

Title (en)  
Cooking apparatus containing a coated microwave connection

Title (de)  
Gargerät mit einer beschichteten Mikrowellensteckverbindung

Title (fr)  
Appareil de cuisine comportant un connecteur de microondes revêtu

Publication  
**EP 1852934 A1 20071107 (DE)**

Application  
**EP 06290732 A 20060503**

Priority  
EP 06290732 A 20060503

Abstract (en)  
Cooking appliance comprises cooking chamber, technical chamber separated from cooking chamber by cooking chamber wall(s) (10), and a microwave plug connector (100). The microwave plug connector comprises emitter (102) and receiver unit (101). The emitter unit is connected to a microwave source for feeding in microwaves with a wavelength ( $\lambda$ ). The emitter unit is arranged in technical chamber. The emitter unit comprises a metallic conductor (12, 13) in connection with a metallic  $\lambda/4$  structure. The receiver unit comprises metallic conductor(s) connected with metallic  $\lambda/4$  structure. Cooking appliance comprises cooking chamber, a technical chamber separated from the cooking chamber by cooking chamber wall(s), and a microwave plug connector. The microwave plug connector comprises emitter unit and a receiver unit. The emitter unit is connected to a microwave source for feeding in microwaves with a wavelength ( $\lambda$ ). The emitter unit is arranged in the technical chamber. The emitter unit comprises a metallic conductor in connection with a metallic  $\lambda/4$  structure. The receiver unit is connected to the emitter unit for the transmission of microwaves. The receiver unit is arranged in the cooking chamber. The receiver unit comprises metallic conductor(s) in connection with a metallic  $\lambda/4$  structure. The two  $\lambda/4$  structures can be connected on top of one another and together, separably. A dielectric is arranged in region(s) between the emitter unit and the receiver unit. The dielectric is provided as a dielectric coating of part(s) of one  $\lambda/4$  structures which serves as a metallic substrate in a region where there is a connection of the  $\lambda/4$  structures by plugging them on top of one another and together. The dielectric coating is connected elastically to the metallic substrate. The dielectric coating is porous. The dielectric coating is sealed with a mineral melt for stabilization at least in some areas. The dielectric coating comprises ceramic material, preferably aluminum oxide. The dielectric coating completely fills the intermediate space between the  $\lambda/4$  structures.

Abstract (de)  
Die vorliegende Erfindung betrifft eine Mikrowellensteckverbindung, umfassend eine Sendereinheit und eine Empfangereinheit, wobei die Sendereinheit mit einer Mikrowellenquelle zur Einspeisung von Mikrowellen der Wellenlänge  $\lambda$  verbunden ist, die Empfangereinheit zur Übertragung der Mikrowellen mit der Sendereinheit verbunden ist, zwischen der Sendereinheit und der Empfangereinheit zumindest bereichsweise ein Dielektrikum angeordnet ist, die Sendereinheit zumindest einen metallischen Leiter in Verbindung mit einer metallischen  $\lambda/4$ -Struktur umfaßt, die Empfangereinheit zumindest einen metallischen Leiter in Verbindung mit einer metallischen  $\lambda/4$ -Struktur umfaßt, die beiden  $\lambda/4$ -Strukturen, insbesondere lösbar, aufeinander- oder zusammensteckbar sind, und das Dielektrikum als eine dielektrische Beschichtung zumindest eines Teils mindestens einer der  $\lambda/4$ -Strukturen, die als metallisches Substrat fungiert, im Aufeinander- oder Zusammensteckungsbereich der  $\lambda/4$ -Strukturen bereitgestellt ist; und ein Gargerät mit solch einer Mikrowellensteckverbindung.

IPC 8 full level  
**H01P 1/04** (2006.01); **H01R 24/28** (2011.01); **H01R 24/38** (2011.01)

CPC (source: EP US)  
**H05B 6/702** (2013.01 - EP US)

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Designated contracting state (EPC)  
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Designated extension state (EPC)  
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