Contribution ID: **1008** Type: **Either**

A 1.3 GHz 100 kW Ultra-High Efficiency Klystron

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Calabazas Creek Research, Inc. is developing a high efficiency, 1.3 GHz, 100 kW klystron for driving accelerators. The goal for the efficiency is at least 85%. Designs for the RF circuit, electron gun and collector are presented.

Using the COM design method for klystrons put forth by [1,2] (COM: Core Oscillation Method), CCR has created a design with an efficiency of 82%, as calculated using MAGIC. The circuit length was 2 m. Details of the circuit, electron gun and collector electrical and mechanical designs will be presented at the conference.

1. A. Yu.Bajkov, D.M.Petrov "Problems of creation powerful and super- power klystrons with efficiency up to 90%", International University Conference "Electronics and Radio physics of Ultra-high Frequencies" , St. Petersburg, May 24–28, 1999, pp. 5–8.
2. A. Yu.Bajkov, D.M.Petrov "Problems of creation powerful and super- power klystrons with efficiency up to 90%", International University Conference "Electronics and Radio physics of Ultra-high Frequencies" , St. Petersburg, May 24–28, 1999, pp. 5–8.

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