Advanced/MN User-Installable Upgrades

This document applies only to standard Advanced/MN baseboards with BIOS identifier .BT0.

The devices listed below are categorized according to two levels of qualification:

Full Functional Tested: The device has passed electrical and functional testing across the full temperature and voltage specifications for the product, as well as signal quality analysis and vendor specification analysis per the Full Functional Test Qualification Procedure for the particular device. The testing of the device may have been conducted by the vendor or other third party.

Basic Functional Tested: The device has passed basic functional testing at ambient temperatures per the Basic Functional Test Qualification Procedure for the particular device. The testing of the device may have been conducted by the vendor or other third party.

Devices are added to the list upon written notification to Intel that the device has passed all the requirements documented in the applicable test procedure. Devices not listed can be used, but in the event of unreliable system operation, the devices should be replaced with tested devices to determine whether the unlisted devices are causing the problem.

IMPORTANT NOTE:

These devices are listed by Intel as a convenience to Intel's general customer base, but Intel does not make any representations or warranties whatsoever regarding quality, reliability, functionality or compatibility of these devices. This list and/or these devices may be subject to change without notice.

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SYSTEM MEMORY

Table A-1 shows the possible memory combinations. The Advanced/MN will support both Fast Page DRAM or EDO DRAM SIMMs, but they cannot be mixed within the same memory bank. If Fast Page DRAM and EDO DRAM SIMMs are installed in separate banks, each bank will be optimized for maximum performance. Parity generation and detection is NOT supported, but parity SIMMs (x36) may be used. SIMM requirements are 70ns Fast Page Mode or 60nS EDO DRAM (70 ns EDO may be used with a 60mhz or slower external CPU clock) with tin-lead connectors.

SIMM 1,2 (Bank 0) SIMM Type (Amount)	SIMM 3,4 (Bank 1) SIMM Type (Amount)	Total System Memory
1M X 32 (4 MB)	Empty	8 MB
1M X 32 (4 MB)	1M X 32 (4 MB)	16 MB
1M X 32 (4 MB)	2M X 32 (8 MB)	24 MB
1M X 32 (4 MB)	4M X 32 (16 MB)	40 MB
1M X 32 (4 MB)	8M X 32 (32 MB)	72 MB
2M X 32 (8 MB)	Empty	16 MB
2M X 32 (8 MB)	1M X 32 (4 MB)	24 MB
2M X 32 (8 MB)	2M X 32 (8 MB)	32 MB
2M X 32 (8 MB)	4M X 32 (16 MB)	48 MB
2M X 32 (8 MB)	8M X 32 (32 MB)	80 MB
4M X 32 (16 MB)	Empty	32 MB
4M X 32 (16 MB)	1M X 32 (4 MB)	40 MB
4M X 32 (16 MB)	2M X 32 (8 MB)	48 MB
4M X 32 (16 MB)	4M X 32 (16 MB)	64 MB
4M X 32 (16 MB)	8M X 32 (32 MB)	96 MB
8M X 32 (32 MB)	Empty	64 MB
8M X 32 (32 MB)	1M X 32 (4 MB)	72 MB
8M X 32 (32 MB)	2M X 32 (8 MB)	80 MB
8M X 32 (32 MB)	4M X 32 (16 MB)	96 MB
8M X 32 (32 MB)	8M X 32 (32 MB)	128 MB

Table A-1. Possible SIMM memory combinations

Note: SIMMs may be parity (x 36) or non-parity (x 32)

IMPORTANT NOTE

SIMMs with gold contacts should NOT be placed into SIMM sockets with tin-lead contacts or vice-versa. Mixing dissimilar metal contact types has resulted in unreliable memory operation. Use only Tin-lead contact SIMMs.

TESTED SIMM VENDORS

The following tables list SIMMs that have been tested. SIMMs that are not listed should also function properly as long as their specifications are compatible with the devices listed below. In general, SIMM devices that are faster than those specified for a given platform will work, although no extra performance will be realized.

All Sizes: Tin-lead contacts.

