

# Technology offer

## Method and apparatus broadband microwave stimulation of a heating cavity

### Field of use

microwave heating technology

### Current state of technology

### Patent status

Granted patent valid  
in Republic of Slovenia

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### Developed by

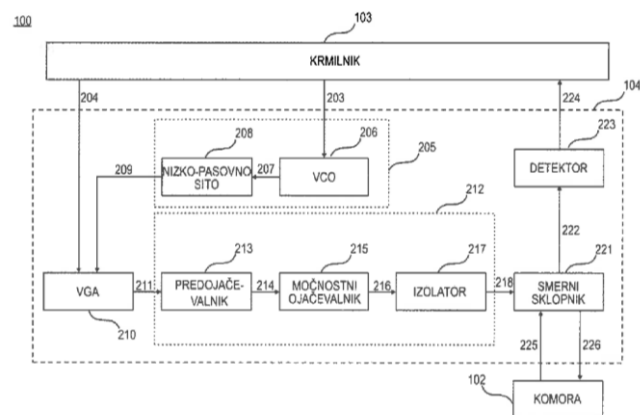
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### Reference

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### Background

A method and apparatus for providing broadband microwave stimulation to a heating cavity, a microwave generator and controller. The controller is configured to control the microwave generator by changing the frequency spectrum of the broadband stimulation signal and providing output power control in a way of decreasing the output power at higher cavity reflected power amounts. The results of such a configuration is increased heating efficiency, faster food preparation times and overall increased performance.

### Description of the invention

The invention makes it easier to determine the optimum operating points. Due to the design of the system, it is possible to perform very large measurements of the frequency spectrum in a short time, which in turn enables the secondary electromagnetic field manipulators to be actively controlled. This advantage increases the likelihood that the system will operate at the best efficiency, which consequently will contribute to a shorter preparation time

### Main advantages

The invention makes it easier to determine the optimal operating points. Due to the design of the system can be made a very high measurement frequency spectra in a short time, which is considered to be actively controlled manipulators secondary electromagnetic field. This advantage increases the probability that the system will work at the best efficiency, which reflects shorter preparation time.