



## System And Method For Electron Paramagnetic Resonance Imaging Using Transmission Lines To Generate Traveling Waves

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### The Invention

A system and method for an electron paramagnetic resonance imaging (EPRI) system includes a magnet configured to apply a static magnetic field to a subject to be imaged and a gradient coil configured to apply a magnetic field gradient to the static magnetic field. The system also includes a parallel plate waveguide (PPWG) configured to use a traveling wave to generate a radio frequency (RF) magnetic field over a volume of interest (VOI) in the subject to elicit EPRI data from the VOI and a processor configured to reconstruct the EPRI data into an image of the VOI.

#### Tech Fields

- [Medical Imaging : Other diagnostic imaging](#)

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