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Harmonic EU cavity Transdamper improvements

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ALBA has designed and prototyped the Harmonic EU Cavity, a normal conducting active 1.5 GHz HOM damped cavity for the active third harmonic RF system for the ALBA Storage Ring (SR), which also will serve for the upgraded ALBA II. The HOM dampers incorporate a custom-made transition to coaxial line that allows to dissipate the HOM power in external loads, avoiding the use of in-vacuum soldered ferrite absorbers. The performance of the prototype transitions, although enough to grant stable operation of the cavity installed in BESSY II, can be further improved to achieve the performance predicted by simulations. This paper presents the measurements and improvements made with the prototype Transdampers in order to achieve the expected performance.

Footnotes

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Europe

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