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## A COMPACT SOLUTION FOR DDS-GENERATOR, TURN-ON AND PROTECTIONS IN RADIO FREQUENCY CYCLOTRON SYSTEMS

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One single compact rack includes: Direct Digital Synthesizer generator, turn-on and protection system. The system synthesizes a high stable RF signal up to 120 MHz, turns the power on into the RF cavities through a step-ramp modulator, protects the RF system against mismatching, sparks and multipactoring. A first prototype has been designed, assembled and tested on the RF system of the k-800 superconducting cyclotron at INFN-LNS. The hardware, the software, and the preliminary test results, are shown in this paper. This solution is part of the new computer-based RF control system.

### **Please indicate preferred presentation (poster or talk?)**

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