FAST PAGE SIMM

Vendor	Qual	Vendor Part Number	Comments
1M x 32 (4MB), Non-Parity - 70ns			
Centon Memory	FULL	CPCB00104-7	Samsung DRAM
Centon Memory	FULL	CSAM1MX32-70SMT or 60SMT	
Centon Memory	FULL	CSAM1MX32NT7SMT	
Century Microelectronics Inc.	FULL	3216M6-07T	
Fujitsu Ltd	FULL	158101	NPNX DRAM 1MX4
Hyundai	FULL	HYM532100AM-70	
Hyundai	FULL	HYM532100AM-60B	
Hyundai	FULL	HYM532120W-70	HY532120w-7MA
Micron Technology	FULL	MT8D132M-7	
Oki Semiconductor	FULL	MSC23132C-70DS8	

Vendor	Qual	Vendor Part Number	Comments
Samsung Corning Co, LTD.	FULL	KMM5321000BV-7	
Samsung Corning Co, LTD.	FULL	KMM5321000CV-7	
Samsung Corning Co, LTD.	FULL	KMM5321000AW-7	
Smart Modular Technologies	FULL	SMI5321000-7	
Smart Modular Technologies	FULL	SMI5321000W-7	
Smart Modular Technologies	FULL	SM5321000H-7	
Smart Modular Technologies	FULL	INSM5321000T-7	
Smart Modular Technologies	FULL	IN5321000-W7	with NEC DRAM
Smart Modular Technologies	FULL	NI532014081XXS7	Hitachi devices Hm514405cs6
Smart Modular Technologies	FULL	INSM5321000-70	
Smart Modular Technologies	FULL	IN5321000W-7	Siemens 1X16 DRAM

1M X 32 (4MB), Non-Parity - 70ns (cont.)

Vendor	Qual	Vendor Part Number	Comments
Smart Modular Technologies	FULL	INSM5321000-7	with NEC 424400-70
Smart Modular Technologies	FULL	IN5321000W-7	with NEC 4218160-60,70
Texas Instruments	FULL	Z124BBK32S-70 IN	TM124BBK32S-70
Texas Instruments	FULL	TM124BBK32S-60	
Texas Instruments	FULL	Z124BBK32U-70	TI# TM124BBK32U-70
Toshiba Corporation	FULL	THM3210B0AS-70	
Unigen Corporation	FULL	UG8M132SQT-70	
Unigen Corporation	FULL	NU53201400IXXS7	
Advantage Memory Corp.	BASIC	AMC1x32-70T	
Celestica Inc.	BASIC	CL001D01320B00J-70	
Kingston Technology Corp.	BASIC	KTM1x32L-70T	
Simple Technology	BASIC	STI321000-70T	
Super PC Memory	BASIC	4000/72NP	TIN must be specified when ordering
Unigen Corporation	BASIC	1x32UG7PBT1	
Unigen Corporation	BASIC	1x32UG7SQT	
Viking Components	BASIC	1x32-70T	
VisionTek Inc.	BASIC	VT69130.0	

1M X 32 (4MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D132M-6	
1st Tech Corporation	BASIC	20-132-60T	
Dataram Corp.	BASIC	62005	
Simple Technology	BASIC	STI321000-60T	
Simple Technology	BASIC	A321000-60T	
VisionTek Inc.	BASIC	VT69030.0	

1M X 36 (4MB), Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT9D136M-70	
Simple Technology	BASIC	STI361000-70T	
VisionTek Inc.	BASIC	VT69110.0	
Workstation Direct	BASIC	MM1x36-70T12C	

1M X 36 (4MB), Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Dataram Corp.	BASIC	62022	

2M X 32 (8MB), Non-Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Hyundai	FULL	HYM532200AM-70	
Micron Technology	FULL	MT16D232M-7	
Micron Technology	FULL	MT16D232M-6	
Oki Semiconductor	FULL	MSC23232C-70DS16	
Samsung Corning Co, LTD.	FULL	KMM5322000BV-7	
Samsung Corning Co, LTD.	FULL	KMM5322000CV-7	
Smart Modular Technologies	FULL	SMI5322000-7	
Smart Modular Technologies	FULL	NI532023101XXS7	using 1 x 16 devices
Texas Instruments	FULL	Z248CBK32S-70 IN	TM248CBK32S-70
Texas Instruments	FULL	Z248CBK32S-60 IN	TM248CBK32S-60
Toshiba Corporation	FULL	THM3220C0AS-70	
Advantage Memory Corp.	BASIC	AMC2x32-70T	
Celestica Inc.	BASIC	CL001D02320B00J-70	
Kingston Technology Corp.	BASIC	KTM2x32L-70T	
Simple Technology	BASIC	STI322000-70T	
Unigen Corporation	BASIC	2x32UG7DBT	
Unigen Corporation	BASIC	2x32UG7PBT1	
Viking Components	BASIC	2x32-70T	
VisionTek Inc.	BASIC	VT69150.0	

