XR16V798
High Performance 8Mbps 2.25V to 3.63V Octal UART with Fractional Baud Rate Generator

Ideal for High Speed Data Transmission

The XR16V798 (V798) offers customers the best overall solution to address the rapid time-to-market demands of next generation applications including remote access servers, network management, factory automation/process control and multi-port RS-232/RS-422/RS-485 communications cards.

The XR16V798 is a 2.25V to 3.63V Octal Universal Asynchronous Receiver and Transmitter (UART) with 5V tolerant serial (modem) inputs. The highly integrated device is designed for high bandwidth requirement in communication systems. The global interrupt source register provides a complete interrupt status indication for all 8 channels to speed up interrupt parsing. Each UART channel has its own 16C550 compatible set of configuration registers, TX and RX FIFOs of 64 bytes, fully programmable transmit and receive FIFO trigger levels, TX and RX FIFO level counters, automatic RTS/CTS or DTR/DSR hardware flow control with programmable hysteresis, automatic software (Xon/Xoff) flow control, RS-485 half-duplex direction control with programmable turn-around delay, Intel or Motorola bus interface and sleep mode with a wake-up indicator.

Major Features

- **Up to 8 Mbps Serial Data Rate**
- **2.25V to 3.63V with 5V Tolerant Serial Inputs**
- **Single Interrupt output for all 8 UARTs**
- **A Global Interrupt Source Register for all 8 UARTs**
- **5G "Flat" UART Registers for easier programming**
- **Simultaneous Initialization of all UART channels**
- **A General Purpose Command driven 16-bit Timer/counter**
- **Sleep Mode with Wake-up Indication**
- **Highly Integrated Device for Space Saving**
- **Pin compatible to XR16L788. Same 100-pin QFP Package (14x20x3 mm)**

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Experience *Our* Connectivity™

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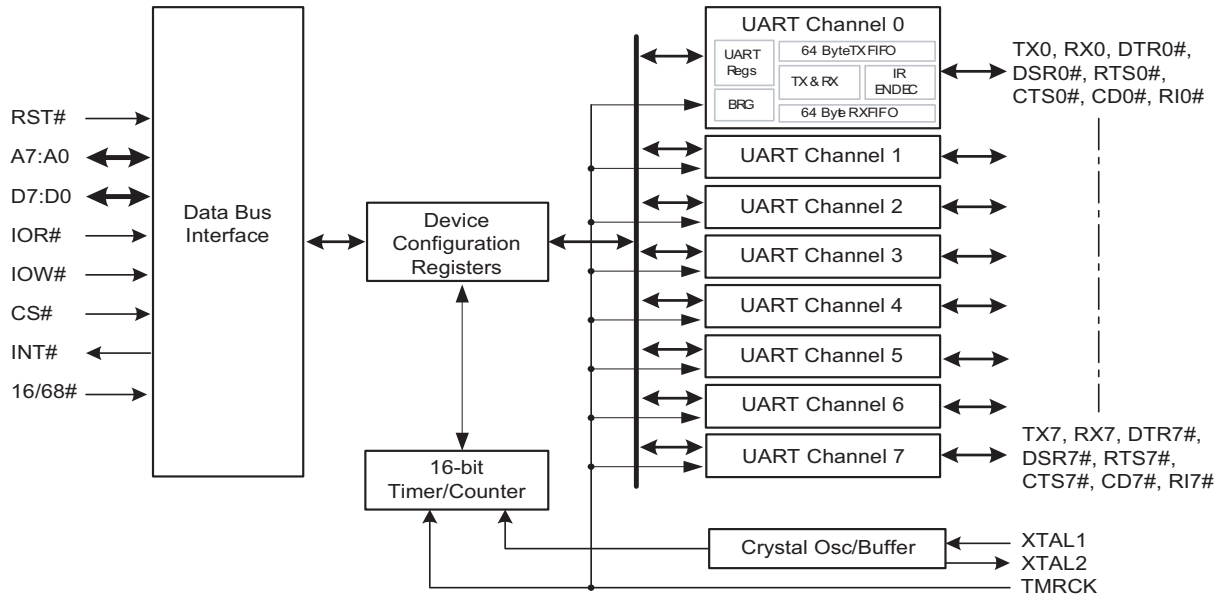
XR16V798 Block Diagram



Features

- Each UART is independently controlled with:
  - 16C550 Compatible 5G Register Set
  - 64-byte Transmit and Receive FIFOs
  - Transmit and Receive FIFO Level Counters
  - Programmable TX and RX FIFO Trigger Level
  - Automatic RTS/CTS or DTR/DSR Flow Control
  - Automatic Xon/Xoff Software Flow Control
  - RS485 HDX Control Output with Selectable Turn-around Delay
  - Infrared (IrDA 1.0) Data Encoder/Decoder
  - Programmable Fractional Baud Rate Generator with Prescaler

Applications

- Remote Access Servers
- Ethernet Network to Serial Ports
- Network Management
- Factory Automation and Process Control
- Point-of-Sale Systems
- Multi-port RS-232/RS-422/RS-485 Cards

Ordering Information

Product No.	Package	Operating Temp. Range
XR16V798IQ	100-QFP	-40°C to +85°C

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