry Control Adapter List:

Brand	Device Model	Result	Note
ISA Card			
AAEON	PCD-894A	Pass	
AAEON	PCD-895A	Pass	
AAEON	RDM-1010A	Pass	
AAEON	RDM-1020N	Pass	
104 Module			
AAEON	PCM-3820/C	Pass	
AAEON	PCM-3820-2	Pass	
AAEON	PCM-3110B	Pass	
AAEON	PCM-3111	Pass	
AAEON	PCM-3420	Pass	
AAEON	PCM-3200	Pass	
AAEON	PCM-3600	Pass	
AAEON	PCM-3660	Pass	

G. Peripheral Compatibility-HDD Device
HDD List:

Brand	Device Model	Result	Note
Quantum	ST 32A013	Pass	
Seagate	ST34520A	Pass	
Quantum	Big-Foot	Pass	
Fujitsu	MPC3032AT	Pass	
Seagate	ST31230N SCSI	Pass	
Quantum	540-1049/16/63 SCSI	Pass	

H. Peripheral Compatibility- Storage Device
Device List:

Brand	Device Model	Result	Note
CD/ROM			
VUGEO	624A-004	Pass	
PANSONIC	CR-585-B	Pass	
SAMPO	CDM-T631	Pass	
TEAC	CD-532E	Pass	
FAX/Modem			
LEMEL	33.6 HIGH SPEED MODEM	Pass	

J. Peripheral Compatibility- Input Device
Input Device List:

Brand	Device Model	Result	Note
Keyboard			
ACER	6311-TW	Pass	
BTC	KB-5121	Pass	
LEMEL	KB-5122	Pass	
BTC	7932 (USB)	Pass	
Mouse			
Microsoft	Serial Mouse	Pass	
Logitech	Mouse Man (PS/2,Serial)	Pass	
Logitech	First Mouse	Pass	
DEXIN	A2U800A (USB)	Pass	

3. Stability Testing

A. Burn-In Stability Testing
Test Condition: Room Temp. 48 hours

Test Software	Result	Note
AMIDIAG 4.5	Pass	

B. Booting Stability Testing
Test Condition: Room Temp.

Test Method		Actual	Successful	Fail Rate	Note
Power On/Off	1000 Times	1000	999	0.1%	
H/W Reset	1000 Times	1000	1000	0%	
KB Reset	20 Times	20	20	0%	

C. Burn-In Stability Testing
Test Condition: Burn-In Under -40℃~85℃　Burn-In 30 Hours

Test Software	Result	Note
AMIDIAD 4.5	Pass	

D. Booting Stability Testing
Test Condition: Under -40℃~85℃　Burn-In 30 Hours

Test Method		Actual	Successful	Fail Rate	Note
Power On/Off	1000 Times	1000	999	0.1%	
H/W Reset	1000 Times	1000	1000	0%	
KB Reset	20 Times	20	20	0%	

4. Performance Testing

System Information:

DRAM Type & Capacity	NEC 4217405-60 16MB X2	
VGA Card	On Board (C&T69000)	
HDD TYPE	Quantum ST32A013	
VGA Testing Mode	1024X768X256 colors	(For WinStone & WinBench)
O.S.	DOS V 6.22 & Windows 95 , Windows NT4.0	

Operating System Environment (DOS Only)

Config.sys	Autoexec.bat
Device=c:\dos\himem.sys Dos=hing Files=35 Buffers=40	Prompt pg C:\dos\smartdrv.exe /x

Testing Software

Testing Utility	CPU Configuration									Unit
	Pentium MMX-200	Pentium MMX-233	AMD K6-233	AMD K6-266	AMD K6-300	AMD K6-2 300	Cyrix6x8 6MXPR 200	Cyrix M2 6X86-233	Cyrix M2 6x86-300	
LandMark Speed 2.0										
CPU	1311.80	1530.42	2362.62	2700.20	3037.72	3037.72	2072.15	2325.01	2900.49	Mhz
FPU	4010.94	4679.38	3765.85	4303.83	4841.84	4841.84	2379.26	2567.51	3353.85	Mhz
VIDEO	15123	15123	15123	15123	15123	15123	19660	19660	19660	Chs/sec
Norton 8.0 SI	680.6	794.0	1388.7	1587.1	5062.4	5062.4	1133.9	1272.6	1235	ID
Power Meter 2.02	105.3	123.6	177.7	203.1	237.0	237.0	113.8	129.3	158	Mips
WinStone 98										
Business Winstone	17.3	18.3	21.1	20.1	20.6	20.6	17.6	18.4	20.5	
High-End Winstone	17.4	18.3	22.4	19.4	20.1	19.6	17.3	18.1	20.1	
Winbench 98										
High-End/Business Graphics Winmark98	107/82.8	116/90.1	120/96.6	134/106	142/108	149/112	124/96.4	129/100	153/120	MP/s
Cpumark 32	404	437	518	535	579	598	420	449	506	
Coretest 3.02										
DTR (Buffered Read)	14032	14048	14336	15568	15472	15504	13312	13232	14864	KB/sec
Performance ID	90.57	90.57	92.38	99.71	99.14	99.16	86.28	85.81	95.52	
WINTECH 1.2	306.51	332.67	328.93	345.16	370.91	378.31	312.04	313.75	369.42	
Note										

5. Margin Testing

A. Temperature Test (Software: <u>AMIDIAG4.5</u>)

Testing Condition	Result	Note
High Temperature Margin (Burn-In 2 Hours)	85℃	
Low Temperature Margin (Burn-In 2 Hours)	-40℃	

B. Temperature Test (Boot Up)

Testing Condition	Result	Note
High temperature Margin (Burn-In 2 Hours)	85℃	
Low temperature Margin (Burn-In 2 Hours)	-40℃	

C. DC Voltage Test (Software:<u>Qaplus/fe 5.29</u>)

Testing Condition	Result	Note
VDC High Voltage Margin (Burn-In 2 Hours)	5.25	
VDC Low Voltage Margin (Burn-In 2 Hours)	4.75	

D. IDE Drive Capability
Test Equipment
Primary IDE Port:

Master Device: HDD Quantum ST32A013
Slave Device: CD-ROM Vugeo 624A-004

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

5. Power Consumption Data

System Information:

DRAM Type & Capacity	Panasonic MN4117405CSJ-06 32MBx2
VGA Card	OnBoard C&T 69000
DiskOnChip	M-System 2000 24MB
VGA Testing Mode	640x480x16 colors
O.S.	DOS 6.22

Operating System Environment (DOS Only)

Config.sys	Autoexec.bat
Device=c:\dos\himem.sys dos=high,umb files=35 Buffers=40	Prompt pg c:\dos\smartdrv.exe /x

The Application of Software

Brand	Landmark System Speed Test Version 2.0

Test Result

Mode Type Process Type	Normal Mode	Suspend Mode	Unit
PENTIUM MMX-200	4.4	1.8	Amp/Max
PENTIUM MMX-233	4.6	1.8	Amp/Max
AMD K6-233	9.2	1.6	Amp/Max
AMD K6-266	3.4	1.4	Amp/Max
AMD K6-300	4	1.6	Amp/Max
AMD K6/2 300	4.6	1.4	Amp/Max
Cyrix M1 PR-200	7.2	1.6	Amp/Max
Cyrix M2 PR-233	7.2	1.4	Amp/Max
Cyrix M2 PR-300	9.2	1.4	Amp/Max

Note :
      1.Power supply voltage : ＋5V
      2.Suspend Model all function off