

# 電圧式人体通信と SPICE シミュレーションの親和性

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## Affinity of Voltage-Method Intra-Body Communication and SPICE Simulation

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### Abstract

Recently, intra-body communication using electric-field technology is attracting attention. However, it has not yet been put into practical use due to the difficulty of engineering these devices. At the same time, the apparatus design of modern simulation technology is essential. However, in the voltage method of intra-body communication technology, only an electromagnetic field simulator is used. If a circuit simulator like SPICE is applicable, intra-body communication device design may become markedly simpler. Therefore, we examined whether SPICE is usable for the voltage method of intra-body communication technology. Our results confirmed the possibility of using SPICE for the analysis of intra-body communication.

**Key Words:** *Electric Field Method, Intra-body Communication, Simulation, SPICE*