

Comparator Applications 4 Quiz

TIPL 2104

TI Precision Labs – Op Amps

Multiple Choice

- Which of the following is **not** an example of an extra feature which can be found in some of TI's comparators?
 - a. Internal voltage reference
 - b. Offset voltage trim pins
 - c. Comparator + op amp in one package
 - d. Complementary outputs with latch

- On a comparator with an output latch, when the latch is enabled _____.
 - a. The output will hold its current state until unlatched
 - b. The output will change to the opposite state until unlatched
 - c. The output is forced high until unlatched
 - d. The output is forced low until unlatched

Multiple Choice

- Which of the following is **not** an advantage to using an op amp as a comparator?
 - a. Utilizing otherwise unused channels of a dual or quad op amp
 - b. Saving component cost and printed circuit board area
 - c. Improving dc precision
 - d. Reducing power consumption relative to performance

- One of the biggest challenges to using an op amp as a comparator is _____.
 - a. Designing around input offset voltage drift over temperature
 - b. Routing traces with an inconvenient pinout
 - c. Dealing with the differential input voltage limits caused by input clamp diodes
 - d. Modifying dual/split supply designs for single supply

Multiple Choice

- Which of these semiconductor processes *usually* has input clamping diodes?
 - a. JFET
 - b. Bipolar
 - c. Low-voltage CMOS
 - d. None of the above

- All high-voltage CMOS op amps, without exception, have clamping diodes.
 - a. True
 - b. False

Solutions

Multiple Choice

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