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(54) Title (EN): WIRELESS COMMUNICATION DEVICE

(54) Title (FR): DISPOSITIF DE COMMUNICATION SANS FIL

(54) Title (JA): 無線通信デバイス

(57) Abstract:

(EN): An RFID tag (101), which is an example of a wireless communication device, sends and receives communication signals. The RFID tag (101) is provided with: a substrate (1); antenna patterns (2A, 2B) formed on the substrate (1); and high-loss members (19). The high-loss members (19) are members that are disposed in proximity to the antenna patterns (2A, 2B) and that incur higher loss at frequencies higher than the frequency of the communication signals, compared with the antenna patterns (2A, 2B) and the substrate (1). When the RFID tag (101) receives microwaves for electromagnetic-wave heating, whereby the high-loss members (19) generate heat, the antenna patterns (2A, 2B) are cut off at the positions of the high-loss members (19). With this structure, it is possible to prevent ignition and combustion even in situations where the RFID tag (101) is attached to food or the like and receives high-frequency electric power for heating food.

(FR): Une étiquette RFID (101), qui est un exemple d'un dispositif de communication sans fil, émet et reçoit des signaux de communication. L'étiquette RFID (101) comprend : un substrat (1) ; des motifs d'antenne (2A, 2B) formés sur le substrat (1) ; et des éléments à forte perte (19). Les éléments à forte perte (19) sont des éléments qui sont disposés à proximité des motifs d'antenne (2A, 2B) et qui entraînent une perte plus élevée à des fréquences supérieures à la fréquence des signaux de communication, par rapport aux motifs d'antenne (2A, 2B) et au substrat (1). Lorsque l'étiquette RFID (101) reçoit des micro-ondes pour un chauffage par ondes électromagnétiques, les éléments à forte perte (19) générant de la chaleur, les motifs d'antenne (2A, 2B) sont coupés au niveau des positions des éléments à forte perte (19). Cette structure permet d'empêcher l'allumage et la combustion même dans les situations où l'étiquette RFID (101) est attachée à des aliments ou éléments analogues et reçoit de l'énergie électrique haute fréquence permettant de chauffer des aliments.

(JA): 無線通信デバイスの一例であるRFIDタグ(101)は、通信信号を送受信する。RFIDタグ(101)は、基材(1)と、基材(1)に形成されたアンテナパターン(2A, 2B)と、高損失部材(19)とを備える。高損失部材(19)は、アンテナパターン(2A, 2B)に近接配置され、アンテナパターン(2A, 2B)及び基材(1)に比べて、通信信号の周波数より高い周波数における損失が高い部材である。RFIDタグ(101)が電磁波加熱用マイクロ波を受けて、高損失部

材(19)が発熱すると、アンテナパターン(2A, 2B)は高損失部材(19)の位置で切断される。この構造により、食品などに付されて、食品加熱用の高周波電力を受ける状況でも、発火や燃焼を防止できる。

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