

Beta

LAYOUT
create:electronics

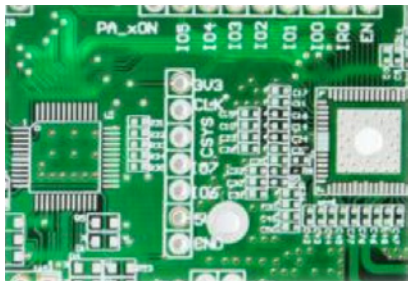
MAGIC-PCB[®]

Beta LAYOUT

**Printed Circuit Boards
with embedded UHF RFID Technology**

Vision:

Every standard PCB will be a UHF RFID transponder!
Transmitting information from PCB manufacture to final Recycle.



How will my PCB become an RFID Transponder?

Transponder (wikipedia 12/2012)

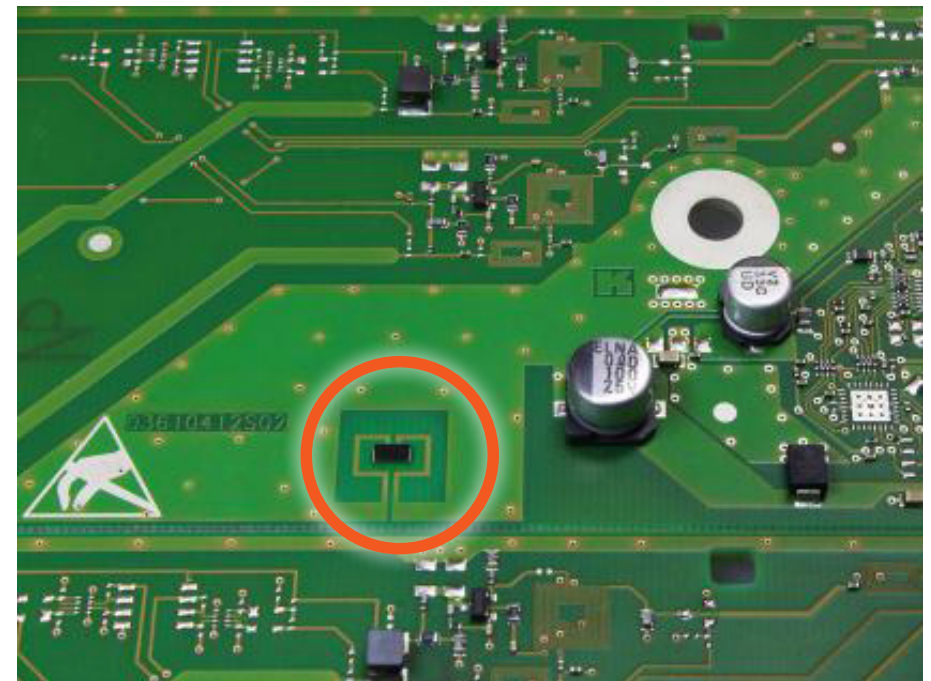
A **transponder** is a device that emits an identifying signal in response to an interrogating received signal.

The term is a portmanteau for **Transmitter-responder**.

1. Option:

The RFID Chip is mounted on the surface of the PCB.

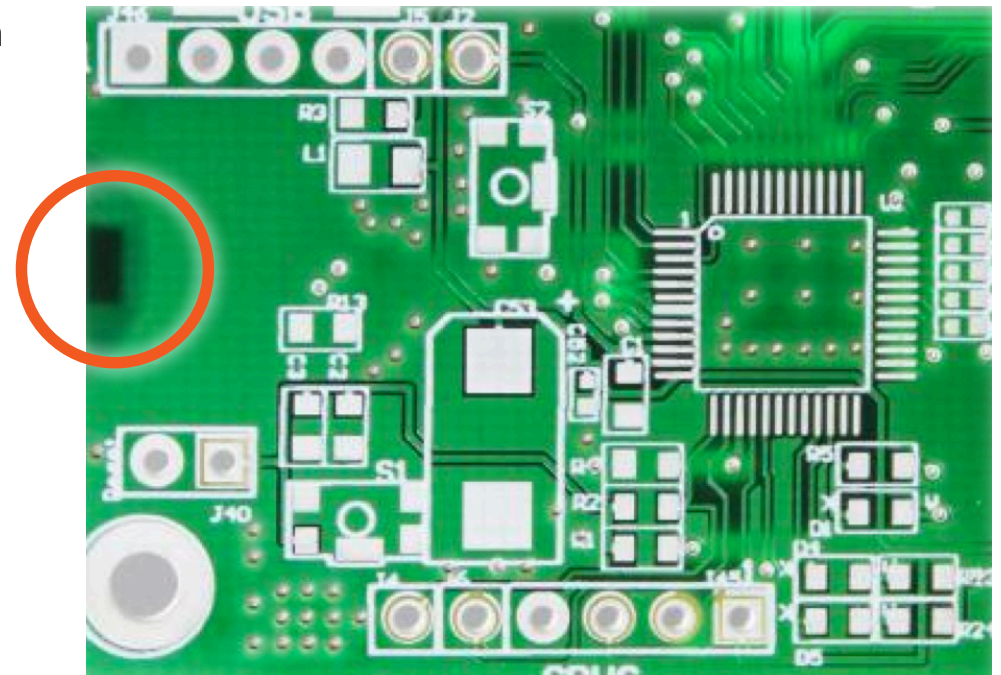
- + recognised technology
- + inexpensive
- + many position choices
- introduced late in production
- uses valuable real estate
- unprotected



