



Semiconductor, Inc.

Ei82C684 Ei68C684 QUAD UART

FEATURES

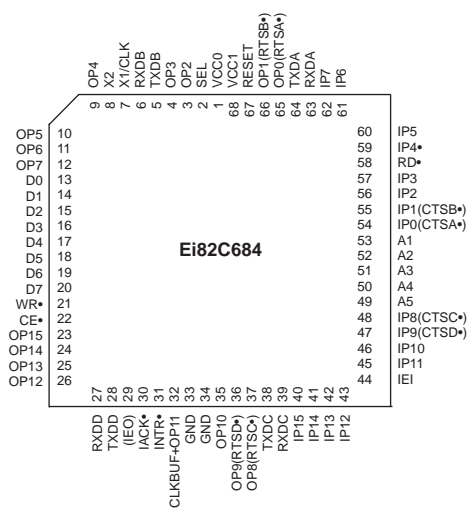
- Full duplex, four channel asynchronous receiver and transmitter
- Quadruple-buffered receiver and transmitter
- Internal bit rate generator with 23 industry standard bit rates operating from either of two standard crystal clocks
- Independent bit rate selection for each receiver and transmitter
- Maximum bit rate: 1 x clock - 2 Mb/sec., 16 x clock- 250 Kb/sec.
- Normal, auto-echo, local loop-back and remote loop-back modes
- Multi-function 16-bit counter/timer
- Programmable interrupt daisy chain
- Up to 32 I/O pins (depending on package and version)
- Change of state detectors on inputs
- Multidrop mode compatible with 8051 nine-bit mode
- Stop bits programmable in 1/16-bit increments
- Pin selectable 88xxx/68xxx interface
- Debounced reset pin (20 nsec. min)
- On-chip oscillator for crystal

- Programmable internal clock: X1/CLK or X1/CLK divided by 2
- Buffered system clock output pin
- Stand-by mode to reduce operating power
- Advanced CMOS low power technology

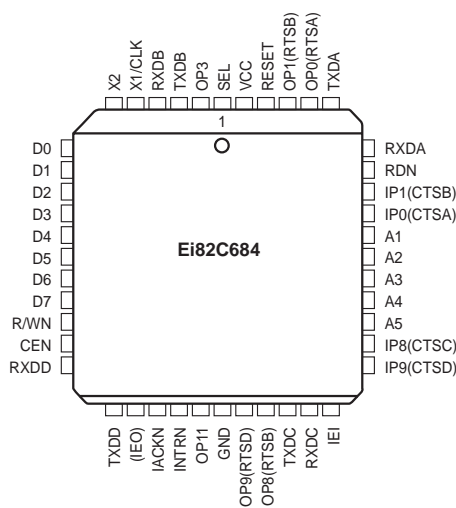
DESCRIPTION

The Epic Ei68C684/Ei88C684 Quad Universal Asynchronous Receiver and Transmitter (QUART) is a data communication device that provides four fully independent full duplex asynchronous communication channels in a single package. The QUART is designed for use in microprocessor based systems and may be used in a polled or interrupt driven environment.

Two basic versions of the QUART are pin selectable with SEL pin and each is optimized for use with various microprocessor families: the Ei88C684 for 8080/5, 8086/88, Z80, Z8000, 68XX and 65XX family based systems., and the 68C681 for 68000 family based systems. A programmable mode of the Ei88C684 versions provides an interrupt daisy chain for use in Z80 and Z8000 based systems. The bus interfaces are however general enough to allow interfacing with other microprocessors and microcontrollers. The Ei88C684 and Ei68C684 are high integrated versions of Epic Semiconductor's Ei88C681 and Ei66C681 DUART's respectively, and are function compatible with those devices.



68-PIN PLCC



44-PIN PLCC



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BLOCK DIAGRAM

