

## Title (en)

DISTRIBUTED ARCHITECTURE FOR APPARATUS USED IN A HIGH MAGNETIC FIELD AND/OR RF ENVIRONMENT

## Title (de)

VERTEILTE ARCHITEKTUR FÜR EINEN IN EINEM STARKEN MEGNETFELD UND/ODER EINER HOCHFREQUENZUMGEBUNG GEBRAUCHTEN APPARAT

## Title (fr)

ARCHITECTURE DISTRIBUEE POUR APPAREIL S'UTILISANT EN ENVIRONNEMENT DE CHAMP MAGNETIQUE ET/OU HAUTE FREQUENCE ELEVE

## Publication

**EP 1231953 A4 20060208 (EN)**

## Application

**EP 00961844 A 20000913**

## Priority

- US 0025012 W 20000913
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## Abstract (en)

[origin: WO0119427A2] A distributed architecture for adapting apparatus for use in a high magnetic field and/or intense RF environment. In one embodiment, an advanced ventilator is adapted to be MRI-compatible by creating a mechanical and electrical separation between the functional elements of the ventilator with only a minimum ensemble of electronics remaining near the MRI coil. Local components of the ventilator that must be close to the MRI are positioned accordingly. These items will typically include the ventilator control panel, the status display, and the breathing bellows. Remote components that are sensitive to magnetic and/or RF fields or may adversely impact the MRI image are placed away from the immediate influence of the MRI. These devices will typically include the control processor, monitoring sensors, and proportional gas control solenoids.

## IPC 1-7

**A61M 1/00**

## IPC 8 full level

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- [X] WO 9925243 A1 19990527 - WEILER NORBERT [DE], et al
- [X] L.W.HEDLUND ET AL.: "A Ventilator for Magnetic Resonance Imaging", INVESTIGATIVE RADIOLOGY, vol. 21, 1986, pages 18 - 23, XP009058374
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- [X] A.K.VENKATESH ET AL.: "Hyperpolarized noble gas imaging using a simple programmable gas delivery system", PROC.INTL.SOC.MAG.RESON.MED., 22 May 1999 (1999-05-22), pages 2099, XP002358433
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- See references of WO 0119427A2

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