

Development of Highly Integrated Low-mass Signal Readout Electronics for the LEGEND Experiment

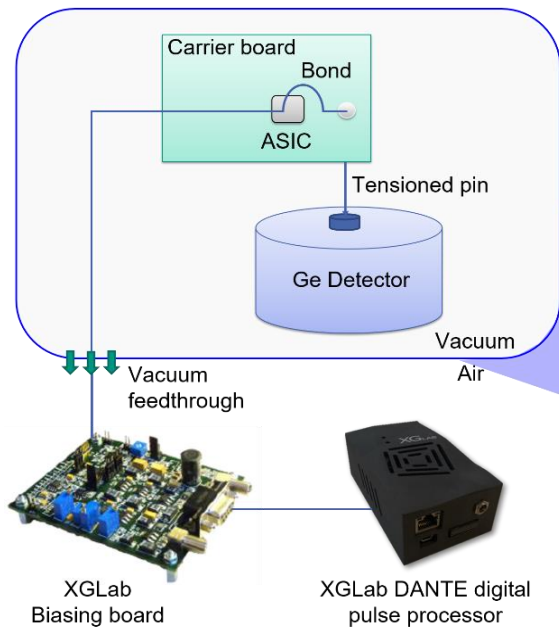
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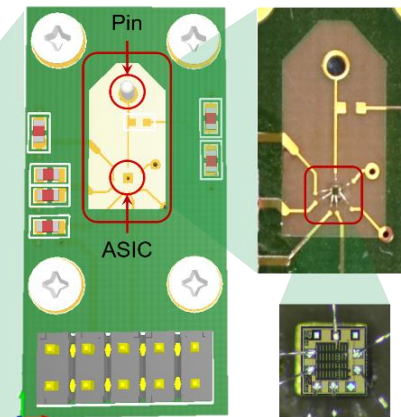
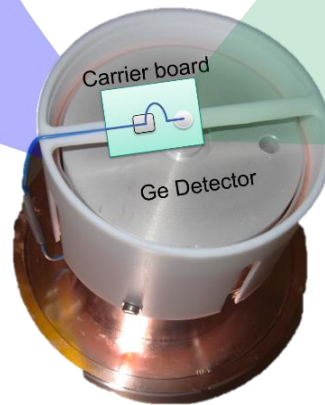


Objective

Development and characterization of novel signal readout electronics for the LEGEND experiment based on state-of-the-art ASIC technology



▲ Scheme of the ASIC readout system



▲ Electronic design of the carrier board

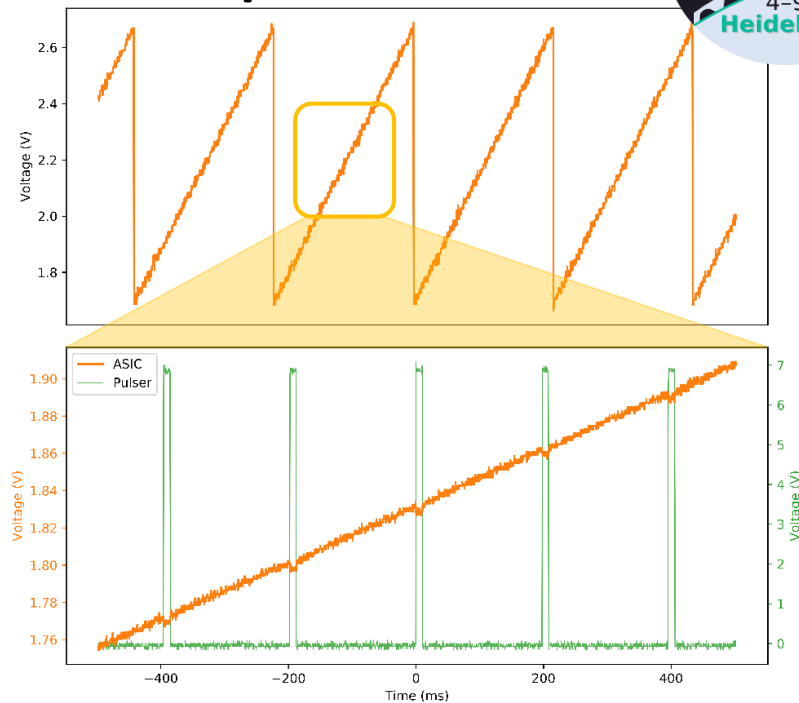
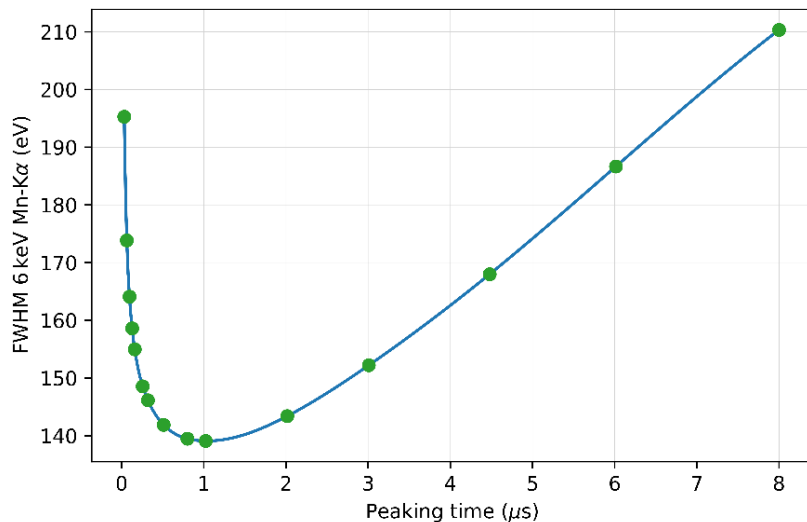


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Research questions

- *What is the performance of the ASIC readout system?*
- *What is the pulse shape discrimination performance?*
- *Can the ASIC readout system be operated in liquid argon (LAR) and what is its performance in it?*



- ▲ *First functionality measurements of the ASIC readout system with a test pulse generator.*
- ◀ *Noise curve of the whole readout system at room temperature.*