SP202E & SP232E: FAQ

Part Number: SP202E & SP232E
Date: April 24, 2006

Question:
I have a request to sub an SP202E in for an SP232E in an existing design. It would appear they are compatible. In fact, on quick read, I don't see the difference. What is the significant difference between the parts?

Answer:
You requested to know if there are any differences between two of Sipex RS232 transceivers. The two parts are identical and come from the same basic die. The reason for the part labeling is historical. ADI and Maxim had different part numbers for similar function and Sipex wanted to second source both products with enhanced performance at the time.

Part Number: SP202E & SP232E
Date: June 2, 2006

Question:
Although the 202E circuit has protection for ESD and other short term overvoltage events, can it still sustain a continuous voltage of + or - 12V on the RS-232 input pins for long time (days/weeks) while it is powered down? Alternatively, do you in such cases recommend to include some type of extra input protection as an added safety measure?

Answer:
There are no reliability issues with maintaining the bus voltages at the RX inputs. The only problem is that if the VCC is powered off the RX input voltage can turn on the undefined charge pump switches and show up at the VCC pin. This can cause problems in some systems. We are currently enhancing the product to stop the RX to VCC leakage path when VCC is off, such that no input protection will be needed.

Part Number: SP202E
Date: Aug31, 2006

Question:
We are currently using SP202EEN. Does Sipex have a pin compatible part with higher data rate?

Answer:
The SP202EEN operates up to a typical data rate of 250kbps under maximum loading of 2500pF. Under lighter loading conditions it may run somewhat faster, but the maximum data rate is capped by design in order to hold the driver slew rate below 30V/µs. The SP3232EUCN is pin compatible and runs up to 1Mbit/sec. It operates from either 3V or 5V supply.

http://www.sipex.com/Files/DataSheets/sp3222eu_3232eu.pdf

