

ABSTRACT

An antenna apparatus (60) is provided which is used in a recorder and/or player to write and read data to and from a contactless IC card (1). The antenna apparatus (60) includes a loop coil (61) to radiate an electromagnetic field for magnetic coupling with a loop coil (4) at the IC card (1) to send and receive data to and from the IC card (1), and a magnetic sheet (62) disposed to face the main side of the loop coil (61), opposite to the main side facing the IC card (1). The magnetic sheet (62) has the specific permeability μ' and product $M_s \cdot t$ of saturation magnetization M_s and thickness t thereof set in accordance with a necessary range of communications with the contactless IC card (1).