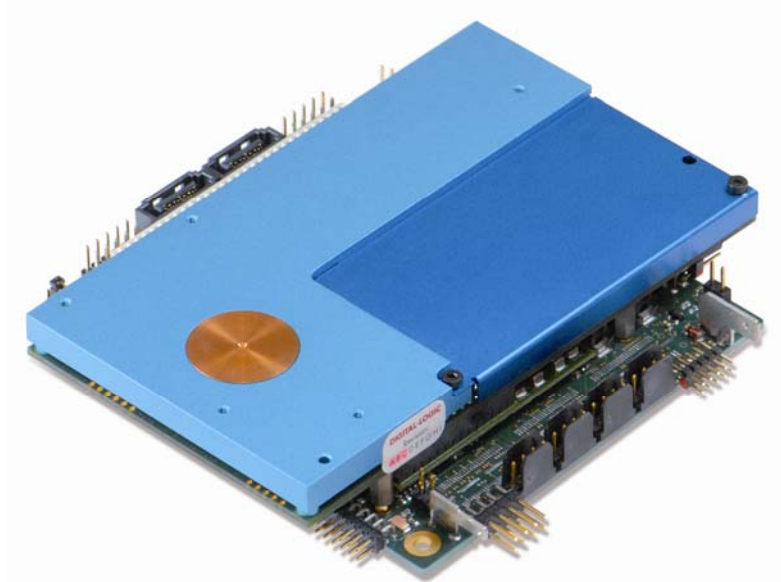


## Intel Core2Duo CPU 1.07-1.6GHz - MSM945

### Features

- Intel Core2Duo
- 1.06 up to 1.6GHz (dependent on SmartModule)
- Power Management
- 256-2048MB DDR-RAM
- 1x P-ATA
- 2x S-ATA
- CRT/LCD on-board
- 10/100Base-T LAN-Ethernet
- 6x USB 2.0 Port (+2 on PCIx port)
- COM1, COM2, LPT1
- RTC and Watchdog Timer
- Single 5VDC Power Supply
- PC/104+BUS
- PCI/104-Express - Optionally installed



### Ordering Information

Item Codes	Part#	Description
MSM945	803200	Baseboard for SM945 with 80mAh battery, no PCIe connectors
MSM945L	803202	Baseboard without battery and without PCI Express
MSM945P	803204	Baseboard w/PCIe (4 x PCIe, PEG, or SDVI, 2 USB 2.0) no Bat.
<b>Smartmodules</b>		<b>Choose one of the SM945-(X)</b>
SMX945-C423	805360	Celeron-M 1.06GHz, 1024k L2 cache
SMX945-C440	805354	Celeron-M 1.86GHz, 1024k L2 cache
SMX945-L2400	805350	CoreDuo L2400, 2x1.67GHz, 2048k L2
SMX945-L7400	805352	Core2Duo L7400, 2x1.5GHZ 2048k L2
SMX945B-C423	805450	Celeron-M 1.06GHz, 1024 soldered DDR2
SMX945B-L2400	805350	CoreDuo 2x1.67GHz, 1024 soldered DDR2
SMX945B-L7400	805352	Core2Duo 2x1.5GHZ, 1024 soldered DDR2
<b>Options</b>		
-CF	807007	Compact Flash (Type I and II) Socket
-L+	807006	PC/104-Plus, long connector
MSM945-CKCON	803240	Cable Kit w/Connector Board
MSM945-LANCON	803220	Cable & Connector Board
MSM945-DK	803218	Development Kit for MSM945
<b>Memory Options</b>		
DDR2-RAM 256MB	890674	256MB 533/667 MHz DDR2
DDR2-RAM 512MB	890675	512MB 533/667 MHz DDR2
DDR2-RAM 1024MB	890676	1024MB 533/667 MHz DDR2
DDR2-RAM 2048MB	890677	2048MB 533/667 MHz DDR2
Extended Temp. DRAM may be available.		*More options may be available please contact our Sales office *
**Limited availability		

### 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 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 smartModule945-xxxx.

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

Data is subject to change without notice



Technical Specifications

Feature	MSM945	MSM945L	MSM945P
Part #	803200	803202	803204
CPU**	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx	SMX945-xxx/SMX945B-xxx
ISA-BUS (PCI/104)	-	-	-
PCI-BUS (Option 807006 or 807005)	Option	Option	Option
PCI Express-BUS (PCI/104-Express)	-	-	yes, on the bottom
2nd Level cache (kB)**	1024-4096	1024-4096	1024-4096
Performance (MHz)**	-	-	-
DRAM min-max (MB)**	256-3072***	256-3072***	512-3072***
CompactFlash socket	Option type II	Option type II	Option type II
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	RS232	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	ye	s yes	yes
Power normal	type. 10-20W	type. 10-20W	type. 10-20W
Power suspend	0.1W	0.1W	0.1W
Power management	yes	yes	yes
RTC battery onboard	80mAh (or ext. 400mAh)	none	80mAh (or ext. 400mAh)
Cooling typ	e 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 2	-	-	-

Data is subject to change without notice