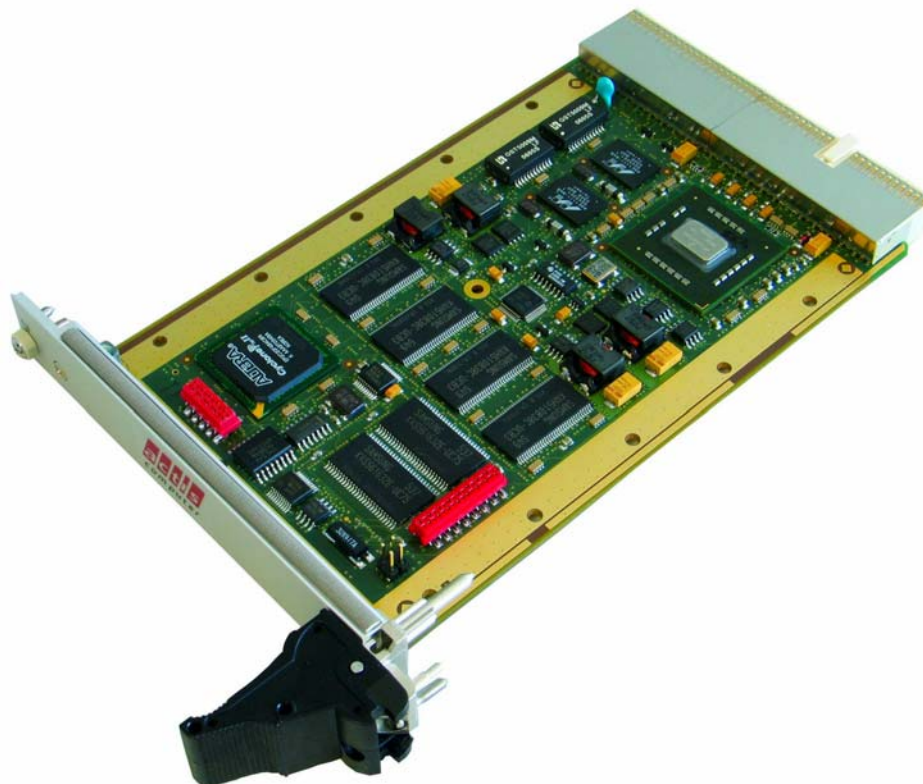


Features

- PowerQUICC III MPC8545E 1.2GHz
- 32-bit/66MHz cPCI
- up to 1GB DDR SDRAM with ECC
- 8MB Boot Flash
- up to 1GB NAND Flash
- 64kbit NVRAM
- Two Gigabit Ethernet ports
- Two RS-232 serial ports
- Five user GPIOs
- User FPGA
- Real Time Clock
- Watchdog
- Temperature sensor
- Available in cPCI system and peripheral versions
- Optional conformal coating
- Three ruggedization levels available
- Supplied with bootloader/debugger and BIT firmware



CSBX-3545 is a highly integrated solution specially designed to meet harsh environment requirements. It features a low-power high-performance PowerPC processor in 3U CompactPCI form factor, available in system or peripheral version and in three ruggedization levels.

Processor

Freescale's MPC8545E next-generation PowerQUICC III processor integrates the enhanced e500 PowerPC core and advanced features such as DDR2 memory controller with full ECC support, Dual Gigabit Ethernet, Dual PCI, single x4 PCI Express, double precision floating point APU, and integrated Security Engine. This processor is rated at 2765 MIPS @ 1.2 GHz.

Security Engine

The on-chip Security Engine (SEC) is designed to off-load computationally intensive security functions, such as key generation and exchange, authentication and bulk encryption from the processor core.

Network and serial ports

The CSBX-3545 offers a variety of on-board I/O: two Gigabit Ethernet ports, two asynchronous RS-232 ports, one I2C bus, and five user General-purpose I/Os. All these ports are accessible on rear J2 connector.

