

## RF IDENTIFICATION AND SECURITY SYSTEM

### ABSTRACT

5           The identification and security system is for an item 10 particularly a data storage disk, CD, DVD, etc. being borrowed by system user 11 from a library. The item comprises a data storage disk 16 mounted in a storage case 20. RF transponder means 25, 30 are mounted by the item 10 to provide identification data and security data with the data being readable from RF signals transmitted by the transponder means in  
10   response to external interrogation signals. The transponder means comprises a first RF transponder 25 which is a relatively smaller sized transponder, particularly an RFID transponder tag mounted in the annular space 18 between the central hole 17 and the inside diameter of the data storage area 19 of the disk 16. A relatively larger size transponder 30 provides improved detectivity due to the larger size. The transponder 30  
15   can also comprise an RFID tag 30 mounted at a corner of the storage case 20, shown at a corner of the lid 21 at a location at least partially radially beyond the outside diameter of the data storage area 19 of the disk 16 when the case 20 is closed. By at least partially locating the antenna of the second RFID tag 30 radially beyond the data storage area 19 of the disk 16, the second transponder is not shielded by the data storage area 19 and  
20   hence the detectivity, particularly the range from which the second transponder can be detected, is greatly improved. Security data is stored by the second transponder, and identification data by the first transponder, with some data being redundantly stored by both.