

Title (en)

MICROWAVE GENERATOR WITH VIRTUAL CATHODE

Title (de)

MIKROWELLENGENERATOR MIT EINER VIRTUELLEN KATHODE

Title (fr)

GENERATEUR D'ONDES HYPERFREQUENCES A CATHODE VIRTUELLE

Publication

EP 1444715 A2 20040811 (FR)

Application

EP 02783221 A 20020927

Priority

- FR 0203310 W 20020927
- FR 0112547 A 20010928

Abstract (en)

[origin: WO03030204A2] The invention relates to a very high power microwave generator that employs the virtual cathode phenomenon. The inventive microwave generator (60) comprises an emission device (62) that can produce electrons in an output microwave circuit (64, 66), the quantity of electrons emitted being sufficient to cause a regular variation in the density of electrons in the output microwave circuit. Said circuit transforms the kinetic energy of the electrons into microwave energy according to a resonance mode. The electron emission device, which emits said electrons in several regions of the microwave circuit, comprises field maximas (Exa1, Exa2, Exa3) of the resonance mode. The invention is suitable for use in relation to high power microwave emitters and jammers.

IPC 1-7

H01J 25/02

IPC 8 full level

H01J 23/20 (2006.01); **H01J 23/06** (2006.01); **H01J 25/02** (2006.01)

CPC (source: EP US)

H01J 25/02 (2013.01 - EP US); **H01J 25/74** (2013.01 - EP US)

Citation (search report)

See references of WO 03030204A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03030204 A2 20030410; **WO 03030204 A3 20040226**; EP 1444715 A2 20040811; FR 2830371 A1 20030404; FR 2830371 B1 20050826; JP 2005505112 A 20050217; US 2004245932 A1 20041209

DOCDB simple family (application)

FR 0203310 W 20020927; EP 02783221 A 20020927; FR 0112547 A 20010928; JP 2003533306 A 20020927; US 48879204 A 20040305