

Title (en)  
INTERROGATION METHOD FOR PASSIVE SENSOR MONITORING SYSTEM

Title (de)  
ABFRAGEVERFAHREN FÜR ÜBERWACHUNGSSYSTEM FÜR PASSIVE SENSOREN

Title (fr)  
PROCEDE D'INTERROGATION POUR SYSTEME DE SURVEILLANCE A DETECTEUR PASSIF

Publication  
**EP 1716009 A1 20061102 (EN)**

Application  
**EP 05702126 A 20050207**

Priority  
• GB 2005000387 W 20050207  
• GB 0403481 A 20040217

Abstract (en)  
[origin: GB2411239A] A method of determining the resonant frequency of a plurality of resonant sensor devices (e.g. three SAW devices) comprises determining the optimal interrogation frequencies for each of the devices where the optimal interrogation frequencies have maximum power spectral densities of the sensor response, and interrogating each device at its optimal interrogation frequency a plurality of times. Frequency estimation is then performed on data accumulated from the device response by spectral analysis based on parametric signal modelling. An average of the frequencies determined by frequency estimation is then determined to provide an indication for resonant frequencies. The averaging step may include the calculation of a standard deviation and the rejection of any results which fall more than a pre-determined multiple of the standard deviation from the average frequency result. The frequency determined may be used to calculate the pressure and temperature of the sensor devices, which may be located in vehicle tyre.

IPC 8 full level  
**B60C 23/04** (2006.01)

CPC (source: EP GB)  
**B60C 23/0408** (2013.01 - EP); **B60C 23/0415** (2013.01 - GB); **B60C 23/0433** (2013.01 - EP GB); **G01H 13/00** (2013.01 - GB); **G01L 9/00** (2013.01 - GB); **G01L 9/0022** (2013.01 - GB); **G01L 9/0025** (2013.01 - GB)

Cited by  
CN103303076A

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**GB 0502584 D0 20050316**; **GB 2411239 A 20050824**; **GB 2411239 B 20061011**; EP 1716009 A1 20061102; GB 0403481 D0 20040324; JP 2007522480 A 20070809; TW 200600369 A 20060101; WO 2005080099 A1 20050901

DOCDB simple family (application)  
**GB 0502584 A 20050207**; EP 05702126 A 20050207; GB 0403481 A 20040217; GB 2005000387 W 20050207; JP 2006553640 A 20050207; TW 94104236 A 20050214