

MSM945/L/P

Description

The MICROSPACE® MSM945 has all of the standard PC interfaces plus ethernet LAN, optional DVI and LVDS interfaces (dual screen) and a sound controller. Equipped with the CPU Intel® Core™2 Duo L7400 in the DIGITAL-LOGIC smartModule SMX945 with COMexpress, this product has the highest performance on the PC/104 form factor. The optional PCI/104-Express bus (PCI & PCI Express) and 6 USB interfaces are available as functional extensions. By means of a PC/104-Plus ISA bridge card, an 8 bit ISA bus can be emulated from the 32 bit PCI bus. Power consumption, cooling method, ambient working temperature and performance are directly dependent on the smart-Module945-xxxx.

Applications

- _ Video streaming for HD videos
- _ Dual screen applications
- _ Image processing, video monitoring
- _ Calculation-intensive data processing

Ordering information

Option/accessories	No.	Description
DDR2RAM256	890674	SODIMM DDR2RAM-Module 256MB
DDR2RAM512	890675	SODIMM DDR2RAM-Module 512MB
DDR2RAM1024	890676	SODIMM DDR2RAM-Module 1024MB
DDR2RAM2048	890677	SODIMM DDR2RAM-Module 2048MB
Passive cooler	805370	SMX945 cooler without fan
Active cooler	805371	SMX945 cooler with fan
MSM945-LANCON	803220	LAN RJ45 interface
MSM945-DVICON	803240	DVI-D interface
MSM945CKCON	803230	Cable kit MSM945



PCI

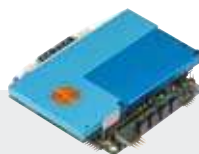
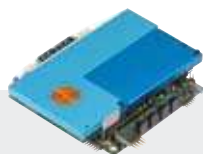
PCIe

Core™ 2 Duo

2x 1.6GHz

max.
2/3GB RAM

1x LAN



Technical data

Type	MSM945	MSM945L	MSM945P
CPU	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx
ISA-BUS (PCI/104)	-	-	-
PCI-BUS	yes	yes	yes
PCI Express-BUS (PCI/104-Express)	-	-	yes, on the bottom
2 nd Level cache (kB)	1024-4096	1024-4096	1024-4096
Performance (MHz)	-	-	-
DRAM Min-Max (MB)	256-3072	256-3072	512-3072
CompactFlash socket	yes	yes	yes
Keyboard, mouse (PS/2)	yes	yes	yes
Boot drive	FD, HD, CF, LAN, USB	FD, HD, CF, LAN, USB	FD, HD, CF, LAN, USB
Floppy interface	-	-	-
IDE interface P-ATA	1x	1x	1x
IDE interface S-ATA	2x	2x	2x
COM1	RS232C	RS232C	RS232C
COM2	RS232C	RS232C	RS232C
COM3	-	-	-
COM4	-	-	-
LPT1	yes	yes	yes
USB (2.0)	4x	4x	4x + 2x on PCI/104-Express
LAN port 1 onboard transformer	10/100BASE-T	10/100BASE-T	10/100BASE-T
LAN port 2	-	-	-
Audio	AC97-7.1, HDA	AC97-7.1, HDA	AC97-7.1, HDA
Video controller	i945GME	i945GME	i945GME
Video memory (MB)	8-224	8-224	8-224
LCD interface	SDVO	SDVO	SDVO
DVI interface (option 803240)	Option	Option	Option
CRT interface	yes	yes	yes
Video input	-	-	-
Watchdog	yes	yes	yes
Power normal	type 10-20W	type 10-20W	yes
Power suspend	0.1W	0.1W	0.1W
Power management	yes	yes	yes
RTC battery onboard	80mAh (or ext. 400mAh)	none	none
Cooling type	active	active	active
Operating temperature	see SMX945/B	see SMX945/B	see SMX945/B
Extended operating temperature (E47)	see SMX945/B	see SMX945/B	see SMX945/B
Size (W x L in mm)	90/117 x 96/99	90/117 x 96/99	90/117 x 96/99
Weight	250 g	250 g	250 g
MTBF	>200'000h	>200'000h	>200'000h
Special features 1	-	-	-
Special features 2	-	-	-
Special features 3	-	-	-
Part no. (without SMX945)	803200**	803202**	803204**

**CPUs

Article	Description	No.	No.	No.
SMX945-L7400	Intel® Core™2 Duo-L7400, OMB RAM	805352	805352	805352
SMX945-L2400	Intel® Core™ Duo-L2400, OMB RAM	805350	805350	805350
SMX945-C423	Intel® Celeron® M 423, OMB RAM	805360	805360	805360
SMX945B-L7400	Intel® Core™2 Duo-L7400, 1MB RAM	805452	805452	805452