



Novel RFID Sensor Tag

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BACKGROUND and BASICS

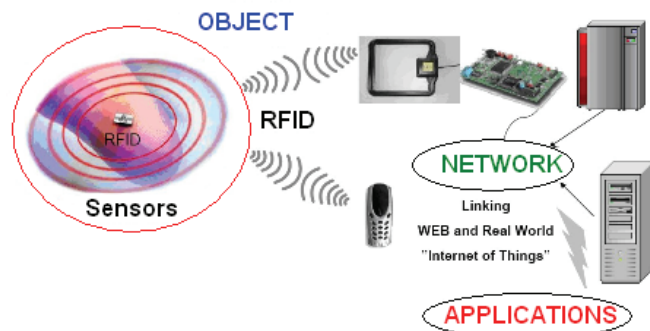
RFID (Radio Frequency Identification) technology allows for accurately, remotely and quickly access of information about a certain product or environment that can be used in different industrial, consumer and logistic applications.

Advantages:

- Fast tracking of moving objects
- No required direct line of sight
- Information read/write capability

We develop generic "smart RFID sensor tags" able to identify, sense, monitor, compute and communicate the changes of the environment.

- ☺ The market needs for smart RFID tags are emerging and it has tremendous commercial potential.
- ☹ There is no RFID tag with external sensor accessibility; sensor chips/tags are expensive.

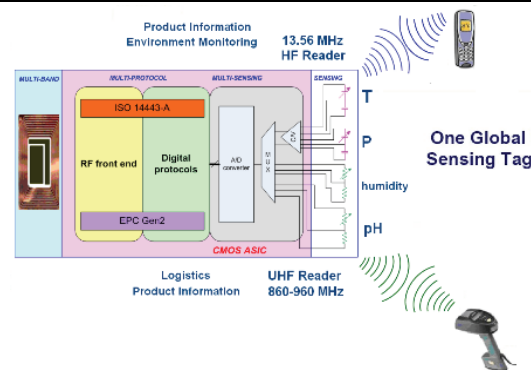


CONCEPT and SOLUTION

RFID Sensor Tag:

- Multi-frequency communication
- Multi-band antennas (consumer, logistic, EU/USA)
- Multi-standard protocols
- Passive and semi-passive RFID technology
- Multi sensing: temperature, pressure, humidity, pH.

- ▶ Passive RFID sensor tag
- ▶ Semi-passive RFID sensor tag

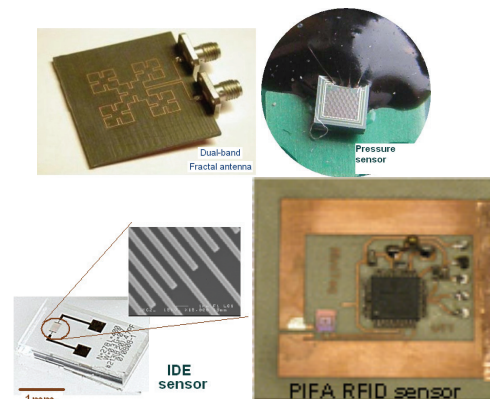


STATUS and OUTLOOK

- Nordic collaboration with national R&D funded projects Technology development allowing the same RFID solutions for passive RFID UH/UHF sensor tags and semi -passive RFID UHF tags
- Wireless humidity, pressure, temperature monitoring First RFID pilot tag integrating all the developed functions planned for March/April 2009

Business challenges and Partners:

- Development of application specific sensor element
- Development of specific interface electronics
- Low power electronics
- Pilot field tests
- RFID sensor tag commercialization
- IC manufacturer for technology transfer
- R&D on polymer design (ex. pH)



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