MSEBX945 - Intel® Core™2 Duo / Core™Duo / Core™Solo 1.06GHz - 1.50GHz
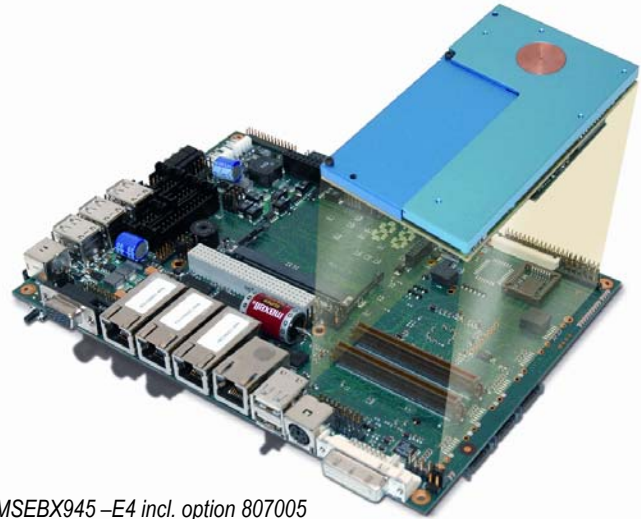
Features

- Intel® Core™2 Duo / Core™Duo / Core™Solo
- 1.06GHz - 1.50GHz
- Power Management
- 256MB - 2048MB DDR2-DRAM
- CRT / LCD interface on-board
- 10/100 Base-T LAN-Ethernet
- 1000 Base-T LAN-Ethernet
- 6x USB2.0 Ports
- PATA & SATA Hard Disk Interface
- COM1 - COM2 (RS232, 422, 485)
- COM3 - COM4 (RS232)
- RTC and Watchdog Timer
- Non Volatile Setup Save
- 8-18V DC Input (wide range)

MSEBX945 –E4 incl. option 807005

Ordering Information

Item Codes	Part#	Description
Baseboards		
MSEBX945-E2	811341	Baseboard for SMX945 without PCI/104-Express
MSEBX945P-E2	811346	Baseboard with PC/104-Express (4x PCLe, PEG or SDVO)
MSEBX945-E4	811342	Baseboard with 1GB LAN C&D on PCLe, no PC/104-Express
Baseboard Options		
Option CF	807007	CompactFlash socket type II
Option -L+	807006	PC/104-Plus long connector
Option -P+	807005	PC/104-Plus small connector
		Other options are available
Smartmodules		
SMX945-L7400	805352	Intel® CoreTM2 Duo-L7400, 0MB RAM
SMX945-L2400	805350	Intel® CoreTM Duo-L2400, 0MB RAM
SMX945-C423	805360	Intel® Celeron® M 423, 0MB RAM
SMX945B-L740	805452	Intel® CoreTM2 Duo-L7400, 0MB RAM
SMX945B-L2400	805450	Intel® CoreTM Duo-L2400, 0MB RAM
SMX945B-C423	805460	Intel® Celeron® M 423, 0MB RAM
Memory Options		
DDR2-RAM256	890674	SODIMM DDR2-RAM-Module 256MB
DDR2-RAM512	890675	SODIMM DDR2-RAM-Module 512MB
DDR2-RAM1024	890676	SODIMM DDR2-RAM-Module 1024MB
DDR2-RAM2048	890677	SODIMM DDR2-RAM-Module 2048MB
		Other memory options are available
Cooling Options		
Passive cooling	805370	SM945 cooling without fan
Active cooling	805371	SM945 cooling with fan
		Please contact your Sales Representative

Description

The MICROSPACE® EBX embedded computer board MSEBX945 has all of the standard PC interfaces plus up to 4 ethernet LANs (incl. 3x 1GB), a 3-channel input for connecting a video camera, COM3/4/5/6, SATA interface, dual screen video (DVI/LVDS, VGA) and an AC97-7.1 sound controller. All interfaces are connected by means of standardized plugs, enabling cost-efficient, cablefree housing integration. The PC/104 Express bus (32 bit PCI, PCI Express), the MiniPCI base and 8 USB interfaces are available as functional extensions. The power consumption (12W to 25W), the cooling method, the ambient working temperature, and performance are all directly related to the choice of smartModule945-xxxx and heat solution in the overall application.

