

# XR16L580

## Smallest Single Channel UART with 16-Byte FIFO

Full Featured Low Power UART with Automatic Hardware and Software Flow Control and a Unique Power-Save Mode

The XR16L580 (L580) is the industry's smallest form factor, low power single channel UART (Universal Asynchronous Receiver Transmitter). The L580 is designed for space limited applications such as cellular phones, digital cameras, global positioning systems, and other battery operated portable consumer products. The device is available in small form factor 24, 28 and 32-pin QFN packages as well as 48-pin TQFP.

The L580 consists of 16-byte Transmit (TX) and Receive (RX) FIFOs with selectable trigger levels and automatic hardware and software flow control to maximize data throughput and to reduce CPU bandwidth requirement. The device is low power with a Power-Save mode that reduces sleep current to less than 30 uA and operates at 2.5V to 5V over industrial temperature range (-40°C to +85°C).

The XR16L580 operates up to 4Mbps data rate at 5V and 3Mbps at 3.3V, and 1 Mbps at 2.5V.

### Compatibility

The XR16L580 is functionally compatible to the ST16C450, ST16C550, ST16C580, ST16C650A, and XR16C850 UARTs.



### Major Features

- Smallest form factor single channel UART
- Up to 4Mbps serial data rate
- Less than 30uA Power-Save current
- 16-byte FIFO
- Automatic software and hardware flow control
- Power-Save mode for longer battery life

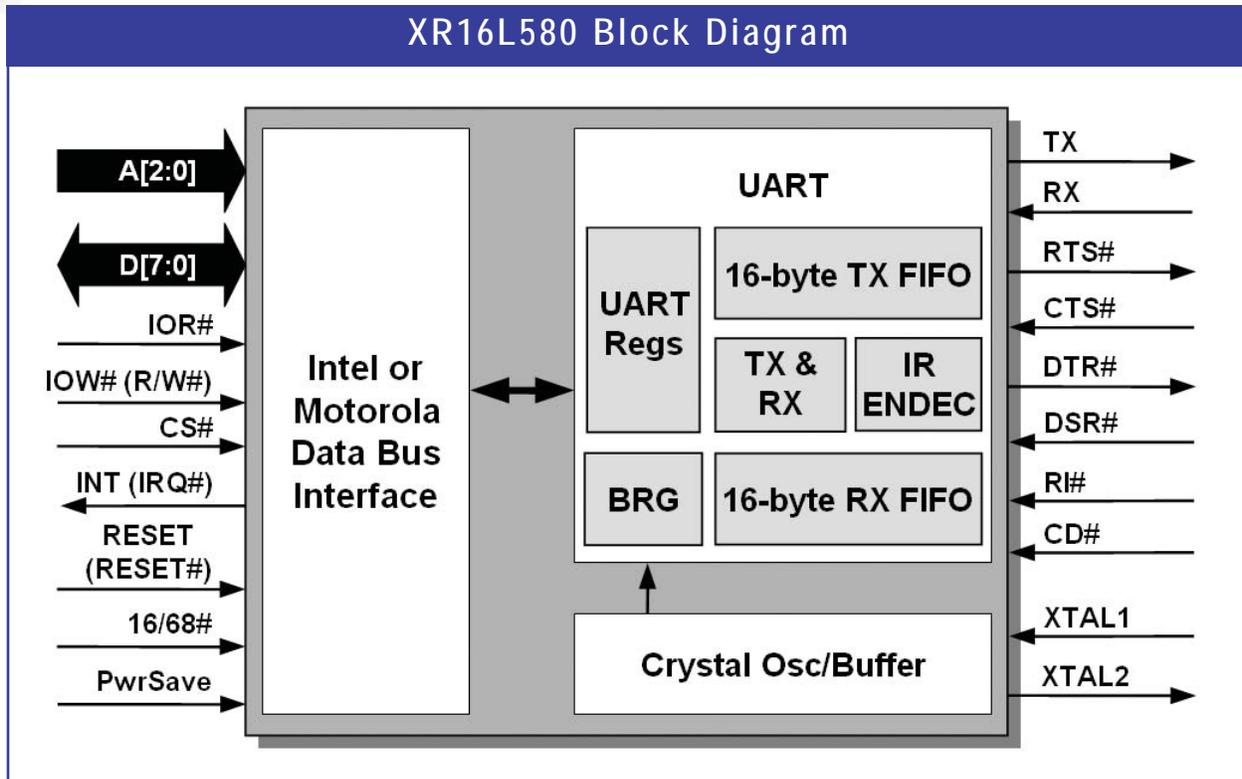
### Ordering Information

Product No.	Package	Operating Temp. Range
XR16L580IL24	24-QFN	-40°C to +85°C
XR16L580IL28	28-QFN	-40°C to +85°C
XR16L580IL	32-QFN	-40°C to +85°C
XR16L580IM	48-TQFP	-40°C to +85°C

**EXAR**

Experience *Our* Connectivity™

# Smallest Single Channel UART with 16-Byte FIFO



## Features

- Small 24-QFN (4mm x 4mm), 28 and 32-QFN (5mm x 5mm) packages
- Up to 4Mbps serial data rate
- Wide operating voltage range of 2.5V to 5V
- 5V tolerant inputs
- Sleep and Power-Save modes
- Selectable Intel or Motorola data bus interface
- Automatic hardware (RTS/CTS) flow control
- Automatic software (Xon/Xoff) flow control
- 16-byte TX and RX FIFO
- Selectable FIFO trigger levels
- IrDA encoder and decoder

## Applications

- Portable consumer products
- Mobile phones
- Handheld navigation and Global Positioning Systems
- Digital cameras
- HDTV/LCDTV
- Battery operated equipment and instruments
- Personal Digital Assistants
- Infrared Point-of-Sale units, such as barcode scanners