

6551 VERSUS 6850

The MPS 6551 is an enhanced version of the MC6850. On chip baud rate generation represents the principal enhancement. Baud rate can be generated internally by either connecting a crystal across the XTAL1 and XTAL2 pins or by inputting a clock signal through XTAL1. Various baud rates can then be generated under program control. In both cases, the device outputs a clock signal through RxC pin at 16 times the programmed baud rate. This can be used to synchronize a multiple 6551 System.

The 6551 also has all five Standard Modem Control Signals, unlike the 6850 which has only three. Thus, in the 6551 the  $\overline{\text{RTS}}$  (Request-to-Send) does not have to double up for the  $\overline{\text{DSR}}$  (Data Set Ready) like the 6850. The  $\overline{\text{DSR}}$  is a signal used by many modems.

The 6551 has four addressable locations against the two provided by the 6850. Thus, the 6551 through these additional locations offers many more software programmable options to the user.

To add to all this, the 6551 offers a hardware master reset in addition to the software reset offered by the 6850.

From all of the above, it can be seen that the 6551 is a superior device to the 6850.

6551 VERSUS COMPETITION

	6551	6850	8251 <sup>1</sup>
Baud Rate Generator <sup>2</sup> (On-Board)	Yes	No	No
5 - 8 Bit <sup>3</sup> Characters	Yes	No	No
XTAL Oscillator (OnBoard)	Yes	No	No
Full Modem Controls	Yes	No	Yes
Baud Rates (Programmable)	50 - 19.2 K Baud	N/A <sup>4</sup>	To 19.2K Baud

<sup>1</sup>Includes synchronous operation.

<sup>2</sup>1.8432 MHZ external crystal attaches directly to 6551 pins for for 15 programmable baud rates.

<sup>3</sup>6551 includes 9-Bit character transmission.

<sup>4</sup>Spec. Max. BPS (Bits Per Second) through external clock input.