

SB16C1158PCIe



PCI Express to 8S Bridge Controller

SB16C1158PCIe is a single chip which enables a connection of eight asynchronous serial ports to the PCI Express bus. It is the best one-chip solution for 8 Serial Ports PCI Express Card.

SB16C1158PCIe includes Octal UART with 256-Byte TX/RX deep FIFO developed by SystemBase. Another enhanced feature is as follows; global interrupt, 9-bit serial data transfer and dedicated control pins for RS422/485 auto toggling. 256-byte FIFOs reduce CPU overhead and allow higher data throughput. Especially, it supports PCIe Burst Transfer up to 256-byte with 4-byte width transaction of enhanced UART which shows the fastest response time and performance to the applications. Because the integrated UART core also support 8-bit/ 16-bit/ 32-bit Read/Write operation, the performance will be better than fixed normal UART.

■ SB16C1158PCIe Features

PCI Express

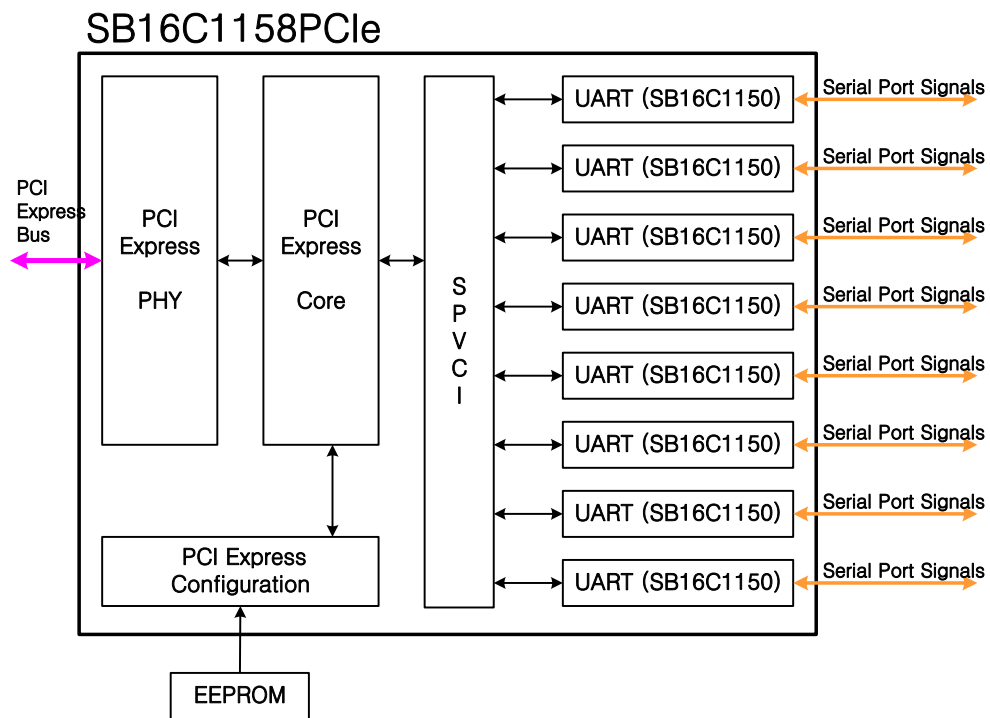
- Up to 256-byte PCI Express Burst Transfer for Serial Dump
- Built-In PCI Express PHY 2.5Gbps
- Power Management v1.2 compliant

Serial Port

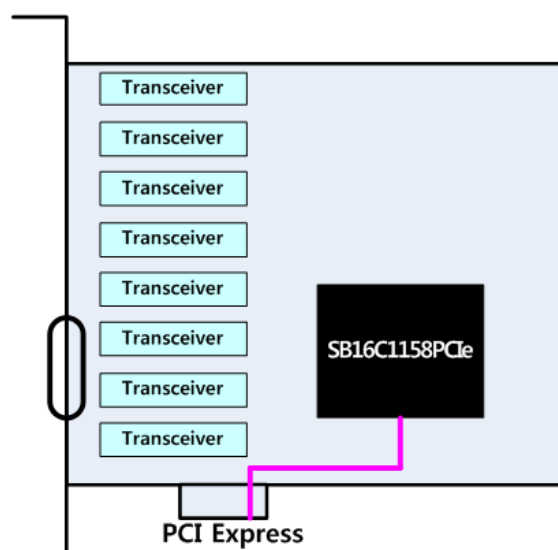
- Built-In eight improved UART Core, SB16C1150 with 256-byte FIFO
- Serial Speed up to 1.8432Mbps
- Support 9-bit Data Transfer & Automatic Address Detection function
- Best Performance with 32-/ 16-/ 8-bit accessible UART core
- Enhanced Auto Toggling for RS422/485 network
- Efficient Interrupt Management using Interrupt Poll Register and Interrupt Mask Register
- Support IrDA v1.0/v1.1 Encoding/Decoding

SB16C1158PCIe PCI Express to 8 Serial Bridge Controller

■ SB16C1158PCIe Block Diagram & Applications



<SB16C1158PCIe Block Diagram>



<SB16C1158PCIe Application >

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● Features



Integrated PCI Express Interface

- Standard PCI Express Specification Rev. 1.1/2.0/3.0 compliant
- Up to 256-byte PCI Express Burst Operation for Serial Dump
- Built-In 2.5Gbps PCI Express PHY
- PCI Power Management Specification Rev. 1.2 compliant
- Supports MSI & ASPM Link Power Management
- Downloads the Configuration header data from external serial EEPROM

Octal UART Interface

- Octal-Channel UART(Universal Asynchronous Receiver and Transmitter)
- 256-byte Transmit/Receive Deep FIFO
- Best Performance with 8-/ 16-/ 32-bit Accessible UART Core
- Support 9-bit Data Transfer & Auto Address Detection
- Support Enhanced Auto Toggling for RS422/485 networks
- Hardware/ Software Flow Control & Xoff re-transmit
- Support IrDA v1.0/v1.1 Encoding/Decoding

Support & Order Information

- Core 1.2V, I/O 3.3V , TQFP176 Package
- Industrial Temperature, -40°C ~ 85°C

SystemBase offers SB16C1158PCIe Manufacturing Kit to minimize development efforts and costs, and to maximize application stability. The Manufacturing Kit includes H/W schematics, CAD files, Gerber files and S/W device driver and etc. It will help you develop a new product easily and quickly.

* This contents would be changed with notification.



Products	Description
SB16C1158PCIe	PCI Express to 8 Serial Bridge Controller 176-pin TQFP, RoHS Industrial Grade, -40 to 85°C