THE WORLD OF IXYS

RFID EXPERTISE

www.ixys.es
IXYS SAN SEBASTIAN

• Fabless Semiconductor Company
• Full-custom and semi-custom design
• Headquartered in San Sebastian (Spain)
• ISO9001 certified
• Core business:
  • Analog & Mixed-signal circuits
  • RF / RFID circuits
Mission

Focus our expertise on core competences to provide excellent mixed-signal designs, maintaining access to world-class manufacturing capabilities for high quality products.
Custom integrated circuits
- Development of mixed-signal ICs
- Production management in fabless model

Engineering Services
- IP Development and supply
- Design consultancy
- Specific technical engineering
Custom ASIC Solutions

development
• Feasibility Study
• Design
• Prototyping
• Engineering Runs
• Industrialization

production
• Management of full IC fabrication process
• Wide selection of processes and technologies

SERIES PRODUCTION
Manufacturing flow

- Wafer fab
- Probing
- Packaging
- Final test and delivery

Electrical test: performed by micro-probing at wafer level

Ceramic, plastic and special packages

Series test and packing

...and others.
Manufacturing flow: foundry

- Foundry independent fabless house
- Different technologies:
  - standard CMOS
  - EEPROM
  - High-voltage (up to 650V)
  - High temperature (200ºC)
  - SOI
- cadence based design environment
RFID expertise
From silicon to system

• Low frequency RFID systems (125kHz, 134,2kHz)
  • Applications:
    • Livestock Identification
    • Tag-on-metal identification
    • Temperature measurement RFID system

• High-frequency RFID systems (13,56MHz)

• UHF RFID IPs according to Gen2
  • Different patents for RFID developments: Antenna trimming systems, sensor to RFID analog conversion (3 diff patents)
RFID expertise: success cases...

NCD1100

- Tag-on-Metal LF RFID
- Oriented to jewelry and medicine blisters identification
- External coil antenna for manufacturing the tag
- XFab 0.35um, 8” wafers, 1.7 sq-mm die
- Ramp-up production in Q1’2011
RFID expertise: success cases...

NCD1100

- NCD1100 tag included in each blister and/or blood bag
- Automatic freeze including proprietary patented RFID reader for high-precision reading
RFID expertise: success cases…

NCD1025

- LF HDX RFID for livestock ID and temp meas
- Eartag or glass transponder format
- In production since Q4’2008
- ATMEL 0.5um, 6” wafers
- NCD1025 including an integrated temperature sensor

Efficiency through Technology

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RFID expertise: success cases...

NCD1015TAG

- RFID for harsh environments
- High reading distance tags to be embedded in ground
- Cranes positioning in harbors
- Industrial readers in equipment to guide mobile vehicles
Contact

Dr. Ing.
Javier Hernández
Managing Director
+34 943 317 378 TEL
+34 943 317 800 FAX
+34 686 942 114 CELL
j hernández@ixys.es

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