

Electromagnetic characterization of the first 16 pickup prototypes for the Elettra 2.0 BPMs

Tuesday, 24 March 2026 09:35 (25 minutes)

A total of 916 button type beam position monitor (BPM) pickups have been foreseen to meet the requirements of the Elettra 2.0 light source.

The first 16 prototype units, intended to validate the complete set of mechanical, vacuum, and electromagnetic characteristics, have been fully evaluated and successfully qualified through Factory Acceptance Tests (FAT) and Site Acceptance Tests (SAT).

After a brief overview of the pickup design rationale, this contribution presents the results obtained from the electromagnetic characterization of each pickup sample,

performed using two types of RF test fixtures. The first test fixture operates up to 16 GHz, while the second one extends the measurement range up to 40 GHz.

Final considerations focus on the comparison between measured data and electromagnetic simulations.

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Session Classification: Session