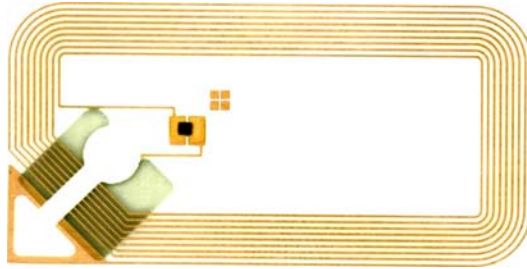


# RF IDENTIFICATION

The time has come to replace the barcode in many applications. When it is desirable to "read" a barcode at a distance, or to store information in an identification tag, the barcode must take a back seat to the new concept of RF Identification, commonly referred to as RF Id.

The new identification tag is actually a small loop antenna with the connecting ends of the antenna terminated in a very small chip. The antennas are available in various sizes, with the smaller ones typically being about  $\frac{3}{4}$  x 1- $\frac{1}{2}$  inches. The small black square is a chip that includes a capacitor to resonate the antenna, provides a transmit and receive function, and has a 64 bit memory. All of that is crammed into a chip that is less than 1/32-inch square.



The tag is actually a full transponder, with the internal circuitry powered by the RF signal from an associated "reader". With the ability to interface the reader to a standard computer, and the ability to read or program the transponder from a distance, the applications for such a device are limited only by imagination.

The basic design of the RF Id systems was based on the transponder operating in the magnetic field of an antenna. When the standard antenna is replaced by an EH Antenna, the distance between the reader antenna and the transponder is greatly enhanced, in addition to other benefits. For this reason, EH Antenna Systems entered into an agreement whereby a company called LAB ID was given an exclusive license to use the EH Antenna concept for RF Id applications. More information is available on their web site, [www.lab-id.com](http://www.lab-id.com)