SILICON LOGIC™

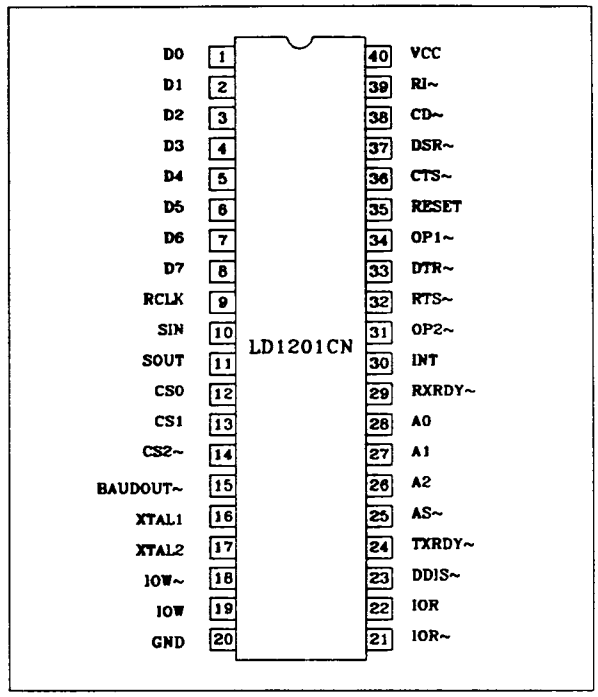
PRELIMINARY

LD1201

UNIVERSAL ASYNCHRONOUS RECEIVER/TRANSMITTER WITH FIFOs

DESCRIPTION

The LD1201 is a universal asynchronous receiver and transmitter with FIFO and modem control signals. An internal programmable baud rate generator is provided to select transmit and receive clock rates from 50Hz to 256KHz. The LD1201 is fabricated in an advanced 2 u CMOS process to achieve low drain power and high speed requirements.



FEATURES

* Pin to pin and functional compatible to NS16C550
* Modem control signals (CTS~, RTS~, DSR~, DTR~, RI~, CD~)
* 16 byte programmable FIFO for transmit and receive section
* Programmable character lengths (5, 6, 7, 8)
* Even, odd, or no parity bit generation and detection
* Status report register
* Independent transmit and receive control
* TTL compatible inputs, outputs
* Software compatible with INS8250, NS16C450, LD1101

APPLICATIONS

* RS232 receiver or transmitter
* Serial to parallel/parallel to serial converter
* Modem handshaking
* IBM PS/2 serial port

ORDERING INFORMATION

Part number	Package	Operating temperature
LD1201CN	Plastic	0° C to +70° C
LD1201CV	PLCC	0° C to +70° C

GENERAL DESCRIPTION

The LD1201 is an improved version of the NS16C550 UART with higher operating speed and lower access time. The LD1201 performs the parallel to serial/serial to parallel conversion on the data characters received from the CPU or the MODEM. The on board status registers will provide the error conditions, type and status of the transfer operations being performed. Included is complete MODEM control capability, and a processor interrupt system that may be software tailored to the user's requirements to minimize the computing required to handle the communications link. On board 16 byte (plus 3 bits of error data per byte in the RX-FIFO) FIFO and two DMA signaling functions are designed to minimize system overhead and maximize system efficiency.The LD1201 provides internal loop-back capability for on board diagnostic testing.

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