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## **SensL: Application Specific Testing and Qualification of SiPM**

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SensL SiPM sensors have been in mass production for many years. To ensure quality and reliability, characterisation and qualification procedures are in place that can process high volumes in a short amount of time.

Increasingly SiPMs are being used in new applications, in particular as the receiver element in LiDAR systems. LiDAR is a ranging technique that typically uses NIR light which conventional SiPMs have only minimal sensitivity to. We have developed a new fully-CMOS silicon process to improve the NIR sensitivity of SiPM for these applications. These R-Series sensors can achieve >10% PDE at 905 nm. Although SensL's standard characterisation and qualification procedures can be applied to these new sensors, different applications bring some specific additional requirements. In particular, automotive applications have strict qualification requirements that are specified in the AEC-Q102 standard that specifically covers optoelectronic components. We will discuss how this automotive qualifications standard is applied to SensL SiPM sensors.

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