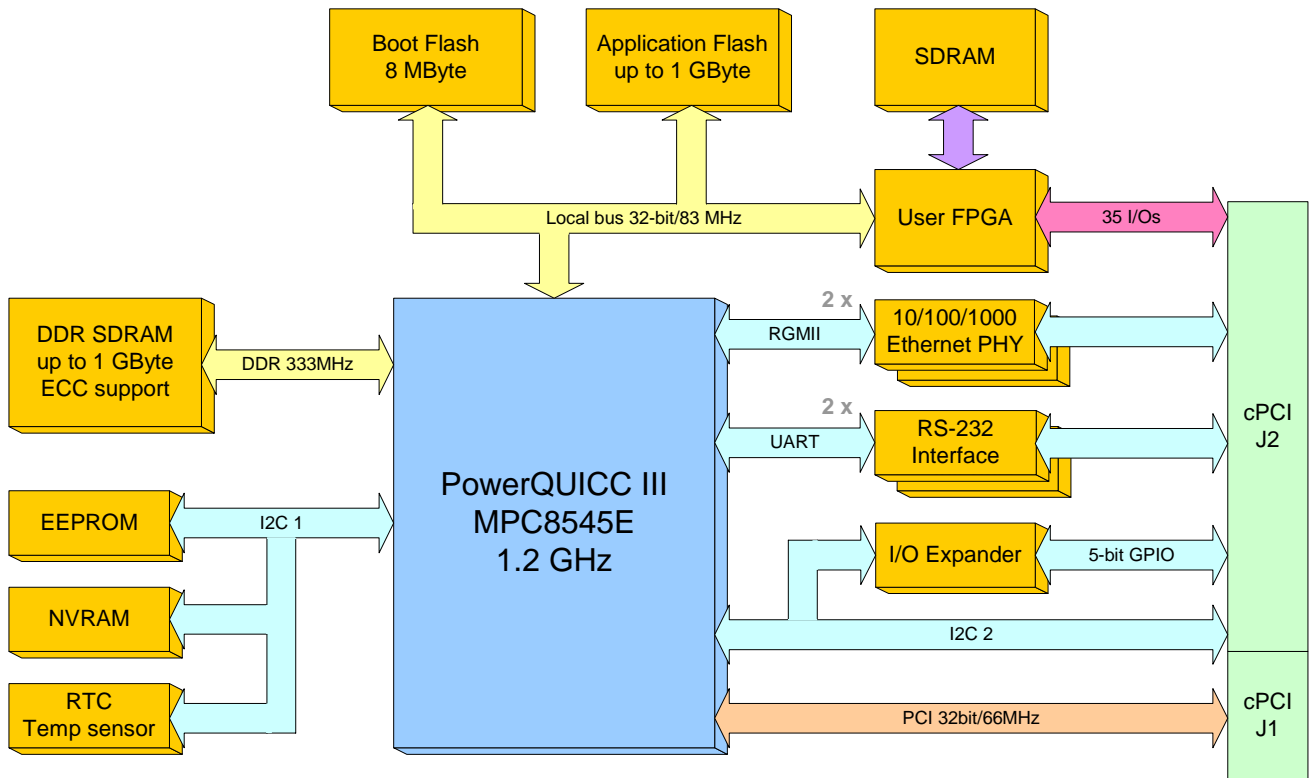
User FPGA

A Cyclone II FPGA device is implemented to provide hardware computing resources for user purpose. It is interfaced with the processor local bus and is connected to dedicated SDRAM memory. It is available in several densities and speed grades. Thirty-five I/Os are connected to the CompactPCI J2 connector.

Software

Developers can take advantage of the CSBX-3545's power and performance when running major real-time operating systems (RTOS) or when deploying applications based on the low-cost, open-source Linux™ operating system. RTOS supported by the CSBX-3545 include VxWorks® and others on request.

A BIT firmware runs at board initialization to check hardware integrity before passing control to the operating system.



Local Processor

- PowerPC Freescale MPC8545E
- 2765 MIPS @ 1.2 GHz
- 512 KByte L2 Cache
- Double-precision floating point auxiliary processing unit
- Security Engine

Memory

- up to 1 GByte DDR with ECC support
- 8 MByte Boot Flash
- up to 1 GByte NAND Flash
- 64 kbit NVRAM
- 8 kbit serial EEPROM

Communication ports (on J2)

- 2 Gigabit Ethernet ports
- 2 RS-232 serial ports
- 1 I2C bus
- 5 user GPIOs

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User FPGA

- Cyclone II device available in different densities and speed grades
- Interfaced on processor local bus
- Dedicated SDRAM memory
- 35 I/Os on cPCI J2 connector

Peripherals

- 1 Real Time Clock
- 1 Watchdog
- 1 Temperature sensor

CompactPCI Interface

- PICMG 2.0 R3.0 compliant
- 32-bit, 33/66 MHz
- 3.3V environment
- System or peripheral

Environmental

Commercial	0 to +55°C
Industrial	-25°C to +71°C
Military	-40°C to +85°C
Relative Humidity	0 to 90 % (non-cond.)
Altitude	0 to 50,000 ft

Power Requirements

+5V	TBD A typ
+3.3V	TBD A typ

Mechanical

Dimension	100 x 160 mm
Vibration	TBD
Shock	TBD
MTBF	TBD

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