

Product Certification Report

Report No: PCM-4896-E

Product Model	PCM-4896
Product description	NS Geode Series, Compact Board, with LCD, Ethernet, Audio, 4 COMs, & 4 D I/O
Test reason	<input type="checkbox"/> New product <input type="checkbox"/> PCB: <input type="checkbox"/> BIOS: <input checked="" type="checkbox"/> Renew product <input checked="" type="checkbox"/> PCB: PCM-4896 Rev.C0.1 <input checked="" type="checkbox"/> BIOS: PCM-4896C BIOS Rev0.1 (03/20/2002) <input checked="" type="checkbox"/> Component: change the CPU to on board NS GX1300Hz (BGA Type) <input type="checkbox"/> Revision change <input type="checkbox"/> PCB: <input type="checkbox"/> BIOS: <input type="checkbox"/> Component: <input checked="" type="checkbox"/> General Function <input checked="" type="checkbox"/> Chipset: Integer Chipset: NS CS5530A-UCE / VS036AN <input checked="" type="checkbox"/> VGA Chipset: C & T B69000 / W69000B4 / 9949-b <input checked="" type="checkbox"/> Audio Chipset: NS CS5530A-UCE / VS036AN <input checked="" type="checkbox"/> Ethernet Chipset: RTL 8139C / 1B300Q1 <input checked="" type="checkbox"/> I/O Chipset: iTE iT8661F & NS SuperI/O

2002-03-20

Issue date

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Assistant
Manager

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Test Engineer

Test result for certification

Stability Test - Dynamic / Boot_UP Burn_In Test	Result
Dynamic Burn-In test. (Operating at 0 ~60 for 48hours)	Pass
Audio Play For Sound Codec Chipset Burn-In Test. (Operating at 0 & 60 for 2hours)	Pass
LAN Chipset Burn_In Test. (Operating at 0 and 60 for 2hours)	Pass
Boot_Up Burn_In Test. (Operating at 0 ~60 for 24hours)	Pass
Boot_Up Burn_In Test. (Operating at Room Temperature for 24hours)	Pass
Windows HCT 9.5 system stress test. (Operating at Room Temp. for 8hours)	Pass
Timer Accuracy Test	Result
RTC timer accuracy of +/-3 sec per day.	Pass
System clock accuracy of +/-5 sec per day.	Pass
Margin Test – Power Consumption – Onboard NS Geode GX1 300Hz , SDRAM 128MB	Result
Power VCC 4.75V to 5.25V Margin test.	Pass
Electrical characteristics – Normal Mode (+5V)	1.69A
Electrical characteristics – Doze Mode (+5V)	1.18A
Electrical characteristics -- Standby Mode (+5V)	0.98A
BIOS Function Test	Result
Y2K Test	Pass
Standard CMOS Setup Test	Pass
Boot Sequence Test	Pass
Wake Up Event Test	Pass
CMOS backup Test	Pass
Boot ROM Test	Pass
COM Address/IRQ Test	Pass
LPT Address /IRQ Test	Pass
Hardware Monitor Test	Pass
Supervisor / User Password Test	Pass
BIOS Awdflash Program Test	Pass
Operation System Compatible Test	Result
Linux Red Hat 7.0	Pass
Windows 98SE English version	Pass
Windows NT workstation 4.0 English version with service pack 6	Pass
DOS and DOS Utility Compatibility Testing	Pass
Performance Test – CPU Onboard NS Geode GX1 300Hz, DRAM 128MB	Result
LandMark Speed 2.0 – CPU	1268.09 MHz
LandMark Speed 2.0 – FPU	3322.68 MHz
LandMark Speed 2.0 – VIDEO	13466.00 Chr/ms
QAPLUS 5.5/PM – Data Transfer Rate	7994.0 KB/Sec
WinBench 99 V1.1- High_end Graphic winmark99	81.3 MP/s
WinBench 99 V1.1- Business Graphic winmark99	33.4 TB/s

WinBench 99 V1.1- FPU winmark	435
WinBench 99 V1.1- CPU mark99	9.1
Final Reality V1.01 BenchMark Test – 2D image	1.41
Final Reality V1.01 BenchMark Test – 3D	0.32
Final Reality V1.01 BenchMark Test – Bus transfer	1.52
Final Reality V1.01 BenchMark Test – Overall	0.82
3D WinBenech 2000 v1.0 with DirectX7 and 1024x768x16Bits-Processor Test	0.115
Content Creation Winstone 2000 V1.0 – C.C.Winstone 2000	6.5
Utility and Driver Test	Result
VGA for Windows 98SE (Onboard C & T 69000 Ver.4.11.01.2600)	Pass
VGA for Windows NT 4.0 (Onboard C & T 69000)	Pass
LAN for Windows 98SE (Onboard Realtek RTL8139C Ver.5.397.08.23.2001)	Pass
LAN for Windows NT 4.0 (Onboard Realtek RTL8139C)	Pass
Sound for Windows 98SE (Onboard National XpressAUDIO Driver Ver.5.05.00.1005)	Pass
Sound for Windows NT 4.0 (Onboard National XpressAUDIO Driver)	Pass
Red hat Linux 7.0 hardware compatible list for VGA	Support
Red hat Linux 7.0 hardware compatible list for LAN	Support
Memory Test – SDRAM PC-133/100	Result
Infineon / HYB39S64800CT-75 / PC133 / 128MB	Pass
NANYA / NT56V6620C0T-75 / PC-133 / 64MB	Pass
Mitsubishi / M2V64S40BTP/PC-100 / 32MB	Pass
Mitsubishi / M5M4V16S30DTP/PC-100 / 32MB	Pass
NEC / D45128841G5-A10-9JF/PC-100 / 256MB	Pass
NEC / D4564841G5-A10-9JF/PC-100 / 128MB	Pass
NEC / D4564841G5-A80-9JF/PC-100 / 64MB	Pass
NEC / D45128841G5-A75-95F/PC-133 / 256MB	Pass
NEC / D4516821AG5-A10-9NF/PC100 / 32MB	Pass
Hitachi / 5264805DTTA60/PC-100 / 64MB	Pass
Hyundai / HY57V658020 TC-10/PC-100 / 128MB	Pass
Hyundai / HY57V1291620L TC-10S/PC-100 / 64MB	Pass
Hyundai / HY57V168010D TC-10S/PC-100 / 32MB	Pass
SIEMENS / HYB39S16800AT-10/PC-100 / 32MB	Pass
CPU Compatible Test	Result
Onboard NS Geode GX1 300Hz	Pass
HDD Compatible Test	Result
Maxtor 54098U8 / 40.9GB / ATA66	Pass
Maxtor 51536U3 / 15.3GB / ATA66	Pass
Quantum QMP30000AS-A / 30GB / ATA100	Pass
CDROM / DVDROM Test	Result
NEC C&C-BCD F561B / 52X	Pass
ASUS CD-S500/A / 50X	Pass

