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## High-Frequency Beam Position Monitoring: A 500 MHz BPM System by Safran

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Beam Position Monitors (BPMs) are essential diagnostic tools in any particle accelerator, as they provide accurate measurements of the beam's position, phase, and intensity along the accelerator line. Safran Electronics & Defense, Spain is responsible for the complete design, implementation, production, and validation of a BPM electronic system tailored to project-specific requirements. Operating at a frequency of 500 MHz, the system has undergone initial testing at Safran's facilities, yielding promising preliminary results. This paper presents the overall system architecture, the design and development process, and an overview of the system's performance. It also highlights the advantages of the chosen architecture and summarizes the results obtained under various testing scenarios.

### Footnotes

### Funding Agency

### I have read and accept the Conference Policies

Yes

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