2. Option:

The RFID Chip is embedded in the PCB, without an external Antenna.

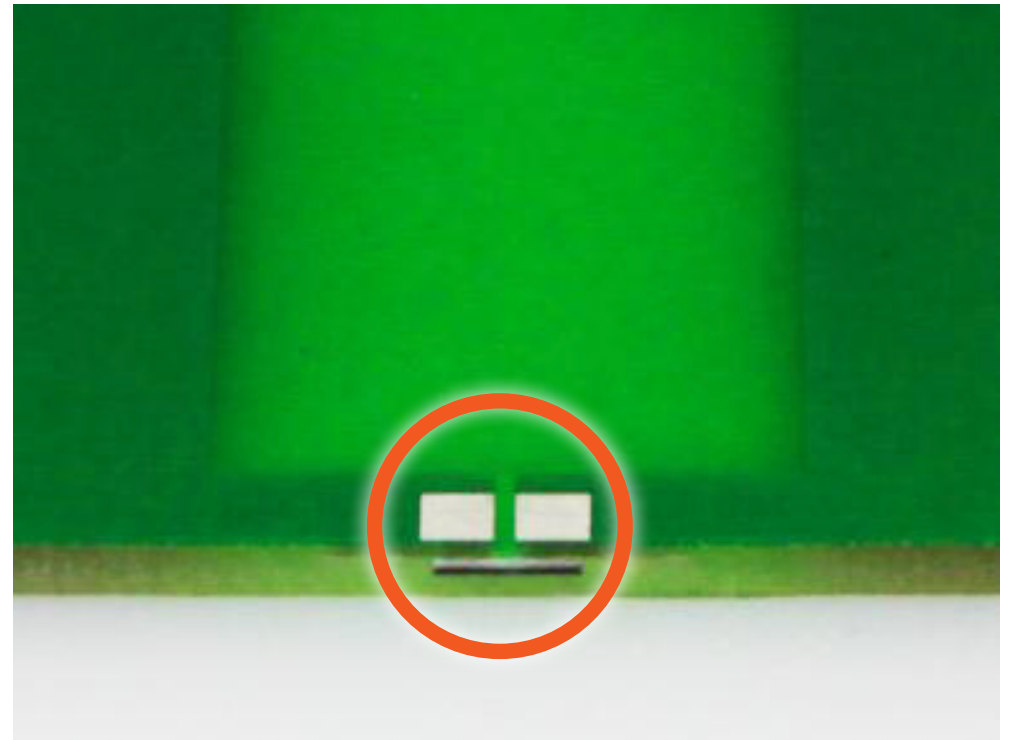
- + minimal (no) layout adaption
- + protected
- + inexpensive
- + introduced very early in production
- short Read/Write range
- Position on edge only



3. Option:

The RFID Chip is embedded in the PCB, antenna is capacitively coupled.

- + protected
- + inexpensive
- + introduced very early in production
- average Read/Write range
- Integration in layout necessary
- Position on edge only



4. Option:

RFID chip embedded in PCB with a coupled Antenna

- + protected
- + inexpensive
- + introduced very early in production
- long Read/Write range
- Integration in layout necessary
- Position on edge only