2M X 32 (8MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments

Micron Technology	FULL	MT16D232M-6	
1st Tech Corporation	BASIC	20-232-60T	
1st Tech Corporation	BASIC	20-232-601T	4 DRAMs
Dataram Corp.	BASIC	62006	
Simple Technology	BASIC	STI322000-60T	
Simple Technology	BASIC	STI322000A-60T	
Simple Technology	BASIC	A322000-60T	
VisionTek Inc.	BASIC	VT69050.0	

2M X 36 (8MB), Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT24D236M-7	
Micron Technology	FULL	MT18D236M-7	
Micron Technology	FULL	MT18D236M-6	
Simple Technology	BASIC	STI362000A-70T	
VisionTek Inc.	BASIC	VT69120.0	
Workstation Direct	BASIC	MM2x36-70T24C	

2M X 36 (8MB), Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Dataram Corp.	BASIC	61991	

4M X 32 (16MB), Non-Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D432M-7	
Micron Technology	FULL	MT8D432M-6	
Celestica Inc.	BASIC	CL001D04320B00J-70	
Kingston Technology Corp.	BASIC	KTM4x32L-70T	
Simple Technology	BASIC	STI324000-70T	
Unigen Corporation	BASIC	4x32UG7KBT2	
Viking Components	BASIC	4x32-70T	
VisionTek	BASIC	VT69160.0	

4M X 32 (16MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D432M-6	
1st Tech Corporation	BASIC	20-432-60NT3	
Advantage Memory Corp.	BASIC	AMC4x32-60T	
Dataram Corp.	BASIC	62007	
Simple Technology	BASIC	STI324000-60T	
Simple Technology	BASIC	STI324000A-60T	
Simple Technology	BASIC	A324000-60T	
VisionTek Inc.	BASIC	VT69060.0	

4M X 36 (16MB), Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT12D436DM-7	
Micron Technology	FULL	MT12D436DM-70	
Simple Technology	BASIC	STI-XPRESS/16HB	
VisionTek, Inc.	BASIC	VT69140.0	
Worstation Direct	BASIC	MM4x36-70T12C	

4M X 36 (16MB), Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Texas Instruments	FULL	Z497MBK36Q-60	
1st Tech Corporation	BASIC	20-436-60NT3	
1st Tech Corporation	BASIC	20-1040-05	9 DRAMs
Dataram Corp.	BASIC	62003	

8M X 32 (32MB), Non-Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Advantage Memory Corp.	BASIC	AMC8x32-70T	
Kingston Technology Corp.	BASIC	KTM8x32L-70T	
Simple Technology	BASIC	STI328000-70T	
Unigen Corporation	BASIC	8x32UG7KBT2	
Viking Components	BASIC	8x32-70T	
VisionTek Inc.	BASIC	VT69170.0	

8M X 32 (32MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
1st Tech Corporation	BASIC	20-832-60NT3	
1st Tech Corporation	BASIC	20-1040-15	
Dataram Corp.	BASIC	62008	
VisionTek Inc.	BASIC	VT69070.0	

8M X 36 (32MB), Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Simple Technology	BASIC	STI-XPRESS/32HB	
VisionTek	BASIC	VT69180.0	

8M X 36 (32MB), Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT24D836M-6	
1st Tech Corporation	BASIC	20-1040-07	
Dataram Corp.	BASIC	62004	

EDO SIMM

Note: 60ns EDO SIMMs are required when the external CPU clock is set to 66 MHz (e.g., for the 100 and 133 MHz Pentium processor). Either 60ns or 70ns SIMMs can be used for external clock frequencies of 50 MHz and 60 MHz, but no additional performance will be seen with the 60ns SIMMs.

