



# MSEBX855

## Description

The MICROSPACE® EBX embedded computer board MSEBX855 has all of the standard PC interfaces plus a second ethernet LAN, a video input for connecting a video camera, COM3/4, 24 bit digital IO, dual screen video (DVI, LVDS, VGA) and an AC97-5.1 sound controller. In contrast to the PC/104-Plus cards, all interfaces are connected to standard plugs; this means low-cost, cable-free housing integration. The PC/104-Plus bus (32 bit PCI, ISA), the MiniPCI base and 6 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 smartModule855-xxxx.

## Applications

- \_ Image processing
- \_ Dual screen information terminals
- \_ Control of interactive devices via USB or up to 4x COM

## Ordering information

Option/accessories	No.	Description
DDR-RAM256	890670	DDR-SODIMM-Module 256MB
DDR-RAM512	890671	DDR-SODIMM-Module 512MB
DDR-RAM1024	890672	DDR-SODIMM-Module 1024MB
Passive cooling	805170	SM855 cooling without fan
Active cooling	805171	SM855 cooling with fan
Option -L+	807006	PC/104-Plus, long connector
Option -P+	807005	PC/104-Plus, short connector
Option -IS	807015	PC/104 ISA, short connector
Option -IL	807016	PC/104 ISA, long connector
Option CF	807007	CompactFlash socket type II
Option-PCICON	811205	PCI-riserboard 1x PCI slot
MSEBX855-CK	811212	MSEBX855 cable kit
SM855-C140	805192	Intel® Processor C140 (1.0GHz)
SM855-C373	805163	Intel® Celeron® C-373 (1.0GHz)
SM855-P738	805164	Intel® Pentium® M-738 (1.4GHz)
SM855-P745	805168	Intel® Pentium® M-745 (1.8GHz)



ISA

PCI

Pentium® M

0.6-1.8GHz

max.  
1GB RAM

2x LAN



## Technical data

Type	MSEBX855-B	MSEBX855-M	MSEBX855-S
<b>CPU</b>	SM855-xxx	SM855-xxx	SM855-xxx
<b>ISA-BUS (option 807015/16)</b>	8Bit, PC/104 option	8Bit, PC/104 option	8Bit, PC/104 option
<b>PCI-BUS (option 807005/6)</b>	(4slot) PC/104-Plus option	(4slot) PC/104-Plus option	(3slot) PC/104-Plus option
<b>PCI Express-BUS (PCI/104-Express)</b>	-	-	-
<b>2<sup>nd</sup> Level cache (kB)</b>	0-2048	0-2048	0-2048
<b>Performance (MHz)</b>	600-1800	600-1800	600-1800
<b>DRAM Min-Max (MB)</b>	256-1024	256-1024	256-1024
<b>CompactFlash socket (option 807007)</b>	Option	Option	Option
<b>Keyboard, mouse (PS/2)</b>	yes	yes	yes
<b>Boot drive</b>	FD, HD, USB, LAN, CF	FD, HD, USB, LAN, CF	FD, HD, USB, LAN, CF
<b>Floppy interface</b>	yes	yes	yes
<b>IDE interface P-ATA</b>	2 x	2 x	2 x
<b>IDE interface S-ATA</b>	-	-	-
<b>COM1</b>	RS232C	RS232C	RS232C
<b>COM2</b>	RS232C	RS232C	RS232C
<b>COM3</b>	RS232C/RS422/485	-	-
<b>COM4</b>	RS232C/RS422/485	-	-
<b>LPT1</b>	yes	yes	yes
<b>USB (2.0)</b>	6 x	6 x	6 x
<b>LAN port 1 onboard transformer</b>	10/100BASE-T	10/100BASE-T	10/100BASE-T
<b>LAN port 2 onboard transformer</b>	-	-	1GB-100BASE-T
<b>Audio</b>	AC97-5.1	AC97-5.1	AC97 stereo
<b>Video controller</b>	i855GME	i855GME	i855GME
<b>Video memory (MB)</b>	16-64	16-64	16-64
<b>LCD interface</b>	LVDS, 18Bit, 1600 x 1200	LVDS, 18Bit, 1600 x 1200	LVDS, 18Bit, 1600 x 1200
<b>DVI interface</b>	yes	yes	yes
<b>CRT interface</b>	yes	yes	yes
<b>Video input</b>	-	MPEG2, 1 x SVideo, 3 x CVBS	-
<b>Watchdog</b>	yes	yes	yes
<b>Power normal</b>	10V-30V/12-25W	10V-30V/12-25W	10V-30V/12-25W
<b>Power suspend</b>	0.1W	0.1W	0.1W
<b>Power management</b>	yes	yes	yes
<b>RTC battery onboard</b>	400mAh (10 years)	400mAh (10 years)	400mAh (10 years)
<b>Cooling type</b>	passive/active	passive/active	passive/active
<b>Operating temperature</b>	-25°C to +70°C <sup>1)</sup>	-25°C to +70°C <sup>1)</sup>	-25°C to +70°C <sup>1)</sup>
<b>Extended operating temperature (E47)</b>	see SM855-xxx	see SM855-xxx	see SM855-xxx
<b>Size (W x L in mm)</b>	203 x 146 x 29	203 x 146 x 29	203 x 146 x 29
<b>Weight</b>	350 g	350 g	350 g
<b>MTBF</b>	>200'000h	>200'000h	>200'000h
<b>Special features 1</b>	-	MPEG2 hardware	-
<b>Special features 2</b>	24Bit Digital I/O	24Bit Digital I/O	24Bit Digital I/O
<b>Special features 3</b>	-	TV-Output	-
<b>Part no. (without RAM, without SM855)</b>	811200	811201	811202

<sup>1)</sup> Depending on cooler and CPU-performance.