

what is the effect if the stats register is cleared every strike ?

If you clear the statistics register after every lightning strike interrupt on the AS3935, you will disrupt the sensor's ability to accurately estimate the distance to the storm. The AS3935 uses an internal statistics memory to accumulate data from multiple lightning events; this historical data is essential for its distance estimation algorithm^{[1] [2] [3]}.

By clearing the statistics after each strike:

- The sensor will forget all previous lightning events, treating each new strike as if it were the first detected.
- The distance estimation will always be based on a single event, resulting in unreliable or less accurate distance readings.
- Features that depend on a minimum number of strikes within a time window (such as filtering out false positives using the minimum strike threshold) will not function as intended, because the count is reset each time^{[4] [2]}.

In summary:

Clearing the stats register after every strike prevents the AS3935 from building the event history needed for proper storm tracking and distance calculation, making its output less useful and less accurate^{[1] [2] [3]}.

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1. https://cdn.sparkfun.com/assets/learn_tutorials/9/2/1/AS3935_Datasheet_EN_v2.pdf
2. [https://media.digikey.com/pdf/Data Sheets/Austriamicrosystems PDFs/AS3935.pdf](https://media.digikey.com/pdf/Data%20Sheets/Austriamicrosystems%20PDFs/AS3935.pdf)
3. https://www.mouser.com/datasheet/2/588/ams_AS3935_Datasheet_EN_v5-1214568.pdf
4. <https://espeasy.readthedocs.io/en/latest/Plugin/P169.html>