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## (57) Abstract:

ABSTRACT The present disclosure discloses an implantable health monitoring device (102) comprising an L-shaped radiator antenna (104) designed for implantation within biological tissue, a substrate material (106) providing support for the L-shaped radiator antenna, a ground antenna (108) modified as an L-shaped defected ground structure to enhance resonance frequency and radiation characteristics and a low-loss superstrate biocompatible material (110) covering the conducting part of the L-shaped radiator antenna (104) to isolate it from surrounding tissue. FIG. 1

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