STARTECH
An EXAR Company

XR-82C684
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QUAD UNIVERSAL ASYNCHRONOUS RECEIVER AND TRANSMITTER

DESCRIPTION

The XR-82C684 is a Quad Universal Asynchronous Receiver and Transmitter with 3 bytes of receive FIFO. The XR-82C684 is software compatible with XR-68C681/88C681 and Signetics SCC2681 Dual UART.

The XR-82C682 provides independent receive and transmit operating speeds that can be selected as one of the eighteen fixed baud rates, a 16 X clock derived from a programmable counter/timer, or an external 1X or 16X clock. The baud rate generator and counter/timer can operate directly from a crystal or from external clock input. The XR-82C684 provides a power-down mode in which the oscillator is stopped but the register contents are stored.
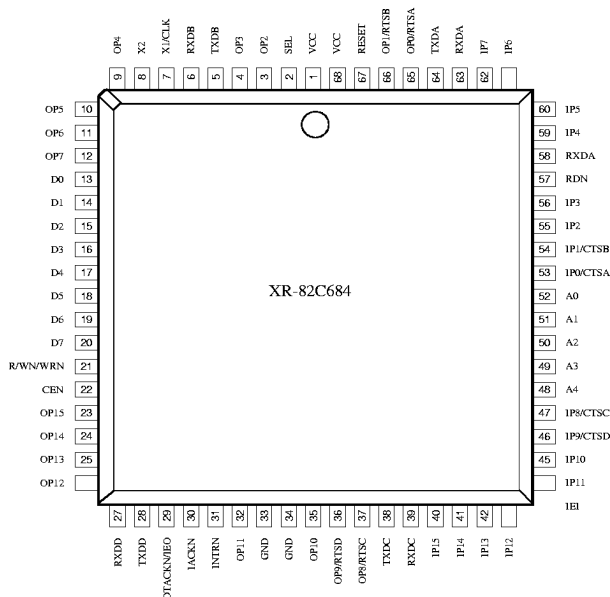
FEATURES

- Functional compatible with SCC2681
- 3 bytes receive FIFO
- Full duplex asynchronous transmit receive operation
- Programmable character lengths (5, 6, 7, 8)
- Parity, framing, and over run error
- Programmable 16-bit timer/counter
- On-chip crystal oscillator
- TTL compatible inputs, outputs
- Single interrupt output with seven selectable interrupting conditions
- 18 fixed baud rates from 50Hz to 1M
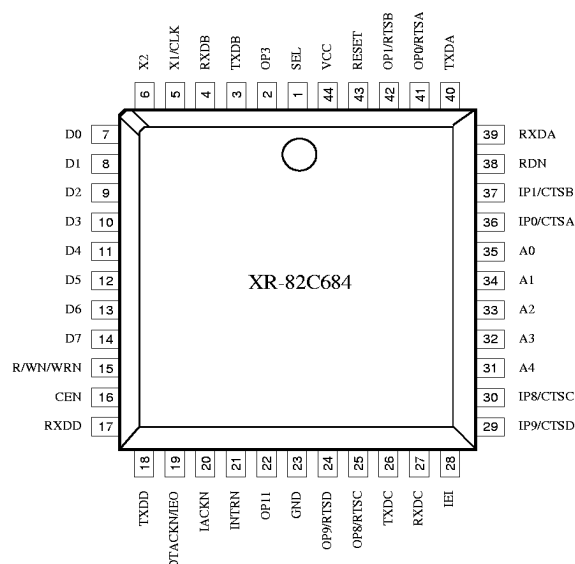
ORDERING INFORMATION

Part number	Package	Operating temperature
XR-82C684CJ44	PLCC	0° C to + 70° C
XR-82C684CJ68	PLCC	0° C to + 70° C

68 Pin PLCC Package

44 Pin PLCC Package

Rev. 1.0

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XR-82C684

XR-68C681/88C681 BLOCK DIAGRAM

D0-D7
R/WN
RDN/WRN
RESET
RESETN

Data bus & Control Logic

Transmit FIFO Registers

Transmit Shift Register

TX A-D

Inter Connect Bus Lines & Control signals

Receive FIFO Registers

Receive Shift Register

RX A-D

A0-A4
CEN

Register Select Logic

INRN
IACKN
IEI
IEO

Interrupt Control Logic

Clock & Baud Rate Generator

I/O Control Logic

OP 0-15

IP 0-15

X1/CLK   **X2**

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