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## Various RF systems within the Collider-Accelerator complex at Brookhaven National Laboratory

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Various High power RF cavities are utilized within the C-AD complex, including ferrite loaded, pillbox, folded transmission line, and tapped transmission line. High power amplifiers range from solid state solutions to vacuum electron devices, at power ranges of 1 kW to 5 MW pulsed. The RF frequency spectrum of systems varies drastically, from 300 kHz to 201 MHz for operational systems, and up to 2.1GHz for developmental systems.

### Summary

There are many types of RF systems used at Brookhaven National Laboratory (BNL). This will discuss a general overview of operational systems within the Collider-Accelerator Department (C-AD), from pre-injector to final storage rings. Concentration will focus on the Alternating Gradient Synchrotron (AGS) Booster, AGS, and the Relativistic Heavy Ion Collider (RHIC). Included will be a discussion on the current operational status of the 200MeV LINAC and upgrades needed to extend the lifetime of the accelerator.

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