

The Replacement of Hard-Tube Anode Modulation with a Solid State Cathode Modulator on the High Power rf Output Triodes of the ISIS Linac, B. BRADY, C.W. PLANNER, A. STEVENS. CCLRC, Rutherford Appleton Laboratory - The hard-tube tetrodes used to anode modulate the power output triodes on the ISIS Linac have been successfully replaced with small solid state systems that modulate the cathode. This has removed a large amount of electrical and electronic equipment from the power modulator systems that should result in significant power savings and improved reliability and availability of the Linac. In addition, the 3 volts that are dropped across the cathode modulator switch compared with up to 4 kV across the tetrode means that considerable additional HT volts are available for the acceleration of higher beam currents for the proposed development of ISIS to 300 mA..