



SBC340

3U VPX Single Board Computer

Features

- Intel Core 2 Duo T7400 processor @ 2.16 GHz or 1.5 GHz
- Intel 945GM chipset
- Up to 4 GBytes DDR2 SDRAM
- 16-lane PCI Express™ to the backplane for high-performance graphics
- 4-lane PCI Express to backplane for connection to fabric
- 3U VPX form factor
- 1-lane PCI Express to backplane for connection to fabric
- Air- and conduction-cooled variants

The SBC340 is the first Intel processor-based offering on the 3U VPX form factor. Implementing the 2.16 GHz T7400 Intel Core Duo processor architecture, SBC340 brings state of the art processing performance to the military and aerospace market.

With a rich set of I/O, the SBC340 is a rugged PC aimed at processing, communications and display applications. The Intel 945GM North-bridge provides a dual-bank DDR SDRAM interface, as well as incorporating GMA 950 graphics capability. High-speed interfaces include Gigabit Ethernet, Hi-Speed USB 2.0, SATA and GPIO.

The VPX form factor allows for high speed PCI Express connections to other cards in the system. SBC340 supports two PCI Express ports across the backplane.

Firstly, a 16-lane PCI Express port provides high performance access to a dedicated graphics processing unit, such as that on the GRA110 graphics board. Secondly, a 4-lane PCI Express port allows high speed data communication to other single board computers and PMC carrier cards in order to build complex systems. Alternatively, the 4-lane port can be configured as four single-lane ports.

Audio support is provided by the Intel High Definition Audio controller, with stereo line-in and stereo line-out capability. For applications not using an external PCI Express graphics card, the SBC340 provides Intel GMA950 graphics output capability.

SBC340 is supplied with a BIOS, supporting operating systems such as Microsoft® Windows® XP, Windows XP Embedded, Linux® and VxWorks®.



Optionally available as an LRM (Line Replaceable Module) in accordance with the VPX-REDI (formerly VITA 48) standard



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Specifications

Processor

- Intel Core 2 Duo T7400

Processor Speed

- 2.16 GHz or 1.5 GHz

Front Side Bus Speed

- 667 MHz

Processor Secondary Cache

- 4 MBytes full-speed on-die Level 2 cache

Memory Size

- Up to 4 GBytes 667MHz DDR2 SDRAM

Flash Disk

- 1 GB embedded IDE Flash disk

Audio

- Intel High Definition Audio

Network

- 10/100/1000 Gigabit Ethernet

Serial COMs Ports

- 2x RS232

Video Controller

- GMA 950 internal or external 16-lane PCIe graphics card

Video Memory Size/Type

- Shared if using GMA950

RAMDAC

- 400 MHz

Graphics

- Single channel 2048x1536 @ 60 Hz resolution, 32-bit color SXGA

USB ports

- 4x USB2

Keyboard and Mouse

- PS2/USB (Note: PS2 is a factory build option, which reduces the USB port count to 2)

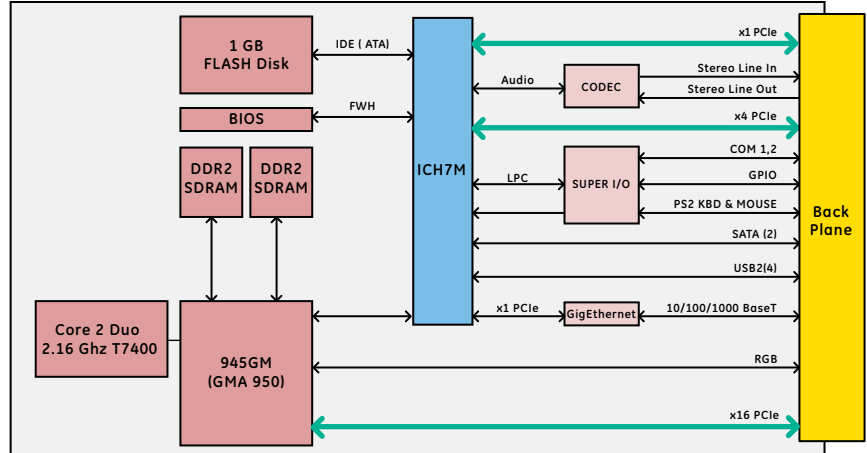
Form factor

- 3U VPX

Operating System

- Standard PC BIOS, supporting Microsoft® Windows® Vista, Windows XP, Windows XP Embedded, Linux®, LynxOS®, VxWorks® (Note: operating systems are not included in the product)

Block Diagram



Environmental

	Level 1	Level 2	Level 3	Level 4	Level 5
Cooling Method	Convection	Convection	Convection	Conduction	Conduction
Conformal Coating	Optional	Standard	Standard	Standard	Standard
High/Low Temp	0 to 55°C	-20 to +65°C	-40 to +75°C	-40 to +75°C	-40 to +85°C
Operational	(300 ft/m)	(300 ft/m)	(600 ft/m)	At cold wall	At cold wall
Random Vibration	0.002g ² /Hz*	0.002g ² /Hz*	0.04g ² /Hz**	0.1g ² /Hz**	0.1g ² /Hz**
Shock	20g***	20g***	20g***	40g***	40g***

With a flat response to 1000 Hz, 6 dB/Oct roll-off from 1000 to 2000 Hz ** From 10 to 1000 Hz *Peak sawtooth 11 ms duration

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

GE Intelligent Platforms Contact Information

Americas: 1 800 433 2682 or 1 434 978 5100

Global regional phone numbers are listed by location on our web site at www.ge-ip.com/contact

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