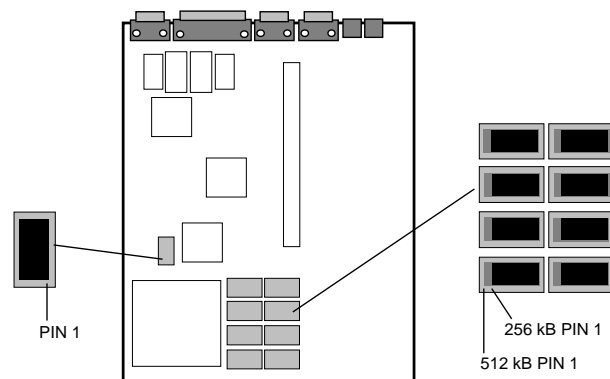| Vendor	Qual	Vendor Part Number	Comments
1M x 32 (4MB), Non-Parity - 70 ns			
Micron Technology	FULL	MT8D132M-7X	
Micron Technology	FULL	MT8D132M-6X	
Samsung Corning Co. Ltd.	FULL	KMM5321004CV-7	4M DRAM Based
Samsung Corning Co. Ltd.	FULL	KMM5321004CV-6	4M DRAM Based
Samsung Corning Co. Ltd.	FULL	KMM5321204AW-7	
Samsung Corning Co. Ltd.	FULL	KMM5321204AW-6	
Smart Modular Technologies	FULL	NI532014081XXS7 or S6	
Texas Instruments	FULL	TM124BBK32U-60	
Texas Instruments	FULL	TM124FBK32U-70	new mask fix
Texas Instruments	FULL	Z124FBK32S-70	
Simple Technology, Inc.	BASIC	STI321004A-70T	1-800-367-7330
Viking Components	BASIC	EDO1327T	
1M x 32 (4MB), Non-Parity - 60ns			
Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D132M-6X	
NEC ELECTRONICS INC	FULL	DRAM(4218165-60)	
Samsung Corning Co. Ltd.	FULL	KMM5321204AW-6	16M DRAM Based
Samsung Corning Co. Ltd.	FULL	KMM5321004CV-6	4M DRAM Based
Smart Modular Technologies	FULL	NI532014081XXS6	
1st Tech Corporation	BASIC	20-1039-09	
Advantage Memory Corp.	BASIC	AMC1x3260TEDO	
Dataram Corp.	BASIC	61972	
Kingston Technology Corp.	BASIC	KTM1x32L-60ET	
Simple Technology	BASIC	STI321004T-60T	
Simple Technology	BASIC	STI321004AT-60T	
Simple Technology	BASIC	A321004-60T	
Unigen Corporation	BASIC	1x32UG6DBT-EDO	
VisionTek Inc.	BASIC	VT69210.0	
2M x 32 (8MB), Non-Parity - 70ns			
Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D232M-7X	
Micron Technology	FULL	MT8D232M-6X	
Micron Technology	FULL	MT16D232M-7X	
Smart Modular Technologies	FULL	NI532024081XXS7	1mx4 based
Texas Instrument	FULL	TM248GBK32U-70	new mask fix
Samsung Corning Co. Ltd.	BASIC	KMM5322104AU-7	
Simple Technology, Inc.	BASIC	STI322004A-70T	1-800-367-7330
Viking Components	BASIC	EDO2327T	
2M x 32 (8MB), Non-Parity - 60ns			
Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT16D232M-6X	
Samsung Corning Co. Ltd.	FULL	KMM5322204BW-6	
Smart Modular Technologies	FULL	NI532024081XXS6	
1st Tech Corporation	BASIC	20-1039-11	
Advantage Memory Corp.	BASIC	AMC2x3260TEDO	
Celestica Inc.	BASIC	CL001D02325B00J-60	
Dataram Corp.	BASIC	61973	
Kingston Technology Corp.	BASIC	KTM2x32L-60ET	
NEC	BASIC	MC-422000F32BA-60	
Samsung Corning Co. Ltd.	BASIC	KMM5322104AU-6	
Simple Technology, Inc.	BASIC	STI322004A-60T	
Simple Technology, Inc.	BASIC	STI322004AT-60T	
Simple Technology, Inc.	BASIC	STI322004T-60T	

Simple Technology, Inc.	BASIC	A322004-60T	
Unigen Corporation	BASIC	2x32UG6DBT-EDO	
VisionTek Inc.	BASIC	VT69220.0	

4M x 32 (16MB), Non-Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
Simple Technology, Inc.	BASIC	STI324004-70T	1-800-367-7330
Unigen Corporation	BASIC	4x32UG7KBT2EDO	
Viking Components	BASIC	EDO4327T	

4M x 32 (16MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT8D432M-6X	
Micron Technology	FULL	MT8D432M-60X	
Texas Instruments	FULL	TM497FBK32S-60	
1st Tech Corporation	BASIC	20-1040-17	
Advantage Memory Corp.	BASIC	AMC4x3260TEDO	
Celestica Inc.	BASIC	CL001D04325B00J-60	
Dataram Corp.	BASIC	61978	
Kingston Technology Corp.	BASIC	KTM4x32L-60ET	
VisionTek Inc.	BASIC	VT69240.0	

