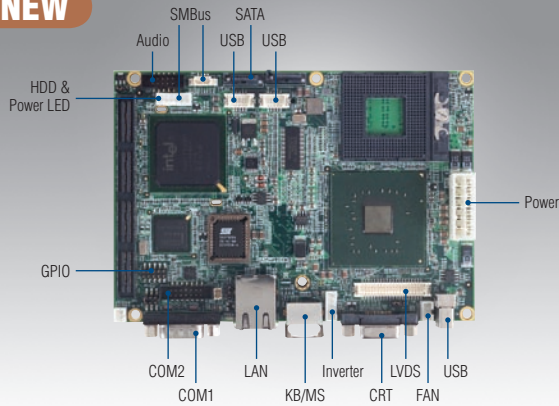


# PCM-9382

3.5" Biscuit with Intel® Core™ 2 Duo/  
VGA, LVDS, LAN, USB, SATA, SSD

**NEW**



## Features

- Embedded Intel® Core™ 2/Core™ Duo LV/ULV processor
- Supports 48-bit LVDS/ VGA display
- Supports Giga LAN and HD audio
- Supports Five USB 2.0 port and one SATA II
- Supports Embedded Software API and Utility

### Software APIs:



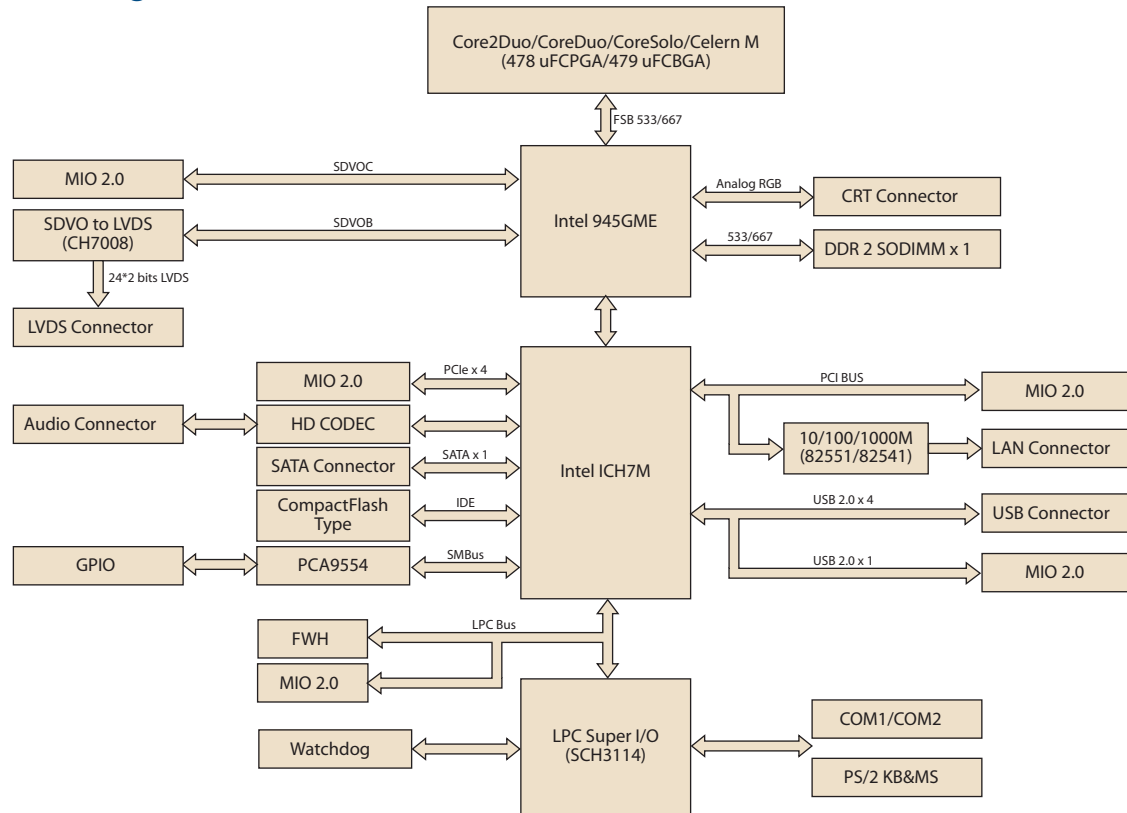
### Utility:



## Specifications

Processor System	CPU	Socket 478 support up to Intel Core2 Duo T74000	Intel Celeron M 1.06 GHz (423)
	Front Side Bus	533/667	533/667
	L2 Cache	depends on CPU	512 KB
	Chipset	Intel 945GME + ICH7M	Intel 945GME + ICH7M
	BIOS	Award 4 Mbit	Award 4 Mbit
Memory	Technology	DDR2 533/667 MHz	
	Max. Capacity	2 GB	
	Socket	1 x 200-pin SODIMM	
SSD	CompactFlash	Card Type I/II	
Coastline I/O	VGA	1	
	COM	1	
	RJ-45	1	
	USB	1	
	K/B, Mouse	1	
Internal I/O	RS-232	-	
	RS-232/422/485	1	
	K/B	-	
	Mouse	-	
	USB	4 x USB 2.0	
	Audio	High Definition Audio (HD), Line-in, Line-out, Mic-in	
	GPIO	8-bit general purpose Input/Output	
SATA	Max. Data Transfer Rate	150 MB/s	
	Channel	1	
	Expansion Slot	MIO 160	1
Ethernet	Speed	10/100 Mbps 10/100/1000 Mbps (optional)	
	Controller	Intel 82551QM (with wake on LAN) Intel 82541PI (Gigabit)	
	Interface	1 x RJ-45	
Display	Controller	Intel 945GME	
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory	
	LVDS LCD	1 x 48-bit LVDS LCD Panel	
	Dual Independent Display	CRT + LVDS	
Environment	Operating Temperature	0 ~ 60° C (32 ~ 140° F)	
	Operating Humidity	10% ~ 90% relative humidity, non-condensing	
Power	Power Type	AT / ATX	
	Power Supply Voltage	ATX: +5 V ± 5%, ±12 V ± 5% AT: 5V only to boot up (12 V is optional for LCD inverter and add on card)	
	Power Consumption	Typical (WinXP Idle Mode): +5 V @ 4.64 A, +12 V @ 0.09 A Max (Test in HCT): +5 V @ 5.14 A, +12 V @ 0.16 A	
	Power Management	APM1.2, ACPI2.0, wake on LAN, and modem ring-in functions	
	Battery	Lithium 3 V / 210 mAH	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec	
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")	
	Weight	0.85 kg (1.87 lb), weight of total package	

## Board Diagram



## Ordering Information

Part No.	CPU	CRT	LVDS	LAN	SATA	USB	RS232	RS232/422/485	CF	MIO	Power Supply
PCM-9382F-00A1E	Socket	1	1	1 FE	1	5	1	1	1	1	5 V/12 V
PCM-9382F-S0A1E	1.06 GHz	1	1	1 FE	1	5	1	1	1	1	5 V or 5 V/12 V
PCM-9382FG-00A1E	Socket	1	1	1 GbE	1	5	1	1	1	1	5 V/12 V

## Optional Accessories

Part No.	Description
MIO-6255	MIO module w/ 2 x Cardbus
MIO-6260	MIO module w/ 4 x USB, 2 x COM, 1 x LAN

## Packing List

Part No.	Description	Quantity
	PCM-9382 SBC	1
9689000002	Mini jumper pack	1
	Startup manual	1
	Utility CD	1
1703100152	Audio cable	1
1700071000	SATA cable	2
1700003151	USB 2.0 port cable	1
1700060202	Keyboard/Mouse cable	1
1701140201	Second serial port cable	1
1700000265	ATX power cable 20P-12P cable	1
1700260250	Parallel port cable	1
1750001940	Cooler (PCM-9382F-00A1E)	1

