Technology Overview

Wireless Electric Power Transmission Through Wall – Patent #8,594,572

Key Features

• Apparatus for wirelessly transmitting electric currents through walls
  - Includes a wireless electric power transmission arrangement with an electronic device (on one side of a wall) powered by a power source on the opposite side of the wall.
• Enables wireless communication arrangements accommodating thick compartment walls; properly transmits electrical power through bulkhead compartments without physical penetration of the bulkhead.
• Beneficial in situations in which compartments, wires, and the like are unwanted.
• Beneficial to non-vehicular compartmentalized structures (such as some manufacturing plants) with substantially inaccessible, compartmentalized structures.

Technical Information

• Potential Materials
  - The wall will preferably be a conductive material, such as steel, iron, aluminum, titanium, or combinations thereof, depending on the application.
• Power Source
  - The power source may be a 120 VAC, 450 VAC, 4160VAC (3 phase 60 Hz), 375 VDC, 650 VDC, or the like.
• Transmission Efficiency of at least 60%