

## A new klystron / gyrotron power supply and modulator system. (P3-B-383)

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The Pulse Step Modulator technology is widely used for several high voltage power supply applications, including the supply for gyrotrons, klystrons and neutral beam injectors.

Thomson Broadcast & Multimedia is working on a new tube power supply system designed to operate several different klystron and gyrotron tubes for tube production testing.

The system consists of the main power supply and the anode / body modulator. The main power supply is rated 160 kV / 20 A cw / 400 A pulse. The anode / body modulator is rated 100 kV / 250 mA. Both subsystems will be realised in PSM technology.

The main power supply is a PSM system with some novel features. The target is to achieve very short rise times of 5  $\mu$ s with low overshoot and also very low short circuit energies.

The anode modulator requires 5 kHz modulation capability on high capacitive loads. This is achieved with a push-pull technology.

The anode / body modulator is currently under testing in the Thomson factory. The main power supply will be installed in the tube factory in autumn 2006. The paper gives an overview on the complete system. It will show the basic features and shows the status of the system testing.