Please contact your Sales Representative for compatible peripheral boards and cooling solutions.

Data is subject to change without notice

Technical Specifications

FEATURE	MSEBX945-E2	MSEBX945-E4	MSEBX945P-E2
Part no. (without RAM without SMX945)	811341	811342	811346
CPU	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx
ISA-BUS	-	-	-
PCI-BUS (Option 807005/6)	Option (3 slot)	Option (3 slot)	Option (3 slot)
PCI Express-BUS (PCI/104-Express)	-	-	Yes, on the top
2nd Level cache (kB)	0-4096	0-4096	0-4096
Performance (MHz)	1000, 2x 1600	1000, 2x 1600	1000, 2x 1600
DRAM Min-Max (MB)	256-3072 (SMX945B)	256-3072 (SMX945B)	256-3072 (SMX945B)
CompactFlash socket (option 807007)	Option	Option	Option
Keyboard mouse (PS/2)	yes	yes	yes
Boot drive	FD, HD, USB, LAN, CF	FD, HD, USB, LAN, CF	FD, HD, USB, LAN, CF
Floppy interface	yes	yes	yes
IDE interface P-ATA	1x	1x	1x
IDE interface S-ATA	2x	2x	2x
COM1	RS232C/RS422/485	RS232C/RS422/485	RS232C/RS422/485
COM2	RS232C/RS422/485	RS232C/RS422/485	RS232C/RS422/485
COM3/4	RS232C	RS232C	RS232C
COM5/6	TTL	TTL	TTL
LPT1	yes	yes	yes
USB (2.0)	8x	8x	6x + 2x on PCI/104-Express
LAN port 1 onboard transformer	10/100BASE-T	10/100BASE-T	10/100BASE-T
LAN port 2 (+3/4)	1x 1GB-LAN PCIe	3x 1GB-LAN PCIe	1x 1GB-LAN PCIe
Audio	AC97-7.1 option	AC97-7.1 option	AC97-7.1 option
Video controller	i945GME	i945GME	i945GME
Video memory (MB)	8-224	8-224	8-224
LCD interface	LVDS	LVDS	LVDS
DVI interface	yes (Option 2.DVI)	yes (Option 2.DVI)	yes (Option 2.DVI)
CRT interface	yes	yes	yes
Video input	BT878, 3 channels	BT878, 3 channels	BT878, 3 channels
Watchdog	yes	yes	yes
Power normal (Single 12Volt supply)	8V-18V/12W-25W	8V-18V/12W-25W	8V-18V/12W-25W
Power suspend (Single 12Volt supply)	0.1W	0.1W	0.1W
Power management	yes	yes	yes
RTC battery onboard	400mAh (10 years)	400mAh (10 years)	400mAh (10 years)
Cooling type	passive/active	passive/active	passive/active
Operating temperature	-25°C to +70°C[1]	-25°C to +70°C[1]	-25°C to +70°C[1]
Extended operating temperature (E47)	Depending on heat solution and CPU performance.	Depending on heat solution and CPU performance.	Depending on heat solution and CPU performance.
Size (W x L in mm)	204 x 146 x 29	204 x 146 x 29	204 x 146 x 29
Weight	350 g	350 g	350 g
MTBF	>200'000h	>200'000h	>200'000h
Special features 1	LPC-POD	LPC-POD	LPC-POD
Special features 2	8Bit Digital I/O	8Bit Digital I/O	8Bit Digital I/O
Special features 3	COM5/6 (TTL)	COM5/6 (TTL)	COM5/6 (TTL)

[1] Depending on heat solution and CPU performance.

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