

The RF Power Set Up for a Linac - Racetrack Microtron Combination, R.W. de LEEUW, Cyclotron Laboratory, Eindhoven Univ. of Technology - The injection chain of the electron storage ring EUTERPE consists of a 10 MeV travelling wave linac followed by a 10 - 75 MeV racetrack microtron (RTM). The accelerating structure of the RTM is a 45 cm long standing wave on axis coupled cavity. As a cost effective solution both the linac and the cavity are powered by a 2.2 MW peak power magnetron. In order to obtain synchronous operation the linac magnetron will be injection locked to the RTM magnetron. This is achieved by coupling part of the power from this last magnetron via a 4-port circulator into the linac magnetron. This paper presents the RF power set up of the injection chain. Demands on the power sources as well as stability and power measurements on the individual magnetrons and the combination of the two magnetrons are described.