LLRF05



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The Low Level Radio Frequency system for the High Intensity Proton Injector (IPHI)

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Within the framework of European research programs on High Intensity Proton Accelerator, IPHI (High Intensity Proton Injector) is a 3MeV 100mA CW proton injector

prototype. It consists of the SILHI ECR source (100keV), a 3MeV Radio Frequency Quadrupole (RFQ) and a high energy beam line for beam quality analysis. Two 352MHz klystrons inject 1200kW RF power into the RFQ.

The Low Level Radio Frequency system (LLRF) controls the amplitude and phase of the accelerating voltage inside the RFQ for CW or pulsed mode operation, and also the RFO

resonant frequency. It consists of seven feedback analog loops controled by PXI acquisition cards, a distributed I/O system based on FieldPoint modules and an Ethernet communication with the supervision system EPICS.

RF power network and LLRF system with some results are presented

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