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☒382☒ Silicon strip sensors for the CMS Tracker Phase-2 Upgrade

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The operation of the LHC beyond 2026, which aims to reach luminosities around $5-7.5 \times 10^{34} \text{ cm}^{-2}\text{s}^{-1}$, poses new challenges for the CMS detector. Therefore, the Phase-2 upgrade of CMS will completely replace the tracking system including more advanced silicon sensors/electronics which can sustain higher radiation levels and ensure efficient tracking performance. Studying and testing the properties and performance of the new Outer Tracker silicon strip sensors is a crucial process which precedes the module assembly. The 200 m² sensor series production is in progress, thus some first results of the sensors quality, their design and the expected performance as defined in the prototyping phase, will be summarized.

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