

HEXFERRITE MIMO ANTENNA

PRESERVING A CLEAR SIGNAL



TECHNOLOGY FIELD

Communication Systems

IP PROTECTION

Patent No. US 9,742,460 B2

RESEARCHER



Dr. Hyuck Kwon is a professor at Wichita State University with an exceedingly accomplished background in communication systems. Currently, Dr. Hyuck Kwon has 11 patented technologies in the field of communication systems. His research lab has been awarded over 3 million dollars in funding with cooperative partners such as NASA, U.S. Air Force, and Asian Office of Aerospace.

BACKGROUND

➔ Multiple-input-multiple-output (MIMO) communication systems present wireless technologies with higher data transmission rates. However, MIMO systems require extra space between reception antennas, limiting the feasibility of using multiple-input-multiple-output. If the antennas are closer together than 10 of the received wavelengths, the electronic device will have poor electrical isolation properties. Overall, MIMO antennas do not have the same multipath or fading issues, since there is more than one receiving antenna. However, but with the number of antennas required increases the cost, power consumption, and circuit complexity.

ADVANTAGES

➔ The presented technology is a new MIMO antenna design that utilizes hexaferrite materials and optimal geometric construction to preserve a clear signal by reducing sizing and spacing, while still benefitting from the increased capabilities of MIMO technology.

For additional information, please contact:

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