Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

High Performance Dual/Quad/Octal PCI Express UARTs

XR17V352/V354/V358

Direct Connectivity with Complete Single Chip Endpoint Solution

Features

- Single 3.3V power supply
- Internal buck regulator for 1.2V core
- PCIe 2.0 Gen 1 compliant
- x1 PCIe Link, dual simplex, 2.5Gbps in each direction
- EEPROM interface for configuration
- Data read/write burst operation
- Global interrupt status register for up to eight UARTs
- Up to 25 Mbps serial data rate
- 16 multi-purpose inputs/outputs (MPIOs)
- 16-bit general purpose timer/counter
- Sleep mode with wake-up Indicator
- Expansion port interface on V354/ V358 allows cascading up to 16 UART channels
- Up to eight independent UART channels controlled with:
  - 16550 compatible register Set
  - 256-byte TX & RX FIFOs
  - Programmable TX & RX Trigger Levels
  - TX/RX FIFO Level Counters
  - Fractional baud rate generator
  - Automatic RTS/CTS or DTR/ DSR hardware flow control with programmable hysteresis
  - Automatic Xon/Xoff S/W flow control
  - RS-485 half duplex direction control output with programmable turn-around delay
  - Multi-drop with Auto Address Detection
  - Infrared data encoder/decoder
- Software compatible to XR17C15x, XR17D15x, XR17V25x PCI UARTs

The XR17V352[1] (V352), XR17V354[1] (V354) and XR17V358[1] (V358) are part of the single chip 2/4/8-channel PCI Express (PCIe) UART (Universal Asynchronous Receiver and Transmitter) product family. The PCIe UART Family is optimized for higher performance and lower power. All three PCIe UARTs serve as a single lane PCIe bridge to 2, 4 or 8 independent enhanced 16550 compatible UARTs and are compliant to PCIe 2.0 Gen 1 (2.5GT/s).

In addition to the UART channels, the PCIe UARTs have 16 multi-purpose I/Os (MPIOs), a 16-bit general purpose counter/timer and a global interrupt status register to optimize interrupt servicing.

Each UART has a multitude of enhanced features such as the 256-byte TX and RX FIFOs, programmable Fractional Baud Rate Generator, Automatic Hardware or Software Flow Control, Auto RS-485 Half-Duplex Direction Control, programmable TX and RX FIFO Trigger Levels, TX and RX FIFO Level Counters, infrared mode, and data rates up to 25Mbps. The V352 is available in a 113-pin fpBGA package (9 x 9 mm). The V354 and V358 are available in a 176-pin fpBGA package (13 x 13 mm) and are pin compatible to each other. The V354 and V358 can also be cascaded to have up to 16 UART channels using a single PCIe x1 lane.
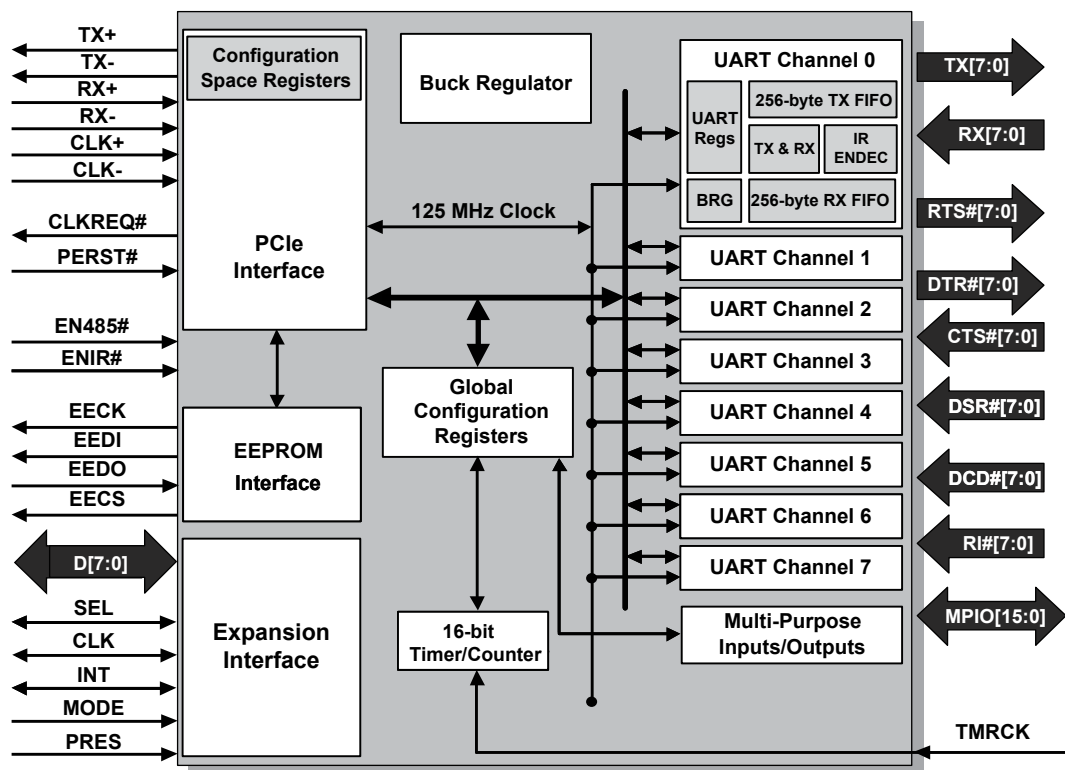
Note[1]: Covered by U.S. Patents #5,649,122, #6,754,839, #6,865,626 and #6,947,999

XR17V358 Block Diagram

Applications

- Next generation Point-of-Sale Systems
- Remote Access Servers
- Storage Network Management
- Factory Automation and Process Control
- Multi-port RS-232/RS-422/RS-485 Cards

Software

Software drivers are available for:

- Windows 2000/XP/Vista/7
- Windows CE
- Linux
- QNX

Ordering Information

Part Number	Package Type	Operating Temperature Range
XR17V352IB113-F	fpBGA-113	-40°C to 85°C
XR17V354IB176-F	fpBGA-176	-40°C to 85°C
XR17V358IB176-F	fpBGA-176	-40°C to 85°C

Support

For UART technical support, please email Exar's UART Technical Support group at: uarttechsupport@exar.com

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