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## Test Methodology and First Evaluation of PETRA IV Button-Type BPM Prototypes

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The upcoming PETRA IV project at DESY, Germany, represents a new generation of diffraction-limited light sources with ultra-low emittance. A crucial component of the beam diagnostic system for this project is the beam position monitors (BPMs), which will be used for transverse beam position measurements. Approximately 800 of these BPMs will be placed throughout the 2.3 km storage ring. To ensure that BPMs provide the required accuracy and resolution for beam position measurements, detailed methodology and test protocols for the electro-mechanical properties of the manufactured BPM units must be developed. They should cover testing of both individual feedthroughs with buttons and the fully assembled BPM units. This work focuses on the initial approach to the development of methodology and protocols for the inspection of BPMs. Results of the first HF tests of the PETRA IV BPM prototypes delivered by the manufacturer are also presented.

### Summary

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