

## Pentium CPU 166 - 700MHz MSEBX-P5/P3

### Features

- INTEL Pentium P5 or P3 (mobile) processors
- 166MHz – 700MHz, MMX
- Power Management (APM 1.2 plus features)
- 32-256MB SDRAM in SODIMM Socket
- SXGA/LCD on-board
- 100/10Base-T LAN-Ethernet
- E-IDE Hard Disk Interface
- 3.5" Micro Floppy Disk Interface
- Serial Ports: 4
- USB: 2
- LPT: 1 (bi-directional)
- Analog Video Input (PAL/NTSC)
- PS/2, USB Mouse/Keyboard Controller
- Audio Port
- EEPROM Setup Save
- PCI bus with ISA Signals BUS
- 5VDC Power Supply



### Description

The MSEBX consists of a baseboard (MSEBX-P5 or MSEBX-P3) and smartCoreP5 (166/266MHz) or smartCoreP3 (400/700MHz). This board integrates all basic functions of a standard 64Bit Pentium PC. The smartCoreP3 is based either on a Celeron (128kB L2 Cache) or a PIII (256kB on-die L2 cache). Additional features are CRT/LCD interface, 2 USB ports, Ethernet, DOC socket, CF-socket, Audio, and a video input (up to 30images/sec-NTSC/PAL) for max. 3 cameras.

The MSEBXP5/P3-boards will work with many of the SDRAM products on the market but, ADL offers specifically designed memory, to guarantee functionality with wide temperature ranges.

Expansion cards can be added using the PC/104 and/or PCI (+) connectors. Operating systems can be booted from floppy disk, hard disk or compact flash. The power consumption at 100% performance, including CRT/LCD, is typically 3A-3.5A at single +5V, depending on processor speed. The on-board SXGA video controller, with 2/4MB of video RAM, allows simultaneous operation of the CRT and LCD. ADL offers a service to adapt flat panels to our CPUs.

### Ordering Information

Item codes	Part #	Description
MSEBX-P5	811001	Baseboard, no smartCoreP5, no SDRAM
MSEBX-P3	811033	Baseboard, no smartCoreP3, no SDRAM
<i>Note: Boards are only functional with smartCores. (below)</i>		
smartCoreP5-166	805127	Intel P5, MMX, 430TX, 166MHz, 256kB L2 Cache
smartCoreP5-266	805126	Intel P5, MMX, 430TX, 266MHz, 256kB L2 Cache
smartCoreP3-400C	805130	smartCore (Celeron) 400MHz, no SDRAM
smartCoreP3-400	805131	smartCore (PIII) 400MHz, no SDRAM
smartCoreP3-700C	805133	smartCore (Celeron) 700MHz, no SDRAM
smartCoreP3-700	805132	smartCore (PIII) 700MHz, no SDRAM
<b>Options</b>		
-P	807005	PCI Connector assembled, short
-S	807303	On-board SCSI 2PCI
<b>Standard SDRAM</b>		
SDRAM32-PS	990515	SDRAM 144pin, 32MB (-25C/+70C)
SDRAM64-PS	990615	SDRAM 144pin, 64MB (-25C/+70C)
SDRAM128-PS	990725	SDRAM 144pin, 128MB (-25C/+70C)
SDRAM256-PS	990823	SDRAM 144pin, 256MB (0C/+70C)

**Technical Specifications**

Features	Functions	Remarks	Options
<b>General</b>			
CPU	INTEL P5/P3 - Chip set 430TX/440BX		
Clock Speed	166/266MHz (P5); 400/700MHz (P3)		P3 Celeron
SO-DIMM Socket	32 - 256 SDRAM	-25°C to +70°C	-40°C to +85°C
Cache	128kB (P5); 256kB (P3) on-die	in smartCore	
Solid-State-Disk	DOC (8 - 288MB Flash)	32 pin DIL socket	
CompactFlash Socket	Yes	Type I	
Watchdog Timer	Software programmable	LTC1232	
Setup Saves	2 KB EEPROM	1kB customer	
BUS System Internal/External	PC/104 - PC/104 plus		
<b>PC-Interfaces</b>			
SXGA/LCD Controller	C & T 69000 (P5); 69030 (P3)	Local PCI (32bit)	
Resolution CRT	Max. 1024 x 768; 256 Colors	15 pins HiDsub	
Resolution Panels	Max. 1280 x 1024 pixels, 256 Colors	50 pins	
Flat Panel Interface	STN; Plasma; TFT (9-36bits)	5.0/3.3V LCD's	
Video RAM	2MB (P5); 4MB (P3)		
Video Modes	CRT, Flat Panel, simultaneously		
BIAS-voltage generation	external		
LCD contrast and Back Light	external		
Video Drivers	most OS		
Hard Disk Controller	2 x E-IDE (each Master/Slave)	2 x 44 pins	3.5" reg. HD
Floppy Drive	3.5"	34 pin	26 pins (FCC)
Serial Ports COM1/2	RS232C, 16C550 (FIFO)	DSUB 9; 10 pins	
COM3/4	RS232C/422/485, 16C550 (FIFO)	selectable	
USB	2 Channel, PIIX4, 12.5/1.5Mbps		
Parallel Port	LPT1 (EPP/ECP)	26 pins	
Video Input	NTSC/PAL (max 3 Cameras)		
Resolution	512x720; color 256; max 30 img/sec		
Mode	Overlay frames or storage in RAM		
SCSI-2 Interface (optional)	AD7860	50 pins	
Audio Interface (ESA)	ESS1869; Sound BlasterProä	2x1W	
LAN Interface (ESA)	100/10Base-T	182559ER	
LAN drivers	ODI, UNIX, NDIS, Novell, NT4		
Keyboard/Mouse Controller	PS/2		
Speaker	16W beeper	On board	
<b>Electrical</b>			
Power supply	5VDC/3A (P5); 5V/3.5A (P3)	Typically	
Battery	Lithium	On-board	
MTBF	> 200,000h		
<b>Environment</b>			
Dimensions	8.13" x 5.84 x 1.6" — (203x146x40mm)		
Operating Temperature	-25°C to + 60°C(P5)/+50°C(P3)		
Enhanced Temperature	-32°C to + 71°C (active cooling)	please contact ADL	

Manufacturer	USA Distributor & Support Center	Representative
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