

Title (en)  
Label detection apparatus

Title (de)  
Vorrichtung zur Detektion von Etiketten

Title (fr)  
Dispositif de détection d'étiquettes

Publication  
**EP 0565481 B1 19970611 (DE)**

Application  
**EP 93810137 A 19930225**

Priority  
CH 113292 A 19920407

Abstract (en)  
[origin: EP0565481A1] The apparatus for detecting labels which are used for protecting goods against theft and are provided with an electrical resonant circuit (21) having a resonant frequency (fR) in the MHz range, comprises a transmitter (1) and a receiver (2). The transmitter (1) generates a transmitted signal sequence, the frequency of which is swept in sweep cycles over the predetermined resonant frequency of the labels and is radiated via a transmitting antenna (11). The signal is generated digitally and with corresponding phase angle with respect to each sweep cycle in the transmitter (1). In the receiver (2), the signals received by means of a receiving antenna (12) are sampled synchronously with the signal generation in the transmitter (1) and digitised. From the digitised signal values of n sweep cycles, a background is formed and subtracted from the digitised signal values of the last sweep cycle in each case. A long-time and a short-time background can also be formed and the latter can be subtracted from the former. Due to the background subtraction, in particular, interference which is relatively constant with respect to time can be discriminated such as is caused mainly by diffraction and reflections of the transmitted signal on objects existing in the environment of the transmitting and receiving antenna. <IMAGE>

IPC 1-7  
**G08B 13/24**

IPC 8 full level  
**G08B 13/24** (2006.01)

CPC (source: EP US)  
**G08B 13/2414** (2013.01 - EP US); **G08B 13/2471** (2013.01 - EP US); **G08B 13/2488** (2013.01 - EP US)

Cited by  
EP0700026A1; EP0707295A1; DE4436977A1; EP0902932A4; CN112633022A; NL9500397A; EP0837432A1; US6064296A; DE4436978A1; DE19644927A1; US5894270A; EP0706142A3; EP0707296A1; WO9631855A1

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