

ABSTRACT

SECURABLE WRIST-STRAP RFID ASSEMBLY

This invention involves encapsulating a radio frequency identification (RFID) tag and antenna in a hollow watch-like case with an integral elongated flexible bangle-like strap. An internal separator piece divides the cavity into two parts. A base-lid is then affixed to the bottom of the watch-like case by means of four screws, thus providing a watertight seal. The antenna is threaded through a cavity along the strap. The watch-case, separator piece and base-lid have minimal effect on transmission or reception of radio frequency (RF) signals. The RFID tag and antenna may be tested and/or programmed while remaining encapsulated in the watch-like case and strap. The invention further involves a detachable plunger having a forked tail with hooks which can be inserted into a corresponding slot on the watch-case to permanently lock the strap in place when the free end of the strap is placed around a wearer's wrist (or mounted onto a similar object such as ankle, etc.) and inserted back into an aperture on the other side of the watch-case. This provides a secure slide-fit assembly resembling a wristband or bracelet for mounting onto the selected wearer or object. The tag and antenna can communicate wearer-related information with a remote RFID reader.

See figure 1 in the pictures.



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