

MTCA.4-based LLRF system tests at ELBE

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ELBE (Electron Linac for beams with high Brilliance and low Emittance) is a multi-purpose radiation source at HZDR (Helmholtz-Zentrum Dresden-Rossendorf). LLRF system controls two normal conducting buncher cavities (one operating at 260 MHz and one at 1300 GHz), a super-conducting gun cavity and 4 super conducting TESLA-type accelerating cavities. The existing analog feedback loop satisfies field stability requirements, but lacks flexibility of a digital system. At the beginning of November a MTCA.4-based single cavity regulation system performance was evaluated. This paper describes system's architecture, discusses achieved results and possible future system developments.

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