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Low power microwave tests on RF gun prototype of the Iranian Light Source Facility

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Abstract

In this paper, we introduce RF electron gun of Iranian Light Source Facility (ILSF) pre-injection system. Design, fabrication and low-power microwave tests results of the prototype RF electron gun have been described in detail. This paper also explains the tuning procedure of the prototype RF electron gun to the desired resonant frequency. The outcomes of this project brighten the path to the fabrication of the RF electron gun by the local industries.

Keywords: RF electron gun, beam emittance, low-power microwave tests, frequency tuning

For full article, refer to the Persian section