8M x 32 (32MB), Non-Parity - 70ns

Vendor	Qual	Vendor Part Number	Comments
1st Tech Corporation	BASIC	20-1026-02	
Simple Technology, Inc.	BASIC	STI328004-70T	1-800-367-7330

8M x 32 (32MB), Non-Parity - 60ns

Vendor	Qual	Vendor Part Number	Comments
Micron Technology	FULL	MT16D832M-60X	
1st Tech Corporation	BASIC	20-1040-21	
Advantage Memory Corp.	BASIC	AMC8x3260TEDO	
Datram Corp.	BASIC	61979	
Kingston Technology Corp.	BASIC	KTM8x32L-60ET	
VisionTek Inc.	BASIC	VT69280.0	

CACHE SRAM

Baseboards configured for 0 KB of L2 cache can be upgraded to either 256 KB or 512 KB of L2 cache by installing eight 24-pin 32k x 8 or 28-pin 64k x 8 3.3 volt SOJ SRAM (20 ns) devices into the provided sockets. The TAG socket accepts a 24-pin 32k x 8 5.0V SOJ SRAM (15 ns). The figure below shows the Pin 1 location for the TAG and data SRAM. To properly support an external clock frequency of 66 MHz (e.g.; the 100 and 133 MHz Pentium Processor), the data and tag SRAM must be 15 ns devices.

PIN 1

256 kB PIN 1

512 kB PIN 1

APPROVED CACHE SRAM VENDORS

Vendor	Qual	Vendor Part Number	Comments

Tag SRAM (32Kx8, 15ns, 5V)

Vendor	Qual	Vendor Part Number	Comments
Alliance Semiconductor Corp.	FULL	AS7C256-15JCTR	
Alliance Semiconductor Corp.	FULL	AS7C256-12JCTR	
Cypress Electronics	FULL	CY7C199-15VCT-CS4154AT	
Etron Technology Inc.	FULL	EM51256C-15J	
Etron Technology Inc.	FULL	EM51256C-15JL	
Idt	FULL	IDT71256SA15Y	

Vendor	Qual	Vendor Part Number	Comments

Tag SRAM (32Kx8, 15ns, 5V) Cont.

Vendor	Qual	Vendor Part Number	Comments
Integrated Silicon Solutions	FULL	IS61C256AH-15J	Do not use or order Date Code 9451 2/95
Mitsubishi	FULL	M5M5278DJ-15	
Motorola	FULL	MCM6206-15	
Nkk	FULL	N341256SJ-15	
Samsung Corning Co.,Ltd	FULL	KM68257CJ-15T	
Winbond Electronics	FULL	W24257AJ-15	
Micron Technology	BASIC	MT5C2568DJ-15T	

Data SRAM (32Kx8, 20ns, 3.3V)

Vendor	Qual	Vendor Part Number	Comments
Alliance Semiconductor Corp.	FULL	AS7C3256-20JC T&R	
Alliance Semiconductor Corp.	FULL	AS7C3256-15JC	
Idt	FULL	IDT71V256SA20Y	
Idt	FULL	IDT71V256SL15Y	
Idt	FULL	IDT71V256SA-15Y	
Integrated Silicon Solutions	FULL	IS61LV256-20J	
Micron Technology	FULL	MT5LC2568DJ-20T	
Micron Technology	FULL	MT5LC2568DJ-15T	
Samsung Corning Co.,Ltd	FULL	KM68V257J-20T	
Samsung Corning Co.,Ltd	FULL	KM68V257CJ-20T	
Samsung Corning Co.,Ltd	FULL	KM68V257J-17T OR -15T	
Toshiba Corp	FULL	TC55V328J-20 (EL)	
Toshiba Corp	FULL	TC55V328J-15 (EL)	
Toshiba Corp	FULL	TC55V328AJ-20	
Toshiba Corp	FULL	TC55V328AJ-15	

Data SRAM (32Kx8, 15ns, 3.3V)

Vendor	Qual	Vendor Part Number	Comments
Alliance Semiconductor Corp.	FULL	AS7C3256-15JC	Rev G Tested
Idt	FULL	IDT71V256SL15Y	
Idt	FULL	IDT71V256SA-15Y	
Motorola	FULL	MCM6306DJ-15	
Samsung Corning Co.,Ltd	FULL	KM68V257CJ-15T	
Toshiba Corp	FULL	TC55V328J-15 (EL)	
Toshiba Corp	FULL	TC55V328AJ-15	

Data SRAM (64Kx8, 20ns, 3.3V)

Vendor	Qual	Vendor Part Number	Comments
			*** See NOTE below.