# Value-Added Software Services

**Software API:** An interface that defines the ways by which an application program may request services from libraries and/or operating systems. Provides not only the underlying drivers required but also a rich set of user-friendly, intelligent and integrated interfaces, which speeds development, enhances security and offers add-on value for Advantech platforms. It plays the role of catalyst between developer and solution, and makes Advantech embedded platforms easier and simpler to adopt and operate with customer applications.

## Software APIs

### Control



**GPIO**

General Purpose Input/Output is a flexible parallel interface that allows a variety of custom connections. It allows users to monitor the level of signal input or set the output status to switch on/off a device. Our API also provides Programmable GPIO, which allows developers to dynamically set the GPIO input or output status.



**SMBus**

SMBus is the System Management Bus defined by Intel® Corporation in 1995. It is used in personal computers and servers for low-speed system management communications. The SMBus API allows a developer to interface a embedded system environment and transfer serial messages using the SMBus protocols, allowing multiple simultaneous device control.



**I2C**

I2C is a bi-directional two wire bus that was developed by Philips for use in their televisions in the 1980s. The I2C API allows a developer to interface with an embedded system environment and transfer serial messages using the I2C protocols, allowing multiple simultaneous device control.

### Display



**Brightness Control**

The Brightness Control API allows a developer to interface with an embedded device to easily control brightness.



**Backlight**

The Backlight API allows a developer to control the backlight (screen) on/off in an embedded device.

### Monitor



**Watchdog**

A watchdog timer (WDT) is a device that performs a specific operation after a certain period of time if something goes wrong and the system does not recover on its own. A watchdog timer can be programmed to perform a warm boot (restarting the system) after a certain number of seconds.



**Hardware Monitor**

The Hardware Monitor (HWM) API is a system health supervision API that inspects certain condition indexes, such as fan speed, temperature and voltage.



**Hardware Control**

The Hardware Control API allows developers to set the PWM (Pulse Width Modulation) value to adjust fan speed or other devices; it can also be used to adjust the LCD brightness.

### Power Saving



**CPU Speed**

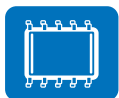
Make use of Intel SpeedStep technology to reduce power consumption. The system will automatically adjust the CPU Speed depending on system loading.



**System Throttling**

Refers to a series of methods for reducing power consumption in computers by lowering the clock frequency. These APIs allow the user to lower the clock from 87.5% to 12.5%.

## Software Utilities



**BIOS Flash**

The BIOS Flash utility allows customers to update the flash ROM BIOS version, or use it to back up current BIOS by copying it from the flash chip to a file on customers' disk. The BIOS Flash utility also provides a command line version and API for fast implementation into customized applications.



**Embedded Security ID**

The embedded application is the most important property of a system integrator. It contains valuable intellectual property, design knowledge and innovation, but it is easily copied! The Embedded Security ID utility provides reliable security functions for customers to secure their application data within embedded BIOS.



**Monitoring**

The Monitoring utility allows the customer to monitor system health, including voltage, CPU and system temperature and fan speed. These items are important to a device; if critical errors happen and are not solved immediately, permanent damage may be caused.



**eSOS**

The eSOS is a small OS stored in BIOS ROM. It will boot up in case of a main OS crash. It will diagnose the hardware status, and then send an e-mail to a designated administrator. The eSOS also provides remote connection: Telnet server and FTP server, allowing the administrator to rescue the system.



**Flash Lock**

Flash Lock is a mechanism that binds the board and CF card (SQFlash) together. The user can "Lock" SQFlash via the Flash Lock function and "Unlock" it via BIOS while booting. A locked SQFlash cannot be read by any card reader or boot from other platforms without a BIOS with the "Unlock" feature.