

MECHANICAL DESIGN OF A HIGH POWER COUPLER FOR THE PIP-II 325 MHZ SSR1 RF CAVITY

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Abstract

The Project X Injector Experiment (PXIE) at Fermilab will include one cryomodule spoke superconductive cavities (SSR1). Each cavity requires approximately 2 kW CW RF power for 1 mA beam current operation. A future upgrade will require up to 8 kW RF power per cavity. Fermilab has designed and procured ten production couplers for the SSR1 type cavities. Status of the 325 MHz main coupler development for PXIE SSR1 cryomodule is reported.



