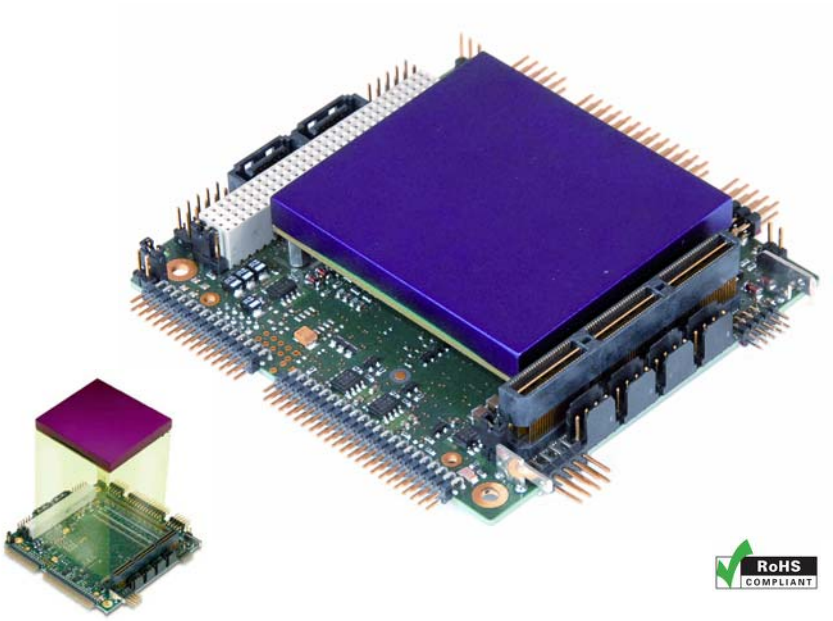
MSM200X/XP/XU/S - Intel® Atom® CPU 1.1 / 1.6GHz

Features

- Intel® Atom® Z510 / Z530 Processor *(SMA200)*
- Soldered 512MB to 2GB SDRAM
- 10/100/1000 Mbit LAN Port
- x4 USB 2.0 Host, x1 USB 2.0 Client
- 24-Bit LVDS LCD / Standard VGA port
- x1 PCI Express Minicard for WLAN/GSM
- Onboard PATA / SATA
- Up to Four COM Ports
- Optional GPS *(replaces COM3)*
- Onboard Audio
- 90mm X 96mm
- Passive Cooling
- Ultra Low Power—6W TDP



Ordering Information

Item Codes	Part#	Description
Baseboards		
MSM200X	802370	PCI-104, 4COM, USB, Audio, LCD
MSM200XP	802372	PCI/104-Express 4COM, USB, Audio, LCD
MSM200XU	802371	PCI/104-Express (top side), 4COM, USB, Audio, LCD
MSM200S	802380	PC/104-*Plus*
Baseboard Options / Accessories		
Option - L+	807006	PC/104-*Plus* long connector
Option - P+	807005	PC/104-*Plus* short connector
MSM200-CKCON	803070	MSM200 PC/104 Cable Kit
MSM200-LANCON	803020	LAN Cable with PCB
MSM200-LVDSCON	803074	LVDS Cable
MSM200-GPS	803076	GPS onboard at COM4 (X and XP models)
WLAN-MC	807414	WLAN PCIe Minicard
GSM-MC	807413	GSM/UMTS PCIe Minicard
smartCore® Express Modules		
SMA200-11G-0.5GB	805800	Atom Z510 incl. 0.5GB RAM, 1.1GHz
SMA200-11G-1GB	805801	Atom Z510 incl. 1GB RAM, 1.1GHz
SMA200-11G-2GB	805802	Atom Z510 incl. 2GB RAM, 1.1GHz
SMA200-16G-0.5GB	805810	Atom Z530 incl. 0.5GB RAM, 1.6GHz
SMA200-16G-1GB	805811	Atom Z530 incl. 1GB RAM, 1.6GHz
SMA200-16G-2GB	805812	Atom Z530 incl. 2GB RAM, 1.6GHz

Description

The MICROSPACE® MSM200X/XP/XU/S based on Intel's latest Atom processor has all of the standard PC interfaces plus Ethernet LAN and a sound controller. The permanently soldered memory (up to 2GB) results in added robustness. The PCI/104-*Express* bus (PCI + PCIe), PCI Express Minicard (WLAN, GSM), 4x COM, GPS and 4x USB 2.0 interfaces are available as functional extensions. The typical 6W power consumption permits passive cooling within a very broad working temperature range.