Data SRAM (64Kx8, 15ns, 3.3V)

Vendor	Qual	Vendor Part Number	Comments
			*** See NOTE below.

NOTE: Intel is not aware of any vendor currently manufacturing this component.

GRAPHICS MEMORY

The Advanced/MN baseboard has 1 MB of Fast Page DRAM installed for graphics and two SOJ type sockets for upgrades up to 2 MB of graphics DRAM. The user can install two 256k x 16, 60 nS DRAM to provide a total of 2 MB of graphics DRAM. The DRAM may be either EDO or Fast Page mode, but no performance advantage will be seen with EDO.

Pin 1
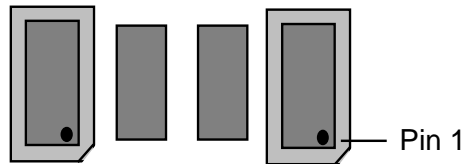
APPROVED VIDEO DRAM VENDORS

Vendor	Qual	Vendor Part Number	Comments
Fast Page Video DRAM (256Kx16, 60ns, SOJ)			
Hyundai	FULL	HY514260BJC-60	
Micron Technology	FULL	MT4C16257DJ-6TR	

Vendor	Qual	Vendor Part Number	Comments
EDO Video DRAM (256Kx16, 60ns, SOJ)			
Etron Technology Inc.	FULL	EM614163A-60	
Micron Technology	FULL	MT4C16270DJ-6	
Samsung Corning Co.,Ltd	FULL	KM416C254BJ-6T	

REAL TIME CLOCK BATTERY REPLACEMENT

The battery can be replaced with a Sanyo CR2032, or equivalent, coin cell lithium battery. This battery has a 220 mAh rating.

APPROVED BATTERY VENDORS

Vendor	Qual	Vendor Part Number	Comments
Battery, Coin cell, CR2032			
Maxell Corporation	FULL	CR2032	
Panasonic Industrial Company	FULL	CR2032	
Renata Batteries U.S.	FULL	CR2032	
Sanyo Energy Corp	FULL	CR2032	
Sony Corp	FULL	CR-2032	

OVERDRIVE PROCESSOR SUPPORT MATRIX

The information below describes the specific OPSD systems that support the OverDrive 320-pin PODP 3V-XXX processors which can be accommodated in a 320 pin Type 5 Socket or a 321 pin Type 7 Socket. The tables also list the jumper settings required for the selected products requiring jumper changes to accommodate the OverDrive processors.. The OverDrive processors accelerate the processor speed up to 166 MHz.These OverDrive processors select their clock ratios internally and do not use the baseboard's internal clock ratio jumpers. These OverDrive processors work over a voltage range that includes both VR and VRE voltage ranges, therefore the user does not need to change the voltage specification jumpers on the baseboard.

For any particular baseboard, the type and speed of memory and/or the speed of the cache components that are used on the baseboard, may limit a baseboards' maximum achievable External CPU Clock speed. This would then limit the selection of Pentium OverDrive processor that could be used to full effect on this particular baseboard. Use the current external CPU clock settings as a guide in selecting a compatible selection for a Pentium OverDrive processor speed.

The Advanced/MN baseboard has aA 320-pin Level 5 Zero Insertion Force (ZIF) socket providesing users with an Level 5 OverDrive processor performance upgrade path. The OverDrive processors will provide performance beyond that delivered by the originally installed Pentium processor.

PROCESSOR UPGRADES	Original	External CPU ClockInternal Clock Jumper/Switch	External CPU Clock Switch/Jumper	External Clock Switch/Jumper
CPU Type	CPU Type	SpeedSwitch 6	Switch 7	Switch 8
Intel PODP 3V - 125 MHz	75 MHz	50 MHzoff	off	off
Intel PODP 3V - 150 MHz	90 MHz	60 MHzoff	on	off
Intel PODP 3V - 166 MHz	100 MHz	66 MHzoff	off	on