TEAC CD-540E / 40X	Pass
Network HUB / LAN Function Test	Result
Accton CheetahSwitch DeskTop-3005 5 Port [100 /10 Mbps]	Pass
SVEC FD916H 8 Port [10 Mbps]	Pass
Intel Inbusiness 8 Port [100 /10 Mbps]	Pass
HP J4095A 24Ports [100 /10 Mbps]	Pass
D-Link DES-1008 [100 / 10 Mbps]	Pass
LEMEL LM-S5 5 Ports [100 / 10 Mbps]	Pass
On Board Audio Function Test	Result
System Sound	Pass
Play CD_IN	Pass
Play Sound Recorder	Pass
Line Out	Pass
Line In	Pass
Line In Sound Recorder	Pass
MIC Speaker – Dynamic / Condenser	Pass
MIC Speaker Recorder – Dynamic / Condenser	Pass
On Board I / O Function Test	Result
COM Port Send-Receive Test	Pass
CheckIt 7.0 Portable Edition Test	Pass
LCD Monitor	Result
HYUNDAI / HT15X11-200 / TFT / 15"	Pass
Toshiba / LTM10C273 / TFT / 10.4"	Pass
Sharp / LQ121S1DG11 / TFT / 12.1"	Pass
NEC / NL6448BC33-46 / TFT / 10.4"	Pass
Touch Screen LCD for serial Ports Test	Result
COM 1 Serial Port	Pass
COM 2 Serial Port	Pass
COM 3 Serial Port	Pass
COM 4 Serial Port	Pass
SCSI Card Compatible Test	Result
AHA-2940UW (PCI bus)	Pass
VGA Card Compatible Test	Result
LEMEL S3 TRIO64V2-DX/GX (ISA bus)	Pass
LAN Card Compatible Test	Result
D-Link DFE500TX (PCI bus)	Pass
3COM 3C905-TX (PCI bus)	Pass
RTL8139B (PCI bus)	Pass
Intel PILA8560 (PCI bus)	Pass
Modem Card Compatible Test	Result
LEMEL MD-56KVP (PCI bus)	Pass
Genuine GM56-AMI2019 (PCI bus)	Pass

Multi Media Card Compatible Test	Result
Creative AUDIO (PCI bus)	Pass
Industry Control Adapter Card Compatible Test-PC104/PC104Plus	Result
AAEON PCM-3115B / PCMICA Module	Pass
AAEON PCM-3110 / PCMICA Module	Pass
AAEON PCM-3640 / RS-232 Module	Pass
System Integer Application Test	Result
PCI cards integer application	Pass
Function Test	Result
On board LAN with 100 feet cable length	Pass
On board VGA function	Pass
Boot ROM to Netware 4.11	Pass
M-System DOC-2000 Solid State Disk test	Pass
Peripheral Storage Device Compatible test	Result
IOMEGA ZIP100M (Parallel Type)	Pass
LS-120 / LKM-F930-1 (IDE Type)	Pass
Photo Smart P1000 Printer (LPT Type)	Pass
33.6 HIGH SPEED MODEM (RS-232)	Pass
Peripheral Input Device Compatible test	Result
BTC 7932 Keyboard (USB)	Pass
Logitech M-BB48 Mouse (USB)	Pass
HP Photo Smart P1000 Printer (USB)	Pass
IOMEGA ZIP100MB (USB)	Pass
D-Link DSB-H4/DU-H4 HUB (USB)	Pass
Microsoft Serial Mouse	Pass
Logitech Mouse Man	Pass
Adam RS-485 (COM2)	Pass
Miscellaneous Test	Result
Windows 98 Power manager test	Pass
Floppy Disk Controller	Pass
H/W Reset	Pass
Ext. Speaker	Pass
On board buzzer	Pass
HDD LED	Pass
Power LED	Pass
LAN LED	Pass
Watchdog – reset	Pass
ATX power button	Pass
CPU FAN connector	Pass
Primary IDE Master	Pass
Primary IDE Slave	Pass
COM1	Pass

COM2	Pass
COM2-RS-422	Pass
COM2-RS-485	Pass
COM3	Pass
COM4	Pass
LPT1	Pass
PS2 Keyboard / Mouse	Pass
USB Port1 - Enabled / Disabled Mode Function	Pass
SIR / 115K bps	Pass
DIO Input / Output Function	Pass
DOC	Pass