Data subject to change without notice

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Technical Data

Type	MSM200X	MSM200XP	MSM200XU	MSM200S
Part no. (without SMA20x)*	802370*	802372*	802371*	802380*
CPU*	SMA200 Atom Z510/Z530	SMA200 Atom Z510/Z530	SMA200 Atom Z510/Z530	SMA200, Atom Z510/Z530
ISA-BUS	-	-	-	8bit (IRQ) no DMA
PCI-BUS (Option 807006 or 807005)	Option	Option	Option	Option
PCI Express-BUS	not assembled	yes on the bottom	yes on the top	-
2nd Level cache (kB)	512	512	512	512
Performance (GHz)*	1.1 / 1.6GHz	1.1 / 1.6GHz	1.1 / 1.6GHz	1.1 / 1.6GHz
DRAM min-max (MB)*	soldered 0.5-2GB	soldered 0.5-2GB	soldered 0.5-2GB	soldered 0.5-2GB
PCIe-Minicard	1x (for WLAN/GSM)	1x (for WLAN/GSM)	1x (for WLAN/GSM)	1x (for WLAN/GSM/SSD)
Keyboard mouse (PS/2)	yes	yes	yes	yes
Boot drive	HD, LAN, USB, SSD	HD, LAN, USB, SSD	HD, LAN, USB, SSD	HD, LAN, USB, SSD
IDE interface P-ATA	1x (44pin)	1x (44pin)	1x (44pin)	1x (44pin)
IDE interface S-ATA (SIL 3132)	2x	2x	2x	2x
COM1	RS232C	RS232C	RS232C	RS232C
COM2	RS232C	RS232C	RS232C	RS232C
COM4	RS232C/RS422/485	RS232C/RS422/485	RS232C/RS422/485	-
COM5	RS232C/RS422/485	RS232C/RS422/485	RS232C/RS422/485	-
LPT1	1x	1x	1x	1x
USB (2.0)	4x	4x	4x	4x
LAN Port 1 incl. transformer (Intel® 82574L)	1GB LAN	1GB LAN	1GB LAN	1GB LAN
LAN Port 2	-	-	-	-
Audio (codec onboard)	Stereo Line in/out ALC882	Stereo Line in/out ALC882	Stereo Line in/out ALC882	Stereo Line in/out ALC882
Video controller	internal	internal	internal	internal
Video memory (MB)	128	128	128	128
LCD interface	yes 24bit LVDS	yes 24bit LVDS	yes 24bit LVDS	yes 24bit LVDS
DVI interface	-	-	-	-
CRT interface	yes	yes	yes	yes
Video input	-	-	-	-
Watchdog	yes	yes	yes	yes
Power normal (typ.)	5V/6W	5V/6W	5V/6W	5V/6W
Power suspend	5V/0.1W	5V/0.1W	5V/0.1W	5V/0.1W
Power management	yes	yes	yes	yes
RTC battery onboard (typ. 10 years)	900mAh	900mAh	900mAh	900mAh
Cooling type	passive	passive	passive	passive
Operating temperature	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Extended operating temperature (E48)	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Size (W x L in mm)	90 x 96	90 x 96	90 x 96	90 x 96
Weight	115g	120g	120g	130g
MTBF	>200'000h	>200'000h	>200'000h	>200'000h
Special features 1	soldered RAM	soldered RAM	soldered RAM	soldered RAM
Special features 2	GPS-Module	GPS-Module	GPS-Module	-
Speciatl features 3	WLAN	WLAN	WLAN	WLAN

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