Mini-remote-control Antenna for On-body Wireless Communication Systems

Two commercially available, compact antennas are evaluated for use in a small 55mm 39mm 15mm Remote Control (RC). The influence of the body on the path gain ($S_{21}$) at 2.45 GHz between the remote control and a monopole parallel to the side of the head is evaluated. The measurements are made on two different persons, holding a remote control in three different positions and in two different postures. The influence on the remote is investigated by testing two different Hand Grips (HG). The average path gain of the two antenna types was found to be $-56.5$ dB and $-64.2$ dB, respectively.

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