

## How inaccurate is a 555 or 7555 REALLY?

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Two questions. I'm a novice with 555's, some minor experience. I need to develop a very small 555 timer circuit that runs on a 1.5v AA battery.

1. Which 555 is out there that runs that voltage and small package? (smd would be fine as long as it has solder pads i can solder to under microscope)
2. I plan to calibrate it up to run at 420hz. I'm still unsure if 555 is accurate enough, I have read some Maxim and National spec sheets and I'm unclear on accuracy.

How inaccurate is it truly in percentage at 420hz? I really can't afford more than .1% inaccuracy, is there a way to reach these levels of accuracy using 555? special R and C to make that happen?

The only reason I want to use 555 is it seems very tiny (space is an issue) and rather simple, but maybe there's another more accurate way? I'm open to suggestions if they use minimal # of components.

Thanks a bunch for all your help in advance!  
-Brendan