A Decomposition Method for MIMO OTA Performance Evaluation

ABSTRACT

- For achieving these, this paper proposes a decomposition method for the measurement of multi input multi output devices' over-the-air performance.
- By using the proposed method, the antenna active envelope correlation coefficient, the radiated sensitivity of each receiver, the total isotropic sensitivity, the self-interference, and the desensitization can all be achieved separately, and in OTA working mode.

EXISTING SYSTEM

- Diagnosis and troubleshooting are critical to efficiently detecting the imperfections and improving the radio frequency designs for wireless systems in research and development stage.
- The current standard methods for MIMO OTA measurement are not able to meet the technical requirements for troubleshooting MIMO devices under test.

PROPOSED SYSTEM

- In consideration of the MIMO system's complex array antennas and radio frequency receivers, the parameters obtained.
- A decomposition MIMO OTA test method for MIMO terminals is proposed in this contribution. By using the proposed method, the ECC, the radiated sensitivity, the TIS, and the self-interference are all measured separately.
- All the measurements are carried out in the radiated working mode, without intrusive connections and in the conditions of multiple receivers' coexistence.

HARDWARE REQUIREMENTS

- Processor - Intel core i3
- RAM - 2B
- Hard Disk - 20 GB

SOFTWARE REQUIREMENTS

- Operating System : LINUX
- Tool : Network Simulator-2
- Front End : OTCL (Object Oriented Tool Command Language)

REFERENCE

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